

- LEGEND**
- Denotes Proposed Private Use-In-Common Driveway & Private Utility Easement
 - Denotes Existing Specimen Tree
 - Denotes Wetlands
 - Denotes 100-Yr Floodplain
 - Denotes Land Dedicated to Howard County Maryland for the Purpose of a Public Road
 - Denotes Existing Private Use-In-Common Driveway & Public Utility Easement
 - Denotes Forest Conservation Easement (Retention)
 - Denotes Public Water & Utility Easement
 - Denotes Existing Treenlines
 - Denotes Proposed Treenlines
 - Denotes Proposed Driveway Areas
 - Denotes Private Sewer Easement
 - Denotes Forest Conservation Easement B (Afforestation)

GENERAL NOTES

- FOREST PROTECTION**
- ALL FOREST RETENTION AREAS SHALL BE TEMPORARILY PROTECTED BY WELL ANCHORED BLAZE ORANGE PLASTIC 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 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, OR SITE RUN OFF. SPILLAGE AND DRAINAGE 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 STOCKPILE OF EARTH WITHIN FOREST RETENTION AREAS.
- 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 RETENTION AREAS. THE GENERAL CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY TREES DAMAGED OR DESTROYED WITHIN THE FOREST RETENTION AREAS. THE GENERAL CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY TREES DAMAGED OR DESTROYED WITHIN THE FOREST RETENTION AREAS. THE GENERAL CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY TREES DAMAGED OR DESTROYED WITHIN THE FOREST RETENTION AREAS. THE GENERAL CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY TREES DAMAGED OR DESTROYED WITHIN THE FOREST RETENTION AREAS.

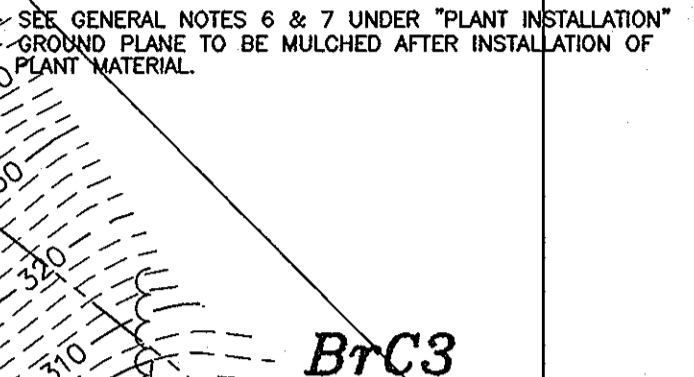
- PRE-CONSTRUCTION MEETING**
- AFTER THE BOUNDARIES OF THE FOREST RETENTION AREAS HAVE BEEN FIELD LOCATED AND MARKED, AND AFTER THE FOREST PROTECTION DEVICES HAVE BEEN INSTALLED, BUT BEFORE ANY OTHER DISTURBANCE HAS TAKEN PLACE ON SITE, A PRE-CONSTRUCTION MEETING SHALL TAKE PLACE ON SITE. THE DEVELOPER, CONTRACTOR OR PROJECT MANAGER, AND HOWARD COUNTY INSPECTORS SHALL ATTEND. THE PURPOSE OF THIS MEETING WILL BE:
 - TO IDENTIFY THE LOCATIONS OF THE FOREST RETENTION AREAS, SPECIMEN TREES WITHIN 30 FEET OF THE LIMIT OF DISTURBANCE, LIMITS OF CONSTRUCTION, EMPLOYEE PARKING AREAS AND EQUIPMENT STAGING AREAS;
 - INSPECT ALL FENCES, SIGNAGE AND PROTECTION DEVICES;
 - MAKE ALL NECESSARY ADJUSTMENTS;
 - ASSIGN RESPONSIBILITIES AS APPROPRIATE AND DISCUSS FEES.

- CONSTRUCTION MONITORING**
- THE SITE SHALL BE INSPECTED PERIODICALLY DURING THE CONSTRUCTION PHASE OF THE PROJECT. A QUALIFIED PROFESSIONAL SHALL BE RESPONSIBLE FOR IDENTIFYING DAMAGE TO PROTECTED FOREST AREAS OR INDIVIDUAL TREES WHICH MAY HAVE BEEN CAUSED BY CONSTRUCTION ACTIVITIES, SUCH AS SOIL COMPACTION, ROOT INJURY, TRUNK WOUNDS, LIMB INJURY, OR STRESS CAUSED BY FLOODING OR DROUGHT CONDITIONS.
 - ANY SUCH DAMAGE THAT MAY OCCUR SHALL BE REMEDIATED IMMEDIATELY USING APPROPRIATE MEASURES. SEVERE PROBLEMS MAY REQUIRE CONSULTATION WITH A PROFESSIONAL ARBORIST.
 - THE CONSTRUCTION PROCEDURE SHALL NOT DAMAGE AREAS OUTSIDE OF THE LIMITS OF DISTURBANCE AS DESIGNATED ON THE PLANS. ANY DAMAGE SHALL BE RESTORED BY THE CONTRACTOR AT HIS EXPENSE AND TO THE SATISFACTION OF THE DESIGN TEAM OR ENGINEER.

FOREST CONSERVATION REQUIREMENTS

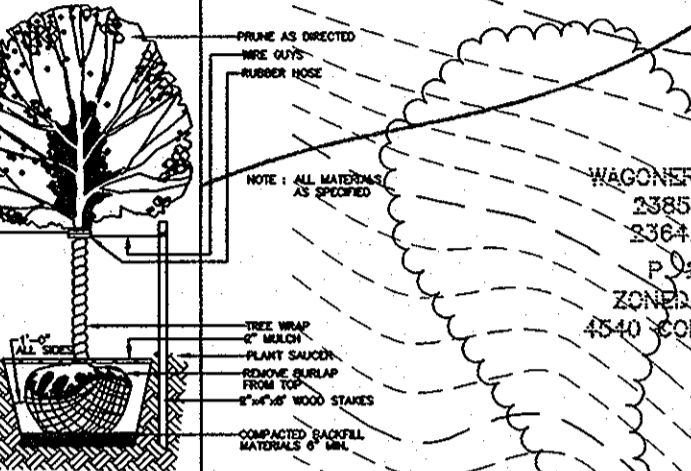
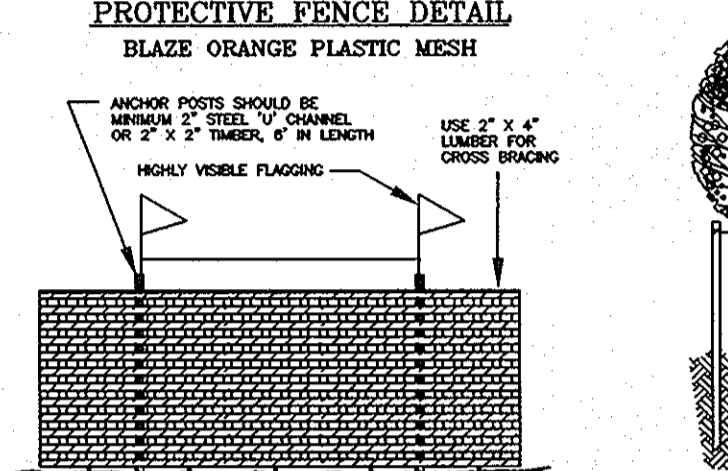
	ALTERNATIVE 1	ALTERNATIVE 2
FOE B	23 TREES REQUIRED	85 TREES REQUIRED

TYPICAL TREE PLANTING PLAN



GENERAL NOTES:

- SUBJECT PROPERTY IS ZONED R-20 RESIDENTIAL PER THE 2004 COMPREHENSIVE ZONING PLAN AND THE COMP PLAN AMENDMENT NO. 17292.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY, AND USMA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/CONSTRUCTION DIVISION AT (410) 317-2777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- PROJECT BACKGROUND:
TAX MAP: 31, PARCELS: 399, BLOCK 4.
ELECTION DISTRICT: SECOND.
ZONING: R-20.
DEED REFERENCE: L 7227, F. 0052
- AREA TABULATION:
A. TOTAL TRACT AREA: 5.83 AC±
B. AREA OF BUILDABLE LOTS: 2.62 AC±
C. AREA OF NON-BUILDABLE LOTS: 2.95 AC±
D. LIMIT OF DISTURBANCE: 3.90 AC±
E. PROPOSED USE: 5.83 AC±
F. NUMBER OF PROPOSED BUILDABLE LOTS: 4
G. NUMBER OF OPEN SPACE LOTS: 0.35 AC±
H. OPEN SPACE PROVIDED (PER 20,000 SQ. FT. LOTS): 2.35 AC±
I. OPEN SPACE PROVIDED: 0.26 AC±
K. AREA OF PUBLIC ROAD DEDICATION: 0.26 AC±
- TWO FOOT CONTOUR TOPOGRAPHY AND EXISTING CONDITIONS BASED ON AERIAL TOPOGRAPHIC SURVEY BY MINGE AERIAL MAPPING, INC. FROM MARCH 25, 1995.
- HORIZONTAL AND VERTICAL DATUMS ARE RELATED TO THE MARYLAND NAD 83 (HORIZ) AND NAVD83 (VERT) AS PROJECTED FROM HOWARD COUNTY CONTROL STATIONS NO. 3147 & 3148 (ALL UNITS IN FEET).
STA NO. 3147: ELEV. = 335.987
STA NO. 3148: ELEV. = 379.248
(CONCRETE MONUMENTS) 1,375,770,436
- WATER SERVICE AND SEWER SERVICE IS PROVIDED BY CONTRACT NO. 14-3615-D.
- ALL EXISTING STRUCTURES ON PARCEL 399 TO BE REMOVED UNLESS OTHERWISE NOTED.
- FLOODING STUDY PREPARED BY MELDENBERG, BOENDER & ASSOCIATES, INC. AND PREVIOUSLY APPROVED UNDER AUTUMN NEW SECTION II, F-18-CON-04.
- NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE 100 YEAR FLOODPLAIN, WETLANDS, STREAMS, AND OTHER FOREST CONSERVATION AREAS AND SLEEP SLOPES THAT ARE SHOWN ON THIS PLAN UNLESS APPROVED BY THE DEPARTMENT OF PLANNING AND ZONING OR OTHER APPLICABLE REGULATORY AGENCY.
- NO EXISTING STRUCTURES, CONCERNS, OR GRAVE SITES EXIST ON-SITE. SITE IS ADJACENT TO A DESIGNATED SCENIC ROAD.
- DISTURBANCE FOR PROPOSED SEWER AND WATER HOUSE CONNECTIONS (SHS & WHO) IS AN ESSENTIAL DISTURBANCE WITHIN WETLANDS, STREAMS, AND FLOODPLAINS PER SECTION 16.116(C) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
- RESIDENTIAL DRIVEWAY ENTRANCE NO. CO.D. ST. R-6-08 TO BE USED UNLESS OTHERWISE NOTED.
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
A. WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE).
B. SURFACE - 4 INCHES OF COMPACTED CRUSHED RUBBLE WITH TAR AND CHIP COATING.
C. GEOMETRY - MAXIMUM 10% GRADE, MAXIMUM 10% GRADE CHANGE AND MINIMUM OF 45-FOOT TURNING RADIUS.
D. STRUCTURES (CURBS/ROCKERS) - CAPABLE OF SUPPORTING 25 GROSS TONS (TWO LOADS).
E. DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100-YEAR FLOOD 25 GROSS TONS (TWO LOADS).
F. IN ACCORDANCE WITH SECTION 12.6(A)(1) OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS OR EXTERIOR STAIRWAYS NOT MORE THAN 10 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACK. PORCHES AND DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK. DECKS ARE NOT ALLOWED INTO THE REQUIRED 10' SIDE SETBACKS.
- LANDSCAPING HAS BEEN PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING (2' SHADY TREES) IS DEFERRED UNTIL THE SITE DEVELOPMENT PLAN STAGE.
- THIS PLAN COMPLIES WITH THE REQUIREMENTS OF SECTION 16.120 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BY THE ON-SITE RETENTION OF 1.76 ACRES OF ON-SITE EXISTING FOREST SHOWN AS FOREST CONSERVATION EASEMENT 'A' ON THIS PLAN. ADDITIONALLY, THIS PLAN COMPLETES WITH THE APPROVAL OF WF-07-107 BY PROVIDING 0.23 ACRES OF ON-SITE AFFORESTATION WHICH IS SHOWN AS FOREST CONSERVATION EASEMENT 'B' ON THIS PLAN. SURETY IN THE AMOUNT OF \$20,342.02 SHALL BE PROVIDED WITHIN 30 DAYS OF THE DATE OF THIS PLAN TO ENSURE THE COMPLETION OF THE FOREST CONSERVATION OBLIGATION FOR THIS PROJECT. NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT EXCEPT AS SHOWN ON AN APPROVED SITE DEVELOPMENT PLAN OR SITE DEVELOPMENT PLAN AMENDMENT. HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.
- BONNIE BRANCH ROAD AND COLLEGE AVENUE ARE SCENIC ROADS, DESIGNATED IN THE TOWNE MAP NO. 31, PARCELS 399, BLOCK 4.
- WETLANDS AND FOREST STAND DELINEATION PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. ON OR ABOUT 2003.
- FOR FLAG OR PESTICIDE LOTS, REFUSE COLLECTION, SNOW REMOVAL, AND ROAD MAINTENANCE IS PROVIDED TO THE ANCHOR OF THE FLAG OR PESTICIDE ROAD RIGHT-OF-WAY LINE AND NOT TO THE PESTICIDE LOT DRIVEWAY.
- THE OWNER/OWNER AND THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, PLANT MATERIALS, BENCHES, AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION AND WHEN NECESSARY REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, PREPARED OR REPLACED.
- NO CLEARING OF EXISTING VEGETATION IS PERMITTED WITHIN THE LANDSCAPE EDGE FOR WHICH CREDIT IS BEING TAKEN, HOWEVER, LANDSCAPE MAINTENANCE IS AUTHORIZED.
- IN ACCORDANCE WITH SECTION 16.116(C), GRADING/REMOVAL OF VEGETATION AND TREES AND PAVING ARE NOT PERMITTED IN WETLANDS, STREAMS, WETLAND BUFFERS, STREAM BUFFERS OR STEEP SLOPES UNLESS APPROVED BY THE DEPARTMENT OF PLANNING AND ZONING.
- STORMWATER MANAGEMENT Runoff Coeff. & Qp FOR LOTS 2-4 IS PROVIDED BY THE USE OF RAINGARDENS, DRY SWALE, LEVEL SPREADERS & RETENTION. ALL FACILITIES ARE PRIVATELY OWNED AND MAINTAINED.
- SITE DEVELOPMENT PLAN APPROVAL BY THE DEPARTMENT OF PLANNING AND ZONING IS REQUIRED PRIOR TO GRADING AND BUILDING PERMITS BEING ISSUED FOR THE CONSTRUCTION OF RESIDENTIAL DWELLINGS ON THESE LOTS.
- NO CLEARING, EXCAVATING, OR SUPERVISORY PAVING, MAY OCCUR ON LAND LOCATED IN A FLOODPLAIN UNLESS AUTHORIZED BY THE DEPARTMENT OF PLANNING & ZONING UPON THE ADVICE OF THE DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS, THE DEPARTMENT OF PUBLIC WORKS, THE DEPARTMENT OF RECREATION & PARKS, THE SOIL CONSERVATION DISTRICT, OR THE METLANDS DEPARTMENT OF THE ENVIRONMENT. ANY PROPOSED CONSTRUCTION OF A STRUCTURE LOCATED WITHIN A FLOODPLAIN SHALL BE SUBJECT TO THE REQUIREMENTS OF THE HOWARD COUNTY BUILDING CODE, BUILDING MATERIALS AND OTHER DEBRIS SHALL NOT BE STORED OR DISCARDED IN FLOODPLAINS.
- A PRIVATE ACCESS AND MAINTENANCE AGREEMENT FOR LOTS 3 & 4, PARCELS 6, 850, 651 & 652 SHALL BE RECORDED PRIOR TO THE RECORDED OF THIS PLAN. A PRIVATE ACCESS AND MAINTENANCE AGREEMENT FOR THE ADDITIONAL 30' PRIVATE USE-IN-COMMON DRIVEWAY ACCESS AND UTILITY EASEMENT FOR LOTS 3 AND 4 SHALL BE RECORDED SIMULTANEOUSLY WITH THIS PLAN. A PRIVATE ACCESS AND MAINTENANCE AGREEMENT FOR THE ADDITIONAL 30' PRIVATE USE-IN-COMMON DRIVEWAY ACCESS AND UTILITY EASEMENT FOR LOTS 1 AND 2 SHALL BE RECORDED SIMULTANEOUSLY WITH THIS PLAN.
- A LAND DEDICATED TO HOWARD COUNTY, MARYLAND, FOR THE PURPOSES OF A PUBLIC ROAD (0.26 ACRES) EXISTING IS AN EXISTING DWELLING LOCATED LOT 1 TO BOUNDARY. NO NEW BUILDINGS, EXTENSIONS OR ADDITIONS TO THE EXISTING DWELLING ARE TO BE CONSTRUCTED AT A DISTANCE LESS THAN THE ZONING REGULATIONS REQUIRE. 30' ON AREA 25, 2007, WADING SECTION 16.120 (B)(4)(D) AND 16.120 (B)(4)(D) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS TO ALLOW RESIDENTIAL LOTS TO HAVE AN ILLUSTRATED SHED ALLOW R-20 RESIDENTIAL LOTS WITH AN OPTIONAL 10' SIDE SETBACK SOFTS THAT ARE INCUMBENT BY ENVIRONMENTAL SENSITIVE FEATURES. WF-07-104 WAS APPROVED SUBJECT TO THE FOLLOWING CONDITIONS:
- TO THE EXTENT POSSIBLE, ALTER THE SHAPE OF LOT 1 TO MAXIMIZE THE AREA OF OPEN SPACE LOT 5 AND FACILITATE ENVIRONMENTAL PROTECTIONS. RECONFIGURE LOT 1 TO HAVE A 20' WIDE PRESTRA (THIS MAY BE 12" IN THE AREA WHERE IT IS ADJACENT TO THE PROPOSED DRIVEWAY) AND RECONFIGURE THE WETLANDS AREA ALONG COLLEGE AVENUE INTO THE OPEN SPACE LOT AND WITHOUT CREATING A ZONING VIOLATION REDUCE ITS AREA AS CLOSE AS POSSIBLE TO THE BOUNDARY OF THE OPEN SPACE LOT.
- PLANT WITH FOREST CONSERVATION PLANTINGS ALL UNPLANTED AREAS OF NEWLY RECONFIGURED OPEN SPACE LOT 5 AND BONNIE BRANCH ROAD TO THE SOIL CONSERVATION DISTRICT OR THE METLANDS DEPARTMENT OF THE ENVIRONMENT.
- ALTER THE REAR BUILDING RESTRICTION LINES (BRL) FOR LOTS 3 AND 4 TO COINCIDE WITH (AND NOT EXTEND INTO) THE 30' ENVIRONMENTAL SETBACK FROM STEEP SLOPES.
- THE WADING SECTION APPROVAL IN NO WAY TAKE PRECEDENT OVER THE ZONING REGULATIONS REQUIRE. THE 30' ENVIRONMENTAL SETBACK FROM STEEP SLOPES: THEREAFTER, THE DISTANCE FROM THE BRL'S ON THESE LOTS VARY IN DISTANCE FROM THE PROPERTY LINES, AND SHALL NOT BE LESS THAN REQUIRED BY SECTION 16.02 OF THE ZONING REGULATIONS.



FOREST CONSERVATION WORKSHEET

NET TRACT AREA:	
A. Total tract area:	5.83
B. Area within 100 year floodplain:	-0.9
C. Area to remain in agricultural production:	0.0
D. Net tract area:	-4.9

AND USE CATEGORY: (from table 3.2.1, page 40, Manual)
Input the number "1" under the appropriate land use zoning, and limit to only one entry.

ARA	MDR	IDA	HDP	MDA	CLA
F. Afforestation Threshold:	15% x D + 0.75				
F. Conservation Threshold:	20% x D + 1.00				

EXISTING FOREST COVER:

G. Existing forest cover (excluding floodplains):	-3.1
H. Area of forest above afforestation threshold:	-2.4
I. Area of forest above conservation threshold:	-2.1

BREAK EVEN POINT:

J. Forest retention above threshold with no mitigation:	-1.4
K. Clearing permitted without mitigation:	-1.7

PROPOSED FOREST CLEARING:

L. Total area of forest to be cleared:	-1.3
M. Total area of forest to be retained:	-1.7

PLANTING REQUIREMENTS:

N. Reforestation for clearing above conservation threshold:	-0.3
P. Reforestation for clearing below conservation threshold:	-0.0
Q. Credit for retention above conservation threshold:	-0.8
R. Total reforestation required:	-0.0
S. Total reforestation required:	-0.0
T. Total reforestation and afforestation required:	-0.0

CURVE TABLE

CURVE	RADIUS	LENGTH	TANGENT	DELTA	CHORD BEARING & DISTANCE
C1	101.14	140.04	83.87	79°20'05"	S19°52'25"W 129.12
C2	100.00	141.11	85.18	80°30'55"	S17°00'24"W 129.69
C3	375.00	91.70	46.08	14°00'38"	N50°25'33"E 91.47
C4	175.00	34.61	17.35	11°19'53"	N37°45'12"E 34.55
C5	925.00	295.46	149.00	18°18'05"	S48°19'15"E 294.21

SPECIMEN TREES

KEY	SPECIMEN TREES
SP#A	48" KENTUCKY COFFEE TREE
SP#B	36" KENTUCKY COFFEE TREE
SP#C	48" KENTUCKY COFFEE TREE

LANDSCAPE PLANTING SCHEDULE

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
7		ACER RUBRUM 'RED SUNSET'	RED SUNSET MAPLE	2 1/2" - 3" CAL.
TOTAL				
7		SHADE TREES		

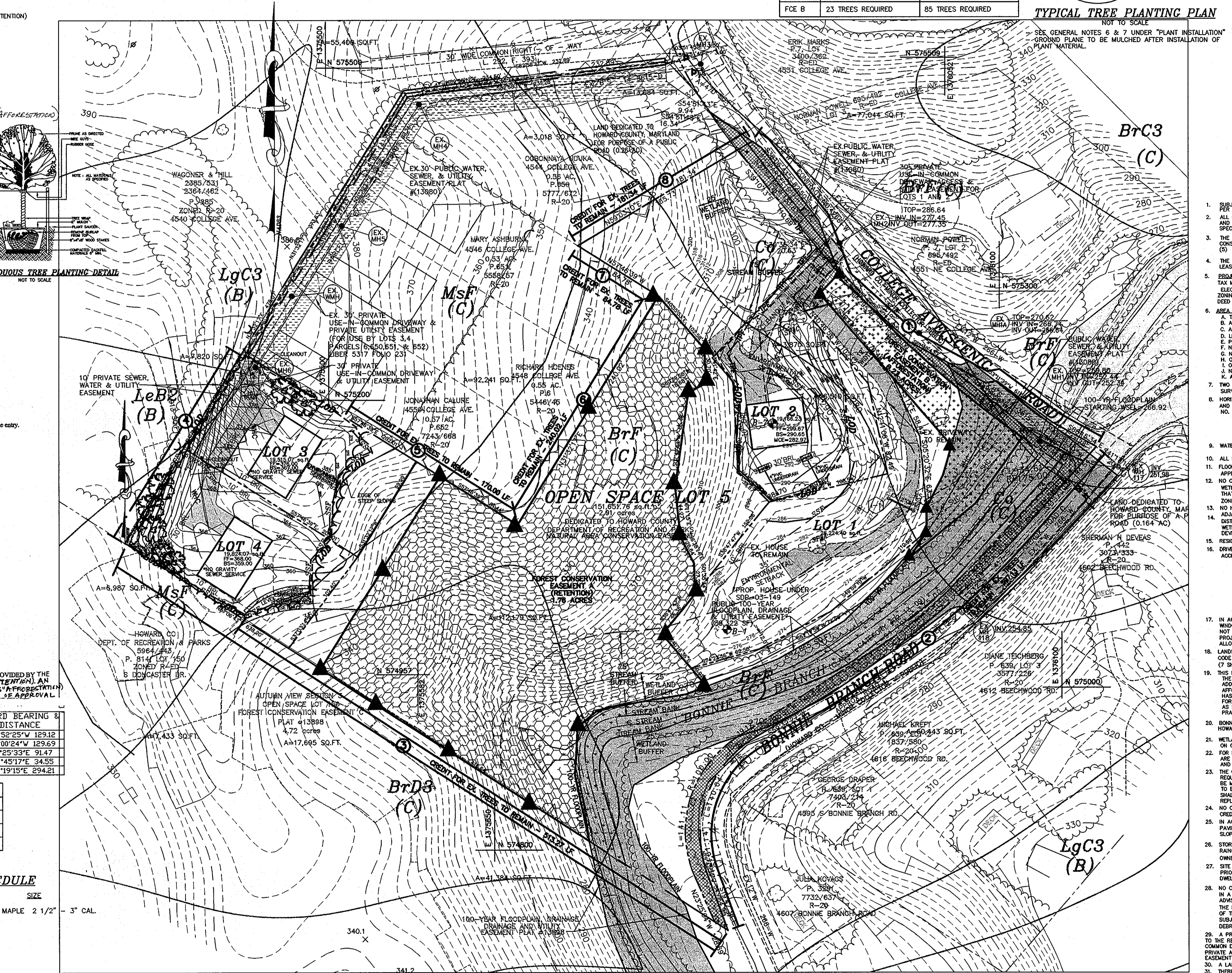
DEVELOPER'S CERTIFICATE:
I, THE UNDERSIGNED, CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN SECTION 16.124 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE LANDSCAPE MANUAL. I FURTHER CERTIFY THAT UPON COMPLETION OF THE PROJECT, I WILL SUBMIT AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, TO BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

APPROVED:
DATE: 11/18/07

APPROVED:
DATE: 11/18/07

OWNER:
TAYLOR GIFT, LLC
c/o LAND DESIGN & DEVELOPMENT
5300 CORSEY HALL DRIVE
ELLICOTT CITY, MARYLAND 21042
443-357-0422

MD DPR QUALIFIED PROFESSIONAL:
DATE: 11/8/07



SCHEDULE A: PERIMETER LANDSCAPED EDGE

CATEGORY	ADJACENT TO PERIMETER PROPERTIES								TOTAL
	N/A (PERIMETER 1)	N/A (PERIMETER 2)	A (PERIMETER 3)	A (PERIMETER 4)	A (PERIMETER 5)	A (PERIMETER 6)	A (PERIMETER 7)	A (PERIMETER 8)	
LANDSCAPE TYPE	350.31 LF	597.13 LF	633.91 LF	199.95 LF	283.45 LF	240.02 LF	84.78 LF	181.34 LF	
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	350.31 LF	597.13 LF	633.91 LF	199.95 LF	283.45 LF	240.02 LF	84.78 LF	181.34 LF	
NUMBER OF PLANTS REQUIRED	0 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	0 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	2 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	3 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	2 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	0 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	0 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	0 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	7 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS
CREDIT FOR EXISTING VEGETATION	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NUMBER OF PLANTS PROVIDED	0 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS (10:1 SUBSTITUTION)	0 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	2 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	3 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	2 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	0 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	0 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	0 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	7 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS

SOILS DESCRIPTION

Bf BRANDYWINE LOAM, 25% TO 60% SLOPES (TYPE C)
Cf CORDRUS SILT LOAM (TYPE C)
Msf MONTALTO AND RELAY VERY STONEY SILT LOAMS, 25% TO 60% SLOPES (TYPE C)

DEVELOPER'S SIGNATURE:
DATE: 11/18/07

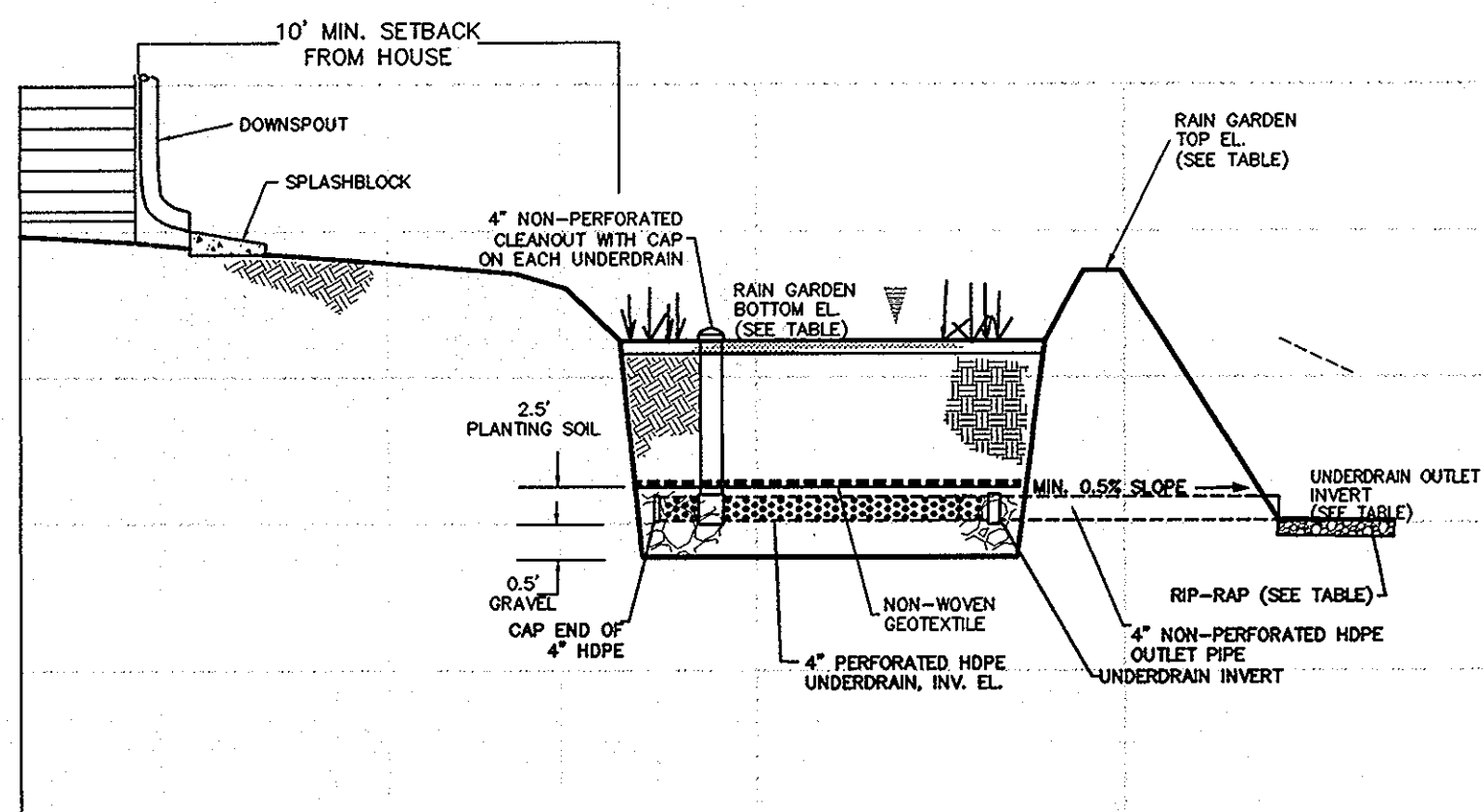
APPROVED:
DATE: 11/18/07

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Surveyors
5072 Borsy Hill Drive, Suite 202, Beltsville, Maryland, 21042
(410) 997-0296 Fax: (301) 621-5521, Wash. (410) 397-0298 Fax.

BONNIE BRANCH POINT
LOTS 1 THRU 4 & OPEN SPACE LOT 5
TAX MAP 31 - GRID 4
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SUPPLEMENTAL, FOREST CONSERVATION & LANDSCAPE PLAN

Project: NOV 2007
Date: 03-016
Engineering: HSP
Approval: RH
Illustration: HSP
Scale: 1"=60'
Description: revisions

1 OF 2
F07-079Fc



TYPICAL RAIN GARDEN PROFILE
NTS

OPERATION AND MAINTENANCE SCHEDULE FOR RAIN GARDENS

- ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER AND SOIL LAYER IS REQUIRED. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING.
- SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL. THIS INSPECTION WILL INCLUDE REMOVAL OF DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, TREATMENT OF ALL DISEASED TREES AND SHRUBS AND REPLACEMENT OF ALL DEFICIENT STAKES AND WIRES.
- MULCH SHALL BE INSPECTED EACH SPRING. REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2 TO 3 YEARS.
- SOIL EROSION TO BE ADDRESSED ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORM EVENTS.

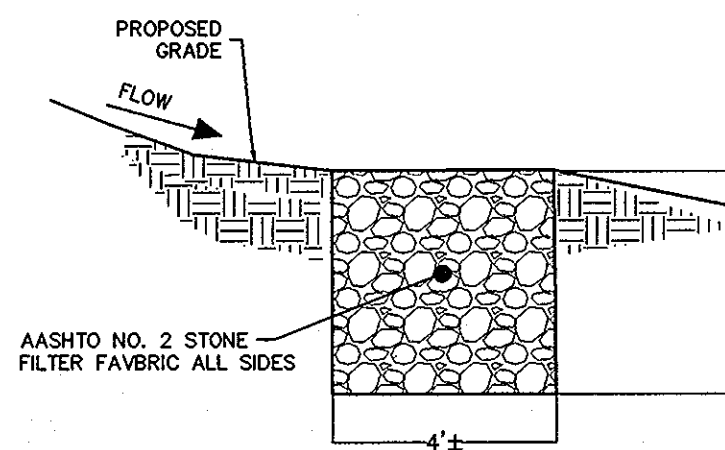
PLANT LIST FOR RAIN GARDEN

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
1		PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	2-1/2" - 3" CAL.
1		ILEX GLABRA	INK BERRY	2' - 3' HT.
3		LOBELIA SIPHILITICA	GREAT BLUE LOBELIA	1 GAL. CONTAINER
2		ONOCLEA SENSIBILIS	SENSITIVE FERN	1 GAL. CONTAINER
1		ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER	1 GAL. CONTAINER

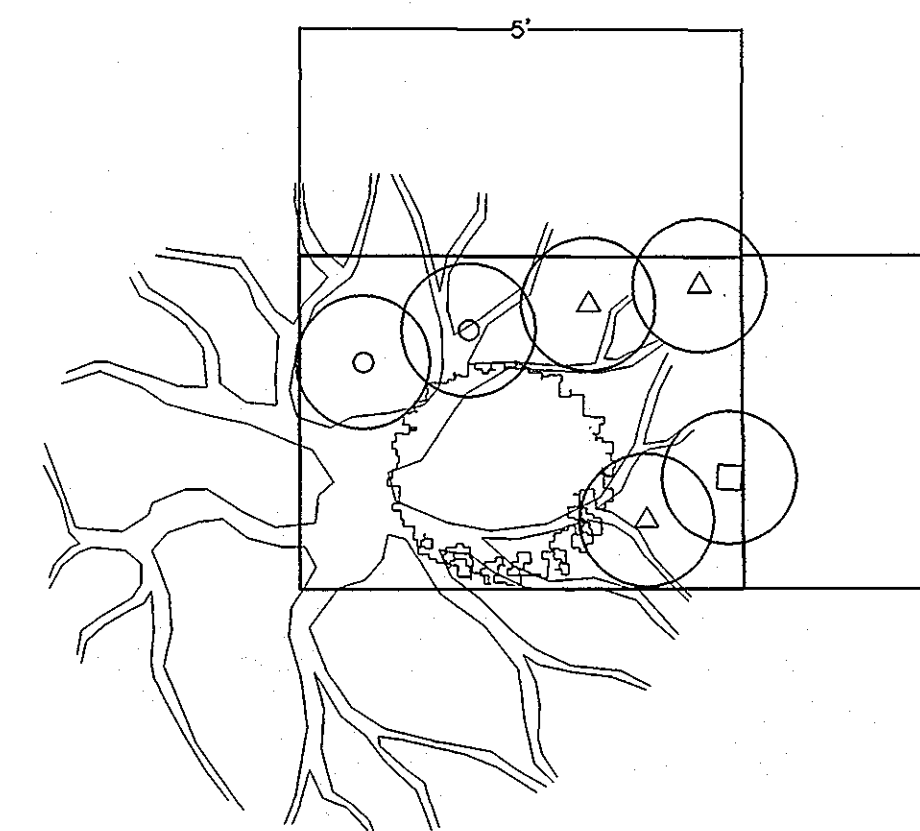
TOTAL: 12 PERENNIALS, 1 SHRUB, 1 TREE (PER EACH RAIN GARDEN)
TOTAL: 48 PERENNIALS, 4 SHRUBS, 2 TREES (BIORETENTION)

RAIN GARDEN DESIGN DATA

RAIN GARDEN#	RAIN GARDEN TOP EL.	RAIN GARDEN BOTTOM EL.	UNDERDRAIN INVERT EL.	UNDERDRAIN OUTLET INVERT EL.	MAX. PONDING DEPTH
2A	293.4	292.9	289.7	289.5	6"
2B	292.3	291.8	288.6	288.3	6"



LEVEL SPREADER DETAIL
NTS



RAIN GARDEN DETAIL
NTS

PLANTING SPECIFICATIONS AND NOTES

- SITE PREPARATION AND SOILS**
- PROTECTION FENCING AND SILT FENCES FOR SEDIMENT AND EROSION CONTROL ARE TO BE INSTALLED AS A FIRST ORDER OF BUSINESS. SEE PLAN FOR LOCATIONS.
 - DISTURBANCE OF SOILS SHOULD BE LIMITED TO THE PLANTING FIELD FOR EACH PLANT. AS SHOWN ON THE DETAIL VIEW, A PLANTING FIELD OF DIAMETER = 6 X DIAMETER OF THE ROOT BALL OR CONTAINER IS RECOMMENDED.
 - SOIL MIX FOR ALL PLANTS EXCEPT ERICACEOUS MATERIAL: SOIL SHALL CONSIST OF EXISTING NATIVE TOPSOIL MIXTURE AT EACH PLANTING FIELD LOCATION INTO WHICH THE CONTRACTOR SHALL THOROUGHLY INCORPORATE 25% BY VOLUME OF COMPOSTED SLUDGE.
 - SOIL MIX FOR ERICACEOUS MATERIAL: SOIL MIX SHALL CONSIST OF EXISTING NATIVE TOPSOIL MIXTURE AT EACH PLANTING FIELD LOCATION INTO WHICH THE CONTRACTOR SHALL THOROUGHLY INCORPORATE 25% BY VOLUME PEAT MOSS.
 - ALL WORKING IN 3 AND 4 SHALL BE LIMITED TO CONTAINER GROWN OR BALL AND BURLAP STOCK ONLY AND CONFINED TO THE PLANTING FIELD AND IMMEDIATE ADJACENT SOIL SURFACE AREA AND SHALL BE DONE TO THE SATISFACTION OF THE DESIGN TEAM OR ENGINEER.
- PLANT STORAGE AND INSPECTION**
- FOR CONTAINER GROWN NURSERY STOCK, PLANTING SHOULD OCCUR WITHIN 2 WEEKS AFTER DELIVERY TO THE SITE.
 - FOR BALL AND BURLAP NURSERY STOCK, PLANTING SHOULD OCCUR WITHIN THREE DAYS AFTER DELIVERY TO THE SITE.
 - PLANTING STOCK SHOULD BE INSPECTED PRIOR TO PLANTING. PLANTS NOT CONFORMING TO STANDARD NURSERYMAN SPECIFICATIONS FOR SIZE, FORM, VIGOR, ROOTS, TRUNK WOUNDS, INSECTS AND DISEASE SHOULD BE REPLACED.
 - UNTIL PLANTED, ALL PLANT STOCK SHALL BE KEPT IN A SHADED, COOL, AND MOISTENED ENVIRONMENT.
- PLANT INSTALLATION**
- THE PLANTING FIELD SHOULD BE PREPARED AS SPECIFIED (SEE DETAIL). NATIVE STOCKPILED SOILS SHOULD BE USED FOR SOIL MIX AND BACKFILL FOR PLANTING FIELD. AFTER PLANT INSTALLATION, RAISE SOILS EVENLY OVER THE PLANTING FIELD AND COVER WITH AT LEAST 4 INCHES OF MULCH. WATER, GENEROUSLY, TO SETTLE SOIL BACKFILLED AROUND TREES.
 - PLANTING FIELD DIAMETERS SHOULD BE REDUCED OR PLANTING FIELD MOVED IF IT APPEARS THAT EXCESSIVE EXISTING ROOT DAMAGE MAY OCCUR DURING DIGGING OPERATION NEAR EXISTING FOREST.
 - CARE SHALL BE TAKEN WHEN DIGGING PLANTING FIELDS NOT TO CHOP THRU LARGER EXISTING ROOTS FROM EXISTING MATURE TREES. IF ROOTS GREATER THAN 1/2 INCH ARE ENCOUNTERED PLEASE TRY TO DIG AROUND THEM AS MUCH AS POSSIBLE TO MINIMIZE IMPACT TO EXISTING TREES. THEY WERE HERE FIRST.
 - CONTAINER GROWN STOCK SHOULD BE REMOVED FROM THE CONTAINER AND ROOTS GENTLY LOOSENED FROM THE SOIL. IF THE ROOTS ENIRCLE THE ROOT BALL, SUBSTITUTION IS STRONGLY RECOMMENDED. J-SHAPED OR RINKED ROOT SYSTEMS SHOULD ALSO BE NOTED. ROOTS MAY NOT BE TOUCHED ON SITE, DUE TO THE INCREASED CHANCES OF SOIL BORNE DISEASES.
 - FOR BALL AND BURLAP STOCK, PLACE TREE IN PREPARED PLANTING FIELD AND REMOVE WIRE AND/OR STRING FROM ROOT BALL. THEN PEEL BACK BURLAP TO BASE OF ROOT BALL AND COVER ENTIRE ROOT BALL WITH TOPSOIL MIXTURE INDICATED ABOVE AND WATER GENEROUSLY.
 - FOR TREES PLANTED IN THE AFFORESTATION AREA, CONTRACTOR SHALL EVENLY DISPERSE SPECIES IN GROUPS OF TWO (2) TO FOUR (4), PER SPECIES, OVER THE ENTIRE DESIGNATED AREA TO BE PLANTED WHILE MAINTAINING AN AVERAGE RANDOM SPACING OF INDIVIDUAL TREES AT PROPER SPACING INDICATED ON PLANT LIST.
 - AND/ PLANTING IN A STRAIGHT GRID PATTERN. TREES SHALL BE PLANTED ON AN AVERAGE SPACING AS INDICATED ON PLANT LISTS TO OBTAIN A MORE NATURAL APPEARANCE.
 - NEWLY PLANTED TREES MAY NEED WATERING AS MUCH AS ONCE A WEEK FOR THE ENTIRE GROWING SEASON, DUE TO THE WELL DRAINED NATIVE SOILS FOUND ON THIS SITE COMBINED WITH THE LOSSENING OF THE BACKFILLED AREA WITHIN THE PLANTING FIELD. THE NEXT TWO YEARS MAY REQUIRE WATERING ONLY A FEW TIMES A YEAR DURING SUMMER AND DRY MONTHS. AFTER THAT PERIOD, TREES SHOULD ONLY NEED WATER IN SEVERE DROUGHTS. ANY WATERING PLAN SHOULD COMPENSATE FOR RESIDENT RAINFALL PATTERNS.
- FERTILIZING**
- DO NOT FERTILIZE NEWLY PLANTED TREES WITHIN THE FIRST GROWING SEASON AFTER PLANTING. DOING SO MAY CAUSE A SHRINK OF CANOPY GROWTH WHICH THE ROOTS CANNOT SUPPORT AND ADDITIONAL SHOCK TO THE ALREADY DISTURBED PLANT.
 - NOTHING SHOULD BE ADDED TO THE SOIL WITHOUT TESTING IT FIRST TO DETERMINE ITS NUTRIENT LEVELS.
 - IF AND WHEN IT IS TIME TO FERTILIZE, ORGANIC FERTILIZERS ARE PREFERRED TO SYNTHETIC FERTILIZERS. BONE MEAL OR SEAWEED BASED PRODUCTS ARE AVAILABLE COMMERCIALY AND ARE RECOMMENDED. THEY IMPROVE THE ABILITY TO SUPPLY NUTRIENTS TO THE PLANT AS NEEDED WHILE MINIMIZING THE RISK OF EXCESS NUTRIENTS ENTERING THE FOREST SYSTEM AND WATER SUPPLY.

- MAINTENANCE SCHEDULE**
- ANNUAL MAINTENANCE DURING THE GROWING SEASON, FOR A THREE YEAR PERIOD.
 - ASSESS TREE MORTALITY OF PLANTING STOCK, REMOVE AND REPLACE ANY DEAD OR DISEASED PLANTINGS.
 - VOLUNTEER SEEDING OF NATIVE, LOCAL AND ENDEMIC VEGETATION IS TO BE EXPECTED. DO NOT DISCOURAGE THIS EFFORT UNLESS IT IS NEGATIVELY EFFECTING THE PLANTED STOCK.
 - REMOVE THROUGH MANUAL MEANS (GRUBBING, PULLING, CUTTING) AGGRESSIVE, NOXIOUS, INVASIVE SPECIES AND ALL HERBACEOUS VEGETATION WITHIN A 3-FOOT RADIUS SURROUNDING THE PLANTED WOODY NURSERY STOCK.
 - REMOVE AND DISPOSE OF MAN-MADE TRASH, INCLUDING ITEMS CONTAINED WITHIN ENTIRE PLANTING AREA. DO NOT REMOVE DOWN AND DEAD MATERIAL, NATURALLY OCCURRING OR ACCUMULATING, UNLESS IT IS SMOTHERING PLANTING STOCK.
 - A 75 PERCENT SURVIVAL OF PLANTED STOCK MUST BE ACHIEVED AT THE END OF THE 24 MONTH MANAGEMENT PERIOD. IF NOT, ADDITIONAL PLANTINGS MAY BE REQUIRED TO ACHIEVE THIS GOAL.

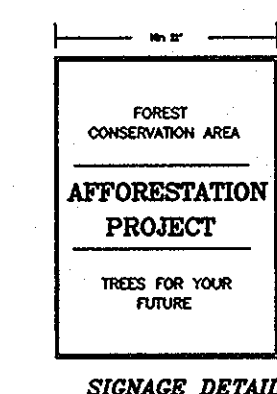
FIG. 2. AFFORESTATION PLANT LIST

ALTERNATIVE 1

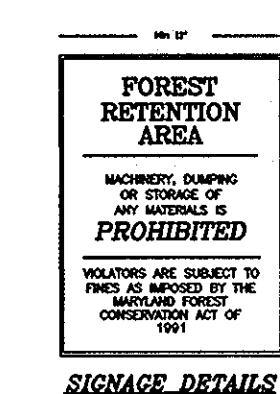
QTY. SPECIES	SHADE TOL.	MOIST. REGIME	WET. STATUS	MIN.O.C.	SIZE & SPACING	REMARKS
11 Acer rubrum Red Maple	VT	D-W	FAC	20'	CONT/B & B 2" CALIPER	
3 Liriodendron tulipifera Tuliptree	MT	D-M	FAC	20'	CONT/B & B 2" CALIPER	
3 Prunus serotina Wild Black Cherry	I	M	FACU	20'	CONT/B & B 2" CALIPER	
2 Sassafras albidum Common Sassafras	I	D-M	FACU	20'	CONT/B & B 2" CALIPER	
2 Ulmus rubra Slippery Elm	MT	D-M	FAC	20'	CONT/B & B 2" CALIPER	
2 Quercus alba White Oak	I	M-W	FAC+	20'	CONT/B & B 2" CALIPER	
TOTAL						23 TREES

ALTERNATIVE 2

QTY. SPECIES	SHADE TOL.	MOIST. REGIME	WET. STATUS	MIN.O.C.	SIZE & SPACING	REMARKS
35 Acer rubrum Red Maple	VT	D-W	FAC	11'	SEEDLING/WHIP WITH TREE SHELTER	
15 Liriodendron tulipifera Tuliptree	MT	D-M	FAC	11'	SEEDLING/WHIP WITH TREE SHELTER	
10 Prunus serotina Wild Black Cherry	I	M	FACU	11'	SEEDLING/WHIP WITH TREE SHELTER	
10 Sassafras albidum Common Sassafras	I	D-M	FACU	11'	SEEDLING/WHIP WITH TREE SHELTER	
8 Ulmus rubra Slippery Elm	MT	D-M	FAC	11'	SEEDLING/WHIP WITH TREE SHELTER	
3 Quercus alba White Oak	I	M-W	FAC+	11'	SEEDLING/WHIP WITH TREE SHELTER	
TOTAL						85 WHIPS WITH TREE SHELTERS



SIGNAGE DETAIL
NOT TO SCALE



SIGNAGE DETAIL
NOT TO SCALE

DEVELOPER'S CERTIFICATE
I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO PLAN SECTION 88.124 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION OF THE PROJECT, THE LANDSCAPING SHALL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING FOR REVIEW AND APPROVAL.

APPROVED: DEPARTMENT OF PLANNING AND ZONING
DATE: 10/09/07

DEVELOPER/OWNER'S NAME: [Signature]
DATE: 10/09/07

OWNER: TAYLOR GIFT, LLC
c/o LAND DESIGN & DEVELOPMENT
5300 DORSEY HALL DRIVE
ELLCOTT CITY, MARYLAND 21042
443-367-0422

MD DNS QUALIFIED PROFESSIONAL
[Signature] 10/4/07

project	03-016
date	OCT 2007
illustration	HSP
scale	1"=50'
approval	RJH

description	revisions
no.	date

BONNIE BRANCH POINT
LOTS 1 THRU 4 & OPEN SPACE LOT 5
TAX MAP 31 - GRID 4
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
PROFILES, NOTES & DETAILS

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland, 21042
(410) 997-0296, Fax: (301) 621-5321, Wash. (410) 997-0298, Fax.