

PLANTING NOTES

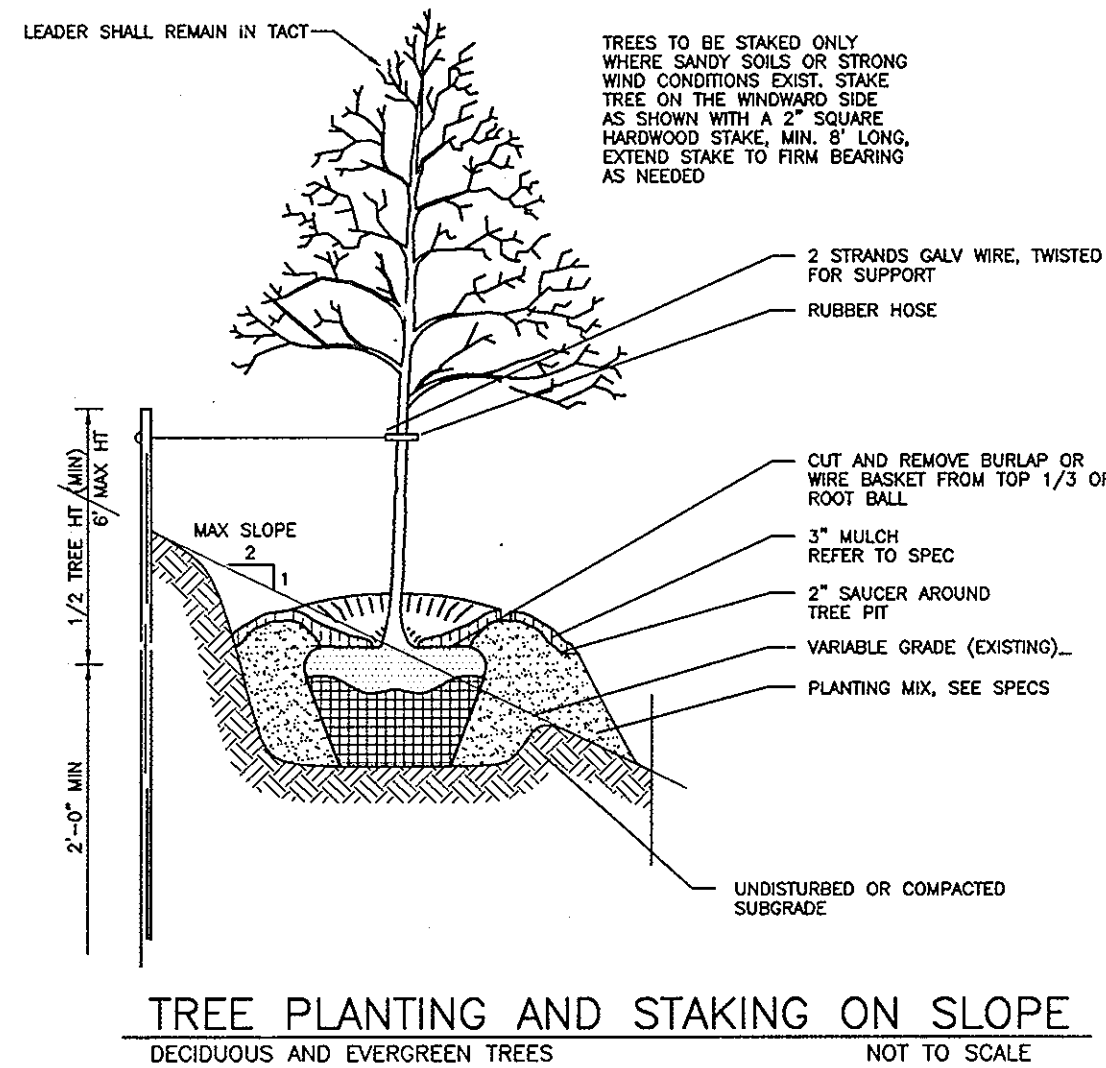
- CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING UTILITY COMPANIES, AND CONTRACTORS AND "MISS UTILITY" A MINIMUM OF 48 HOURS PRIOR TO BEGINNING WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO UTILITIES DUE TO NON-COORDINATED WORK. CONTRACTOR MAY MAKE MINOR ADJUSTMENTS IN SPACING AND LOCATION OF PLANT MATERIAL TO AVOID CONFLICTS WITH UTILITIES.
- PLANTS, RELATED MATERIAL AND OPERATIONS SHALL MEET THE DETAILED DESCRIPTION AS GIVEN ON THE PLANS AND AS DESCRIBED HEREIN.
- PLANT MATERIAL, UNLESS OTHERWISE SPECIFIED, SHALL BE NURSERY GROWN, UNIFORMLY BRANCHED AND HAVE A VIGOROUS ROOT SYSTEM. PLANT MATERIAL SHALL BE HEALTHY, VIGOROUS PLANTS FREE FROM DEFECTS, DISEASE, DISFIGURING ROOTS, SUNSCALD INJURIES, ABRASIONS OF THE BARK, PLANT DISEASE, INSECT PEST EGGS, BORERS, INFESTATIONS OR OBJECTIONABLE DISFIGUREMENTS. PLANT MATERIAL THAT IS WEAK OR WHICH HAS BEEN CUT BACK FROM LARGER GRADES TO MEET SPECIFIED REQUIREMENTS WILL BE REJECTED. TREES WITH FORKED LEADERS WILL NOT BE ACCEPTED. PLANTS SHALL BE FRESHLY DUG; NO HEELED-IN PLANTS OR PLANTS FROM COLD STORAGE WILL BE ACCEPTED.
- UNLESS OTHERWISE SPECIFIED, PLANT MATERIAL SHALL CONFORM TO "AMERICAN STANDARD FOR NURSERY STOCK" ANSI Z60.1-1990, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERMEN, INCLUDING ALL ADDENDA.
- UNLESS OTHERWISE SPECIFIED, GENERAL CONDITIONS, PLANTING OPERATIONS, DETAILS AND PLANTING SPECIFICATIONS SHALL CONFORM TO "LANDSCAPE SPECIFICATION GUIDELINES", (HEREINAFTER "LANDSCAPE GUIDELINES") APPROVED BY THE LANDSCAPE CONTRACTORS ASSOCIATION OF METROPOLITAN WASHINGTON AND THE POTOMAC CHAPTER OF THE AMERICAN SOCIETY OF LANDSCAPE ARCHITECTS, LATEST EDITION, INCLUDING ALL ADDENDA.
- CONTRACTOR SHALL BE REQUIRED TO GUARANTEE PLANT MATERIAL FOR A PERIOD OF TWO YEARS IN ACCORDANCE WITH THE LANDSCAPE GUIDELINES. CONTRACTOR'S ATTENTION IS DIRECTED TO THE MAINTENANCE REQUIREMENTS FOUND WITHIN THE SPECIFICATIONS INCLUDING WATERING AND REPLACEMENT OF SPECIFIED PLANT MATERIAL.
- PLANTING BEDS SHALL BE MULCHED AS SPECIFIED TO THE LIMITS OF THE PLANTING BEDS AS SHOWN ON THE PLAN AND TO THE DEPTH AS SHOWN ON THE DETAILS.
- PROTECTION OF EXISTING VEGETATION TO REMAIN SHALL BE ACCOMPLISHED BY THE TEMPORARY INSTALLATION OF 4' HIGH SNOW FENCE, LOCATIONS SHOWN ORANGE PLASTIC MESH OR OTHER APPROVED FENCING, IN LOCATIONS SHOWN ON THE PLAN, AT THE DRIP LINE.
- CONTRACTOR IS RESPONSIBLE FOR INSTALLING PLANT MATERIAL IN THE PROPER PLANTING SEASON FOR EACH PLANT TYPE.
- PLANTING MIX SHALL BE AS FOLLOWS: DECIDUOUS PLANTS - TWO PARTS TOPSOIL, ONE PART WELL-ROTTED COW MANURE, ADD 3 LBS. OF STANDARD FERTILIZER PER CUBIC YARD OF PLANTING MIX. EVERGREEN PLANTS - TWO PARTS TOPSOIL, ONE PART HUMUS OR OTHER APPROVED ORGANIC MATERIAL, ADD 3 LBS. OF EVERGREEN (ACIDIC) FERTILIZER PER CUBIC YARD OF PLANTING MIX. TOPSOIL SHALL CONFORM TO THE LANDSCAPE GUIDELINES.
- THIS PLAN IS INTENDED FOR LANDSCAPE USE ONLY. SEE OTHER PLAN SHEETS FOR MORE INFORMATION ON GRADING, SEDIMENT CONTROL, UTILITIES, LAYOUT, ETC.

PERIMETER PLANT LIST

KEY	BOTANICAL NAME	COMMON NAME	SPACING	SIZE	REMARKS	QUANTITY
ARU	ACER RUBRUM RED SUNSET	RED SUNSET RED MAPLE	AS SHOWN	2.5"-3" CAL.	B&B	2

SCHEDULE A : PERIMETER LANDSCAPED EDGE

CATEGORY	ADJACENT TO ROADWAY	ADJ. TO PERIMETER PROPERTIES	TOTAL
LANDSCAPE TYPE	PERIMETER 1- N/A	PERIMETER 2- TYPE A	
LINEAR FEET OF PERIMETER	436.42 LF	328.84 LF	
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	NO	YES, 200 LF (128.84 LF REMAINING)	
CREDIT FOR WALL FENCE, OR BERM (YES, NO, LINEAR FEET)	NO	NO	
NUMBER OF PLANTS REQUIRED			
SHADE TREES	0 SHADE TREES	2 SHADE TREES	2 SHADE TREES
EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES
SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS
NUMBER OF PLANTS PROVIDED			
SHADE TREES	0 SHADE TREES	2 SHADE TREES	2 SHADE TREES
EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES
OTHER TREES (2:1 SUBSTITUTION)	0 SUBSTITUTION TREES	0 SUBSTITUTION TREES	0 SUBSTITUTION TREES
SHRUBS (10:1 SUBSTITUTION)	0 SHRUBS	0 SHRUBS	0 SHRUBS



SPECIMEN TREE LIST

NO.	DBH (IN.)	SCIENTIFIC NAME	COMMON NAME	HEIGHT (FT.)	CONDITION
T-1	32.0	LIRIODENDRON TULIPERA	TULIP POPLAR	86	FAIR/POOR (TRUNK DAMAGE)
T-2	30.0	PINUS STRIBIS	EASTERN WHITE PINE	70	GOOD/FAIR (DEAD BRANCHES)
T-3	45.1	ACER SACCHARINUM	SILVER MAPLE	45	GOOD/FAIR (INCLUDED BARK)
T-4	41.1	ACER SACCHARINUM	SILVER MAPLE	46	FAIR (MULTI-TRUNK/DECAY)
T-5	33.0	ACER SACCHARINUM	SILVER MAPLE	55	GOOD/FAIR (INCLUDED BARK)
T-6	44.3	QUERCUS RUBRA	NORTHERN RED OAK	65	FAIR/POOR (DOUBLE)
T-7	35.7	ACER PLATANOIDES	NORWAY MAPLE	50	FAIR/POOR (INCLUDED BARK)
T-8	47.8	ACER SACCHARINUM	SILVER MAPLE	55	FAIR (MULTI-TRUNK/DECAY)
T-9	53.0	ACER SACCHARINUM	SILVER MAPLE	60	FAIR (MULTI-TRUNK/DECAY)
T-10	66.5	ACER SACCHARINUM	SILVER MAPLE	53	FAIR/POOR (MULTI-TRUNK)

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, OFF-SITE RUN OFF, SPILLAGE AND DRAINING 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 STOCKPILING OF EARTH WITHIN FOREST CONSERVATION EASEMENTS. 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 CONSERVATION EASEMENTS. ROOT PRUNING SHALL BE USED AT THE LIMIT OF DISTURBANCE OR LIMIT OF GRADING WITHIN AND ADJACENT TO ALL PRESERVATION AREAS, AS NECESSARY.

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 50 FEET OF THE LIMIT OF DISTURBANCE, LIMITS OF CONSTRUCTION, EMPLOYEE PARKING AREAS AND EQUIPMENT STAGING AREAS;
 - INSPECT ALL FLAGGED BOUNDARIES AND PROTECTION DEVICES;
 - MAKE ALL NECESSARY ADJUSTMENTS;
 - ASSIGN RESPONSIBILITIES AS APPROPRIATE AND DISCUSS PENALTIES.

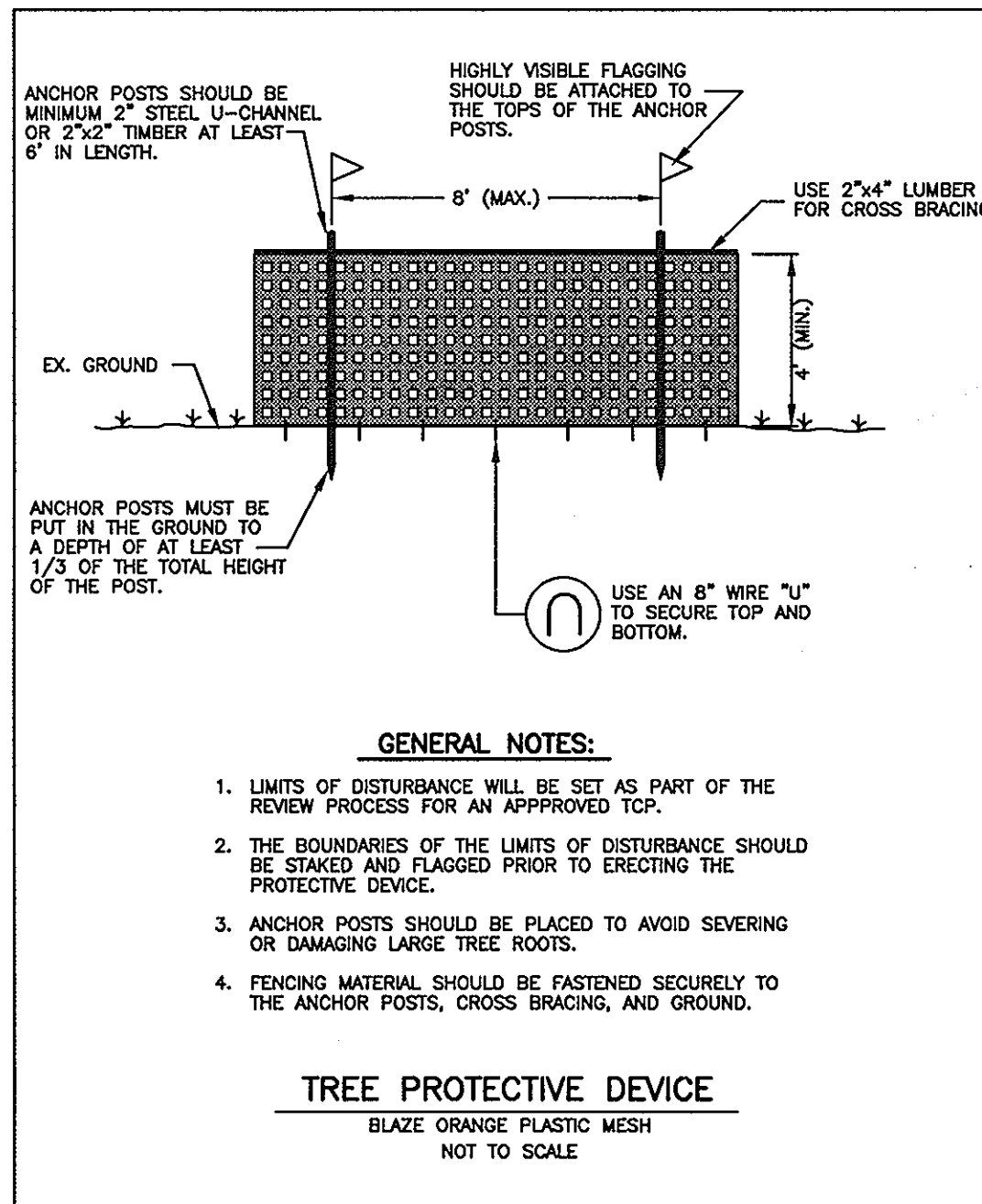
CONSTRUCTION MONITORING

- 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.
- SITE SHALL BE ALSO INSPECTED AT THE END OF THE TWO YEAR PERIOD PRIOR TO SURETY RELEASE TO INSURE THAT FORESTED AREAS HAVE BEEN RETAINED.

NOTE :

THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST CONSERVATION EASEMENTS EXCEPT AS PERMITTED BY THE HOWARD COUNTY FOREST CONSERVATION PROGRAM.

THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION, SOIL COMPACTION, OR EXCAVATION, INTRODUCTION OF TOXIC CHEMICALS OR OTHER DISTURBANCES DETRIMENTAL TO THE LIVE SPECIMEN TREES OR CRITICAL ROOT ZONES FOR THESE TREES EXCEPT AS PERMITTED BY THE HOWARD COUNTY FOREST CONSERVATION PROGRAM.

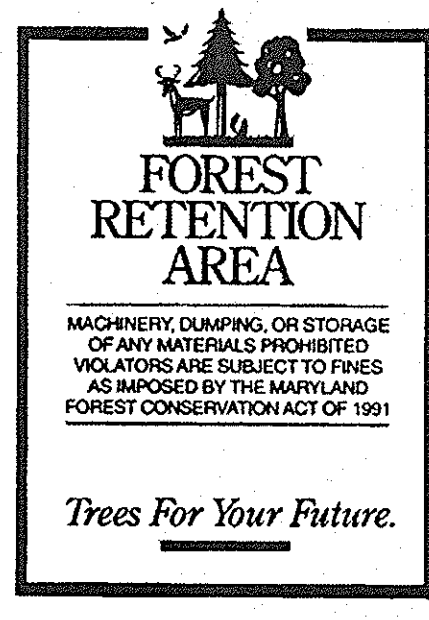


GENERAL NOTES:

- LIMITS OF DISTURBANCE WILL BE SET AS PART OF THE REVIEW PROCESS FOR AN APPROVED TCP.
- THE BOUNDARIES OF THE LIMITS OF DISTURBANCE SHOULD BE STAKED AND FLAGGED PRIOR TO ERECTING THE PROTECTIVE DEVICE.
- ANCHOR POSTS SHOULD BE PLACED TO AVOID SEVERING OR DAMAGING LARGE TREE ROOTS.
- FENCING MATERIAL SHOULD BE FASTENED SECURELY TO THE ANCHOR POSTS, CROSS BRACING, AND GROUND.

TREE PROTECTIVE DEVICE

BLAZE ORANGE PLASTIC MESH
NOT TO SCALE



SPECIMEN TREE & FOREST RETENTION SIGNAGE DETAILS
NOT TO SCALE

FOREST CONSERVATION WORKSHEET 2.1

DATE: 12/3/2007

Note: Use 0 for all negative numbers that result from the calculations.

- Net Tract Area
A. Total Tract Area (Ac.) A= 17.34
B. Deductions (Area of Floodplain) B= 2.13
C. Net Tract Area C= 15.21
Net Tract Area = Total Tract (A) - Deductions (B)
- Land Use Category - Residential - High Density
D. Afforestation Threshold (Net Tract Area (C) x 20%) D= 3.04
E. Conservation Threshold (Net Tract Area (C) x 25%) E= 3.80
- Existing Forest Cover
F. Existing Forest Cover within the Net Tract Area F= 9.58
G. Area of Forest Above Conservation Threshold If the Existing Forest Cover (F) is greater than the Conservation Threshold (E), then G = F - E; Otherwise G = 0. G= 5.78

Break Even Point
H. Breakeven Point (Amount of forest that must be retained so that no mitigation is required) H= 4.96
(1) If the area of forest above the Conservation Threshold (G) is greater than zero, then H = (0.2 x the area of forest above Conservation Threshold (G) + the Conservation Threshold (E))

I. Forest Clearing Permitted without Mitigation
I = Existing Forest Cover (F) - Breakeven point (H) I= 4.62

Proposed Forest Clearing
J. Total Area of Forest to be Cleared J= 4.62
K. Total Area of Forest to be Retained K= 4.96
L = Existing Forest Cover (F) - Forest to be cleared (J)

Planting Requirements
If the Total Area of Forest to be Cleared (J) is at or above the Breakeven Point (H), no planting is required and no further calculations are necessary (L=0, M=0, N=0, P=0); Otherwise, calculate the planting requirement(s) as follows:

L. Reforestation for Clearing Above the Conservation Threshold
(1) If the total area of forest to be retained (K) is greater than the Conservation Threshold (E), then N = the Area of Forest to be Cleared (J) x 0.25; N= 1.16
(2) If the forest to be retained (K) is less than or equal to the Conservation Threshold (E), then N = Area of forest above conservation Threshold (G) x 0.25

M. Reforestation for Clearing Below the Conservation Threshold
(1) If Existing Forest Cover (F) is greater than conservation Threshold (E) and the forest to be retained (K) is less than or equal to the Conservation Threshold (E), then M = 2.0 x (the Conservation Threshold (E) - the forest to be retained (K)) M= 0.00
(2) If Existing Forest Cover (F) is less than or equal to the Conservation Threshold (E), then M = 2.0 x Forest to be cleared (J).

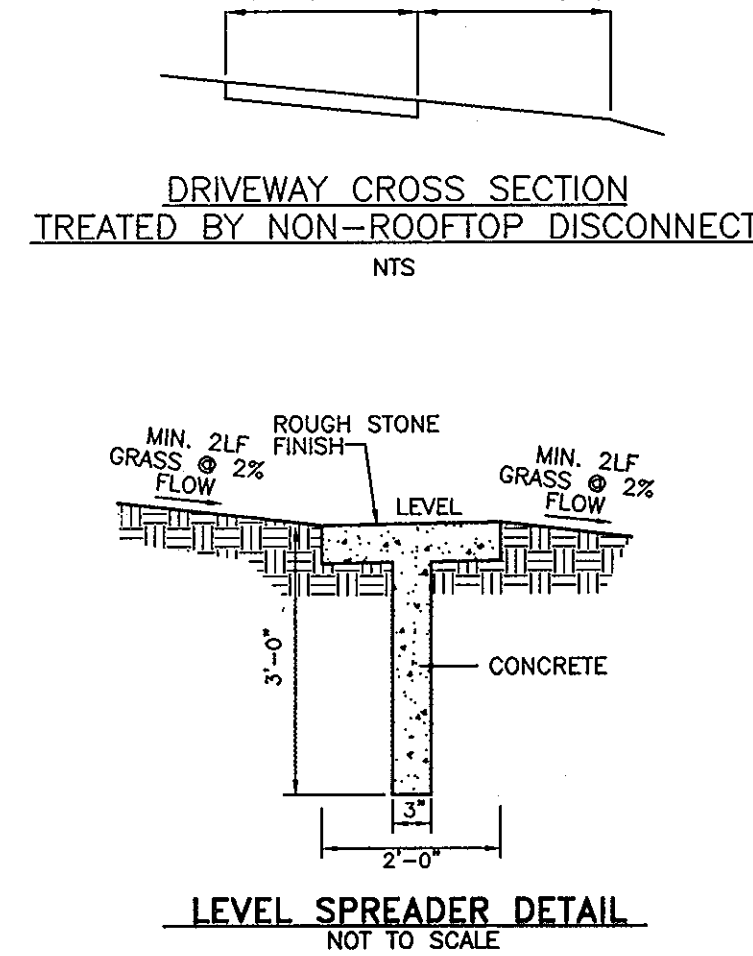
N. Credit for Retention Above the Conservation Threshold
If the area of forest to be retained (K) is greater than the Conservation Threshold (E), then N = K - E N= 1.16

P. Total Reforestation Required P = L + M - N P= 0.00
Q. Total Afforestation Required
If Existing Forest Cover (F) is less than the Afforestation Threshold (D) then Q = the Afforestation Threshold (D) - the Existing Forest Cover (F) Q= 0.00

R. Total Planting Requirement R = P + Q R= 0.00
S. Excess Forest Credit S= 0.00

* NOTE: (1) THE AREA INDICATED IN B (2.13 ACRES) REPRESENTS THE AREA OF LOT 5 WHICH CONTAINS 100 YEAR FLOODPLAIN.
(2) ALTHOUGH FOREST IS CONSIDERED CLEARED FOR THE FOREST CONSERVATION WORKSHEET, IT IS NOT ACTUALLY PROPOSED TO BE CLEARED. ONLY A SMALL PORTION OF FOREST (2,390 SQ.FT.) IS PROPOSED TO BE CLEARED ON LOT 4 FOR INSTALLATION OF THE CONCRETE LEVEL SPREADER AND FOR GRADING IN THE REAR YARD. FOREST CONSERVATION EASEMENTS HAVE BEEN PLACED OVER THE PRIORITY AREAS (STEEP SLOPES AND STREAM BUFFERS) TO MEET THE BREAK EVEN POINT, ALL OTHERS ARE CONSIDERED CLEARED FOR CALCULATION PURPOSES ONLY.

DRIVEWAY CROSS SECTION



LEVEL SPREADER DETAIL

NOT TO SCALE



HARMS
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1209 N. EAST STREET, FREDERICK, MD 21701
Office: 301/631-2027 FAX: 301/631-2028

NO.	REVISION	BY	DATE

SUPPLEMENTAL NOTES & DETAILS
ZUBOVIC SUBDIVISION, SECTION 1 - LOTS 4 & 5
(A RESUBDIVISION OF LOT 3, ZUBOVIC SUBDIVISION SECTION 1-PLAT#10149)
Tax Map 6, Parcel 158, Grid 1, Lot 3
Election District No. 4
Howard County, Maryland
Scale: 1" = 50'

DESIGNED BY: SJD
DRAWN BY: SIN
CHECKED BY: SJD
DATE: NOVEMBER 2008
W.D. NO. 08-06-0118

OWNER
WENDOL WILLIAMS
68 LANTERN HILL ROAD
MADISON, CONNECTICUT 06443

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Chief, Division of Land Development
12/11/08
12/9/08

MD DNR QUALIFIED PROFESSIONAL
Stephanie Demchik 11/26/08
STEPHANIE DEMCHIK, RLA MD #3638