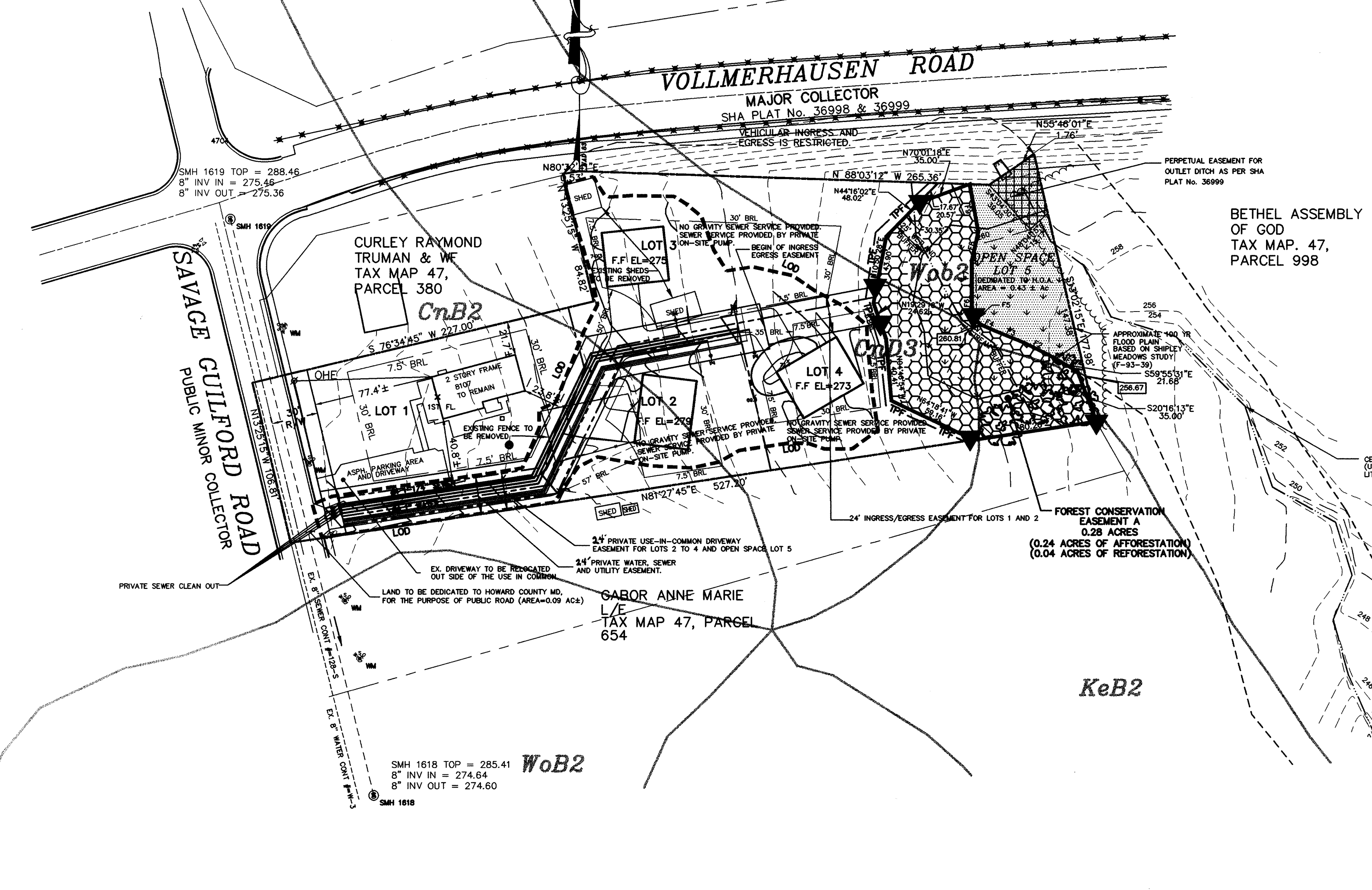
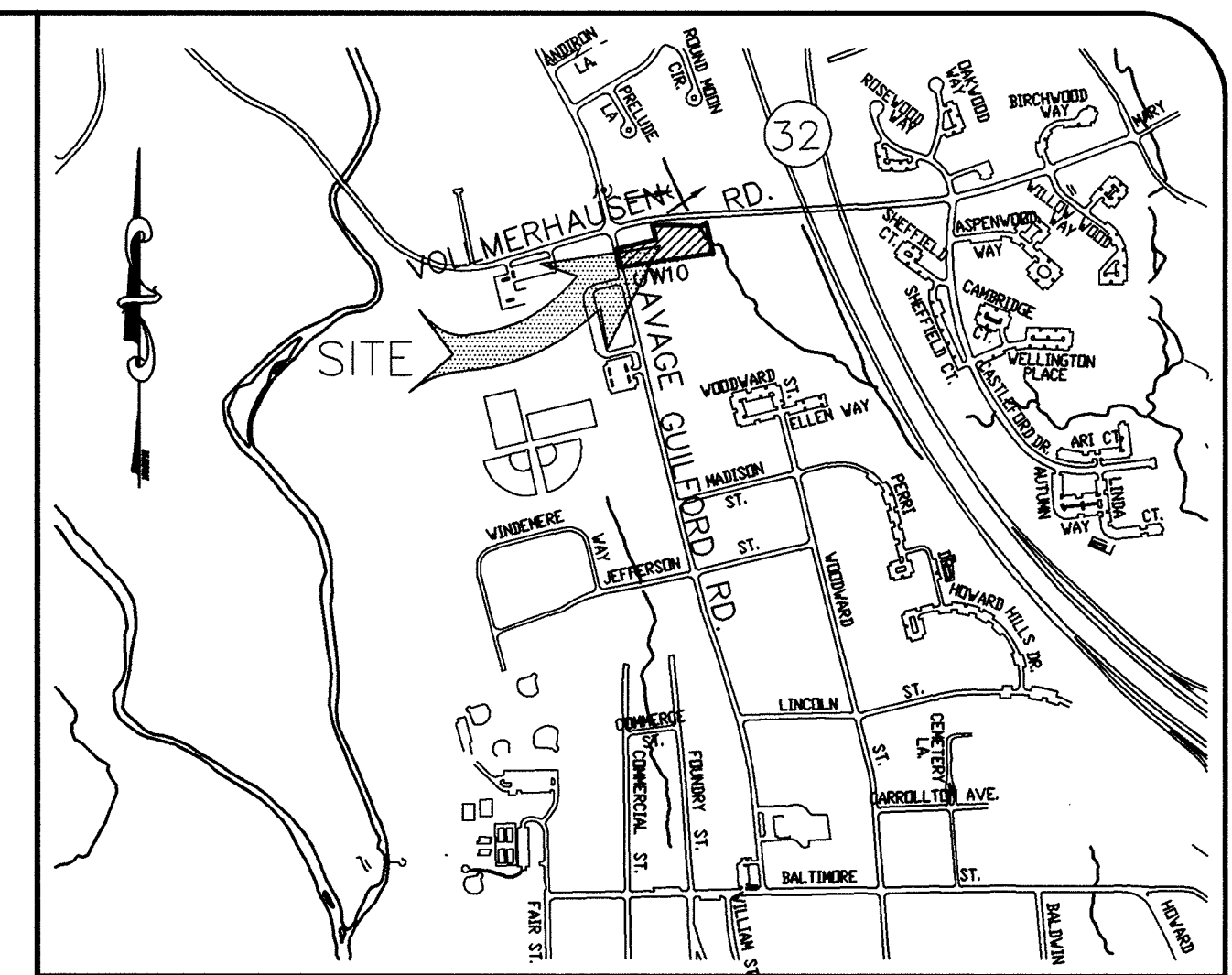


LINE	LENGTH	BEARING
F1	27.72	N59°55'31"W
F2	17.96	N63°54'11"W
F3	19.85	N67°32'08"W
F4	10.34	N66°35'13"W
F5	7.91	N46°12'34"W
F6	16.75	N00°00'00"W
F7	19.28	N00°00'00"W
F8	18.79	N12°38'33"E
F9	31.38	N10°04'53"W

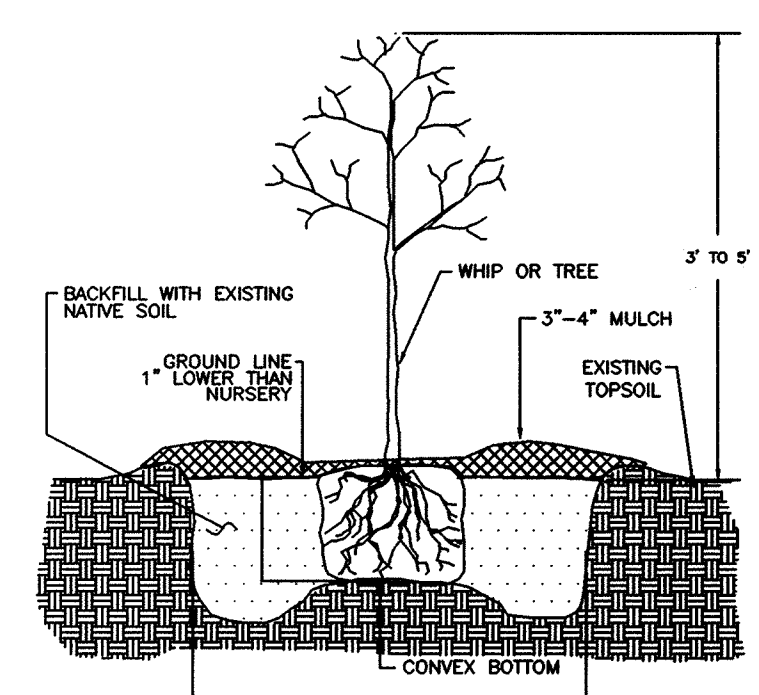


NOTE: THIS DRAWING IS TO BE USED FOR FOREST CONSERVATION PLAN PURPOSES ONLY.

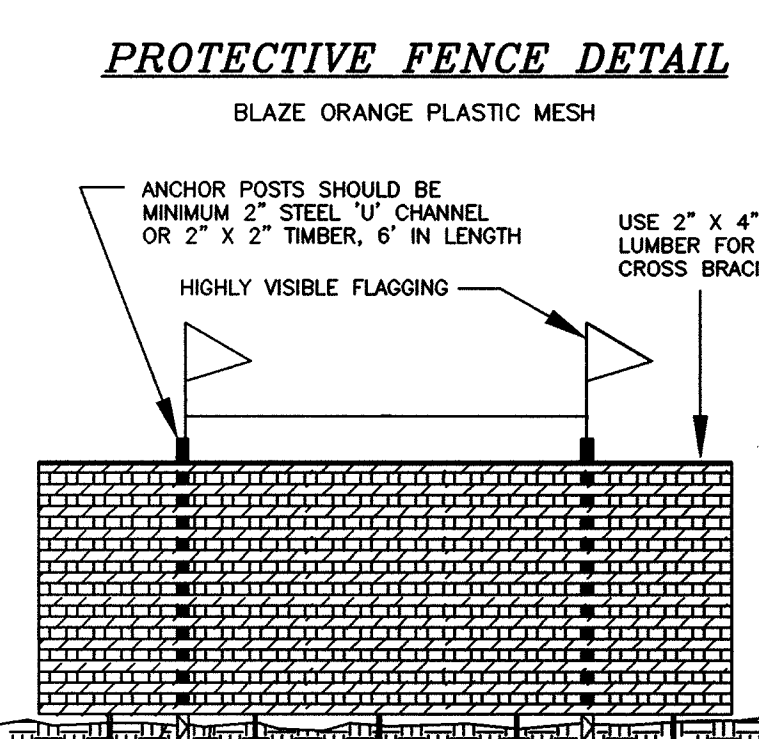
- NOTES:**
1. THE FOREST CONSERVATION EASEMENT HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1202 OF THE HOWARD COUNTY FOREST CONSERVATION ACT. THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION, OR DISTURBANCE OF VEGETATION IN THE FOREST CONSERVATION EASEMENTS EXCEPT AS PERMITTED BY THE HOWARD COUNTY FOREST CONSERVATION PROGRAM.
  2. FOREST CONSERVATION OBLIGATIONS IN ACCORDANCE WITH SECTION 16.1202 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION MANUAL HAS BEEN PROVIDED BY THE PLACEMENT OF 0.28 ACRES IN A FOREST CONSERVATION EASEMENT (0.24 ACRES OF AFFORESTATION AND 0.04 ACRES OF REFORESTATION), SURETY IN THE AMOUNT OF \$3,179.04 FOR 10,596.8 SQ.FT. HAS BEEN POSTED AS PART OF THE DPW DEVELOPER'S AGREEMENT. FOREST CONSERVATION CREDIT IN THE AMOUNT OF 1,600 SQ.FT. OF LANDSCAPING IS BEING TAKEN FOR THE FOUR (4) SHADE TREES AS SHOWN ON THIS PLAN TO BE PLANTED AS PART OF THE LANDSCAPE REQUIREMENTS. FINANCIAL SURETY FOR THESE TREES IS BEING POSTED AS PART OF THE LANDSCAPE SURETY REQUIRED WITH THE GRADING PERMIT FOR LOT 4.
  3. NO CLEARING, GRADING, OR CONSTRUCTION IS ALLOWED WITHIN THE WETLANDS, STREAMS, OR THEIR BUFFERS OR THE FLOODPLAIN AREA.



VICINITY MAP  
SCALE 1"=1000'



TREE PLANTING DETAIL  
SEE GENERAL NOTES "SITE PREPARATION AND SOILS" AND "PLANT INSTALLATION"



PROTECTIVE FENCE DETAIL  
BLAZE ORANGE PLASTIC MESH

**PLANTING SPECIFICATIONS AND NOTES**

- SITE PREPARATION AND SOILS**
1. PROTECTION FENCING AND SILT FENCES FOR SEDIMENT AND EROSION CONTROL ARE TO BE INSTALLED AS A FIRST ORDER OF BUSINESS. SEE PLAN FOR LOCATIONS.
  2. DISTURBANCE OF SOILS SHOULD BE LIMITED TO THE PLANTING FIELD FOR EACH PLANT. AS SHOWN ON THE DETAIL VIEW, A PLANTING FIELD OF RADIUS  $r = 5 \times$  DIAMETER OF THE ROOT BALL CONTAINER IS RECOMMENDED.
  3. SOIL MIX FOR ALL PLANTS EXCEPT ERICACEOUS MATERIAL SOIL MIX SHALL CONSIST OF EXISTING NATIVE TOPSOIL MIXTURE AT EACH PLANTING FIELD LOCATION INTO WHICH THE CONTRACTOR SHALL THOROUGHLY INCORPORATE 20% BY VOLUME OF COMPOSTED SLUDGE.
  4. 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 20% BY VOLUME PEAT MOSS.
  5. ALL MIXING 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**
1. FOR CONTAINER GROWN NURSERY STOCK, PLANTING SHOULD OCCUR WITHIN 2 WEEKS AFTER DELIVERY TO THE SITE.
  2. FOR BALL AND BURLAP NURSERY STOCK, PLANTING SHOULD OCCUR WITHIN THREE DAYS AFTER DELIVERY TO THE SITE.
  3. PLANTING STOCK SHOULD BE INSPECTED PRIOR TO PLANTING. PLANTS NOT CONFORMING TO STANDARD NURSERYMAN SPECIFICATIONS FOR SIZE, FORM, WOOD, ROOTS, TRUNK WOUNDS, INSECTS AND DISEASE SHOULD BE REPLACED.
  4. UNTIL PLANTED, ALL PLANT STOCK SHALL BE KEPT IN A SHADED, COOL, AND MOISTENED ENVIRONMENT.

- PLANT INSTALLATION**
1. THE PLANTING FIELD SHOULD BE PREPARED AS SPECIFIED (SEE DETAIL). NATIVE STOCKED SOILS SHOULD BE USED FOR SOIL MIX AND BACKFILL FOR PLANTING FIELD. AFTER PLANT INSTALLATION, RAKE SOILS EVENLY OVER THE PLANTING FIELD AND COVER WITH AT LEAST 4 INCHES OF WATER, GENEROUSLY, TO SETTLE SOIL BACKFILLED AROUND TREES.
  2. 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.
  3. 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.
  4. 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.
  5. J-SHAPED OR KINKED ROOT SYSTEMS SHOULD ALSO BE NOTED. ROOTS MAY NOT BE TRIMMED ON SITE, DUE TO THE INCREASED CHANCES OF SOIL BORNE DISEASES.
  6. 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.
  7. 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.
  8. 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.
  9. SPREAD A 2" TO 4" LAYER OF MULCH OVER THE ROOT AREA OF THE NEWLY PLANTED TREES AVOIDING CONTACT WITH THE TRUNK TO AVOID FUNGAL GROWTH.
  10. NEWLY PLANTED TREES WILL 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 LOOSENESS 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 SEVERE RAINFALL PATTERNS.

- FERTILIZING**
1. DO NOT FERTILIZE NEWLY PLANTED TREES WITHIN THE FIRST GROWING SEASON AFTER PLANTING. DOING SO MAY CAUSE A SPRUIT OF CANOPY GROWTH WHICH THE ROOTS CANNOT SUPPORT AND ADD ADDITIONAL SHOCK TO THE ALREADY DISTURBED PLANT.
  2. NOTHING SHOULD BE ADDED TO THE SOIL WITHOUT TESTING IT FIRST TO DETERMINE ITS NEEDS.
  3. 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 HAVE 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**
1. ANNUAL MAINTENANCE DURING THE GROWING SEASON, FOR A THREE YEAR PERIOD.
  2. ASSESS TREE MORTALITY OF PLANTING STOCK, REMOVE AND REPLACE ANY DEAD OR DISEASED PLANTINGS.
  3. VOLUNTEER SEEDING OF NATIVE, LOCAL AND ENDING VEGETATION IS TO BE EXPECTED. DO NOT DISCOURAGE THIS EFFORT UNLESS IT IS NEGATIVELY EFFECTING THE PLANTED STOCK.
  4. 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.
  5. REMOVE AND DISPOSE OF MAN-MADE TRASH, INCLUDING ITEMS CONTAINED WITHIN EXISTING PLANTING AREA. DO NOT REMOVE DOWN AND DEAD MATERIAL NATURALLY OCCURRING OR ACCUMULATING, UNLESS IT IS SMOTHERING PLANTING STOCK.
  6. 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.

**SUPERVISION**

ALL FOREST CONSERVATION ACTIVITIES SHALL BE DONE UNDER THE DIRECT SUPERVISION OF SOMEONE FROM THE DESIGN TEAM OR OTHER "QUALIFIED PROFESSIONAL" AS DETERMINED BY THE REQUIREMENTS OF COMAR 08.19.06.01 AND THE MARYLAND DEPARTMENT OF NATURAL RESOURCES, PUBLIC LANDS AND FORESTRY DIVISION.

**OWNER**  
BETHEL CROSSING LLC  
8107 SAVAGE GUILFORD ROAD  
JESSUP MD 20794-9672

**LEGEND**

- ⊙ EX. SANITARY SEWER MANHOLE
- EX. SANITARY SEWER CLEAN OUT
- ⊕ EX. WATER VALVE
- ⊕ EX. FIRE HYDRANT
- ⊕ EX. POWER POLE
- ⊕ EX. TELEPHONE PEDESTAL
- ⊕ EX. SIGN
- ⊕ EX. STORM DRAIN GRATE INLET
- ▨ FOREST CONSERVATION EASEMENT (AFFORESTATION & REFORESTATION)
- ▨ AFFORESTATION AND REFORESTATION SIGNAGE
- ▨ WETLANDS
- ▨ 100 YEAR FLOODPLAIN

**FOREST CONSERVATION WORKSHEET**

BASIC SITE DATA	ACRES	INFORMATION FOR CALCULATIONS	ACRES
GROSS SITE AREA.....	1.88 ACRES	A. NET TRACT AREA.....	1.74 ACRES
POWER LINE RIGHT-OF-WAY.....	0.00 ACRES	C. AFFORESTATION THRESHOLD (15% X A).....	0.26 ACRES
AREA WITHIN 100 YEAR FLOODPLAIN.....	0.14 ACRES	D. EXISTING FOREST ON NET TRACT AREA.....	0.02 ACRES
AREA WITHIN AGRICULTURAL USE OR PRESERVATION PARCEL.....	0.00 ACRES	E. FOREST AREAS TO BE CLEARED.....	0.02 ACRES
NET TRACT AREA.....	1.74 ACRES	F. FOREST AREAS TO BE RETAINED.....	0.00 ACRES
LAND USE CATEGORY (R-RLD, R-RMD, R-SC, C/I/O, I).....	R-SC		

**INFORMATION FOR CALCULATIONS**

A. NET TRACT AREA.....	1.74 ACRES	2. CLEARING BELOW THE MINIMUM	0.24 ACRES
B. REFORESTATION THRESHOLD (20% X A).....	0.35 ACRES	AFFORESTATION FOR UNFORESTED AREAS BELOW MINIM. (C-D) (EX2)	0.24 ACRES
C. AFFORESTATION MINIMUM (15% X A).....	0.26 ACRES	REFORESTATION FOR CLEARING BELOW MINIMUM.....	0.04 ACRES
D. EXISTING FOREST ON NET TRACT AREA.....	0.02 ACRES	TOTAL AFFORESTATION AND REFORESTATION REQUIRED.....	0.28 ACRES (C-D)+(EX2)
E. FOREST AREAS TO BE CLEARED.....	0.02 ACRES		
F. FOREST AREAS TO BE RETAINED.....	0.00 ACRES		

CREDIT FOR 4 PERIMETER LANDSCAPE TREES @ 400 SQ.FT. PER EACH..... 0.04 ACRES  
TOTAL AFFORESTATION AND REFORESTATION OBLIGATION REMAINING..... 0.24 ACRES

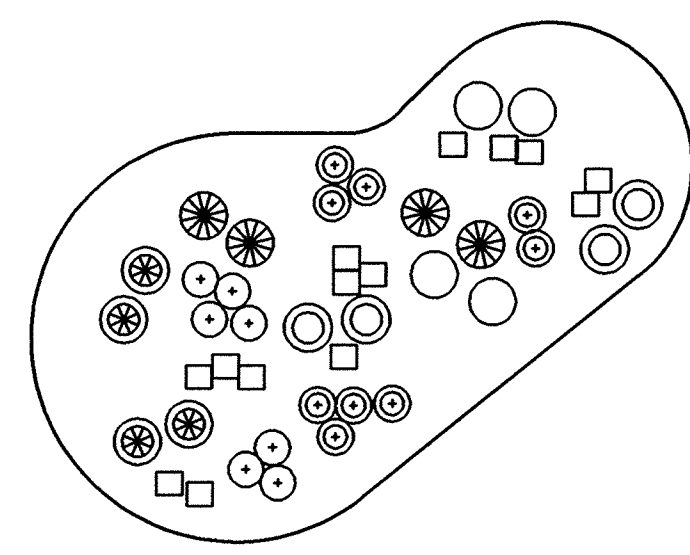
**SOILS DESCRIPTION**

SYMBOL	DESCRIPTION
CnB2	CHILLUM FAIRFAX LOAMS, 1% TO 5% SLOPES, MODERATELY ERODED - TYPE D
CnD3	CHILLUM FAIRFAX LOAMS, 5% TO 15% SLOPES, SEVERELY ERODED - TYPE D
KeB2	KELLY SILT LOAM 3% TO 8% SLOPES, MODERATELY ERODED - TYPE D
WoB2	WOODSTOWN SANDY LOAM, 1% TO 5% SLOPES, MODERATELY ERODED - TYPE C

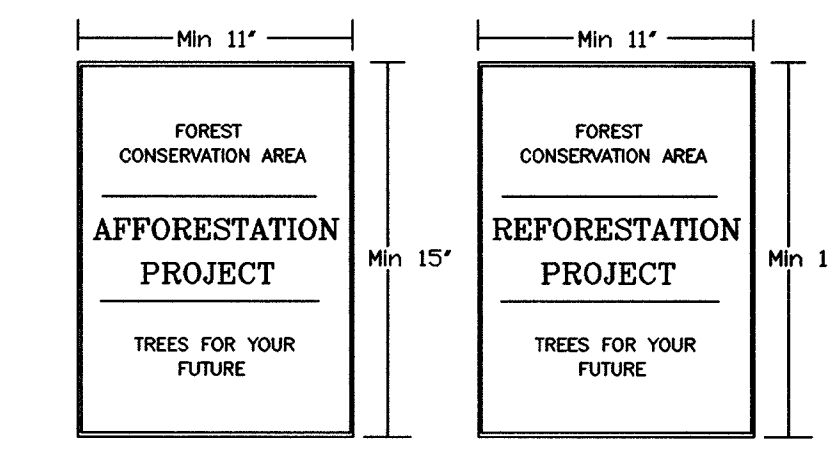
**PLANTING SCHEDULE**

QTY.	SPECIES	SHADE	MOIST.	WET.	MIN.O.C.	SIZE & REMARKS
		TOL.	REGIME	STATUS	SPACING	
5	PLATANUS OCCIDENTALIS AMERICAN SYCAMORE	M	M-W	FACW	15'	CONTAINER 1" CAL.
5	QUERCUS PALUSTRIS PIN OAK	I	M-W	FACW	15'	CONTAINER 1" CAL.
5	ACER SACCHARINUM SILVER MAPLE	I-VT	D-W	FACW	15'	CONTAINER 1" CAL.
5	NYSSA SYLVATICA BLACK GUM	T	M-W	FAC	15'	CONTAINER 1" CAL.
5	ACER NEGUNDO BOX ELDER	T	M-W	FAC+	8'	CONTAINER 3" - 5" HEIGHT
10	VIBURNUM DENTATUM SOUTHERN ARROWWOOD	T	M	FACW	11'	CONTAINER 3" - 5" HEIGHT
9	LINDERA BENZON SPOICEBUSH	T	M	FACW-	6'	CONTAINER 3" - 5" HEIGHT
TOTAL						48 TREES

NOTE: WHIPS OR SEEDLINGS MAY BE SUBSTITUTED FOR THE 1" CALIPER OR 3" - 5" TREES. IF WHIPS OR SEEDLINGS ARE TO BE USED, MULTIPLY THE QUANTITIES BY 3.5 TO DETERMINE THE NUMBER OF TREES REQUIRED. THE FOUR LANDSCAPE TREES LOCATED ON OPEN SPACE LOT 5 SHALL MEET THE SIZE REQUIREMENTS AS INDICATED IN THE LANDSCAPE MANUAL.

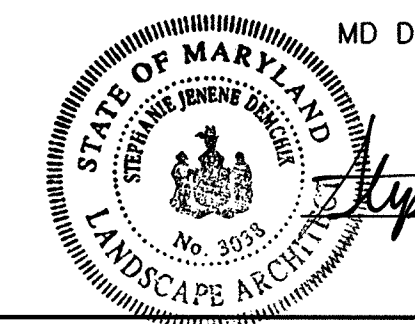


TYPICAL TREE PLANTING PLAN  
- SEE GENERAL NOTES 6 & 7 UNDER "PLANT INSTALLATION"  
- GROUND PLANE TO BE MULCHED AFTER INSTALLATION OF PLANT MATERIAL.



NOTE: SIGNS ARE PERMANENT AND TO BE MOUNTED ON DURABLE POSTS OR POLES (4"X4" PRESSURE TREATED LUMBER OR 2 1/2" DIAMETER GALVANIZED OR ALUMINUM POST, OR EQUIVALENT).

SIGNAGE DETAIL  
NOT TO SCALE



MD DNR QUALIFIED PROFESSIONAL

Stephanie Demchik 10/17/00  
STEPHANIE DEMCHIK

project	date	description	revisions
99049	SEPT 2000	engineering	KAS/SID approval
		SAAs	scale 1"=50'

no.	description	revisions	date

BETHEL CROSSING  
LOTS 1 THRU 4 AND OPEN SPACE LOT 5  
TAX MAP 47 - PARCEL 626 - BLOCK 5  
SIXTH ELECTION DISTRICT - HOWARD COUNTY, MARYLAND  
FOREST CONSERVATION PLAN

MILDENBERG, BOENDER & ASSOC., INC.  
Engineers Planners Surveyors  
5072 Dorsey Hill Drive, Suite 202, Ellicott City, Maryland 21042  
(410) 987-0286 Fax (301) 621-5521