

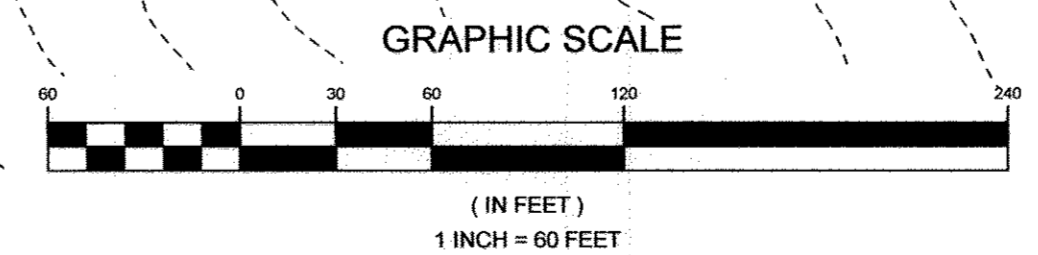
SOILS LEGEND				
SYMBOL	NAME / DESCRIPTION	GROUP	K' FACTOR	HYDRIC
Gc	CODORUS AND HATBORO SILT LOAMS, 0 TO 3 PERCENT SLOPES	C	0.32	YES
GgA	GLENELG LOAM, 0 TO 3 PERCENT SLOPES	B	0.28	NO
GgB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	B	0.28	NO
GgC	GLENELG LOAM, 8 TO 15 PERCENT SLOPES	B	0.28	NO
GhB	GLENVILLE-BAILE SILT LOAM, 0 TO 8 PERCENT SLOPES	C	0.43	YES
MaB	MANOR LOAM, 3 TO 8 PERCENT SLOPES	B	0.28	NO
MaC	MANOR LOAM, 8 TO 15 PERCENT SLOPES	B	0.28	NO
MaD	MANOR LOAM, 15 TO 25 PERCENT SLOPES	B	0.28	NO

NOTES:
 1) SOIL INFORMATION HAS BEEN TAKEN FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE; NATURAL RESOURCES CONSERVATION SERVICE; WEBER SOIL SURVEY
 2) HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR 'K' GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT.

LEGEND	
EXISTING CONTOUR	--- 382
EXISTING SPOT ELEVATION	382
EXISTING TREELINE	~~~~~
LIMIT OF WETLANDS	--- W --- W ---
WETLANDS BUFFER	--- WB --- WB ---
EXISTING STREAM	--- SB --- SB ---
STREAM BUFFER	--- SB --- SB ---
EXISTING WOOD FENCE	
EXISTING UTILITY POLE	o
EXISTING OVERHEAD WIRES	--- OH --- OH ---
EXISTING WETLANDS	↓ ↓ ↓
PUBLIC FOREST CONSERVATION EASEMENT	[Pattern]
PUBLIC FOREST CONSERVATION EASEMENT (NON-CREDIT) 0.91 AC±	[Pattern]
PRESERVATION EASEMENT BETWEEN HOWARD COUNTY, MD & M. NAJIB AND FANILA ROSHAN	[Pattern]
EXISTING MODERATE SLOPES 14% - 24.99%	[Pattern]
EXISTING STEEP SLOPES 25% OR GREATER (=0.48 AC±)	[Pattern]
FOREST CONSERVATION SIGN	●
EXISTING WELL	⊗

NOTE:
 THE DEPARTMENT OF PLANNING AND ZONING HAS DETERMINED THAT SINCE THERE IS NO RETENTION CREDIT IN THE FLOODPLAIN AREA, AND THE NEAREST RETENTION AREA IS OVER 400' AWAY FROM THE FLOODPLAIN AREA, A 100-YEAR FLOOD PLAN DELINEATION IS NOT REQUIRED FOR THIS PROJECT. THE FLOODPLAIN SHOWN HEREON HAS BEEN APPROXIMATED BY USING THE ELEVATIONS FROM STUDIES COMPLETED FOR ADJACENT PROPERTIES IN CONJUNCTION WITH ARIEL TOPOGRAPHY.

SITE DATA CHART	
LOCATION: TAX MAP 15, GRID 17, PARCEL 18	ELECTION DISTRICT: 3
DEED/PLAT REFERENCES: L 16573, F 338	PRESENT ZONING: RC-DEO
SUBDIVISION: ROSHAN PROPERTY	SECTION/AREA: N/A
SITE ADDRESS: 2770 ROUTE 32, WEST FRIENDSHIP, MARYLAND 21794	TOTAL BUILDING COVERAGE: 0.09 AC±
USE OF STRUCTURE: RESIDENTIAL	APPROXIMATED WETLANDS ON-SITE: ~ 4.66 AC±
APPROXIMATED WETLAND BUFFER ON-SITE: ~ 2.19 AC±	APPROXIMATED STREAM AREA: ~ 2.61 LF
APPROXIMATED STREAM BUFFER ON-SITE: ~ 7.98 AC±	APPROXIMATED AREA OF ON-SITE 100 YEAR FLOODPLAIN: ~ 3.32 AC±
AREA OF STEEP SLOPES: ~ 0.48 AC±	AREA OF EXISTING FOREST ON-SITE: ~ 4.39 AC±
ERODIBLE SOILS AND FLOODPLAIN AREA: ~ 0.00 AC±	DIPZ REFERENCES: RE-16-004, RE-16-004(S3)(FC1)
SITE AREA: 26.59 AC±	LIMIT OF DISTURBED AREA: N/A

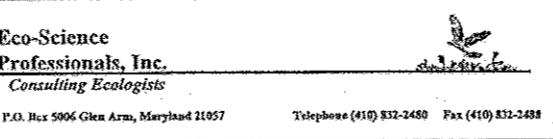


APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
J. Mauch for KS 1-17-18
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY
Dr. Diana M. Ross 1/12/2018
 COUNTY HEALTH OFFICER DATE
 HOWARD COUNTY HEALTH DEPARTMENT

NO.	DESCRIPTION	DATE

MD DNR Qualified Professional
 USACOE Wetland Delineator
 Certification # WDCP93MD0610044B2
John P. Candies Date: 1/12/18



OWNER/DEVELOPER
 M. NAJIB ROSHAN AND FANILA ROSHAN
 2770 STATE ROUTE 32
 WEST FRIENDSHIP, MARYLAND 21794
 240.508.3200

SIMPLIFIED FOREST STAND DELINEATION & FOREST CONSERVATION PLAN
ROSHAN PROPERTY
FOREST CONSERVATION MITIGATION BANK
 L 16573, F 338
 ZONED: RC-DEO
 TAX MAP 15 GRID 17
 3RD ELECTION DISTRICT
 PARCEL 18, ZONED RC-DEO
 HOWARD COUNTY, MARYLAND

SILL ENGINEERING GROUP, LLC
 11130 Dovedale Court, Suite 200
 Marriottsville, Maryland 21104
 Phone: 443.325.5076
 Fax: 410.696.2022
 Email: info@sillengineering.com
 Civil Engineering for Land Development

DESIGN BY: PS
 DRAWN BY: PS/AEA
 CHECKED BY: PS
 SCALE: 1"=60'
 DATE: JUNE 21, 2017
 PROJECT #: 14-052
 SHEET #: 2 of 3

EXISTING CONDITIONS OVERVIEW

THE SUBJECT PROPERTY IS A 26.7-ACRE PARCEL LOCATED AT 2770 MARYLAND ROUTE 32 IN THE WEST FRIENDSHIP SECTION OF HOWARD COUNTY, MARYLAND. THE PROPERTY INCLUDES A SINGLE FAMILY HOME THAT IS SURROUNDED BY LAWN AREA. ACCESSORY USES AROUND THE HOME INCLUDE PLAYSETS, STORAGE, A POOL AND GARDEN AREAS. THE MAJORITY OF THE SITE WAS PREVIOUSLY USED AS PASTURE THOUGH NO CURRENT PASTURE USES OCCURRING. A SMALL BARN IS LOCATED TO THE SOUTH OF THE HOUSE AND LAWN AREA. LANDSCAPING AROUND THE HOUSE AND YARD INCLUDES RED BUD, HYDRANGEA, AZALEAS, RHODODENDRON, JAPANESE MAPLE AND HOLLY. SCATTERED TREES ARE PRESENT WITHIN THE LAWN AREAS ALSO. RED MAPLE, WHITE OAK, PIGNUT HICKORY AND BLACK CHERRY ARE COMMONLY OBSERVED IN THE TREED LAWN.

THE HOUSE IS LOCATED ON A KNOLL THAT OVERLOOKS THE PROPERTY. FOREST AREAS ARE PRESENT AROUND THE HOME AND ALONG THE ADJACENT SLOPES. THE FOREST COMMUNITY IS COMPRISED OF A MIXED OAK STAND THAT INCLUDES WHITE OAK, BLACK OAK, AND TULIP POPLAR IN ITS CANOPY. FLOWERING DOGWOOD, BLACK CHERRY, BLACK WALNUT AND RED MAPLE WERE ALSO NOTED, MOST COMMONLY IN THE UNDERSTORY OF THE COMMUNITY. THE CANOPY TREES ARE GENERALLY 12-29 INCHES DIAMETER AT BREAST HEIGHT WITH SEVERAL LARGER INDIVIDUALS NOTED. SPECIMEN TREES ARE PRESENT WITHIN THE LAWN AROUND THE HOME AND WITHIN THE FOREST.

THE SHRUB LAYER OF THE FOREST IS LIMITED BUT DOES CONTAIN SPICEBUSH AND SHADBUSH. ORIENTAL BITTERSWEET, JAPANESE STILT GRASS, AND VIRGINIA CREEPER WERE ALL NOTED IN THE HERBACEOUS LAYER. SOME VINE GROWTH EXTENDS INTO THE UPPER VEGETATIVE LAYERS.

A SMALL FARM POND IS PRESENT IN THE IN THE VALLEY BELOW THE HOMESTEAD, JUST WEST OF THE BARN. THIS POND APPEARS TO HAVE BEEN CREATED BY EXCAVATION OF A HEADWATER WETLAND. THE POND IS DOMINATED BY OPEN WATER BUT DOES HAVE CATTAILS AND BLACK WILLOWS GROWING ALONG THE OUTER FRINGE. THE POND OUTFALLS TO PERENNIAL STREAM CHANNEL THAT CUTS THROUGH THE PASTURE. THE STREAM DRAINS ACROSS THE SITE AND JOINS WITH A LARGER TRIBUTARY FLOW FROM NORTH TO SOUTH THE EASTERN END OF THE SITE. A LARGE 100 YEAR FLOODPLAIN HAS BEEN MAPPED FOR THIS LARGER TRIBUTARY.

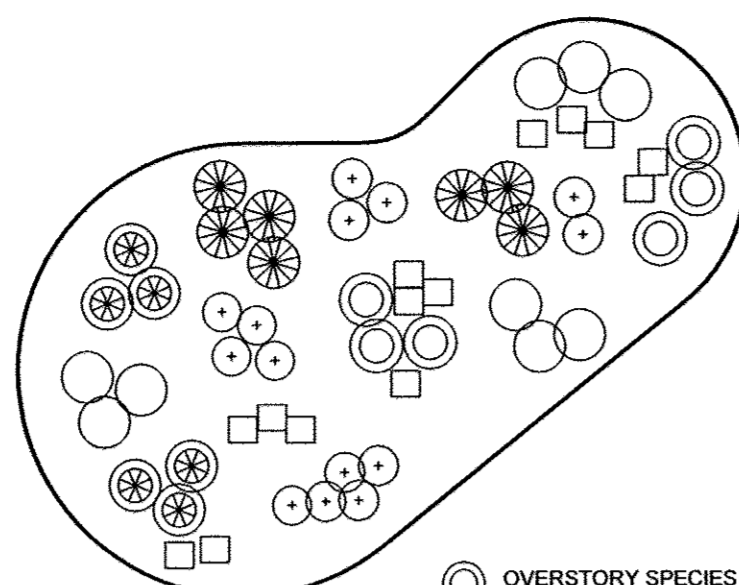
WETLAND DEVELOPMENT IS PRESENT ALONG THE STREAMSIDE TERRACES AND WITHIN THE 100 YEAR FLOODPLAIN. THE WETLANDS APPEAR TO HAVE BEEN MAINTAINED AS PART OF THE PASTURE COMPLEX, THOUGH RECENTLY MAINTENANCE HAS BEEN LIMITED. VEGETATION WITHIN THE WETLANDS INCLUDES BLUE VERVAIN, SOFT RUSH, NEW YORK IRONWEED, FOXTAIL SEDGE, LURID SEDGE AND MANY HEADED SEDGE. RED MAPLE AND SYCAMORE ARE PRESENT WITHIN THE FLOODPLAIN WETLANDS ADJACENT TO THE MAINSTREAM CHANNEL.

A LARGE PERCENTAGE OF THE PROPERTY IS UPLAND OLDFIELD/PASTURE. THOUGH THESE AREAS WERE PREVIOUSLY MAINTAINED AS PASTURE THEY HAVE NOT BEEN ROUTINELY MOWED THIS SEASON. NOTABLE VEGETATION WITHIN THE UPLAND OLD FIELDS INCLUDES COMMON MILKWEED, CURLED DOCK, KENTUCKY FESCUE, CANADA TRISTLE, AGRIMONY, GOLDENRODS, AND ASTERS. SOME MULTIFLORA ROSE AND RASPBERRY COLONIZATION IS OCCURRING WITHIN THE FIELDS.

FOREST CONSERVATION BANK PROPOSAL

THE PROPERTY OWNERS ARE SEEKING TO CREATE A FOREST CONSERVATION BANK THAT WILL INCLUDE APPROXIMATELY 1.86 ACRES OF FOREST RETENTION (OUTSIDE OF THE 100 YEAR FLOODPLAIN) AND 12.39 ACRES OF AFFORESTATION. THE PLANTING AREAS WILL CREATE A LARGE CONTIGUOUS FOREST BLOCK THAT WILL EXPAND THE ONSITE FOREST RESOURCES. THE PLANTING AREAS WILL ALSO BE CONTIGUOUS WITH OFFSITE FOREST EXPANDING THE OVERALL VALUE OF THE PLANTING. THE PLANTINGS WILL INCREASE FOREST RESOURCES AND HABITAT FUNCTION IN THE AREA OF THE SITE AND WILL PROVIDE ENHANCEMENT WATER QUALITY BENEFIT WHERE PLANTINGS OCCUR WITHIN WETLANDS, BUFFERS AND FLOODPLAIN.

THE PLANTING PLAN HAS BEEN DESIGNED TO CREATE A NATURAL COMMUNITY WITH A MIX OF SUCCESSIONAL ELEMENTS. EARLY SUCCESSIONAL SPECIES HAVE BEEN FAVORED TO PROMOTE NATURAL COMMUNITY DEVELOPMENT WHILE SOME LATER SUCCESSIONAL SPECIES HAVE BEEN INCLUDED TO INCREASE DIVERSITY AND PROMPT FUTURE SUCCESSION.



THIS DIAGRAM SHOWS A TYPICAL DISPERSAL OF SPECIES WITHIN PLANTING AREA. THE SPACING SHALL BE IN ACCORDANCE WITH THE APPROVED PLANTING SCHEDULE. WHERE THE SIZE OF THE PLANTING STOCK VARIES, THE PLANTING UNITS SHALL INSTALLED AT AVERAGE SPACING TO PROVIDE APPROXIMATELY UNIFORM COVERAGE.

RANDOM PLANTING DISTRIBUTION PLAN

NOT TO SCALE

FOREST CONSERVATION SIGN DETAIL

NOT TO SCALE

- NOTES:
- BOTTOM OF SIGN TO BE HIGHER THAN TOP OF TREE PROTECTION FENCE.
 - SIGNS TO BE PLACED APPROXIMATELY 50' APART. CONDITIONS ON SITE AFFECTING VISIBILITY MAY WARRANT PLACING SIGNS CLOSER OR FARTHER APART.
 - ATTACHMENT OF SIGNS TO TREES IS PROHIBITED.
 - SEE SDP 16-041 FOR SIGN LOCATIONS.
 - SIGNAGE SHALL BE IN PLACE FOR PERPETUITY.

PLANTING SCHEDULE

FCE 2 - AFFORESTATION AREA - 7.53 ACRES					
PLANTING UNITS REQUIRED: 5271					
PLANTING UNITS PROVIDED: 5272					
QUANTITY	SPECIES	SIZE	SPACING	TOTAL FCA UNITS	
225	ACER NEGUNDO - BOX ELDER	2-3' WHIP	11' O.C.		
331	ACER RUBRUM - RED MAPLE	2-3' WHIP	11' O.C.		
250	JUGLANS NIGRA - BLACK WALNUT *	2-3' WHIP	11' O.C.		
225	JUNIPERUS VIRGINIANA - RED CEDAR	2-3' WHIP	11' O.C.		
300	LIRIODENDRON TULIPIFERA - TULIP POPLAR *	2-3' WHIP	11' O.C.		
300	NYSSA SYLVATICA - BLACK GUM	2-3' WHIP	11' O.C.		
300	PLATANUS OCCIDENTALIS - SYCAMORE	2-3' WHIP	11' O.C.		
300	PRUNUS SEROTINA - BLACK CHERRY *	2-3' WHIP	11' O.C.		
155	QUERCUS PALUSTRIS - PIN OAK	2-3' WHIP	11' O.C.		
250	VIBURNUM PRUNIFOLIUM - BLACKHAW *	2-3' WHIP	11' O.C.		
2636	TOTAL WHIP PLANTINGS X 2 UNITS / TREE = FCA UNIT CREDIT			5272	
	TOTAL UNIT CREDIT				5272

FCE 3 - AFFORESTATION AREA - 4.9 ACRES					
PLANTING UNITS REQUIRED: 3430					
PLANTING UNITS PROVIDED: 3430					
QUANTITY	SPECIES	SIZE	SPACING	TOTAL FCA UNITS	
150	ACER NEGUNDO - BOX ELDER	2-3' WHIP	11' O.C.		
250	ACER RUBRUM - RED MAPLE	2-3' WHIP	11' O.C.		
215	BETULA NIGRA - RIVER BIRCH	2-3' WHIP	11' O.C.		
50	JUGLANS NIGRA - BLACK WALNUT *	2-3' WHIP	11' O.C.		
50	LIRIODENDRON TULIPIFERA - TULIP POPLAR *	2-3' WHIP	11' O.C.		
200	NYSSA SYLVATICA - BLACK GUM	2-3' WHIP	11' O.C.		
200	PLATANUS OCCIDENTALIS - SYCAMORE	2-3' WHIP	11' O.C.		
50	PRUNUS SEROTINA - BLACK CHERRY *	2-3' WHIP	11' O.C.		
200	QUERCUS PALUSTRIS - PIN OAK **	2-3' WHIP	11' O.C.		
150	SALIX NIGRA - BLACK WILLOW **	2-3' WHIP	11' O.C.		
150	ULMUS RUBRA - SLIPPERY ELM	2-3' WHIP	11' O.C.		
50	VIBURNUM PRUNIFOLIUM - BLACKHAW *	2-3' WHIP	11' O.C.		
1715	TOTAL WHIP PLANTINGS X 2 UNITS / TREE = FCA UNIT CREDIT			3430	
	TOTAL UNIT CREDIT				3430

PLANTING NOTES:

- PLANTING DENSITY BASED SPACING REQUIREMENTS: WHIPS WITH SHELTER @ 11' ON CENTER.
- * - THESE SPECIES SHOULD NOT BE PLANTED IN WETLANDS
 - ** - THESE SPECIES SHOULD NOT BE PLANTED IN UPLANDS

PLANTING MAY BE MADE IN A CURVILINEAR FASHION ALONG CONTOUR. THE PLANTING SHOULD AVOID A GRID APPEARANCE BUT SHOULD BE SPACED TO FACILITATE MAINTENANCE.

MULTIFLORA ROSE/HEAVY BRUSH REMOVAL/CONTROL MAY BE REQUIRED PRIOR TO INSTALLATION OF PLANTING.

ALL WHIPS ARE REQUIRED TO BE INSTALLED WITH TREE SHELTERS PER HOWARD COUNTY FCA REQUIREMENTS.

PLANTING UNITS DEFINED BY THE SPACING REQUIREMENTS ESTABLISHED IN THE FCA MANUAL. ONE PLANT UNIT IS DEFINED AS 1 SEEDLING OR WHIP WITHOUT SHELTER. THE MANUAL STATES THAT 700 SEEDLINGS/WHIPS WITHOUT SHELTERS ARE REQUIRED PER ACRE, OR 350 WHIPS WITH SHELTERS, OR 200 1" CALIPER TREES, OR 100 2" CALIPER TREES. BY CONVERSION IT HAS BEEN DETERMINED THAT A SEEDLING OR WHIP WITHOUT SHELTER = 1 UNIT, WHIP WITH SHELTER = 2 UNITS, 1" CALIPER TREE = 3.5 UNITS AND 2" CALIPER TREE = 7 UNITS. THE USE OF PLANT UNITS SIMPLIFIES THE PLANT DENSITY CALCULATIONS WHEN MIXING STOCK SIZE.

AFFORESTATION PLAN

THE AFFORESTATION AREA WILL BE PLACED INTO A FOREST CONSERVATION EASEMENT.

A. PLANTING PLAN AND METHODS

PLANT SPECIES SELECTION WAS BASED ON OUR KNOWLEDGE REGARDING PLANT COMMUNITIES IN MARYLAND'S PIEDMONT PLATEAU AND INFORMATION PROVIDED IN THE SOIL SURVEY ON TYPICAL VEGETATION FOR THE SOIL TYPE ON THE PLANTING SITE. SPECIES SELECTION WAS ALSO BASED ON OUR KNOWLEDGE OF PLANT AVAILABILITY IN THE NURSERY INDUSTRY.

AFFORESTATION WILL BE ACCOMPLISHED THROUGH A MIXED PLANTING OF WHIPS AND BRANCHED TRANSPLANTS. CONTAINER GROWN STOCK IS RECOMMENDED BUT BAREROOT STOCK MAY BE USED TO HELP CONTROL AFFORESTATION COSTS. IF BAREROOT STOCK IS USED THE ROOT SYSTEMS OF ALL PLANTS WILL BE DIPPED IN AN ANTI-DESICCANT GEL PRIOR TO PLANTING TO IMPROVE MOISTURE RETENTION IN THE ROOT SYSTEMS.

PRIOR TO PLANTING THE PROPOSED FOREST CONSERVATION EASEMENTS ALL MULTIFLORA ROSE IN THE PLANTING AREA SHALL BE REMOVED. REMOVAL OF THE ROSE MAY BE PERFORMED WITH MOWING AND HERBICIDE TREATMENTS. PHYSICAL REMOVAL OF ALL TOP GROWTH FOLLOWING BY A PERIODIC HERBICIDE TREATMENT OF STUMP SPROUTS IS RECOMMENDED. NATIVE TREE AND SHRUB SPECIES OCCURRING WITHIN THE ROSE THICKETS SHOULD BE RETAINED WHEREVER POSSIBLE. HERBICIDES TREATMENTS SHALL OCCUR ON 2 MONTH INTERVALS DURING THE FIRST GROWING SEASON AND ONCE EACH IN THE SPRING AND FALL FOR SUBSEQUENT YEARS. HERBICIDE USED SHALL BE MADE SPECIFICALLY TO ADDRESS WOODY PLANT MATERIAL AND SHALL BE APPLIED AS PER MANUFACTURERS SPECIFICATIONS. CARE SHOULD BE TAKEN NOT TO SPRAY PLANTED TREES OR NATURALLY OCCURRING NATIVE TREE/SHRUB SEEDLINGS. IT IS RECOMMENDED THAT INITIATION OF ROSE REMOVAL BEGIN AT LEAST SIX MONTHS PRIOR TO PLANTING.

B. PLANTING AND SOIL SPECIFICATIONS

PLANT MATERIAL WILL BE INSTALLED IN ACCORDANCE WITH THE PLANTING DETAIL AND PLANTING SPECIFICATIONS SHOWN ON THE FOREST CONSERVATION PLAN.

AMENDMENTS TO EXISTING SOIL WILL BE IN ACCORDANCE WITH THE PLANTING SPECIFICATIONS SHOWN ON THE FOREST CONSERVATION PLAN. SOIL DISTURBANCE WILL BE LIMITED TO INDIVIDUAL PLANTING LOCATIONS.

C. GUARANTEE REQUIREMENTS

A 90 PERCENT SURVIVAL RATE OF THE AFFORESTATION PLANTINGS WILL BE REQUIRED AFTER ONE GROWING SEASON. ALL PLANT MATERIAL BELOW THE 90 PERCENT SURVIVAL THRESHOLD WILL BE REPLACED AT THE BEGINNING OF THE SECOND GROWING SEASON. AT THE END OF THE SECOND GROWING SEASON, A 75 PERCENT SURVIVAL RATE WILL BE REQUIRED. ALL PLANT MATERIAL BELOW THE 75 PERCENT SURVIVAL THRESHOLD WILL BE REPLACED BY THE BEGINNING OF THE NEXT GROWING SEASON.

D. SECURITY FOR AFFORESTATION

SECTION 16-1209 OF THE HOWARD COUNTY FOREST CONSERVATION ACT REQUIRES THAT A DEVELOPER SHALL POST A SECURITY (BOND, LETTER OF CREDIT, ETC.) WITH THE COUNTY TO INSURE THAT ALL WORK IS DONE IN ACCORDANCE WITH THE FCP.

NOTE: TOTAL AREA OF FOREST CONSERVATION MITIGATION BANK AREA IS 14.25 ACRES (1.88 ACRES OF RETENTION AND 12.39 ACRES OF AFFORESTATION) LOCATED WITHIN THREE FOREST CONSERVATION EASEMENTS. THE TOTAL SURETY REQUIRED FOR THE AFFORESTATION PORTION OF THE BANK IS \$269,855.00 WHICH WILL BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT FOR THIS PLAN.

CONSTRUCTION PERIOD PROTECTION PROGRAM

A. FOREST PROTECTION TECHNIQUES

1. SOIL PROTECTION AREA (CRITICAL ROOT ZONE): THE SOIL PROTECTION AREA, OR CRITICAL ROOT ZONE, OF A TREE IS THAT PORTION OF THE SOIL COLUMN WHERE MOST OF ITS ROOTS MAY BE FOUND. THE MAJORITY OF ROOTS RESPONSIBLE FOR WATER AND NUTRIENT UPTAKE ARE LOCATED JUST BELOW THE SOIL SURFACE. TEMPORARY FENCING SHALL BE PLACED AROUND THE CRITICAL ROOT ZONE OF THE FOREST IN AREAS WHERE THE FOREST LIMITS OCCUR WITHIN 25 FEET OF THE LIMIT OF DISTURBANCE.

2. FENCING AND SIGNAGE: EXISTING FOREST LIMITS OCCURRING WITHIN 25 FEET OF THE LIMITS OF DISTURBANCE SHALL BE PROTECTED USING TEMPORARY PROTECTIVE FENCING. PERMANENT SIGNAGE SHALL BE PLACED AROUND THE AFFORESTATION AREA PRIOR TO PLANT INSTALLATION, AS SHOWN ON THE PLAN.

B. PRE-CONSTRUCTION MEETING: UPON STAKING OF LIMITS OF DISTURBANCE A PRE-CONSTRUCTION MEETING WILL BE HELD BETWEEN THE DEVELOPER, CONTRACTOR AND APPROPRIATE COUNTY INSPECTOR. THE PURPOSE OF THE MEETING WILL BE TO VERIFY THAT ALL SEDIMENT CONTROL IS IN ORDER, AND TO NOTIFY THE CONTRACTOR OF POSSIBLE PENALTIES FOR NON-COMPLIANCE WITH THE FCP.

C. STORAGE UTILITIES/EQUIPMENT CLEANING: ALL EQUIPMENT STORAGE, PARKING, SANITARY FACILITIES, MATERIAL STOCKPILING, ETC. ASSOCIATED WITH CONSTRUCTION OF THE PROJECT WILL BE RESTRICTED TO THOSE AREAS OUTSIDE OF THE PROPOSED FOREST CONSERVATION EASEMENT. CLEANING OF EQUIPMENT WILL BE LIMITED TO AREA WITHIN THE LOD OF THE PROPOSED HOMESTIES. WASTEWATER RESISTANT EQUIPMENT CLEANING WILL BE CONTROLLED TO PREVENT RUNOFF INTO ENVIRONMENTALLY SENSITIVE AREAS.

D. SEQUENCE OF CONSTRUCTION

THE FOLLOWING TIMETABLE REPRESENTS THE PROPOSED TIMETABLE FOR THE PROJECT, BELOW FIND A PROPOSED SEQUENCE OF CONSTRUCTION:

- BEGIN MULTIFLORA ROSE REMOVAL. INSTALL PERMANENT PROTECTIVE SIGNAGE FOR EASEMENTS AND INITIATE PLANTINGS IN ACCORDANCE WITH FOREST CONSERVATION PLAN.
- HOLD POST-CONSTRUCTION MEETING WITH COUNTY INSPECTORS TO ASSURE COMPLIANCE WITH FCP. SUBMIT CERTIFICATION OF INSTALLATION.
- MONITOR AND MAINTAIN PLANTINGS FOR 2 YEARS.

E. CONSTRUCTION MONITORING: ECO-SCIENCE PROFESSIONALS, OR ANOTHER QUALIFIED PROFESSIONAL DESIGNATED BY THE DEVELOPER, WILL MONITOR CONSTRUCTION OF THE PROJECT TO ENSURE THAT ALL ACTIVITIES ARE IN COMPLIANCE WITH THE FOREST CONSERVATION PLAN.

F. POST-CONSTRUCTION MEETING: UPON COMPLETION OF CONSTRUCTION, ECO-SCIENCE PROFESSIONALS, OR ANOTHER QUALIFIED PROFESSIONAL DESIGNATED BY THE DEVELOPER, WILL NOTIFY THE COUNTY THAT CONSTRUCTION HAS BEEN COMPLETED AND ARRANGE FOR A POST-CONSTRUCTION MEETING TO REVIEW THE PROJECT SITE. THE MEETING WILL ALLOW THE COUNTY INSPECTOR TO VERIFY THAT AFFORESTATION PLANTINGS HAVE BEEN INSTALLED.

POST-CONSTRUCTION MANAGEMENT PLAN

HOWARD COUNTY REQUIRES A TWO YEAR POST-CONSTRUCTION MANAGEMENT PLAN BE PREPARED AS PART OF THE FOREST CONSERVATION PLAN. THE PLAN GOES INTO EFFECT UPON ACCEPTANCE OF THE CONSTRUCTION CERTIFICATION OF COMPLETION BY THE COUNTY. ECO-SCIENCE PROFESSIONALS, OR ANOTHER QUALIFIED PROFESSIONAL DESIGNATED BY THE DEVELOPER, WILL BE RESPONSIBLE FOR IMPLEMENTATION OF THE POST-CONSTRUCTION MANAGEMENT PLAN.

- THE FOLLOWING ITEMS WILL BE INCORPORATED INTO THE PLAN:
- FENCING AND SIGNAGE: PERMANENT SIGNAGE INDICATING THE LIMITS OF THE RETENTION/AFFORESTATION AREAS TO BE PLACED IN FOREST CONSERVATION ASSESSMENTS SHALL BE MAINTAINED.
 - GENERAL SITE INSPECTIONS/MAINTENANCE OF PLANTINGS: SITE INSPECTIONS WILL BE PERFORMED A MINIMUM OF THREE TIMES DURING THE GROWING SEASON. THE PURPOSE OF THE INSPECTIONS WILL BE TO ASSESS THE HEALTH OF THE AFFORESTATION PLANTINGS. APPROPRIATE MEASURES WILL BE TAKEN TO RECTIFY ANY PROBLEMS WHICH MAY ARISE.

IN ADDITION, MAINTENANCE OF THE AFFORESTATION PLANTINGS WILL INVOLVE THE FOLLOWING STEPS:

- WATERING - ALL PLANT MATERIAL SHALL BE WATERED TWICE A MONTH DURING THE 1ST GROWING SEASON. MORE FREQUENTLY DEPENDING ON WEATHER CONDITIONS. DURING THE SECOND GROWING SEASON, ONCE A MONTH DURING MAY-SEPTEMBER, IF NEEDED.
 - REMOVAL OF INVASIVE EXOTICS AND NOXIOUS WEEDS. OLD FIELD SUCCESSIONAL SPECIES WILL BE RETAINED.
 - IDENTIFICATION OF SERIOUS PLANT PESTS AND DISEASES, TREATMENT WITH APPROPRIATE AGENT.
 - PRUNING OF DEAD BRANCHES.
 - AFTER 12 AND 24 MONTHS, REPLACEMENT OF PLANTS, IF REQUIRED, IN ACCORDANCE WITH THE GUARANTEE REQUIREMENTS SHOWN ON THE FCP.
- C. EDUCATION: THE BANK DEVELOPER WILL PROVIDE APPROPRIATE MATERIALS TO SUBSEQUENT PROPERTY OWNERS INFORMING THEM OF THE LOCATION AND PURPOSE OF THE FOREST CONSERVATION EASEMENTS ON THE PROPERTY. MATERIALS MAY INCLUDE SITE PLANS AND INFORMATION EXPLAINING THE INTENT OF THE FOREST CONSERVATION LAW.
- D. FINAL INSPECTION: AT THE END OF THE TWO YEAR POST-CONSTRUCTION MANAGEMENT PERIOD, ECO-SCIENCE PROFESSIONALS, OR ANOTHER QUALIFIED PROFESSIONAL, WILL SUBMIT TO THE ADMINISTRATOR OF THE HOWARD COUNTY FOREST CONSERVATION PROGRAM CERTIFICATION THAT ALL RETENTION/AFFORESTATION REQUIREMENTS HAVE BEEN MET. UPON ACCEPTANCE OF THIS CERTIFICATION, THE COUNTY WILL RELEASE THE DEVELOPER FROM ALL FUTURE OBLIGATIONS AND RELEASE THE DEVELOPER'S BOND.

OWNER/DEVELOPER

M. NAJIB ROSHAN AND FANILA ROSHAN
2770 STATE ROUTE 32
WEST FRIENDSHIP, MARYLAND 21794
240.508.3200

SIMPLIFIED FOREST STAND DELINEATION & FOREST CONSERVATION PLAN
ROSHAN PROPERTY
FOREST CONSERVATION MITIGATION BANK

TAX MAP 15 GRID 17
3RD ELECTION DISTRICT

L. 16573, F. 338
ZONED: RC-DEO

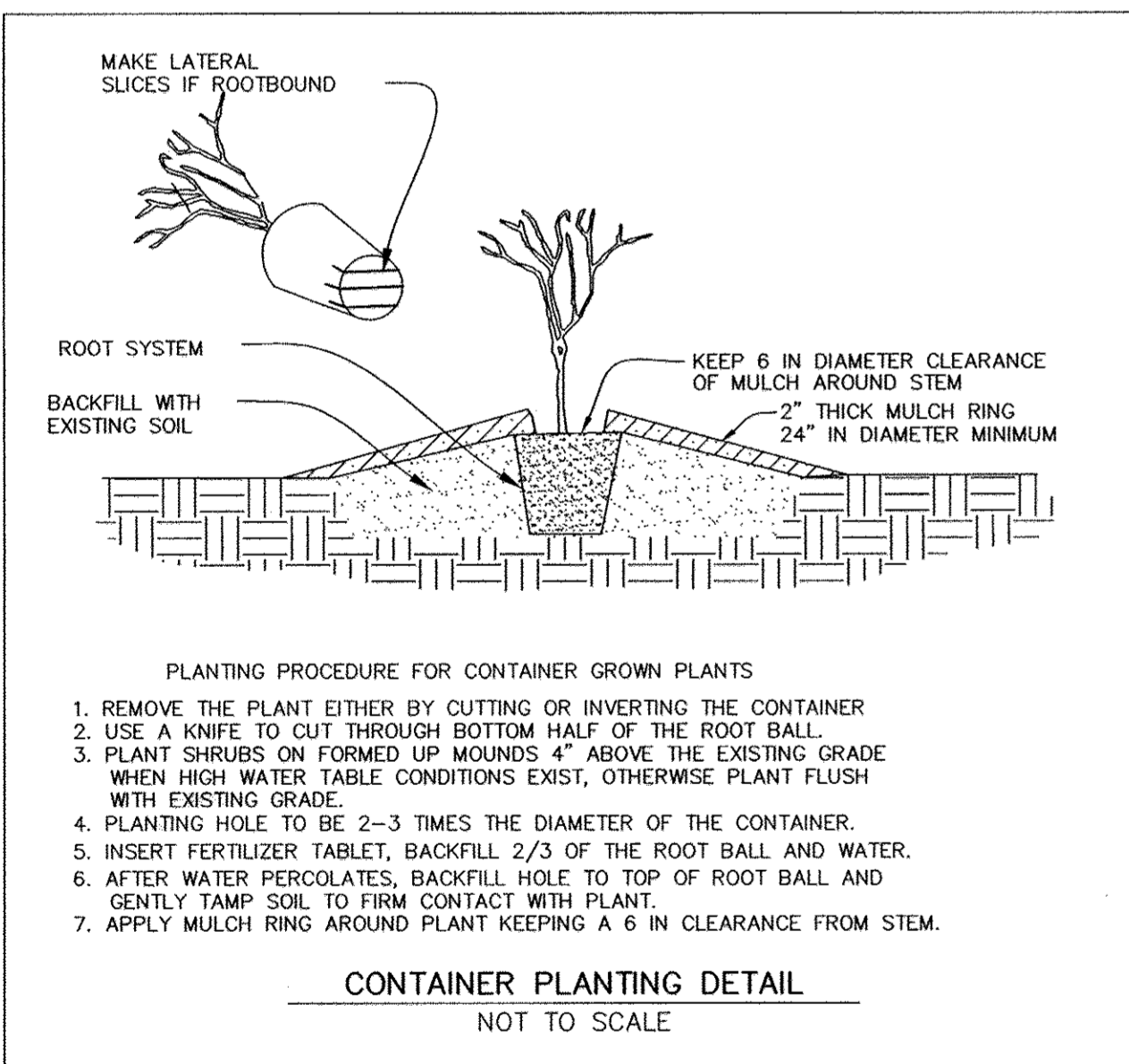
PARCEL 18, ZONED RC-DEO
HOWARD COUNTY, MARYLAND

DESIGN BY: JC / PS
DRAWN BY: PSIAEA
CHECKED BY: PS
SCALE: AS SHOWN
DATE: JUNE 21, 2017
PROJECT #: 14-052
SHEET #: 3 of 3

11130 Dovedale Court, Suite 200
Marriottsville, Maryland 21104
Phone: 443.225.5076
Fax: 410.696.2022
Email: info@silkenengineering.com
Civil Engineering for Land Development

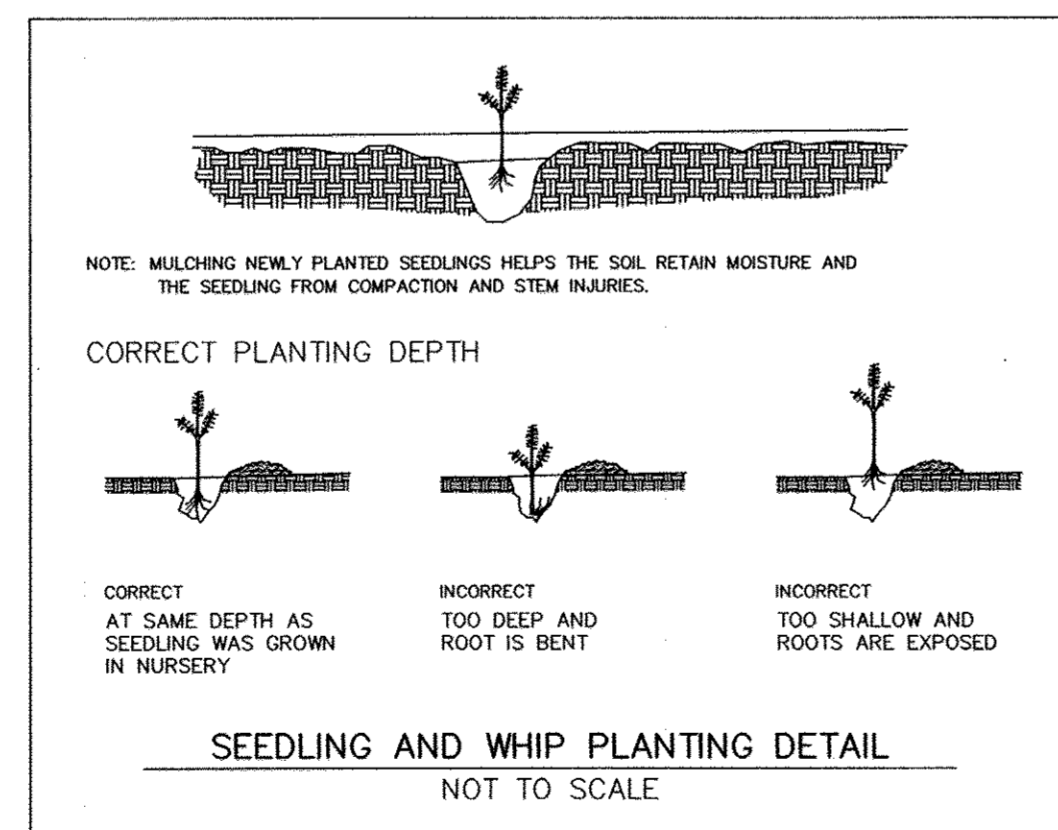
SILKEN ENGINEERING GROUP, LLC

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A QUALIFIED LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 14222 EXPIRATION DATE: 5/04/2019



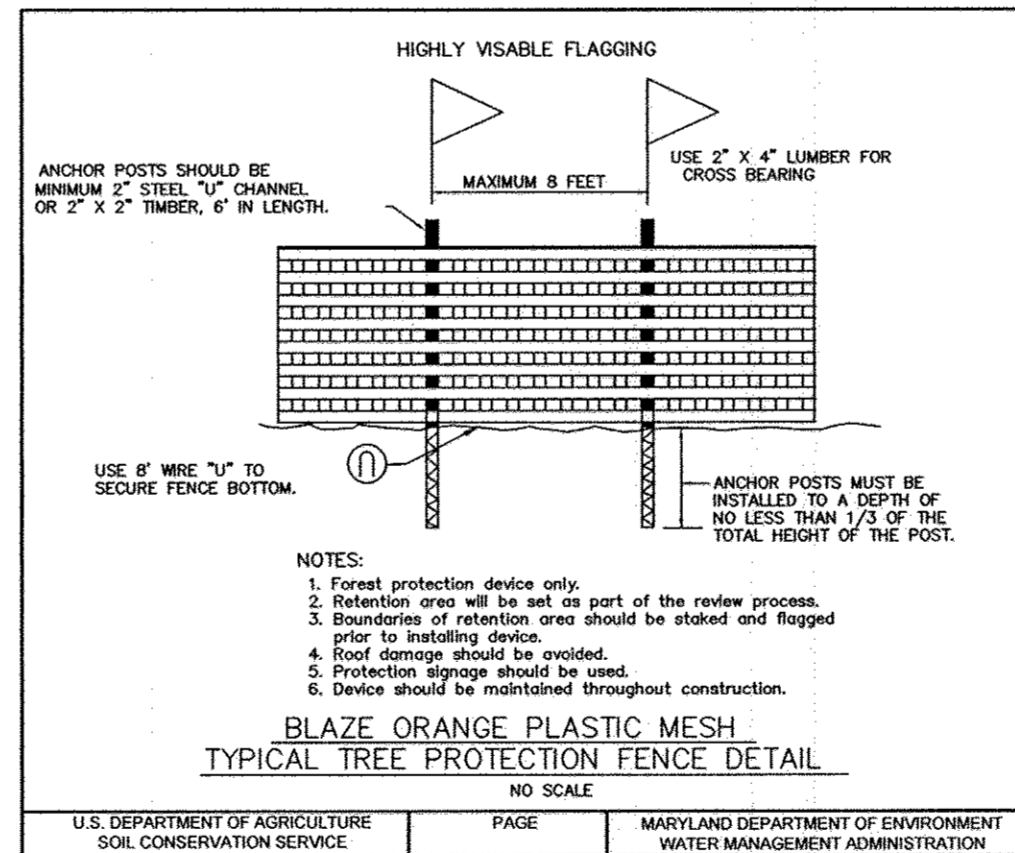
CONTAINER PLANTING DETAIL

NOT TO SCALE



SEEDLING AND WHIP PLANTING DETAIL

NOT TO SCALE



TYPICAL TREE PROTECTION FENCE DETAIL

NO SCALE

MD DNR Qualified Professional
USACOE Wetland Delineator
Certification # WPCP93MD0610044B2
John P. Canoles Date: 6/21/17

Eco-Science Professionals, Inc.
Consulting Ecologists
P.O. Box 2088 Glen Cove, Maryland 21037 Telephone (410) 852-1489 Fax (410) 852-2488

NO.	DESCRIPTION	DATE
	REVISIONS	

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
1-12-18
DATE

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY
1/12/2018
DATE

12/6/17
DATE