

GENERAL NOTES

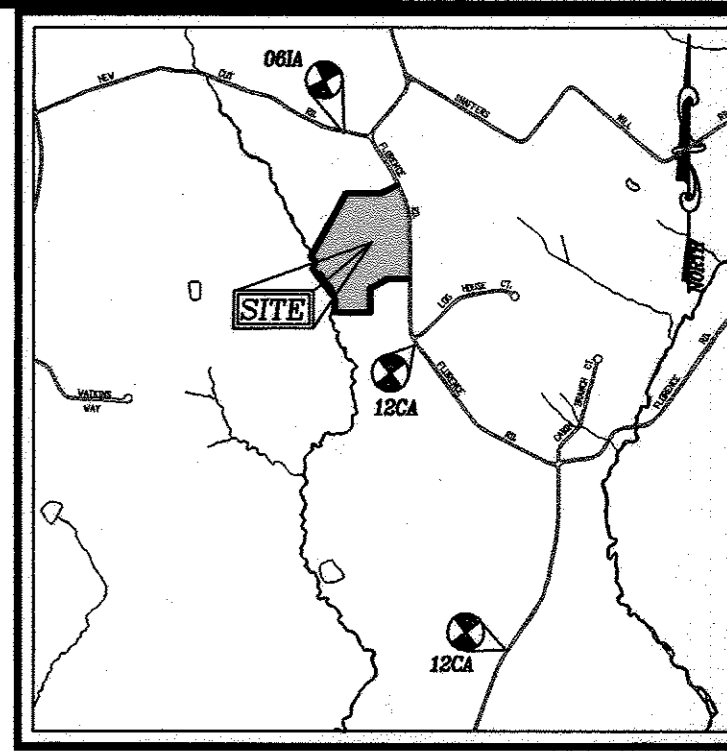
- ALL ASPECTS OF THE PROJECT ARE IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
- THE SUBJECT PROPERTY IS ZONED RC-DEO PER THE FEBRUARY 2, 2004 COMPREHENSIVE ZONING PLAN AND THE COMP LITE ZONING REGULATION AMENDMENTS EFFECTIVE JULY 28, 2006.
- THIS SUBDIVISION COMPLIES WITH THE AMENDED 5TH EDITION OF THE SUBDIVISION AND ZONING REGULATIONS (CB-45-2003) AND THE ZONING REGULATIONS, AS AMENDED BY COUNCIL BILL 75-2003.
- DENSITY TABULATION:
GROSS AREA OF PROJECT: 20.87 AC
AREA OF 100-YEAR FLOODPLAIN DRAINAGE & UTILITY EASEMENT: 3.03 AC
AREA OF STEEP SLOPES: 1.86 AC
NET AREA OF PROJECT: 16.00 AC
NUMBER OF ENTITIES PERMITTED BY RIGHT: 20.87/4.25 = 4
MAXIMUM RECEIVING YIELD: 16/2 = 8
NUMBER OF BUILDABLE ENTITIES PROPOSED: 4
NUMBER OF DEO UNITS NEEDED: 0
- THE PROJECT BOUNDARY IS BASED ON BOUNDARY SURVEY BY ROBERT H. VOGEL ENGINEERING PERFORMED ON OR ABOUT OCTOBER 2005.
- THE TOPOGRAPHY SHOWN HEREON IS BASED ON A FIELD RUN TOPOGRAPHICAL SURVEY PERFORMED BY ROBERT H. VOGEL ENGINEERING, DATED DECEMBER 2005.
- WATER AND SEWER FOR THIS PROJECT WILL BE PRIVATE.
- STORMWATER MANAGEMENT FOR THIS SITE IS PROVIDED BY RAINGARDENS AND GRASS CHANNELS FOR WCV AND REV. AS APPROVED BY SP-06-020 CPV IS NOT REQUIRED FOR THIS PROJECT. ALL STORMWATER MANAGEMENT CONTROLS ARE TO BE PRIVATELY MAINTAINED.
- THIS SITE IS NOT LISTED IN THE HOWARD COUNTY HISTORIC INVENTORY.
- A WETLAND DELINEATION WAS PERFORMED BY ECO-SCIENCE PROFESSIONALS, INC., DATED FEBRUARY 2006.
- THE FLOODPLAIN SHOWN HEREON IS BASED ON HOWARD COUNTY RECORD PLAT 10011, DATED AUGUST 1991.
- A TRAFFIC STUDY/APFD STUDY IS NOT REQUIRED FOR THIS SITE, BECAUSE IT IS TWO MILES FROM THE INTERSECTION OF TWO MINOR COLLECTOR ROADS.
- A FOREST STAND DELINEATION WAS PERFORMED BY ECO-SCIENCE PROFESSIONALS, INC., DATED FEBRUARY 2006.
- A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT, BECAUSE:
 - IT IS NOT LOCATED WITHIN 1000 FEET OF AN EXISTING RIGHT OF WAY LINE OF ROUTE 1-95 OR THAT SEGMENT OF U.S. ROUTE 1 FROM MD.100 TO MD.32 OF ANY OTHER ROADWAY WHERE HEAVY TRUCK TRAFFIC IS EXPECTED TO EXCEED AN ADT OF 10,000 VEHICLE.
 - IT IS NOT LOCATED WITHIN 500' OF ANY OTHER EXISTING OR PROPOSED PRINCIPAL OR INTERMEDIATE ARTERIAL HIGHWAY RIGHT OF WAY LINE.
 - IT IS NOT LOCATED WITHIN 250' OF ANY EXISTING OR PROPOSED MINOR ARTERIAL RIGHT OF WAY LINE.
 - IT IS NOT LOCATED WITHIN 500' OF AN EXISTING OR PROPOSED RAIL LINE.
 - IT IS NOT LOCATED WITHIN THE APPROVED AIRPORT NOISE ZONE IS ESTABLISHED BY THE STATE AVIATION ADMINISTRATION.

- THIS SECTION OF FLORENCE ROAD IS NOT A SCENIC ROAD.
- THIS PROPERTY IS OUTSIDE THE METROPOLITAN DISTRICT.
- TO THE BEST OF THE OWNERS KNOWLEDGE, THERE ARE NO BURIAL/CEMETERY LOCATIONS ON SITE.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL NUMBERS 12CA AND 12CB.
- STREET LIGHTING IS NOT REQUIRED FOR THIS SITE.
- EXISTING SEPTIC LOCATIONS SHOWN ARE BASED ON RECORD PLATS AND HEALTH DEPARTMENT RECORDS.
- ALL EXISTING WELLS AND SEPTIC AREAS WITHIN 100' OF THE SITE HAVE BEEN SHOWN TO THE BEST OF OUR KNOWLEDGE.
- ALL WELLS TO BE DRILLED PRIOR TO SUBMITTAL OF FINAL PLAT FOR SIGNATURE.
- IT IS THE DEVELOPERS' RESPONSIBILITY TO SCHEDULE THE WELL DRILLING PRIOR TO FINAL PLAT SUBMISSION. IT WILL NOT BE CONSIDERED "GOVERNMENT DELAY" IF THE WELL DRILLING DELAYS THE HEALTH DEPARTMENT SIGNATURE OF THE RECORD PLAT.
- THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT.
- THIS PROJECT IS A RESUBDIVISION OF KOGAN TRUST PROPERTY LOT 8 (F-89-83).
- TREE PROTECTION FENCING WILL BE PROVIDED AT THE LIMITS OF DISTURBANCE WHERE GRADING IS ADJACENT TO ENVIRONMENTAL AREAS.
- FOREST CONSERVATION REQUIREMENTS PER SECTION 16.1202 OF HOWARD COUNTY CODE FOR THIS PROJECT SHALL BE FULFILLED BY THE ON SITE RETENTION OF 4.76 ACRES. SURETY IN THE AMOUNT OF \$41,470.00 SHALL BE POSTED AS PART OF THE DEVELOPERS AGREEMENT.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL WITH 23 SHADE TREES, WITH LANDSCAPE SURETY IN THE AMOUNT OF \$6,900.00 WITH THE DPW, DEVELOPERS AGREEMENT.
- SEDIMENT AND EROSION CONTROL IS PROVIDED FOR THIS SITE.
- NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE WETLANDS, STREAMS, OR THEIR BUFFERS, AND THE FOREST CONSERVATION EASEMENTS AND 100 YEAR FLOODPLAIN.
- FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL, AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM AND ROAD RIGHT-OF-WAY LINE AND NOT ONTO THE PIPESTEM LOT DRIVEWAY.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
THE CONTRACTOR IS TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK ON THESE DRAWINGS:
MISS UTILITY: 1-800-257-7777
VERIZON TELEPHONE CO: 725-9976
HOWARD COUNTY BUREAU OF UTILITIES: 313-2366
VERIZON CABLE LOCATION DIVISION: 393-3553
B.G.&E. CO. CONTRACTOR SERVICES: 850-4620
B.G.&E. CO. UNDERGROUND DAMAGE CONTROL: 787-4620
STATE HIGHWAY ADMINISTRATION: 631-5633
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PAVEMENT OF ANY ASPHALT.
- ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE)- 3' LONG. A GALVANIZED STEEL POLE GAP SHALL BE MOUNTED ON TOP OF EACH POST.
- THIS SUBDIVISION COMPLIES WITH THE AMENDED 5TH EDITION OF THE SUBDIVISION AND ZONING REGULATIONS, BOTH AS AMENDED BY COUNCIL BILL 75-2003.
- THE SUBJECT PROPERTY IS ZONED RC-DEO PER THE 2/02/04 COMPREHENSIVE ZONING PLAN
- FLORENCE ROAD IMPROVEMENTS AND PAVEMENT WIDENING; PROVIDE A MINIMUM OF 1 FOOT WIDE FULL DEPTH SAW CUT ONTO FLORENCE ROAD, PER HOWARD COUNTY DETAIL R10.1.

- DRIVEWAYS SHALL BE PROVIDED PRIOR TO THE ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
1) WIDTH—12' (16' SERVING MORE THAN ONE RESIDENCE)
2) SURFACE—6" OF COMPACTED CRUSHER RUN BASE W/TAR AND CHIP COATING (1-1/2" MIN.)
3) GEOMETRY—MAX. 15% GRADE, MAX. 10% GRADE CHANGE AND MIN. 45' TURNING RADIUS
4) STRUCTURES (CULVERTS/BRIDGES)—CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING)
5) DRAINAGE ELEMENTS—CAPABLE OF SAFELY PASSING 100-YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRAINWAY SURFACE
6) MAINTENANCE—SUFFICIENT TO INSURE ALL WEATHER USE
- REFERENCE WP-09-024 APPROVED ON OCTOBER 7, 2008 TO WAIVE SECTION 16.144 (g)(2) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS TO EXTEND THE 45 DAY RESUBMISSION DEADLINE TO NOVEMBER 20, 2008.

FINAL ROAD CONSTRUCTION PLAN KOGAN TRUST

LOTS 16-18 AND BUILDABLE PRESERVATION PARCEL 'A' A RESUBDIVISION OF KOGAN TRUST PROPERTY LOT 8 HOWARD COUNTY, MARYLAND



VICINITY MAP
SCALE: 1"=2000'
ADC MAP COORDINATE: 2 E-13

NO.	NORTHING	EASTING	ELEVATION	TYPE
081A	N 602649.52	E 1271163.31	713.67	CONC. MONUMENT
12CA	N 600463.81	E 1271900.23	694.76	CONC. MONUMENT
12CB	N 597303.86	E 1272860.57	690.47	CONC. MONUMENT

[Symbol]	PROPERTY LINE
[Symbol]	RIGHT-OF-WAY LINE
[Symbol]	EXISTING 100-YR FLOODPLAIN DRAINAGE AND UTILITY EASEMENT (PLAT #10011)
[Symbol]	EXISTING PRIVATE DRAINAGE AND UTILITY EASEMENT (PLAT #10011)
[Symbol]	EXISTING WETLANDS
[Symbol]	EXISTING PUBLIC FOREST CONSERVATION EASEMENT

SITE ANALYSIS
LOCATION: TAX MAP 6, GRID 23, PARCEL 247
4TH ELECTION DISTRICT
EXISTING ZONING: RC-DEO
GROSS AREA OF PROJECT: 20.89 AC
AREA OF 100-YEAR FLOODPLAIN DRAINAGE & UTILITY EASEMENT: 3.03 AC
NET AREA OF PROJECT: 16.00 AC
AREA OF STEEP SLOPES OUTSIDE THE FLOODPLAIN: 1.86 AC
NUMBER PROPOSED BUILDABLE LOTS: 3 LOTS
AREA OF PROPOSED BUILDABLE LOTS: 3.29 AC
NUMBER OF PROPOSED BUILDABLE PRESERVATION PARCELS: 1 PARCEL
AREA OF PROPOSED BUILDABLE PRESERVATION PARCELS: 17.34 AC
TOTAL LIMIT OF DISTURBANCE: 24,134.98 SF, 0.55 AC.
DPZ FILE REFERENCES: SP-06-020, F-89-83, VP-80-81, F-81-17, WP-09-024

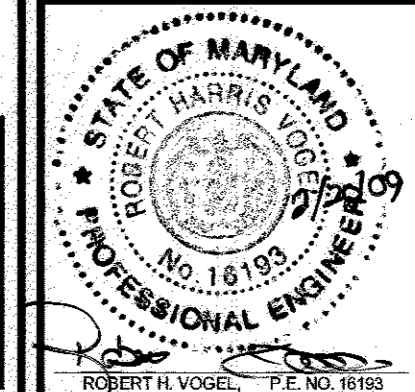
NO.	DESCRIPTION	DATE
1	REVISE HOSE TYPE, GRADING & SIGN LOT 18 + REVISE FOREST CONSERVATION EASEMENT	4/25/12

DESCRIPTION	SHEET NO.
COVER SHEET	1 OF 6
ROAD CONSTRUCTION, GRADING, AND SEDIMENT CONTROL PLAN	2 OF 6
CROSS-SECTIONS AND SITE DETAILS	3 OF 6
SEDIMENT AND EROSION CONTROL DETAILS	3 OF 6
FOREST CONSERVATION, AND LANDSCAPE PLAN	4 OF 6
FOREST CONSERVATION, AND LANDSCAPE DETAILS	5 OF 6

**FINAL ROAD CONSTRUCTION PLAN
COVER SHEET
KOGAN TRUST PROPERTY**
LOTS 16-18 AND BUILDABLE PRESERVATION PARCEL 'A'
A RESUBDIVISION OF KOGAN TRUST PROPERTY LOT 8
DPZ REF: SP-06-020, F-89-83, VP-80-81, F-81-17, WP-09-024
TAX MAP 6, BLOCK 23, 4TH ELECTION DISTRICT, LOT 8, PARCEL 247, HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL
ENGINEERING, INC.**
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET, ELIGOTT CITY, MD 21043
TEL: 410.461.7666 FAX: 410.461.8961

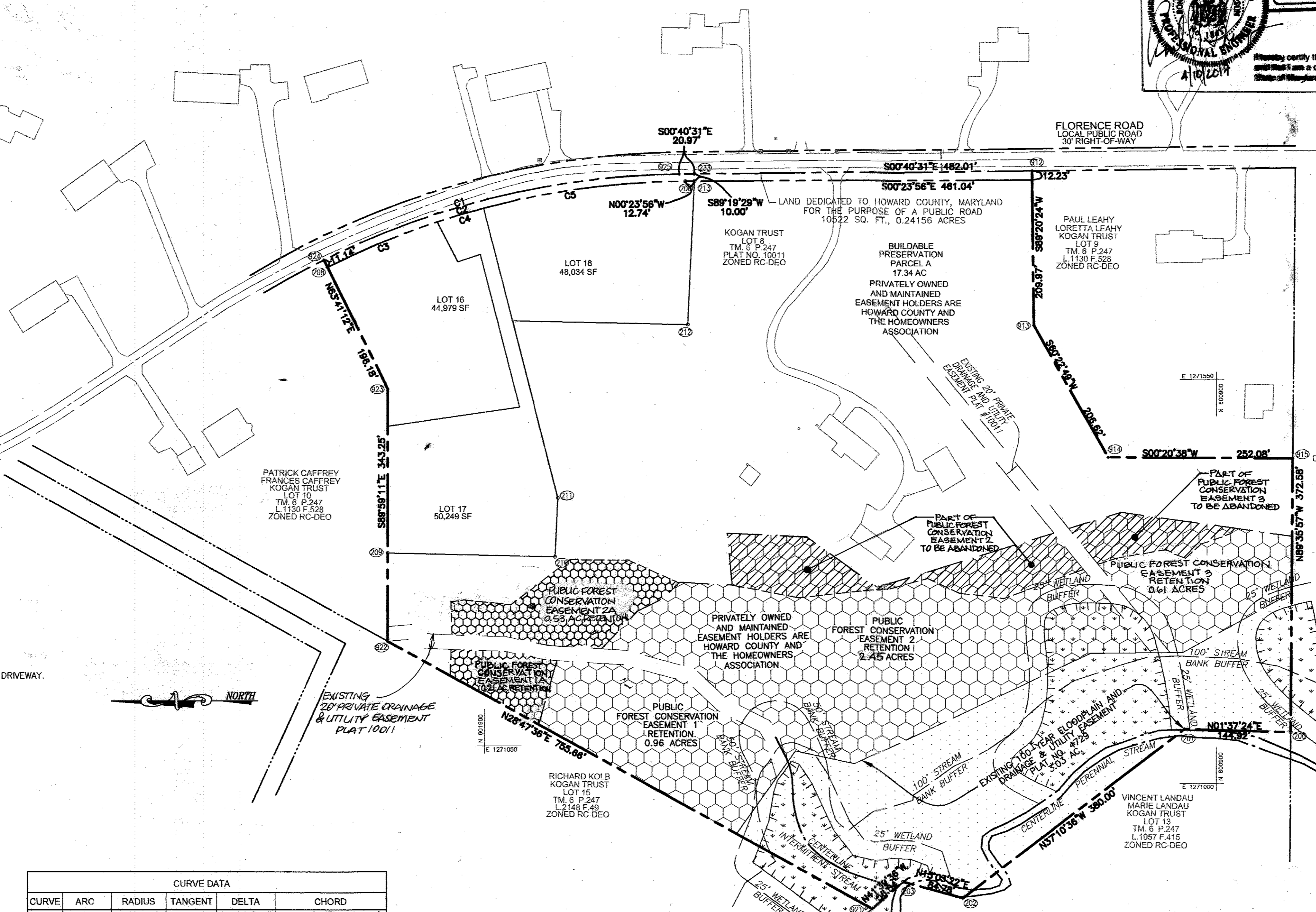
DESIGN BY: RHV
DRAWN BY: JMR
CHECKED BY: RHV
DATE: JANUARY 08, 2009
SCALE: AS SHOWN
W.O. NO.: 04-28-00
1 SHEET OF 85



RED LITE - FEE IN LIEU PAYMENT - FLOODING IN PROGRESS

VANMAR ASSOCIATES, INC.
Engineers Surveyors Planners
310 South Main Street, P.O. Box 328, Mount Airy, Maryland 21771
(301) 829-2880 (301) 831-5015 (410) 648-2761
Fax (301) 831-8083

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 08419, EXPIRATION DATE: 7-11-18



CURVE	ARC	RADIUS	TANGENT	DELTA	CHORD
C1	502.73'	1123.46'	255.65'	25°38'21"	S13°27'14"E 498.55'
C2	506.32'	1102.88'	257.70'	26°16'49"	N13°22'46"W 501.90'
C3	161.59'	1103.88'	80.94'	08°23'13"	N22°19'34"W 161.44'
C4	65.92'	1103.88'	32.97'	03°25'17"	N16°25'19"W 65.91'
C5	278.82'	1103.88'	140.16'	14°28'19"	N07°28'31"W 278.08'

LOCATION PLAN
SCALE: 1"=100'

FRONTAGE IMPROVEMENTS HAVE BEEN ADDRESSED BY THE PAYMENT OF A FEE IN LIEU IN THE AMOUNT OF \$18,000.00.

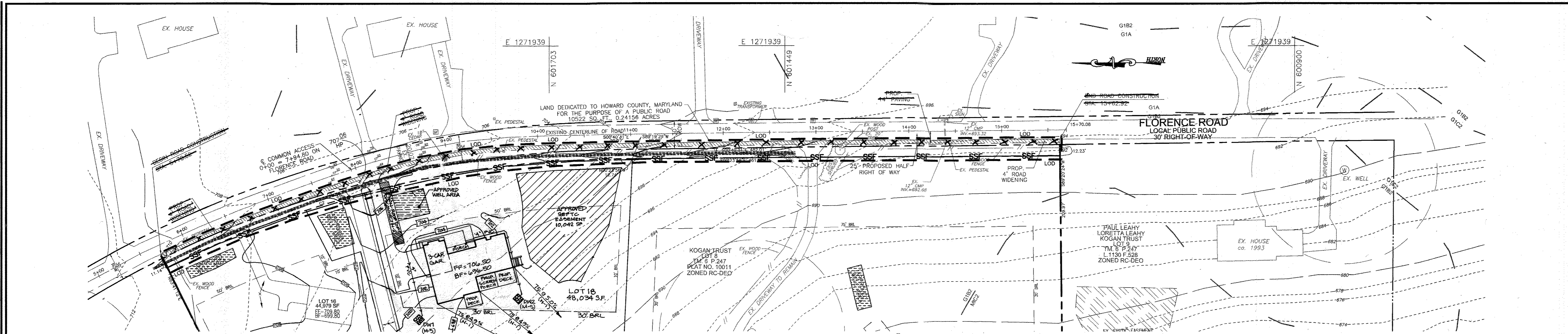
LOT NO.	GROSS AREA	PIPE STEM AREA	MINIMUM LOT SIZE
17	50,249 SF	7,827 SF	42,422 SF

POINT	NORTH	EAST
200	N 600798.66	E 1271069.99
201	N 600943.53	E 1271074.10
202	N 601246.30	E 1270844.47
203	N 601328.17	E 1270886.49
206	N 601626.31	E 1271818.13
208	N 602114.58	E 1271701.99
209	N 602032.61	E 1271312.95
210	N 601803.61	E 1271307.62
211	N 601799.88	E 1271387.73
212	N 601622.61	E 1271623.31
213	N 601613.57	E 1271818.21
233	N 601613.68	E 1271828.22
912	N 601152.68	E 1271833.65
913	N 601150.26	E 1271623.70
914	N 601048.14	E 1271444.07
915	N 600796.06	E 1271442.56
921	N 601370.41	E 1270828.91
922	N 602032.64	E 1271192.87
923	N 602032.56	E 1271536.12
924	N 602119.52	E 1271711.97
925	N 601634.65	E 1271827.97

**OWNER/
DEVELOPER**
WILLIAM S. DEVEREUX
1850 FLORENCE ROAD
MT. AIRY, MD 21771
(301) 831-5141

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: SEPTEMBER 27, 2010

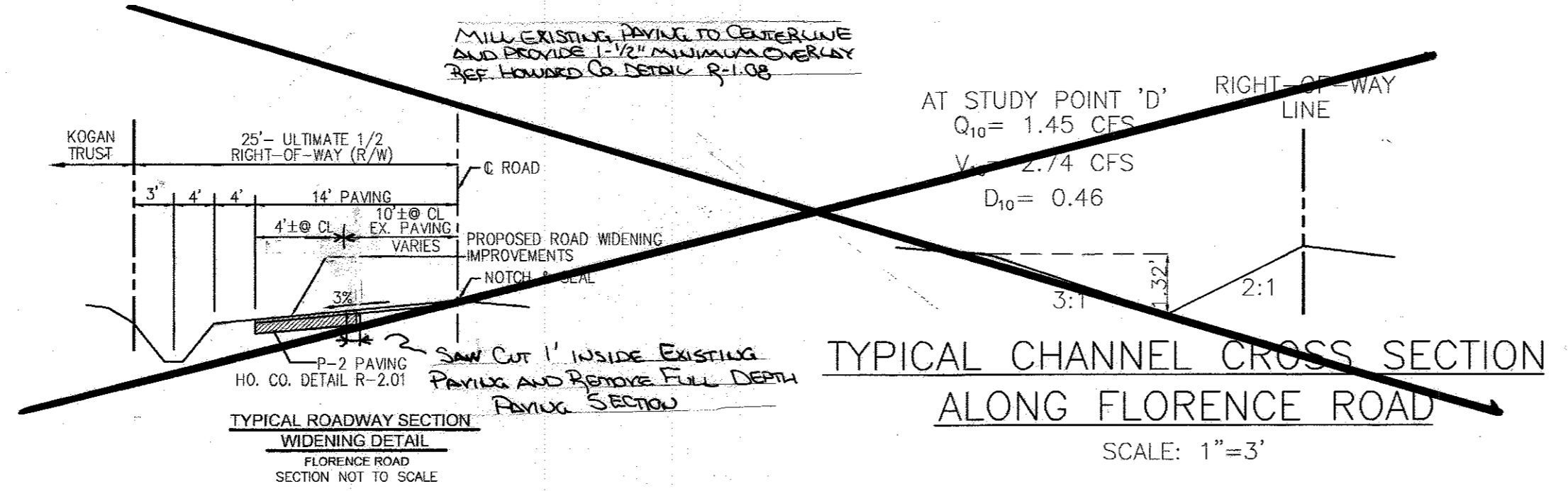
APPROVED: DEPARTMENT OF PUBLIC WORKS
Willa J. Marshall, Chief, Bureau of Highways, 3-10-09
APPROVED: DEPARTMENT OF PLANNING AND ZONING
Kathleen H. Hester, Chief, Division of Land Development, 3/5/09
APPROVED: DEPARTMENT OF PUBLIC WORKS
M. J. ... Chief, Development Engineering Division, 3/16/09



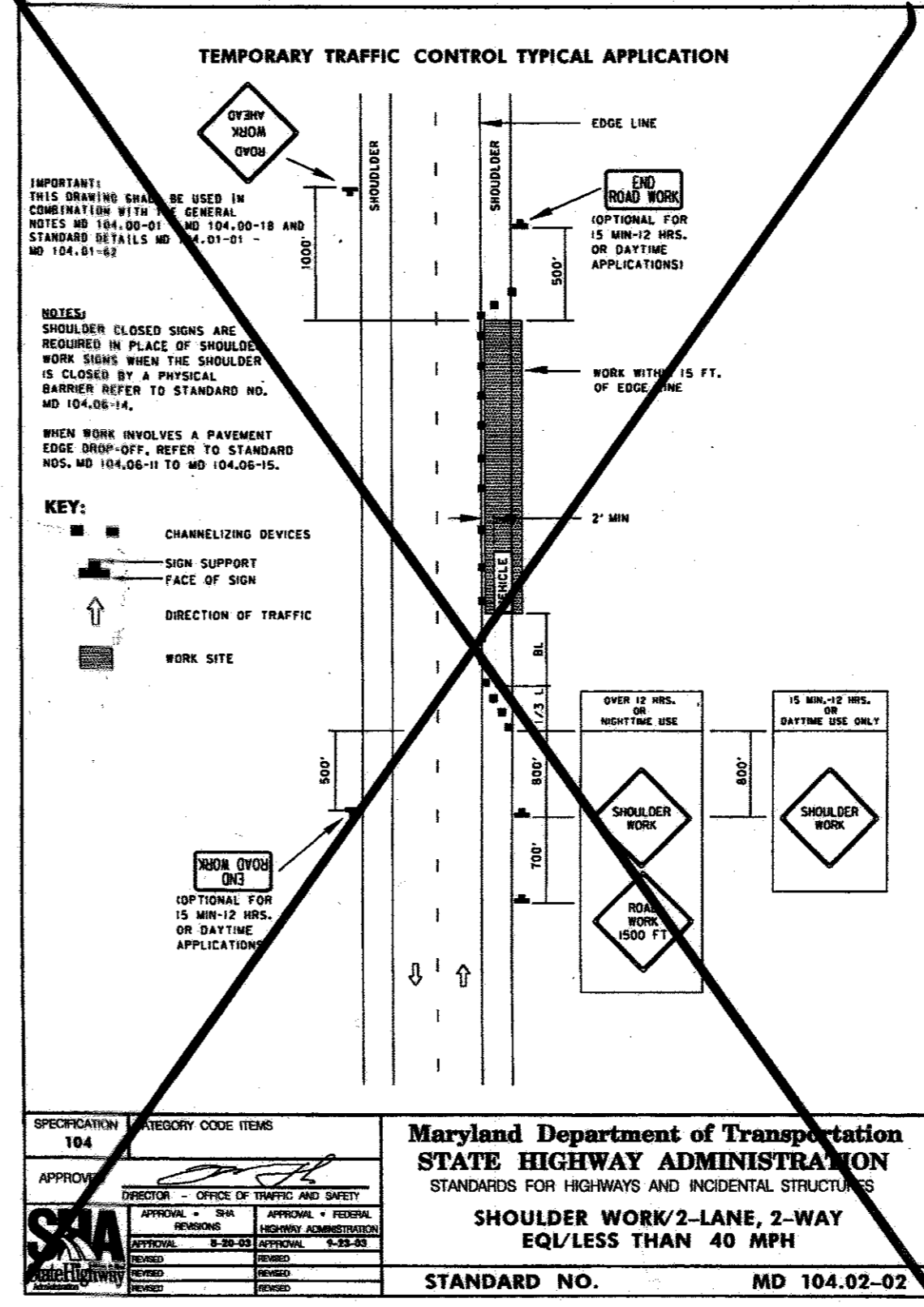
PLAN SCALE
SCALE: 1"=50'

LEGEND:

- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- EXISTING STORMDRAIN LINE
- EXISTING SIGN
- EXISTING VEGETATION (APPROXIMATE LOCATION)
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- SOILS BOUNDARY
- EXISTING 100YR FLOODPLAIN, DRAINAGE AND UTILITY EASEMENT (PLAT #10011)
- EXISTING PRIVATE DRAINAGE AND UTILITY EASEMENT (PLAT #10011)
- SUPER SILT FENCE
- LIMIT OF DISTURBANCE
- STABILIZED CONSTRUCTION ENTRANCE
- PROPOSED EROSION CONTROL MATTING
- PROPOSED TREE LINE
- EXISTING TREE LINE
- EXISTING MODERATE SLOPES
- EXISTING STEEP SLOPES
- EXISTING WETLANDS
- PROPOSED PRIVATE COMMON ACCESS, DRAINAGE, AND UTILITY EASEMENT
- EXISTING PUBLIC FOREST CONSERVATION EASEMENT
- SEPTIC EASEMENT



TYPICAL CHANNEL CROSS SECTION
ALONG FLORENCE ROAD
SCALE: 1"=3'



Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
**SHOULDER WORK/2-LANE, 2-WAY
EQL/LESS THAN 40 MPH**
STANDARD NO. MD 104.02-02

SECTION NUMBER	ROAD AND STREET CLASSIFICATION	CALIFORNIA WEARING SURF (CMS)			
		3 TO < 4	3.7	3 TO < 4	3 TO < 4
P-1	PAVING SIDE SHOULDER AND NON-RESIDENTIAL DRIVEWAY WITH NO MORE THAN 2 HOIST TRUCKS PER DAY	1.0	1.0	1.0	1.0
		2.0	2.0	2.0	2.0
P-2	PAVING SIDE SHOULDER AND NON-RESIDENTIAL DRIVEWAY WITH NO MORE THAN 2 HOIST TRUCKS PER DAY	1.0	1.0	1.0	1.0
		2.0	2.0	2.0	2.0
P-3	PAVING SIDE SHOULDER AND NON-RESIDENTIAL DRIVEWAY WITH NO MORE THAN 2 HOIST TRUCKS PER DAY	1.0	1.0	1.0	1.0
		2.0	2.0	2.0	2.0
P-4	PAVING SIDE SHOULDER AND NON-RESIDENTIAL DRIVEWAY WITH NO MORE THAN 2 HOIST TRUCKS PER DAY	1.0	1.0	1.0	1.0
		2.0	2.0	2.0	2.0

SYMBOL	NAME/DESCRIPTION	GROUP
Ba	BAILE SILT LOAM	D
Co	CODORUS SILT LOAM	C
G1A	GLENELG LOAM, 0 TO 3 PERCENT SLOPES	B
G1B2	GLENELG LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	B
G1C2	GLENELG LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	B
G1A	GLENEVILLE SILT LOAM, 0 TO 3 PERCENT SLOPES	C
M1D	MANOR VERY STONY LOAM, 3 TO 25 PERCENT SLOPES	B
M1B2	MT. AIRY CHANNERY LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	A
M1C2	MT. AIRY CHANNERY LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	A
M1C3	MT. AIRY CHANNERY LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED	A
M1D2	MT. AIRY CHANNERY LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED	A

APPROVED: DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways
 3-10-09
 Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Chief, Division of Land Development
 3/17/09
 Date

Chief, Development Engineering Division
 3/16/09
 Date

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

REDLINE FEE-IN-LIEU PAYMENT FRINGE IMPROVEMENTS
VANMAR ASSOCIATES, INC.
 Engineers Surveyors Planners
 310 South Main Street, P.O. Box 382, Mount Airy, Maryland 21771
 (301) 828-2890 (301) 831-8015 (410) 546-2751
 Fax (301) 831-8803

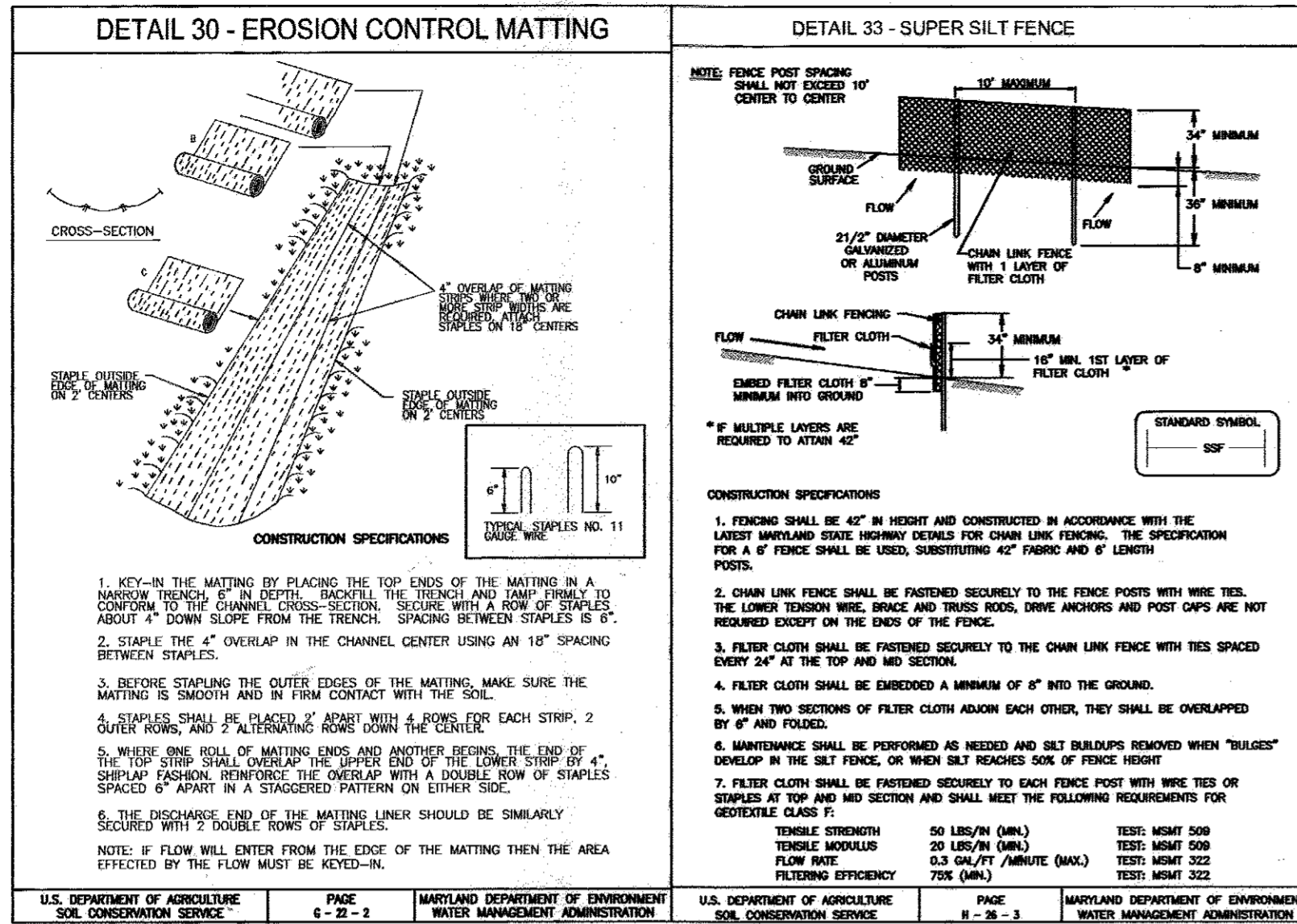
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 ROAD CONSTRUCTION, GRADING,
 AND SEDIMENT CONTROL PLAN
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ROBERT H. VOGEL ENGINEERS & SURVEYORS - PLANNERS
 8407 MAIN STREET
 ELLICOTT CITY, MD 21043
 TEL: 410.461.7566
 FAX: 410.461.8961

PROFESSIONAL CERTIFICATION
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DESIGN BY: RHV
 DRAWN BY: JMR
 CHECKED BY: RHV
 DATE: JANUARY 06, 2009
 SCALE: AS SHOWN
 W.O. NO.: 04-28-00

2	FRINGE IMPROVEMENTS - FEE IN LIEU PAYMENT	4/16/07
1	REVISE HOUSE TYPE, GRADING & SWM ON LOT 18 & REVISE FOREST CONSERVATION EASEMENT	4/23/06



STORMWATER MANAGEMENT REQUIREMENTS - STUDY POINT 'A'

AREA	REQUIREMENT	VOLUME REQUIREMENT WITHOUT CREDITS	CREDITS	VOLUME REQUIREMENT WITH CREDITS	NOTES
13.07 AC.					
1	WATER QUALITY VOLUME (WQV)	0.218 AC. FT.	0.1305 AC. FT.	0.0875 AC. FT.	NATURAL AREA CONSERVATION CREDIT ROOFTOP DISCONNECTION CREDIT GRASS CHANNEL CREDIT
2	RECHARGE VOLUME (REV)	0.32 AC.	0.32 AC.	0 AC.	ROOFTOP DISCONNECTION CREDIT GRASS CHANNEL CREDIT
3	CHANNEL PROTECTION VOLUME (CPV)	NA	NA	NA	1 YR PEAK DISCHARGE < 2.0 CFS
4	OVERHEAD FLOOD PROTECTION (O ₁₀₀ P)	NA	NA	NA	
5	EXTREME FLOOD VOLUME (O ₁₀₀ P)	NA	NA	NA	

STORMWATER MANAGEMENT REQUIREMENTS - STUDY POINT 'B'

AREA	REQUIREMENT	VOLUME REQUIREMENT WITHOUT CREDITS	CREDITS	VOLUME REQUIREMENT WITH CREDITS	NOTES
10.24 AC.					
1	WATER QUALITY VOLUME (WQV)	NA	NA	NA	NO NEW IMPERVIOUS AREA IS PROPOSED
2	RECHARGE VOLUME (REV)	NA	NA	NA	NO NEW IMPERVIOUS AREA IS PROPOSED
3	CHANNEL PROTECTION VOLUME (CPV)	NA	NA	NA	1 YR PEAK DISCHARGE < 2.0 CFS
4	OVERHEAD FLOOD PROTECTION (O ₁₀₀ P)	NA	NA	NA	
5	EXTREME FLOOD VOLUME (O ₁₀₀ P)	NA	NA	NA	

PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE. WHERE A PERMANENT LONG-LIVED VEGETATIVE SEEDBED PREPARATION: Loosen upper three inches of soil by roking, discing or other acceptable means before seeding. If not previously SOIL AMENDMENTS: In lieu of soil test recommendations, use one of the following:

- Preferred—Apply 2 tons per acre dolomitic limestone (92 lbs./1000 sq.ft.) and 600 lbs. per acre 10-10-10 fertilizer (14 lbs./1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. At the time of seeding, apply 400 lbs. per acre 30-0-0 ureiform fertilizer (9 lbs./1000 sq.ft.)
- Acceptable—Apply 2 tons per acre dolomitic limestone (92 lbs./1000 sq.ft.) and apply 1000 lbs. per acre 10-10-10 fertilizer (23 lbs./1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil.

SEEDING: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs. per acre (1.4 lbs./1000 sq.ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs. per acre (0.5 lbs./1000 sq.ft.) of weeping lovegrass. During the period of October 16 thru February 28, protect site by Option (1) 2 tons per acre well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use seed, Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw mulch.

MULCHING: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs./1000 sq. ft.) of untreated small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 5 feet or higher, use 348 gallons per acre.

MAINTENANCE: Inspect all seeded areas and make needed repairs.

TEMPORARY SEEDING NOTES

SEEDBED PREPARATION: Loosen upper three inches of soil by roking, discing or other acceptable means before seeding. If not previously SOIL AMENDMENTS: Apply 600 lbs. per acre 10-10-10 fertilizer (14 lbs./1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. At the time of seeding, apply 400 lbs. per acre 30-0-0 ureiform fertilizer (9 lbs./1000 sq.ft.)

SEEDING: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2 1/2 bushels per acre of annual ryegrass (3.2 lbs./1000 sq.ft.) For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (0.7 lbs./1000 sq.ft.). For the period November 1 thru February 28, protect site by applying 2 tons per acre well anchored straw mulch and seed as soon as possible in the spring. On slopes 5 feet or higher, use 348 gallons per acre of emulsified asphalt on flat areas.

MULCHING: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs./1000 sq.ft.) of untreated small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 5 feet or higher, use 348 gallons per acre.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT SPECIFIED HEREIN.

21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL

Definition: Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

Purpose: To provide a suitable soil medium for vegetable growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

Conditions Where Practice Applies:

- Where it is limited to areas having 2:1 or flatter slopes.
- The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
- The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish containing supplies of moisture and plant nutrients.
- The original soil to be vegetated contains material toxic to plant growth.
- The soil is so acidic that treatment with limestone is not feasible.

For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

Construction and Material Specifications:

- Topsoil salvaged from the sealing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experimental Station.
- Topsoil Specifications - Soil to be used as topsoil must meet the following:
 - Topsoil shall be loam, sandy loam, loamy loam, silty loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or a soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured materials and shall contain less than 5% by volume of material larger than 1 and 1/2" in diameter.
 - Topsoil must be free of plants or plant parts such as Bermuda grass, quackgrass, Johnsongrass, nutcracker, poison ivy, tickle, or others as specified.
 - Where the subsoil is either highly acidic or composed of heavy clay, ground limestone shall be applied at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedure:
- For sites having disturbed areas under 5 acres:
 - Place topsoil (if required) and apply soil amendments as specified in 21.0 Vegetative Stabilization—Section I—Vegetative Stabilization Methods and Materials.

SEQUENCE OF CONSTRUCTION

- OBTAIN HOWARD COUNTY GRADING PERMIT (1 DAY)
 - NOTIFY HOWARD COUNTY AT LEAST 48 HOURS PRIOR TO START OF CONSTRUCTION (1 DAY)
 - CONDUCT A PRE-CONSTRUCTION MEETING WITH THE SEDIMENT CONTROL INSPECTOR PRIOR TO ANY LAND DISTURBANCE (1 DAY)
 - ~~INSTALL EROSION CONTROL MEASURES AROUND THE LIMIT OF DISTURBANCE IMMEDIATELY ON THE DAY OF CONSTRUCTION.~~
 - ~~INSTALL EROSION CONTROL MEASURES IMMEDIATELY ON THE DAY OF CONSTRUCTION.~~
 - ~~INSTALL EROSION CONTROL MEASURES IMMEDIATELY ON THE DAY OF CONSTRUCTION.~~
 - ~~INSTALL EROSION CONTROL MEASURES IMMEDIATELY ON THE DAY OF CONSTRUCTION.~~
 - WITH PERMISSION OF SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL MEASURES (1 DAY)
- NOTE:** Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.
- Topsoil Application:**
- When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grass Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.
 - Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4"-8" higher in elevation.
 - Topsoil shall be uniformly distributed in a 4"-8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that adding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.
 - Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

SEDIMENT CONTROL NOTES

- A minimum of 48 hours notice must be given to the Howard County Department of Inspection, License and Permit Sediment Control Division prior to the start of any construction (313-1855).
 - All vegetation and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL and revisions thereto.
 - Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: (a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes, and all slopes greater than 3:1, (b) 14 days as to all other disturbed or graded areas on the project site.
 - All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 7, HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
 - All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding, sod, temporary seeding, and mulching (Sec. 6). Temporary stabilization with mulch alone shall be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
 - All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
 - Site Analysis:

Total Area:	0.55 Acres
Area Disturbed:	0.55 Acres
Area to be seeded or paved:	0.10 Acres
Area to be vegetatively stabilized:	0.45 Acres
Total Cut:	800 CY
Total Fill:	200 CY
WASTE/BORROW LOCATION:	N/A
 - Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
 - Additional sediment controls must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
 - On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
 - Trenches for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized within one working day, whichever is shorter.
- * To be determined by contractor, with pre-approval of the Sediment Control Inspector with an approved and active grading permit.

APPROVED: DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways *With 2 Initials* 3-10-09 Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Chief, Division of Land Development *With 2 Initials* 3/19/09 Date

Chief, Development Engineering Division *With 2 Initials* 3/16/09 Date

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

John R. Kuntzer 2/25/09 Date
 Signature of Engineer HOWARD SCD

ENGINEERS CERTIFICATE

"I hereby certify that this plan for sediment and erosion represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

Robert H. Vogel 2/25/09 Date
 Signature of Engineer ROBERT H. VOGEL

DEVELOPER'S CERTIFICATE

"I/WE certify that all development and construction will be done according to this plan of development for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspections by the Howard Soil Conservation District."

William J. Devereux 2-19-09 Date
 Signature of Developer

REDLINE FEE IN LIEU PAYMENT FEASIBILITY IMPROVEMENTS

VANMAR ASSOCIATES, INC.
 Engineers Surveyors Planners
 310 South Main Street, P.O. Box 328, Mount Airy, Maryland 21771
 (301) 829-2880 (301) 831-9015 (410) 548-2751

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 18417, Expiration Date: 9/18/12

FEASIBILITY IMPROVEMENTS - FEE-IN-LIEU PAYMENT 4/14/09

OWNER/DEVELOPER
 WILLIAM S. DEVEREUX
 1850 FLORENCE ROAD
 MT. AIRY, MD 21771
 (301) 831-5141

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193 EXPIRATION DATE: SEPTEMBER 27, 2010

**FINAL ROAD CONSTRUCTION PLAN
 SEDIMENT AND EROSION CONTROL
 NOTES AND DETAILS
 KOGAN TRUST PROPERTY**

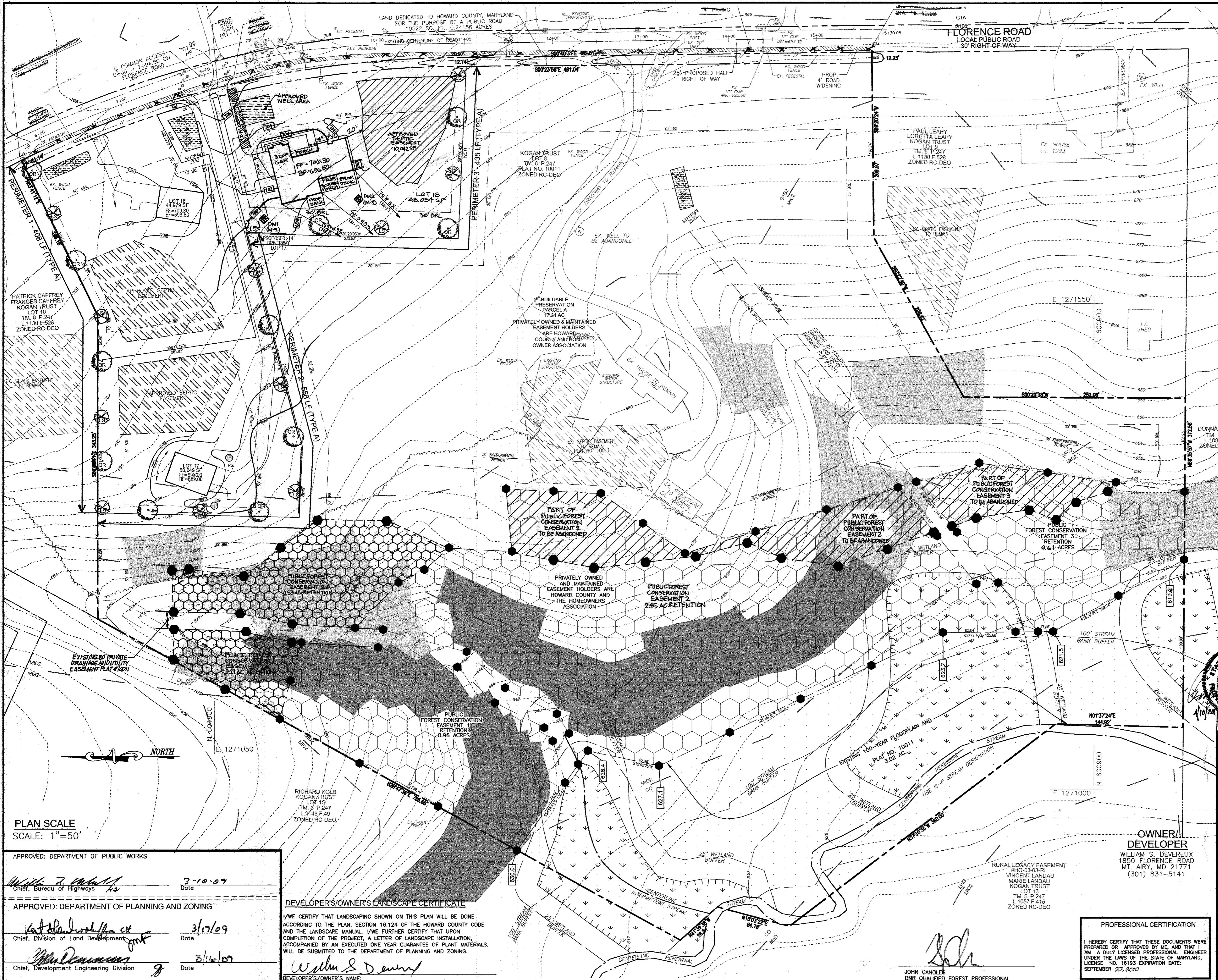
LOTS 16-18 AND BUILDABLE PRESERVATION PARCEL 'A'
 A RESUBDIVISION OF KOGAN TRUST PROPERTY LOT 8
 DPZ REF: SP-06-020, F-89-83, VP-80-81, F-81-17, WP-09-024

TAX MAP 6 BLOCK 23 LOT 8, PARCEL 247
 4TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET ELLICOTT CITY, MD 21043 TEL: 410-461-7666 FAX: 410-461-8961

DESIGN BY: RHV
 DRAWN BY: JMR
 CHECKED BY: RHV
 DATE: JANUARY 06, 2009
 SCALE: AS SHOWN
 W.O. NO.: 04-28-00

X3 SHEET 65



LEGEND:

- - - - - EXISTING CONTOUR
- - - - - PROPOSED CONTOUR
- - - - - PROPOSED SPOT ELEVATION
- - - - - EXISTING STORMDRAIN LINE
- - - - - EXISTING SIGN
- - - - - EXISTING VEGETATION (APPROXIMATE LOCATION)
- - - - - PROPERTY LINE
- - - - - RIGHT-OF-WAY LINE
- - - - - SOILS BOUNDARY
- - - - - EXISTING 100-YR FLOODPLAIN, DRAINAGE AND UTILITY EASEMENT (PLAT #10011)
- - - - - EXISTING PRIVATE DRAINAGE AND UTILITY EASEMENT (PLAT #10011)
- - - - - PROPOSED TREELINE
- - - - - EXISTING TREELINE
- - - - - EXISTING MODERATE SLOPES
- - - - - EXISTING STEEP SLOPES
- - - - - EXISTING WETLANDS
- - - - - PROPOSED PRIVATE COMMON ACCESS, DRAINAGE, AND UTILITY EASEMENT
- - - - - EXISTING PUBLIC FOREST CONSERVATION EASEMENT
- - - - - SEPTIC EASEMENT
- - - - - PROPOSED PERIMETER LANDSCAPING
- - - - - LANDSCAPE PERIMETER
- - - - - FOREST RETENTION SIGN

SOIL LEGEND

SYMBOL	NAME/DESCRIPTION	GROUP
Ba	BAILE SILT LOAM	D
Co	CODORUS SILT LOAM	C
G1A	GLENELG LOAM, 0 TO 3 PERCENT SLOPES	B
G1B2	GLENELG LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	B
G1C2	GLENELG LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	B
G1A	GLENVILLE SILT LOAM, 0 TO 3 PERCENT SLOPES	C
M1D	MANOR VERY STONY LOAM, 3 TO 25 PERCENT SLOPES	B
M1B2	MT. AIRY CHANNERY LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	A
M1C2	MT. AIRY CHANNERY LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	A
M1C3	MT. AIRY CHANNERY LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED	A
M1D2	MT. AIRY CHANNERY LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED	A

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 18417, Expiration Date: 7/1/18.

2. FRONTAGE IMPROVEMENTS - FEE IN LIEU PAYMENT 4/10/12

3. FRONTAGE IMPROVEMENTS - FEE IN LIEU PAYMENT FRONTAGE IMPROVEMENTS

VANMAR ASSOCIATES, INC.
 Engineers Surveyors Planners
 310 South Main Street, P.O. Box 388, Mount Airy, Maryland 21777
 (301) 829-2800 (301) 821-8218 (410) 848-8781
 Fax (301) 831-8603

1. REVISE HOUSE TYPE, GRADING 4.5W4 ON LOT 18. 4. REVISE FOREST CONSERVATION EASEMENT 4/12/12

**FINAL ROAD CONSTRUCTION PLAN
 FOREST CONSERVATION AND
 LANDSCAPE PLAN
 KOGAN TRUST PROPERTY**
 LOTS 16-18 AND BUILDABLE PRESERVATION PARCEL 'A'
 A RESUBDIVISION OF KOGAN TRUST PROPERTY LOT 8
 DPZ REF: SP-06-020, F-89-83, WP-80-81, F-81-17, WP-09-024

TAX MAP 6, BLOCK 23, LOT 8, PARCEL 247
 4TH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

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 8407 MAIN STREET
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DESIGN BY: RHV
 DRAWN BY: JMR
 CHECKED BY: RHV
 DATE: JANUARY 06, 2009
 SCALE: AS SHOWN
 W.O. NO.: 04-28-00

84 SHEET OF 85

PLAN SCALE
 SCALE: 1"=50'

APPROVED: DEPARTMENT OF PUBLIC WORKS

Chief, Bureau of Highways 3-10-09 Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development 3/17/09 Date

Chief, Development Engineering Division 3/16/07 Date

DEVELOPER'S/OWNER'S LANDSCAPE CERTIFICATE

I/WE CERTIFY THAT LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION OF THE PROJECT, A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXCUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

DEVELOPER'S/OWNER'S NAME: William S. Devereux

JOHN CANDLER
 DNR QUALIFIED FOREST PROFESSIONAL

SCHEDULE A PERIMETER LANDSCAPE EDGE				
CATEGORY	ADJACENT TO PERIMETER PROPERTIES			
Perimeter/Frontage Designation	1	2	3	
Landscape Type	A	A	A	
Linear Feet of Roadway Frontage/Perimeter	408'	558'	435'	
Credit for Existing Vegetation (Yes, No, Linear Feet Describe below if needed)	No	No	No	
Credit for Walls, Fences or Berms (Yes, No, Linear Feet Describe below if needed)	No	No	No	
Number of Plants Required				
Shade Trees	160	9	7	
Evergreen Trees	-	-	-	
Shrubs	-	-	-	
Number of Plants Provided				
Shade Trees	7	9	7	
Evergreen Trees	-	-	-	
Other Trees (2-1/2" Substituted)	-	-	-	
Shrubs (0-1 Substituted)	-	-	-	
Describe Plant Substitution Credits Below if needed				

LANDSCAPE SCHEDULE				
KEY	QUAN.	BOTANICAL NAME	SIZE	REM.
	12	LIQUIDAMBAR SYRACULIA AMERICAN SWEETGUM	2 1/2"-3" Cal.	B & B
	11	QUERCUS ROBUR FASTIGIATA COLUMNAR ENGLISH OAK	2 1/2"-3" Cal.	B & B

1. ALL PLANT MATERIALS SHALL BE FULL AND HEAVY, BE WELL FORMED AND SYMMETRICAL, CONFORM TO THE MOST CURRENT AND SPECIFICATIONS AND BE INSTALLED IN ACCORDANCE WITH LOCAL PLANTING SPECIFICATIONS.
2. CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
3. FINAL LOCATION OF PLANT MATERIAL MAY NEED TO VARY TO MEET FINAL FIELD CONDITIONS.
4. CONTRACTOR SHALL VERIFY PLANT QUANTITIES PRIOR TO DIGGING. IF PLAN DIFFERS FROM LANDSCAPE SCHEDULE, THE PLAN SHALL GOVERN.

FOREST CONSERVATION WORKSHEET

NET TRACT AREA:
A. TOTAL TRACT AREA 20.89 AC
B. AREA WITHIN 100 YEAR FLOODPLAIN 3.03 AC
C. NET TRACT AREA 17.86 AC

LAND 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.

D.A.	M.D.R.	I.D.A.	H.D.R.	M.P.O.	C.I.A.
0	0	0	0	0	1

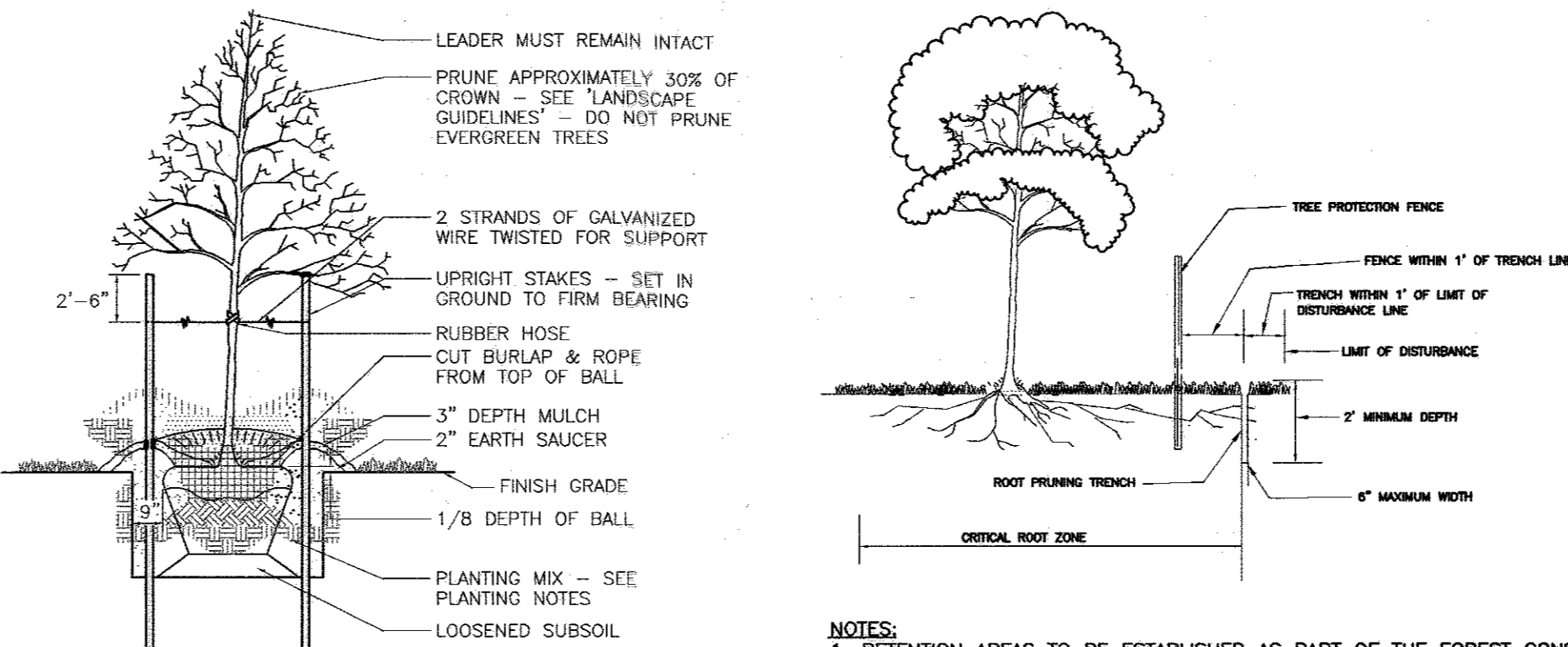
AD. AFFORESTATION THRESHOLD 20% X D = 3.57 AC
E. CONSERVATION THRESHOLD 25% X D = 4.47 AC

EXISTING FOREST COVER:
F. EXISTING FOREST COVER 5.94 AC
G. AREA OF FOREST ABOVE CONSERVATION THRESHOLD 1.48 AC

BREAK EVEN POINT:
H. BREAK EVEN POINT 4.76 AC
I. FOREST CLEARING PERMITTED WITHOUT MITIGATION 1.18 AC

PROPOSED FOREST CLEARING:
J. TOTAL AREA OF FOREST TO BE CLEARED 1.18 AC
K. TOTAL AREA OF FOREST TO BE RETAINED 4.76 AC

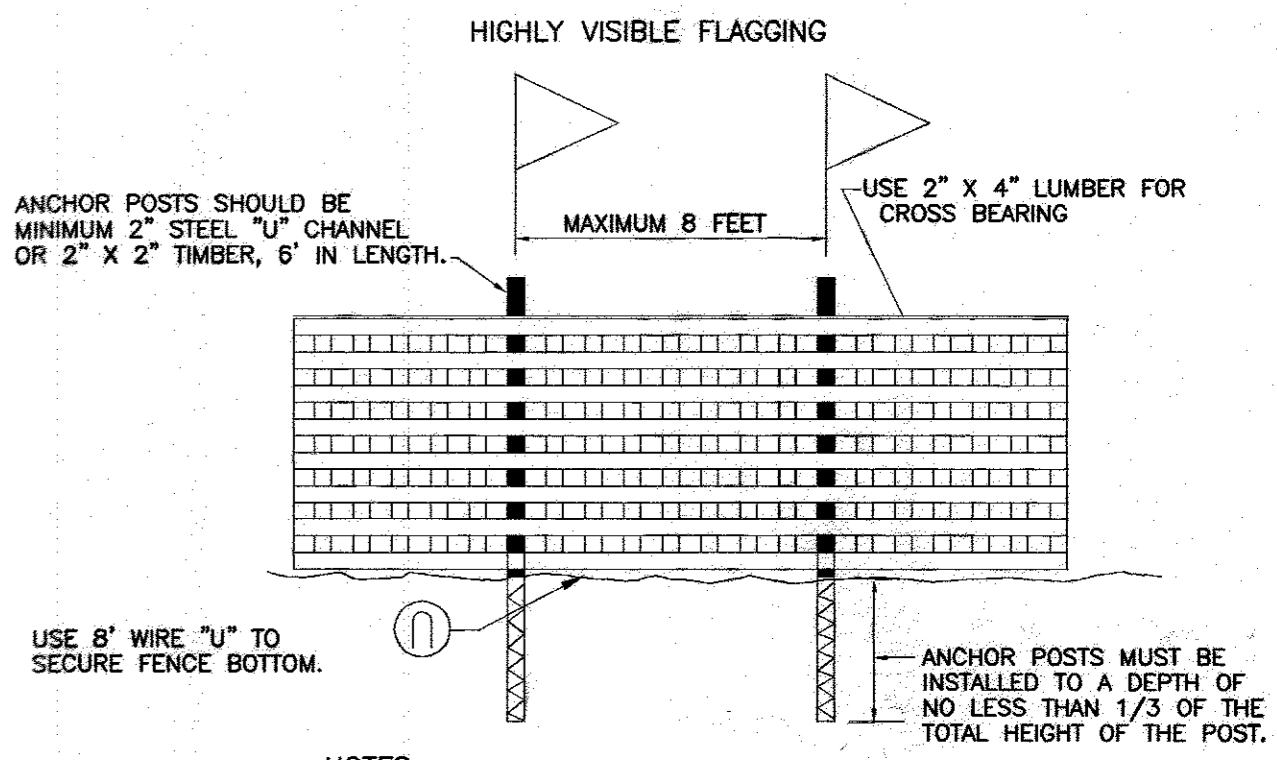
PLANTING REQUIREMENTS:
L. REFORESTATION FOR CLEARING ABOVE THE CONSERVATION THRESHOLD 0.00 AC
M. REFORESTATION FOR CLEARING BELOW THE CONSERVATION THRESHOLD 0.00 AC
N. CREDIT FOR RETENTION ABOVE CONSERVATION THRESHOLD 0.00 AC
P. TOTAL REFORESTATION REQUIRED 0.00 AC
Q. TOTAL AFFORESTATION REQUIRED 0.00 AC
R. TOTAL PLANTING REQUIRED 0.00 AC



- TREE PLANTING AND STAKING**
DECIDUOUS AND EVERGREEN TREES UP TO 3" CALIPER
NOT TO SCALE
- NOTES:
1. SEE "LANDSCAPE SPECIFICATION GUIDELINES FOR BALTIMORE-WASHINGTON METROPOLITAN AREAS" FOR ALL MATERIAL, PRODUCT AND PROCEDURE SPECIFICATIONS.
2. SEE "LANDSCAPE GUIDELINES" FOR SUPPORTING TREES LARGER THAN 2 1/2" CALIPER.
3. PLACE UPRIGHT STAKES PARALLEL TO WALKS AND BUILDINGS.
4. KEEP MULCH 1" FROM TRUNK.

TREE PRUNING
NOTES

- NOTES:
1. RETENTION AREAS TO BE ESTABLISHED AS PART OF THE FOREST CONSERVATION PLAN REVIEW PROCESS.
2. BOUNDARIES OF RETENTION AREAS TO BE STAKED, FLAGGED AND/OR FENCED PRIOR TRENCHING.
3. EXACT LOCATION OF TRENCH SHOULD BE IDENTIFIED.
4. TRENCH SHOULD BE IMMEDIATELY BACKFILLED WITH SOIL REMOVED OR ORGANIC SOIL.
5. ROOTS SHOULD BE CLEANLY CUT USING VIBRATORY KNIFE OR OTHER ACCEPTABLE EQUIPMENT.



- NOTES:
1. FOREST PROTECTION DEVICE ONLY.
2. RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.
3. BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE.
4. ROOF DAMAGE SHOULD BE AVOIDED.
5. PROTECTION SIGNAGE SHOULD BE USED.
6. DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.
- BLAZE ORANGE PLASTIC MESH
TYPICAL TREE PROTECTION FENCE DETAIL**
NOTES

NOTES

1. FOREST CONSERVATION REQUIREMENTS FOR THIS PROJECT SHALL BE FULFILLED BY THE ON SITE RETENTION OF 4.76 ACRES. SURETY IN THE AMOUNT OF \$41,470.00 SHALL BE POSTED AS PART OF THE DEVELOPERS AGREEMENT.
2. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY LANDSCAPE MANUAL WITH 23 SHADE TREES, WITH LANDSCAPE SURETY IN THE AMOUNT OF \$6,900.00 WITH THE DPW, DEVELOPERS AGREEMENT

FOREST RETENTION AREAS AND NOTES

- THE FOREST STAND DELINEATION PLAN WAS SUBMITTED WITH SP-06-020.
- FORESTED STREAM AND WETLAND BUFFERS ARE RETAINED IN OPEN SPACE LOTS.
- NO RARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED ON THIS SITE.
- FORESTED AREAS ADJACENT TO FLOODPLAINS AND STREAM BUFFERS ARE SUBSTANTIALLY RETAINED IN OPEN SPACE LOTS.
- THERE ARE NO ISOLATED FOREST STANDS ON THIS SITE.
- CHANGES IN GRADING AND RUNOFF WITHIN CONSTRUCTION/INSTALLATION AREAS WILL NOT ADVERSELY AFFECT THE SOILS WITHIN THE FOREST RETENTION AREA. SEDIMENT CONTROL MEASURES WILL REDIRECT CONCENTRATED FLOW RUNOFF TO STORMWATER MANAGEMENT FACILITIES, RETAIN SEDIMENT WITHIN THE CONSTRUCTION SITE, AND/OR REDIRECT CLEAN WATER AWAY FROM CONSTRUCTION AREAS.
- THE FOREST CONSERVATION EASEMENT HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION MANUAL. NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT. HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.
- THE DPW, REAL ESTATE SERVICES (RES) DIVISION WILL PREPARE A DEED OF FOREST CONSERVATION EASEMENT, WHICH WILL BE RECORDED BY RES AFTER THE PLAT, A FOREST CONSERVATION AGREEMENT INCLUDING SURETY FOR THE FOREST CONSERVATION RETENTION REQUIRED BY THE FDP IS REQUIRED. FOREST CONSERVATION AGREEMENT FORMS MAY BE OBTAINED FROM RES.

FOREST PROTECTION NOTES

- PRE-CONSTRUCTION ACTIVITIES
- FOR RETENTION AREAS, INSTALL BLAZE ORANGE FENCE AND RETENTION SIGNS BEFORE CONSTRUCTION BEGINS.
 - FENCING SHALL BE MAINTAINED IN GOOD CONDITION AND PROMPTLY REPAIRED OR RESTORED AS THE SITUATION WARRANTS.
 - A QUALIFIED TREE CARE EXPERT SHALL DETERMINE IF ROOT PRUNING IS REQUIRED ALONG THE LIMIT OF DISTURBANCE. ROOT PRUNE TREES AS REQUIRED. WATER ANY ROOT-PRUNED TREES IMMEDIATELY AFTER ROOT-PRUNING AND MONITOR FOR SIGNS OF STRESS DURING CONSTRUCTION.

TREE PLANTING AND MAINTENANCE NOTES

- AT THE TIME OF PLANT INSTALLATION, ALL SHRUBS AND TREES LISTED AND APPROVED ON THE LANDSCAPE PLAN, SHALL COMPLY WITH THE PROPER HEIGHT REQUIREMENT IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATIONS OF THE REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THE APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO THE APPLICABLE PLANS.
- THE OWNER, TENANTS AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES 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 OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.

SEQUENCE OF CONSTRUCTION-FOREST CONSERVATION

- PRECONSTRUCTION MEETING / SITE WALK WITH CONTRACTORS AND OTHER RESPONSIBLE PARTIES TO DEFINE PROTECTION MEASURES TO BE UTILIZED AND TO POINT OUT PARTICULAR TREES TO BE SAVED.
- STAKE OUT LIMITS OF DISTURBANCE AND TREE PROTECTION FENCING LOCATIONS.
- INSTALL TREE PROTECTION FENCING; FENCING TO BE INSPECTED BY THE PROJECT ENGINEER OR THE PROJECT ECOLOGIST AND HOWARD COUNTY PLANNING AND ZONING.
- PROCEED WITH TREE REMOVAL AND SITE IMPROVEMENTS AS PER APPROVED SEDIMENT CONTROL PLAN - TO BE INSPECTED BY HOWARD COUNTY PLANNING AND ZONING.
- TEMPORARY TREE PROTECTION DEVICES SHALL BE REMOVED AFTER ALL FINISHED GRADING AND UTILITY CONSTRUCTION HAS OCCURRED AND WITH APPROVAL FROM THE HOWARD COUNTY OFFICE OF PLANNING AND ZONING.

APPROVED: DEPARTMENT OF PUBLIC WORKS

Chief, Bureau of Highways *3-10-09*
Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development *3/1/09*
Date

Chief, Development Engineering Division *3/16/09*
Date

CONSTRUCTION PERIOD PRACTICES

The construction period extends from final approval of the development proposal until the release of all required guarantees specified for forest conservation requirements in the developers agreement.

Construction Period Supervision

As part of the construction period management and planting program, the developer shall designate an individual or firm to be fully responsible for implementing the requirements of the approved forest conservation plan or requesting modifications of previously approved requirements concerning planting techniques, species or maintenance needs. Those responsible for implementation of the approved forest conservation plan during the construction period requires site planning, engineering, and construction practices and methods that respect the biological needs of trees. A few fundamental horticultural principals are the basis of the protection guidelines and requirements cited in this manual:

Protecting and Managing Forest Retention Areas

Forest retention stands are extremely vulnerable to damage, long term decline, and death stemming from improper design and construction practices. Saving forests and specimen trees during the construction period requires site planning, engineering, and construction practices and methods that respect the biological needs of trees. A few fundamental horticultural principals are the basis of the protection guidelines and requirements cited in this manual:

A tree's root system can be large, extending well beyond the drip line of the crown. Typically, root systems are very shallow, in most cases being only 12" - 18" deep.

Trees generally do not have tap roots.

There are about as many roots as there are twigs and branches. If roots die, branches will die to keep the tree in balance.

Tree roots need a balance of water and air in the soil. Air only penetrates 12" - 18" into the soil. Stress and decline in tree health results when soil is piled on top of existing roots or roots are suddenly forced to sit in waterlogged soil or overly dry soils due to topography changes during construction.

Soil compacted to bulk densities of 1.7 gram/cubic centimeters or greater cannot support root growth. Existing roots in heavily compacted soils usually die.

Trees growing in disturbed or filled soils usually die back in proportion to the root area disturbed. Even minor disturbances such as tilling within the root zone for lawn installation will cause harm.

Trees, especially large trees, may take a long time to show the effects of construction damage. Trees may die 5 or even 10 years after being weakened by construction activity. Secondary stresses such as insects, disease, or drought may kill weakened trees while the same stress would not have affected a healthy tree.

Soil Protection Zone

The soil protection zone must be protected from construction activity and other stresses (e.g. flooding) to protect the forest stand from damage. The forest retention practices for a development must address the specific needs and stresses the proposal may cause. Nevertheless, the need to define the soil protection zone (critical root area) for forest areas is the one factor common to all retention efforts. The extent of the root system is quite large. The ratio of root expansion to crown spread can be 2:1 or larger on open grown specimen trees and can be significantly larger (up to 5:1) for trees growing in the interior of forest stands. Furthermore, the minimum requirement for root protection varies from species to species and from soil type to soil type. For open grown trees, it is generally accepted that protecting the soil within the drip line of the tree is adequate to save the tree in most cases. For trees that have been part of forest communities, however, the soil protection zone may have to be modified to reflect a more complex relationship between crown spread and root growth. Techniques for management of the soil protection zone are described in detail in Appendix G.

Rest Management Practices During Construction

Many of the construction period measures cited in the manual are for areas that should not be disturbed. The desire to protect areas within the limit of disturbance can be easily nullified by poor construction site management. The required construction period management program must therefore specify how construction activities will be managed to protect forest retention areas. The following should be depicted on site construction documents and/or forest conservation plans; they shall also be itemized in the developers agreement.

storage of equipment and materials
disposal of construction debris
washing of equipment, disposal of wastewater from concrete operations, etc.
employee parking
temporary structures such as trailers, sanitary facilities, etc.

Unless specifically exempted by the approved forest conservation plan, any use of forest retention areas for these activities or other intrusions shall be a violation of the approved forest conservation plan.

Because reforestation and afforestation typically may involve disturbances greater than 5,000 square feet, proper sediment and erosion controls may be required. Developers should refer to the Howard County Soil Conservation District for current standards, specifications and requirements. It may be necessary to protect forest retention areas from erosion and sedimentation caused by implementation of reforestation or afforestation plantings.

Construction Period Planting Procedures

The measures to protect forest retention areas emphasize isolating them from development impacts. Reforestation and afforestation, in contrast, will often occur on land already disturbed by development activities or may be located on land which will require substantial preparation to enable forest plantings to survive and thrive. Reforestation and afforestation plantings may also require a great deal of management intervention. (The three most likely causes of death for newly planted trees are drought, competing vegetation and deer.) The basic maintenance regime should be determined by on-site environmental conditions, structure and nutrient content of soil, and rainfall. Understanding these factors and the specific needs of the species and size of plants used will result in a healthy forested area at the end of the maintenance period. Appendix H contains guideline specifications for maintenance of forest conservation areas and focuses on the following critical needs:

General site preparation for planting: For undisturbed sites, disturbance of soils should be limited to the planting field for each plant. For disturbed areas, soils should be treated by incorporating natural mulch within the top 12 inches, or with needed amendments as determined by a soils analysis. Natural amendments such as organic mulch or leaf mold compost are preferred.

Stream Buffer Planting: Borders of streams and other waterways may have been damaged before reforestation and afforestation and therefore may need more extensive restoration work before reforestation or afforestation can be successful. The following are guidelines for any work within a riparian zone:

- Correct any erosion problems
- Minimize or eliminate any chemical use
- Maintain an undisturbed leaf layer and understory
- Eliminate exotics

Seed Site Planting: In areas of steep slopes or erodible soils, the preferred method of reforestation or afforestation is the use of seedlings to minimize disturbance. Planting on open or disturbed steep slopes eventually will stabilize them. Until the roots become established, however, there may still be erosion problems. Monitoring the stability of the soil will be important to the survival of the trees.

Post-Planting Considerations: For areas of large-scale disturbance, soils must be stabilized using a non-turf-building ground cover or engineering fabric. To protect against intrusion and to prevent damage to planted areas, all reforestation and afforestation sites must be posted with appropriate signs and fenced.

Certification of Completion

At the end of the construction period, the designated qualified professional shall convey to the Department of Planning And Zoning certification that all forest retention areas have been preserved, all reforestation and afforestation plantings have been installed as required by the forest conservation plan, and that all protection measures required for the post-construction period have been put in place. Appendix J contains a sample format for such certification. Planting must occur before June 30th to be credited toward the current growing season. Upon review of the certification document for completeness and accuracy, the Department will notify the developer of the beginning of the post-construction management period.

POST-CONSTRUCTION MANAGEMENT PRACTICES

Many of the protection and management practices for the construction period must be continued for at least 2 growing seasons following official notification of completion of the development (or a specific phase of the overall development if phasing has been approved). The responsibility to meet the survival standards requires adequate watering, replanting, thinning or other appropriate measures. Also, inappropriate uses or intrusions must not occur, a responsibility that requires the knowledge and cooperation of the new occupants of the development.

Minimum Two Growing Season Post-Construction Management Program

A post-construction management program must be approved as part of the original forest conservation plan and remain in effect for a minimum of two growing seasons. A longer period may be required for specific strategies (e.g. natural regeneration near high use areas whose long-term viability may take longer to confirm). Implementation of the post-construction management program must be supervised by a qualified professional who should inspect the status of all forest retention, reforestation and afforestation areas at specified times during the life of the post construction agreement and who must certify that the required survival rates have been achieved in accordance with the agreement prior to release of bonds. There are five primary components of the post-construction program: inspection, management of retained or new plantings, replacement of dead or damaged material when

necessary, education of new occupants of the development and final inspection and release of developer from additional responsibilities.

Inspection

Inspections should be carried out at the beginning and end of the growing season to pinpoint any problems, monitor survival rates, and specify remedial actions needed to correct existing problems. Appendix J has an example of an inspection report checklist.

Management of Forest Conservation Areas

Post construction management includes: maintenance of all fences, signs or other devices delineating forest conservation areas and other measures. Such other measures include: removal of dead or damaged material and control of undesirable competing species; thinning or pruning to encourage proper growth; fertilizing; and control of pests. Specific practices will depend on the weather prevailing during the post construction period, the type of plant material and planting methods used, and specific site conditions such as proximity to high use areas. It is the responsibility of the post-construction plan supervisor to take appropriate actions as needed. This manual, therefore, does not cite required measures. Survival success, not fulfillment of a given series of tasks, will be the measure of conformance to the needs of the post-construction program.

Newly planted trees, whether they are seedlings or 4" caliper transplants, have basic needs. Some of these needs can be met by nature alone; others may require human intervention. (The three most likely causes of death for newly planted trees are drought, competing vegetation and deer.) The basic maintenance regime should be determined by on-site environmental conditions, structure and nutrient content of soil, and rainfall. Understanding these factors and the specific needs of the species and size of plants used will result in a healthy forested area at the end of the maintenance period. Appendix H contains guideline specifications for maintenance of forest conservation areas and focuses on the following critical needs:

- watering
- fertilizing
- control of competing vegetation
- protection from pests, diseases and mechanical injury.

Replacement of Plant Material

An inspection shall take place at the end of year one or before the second growing season to evaluate survival rates with reference to the survival required at the end of the two year period. This is an opportunity to avoid the penalty for violating survival rate standards. This inspection should estimate survival potential based on the following:

- vigor and threat of competing vegetation (i.e. if seedlings are free to grow)
- structure
- growth rate
- crown development
- trunk health

If, after one year, the possibility exists that the original planting will not meet survival standards, the applicant may choose to establish reinforcement plantings. If plant mortality of reforestation or afforestation exceeds 10% of planted material at the end of the first growing season, such material should be replaced to bring the total number of trees to 90% of the original total. Such material shall be installed by the beginning of the second growing season. If, at the end of the second growing season, survival rate drops below 75%, such material as needed to guarantee an 75% survival rate by the end of the third growing season shall be installed.

Education of New Occupants

The occupants of a new development, whether owners or tenants, must avoid activities that destroy or degrade protected forest resources. The post-construction management program must therefore include steps to educate the new occupants about the proper use of forest conservation areas, about the need for the developer to carry out the post-construction management program, and the eventual transfer of long-term responsibilities to the owners or occupants. Such educational material should include a plan locating all protected areas on the site and a description of permitted and prohibited activities within or affecting such areas. The format and method of conveying such information is left to the discretion of the developer.

Final Inspection and Release of Obligations

At the end of the post-construction management and protection period, the designated responsible professional shall convey to the Department of Planning and Zoning certification that all forest conservation areas have remained intact or have been restored to the appropriate condition and that the stipulated survival rates have been achieved, and that any permanent protection measures required by the plan are in place. Appendix J contains a sample format for such certification. Upon review of the final certification document for completeness and accuracy, the County will notify the developer of release of surety and all future obligations. The developer's last official responsibility will be to transmit a copy of this notification to the owner(s) of the property(ies). Such transmittal will serve as official notice to owner of their assumption of full responsibility for all future forest conservation obligations.

JOHN CANKLES
DNR QUALIFIED FOREST PROFESSIONAL

LONG-TERM MANAGEMENT RESPONSIBILITIES

To maintain the integrity of forest conservation areas, the owners must refrain from any activities that would diminish the viability and environmental integrity of forest retention areas or hinder the growth and maturing of new forest plantings. When the site is occupied by tenants, the owner must insure that the tenants do not, willfully or out of ignorance, use the site in ways-that violate forest conservation restrictions or damage protected forest resources. Depending on the location, as well as the size and type of plant material, some maintenance is very beneficial, particularly in the early years. In all instances, State law requires that noxious weeds be controlled.

In many developments a homeowners association, tenants association or other management organization will maintain the site. Such a group is well suited to assume explicit responsibility for protecting the integrity of forest conservation areas and performing any desired maintenance after the initial developer guarantees and obligations have expired. Responsibility for ensuring that all provisions of the conservation easement are adhered to, however, ultimately belong to the property owner(s).

RETENTION PROTECTION SIGNAGE
NOTES

- BOTTOM OF SIGNS TO BE HIGHER THAN TOP OF TREE PROTECTION FENCE.
- SIGNS TO BE PLACED APPROXIMATELY 100' FEET APART. CONDITIONS ON SITE AFFECTING VISIBILITY MAY WARRANT PLACING SIGNS CLOSER OR FARTHER APART.
- ATTACHMENT OF SIGNS TO TREES IS PROHIBITED.

DEVELOPER'S/OWNER'S LANDSCAPE CERTIFICATE

I/WE CERTIFY THAT LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION OF THE PROJECT, A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

Developer's/Owner's Name: *William S. Devereux*

SOIL LEGEND		
SYMBOL	NAME/DESCRIPTION	GROUP
Ba	BAILE SILT LOAM	D
Co	CODORUS SILT LOAM	C
GIA	GLENELO LOAM, 0 TO 3 PERCENT SLOPES	B
GB2	GLENELO LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	B
GC2	GLENELO LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	B
GA	GLENEVILLE SILT LOAM, 0 TO 3 PERCENT SLOPES	C
MB2	MANOR VERY STONY LOAM, 3 TO 25 PERCENT SLOPES	B
MIB	MT. AIRY CHANNERY LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	A
MIC2	MT. AIRY CHANNERY LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	A
MC3	MT. AIRY CHANNERY LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED	A
MID2	MT. AIRY CHANNERY LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED	A

**FINAL ROAD CONSTRUCTION PLAN
FOREST CONSERVATION AND
LANDSCAPE NOTES AND DETAILS
KOGAN TRUST PROPERTY**

LOTS 16-18 AND BUILDABLE PRESERVATION PARCEL 'A'
A RESUBDIVISION OF KOGAN TRUST PROPERTY LOT 8
DPZ REF: SP-06-020, F-89-83, VP-80-81, F-81-17, WP-09-024

TAX MAP 6 B BLOCK 23 LOT 8, PARCEL 247
4TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**OWNER/
DEVELOPER**
WILLIAM S. DEVEREUX
1850 FLORENCE ROAD
MT. AIRY, MD 21771
(301) 831-5141

**ROBERT H. VOGEL
ENGINEERS SURVEYORS PLANNERS**

8407 MAIN STREET
ELICOTT CITY, MD 21043 TEL: 410-461-7666
FAX: 410-461-8961

DESIGN BY: RHV
DRAWN BY: JMR
CHECKED BY: RHV
DATE: JANUARY 06, 2009
SCALE: AS SHOWN
W.O. NO.: 04-28-00

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 18183 EXPIRATION DATE: SEPTEMBER 27, 2010

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