

**GENERAL NOTES**

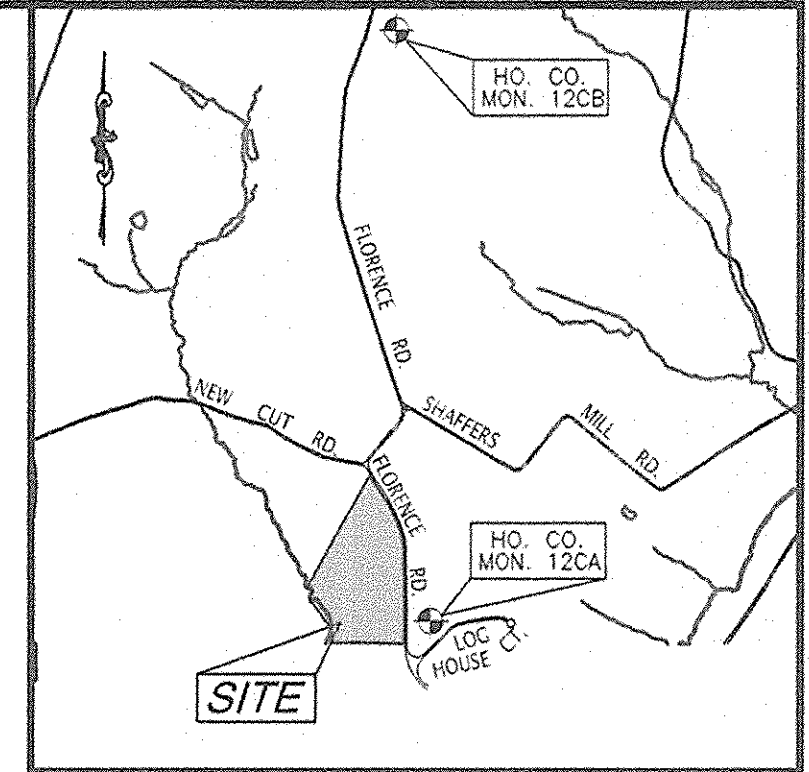
- ALL ASPECTS OF THE PROJECT ARE IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
- THE SUBJECT PROPERTY IS ZONED RC-DEO PER THE July 28, 2006 COMPREHENSIVE ZONING PLAN.
- THIS SUBDIVISION COMPLIES WITH THE AMENDED 5TH EDITION OF THE SUBDIVISION AND ZONING REGULATIONS (CB-45-2003) AND THE ZONING REGULATIONS, AS AMENDED BY COUNCIL BILL 75-2003.
- DENSITY TABULATION:  
 GROSS AREA OF PROJECT: 20.89 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: 20.89/4.25 = 4  
 MAXIMUM RECEIVING YIELD: 16/2 = 8  
 NUMBER OF BUILDABLE ENTITIES PROPOSED: 6  
 NUMBER OF DEO UNITS NEEDED: 2
- THE PROJECT BOUNDARY IS BASED ON HOWARD COUNTY RECORD PLAT 10011, DATED AUGUST 1991.
- 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 WOV AND REV. CPV IS NOT REQUIRED FOR THIS PROJECT.
- 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/APPO 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 I-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.
- LOTS 17-19 WILL UTILIZE A USE-IN-COMMON DRIVEWAY. HOWARD COUNTY STANDARD DETAIL NO. R-6.06 WILL BE UTILIZED FOR THE ENTRANCE AT THE INTERSECTION OF THE PUBLIC ROAD.
- TRASH COLLECTION AND RECYCLING WILL BE ROADSIDE PICKUP AT COUNTY ROADWAY.
- 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 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.
- PERIMETER LANDSCAPING SHALL BE IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL 3. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING SHALL BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$7,500.00 FOR 25 SHADE TREES.
- THIS AREA DESIGNATES A MINIMUM 10,000 SQ FT PRIVATE SEWAGE EASEMENT REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWAGE IS AVAILABLE. THESE EASEMENTS SHALL BE NULL AND VOID UPON CONNECTION TO A PUBLIC SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE EASEMENT. RE-CORRECTION OF A MODIFIED SEWAGE EASEMENT SHALL NOT BE NECESSARY.

# PRELIMINARY EQUIVALENT SKETCH PLAN

## KOGAN TRUST PROPERTY

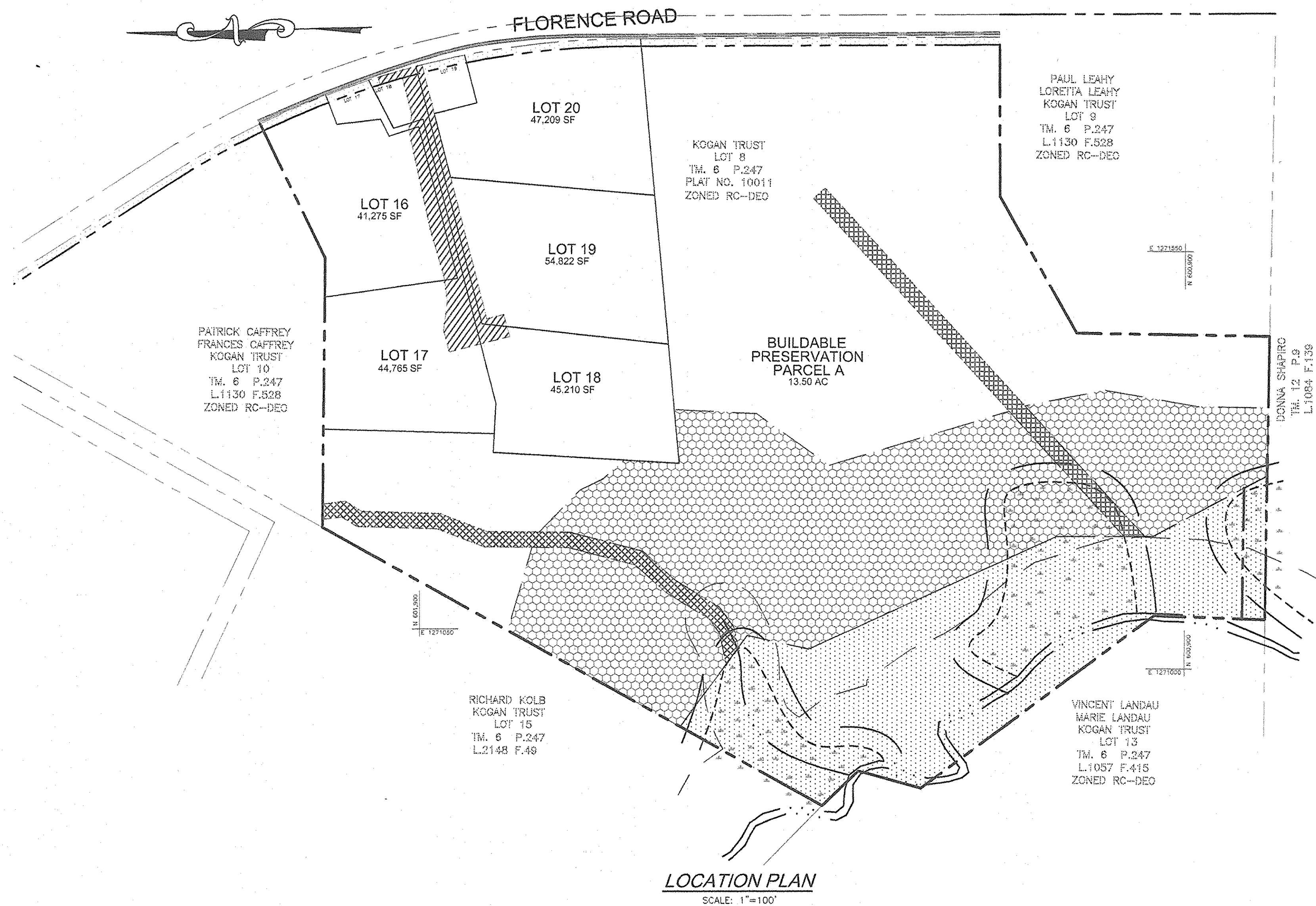
### LOTS 16-20 AND BUILDABLE PRESERVATION PARCEL 'A'

#### A RESUBDIVISION OF KOGAN TRUST PROPERTY LOT 8



VICINITY MAP  
SCALE: 1"=2,000'

BENCHMARKS			
NO.	NORTHING	EASTING	ELEVATION
12CA	600,463	1,271,900	690.47'
12CB	597,303	1,272,860	690.47'



**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  
 AREA OF STEEP SLOPES OUTSIDE THE FLOODPLAIN: 1.86 AC  
 NET AREA OF PROJECT: 16.00 AC  
 NUMBER PROPOSED BUILDABLE LOTS: 5 LOTS  
 AREA OF PROPOSED BUILDABLE LOTS: 5.35 AC  
 NUMBER OF PROPOSED BUILDABLE PRESERVATION PARCELS: 1 PARCEL  
 AREA OF PROPOSED BUILDABLE PRESERVATION PARCELS: 13.50 AC  
 TOTAL LIMIT OF DISTURBANCE: 2.44 AC

**MINIMUM LOT SIZE CHART**

LOT NO.	GROSS AREA	PIPESTEM AREA	MINIMUM LOT SIZE
17	49,997 SF	5,232 SF	44,765 SF
18	51,381 SF	6,171 SF	45,210 SF
19	59,795 SF	4,973 SF	54,822 SF

**SHEET INDEX**

DESCRIPTION	SHEET NO.
COVER SHEET	1
LAYOUT, GRADING, SEDIMENT AND EROSION CONTROL PLAN	2
FOREST CONSERVATION AND LANDSCAPING PLAN	3
FOREST CONSERVATION AND LANDSCAPING DETAILS	4
SEDIMENT AND EROSION CONTROL DETAILS	5

LOCATION PLAN  
SCALE: 1"=100'

**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 <sub>HP</sub> )	NA	NA	NA	
5	EXTREME FLOOD VOLUME (E <sub>100P</sub> )	NA	NA	NA	

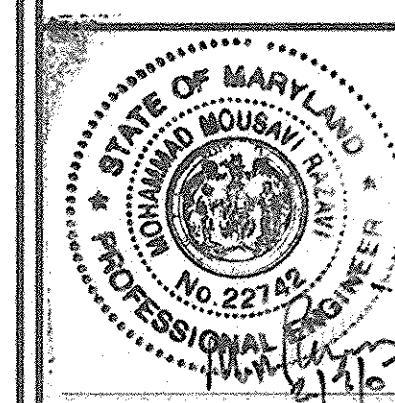
**STORMWATER MANAGEMENT REQUIREMENTS - STUDY POINT 'B'**

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 <sub>HP</sub> )	NA	NA	NA	
5	EXTREME FLOOD VOLUME (E <sub>100P</sub> )	NA	NA	NA	

**SUMMARY**  
 1. WATER QUALITY VOLUME (WQV) IS PROVIDED BY RAIN GARDENS AND GRASS SWALES.  
 2. RECHARGE VOLUME (REV) IS PROVIDED BY RAIN GARDENS AND GRASS SWALES.

TENTATIVELY APPROVED  
 DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY  
 APPROVED FOR PRIVATE WATER AND PRIVATE SEWAGE SYSTEMS  
 COUNTY HEALTH OFFICER

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



DESIGN BY: JCO/MR  
 DRAWN BY: JC/LIT/ORN  
 CHECKED BY: RHY  
 DATE: JUNE 23, 2006  
 SCALE: AS NOTED  
 W.O. NO.: 04-26-00

DPZ REF:

1 SHEET OF 5

SP-06-020

FLORENCE ROAD  
LOCAL PUBLIC ROAD  
PLAT NO. 4729

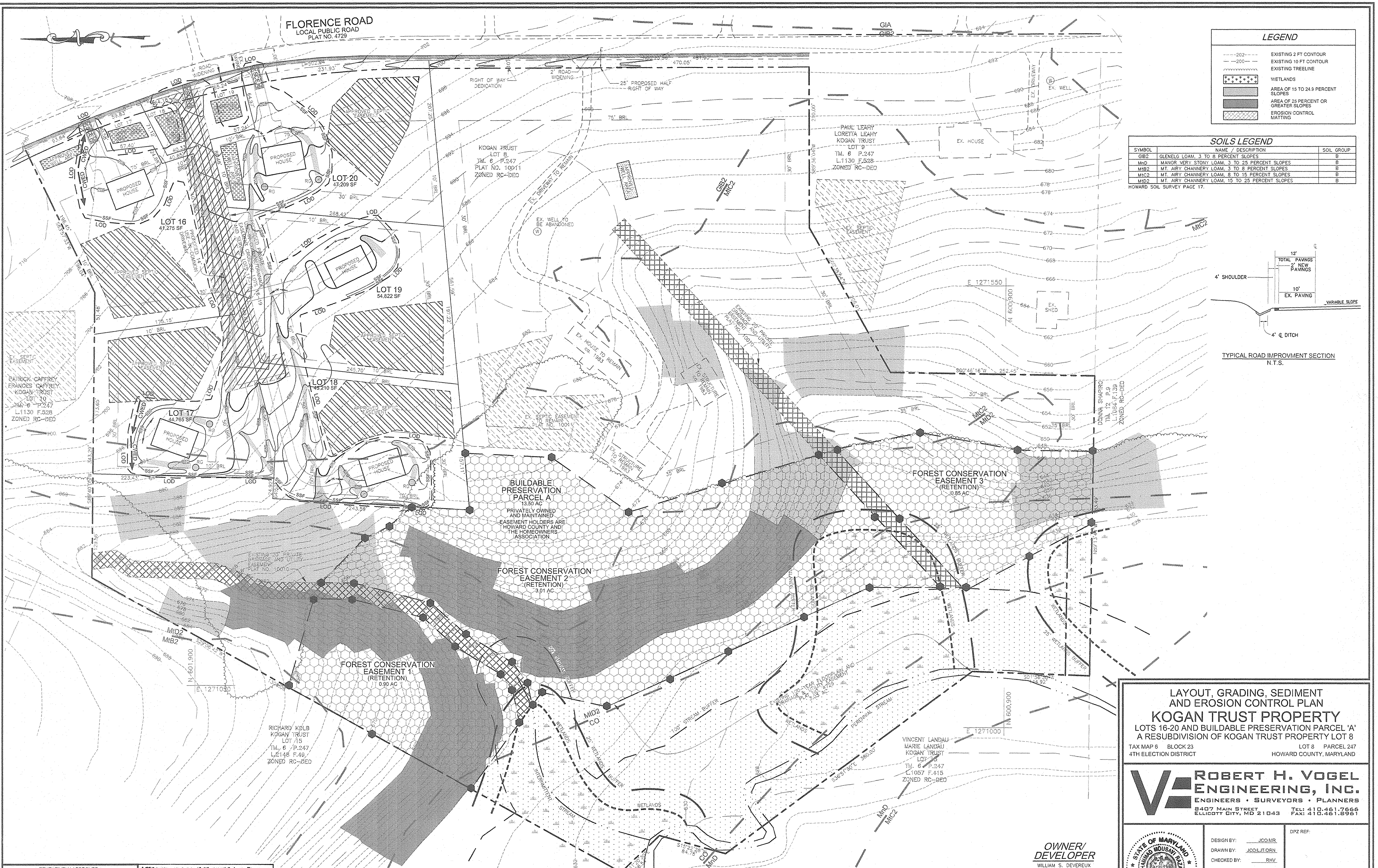
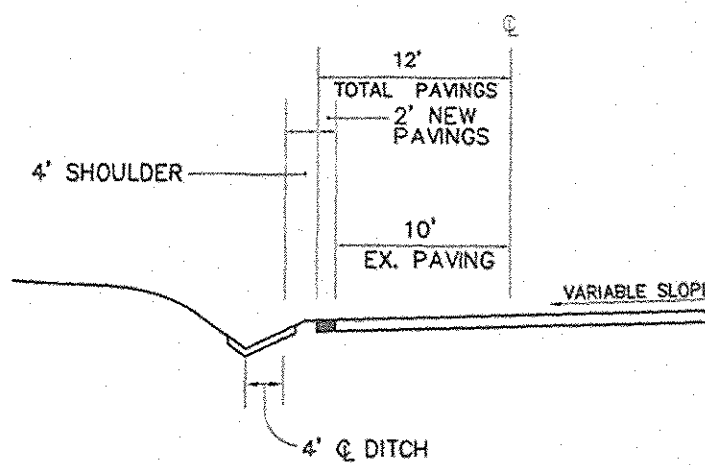
**LEGEND**

- 202--- EXISTING 2 FT CONTOUR
- 200--- EXISTING 10 FT CONTOUR
- EXISTING TREELINE
- WETLANDS
- AREA OF 15 TO 24.9 PERCENT SLOPES
- AREA OF 25 PERCENT OR GREATER SLOPES
- EROSION CONTROL MATTING

**SOILS LEGEND**

SYMBOL	NAME / DESCRIPTION	SOIL GROUP
GIB2	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	B
Mh0	MAJOR VERY STONY LOAM, 3 TO 25 PERCENT SLOPES	B
Mh2	MT. AIRY CHANNERY LOAM, 3 TO 8 PERCENT SLOPES	B
MIC2	MT. AIRY CHANNERY LOAM, 8 TO 15 PERCENT SLOPES	B
MID2	MT. AIRY CHANNERY LOAM, 15 TO 25 PERCENT SLOPES	B

HOWARD SOIL SURVEY PAGE 17.



TENTATIVELY APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY

APPROVED: FOR PRIVATE WATER AND PRIVATE  
SEWAGE SYSTEMS

Richard J. [Signature] 7/2/07  
PLANNING DIRECTOR DATE

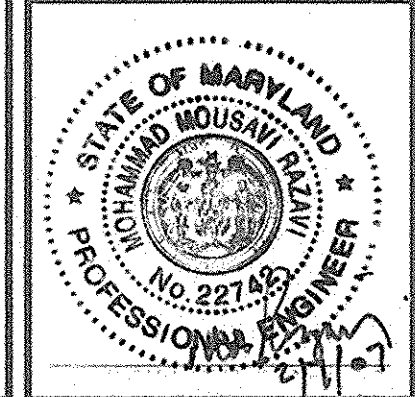
Richard J. [Signature] for Peter Beslemann 6/28/07  
COUNTY HEALTH OFFICER DATE

LAYOUT, GRADING, SEDIMENT  
AND EROSION CONTROL PLAN  
**KOGAN TRUST PROPERTY**  
LOTS 16-20 AND BUILDABLE PRESERVATION PARCEL 'A'  
A RESUBDIVISION OF KOGAN TRUST PROPERTY LOT 8

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

**ROBERT H. VOGEL**  
ENGINEERS • SURVEYORS • PLANNERS

8407 MAIN STREET TEL: 410.461.7666  
ELLICOTT CITY, MD 21043 FAX: 410.461.6966



OWNER/  
DEVELOPER

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

DESIGN BY: JCO/MR  
DRAWN BY: JCOL/IT/DRV  
CHECKED BY: RHV  
DATE: JUNE 23, 2006  
SCALE: 1"=50'  
W.O. NO.: 04-28-00

DPZ REF:

2 SHEET OF 5

SP 06-020

FLORENCE ROAD  
LOCAL PUBLIC ROAD  
PLAT NO. 4729

**LEGEND**

---202---	EXISTING 2 FT CONTOUR
---200---	EXISTING 10 FT CONTOUR
~~~~~	EXISTING TREELINE
[Pattern]	WETLANDS
[Pattern]	AREA OF 15 TO 24.9 PERCENT SLOPES
[Pattern]	AREA OF 25 PERCENT OR GREATER SLOPES

**SOILS LEGEND**

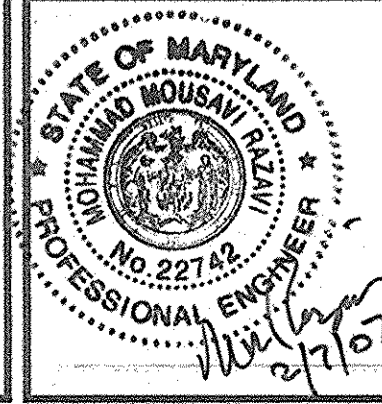
SYMBOL	NAME / DESCRIPTION	SOIL GROUP
GIB2	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	B
MnD	MANOR VERY STONY LOAM, 3 TO 25 PERCENT SLOPES	B
MIB2	MT. AIRY CHANNERY LOAM, 3 TO 8 PERCENT SLOPES	B
MC2	MT. AIRY CHANNERY LOAM, 8 TO 15 PERCENT SLOPES	B
MIC2	MT. AIRY CHANNERY LOAM, 15 TO 25 PERCENT SLOPES	B

HOWARD SOIL SURVEY PAGE 17.



**LANDSCAPING AND FOREST CONSERVATION PLAN**  
**KOGAN TRUST PROPERTY**  
 LOTS 16-20 AND BUILDABLE PRESERVATION PARCEL 'A'  
 A RESUBDIVISION OF KOGAN TRUST PROPERTY LOT 8  
 TAX MAP 6 BLOCK 23 LOT 8 PARCEL 247  
 4TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

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



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

DESIGN BY: JCOMR	DPZ REF:
DRAWN BY: JCOL/JDRN	
CHECKED BY: RHV	
DATE: JUNE 23, 2006	
SCALE: AS NOTED	
W.O. NO.: 04-28.00	

TENTATIVELY APPROVED DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY  
 APPROVED FOR PRIVATE WATER AND PRIVATE SEWAGE SYSTEMS  
 COUNTY HEALTH OFFICER

7/2/07  
 DATE

*John Condes*  
 John Condes, Eco-Science Professionals, Inc.  
 DNR QUALIFIED PROFESSIONAL

SCHEDULE A PERIMETER LANDSCAPE EDGE				
CATEGORY	ADJACENT TO PERIMETER PROPERTIES			
	1	2	3	
Perimeter/Frontage Designation	A	A	A	
Linear Foot of Roadway Frontage/Perimeter	422'	492'	562'	
Credit for Existing Vegetation (Yes, No, Linear Feet Describe below if needed)	No	YES* 42'	YES* 64'	
Credit for Wall, Fence or Ecm (Yes, No, Linear Feet Describe below if needed)	No	No	No	
Number of Plants Required	1-60	8	9	
Shade Trees	-	-	-	
Evergreen Trees	-	-	-	
Shrubs	-	-	-	
Number of Plants Provided	8	8	9	
Shade Trees	-	-	-	
Evergreen Trees	-	-	-	
Other Trees (2:1 Substitution)	-	-	-	
Shrubs (10:1 Substitution)	-	-	-	
Describe Plant Substitution Credits (Below if needed)				

LANDSCAPE SCHEDULE				
KEY	QUAN.	BOTANICAL NAME	SIZE	REM.
	13	LIQUIDAMBAR STYRACIFLUA AMERICAN SWEETGUM	2 1/2"-3" Cal.	B & B
	12	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 AN SPECIFICATIONS AND BE INSTALLED IN ACCORDANCE WITH LEADY PLANTING SPECIFICATIONS.  
2. CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.  
3. FINAL LOCATION OF PLANT MATERIAL MAY VARY TO MEET FINAL FIELD CONDITIONS. TREES SHALL NOT BE PLANTED IN THE BOTTOM OF DRAINAGE SWALES.  
4. CONTRACTOR SHALL VERIFY PLANT QUANTITIES PRIOR TO BIDDING. IF PLAN DIFFERS FROM LANDSCAPE SCHEDULE, THE PLAN SHALL GOVERN.

**FOREST CONSERVATION WORKSHEET**

NET TRACT AREA:  
 A. TOTAL TRACT AREA 23.89 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.  
 ARA MDR IDA HDR MPD CIA  
 0 1 0 0 0 0

D. 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

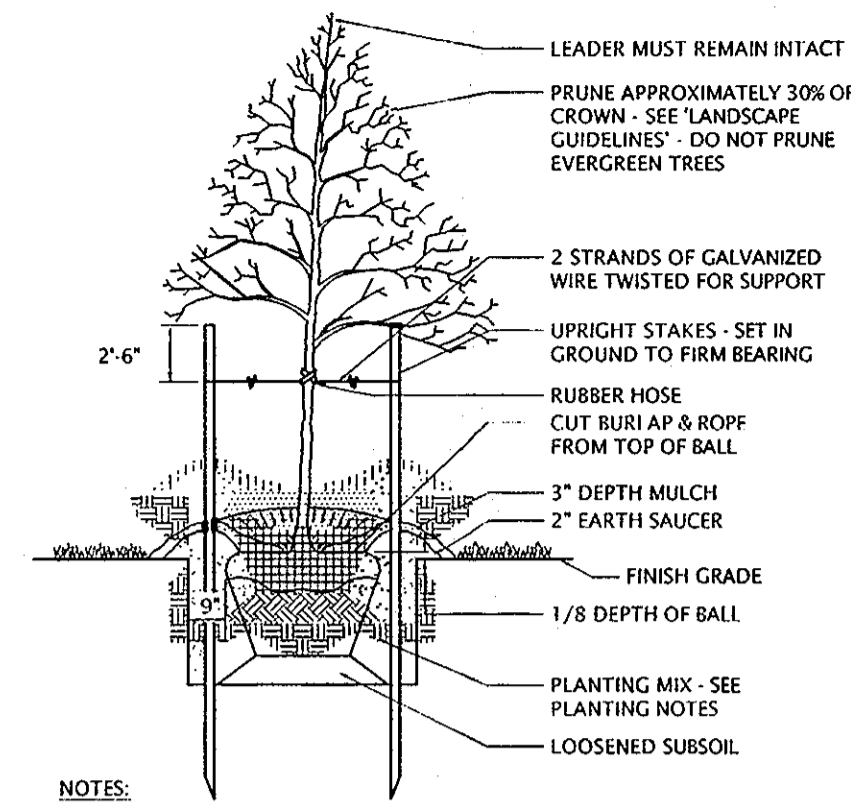
BREAK EVEN POINT:  
 H. BREAK EVEN POINT 4.76 AC  
 I. FOREST CLEARING PERMITTED WITHOUT MITIGATION 1.38 AC

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 0.3 AC  
 M. REFORESTATION FOR CLEARING BELOW THE CONSERVATION THRESHOLD 0.00 AC  
 N. CREDIT FOR RETENTION ABOVE CONSERVATION THRESHOLD 0.3 AC  
 P. TOTAL REFORESTATION REQUIRED 0.00 AC  
 Q. TOTAL AFFORESTATION REQUIRED 0.00 AC  
 R. TOTAL PLANTING REQUIRED 0.00 AC

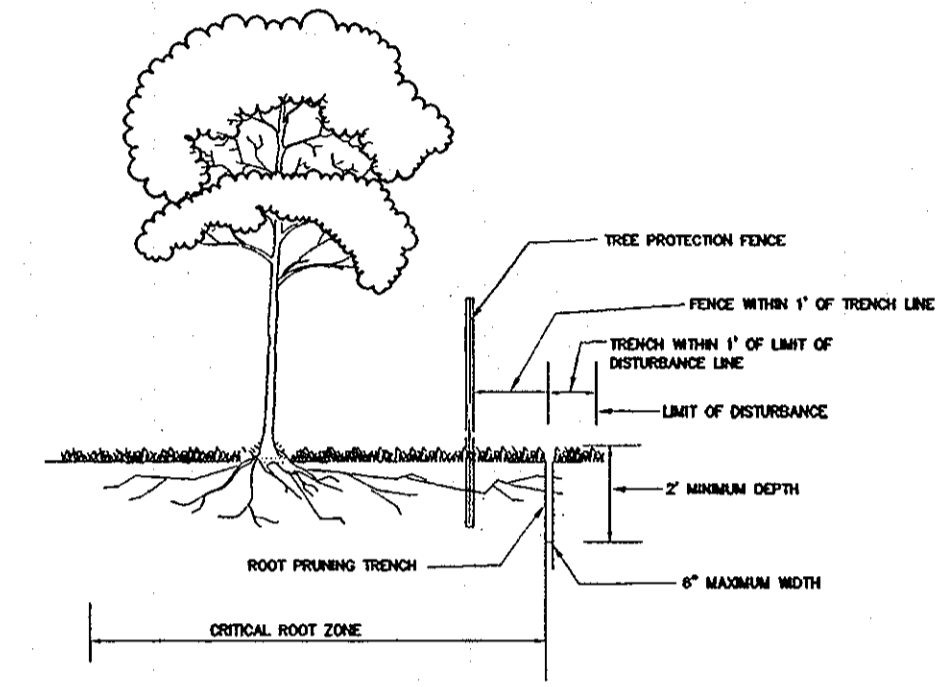
**NOTES**

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- PERIMETER LANDSCAPING SHALL BE IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL 3. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING SHALL BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$7,500.00 FOR 25 SHADE TREES.



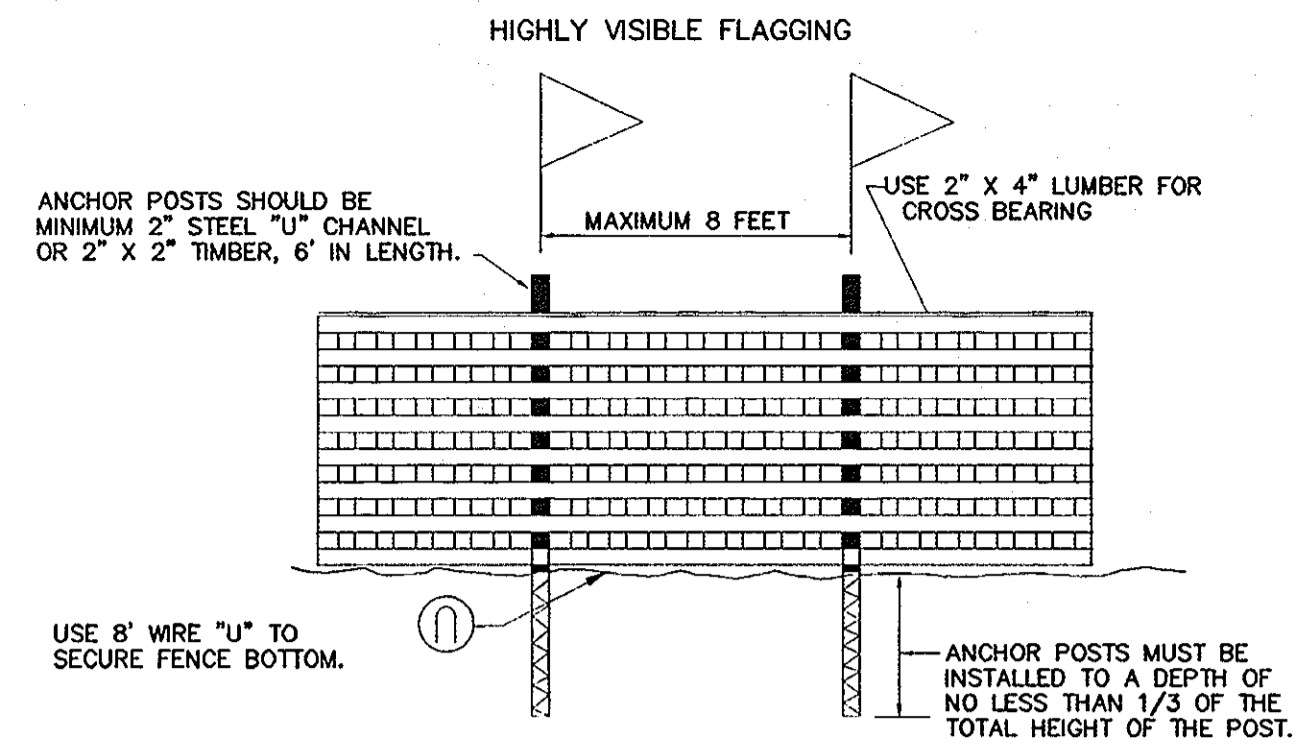
**NOTES:**  
 1. SEE "LANDSCAPE SPECIFICATION GUIDELINES FOR BALTIMORE-WASHINGTON METROPOLITAN AREA" FOR ALL MATERIAL, PRODUCT AND PROCEDURE SPECIFICATIONS.  
 2. SEE "LANDSCAPE GUIDELINES" FOR SUPPORTING TREES LARGER THAN 2 1/2" CALIPER.  
 3. PLACE UPRIGHT STAKES PARALLEL TO WALKS AND BUILDINGS.  
 4. KEEP MULCH 1" FROM TRUNK.

**TREE PLANTING AND STAKING**  
 DECIDUOUS AND EVERGREEN TREES UP TO 3" CALIPER  
 NOT TO SCALE



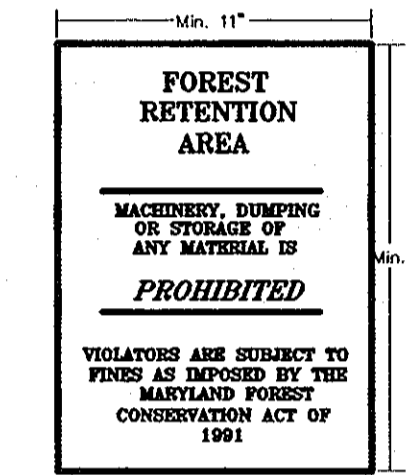
**NOTES:**  
 1. RETENTION AREAS TO BE ESTABLISHED AS PART OF THE FOREST CONSERVATION PLAN REVIEW PROCESS.  
 2. BOUNDARIES OF RETENTION AREAS TO BE STAKED, FLAGGED AND/OR FENCED PRIOR TRENCHING.  
 3. EXACT LOCATION OF TRENCH SHOULD BE IDENTIFIED.  
 4. TRENCH SHOULD BE IMMEDIATELY BACKFILLED WITH SOIL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

**ROOT PRUNING**  
 NTS



**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. ROOT 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**  
 NTS



**RETENTION PROTECTION SIGNAGE**  
 NTS

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

TENTATIVELY APPROVED  
 DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY

APPROVED FOR PRIVATE WATER AND PRIVATE SEWAGE SYSTEMS

PLANNING DIRECTOR: *[Signature]* DATE: 7/2/07  
 COUNTY HEALTH OFFICER: *[Signature]* DATE: 6/26/07

*[Signature]*  
 John Cenko's Eco-Science Professionals, Inc.  
 DNR QUALIFIED PROFESSIONAL

OWNER/  
 DEVELOPER

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

LANDSCAPING AND FOREST CONSERVATION DETAILS  
**KOGAN TRUST PROPERTY**  
 LOTS 16-20 AND BUILDABLE PRESERVATION PARCEL 'A'  
 A RESUBDIVISION OF KOGAN TRUST PROPERTY LOT 8  
 TAX MAP 6 BLOCK 23 LOT 8 PARCEL 247  
 4TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL ENGINEERING, INC.**  
 ENGINEERS • SURVEYORS • PLANNERS  
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DESIGN BY: JCOMR  
 DRAWN BY: JCOLTIDRN  
 CHECKED BY: RHV  
 DATE: JUNE 23, 2006  
 SCALE: AS NOTED  
 W.O. NO.: 04-28-00

DPZ REF:

4 SHEET OF 5

SP-06-020

**SEDIMENT CONTROL NOTES**

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTION, LICENSE AND PERMITS 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 REDISTURBANCE, 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 5:1, (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. G). 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	20.89 AC
AREA DISTURBED	2.44 AC
AREA TO BE ROOFED OR PAVED	0.52 AC
AREA TO BE VEGETATIVELY STABILIZED	1.97 AC
TOTAL CUT	520 CY
TOTAL FILL	520 CY
OFFSITE WASTE/BORROW AREA LOCATION	
- 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.
- ESTIMATES OF EARTHWORK QUANTITIES ARE PROVIDED SOLELY FOR THE PURPOSE OF CALCULATING FEES.
  - \* TO BE DETERMINED BY CONTRACTOR, WITH PRE-APPROVAL OF THE SEDIMENT CONTROL INSPECTOR WITH AN APPROVED AND ACTIVE GRADING PERMIT

**21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL**

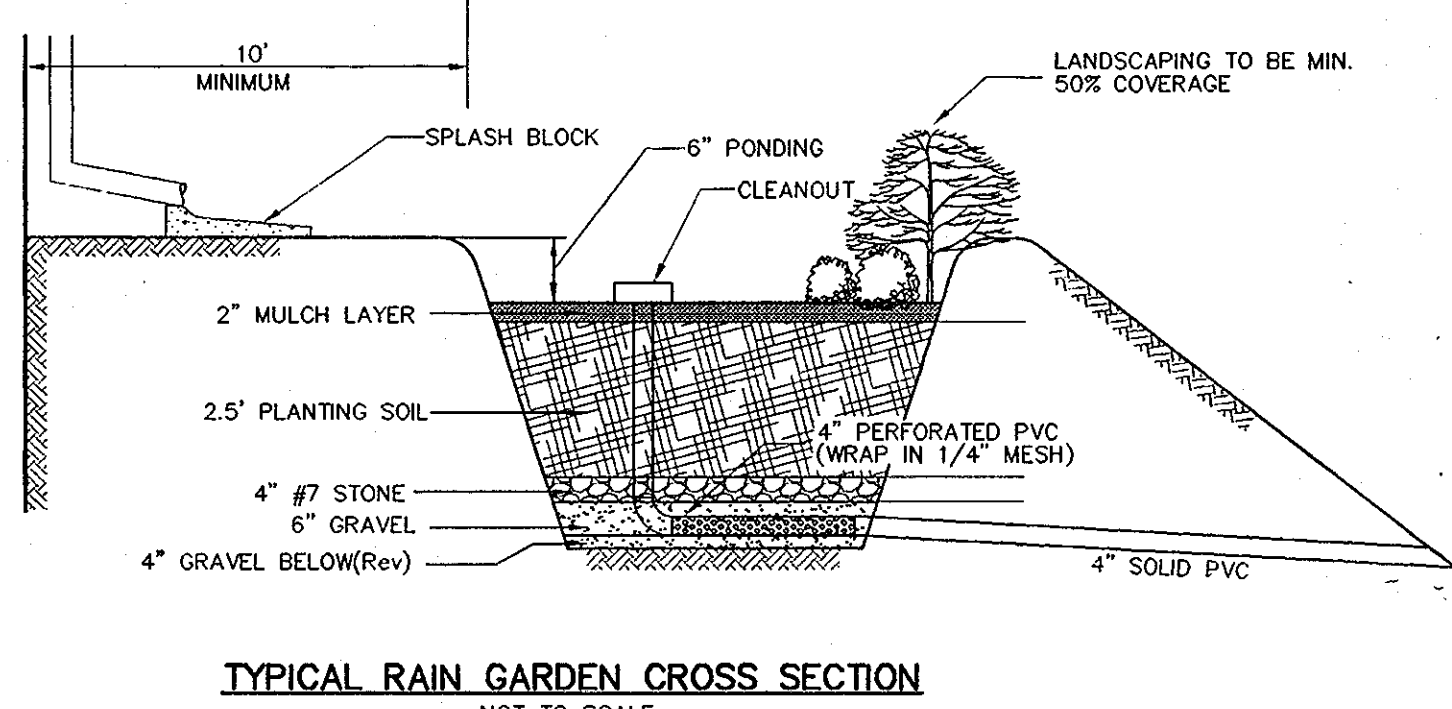
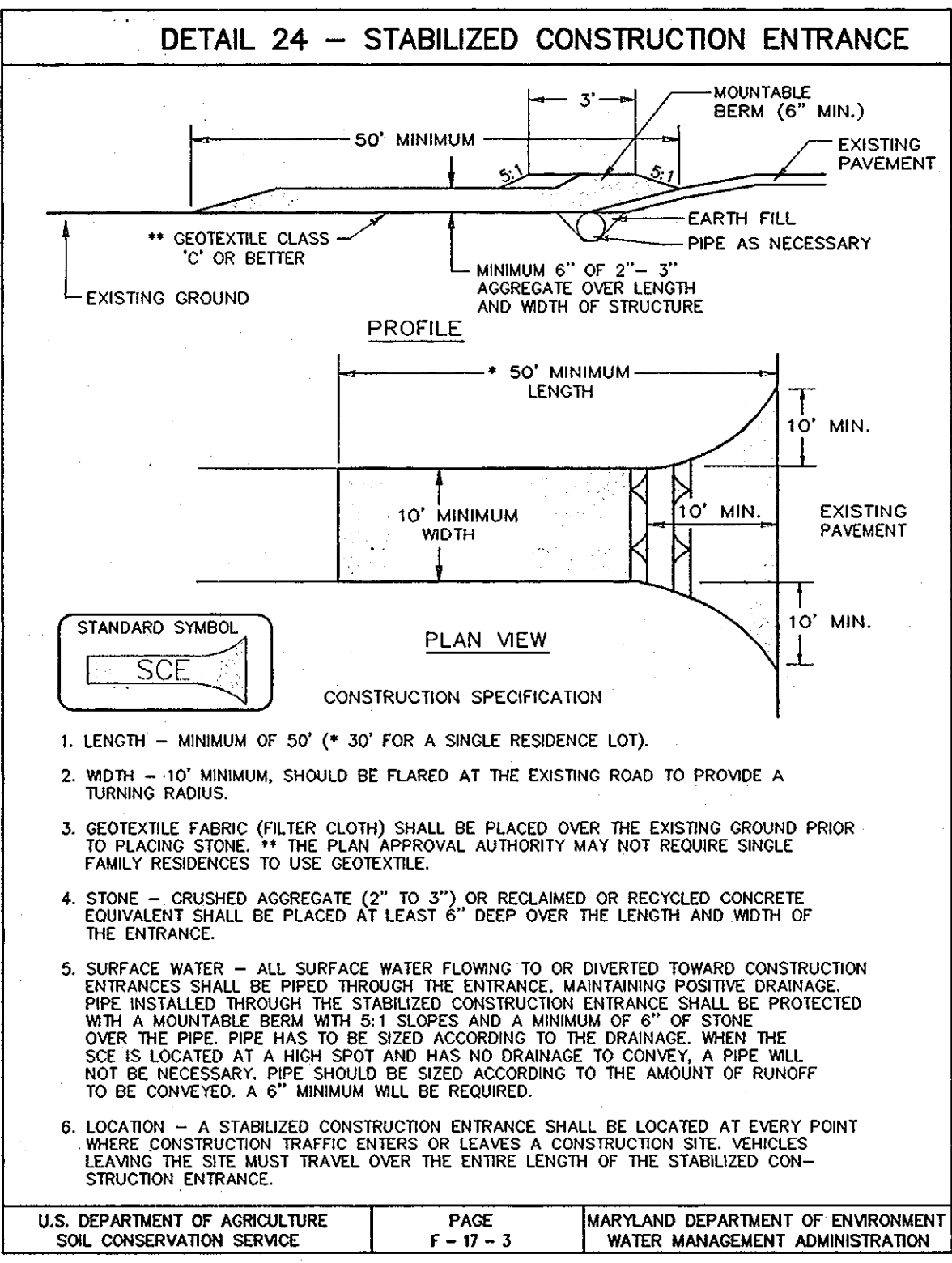
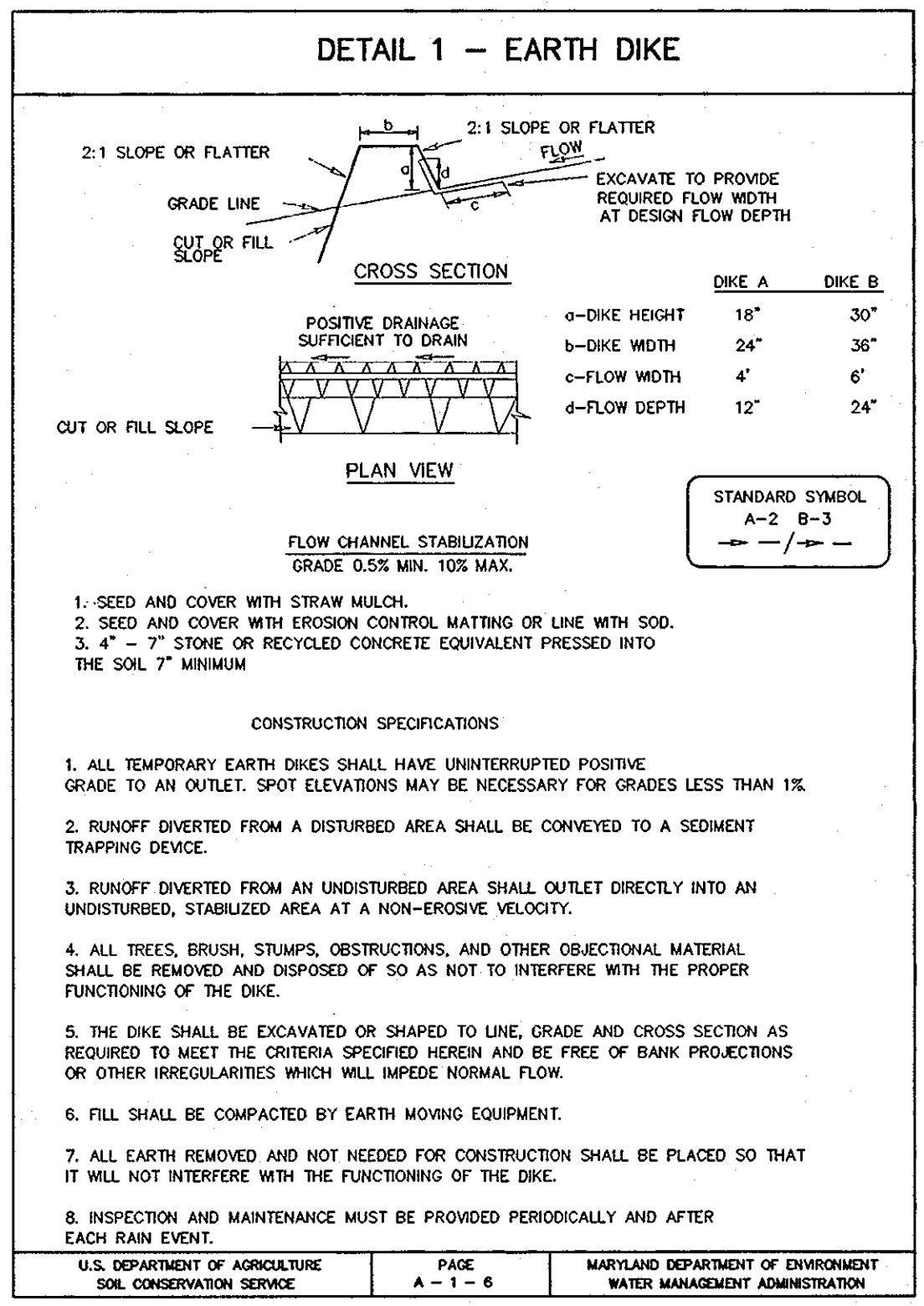
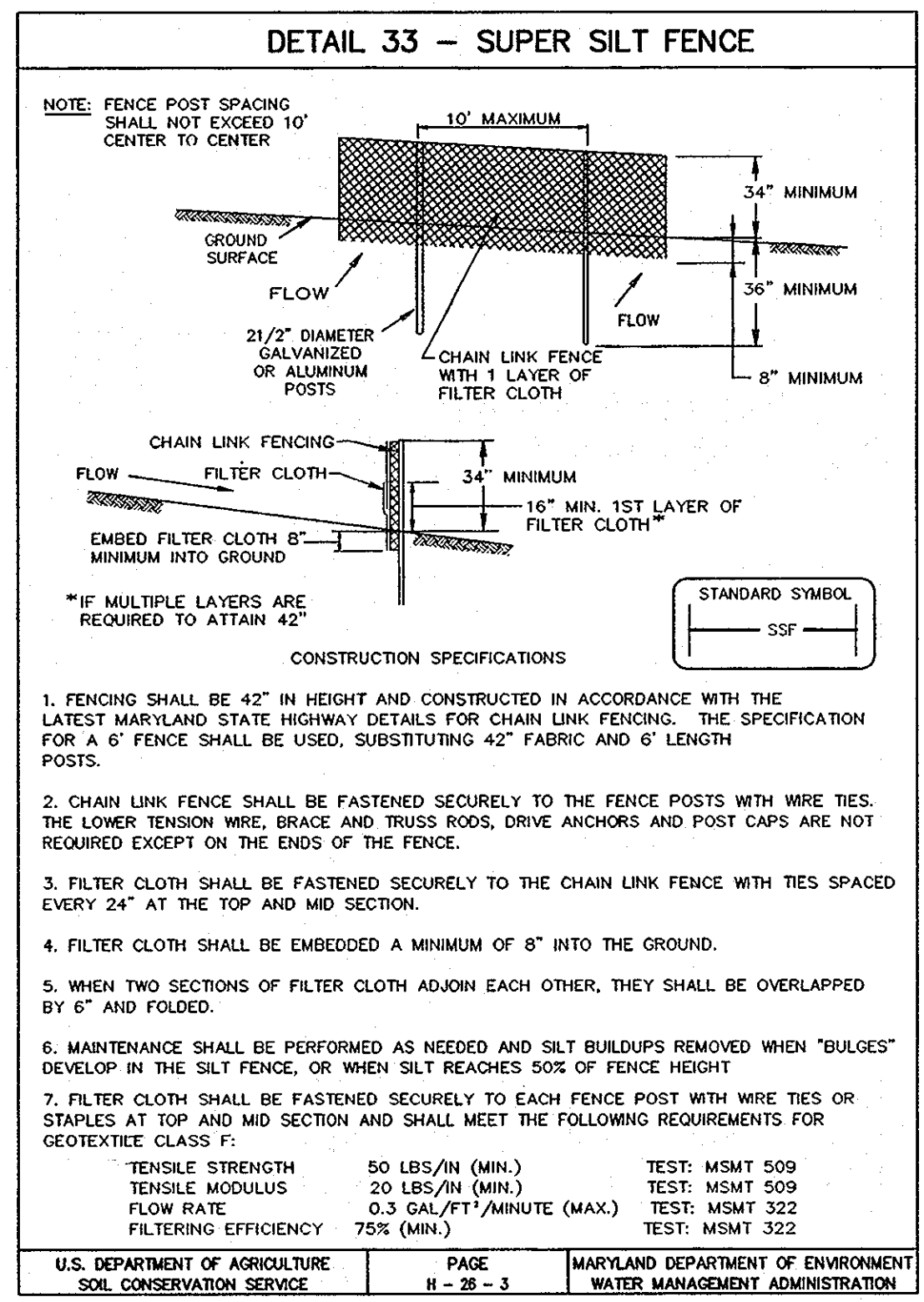
- DEFINITION**  
PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.
- PURPOSE**  
TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETABLE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.
- CONDITIONS WHERE PRACTICE APPLIES**
- THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
    - 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 CONTINUING 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 REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION. AREAS HAVING SLOPES STEEPER THAN 2:1 SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON THE PLANS.
- CONSTRUCTION AND MATERIAL SPECIFICATIONS**
- TOPSOIL SALVAGED FROM THE EXISTING 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 A LOAM, SANDY LOAM, CLAY LOAM, SILT 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 SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 AND 1/2" IN DIAMETER.
    - TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSONGRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
    - WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD 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 PROCEDURES.
- III. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
- PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

**PERMANENT SEEDING NOTES**

- APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.
- SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.
- SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:
- PREFERRED-APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS./100 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 UREAFORM 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 (.05 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 SOD; OPTION (3) SEED WITH 60 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.
- MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ. FT.) OF UNROTTED 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 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.
- MAINTENANCE: INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

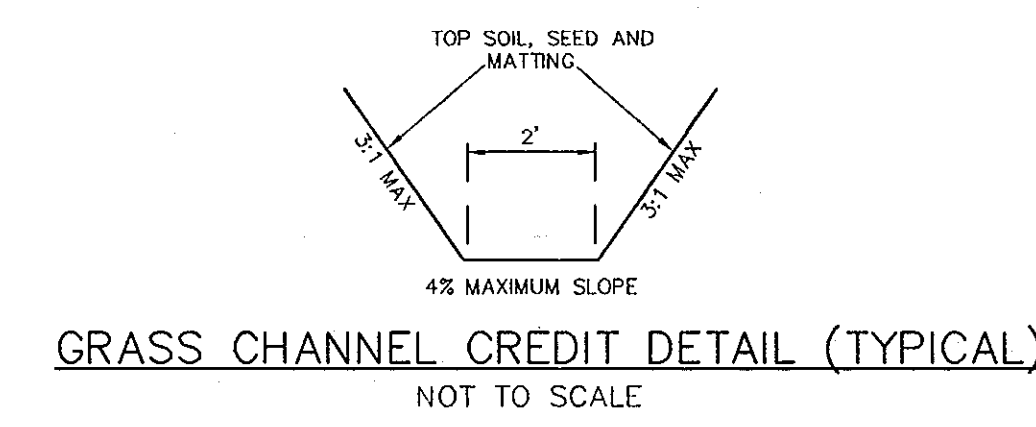
**TEMPORARY SEEDING NOTES**

- SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.
- SOIL AMENDMENTS: APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ.FT.).
- SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 1/2 BUSHEL PER ACRE OF ANNUAL RYE (32 LBS./1000 SQ.FT.) FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (.07 LBS./1000 SQ.FT.). FOR THE PERIOD NOVEMBER 1 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.
- MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED 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 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.
- REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.



**RAINGARDEN PLANT LIST(EACH)(SURFACE AREA=77SF)**

QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE
1	PLATANUS X ACERIFOLIA	LONDON PLANE TREE	2 1/2"-3" Cal.
1	ILEX GLABRA	INK BERRY	2'-3" HT.
6	LOBELIA CARDINALIS	CARDINAL FLOWER LOBELIA	1 GAL. CONTAINER
4	DRYOPTERIS SP.	WOOD FERN	1 GAL. CONTAINER
3	ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER	1 GAL. CONTAINER



**SEDIMENT AND EROSION CONTROL DETAILS**

**KOGAN TRUST PROPERTY**  
LOTS 16-20 AND BUILDABLE PRESERVATION PARCEL 'A'  
A RESUBDIVISION OF KOGAN TRUST PROPERTY LOT 8

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

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

DESIGN BY: JCOMR  
DRAWN BY: JCOULTORN  
CHECKED BY: RHV  
DATE: JUNE 23, 2006  
SCALE: AS NOTED  
W.O. NO.: 04-28-00

DPZ REF: 5 SHEET OF 5

TENTATIVELY APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY

APPROVED FOR PRIVATE WATER AND PRIVATE SEWAGE SYSTEMS.  
DATE: 7/2/07  
COUNTY HEALTH OFFICER: Peter Bieleman

SP-06-020