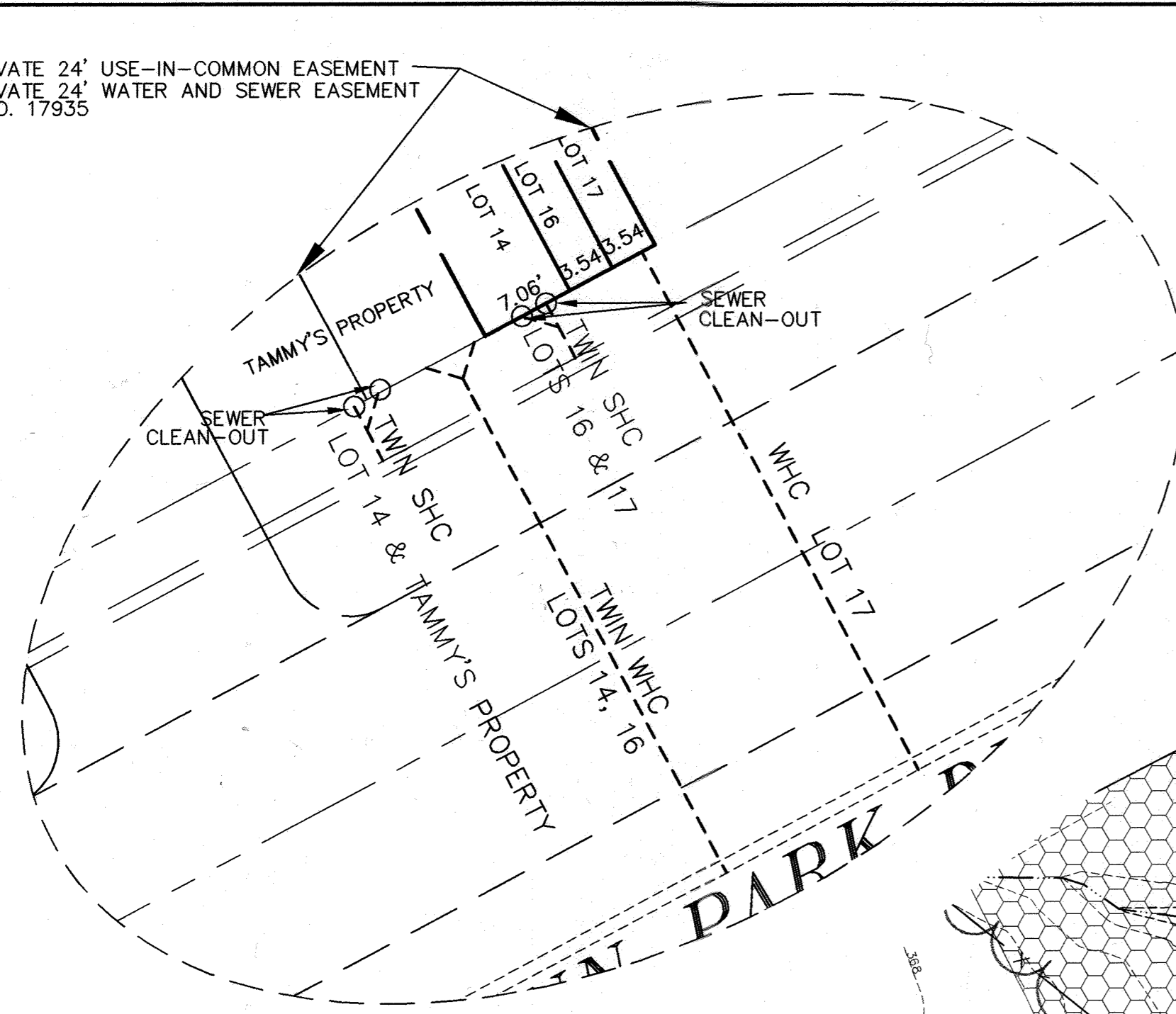
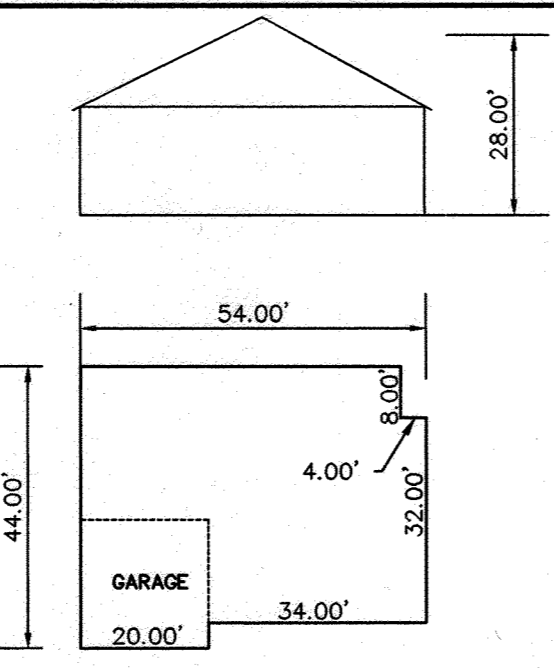


EX. PRIVATE 24' USE-IN-COMMON EASEMENT  
EX. PRIVATE 24' WATER AND SEWER EASEMENT  
PLAT NO. 17935



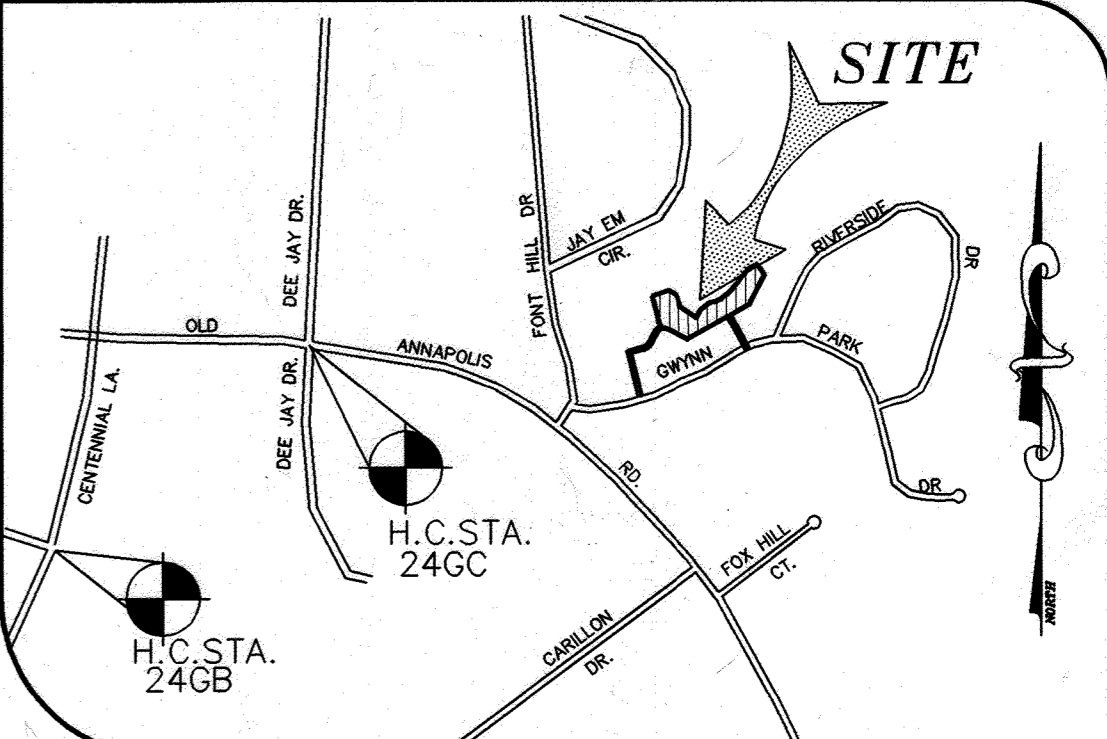
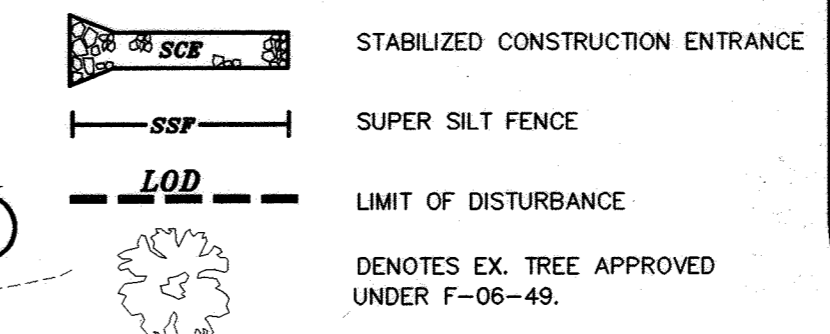
**DETAIL "A"**  
SCALE 1"=10'



**HOUSE MODEL "A"**

**SOILS**  
GIB2 = GLENELG LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED ( TYPE B )  
GIB2 = GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED ( TYPE C )  
MIB2 = MANOR LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED ( TYPE B )  
MIC2 = MANOR LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED ( TYPE B )  
MID2 = MANOR LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED  
MID3 = MANOR LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED ( TYPE B )

**LEGEND**



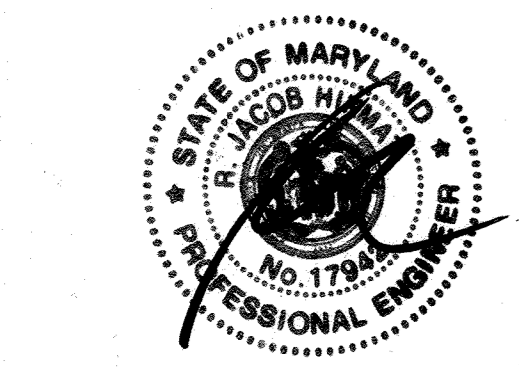
**VICINITY MAP**  
SCALE 1"=1000'

**GENERAL NOTES:**

- THE SUBJECT PROPERTY IS ZONED R-20 PER THE 02/02/04 COMPREHENSIVE ZONING PLAN AND THE COMP. LITE ZONING AMENDMENTS EFFECTIVE 7/28/06.
- SITE DATA:  
ZONING : R-20  
TAX MAP 24 PARCEL 539 GRID 20 ( LOT 9 AND NON-BUILDABLE PARCEL A )  
DEED REFERENCE : 4723/269, 8199/217  
GROSS AREA : 1.37 ACRES ±  
MINIMUM LOT SIZE : 18,696 SQ. FT.  
LIMIT OF DISTURBED AREA : 1.16 ACRES ±  
NUMBER OF PROPOSED BUILDABLE LOTS : 3  
DPZ FILES : F-06-049, F-00-104, WP-05-085, F-04-268
- ON-SITE TOPOGRAPHY SHOWN HEREON IS BASED ON A FIELD RUN SURVEY CONDUCTED BY MILDENBERG, BOENDER & ASSOCIATES, INC. ON OR ABOUT OCTOBER 2004.
- THIS SUBDIVISION IS SUBJECT TO THE AMENDED 5TH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE ZONING REGULATIONS AS AMENDED UNDER CONCEPT BILL # 50-2001.
- PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
- THE COORDINATES SHOWN HEREON ARE BASED ON NAD '83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS 246G AND 246C.  
STA. No. 246B N 579,069.4892 ELEV. 493.00  
N 578,868.85413 ELEV. 493.59  
STA. No. 246C N 1,350,441.8687 ELEV. 493.00  
N 578,868.85413 ELEV. 493.59  
E 1,352,120.6963
- NO BURIAL GROUNDS OR CEMETERIES EXIST ON SITE.
- NO STEEP SLOPES OR FLOODPLAIN EXIST ON SITE PER F-06-049.
- WETLAND STUDY PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. DATE NOVEMBER 2004, UNDER F-06-049.
- NO HISTORIC STRUCTURES, CEMETERIES, OR GRAVE SITES EXIST ON-SITE. SITE IS NOT ADJACENT TO A DESIGNATED SCENIC ROAD.
- PERIMETER LANDSCAPING HAS BEEN PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING (17 SHADE TREES AND 7 EVERGREEN TREES) IN THE AMOUNT OF \$6,150.00 AND WILL BE PROVIDED WITH THE GRADING PERMIT.
- THE FOREST CONSERVATION REQUIREMENT IS PROVIDED UNDER F-00-104. THE FOREST CONSERVATION EASEMENTS HAVE BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.120 OF THE HOWARD COUNTY FOREST CONSERVATION ACT. 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. FOREST CONSERVATION OBLIGATIONS HAVE BEEN SATISFIED VIA ON-SITE RETENTION OF 1.72 AC IN FOREST CONSERVATION EASEMENT A & B FOR RED FOX ESTATE (F-00-104). SURETY IN THE AMOUNT OF \$ 7,492.30 HAS BEEN POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT FOR F-00-104.
- ALL EXISTING STRUCTURES AND PAVEMENT TO BE REMOVED.
- STORMWATER MANAGEMENT IS PROVIDED UNDER F-00-104 BY DETENTION FACILITY AND STORMCEPTOR. ALL FACILITIES ARE PRIVATELY OWNED AND MAINTAINED.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
- OPEN SPACE WAS PROVIDED UNDER F-00-104, BY PROVIDING 2.27 ACRES OF CREDITED OPEN SPACE INCLUDING 2.12 ACRES DEDICATED TO HOWARD COUNTY.
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF USE AND OCCUPANCY TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:  
A) WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE).  
B) SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING.  
C) GEOMETRY - MAXIMUM 14% GRADE, MAXIMUM 10% GRADE CHANGE AND MINIMUM OF 45-FOOT TURNING RADIUS.  
D) STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (125 LOADS).  
E) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100-YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.  
F) STRUCTURE CLEARANCES - MINIMUM 12 FEET OVER SURFACE.  
G) MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.
- CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES ON SITE PRIOR TO COMMENCING CONSTRUCTION.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/CONSTRUCTION INSPECTIONS DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) DAYS PRIOR TO ANY EXCAVATION WORK:  
MISS UTILITY 1-800-257-7777  
VERIZON TELEPHONE COMPANY (410) 725-9976  
HOWARD COUNTY BUREAU OF UTILITIES (410) 313-4900  
AT&T CABLE LOCATION DIVISION (410) 393-3533  
BALTIMORE GAS & ELECTRIC (410) 686-0123  
STATE HIGHWAY ADMINISTRATION (410) 531-5533  
HOWARD COUNTY DEPT. OF PUBLIC WORKS/CONSTRUCTION INSPECTION DIVISION (410) 313-1880
- IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS, PORCHES OR DECKS. OPEN OR ENCLOSED PORCHES MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK.
- DRIVEWAY ENTRANCE SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARD R-8-06.
- THIS PROJECT IS SUBJECT TO WAIVER PETITION WP-05-85 WAIVER TO SECTION 16.120(c)(2)(ii) AND 16.110, DENIED ON JUNE 2005, AND TO SECTION 16.120(c)(2)(ii) REQUIRING THAT LOTS WHICH SHARE ACCESS SHALL HAVE SUFFICIENT ACCESS FRONTAGE COLLECTIVELY TO MEET THE DRIVEWAY EASEMENT REQUIREMENTS IN THE DESIGN MANUAL, APPROVED ON JUNE 27, 2005, SUBJECT TO THE FOLLOWING CONDITIONS:  
1. THE REDIVISION DESIGN SHALL BE IN COMPLIANCE WITH THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS REGARDING R-20 ZONED IN-FILL REQUIREMENTS FOR LOT SIZE AND OPEN SPACE PROVISIONS. ALL PROPOSED LOTS (LOTS 13-17 AND THE REDIVISION OF LOT 29) MUST MAINTAIN LOT SIZE OF 18,000 SQUARE FEET EXCLUSIVE OF PILESTEM. IN ADDITION, 10% OF THE CUMULATIVE GROSS ACREAGE OF LOT 9 AND LOT 29 MUST BE CREATED AS OPEN SPACE TO BE DEDICATED TO HOWARD COUNTY.  
2. THE EXISTING HOUSE ON LOT 9 MUST COMPLY WITH THE CURRENT ZONING REGULATIONS WITH RESPECT TO THE BUILDING ENVELOPE.
- THE USE IN COMMON DRIVEWAY WILL BE UTILIZED BY LOT 1, TAMMY'S PROPERTY AND LOTS 14, 16, 17 OF RED FOX ESTATE.
- STOCKPILING WILL NOT BE PERMITTED ON SITE.
- EXISTING WATER AND SEWER HOUSE CONNECTIONS FOR TAMMY'S PROPERTY TO BE ABANDONED AND/OR RELOCATED AS DETERMINED IN THE FIELD.

**ADDRESS CHART**

LOT/PARCEL NO.	STREET ADDRESS
LOT 14	9774 GWYNN PARK DRIVE
LOT 16	9780 GWYNN PARK DRIVE
LOT 17	9778 GWYNN PARK DRIVE



**OWNER**  
RAFAT, INC.  
C/O MILDENBERG, BOENDER AND ASSOC., INC.  
5072 DORSEY HALL DR. SUITE 202  
ELLIOTT CITY, MD 21042  
(410) 997-0296

**DEVELOPERS CERTIFICATE**  
I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE NATURAL RESOURCE CONSERVATION SERVICE.

DATE: 3/14/07

SIGNATURE OF DEVELOPER: R. JACOB HIKMAT  
PRESIDENT, RAFAT INC.

**ENGINEER'S CERTIFICATE**  
I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL 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 COUNTY ZONING REGULATIONS.

DATE: 3/14/07

SIGNATURE OF ENGINEER: R. JACOB HIKMAT

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

DATE: 3/19/07

SIGNATURE: Jim Murray  
USDA - NATURAL RESOURCE CONSERVATION SERVICE

DATE: 3/19/07

SIGNATURE: John P. Brantner  
HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PLANNING AND ZONING

DATE: 3/6/07

SIGNATURE: [Signature]  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

DATE: 7/4/07

SIGNATURE: Cindy Hanna  
CHIEF, DIVISION OF LAND DEVELOPMENT

DATE: 7/5/07

SIGNATURE: [Signature]  
DIRECTOR

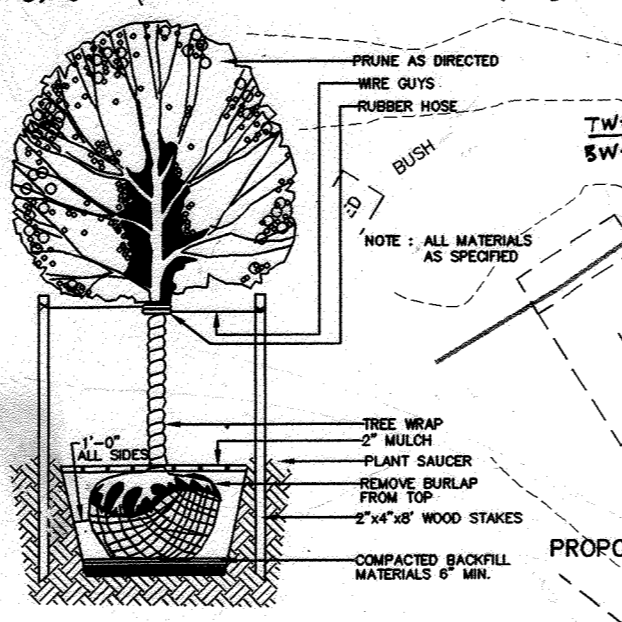
**DEVELOPER'S/OWNER'S CERTIFICATE**  
I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED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

DATE: 3/14/07

SIGNATURE: R. JACOB HIKMAT  
PRESIDENT, RAFAT INC.

**LANDSCAPE REQUIREMENT PLANTING SCHEDULE**

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
17	☉	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2 1/2" - 3" CAL.
7	☼	PICEA ABIES	NORWAY SPRUCE	6'-8' HT.
TOTAL 24 TREES (17 SHADE TREES AND 7 EVERGREEN TREES)				



**TYPICAL DECIDUOUS TREE PLANTING DETAIL**  
NOT TO SCALE

**SCHEDULE A : PERIMETER LANDSCAPED EDGE**

CATEGORY	ADJACENT TO PERIMETER PROPERTIES							TOTAL
LANDSCAPE TYPE	A (PERIMETER 1)	B* (PERIMETER 2)	A (PERIMETER 3)	A (PERIMETER 4)	A (PERIMETER 5)	A (PERIMETER 6)	A (PERIMETER 7)	
LINEAR FEET OF PERIMETER	191.98LF	286.11 LF	64.73 LF	648.09 LF	147.80 LF	244.13 LF	191.72 LF	
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	NO	NO	NO	YES, 648.09 LF. OF EXISTING TREES	NO	NO	NO	
CREDIT FOR WALL, FENCE, OR BERM (YES, NO, LINEAR FEET)	NO	NO	NO	NO	NO	NO	NO	
NUMBER OF PLANTS REQUIRED	3 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	8 SHADE TREES 7 EVERGREEN TREES 0 SHRUBS	1 SHADE TREE 0 EVERGREEN TREES 0 SHRUBS	0 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	0 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	4 SHADE TREE 0 EVERGREEN TREES 0 SHRUBS	3 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	17 SHADE TREES 7 EVERGREEN TREES 0 SHRUBS
NUMBER OF PLANTS PROVIDED	3 SHADE TREES 7 EVERGREEN TREES 0 SUBSTITUTION TREES 0 SHRUBS (10:1 SUBSTITUTION)	8 SHADE TREES 7 EVERGREEN TREES 0 SUBSTITUTION TREES 0 SHRUBS	1 SHADE TREE 0 EVERGREEN TREES 0 SUBSTITUTION TREES 0 SHRUBS	0 SHADE TREES 0 EVERGREEN TREES 0 SUBSTITUTION TREES 0 SHRUBS	0 SHADE TREES 0 EVERGREEN TREES 0 SUBSTITUTION TREES 0 SHRUBS	4 SHADE TREE 0 EVERGREEN TREES 0 SUBSTITUTION TREES 0 SHRUBS	3 SHADE TREES 0 EVERGREEN TREES 0 SUBSTITUTION TREES 0 SHRUBS	17 SHADE TREES 7 EVERGREEN TREES 0 SUBSTITUTION TREES 0 SHRUBS

\* LANDSCAPING FOR PERIMETER 2 HAS BEEN UPGRADED FROM TYPE "A" TO TYPE "B".

**INDEX OF DRAWINGS**

NO.	DESCRIPTION
1	SITE DEVELOPMENT PLAN
2	NOTES AND DETAILS
3	RETAINING WALL SPEEDS, LOT 14

**PERMIT CHART**

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL #
RED FOX ESTATE, LOTS 14, 16 & 17	N/A	539
PLAT FOR LOT BLOCK # 18179-80	ZONE	TAX MAP
14450, 18911	R-20	24
WATER CODE	SEWER CODE	ELEC. DIST.
F-15	5740300	CENSUS TRACT
		602306

PROPOSED IMPROVEMENTS:  
CONSTRUCT HOUSE, ASSOCIATED GRADING, AND SEDIMENT CONTROL

DATE: MAR 07  
PROJECT: 98044  
SCALE: 1"=30'

DATE: 5/7/06  
PROJECT: 98044  
SCALE: 1"=30'

RED FOX ESTATE LOTS 14, 16 & 17  
TAX MAP 24, PARCEL 539  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
SITE DEVELOPMENT PLAN

**MILDENBERG, BOENDER & ASSOC., INC.**  
Engineers Planners Surveyors  
5072 Dorsey Hall Drive, Suite 202, Elliott City, Maryland 21042  
(410) 997-0296 Fax (301) 621-5521 Wash. (410) 997-0298 Fax

HOWARD SOIL CONSERVATION DISTRICT

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, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

- 1) 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. HARBOR OR DISK INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE UREA-FORM FERTILIZER (9 LBS./1000 SQ.FT.)

SEEDING - FOR 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 (0.05 LBS./1000 SQ.FT.) OF WEEPING LOVEGRASS.

MULCHING - APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED WEED FREE 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.

TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED, WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, FOR 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 OCTOBER 15, SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS./1000 SQ.FT.) FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 3 LBS. PER ACRE OF ANNUAL RYE (3.2 LBS./1000 SQ.FT.). FOR THE PERIOD NOVEMBER 15 THRU NOVEMBER 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 WEED FREE SMALL GRAIN STRAW IMMEDIATELY AFTER APPLICATION AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GAL PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL STANDARDS AND METHODS NOT COVERED.

STANDARD SEDIMENT CONTROL NOTES

- 1) A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION. (313-1855).
- 2) ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND REVISIONS THERETO.

THESE QUANTITIES ARE FOR PERMIT PURPOSES ONLY. CONTRACTOR IS REQUIRED TO PROVIDE HIS OWN QUANTITY MEASUREMENTS.

- 8) ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- 9) ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- 10) ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUIRED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.

STANDARD 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 VEGETATIVE 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:
  - a. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
  - b. 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.
  - c. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
  - d. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.

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:
  - I. TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND. OTHER SUBSOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF COMPACTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CONCRETE, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2" IN DIAMETER.
  - II. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSON-SON GRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
  - III. 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.

- IV. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
  - I. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.
  - II. FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:
    - I. ON SOIL MEETING TOPSOIL SPECIFICATIONS, OBTAIN TEST RESULTS DICTATING FERTILIZER AND LIME AMENDMENTS REQUIRED TO BRING THE SOIL INTO COMPLIANCE WITH THE FOLLOWING:
      - a. PH FOR TOPSOILS SHALL BE BETWEEN 6.0 AND 7.5. IF THE TESTED SOIL DEMONSTRATES A PH OF LESS THAN 6.0, SUFFICIENT LIME SHALL BE FERTILIZER TO RAISE THE PH TO 6.5 OR HIGHER.
      - b. ORGANIC CONTENT OF TOPSOIL SHALL BE NOT LESS THAN 1.5 PERCENT BY WEIGHT.
      - c. TOPSOIL HAVING SOLUBLE SALT CONTENT GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.
      - d. NO SOD OR SEED SHALL BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.
    - II. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

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.

- V. TOPSOIL APPLICATION:
  - I. WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.
  - II. GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBERT 4" - 8" HIGHER IN ELEVATION.
  - III. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" TO 8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SOODING 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.

- VI. ALTERNATIVE FOR PERMANENT SEEDING - INSTEAD OF APPLYING THE FULL AMOUNTS OF LIME AND COMMERCIAL FERTILIZER, COMPOSTED SLUDGE AND AMENDMENTS MAY BE APPLIED AS SPECIFIED BELOW:
  - I. COMPOSTED SLUDGE MATERIAL FOR USE AS A SOIL CONDITIONER FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES SHALL BE TESTED FOR NUTRIENT AMENDMENTS AND FOR SITES HAVING AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
    - a. COMPOSTED SLUDGE SHALL BE SUPPLIED BY, OR ORIGINATE FROM, A PERSON OR PERSONS WHO ARE PERMITTED (AT THE TIME OF ACQUISITION OF THE COMPOST) BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT UNDER COMAR 26.04.06.
    - b. COMPOSTED SLUDGE SHALL CONTAIN AT LEAST 1 PERCENT NITROGEN, 1.5 PERCENT PHOSPHORUS, AND 0.2 PERCENT POTASSIUM AND HAVE A PH OF 7.0 TO 8.0. IF COMPOST DOES NOT MEET THESE REQUIREMENTS, THE APPROPRIATE CONSTITUENTS MUST BE ADDED TO MEET THE REQUIREMENTS PRIOR TO USE.
    - c. COMPOSTED SLUDGE SHALL BE APPLIED AT A RATE OF 1 TON/1,000 SQUARE FEET.
  - II. COMPOSTED SLUDGE SHALL BE AMENDED WITH A POTASSIUM FERTILIZER APPLIED AT THE RATE OF 4 LB./1,000 SQUARE FEET, AND 1/3 THE NORMAL LIME APPLICATION RATE.

REFERENCES: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SOODING, MD-VA, PUB. #1, COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTES, REVISED 1973.

TEMPORARY DUST CONTROL MEASURES

- 1. MULCHES - SEE STANDARDS FOR VEGETATIVE STABILIZATION WITH MULCHES ONLY. MULCH SHOULD BE CRIMPED OR TACKED TO PREVENT BLOWING.
- 2. VEGETATIVE COVER - SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER.
- 3. TILLAGE - TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS APPLIED ABOUT 12" APART, SPRING-TOOTHED HARROWS, AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.
- 4. IRRIGATION - THIS IS GENERALLY DONE AS AN EMERGENCY TREATMENT. SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS MOIST. REPEAT AS NEEDED. AT NO TIME SHOULD THE SITE BE IRRIGATED TO THE POINT THAT RUNOFF BEGINS TO FLOW.
- 5. BARRIERS - SOLID BOARD FENCES, SILT FENCES, SNOW FENCES, BURLAP FENCES, STRAW BALES, AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALS OF ABOUT 10 TIMES THEIR HEIGHT ARE EFFECTIVE IN CONTROLLING SOIL BLOWING.
- 6. CALCIUM CHLORIDE - APPLY AT RATES THAT WILL KEEP SURFACE MOIST. MAY NEED RETREATMENT.

SEQUENCE OF CONSTRUCTION

- 1. OBTAIN GRADING PERMIT (ONE DAY)
- 2. INSTALL TREE PROTECTIVE FENCING (ONE DAY)
- 3. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE AT LOCATION SHOWN. (ONE DAY)
- 4. CONSTRUCT SUPER SILT FENCE (TWO DAYS)
- 5. COMPLETE CONSTRUCTION AS SHOWN. (90 DAYS)
- 6. COMPLETE FINE GRADING OF SITE TO GRADES INDICATED. (TWO DAYS)
- 7. SEED AND MULCH ALL REMAINING DISTURBED AREAS. (TWO DAYS)
- 8. UPON STABILIZATION OF THE SITE AND WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL DEVICES AND STABILIZE REMAINING DISTURBED AREAS. (ONE DAY)

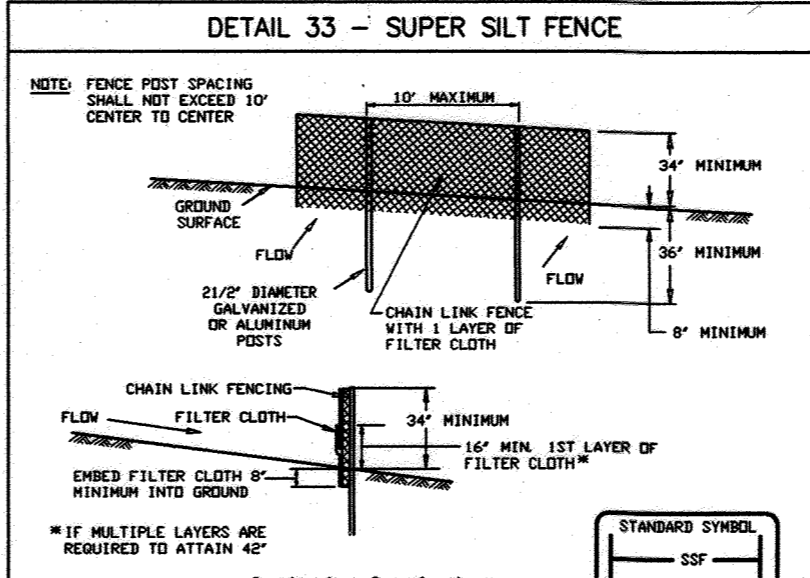


Table with 4 columns: Slope, Slope Steepness, Slope Length (Maximum), and Silt Fence Length (Maximum). Rows include 0-100, 10-200, 20-300, 30-500, and 500+.

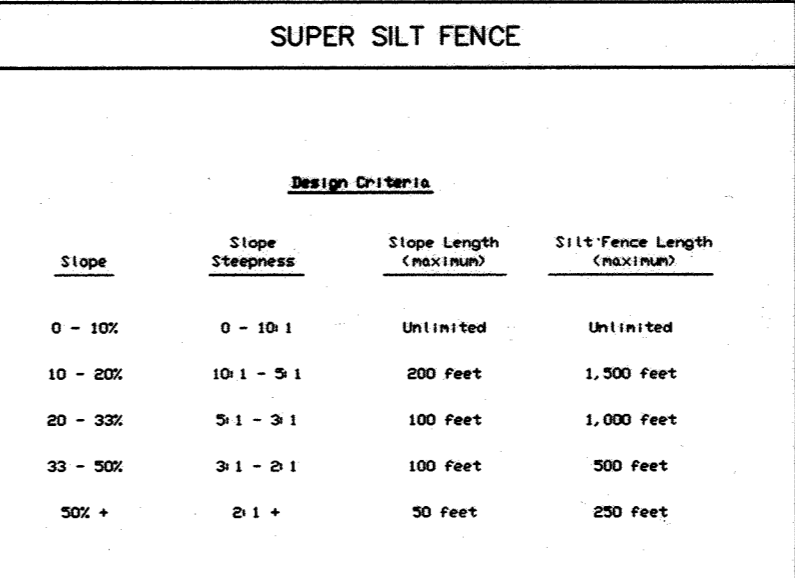


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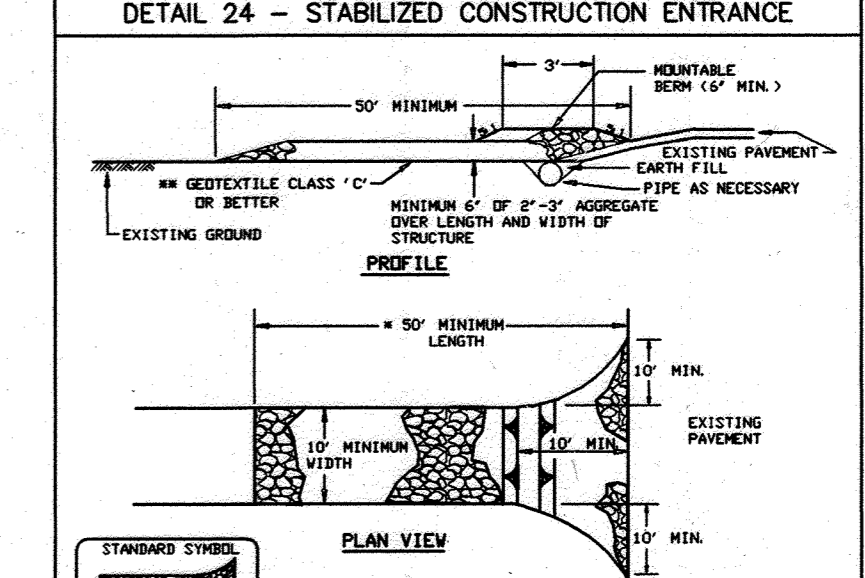


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DEVELOPERS CERTIFICATE. I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE NATURAL RESOURCE CONSERVATION SERVICE.



RED FOX ESTATE LOTS 14, 16 & 17. TAX MAP 24, PARCEL 539. HOWARD COUNTY, MARYLAND. SECOND ELECTION DISTRICT. NOTES AND DETAILS. MILDENBERG, BOENDER & ASSOC., INC. Engineers, Planners, Surveyors. 5072 Dorsey Hall Drive, Suite 202, Beloit City, Maryland 21042. (410) 987-0296. Fax: (410) 987-0296. SDP-06-138

