

SOILS LEGEND		
SOIL	NAME	CLASS
Co	Codorus and Hiltoro silt loams, 0 to 3 percent slopes	C
GcC	Gladstone-Legore complex, 0 to 15 percent slopes	B
Mof	Manor-Bannertown sandy loams, 25 to 65 percent slopes, rocky	B

NOTES:  
 \* Hydric soils and/or contains hydric inclusions  
 \*\* May contain hydric inclusions  
 † Generally only within 100-year floodplain areas

PLAT NO. 18807  
 BONNIE BRANCH POINT  
 HOWARD COUNTY DEPARTMENT OF ZONING AND PLANNING  
 PARCEL 388

PLAT NO. 18806  
 BONNIE BRANCH POINT  
 HOWARD COUNTY DEPARTMENT OF ZONING AND PLANNING  
 PARCEL 387

PLAT NO. 18805  
 BONNIE BRANCH POINT  
 HOWARD COUNTY DEPARTMENT OF ZONING AND PLANNING  
 PARCEL 386

PLAT NO. 18804  
 BONNIE BRANCH POINT  
 HOWARD COUNTY DEPARTMENT OF ZONING AND PLANNING  
 PARCEL 385

PLAT NO. 18803  
 BONNIE BRANCH POINT  
 HOWARD COUNTY DEPARTMENT OF ZONING AND PLANNING  
 PARCEL 384

PLAT NO. 18802  
 BONNIE BRANCH POINT  
 HOWARD COUNTY DEPARTMENT OF ZONING AND PLANNING  
 PARCEL 383

PLAT NO. 18801  
 BONNIE BRANCH POINT  
 HOWARD COUNTY DEPARTMENT OF ZONING AND PLANNING  
 PARCEL 382

LANDSCAPING PLANT LIST			
QTY.	KEY	NAME	SIZE
1		ACER RUBRUM "OCTOBER GLORY" (OCTOBER RED MAPLE)	2 - 2 1/2" CALIPER FULL CROWN, B&B
8		Picea abies NORWAY SPRUCE	6' - 8' HGT.

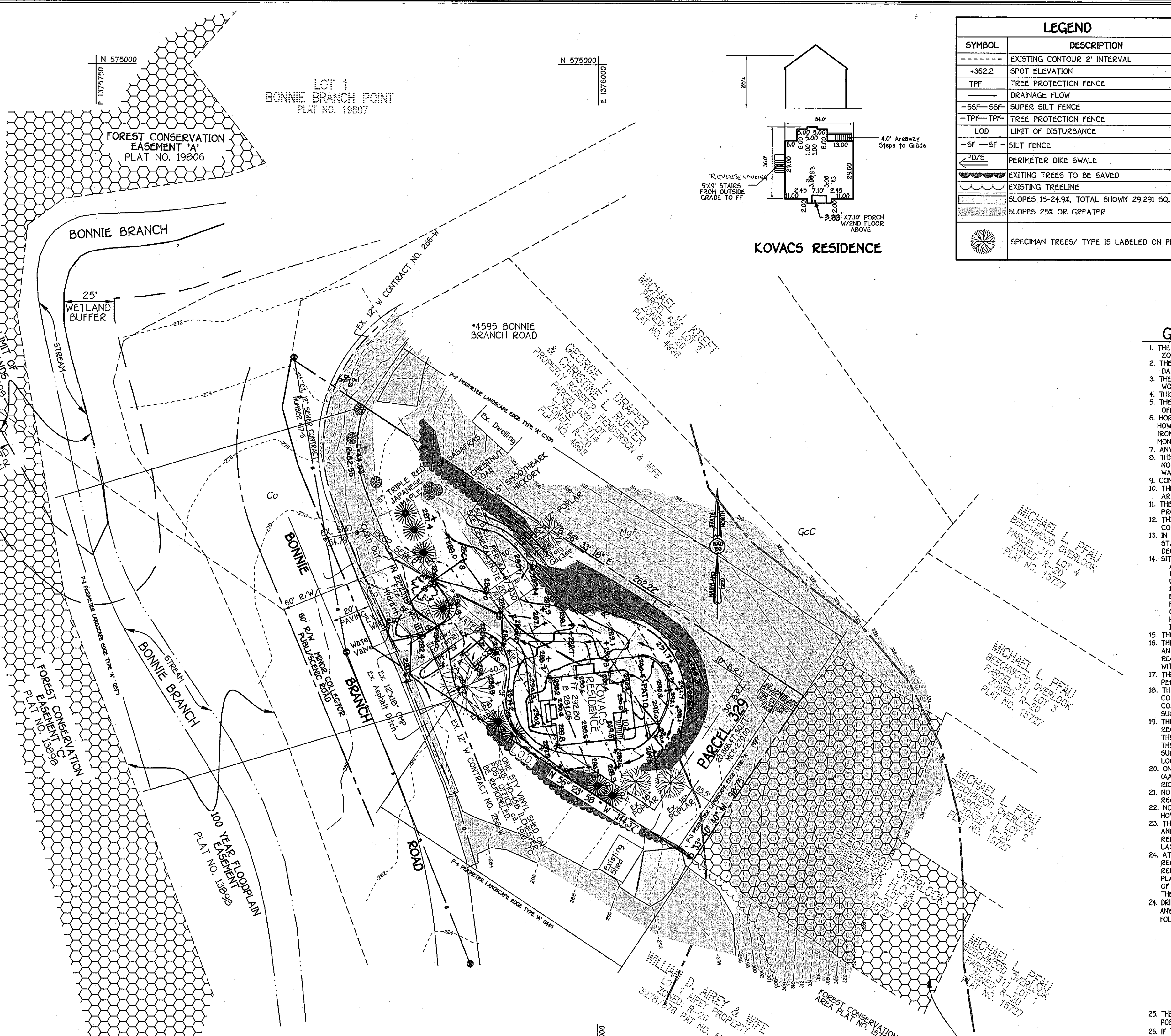
SCHEDULE A PERIMETER LANDSCAPE EDGE				
PERIMETER CATEGORY	P-1 UNIT FRONT ADJACENT TO ROADWAY	P-2 ADJACENT TO PERIMETER PROPERTIES	P-3 ADJACENT TO PERIMETER PROPERTIES	P-4 ADJACENT TO PERIMETER PROPERTIES
LANDSCAPE TYPE	NONE	A	A	C
LINEAR FEET OF PERIMETER	157'	263'	99'	145'
CREDIT FOR EXISTING VEGETATION (NO, YES)	NO	YES (3 EX. TREES)	YES (000)	YES (3 EX. TREES)
CREDIT FOR WALL FENCE OR BERM (NO, YES AND X)	NO	NO	NO	NO
NUMBER OF TREES REQUIRED		263/60' = 4.38	99/60' = 1.65	145/40' = 3.63
SHADE TREES	0	5	2	4
EVERGREENS	0	0	0	0
NUMBER OF TREES TO BE PROVIDED				
SHADE TREES	0	0	0	1
EVERGREENS	0	0	0	0

4 EVERGREEN AND 1 SHADE TREE REQUIRED ALONG P-4 HAVE BEEN APPROVED TO BE PLANTED ALONG P-1 TO ENHANCE THE SCENIC VIEW ALONG BONNIE BRANCH ROAD.

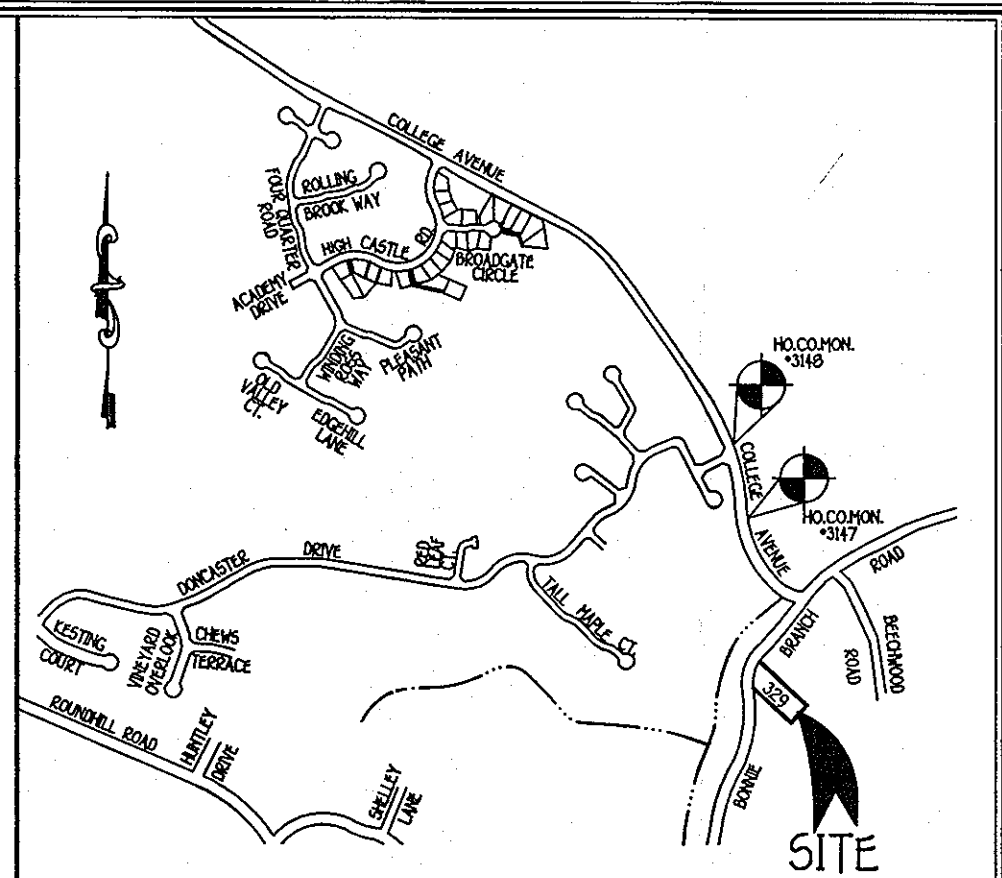
**LANDSCAPE CERTIFICATE**  
 I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF LANDSCAPE INSTALLATION ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

*Julia T. Kovacs*  
 NAME  
 1/15/09  
 DATE

**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
 ELLICOTT CITY, MARYLAND 21114  
 410-461-2999



LEGEND	
SYMBOL	DESCRIPTION
---	EXISTING CONTOUR 2' INTERVAL
+362.2	SPOT ELEVATION
TFP	TREE PROTECTION FENCE
---	DRAINAGE FLOW
-SGF-SGF	SUPER SILT FENCE
-TPF-TPF	TREE PROTECTION FENCE
---	LIMIT OF DISTURBANCE
-SF-SF	SILT FENCE
---	PERIMETER DIKE SWALE
---	EXISTING TREELINE
---	SLOPES 15-24.9%, TOTAL SHOWN 29,291 SQ. FT.
---	SLOPES 25% OR GREATER
	SPECIMAN TREES/TYPE IS LABELED ON PLAN



**VICINITY MAP**  
 SCALE: 1"=2000'  
 ADC MAP COORDINATES: 16 1K

- GENERAL NOTES**
- THE SUBJECT PROPERTY ZONED R-20 PER THE 2/02/04 COMPREHENSIVE ZONING PLAN AND PER THE "COMP LITE". ZONING AMENDMENTS EFFECTIVE 7/28/06.
  - THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION INSPECTION DIVISION AT (410)313-1880 AT LEAST (5) FIVE WORKING DAYS PRIOR TO THE START OF WORK.
  - THE CONTRACTOR SHALL NOTIFY "THIS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
  - THIS PROJECT IS SUBJECT TO HOWARD COUNTY FILES: 417-S, 266-W, AND AA-07-030 (SEE GENERAL NOTE 19).
  - THE EXISTING TOPOGRAPHY SHOWN ON-SITE WAS FIELD RUN BY FISHER, COLLINS AND CARTER, INC. IN AUGUST OF 2007. ALL OFF-SITE TOPOGRAPHY SHOWN WAS TAKEN FROM HOWARD COUNTY AERIAL TOPOGRAPHY.
  - HORIZONTAL AND VERTICAL CONTROL DATUM IS BASED ON NAD 83, MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS, HOWARD COUNTY MONUMENT 347, N57599.0794, E137581.7684, EL335.967. IRON PIN - EDGE OF ROAD HOWARD COUNTY MONUMENT 348, N57599.0794, E137577.0454, EL375.948 CONCRETE MONUMENT-NORTH SIDE OF COLLEGE AVENUE.
  - ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
  - THIS PLAN IS FOR HOUSE SITING AND GRADING ONLY. IMPROVEMENTS SHOWN WITHIN THE RIGHTS-OF-WAY OF THIS S.D.P. ARE NOT TO BE USED FOR CONSTRUCTION. FOR CONSTRUCTION SEE APPROVED ROAD CONSTRUCTION PLANS AND/OR APPROVED WATER AND SEWER PLANS CONTRACT NO. 417-S AND 1266-W.
  - CONTRACTOR WILL CHECK SEWER HOUSE CONNECTION ELEVATION AT PROPERTY LINE PRIOR TO CONSTRUCTION.
  - THIS LOT IS EXEMPT FROM THE 2000 MARYLAND STORMWATER MANAGEMENT REQUIREMENTS SINCE THE TOTAL IMPERVIOUS AREA IS LESS THAN 5000 SQUARE FEET.
  - THE SFC IS LOCATED AT THE PROPOSED LINE. CONTRACTOR WILL CHECK SEWER HOUSE CONNECTION ELEVATION AT PROPERTY LINE PRIOR TO CONSTRUCTION.
  - THIS PROJECT IS EXEMPT FROM THE REQUIREMENTS OF SECTION 16124 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BECAUSE THE SITE IS LESS THAN 40,000 SQUARE FEET.
  - IN ACCORDANCE WITH SECTION 129 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 MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACKS.
  - SITE ANALYSIS:
    - A. TOTAL PROJECT AREA 0.4965 AC.
    - B. AREA OF PLAN SUBMISSION: 0.4965 AC.
    - C. LIMIT OF DISTURBED AREA: 6500 SQ. FT.
    - D. PRESENT ZONING R-20
    - E. PROPOSED USE FOR SITE AND STRUCTURES: SINGLE FAMILY DETACHED DWELLING
    - F. TOTAL NUMBER OF UNITS PROPOSED: 1
    - G. TOTAL NUMBER OF UNITS PROPOSED: 1
    - H. NUMBER OF PARKING SPACES REQUIRED: 2 (2 SPACES PER DWELLING UNIT)
    - I. NUMBER OF PARKING SPACES PROVIDED: 1
  - THE WATER HOUSE CONNECTION SHALL BE FOR INSIDE METER SETTING.
  - THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISION OF SECTION 16124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL. CREDIT FOR EXISTING VEGETATION HAS BEEN UTILIZED FOR THE PORTION OF THE LANDSCAPING REQUIREMENTS. SURETY IN THE AMOUNT OF \$1500.00 FOR ONE SHADE TREE AND EIGHT EVERGREENS SHALL BE POSTED WITH THE BUILDING PERMIT.
  - THIS PLAN IS BASED UPON FIELD RUN TOPOGRAPHY AND BOUNDARY SURVEY PERFORMED BY FISHER, COLLINS AND CARTER, INC. IN AUGUST OF 2007.
  - THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS PER COUNCIL BILL 45-2003 AND THE ZONING REGULATIONS AS AMENDED BY COUNCIL BILL 75-2003. DEVELOPMENT OR CONSTRUCTION ON THIS LOT MUST COMPLY WITH THE SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THIS SITE DEVELOPMENT PLAN.
  - THIS DEVELOPMENT IS DESIGNED TO BE IN ACCORDANCE WITH SECTION 16127 OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS - RESIDENTIAL IN-FLIGHT DEVELOPMENT. THE DEVELOPER OF THIS PROJECT SHALL CREATE COMPATIBILITY WITH THE EXISTING NEIGHBORHOOD THROUGH THE USE OF ENHANCED PERIMETER LANDSCAPING, SIMILAR HOUSING UNIT TYPE AND THE DIRECTIONAL ORIENTATION OF THE PROPOSED HOUSE, AND SHALL IMPROVE THE DESIGN OF THE PROJECT AND ITS SUBORDINATING RESIDENTIAL PROPERTIES BY PROTECTING ENVIRONMENTAL LANDS AND BY INCORPORATING INTO THE DESIGN LOCALLY SIGNIFICANT LAND FEATURES SUCH AS HISTORIC STRUCTURES AND UNIQUE TOPOGRAPHICAL FEATURES.
  - ON FEBRUARY 11, 2008, THE DEPARTMENT OF PLANNING AND ZONING APPROVED AN ADMINISTRATIVE ADJUSTMENT AA-07-030 TO ALLOW THE REQUIRED 50' FRONT YARD SETBACK TO BE REDUCED TO 40' FROM A PUBLIC ROAD RIGHT-OF-WAY TO CONSTRUCT A NEW SINGLE-FAMILY DETACHED DWELLING.
  - NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED WETLANDS, STREAMS OR THEIR BUFFERS, FOREST CONSERVATION EASEMENT AREAS AND 100 YEAR FLOODPLAIN.
  - NO CLEARING OF EXISTING VEGETATION IS PERMITTED WITHIN THE LANDSCAPE EDGE FOR WHICH CREDIT IS BEING TAKEN. HOWEVER, MAINTENANCE IS AUTHORIZED.
  - THE OWNER, TENANT AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING AND PLANT MATERIALS. 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 REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION AND WHEN NECESSARY REPAIRED OR REPLACED.
  - AT THE TIME OF THE OFF-SITE REVIEW AND APPROVAL FOR THIS SITE SHALL BE OF PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THIS APPROVED 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 PLAN.
  - DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
    - A) WIDTH - 12' (6) IF SERVING MORE THAN ONE RESIDENCE.
    - B) SURFACE - 6" OF COMPACTED CRUSHER RUN BASE WATER AND CHIP COATING (1-1/2" MIN)
    - C) GEOMETRY MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND 45 FOOT TURNING RADIUS.
    - D) STRUCTURES - (BRIDGES/CULVERTS) CAPABLE OF SUPPORTING 25 GROSS TONS (425-LOADING)
    - E) DRAINAGE ELEMENTS CAPABLE OF SAFETY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.
    - F) STRUCTURE CLEARANCES - MINIMUM 12 FEET
    - G) MAINTENANCE SUFFICIENT TO INSURE ALL WEATHER USE.
  - THE ONE STORY VINYL SHED LOCATED ON SITE IS LISTED IN THE HOWARD COUNTY HISTORIC SITE INVENTORY AS HO-458, ILCHESTER POST OFFICE.
  - IF THE EXISTING WATER AND SEWER CONNECTIONS DO NOT MEET THE CURRENT CODE NEW WATER AND SEWER CONNECTIONS SHALL BE INSTALLED AT THE SAME LOCATION.
  - THE SQUARE FOOT AREA OF CONTIGUOUS SLOPES 25% OR GREATER (INCLUDING BOTH ON AND OFF-SITE CONTIGUOUS STRETCHES) EXCEED 20,000 SQUARE FEET.
  - REMOVAL OF THE EXISTING HOUSE SHALL TAKE PLACE BEFORE CONSTRUCTION OF THE PROPOSED HOUSE BEGINS.

**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. 9753 expiration date 2/29/2010.  
*Earl D. Collins*  
 Signature of Engineer EARL D. COLLINS 1/14/09 Date

ADDRESS CHART	
STREET NO.	ROAD NAME
4607	BONNIE BRANCH ROAD

SHEET INDEX CHART	
SHEET	DESCRIPTION
SHEET 1	SITE DEVELOPMENT PLAN, LANDSCAPE, SEDIMENT AND EROSION CONTROL PLAN
SHEET 2	SEDIMENT/EROSION CONTROL DETAILS

**ENGINEER'S CERTIFICATE**  
 I certify that this plan for sediment and erosion 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 Soil Conservation District.  
*Earl D. Collins* 1/14/09 Date  
 Signature of Engineer

**DEVELOPER'S CERTIFICATE**  
 I/WE certify that all development and construction will be done according to this plan 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 the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I do authorize periodic on-site inspection by the Howard Soil Conservation District.  
*Julia T. Kovacs* 1/14/2009 Date  
 Signature of Developer

**HOWARD SOIL CONSERVATION DISTRICT**  
 This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.  
*John K. Robertson* 1/27/09 Date  
 Howard SCD

NO.	DESCRIPTION	REVISION BLOCK	DATE
1	Rev. lot grades per "as built" conditions	G-3-2011	

**DEVELOPER/OWNER**  
 JULIA KOVACS  
 5913 MONTGOMERY ROAD  
 ELLICOTT CITY, MARYLAND 21043-4608  
 443-540-3483

**BUILDER**  
 CARRIGAN HOMES  
 9812 CAITLINS COURT  
 ELLICOTT CITY, MARYLAND 21042  
 410-465-7755

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*Monica S. Butler* 2/5/09 Date  
 Director - Department of Planning and Zoning

*Conrad Smith* 2/5/09 Date  
 Chief, Division of Land Development

*Paul Chubb* 2-2-9 Date  
 Chief, Development Engineering Division

SUBDIVISION	N/A	SECTION/AREA	N/A	PARCEL NO.	229
LIBER/FOLIO	7732/637	BLOCK NO.	4	ZONE	R-20
TAX/ZONE	31	ELEC. DIST.	2ND	CENSUS TR.	601101
WATER CODE		SEWER CODE			

**SITE DEVELOPMENT, LANDSCAPE, SEDIMENT & EROSION CONTROL PLAN**

**KOVACS PROPERTY  
 ILCHESTER**

SINGLE FAMILY DETACHED DWELLING  
 TAX MAP No.: 31 GRID 4 PARCEL No.: 329  
 2ND ELECTION DISTRICT HOWARD COUNTY, MD.  
 SCALE: 1"=30' DATE: JUNE, 2008

SHEET 1 OF 2 **SDP-08-089**

### STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

Using vegetation as cover for barren soil to protect it from erosion that causes erosion. Vegetative stabilization specifications are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode and more likely to allow infiltration of rainfall, thereby reducing sediment loads and runoff to downstream areas, and improving wildlife habitat and visual resources.

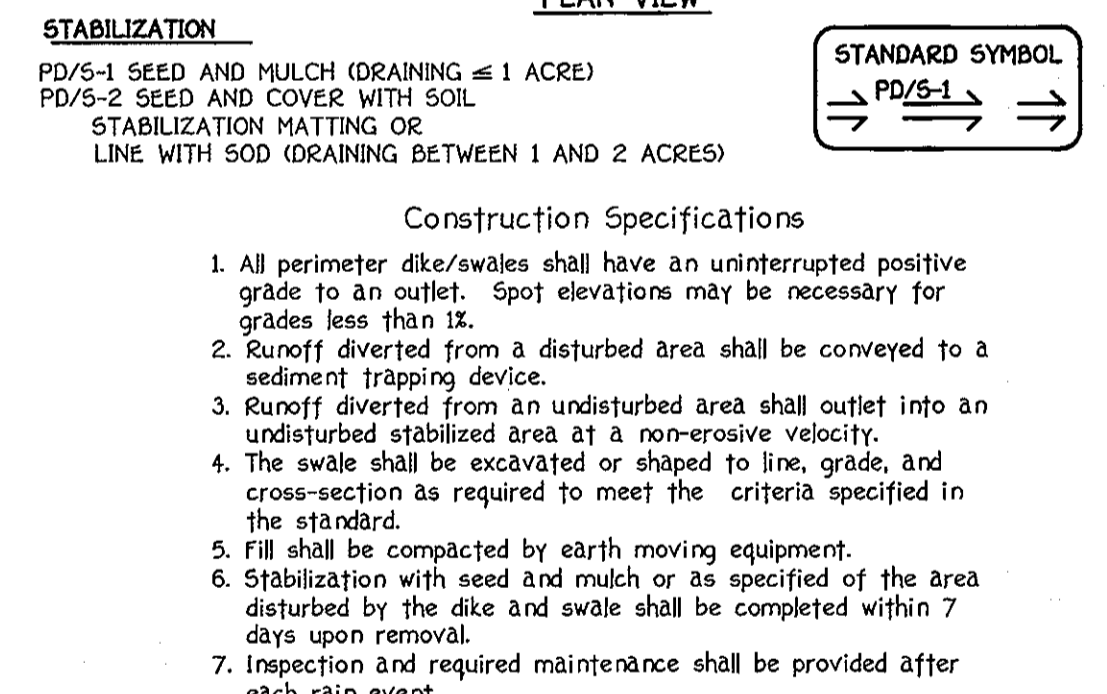
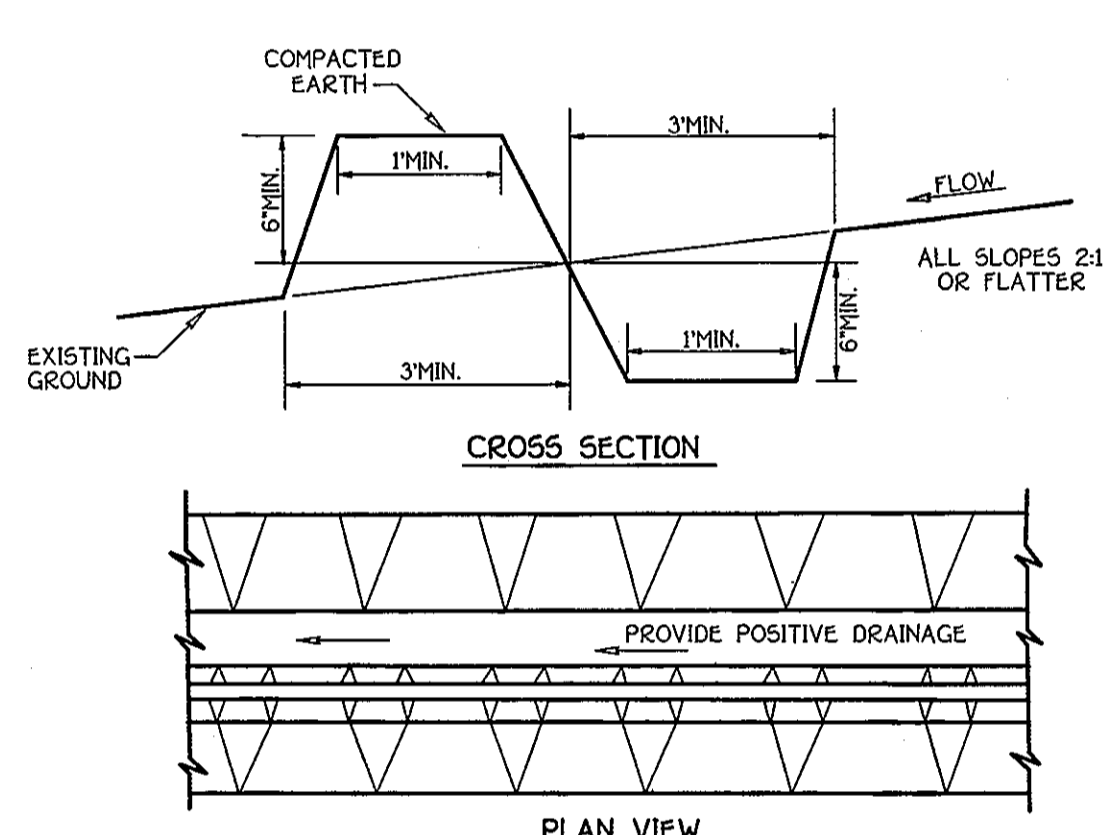
**CONDITIONS WHERE PRACTICE APPLIES**

This practice shall be used on denuded areas as specified on the plan and may be used on highly erodible or critically eroding areas. This specification is divided into Temporary Seeding, for quick establishment of vegetation cover for short duration (up to one year), and Permanent Seeding, for long term vegetative cover. Examples of applicable areas for Temporary Seeding are Temporary Soil Stockpiles, cleared areas being left idle between construction phases, earth dikes, etc. and for Permanent Seeding are lawns, dunes, cut and fill areas, and other areas at construction sites and during construction, etc.

**EFFECTS ON WATER QUALITY AND QUANTITY**

Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and rates of runoff. Infiltration, evaporation, transpiration, percolation, and groundwater recharge. Vegetation over time, will increase organic matter content and improve the water holding capacity of the soil and subsequent plant growth. Vegetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to receiving waters. Plants will also help protect groundwater supplies by assimilating those substances present within the root zone. Sediment control devices must remain in place during grading, seeded preparation, seeding, mulching and vegetative establishment to prevent large quantities of sediment and associated chemicals and nutrients from washing into surface waters.

- SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS**
- A. Site Preparation**
- Install erosion and sediment control structures (either temporary or permanent) such as diversion, grade stabilization structures, berms, waterways, or sediment control basins.
  - Perform all grading operations at right angles to the slope. Final grading and shaping is not usually necessary for temporary seeding.
  - Schedule required soil tests to determine soil amendment composition and application rates for sites having disturbed areas over 5 acres.
- B. Soil Amendments and Lime Specifications**
- Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas over 5 acres. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses.
  - Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Mixtures may be substituted for fertilizer with prior approval from the appropriate authority. Fertilizers shall all be delivered to the site fully labeled according to the applicable site fertilizer laws and shall bear the name of the manufacturer and the name of the producer.
  - Lime material shall be ground limestone (hydrated or burnt lime) may be substituted which contains at least 50% total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 50% will pass through a #100 mesh sieve and 98-100% will pass through a #20 mesh sieve.
  - Incorporate lime and fertilizer into the top 3-5" of soil by discing or other suitable means.
- C. Seeded Preparation**
- Temporary Seeding
    - Seeding preparation shall consist of loosening soil to a depth of 3" to 5" by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened it should not be rolled or disped unless specifically required by the engineer, but left in the roughened condition. Slopes greater than 3:1 should be tracked leaving the surface in an irregular condition with ridges running parallel to the contour of the slope.
    - Apply fertilizer and lime as prescribed on the plan.
  - Permanent Seeding
    - Minimum soil conditions required for permanent vegetative establishment:
      - Soil pH shall be between 6.0 and 7.0.
      - Soluble salts shall be less than 500 parts per million (ppm).
      - The soil shall contain less than 40% clay, but enough fine grained material (D300 silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if low-activity clay such as kaolinitic clay or sepiolite is to be planted, then a sandy soil (D300 silt plus clay) would be acceptable.
      - Soil shall contain 1.5% minimum organic matter by weight.
      - Soil must contain sufficient pore space to permit adequate root penetration.
      - If these conditions cannot be met by soils on site, adding topsoil is required in accordance with Section 21 Standard and Specification for Topsoil.
    - Areas previously graded in accordance with the drawings shall be maintained in a true and even grade, then seeded or otherwise loosened to a depth of 3-5" to permit bonding of the topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil from sliding down a slope.
    - Apply soil amendments as per soil test or as included on the plan.
    - Mix soil amendments into the top 3-5" of topsoil by discing or other suitable means. Lawn areas should be raked to smooth the surface, remove large objects like stones and branches, and relay the area for seed and application, where site conditions will not permit normal seeded preparation, loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface. Steep slopes (greater than 3:1) should be tracked by a roller leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. The top 1-3" of soil should be loose and friable. Seeded loosening may not be necessary on newly graded areas.
- D. Seed Specifications**
- All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to retesting by a recognized laboratory. All seed must be tested within 180 days of the date of seed use.
  - Seed that shall be made available to the inspector to verify type and rate of seed used.
  - Inoculant - the inoculant for treating legume seed in the seed mixtures shall be a pure culture of nitrogen-fixing bacteria prepared in accordance with the manufacturer's directions. Use four times the recommended rate when hydroseeding. Note: If used in conjunction with hydroseeding, use four times the recommended rate when hydroseeding. Note: If used in conjunction with hydroseeding, use four times the recommended rate when hydroseeding. Note: If used in conjunction with hydroseeding, use four times the recommended rate when hydroseeding.
- E. Methods of Seeding**
- Hydroseeding - Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer, broadcast spreader).
    - If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: Nitrogen maximum of 100 lbs. per acre total of soluble nitrogen (ammonium plus nitrate) 200 lbs. per acre.
    - Lime - use only ground agricultural limestone; Up to 3 tons per acre may be applied by hydroseeding. Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.
    - Seed and fertilizer shall be mixed on site and seeding shall be done immediately and without interruption.
  - Dry Seeding - The use of conventional drop or broadcast spreaders.
    - Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the Temporary Seeding Summary or Tables 205 or 25. The seeded areas shall then be rolled with a weighted roller to provide good seed to soil contact.
    - Outdrilling seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seeded must be firm after planting.
    - Where practical, seed should be applied in two directions perpendicular to each other.
    - Apply half the seeding rate in each direction.
- F. Mulch Specifications (in order of preference)**
- Straw shall consist of thoroughly threshed wheat, rice or oat straw, reasonable bright in color, and shall be free of noxious weed seeds as specified in the Maryland Seed Law.
    - WCM shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state.
    - WCM shall be dried green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniform spread slurry.
    - WCM, including dye, shall contain no germination or growth inhibiting factors.
    - WCM materials shall be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material shall form a blotter-like ground cover, on application, having moisture absorption and percolation properties and shall cover and hold grass seed to contact with the soil without inhibiting the growth of the grass seedlings.
    - WCM materials shall contain no elements or compounds at concentrations below that will be phytotoxic.
    - WCM must conform to the following physical requirements: fiber length to approximately 10 mm, diameter approximately 1 mm, pH range of 4.0 to 8.5, ash content of 10% maximum and water holding capacity of 50% minimum.
  - Mulching Seeded Areas - Mulch shall be applied to all seeded areas immediately after seeding. If grading is completed outside of the seeding season, mulch shall be applied as prescribed in this section and maintained until the seeding season returns and seeding can be performed in accordance with these specifications.
    - When straw mulch is used, it shall be spread over all seeded areas at the rate of 2 tons/acre. Mulch shall be applied to a uniform loose depth of between 1" and 2". Mulch applied shall achieve a uniform distribution and depth so that the soil surface is not exposed. If any mulch anchoring tool is to be used, the rate should be increased to 2.5 tons/acre.
    - Wood cellulose fiber used as a mulch shall be applied at a net dry weight of 1500 lbs. per acre. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 lbs. of wood cellulose fiber per 100 gallons of water.
  - Securing Straw Mulch (Mulch Anchoring) - Mulch anchoring shall be performed immediately following mulch application to minimize loss by wind or water. This may be done by one of the following methods (listed by preference, depending upon size of area and erosion hazard):
    - A mulch anchoring tool is a tractor draw implement designed to punch and anchor mulch into the soil surface a minimum of two (2) inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should be used on the contour if possible.
    - Wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 pounds/acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
    - Application of liquid binders should be heavier at the edges where wind catches much, such as in valleys and crest of banks. The remainder of area should be applied uniform after binder applications. Synthetic binders such as acrylic, alkyl acrylate, DCA-70 Retroseal, Terra Trak AK or other approved equal may be used at rates recommended by the manufacturer to anchor mulch.
    - Lightweight plastic netting may be stapled over the mulch according to manufacturer's recommendations. Netting is usually available in rolls 4' to 15' feet wide and 300 to 3,000 feet long.



- PERIMETER DIKE/SWALE**
- NOT TO SCALE
- SEQUENCE OF CONSTRUCTION**
- |   |         |
|---|---------|
| 1. OBTAIN GRADING PERMIT  | 7 DAYS  |
| 2. INSTALL SEDIMENT EROSION CONTROL DEVICES AND TREE PROTECTION FENCE AS SHOWN ON PLAN.                               | 2 DAYS  |
| 3. CLEAR AND GRUB TO LIMITS OF DISTURBANCE  | 4 DAYS  |
| 4. INSTALL TEMPORARY SEEDING  | 2 DAYS  |
| 5. CONSTRUCT BUILDINGS  | 60 DAYS |
| 6. FINAL GRADE SITE AND INSTALL PERMANENT SEEDING AND LANDSCAPE   | 14 DAYS |
| 7. REMOVE SEDIMENT CONTROL DEVICES AS UPLAND AREAS ARE STABILIZED AND PERMISSION IS GRANTED BY E/S CONTROL INSPECTOR. | 7 DAYS  |

### SEDIMENT CONTROL NOTES

- A Minimum of 48 Hours Notice Must be Given to the Howard County Department of Inspections, Licenses and Permits, Sediment Control Division Prior to the Start of Any Construction 030-10020
  - All Vegetative And Structural Practices Are To Be Installed According to the Provisions of This Plan And Are To Be In Accordance with 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. Following Initial Soil Disturbance Or Re-Disturbance, Permanent Or Temporary Stabilization Shall be Completed Within 147 Calendar Days For All Perimeter Sediment Control Structures, Dikes, Perimeter Slopes And All Slopes Steeper Than 3:1, 14 Days As To All Other Disturbed Or Graded Areas On The Project Site. 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 12, Of The Howard County Design Manual, Storm Drainage, Chapter 12, Of The 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 (Sec. 30, Sod (Sec. 54), Temporary Seeding (Sec. 50), Permanent Seeding (Sec. 51, Sod (Sec. 54), Temporary Seeding (Sec. 50), and Mulching (Sec. 52). Temporary Stabilization With Mulch Alone Can Only 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 of Site: 0.4966 Acres  
Area Disturbed: 0.2137 Acres  
Area To Be Seeded or Paved: 0.2829 Acres  
Area To Be Vegetatively Stabilized: 0.1872 Acres  
Total Cut: 300 Cu.Yds.  
Total Fill: 290 Cu.Yds.
- NO STOCKPILE IS PERMITTED OUTSIDE OF THE LIMIT OF DISTURBANCE
  - Off-Site Waste Area Location to be determined.
  - 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 Approvals May Not be Authorized Until This Initial Approval By The Inspection Agency is Made.
- Trenches For The Construction Of Utilities Limited To Three Pipe Lengths Or That Which Shall be Back-Filled And Stabilized Within One Working Day, whichever is Shorter.

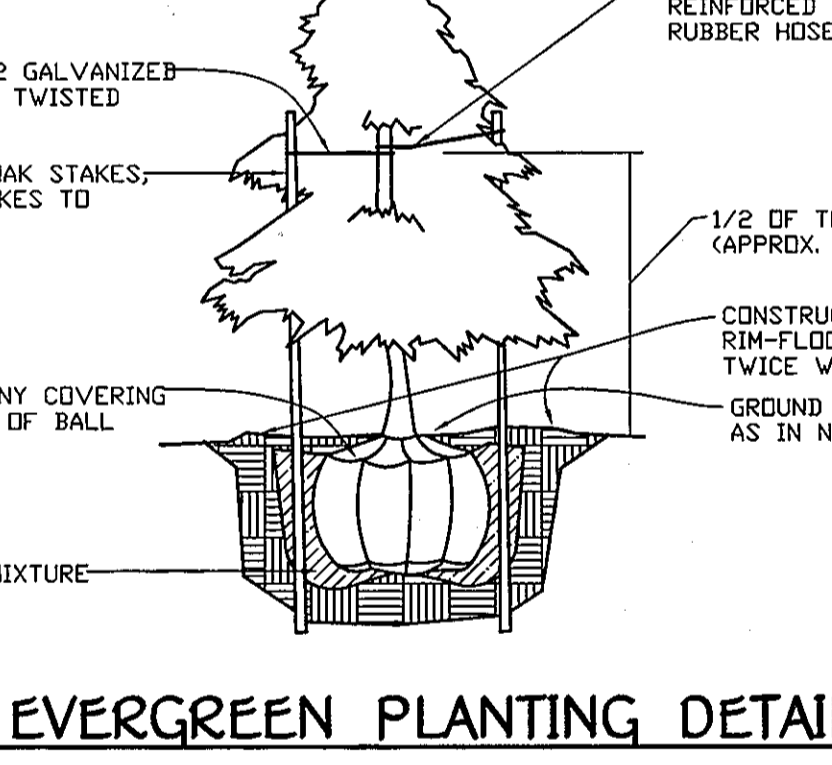
### PERMANENT SEEDING NOTES

- ALL DISTURBED AREAS SHALL BE STABILIZED AS FOLLOWS:
- SEEDING PREPARATION**
- LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING.
- SOIL AMENDMENTS**
- APPLY TWO TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS./1,000 SQ.FT.) AND 600 LBS. PER ACRE 0-20-20 FERTILIZER (14 LBS./1,000 SQ.FT.) BEFORE SEEDING HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 30-0-0 UREA/FORM FERTILIZER (9 LBS./1,000 SQ.FT.) AND 200 LBS. PER ACRE (15 LBS./1,000 SQ.FT.) OF 10-50-20 FERTILIZER.
- SEEDING**
- FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 1 THROUGH OCTOBER 15, SEED WITH 100 LBS. PER ACRE (23 LBS./1,000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE, FOR THE PERIOD MAY 1 THROUGH JULY 31, SEED WITH 60 LBS./ACRE (14 LBS./1,000 SQ.FT.) KENTUCKY 31 TALL FESCUE AND 2 LBS. PER ACRE (0.025 LBS./1,000 SQ.FT.) OF WEEPING LOWGROSS, DURING THE PERIOD OF OCTOBER 15 THROUGH FEBRUARY 28, PROJECT SITE BY OPTION (B) - TWO TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OPTION (C) - SEED WITH 100 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH TWO TONS/ACRE WELL ANCHORED STRAW. ALL SLOPES SHOULD BE HYDROSEEDED.
- MULCHING**
- APPLY 1 TO 2 TONS PER ACRE (10 TO 16 GALS./1,000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING 200 GALLONS PER ACRE (5 GALS./1,000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS ON SLOPES OF 3 FEET OR HIGHER USE 348 GALLONS PER ACRE (8 GALS./1,000 SQ.FT.) FOR ANCHORING.
- MAINTENANCE**
- INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.
- \* FOR PUBLIC PONDS SUBSTITUTE CHEMUNG CROWNWEED AT 15 LBS./ACRE AND KENTUCKY 31 TALL FESCUE AT 40 LBS./ACRE AS THE SEEDING REQUIREMENT. OPTIMUM SEEDING DATE FOR THIS MIXTURE IS MARCH 1 TO APRIL 30.

### TEMPORARY SEEDING NOTES

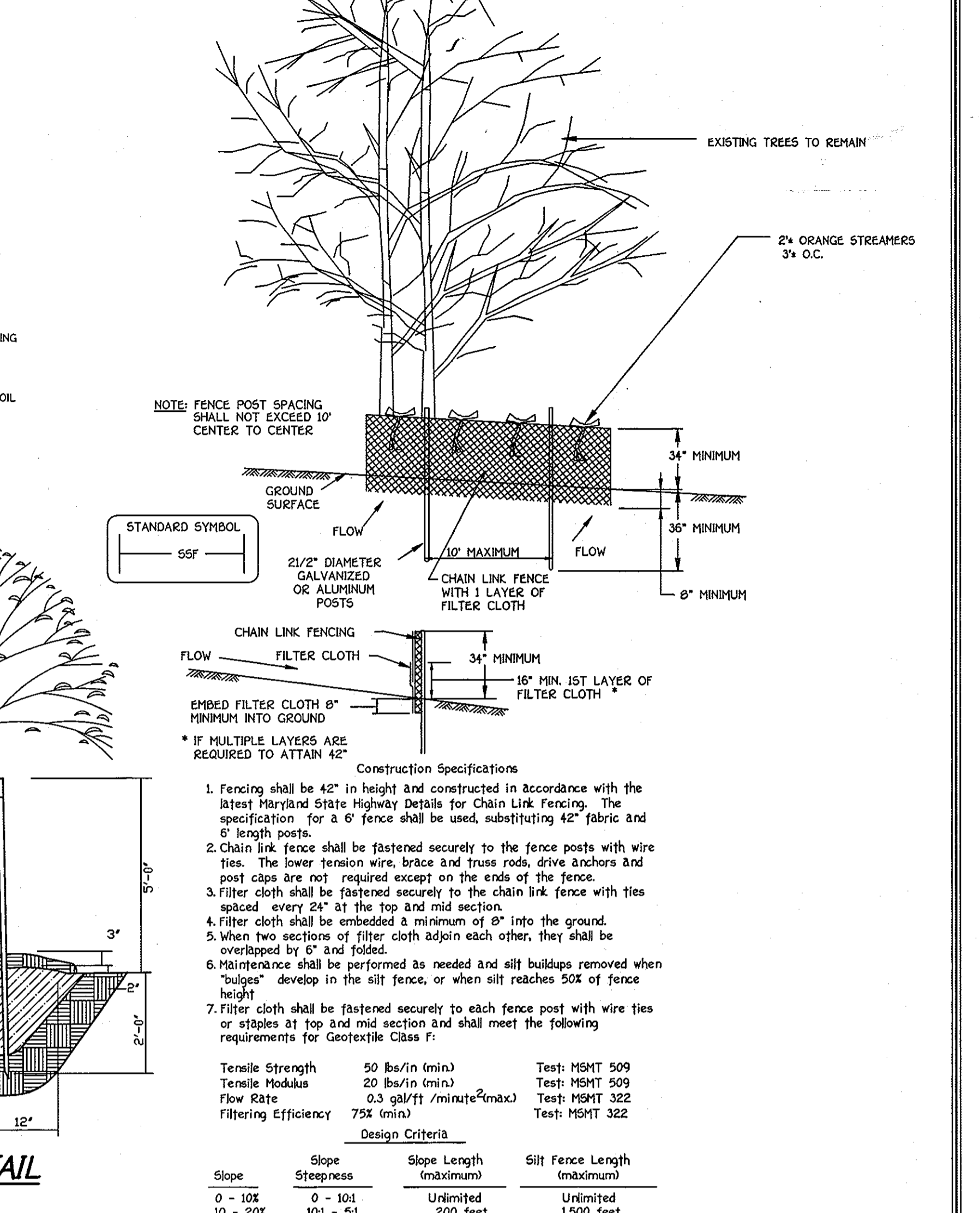
- APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.
- SEEDING PREPARATION**
- LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.
- SOIL AMENDMENTS**
- APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1,000 SQ.FT.)
- SEEDING**
- FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 1 THROUGH NOVEMBER 15, SEED WITH 1-BUSHEL PER ACRE OF ANNUAL RYE (32 LBS./ACRE OF WEETING LOWGROSS (27 LBS./1,000 SQ.FT.) FOR THE PERIOD NOVEMBER 15 THRU FEBRUARY 28, PROJECT SITE BY APPLYING 2 TONS PER ACRE OF WEL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR SEED, IF NOT COVERED.
- MULCHING**
- APPLY 1 TO 2 TONS PER ACRE (70 TO 90 LBS./1,000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING 200 GALLONS PER ACRE (5 GALS./1,000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS ON SLOPES OF 3 FEET OR HIGHER USE 348 GALLONS PER ACRE (8 GALS./1,000 SQ.FT.) FOR ANCHORING.
- REFER TO THE 1989 MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

### TREE PLANTING DETAIL

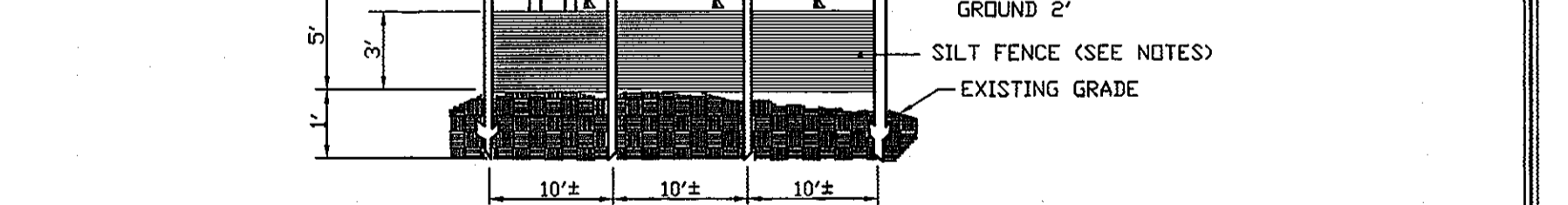
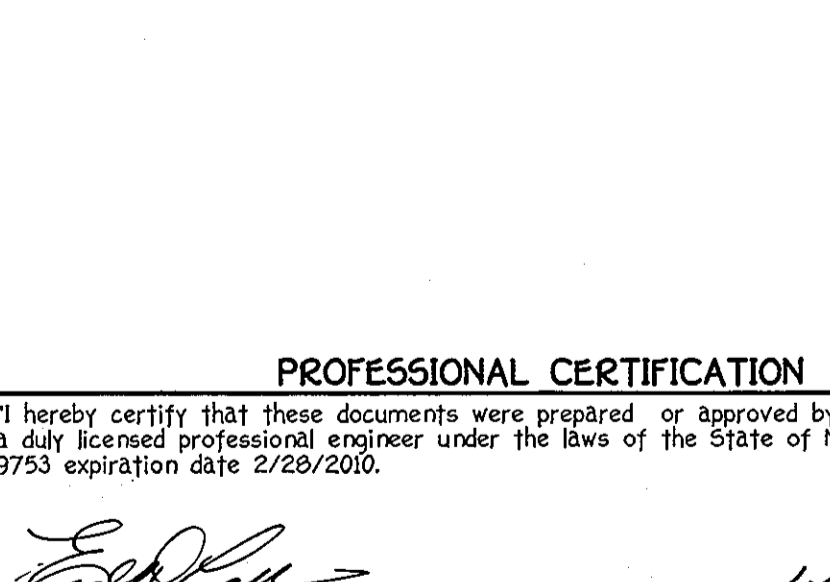


### SUPER SILT FENCE, TREE PROTECTION FENCE

Slope	Slope Steepness	Slope Length (maximum)	Silt Fence Length (minimum)
0 - 10%	0 - 10L	Unlimited	Unlimited
10 - 20%	10L - 5L	100 feet	1,500 feet
20 - 33%	5L - 3L	100 feet	1,000 feet
33 - 50%	3L - 2L	100 feet	500 feet
50% +	2L +	50 feet	250 feet



### EVERGREEN PLANTING DETAIL



### PERMISSIONS AND CERTIFICATIONS

**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. 9753 expiration date 2/28/2010.

Signature of Engineer: EARL D. COLLINS Date: 1/14/09

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
Director - Department of Planning and Zoning  
Chief Planning and Development (MPLD)  
Chief, Development Engineering Division

### SEDIMENT & EROSION CONTROL DETAILS

**KOVACS PROPERTY**  
ILCHESTER  
SINGLE FAMILY DETACHED DWELLING  
TAX MAP No.: 31 GRID 4 PARCEL No.: 329  
2ND ELECTION DISTRICT HOWARD COUNTY, MD.  
SCALE: 1"=30' DATE: JUNE, 2008  
SHEET 2 OF 2 SDP-08-089

**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTRAL SQUARE OFFICE PARK - 10721 SILVERSTONE NATIONAL PARK  
ELICOTT CITY, MARYLAND 21042  
410-661-2999  
GULBURNY/SOP/SINGLE LOT SDP BASE

DATE	DESCRIPTION	REVISION

**ENGINEER'S CERTIFICATE**

I certify that this plan for sediment and erosion 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 Soil Conservation District.

Signature of Engineer (print name below signature): Earl D. Collins Date: 1/14/09

**DEVELOPER'S CERTIFICATE**

I/We certify that all development and construction will be done according to this plan 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 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 Howard Soil Conservation District.

Signature of Developer (print name below signature): Susan T. Kovacs Date: 1/14/09

**HOWARD SOIL CONSERVATION DISTRICT**

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

Signature of Engineer: John K. Alderton Date: 1/27/09

**DEVELOPER/OWNER**  
JULIA KOVACS  
5513 MONTGOMERY ROAD  
ELICOTT CITY, MARYLAND 21043-4608  
443-540-3483

**BUILDER**  
CARRIGAN HOMES  
9812 CAITLINS COURT  
ELICOTT CITY, MARYLAND 21042  
410-465-7755

**SEDIMENT & EROSION CONTROL DETAILS**

**KOVACS PROPERTY**  
ILCHESTER  
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