

VICINITY MAP 5CALE: 1" = 2000'

GENERAL NOTES

- SUBJECT PROPERTY ZONED R-20 PER 10/18/93 COMPREHENSIVE ZONING PLAN.
- TOTAL AREA OF SITE: 0.909 ACRES TOTAL NUMBER OF LOTS SUBMITTED: 2

BENCH MARKS

N. 559,590.576 E. 1,350,440.591

SEBRING DRIVE

N. 558,056.573 E. 1,349,892.314

SEBRING DRIVE

HO. CO. MON. 36DC ELEV 381.109

HO. CO. MON. 36DD ELEV. 393.162

LOC. NEAR THE INTERSECTION OF OWEN BROWN ROAD AND

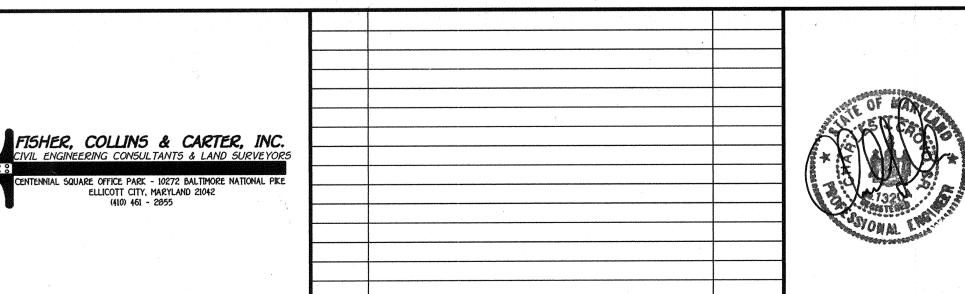
LOC. NEAR THE INTERSECTION OF BROKEN LAND PARKWAY AND

- 4. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION INSPECTION DIVISION AT (410)313-1880
- AT LEAST (5) FIVE WORKING DAYS PRIOR TO THE START OF WORK.
- 5. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- 6. THIS PROJECT IS SUBJECT TO HOWARD COUNTY FILES: F-01-03, WP-01-38,
- W CONT. *44-3182, 5 CONT. *20-3363.
- 7. THIS PLAN IS BASED ON A FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED ON OR ABOUT MARCH, 1999 BY MARKS AND ASSOCIATES.
- 8. HORIZONTAL AND VERTICAL CONTROL DATUM IS BASED ON NAD 83, MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS.
- HOWARD COUNTY MONUMENT 36DC N 559590.576 E 1350440.591 HOWARD COUNTY MONUMENT 36DD N 558056.573 E 1349892.314 9. ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE
- DEVELOPER'S EXPENSE. 10. THIS PLAN IS FOR HOUSE SITING AND GRADING ONLY. IMPROVEMENTS SHOWN WITHIN THE
- RIGHTS-OF-WAY OF THIS S.D.P. ARE NOT USED FOR CONSTRUCTION. 11. CONTRACTOR WILL CHECK SEWER HOUSE CONNECTION ELEVATION AT EASEMENT LINE PRIOR
- TO CONSTRUCTION. 12. FEE-IN-LIEU OF STORMWATER MANAGEMENT FEE-IN-LIEU PAYMENT OF NOV. 20, 2001 IN THE THE OF \$6,000.00.
- 13. LANDSCAPING FOR LOTS 2 & 3 IS PROVIDED IN ACCORDANCE WITH A CERTIFIED LANDSCAPE PLAN ON FILE, PER SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL
- LOT 1 IS EXEMPT FROM LANDSCAPING REQUIREMENTS BECAUSE IT CONTAINS AN EXISTING DWELLING FINANCIAL SURETY IN THE AMOUNT OF \$2,100 FOR LOT 2 AND LOT 3 IS PROVIDED AS PART OF THE BUILDERS GRADING PERMIT (\$1,500 FOR LOT 2 AND \$600.00 FOR
- 14. DRIVEWAY(S) SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING (MINIMUM) REQUIREMENTS
- A) WIDTH-12' (14' SERVING MORE THAN ONE RESIDENCE) B) SURFACE-SIX (6) INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP
- COATING (1-1/2" MINIMUM) C) GEOMETRY-MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND 45 FOOT
- TURNING RADIUS. D) STRUCTURES (BRIDGES/CULVERTS)-CAPABLE OF SUPPORTING 25 GROSS TONS (H25-LOADING)
- E) DRAINAGE ELEMENTS-CAPABLE OF SAFELY PASSING 100 YEAR FLOOD WITH NO MORE THAN I FOOT DEPTH OVER DRIVEWAY SURFACE. F) STRUCTURE CLEARANCES-MINIMUM 12 FEET
- G) MAINTENANCE-SUFFICIENT TO INSURE ALL WEATHER USE 15. WATER AND SEWER TO THESE LOTS WILL BE GRANTED UNDER THE PROVISIONS OF
- SECTION 18-122B OF THE HOWARD COUNTY CODE. PUBLIC WATER AND SEWER ALLOCATION WILL BE GRANTED AT THE TIME OF ISSUANCE OF THE BUILDING PERMIT IF CAPACITY IS
- AVAILABLE AT THAT TIME. 16. FOR DRIVE WAY ENTRANCE DETAILS REFER TO HO. CO. MAN. VOL. IV DETAIL R.6.03.
- 17. SITE DEVELOPMENT PLAN FOR SINGLE FAMILY DETACHED UNITS. FOR BUILDABLE LOTS 2 & 3. 18. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE WETLANDS, THE
- STREAM OR THEIR REQUIRED BUFFERS OR THE FOREST CONSERVATION EASEMENT AREAS. 19. WAIVER PETITION WP-01-38, DATED NOVEMBER 7, 2000 WAS APPROVED TO WAIVE THE
- FOLLOWING SECTIONS: SECTION 16.121(e)(I) PROVIDE 40' FRONTAGE ON A PUBLIC ROAD FOR AN OPEN SPACE LOT
- SECTION 16.132(a)(2)(i)(a) DEVELOPER TO PROVIDE ROAD FRONTAGE IMPROVEMENTS
- SECTION 16.134(b)(I)(i) PROVIDE SIDEWALKS ON ONE SIDE OF LOCAL STREETS OF A SINGLE FAMILY SUBDIVISION.
- SECTION 16.135(a) PROVIDE STREET LIGHTING AND
- SECTION 16.136 PROVIDE STREET TREES.
- APPROVAL IS SUBJECT TO THE FOLLOWING CONDITIONS:
- 1. PROVIDE A 20 FT. WIDE ACCESS EASEMENT ACROSS LOTS 1-3 TO OPEN SPACE LOT 4 2. APPLICANT MUST PROVIDE A FEE-IN-LIEU OF ALL REQUIRED IMPROVEMENTS IN ACCORDANCE WITH THE ENCLOSED COMMENTS DATED 10/27/00 FROM THE DEVELOPMENT
- ENGINEERING DIVISION. 20. IN ACCORDANCE WITH SECTION 128 A GIGS OF THE HO.CO. ZONING REGULATION, BAYWINDOWS, CHIMNEY OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACK, PORCHESOR DECKS, OPEN OR ENCLOSED MAY PROJECT
- NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACKS. 21. GRAVITY SEWER SERVICE, FIRST FLOOR ONLY, BASEMENT SEWER SERVICE TO BE PROVIDED BY PRIVATE ON-SITE PUMP.
- 22. AS A CONSEQUENCE OF THIS PLANS SUBMISSION PRIOR TO MAY 20, 2002, THIS SITE
- DEVELOPMENTPLAN IS SUBJECT TO THE FIFTH EDITION OF THE SUBDIVISION AND LAND
- DEVELOPMENT REGULATIONS. 23. A FOREST CONSERVATION EASEMENT WAS ESTABLISHED WITH THE RECORDING OF THE PLAT (F-01-003) TO PARTIALLY FULFILL THE REQUIREMENTS OF SECT. 16.1200 OF THE HOWARD
- COUNTY FOREST CONSERVATION ACT. NO CLEARING, GRADING, CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT. ALSO, .02 ACRES OF REFORESTATION HAS BEEN MET BY A FEE-IN-LIEU PAYMENT OF \$435.60 MADE PAYABLE TO THE HOWARD COUNTY FOREST CONSERVATION FUND WITH THE RECORDING OF THE SUBDIVISION PLAT F-01-003.

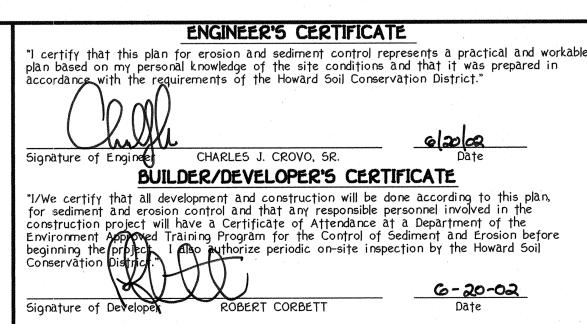
	LEGEND			
	5YMBOL	DESCRIPTION		
		EXISTING CONTOUR 2' INTERVAL		
	+362.5	SPOT ELEVATION		
,	-55F55F-	SUPER SILT FENCE		
	-TP TP -	TREE PROTECTION FENCE		
	[WOID	PROPOSED WALKOUT		
	L.O.D.	LIMIT OF DISTURBANCE		
		EXISTING STREET TREE TAKEN FROM F-01-		

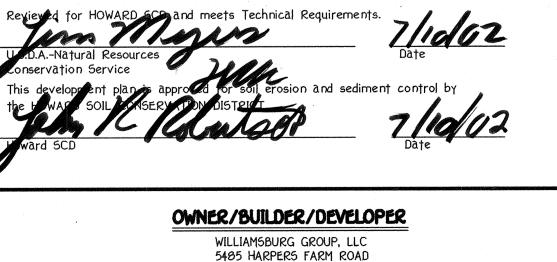
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

INDEX CHART						
SHEET	DESCRIPTION					
SHEET 1	TITLE SHEET, HOUSE TYPES, TEMPLATES					
SHEET 2	SITE DEVELOPMENT, SEDIMENT/EROSION CONTROL & LANDSCAPE PLAN					
SHEET 3	DETAILS & NOTES					



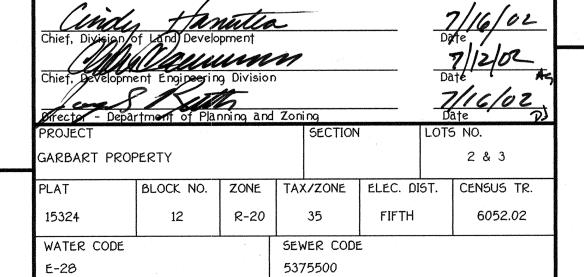
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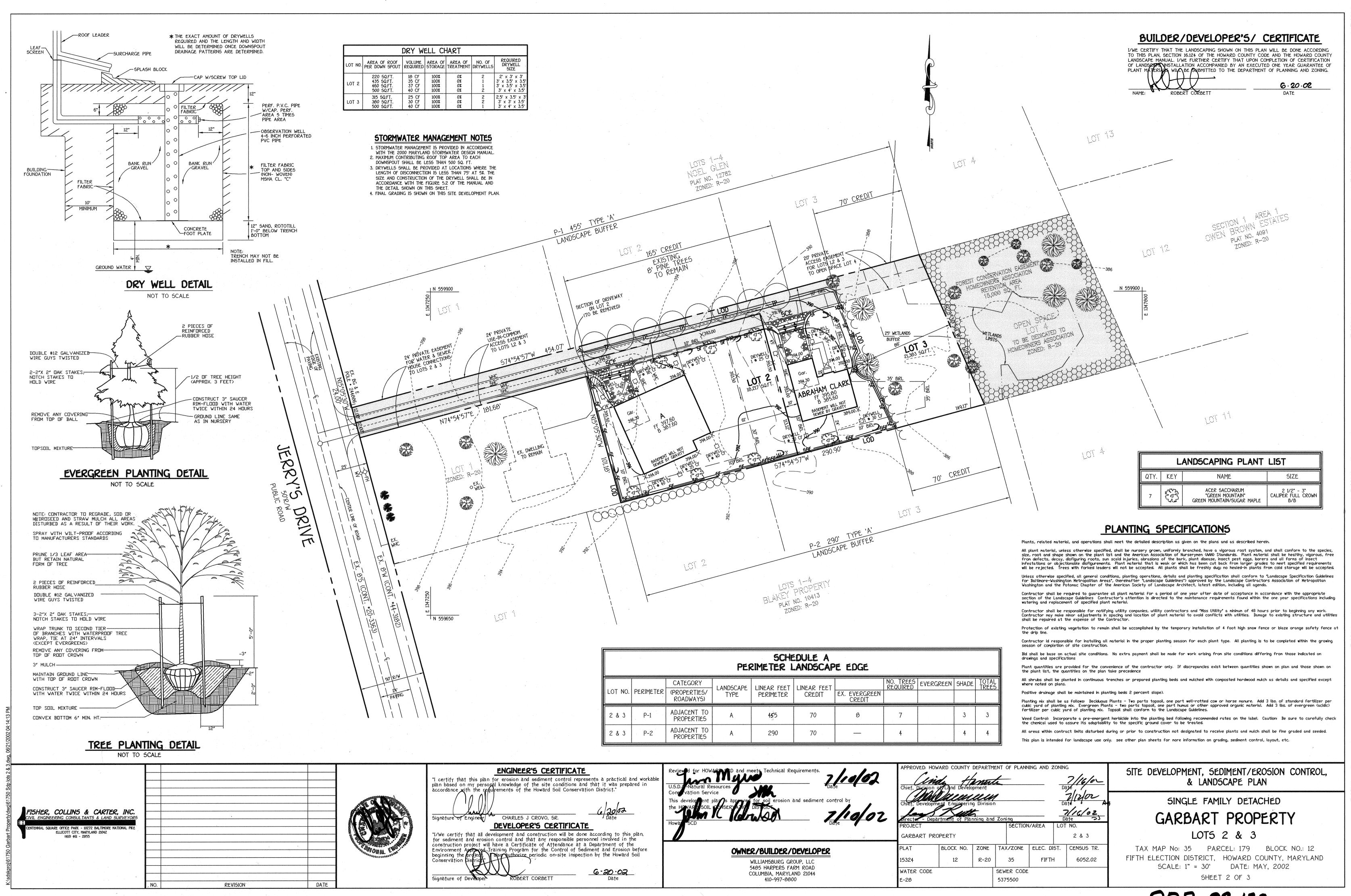


SITE DEVELOPMENT PLAN TITLE SHEET

> SINGLE FAMILY DETACHED GARBART PROPERTY

LOTS 2 & 3

TAX MAP No: 35 PARCEL: 179 BLOCK: 12 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: 1"= 30' DATE: MAY, 2002 SHEET 1 OF 3



20.0 STANDARDS AND SPECIFICATIONS VEGETATIVE STABILIZATION

DEFINITION

Using vegetation as cover for barren soil to protect it from forces that cause erosion.

PURPOSE 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 run-off 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 plans and may be used on highly erodible or critically eroding areas. This specification is divided into Temporary Seeding, to quickly establish vegetative cover for short duration O(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, dams, cut and fill slopes and other areas at final grade, former stockpile and staging areas, 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, seedbed 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 of permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins. ii. Perform all grading operations at right angles to the slope. Final grading and shaping is not usually

necessary for temporary seeding. iii. Schedule required soil tests to determine soil amendment composition and application rates for sites

having disturbed area over 5 acres. B. Soil Amendments (Fertilizer 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. ii. Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall all be delivered to the site fully labeled according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and warrantee

of the producer. iii. Lime materials 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

Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means. C. Seedbed Preparation Temporary Seeding

a. Seedbed 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 dragged smooth, but left in the roughened condition. Sloped areas (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 plans.

c. In corporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means. ii. Permanent Seeding

 Minimum soil conditions required for permanent vegetative establishment:
 50il 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 (>30% silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if lovegrass or serecia lespedezas is to be planted, then a sandy soil (<30% 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. b. Areas previously graded in conformance with the drawings shall be maintained in a true and even grade, then scarified 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 plans.

Mix soil amendments into the top 3-5" of topsoil by disking or other suitable means. Lawn areas should be raked to smooth the surface, remove large objects like stones and branches, and ready the area for seed and application. Where site conditions will not permit normal seedbed preparation, loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface. Steep slopes (steeper than 3:1) should be tracked by a dozer leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. top 1-3" of soil should be loose and friable. Seedbed loosening may not be necessary on newly disturbed areas.

D. Seed Specifications All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to re-testing by a recognized seed laboratory. All seed used shall have been tested within the 6 months immediately preceding the date of sowing such material on this job. Note: Seed tags shall be made available to the inspector to verify type and rate of seed used.

ii. Inoculant - The inoculant for treating legume seed in the seed mixtures shall be a pure culture of nitrogen-fixing bacteria prepared specifically for the species. Inoculants shall not be used later than the date indicated on the container. Add fresh inoculant as directed on package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75°-80° F. can weaken bacteria and make the inoculant less effective. Methods of Seeding Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast or drop seeded, or a cultipacker seeder.

a. 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; P205 (phosphorous); 200 lbs/ac; K20 (potassium): 200 lbs/ac. Lime - use only ground agricultural limestone, (Up to 3 tons per acre may be applied by nydroseeding). 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.

ii. Dry Seeding: This includes use of conventional drop or broadcast spreaders.

a. Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the Temporary or Permanent Seeding Summaries or Tables 265 or 26. The seeded area shall then be rolled with a weighted roller to provide good seed to soil contact.

b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction. without interruption

iii. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil. Cultipacking seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seedbed 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.

Mulch Specifications (In order of preference) Straw shall consist of thoroughly threshed wheat, rye or oat straw, reasonable bright in color, and shall not be musty, moldy, caked, decayed, or excessively dusty and shall be free of noxious weed seeds as specified in the Maryland Seed Law. ii. Wood Cellulose Fiber Mulch (WCFM)

WCFM shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state.

WCFM shall be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry. WCFM, including dye, shall contain no germination or growth inhibiting factors. WCFM 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

in contact with the soil without inhibiting the growth of the grass seedlings. WCFM material shall contain no elements or compounds at concentration levels that will be phytol-toxic. f. WCFM 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 1.6% maximum and water holding capacity of 90% minimum.

Note: Only sterile straw mulch should be used in areas where one species of grass is desired.

moisture absorption and percolation properties and shall cover and hold grass seed

G. Mulching Seeded Areas - Mulch shall be applied to all seeded areas immediately after seeding.

i. If grading is completed outside of the seeding season, mulch along shall be applied as prescribed in this section and maintained until the seeding season returns and seeding can be performed in

ii. 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 a mulch anchoring tool is to be used, the rate should be increased to 2.5 tons/acre.

iii. Wood cellulose fiber used as a mulch shall be applied at a net dry weight of 1,500 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. H. 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:

i. A mulch anchoring tool is a tractor drawn 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.
ii. 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.

iii. Application of liquid binders should be heavier at the edges where wind catches mulch, such as in valleys and crest of banks. The remainder of area should be appear uniform after binder application. Synthetic binders – such as Acrylic DLR (Agro-Tack), DCA-70 Petroset, Terra Tax II, Terra Tack AR 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 recom-

mendations. Netting is usually available in rolls 4' to 15' feet wide and 300 to 3,000 feet long. 1. Incremental Stabilization - Cut Slopes All cuts slopes shall be dressed, prepared, seeded and mulched as the work progresses. Slopes

shall be excavated and stabilized in equal increments not to exceed 15'. ii. Construction sequence (Refer to Figure 3 below):

Excavate and stabilize all temporary swales, side ditches, or berms that will be used to convey runoff from the excavation.

Perform Phase 1 excavation, dress, and stabilize. Perform Phase 2 excavation, dress and stabilize. Overseed Phase 1 areas as

necessary.
Perform final phase excavation, dress and stabilize. Overseed previously seeded

Note: Once excavation has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions int he operation of completing the operation out of the seeding season will necessitate the application of temporary stabilization. Incremental Stabilization of Embankments - Fill Slopes

Embankments shall be constructed in lifts as prescribed on the plans.

ii. Slopes shall be stabilized immediately when the vertical height of the multiple lifts reaches

15", or when the grading operation ceases as prescribed in the plans.

iii. At the end of each day, femporary berms and pipe slope drains should be constructed along the top edge of the embankment to intercept surface runoff and convey it down the slope in a non-crosive manner to

a sediment trapping device. Construction sequence: Refer to Figure 4 (below). Excavate and stabilize all temporary swales, side ditches, or berms that will be used to divert runoff around the fill. Construct slope silt fence on low side of fill as shown in Figure 5, unless other methods shown on the plans address this area.

Place Phase 1 embarkment, dress and stabilize.

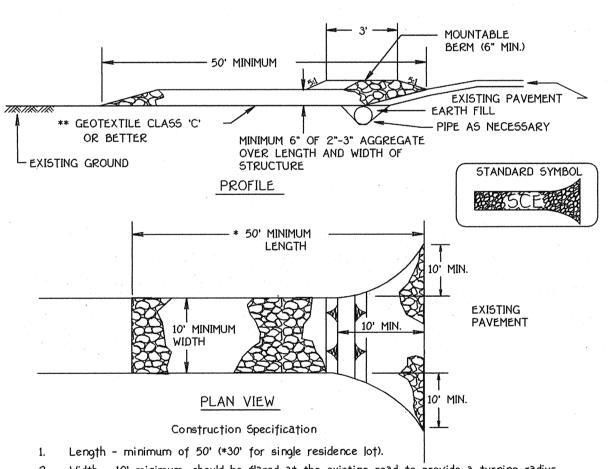
Place Phase 2 embankment, dress and stabilize Place final phase embankment, dress and stabilize. Overseed previously seeded

areas as necessary.

Once the placement of fill has begun the operation should be continuous from grubbing through the completion of and placement of topsoil (if required) grading and permanent seed and mulch. any interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization.

SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT INSTALL SEDIMENT AND EROSION CONTROL DEVICES AS SHOWN ON PLAN 7 DAYS 3. CLEAR AND GRUB TO LIMITS OF DISTURBANCE 4 DAYS 4. INSTALL TEMPORARY SEEDING 2 DAYS 5. CONSTRUCT BUILDINGS 60 DAYS 6. FINE GRADE SITE AND INSTALL PERMANENT SEEDING AND LANDSCAPE 7. REMOVE SEDIMENT CONTROL DEVICES AS UPLAND AREAS ARE STABILIZED AND PERMISSION IS GRANTED BY E/S CONTROL INSPECTOR.



2. Width - 10' minimum, should be flared at the existing road to provide a turning radius. 3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. **The plan approval authority may not require single family

residences to use geotextile. 4. Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance. Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and

according to the amount of runoff to be conveyed. A 6" minimum will be required. Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance

has no drainage to convey a pipe will not be necessary. Pipe should be sized

STABILIZED CONSTRUCTION ENTRANCE

SEDIMENT CONTROL NOTES

1) A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LISCENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855).

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. 3) FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT

OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES. DIKES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3:1, b) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE. 4) 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. 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. 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.

6) ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE O BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR HEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

7) SITE ANALYSIS: TOTAL AREA OF SITE 0.975 ACRES AREA DISTURBED 0.980 ACRES AREA TO BE ROOFED OR PAVED 0.336 ACRES AREA TO BE VEGETATIVELY STABILIZED 0.644 ACRES TOTAL CUT 3.905 CU.YDS. TOTAL FILL 68 CU.YDS.

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. 10) 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.

11) TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGHTS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

10' MAXIMUM NOTE: FENCE POST SPACING SHALL NOT EXCEED 10 CENTER TO CENTER 34" MINIMUM TRIRTATION GROUND TRIKTA **SURFACE** 36" MINIMUN FLOW 21/2" DIAMETER GALVANIZED ∠ CHAIN LINK FENCE OR ALUMINUM POSTS FILTER CLOTH CHAIN LINK FENCING FILTER CLOTH 34" MINIMUM 776.776 - 16" MIN. 15T LAYER OF FILTER CLOTH EMBED FILTER CLOTH 8" -TATALIA MINIMUM INTO GROUND STANDARD SYMBOL * IF MULTIPLE LAYERS ARE REQUIRED TO ATTAIN 42" Construction Specifications

1. Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6' fence shall be used, substituting 42" fabric and 6' length posts. 2. Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and truss rods, drive anchors and post caps are not required except on the ends of the fence.

3. Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.

4. Filter cloth shall be embedded a minimum of 8" into the ground. 5. When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.

Tensile Strength

0 - 10%

6. Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence, or when silt reaches 50% of fence height 7. Filter cloth shall be fastened securely to each fence post with wire ties or staples at top and mid section and shall meet the following requirements for

> Test: MSMT 509 Tensile Modulus 20 lbs/in (min.) 0.3 gal/ft /minuté (max.) Test: M5MT 322 Flow Rate 75% (min.) Test: MSMT 322 Filtering Efficiency Design Criteria 5ilt Fence Length (maximum) Steepness (maximum)

50 lbs/in (min.)

10 - 20% 200 feet 20 - 33% 100 feet 1,000 feet 5:1 - 3:1 33 - 50% 3:1 - 2:1 100 feet 500 feet 50% + 2:1 + 50 feet 250 feet

Test: MSMT 509

Unlimited

PERMANENT SEEDING NOTES

ALL DISTURBED AREAS SHALL BE STABILIZED AS FOLLOWS: SEEDBED 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 LB5/ 1,000 SO.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 38-0-0 UREAFORM FERTILIZER (9 LBS./1,000 SQ.FT.) AND 500 LBS. PER ACRE (11.5 LBS./ 1,000 SQ.FT.) OF 10-20-20 FERTILIZER.

FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 1 THROUGH OCTOBER 15, SEED WITH 100 LBS. PER ACRE (2.3 LBS./1,000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE, FOR THE PERIOD MAY 1 THROUGH JULY 31, SEED WITH 60 LBS/ACRE (1.4 LBS./1,000 SQ.FT.) KENTUCKY 31 TALL FESCUE AND 2 LBS. PER ACRE (0.05 LBS./1,000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THROUGH FEBRUARY 28. PROJECT SITE BY: OPTION (1) - TWO TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING; OPTION (2) - USE SOO; OPTION (3) -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 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 GAL./1,000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT ACRES. ON SLOPES & FEET OR HIGHER USE 348 GALLONS PER ACRE (8 GAL./1.000 SQ.FT.) FOR ANCHORING MAINTENANCE:
INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS,

REPLACEMENTS AND RESEEDINGS.

* FOR PUBLIC PONDS SUBSTITUTE CHEMUNG CROWNVETCH AT 15 LBS./ACRE AND KENTUCKY 31 TALL FESCUE AT 40 LBS/ACRE AS THE SEEDING REQUIRMENT. OPTIMUM SEEDING DATE FOR THIS MIXTURE 15 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.

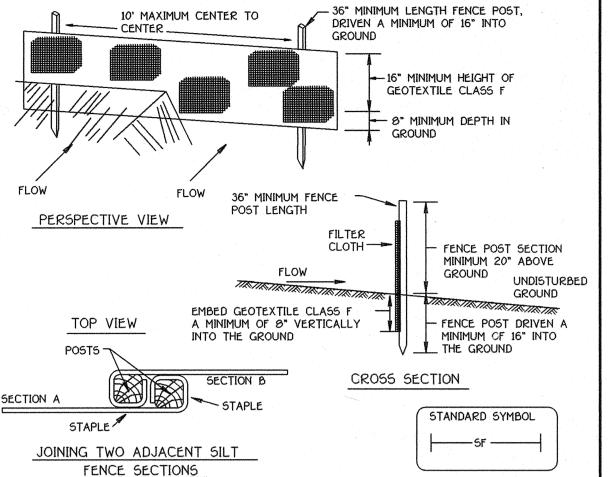
SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY

SOIL AMENDMENTS: APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./ 1,000 SQ.FT.)

FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 15 THROUGH NOVEMBER 15, SEED WITH 1? BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS./ACRE OF WEEPING LOVEGRASS (.07 LBS.) 1,000 SQ.FT. FOR THE PERIOD NOVEMBER 16 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 TO 2 TONS PER ACRE (70 TO 90 LBS./1,000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL.1,000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT ACRES ON SLOPES & FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL./1,000 SQ.FT.) FOR ANCHORING.

REFER TO THE 1988 MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.



Construction Specifications

1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 11/2" x 11/2" square (minimum) cut, or 13/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pond per linear foot.

2. Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:

Tensile Strength 50 lbs/in (min.) Test: MSMT 509 Tensile Modulus 20 lbs/in (min.) Test: MSMT 509 0.3 gal ft / minute (max.)2 Test: MSMT 322 Test: MSMT 322 Filtering Efficiency 75% (min.)

3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.

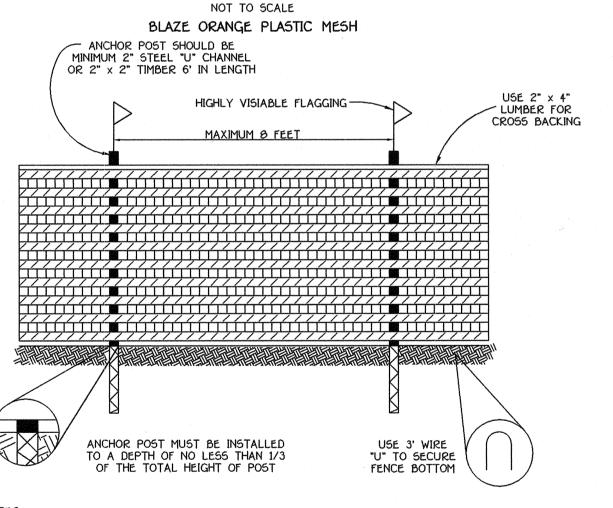
4. Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

Silt Fence Design Criteria

Slope Steepness	(Maximum) Slope Length	(Maximum) Silt Fence Length
Flatter than 50:1	unlimited	unlimited
50:1 †0 10:1	125 feet	1,000 feet
10:1 to 5:1	100 feet	750 feet
5:1 to 3:1	60 feet	500 feet
3:1 to 2:1	40 feet	250 feet
2:1 and steeper	20 feet	125 feet

Note: In areas of less than 2% slope and sandy soils (USDA general classification system, soil Class A) maximum slope length and silt fence length will be unlimited. In these areas a silt fence may be the only perimeter control required

SILT FENCE NOT TO SCALE



NOTES:

WATER CODE

E-28

FOREST PROTECTION DEVICE ONLY. RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS. BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE. ROOT DAMAGE SHOULD BE AVOIDED. PROTECTIVE SIGNAGE MAY ALSO BE USED.

TREE PROTECTION DETAIL

NOT TO SCALE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING 7/16/02 Department of Planning and Zoning SECTION/AREA GARBART PROPERTY 2 & 3 BLOCK NO. | ZONE | TAX/ZONE ELEC. DIST. CENSUS TR. 6052.02 15324 R-20

SEWER CODE

5375500

DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

DETAIL & NOTES

SINGLE FAMILY DETACHED

GARBART PROPERTY

TAX MAP No: 35 PARCEL: 179 BLOCK NO.: 12 FIFTH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

FISHER, COLLINS & CARTER, INC. IVIL ENGINEERING CONSULTANTS & LAND SURVEYORS



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 Soil Conservation District." CHARLES J. CROVO, SR. 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 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 Howard Soil Conservation District.

6/20/02 6-20-02

0 - 10:1

OWNER/BUILDER/DEVELOPER WILLIAMSBURG GROUP, LLC 5405 HARPERS FARM ROAD COLUMBIA, MARYLAND 21044

SDP 02-132

DATE

Signature of

410-997-8800

SCALE: 1" = 30' DATE: MAY, 2002 SHEET 3 OF 3

LOTS 2 & 3