

	MINIMUM LOT SIZE CHART					
LOT NO.	GROSS AREA	PIPESTEM AREA	REMAINING AREA	MINIMUM AREA		
5	15,594 5Q.FT.	1,507 SQ.FT.	14,087 SQ.FT.	14,007 SQ.FT.		
7	15.334 SQ.FT.	950 SQ.FT.	14.384 SQ.FT.	14,384 SQ.FT.		

ADDRESS CHART			
LOT NUMBER	STREET ADDRESS		
1	8437 ROBERTS ROAD		
2	8433 ROBERTS ROAD		
5	8421 ROBERTS ROAD		
7	8413 ROBERTS ROAD		
12	8436 ROBERTS ROAD		

LEGEND			
SYMBOL	DESCRIPTION		
	EXISTING CONTOUR 2' INTERVAL		
+362.2	SPOT ELEVATION		
—5F—5F	SILT FENCE		
-55F55F-	SUPER SILT FENCE		
-5FD5FD-	SUPER FENCE DIVERSION		
WOE>	PROPOSED WALKOUT		
ECM	EROSION CONTROL MATTING		
LOD	LIMIT OF DISTURBANCE		
6 14 J			

BENCH MARKS T.P. 24II ELEV 437.92 N. 175,960.9842 E. 416,380.5461

BRITTANY DRIVE

N. 176,982,1419 E. 416,045.0472

T.P. 2413 ELEV. 404.52

LOC. NEAR THE INTERSECTION OF OLD COLUMBIA PIKE &

LOC. BETWEEN BRITTANY CIRCLE AND ELLICOTT MILLS MIDDLE SCHOOL

TOTAL AREA OF SITE: 1.742 ACRES TOTAL NUMBER OF LOTS SUBMITTED: 5

PRIOR TO ANY EXCAVATION WORK.

W & 5 CONT. \*14-3945-D.

DEVELOPER'S EXPENSE.

TO CONSTRUCTION.

DRAWINGS FILED UNDER. F-02-06.

FOLLOWING (MINIMUM) REQUIREMENTS:

B.) SURFACE (P-1) STANDARD PAVING

GENERAL NOTES

SUBJECT PROPERTY ZONED R-20 PER 10/18/93 COMPREHENSIVE REZONING PLAN.

6. THIS PROJECT IS SUBJECT TO HOWARD COUNTY FILES: P-01-14, 5-99-21, F-02-06,

SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS. HOWARD COUNTY MONUMENT 2411 N 175960.9842 E 416380.5461 HOWARD COUNTY MONUMENT 2413 N 176982.1419 E 416045.0472 9. ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE

RIGHTS-OF-WAY OF THIS S.D.P. ARE NOT USED FOR CONSTRUCTION. FOR CONSTRUCTION SEE APPROVED ROAD CONSTRUCTION PLANS F-02-06. AND/OR APPROVED WATER AND SEWER PLANS CONTRACT NO. 14-3945-D.

APPROVED ROAD CONSTRUCTION DRAWINGS FILED UNDER F-02-06.

A) WIDTH 12' (14' IF SERVING MORE THAN ONE RESIDENCE)

G.) MAINTENANCE SUFFICIENT TO INSURE ALL WEATHER USE.

NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACKS.

5TH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.

1 FOOT DEPTH OVER DRIVEWAY SURFACE. F.) STRUCTURE CLEARANCES MINIMUM 12 FEET

AT LEAST (5) FIVE WORKING DAYS PRIOR TO THE START OF WORK.

4. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION INSPECTION DIVISION AT (410)313-1880

5. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS

7. 2 FOOT CONTOUR TOPOGRAPHY AND EXISTING CONDITIONS BASED ON AERIAL TOPOGRAPHY SURVEY PREPARED BY WINGS AERIAL MAPPING CO., INC. FLOWN IN JULY, 1997, FIELD RUN DATA BY FISHER COLLINS & CARTER, INC., OCTOBER, 1997 AND ROAD CONSTRUCTION PLANS

6. HORIZONTAL AND VERTICAL CONTROL DATUM IS BASED ON NAD 63. MARYLAND COORDINATE

10. THIS PLAN IS FOR HOUSE SITING AND GRADING ONLY. IMPROVEMENTS SHOWN WITHIN THE

11. CONTRACTOR WILL CHECK SEWER HOUSE CONNECTION ELEVATION AT EASEMENT LINE PRIOR

12. STORMWATER MANAGEMENT WILL BE PROVIDED AS APPROVED ON THE ROAD CONSTRUCTION

SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. AS SHOWN ON THE

14. THE FOREST CONSERVATION REQUIREMENTS PER SECTION 1612.02 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION MANUAL FOR THIS PROJECT HAS BEEN FULFILLED BY ON-SITE RETENTION OF EXISTING FOREST IN THE AMOUNT OF 3.54 ACRES. FILED UNDER F-02-06.

15. DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO INSURE SAFE ACCESS FOR THE FIRE AND EMERGENCY VEHICLES PER THE

16 FOR DRIVEWAY ENTRANCE DETAILS REFER TO HO. CO. DES. MAN. VOL. IV DETAILS R.6.03 & R.6.05.

MORE THAN 4 FEET INTO ANY SETBACK, PORCHES OR DECKS, OPEN OR ENCLOSE MAY PROJECT

21. AS A CONSEQUENCE OF THIS SUBMISSION, ON OCTOBER 29, 2002, THIS SDP IS SUBJECT TO THE

17. SITE DEVELOPMENT PLAN FOR SINGLE FAMILY DETACHED UNITS.

18. THIS PLAN IS GRANDFACHERED. TO THE SUBDIVISION REGULATIONS SINCE IT WAS SUBMITTED PRIOR TO NOVEMBER 15, 2001.

20. IN ACCORDANCE WITH SECTION 128 (A)(1) OF THE HO.CO. ZONING REGULATION, BAY WINDOWS, CHIMNEY OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT

19. OPEN SPACE REQUIREMENTS FOR THESE LOTS HAVE BEEN PROVIDE UNDER. F-01-140.

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 SAFETY PASSING 100 YEAR FLOOD WITH NO MORE THAN

13. PERIMETER LANDSCAPING AND STREET TREES SHALL BE PROVIDED IN ACCORDANCE WITH

INDEX CHART					
SHEET	DESCRIPTION				
SHEET 1	TITLE SHEET, HOUSE TYPES, TEMPLATES				
SHEET 2	SITE DEVELOPMENT PLAN				
SHEET 3	SEDIMENT AND EROSION CONTROL PLAN				
SHEET 4	SED. & EROS. CONTROL NOTES & DETAILS				

FISHER, COLLINS & CARTER, INC. SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MARYLAND 21042 DATE NO.

REVISION

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."

12.18.02 BUILDER/DEVELOPER'S CERTIFICATE

Signature of Devleloper

"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." 12-19-02

viewed for HOWARD SCD and meets Technical Requirements. U.S.D.A.-Natural Resou Conservation Service This development plan is approved for the HOWARD SOIL CONSERVATION DISTRICT. Howard SCD

OWNER/DEVELOPER STONECREST MANOR, L.L.C. C/O LAND DESIGN & DEVELOPMENT, LLC 8000 MAIN STREET ELLICOTT CITY, MARYLAND 21044 410-480 9105

BUILDER PULTE HOMES 1501 SOUTH EDGEWOOD STREET SUITE 1 BALTIMORE, MARYLAND 21227 410-644-5603

EXISTING PERIMETER TREES TAKEN FROM F-02-06 PPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING 1,2,5,7 & 12 TONE MANOR TAX/ZONE ELEC. DIST. CENSUS TR. BLOCK NO. ZONE 15514 15515 R-20 25 6068.02 WATER CODE SEWER CODE 1253100

TITLE SHEET

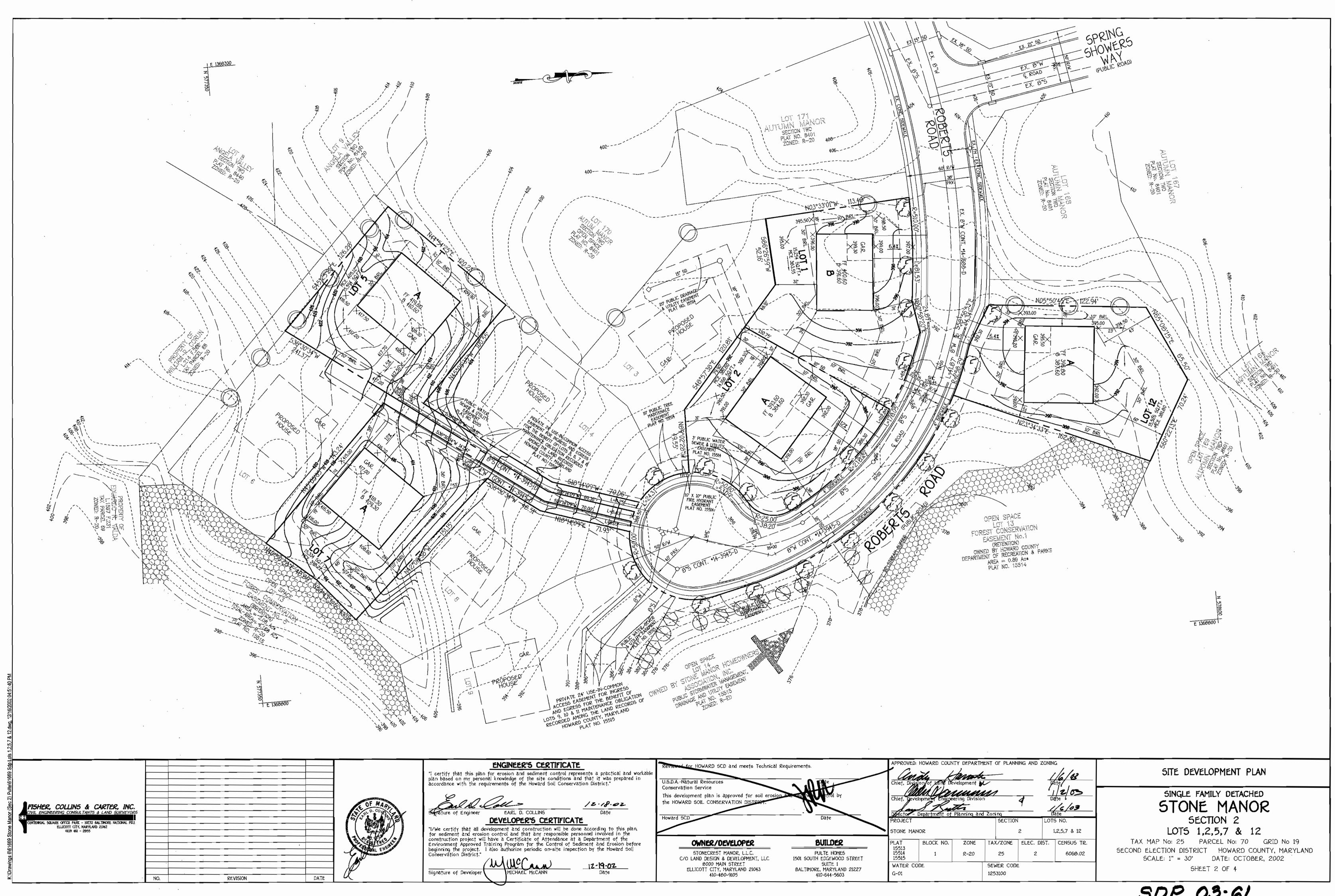
VICINITY MAP SCALE: 1" = 2,000"

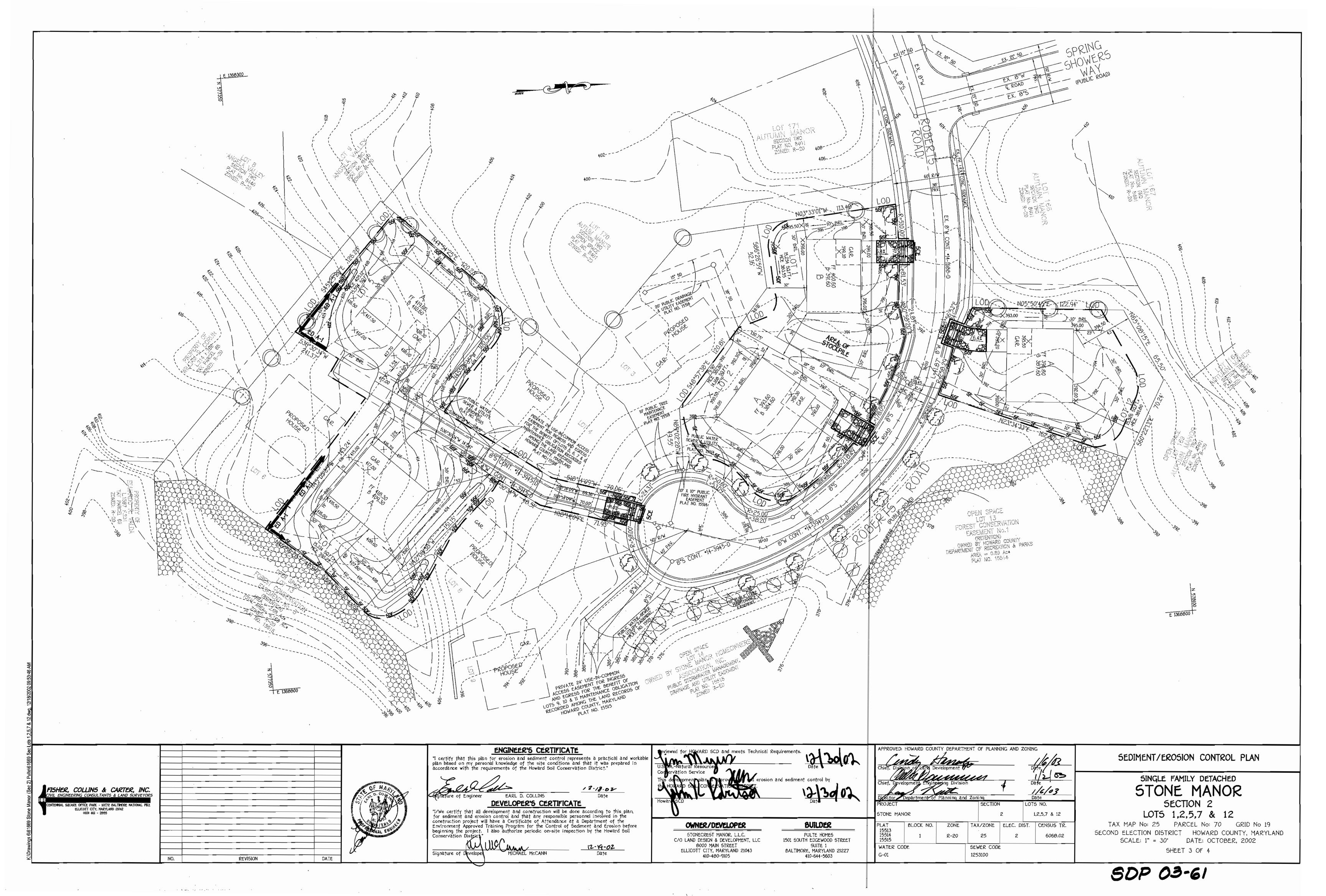
SINGLE FAMILY DETACHED STONE MANOR SECTION 2

LOTS 1,2,5,7 & 12

TAX MAP No: 25 PARCEL No: 70 GRID No. 19 SECOND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND 5CALE: 1"= 30' DATE: OCTOBER, 2002

SHEET 1 OF 4





## 20.0 STANDARDS AND SPECIFICATIONS VEGETATIVE STABILIZATION

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 Out 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 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.

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.

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

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 90-100% will pass through a \*20 mesh sieve, iv. Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.

Seedbed Preparation
i. 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.

b. Apply fertilizer and lime as prescribed on the plans.

c. In corporate time and fertilizer into the top 3-5° of soil by disking or other suitable means.

i. Permanent Seeding

Minimum soil conditions required for permanent vegetative establishment:
1. 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 030% 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% sil

plus clay) would be acceptable. Soil shall contain 1.5% minimum organic matter by weight. 5oil must contain sufficient pore space to permit adequate root penetration f 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 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 o 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. The top 1-3" of soil should be loose and friable. Seedbed loosening may not be necessary on

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.

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 legime 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

i. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast or drop seeded, or a cultipacker seeder.

If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: nitrogens maximum of 100 lbs. per acre total of soluble nitrogens 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 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.

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.

iii. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.

a. 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)

i. Straw shall consist of thoroughly threshed wheat, ree 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)

a. 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 sturry. 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 agitatio 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 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.

## SEQUENCE OF CONSTRUCTION

I. 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 CONSTRUCT BUILDINGS 60 DAYS 6. FINE 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 G. Mulching Seeded Areas - Mulch shall be applied to all seeded areas immediately after seeding 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

accordance with these specifications.

ii. When straw much 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 be used, the rate should be increased to 2.5 tons/acre.

iii. Wood cellulose fiber used as a mulch shall be applied at any 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.

Securing Straw Mulch (Mulch Anchoring): Mulch anchoring shall be performed immediately following mulch preference), depending upon size of area and erosion hazard:

eference, depending upon size of area and erosion hazard:

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.

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 hall certain a service of 60 pounds for the mixture of 80 poun the mixture shall contain a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.

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 Ta 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 recommendations. Netting is usually available in rolls 4' to 15' feet wide and 300 to 3,000 feet long.

I. 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):

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

iv. Construction sequence: Refer to Figure 4 (below).

PERMANENT SEEDING NOTES

SEEDBED PREPARATION:
LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING
OR OTHER ACCEPTABLE MEANS BEFORE SEEDING.

SOIL AMENDMENTS:
APPLY TWO TONS PER ACRE BOLOMITIC LIMESTONE (92 LBS)

1,000 SQ.FT.) AND 600 LBS. PER ACRE 0-20-20 FERTILIZER

(14 LBS./LOOD SOLFT.) 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 (IL5 LBS./1,000 SQ.FT.) OF 10-20-20 FERTILIZER.

SEEDING: FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST

C.4 L85./1,000 50.FT.) KENTUCKY 31 TALL FESCUE AND

MULCHING: APPLY I TO 2 TONS PER ACRE 00 TO 90 LBS./1,000 SQ.FT.)

GALLONS PER ACRE (5 GAL/1,000 SQ.FT.) OF EMULSIFIED

MAINTENANCE: INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS

MIXTURE IS MARCH 1 TO APRIL 30.

BE HYDROSEEDED.

I THROUGH OCTOBER 15, SEED WITH 100 LBS. PER ACRE (2.

LBS./1,000 SQFT) OF KENTUCKY 31 TALL FESCUE, FOR THE PERIOD MAY 1 THROUGH JULY 31, SEED WITH 60 LBS/ACRE

2 LBS. PER ACRE (0.05 LBS/1,000 SQFT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THROUGH

EBRUARY 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 500; OPTION (3) -SEED WITH 100 LB5./ACRE KENTUCKY 31 TALL FESCUE AND MULCH

OF UNCOTTED SHALL GRAIN STRAW IMMEDIATELY AFTER SEEDING.
ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING 200

ASPHALT ON FLAT ACRES. ON SLOPES B FEET OR HIGHER US

348 GALLONS PER ACRE (8 GAL/1,000 SQ.FT.) FOR ANCHORING

\* FOR PUBLIC PONDS SUBSTITUTE CHEMUNG CROWNVETCH AT 15 LBS./ACRE AND KENTUCKY 3L TALL FESCUE AT 40 LBS/ACRE AS

HE SEEDING REQUIRMENT. OPTIMUM SEEDING DATE FOR THIS

SEDIMENT CONTROL NOTES

DEPARTMENT OF INSPECTIONS, LISCENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855).

1) A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY

FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO. 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

SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS

ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE

ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING

9) ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMES

NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR. 10) ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES,

CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH

ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE

APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT

DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL

11) TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPI LENGHTS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN

TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT

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 CAI

ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER

SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. I, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.

5) ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD

GERMINATION AND ESTABLISHMENT OF GRASSES.

AREA TO BE ROOFED OR PAVED AREA TO BE VEGETATIVELY STABILIZED

OFFSITE WASTE/BORROW AREA LOCATION

CONTROL INSPECTOR.

SAME DAY OF DISTURBANCE

BY THE INSPECTION AGENCY IS MADE.

ONE WORKING DAY, WHICHEVER IS SHORTER.

7) SITE ANALYSIS: TOTAL AREA OF SITE

2) ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN

WITH TWO TONS/ACRE WELL ANCHORED STRAW. ALL SLOPES SHOULD

L DISTURBED AREAS SHALL BE STABILIZED AS FOLLOWS:

iv. Construction sequence: Refer to Figure 4 (below).

a. 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.

b. Place Phase 1 embankment, dress and stabilize.

c. Place Phase 2 embankment, dress and stabilize.

d. Place final phase embankment, dress and stabilize. Overseed previously seeded areas as necessary.

Note: 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.

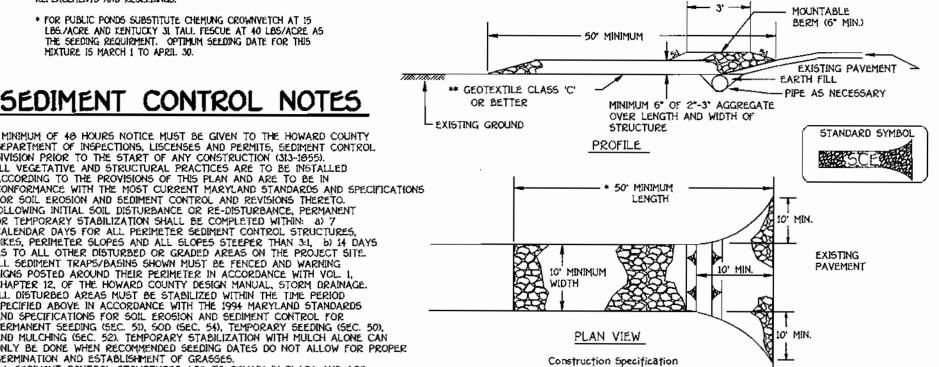
## TEMPORARY SEEDING NOTES

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 5QFTJ

SEEDING: FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 15 THROUGH NOVEMBER 15, SEED WITH 17 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 8. PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL anchored straw mulch and seed as soon as possible in the

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 GALL),000 SQ.FT.) OF EMULSITIED ASPHALT ON FLAT ACRES ON SLOPES & FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1,000 SQ.FT.) FOR REFER TO THE 1900 MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT



1. Length - minimum of 50' (\*30' for single residence lot). 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. 5. 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 has no drainage to convey a pipe will not be necessary. Pipe should be sized

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

# STABILIZED CONSTRUCTION ENTRANCE

## STANDARDS AND SPECIFICATIONS FOR TOPSOIL

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

1. 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.

II. For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

### Construction and Material Specifications

I. 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.

### II. Topsoil Specifications - Soil to be used as topsoil must meet the following:

soils 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 contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 11/2" in diameter.

ii. Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass. Johnson grass, nutsedge, poison ivy, thistle, or others as specified.

42" CHAIN LINK FENCE

WITH I LAYER OF MIRAFI

-MCF 1212 OR EQUIVALENT

OVER UPHILL SIDE OF FENCE

10" MAXIMUM

PERSPECTIVE VIEW

SECTION VIEW

1. FENCING SHALL BE 42" HIGH CHAIN CONSTRUCTED IN ACCORDANCE WITH THE LATEST

FOR CHAIN U FENCING. THE SPECIFICATIONS FOR A 6'-0" FENCE SHALL BE USED.

2. CHAIN LINK FENCE SHALL BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES

OR STAPLES. THE LOWER TENSION WIRE, BRACE AND TRUSS RODS, ANCHORS AND

Slope Length

(maximum)

200 feet

NOT TO SCALE

100 feet

FENCE DIVERSION

Unlimited

SUBSTITUTING 42" FABRIC AND 8" POSTS. POSTS SHALL BE PLACED WITHOUT

POST CAPS ARE NOT REQUIRED EXCEPT ON THE ENDS OF THE FENCE.

4. FILTER CLOTH SHALL BE IMBEDDED A MINIMUM OF 9" INTO THE GROUND.

3. FILTER CLOTH TO BE FASTENED SECURELY TO CHAIN LINK FENCE WITH TIES

5. WHEN TWO SECTIONS OF DIVERSION CLOTH ADJOIN EACH OTHER THEY SHALL

MARYLAND STATE HIGHWAY ADMINISTRATION STANDARD DETAILS 690,01 AND 690,02

21/2" DIAMETER

— GALVANIZED

OR ALUMINUM

POSTS

MIN.

STANDARD SYMBOL

Test Method

ASTM DI682

ASTM D1682

ASTM D3786

ASTM D751

DOT VTM-51

US Std Sieve

CW-02215

ASTM G-26

Silt Fence Length

(maximum)

Unlimited

1,500 feet

500 feet

250 feet

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.

For sites having, disturbed areas under 5 acres:

1118118118

36" MINIMUM

STANDARD SYMBOL

Test: MSMT 509

Test: MSMT 509

Test: M5MT 322

Silt Fence Length

Unlimited

1,500 feet

500 feet

250 feet

(maximum)

0.3 gal/ft /minute (max.) Test: MSMT 322

- 55F <del>----</del>

i. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization — Section I — Vegetative Stabilization Methods and Materials.

SURFACE

FLOW

CHAIN LINK FENCING-

MIRAFI MCF 1212 OR EQUIVALENT-

EMBED MIRAFI —\_\_\_\_

MIN, 9" INTO GRO

CONSTRUCTION SPECIFICATIONS

SPACED EVERY 24" AT TOP AND MID SECTION.

BE OVERLAPPED BY SIX INCHES AND FOLDED.

Fabric Properties

Elongation at Failure (X)

Puncture Strength (bs.)

Equivalent Opening Size

0 - 10%

10 - 20%

33 - 50%

SUPER

50% +

Grab Tensile Strength (16s.)

Mullen Burst Strength (PSI)

Slurry Flow Rate (gal/min/sf)

Utraviolet Radiation Stability (%)

Steepness

3:1 - 2:1

2:1 +

6. MAINTENANCE SHALL BE PERFORMED AS NEEDED.

TANTA IIS IIS II

STABILIZE AREA

LAYER MIRAFI IN

WIDE TRENCH

BOTTOM OF 14" MIN.

CONCRETE EMBEDMENT

(MIN. 36" WIDE)

### 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 topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed 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

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.

ii. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization — Section I — Vegetative Stabilization Methods and Materials.

i. When top soiling, 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 top soiled, which have been previously established, shall be maintained, albeit 4" - 8" higher in elevation.

iii. Topsoil shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from top soiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.

iv. Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper

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 to prescribe amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements:

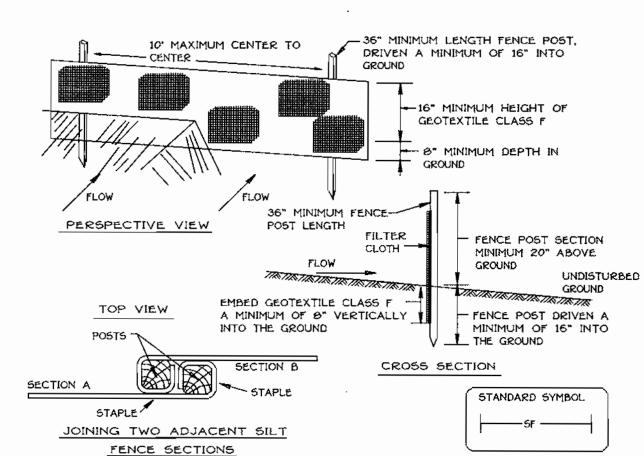
a. Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.

b. Composted sludge shall contain at least I 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, he appropriate constituents must be added to meet the requirements prior to use.

c. Composted sludge shall be applied at a rate of I ton/1,000 square feet iv. 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 Sodding,. MD-VA, Pub. #1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes. Revised 1973.



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.) Tensile Modulus 20 lbs/in (min.) Flow Rate

Test: MSMT 509 0.3 gal ft 1/ minute (max.) Test: MSMT 322 Filtering Efficiency 75% (min.) Test: M5MT 322 3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.

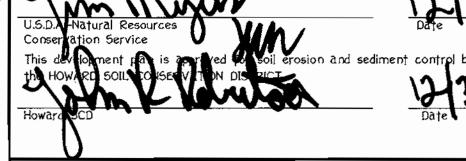
Test: MSMT 509

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.

"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."

ignature of Engineer EARL D. COLLINS

Signature of MICHAEL McCANN



OWNER STONECREST MANOR, L.L.C. C/O LAND DESIGN & DEVELOPMENT, LLC 8000 MAIN STREET ELLICOTT CITY, MARYLAND 21043

PPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING (/6/03 1/6/03 for Department of Planning and Zoning 1,2,5,7 & 12 TONE MANOR BLOCK NO. ZONE TAX/ZONE | ELEC. DIST. CENSUS TR 6068.02 R-20 25 WATER CODE SEWER CODE

SEDIMENT/EROSION CONTROL NOTES & DETAILS

## SINGLE FAMILY DETACHED

## STONE MANOR SECTION 2

LOTS 1,2,5,7 & 12

TAX MAP No: 25 PARCEL No: 70 GRID No: 19 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: AS SHOWN DATE: OCTOBER, 2002 SHEET 4 OF 4

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



ENGINEER'S CERTIFICATE

12.18.02

"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

12-19-02

m II/ww

1 b 21 SLOPE OR FLATTER

POSITIVE DRAINAGE

SUFFICIENT TO DRAIN

FLOW CHANNEL STABILIZATION

2. Seed and cover with Erosion Control Matting or line with sod.

Construction Specifications

1. All temporary earth dikes shall have uninterrupted positive grade to

sediment trapping device.

3. Runoff diverted from an undisturbed area shall outlet directly into

material shall be removed and disposed of so as not to interfere

section as required to meet the criteria specified herein and be

7. All earth removed and not needed for construction shall be placed

8. Inspection and maintenance must be provided periodically and after

so that it will not interfere with the functioning of the dike.

free of bank projections or other irregularities which will impede

an undisturbed, stabilized area at a non-erosive velocity.

with the proper functioning of the dike.

6. Fill shall be compacted by earth moving equipment.

4. All trees, brush, stumps, obstructions, and other objectionable

5. The dike shall be excavated or shaped to line, grade and cross

an outlet. Spot elevations may be necessary for grades less than 1 2. Runoff diverted from a disturbed area shall be conveyed to a

3. 4" - 7" stone or recycled concrete equivalent pressed into

GRADE 0.5% MIN. 10% MAX.

l. Seed and cover with straw mulch.

the soil 7" minimum

each rain event.

GRADE LINE

CUT OR FILL

EXCAVATE TO PROVIDE

a-DIKE HEIGHT

b-DIKE WIDTH

c-FLOW WIDTH

NOTE: FENCE POST SPACING

SHALL NOT EXCEED 10

TISTISTISTISTIS I

SURFACE

CHAIN LINK FENCING

EMBED FILTER CLOTH 8"

by 6° and folded.

Geotextile Class F

MINIMUM INTO GROUND

\* IF MULTIPLE LAYERS ARE

REQUIRED TO ATTAIN 42'

FLOW ---

TINTA

FILTER CLOTH

21/2" DIAMETER

GALVANIZED

OR ALUMINUM

POSTS

required except on the ends of the fence.

every 24° at the top and mid section.

Tensile Modulus

0 - 10**x** 

20 - 33%

33 - 50**x** 

50% +

10 - 20%

Filtering Efficiency 75% (min.)

Flow Rate

GROUND :

CENTER TO CENTER

d-flow depth 12"

STANDARD SYMBOL

A-2 8-3

**→** — /→ –

REQUIRED FLOW WIDTH

AT DESIGN FLOW DEPTH

DIKE A DIKE B

10' MAXIMUM

← CHAIN LINK FENCE

WITH I LAYER OF

34" MINIMUM

- 16" MIN. 1ST LAYER OF

FILTER CLOTH

FILTER CLOTH

Construction Specification

latest Maryland State Highway Details for Chain Link Fencing. The specification

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

3. Filter cloth shall be fastened securely to the chain link tence with ties spaced

5. When two sections of filter cloth adjoin each other, they shall be overlapped

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

6. Maintenance shall be performed as needed and silt buildups removed when "bulges"

50 **|b**s/in (min.)

20 lbs/in (min.)

Design Criteria

SUPER SILT FENCE

NOT TO SCALE

Slope Length

(maximum)

Untimited

100 feet

50 feet

1. Fencing shall be 42" in height and constructed in accordance with the

for a 6' fence shall be used, substituting 42" fabric and 6' length posts.

4. Filter cloth shall be embedded a minimum of 8" into the ground.

develop in the silt fence, or when silt reaches 50% of fence height

Slope

Steepness

0 - 10:1

3:1 - 2:1

2:1 +

BUILDER/DEVELOPER PULTE HOMES 1501 SOUTH EDGEWOOD STREET Suite 1 BALTIMORE, MARYLAND 21227

1253100

1.742 ACRES

0.418 ACRES

1.175 ACRES

tooo CU.YB5.

1.593 ACRES

DEVELOPER'S CERTIFICATE

410-480-9105

410-644-5603

REVISION