

MD. RTE. 100 & GREAT STAR DR.

VICINITY MAP SCALE: 1" = 1,200"

GENERAL NOTES

BENCH MARKS T.P. 34FB ELEV. 406.285 N. 557,439.9153 E. 1,330,191.3723

LOC. NEAR INTERSECTION OF

LOC. NEAR INTERSECTION OF GUILFORD RD. & GALWAY DR.

T.P. 34FA ELEV. 430.990 N. 558334.7911 E. 1329705.6990

- 1. SUBJECT PROPERTY ZONED R-12 PER 02/02/04 COMPREHENSIVE ZONING PLAN AND HOWARD COUNTY COUNCIL BILL 2-2005.
- 2. TOTAL AREA OF SITE: 0.946 ACRES 3. TOTAL NUMBER OF LOTS SUBMITTED: 3 SFD
- 4. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/ CONSTRUCTION INSPECTION DIVISION AT 410-313-1880 AT LEAST FIVE WORKING DAYS PRIOR TO 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-07-017, F-02-063 AND W&S
- CONT. •34-3669-D.
- 7. THIS PLAN IS BASED ON A FIELD RUN TOPOGRAPHIC SURVEY PERFORMED ON MARCH, 2006 BY
- FSH ASSOCIATES WITH 2 FOOT INTERVALS. 6. BOUNDARY SURVEY WAS PREPARED BY HICKS ENGINEERING ASSOCIATES, INC. ON OR ABOUT
- OCTOBER, 2005. 9. HORIZONTAL AND VERTICAL CONTROL DATUM IS BASED ON NAD 83, MARYLAND COORDINATE
- SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS.
- HOWARD COUNTY MONUMENT 34FB N 557,439.9153 E 1,330,191.3723 ELEV. 406.285 HOWARD COUNTY MONUMENT 34FA N 558,334.7911 E 1,329,705.6990 ELEV. 430.990
- 10. ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
- 11 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.
- AND/OR APPROVED WATER AND SEWER PLANS CONTRACT NO. 34-3669-D.
- 12. CONTRACTOR WILL CHECK SEWER HOUSE CONNECTION ELEVATION AT EASEMENT LINE PRIOR
- TO CONSTRUCTION.
- 13. STORMWATER MANAGEMENT FOR LOTS 1,2 & 3 AS FOLLOWS: PER F-07-017. A. THIS SITE IS EXEMPT FROM PROVIDING CHANNEL PROTECTION (CPV).
- B. WATER QUALITY (WQV) AND RECHARGE (REV.) ARE PROVIDED BY ROOFTOP AND NON-ROOFTOP
- DISCONNECTS IN COMBINATION WITH DRY WELLS. THESE FACILITIES ARE PRIVATELY OWNED AND MAINTAINED.
- ** 14. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE
- AND THE LANDSCAPE MANUAL, FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT IN THE AMOUNT OF \$1,800.00 FOR 6 SHADE TREES.
- 15. IN ACCORDANCE WITH SECTION 16.1202 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION MANUAL, THE REQUIRED AFFORESTATION OF 0.14 ACRE HAS BEEN FULFILLED BY A FEE-IN-LIEU
- PAYMENT OF \$3,049,00 (6.098 S.F. \$0,50/S.F.) TO THE FOREST CONSERVATION FUND PER F-07-017. 16. FOR DRIVEWAY ENTRANCE DETAILS REFER TO HO. CODES MANUAL VOL. IV DETAILS R.6.03 & R.6.05.
- 17. A FEE-IN-LIEU OF PROVIDING OPEN SPACE IN THE AMOUNT OF \$3,000.00 HAS BEEN PAID.
- 18. DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE
- FOLLOWING (MINIMUM) REQUIREMENTS:
- A.) WIDTH 12' (16' IF SERVING MORE THAN ONE RESIDENCE). B.) SURFACE - 6" OF COMPACTED CRUSHER RUN BASE W/TAR 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
- (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.
- 19. THERE ARE NO WETLANDS, STREAMS, CEMETERIES OR 100 YEAR FLOODPLAIN EXISTING ON-SITE. 20. EXISTING WELL AND SEPTIC LOCATED ON LOT 1 TO BE PROPERLY ABANDONED IN ACCORDANCE
- WITH THE HEALTH DEPARTMENT REGULATIONS IN COORDINATION WITH THE REMOVAL OF THE
- EXISTING HOUSE PRIOR TO BUILDING PERMIT ISSUANCE. 21. IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS CHIMNEYS OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY NOT 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 SETBACK
- 22. FINANCIAL SURETY FOR THE REQUIRED SWM HAS BEEN POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT IN THE AMOUNT OF \$30,000.00 FOR 5 DRYWELLS.
- 23. EXISTING UTILITIES ARE BASED ON WATER AND SEWER CONRACT NO. 34-3669-D 24. SHC ELEVATIONS SHOWN ARE LOCATED AT THE PROPERTY LINE.
- 25. ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTINGS UNLESS OTHERWISE
- NOTED ON THE PLANS OR IN THE SPECIFICATIONS.
- 26. THE NOISE STUDY WAS PREPARED BY THE MARS GROUP, JUNE, 2007.
- * 14. Cont.
- The Required Landscape Surety for Lot 2 has been posted in the amount of \$600.00 for 2 shade trees and, for Lot 3, \$1200.00 for 4 shade trees. Continued below

SITE ANALYSIS DATA CHART

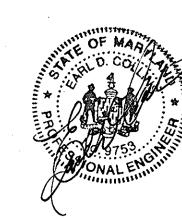
- A. TOTAL PROJECT AREA: 0.946 ACRES OR 41.201 SQUARE FEET B. AREA OF SUBMISSION: 0.946 ACRES OR 41,201 SQUARE FEET. C. LIMITS OF DISTURBANCE: 0.594 ACRES or 25,875 SQUARE FEET.
- D. PRESENT ZONING DESIGNATION: R-12 E. PROPOSED USE FOR SITE: RESIDENTIAL
- F. DPZ FILE REFERENCES: F-07-107, F-02-063 W & S CONT.
- NO. 34-3669-D.

- Lot 2 and Lot 3 each paid a \$100.00

 Landscape Inspection Fee and Surety may be released seperately.
- * As per Revision No. | All landscaping requirements have been met by existing vegatation. This revision was made after the landscaping surety was posted.

FISHER, COLLINS & CARTER, INC. ELLICOTT CITY, MARYLAND 21042

3 Rev. HE. TIPE & URD. LOT 2, ADD HEE. FOOTPRINT
2 Rev. hse. Lot 1, Add hse. typical
1 Rev. landscaping along P-1, P-2 & P-3 to take
credit for existing vegatation
NO. REVISION 10.21.08



DATE

BUILDER OWNER/DEVELOPER PAUL MAHONEY TRINITY BUILDERS 3675 PARK AVENUE 12310 WAKE FOREST ROAD CLARKSVILLE, MARYLAND 21029 SUITE 301

301-908-4981

PLAT 18757 WATER CODE ELLICOTT CITY, MARYLAND 21043

C-02

410-997-3032

12/13/07 Date 1-3 WAKE FOREST BLOCK NO. ZONE TAX MAP ELEC. DIST. CENSUS TR. R-12 6055.01 SEWER CODE

7390000

SITE DEVELOPMENT PLAN

SINGLE FAMILY DETACHED

WAKE FOREST

LOT5 1-3 PLAT NO. 18757

TAX MAP NO.: 34 PARCEL NO.: 204 GRID NO.: 12 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: 1" = 30' DATE: AUGUST, 2007 SHEET 1 OF 3

				PERI	SCHEDULE A METER LANDSCAPE	EDG	E							
PERIMETER	CATEGORY (PROPERTIES/ ROADWAYS)	LANDSCAPE TYPE	LINEAR FEET OF ROADWAY FRONTAGE PERIMETER	CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NUMBER SHADE TREES	evergreen Trees			DIT FOR EXIS VEGETATION EVERGREEN TREES	TING SHRUBS	T	NG NUMBER (O BE PLANTE EVERGREEN TREES	Ω
→ P-1	ADJACENT TO PERIMETER PROPERTIES	A	200'	YE5	NO	4	0	0	0	9	o	0	0	o
** ^{₽-2}	ADJACENT TO PERIMETER PROPERTIES	Α .	171	YE5	NO	3	o	0	0	8	0	0	0	0
∀ ₩P-3	ADJACENT TO PERIMETER PROPERTIES	A	22 ï	YE5	NO	4	0	0	3	2	0	0	0	0

- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF
- OF SECTION 16.124 OF THE HOWADR COUNTY CODE AND LANDSCAPE MANUAL 2. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS
- PART OF THE DPW DEVELOPERS AGREEMENT IN THE AMOUNT OF \$1,800.00 FOR 6 SHADE TREES: Lot 2, \$600.00 for 2 shade trees & Lot 3, \$1200.00 for 4 shade trees
- 3. * CREDIT TAKEN FOR 9 Existing Evergreens Along P-1.
 4. ** CREDIT TAKEN FOR 8 Existing Evergreens Along P-2.
 5.*** CREDIT TAKEN FOR I GREY BIRCH, 2 Maples and 2 Pine Trees Along P-3.

00.00 for 4 shade trees		\rightarrow	
LANDS	CAPING RL	ANT LIST	
QTY. KA	MAME		SIZE
6	ACER SACCHI 'GREEN MOUN GREEN MOUNTAIN/SI	ARUM ITAIN GAR MAPLE CALIF	22-3" PER FUX CROWN 8/B
2 ADDITIONAL SHADE TREES AD	DED TO LOT 3		

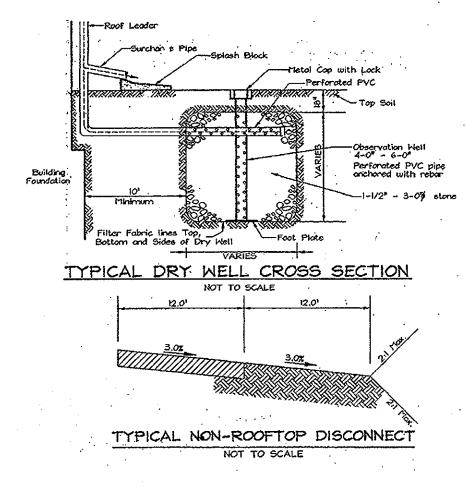
	LOT	NO. 2 DRY W	ELL CH	ART	÷		
DISCONNECT LENGTH	DRY WELL STORAGE REQUIRED (C.F.)	DRY WELL STORAGE PROVIDED (C.F.)	BOTTOM ELEVATION	TOP STONE ELEVATION		ELL CI 45IONS W	HAMBER 5 (FT.) x D
D/10'	36.0	3/36.0	448.8	454.5	4'	4'	5.7'
E/10'	36.0	4/36.0	447.8	453.5	4'	4'	5.7'

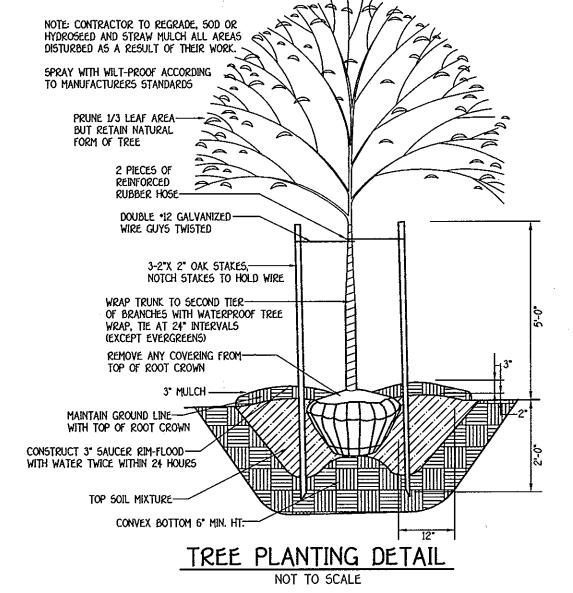
	LOT	NO. 3 DRY W	'ELL CH	ART			
DISCONNECT LENGTH	DRY WELL STORAGE REQUIRED (C.F.)	DRY WELL STORAGE PROVIDED (C.F.)	BOTTOM ELEVATION	TOP STONE ELEVATION	DRY WE DIMEN L x	LL CI ISIONS W	HAMBER 5 (FT.) x D
B/40'	21.6	1/23.4	446.5	452.5	3'	3'	6'
C/10'	36.0	2/36.0	446.3	452.0	4'	4'	5.7'
D/10'	36.0	3/36.0	444.5	454.5	3'	3'	10'

OPERATION & MAINTENANCE SCHEDULE FOR DRY WELLS

- 1. THE MONITORING WELLS AND STRUCTURES SHALL BE INSPECTED ON A QUARTERLY BASIS AS WELL

	No Effect of old Exocobing 1 of fathilities.
2.	WATER LEVELS AND SEDIMENT BUILD UP IN THE MONITORING WELLS SHALL BE RECORDED OVER A
	PERIOD OF SEVERAL DAYS TO INSURE TRENCH DRAINAGE.
3.	A LOGBOOK SHALL BE MAINTAINED TO DETERMINE THE RATE AT WHICH THE FACILITY DRAINS.
4.	WHEN THE FACILITY BECOMES CLOGGED SO THAT IT DOES NOT DRAIN DOWN WITHIN THE 72 HOUR
	TIME PERIOD, CORRECTIVE ACTION SHALL BE TAKEN.
5.	THE MAINTENANCE LOGBOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO INSURE
	COMPLIANCE WITH OPERATION AND MAINTENANCE CRITERIA.
6.	ONCE THE PERFORMANCE CHARACTERISTICS OF THE INFILTRATION, FACILITY HAVE BEEN VERIFIED,
	THE MONITORING SCHEDULE CAN BE REDUCED TO AN ANNUAL BASIS UNLESS THE PERFORMANCE
	DATA INDICATES THAT A MORE FREQUENT SCHEDULE IS REQUIRED.
•	





	RUNOF	FF SUM	MARY 1	ABLE		
	I YEAR	STORM	10 YEAR	STORM	100 YEAF	STORM
DRAINAGE AREA	Existing	Post	Existing	Post	Existing	Post
ì	0.69 cfs	1.12 cfs	3.18 cfs .	3.95 cfs	5.68 cfs	6.59 cfs

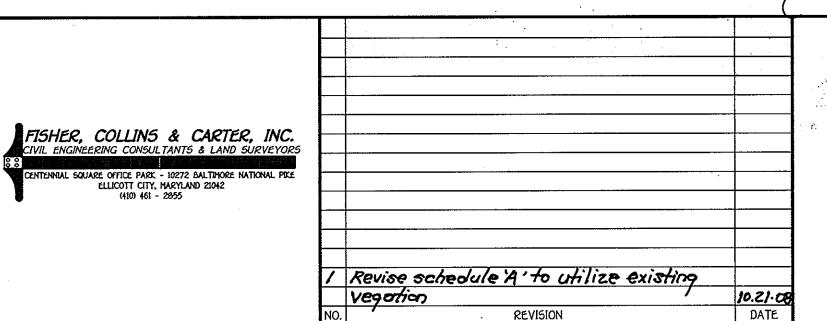
STORMWATER I	MANAGEMENT S	SUMMARY TABLE
CATEGORY	DA-1 (0.95 Ac.)	COMMENTS
Channel Protection Volume (CP _V)	1.12 cfs	Not required. See note #1.
Water Quality Volume (WQ _V) Required/Provided	0.29 Ac.Ft./0.29 Ac. Ft.	See note #2.
Recharge Volume (Rev)	0.005 Ac.Ft./0.0	Area Method used. See note #3.
Recharge Area (Rea) Required/Provided	0.061 Ac./0.23 Ac.	Rooftop and non-rooftop disconnect used. See note #3.
Overbank Flood Storage (Op)	N/A	Not required.
Extreme Flood Volume (Qs)	N/A	Not required.

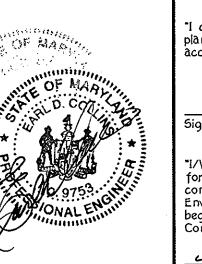
- 1. Channel Protection Volume (CP_V) will not be required as the post-developed runoff is less than
- 2. The Water Quality Volume (WQv) will be provided through the use of rooftop and non-rooftop disconnects for each of the three lots. 3. Proposed management of Recharge Volume/Area (Rev/Rea) will be provided by the percent area method using rooftop and non-rooftop disconnects for each of the three lots.

	SOILS LEGEND	
SYMBOL	NAME / DESCRIPTION	SOIL GROUP
ChB2	Chester silt loam, 3 to 8 percent slopes, moderately eroded	В
GIC2	Glenelg loam, 8 to 15 percent slopes, moderately eroded	В
GnA	Glenville silt loam, 0 to 3 percent slopes	LC

PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional enquineer under the laws of the State of Maryland, License Nº 9758, Expiration Date: 2/28/08.





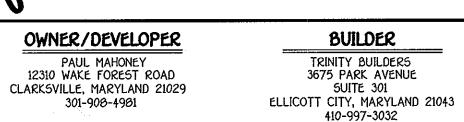
Earl D. Collins

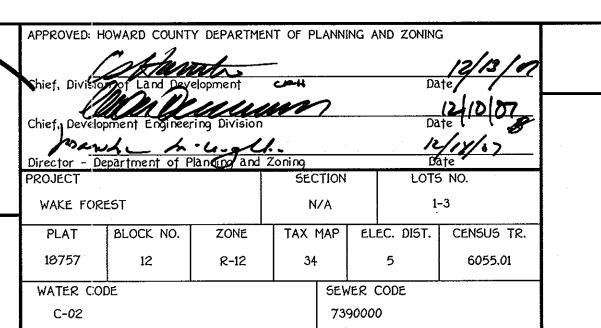
ENGINEER'S CERTIFICATE "I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

10.8.07 Date

10.8.07 EARL D. COLLINS BUILDER/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."





WAKE FOREST ROAD (LOCAL COUNTY ROAD)
(50' R/W)

P-2 SCHEDULÉ 'A' PERIMETER LANDSCAPE EDGE 1

MCE=437.47 13,864 SQ.FT. LOT 2

EXISTING HOUSE

101 27

CLARKS GLEN NORTH JAMES K. WHARION &

WHEERLY A. WHARTON

CLARKS GLEN MORFH-PLAT NO. 13830 ZONED: R-12

PLAT NO. 13830

SEDIMENT/EROSION CONTROL & LANDSCAPE PLAN

STREET SIGN -O-FH

THOMPS(

DRIVE

ON

SINGLE FAMILY DETACHED WAKE FOREST

TOREST COMUNERVATION

LOTS 1-3 PLAT NO. 18757

TAX MAP NO.: 34 PARCEL NO.: 204 GRID NO.: 12 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND 5CALE: 1" = 30' DATE: AUGUST, 2007

20.0 STANDARDS AND SPECIFICATIONS FOR 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
- iii. Lime materials shall be around 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 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
- b. 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 running parallel to the contour of the slope.

 - a. Minimum soil conditions required for permanent vegetative establishment:
 1. Soil pH shall be between 6.0 and 7.0.
 2. 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.
 - 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 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
- 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 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.
- E. 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
 - 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
 - iceding: This includes use of conventional drop or broadcast spreaders. 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. 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. 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. F. 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.
- . 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 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
- 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.

- 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
 - accordance with these specifications. 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: 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. It 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 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 To
- II. Terra Tack AR or other approved equal may be used at rates recommended by the manufacturer to anchor mulch. iv. 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'. 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.
 d. 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
- J. Incremental Stabilization of Embankments Fill Slopes Embankments shall be constructed in lifts as prescribed on the plans.

MINIMUM 6" OF 2"-3" AGGREGATE

OVER LENGTH AND WIDTH OF

STRUCTURE

50' MINIMUM

PLAN VIEW

Construction Specification

1. Length - minimum of 50' (*30' for single residence lot).

residences to use geotextile

LENGTH

2. Width - 10' minimum, should be flared at the existing road to provide a turning

to placing stone. **The plan approval authority may not require single family

equivalent shall be placed at least 6" deep over the length and width of the

5. Surface Water - all surface water flowing to or diverted toward construction

entrances shall be piped through the entrance, maintaining positive drainage. Pipe

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

where construction traffic enters or leaves a construction site. Vehicles leaving

STABILIZED CONSTRUCTION ENTRANCE

the site must travel over the entire length of the stabilized construction entrance.

installed through the stabilized construction entrance shall be protected with a

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

Location - A stabilized construction entrance shall be located at every point

3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior

4. Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete

- 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, temporary 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-erosive 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 till. Construct slope silt fence on low side of till 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
- 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.

----MOUNTABLE

PAVEMENT

BERM (6" MIN.)

EXISTING PAVEMENT

STANDARD SYMBOL

XXSCEXXX

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 (313-1055) 2) ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED
- ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO. 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
- 5) 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.) ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE O BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT
- CONTROL INSPECTOR. 7) SITE ANALYSIS: TOTAL AREA OF SITE AREA DISTURBED
 - 0.946 ACRES 0.594 ACRES AREA TO BE ROOFED OR PAVED 0.246 ACRES AREA TO BE VEGETATIVELY STABILIZED 0.348 ACRES TOTAL CUT 960 CU.YD9 960 CU.YDS.
- TOTAL FILL 8) ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE
- SAME DAY OF DISTURBANCE. 9) ADDITIONAL SEDIMENT 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.

10.8.07

USE 2" x 4"

LUMBER FOR

CROSS BACKING

PROFESSIONAL CERTIFICATION

approved by me, and that I am duly licensed professional

Nº 9753, Expiration Date: 2/28/08.

HIGHLY VISIABLE FLAGGING

MAXIMUM & FEE

- ANCHOR POST SHOULD BE

MINIMUM 2" STEEL "U" CHANNEL

OR 2" x 2" TIMBER 6' IN LENGTH

ANCHOR POST MUST BE INSTALLED

TO A DEPTH OF NO LESS THAN 1/3

OF THE TOTAL HEIGHT OF POST

PRIOR TO INSTALLING DEVICE.

4. ROOT DAMAGE SHOULD BE AVOIDED.

1. FOREST PROTECTION DEVICE ONLY.
2. RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.

5. PROTECTIVE SIGNAGE MAY ALSO BE USED.
6. DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

. BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED

BLAZE ORANGE PLASTIC MESH

TREE PROTECTION DETAIL

NOT TO SCALE

Earl D. Collins

engineer under the laws of the State of Maryland, License

I hereby certify that these document were prepared or

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.

PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed. Seedbed Preparation: Loosen upper three inches of soil by raking. discing or other acceptable means before seeding, if not previously

Soil Amendments: In lieu of soil test recommendations, use one of the following schedules

- 1) Preferred Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq.ft.) and 600 lbs. per acre 10-10-10 fertilizer (14 lbs. per 1000 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 ureaform fertilizer (9 lbs. per 1000 sq.ft.). 2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq.ft.) and 1000 lbs. per acre 10-10-10 fertilizer (23 lbs. per 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil.
- Seeding: For the period March 1 thru April 30 and from August 1 thru October 15, seed with 60 lbs. per acre (1.4 lbs. per 1000 sq.ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs. per acre (0.05 lbs. per 1000 sq.ft.) of weeping lovegrass. During the period October 16 thru February 28, protect site by one of the following
- 1) 2 tons per acre of well-anchored mulch straw and seed as soon as possible in the spring.
- Use sod. 3) Seed with 60 lbs. per acre Kentucky 31 Tall Fescue and mulch
- with 2 tons per acre well anchored straw
- Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal. per 1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal. per 1000 sa.ft.) for anchoring,
- Maintenance: Inspect all seeded areas and make needed repairs. replacements and reseedings.

FLOW

- 16" MIN. 1ST LAYER OF

FILTER CLOTH

Test: MSMT 509

Test: MSMT 509

Test: MSMT 322

Silt Fence Length

(maximum)

1.000 feet

500 feet

250 feet

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

MINIMUM

118/18/11

36" MINIMUM

— 8" MINIMUM

10' MAXIMUM

FILTER CLOTH

TRIBIRTA

0.3 gal/ft /minute2(max.) Test: MSMT 322

Construction Specifications

34" MINIMUM

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. per 1000 sq.ft.).

Seeding: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2-1/2 bushels per acre of annual rye (3.2 lbs. per 1000 sq.ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (0.07 lbs. per 1000 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 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sa.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal. per 1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal. per 1000 sq.ft.) for anchoring.

Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

SEQUENCE OF CONSTRUCTION

- 1. OBTAIN GRADING PERMIT 2. INSTALL SEDIMENT AND EROSION CONTROL DEVICES AS SHOWN ON PLAN 7 DAYS
- 3. CLEAR AND GRUB TO LIMITS OF DISTURBANCE 4 DAYS 2 DAYS 4. INSTALL TEMPORARY SEEDING 60 DAYS 5. CONSTRUCT BUILDINGS
- 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

- 36" MINIMUM LENGTH FENCE POST, 10' MAXIMUM CENTER TO DRIVEN A MINIMUM OF 16" INTO – Center 🗀 GROUND -16" MINIMUM HEIGHT OF GEOTEXTILE CLASS F -- 8" MINIMUM DEPTH IN GROUND 36" MINIMUM FENCE-FLOW POST LENGTH FENCE POST SECTION PERSPECTIVE VIEW FILTER MINIMUM 20" ABOVE CLOTH -- GROUND FLOW TISTISTISTISTISTISTISTIS UNDISTURBED GROUND EMBED GEOTEXTILE CLASS F - FENCE POST DRIVEN A TOP VIEW A MINIMUM OF 8" VERTICALLY MINIMUM OF 16" INTO INTO THE GROUND _ THE GROUND P05T5 ¬ CROSS SECTION SECTION A STANDARD SYMBOL STAPLE 1 5F -----JOINING TWO ADJACENT SILT FENCE SECTIONS 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: Test: MSMT 509 50 lbs/in (min.) Test: MSMT 509 Tensile Modulus 20 lbs/in (min.)

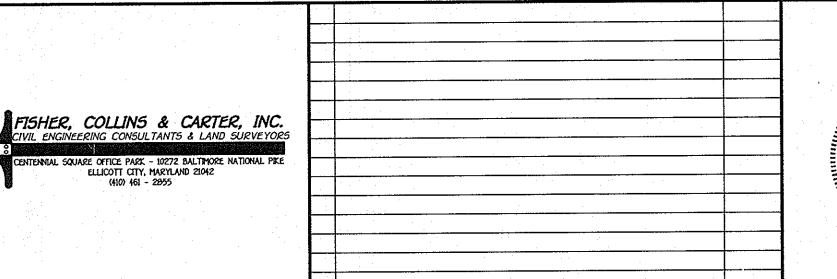
0.3 gal ft / minute (max.)2 Test: MSMT 322 Flow Rate Test: MSMT 322 75% (min.) Filtering Efficiency 3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.

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

(Maximum) Silt Fence Length Slope Steepness unlimited Flatter than 50: 1,000 feet 10:1 to 5:1 5:1 to 3:1 250 feet 3:1 to 2:1 2:1 and steeper

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

SILT FENCE NOT TO SCALE



REVISION

** GEOTEXTILE CLASS 'C'

-EXISTING GROUND

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."

10.8.27 EARL D. COLLINS BUILDER/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 Dietrica PAUL MAHONEY

USE 3' WIRE "U" TO SECURE

BUILDER OWNER/DEVELOPER TRINITY BUILDERS 3675 PARK AVENUE SUITE 301 ELLICOTT CITY, MARYLAND 21043

NOTE: FENCE POST SPACING

STANDARD SYMBOL

TIKTIKTIK

SHALL NOT EXCEED 10'

TINTINTINTIN

GROUND 1

SURFACE

CHAIN LINK FENCING

EMBED FILTER CLOTH 8"

required except on the ends of the fence.

every 24" at the top and mid section.

Tensile Strength

Filtering Efficiency

Tensile Modulus

10 - 20%

20 - 33%

33 - 50%

50% +

10:1 - 5:1

5:1 - 3:1

3:1 - 2:1

2:1 +

MINIMUM INTO GROUND

* IF MULTIPLE LAYERS ARE REQUIRED TO ATTAIN 42"

FILTER CLOTH

21/2" DIAMETER

GALVANIZED

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

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

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.

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

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

staples at top and mid section and shall meet the following requirements for

50 lbs/in (min.)

20 lbs/in (min.)

200 fee

50 feet

NOT TO SCALE

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

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

The lower tension wire, brace and truss rods, drive anchors and post caps are not

OR ALUMINUM

CENTER TO CENTER

maran rector - Department of Planning and Zoning WAKE FOREST ZONE TAX MAP | ELEC. DIST. | CENSUS TR BLOCK NO. 6055.01 WATER CODE SEWER CODE 7390000 C-02

SEDIMENT/EROSION CONTROL NOTES & DETAILS SINGLE FAMILY DETACHED

LOTS 1-3 PLAT NO. 18757

TAX MAP NO.: 34 PARCEL NO.: 204 GRID NO.: 12 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND DATE: AUGUST, 2007 SCALE: 1" = 30'

SHEET 3 OF 3

DATE

12310 WAKE FOREST ROAD CLARKSVILLE, MARYLAND 21029 301-908-4981

410-997-3032

SDP 07-105