

ADDRESS CHART

INDEX CHART

SHEET 2 SITE DEVELOPMENT, STORMWATER MANAGEMENT PLAN

LEGEND

HOUSE TYPES AND DETAILS

----- EXISTING CONTOUR 2' INTERVAL

× 362.2 SPOT ELEVATION

-55F-SSF- SUPER SILT FENCE

------ PROPOSED CONTOUR 2' INTERVAL

EROSION CONTROL MATTING

LIMIT OF DISTURBANCE

NON ROOFTOP DISCONNECT

10' STRUCTURE SETBACK

PERIMETER LANDCAPING TAKEN FROM F-05-062

PUBLIC SEWER, WATER & UITILITY EASEMENT

PRIVATE USE-IN-COMMON ACCESS EASEMENT

SHEET 3 SEDIMENT/EROSION CONTROL PLAN

STREET ADDRESS

8723 OLD FREDERICK ROAD

8719 OLD FREDERICK ROAD

8715 OLD FREDERICK ROAD

8711 OLD FREDERICK ROAD

DESCRIPTION

SHEET 4 SEDIMENT/EROSION CONTROL, STORMWATER MANAGEMENT NOTES & DETAILS

DESCRIPTION

TITLE SHEET, GENERAL NOTES, HOUSE TEMPLATES,

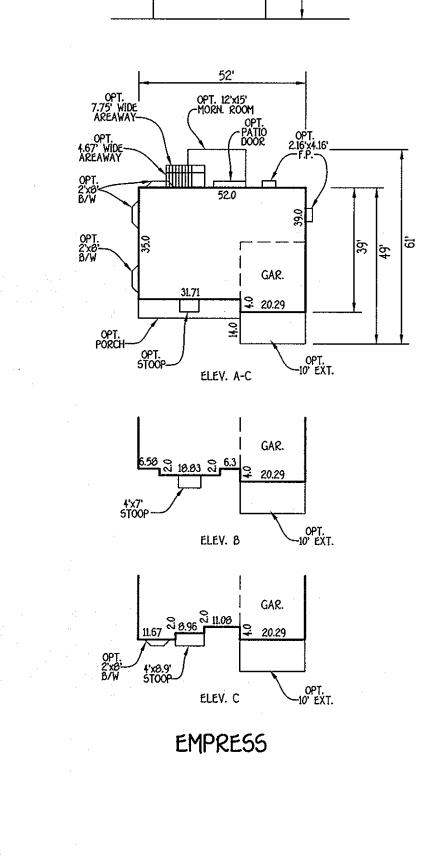
LOT NUMBER

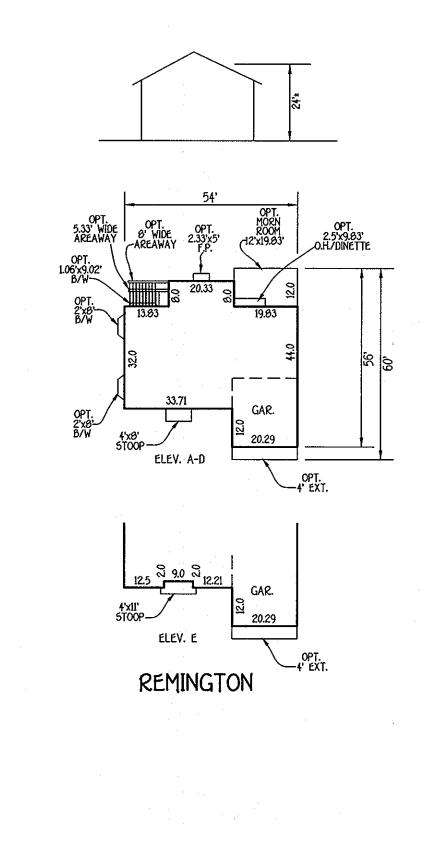
4

SHEET

SYMBOL

SHEET 1





MINIMUM LOT SIZE CHART

2 30,071 5Q.FT.± 3,554 5Q.FT.± 26,517 5Q.FT.±

3 22,009 5Q.FT.± 1,692 5Q.FT.± 20,317 5Q.FT.±

4 28,704 SQ.FT.± 3,372 SQ.FT.± 25,332 SQ.FT.±

SITE ANALSIS DATA CHART

A. TOTAL PROJECT AREA: 2,340 ACRES OR 101,941 SQUARE FEET.

B. AREA OF SUBMISSION: 2.340 ACRES OR 101,941 SQUARE FEET.

D. PRESENT ZONING DESIGNATION: R-20.

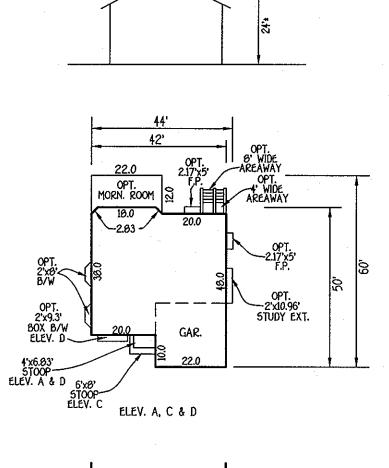
E. PROPOSED USES FOR SITE: RESIDENTIAL

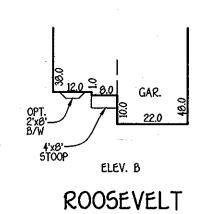
C. LIMITS OF DISTURBANCE: 2.340 ACRES OR 101,941 SQUARE FEET.

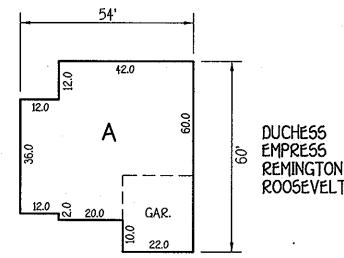
PREVIOUS DEPARTMENT OF PLANNING AND ZONING REFERENCE FILE NUMBERS

5-95-16, ZB 965M, P.B. CASE NO.299, WP 09-078, F-05-062 AND W&S CONT* 14-4228-D.

-	54'			
36.0	42.0 A	009 GAR. 22.0	W J	DUCHESS EMPRESS REMINGTON ROOSEVELT

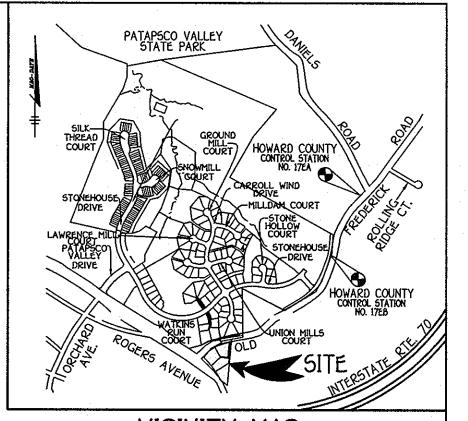








T.P. 17EB ELEV. 470.640 N. 180994.8448 (METERS) E. 413227.8979 (METER5)



VICINITY MAP SCALE: 1" = 1200'

ADC MAP COORDINATES 4015 K3

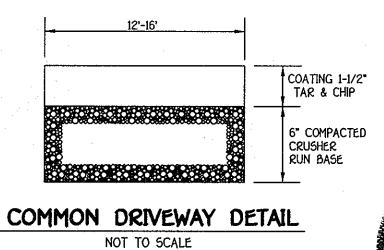
& 4816 A3

- 1. SUBJECT PROPERTY ZONED R-20 PER THE 2/2/04 COMPREHENSIVE ZONING PLAN AND PER THE "COMP LITE ZONING AMENDMENTS EFFECTIVE 7/28/06. 2. TOTAL AREA OF SITE: 2.340 ACRES
- TOTAL NUMBER OF LOTS SUBMITTED: 4 SFD
- 4. THE CONTRACTOR OR DEVELOPER SHALL NOTIFY THE CONSTRUCTION INSPECTION DIVISION
- AT (410) 313-1880 24 HOURS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- 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-05-062, W&S CONT. •14-4200-D,

GENERAL NOTES

- WP-09-078, 5-95-18,ZB-965M & P.B. CASE NO. 299.
- 7. THIS PLAN IS BASED ON A FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED ON OR ABOUT OCTOBER, 2004 BY FISHER, COLLINS & CARTER, INC.
- 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 17EA N 181160.5724 (METERS) E 413772.7247 (METERS) HOWARD COUNTY MONUMENT 17EB N 180994.8448 (METERS) E 13227.8979 (METERS) 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. FOR CONSTRUCTION SEE APPROVED WATER AND SEWER PLANS CONTRACT NO. 14-4288-D.
- 11. CONTRACTOR WILL CHECK SEWER HOUSE CONNECTION ELEVATION AT EASEMENT LINE PRIOR TO CONSTRUCTION.
- 12. STORMWATER MANAGEMENT (SWM) FOR THIS PROJECT WAS APPROVED UNDER F-05-062. WATER QUALITY VOLUME (WQV) AND GROUNDWATER RECHARGE VOLUME (Rev) SWM REQUIREMENTS WILL BE MET BY UTILIZING CRITERIA CONTAINED IN CHAPTER 5, SECTION 5.2 DISCONNECTION OF ROOFTOP RUNOFF CREDIT" AND SECTION 5.3 "DISCONNECTION OF NON ROOFTOP RUNOFF CREDIT" OF THE 2000 MARYLAND STORMWATER MANAGEMENT DESIGN MANUAL. CHANNEL PROTECTION VOLUME
- (Cpv) IS NOT REQUIRED FOR THIS SITE SINCE THE 1-YEAR PEAK DISCHARGE IS LESS THAN 2.0 cfs. 13. DRIVEWAY ENTRANCE DETAIL REFER TO HOWARD COUNTY DESIGN MANUAL VOLUME IV DETAILS R-6.03 & R-6.05.
- 14. SITE DEVELOPMENT PLAN IS FOR SINGLE FAMILY DETACHED UNITS. 15. FOREST CONSERVATION OBLIGATION OF 1.4 ACRES PLANTING TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOREST CONSERVATION ACT IS PROVIDED BY OFF-SITE PLANTING ON ENVIRONMENTAL NON-BUILDABLE PRESERVATION PARCEL 'B' FRIENDSHIP FARMS-PLAT NOS. 15592 THRU 15594 IDENTIFIED ON TAX MAP 15, GRID 17, TAX PARCEL NO. 272.
- A FOREST CONSERVATION SURETY IN THE AMOUNT OF \$30,492.00 HAS BEEN POSTED WITH THE DPW'S DEVELOPER'S AGREEMENT AT THE TIME OF SUBDIVISION UNDER F-05-062. 16. IN ACCORDANCE WITH SECTION 128 (AXI) OF THE HOWARD COUNTY ZONING REGULATIONS, BAY
- WINDOWS, CHIMNEYS OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS, PORCHES OR DECKS OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACKS.
- 17. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN WETLANDS, STREAM, OR OTHER BUFFERS AND FOREST CONSERVATION EASEMENT AREAS.
- 18. NO CEMETERIES EXISTS ON THIS SITE BASED ON A BY VISUAL SITE VISIT AND BASED ON AN EXAMINATION OF THE HOWARD COUNTY CEMETERY INVENTORY MAP.
- 19. 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

 - C.) GEOMETRY MAXIMUM 14% 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 I FOOT DEPTH OVER DRIVEWAY SURFACE.
 - F.) STRUCTURE CLEARANCES MINIMUM 12 FEET
- G.) MAINTENANCE SUFFICIENT TO INSURE ALL WEATHER USE. 20. FOREST STAND DELINEATION WAS PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. DATED OCTOBER 4, 2004, WETLAND DELINEATION WAS PREPARED BY ECO-SCIENCE PROFESSIONALS, INC.
- DATED NOVEMBER 4, 2003. NO WETLANDS EXIST WITHIN THE SUBMISSION LIMITS. 21. LANDSCAPING FOR LOTS 1 THRU 4 IS PROVIDED IN ACCORDANCE WITH A CERTIFIED LANDSCAPE PLAN. IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE
- MANUAL. LANDSCAPE SURETY IN THE AMOUNT OF \$16,350.00 WAS POSTED ON NOVEMBER 8, 2006, AT THE TIME OF EXECUTION OF THE DPW WATER AND SEWER DEVELOPER'S NO. 14-4288-D. 22. NOISE STUDY WAS PREPARED BY MARS GROUP, DATED MAY 4, 2004.
- 23. GRAVITY SEWER SERVICE, FIRST FLOOR ONLY FOR LOT 4. BASEMENT SERVICE TO BE PROVIDED BY PRIVATE ON-SITE PUMP.
- 24. THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS PER COUNCIL BILL 45-2003 AND THE ZONING REGULATIONS AS AMENDED BY COUNCIL BILL 75-2003. DEVELOPMENT OR CONSTRUCTION ON THESE LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION
- OR BUILDING PERMIT. 25. A FEE IN LIEU OF PROVIDING OPEN SPACE HAS BEEN PAID IN THE AMOUNT OF \$4,500.00 UNDER F-05-062. 26. THE WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING.
- 27. THE EXISTING TOPOGRAPHY IS TAKEN FROM A FIELD RUN SURVEY AT 2 FOOT CONTOUR INTERVALS PREPARED BY FISHER, COLLINS AND CARTER, INC., DATED JULY OF 2004. 28. A PRIVATE RANGE OF ADDRESS SIGN ASSEMBLY SHALL BE FABRICATED AND INSTALLED BY HOWARD COUNTY BUREAU OF HIGHWAYS AT THE DEVELOPER/OWNERS EXPENSE, CONTACT HOWARD COUNTY
- TRAFFIC DIVISION AT (410) 313-5752 FOR DETAILS AND COST ESTIMATES. 29. THE STAKING OF FOUNDATIONS PRIOR TO CONSTRUCTION TO ENSURE COMPLIANCE WITH REGULATORY
- BUILDING RESTRICTION LINES IS RECOMMENDED. 30. FOR FLAG OR PIPE STEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF FLAG OR PIPE STEM AND THE RIGHT-OF-WAY LINE ONLY AND NOT ONTO THE FLAG OR PIPE STEM LOT DRIVEWAY.
- 31. - THE 65 dBA NOISE CONTOUR LINE DRAWN ON THIS PLAT IS ADVISORY AS REQUIRED BY THE HOWARD COUNTY DESIGN MANUAL, CHAPTER 5, REVISED FEBRUARY, 1992, AND CANNOT BE CONSIDERED TO EXACTLY LOCATE THE 65dBA NOISE EXPOSURE. THE 65 dBA NOISE LINE WAS ESTABLISHED BY HOWARD COUNTY TO ALERT DEVELOPERS, BUILDERS AND FUTURE RESIDENTS THAT AREAS BEYOND THIS THRESHOLD MAY EXCEED GENERALLY ACCEPTED NOISE LEVELS ESTABLISHED BY THE U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT.



DATE



Signature of Developer

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE ON MARYLAND, LICENSE NO. 13204, EXPIRATION DATE: 11/03/10.

ENGINEER'S CERTIFICATE

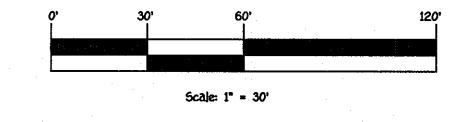
certify that this plan for erosion and sediment control represents a practical and workable an based on my personal knowledge of the site conditions and that it was prepared in

PLAN, SECTION 16.124 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF NOTICE, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING

BUILDER/DEVELOPER'S CERTIFICATE

I/WE CERTIFY THAT THE REQUIRED LANDSCAPING WILL BE DONE ACCORDING TO THE

410-379-5956



GENERAL NOTES CONT.

ONLY FOR PERIMETER LANDSCAPE EDGES P4 AND P5.

RECONFIGURATION OF PARCEL 547.

REQUIREMENT OF A FINAL PLAT SUBJECT TO:

BEFORE MARCH 7, 2009.

32. PLAT SUBJECT TO DEED SETTLING BOUNDARY DISPUTE BETWEEN RYLAND HOMES AT

HOLLIFIELD STATION, LLC AND MICHAEL R. HAMMOND AND ELIZABETH L. HAMMOND

INCLUDING REQUIREMENT ".... A LANDSCAPING SCREEN OR BUFFER CONSISTING OF

1). THE DEED SETTLING BOUNDARY DISPUTE MUST BE RECORDED ON OR

2). COPIES OF DEED PROVIDED TO THE DEPARTMENT OF PLANNING AND

AND THE SUPPLEMENTAL PLAN BE REVISED BASED ON THE

3). THE DEPARTMENT OF PLANNING AND ZONING REQUIRES BOTH THE PLAT

AT LEASE ONE (I) EVERGREEN (LEYLAND CYPRESS) FOR EVERY EIGHT (Ø) FEET

AND TEN (10) SHRUBS (BROAD LEAF EVERGREEN) EVERY SIXTY (60) FEET"

33. PLAT SUBJECT TO WP-09-078 WHICH ON JANUARY 7, 2009 THE PLANNING DIRECTOR APPROVED A REQUEST TO WAIVE SECTION 16.147(a) FOR THE

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

REVISION

cordance with the requirements of the Howard Soil Conservation District." CHARLES A CROVO 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."

OWNER/DEVELOPER BUILDER ETC PARTNERSHIP NV HOMES 6005 MARSHALEE DRIVE 10272 BALTIMORE NATIONAL PIKE SUITE 130 ELLICOTT CITY, MARYLAND 21042 ELLICOTT CITY, MARYLAND 21043 410-461-2855

PPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING 0/01/10 LOTS NO. 1 THRU 4 AK GLEN BLOCK NO. ZONE ELEC. DIST. TAX/ZONE CENSUS TR. 20701 R-20 SECOND 6069.02

TITLE SHEET

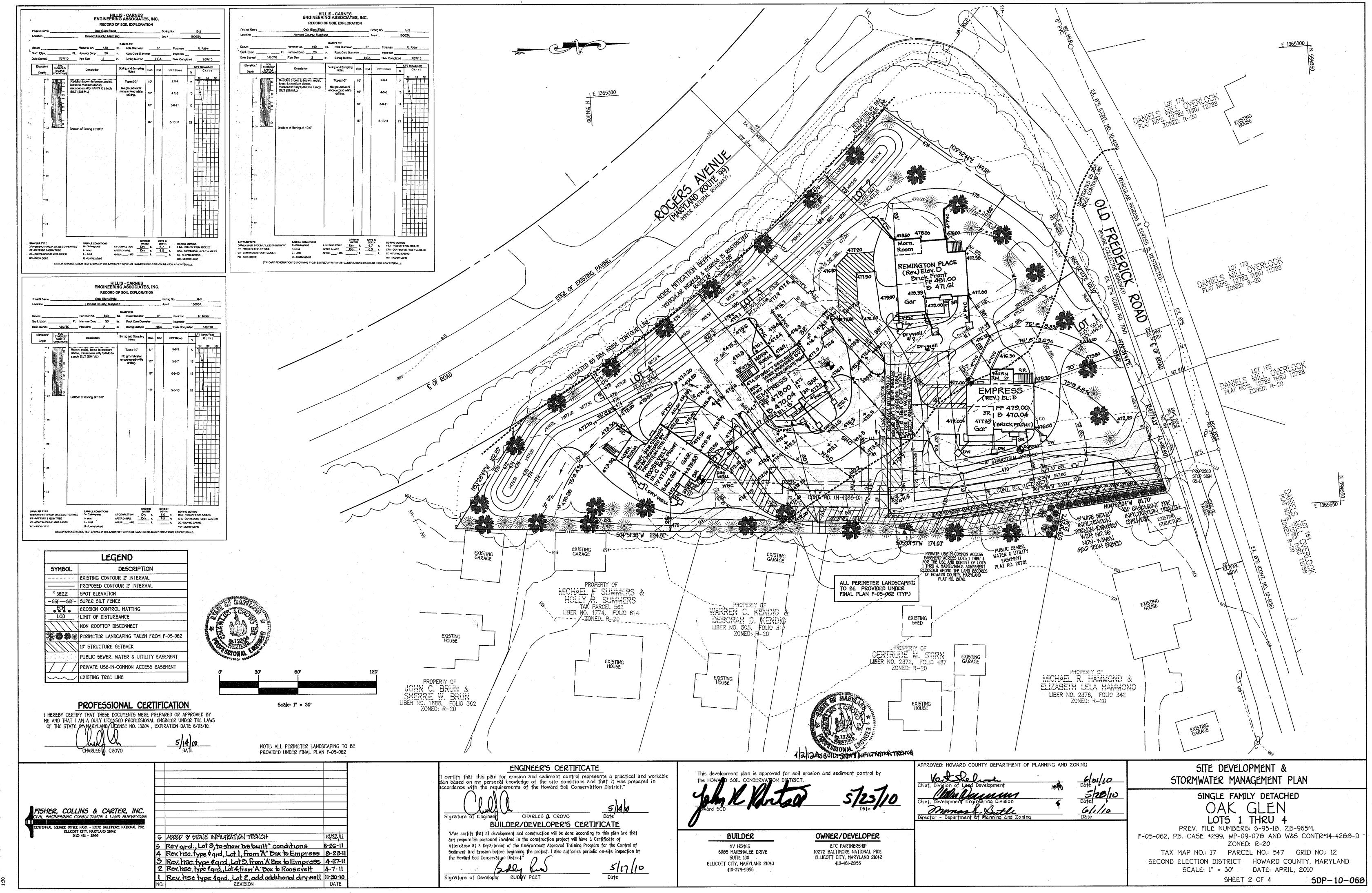
SINGLE FAMILY DETACHED LOTS 1 THRU 4

PREV. FILE NUMBERS: 5-95-18, ZB-965M, F-05-062, PB. CASE *299, WP-09-078 AND W&S CONTR*14-4288-D

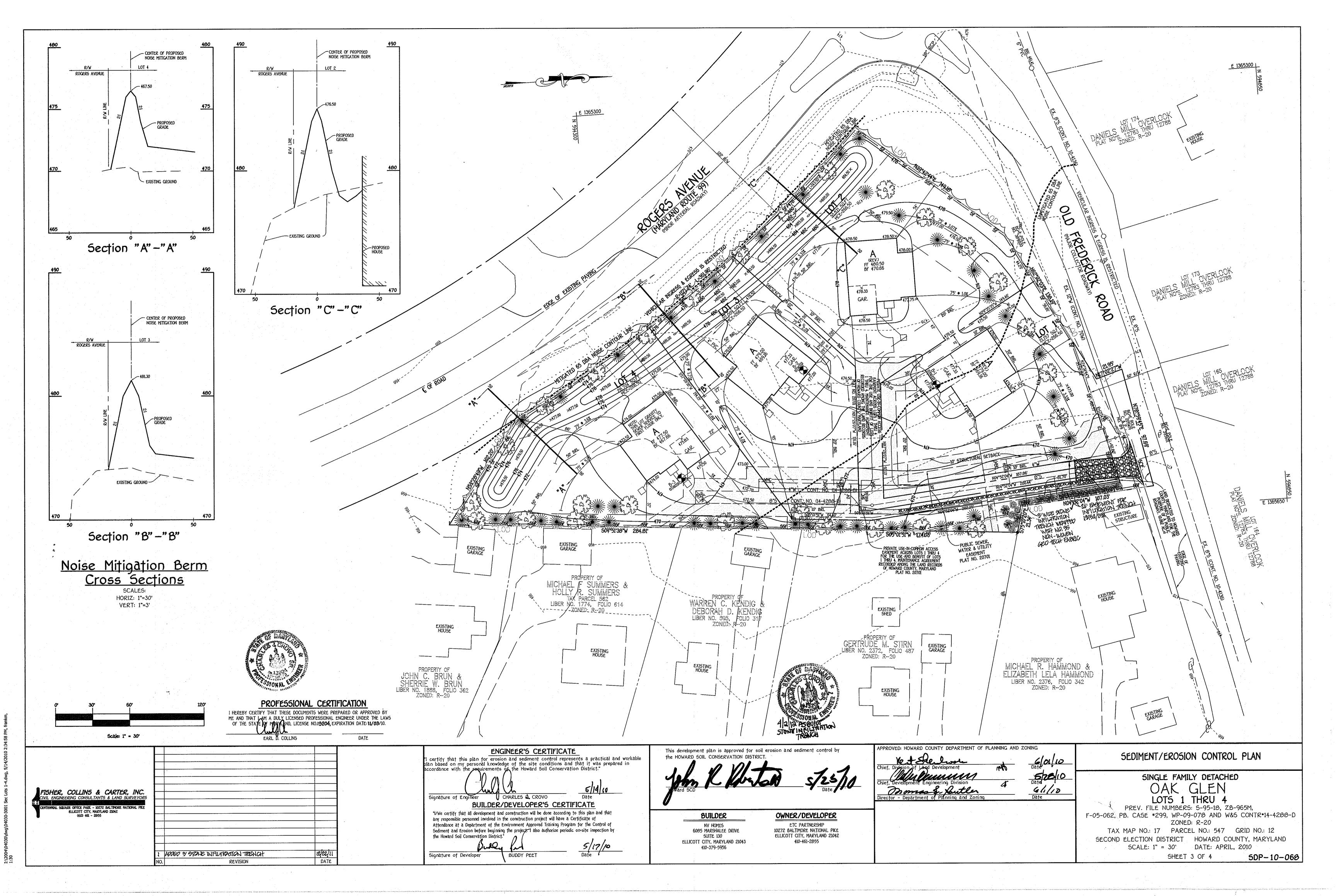
ZONED: R-20 TAX MAP NO.: 17 PARCEL NO.: 547 GRID NO.: 12

SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: 1" = 30' DATE: APRIL, 2010 SHEET 1 OF 4

5DP-10-068



I:\2004\04030\dwg\04030-3001 Sdp Lots 1-4.dwg, 5/14/2010 2:33:29 PM, fra



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 having disturbed area over 5 acres. Soil Amendments (Fertilizer and Lime Specifications) 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

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

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

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 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 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 lime and fertilizer into the top 3-5" of soil by disking or other suitable means.

ii. Permanent Seeding

a. Minimum soil conditions required for permanent vegetative establishment:

1. Soil pH shall be between 6.0 and 7.0.

2. Soluble calts chall be less than 500 acts par million (app.)

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 (30x 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 ne 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. The top 1-3" of soil should be loose and friable. Seedbed loosening may not be necessary on perfect the contour area.

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. 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.

E. Methods of Seeding
i. 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.

b. Lime - use only ground agricultural limestone. (Up to 3 tons per acre may be applied by

b. 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 hydroseedina 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

c. Seed and fertilizer shall be mixed on site and seeding shall be done intrinced to 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.

b. 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, 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)

 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 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 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.

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

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 i 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.

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 archoring tool is a tractor drawn implement designed to punch and archor 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.

ii. Wood cellulose fiber may be used for archoring straw. The fiber binder shall be applied at a net dry weight of 750 pourds/acre. The wood cellulose fiber shall be mixed with water and the control of 150 pourds/acre. the mixture shall contain a maximum of 50 pounds of wood cellulose fiber per 100 gallons 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.

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

iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer's recom-

Incremental Stabilization - Cut Slopes i. 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. 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 i. Embankments shall be constructed in lifts as prescribed on the plans

i. Embarkments 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 embarkment to intercept surface runoff and convey it down the slope in a non-erosive manner to a sediment trapping device.

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 embarkment, dress and stabilize.

c. Place Phase 2 embarkment, dress and stabilize.

d. Place final phase embarkment, dress and stabilize.

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 skeding season will necessitate the application of temporary stabilization.

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).

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

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

2.340 ACRES 0.4257 ACRES

2.057 ACRES

PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.

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

7) SITE ANALYSIS: TOTAL AREA OF SITE AREA DISTURBED O BE ROOFED OR PAVED AREA TO BE VEGETATIVELY STABILIZED

2410 CU.YDS. 4572 CU.YDS. OFFSITE WASTE/BORROW AREA LOCATION N/A NO STOCKPILING IS PERMITTED ON SITE

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

11) TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL

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.

PERMANENT SEEDING NOTES

BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not Soil Amendments : n lieu of soil test recommendations, use one of the following schedules :

Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq.ft.) and 600 lbs. per acre 0-10-10 fertilizer (14 lbs. per 1000 sq.ft.) before seeding. Horrow 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.). Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs, per 1000 sq.ft.) and 1000 lbs. per acre 0-10-10 fertilizer (23 lbs. per 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil.

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 options: 2 tons per acre of well-anchored mulch straw and seed as soon as possible in the spring.

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 after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gol. 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.

Maintenance : Inspect all seeded areas and make needed repairs, replacements and reseedings.

TEMPORARY SEEDING NOTES

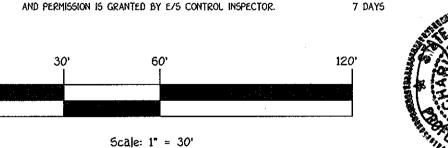
for rate and methods not covered.

Apply to graded or cleared areas likely to be redisturbed where a short-term vegetative cover is needed. <u>Seedbed Preparation:</u>
Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not Soil Amendments: Apply 600 lbs. per acre 10-10-10 fertilizer (14 lbs. per 1000 sq.ft.).

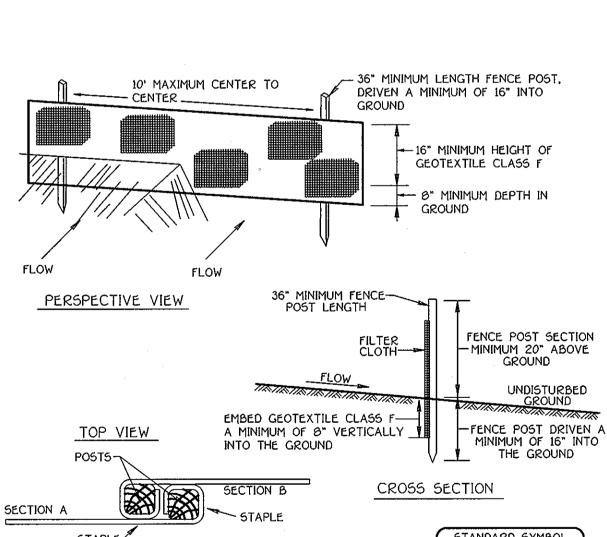
Seeding: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2-1/2 oushels per acre of annual rye (3.2 lbs. per 1000 sq.ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (0.07 lbs. per 1000 sq.ft.). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sq.ft.) of unrotted small grain straw mmediately 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 ocre (8 gal. per 1000 sq.ft.) for anchoring. Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

SEQUENCE OF CONSTRUCTION

1.	OBTAIN GRADING PERMIT	7 DAYS
2.	INSTALL SEDIMENT AND EROSION CONTROL DEVICES AS SHOWN ON PLAN	7 DAYS
3.	INSTALL SUPER SILT FENCE ALONG EASTERN PROJECT BOUNDARY	2 DAYS
4.	CLEAR AND GRUB TO LIMITS OF DISTURBANCE	4 DAYS
5.	INSTALL TEMPORARY SEEDING	2 DAYS
5.	CONSTRUCT BUILDINGS	60 DAYS
7.	INSTALL DRYWELLS	3 DAYS
3.	FINE GRADE SITE AND INSTALL PERMANENT SEEDING AND LANDSCAPE	14 DAYS
9.	REMOVE SEDIMENT CONTROL DEVICES AS UPLAND AREAS ARE STABILIZED	

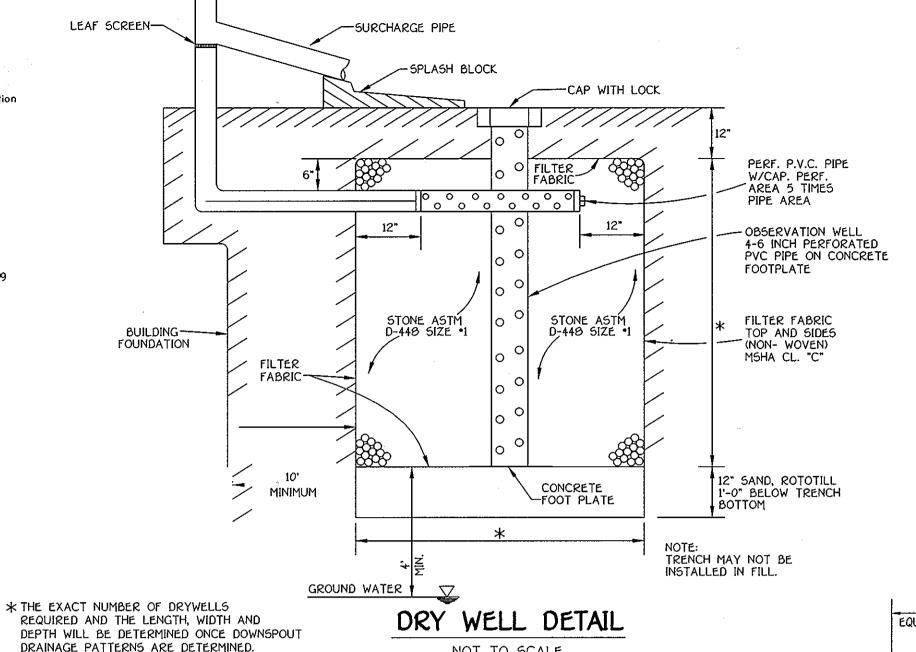






STAPLE 1 STANDARD SYMBOL JOINING TWO ADJACENT SILT FENCE SECTIONS

> SILT FENCE NOT TO SCALE

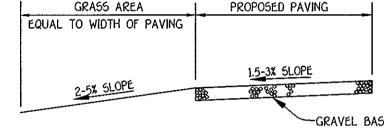


NOT TO SCALE

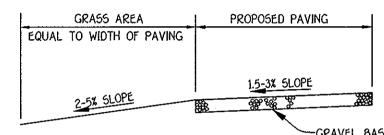
DRY WELL CHART								
OT NO.	AREA OF ROOF PER DOWN SPOUT	VOLUME REQUIRED	AREA OF STORAGE	AREA OF TREATMENT	NO. OF DRYWELLS	*D L W	•	
.OT 1	500 SQ. FT.	40 CF	100%	100%	3	4.5'x3.0'x3.0'		
.OT 2	500 SQ. FT.	40 CF	100%	100%	2	4.5'x3.0'x3.0'		
OT 3	500 SQ. FT.	40 CF	100%	100%	3	4.5'x3.0'x3.0'		
OT 4	500 SQ. FT.	40 CF	100%	100%	3	4.5'x3.0'x3.0'		

STORMWATER MANAGEMENT NOTES

1. STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH THE 2000 MARYLAND STORMWATER DESIGN MANUAL. 2. CREDITS ARE GIVEN FOR DISCONNECTION OF IMPERVIOUS COVERS. 3. MAXIMUM CONTRIBUTING ROOF TOP AREA TO EACH DOWNSPOUT SHALL BE LESS THAN 500 SQ. FT. 4. DRYWELLS SHALL BE PROVIDED AT LOCATIONS WHERE THE LENGTH OF DISCONNECTION IS LESS THAN 75' AT 5%. THE SIZE AND CONSTRUCTION OF THE DRYWELL SHALL BE IN ACCORDANCE WITH THE FIGURE 5.2 OF THE MANUAL AND THE DETAIL SHOWN ON THIS SHEET. 5. FINAL GRADING IS SHOWN ON THIS SITE DEVELOPMENT PLAN



TYPICAL DRIVEWAY SECTION FOR NON-ROOFTOP DISCONNECT CREDIT NOT TO SCALE



SUPER SILT FENCE

NOTE: FENCE POST SPACING

STANDARD SYMBOL

FLOW -

by 6" and folded.

Geotextile Class F:

Tensile Strenath

Filtering Efficiency

Tensile Modulus

Flow Rate

Slope

0 - 10%

10 - 20%

20 - 33%

33 - 50%

50% +

TINTINTA

SHALL NOT EXCEED 10'

11811811811818

GROUND 1

SURFACE

CHAIN LINK FENCING

MINIMUM INTO GROUND

*IF MULTIPLE LAYERS ARE

REQUIRED TO ATTAIN 42"

required except on the ends of the fence.

Steepness

0 - 10:1

10:1 - 5:1

5:1 - 3:1

3:1 - 2:1

every 24" at the top and mid section.

FILTER CLOTH

21/2" DIAMETER

GALVANIZED

OR ALUMINUM

POSTS

Construction Specifications

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

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

50 lbs/in (min.)

20 lbs/in (min.)

Design Criteria

75% (min.)

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

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

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

Slope Length

(maximum)

Unlimited

200 fee

100 feet

100 feet

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

118118111

- 8" MINIMUM

FLOW

WITH 1 LAYER OF

34" MINIMUM

Test: MSMT 509

Test: MSMT 509

Test: MSMT 322

Silt Fence Length

(maximum)

Unlimited

1.500 feet

1,000 feet

500 feet

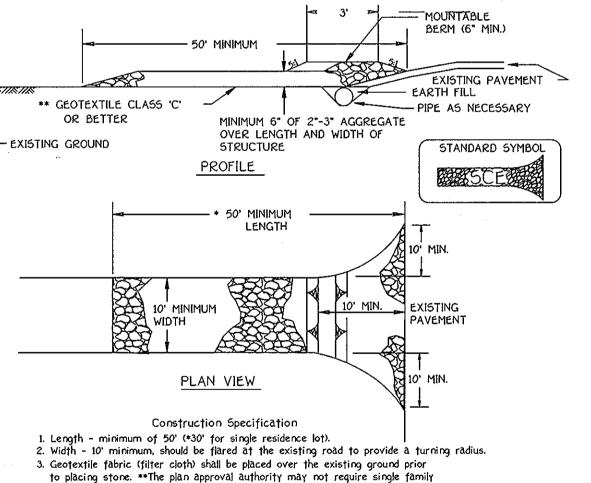
250 feet

FILTER CLOTH

FILTER CLOTH

TRITATION

CENTER TO CENTER

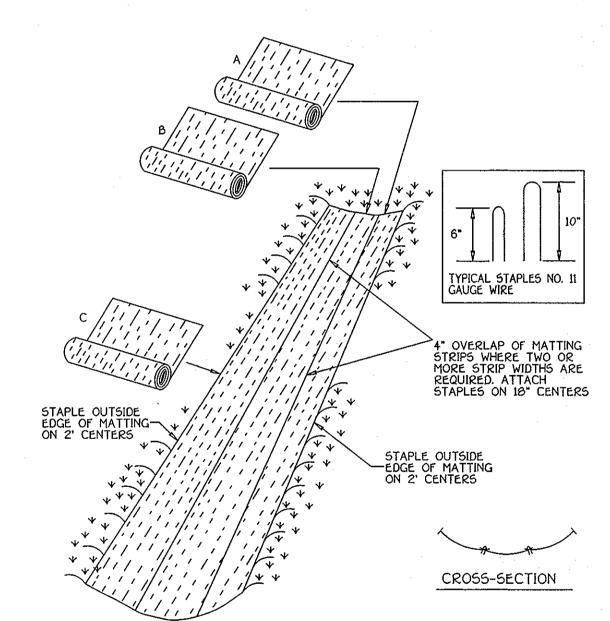


residences to use geotextile. 4. Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance. 5. Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through 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 NOT TO SCALE



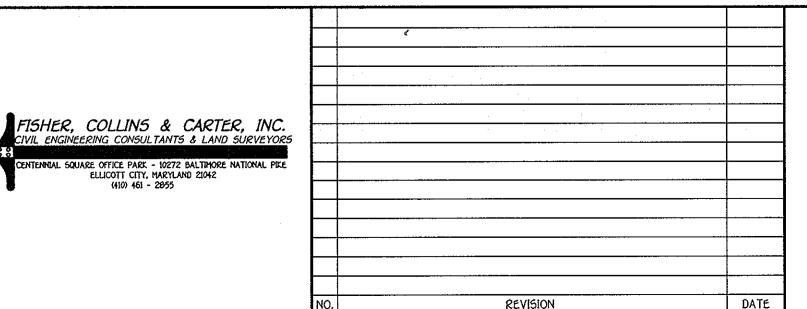
Construction Specifications 1. Key-in the matting by placing the top ends of the matting in a narrow trench, 6° in depth. Backfill the trench and tamp firmly to conform to the channel cross-section. Secure with a row of staples about 4° down slope from the trench. Spacing between staples is 6". 2. Staple the 4" overlap in the channel center using an 10" spacing between staples. 3. Before stapling the outer edges of the matting, make sure the matting is smooth and in firm contact

4. Staples shall be placed 2' apart with 4 rows for each strip, 2 outer rows, and 2 alternating rows down the center. 5. Where one roll of matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by 4", shiplap fashion. Reinforce the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side.

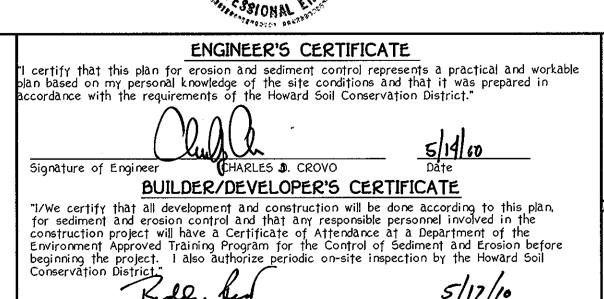
6. The discharge end of the matting liner should be similarly secured with 2 double rows of staples. Note: If flow will enter from the edge of the matting then the area effected by the flow must be

EROSION CONTROL MATTING

NOT TO SCALE

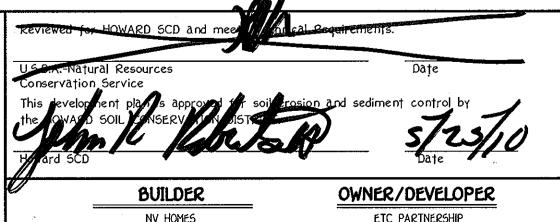


REVISION



BUDDY PEE

Signature of Developer



6005 MARSHALEE DRIVE

SUITE 130

ELLICOTT CITY, MARYLAND 21043

410-379-5956

ETC PARTNERSHIP 10272 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MARYLAND 21042 410-461-2855

PPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING 6/01/10

SEDIMENT/EROSION CONTROL, STORMWATER MANAGEMENT NOTES & DETAILS

SINGLE FAMILY DETACHED

PREV. FILE NUMBERS: 5-95-18, ZB-965M, F-05-062, PB. CASE *299, WP-09-078 AND W&S CONTR*14-4288-D

ZONED: R-20 TAX MAP NO.: 17 PARCEL NO.: 547 GRID NO.: 12 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND DATE: APRIL, 2010 SCALE: AS SHOWN

> SHEET 4 OF 4 5DP-10-068