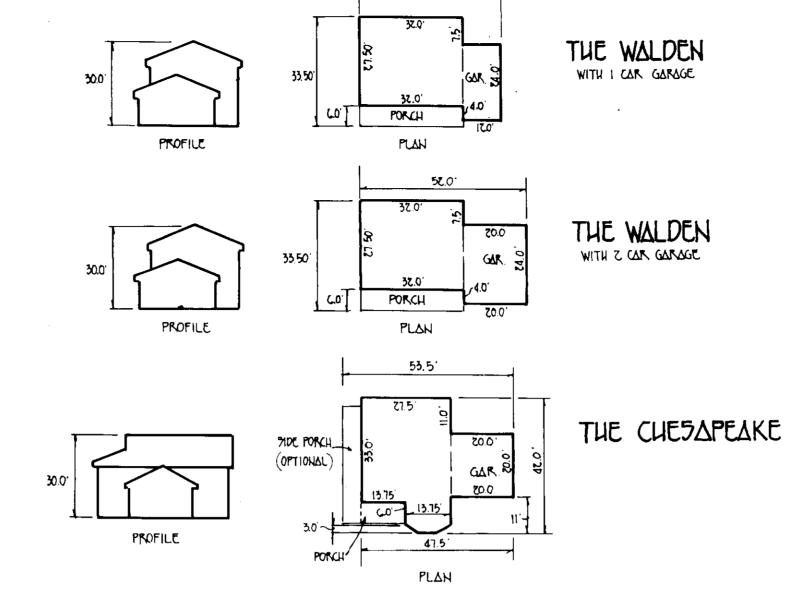
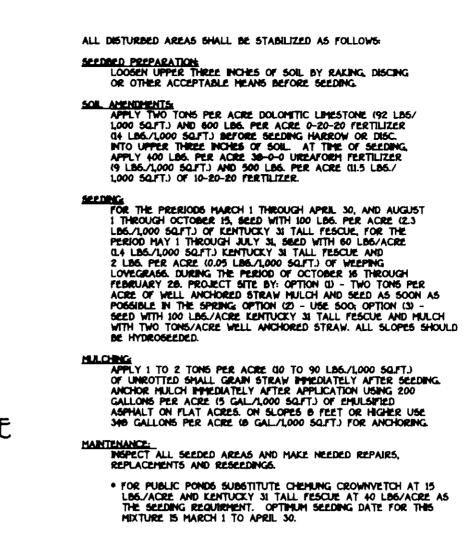


STABILIZED CONSTRUCTION ENTRANCE - 2 SILT FENCE NOT TO SCALE WOVEN WIRE FENCE (MIN. 14 1/2" GUAGE, MAX. 6" MESH SPACING) 10MAX C TO C - 36" MIN. FENCE POSTS, DRIVEN MIN. 16" INTO GROUND -HEIGHT OF FILTER PERSPECTIVE VIEW WOVEN WIRE FENCE (14_1/2" GA. MIN., MAX. 6" MESH SPACING) WITH FILTER CLOTH FLOW EMBED FILTER STANDARD SYMBOL CLOTH MIN. 6" INTO GROUND ------ 5 ----- 5----UNDISTURBED SECTION CONSTRUCTION NOTES FOR FABRICATED SILT FENCE 1. WOVEN WIRE FENCE TO BE FASTENED SECURELY POSTS: STEEL EITHER T OR U O FENCE POSTS WITH WIRE TIES OF STAPLES. TYPE OR 2" HARDWOOD 2. FILTER CLOTH TO BE FASTENED SECURELY TO FENCE: WOVEN WIRE, 14. GA. WOVEN WIRE FENCE WITH TIES SPACED EVERY 6" MAX. MESH OPENING 24" AT TOP AND MID SECTION. 3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN <u>FILTER CLOTH</u> FILTER X, MIRAFI EACH OTHER THEY SHALL BE OVERLAPPED BY 100X, STABILINKA TI4 ON SIX INCHES AND FOLDED. OR APPROVED EQUAL 4. MAINTENANCE SHALL BE PERFORMED AS NEEDED PREFABRICATED UNIT: GEOFAB, AND MATERIAL REMOVED WHEN "BULGES" DEVELOP ENVIROFENCE, OR APPROVED IN THE SILT FENCE. EQUAL 5 X0d THE WALDEN W/! CAR GARAGE THE CHETAPEAKE **XALE:** 1" = 30"





PERMANENT SEEDING NOTES

TEMPORARY SEEDING NOTES

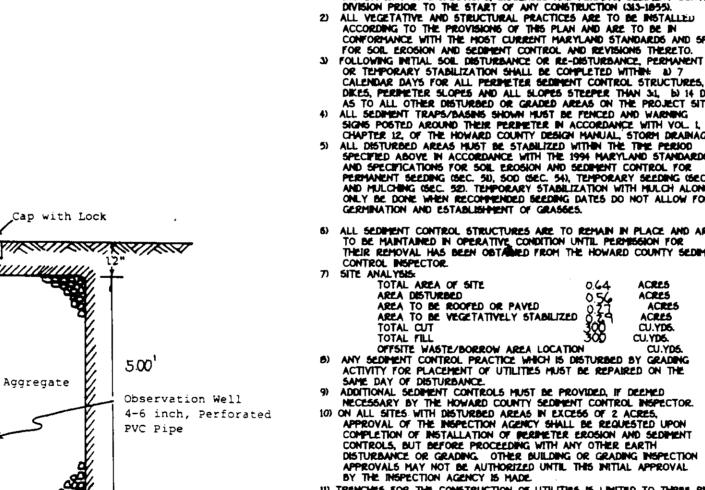
APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED. SEEDBED PREPARATION:
LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR
OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./ 1,000 SQ.FT.)

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

APPLY 17 TO 2 TONS PER ACRE (70 TO 90 LB5./L000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING.
ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GALL,000 SQ.FT.)
OF EMULSIFIED ASPHALT ON FLAT ACRES ON SLOPES & FEET OR
HIGHER, USE 348 GALLONS PER ACRE (8 GAL./1,000 SQ.FT.) FOR

REFER TO THE 1900 MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT

SEDIMENT CONTROL NOTES



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

Vegetative stabilization specifications are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erods and more likely to allow infiltration of rainfall, thereby reducing sediment loads and I) A MINIMUM OF 46 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF 40 HOURS NOTICE HUST 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 RECOGNIA AND STANDARDS AND SPECIFICATIONS downstream areas, and improving wildlife habitat and visual resources. run-off to downstream areas, and improving widely 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 Olup 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. 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 PERMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERMETER SLOPES AND ALL SLOPES STEEPER THAN 3.1, b) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE. ALL SEDIMENT TRAPS/BASING SHOWN HUST BE FENCED AND WARNING ALL DEDIFIENT TRAPS/BASING SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIPETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 HARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. 50), 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. 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, seedled preparation, seeding, mulching and vegetative establishment to prevent large quantities of sediment and associated chemicals and nutrients from washing into surface waters. Install erosion and sediment control structures (either temporary of permanent) such as diversions.

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 ACRES ACRES OFFSITE WASTE/BORROW AREA LOCATION CU.YDS.

6) ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING activity for placement of utilities must be repaired on the

1D 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.

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. Incorporate lime and fertifizer into the top 3-5" of soil by disking or other suitable means. 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 seulpment, such as disc harrows or chisel plows or rippers mounted on construction seulpment. After the soil is loosened it should not be rolled or dragged smooth, but left in the roughened condition. Stoped areas (greater than 3D 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:

ii. Soil pit shall be between 6.0 and 7.0.

2. Soluble salts shall be less than 500 parts per million (ppm).

3. The soil shall contain less than 40% clay, but enough fine grained material 0.30% silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if lovegrass or moderate amount of moisture. An exception is if lovegrase or serecia lespedezas is to be planted, then a sandy soil (30% silt plus clay) would be acceptable.

Soil shall contain 1.52 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 evosion check slots to prevent topsoil 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

EFFECTS ON WATER QUALITY AND QUANTITY

SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS

grade stabilization atructures, berms, waterways, or sediment control basins.

II. Perform all grading operations at right angles to the elope. Final grading and shaping is not usually

iii. 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)

i. 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 and suitable for accurate application by

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 ground limestone (hydrated or burnt lime may be substituted) which contains

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. 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 segume seed in the seed mixtures shall be a pure culture of introgen-fixing bacteria prepared specifically for the species. Inoculant 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 inputiant as cool as possible until used. Imperatures above 75°-00° f. can weaken bacteria and make the inoculant less effective.

Methods of Seeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast or drop seeded, or a cultipacter 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 bs. per acre total of soluble nitrogen; P205 (phosphorous) 200 bs/ac.

b. Lime - use only ground agricultural limestons. (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.

c. Seed and fertilizer shall be mixed on site and seeding shall be done immediately and without interruption. c. 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: Hechanized seeders that apply and cover seed with soil.

a. Cuttpacker Seeding: Hechanized seeders that apply and cover seed with soil.

cuttpacking 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. 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.

b. 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.

c. WCFM, Including dye, shall contain no germination or growth inhibiting factors.

d. WCFM materials shall be manufactured and processed in such a manner that the wood cellulose fibres mulch will remain in uniform suspension in water under acidation

STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

wCM materials shall be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material shall form a blotter-like ground cover, on application, having moisture absorption and percolation properties and shall cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings. WCM material shall comfain no elements or compounds at concentration levels that will be phyto-toxic. will be phyto-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 much 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 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

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 safety. If used on sloping land, this practice should be used on the contour if possible.

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

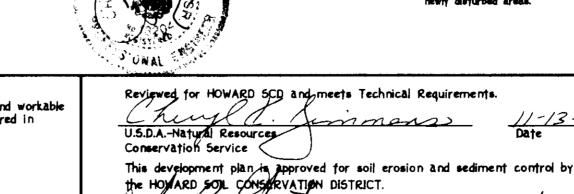
Application of limits binders should be beautiful to be a sound of wood cellulose fiber per 100 gallons of water.

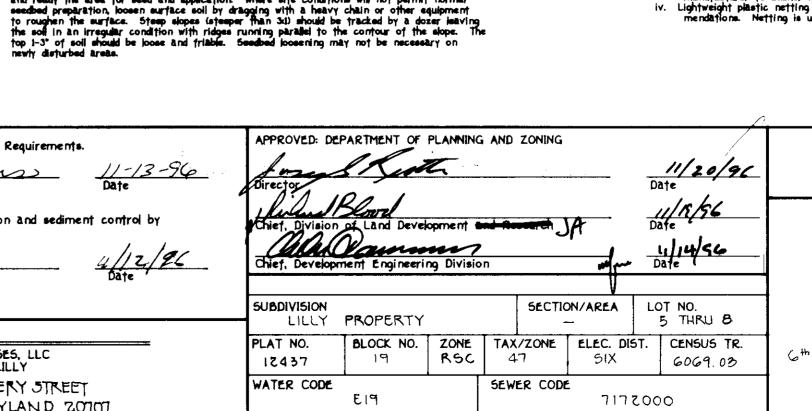
of water.

III. Application of liquid binders should be heavier at the edges where wind catches mulch, such as in valleys and crest of barks. The remainder of area should be appear uniform after binder application. Synthetic binders - such as Acrylic DLR (Agro-Tack), DCA-70 Petroset, Terra Tax II, Terra Tack AR or other approved equal may be used at rates recommended by the manufacturer to anchor mulch.

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.





SITE DEVELOPMENT PLAN NOTES AND DETAILS

PROPERTY

LOTS 5 THRU 8

TAX MAP No: 47 PARCEL G# ELECTION DISTRICT, HOWARD COUNTY, MARLY A. 5CALE: I" = 30 EATE OCTOBER 31, 1996



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 30 96 Signature of Engineer (Print name below signature) DEVELOPER'S CERTIFICATE "I/We certify that all development and construction will be done according to this plan. 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 EARL-LEE ENTERPRISES, LLC BY: MR. FLOYD LILLY 304 MONTGOMERY STREET LALIKEL MARYLAND 20101

SHEET 3 OF 3 S.T.F. 97 ...

FISHER, COLLINS & CARTER, INC.

ELLICOTT CITY, MARYLAND 21042 (410) 461 - 2855

IL ENGINEERING CONSULTANTS & LAND SURVEYORS

NOT TO SCALE

PROFILE

PLAN VIEW

4. WIDTH - TEN (10) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT

FILTER WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.

LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).

A MOUNTABLE BERM WITH 51 SLOPES WILL BE PERMITTED.

Roof Leader

'— — — — —

Fabric

Building

Foundation

Surcharge Pipe

DRY WELL CROSS SECTION

HOT TO SCALE

d. 4.24

3. THICKNESS - NOT LESS THE SIX (6) INCHES.

MUST BE REMOVED IMMEDIATELY.

POINTS WHERE INGRESS OR EGRESS OCCURS.

1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT. 2. LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE

5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE

6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION

MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND

6. WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO

PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA

STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING

9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

AND REPAIR AND /OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL

SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY

ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL,

7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS

CONSTRUCTION SPECIFICATIONS

-FILTER

CLOTH

EXISTING

GROUND

PAVEMENT

EARTH

MOUNTABLE BERM

(OPTIONAL)

EXISTING

PAVEMENT

Signature of Developer (Print name below signature)

DENOTES CIRCULAR DRYWELL AREA FOR CIRCULAR DRYWELL 15 14:02 SQ FT d= 4:24'

10/30/96