

SCHEDULE A PERIMETER LANDSCAPE EDGE	
CATEGORY	ADJACENT TO ROADWAYS
LANDSCAPE TYPE	С
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	142
CREDIT FOR EXISTING VEGETATION	
(YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO
NUMBER OF PLANTS REQUIRED	
SHADE TREES 1:40	4
EVERGREEN TREES 1:20	7
5HRUB5	
NUMBER OF PLANTS PROVIDED	
SHADE TREES	4
EVERGREEN TREE5	19
OTHER TREES (2:1 SUBSTITUTION)	
SHRUBS (10:1 SUBSTITUTION)	
(DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)	

#### SCHEDULE B PARKING LOT INTERNAL LANDSCAPING NUMBER OF PARKING SPACES 26 NUMBER OF TREES REQUIRED 1:10 NUMBER OF TREES PROVIDED .3 SHADE TREES OTHER TREES (2:1 substitution) --

### SCHEDULE C RESIDENTIAL DEVELOPMENT INTERNAL LANDSCAPING

NUMBER OF DWELLING UNITS	105
NUMBER OF TREES REQUIRED	105
(1:DU SFA; 1:3 DU APTS)	
NUMBER OF TREES PROVIDED	
SHADE TREES	105
OTHER TREES (2:1 substitution)	

PERMANENT SEEDING NOTES

SEEDBED PREPARATION:

LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING

SOIL AMENDMENTS:
APPLY TWO TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/

(14 LBS./1,000 SQ.FT.) BEFORE SEEDING HARROW OR DISC. INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 30-0-0 UREAFORM FERTILIZER

(9 LB5./1,000 5Q.FT.) AND 500 LB5. PER ACRE (11.5 LB5./

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

(1.4 LBS./1,000 SQ.FT.) KENTUCKY 31 TALL FESCUE AND 2 LBS. PER ACRE (0.05 LBS./1,000 SQ.FT.) OF WEEPING

MULCHING:
APPLY 1 TO 2 TONS PER ACRE (10 TO 90 LBS./1,000 SQ.FT.)

MAINTENANCE: INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS,

**APPROVED** 

PLANNING BOARD

of HOWARD COUNTY

REPLACEMENTS AND RESEEDINGS.

1 THROUGH OCTOBER 15, SEED WITH 100 LBS. PER ACRE (2.3 LBS./1,000 5Q.FT.) OF KENTUCKY 31 TALL FESCUE, FOR THE

PERIOD MAY 1 THROUGH JULY 31, SEED WITH 60 LBS/ACRE

LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THROUGH

FEBRUARY 28. PROJECT SITE BY: OPTION (1) - TWO TONS PER

POSSIBLE IN THE SPRING; OPTION (2) - USE 500; OPTION (3) -

ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS

SEED WITH 100 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH

OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING.

ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING 200

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

\* FOR PUBLIC PONDS SUBSTITUTE CHEMUNG CROWNVETCH AT 15

LBS./ACRE AND KENTUCKY 31 TALL FESCUE AT 40 LBS/ACRE AS THE SEEDING REQUIRMENT. OPTIMUM SEEDING DATE FOR THIS MIXTURE IS MARCH 1 TO APRIL 30.

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

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

ALL DISTURBED AREAS SHALL BE STABILIZED AS FOLLOWS:

## WOVEN WIRE FENCE (14\_1/2" GA. MIN., MAX. 6" MESH SPACING) WITH FILTER CLOTH \_ ----EMBED FILTER INTO GROUND -UNDISTURBED

TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED

APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./

FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST

,000 SQ.FT. FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY

28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL

APPLY 17 TO 2 TONS PER ACRE (70 TO 90 LBS./1,000 5Q.FT.)

OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING.

HIGHER, USE 340 GALLONS PER ACRE (0 GAL./1,000 SQ.FT.) FOR

SILT FENCE

NOT TO SCALE

\_\_\_\_\_ 10'MAX. C. TO C.

PERSPECTIVE VIEW

WOVEN WIRE FENCE

(MIN. 14 1/2" GUAGE.

MAX. 6" MESH SPACING)

POSTS, DRIVEN MIN

-HEIGHT OF FILTER

16" INTO GROUND

STANDARD SYMBOL

REFER TO THE 1988 MARYLAND STANDARDS AND SPECIFICATION FOR

SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT

ANCHORING TOOL OR 210 GALLONS PER ACRE (5 GAL.1.000 SQ.FT.

5 THROUGH NOVEMBER 15, SEED WITH 17 BUSHEL PER ACRE OF

ANNUAL RYE (3.2 LBS./ACRE OF WEEPING LOVEGRASS (.07 LBS./

ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE

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

SEEDBED PREPARATION:

#### CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

- 1. WOVEN WIRE FENCE TO BE FASTENED SECURELY POSTS: STEEL EITHER T OR U TO FENCE POSTS WITH WIRE TIES OF STAPLES. TYPE OR 2" HARDWOOD
- 2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.

3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN

- EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
- 4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP

#### OR APPROVED EQUAL PREFABRICATED UNIT: GEOFAB. ENVIROFENCE, OR APPROVED

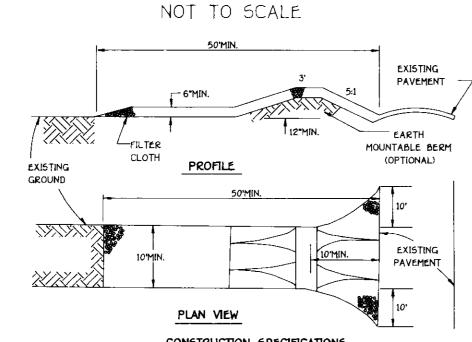
FILTER CLOTH: FILTER X, MIRAFI

FENCE: WOVEN WIRE, 14. GA.

6" MAX. MESH OPENING

100X, STABILINKA TI4 ON

# STABILIZED CONSTRUCTION ENTRANCE - 2



- CONSTRUCTION SPECIFICATIONS
- LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY). 3. THICKNESS - NOT LESS THE SIX (6) INCHES.
- 4. WIDTH TEN (10) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.

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

- FILTER WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT. 6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
- 7. MAINTENANCE THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND /OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- 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.

#### EARTH DIKE SEDIMENT CONTROL NOTES NOT TO SCALE

436.36 8744

LOT INFORMATION

COVERAGE

28 | \* 31

38 43

38 42

28 | 31

38 43

38 | 43 |

38 | 43 |

27 | 30

37 | 41

15 17

33 37

33 37

33 37

945 37 41

945 | 38 | 43 ]

945 37 42

945 22 24

945 28 31

945 | 39 | 43 |

945 | 37 | 42 |

945 | 27 | 30 |

945 23 26

945 | 30 | 34

945 | 29 | 32

945 | 18 | 20 |

945 37 42

945 | 26 | 32 |

38 | 43 |

38 | 43 |

30 34

36 | 40 |

945 | 38 | 43 |

945 | 38 | 43 |

945 | 36 | 43 |

945 28 32

945 38 43

945 24 26

945 37 41

945 37 42

945 | 38 | 42 |

LOT SIZE

OT • (5Q. FT.)

3,008

2,188

2,195

2,223

2,215

3,014

3,000

2,200

2,200

2,200

2,200

3,574

3,112

2,301

2,284

2,558

4,262

2,569

2,293

2,208

3,088

3.623

5,804

2,461

2.349

3,001

3.000

2,200

2:1 SLOPE OR FLATTER

74 | 2,200

2,200

D.U. SIZE

(5Q. FT.)

843 | \* 945

843 945

843 945

945

945

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945

945

945

843 | 945 | 34 | 38 |

945

945

945

<del>94</del>5

945

| 843 | 945 | 33 | 37 |

843 945 15 16

843 | 945 | 38 | 43 |

843 945 38 43

| 643 | 945 | 36 | 43 |

79 3,299 843 945 26 29 441.7

a-dike Height b-dike Width

c-FLOW WIDTH d-FLOW DEPTH

. ALL DIKES SHALL BE COMPACTED BY EARTH-MOVING EQUIPMEN

2. ALL DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET. 3. TOP WIDTH MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER IF

DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC

1. FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A

5 FABILIZED SAFE OUTLET.

5. EARTH DIKES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION. RUNOFF SHALL BE CONVEYED TO A SEDIMENT BASIN WHERE EITHER THE DIKE CHANNEL OR THE DRAINAGE AREA ABOVE THE DIKE ARE NOT ADEQUATELY STABILIZED.

6. STABILIZATION SHALL BE: (A) IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEED AND STRAW MULCH OR STRAW MULCH IF

NOT IN SEEDING SEASON, (B) FLOW CHANNEL AS PER THE CHART

LINED RIP-RAP 4"-6"

FLOW CHANNEL STABILIZATION

CONSTRUCTION SPECIFICATIONS

POSITIVE DRAINAGE-GRADE SUFFICIENT TO DRAIN

CUT OR FILL (Y Y Y Y Y Y Y Y

STABILIZED SAFE OUTLET

GRADE

3.1-5.0%

CONSTRUCTION EQUIPMENT

IREATMENT

\* D.U. FIZE AND PERCENT OF COVERAGE WITH FUNKOOM ADDITION

945 | 28 |

843 945 34 39

843 | 945 | 38 | 43 |

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843

76 | 2,200 | 843 | 945 | 38 | 43 |

78 2,200 843 945 38 43

2,200 | 843 | 945 | 38 | 43 |

843

X OF MIN. CELLAR INV. ELEV .

PROPERTY

441.61

441.09

440.55

439.83

439.26

438.54

435.49

434.68

433.<del>88</del>

433.27

432.38

431.73

**4**29.55

422.92

422.00

420.72

419.75

414.19

414.14

411.09

408.81

406.63

406.63

406.34

406.05

406.09

405.10

405.20

406.36

407.31

408.19

408.86

409.60

410.63

412.88

413.79

414.07

414.24

414.45

425.58

426.94

428.41

431.04

433.21

433.90

434.75

435.44

ELEV.

446.2

445.6

445.1

443.

440.0

439.3

437.8

437.0

436.3

434.1

<del>1</del>27.5

426.6

425.3

424.2

419.0

418.7

418.7

415.6

411.2

411.2

410.9

409.7

409.8

410.9

411.9

414.2

415.2

417.4

4189

419.0

430. 2

433.0

433.7

434.6

436.2

437.8

438.5

440.9

(5 ac. or less) (5-10 ac.)

STANDARD SYMBOL

DIKE B

ENGINEERING DESIGN

SEED AND STRAW MULCH SEED AND STRAW MULCH

SEED AND STRAW MULCH SEED USING JUTE, OR

SEED WITH JUTE, OR SOD; LINED RIP-RAP 4"-6"

A. STONE TO BE 2 INCH STONE, OR RECYCLED CONCRETE EQUIVALENT, IN A LAYER

C. APPROVED EQUIVALENTS CAN BE SUBSTITUTED FOR ANY OF THE ABOVE MATERIALS.

AT LEAST 3 INCHES IN THICKNESS AND BE PRESSED INTO THE SOIL WITH

B. RIP-RAP TO BE 4-8 INCHES IN A LAYER AT LEAST & INCHES THICKNESS AND

7. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER

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 (313-1655).

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 SOUL PROSIDING AND SEDIMENT CONTROL AND STRUCTURE THEOSET. FLATTER STABILIZATION AS REQUIRED. FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.

3) FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT ON STEEP SLOPES EXCAVATE TO PROVIDE OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) 7 REQUIRED FLOW WIDTH CROSS SECTION CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES,

437.08 8742 TONEHOUTE DRIVE

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/BASING 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.

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 ONTROL INSPECTOR. 8.04 ACRES

8.04 ACRES

5.25 ACRES 3362 CU.YD5

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

OFFSITE WASTE/BORROW AREA LOCATION CU.YDS.

B) 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 SEDIMEN 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

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.

BY THE INSPECTION AGENCY IS MADE.

6.2.97

#### 8734 2.257 843 | 945 | 37 440.74 441.53 おっろこ 3,223 843 | 945 | 26 043 | 945 | 19 १६८६ 4.454 415.60 843 | 945 | 36 | 40 | 8783 416.04 416.18 8785 945 | 36 **878**7 843 416.39 8789 843 945 36 41 421.1 416.52 2,324 843 945 25 8791 28 422.7 417.53 3.381 945 26 419.49 8795 945 | 38 | 43 | 8**7**97 843 426.0 **4**20.<del>8</del>5 421.77 8799 643 | 945 | **3**6 | 43 426.7 2,200 422.57 1088 2,200 843 | 945 | 38 843 | 945 | 27 | 30 423.57 8803 429.0 3,141 425.13 5807 96 3,200 643 | 945 | 26 | 30 945 38 5509 424.91 2,200 430.0 945 38 429.3 424.25 8811 843 2,200 423.89 8813 2,203 945 38 429.0 843 945 38 428.5 423.39 8815 2.228 843 100 422.97 945 | 27 422.47 1566 3,601 843 | 945 | 23 | 427.5 427A 422.15 8823 843 945 | 35 945 | 36 | 426.8 421.69 8875 2.344 843 2,289 843 | 945 | 37 | 41 421.21 8827 106 3,335 843 | 945 | 25 425.5 420.33 8879 8834 3.572 843 945 24 424.9 420.03 945 | 37 | 419.90 2655 425.0 2.260 843 945 | 38 2,195 419.65 8830 643 පිරිදුර 2,241 843 945 | 38 424.3 419.31 3,524 423.8 419.03 2288 843 945 | 24 424.5 419.51 421.45 0588 2.305 426.3 843 945 37 2,434 945 | 35 8818 426.8 843 843 | 945 | 34 | 38 3316 2,482 428.1 423.23 428.8 423.95 8814 945 34 945 | 35 424.31 3188 **429.1** 425.03 0168 3.308 429.8 843 945 | 25 945 | 20 423.31 8804 843 428.4 422,65 2088 20 2,859 843 | 945 | 29 | 427.6 843 945 30 421.89 8800 2,793 420.09 8798 FONEHOUSE DRIVE 122 | 3,945 | 843 | 945 | 21 | 24 | 425.0 \* D.U. SIZE AND PERCENT OF COVERAGE WITH SUNROOM ADDITION

A. Site Preparation

LOT INFORMATION

COVERAGE

X OF MIN. CELLAR INV. ELEV .

PROPERTY LINE (S.H.C.)

438.57

440.23

ELEV.

444.8

STREET ADDRESS

5738 FTONEHOUSE DRIVE

8736

LOT . LOT SIZE

2.277

STREET ADDRESS

8733 TONEHOUTE DRIVE

8737

8739 1

8743 I

8745

8749 #

8751

8753

8755

8757

8759

8761

8765

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SILZ

2714

2710

270B

2706

2704

2702

8766

874

5758

8752

8750

8748

8746

429.19 B762

<u>4</u>30.08 <u>8700</u>

431.67 | 87.54

THOWMILL COURT

8768 STONEHOUSE DRIVE

8775 STONEHOUSE DRIVE

SHOWMILL COURT

8741

D.U. SIZE

(5Q. FT.)

843 | 945 | 37 | 42 |

X OF MIN. CELLAR INV. ELEV ● STREET ADDRESS LOT • (5Q. FT.) (5Q. FT.) COVERAGE PROPERTY ELEV. 8794 FTONEHOUSE DRIVE 418.81 3,710 | 843 | \* 945 124 | 2,476 | 843 8792 1 422.6 417.G7 34 | 38 | 945 125 | 2,410 | 843 | 945 416.73 8790 35 39 126 | 2,344 | 843 | 945 36 40 420.9 416.30 5785 1 127 | 2,278 | 843 | 945 37 | 41 8786 1 8784 FTONEHOLITE DRIVE 128 | 3,226 | 843 | 945 | 26 | 29 | 415.86 \* D.U. FIZE AND PERCENT OF COVERAGE WITH FUNROOM ADDITION

LOT INFORMATION

-WIRE TIE -TURNBUCKLI -RUBBER HOSE \_\_\_\_2 x 4 STAKE -WRAPPING STAKING DETAIL 1'-0" HIGH 2-1/2" CALIPER--MULCH TWICE BALL NOTE: REMOVE BURLAP FROM TOP 1/3 OF BALL GRADING FOR PLANTING

# STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

<u>TREE PLANTING</u>

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

- Install erosion and sediment control structures (either temporary of permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins.

  Perform all grading operations at right angles to the slope. Final grading and shaping is not usually
- necessary for temporary seeding.

  iii. Schedule required soil tests to determine soil amendment composition and application rates for sites
- having disturbed area over 5 acres. Soil Amendments (Fertilizer and Lime Specifications) Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas over 5 acres. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses.
- 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 the applicable state fertilizer laws and shall bear the name, trade name or trademark and warrantee iii. Lime materials shall be ground limestone (hydrated or burnt lime may be substituted) which contains
- at least 50% total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 50% will pass through a \*100 mesh sieve and 90-100% will pass through a \*20 mesh sieve. Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.
- Seedbed Preparation
  i. Temporary Seeding
  a. Seedbed preparation shall consist of loosening soil to a depth of 3" to 5" by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened it should not be rolled or dragged smooth, but left in the roughened condition. Sloped areas (greater
- 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.

  i. Permanent Seeding

  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).

  3. The soil shall comtain less than 40% clay, but enough fine grained material (330% silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if loveorass or
- moderate amount of moisture. An exception is if lovegrass of serecia lespedezas is to be planted, then a sandy soil (30% sil
  - plus clay) would be acceptable. Soil shall contain 1.5% minimum organic matter by weight. 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 sliding down a slope.

  Apply soil amendments as per soil test or as included on the plans.

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

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

ON SLOPES

TURNBUCKL

- Methods of Seeding

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

  If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: 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 without interruption.
- c. Seed and ferfilizer shall be mixed on site and seeding shall be done immediately and without interruption.

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

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

  b. Where practical, seed should be applied in two directions perpendicular to each other.

  Apply half the seeding rate in each direction.
- iii. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.

  a. Cultipacking seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seedbed must be firm after planting.

  b. 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)

    a. WCFM shall consist of specially prepared wood cellulose processed into a uniform with state consist of specially prepared wood conducts processed this a distribution 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. he mulch material shall form a blotter-like ground cover, on application, having
- 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 comfact with the soil without inhibiting the growth of the grass seedlings.

  e. WCFM material shall contain no elements or compounds at concentration levels that will be phytol-toxic.

  f. WCFM must conform to the following physical requirements: fiber length to approximately 10 mm., diameter approximately 1 mm., pH range of 4.0 to 8.5, ash content of 1.6% maximum and water holding capacity of 90% minimum.

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

  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.
- uniform distribution and depth so that the soil surface is not exposed. It a muich 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) therefore who size of area and erroring based. preference), depending upon size of area and erosion hazard:
- interpretation, depending upon size of area and erosion hazards.

  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.

  I wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 pounds/acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
- iii. Application of liquid binders should be heavier at the edges where wind catches mulch, such as in valleys and crest of banks. The remainder of area should be appear uniform after binder application. Synthetic binders such as Acrylic DLR (Agro-Tack), DCA-70 Petroset, Terra Tax l, Terra Tack AR or other approved equal may be used at rates recommended by the nanufacturer 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.

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." Signature of Engilbeer (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."

eviewed for HOWARD\_SCD and meets Technical Requirements. U.S.D.A.-Natural Resources Conservation Service This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSER) ALLON DISTRICT.

newly disturbed areas.

OWNER/DEVELOPER RYLAND HOMES C/O MR. CHARLES O'DONOVAN 1447 YORK ROAD LUTHERVILLE, MARYLAND 21093

APPROVED: DEPARTMENT OF PLANNING AND ZONING 6/16/97 Kanutla unds 10 LOT NO. SUBDIVISION SECTION/AREA 20-39,41-45,47-53 55-83 AND 85-128 2/1, 2/2 DANIELS MILL OVERLOOK PLAT NO. BLOCK NO. ZONE TAX/ZONE | ELEC. DIST. CENSUS TR. 23 R-ED 2ND 16 6021 12794 SEWER CODE WATER CODE

1454850

402

DETAIL SHEET Date DANIELS MILL OVERLOOK

LOTS 20-39, 41-45, 47-53, 55-83 AND 85-128

TAX MAP No: 17 PART OF PARCEL:41, GRID 12 SECOND ELECTION DISTRICT. HOWARD COUNTY, MARYLAND SCALE: AS SHOWN DATE: MAY 7 1997 SHEET 4 OF 4

ITAL SOLVARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MARYLAND 21042

30554DET.DWC

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

gnature of Developer (Print name below signature)