COPTIONAL FIRE PLACE GARAGE GARAGE PORCH-ELEVATION N.T.S. ELEVATION N.T.S. FRANKLIN MONROE COPTIONAL NOOK EXTENSION (12'×4') OPTIONAL FRONT ELEVATION (12.83'x2') PORCH-OPTIONAL FULL PORCH-ELEVATION N.T.S. ELEVATION N.T.S. MADISON BUILDER FIRE PLACE THE RYLAND GROUP 7250 PARKWAY DRIVE - SUITE 520 HANOVER, MD 21076 (410) 712-7012 OPTIONAL FULL PORCH-ELEVATION N.T.S. **BRITTINGHAM** OPTIONAL KITCHEN/FAMILY ROOM EXTENSION (11' x 4') OPTIONAL FAMILY ROOM EXT. (12 x 4')

LOT #	LOT SIZE	STREET	ADDRESS		SHC INV @ PROP LINE	MIN. BSMT ELEV.
97	7130 S.F.	9063	PHILLIP	DORSEY WAY	393.17	397.89
98	6324 S.F.	9067	PHILLIP	DORSEY WAY	394.78	399,53
99	7083 S.F.	9071	PHILLIP	DORSEY WAY	397,47	401.10
100	6000 S.F.	9089	PHILLIP	DORSEY WAY	400.86	405,50
101	6562 S.F.	9092	PHILLIP	DORSEY WAY	400.88	405.28
102	6004 S.F.	9088	PHILLIP	DORSEY WAY	400.33	404.76
103	6202 S.F.	9084	PHILLIP	DORSEY WAY	399.78	404.28
104	9945 S.F.	9080	PHILLIP	DORSEY WAY	398.72	404.25
105	7186 S.F.	9076	PHILLIP	DORSEY WAY	397.79	401.44
106	6556 S.F.	9072	PHILLIP	DORSEY WAY	396.29	401.00
107	6301 S.F.	9068	PHILLIP	DORSEY WAY	394.37	399.09
108	6353 S.F.	9064	PHILLIP	DORSEY WAY	392.58	397.33
109	6983 S.F.	9060	PHILLIP	DORSEY WAY	389.72	394.37

PT. PORCH 9.29 X 4

DOVER III

Sequence of Construction

- 1. Obtain Grading Permit. (1 Week)
- 2. Inspect & repair existing sediment control measures per F-01-22, F-01-118, SDP 02-25, and GP-01-78. (8 days)

SURVEY CONTROL STATIONS

N 560,264.364 E 1,359,398.707

N 558,664.719 E 1,359,171.264

BENCHMARK #1 - 36E4

ELEVATION = 414.194'

BENCHMARK #2 - 36E5

ELEVATION = 406.852'

- 3. Install sediment and erosion control devices per plan. Obtain sediment control inspector's approval prior to proceeding. (8 days)
- 4. Clear and grub site (4 days)
- 5. Excavate for foundations and rough grade. (10 days)
- 6. Construct dwelling. (60 days per dwelling)
- 7. Fine grade site, install driveways. (2 days per driveway and lot)
- 8. Install permanent seeding and landscaping. (10 days)
- 9. Remove sediment control devices after permission is granted by sediment control inspector and upland areas have been stabilized. (2 days)

Note: Houses affected by the use of existing sediment controls are to have construction delayed. Removal of existing controls is to be coordinated with sediment control inspector prior to house construction.

INDEX OF SHEETS

- TITLE SHEET
- SITE DEVELOPMENT PLAN SHEET (LOTS 97-109)
- SEDIMENT CONTROL NOTES & DETAILS
- SEDIMENT CONTROL NOTES & DETAILS
- LANDSCAPE PLAN & DETAILS

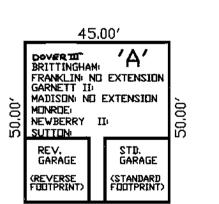
VICINITY MAP SCALE: 1' = 1200'

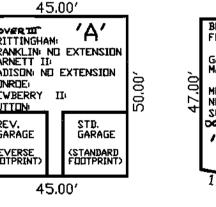
SYMBOL DESCRIPTION SYMBOL DESCRIPTION 8* WATER TO EXISTING WATER MAINS AND FIRE 15" STORM EXISTING STORM DRAINS	HYDRANTS
SYMBUL DESCRIPTION 15° STORM EXISTING STORM DRAINS	HYDRANTS
EXISTING STORM DRAINS	
TF=402.33 FINISHED TOP OF FOOTING ELEVATION EXISTING SEWER LINES	
PROPOSED GROUND ELEVATION AT WALKOUT CONDITION . EXISTING STREET TREES	
412×5 GROUND SPOT ELEVATION	
STD. or REV. UNIT DESIGNATION FROM ARCHITECTURAL PLAN	
5R. NUMBER OF RISERS - 7 1/2' EACH (INCLUDING 2 RISERS INTO HOUSE) . EXISTING PERIMETER SCREENING	
W/W WINDOW WELL REQUIRED FOR BASEMENT WINDOWS IN REAR	
PROPOSED CONTOUR	
EXISTING GROUND CONTOUR STABILIZED CONSTRUCTION ENTRA	ANCE
DRAINAGE FLOW ARROW SSF-SF EXISTING SILT FENCE OR SUPER	SILT FENCE
PROPERTY LINE	ICE
EXISTING EARTH DIKE	
RIGHT-DF-WAY	
EXISTING CURB & GUTTER	
97 HOUSE NUMBERS	

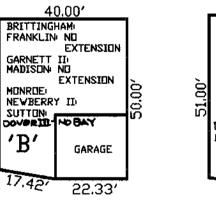
GENERAL NOTES

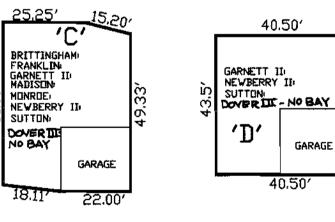
- 1) AREA INCLUDED IN THIS SUBMISSION IS 2.034 +/- ACRES (88,601 S.F.).
- 2) PRESENT ZONING IS R-SC PER 10/18/93 COMPREHENSIVE ZONING PLAN. 3) PROPOSED USE OF PROPERTY IS SINGLE FAMILY DETACHED HOUSES.
- 4) TOTAL NUMBER OF LOTS INCLUDED IN THIS SUBMISSION IS 13.
- 5) MINIMUM LOT SIZE IS 6000 S.F.
- 6) DEPARTMENT OF PLANNING AND ZONING REFERENCE FILE NUMBERS ARE: S-00-02, P-00-13, F-01-22, SDP-01-16, P-01-02, F-01-118, SDP-02-25, F-02-24, F-02-98, GP-01-78, WP-01-09. PLAT NUMBERS 14761-14765, 14958-14960, 15122-15123, 15214-15216.
- 7) UTILITIES SHOWN AS EXISTING ARE TAKEN FROM WATER AND SEWER CONTRACT NUMBERS C-377-W&S, C-359-W&S, C-2689-D-W&S & C-374-W&S. ROAD CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPROVED ROAD DRAWINGS.
- 8) ANY DAMAGE TO COUNTY OWNED RIGHTS-OF-WAY SHALL BE CORRECTED AT THE DEVELOPERS EXPENSE
- 9) EXISTING CONTOURS ARE BASED OFF THE MASS GRADING, WATER QUALITY, STREET TREE, GRADING AND SEDIMENT CONTROL PLANS.
- 10) THE COORDINATES SHOWN HEREON ARE BASED ON NAD 83', MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 36E4 AND 36E5.
- 11) THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/DIVISION OF CONSTRUCTION INSPECTION AT (410) 313-1880 AT LEAST 24 HOURS
- 12) THE CONTRACTOR SHALL NOTIFY 'MISS UTILITY' AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- 13) DRIVEWAY ENTRANCES ARE TO BE CONSTRUCTED PER THE HOWARD COUNTY DESIGN MANUAL VOLUME IV, DETAILS R 6.03 AND R 6.05.
- 14) STORMWATER MANAGEMENT IS PROVIDED PER F-01-22. EXISTING SWM FACILITY IS AN EXTENDED DETENTION FACILITY. THE SWM STRUCTURE IS A PUBLIC FACILITY MAINTAINED BY HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
- 15) THIS PLAN IS FOR HOUSE SITING, LOT GRADING, AND LOT LANDSCAPING ONLY. SEE THE APPROVED CONSTRUCTION DRAWINGS FOR INSTALLATION OF UTILITIES, RUADWAYS, AND PUBLIC WALKWAYS
- 16) TOTAL PROJECT AREA FOR THIS SUBMITTAL IS 2.034 Ac.
- 17) ALL ROADS SHOWN ON THESE PLANS ARE PUBLIC
- 18) IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS BAY WINDOWS, CHIMNEYS OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS, PORCHES DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK
- 19) NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE REQUIRED WETLANDS, STREAM OR THEIR BUFFERS AND FOREST CONSERVATION EASEMENT.
- 20) a) THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL
- b) FINANCIAL SURETY FOR THE REQUIRED PERIMETER LANDSCAPING BUFFER IN THE AMOUNT OF \$6,800 IS PART OF THE GRADING PERMIT APPLICATIONS FOR THIS SITE DEVELOPMENT PLAN (16 SHADE TREES @ \$300 EA., 12 EVERGREEN/FLOWERING TREES @ \$150 EACH).
- TO BE POSTED ACCORDING TO THE FOLLOWING LOT APPLICATIONS: LOT 97, IN THE AMOUNT OF \$900.00, 2 EVERGREEN TREES @ \$150.00 EA,
- 2 SHADE TREES @ \$300.00 EA LOT 99, IN THE AMOUNT OF \$600.00, 2 EVERGREEN TREES @ \$150.00 EA,
- | SHADE TREES @ \$300.00 EA LOT 101, IN THE AMOUNT OF \$600.00, 2 EVERGREEN TREES @ \$150.00 EA,
 - 1 SHADE TREES @ \$300.00 EA
- LOT 102, IN THE AMOUNT OF \$600.00, 2 EVERGREEN TREES @ \$150.00 EA, 1 SHADE TREES @ \$300.00 EA
- LOT 103, IN THE AMOUNT OF \$900.00, 2 EVERGREEN TREES @ \$150.00 EA,
- 2 SHADE TREES @ \$300,00 EA
- LOT 104, IN THE AMOUNT OF \$900.00, 2 EVERGREEN TREES @ \$150.00 EA, 2 SHADE TREES @ \$300.00 EA
- LOT 105, IN THE AMOUNT OF \$300.00, 1 SHADE TREES @ \$300.00 EA
- LOT 106, IN THE AMOUNT OF \$600.00, 2 SHADE TREES @ \$300.00 EA LOT 108, IN THE AMOUNT OF \$600.00, 2 SHADE TREES € \$300.00 EA
- LOT 109, IN THE AMOUNT OF \$300.00, 1 SHADE TREES € \$300.00 EA
- 21) FOREST CONSERVATION OBLIGATIONS FOR THIS PROJECT WERE ADDRESSED WITH THE APPROVAL OF FINAL PLAN F-01-22 & F-02-98.
- 22) ALL SWALES, INCLUDING THOSE BETWEEN HOUSES ARE TO BE STABILIZED WITH EROSION CONTROL MATTING. SEE DETAIL SHEET 3.
- 23) EXCEPT WHERE NOTED, ALL SEDIMENT CONTROLS INSTALLED UNDER GP-01-78 AND F-01-22 & F-01-118 SHALL REMAIN AS PART OF THIS PLAN EXCEPT WHERE NOTED TO BE REMOVED.
- 24) AS A CONSEQUENCE OF ITS SUBMISSION ON APRIL 29, 2002, THIS SOP IS SUBJECT TO THE 5TH EDITION
- OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.

GENERIC BOXES









NOTE: FOR GENERIC BOX 'A' LOCATED ON LOT 100, THE BRICK OPTION WILL REQUIRE THE SIDE DIMENSIONS TO BE DECREASED BY 0.33'

8-27-02 ADD DOVER III (MRA)

OPTIONAL-FIRE PLACE

GPTIONAL— ELEVATION C (1.6'×11.33' BUMP DUT)

GARAGE Q

GARNETT II

NEWBERRY II

D. PRESENT ZONING DESIGNATION IS R-SC PER THE 10/18/93 ZONING PLAN.

NUMBER OF PARKING SPACES REQUIRED: 2 OFF STREET PARKING SPACES PER LOT.

K. NUMBER OF PARKING SPACES PROVIDED: 2 OFF STREET PARKING SPACES PER LOT.

D. APPLICABLE DPZ FILE REFERENCES: S-00-02, P-00-13, F-01-22, SDP-01-16, P-01-02, F-01-118, SDP-02-25, F-02-24, F-02-98, GP-01-78, WP-01-09,

PLAT NUMBERS 14761-14765, 14958-14960, 15122-15123, 15214-15216.

SITE ANALYSIS DATA CHART

A. TOTAL PROJECT AREA: 2.034 +/- ACRES (88,601 S.F.).

E. PROPOSED SITE USE IS SINGLE FAMILY DETACHED HOUSES.

F. FLOOR SPACE PROPOSED IS 1680 S.F. (AVERAGE PER FLOOR).

MAXIMUM NUMBER OF EMPLOYEES, TENANTS ON SITE: N/A.

G. TOTAL NUMBER OF UNITS ALLOWED PER FINAL PLAT IS 13 UNITS. H. TOTAL NUMBER OF UNITS PROPOSED ON SUBMISSION IS 13 UNITS.

B. AREA OF PLAN SUBMISSION: SAME AS A.

C. LIMIT OF DISTURBED AREA: 2.081 +/- ACRES.

ELEVATION N.T.S.

ELEVATION N.T.S.



MORRIS & RITCHIE ASSOC., INC. ENGINEERS, PLANNERS, SURVEYORS, AND LANDSCAPE ARCHITECTS 9090 JUNCTION DRIVE, SUITE 9 Annapolis Junction, Maryland (410) 792-9792 - (301) 776-1690 Fax: (410) 792-7395

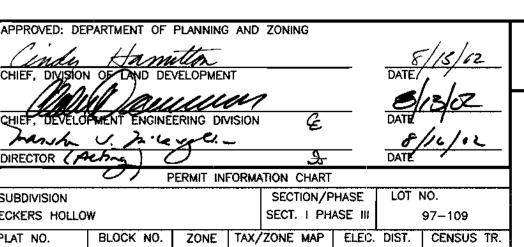


		ADDRESS CHART
	LOT NUMBER	STREET ADDRESS
·	97	9063 PHILLIP DORSEY WAY
	98	9067 PHILLIP DORSEY WAY
CARROLL STATES	99	9071 PHILLIP DORSEY WAY
ns Ca	100	9089 PHILLIP DORSEY WAY
13	101	9092 PHILLIP DORSEY WAY
. 1 . (13)	102	9088 PHILLIP DORSEY WAY
1.0 MZ*	103	9084 PHILLIP DORSEY WAY
miss	104	9080 PHILLIP DORSEY WAY
Ol "ky ite.	105	9076 PHILLIP DORSEY WAY
A Continue	106	9072 PHILLIP DORSEY WAY
	107	9068 PHILLIP DORSEY WAY
7-26-0L	108	9064 PHILLIP DORSEY WAY
	109	9060 PHILLIP DORSEY WAY

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." 7-26-02 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." SIGNATURE OF DEVELOPER (PRINT NAME BELOW SIGNATURE)

OWNER / DEVELOPER 15122-15123

THE RYLAND GROUP, INC. 7250 PARKWAY DRIVE - SUITE 520 HANOVER, MD 21076 (410) 712-7012



36 / 23

SEWER CODE

6TH

5333600

6066.03

10 & 11

WATER CODE

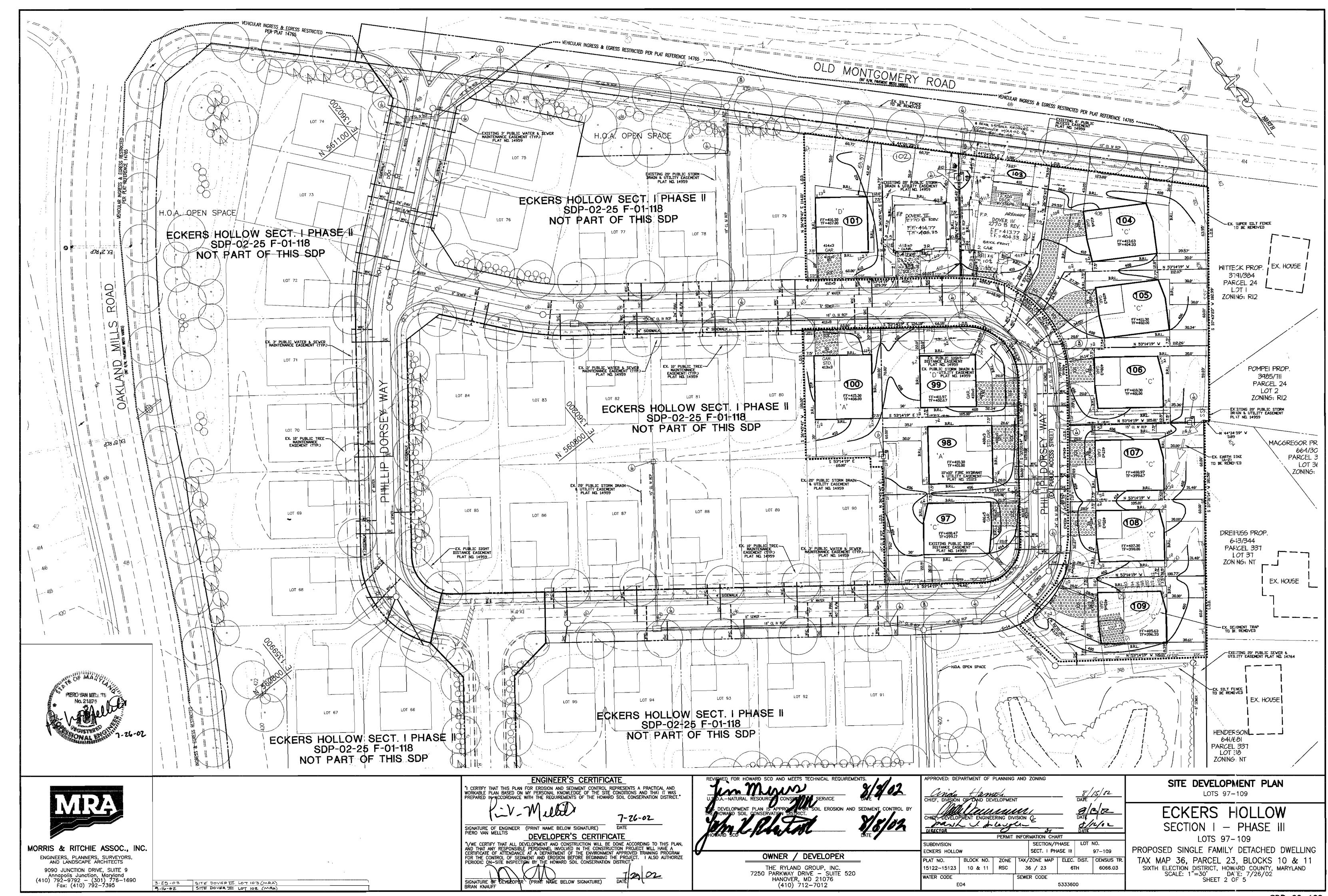
RSC

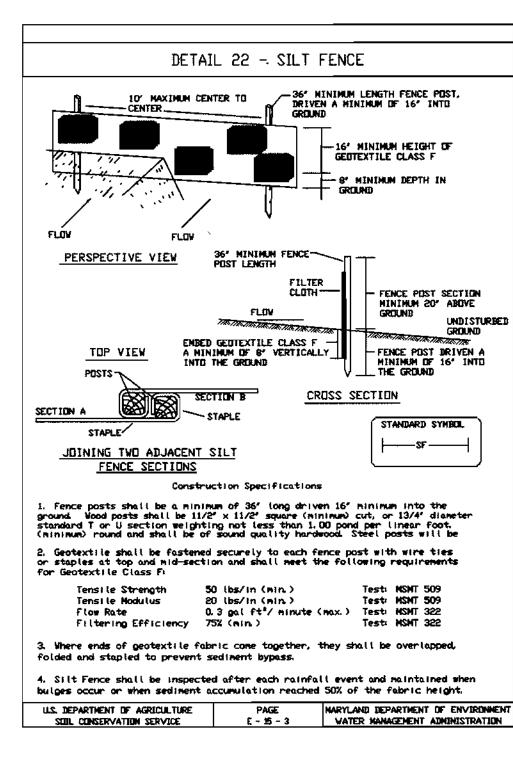
TITLE SHEET

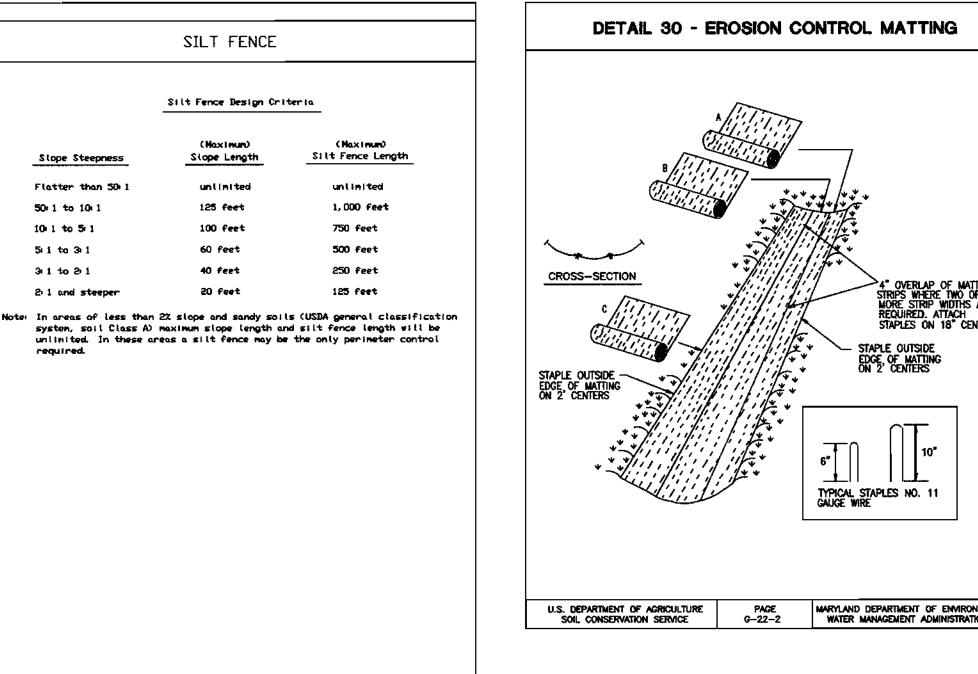
ECKERS HOLLOW SECTION I - PHASE III

LOTS 97-109

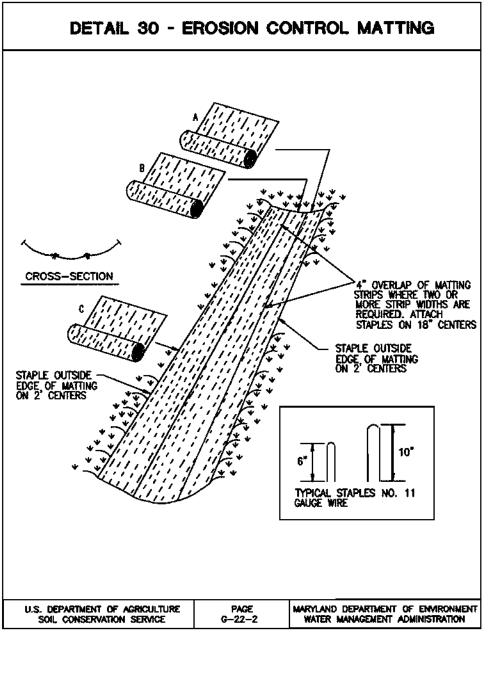
PROPOSED SINGLE FAMILY DETACHED DWELLING TAX MAP 36, PARCEL 23, BLOCKS 10 & 11 SIXTH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND HOWN DATE: 7/26/02 SHEET 1 OF 5 SCALE: AS SHOWN

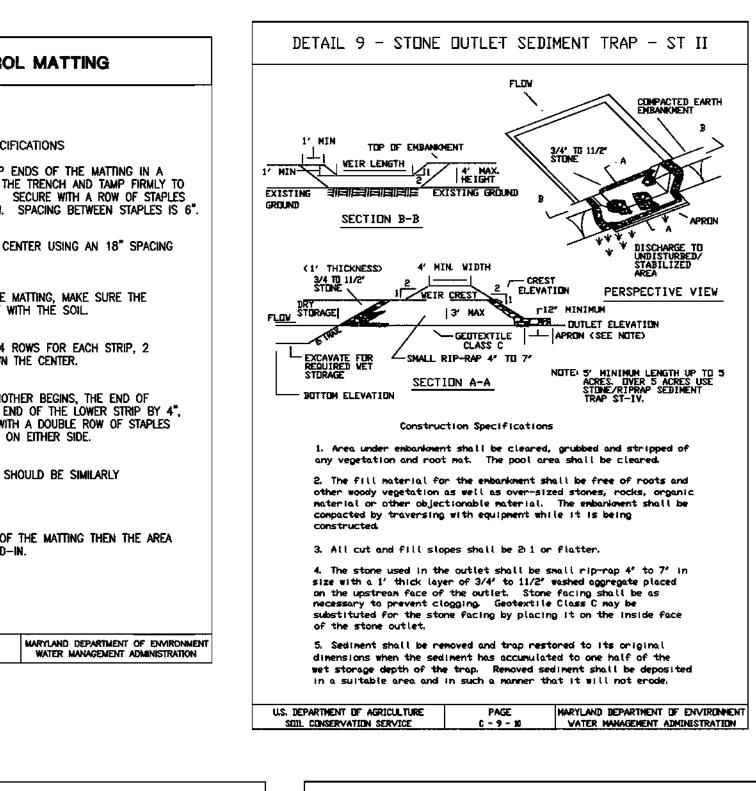


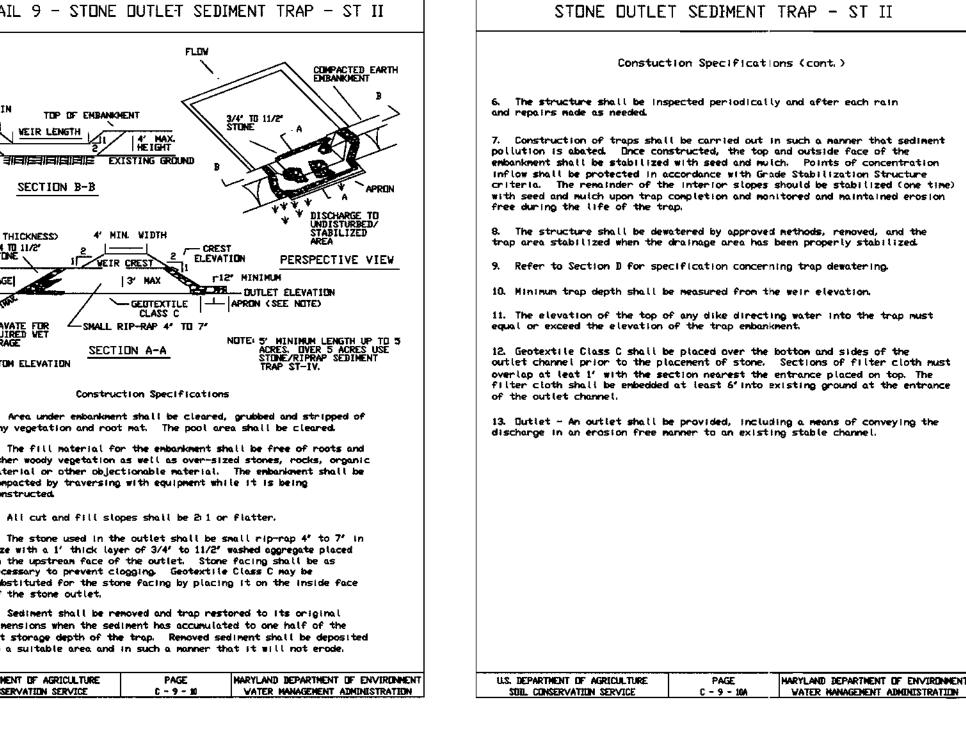


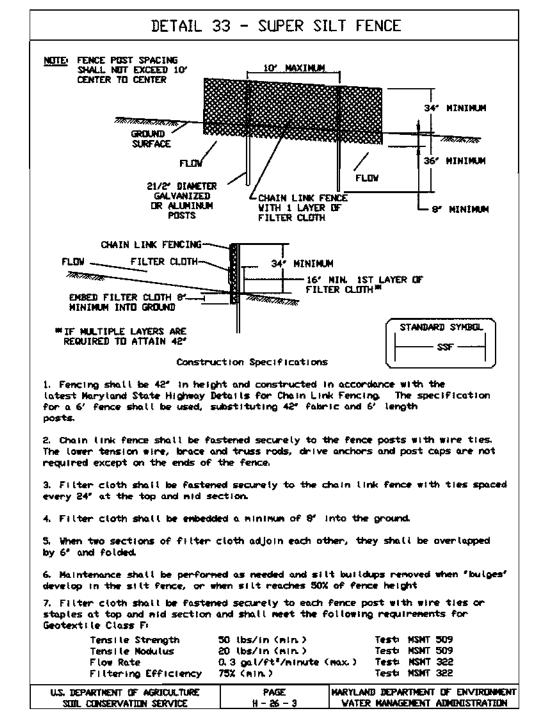


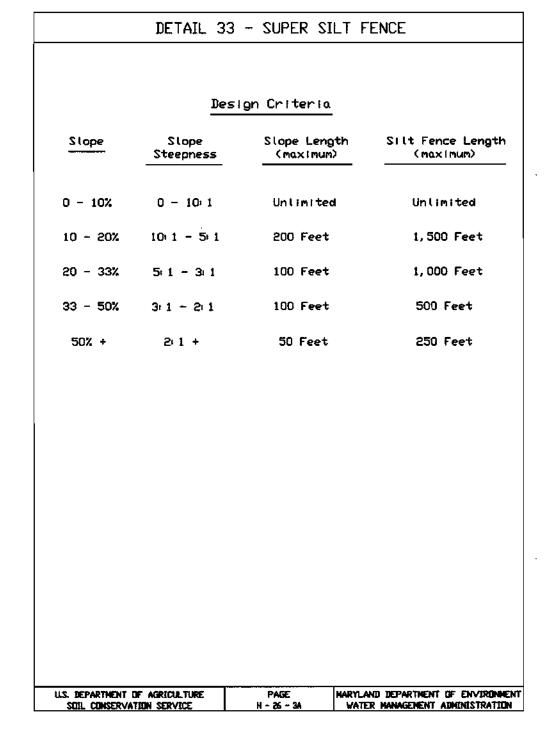
MARYLAND DEPARTMENT OF ENVIRONMENT VATER MANAGEMENT ADMINISTRATION



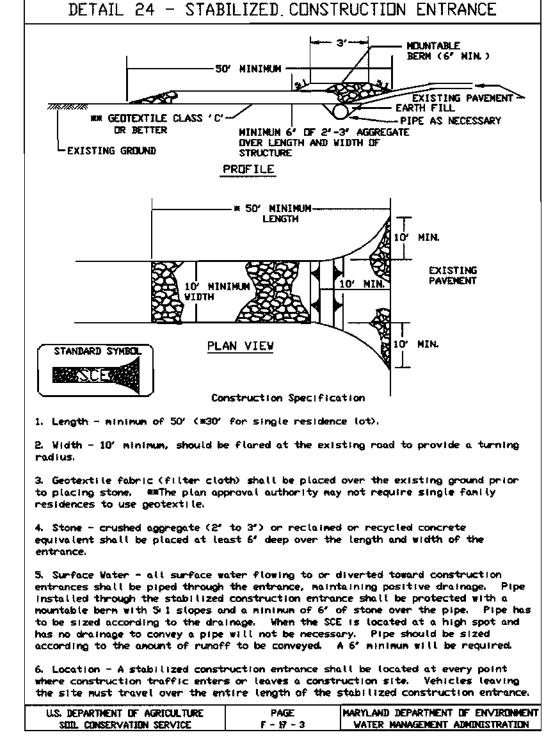


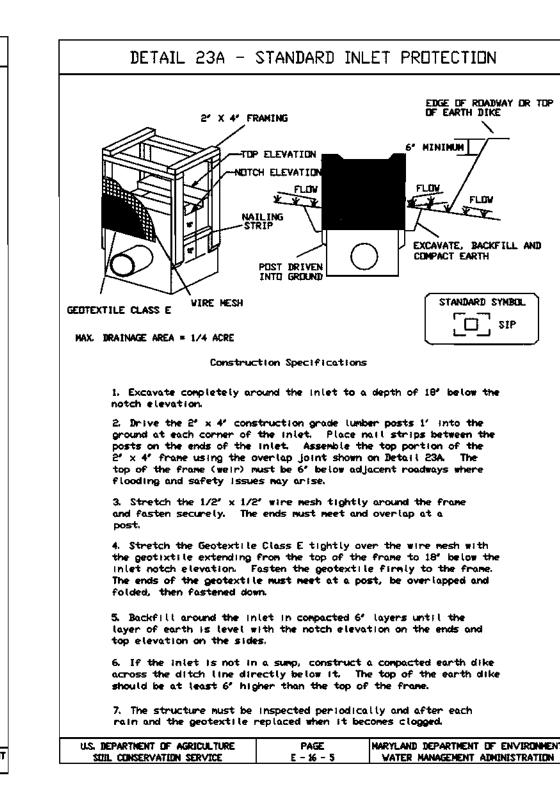






U.S. DEPARTMENT OF AGRICULTURE





EROSION CONTROL MATTING

CONSTRUCTION SPECIFICATIONS

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".

. KEY-IN THE MATTING BY PLACING THE TOP ENDS OF THE MATTING IN A

2. STAPLE THE 4" OVERLAP IN THE CHANNEL CENTER USING AN 18" SPACING

5. BEFORE STAPLING THE OUTER EDGES OF THE MATTING, MAKE SURE THE

. STAPLES SHALL BE PLACED 2' APART WITH 4 ROWS FOR EACH STRIP, 2

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

NOTE: IF FLOW WILL ENTER FROM THE EDGE OF THE MATTING THEN THE AREA

MATTING IS SMOOTH AND IN FIRM CONTACT WITH THE SOIL.

OUTER ROWS, AND 2 ALTERNATING ROWS DOWN THE CENTER.

SPACED 6" APART IN A STAGGERED PATTERN ON EITHER SIDE.

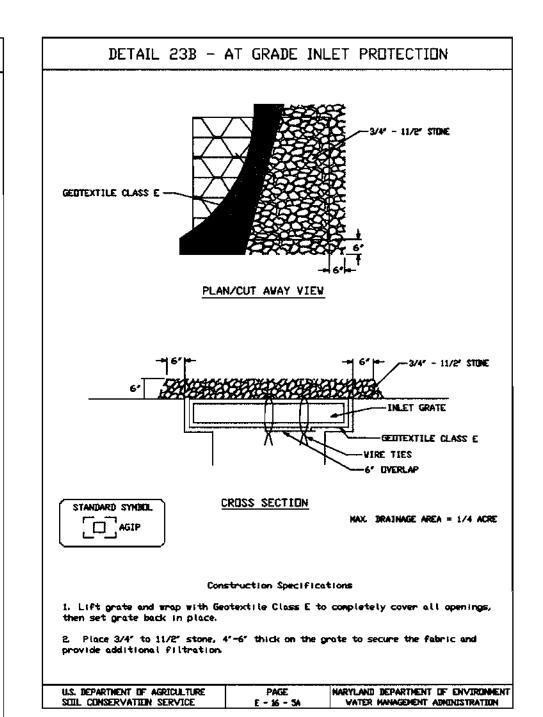
6. THE DISCHARGE END OF THE MATTING LINER SHOULD BE SIMILARLY

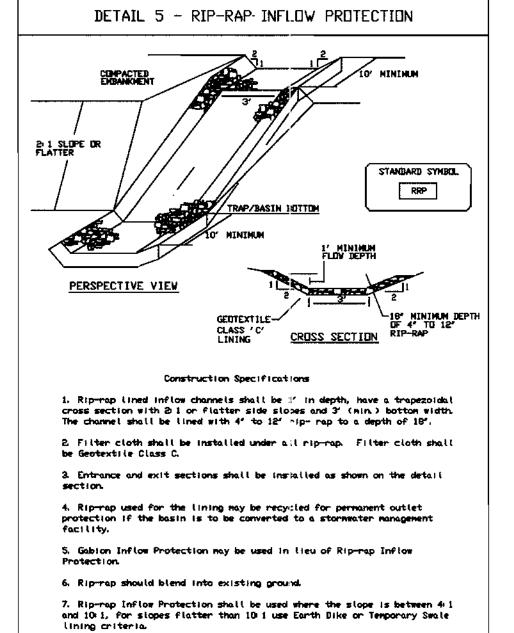
EFFECTED BY THE FLOW MUST BE KEYED-IN.

SECURED WITH 2 DOUBLE ROWS OF STAPLES.

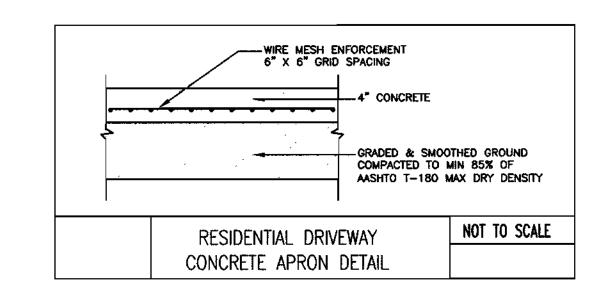
U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

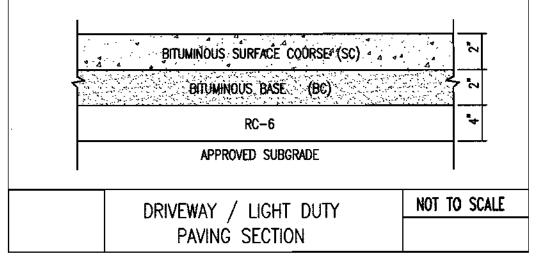
BETWEEN STAPLES.

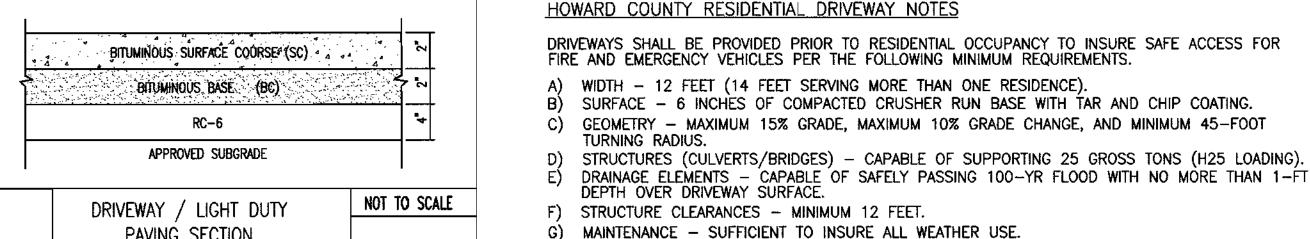


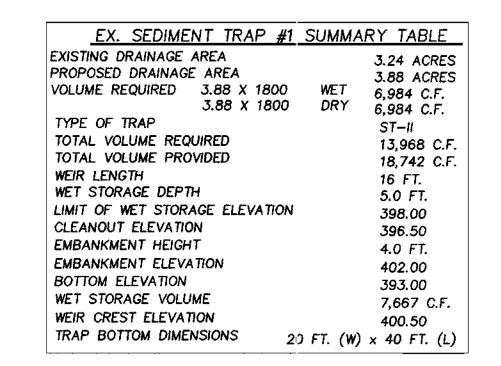










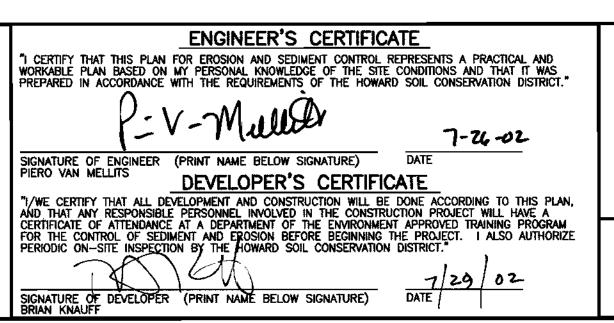


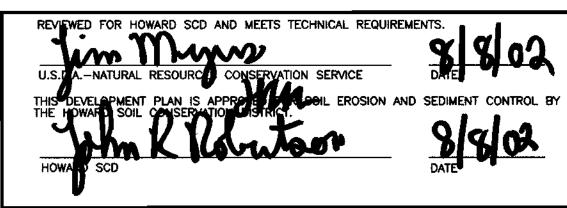
SELL CONSERVATION SERVICE

PAGE MARYLAND DEPARTMENT OF ENVIRONMENT VATER MANAGEMENT ADMINISTRATION

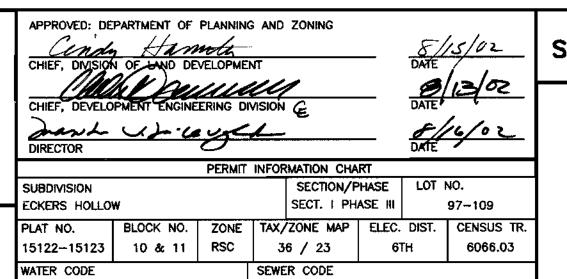








OWNER / DEVELOPER THE RYLAND GROUP, INC. 7250 PARKWAY DRIVE - SUITE 520 HANOVER, MD 21076 (410) 712-7012



5333600

SEDIMENT CONTROL NOTES AND DETAILS

ECKERS HOLLOW SECTION I -- PHASE III

LOTS 97-109 PROPOSED SINGLE FAMILY DETACHED DWELLING TAX MAP 36, PARCEL 23, BLOCKS 10 & 11 SIXTH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND SCALE: N/A DATE. . . . SHEET 3 OF 5 DATE: 7/26/02

STANDARDS AND SPECIFICATION FOR TOPSOIL DEFINITION

PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.

PURPOSE

TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW pH, MATERIAL TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.

CONDITIONS WHERE PRACTICE APPLIES

- THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
- A. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
- THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
- THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
- THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
- II. FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS. AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION. AREA HAVING SLOPES STEEPER THAN 2:1 SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON THE PLANS.

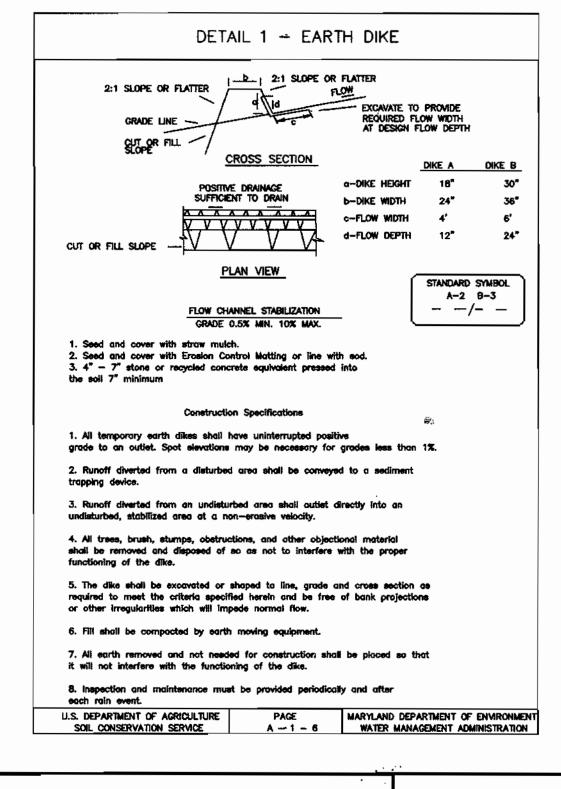
CONSTRUCTION AND MATERIAL SPECIFICATIONS

- TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN REPRESENTATIVES SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-SCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTAL STATION.
- II. TOPSOIL SPECIFICATIONS-SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:
 - TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND. OTHER SOILS MAY USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVELS, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2" IN DIAMETER.
 - TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUICKGRASS, JOHNSONGRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
 - III. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 POUNDS PER 1,000 SF) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.
- II. FOR SITE HAVING DISTURBED AREAS UNDER 5 ACRE
 - I. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION-SECTION I-VEGETATIVE STABILIZATION METHODS AND MATERIALS.

III. TOPSOIL APPLICATION

- WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS. GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.
- II. GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBEIT 4"-8" HIGHER IN ELEVATION.
- III. TOPSOIL SHALL BE UNIFORMLY DISTURBED IN A 4"-8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
- IV. TOPSOIL SHALL NOT PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.
- VI. ALTERNATIVE FOR PERMANENT SEEDING-INSTEAD OF APPLYING THE FULL AMOUNTS OF LIME AND COMMERCIAL FERTILIZER, COMPOSTED SLUDGE AND AMENDMENTS MAY BE APPLIED AS SPECIFIED BELOW:
- COMPOSTED SLUDGE MATERIAL FOR USE A SOIL CONDITIONER FOR SITES HAVING DISTURBED AREAS OVER 5 ACRE SHALL BE TESTED TO PRESCRIBE AMENDMENTS AND FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
 - A. COMPOSTED SLUDGE SHALL BE SUPPLIED BY, OR ORIGINATE FROM. A PERSON OR PERSONS THAT ARE PERMITTED (AT THE TIME OF ACQUISITION OF THE COMPOST) BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT UNDER COMAR 26.04.06.
 - COMPOSTED SLUDGE SHALL CONTAIN AT LEAST 1 PERCENT NITROGEN, 1.5 PERCENT PHOSPHOROUS, AND 0.2 PERCENT POTASSIUM AND HAVE A pH OF 7.0 TO 8.0. IF COMPOST DOES NOT MEET THESE REQUIREMENTS, THE APPROPRIATE CONSTITUENTS MUST BE ADDED TO MEET THE REQUIREMENTS PRIOR TO USE.
 - COMPOSTED SLUDGE SHALL BE APPLIED AT A RATE OF 1 TON/1,000 SF.
- II. COMPOSTED SLUDGE SHALL BE AMENDED WITH A POTASSIUM FERTILIZER APPLIED AT THE RATE OF 4LB/1,000 SF, AND 1/3 THE NORMAL LIME APPLICATION RATE.

REFERENCES: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SODDING. MD-VA. PUB. #1, COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTE. REVISED 1973.



HOWARD SOIL CONSERVATION DISTRICT STANDARD SEDIMENT CONTROL NOTES

- 1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES 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
- 3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3:1, b) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- 4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. , CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM
- 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 FIEMAIN IN PLACE AND TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- 7. SITE ANALYSIS: 2.034 TOTAL AREA OF SITE ___ ACRES 2.081 AREA DISTURBED ___ ACRES AREA TO BE ROOFED OR PAVED ___ ACRES AREA TO BE VEGETATIVELY STABILIZED ___ ACRES 5,830 TOTAL CUT* ___ CU. YDS. 5,830 CU. YDS. TOTAL FILL* OFFSITE WASTE/BORROW AREA LOCATION
- 8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- 9. ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- 10. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- 11. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

EARTHWORK NOTE*

THE EARTHWORK QUANTITIES SHOWN HEREON ARE FOR INFORMATION PURPOSES ONLY. MRA MAKES NO GUARANTEE OF ACCURACY OF QUANTITIES OR BALANCE OF SITE, THE DEVELOPER AND CONTRACTOR SHALL TAKE FULL RESPONSIBILITY OF ACTUAL EARTHWORK QUANTITIES ENCOUNTERED DURING CONSTRUCTION."

PERMANENT SEEDING NOTES

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

ALL DISTURBED AREA SHALL BE STABILIZED AS FOLLOWS:

SOIL AMENDMENTS: APPLY TWO TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1,000 SQ.F.T.) AND 600 LBS. PER ACRE 0-20-20 FERTILIZER (14 LBS./1,000 SQ.F.T) BEFORE SEEDING HARROW OR DISC. INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING APPLY 400 LBS PER ACRE 38-0-0 UREAFORM FERTILIZER (9 LBS/1,000 SQ. F.T.) AND 500 LBS. PER ACRE (11.5 LBS/1,000 SQ.F.T.) OF 10-20-20

FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 1 THROUGH OCTOBER 15, SEED WITH 100 LBS PER ACRE (2.3 LBS/1,000 SQ.F.T.) OF KENTUCKY 31 TALL FESCUE, FOR THE PERIOD MAY 1 THROUGH JULY 31, SEED WITH 60 LBS/ACRE (1.4 LBS./1,000 SQ.F.T.) KENTUCKY 31 TALL FESCUE AND 2 LBS. PER ACRE (0.05 LBS./1,000 SQ.F.T.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THROUGH FEBRUARY 28. PROJECT SITE BY: OPTION (1) - TWO TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING OPTION (2) - USE 500: OPTION (3) - SEED WITH 100 LBS/ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH TWO TONS/ACRE WELL ANCHORED STRAW. ALL SLOPES SHOULD BE

APPLY 1 TO 2 TONS PER ACRE (10 TO 90 LBS./1,000 SQ.F.T.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING 200 GALLONS PER ACRE (5 GAL/1,000 SQ.F.T) OF EMULSIFIED ASPHALT ON FLAT ACRES ON SLOPES 8 FEET OR HIGHER USE 348 GALLONS PER ACRE (8 GAL./1,000 SQ. F.T.) FOR

MAINTENANCE: INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS

*FOR PUBLIC PONDS SUBSTITUTE CHEMUNG CROWNVETCH AT 15 LBS./ACRE AND KENTUCKY 31 TALL FESCUE AT 40 LBS/ACRE AS THE SEEDING REQUIREMENT. OPTIMUM SEEDING DATE FOR THIS MIXTURE IS MARCH 1 TO

STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

VEGETATIVE STABILIZATION METHODS AND MATERIALS

- 1. INSTALL EROSION AND SEDIMENT CONTROL STRUCTURES (EITHER TEMPORARY OR 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.
- SCHEDULE REQUIRED SOIL TESTS TO DETERMINE SOIL AMENDMENT COMPOSITION AND APPLICATION RATES FOR SITES HAVING DISTURBED AREA OVER 5 ACRES.

B. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)

- SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OVER 5 ACRES. SOIL ANALYSIS MAY BE PERFORMED BY THE UNIVERSITY OF MARYLAND OR A RECOGNIZED COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSES.
- 2. 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 of the producer.
- 3. 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 98 - 100% WILL PASS THROUGH A #20 MESH SIEVE.
- 4. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 5" OF SOIL BE DISKING OR OTHER SUITABLE MEANS.

C. SEEDBED PREPARATION

1. TEMPORARY SEEDING

- A. SEEDBED PREPARATION SHALL CONSIST OF LOOSENING SOIL TO A DEPTH OF 3" TO 5" BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION FOLIPMENT, SUCH AS DISC HARROWS OR CHISFLE 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. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 5" OF SOIL BY DISKING OR OTHER SUITABLE 2. PERMANENT SEEDING
- A. MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT:
 - SOIL PH SHALL BE BETWEEN 6.0 AND 7.0
 - SOLUBLE SALTS SHALL BE LESS THAN 500 PARTS PER MILLION (PPM). THE SOIL SHALL CONTAIN LESS THAN 40% CLAY BUT ENOUGH FINE GRAINED MATERIAL (> 30% SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT
 - OF MOISTURE. AN EXCEPTION IS IF LOVEGRASS OR SERECIA LESPEDEXA IS TO BE PLANTED, THEN A SANDY SOIL (< 30% SILT PLUS CLAY) WOULD BE ACCEPTABLE. SOIL SHALL CONTAIN 1.5% MINIMUM ORGANIC MATTER BY WEIGHT.
 - 5. SOIL MUST CONTAIN SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT
 - PENFTRATION. IF THESE CONDITIONS CANNOT BE MET BY SOILS ON SITE, ADDING TOPSOIL IS REQUIRED IN ACCORDANCE WITH SECTION 21 STANDARD AND SPECIFICATION FOR
- B. 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 FROM SLIDING DOWN A SLOPE.
- C. APPLY SOIL AMENDMENTS AS PER SOIL TEST OR AS INCLUDED ON THE PLANS.
- D. 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 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. Steet 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 newly disturbed areas.

D. SEED SPECIFICATIONS

ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED SHALL BE SUBJECT TO RE-TESTING BY A RECOGNIZED SEED LABORATORY. ALL SEED USED SHALL HAVE BEEN TESTED WITHIN THE 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SOWING SUCH MATERIAL ON THIS

NOTE: SEED TAGS SHALL BE MADE AVAILABLE TO THE INSPECTOR TO VERIFY TYPE AND RATE OF SEED USED.

INOCULANT - THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES SHALL BE A PURE CULTURE OF NITROGEN-FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS SHALL NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INOCULANT AS DIRECTED ON PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING. NOTE: IT IS VERY IMPORTANT TO KEEP INOCULANT AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75-80%F. CAN WEAKEN BACTERIA AND MAKE THE INOCULANT LESS EFFECTIVE.

- 1. HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER), BROADCAST OR DROP SEEDER, 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 (POTASSIUW); 200 LBS/AC.
- 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 HYDROSEEDING AT ANY ONE TIME. DO NOT USE BURNT OR HYDRATED LIME WHEN
- C. SEED AND FERTILIZER SHALL BE MIXED ON SITE AND SEEDING SHALL BE IXONE IMMEDIATELY AND WITHOUT INTERRUPTION.
- 2. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.
- SEED SPREAD DRY SHALL BE INCORPORATED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON THE TEMPORARY OR PERMANENT SEEDING SUMMARIES OR TABLES 25 OR 26. THE SEEDED AREA SHALL THEN BE ROLLED WITH A WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL
- WHERE PRACTICAL, SEED SHOULD BE APPLIED IN TWO DIRECTIONS PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.
- 3. DRILL OR CULTIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL
 - CULTIPACKING SEEDERS ARE REQUIRED TO BURY TO SEED IN SUCH A FASHION AS TO PROVIDE AT LEAST 1/4 INCH OF SOIL COVERING. SEEDBED MUST BE FIRM AFTER PLANTING.
- WHERE PRACTICAL, SEED SHOULD BE APPLIED IN TWO DIRECTIONS PERPENDICULAR TO EACH OTHER, APPLY HALF THE SEEDING RATE IN EACH DIRECTION.

F. MULCH SPECIFICATIONS (IN ORDER OF PREFERENCE)

- STRAW SHALL CONSIST OF THOROUGHLY THRESHED WHEAT, RYE OR OAT STRAW, REASONABLY 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.

THE GRASS SEEDLINGS.

- 2. WOOD CELLULOSE FIBER MULCH (WCFM)
- WCFM SHALL CONSIST OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE.
- WCFM SHALL BE DYED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE THAT WILL PROVIDE AN APPROPRIATE COLOR TO FACILITATE VISUAL INSPECTION OF THE UNIFORMLY SPREAD SLURRY.
- WCFM, INCLUDING DYE, SHALL CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS.
- WCFM MATERIALS SHALL BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE WOOD CELLULOSE FIBER MULCH WILL REMAIN IN UNIFORM SUSPENSION IN WATER UNDER AGITATION AND WILL BLEND WITH SEED, FERTILIZER AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY. THE MULCH MATERIAL SHALL FORM A BLOTTER-LIKE GROUND COVER, ON APPLICATION, HAVING MOISTURE ABSORPTION AND PERCOLATION PROPERTIES AND SHALL COVER AND HOLD GRASS SEED IN CONTACT WITH THE SOIL WITHOUT INHIB TING THE GROWTH OF
- WCFM MATERIAL SHALL CONTAIN NO ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BE PHYTO-TOXIC.
- 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% MINIHUM. NOTE: ONLY STERILE STRAW MULCH SHALL BE USED IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED.
- G. MULCHING SEEDED AREAS -- MULCH SHALL BE APPLIED TO ALL SEED AREA IMMEDIATELY AFTER SEEDING

1. IF GRADING IS COMPLETED OUTSIDE OF THE SEEDING SEASON, MULCH ALONE SHALL BE APPLIED AS

- PRESCRIBED IN THIS SECTION AND MAINTAINED UNTIL THE SEEDING SEASON RETURNS AND SEEDING CAN 8E PERFORMED IN ACCORDANCE WITH THESE SPECIFICATIONS. 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
- WOOD CELLULOSE FIBER USED AS A MULCH SHALL BE APPLIED AT A NET DRY WEIGHT OF 1,500 LBS. PER ACRE. THE WOOD CELLULOSE FIBER SHALL BE MIXED WITH WATER, AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LBS. OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER
- H. SECURING STRAW MULCH (MULCH ANCHORING): MULCH ANCHORING SHALL BE PERFORMED IMMEDIATELY FOLLOWING MULCH APPLICATION TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE COME BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE), DEPENDING UPON SIZE OF AREA AND EROSION HAZARD: 1. A MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH
 - INTO THE SOIL SURFACE A MINIMUM OF TWO (2) INCHES. THIS PRACTICE IS MOST EFFECTIVE ON LARGE AREAS, BUT IS LIMITED TO FLATTER SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. IF USED ON SLOPING LAND, THIS PRACTICE SHOULD BE USED ON THE CONTOUR IF POSSIBLE. WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. THE FIBER BINDER SHALL BE APPLIED

AT A NET DRY WEIGHT OF 750 POUNDS/ACRE. THE WOOD CELLULOSE FIBER S HALL BE MIXED WITH

WATER AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER

100 GALLONS OF WATER. 3. APPLICATION OF LIQUID BINDERS SHOULD BE HEAVIER AT THE EDGES WHERE WIND CATCHES MULCH, SUCH AS IN VALLEYS AND ON CRESTS OF BANKS. THE REMAINDER OF AREA SHOULD BE APPEAR UNIFORM AFTER BINDER APPLICATION. SYNTHETIC BINDERS - SUCH AS ACRYLIK: DLR (AGRO-TACK),

RATES RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH.

LIGHTWEIGHT PLASTIC NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. NETTING IS USUALLY AVAILABLE IN ROLLS 4' TO 15' FEET WIDE AND 300 3,000

DCA-70. PETROSET, TERRA TAX II, TERRA TACK AR OR OTHER APPROVED EQUAL MAY BE USED AT

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 LOOSENED.

APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS/1,000 SQ. F.T.)

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.F.T. FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28. PROTECT SITE BY APPLYING ? TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE

APPLY 1 TO 2 TONS PER ACRE (70 TO 90 LBS/1,000 SQ.F.T.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GA. 1,000 SQ. F.T.) OF EMULSIFIED ASPHALT ON FLAT ACRE ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1,000 SQ.F.T.) FOR ANCHORING.

REFER TO THE 1988 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.



No. 21878

MORRIS & RITCHIE ASSOC., INC. ENGINEERS, PLANNERS, SURVEYORS, AND LANDSCAPE ARCHITECTS 9090 JUNCTION DRIVE, SUITE 9

Annapolis Junction, Maryland (410) 792-9792 - (301) 776-1690 Fax: (410) 792-7395

"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." 7-26-02 DATE "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." 7 29 67 DATE (3 SIGNATURE OF DEVELOPER (PRINT NAME BELOW SIGNATURE)

ENGINEER'S CERTIFICATE

EVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS. BUILDER

RCES CONSERVATION SERVICE FOR SOIL EROSION AND SEDIMENT CONTROL BY

THE RYLAND GROUP

7250 PARKWAY DRIVE - SUITE 520

HANOVER, MD 21076

(410) 712-2406

8/15/02 Danah CHIEF, DIVISION OF LAND DEVELOPMENT DATE DATE HEF, DEVELOPMENT ENGINEERING DIVISION F/16/02 PERMIT INFORMATION CHART SECTION/PHASE | LOT NO. SUBDIVISION ECKERS HOLLOW SECT. I PHASE II 97-109 CENSUS T PLAT NO. BLOCK NO. | ZONE | TAX/ZONE MAP | ELEC. DIST. 15122-15123 RSC 6066.03 36 / 23 10 & 1 WATER CODE SEWER CODE E04 5333600

SEDIMENT CONTROL NOTES & DETAILS

ECKERS HOLLOW SECTION I -- PHASE III LOTS 97-109

PROPOSED SINGLE FAMILY DETACHED DWELLING TAX MAP 36, PARCEL 23, BLOCKS 10 & 11 SIXTH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND SCALE: N/A DATE: 7/26/02 SHEET 4 OF 5

GENERAL NOTES:

- ALL PLANT MATERIAL SHALL CONFORM TO THE STANDARDS OF NURSERY STOCK OF THE AMERICAN ASSOCIATION OF NURSERYMEN.
- TREES AND SHRUBS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY HAVE NORMAL GROWTH HABITS, WELL DEVELOPED, DENSELY FOLIATED BRANCHES,
- AND VIGOROUS, FIBROUS ROOT SYSTEMS. TREES AND SHRUBS SHALL BE FRESHLY DUS AND NURSERY GROWN. THEY SHALL HAVE BEEN GROWN UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT OR PROPERLY ACCLIMATED TO CONDITIONS OF
- THE LOCALITY OF THE PROJECT. 4. TREES AND SHRUBS SHALL BE FREE FROM DEFECTS AND INJURIES AND CERTIFIED BY APPROPRIATE FEDERAL AND STATE AUTHORITIES TO BE FREE OF
- 5. THE LANDSCAPE CONTRACTOR SHALL WARRANTY ALL PLANT MATERIAL FOR A PERIOD OF ONE (!) FULL YEAR AFTER THE DATE OF SUBSTANTIAL COMPLETION AGAINST DEFECTS, UNSATISFACTORY GROWTH, DISEASE OR DEATH. UNSATISFACTORY, UNHEALTHY, DYING OR DEAD PLANT MATERIAL (IN THE OPINION OF THE LANDSCAPE ARCHITECT) SHALL BE REPLACED WITH THE SAME
- SIZE AND SPECIES. 6. IT SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO ADEQUATELY AND PROPERLY MAINTAIN THE LANDSCAPED AREAS, WHICH SHALL INCLUDE WATERING, CLEANING OF WEEDS AND DEBRIS, PRUNING AND TRIMMING, REPLACEMENT OF DEAD OR DISEASED PLANTINGS, AND FERTILIZING TO MAINTAIN
- HEALTHY GROWTH. 7. THE LANDSCAPE CONTRACTOR SHALL STAKEOUT PLANT LOCATIONS IN THE FIELD. THE LANDSCAPE ARCHITECT OR HIS REPRESENTATIVE SHALL OBSERVE THESE LOCATIONS PRIOR TO COMMENCING PLANT PIT EXCAVATION. THE LANDSCAPE CONTRACTOR SHALL MAKE ANY ADJUSTMENTS AS REQUESTED BY THE
- LANDSCAPE ARCHITECT. 8. ALL PLANT SAUCERS AND PLANT BEDS SHALL BE MULCHED WITH DOUBLE SHREDDED HARDWOOD MULCH, A MINIMUM OF 3" IN DEPTH.
- 9. NO SUBSTITUTIONS OF PLANT MATERIAL SHALL BE PERMITTED WITHOUT MRITTEN AUTHORIZATION OF THE LANDSCAPE ARCHITECT OR HIS REPRESENTATIVE. THIS SHALL APPLY TO SUBSTITUTIONS OF SPECIES, SIZE AND GUANTITY.
- 10. THE LANDSCAPE CONTRACTOR SHALL INSTALL SHREDDED HARDWOOD BARK MULCH TO A DEPTH OF 9" UNDER AND SURROUNDING ALL NEW LANDSCAPED MASS PLANTING AREAS TO PROVIDE A UNIFORM AND CONTINUOUS SURFACE AND APPEARANCE BETWEEN AND AROUND ALL PLANT MATERIAL, BUILDING LINES AND PAVED AREAS. IN GENERAL, THIS PERTAINS TO ALL PLANT MATERIAL THAT IS PLANTED CLOSER THAN SIX (6) FEET CENTER TO CENTER. IT IS THE INTENT OF THIS CONTRACT TO INSTALL LANDSCAPE MAT UNDER THE ENTIRE AREA OF SHREEDDED BARK MULCH.
- 11. TREES SHALL BE LOCATED A MINIMUM OF 5' FROM SEMER/WATER CONNECTIONS. CONTRACTOR SHALL BE LIABLE FOR DAMAGE TO ANY AND ALL PUBLIC AND PRIVATE UTILITIES, MATER AND SEMER LINES.

- 12. ALL CONTAINER GROWN MATERIAL SHALL BE HEALTHY, VIGOROUS, WELL-ROOTED PLANTS AND ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE SOLD. THE PLANTS SHALL HAVE TOPS WHICH ARE 600D QUALITY AND ARE IN A HEALTHY GROWING CONDITION.
- 13. CONTRACTOR SHALL SLIGHTLY ADJUST PLANT LOCATIONS IN THE FIELD AS NECESSARY TO BE CLEAR OF DRAINAGE SWALES AND UTILITIES. FINISHED PLANTING BEDS SHALL BE GRADED SO AS NOT TO IMPEDE DRAINAGE AWAY FROM BUILDINGS.
- 14. TREE STAKING AND GUYING SHALL BE DONE PER DETAILS. CONTRACTOR SHALL ENSURE THAT TREES REMAIN PLUMB AND UPRIGHT FOR THE DURATION OF
- 15. ALL TREE PITS, SHRUB BEDS, AND PREPARED PLANTING BEDS ARE TO BE COMPLETELY EXCAVATED IN ACCORDANCE WITH THE PLANTING DETAILS.
- 16. CROWN OF ROOT BALL SHALL BE HIGHER (AFTER SETTING) THAN
- ROOT BALL TO THE TOP OF MATURE GROWTH. SPREAD SHALL BE MEASURED TO THE END OF BRANCHING EQUALLY AROUND THE CROWN PROM THE CONTER OF THE TRUNK. HEASUREMENTS ARE NOT TO INCLUDE ANY TERMINAL GROWTH, SINGLE TRUNK TREES SHALL BE FREE OF 'V' CROTCHES THAT COULD BE POINTS OF MEAK LIMB STRUCTURE OR DISEASE INFESTATION.
- ADVANCE TO SCHEDULE ACCEPTANCE INSPECTION(S). CONTRACTOR MUST REPLACE ALL DEAD OR UNACCEPTABLE PLANTS DURING THE FOLLOWING
- TREES SHALL BE PLANTED DURING ACCEPTABLE PLANTING SEASONS: RETWEEN MARCH 15 AND MAY 15 AND BETWEEN AUGUST 15 AND NOVEHBER 15 OR AS APPROVED BY OWNERS REPRESENTATIVE
- 20. ALL TREE STAKING AND GUYING SHALL BE REMOVED BY THE CONTRACTOR
- NECESSARY AND THE RESIDEDED. SOME TYPE OF ANCHORING METHOD SHOULD THEN BE USED TO HOLD SEED AND MULCH IN PLACE; THIS IS ESPECIALLY IMPORTANT AROUND WATER COURSED, IN SWALES AND AREAS OF CONCENTRATED
- 22. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS
- OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. 29. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING MUST BE POSTED AS PART OF THE GRADING PERMIT (PER LOT AS APPLICABLE) IN THE AMOUNT OF \$6,300.00, BASED UPON THE REGUIRED \$300.00 PER (15) SHADE TREES AND \$150.00 PER (12) EVERGREEN TREES GENERATED BY THE PERIMETER PLANTING REQUIREMENTS OF THIS PROJECT. SEE TITLE SHEET FOR INDIVIDUAL LOT

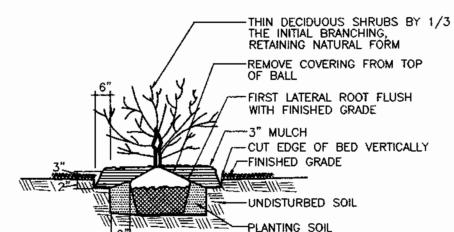
BREAKDOWN OF SURETY POSTINGS.

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT
CANO	PY TR				
CT-2	2	Acer saccharum 'GREEN MOUNTAIN'	Green Mountain Sugar Maple	21/2" - 3" cal.	B4B
CT-4	5	Quercus coccinea	Scarlet Oak	21/2" - 3" cal.	B#B
FLOH	ERIN	TREES			
FT-1	4	Cercis conodensis	Eastern Redbud	6'-8'	B4B
FT-2	3	Magnolia stellata	Star Hagnolia	6'-8'	B#B
EVER	KEEN	I TREES			
ET-1	9	Cedrus deodora	Deodar Gedar	6'-8'	B≰B
≝ ⊤-2	16	Cuppressocyparis leylandii	Leyland Cypress	5'-6'	B4B
ET-3	5	Ilex opaca	America Holly	5'-6'	B4B
SHRU	35				
5-4	4	Myrica pennsylvanica	Northern Bayberry	2' - 212'	cont
9-6	10	Viburnum carlesii	Korean Spice Viburnum	21/2" - 3"	cont

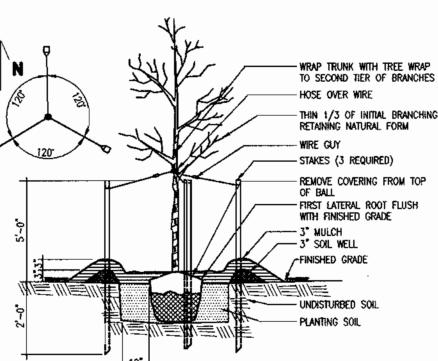
PERIMETER	PLANTS REQUIRED	PLANTS PROVIDED	EDGE TYPE
317 L.F. SFD SIDE/REAR TO ROAD (OLD WONTGOHERY ROAD)	1:50 = 6 SHADE TREES 1:40 = 8 EVERGREEN TREES	4 SHADE TREES 11 EMERSTEEN / 5 FLOWERIING TREES (2:1 RATE FOR SHADE TREES AND 10:1 FOR SHRUBS) 13 SHRUBS	8
(6) 356 L.F. SFD TO SFD	1:60 = 6 SHADE TREES	10 EMERGEEN TREES (2:1) 2 FLONERING TREES (2:1)	(
SCHEDULE 'A' PERIN	ETER LANDSCAPE ED	SE FOR SIDE YARD LOTS 97 4 99	
SCHEDULE 'A' PERIN	PLANTS REQUIRED	SE FOR SIDE YARD LOTS 97 4 99 PLANTS PROVIDED	EDGE TYPE
			EDGE TYPE

SCHEDULE 'A' PERIMETER LANDSCAPE EDSE TO TRACT BOUNDARIES

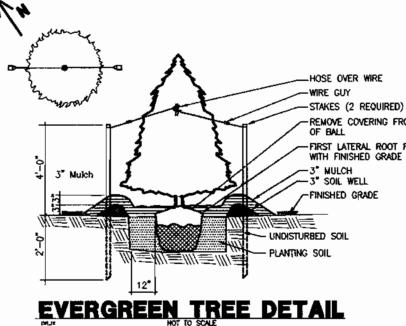
SUBSTITUTIONS MERE HADE FOR SHADE TREE REQUIREMENTS WITH THE FOLLOWING RATES: 2:1 FLOWERING AND EVERGREEN TREES, 10:1 SHRUBS

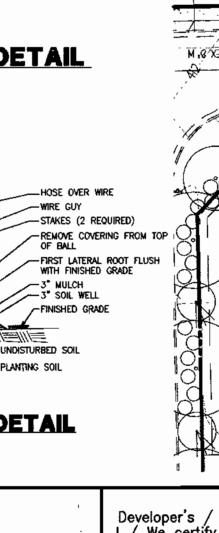


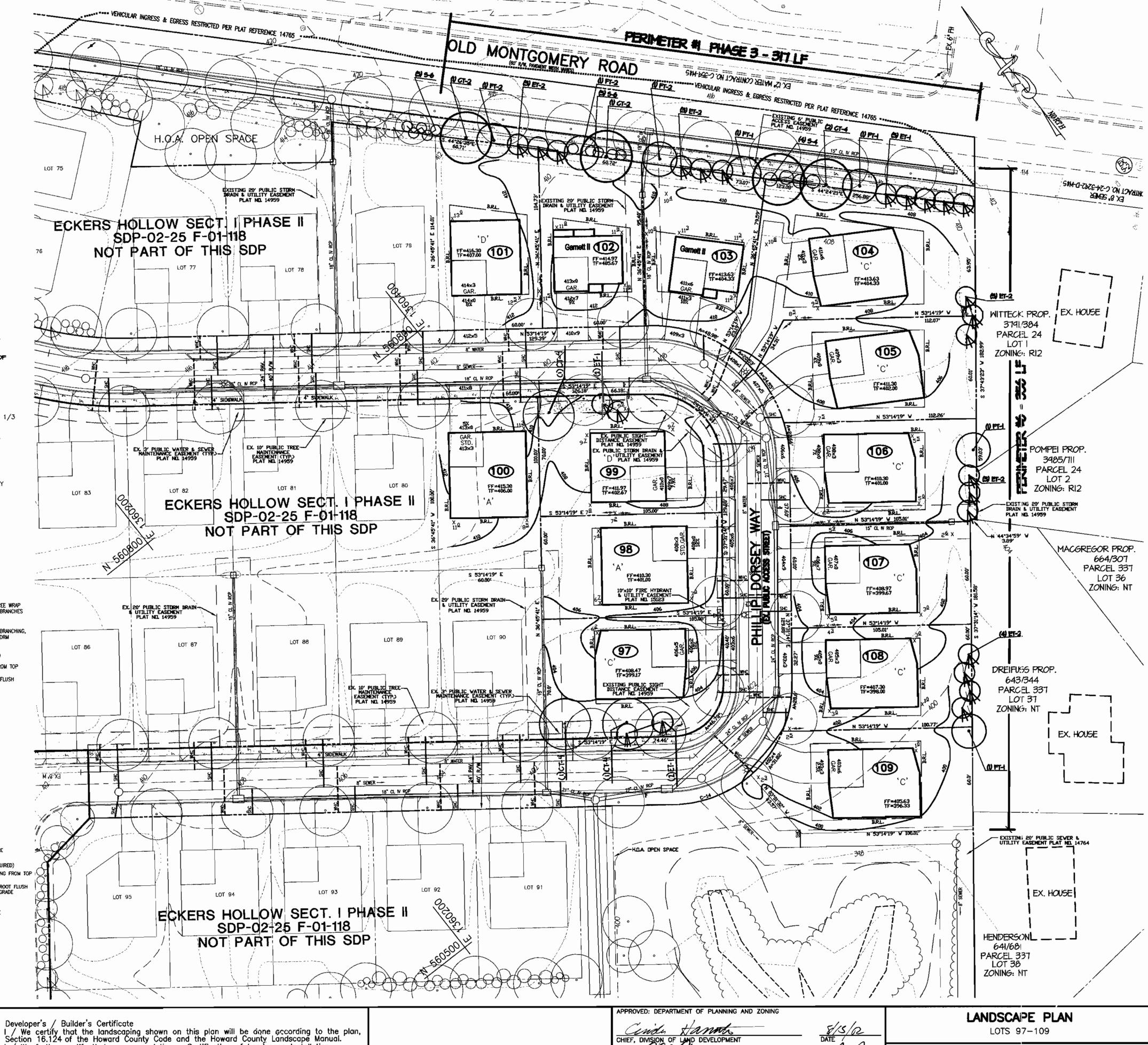
SHRUB DETAIL



DECIDUOUS TREE DETAIL









MORRIS & RITCHIE ASSOC., INC.

ENGINEERS, PLANNERS, SURVEYORS, AND LANDSCAPE ARCHITECTS 9090 JUNCTION DRIVE, SUITE 9 Annapolis Junction, Maryland (410) 792-9792 - (301) 776-1690 Fax: (410) 792-7395



SHADE TREE



FLOWERING TREE



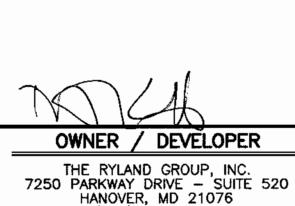


LANDSCAPE LEGEND

I / We further certify that upon completion a Certification of Landscape Installation, accompanied by an executed one year guarantee of plant materials, will be submitted to the Department of Planning and Zoning.



The owner, tenant, and / or their agents shall be responsible for maintenance of the required landscaping, including both plant materials and berms, fences and walls. All plant materials shall be maintained in good growing condition, and when necessary, replaced with new materials to ensure continued compliance with applicable regulations. All other required landscaping shall be permanently maintained in good condition, and when necessary, repaired or replaced.



(410) 712-7012

march V. m.leypel-PERMIT INFORMATION CHART SECTION/PHASE SUBDIVISION ECKERS HOLLOW SECT. I PHASE III 97-109 BLOCK NO. ZONE TAX/ZONE MAP | ELEC. DIST. CENSUS T

SEWER CODE

5333600

6066.03

RSC

10 & 11

15122-15123

WATER CODE

ECKERS HOLLOW SECTION I -- PHASE III

LOTS 97-109

PROPOSED SINGLE FAMILY DETACHED DWELLING TAX MAP 36, PARCEL 23, BLOCKS 10 & 11 SIXTH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND SCALE: 1"=30" DATE: 7/26/02
SHEET 5 OF 5