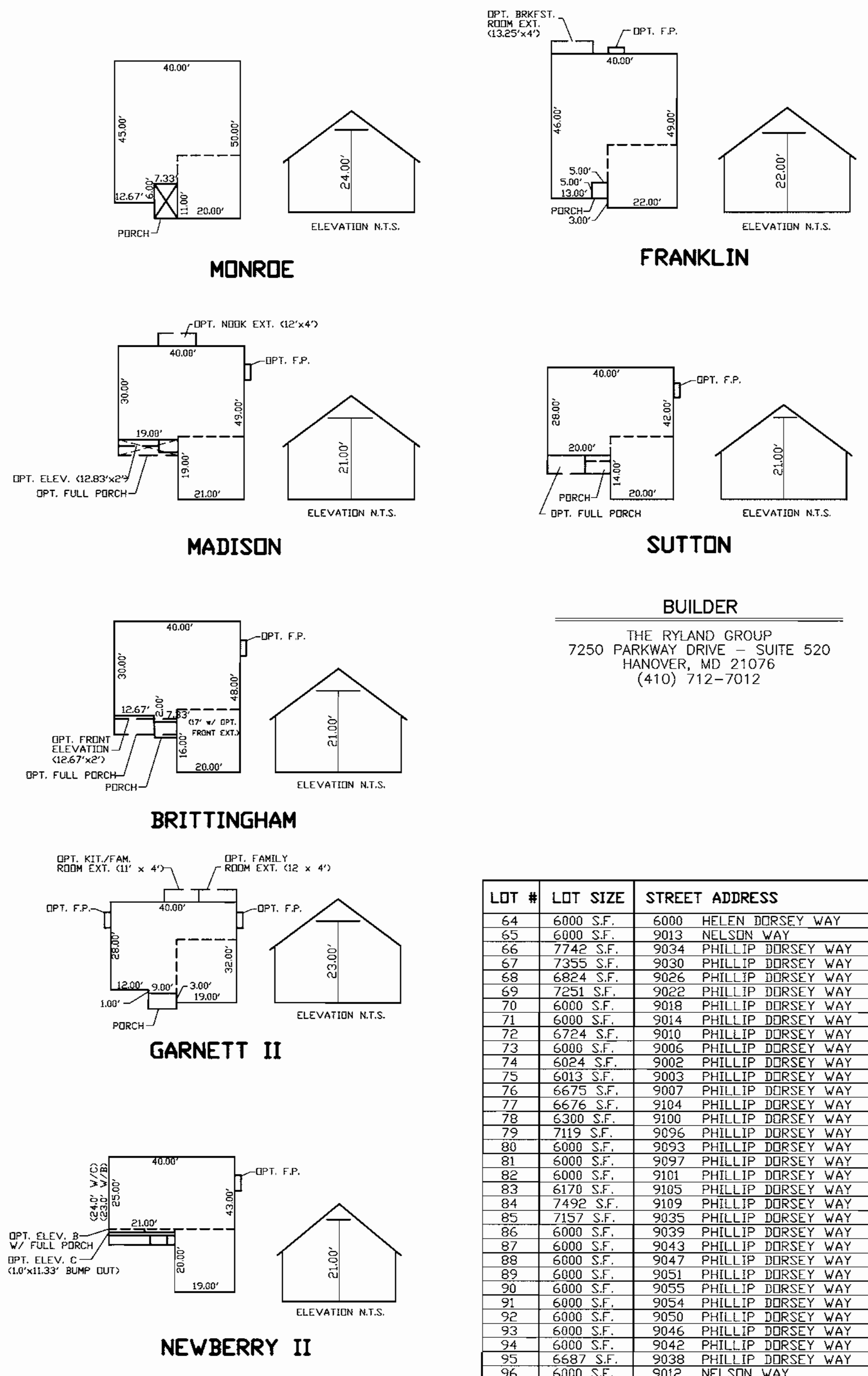


TYPICAL FOOTPRINTS



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

LOT #	LOT SIZE	STREET ADDRESS	SHC INV @ PROP. LINE	MIN. BSMT ELEV.
64	6000 S.F.	6000 HELEN DORSEY WAY	406.62	410.52
65	6000 S.F.	9013 NELSON WAY	406.46	410.36
66	7742 S.F.	9034 PHILLIP DORSEY WAY	407.50	411.07
67	7355 S.F.	9030 PHILLIP DORSEY WAY	407.08	412.32
68	6824 S.F.	9026 PHILLIP DORSEY WAY	407.09	411.85
69	7251 S.F.	9022 PHILLIP DORSEY WAY	406.54	411.18
70	6000 S.F.	9018 PHILLIP DORSEY WAY	407.89	413.30
71	6000 S.F.	9014 PHILLIP DORSEY WAY	410.97	415.64
72	6724 S.F.	9010 PHILLIP DORSEY WAY	410.01	414.66
73	6000 S.F.	9006 PHILLIP DORSEY WAY	409.49	414.13
74	6024 S.F.	9002 PHILLIP DORSEY WAY	408.71	413.37
75	6012 S.F.	9003 PHILLIP DORSEY WAY	408.75	412.32
76	6675 S.F.	9007 PHILLIP DORSEY WAY	409.03	413.75
77	6676 S.F.	9104 PHILLIP DORSEY WAY	405.44	410.14
78	6300 S.F.	9100 PHILLIP DORSEY WAY	402.13	408.84
79	7119 S.F.	9096 PHILLIP DORSEY WAY	401.48	406.18
80	6000 S.F.	9093 PHILLIP DORSEY WAY	401.46	406.10
81	6000 S.F.	9097 PHILLIP DORSEY WAY	402.05	406.69
82	6000 S.F.	9101 PHILLIP DORSEY WAY	405.66	410.30
83	6170 S.F.	9105 PHILLIP DORSEY WAY	406.25	410.89
84	7492 S.F.	9109 PHILLIP DORSEY WAY	407.72	412.47
85	7157 S.F.	9025 PHILLIP DORSEY WAY	406.09	409.66
86	6000 S.F.	9039 PHILLIP DORSEY WAY	402.39	407.03
87	6000 S.F.	9043 PHILLIP DORSEY WAY	400.52	405.17
88	6000 S.F.	9047 PHILLIP DORSEY WAY	398.50	403.14
89	6000 S.F.	9051 PHILLIP DORSEY WAY	396.62	401.26
90	6000 S.F.	9055 PHILLIP DORSEY WAY	394.91	399.55
91	6000 S.F.	9054 PHILLIP DORSEY WAY	393.93	397.53
92	6000 S.F.	9050 PHILLIP DORSEY WAY	395.80	399.40
93	6000 S.F.	9046 PHILLIP DORSEY WAY	397.67	401.27
94	6000 S.F.	9042 PHILLIP DORSEY WAY	395.54	403.14
95	6687 S.F.	9038 PHILLIP DORSEY WAY	402.14	405.78
96	6000 S.F.	9012 NELSON WAY	406.24	410.14

NOTE: TOP OF FOOTING ELEVATION (TF) AS NOTED ON SITE PLANS, IS 4" BELOW THE PROPOSED BASEMENT ELEVATION.

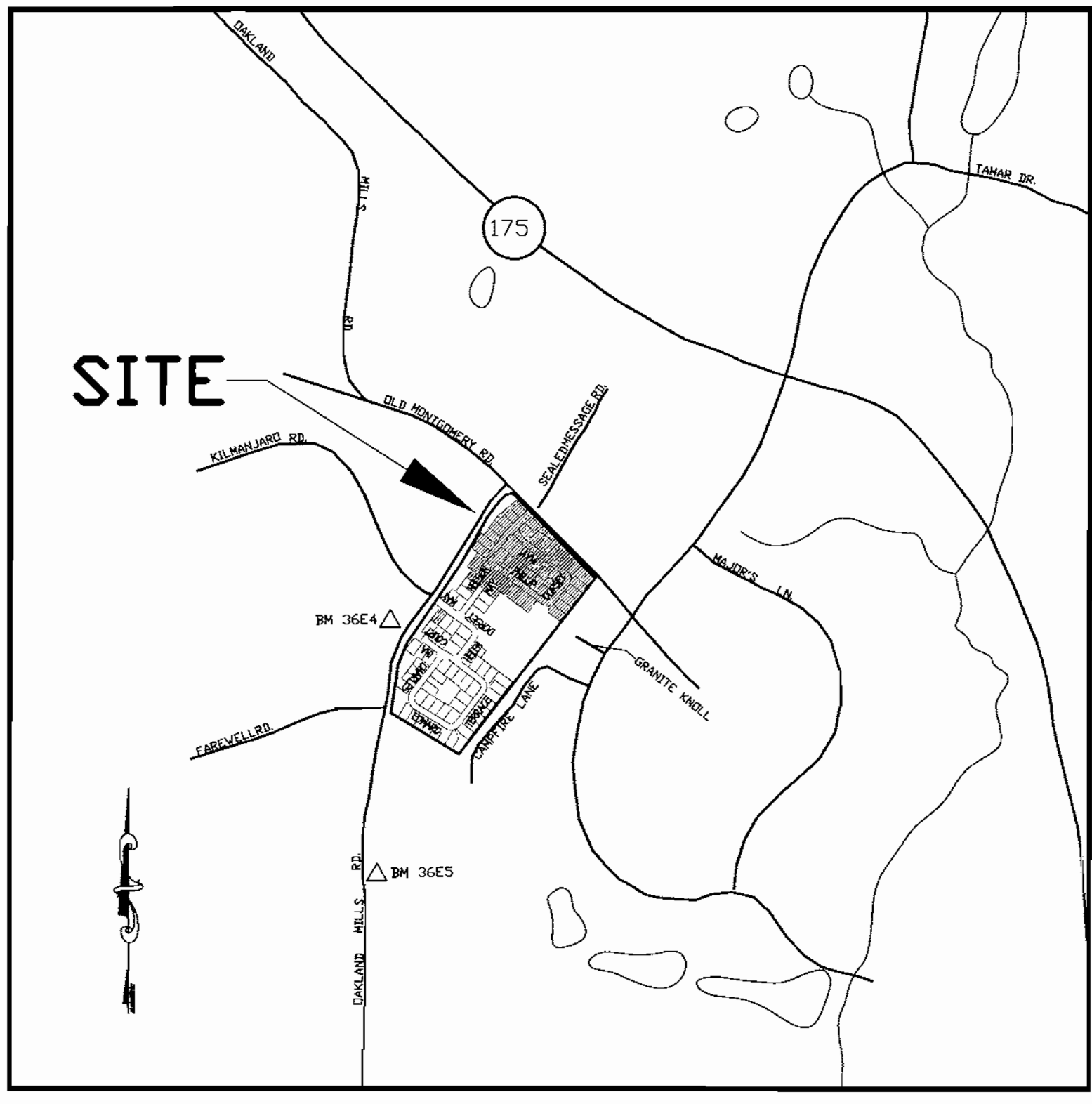
SURVEY CONTROL STATIONS

BENCHMARK #1 - 36E4
 N 560,264.364 E 1,359,398.707
 ELEVATION = 414.194'

BENCHMARK #2 - 36E5
 N 558,664.719 E 1,359,171.264
 ELEVATION = 406.852'

INDEX OF SHEETS

- 1.) TITLE SHEET
- 2.) SITE DEVELOPMENT PLAN SHEET (LOTS 64-67, 91-96)
- 3.) SITE DEVELOPMENT PLAN SHEET (LOTS 68-90, OPEN SPACE LOT 63)
- 4.) SEDIMENT CONTROL NOTES & DETAILS
- 5.) SEDIMENT CONTROL NOTES & DETAILS

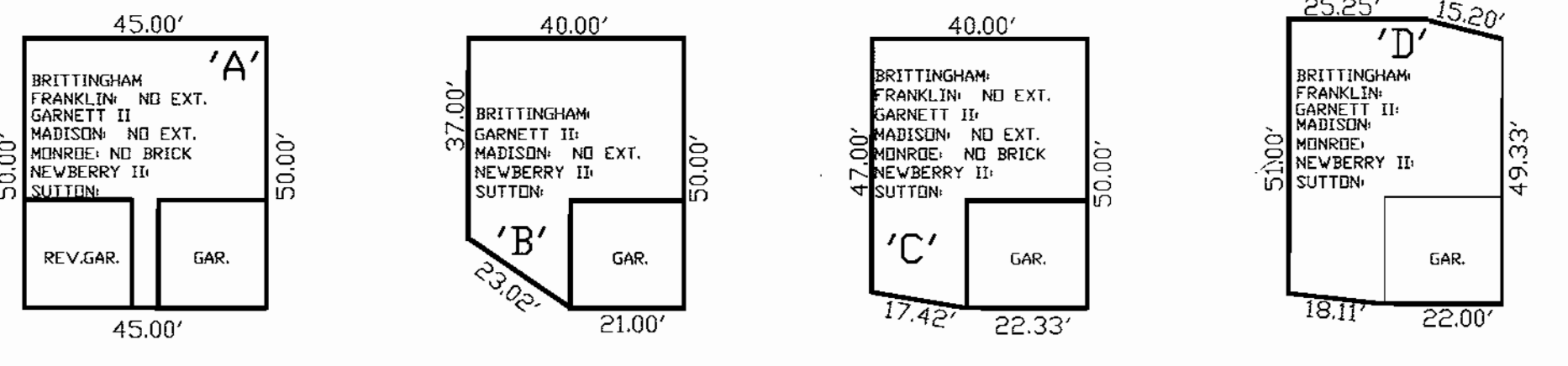


VICINITY MAP
 SCALE 1" = 1200'

LEGEND		LEGEND	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
FF=412.67	FINISHED FLOOR ELEVATION	1" WATER	EXISTING WATER MAINS AND FIRE HYDRANTS
TF=402.33	FINISHED TOP OF FOOTING ELEVATION	1" STORM	EXISTING STORM DRAINS
VE 4265	PROPOSED GROUND ELEVATION AT WALKOUT CONDITION	1" SEWER	EXISTING SEWER LINES
412x5	GROUND SPOT ELEVATION	STREET TREES & OTHER LANDSCAPING PER APPROVED F-01-118	
STD. or REV.	UNIT DESIGNATION FROM ARCHITECTURAL PLAN	STABILIZED CONSTRUCTION ENTRANCE	
SR.	NUMBER OF RISERS - 7 1/2" EACH (INCLUDING 2 RISERS INTO HOUSE)	EXISTING SILT FENCE OR SUPER SILT FENCE	
W/W	WINDOW WELL REQUIRED FOR BASEMENT WINDOWS IN REAR	SILT FENCE OR SUPER SILT FENCE	
412	PROPOSED CONTOUR	EXISTING EARTH DIKE	
42	EXISTING GROUND CONTOUR	EARTH DIKE	
---	DRAINAGE FLOW ARROW	LIMIT OF DISTURBANCE	
---	PROPERTY LINE	STREET LIGHT	
---	RIGHT-OF-WAY	STREET SIGN	
---	EXISTING CURB & GUTTER		
40	HOUSE NUMBERS		

GENERAL NOTES

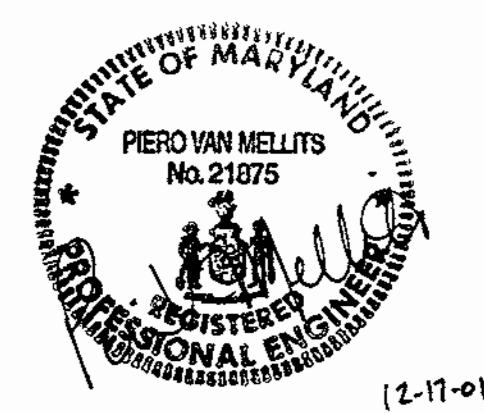
- 1.) AREA INCLUDED IN THIS SUBMISSION IS 8.57 +/- ACRES.
- 2.) PRESENT ZONING IS R-SC PER 10/18/93 COMPREHENSIVE ZONING PLAN.
- 3.) PROPOSED USE OF PROPERTY IS SINGLE FAMILY DETACHED HOUSES.
- 4.) TOTAL NUMBER OF BUILDABLE LOTS INCLUDED IN THIS SUBMISSION IS 33.
- 5.) MINIMUM LOT SIZE IS 6000 S.F.
- 6.) DEPARTMENT OF PLANNING AND ZONING REFERENCE FILE NUMBERS ARE: S-00-02, F-01-13, F-01-02, F-01-22, F-01-18.
- 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, ROAD & STORM DRAIN, STREET TREE, GRADING AND SEDIMENT CONTROL PLANS.
- 10.) THE COORDINATES SHOWN HEREIN 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 PRIOR TO START OF WORK.
- 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 POND IS AN EXTENDED DETENTION FACILITY UNDER THE MAINTENANCE AND OWNERSHIP OF HOWARD COUNTY, DEPARTMENT OF PUBLIC WORKS.
- 15.) THIS PLAN IS FOR HOUSE SITING AND LOT GRADING ONLY. SEE THE APPROVED CONSTRUCTION DRAWINGS FOR INSTALLATION OF UTILITIES, ROADWAYS, AND PUBLIC WALKWAYS.
- 16.) EXCEPT WHERE NOTED, ALL SEDIMENT CONTROLS INSTALLED UNDER GP-01-78 AND FP-01-22 AND F-01-118 SHALL REMAIN AS PART OF THIS PLAN EXCEPT WHERE NOTED TO BE REMOVED.
- 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, STREAMS 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 LANDSCAPING WAS COVERED UNDER F-01-118
- 21.) FOREST CONSERVATION OBLIGATIONS FOR THIS PROJECT WERE ADDRESSED WITH THE APPROVAL OF FINAL PLAN F-01-22.
- 22.) ALL SWALES, INCLUDING THOSE BETWEEN HOUSES ARE TO BE STABILIZED WITH EROSION CONTROL MATTING. SEE INSTALLATION DETAIL ON SHEET 4.
- 23.) INLET PROTECTION AS SHOWN ON THESE PLANS IS TO BE INSTALLED ONLY IF EXISTING SEDIMENT BASIN IS CONVERTED TO A SWM FACILITY PRIOR TO HOUSE CONSTRUCTION OR AS REQUESTED BY SEDIMENT CONTROL INSPECTOR.



Sequence of Construction

1. Obtain Grading Permit. (1 Week)
2. Inspect & repair existing sediment control measures per F-01-118, F-01-22 and GP-01-78. (8 days)
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: Bay windows, window wells, oriels, vestibules, balconies, chimneys, heating/air conditioning units and exterior stairways or ramps if not more than sixteen feet in width may project not more than four feet into any required setback area. Open or enclosed porches or decks may project not more than 10' feet into required front or rear yard setback area. This, in accordance with Section 128 of the Howard County Zoning Regulations.



MRA
 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

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.

Piero Van Mellits 12-17-01
 SIGNATURE OF ENGINEER (PRINT NAME BELOW SIGNATURE) DATE
 PIERO VAN MELLITS

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.

Edward H. Gold 12-17-01
 SIGNATURE OF DEVELOPER (PRINT NAME BELOW SIGNATURE) DATE
 EDWARD H. GOLD, OPERATIONAL VICE PRESIDENT

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.

Jim M. Gue 12/21/01
 U.S.D.A. - NATURAL RESOURCES CONSERVATION SERVICE DATE
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

John R. K. K. K. 12/21/01
 HOWARD SCD DATE

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

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Cindy Hammett 1/9/02
 CHIEF, DIVISION OF PLANNING AND DEVELOPMENT DATE
John Deane 1/9/02
 CHIEF, DEVELOPMENT, ENGINEERING DIVISION DATE
James P. Smith 1/11/02
 DIRECTOR DATE

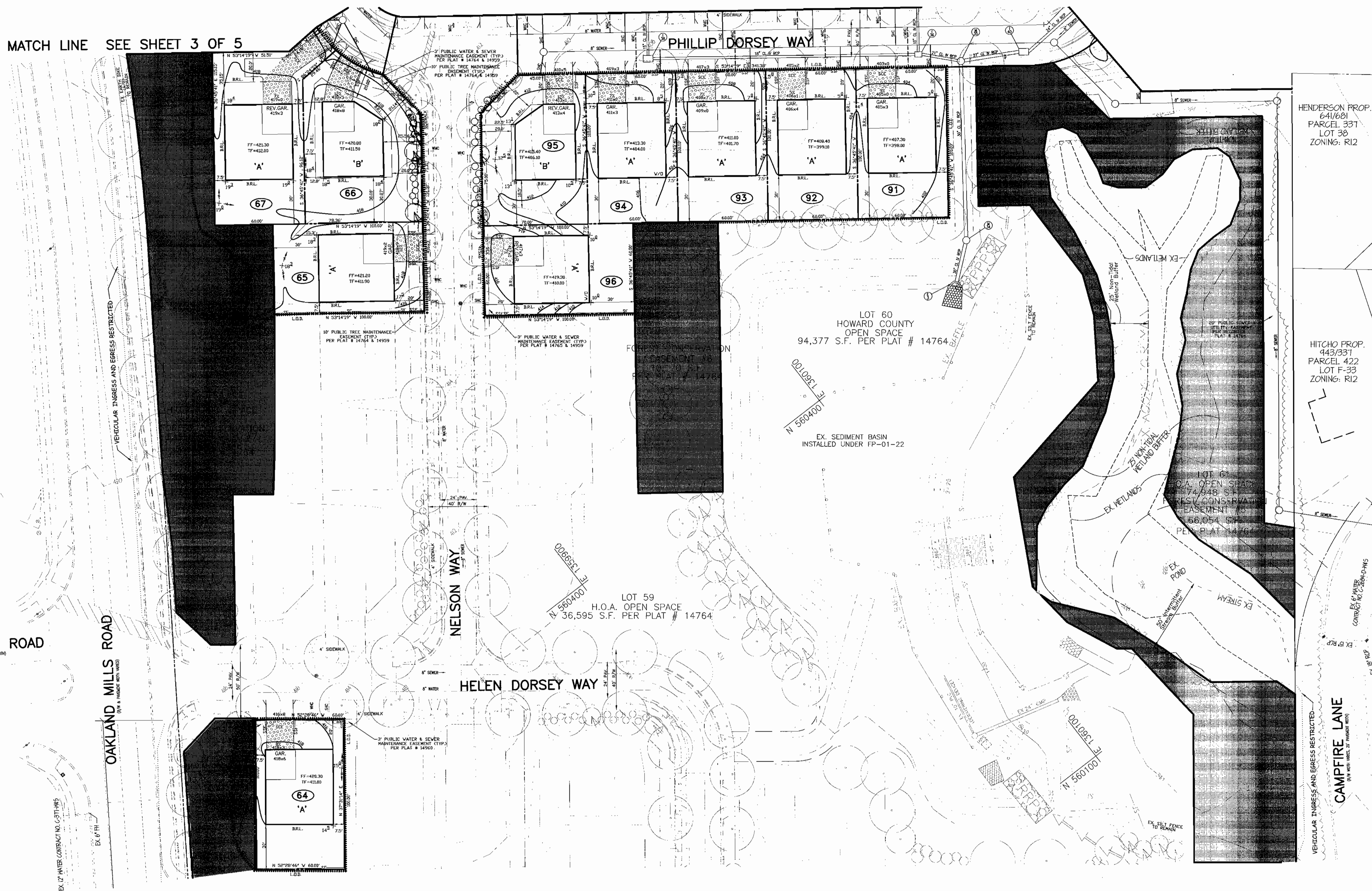
SUBDIVISION ECKERS HOLLOW	SECTION / PHASE I / II	LOT NO. 63-96
PLAT NO. 14958-14960	BLOCK NO. 10 & 11	ZONE RSC
TAX/PARCEL 36 / 23	ELEC. DIST. 6TH	CENSUS TR. 6066.02
WATER CODE E04	SEWER CODE 5333600	

TITLE SHEET

ECKERS HOLLOW
 SECTION I - PHASE II

LOTS 63-96
 & NON-BUILDABLE BULK PARCEL C & D
 TAX MAP 36, PARCEL 23, BLOCKS 10 & 11
 SIXTH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
 SCALE: 1"=30' DATE: 11/11/01
 SHEET 1 OF 5

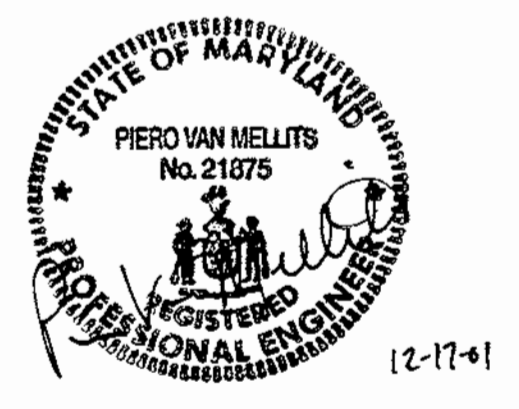
MATCH LINE SEE SHEET 3 OF 5



HENDERSON PROP.
641/601
PARCEL 331
LOT 30
ZONING: R12

HITCHO PROP.
443/331
PARCEL 422
LOT F-33
ZONING: R12

CAMPFIRE LANE
(1/4" = 1' PERMANENT WIDTH)



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9090 JUNCTION DRIVE, SUITE 9
ANNAPOLIS JUNCTION, MARYLAND
(410) 792-9792 (301) 776-1690
Fax: (410) 792-7395

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.

Piero V. Mellits 12-17-01
SIGNATURE OF ENGINEER (PRINT NAME BELOW SIGNATURE) DATE
PIERO VAN MELLITS

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 PERSONS ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

Edward J. Gold 12-17-01
SIGNATURE OF DEVELOPER (PRINT NAME BELOW SIGNATURE) DATE
EDWARD J. GOLD, OPERATIONAL VICE PRESIDENT

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.

John R. Rabinson 12/26/01
U.S.A. - NATURAL RESOURCES CONSERVATION SERVICE DATE
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

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

APPROVED: DEPARTMENT OF PLANNING AND ZONING

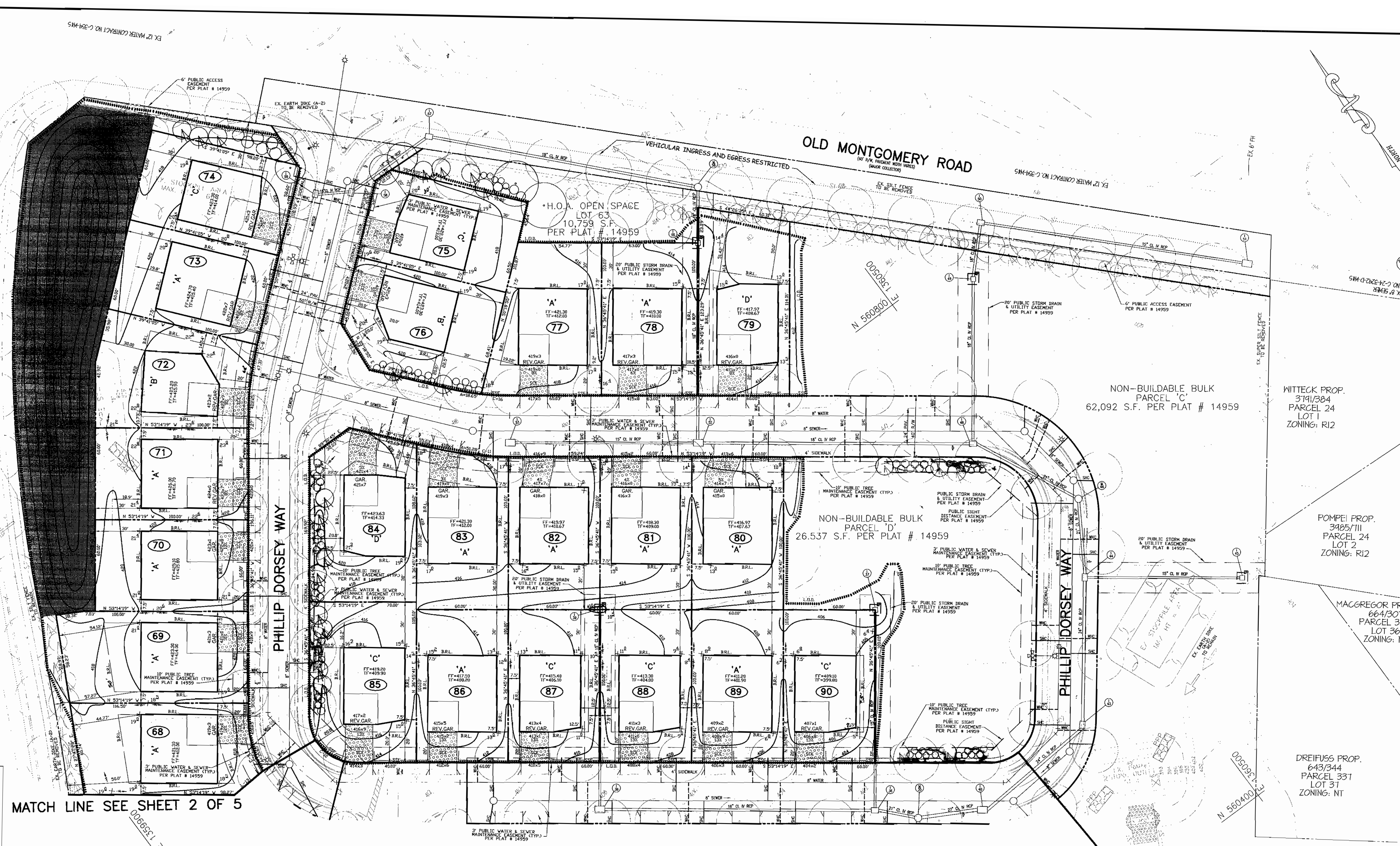
Andy Lamb 1/9/02
CHIEF, DIVISION OF LAND DEVELOPMENT DATE
William Deacon 1/9/02
CHIEF, DEVELOPMENT ENGINEERING DIVISION & DATE
Michael J. Sauer 1/16/02
DATE

SUBDIVISION	SECTION / PHASE	LOT NO.
ECKERS HOLLOW	I / II	63-96
PLAT NO.	BLOCK NO.	ZONE
14958-14960	10 & 11	RSC
TAX/PARCEL	ELEC. DIST.	CENSUS TR.
36 / 23	61H	8066.02
WATER CODE	SEWER CODE	
E04	5335600	

SITE DEVELOPMENT PLAN
LOTS 64-67, 91-96

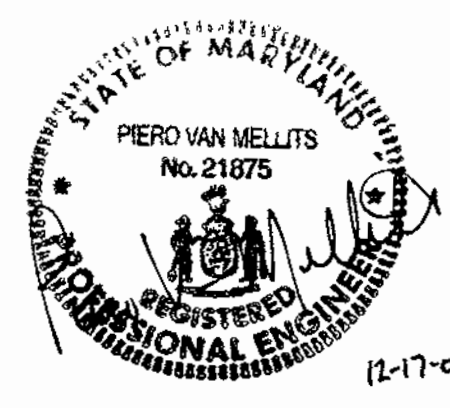
ECKERS HOLLOW
SECTION I - PHASE II

LOTS 63-96
& NON-BUILDABLE BULK PARCELS C & D
TAX MAP 36 PARCEL 23, BLOCKS 10 & 11
SIXTH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: 1" = 30' DATE: 11/1/01
SHEET 2 OF 5



MATCH LINE SEE SHEET 2 OF 5

MATCH LINE SEE SHEET 2 OF 5



MRA
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

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: *Piero Van Mellits* DATE: 12-17-01
 SIGNATURE OF ENGINEER (PRINT NAME BELOW SIGNATURE) DATE
 PIERO VAN MELLITS
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 PERSONNEL ON SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.
 Signature: *Edward W. Gold* DATE: 12-17-01
 SIGNATURE OF DEVELOPER (PRINT NAME BELOW SIGNATURE) DATE
 EDWARD W. GOLD, OPERATIONAL VICE PRESIDENT

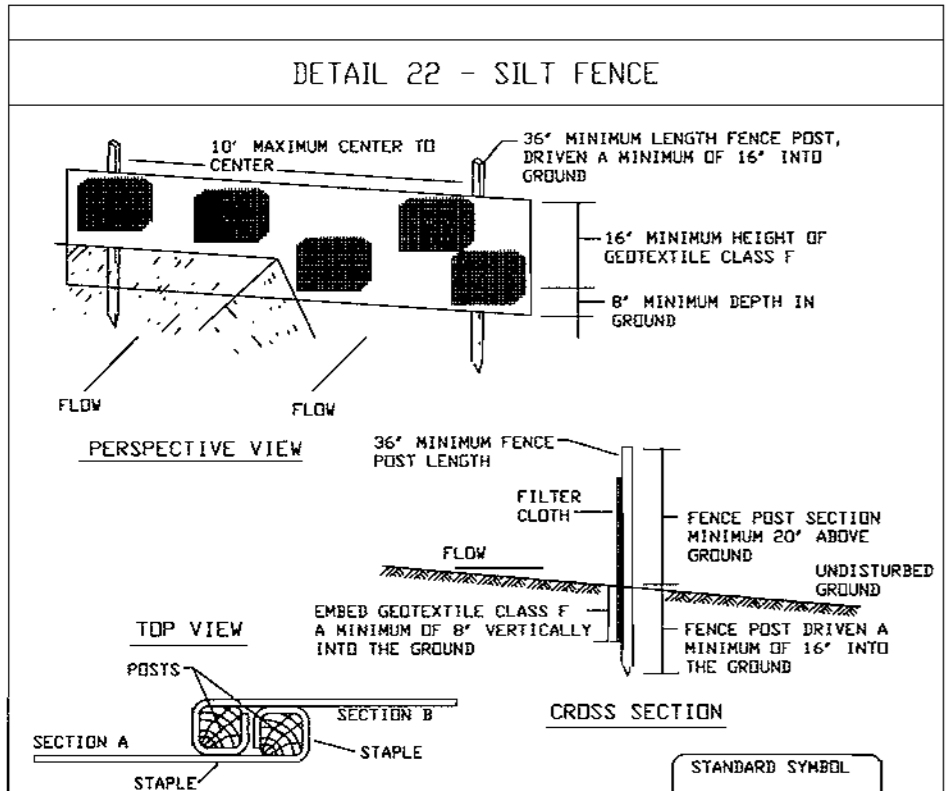
REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.
 Signature: *Jim Murray* DATE: 12/26/01
 Signature: *John K. Hamilton* DATE: 12/26/01
 Signature: *John K. Hamilton* DATE: 12/26/01
 Signature: *John K. Hamilton* DATE: 12/26/01
OWNER / DEVELOPER
 THE RYLAND GROUP, INC.
 7250 PARKWAY DRIVE - SUITE 520
 HANOVER, MD 21076
 (410) 712-7012

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Signature: *Linda Hamilton* DATE: 1/9/02
 Signature: *John Hamilton* DATE: 1/9/02
 Signature: *John Hamilton* DATE: 1/16/02
SUBDIVISION
 ECKERS HOLLOW

PLAT NO.	BLOCK NO.	ZONE	TAX/PARCEL	ELEC. DIST.	CENSUS TR.
14958-14960	10 & 11	RSC	36 / 23	6TH	6066.02

SECTION / PHASE
 I / II
LOT NO.
 63-96
SEWER CODE
 E04
5333600

SITE DEVELOPMENT PLAN
 LOTS 68-90, OPEN SPACE LOT 63
ECKERS HOLLOW
 SECTION I - PHASE II
 LOTS 63-96
 & NON-BUILDABLE BULK PARCELS C & D
 TAX MAP 36, PARCEL 23, BLOCKS 10 & 11
 SIXTH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
 SCALE: 1"=30'
 SHEET 3 OF 5

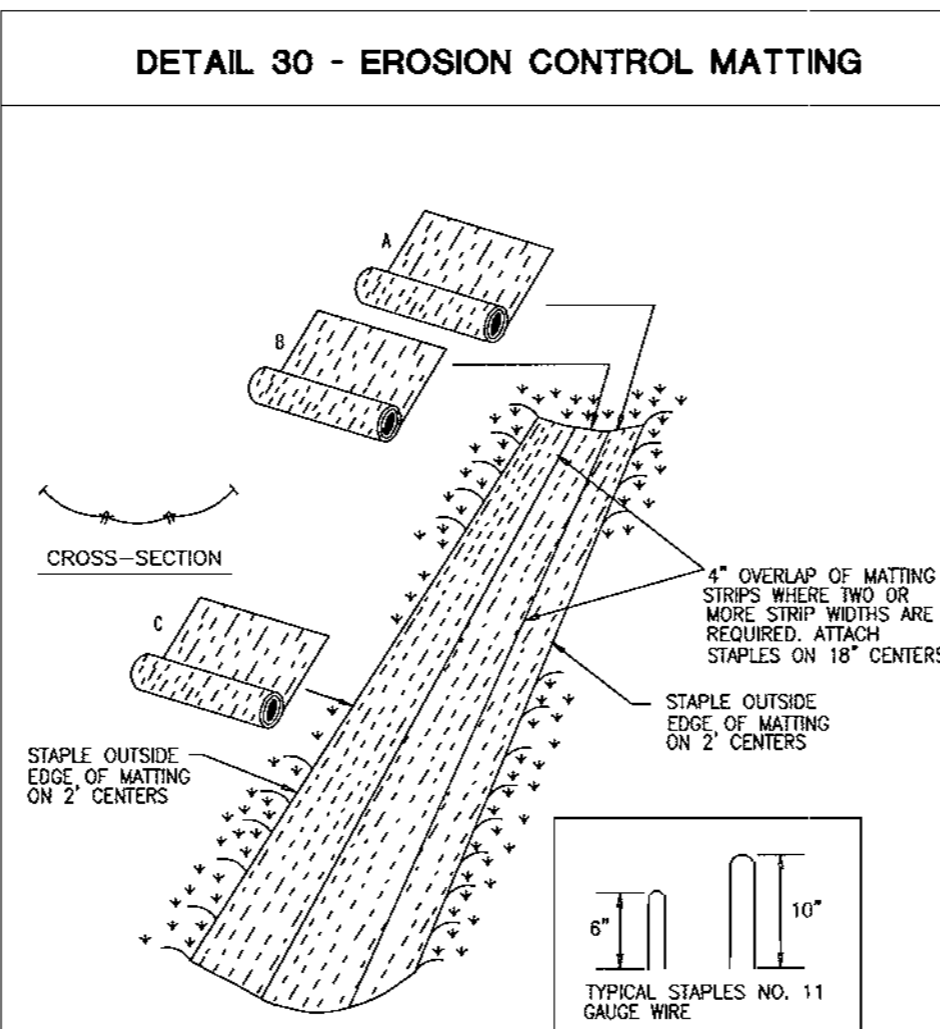


SILT FENCE

Silt Fence Design Criteria

Slope Steepness	(Maximum)	
	Slope Length	Silt Fence Length
Flatter than 5:1	unlimited	unlimited
5:1 to 10:1	155 feet	1,000 feet
10:1 to 5:1	100 feet	750 feet
5:1 to 3:1	60 feet	500 feet
3:1 to 2:1	40 feet	250 feet
2:1 and steeper	20 feet	125 feet

Note: In areas of less than 2% slope and sandy soils (USDA general classification system, soil Class A) maximum slope length and silt fence length will be unlimited. In those areas a silt fence may be the only perimeter control required.



EROSION CONTROL MATTING

CONSTRUCTION SPECIFICATIONS

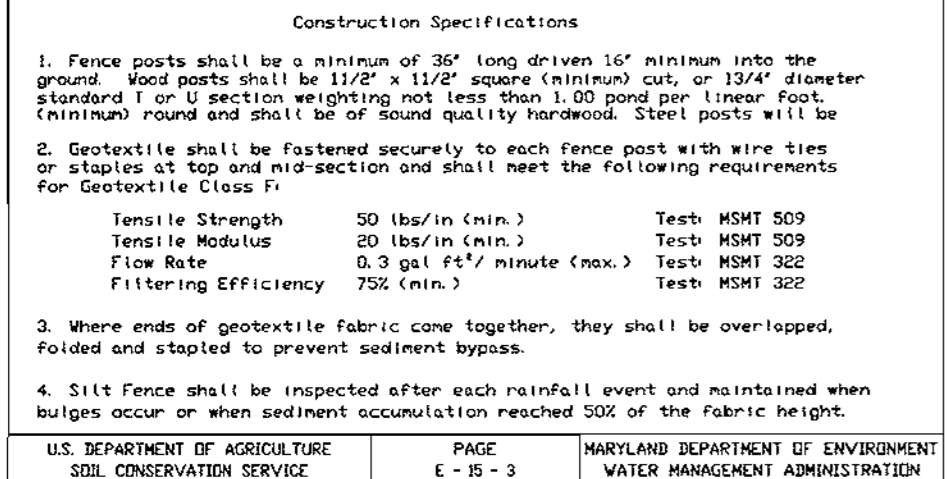
- KEY-IN THE MATTING BY PLACING THE TOP ENDS OF THE MATTING IN A NARROW TRENCH, 6" IN DEPTH. BACKFILL THE TRENCH AND TAMP FIRMLY TO CONFORM TO THE CHANNEL CROSS-SECTION. SECURE WITH A ROW OF STAPLES ABOUT 4" DOWN SLOPE FROM THE TRENCH. SPACING BETWEEN STAPLES IS 6".
- STAPLES SHALL BE PLACED 2' APART WITH 4 ROWS FOR EACH STRIP, 2 OUTER ROWS, AND 2 ALTERNATING ROWS DOWN THE CENTER.
- BEFORE STAPLING THE OUTER EDGES OF THE MATTING, MAKE SURE THE MATTING IS SMOOTH AND IN FIRM CONTACT WITH THE SOIL.
- STAPLES SHALL BE PLACED 2' APART WITH 4 ROWS FOR EACH STRIP, 2 OUTER ROWS, AND 2 ALTERNATING ROWS DOWN THE CENTER.
- 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". STAPLES SHALL OVERLAP THE OVERLAP WITH A DOUBLE ROW OF STAPLES SPACED 6" APART IN A STAGGERED PATTERN ON EITHER SIDE.
- THE DISCHARGE END OF THE MATTING LINE SHOULD BE SIMILARLY EFFECTED BY THE FLOW MUST BE KEPT IN.

4" OVERLAP OF MATTING STRIPS WHERE TWO OR MORE STRIP WIDTHS ARE REQUIRED. ATTACH STAPLES ON 16" CENTERS

STAPLE OUTSIDE EDGE OF MATTING ON 2" CENTERS

6" TYPICAL STAPLES NO. 11 GAUGE WIRE

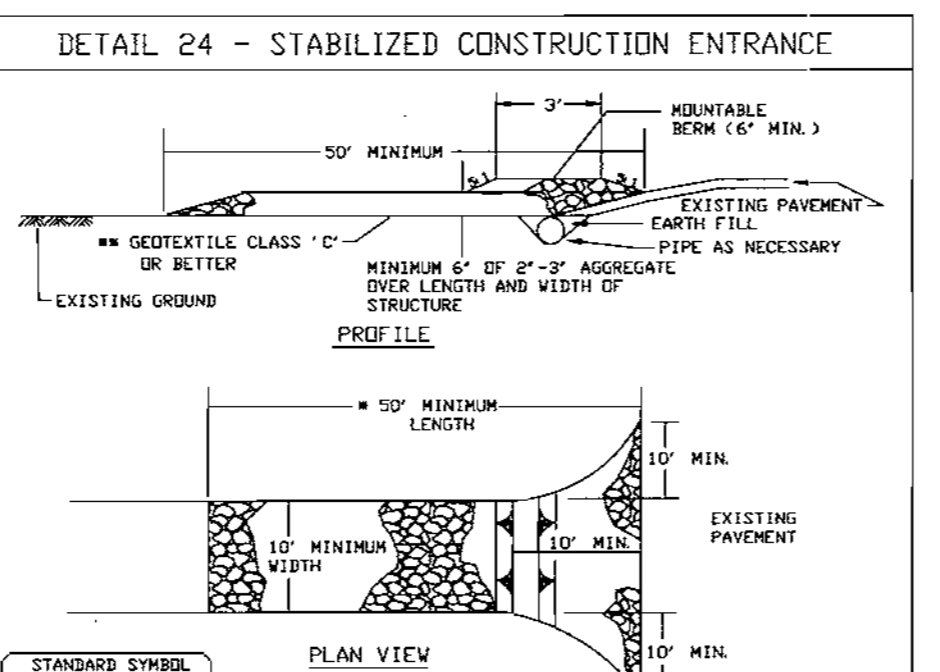
NOTE: IF FLOW WILL ENTER FROM THE EDGE OF THE MATTING THEN THE AREA EFFECTED BY THE FLOW MUST BE KEPT IN.



DETAIL 33 - SUPER SILT FENCE

Design Criteria

Slope	Slope Steepness	Slope Length (Maximum)	Silt Fence Length (Maximum)
0 - 10%	0 - 10:1	Unlimited	Unlimited
10 - 20%	10:1 - 5:1	200 Feet	1,500 Feet
20 - 33%	5:1 - 3:1	100 Feet	1,000 Feet
33 - 50%	3:1 - 2:1	100 Feet	500 Feet
50% +	2:1 +	50 Feet	250 Feet



SEDIMENT CONTROL NOTES

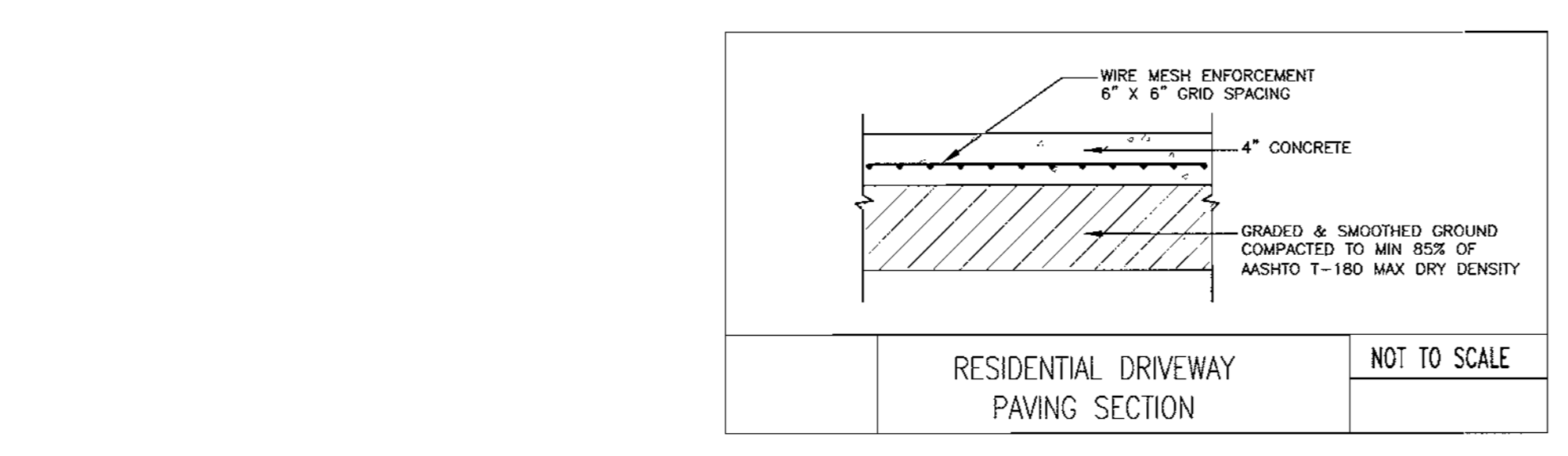
- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313P-1855).
- ALL VEGETATIVE AND STRUCTURAL TREATMENTS TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERE TO.
- 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, 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/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- 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), SOIL (SEC. 54), TEMPORARY SEEDING (SEC. 50), AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERMETER EROSION AND SEDIMENT CONTROL STRUCTURES, 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.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIECE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

DETAIL 33 - SUPER SILT FENCE

Construction Specifications

- Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6" fence shall be used, substituting 48" fabric and 6" length posts.
- Chain link fence shall be fastened to the fence posts with wire ties. The lower tension wire, brace and truss rods, drive anchors and post caps are not required except on the ends of the fence.
- Filter cloth shall be fastened to the chain link fence with ties spaced every 24" at the top and mid section.
- Filter cloth shall be embedded a minimum of 6" into the ground.
- When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
- Maintenance shall be performed as needed and silt bulges removed when "bulges" develop in the silt fence, or when silt reaches 3/4 of fence height.
- Filter cloth shall be fastened to each fence post with wire ties or staples at top and mid section and shall meet the following requirements for Geotextile Class F:
Tensile Strength 50 lbs/in (min.) Test: MHT 509
Tensile Modulus 20 lbs/in (min.) Test: MHT 509
Flow Rate 0.3 gal/10 min (max.) Test: MHT 302
Filtering Efficiency 75% (min.) Test: MHT 302

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE 6-33-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



MORRIS & RITCHIE ASSOC., INC.
ENGINEERS, PLANNERS, SURVEYORS, AND LANDSCAPE ARCHITECTS
9090 JUNCTION DRIVE, SUITE 9
Annapolis Junction, Maryland
(410) 792-9792 • (301) 775-1690
Fax: (410) 792-7395

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.

Piero Van Mellits 12-17-01
SIGNATURE OF ENGINEER (PRINT NAME BELOW SIGNATURE) DATE
PIERO VAN MELLITS

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 AN APPROPRIATELY 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.

12-17-01
SIGNATURE OF DEVELOPER (PRINT NAME BELOW SIGNATURE) DATE
REYFARD H. COLIER, OPERATIONAL VICE PRESIDENT

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS:

Jim Myler 12/26/01
U.D.A.-NATURAL SOIL CONSERVATION SERVICE DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

John R. Hunter 12/26/01
HOWARD SCD DATE

OWNER / DEVELOPER

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

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Jana Hamblin 1/9/02
CHIEF, DIVISION OF PLANNING AND DEVELOPMENT DATE

Christina ... 1/9/02
CHIEF, DEVELOPMENT ENGINEERING DIVISION & DATE

... 1/16/02
DIRECTOR DATE

SUBDIVISION SECTION / PHASE LOT NO.
ECKERS HOLLOW I / II 63-96

PLAT NO.	BLOCK NO.	ZONE	TAX/PARCEL	ELEC. DIST.	CENSUS TR.
14958-14960	10 & 11	RSC	36 / 23	61H	6066.02
WATER CODE -	SEWER CODE -				
E04					5333600

TEMPORARY SEEDING NOTES

PERMANENT SEEDING NOTES

ALL DISTURBED AREA SHALL BE STABILIZED AS FOLLOWS:

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

SOIL AMENDMENTS:
APPLY TWO TONS PER ACRE DOLOMITE 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 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 FERTILIZER.

SEEDING:
FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 15 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 WEEPIING 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 OR 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 HYDROSEEDED.

MULCHING:
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 AREAS ON SLOPES 8 FEET OR HIGHER USE 348 GALLONS PER ACRE (8 GAL./1,000 SQ. F.T.) FOR ANCHORING.

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

*FOR PUBLIC SPACES SUBSTITUTE CHEMUNG CROWWEATCH 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 APRIL 30.

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, DISING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

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

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 WEPIING LOVEGRASS (0.7 LBS./1,000 SQ.F.T.) FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28. PROJECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING OR USE 500.

MULCHING:
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 216 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.

STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

VEGETATIVE STABILIZATION METHODS AND MATERIALS

A. SITE PREPARATION

- 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. FINISH 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 AREAS 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.
- FERTILIZERS SHALL BE UNIFORM IN COMPOSITION, FREE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROVED EQUIPMENT. MANAGERS MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL FROM THE APPROPRIATE 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 WARRANTIES OF THE PRODUCER.
- 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 DISING OR OTHER SUITABLE MEANS.

C. SEEDBED PREPARATION

- TEMPORARY SEEDING
 - 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 REFRIGERATED 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.
 - APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.
 - INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 - 5" OF SOIL BY DISING OR OTHER SUITABLE MEANS.
- PERMANENT SEEDING
 - 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)
 - SOIL SHALL CONTAIN LESS THAN 40% CLAY BUT ENOUGH FINE GRAINED MATERIAL TO HOLD WATER TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE. AN EXCEPTION IS IF LOVEGRASS OR SERPENA LESPEDEA IS TO BE PLANTED, THEN A SANDY SOIL (< 30% SILT PLUS CLAY) WOULD BE ACCEPTABLE.
 - SOIL SHALL CONTAIN 1.5% MINIMUM ORGANIC MATTER BY WEIGHT.
 - SOIL MUST CONTAIN SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.
 - IF THESE CONDITIONS CANNOT BE MET BY SOILS ON SITE, ADDING TOPSOIL IS REQUIRED IN ACCORDANCE WITH SECTION 21 STANDARD AND SPECIFICATION FOR TOPSOIL.
 - AREAS PREVIOUSLY GRADED IN CONFORMANCE WITH THE DRAWINGS SHALL BE MAINTAINED IN A TRUE AND EVEN GRADE UNLESS SOUBORED OR OTHERWISE LOOSENED TO A DEPTH OF 3 - 5" TO PERMIT BONDING OF THE TOPSOIL TO THE SURFACE AREA AND TO CREATE HORIZONTAL CROSBOW CHISEL SLOTS TO PREVENT TOPSOIL FROM SLIDING DOWN A SLOPE.

C. APPLY SOIL AMENDMENTS AS PER SOIL TEST OR AS INCLUDED ON THE PLANS.

D. MULCH SPECIFICATIONS

- ALL SEEDS 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 SHALL HAVE BEEN TESTED WITHIN 8 MONTHS IMMEDIATELY PRECEDING THE DATE OF SOWING SUCH MATERIAL ON THIS JOB.

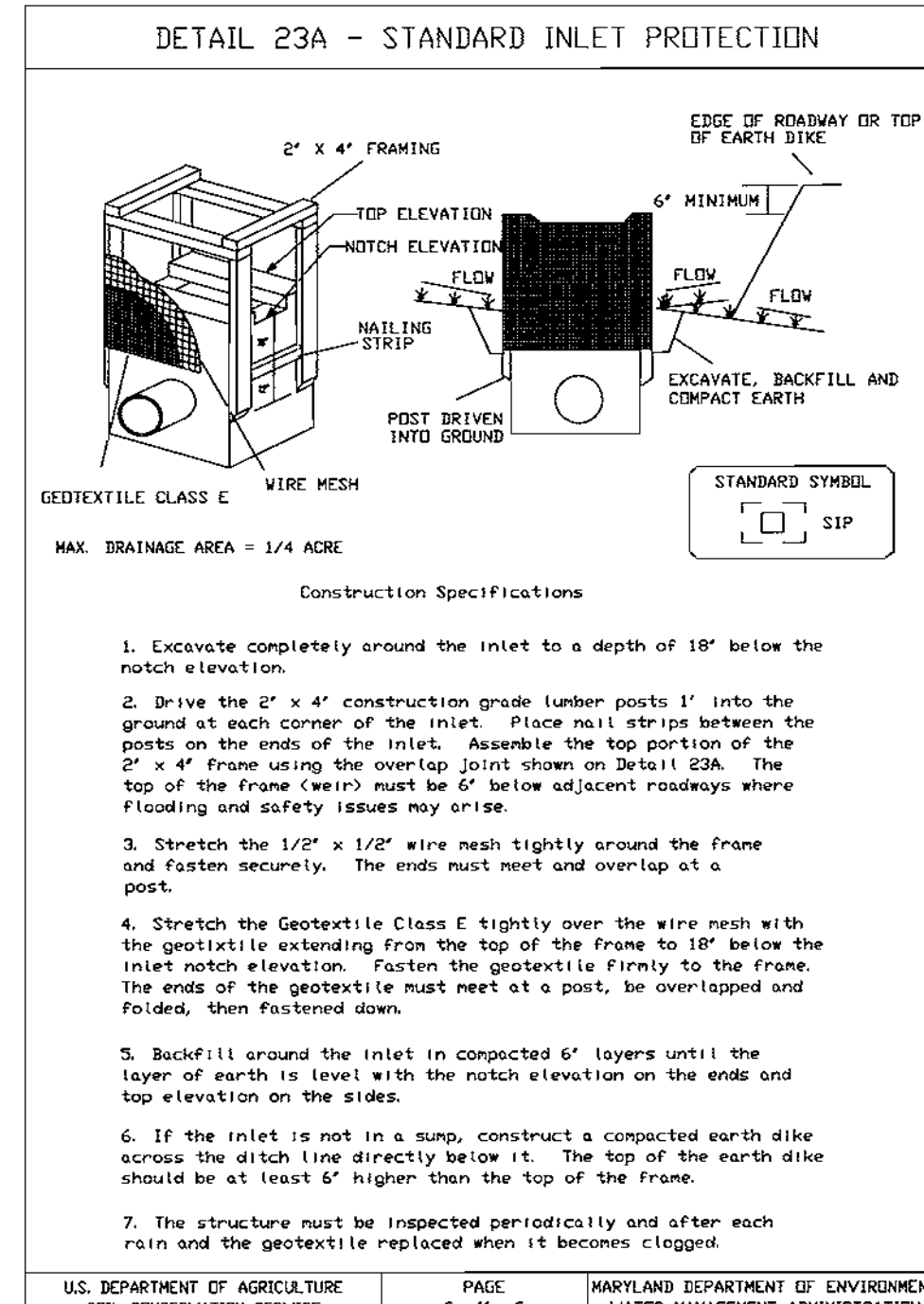
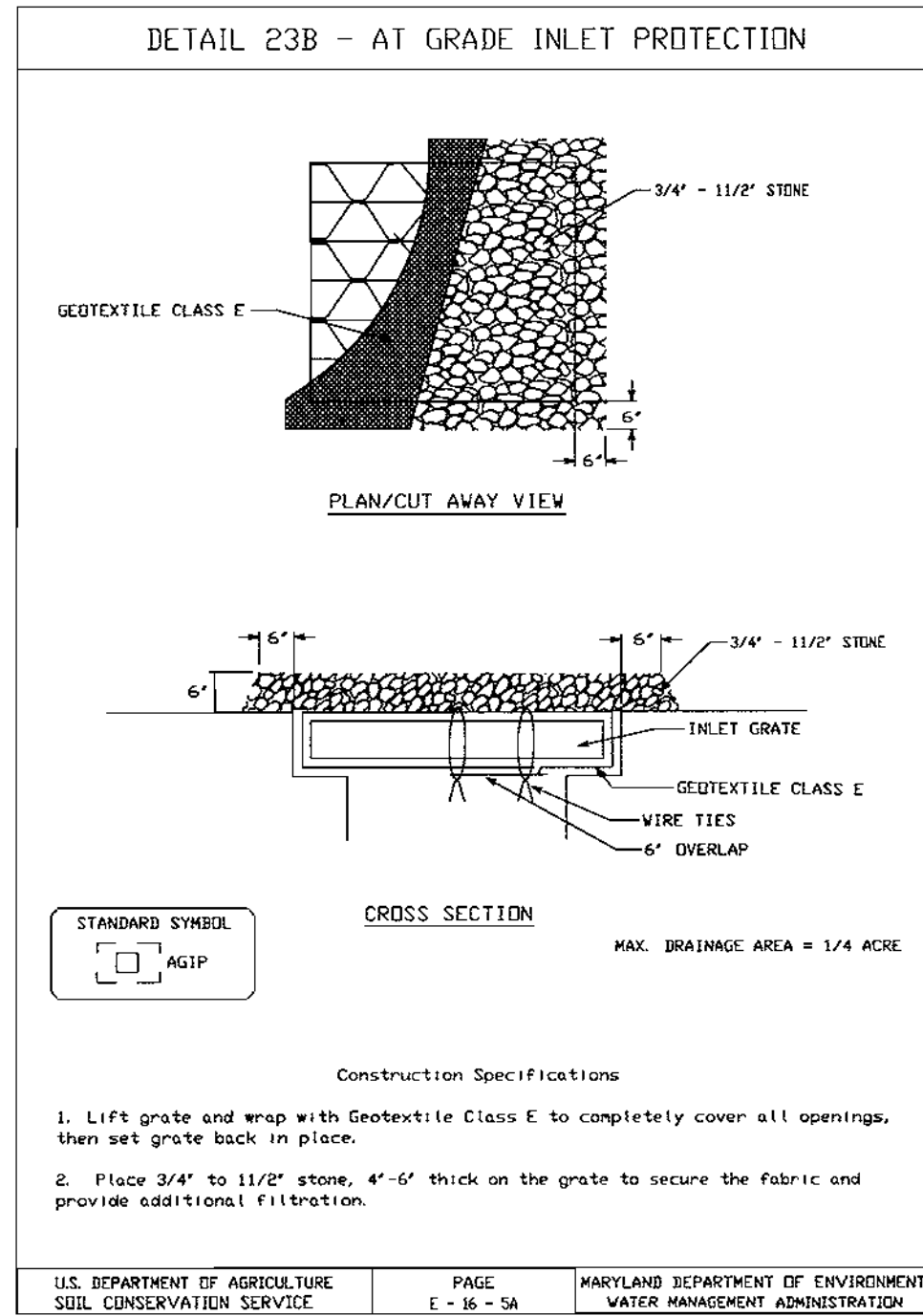
NOTE: SEED TASS SHALL BE MADE AVAILABLE TO THE INSPECTOR TO VERIFY TYPE AND RATE OF SEED USED.

 - INOCULANT - THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES SHALL BE A PURE CULTURE OF NODULUM-FIXING BACTERIA SPECIALLY FOR THE SPECIES. INOCULANTS SHALL NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INOCULANT AS DIRECTED ON PACKAGE. USE FRESH TIMING 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.

SEDIMENT CONTROL NOTES AND DETAILS

ECKERS HOLLOW SECTION I - PHASE II

LOTS 63-96
& NON-BUILDABLE BULK PARCELS C & D
TAX MAP 36, PARCEL 23, BLOCKS 10 & 11
SIXTH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: N/A DATE: 11/1/01
SHEET 4 OF 5



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:
 - 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.
- 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.

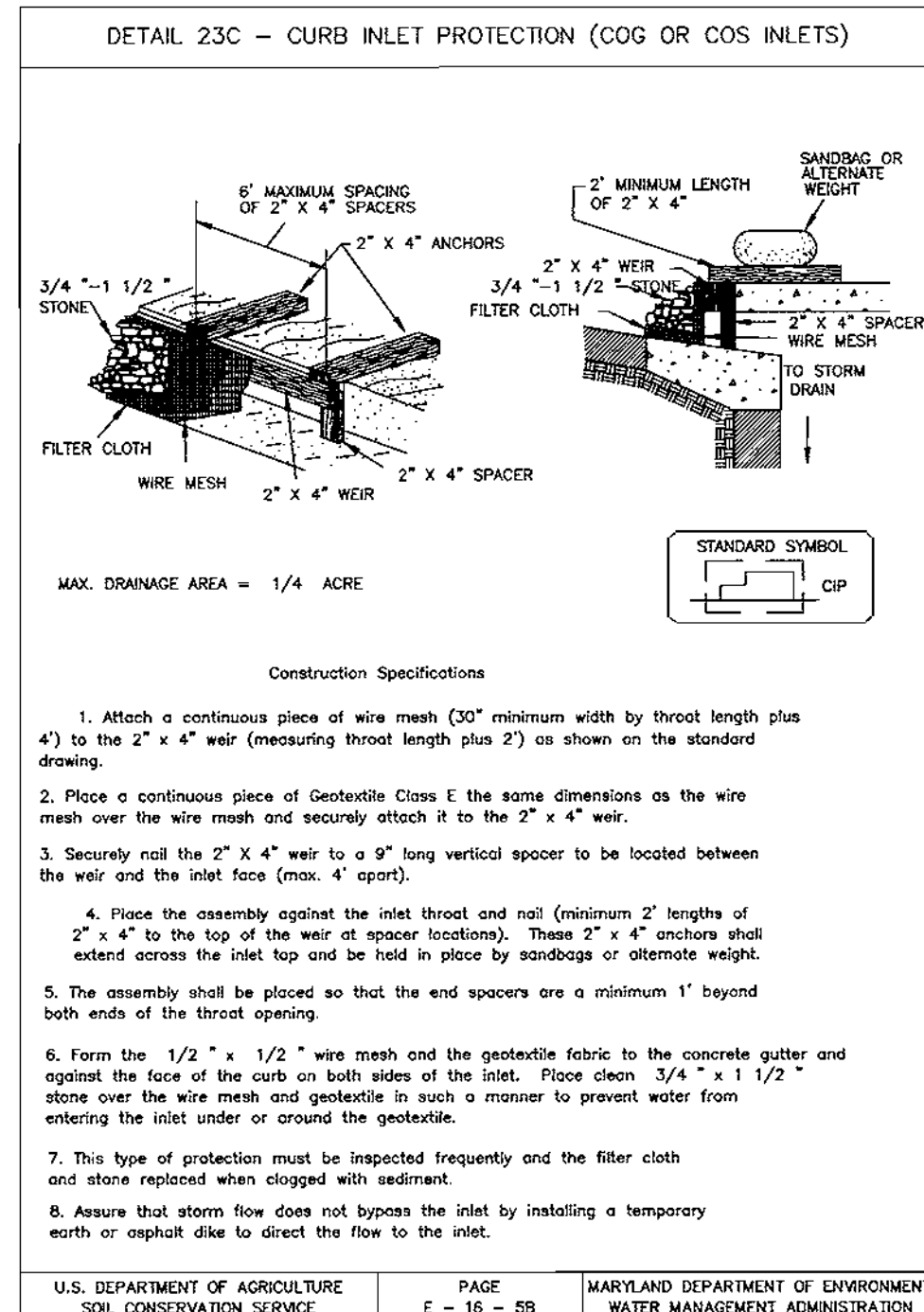
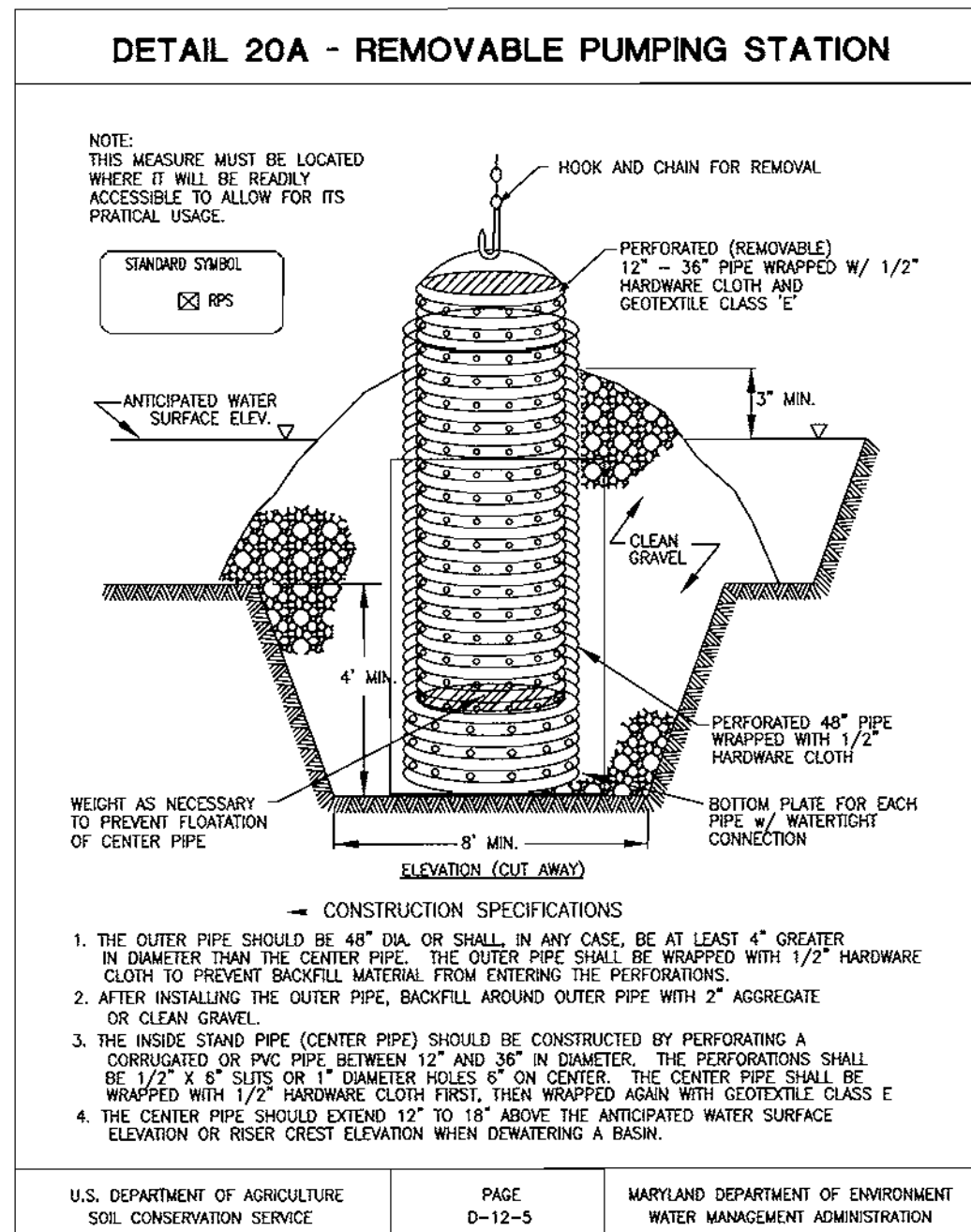
III. TOPSOIL APPLICATION

- 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.
- GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBEIT 4"-8" HIGHER IN ELEVATION.
- 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.
- TOPSOIL SHALL NOT BE 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.
- 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 AS A SOIL CONDITIONER FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES SHALL BE TESTED TO PRESCRIBE AMENDMENTS AND FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
 - 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.
 - 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.

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 REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-SCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTAL STATION.
- 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 BE 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.
 - 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.
 - PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION-SECTION I-VEGETATIVE STABILIZATION METHODS AND MATERIALS.
- FOR SITE HAVING DISTURBED AREAS UNDER 5 ACRE



EX. SEDIMENT TRAP #1 SUMMARY TABLE

EXISTING DRAINAGE AREA	3.24 ACRES
PROPOSED DRAINAGE AREA	3.88 ACRES
VOLUME REQUIRED 3.88 X 1800 WET	6,984 C.F.
3.88 X 1800 DRY	6,984 C.F.
TYPE OF TRAP	ST-III
TOTAL VOLUME REQUIRED	13,968 C.F.
TOTAL VOLUME PROVIDED	18,742 C.F.
WEIR LENGTH	16 FT.
WET STORAGE DEPTH	5.0 FT.
LIMIT OF WET STORAGE ELEVATION	398.00
CLEANOUT ELEVATION	396.50
EMBANKMENT HEIGHT	4.0 FT.
EMBANKMENT ELEVATION	402.00
BOTTOM ELEVATION	393.00
WET STORAGE VOLUME	7,667 C.F.
WEIR CREST ELEVATION	400.50
TRAP BOTTOM DIMENSIONS	20 FT. (W) X 40 FT. (L)

EX. SEDIMENT TRAP #4 SUMMARY TABLE

EXISTING DRAINAGE AREA	3.28 ACRES
PROPOSED DRAINAGE AREA	1.43 ACRES
VOLUME REQUIRED 3.28 X 5400 WET	8,028 C.F.
TYPE OF TRAP	ST-III
TOTAL VOLUME REQUIRED	17,712 C.F.
TOTAL VOLUME PROVIDED	25,982 C.F.
WEIR LENGTH	14 FT.
WET STORAGE DEPTH	6.5 FT.
LIMIT OF WET STORAGE ELEVATION	414.50
CLEANOUT ELEVATION	412.00
EMBANKMENT HEIGHT	1.5 FT.
EMBANKMENT ELEVATION	416.00
BOTTOM ELEVATION	408.00
WET STORAGE VOLUME	25,982 C.F.
WEIR CREST ELEVATION	414.50
TRAP BOTTOM DIMENSIONS	30 FT. (W) X 60 FT. (L)

EX. SEDIMENT BASIN SUMMARY TABLE

EXISTING DRAINAGE AREA	15.40 ACRES
PROPOSED DRAINAGE AREA	24.35 ACRES
VOLUME REQUIRED 24.35 X 1800 WET	43,830 C.F.
24.35 X 1800 DRY	43,830 C.F.
TOTAL VOLUME REQUIRED	87,660 C.F.
TOTAL VOLUME PROVIDED	116,551 C.F.
WET STORAGE DEPTH	3.3 FT.
LIMIT OF WET STORAGE ELEVATION	394.30
CLEANOUT ELEVATION	393.30
RISER CREST ELEVATION	396.40
EMBANKMENT ELEVATION	400.00
BOTTOM ELEVATION	391.00
WET STORAGE VOLUME	45,370 C.F.
EMS CREST ELEVATION	397.60
EMS LENGTH	20 FT.
DRAW-DOWN DEVICE	8" PVC
OUTFALL BARREL TYPE	36" RCP



12-17-01

MRA
 MORRIS & RITCHIE ASSOC., INC.
 ENGINEERS, PLANNERS, SURVEYORS,
 AND LANDSCAPE ARCHITECTS
 9090 JUNCTION DRIVE, SUITE 9
 Annapolis Junction, Maryland
 (410) 792-5792 - (301) 776-1690
 Fax: (410) 792-7395

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.

P. V. Mellits 12-17-01
 SIGNATURE OF ENGINEER (PRINT NAME BELOW SIGNATURE) DATE
 PIERO VAN MELLITS

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 PERSONS ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

Edward J. Gold 12-17-01
 SIGNATURE OF DEVELOPER (PRINT NAME BELOW SIGNATURE) DATE
 EDWARD J. GOLD, OPERATIONAL VICE PRESIDENT

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.

Jim Maner 12/20/01
 U.S.D.A.-NATURAL RESOURCES CONSERVATION SERVICE DATE

John L. Hamilton 12/20/01
 THE DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 HOWARD SCD DATE

BUILDER

THE RYLAND GROUP
 7250 PARKWAY DRIVE, SUITE 520
 HANOVER, MD 21076
 (410) 712-2406

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Cindy Hamilton 1/9/02
 CHIEF, DIVISION OF LAND DEVELOPMENT & PLANNING DATE

John L. Hamilton 1/9/02
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

John L. Hamilton 1/10/02
 DIRECTOR DATE

SUBDIVISION	SECTION / PHASE	LOT NO.
ECKERS HOLLOW	I / II	63-96
PLAT NO.	BLOCK NO.	ZONE
14958-14980	10 & 11	RSC
TAX/PARCEL	ELEC. DIST.	CENSUS TR.
36 / 23	6TH	6066.02
WATER CODE	SEWER CODE	
E04	5333800	

SEDIMENT CONTROL NOTES & DETAILS

ECKERS HOLLOW
 SECTION I - PHASE II

LOTS 63-96
 & NON-BUILDABLE BULK PARCELS C & D
 TAX MAP 36, PARCEL 23, BLOCKS 10 & 11
 SIXTH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
 SCALE: N/A DATE: 11/1/01
 SHEET 5 OF 5