SHEET INDEX

1	COVER SHEET
2	SITE DEVELOPMENT PLAN
3	SEDIMENT CONTROL PLAN
4	NOTES AND DETAILS
5	LANDSCAPE PLAN

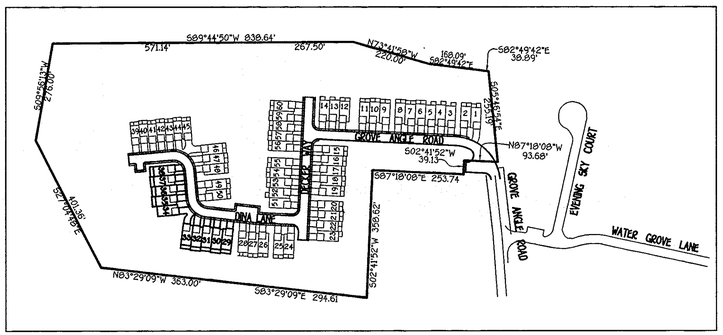
SITE DEVELOPMENT PLAN
HEARTHSTONE AT ELLICOTT MILLS II, PARCEL A
UNITS 29 THRU 38
2nd ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

ADDRESS CHART

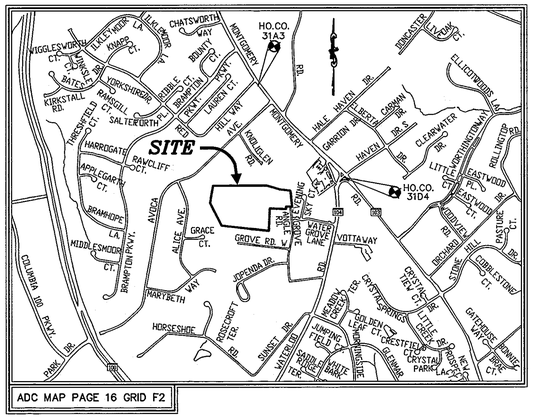
UNIT #	*ADDRESS*
29	8515 DINA LANE
30	8517 DINA LANE
31	8519 DINA LANE
32	8521 DINA LANE
33	8523 DINA LANE
34	8531 DINA LANE
35	8533 DINA LANE
36	8535 DINA LANE
37	8537 DINA LANE
38	8539 DINA LANE

UNIVERSAL DESIGN REQUIREMENTS
FOR AGE RESTRICTED ADULT HOUSING IN HOWARD COUNTY

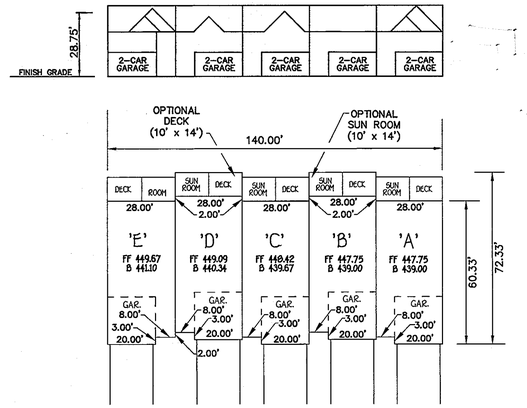
1. FOR MULTI-FAMILY APARTMENTS OR CONDO DEVELOPMENTS, AN ACCESSIBLE PATH BETWEEN PARKING, DWELLING UNITS AND COMMON AREAS THAT MEETS ADA STANDARDS.
2. FOR SINGLE FAMILY DETACHED AND ATTACHED DEVELOPMENTS, A "NO-STEP" ACCESS TO THE FRONT ENTRANCE TO THE COMMUNITY BUILDING AND ALL DWELLINGS (A NO-STEP" ENTRANCE IS DESIRABLE, BUT NOT REQUIRED AT OTHER ENTRANCES).
3. 36" WIDE FRONT DOOR WITH EXTERIOR LIGHTING OF THE ENTRANCE.
4. ALL INTERIOR DOORWAYS AT LEAST 32" WIDE (36" IS PREFERABLE).
5. HALLWAYS AT LEAST 36" WIDE, (40-42" IS PREFERABLE).
6. COMPLETE LIVING AREA INCLUDING MASTER BEDROOM AND BATH ON THE FIRST FLOOR (OR ELEVATOR ACCESS IF MULTI-STORY RENTAL/CONDO APARTMENTS).
7. LEVER HANDLES ON INTERIOR AND EXTERIOR DOORS.
8. BLOCKING FOR GRAB BARS IN WALLS IN BATHROOM NEAR TOILET AND SHOWER.



SITE MAP
SCALE: 1" = 200'



VICINITY MAP
SCALE:1" = 1000'



GRIFFIN – 5 STICK
PLAN VIEW
SCALE: 1" = 30'

NOTE:
THE RESIDENTS (AND THEIR GUESTS AND VISITORS) OF THIS PROJECT MAY USE WATER GROVE LANE AS AN ALTERNATIVE MEANS OF ACCESS.

MODERATE INCOME HOUSING UNITS CHART

PLAN	SDP-06-030 PHASES 1 AND 2	SDP-09-004	TOTAL
TOTAL NO. OF UNITS	50	10	60
MIHU'S REQUIRED	PHASE 1 (15 UNITS) 1	1	6
	PHASE 2 (35 UNITS) 4		
MIHU'S PROVIDED	5	1	6

PHASE 1/2 SDP-06-030 5 MIHU TRANSFERRED TO "ELLICOTT GARDENS"
SDP-09-004 1 MIHU TRANSFERRED TO "VILLAGE OF OAKLAND MILLS 5/5"

NOTE: 1. A MINIMUM OF 10% OF THE UNITS ARE REQUIRED TO BE MIHU UNITS.
2. THE SIX MIHU UNITS WILL BE MIHU CERTIFICATES PURCHASED FROM AN OFFSITE SOURCE.

GENERAL NOTES:

1. SUBJECT PROPERTY ZONED R-20 AS PER THE 02/02/04 COMPREHENSIVE ZONING PLAN AND PER THE "COMP LITE" ZONING REGULATION AMENDMENTS EFFECTIVE 07/28/06.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY, AND MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
3. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/CONSTRUCTION INSPECTION DIVISION AT (410-313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
4. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
5. PROJECT BACKGROUND:
   TAX MAP: 31 , PARCEL: 36 & 20 ,
   ELECTION DISTRICT: SECOND
   ZONING: R-20
   DEED REFERENCE : 10722/122 & 10080/287
   DPZ FILE NUMBERS: BA-05-006C, F-07-093, WP-08-061, SDP-06-030, F-08-190, BA-07-010C
6. SITE ANALYSIS DATA:
   A. GROSS TOTAL PROJECT AREA: 15.73 AC±
   B. AREA OF PLAN SUBMISSION: 0.84 AC±
   C. LIMIT OF DISTURBANCE: 0.84 AC±
   D. PRESENT ZONING: R-20
   E. PROPOSED USE: AGE RESTRICTED ADULT HOUSING/ SFA
   F. TOTAL NO. OF UNITS ALLOWED: 75 (5 UNITS PER ACRE)
   G. TOTAL NO. OF UNITS PROVIDED: 50 UNITS - SDP-06-030
      10 UNITS - SDP-09-004
   H. REQUIRED PARKING SPACES: 20 SPACES (2 GARAGE SPACES PER UNIT= 20 SPACES)
   I. PROVIDED PARKING SPACES: 20 SPACES
   J. PROPOSED STRUCTURES: SFA TWO STORY TOWNHOUSES
   K. CREDITED OPEN SPACE PROVIDED: 9.0 AC - 44%
   L. RECREATIONAL OPEN SPACE PROVIDED: 40,686 SF
   M. REQUIRED AREA FOR ON-SITE COMMUNITY BLDG: 20 SF/DWELLING UNIT
   N. COMMUNITY BLDG AREA REQUIRED FOR THIS DEVELOPMENT = 200 SF
      COMMUNITY BLDG AREA FOR SDP-06-030 = 1,000 SF
      TOTAL = 1,200 SF
   O. COMMUNITY BLDG. AREA PROVIDED BY SDP-06-030: 1,200 SF
7. TOPOGRAPHY SHOWN HEREON IS BASED ON AERIAL SURVEY PERFORMED BY WINGS TOPO ON OR ABOUT SEPT. 2004.
8. BOUNDARY SHOWN HEREON IS BASED ON A FIELD SURVEY BY HILDENBERG, BOENDER & ASSOCIATES, INC. ON OR ABOUT SEPT 2004.
9. COORDINATES BASED ON NAD '83 (HORIZ.) AND NGVD '29 (VERT.) MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS 31A3 & 31D4

	STATION 31A3	STATION 31D4
NORTHING	573217.878	571700.65
EASTING	1368237.74	1369606.36
ELEVATION	486.969	ELEVATION 494.507

10. PUBLIC WATER PROVIDED BY CONTRACT NO. 24-4319-D.
11. FLOODPLAIN STUDY PREPARED BY HILDENBERG, BOENDER & ASSOCIATES, INC. ON OR ABOUT AUGUST 2005.
12. STORMWATER MANAGEMENT WILL BE PROVIDED IN ACCORDANCE WITH THE 2000 MARYLAND SWM DESIGN MANUAL. SWM WILL BE PRIVATE. SWM WILL INCLUDE GRASS SWALE CREDIT, SAND FILTERS, AND ROOFTOP DISCONNECTION AND BUFFER CREDITS. SWM FACILITIES ARE PRIVATELY OWNED AND MAINTAINED. SEE SDP-06-030.
13. NO STEEP SLOPES EXIST ON-SITE OR CONTIGUOUS AREA MORE THAN 20,000 SQFT.
14. WETLAND STUDY AND FOREST STAND DELINEATION PREPARED BY ECO-SCIENCE, DATED AUGUST 2005.
15. NO HISTORIC STRUCTURES, CEMETERIES, OR GRAVE SITES EXIST ON-SITE. SITE IS NOT ADJACENT TO A DESIGNATED SCENIC ROAD.
16. RESIDENTIAL DRIVEWAY ENTRANCE HO.CO.STD. R-6.06 TO BE USED UNLESS OTHERWISE NOTED.
17. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN WETLANDS, STREAMS AND THEIR BUFFERS, FOREST CONSERVATION EASEMENT OR FLOODPLAIN EXCEPT AS SHOWN ON APPROVED PLANS.
18. WATER AND SEWER SERVICE TO THESE UNITS WILL BE GRANTED UNDER THE PROVISION OF SECTION 18.122B OF THE HOWARD COUNTY CODE. PUBLIC WATER CONT# 24-4319D & PRIVATE SEWER PER SDP 06-030
    ALLOCATION WILL BE GRANTED AT THE TIME OF THE ISSUANCE OF THE BUILDING PERMIT IF CAPACITY IS AVAILABLE AT THAT TIME.
19. THIS PROJECT IS SUBJECT TO BOARD OF APPEALS CASE 05-006C GRANTED AUGUST 22, 2005 TO ALLOW AGE RESTRICTED ADULT HOUSING IN R-20 ZONING. FOR THE 50 UNITS SHOWN AND APPROVED ON SDP-06-030. BOARD OF APPEALS HEARING EXAMINER ON OCTOBER 8, 2007 ORDERED THAT THE REQUEST OF ELLICOTT CITY LAND HOLDING INC., TO EXTEND BY TWO YEARS THE TIME TO OBTAIN ALL BUILDING PERMITS TO ESTABLISH THE THE CONDITIONAL USE APPROVED IN BOARD OF APPEALS DECISION AND ORDER NO. 05-006C, AS MODIFIED BY BOARD OF APPEALS DECISION AND ORDER NO. BA 07-010C, IS HEREBY GRANTED. PROVIDED, HOWEVER, THAT A NOTE BE PLACED ON THE REVISED SDP IDENTIFYING WATER GROVE LANE AS AN ALTERNATE MEANS OF ACCESS TO HEARTHSTONE II.
20. TRASH PICK-UP TO BE PROVIDED BY A PRIVATE CONTRACTOR. THERE WILL BE NO COMMUNITY TRASH DUMPSTERS FOR THIS PROJECT. CURBSIDE RECYCLING WILL NOT BE PROVIDED.
21. ALL EXTERIOR LIGHT FIXTURE WERE PROVIDED UNDER SDP-06-030.
22. GARAGES SHALL BE USED FOR REQUIRED PARKING PURPOSES ONLY AND ARE NOT PERMITTED TO BE CONVERTED TO OTHER USES IN ACCORDANCE WITH SECTION 133.D.2.a OF THE HOWARD COUNTY ZONING REGULATIONS.
23. THIS PROJECT IS SUBJECT TO FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
24. FINANCIAL SURETY FOR THE REQUIRED 10 SHADE TREES IN THE AMOUNT $3000.00 SHALL BE POSTED AS A PART OF THE BUILDERS GRADING PERMIT APPLICATION FOR UNITS 29-38.
25. THE FOREST CONSERVATION EASEMENT(S) HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF HOWARD COUNTY CODE AND FOREST CONSERVATION ACT. NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, EXCEPT AS SHOWN ON AN APPROVED ROAD CONSTRUCTION DRAWING OR SITE DEVELOPMENT PLAN. HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.
26. FOREST CONSERVATION OBLIGATION FOR THIS PLAN AND SDP-06-030 WAS FULFILLED BY SDP-06-030 BY PROVIDING ON-SITE FOREST CONSERVATION EASEMENTS CONTAINING 2.13 ACRES OF RETENTION AND 2.43 ACRES OF REFORESTATION.
27. THIS PROJECT IS REQUIRED TO COMPLY WITH THE "UNIVERSAL DESIGN STANDARDS FOR AGE RESTRICTED ADULT HOUSING IN HOWARD COUNTY." THE DOCUMENTS AND COVENANTS THAT CONTAIN THE AGE RESTRICTION INFORMATION FOR PROJECT SDP-06-030 AND SDP-09-004 ARE RECORDED AT L.11340, F.426 and L.10695, F.641 AMONG THE LAND RECORD OF HOWARD COUNTY, MARYLAND.
28. 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 OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK.
29. DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
    A) WIDTH - 12 FEET (14 FEET SERVING MORE THAN ONE RESIDENCE);
    B) SURFACE - SIX (6") INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING. (1 -1/2" MINIMUM);
    C) GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND 45-FOOT TURNING RADIUS;
    D) STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25-LOADING);
    E) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER SURFACE;
    F) STRUCTURE CLEARANCES - MINIMUM 12 FEET;
    G) MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.
30. THE MIHU REQUIREMENTS FOR SDP-06-030, SDP-09-004 AND SDP-05-145, THE COURTYARDS OF ELLICOTT MILLS II, PARCEL A, ARE FULFILLED BY THE DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT APPROVAL OF THE OFF-SITE TRANSFERS OF THESE MIHU REQUIREMENTS TO SDP-07-038 ELLICOTT GARDENS, TAX MAP PARCEL 427 A HOUSING COMMUNITY PROJECT.
    SDP-09-004 MIHU OBLIGATION FOR UNIT 1 HAS BEEN FULFILLED BY THE REHABILITATION OF THE HOUSE LOCATED ON LOT 4, IN THE VILLAGE OF OAKLAND MILLS 5/5, TAX MAP 36, GRID 10, PARCEL 311, 9518 PAMPLONA ROAD, COLUMBIA, MARYLAND 21045, FOR HOWARD COUNTY HOUSING COMMISSION.
31. IN ACCORDANCE WITH THE DOA IN BA-05-006 C AND THE CONDITION OF EXTENSION REQUESTED ON OCTOBER 8, 2007, WATER GROVE LANE IS AN ALTERNATIVE MEANS TO ACCESS HEARTHSTONE AT ELLICOTT MILLS II.
32. ALL METERS ARE OUTSIDE PUBLIC SETTINGS PER STD DETAIL 3.28.
33. ALL DIMENSIONS WITH RESPECT TO THE CURB ARE TO THE FACE OF CURB UNLESS OTHERWISE STATED.
34. THE TRAFFIC STUDY WAS PREPARED BY THE MARS GROUP ON SEPTEMBER 11, 2008 AND WAS APPROVED ON OCTOBER, 2008.

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 9757 EXPIRATION DATE IS 2/28/10.

EARL D. COLLINS, PROFESSIONAL ENGINEER — DATE 12/1/08

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE

STATE OF MARYLAND — EARL D. COLLINS — No. 9757 — PROFESSIONAL ENGINEER

ENGINEER'S CERTIFICATE

"I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

Signature of Engineer — EARL D. COLLINS — 12/1/08 Date

BUILDER/DEVELOPER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan, for sediment and erosion control and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."

Signature of Developer — 11/5/08 Date

OWNER
ELLICOTT CITY LAND HOLDING, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MD. 21042
443-367-0415

BUILDER
RYAN HOMES, INC.
6085 MARSHALEE DRIVE
ELKRIDGE, MARYLAND 21075
410-796-0980

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/9/08
Chief, Development Engineering Division — Date 12/18/08
Director - Department of Planning and Zoning — Date 12/19/08

PROJECT	SECTION	UNIT NOS.
HEARTHSTONE AT ELLICOTT MILLS II	PARCEL A	UNITS 29 THRU 38

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
19120-19123 20003-20004	7	R-20	31	2	6027.00

WATER CODE	SEWER CODE
G-01	5750673

COVER SHEET

TOWNHOUSES
HEARTHSTONE AT ELLICOTT MILLS II
AGE RESTRICTED ADULT HOUSING
PARCEL A
UNITS 29 THRU 38

TAX MAP NO.: 31 T.M. PARCEL NO.: 36 & 20 GRID NO.: 7
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: SEPTEMBER, 2008
SHEET 1 OF 5

SDP 09-004

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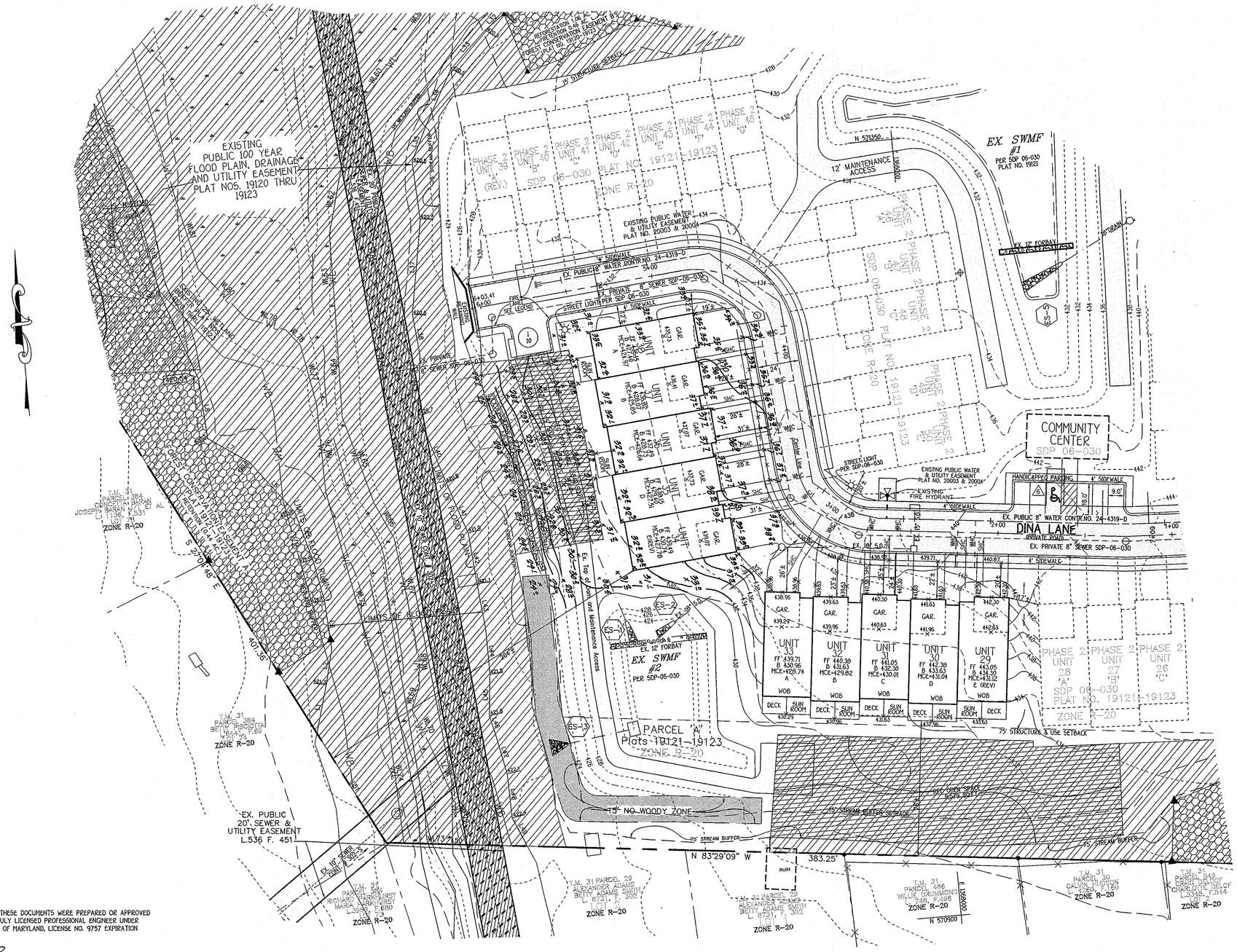
LEGEND

- WETLANDS
- FOREST CONSERVATION EASEMENT
- NO WOODY BUFFER
- STEEP SLOPES (15% – 25%)
- PUBLIC WATER AND UTILITY EASEMENT
- EX. 20' PUBLIC SEWER AND UTILITY EASEMENT
- SWM MAINTENANCE ACCESS
- RECREATIONAL OPEN SPACE
- CREDITED OPEN SPACE
- EXTERIOR LIGHT FIXTURE
- EXISTING TREELINE
- SCE — STABILIZED CONSTRUCTION ENTRANCE
- SF — SILT FENCE
- SSF — SUPER SILT FENCE
- LOD — LIMIT OF DISTURBANCE
- EROSION CONTROL MATTING
- WOB — WALKOUT BASEMENT
- FIRE LANE CURB (RED PAINT)

FLOOD PLAIN LINE TABLE			FLOOD PLAIN LINE TABLE		
LINE	LENGTH	BEARING	LINE	LENGTH	BEARING
F1	29.64	N15°48'45"E	F37	54.40	S09°45'18"W
F2	19.94	N13°35'12"E	F38	24.46	S05°05'08"E
F3	28.01	N03°24'26"W	F39	34.40	S06°43'45"W
F4	23.69	N10°33'01"W	F40	47.50	S17°27'36"E
F5	30.60	N15°29'28"W	F41	26.77	S18°17'28"E
F6	38.80	N37°07'03"W	F42	29.21	S04°38'54"E
F7	27.52	N55°19'27"W	F43	26.87	S05°35'15"E
F8	34.72	N03°34'46"W	F44	25.68	S00°18'17"E
F9	54.21	N19°16'15"W	F45	24.50	S05°52'32"W
F10	46.65	N09°21'48"W	F46	10.00	S13°55'13"E
F11	61.14	N18°36'58"W	F47	25.15	S11°21'06"E
F32	14.74	S54°00'18"W	F48	23.92	S01°13'33"E
F33	29.13	S46°32'29"W	F49	1.48	S01°52'31"E
F34	35.23	S28°48'52"W	F50	18.49	S23°17'53"E
F35	22.93	S26°12'25"W	F51	81.24	N83°29'09"W
F36	34.26	S02°43'16"E	F52	74.62	N27°04'48"W

WETLANDS LINE TABLE		
LINE	LENGTH	BEARING
WL60	49.65	S39°56'47"W
WL61	30.87	S19°40'43"W
WL62	40.13	S15°00'52"W
WL63	47.07	S00°50'37"W
WL64	58.72	S01°18'00"W
WL65	53.06	S15°08'37"E
WL66	23.55	S24°20'02"E
WL67	58.55	S06°47'53"E
WL68	27.33	S00°01'24"E
WL69	14.91	S21°49'42"W
WL70	24.55	S21°31'41"E
WL71	27.80	S18°54'36"E
WL72	31.78	S10°56'14"E
WL73	35.78	N83°29'09"W
WL74	78.91	N02°16'13"W
WL75	129.33	N10°30'32"W
WL76	50.53	N00°47'09"W
WL77	35.63	N10°06'52"W
WL78	12.33	N38°11'42"W
WL79	23.81	N68°39'21"W
WL80	39.54	N38°52'52"W
WL81	44.03	N12°54'39"W

5HC INVERT @ 10' FROM BUILDING	
UNIT	ELEVATION
38	420.61
37	421.49
36	422.28
35	423.15
34	423.42
33	424.46
32	425.44
31	425.65
30	426.68
29	426.86



I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 9757 EXPIRATION DATE IS 2/28/10.

EARL D. COLLINS, PROFESSIONAL ENGINEER — 12.1.08 DATE

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
1	Revised Units 34 thru 38 to show as-built conditions for final grade cert.	5-4-2010

STATE OF MARYLAND — EARL D. COLLINS — No. 9757 — PROFESSIONAL ENGINEER

ENGINEER'S CERTIFICATE

"I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

Signature of Engineer — EARL D. COLLINS — 12.1.08 Date

BUILDER/DEVELOPER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan, for sediment and erosion control and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."

Signature of Developer — 12.5.08 Date

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5300 DORSEY HALL DRIVE, SUITE 102
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BUILDER
RYAN HOMES, INC.
6085 MARSHALEE DRIVE
ELKRIDGE, MARYLAND 21075
410-796-0980

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/19/08

Chief, Development Engineering Division — Date 12/18/08

Director - Department of Planning and Zoning — Date 12/19/08

SITE DEVELOPMENT PLAN

TOWNHOUSES

HEARTHSTONE AT ELLICOTT MILLS II

AGE RESTRICTED ADULT HOUSING
PARCEL A
UNITS 29 THRU 38

TAX MAP NO.: 31 T.M. PARCEL NO.: 36 & 20 GRID NO.: 7
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 30' DATE: SEPTEMBER, 2008
SHEET 2 OF 5

SDP 09-004

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LEGEND

- WETLANDS
- FOREST CONSERVATION EASEMENT
- NO WOODY BUFFER
- STEEP SLOPES (15% – 25%)
- PUBLIC WATER AND UTILITY EASEMENT
- EX. 20' PUBLIC SEWER AND UTILITY EASEMENT
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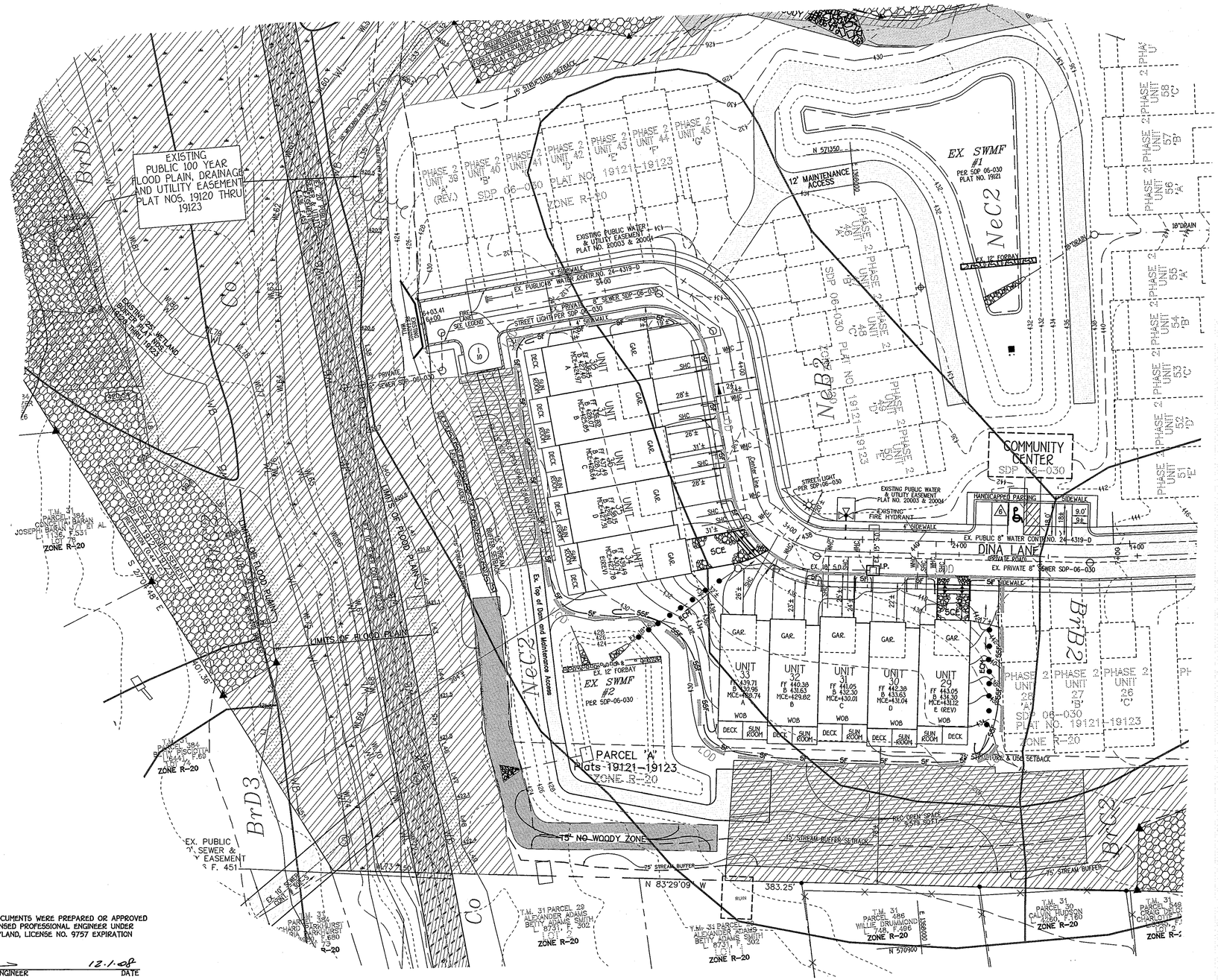
- EROSION CONTROL MATTING
- WOB — WALKOUT BASEMENT
- FIRE LANE CURB (RED PAINT)

SOILS LEGEND

SOIL	NAME	CLASS
BrB2	Brandywine loam, 3 to 8 percent slopes, moderately eroded	C
BrC2	Brandywine loam, 8 to 15 percent slopes, moderately eroded	C
BrD2	Brandywine loam, 15 to 25 percent slopes, moderately eroded	C
BrD3	Brandywine loam, 15 to 25 percent slopes, severely eroded	C
* Co	Codorus silt loam	C
NeB2	Neshaminy silt loam, 3 to 8 percent slopes, moderately eroded	B
NeC2	Neshaminy silt loam, 8 to 15 percent slopes, moderately eroded	B

NOTES:
- * Hydric soils and/or contains hydric inclusions
- ** May contain hydric inclusions
- † Generally only within 100-year floodplain areas



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ENGINEER'S CERTIFICATE

"I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

Signature of Engineer EARL D. COLLINS — Date 12.1.08

BUILDER/DEVELOPER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan for sediment and erosion control and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."

Signature of Developer — Date 12.5.08

Reviewed for HOWARD SCD and meets Technical Requirements

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.

Howard SCD — Date 12/16/08

OWNER
ELLICOTT CITY LAND HOLDING, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MD. 21042
443-367-0415

BUILDER
RYAN HOMES, INC.
6085 MARSHALEE DRIVE
ELKRIDGE, MARYLAND 21075
410-796-0980

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/19/08

Chief, Development Engineering Division — Date 12/18/08

Director - Department of Planning and Zoning — Date 12/15/08

SEDIMENT AND EROSION CONTROL PLAN AND SOILS MAP

TOWNHOUSES

HEARTHSTONE AT ELLICOTT MILLS II

AGE RESTRICTED ADULT HOUSING

PARCEL A

UNITS 29 THRU 38

TAX MAP NO.: 31 T.M. PARCEL NO.: 36 & 20 GRID NO.: 7

SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: 1" = 30' DATE: SEPTEMBER, 2008

SHEET 3 OF 5

SDP 09-004

I:\2007\07047\dwg\SDP (UNITS 30-39)\07047 SEC (Units 30-39).dwg, 12/1/2008 2:49:31 PM, bamps, 111

20.0 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION DEFINITION

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

PURPOSE

Vegetative stabilization specifications are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode and more likely to allow infiltration of rainfall, thereby reducing sediment loads and run-off to downstream areas, and improving wildlife habitat and visual resources.

CONDITIONS WHERE PRACTICE APPLIES

This practice shall be used on denuded areas as specified on the plans and may be used on highly erodible or critically eroding areas. This specification is divided into Temporary Seeding, to quickly establish vegetative cover for short duration (Up to one year), and Permanent Seeding, for long term vegetative cover. Examples of applicable areas for Temporary Seeding are temporary Soil Stockpiles, cleared areas being left idle between construction phases, earth dikes, etc. and for Permanent Seeding are lawns, dams, cut and fill slopes and other areas at final grade, former stockpile and staging areas, etc.

EFFECTS ON WATER QUALITY AND QUANTITY

Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and rates of runoff, infiltration evaporation, transpiration, percolation, and groundwater recharge. Vegetation, over time, will increase organic matter content and improve the water holding capacity of the soil and subsequent plant growth.

Vegetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to receiving waters. Plants will also help protect groundwater supplies by assimilating those substances present within the root zone.

Sediment control devices must remain in place during grading, seedbed preparation, seeding, mulching and vegetative establishment to prevent large quantities of sediment and associated chemicals and nutrients from washing into surface waters.

SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS

A. Site Preparation
- i. Install erosion and sediment control structures (either temporary of permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins.
- ii. Perform all grading operations at right angles to the slope. Final grading and shaping is not usually necessary for temporary seeding.
- iii. Schedule required soil tests to determine soil amendment composition and application rates for sites having disturbed area over 5 acres.

B. Soil Amendments (Fertilizer and Lime Specifications)
- i. Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas over 5 acres. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses.
- ii. Fertilizers shall be uniform in composition, 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.
- iii. Lime materials shall be ground limestone (hydrated or burnt lime may be substituted) which contains at least 50% total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 50% will pass through a #100 mesh sieve and 98-100% will pass through a #20 mesh sieve.
- iv. Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.

C. Seedbed Preparation
- i. Temporary Seeding
  - a. Seedbed preparation shall consist of loosening soil to a depth of 3" to 5" by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened it should not be rolled or dragged smooth, but left in the roughened condition. Sloped areas (greater than 3:1) should be tracked leaving the surface in an irregular condition with ridges running parallel to the contour of the slope.
  - b. Apply fertilizer and lime as prescribed on the plans.
  - c. In corporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.
- ii. Permanent Seeding
  - a. Minimum soil conditions required for permanent vegetative establishment:
    1. Soil pH shall be between 6.0 and 7.0.
    2. Soluble salts shall be less than 500 parts per million (ppm).
    3. The soil shall contain less than 40% clay, but enough fine grained material (>30% silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if lovegrass or serecia lespedezas is to be planted, then a sandy soil (<30% silt plus clay) would be acceptable.
    4. Soil shall contain 1.5% minimum organic matter by weight.
    5. Soil must contain sufficient pore space to permit adequate root penetration.
    6. If these conditions cannot be met by soils on site, adding topsoil is required in accordance with Section 21 Standard and Specification for Topsoil.
  - 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 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 and application. Where site conditions will not permit normal seedbed preparation, loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface. Steep slopes (steeper than 3:1) should be tracked by a dozer leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. The top 1-3" of soil should be loose and friable. Seedbed loosening may not be necessary on newly disturbed areas.

D. Seed Specifications
- i. All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to re-testing by a recognized seed laboratory. All seed used shall have been tested within the 6 months immediately preceding the date of sowing such material on this job.

Note: Seed tags shall be made available to the inspector to verify type and rate of seed used.
- ii. Inoculant - The inoculant for treating legume seed in the seed mixtures shall be a pure culture of nitrogen-fixing bacteria prepared specifically for the species. Inoculants shall not be used later than the date indicated on the container. Add fresh inoculant as directed on package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75°-80° F. can weaken bacteria and make the inoculant less effective.

E. Methods of Seeding
- i. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast or drop seeded, or a cultipacker seeder.
  - a. If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: nitrogen; maximum of 100 lbs. per acre total of soluble nitrogen; P205 (phosphorous); 200 lbs/ac; K20 (potassium): 200 lbs/ac.
  - b. Lime - use only ground agricultural limestone, (Up to 3 tons per acre may be applied by hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.
  - c. Seed and fertilizer shall be mixed on site and seeding shall be done immediately and without interruption.
- ii. Dry Seeding: This includes use of conventional drop or broadcast spreaders.
  - a. Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the Temporary or Permanent Seeding Summaries or Tables 265 or 26. The seeded area shall then be rolled with a weighted roller to provide good seed to soil contact.
  - b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.
- iii. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.
  - a. Cultipacking seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seedbed must be firm after planting.
  - b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.

F. Mulch Specifications (In order of preference)
- i. Straw shall consist of thoroughly threshed wheat, rye or oat straw, reasonable bright in color, and shall not be musty, moldy, caked, decayed, or excessively dusty and shall be free of noxious weed seeds as specified in the Maryland Seed Law.
- ii. Wood Cellulose Fiber Mulch (WCFM)
  - a. WCFM shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state.
  - b. WCFM shall be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry.
  - c. WCFM, including dye, shall contain no germination or growth inhibiting factors.
  - d. WCFM materials shall be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material shall form a blotter-like ground cover, on application, having moisture absorption and percolation properties and shall cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.
  - e. WCFM material shall contain no elements or compounds at concentration levels that will be phytol-toxic.
  - f. WCFM must conform to the following physical requirements: fiber length to approximately 10 mm. , diameter approximately 1 mm., pH range of 4.0 to 8.5, ash content of 1.6% maximum and water holding capacity of 90% minimum.

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

G. Mulching Seeded Areas - Mulch shall be applied to all seeded areas immediately after seeding.
- i. If grading is completed outside of the seeding season, mulch along shall be applied as prescribed in this section and maintained until the seeding season returns and seeding can be performed in accordance with these specifications.
- ii. When straw mulch is used, it shall be spread over all seeded areas at the rate of 2 tons/acre. Mulch shall be applied to a uniform loose depth of between 1" and 2". Mulch applied shall achieve a uniform distribution and depth so that the soil surface is not exposed. If a mulch anchoring tool is to be used, the rate should be increased to 2.5 tons/acre.
- iii. Wood cellulose fiber used as a mulch shall be applied at a net dry weight of 1,500 lbs. per acre. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 lbs. of wood cellulose fiber per 100 gallons of water.

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 done by one of the following methods (listed by preference), depending upon size of area and erosion hazard:
- i. 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.
- ii. Wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 pounds/acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
- iii. Application of liquid binders should be heavier at the edges where wind catches mulch, such as in valleys and crest of banks. The remainder of area should be appear uniform after binder application. Synthetic binders - such as Acrylic DLR (Agro-Tack), DCA-70 Petroset, Terra Tax II, Terra Tack AR or other approved equal may be used at rates recommended by the manufacturer to anchor mulch.
- iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer's recommendations. Netting is usually available in rolls 4' to 15' feet wide and 300 to 3,000 feet long.

I. Incremental Stabilization - Cut Slopes
- i. All cuts slopes shall be dressed, prepared, seeded and mulched as the work progresses. Slopes shall be excavated and stabilized in equal increments not to exceed 15'.
- ii. Construction sequence (Refer to Figure 3 below):
  - a. Excavate and stabilize all temporary swales, side ditches, or berms that will be used to convey runoff from the excavation.
  - b. Perform Phase 1 excavation, dress, and stabilize.
  - c. Perform Phase 2 excavation, dress and stabilize. Overseed Phase 1 areas as necessary.
  - d. Perform final phase excavation, dress and stabilize. Overseed previously seeded areas as necessary.

Note: Once excavation has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions int he operation of completing the operation out of the seeding season will necessitate the application of temporary stabilization.

J. Incremental Stabilization of Embankments - Fill Slopes
- i. Embankments shall be constructed in lifts as prescribed on the plans.
- ii. Slopes shall be stabilized immediately when the vertical height of the multiple lifts reaches 15", or when the grading operation ceases as prescribed in the plans.
- iii. At the end of each day, temporary berms and pipe slope drains should be constructed along the top edge of the embankment to intercept surface runoff and convey it down the slope in a non-erosive manner to a sediment trapping device.
- iv. Construction sequence: Refer to Figure 4 (below).
  - a. Excavate and stabilize all temporary swales, side ditches, or berms that will be used to divert runoff around the fill. Construct slope silt fence on low side of fill as shown in Figure 5, unless other methods shown on the plans address this area.
  - b. Place Phase 1 embankment, dress and stabilize.
  - c. Place Phase 2 embankment, dress and stabilize.
  - d. Place final phase embankment, dress and stabilize. Overseed previously seeded areas as necessary.

Note: Once the placement of fill has begun the operation should be continuous from grubbing through the completion of and placement of topsoil (if required) grading and permanent seed and mulch. any interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization.

SEDIMENT CONTROL NOTES

1) A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LISCENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855).
2) ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.
3) FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE 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. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
5) ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. 51), SOD (SEC. 54), TEMPORARY SEEDING (SEC. 50), AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
6) ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
7) SITE ANALYSIS:

TOTAL AREA OF SITE	15.73 ACRES
AREA DISTURBED	0.84 ACRES
AREA TO BE ROOFED OR PAVED	0.5889 ACRES
AREA TO BE VEGETATIVELY STABILIZED	0.2511 ACRES
TOTAL CUT	3,000 CU.YDS.
TOTAL FILL	3,000 CU.YDS.
OFFSITE WASTE/BORROW AREA LOCATION	

STOCKPILING WILL NOT BE PERMITTED ON SITE

8) ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
9) ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY 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 LENGHTS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT	7 DAYS
2. INSTALL SEDIMENT AND EROSION CONTROL DEVICES AS SHOWN ON PLAN	7 DAYS
3. CLEAR AND GRUB TO LIMITS OF DISTURBANCE	4 DAYS
4. INSTALL TEMPORARY SEEDING	2 DAYS
5. CONSTRUCT BUILDINGS	60 DAYS
6. FINE GRADE SITE AND INSTALL PERMANENT SEEDING AND LANDSCAPE	14 DAYS
7. REMOVE SEDIMENT CONTROL DEVICES AS UPLAND AREAS ARE STABILIZED AND PERMISSION IS GRANTED BY E/S CONTROL INSPECTOR.	7 DAYS

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 9757 EXPIRATION DATE IS 2/28/10.

[signature] 12·1·08

EARL D. COLLINS, PROFESSIONAL ENGINEER DATE

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.

Soil Amendments : Apply 600 lbs. per acre 10-10-10 fertilizer (14 lbs. per 1000 sq.ft.).

Seeding : For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2-1/2 bushels per acre of annual rye (3.2 lbs. per 1000 sq.ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (0.07 lbs. per 1000 sq.ft.). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching : Apply 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal. per 1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal. per 1000 sq.ft.) for anchoring.

Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived 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.

Soil Amendments : In lieu of soil test recommendations, use one of the following schedules :
1) Preferred – Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq.ft.) and 600 lbs. per acre 10-10-10 fertilizer (14 lbs. per 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs. per acre 30-0-0 ureaform fertilizer (9 lbs. per 1000 sq.ft.).
2) Acceptable – Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq.ft.) and 1000 lbs. per acre 10-10-10 fertilizer (23 lbs. per 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil.

Seeding : For the period March 1 thru April 30 and from August 1 thru October 15, seed with 60 lbs. per acre (1.4 lbs. per 1000 sq.ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs. per acre (0.05 lbs. per 1000 sq.ft.) of weeping lovegrass. During the period October 16 thru February 28, protect site by one of the following options:
1) 2 tons per acre of well-anchored mulch straw and seed as soon as possible in the spring.
2) Use sod.
3) Seed with 60 lbs. per acre Kentucky 31 Tall Fescue and mulch with 2 tons per acre well anchored straw.

Mulching : Apply 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal. per 1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal. per 1000 sq.ft.) for anchoring.

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

STANDARDS AND SPECIFICATIONS 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, materials toxic to plants, and/or unacceptable soil gradation.

Conditions Where Practice Applies

I. 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.
- b. 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.
- c. The original soil to be vegetated contains material toxic to plant growth.
- d. 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. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

Construction and Material Specifications

I. Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative 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:
- i. 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, gravel, sticks, roots, trash, or other materials larger than 11/2" in diameter.
- ii. Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, 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 square feet) 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 sites havinc, disturbed areas under 5 acres:
- i. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization – Section I – Vegetative Stabilization Methods and Materials.

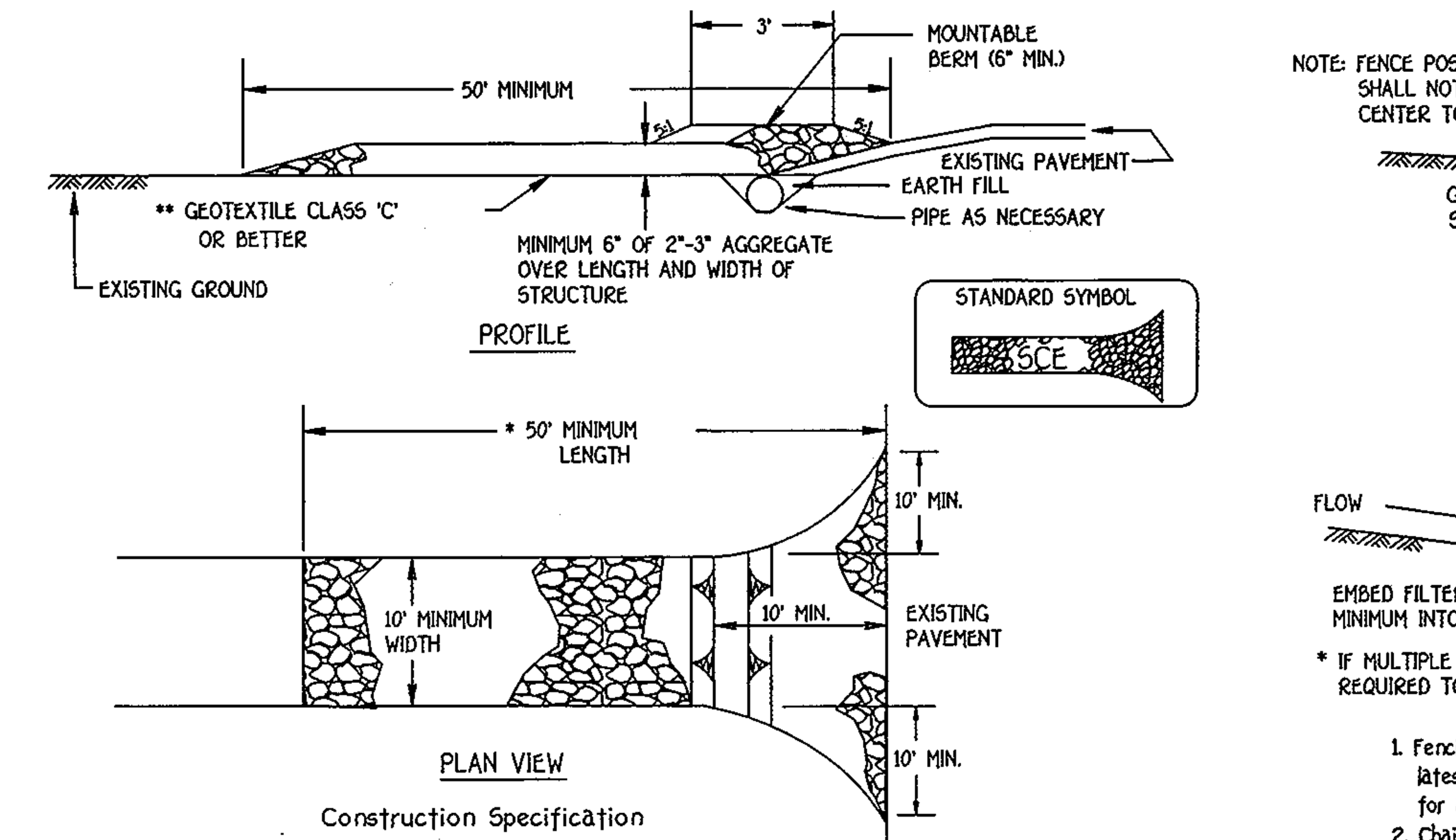
III For sites having disturbed areas over 5 acres:
- i. On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
  - a. pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be perscribed to raise the pH to 6.5 or higher.
  - b. Organic content of topsoil shall be not less than 1.5 percent by weight.
  - c. Topsoil havina soluble salt content greater than 500 parts per million shall not be used.
  - d. No sod or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.

Note: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appopriate approval authority, may be used in lieu of natural topsoil.
- ii. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization – Section I – Vegetative Stabilization Methods and Materials.

V. Topsoil Application
- i. 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 distributed 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 seedine 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 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.

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:
- i. 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:
  - 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.
  - b. Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, 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.
  - c. Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.
- iv. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, 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 Institutes. Revised 1973.



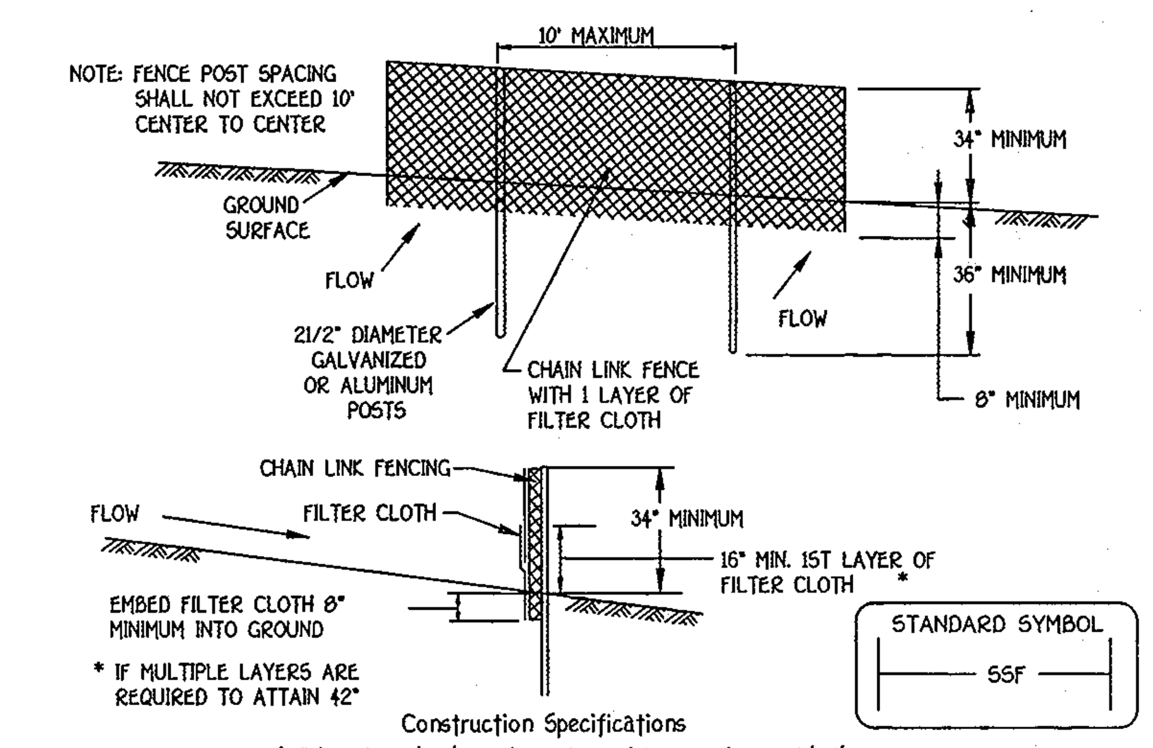
Construction Specification

1. Length - minimum of 50' (*30' for single residence lot).
2. Width - 10' minimum, should be flared at the existing road to provide a turning radius.
3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. **The plan approval authority may not require single family residences to use geotextile.
4. Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
5. Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.

Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE



Construction Specifications

1. 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 42" fabric and 6' length posts.
2. Chain link fence shall be fastened securely 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.
3. Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
4. Filter cloth shall be embedded a minimum of 8" into the ground.
5. When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
6. Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence, or when silt reaches 50% of fence height
7. Filter cloth shall be fastened securely to each fence post with wire ties or staples at top and mid section and shall meet the following requirements for Geotextile Class F:

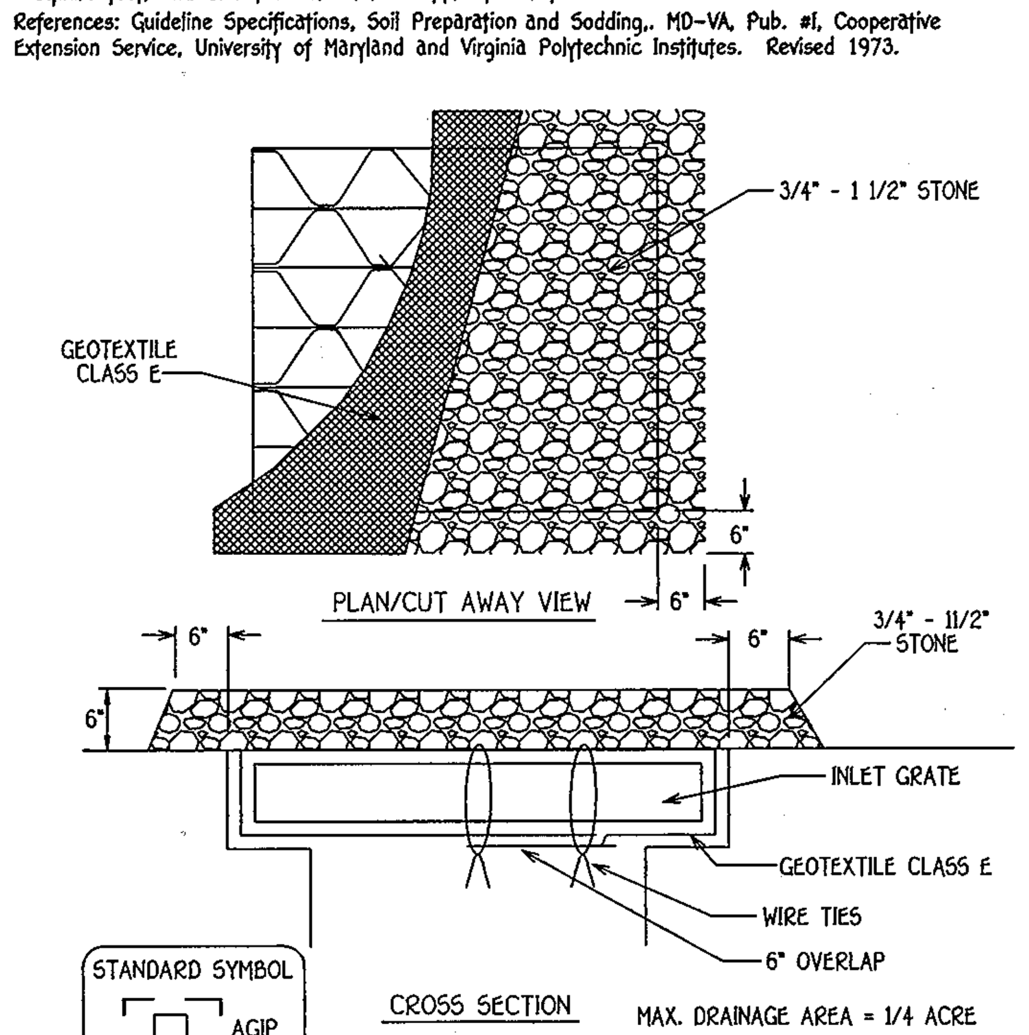
Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal/ft /minute (max.) 2	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

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

SUPER SILT FENCE

NOT TO SCALE

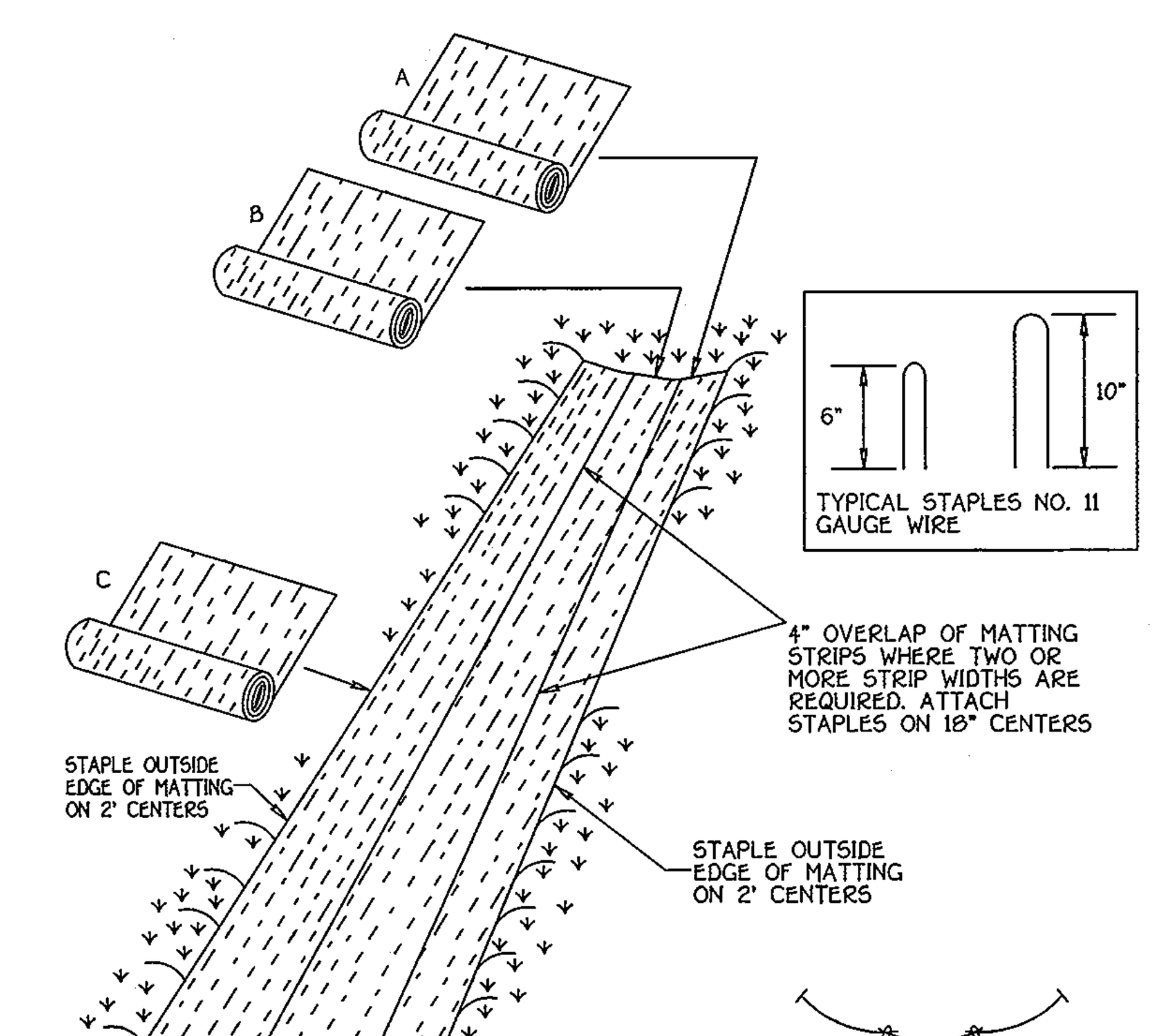


Construction Specifications

1. Lift grate and wrap with Geotextile Class E to completely cover all openings, then set grate back in place.
2. Place 3/4" to 11/2" stone, 4"-6" thick on the grate to secure the fabric and provide additional filtration.

AT GRADE INLET PROTECTION

NOT TO SCALE



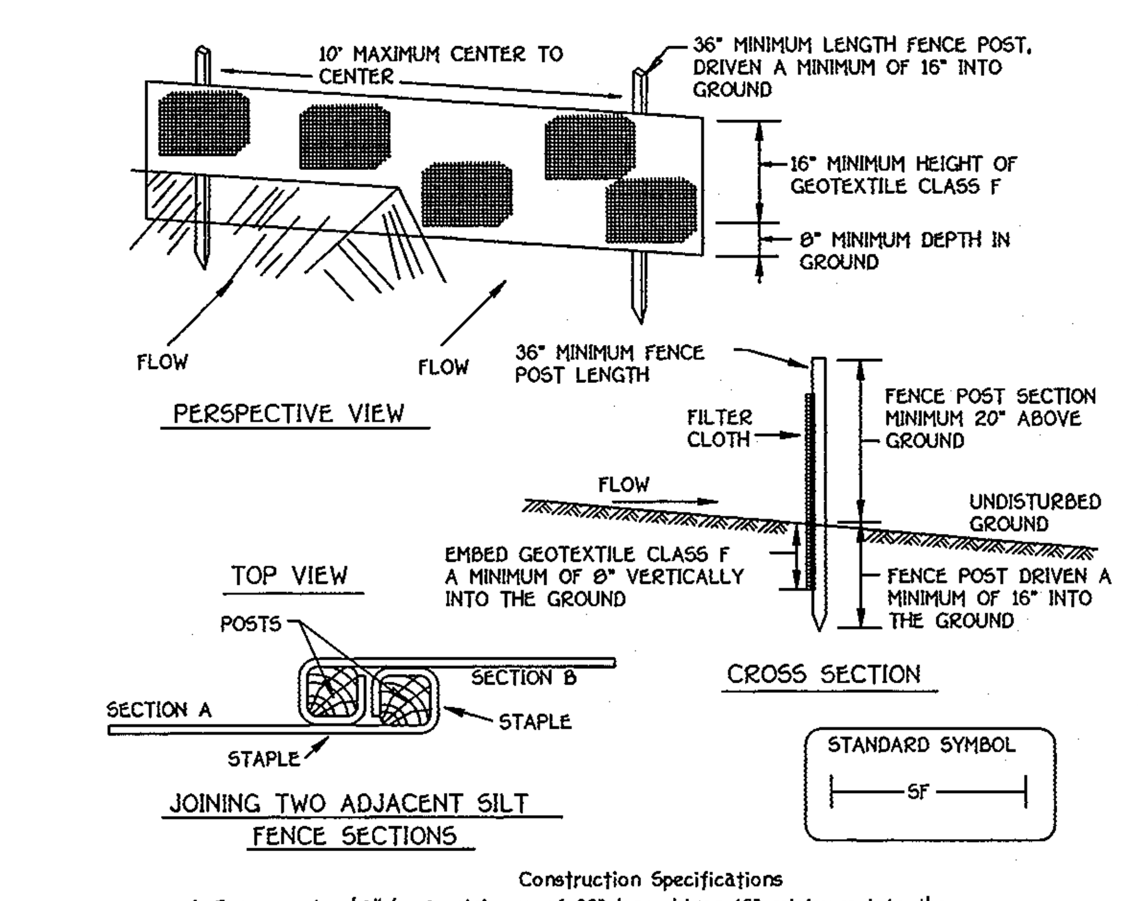
Construction Specifications

1. Key-in the matting by placing the top ends of the matting in a narrow trench, 6" in depth. Backfill the trench and tamp firmly to conform to the channel cross-section. Secure with a row of staples about 4" down slope from the trench. Spacing between staples is 6".
2. Staple the 4" overlap in the channel center using an 18" spacing between staples.
3. Before stapling the outer edges of the matting, make sure the matting is smooth and in firm contact with the soil.
4. Staples shall be placed 2' apart with 4 rows for each strip, 2 outer rows, and 2 alternating rows down the center.
5. Where one roll of matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by 4", shiplap fashion. Reinforce the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side.
6. The discharge end of the matting liner should be similarly secured with 2 double rows of staples.

Note: If flow will enter from the edge of the matting then the area effected by the flow must be keyed-in.

EROSION CONTROL MATTING

NOT TO SCALE



Construction Specifications

1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 11/2" x 11/2" square (minimum) cut, or 13/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pond per linear foot.
2. Geotextile shall be fastened securely 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: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal ft / minute (max.)*	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
4. Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

Silt Fence Design Criteria

Slope Steepness	(Maximum) Slope Length	(Maximum) Silt Fence Length
Flatter than 50:1	unlimited	unlimited
50:1 to 10:1	125 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 these areas a silt fence may be the only perimeter control required.

SILT FENCE

NOT TO SCALE

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE

STATE OF MARYLAND · EARL D. COLLINS · No. 9753 · PROFESSIONAL ENGINEER

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] 12·1·08

Signature of Engineer EARL D. COLLINS Date

BUILDER/DEVELOPER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan, for sediment and erosion control and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."

[signature] 12-5-08

Signature of Developer Date

Reviewed for HOWARD SCD and meets Technical Requirements.

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.

[signature] 12/16/08

Howard SCD Date

OWNER

ELLICOTT CITY LAND HOLDING, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MD. 21042
443-367-0415

BUILDER

RYAN HOMES, INC.
6085 MARSHALEE DRIVE
ELKRIDGE, MARYLAND 21075
410-796-0980

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[signature] 12/19/08
Chief, Division of Land Development Date

[signature] 12/18/08
Chief, Development Engineering Division Date

[signature] 12/15/08
Director - Department of Planning and Zoning Date

SEDIMENT AND EROSION CONTROL NOTES AND DETAILS

TOWNHOUSES

HEARTHSTONE AT ELLICOTT MILLS II

AGE RESTRICTED ADULT HOUSING

PARCEL A

UNITS 29 THRU 38

TAX MAP NO.: 31 T.M. PARCEL NO.: 36 & 20 GRID NO.: 7

SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

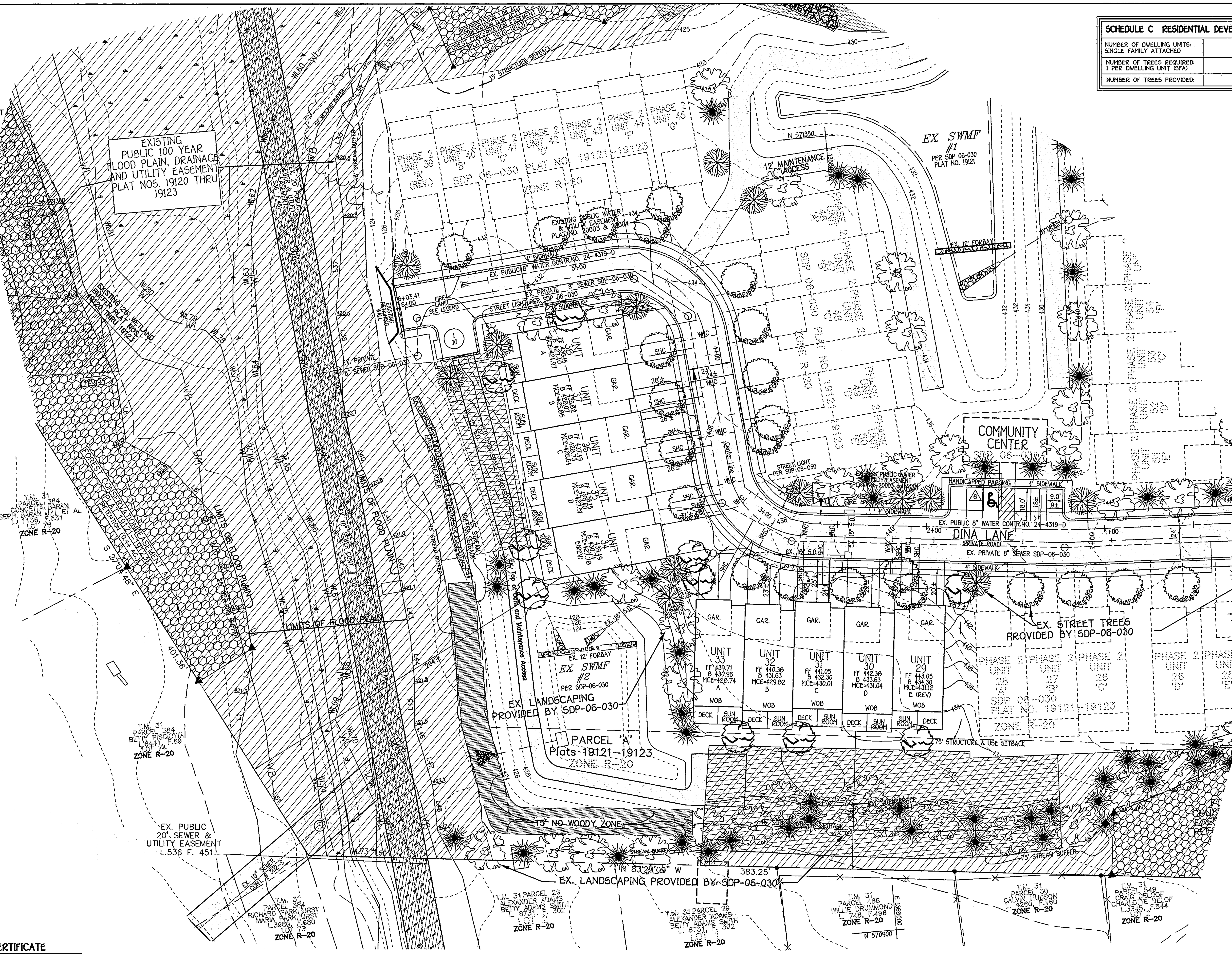
SCALE: AS SHOWN DATE: SEPTEMBER, 2008

SDP 09-004

I:\2007\07047\dwg\SDP (UNITS 30-39)\07047 SEC (Units 30-39).dwg, 12/1/2008 2:51:42 PM, barryp, 1:1

LEGEND

- WETLANDS
- FOREST CONSERVATION EASEMENT
- NO WOODY BUFFER
- STEEP SLOPES (15% – 25%)
- PUBLIC WATER AND UTILITY EASEMENT
- EX. 20' PUBLIC SEWER AND UTILITY EASEMENT
- SWM MAINTENANCE ACCESS
- RECREATIONAL OPEN SPACE
- CREDITIED OPEN SPACE
- EXTERIOR LIGHT FIXTURE
- EXISTING TREELINE
- SCE STABILIZED CONSTRUCTION ENTRANCE
- SF SILT FENCE
- SSF SUPER SILT FENCE
- LOD LIMIT OF DISTURBANCE
- EROSION CONTROL MATTING
- WOB WALKOUT BASEMENT
- FIRE LANE CURB (RED PAINT)



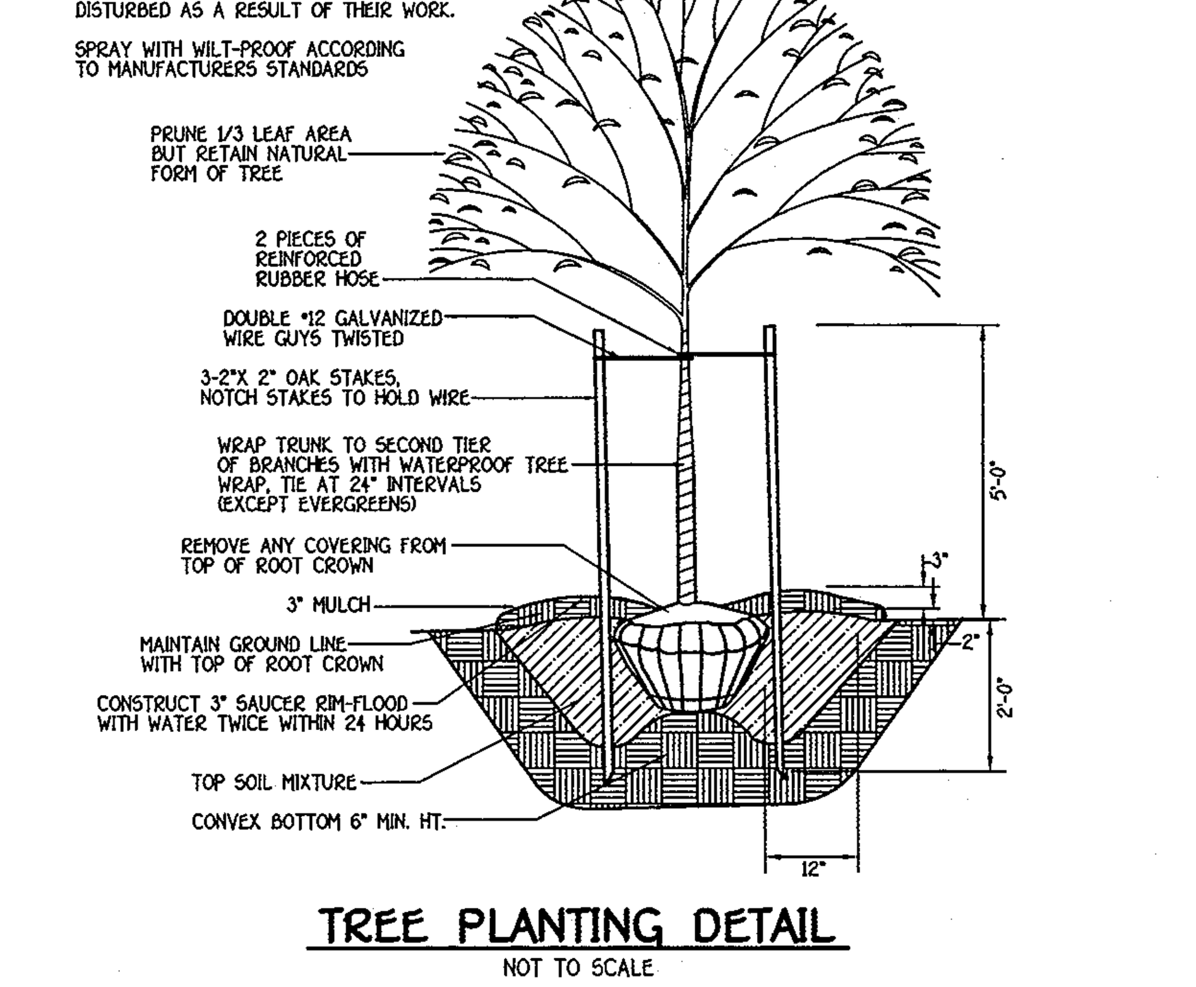
SCHEDULE C RESIDENTIAL DEVELOPMENT INTERNAL LANDSCAPING	
NUMBER OF DWELLING UNITS: SINGLE FAMILY ATTACHED	10
NUMBER OF TREES REQUIRED: 1 PER DWELLING UNIT (SFA)	10
NUMBER OF TREES PROVIDED:	10

LANDSCAPING PLANT LIST (SCHEDULE C)

QTY.	KEY	NAME	SIZE
10	(symbol)	PLATANUS OCCIDENTALIS 'BLOODGOOD' LONDON PLANETREE	2 1/2" - 3" CALIPER FULL CROWN, B&B

10 SHADE TREES AT $300.00 EACH = $3000.00

LANDSCAPING SYMBOLS	
(symbol)	EX. STREET TREES PER SDP 06-030
(symbols)	EX. PINE LAMINAR LANDSCAPING AND SWM PLANTING PER SDP 06-030
(symbol)	PROPOSED UNIT PLANTING PER SDP 09-004



TREE PLANTING DETAIL

NOT TO SCALE

PLANTING SPECIFICATIONS

PLANTS, RELATED MATERIAL, AND OPERATIONS SHALL MEET THE DETAILED DESCRIPTION AS GIVEN ON THE PLANS AND AS DESCRIBED HEREIN.

ALL PLANT MATERIAL, UNLESS OTHERWISE SPECIFIED, SHALL BE NURSERY GROWN, UNIFORMLY BRANCHED, HAVE A VIGOROUS ROOT SYSTEM, AND SHALL CONFORM TO THE SPECIES, SIZE, ROOT AND SHAPE SHOWN ON THE PLANT LIST AND THE AMERICAN ASSOCIATION OF NURSERYMEN (AAN) STANDARDS. PLANT MATERIAL SHALL BE HEALTHY, VIGOROUS, FREE FROM DEFECTS, DECAY, DISFIGURING ROOTS, SUN SCALD INJURIES, ABRASIONS OF THE BARK, PLANT DISEASE, INSECT PEST EGGS, BORERS AND ALL FORMS OF INSECT INFESTATIONS OR OBJECTIONABLE DISFIGUREMENTS. PLANT MATERIAL THAT IS WEAK OR WHICH HAS BEEN CUT BACK FROM LARGER GRADES TO MEET SPECIFIED REQUIREMENTS WILL BE REJECTED. TREES WITH FORKED LEADERS WILL NOT BE ACCEPTED. ALL PLANTS SHALL BE FRESHLY DUG; NO HEALED-IN PLANTS FROM COLD STORAGE WILL BE ACCEPTED.

UNLESS OTHERWISE SPECIFIED, ALL GENERAL CONDITIONS, PLANTING OPERATIONS, DETAILS AND PLANTING SPECIFICATION SHALL CONFORM TO "LANDSCAPE SPECIFICATION GUIDELINES FOR BALTIMORE-WASHINGTON METROPOLITAN AREAS", (HEREINAFTER "LANDSCAPE GUIDELINES") APPROVED BY THE LANDSCAPE CONTRACTORS ASSOCIATION OF METROPOLITAN WASHINGTON AND THE POTOMAC CHAPTER OF THE AMERICAN SOCIETY OF LANDSCAPE ARCHITECT, LATEST EDITION, INCLUDING ALL AGENDA.

CONTRACTOR SHALL BE REQUIRED TO GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR AFTER DATE OF ACCEPTANCE IN ACCORDANCE WITH THE APPROPRIATE SECTION OF THE LANDSCAPE GUIDELINES. CONTRACTOR'S ATTENTION IS DIRECTED TO THE MAINTENANCE REQUIREMENTS FOUND WITHIN THE ONE YEAR SPECIFICATIONS INCLUDING WATERING AND REPLACEMENT OF SPECIFIED PLANT MATERIAL.

CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING UTILITY COMPANIES, UTILITY CONTRACTORS AND "MISS UTILITY" A MINIMUM OF 48 HOURS PRIOR TO BEGINNING ANY WORK. CONTRACTOR MAY MAKE MINOR ADJUSTMENTS IN SPACING AND LOCATION OF PLANT MATERIAL TO AVOID CONFLICTS WITH UTILITIES. DAMAGE TO EXISTING STRUCTURE AND UTILITIES SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.

PROTECTION OF EXISTING VEGETATION TO REMAIN SHALL BE ACCOMPLISHED BY THE TEMPORARY INSTALLATION OF 4 FOOT HIGH SNOW FENCE OR BLAZE ORANGE SAFETY FENCE AT THE DRIP LINE.

CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL MATERIAL IN THE PROPER PLANTING SEASON FOR EACH PLANT TYPE. ALL PLANTING IS TO BE COMPLETED WITHIN THE GROWING SEASON OF COMPLETION OF SITE CONSTRUCTION.

BID SHALL BE BASE ON ACTUAL SITE CONDITIONS. NO EXTRA PAYMENT SHALL BE MADE FOR WORK ARISING FROM SITE CONDITIONS DIFFERING FROM THOSE INDICATED ON DRAWINGS AND SPECIFICATIONS.

PLANT QUANTITIES ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. IF DISCREPANCIES EXIST BETWEEN QUANTITIES SHOWN ON PLAN AND THOSE SHOWN ON THE PLANT LIST, THE QUANTITIES ON THE PLAN TAKE PRECEDENCE.

ALL SHRUBS SHALL BE PLANTED IN CONTINUOUS TRENCHES OR PREPARED PLANTING BEDS AND MULCHED WITH COMPOSTED HARDWOOD MULCH AS DETAILS AND SPECIFIED EXCEPT WHERE NOTED ON PLANS.

POSITIVE DRAINAGE SHALL BE MAINTAINED IN PLANTING BEDS 2 PERCENT SLOPE.

PLANTING MIX SHALL BE AS FOLLOWS: DECIDUOUS PLANTS - TWO PARTS TOPSOIL, ONE PART WELL-ROTTED COW OR HORSE MANURE. ADD 3 LBS. OF STANDARD FERTILIZER PER CUBIC YARD OF PLANTING MIX. EVERGREEN PLANTS - TWO PARTS TOPSOIL, ONE PART HUMUS OR OTHER APPROVED ORGANIC MATERIAL. ADD 3 LBS. OF EVERGREEN (ACIDIC) FERTILIZER PER CUBIC YARD OF PLANTING MIX. TOPSOIL SHALL CONFORM TO THE LANDSCAPE GUIDELINES.

WEED CONTROL: INCORPORATE A PRE-EMERGENT HERBICIDE INTO THE PLANTING BED FOLLOWING RECOMMENDED RATES ON THE LABEL. CAUTION: BE SURE TO CAREFULLY CHECK THE CHEMICAL USED TO ASSURE ITS ADAPTABILITY TO THE SPECIFIC GROUND COVER TO BE TREATED.

ALL AREAS WITHIN CONTRACT LIMITS DISTURBED DURING OR PRIOR TO CONSTRUCTION NOT DESIGNATED TO RECEIVE PLANTS AND MULCH SHALL BE FINE GRADED AND SEEDED.

FINANCIAL SURETY FOR THE REQUIRED 10 SHADE TREES IN THE AMOUNT $3000.00 SHALL BE POSTED AS A PART OF THE BUILDERS GRADING PERMIT APPLICATION FOR UNITS 29-38.

THE FOREST CONSERVATION EASEMENT(S) HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF HOWARD COUNTY CODE AND FOREST CONSERVATION ACT. NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, EXCEPT AS SHOWN ON AN APPROVED ROAD CONSTRUCTION DRAWING OR SITE DEVELOPMENT PLAN. HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.

FOREST CONSERVATION OBLIGATION FOR THIS PLAN AND SDP-06-030 WAS FULFILLED BY SDP-06-030 BY PROVIDING ON-SITE FOREST CONSERVATION EASEMENTS CONTAINING 2.13 ACRES OF RETENTION AND 2.43 ACRES OF REFORESTATION.

BUILDER/DEVELOPER'S/CERTIFICATE

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

NAME ____ DATE 12-5-08

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 9757 EXPIRATION DATE IS 2/28/10.

EARL D. COLLINS, PROFESSIONAL ENGINEER ____ DATE 12-1-08

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE

STATE OF MARYLAND — EARL D. COLLINS — No. 9753 — PROFESSIONAL ENGINEER

ENGINEER'S CERTIFICATE

"I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

Signature of Engineer EARL D. COLLINS — Date 12-1-08

BUILDER/DEVELOPER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan, for sediment and erosion control and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."

Signature of Developer — Date 12-5-08

OWNER
ELLICOTT CITY LAND HOLDING, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MD. 21042
443-367-0415

BUILDER
RYAN HOMES, INC.
6085 MARSHALEE DRIVE
ELKRIDGE, MARYLAND 21075
410-796-0980

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/19/08
Chief, Development Engineering Division — Date 12/18/08
Director - Department of Planning and Zoning — Date 12/19/08

LANDSCAPE PLAN

TOWNHOUSES
HEARTHSTONE AT ELLICOTT MILLS II
AGE RESTRICTED ADULT HOUSING
PARCEL A
UNITS 29 THRU 38

TAX MAP NO.: 31 T.M. PARCEL NO.: 36 & 20 GRID NO.: 7
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 30' DATE: SEPTEMBER, 2008

SDP 09-004