



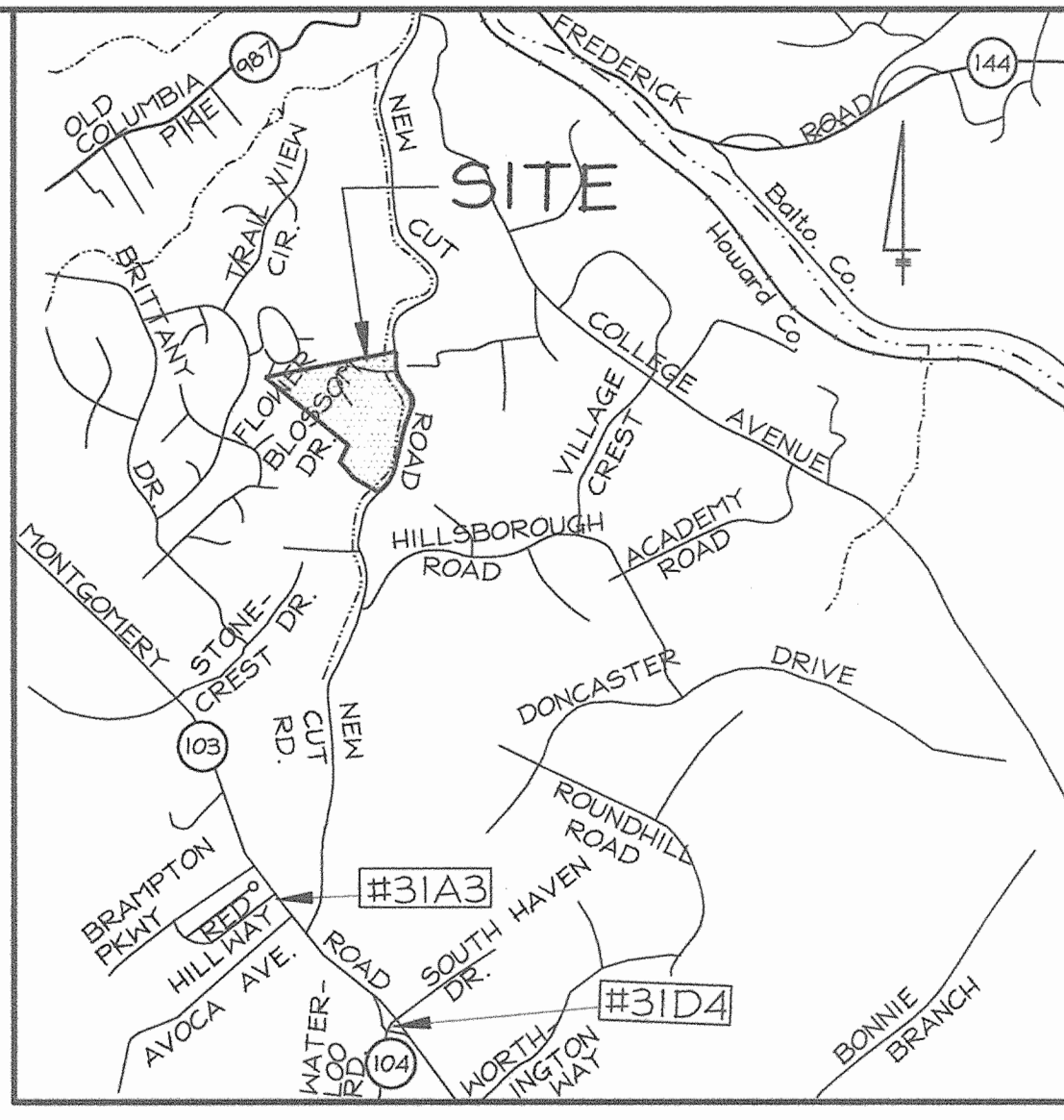
SHEET INDEX	
1.	OVERALL PROPERTY / EXISTING CONDITIONS MAP
2.	SITE DEVELOPMENT PLAN
3.	GRADING & SEDIMENT CONTROL PLAN
4.	FOREST CONSERVATION AND LANDSCAPING PLAN
5.	GRADING & SEDIMENT CONTROL NOTES & DETAILS

**BENCHMARKS:**  
**HOWARD COUNTY GEODETIC CONTROL: 31A3**  
 Elevation: 487.641  
 Coordinates: N 573217.877 E 1368237.662  
 Stamped aluminum or brass disk on a concrete column located at the southeast corner of MD Route 103 and Red Hill Way.

**HOWARD COUNTY GEODETIC CONTROL: 31D4**  
 Elevation: 495.179  
 Coordinates: N 571700.659 E 1364606.281  
 Stamped aluminum or brass disk on a concrete column located at the southeast median island of MD Route 104 at Red Hill Way.

SYMBOL	NAME	SLOPE CHARACTERISTICS
BrC3	Brandywine loam, 8 to 15% slopes/severely eroded	
BrD2	Brandywine loam, 15 to 25% slopes/moderately eroded	
BrD3	Brandywine loam, 15 to 25% slopes/severely eroded	
BrF	Brandywine loam, 25 to 60% slopes	
BwD	Brandywine very stony loam, 3 to 25% slopes	
Co	Calder silt loam	
KeB2	Kelly silt loam, 3 to 8% slopes/moderately eroded	
KeC2	Kelly silt loam, 8 to 15% slopes/moderately eroded	
LeB2	Lagore silt loam, 3 to 8% slopes/moderately eroded	
LeC2	Lagore silt loam, 8 to 15% slopes/moderately eroded	
Wab	Watchung silt loam, 3 to 8% slopes	

(Taken from Map #20)



**VICINITY MAP**  
 1" = 2000'

- NOTES (continued)**
- All fill shall be rolled to a minimum degree of compaction of 90% of the dry unit weight as determined by ASTM D 1557.
  - Earthwork quantities shown on this plan are estimated and should not be used for bid purposes. Contractors should perform independent earthwork analysis for bid purposes.
  - Dimensions from these plans and specifications without prior written consent of the civil engineer may cause the work to be unacceptable.
  - The dimensions shown shall govern if scaled and dimensioned distances on this plan are found to be in disagreement.
  - See sheet 5 for landscaping Schedule 'A', Landscape Planter Summary.
  - The protection of the retained landscaped trees and vegetation used as landscape credit is the responsibility of the builder. If the builder removes the credited landscaping, the builder is responsible for replacement in accordance with the Howard County Landscape Manual.
  - The Forest Conservation obligation for this project is conditionally exempt from the requirements of Section 16.1200 of the Howard County Code of Forest Conservation with the filing of a Declaration of Intent for a single residential lot clearing less than 40,000 square feet. The total forest resource to be cleared is 600 square feet or 0.10 acres +/-.
  - This subdivision plan is subject to the amended Fifth Edition of the Subdivision and Land Development Regulations per Council Bill No. 45-2005 and the Zoning Regulations as amended under Council Bill 975-2005 effective October 2nd, 2005. Development or construction of this property must comply with setback and buffer regulations in effect at the time of submission of the site development plan, water pollution application, or building permit application.
  - The existing septic systems on this property shall be abandoned in accordance with Health Department procedures prior to issuance of the building permit. The existing hand-dug well and the existing well (H091-0584) located on this property have been sealed and abandoned in accordance with Health Department procedures (213/01, 212/01).
  - Approximate locations of wells and septic systems have been shown on sheet 2 of 5.
  - No grading, removal of vegetation cover or trees or placement of new structures is permitted within the limits of wetlands, stream(s), or buffers and forest conservation easement areas.
  - Stormwater Management for this property is provided by use of the natural conservation credit and development restrictions imposed by the perpetual conservation easement administered by the Maryland Environmental Trust. Hydrology and hydraulic study of the existing bridge crossings prepared by KJM Engineering, Inc. dated 10/10/05. Structural certification (H20) of the existing bridge prepared by John L. Schneider, P.E. dated 10/10/05.
  - This property was presented before the Historic District Commission on 10/6/05 as Item #105-17.
  - On 10/20/05, the Chief of the Bureau of Engineering approved a Designer Manual Waiver requesting a waiver of Section 4.3 of Volume II requiring gravity sewer service to the basement or lowest floor of a structure.

**LEGEND**

	EXISTING GROUND
	PROPOSED GRADE
	EXISTING TREELINE
	PROPOSED TREELINE
	DRAINAGE FLOW
	PROPOSED PAVING
	EXISTING PAVING
	EXISTING TREE
	EXISTING SEWER
	EXISTING WATER
	EX. STEEP SLOPES (15%-24.9%)
	EX. STEEP SLOPES (25% AND GREATER)
	EXISTING SOILS LINE
	EX. 100 YR. FLOODPLAIN

ADDRESS CHART	
Parcel No.	Street Address
71	4194 NEW CUT ROAD

Subdivision Name:	MULROY PROPERTY	Sheet/Block:	N/A	Parcel No.:	71
Deed Ref.:	L.8919/F.80	Grid No.:	19	Zoning:	RED
Water Code:	F16	Tax Map No.:	25	Election District:	2nd
		Water Code:	1400510	Consent Tract:	602100

**LDE, INC.**  
 9250 Rumsey Road, Suite 106, Columbia, MD 21045  
 (410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

DESIGNED	BDB	OVERALL PROPERTY EXISTING CONDITIONS MAP	SCALE	1" = 100'
DRAWN	KBW	MULROY PROPERTY	DRAWINGS	1 OF 5
CHECKED	BDB	4194 NEW CUT ROAD	JOB NO.	05-012
DATE	12/20/05	Liber 8919 Folio 80	FILE NO.	SDP06-012
		Previous Submittals: N/A		
		OWNER/DEVELOPER: ROBERT J. & KIMBERLY R. MULROY		
		8367 KING HEIGHTS ROAD		
		Ellicott City, Maryland 21045		
		443-280-1739		

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Joshua A. Langley* 2/6/06  
 DIRECTOR DATE

*Cindy Heath* 1/21/06  
 CHIEF DIVISION OF LAND DEVELOPMENT DATE

*Mr. Damann* 1/20/06  
 CHIEF DEVELOPMENT ENGINEERING DIVISION DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS.

*[Signature]* DATE

NATURAL RESOURCE CONSERVATION SERVICE

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

HOWARD SOIL CONSERVATION DISTRICT DATE

**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. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*Bruce D. Burton* 1/05/06  
 SIGNATURE OF ENGINEER DATE

**DEVELOPER'S CERTIFICATE**

"I WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AS A DEPARTMENT OF THE ENGINEERING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY."

*[Signature]* 1/05/06  
 SIGNATURE OF DEVELOPER DATE

**BUILDER:**  
 FRED C. DICKSON CO., INC.  
 9724 Queen Brown Road  
 Columbia, MD 21045  
 410-995-0454

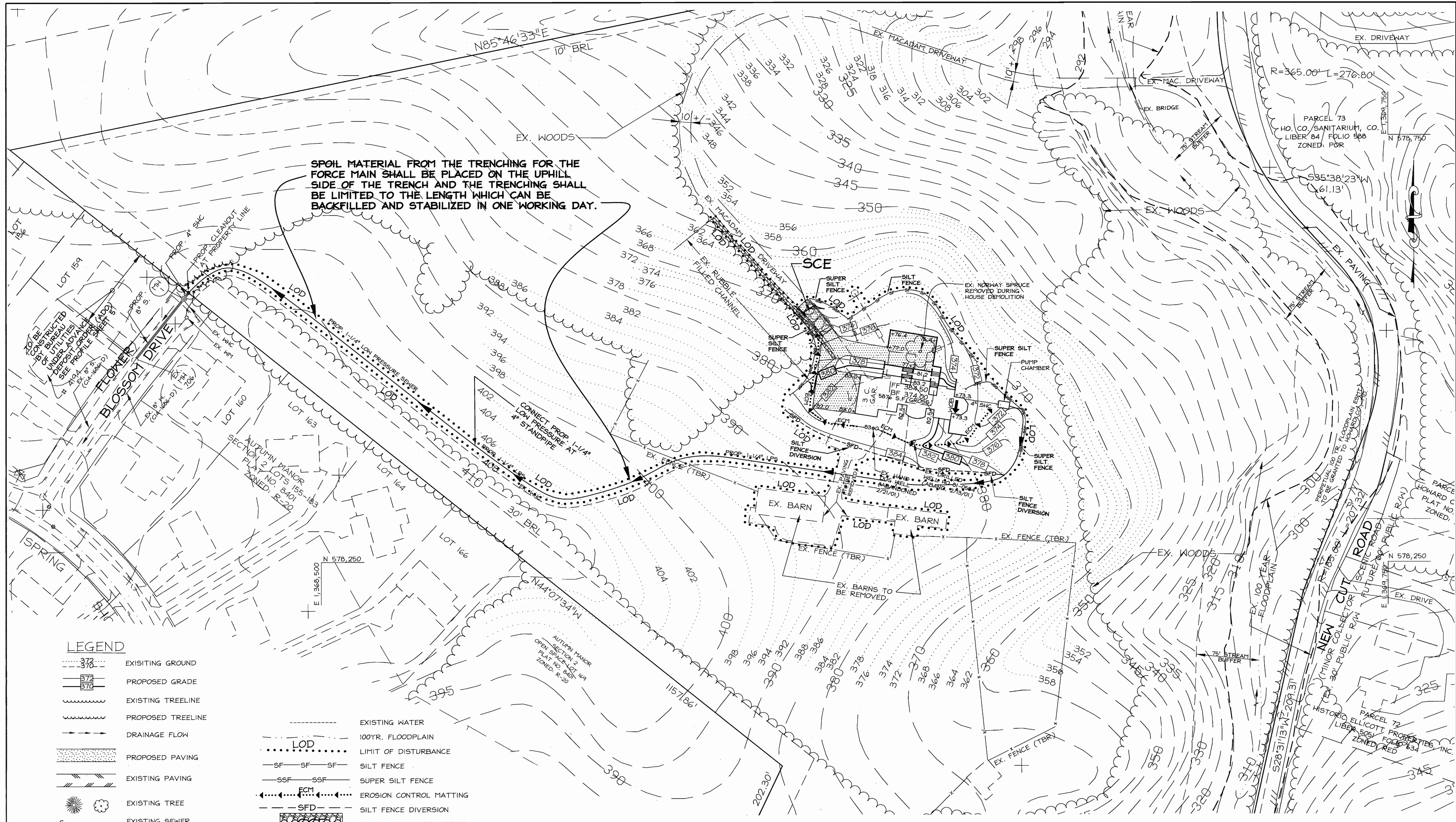
*[Professional Engineer Seal]*  
 1/05/06

REVISIONS	
No.	Description









**LEGEND**

- 370 EXISTING GROUND
- 372 PROPOSED GRADE
- EXISTING TREELINE
- PROPOSED TREELINE
- DRAINAGE FLOW
- PROPOSED PAVING
- EXISTING PAVING
- EXISTING TREE
- EXISTING SEWER
- EXISTING WATER
- 100YR. FLOODPLAIN
- LOD LIMIT OF DISTURBANCE
- SILT FENCE
- SUPER SILT FENCE
- EROSION CONTROL MATTING
- SILT FENCE DIVERSION
- STABILIZED CONSTRUCTION ENTRANCE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Paul P. Leight* 2/4/06  
DIRECTOR DATE

*Cindy Harris* 1/21/06  
CHIEF DIVISION OF LAND DEVELOPMENT DATE

*John R. Roberts* 1/30/06  
CHIEF DEVELOPMENT ENGINEER/INSPECTOR DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS.

*Jim Meyer* 1/26/06  
TECHNICAL RESOURCE CONSERVATION SERVICE DATE

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

*John R. Roberts* 1/26/06  
HOWARD SOIL CONSERVATION DISTRICT DATE

**ENGINEER'S CERTIFICATE**

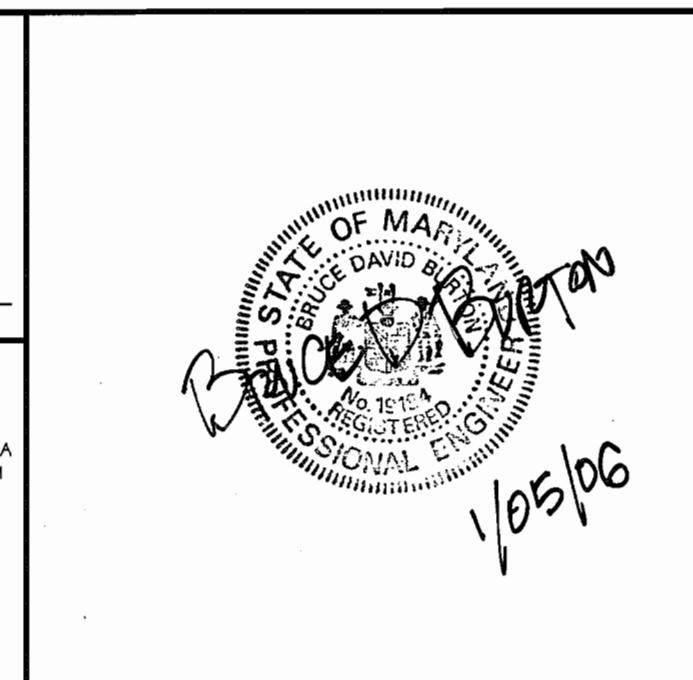
I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*Bruce D. Burton* 1/05/06  
SIGNATURE OF ENGINEER DATE

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*John R. Roberts* 1/05/06  
SIGNATURE OF DEVELOPER DATE

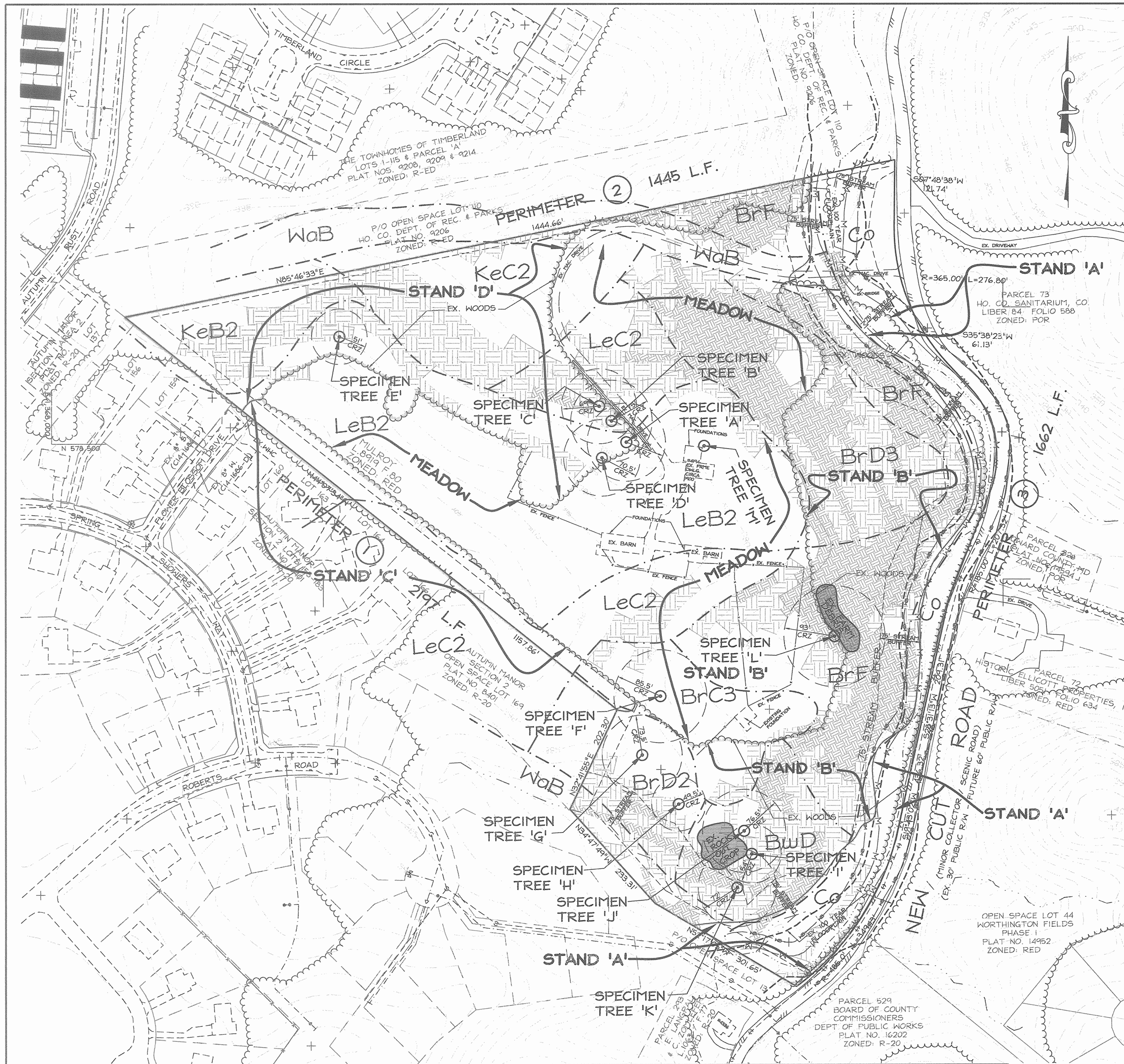


REVISIONS		
No.	Date	Description

**LDE, INC.**  
9250 Rumsey Road, Suite 106, Columbia, MD. 21045  
(410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

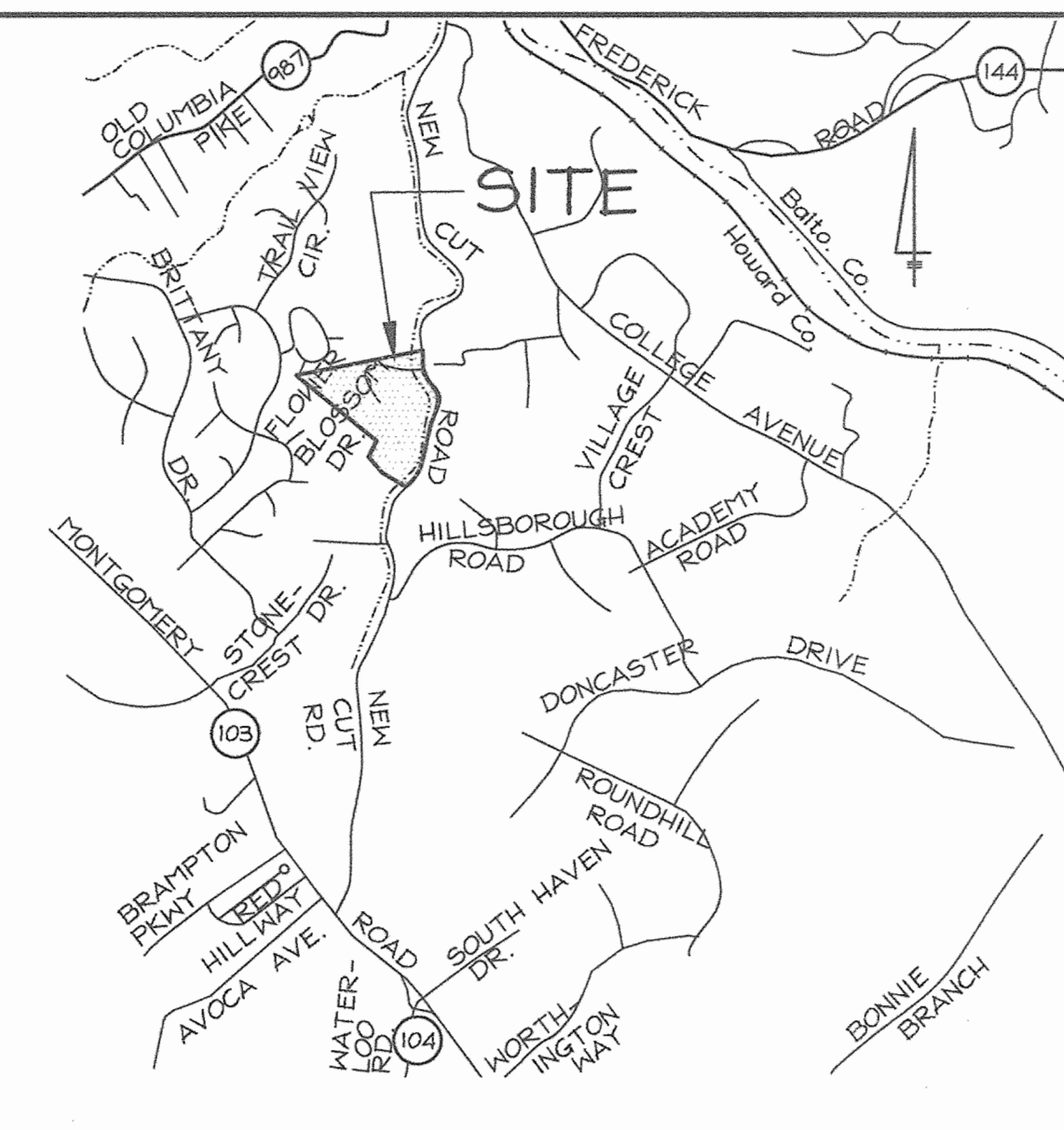
DESIGNED BDB	<b>SEDIMENT &amp; EROSION CONTROL PLAN</b> <b>MULROY PROPERTY</b> 4194 NEW CUT ROAD Liber 8919 Folio 80 Tax Map No. 25, Grid No. 19 Parcel 71 2nd Election District, Howard County, Maryland Previous Submittals: N/A	SCALE 1" = 50'
DRAWN KBW		DRAWINGS 3 OF 5
CHECKED BDB		JOB NO. 05-012
DATE 12/20/05		FILE NO. SDP06-012
ROBERT J. & KIMBERLY R. MULROY 8867 KING HEIGHTS ROAD ELICOTT CITY, MARYLAND 21043 443-280-1759		





**LEGEND**

- EXISTING GROUND
- PROPOSED GRADE
- EXISTING TREELINE
- PROPOSED TREELINE
- DRAINAGE FLOW
- PROPOSED PAVING
- EXISTING PAVING
- EXISTING TREE
- EXISTING SEWER
- EXISTING WATER
- EX. STEEP SLOPES (15%-24.9%)
- EX. STEEP SLOPES (25% AND GREATER)
- EXISTING SOILS LINE
- EX. 100 YR. FLOODPLAIN
- SPECIMEN TREE & CRITICAL ROOT ZONE
- NON-TIDAL WETLANDS
- 25' WETLAND BUFFER
- FOREST STAND BOUNDARY



**NOTES:**

1. GROSS TRACT AREA: 28 AC.
2. AREA OF ONSITE 100 YEAR FLOODPLAIN: 4.1 AC. +/-
3. NET TRACT AREA: 23.9 AC. +/-

**FOREST CONSERVATION WORKSHEET**

**NET TRACT AREA:**

A. Total tract area:	28 Ac.
B. Area within 100 year floodplain:	4.1 Ac.
C. Area to remain in agricultural production:	0.0 Ac.
D. Net tract area:	23.9 Ac.

**LAND USE CATEGORY**

Input the number "1" under the appropriate land use zoning, and limit to only one entry.

ARA	MDR	IDA	HDR	MPD	CIA
1	0	0	0	0	0

**EXISTING FOREST COVER:**

E. Afforestation threshold:	20%	4.8 Ac.
F. Conservation threshold:	50%	12 Ac.

**EXISTING FOREST COVER:**

G. Existing forest cover (excluding floodplain):	12.8 Ac.
H. Area of forest above afforestation threshold:	8.0 Ac.
I. Area of forest above conservation threshold:	0.8 Ac.

**BREAK EVEN POINT:**

J. Forest retention above threshold with no mitigation:	12.8 Ac.
K. Clearing permitted without mitigation:	0.0 Ac.

**PROPOSED FOREST CLEARING:**

L. Total area of forest to be cleared (cannot exceed existing):	0.0 Ac.
M. Total area of forest to be retained:	12.8 Ac.

**PLANTING REQUIREMENTS:**

N. Reforestation for clearing above conservation threshold:	0.0 Ac.
P. Reforestation for clearing below conservation threshold:	0.0 Ac.
Q. Credit for retention above conservation threshold:	0.0 Ac.
R. Total reforestation required:	0.0 Ac.
S. Total afforestation required:	0.0 Ac.
T. Total reforestation and afforestation required:	0.0 Ac.

**SPECIMEN TREE TABLE**

DESIGNATION	SIZE (DBH)	COMMON NAME / SCIENTIFIC NAME	CONDITION
A	48"	White Oak	Good
B	50"	White Oak	Good
C	46"	White Oak	Poor
D	47"	Red Oak	Good
E	34"	Tulip poplar	Good
F	57"	Hickory sp.	Good
G	49"	Red Oak	Good
H	33"	Tulip poplar	Good
I	36"	Tulip poplar	Good
J	51"	Multi-stemmed Red Oak	Poor
K	48"	Tulip poplar	Fair
L	62"	Red Oak	Poor
M	---	Norway Spruce	Removed

**SOILS LEGEND**

SYMBOL	NAME	SLOPE CHARACTERISTICS
BrC3	Brandywine loam, 8 to 15% slopes/severely eroded	
BrD2	Brandywine loam, 15 to 25% slopes/moderately eroded	
BrD3	Brandywine loam, 15 to 25% slopes/severely eroded	
BrF	Brandywine loam, 25 to 60% slopes	
BwD	Brandywine very stony loam, 3 to 25% slopes	
Co	Codorus silt loam	
KeB2	Kelly silt loam, 3 to 8% slopes/moderately eroded	
KeC2	Kelly silt loam, 8 to 15% slopes/moderately eroded	
LeB2	Legore silt loam, 3 to 8% slopes/moderately eroded	
LeC2	Legore silt loam, 8 to 15% slopes/moderately eroded	
WaB	Watchung silt loam, 3 to 8% slopes	

(Taken from Map #20)

**BUILDER:**  
 FRED C. DICKSON CO., INC.  
 9724 Queen Brown Road  
 Columbia, MD 21045  
 410-995-0454

**PROFESSIONAL CERTIFICATION:**  
  
 Steve Heiss, Qualified Professional, MD FCA

**REVISIONS**

No.	Date	Description

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Mark LaCage, 2/6/06, DIRECTOR

Cindy Hamer, 1/31/06, CHIEF, DIVISION OF LAND DEVELOPMENT

Chris Damman, 1/30/06, CHIEF, DEVELOPMENT ENGINEERING DIVISION

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS.

Bruce D. Burton, DATE

NATURAL RESOURCE CONSERVATION SERVICE

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

HOWARD SOIL CONSERVATION DISTRICT, DATE

**ENGINEER'S CERTIFICATE**

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Bruce D. Burton, 1/05/06, SIGNATURE OF ENGINEER

**DEVELOPER'S CERTIFICATE**

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Bruce D. Burton, 1/05/06, SIGNATURE OF DEVELOPER

STATE OF MARYLAND  
 PROFESSIONAL ENGINEER  
  
 Bruce D. Burton, 1/05/06

**LDE, INC.**  
 9250 Rumsey Road, Suite 106, Columbia, MD. 21045  
 (410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

**MULROY PROPERTY LANDSCAPING PLAN**  
 4194 NEW CUT ROAD  
 Liber 8919 Folio 80

DESIGNED: BDB  
 DRAWN: KBW  
 CHECKED: BDB  
 DATE: 12/20/05

SCALE: 1" = 100'  
 DRAWING: 4 OF 5  
 JOB NO.: 05-012  
 FILE NO.: SDP06-012

Robert J. & Kimberly R. Mulroy  
 8867 KING HEIGHTS ROAD  
 ELICOTT CITY, MARYLAND 21045  
 443-280-1739



**STANDARD SEDIMENT CONTROL NOTES**

- A minimum of 48 hours notice must be given to the Howard County Department of Inspections, Licensing and Permits, Sediment Control Division prior to the start of any construction. (31X-195F).
- 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.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater 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 7, 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 (Section G) for permanent seeding, soil, temporary seeding, and mulching. 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.
- Site Analysis:
 

Total Area of Site	27.9	Acres
Area Disturbed	0.32	Acres
Area to be roofed or paved	0.32	Acres
Area to be vegetatively stabilized	1.00	Acres
Total Cut	8,575	Cu. Yds.
Total Fill	8,575	Cu. Yds.
Offsite waste area location	N/A	

**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, disking, or other acceptable means before seeding, if not previously loosened.
- SOIL AMENDMENTS:** In lieu of soil test recommendations, use one of the following schedules:
- PREFERRED:** Apply 2 tons per acre dolomitic limestone (92 lbs/1000sq. ft.) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000sq. ft.) before seeding. Harrow or disk into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 ureaformal fertilizer (9 lbs/1000sq. ft.)
  - ACCEPTABLE:** Apply 2 tons per acre dolomitic limestone (92 lbs/1000sq. ft.) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000sq. ft.) before seeding. Harrow or disk into upper three inches of soil.
- SEEDING:** For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (14 lbs/1000sq. ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs per acre (14 lbs/1000sq. ft.) of Kentucky 31 Tall Fescue and 2 lbs. per acre (.05 lbs/1000sq. ft.) of weeping lovegrass. During the period of October 16 thru February 28, protect site by Option (1) - 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option (2) - Use seed. Option (3) - Seed with 60 lbs per acre Kentucky 31 Tall Fescue and mulch 2 tons / acre well anchored straw.
- MULCHING:** Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000sq. ft.) of unrotted weed free small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 210 gallons per acre (9 gal/1000sq. ft.) of emulsified asphalt on flat areas. On slopes 6 feet or higher, use 340 gallons per acre (9 gal/1000sq. ft.) for anchoring.
- MAINTENANCE:** Inspect all seeding areas and make needed repairs, replacements and reseeding.

**TEMPORARY SEEDING NOTES**

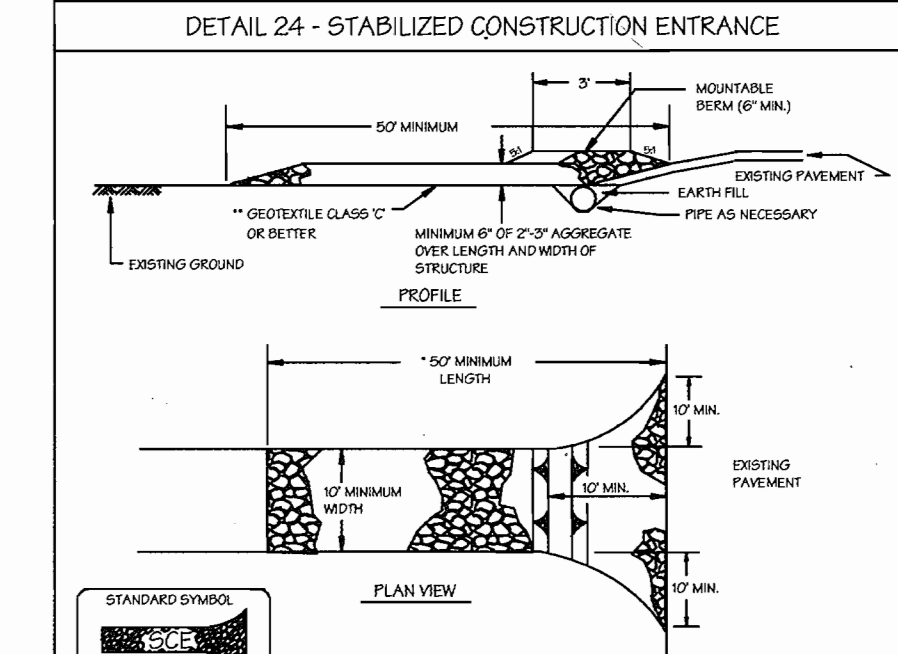
- Apply to graded or cleared areas likely to be redistributed where a short-term vegetative cover is needed.
- SEEDBED PREPARATION:** Loosen upper three inches of soil by raking, disking, or other acceptable means before seeding, if not previously loosened.
- SOIL AMENDMENTS:** Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000sq. ft.).
- SEEDING:** For periods March 1 thru April 30, and from August 15 thru October 15 seed with 2-1/2 bushels per acre of annual ryegrass (32 lbs/1000sq. ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (37 lbs/1000sq. 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 seed.
- MULCHING:** Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000sq. ft.) of unrotted weed free small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 210 gallons per acre (9 gal/1000sq. ft.) of emulsified asphalt on flat areas. On slopes 6 feet or higher, use 340 gallons per acre (9 gal/1000sq. ft.) for anchoring.
- Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for additional rates and methods not covered.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Mark M. Gagle* 2/4/06  
DIRECTOR

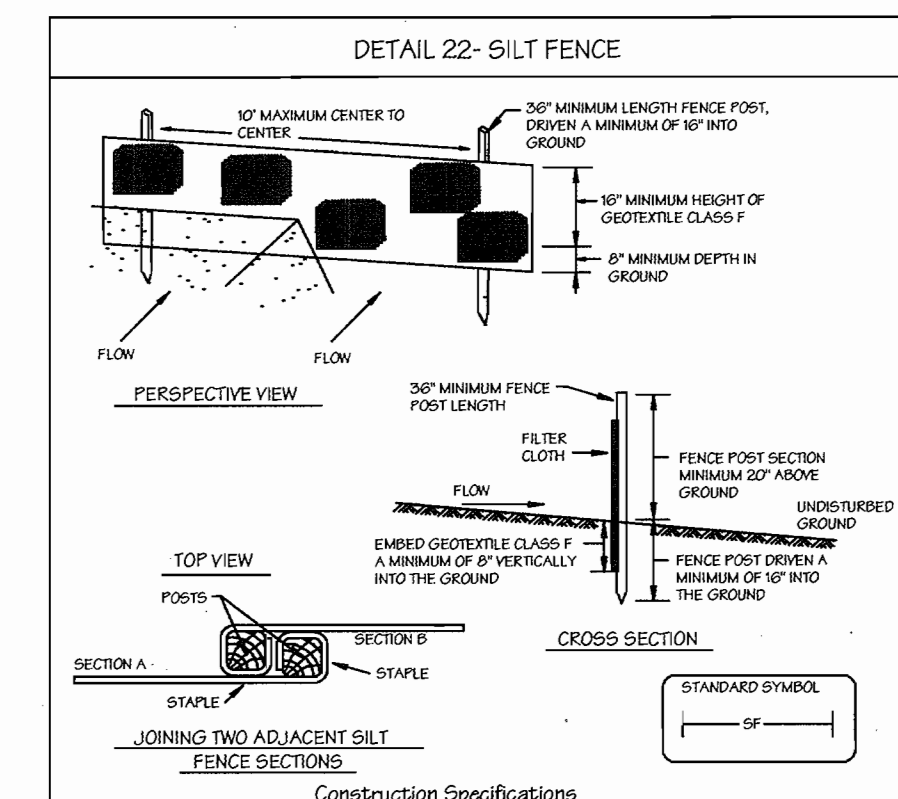
*Cindy Hanna* 1/11/06  
CHIEF DIVISION OF LAND DEVELOPMENT

*John P. ...* 1/30/06  
CHIEF DEVELOPMENT ENGINEERING DIVISION



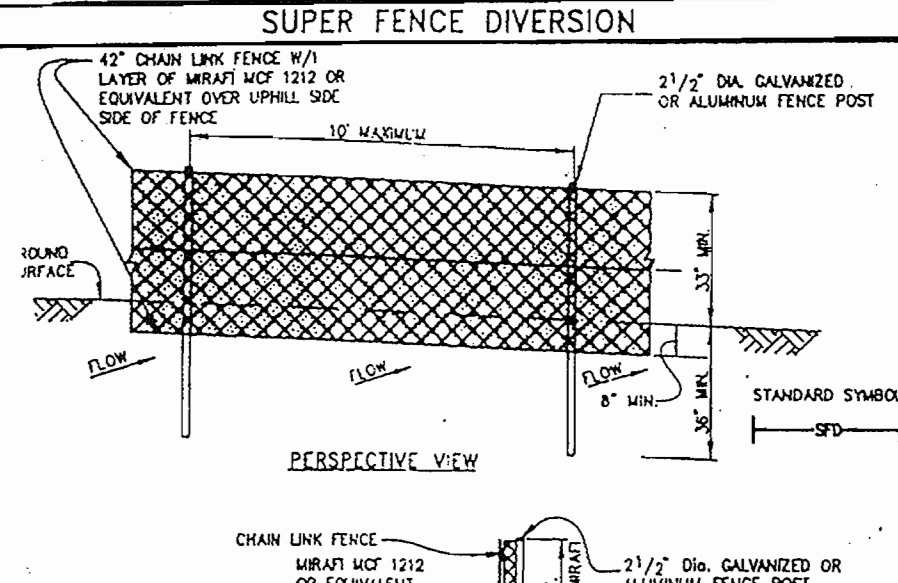
**Construction Specification**

- Length - minimum of 50' (50' for single rest lot).
- Width - 10' minimum, should be flared at the existing road to provide a turning radius.
- 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 fabric.
- 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.
- Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipes installed through the stabilized construction entrance shall be protected with a malleable term with 5:1 slopes and a minimum of 5' of stone over the pipe. Pipes to be sized according to the drainage. When the 5' is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe shall 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. Vehicle leaving the site must travel over the entire length of the stabilized construction entrance.



**Construction Specifications**

- Fence posts shall be a minimum of 3/4\"/>



**CONSTRUCTION SPECIFICATIONS**

- FENCING SHALL BE 4\"/>

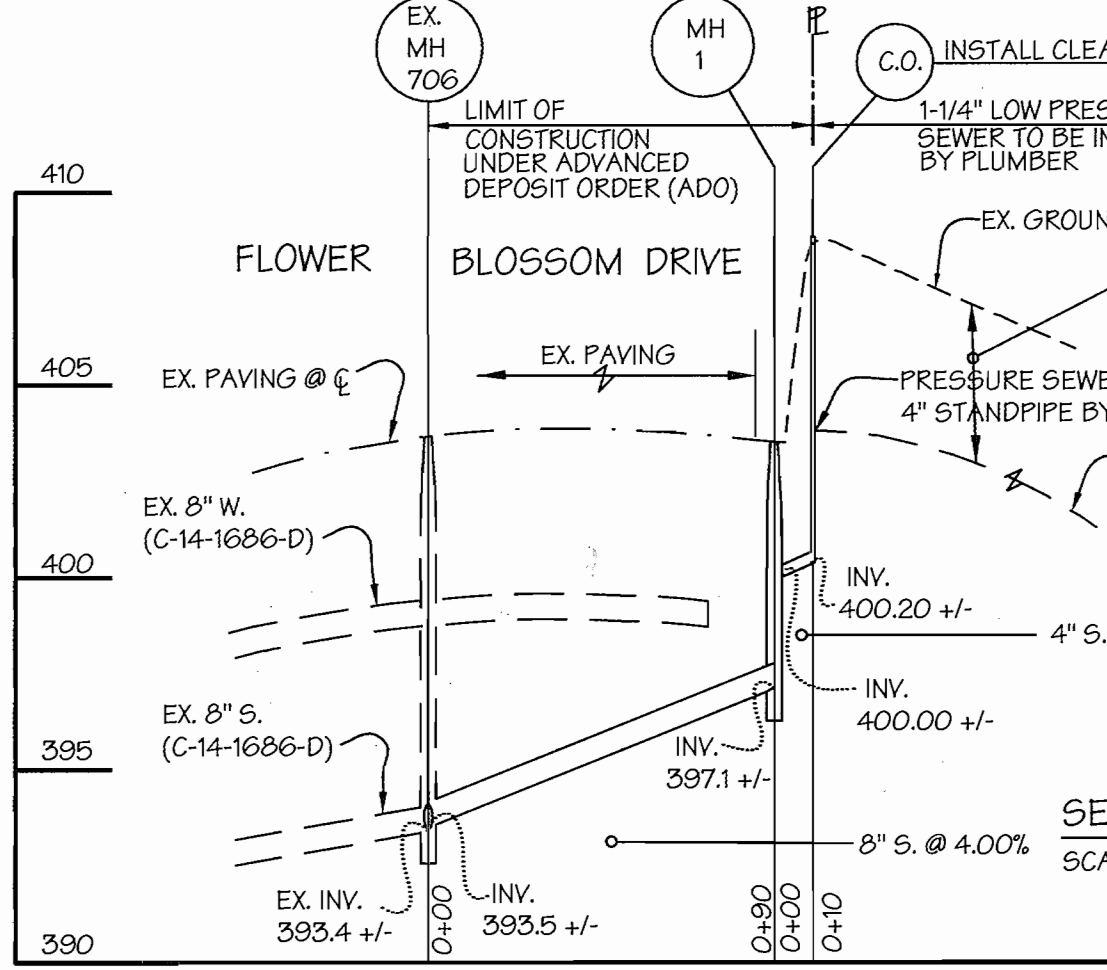
**21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL**

- 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**
- 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. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

- Construction and Material Specifications**
- Topsoil salvaged from the existing site may be used provided that it meets 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-GS 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, gravel, sticks, roots, trash, or other materials larger than 1-1/2\"/>
  - Topsoil must be free of plants or plant parts such as Bermuda grass, quackgrass, Johnsongrass, nutgrass, poison ivy, thistle, or others as follows:
    - Where the subsoil is either highly acidic or composed of heavy clay, ground limestone shall be spread at the rate of 4-6 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.

- For sites having disturbed areas under 5 acres:
  - Place topsoil (if required) and apply soil amendments as specified in 21.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.
- For sites having disturbed areas over 5 acres:
  - On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
    - 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 prescribed to raise the pH to 6.0 or higher.
    - Organic content of topsoil shall be not less than 1.5 percent by weight.
    - Topsoil having soluble salt content greater than 500 parts per million shall not be used.
    - No soil 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 phytotoxic materials.

- Alternative for Permanent Seeding - Instead of applying the full amount 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 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.
    - Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.
  - 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.



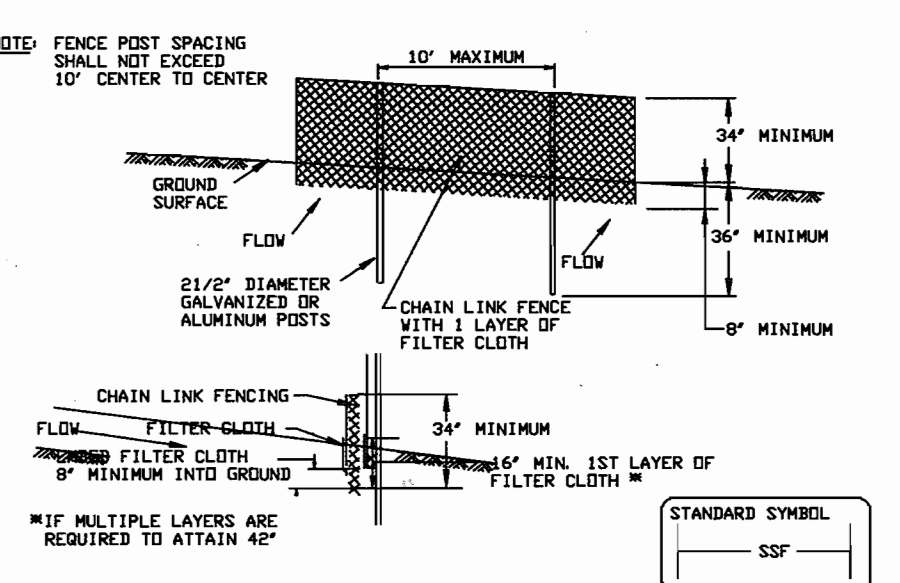
**ENGINEER'S CERTIFICATE**  
I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*Bruce D. Buzen* 1/05/06  
SIGNATURE OF ENGINEER

**DEVELOPER'S CERTIFICATE**  
I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

*John P. ...* 1/05/06  
SIGNATURE OF DEVELOPER

**DETAIL 33 - SUPER SILT FENCE**



**Construction Specifications**

- Fencing shall be 42\"/>

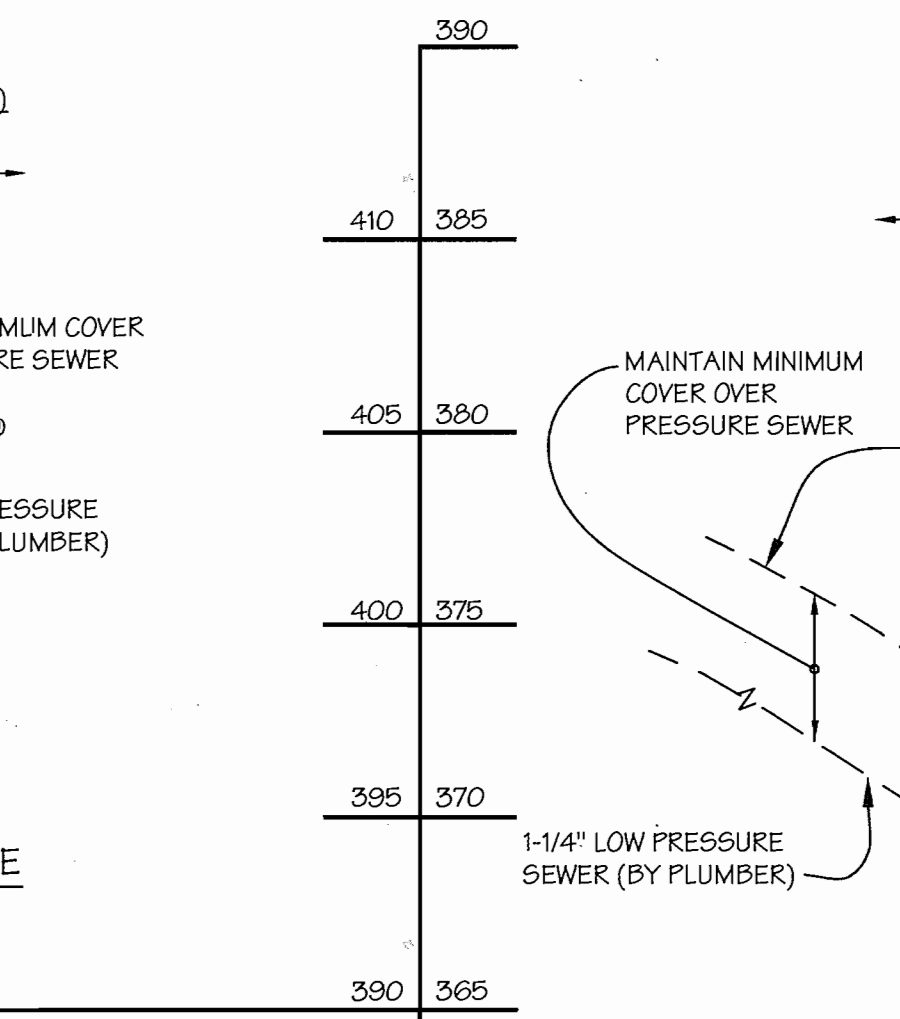
**SUPER SILT FENCE**

**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

**SEQUENCE OF CONSTRUCTION**

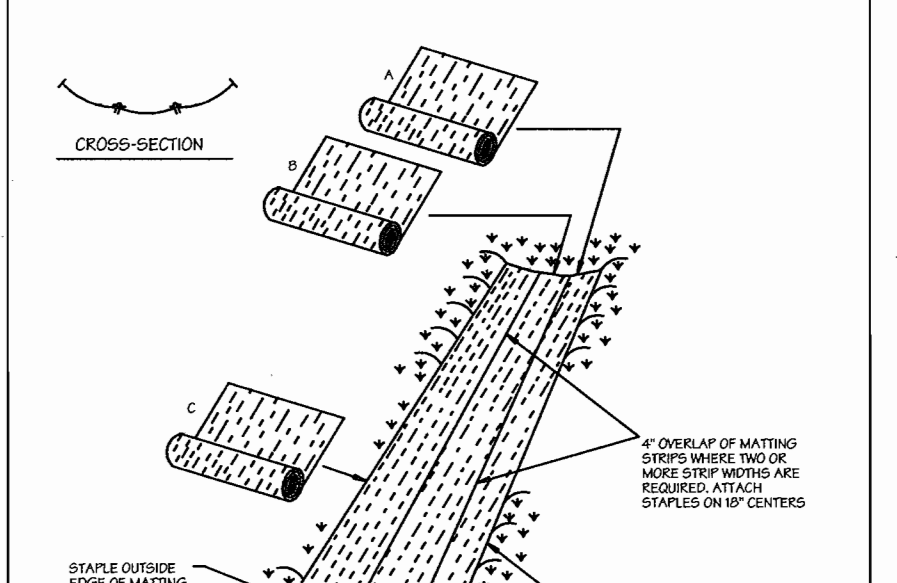
Activity	Duration
1. OBTAIN GRADING PERMIT.	1 DAY
2. NOTIFY THE HOWARD COUNTY DEPT. OF INSPECTIONS, LICENSES & PERMITS AT LEAST 24 HOURS PRIOR TO STARTING WORK.	1 DAY
3. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE.	1 DAY
4. INSTALL SUPER SILT FENCE AND SILT FENCE AT LIMIT OF DISTURBANCE AS SHOWN HEREON.	3 DAYS
5. CLEAR AND GRUB SITE TO SUB-GRADE.	6 DAYS
6. BEGIN EXCAVATION FOR HOUSE FOUNDATION AND BEGIN HOUSE CONSTRUCTION.	90 DAYS
7. THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ON THE SEDIMENT AND EROSION CONTROL STRUCTURES SHOWN HEREON AFTER EACH RAINFALL AND ON A DAILY BASIS.	30 DAYS
8. FINE GRADE AND STABILIZE WITH PERMANENT SEEDING MIXTURE AND STRAW MULCH. INSTALL INDIVIDUAL DRIVEWAY AND HOUSE WALK.	5 DAYS
9. WITH PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT AND EROSION CONTROL MEASURES AND STABILIZE ANY REMAINING DISTURBED AREAS WITH PERMANENT SEEDING MIXTURE AND STRAW MULCH.	5 DAYS
<b>TOTAL TIME:</b>	<b>142 DAYS</b>



**REVISIONS**

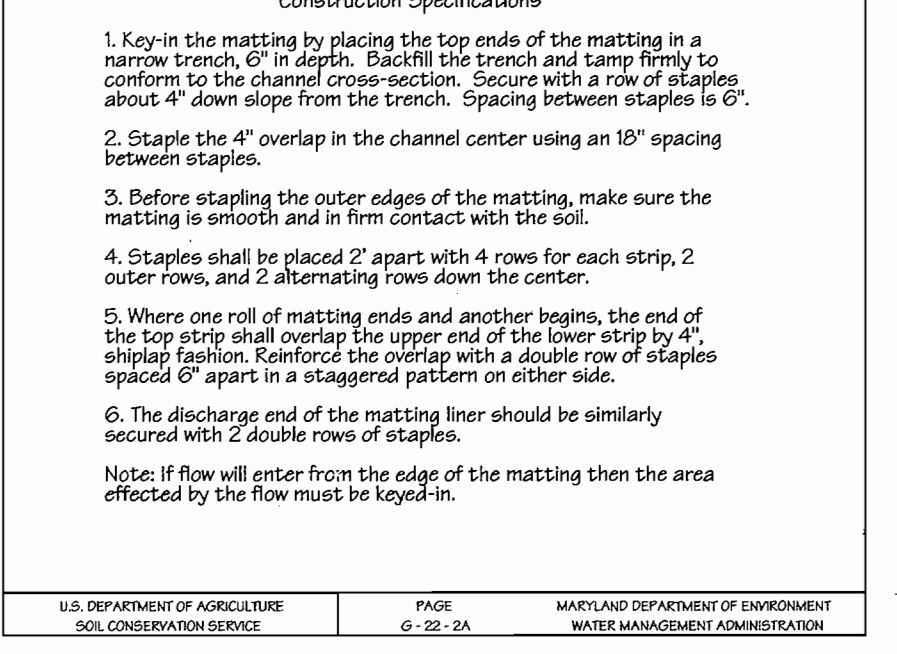
No.	Date	Description

**DETAIL 30 - EROSION CONTROL MATTING**



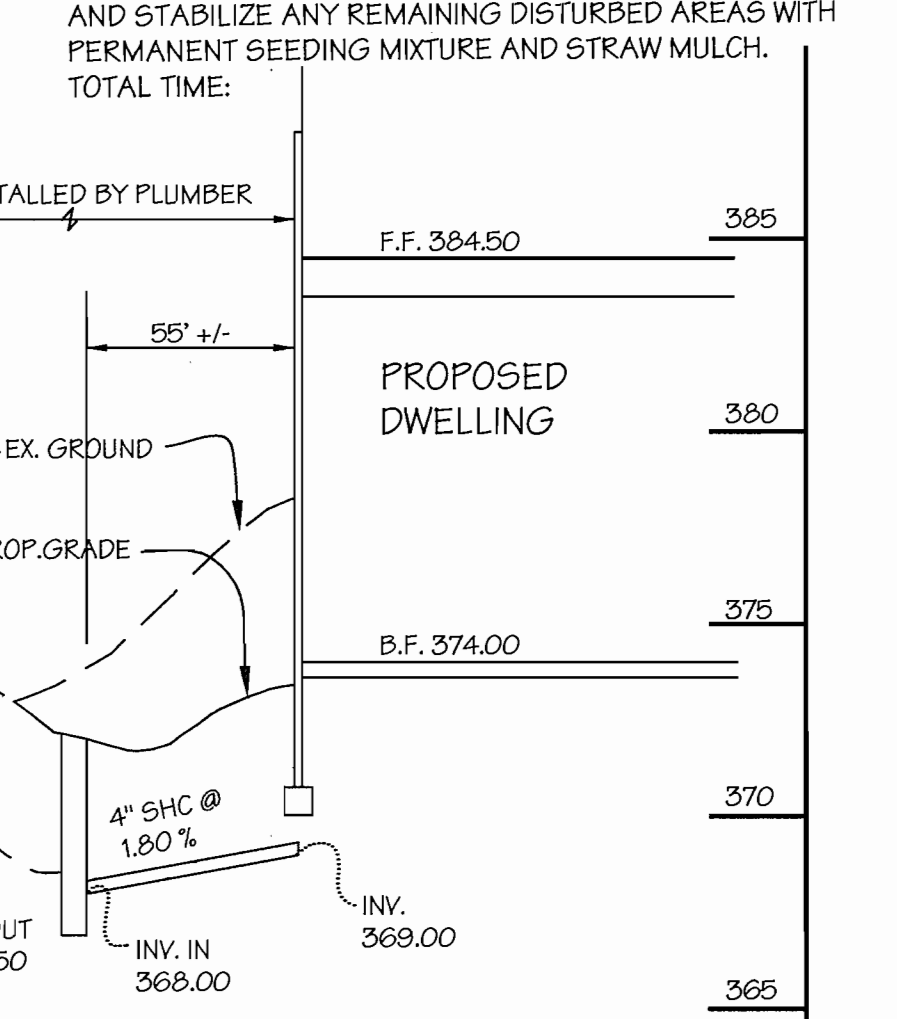
**Construction Specifications**

- Kay-in the matting by placing the top ends of the matting in a narrow trench, 6\"/>



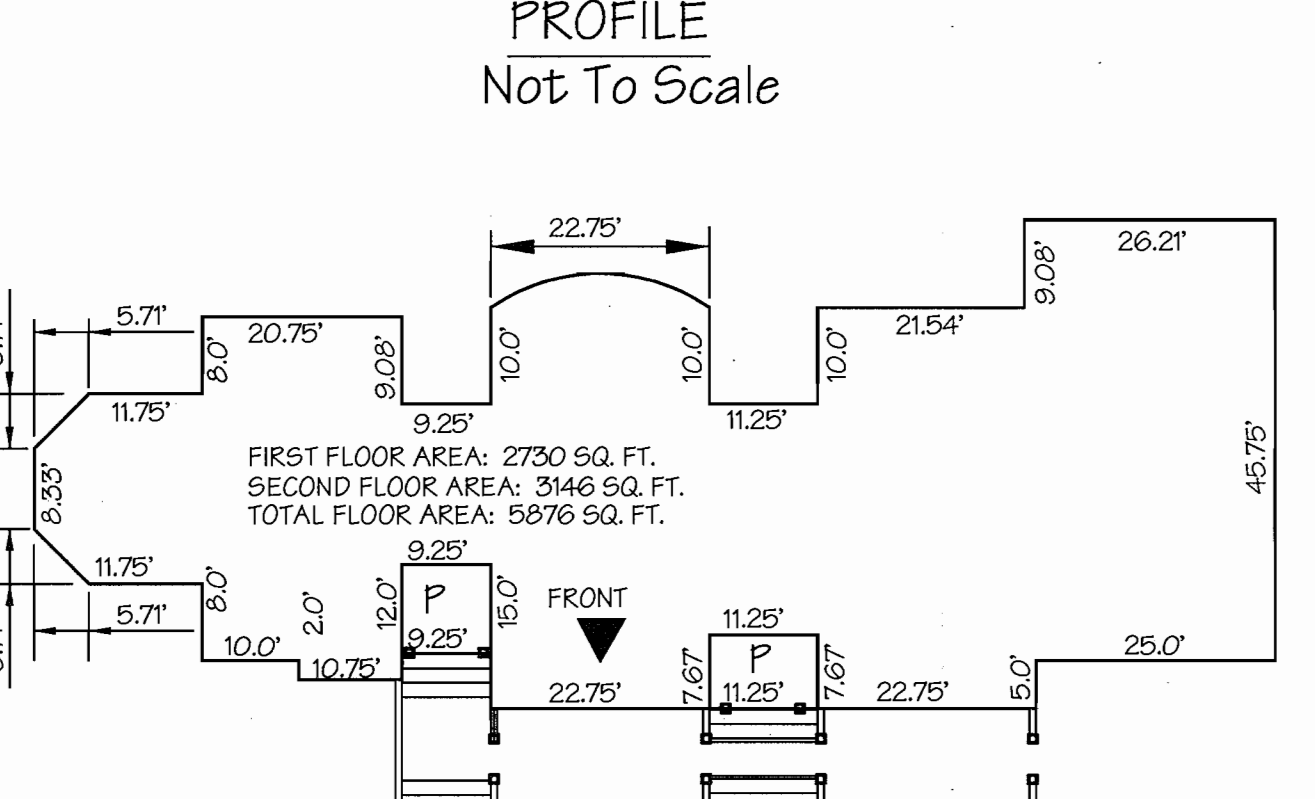
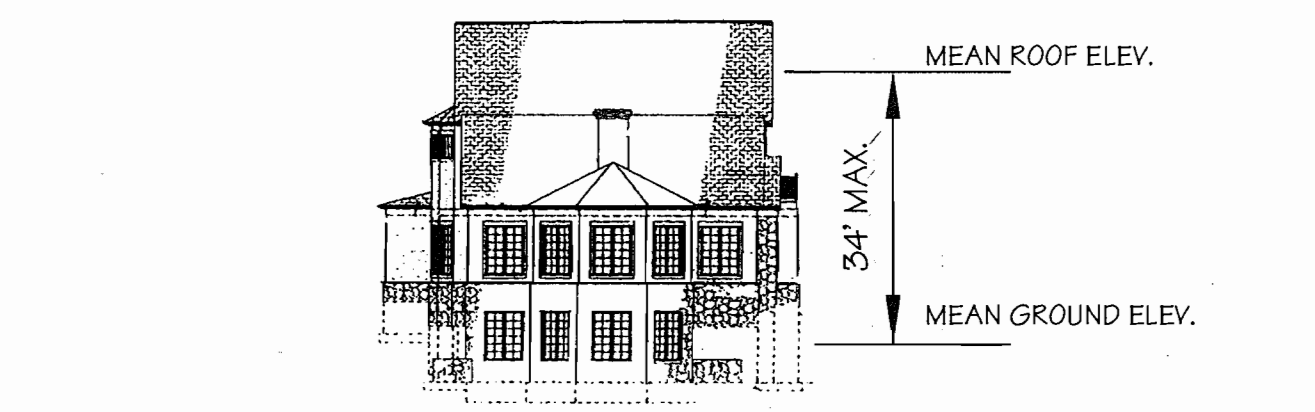
**LANDSCAPE PERIMETER TABLE**

Perimeter No.	Perimeter Length	Buffer Type	Adjacent Land use
1	2197 LF.	B	SFD
2	1448 LF.	A	SFA
3	1662 LF.	B	ROAD
<b>Total</b>	<b>5304 LF.</b>		



**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. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*John P. ...* 1/05/06  
SIGNATURE OF ENGINEER



**Construction Specifications**

- Kay-in the matting by placing the top ends of the matting in a narrow trench, 6\"/>

**SCHEDULE A PERIMETER LANDSCAPE EDGE**

Category	Adjacent to Roadway	Adjacent to Perimeter	Adjacent to Properties
Perimeter	P-3	P-2	P-1
Linear Feet of Roadway Frontyard/Perimeter	1662 LF.	1445 LF.	2197 LF.
Credits for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)	Yes 1662 LF.	Yes 1445 LF.	Yes 2197 LF.
Credits for Wall, Fence or Berm (Yes, No, Linear Feet) (Describe below if needed)	No	No	No
Number of Plants Required (Shade Trees, Evergreen Trees, Shrubs)	N/A	N/A	N/A
Number of Plants Provided (Shade Trees, Evergreen Trees, Other Trees (2:1 substitution), Shrubs (10:1 substitution) (Describe plant substitution credits below if needed)	N/A	N/A	N/A

Comments: 1) The site is permanently protected by a conservation easement administered by the Maryland Environmental Trust. Credits is provided for all perimeter by retention of existing vegetation.

**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. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*John P. ...* 1/05/06  
SIGNATURE OF ENGINEER

**DESIGNED** BDB  
**DRAWN** KBW  
**CHECKED** BDB  
**DATE** 12/20/05

**REVISIONS**

No.	Date	Description

**REVISIONS**

No.	Date	Description

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