

VICINITY MAP
1" = 2000'

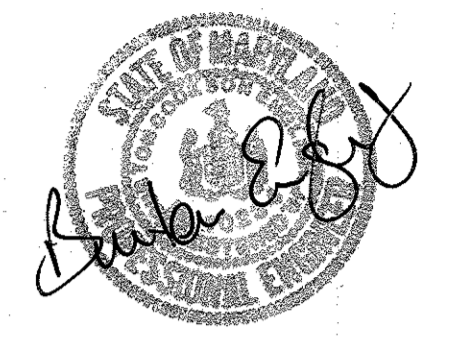
SHEET INDEX	
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C-7	SEDIMENT CONTROL NOTES & DETAILS
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C-9	P.O. RETENTION AREAS

- GENERAL NOTES
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS ON HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
 - THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT 410-313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
 - THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
 - TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO PLACEMENT OF ANY ASPHALT.
 - ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
 - THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY WITH TWO-FOOT CONTOUR INTERVALS PREPARED BY DANIEL CONSULTANTS, INC. DATED JULY 1993.
 - THE COORDINATES SHOWN HEREON ARE BASED UPON A SURVEY PREPARED BY DANIEL CONSULTANTS, INC. DATED JUNE 1993 (HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS FIELD BOOK 353) AND ARE REFERENCED TO THE HOWARD COUNTY GEODETIC CONTROL WHICH WAS IN EFFECT AT THAT TIME (NAZD) HORIZONTAL DATUM). HOWARD COUNTY CONTROL STATIONS SHOWN ON THIS DRAWING ARE BASED ON THE MARYLAND HIGHS HORIZONTAL DATUM.
 - WATER IS PUBLIC. 550 ZONE. CONTRACT #34-W
 - SEWER IS PUBLIC. PATAPSCO DRAINAGE AREA. CONT. 10-1602
 - PEAK STORMWATER MANAGEMENT FOR NEW PARKING LOT DRAINAGE AREAS A & B PROVIDED IN EXISTING SWM FACILITY ON ADJACENT BOARD OF EDUCATION PROPERTY. FEE IN LIEU PAID FOR PARKING LOT AREA C AND NEW TRAIL/PATHWAY CONSTRUCTION. WATER QUALITY MANAGEMENT FOR PARKING LOT IN BIORETENTION FACILITIES PRIVATELY OWNED AND MAINTAINED BY HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS. WATER QUALITY CREDIT FOR DISCONNECTED NON-ROOF IMPERVIOUS AREAS FOR REMAINING NEW IMPERVIOUS.
 - EXISTING UTILITIES ARE BASED ON FIELD LOCATION OF VISIBLE STRUCTURES AND RECORD CONSTRUCTION DRAWINGS.
 - THERE IS NO FLOODPLAIN ON THIS SITE.
 - THERE ARE NO WETLANDS ON THIS SITE.
 - NO TRAFFIC STUDY IS REQUIRED FOR THIS PROJECT.
 - PRIOR SUBMISSIONS - DPZ FILE # SDP-96-133 AND SDP-98-107.
 - This project qualifies for an exemption to forest conservation. See sheet C-9.
- APPROVED: HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS:
Gary J. Arthur 8-27-99
 DIRECTOR DATE

SITE ANALYSIS DATA CHART

1. TOTAL PROJECT AREA	106.899 AC.±	4,656,520 S.F.±
2. AREA OF PLAN SUBMISSION	9.5 AC.±	
3. TOTAL DISTURBED AREA	6.0 AC.±	
4. PRESENT ZONING	R-20	
5. PROPOSED USE OF STRUCTURE	CLOVER HILL FARMHOUSE RECREATION/ASSEMBLY	
6. FLOOR AREA	1,350 S.F./FLOOR (INCL. BASEMENT)	4,050 S.F. TOTAL
7. TOTAL NUMBER OF UNITS ALLOWED	NA	
8. TOTAL NUMBER OF UNITS PROPOSED	NA	
9. MAXIMUM NUMBER OF EMPLOYEES/TENANTS PER USE	VARIES	
10. NUMBER OF PARKING SPACES REQUIRED	EXISTING SPACES FOR PARK USE 201 (SDP 85-232)	
	SPACES FOR CLOVER HILL FARMHOUSE (PLACE OF PUBLIC ASSEMBLY) 1 SPACE / 100 S.F.	41 SPACES
	TOTAL SPACES REQUIRED	242
11. NUMBER OF PARKING SPACES PROVIDED	EXISTING SPACES 201 (INCL. 7 H.C.)	
	PROPOSED SPACES 57 (INCL. 6 H.C.)	
	OVERFLOW PARKING 84	
	TOTAL SPACES PROVIDED	342 (INCL. 13 H.C.)
12. OPEN SPACE	99.1 AC.±	92.7% OF GROSS AREA
13. BUILDING COVERAGE	3,300 S.F.±	0.07% OF GROSS AREA
14. DPZ REFERENCE FILE NOS.	SDP 85-232	
	SDP 92-58	
	PRIOR SUBMISSION SDP 96-133, SDP 98-107	
15. OTHER INFORMATION	GORMAN CABIN (HO 265) AND CLOVER HILL FARM HOUSE (HO 149) ARE LISTED IN THE HOWARD COUNTY HISTORIC SITES SURVEY.	

FARRAND & ENGLISH
 SITE ENGINEERING
 416 LYMAN AVENUE
 BALTIMORE, MD. 21212
 410/455-2400



JOHN BRUNETT
 ARCHITECT P.A.
 SUITE C
 405 HEADQUARTERS DRIVE
 MILLERSVILLE MD 21108

HOWARD COUNTY
 DEPARTMENT OF
 PUBLIC WORKS
 3450 COURTHOUSE DRIVE
 ELLICOTT CITY, MARYLAND

ROCKBURN BRANCH
 PARK
 CAPITAL PROJECT
 N-3049

SUBDIVISION NAME:		SECT./AREA	PARCEL
ROCKBURN BRANCH PARK			235
LIBER/FOLIO	BLK# ZONE/TAX/ZONE	ELECT. DIST.	CENSUS TRACT
735/505	4 R-20 31	1	6011
WATER CODE	SEWER CODE		
D-04	2153800		

ADDRESS CHART	
LOT NO.	STREET ADDRESS
PARCEL	6145 MONTGOMERY ROAD
235	ELKRIDGE, MARYLAND

Clover Hill
 Restoration
 SITE DEVELOPMENT PLAN
 ADDITION TO SDP 85-232
 6145 MONTGOMERY ROAD
 ELKRIDGE, MARYLAND
 1st ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 CENSUS TRACT NO. 6011
 TAX MAP 31 PARCEL 235
 LIBER CMP735 FOLIO 505

COVER SHEET

PROJECT NUMBER:
 N-3049
 DATE: 10 NOV. 1998
 SCALE: AS SHOWN
 REVISIONS: DATE:

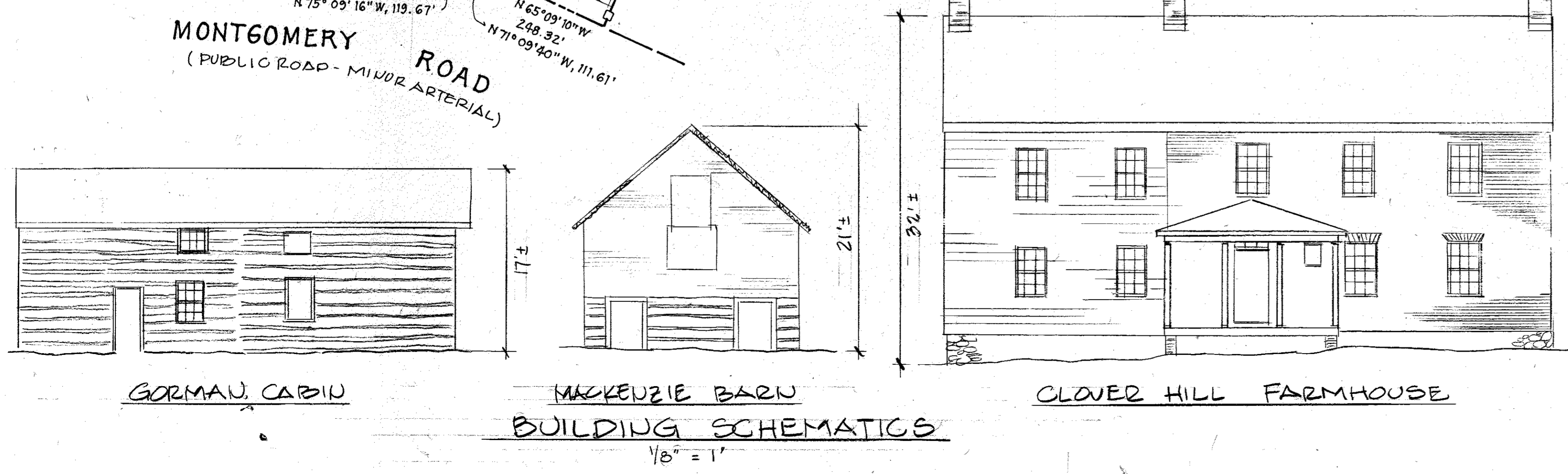
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
 HOWARD COUNTY HEALTH DEPARTMENT
One Matus 8/19/99
 COUNTY HEALTH OFFICER DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING
8/15/99
 CHIEF, DEVELOPMENT ENGINEERING DIV. DATE
Anda Hamilton 8/18/99
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE
8/19/99
 DIRECTOR DATE

WATER CODE D-04
 SEWER CODE 2153800

SHEET # OF #

C-1



GORMAN CABIN

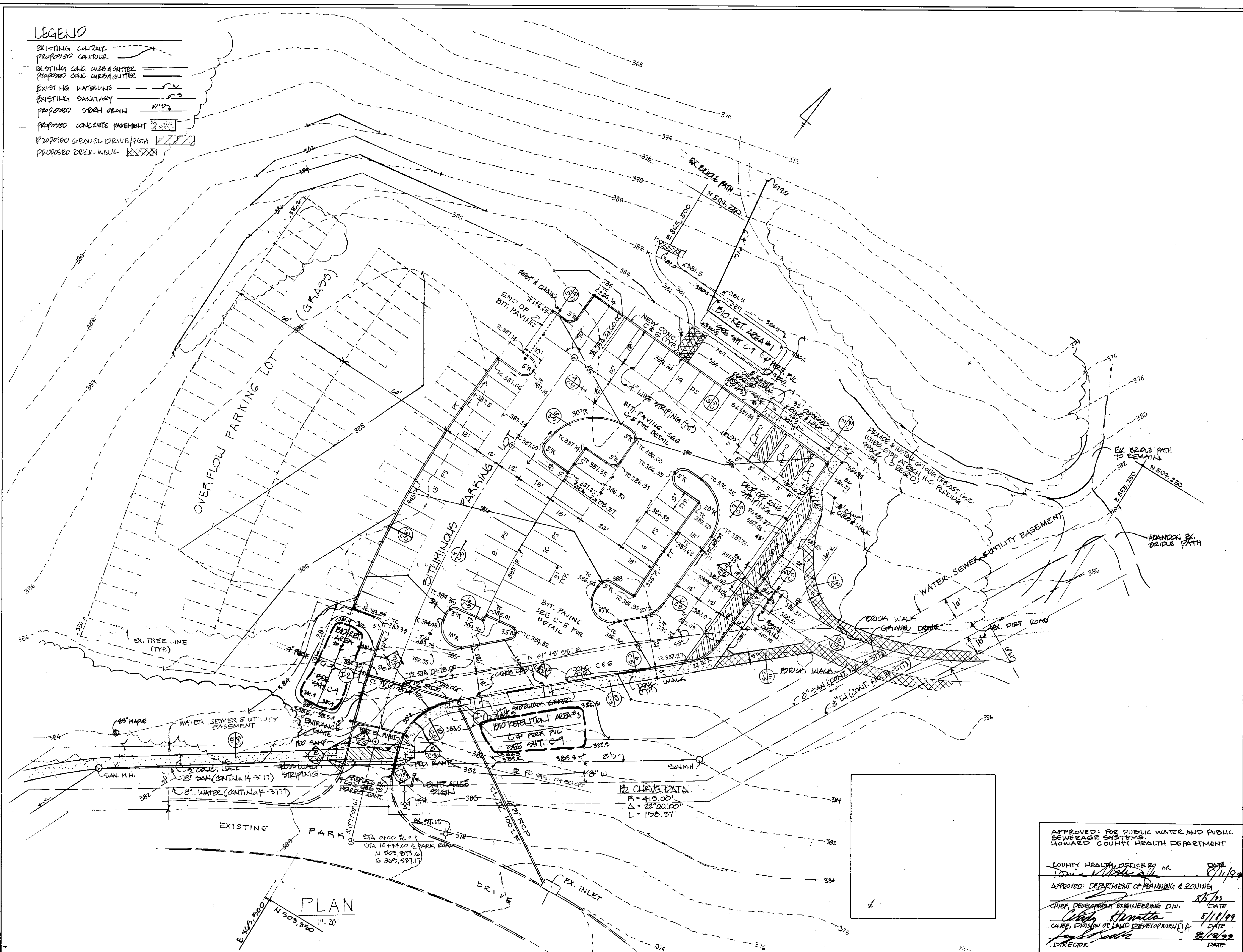
MCKENZIE BARN

CLOVER HILL FARMHOUSE

BUILDING SCHEMATICS
 1/8" = 1'

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING CONC. CURB & GUTTER
- PROPOSED CONC. CURB & GUTTER
- EXISTING WATERLINE
- EXISTING SANITARY
- PROPOSED STORM DRAIN
- PROPOSED CONCRETE PAVEMENT
- PROPOSED GRAVEL DRIVE/PATH
- PROPOSED BRICK WALK



**FARRAND & ENGLISH
SITE ENGINEERING**
416 LYMAN AVENUE
BALTIMORE, MD. 21212
410/435-2400



**JOHN BRUNETT
ARCHITECT P.A.**
SUITE G
405 HEADQUARTERS DRIVE
MILLETSVILLE MD 2108

**HOWARD COUNTY
DEPARTMENT OF
PUBLIC WORKS**
3450 COURTHOUSE DRIVE
ELLCOTT CITY, MARYLAND

**ROCKBURN BRANCH
PARK
CAPITAL PROJECT
N-3049**

**Clover Hill
Restoration**
SITE DEVELOPMENT PLAN
ADDITION TO SDP 85-232
6145 MONTGOMERY ROAD
ELKBRIDGE, MARYLAND
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CENSUS TRACT NO. 8011
TAX MAP 31 PARCEL 235
LIBER CMP735 FOLIO 505

**DETAILED
SITE PLAN**

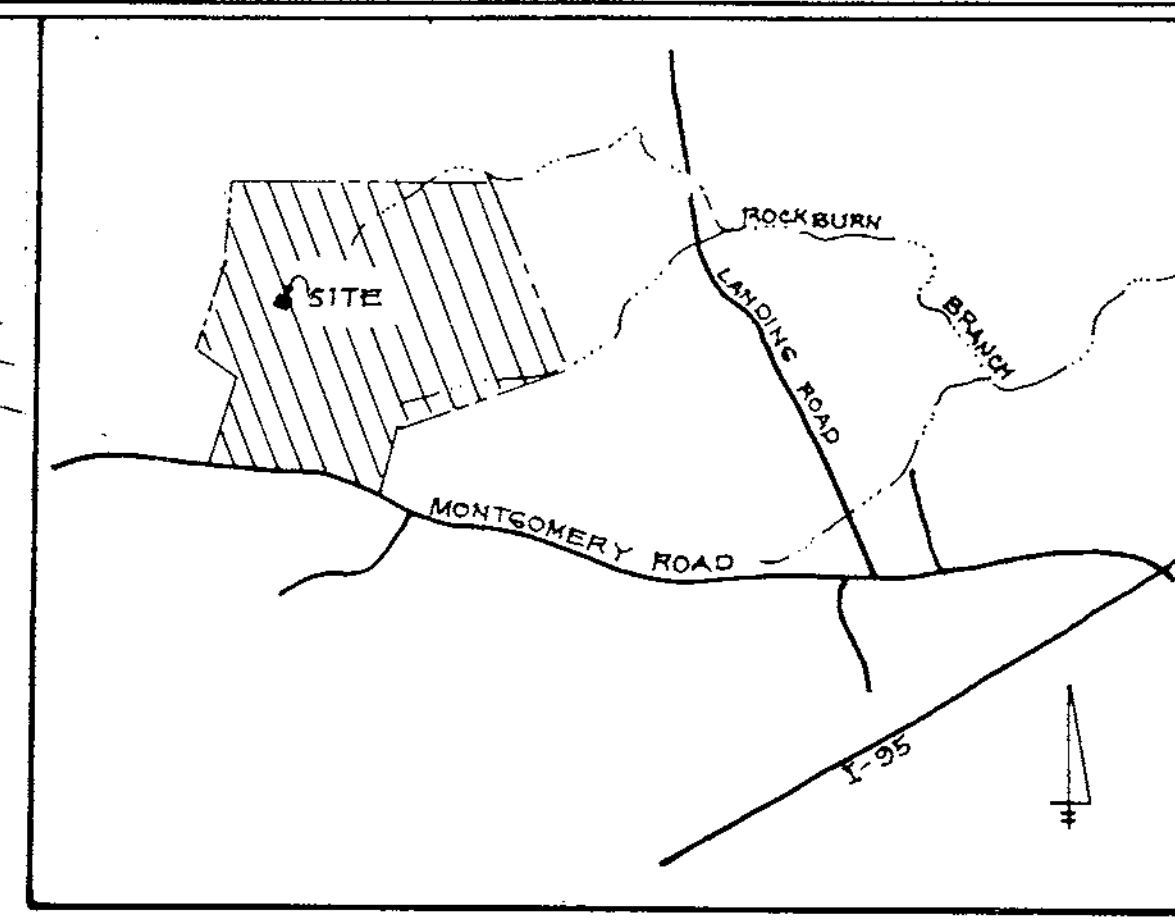
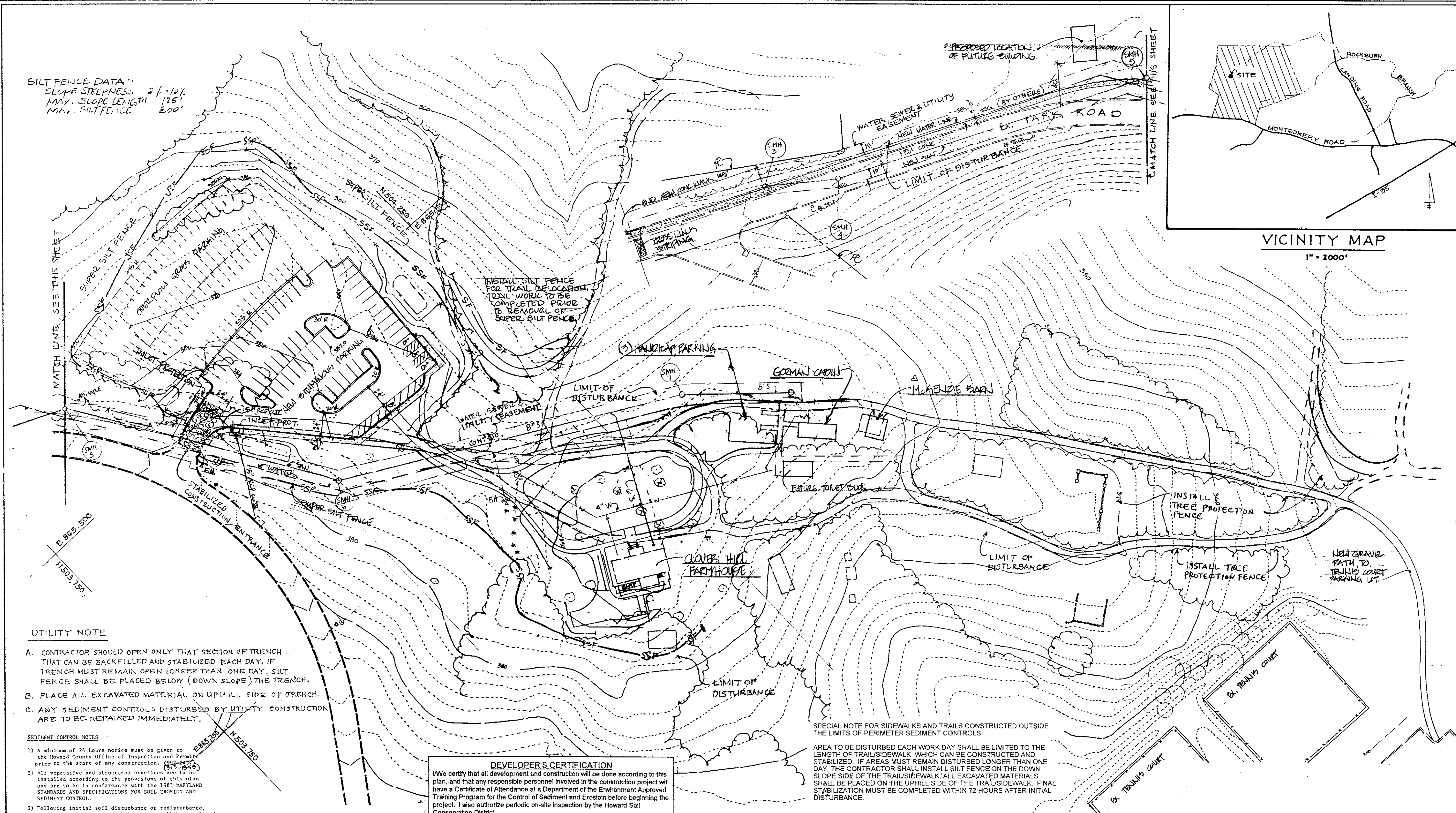
PROJECT NUMBER: N-3049
DATE: 10 NOV. 1998
SCALE: 1" = 20'
REVISIONS: DATE:

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
HOWARD COUNTY HEALTH DEPARTMENT
COUNTY HEALTH OFFICER: [Signature] DATE: 8/11/99
APPROVED: DEPARTMENT OF PLANNING & ZONING
CHIEF, DEVELOPMENT ENGINEERING DIV. [Signature] DATE: 8/18/99
CHIEF, DIVISION OF LAND DEVELOPMENT [Signature] DATE: 8/18/99
DIRECTOR [Signature] DATE:

WATER CODE D-04
SEWER CODE 2153000

SHEET # OF #

SILT FENCE DATA:
 SLOPE STEEPNESS 2:1-10:1
 MAX. SLOPE LENGTH 125'
 MIN. SILT FENCE 500'



**FARRAND & ENGLISH
 SITE ENGINEERING**
 416 LYMAN AVENUE
 BALTIMORE, MD. 21212
 410/499-3400

**JOHN BRUNETT
 ARCHITECT P.A.**
 SUITE G
 405 HEADQUARTERS DRIVE
 MILLERSVILLE MD 21108

**HOWARD COUNTY
 DEPARTMENT OF
 PUBLIC WORKS**
 3450 COURTHOUSE DRIVE
 ELLICOTT CITY, MARYLAND

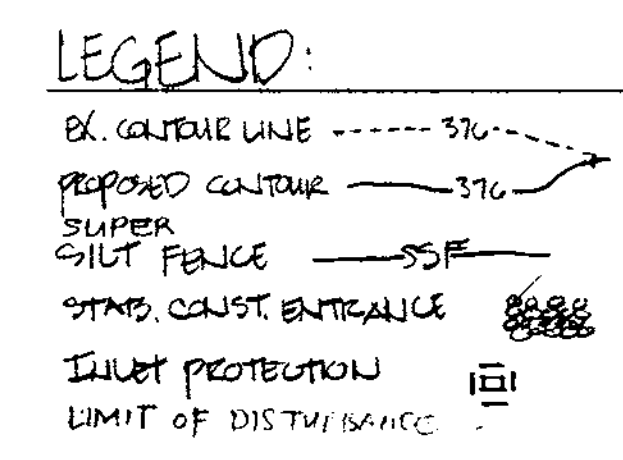
**ROCKBURN BRANCH
 PARK**
 CAPITAL PROJECT
 N-3049

**Clover Hill
 Restoration**
 SITE DEVELOPMENT PLAN
 ADDITION TO SDP 85-232
 6145 MONTGOMERY ROAD
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 HOWARD COUNTY, MARYLAND
 CENSUS TRACT NO. 6011
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 LIBER CMP735 FOLIO 505

**SEDIMENT CONTROL
 PLAN**

- UTILITY NOTE**
- CONTRACTOR SHOULD OPEN ONLY THAT SECTION OF TRENCH THAT CAN BE BACKFILLED AND STABILIZED EACH DAY. IF TRENCH MUST REMAIN OPEN LONGER THAN ONE DAY, SILT FENCE SHALL BE PLACED BELOW (DOWN SLOPE) THE TRENCH.
 - PLACE ALL EXCAVATED MATERIAL ON UPHILL SIDE OF TRENCH.
 - ANY SEDIMENT CONTROLS DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.

- SEDIMENT CONTROL NOTES**
- A minimum of 72 hours notice must be given to the Howard County Office of Inspection and Permitting prior to the start of any construction.
 - All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
 - Following initial soil disturbance or restoration, 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 shall be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 17, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
 - All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 51) sod (Sec. 50), temporary seeding (Sec. 50) and mulching (Sec. 52.) Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
 - All sediment control structures are to be 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 115.436 Acres
 Area Disturbed 5.12 Acres
 Area to be roofed or paved 1.06 Acres
 Area to be vegetatively stabilized 45.7 Acres
 Total Cut 1200 Cu. Yds.
 Total Fill 500 Cu. Yds.
 Offsite waste/borrow area location NOT KNOWN
 - Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
 - Additional sediment controls must be provided, if deemed necessary by the Howard County DPM sediment control inspector.
 - On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be required 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.



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

Signature: *Ronald G. Lapsom* Date: 2/17/98
 Printed Name & Title: *Ronald G. Lapsom, Chief, Bureau of Engrg.*

ENGINEER'S CERTIFICATION
 I hereby 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	Date
Printed Name	MD Registr. No.
Reviewed for Howard Soil Conservation District and meets technical requirements.	
Natural Resources Conservation Service	Date
This Development Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.	
Approved: Howard Soil Conservation District	Date
Plan Number	Date

NOTE:
 IF SPECIMEN TREES ARE ENCOUNTERED DURING PATH LAYOUT, THE PATH ALIGNMENT WILL BE ADJUSTED SUCH THAT THESE TREES ARE NOT DISTURBED.

- SEQUENCE OF CONSTRUCTION**
- Obtain Grading Permit.
 - Clear and grub for installation of perimeter sediment control devices and install stabilized construction entrance and perimeter silt fence. (5 days)
 - Install new water and sewer. (20 days)
 - Clear and rough grade for parking area. Install new storm drains and inlets. Protect new inlets with Inlet Protection as shown. Install permanent Outlet Protection at E-1. Provide permanent seeding stabilization for overflow parking area. (10 days)
 - Construct curbs and parking area pavement. (5 days)
 - Renovate existing buildings. (180 days)
 - Construct brick walks and gravel driveways around buildings. (20 days)
 - Recondition surfaces of existing bridle trails and walking paths. (20 days)
 - Stabilize all disturbed areas not otherwise surfaced with permanent seeding. (10 days)
 - Remove sediment control devices only upon receiving permission from the Ho. Co. Sediment Control Inspector.

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
HOWARD COUNTY HEALTH DEPARTMENT
Doni Matos 8/18/98
 COUNTY HEALTH OFFICER

APPROVED: DEPARTMENT OF PLANNING & ZONING
CHIEF, DEVELOPMENT ENGINEERING DIV.
John Standa 8/18/98
 CHIEF, DIVISION OF LAND DEVELOPMENT
John Standa 8/18/98
 DIRECTOR

SECTION - SEEDING AND SOODING

1. Scope of Work

A. Perform all work necessary and required for completion of the project as indicated. The work includes, but is not limited to, the following items:

- 1) Soil testing and analysis
- 2) Preparing seedbeds
- 3) Special topsoil preparation
- 4) Distributing, placing and covering lime
- 5) Fertilizing and placing fertilizer
- 6) Seeding, Turf grasses
- 7) Mutching
- 8) Seeding, Wildflowers
- 9) Seeding, Wildflowers

2. Related Work Specified Elsewhere

A. The following items of associated work are included in other sections of these specifications:

- 1) Grading
- 2) Placement of topsoil

3. Coordination

A. Coordinate seeding and sodding with other sections of these specifications to insure that all excavation, backfilling, maintenance, and fills, site utilities, roads, walks, and grading and topsoiling is completed and accepted by the engineer prior to commencing the work covered by this section. Only the owner (owner being the Department of Recreation and Parks) may approve any departure from the specifications of this section.

B. Soil samples shall be taken from topsoil stockpiles and tested to determine the following:

- (1) Soil Type: Composition - percentage of sand, silt, clay and organic content. Standard sieve analysis. Cation exchange capacity. Base Saturation.
- (2) pH level (Gardner & Phillips)
- (3) Nutrient level for phosphorus, potash, magnesium and calcium content in lbs/acre.

Furnish copy of soil report(s) to the Department of Recreation and Parks with specific recommendations for additives. APPROVAL OF SAME WILL BE REQUIRED PRIOR TO COMMENCEMENT OF ANY SEEDING OR SOODING WORK.

4. Certification

A. The contractor shall submit to the owner all seed certification and/or seed certification as inspected by the State Board of Agriculture prior to the beginning of any seed or sod work.

5. Soil Preparation

A. All grading and shaping operations shall be completed before seeding or sodding. The area shall be brought to proper grade free of sticks, stones or other foreign matter over one-half (1/2) inch in diameter to a minimum depth of four (4) inches. The surface shall conform to finish grade and be free of water retaining depressions; the soil shall be friable and of uniform firm texture. No grading, excavation, spreading of topsoil or composted sewage sludge, fine grading or seeding shall be done until the soil is in a sandy or loam condition. FINE GRADING SHALL BE DONE SO THAT THE FINEST GRADE AFTER ALLOWANCE FOR SETTLING, IS WITHIN +/- .50 INCH OF ANY AND ALL EXISTING HORIZONTAL SURFACES I.E., SIDEWALK, ASPHALT PATH, CURB, RETAINING WALL, BRICK PAVEMENT, etc.

B. Where the addition of composted sewage sludge is required the Department of Recreation and Parks shall be furnished with a copy of the chemical analysis of composted sludge for approval prior to application. This material shall be applied at 100 lbs/acre or more to a uniform depth on finish grade and thoroughly incorporated into the top six (6) inches of finished grade. This material shall be certified in two directions with subsequent discing in two directions to provide a uniform homogeneous mixture.

C. A seedbed shall be considered satisfactory and requiring no additional treatment, when the area to be seeded or sodded has been recently and thoroughly loosened and worked to a depth of not less than six (6) inches as a result of grading operations; when, immediately prior to seeding, the top four (4) inches of soil are loose, friable and free from clods or rocks, large roots or other undesirable matter larger than one-half (1/2) inch in diameter and shaped to the required grade (+/- .50 inch).

D. When the area to be seeded or sodded is sparsely sodded, weedy, barren and unworked, or packed and hard, any grass and weeds shall be first cut or otherwise removed to a depth of not less than six (6) inches. Clods shall be broken up and top four (4) inches of soil shall be worked into a satisfactory seedbed, as described in C above, by discing or by use of cultipacker, rollers, drag, harrows or other appropriate means.

6. Lime

A. Ground agricultural limestone (100 pounds of ground limestone is equivalent to 75 pounds of hydrated lime or 50 pounds of burnt lime). The contractor shall specify soil material to be analyzed. Lime shall contain not less than 85% of total carbonate, 50% pass 100 mesh, 80% pass 20 mesh.

B. The need for lime and rate of application will be determined only by soil report (see table 1). Lime shall be applied separately and prior to the application of any fertilizer or seed and only on seedbeds which have previously been prepared as per the specifications. Lime shall be incorporated within 24 hours following its application. The lime shall be worked into a depth of six (6) inches after which the seedbed shall again be properly graded and dressed to a smooth finish.

C. Lining Procedures:

- (1) Lime shall be spread and incorporated in a manner which achieves uniform distribution.

Approximate amounts of finely ground limestone needed per acre to raise the pH of a 3-inch layer of soil by the amount indicated. (Modified from V. Ignatieff, Efficient Use of Fertilizers, London: Leonard Hill, Ltd., 1952.)

Climate Region and Soil Textural Class	Limestone Requirements		
	From pH 3.5 to pH 4.5	From pH 4.5 to pH 5.5	From pH 5.5 to pH 6.5
Sand and loamy sand	0.4	0.5	0.6
Sandy loam	-	0.7	1.2
Loam	-	1.1	1.5
Silt loam	-	1.4	1.8
Clay loam	-	1.7	2.1
Clay	2.6	3.4	3.9

Twenty percent of the limestone should pass a 100-mesh screen. With coarser materials, applications need to be greater.

Ulltrals and Oxisols, primarily.

The suggestions for rock soil are for a soil essentially free of sand or clay. For those containing much sand or clay, amounts may be reduced to values midway between those given for silt loam and the corresponding textural class of mineral soil. If the mineral soils listed are unusually low in organic matter, the recommendations should be reduced about 15 percent; if unusually high, increase about 25 percent, or more.

Spoils and acid Alfisols and Inceptisols, primarily.

7. Fertilizer

A. Organic, slow release fertilizer with nitrogen-phosphorus acid-potash analysis of 5-10-10 with 50% of the nitrogen being derived from a slow release nitrogen source such as urea-formaldehyde or sulfur coated urea.

B. The above fertilizer shall be transported and stored in containers which will insure proper protection and handling.

C. Fertilizer shall be distributed uniformly and applied at specific rate, with rotary spreader or as a slurry in hydroseeding operation. When fertilizer is to be incorporated, it must be done so within twenty-four (24) hours after application.

D. No fertilizing shall be done during windy weather or when ground is wet or otherwise unutilizable.

E. If the work required, the area shall be brought to proper grade, free of sticks, stones and other foreign matter larger than one-half (1/2) inch in diameter to a depth of four (4) inches. The surface shall conform to finish grade and be free of water retaining depressions; the soil shall be friable and of uniform firm texture.

8. Sodding - **DELETA**

9. Seeding

A. SEED SPECIFICATIONS

Grass Seed - Turf Type Fescue - 50 lbs. bag.

An even blend of 3X - 3Z - 3Z2 of 3 cultivars from the following list. One cultivar must be from Group A. Only certified seed accepted.

Group A	Group B
1. Arid	4. Jaguar
2. Olympic	5. After
3. Bonanza	6. Apache
	7. Anigo
	8. Rebel II
	9. Trident

All seed varieties shall meet the following minimum specifications:

Variety of Certified Turf Fescue	Min. Purity	Min. Germination	Max. % Other Crop	Max. % Inert	Max. % Weeds	Notes
	98%	85%	0.1%	0.1%	0.1%	None

* Must be free of ryegrass, timothy, orchardgrass, bentgrass, Canada bluegrass, clover, or any other contaminant which shall be unacceptably and unacceptably.

** Must be free of dock, cheat, chess, chickweed, crabgrass, plantain, and black medick.

Seed lots must be State Certified and blended under the supervision of the Maryland Department of Agriculture - Turf and Seed Section.

All seed and labeling must fully comply with the MD Seed Law and these specifications.

Seed shall be packed 50 lbs. net weight and packed in new, clean, poly woven bags, tightly woven to prevent leaking and contamination.

Each container must have permanently affixed to it an accurate analysis tag, a certification tag and a Board County Recreation and Parks supervised tag.

All seed lots to be used in this mixture shall have been pre-tested by the Maryland seed laboratory to insure compliance with specifications.

A quality control sample of the delivered mixture may be submitted to the Maryland seed lab for testing prior to payment and any lots found not to comply shall be returned at the supplier's expense.

B. Seeding Procedures:

- (1) Seed shall be sown between August 15 and September 30 or February 15 to April 15, as soon as the soil is dry enough to allow proper penetration of a seedbed. Any extension beyond these time periods shall only be approved by Department of Recreation and Parks personnel.
- (2) MECHANICAL SEEDING TO BE HANDCRAFTED OR BY ROTARY SPREADER ONLY. NO ROW TYPE SPREADERS SHALL BE USED. Seeding must be followed by a drag mat or chain to work seed into soil and insure good soil/seed contact and uniform distribution.
- (3) Hydroseeding may be used providing that the slurry includes the fertilizer and seed as specified.

For each hydroseeding tank, seed, fertilizer (if required), a maximum of one-half of green dyed fiber which may be combined with each 1200 gallons of water to form a slurry. The slurry shall not be prepared more than two hours before commencement of hydroseeding work.

- (4) No seeding shall be done during windy weather or when the ground is wet or otherwise unutilizable.
- (5) Seed all areas within the project limits that are not sodded, paved or designated on the drawings to receive special treatment. Grass seed mixture shall be applied at the rate of six (6) pounds per 1,000 square feet immediately after fertilizing; rake and/or drag mat fertilizer and seed into a depth of not more than 1/2 inch if seeded other than with hydroseeder.

10. Mutch

A. Mutch shall be required on all turf areas.

B. Mutch shall be threshed barley, wheat or oat straw. It shall be clean and free of noxious weeds, weed seeds, and other foreign material. Mutch shall be applied at a rate of 3,000 pounds per acre in a uniform manner. The material shall be anchored immediately after application.

C. Terra Tack Binders, or an approved equal, as manufactured by Grass Growers of Plainfield, New Jersey, shall be added to mutch mixture at the rate of 140 pounds per acre.

D. If mutch is displaced before a growth of one (1) inch to one and a half (1-1/2) inches in diameter, it shall be replaced by the contractor at no extra expense.

11. Maintenance and Acceptance of Turf

A. MAINTENANCE SHALL CONSIST OF MOWING, WATERING, WEEDING, FERTILIZING, LIMING, DISKING AND INSECT PEST CONTROL, SPRAYING, PROTECTIVE SPRAYING, REPLACEMENT OF UNACCEPTABLE MATERIAL, and any other procedure consistent with good horticultural practice necessary to insure vigorous and healthy growth of all seeded and sodded areas. This shall extend until final inspection and acceptance.

B. Contractor shall be responsible for mowing newly established turf until final inspection and acceptance. MOW EVERY SEVEN TO TEN DAYS DURING ACTIVE GROWTH PERIODS SO GRASS HEIGHT WILL NOT EXCEED FIVE (5) INCHES. Mower blades shall be set for three and a half (3-1/2) inches unless otherwise directed. AT NO TIME WILL MOW BE MORE THAN ONE-THIRD (1/3) OF THE GRASS LEAF SURFACE BE REMOVED. Sharp blades before each mowing.

- (1) Remove all excessive grass clippings during or immediately after mowing.

C. Base profile tests during the maintenance period to determine the degree of compaction existing in all planting, seeded and sodded areas. If soil is compacted to a degree that water and air penetration is impaired, the contractor shall aerate these areas to the satisfaction of the owner, and in manner that will not be harmful to the plant material. Equipment used for aeration in grass and areas shall be a coring-type aerifier, as approved by the owner.

- (1) Under normal conditions, aeration should be done at least twice a year. Three or four, or more, aeration may be done without harming the turf. Soil conditions for aeration should be neither too wet nor too dry. The spring and fall are the most appropriate times for aeration. In hot, dry weather aeration should be followed immediately by thorough watering.

D. Between September 15 and October 15, the contractor shall fertilize all newly established turf areas. A slow release, organic fertilizer of an N-P-K analysis as approved by the owner shall be applied at a rate of 120 lbs. of N per thousand (1000) square feet.

E. The contractor shall provide at his own expense protection against trespassing and damage to seeded areas and planted areas until they are accepted. Provide barricades, temporary fencing, signs or posting as required to protect such seeded areas until accepted.

- (1) The contractor will be responsible for normal lean, poor weather and other damages to lawns until the time of acceptance by the owner.

(2) Damages due to circumstances beyond the contractor's control (i.e., vandalism) will be repaired after requesting a change order and obtaining approval of same.

F. All materials shall be subject at any time and at any place to the inspection and approval of the engineer or Department of Recreation and Parks personnel. Samples of all materials are required by the owner. Upon approval of samples, delivery of material may begin. Approved samples shall be stored on site and protected until furnishing of materials is complete.

G. Acceptable turf shall be that which is healthy and vigorous and covering ninety-five (95) percent of the soil surface in unit increments of one (1) square yard with an allowable weed content not to exceed five (5) percent.

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redistributed where a short-term vegetative cover is needed.

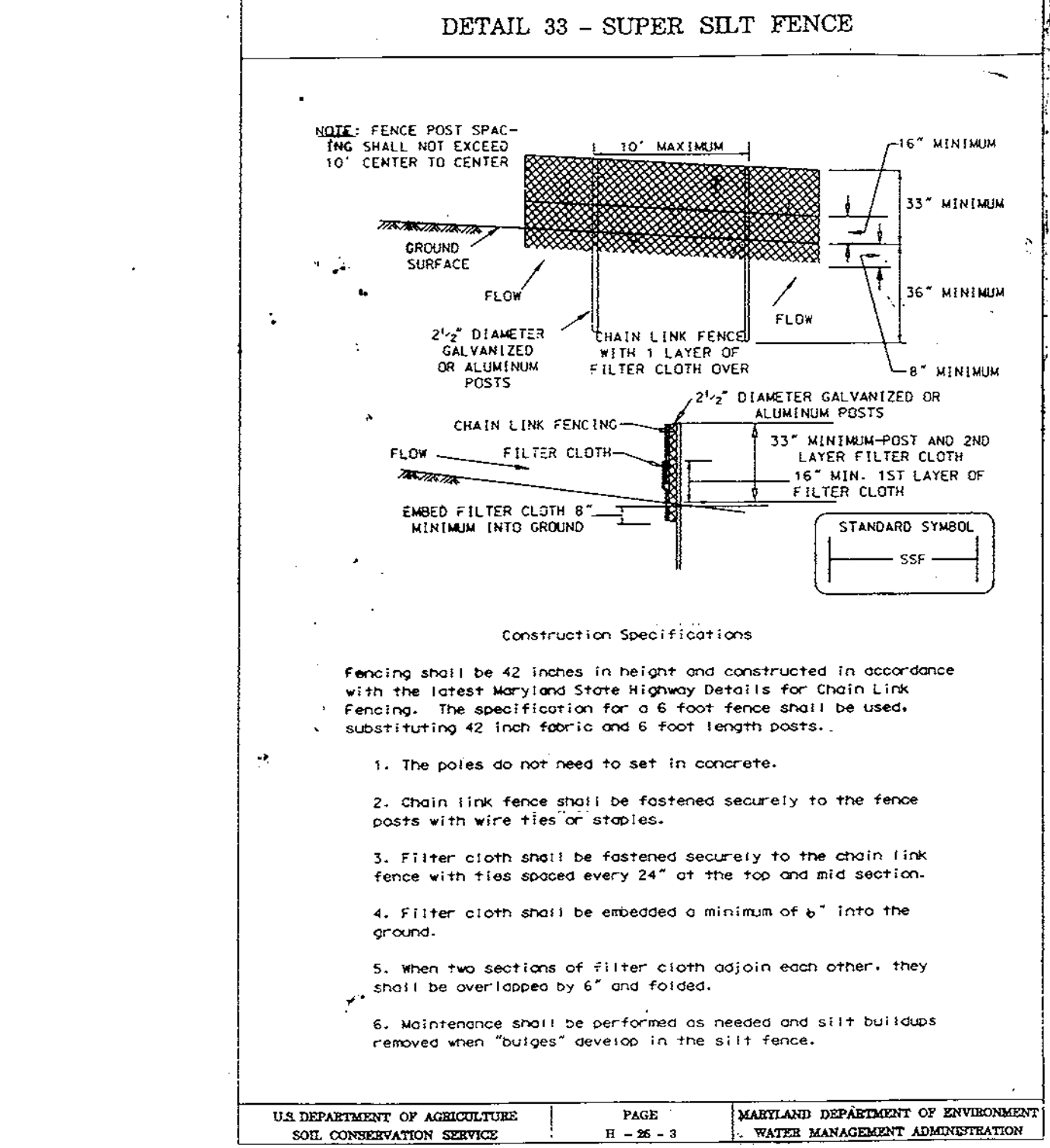
Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

Soil Amendments: Apply 60 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft).

Seeding: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 25 bushel per acre of annual rye (3.2 lbs/1000 sq ft). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/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.

Mutching: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mutch immediately after application using mutch anchoring tool or 210 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 ft or higher, use 348 gal per acre (8 gal/1000 sq ft) for anchoring.

Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rates and methods not covered.



DEVELOPER'S CERTIFICATION

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

Ronald G. Lepsor 2/17/98
Signature Date
Printed Name & Title: *Ronald G. Lepsor, Chief, Bureau of Engng*

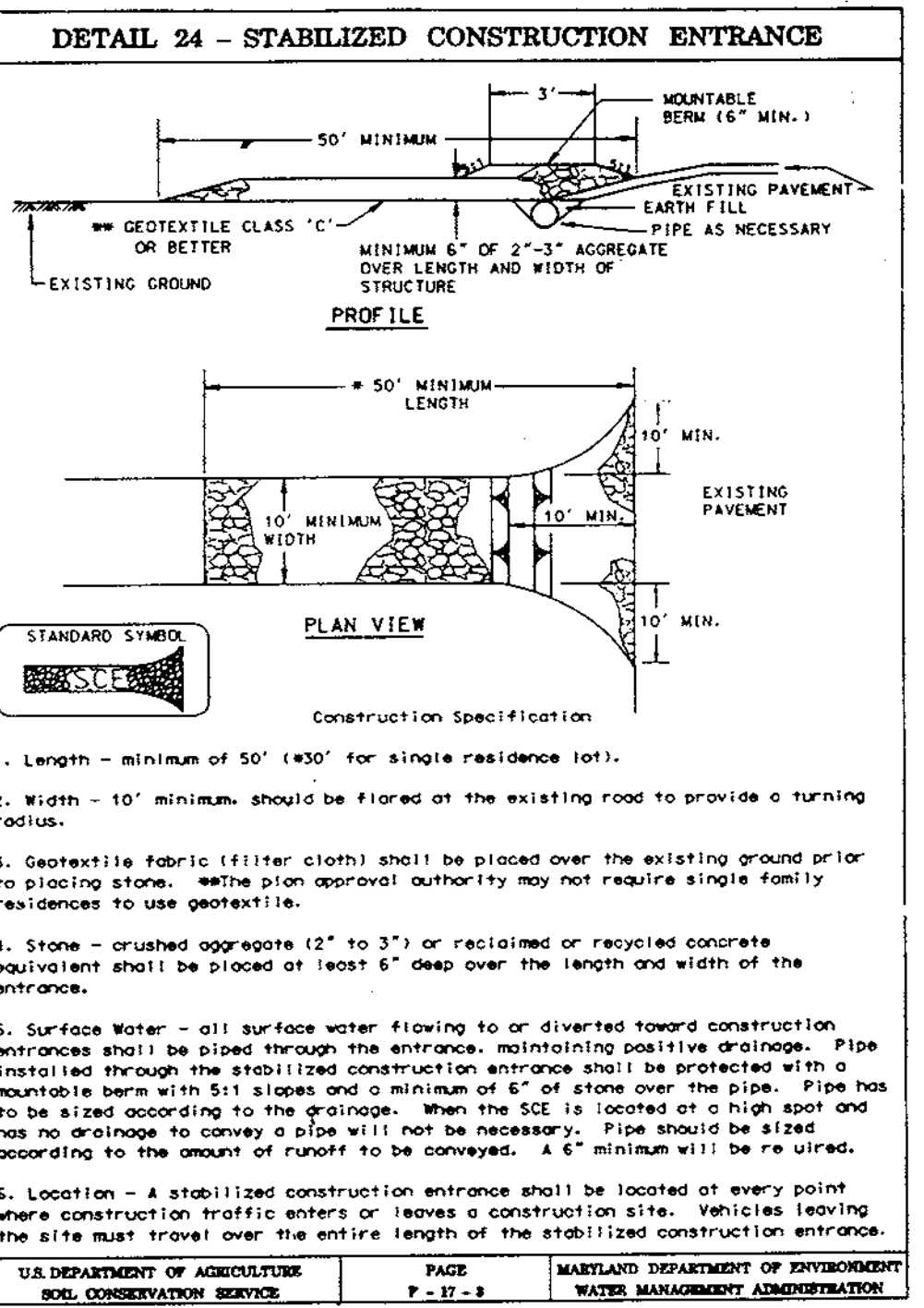
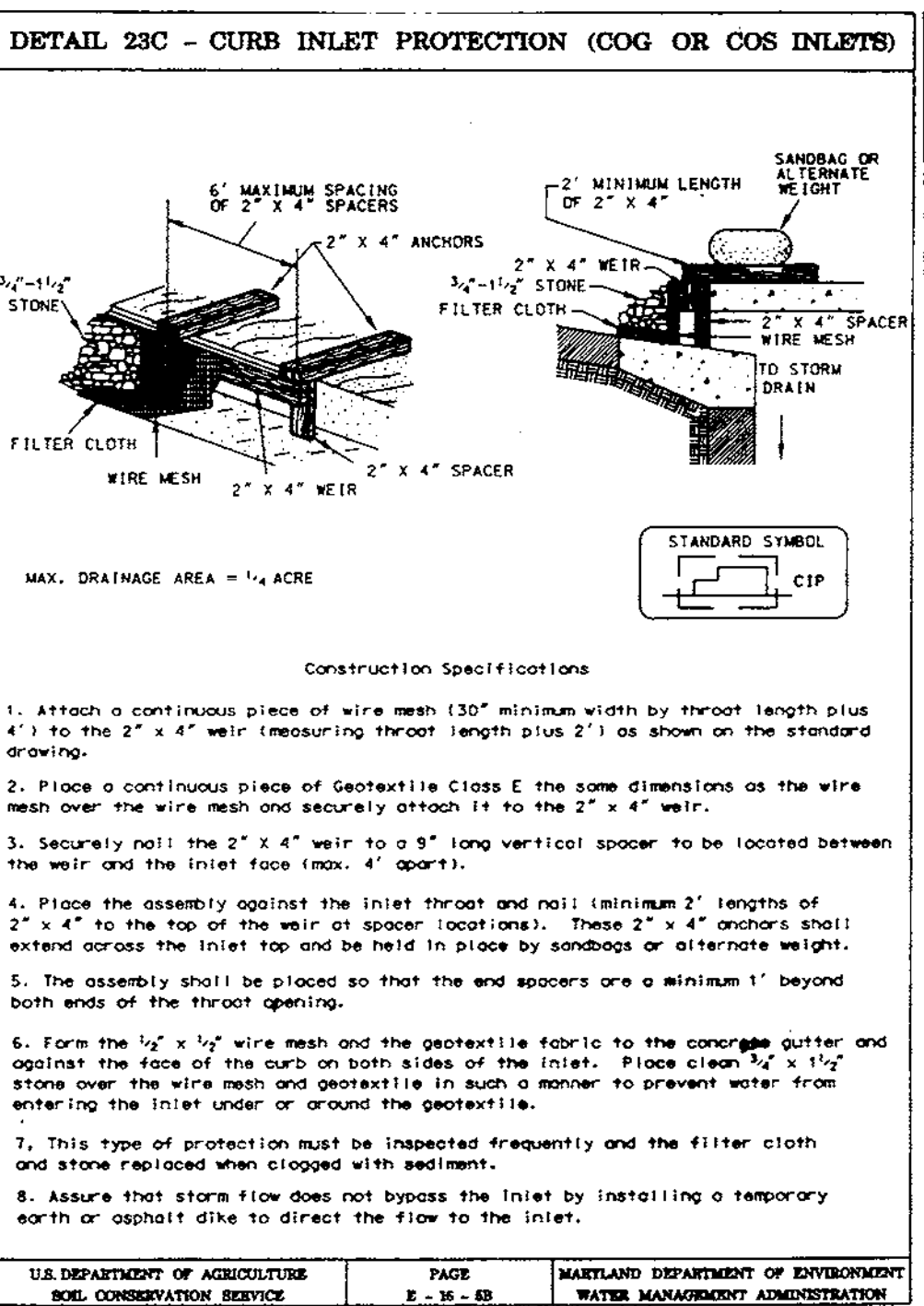
ENGINEER'S CERTIFICATION

I hereby 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 _____ Date _____
Printed Name _____ MD Registr. No. _____
Reviewed for Howard Soil Conservation District and meets technical requirements.

Natural Resources Conservation Service Date _____
This Development Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

Approved: Howard Soil Conservation District
Signature _____ Date _____
Plan Number _____ Date _____



FARRAND & ENGLISH
SITE ENGINEERING
416 LYMAN AVENUE
BALTIMORE, MD. 21212
410/495-3400

JOHN BRUNETT
ARCHITECT P.A.
SUITE G
405 HEADQUARTERS DRIVE
MILLERSVILLE MD 21108

HOWARD COUNTY
DEPARTMENT OF
PUBLIC WORKS
3450 COURTHOUSE DRIVE
ELLCOTT CITY, MARYLAND

ROCKBURN BRANCH
PARK
CAPITAL PROJECT
N-3049

Clover Hill
Restoration
SITE DEVELOPMENT PLAN
ADDITION TO SDP 85-232
6145 MONTGOMERY ROAD
ELKRIED, MARYLAND
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CENSUS TRACT NO. 6011
TAX MAP 31 PARCEL 235
LIBER CMP735 FOLIO 505

SEDIMENT CONTROL
NOTES & DETAILS

PROJECT NUMBER:
N-3049
DATE: 10 NOV. 1998
SCALE:
REVISIONS: DATE:

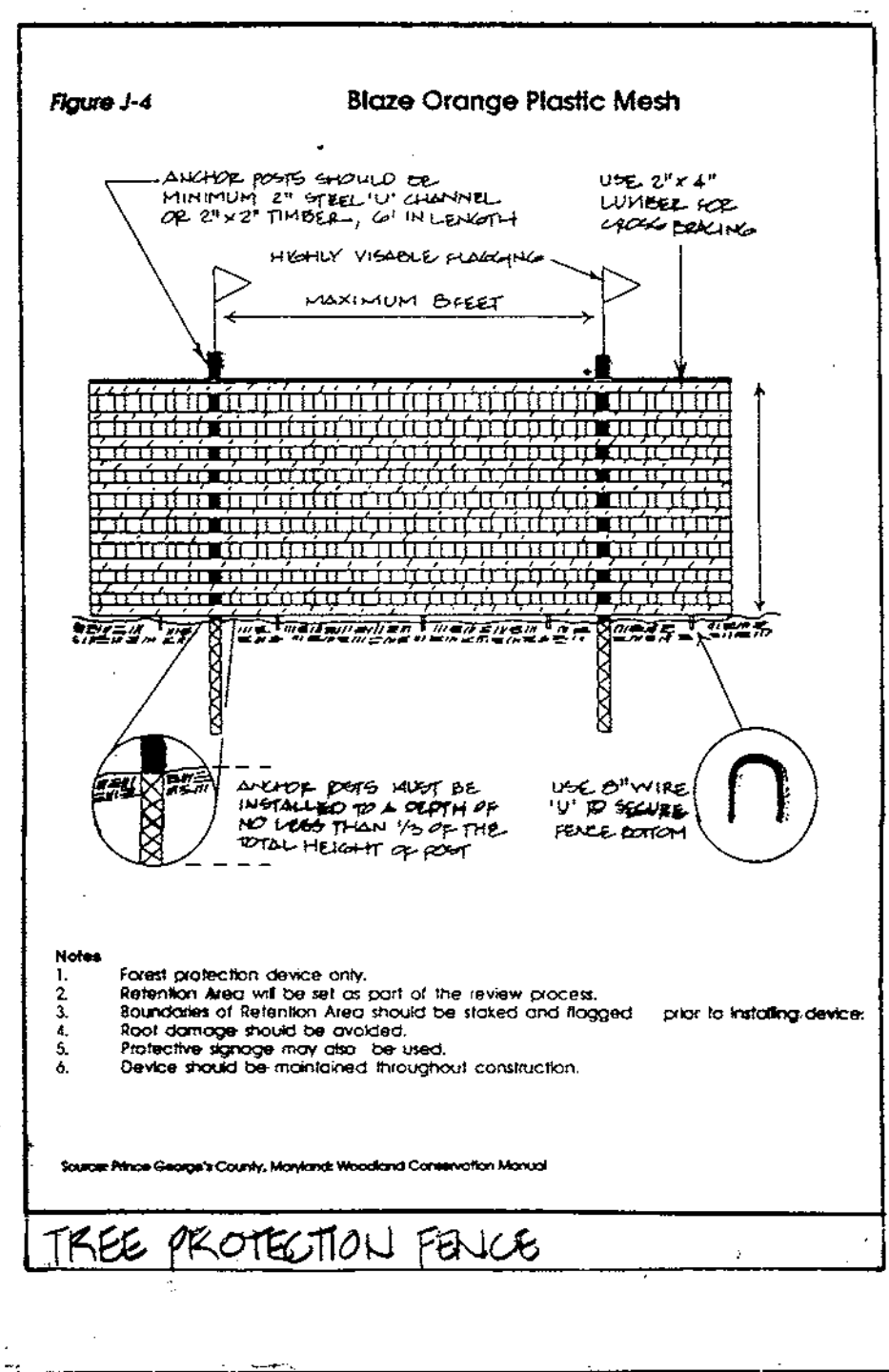
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
HOWARD COUNTY HEALTH DEPARTMENT
John M. Miller 2/17/98
COUNTY HEALTH OFFICER DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING
John M. Miller 2/17/98
DATE

CHIEF, DEVELOPMENT ENGINEERING DIV.
John M. Miller 2/17/98
DATE

CHIEF, DIVISION OF LAND DEVELOPMENT
John M. Miller 2/17/98
DATE

WATER CODE D-04
SEWER CODE 2152600
SHEET # OF #



**FARRAND & ENGLISH
SITE ENGINEERING**

416 LYMAN AVENUE
BALTIMORE, MD. 21212
410 495-3400



**JOHN BRUNETT
ARCHITECT P.A.**

SUITE 6
405 HEADQUARTERS DRIVE
MILLERSVILLE MD 21108

**HOWARD COUNTY
DEPARTMENT OF
PUBLIC WORKS**

3450 COURTHOUSE DRIVE
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HOWARD COUNTY, MARYLAND
CENSUS TRACT NO. 6011
TAX MAP 31 PARCEL 235
LIBER CMP735 FOLIO 505

PLANTING PLAN

PROJECT NUMBER:
N-3049
DATE:
10 NOV. 1998
SCALE:
1" = 50'

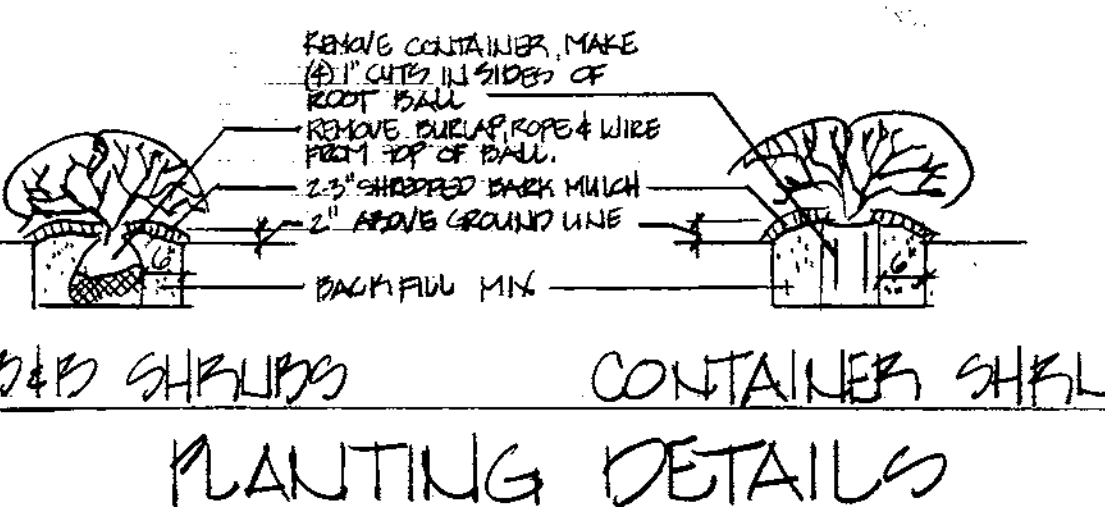
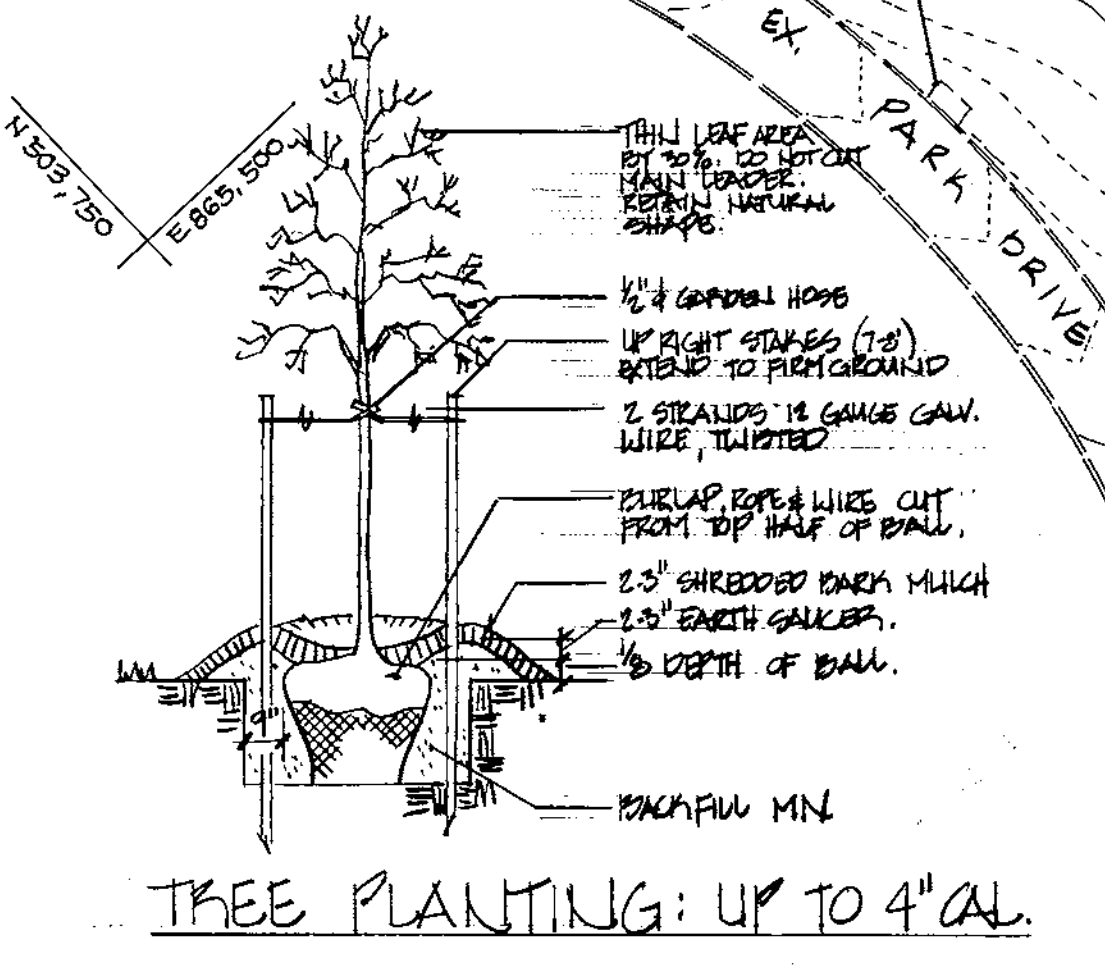
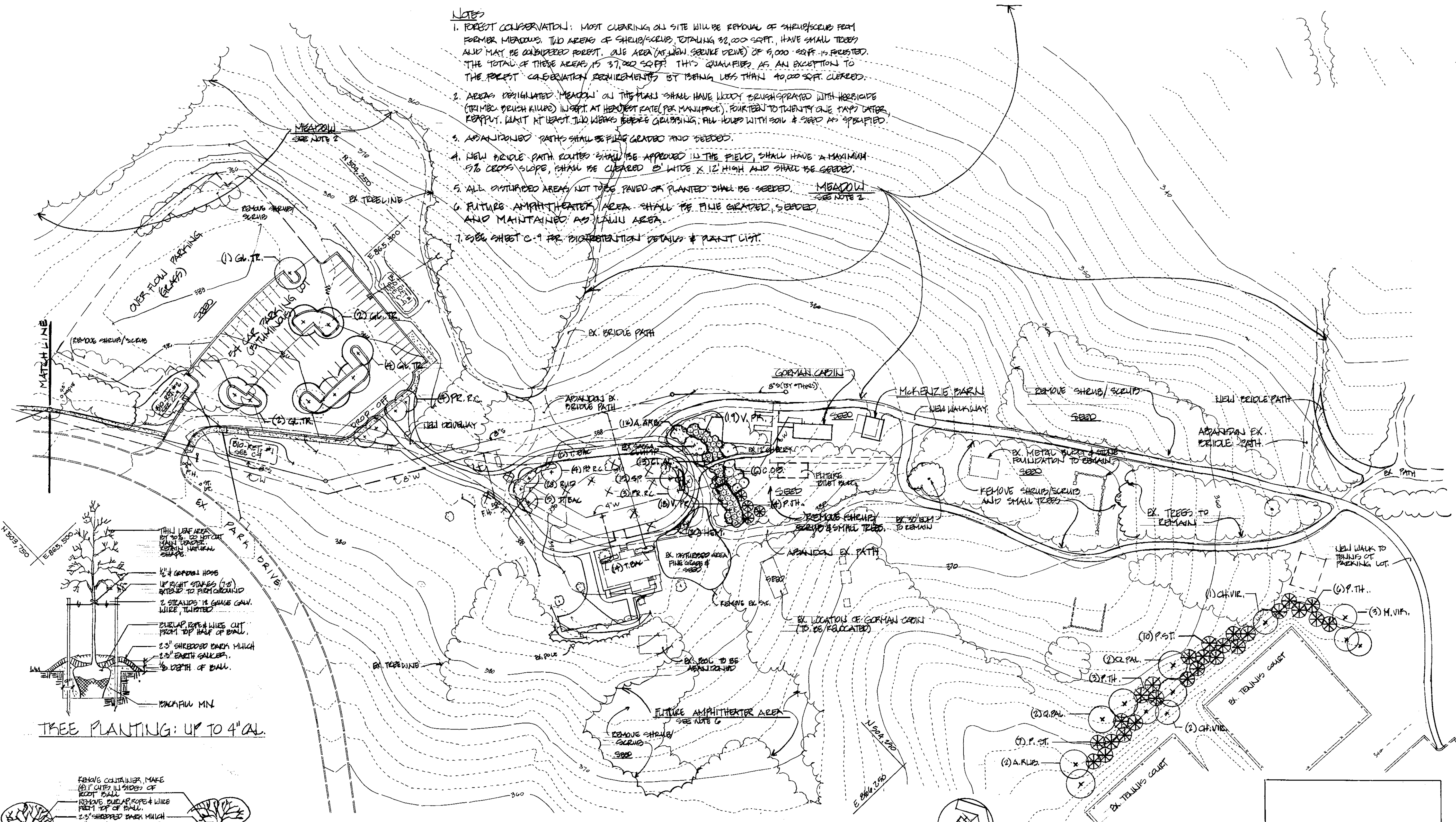
REVISIONS: _____ DATE: _____
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
HOWARD COUNTY HEALTH DEPARTMENT
One M. [Signature] 8/18/99
COUNTY HEALTH OFFICER MR. [Signature] 10/28/98

APPROVED: DEPARTMENT OF PLANNING & ZONING
CHIEF, DEVELOPMENT ENGINEERING DIV. [Signature] 8/18/99
CHIEF, DIVISION OF LAND DEVELOPMENT [Signature] 8/18/99
DIRECTOR [Signature] 8/18/99

WATER CODE D-04
SEWER CODE 2153600
SHEET # _____ OF _____

NOTES

1. FOREST CONSERVATION: MOST CLEARING ON SITE WILL BE REMOVAL OF SHRUBS/SCUMS FROM FORMER MEADOWS. TWO AREAS OF SHRUBS/SCUMS, TOTALING 30,000 SQ. FT., HAVE SMALL TREES AND MAY BE CONSIDERED FOREST. ONE AREA (AT HIGH SLOPE DENE) OF 9,000 SQ. FT. IS FORESTED. THE TOTAL OF THESE AREAS IS 37,000 SQ. FT. THIS QUALIFIES AS AN EXCEPTION TO THE FOREST CONSERVATION REQUIREMENTS BY BEING LESS THAN 40,000 SQ. FT. CLEARED.
2. AREAS DESIGNATED 'MEADOW' ON THE PLAN SHALL HAVE WOODY BRUSH SPRAYED WITH HERBICIDE (TRIMEC BRUSH KILLER) IN SEPT. AT HIGHEST RATE PER MANUFACT. FOURTEEN TO TWENTY ONE DAYS LATER, REAPPLY. WAIT AT LEAST TWO WEEKS BEFORE GRASSING. FILL HOLES WITH SOIL & SEED AS SPECIFIED.
3. ADJACENT PATHS SHALL BE FINE GRADDED AND SEEDED.
4. NEW BRIDGE PATH ROUTES SHALL BE APPROVED IN THE FIELD. SHALL HAVE A MAXIMUM 5% CROSS SLOPE, SHALL BE CLEARED 6' WIDE X 12' HIGH AND SHALL BE SEEDED.
5. ALL DISTURBED AREAS NOT TO BE PAVED OR PLANTED SHALL BE SEEDED.
6. FUTURE AMPHITHEATER AREA SHALL BE FINE GRADDED, SEEDED AND MAINTAINED AS LAWN AREA.
7. SEE SHEET C-1 FOR BIORESTORATION DETAILS & PLANT LIST.



PLANTING PLAN 1"=50'

PLANT LIST (SEE SHEET C-1 FOR BIORESTORATION PLANTLIST)

KEY	QUANTITY	SIZE	BOTANICAL NAME	COMMON NAME	REMARKS
SHRUBS					
A. APR.	12	3-4' B&D	ARONIA ARD. PENTANANTIOSIMA	RED CHOCOPERRY	4' O.C.
CL. AL.	25	18-24" (CONT.)	CLETHRA ALNIFOLIA	SUMMERSWEET	3' O.C.
C. OD.	6	6-8' B&D	COTINUS OBOVATUS	AMERICAN SMOKE TREE	MULTI-STEM
T. PAC.	25	15-18" (CONT.)	TAXUS PAC. REPANDENS	WEeping YEW	3' O.C.
SP.	15	18-24" (CONT.)	SPIREA x POLY. 'ANTHONY WATERER'	ANTHONY WATERER SPIREA	2'6" O.C.
V. PR.	37	5-6' B&D	VIORNIUM FEMINIFOLIUM	BLACKHAWK VIOURNIUM	HEAVY, 6' O.C.
TREES					
A. RUB.	2	2 1/2-3" CAL. B&D	ACER RUBRUM 'RED SUNSET'	RED SUNSET MAPLE	
CH. VIR.	3	5-6' B&D	CHONALITHUS VIRGINICUS	FRINGETREE	HEAVY
GL. TR.	9	2 1/2-3" CAL. B&D	GLEDITSIA TRI. INJ. 'SHADEMASTER'	SHADEMASTER HONEYLOCUST	
M. VIR.	3	5-6' B&D	MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	HEAVY
P. ST.	17	6-7' B&D	PINUS STROBUS	WHITE PINE	
P. TH.	17	6-7' B&D	PINUS THUNBERGIANA	JAPANESE BLACK PINE	
Q. PAL.	4	2 1/2-3" CAL. B&D	QUERCUS PALUSTRIS	PIN OAK	
PR. E.C.	11	1 1/2-2" CAL. B&D	PRUNUS SER. 'ROSY CLOUD'	ROSY CLOUD CHERRY	HEAVY
RUD.	25	1 QT.	RUDBECKIA FUL. GOLDSTRUM	GOLDSTRUM CORE FLOWER	18" O.C.
H&M	20	1 QT.	HEMEROCALLIS FLAVA	ORANGE DAYLILY	12" O.C.

