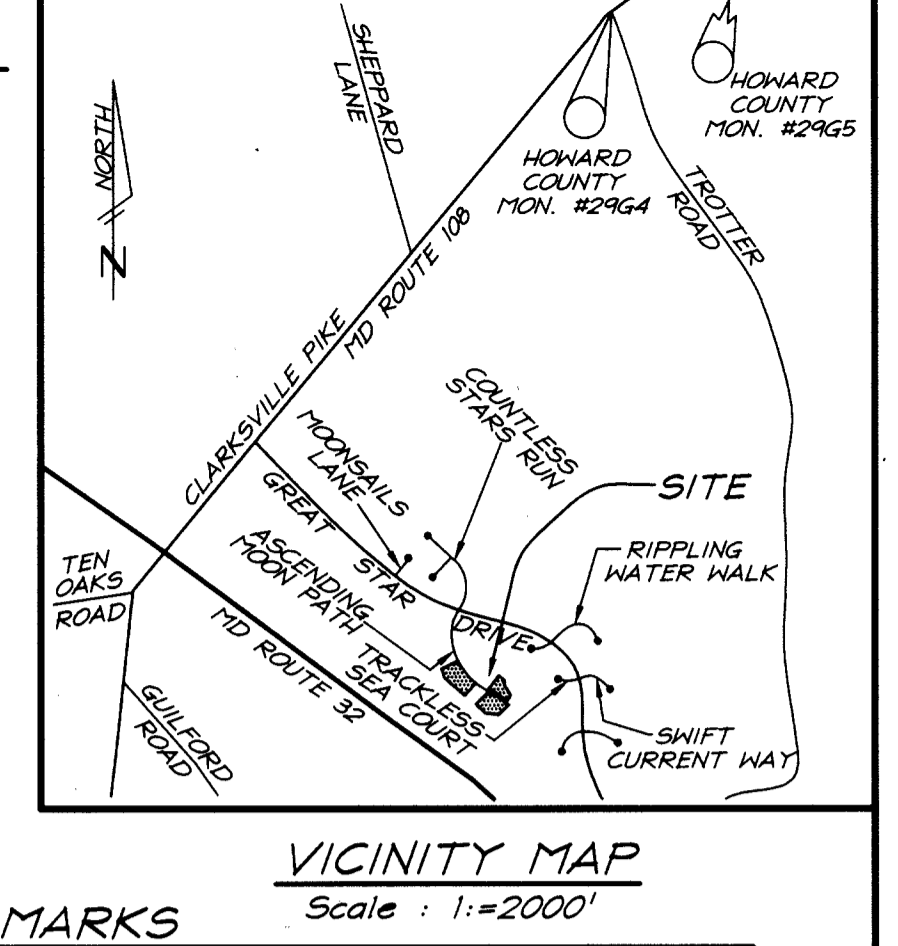
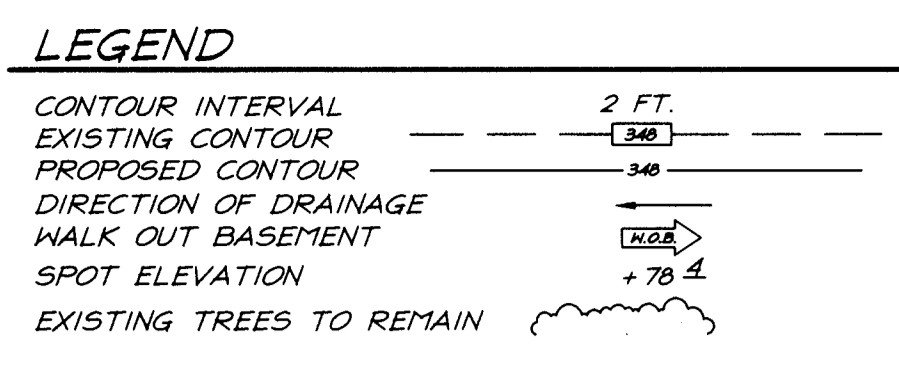


No	REVISIONS	DATE
1	Rev. hse. & grd. Lot 71 from 2 Box to CARMEL (Rev.) And Rev. hse. & grd. Lot 68 from 3 Box to GRANADA III (Rev.) & hse. Typ. added.	12-8-98
2	REV. HSE. & GRD. LOT 68 FROM 3 BOX TO CARMEL VENTURA	3-3-99
3	Rev. hse. & grd. lot 67, add Kimberly Mod. hse type to grd. lot 68	6-22-99

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
64	6037 ASCENDING MOON PATH
65	6041
66	6060
67	6066
68	6082
71	6045
72	6036
73	6032
74	6023



BENCH MARKS
 Ho. Co. Monument No. 2944
 Intersection of MD. Route 108 and Trotter Road
 Ho. Co. Monument No. 2945
 an additional 2,544± Northeastly along
 MD. Route 108 away from Site

- GENERAL NOTES:**
- Subject property is zoned: NTSFLD per 10-18-93 Comprehensive Zoning Plan.
 - The total area included in this submission is: 3.05 Acres
 - The total number of lots included in this submission is: 9
 - Improvement to property: Single Family Detached
 - Shc elevations shown are located at the property line.
 - Department of Planning and Zoning reference file numbers are: S-93-21; P-95-10; WP-95-32; WP-95-78; F-96-123; F-96-89; F-96-110
 - Utilities shown as existing are taken from approved Water and Sewer plans Contract #34-3525-D & #30-3436-D and from approved Road Construction plans F-96-123, and actual field survey.
 - Any damage to county owned rights-of-way shall be corrected at the developer's expense.
 - All roadways are public and existing.
 - The existing topography was taken from field run topo prepared by this office dated June, 1998.
 - The coordinates shown hereon are based upon the Howard County Geodetic Control which is based upon the Maryland State Plane Coordinate System - Howard County Control stations: 2944 & 2945
 - The contractor shall notify the Department of Public Works/Division of Construction Inspection at (410) 313-1880 at least twenty-four (24) hours 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.
 - For driveway entrance details, refer to Ho. Co. Design Manual Volume IV details R-6.03 & R-6.05.
 - In accordance with FDP 222-A-1, Part 1, bay windows or chimneys not more than 10 feet in width may project not more than 4 feet into any setbacks; porches and decks may project not more than 3 feet into the front or rear setbacks. Wrap around porches cannot infringe into any required side yard setbacks. Exterior Basement Areas may not encroach into any BRL.
 - Stormwater Management is provided per: F-96-123.
 - Buffer landscaping at Water Quality Facility #9 was provided per approved F-96-123.

SHEET INDEX	
DESCRIPTION	SHEET No.
SITE DEVELOPMENT PLAN	1 of 3
SEDIMENT AND EROSION CONTROL PLAN	2' and 3 of 3

OWNER / DEVELOPER
 THE HOWARD RESEARCH AND DEVELOPMENT CORP.
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MARYLAND 21044

SPECIAL NOTES:
 This plan is for house siting and lot grading only. Improvements shown within the rights-of-way on this S.D.P. are not to be used for construction. For construction, see approved Road Construction Plans F-96-123 and/or approved Water and Sewer Plans Contract #34-3525-D & #30-3436-D.

SUBDIVISION NAME	COLUMBIA	SECTION/AREA	LOTS/PARCELS
VILLAGE OF RIVER HILL	4/1	64 THRU 68 AND 71 THRU 74	
PLAT NO.	12851	BLOCK NO.	7
ZONE	NTSFLD	TAX MAP NO.	35
ELECTION DIST.	5th	CENSUS TRACT	6055
WATER CODE	1-10	SEWER CODE	6653000

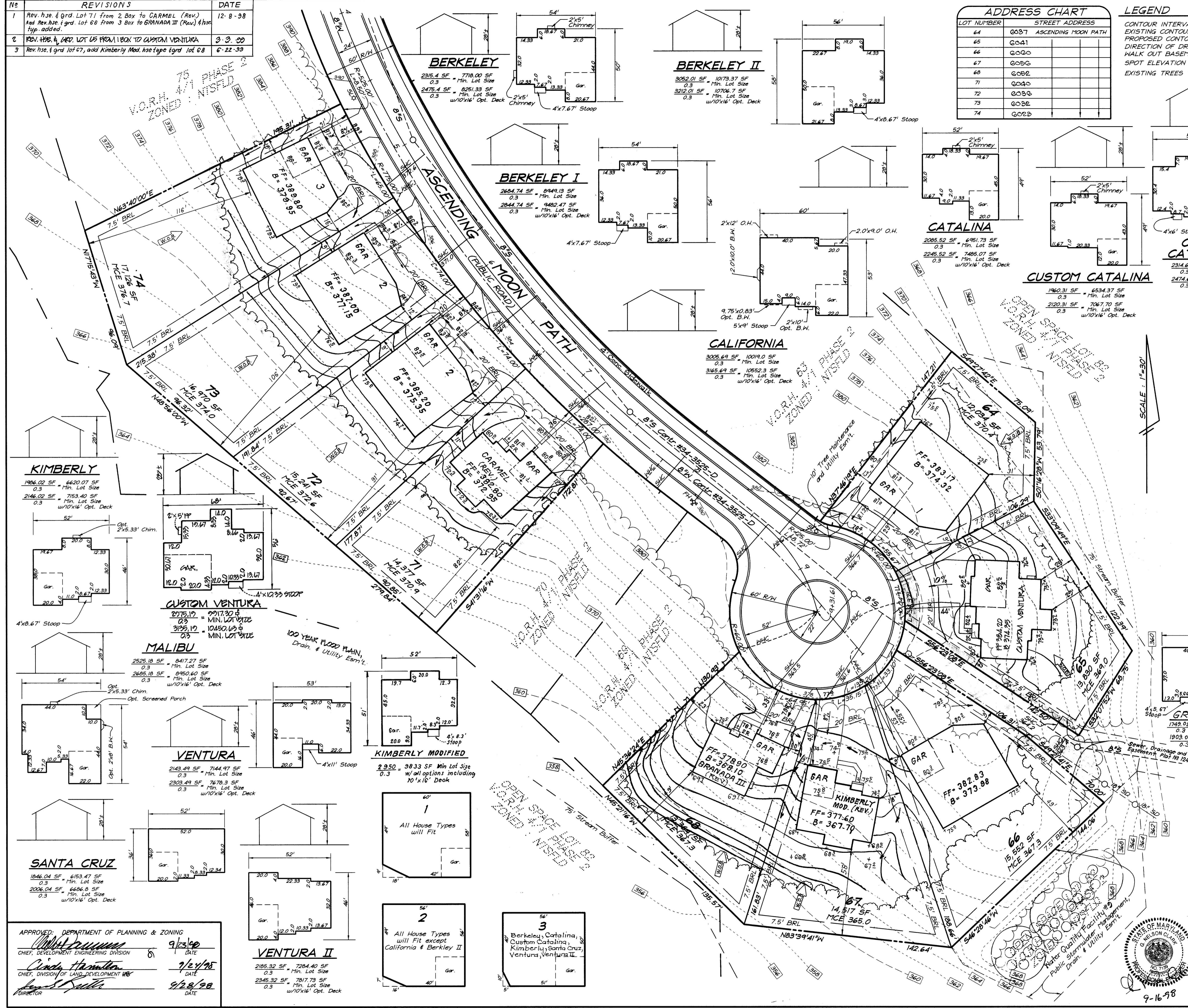
CLARK • FINEFROCK & SACKETT, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 BALT. • (301) 621-8100 WASH.

DESIGNED: DM
 DRAWN: PS
 CHECKED: jme
 DATE: 7-28-98

SITE DEVELOPMENT PLAN
 LOTS 64 THRU 68 AND 71 THRU 74
COLUMBIA
 VILLAGE OF RIVER HILL
 SECTION 4 AREA 1 PHASE 2
 FIFTH (5th) ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

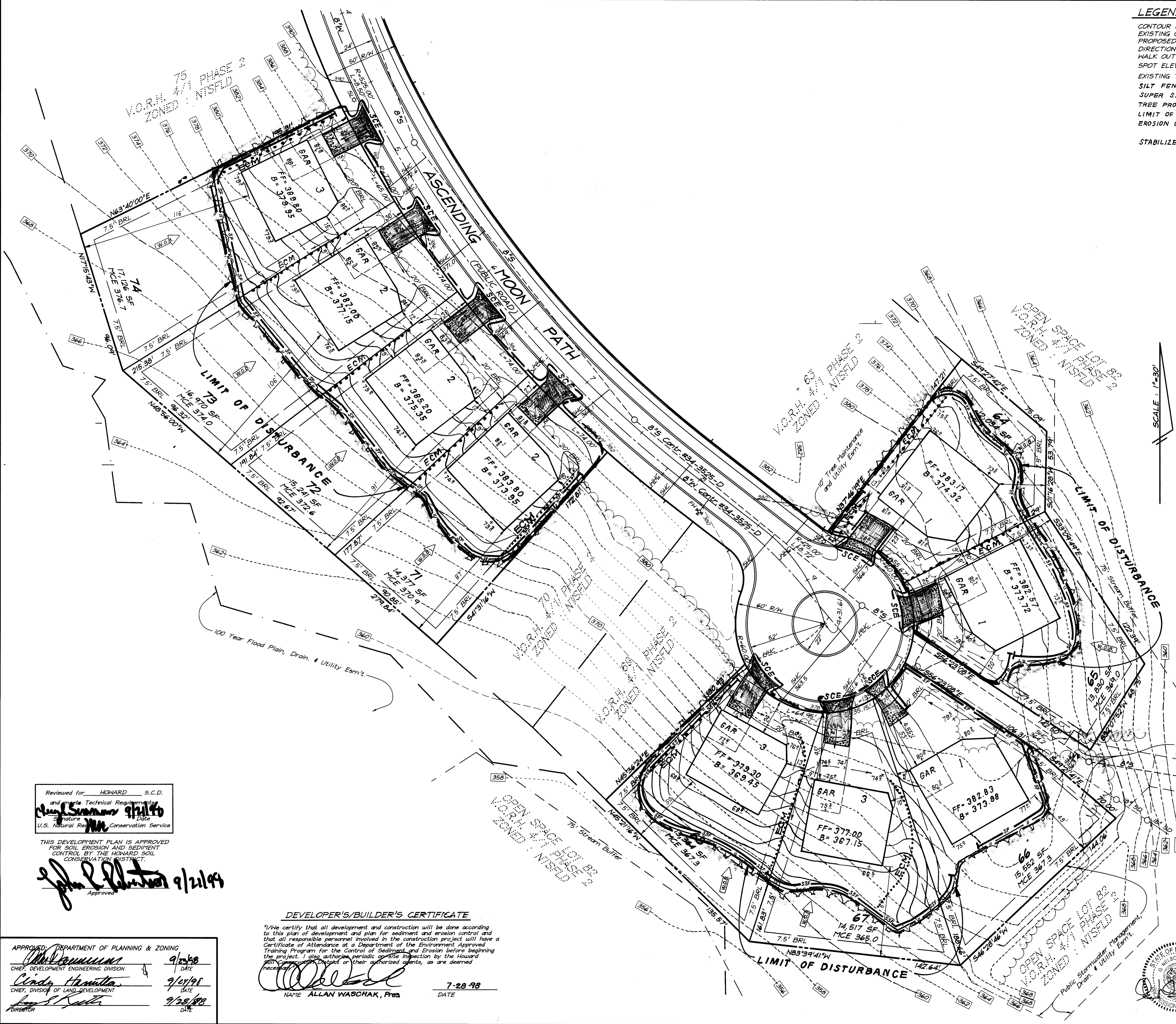
SCALE: 1" = 30'
 DRAWING: 1 of 3
 JOB NO.: 98-021
 FILE NO.: 98-021X

FOR: ALLAN HOMES, Inc.
 10260 Old Columbia Road
 Rivers Corporate Park
 Columbia, Maryland 21044



APPROVED: DEPARTMENT OF PLANNING & ZONING
 [Signature] 9/23/98
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 [Signature] 7/24/98
 CHIEF, DIVISION OF LAND DEVELOPMENT
 [Signature] 9/28/98
 DIRECTOR

- 1**
All House Types will Fit
- 2**
All House Types will Fit except California & Berkeley II
- 3**
Berkeley, Catalina, Custom Catalina, Kimberly, Santa Cruz, Ventura, Ventura II



LEGEND

CONTOUR INTERVAL 2 FT.

EXISTING CONTOUR

PROPOSED CONTOUR

DIRECTION OF DRAINAGE

WALK OUT BASEMENT

SPOT ELEVATION

EXISTING TREES TO REMAIN

SILT FENCE

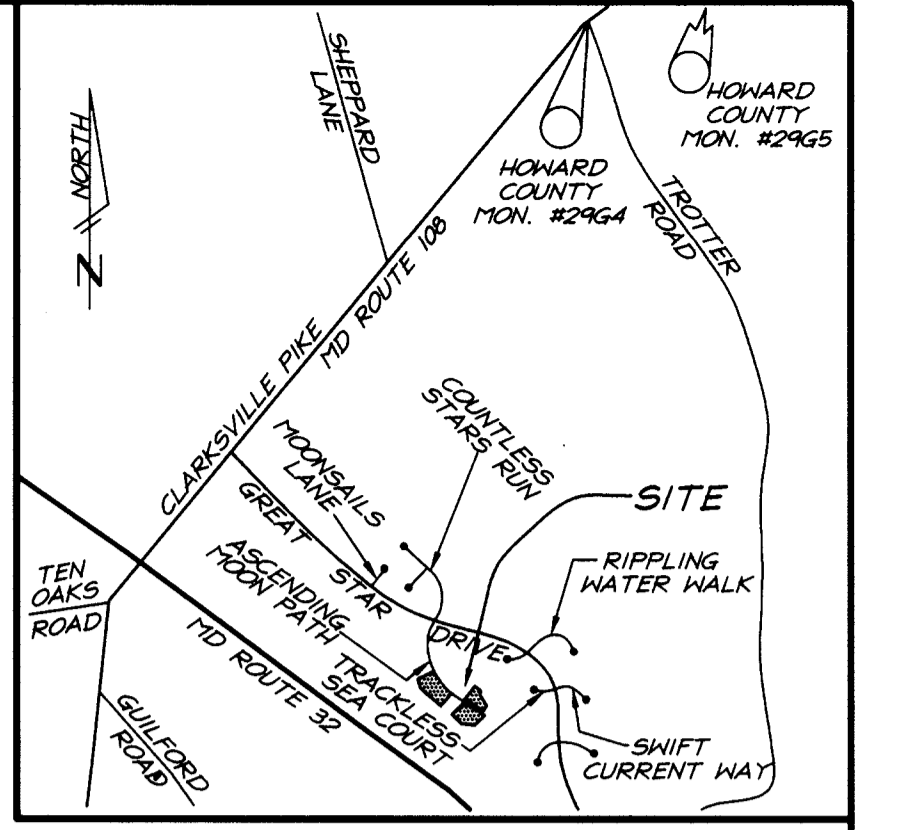
SUPER SILT FENCE

TREE PROTECTION FENCE

LIMIT OF DISTURBANCE

EROSION CONTROL MATTING

STABILIZED CONSTRUCTION ENTRANCE



BENCH MARKS
 Scale: 1"=2000'

Ho. Co. Monument No. 2964
 Intersection of MD. Route 108 and Trotter Road

Ho. Co. Monument No. 2965
 an additional 2,544± Northeasterly along
 MD. Route 108 away from Site

SCALE: 1"=80'

ENGINEER'S CERTIFICATE
 I hereby certify that this plan for Sediment and Erosion 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.

G. Nelson Clark
 G. NELSON CLARK DATE

SHEET INDEX

DESCRIPTION	SHEET No.
SITE DEVELOPMENT PLAN	1 of 3
SEDIMENT AND EROSION CONTROL PLAN	2 and 3 of 3

OWNER / DEVELOPER
 THE HOWARD RESEARCH AND DEVELOPMENT CORP.
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MARYLAND 21044

SPECIAL NOTES:
 This plan is for house siting and lot grading only. Improvements shown within the rights-of-way on this S.D.P. are not to be used for construction. For construction, see approved Road Construction Plans F-96-123 and/or approved Water and Sewer Plans Contract #34-3525-D & #30-3436-D.

SUBDIVISION NAME	COLUMBIA VILLAGE OF RIVER HILL	SECTION/AREA	4/1	LOTS/PARCELS	64 THRU 68 AND 71 THRU 74
PLAT NO.	12851	BLOCK NO.	7	TAX MAP NO.	35
WATER CODE	1-10	ELECTION DIST.	5th	SEWER CODE	6653000
CENSUS TRACT	6055				

CLARK • FINEFROCK & SACKETT, INC.
 ENGINEERS • PLANNERS • SURVEYORS

7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 BALT. • (301) 621-8100 WASH.

DESIGNED	DM	SCALE	1" = 30'
DRAWN	PS	DRAWING	2 of 3
CHECKED	JME	JOB NO.	98-021
DATE	7-24-98	FILE NO.	98-021BE

FOR: ALLAN HOMES, Inc.
 12240 Old Columbia Road
 River's Corporate Park
 Columbia, Maryland 21044

Reviewed for HOWARD S.C.D. and State Technical Requirements
John P. Blanton
 U.S. Natural Resources Conservation Service

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

John P. Blanton 9/21/98
 Approved

DEVELOPER'S/BUILDER'S CERTIFICATE
 I/We certify that all development and construction will be done according to this plan of development and plan for sediment and erosion control and that all 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 or their authorized agents, as are deemed necessary.

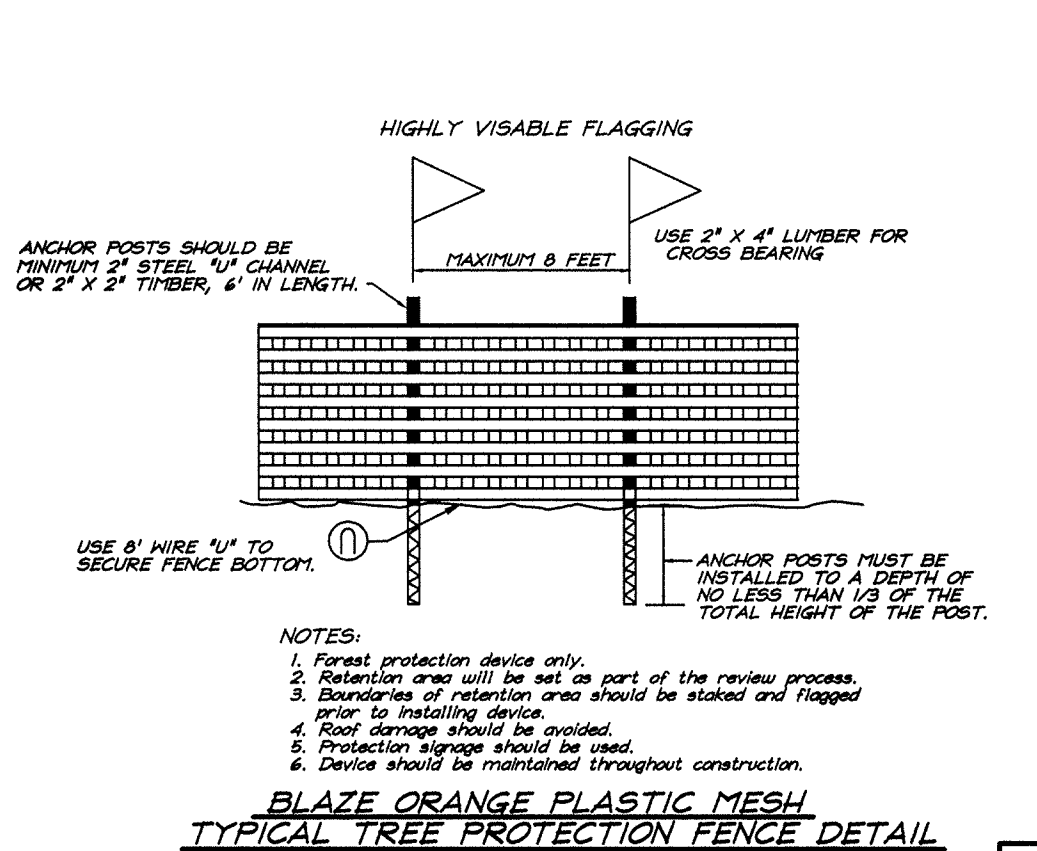
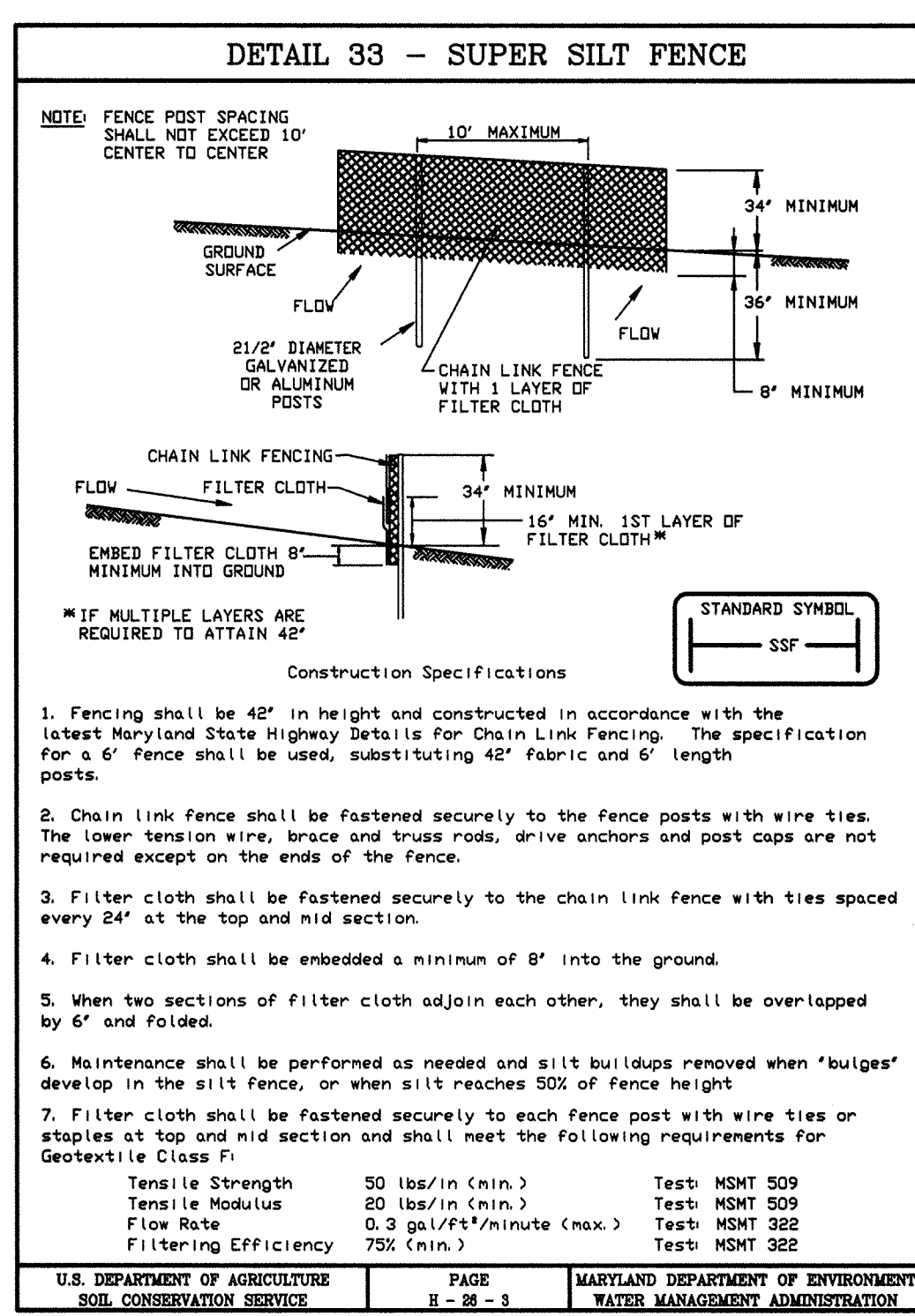
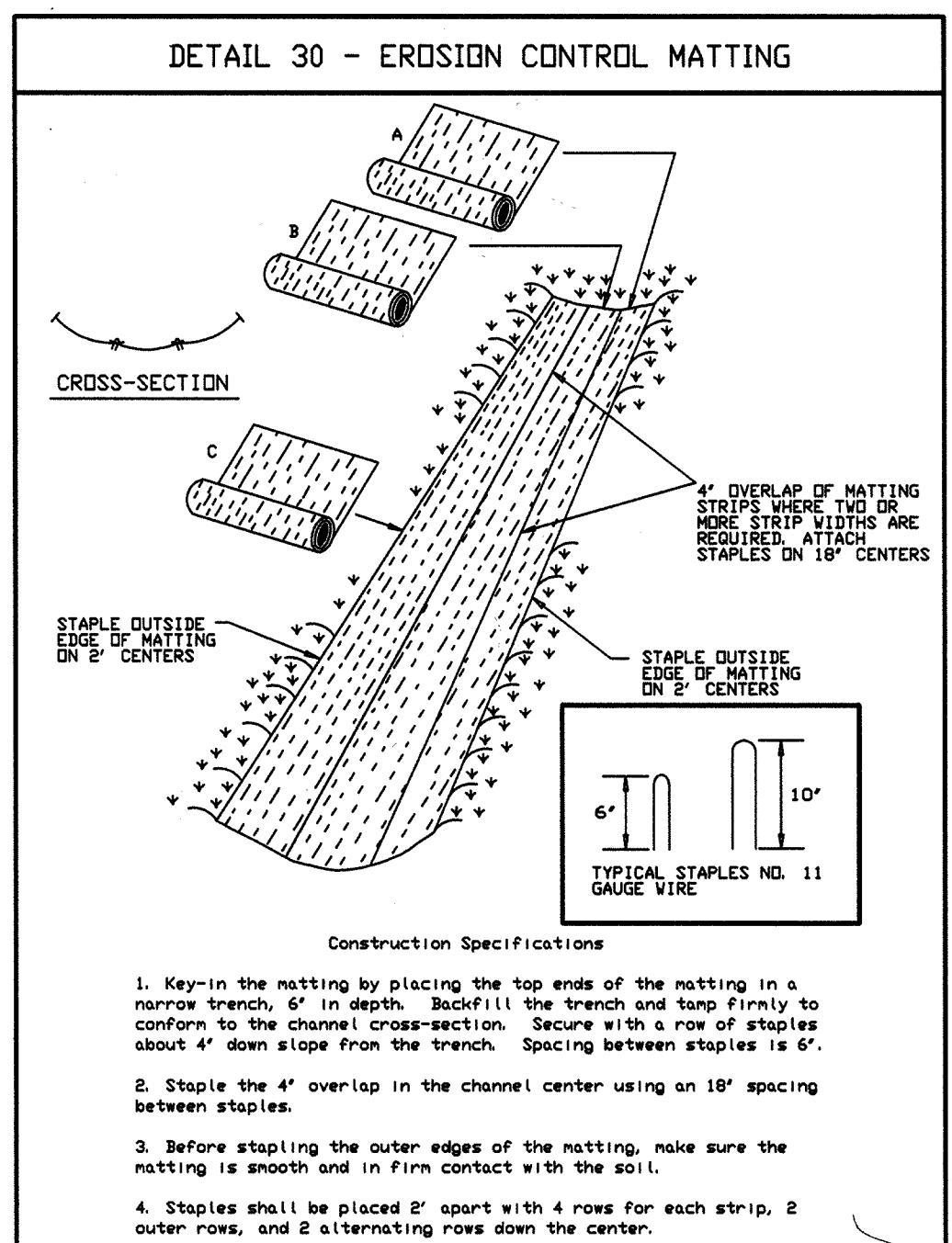
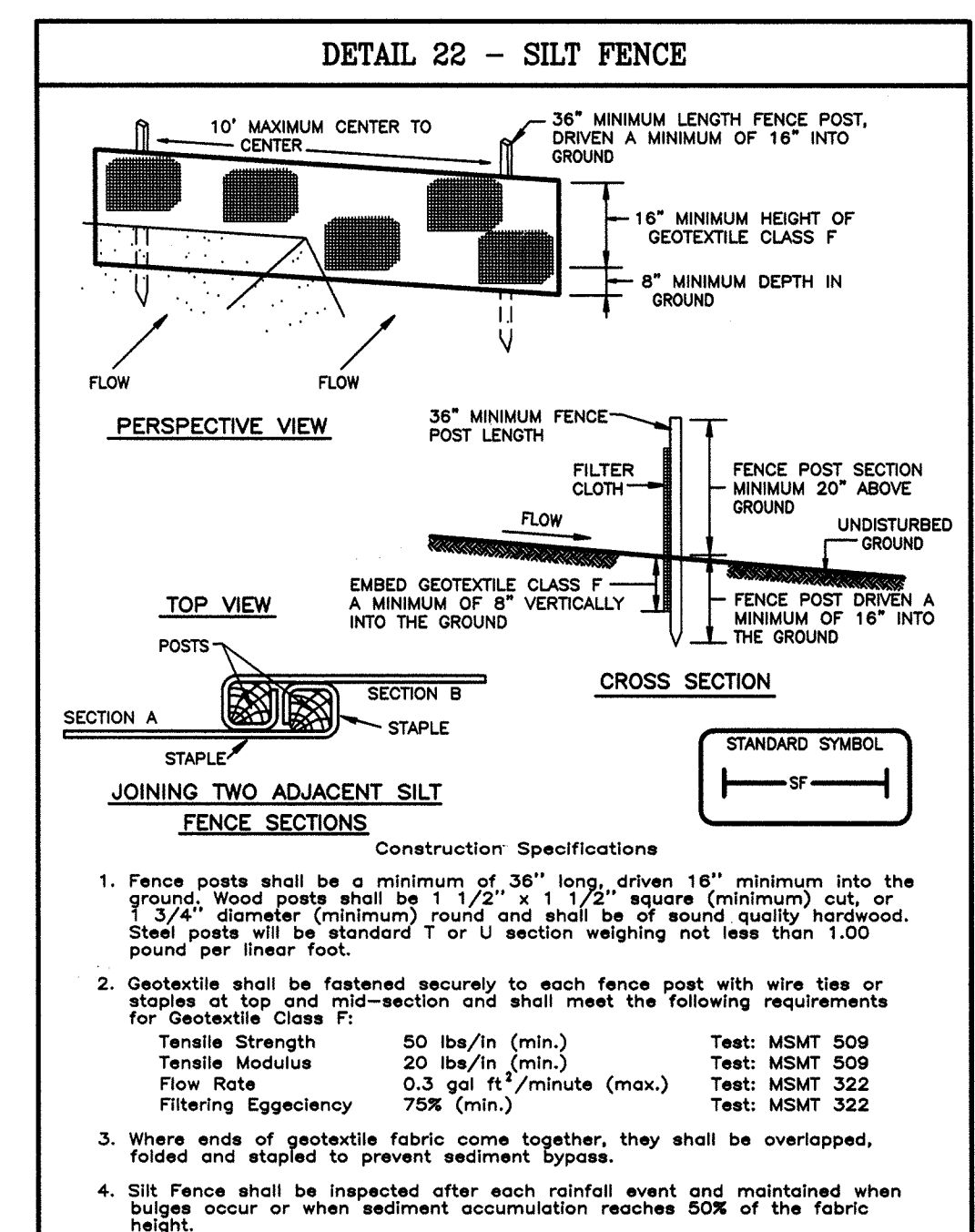
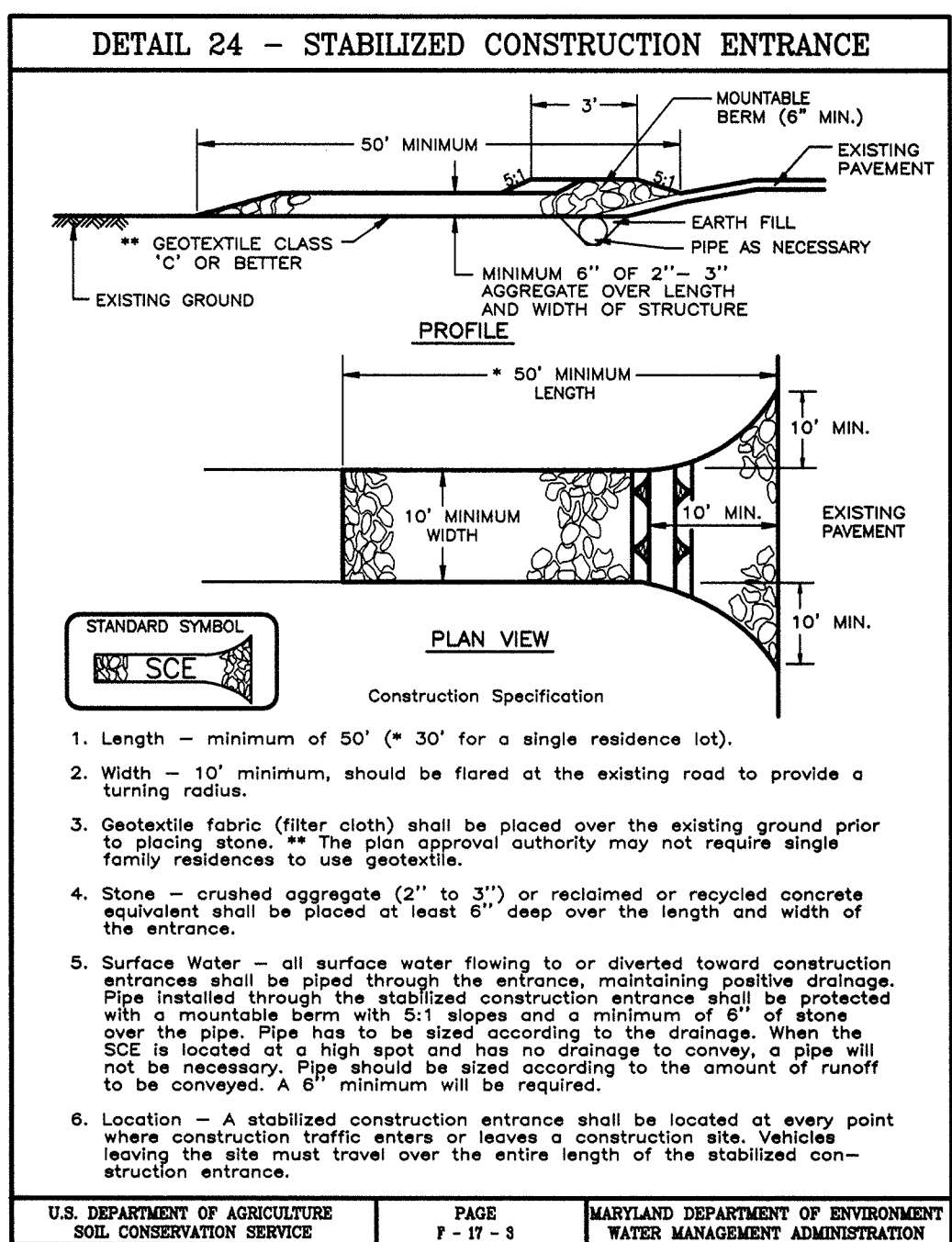
Allan Waschak
 NAME ALLAN WASCHAK, Pres DATE 7-28-98

APPROVED DEPARTMENT OF PLANNING & ZONING

John P. Blanton 9/24/98
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Cathy Hamilton 9/24/98
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

John P. Blanton 9/28/98
 DIRECTOR DATE



APPROVED: DEPARTMENT OF PLANNING & ZONING

Signature: *[Signature]* 9/23/99 DATE

Signature: *[Signature]* 9/24/98 DATE

Signature: *[Signature]* 9/26/98 DATE

APPROVED: DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

Signature: *[Signature]* 9/21/99 DATE

Signature: *[Signature]* 9/21/98 DATE

PERMANENT SEEDING NOTES

APPLY TO GRAZED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE UNDER A PERMANENT LONG-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 ADJUSTMENTS: In lieu of soil test recommendations, use one of the following schedules:

- Preferred-Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq.ft.) and 600 lbs per acre 10-10-10 fertilizer (14 lbs./1000 sq.ft.) before seeding. Harrow or disk into upper three inches of soil. At the time of seeding, apply 400 lbs. per acre 30-0-0 urea-form fertilizer (9 lbs/1000 sq.ft.).
- Acceptable-Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq.ft.) and apply 1000 lbs. per acre 10-10-10 fertilizer (23 lbs./1000 sq.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 40 lbs. per acre (14 lbs./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 100 lbs./1000 sq.ft. of urea-form fertilizer. During the period of October 1 thru February 28, protect site by Oatlon (1) 2 tons per acre well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use seed Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

MULCHING: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs./1000 sq. ft.) of unrolled small grain straw immediately after seeding. Anchor mulch immediately after application using mulch watering tool or 300 gallons per acre (3 gal/1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 6 feet or higher, use 340 gallons per acre (3 gal/1000 sq.ft.) for anchoring.

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

TEMPORARY SEEDING NOTES

SEEDBED PREPARATION: Loosen upper three inches of soil by raking, disking or other acceptable means before seeding. If not previously loosened.

SOIL ADJUSTMENTS: Apply 600 lbs. per acre 10-10-10 fertilizer (14 lbs./1000 sq.ft.).

SEEDING: For the periods March 1 thru April 30 and from August 15 thru November 15, seed with 2 1/2 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 urea-form fertilizer (17 lbs./1000 sq.ft.). For the period November 1 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 in fall.

MULCHING: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs./1000 sq.ft.) of unrolled small grain straw immediately after seeding. Anchor mulch immediately after application using mulch watering tool or 300 gallons per acre (3 gal/1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 6 feet or higher, use 340 gallons per acre (3 gal/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.

21.0 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 vegetable 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 21 or flatter slopes where:
 - The texture of the exposed subsoil/parent material is not adequate to produce vegetable growth.
 - The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish containing 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 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 Experiment 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 a 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 chert, stones, slag, coarse fragments, gravel, silt, silt, roots, trash, or other materials larger than 1 and 1/2" in diameter.
 - Topsoil must be free of plants or plant parts such as Bermuda grass, quackgrass, johnsongrass, nutgrass, poison ivy, thistle, or others as specified.
 - Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 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 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.

DEVELOPER'S/BUILDER'S CERTIFICATE

I/We certify that all development and construction will be done according to this plan of development and plan for sediment and erosion control and that all 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/We also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary.

Signature: *[Signature]*

NAME ALLAN WASCHAK, Pres. DATE 7-28-98

ENGINEER'S CERTIFICATE

I hereby certify that this plan for Sediment and Erosion 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: *[Signature]*

G. NELSON CLARK DATE

SEDIMENT AND EROSION CONTROL NOTES

- A minimum of 48 hours notice must be given to the Howard County Department of Inspections, Licenses and Permits, Sediment Control Division prior to the start of any construction (318-1855).
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1994 MARYLAND STANDARDS AND SPECS. FOR SOIL EROSION AND SEDIMENT CONTROL and revisions thereto.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within:
 - 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1
 - 14 days on all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeters in accordance with Vol. 1, Temporary Sedimentation - Section 1 - Vegetative Stabilization Methods and Materials.
- All disturbed areas must be stabilized within the time period specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials. Temporary seeding and mulching (Sec. G) 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:

Area Disturbed:	3.05 Acres
Area to be roofed or paved:	0.65 Acres
Area to be vegetatively stabilized:	1.23 Acres
Total Dist.:	5.33 AC
Total Fill:	341.67
- 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 control must be provided, if deemed necessary by the Howard County DEP Sediment Control Inspector.
- On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of 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.
- Trenches for the construction of utilities is limited to three pipe lengths or less which shall be back-filled and stabilized within one working day, whichever is shorter.
- The total amount of silt fence = 1155 LF
- The total amount of super silt fence = 250 LF
- The total amount of earth dikes = 2

*It is the responsibility of the contractor to identify the appropriate site and notify and gain approval from the sediment control inspector of the site and its grading permit number at the time of construction.

CONSTRUCTION SEQUENCE

	NO. OF DAYS
1. Obtain grading permit.	7
2. Install tree protection fence.	2
3. Install foundation and erosion control devices and stabilize.	14
4. Excavate for foundations, rough grade and temporarily stabilize.	30
5. Construct structures, sidewalks and driveways.	60
6. Final grade, install Erosion Control Matting and stabilize in accordance with standards and specifications.	14
7. Upon approval of the sediment control inspector, remove sediment and erosion control devices and stabilize.	7

* Delay construction of houses on lots: N/A

OWNER / DEVELOPER

THE HOWARD RESEARCH AND DEVELOPMENT CORP.
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND 21044

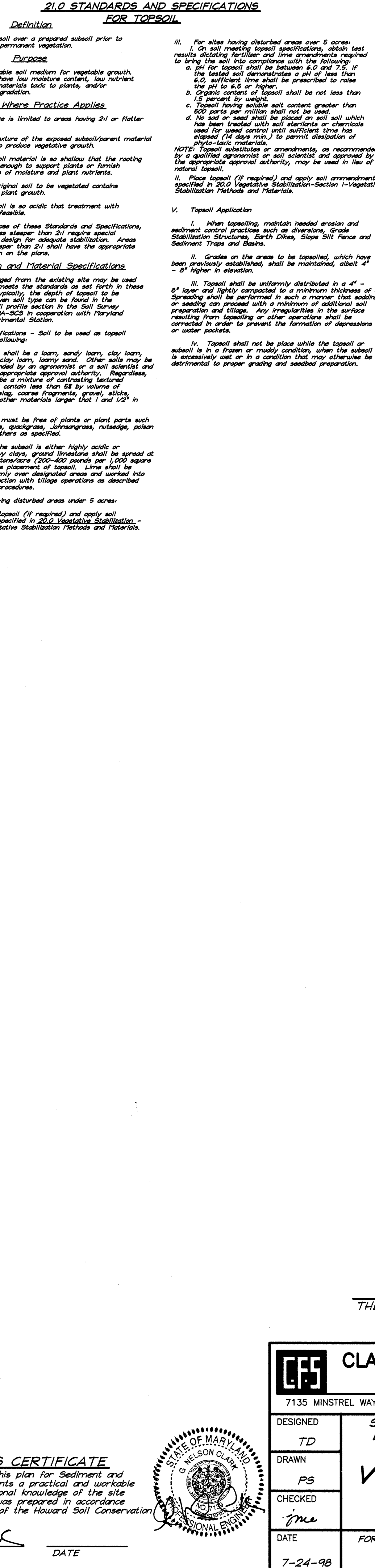
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7135 MINTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 BALT. • (301) 621-8100 WASH.

DESIGNED TD
DRAWN PS
CHECKED me
DATE 7-24-98

SCALE NO SCALE
DRAWING 3 OF 3
JOB NO. 98-021
FILE NO. 98-021SE

FOR: ALLAN HOBBS, Inc.
10280 Old Columbia Road
Rivera Corporate Park
Columbia, Maryland 21046



SDP 99-13