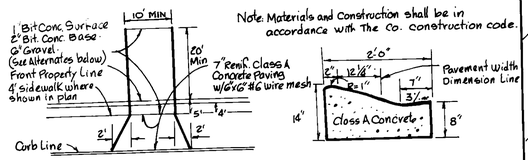
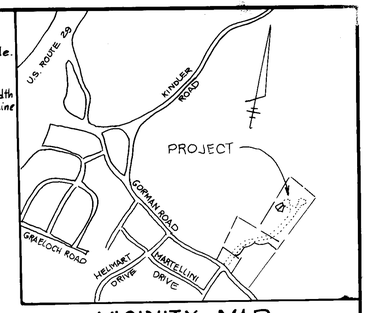


DRIVEWAY ABUTTING, MOD. COMB. CURB & GUTTER

ALTERNATE #1
1" Bit. Conc. Surface
4" Bit. Conc. Base

ALTERNATE #2
1" Bit. Conc. Surface
3" Bit. Conc. Base.
3" Gravel



VICINITY MAP
SCALE: 1" = 800'

PLAN
SCALE: 1" = 30'

GENERAL NOTES:

1. The Land included is zoned: R-20
2. Coordinates are based upon traverse controls established for Howard County, and Fisher, Collins & Carter, Inc. in 1986 which controls were tied to the Maryland State coordinate system.
3. All Roads are public and existing.
4. Any damage to county owned rights of way to be corrected at the owners expense.
5. Total area included: 0.68 Acres
6. Total number of lots: 2
7. The contractor or developer shall contact the construction/Inspection Division, 24 hours in advance of commencement of work at 792-7272.
8. S.W.M. provided under F.86-168

LEGEND:

1. Contour Interval — 2 Ft. — 308 310
2. Existing Contour
3. Proposed Contour
4. Spot Elevation — x 97.2
5. Direction of Drainage
6. Silt Fence — S — S — S —
7. Stabilized Construction Entrance — SCE
8. Earth Dike

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 erosion and sediment control and that all responsible personnel involved in the construction project will have a certificate of attendance at a Dept. of Natural Resources Approved Training program for the Control of Sediment and Erosion before begining the Project. I also authorize periodic onsite inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary.

Signature of Developer/Builder — Date

Reviewed for ... HOWARD ... SCD (Name) and meets Technical Requirements
Signature — 5-22-87 Date
U.S. Soil Conservation Service

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

Approved — 5-22-87 Date

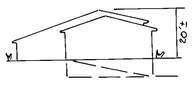
APPROVED
DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 5-7-87

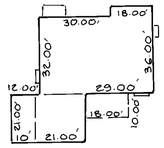
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
COUNTY HEALTH OFFICER — 5-26-87 DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING
PLANNING DIRECTOR — 5-27-87 DATE
ZONING CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — 5-27-87 DATE

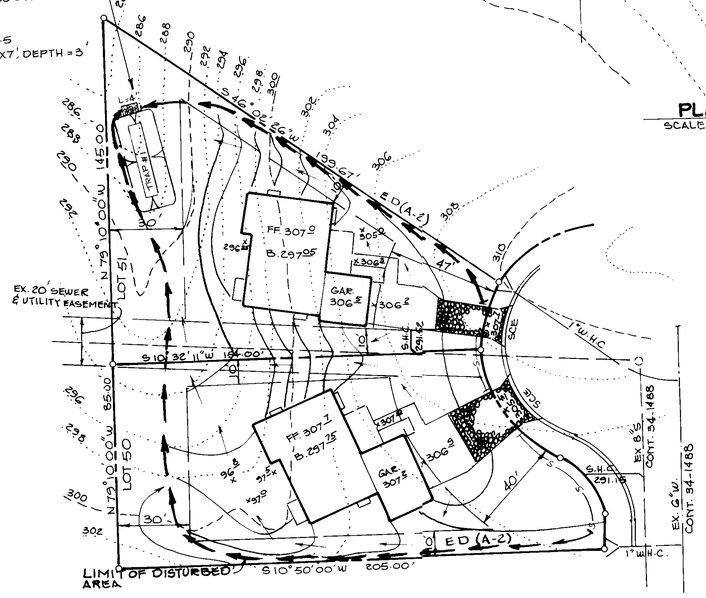
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
DIRECTOR — 5-27-87 DATE
CHIEF BUREAU OF ENGINEERING — DATE

TRAP #1
D.A. = 0.6 AC.
STORAGE REQUIRED = 0.6 X 1800 = 1080 C.F.
STORAGE PROVIDED = 1080 C.F.
BOTTOM EL. = 281.5
CLEAN OUT EL. = 283
STONE CREST EL. = 285.5
BOTTOM DIMENSION = 33'X7', DEPTH = 3'
1:1 SIDE SLOPE





TYPICAL HOUSE
NO SCALE



SEDIMENT & EROSION CONTROL
SCALE: 1" = 30'

ENGINEER'S CERTIFICATE

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 Howard Soil Conservation District.

MIKE M. GEDGHI
RE. # 13816
3-22-87 DATE

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
50	10605 RACHEL YATES COURT
51	10603 RACHEL YATES COURT

SUBDIVISION NAME			SECT/AREA	LOTS
WARFIELD'S RANGE			2/4	50 & 51
PLAT #	BLOCK #	ZONE	TAX/ZONE MAP	ELEC. DIST.	CENSUS TR.
7005	15	R-20	42	6TH	6062
WATER CODE			SEWER CODE	
E-17			G360000	

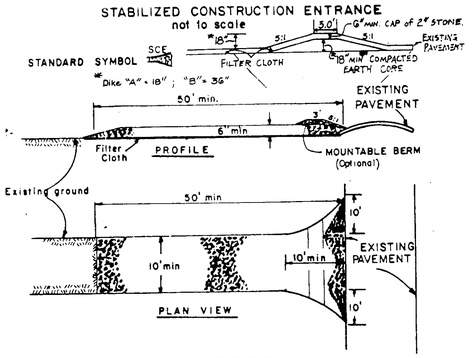
ENGINEER:
MIKE SEDGHI
7151 BRIGHT SOUL
COLUMBIA, MD. 21045

DESIGNED M.S.	SITE DEVELOPMENT PLAN LOTS 50 & 51	SCALE 1"=30'
DRAWN M.S.	WARFIELD'S RANGE SECTION TWO, AREA FOUR	DRAWING 1 OF 2
CHECKED	SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO.
DATE 3-22-87	FOR: SIGNATURE HOMES P.O. Box 2804 Columbia, Md. 21045	FILE NO.

SDP-87-196

STABILIZED CONSTRUCTION ENTRANCE

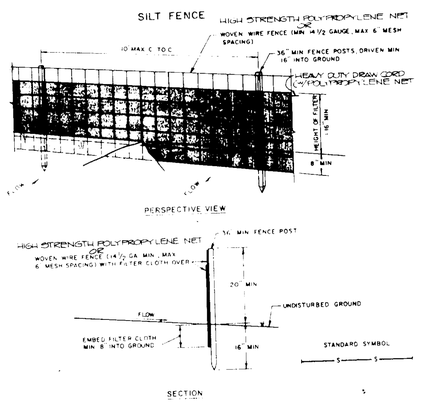
not to scale



CONSTRUCTION SPECIFICATIONS

1. Stone Size - Use 2" stone, or reclaimed or recycled concrete equivalent.
2. Length - As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
3. Thickness - Not less than six (6) inches.
4. Width - Ten (10) foot minimum, but not less than the full width at points where ingress or egress occurs.
5. Filter Cloth - Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot.
6. Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
7. Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
8. Washing - Wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
9. Periodic inspection and needed maintenance shall be provided after each rain.

SILT FENCE



CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN BULGES DEVELOP IN THE SILT FENCE.

POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD

FENCE: WOVEN WIRE, 14 GA. MIN. 6" MAX. MESH OPENING

HIGH STRENGTH POLYPROPYLENE NETTINGS

FILTER CLOTH: FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL

PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL

5-7-87

178.

PERMANENT SEEDING NOTES

Seedbed Preparation: Loosen upper 3 inches of soil by raking, discing or other acceptable means before seeding.

Soil Amendments: Use one of the following schedules:

1.) Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs./1000 square ft.) and 600 lbs. per acre 10-10-10 fertilizer (14 lbs./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 (9lbs./1000 sq. ft.)

2.) Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs./1000 sq.ft.) and 1000 lbs. per acre 10-10-10 fertilizer (23 lbs./1000 sq. ft.)-before seeding. Harrow or disc 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 (1.4 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 (.05 lbs./1000 sq. 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 sod. Option (3) Seed with 60 lbs./acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

Mulching - Apply 1½ to 2 tons per acre (70 to 90 lbs./1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal./1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal./1000 sq. ft.) for anchoring.

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

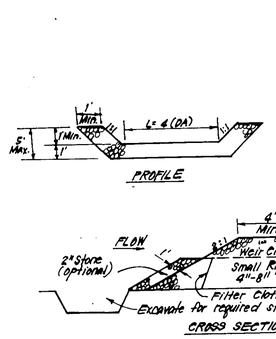
TEMPORARY SEEDING NOTES

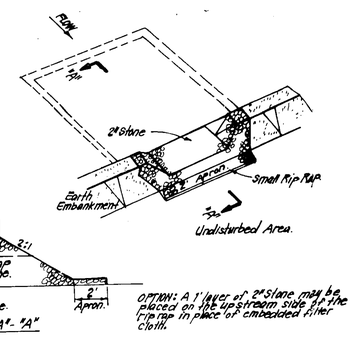
Seedbed Preparation: Loosen upper 3 inches of soil by raking, discing or other acceptable means before seeding.

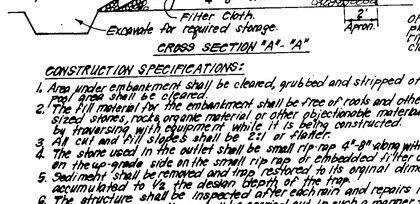
Soil Amendments: Apply 600 lbs. per acre 10-10-10 fertilizer (14 lbs./1000 sq.ft.)

Seeding: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2½ bu. 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.

Mulching: Apply 1½ to 2 tons per acre (70 to 90 lbs./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./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.







OPTION: A 1' layer of 2" stone may be placed on the upstream side of the rip rap in place of embedded filter cloth.

CONSTRUCTION SPECIFICATIONS:

1. Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
2. The fill material for the embankment shall be free of roots and other woody vegetation as well as over-sized stones, rocks organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed.
3. All cut and fill slopes shall be 2:1 or flatter.
4. The stone used in the outlet shall be small rip rap 4"-8" along with 1' thickness of 2" aggregate placed on the up-grade side on the small rip rap or embedded filter cloth in the rip rap.
5. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to ½ the design depth of the trap.
6. The structure shall be inspected after each rain and repairs made as needed.
7. Construction operations shall be carried out in such a manner than erosion and water pollution is minimized.
8. The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.

STONE OUTLET SEDIMENT TRAP (S.O.S.T.) ST-V.

NO SCALE

STANDARD AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION WITH SOD

SPECIFICATIONS

1. Class of turfgrass sod shall be Maryland or Virginia State Certified, or Maryland or Virginia State approved sod.
2. Sod shall be machine cut at a uniform soil thickness of 3/4 inch, plus or minus 1/4 inch, at the time of cutting. Measurement for thickness shall exclude top growth and thatch.
3. Standard size sections of sod shall be strong enough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the section.
4. Individual pieces of sod shall be cut to the suppliers width and length. Maximum allowable deviation from standard widths and lengths shall be 5 percent. Broken pads and torn or uneven ends will not be acceptable.
5. Sod shall not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival.
6. Sod shall be harvested, delivered and installed within a period of 36 hours. Sod not transplanted within this period shall be inspected and approved prior to its installation.

I. Site Preparation

Fertilizer and lime application rates shall be determined by soil tests. Under unusual circumstances where there is insufficient time for a complete soil test, fertilizer and lime materials may be applied in amounts shown under B, below.

A. Prior to sodding, the surface shall be cleared of all trash, debris, and of all roots, brush, wire, grade stakes and other objects that would interfere with planting, fertilizing or maintenance operations.

B. Where the soil is acid or composed of heavy clays, ground limestone shall be spread at the rate of 2 tons/acre or 100 pounds per 1,000 square feet. In all soils 1,000 pounds per acre or 25 pounds per 1,000 square feet of 10-10-10 fertilizer or equivalent shall be uniformly applied and mixed into the top 3 inches of soil with the required lime.

C. All areas receiving sod shall be uniformly fine graded Hard-packed earth shall be scarefied prior to placement of sod.

II. Sod Installation

A. During periods of excessively high temperature the soil shall be lightly irrigated immediately prior to laying the sod.

B. The first row of sod shall be laid in a straight line with subsequent rows placed parallel to and tightly wedged against each other. Lateral joints shall be staggered to promote more uniform growth and strength. Insure that sod is not stretched or overlapped and that all joints are butted tight in order to prevent voids which would cause air drying of the roots.

C. On sloping areas where erosion may be a problem, sod shall be laid with the long edges parallel to the contour and with staggered joints. Secure the sod by tamping and pegging or other approved methods.

D. As sodding is completed in any one section, the entire area shall be rolled or tamped to insure solid contact of roots with the soil surface. Sod shall be watered immediately after rolling or tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. The operations of laying, tamping and irrigating for any piece of sod shall be completed within eight hours.

III. Sod Maintenance

A. In the absence of adequate rainfall, watering shall be performed daily or as often as necessary during the first week and in sufficient quantities to maintain moist soil to a depth of 4 inches. Watering should be done during the heat of the day to prevent wilting.

B. After the first week, sod shall be watered as necessary to maintain adequate moisture and insure establishment.

C. First mowing should not be attempted until sod is firmly rooted. No more than 1/3 of the grass leaf shall be removed by the initial cutting or subsequent cuttings. Grass height shall be maintained between 2 and 3 inches unless otherwise specified.

D. Maintenance of established sod should follow specifications outlined in table 54-1.

GENERAL NOTES

1) Refer to "1983 Maryland Standards and Specifications for Soil Erosion and Sediment Control for standard details and detailed specifications of each practice specified hereon.

2) With the approval of the sediment control inspector, minor field adjustments can and will be made to insure the control of any sediment. Changes in sediment control practices require prior approval of the sediment control inspector and the County Soil Conservation District.

3) At the end of each working day, all sediment control practices will be inspected and left in operational condition.

4) Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: a.) seven calendar days as to the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes greater than 3 horizontal to 1 vertical (3:1) and b.) fourteen days as to all other disturbed or graded areas on the project site.

5) Any change to the grading proposed on this plan requires re-submission to County Soil Conservation District for approval.

6) Dust control will be provided for all disturbed areas. Refer to 1983 Maryland Standards and Specifications for Soil Erosion and Sediment Control, pp 8301 and 8202 for acceptable methods and specifications for dust control.

7) Any variation from the sequence of operations stated on this plan requires the approval of the sediment control inspector and the County Soil Conservation District prior to the initiation of the change.

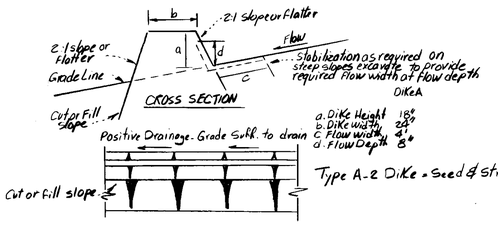
8) Excess cut or borrow material shall go to or come from, respectively, a site with an approved sediment control plan.

The following item may be used as applicable:

9) Refer to "Maryland's Guidelines to Waterway Construction" by the Water Resources Administration (WRA), dated January, 1986 for standard details and detailed specifications of each practice specified herein for waterway construction.

CONSTRUCTION SEQUENCE

1. Obtain grading permit.
2. Install sediment & erosion control measures
3. Clear & rough grade site
4. Construct houses & driveways
5. Fine grade & stabilize all disturbed areas in accordance w/std. & specs.
6. Remove sediment & erosion control measures once all areas draining to them are stabilized



EARTH DIKE DETAIL (E.D.)

NO SCALE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT

COUNTY HEALTH OFFICER — DATE 5-26-87

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING

PLANNING DIRECTOR — DATE 5-27-87

CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE 5-27-87

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

DIRECTOR — DATE 5-27-87

CHIEF BUREAU OF ENGINEERING — DATE

Reviewed for HOWARD SCD
Name
and meets Technical Requirements
Signature — 5-22-87 Date
U.S. Soil Conservation Service

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

Approved — Date 5/27/87

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 EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

Donald Dennis / SIGNATURE HOMES INC — 4-7-87

DEVELOPER/BUILDER — DATE

ENGINEER'S CERTIFICATE

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 COUNTY SOIL CONSERVATION DISTRICT.

M. Sedghi — 3-22-87

MIKE SEDGHI, P.E #13816 — DATE

ENGINEER:
MIKE SEDGHI
7151 BRIGHT SOUL
COLUMBIA, MD. 21045

DESIGNED MS	SEDIMENT & EROSION CONTROL DETAILS
DRAWN MS	LOTS 50 & 51 WARFIELD'S RANGE SECTION TWO, AREA FOUR
CHECKED	SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DATE 3-22-87	FOR: SIGNATURE HOMES P.O. BOX 2804 Columbia, Md. 21045

SCALE 1"=30'
DRAWING 2 OF 2
JOB NO
FILE NO

SDP-87-196