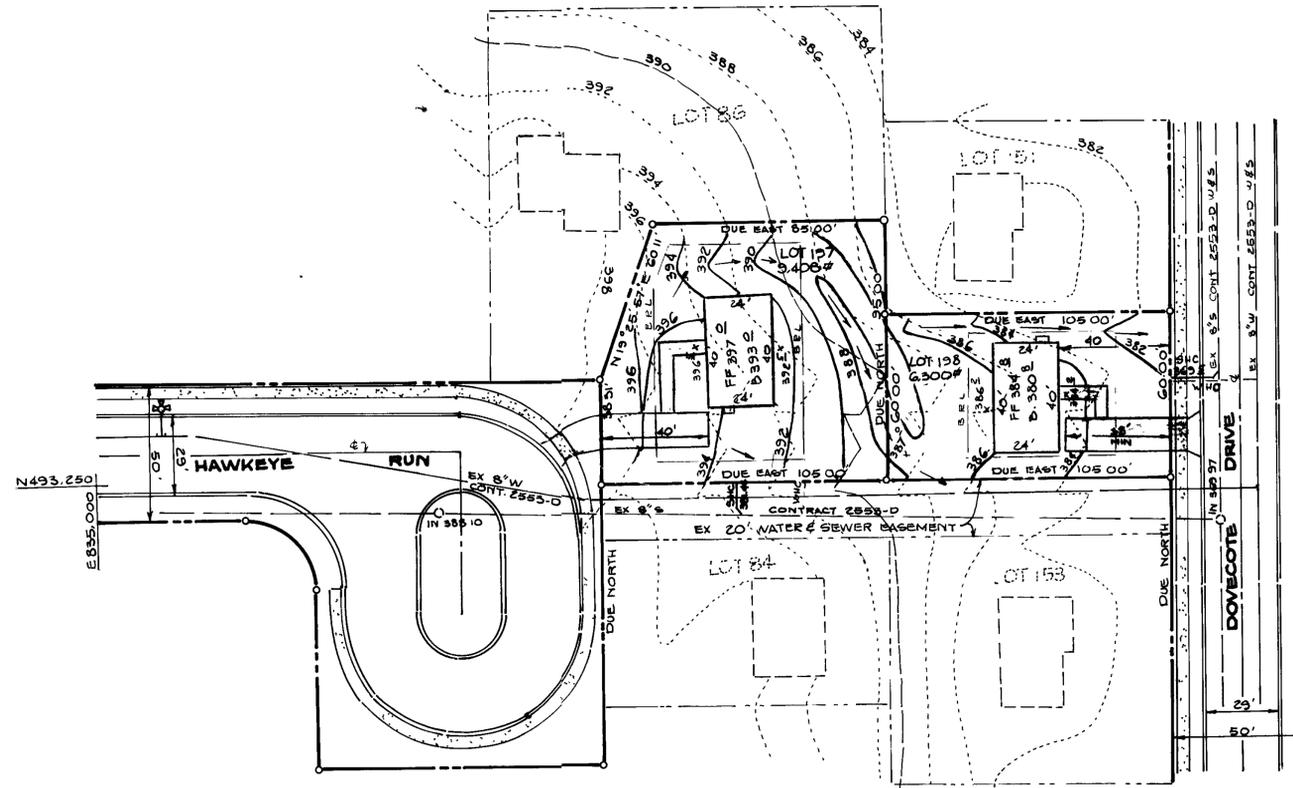
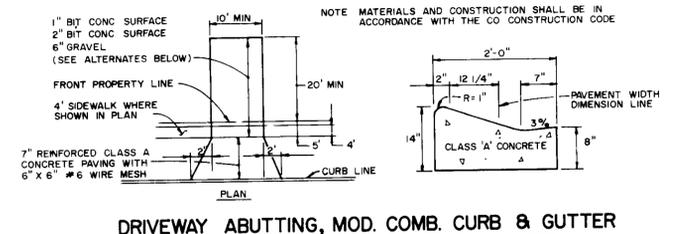


SEDIMENT & EROSION CONTROL
SCALE: 1"=30'

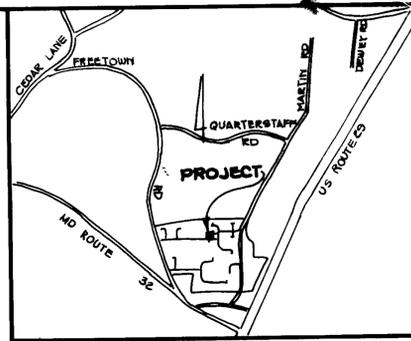


PLAN
SCALE 1"=30'



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"=1200'

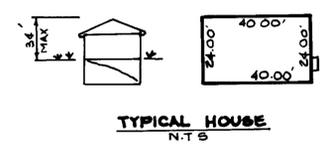
GENERAL NOTES:

- The land included is zoned: NT-SF-M.D., FDP-158
- Coordinates are based upon traverse controls established for Howard County, and PURDUM & JEACHKE in 1973 which controls were tied to the Maryland State coordinate system.
- All roads are public and existing.
- Any damage to county owned right of way to be corrected at the owners expense.
- Total area included: 0.36 Acres
- Total number of lots: 2
- The contractor or developer shall contact Howard County Construction/ Inspection Division, 24 hours in advance of commencement of work at 792-7272.

LEGEND

- Contour interval: 2 FT
- Existing contour: dashed line with elevation (e.g., 390)
- Proposed contour: solid line with elevation (e.g., 392)
- Spot elevation: 'x' with elevation (e.g., x342)
- Direction of drainage: arrow
- Silt fence: 'S' symbols
- Stabilized construction entrance: shaded area with 'SCE' label
- Dike: double arrow

APPROVED
DIVISION OF LAND DEVELOPMENT
ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 10-29-87



ADDRESS CHART	
LOTNUMBER	STREET ADDRESS
197	6715 HAWKEYE RUN
198	9623 DOVECOTE DR.

APPROVED OFFICE OF PLANNING AND ZONING
PLANNING DIRECTOR
PO Fields
DATE 11-19-87
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION
DATE 11 Nov 87

APPROVED DEPARTMENT OF PUBLIC WORKS FOR PUBLIC WATER AND SEWER AND STORM DRAINAGE SYSTEMS AND ROADS
DIRECTOR, PUBLIC WORKS
DATE 11/13/87

CHIEF, BUREAU OF ENGINEERING
DATE 11-12-87

SUBDIVISION NAME	SECTION/AREA	LOTS NO
VHR	1/3	197 & 198
PLAT NO	BLOCK NO	ZONE
7227	24	NT-SF-M.D
TAX/ZONE	ELEC DIST	CENSUS TR
35	5	6053.02
WATER CODE	SEWER CODE	
5322500	E-30	

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS
James McHale
U.S. SOIL CONSERVATION SERVICE
DATE 11-10-87
THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT
APPROVED
John R. Robertson
DISTRICT HOWARD SOIL CONSERVATION DISTRICT
DATE 11/10/87

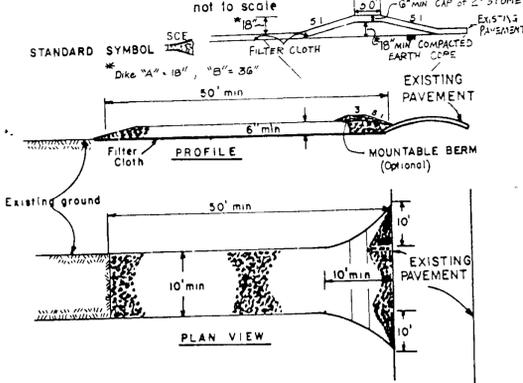
ENGINEER'S CERTIFICATE
I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOILS CONSERVATION DISTRICT
Mike Sedghi
SIGNATURE OF ENGINEER
DATE 9-16-87

DEVELOPER'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 DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ONSITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY."
Signature Home & Inc.
SIGNATURE OF DEVELOPER
DATE 11-9-87

ENGINEER
MIKE SEDGHI
7151 BRIGHT SOUL
COLUMBIA, MD 21045
(301) 581-3235

DESIGNED	MS	SITE DEVELOPMENT PLAN LOTS 197 & 198 COLUMBIA VILLAGE OF HICKORY RIDGE SECTION ONE, AREA THREE 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE	1"=30'
DRAWN	M.S.		DRAWING	10F2
DATE	9-16-87		JOB NO	
FOE		SIGNATURE HOMES	FILE NO	
		P.O. BOX 2804		
		Columbia, Md 21045		

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.

Seeded Preparation - Loosen upper 3 inches of soil by raking, disking or other acceptable means before seeding.

Soil Amendments - Use one of the following schedule:

1. Preferred - Apply 2 tons per acre diamitic 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 2-0-0 reform fertilizer (9 lbs /1000 sq ft).
2. Acceptable - Apply 2 tons per acre diamitic limestone (92 lbs /1000 square 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 (11 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 (0.5 lbs /1000 sq ft) of weeping lovegrass. During the period of October 15 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 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 100 lbs /1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 213 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 for needed repairs, replacements and reseedings.

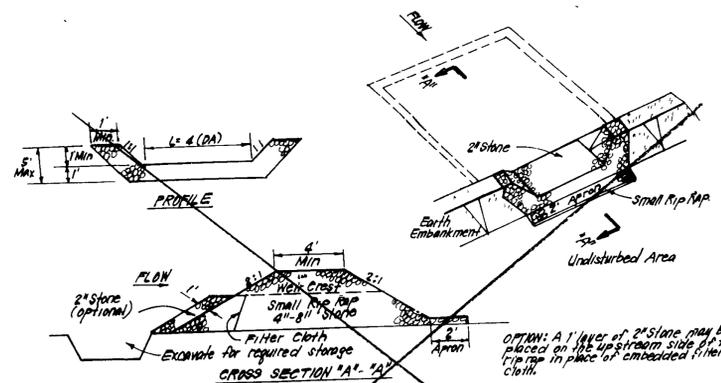
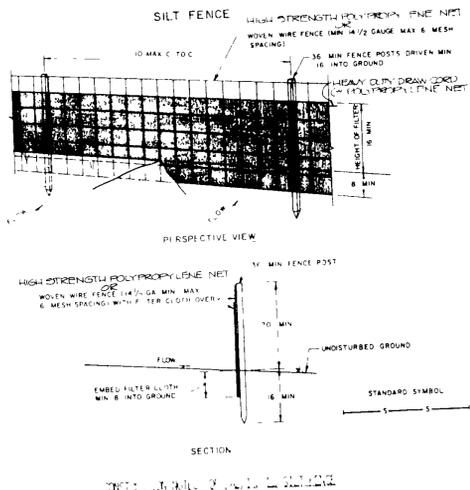
TEMPORARY SEEDING MATS

Seeded Preparation - Loosen upper 3 inches of soil by raking, disking 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 24 lbs per acre of annual ryegrass (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 1 1/2 to 2 tons per acre (70 to 100 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.



CONSTRUCTION SPECIFICATIONS:

1. Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The soil 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 or any other objectionable material. The embankment shall be compacted by tamping 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 of the outlet. A 2' apron shall be placed on the down-grade side of the outlet.
5. Sediment shall be removed and traps restored to its original dimensions when the sediment has accumulated to 1/2 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 that 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.) S.T.Y.
NO SCALE

APPROVED
DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION
HOWARD COUNTY
DATE 10-29-87

DEVELOPER'S/BUILDER'S CERTIFICATE

I, WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION HAS BEEN DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND CONSTRUCTION AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION 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 INSPECTIONS BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

Signature: *James H. ...* DATE: *11/10/87*
DEVELOPER/BUILDER

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 transported 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 scarified prior to placement of sod.

II. Sod Installation

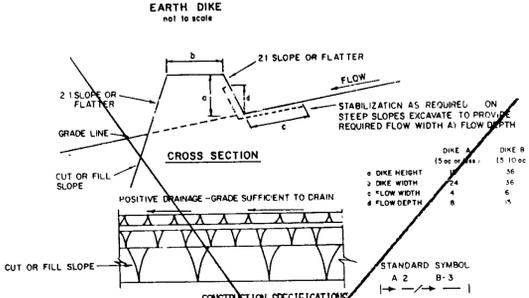
- A. During periods of excessively high temperature the soil shall be lightly irrigated immediately prior to laying the sod.
- B. The first row of sod shall be laid in a straight line with subsequent rows placed parallel to and tightly wedged against each other. Lateral joints shall be staggered to promote 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.

Site Analysis

Total Area of site	0.30 Acres
Area Disturbed	0.34 Acres
Area to be roofed or paved	0.072 Acres
Area to be vegetatively stabilized	0.268 Acres
Total Cut	250 Cu. Yds
Total Fill	250 Cu. Yds
Off-site waste/borrow area location	N/A
The total amount of silt fence	500 L.F.



1. ALL DIKES SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT.
2. ALL DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
3. TOP WIDTH MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
4. FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE OUTLET. EARTH DIKES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION. RUNOFF SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP OR SEDIMENT BASIN WHERE EITHER THE DIKE CHANNEL OR THE DRAINAGE AREA ABOVE THE DIKE ARE NOT ADEQUATELY STABILIZED.
5. STABILIZATION SHALL BE: (A) IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEED AND STRAW MULCH OR STRAW MULCH IF NOT IN SEEDING SEASON, (B) FLOW CHANNEL AS PER THE CHART BELOW.

EARTH DIKE
NO SCALE

TYPE OF TREATMENT	FLOW CHANNEL STABILIZATION	
	DIKE A	DIKE B
1	5-7.0%	SEED AND STRAW MULCH
2	7.1-8.0%	SEED AND STRAW MULCH
3	8.1-8.0%	SEED WITH JUTE, OR SOD; EXCELTOP, SOD, 2" STONE
4	8.1-20%	LINED RIP-RAP 4-8"
		ENGINEER'S DESIGN

- CONSTRUCTION SEQUENCE**
- 1- Obtain grading permit.
 - 2- Install sediment & erosion control measures.
 - 3- Clear and rough grade site.
 - 4- Construct houses and driveways.
 - 5- Fine grade and stabilize all disturbed areas in accordance with standards & specs.
 - 6- Remove sediment & erosion control measures once all areas draining to them are stabilized.

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
DATE 11-19-87
APPROVED FOR HOWARD COUNTY OFFICE OF PLANNING & ZONING
DATE 11-19-87
APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
DATE 11/10/87

Reviewed for HOWARD SCD and meets technical requirements
Signature: *James H. ...* DATE: 11-10-87
U.S. SOIL CONSERVATION SERVICE
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY HOWARD COUNTY SOIL CONSERVATION DISTRICT.
Approved: *James H. ...* DATE: 11/10/87

ENGINEER: **MIKE SEDGHI**
7151 BRIGHT SOUL COLUMBIA, MD 21045 (301) 561-5258

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.

DESIGNED: MS
DRAWN: MS
CHECKED: MS
DATE: 9-16-87

FOR: **SEDIMENT + EROSION CONTROL DETAILS**
Lots 197 & 198
COLUMBIA VILLAGE OF HICKORY RIDGE
SECTION ONE, AREA THREE
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SIGNATURE: HOMES
PO BOX 2804
Columbia, Md 21045

DATE: 9-16-87