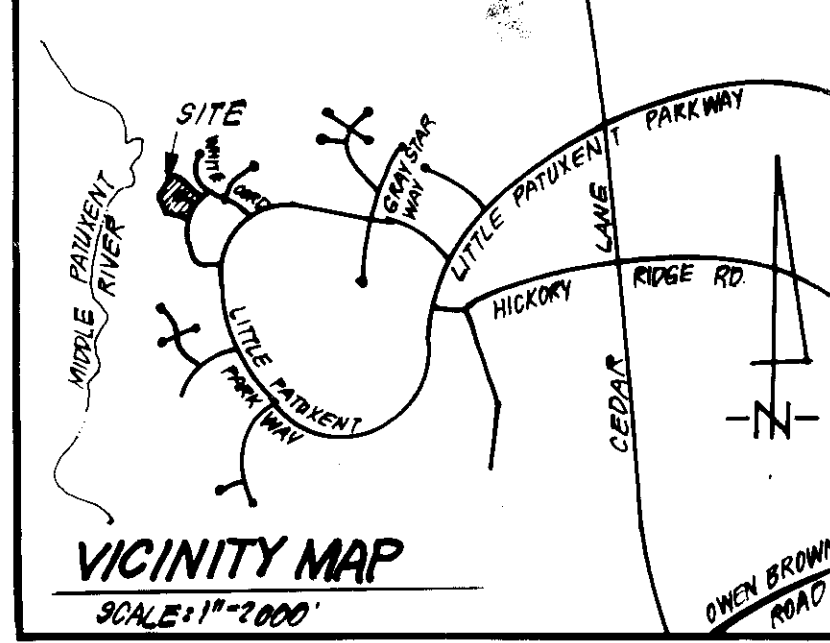
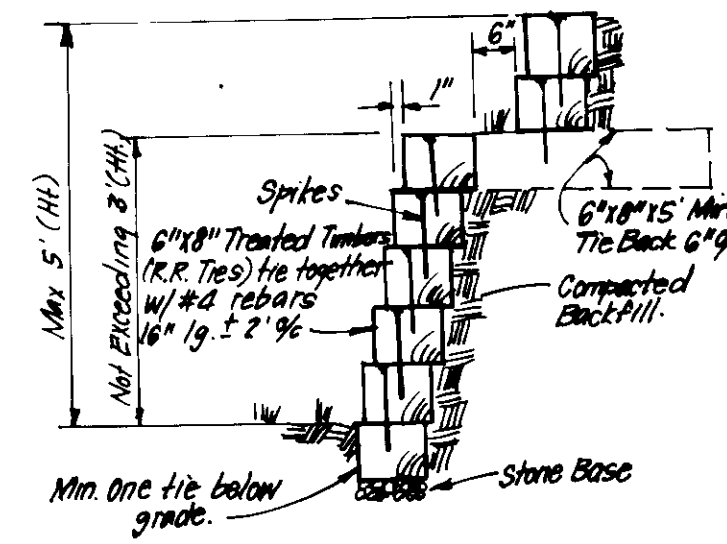
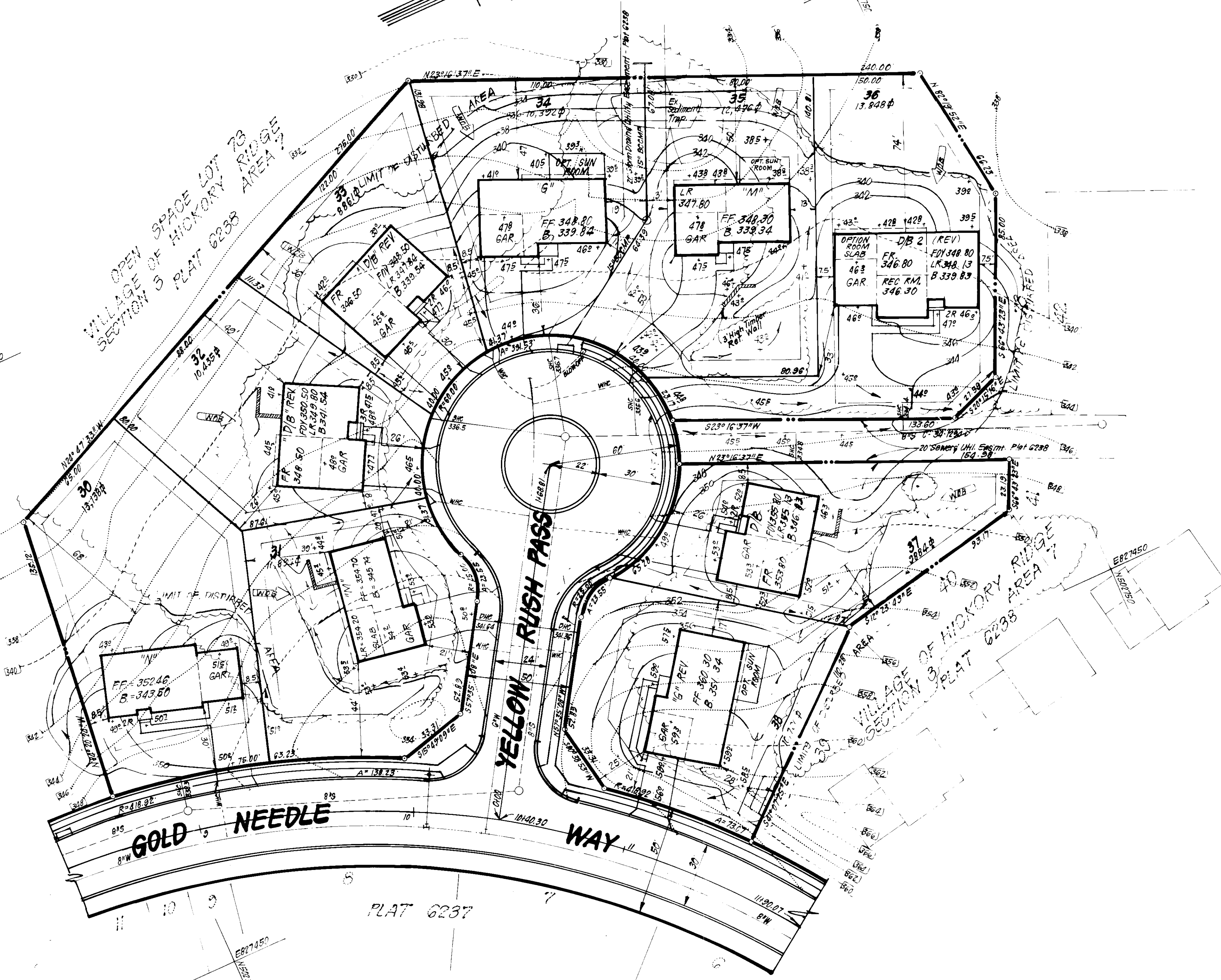


PLAN
DRIVEWAY ABUTTING MOD. COMB. CURB & GUTTER *

- ALTERNATE #1
1" Bit Conc. Surface
4" Bit Conc. Base
- ALTERNATE #2
1" Bit Conc. Surface
3" Bit Conc. Base
3" Gravel
- * See Ho Co. Std. R-3.01 for Std. 7" Comb. Curb & Gutter necessary on Lots at Cul-De-Sac



Note: Timber Retaining Wall to be used if field review finds that tree quality on Lot 35 warrants their preservation.



TYPICAL RETAINING WALL
NO SCALE

GENERAL NOTES:

- The land included is zoned's New Town S.F.L.D
- Coordinates are based upon traverse controls for Columbia established by Maps Inc. in 1965 and Purdom & Veschte in 1968, which controls were tied to the Maryland Bureau of Control Survey Monuments and to U.S. Coast and Geodetic Survey Monuments in the Columbia Area.
- All Roads are Public and Existing.
- Any damage to county owned rights-of-way to be corrected at the Developer's expense.
- Total Area Included: 2.061 Acres
- Total Number of Lots: 8

LEGEND:

- Contour Interval 2' ±
- Existing Contour 4' ±
- Proposed Contour 4' ±
- Spot Elevation 4' ±
- Direction of Drainage
- Existing Trees to be Saved
- Walk Out Basement

NOTE:
The contractor or developer shall contact the Construction Inspection Division, 24 hours in advance of commencement of work, at 792-7272.

LOT NO.	STREET ADDRESS
30	11845 Gold Needle Way
31	11821 Yellow Rush Pass
32	11905 " " "
33	11900 " " "
34	11818 " " "
35	11914 " " "
36	11910 " " "
37	11908 " " "
38	11955 Gold Needle Way

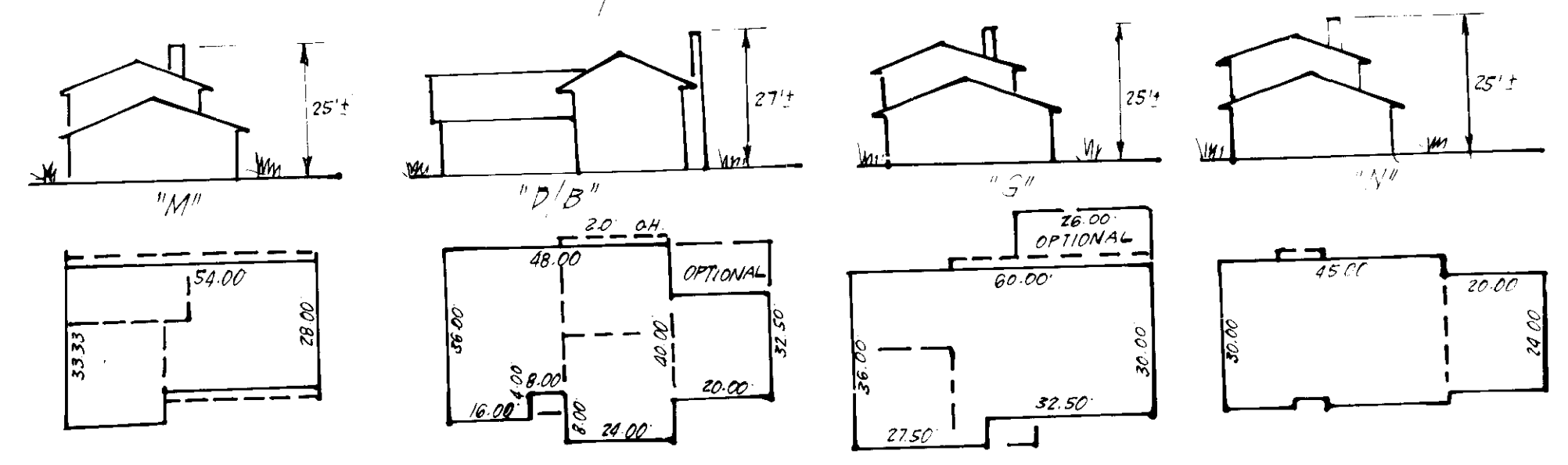
SUBDIVISION NAME	COLUMBIA	SECT./AREA	3/7	LOTS	30-38
PLAT #	6238	ZONE	5TH	ELEC. DIST.	0053.01
WATER CODE	I-15	SEWER CODE	6730300		

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
HOWARD COUNTY HEALTH DEPARTMENT
COUNTY HEALTH OFFICER: *John W. Williams* 10-3-85
DATE: 10-3-85

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING
PLANNING DIRECTOR: *John W. Williams* 10-7-85
DATE: 10-7-85

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE,
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
DIRECTOR: *John W. Williams* 10-1-85
DATE: 10-1-85

APPROVED: *John W. Williams* 9-19-85
DATE: 9-19-85



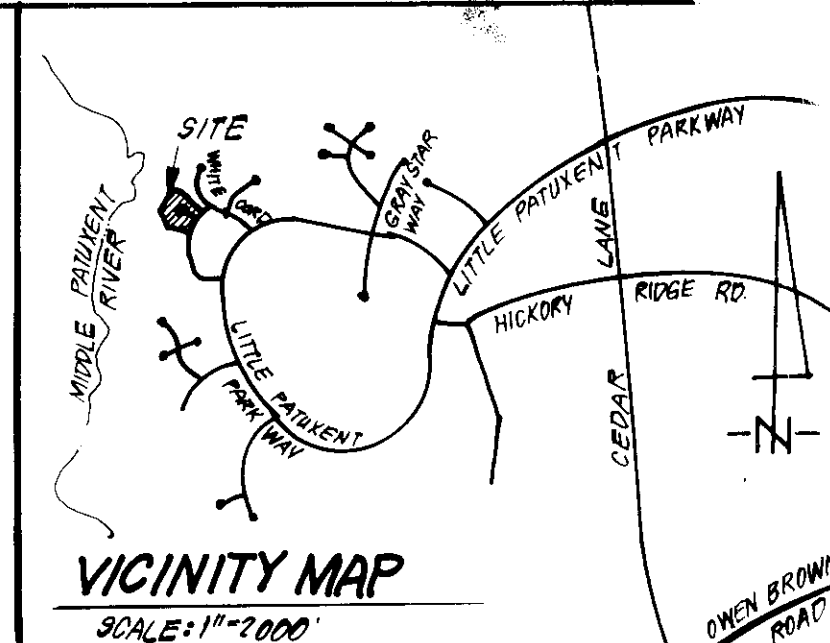
TYPICAL HOUSES
NO SCALE



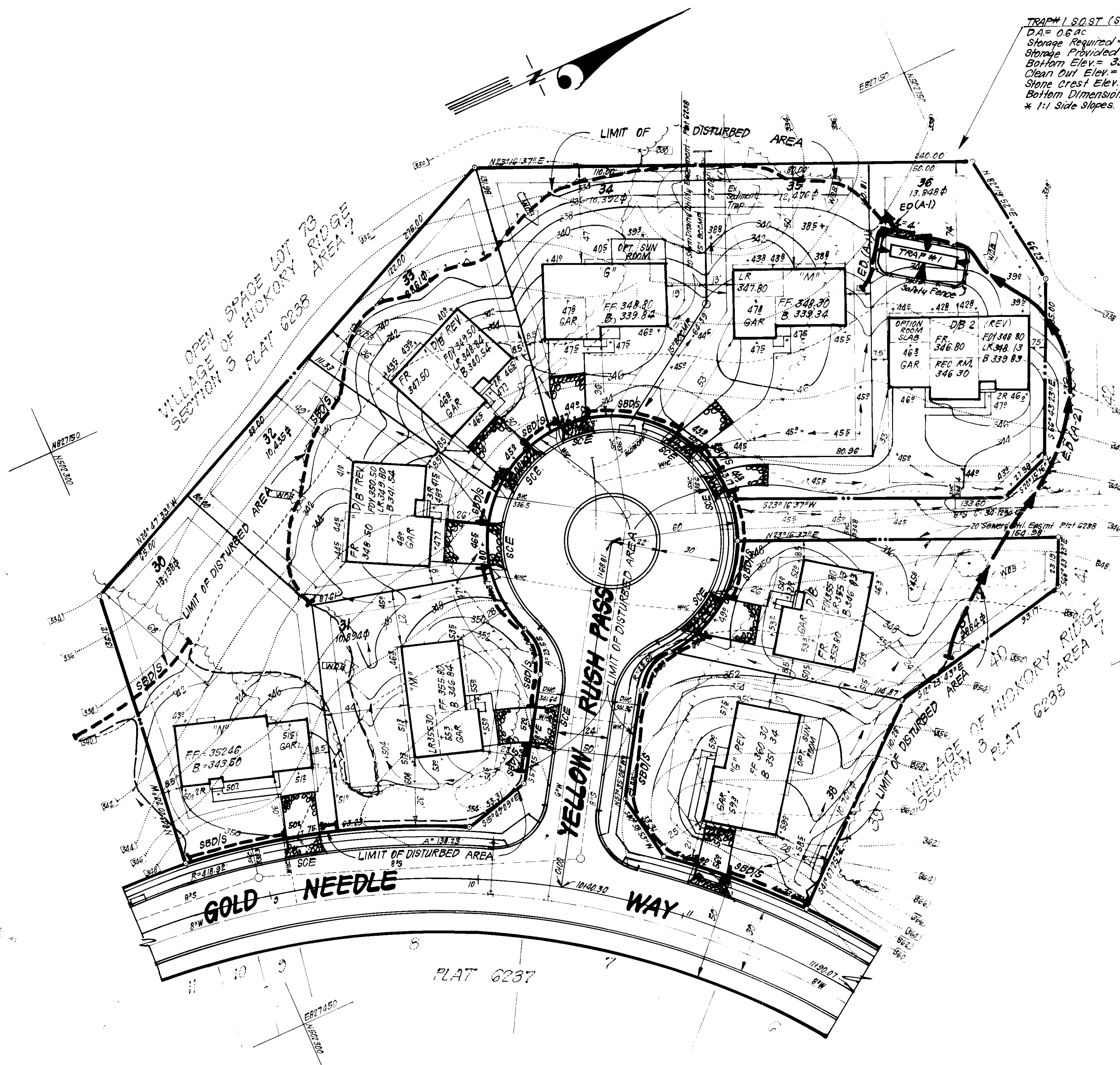
CLARK · FINEFROCK & SACKETT
ENGINEERS · PLANNERS · SURVEYORS
11315 LOCKWOOD DRIVE · SILVER SPRING, MARYLAND 20904 · (301) 593-3400

DESIGNED	BAF	SITE DEVELOPMENT PLAN LOTS 30 THRU 38 COLUMBIA VILLAGE OF HICKORY RIDGE SECTION 3 AREA 7 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE	1"=30'
DRAWN	KIW		DRAWING	10F3
CHECKED	JME		JOB NO.	85-076
DATE	8-20-85		FILE NO.	85-076-X
FOR: COLUMBIA BUILDERS INC. 3 LAKE FRONT NORTH, SUITE 200 COLUMBIA, MD 21044				

SDP-86-44



TRAP #1 S.O. ST (ST-V)*
 DA = 0.6 AC
 Storage Required = 0.6 (1800) = 1080 c.f.
 Storage Provided = 1080 c.f.
 Bottom Elev. = 335.5
 Clean Out Elev. = 337.0
 Stone Crest Elev. = 338.5
 Bottom Dimensions = 33' X 7'; DEPTH = 3'
 * 1:1 Side Slopes.



LEGEND:

- 1 Contour Interval 2 FT
- 2 Existing Contour 4.0'
- 3 Proposed Contour 4.0'
- 4 Spot Elevation +10.5'
- 5 Direction of Drainage
- 6 Existing Trees to be Saved
- 7 Walk Out Basement
- 8 Earth Dike
- 9 Straw Bale Dike or Silt Fence
- 10 Stabilized Construction Entrance

DEVELOPER'S/BUILDERS 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 Soil Conservation District or their authorized agents, as are deemed necessary."

B. James Greenfield 8-20-85
 Signature of Developer/Builder Date
 B. JAMES GREENFIELD

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
 HOWARD COUNTY HEALTH DEPARTMENT
John W. Musick 10-3-85
 HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
John W. Musick 10-7-85
 PLANNING DIRECTOR DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE,
 STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
John W. Musick 10-1-85
 DIRECTOR DATE

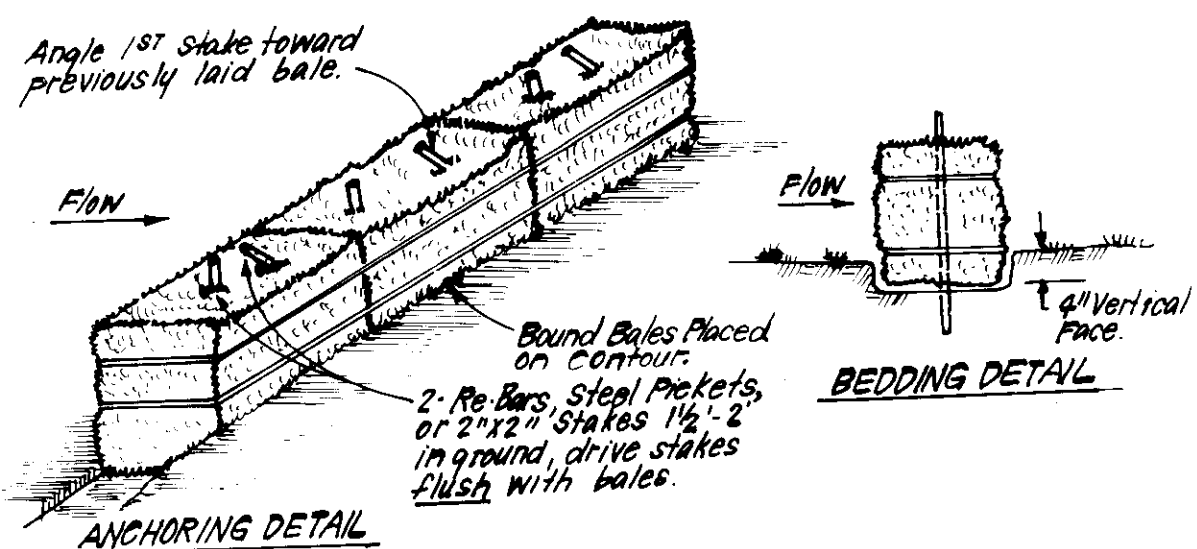
APPROVED:
 DIVISION OF LAND DEVELOPMENT
 ZONING ADMINISTRATION
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 DATE 9-19-85
John W. Musick

Reviewed for *Howard*
 and meets Technical Requirements
James H. ... 10-1-85
 Signature Date
 U.S. Soil Conservation Service
 THIS DEVELOPMENT PLAN IS APPROVED
 FOR SOIL EROSION AND SEDIMENT
 CONTROL BY THE HOWARD SOIL
 CONSERVATION DISTRICT.
Jeffrey L. ... 8-20-85
 Approved Date

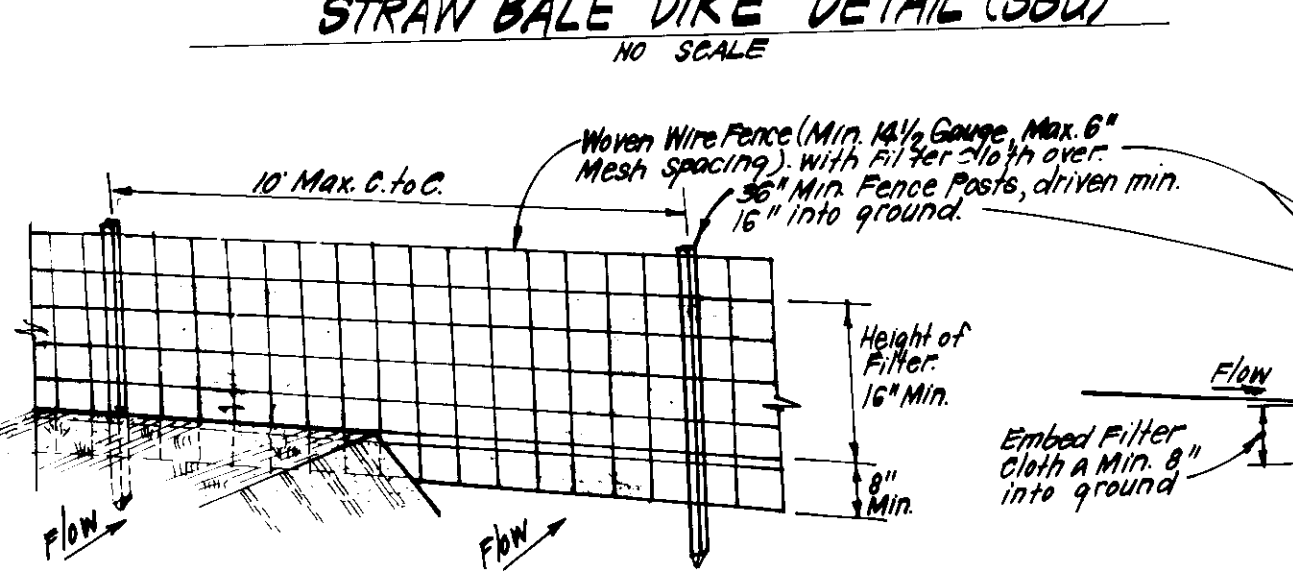
ENGINEER'S CERTIFICATE
 I hereby certify that this plan for Erosion and Sediment Control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.
Jeffrey L. ... 8-20-85
 Signature Date
 Jeffrey L. ...

CLARK · FINEFROCK & SACKETT
 ENGINEERS · PLANNERS · SURVEYORS
 11315 LOCKWOOD DRIVE SILVER SPRING, MARYLAND 20904 (301) 593-3400

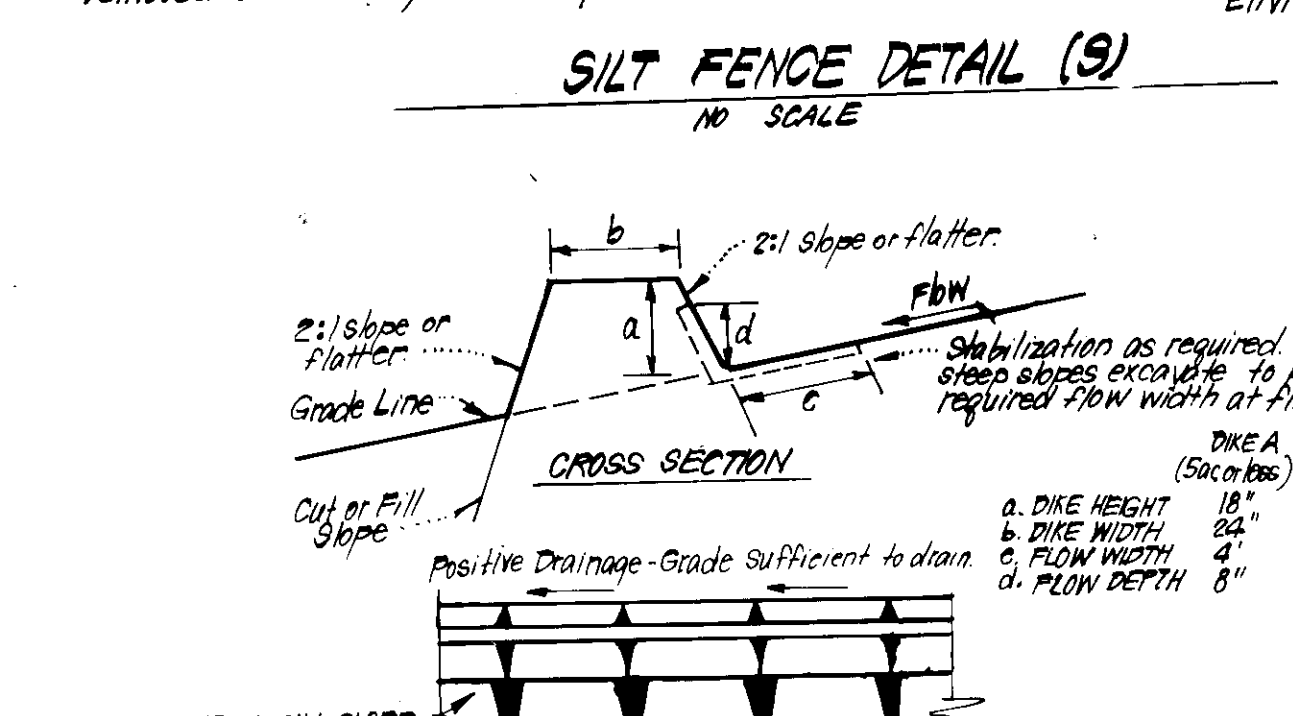
DESIGNED GLB	SEDIMENT & EROSION CONTROL PLAN LOTS 30 THRU 38 COLUMBIA VILLAGE OF HICKORY RIDGE SECTION 3 AREA 7 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND FOR: COLUMBIA BUILDERS INC. 3 Lake Front North, Suite 200 Columbia, Md. 21044	SCALE 1"=30'
DRAWN K/W		DRAWING 2 OF 3
CHECKED GLB		JOB NO. 85-076
DATE 8-20-85		FILE NO. 85-076-SE
		SDP-86-44.



- CONSTRUCTION SPECIFICATIONS:**
- Bales shall be placed at the top of a slope or on the contour and in a row with ends tightly abutting the adjacent bales.
 - Each bale shall be embedded in the soil a min. of 4" and placed so the bind-ribs are horizontal.
 - Bales shall be securely anchored in place by either 2 stakes or re-bars driven thru the bale. The 1st stake in each bale shall be driven toward the previously laid bale at an angle to force the bales together. Stakes shall be driven with the bales.
 - Inspection shall be frequent and repair/replacement shall be made promptly as needed.
 - Bales shall be removed when they have served their usefulness so as not to block or impede storm flow or drainage.



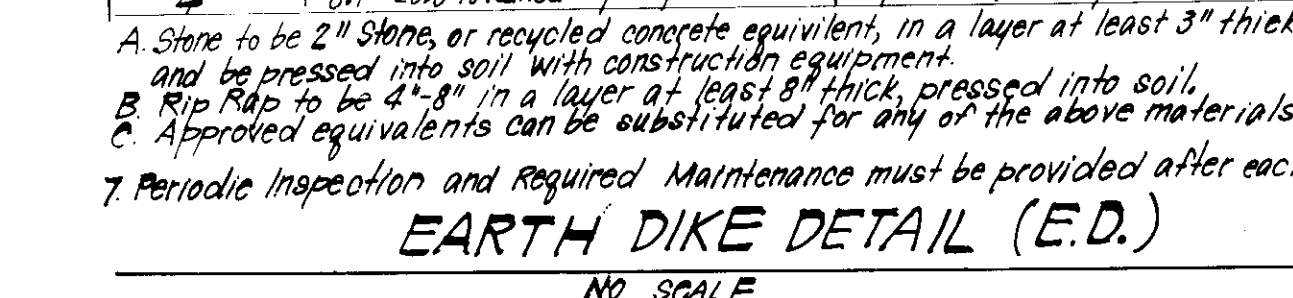
- CONSTRUCTION SPECIFICATIONS:**
- Woven wire fence to be fastened securely to fence posts with wire ties or staples.
 - Filter cloth to be fastened securely to woven wire fence with ties spaced every 24" at top and mid section.
 - When 2 sections of filter cloth adjoin each other they shall be interlapped by 6" and stapled.
 - Maintenance shall be performed as needed and material removed when "bulges" develop in silt fence.



- CONSTRUCTION SPECIFICATIONS:**
- All dikes shall be compacted by earth-moving equipment.
 - All dikes shall have positive drainage to an outlet.
 - Top width may be wider and side slopes may be flatter if desired, to facilitate crossing by construction traffic.
 - 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.
 - 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 chart below.

FLOW CHANNEL STABILIZATION

TYPE OF TREATMENT	CHANNEL GRADE	DIKE A	DIKE B
1	0.5 - 3.0%	Seed & Straw Mulch	Seed or Straw Mulch
2	3.1 - 5.0%	Seed & Straw Mulch	Seed, Willow, or Excelsior Seed, 2" Stone Lined Rip Rap 4" x 8" Stone
3	5.1 - 8.0%	Seed, Willow, or Sod; 2" Stone Lined Rip Rap 4" x 8" Stone	Engineering Design
4	8.1 - 20.0%	Lined Rip Rap 4" x 8" Stone	Engineering Design

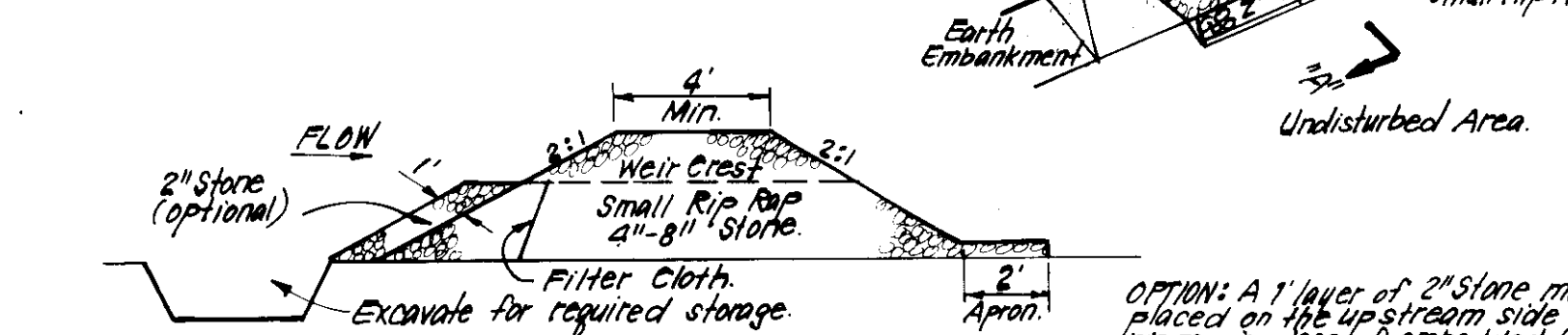
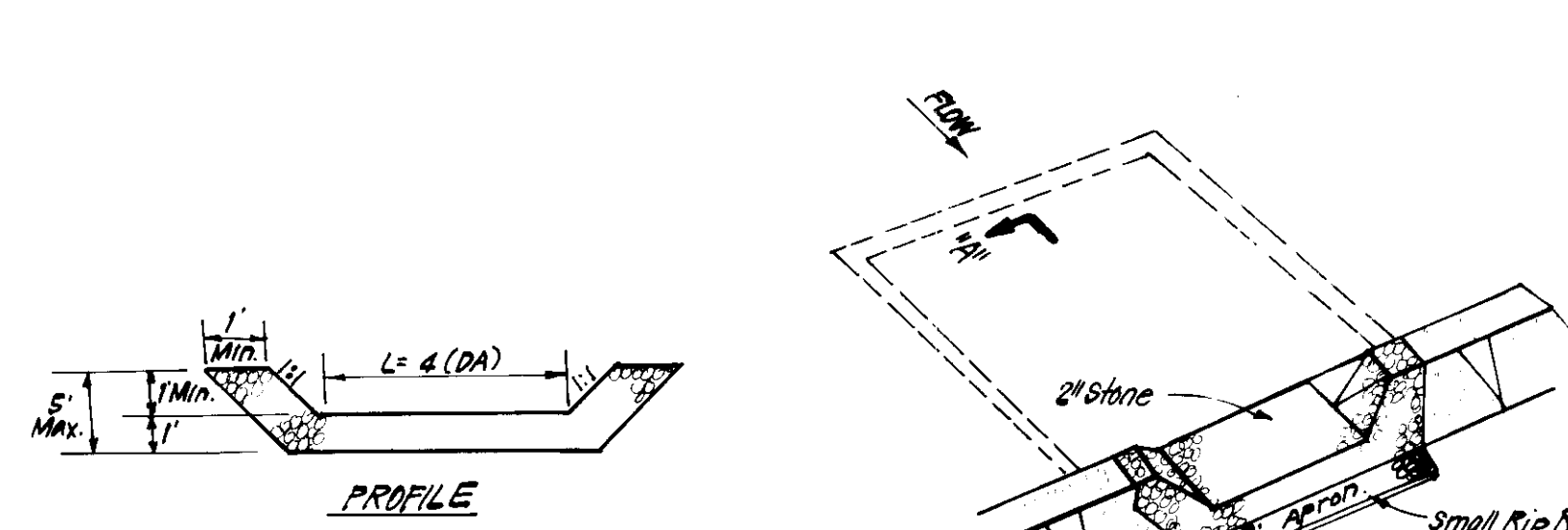


- CONSTRUCTION SPECIFICATIONS:**
- Stone to be 2" stone or recycled concrete equivalent, in a layer of at least 3" thick and be pressed into soil with construction equipment.
 - Rip Rap to be 4" x 8" in a layer of at least 8" thick, pressed into soil.
 - Approved equivalents can be substituted for any of the above materials.
 - Periodic inspection and required maintenance must be provided after each rain.

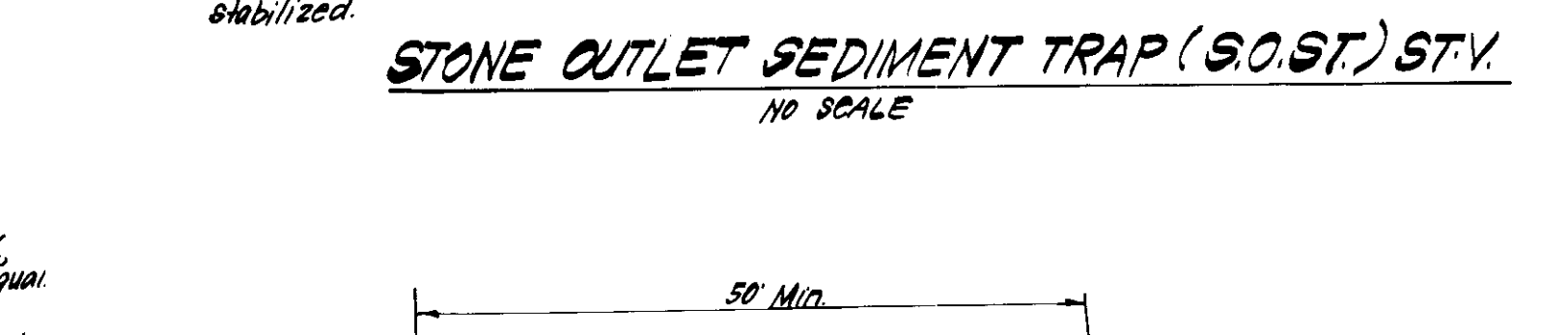
APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
 HOWARD COUNTY HEALTH DEPARTMENT
 APPROVED: *[Signature]* 10-3-85
 DATE

APPROVED DIVISION OF LAND DEVELOPMENT ZONING ADMINISTRATION.
 HOWARD COUNTY, MARYLAND
 DATE 9-19-85

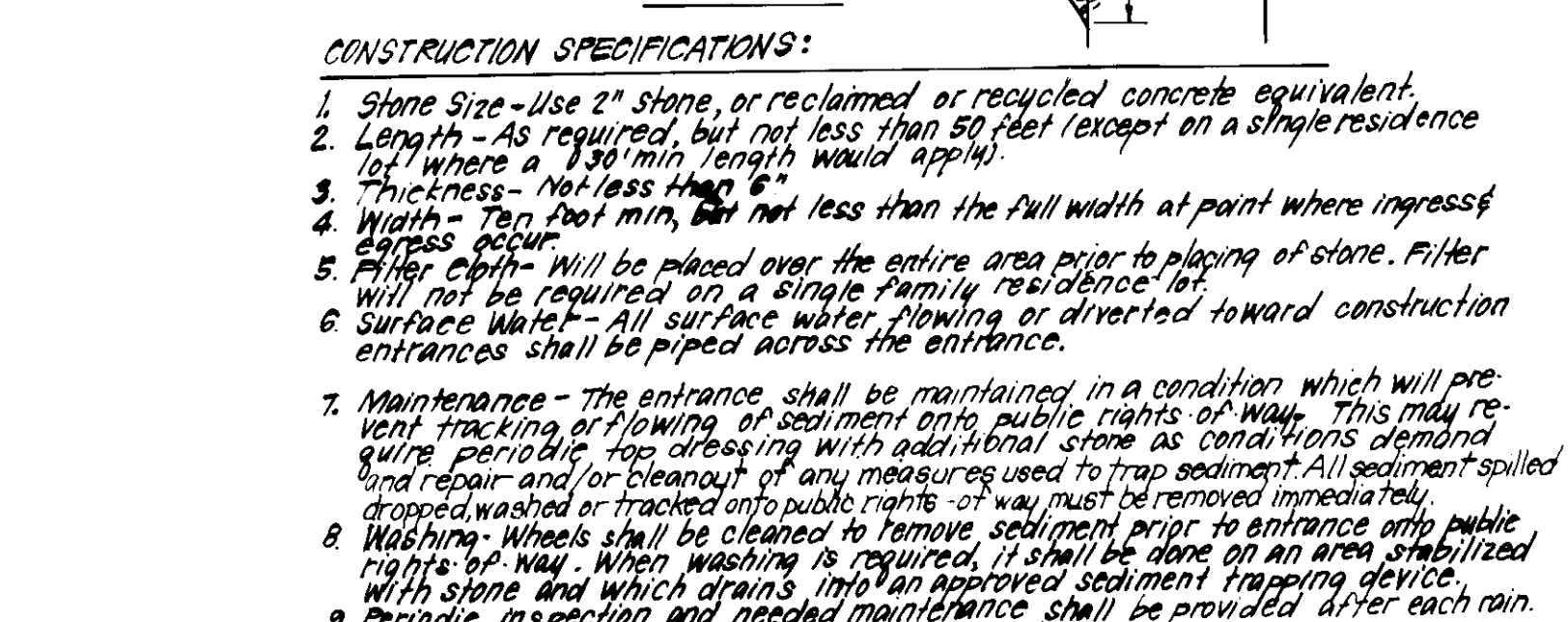
APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 APPROVED: *[Signature]* 10-1-85
 DATE



- CONSTRUCTION SPECIFICATIONS:**
- Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
 - The fill material for the embankment shall be free of rocks 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.
 - All cut and fill slopes shall be 2:1 or flatter.
 - 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.
 - Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap.
 - The structure shall be inspected after each rain and repairs made as needed.
 - Construction operations shall be carried out in such a manner that erosion and water pollution is minimized.
 - The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.

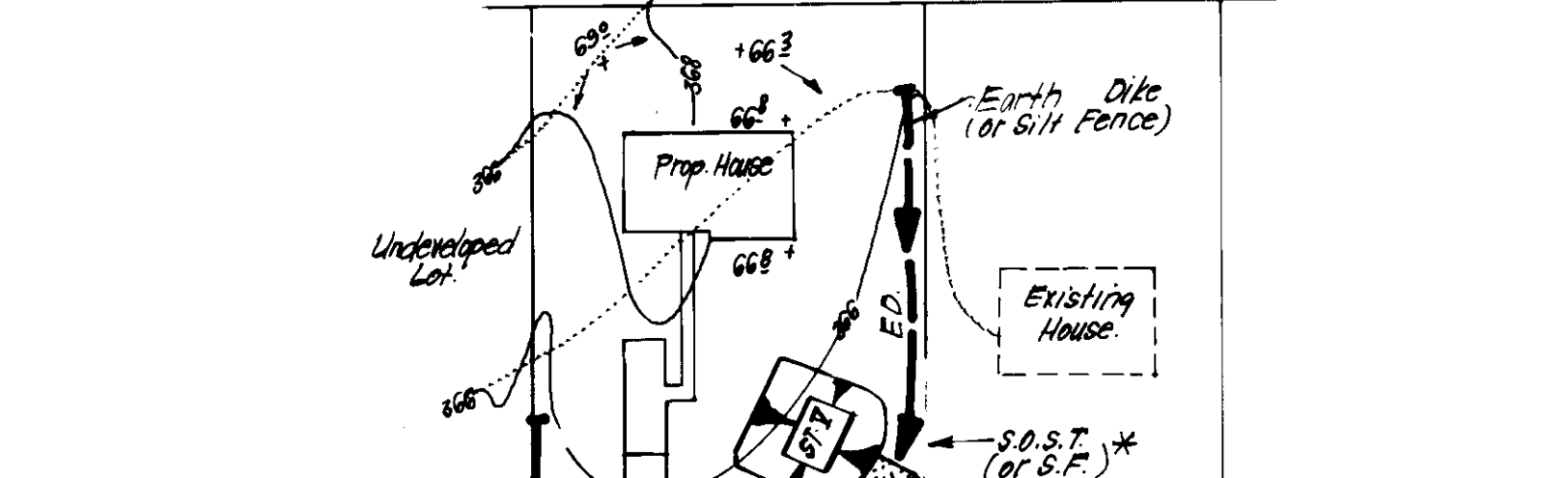


- CONSTRUCTION SPECIFICATIONS:**
- Stone Size - Use 2" stone, or reclaimed or recycled concrete equivalent.
 - Length - As required, but not less than 50 feet (except on a single residence lot where a 30' min. length would apply).
 - Thickness - Not less than 6".
 - Width - Ten foot min, but not less than the full width at point where ingress & egress occur.
 - 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.
 - Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance.
 - 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.
 - 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 shall be done on an approved sediment trapping device.
 - Periodic inspection and needed maintenance shall be provided after each rain.



SINGLE LOT SEDIMENT CONTROL PLAN

LOT SIZE	WIDE	WIDE	WIDE	WIDE	WIDE
1 AC	2'	3'	4'	5'	6'
2 AC	2'	3'	4'	5'	6'
3 AC	2'	3'	4'	5'	6'
4 AC	2'	3'	4'	5'	6'
5 AC	2'	3'	4'	5'	6'
6 AC	2'	3'	4'	5'	6'
7 AC	2'	3'	4'	5'	6'
8 AC	2'	3'	4'	5'	6'
9 AC	2'	3'	4'	5'	6'
10 AC	2'	3'	4'	5'	6'



APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
 HOWARD COUNTY HEALTH DEPARTMENT
 APPROVED: *[Signature]* 10-3-85
 DATE

APPROVED DIVISION OF LAND DEVELOPMENT ZONING ADMINISTRATION.
 HOWARD COUNTY, MARYLAND
 DATE 9-19-85

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 APPROVED: *[Signature]* 10-1-85
 DATE

- PERMANENT SEEDING NOTES**
- Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.
- Seeded Preparation:** Loosen upper three inches of soil by raking, disking or other acceptable means before seeding.
- Soil Amendments:** 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, and 400 lbs per acre ureaform fertilizer (9 lbs/1000 sq ft) at time of seeding, apply 400 lbs per acre 30-0-0 ureaform fertilizer (9 lbs/1000 sq ft).
 - 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 1 1/2 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 reseeding.

- TEMPORARY SEEDING NOTES**
- Apply to graded or cleared areas likely to be redisturbed where a short-term vegetative cover is needed.
- Seeded Preparation:** Loosen upper three 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 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.
- Mulching -** 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 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.

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

SEDIMENT CONTROL NOTES

- A minimum of 24 hours notice must be given to the Howard County Office of Inspection and permits prior to the start of any construction. (992-2437)
- 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 redisturbance, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, 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. 54), 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 remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- Site Analysis:

Total Area of Site	2.107 Acres
Area Disturbed	1.890 Acres
Area to be roofed or paved	0.580 Acres
Area to be vegetatively stabilized	1.310 Acres
Total Cut	1380 Cu. yds
Total Fill	6340 Cu. yds
Offsite waste/borrow area location	N/A
- 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 DW 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.
- If houses are to be constructed on an "As-Built" basis, at random, Single Lot Sediment Control as shown below shall be implemented.
- All pipes to be blocked at the end of each day (see detail below).
- The total amount of straw bale dikes/silt fence equals 925 L.F.

CONSTRUCTION SEQUENCE

CONSTRUCTION SEQUENCE	# DAYS
1. Obtain grading permit.	2
2. Install sediment & erosion control measures.	20
3. Clear & rough grade site.	30
4. Construct houses & driveways, stabilize slopes behind lots 34 & 35 immediately, 150	
5. Fine grade & stabilize all disturbed areas in accordance w/stds. & specs.	30
6. Remove sediment & erosion control measures once all areas draining to them are stabilized.	20
7. Install single lot sediment & erosion control measures on lot 36.	2
8. Fine grade & stabilize back of lot 36 in accordance w/stds. & specs.	2
9. Remove single lot sediment & erosion control measures & stabilize.	2

* With the exception of the back of lot 36.

DEVELOPER'S/BUILDER'S CERTIFICATE

"We certify that all development and construction will be in accordance with this plan of development and plan for sediment control and that all responsible personnel involved in this project will have a Certificate of Attendance at a Department of Resources Approved Training Program for the Control of Soil Erosion before beginning the project. I also authorize the site inspection by the Howard Soil Conservation District or their authorized agents as are deemed necessary."

[Signature] 8-20-85
 B. JAMES GREENFIELD Date

CLARK · FINEFROCK & SACKETT
 ENGINEERS · PLANNERS · SURVEYORS

11215 LOCKWOOD DRIVE SILVER SPRING, MARYLAND 20904 (301) 983-3400

DESIGNED G.L.B.
DRAWN K.W.
CHECKED V.L.S.
DATE 8-20-85

SEDIMENT & EROSION CONTROL PLAN
 LOTS 30 THRU 38
COLUMBIA
 VILLAGE OF HICKORY RIDGE
 SECTION 8
 ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE As Shown
DRAWING 3 OF 3
JOB NO. 85-076
FILE NO. 85-076-SE

FOR: COLUMBIA BUILDERS INC.
 3 LAKE FRONT NORTH, SUITE 200
 COLUMBIA, MD. 21046
SDP-86-44.

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 Soil Conservation District.

[Signature] 8-20-85
 Approved Date