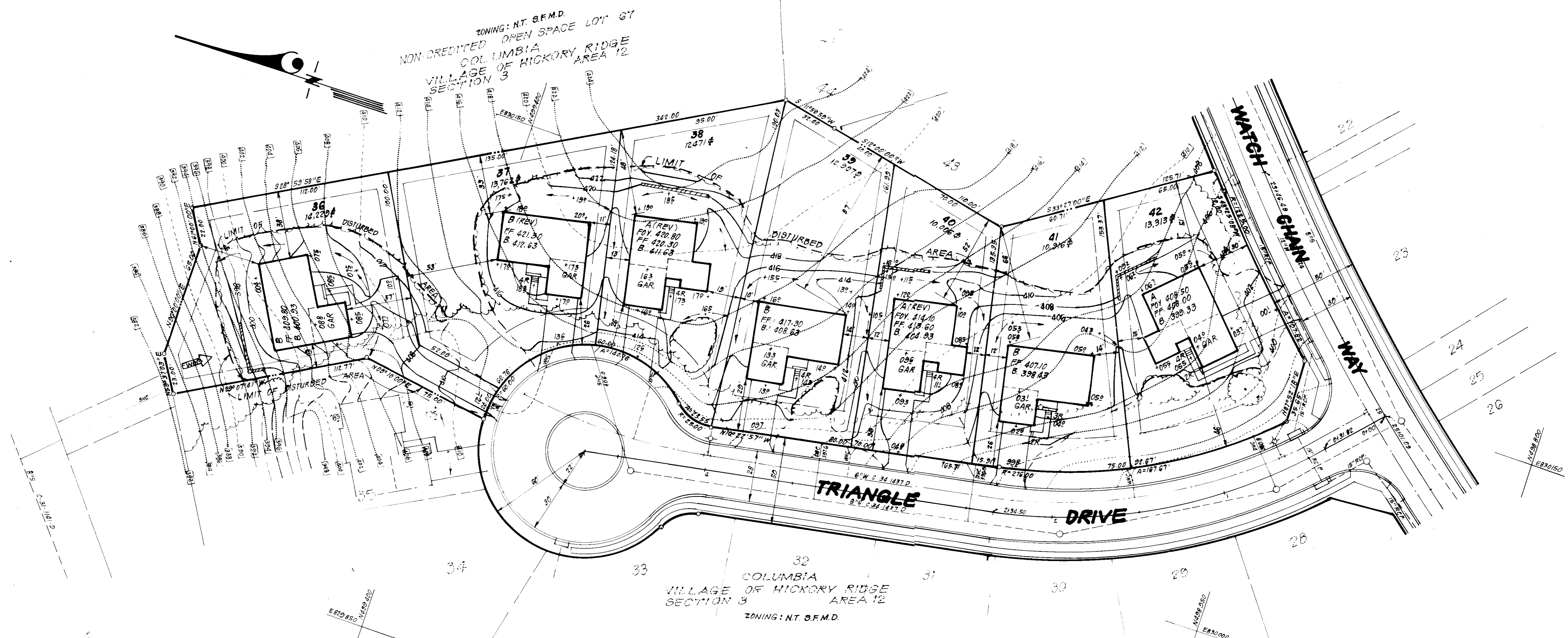


- GENERAL NOTES:**
- The land included is zoned: New Town, S.F.M.D., per Final Development Plan No. F-3-7-81-84223.
 - Coordinates are based upon traverse control for Columbia established by Mays Inc. in 1965 and Purgold-Joschke in 1968, which controls were tied to the Maryland Bureau of Central Survey Monuments and to U.S. Coast and Geodetic Survey Monuments in the Columbia Area.
 - All roads are public and existing.
 - All drainage to county owned rights of way to be controlled at the Developer's expense.
 - Total Area Included: 2.013 Acres.
 - Total Number of Lots: 7.

- LEGEND:**
- Contour Interval: 2 Ft.
 - Existing Contour: ---
 - Proposed Contour: - - - -
 - Spot Elevation: 410, 415
 - Direction of Drainage: (arrow symbol)
 - Existing Trees to be Saved: (tree symbol)
 - Walk-out Basement: (square symbol)

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



ADDRESS CHART

LOT NO.	STREET ADDRESS
36	2126 Triangle Drive
37	2122 " "
38	2118 " "
39	2114 " "
40	2110 " "
41	2106 " "
42	2102 " "

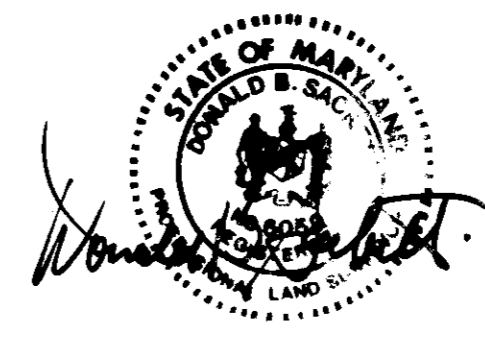
SUBDIVISION NAME: COLUMBIA	SECT./AREA: 3 / 12	LOTS: 36-42
PLAT # 6846	BLOCK # 4	ZONE: 5TH
WATER CODE: E-27	SEWER CODE: 6501000	

APPROVED: DIVISION OF LAND DEVELOPMENT, ZONING ADMINISTRATION, HOWARD COUNTY, MARYLAND, DATE 9-9-86.

APPROVED: COUNTY HEALTH OFFICER, HOWARD COUNTY HEALTH DEPARTMENT.

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING, DATE 9-25-86.

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, DATE 9-23-86.

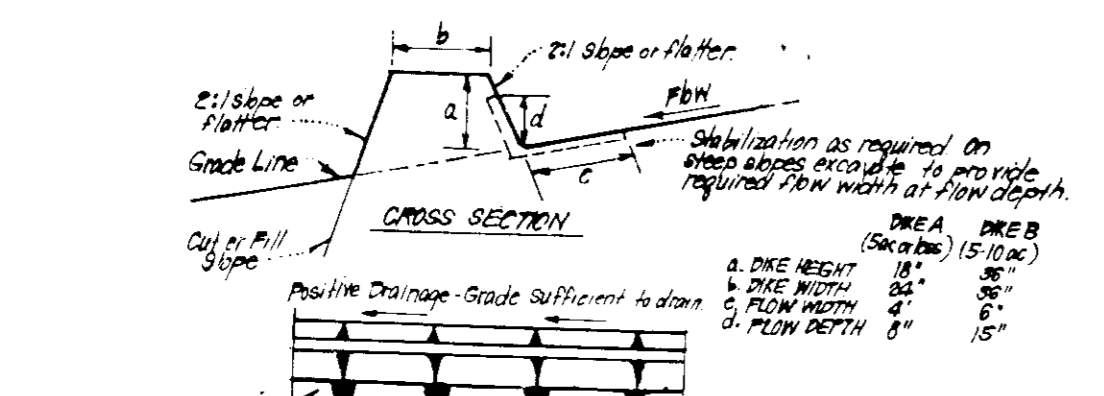


CLARK • FINEFROCK & SACKETT
ENGINEERS • PLANNERS • SURVEYORS

11315 LOCKWOOD DRIVE SILVER SPRING, MARYLAND 20904 (301) 593-3400

DESIGNED: JME	SITE DEVELOPMENT PLAN AND LOTS 36 THRU 42 COLUMBIA VILLAGE OF HICKORY RIDGE SECTION 3 AREA 12 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE: 1/4" = 30'
DRAWN: K/W		DRAWING: 1072
CHECKED: JME		JOB NO.: 86-061
DATE: 7-23-86		FILE NO.: 86-061-X
		FOR: R.C. GOODIER BUILDERS, INC., 233 Deep Dale Dr., Timonium, Md. 21093

SDP-87-31c

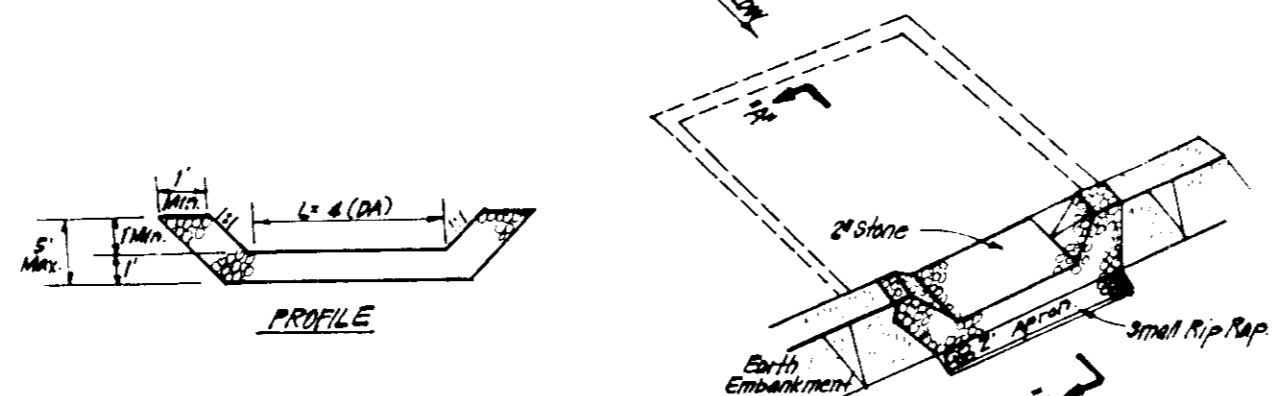


CONSTRUCTION SPECIFICATIONS:

- All ditches shall be constructed by earth-moving equipment.
- All ditches 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.
- Final location should be adjusted as needed to utilize a stabilized slope without crossing by construction traffic.
- Earth dikes shall have an outlet that functions as a sediment trap. Sediment shall be removed to a sediment trapping device such as a sediment trap or sediment basin where under the dike channel or the storage 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 prior to seeding season, (B) flow channel as per chart below.

TYPE OF TREATMENT	CHANNEL WIDTH	FLOW CHANNEL STABILIZATION	
		Ditch A	Ditch B
1	0.5 - 2.0 ft	Seed straw mulch	Seed or straw mulch
2	2.0 - 5.0 ft	Seed straw mulch	Seed straw mulch
3	5.0 - 10.0 ft	Seed straw mulch	Seed straw mulch
4	10.0 - 20.0 ft	Seed straw mulch	Seed straw mulch
5	20.0 - 30.0 ft	Seed straw mulch	Seed straw mulch
6	30.0 - 40.0 ft	Seed straw mulch	Seed straw mulch
7	40.0 - 50.0 ft	Seed straw mulch	Seed straw mulch

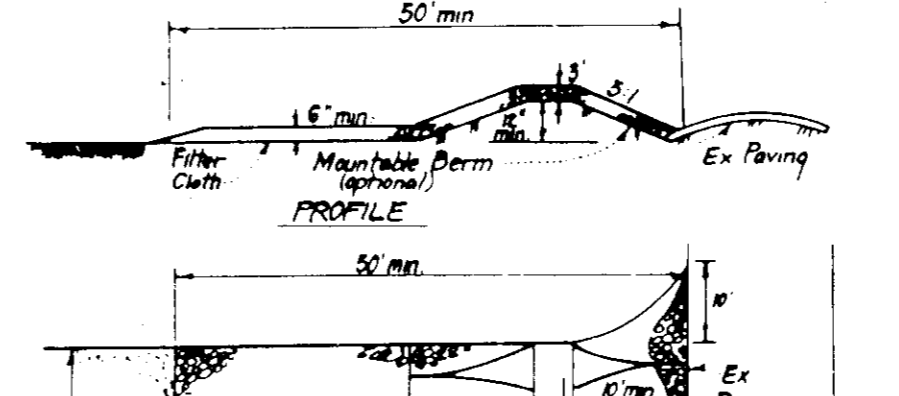
EARTH DIKE DETAIL (E.D.)
NO SCALE



CONSTRUCTION SPECIFICATIONS:

- The under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The trap 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 tamping with equipment while it is being constructed.
- All cut and fill slopes shall be 2:1 at all times.
- The stone used in the outlet shall be small rip rap 4-6" along with 1" thickness of aggregate placed on the up-slope side in the small rip rap. It shall be placed in the small rip rap in a manner that the sediment has accumulated to 1/4" 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.

STONE OUTLET SEDIMENT TRAP (S.O.S.T.) ST.V.
NO SCALE



CONSTRUCTION SPECIFICATIONS:

- Stone size - Use 2" stone or equivalent or recycled concrete equivalent.
- Length - As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
- Thickness - Not less than 18" inches.
- Width - Ten (10) foot minimum, but not less than the full width at points where ingress or egress occurs.
- 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. If piping is impractical, a mounded berm with 3:1 slopes will be permitted.
- Maintenance - The entrance shall be maintained in a condition which will prevent tracking or blowing of sediment into public rights-of-way. This may require periodic top dressing with additional stone or concrete for demand and repair and/or cleanup of any impurities used to trap sediment. All sediment applied, trapped, rejected or tracked onto public rights-of-way must be removed immediately.
- Washing - Washes 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.
- Periodic inspection and needed maintenance shall be provided after each rain.

STABILIZED CONSTRUCTION ENTRANCE (SCE)
NO SCALE

PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

Seeding Preparation: Loosen upper three inches of soil by raking, discing 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. Narrow or disc into upper three inches of soil. 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. Narrow 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 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 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 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 unsoftified 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

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

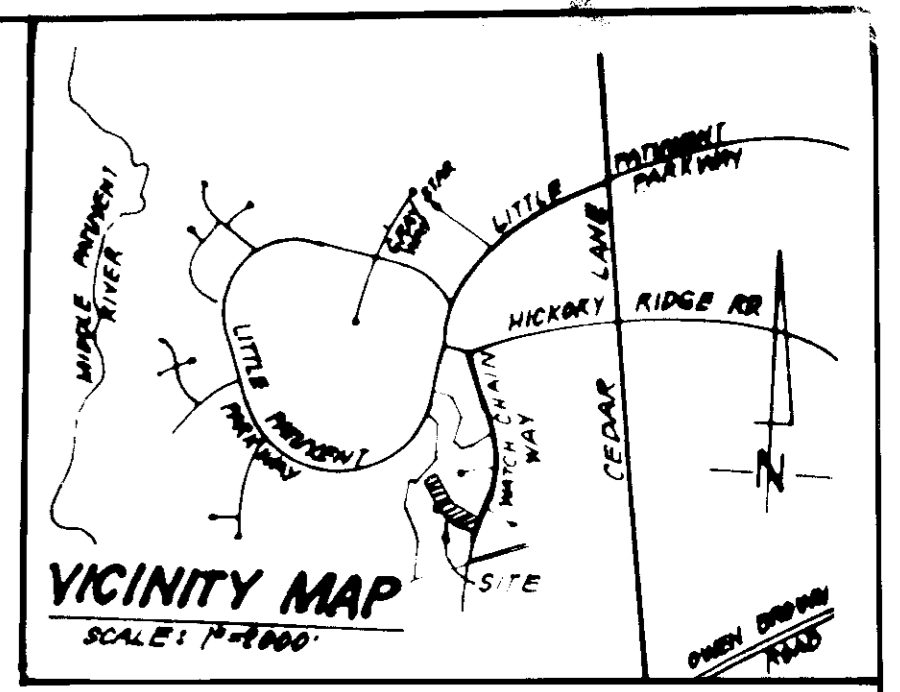
Seeding Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding.

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 25 bushel per acre of annual ryegrass (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 seed.

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 unsoftified 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 1993 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.



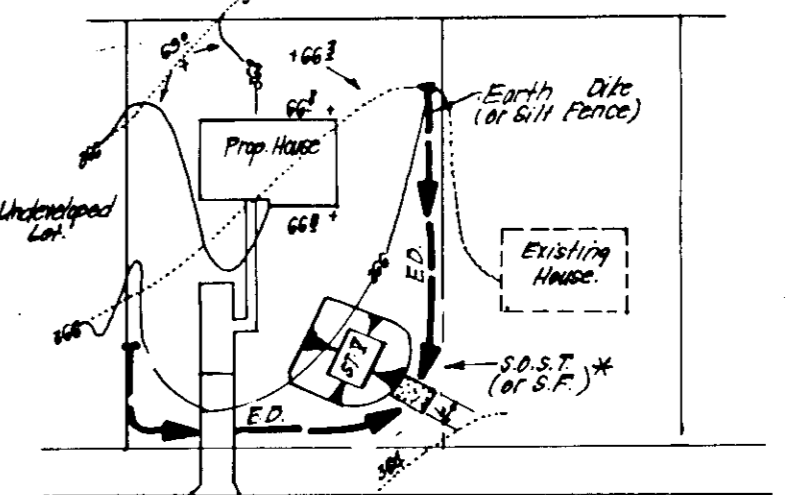
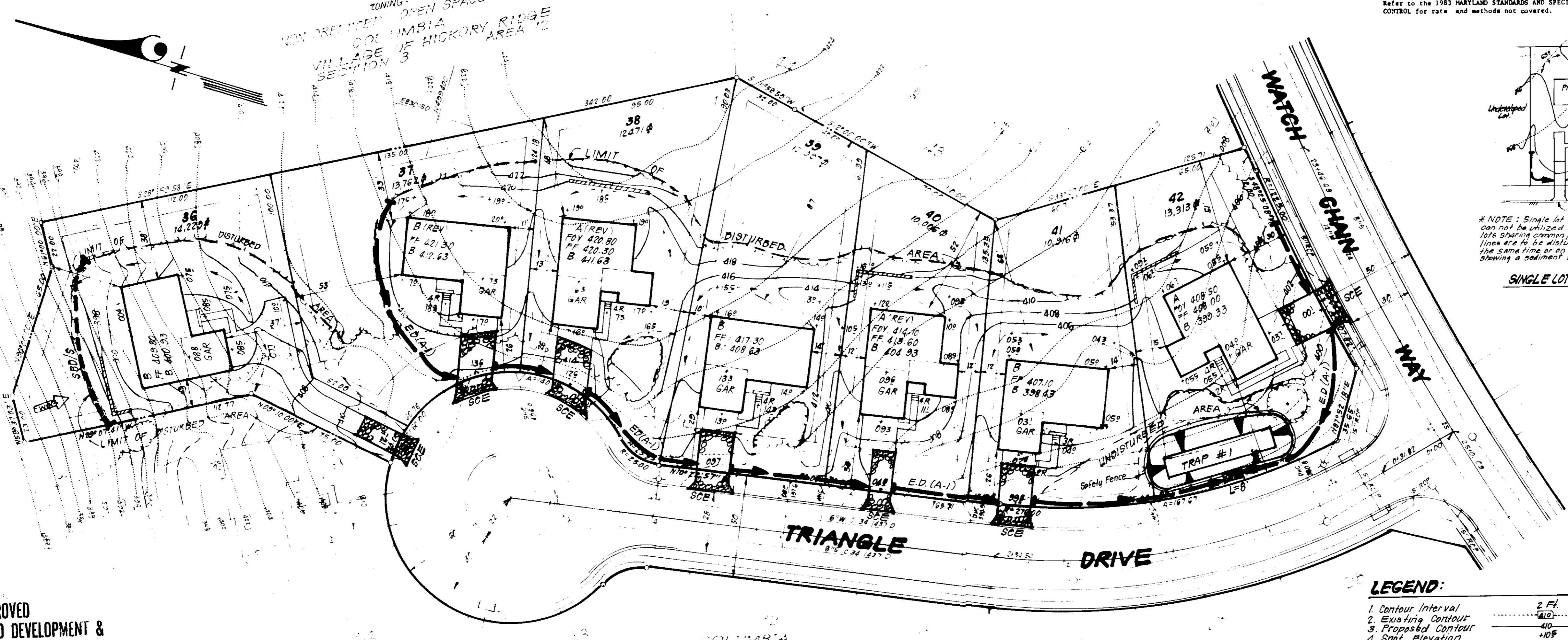
SEEDING CONTROL NOTES

- A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permitting prior to the start of any construction. (992-1437)
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1993 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 permanent stabilization structures, b) 14 days for all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs placed 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 1993 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 51) and (Sec. 34), temporary seedings (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	2.01 Acres
Area Disturbed	1.18 Acres
Area to be seeded or paved	0.47 Acres
Area to be vegetatively stabilized	2.27 Acres
Total Cut	6280 Cu. yds
Total Fill	200 Cu. yds
Off-site 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 EPM sediment control inspector.
- On all sites with disturbed areas in excess of 2 acres, approval of the inspector of utilities shall be requested upon completion of installation of perimeter erosion and sediment control, but before proceeding with any other earth disturbance or grading activity. 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 a "hard-hat" basis, at random, single lot Bedrock Control as shown below shall be implemented.
- All sites to be bedrock at the end of each day (see detail below). N/A
- The total amount of straw bale dikes/silt fence equals 20 N/A

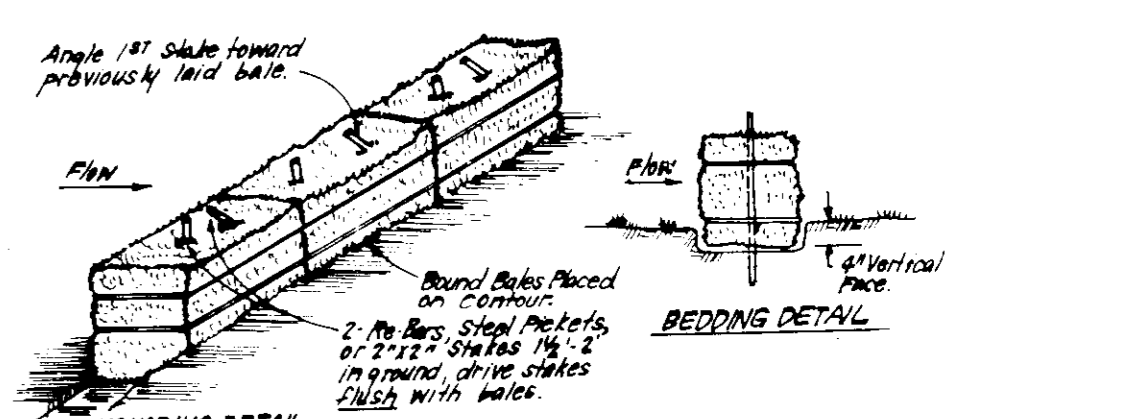
CONSTRUCTION SPECIFICATIONS:

- Obtain Grading Permit and Install Sediment and Erosion Control Devices and Stabilize.
- Excavate for foundations and rough grade of temporary stabilize.
- Construct Structures, Sidewalks and Driveways.
- Final Grade and stabilize in accordance with S.D.S. & S.P.s.
- Upon approval of the sediment control inspector. Remove sediment control devices and stabilize.



SINGLE LOT SEDIMENT CONTROL PLAN
NO SCALE

* NOTE: Single lot detail cannot be utilized if any two lots sharing common property lines are to be disturbed at the same time or so any lots sharing a sediment trap.



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 bindings are horizontal.
- Bales shall be securely anchored in place by either 2" x 4's or 2" x 6's driven thru the bale.
- The 1st stake in each row shall be driven through the previously laid bale at an angle to force the bales together. Stakes shall be driven flush with the bales.
- Inspection shall be frequent and repairs/replacements shall be made promptly as needed.
- Bales shall be removed when they have served their usefulness as do not block or impede storm flow or drainage.

STRAW BALE DIKE DETAIL (SBD)
NO SCALE

LEGEND:

- Contour Interval: 2 Ft.
- Existing Contour: (dashed line)
- Proposed Contour: (solid line)
- Spot Elevation: (+/-)
- Direction of Drainage: (arrow)
- Straw Bale Dike or Silt Fence: (SBD/S)
- Earth Dike: (E.D.)
- Stabilized Construction Entrance: (SCE)
- Exist. Trees to be saved: (circle with cross)

TRAP S.O.S.T. (ST.V.)
D.A. = 1.8 Acres
Storage Required = 3240 cf
Storage Provided = 3248 cf
Top of Stone Crest = 337.0
Depth = 4"
Bottom Elevation = 332.0
Bottom Dimensions = 10'x54'
Clean Out Elev. = 334.0

APPROVED
DIVISION OF LAND DEVELOPMENT &
ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 9-9-86

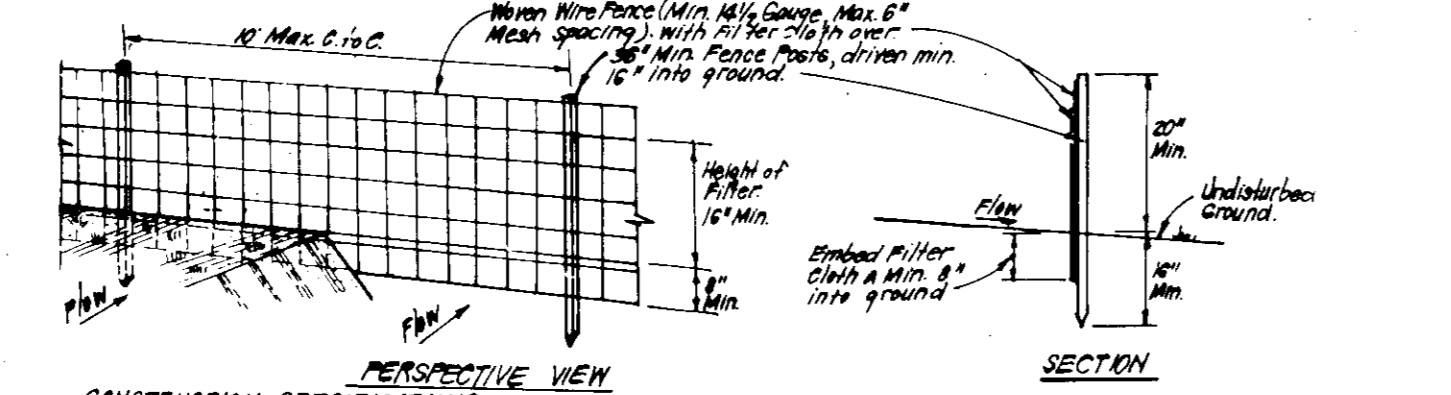
APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
HOWARD COUNTY HEALTH DEPARTMENT

COUNTY HEALTH OFFICER: [Signature] DATE: 9-25-86

APPROVED HOWARD COUNTY OFFICE OF PLANNING & ZONING
PLANNING DIRECTOR: [Signature] DATE: 9-28-86
CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION: [Signature] DATE: 9-29-86

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

DIRECTOR: [Signature] DATE: 9-23-86
CHIEF BUREAU OF ENGINEERING: [Signature] DATE: 9-28-86



CONSTRUCTION SPECIFICATIONS:

- When wire fence is to be installed securely to fence posts with wire ties or staples.
- Filter cloth to be fastened securely to woven wire fence with 1/4" x 1/4" staples every 24" at top and two sections.
- When 2 sections of filter cloth are placed on each other they shall be overlapped by 6" and staples shall be made promptly as needed.
- Maintenance shall be performed as needed and material removed when "pulpies" develop in silt fence.

SILT FENCE DETAIL (S)
NO SCALE

Reviewed for [Signature] S.C.D. Name and meets Technical Requirements

Signature: [Signature] Date: [Date]

U.S. Soil Conservation Service

SEEDING AND SEDIMENT CONTROL FOR THE HOWARD COUNTY CONSTRUCTION DISTRICT.

APPROVED DATE: [Date]

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 Soil Conservation District or their authorized agents, as are deemed necessary.

[Signature] 7-23-86
Member of Developer/BUILDER

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] 9-23-86
G. Nelson Clark

CLARK · FINEFROCK & SACKETT
ENGINEERS · PLANNERS · SURVEYORS

11315 LOCKWOOD DRIVE SILVER SPRING, MARYLAND 20904 (301) 593-3400

DESIGNED: [Signature]	SCALE: 1" = 30'
DRAWN: [Signature]	DRAWING: 2 OF 2
CHECKED: [Signature]	JOB NO: [Blank]
DATE: 7-23-86	FILE NO: 86-061-SE

SEDIMENT & EROSION CONTROL PLAN

LOTS 36 THRU 42
COLUMBIA
SECTION 3 AREA 12
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

FOR: [Signature] BUILDERS, INC.
239 Camp Dale Dr.
Timon, Md. 21083

SDP-87-31c