PERMANENT SEEDING NOTES

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

Seedbed 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

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 (9 lbs/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 thre 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

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

Seedbed 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 2½ 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 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.

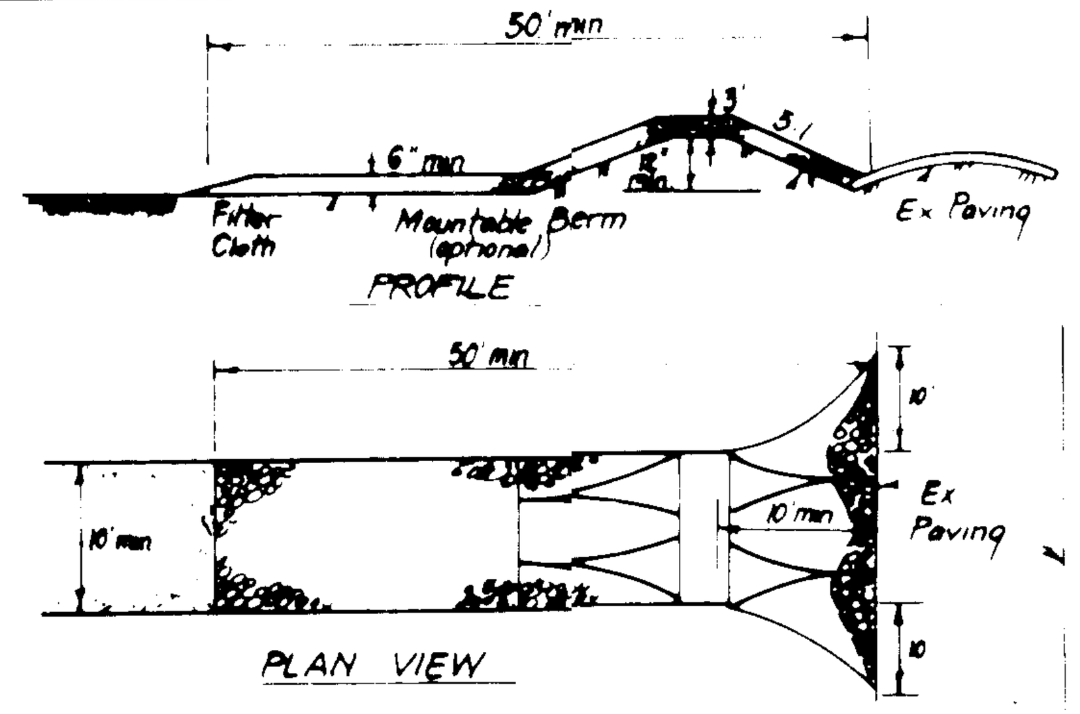
Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

SEDIMENT CONTROL NOTES

1) 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)
2) 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.
3) 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.
4) All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chaper 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
5) 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.
6) 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
7) Site Analysis:

Total Area of Site	0.4226	Acres
Area Disturbed	0.3719	Acres
Area to be roofed or paved	0.1134	Acres
Area to be vegetatively stabilized	0.2585	Acres
Total Cut	530.5	Cu. yds
Total Fill	44	Cu. yds
Offsite waste/borrow area location	N/A	

8) Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
9) Additional sediment control must be provided, if deemed necessary by the Howard County DPW sediment control inspector.
10) 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.
11) If houses are to be constructed on an "As-Sold" basis, at Random, Single Lot Sediment Control as shown below shall be implemented. N/A
12) All pipes to be blocked at the end of each day (see detail below). N/A
13) The total amount of straw bale dikes/silt fence equals 360 L.F.

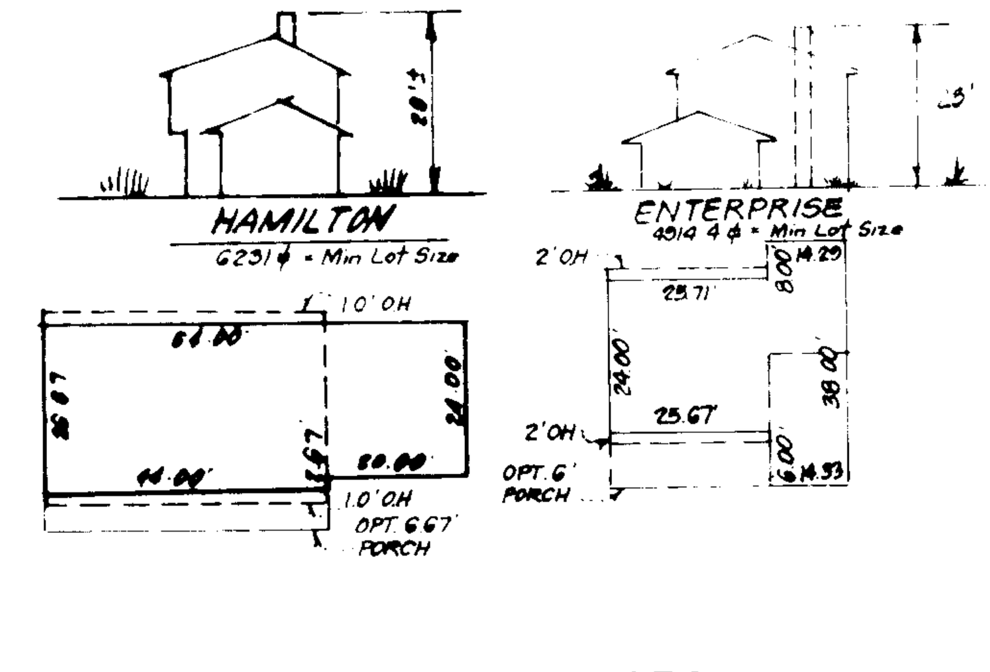


CONSTRUCTION SPECIFICATIONS

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

STABILIZED CONSTRUCTION ENTRANCE (SCE)

NO SCALE

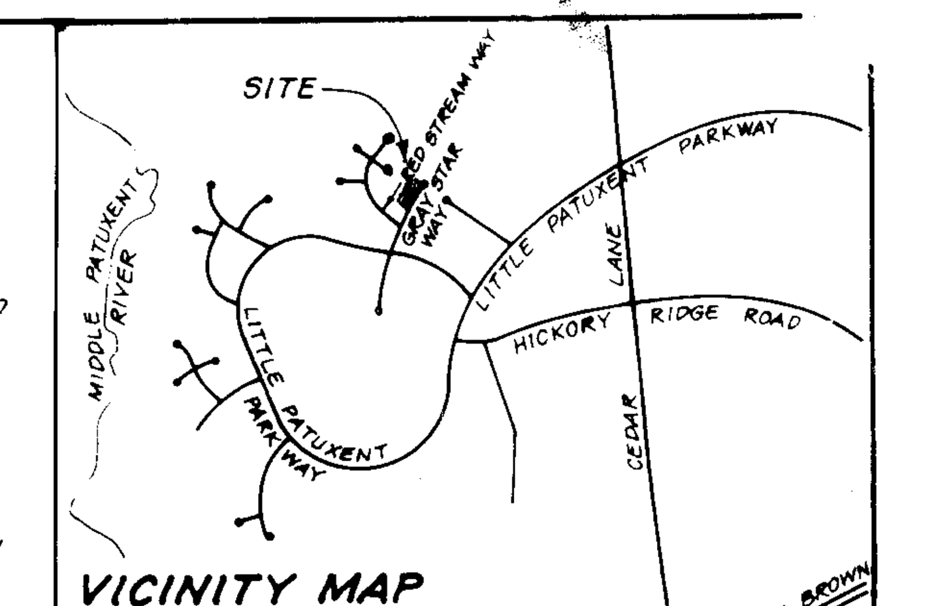


TYPICAL HOUSES

NO SCALE

GENERAL NOTES

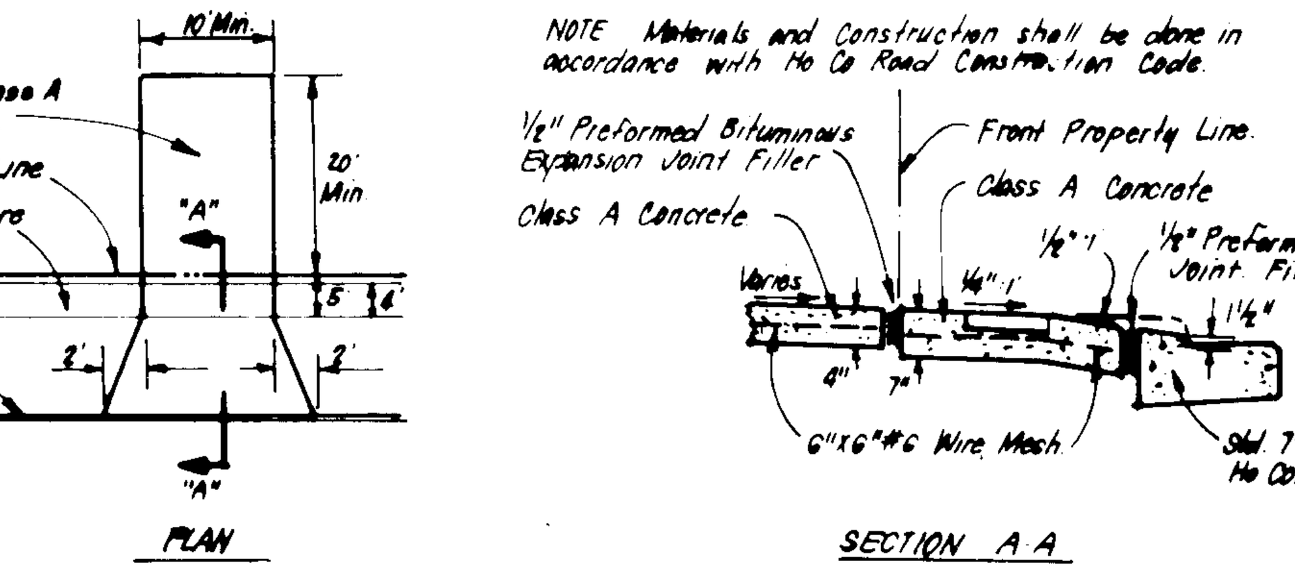
1. The Land included is zoned: New Town
2. Coordinates are based upon traverse controls for Columbia established by Maps, Inc., in 1965 and Purdum & Jeschke in 1968, which controls were tied to the Maryland Bureau of Control Survey Monuments and to U.S. Coast and Geodetic Survey Monuments in the Columbia Area.
3. All Roads are Public and Existing.
4. Any damage to county owned rights-of-way to be corrected at the Developer's expense.
5. Total area included: 0.4226 Acres
6. Total number of Lots: 2 No. of Units: 2
7. Stormwater Management provided for in central facility in Village of Hickory Ridge Sect 3 Area previously approved plans F 83-120.
8. Maximum Building Coverage: 30%



VICINITY MAP

SCALE: 1" = 2000'

NOTE: Materials and Construction shall be done in accordance with Ho Co Road Construction Code.



DRIVEWAY ABUTTING STD. 7" COMB. CURB & GUTTER

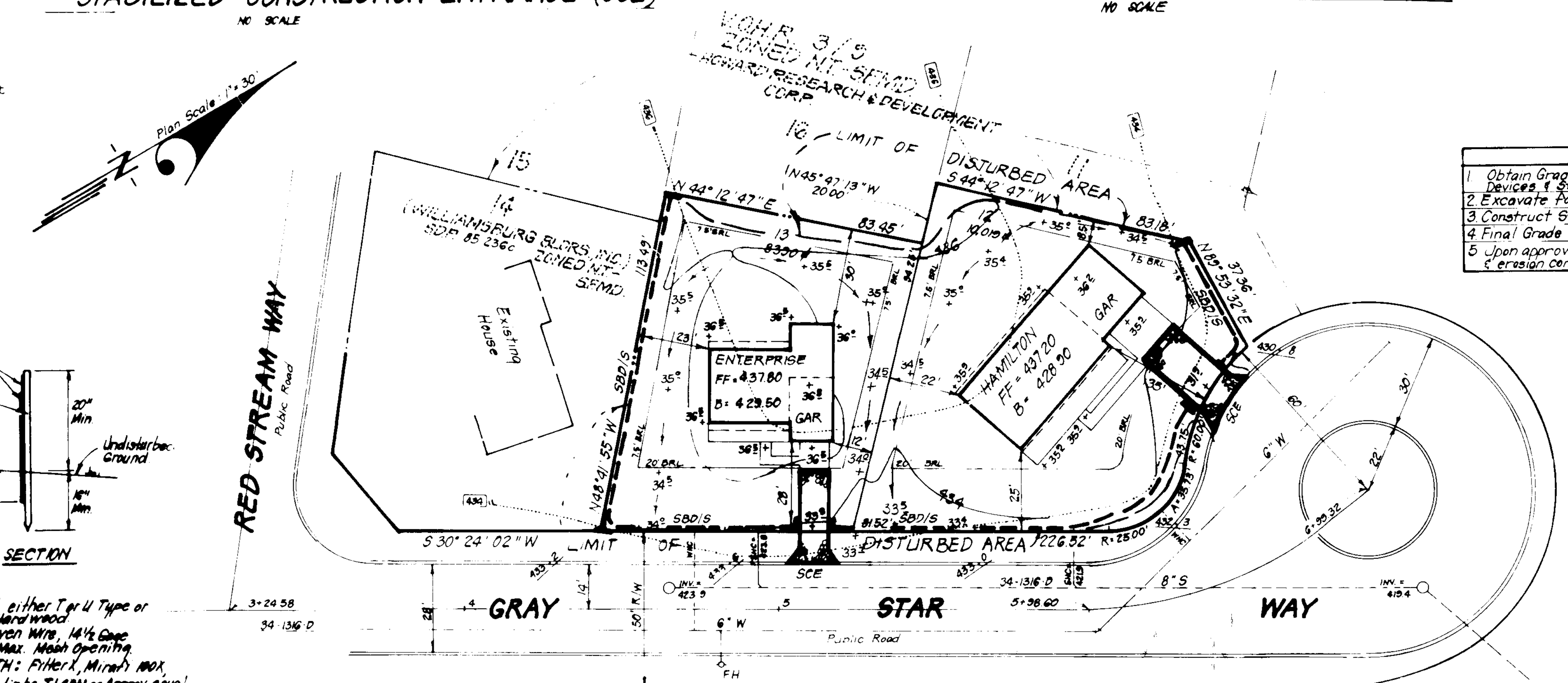
NO SCALE

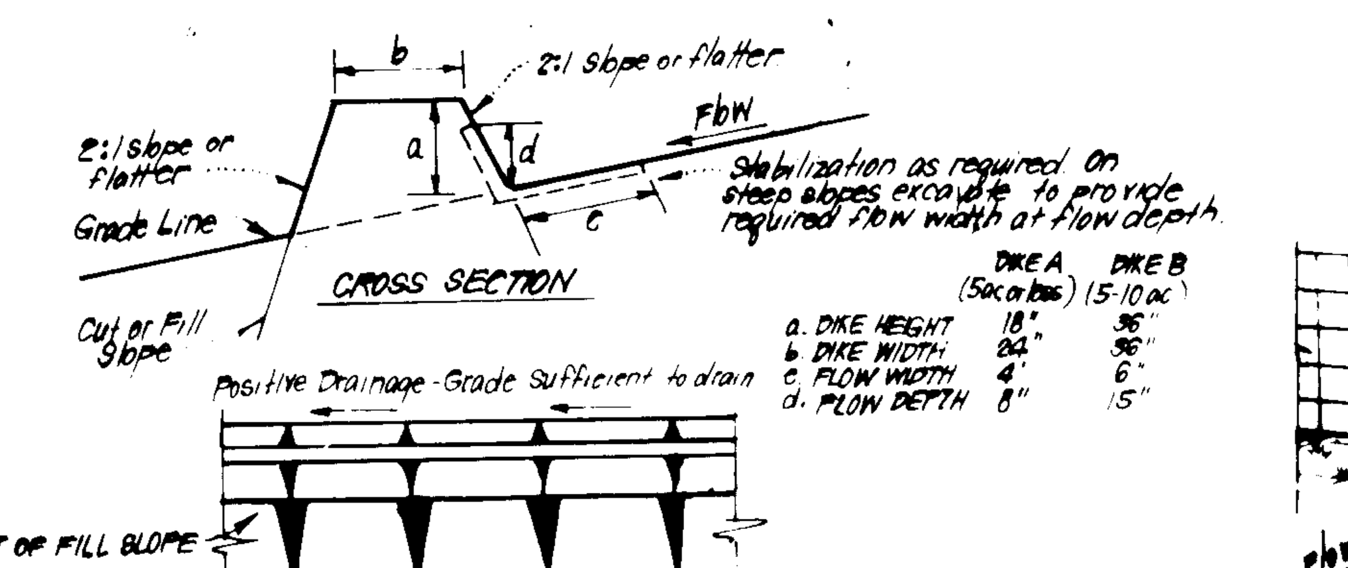
LEGEND

1. Contour Interval — 2 ft
2. Existing Contour
3. Proposed Contour
4. Spot Elevation
5. Direction of Drainage
6. Existing Trees to be retained
7. Straw Bale Dike or Silt Fence — SBD / SF
8. Stabilized Construction Entrance — SCE
10. Existing Spot Elevation

CONSTRUCTION SEQUENCE

		No. Days
1	Obtain Grading Permit & Install Sediment & Erosion Control Devices & Stabilize	5
2	Excavate for Foundations & Rough Grade & Temporarily Stabilize	10
3	Construct Structures, sidewalk & driveways	45
4	Final Grade & stabilize in accordance w/ standards & specs	10
5	Upon approval of sediment control inspector remove sediment & erosion control devices & stabilize	5





CONSTRUCTION SPECIFICATIONS:

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.
5. 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
6. 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

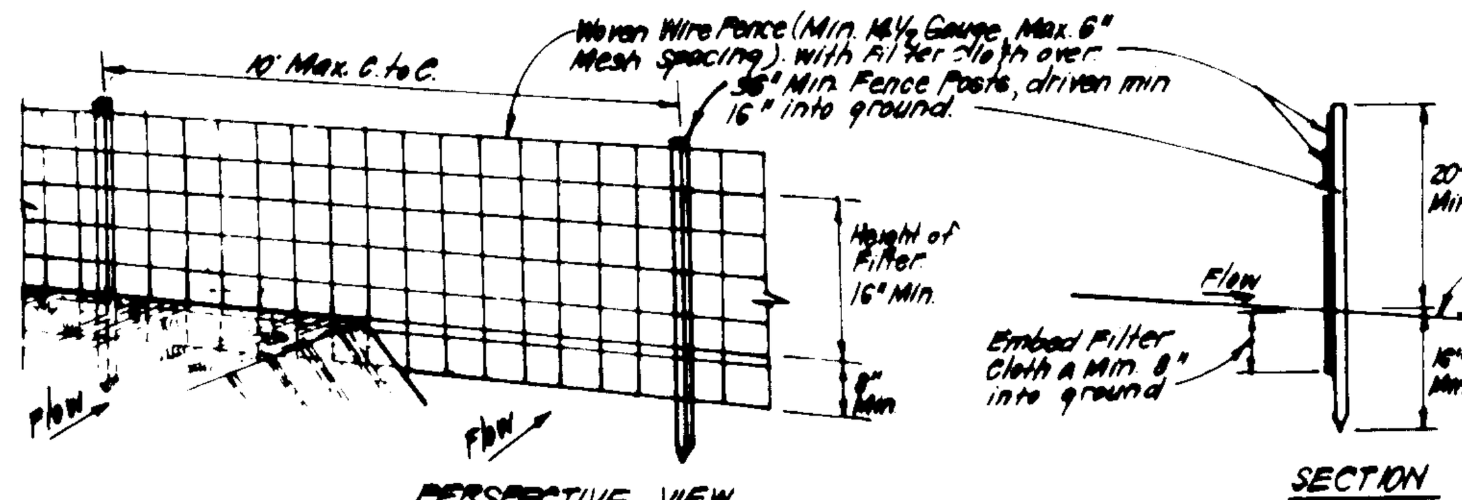
TYPE OF TREATMENT	CHANNEL GRADE	DIKE A	DIKE B
1	0.5-3.0%	Seed & Straw Mulch	Seed or Straw Mulch
2	3.1-5.0%	Seed & Straw Mulch	Seed w/Jute, or Excelsior; Sod; 2" Stone
3	5.1-8.0%	Seed w/Jute, or Sod; 2" Stone	Lined Rip Rap 4"-8" Stone
4	8.1-20.0%	Lined Rip Rap 4-8" Stone	Engineering Design

A. Stone to be 2" Stone, or recycled concrete equivilent, in a layer at least 3" thick and be pressed into soil with construction equipment
B. Rip Rap to be 4"-8" in a layer at least 8" thick, pressed into soil.
C. Approved equivalents can be substituted for any of the above materials

7. Periodic Inspection and Required Maintenance must be provided after each rain

EARTH DIKE DETAIL (E.D.)

NO SCALE



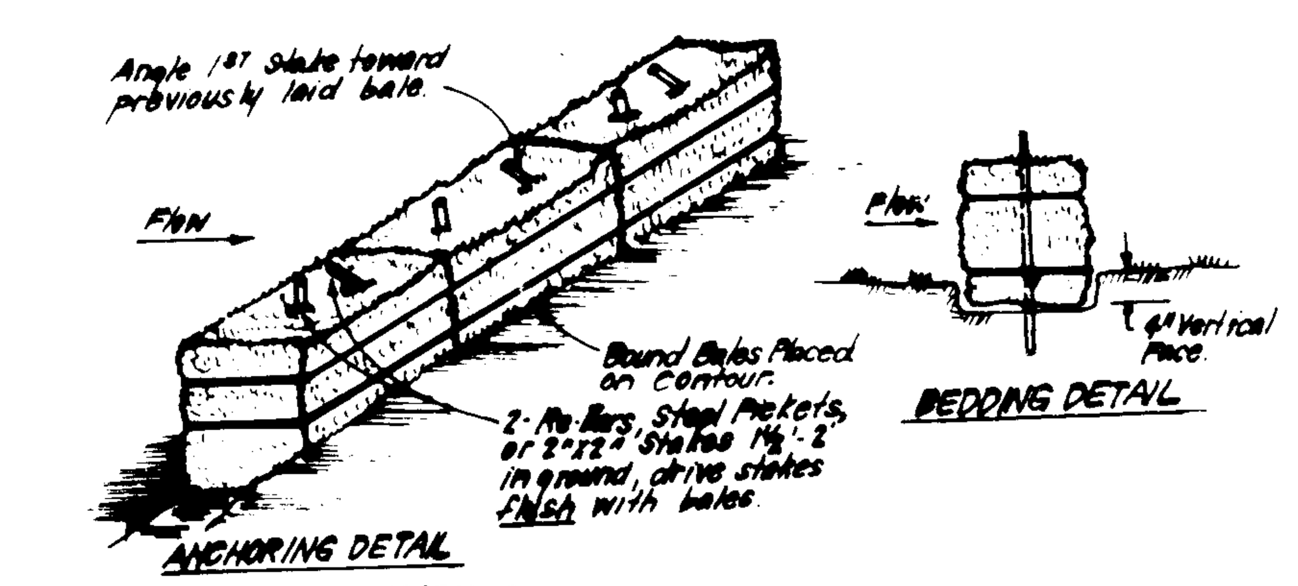
CONSTRUCTION SPECIFICATIONS:

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 2 sections of filter cloth adjoin each other they shall be overlapped by 6" and folded
4. Maintenance shall be performed as needed and material removed when "Bulges" develop in Silt Fence

POSTS: Steel either T or U Type or 2" Hardwood
FENCE: Woven Wire, 14½ Gage, 6" Max. Mesh Opening
FILTER CLOTH: Filter X, Mirafi 100X, Stablinka, T140N or Approv. equal
PREFABRICATED UNIT: Geofab, Envirofence, or Approv. equal

SILT FENCE DETAIL (SF)

NO SCALE



CONSTRUCTION SPECIFICATIONS:

1. 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.
2. Each bale shall be embedded in the soil a min. of 4" and placed so the bindings are horizontal.
3. 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 flush with the bale.
4. Inspection shall be frequent and repair replacement shall be made promptly as needed.
5. Bales shall be removed when they have served their usefulness so as not to block or impede storm flow or drainage.

STRAW BALE DIKE DETAIL (SBD)

NO SCALE

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

COUNTY HEALTH OFFICER — DATE 4-16-86

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING

PLANNING DIRECTOR — DATE

CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE 4-17-86

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

DIRECTOR — DATE 4-11-86

CHIEF BUREAU OF ENGINEERING — DATE

DIVISION ... ZONING ... HOWARD CO... DATE 3-31-86

HOWARD ... Approved — Date

DEVELOPER'S/BUILDER'S CERTIFICATE — Maurice Simpkins — 4-4-86

ENGINEER'S CERTIFICATE — G. Nelson Clark — 4-4-86

LOT	STREET ADDRESS
12	12123 Gray Star Way
13	12119 " " "

SUBDIVISION NAME	SECT/AREA	LOTS
VILLAGE OF HICKORY RIDGE	3/9	12 & 13

PLAT	BLOCK NO.	ZONE	TAX/ZONE MAP	ELEC DIST	CENSUS TR.
6241	4	NT SFMD	#35	5TH	6053.01

WATER CODE	SEWER CODE
1-15	5585300

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

SITE DEVELOPMENT PLAN AND SEDIMENT AND EROSION CONTROL PLAN
LOTS 12 & 13
COLUMBIA
VILLAGE OF HICKORY RIDGE
SECTION 3 AREA 9
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

DESIGNED: BAF, M.C.B. — DRAWN: B.A.F. — CHECKED: B.A.F., J.M.E. — DATE: Feb., 1986

FOR: THE RYLAND GROUP (Col. Div.), 7130 Minstrel Way Suite 215, Columbia Maryland 21045

SCALE: 1" = 30' — DRAWING: 1 of 1 — JOB NO.: 86-018 — FILE NO.: 86-018-X

S.D.P. 86-175