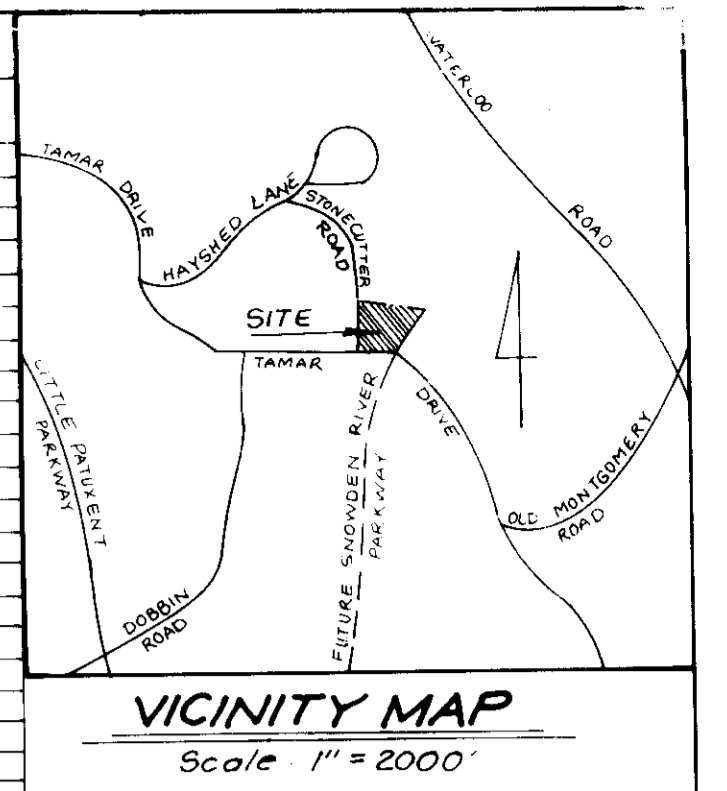


### ADDRESS CHART

LOT	STREET ADDRESS	LOT	STREET ADDRESS	LOT	STREET ADDRESS
B-1	8501 BLACK STAR CIRCLE	B-29	8540 BLACK STAR CIRCLE	B-45	8554 BLACK STAR CIRCLE
B-2	8503	B-30	8542	B-46	8556
B-3	8505	B-31	8544	B-47	8558
B-4	8507	B-32	8546	B-48	8560
B-5	8509	B-33	8548	B-49	8562
B-6	8511	B-34	8550	B-50	8564
B-7	8513	B-35	8552	B-51	8566
B-8	8515	B-36	8554	B-52	8568
B-9	8517	B-37	8556	B-53	8570
B-10	8519	B-38	8558	B-54	8572
B-11	8521	B-39	8560	B-55	8574
B-12	8523	B-40	8562	B-56	8576
B-13	8525	B-41	8564	B-57	8578
B-14	8527	B-42	8566	B-58	8580
B-15	8529	B-43	8568	B-59	8582
B-16	8531	B-44	8570	B-60	8584
B-17	8533	B-45	8572	B-61	8586
B-18	8535	B-46	8574	B-62	8588
B-19	8537	B-47	8576	B-63	8590
B-20	8539	B-48	8578	B-64	8592
B-21	8541	B-49	8580	B-65	8594
B-22	8543	B-50	8582	B-66	8596



### LEGEND

Contour Interval: 2 FT  
 Existing Contour: ---  
 Proposed Contour: - - -  
 Spot Elevation: +10.5  
 Direction of Drainage: →  
 Walk out Basement: [Symbol]

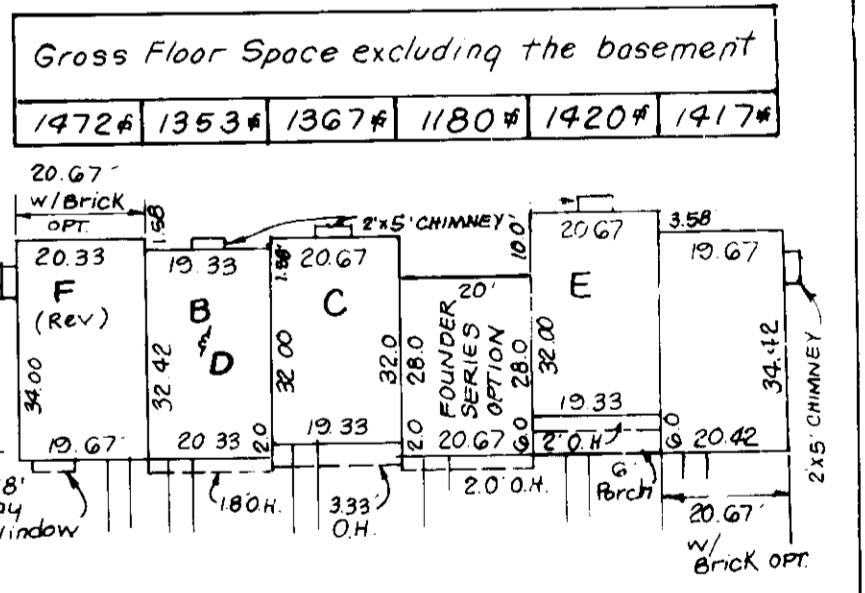
### SQUARE FOOTAGE PER LOT CHART

LOT	Area	LOT	Area	LOT	Area
B-1	1825	B-23	1360	B-45	1300
B-2	1500	B-24	1300	B-46	1601
B-3	1540	B-25	1300	B-47	1900
B-4	1540	B-26	1360	B-48	1600
B-5	1500	B-27	1700	B-49	1600
B-6	1500	B-28	1545	B-50	1659
B-7	1799	B-29	1660	B-51	1959
B-8	1836	B-30	1560	B-52	1750
B-9	1543	B-31	1420	B-53	1960
B-10	1490	B-32	1545	B-54	1960
B-11	1464	B-33	1484	B-55	1360
B-12	1700	B-34	1785	B-56	1440
B-13	1775	B-35	1700	B-57	1446
B-14	1420	B-36	1360	B-58	1867
B-15	1360	B-37	1460	B-59	1750
B-16	1360	B-38	1460	B-60	1400
B-17	1420	B-39	1420	B-61	1460
B-18	1420	B-40	1420	B-62	1460
B-19	1320	B-41	1700	B-63	1400
B-20	1650	B-42	1625	B-64	1400
B-21	1675	B-43	1400	B-65	1340
B-22	1360	B-44	1400	B-66	1675

### SHC ELEVATION CHART

LOT	ELEV	LOT	ELEV	LOT	ELEV
B-1	402.0	B-23	396.7	B-45	399.9
B-2	401.8	B-24	396.7	B-46	400.5
B-3	401.1	B-25	396.8	B-47	402.4
B-4	400.8	B-26	396.3	B-48	401.9
B-5	400.3	B-27	397.4	B-49	401.9
B-6	400.0	B-28	397.4	B-50	401.9
B-7	399.5	B-29	396.8	B-51	402.3
B-8	399.6	B-30	396.5	B-52	403.3
B-9	398.4	B-31	396.5	B-53	400.0
B-10	398.1	B-32	396.7	B-54	400.1
B-11	398.1	B-33	396.0	B-55	400.4
B-12	397.9	B-34	395.8	B-56	400.6
B-13	397.7	B-35	395.7	B-57	401.1
B-14	397.6	B-36	395.5	B-58	401.2
B-15	397.5	B-37	395.5	B-59	399.0
B-16	397.4	B-38	395.4	B-60	398.9
B-17	397.3	B-39	395.3	B-61	398.4
B-18	397.2	B-40	395.4	B-62	398.2
B-19	397.1	B-41	395.4	B-63	398.0
B-20	397.2	B-42	397.6	B-64	397.8
B-21	396.8	B-43	396.9	B-65	397.6
B-22	396.7	B-44	396.6	B-66	397.5

- ### GENERAL NOTES
- Subject Property is zoned N.T.S.F.A. as per 8-2-85 Comprehensive Zoning Plan.
  - Minimum building setback restrictions from property lines and rights-of-way of any public road or street to be accordance with the recorded Final Development Plan criteria Phase 197 P.I. recorded as Plat No. FDP 3054A-988 thru 3054A-997.
  - The coordinates shown hereon are based upon the Maryland State Grid System as projected by Howard County Geodetic Control Station Nos. 2542001, 2643002, 2643003, 2643004, 2643005 & 2643006.
  - See Howard County Office of Planning and Zoning File Nos. S-87-46, P-87-83, F-88-171, S-89-86, W-89-164, F-90-33, W-89-164 was to waive the requirement of a preliminary plan and to delete certain sidewalks.
  - All roads are public.
  - Lot coverage is per Howard County Planning Board approval.
  - The contractor or developer shall contact the Construction Inspection Division 24 hrs in advance of commencement of work at 792-7272.
  - Based on a Wetlands Assessment conducted by Kiddie Consultants, 9-28-87. No wetlands exist on this parcel.
  - Stormwater Management Quality Control is provided in Central facility under V.L.R. 312 F 88-171.



TYPICAL HOUSES  
 Scale 1" = 30'  
 10' Roof overhang front and rear

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT  
 COUNTY HEALTH OFFICER: [Signature] DATE: 2-11-90

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING  
 DIRECTOR: [Signature] DATE: 3-7-90

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 DIRECTOR: [Signature] DATE: 2/14/90

APPROVED: [Signature] DATE: 2/7/90  
 CHIEF BUREAU OF ENGINEERING

### SPECIAL NOTES

All road construction, storm drainage facilities and Public water and sewer are shown for reference only. Use approved Howard County plans for all phases of construction.

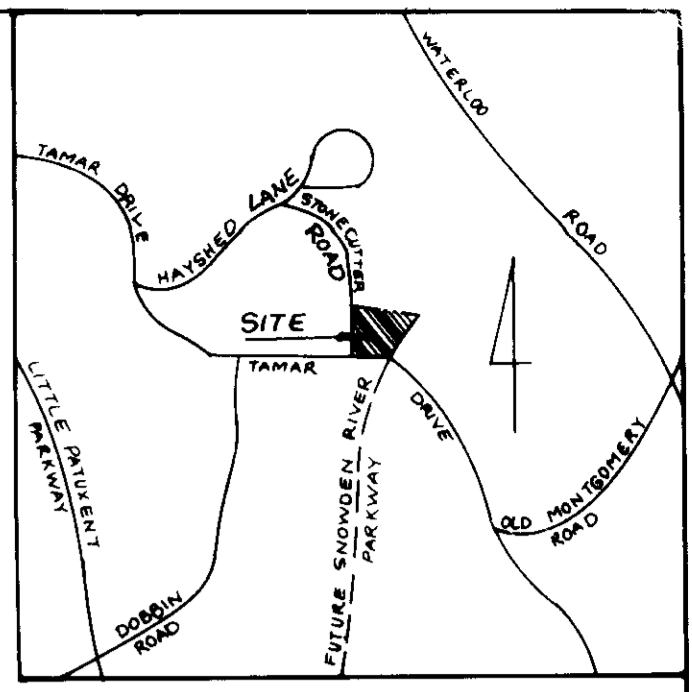
- ### SITE ANALYSIS
- Zoned Newtown S.F. attached
  - Area of parcel: 6.9731 AC.
  - No. of units permitted: 66
  - No. of units proposed: 66
  - Parking Spaces Required: 132
  - Parking Spaces Provided: 140
  - Building Coverage: 16.9% or 47323 sq ft
  - Type of unit proposed: Townhouses
  - Green Area: 2.3236 AC. or 101,216 sq ft
  - Open Space: 2.6899 AC. or 117,172 sq ft

Owner / Developer The Howard Research & Development Land Co. of Maryland 10275 Little Patuxent Parkway Columbia, Md. 21044	Subdivision Name Columbia Village of Long Reach P.O. Box 7 Columbia, Md. 21044	Section / Area 3 / 2	Lots B-1 thru B-66
DESIGNED JME	SITE DEVELOPMENT PLAN LOTS B-1 thru B-66 SINGLE FAMILY ATTACHED COLUMBIA		SCALE 1" = 30'
DRAWN BAK	VILLAGE OF LONG REACH SECTION 3 AREA 2 A RESUBDIVISION OF PARCEL B 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND		DRAWING 1 of 4
CHECKED JME	For: The Ryland Group (Columbia Division) 7130 Minster Way, Suite 215 Columbia, Md. 21045		JOB NO. 88-090
DATE August 1989			FILE NO. 88-090X



**EXISTING TRAP #1 ROST. (ST-VI) (F-90-33)**

D.A. = 7.9 Acres  
 Storage Required = 14220 cf  
 Storage Provided = 14250 cf  
 Depth = 5'  
 Top of Stone Weir = 392.0  
 Bottom Elevation = 386.0  
 Clean out Elevation = 388.5  
 Top of Embankment = 392.0  
 Bottom Dimensions = 103' x 20'  
 a = 20', b = 10'  
 1:1 side slopes



**VICINITY MAP**  
Scale 1" = 200'

**LEGEND**

- Contour Interval 2 FT
- Existing Contour (dashed line)
- Proposed Contour (solid line)
- Spot Elevation (+10)
- Direction of Drainage (arrow)
- Walk out Basement (cloud symbol)
- Trees to be Saved (cloud symbol)
- Existing E.D. (arrow)
- Existing Silt Fence (line with 'S')

**NOTE:**  
 Ex. sediment & erosion control were taken from Road Construction plans F-90-33.

**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 this project. I/We also authorize periodic on-site inspection by the Howard County Conservation District or their authorized agents, as are deemed necessary."  
*Maurice M. Simchen* 10-23-89  
 Signature of Developer/Builder Date

**AUTHORIZATION NOTE**  
 The Howard Research & Development Land Co. hereby authorizes The Ryland Group, Inc. to utilize the existing sediment and erosion control measures shown on plan F-90-33, and remove same upon completion of S.D.P. 90-91. If The Howard Research and Development Land Co. removes the existing controls prior to completion of F-90-33, a revised sediment and erosion control plan shall be required.  
*Gregory P. Miller* 10-18-89  
 The Ryland Group, Inc. Date  
 Development Land Company

Reviewed for... Howard... S.C.D.  
 Name and meets Technical Requirements  
*John E. Robertson* 1-31-90  
 Signature Date  
 U.S. Soil Conservation Service

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.  
*John E. Robertson* 1/31/90  
 Approved Date



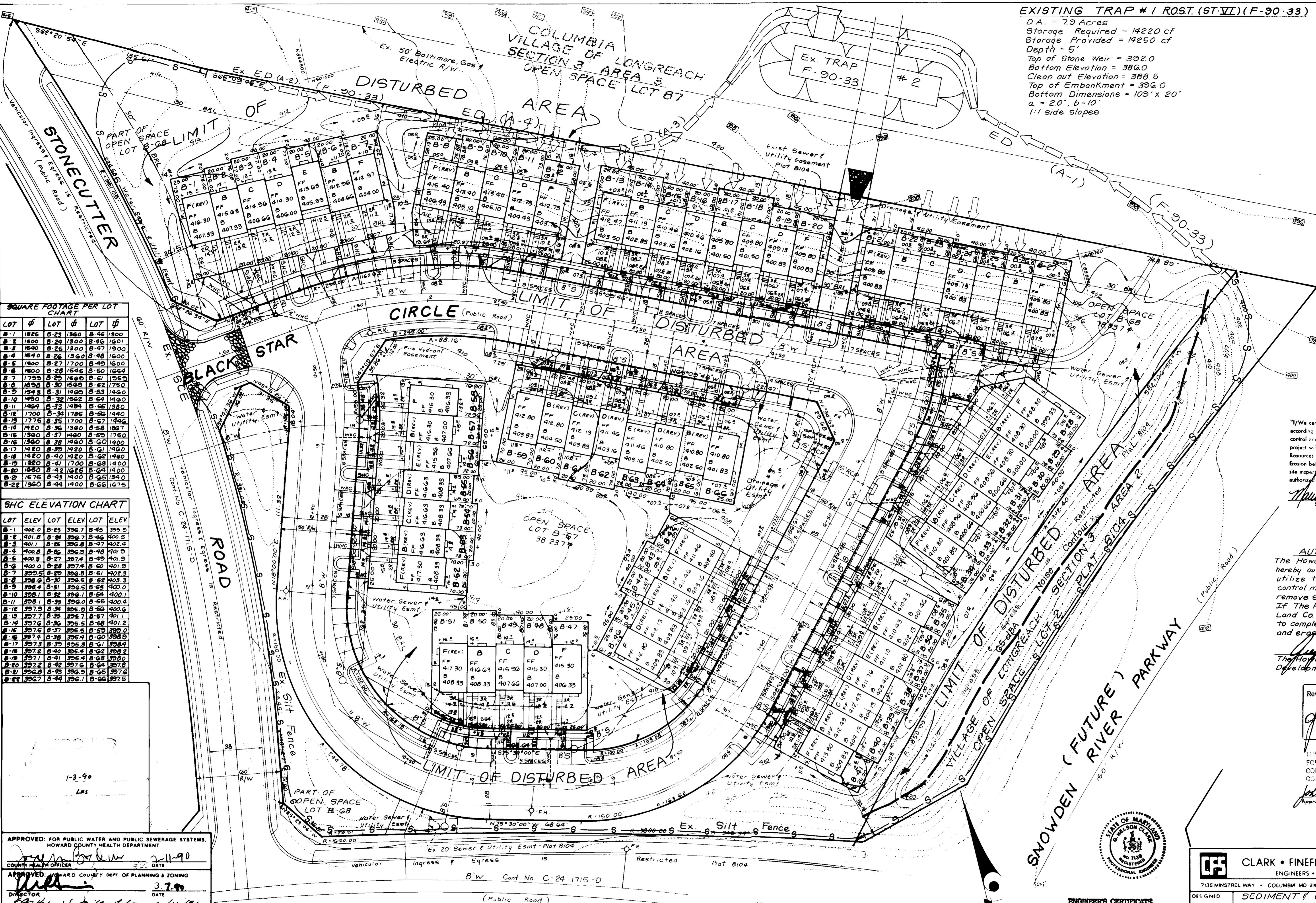
**ENGINEER'S CERTIFICATE**

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.  
*John E. Clark* 10-23-89  
 G. Nelson Clark Date

**CLARK • FINEFROCK & SACKETT, INC.**  
 ENGINEERS • PLANNERS • SURVEYORS  
 7135 MINSTREL WAY • COLUMBIA MD 21045 • (301) 381-7500 - BALTO • (301) 621-8100 - WASH

DESIGNED KIWM	SEDIMENT & EROSION CONTROL PLAN LOTS B-1 thru B-8	SCALE 1" = 30'
DRAWN BAK		DRAWING 2 of 4
CHECKED KIWM	COLUMBIA VILLAGE OF LONG REACH SECTION 3 AREA 2 A RESUBDIVISION OF PARCEL B 2 <sup>ND</sup> ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO 88-090
DATE October 1989		FILE NO 38-09068

For: The Ryland Group (Columbia Division)  
 7130 Minstrel Way, Suite 215  
 Columbia, Md 21045  
 S.D.P. 90-91



**SQUARE FOOTAGE PER LOT CHART**

LOT	AREA	LOT	AREA	LOT	AREA
B-1	1825	B-23	1560	B-45	1500
B-2	1800	B-24	1300	B-46	1601
B-3	1640	B-25	1300	B-47	1900
B-4	1640	B-26	1560	B-48	1600
B-5	1800	B-27	1700	B-49	1600
B-6	1800	B-28	1600	B-50	1600
B-7	1750	B-29	1600	B-51	1550
B-8	1850	B-30	1600	B-52	1750
B-9	1540	B-31	1400	B-53	1400
B-10	1400	B-32	1560	B-54	1400
B-11	1400	B-33	1400	B-55	1380
B-12	1700	B-34	1786	B-56	1440
B-13	1775	B-35	1700	B-57	1440
B-14	1820	B-36	1360	B-58	1807
B-15	1900	B-37	1400	B-59	1750
B-16	1360	B-38	1400	B-60	1400
B-17	1420	B-39	1420	B-61	1400
B-18	1420	B-40	1420	B-62	1400
B-19	1320	B-41	1700	B-63	1400
B-20	1450	B-42	1420	B-64	1400
B-21	1675	B-43	1400	B-65	1340
B-22	1360	B-44	1400	B-66	1675

**SHC ELEVATION CHART**

LOT	ELEV.	LOT	ELEV.	LOT	ELEV.
B-1	402.0	B-23	396.7	B-45	395.9
B-2	401.8	B-24	396.7	B-46	395.5
B-3	401.7	B-25	396.8	B-47	392.4
B-4	400.8	B-26	396.3	B-48	401.5
B-5	400.9	B-27	397.4	B-49	401.9
B-6	400.0	B-28	397.4	B-50	401.9
B-7	399.5	B-29	396.8	B-51	402.3
B-8	398.0	B-30	396.6	B-52	403.3
B-9	398.4	B-31	396.5	B-53	402.0
B-10	398.7	B-32	396.8	B-54	400.1
B-11	398.1	B-33	396.4	B-55	400.4
B-12	397.3	B-34	396.3	B-56	400.6
B-13	397.7	B-35	396.7	B-57	401.1
B-14	397.6	B-36	396.6	B-58	401.2
B-15	397.6	B-37	396.6	B-59	399.0
B-16	397.4	B-38	396.4	B-60	398.5
B-17	397.3	B-39	396.5	B-61	398.4
B-18	397.2	B-40	396.4	B-62	398.2
B-19	397.1	B-41	396.4	B-63	398.0
B-20	397.2	B-42	397.6	B-64	397.8
B-21	397.6	B-43	396.3	B-65	397.6
B-22	396.7	B-44	396.1	B-66	397.6

**APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS,**  
 HOWARD COUNTY HEALTH DEPARTMENT  
*John E. Clark* 11-90  
 COUNTY HEALTH OFFICER DATE

**APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING**  
*John E. Clark* 3-7-90  
 DIRECTOR DATE

**APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE,**  
 STORM DRAINAGE SYSTEMS AND PUBLIC ROADS  
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*John E. Clark* 2/1/90  
 DIRECTOR DATE

**APPROVED: CHIEF BUREAU OF ENGINEERING**  
*John E. Clark* 2-7-90  
 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.

**Seedbed Preparation:** Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

**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 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 rotted 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 reseeds.

**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, if not previously loosened.

**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 2 1/2 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 rotted 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.

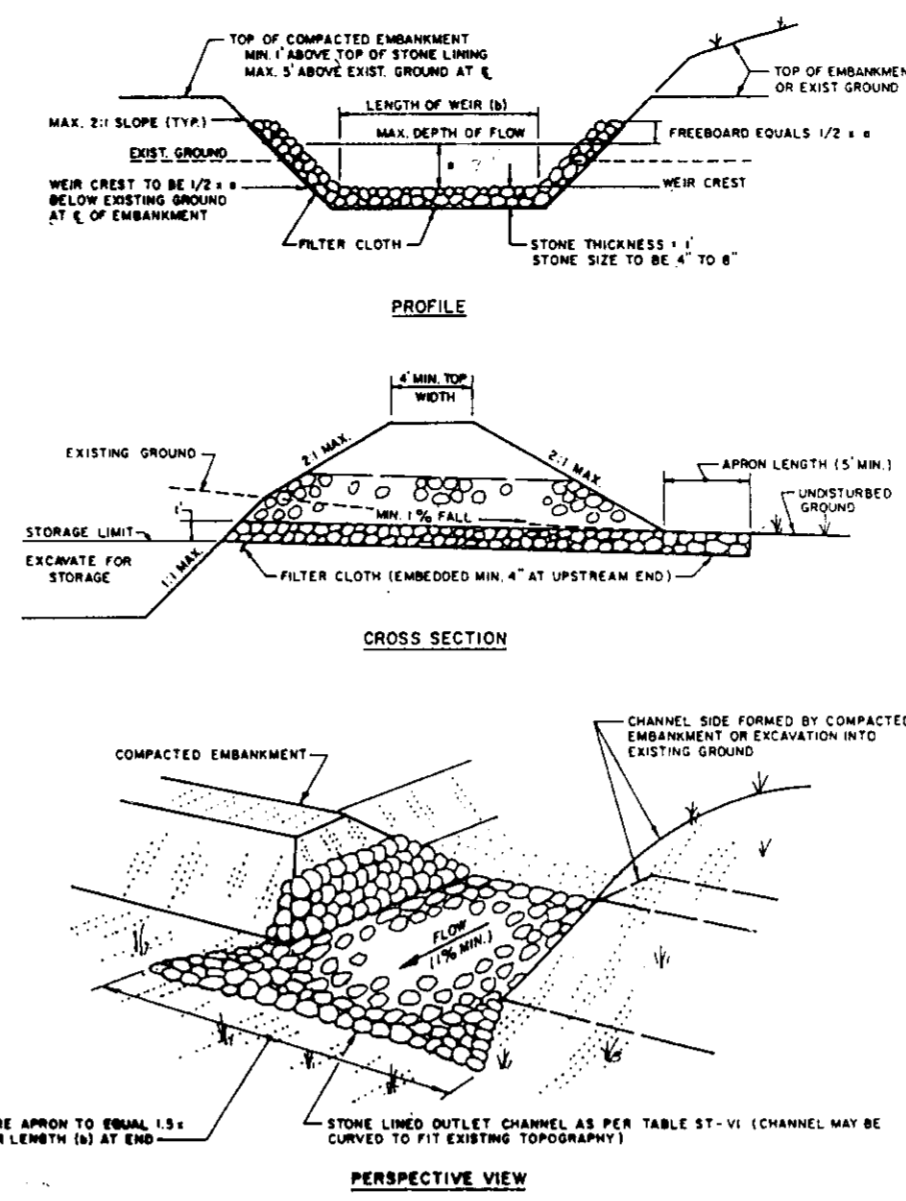
Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

**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, Chapter 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	5.01 Acres
Area Disturbed	3.59 Acres
Area to be roofed or paved	1.12 Acres
Total Cut	11,276 Cu. yds
Total Fill	337 Cu. yds
Offsite waste/borrow area location	Undetermined
- 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 DPM 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 0 L.F.

**RIPRAP OUTLET SEDIMENT TRAP ST-VI**

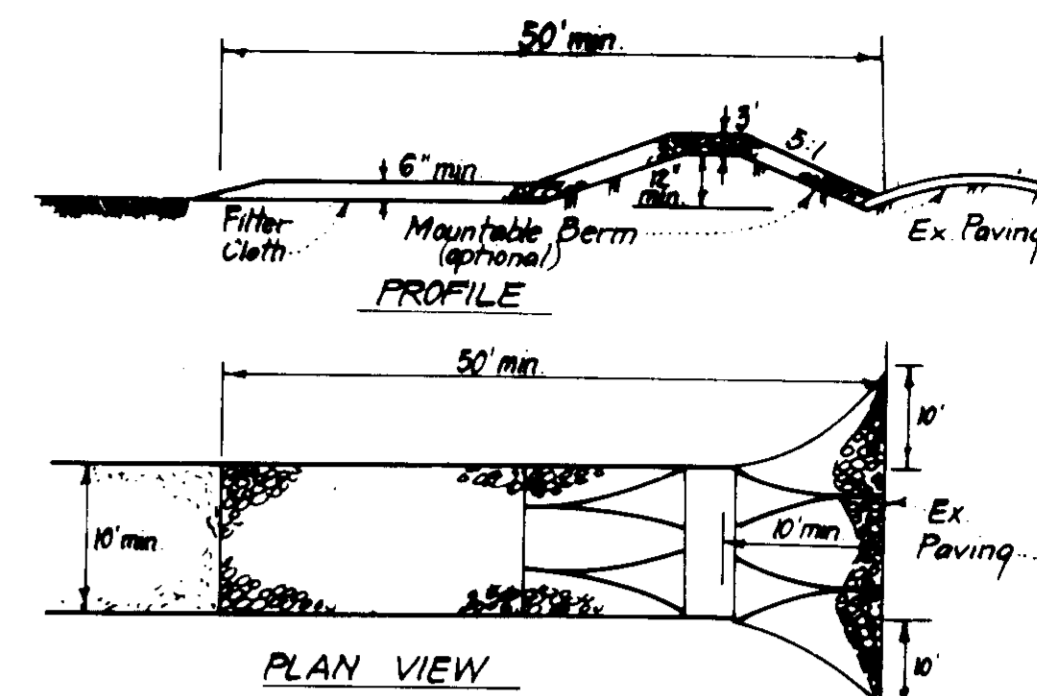


**CONSTRUCTION SPECIFICATIONS FOR ST-VI**

1. The 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 or 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. Maximum height of embankment shall be five (5) feet, measured at centerline of embankment.
3. All fill slopes shall be 2:1 or flatter; cut slopes 1:1 or flatter.
4. Elevation of the top of any dike directing water into trap must equal or exceed the height of embankment.
5. Storage area provided shall be figured by computing the volume available behind the outlet channel up to an elevation of one (1) foot below the level weir crest.
6. Filter cloth shall be placed over the bottom and sides of the outlet channel prior to placement of stone. Sections of fabric must overlap at least one (1) foot with section nearest the entrance placed on top. Fabric shall be embedded at least six (6) inches into existing ground at entrance of outlet channel.
7. Stone used in the outlet channel shall be four (4) to eight (8) inches (rip-rap). To provide a filtering effect, a layer of filter cloth shall be embedded one (1) foot back into the upstream face of the outlet stone or a one (1) foot thick layer of two (2) inch or finer aggregate shall be placed on the upstream face of the outlet.
8. 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. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
9. The structure shall be inspected after each rain and repaired as needed.
10. Construction operations shall be carried out in such a manner that erosion and water pollution are minimized.
11. The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.
12. Drainage area for this practice is limited to 15 acres or less.

**RIPRAP OUTLET SEDIMENT TRAP (RST)**

NO SCALE



**CONSTRUCTION SPECIFICATIONS:**

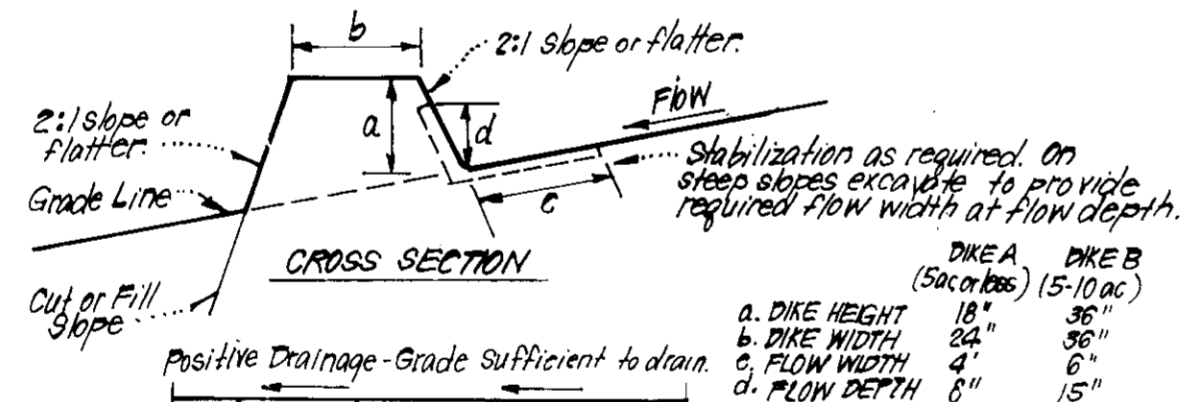
1. Stone size - Use 2" stone, or reclaimed or recycled concrete equivalent.
2. Length - As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
3. Thickness - Not less than six (6) inches.
4. Width - Ten (10) foot minimum, but not less than the full width of 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 cleanup 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

**Construction Sequence**

- |   | No. of Days |
|---|-------------|
| A. Obtain grading permit and refurbish existing controls as necessary.  | 7           |
| B. Excavate for foundations and temporarily stabilize.  | 30          |
| C. Construct structures and sidewalks.  | 120         |
| D. Final grade and stabilize in accordance with Stds. and Specs.  | 30          |
| E. Flush storm drain and upon approval of the sediment control inspector, remove sediment and erosion controls and stabilize. | 10          |



**CONSTRUCTION SPECIFICATIONS:**

1. All dikes shall be compacted by earth-moving equipment.
2. All dikes shall have positive drainage to an approved 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**

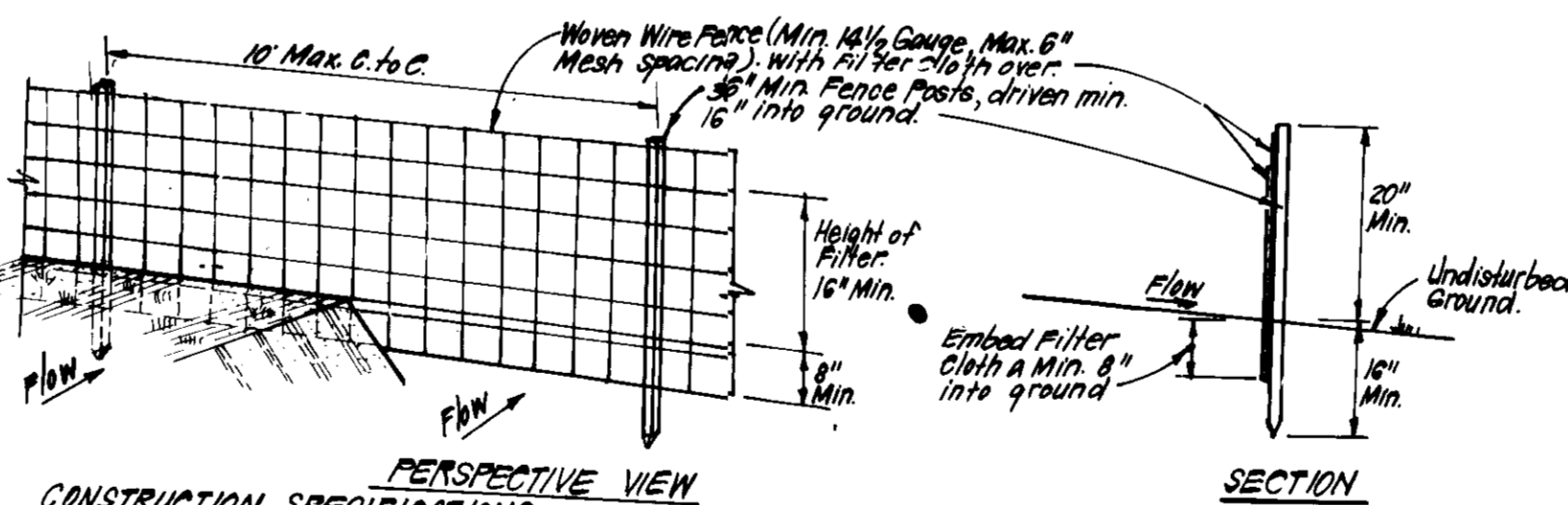
TREATMENT	CHANNEL	DIKE A	DIKE B
1	0.5 - 3.0% Seed & Straw Mulch	Seed or Straw Mulch	Seed or Straw Mulch
2	3.1 - 5.0% Seed & Straw Mulch	Seed w/white or Excelster's Sod	2" Stone
3	5.1 - 8.0% Seed w/white or Sod; 2" Stone	Lined Rip Rap 4"-8" stone	
4	8.1 - 20.0% Lined Rip Rap 4"-8" Stone	Engineering Design	

- A. Stone to be 2" Stone, or recycled concrete equivalent, 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 it has performed its function or developed in Silt Fence.

**SILT FENCE DETAIL (S)**

NO SCALE

Reviewed for Howard County, S.C.D. and meets Technical Requirements. Date: 1-31-90. Signature: [Signature]. U.S. Soil Conservation Service.

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

John Robertson, Approved, 1/31/90.

**DEVELOPER'S/PLUMBER'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 reasonable 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 the need may arise."

Maurice M. Simons, Signature of Developer/Builder, 10-23-89, Date.

1-3-90 LKS

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT. [Signature], 1-11-90, DATE.

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING. [Signature], 3-7-90, DATE.

APPROVED: [Signature], 2-7-90, DATE.

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS. [Signature], 2-7-90, 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.

G. Nelson Clark, 10-23-89, Date.



CLARK • FINEFROCK & SACKETT, INC. ENGINEERS • PLANNERS • SURVEYORS. 7135 MINSTREL WAY • COLUMBIA MD 21045 • (301) 381-7500 - BALTO • (301) 621-8100 - WASH.

DESIGNED: KIWM, SCALE: 1" = 30'

DRAWN: BAK, DRAWING: 3 of 4

CHECKED: KIWM, JOB NO: 88-090

DATE: October 1989, FILE NO: 88-090BE

PROJECT: VILLAGE OF LONG REACH, SECTION 3, AREA 2, A RESUBDIVISION OF PARCEL B, 614 ELECTION DISTRICT, HOWARD COUNTY, MARYLAND. For The Ryland Group (Columbia Division), 7130 Minstrel Way, Suite 215, Columbia, Md 21045.



