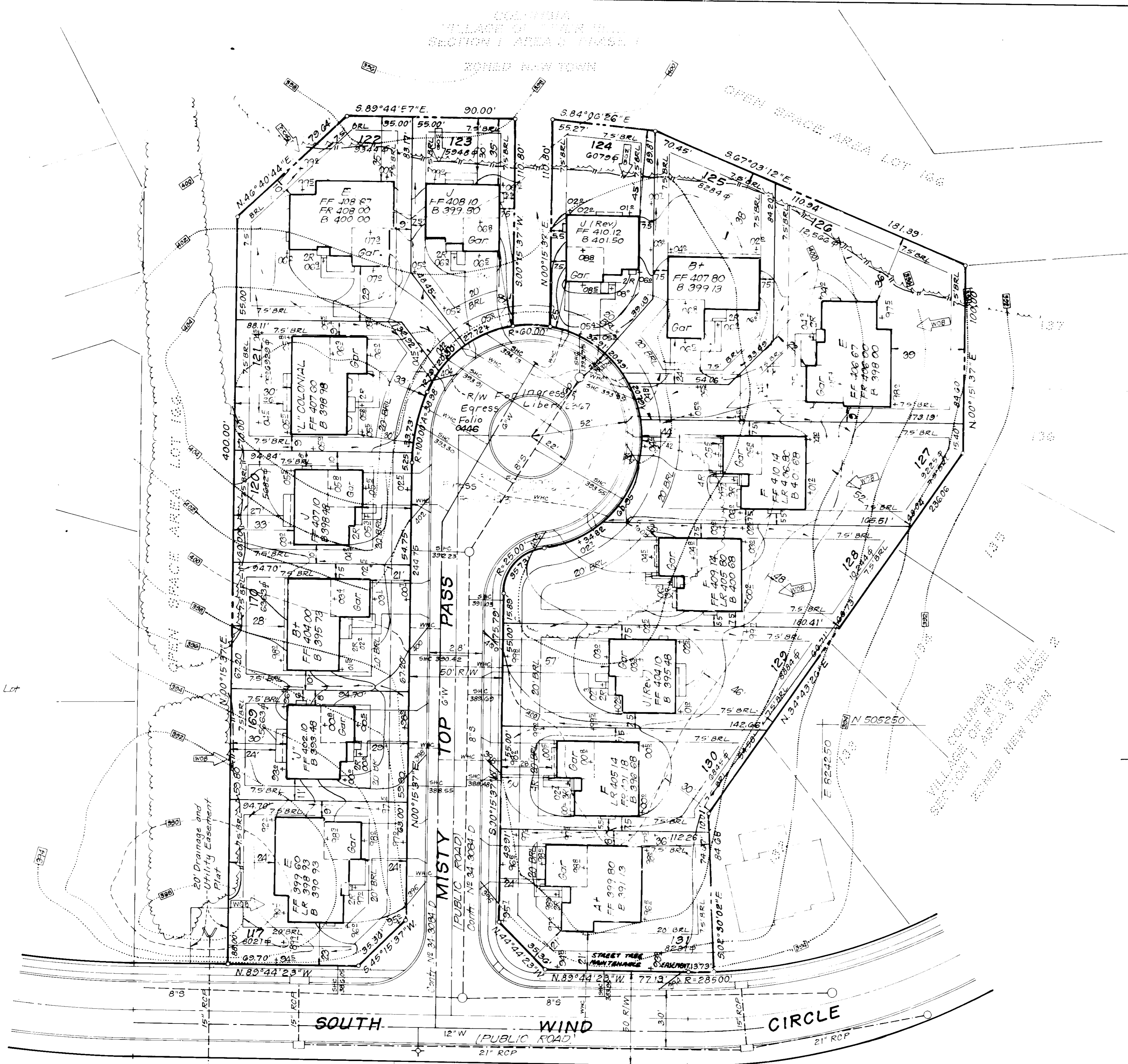


TYPICAL HOUSES
Scale: 1"=30'
NOTE: All units have 1" roof eaves front & rear.



LEGEND

- Contour Interval: 2 Ft
- Existing Contour: -400-
- Proposed Contour: 400
- Spot Elevation: 98.5
- Direction of Drainage: (arrow)
- Ex Trees to be Saved: (circle)
- Tree Protection Fence: (line with 'X')
- Walk-out Basement: (arrow)

- GENERAL NOTES**
- Subject property zoned New Two-Family (SFLD) re 8/2/85.
 - The coordinates shown here are based upon Howard County Geomatics Control which is based upon the Maryland State Plane Zone 18 North System, Howard County, Maryland, NAD 83, Zone 18 North, UTM, Easting 18Q, Northing 18Q.
 - Total area included in this submission 2.716 AC.
 - This number is 15.
 - Any change to the owner's rights or you shall be notified in writing.
 - Reference plans S-90-27, PB Case 263, WP-90-133, P-91-03 and FDP Phase 210.
 - The Contractor or Developer shall contact the Construction Inspection Bureau Division 24 hrs in advance of commencement of work at 702-2630.
 - The existing topography shown was fielded by Clark, Finetrock and Sackett, Inc.
 - A 10' Wide Tree Maintenance Easement along all road frontages.
 - Improvements shown within the rights of way on this SDP are not to be used for construction. For construction, see approved plans Cont # 04-2084-D and F-91-91.
 - Stormwater regional facility provided under F-91-91.
 - For driveway, retaining details, see Howard County Design Details R-6.03 & R-6.05.

ADDRESS CHART

LOT No.	STREET ADDRESS
117	6401 Misty Top Pass
118	6405
119	6409
120	6413
121	6417
122	6421
123	6425
124	6429
125	6433
126	6437
127	6441
128	6445
129	6449
130	6453
131	6457

SUBDIVISION NAME	SECT./AREA	LOTS
VILLAGE OF RIVER HILL	1/3	17-131
PLAT No.	BLOCK No.	ZONE
0983	14	NT
TAX MAP No.	ELEC. DIST.	CENSUS TR.
35	5th	00581
WATER CODE	SEWER CODE	
104	GG0000	

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
HOWARD COUNTY HEALTH DEPARTMENT
DATE: 9-26-91

APPROVED HOWARD COUNTY DEPT. OF PLANNING & ZONING
DATE: 10/4/91

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
DATE: 9-22-91

REVISIONS

No.	Rev. desc. & grd. lot 124	Date
2	Rev. lot 119, eq. Pt. and lot N ^o s of old lots 118 & 119. Rev. Hse. and grd. 169	7-2-93
1		8-26-92

HOWARD RESEARCH AND DEVELOPMENT CORP.
1995 / 1996

CLARK • FINEFROCK & SACKETT, INC.
ENGINEERS • PLANNERS • SURVEYORS

SITE DEVELOPMENT PLAN
LOTS 117 THRU 131
COLUMBIA
VILLAGE OF RIVER HILL
SECTION 1 AREA 3 PHASE 2
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

FOR: GOODIER BUILDERS, INC., R.C.
5054 Dorsey Hall Drive, # 205
Ellicott City, Maryland 21043

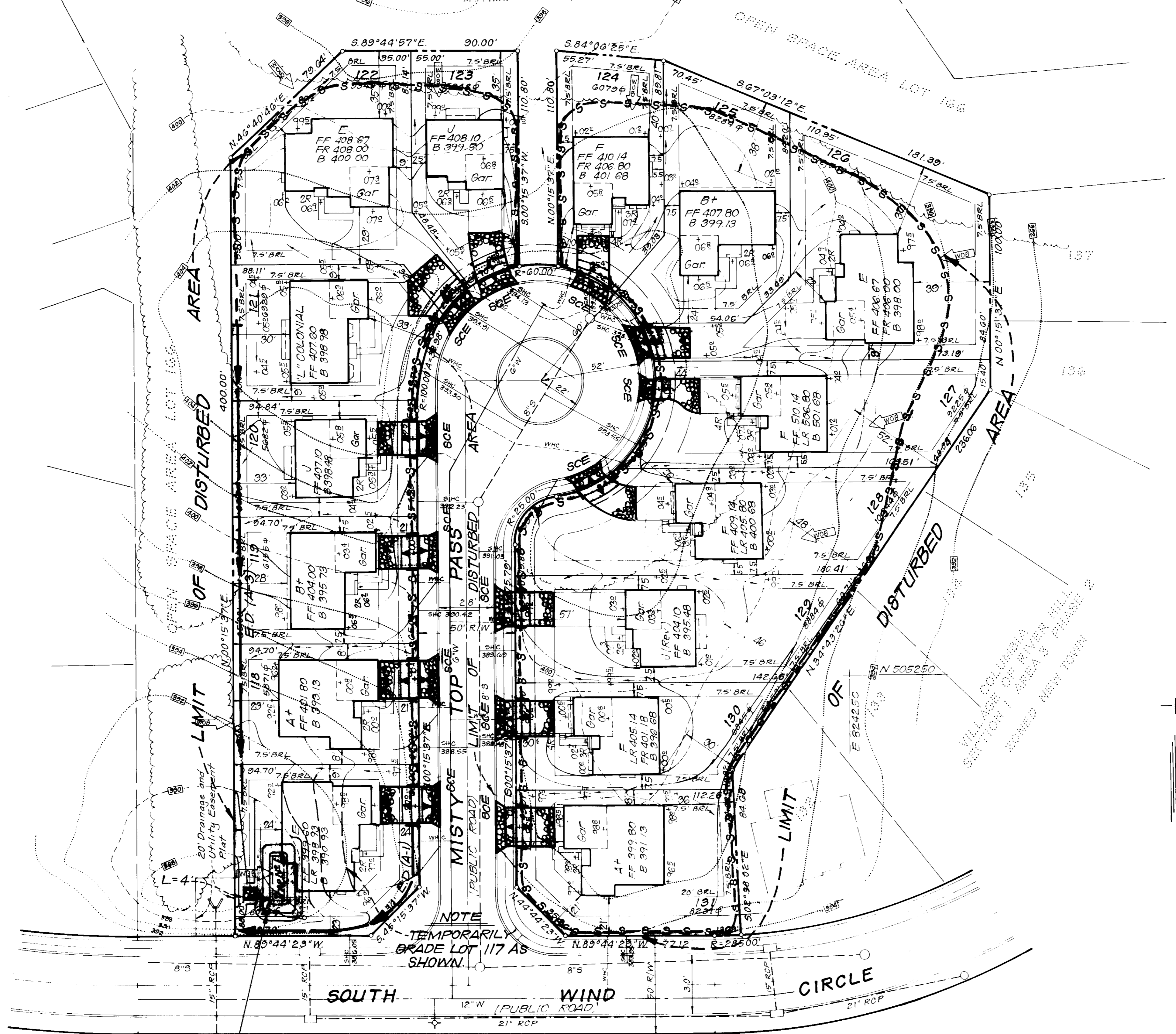
DESIGNED: VHL
DRAWN: LAI, BAL
CHECKED: JME
DATE: July, 1991

SCALE: 1"=30'
DRAWING: 10FS
JOB NO: 91-071
FILE NO: 91-071 X

SDP 92-08

COLUMBIA
VILLAGE OF RIVER HILL
SECTION 1 AREA 3 PHASE 1

ZONED NEW TOWN



LEGEND

- Contour Interval 2 Ft
- Existing Contour 400
- Proposed Contour 400
- Spot Elevation 98.5
- Direction of Drainage
- Ex Trees to be Saved
- Tree Protection Fence
- Walk-out Basement

VICINITY MAP
SCALE 1" = 200'

Reviewed for Howard S.C.D.
Name
Special Requirement
Date 9/9/91
Soil Conservation Service

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

John P. Hunter
Approved 9/9/91
Date

N 505250
E 823750

NOTE
TEMPORARILY GRADE LOT 117 AS SHOWN.

SOUTH WIND CIRCLE
12' W (PUBLIC ROAD)
21' ROP

HOWARD RESEARCH AND DEVELOPMENT CORP.
1838 / 198

ENGINEER 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
7-12-91
Date

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS HOWARD COUNTY HEALTH DEPARTMENT	<i>John P. Hunter</i> 7-26-91 DATE
APPROVED HOWARD COUNTY DEPT. OF PLANNING & ZONING	<i>John P. Hunter</i> 10/4/91 DATE
APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	<i>John P. Hunter</i> 9/24/91 DATE
CHIEF BUREAU OF ENGINEERING	9-23-91 DATE

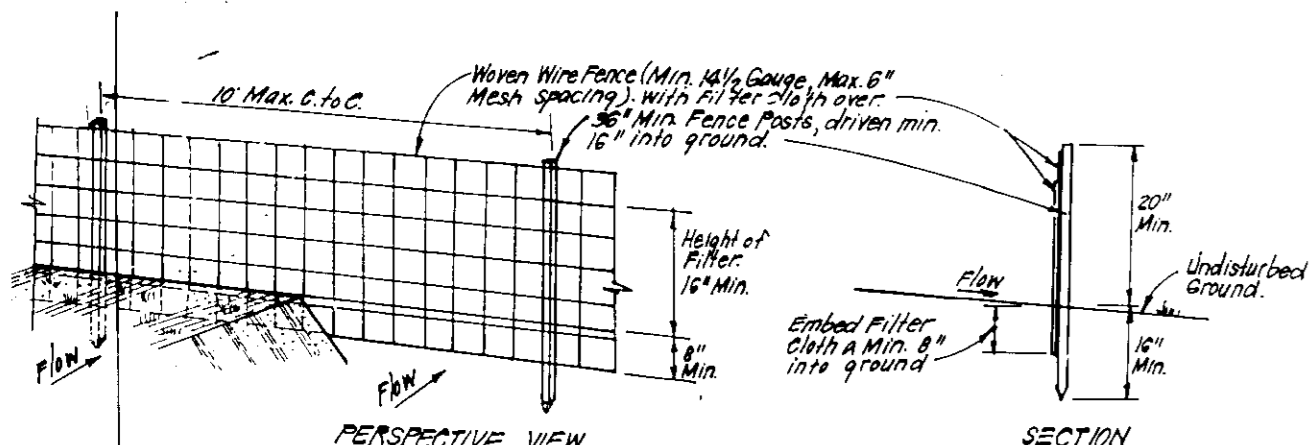
TRAP NO 1 S.O.G.T. ST III
Drainage Area 0.6 Ac
Storage Required 1080 CF
Storage Provided 1080 CF
Depth 3'
Top of Stone Crest 389.0
Bottom Elev. 385.0
Bottom Dimensions 24'x6'
Top of Embankment 390.0
2:1 Side Slopes

DEVELOPER'S CHILDREN'S CERTIFICATE
I hereby 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, if deemed necessary.

Robert Woodley
7-12-91
Date

CLARK • FINEROCK & SACKETT, INC. ENGINEERS • PLANNERS • SURVEYORS 7185 Minstreil Way • Columbia, Md. 21045 • (301) 381-7500 Baltimore • (301) 621-8100 Wash.	SCALE 1" = 30'
DESIGNED JLS DRAWN BAL CHECKED JLS DATE 9/24/91	SEDIMENT & EROSION CONTROL PLAN LOTS 117 THRU 131 COLUMBIA VILLAGE OF RIVER HILL SECTION 1 AREA 3 PHASE 2 ELECTION DISTRICT HOWARD COUNTY MARYLAND FOR GOODIER BUILDERS, INC., P.C. 4054 Dorsey Hall Drive, #205 Ellicott City, Maryland 21043
	DRAWING 2 OF 3 JOB NO 91-071 FILE NO 91-0710E

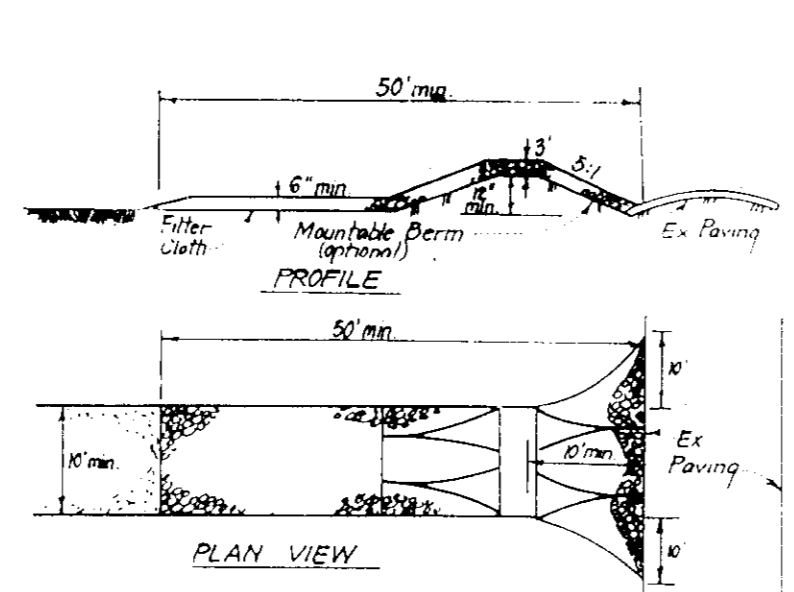
SDP-92-08



CONSTRUCTION SPECIFICATIONS:

- Woven wire fence to be fastened securely to fence posts with wire ties or staples.
- Filter cloth to be fastened to woven wire fence with wire staples every 36" at top and mid section.
- When 2 sections of filter cloth adjoin each other they shall be overlapped by 6" and stapled.
- Maintenance shall be performed as needed and material removed when "blowups" develop in silt fence.

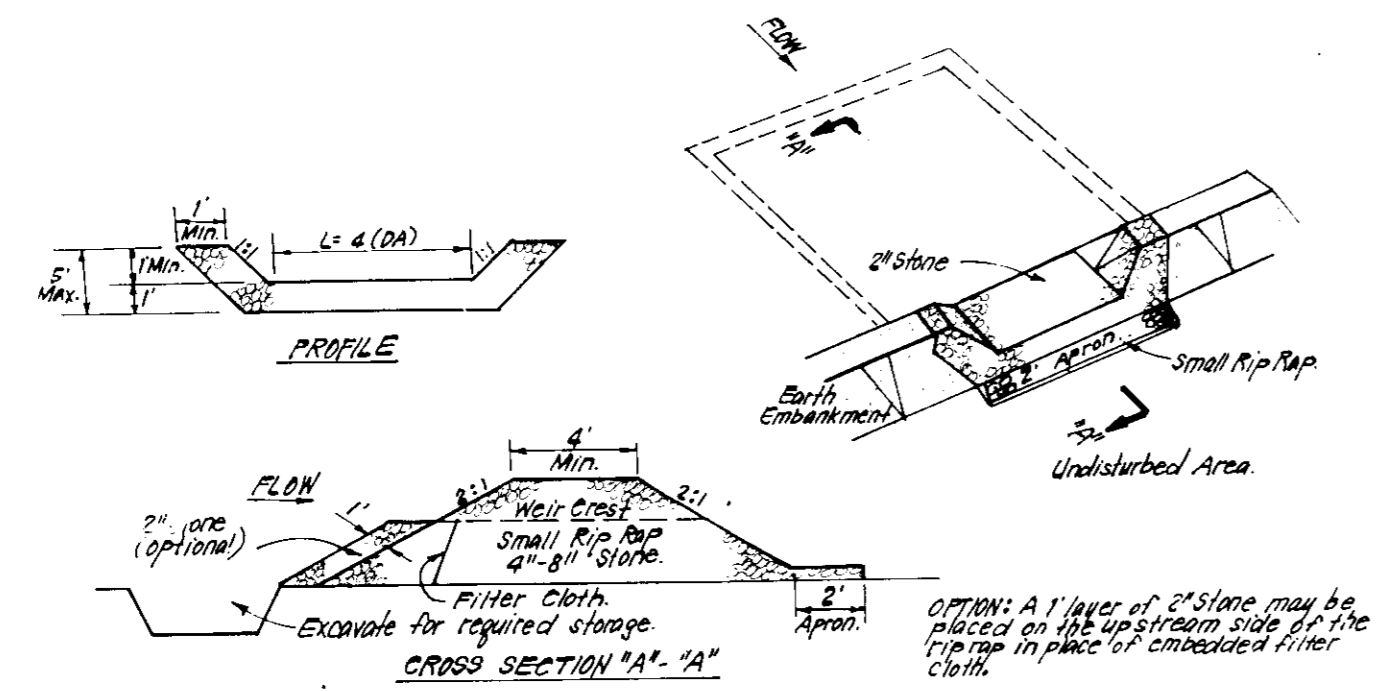
SILT FENCE DETAIL (S)
NO SCALE



CONSTRUCTION SPECIFICATIONS:

- Stone size - Use 2" stone or equivalent rounded concrete equivalent.
- Length - As required, but not less than 50 feet, except in a single residential lot where a 30 foot maximum length would apply.
- Thickness - Not less than six (6) inches.
- Width - Ten (10) feet minimum, but not less than the full width of 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 mound six (6) feet high with 3:1 slopes will be permitted.
- 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 material used to trap sediment. All sediment applied, disposed, washed or tracked onto public rights-of-way must be removed immediately.
- 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.
- Periodic inspection and needed maintenance shall be provided after each rain.

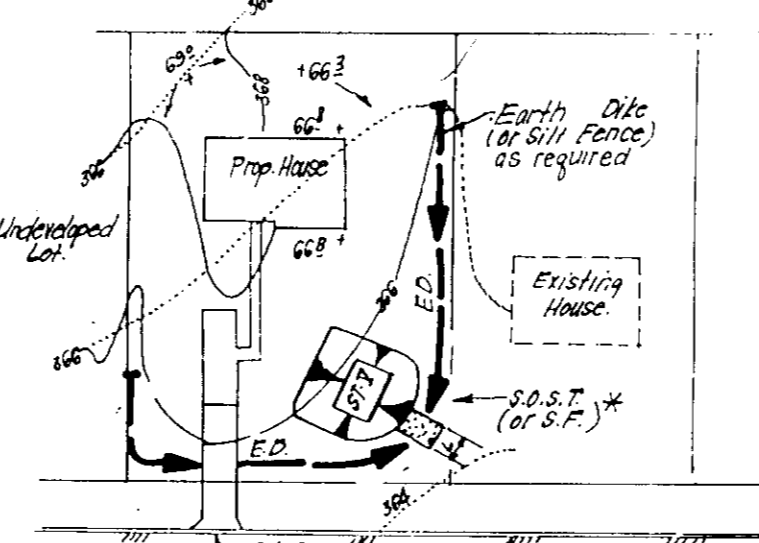
STABILIZED CONSTRUCTION ENTRANCE (SCE)
NO SCALE



CONSTRUCTION SPECIFICATIONS:

- Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The area shall be compacted.
- The fill material for the embankment shall be free of roots and other woody vegetation as well as stones, cinders, 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 embankment filter cloth in the rip rap.
- Sediment shall be removed and trap replaced in its original dimensions when the sediment has accumulated to 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.

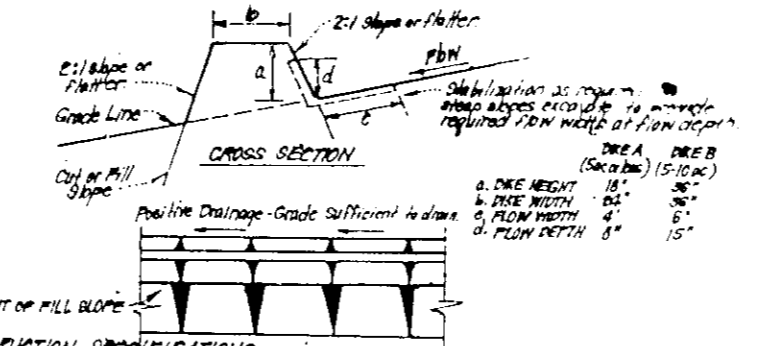
STONE OUTLET SEDIMENT TRAP (S.O.S.T.) STY.
NO SCALE



CONSTRUCTION SPECIFICATIONS:

- Stone size - Use 2" stone or equivalent rounded concrete equivalent.
- Length - As required, but not less than 50 feet, except in a single residential lot where a 30 foot maximum length would apply.
- Thickness - Not less than six (6) inches.
- Width - Ten (10) feet minimum, but not less than the full width of 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 mound six (6) feet high with 3:1 slopes will be permitted.
- 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 material used to trap sediment. All sediment applied, disposed, washed or tracked onto public rights-of-way must be removed immediately.
- 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.
- Periodic inspection and needed maintenance shall be provided after each rain.

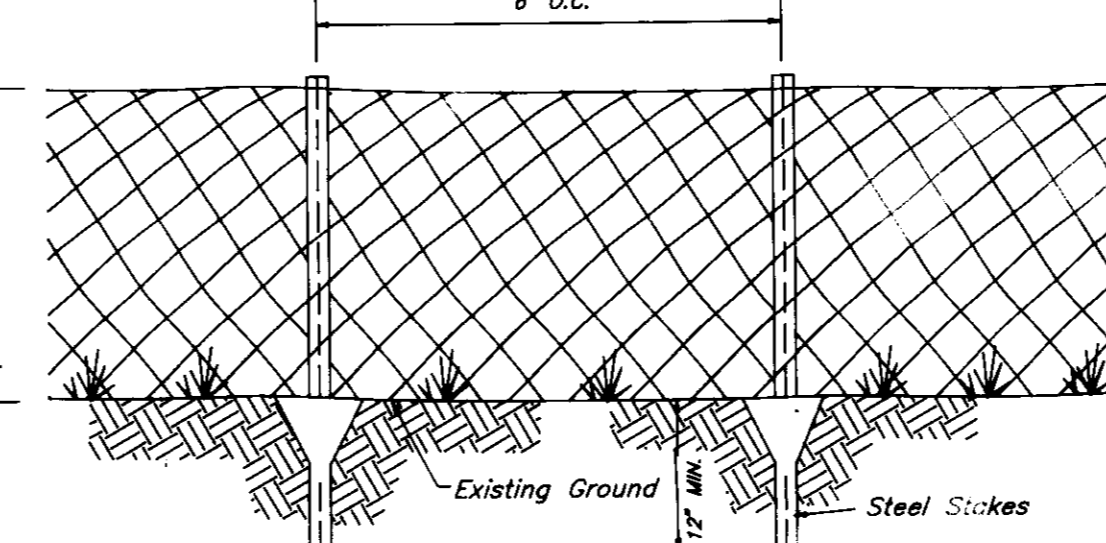
SINGLE LOT SEDIMENT CONTROL PLAN
NO SCALE



CONSTRUCTION SPECIFICATIONS:

- All filter cloth shall be supported by earth moving equipment.
- All filter cloth shall have adequate clearance to run under.
- The stone may be wider and soft stones may be 25% if desired, to facilitate cleaning by water action.
- Filter cloth shall be supported by a concrete or masonry curb.
- Stone shall be placed in a layer at least 2" thick.
- Stone shall be placed in a layer at least 2" thick.
- Stone shall be placed in a layer at least 2" thick.
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- Stone shall be placed in a layer at least 2" thick.

EARTH DIKE DETAIL (E.D.)
NO SCALE



TYPICAL TREE PROTECTION FENCE DETAIL
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.

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

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 500 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 urea-form 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 (21 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 (.03 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 reseedings.

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redistributed 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, 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 25 bushel per acre of annual ryegrass (3.2 lbs/1000 sq ft). For the period May 1 thru August 15, 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.

CONSTRUCTION SEQUENCE

Activity	No. of Days
1. Obtain grading permit	7
2. Install sediment & erosion control measures	7
3. Rough grade site and excavate for foundations	30
4. Construct houses, driveways and walks. Delay construction of house on lot 117 until permission to remove trap no. 1 is granted by the sediment control inspector.	180
5. Stabilize all disturbed areas on site in accordance with standards and specs.	30
6. Upon approval of the sediment control inspector remove sediment and erosion control measures and stabilize. Construct house on lot 117.	30

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 redistribution, 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	2716 Acres
Area Disturbed	2442 Acres
Area to be roofed or paved	903 Acres
Area to be vegetatively stabilized	1539 Acres
Total Cut	3014 Cu. yds
Total Fill	3046 Cu. yds
Offsite waste/borrow area location	see note below
- 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 DFW 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-Sold" 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 1590 L.F.

* It is the responsibility of the contractor to identify the appropriate borrow sites and notify HCO of the site and its grading permit no. at the time of construction.

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
 COUNTY HEALTH OFFICER: [Signature] DATE: 9-26-91

APPROVED HOWARD COUNTY DEPT. OF PLANNING & ZONING
 DIRECTOR: [Signature] DATE: 10/14/91
 CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT: [Signature] DATE: 10/13/91

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 DIRECTOR: [Signature] DATE: 9-24-91
 CHIEF BUREAU OF ENGINEERING: [Signature] DATE: 9-23-91

Reviewed for HOWARD COUNTY S.C.D. and meets Technical Requirements
 U.S. Soil Conservation Service
 [Signature] DATE: 9/19/91

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY CONSERVATION DISTRICT.
 [Signature] DATE: 9/19/91
 Approved

DEVELOPER'S/BUILDER'S CERTIFICATE

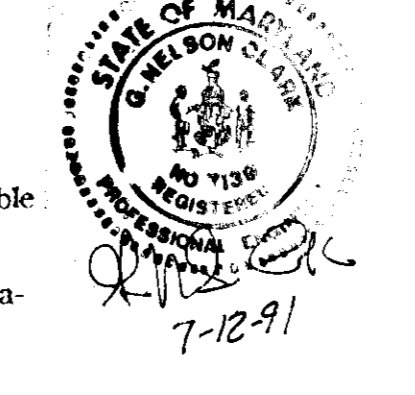
"I/We certify that all development and construction will be done according to this plan of development and erosion and sediment control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program 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] DATE: 7-12-91

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] DATE: 7-12-91



CLARK • FINEROCK & SACKETT, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 7135 MINSTREL WAY • COLUMBIA MD 21045 • (301) 381-7300 • BALTO • (301) 627-8800 • WASH

DESIGNED JLS
DRAWN BAL
CHECKED JLS
DATE July 1991

SCALE 1" = 30'
DRAWING 30F3
JOB NO 91-071
FILE NO 91-07168

DETAIL SHEET
 LOTS 117 THRU 131
 COLUMBIA
 VILLAGE OF RIVER HILL
 SECTION 1 AREA 3 PHASE 2
 5th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 FOR: GOODIER BUILDERS, INC., R.C.
 5054 Dorsay Hall Drive, # 205
 Ellicott City, Maryland 21043

SDP-92-08