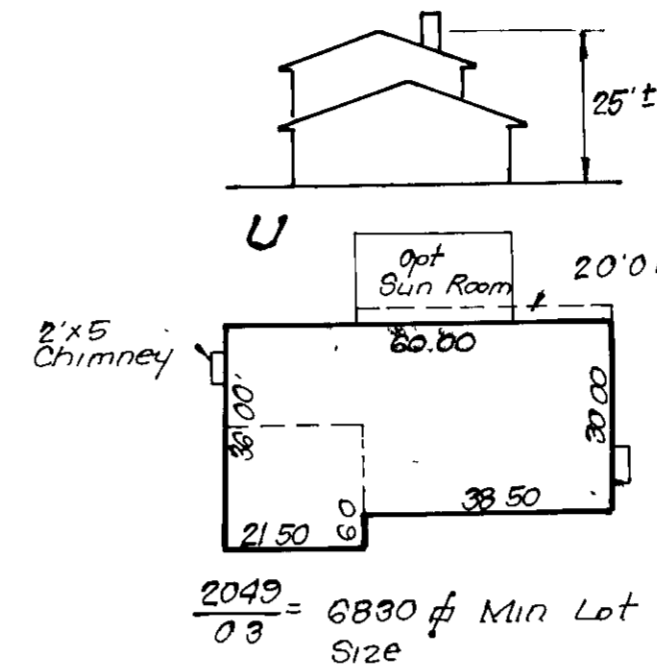
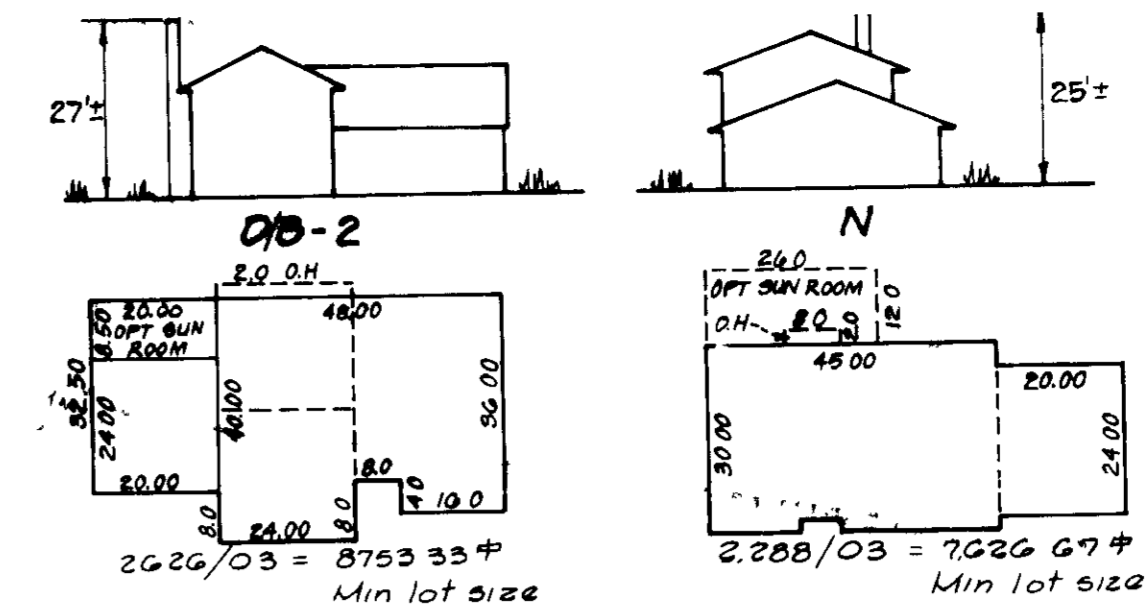


**GENERAL NOTES**

- 1 Subject property is zoned NT per Comprehensive Zoning Plan Dated 8/2/85
- 2 The coordinates shown hereon are based on the Maryland State Grid System and derived from the following Howard County Control Stations 2544002 and 2544008
- 3 All roads are public and existing
- 4 Any damage to county owned right-of-ways to be corrected at the Developer's expense
- 5 Total area included 5.53
- 6 Total number of lots 24
- 7 Reference Final Development Plan Section 2 Phase 136 Planning & Zoning File reference numbers: F 55-76 F 55-205
- 8 Maximum lot coverage is 30%
- 9 The contractor or developer shall contact the Construction Inspection Survey Division, 24 hours in advance of commencement of work at 792-2630
- 10 Existing topography taken from already approved road construction plans prepared by Fisher, Collins and Carter, Inc. F 55-76

**SPECIAL NOTES**

- 1 Approved Road Construction Plans shall be used for all public utilities
- 2 The water and sewer house connections not included in Developer's Agreement shall conform to Howard County Plumbing Code The on-site work shall be 1" copper and the s/c shall be 4" iron
- 3 Stormwater Management provided in The Village of Longreach F 55-76
- 4 Public water and sewer shown for reference only For more detailed information see water and sewer plans Contract No. 24-1664-D



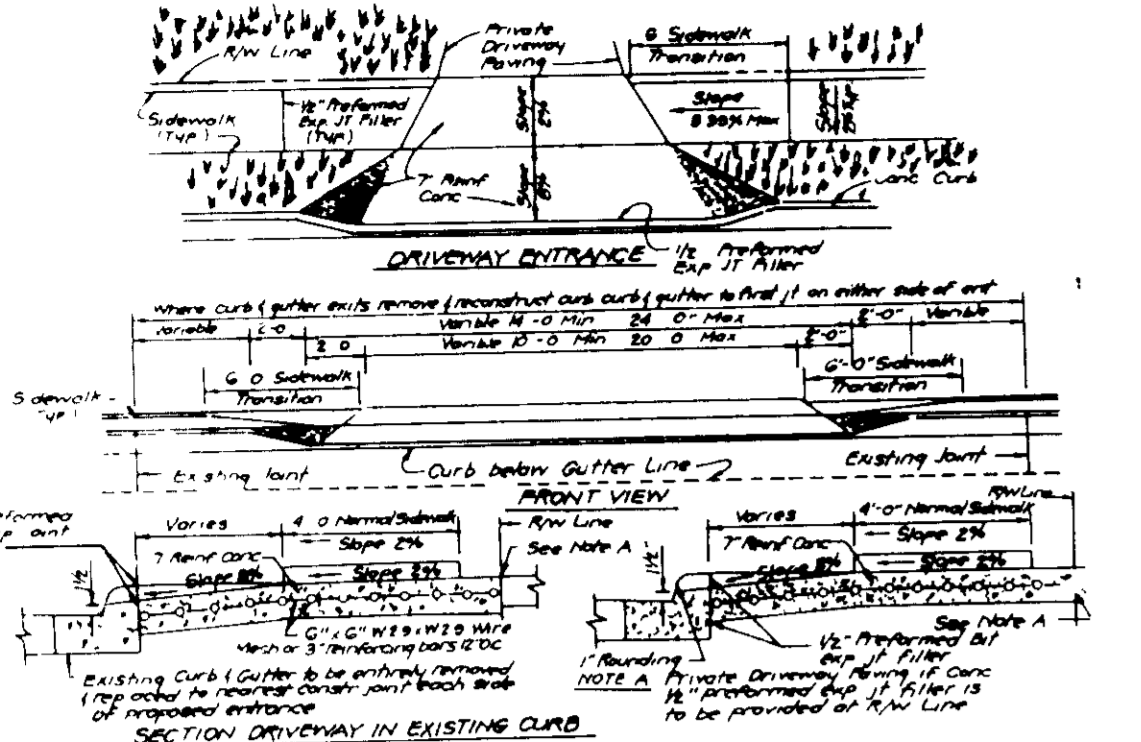
**TYPICAL HOUSES**  
SCALE 1"=30'

**VICINITY MAP**  
Scale 1"=1200'

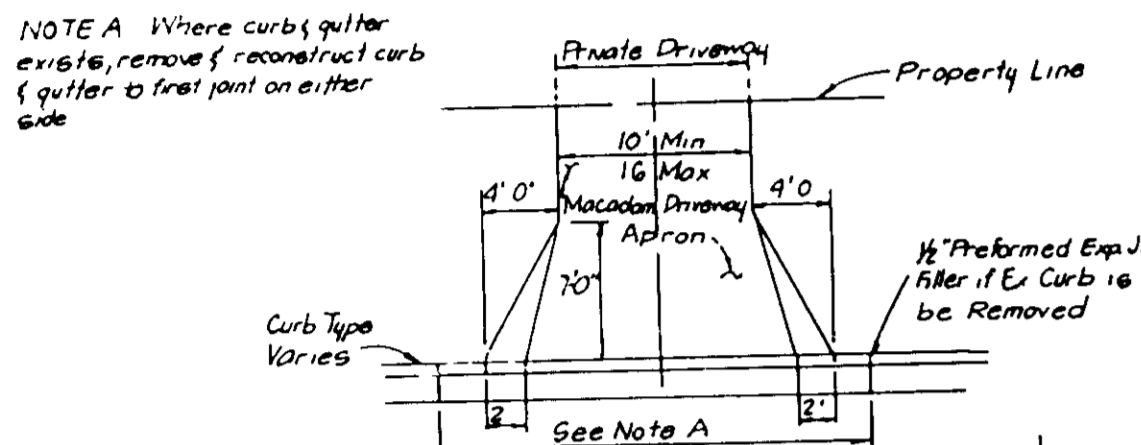
**LEGEND**

- Contour Interval 2 FT
- Existing Contour 20
- Proposed Contour +20±
- Spot Elevation
- Direction of Drainage
- Walk out Basement
- Trees to be Saved
- Existing Trees

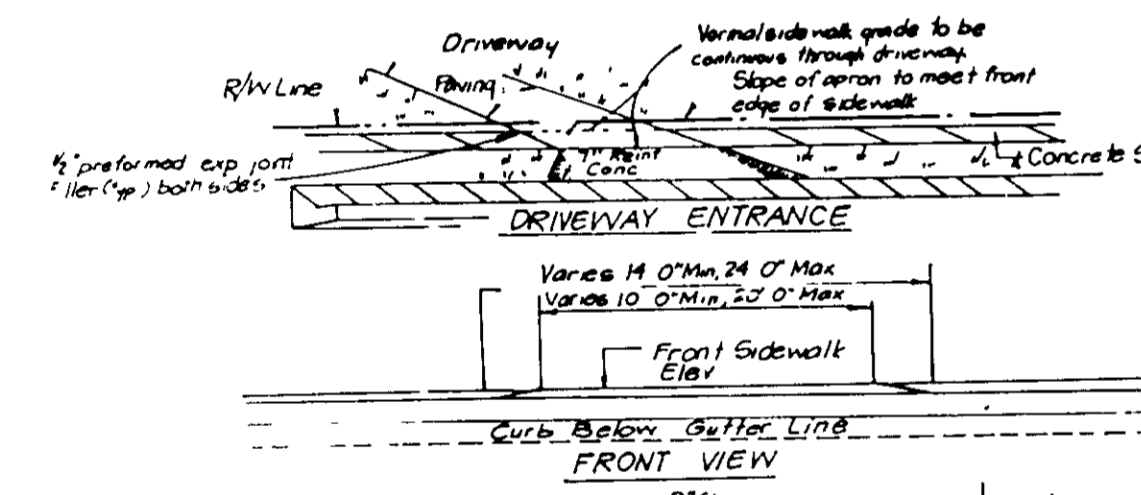
No	REVISIONS	Date
1	Rev hse and grd lot 148 & 181	7/5/91



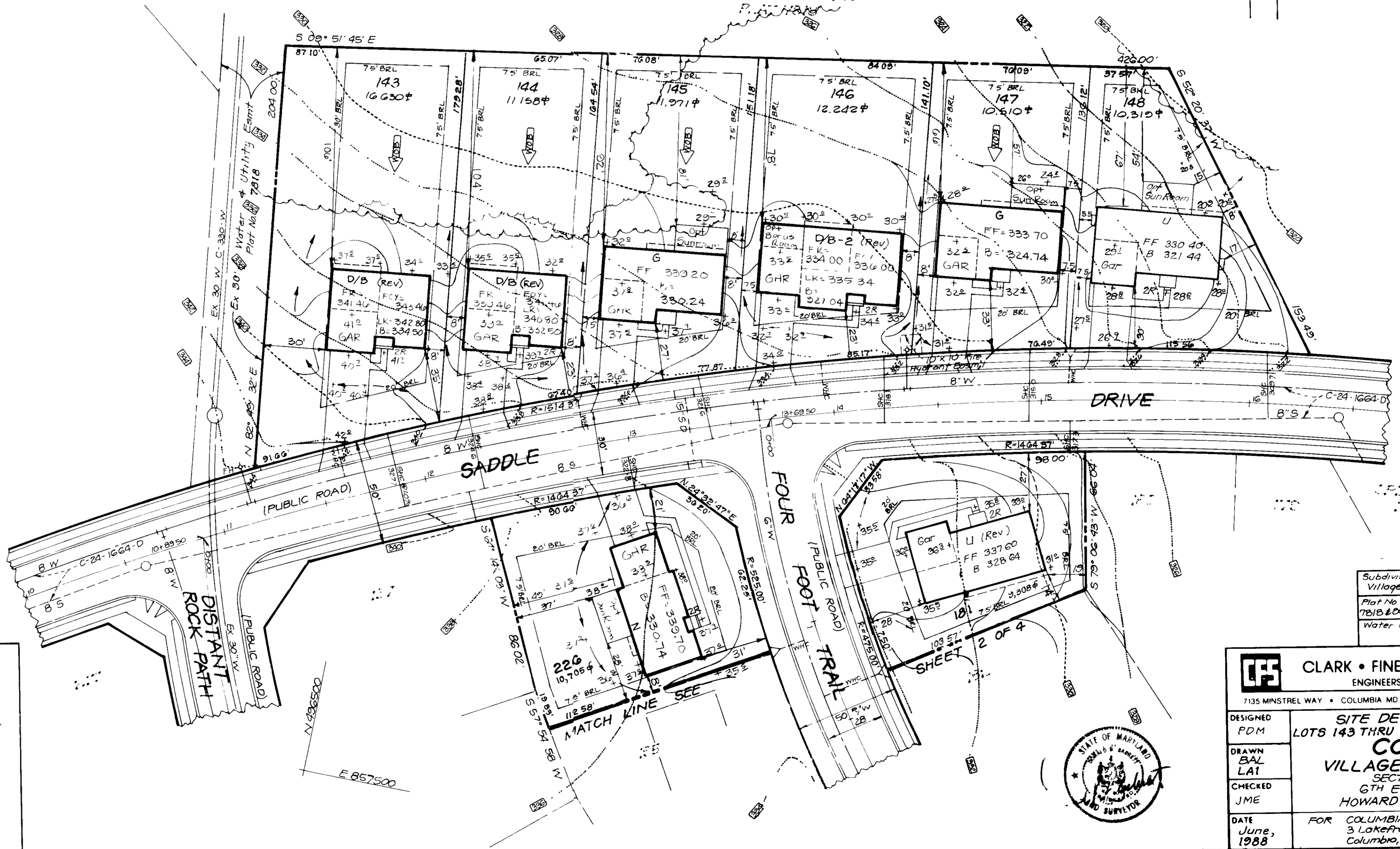
**DRIVEWAY ABUTTING CLOSED SECTION WITH STD 7" COMB CURB & GUTTER & SIDEWALK SET BACK FROM CURB**



**DRIVEWAY ABUTTING CLOSED SECTION WITHOUT CONCRETE SIDEWALK**



**DRIVEWAY ABUTTING CLOSED SECTION WITH MODIFIED COMB CURB & GUTTER & SIDEWALK**



**APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS**  
HOWARD COUNTY HEALTH DEPARTMENT  
DATE: 10/24/88

**APPROVED FOR PLANNING & ZONING**  
HOWARD COUNTY OFFICE OF PLANNING & ZONING  
DATE: 11-7-88

**APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS**  
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
DATE: 11-22-88

**DIRECTOR**  
DATE: 12-30-88

Subdivision Name	COLUMBIA	Section/Block	2/2	Lots	175-181
Village of Longreach					143-148, 226-227
Plot No	7B/B-0029	Block No	14	Zone	WTRFMD
Water Code	E-08	Sever Code	3490000	File No	6065 02

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

**DESIGNED PDM**  
**DRAWN BAL**  
**CHECKED JME**  
**DATE June, 1988**

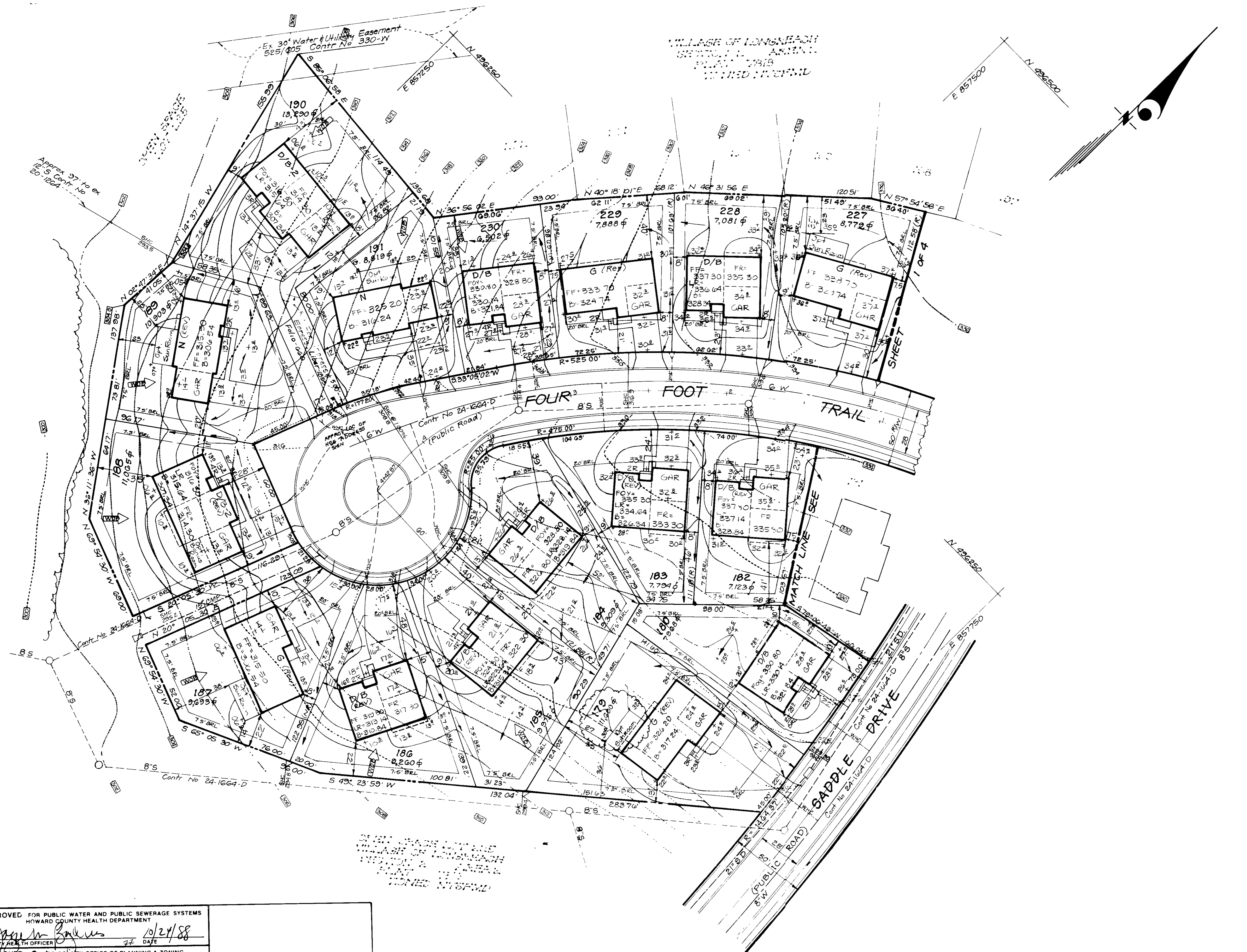
**SITE DEVELOPMENT PLAN**  
LOTS 143 THRU 148, 179 THRU 191 & 226 THRU 230  
**COLUMBIA**  
VILLAGE OF LONGREACH  
SECTION 2 AREA 2  
6TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

**SCALE 1"=30'**  
**DRAWING 1 OF 4**  
**JOB NO 87-155**  
**FILE NO 87-155-X**

FOR COLUMBIA BUILDERS, INC  
3 Lakefront North, Suite 200  
Columbia, Maryland 21044

ADDRESS CHART	
LOT No	STREET ADDRESS
143	6363 Saddle Drive
144	6367
145	6371
146	6375
147	6379
148	6383
181	6401 Four Foot Trail
182	6405
183	6409
184	6413
185	6417
186	6421
187	6425
188	6429
189	6433
190	6437
191	6441
226	6364
227	6404
228	6408
229	6412
230	6416
179	6382 Saddle Drive
180	6376

VILLAGE OF LONGREACH  
SECTION 2 AREA 2  
6TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND



APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS  
HOWARD COUNTY HEALTH DEPARTMENT  
COUNTY HEALTH OFFICER: *[Signature]* DATE: 10/24/88

APPROVED HOWARD COUNTY OFFICE OF PLANNING & ZONING  
PLANNING DIRECTOR: *[Signature]* DATE: 11.7.88  
CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT: *[Signature]* DATE: 12-29-88

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE  
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS  
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
DIRECTOR: *[Signature]* DATE: 02.18.88  
CHIEF BUREAU OF ENGINEERING: *[Signature]* DATE: 10-20-88

7-26-88  
LWS

**CLARK • FINEFROCK & SACKETT INC**  
ENGINEERS • PLANNERS • SURVEYORS

DESIGNED PDM  
DRAWN BAL  
CHECKED JME  
DATE June, 1988

SITE DEVELOPMENT PLAN  
LOTS 143 THRU 148, 179 THRU 191 & 226 THRU 230  
**COLUMBIA**  
VILLAGE OF LONGREACH  
SECTION 2 AREA 2  
6TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

FOR COLUMBIA BUILDERS, INC  
3 Lakefront North, Suite 200  
Columbia Maryland 21044

SCALE: 1" = 30'  
DRAWING: 2 OF 4  
JOB NO: 87-155  
FILE NO: 87-155X



**PERMANENT SEEDING NOTES**

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent non-living 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 sq 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 50 lbs per acre (1 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 (0.05 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 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 anchoring tool or 218 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 368 gal per acre (8 gal/1000 sq ft) for anchoring.

**Inspection** - 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

**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 August 1 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 15, seed with 3 lbs per acre of weeping lovegrass (0.07 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 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 368 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

- LEGEND**
- Contour Interval 2 Ft
  - Ex Contour
  - Prop Contour
  - Spot Elevation
  - Direction of Drainage
  - Walk-Out Basement
  - Straw Bale Dike/Silt Fence
  - Earth Dike
  - Stabilized Construction Entrance
- SEEDING NOTES**
- 1) A minimum of 24 hour notice must be given to the Howard County Office of Planning & Zoning prior to the start of any construction. (9-22-77)
  - 2) All soil test and treatment practices are to be in accordance with the provisions of this plan and the Howard County Office of Planning & Zoning. (9-22-77)
  - 3) Following initial soil disturbance or disturbance permanent or temporary stabilization shall be completed within 7 calendar days for all permanent sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, by 14 days as to all other disturbed or graded areas on the project site.
  - 4) All sediment traps/basins shown must be fenced and wiring sign-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 seeding (Sec. 50) and temporary seeding (Sec. 51), temporary seeding (Sec. 50) and mulching (Sec. 52). Temporary stabilization with mulch is also to be done when recommended seeding rates 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 operating condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
  - 7) Site Analysis:
 

Total Area of Site	552 Ac.
Total Disturbed Area	478 Ac.
Total Area to be Seeded or Paved	137 Ac.
Total Area to be Stabilized	341 Ac.
Total Cut	3680 Cu. Yd.
Total Fill	8795 Cu. Yd.
Ratio to existing/arrow area	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 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 a "No-Silt" basis, at a minimum, Single Lot Sediment Control as shown below shall be implemented.
  - 12) All pipes to be blocked at the end of each day (see detail below).
  - 13) The total amount of straw bale dikes/silt fence equals 1800 L.F.

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

*[Signature]* 10/27/88

**APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING**

*[Signature]* 11-2-88

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

*[Signature]* 10/27/88

*[Signature]* 10-20-88

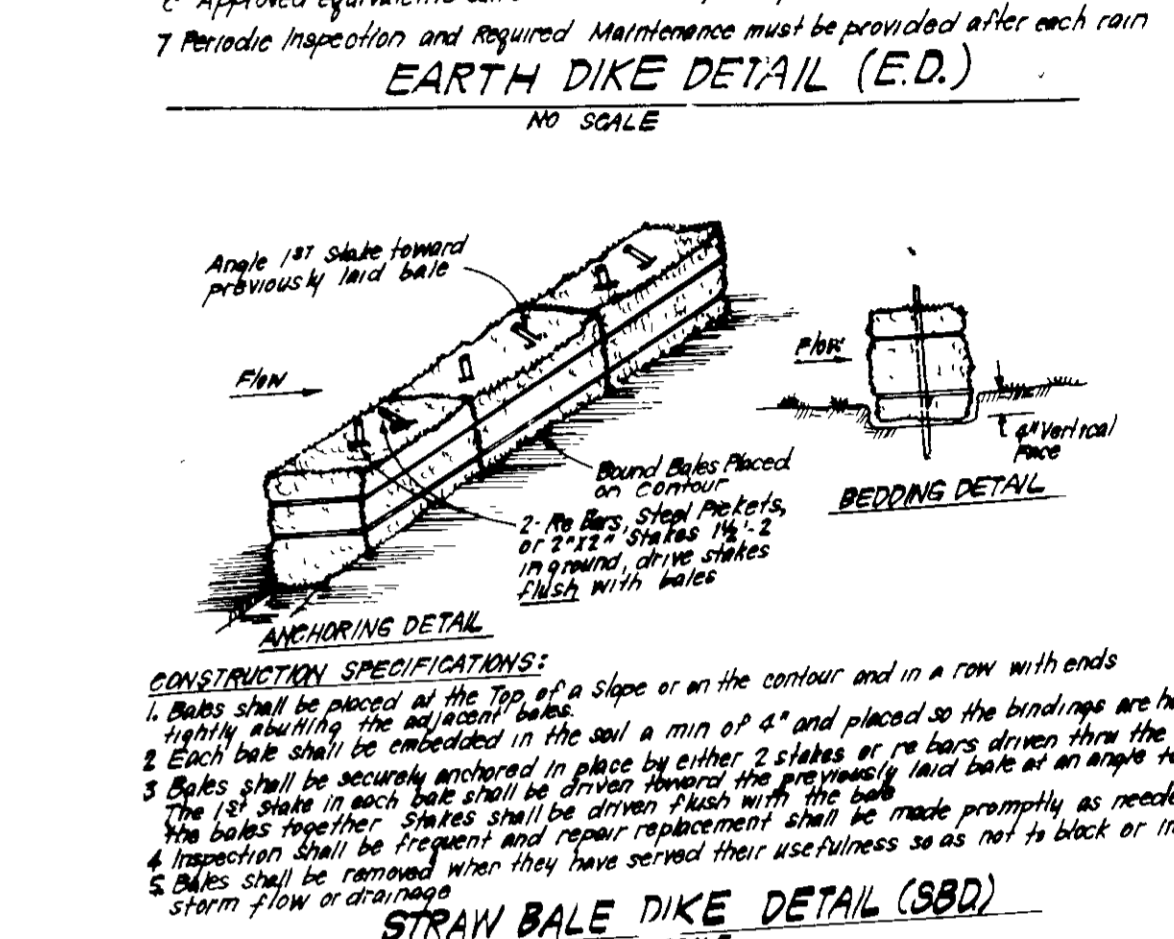
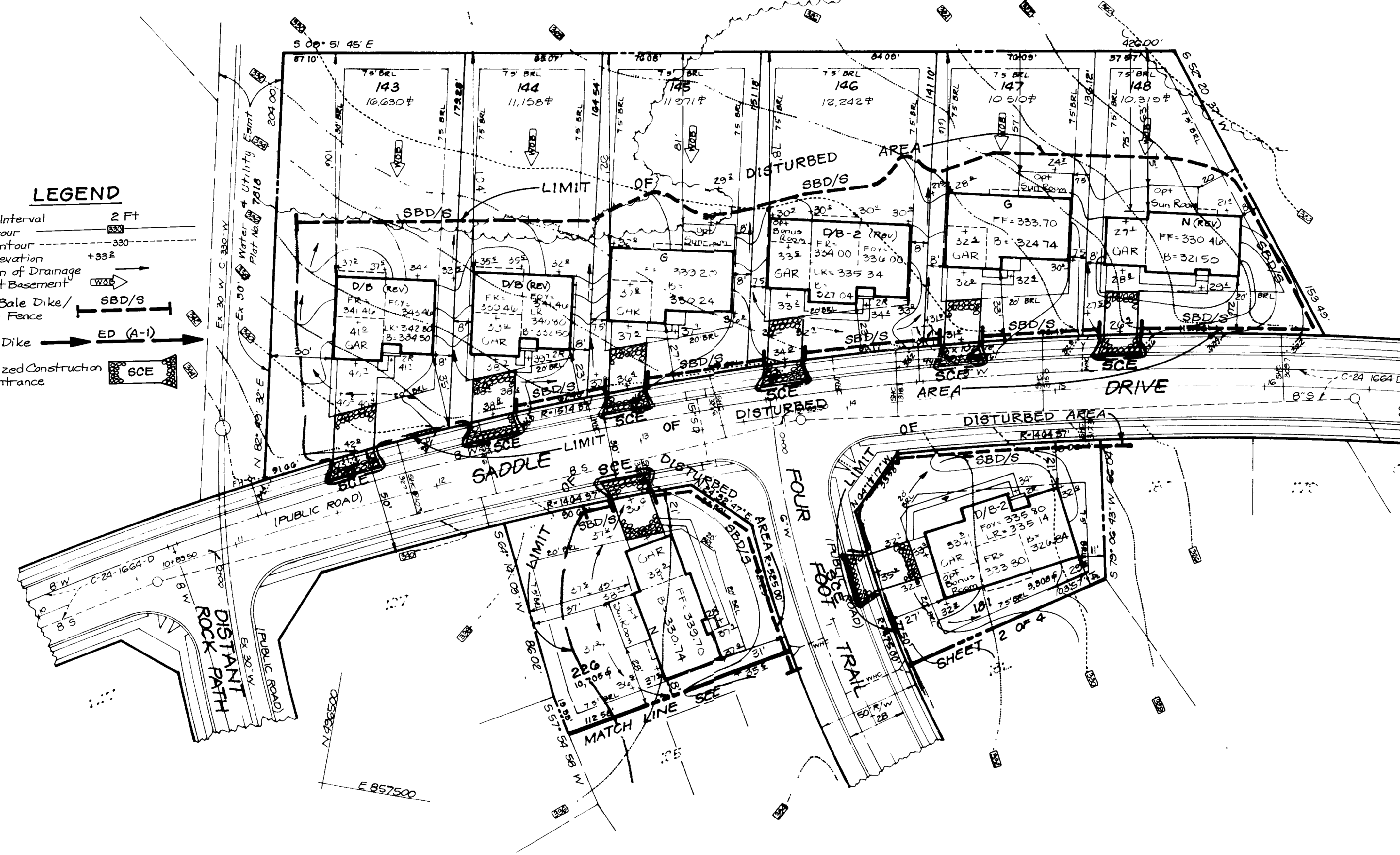
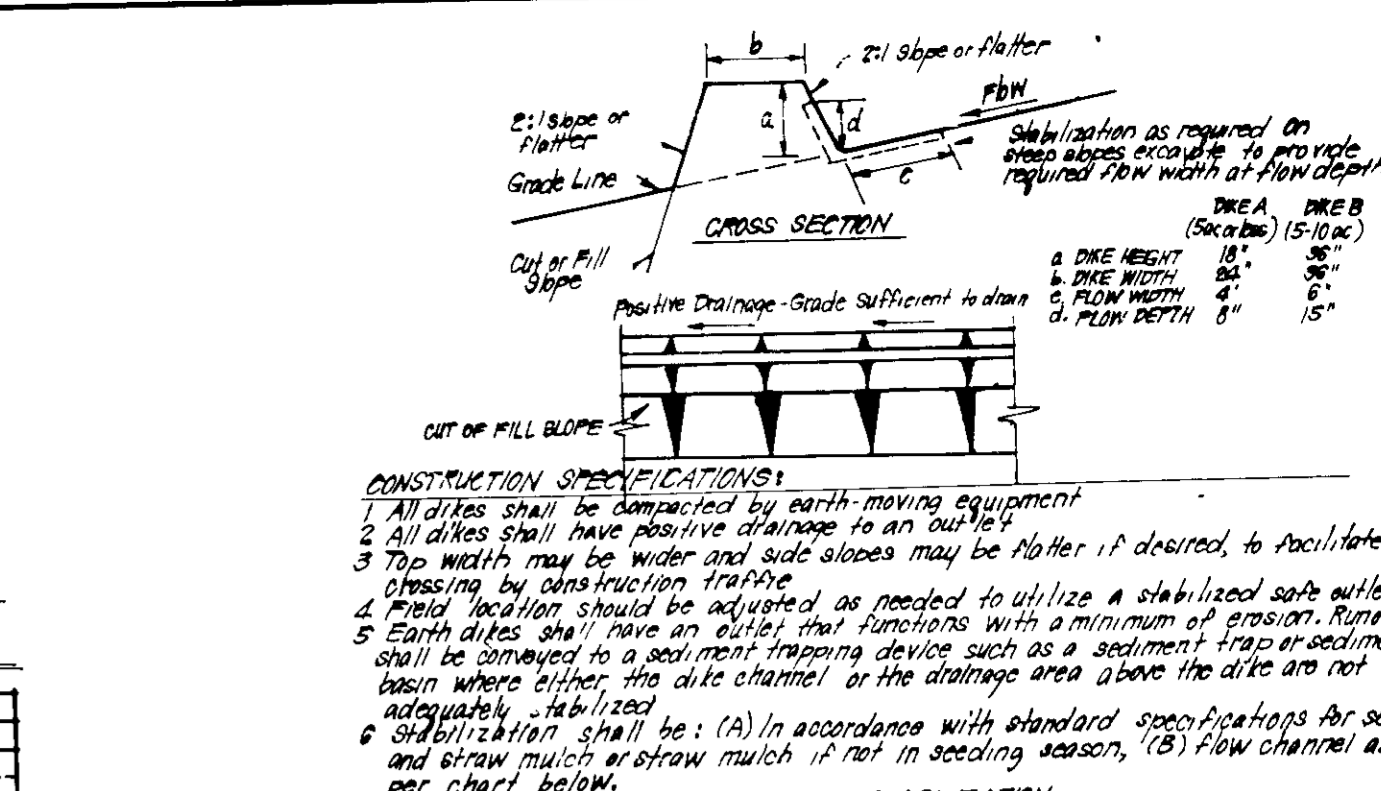
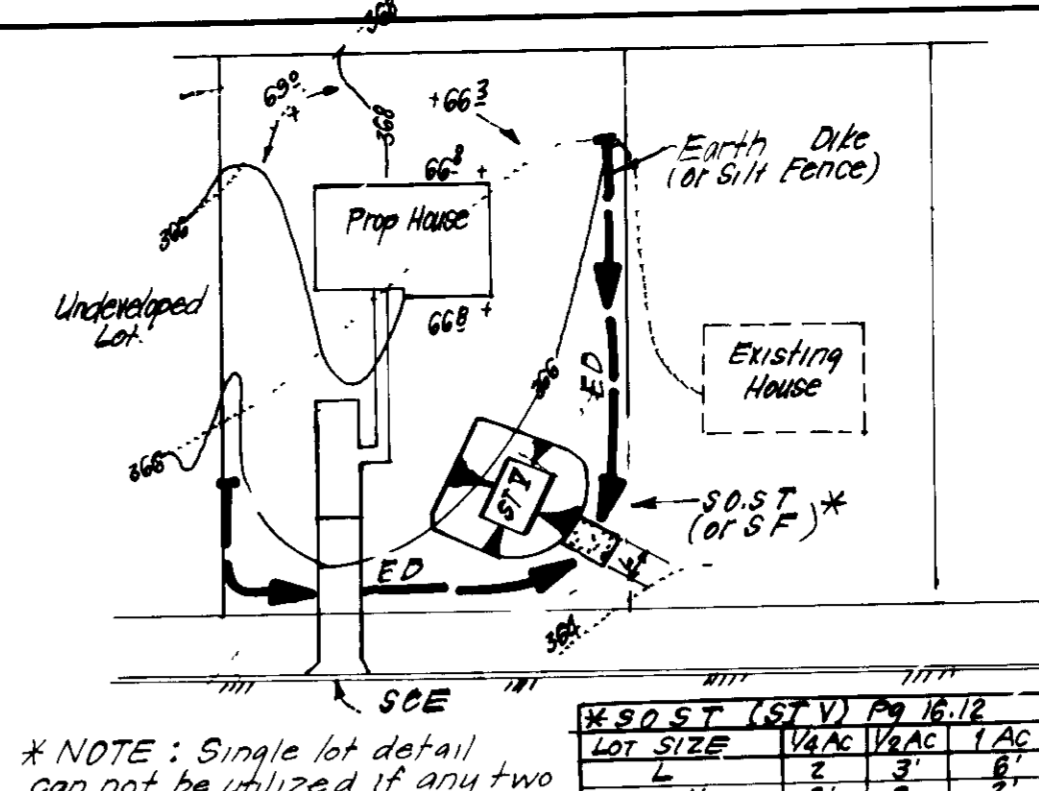
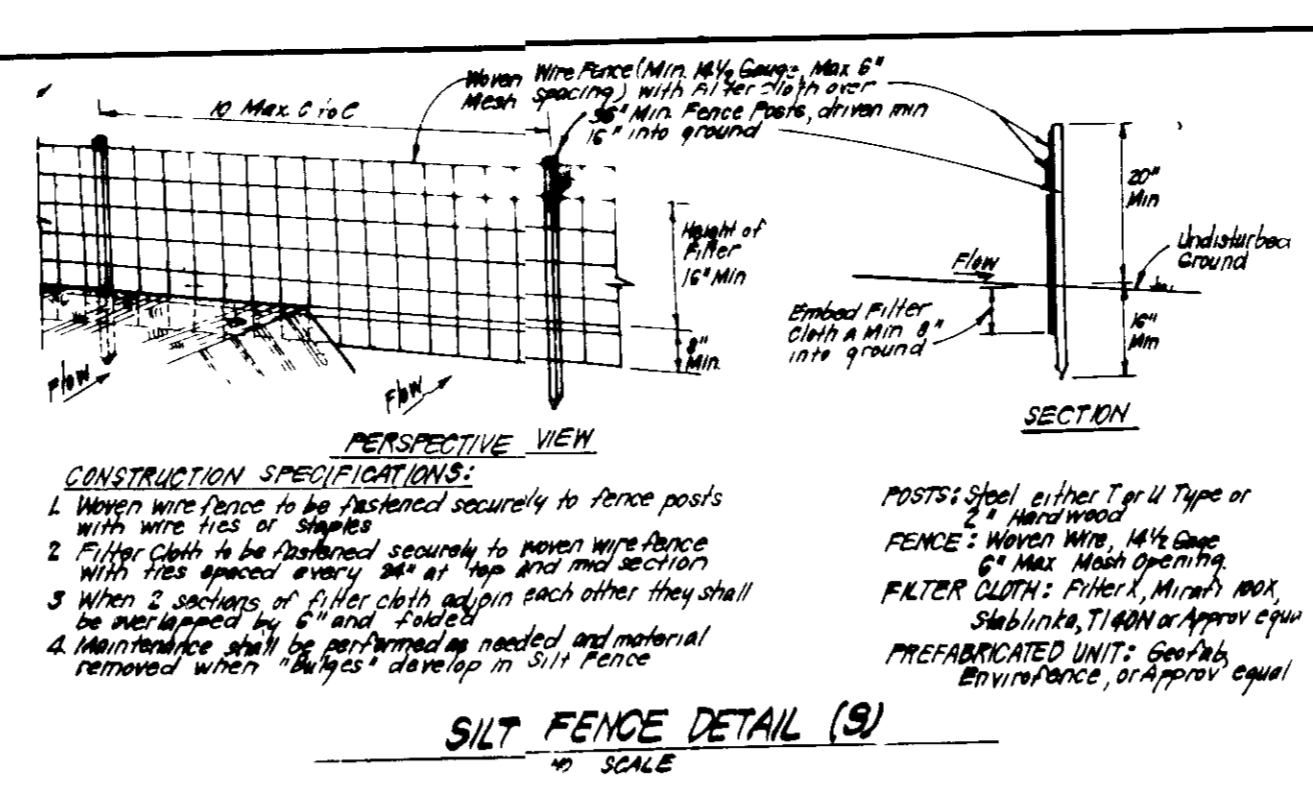
7-28-88

LKS

Note: The Howard Research and Development Land Company hereby authorizes Columbia Builders, Inc. to grade on Open Space Lot 225, between lots 187 and 188, section 2 area 2 and to partially place Proposed Trap No. 1 on Open Space Lot 225 at the back of lot 188. All disturbed area will be permanently stabilized and the trap removed upon completion of work.

Signature: *[Signature]* Date: 6/28/88

Title: DIRECTOR OF CONSTRUCTION



**CONSTRUCTION SEQUENCE**

1. Obtain Grading Permit 7 days
2. Install sediment and erosion control devices. Utilize and revise Ex. trap No. 12 (F-88-76) as shown. See authorization note. 14 days
3. Excavate for foundations and rough grade. Temporarily stabilize. 60 days
4. Construct structures, sidewalks and driveways. 150 days
5. Final grade and stabilize in accordance with Sds. & Specs. 30 days
6. Upon approval of the sediment control inspector, remove sediment and erosion controls and stabilize those areas. 5 days

NOTE: Work may not begin on lot # 190 until the drainage area to that portion of the earth dike which runs through lot # 190 and which conveys runoff to Trap # 1 has been permanently stabilized and the earth dike removed.

Subdivision Name	COLUMBIA	Subd. Area	2/2	Lots	179-191
Village of Longreach					183-188, 226-230
Plot No.	Block No.	Zone	Tax/Map No.	Elec. Dist.	Census Tr.
75188000	14	NTSPMD	37	GTH	6065 00
Water Code	E-08			Sewer Code	3420000

**REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT.**

*[Signature]* 10/27/88

SIGNATURE DATE

U.S. SOIL CONSERVATION SERVICE

This Development Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

APPROVED

Howard S.C.D. DATE



**DEVELOPER'S/BUILDER'S CERTIFICATE**

I/We certify that all development and construction will be done according to the 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]* 6-29-88

Signature of Developer/Builder 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.

*[Signature]* 6-23-88

Date



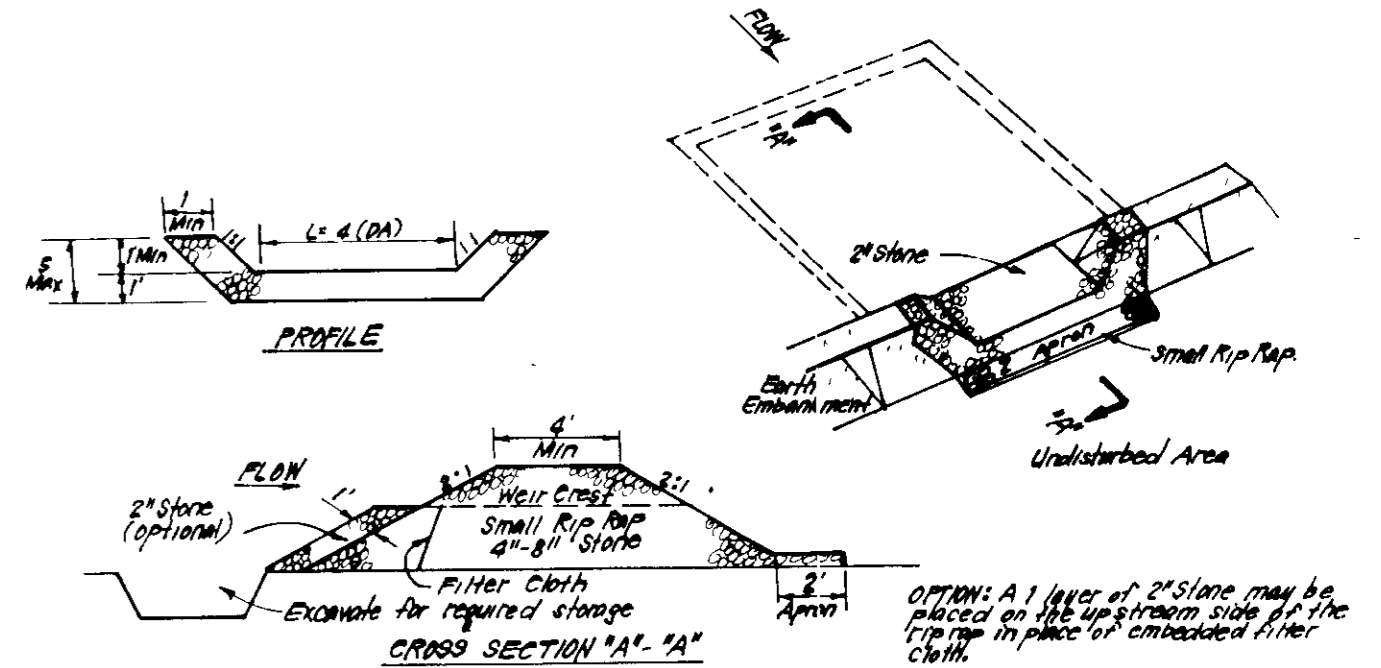
**CLARK • FINEFROCK & SACKETT, INC.**  
ENGINEERS • PLANNERS • SURVEYORS

7135 MINSTREL WAY • COLUMBIA MD 21045 • (301) 381-7300 • BALTO • (301) 521-8100 • WASH

DESIGNED	DT	SEDIMENT AND EROSION CONTROL PLAN	SCALE	1" = 30'
DRAWN	LAI	LOTS 143 THRU 148, 179 THRU 191 & 227 THRU 230	DRAWING	3 of 4
CHECKED	DT	COLUMBIA VILLAGE OF LONGREACH SECTION 2 AREA 2 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO.	87-155
DATE	June, 1988	FOR COLUMBIA BUILDERS, INC. 3 Lakefront North, Suite 200 Columbia, Maryland 21044	FILE NO.	87-155-3E

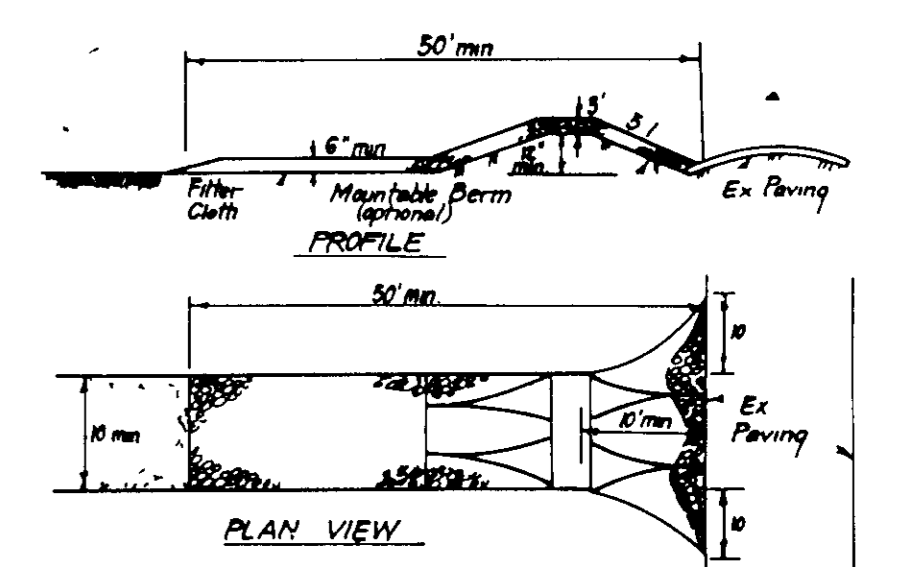
SDF-88-254

VILLAGE OF LONGREACH  
SECTION 2 AREA 2  
6TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND



- CONSTRUCTION SPECIFICATIONS:**
1. Area under embankment shall be cleared, grubbed and stripped of any vegetation and roof mat. The roof area shall be cleared.
  2. The fill material for the embankment shall be free of roots and other woody vegetation as well as oversized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment which is being constructed.
  3. All cut and fill slopes shall be 1:1 or flatter.
  4. The stone used in the outlet shall be small rip rap 4"-8" along with 1" thickness of 2" aggregate placed on the up-slope side in the gravel trap and distributed at top cloth on the rip rap.
  5. Sediment shall be removed and trap refilled to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap.
  6. The structure shall be inspected after each rain and repairs made as needed.
  7. Construction operations shall be carried out in such a manner that erosion and water pollution is minimized.
  8. 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:**
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) feet 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 3" slope 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 applied, tracked, washed or tracked onto public rights-of-way must be removed immediately.
  8. Washing - Where it shall be desired 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

NOTE: Provide positive drainage to TRAP No 1

**TRAP No 1 - S.O.S.T. (ST.V.)**

DA = 275 Acres  
Storage Required = 4950 of  
Storage Provided = 5040 of  
Weir Crest = 304.00  
Clean-Out Elev = 301.50  
Bottom Elev = 300.00  
Depth = 3'  
Bottom Dimensions = 57' x 25'  
Side Slope = 1:1  
Weir Length = 11'

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

Signature: [Signature] DATE: 11/24/88  
COUNTY HEALTH OFFICER

**APPROVED FOR HOWARD COUNTY OFFICE OF PLANNING AND ZONING**

Signature: [Signature] DATE: 11-2-88  
PLANNING DIRECTOR

**CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENTS**

Signature: [Signature] DATE: 10-25-88  
CHIEF

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

Signature: [Signature] DATE: 10/21/88  
DIRECTOR

Signature: [Signature] DATE: 10-20-88  
CHIEF BUREAU OF ENGINEERING

**REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT.**

Signature: [Signature] DATE: 10/7/88  
SIGNATURE DATE

**U.S. SOIL CONSERVATION SERVICE**

This Development Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

**APPROVED**

Signature: [Signature] DATE: [Blank]  
Howard S.C.D. DATE



**DEVELOPER'S/BUILDER'S CERTIFICATE**

"I/We certify that all development and construction will be done according to the 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: [Signature] DATE: 6-27-88  
Signature of Developer/Builder 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."

Signature: [Signature] DATE: 6-23-88  
Date

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

7135 MINSTREL WAY • COLUMBIA MD 21045 • (301) 381-7500 • BALTO • (301) 671-8100 WASH

DESIGNED DT	SEDIMENT AND EROSION CONTROL PLAN LOTS 143 THRU 146, 179 THRU 191 & 227 THRU 230	SCALE 1" = 30'
DRAWN LAI	<b>COLUMBIA</b> VILLAGE OF LONGREACH SECTION 2 AREA 2	DRAWING 4 of 4
CHECKED DT	6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO 87-155
DATE June, 1988	FOR COLUMBIA BUILDERS, INC 3 Lakefront North, Suite 200 Columbia, Maryland 21044	FILE NO 87-155 SE