

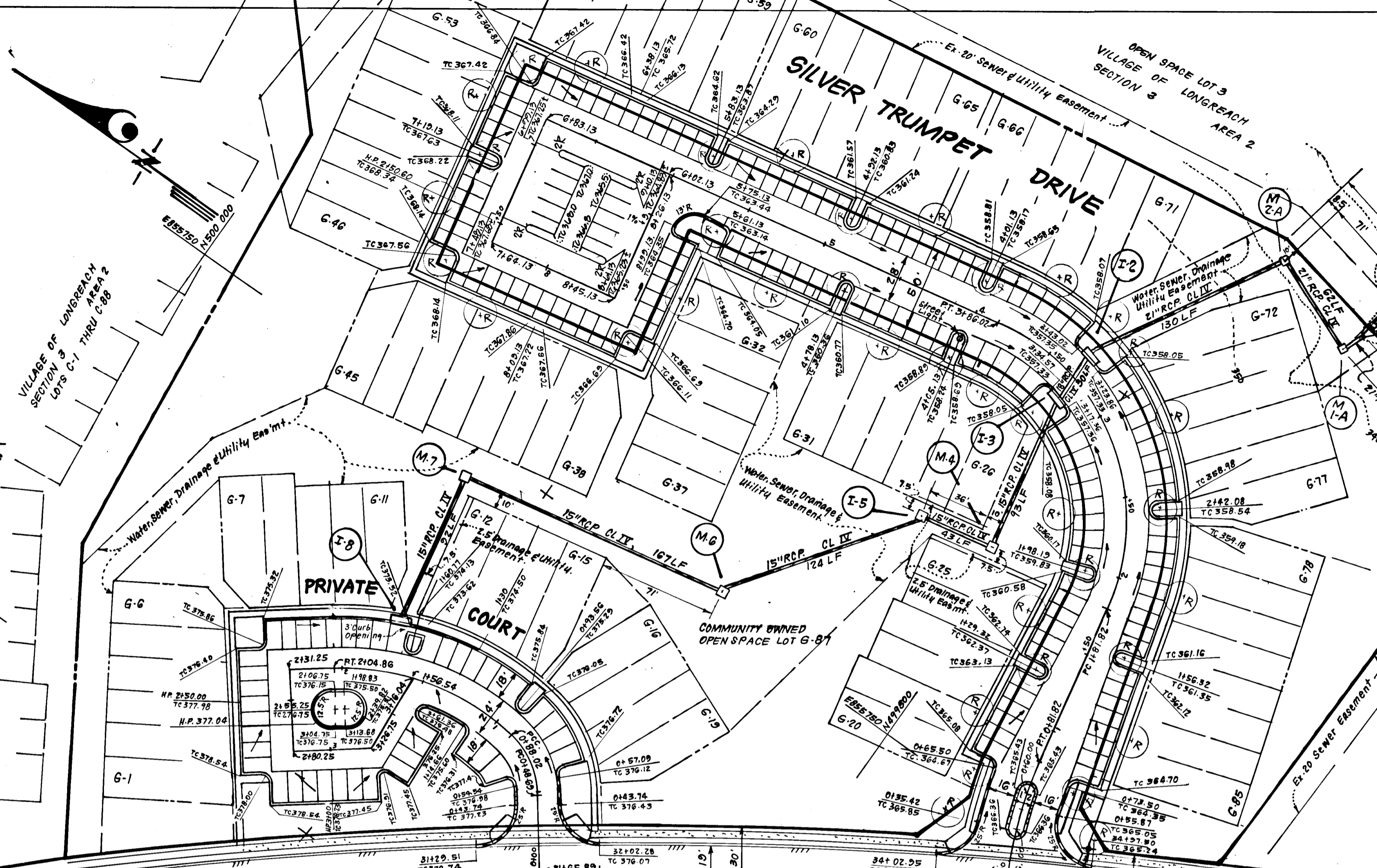
CURB & GUTTER LEGEND

Std. 7" C of G
 Rev. 7" C of G
 Std. 6" C of G
 Rev. 6" C of G

ROADWAY LIGHTING LEGEND:

250 Watt Mercury Vapor Lamp Pendant Fixture on 30 Foot Bronze Aluminum Pole.
 175 Watt "Modern" Mercury Vapor Lamp on 12" Bronze Fiberglass Pole.

Reviewed for HOWARD R.C.D.
 Name: Howard R.C.D.
 and meets Technical Requirements
 Signature: [Signature] Date: 7/13/88
 U.S. Soil Conservation Service
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT
 Signature: [Signature] Date: 7/13/88
 Approved



STREET TREE TABLE

SYM	TYPE	SIZE	QUANT	REMARKS
(R)	Acer Rubrum "Red Sunset"	2 1/2" CAL	20	B.F.B. Heavy Heads
(R)	Red Sunset Maple	2 1/2" CAL	20	B.F.B. Heavy Heads

Notes:

- Contractor shall verify location of underground utilities prior to digging. Location of trees may be adjusted slightly to accommodate field conditions.
- Street Trees: The location, type & number of trees shown on these plans are the minimum and are used for bond purposes only. The final location and variety of trees may vary to accommodate field conditions and builders landscape program. Bond release is contingent upon Section 16.131 of the Howard County Sub-division Regulations, as approved by the Office of Planning and Zoning.

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 of Developer/Builder: [Signature] Date: 4-14-88

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: 4/13/88

- GENERAL NOTES**
- All storm drain & paving shall be constructed in accordance with the latest edition and specifications of Howard County & MSHA.
 - Type of storm drainage refer to the standard details of Ho. Co. & MSHA.
 - Trench compaction for storm drains within road or street right-of-way limits shall be in accordance with "Ho. Co. Design Manual, Vol. II," Std. G-2.01.
 - Information concerning underground utilities was obtained from available records, but the Contractor must determine the exact location and elevation of mains by digging test pits, by hand, at all utility crossings, well in advance of construction.
 - All utility companies shall be notified 24hrs in advance of construction.
 - All traffic services, parking and signing to be done in accordance with the "Manual of Uniform Traffic Control Devices," 1984 Revised Edition.
 - Sag and Crest Vertical Curves were designed in accordance with "Ho. Co. Design Manual," Vol. III.
 - Provide Conc. Sidewalk Ramps, Ho. Co. Std. Type A R-4.01 where shown in plan. Design Speed: 30 mph. Zoning: N.T.
 - The contractor or developer shall contact the Construction Inspection/Survey Division 24 hrs in advance of commencement of work Ph. 702-7272.
 - Stormwater management is provided for at Central Facility. See previously approved plans F-88-78 & F-88-171.
 - Bench Marks; Ho. Co. Monuments 254-2001-422-971
264-3006-437-461
264-3005-439-053

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Signature: [Signature] Date: 7/13/88
 Chief, Bureau of Highways

Signature: [Signature] Date: 7/13/88
 Chief, Bureau of Engineering

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING

Signature: [Signature] Date: 7-25-88
 Chief, Division of Community Planning & Land Development

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

7135 MINSTREL WAY • COLUMBIA, MD 21045 • (301) 381-7500 - BALTO. • (301) 621-8100 - WASH.

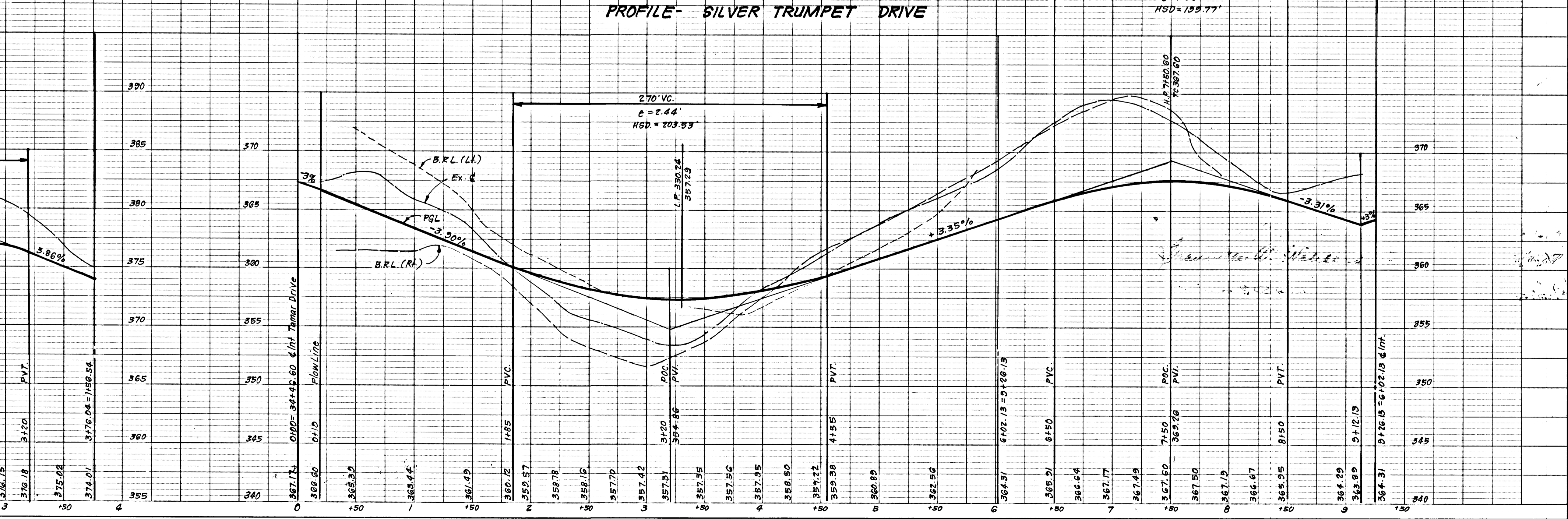
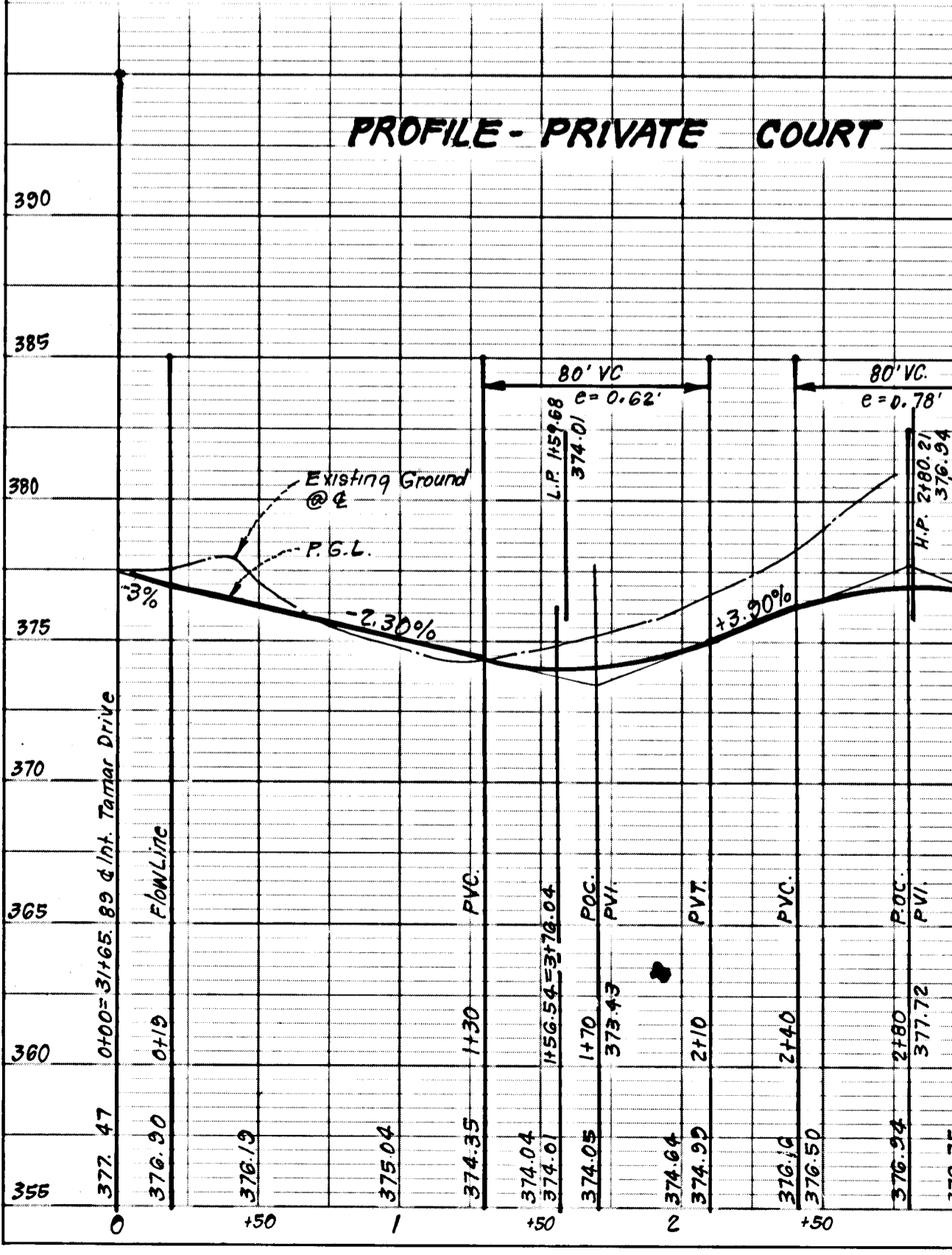
DESIGNED: D.A.B.
 DRAWN: [Signature]
 CHECKED: [Signature]
 DATE: 4-13-87

ROAD CONSTRUCTION PLANS
SILVER TRUMPET DRIVE & PRIVATE COURT
COLUMBIA
 VILLAGE OF LONGREACH
 SECTION 3 AREA 2
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 FOR HOWARD RESEARCH LAND CO.
 10275 Little Patuxent Parkway
 Columbia, Md. 21044

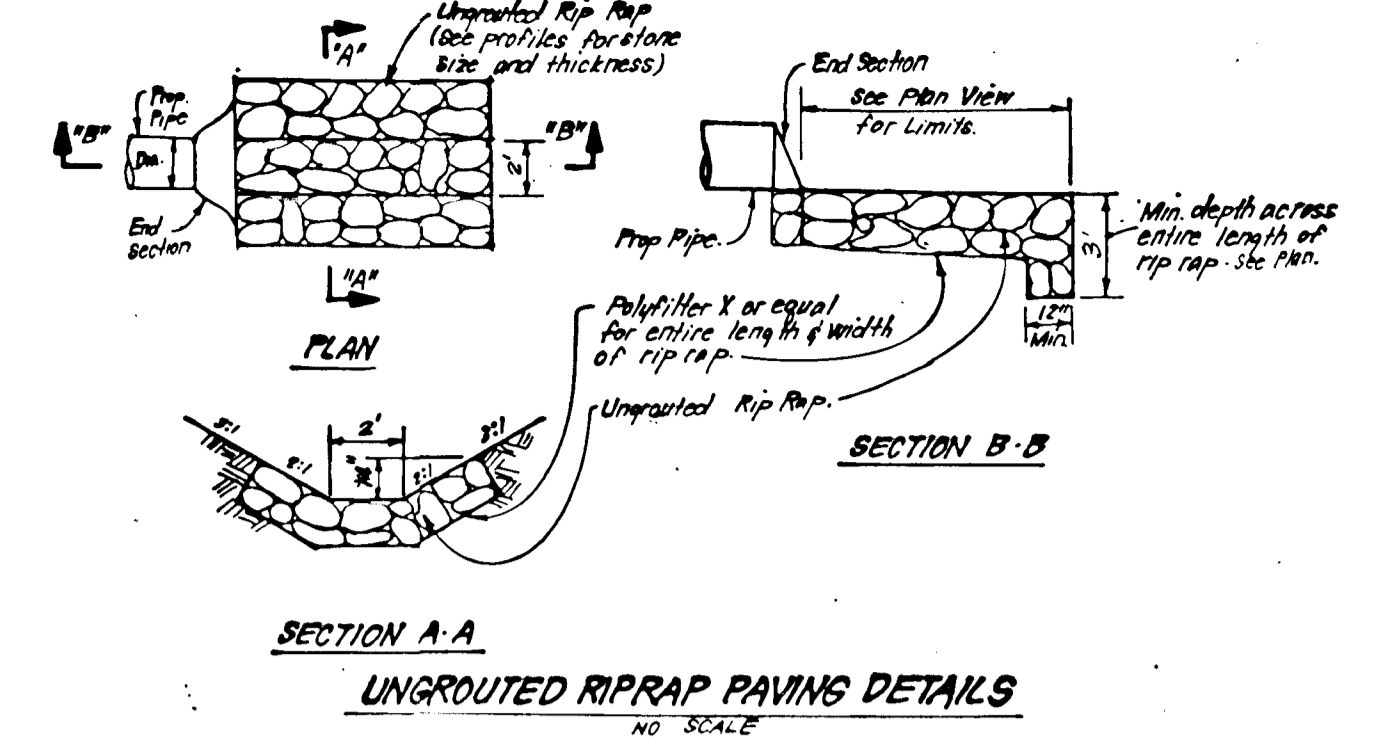
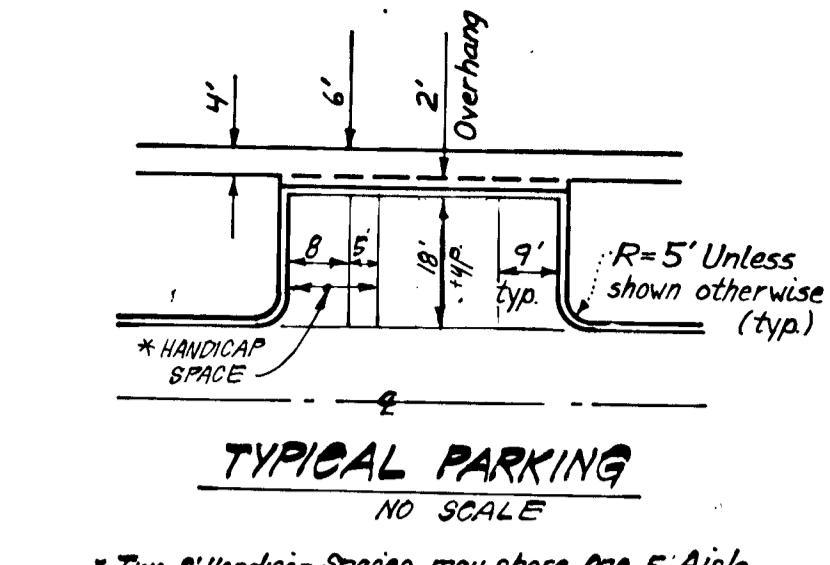
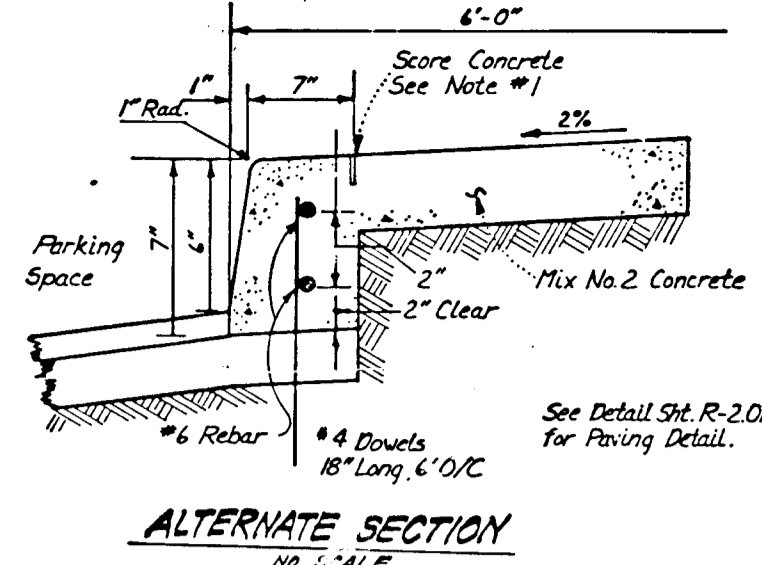
SCALE: As Shown
 DRAWING: 1 OF 4
 JOB NO.: 87-118
 FILE NO.: 87-118-D

CENTERLINE CURVE DATA

NAME & PC to PT	RADIUS	DELTA	ARC	TAN	CHORD	BEARING
SILVER TRUMPET DR. PC 0100 to PT. 0181.82	301.00	15°34'31"	81.82'	41.17'	81.57'	N71°12'44"E
SILVER TRUMPET DR. PC 1181.82 to PT. 3106.02	130.00	30°00'00"	204.20'	130.00'	183.85'	N34°00'00"E
PRIVATE CT. PC 0148.60 to POC. 0188.02	50.00	45°04'23"	33.33'	20.75'	38.33'	N31°02'12"E
PRIVATE CT. POC. 0188.02 to PT. 2104.86	145.00	46°10'00"	110.84'	61.80'	113.70'	N14°35'00"W



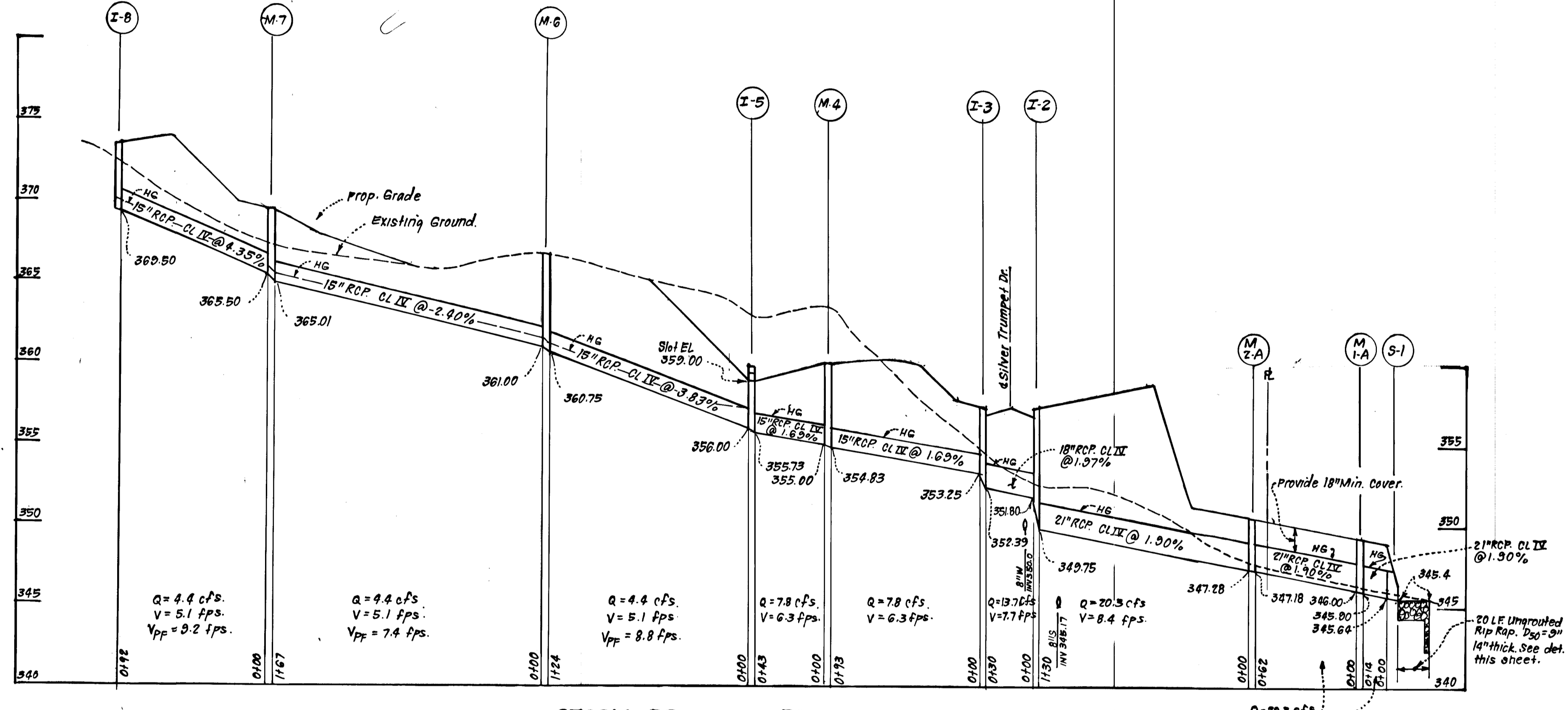
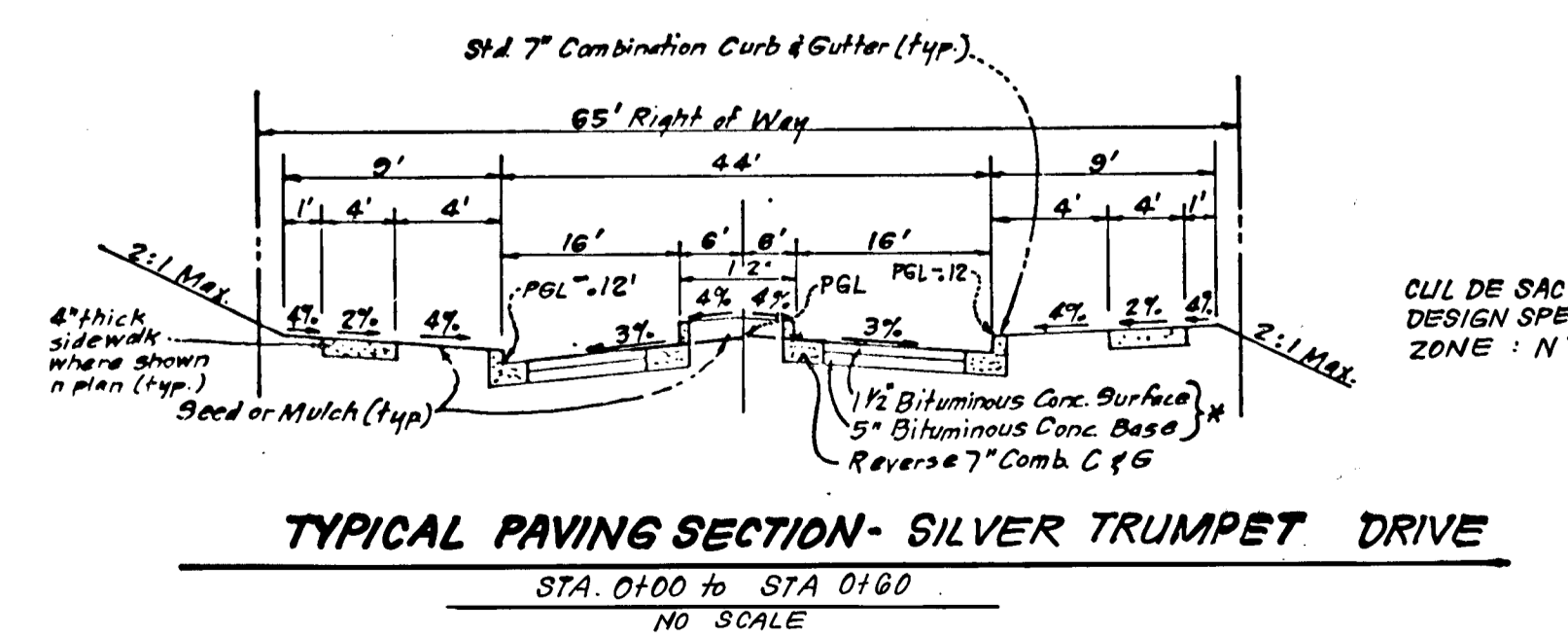
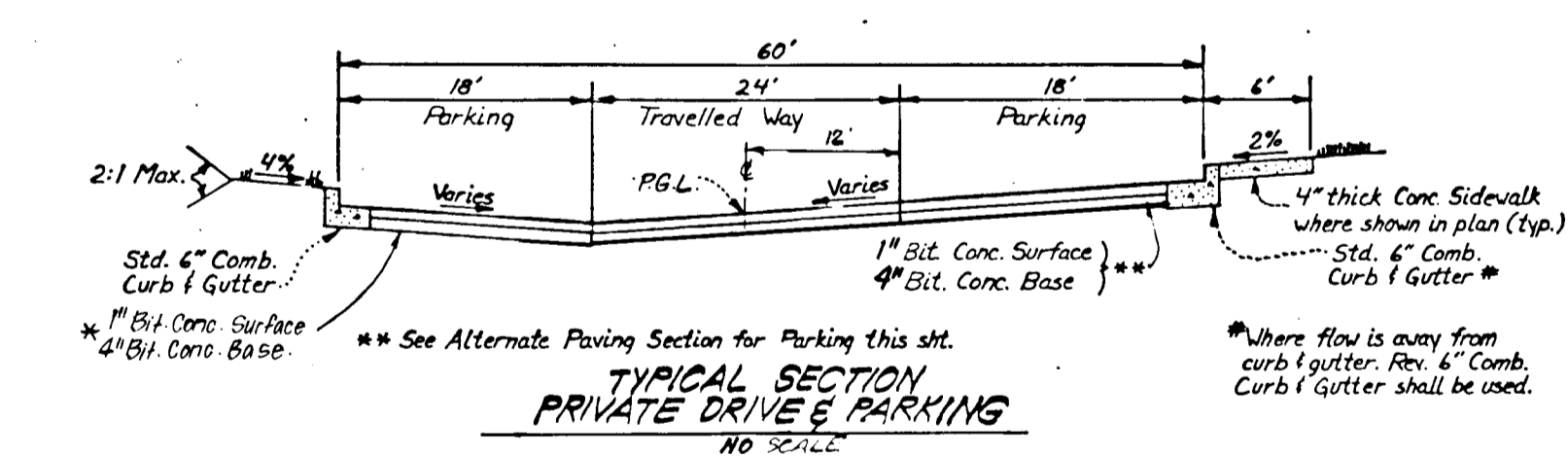
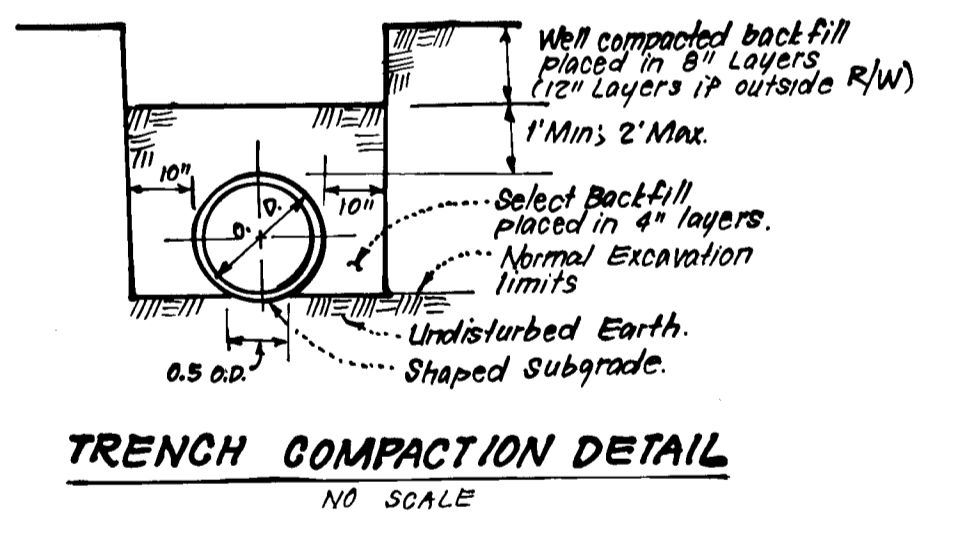
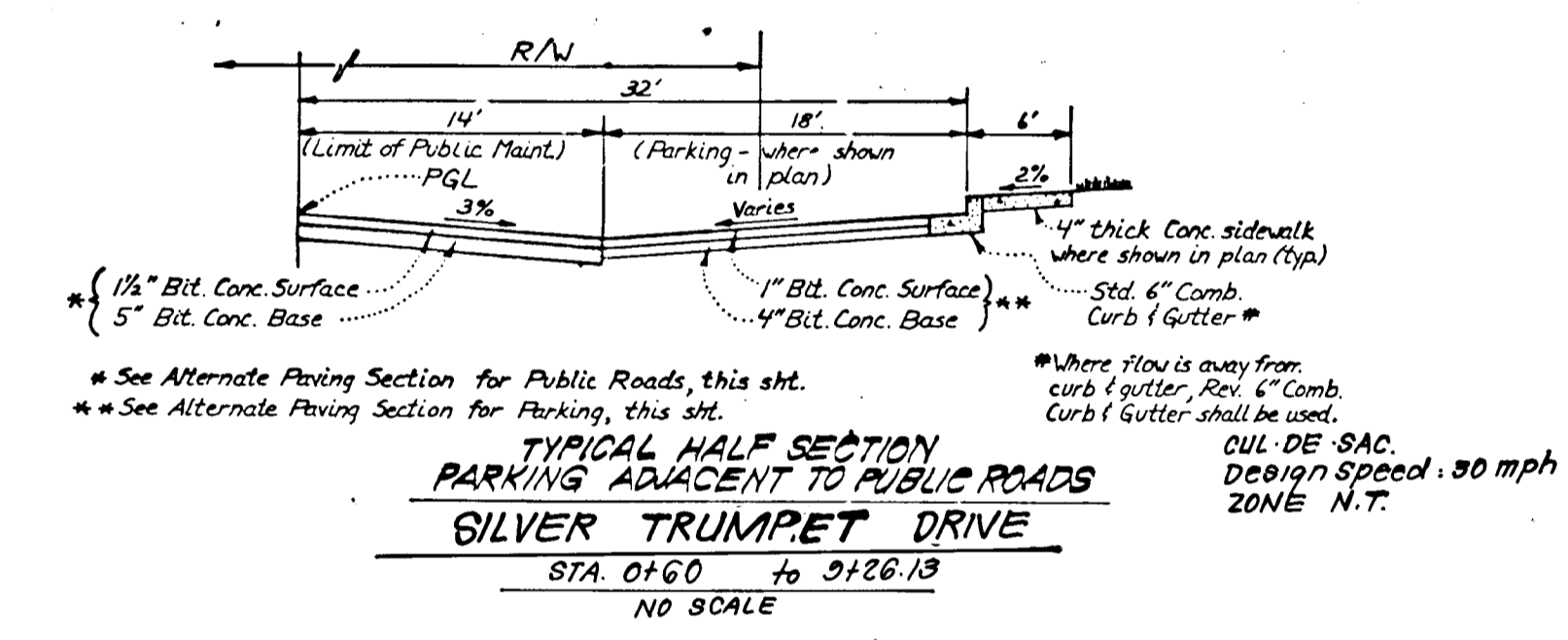
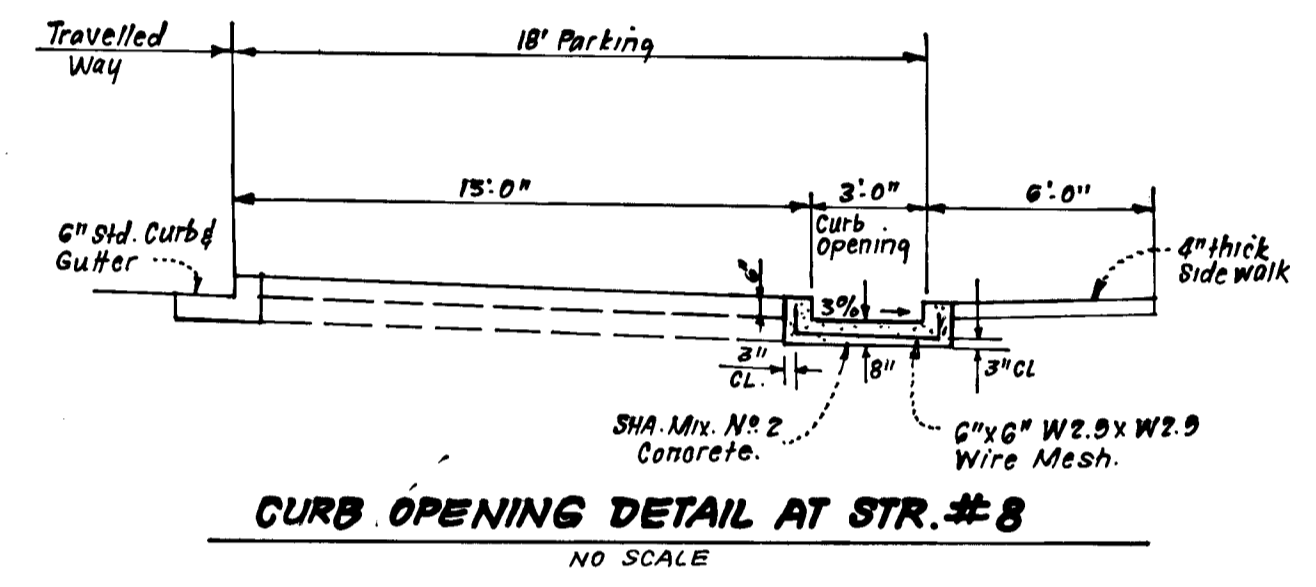
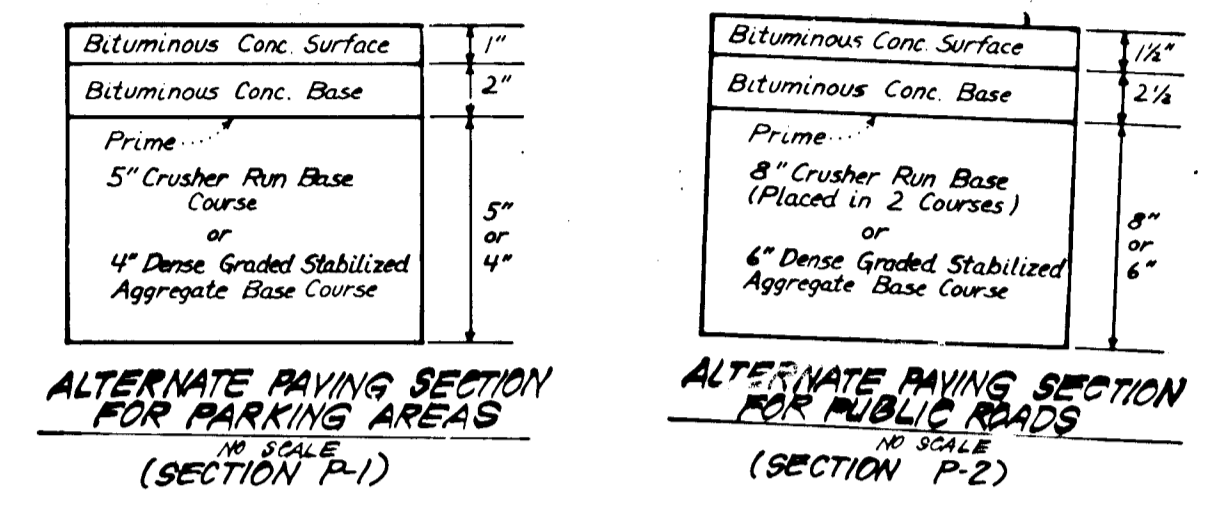
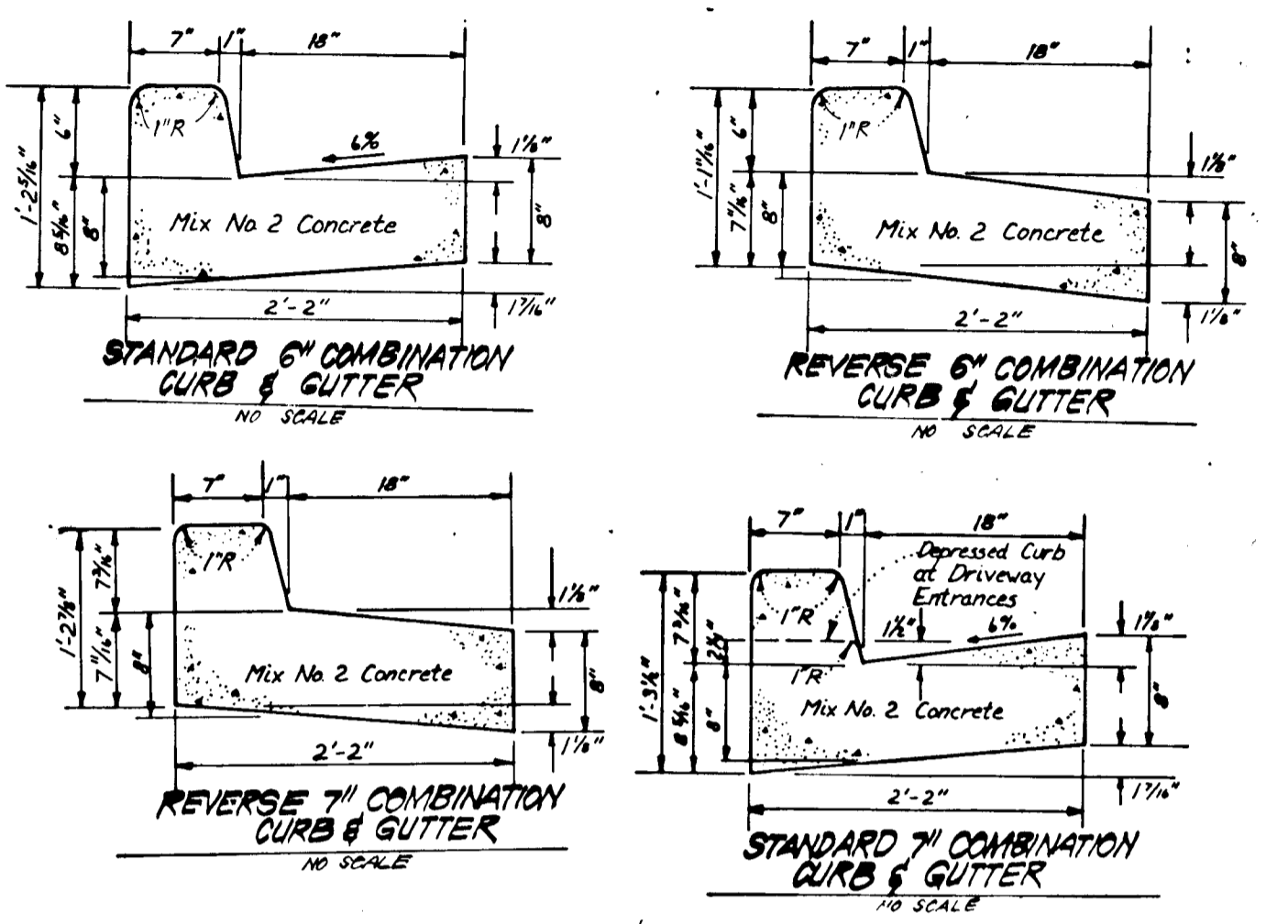
Notes:
 1. Longitudinal Joint between sidewalk & curb shall be continuous and to a depth of 1/4 the thickness of the sidewalk or 1" Max. Longitudinal joints shall run from back edge of sidewalk continuous to the bottom face of curb to a depth of 1/4" in spaced 5' apart.
 2. Provide 1/2" expansion joints at 15' intervals. In longitudinal joints to full cross-section.



STRUCTURE SCHEDULE							
NO.	TYPE	INV. IN.	INV. OUT.	TOP ELEVATION		REMARKS	LOCATION
				UPPER	LOWER		
S-1	Conc. End Section	345.64	345.40	-	-	Ho. Co. Std. SD. 5.52 21" Ø	See Plan
I-2	A-10 Inlet	351.80	349.71	357.33	357.33	SD 4.02 W:2'6"	14 RI & 3-33.44
I-3	A-10 Inlet	353.25	352.37	357.33	357.33	SD 4.02 W:2'6"	14 RI & 3-25.54
M-4	Shallow Brick Manhole	355.00	354.83	360.00	-	G 5.05 48" Sq.	See Plan
I-5	Mod. Shallow Brick Manhole	355.00	355.73	359.83	-	G 5.05 48" Sq.	"
M-6	Shallow Brick Manhole	361.00	360.75	366.80	-	G 5.05 48" Sq.	"
M-7	Shallow Brick Manhole	365.50	365.01	369.50	-	G 5.05 48" Sq.	"
I-8	A-10 Inlet	369.50	369.50	373.52	373.52	SD 4.02 W:2'6"	"
M-1A	Shallow Brick Manhole	346.00	345.90	349.90	-	G 5.05 48" Sq.	"
M-2A	Shallow Brick Manhole	347.28	347.18	350.80	-	G 5.05 48" Sq.	"

* Provide 6" Slots directly below 4" top slab, all around, Slot EL=359.00

PIPE SCHEDULE		
SIZE	TYPE	LENGTH
15"	RCP CL IX	519 LF
18"	RCP CL IX	30 LF
21"	RCP CL IX	206 LF



STORM DRAINAGE PROFILE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 [Signature] 7/10/88
 Chief, Land Development Division
 [Signature] 7/12/88
 Chief, Bureau of Highways
 [Signature] 7-22-88
 Chief, Bureau of Engineering
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING
 [Signature] 7-25-88
 Chief, Division of Community Planning & Land Development

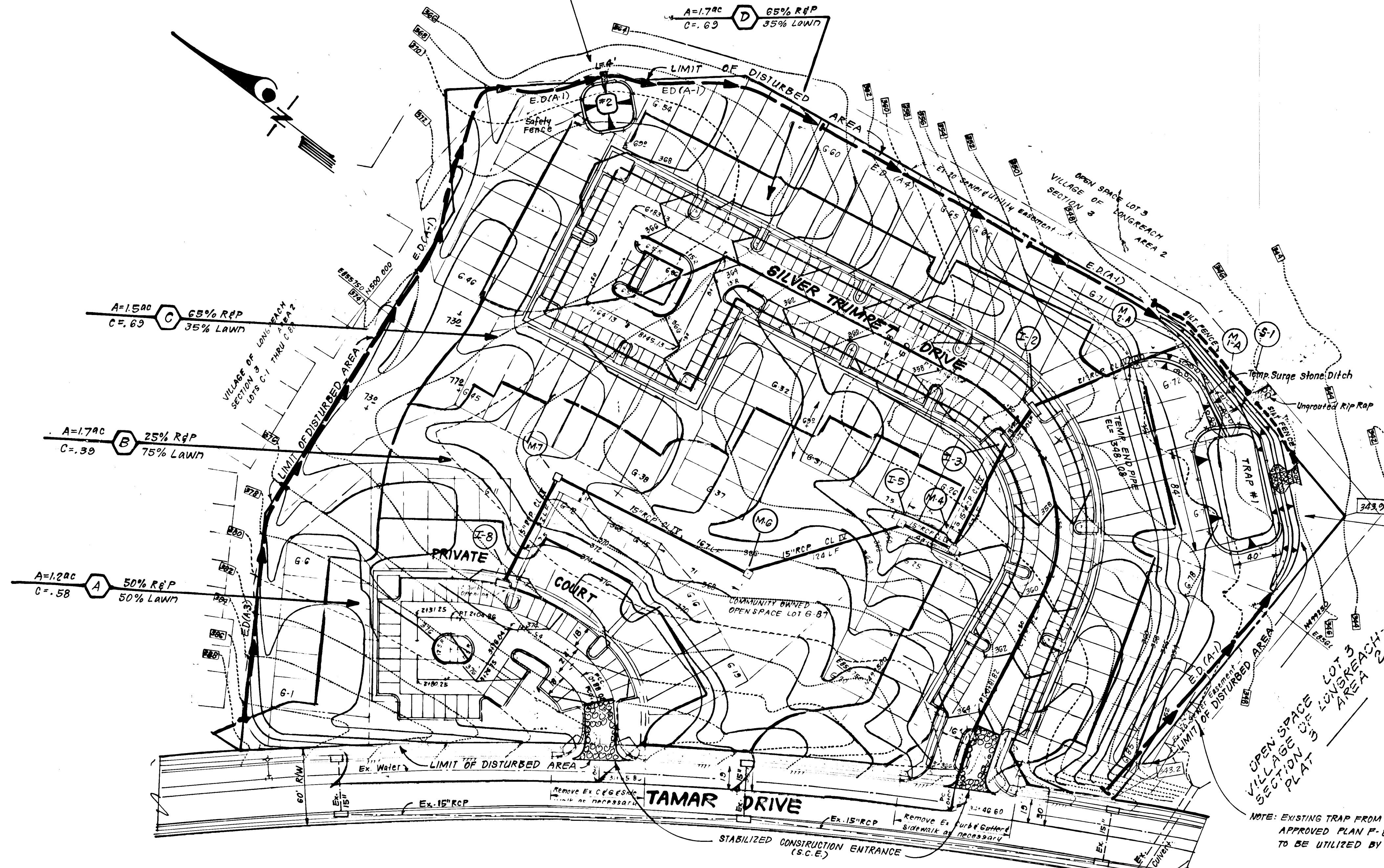
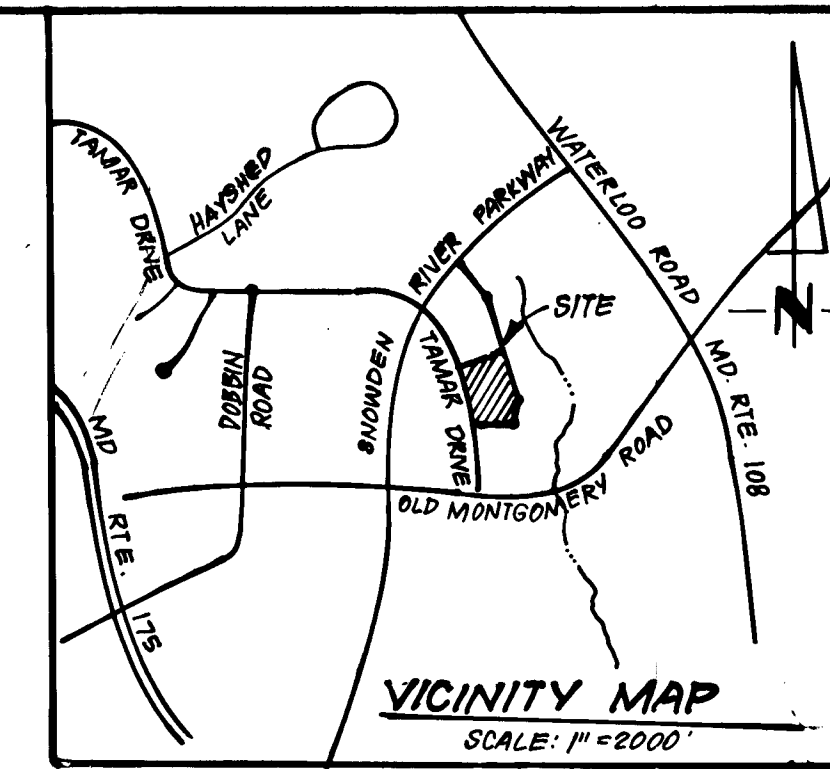
DEVELOPER'S/BUILDER'S CERTIFICATE
 Reviewed for... S.C.D. Name... and meets Technical Requirements
 [Signature] Signature of Developer/Builder
 U.S. Soil Conservation Service
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY CONSERVATION DISTRICT.
 [Signature] 7/13/88
 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.
 [Signature] 4/13/88
 Signature of Engineer Date



CLARK • FINEFROCK & SACKETT, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 714 MINSTREL WAY • COLUMBIA MD 21045 • (301) 381-7500 - BALTO • (301) 621-8100 - WASH
 DESIGNED: D.A.B.
 DRAWING: As Shown
 CHECKED: KIW
 JOB NO: 2 OF 4
 DATE: D.A.B.
 FILE NO: 87-118
 4-13-88
 ROAD CONSTRUCTION PLANS
 STORM DRAINAGE & PAVING DETAILS
 COLUMBIA
 VILLAGE OF LONGREACH
 SECTION 3 AREA 2
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 FOR HOWARD RESEARCH LAND CO.
 10775 Little Patuxent Parkway
 Columbia, Md 21044

TRAP #2 SOST. (ST-V)
 DA = 0.8 Acre
 Storage Req'd = 1400 cf
 Storage Provided = 1432 cf
 Stone Crest Elev = 368.5
 Depth = 3'
 Bottom Elev = 364.5
 Clean Out Elev = 366.0
 Bottom Dimensions = 16' x 16'



TRAP #1 R.O.S.T. (ST. VI)
 DA = 7.2 Acres
 Storage Required = 7.2 x 1800 = 12960 cf
 Storage Provided = 14,780 cf
 Stone Crest Elev = 348.50
 Bottom Elev = 341.50
 Clean Out Elev = 343.50
 Bottom Dimensions = 84' x 40' x 4' deep
 a = 2'
 b = 10'

NOTE: Flood Plain Elevations shown thus: [343.3], are as shown per F-88-171 plat.

LEGEND

- 1. Contour Interval 2 Ft.
- 2. Existing Contour
- 3. Proposed contour
- 4. Earth Dike

PLAN
SCALE: 1" = 50'

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Paul J. [Signature] 7/13/88
 Chief, Land Development Division
Strawberry W. Wilcox 7/21/88
 Chief, Bureau of Highways
James E. [Signature] 7-22-88
 Chief, Bureau of Engineering
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING
James S. [Signature] 7-25-88
 Chief, Division of Community Planning & Land Development

Reviewed for... *Howard P. [Signature]* S.C.D.
 Name
 and meets Technical requirements
James M. [Signature] 4/13/88
 Signature Date
 U.S. Soil Conservation Service

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

Stephen [Signature] 4/13/88
 Approved Date

DEVELOPER'S/BUILDER'S CERTIFICATE

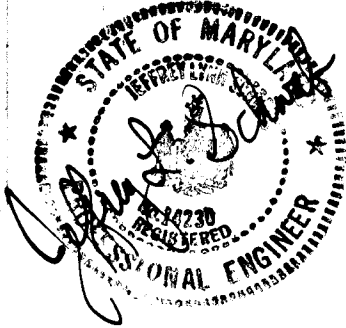
"I/We certify that all development and construction will be done according to this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Dept. of Natural Resources Approved Training 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."

James M. [Signature] 4-13-88
 Signature of Developer/Builder Date

ENGINEER'S CERTIFICATE

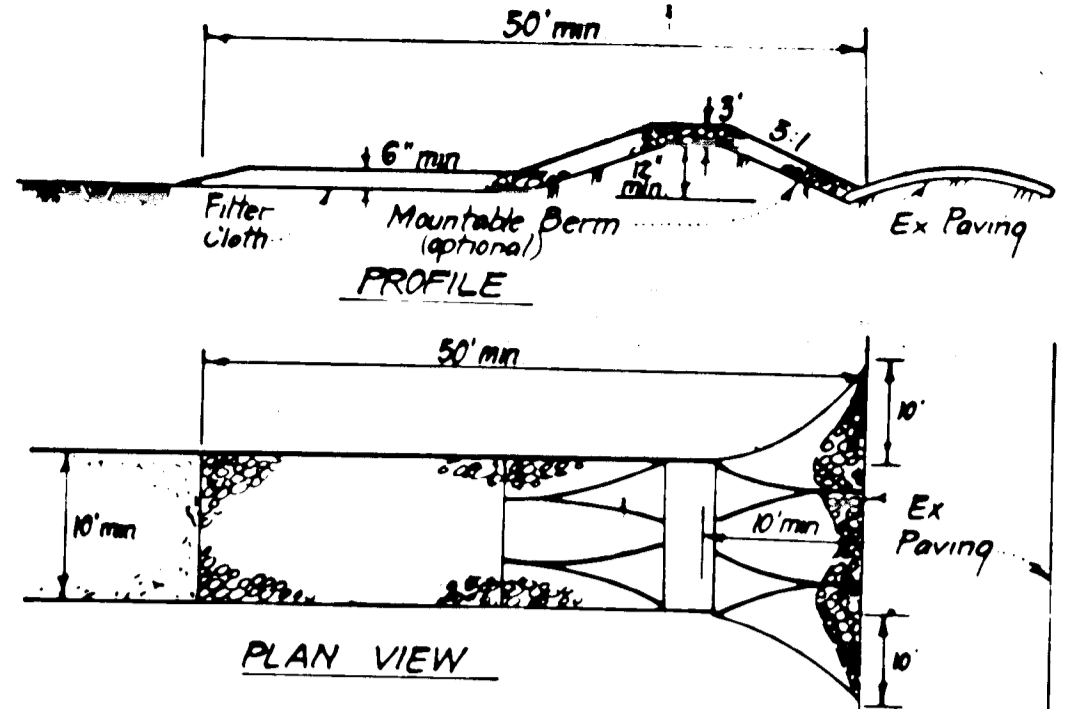
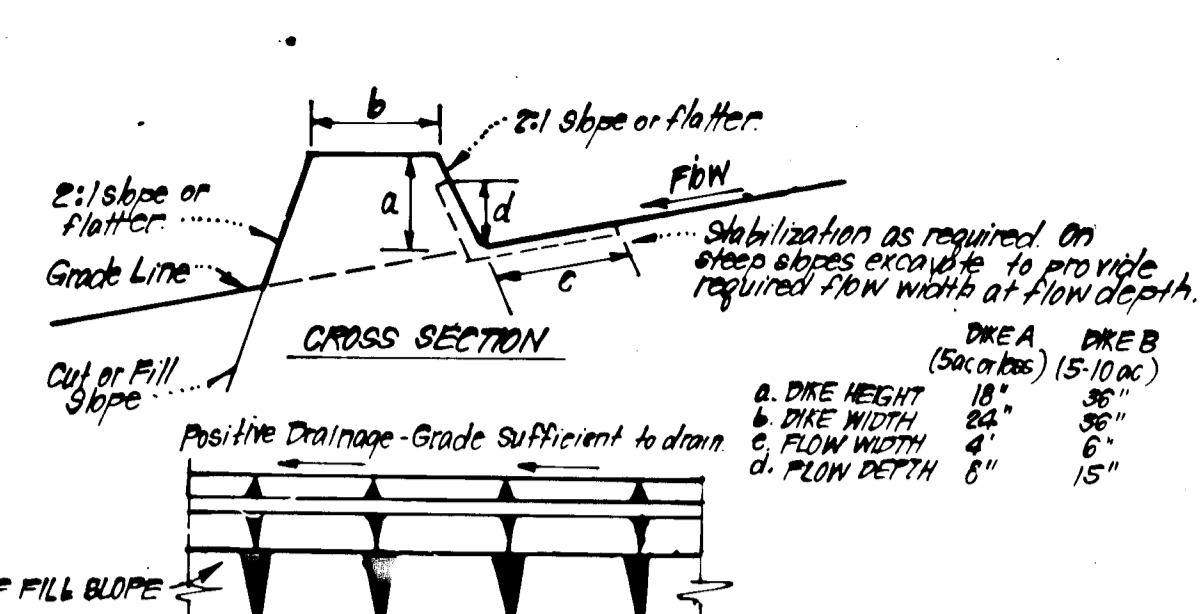
I hereby certify that this plan for Erosion and Sediment Control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

James L. [Signature] 4/13/88
 Signature Date



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

DESIGNED	D.A.B.	ROAD CONSTRUCTION PLANS SEDIMENT & EROSION CONTROL PLAN AND DRAINAGE AREA MAP COLUMBIA VILLAGE OF LONGREACH SECTION 3 AREA 2 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND FOR HOWARD RESEARCH LAND CO. 10275 Lyle Paluxent Parkway Columbia Md. 21044	SCALE
DRAWN	KIW		As Shown
CHECKED	D.A.B.		DRAWING
DATE	4-13-88		JOB NO.
			87-118
		FILE NO.	
		87-118-D	



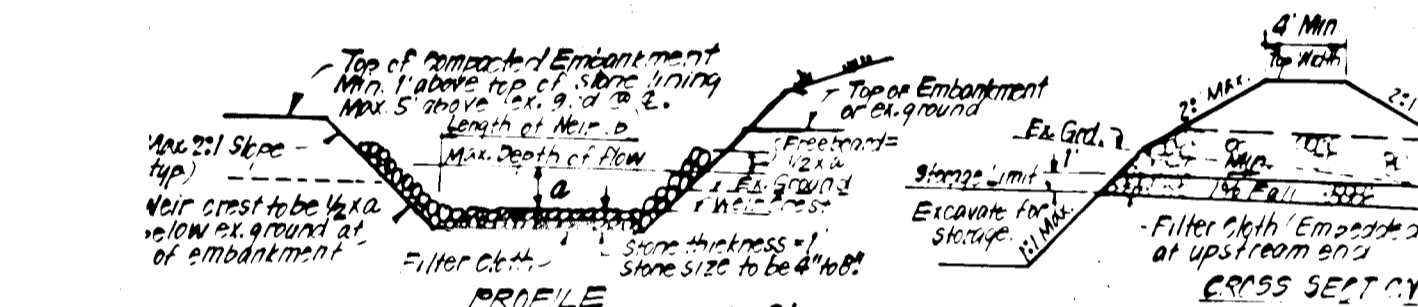
- CONSTRUCTION SPECIFICATIONS:**
- Stone size - Use 2' stone or reclaimed or recycled concrete equivalent.
 - Length - As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
 - Thickness - Not less than six (6) inches.
 - Width - Ten (10) foot 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 mountable berm with 5' 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 cleanout of any measures used to trap sediment. All sediment spilled, dropped, 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.

- CONSTRUCTION SPECIFICATIONS:**
- All dikes shall be constructed by earth-moving equipment.
 - All dikes 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.
 - Field location should be adjusted as needed to utilize a stabilized soft outlet.
 - 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.
 - 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 White or Escalator's Sed, 2" Stone
3	5.1-10.0%	Seed White or Sed, 2" Stone	Lined Rip Rap 4"-8" Stone
4	11-20.0%	Lined Rip Rap 4"-8" Stone	Engineering Design

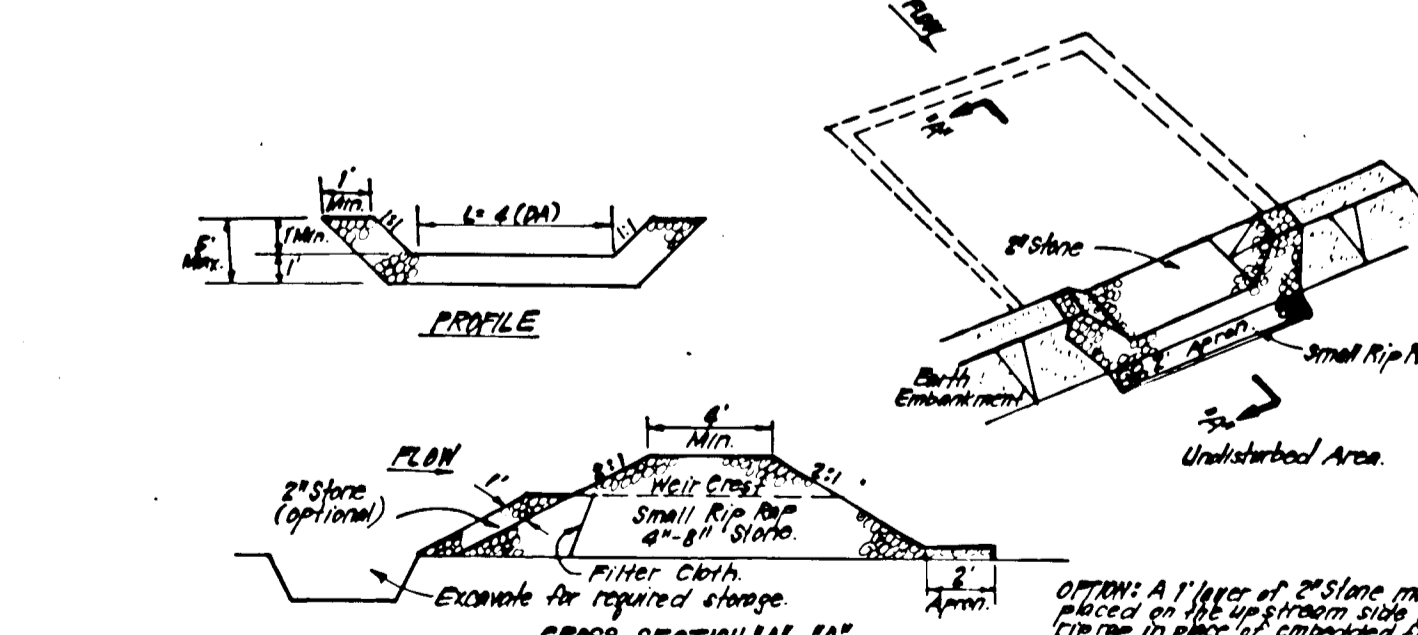
- A. Stone to be 2' Stone, or recycled concrete equivalent, in a layer at least 3" thick and be pressed into soil with construction equipment.
 B. Rip Rap to be 4" in a layer at least 1" thick, pressed into soil.
 C. Approved equivalents can be substituted for any of the above materials.
 7. Periodic inspection and required maintenance must be provided after each rain.



STABILIZED CONSTRUCTION ENTRANCE (SCE)
NO SCALE

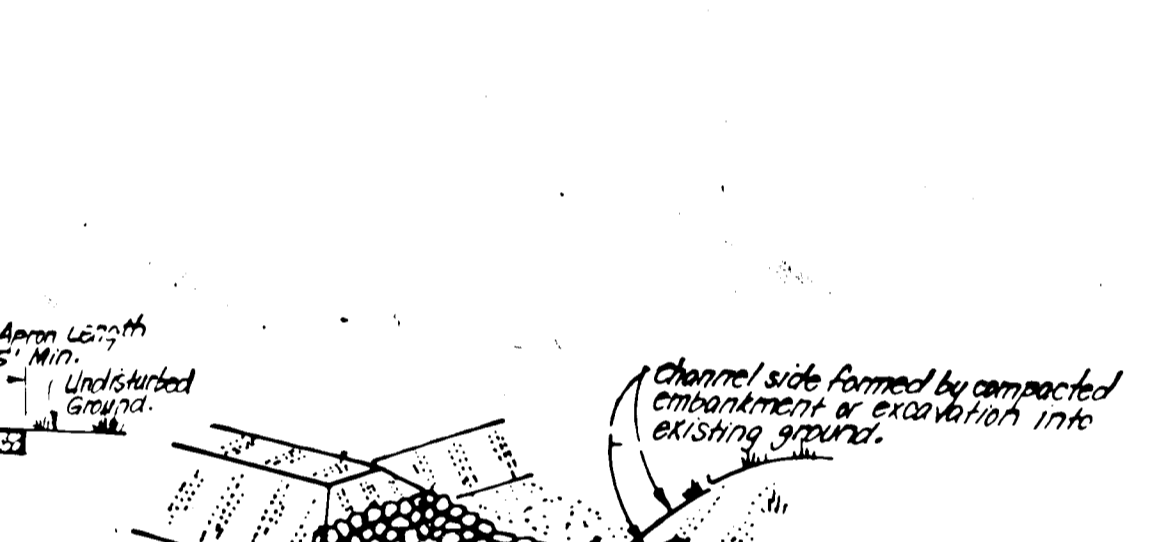
- CONSTRUCTION SPECIFICATIONS:**
- The area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat.
 - The soil area shall be cleared.
 - The fill material for the embankment shall be free of roots or other woody vegetation as well as oversized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed. Max height of embankment shall be 5' measured at 9' of embankment.
 - All fill slopes shall be 2:1 or flatter; cut slopes 1:1 or flatter.
 - Elevation of the top of any dike directing water into trap must equal or exceed height of embankment.
 - Storage area provided shall be figured by computing the volume available behind the outlet channel up to an elevation of 1' below the low water table.
 - 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 1' with section nearest the entrance placed on top. Fabric shall be embedded at least 6" into existing ground at entrance of outlet channel.
 - Stone used in the outlet channel shall be 4" to 8" rip rap. To provide a filtering effect, a layer of filter cloth shall be embedded 1' back into the upstream face of the outlet stone or a 1" thick layer of 2" or finer aggregate shall be placed on the upstream face of the outlet.
 - Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 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.
 - The structure shall be inspected after each rain and repaired as needed.
 - Construction operations shall be carried out in such a manner that erosion and water pollution are minimized.
 - The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.
 - Drainage area for this practice is limited to 15 acres or less.

RIP RAP OUTLET SEDIMENT TRAP - ST-VI
NO SCALE



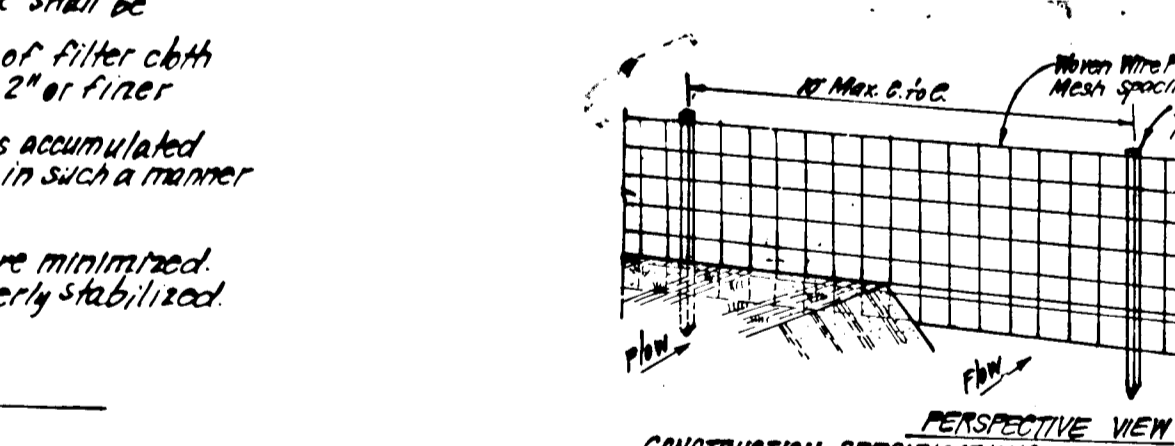
- CONSTRUCTION SPECIFICATIONS:**
- Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The soil area shall be cleared.
 - The fill material for the embankment shall be free of roots and other woody vegetation as well as oversized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment 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 upstream side of the outlet. Filter cloth in the rip rap.
 - Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to the design depth of the trap.
 - The structure shall be inspected after each rain and repaired 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.ST.) ST.V
NO SCALE



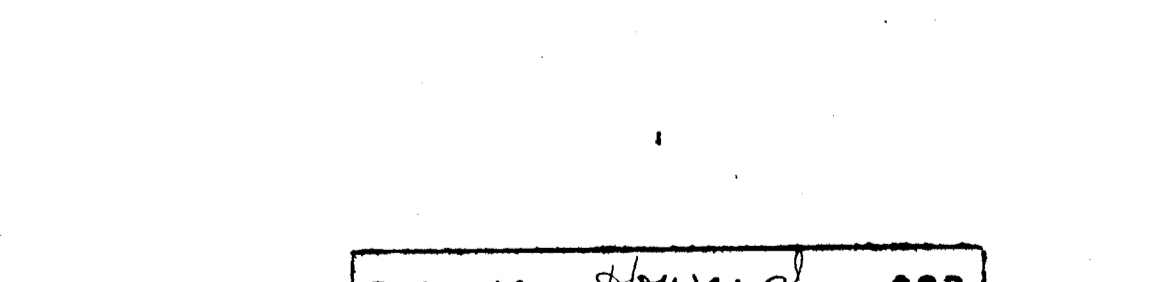
- CONSTRUCTION SPECIFICATIONS:**
- Woven wire fence to be fastened securely to fence posts with wire ties or staples.
 - Filter cloth to be fastened securely to woven wire fence with ties spaced every 24" at top and mid section.
 - When 2 sections of filter cloth align each other they shall be staggered by 6" and lapped.
 - Maintenance shall be performed as needed and material removed when "bulges" develop in silt fence.

SILT FENCE DETAIL (S)
NO SCALE



- CONSTRUCTION SPECIFICATIONS:**
- Woven wire fence to be fastened securely to fence posts with wire ties or staples.
 - Filter cloth to be fastened securely to woven wire fence with ties spaced every 24" at top and mid section.
 - When 2 sections of filter cloth align each other they shall be staggered by 6" and lapped.
 - Maintenance shall be performed as needed and material removed when "bulges" develop in silt fence.

SILT FENCE DETAIL (S)
NO SCALE



- CONSTRUCTION SPECIFICATIONS:**
- Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The soil area shall be cleared.
 - 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 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 upstream side of the outlet. Filter cloth in the rip rap.
 - Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to the design depth of the trap.
 - The structure shall be inspected after each rain and repaired 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.ST.) ST.V
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.
- 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:
- 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).
 - 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 reseeding.

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

- 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 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.
- 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	7.9 Acres
Area Disturbed	7.9 Acres
Area to be footed or paved	4.1 Acres
Area to be vegetatively stabilized	3.8 Acres
Total Cut	2,000 Cu. yds
Total Fill	13,000 Cu. yds
Offsite waste/borrow area location	Undetermined
- 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 DW 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. N/A
- All pipes to be blocked at the end of each day (see detail below). N/A
- The total amount of straw bale dikes/silt fence equals 155 L.F.

CONSTRUCTION SEQUENCE:

	NO OF DAYS
1. Obtain Grading Permit.	2
2. Clear & Grub for installation of sediment controls.	2
3. Install sediment controls, Traps 1, E.D.'s and SCE.	5
4. Clear and grub site.	5
5. Rough grade site.	30
6. Install storm drainage & temp divert flow into traps as shown. Do not block inlets.	10
7. Install utilities.	30
8. Construct curb & gutter, paving, and sidewalks.	30
9. Fine grade & stabilize site.	30
10. Upon approval of the sediment control inspector, remove sediment control measures, complete storm drainage and stabilize.	5
11. Restore areas near sediment traps to final grade utilizing silt fence as necessary. All disturbed areas to be immediately stabilized.	2

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Paul D. Soren 7/10/88
Chief, Land Development Division

Shawna M. McLean 7/21/88
Chief, Bureau of Highways

James S. Soren 7-22-88
Chief, Bureau of Engineering

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING

David J. S. Soren 7-25-88
Chief, Division of Community Planning & Land Development

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

1101 MINISTREL WAY • COLUMBIA MD 21045 • (301) 381-7100 - BALTO • (301) 621-8100 - WASH

DESIGNED: D.A.B.
DRAWN: D.A.B.
CHECKED: D.A.B.
DATE: 4-13-88

**ROAD CONSTRUCTION PLANS
SEDIMENT & EROSION CONTROL DETAILS**

COLUMBIA
VILLAGE OF LONGREACH
SECTION 3 AREA 2
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

FOR HOWARD RESEARCH LAND CO
10275 L.H. PATRICK PARKWAY
Columbia Md. 21044

SCALE: AS SHOWN
DRAWING: 40F4
JOB NO: 07-118
FILE NO: 07-118-D

F-88-234

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.

Stephen L. Soren 4-14-88
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.

Jeffrey J. Soren 4-13-88
Signature of Engineer Date

Reviewed for: **HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS** S.C.D. Name and meets Technical Requirements

Stephen L. Soren 7/15/88
Signature Date
U.S. Soil Conservation Service

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

Stephen L. Soren 7/15/88
Signature Date