

Reviewed for: Howard S.C.D.
 Name: Y. Wilson
 Signature: [Signature]
 Date: 3/30/83
 U.S. Soil Conservation Service
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 Approved: [Signature] 3-30-83 Date

- GENERAL NOTES:**
- All storm drain & paving shall be constructed in accordance with the latest details and specifications of Howard Co and Md S.H.A.
 - Types of Storm Drain Structures refer to the Standard Details of Howard County and Maryland State Highway Administration.
 - Trench Compaction for Storm Drains within Road or Street right of way limits shall be in accordance with Howard County Design Manual Vol. II.
 - Information concerning underground utilities was obtained from available records, but the Contractor must determine the exact location and elevation of the mains by digging test pits, by hand, at all utility crossings, well in advance of construction.
 - All utility crossings shall be notified 24 hrs in advance of construction.
 - All traffic control services, parking, and signing to be done in accordance with the "Manual of Uniform Traffic Control Devices," 1971 Edition.
 - Sag and Crest Vertical Curves were designed in accordance with "A Policy on Geometric Design of Rural Highways," 1965, by AASHTO.
 - Provide Concrete Sidewalk Ramps in Curbs, where shown in plan. (Max. 12:1 Slope). See Ho. Co. Std. Sidewalk Ramp, Type A, R-4.01.
 - Design speed: 38' Paving - 35 mph, 28' Paving - 30 mph.
 - Zoning: R-5C.

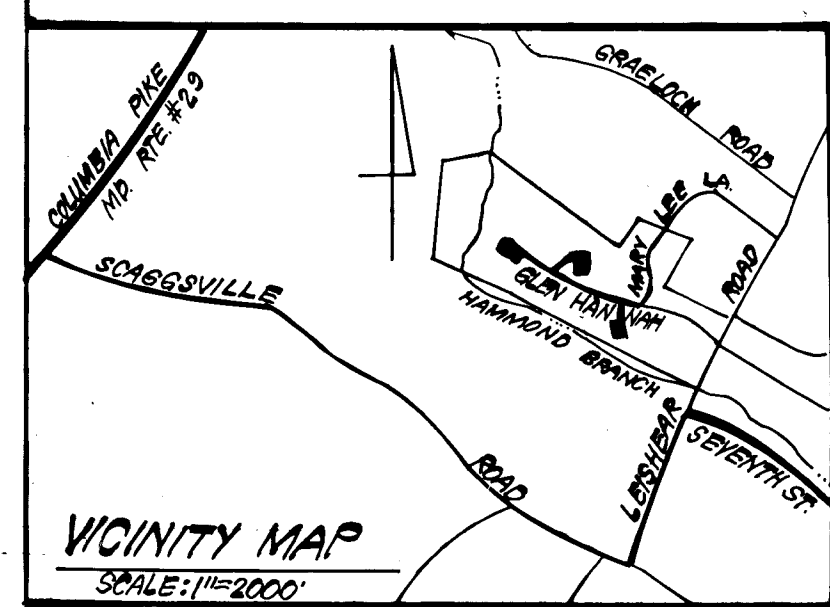
DEVELOPER'S/BUILDER'S CERTIFICATE
 "I hereby certify that all development and construction will be done according to this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Dept. 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, as are deemed necessary."
 Signature of Developer/Builder: [Signature] 4/6/83 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] 4-4-83 Date

APPROVED: Department of Public Works
 Chief, Bureau of Engineering: [Signature] 3-30-83 Date
 APPROVED: Howard County Office of Planning and Zoning
 Chief, Division of Land Development & Zoning Administration: [Signature] 3-30-83 Date

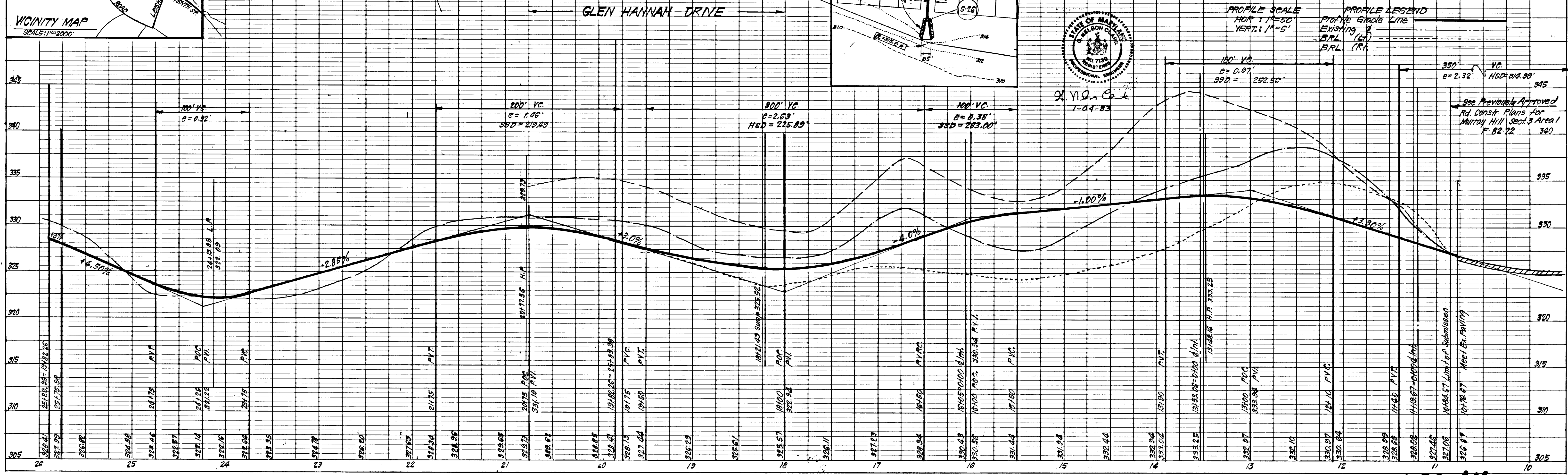
CLARK · FINEFROCK & SACKETT
 ENGINEERS · PLANNERS · SURVEYORS
 11315 LOCKWOOD DRIVE · SILVER SPRING, MARYLAND 20904 · (301) 593-3400

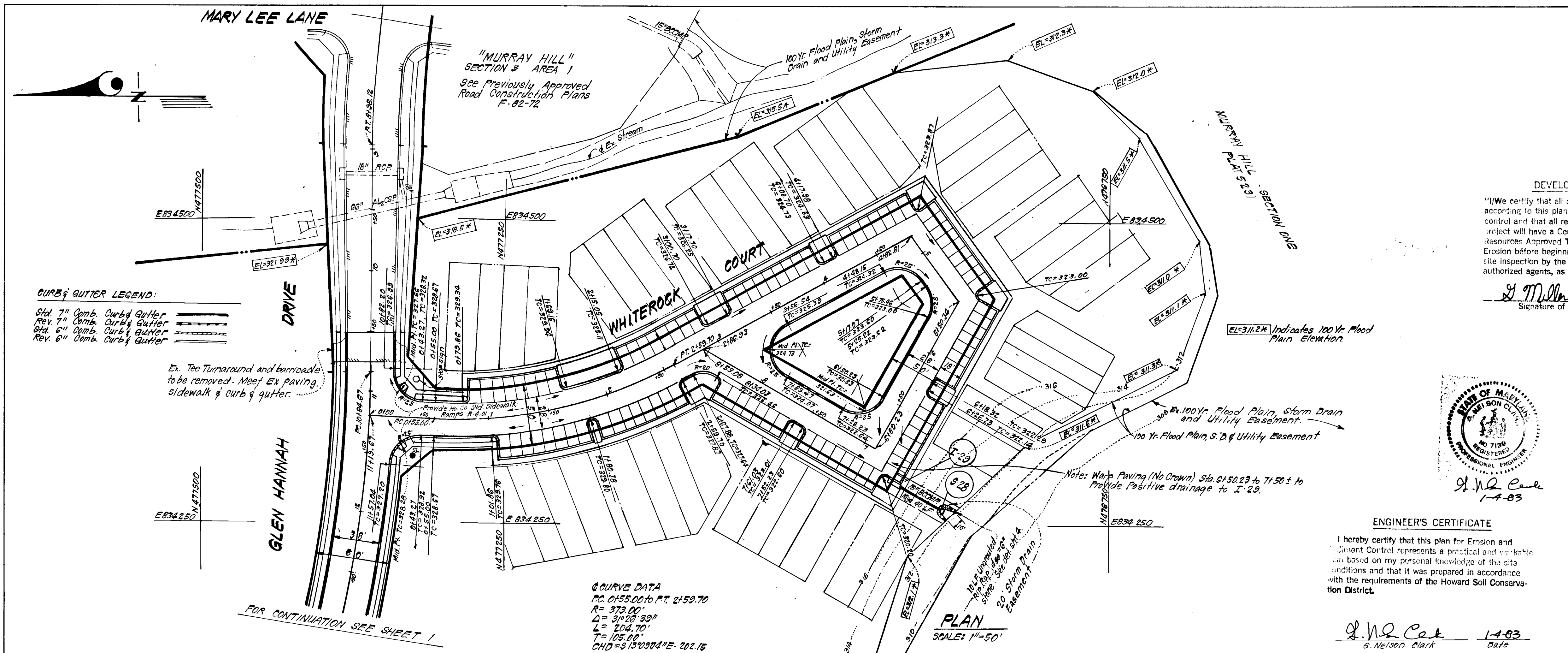
DESIGNED	ROAD CONSTRUCTION PLANS GLEN HANNAH DRIVE, FORESTVALE COURT & WESTBERRY COURT	SCALE	AS SHOWN
DRAWN		DRAWING	1 OF 6
CHECKED		JOB NO.	81-006
JLS.	SECTION 4 AREA 1 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	FILE NO.	81-006-D
DATE	FOR: BRANTLY ASSOCIATES Suite 105, 5501 Twin Knolls Road Columbia, Maryland 21045		
JAN. 4, 83			



CURB & GUTTER LEGEND:
 Sid. 7" Comb. Curb & Gutter
 Rev. 7" Comb. Curb & Gutter
 Sid. 6" Comb. Curb & Gutter
 Rev. 6" Comb. Curb & Gutter

PLAN
 SCALE: 1"=50'





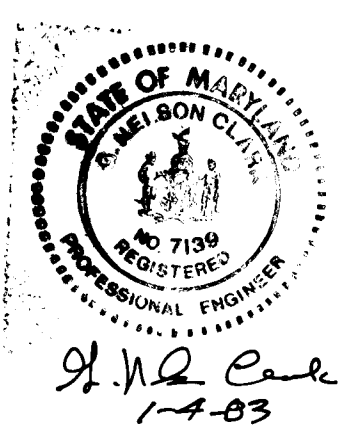
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J. Miller (AGENT) 1/6/83
Signature of Developer/Builder Date

Reviewed for Howard S.C.D.
Name
and meets Technical Requirements
J. Hagan 3/30/83
Signature Date
U.S. Soil Conservation Service
THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
J. Hagan 3-30-83
Approved Date

APPROVED: Department of Public Works
J. Hagan 3-30-83
Chief, Bureau of Engineering Date
APPROVED: Howard County Office of Planning and Zoning
J. Hagan 3-30-83
Chief, Division of Land Development & Zoning Administration Date

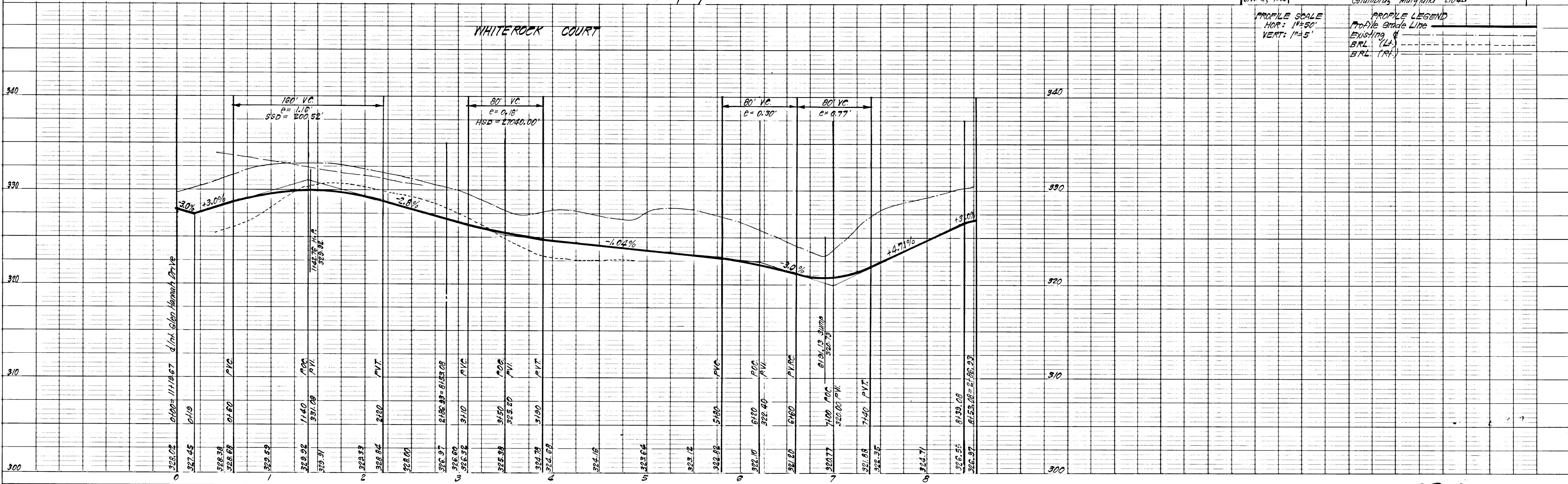


ENGINEER'S CERTIFICATE

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G. Nelson Clark 1-4-83
G. Nelson Clark Date

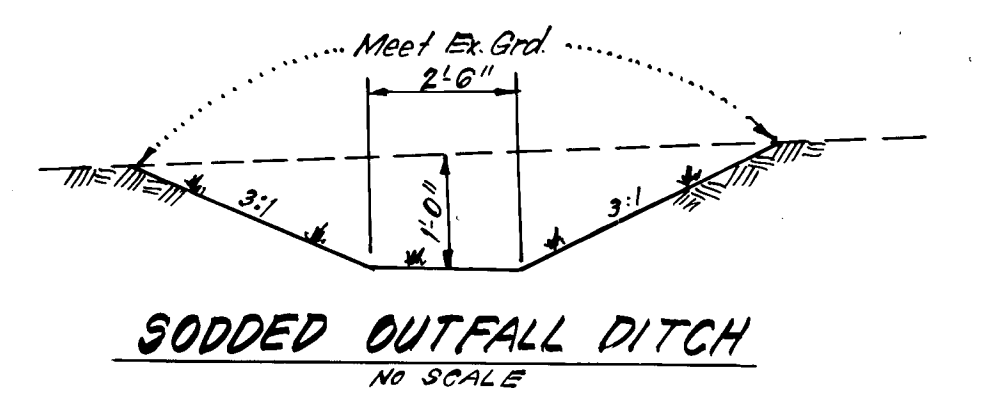
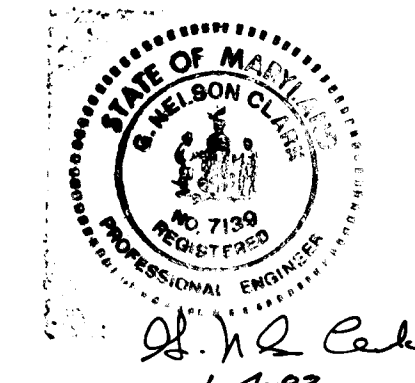
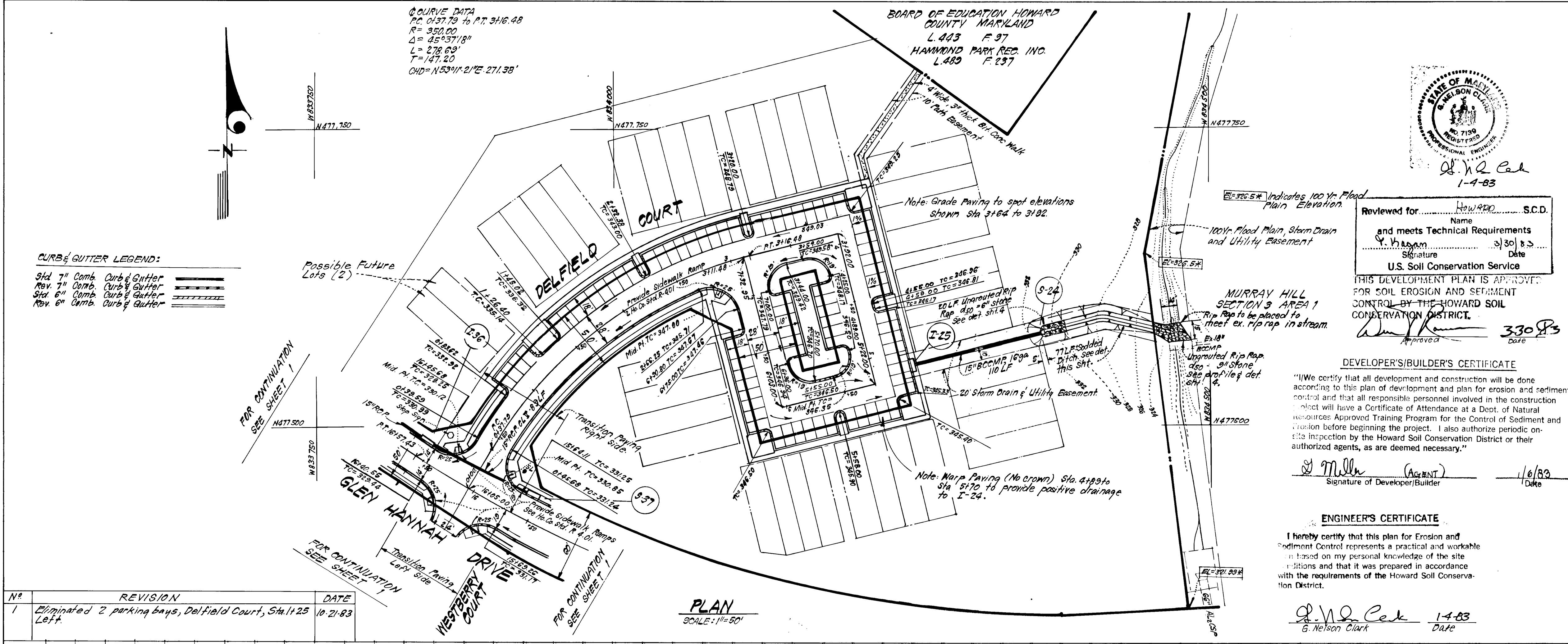
CLARK · FINEFROCK & SACKETT ENGINEERS · PLANNERS · SURVEYORS 11315 LOCKWOOD DRIVE · SILVER SPRING, MARYLAND 20904 · (301) 593-3400	
DESIGNED J.L.S.	ROAD CONSTRUCTION PLANS WHITE ROCK COURT
DRAWN K.I.W.	MURRAY HILL SECTION 4 AREA 1
CHECKED J.L.S.	6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DATE JAN 4, 1983	FOR: BRANTLY ASSOCIATES Suite 105, 5501 Twin Knolls Rd. Columbia, Maryland 21045
SCALE As Shown	FILE NO. 81-006 D



PROFILE SCALE
HOR: 1"=50'
VERT: 1"=5'

PROFILE LEGEND
Profile Grade Line
Existing
BRL (L)
BRL (RT)

908



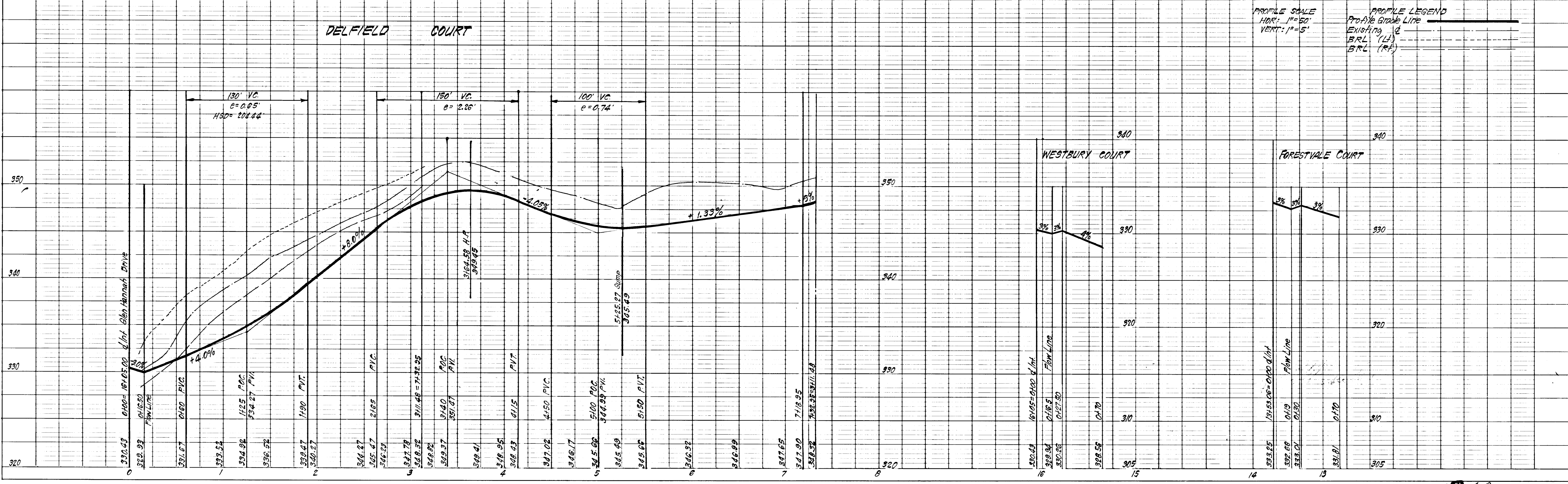
- GENERAL SODDING NOTES:**
1. Apply 10-10-10 Fertilizer @ 1000#/acre (25#/1000 sq ft)
 2. Apply Ground Agricultural Limestone @ 2000#/acre (50#/1000 sq ft)
 3. Incorporate both Lime and Fertilizer into soil by disking. Firm up after incorporation.
 4. Lay sod to a tight fit. Roll to insure contact with underlying soil. Water as necessary for 1st 2 weeks, in summer to ensure establishment.
 5. All sod to be used must be certified by the state of Md.
 6. Sod. to be pegged and stapled.

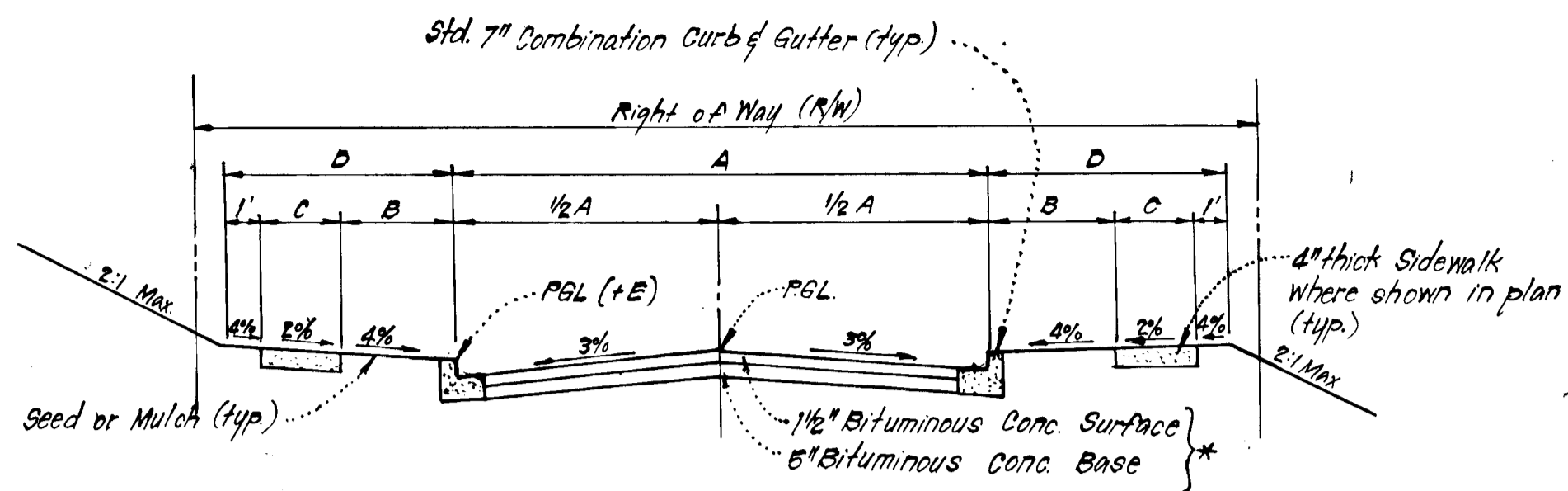
Reviewed for: **HOWARD COUNTY** S.C.D.
 Name: **Howard County**
 Date: **3/30/83**
 Signature: **[Signature]**
U.S. Soil Conservation Service

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Approved: **[Signature]** 3/30/83
 Date

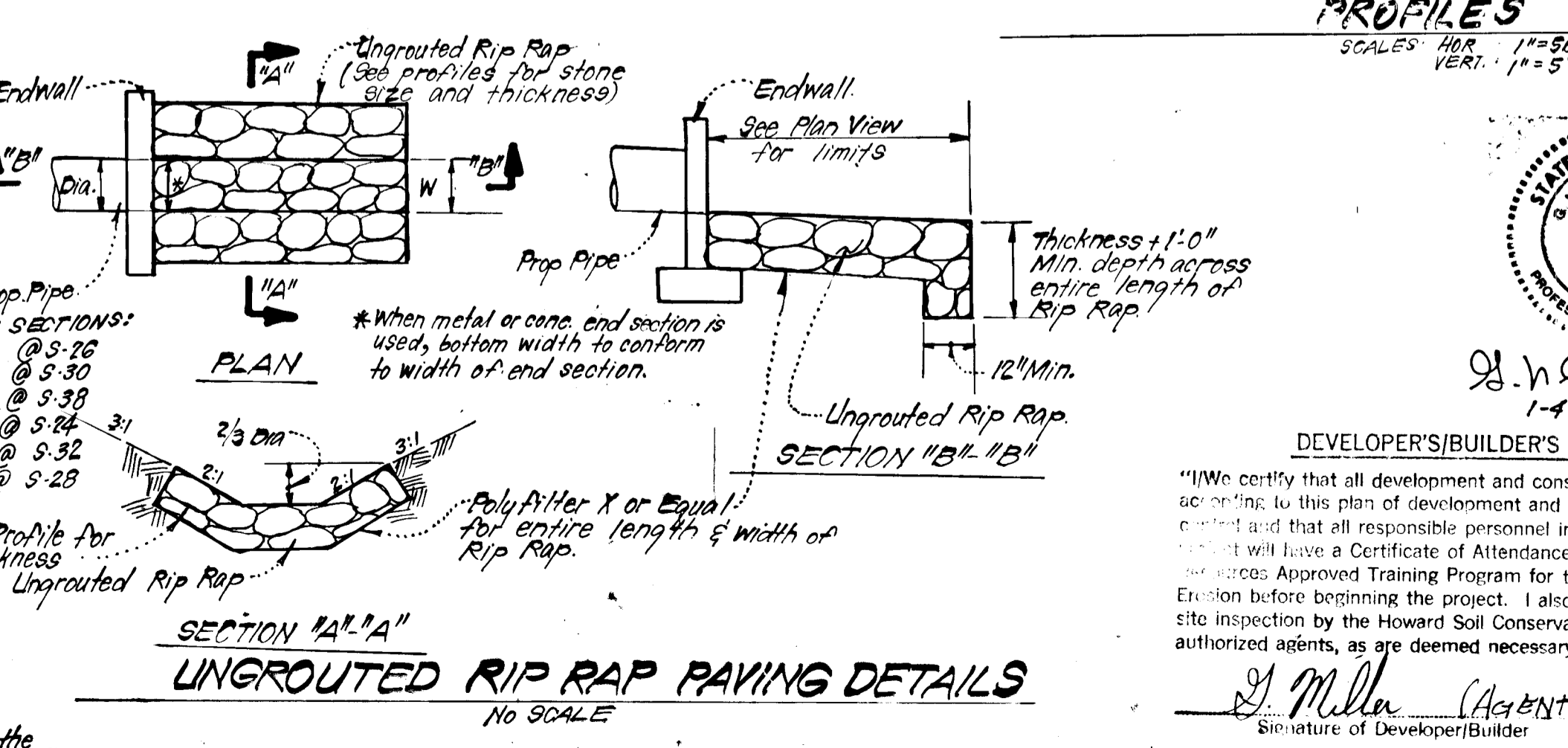
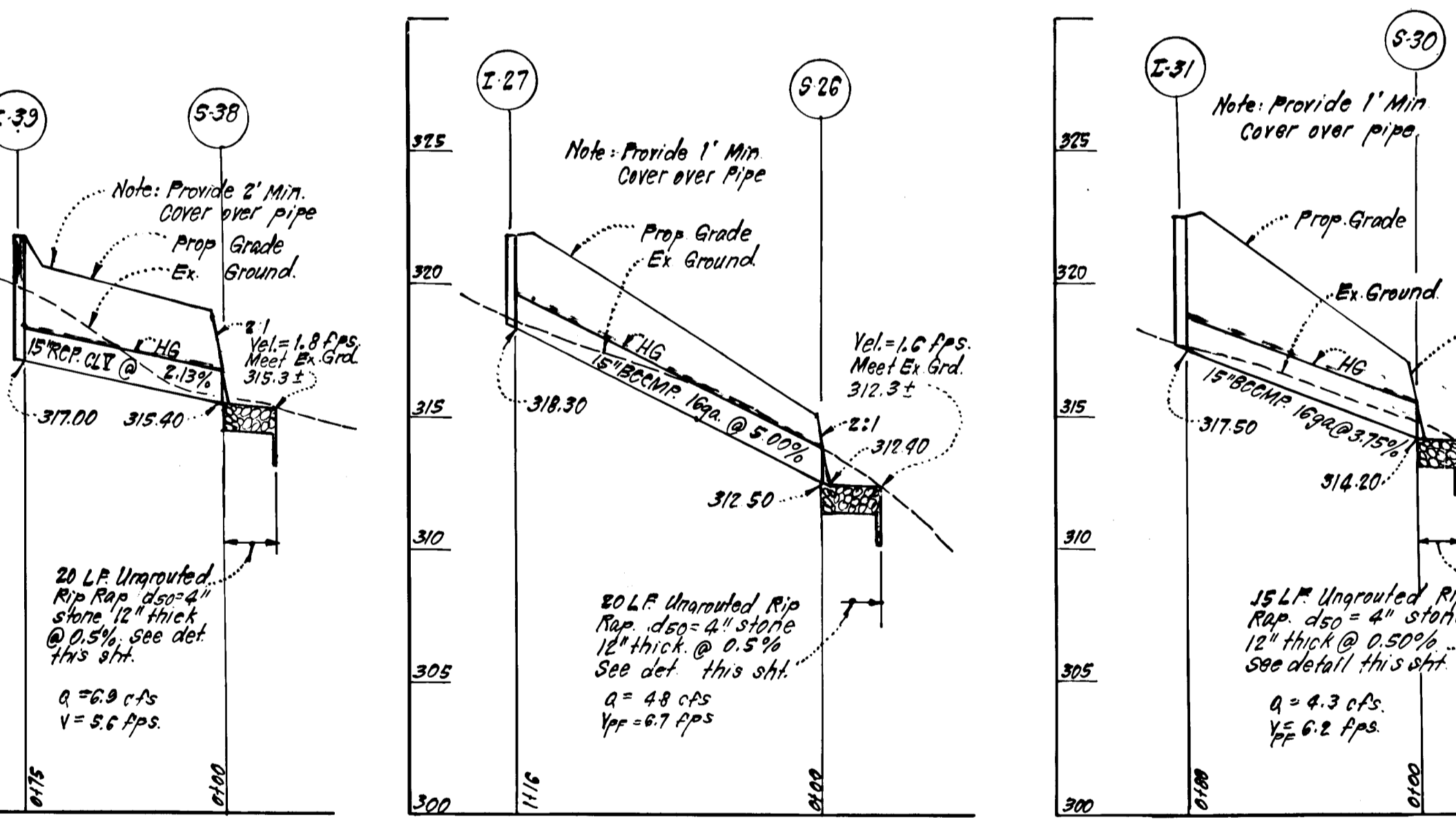
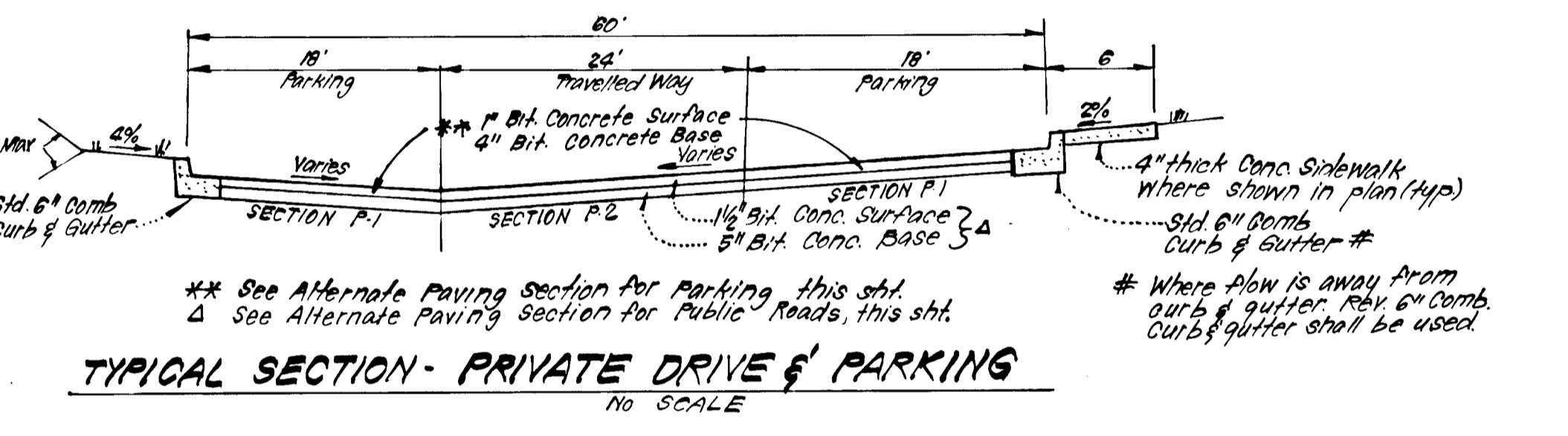
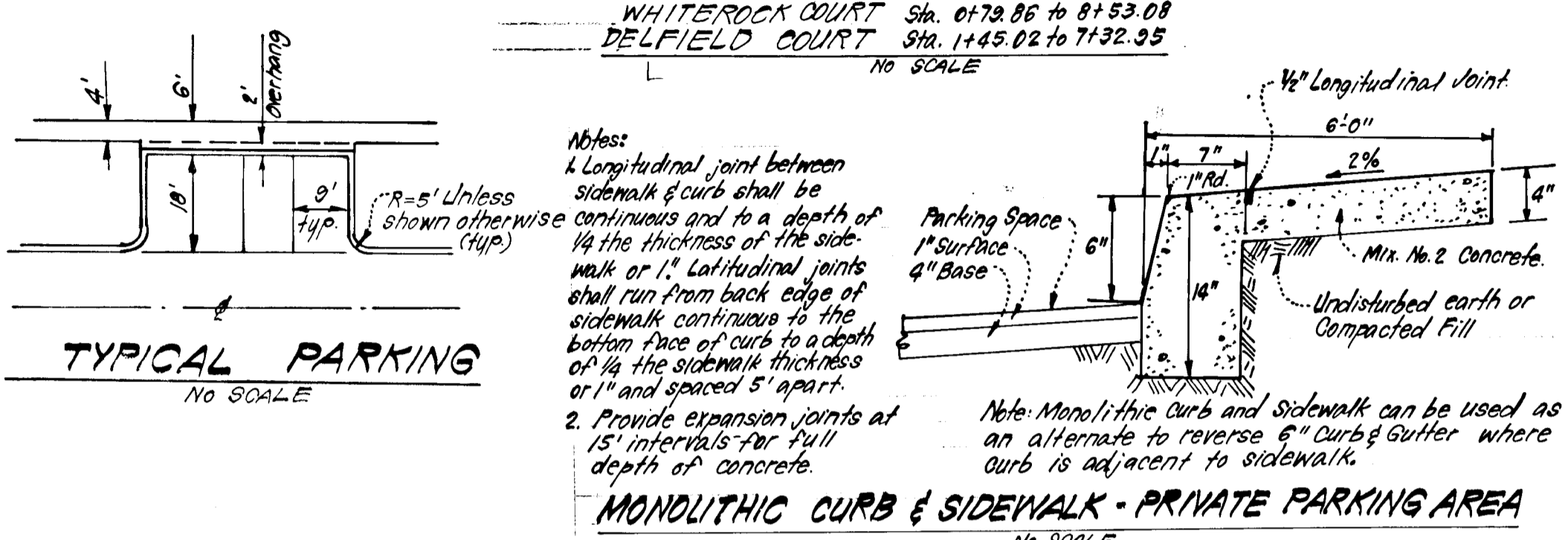
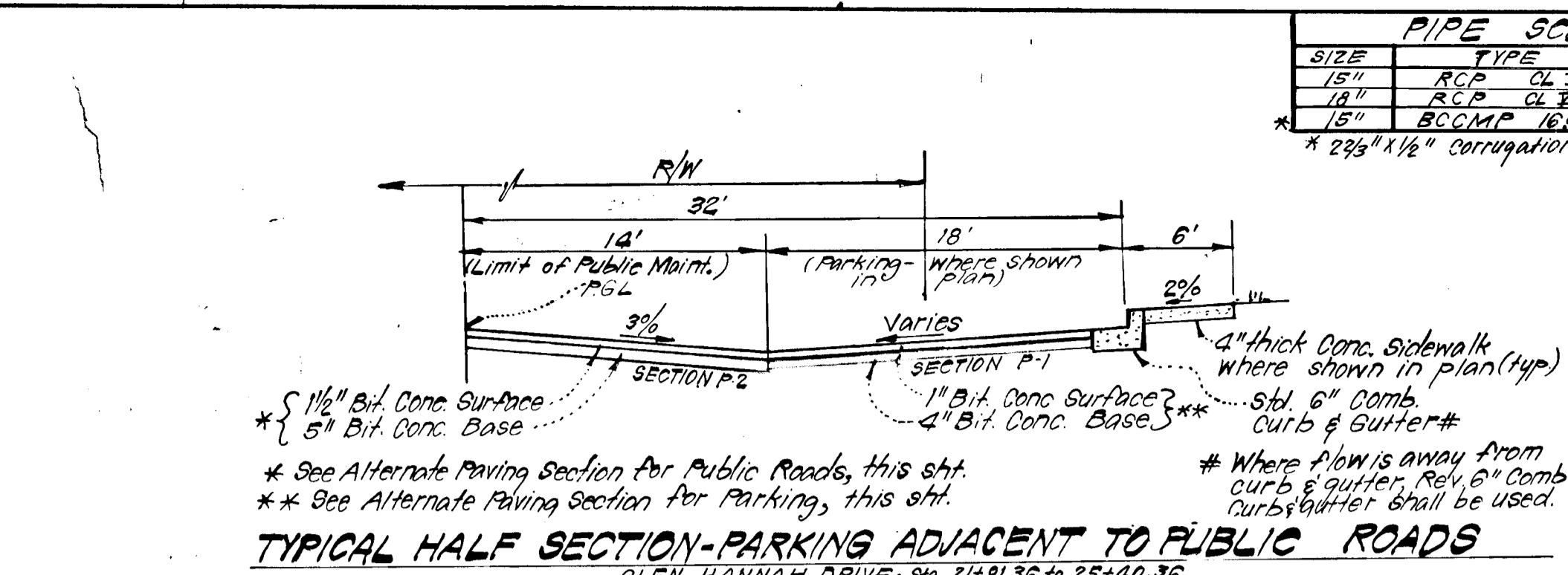
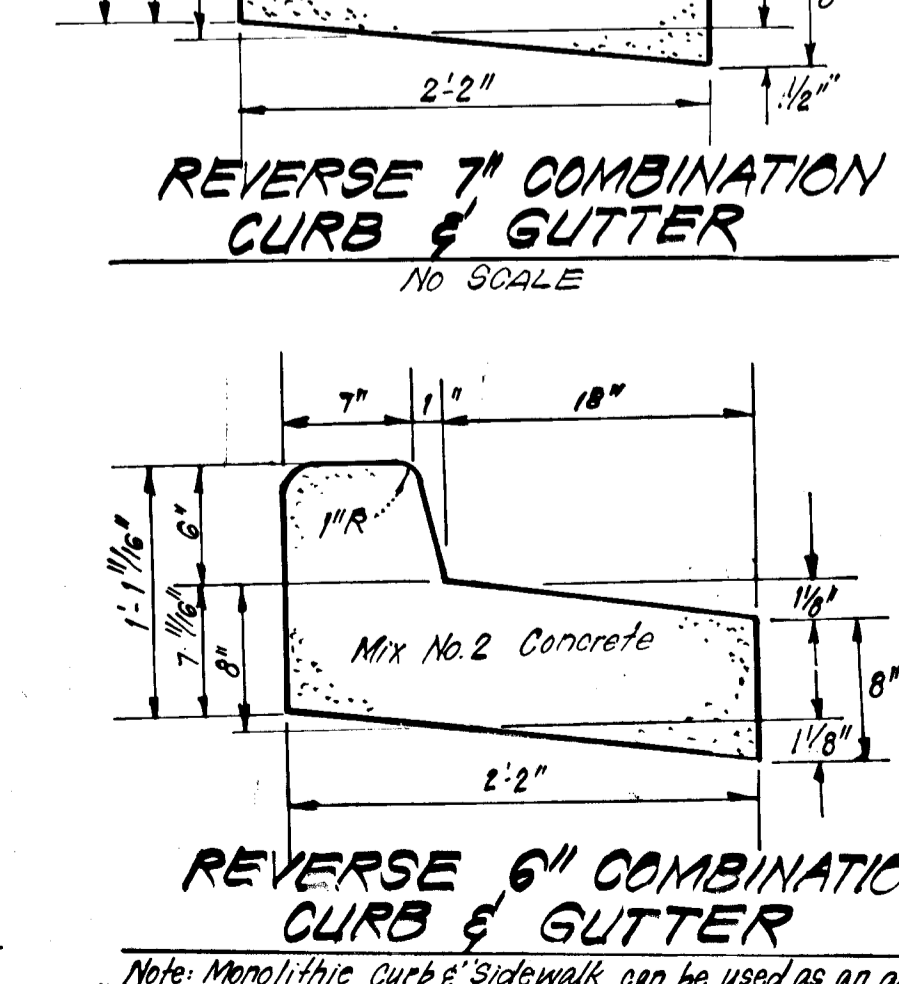
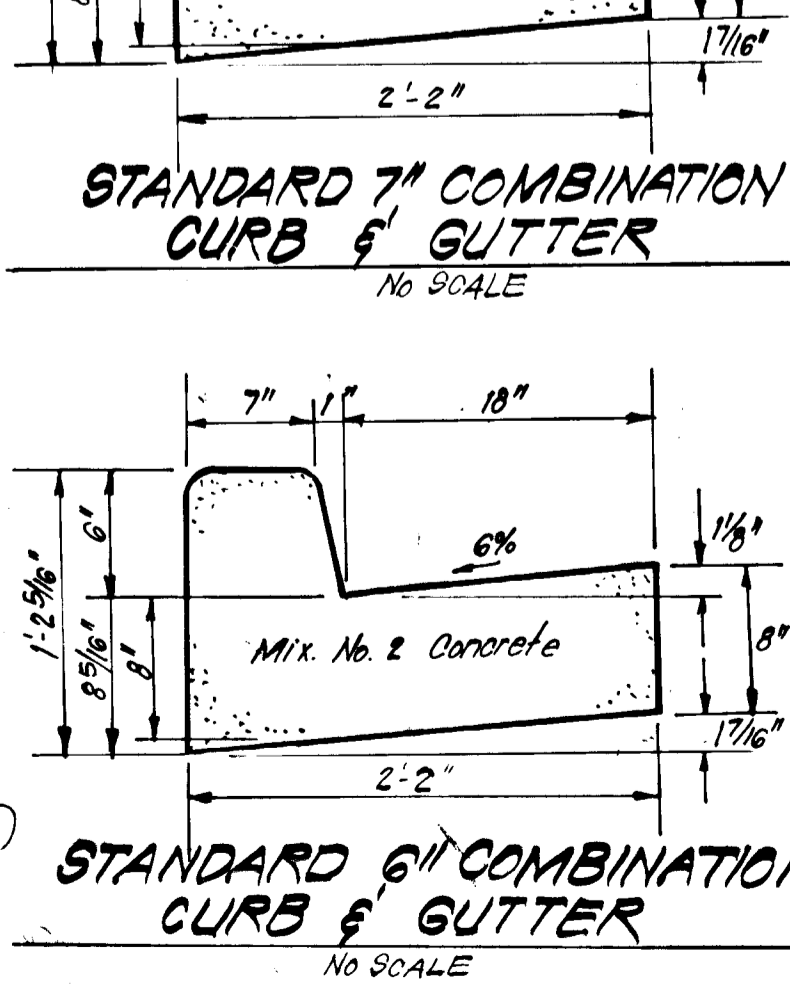
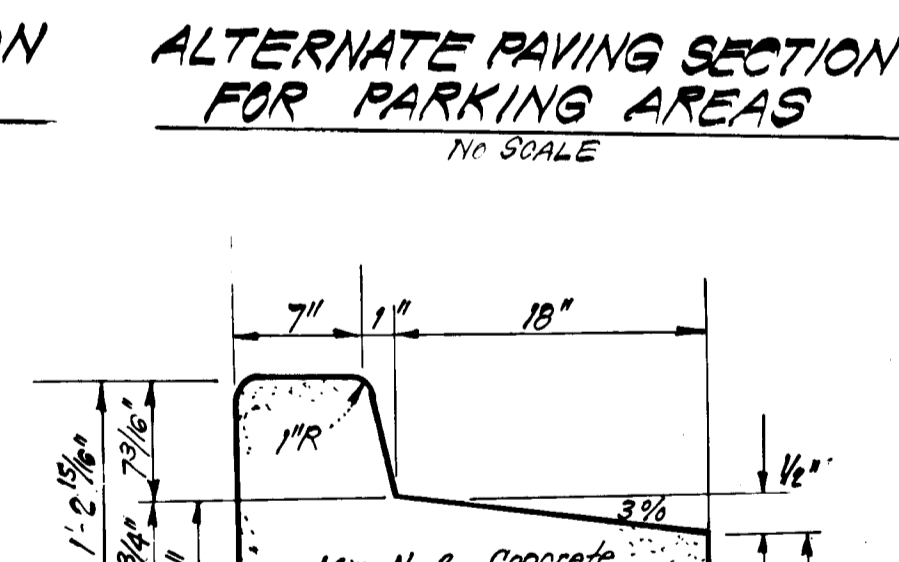
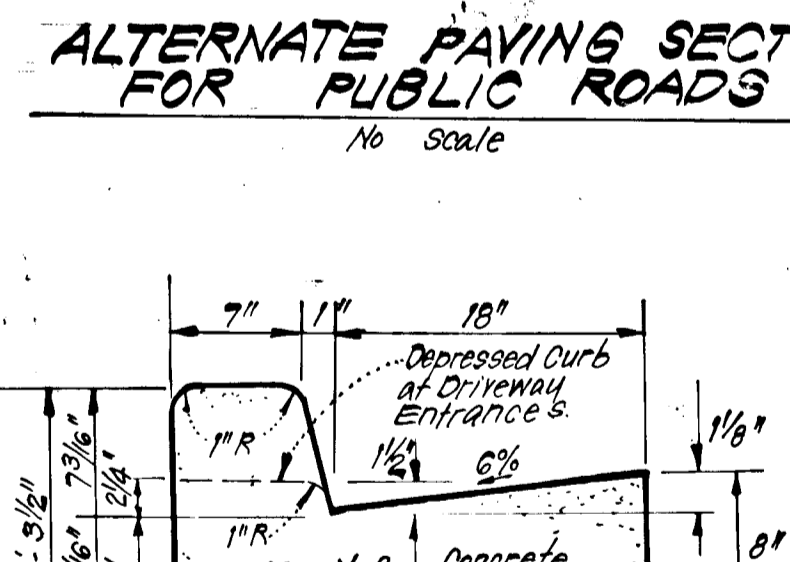
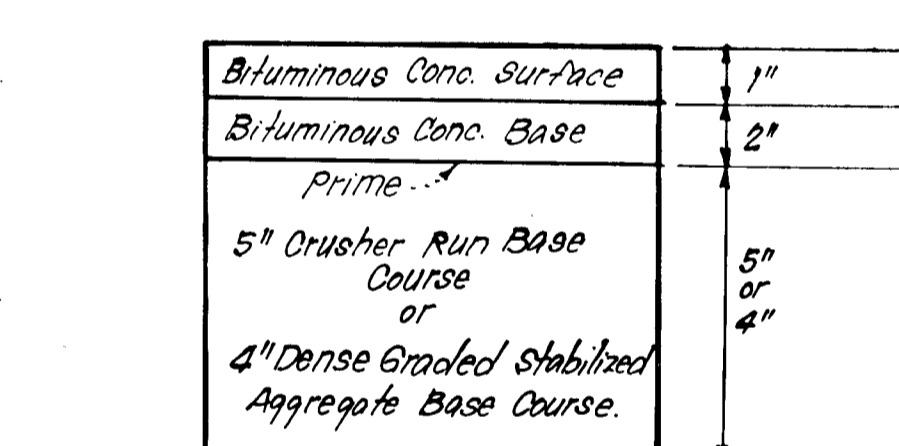
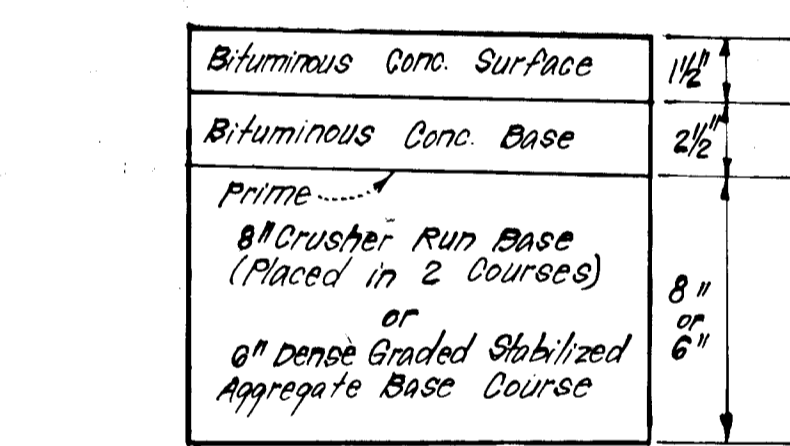
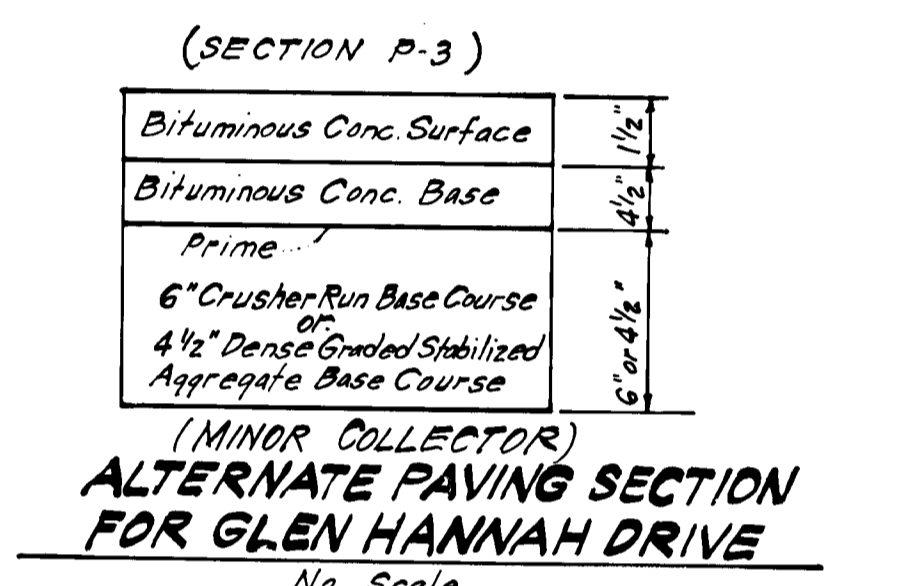
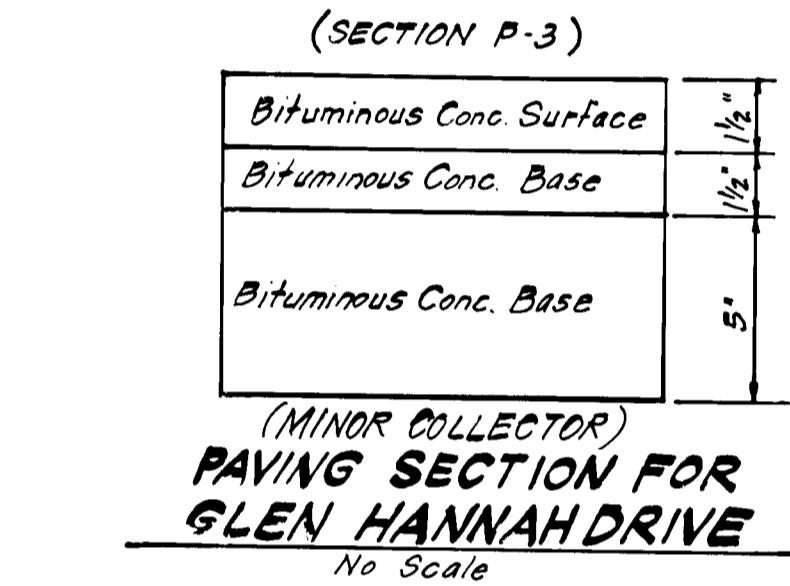
APPROVED: Department of Public Works	[Signature] 3/30/83 Date
APPROVED: Howard County Office of Planning & Zoning	[Signature] 5/13/83 Date
CLARK · FINEFROCK & SACKETT ENGINEERS · PLANNERS · SURVEYORS	
11315 LOCKWOOD DRIVE · SILVER SPRING, MARYLAND 20904 · (301) 593-3400	
DESIGNED: JLS	ROAD CONSTRUCTION PLANS
DRAWN: JLS	DELFIELD COURT
CHECKED: JLS	MURRAY HILL
DATE: JAN 4, 1983	SECTION 4 AREA 1
	6TH ELECTION DISTRICT
	HOWARD COUNTY, MARYLAND
	FOR: BRANTLY ASSOCIATES
	Suite 105, 5501 Twin Knolls Rd.
	Columbia, Maryland, 21045
SCALE: As shown	JOB NO. 81-006
FILE NO. 81-006-D	





TYPICAL PAVING SECTION - PUBLIC ROADS

STREET NAME & STATION	TYPE OF TRAFFIC	A	B	C	D	R/W	ZONING	DESIGN SPEED	E
GLEN HANNAH DRIVE Sta. 0+00 to 0+45.68	MINOR COLLECTOR	38'	6'	4'	11'	60'	RSC	35	-0.02
GLEN HANNAH DRIVE Sta. 0+45.68 to 0+118.30, Sta. 0+140.35 to 0+189.38	CUL. DE SAC	28'	4'	4'	9'	50'	RSC	30	+1.14
WHITEROCK COURT Sta. 0+00 to 0+79.82	CUL. DE SAC	28'	4'	4'	9'	50'	RSC	30	+1.14
DELFIELD COURT Sta. 0+00 to 1+45.02	CUL. DE SAC	28'	4'	4'	9'	50'	RSC	30	+1.14



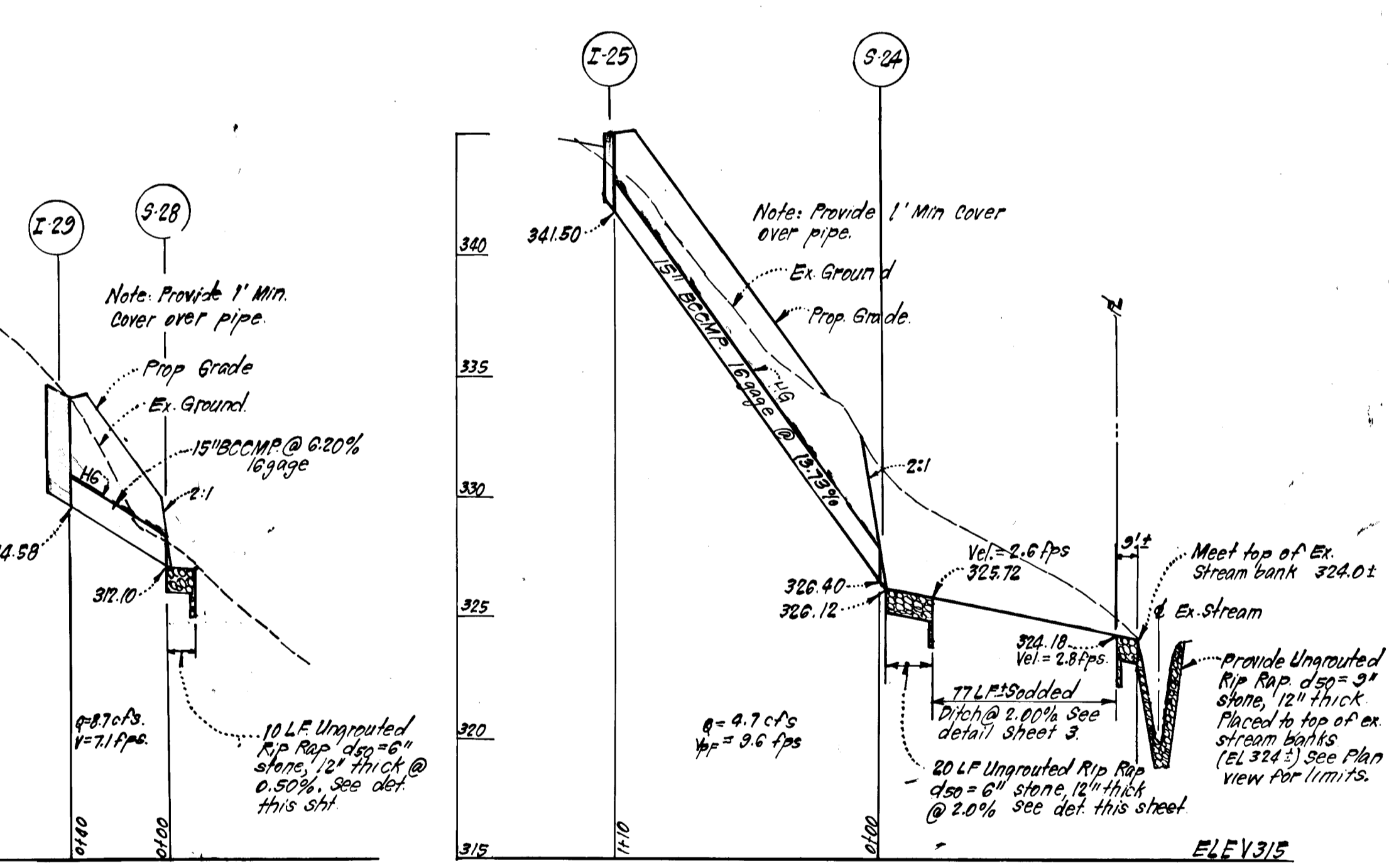
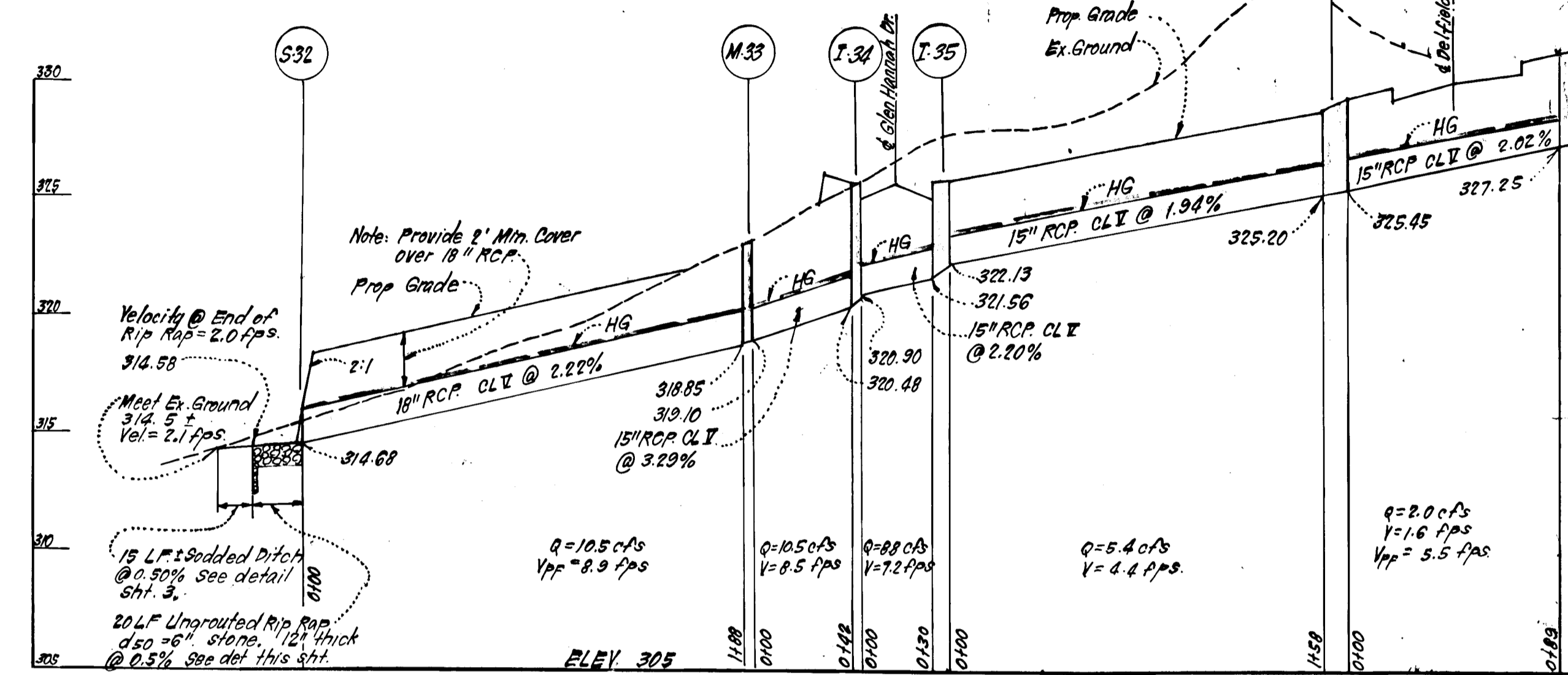
PIPE SCHEDULE

SIZE	TYPE	LENGTH
15"	RCP CLV	304 LF
18"	RCP CLV	188 LF
15"	BCCMP 16 gage	366 LF

* 2 1/2" x 1/4" corrugations.

STRUCTURE SCHEDULE

No.	TYPE	INV. OUT		TOP ELEVATION		REMARKS	LOCATION
		IN	IN	Upper	Lower		
S-24	Metal End Section	326.12	326.40			Ho. Co. Std. SD. 5.61 Dia = 15"	See Plan
I-25	A-10 Inlet	324.10		325.17		Ho. Co. Std. SD. 4.02 Dia = 3' 6"	Inlet Sta. 514.00 Delfield Ct. 38 LF
S-26	Metal End Section	312.40	312.50			Ho. Co. Std. SD. 5.61 Dia = 15"	See Plan
I-27	A-10 Inlet	318.30		321.80		Ho. Co. Std. SD. 4.02 Dia = 3' 6"	Inlet Sta. 2158.80 Forestvale Ct. 30 LF
S-28	Metal End Section	309.90	310.10			Ho. Co. Std. SD. 5.61 Dia = 15"	See Plan
I-29	A-10 Inlet	314.88		319.73	319.20	Ho. Co. Std. SD. 4.02 Dia = 3' 6"	See Plan
S-30	Metal End Section	313.10	313.18			Ho. Co. Std. SD. 5.61 Dia = 15"	See Plan
I-31	A-10 Inlet	317.50		322.50		Ho. Co. Std. SD. 4.02 Dia = 3' 6"	Inlet Sta. 1472.82 Westberry Ct. 30 LF
S-32	Conc. End Section	314.68	314.68			Ho. Co. Std. SD. 5.52 Dia = 18"	See Plan
M-33	Shallow Manhole	318.85	318.10	323.20		Ho. Co. Std. G. 5.05 48" Dia	See Plan
I-34	A-10 Inlet	320.48	320.90	325.66		Ho. Co. Std. SD. 4.02 Dia = 3' 6"	Inlet Sta. 1821.43 Glen Hannah Dr. 14 LF
I-35	A-10 Inlet w/Deflectors	325.20		329.13	328.70	Ho. Co. Std. SD. 4.02 Dia = 3' 6"	Inlet Sta. 1821.43 Glen Hannah Dr. 14 LF
S-38	Conc. End Section	315.40	315.40			Ho. Co. Std. SD. 5.52 Dia = 18"	See Plan
I-39	A-10 Inlet	317.00		321.75		Ho. Co. Std. SD. 4.02 Dia = 3' 6"	Inlet Sta. 2417.10 Glen Hannah Dr. 32 LF
I-37	A-5 Inlet	327.25	327.25	331.39	331.39	Ho. Co. Std. SD. 4.01 Dia = 3' 6"	Inlet Sta. 1515.58 Glen Hannah Dr. 19 LF



PROFILES

Reviewed for Howard S.C.D. Name and meets Technical Requirements. U.S. Soil Conservation Service.

DEVELOPER'S/BUILDER'S CERTIFICATE. I certify that all development and construction will be done according to this plan of development and plan for erosion and sediment control...

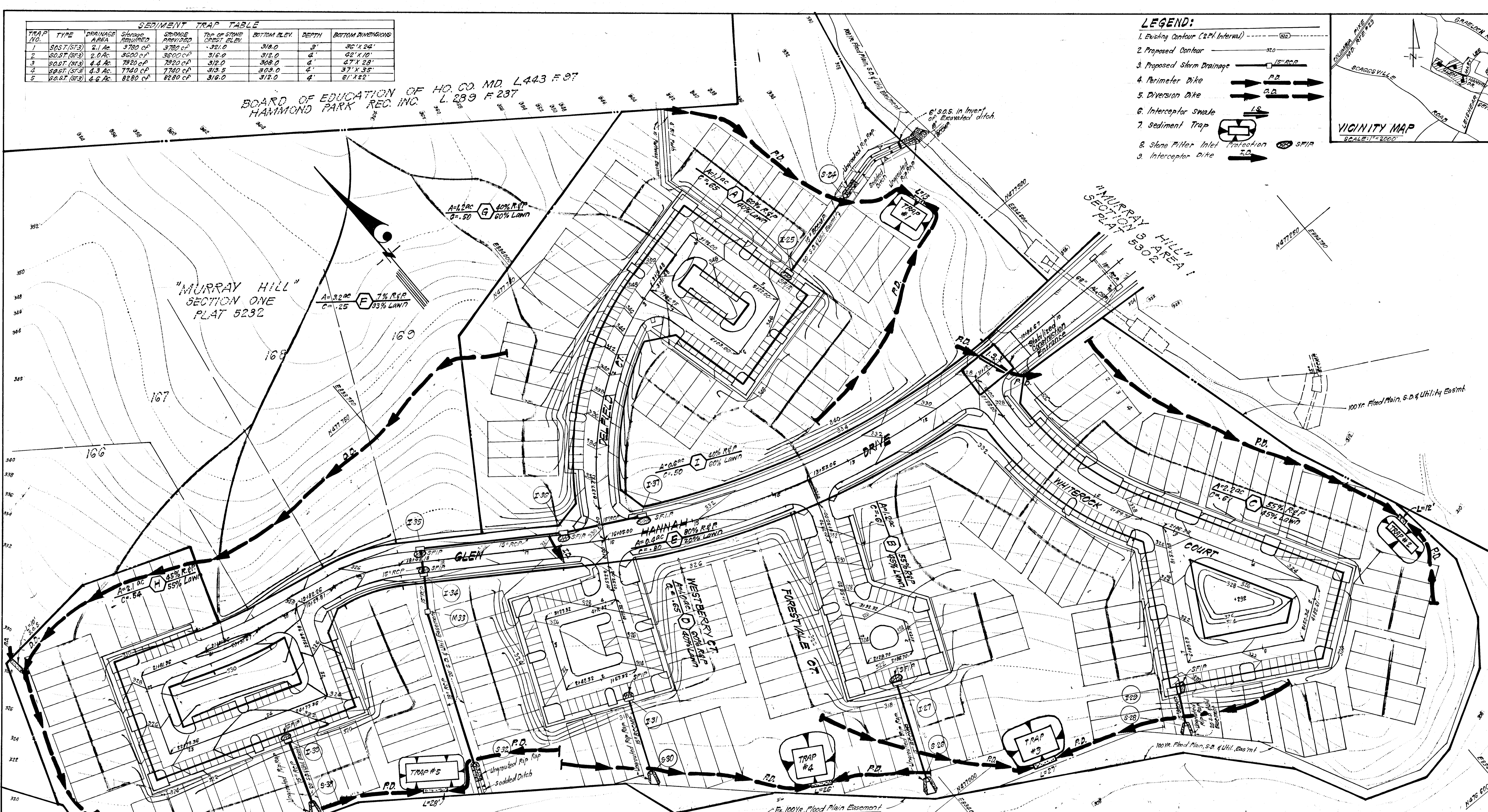
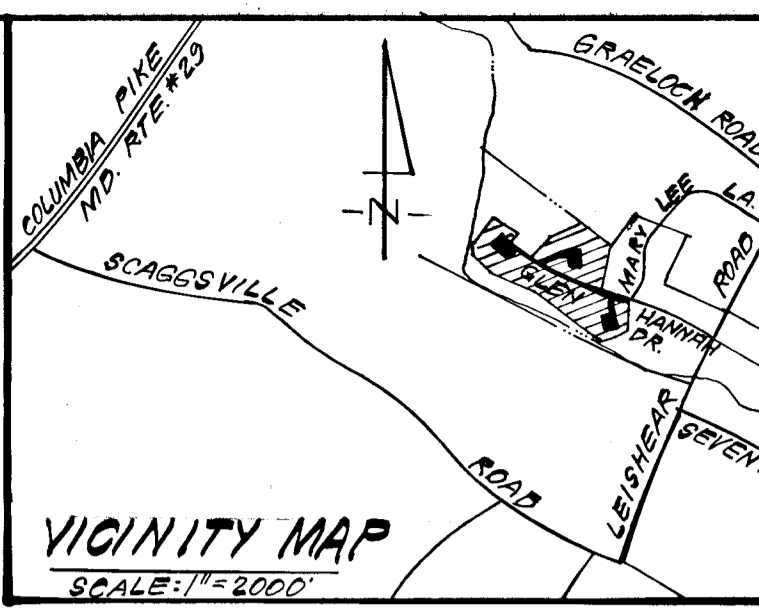
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APPROVED: Department of Public Works. CLARK • FINEFROCK & SACKETT ENGINEERS • PLANNERS • SURVEYORS. ROAD CONSTRUCTION PLANS STORM DRAINAGE & PAVING DETAILS. MURRAY HILL. SECTION 4 AREA 1 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND.

TRAP NO.	TYPE	DRAINAGE AREA	STORAGE REQUIRED	STORAGE PROVIDED	TOP OF STONE CREST ELEV.	BOTTOM ELEV.	DEPTH	BOTTOM DIMENSIONS
1	SOST (ST3)	2.1 Ac.	3780 CF	3780 CF	316.0	318.0	3'	36' X 24'
2	SOST (ST3)	2.0 Ac.	3600 CF	3600 CF	316.0	312.0	4'	42' X 18'
3	SOST (ST3)	4.4 Ac.	7820 CF	7820 CF	312.0	308.0	4'	47' X 29'
4	SOST (ST3)	4.3 Ac.	7740 CF	7740 CF	311.5	303.0	4'	37' X 35'
5	SOST (ST3)	4.6 Ac.	8280 CF	8280 CF	316.0	312.0	4'	61' X 22'

BOARD OF EDUCATION OF HO. CO. MD. L443 F 97
 HAMMOND PARK REC. INC. L 239 F 237

- LEGEND:**
- Existing Contour (2' Interval) - ---
 - Proposed Contour - - - - -
 - Proposed Storm Drainage - 15" RCP
 - Perimeter Dike - P.D.
 - Diversion Dike - D.D.
 - Interceptor Swale - I.S.
 - Sediment Trap - [Symbol]
 - Stone Filter Inlet Protection - SFIP
 - Interceptor Dike - I.D.



Reviewed for Howard S.C.D. Name
 and meets Technical Requirements
Howard Signature Date 3/30/83
 U.S. Soil Conservation Service

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Howard 3/30/83
 Approver Date

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J. Miller Agent 1/6/83
 Signature of Developer/Builder Date

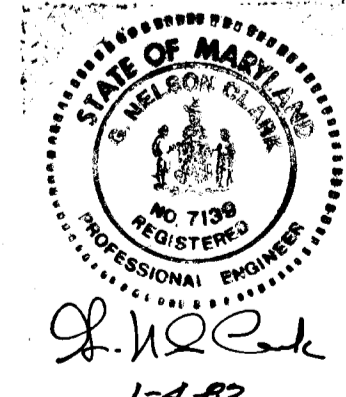
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G. Nelson Clark 1-4-83
 G. Nelson Clark Date

APPROVED: Department of Public Works
Richard E. Rose 3-30-83
 Chief, Bureau of Engineering Date

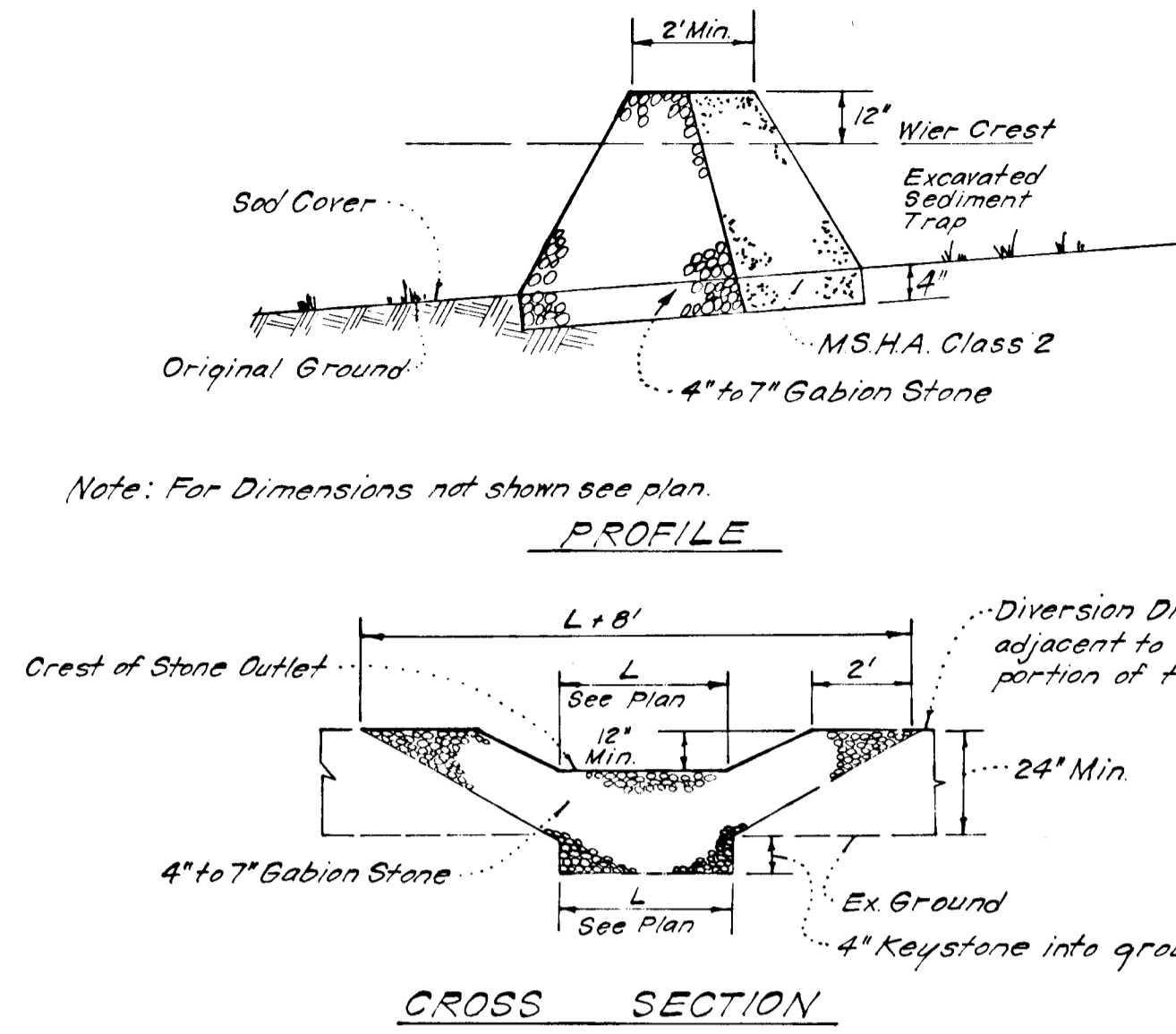
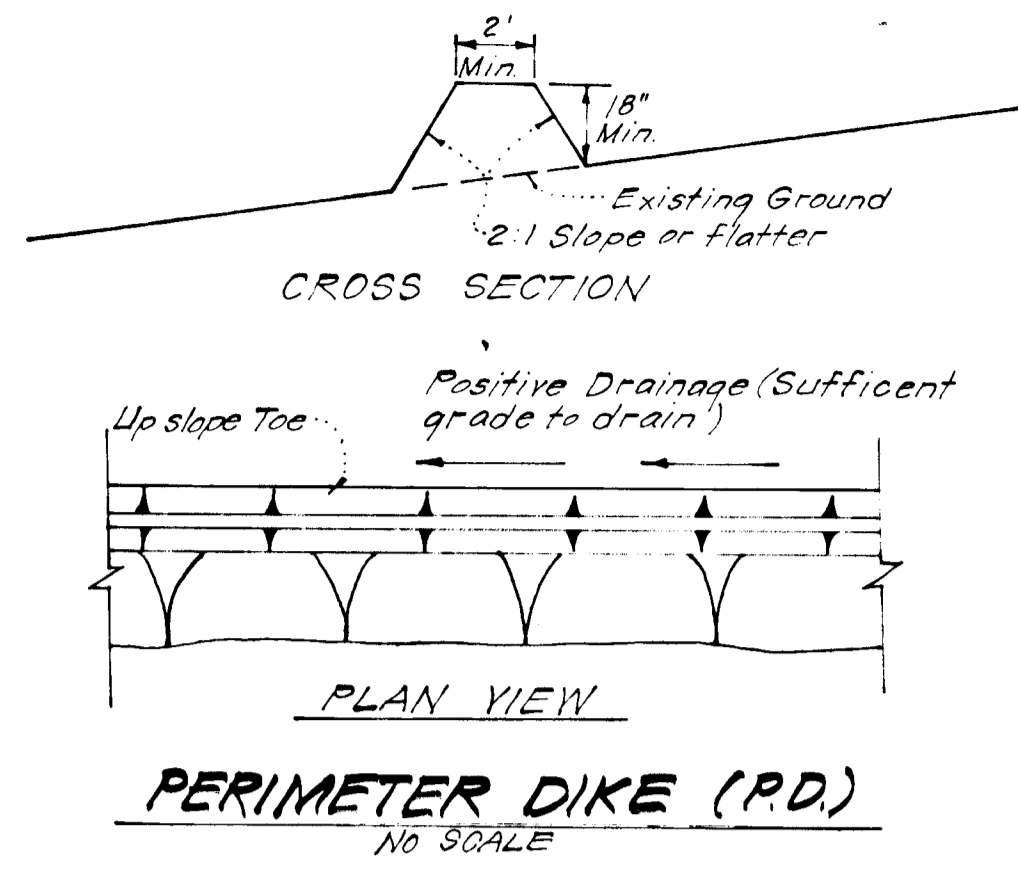
APPROVED: Howard County Office of Planning and Zoning
John W. Wardenham 3-30-83
 Chief, Division of Land Development & Zoning Administration Date



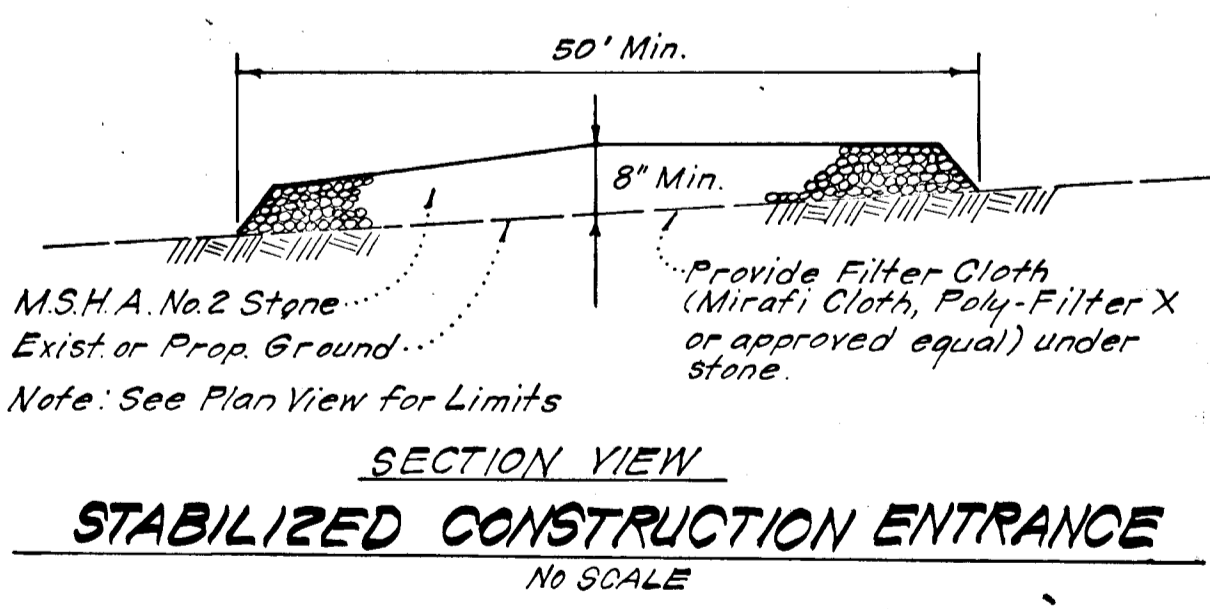
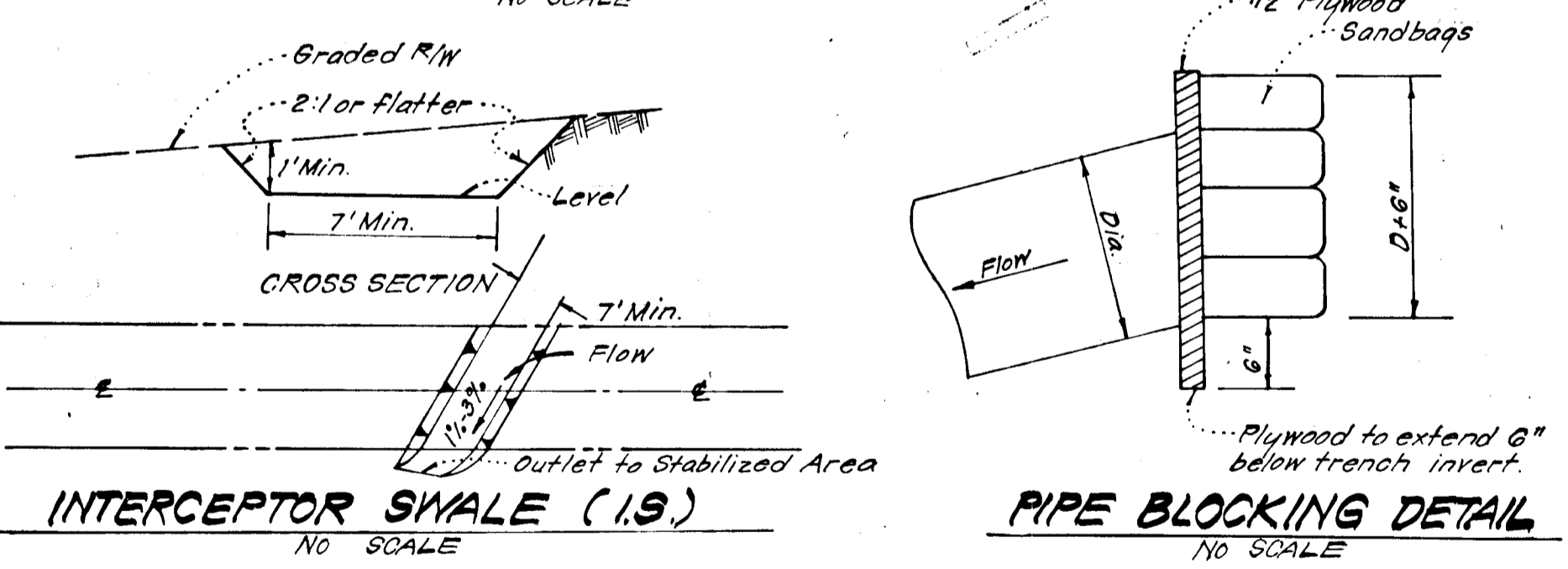
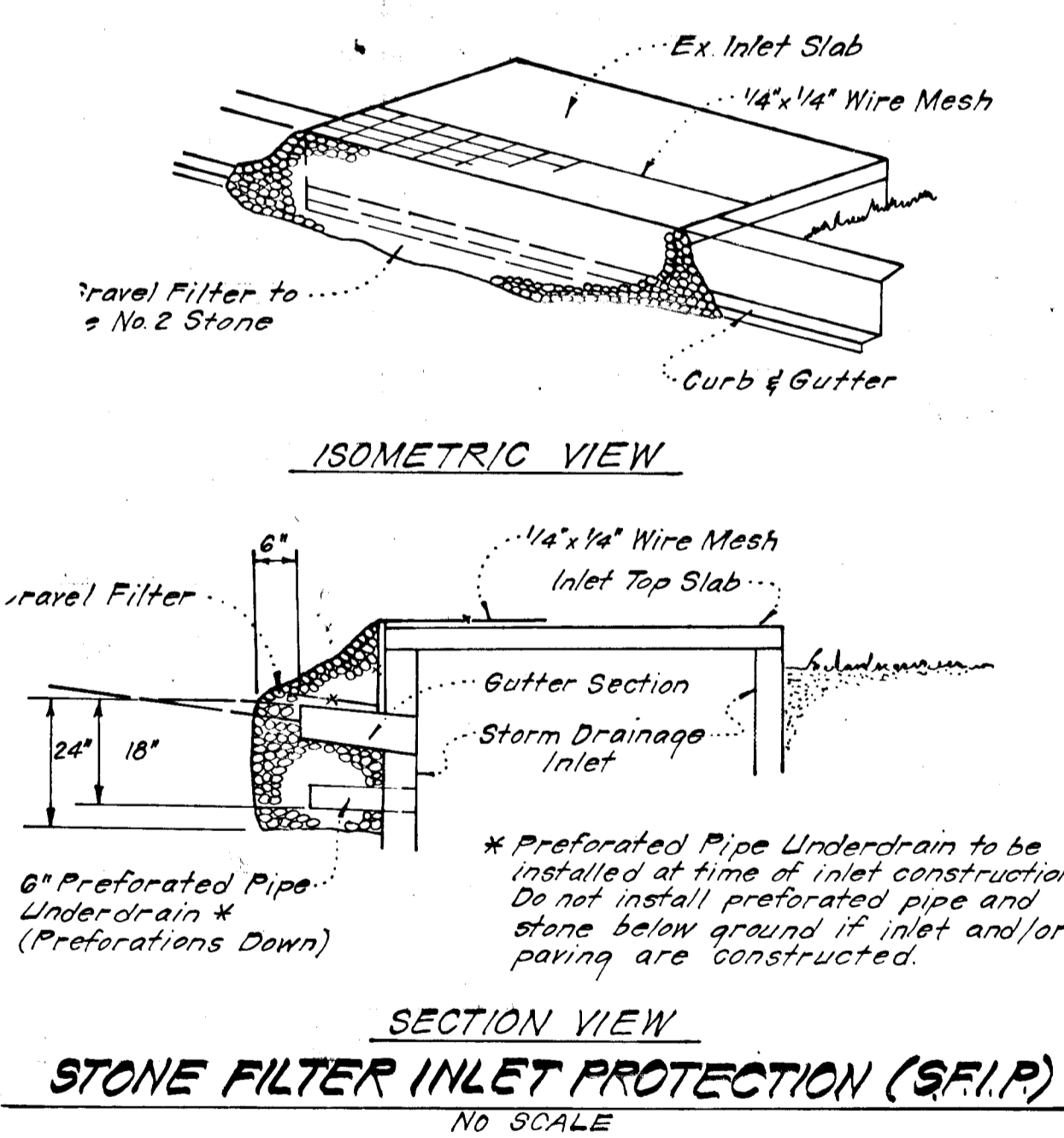
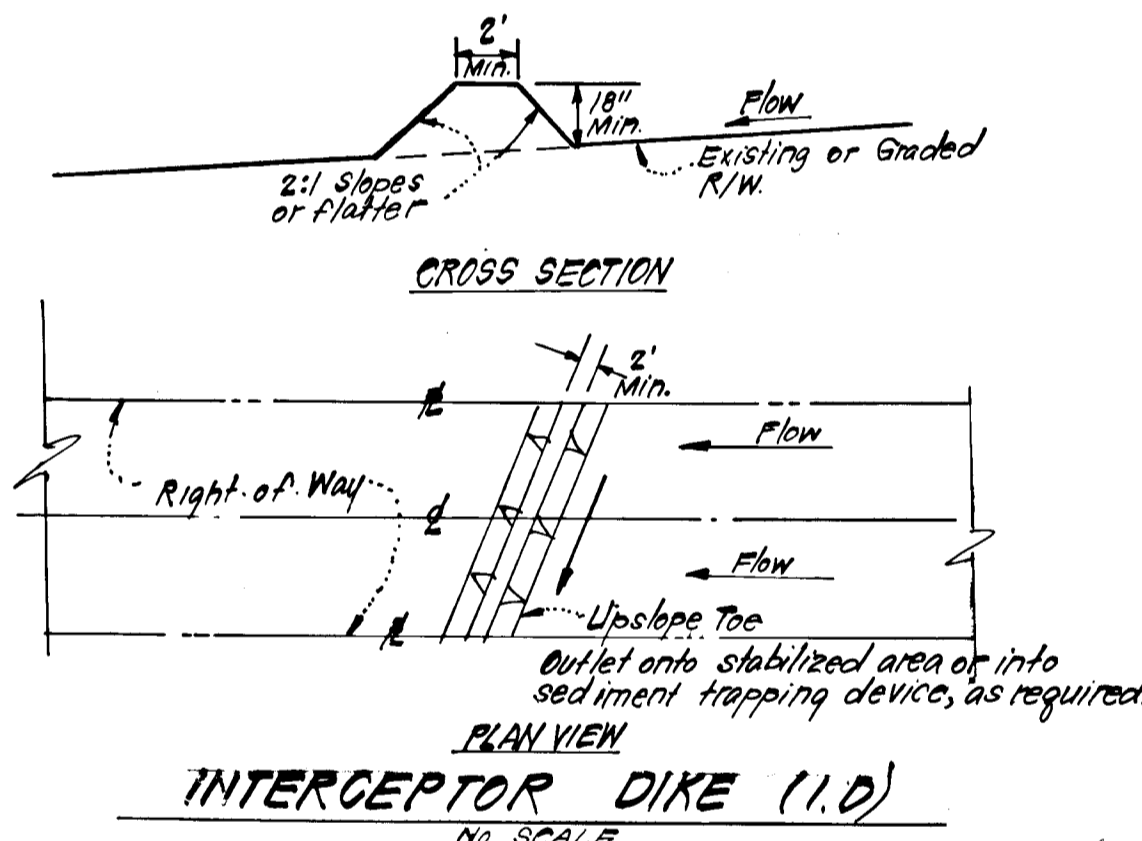
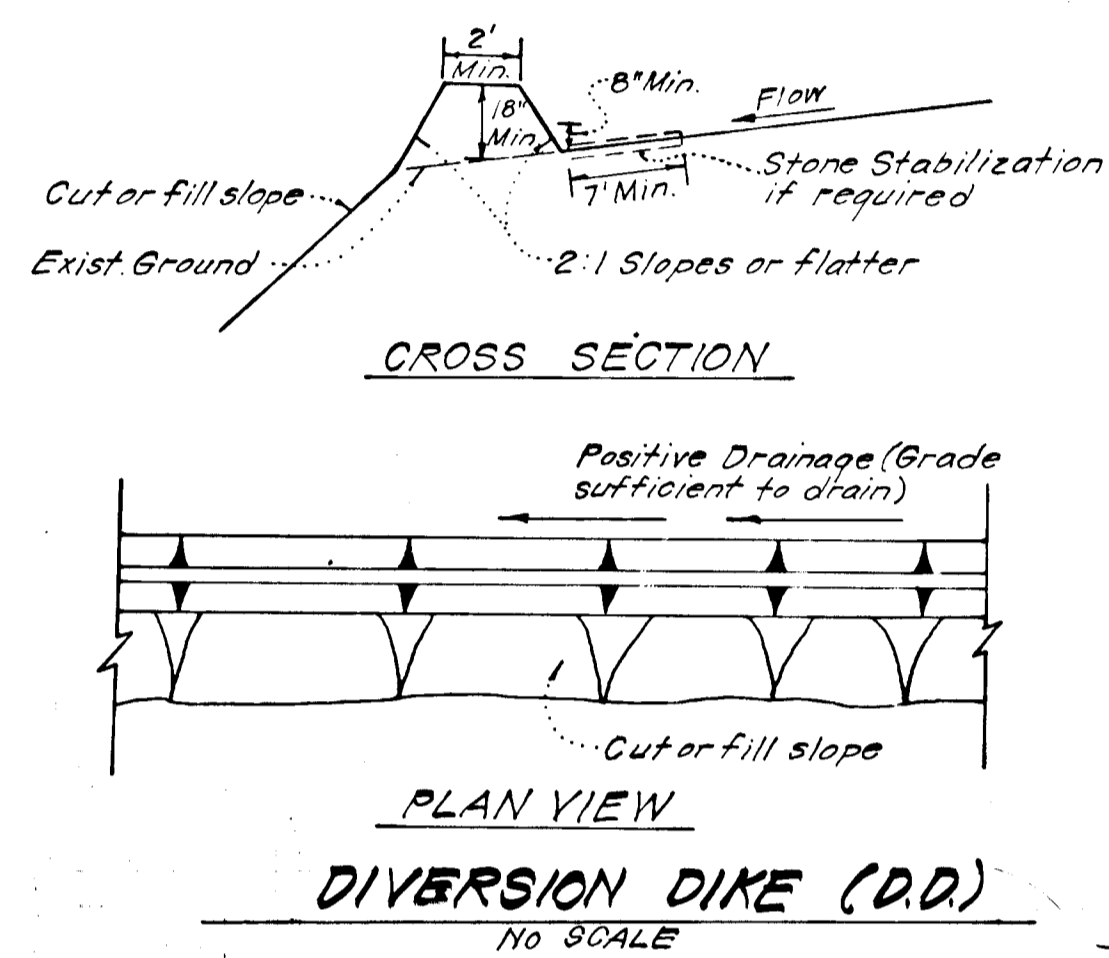
CLARK · FINEFROCK & SACKETT ENGINEERS · PLANNERS · SURVEYORS		11315 LOCKWOOD DRIVE SILVER SPRING, MARYLAND 20904 (301) 593-3400
DESIGNED JLS.	DRAWN K.I.W.	CHECKED JLS.
ROAD CONSTRUCTION PLANS SEDIMENT & EROSION CONTROL PLAN AND DRAINAGE AREA MAP		SCALE 1" = 50'
MURRAY HILL		DRAWING 5 OF 6
SECTION 4 AREA 1 CITY ELECTION DISTRICT HOWARD COUNTY, MARYLAND		JOB NO. 81-006
FOR: BRANTLY ASSOCIATES Suite 105, 5501 Twin Knolls Rd. Columbia, Md 21045		FILE NO. 81-006-D
DATE JAN 4, 1983		

GENERAL NOTES

- Grading Permits shall be obtained prior to installation of Sediment Control & Grading.
- All Sediment and Erosion Control Measures will be installed and stabilized according to this plan prior to any other grading, clearing or disturbance of the existing surface of the site. See note #6 for stabilization except that the seed mixture will be annual rye applied at a rate of 14 lbs/1000 sf.
- Notify the Bureau of Inspections and Permits at least 24 hrs before starting any work.
- All Sediment Control Practices to conform to the "Standards and Specifications for Soil Erosion and Sediment Control in Developing Areas" and shall be adjusted to meet actual field conditions.
- Stabilization of Disturbed ground to be done as soon after construction as possible.
- All disturbed area to be stabilized in accordance with the following Specifications:
 - Seed - certified 85% germination applied at the rate of 3lbs/1000 sf. Mixture - 40% Kentucky Blue, 20% chewing Fescue, 20% Kentucky 31 and 20% annual rye
 - Fertilizer - 10-10-10 applied at a rate of 23 lbs/1000 sf. Ground Agricultural Lime or Dolomitic Lime applied at a rate of 30 lbs/1000 sf
 - Mulch - Weed Free grain straw applied at a rate of 70-90 lbs/1000 sf. Mulch shall be secured to the ground by any approved method i.e.; asphalt tacks, chemical binder etc.
 - All Sod used shall be Maryland State Certified.
- All structural Sediment Control Measures are to remain in place until permission for their removal has been obtained from the Bureau of Inspections and Permits.
- On-Site Inspection and Maintenance of all Sediment Control Measures including clean out of Sediment Traps and Dikes, and proper establishment of all planned vegetative measures will be the responsibility of the developer or his representative on the site, on a continuing day to day basis.
- It will be the developers responsibility to provide additional Sediment & Erosion Control Devices to protect stabilized areas during construction.
- The Contractor shall keep all public roads free of sediment deposits left from traffic leaving construction site.
- Approval of this plan is conditional upon the approval of Sediment Control Plan for the off-site waste or borrow area prior to the import of any borrow or export of waste to or from this site.
- All pipes to be blocked at the end of each day. See detail this sheet.
- Total Amount of Straw Bales or Silt Fence shown = None L.F.
- SITE ANALYSIS:
 - Total Area: 20.486 Acres.
 - Area to be Roofed: 0.000 Acres.
 - Area to be Paved: 4.515 Acres.
 - Area to be Seeded: 5.358 Acres.
 - Area Undisturbed: 10.613 Acres.
- CONSTRUCTION SEQUENCE:
 - Install Stabilized Construction Entrance
 - Install All other Sediment & Erosion Control Measures (Except S.F.I.P.s)
 - Rough grade site
 - Construct Storm Drainage
 - Construct Utilities
 - Final grade & construct paving, sidewalks, etc.
 - Stabilize all other onsite areas in accordance with General Note # 6.
 - Remove Sediment & erosion control measures after all areas draining to them have been stabilized.
- Area of storm drainage coast below Sediment Control devices will be immediately stabilized after installation.



- Notes:
- Sediment Trap to be cleaned out when sediment reaches a level of 1ft below crest of stone outlet.
 - Bottom of Sediment Trap to be level and constructed to the dimensions shown on plan.
 - Stone Outlet to be constructed through diversion dike adjacent to excavated.



Reviewed for: Howard S.C.D.
Name
and meets Technical Requirements
4/18/83 Date
Signature
U.S. Soil Conservation Service
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
3/30/83 Date
Approved

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 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."
4/16/83 Date
Signature of Developer/Builder

ENGINEER'S CERTIFICATE
I hereby certify that this plan for Erosion and Sediment Control represents a practical and workable solution 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.
4/16/83 Date
Signature

APPROVED: Department of Public Works
3-30-83 Date
Chief, Bureau of Engineering
APPROVED: Howard County Office of Planning and Zoning
3-30-83 Date
Chief, Division of Land Development & Zoning Administration

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

DESIGNED JLS	ROAD CONSTRUCTION PLAN SEDIMENT & EROSION CONTROL PLAN MURRAY HILL SECTION 4 AREA 1 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND FOR: BRANTLY ASSOCIATES Suite 105, 5501 Twin Knolls Rd Columbia Maryland 21045	SCALE As Shown
DRAWN K.I.W.		JOB NO 81-006
CHECKED JLS		FILE NO 81-006-D
DATE JAN 4, 1983		

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