

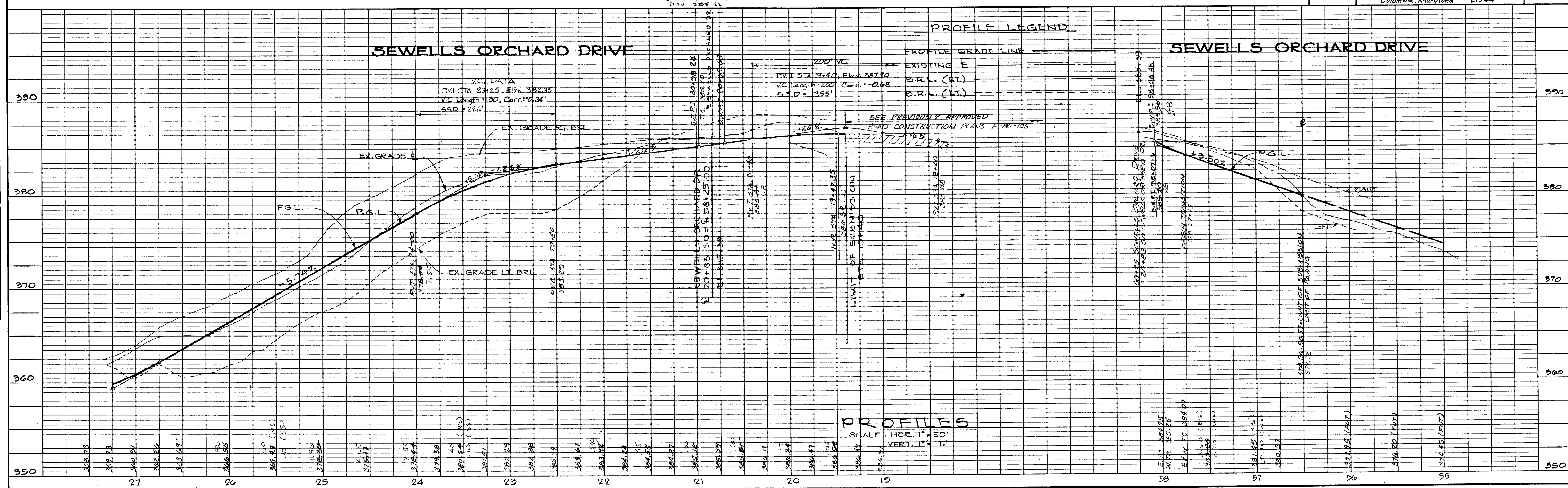
DATE	
BY	
PLAN	
NO.	

DATE	
BY	
PROFILE	
NO.	

HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS
APPROVED: *John W. Middleton*
DATE: 10/17/83

DESIGNED BY: E.I.S.
DRAWN BY: M.E.B.
CHECKED BY: R.M.
DATE: 8-23-83

SCALE: AS SHOWN
DRAWING: 1 OF 8
JOB NO:
FILE NO:



APPROVED: Department of Public Works
John W. Middleton 11-22-83
Chief, Bureau of Engineering

APPROVED: *John W. Middleton* 11-17-83
Chief, Division of Land Development & Zoning Administration

STATE OF MARYLAND
PROFESSIONAL ENGINEER
REG. NO. 10000

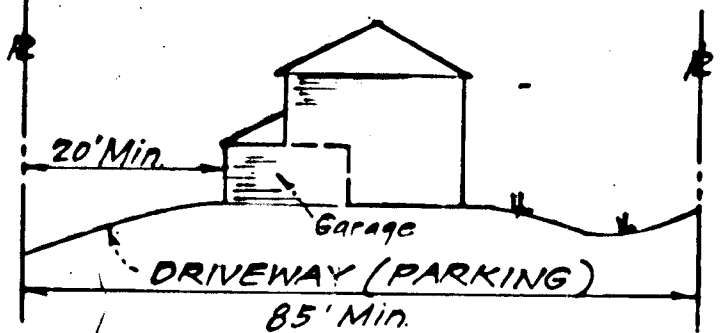
EVANS, HAGAN & HOLDEFER, INC.
SURVEYORS AND CIVIL ENGINEERS
8013 BELAIR ROAD / BALTIMORE, MD. 21236
(301) 668-1501

Robert Mark
DATE: 10/17/83 SCALE:

NOTE:
FOR GENERAL NOTES SEE SHT. 1

SEE SHEET 3 FOR TYP PAVING SECTION
DETAIL - SEWELL'S ORCHARD DRIVE

attached units will provide 2 off-street parking spaces.

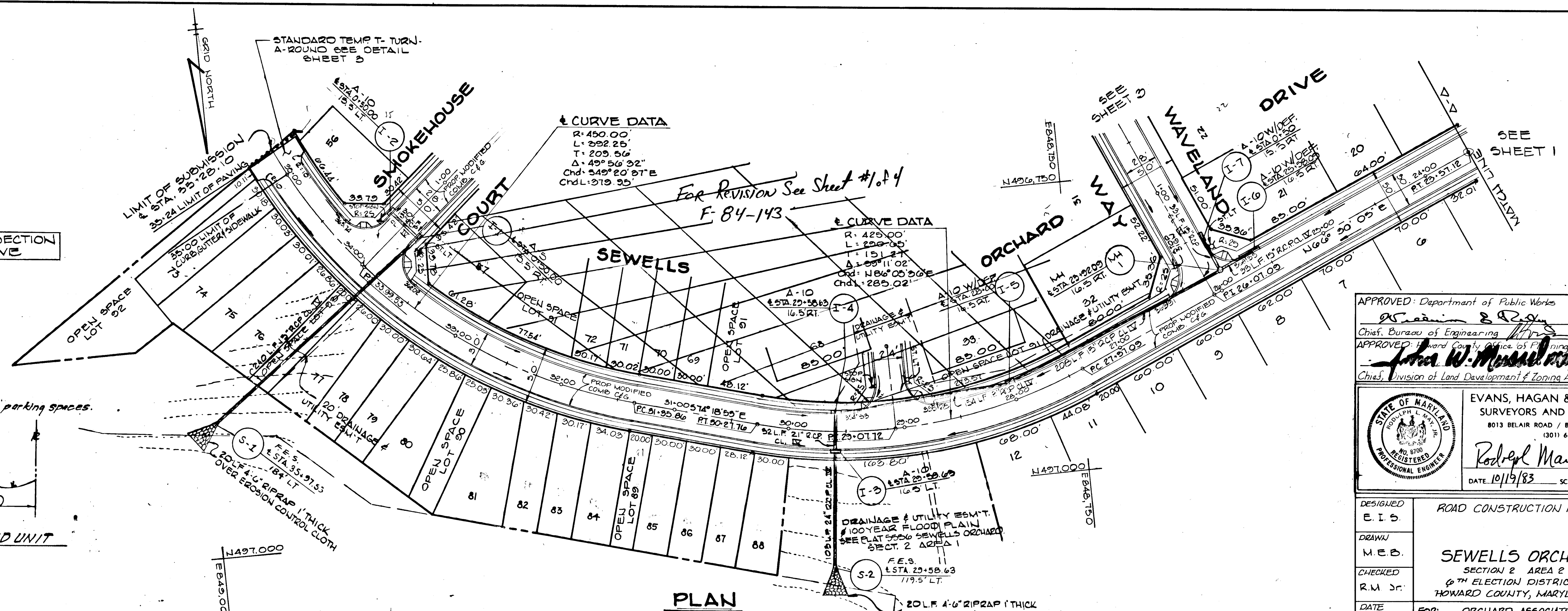


TYPICAL PROFILE ATTACHED UNIT

LOTS 34 THRU 89

DATE	
BY	
SURVEYED	
NOTED	
ALIGNED	
ORDERED	
NO. OF PAGES	
PLAN	
NOTE BOOK	
NO.	

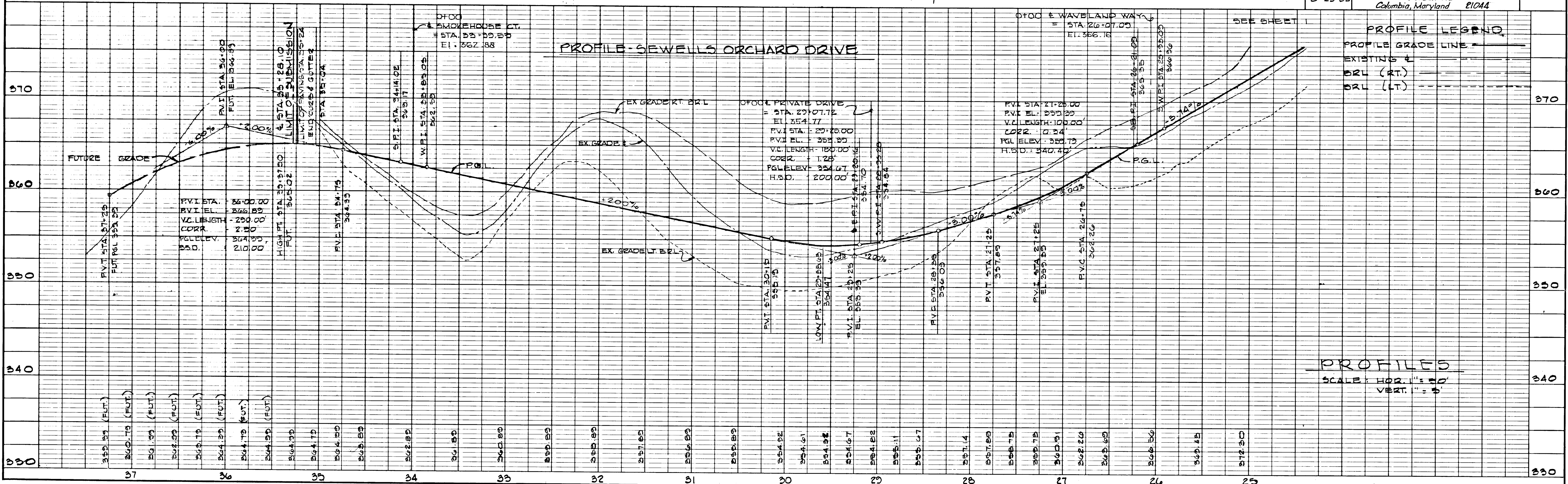
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SURVEYED	
NOTED	
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NO. OF PAGES	
PROFILE	
NOTE BOOK	
NO.	



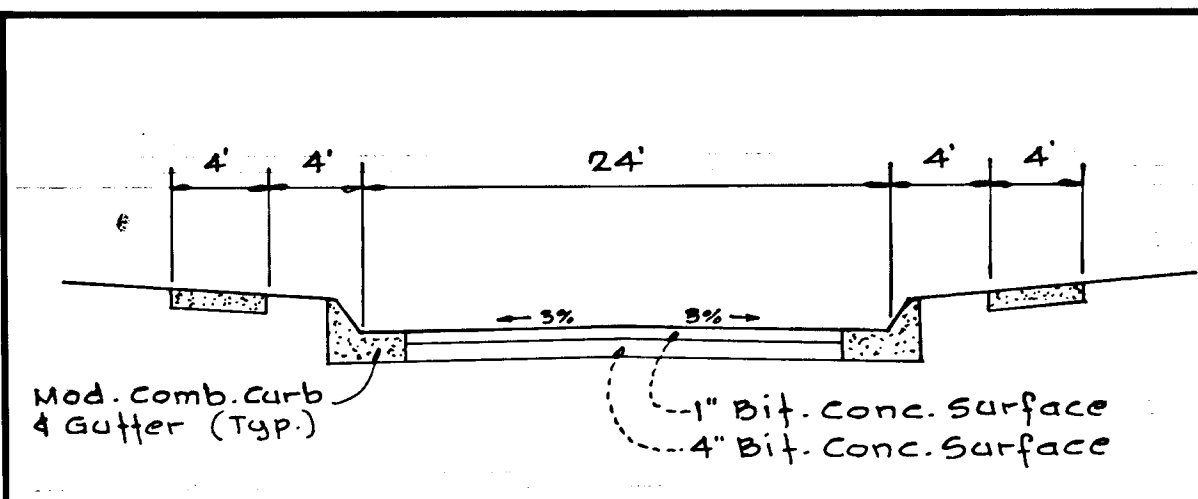
APPROVED: Department of Public Works
W. R. ... 11-22-83
 Chief, Bureau of Engineering
 APPROVED: Howard County Office of Planning & Zoning
John W. ... 11-17-83
 Chief, Division of Land Development & Zoning Administration

STATE OF MARYLAND
 REGISTERED PROFESSIONAL ENGINEER
 EVANS, HAGAN & HOLDEFER, INC.
 SURVEYORS AND CIVIL ENGINEERS
 8013 BELAIR ROAD / BALTIMORE, MD. 21236
 (301) 668-1501
Rodney M. ...
 DATE 10/19/83 SCALE

DESIGNED	ROAD CONSTRUCTION PLANS	SCALE
E.I.S.		AS SHOWN
DRAWN		DRAWING
M.E.D.	SEWELL'S ORCHARD	2 OF 8
CHECKED	SECTION 2 AREA 2	JOB NO.
R.M. Jr.	6TH ELECTION DISTRICT	
DATE	FOR: ORCHARD ASSOCIATES	FILE NO.
8-23-83	P.O. Box 919	
	Columbia, Maryland 21044	

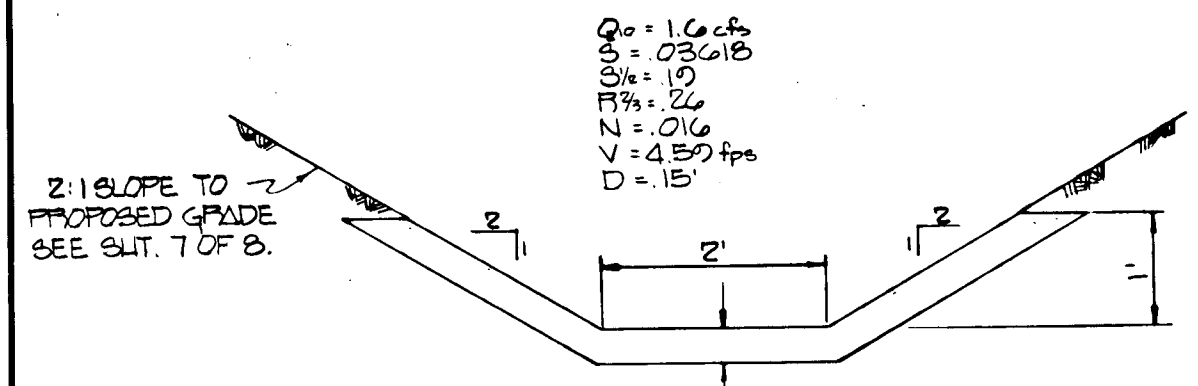


#850



TYPICAL PAVING SECTION-PRIVATE DRIVE (RSC ZONING)
(Not to Scale)

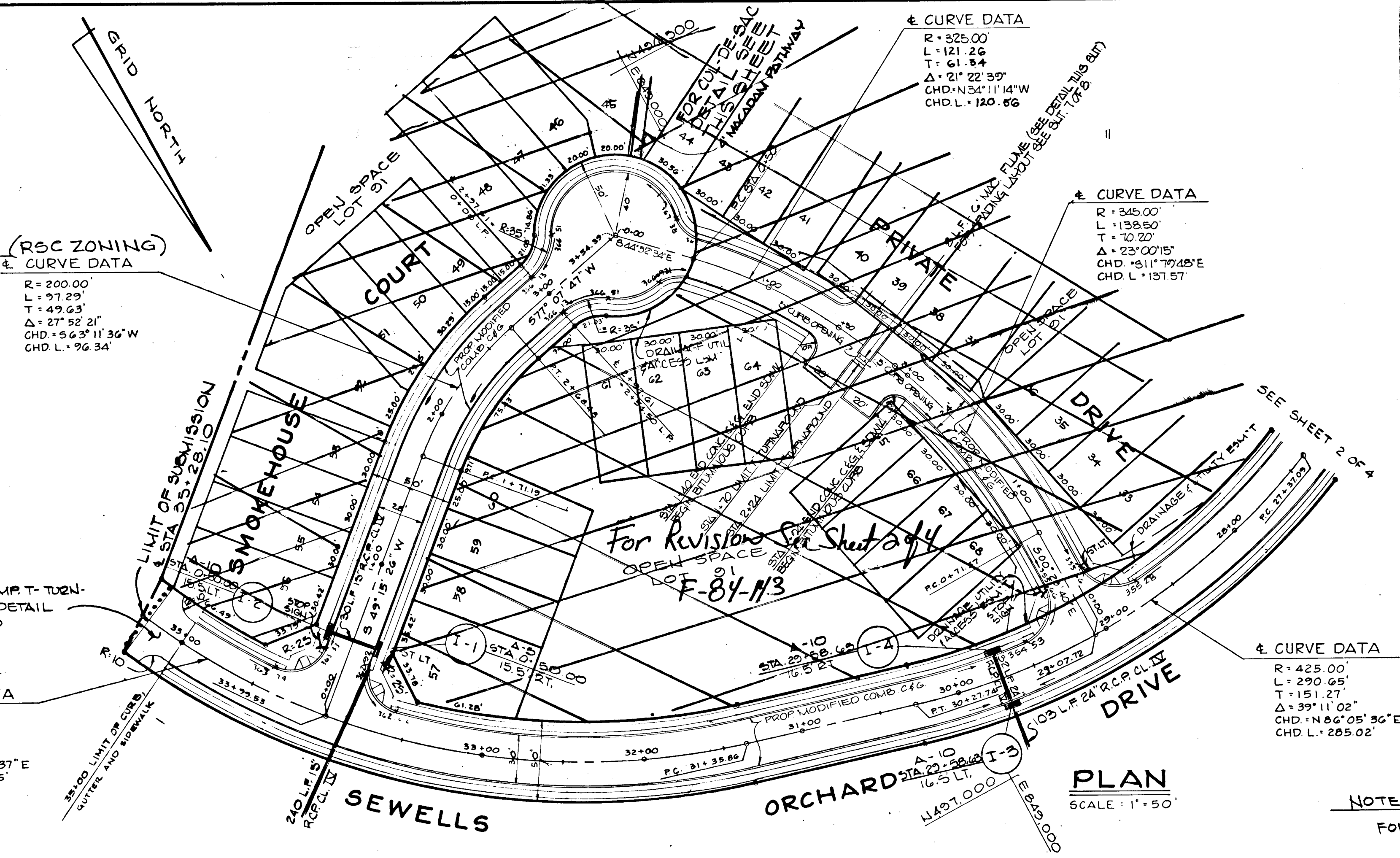
SEE SHEET 3 FOR TYP PAVING SECTION
DETAIL - SMOKEHOUSE COURT



MACADAM FLUME
NOT TO SCALE

STANDARD TEMP T-TURN-
A-ROUND SEE DETAIL
SHEET 3

CURVE DATA
R = 450.00'
L = 392.25'
T = 209.56'
Δ = 49° 56' 32"
CHD = S 49° 20' 37" E
CHD L = 379.95'



CURVE DATA
R = 325.00'
L = 121.26'
T = 61.84'
Δ = 21° 22' 39"
CHD = N 34° 11' 14" W
CHD L = 120.86'

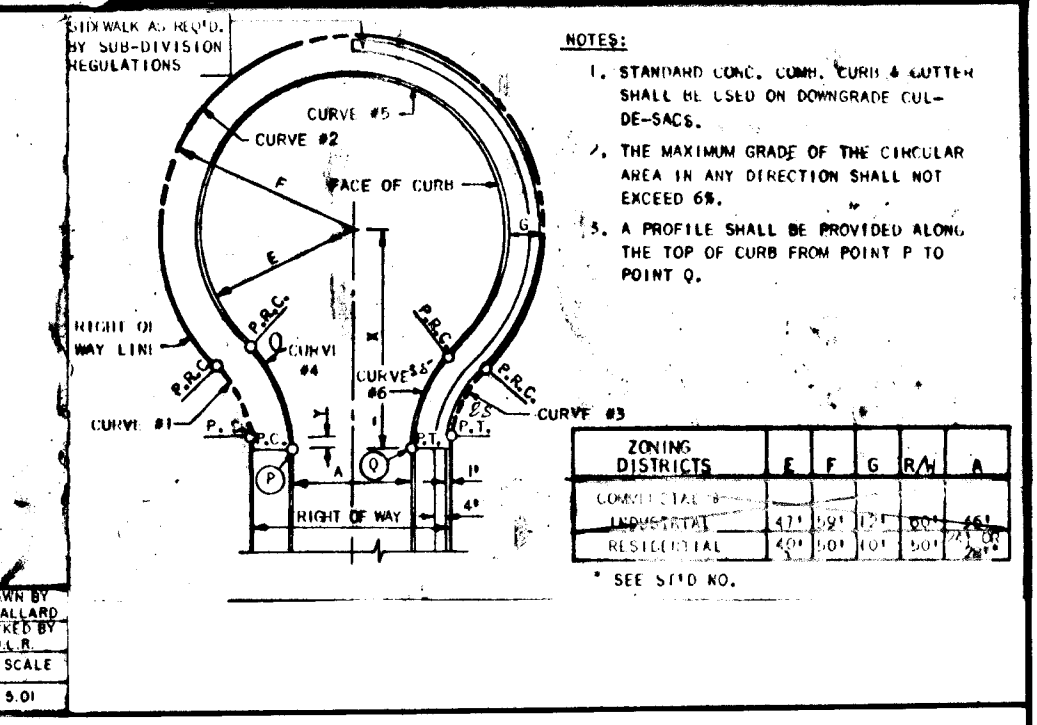
CURVE DATA
R = 345.00'
L = 138.50'
T = 70.20'
Δ = 23° 00' 15"
CHD = S 11° 39' 48" E
CHD L = 137.57'

CURVE DATA
R = 425.00'
L = 290.65'
T = 151.27'
Δ = 39° 11' 02"
CHD = N 86° 05' 36" E
CHD L = 285.02'

PLAN
SCALE: 1" = 50'

NOTE:
FOR GENERAL NOTES SEE SHT. 1

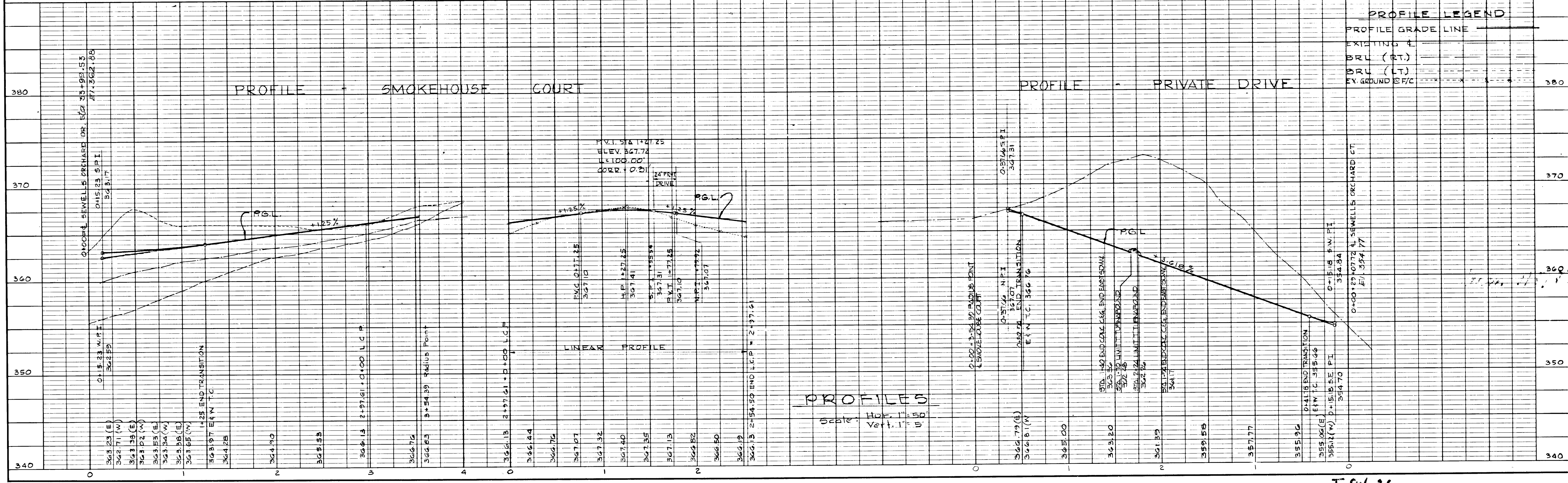
CURVE DATA	
CURVE NO.	DATA
1	R = 325.00, L = 121.26, T = 61.84, Δ = 21° 22' 39", CHD = N 34° 11' 14" W, CHD L = 120.86'
2	R = 345.00, L = 138.50, T = 70.20, Δ = 23° 00' 15", CHD = S 11° 39' 48" E, CHD L = 137.57'
3	R = 425.00, L = 290.65, T = 151.27, Δ = 39° 11' 02", CHD = N 86° 05' 36" E, CHD L = 285.02'



APPROVED: Department of Public Works
[Signature] 11-22-83
Chief, Bureau of Engineering
APPROVED: *[Signature]* 11-27-83
Chief, Division of Land Development & Zoning Administration

EVANS, HAGAN & HOLDEFER, INC.
SURVEYORS AND CIVIL ENGINEERS
8013 BELAIR ROAD / BALTIMORE, MD. 21236
13011 668-1501
[Signature]
DATE: AUG. 23, 1983 SCALE AS SHOWN

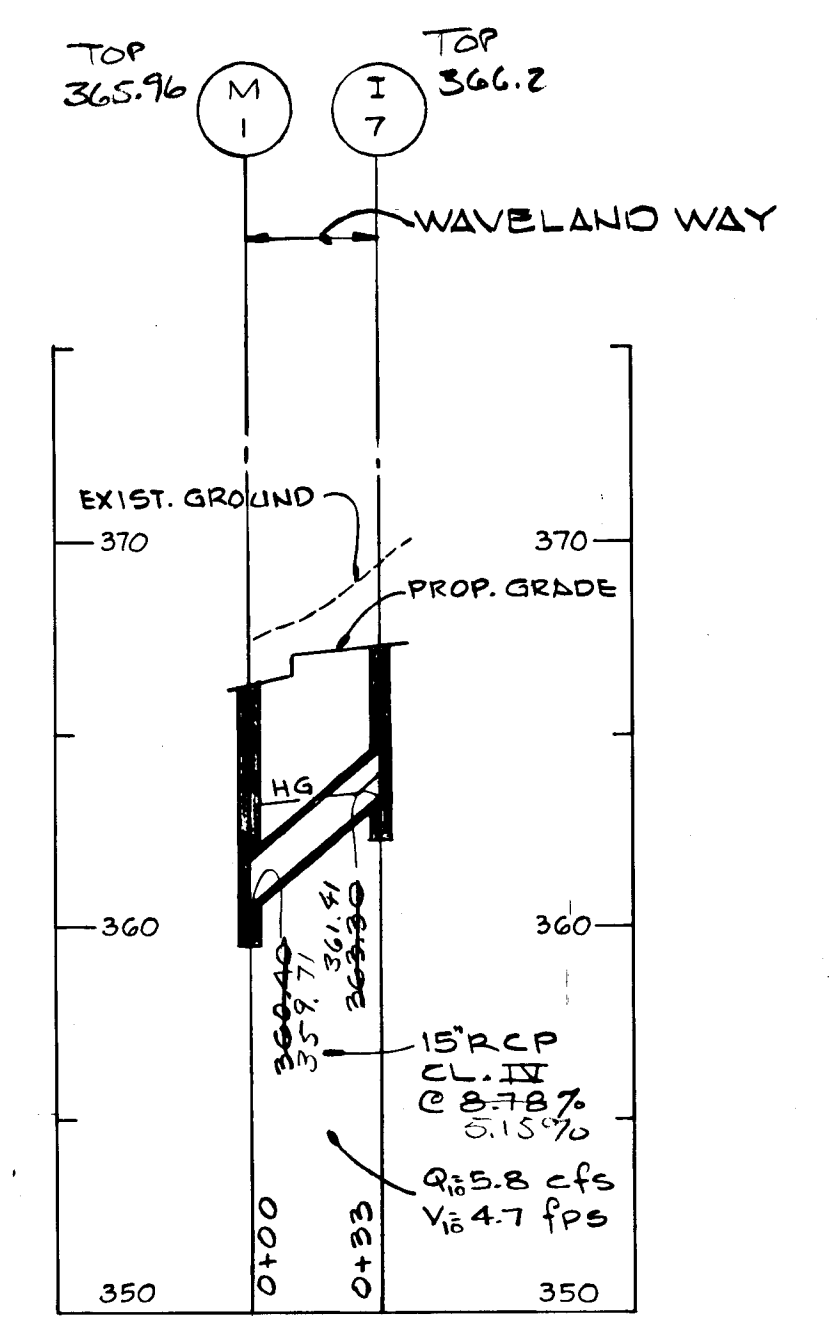
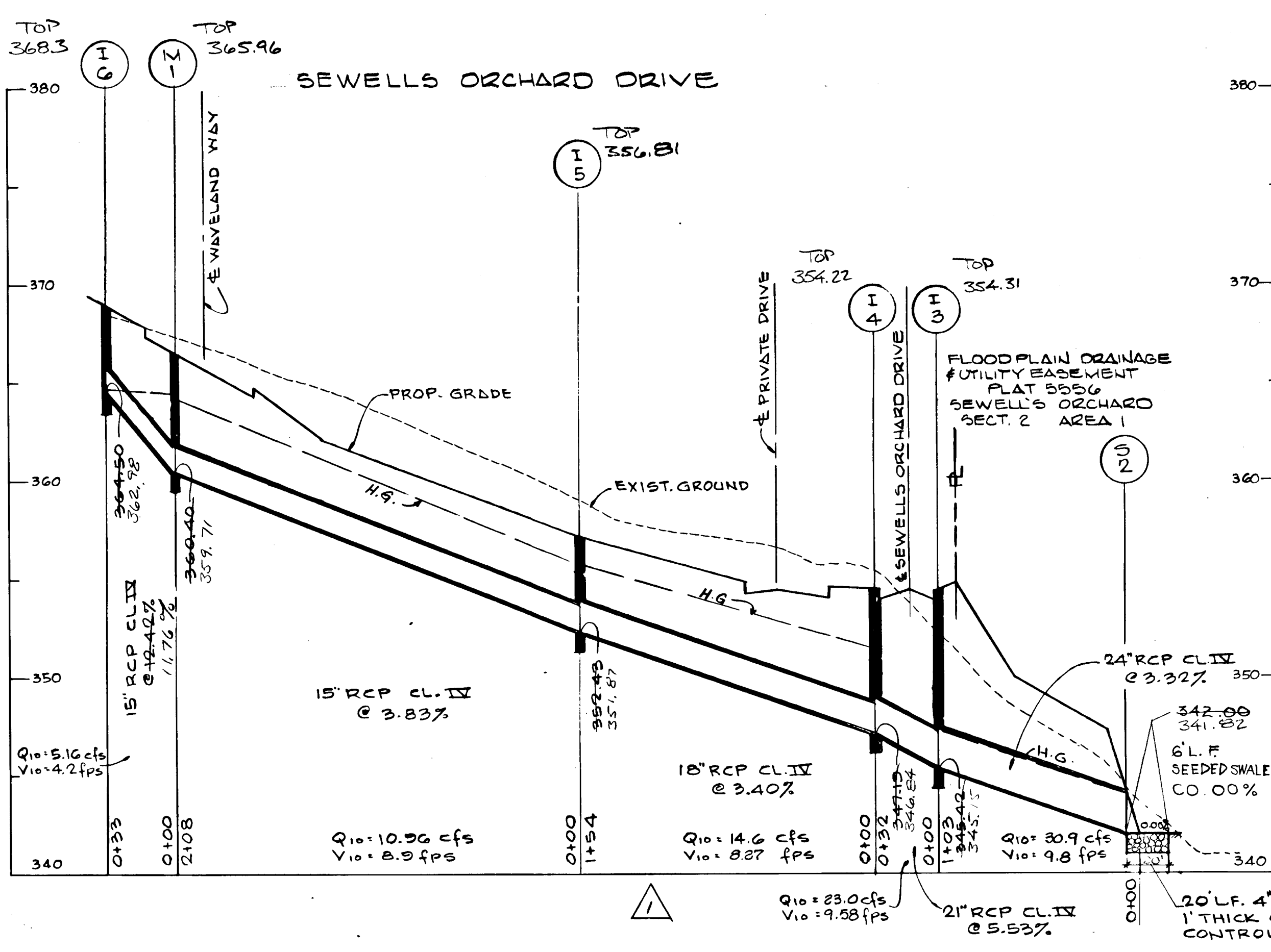
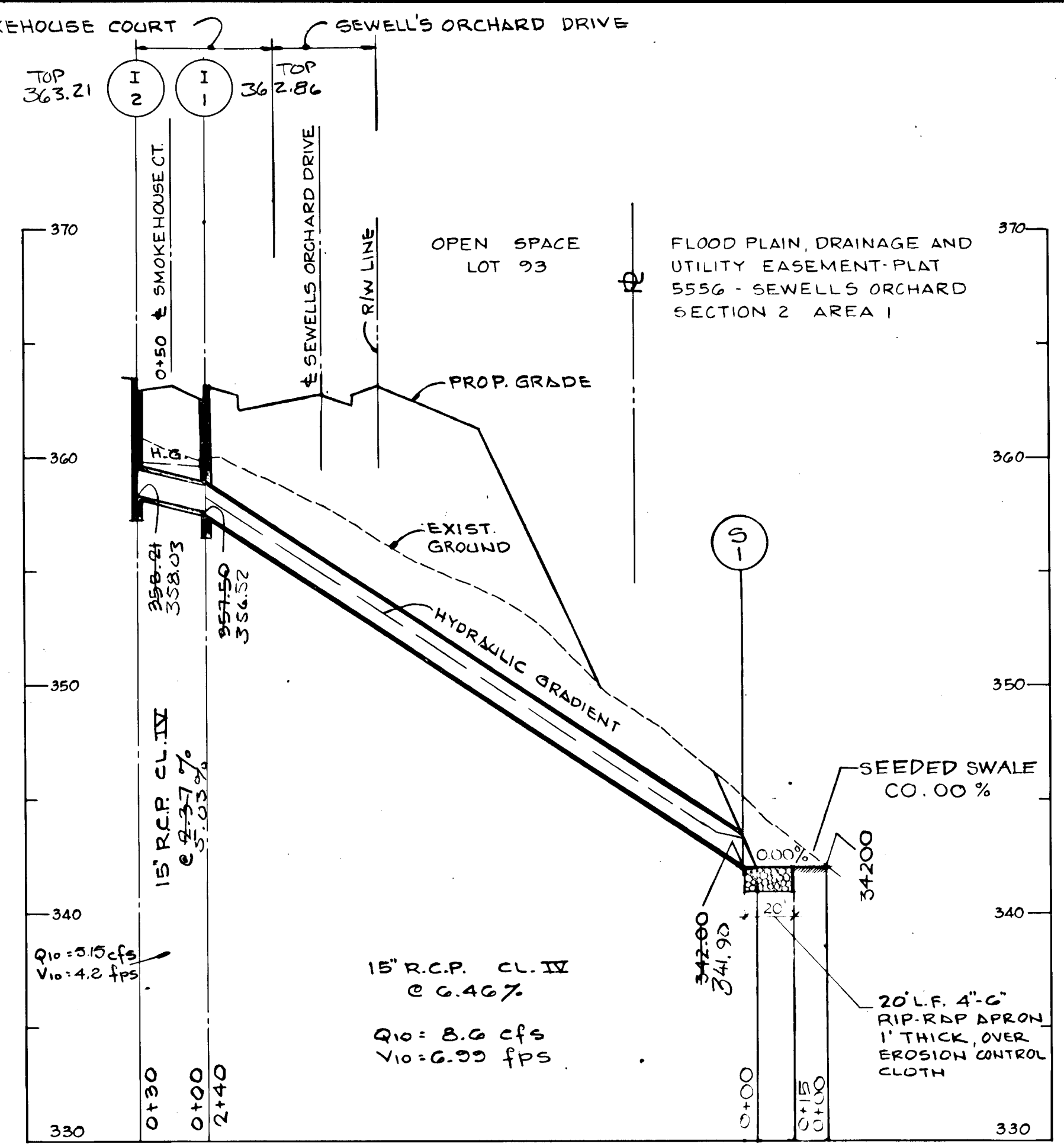
DESIGNED R.M.Jr.	ROAD CONSTRUCTION PLANS	SCALE AS SHOWN
DRAWN R.J.F.	SEWELLS ORCHARD	DRAWING 4 of 8
CHECKED G.W.	SECTION 2 AREA 2	JOB NO.
DATE 8-23-83	6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	FILE NO.



PROFILES
Scale: Hor. 1" = 50'
Vert. 1" = 5'

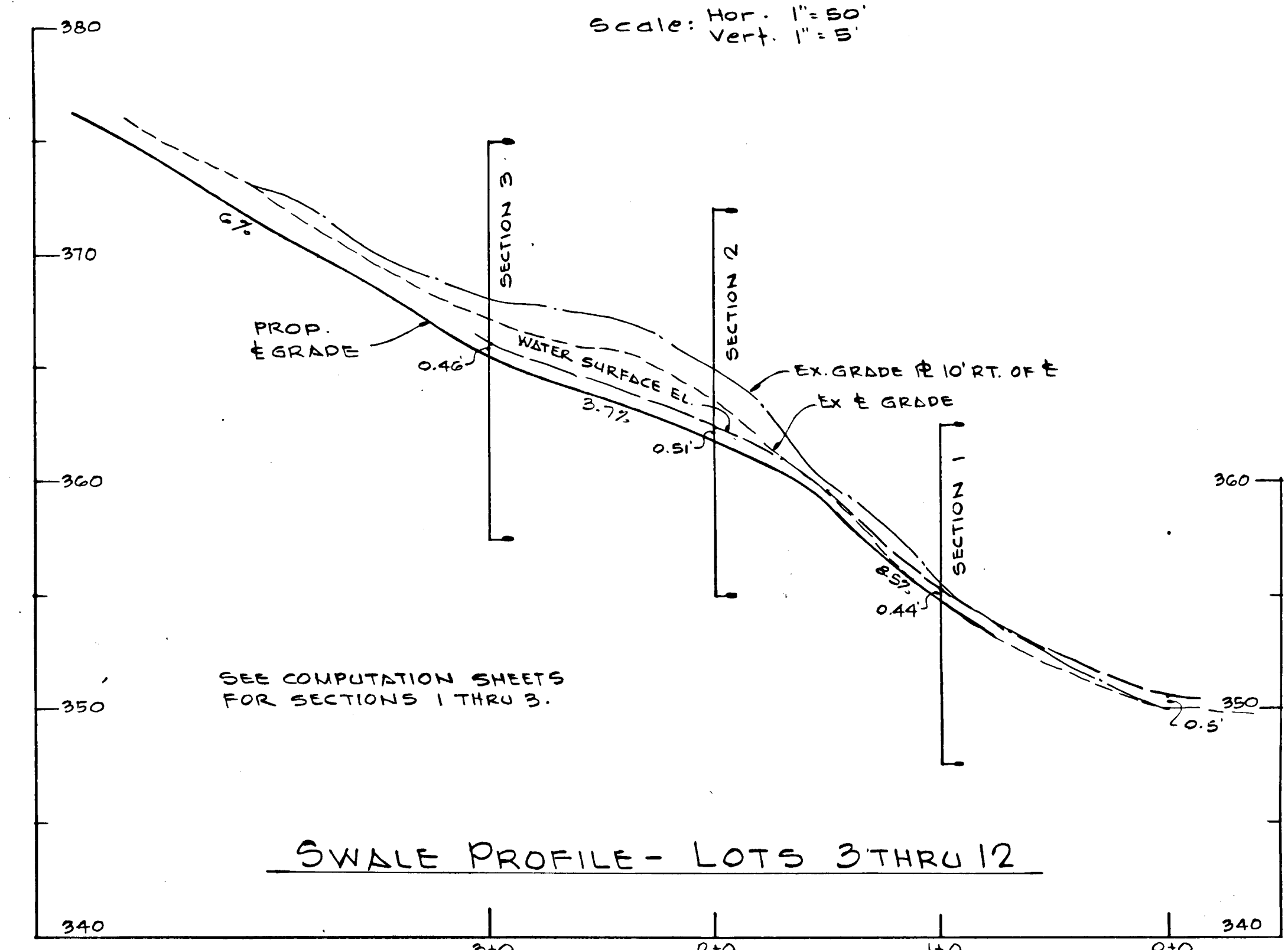
#850

F-84-36



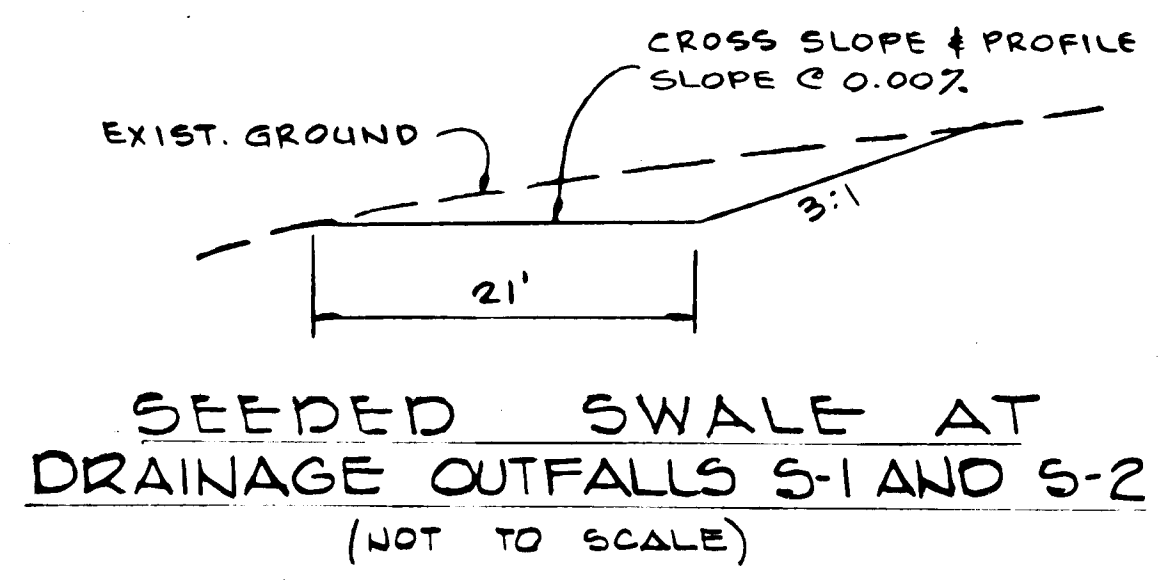
NOTE: ALL DRAINS DESIGNED TO BE LAID ON CLASS 'C' SHAPED BEDDING
SEE PROFILE

PROFILES

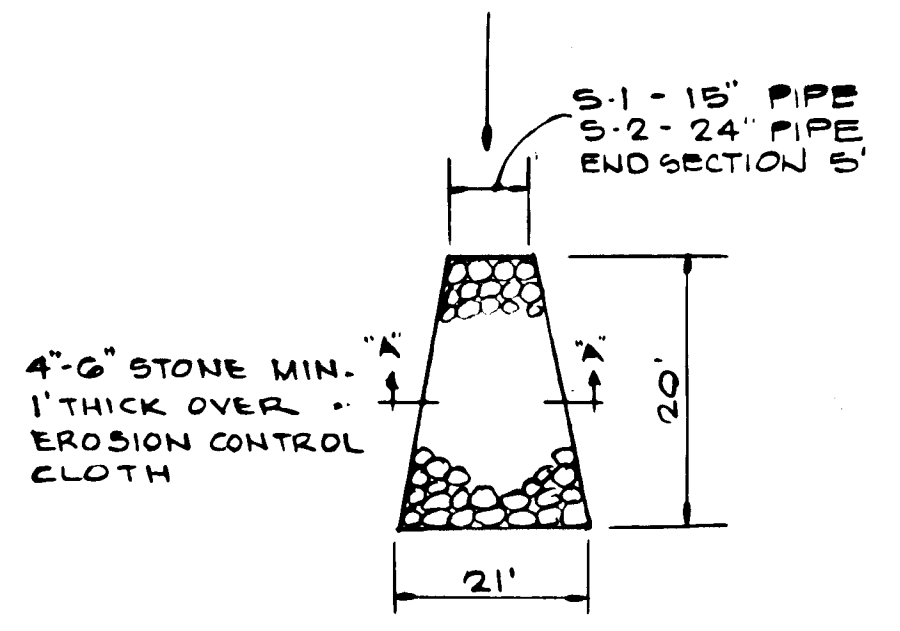


PROPOSED STRUCTURE SCHEDULE					
NO	TYPE	INV. IN	INV. OUT	TOP ELEV.	REMARKS
I-1	HO. CO. STD. CLASS A-5 INLET	-	357.50	363.02	SEE HO. CO. DETAIL SD-4.01
I-2	HO. CO. STD. CLASS A-10 INLET	-	368.21	363.38	SEE HO. CO. DETAIL SD-4.02
I-3	HO. CO. STD. CLASS A-10 INLET	-	345.72	354.47	" " " " " "
I-4	HO. CO. STD. CLASS A-10 INLET	-	347.18	354.47	" " " " " "
I-5	HO. CO. STD. CLASS A-10 INLET	-	354.43	357.14	" " " " " "
I-6	HO. CO. STD. CLASS A-10 INLET	-	364.50	368.36	" " " " " "
I-7	HO. CO. STD. CLASS A-10 INLET	-	363.30	368.60	SEE HO. CO. DETAIL SD-4.02
M-1	HO. CO. STD. MANHOLE	-	360.40	360.34	SEE HO. CO. DETAIL G504
S-1	HO. CO. CONC. END SECTION	-	342.00	-	SEE HO. CO. DETAIL SD-5.51
S-2	HO. CO. CONC. END SECTION	-	344.00	-	SEE HO. CO. DETAIL SD-5.51

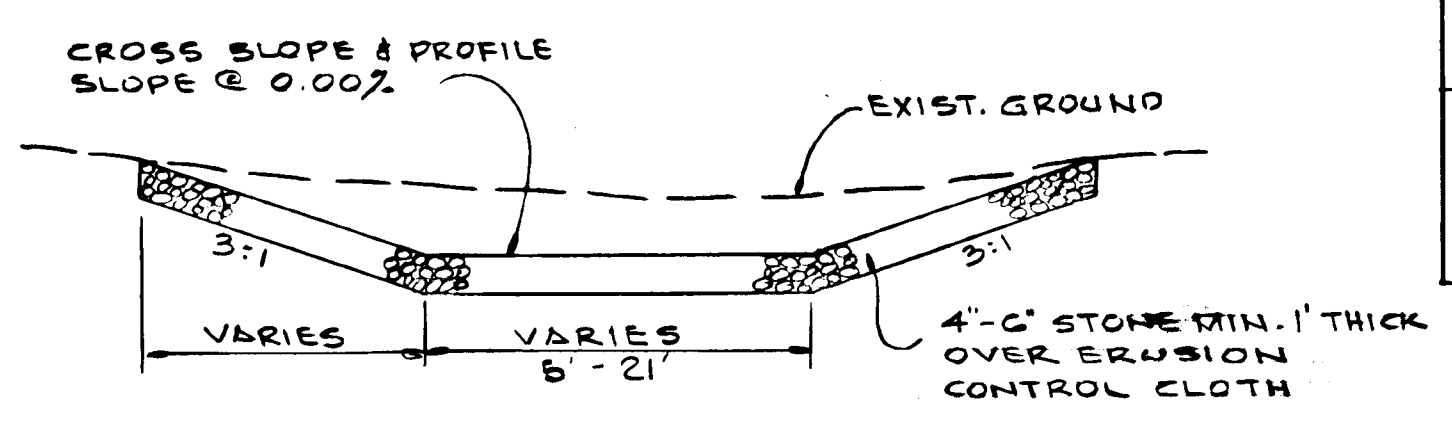
* DENOTES INLETS TO BE INSTALLED WITH A DEFLECTOR. (SD-4.83)



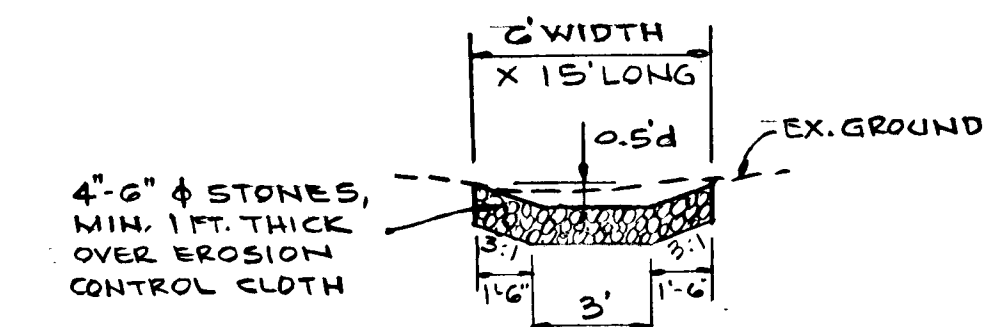
SEEDED SWALE AT DRAINAGE OUTFALLS S-1 AND S-2 (NOT TO SCALE)



RIP-RAP @ OUTFALL S-1 & S-2 (NOT TO SCALE)



SECTION 'A-A' NOT TO SCALE



RIP-RAP OUTLET PROTECTION AT END SEWELLS ORCHARD DR. STA. 56+63 (LT.) (N.T.S.)

NOTE: EXISTING TOPOGRAPHY AS SHOWN HEREON WAS TAKEN FROM PLANS PROVIDED BY OWNER.

APPROVED: Department of Public Works
 Chief, Bureau of Engineering
 APPROVED: Howard County Office of Planning & Zoning
 Chief, Division of Land Development & Zoning Administration

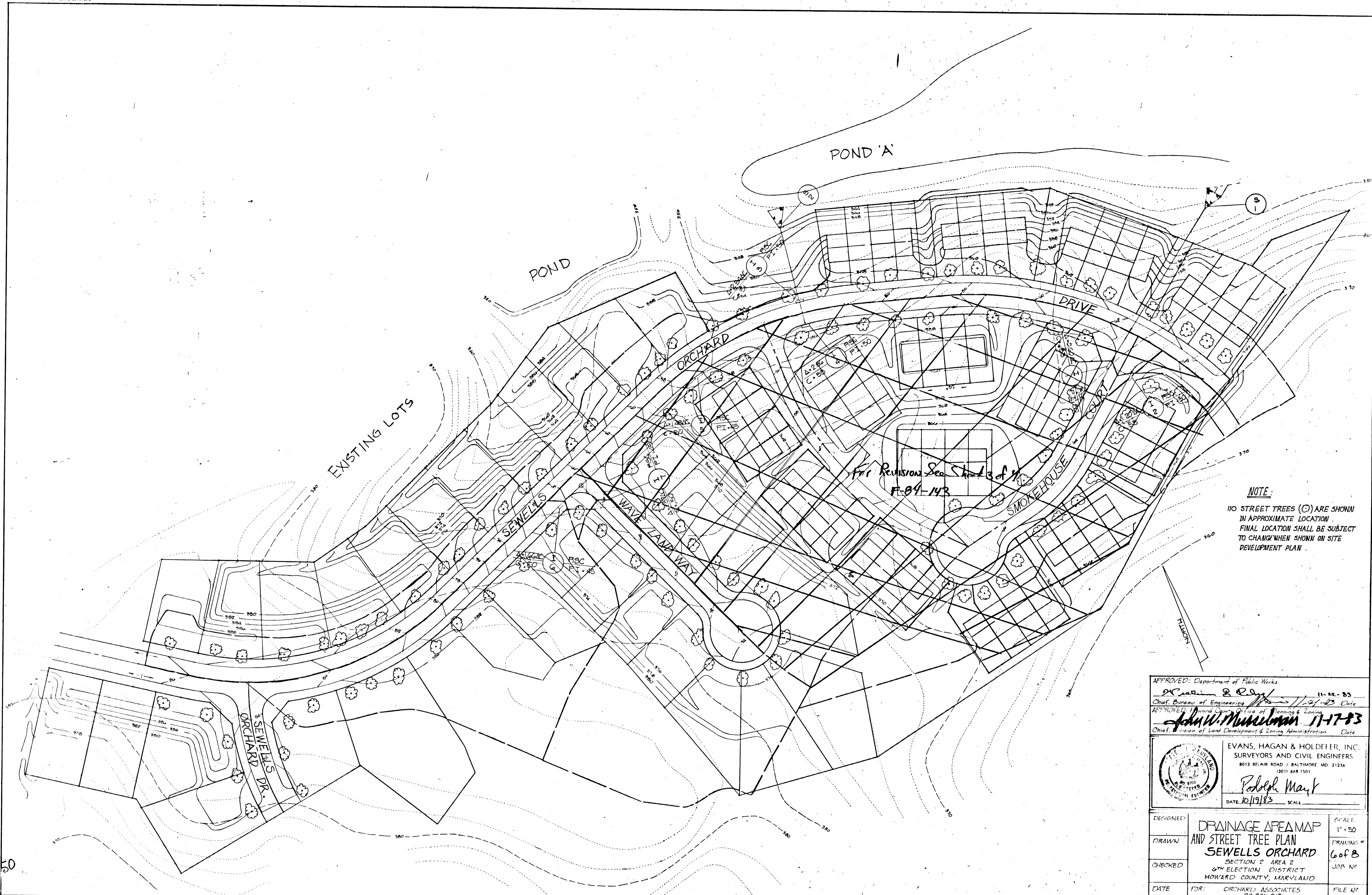
EVANS, HAGAN & HOLDEFER, INC.
 SURVEYORS AND CIVIL ENGINEERS
 8013 BELAIR ROAD / BALTIMORE, MD. 21236
 (301) 668-1501
 DATE: 10/19/83 SCALE: AS SHOWN

DESIGNED	R.M. J.F.	STORM DRAIN PROFILES & DETAILS	SCALE
DRAWN	R.J.F.		AS SHOWN
CHECKED	R.M. J.F.		DRAWING
		SEWELLS ORCHARD	5 of 8
		SECTION 2 AREA 2	JOB NO.
		6TH ELECTION DISTRICT	
		HOWARD COUNTY, MARYLAND	FILE NO.

Date	Description	By	Date	FOR:
7-15-85	Revise Storm Drain Profiles	JPH	8/23/83	ORCHARD ASSOCIATES P.O. Box 219 Columbia, Maryland 21044

OCT 20 1983

F-84-86



NOTE:
 110 STREET TREES (⊙) ARE SHOWN
 IN APPROXIMATE LOCATION.
 FINAL LOCATION SHALL BE SUBJECT
 TO CHANGE WHEN SHOWN ON SITE
 DEVELOPMENT PLAN.

APPROVED: Department of Public Works
[Signature] 11-22-83
 Chief, Bureau of Engineering
 APPROVED: *[Signature]* 11-22-83
 Chief, Division of Land Development & Zoning Administration
 Date 11-17-83



EVANS, HAGAN & HOLDEFFER, INC.
 SURVEYORS AND CIVIL ENGINEERS
 8013 BELAIR ROAD / BALTIMORE, MD. 21236
 (301) 668-1501
Robert Mayr
 DATE 10/19/83 SCALE

DESIGNED	DRAINAGE AREA MAP AND STREET TREE PLAN SEWELLS ORCHARD SECTION 2 AREA 2 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE 1" = 50'
DRAWN		PRACTICING # 6 of 8
CHECKED		JOB #
DATE		FILE #
FOR:		ORCHARD ASSOCIATES 201 Bx 919 Columbia, Maryland 21044

F-84-36

450

RIP RAP OUTLET SEDIMENT TRAP #3	
DRAINAGE AREA	12.3 AC
STORAGE REQ'D	824.1 CU YDS
STORAGE PROV.	837.8 CU YDS
OUTLET WIDTH REQ'D	16'
OUTLET WIDTH PROV.	16'
TOP OF TRAP	349'
OUTLET ELEV.	347'
BOTTOM ELEV.	341'
CLEANOUT ELEV.	344'

STONE OUTLET SEDIMENT TRAP #4	
DRAINAGE AREA	4.03 AC
STORAGE REQ'D	310.2 CU YDS
STORAGE PROV.	314.9 CU YDS
OUTLET WIDTH REQ'D	21.6'
OUTLET WIDTH PROV.	28.0'
TOP OF TRAP	450'
OUTLET ELEV.	447'
BOTTOM ELEV.	444'
CLEANOUT ELEV.	441.5'

STONE OUTLET SEDIMENT TRAP #2	
DRAINAGE AREA	4.41 AC
STORAGE REQ'D	875.5 CU YDS
STORAGE PROV.	917.6 CU YDS
OUTLET WIDTH REQ'D	26.5'
OUTLET WIDTH PROV.	27.0'
TOP OF TRAP	356'
OUTLET ELEV.	355'
BOTTOM ELEV.	351'
CLEANOUT ELEV.	353'

STONE OUTLET SEDIMENT TRAP #1	
DRAINAGE AREA	1.73 AC
STORAGE REQ'D	115.9 CU YDS
STORAGE PROV.	141.5 CU YDS
OUTLET WIDTH REQ'D	10.4'
OUTLET WIDTH PROV.	12.0'
TOP OF TRAP	374'
OUTLET ELEV.	373'
BOTTOM ELEV.	371'
CLEANOUT ELEV.	372'

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

Reviewed for Howard S.C.D. and meets technical requirements.

Wm. J. ... 11-15-83
Howard S.C.D. Date

I certify that this plan for erosion and sediment control is a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

John W. ... 11-15-83
P.E., Soil Conservation Date

I certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project.

John W. ... 10/19/83
Signature of Developer Date

DESIGNED BY: A.F.C.
DRAWN BY: A.F.C.
CHECKED BY:
DATE: AUG 1983

SCALE: 1" = 50'

PROJECT: SEWELLS ORCHARD SECTION 2 AREA 2 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

DATE: 10/19/83

APPROVED: Department of Public Works
John W. ... 11-22-83
Chief, Bureau of Engineering
APPROVED: *John W. ...* 11-17-83
Chief, Division of Land Development & Zoning Administration

EVANS, HAGAN & HOLDEITER, INC.
SURVEYORS AND CIVIL ENGINEERS
8013 BELAIR ROAD / BALTIMORE, MD. 21236
(301) 668-1501

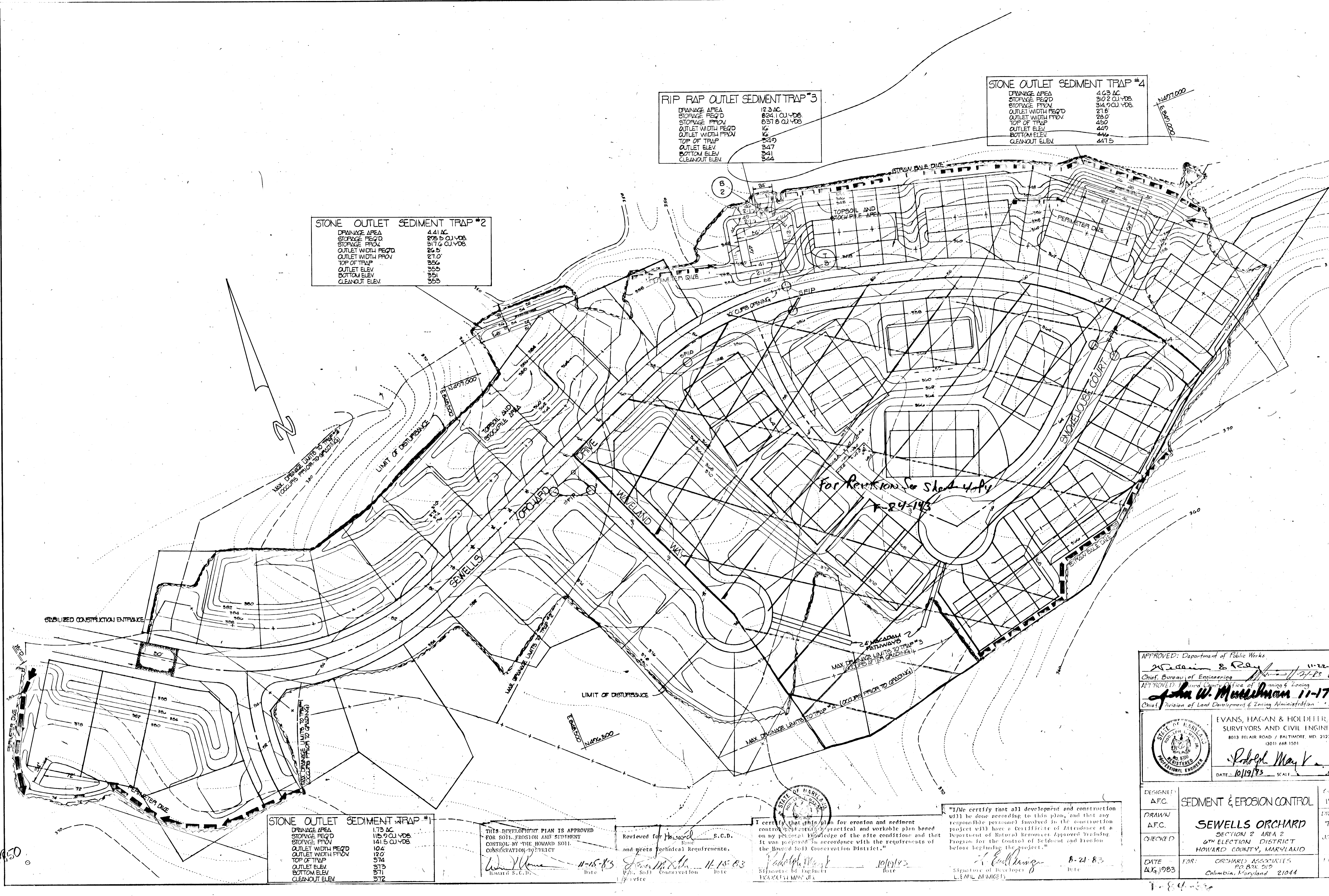
Robert May ...
DATE: 10/19/83 SCALE: 1" = 50'

DESIGNED BY: A.F.C.
DRAWN BY: A.F.C.
CHECKED BY:
DATE: AUG 1983

SCALE: 1" = 50'

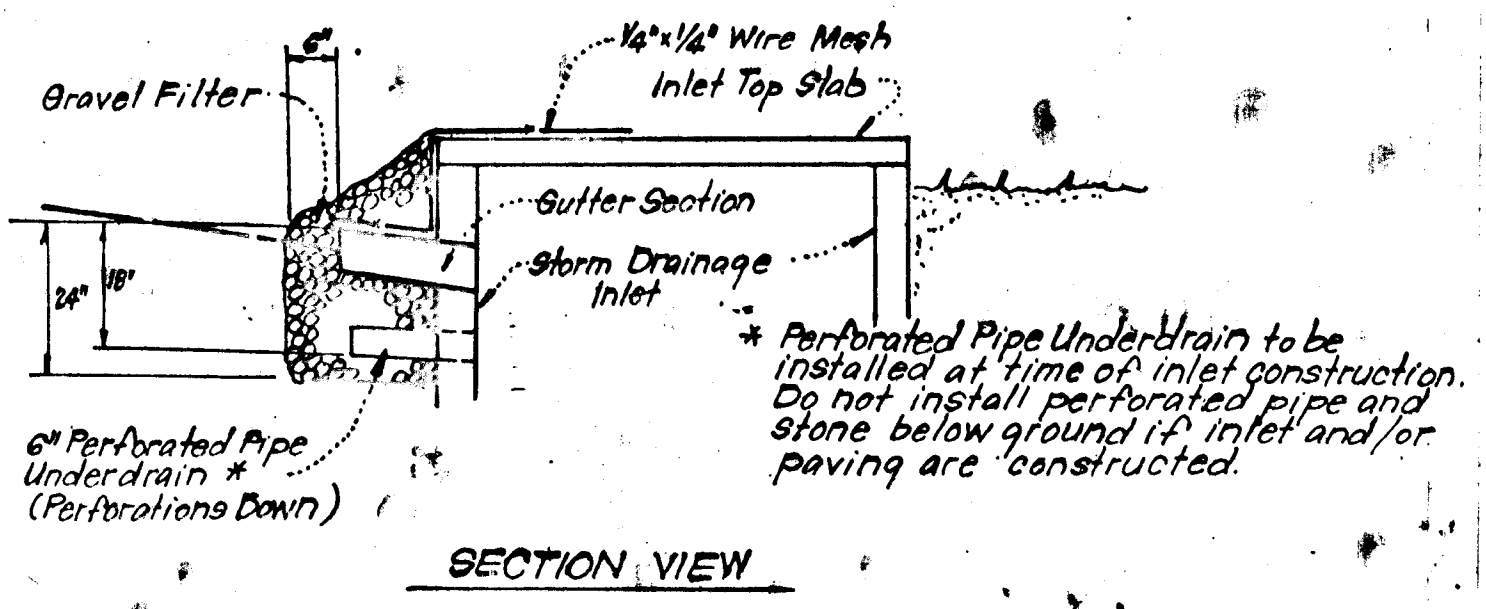
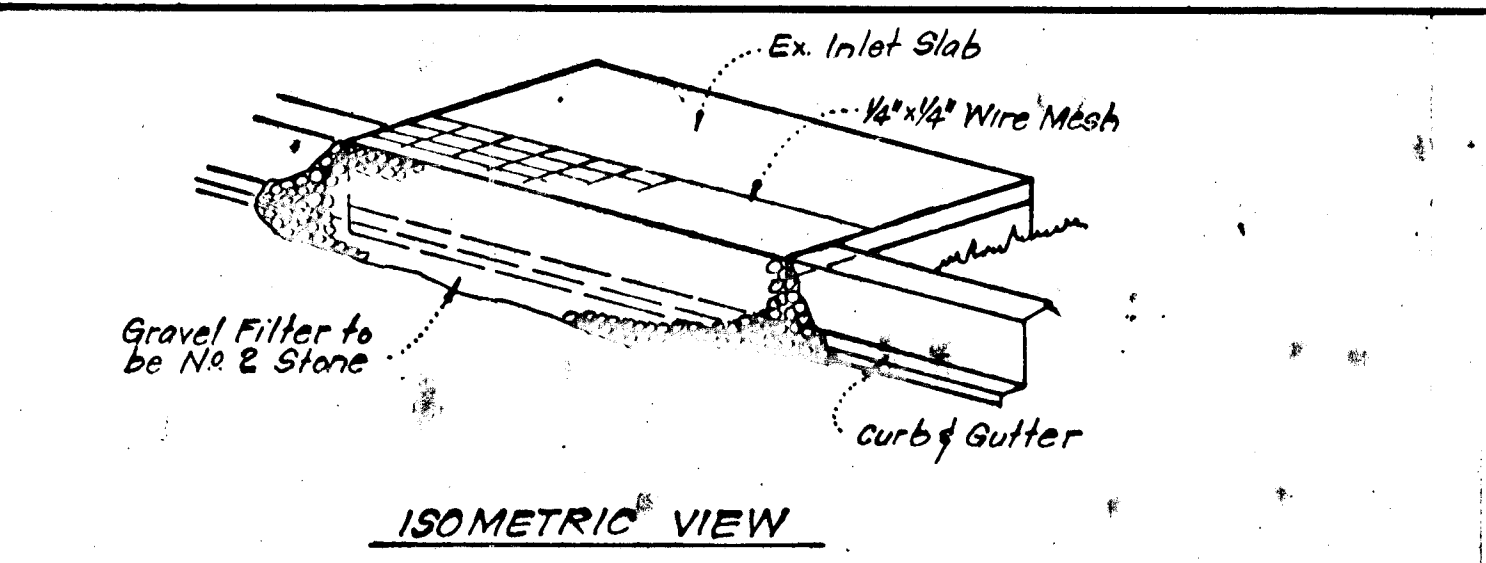
PROJECT: SEWELLS ORCHARD SECTION 2 AREA 2 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

DATE: 10/19/83

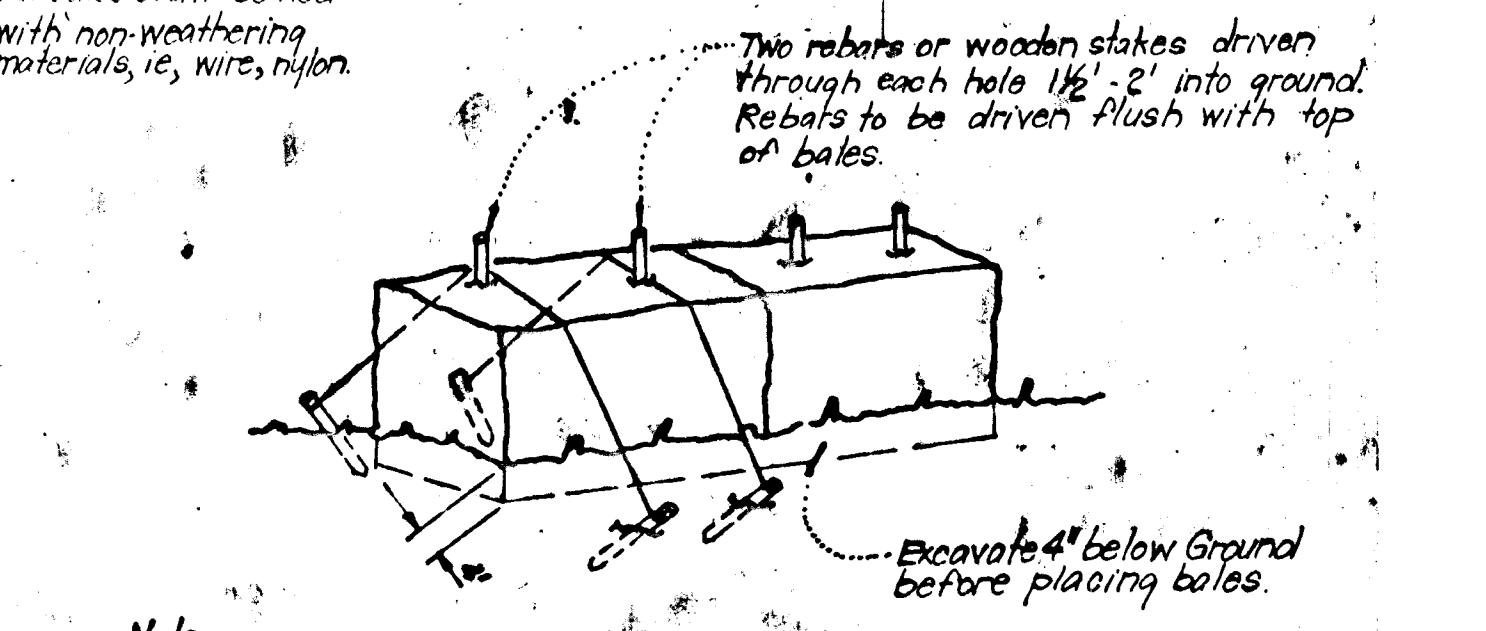


for Revision See Sheet 4 of 4
7-24-1983

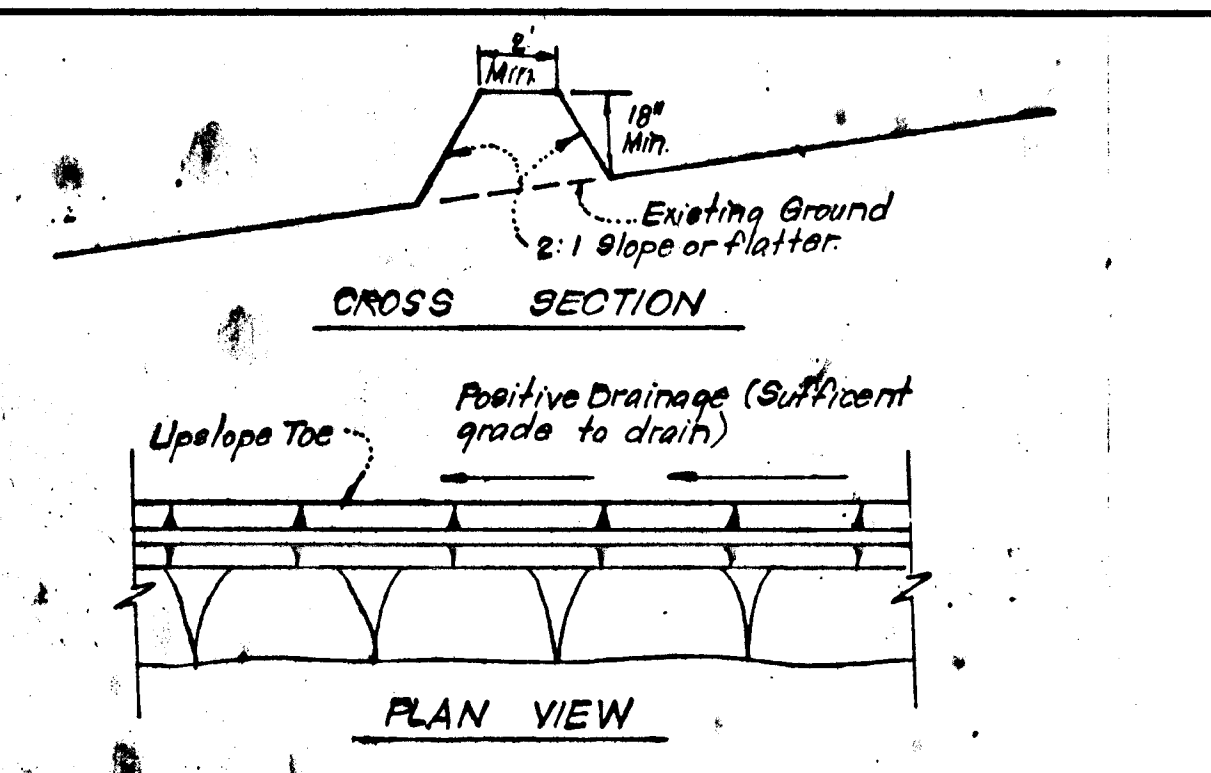




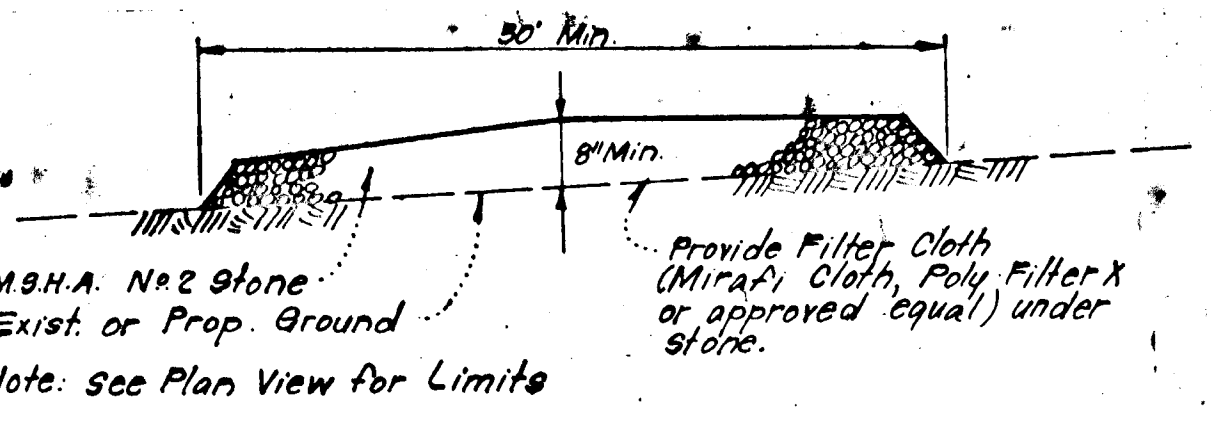
STONE FILTER INLET PROTECTION (S.F.I.P.)
No Scale



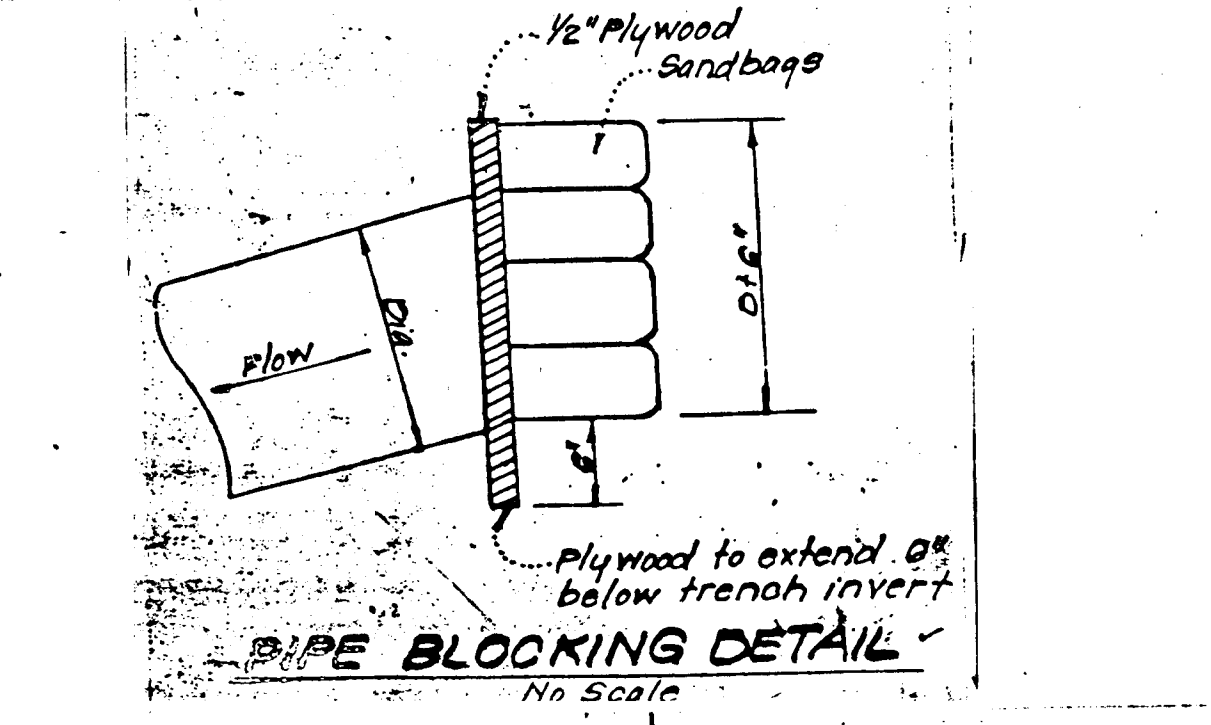
TYPICAL STRAW BALE DIKE DETAIL (S.B.D.)
No Scale



TYPICAL PERIMETER DIKE DETAIL (P.D.)
No Scale



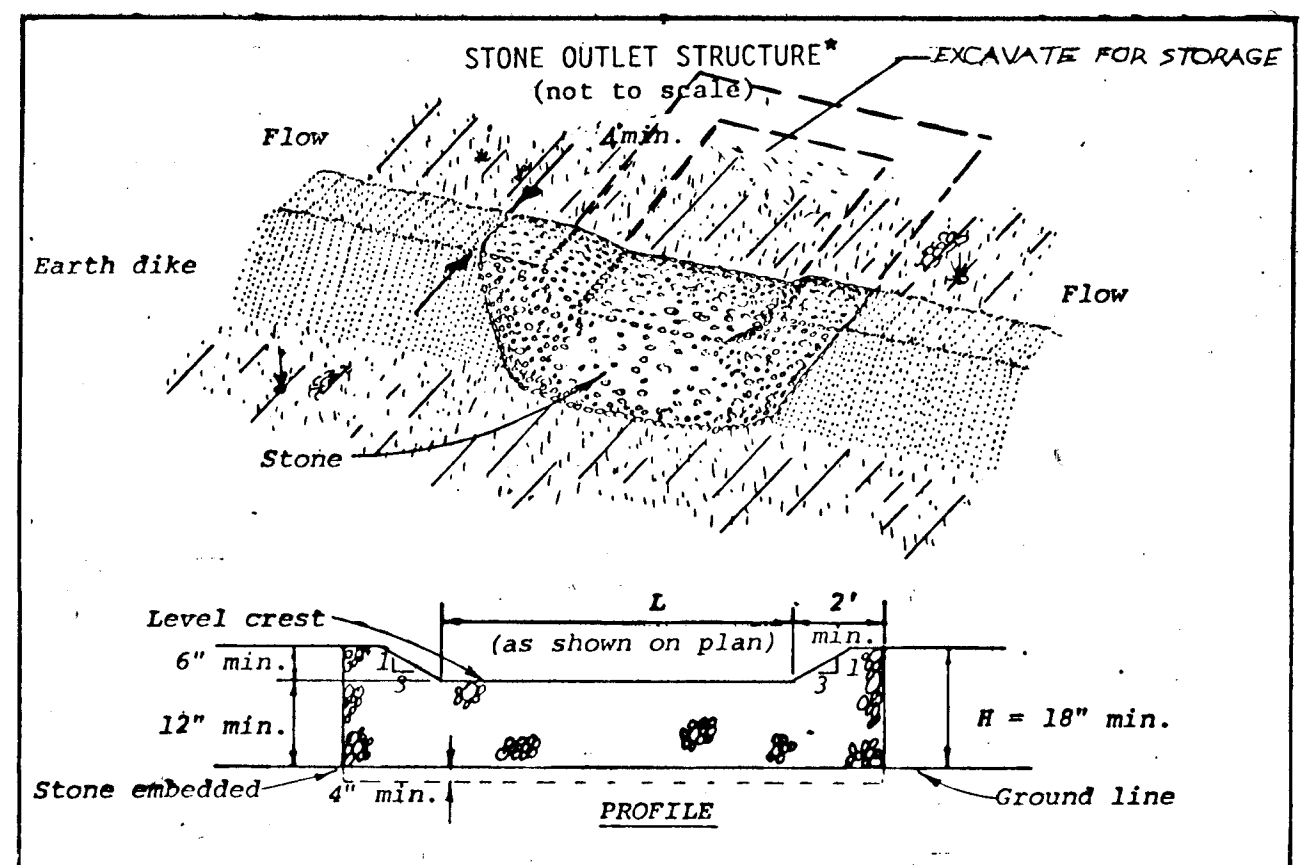
STABILIZED CONSTRUCTION ENTRANCE
No Scale



Sequence Of Construction

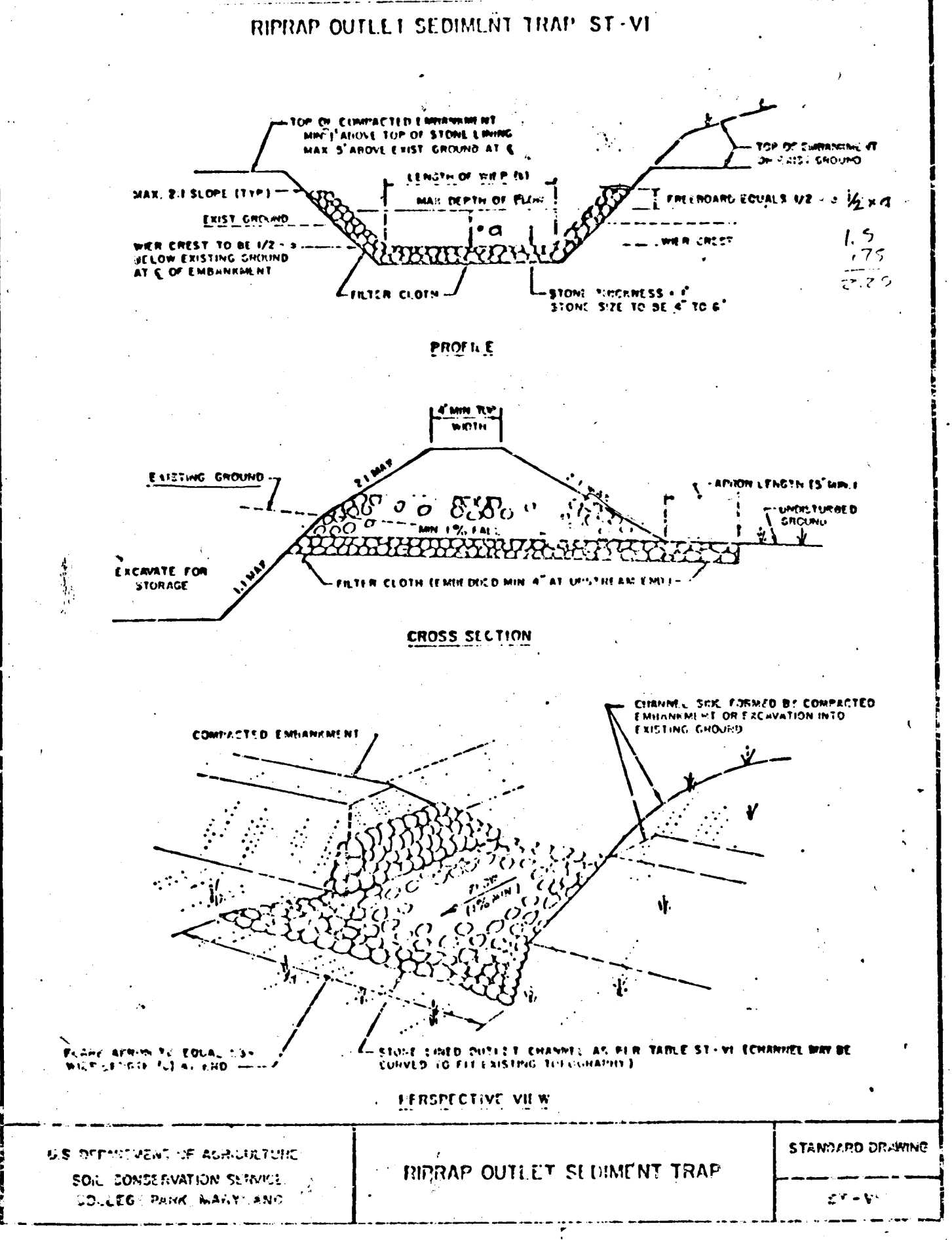
1. Notify the Bureau Of Inspections And Permits at least 24 hours before starting any work.
2. Clear minimum area required to construct and construct all sediment control measures shown.
3. Clear remaining area to be disturbed.
4. Strip topsoil and additional cut material required to construct ridge in area marked "Topsoil And Stockpile Area".
5. Construct road to subgrade.
6. Remove sediment trap #4 and accompanying perimeter dike.
7. Rough grade site.
8. Install storm drain system, except for S-2 to I-3. All inlet openings shall remain blocked until all disturbed areas have been stabilized. Install all utilities.
9. Construct curb & gutter, leaving curb opening where shown, final paving, and final grading. Stabilize all disturbed areas.
10. Upon sediment control inspectors' approval remove all sediment control practices. Stabilize remaining disturbed areas. Construct remaining storm drain system. Remove obstructions from inlet openings.
11. Maintenance.

1. Grading permits shall be obtained prior to installation of sediment control and grading.
2. 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 No. 6 for stabilization except that the seed mixture will be annual rye applied at a rate of 1.4 lbs./1,000 s.f.
3. Notify the Bureau of Inspections and Permits at least 24 hours before starting any work.
4. 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.
5. Stabilization of disturbed ground to be done as soon after construction as possible.
6. All disturbed area to be stabilized in accordance with the following specifications:
 - a. Seed - certified 85% germination applied at the rate of 3 lbs./1,000 s.f. Mixture - 40% Kentucky Blue, 20% Chewing Fescue, 20% Kentucky 31 and 20% annual rye.
 - b. Fertilizer - 10-10-10 applied at a rate of 23 lbs./1,000 s.f. Ground Agricultural Lime or Dolomitic Lime applied at a rate of 90 lbs./1,000 s.f.
 - c. Mulch - weed free grain straw applied at a rate of 70-90 lbs./1,000 s.f. Mulch shall be secured to the ground by any approved method i.e., asphalt tacks, chemical binder, etc.
 - d. All sod used shall be Maryland State certified.
7. 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.
8. 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 measure will be the responsibility of the developer or his representative on the site, on a continuing day to day basis.
9. It will be the developers responsibility to provide additional sediment and erosion control devices to protect stabilized areas during construction.
10. The contractor shall keep all public roads free of sediment deposits left from traffic leaving construction site.
11. Site Analysis:
 - a. Total Area: 1752 Acres
 - b. Area To Be Paved: 303 Acres
 - c. Area To Be Seeded: 1074 Acres
 - d. Area Undisturbed: 375 Acres



- Construction Specifications.**
1. The stone shall be crushed stone. Gravel may be used if crushed stone is not available. The stone shall meet MSHA Size No. 2 or AASHTO designation M43 Size No. 2 or 24.
 2. The crest of the stone dike shall be at least six inches lower than the lowest elevation of the top of the earth dike and shall be level.
 3. The stone outlet structure shall be embedded into the soil a minimum of four inches.
 4. The minimum length, in feet, of the crest of the stone outlet structure shall be equal to six times the number of acres of contributing drainage area.
 5. The stone outlet structure shall be inspected after each rain, and the stone shall be replaced when the structure ceases to function as intended due to silt accumulation among the stone, washout, construction traffic damage, etc.

Standard Symbol	SOS
Standard Drawing	SOS-1
STONE OUTLET STRUCTURE	



U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
D-LEG PARK BLDG. AND

RIPRAP OUTLET SEDIMENT TRAP

STANDARD DRAWING
SOS-1

Reviewed for Howard S.C.D. Name: [Signature] Date: 11-15-83

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

[Signature] 11-15-83
Signature of Engineer: [Signature] Date: 11-15-83
Signature of Developer: [Signature] Date: 11-15-83

I 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] 11-15-83
Signature of Engineer: [Signature] Date: 11-15-83
Signature of Developer: [Signature] Date: 11-15-83

"I/we certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project."

[Signature] 8-21-83
Signature of Developer: [Signature] Date: 8-21-83

APPROVED: Department of Public Works
[Signature] 11-22-83
Chief, Bureau of Engineering

APPROVED: Howard County Office of Planning & Zoning
[Signature] 11-17-83
Chief, Division of Land Development & Zoning Administration

EVANS, HAGAN & HOLDEFER, INC.
SURVEYORS AND CIVIL ENGINEERS
8013 BELAIR ROAD / BALTIMORE, MD. 21236
(301) 668-1501

[Signature]
DATE: _____ SCALE: AS SHOWN

DESIGNED	R.M. JR.	SEDIMENT CONTROL DETAILS	SCALE	AS SHOWN
DRAWN	G.L.W.	SEWELLS ORCHARD	DRAWING #	8 OF 8
CHECKED	R.M. JR.	SECTION 2 AREA 2	JOB #	
DATE	8/23/83	6TH ELECTION DISTRICT	FILE #	
		HOWARD COUNTY, MARYLAND		
		FOR: ORCHARD ASSOCIATES		
		PO BOX 212		
		Columbia, Maryland 21044		