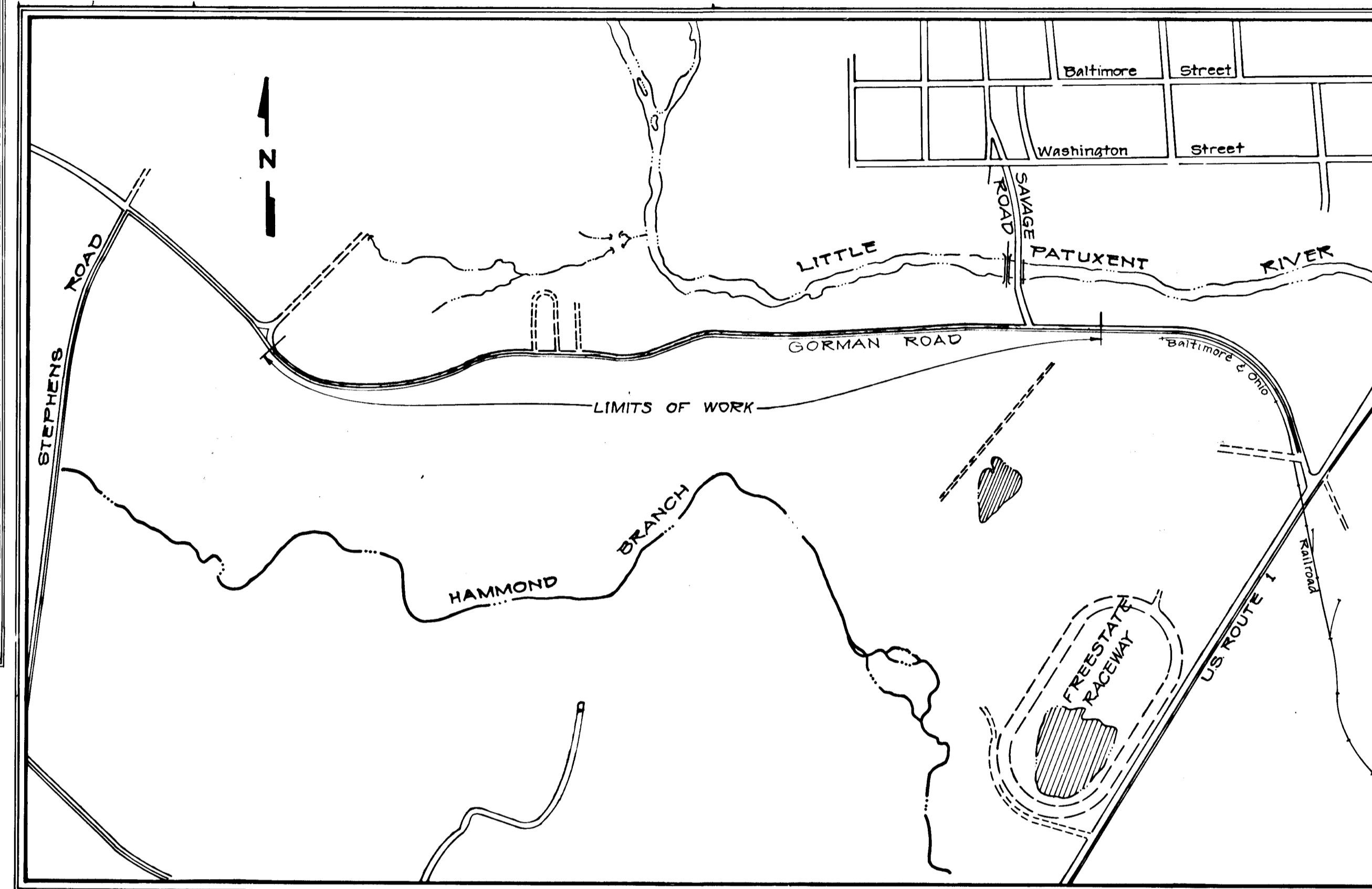


GENERAL NOTES

- THE APPROXIMATE LOCATION OF ALL UTILITIES IS SHOWN BASED ON INFORMATION OBTAINED FROM AVAILABLE RECORDS. THE CONTRACTOR SHALL LOCATE, PROTECT AND SUPPORT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER/INSPECTOR, AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL LOCATE EXISTING UTILITIES A MINIMUM OF TWO (2) WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS IN THE VICINITY OF PROPOSED UTILITIES AT HIS OWN EXPENSE.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS.
STATE HIGHWAY ADMINISTRATION - 531-5533
BALTIMORE GAS & ELECTRIC COMPANY - 561-2585 (CONTRACTOR SERVICES)
BALTIMORE GAS & ELECTRIC COMPANY - 234-6313 (UNDERGROUND DAMAGE CONTROL)
BALTIMORE GAS & ELECTRIC COMPANY - 298-9013 (TROUBLE SHOOTING)
"MISS UTILITY" - 888-257-7777
CHESAPEAKE & POTOMAC (C&P) TELEPHONE COMPANY - 725-9976
BUREAU OF UTILITIES/HOWARD COUNTY - 922-2366
- ALL DETAILS NOT SHOWN ON THE DRAWINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARD DETAILS.
- ALL MATERIALS AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH HOWARD COUNTY SPECIFICATIONS AND HOWARD COUNTY DESIGN MANUAL, VOLUME IV.
- ALL TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, LATEST EDITION AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
- TREES SHALL BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTENT POSSIBLE. TREES SIX INCH (6") DIAMETER OR GREATER (MEASURED FOUR FEET (4') ABOVE EXISTING GRADE) ADJACENT TO THE LIMITS OF CONSTRUCTION SHALL NOT BE REMOVED OR DAMAGED BY THE CONTRACTOR.
- ALL HORIZONTAL AND VERTICAL CONTROLS ARE BASED ON MARYLAND STATE PLANE COORDINATES SYSTEM PROVIDED BY HOWARD COUNTY.
- TOPOGRAPHY TAKEN FROM MAPS PREPARED BY PHOTOGRAMMETRY BY "MAPPING ASSOCIATES" TOPOGRAPHY FIELD CHECKED 1986.
- ALL PIPE ELEVATIONS ARE INVERT ELEVATIONS.
- ALL WATER MAINS SHALL BE OF THE SAME MATERIAL UNLESS HOWARD COUNTY DESIGN MANUAL, VOLUME IV, DICTATES OTHERWISE.
- TOP OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3-1/2' COVER UNLESS OTHERWISE NOTED.
- VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- ALL WATER MAIN FITTINGS REQUIRE CONCRETE THRUST BLOCKS AS DESCRIBED IN HOWARD COUNTY STANDARD SPECIFICATIONS AND DETAILS MANUAL, VOLUME IV.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING SYSTEM.
- CLEAR ALL UTILITIES BY A MINIMUM OF 6" CLEAR. CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED. ANY COST INCURRED TO THE CONTRACTOR FOR TUNNELING OR BRACING AT POLES SHALL BE INCLUDED IN UNIT PRICES BID FOR EXCAVATION AND BACKFILL.
- SEPARATION BETWEEN WATER AND SANITARY SEWER: WATER MAINS SHALL BE LAID AT LEAST TEN FEET (10') HORIZONTALLY FROM ANY EXISTING OR PROPOSED SEWER. DEVIATION MAY BE ALLOWED FOR INSTALLATION OF THE WATER MAIN CLOSER TO A SEWER, PROVIDED THAT THE WATER MAIN IS LAID IN A SEPARATE TRENCH, SUCH THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST SIX FEET (6') ABOVE THE TOP OF THE SEWER. WATER MAINS CROSSING SEWERS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF TWELVE INCHES (12") BETWEEN THE BOTTOM OF THE WATER MAIN AND THE TOP OF THE SEWER LINE.
- GORMAN ROAD DESIGN SPEED = 40 MPH.
- ZONING: RSC AND RSA-8.
- PROVIDE 250 WATT MERCURY VAPOR LAMP PENDANT MOUNTED FIXTURE ON 30 FOOT GALVANIZED STEEL POLE WHERE SHOWN ON PLANS.

GORMAN ROAD



VICINITY MAP
SCALE: 1"=600'

No.	TYPE	TOP ELEVATION		REMARKS		
		INV IN	INV OUT	UPPER	LOWER	
I-1	A-10 Inlet	179.00	177.00	185.37	185.05	SD 4.02 W-5'-0" & INLET 54+37
I-2	A-10 Inlet	186.50	186.00	192.45	192.15	SD 4.02 W-5'-0" & INLET 52+01
I-3	A-10 Inlet	193.40	192.70	200.03	199.46	SD 4.02 W-5'-0" & INLET 50+30
I-4	A-10 Inlet	206.99	206.18	213.72	213.39	SD 4.02 W-4'-6" & INLET 47+43
I-5	A-5 Inlet	213.57	213.07	219.78	219.70	SD 4.01 W-4'-6" & INLET 44+46.5
I-6	A-5 Inlet	217.32	215.17	222.34	222.26	SD 4.01 W-4'-6" & INLET 42+86.5
I-7	A-5 Inlet	217.91	217.41	225.34	225.25	SD 4.01 W-4'-6" & INLET 41+1.05
I-8	A-10 Inlet	220.22	219.72	231.46	231.16	SD 4.02 W-4'-6" & INLET 39+01
I-9	A-5 Inlet	225.81	224.76	233.09	233.01	SD 4.01 W-4'-6" & INLET 34+19.5
I-10	A-10 Inlet	228.88	226.30	232.17	232.17	SD 4.02 W-4'-6" & INLET 32+81
I-11	A-5 Inlet	228.00	227.70	233.09	233.01	SD 4.01 W-4'-0" & INLET 31+86.5
I-12	A-5 Inlet	230.75	230.00	235.00	234.83	SD 4.01 W-4'-0" & INLET 31+00.5
I-13	A-10 Inlet	238.50	236.25	243.39	242.85	SD 4.02 W-3'-4" & INLET 29+01
I-14	A-10 Inlet	255.00	254.50	260.58	260.20	SD 4.02 W-3'-4" & INLET 25+81
I-15	A-5 Inlet	259.50	259.06	265.85	265.85	SD 4.01 W-3'-4" & INLET 23+08.5
I-16	A-5 Inlet	261.88	260.88	266.46	266.42	SD 4.01 W-3'-4" & INLET 22+18.5
I-17	A-10 Inlet	266.90	263.19	269.02	268.75	SD 4.02 W-3'-0" & INLET 20+76
I-18	A-10 Inlet	167.10	155.94	160.16	159.94	SD 4.02 W-2'-6" & INLET 60+25
I-19	A-10 Inlet	167.70	163.50	168.66	168.08	SD 4.02 W-2'-6" & INLET 58+05
I-20	"S" Inlet	179.75	179.50	183.80		SD 4.22 SEE PLAN
I-21	"S" Inlet		209.25	212.00		SD 4.22 SEE PLAN
I-22	"S" Inlet	227.00	226.01	231.00		SD 4.22 SEE PLAN
E-1	Flared End Sect.	142.07	142.00			SD 5.51 SEE PLAN
E-2	Flared End Sect.	154.50	154.32			SD 5.51 SEE PLAN
E-3	Flared End Sect.	158.00	157.67			SD 5.51 SEE PLAN
E-4	Flared End Sect.	229.75	229.40			SD 5.51 SEE PLAN
E-5	Flared End Sect.	266.00	266.76			SD 5.51 SEE PLAN
M-1	Manhole	143.10	142.10	149.00		G 5.03 SEE PLAN
M-2	Manhole	145.30	143.90	151.50		G 5.03 SEE PLAN
I-23	"S" Inlet	175.00	174.50	183.50		SD 4.22 SEE PLAN
M-4	Manhole	201.75	200.25	207.36		G 5.03 & STRUC. 48+93
K-1	"K" Inlet		264.75	267.00		SD 4.12 SEE PLAN
K-2	"K" Inlet		257.00	258.70		SD 4.12 SEE PLAN
K-3	"K" Inlet		228.98	230.70		SD 4.12 SEE PLAN
K-4	"K" Inlet		218.12	220.00		SD 4.12 SEE PLAN
K-5	"K" Inlet		195.89	197.50		SD 4.12 SEE PLAN

SIZE	TYPE	LENGTH
15"	RCP CL V	454'
18"	RCP CL V	102'
27"	RCP CL V	100'
30"	RCP CL IV	845'
36"	RCP CL IV	172'
42"	RCP CL IV	4701'
48"	RCP CL III	258'
48"	RCP CL IV	439'
60"	RCP CL III	4'

LEGEND

	PROPOSED LIGHT POLES (10 TOTAL) SEE NOTE #20		EX. FIRE HYDRANT
	PROPOSED EDGE OF PAVING		EX. WATER VALVE
	PROP. CURB & GUTTER		EX. WATER MH
	PROP. EDGE OF SHOULDER		BARBED WIRE FENCE
	PROPOSED R/W		EX. 12" WATER
	PROPOSED 4' SIDEWALK		WOOD FENCE
			C & P MH
			GAS METER
			EX. PROPERTY LINE
			EX. PAVING
			EXISTING CONTOURS
			RAILROAD TIES

HOWARD COUNTY, MARYLAND

APPROVED: DEPARTMENT OF PUBLIC WORKS
[Signature] 8-14-87
 Chief, Bureau of Engineering
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
[Signature] 8-10-87
 Chief, Division of Land Development & Zoning Administration

DETOUR NOTE
 Gorman Road closure during construction between Stephens Road and Foundry Street will be subject to the following conditions:
 1. Vehicular access to residents abutting Gorman Road shall be maintained at all times.
 2. The closure shall not occur prior to the completion of the construction of the Stephens Road Bridge under Capital Project B-3818. Expected completion date is March 1987.
 3. A detour plan which shows all the required signs shall be submitted to this Bureau for review and approval.
 4. The road closure shall be for a period not exceeding 90 days.
 OWNER/DEVELOPER
 GORMAN ROAD LIMITED PARTNERSHIP
 C/O JAMES F. KROTT DEVELOPMENT CORPORATION
 116 WEST ROAD, SUITE 203
 TOWSON, MARYLAND 21284
 (801) 321-6436

SHEET #	DESCRIPTION	INDEX TO DRAWINGS
1	COVER SHEET	
2	LAYOUT PLAN STA 10+49 TO 16+50	
3	LAYOUT PLAN STA 16+50 TO 28+50	
4	LAYOUT PLAN STA 28+50 TO 40+50	
5	LAYOUT PLAN STA 40+50 TO 52+25	
6	LAYOUT PLAN STA 52+25 TO 61+75	
7	DETAILS	
8	STORM DRAIN PLAN/PROFILE & GRADING PLAN STA 10+49 TO 16+50	
9	STORM DRAIN PLAN/PROFILE & GRADING PLAN STA 16+50 TO 28+50	
10	STORM DRAIN PLAN/PROFILE & GRADING PLAN STA 28+50 TO 40+50	
11	STORM DRAIN PLAN/PROFILE & GRADING PLAN STA 40+50 TO 52+25	
12	STORM DRAIN PLAN/PROFILE & GRADING PLAN STA 52+25 TO 61+75	
13	OUTFALL PLAN & PROFILE	
14	DRAINAGE AREA MAP & SEDIMENT CONTROL PLAN STA 10+49 TO 16+50	
15	DRAINAGE AREA MAP & SEDIMENT CONTROL PLAN STA 16+50 TO 28+50	
16	DRAINAGE AREA MAP & SEDIMENT CONTROL PLAN STA 28+50 TO 40+50	
17	DRAINAGE AREA MAP & SEDIMENT CONTROL PLAN STA 40+50 TO 52+25	
18	DRAINAGE AREA MAP & SEDIMENT CONTROL PLAN STA 52+25 TO 61+75	
19	SEDIMENT CONTROL NOTES & DETAILS	
20	DRAINAGE AREA MAP (FUTURE)	

NO.	DESCRIPTION	DATE	APPROVED	DATE
D	UNIVERSITY ROAD, STA 28+50 TO STA 29+50	8/5/87		
C	ADDED TO 10/16/87 (M&S)	9/13/87		
B	REVISED FROM M&S TO OUTCALL	5/16/87		
A	REVISED 60' WIDE HOOD	4/16/87		
	DPW HSCD, ADDED 85			

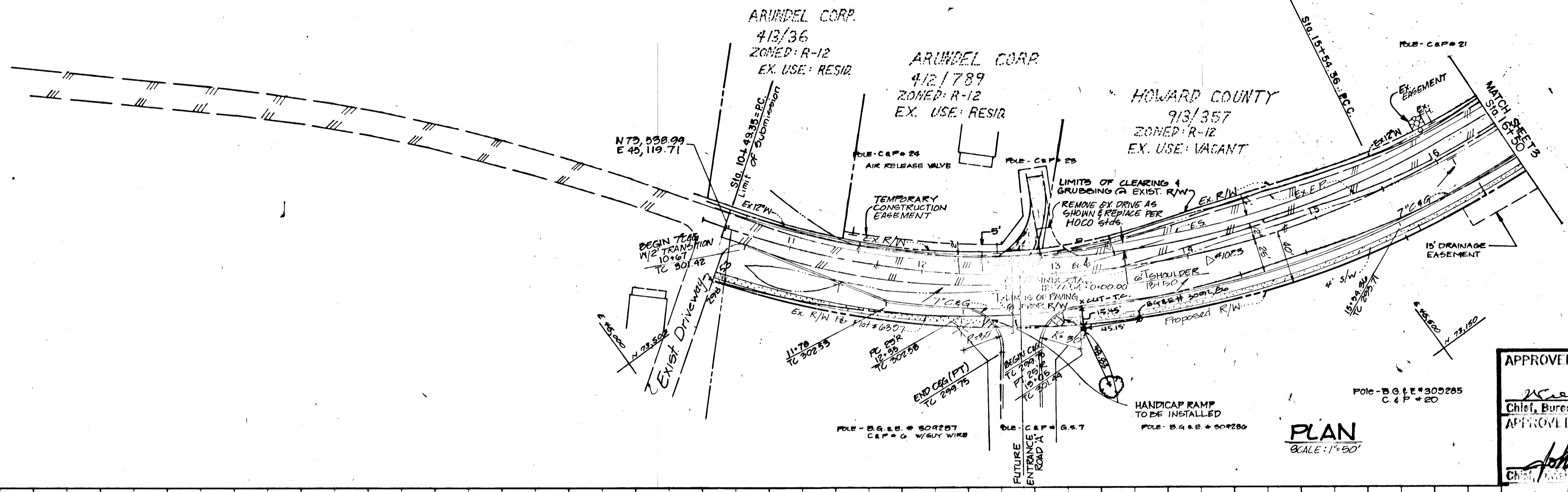
REVISION APPROVED BY _____
 PROFESSIONAL SEAL
GORMAN ROAD CONSTRUCTION PLANS
COVER SHEET

Patton Harris Rust and Associates
 A Professional Corporation
 Engineers, Surveyors, Planners and Landscape Architects
 7609 Standish Place, Rockville, MD 20855 (301) 762-2220

BOWLING BROOK FARMS
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY MARYLAND
 L1304 F632
 TAX MAP NO. 47 PARCEL 141
 SURVEY _____ DATE 1/30/87
 DESIGN _____ SHEET 1 OF 20
 DRAWN @ Steinberger
 CHECKED _____
 SCALE _____ FILE NO. 2184-10
 C.I. _____

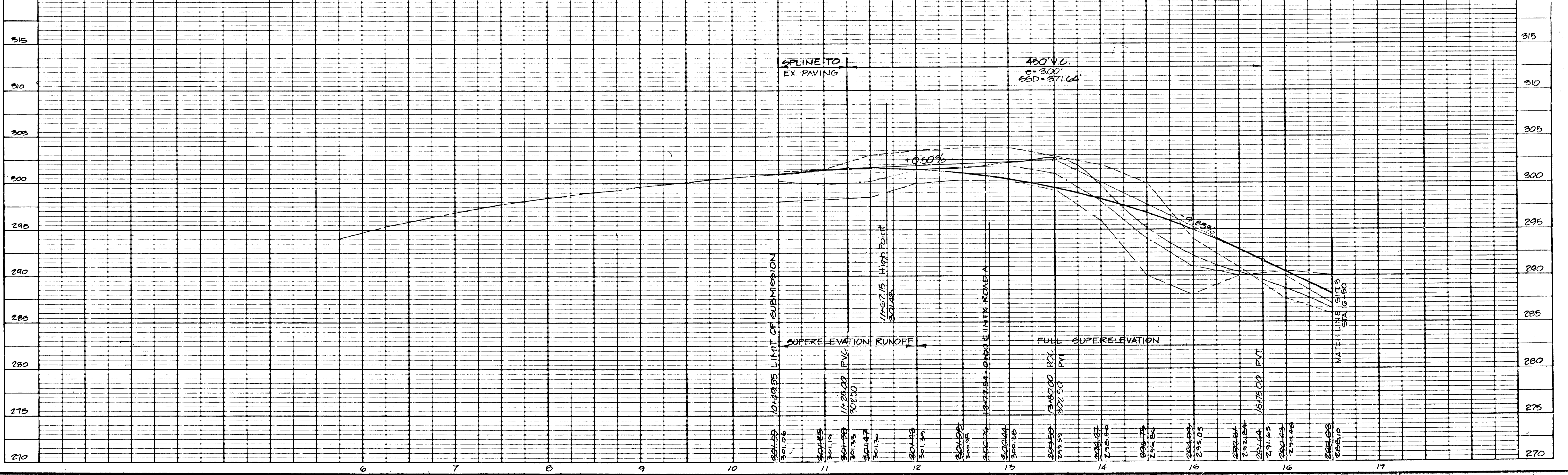
TRaverse STA #1025
 N 73,306.12
 E 45,397.48

Curve Data
 PC 10+49.35 to PCL 15+54.36
 R= 600.00'
 Δ= 44°30'06"
 T= 266.02'
 L= 503.01'
 CHD= 657°21'36" E 492.41'



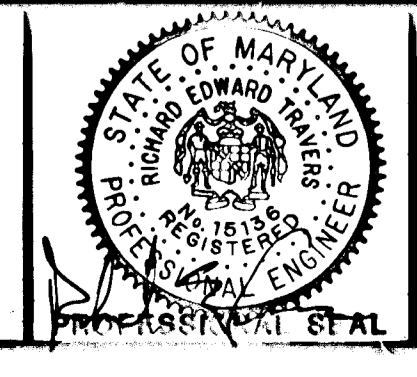
PROFILE LEGEND:
 Profile Grade Line
 Exist. Pmt. & Line
 Exist. &
 Prop. R/W (South)
 Future R/W (North)

APPROVED, DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Engineering
 APPROVED, HOWARD COUNTY OFFICE OF PLANNING AND ZONING
 Chief, Office of Land Development & Zoning Administration



NO. REVISIONS	DATE	REFERENCE

GORMAN ROAD CONSTRUCTION PLANS
LAYOUT PLAN
 STA 10+49 TO 16+50



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 7609 Standish Place Rockville, Md. 301-762-2220

BOWLING BROOK FARMS
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 L.1594 F.632
 TAX MAP NO. 47, PARCEL 141

SURVEY PHASE	DATE
DESIGN KOR	1/30/87
DRAWN CAT, PACR	SHEET
CHECKED KOR	2 OF 20
SCALE	FILE NO.

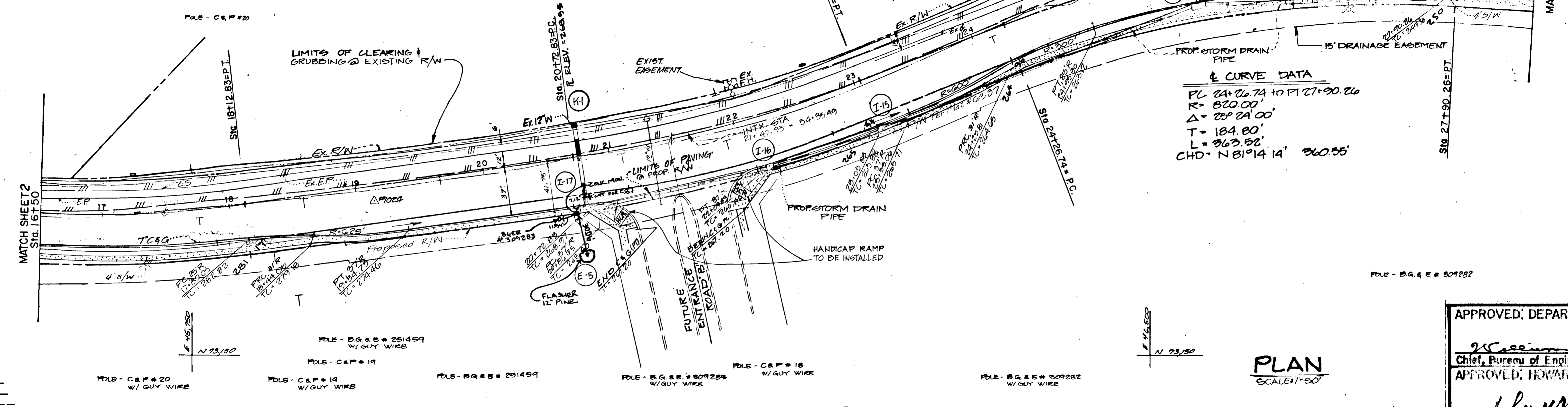
F-87-115

TRAVERSE STA	* 1024	* 1025
Δ	N 73,271.17	N 73,486.66
	E 45,893.32	E 46,596.97

¢ CURVE DATA
 PC 15+54.36 TO PT 18+2.85
 R= 800.00'
 $\Delta = 18^\circ 30' 42"$
 T= 130.27'
 L= 258.47'
 CHD= 688° 51' 25" E 257.75'

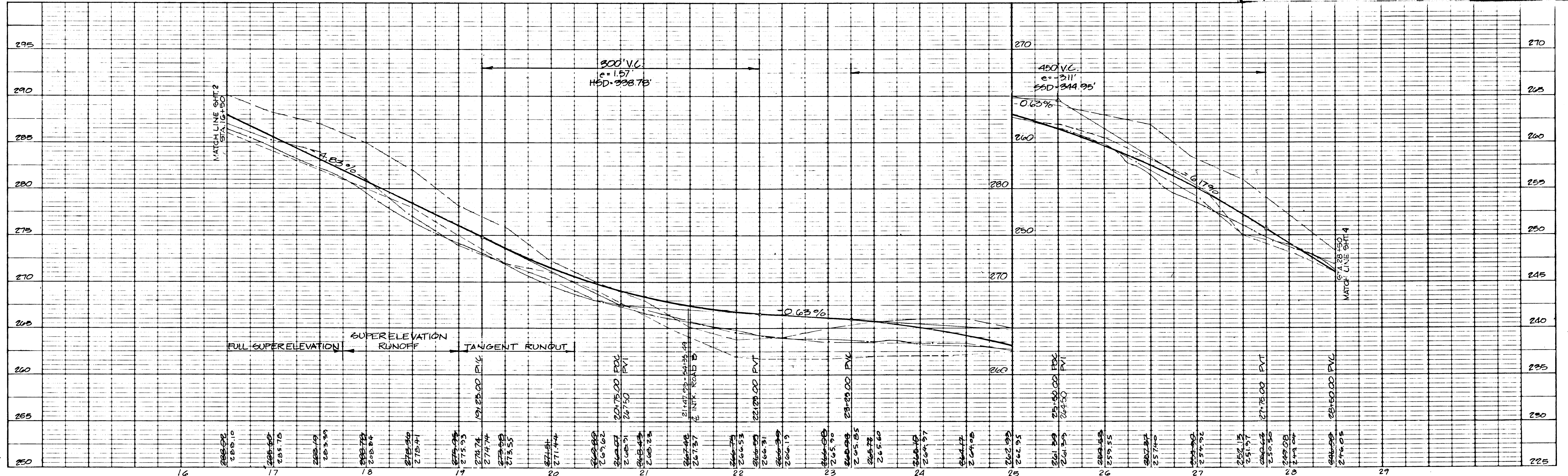
¢ CURVE DATA
 PC 20+72.83 TO PT 23+08.83
 R= 1000.00'
 $\Delta = 13^\circ 21' 00"$
 T= 117.05'
 L= 293.00'
 CHD= N 78° 12' 44" E 232.47'

¢ CURVE DATA
 PC 24+26.74 TO PT 27+90.26
 R= 820.00'
 $\Delta = 20^\circ 24' 00"$
 T= 184.80'
 L= 363.82'
 CHD= N 81° 14' 14" 360.55'



PROFILE LEGEND:
 Profile Grade Line
 Exist. Pvm't & Line
 Exist. &
 Prop. R/W (South)
 Future R/W (North)

APPROVED: DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Engineering
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
 Chief, Bureau of Land Development & Zoning Administration



NO.	REVISIONS	DATE	REFERENCE:
F	REV. TO 4' SIDEWALK	6/11/80	
E	REV. TO 4' SIDEWALK	7/19/80	
D	LOW RID. ROAD STAIRWAY TO STA 30+00	8/15/81	
A	REVISED S&E PER HO. CD.	4/18/87	
	UPM# HSCD, ADDED 95		

GORMAN ROAD CONSTRUCTION PLANS
LAYOUT PLAN
 STA 16+50 TO 28+50
 PROFESSIONAL SEAL

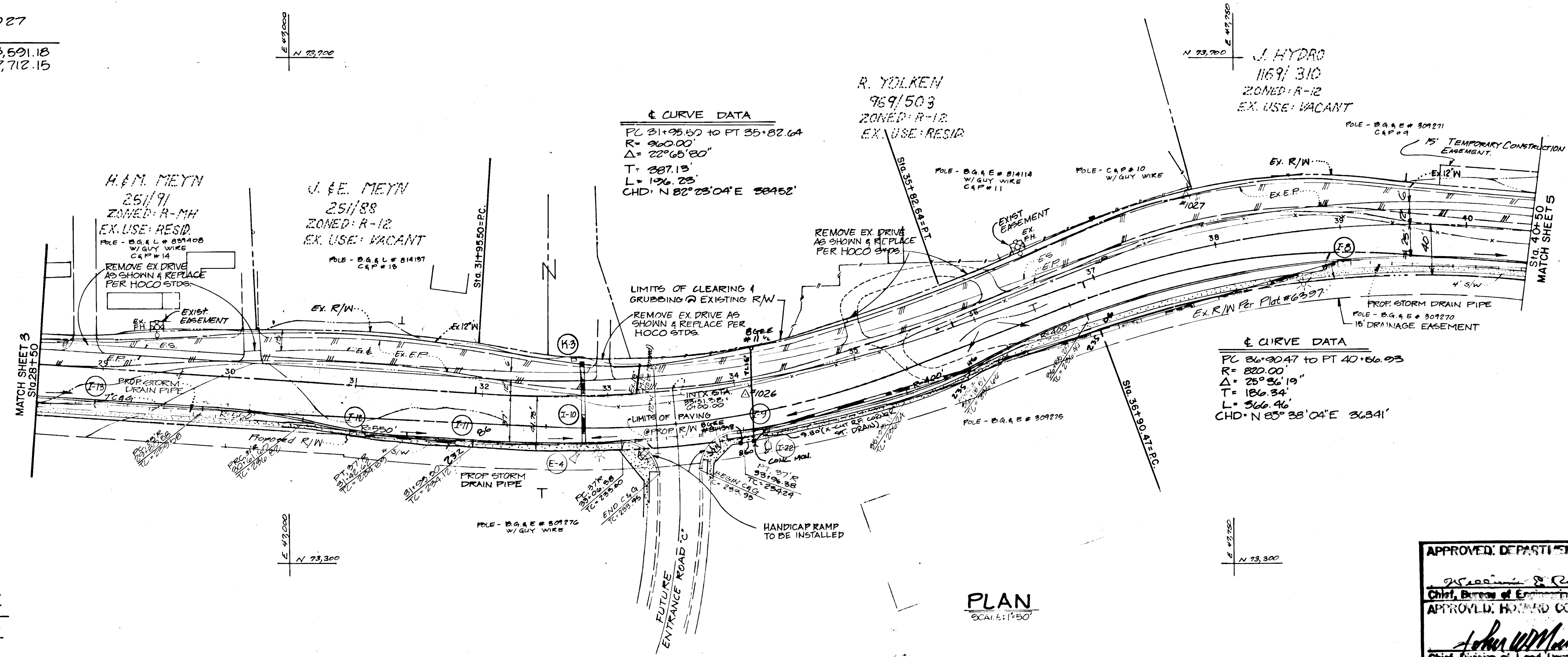
Patton Harris Rust and Associates
 A Professional Corporation
 Engineers, Surveyors, Planners and Landscape Architects
 7609 Standish Place Rockville, Md. 301-762-2220

BOWLING BROOK FARMS
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 OPZ FILE NO. VP-85-78, VP-85-78A-1, VP-85-78A-2, S-85-23
 L. 1594 F. 632
 TAX MAP NO. 47, PARCEL 141

SURVEY PHRA 1/30/87
 DESIGN KOR
 DRAWN CAT, PA, GOR
 CHECKED GOR
 SCALE 1" = 40' HORIZ. 1" = 5' VERT.

SHEET 3 OF 20

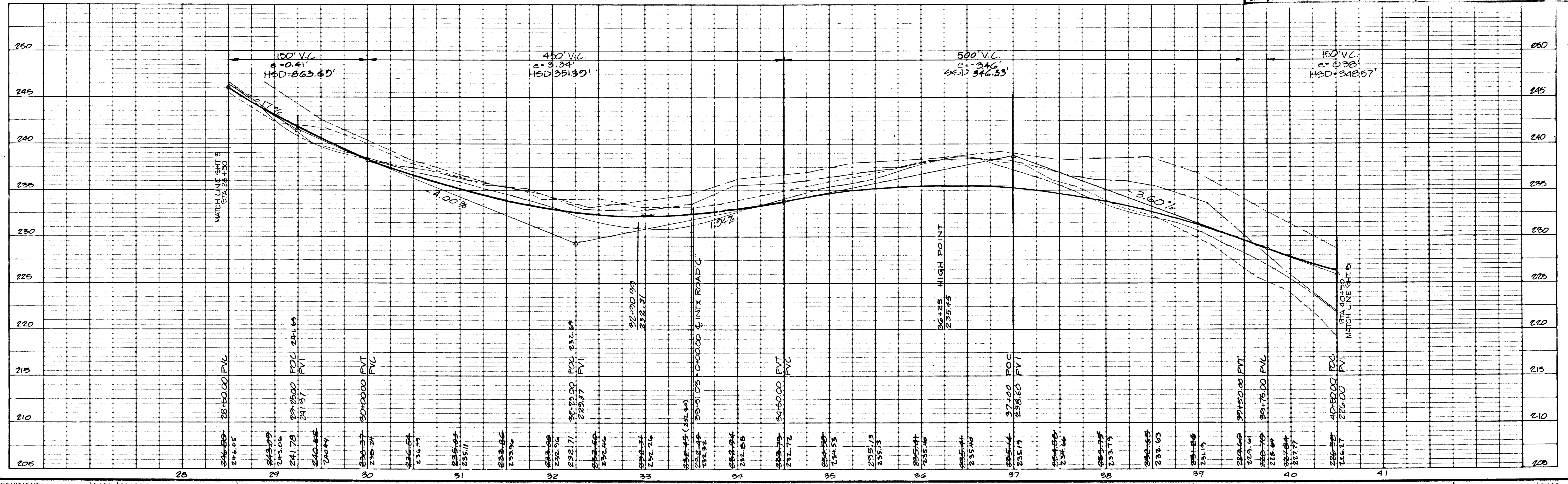
TRAVERSE STA	# 1026	# 1027
△	N 73,424.78 E 47,360.76	N 73,591.18 E 47,712.15



PROFILE LEGEND:
 Profile Grade Line _____
 Exist. Fmt. & Line _____
 Exist. E _____
 Prop. R/W (South) _____
 Future R/W (North) _____

PLAN
 SCALE: 1"=50'

APPROVED: DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Engineering
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
 Chief, Division of Land Development & Zoning Administration



NO. OF REVISIONS	DATE	REFERENCE
F	REVISOR PER HO. CD.	6-22-87
E	REV. PER HO. CD.	7-13-87
D	REV. PER HO. CD.	8/5/87
A	REVISED PER HO. CD.	4/5/87
	REVISED PER HO. CD.	

GORMAN ROAD CONSTRUCTION PLANS
LAYOUT PLAN
 STA 28+50 TO 40+50

PROFESSIONAL SEAL

Patton Harris Rust and Associates
 A Professional Corporation
 Engineers, Surveyors, Planners and Landscape Architects
 7609 Standish Place Rockville, Md. 301-762-2220

BOWLING BROOK FARMS
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 L1394 F.632
 TAX MAP NO. 47, PARCEL 141

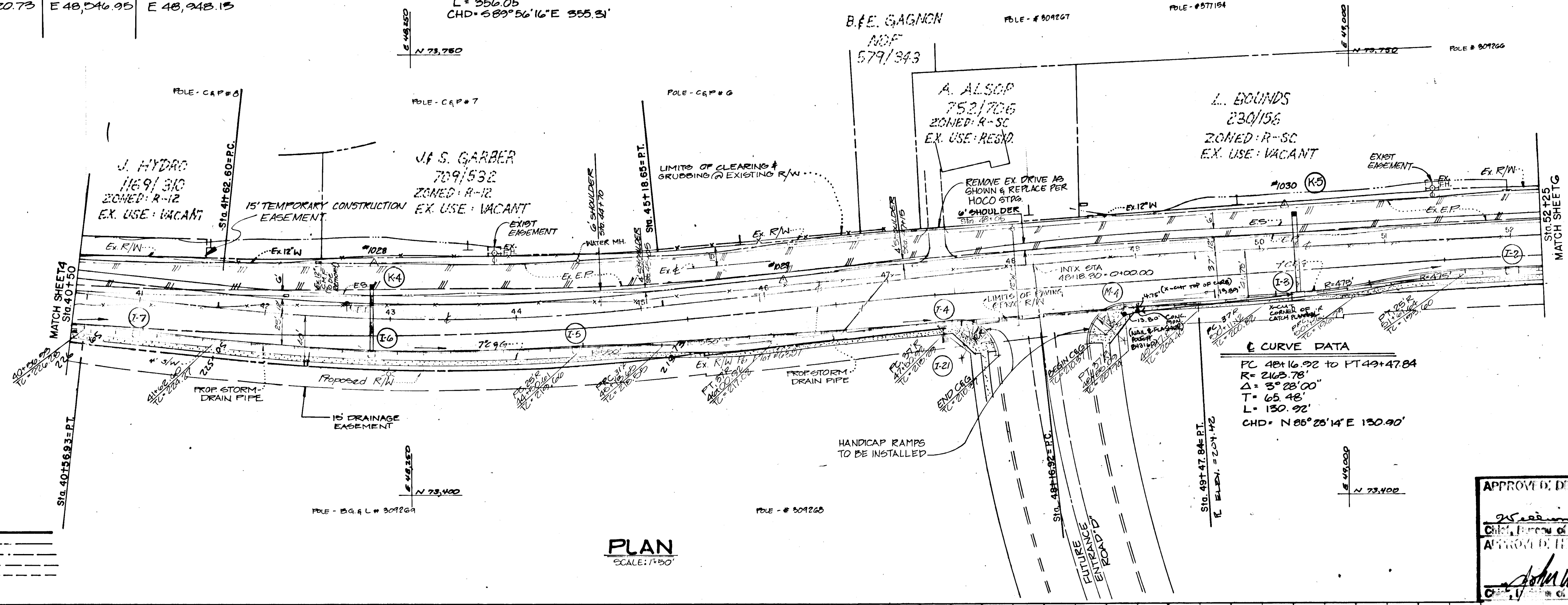
SURVEY PHRA	DATE
DESIGN KOR	1/30/87
DRAWN CAT, PA, GOR	SHEET
CHECKED KOR	4 OF 20
SCALE 1"=50' HORIZ	FILE NO.
CA. 1"=5' VERT	2104-1-0

AS BUILT JAN. 16, 1992

TRAVERSE STA	* 1028	* 1029	* 1030
N	73,085.60	73,571.96	73,621.58
E	48,220.73	48,546.95	48,948.15

CURVE DATA
 PC 41+62.60 TO 45+18.66
 R= 1600.00
 $\Delta = 12^\circ 46' 00''$
 T= 178.76'
 L= 356.05'
 CHD= S89°56'16"E 355.21'

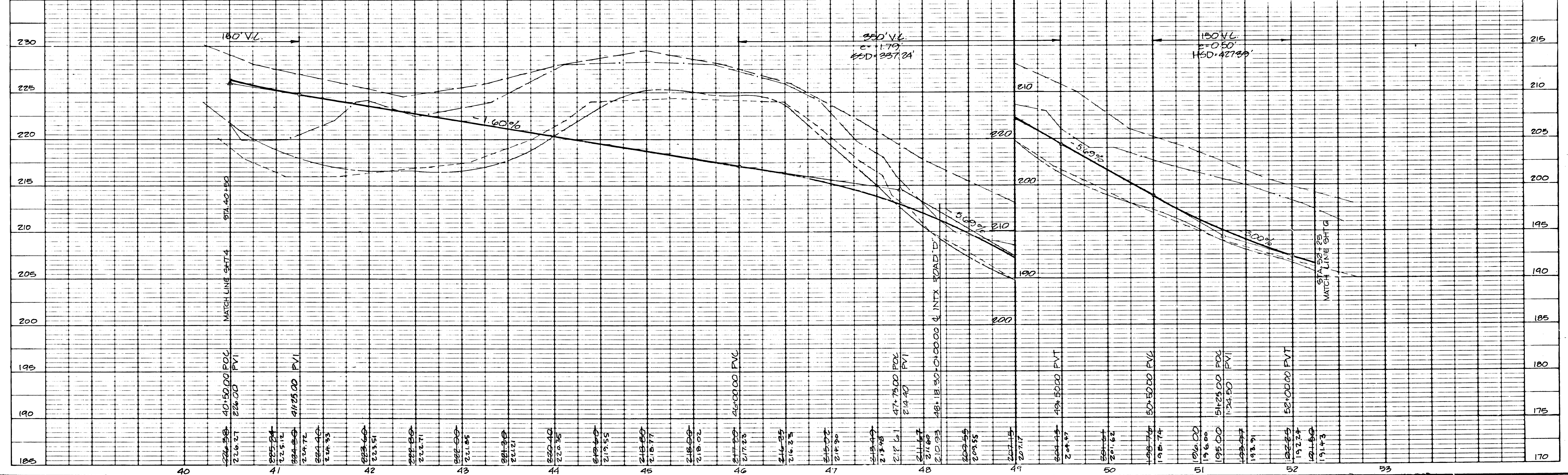
CURVE DATA
 PC 48+16.92 TO 49+47.84
 R= 2463.78'
 $\Delta = 5^\circ 28' 00''$
 T= 65.48'
 L= 130.92'
 CHD= N85°28'14"E 130.90'



PLAN
 SCALE: 1"=50'

PROFILE LEGEND:
 Profile Grade Line
 Exist. Pymt & Line
 Exist. &
 Prop. R/W (South)
 Future R/W (North)

APPROVED BY DEPARTMENT OF PUBLIC WORKS
 8-14-87
 APPROVED BY COUNTY OF DEPT. OF PLANNING AND ZONING
 8-15-87
 John W. Macchiarini



NO.	REVISIONS	DATE	REFERENCE
D	REV. TO S/W AT CORNER	7-15-88	
A	REVISED S/W PER HO. CD	4/15/87	
	PLAN & P&S, ADDED 56		

GORMAN ROAD CONSTRUCTION PLANS
LAYOUT PLAN
 STA 40+50 TO 52+25



Patton Harris Rust and Associates
 A Professional Corporation
 Engineers, Surveyors, Planners and Landscape Architects
 7609 Standish Place Rockville, Md. 301-762-2220

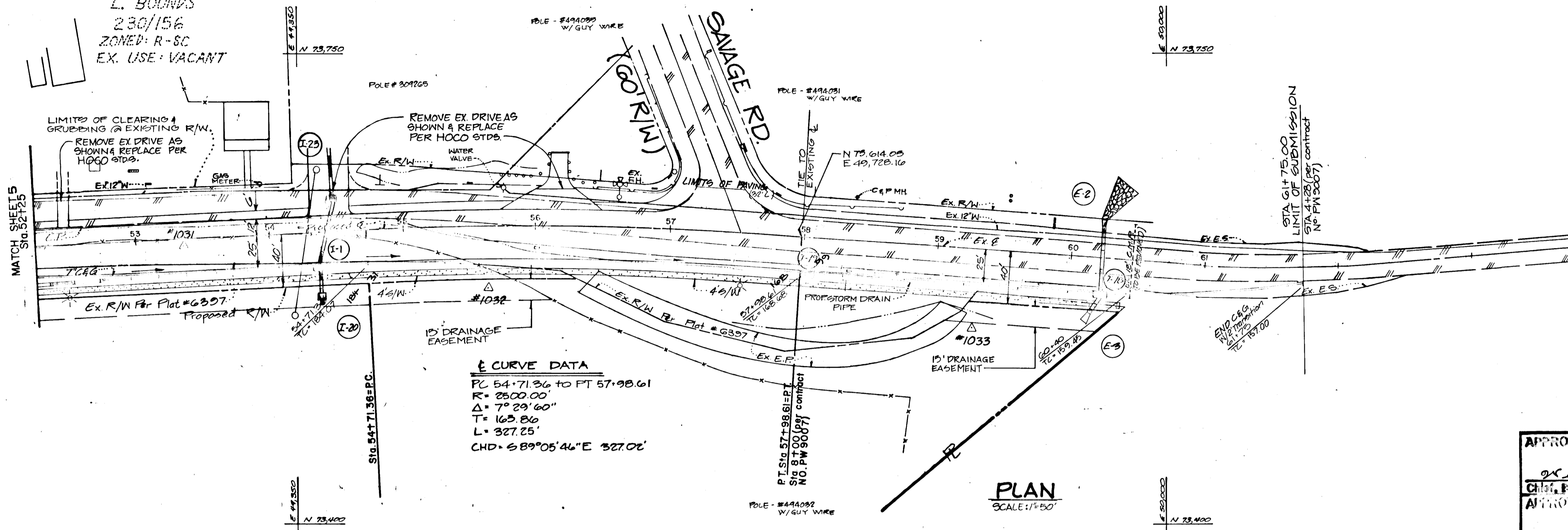
BOWLING BROOK FARMS
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 OPZ FILE NO. VP-88-78, VP-88-78A-1, VP-88-78A-2, S-88-25
 L. 1394 F. 632
 TAX MAP NO. 47, PARCEL 141

SURVEY	PHRA	DATE
DESIGN	KOR	1/30/87
DRAWN	CAT, PA, GR	SHEET
CHECKED	KOR	5 of 20
SCALE	1"=50' HORIZ 6"=1" VERT	FILE NO. 2184-1-0

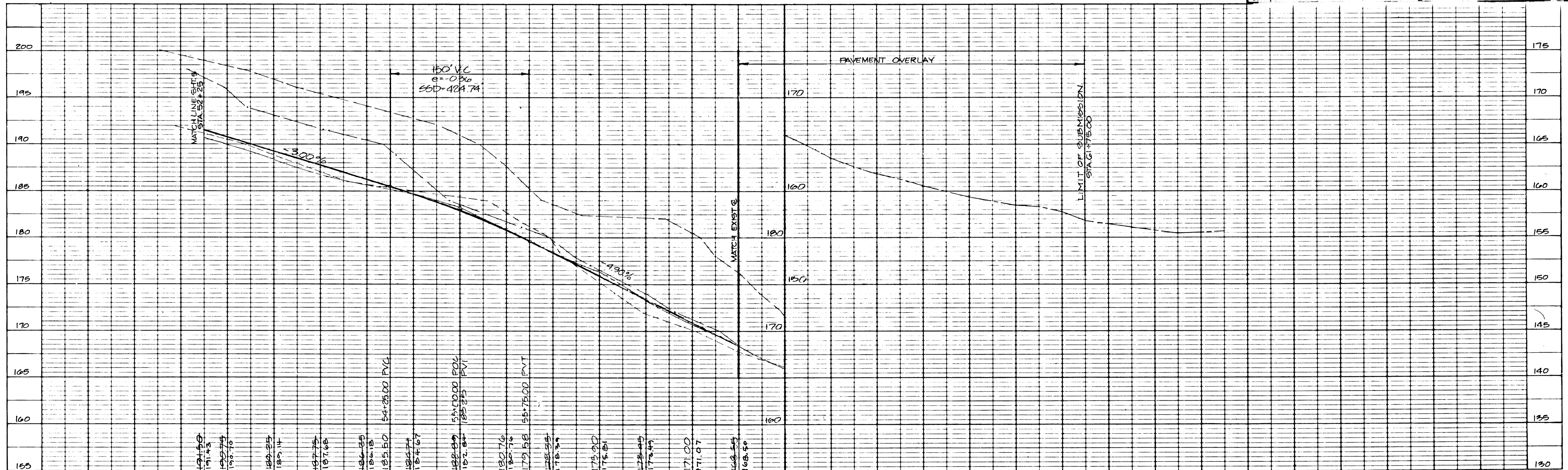
TRAVERSE STA	# 1031	# 1032	# 1033
N 73,606.62	N 73,570.46	N 73,546.24	
E 49,265.31	E 49,492.93	E 49,854.42	

HOWARD COUNTY
506/501
ZONED: R-SC
EX. USE: RESID

L. BOUNDS
230/156
ZONED: R-SC
EX. USE: VACANT

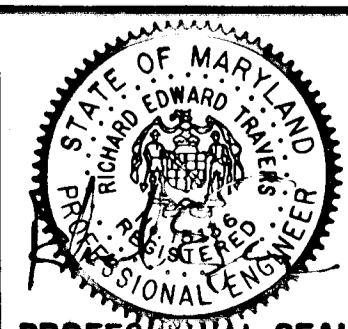


APPROVED, DEPARTMENT OF PUBLIC WORKS
 3-14-87
 APPROVED, HOWARD COUNTY OFFICE OF PLANNING AND ZONING
 8-10-87



NO. REVISIONS	DATE	REVISION
1	4/15/87	REVISED SD & PER HOLO.
2		EX. W & HEC, ALL REVISED

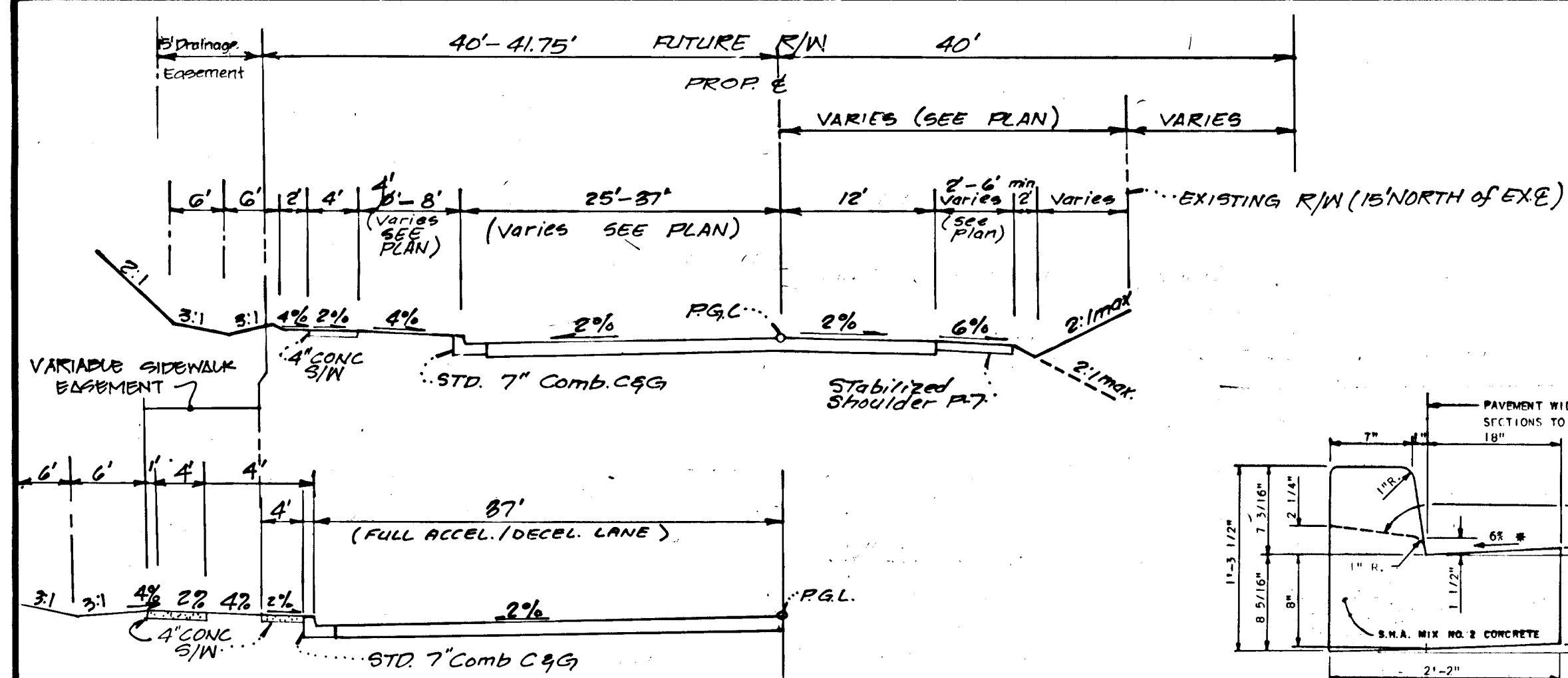
GORMAN ROAD CONSTRUCTION PLANS
LAYOUT PLAN
 STA 52+25 TO 61+75



Patton Harris Rust and Associates
 A Professional Corporation
 Engineers, Surveyors, Planners and Landscape Architects
 7609 Standish Place Rockville, Md. 301-762-2220

BOWLING BROOK FARMS
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 OFZ FILE NO. VP-85-78, VP-85-78A-1, VP-85-78A-2, S-05-23
 L. 1594 F. 692
 TAX MAP NO. 47, PARCEL 141

SURVEY PHRA	DATE
DESIGN KDR	1/30/87
DRAWN CRT, PACER	SHEET
CHECKED KDR	6 OF 20
SCALE 1"=50' HORIZ 1"=5' VERT	FILE NO. 2184-1-C

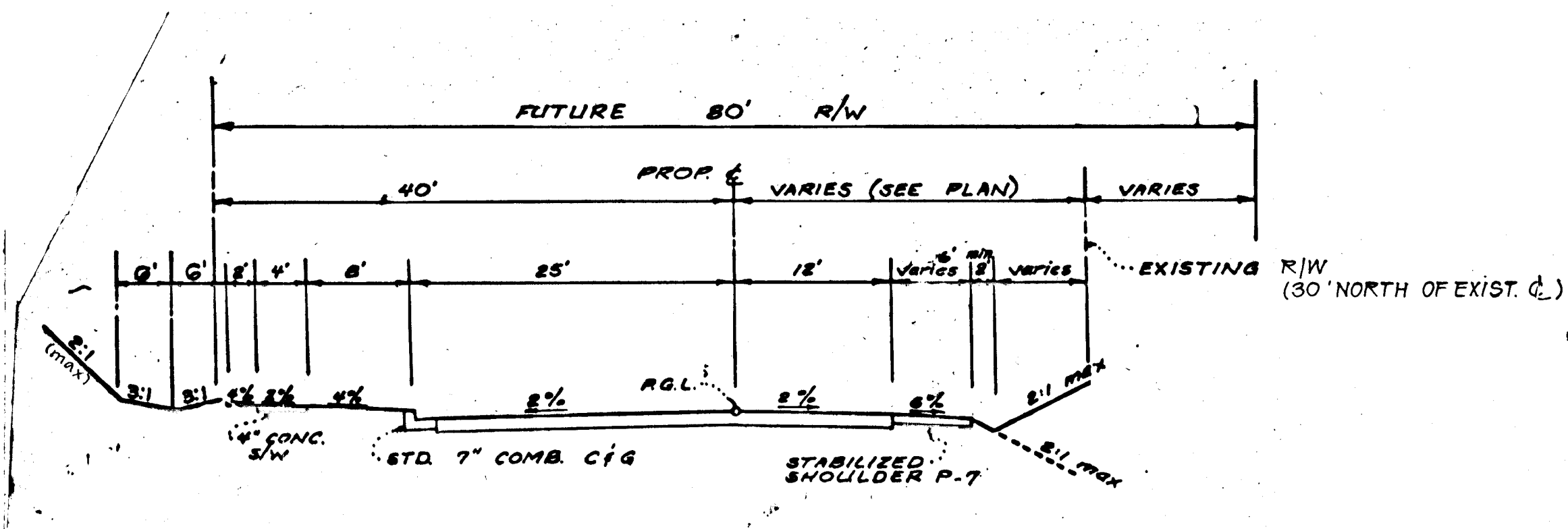


STA. 20+25 TO STA. 54+19
NORMAL CROWN SECTION

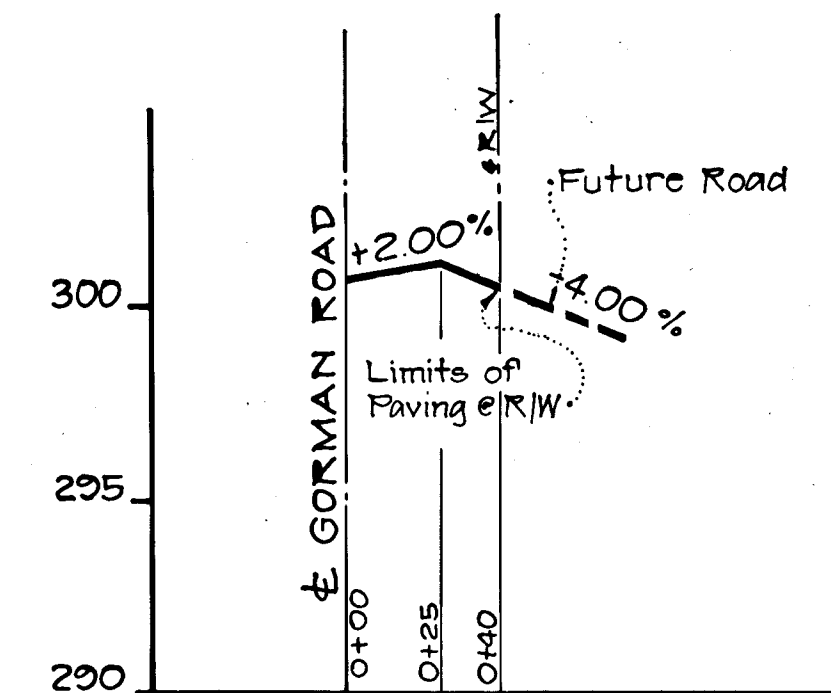
NOTES:

- Sta 17+75 to Sta 20+25 transition from normal crown slope to superelevation. (See superelevation attainment diagram).
- Sta 10+50 to Sta. 11+78 transition from existing paving to superelevation. (See superelevation attainment diagram). Transition C & G from full paving section to existing paving.

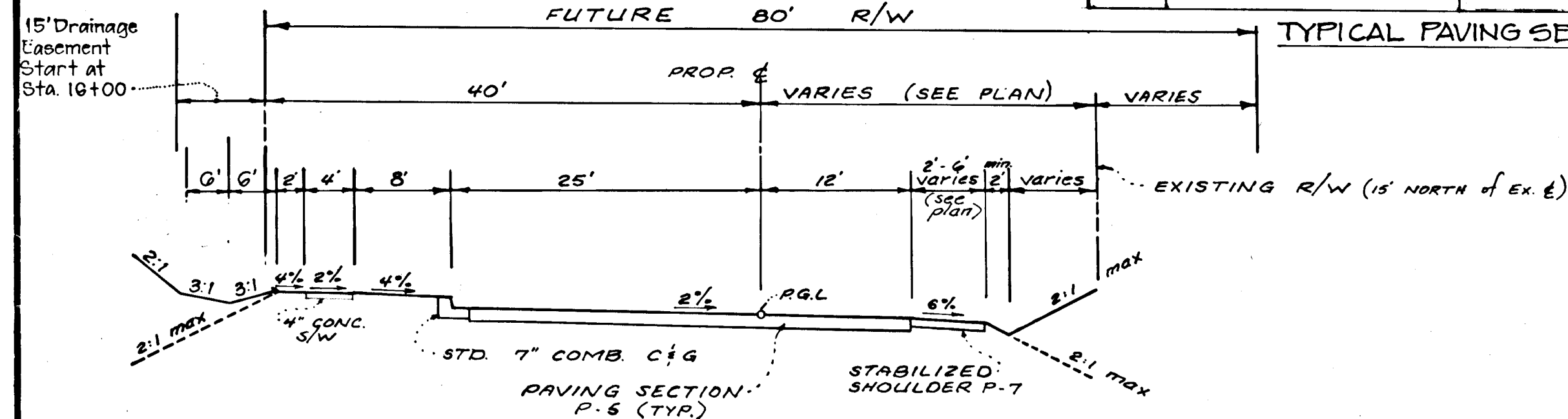
SECTION NUMBER	PAVEMENT MATERIALS	
	FULL DEPTH BIT. CONC. ALTERNATE	GRAVEL BASE ALTERNATES
P-5	1 1/2\" BIT. CONC. SURFACE 4 1/2\" BIT. CONC. BASE 5\" BIT. CONC. BASE	1 1/2\" BIT. CONC. SURFACE 4 1/2\" BIT. CONC. BASE 5\" BIT. CONC. BASE
P-7	DOUBLE BIT. SURFACE TREATMENT 6\" CRUSHER RUN BASE COURSE OR 4 1/2\" DENSE GRADED STABILIZED AGGREGATE BASE COURSE	DOUBLE BIT. SURFACE TREATMENT 6\" CRUSHER RUN BASE COURSE OR 4 1/2\" DENSE GRADED STABILIZED AGGREGATE BASE COURSE



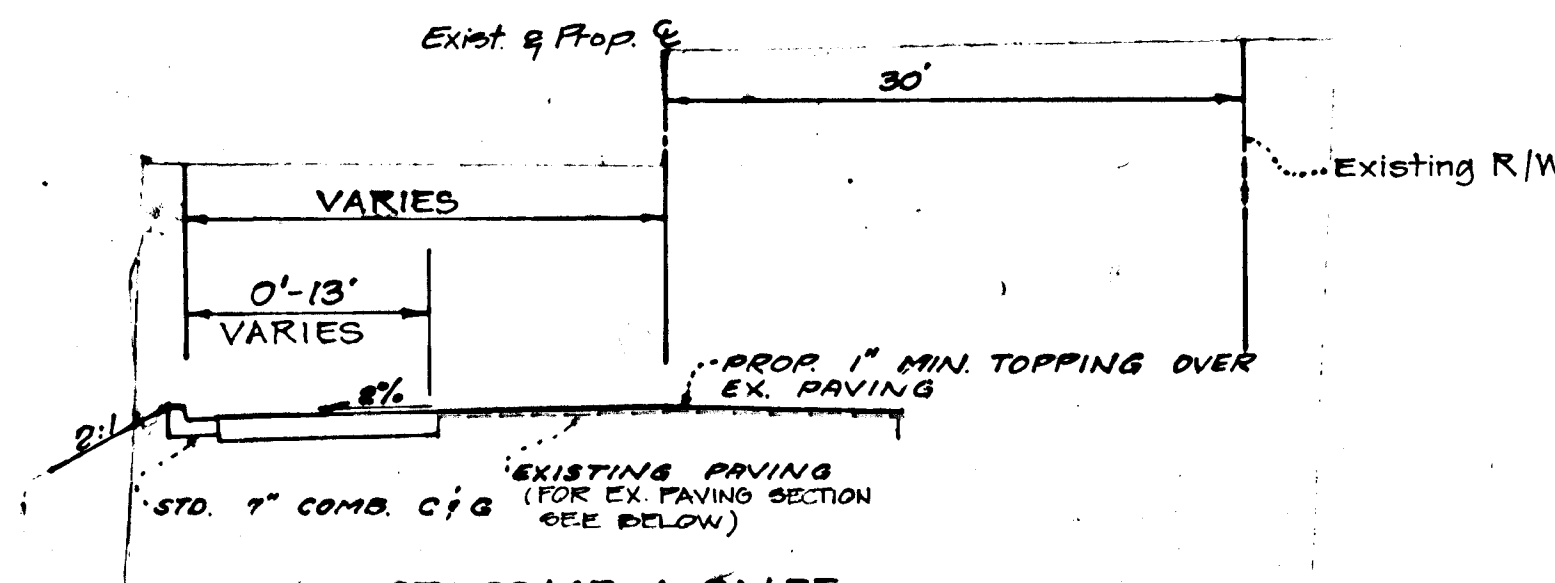
STA. 54+19 TO STA. 57+98.61 (STA. 8+00)
NORMAL CROWN SECTION



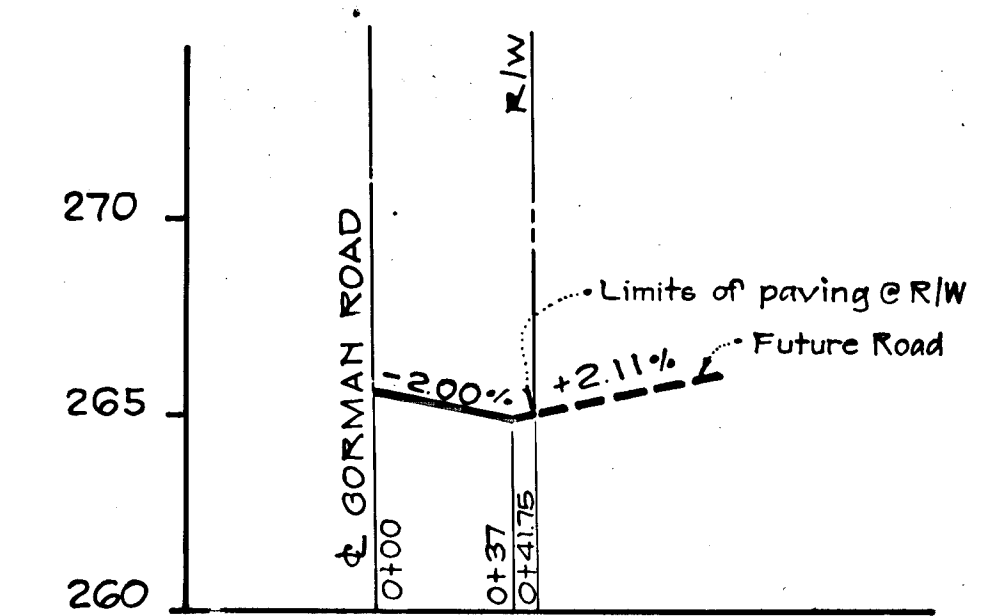
FUTURE ENTRANCE ROAD A



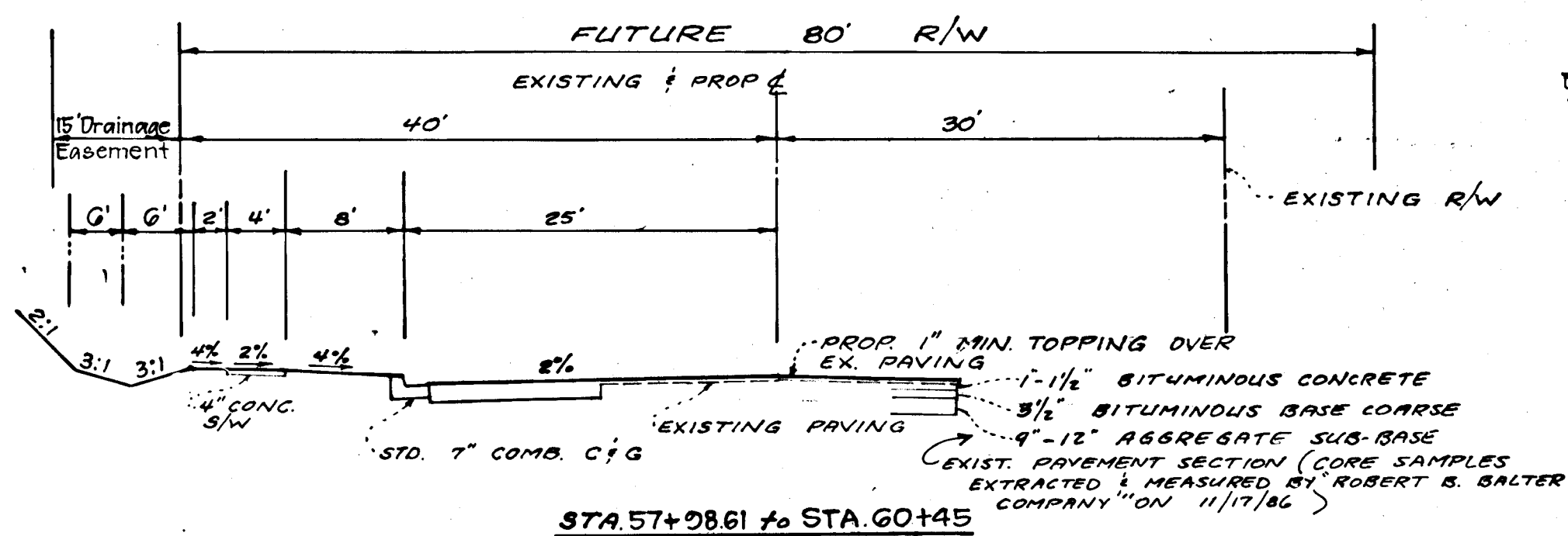
STA. 11+78 TO STA. 17+75
SUPERELEVATED SECTION



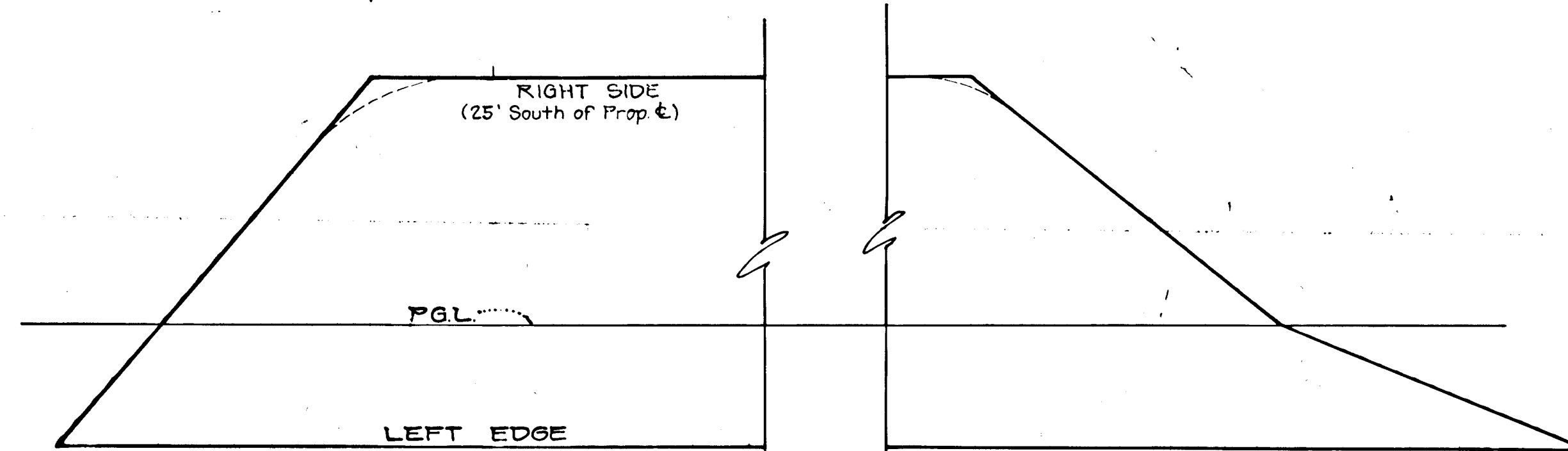
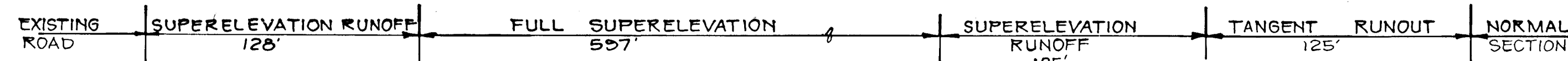
STA. 60+45 TO 61+75
EXISTING ROAD WIDENING SECT.



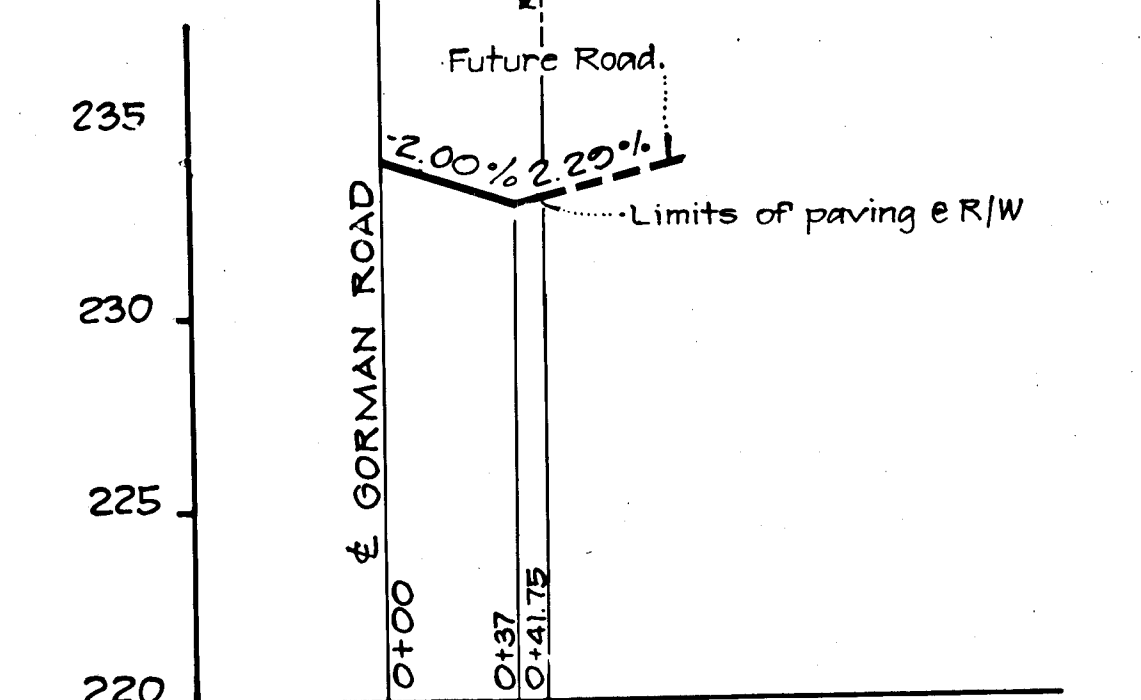
FUTURE ENTRANCE ROAD B



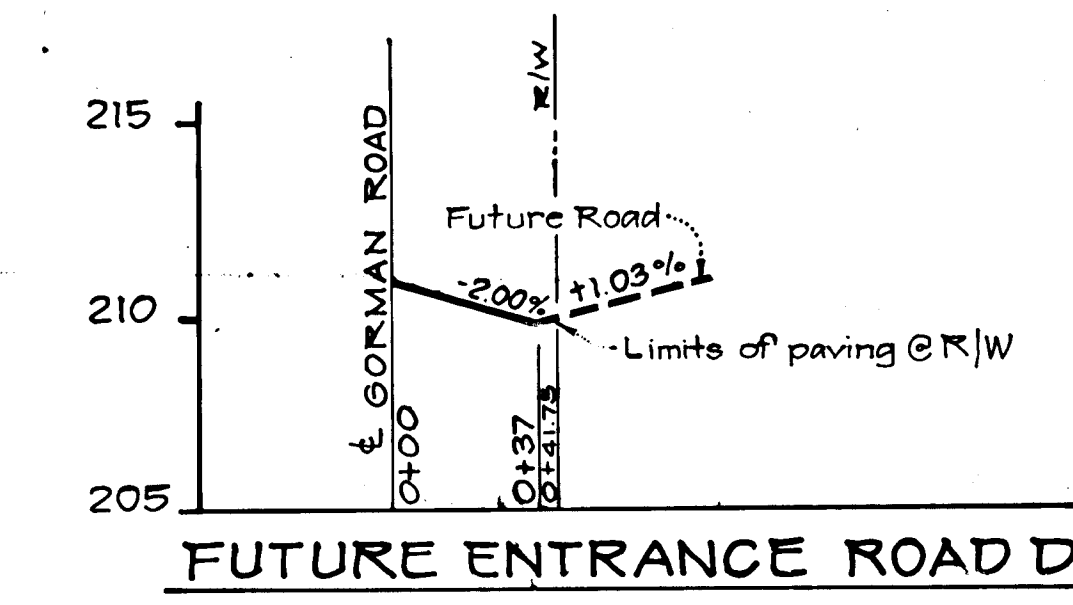
STA. 57+98.61 TO STA. 60+45
EXISTING ROAD WIDENING SECTION



SUPERELEVATION ATTAINMENT DIAGRAM



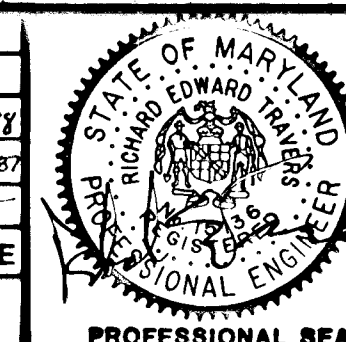
FUTURE ENTRANCE ROAD C



FUTURE ENTRANCE ROAD D

TYPICAL SECTIONS
MINOR ARTERIAL
(DESIGN SPEED = 40 mph)

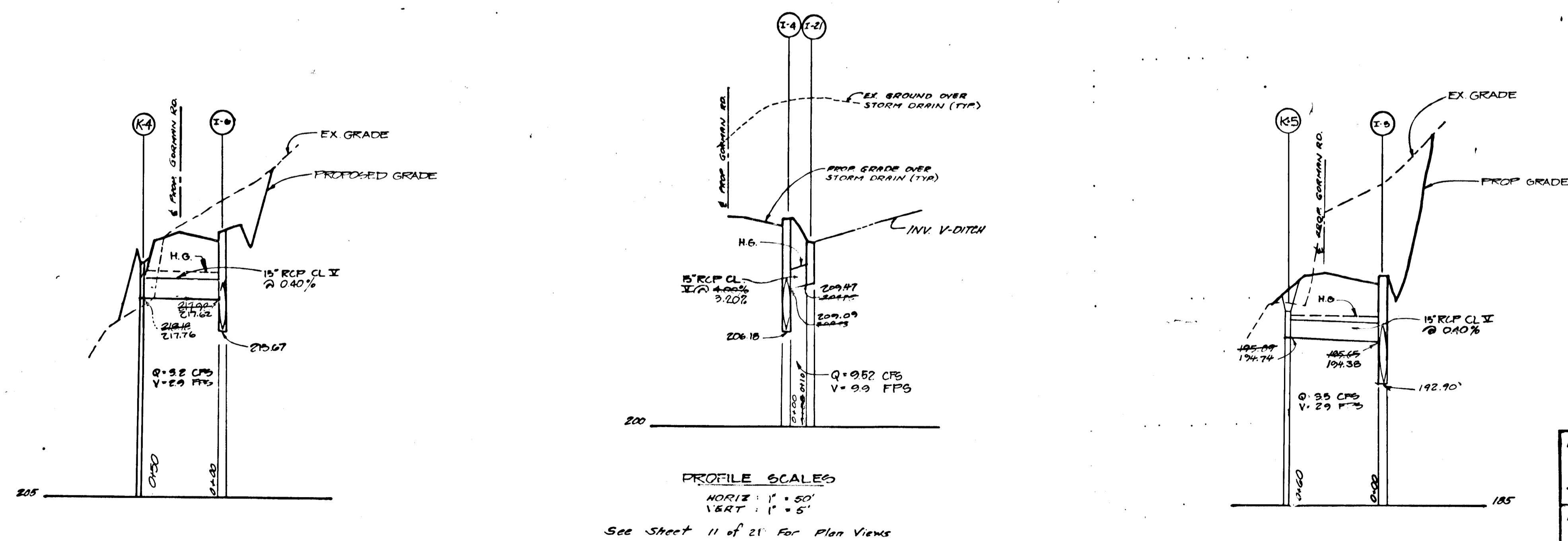
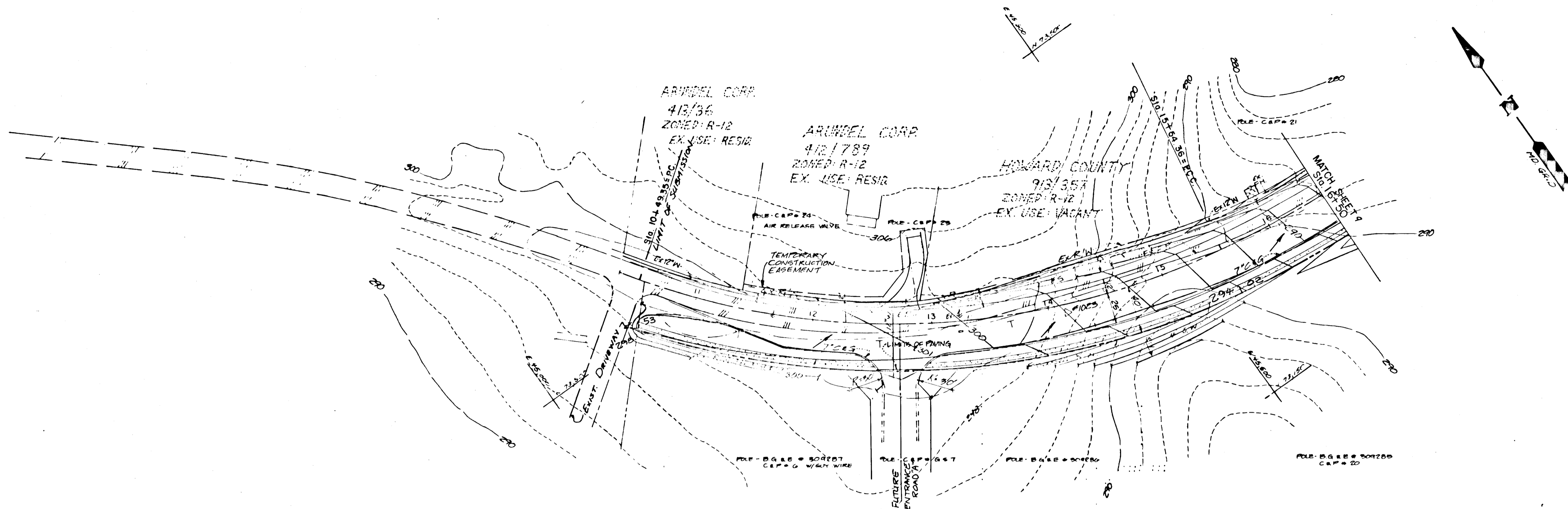
NO.	DESCRIPTION	DATE	APPROVED	DATE
1	REVISION 5/15/87	5/15/87		
2	REVISION 6/15/87	6/15/87		
3	REVISION 7/15/87	7/15/87		



REVISION
**GORMAN ROAD CONSTRUCTION PLANS
DETAILS**

Patton Harris Rust and Associates
A Professional Corporation
Engineers, Surveyors, Planners and Landscape Architects
7609 Standish Place, Rockville, MD 20855 (301)762-2220

APPROVED: DEPARTMENT OF PUBLIC WORKS
Chief, Bureau of Engineering: *[Signature]* 3-14-87
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
Chief, Division of Land Development & Zoning Administration: *[Signature]* 8-10-87
BOWLING BROOK FARMS
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
OPZ FILE NO. VP-85-78, VP-85-78A-1, VP-85-78A-2, 5-85-23
L. 1394 F. 632
TAX MAP NO. 47, PARCEL 141
SURVEY PHRA: PHRA
DESIGN KOR: KOR
DRAWN KOR: KOR
CHECKED BCC: BCC
SCALE AS SHOWN
FILE NO. 2184.1-C



PROFILE SCALES
 HORIZ 1" = 50'
 VERT 1" = 5'
 See Sheet 11 of 21 For Plan Views

APPROVED: DEPARTMENT OF PUBLIC WORKS
Richard E. R... .. 8-14-87
 Chief, Bureau of Engineering
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
John W. 8-10-87
 Chief, Division of Land Development & Zoning Administration

NO.	REVISIONS	DATE	REFERENCE
B	REVISED FOR 100 YR. DESIGN STORM FROM 1.4 TO 2.0 IN ALL	5/8/87	
A	REVISED SIDE FLK NO. CD	4/15/87	
	TEXT CORRECTED		

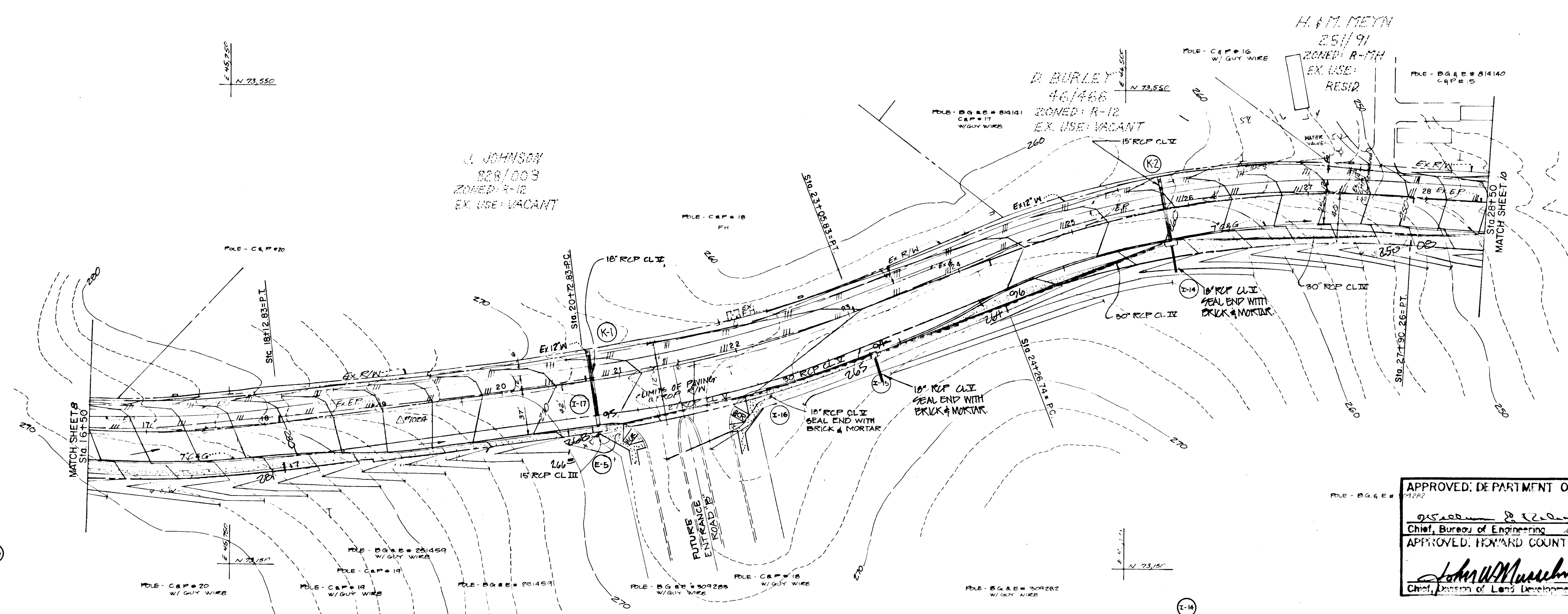
GORMAN ROAD CONSTRUCTION PLANS
STORM DRAIN PLAN / PROFILE
AND GRADING PLAN
 STA 10+49 TO 16+50



Patton Harris Rust and Associates
 A Professional Corporation
 Engineers, Surveyors, Planners and Landscape Architects
 7609 Standish Place Rockville, Md. 301-762-2220

BOWLING BROOK FARMS
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 OPZ FILE NO. VP-88-70, VP-88-70A-1, VP-88-70A-E, S-88-29
 L-1394 F-632
 TAX MAP NO. 47, PARCEL 141

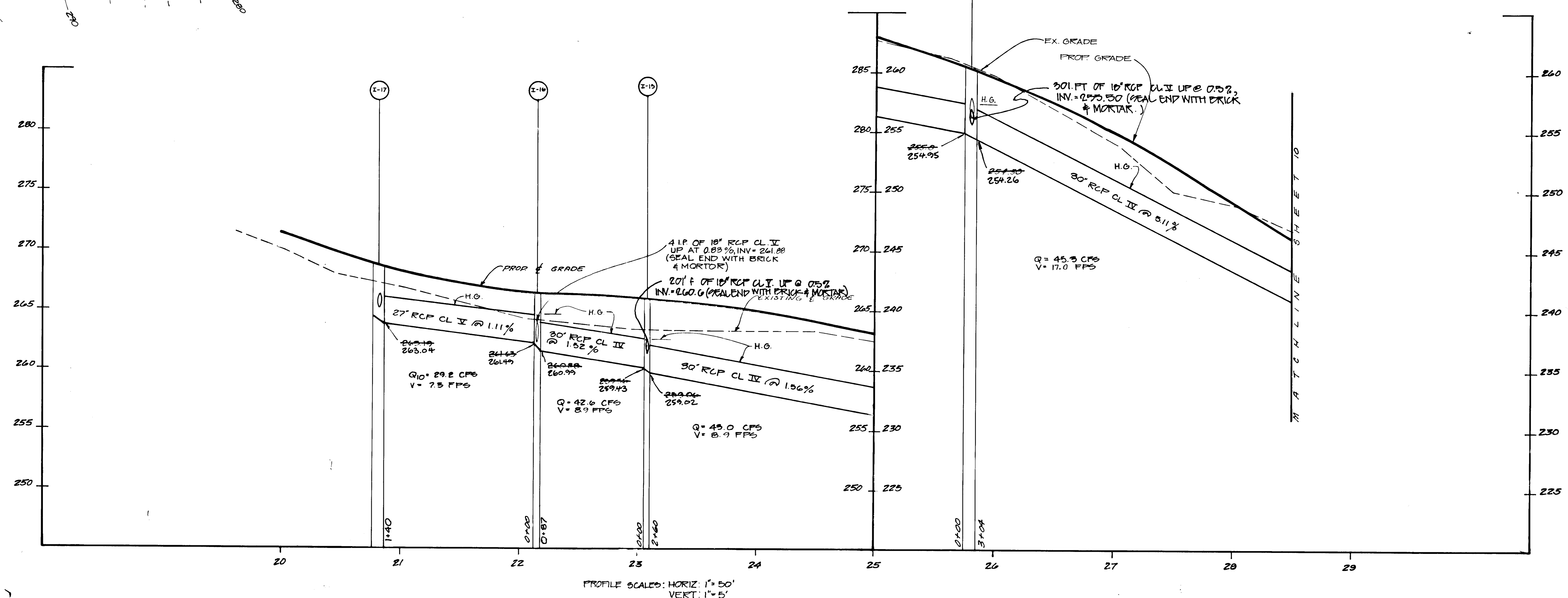
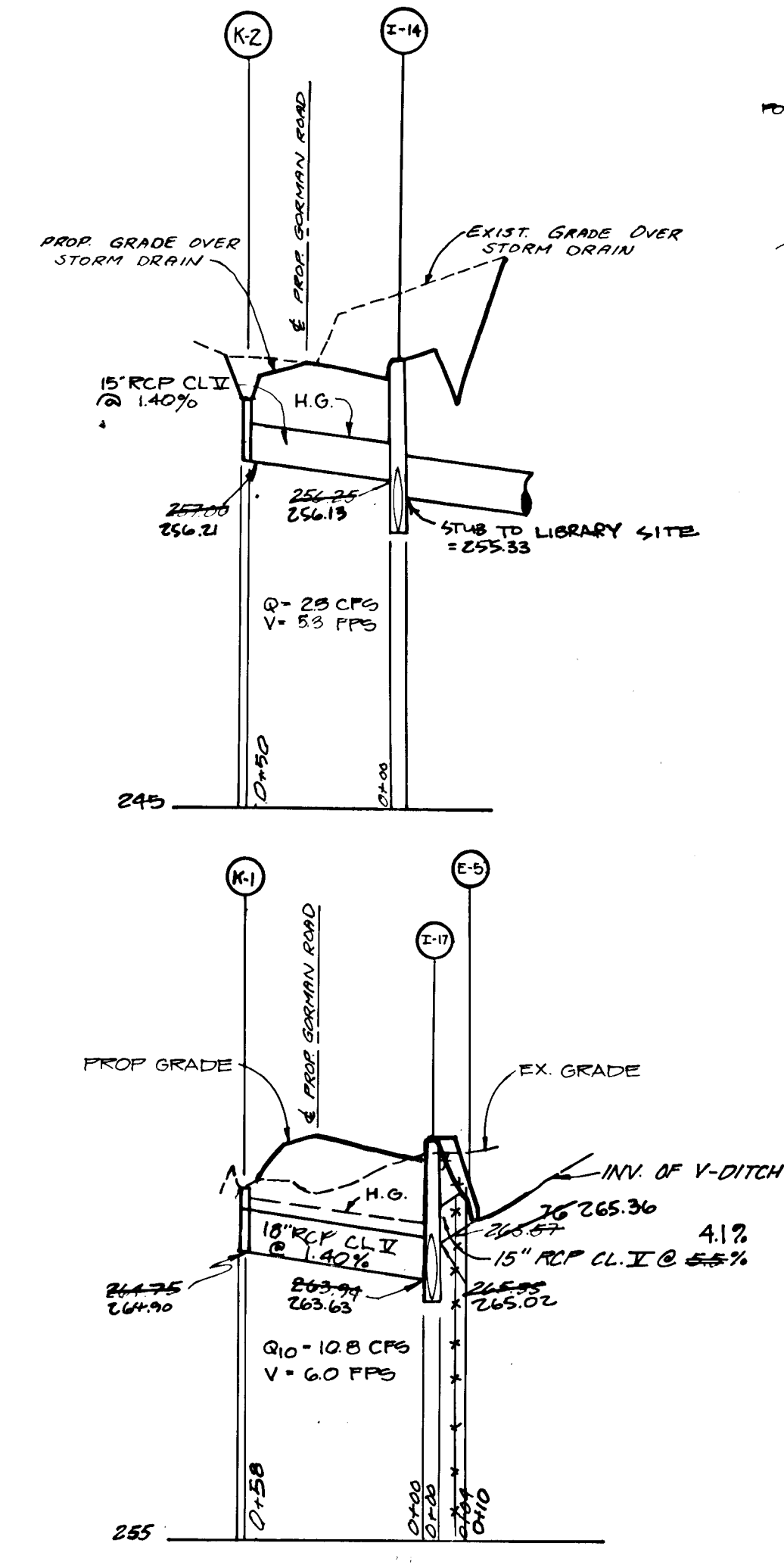
SURVEY P148A	DATE
DESIGN ADR	1/30/87
DRAWN CAT, P.A.C.R.	SHEET
CHECKED ADR	3 of 20
SCALE 1" = 50'	FILE NO.
CL 2	2184-10



APPROVED: DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Engineering
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
 Chief, Division of Land Development & Zoning Administration

8-14-87
 Date

8-10-87
 Date



NO.	REVISIONS	DATE	REFERENCE
A	REVISED FOR 100% DESIGN	5/9/87	
B	REVISED FOR 100% DESIGN	5/9/87	
C	REVISED FOR 100% DESIGN	4/15/87	
D	REVISED FOR 100% DESIGN	4/15/87	

GORMAN ROAD CONSTRUCTION PLANS
STORM DRAIN PLAN / PROFILE
AND GRADING PLAN
 STA 16+50 TO 28+50

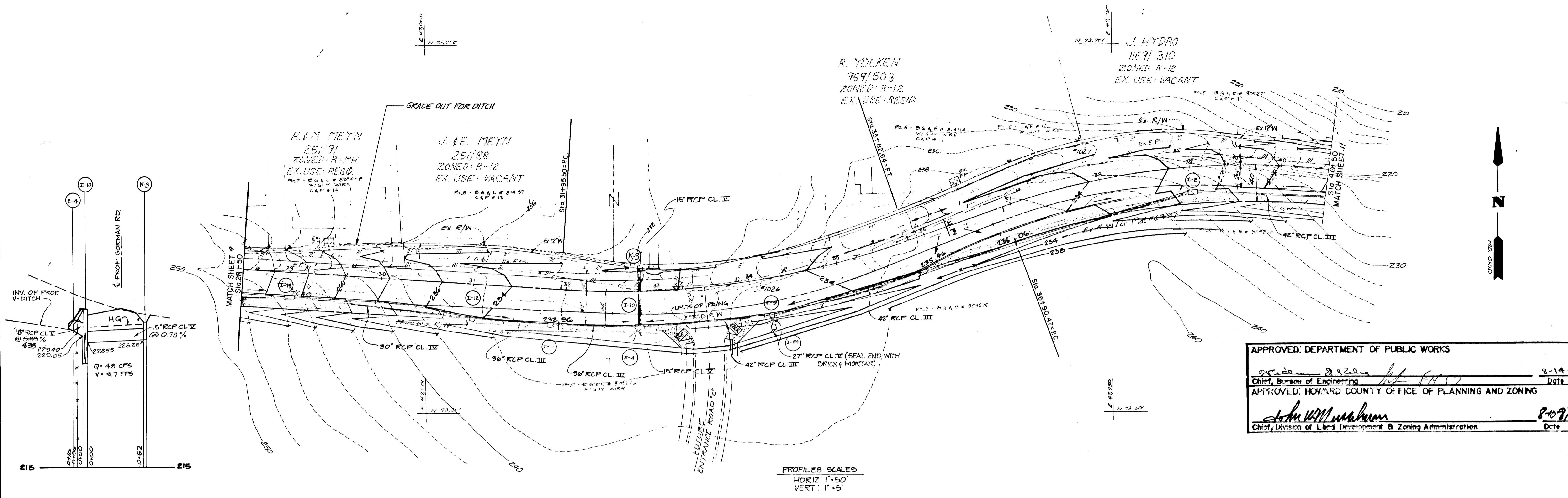
PROFESSIONAL SEAL

Patton Harris Rust and Associates
 A Professional Corporation
 Engineers, Surveyors, Planners and Landscape Architects
 7609 Standish Place Rockville, Md. 301-762-2220

BOWLING BROOK FARMS
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 L. 1594 F. 632
 TAX MAP NO. 47, PARCEL 141

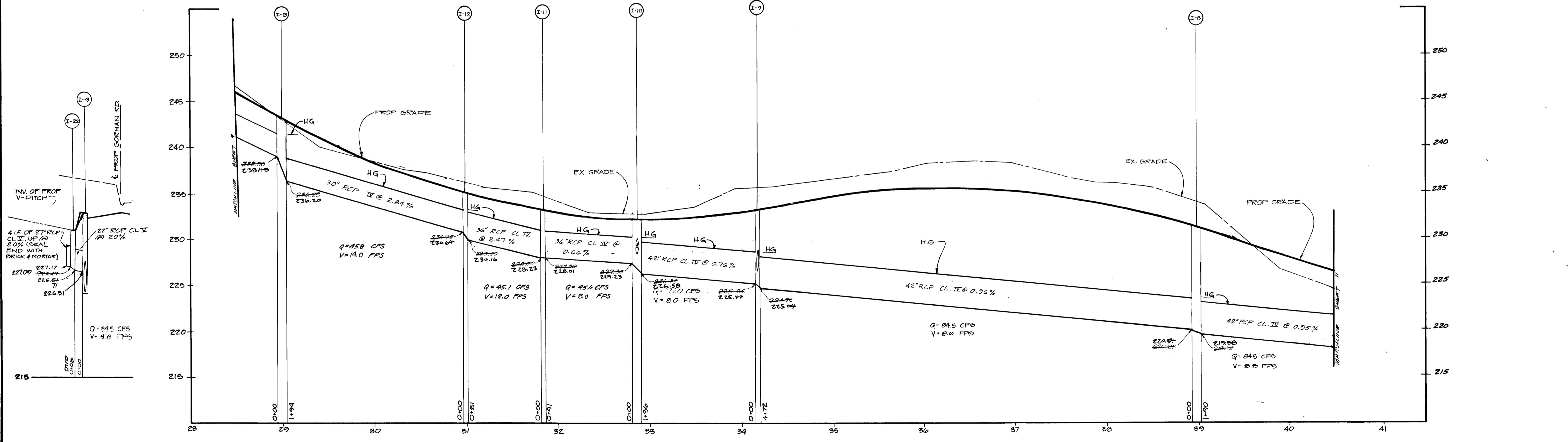
SURVEY PHRA	DATE
DESIGN KOR	1/30/87
DRAWN CAT, P. J. C.	
CHECKED KOR	9 OF 20
SCALE 1" = 50'	FILE NO. 2184-1-0
C.I. 2'	

JAN 15 1987 F-87-115



APPROVED: DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Engineering *[Signature]* 8-14-87
 Date
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
[Signature] 8-09-87
 Chief, Division of Land Development & Zoning Administration Date

PROFILES SCALES
 HORIZ: 1"=50'
 VERT: 1"=5'



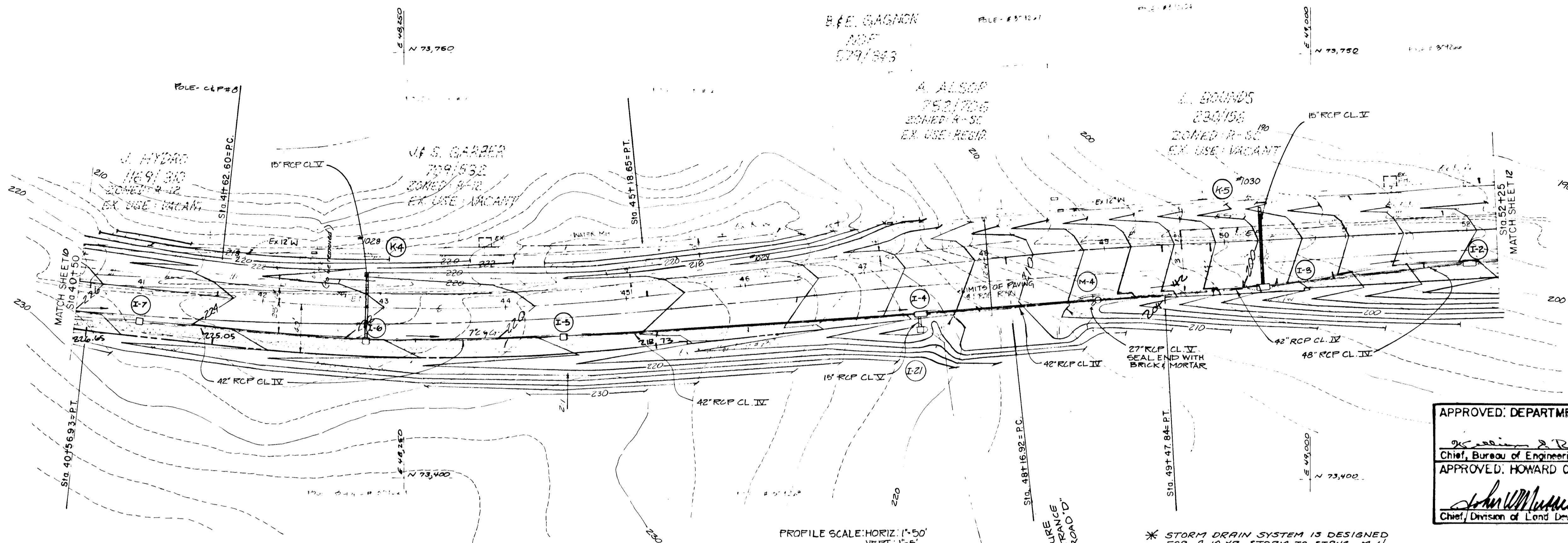
NO.	REVISIONS	DATE	REFERENCE:
D	LOWERED ROAD STA 28+50 TO STA 30+50	8/9/87	
B	REVISED FOR INTERIOR DESIGN	5/8/87	
A	REVISED FOR PERM NO. 40	4/15/87	
	DETAILED HGP, ADDED 95		

GORMAN ROAD CONSTRUCTION PLANS
STORM DRAIN PLAN / PROFILE
AND GRADING PLAN
 STA 28+50 TO 40+50

Patton Harris Rust and Associates
 A Professional Corporation
 Engineers, Surveyors, Planners and Landscape Architects
 7609 Standish Place Rockville, Md. 301-762-2220

BOWLING BROOK FARMS
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 OFZ FILE NO. VP-86-78, VP-86-78A-1, VP-86-78A-2, S-86-28
 L. 1594 F. 602
 TAX MAP NO. 47, PARCEL 141

SURVEY PHRA	DATE
DESIGN XDR	1/30/87
DRAWN CAT, PA, CSR	SHEET
CHECKED XDR	10 OF 20
SCALE 1"=50'	FILE NO.
C.I. 2'	2104-1-0



APPROVED: DEPARTMENT OF PUBLIC WORKS

John W. Muschman 3-14-87
 Chief, Bureau of Engineering Date

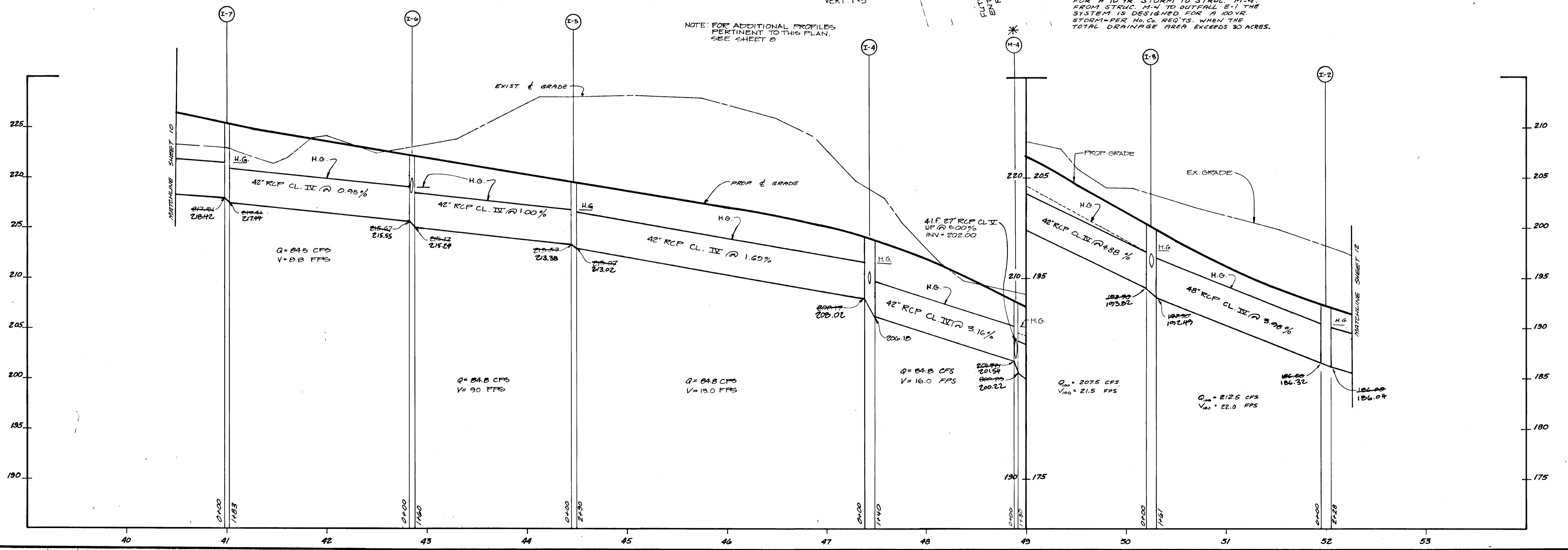
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

John W. Muschman 8-10-87
 Chief, Division of Land Development & Zoning Administration Date

PROFILE SCALE: HORIZ. 1"=50'
 VERT. 1"=5'

* STORM DRAIN SYSTEM IS DESIGNED FOR A 10 YR. STORM TO STRUCT. M.H. FROM STRUCT. M.H. TO OUTFALL. THE SYSTEM IS DESIGNED FOR A 10 YR. STORM PER HO. CL. RIGHTS WHEN THE TOTAL DRAINAGE AREA EXCEEDS 30 ACRES.

NOTE: FOR ADDITIONAL PROFILES PERTINENT TO THIS PLAN, SEE SHEET 8



NO.	REVISIONS	DATE	REFERENCE:
D	LOWERED ROAD STRAIGHT TO STA 30+00	8/5/87	
E	REVISED FOR 10' TO 12' DEPTH STORM FROM 14" TO 18" DIA.	5/8/87	
A	REVISED SP4 PER HO. CL.	4/15/87	
	1" FW 4 HSCD, ADDED 55		

**GORMAN ROAD CONSTRUCTION PLANS
 STORM DRAIN PLAN / PROFILE
 AND GRADING PLAN**
 STA 40+50 TO 52+25

PROFESSIONAL SEAL

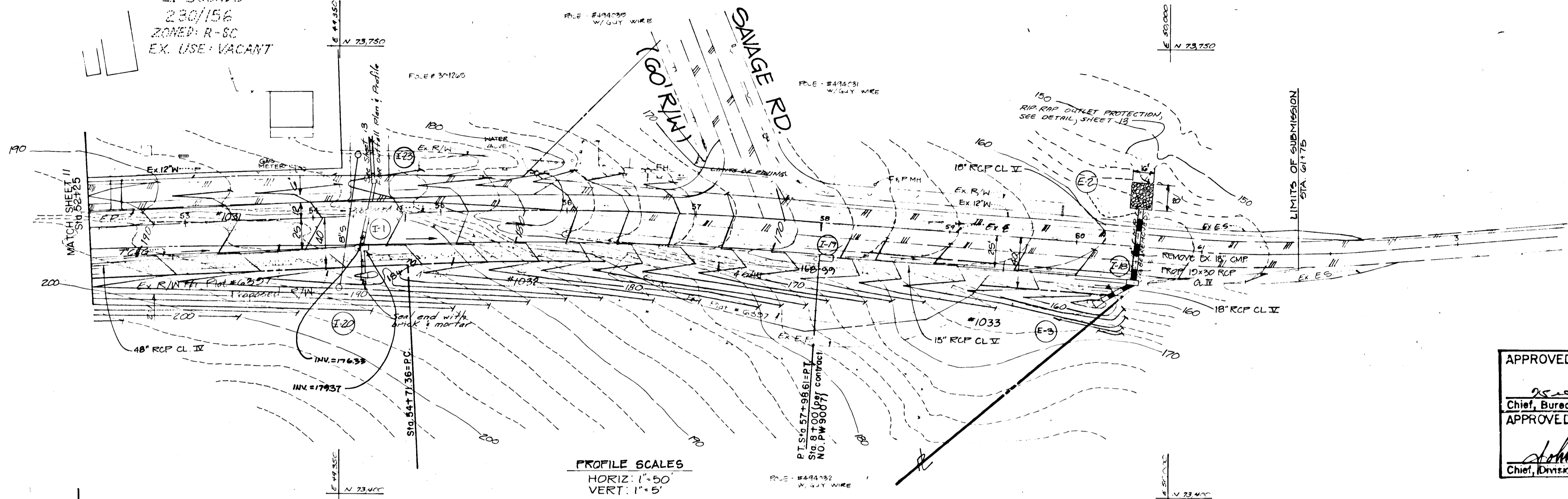
Patton Harris Rust and Associates
 A Professional Corporation
 Engineers, Surveyors, Planners and Landscape Architects
 7609 Standish Place Rockville, Md. 301-762-2220

BOWLING BROOK FARMS
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 OFC. FILE NO. VP-85-78, VP-85-78A-1, VP-85-78A-2, S-85-25
 L. 1394 F. 652
 TAX MAP NO. 47, PARCEL 141

SURVEY PHRA	DATE
DESIGN KOR	1/30/87
DRAWN CAT, PA, CR	SHEET
CHECKED	11 OF 20
SCALE 1"=50' C.I. 2"	FILE NO. 2184-1-0

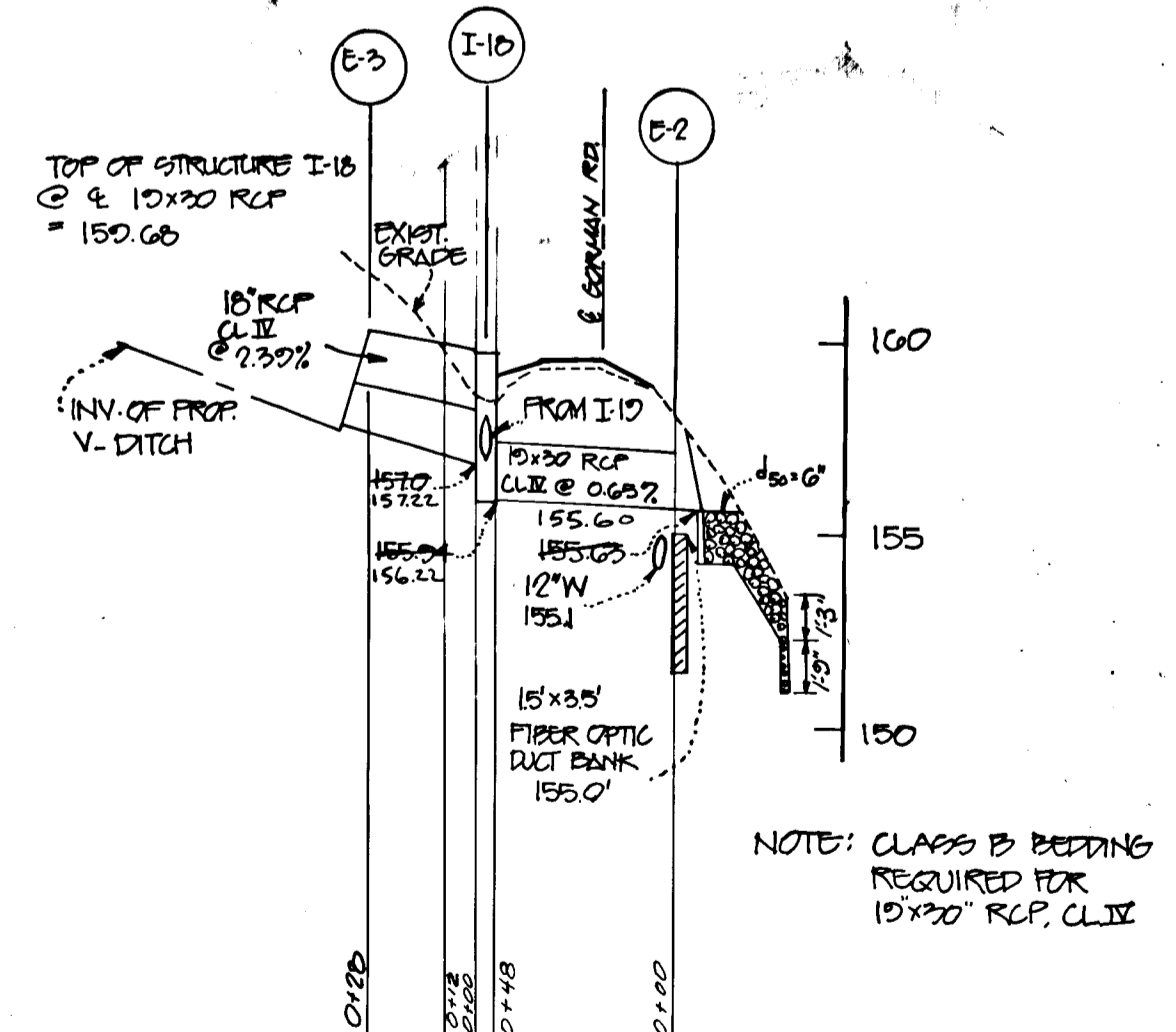
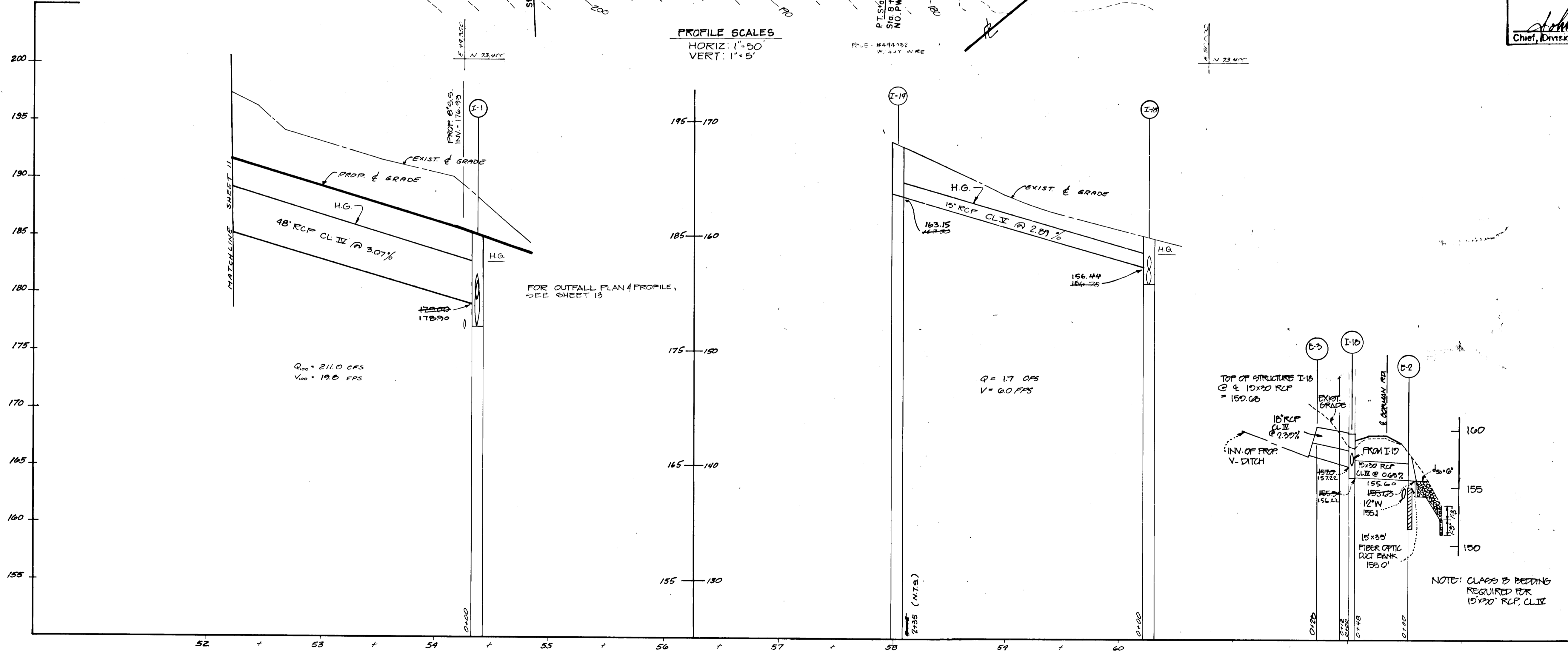
HOWARD COUNTY
506/501
ZONED: R-SC
EX. USE: RESID.

L. BOUNDS
230/156
ZONED: R-SC
EX. USE: VACANT



APPROVED: DEPARTMENT OF PUBLIC WORKS
John W. Meacham 8-14-87
 Chief, Bureau of Engineering Date
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
John W. Meacham 8-10-87
 Chief, Division of Land Development & Zoning Administration Date

PROFILE SCALES
HORIZ: 1"=50'
VERT: 1"=5'



NO.	REVISIONS	DATE	REFERENCE
C	REVISED PER RECLINE	8-30-88	
B	REVISED PER PLAN	5/8/87	
A	REVISED PER PLAN	4/15/87	
	DPW & HSCD, ADDED	98	

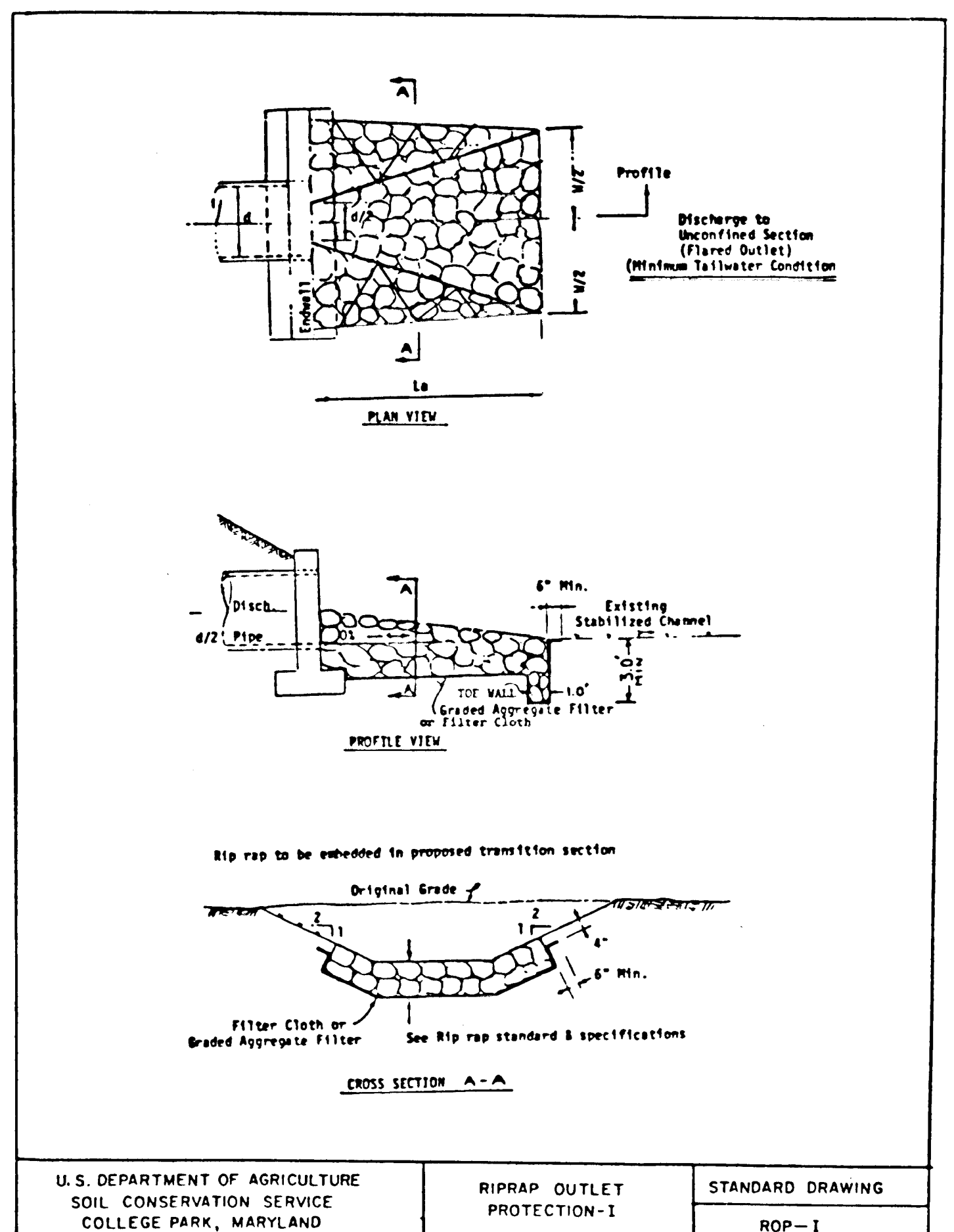
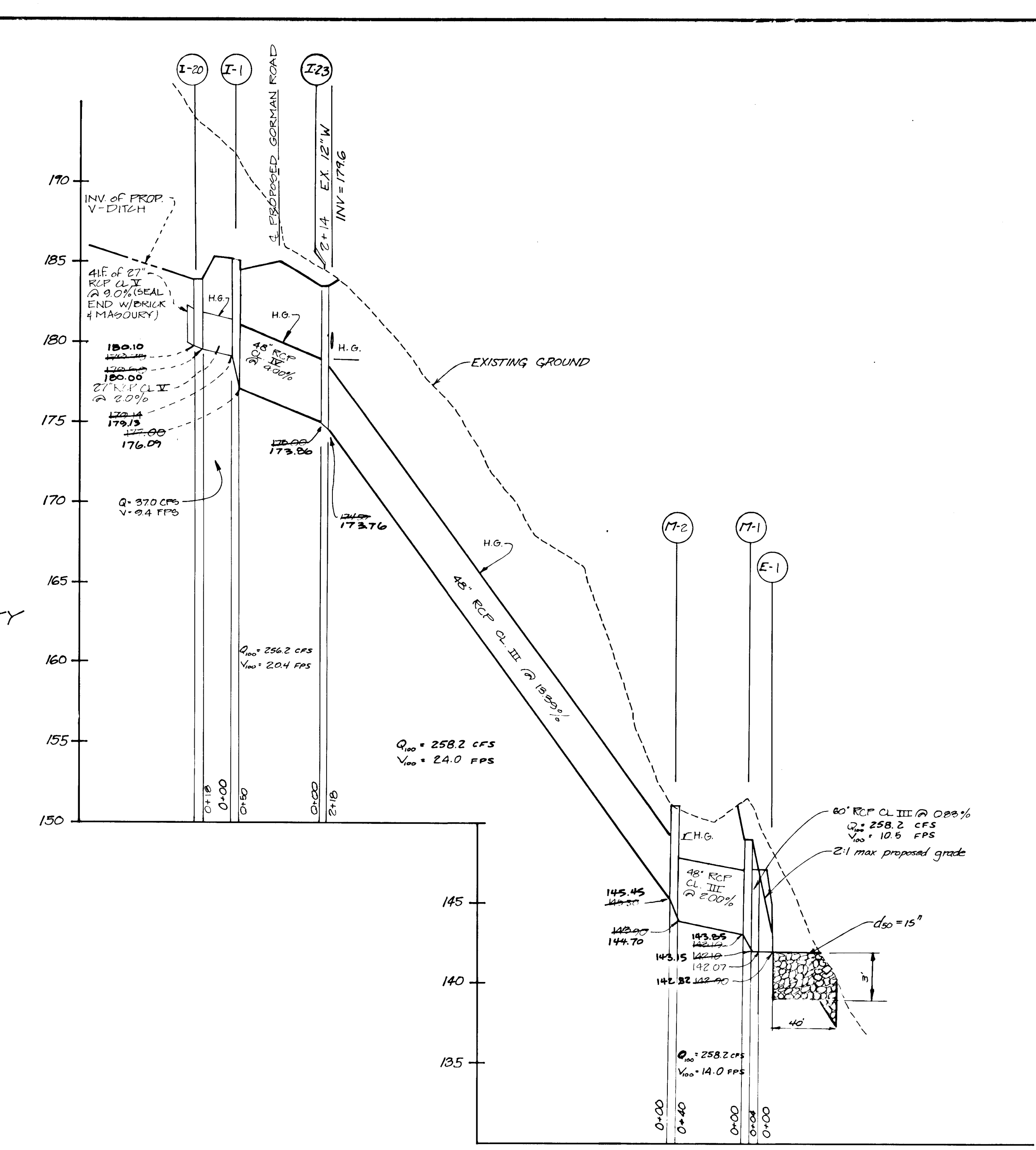
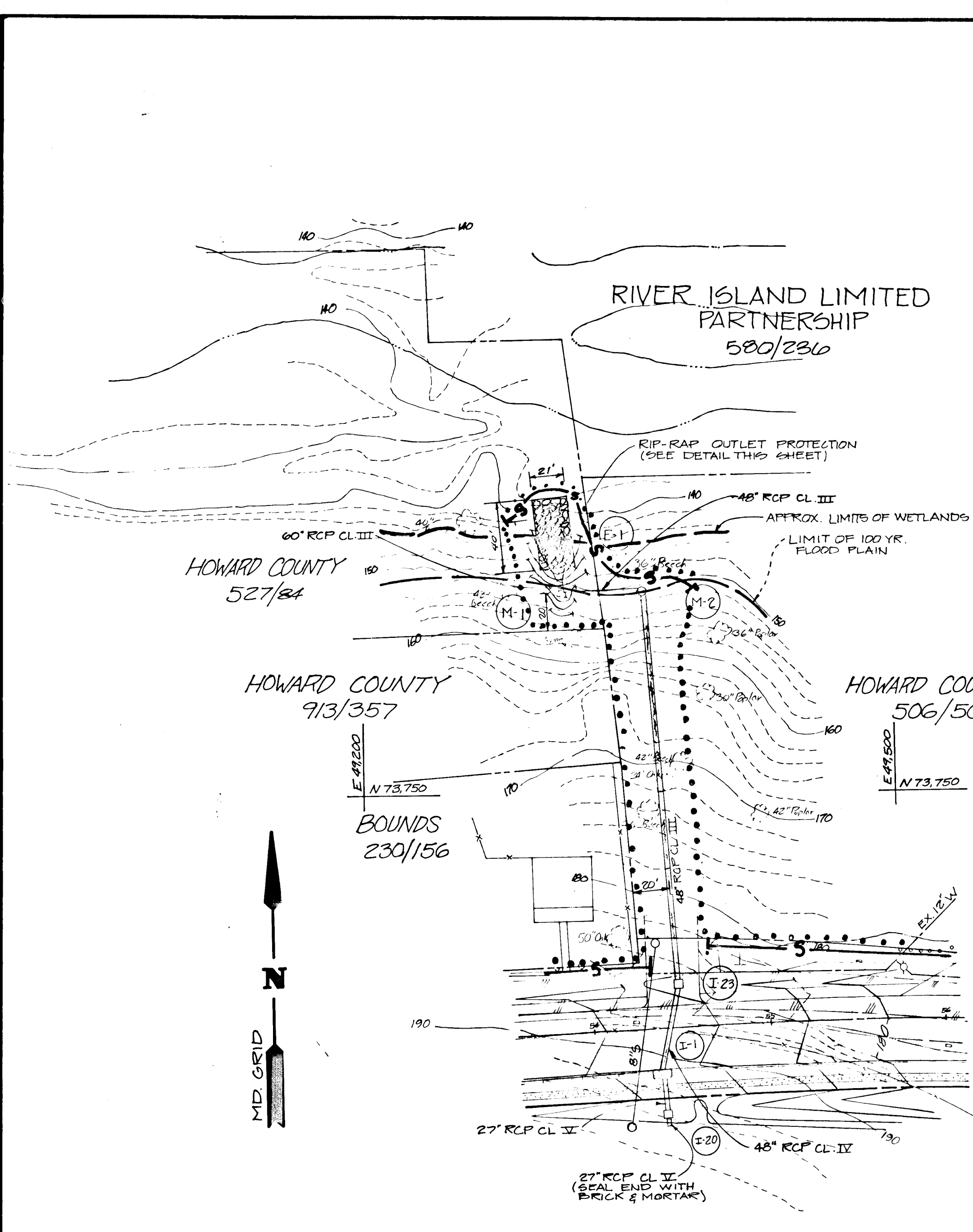
GORMAN ROAD CONSTRUCTION PLANS
STORM DRAIN PLAN / PROFILE
AND GRADING PLAN
 STA 52+25 TO 61+75



Patton Harris Rust and Associates
 A Professional Corporation
 Engineers, Surveyors, Planners and Landscape Architects
 7609 Standish Place Rockville, Md. 301-762-2220

BOWLING BROOK FARMS
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 OPZ FILE NO. VP-85-78, VP-85-78A-1, VP-85-78A-2, S-85-23
 L.1394 F.G.32
 TAX MAP NO. 47, PARCEL 141

SURVEY PHRA	DATE
DESIGN KOR	1/30/87
DRAWN CAT, PACER	SHEET
CHECKED KOR	12 OF 20
SCALE: 1"=50'	FILE NO.
CL. 2'	2184-11-0



U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
COLLEGE PARK, MARYLAND

RIPRAP OUTLET PROTECTION-I

STANDARD DRAWING
ROP-I

NOTE: SEE SHEET 18 FOR ADDITIONAL SEDIMENT CONTROL MEASURES IN THIS AREA.

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 Department of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic onsite inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary.

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 of Engineer Richard E. Towers Date 7/23/97

APPROVED: DEPARTMENT OF PUBLIC WORKS
Chief, Bureau of Engineering _____ Date 8-14-97

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
Chief, Division of Land Development & Zoning Administration _____ Date 8-10-97

NO.	DESCRIPTION	DATE	APPROVED	DATE
1	DESIGN FOR 200 YR DESIGN FLOOD PROTECT PER MD GO	5/16/97		
2	REVISED 200 YR MD GO	4/16/97		
3	DESIGN & H&CD, ADDED 55'			

REVISION APPROVED BY _____

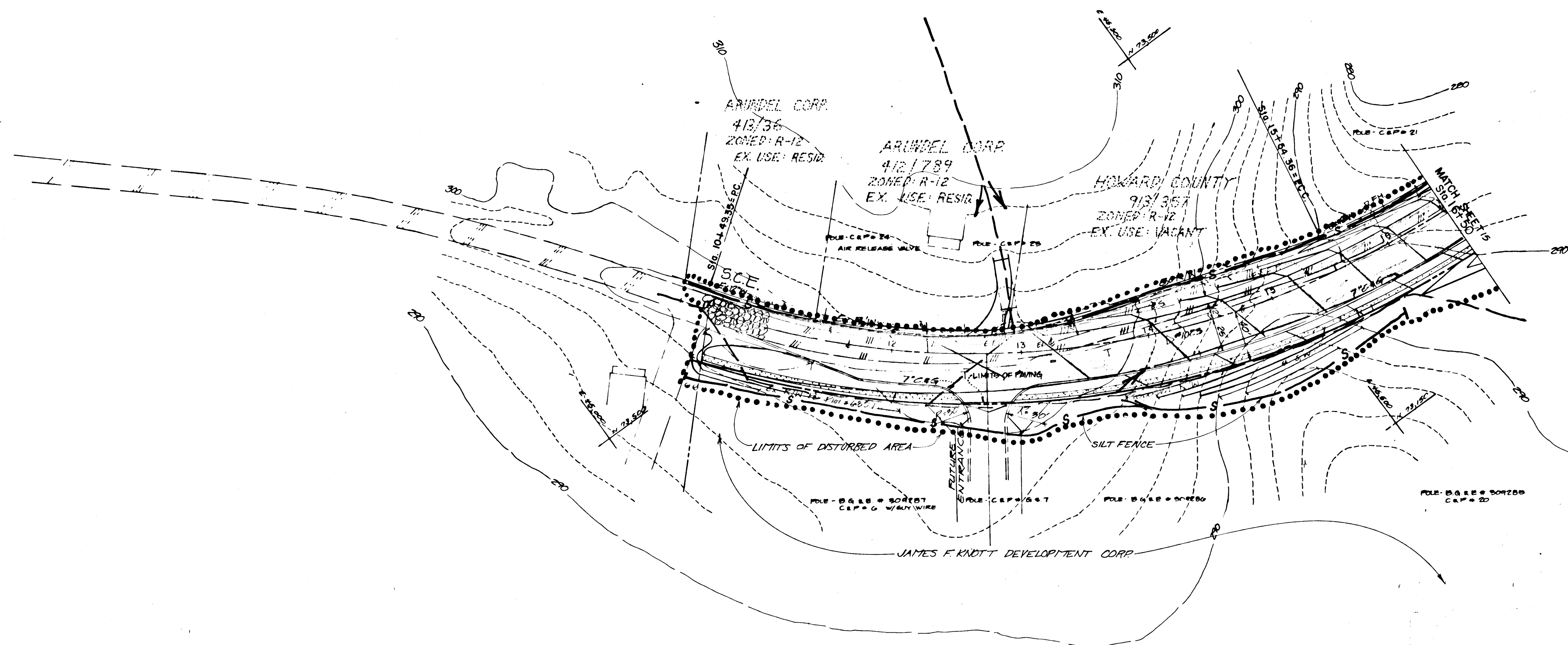
REVISION APPROVED BY _____

**GORMAN ROAD CONSTRUCTION PLANS
OUTFALL PLAN & PROFILE
& SEDIMENT CONTROL PLAN**

Patton Harris Rust and Associates
A Professional Corporation
Engineers, Surveyors, Planners and Landscape Architects
7609 Standish Place, Rockville, MD 20855 (301) 762-2220

BOWLING BROOK FARMS
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
OFFICE FILE NO. VP-88-78, VP-88-78A-1, VP-88-78A-2, 8-88-23
L.1594 F.032
TAX MAP NO. 47, PARCEL 141

SURVEY PHR/FA	DATE
DESIGN MJK	1/30/87
DRAWN FA	SHEET
CHECKED KOR	13 OF 20
SCALE HORZ: 1"=50'	FILE NO.
VERT: 1"=5'	2184-1-0



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 Department of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic onsite inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary."

R.P. Basawala 5/28/87
 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.

Richard E. Travers 7/23/87
 Signature of Engineer Date

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

James M. Helms 7/27/87
 U.S. Soil Conservation Service Date

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

Stephen L. Paul 7/27/87
 Howard S.C.D. Date

PLAN NUMBER _____

APPROVED, DEPARTMENT OF PUBLIC WORKS
Richard E. Travers 8-14-87
 Chief, Bureau of Engineering Date
 APPROVED, HOWARD COUNTY OFFICE OF PLANNING AND ZONING
John W. Mumman 8-10-87
 Chief, Division of Land Development & Zoning Administration Date

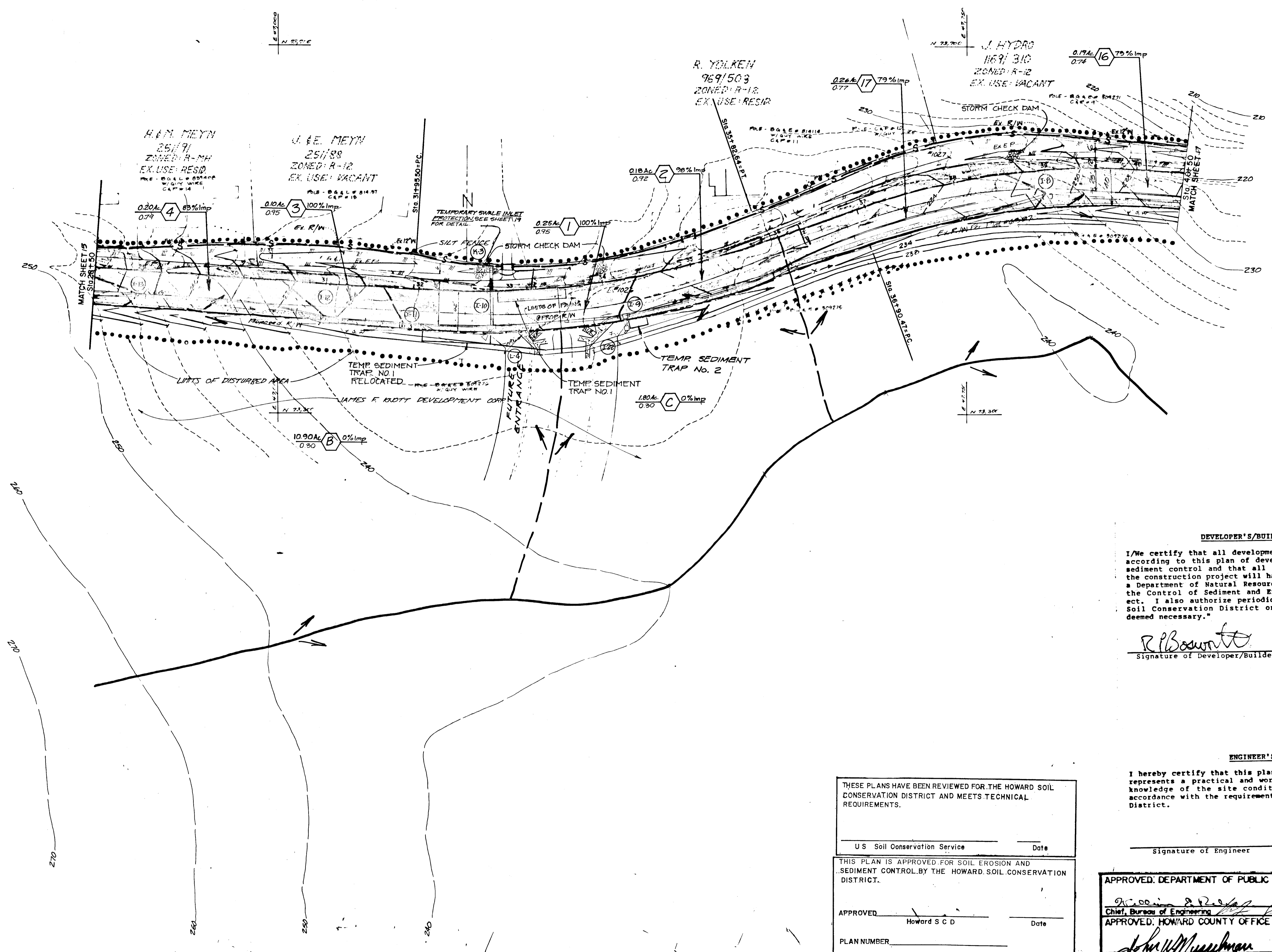
NO.	REVISIONS	DATE	REFERENCE:
A	REVISED SD&FER NO. 00	4/15/87	
	DPW & HSCP, Added '85		

**GORMAN ROAD CONSTRUCTION PLANS
 DRAINAGE AREA MAP
 & SEDIMENT CONTROL PLAN**
 STA 10+49 TO 16+50



Patton Harris Rust and Associates
 A Professional Corporation
 Engineers, Surveyors, Planners and Landscape Architects
 7609 Standish Place Rockville, Md. 301-762-2220

BOWLING BROOK FARMS	SURVEY PHRA	DATE
SIXTH ELECTION DISTRICT	DESIGN JPC	1/30/87
HOWARD COUNTY, MARYLAND	DRAWN CAT, PACR	8HFT
OFFICE FILE NO. VP-88-76, VP-88-76A-1, VP-88-76A-E, S-88-29	CHECKED JPC	14 OF 20
L. 1594 F. 652	SCALE 1"=50'	FILE NO.
TAX MAP NO. 47, PARCEL 141	C.L. 2'	2104-10



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 Department of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic onsite inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary.

R. B. Bowers 5/23/87
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 of Engineer Date

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

U S Soil Conservation Service Date

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

APPROVED _____ Date
Howard S C D

PLAN NUMBER _____

APPROVED: DEPARTMENT OF PUBLIC WORKS

R. C. ... 8-14-87
Chief, Bureau of Engineering Date

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

John W. ... 8-18-87
Chief, Division of Land Development & Zoning Administration Date

NO.	REVISIONS	DATE	REFERENCE:
D	LOWFIELD ROAD STA 28+50 TO STA 30+50	8/5/87	
A	REVISED SDF PER NO. 10	4/15/87	
	DFW & HSCD, ADDED '85		

**GORMAN ROAD CONSTRUCTION PLANS
DRAINAGE AREA MAP
& SEDIMENT CONTROL PLAN**
STA 28+50 TO 40+50

PROFESSIONAL SEAL

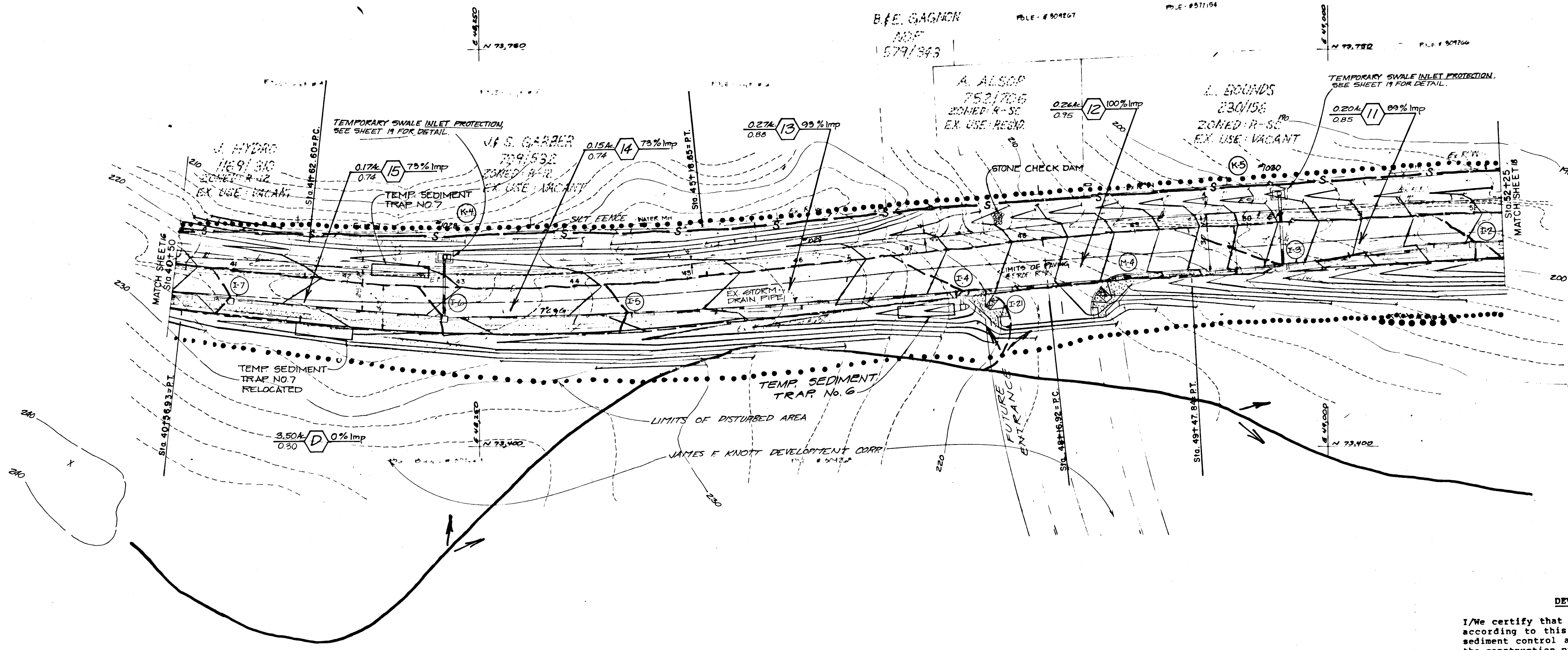
Patton Harris Rust and Associates
A Professional Corporation
Engineers, Surveyors, Planners and Landscape Architects
7609 Standish Place Rockville, Md. 301-762-2220

SURVEY PHRA	DATE
DESIGN JPC	1/30/87
DRAWN CAT, P.A. GSK	SHEET
CHECKED JPC	16 OF 20
SCALE 1" = 50'	FILE NO.
CL 2	2164-1-0

AS-BUILT JAN. 16, 1992 F-87-115

1271

Gorman Rd.



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 Department of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic onsite inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary.

R.P. Brant 5/28/87
 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.

Richard E. Travers 7/23/87
 Signature of Engineer Date

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

James M. Helms 7/27/87
 U.S. Soil Conservation Service Date

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

Howard S. C. D. 7/27/87
 Howard S. C. D. Date

PLAN NUMBER _____

APPROVED: DEPARTMENT OF PUBLIC WORKS
John W. Muschman 8-14-87
 Chief, Bureau of Engineering Date

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
John W. Muschman 8-14-87
 Chief, Division of Land Development & Zoning Administration Date

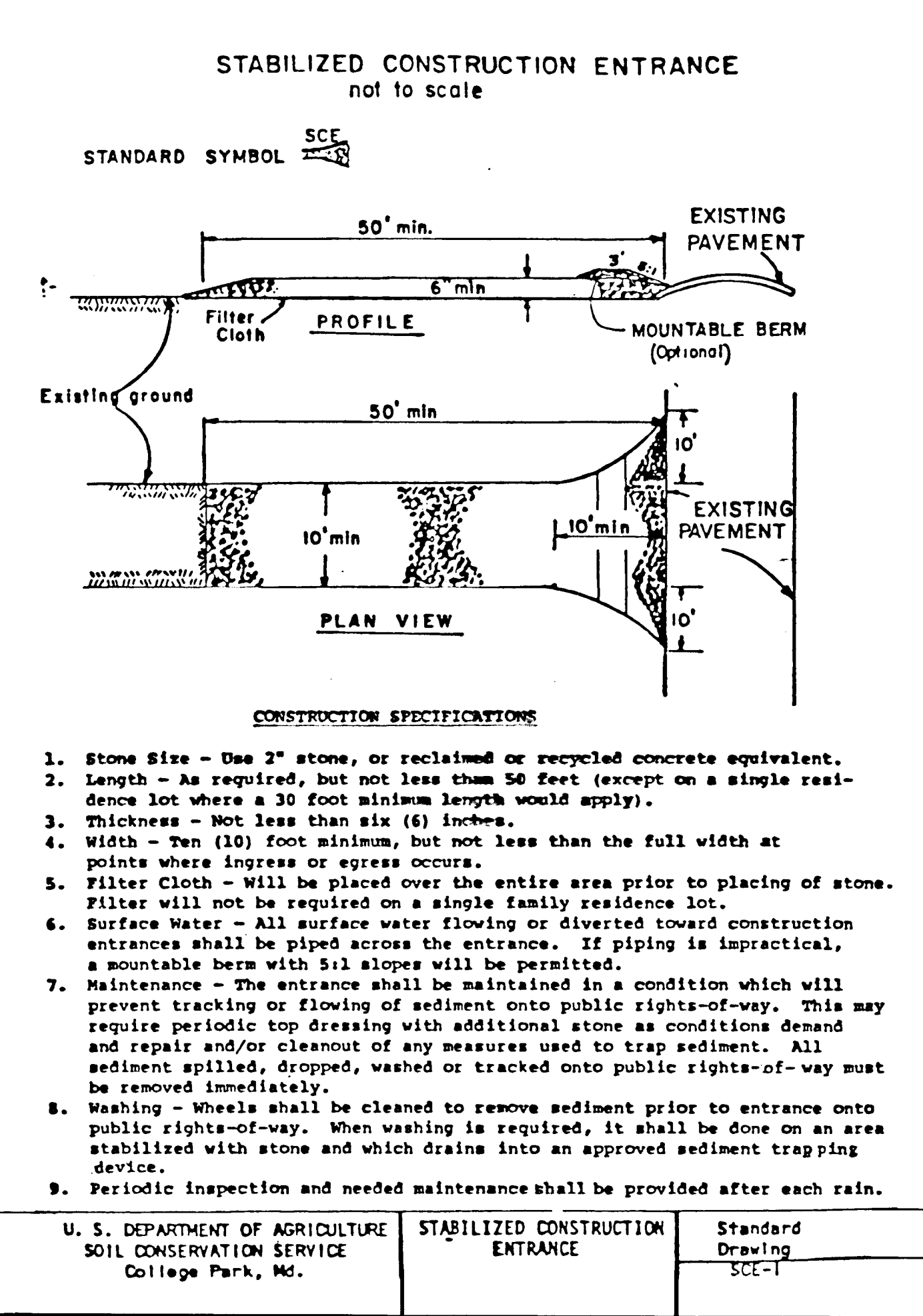
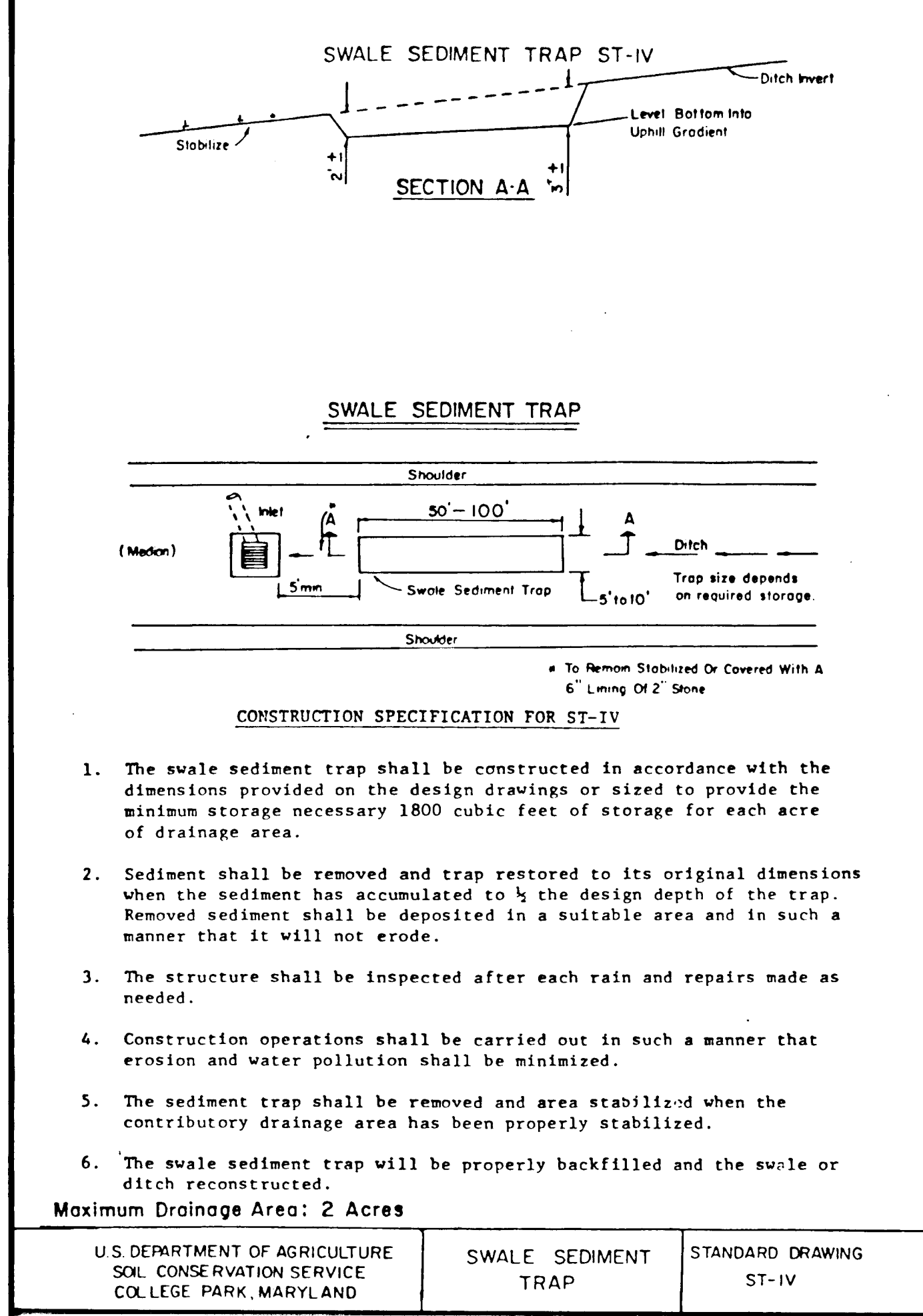
NO. REVISIONS	DATE	REFERENCE:
A	4/15/87	REVISED SD&P PER NO. 40
		DFW&HSCP, ADDED SS

**GORMAN ROAD CONSTRUCTION PLANS
 DRAINAGE AREA MAP
 & SEDIMENT CONTROL PLAN**
 STA 40+50 TO 52+25



Patton Harris Rust and Associates
 A Professional Corporation
 Engineers, Surveyors, Planners and Landscape Architects
 7609 Standish Place Rockville, Md. 301-762-2220

BOWLING BROOK FARMS		SURVEY PHRA		DATE
SIXTH ELECTION DISTRICT		DESIGN JPC		1/30/87
HOWARD COUNTY, MARYLAND		DRAWN CAT, PA, GR		SHEET
L. 1594 F. 652		CHECKED JPC		17 OF 20
TAX MAP NO. 47, PARCEL 141		SCALE 1"=50'		FILE NO.
		C.L. 2'		2184-1-0



- CONSTRUCTION SEQUENCE**
- Obtain grading permit
 - PRECONSTRUCTION MEETING IS OF UTMOST IMPORTANCE AND MUST PRECEDE START OF WORK.
 - PLACE SILT FENCE ALONG NORTHERN RIGHT OF WAY AND AT THE OUTLET TO LITTLE PATUXENT RIVER.
 - CONSTRUCT STORM DRAINAGE SYSTEM BETWEEN LITTLE PATUXENT RIVER AND GORMAN ROAD. DO NOT ALLOW ENTRANCE OF ANY STORM WATER RUNOFF.
 - PROVIDE TRAFFIC CONTROL SIGNAGE AND DEVICES TO DETOUR TRAFFIC, EXCEPT LOCAL TRAFFIC, AROUND GORMAN ROAD.
 - CONSTRUCT STABILIZED CONSTRUCTION ENTRANCES.
 - EXCAVATE TEMPORARY SEDIMENT TRAPS #1, #3, #4, #5, & #7 AT THE INLETS TO EXISTING CULVERTS AND WHERE SHOWN ON THE PLANS.
 - CONSTRUCT "V-DITCH" ALONG NORTH SIDE OF GORMAN ROAD AND INSTALL STONE CHECK DAMS.
 - BEGIN GRADING ALONG SOUTHERN SIDE OF GORMAN ROAD TEMPORARY SWALE SEDIMENT TRAPS AT PROPOSED STORM DRAINAGE SYSTEM INLETS.
 - RELOCATE TEMPORARY SEDIMENT TRAPS #1, #3, #5, & #7 AS NECESSARY TO ACCOMMODATE GRADING OPERATIONS. CONSTRUCT TEMPORARY SEDIMENT TRAPS #2 & #6 WHERE SHOWN.
 - STABILIZE SOUTHERN SLOPES AND "V-DITCH" IMMEDIATELY AFTER CONSTRUCTION WITH PERMANENT GRASS MIXTURE AND/OR SOD.
 - COMPLETE CONSTRUCTION OF STORM DRAINAGE SYSTEM.
 - COMPLETE GRADING OPERATIONS ALONG GORMAN ROAD.
 - INSTALL WATER MAIN EXTENSIONS AND SANITARY SEWER UNDER CONTRACT NO. 24-1611-D.
 - CONSTRUCT CURB AND GUTTER, SIDEWALK, ROAD BASE AND PAVING TO FINAL GRADES.
 - STABILIZE ALL AREAS WITH PERMANENT GRASS MIXTURE AND/OR SOD.
 - REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.

SEDIMENT CONTROL NOTES

- A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (992-2437)
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 51) and (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	61 Acres (R/W)
Area Disturbed	18.4 Acres
Area to be roofed or paved	47 Acres
Area to be vegetatively stabilized	87 Acres
Total Cut	28,800 Cu. yds
Total Fill	7,000 Cu. yds
Offsite waste/borrow area location	N/A
- 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 controls must be provided, if deemed necessary by the Howard County DPW 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.

PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

Seeded Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding.

Soil Amendments: In lieu of soil test recommendations, use one of the following schedules:

- Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 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 unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq ft) for anchoring.

Maintenance - Inspect all seeded areas and make needed repairs, replacements and rereeedings.

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redisturbed where a short-term vegetative cover is needed.

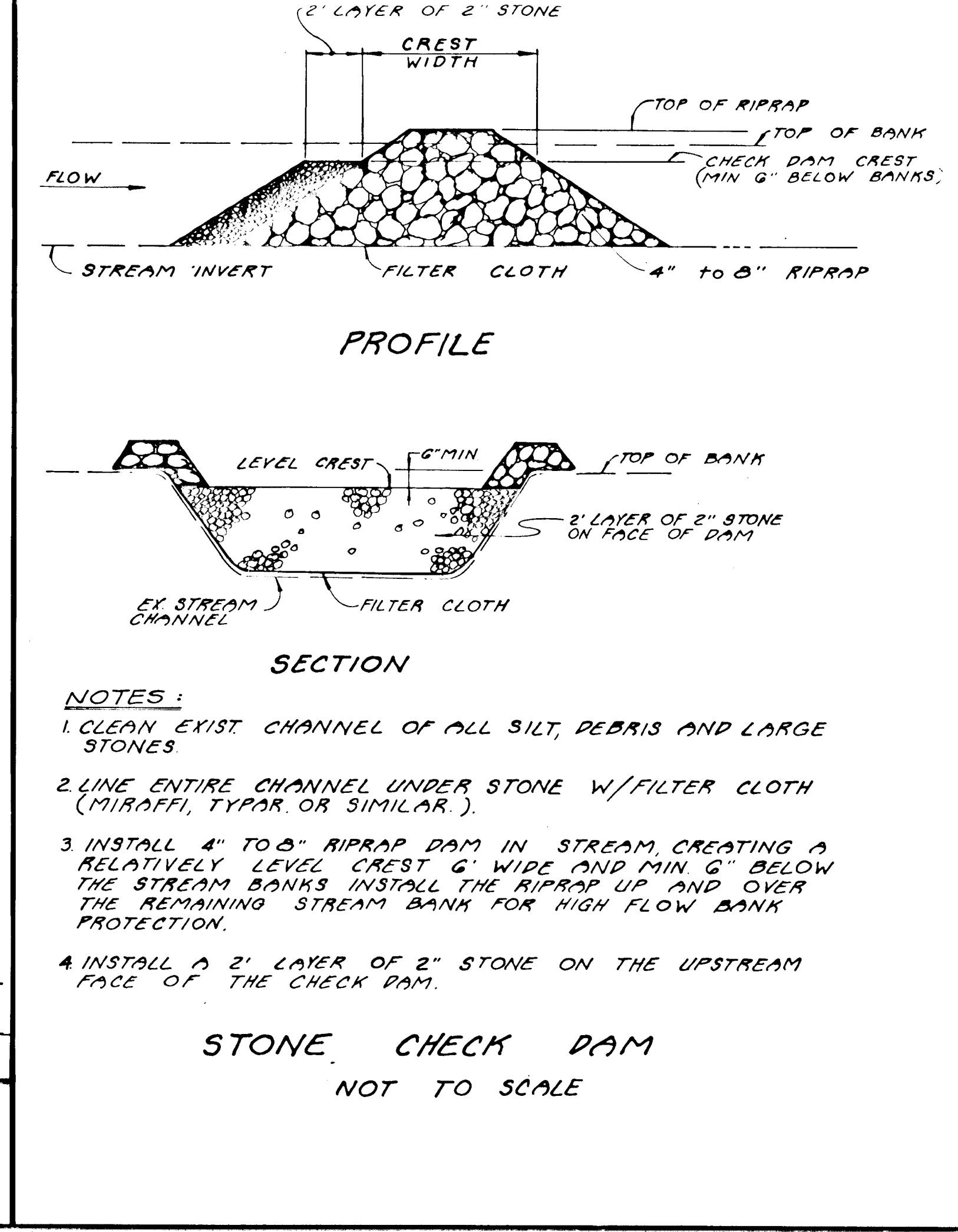
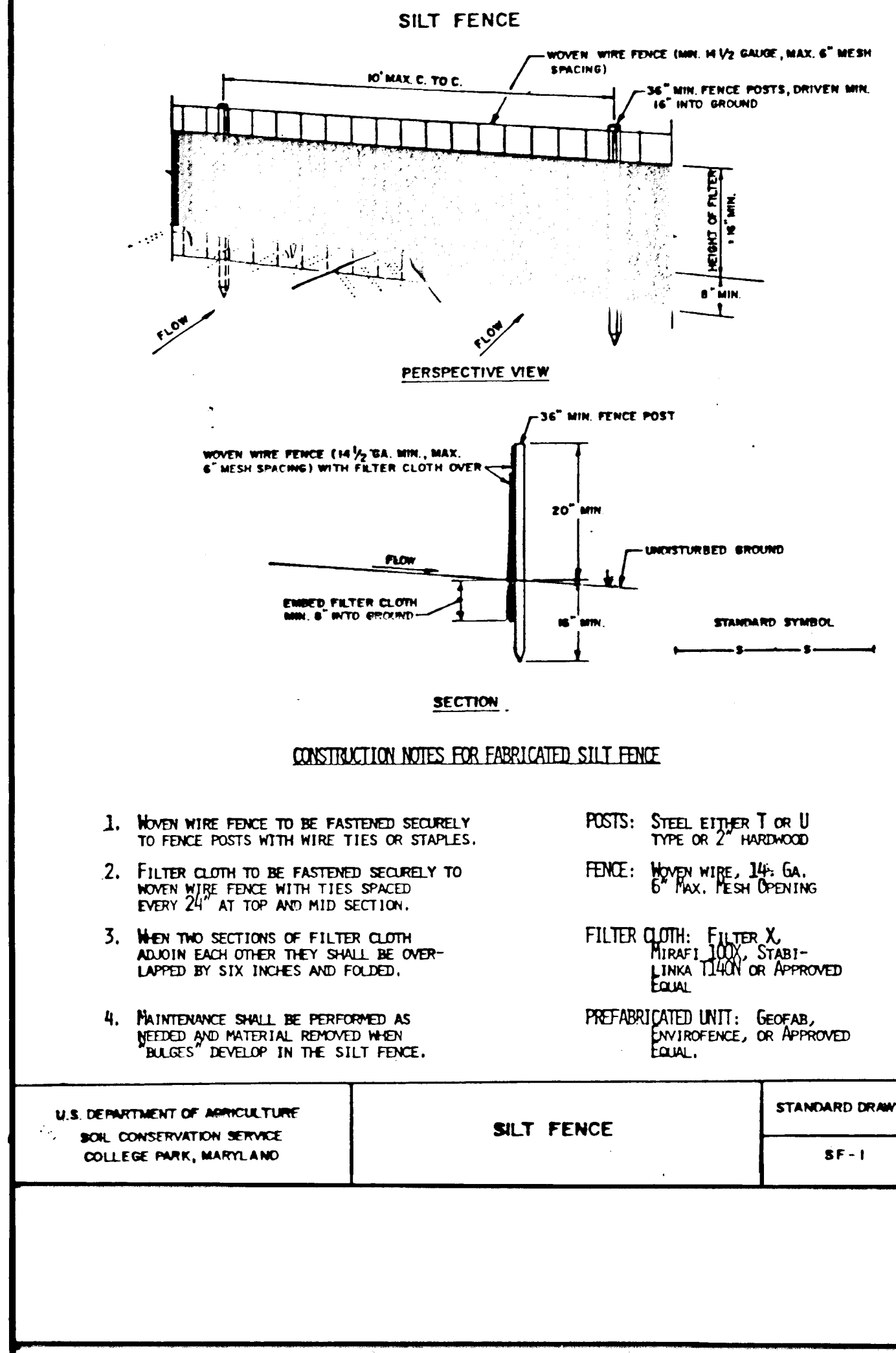
Seeded Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding.

Soil Amendments: Apply 60 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 24 bushel per acre of annual rye (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 unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 ft or higher, use 348 gal per acre (8 gal/1000 sq ft) for anchoring.

Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.



SEDIMENT TRAP SCHEDULE

SEDIMENT TRAP #	1	2	3	4	5	6	7	8
TYPE OF TRAP - STD & SPEC #	ST-IV	ST-IV	ST-IV	ST-IV	ST-IV	ST-IV	ST-IV	ST-IV
DRAINAGE AREA (ACRES)	3.28	0.40	1.65	1.02	0.40	0.95	0.90	1.65
STORAGE REQUIRED (FT ³)	5,904	720	2,970	1,836	720	1,710	1,620	2,970
STORAGE PROVIDED (FT ³)	6,000	760	3,020	1,850	760	1,745	1,745	3,020
BASE DIMENSIONS & ELEV.	10'x75'	8'x20'	10'x60'	8'x53'	8'x20'	8'x50'	8'x50'	10'x50'
WEIR LENGTH & ELEV.								
STORAGE DEPTH	5'	3'	4'	3'	3'	3'	3'	4'
EMBANKMENT HT. & TOP ELEV.								
MAX. DEPTH OF FLOW OVER WEIR								

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 Department of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic onsite inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary.

R.P. Bowman
Signature of Developer/Builder

5/23/87
Date

ENGINEER'S CERTIFICATE

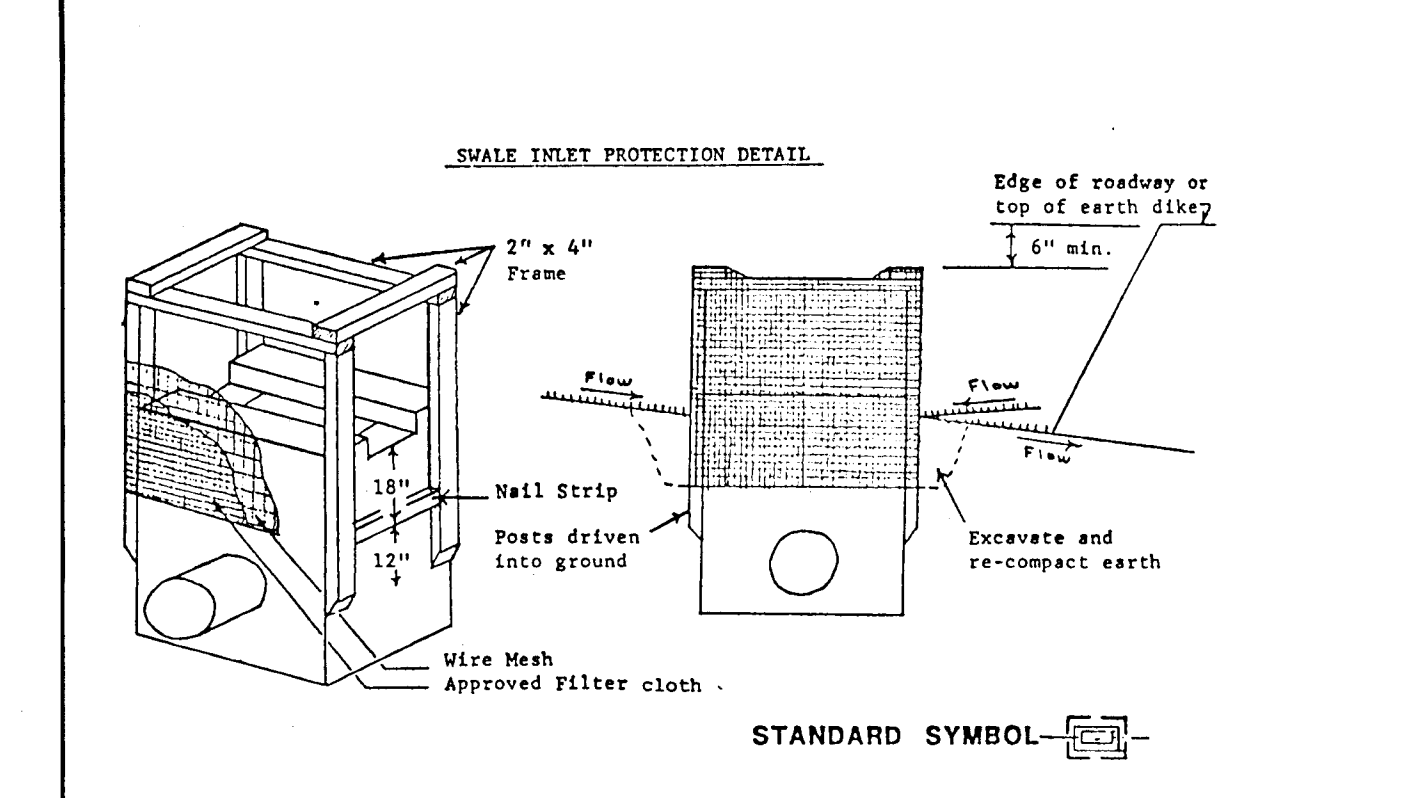
I hereby certify that this plan for Erosion and Sediment Control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

Richard E. Travers
Signature of Engineer

7/23/87
Date

NOTE:

WEIR LENGTHS TO BE 5-FOOT MINIMUM AND CREST TO BE EQUAL TO INVERT OF CULVERTS OR INLETS.



THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

James M. Hillman
U.S. Soil Conservation Service
Date: 7/27/87

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

Stephen C. Hill
Howard S.C.D.
Date: 7/27/87

PLAN NUMBER: _____

APPROVED: DEPARTMENT OF PUBLIC WORKS

John V. Mueschman
Chief, Division of Land Development & Zoning Administration
Date: 8-10-87

Richard E. Travers
Chief, Bureau of Engineering
Date: 8-14-87

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

John V. Mueschman
Date: 8-10-87

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
COLLEGE PARK, MARYLAND

SILT FENCE

STANDARD DRAWING SF-1

NO.	DESCRIPTION	DATE	APPROVED	DATE
A	REVISED 8D & PER HO CO.	4/15/87		
	DPW & HCD, ADDED 80			

REVISION APPROVED BY _____

REVISED

GORMAN ROAD CONSTRUCTION PLANS

SEDIMENT CONTROL

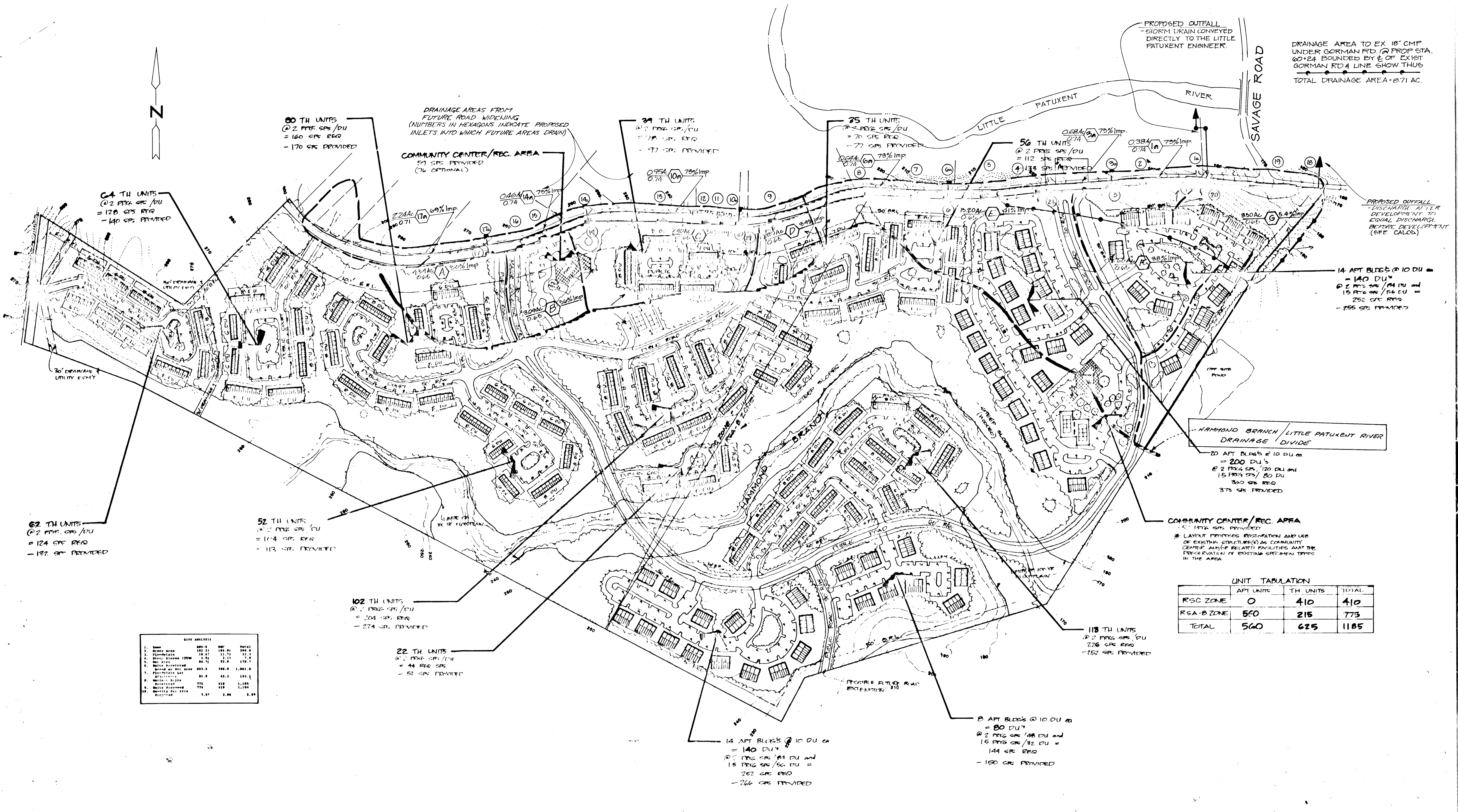
NOTES & DETAILS

Patton Harris Rust and Associates
A Professional Corporation
Engineers, Surveyors, Planners and Landscape Architects
Fairfax, Va./Bridgewater, Va./Leesburg, Va./Rockville, Md.

BOWLING BROOK FARMS
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
OFF. FILE NO. VP-88-78, VP-88-79A-1, VP-88-79A-2, S-88-29
L.1594 F.692
TAX MAP NO. 47, PARCEL 141

SURVEY _____ DATE 1/30/87
 DESIGN JPC
 DRAWN _____ SHEET 19 OF 20
 CHECKED JPC
 SCALE C.I. FILE NO. 2184-1-0

AS-BUILT NOV. 16, 1992



DRAINAGE AREA TO EX. 18" CMP UNDER GORMAN RD @ PROP STA. 60+24 BOUNDED BY E. OF EXIST GORMAN RD 4 LINE SHOWN THUS
TOTAL DRAINAGE AREA = 2.71 AC.

60 TH UNITS
@ 2 PRG SPS/DU
= 120 SPS REQ
- 170 SPS PROVIDED

COMMUNITY CENTER/REC. AREA
59 SPS PROVIDED
(16 OPTIONAL)

29 TH UNITS
@ 2 PRG SPS/DU
= 70 SPS REQ
- 97 SPS PROVIDED

25 TH UNITS
@ 2 PRG SPS/DU
= 70 SPS REQ
- 77 SPS PROVIDED

56 TH UNITS
@ 2 PRG SPS/DU
= 112 SPS REQ
- 133 SPS PROVIDED

64 TH UNITS
@ 2 PRG SPS/DU
= 128 SPS REQ
- 140 SPS PROVIDED

52 TH UNITS
@ 2 PRG SPS/DU
= 104 SPS REQ
- 113 SPS PROVIDED

102 TH UNITS
@ 2 PRG SPS/DU
= 204 SPS REQ
- 224 SPS PROVIDED

22 TH UNITS
@ 2 PRG SPS/DU
= 44 SPS REQ
- 52 SPS PROVIDED

118 TH UNITS
@ 2 PRG SPS/DU
= 236 SPS REQ
- 252 SPS PROVIDED

14 APT BLDGS @ 10 DU ea
= 140 DU's
@ 2 PRG SPS/14 DU and
15 PRG SPS/80 DU
= 252 SPS REQ
- 255 SPS PROVIDED

20 APT BLDGS @ 10 DU ea
= 200 DU's
@ 2 PRG SPS/120 DU and
15 PRG SPS/80 DU
= 360 SPS REQ
- 375 SPS PROVIDED

COMMUNITY CENTER/REC. AREA
59 SPS PROVIDED
* LAYOUT PREFERRED REGISTRATION AND USE OF EXISTING STRUCTURE(S) AS COMMUNITY CENTER AND/OR RELATED FACILITIES AND THE PRESERVATION OF EXISTING SPECIMEN TREES IN THE AREA

UNIT TABULATION

RSC ZONE	APT UNITS	TH UNITS	TOTAL
RSC-ZONE	0	410	410
RSA-B-ZONE	560	215	775
TOTAL	560	625	1185

SIZE ANALYSIS

NO.	DESC.	AREA	PERCENT	TOTAL
1.	Open Area	100.00	100.00	100.00
2.	Impervious	10.00	10.00	110.00
3.	Water	0.00	0.00	110.00
4.	Other	0.00	0.00	110.00
5.	Impervious	10.00	10.00	120.00
6.	Water	0.00	0.00	120.00
7.	Other	0.00	0.00	120.00
8.	Impervious	10.00	10.00	130.00
9.	Water	0.00	0.00	130.00
10.	Other	0.00	0.00	130.00
11.	Impervious	10.00	10.00	140.00
12.	Water	0.00	0.00	140.00
13.	Other	0.00	0.00	140.00
14.	Impervious	10.00	10.00	150.00
15.	Water	0.00	0.00	150.00
16.	Other	0.00	0.00	150.00
17.	Impervious	10.00	10.00	160.00
18.	Water	0.00	0.00	160.00
19.	Other	0.00	0.00	160.00
20.	Impervious	10.00	10.00	170.00
21.	Water	0.00	0.00	170.00
22.	Other	0.00	0.00	170.00
23.	Impervious	10.00	10.00	180.00
24.	Water	0.00	0.00	180.00
25.	Other	0.00	0.00	180.00
26.	Impervious	10.00	10.00	190.00
27.	Water	0.00	0.00	190.00
28.	Other	0.00	0.00	190.00
29.	Impervious	10.00	10.00	200.00
30.	Water	0.00	0.00	200.00
31.	Other	0.00	0.00	200.00
32.	Impervious	10.00	10.00	210.00
33.	Water	0.00	0.00	210.00
34.	Other	0.00	0.00	210.00
35.	Impervious	10.00	10.00	220.00
36.	Water	0.00	0.00	220.00
37.	Other	0.00	0.00	220.00
38.	Impervious	10.00	10.00	230.00
39.	Water	0.00	0.00	230.00
40.	Other	0.00	0.00	230.00
41.	Impervious	10.00	10.00	240.00
42.	Water	0.00	0.00	240.00
43.	Other	0.00	0.00	240.00
44.	Impervious	10.00	10.00	250.00
45.	Water	0.00	0.00	250.00
46.	Other	0.00	0.00	250.00
47.	Impervious	10.00	10.00	260.00
48.	Water	0.00	0.00	260.00
49.	Other	0.00	0.00	260.00
50.	Impervious	10.00	10.00	270.00
51.	Water	0.00	0.00	270.00
52.	Other	0.00	0.00	270.00
53.	Impervious	10.00	10.00	280.00
54.	Water	0.00	0.00	280.00
55.	Other	0.00	0.00	280.00
56.	Impervious	10.00	10.00	290.00
57.	Water	0.00	0.00	290.00
58.	Other	0.00	0.00	290.00
59.	Impervious	10.00	10.00	300.00
60.	Water	0.00	0.00	300.00
61.	Other	0.00	0.00	300.00
62.	Impervious	10.00	10.00	310.00
63.	Water	0.00	0.00	310.00
64.	Other	0.00	0.00	310.00
65.	Impervious	10.00	10.00	320.00
66.	Water	0.00	0.00	320.00
67.	Other	0.00	0.00	320.00
68.	Impervious	10.00	10.00	330.00
69.	Water	0.00	0.00	330.00
70.	Other	0.00	0.00	330.00
71.	Impervious	10.00	10.00	340.00
72.	Water	0.00	0.00	340.00
73.	Other	0.00	0.00	340.00
74.	Impervious	10.00	10.00	350.00
75.	Water	0.00	0.00	350.00
76.	Other	0.00	0.00	350.00
77.	Impervious	10.00	10.00	360.00
78.	Water	0.00	0.00	360.00
79.	Other	0.00	0.00	360.00
80.	Impervious	10.00	10.00	370.00
81.	Water	0.00	0.00	370.00
82.	Other	0.00	0.00	370.00
83.	Impervious	10.00	10.00	380.00
84.	Water	0.00	0.00	380.00
85.	Other	0.00	0.00	380.00
86.	Impervious	10.00	10.00	390.00
87.	Water	0.00	0.00	390.00
88.	Other	0.00	0.00	390.00
89.	Impervious	10.00	10.00	400.00
90.	Water	0.00	0.00	400.00
91.	Other	0.00	0.00	400.00
92.	Impervious	10.00	10.00	410.00
93.	Water	0.00	0.00	410.00
94.	Other	0.00	0.00	410.00
95.	Impervious	10.00	10.00	420.00
96.	Water	0.00	0.00	420.00
97.	Other	0.00	0.00	420.00
98.	Impervious	10.00	10.00	430.00
99.	Water	0.00	0.00	430.00
100.	Other	0.00	0.00	430.00

APPROVED BY DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Engineering
 APPROVED BY HOWARD COUNTY OFFICE OF PLANNING AND ZONING
 John W. Muehlman
 Chief, Bureau of Engineering



GORMAN ROAD CONSTRUCTION PLANS
 DRAINAGE AREA MAP
 (FUTURE)

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 7609 Glendiah Pl., Rockville, Md. 20855 (301) 762-7770

BOWLING BROOK FARMS
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 OFFICE: VT-66-70, VT-66-70A-1, VT-66-70A-2, 8-20-20
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