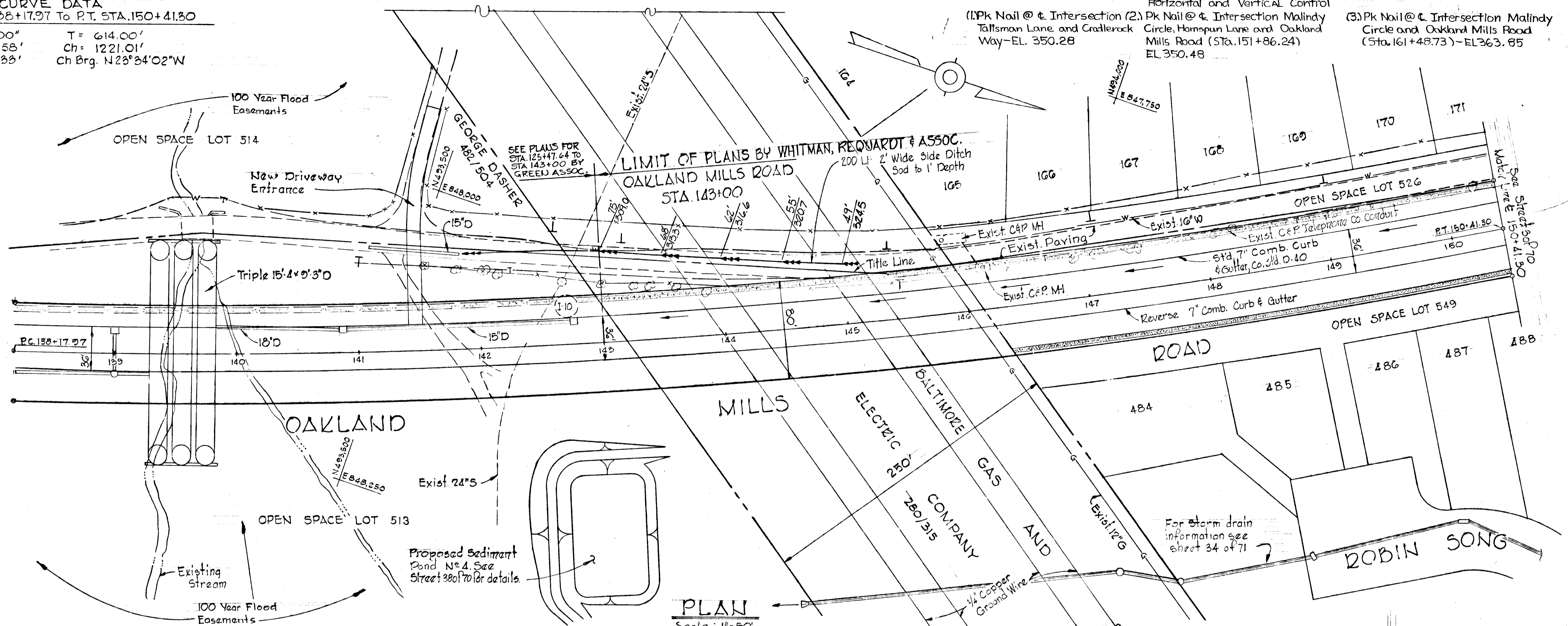


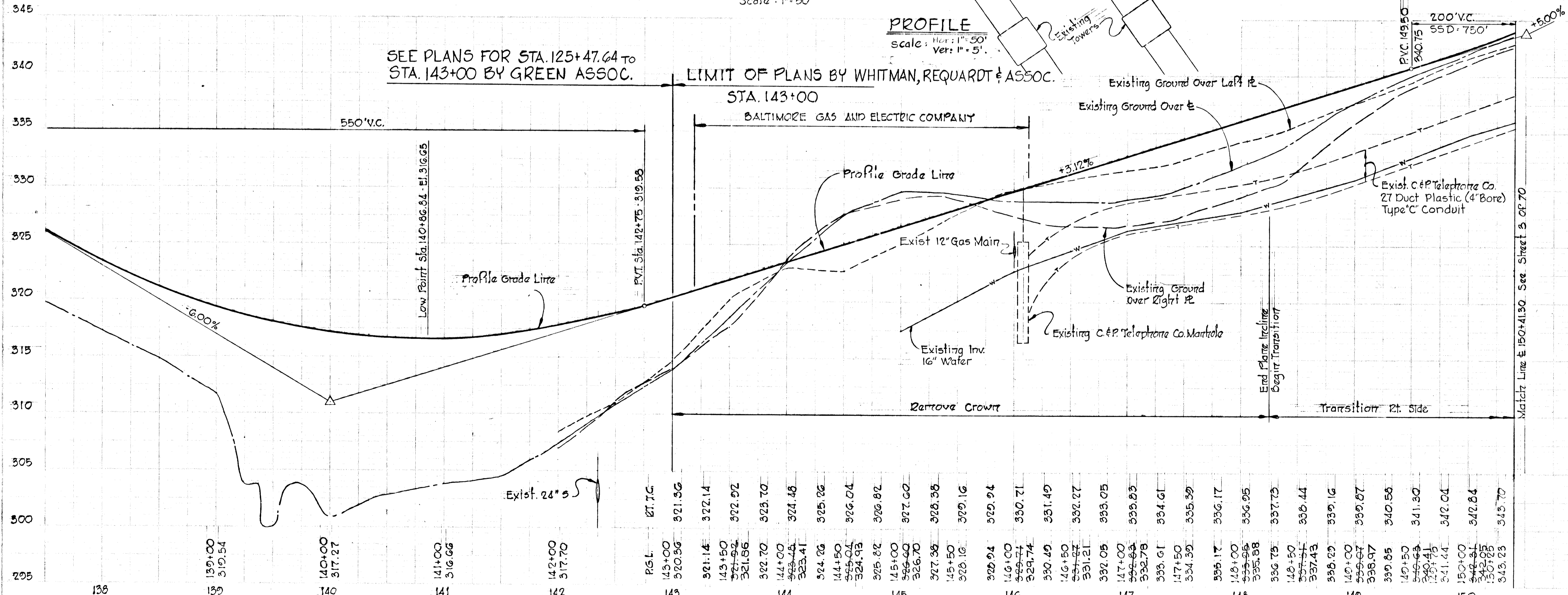
CURVE DATA
 P.C. STA. 138+17.97 To P.T. STA. 150+41.30
 $\Delta = 123^{\circ}14'00''$ $T = 614.00'$
 $R = 5723.58'$ $Ch = 1221.01'$
 $Arc = 1223.33'$ $Ch Brg. N23^{\circ}34'02''W$

Horizontal and Vertical Control
 (1) PK Nail @ ϵ Intersection Tillsman Lane and Cradlerack Way-EL. 350.28
 (2) PK Nail @ ϵ Intersection Malindy Circle, Hampden Lane and Oakland Mills Road (Sta. 151+86.24) EL. 350.48
 (3) PK Nail @ ϵ Intersection Malindy Circle and Oakland Mills Road (Sta. 161+48.73)-EL. 363.85

DEPARTMENT OF PUBLIC WORKS
Kenneth A. McCord 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE
 OFFICE OF PLANNING AND ZONING
J. W. Clouston 5/31/74
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE
 © "AS-BUILT" Elevations as of May 3, 1978



PLAN
 Scale: 1" = 50'

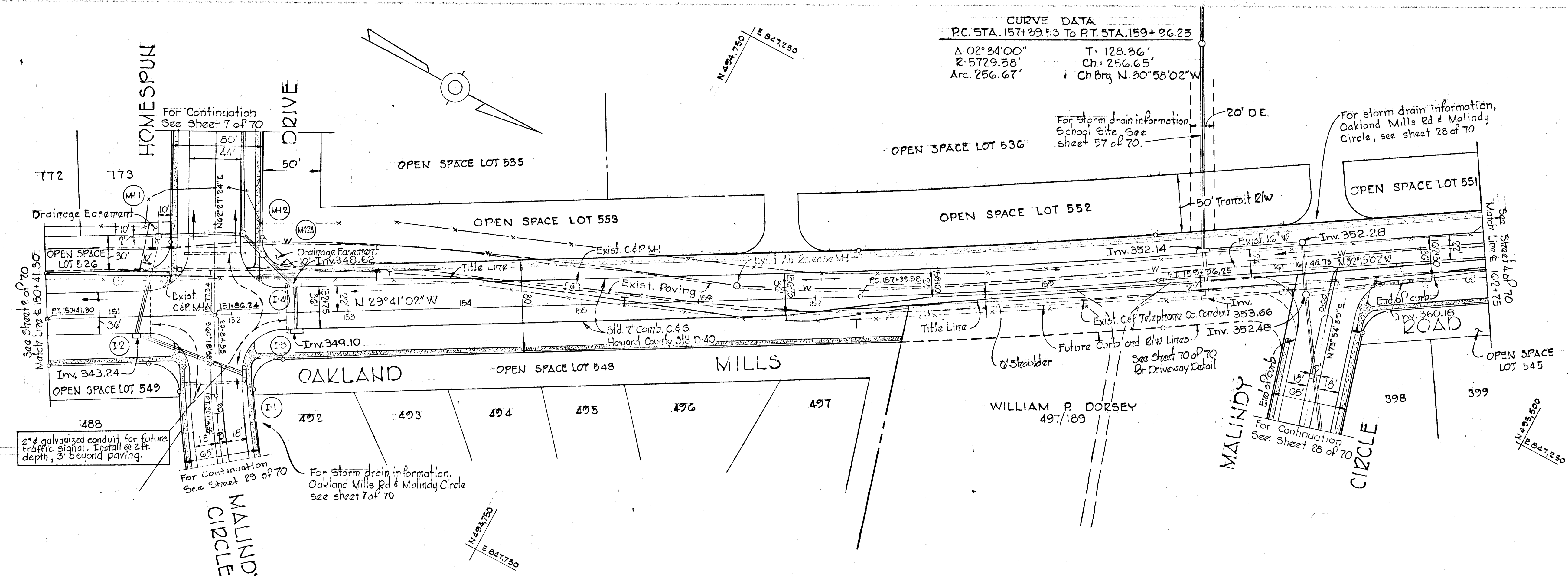


PROFILE
 scale: Hor: 1" = 50'
 Ver: 1" = 5'

Rev. Date	Rev. No.	Revision Description
		COLUMBIA 6 th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
		OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP.
		PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4 AREA 1
		PROJECT TITLE PLAN AND PROFILE OAKLAND MILLS ROAD STA. 143+00 TO STA. 150+41.30
		SCALE: As Shown DATE: 5/23/74
		WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202
		<i>Kenneth A. McCord</i> KENNETH A. MCCORD Registered Engineer No. 1974

APPROVED
 DIVISION OF LAND DEVELOPMENT
 AND TRANSPORTATION PLANNING
 HOWARD COUNTY, MARYLAND
 DATE 5/30/74
J. W. Clouston

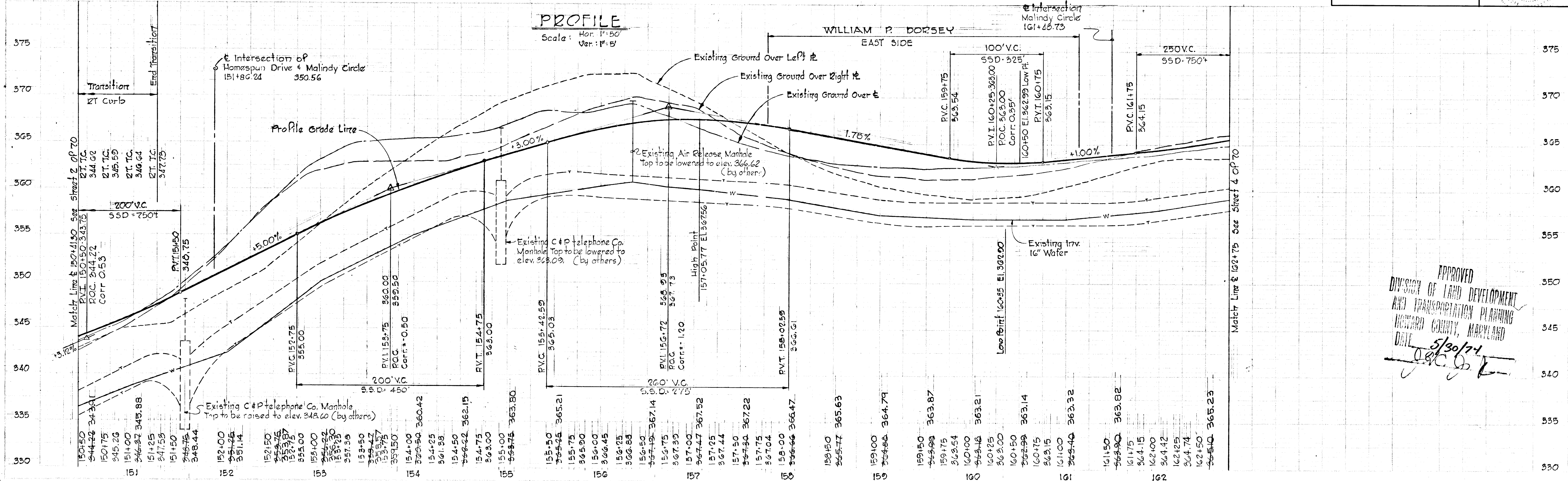
DEPARTMENT OF PUBLIC WORKS
S. H. McLeod 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE
 OFFICE OF PLANNING AND ZONING
J. H. Clawson 5/31/74
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE
 ©'AS-BUILT' Elevations as of May 3, 1978



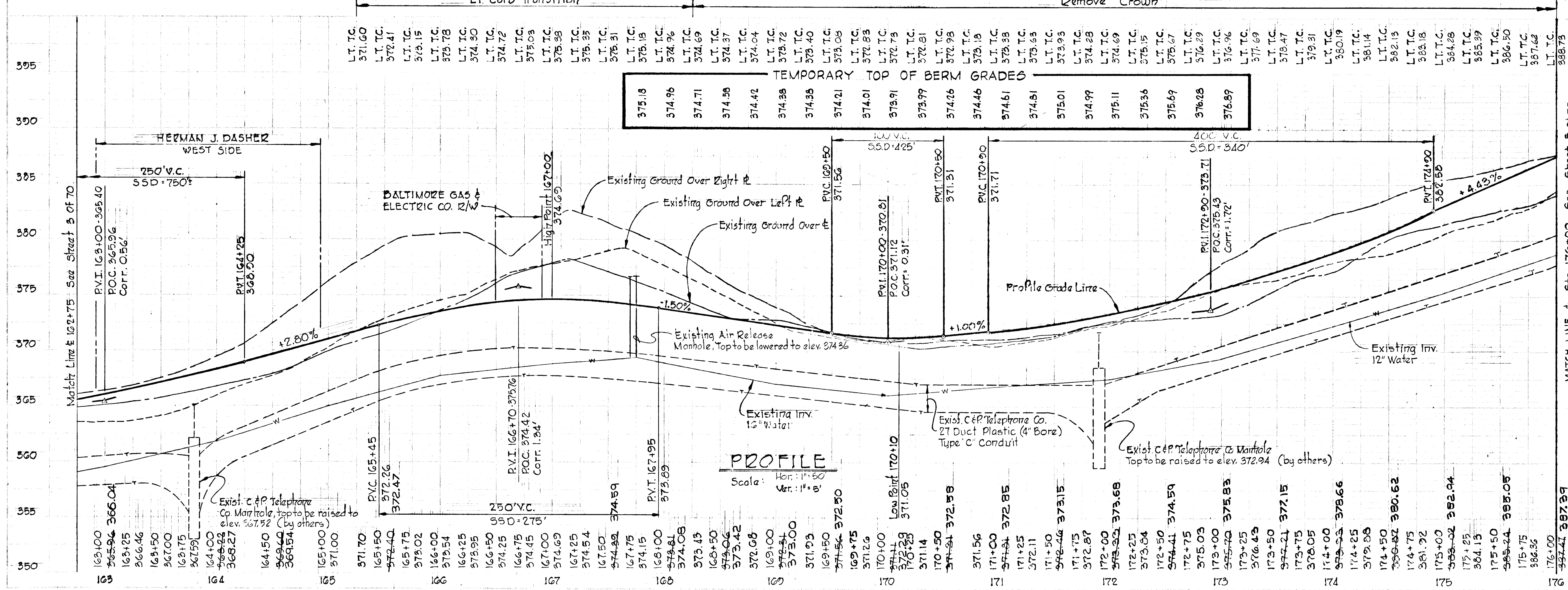
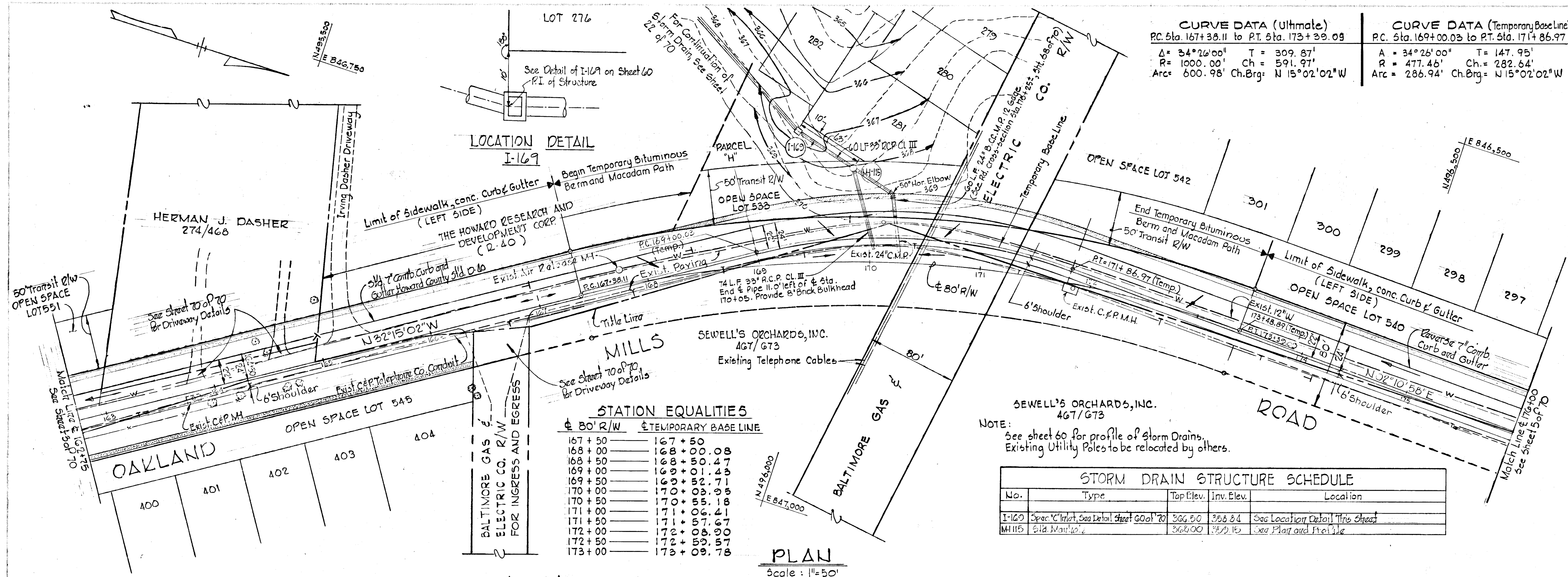
PLAN
 Scale: 1" = 50'

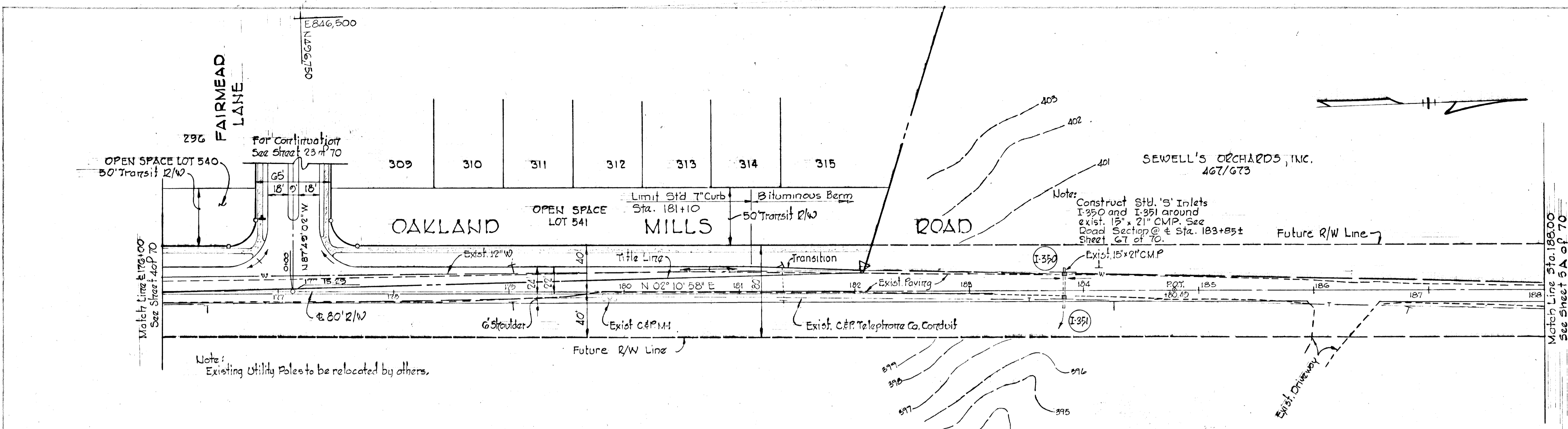
Rev. Date	Rev. No.	Revision Description
		COLUMBIA ELECTION DISTRICT HOWARD COUNTY, MARYLAND
		OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP.
		PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4 AREA 1
		PROJECT TITLE PLAN AND PROFILE OAKLAND MILLS ROAD STA. 150+41.50 TO STA. 162+75
		SCALE: As Shown DATE: 5/23/74
		WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202
		<i>Kenneth A. McCord</i> KENNETH A. MCCORD Registered Engineer No. 1974

PROFILE
 Scale: Hor. 1" = 50'
 Ver. 1" = 5'



APPROVED
 DIVISION OF LAND DEVELOPMENT
 AND TRANSPORTATION PLANNING
 HOWARD COUNTY, MARYLAND
 DATE: 5/30/74
J. H. Clawson



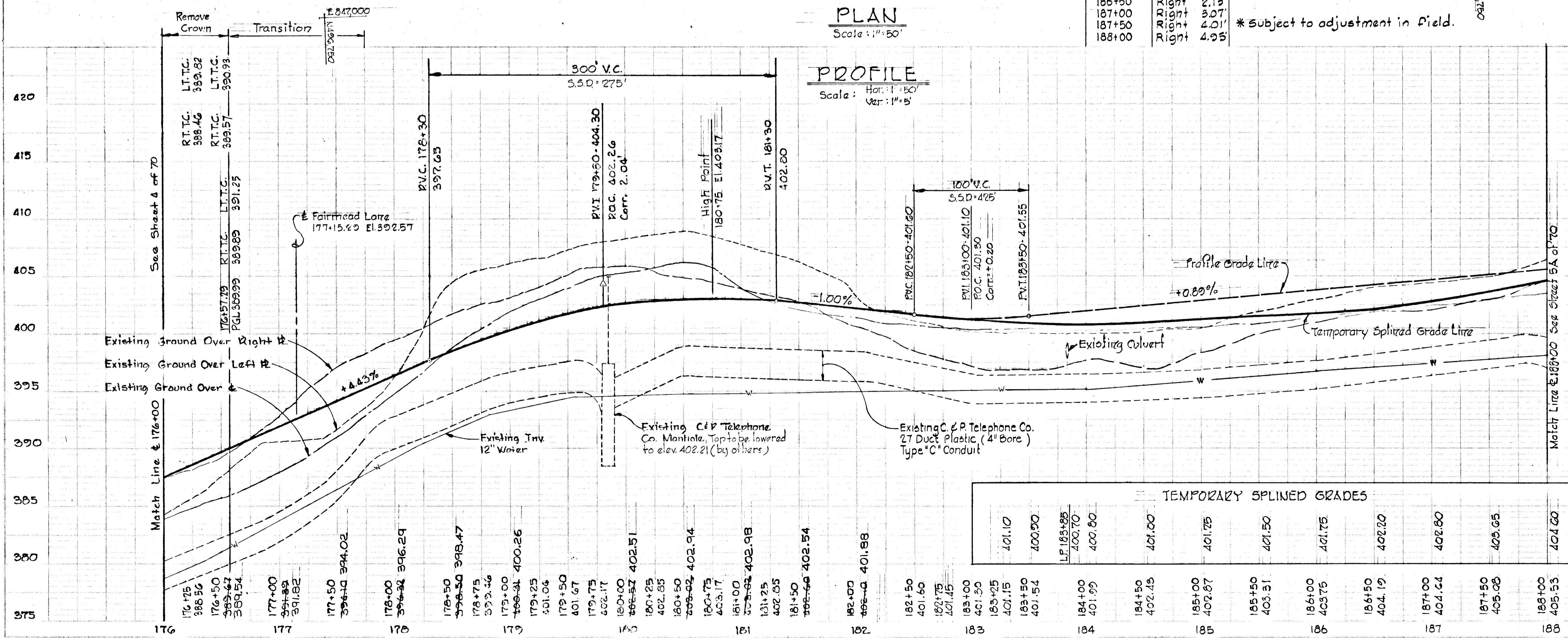


STORM DRAIN STRUCTURE SCHEDULE

NO.	TYPE	TOP ELEV.	INVERT ELEV.	LOCATION
I-350	Standard "S" Inlet	400.39	397.9±	10.02' Left of & Exist Road
I-351	Standard "S" Inlet	400.39	397.8±	10.02' Right of & Exist Road

STATION ±80' R/W	OFFSET TO ± TEMPORARY PAVING *
182+50	Left 4.50'
183+00	Left 4.25'
183+50	Left 4.00'
184+00	Left 3.50'
184+50	Left 3.00'
185+00	Left 2.60'
185+50	Left 2.00'
186+00	Right 1.18'
186+50	Right 2.15'
187+00	Right 3.07'
187+50	Right 4.01'
188+00	Right 4.95'

* Subject to adjustment in field.



COLUMBIA
 6th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

OWNER AND DEVELOPER
 HOWARD RESEARCH AND DEVELOPMENT CORP.

PROJECT AREA
VILLAGE OF OWEN BROWN
 SECTION 4 AREA 1

PROJECT TITLE
PLAN AND PROFILE
 OAKLAND MILLS ROAD
 STA. 176+00 TO STA. 182+00

SCALE: As Shown DATE: 5/23/74

WHITMAN, REQUADT & ASSOCIATES
 ENGINEERS
 BALTIMORE, MARYLAND 21202

Kenneth A. McLeod
 KENNETH A. MCCOYD
 Registered Engineer
 No. 1974

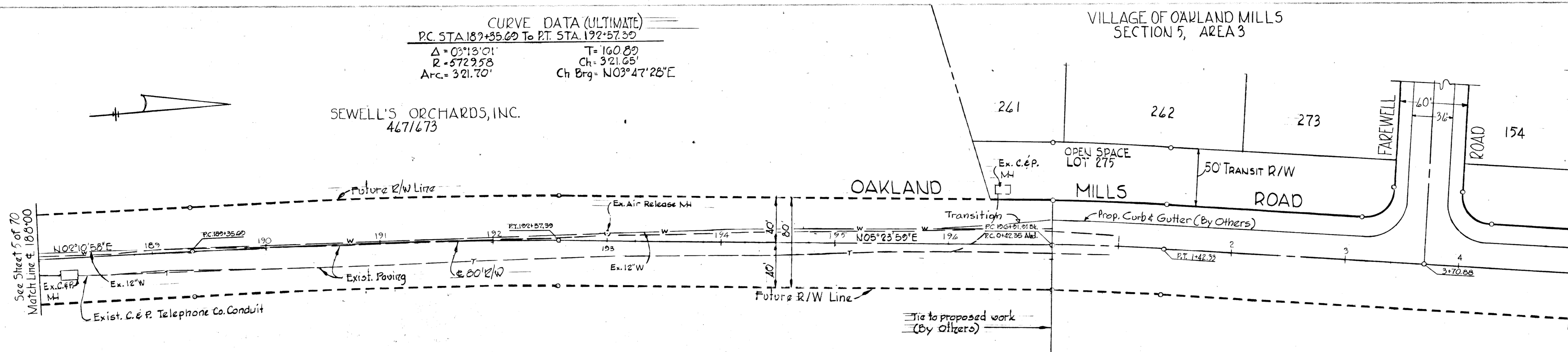
APPROVED
 DEPARTMENT OF LAND DEVELOPMENT
 AND TRANSPORTATION PLANNING
 HOWARD COUNTY, MARYLAND
 DATE 5/30/74
J. C. J. R.

CURVE DATA (ULTIMATE)
 PC STA 187+35.69 To PT. STA. 192+57.39
 $\Delta = 03^{\circ}13'01''$ T = 160.89
 $R = 5729.58$ Ch = 321.65
 Arc = 321.70' Ch Brg = N03°47'28"E

SEWELL'S ORCHARDS, INC.
 4671673

VILLAGE OF OAKLAND MILLS
 SECTION 5, AREA 3

DEPARTMENT OF PUBLIC WORKS
S. M. McLeod 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE
 OFFICE OF PLANNING AND ZONING
J. H. Dawson 5/31/74
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE



STATION @ 80' R/W	OFFSET TO TEMPORARY PAVING *
188+50	Right 5.80'
189+00	Right 6.84'
189+50	Right 7.76'
190+00	Right 8.36'
190+50	Right 8.52'
191+00	Right 8.25'
191+50	Right 7.54'
192+00	Right 6.39'
192+50	Right 4.71'
193+00	Right 2.95'
193+50	Right 1.21'
194+00	Right 0.21'
194+50	0
195+00	0
195+50	0
196+00	0
196+50	0

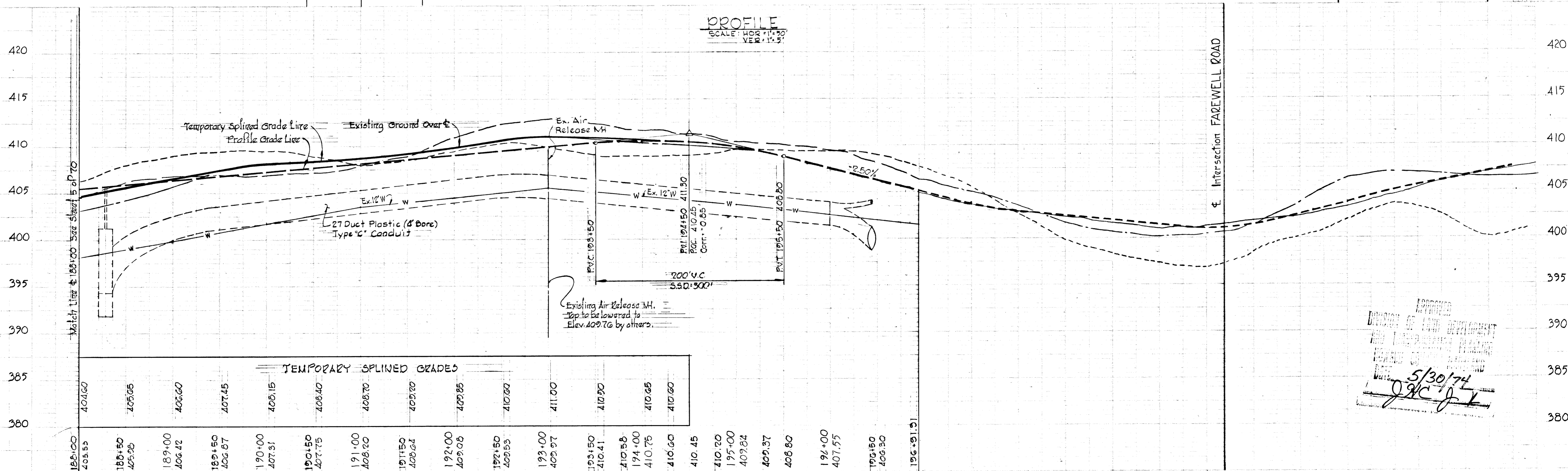
SEWELL'S ORCHARDS, INC.
 4671673

See Oakland Mills, Section 5, Area 3
 Road Construction Drawings.
 Oakland Mills Road paving and
 drainage are shown on Sheet 18 of 33.

* Subject to adjustment in field

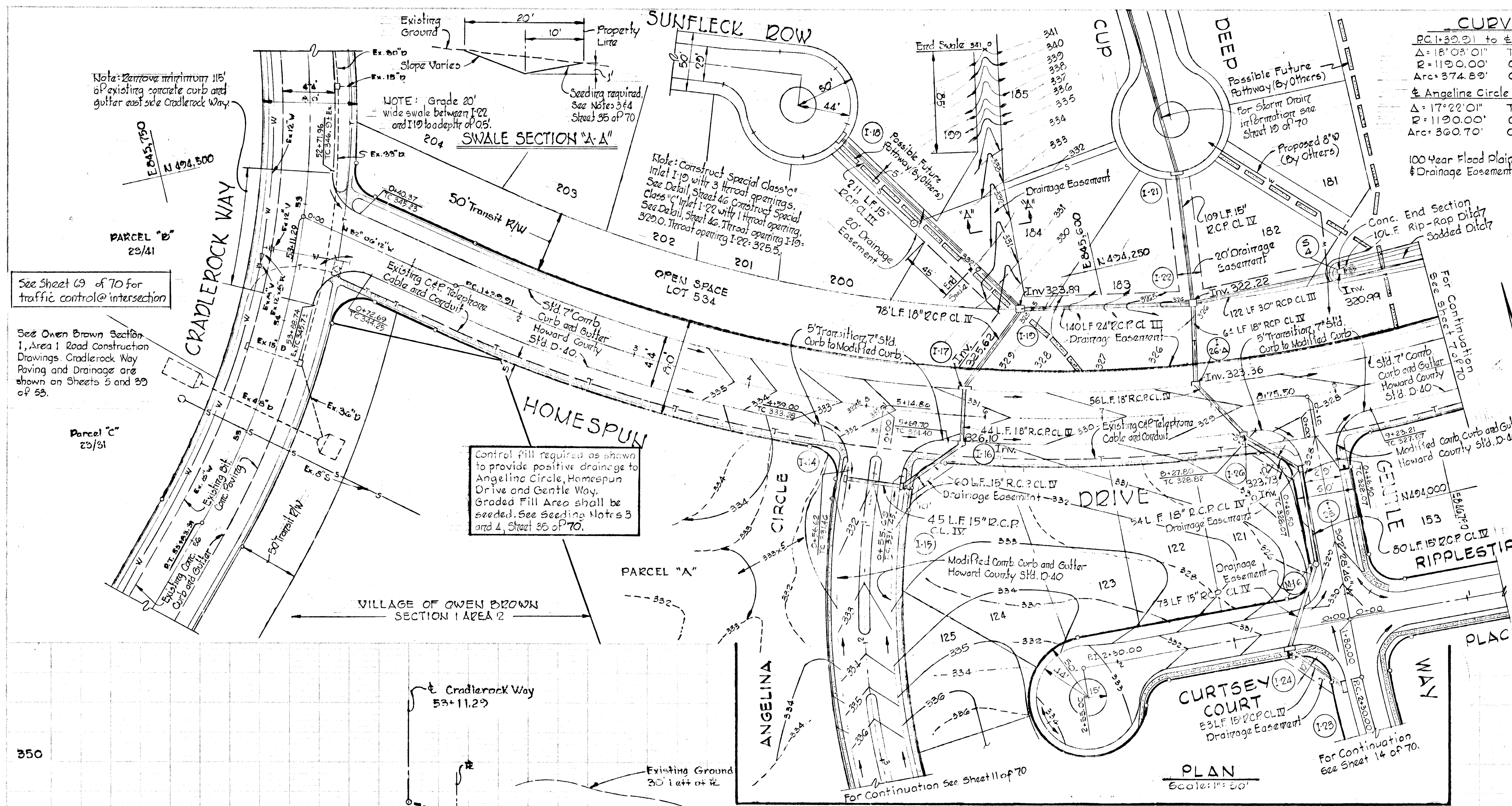
PLAN
 SCALE: 1" = 50'

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



TEMPORARY SPLINED GRADES

APPROVED
 DIVISION OF LAND DEVELOPMENT
 AND TRANSPORTATION PLANNING
 J. H. Dawson
 5/30/74
J. H. Dawson



CURVE DATA

PC 1+32.21 to & Angelina Circle	Δ = 18° 03' 01"	Tan = 189.01'
Δ = 18° 03' 01"	R = 1120.00'	Ch = 373.34'
Arc = 374.89'	Ch. Org. = 561° 07' 42" E	
& Angelina Circle to & Gentle Way	Δ = 17° 22' 01"	Tan = 181.74'
R = 1120.00'	Ch = 359.32'	
Arc = 360.70'	Ch. Org. = 578° 50' 14" E	

DEPARTMENT OF PUBLIC WORKS
S. N. Weiland 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE

OFFICE OF PLANNING AND ZONING
J. J. Clawson 5/31/74
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE

Notes:
 1. For Storm Drain Profiles, see Sheet 54 of 70.
 2. For Storm Drain Details, see Sheet 46 of 70.

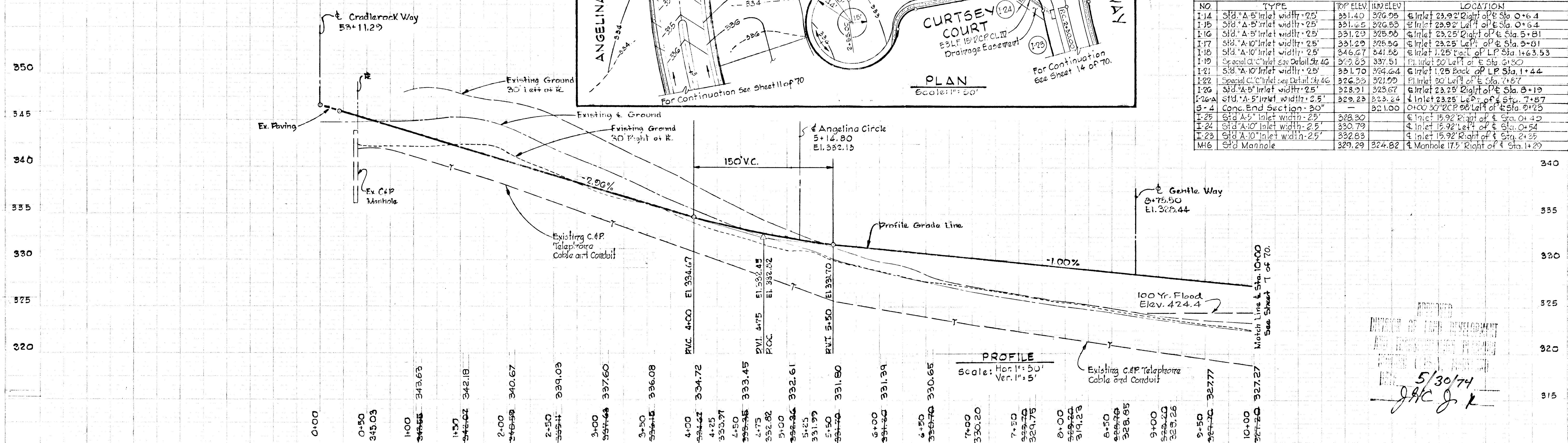
LEGEND
 Stop Sign R1-1 (30" x 30")

AS BUILT - Elevations as of May 3, 1978

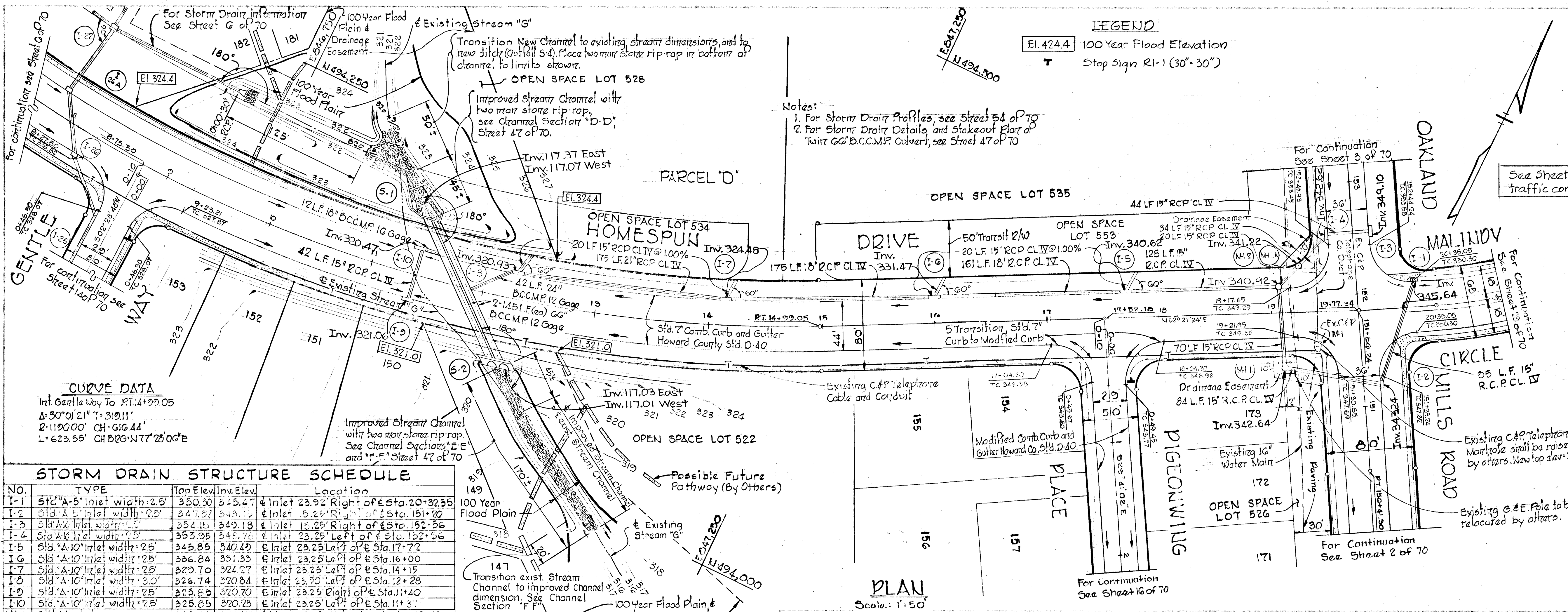
Rev. No.	Rev. No.	REVISION DESCRIPTION
		COLUMBIA 6 TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
		OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP.
		PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4 AREA 1
		PROJECT TITLE PLAN AND PROFILE HOMESPUN DRIVE STA. 0+00 TO STA. 10+00
		SCALE: As Shown DATE 5/23/74
		WHITMAN REQUARDT, & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND
		<i>Kenneth A. McCord</i> KENNETH A. MCCORD Registered Engineer No. 1974

STORM DRAIN STRUCTURE SCHEDULE

NO.	TYPE	TOP ELEV.	INLET ELEV.	LOCATION
I-14	Std. A-5" Inlet width - 25'	331.40	326.95	4 Inlet 23.92' Right of 4 Sta. 0+6.4
I-15	Std. A-5" Inlet width - 25'	331.65	326.53	4 Inlet 23.92' Left of 4 Sta. 0+6.4
I-16	Std. A-5" Inlet width - 25'	331.29	325.96	4 Inlet 23.25' Right of 4 Sta. 5+81
I-17	Std. A-10" Inlet width - 25'	331.29	325.56	4 Inlet 23.25' Left of 4 Sta. 5+81
I-18	Std. A-10" Inlet width - 25'	346.67	341.58	4 Inlet 1.25' Right of LP Sta. 1+63.53
I-19	Special C.C. Inlet see Detail 46	329.83	337.51	4 Inlet 20' Left of 4 Sta. 0+30
I-21	Std. A-10" Inlet width - 25'	331.70	324.64	4 Inlet 1.25' Back of LP Sta. 1+44
I-22	Special C.C. Inlet see Detail 46	326.33	321.99	4 Inlet 20' Left of 4 Sta. 7+87
I-23	Std. A-5" Inlet width - 25'	328.91	323.67	4 Inlet 23.25' Right of 4 Sta. 8+19
I-24	Std. A-5" Inlet width - 25'	329.23	323.24	4 Inlet 23.25' Left of 4 Sta. 7+87
I-25	Std. A-5" Inlet width - 25'	328.30	323.00	4 Inlet 15.92' Right of 4 Sta. 0+49
I-26	Std. A-10" Inlet width - 25'	330.79	323.00	4 Inlet 15.92' Left of 4 Sta. 0+54
I-27	Std. A-10" Inlet width - 25'	332.83	323.00	4 Inlet 15.92' Right of 4 Sta. 2+35
M-6	Std. Manhole	329.29	324.82	4 Manhole 17.5' Right of 4 Sta. 1+29



APPROVED
 DEPARTMENT OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING
 5/30/74
JAC



LEGEND
 El. 424.4 100 Year Flood Elevation
 T Stop Sign R1-1 (30" x 30")

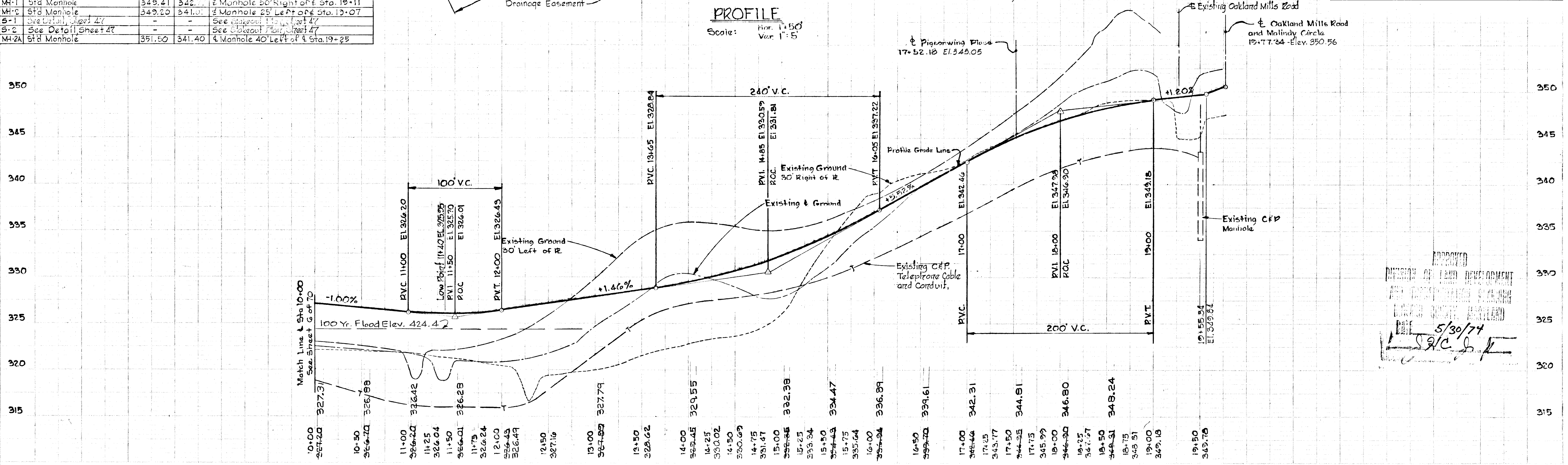
Notes:
 1. For Storm Drain Profiles, see Sheet 54 of 70
 2. For Storm Drain Details and Stakeout Plan of "Twin" G.C.C.M.P. Culvert, see Sheet 47 of 70

DEPARTMENT OF PUBLIC WORKS
S. P. McLeod 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE
 OFFICE OF PLANNING AND ZONING
J. G. Lawson 5/31/74
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE
 AND TRANSPORTATION PLANNING
 © "AS-BUILT" Elevations as of May 3, 1978

CURVE DATA
 Int. Gentle Way to P.T. 14+29.05
 Δ = 30° 01' 21" T = 319.11'
 R = 1190.00' CH = 616.44'
 L = 623.55' CH BPC = 177' 25" 00"E

NO.	TYPE	Top Elev.	Inv. Elev.	Location
I-1	Std. A-5 Inlet width 2.5'	350.30	343.47	At Inlet 23.92' Right of Sta. 20+32.55
I-2	Std. A-6 Inlet width 2.5'	347.37	343.17	At Inlet 15.25' Right of Sta. 15+20
I-3	Std. A-6 Inlet width 2.5'	354.15	349.18	At Inlet 15.25' Right of Sta. 152+56
I-4	Std. A-6 Inlet width 2.5'	353.95	346.78	At Inlet 23.25' Left of Sta. 152+56
I-5	Std. A-10 Inlet width 2.5'	345.85	340.47	At Inlet 23.25' Left of Sta. 17+72
I-6	Std. A-10 Inlet width 2.5'	336.84	331.33	At Inlet 23.25' Left of Sta. 16+00
I-7	Std. A-10 Inlet width 2.5'	329.70	324.27	At Inlet 23.25' Left of Sta. 14+15
I-8	Std. A-10 Inlet width 2.5'	326.74	320.84	At Inlet 23.25' Left of Sta. 12+28
I-9	Std. A-10 Inlet width 2.5'	325.85	320.70	At Inlet 23.25' Right of Sta. 11+40
I-10	Std. A-10 Inlet width 2.5'	325.85	320.73	At Inlet 23.25' Left of Sta. 11+31
MH-1	Std. Manhole	349.41	342.00	At Manhole 50' Right of Sta. 19+11
MH-2	Std. Manhole	349.20	341.00	At Manhole 25' Left of Sta. 13+07
S-1	See Detail, Sheet 47	-	-	See Stakeout Plan, Sheet 47
S-2	See Detail, Sheet 47	-	-	See Stakeout Plan, Sheet 47
MH-2A	Std. Manhole	351.50	341.40	At Manhole 40' Left of Sta. 19+25

PLAN
 Scale: 1" = 50'
PROFILE
 Scale: Hor. 1" = 50'
 Ver. 1" = 5'



Rev. No.	Rev. No.	Revision Description

COLUMBIA
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

OWNER AND DEVELOPER
 HOWARD RESEARCH AND DEVELOPMENT CORP.

PROJECT AREA
VILLAGE OF OWEN BROWN
 SECTION 4, AREA 1

PROJECT TITLE
PLAN AND PROFILE
HOMESPUEN DRIVE
STA. 10+00 TO STA. 19+77.34

SCALE: As Shown DATE: 5/23/74

WHITMAN REQUARDT & ASSOCIATES
 ENGINEERS
 BALTIMORE, MARYLAND 21202

Kenneth A. McCord
 KENNETH A. MCCORD
 Registered Engineer
 No. 1974

APPROVED
 DIVISION OF LAND DEVELOPMENT
 AND TRANSPORTATION PLANNING
 JUNE 10, 1974
 DATE 5/30/74
J. G. Lawson

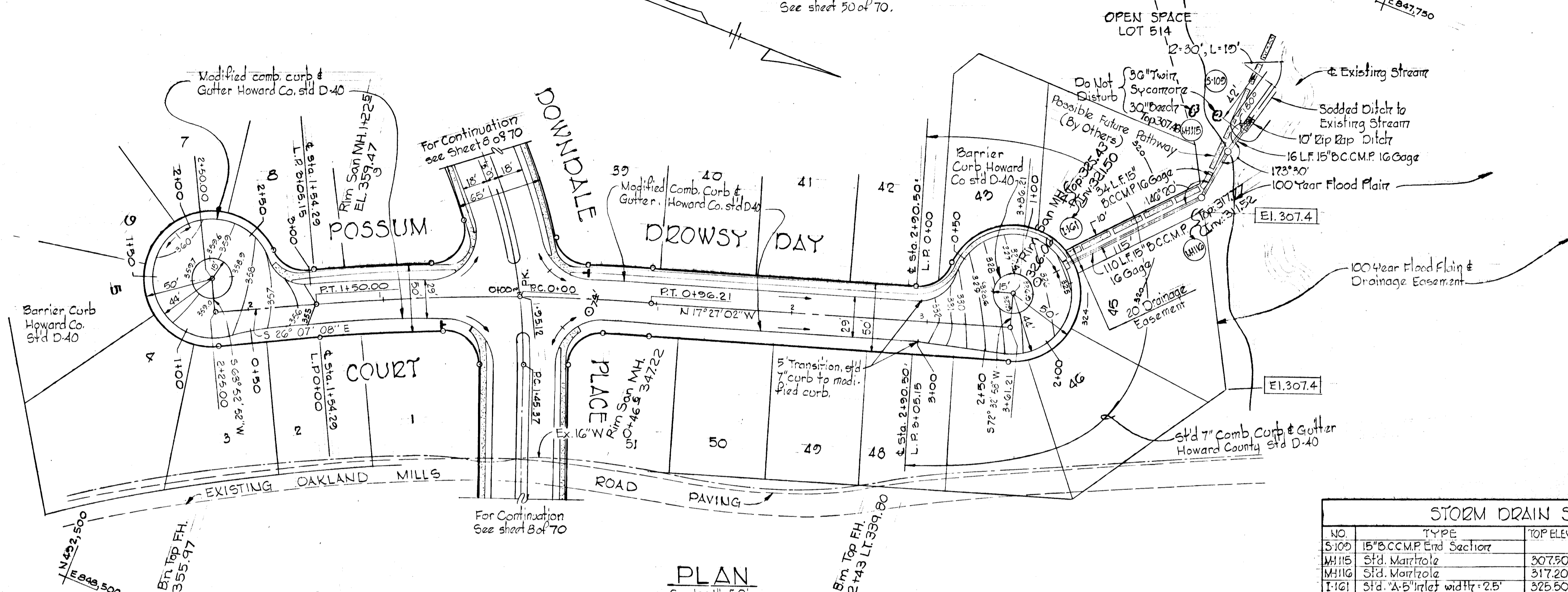
PC. 0+00 TO P.T. 0+96.21
 $\Delta = 08^{\circ}23'14''$ T=48.12'
R=1627.40' CH=26.19'
L=96.21' CH BRG. N19°08'38"W

PC. 0+00 TO P.T. 1+50.00
 $\Delta = 05^{\circ}16'52''$ T=75.05'
R=1627.40' CH=149.95'
L=150.00' CH BRG. S23°28'42"E

NOTE:
For Storm Drain Profiles,
See sheet 80 of 70.

LEGEND
E1.424.4 100 Year Flood Elevation
T Stop Sign 21-1 (30"x80")

DEPARTMENT OF PUBLIC WORKS
Kenneth A. McCord 5/31/74
CHIEF, BUREAU OF HIGHWAYS DATE
OFFICE OF PLANNING AND ZONING
J. P. Planson 5/3/74
CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE



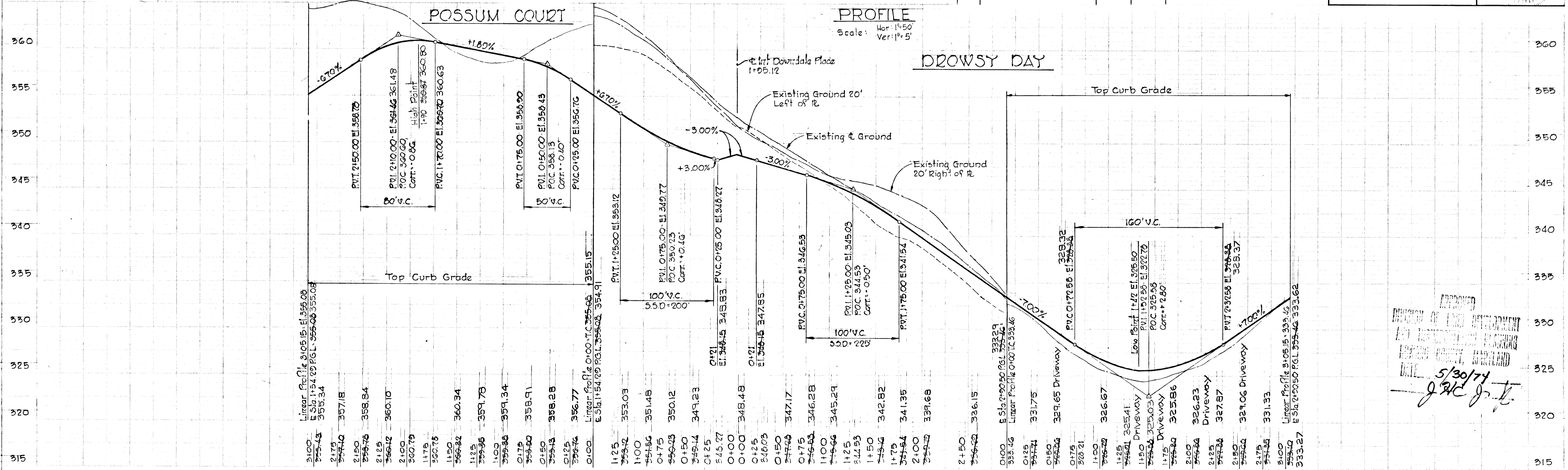
STORM DRAIN STRUCTURE SCHEDULE

NO.	TYPE	TOP ELEV.	INLET ELEV.	LOCATION
S109	15" BCCMP End Section	307.50	299.44	See Plan
M115	Std. Manhole	317.20	309.71	See Plan
M116	Std. Manhole	317.20	309.50	@ Manhole 114.25' Lat. L.P. Sta. 1+41.40
T161	Std. 'A-5' Inlet width = 2.5'	325.50	321.75	@ Inlet 125' back of L.P. Sta. 1+41.40

Rev. Date	Rev. No.	Revision Description
		COLUMBIA 2 ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
		OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP.
PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4, AREA 1		
PROJECT TITLE PLAN AND PROFILE DROWSY DAY AND POSSUM COURT		
SCALE: As Shown		DATE: 5/23/74
WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202		
<i>Kenneth A. McCord</i>		
KENNETH A. MCCORD Registered Engineer No. 1974		

PLAN
Scale: 1" = 50'

PROFILE
Scale: Hor: 1" = 50'
Ver: 1" = 5'

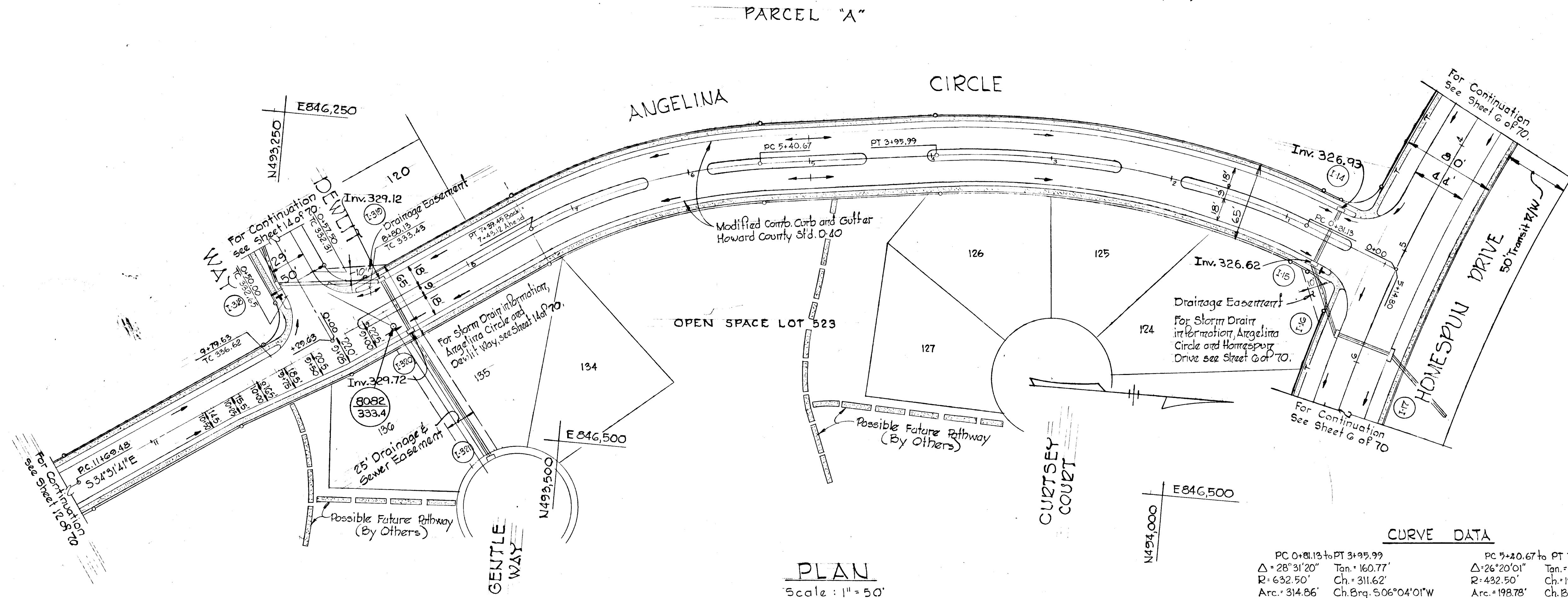


APPROVED
DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING
HOWARD COUNTY, MARYLAND
DATE 5/30/74
J. P. Planson

"AS-BUILT" March 25, 1978

LEGEND
 T Stop Sign R1-1 (30'x30')

DEPARTMENT OF PUBLIC WORKS
J. M. McNeill 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE
 OFFICE OF PLANNING AND ZONING
J. H. Clouse 5/31/74
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE
 © 'AS-BUILT' Elevations as of May 3, 1978

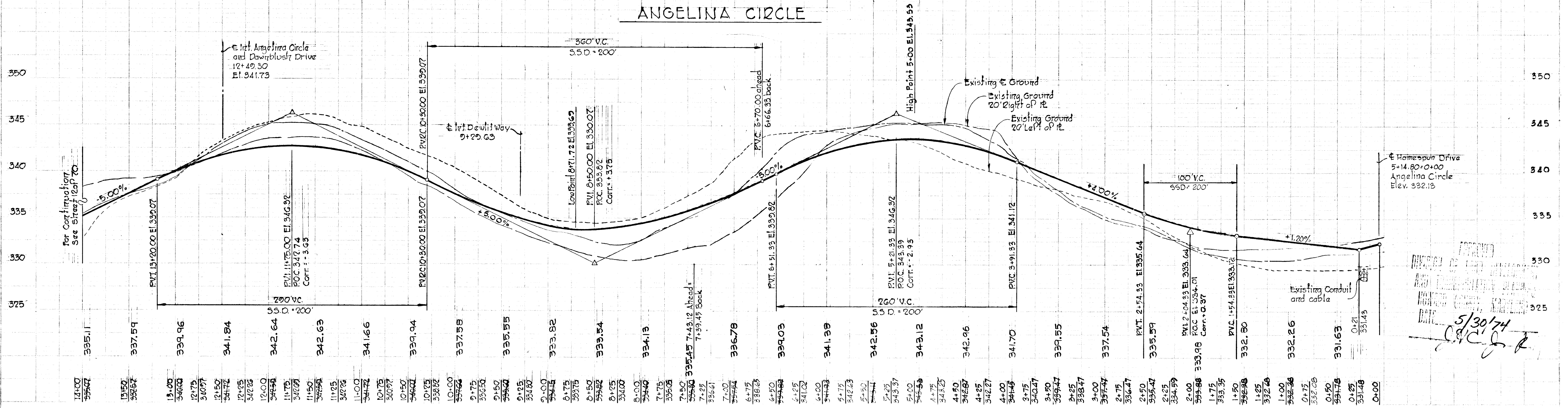


PLAN
 Scale: 1" = 50'

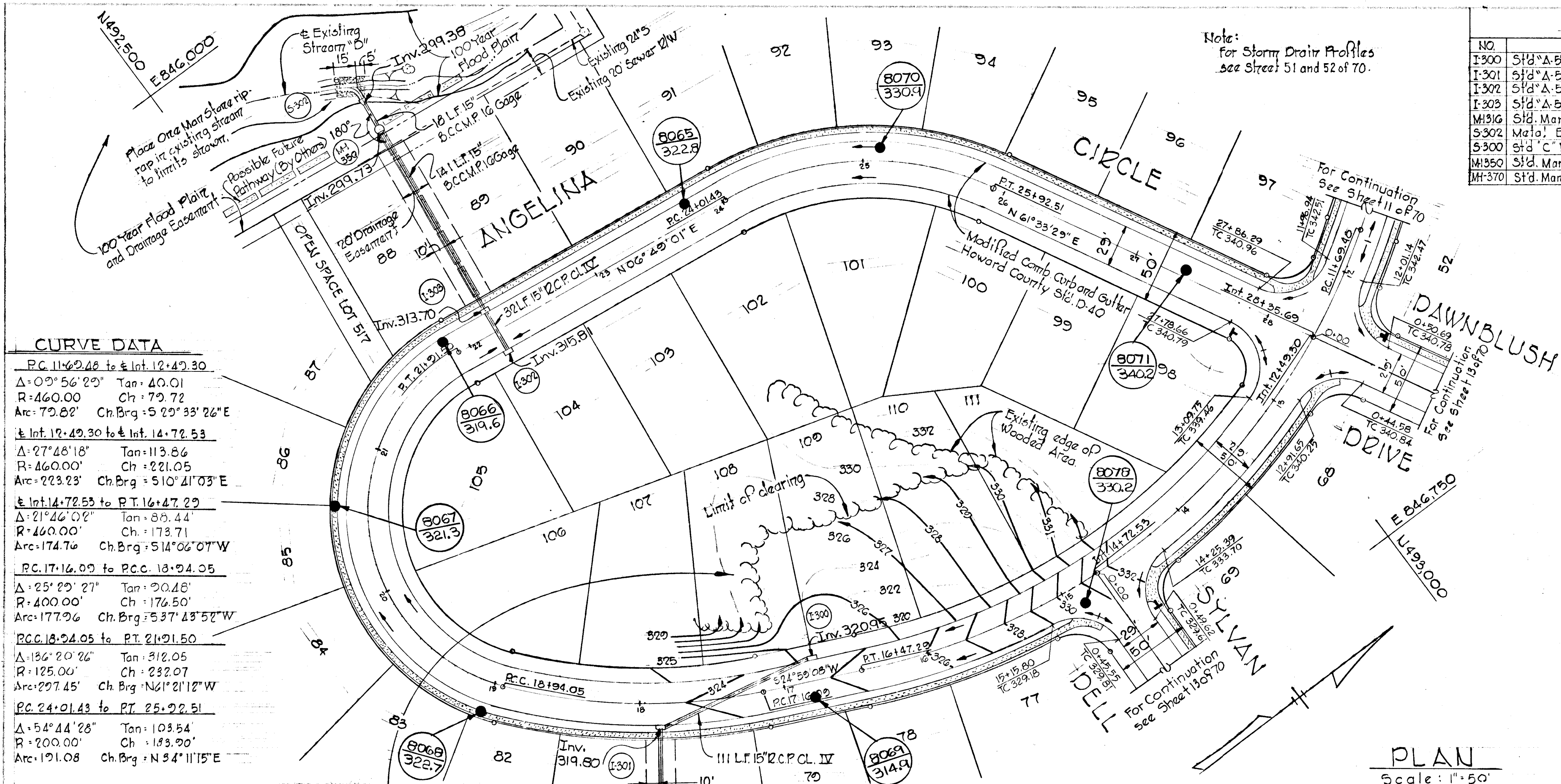
CURVE DATA

PC 0+81.13 to PT 3+95.99	PC 5+20.67 to PT 7+39.45
Δ = 28° 31' 20"	Tan. = 160.77'
R = 632.50'	Ch. = 311.62'
Arc. = 314.86'	Ch. Brq. = 5.06° 04' 01" W
	Δ = 26° 20' 01"
	Tan. = 101.18'
	R = 432.50'
	Ch. = 197.04'
	Arc. = 198.78'
	Ch. Brq. = 52° 21' 40" E

PROFILE
 Scale: Hor. 1" = 50'
 Ver. 1" = 5'



APPROVED AS SHOWN
 AND REVISIONS MADE
 HOWARD COUNTY, MARYLAND
 DATE 5/30/74
J. H. Clouse



CURVE DATA

PC 11+62.48 to E Int. 12+49.30
 $\Delta = 0^\circ 56' 25''$ Tan: 40.01
 $R = 460.00$ Ch: 79.72
 $Arc = 79.82'$ Ch. Brg: $5^\circ 29' 33'' 26'' E$

E Int. 12+49.30 to E Int. 14+72.53
 $\Delta = 27^\circ 48' 18''$ Tan: 113.86
 $R = 460.00$ Ch: 221.05
 $Arc = 223.23'$ Ch. Brg: $51^\circ 04' 03'' E$

E Int. 14+72.53 to P.T. 16+47.29
 $\Delta = 21^\circ 46' 02''$ Tan: 85.44
 $R = 460.00$ Ch: 173.71
 $Arc = 174.76'$ Ch. Brg: $51^\circ 04' 07'' W$

PC 17+16.09 to P.C.C. 18+94.05
 $\Delta = 25^\circ 29' 27''$ Tan: 90.18
 $R = 400.00$ Ch: 176.50
 $Arc = 177.96'$ Ch. Brg: $53^\circ 47' 52'' W$

P.C.C. 18+94.05 to P.T. 21+01.50
 $\Delta = 136^\circ 20' 26''$ Tan: 312.05
 $R = 125.00$ Ch: 232.07
 $Arc = 297.45'$ Ch. Brg: $146^\circ 21' 12'' W$

PC 24+01.43 to P.T. 25+22.51
 $\Delta = 54^\circ 44' 28''$ Tan: 103.54
 $R = 200.00$ Ch: 183.90
 $Arc = 191.08'$ Ch. Brg: $N 54^\circ 11' 15'' E$

Note:
 for Storm Drain Profiles
 see Sheet 51 and 52 of 70.

STORM DRAIN STRUCTURE SCHEDULE

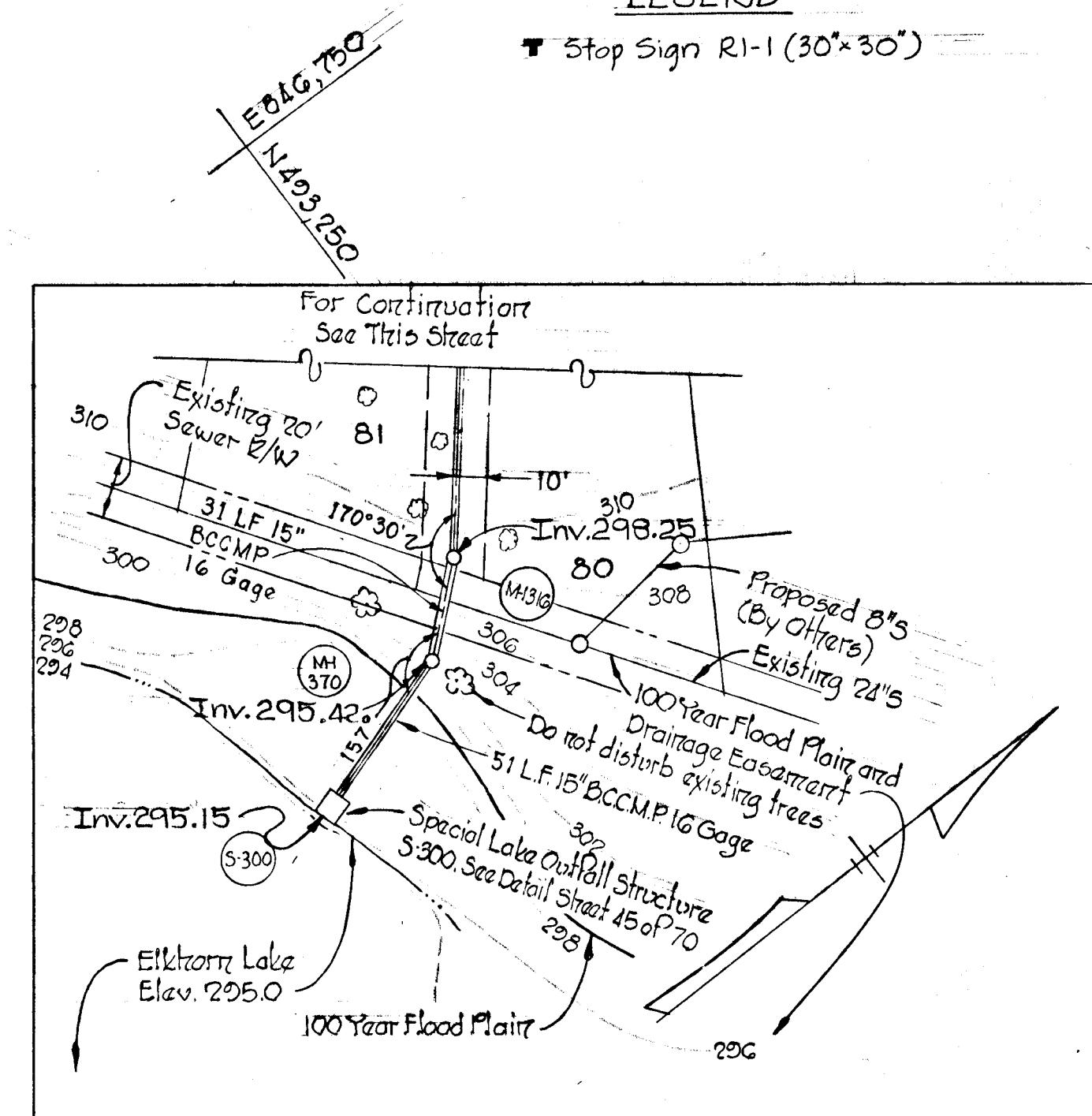
NO	TYPE	TOP ELEV.	INV. ELEV.	LOCATION
I-300	5 1/2" x 8" Inlet width: 2.5'	325.00	320.94	E Intlet 15.92' Right of P.E. Sta. 16+77
I-301	5 1/2" x 8" Inlet width: 2.5'	323.91	320.72	E Intlet 15.92' Left of P.E. Sta. 17+86
I-302	5 1/2" x 8" Inlet width: 2.5'	319.67	315.23	E Intlet 15.92' Right of P.E. Sta. 22+20
I-303	5 1/2" x 8" Inlet width: 2.5'	319.67	313.91	E Intlet 15.92' Left of P.E. Sta. 22+20
MH-300	Std. Manhole	309.50	298.40	See Plan and Profile
MH-302	Manhole End Section		298.25	See Plan and Profile
MH-300	Std. 'c' Endwall, 3/8" Pipe	297.08	295.08	See Plan and Profile
MH-350	Std. Manhole	306.50	299.85	See Plan and Profile
MH-370	Std. Manhole	302.00	295.36	See Plan and Profile

DEPARTMENT OF PUBLIC WORKS
S. M. Ireland 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE

OFFICE OF PLANNING AND ZONING
J. C. J. P. 5/31/74
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE

AS BUILT Elevations as of May 3, 1978

LEGEND
 Stop Sign R-1 (30" x 30")



Rev. Date Rev. No. Revision Description

COLUMBIA
 GELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

OWNER AND DEVELOPER
 HOWARD RESEARCH AND DEVELOPMENT CORP.

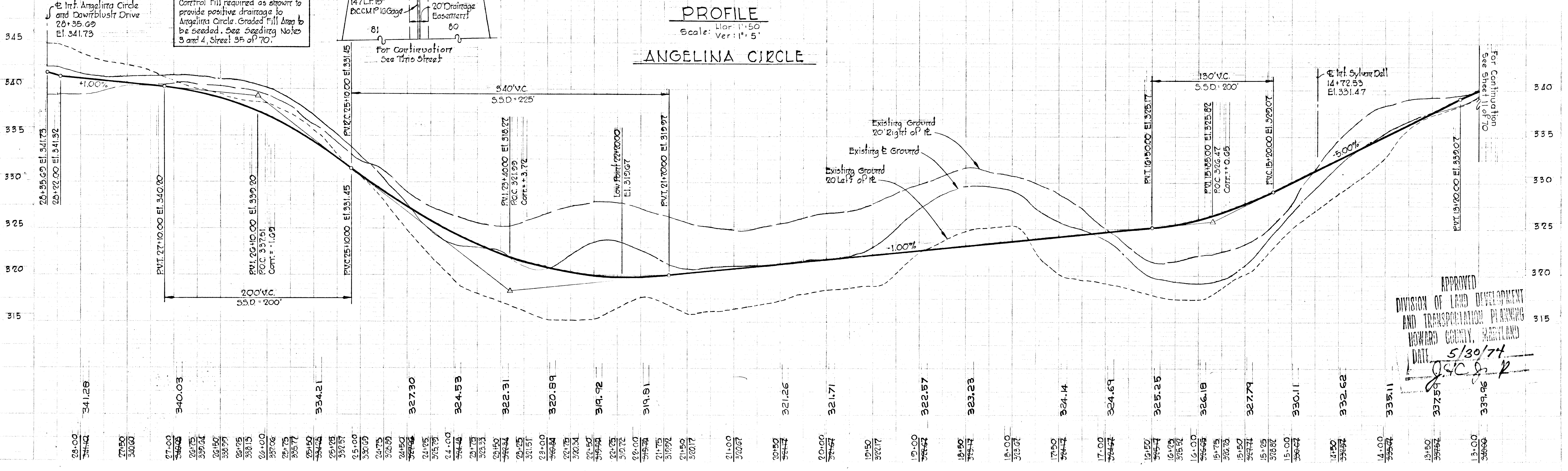
PROJECT AREA
VILLAGE OF OWEN BROWN
 SECTION 4, AREA 1

PROJECT TITLE
PLAN AND PROFILE
ANGELINA CIRCLE
STA. 11+69.48 TO STA. 28+35.69

SCALE: As Shown DATE: 5/23/74

WHITMAN, REQUARDT & ASSOCIATES
 ENGINEERS
 BALTIMORE, MARYLAND 21207

James A. McCord
 KEVINETH A. McCORD
 Registered Engineer
 No. 1974



PROFILE
 ANGELINA CIRCLE
 Scale: Hor: 1" = 50'
 Ver: 1" = 5'

APPROVED
 DIVISION OF LAND DEVELOPMENT
 AND TRANSPORTATION PLANNING
 HOWARD COUNTY, MARYLAND
 DATE: 5/30/74
J. C. J. P.

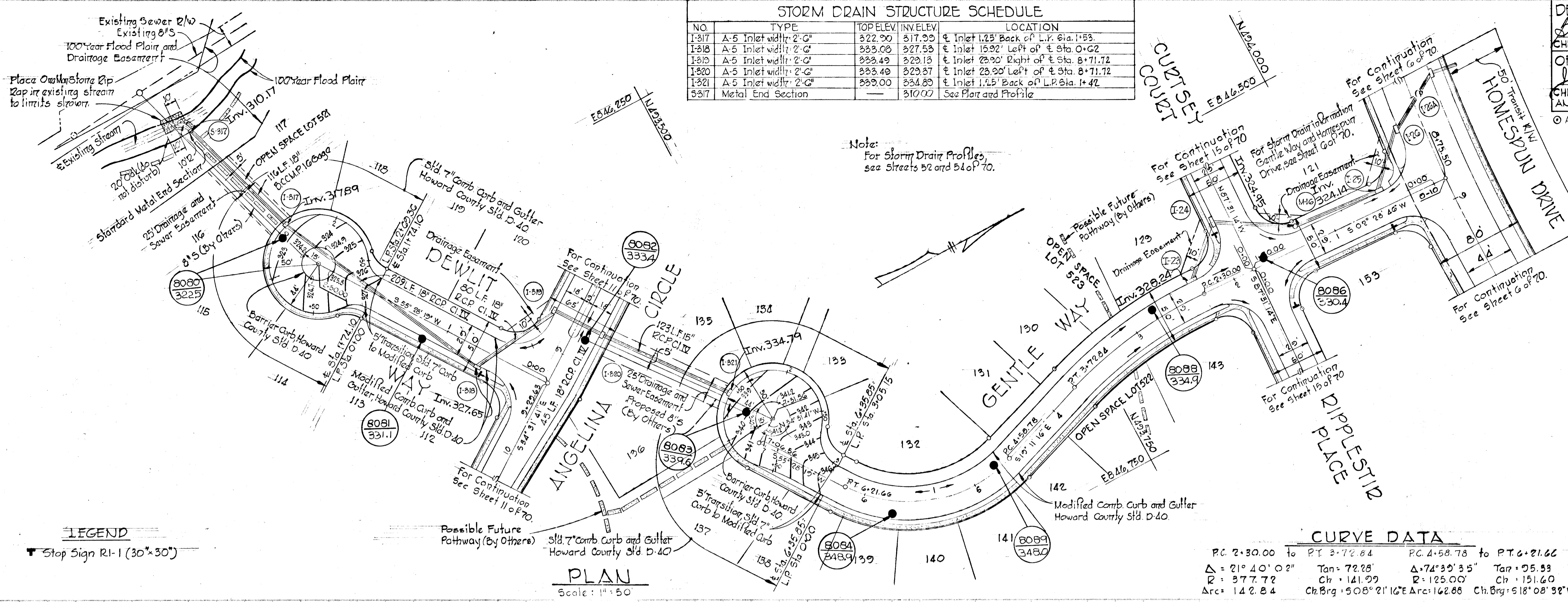
STORM DRAIN STRUCTURE SCHEDULE

NO.	TYPE	TOPELEV.	INV.ELEV.	LOCATION
1-317	A-5 Inlet width 2'-0"	322.90	317.99	4 Inlet 1.25' Back of L.P. Sta. 1+53.
1-318	A-5 Inlet width 2'-0"	333.03	327.53	4 Inlet 15.92' Left of 4 Sta. 0+62
1-319	A-5 Inlet width 2'-0"	333.49	329.13	4 Inlet 23.90' Right of 4 Sta. 8+71.72
1-320	A-5 Inlet width 2'-0"	333.49	329.87	4 Inlet 23.90' Left of 4 Sta. 8+71.72
1-321	A-5 Inlet width 2'-0"	333.00	334.89	4 Inlet 1.45' Back of L.P. Sta. 1+42
5317	Manhole End Section		310.00	See Plan and Profile

Note:
For Storm Drain Profiles,
see sheets 52 and 54 of 70.

DEPARTMENT OF PUBLIC WORKS
S. M. McLeod 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE:
 OFFICE OF PLANNING AND ZONING
J. A. Clowson 5/31/74
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE:
 © AS BUILT Elevations as of May 3, 1978

Rev. Date	Rev. No.	Revision Description
		COLUMBIA 6 TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP. PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4, AREA 1 PROJECT TITLE PLAN AND PROFILE GENTLE WAY AND DEWLIT WAY SCALE: AS SHOWN DATE: 5/23/74 WHITMAU, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202 <i>Kenneth A. McCord</i> KENNETH A. MCCORD Registered Engineer No. 1974



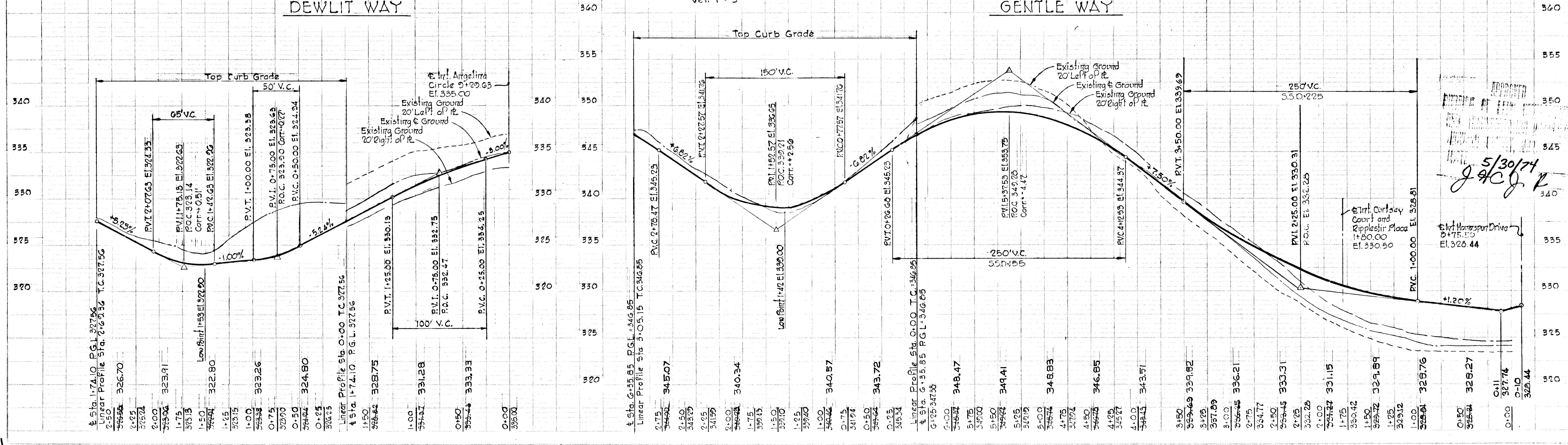
CURVE DATA

PC: 2+30.00	PT: 3+72.84	PC: 4+58.78	PT: 6+21.66
$\Delta = 21^\circ 40' 00''$	Tan: 72.28	$\Delta = 74^\circ 39' 35''$	Tan: 95.53
R: 377.72	Ch: 141.99	R: 125.00	Ch: 151.60
Arc: 142.84	Ch. Brg: 508' 21" 16"E Arc: 162.88	Ch. Brg: 518' 08" 32"W	

DEWLIT WAY

PROFILE
Scale: Hor. 1" = 50'
Ver. 1" = 5'

GENTLE WAY



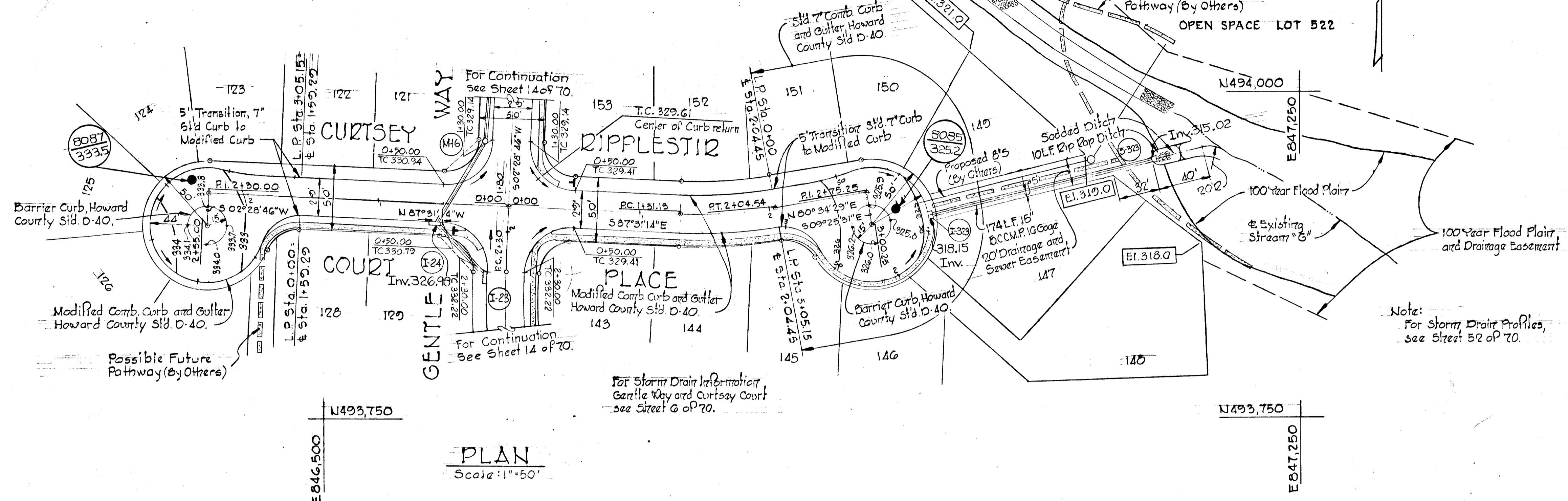
5/30/74
J. A. Clowson

No.	Type	Top Ll	Inv. El.	Location	
1373	A-5 Inlet	width 2'-6"	325.13	318.10	4' Inlet 1.25' Back of L.P. Sls. 141.44
5323	Metal End Section	316.11	314.86	See Plan and Profile	

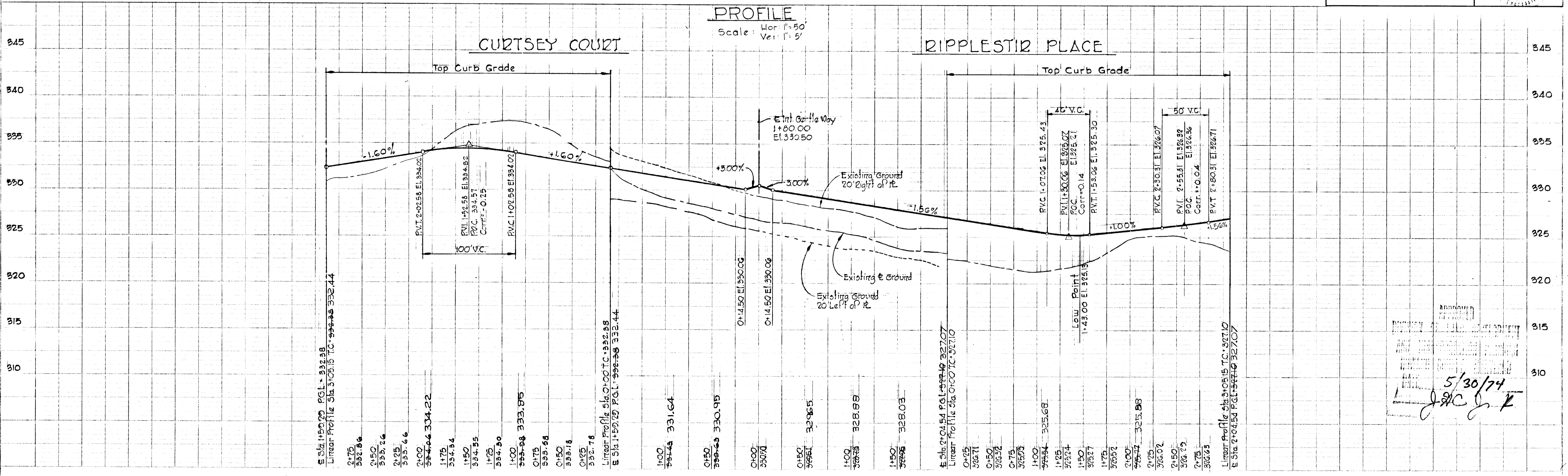
CURVE DATA
 PC: 1+31.13 to PT: 2+04.54
 $\Delta = 11^\circ 54' 17''$ Tan: 34.84'
 $R = 353.33'$ Ch = 73.28'
 Arc: 73.41' Ch Brg: N 86° 31' 38" E

LEGEND
 [E1.424.4] 100 Year Flood Elevation
 T Stop Sign 21-1 (30"x30")

DEPARTMENT OF PUBLIC WORKS
S. W. Ireland 5/31/74
 CHIEF, BUREAU OF PLANNING DATE
 OFFICE OF PLANNING AND ZONING
J. McCusker 5/31/74
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE
 © AS BUILT Elevations as of May 3, 1978



REV DATE	Rev No.	Revision Description
COLUMBIA 6 TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP. PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4, AREA 1 PROJECT TITLE PLAN AND PROFILE RIPPLESTIR PLACE AND CURTSEY COURT SCALE: As Shown Date: 5/23/74 WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202 <i>Kenneth A. McCord</i> KENNETH A. McCORD Registered Engineer No. 1974		



APPROVED
 5/30/74
J. McCusker

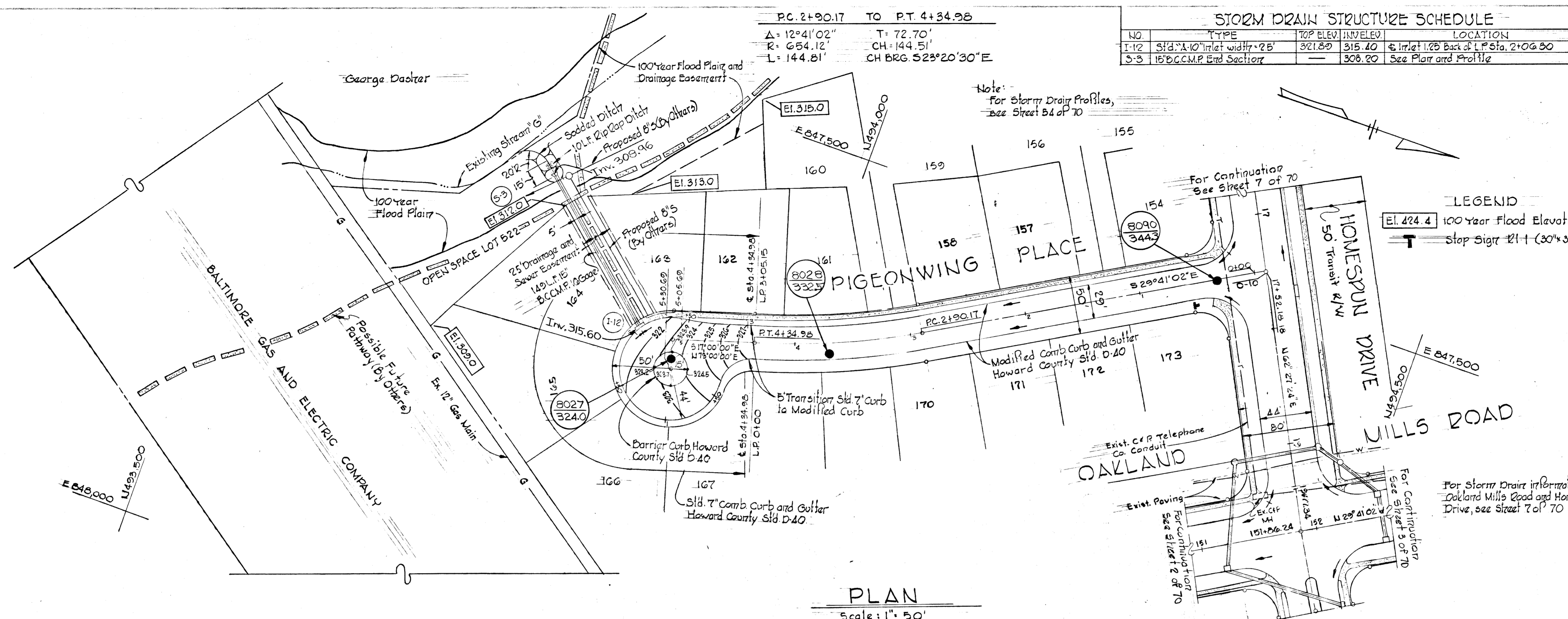
DEPARTMENT OF PUBLIC WORKS
B. M. McKeand 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE
 OFFICE OF PLANNING AND ZONING
J. B. Lawson 5/31/74
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE
 'AS BUILT' Elevations as of May 3, 1978

STORM DRAIN STRUCTURE SCHEDULE			
NO.	TYPE	TOP ELEV.	INT. ELEV.
1-12	3'x3'x10' inlet width x 25'	321.89	315.40
5-3	18" C.C.M.P. End Section	—	308.20

LOCATION: Inlet 1.25' Back of L.P. Sta. 2+06.80
 See Plan and Profile

PC. 2+90.17 TO PT. 4+34.98
 $\Delta = 12^\circ 41' 02''$ T: 72.70'
 $R = 654.12'$ CH: 144.51'
 $L = 144.81'$ CH BRG. $S23^\circ 20' 30'' E$

Note:
 For Storm Drain Profiles,
 see Street 84 of 70



LEGEND
 El. 424.4 100 Year Flood Elevation
 T Stop Sign 2'11" (30" x 30")

Rev. Date	Rev. No.	Revision Description

COLUMBIA
 7th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

OWNER AND DEVELOPER
 HOWARD RESEARCH AND DEVELOPMENT CORP.

PROJECT AREA
VILLAGE OF OWEN BROWN
 SECTION 4, AREA 1

PROJECT TITLE
PLAN AND PROFILE
PIGEONWING PLACE

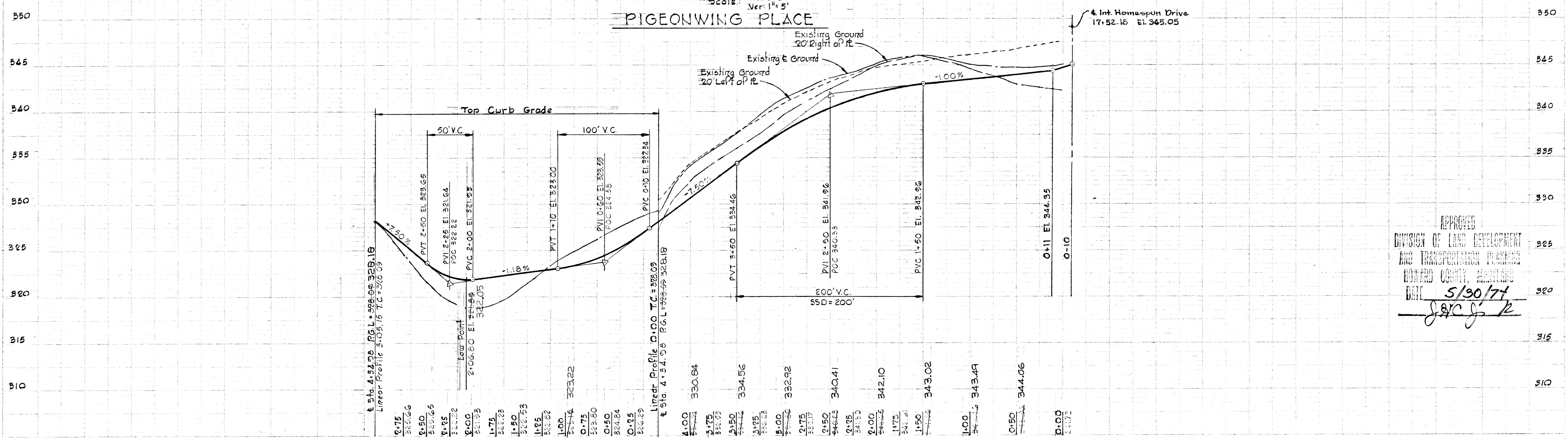
SCALE: As Shown DATE: 5/23/74

WHITMAN, REQUARDT & ASSOCIATES
 ENGINEERS
 BALTIMORE, MARYLAND 21202

Kenneth A. McCord
 KENNETH A. MCCORD
 Registered Engineer
 No. 1974

PLAN
 Scale: 1" = 50'

PROFILE
 Scale: Hor: 1" = 50'
 Ver: 1" = 5'
PIGEONWING PLACE

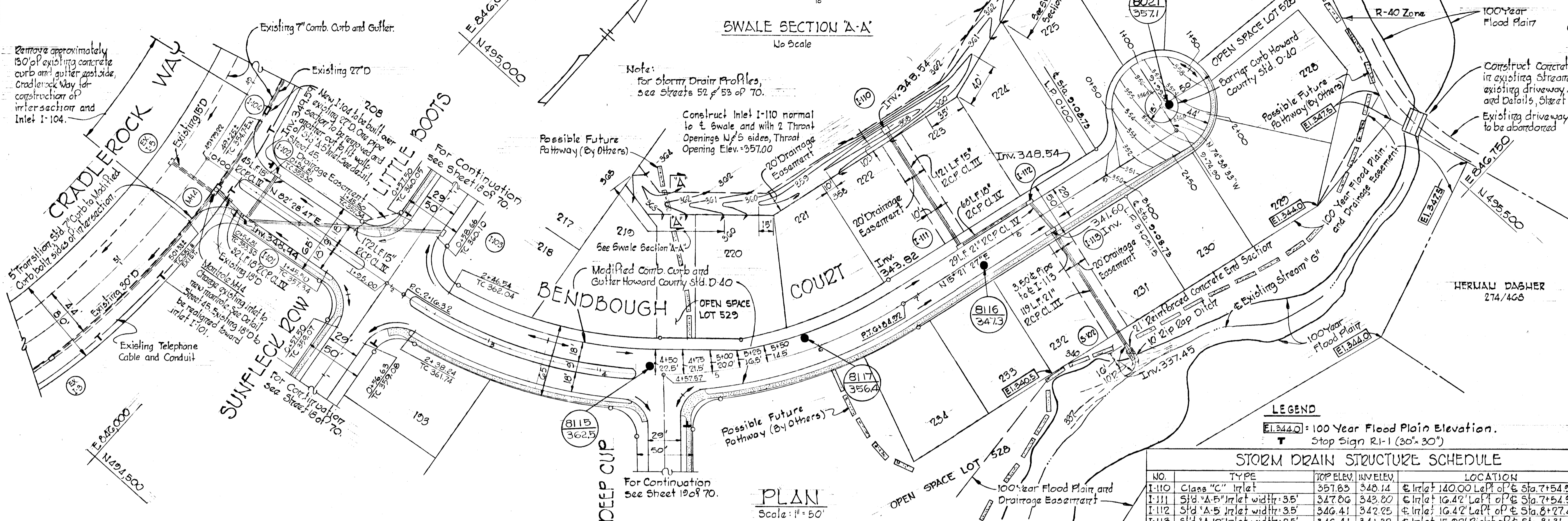


APPROVED
 DIVISION OF LAND DEVELOPMENT
 AND TRANSPORTATION PLANNING
 HOWARD COUNTY, MARYLAND
 DATE: 5/30/74
J. B. Lawson

Note:
For existing storm drainage, Cradlerock Way, see road construction dwgs. for Village of Owen Brown, Section 1 Area 1.

P.C. 2+16.32 TO Deep Cup
 $\Delta = 34' 35.23"$ T=124.42
 $R = 400.00'$ CH=237.61
 $L = 241.25'$ CH BRG. N 65° 12' 06" E

Remove approximately 150' of existing concrete curb and gutter roadside, Cradlerock Way for construction of intersection and Inlet I-104.



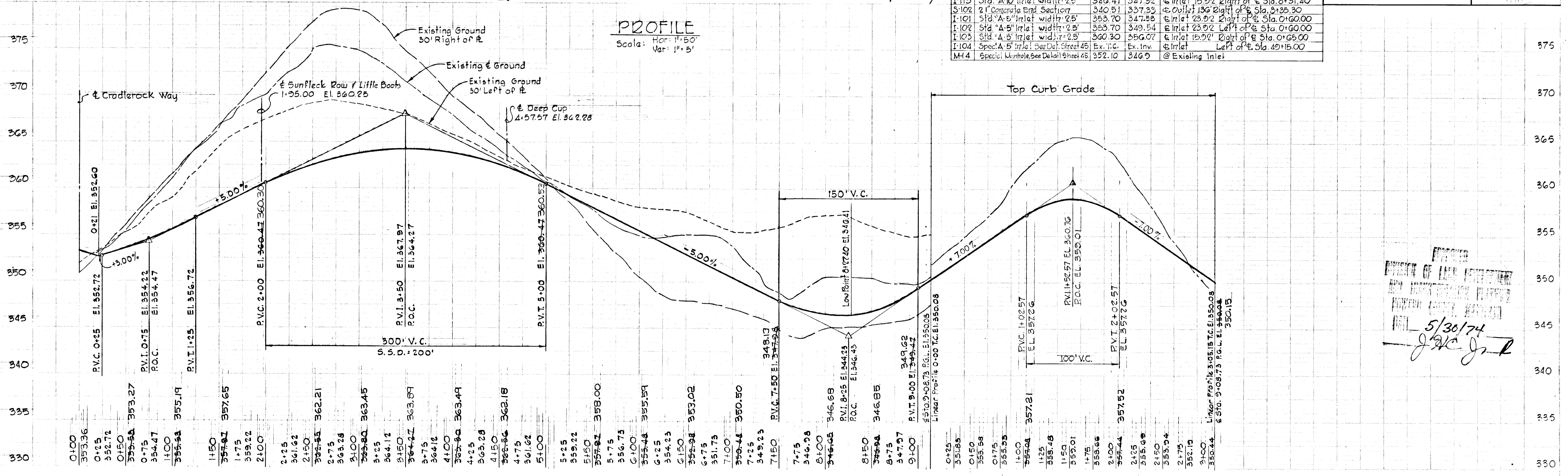
SWALE SECTION 'A-A'
No Scale

Note:
for Storm Drain Profiles, see Sheets 52 & 53 of 70.

Construct Inlet I-110 normal to E Swale and with 2 Throat Openings N & S sides, Throat Opening Elev. = 357.00

PLAN
Scale: 1" = 50'

PROFILE
Scale: Hor: 1" = 50'
Ver: 1" = 5'



LEGEND
 (Elevation in circle) = 100 Year Flood Plain Elevation.
 T = Stop Sign R-1-1 (30" x 30")

NO.	CLASS	TYPE	TOP ELEV.	INVERT	LOCATION
I-110	Class "C"	Inlet	357.03	348.14	@ Inlet 140.00 Left of Sta. 7+54.92
I-111	Std. "A-5"	Inlet width: 35'	347.06	343.80	@ Inlet 16.42 Left of Sta. 7+54.92
I-112	Std. "A-5"	Inlet width: 35'	346.41	342.25	@ Inlet 16.42 Left of Sta. 8+77.40
I-113	Std. "A-5"	Inlet width: 25'	346.41	341.32	@ Inlet 15.92 Right of Sta. 8+31.40
S-102	21" Concrete	End Section	340.51	337.35	@ Outlet 136.22 Right of Sta. 9+35.30
I-101	Std. "A-5"	Inlet width: 25'	353.70	347.58	@ Inlet 23.92 Right of Sta. 0+60.00
I-102	Std. "A-5"	Inlet width: 25'	353.70	349.54	@ Inlet 23.92 Left of Sta. 0+60.00
I-103	Std. "A-5"	Inlet width: 25'	360.30	356.07	@ Inlet 15.92 Right of Sta. 0+65.00
I-104	Spec. "A-5"	Inlet @ Det. Street 45'	Ex. T.C.	Ex. Inv.	@ Inlet Left of Sta. 40+15.00
M-14	Special	Murhole, See Detail Sheet 45	352.10	346.00	@ Existing Inlet

DEPARTMENT OF PUBLIC WORKS
 S. M. McLeod 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE
 J. H. Lawson 5/31/74
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE
 © AS BUILT Elevations as of May 3, 1978

Rev. Date	Rev. No.	Revision Description

COLUMBIA
 6th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 OWNER AND DEVELOPER
 HOWARD RESEARCH AND DEVELOPMENT CORP.
 PROJECT AREA
 VILLAGE OF OWEN BROWN
 SECTION 4, AREA 1
 PROJECT TITLE
 PLAN AND PROFILE
 BENDBOUGH COURT
 SCALE: AS SHOWN DATE: 5/23/74
 WHITMAN, REQUARTZ & ASSOCIATES
 ENGINEERS
 BALTIMORE, MARYLAND 21202

Kenneth A. McLeod
 KENNETH A. MCCORD
 Registered Engineer
 No. 1974

APPROVED
 DEPARTMENT OF PUBLIC WORKS
 5/30/74
 J. H. Lawson

PC 1+06.26 TO PT 3+34.49
 $\Delta = 69^{\circ}21'36''$ T = 77.14'
R = 125.00 CH = 13.129'
L = 138.23' CH BRG S 89°12'01"E

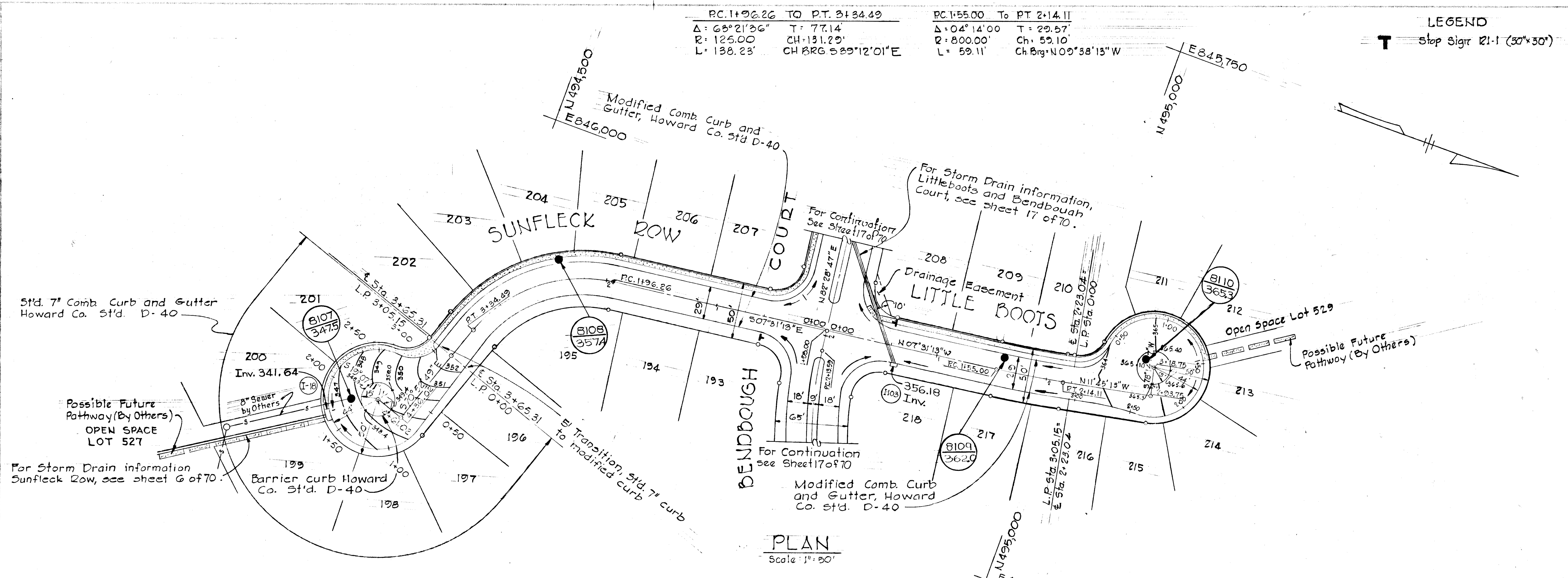
PC 1+55.00 TO PT 2+14.11
 $\Delta = 04^{\circ}14'00''$ T = 29.57'
R = 800.00' Ch = 59.10'
L = 59.11' Ch BRG N 09°38'13"W

LEGEND
 Stop Sign R1-1 (30'x30')

DEPARTMENT OF PUBLIC WORKS
B. H. McLeod 5/31/74
CHIEF, BUREAU OF HIGHWAYS DATE

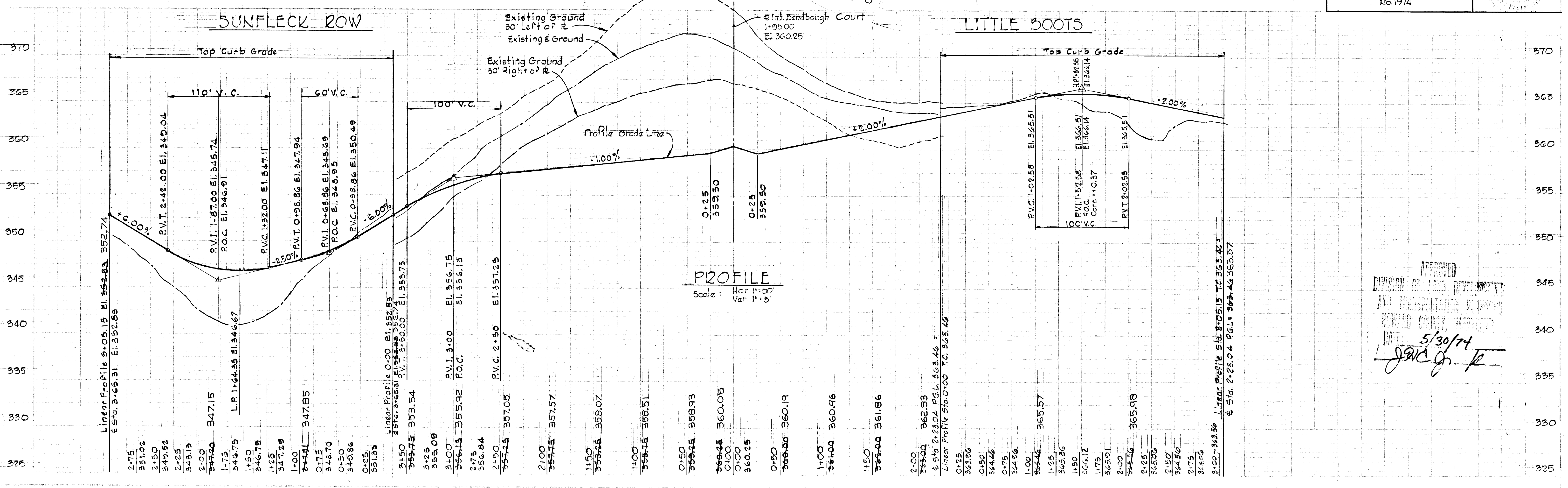
OFFICE OF PLANNING AND ZONING
J. C. Clason 5/31/74
CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE

© 'AS-BUILT' Elevations as of May 3, 1978



PLAN
Scale: 1" = 30'

Rev. No.	Rev. Date	Revision Description
COLUMBIA 6 TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP. PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4, AREA 1 PROJECT TITLE PLAN AND PROFILE SUNFLECK ROW LITTLE BOOTS SCALE: As Shown DATE: 5/23/74 WHITMAN, REQUARTZ & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202 KENNETH A. MCCORD Registered Engineer No. 1974 		



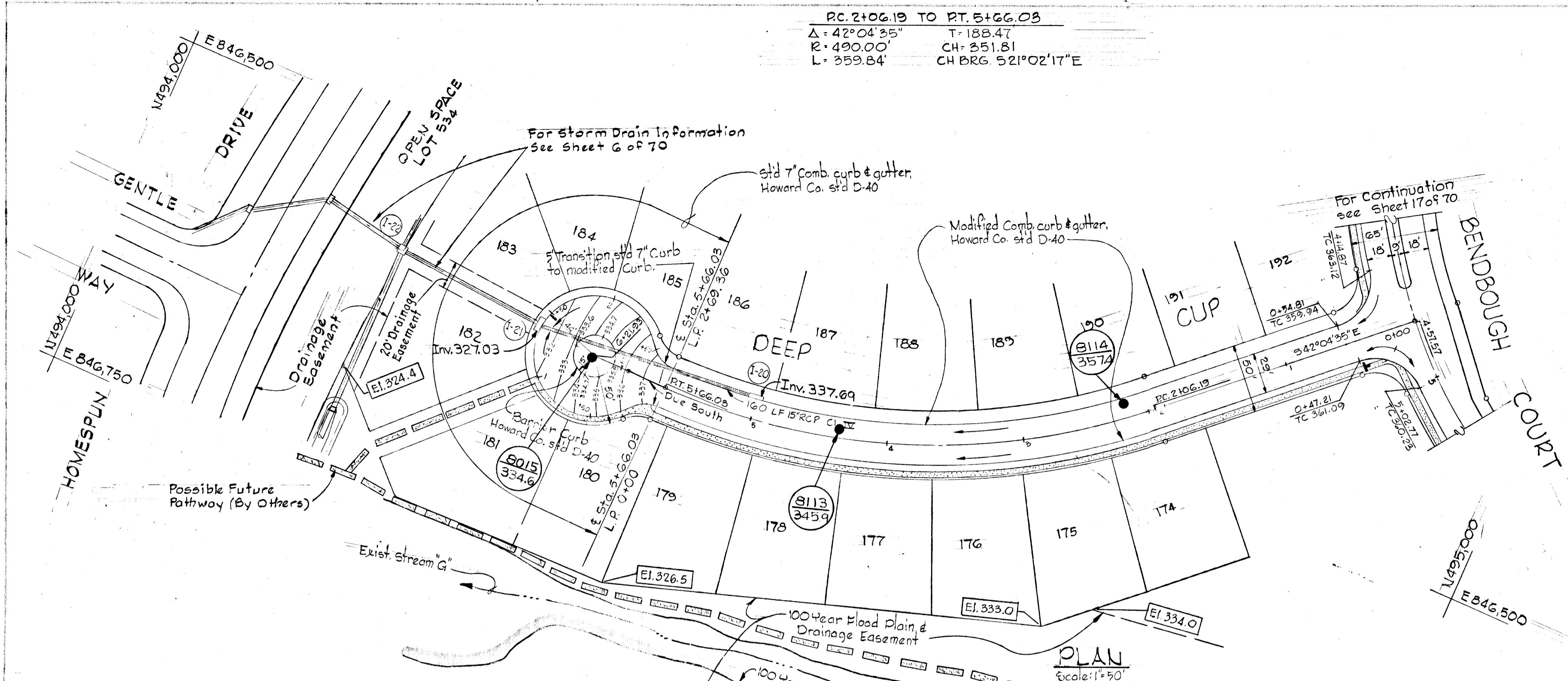
PROFILE
Scale: Hor. 1" = 50'
Ver. 1" = 5'

APPROVED
DIVISION OF LAND DEVELOPMENT
AND TRANSPORTATION PLANNING
HOWARD COUNTY, MARYLAND
5/30/74
J. C. Clason

PC 2+06.19 TO PT. 5+66.03
 $\Delta = 42^{\circ}04'35''$ T=188.47
R=490.00' CH=351.81
L=359.84' CH BRG. $52^{\circ}02'17''$ E

LEGEND
E1.424.4 100 Year Flood Elevation
T Stop Sign 21-1 (30"x30')

DEPARTMENT OF PUBLIC WORKS
B. M. Weiland 5/31/74
CHIEF, BUREAU OF HIGHWAYS DATE
OFFICE OF PLANNING AND ZONING
J. H. Lawson 5/31/75
CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE
© AS-BUILT Elevations as of May 3, 1978

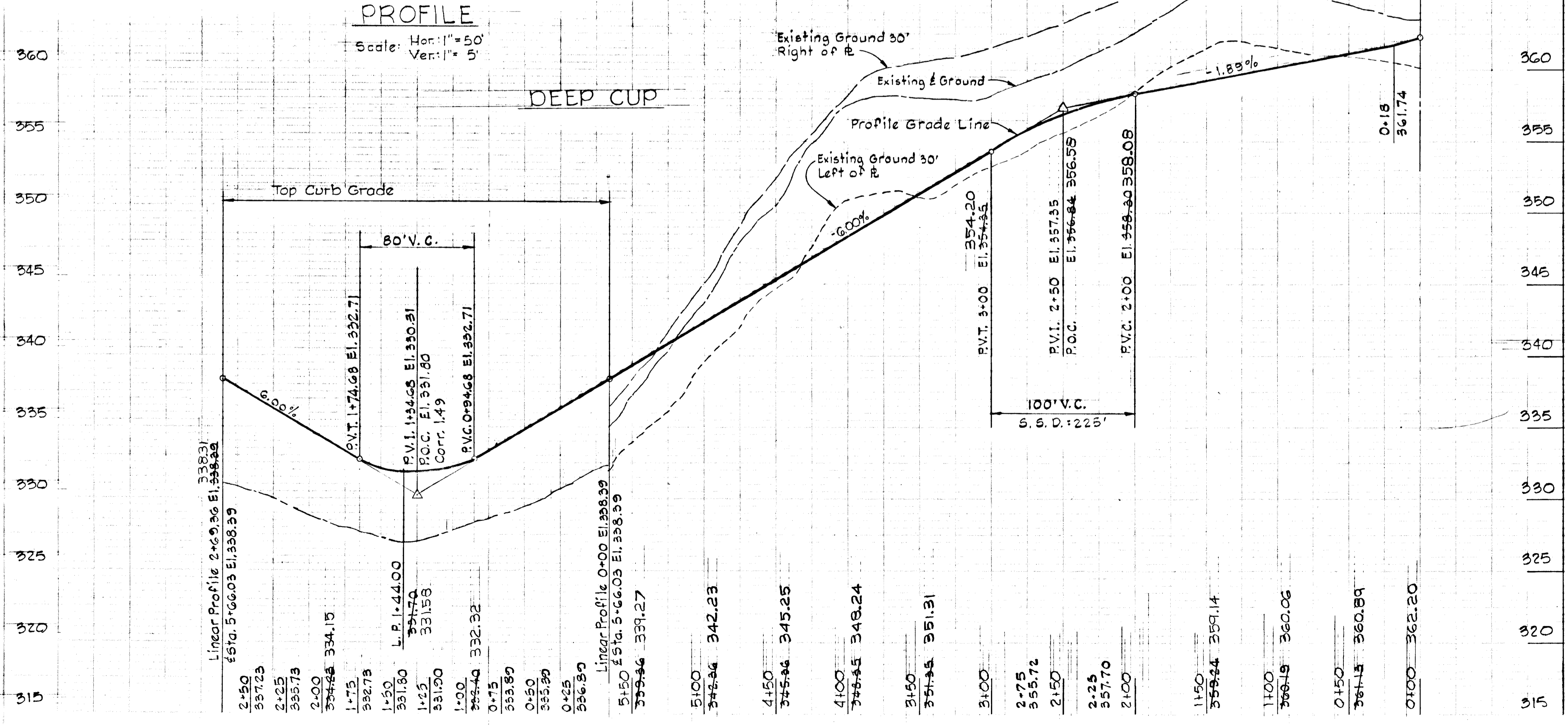


Note:
For Storm Drain Profile
See Sheet 54 of 70

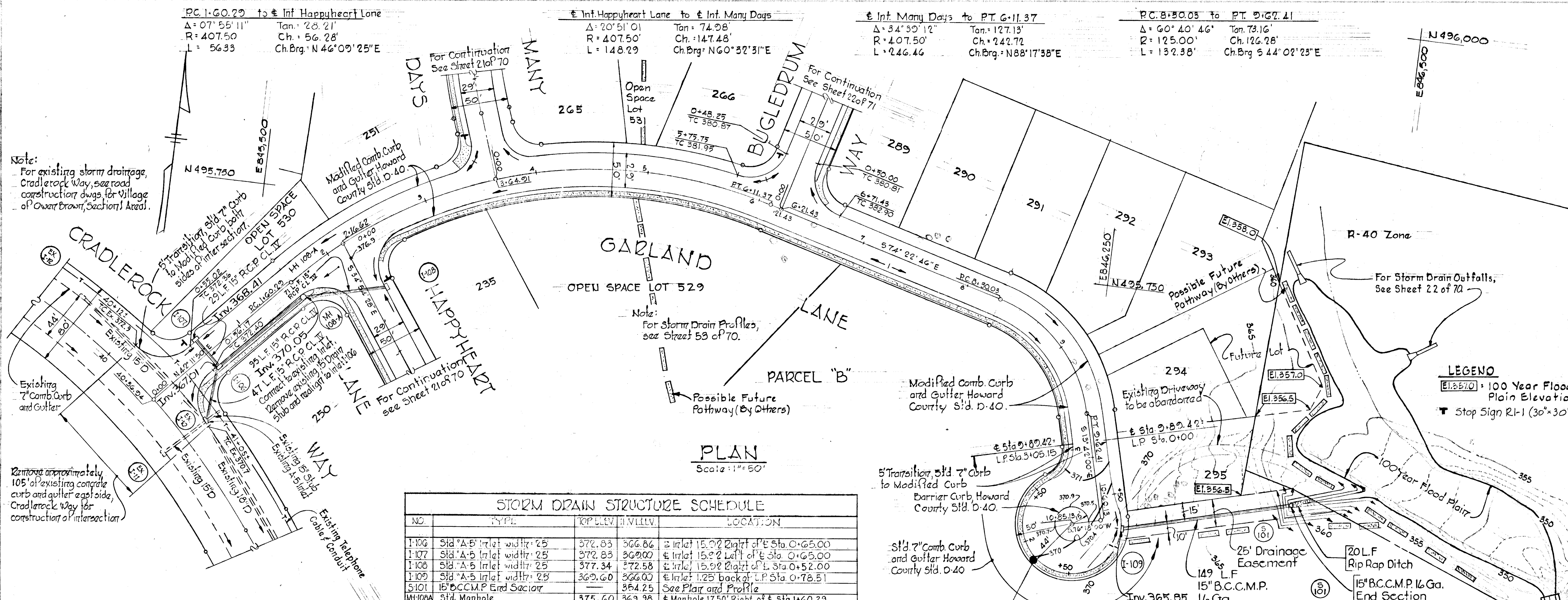
Rev. Date	Rev. No.	Revision Description
COLUMBIA 6 th ELECTION DISTRICT HOWARD COUNTY, MARYLAND OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP. PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4, AREA 1 PROJECT TITLE PLAN AND PROFILE DEEP CUP SCALE: As Shown DATE: 5/23/74 WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202 <i>Kenneth A. McCozd</i> KENNETH A. McCOZD Registered Engineer No. 1974		

STORM DRAIN STRUCTURE SCHEDULE

NO	TYPE	TOP ELEV.	INV. ELEV.	LOCATION
I-20	518' x 110' inlet width 2.5'	342.46	337.35	INLET 15.92' RIGHT OF & STA. 7+00

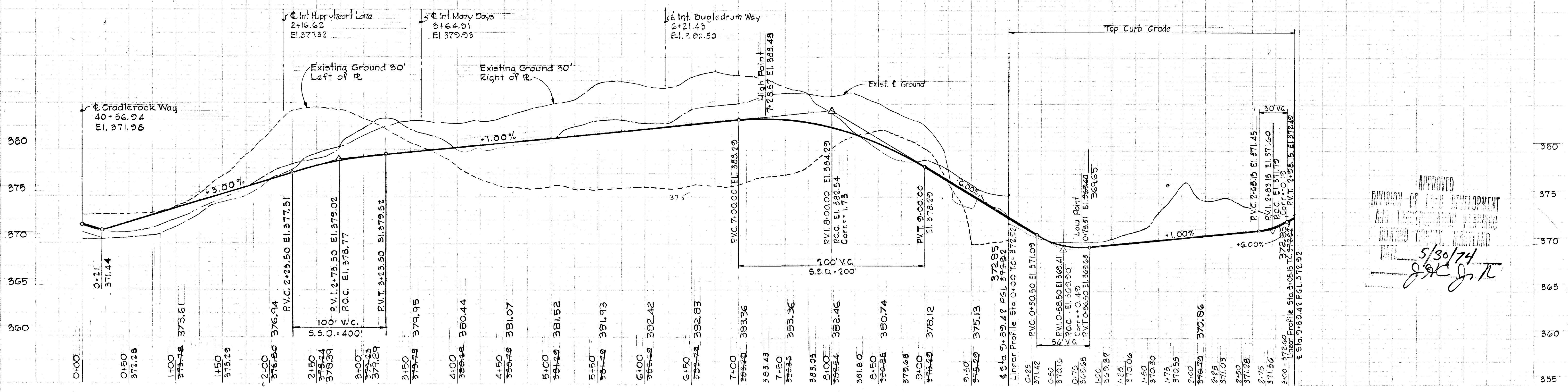
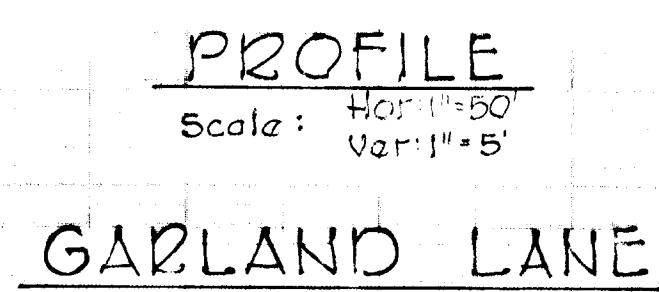


APPROVED
DIVISION OF LAND DEVELOPMENT
AND TRANSPORTATION PLANNING
HOWARD COUNTY, MARYLAND
DATE 5/30/74
J. H. Lawson



STORM DRAIN STRUCTURE SCHEDULE

NO.	TYPE	TOP L.V. IN V.L.V.	LOCATION	
1-106	Sid. "A-5" Inlet width: 25	372.83	366.86	5' Inlet 15.0' Right of E Sta. 0+65.00
1-107	Sid. "A-5" Inlet width: 25	372.83	369.00	5' Inlet 15.0' Left of E Sta. 0+65.00
1-108	Sid. "A-5" Inlet width: 25	377.34	372.58	5' Inlet 15.0' Right of E Sta. 0+52.00
1-109	Sid. "A-5" Inlet width: 25	362.60	362.00	5' Inlet 125' back of L.P. Sta. 0+78.51
5101	15" B.C.C.M.P. End Section	354.25	364.25	See Plan and Profile
MH106A	Sid. Manhole	375.60	369.98	5' Manhole 17.50' Right of E Sta. 1+60.29



Rev. Date	Rev. No.	Revision Description

COLUMBIA
 5th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

OWNER AND DEVELOPER
 HOWARD RESEARCH AND DEVELOPMENT CORP.

PROJECT AREA
VILLAGE OF OWEN BROWN
 SECTION 4, AREA 1

PROJECT TITLE
PLAN AND PROFILE GARLAND LANE

SCALE: As Shown DATE: 5/23/74

WHITMAN, REQUARDT & ASSOCIATES
 ENGINEERS
 BALTIMORE, MARYLAND 21202

Kenneth A. McCord
 KENNETH A. MCCORD
 Registered Engineer
 No. 1974

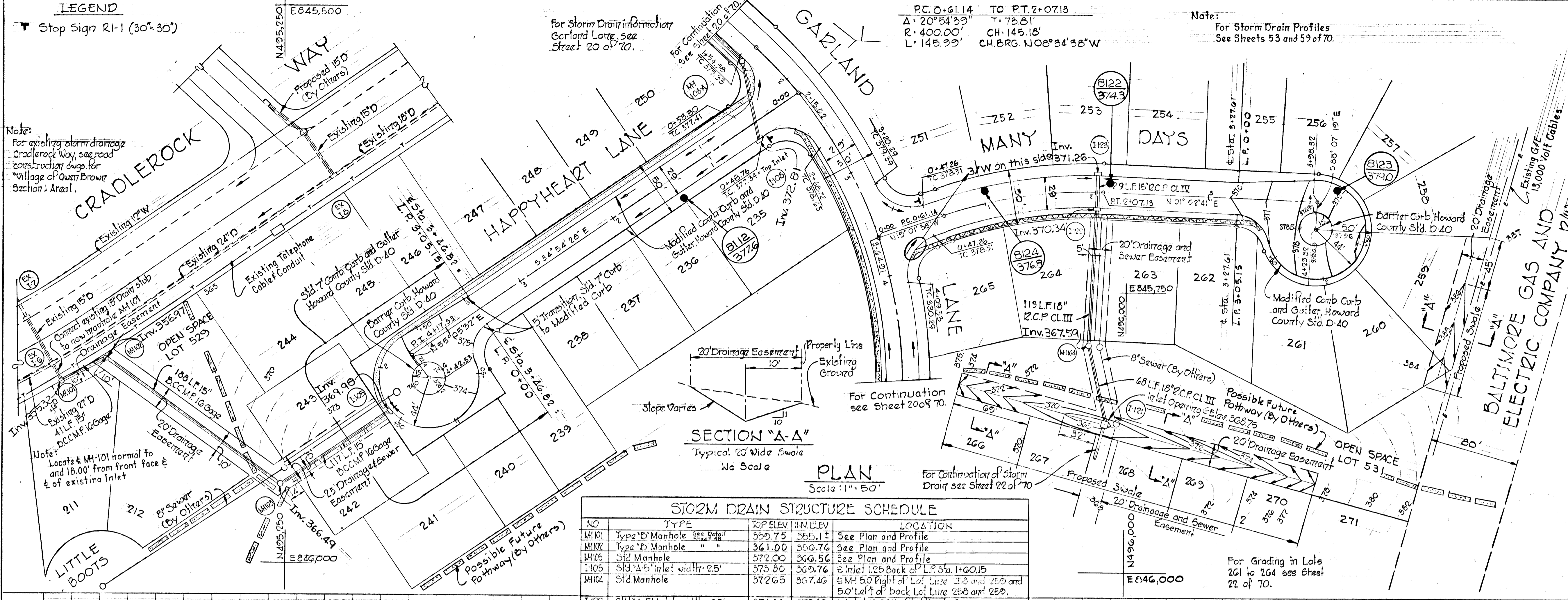
APPROVED
 DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING
 HOWARD COUNTY, MARYLAND
 5/30/74
JAC

LEGEND

Stop Sign R1-1 (30" x 30")

Note:
For existing storm drainage Cradlerock Way, see road construction drawings for Village of Owen Brown Section 4 Area 1.

DATE	
BY	
NO.	
PLAN	
NO.	
DATE	
BY	
NO.	

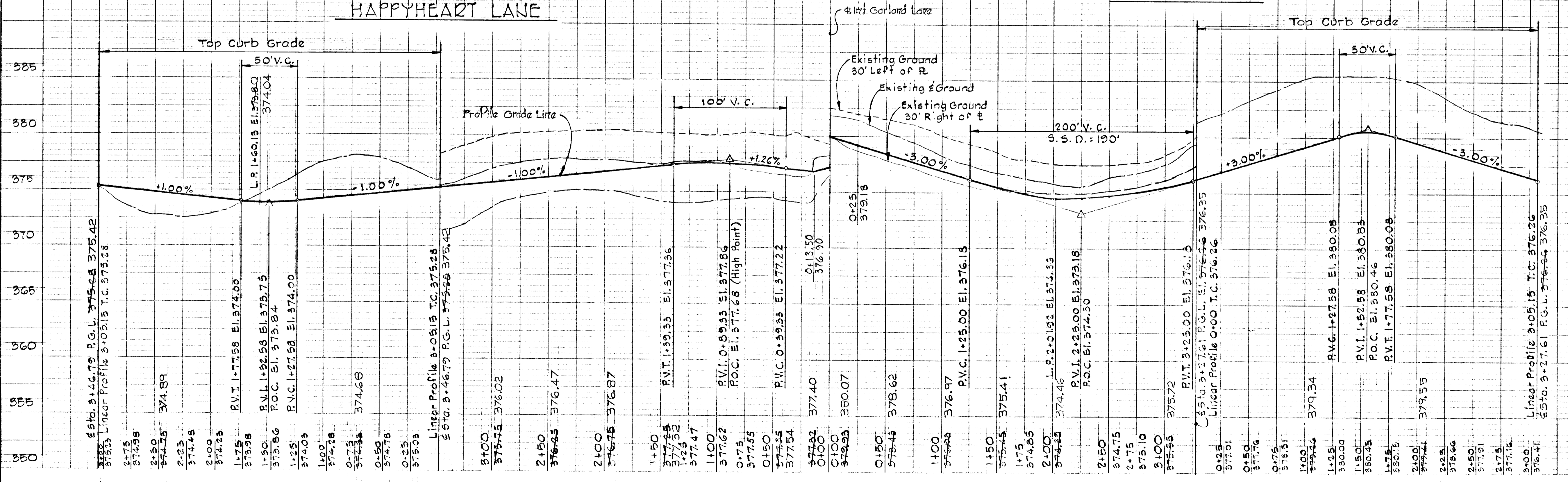


STORM DRAIN STRUCTURE SCHEDULE

NO.	TYPE	TOP ELEV.	INVERT ELEV.	LOCATION
MH101	Type 'B' Manhole 36" dia	369.75	365.11	See Plan and Profile
MH102	Type 'B' Manhole "	361.00	359.76	See Plan and Profile
MH103	Slid Manhole "	372.00	366.56	See Plan and Profile
MH104	Slid Manhole "	373.80	369.76	See Plan and Profile
I105	Slid 'A-B' inlet width 25'	372.65	367.46	See Plan and Profile
I106	Slid 'A-B' inlet width 25'	374.34	370.10	See Plan and Profile
I107	Slid 'A-B' inlet width 25'	372.56	370.03	See Plan and Profile

PROFILE

Scale: Hor: 1"=50'
Ver: 1"=5'



DEPARTMENT OF PUBLIC WORKS
 B. M. McLeod 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE
 OFFICE OF PLANNING AND ZONING
 J. H. Lawson 5/31/74
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE
 A5-BUILT Elevations as of May 3, 1970

Rev. Date Rev. No. Revision Description

COLUMBIA
 COLLECTION DISTRICT
 HOWARD COUNTY, MARYLAND

OWNER AND DEVELOPER
 HOWARD RESEARCH AND DEVELOPMENT CORP.

PROJECT AREA
VILLAGE OF OWEN BROWN
 SECTION 4, AREA 1

PROJECT TITLE
PLAN AND PROFILE
HAPPYHEART LANE
MANY DAYS

SCALE: As Shown DATE: 5/23/74

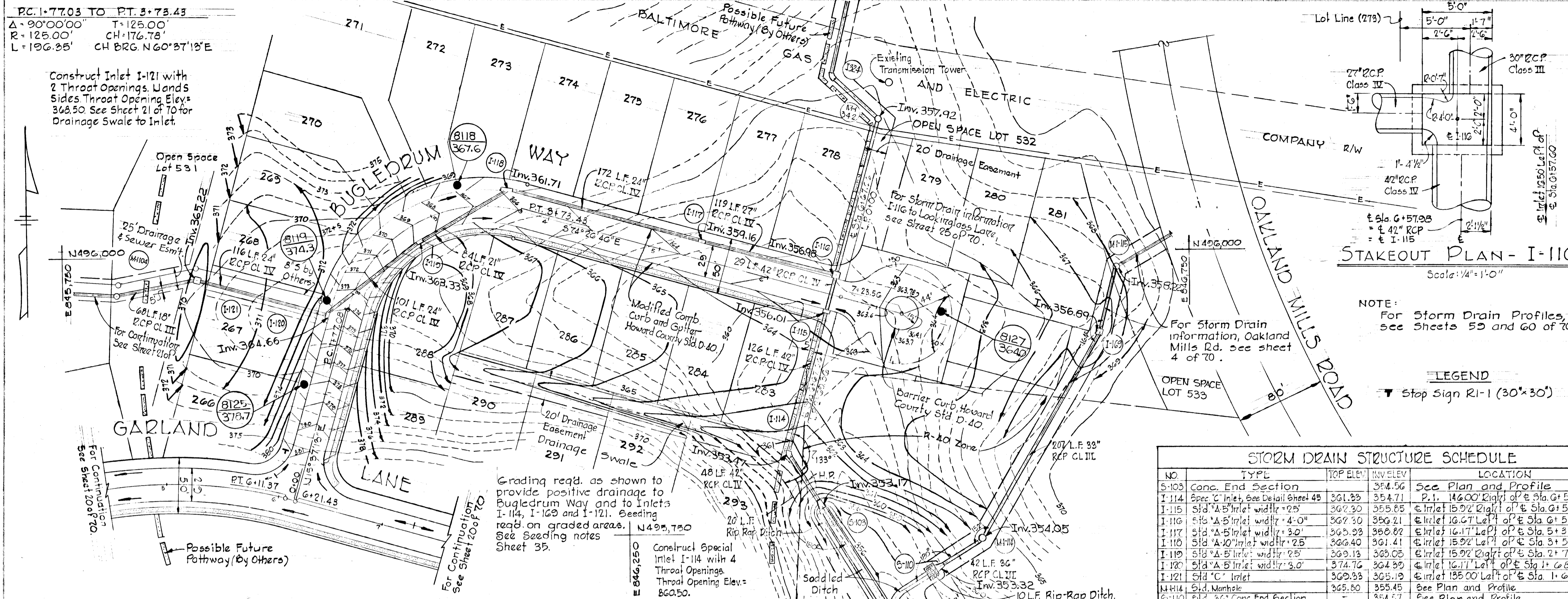
WHITMAN, REQUARDT & ASSOCIATES
 ENGINEERS
 BALTIMORE, MARYLAND 21202

James T. McLeod
 KENNETH A. McCORD
 Registered Engineer
 No. 1974

PC 1+77.03 TO PT 3+73.43
 $\Delta = 90^{\circ}00'00''$ T = 125.00'
 $R = 125.00'$ CH = 176.78'
 $L = 196.85'$ CH BRG. $N60^{\circ}37'19''E$

Construct Inlet I-121 with 2 Throat Openings. Uands Sides Throat Opening Elev = 368.50. See Sheet 21 of 70 for Drainage Swale to Inlet.

DEPARTMENT OF PUBLIC WORKS
S. M. McLeod 5/31/74 DATE
 CHIEF, BUREAU OF HIGHWAYS
 OFFICE OF PLANNING AND ZONING
J. Lawson Jr. 5/31/74 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING
 OAS-BUILT Elevations as of May 3, 1978



NO.	TYPE	TOP ELEV.	INVERT ELEV.	LOCATION
S-103	Conc. End Section		364.56	See Plan and Profile
I-114	Spec. C Inlet, See Detail Sheet 48	361.89	354.71	P.I. 146.00' Right of E. Sta. 6+57.28
I-115	5/8" A-5 Inlet width = 2.5"	362.30	355.85	Inlet 15.92' Right of E. Sta. 6+57.28
I-116	5/8" A-5 Inlet width = 4.0"	362.30	356.21	Inlet 16.47' Left of E. Sta. 6+57.24
I-117	5/8" A-5 Inlet width = 3.0"	363.28	360.82	Inlet 16.17' Left of E. Sta. 5+33.56
I-118	5/8" A-5 Inlet width = 2.5"	366.40	361.41	Inlet 15.92' Left of E. Sta. 5+55.72
I-119	5/8" A-5 Inlet width = 2.5"	369.13	363.05	Inlet 15.92' Right of E. Sta. 2+72.37
I-120	5/8" A-5 Inlet width = 3.0"	374.76	364.39	Inlet 16.17' Left of E. Sta. 1+68.15
I-121	5/8" C Inlet	369.33	365.12	Inlet 15.00' Left of E. Sta. 1+68.15
M-114	Std. Manhole	365.80	355.45	See Plan and Profile
S-110	Std. 36" Conc. End Section		354.57	See Plan and Profile

Rev. Date Rev. No. Revision Description

COLUMBIA
 COLLECTION DISTRICT
 HOWARD COUNTY, MARYLAND

OWNER AND DEVELOPER
 HOWARD RESEARCH AND DEVELOPMENT CORP.

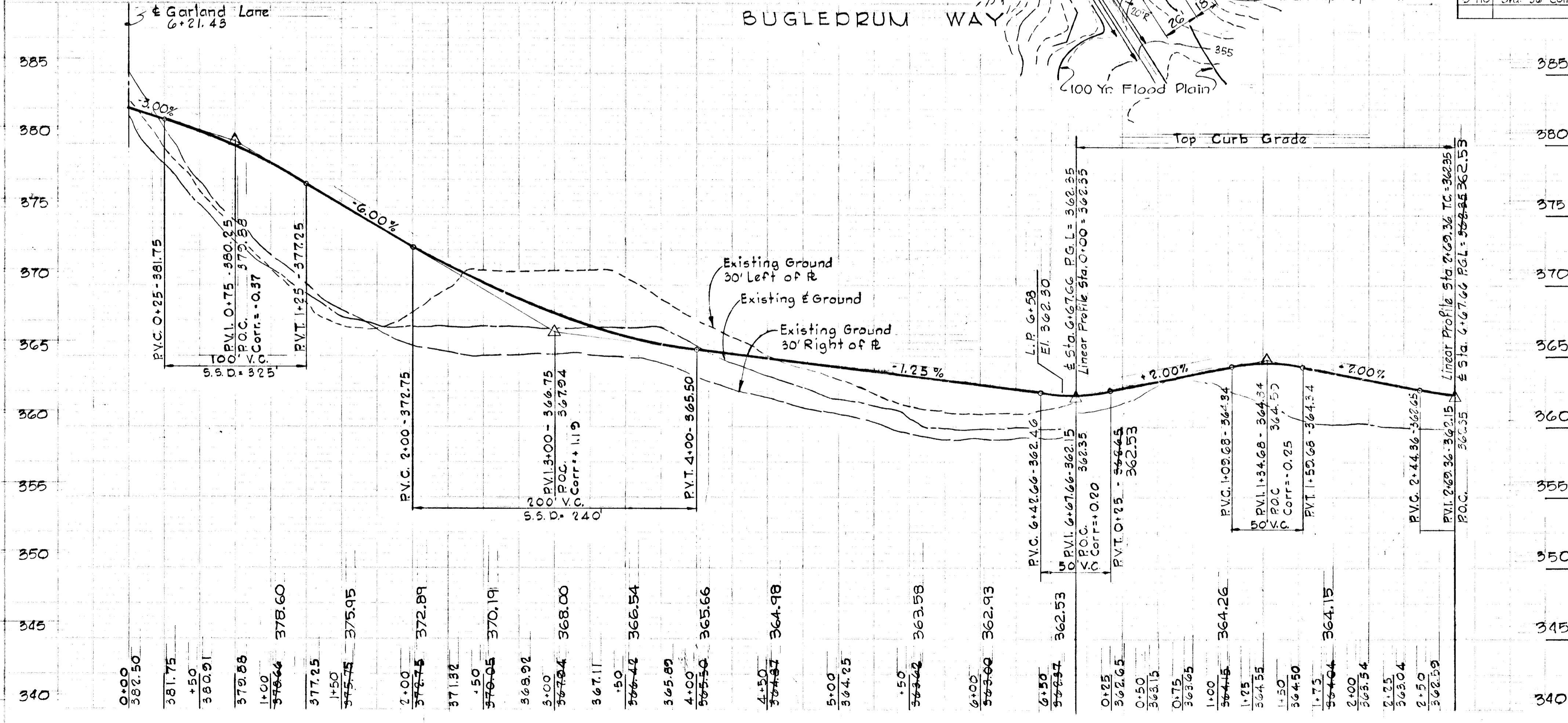
PROJECT AREA
VILLAGE OF OWEN BROWN
 SECTION 4, AREA 1

PROJECT TITLE
PLAN AND PROFILE
BUGLEDRUM WAY

SCALE: As Shown DATE: 5/23/74

WHITMAN, REQUARDT & ASSOCIATES
 ENGINEERS
 BALTIMORE, MARYLAND 21202

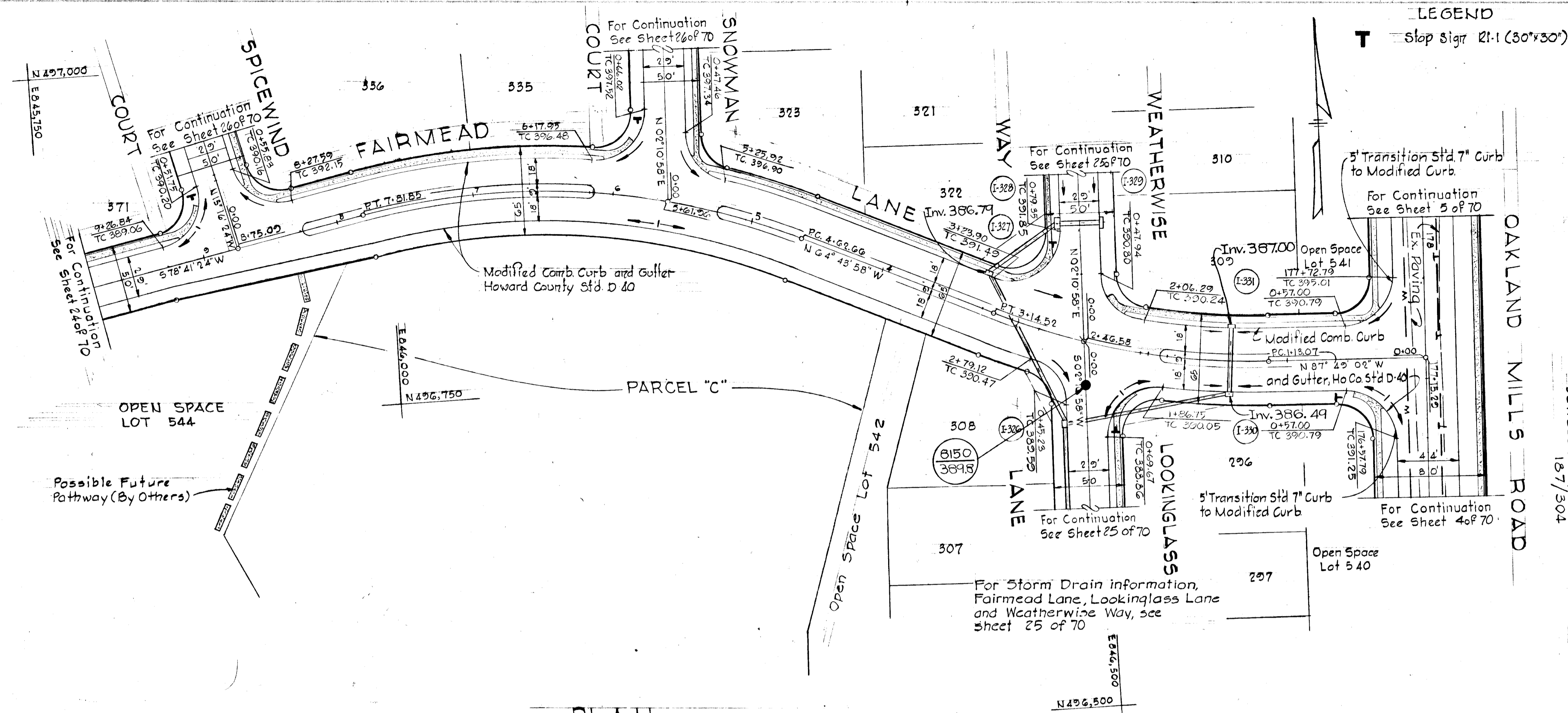
Kenneth A. McLeod
 KENNETH A. McLEOD
 Registered Engineer
 No. 1974



5/30/74
J. Lawson Jr.

CURVE DATA

PC 1+13.07 to & Weatherwise Way & Lookingglass Lane	Tan: 67.16'
$\Delta = 15^\circ 17' 58''$	Ch: 133.12'
R: 500.00'	Ch.Brg: N 80° 10' 03" W
Arc: 133.51'	
& Weatherwise Way & Lookingglass Lane to P.T. 3+14.52	Tan: 34.02'
$\Delta = 07^\circ 47' 07''$	Ch: 67.89'
R: 500.00'	Ch.Brg: N 68° 37' 31" W
Arc: 67.94'	
PC 4+62.66 to & Snowman Court	Tan: 49.82'
$\Delta = 11^\circ 22' 46''$	Ch: 79.14'
R: 500.00'	Ch.Brg: N 70° 25' 21" W
Arc: 79.30'	
& Snowman Court to P.T. 7+81.85	Tan: 111.75'
$\Delta = 25^\circ 11' 52''$	Ch: 218.13'
R: 500.00'	Ch.Brg: N 68° 42' 40" W
Arc: 219.29'	

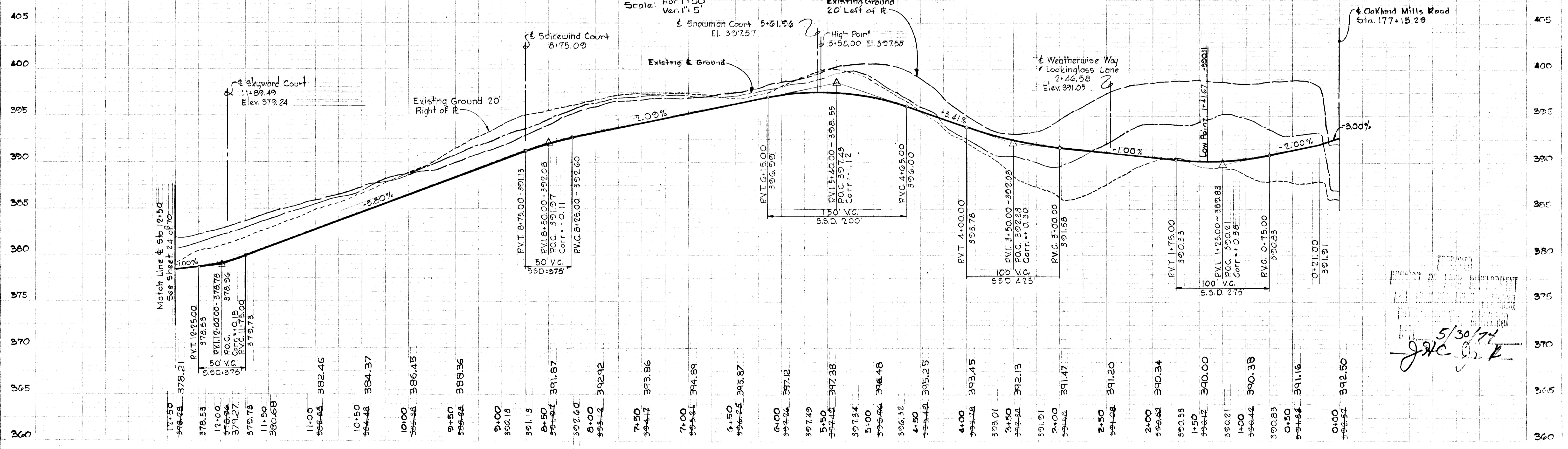


DEPARTMENT OF PUBLIC WORKS
S. M. Neeland 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE
J. H. Dawson 5/31/74
 CHIEF, DIVISION OF PLANNING AND ZONING DATE
 AND TRANSPORTATION PLANNING
 © AS-BUILT Elevations as of May 3, 1978

Rev. Date	Rev. No.	Revision Description
COLUMBIA 6 TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP		
PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4, AREA 1		
PROJECT TITLE PLAN AND PROFILE FAIRMEAD LANE Sta. 0+00 to Sta. 9+80		
SCALE: AS SHOWN		DATE: 5/23/74
WHITMAN, REQUART & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202		
<i>Kenneth A. McCord</i> KENNETH A. McCORD Registered Engineer 1/1/1974		

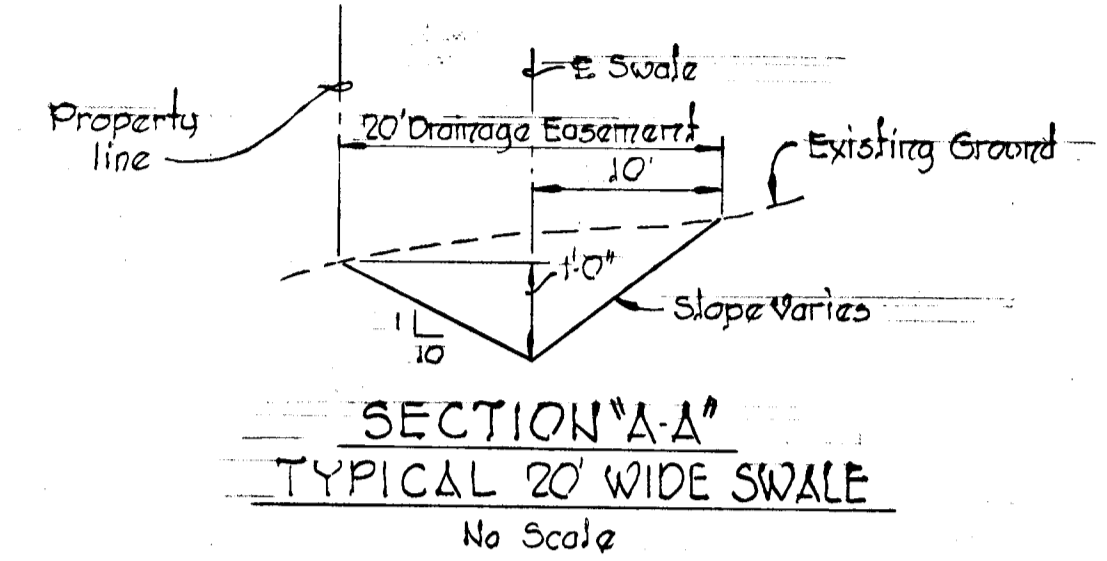
PLAN
Scale: 1" = 50'

PROFILE
Scale: Hor. 1" = 50'
Ver. 1" = 5'



5/30/74
J. H. Dawson

No.	Type	Top Elev.	Inv. Elev.	Location
MH-117	Std. MH	372.00	369.56	± MH 181.5' Left of ± Sta. 13+81.34
MH-118	Std. MH	372.40	370.75	± MH 129.5' Left of ± Sta. 13+81.34
I-170	Std. A-5' width: 3.0'	377.05	372.15	± Inlet 16.17' Left of ± Sta. 13+81.34
I-171	Std. A-5' width: 2.5'	377.05	373.25	± Inlet 15.92' Right of ± Sta. 13+81.34
I-172	Std. A-5' width: 3.5'	378.48	373.75	± Inlet 16.42' Left of ± Sta. 13+81.34
I-173	Std. A-10' width: 3.5'	379.61	374.50	± Inlet 16.42' Right of ± Sta. 13+81.34
I-174	Std. A-10' width: 2.5'	379.61	375.00	± Inlet 15.92' Left of ± Sta. 13+81.34
I-175	Std. A-10' width: 3.0'	381.35	376.75	± Inlet 16.17' Left of ± Sta. 13+81.34
I-176	Std. A-5' width: 2.5'	384.65	381.00	± Inlet 15.92' Left of ± Sta. 13+81.34
I-177	Std. A-5' width: 2.5'	381.10	377.25	± Inlet 15.92' Right of ± Sta. 13+81.34



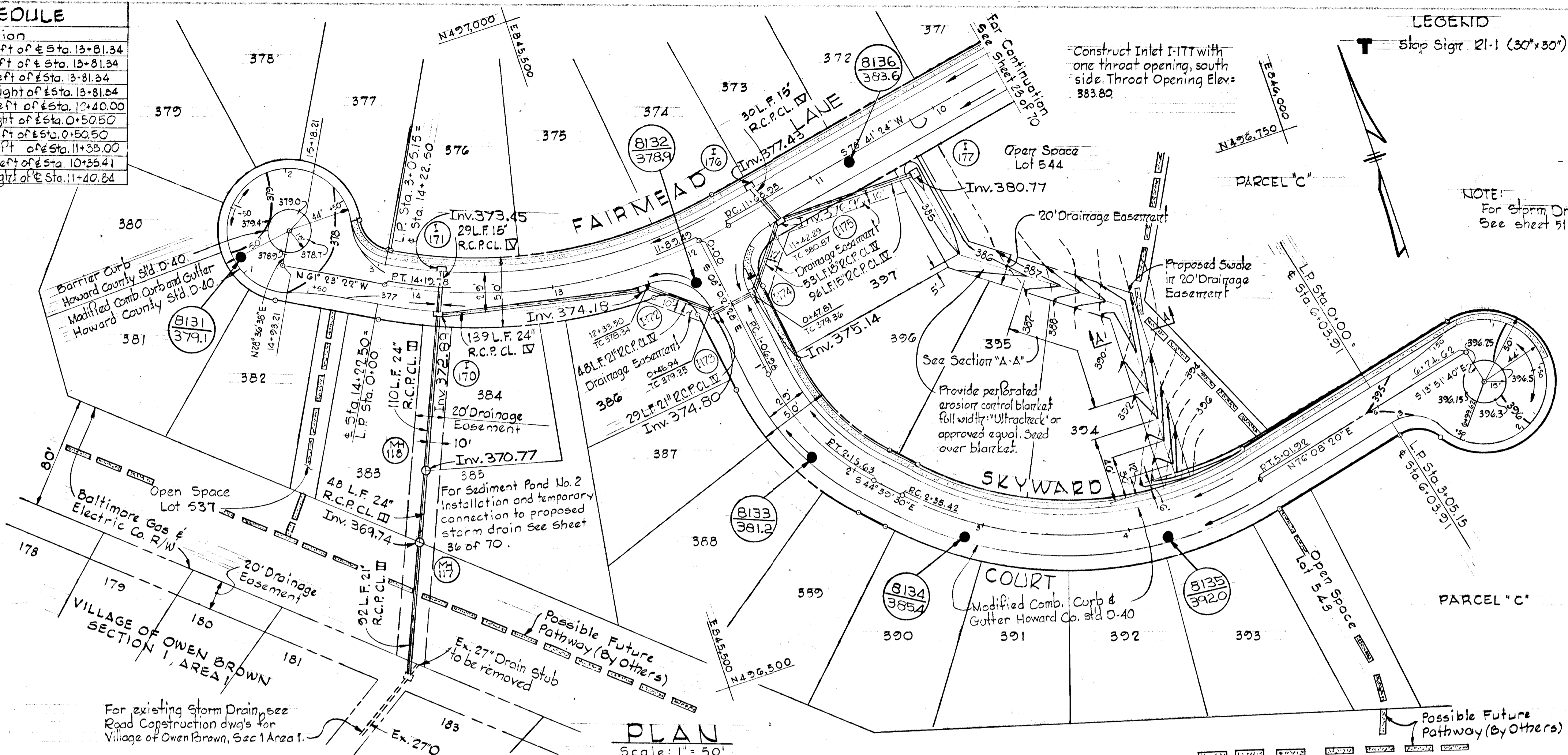
CURVE DATA

PC: 1+06.98 to PT: 2+15.63
 Δ = 36° 37' 02" Tan = 56.25'
 R = 170.00' Ch = 106.81'
 Arc = 108.65' Ch Brg = S 26° 20' 59" E

PC: 2+38.42 to PC: 5+01.92
 Δ = 59° 12' 10" Tan = 144.87'
 R = 255.00' Ch = 251.92'
 Arc = 263.40' Ch Brg = S 74° 15' 34" E

PC: 11+68.95 to ± Skyward Court
 Δ = 03° 16' 08" Tan = 10.27'
 R = 360.00' Ch = 20.54'
 Arc = 20.54' Ch Brg = S 80° 10' 28" W

± Skyward Court to PT 14+93.21
 Δ = 36° 39' 05" Tan = 119.24'
 R = 360.00' Ch = 226.24'
 Arc = 230.29' Ch Brg = N 79° 42' 55" W



DEPARTMENT OF PUBLIC WORKS
 CHIEF, BUREAU OF HIGHWAYS
 OFFICE OF PLANNING AND ZONING
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING

5/31/74
 5/31/74
 DATE DATE

© "AS-BUILT" Elevations as of May 3, 1978

Rev. Date	Rev. No.	Revision Description

COLUMBIA
 6th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

OWNER AND DEVELOPER
 HOWARD RESEARCH AND DEVELOPMENT CORP.

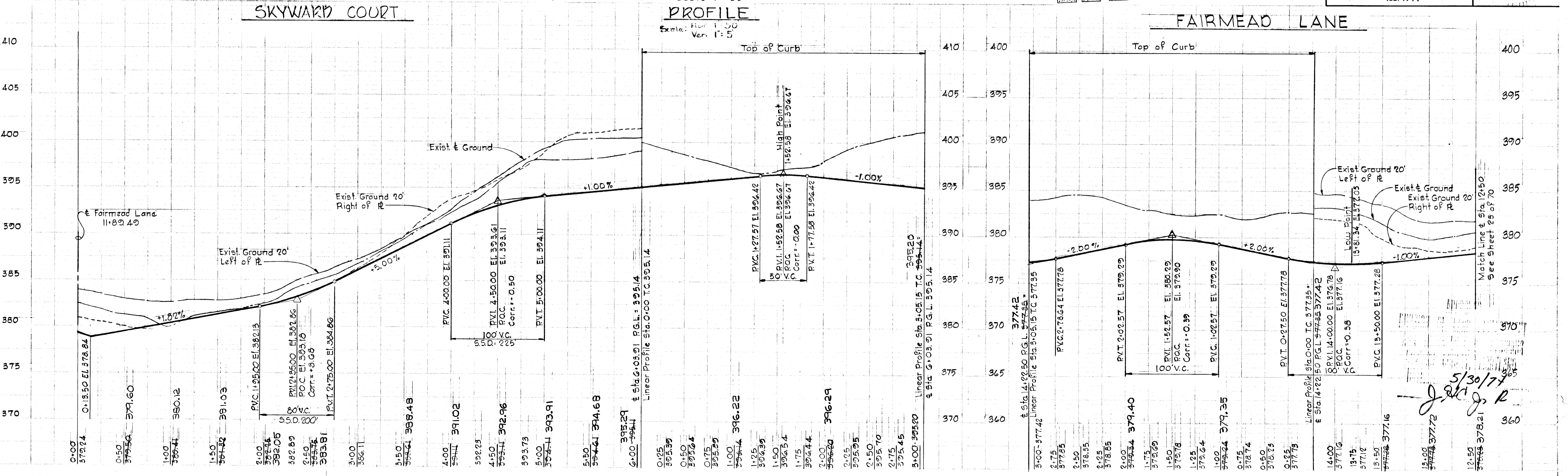
PROJECT AREA
VILLAGE OF OWEN BROWN
 SECTION 4, AREA 1

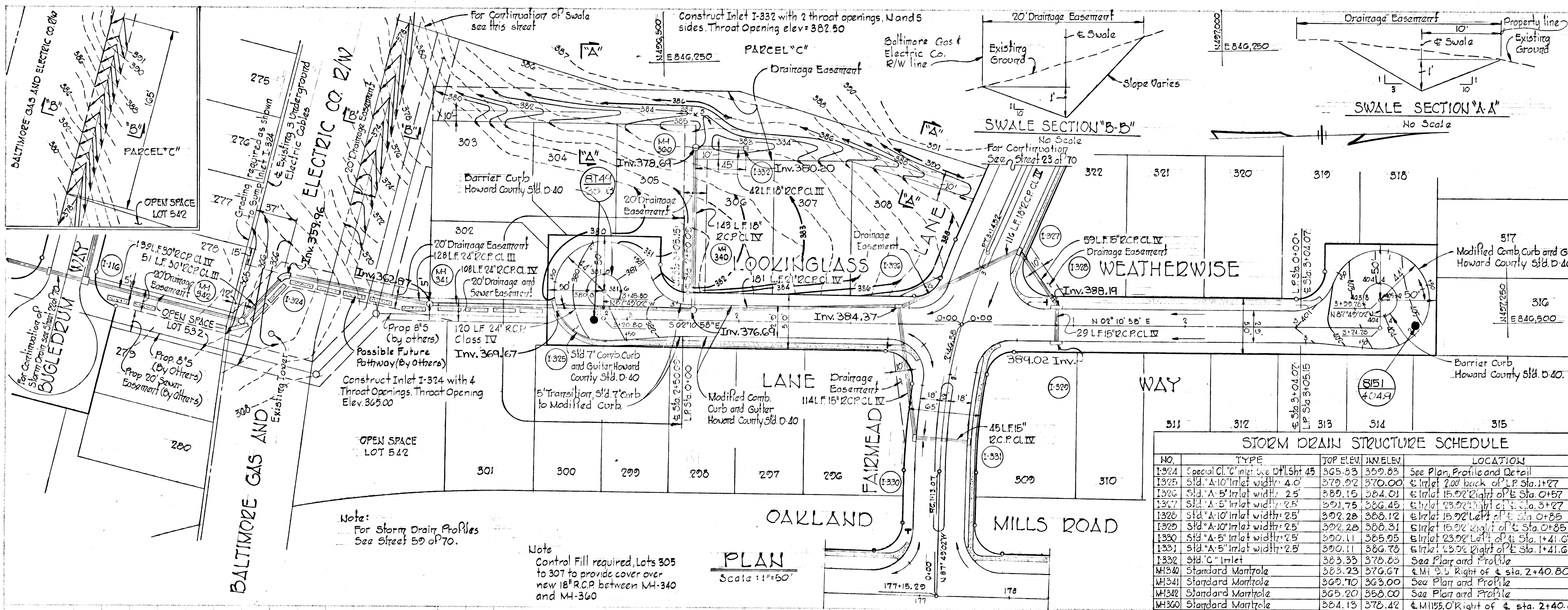
PROJECT TITLE
 PLAN AND PROFILE
 FAIRMEAD LANE - Sta. 9+80 to Sta. 15+18.21
 SKYWARD COURT

SCALE: AS SHOWN DATE 5/23/74

WHITMAN, REQUARDT & ASSOCIATES
 ENGINEERS
 BALTIMORE, MARYLAND 21202

Kenneth A. McCord
 Registered Engineer
 No. 1974





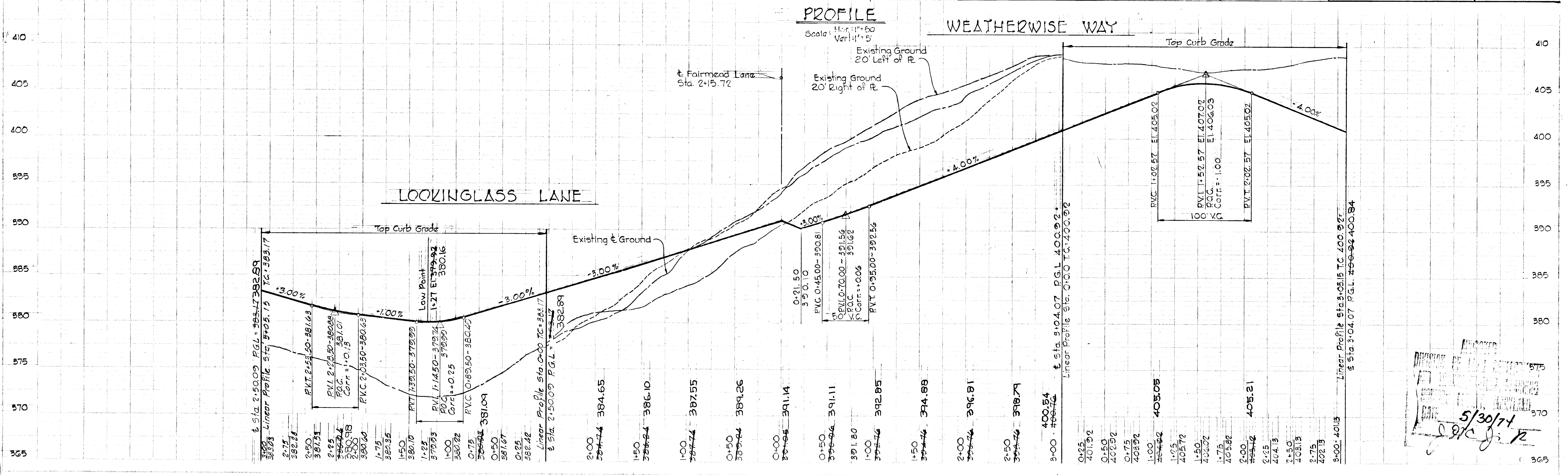
DEPARTMENT OF PUBLIC WORKS
S. N. Meland 5/31/74
 CHIEF - BUREAU OF HIGHWAYS DATE
 OFFICE OF PLANNING AND ZONING
J. H. Carson 5/31/74
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE
 "AS-BUILT" Elevations as of May 3, 1978

LEGEND
 Stop Sign RI-1 (30" x 30")

Rev. No.	Rev. No.	Revision Description
COLUMBIA 6 th ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP		
PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4, AREA 1		
PROJECT TITLE PLAN AND PROFILE LOOKINGGLASS LANE AND WEATHERWISE WAY		
SCALE: AS SHOWN DATE: 5/23/74		
WHITMAN REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202		
<i>Kenneth A. McCord</i> KENNETH A. MCCORD Registered Engineer No. 1974		

STORM DRAIN STRUCTURE SCHEDULE

NO.	TYPE	TOP ELEV.	INVELEV.	LOCATION
1324	Special C.I. Inlet Box 45' x 45'	365.83	369.83	See Plan, Profile and Detail
1325	Slid. A-10 Inlet width: 4.0'	370.02	370.00	4' Inlet 20' back of L.P. Sta. 1+27
1326	Slid. A-5 Inlet width: 2.5'	369.15	364.01	4' Inlet 15.02' Right of P. Sta. 0+57
1327	Slid. A-5 Inlet width: 2.5'	361.75	366.45	4' Inlet 23.02' Right of P. Sta. 3+27
1328	Slid. A-10 Inlet width: 2.5'	362.28	368.12	4' Inlet 15.02' Left of P. Sta. 0+85
1329	Slid. A-10 Inlet width: 2.5'	362.28	368.31	4' Inlet 15.02' Right of P. Sta. 2+40.80
1330	Slid. A-5 Inlet width: 2.5'	360.11	365.05	4' Inlet 23.02' Left of P. Sta. 1+41.67
1331	Slid. A-5 Inlet width: 2.5'	360.11	366.78	4' Inlet 23.02' Right of P. Sta. 1+41.67
1332	Slid. C Inlet	363.33	376.83	See Plan and Profile
MH340	Standard Manhole	363.23	374.67	4' M.I. 2.5' Right of P. Sta. 2+40.80
MH341	Standard Manhole	363.70	363.00	See Plan and Profile
MH342	Standard Manhole	365.20	365.00	See Plan and Profile
MH360	Standard Manhole	364.13	376.42	4' M.I. 195.0' Right of P. Sta. 2+40.80

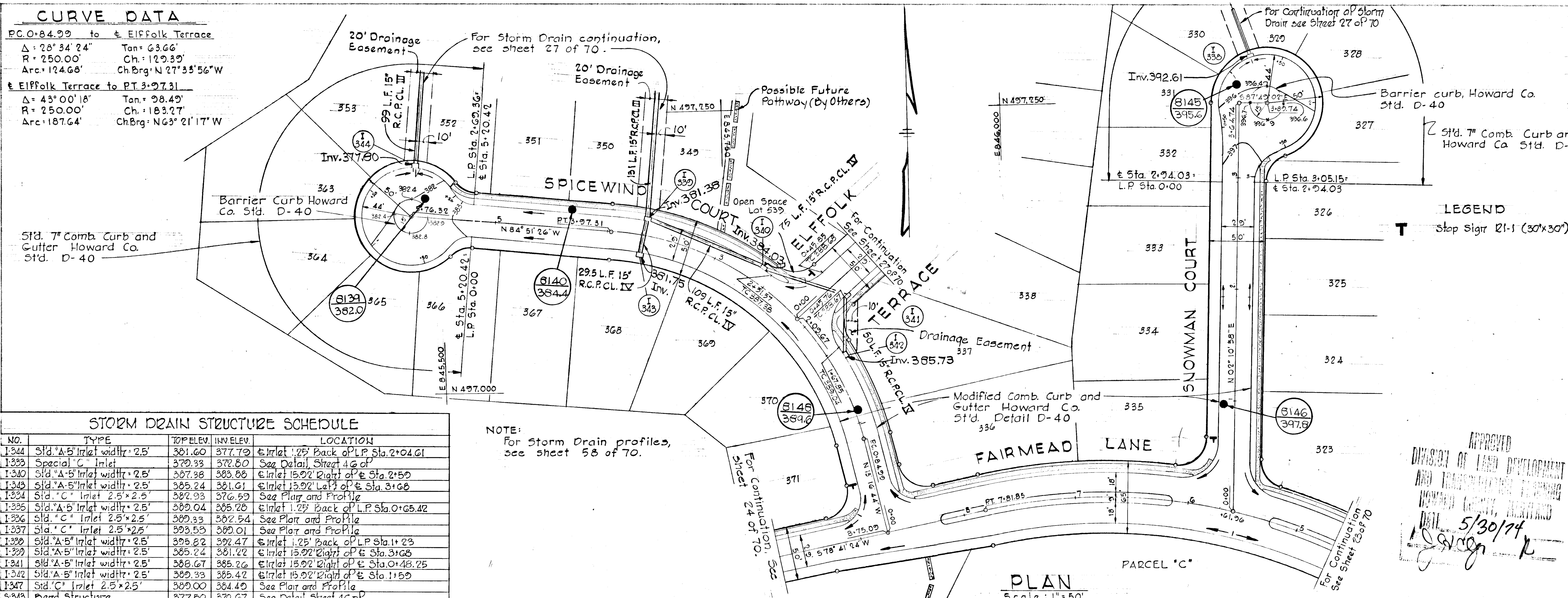


5/30/74
J. H. Carson

CURVE DATA

PC: 0+84.29 to & Eiffel Terrace
 $\Delta = 28^{\circ}34'24"$ Tan: 63.66'
 $R = 250.00'$ Ch: 129.33'
 Arc: 124.68' ChBrg: N 27°35'56" W

& Eiffel Terrace to PT 3+27.31
 $\Delta = 43^{\circ}00'18"$ Tan: 98.42'
 $R = 250.00'$ Ch: 183.27'
 Arc: 187.64' ChBrg: N 63° 21' 17" W



DEPARTMENT OF PUBLIC WORKS
S. M. McLeod 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE

OFFICE OF PLANNING AND ZONING
J. H. Dawson 5/31/74
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE

AS-BUILT Elevations as of May 3, 1978

LEGEND
 T Stop Sign 21-1 (30'x30')

STORM DRAIN STRUCTURE SCHEDULE

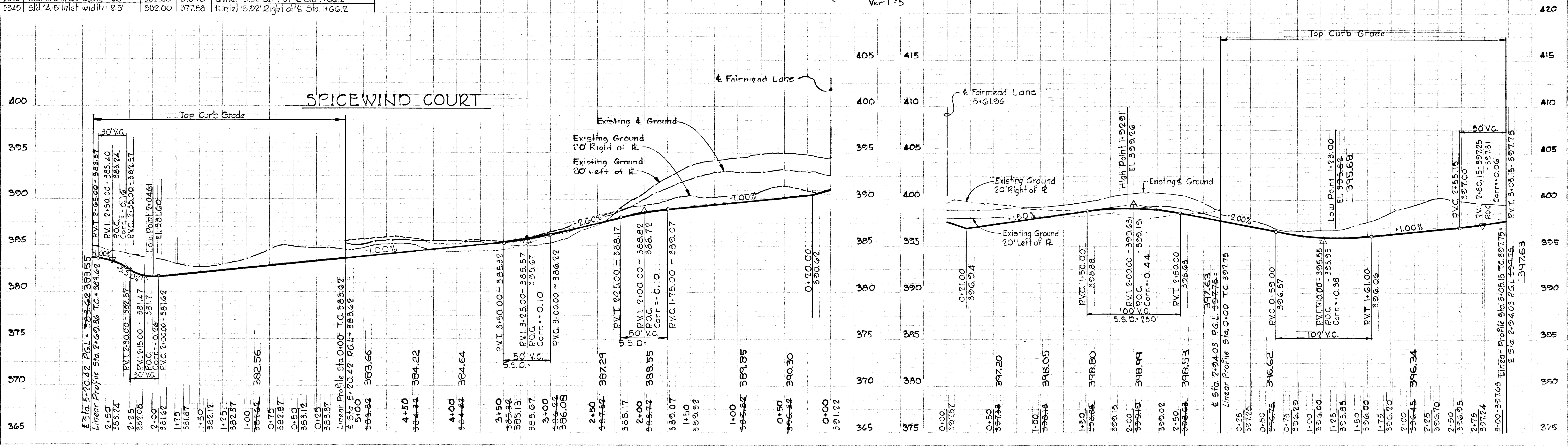
NO.	TYPE	TOP ELEV.	INN. ELEV.	LOCATION
1344	Std. 'A-B' Inlet width: 2.5'	381.60	377.79	Inlet 1.25' Back of L.P. Sta. 2+04.61
1343	Special 'C' Inlet	379.33	372.80	See Detail, Sheet 46 of 70
1340	Std. 'A-B' Inlet width: 2.5'	387.38	383.89	Inlet 15.02' Right of & Sta. 2+59
1345	Std. 'A-B' Inlet width: 2.5'	385.24	381.61	Inlet 15.02' Left of & Sta. 3+68
1334	Std. 'C' Inlet 2.5'x2.5'	382.93	376.59	See Plan and Profile
1335	Std. 'A-B' Inlet width: 2.5'	389.04	385.28	Inlet 1.25' Back of L.P. Sta. 0+65.42
1336	Std. 'C' Inlet 2.5'x2.5'	389.33	382.54	See Plan and Profile
1337	Std. 'C' Inlet 2.5'x2.5'	393.53	389.01	See Plan and Profile
1338	Std. 'A-B' Inlet width: 2.5'	395.82	392.47	Inlet 1.25' Back of L.P. Sta. 1+23
1329	Std. 'A-B' Inlet width: 2.5'	385.24	381.22	Inlet 15.02' Right of & Sta. 3+68
1341	Std. 'A-B' Inlet width: 2.5'	388.67	385.26	Inlet 15.02' Right of & Sta. 0+48.25
1342	Std. 'A-B' Inlet width: 2.5'	389.33	385.42	Inlet 15.02' Right of & Sta. 1+59
1347	Std. 'C' Inlet 2.5'x2.5'	389.00	384.49	See Plan and Profile
M343	Par. Structure	377.59	370.67	See Detail, Sheet 46 of 70
M344	Type 'B' Manhole	383.25	378.40	See Plan and Profile
M345	Type 'B' Manhole	384.40	379.89	See Plan and Profile
S346	Std. Concrete End Section	373.39	370.59	See Plan and Profile
1348	Std. 'A-B' Inlet width: 2.5'	382.00	378.13	Inlet 15.02' Left of & Sta. 1+66.2
1349	Std. 'A-B' Inlet width: 2.5'	382.00	377.58	Inlet 15.02' Right of & Sta. 1+66.2

NOTE:
 For Storm Drain profiles,
 see sheet 58 of 70.

PLAN
 Scale: 1"=50'

PROFILES
 Scale: Hor: 1"=50'
 Ver: 1"=5'

SNOWMAN COURT



APPROVED
 DIVISION OF LAND DEVELOPMENT
 AND TRANSPORTATION PLANNING
 JUNE 5/30/74
J. H. Dawson

Rev. Date	Rev. No.	Revision Description

COLUMBIA
 6th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

OWNER AND DEVELOPER
 HOWARD RESEARCH AND DEVELOPMENT CORP.

PROJECT AREA
VILLAGE OF OWEN BROWN
 SECTION 4, AREA 1

PROJECT TITLE
 PLAN AND PROFILE
 SPICEWIND COURT AND
 SNOWMAN COURT

SCALE: AS SHOWN DATE: 5/23/74

WHITMAN REQUARDT, ASSOCIATES
 ENGINEERS
 BALTIMORE, MARYLAND 21202

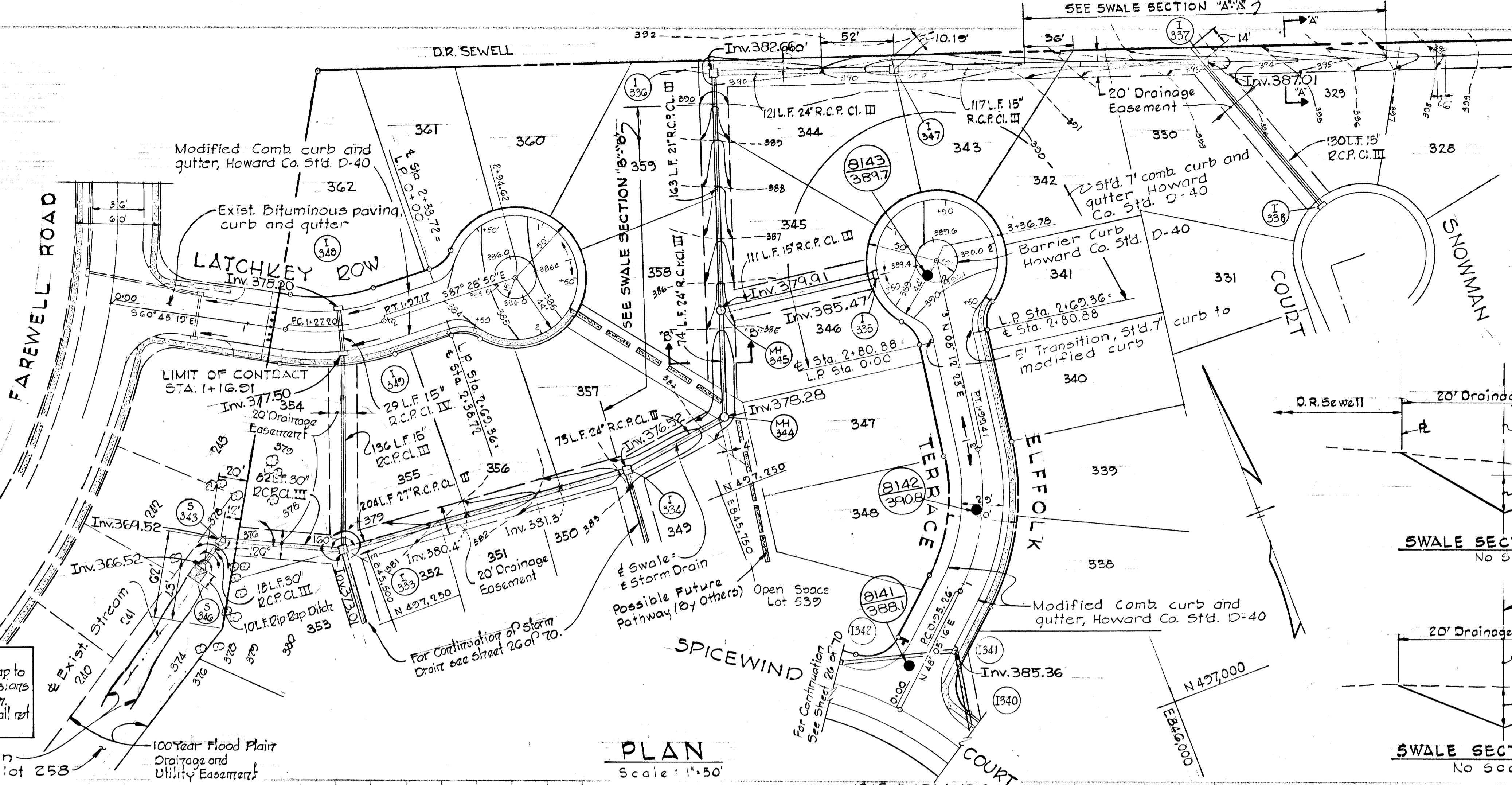
Kenneth A. McCord
 KENNETH A. MCCORD
 Registered Engineer
 No. 1974

CURVE DATA

PC 1+27.20 to PT 1+27.17	$\Delta = 26^\circ 43' 31''$	Tan: 35.65
$R = 150.00'$	Ch: 69.33	
Arc: 69.27	ChBrg: $574^\circ 07' 05'' E$	
PC 0+25.26 to PT 1+29.41	$\Delta = 39^\circ 46' 52''$	Tan: 54.27
$R = 150.00'$	Ch: 102.07	
Arc: 104.15	ChBrg: $N 28^\circ 11' 49'' E$	

DEPARTMENT OF PUBLIC WORKS
S. M. Ireland 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE
 OFFICE OF PLANNING AND ZONING
C. J. Dawson 5/31/74
 CHIEF, BUREAU OF LAND DEVELOPMENT, WATER AND TRANSPORTATION PLANNING
 "AS-BUILT" Elevations as of May 3, 1978

VILLAGE OF OAKLAND MILLS
 SECT. 5 AREA G



- Notes:
- Inlets I-334, I-336, I-337 & I-347 are normal to E Swale and Storm Drain.
 - For Storm Drain Structure Schedule see Street 260P.
 - For Storm Drain Profiles see Street 58 of 70.
 - Construct Inlets I-333, I-334, I-336, I-337 and I-347 with 4 Throat Openings. Throat Opening elev.
 - I-333 - 378.50
 - I-334 - 382.10
 - I-336 - 388.50
 - I-337 - 392.70
 - I-347 - 388.17

LEGEND
 Stop Sign R1-1 (30" x 30")

Rev. Date	Rev. No.	Revision Description
		COLUMBIA 6 TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
		OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP.
		PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4, AREA 1
		PROJECT TITLE PLAN AND PROFILE LATCHKEY ROW AND ELFFOLK TERRACE
		SCALE: AS SHOWN DATE: 5/23/74
		WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202
		<i>Kenneth A. McCorky</i> KENNETH A. MCCORKY Registered Engineer No. 19774

- Notes:
- Place 10 L.F. Zip Rap to conform to dimensions of existing stream.
 - Existing trees shall not be disturbed.

PLAN
Scale: 1" = 50'

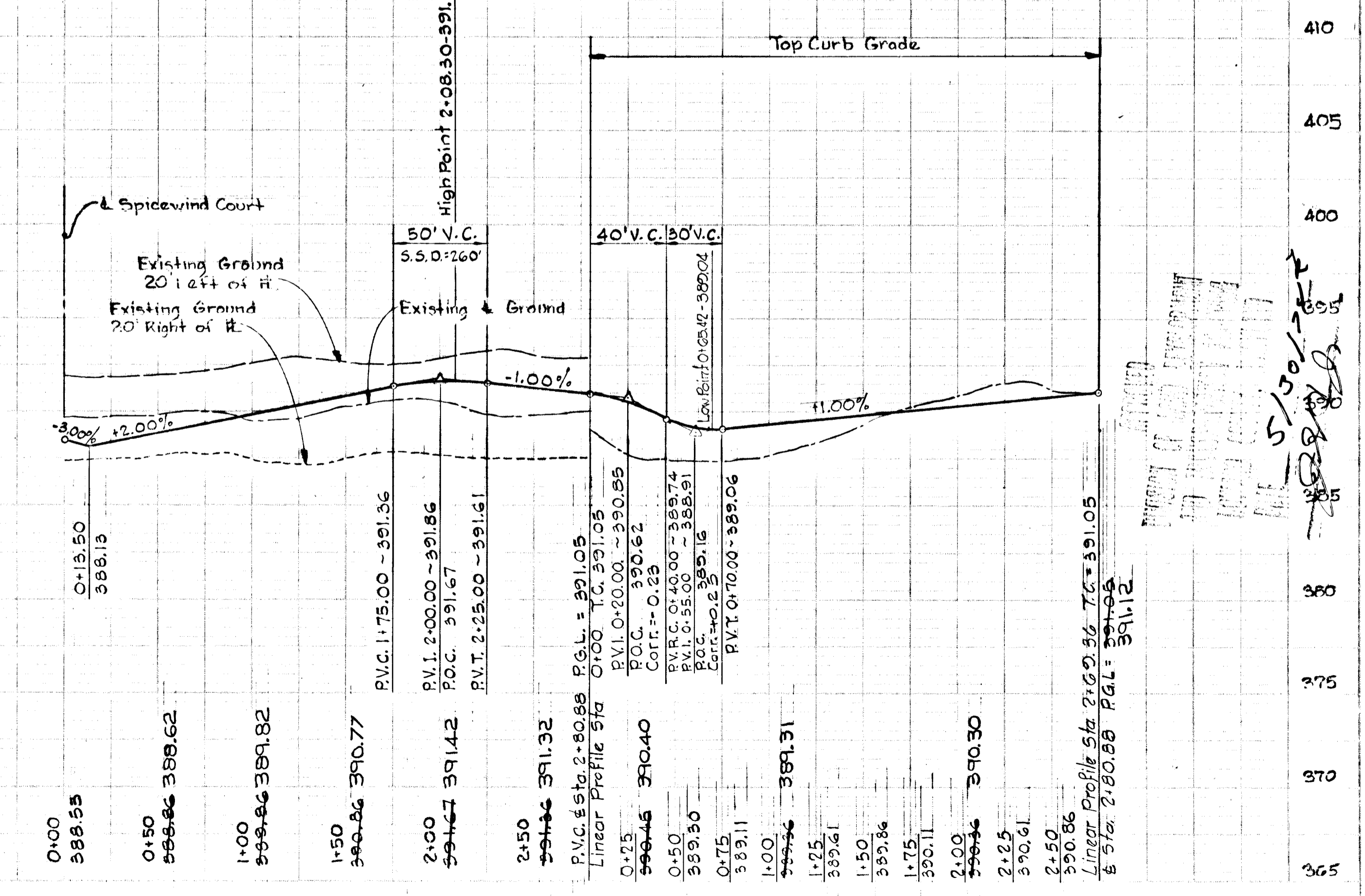
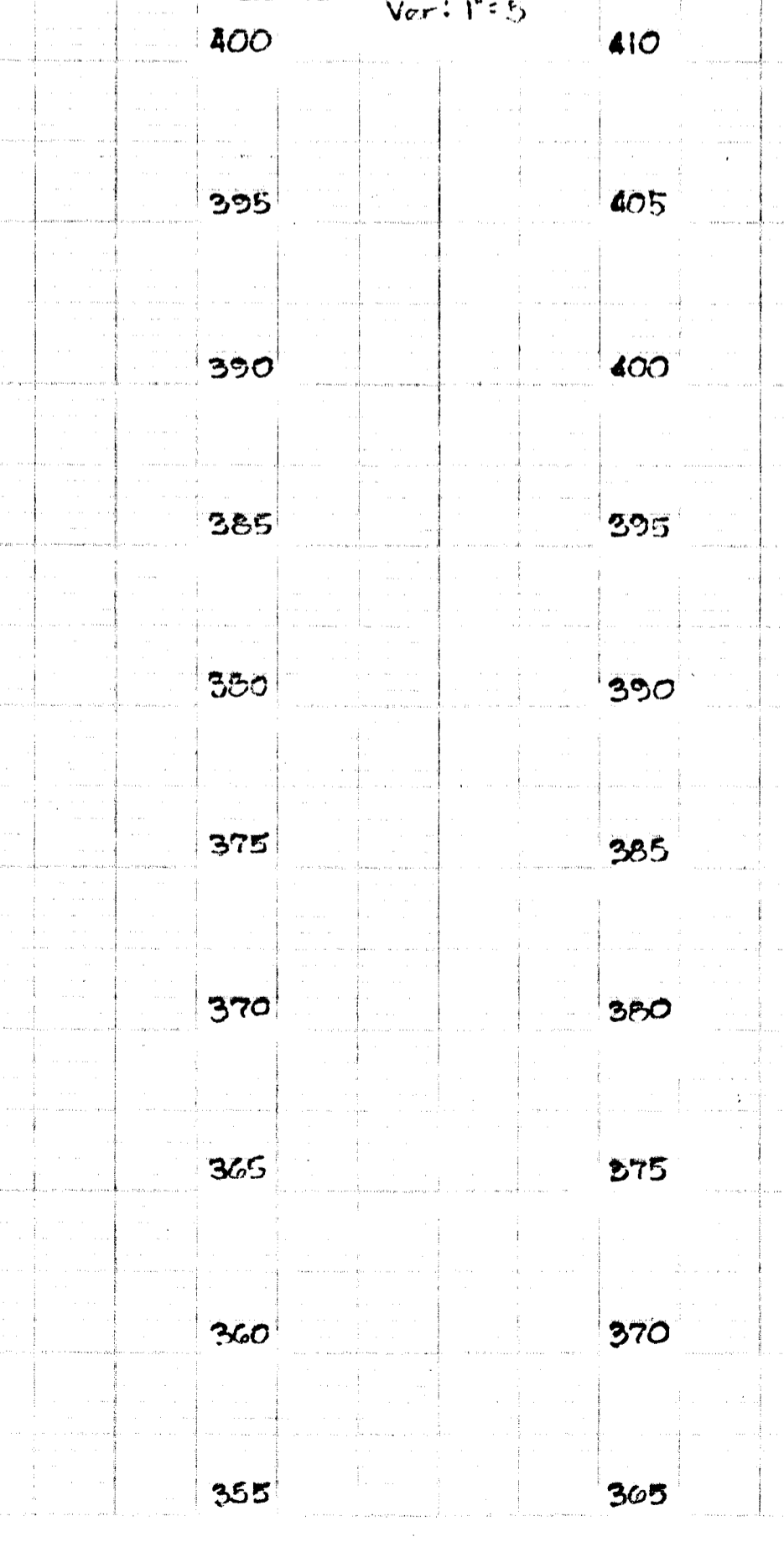
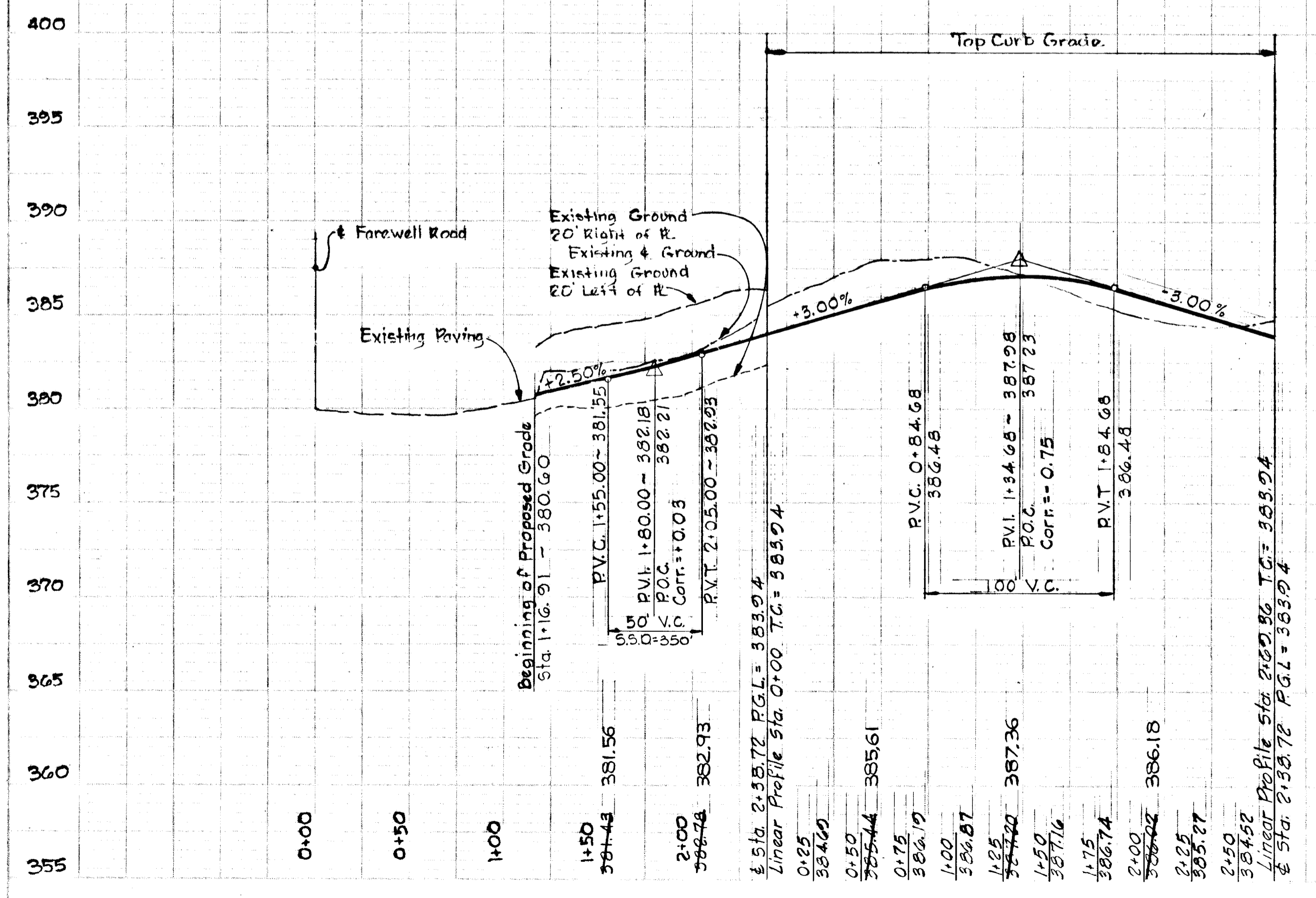
SWALE SECTION "A"-A'
No Scale

SWALE SECTION "B"-B'
No Scale

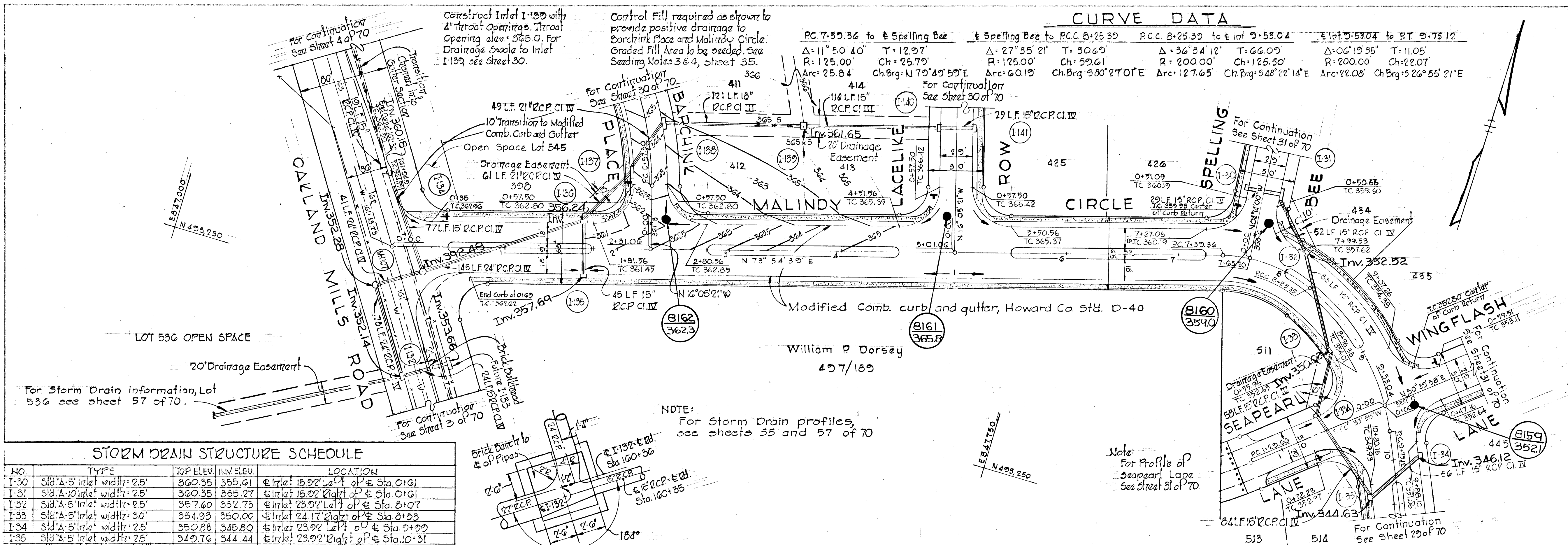
LATCHKEY ROW

PROFILES
Scale: Hor: 1" = 50'
Ver: 1" = 5'

ELFFOLK TERRACE

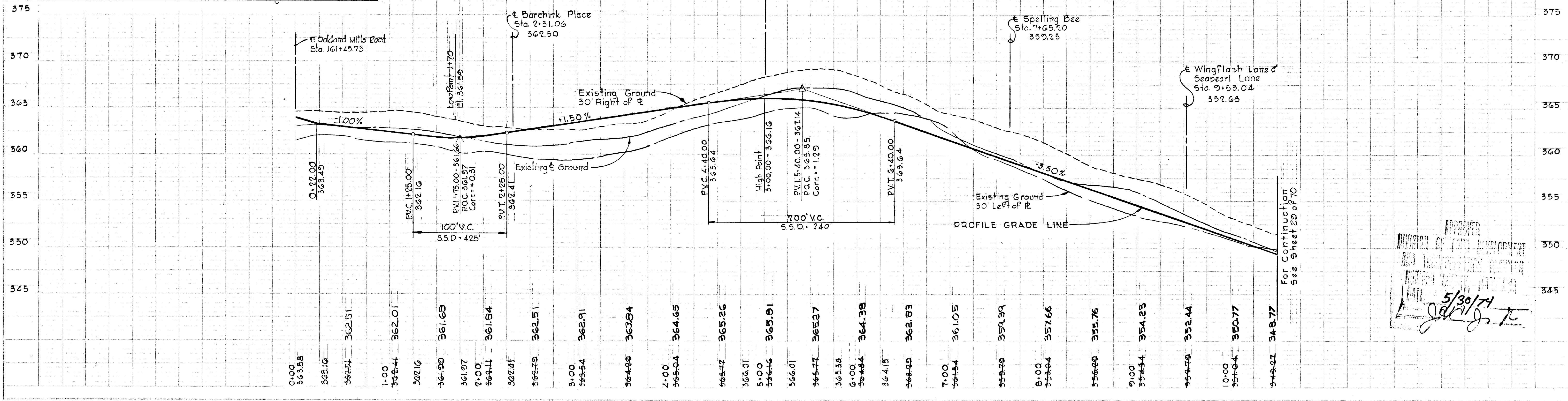
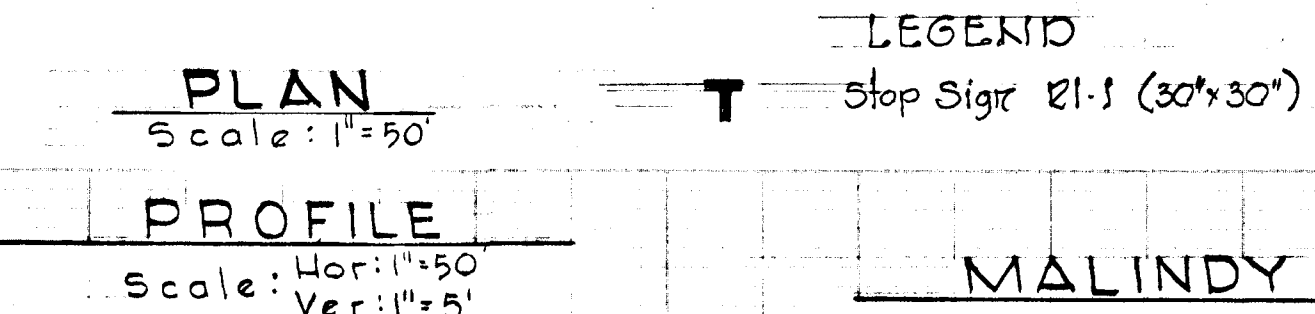
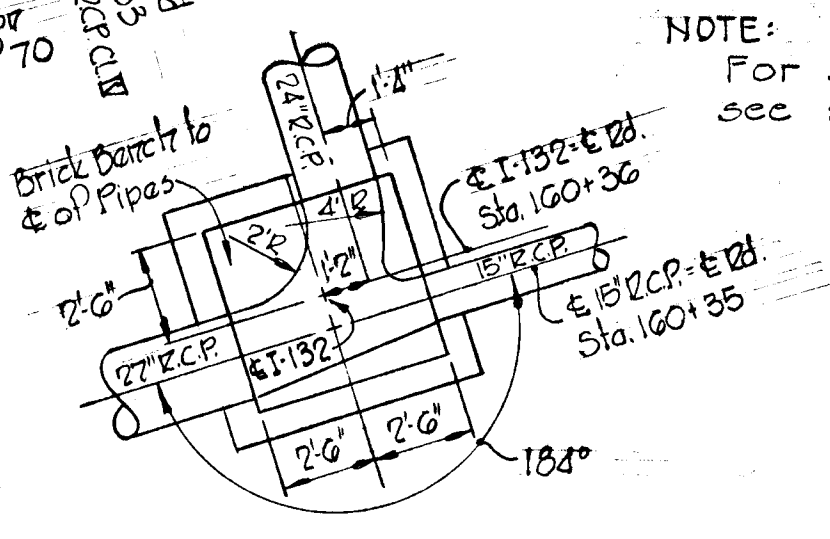


DEPARTMENT OF PUBLIC WORKS
 S. P. McNeill 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE
 OFFICE OF PLANNING AND ZONING
 J. P. Dawson 5/31/74
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE
 AND TRANSPORTATION PLANNING
 © "AS-BUILT" Elevations as of May 3, 1978



STORM DRAIN STRUCTURE SCHEDULE

NO.	TYPE	TOPELEV.	INNELEV.	LOCATION
I-30	Std. A-5 Inlet width: 2.5'	360.35	355.61	Inlet 15.02' Left of P.E. Sta. 0+06.1
I-31	Std. A-5 Inlet width: 2.5'	360.35	355.27	Inlet 15.02' Right of P.E. Sta. 0+06.1
I-32	Std. A-5 Inlet width: 2.5'	357.60	352.75	Inlet 23.92' Left of P.E. Sta. 8+07
I-33	Std. A-5 Inlet width: 3.0'	354.93	350.00	Inlet 24.17' Right of P.E. Sta. 8+63
I-34	Std. A-5 Inlet width: 2.5'	350.88	345.80	Inlet 23.92' Left of P.E. Sta. 9+99
I-35	Std. A-5 Inlet width: 2.5'	349.76	344.44	Inlet 23.92' Right of P.E. Sta. 10+31
I-32	Std. A-5 Inlet Underspread width: 5.0'	362.80	351.25	Inlet 24.50' Left of P.E. Sta. 10+32 O.M.R.
I-33	Std. A-5 Inlet Underspread width: 2.5'	362.80	353.25	Inlet 23.25' Right of P.E. Sta. 10+35 O.M.R.
I-34	Std. A-5 Inlet width: 2.5'	364.68	360.00	Inlet 15.25' Right of P.E. Sta. 10+05 O.M.R.
I-135	Std. A-5 Inlet width: 2.5'	361.59	357.50	Inlet 23.92' Right of P.E. Sta. 1+70
I-136	Std. A-5 Inlet width: 2.5'	361.59	357.00	Inlet 23.92' Left of P.E. Sta. 1+70
I-137	Std. A-10 Inlet width: 3.0'	363.44	358.70	Inlet 16.17' Left of P.E. Sta. 0+70
I-138	Std. A-10 Inlet width: 2.5'	364.84	360.15	Inlet 15.92' Right of P.E. Sta. 1+09.88
I-139	Std. C Inlet	365.83	361.50	Inlet 135.00' Left of P.E. Sta. 1+250
I-140	Std. A-10 Inlet width: 2.5'	365.27	364.15	Inlet 15.92' Left of P.E. Sta. 1+1250
I-141	Std. A-10 Inlet width: 2.5'	366.29	364.50	Inlet 15.92' Right of P.E. Sta. 1+1332
M-107	Std. Manhole	363.60	352.00	M.H. 25.00' Left of P.E. Sta. 1+20 O.M.R.
M-108	Std. Manhole	362.95	352.50	M.H. 20.50' Right of P.E. Sta. 1+20 O.M.R.
I-33A	Std. A-5 Inlet width: 2.5'	352.70	348.12	Inlet 15.92' Right of P.E. Sta. 0+56.5



Rev. Date	Rev. No.	Revision Description
COLUMBIA		
6 TH ELECTION DISTRICT		
HOWARD COUNTY, MARYLAND		
OWNER & DEVELOPER		
HOWARD RESEARCH & DEVELOPMENT CORP.		
PROJECT AREA		
VILLAGE OF OWEN BROWN		
SECTION 4, AREA 1		
PROJECT TITLE		
PLAN AND PROFILE		
MALINDY CIRCLE		
Sta. 0+00 to Sta. 10+50		
SCALE: AS SHOWN DATE: 5/23/74		
WHITMAN, REQUARDT & ASSOCIATES		
ENGINEERS		
BALTIMORE, MARYLAND 21202		
<i>Kenneth A. McErdy</i>		
KENNETH A. MCERDY		
Registered Engineer No. 1974		

APPROVED
 DIVISION OF LAND DEVELOPMENT
 5/30/74
J.P. Dawson

CURVE DATA

PC 10+75.18 to & Seedling Lane Δ: 19° 34' 17" Tan: 51.74 R: 300.00' Ch: 101.98' Arc: 102.46' Ch.Brg: S 13° 58' 25" E	P.C.C. 12+60.18 to PT 14+78.18 Δ: 21° 43' 21" Tan: 110.32' R: 575.00' Ch: 216.70' Arc: 216.00' Ch.Brg: S 22° 26' 05" W
& Seedling Lane to P.C.C. 12+60.18 Δ: 15° 45' 39" Tan: 41.52' R: 300.00' Ch: 87.26' Arc: 87.52' Ch.Brg: S 03° 41' 33" W	P.C. 18+26.43 to PT 20+14.55 Δ: 27° 01' 14" Tan: 25.84' R: 328.20' Ch: 186.33' Arc: 188.12' Ch.Brg: S 46° 48' 21" W

STORM DRAIN STRUCTURE SCHEDULE

No.	TYPE	TOP ELEV.	INVELEV.	LOCATION
I-36	Std "A" Inlet width 2.5'	344.65	340.22	& Inlet 23.92' from & Sta. 12+38.70
I-37	Std "A" Inlet width 2.2'	344.65	339.75	& Inlet 23.92' from & Sta. 12+38.70
I-38	Std "C" Inlet	345.00	340.20	& Inlet 44' Right of & Sta. 12+78
MH-5	Std Manhole	345.55	339.19	& MH 25' Right of & Sta. 11+63

LEGEND

Stop Sign 21-1 (30"x30")

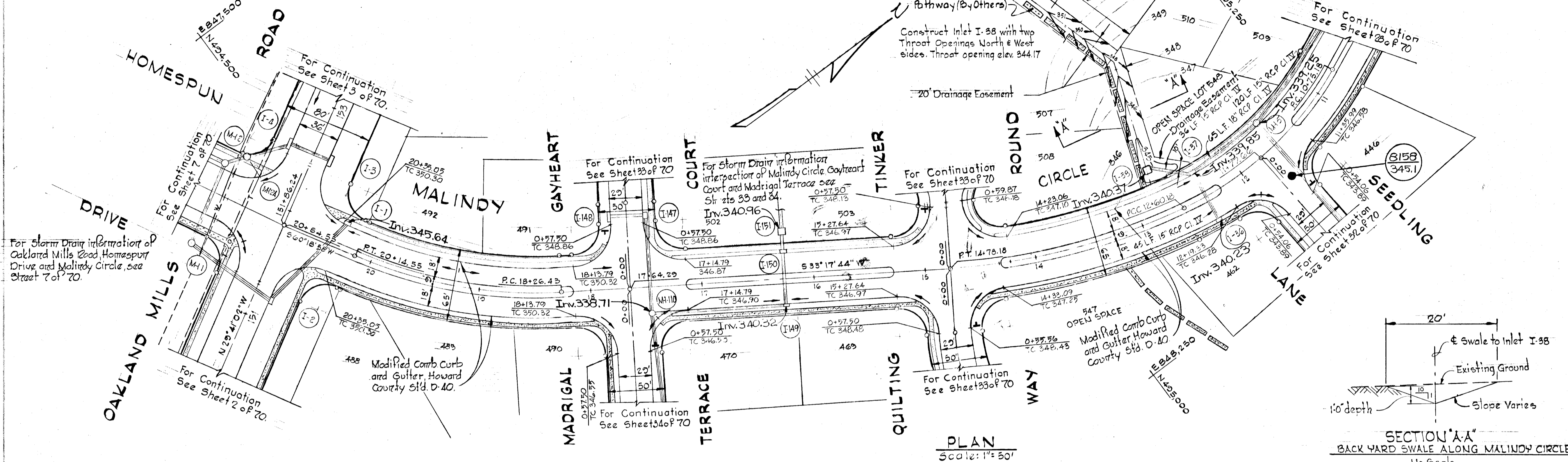
Note:
For Storm Drain Profiles,
see Sheet 55 of 70.

DEPARTMENT OF PUBLIC WORKS

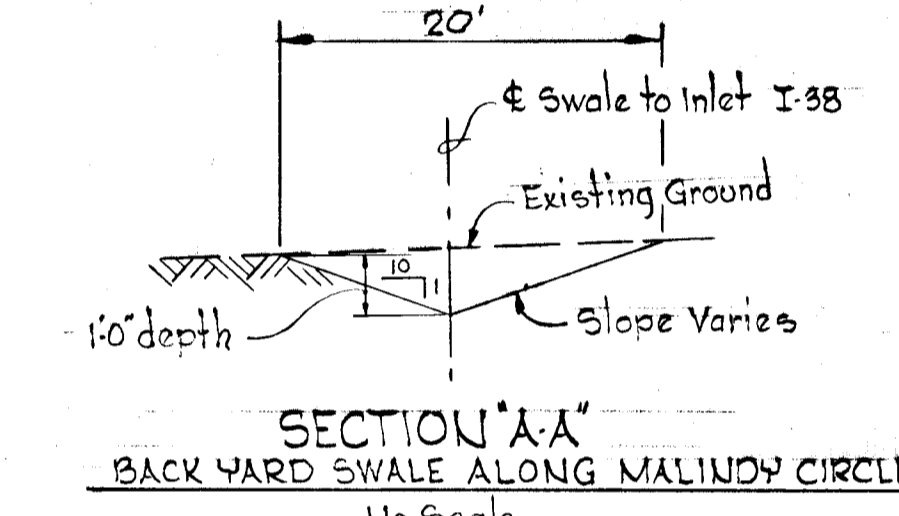
G. W. Heiland 5/31/74
CHIEF, BUREAU OF HIGHWAYS DATE

OFFICE OF PLANNING AND ZONING
C. A. Casper 5/31/74
CHIEF, DIVISION OF LAND DEVELOPMENT DATE
AND TRANSPORTATION PLANNING

OAS BUILT Elevations as of May 3, 1978



PLAN
Scale: 1" = 30'



SECTION "AA"
BACK YARD SWALE ALONG MALINDY CIRCLE
No Scale

Rev. Date	Rev. No.	Revision Description

COLUMBIA
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

OWNER & DEVELOPER
HOWARD RESEARCH & DEVELOPMENT CORP.

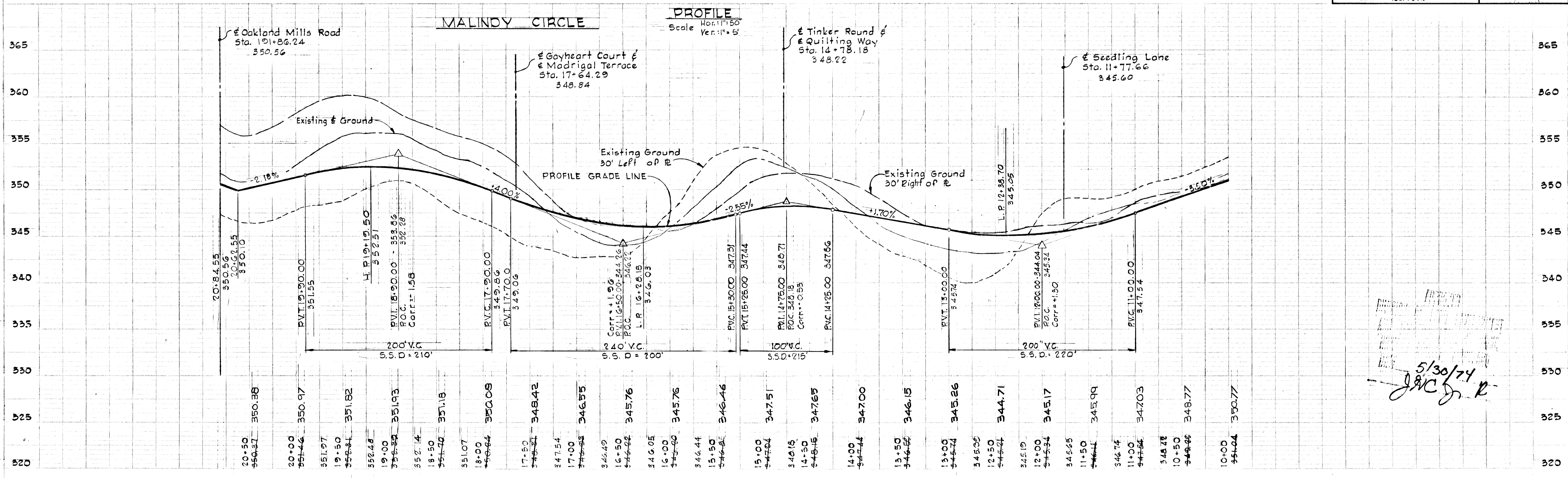
PROJECT AREA
VILLAGE OF OWEN BROWN
SECTION 4 AREA I

PROJECT TITLE
PLAN AND PROFILE
MALINDY CIRCLE
STA. 10+50 TO STA. 20+84.55

SCALE: AS SHOWN DATE: 5/23/74

WHITMAN, REQUARDT & ASSOCIATES
ENGINEERS
BALTIMORE, MARYLAND 21202

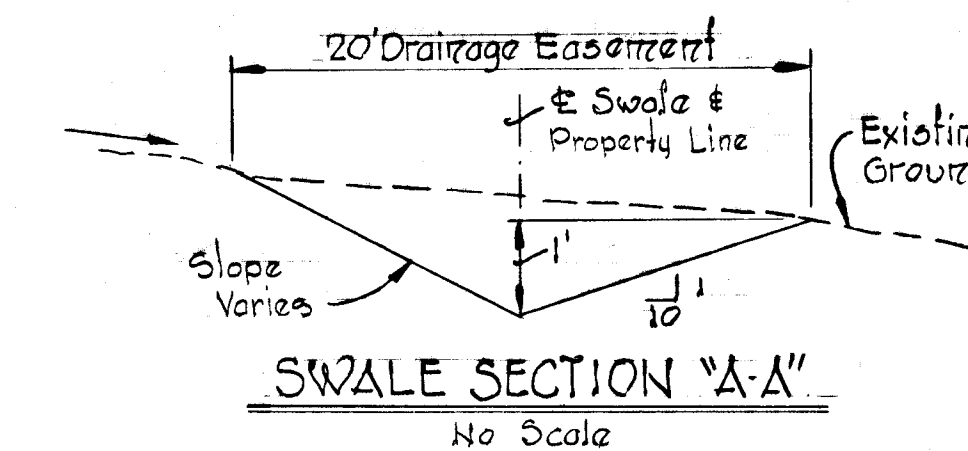
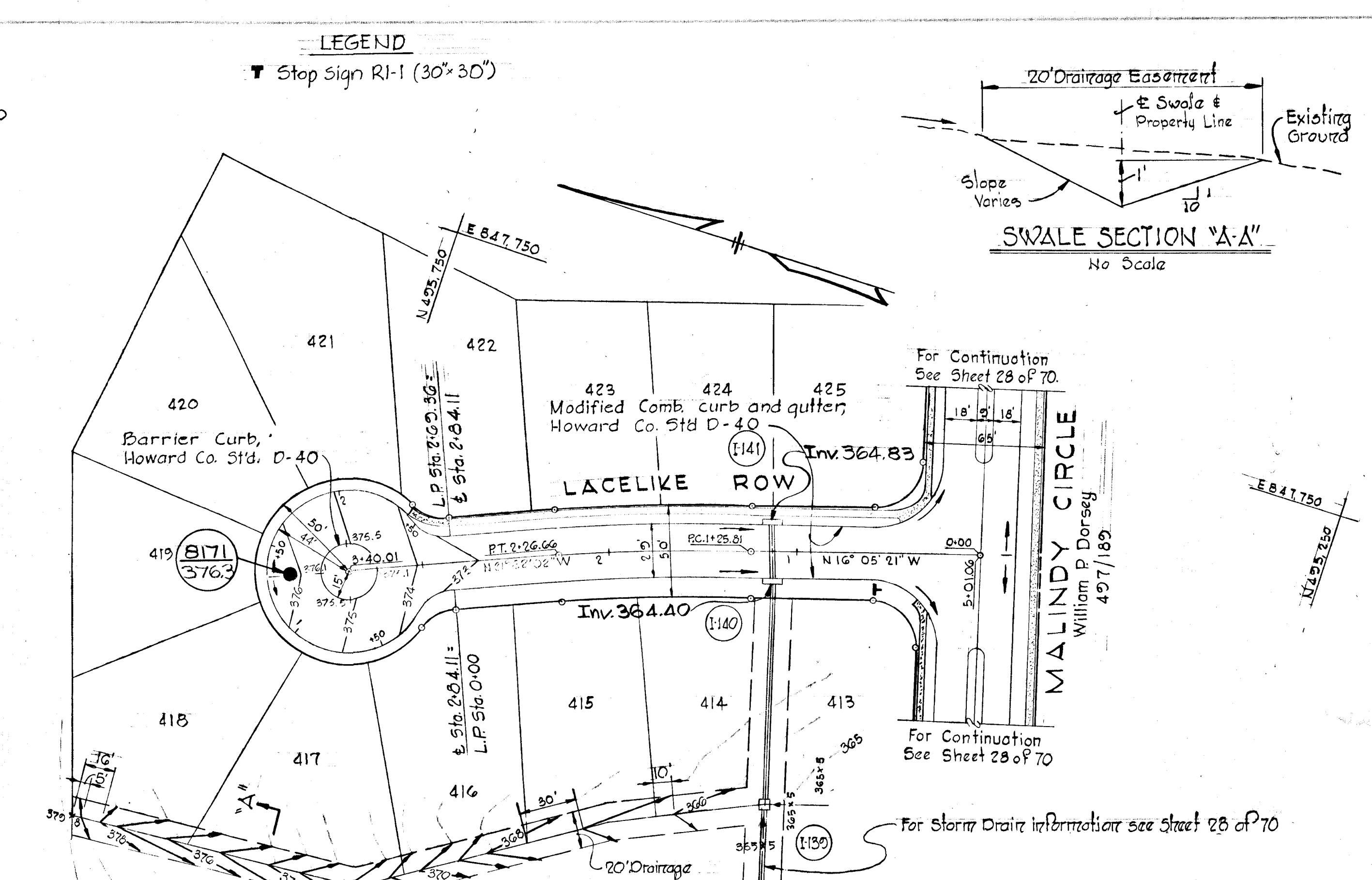
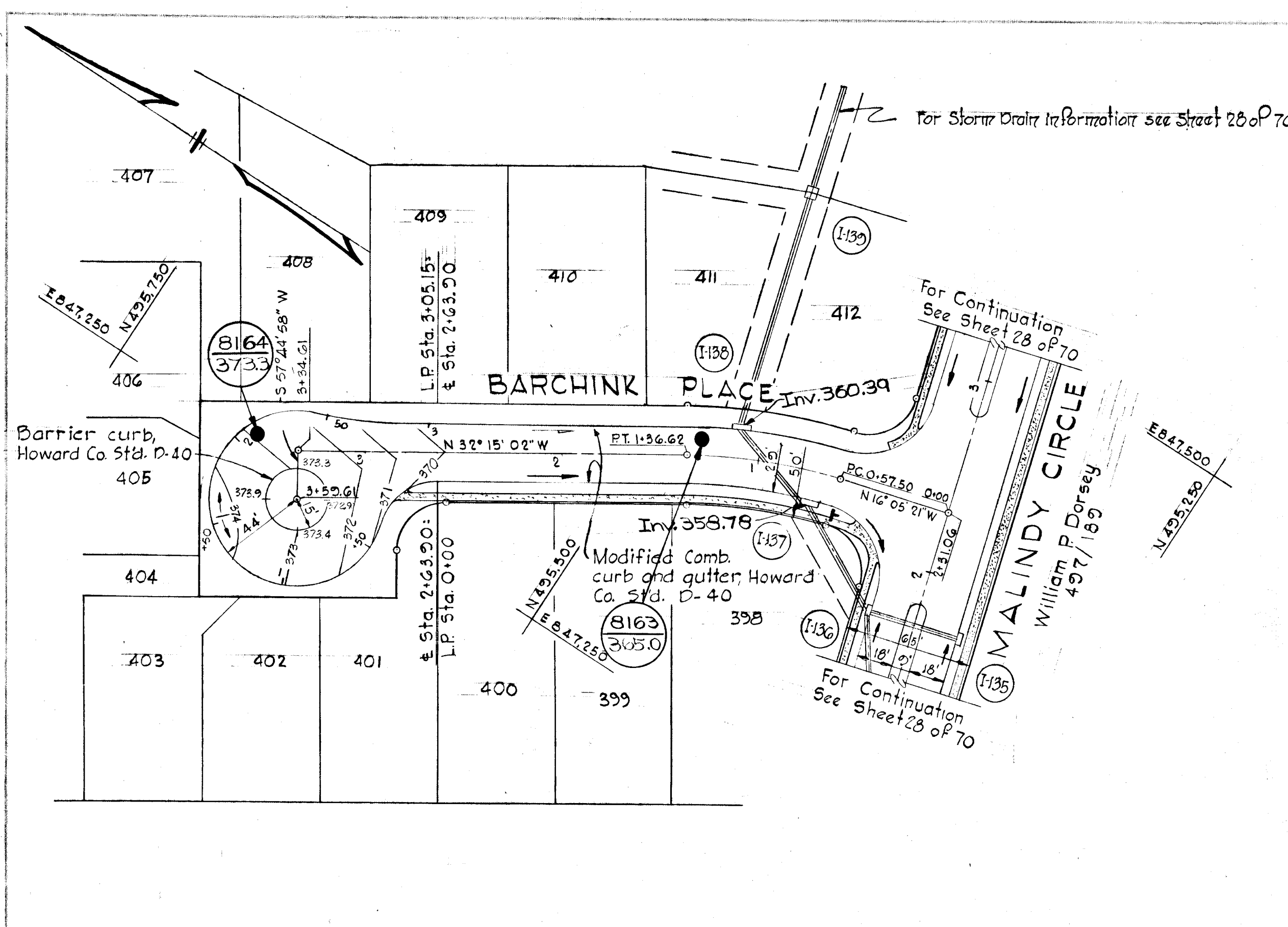
Kenneth A. McCord
KENNETH A. MCCORD
Registered Engineer
No. 1974



PROFILE
Scale Hor: 1" = 50'
Ver: 1" = 5'

5/30/74
JAC

DEPARTMENT OF PUBLIC WORKS
S. M. McLeod 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE
 OFFICE OF PLANNING AND ZONING
J. H. Dawson 5/31/74
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE
 AND TRANSPORTATION PLANNING
 'AS-BUILT' Elevations as of May 3, 1978



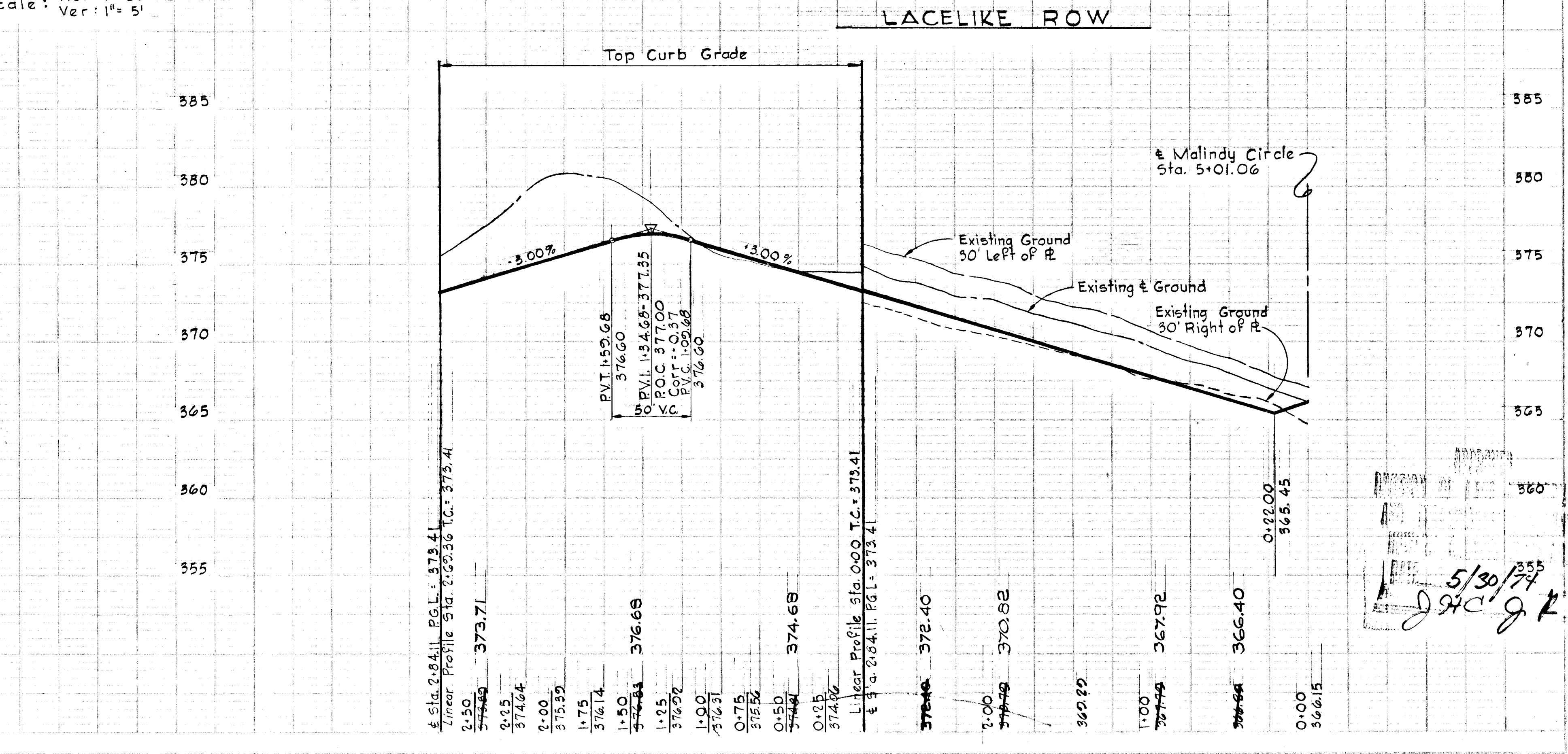
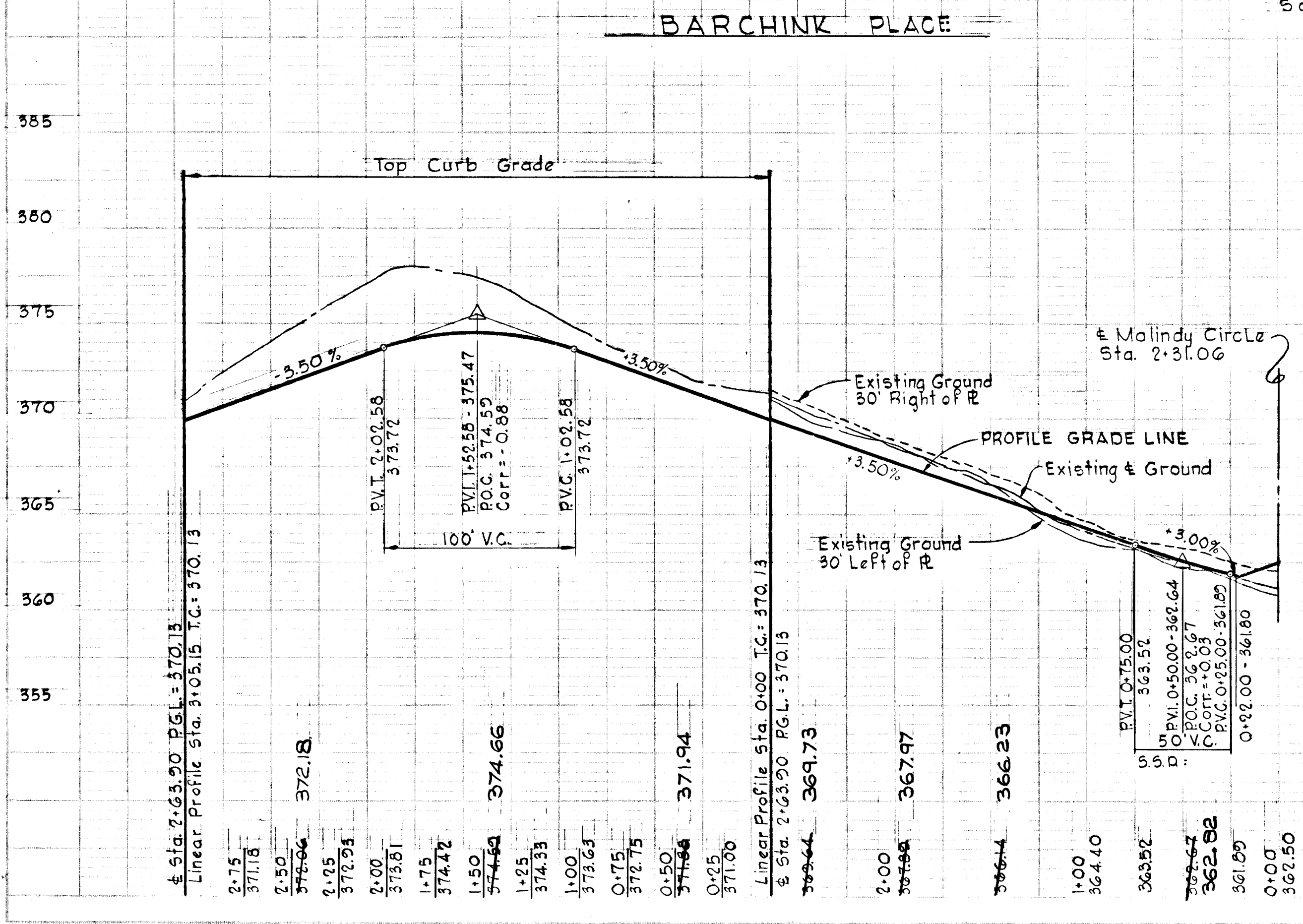
CURVE DATA
 PC: 0+57.50 to PT: 1+36.62
 $\Delta = 16^\circ 09' 41''$ T: 39.83'
 R: 280.51' Ch: 78.86'
 L: 79.12' Ch.Brg: N 24° 10' 11" W

CURVE DATA
 PC: 1+25.81 to PT: 2+26.66
 $\Delta = 05^\circ 46' 41''$ T: 50.47'
 R: 1000.00' Ch: 100.81'
 L: 100.85' Ch.Brg: N 18° 58' 47" W

PLAN
 Scale: 1" = 50'

PROFILE
 Scale: Hor: 1" = 50'
 Ver: 1" = 5'

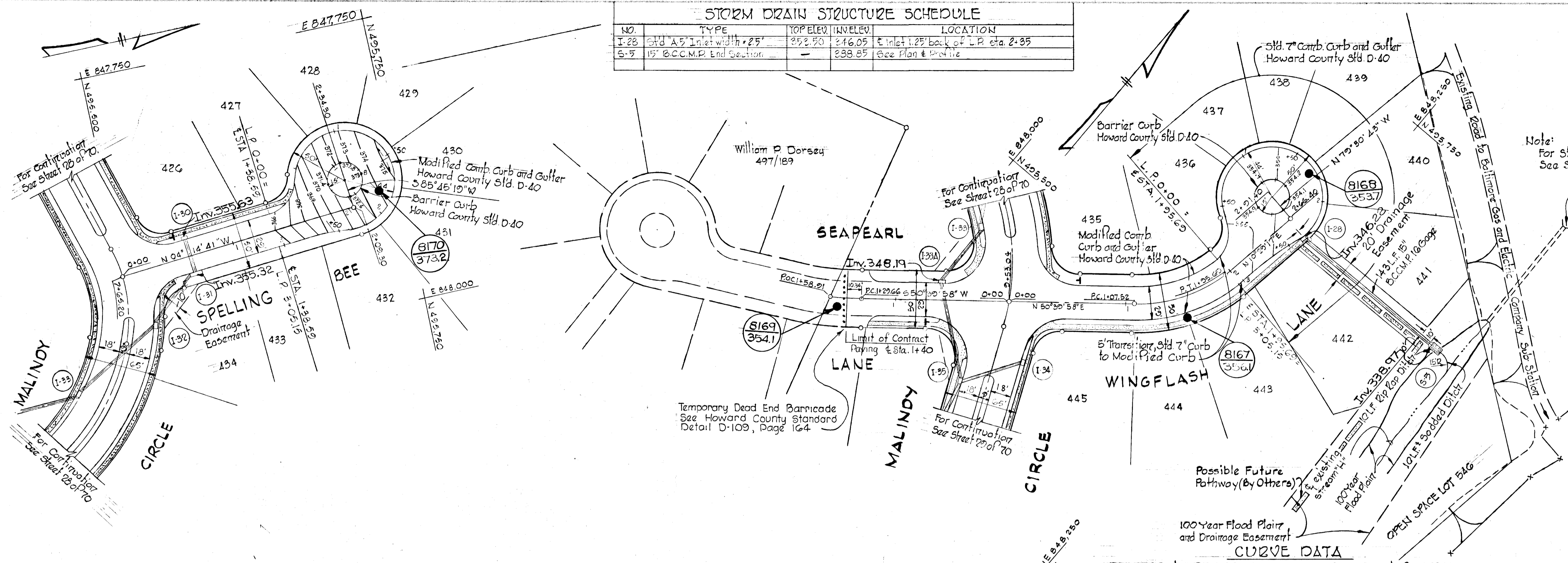
Rev. Date	Rev. No.	Revision Description
COLUMBIA 6 TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
OWNER & DEVELOPER HOWARD RESEARCH & DEVELOPMENT CORP.		
PROJECT AREA VILLAGE OF OWEN BROWN		
PROJECT TITLE PLAN AND PROFILE BARCHINK PLACE AND LACELIKE ROW		
SCALE:		DATE: 5/23/74
WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202		
<i>Kenneth A. McCord</i> KENNETH A. MCCORD Registered Engineer No. 1974		



STORM DRAIN STRUCTURE SCHEDULE				
NO.	TYPE	TOP ELEV.	INVELEV.	LOCATION
1-28	Std. A 5' Inlet width x 25'	252.90	246.09	E Inlet 1.25' back of L.P. Sta. 2+35
5-7	15' B.C.C.M.P. End Section	-	238.85	See Plan & Profile

DEPARTMENT OF PUBLIC WORKS
G. M. Mehlend 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE

OFFICE OF PLANNING AND ZONING
J. B. Lawson 5/31/74
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE



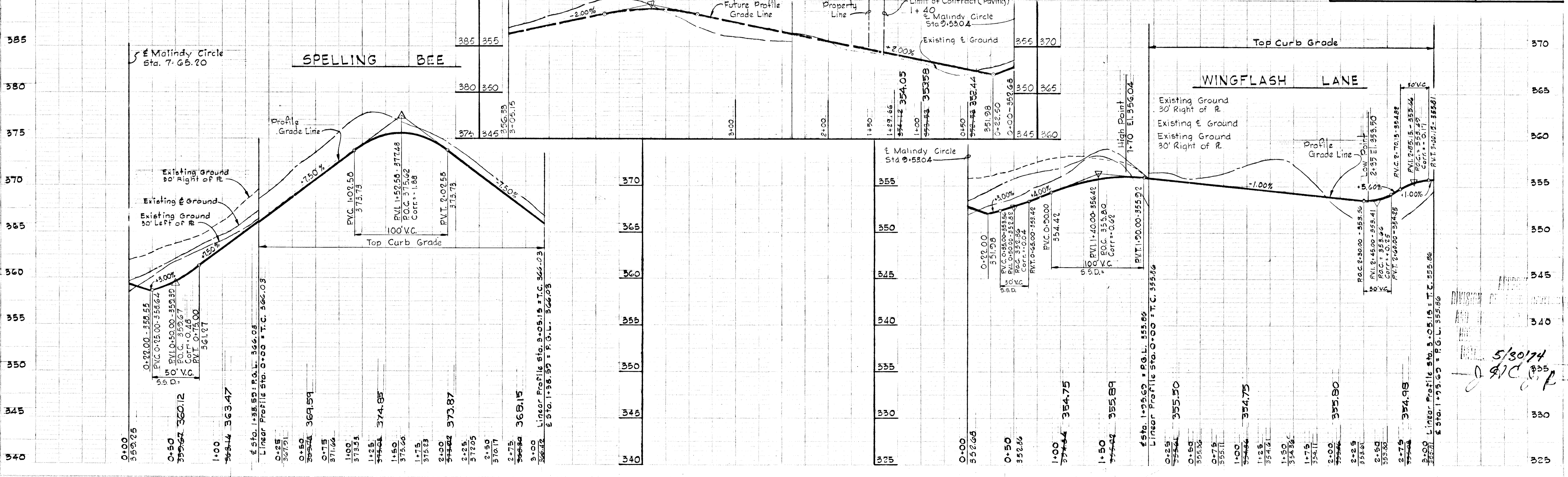
Note: For Storm Drain Profile See Sheet 55 of 70

LEGEND
 T Stop Sign 24" (30"x30")
 O'S-BUILT Elevations as of May 3, 1978

Rev. Date	Rev. No.	Revision Description
COLUMBIA 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP.		
PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4 AREA 1		
PROJECT TITLE PLAN AND PROFILE SPELLING BEE, SEAPEARL LANE AND WINGFLASH LANE		
SCALE: As Shown		DATE: 5/23/74
WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202		
<i>Kenneth A. McCord</i> KENNETH A. MCCORD Registered Engineer No. 1974		

CURVE DATA

PC: 1+07.52 to PT: 1+95.65	PC: 1+29.66 to POC: 1+88.91
Δ = 40°10'41"	Δ = 05°35'13"
Tan = 45.99'	Tan = 14.64'
R = 125.74'	R = 300.00'
Ch = 86.38'	Ch = 29.24'
Arc = 88.17'	Ch. Brng = N 30°34'37"E
	Ch. Brng = S 55°27'35"W

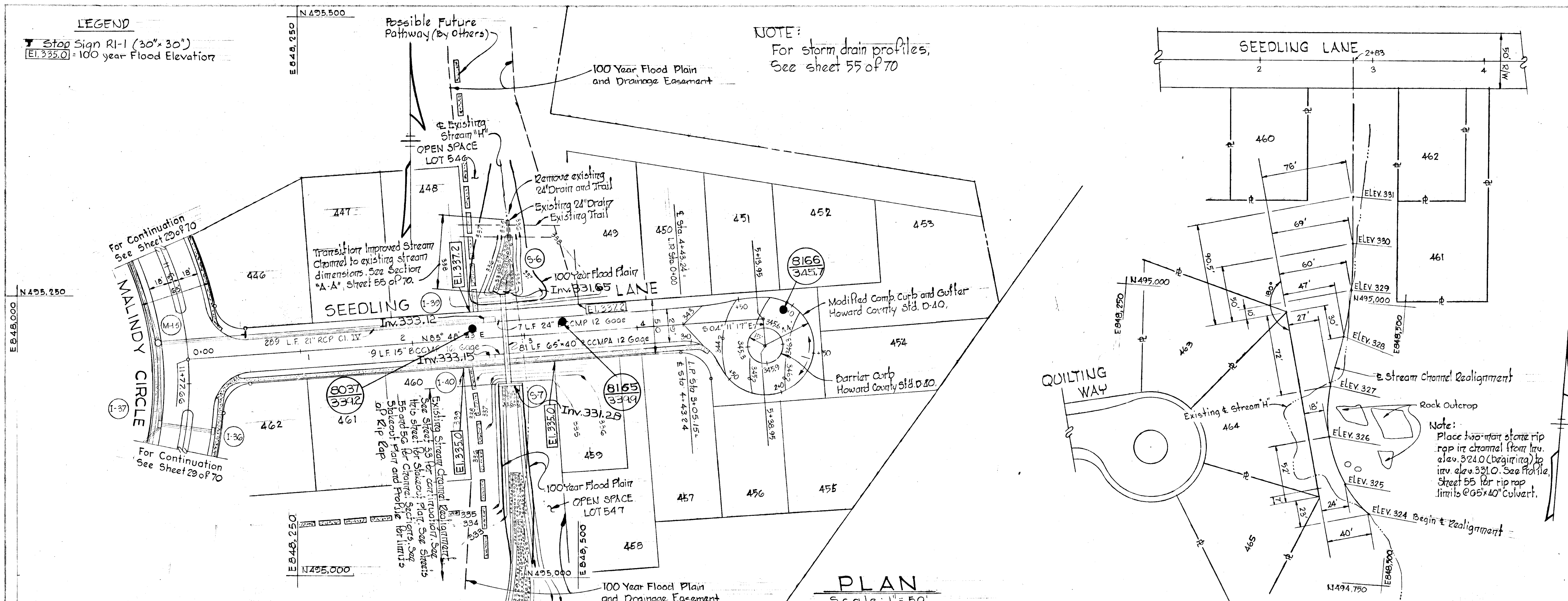


5/30/74
J. B. Lawson

LEGEND
 Stop Sign RI-1 (30" x 30")
 E.L. 335.0 = 100 year Flood Elevation

NOTE:
 For storm drain profiles,
 See sheet 55 of 70

DEPARTMENT OF PUBLIC WORKS
S. M. McLeod 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE
 OFFICE OF PLANNING AND ZONING
J. Lawson Jr. 5/31/74
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE
 AND TRANSPORTATION PLANNING
 © "AS-BUILT" Elevations as of May 3, 1978



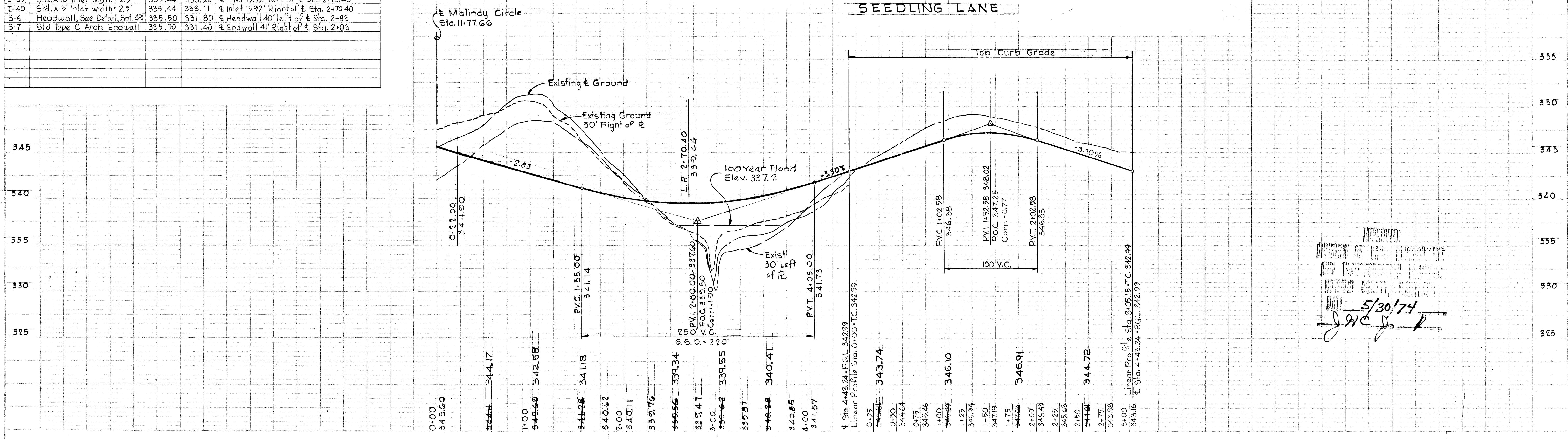
Rev. Date	Rev. No.	Revision Description
COLUMBIA 6 TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
OWNER & DEVELOPER HOWARD RESEARCH & DEVELOPMENT CORP		
PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4 AREA 1		
PROJECT TITLE PLAN AND PROFILE SEEDLING LANE		
SCALE: AS SHOWN		DATE: 5/23/74
WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202		
<i>Kenneth A. McCord</i> KENNETH A. MCCORD Registered Engineer No. 1974		

STORM DRAIN STRUCTURE SCHEDULE

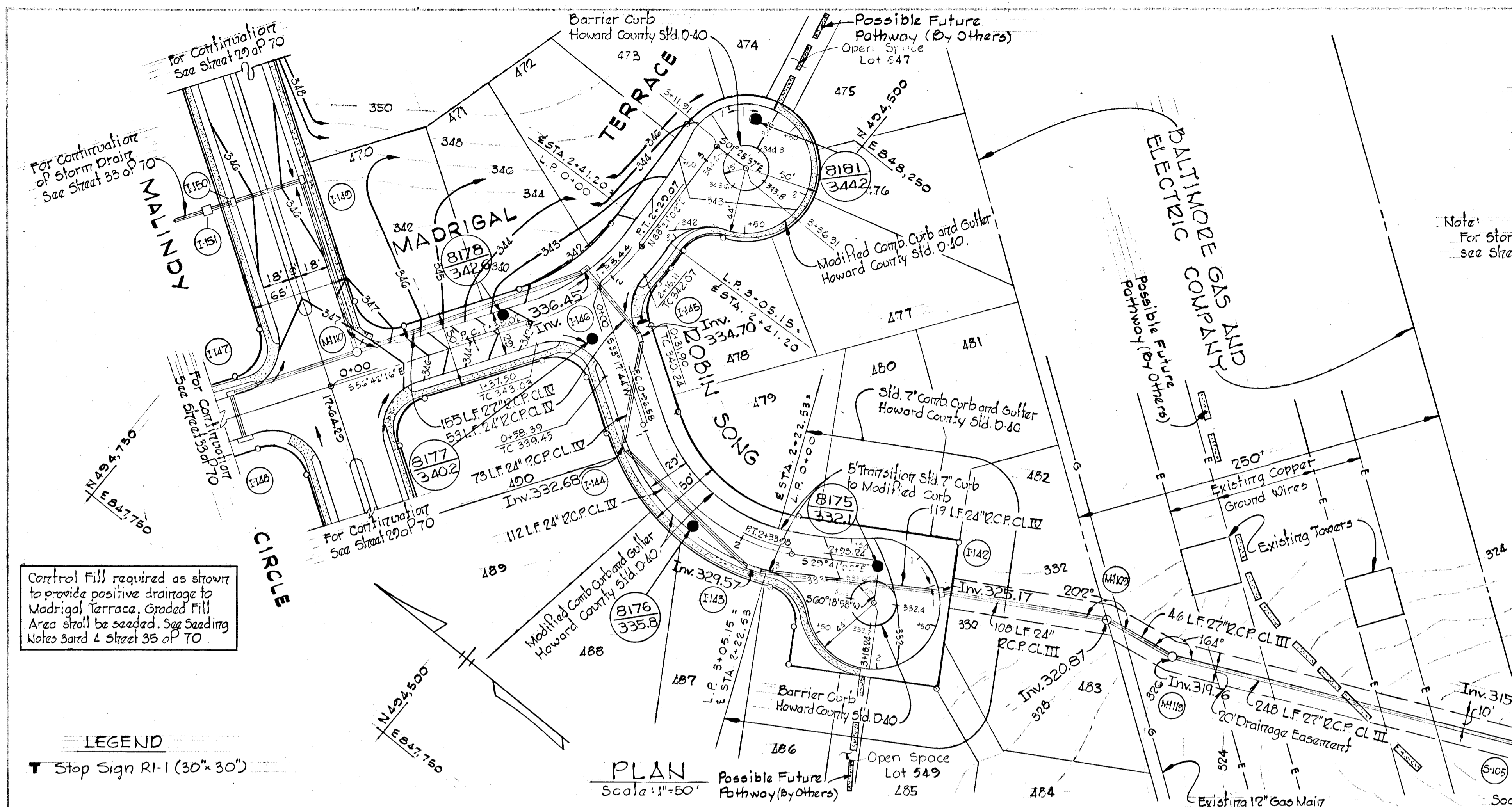
No.	TYPE	TOP ELEV.	INV. ELEV.	LOCATION
I-39	Std. A-10 Inlet width - 2.5'	339.44	333.26	± Inlet 15.92' Left of ± Sta. 2+70.40
I-40	Std. A-5 Inlet width - 2.5'	339.44	333.11	± Inlet 15.92' Right of ± Sta. 2+70.40
S-6	Headwall, See Detail, Sh. 49	335.50	331.80	± Headwall 40' Left of ± Sta. 2+83
S-7	Std. Type C Arch Endwall	335.90	331.40	± Endwall 41' Right of ± Sta. 2+83

PLAN
 Scale: 1" = 50'
PROFILE
 Scale: Hor. 1" = 50'
 Ver. 1" = 5'

STAKEOUT PLAN
 (Existing Stream Channel Realignment)
 Scale: 1" = 50'



APPROVED
 5/30/74
J. P. C. Jr.



STORM DRAIN STRUCTURE SCHEDULE				
NO.	TYPE	TOP ELEV.	INV. ELEV.	LOCATION
S105	Std. 27" Concrete End Section	315.50	315.50	See Plan and Profile
M110	Std. Manhole	327.00	320.62	See Plan and Profile
M109	Std. Manhole	329.00	320.75	Manhole @ Int. Rear lot lines 482-483
I-142	Std. "A-5" Inlet width: 2'5"	331.85	325.15	Inlet 1.25' back of L.P. Sta. 1+23.75
I-143	Std. "A-10" Inlet width: 3.0'	334.88	329.15	Inlet 10.17' Right of P.E. Sta. 2+14.00
I-144	Std. "A-5" Inlet width: 3.5'	338.15	332.55	Inlet 16.42' Right of P.E. Sta. 1+05.00
I-145	Std. "A-5" Inlet width: 3.0'	340.10	334.55	Inlet 10.17' Left of P.E. Sta. 0+40.00
I-146	Std. "A-5" Inlet width: 3.0'	341.18	336.20	Inlet 10.17' Left of P.E. Sta. 1+08.44

DEPARTMENT OF PUBLIC WORKS
Kenneth A. McCord 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE
 OFFICE OF PLANNING AND ZONING
W. A. Clouse 5/31/74
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE
 AND TRANSPORTATION PLANNING
 © "AS-BUILT" Elevations as of May 3, 1978

Note:
 For Storm Drain Profiles,
 see Street 56 of 70

Rev. Date	Rev. No.	Revision Description
COLUMBIA 6 TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND OWNER & DEVELOPER HOWARD RESEARCH & DEVELOPMENT CORP. PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4 AREA 1 PROJECT TITLE PLAN AND PROFILE MADRIGAL TERRACE ROBIN SONG SCALE: AS SHOWN DATE: 5/23/74 WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202 <i>Kenneth A. McCord</i> KENNETH A. MCCORD Registered Engineer No. 1974		

CURVE DATA

PC. 0+26.58 to PT. 2+33.98
 $\Delta = 62^\circ 58' 46"$ T = 76.57'
 $R = 125.00'$ Ch = 130.59'
 $L = 197.40'$ Ch. Brg = $60^\circ 48' 21" W$

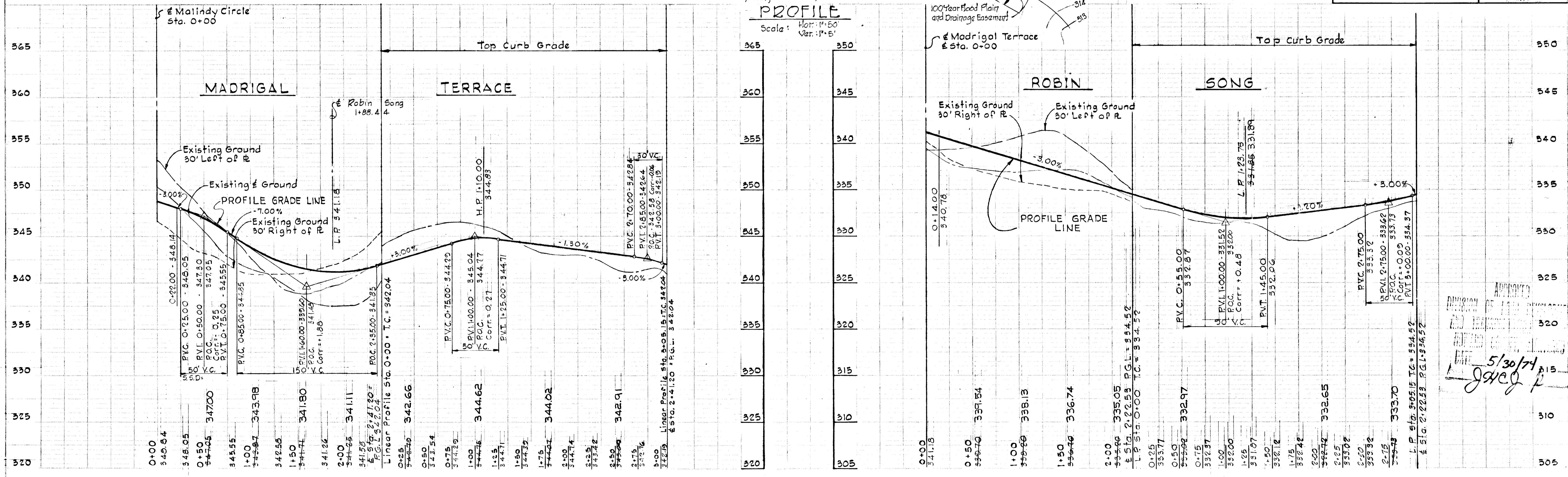
PC. 1+38.02 to E Robin Song
 $\Delta = 19^\circ 15' 33"$ T = 25.45'
 $R = 150.00'$ Ch = 50.16'
 $L = 50.42'$ Ch. Brg = $566^\circ 20' 02" E$

E Robin Song to PT. 2+29.07
 $\Delta = 15^\circ 31' 09"$ T = 20.44'
 $R = 150.00'$ Ch = 40.50'
 $L = 40.65'$ Ch. Brg = $583^\circ 45' 28" E$

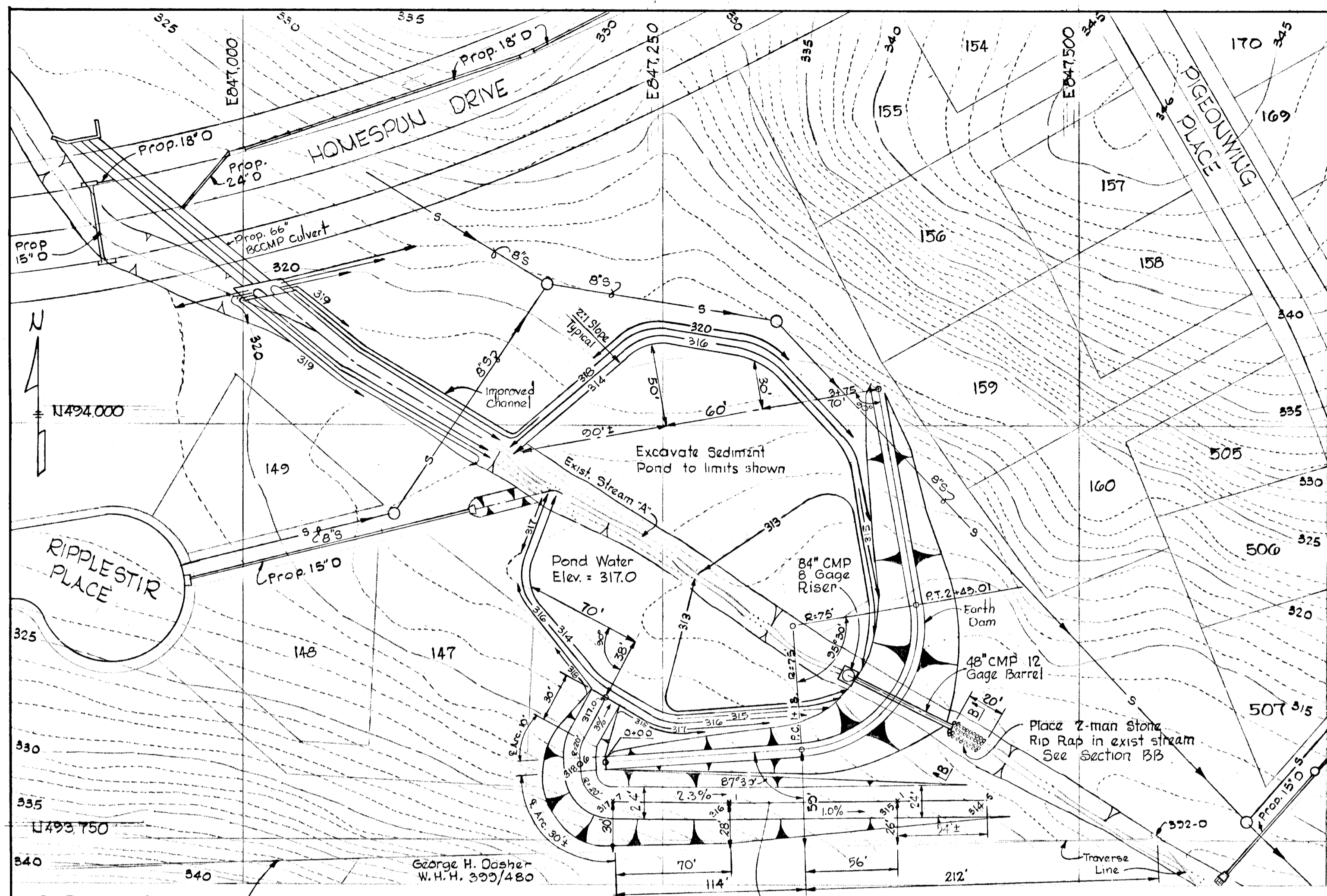
LEGEND
 T Stop Sign R1-1 (30" x 30")

PLAN
 Scale: 1" = 50'

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



APPROVED
J. A. [Signature]
 5/30/74
 15



CURVE DATA
 Earth Dam
 Radius = 75.00'
 Δ = 95°30'
 Tan = 62.57'
 Arc Length = 125.01'

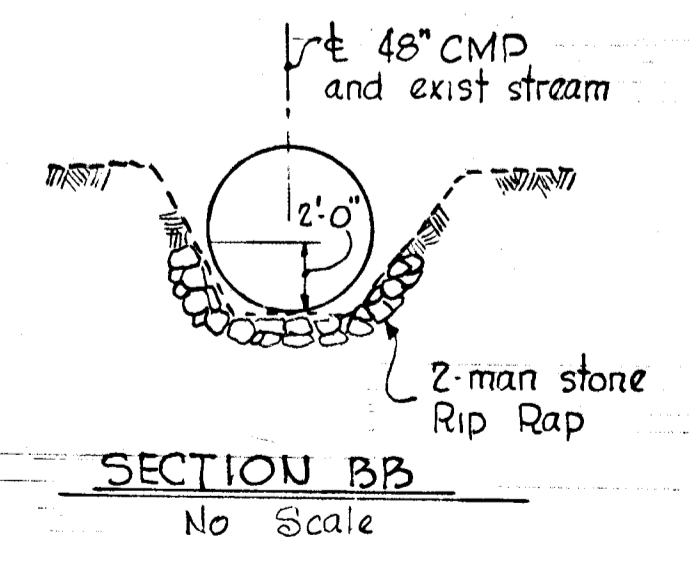
PLAN - SEDIMENT POND No. 1
 Scale: 1" = 50'

SEDIMENT CONTROL NOTES

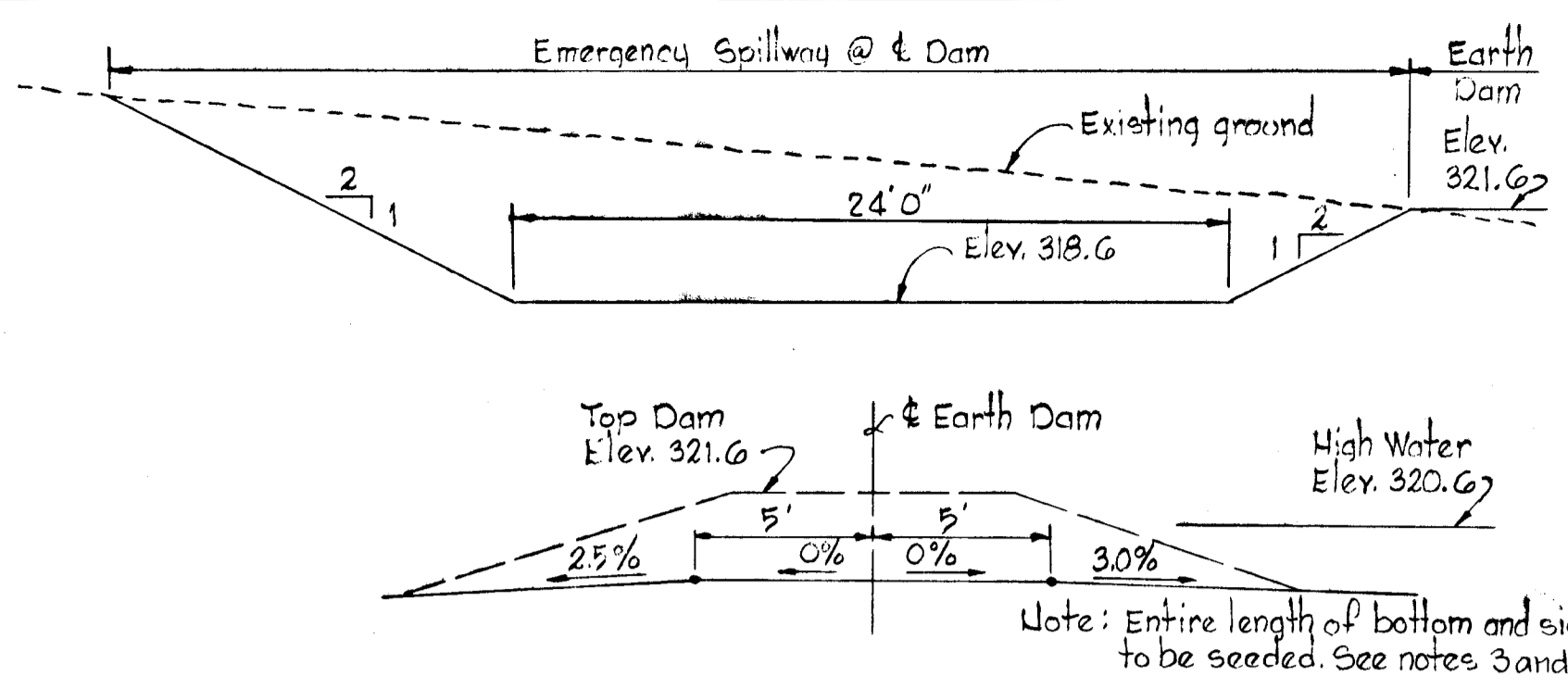
- All sediment controls must be constructed prior to any grading.
- No temporary sediment control structure may be removed or destroyed without approval of the Howard County Soil Conservation District.
- All areas to be seeded shall receive the following mixture: annual ryegrass (20%), Kentucky blue grass (20%), and Kentucky 31 fescue (60%) at the rate of 200#/Acre. Sow with mechanical spreader rake, minimum of two (2) passes with "Pork Rake", cover and compact with cultipacker. Surface preparation to include ground limestone over topsoil surface area at the rate of 1 1/4 Ton/Acre (60#/1000#) commercial fertilizer (5-10-10) at the rate of 3/4 Ton/Acre (35#/1000#) superphosphate at the rate of 600#/Acre (15#/1000#).
- Mulch areas with straw @ rate of 75#/1000 S.F. or 15 tons/Acre. Anchor with asphalt @ rate of 480 gallons/Acre.
- Prior to starting grading, the contractor shall give 24 hrs notice to the Howard Soil Conservation District and the Howard County Bureau of Licenses, Inspections and Permits.
- All earthwork stockpiles that will not be disturbed for 3 weeks or longer, shall immediately after piling be fertilized, limed and seeded with annual Ryegrass at the rate of 1#/1000#.
- All Storm Drain Inlets except two Inlets on Fairmead Road shall be capped and remain capped until their respective watersheds are stabilized.
- For Roadway Inlet Detail, see Sheet 44.
- All Berms and Drainage swales shall be stabilized immediately after construction of same. See General Note 10, Sheet 1, Seeding notes 3 and 4 and permanent seeding note above.
- For Sediment Pond Drainage Areas, see Sheets G1, G2, G3, G4 and G5.

PERMANENT SEEDING

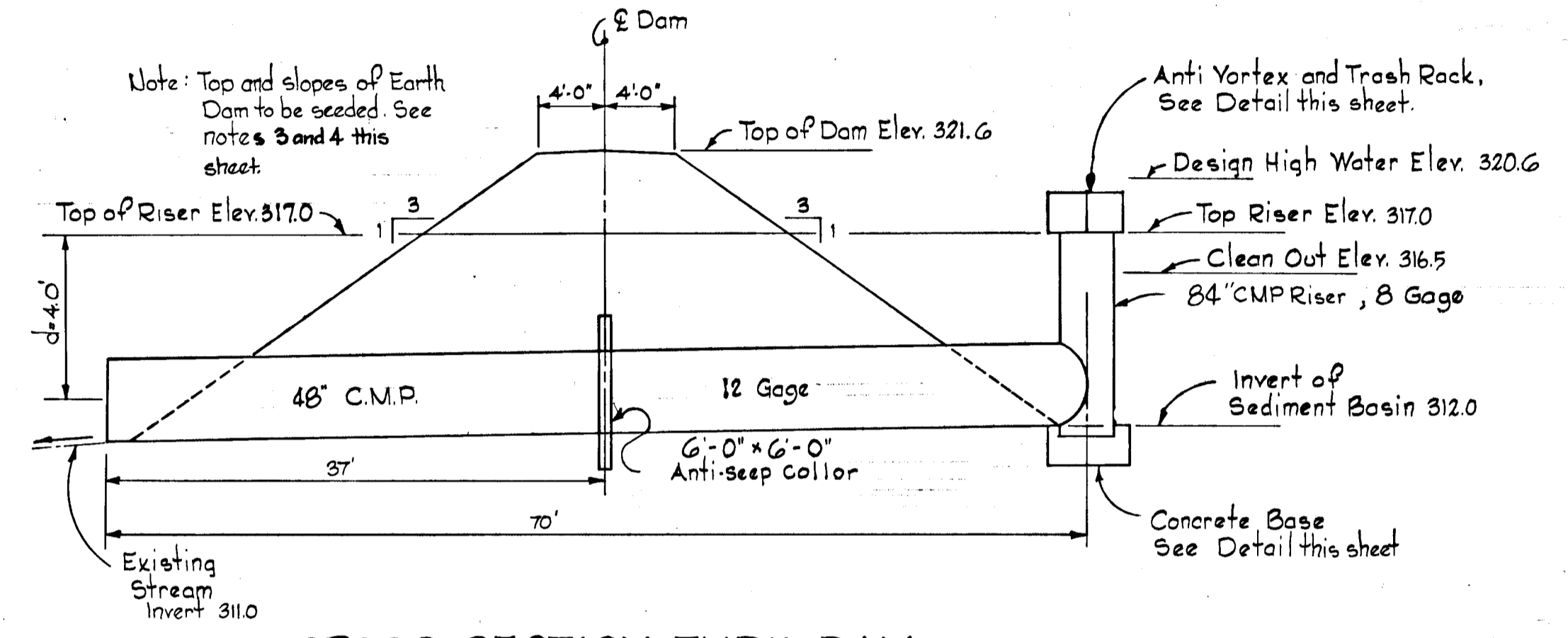
Lime: 2 Tons/Acre agricultural ground limestone
 Fertilizer: 1000 lbs/Acre (5-10-10)
 Seeding: 100 lbs/Acre of the following:
 20% Kentucky Blue Grass
 20% Merion Blue Grass
 55% Creeping Red Fescue
 5% Redtop



SECTION BB
 No Scale

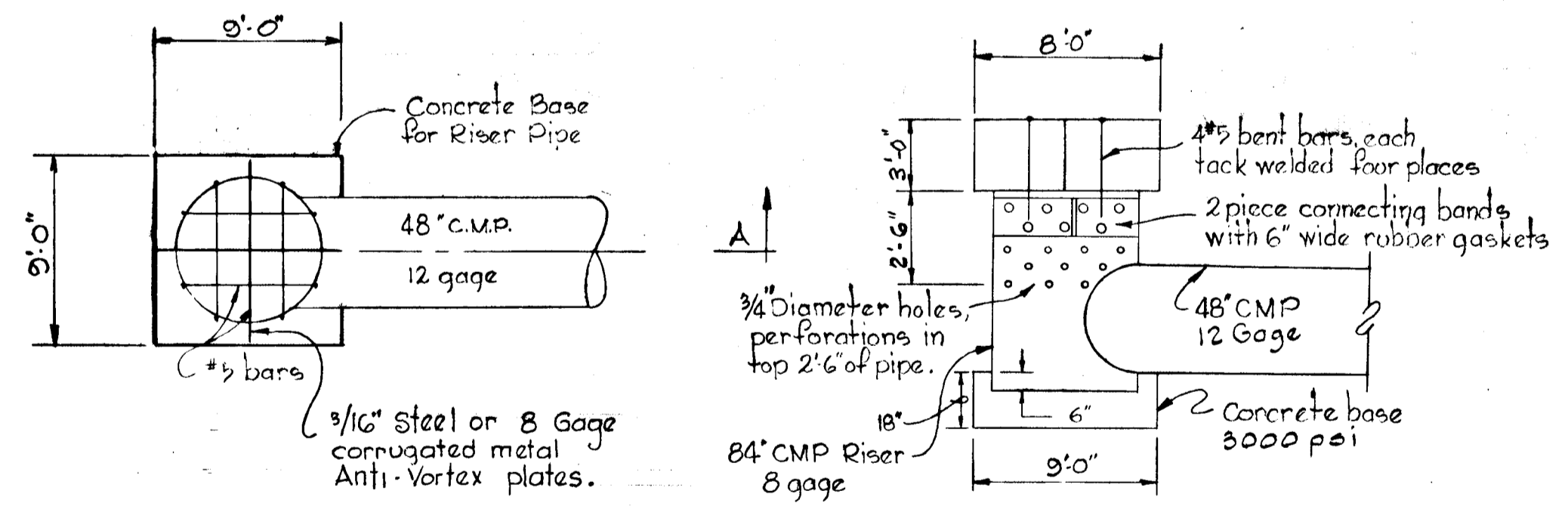


EMERGENCY SPILLWAY SECTIONS
 Scale: 1" = 5'



CROSS SECTION THRU DAM
 No Scale

- Notes:**
- Sediment Pond and Spillway excavation equals 7010 cubic yards.
 - Fill required for Earth Dam embankment equals 2200 cubic yards.
 - Program cleanup of Sediment Basin at elev. 316.50 approx. once every 6 months.
 - Compaction on Pipe to be 90-95% Standard Proctor.

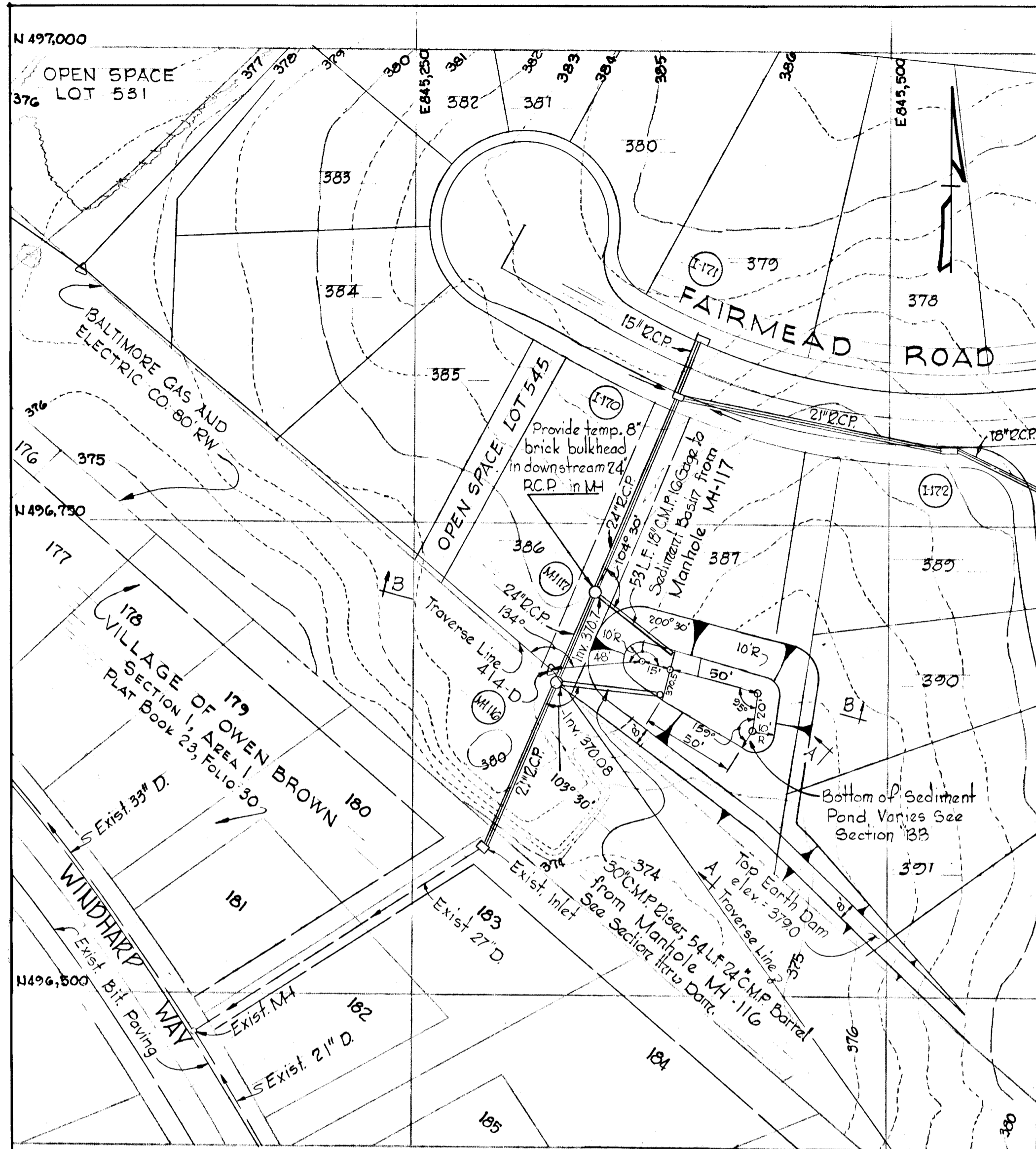


DETAIL - 48' CMP RISERS, ANTI-VORTEX AND TRASH RACK
 No Scale:

DEPARTMENT OF PUBLIC WORKS
L. M. McLeod 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE
 OFFICE OF PLANNING AND ZONING
J. G. Causey 5/31/74
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE

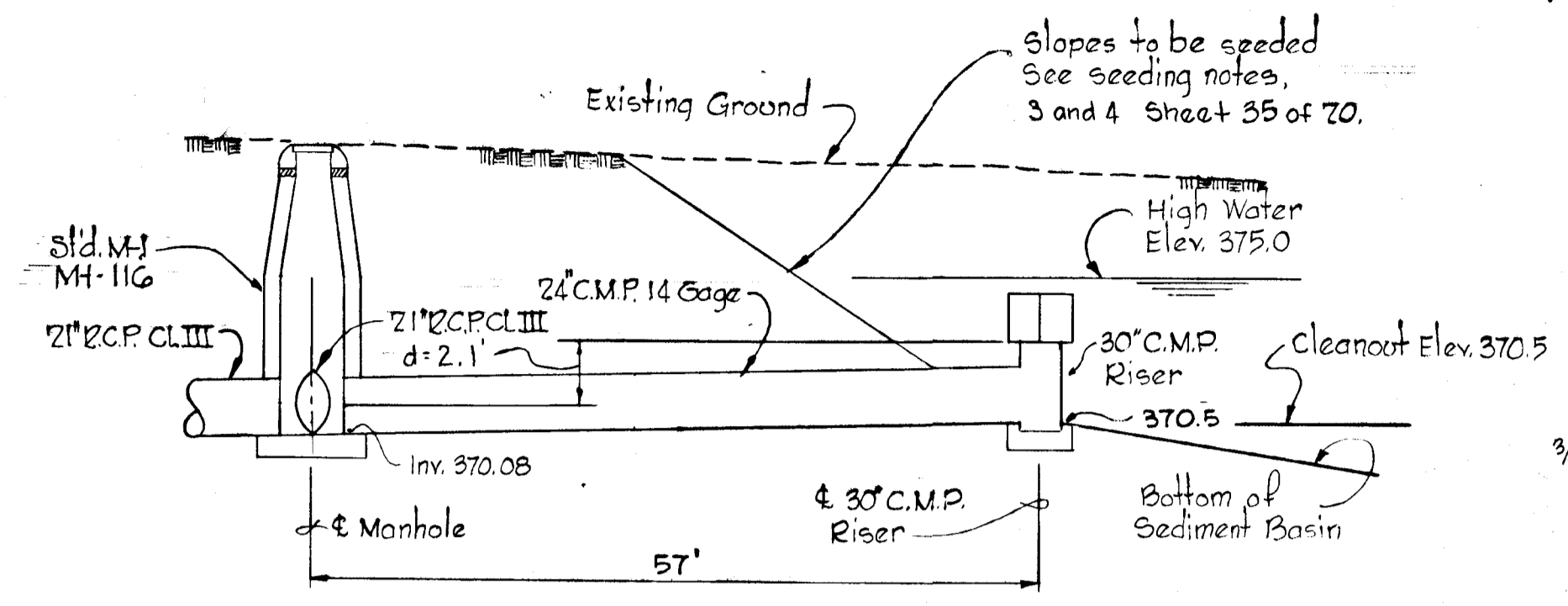
APPROVED
 DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING
 HOWARD COUNTY, MARYLAND
 DATE 5/30/74
J. G. Causey

Rev. Date	Rev. No.	Revision Description
COLUMBIA COLLECTION DISTRICT HOWARD COUNTY, MARYLAND OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP. PROJECT AREA VILLAGE OF OWEN BROWN PROJECT TITLE SEDIMENT CONTROL POND NO. 1 SCALE: As Shown DATE: 5/23/74 WHITMAN, REQUARTZ & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202 <i>Kenneth A. McCord</i> KENNETH A. McCORD Registered Engineer No. 1974		



PLAN - SEDIMENT POND No. 2

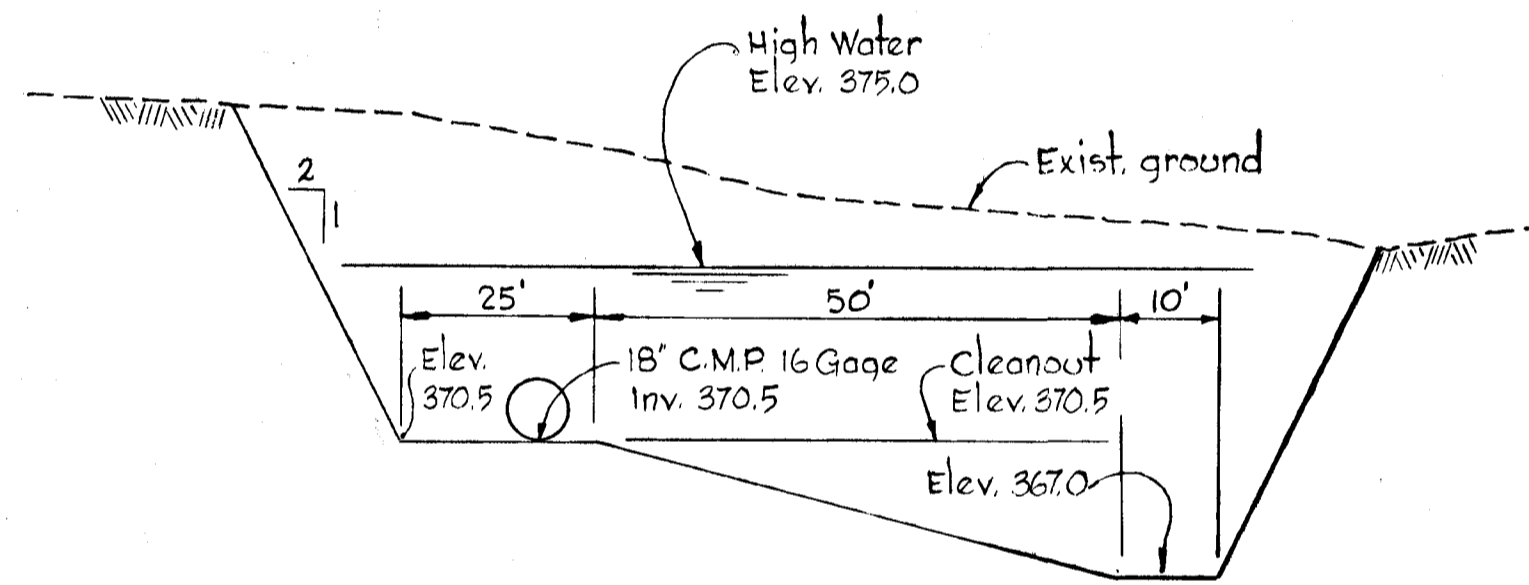
Scale: 1" = 50'



SECTION THRU DAM

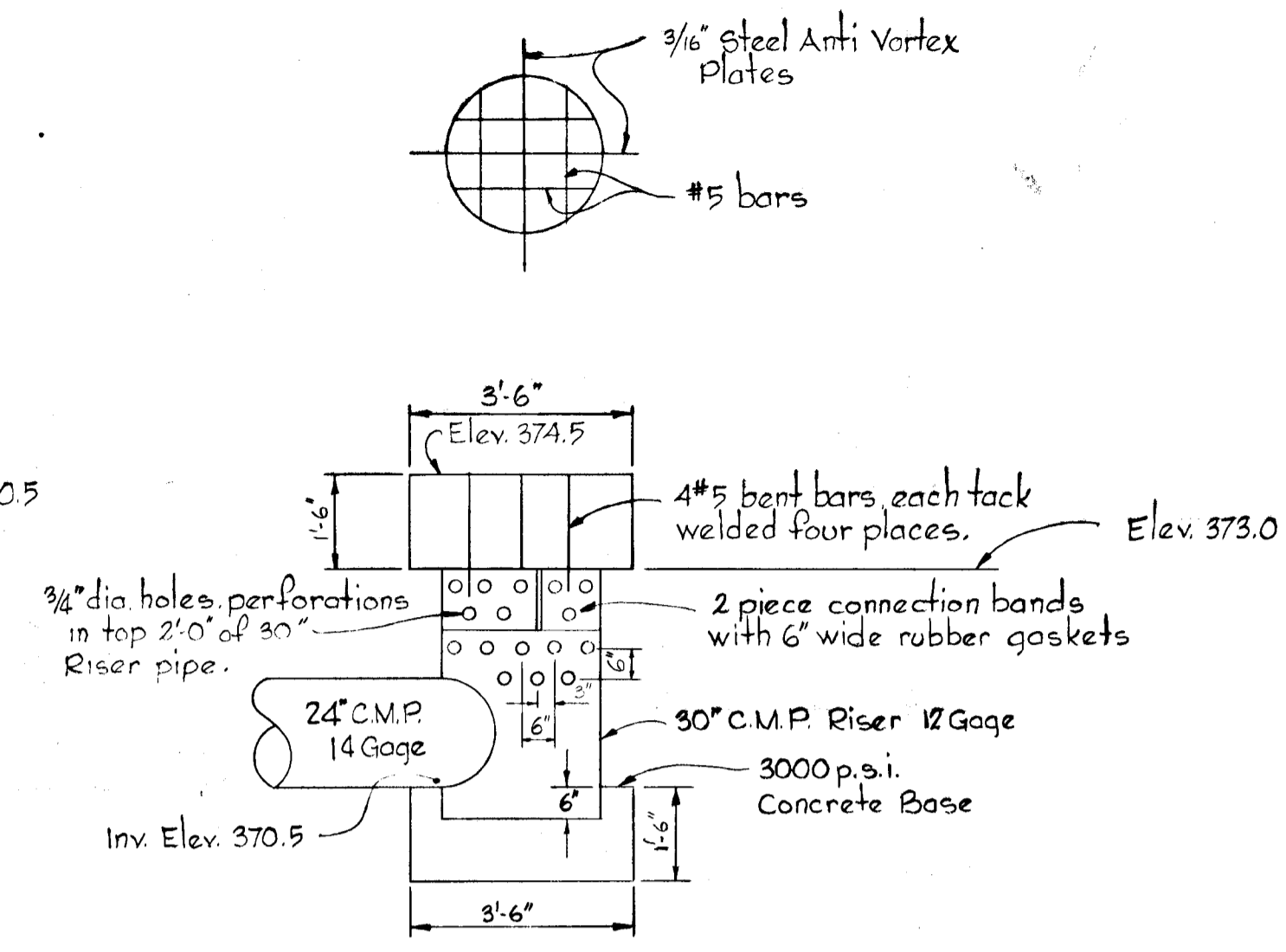
No Scale

- NOTES:
1. Sediment Pond excavation including stripping equals 1650 cubic yards
 2. Fill required for Earth Dam embankment equals 750 cubic yards.
 3. For Sediment Control Notes See Sheet 35 of 70.
 4. Program cleanout of Sediment Pond @ elev. 370.5 approx. once every 5.5 months



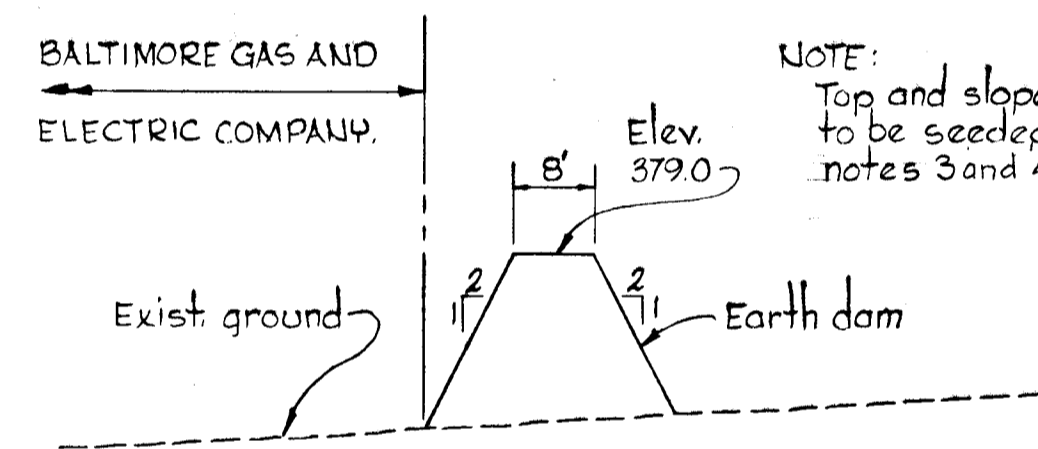
SECTION BB

Scale: Hor 1" = 20'
Ver 1" = 5'



30" C.M.P. RISER, ANTI VORTEX AND TRASH RACK

Scale: 3/8" = 1'-0"



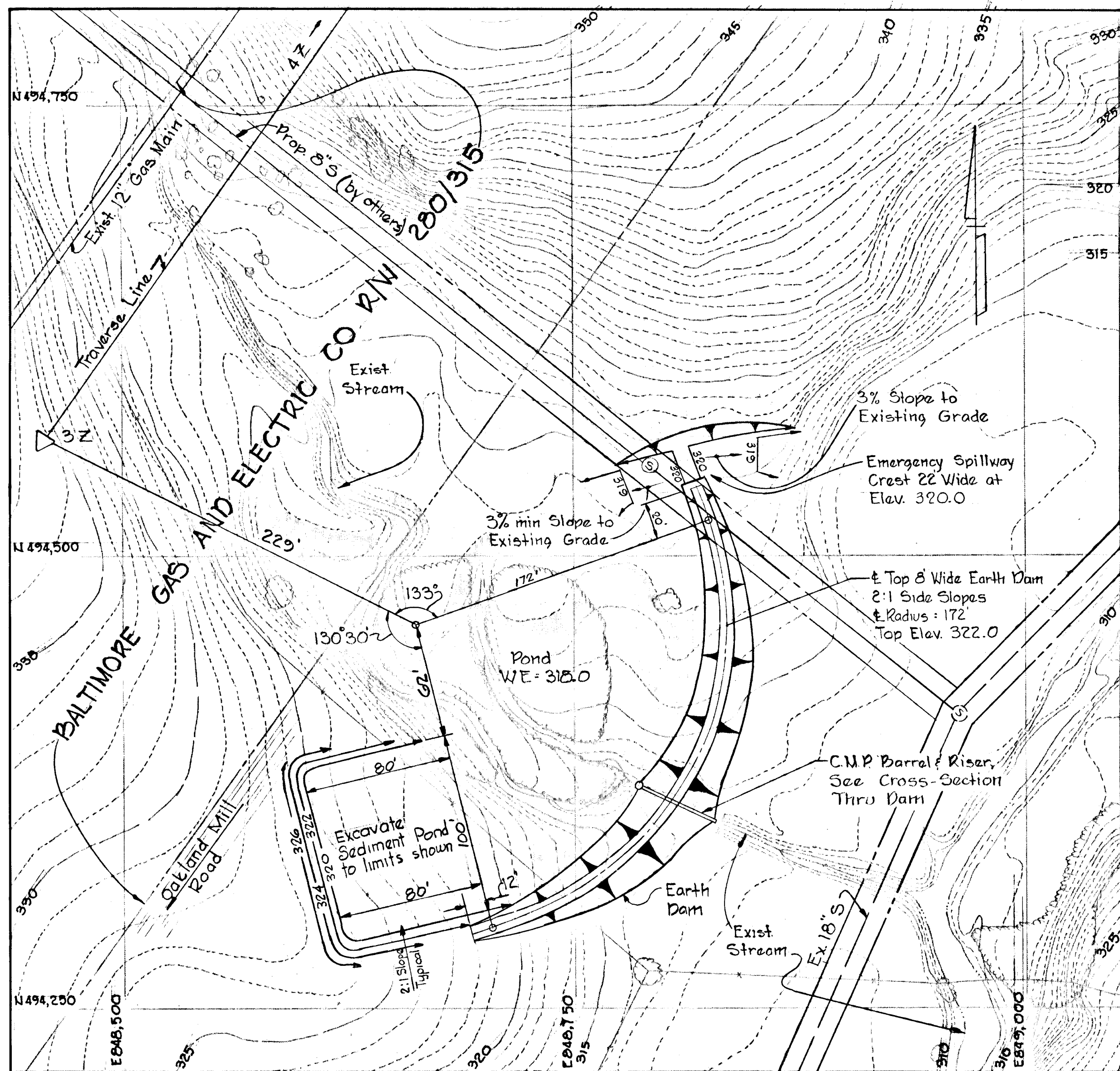
SECTION AA

Scale: Hor 1" = 20'
Ver 1" = 5'

DEPARTMENT OF PUBLIC WORKS
S. M. McLeod 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE
 OFFICE OF PLANNING AND ZONING
J. H. Clavon 5/31/74
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE

APPROVED
 DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING
 HOWARD COUNTY, MARYLAND
 DATE 5/30/74
J. H. Clavon

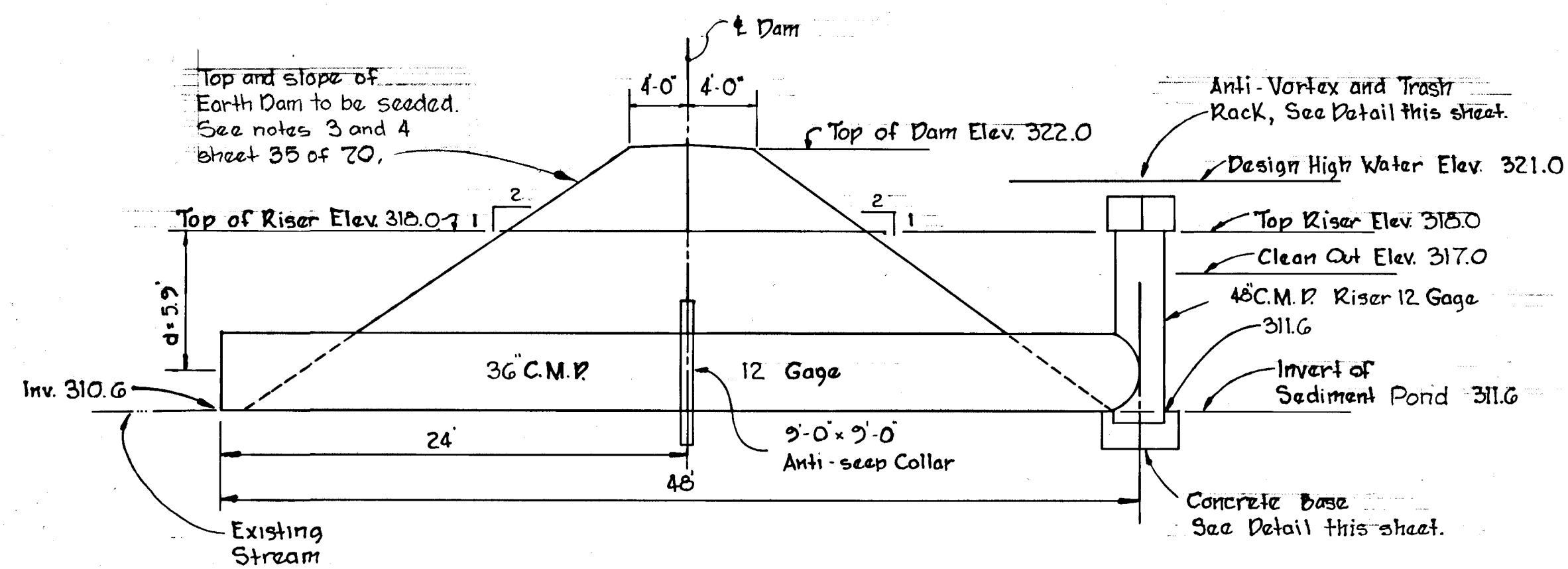
Rev. Date	Rev. No.	Revision Description
COLUMBIA		
2 ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP.		
PROJECT AREA VILLAGE OF OWEN BROWN		
PROJECT TITLE SEDIMENT CONTROL POND NO. 2		
SCALE: As Shown		DATE: 5/23/74
WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202		
<i>Kenneth A. McLeod</i> KENNETH A. McLEOD Registered Engineer No. 1974		



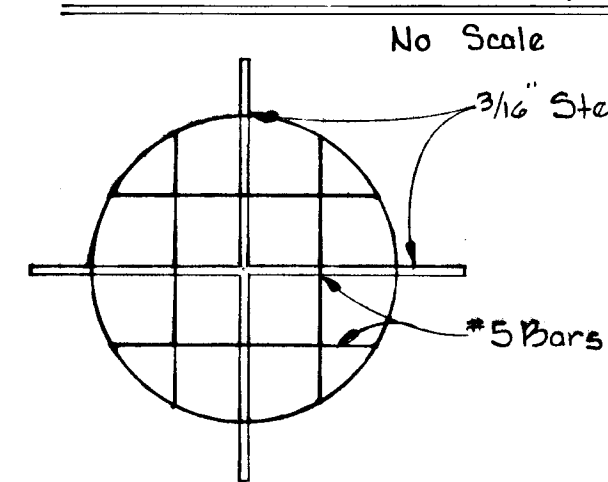
SEDIMENT POND NO. 3
Scale: 1"=50'

Notes

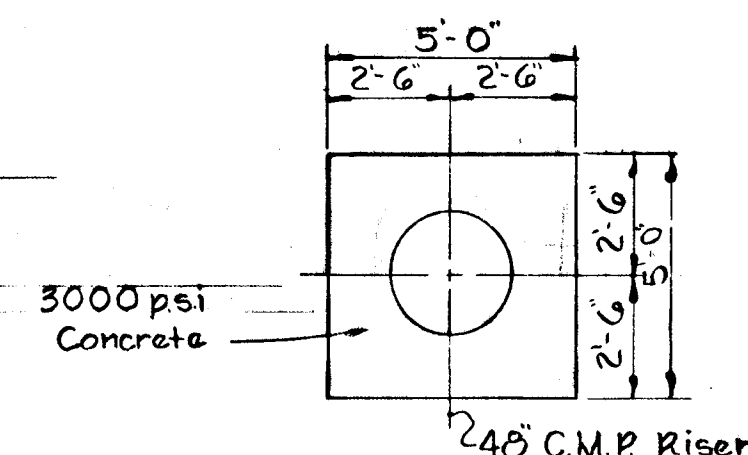
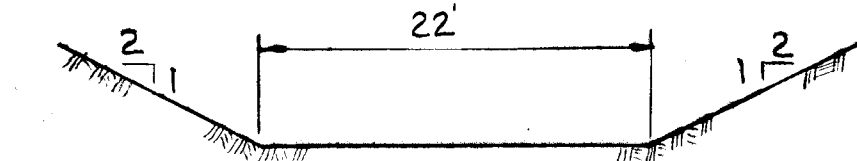
1. Spillway excavation including stripping equals 1535 cubic yards.
2. Fill required for Earth Dam embankment equals 1400 cubic yards.
3. Program cleanout of Sediment Pond at elev. 317.0 approx. once every 2.5 months.
4. See Sheet 35 of 70 for Sediment Control Notes.
5. Compaction on Pipe to be 90-95% Standard Proctor.



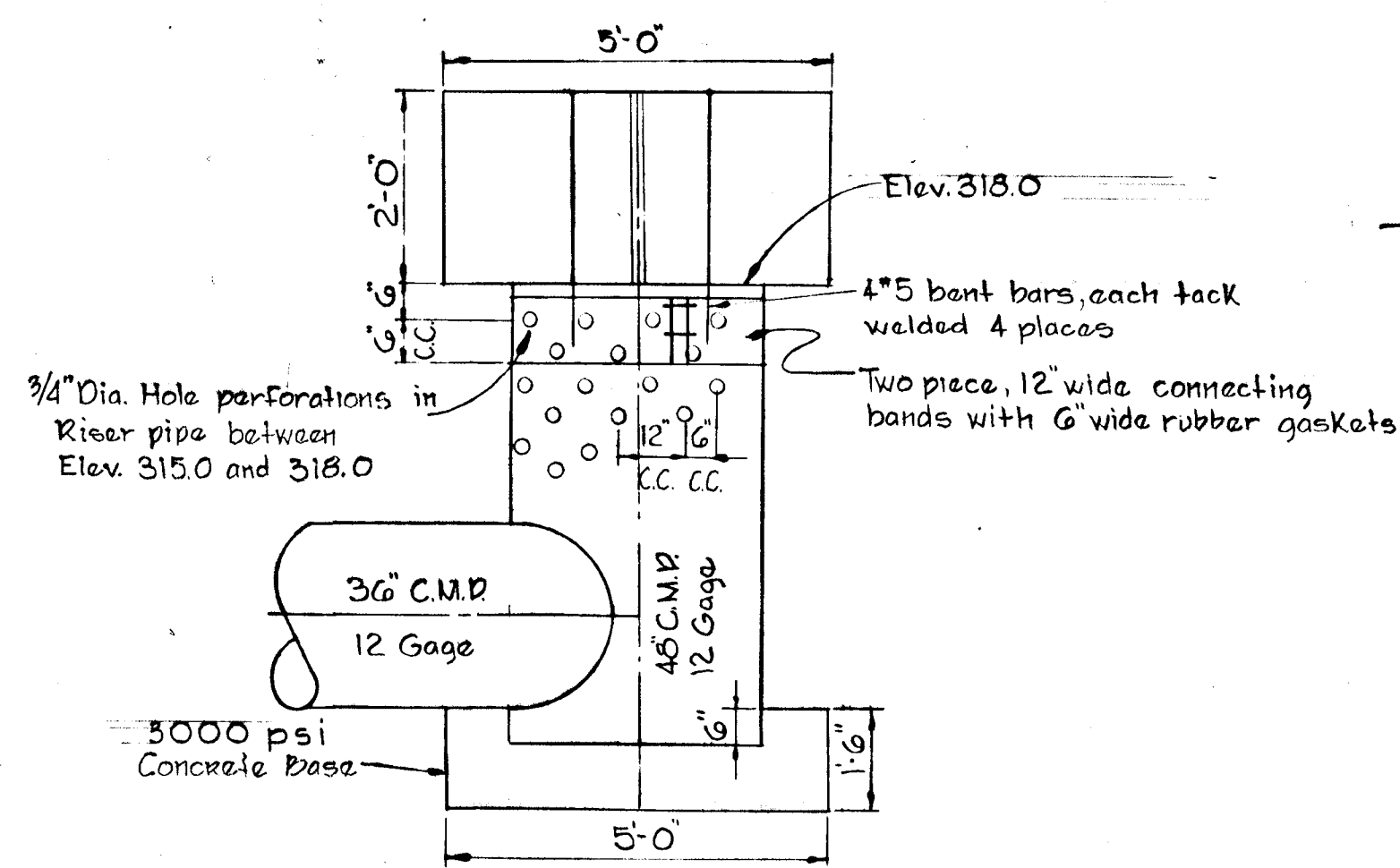
CROSS SECTION THRU DAM



Note:
Entire length of spillway to be seeded 2:1 bottom and 2:1 slopes, see seeding notes 3 and 4 Sheet 35 of 70.

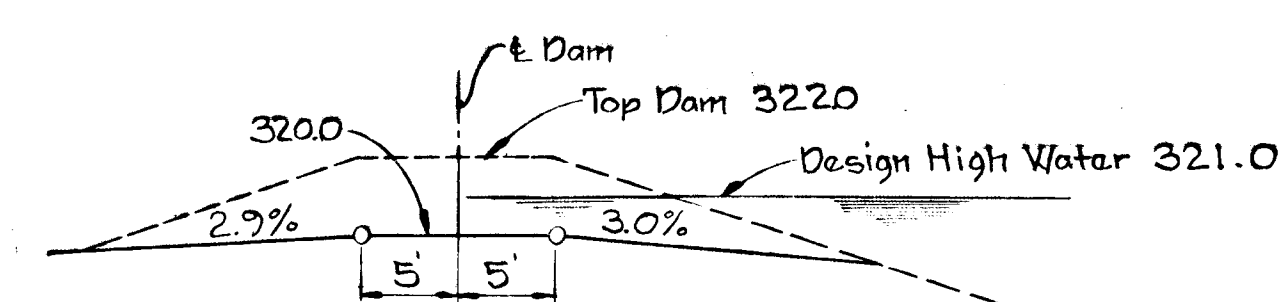


RISER PIPE BASE
Scale: 1/4"=1'-0"



DETAIL ANTI-VORTEX AND TRASH RACK

No Scale



SECTIONS EMERGENCY SPILLWAY

Rev. Date	Rev. No.	Revision Description

COLUMBIA
ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

OWNER AND DEVELOPER
HOWARD RESEARCH AND DEVELOPMENT CORP.

PROJECT AREA
VILLAGE OF OWEN BROWN

PROJECT TITLE
SEDIMENT CONTROL POND NO. 3

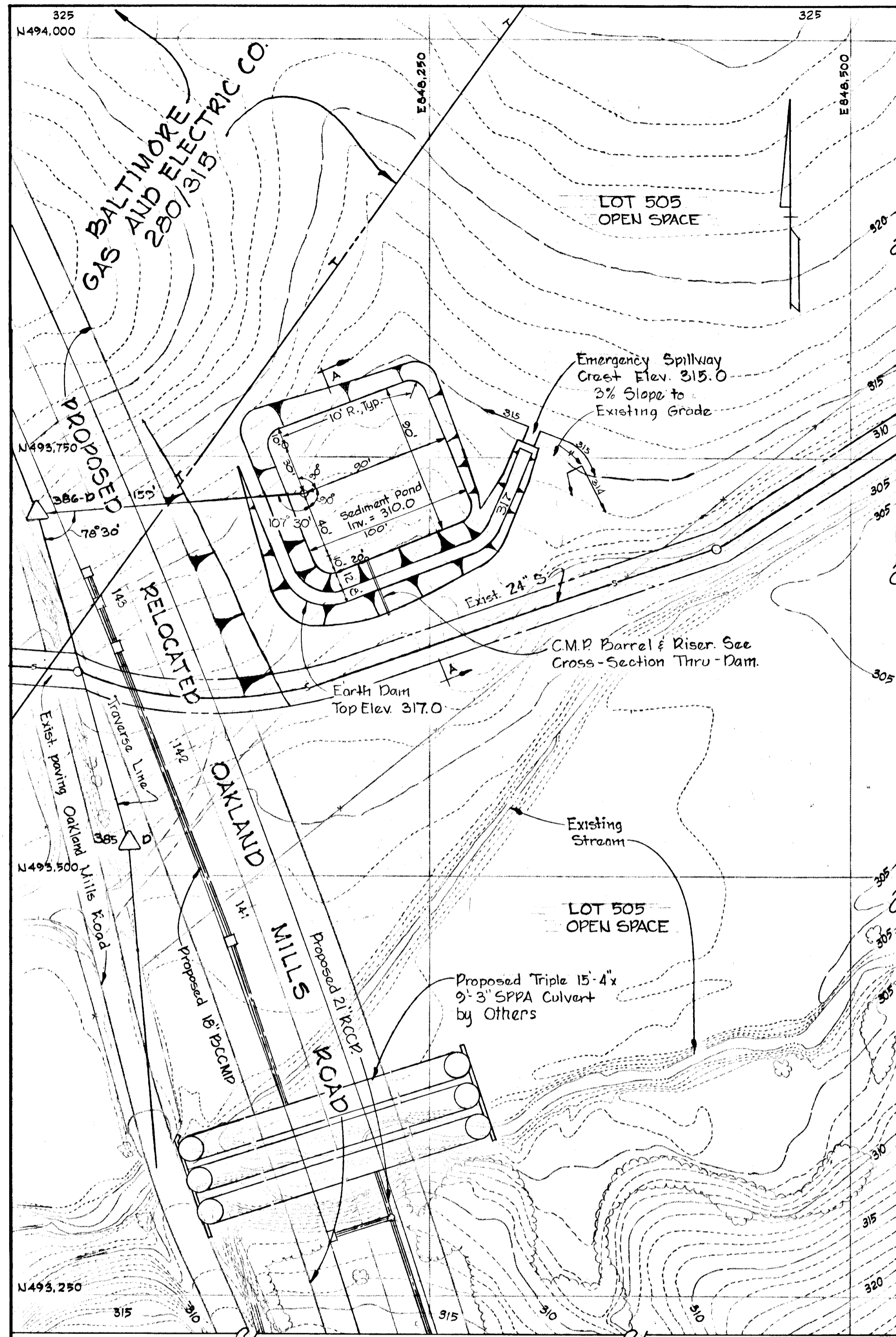
SCALE: As Shown DATE: 5/23/74

WHITMAN, REQUARDT & ASSOCIATES
ENGINEERS
BALTIMORE, MARYLAND 21202

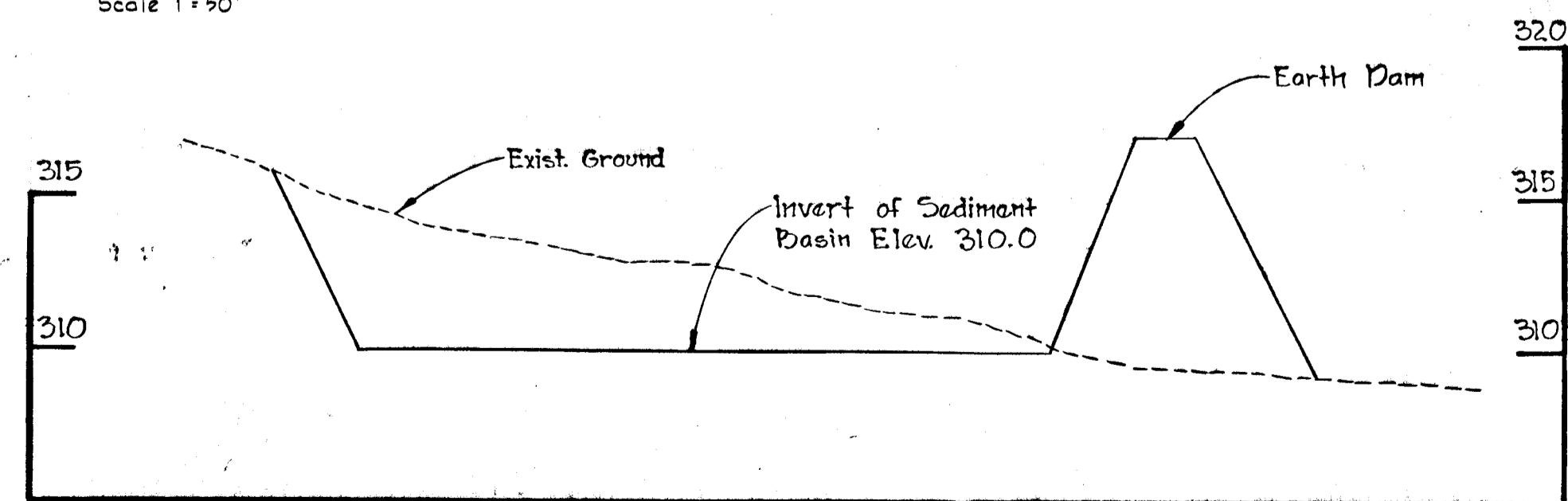
Kenneth A. McCord
KENNETH A. McCORD
Registered Engineer
No. 1974



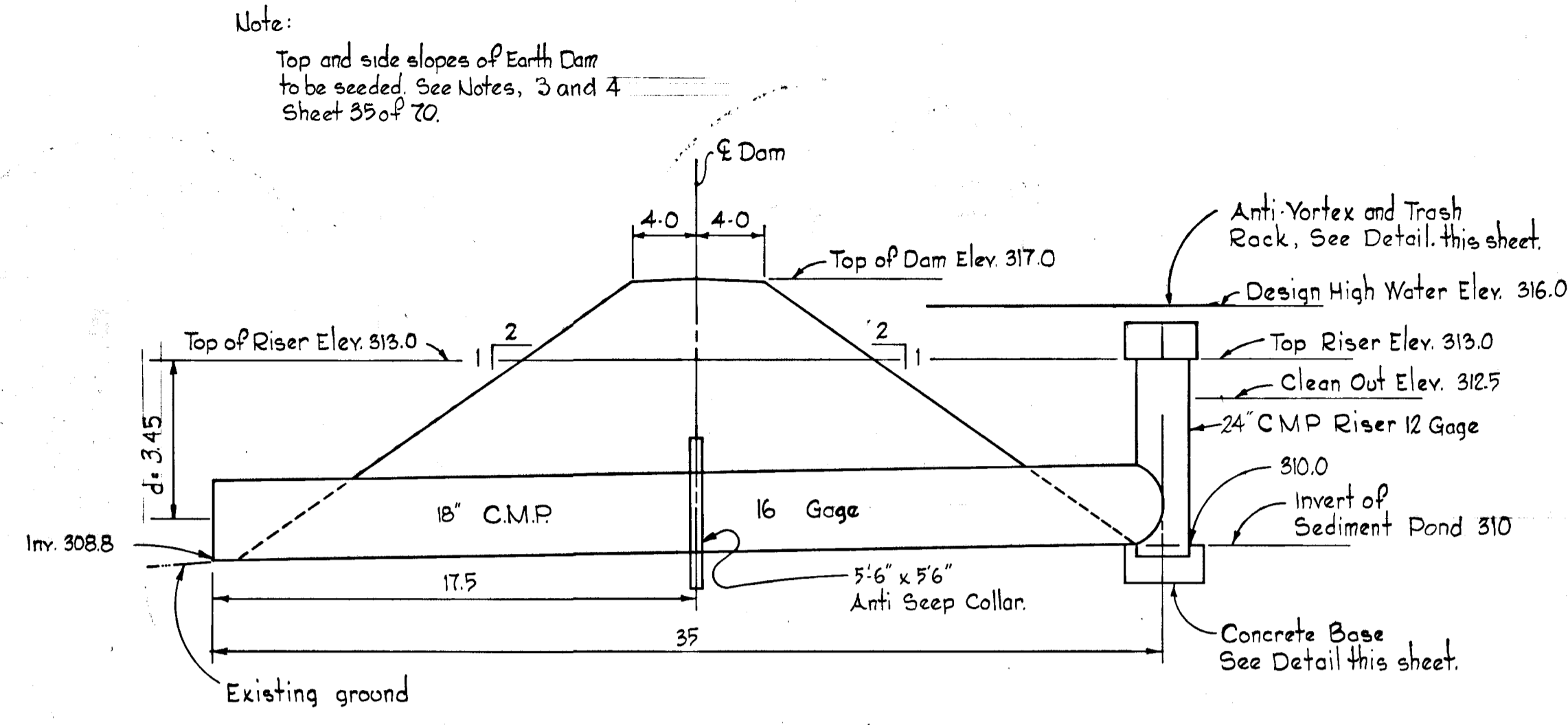
APPROVED
DIVISION OF LAND DEVELOPMENT
AND TRANSPORTATION PLANNING
DATE: 5/30/74
JAK



PLAN - SEDIMENT POND No. 4
Scale: 1" = 50'

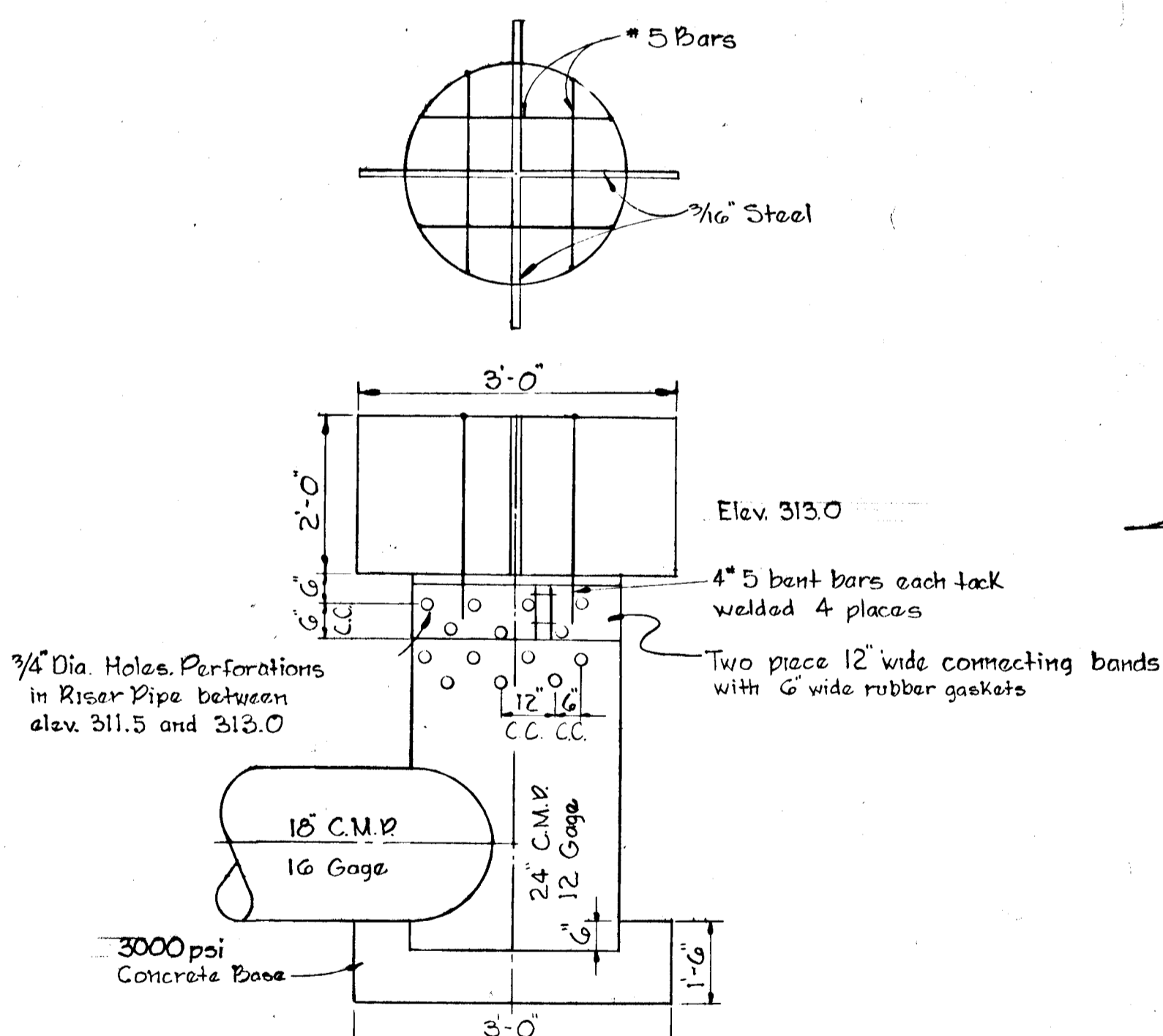


SECTION A-A
Scale: Hor: 1" = 20'
Ver: 1" = 5'

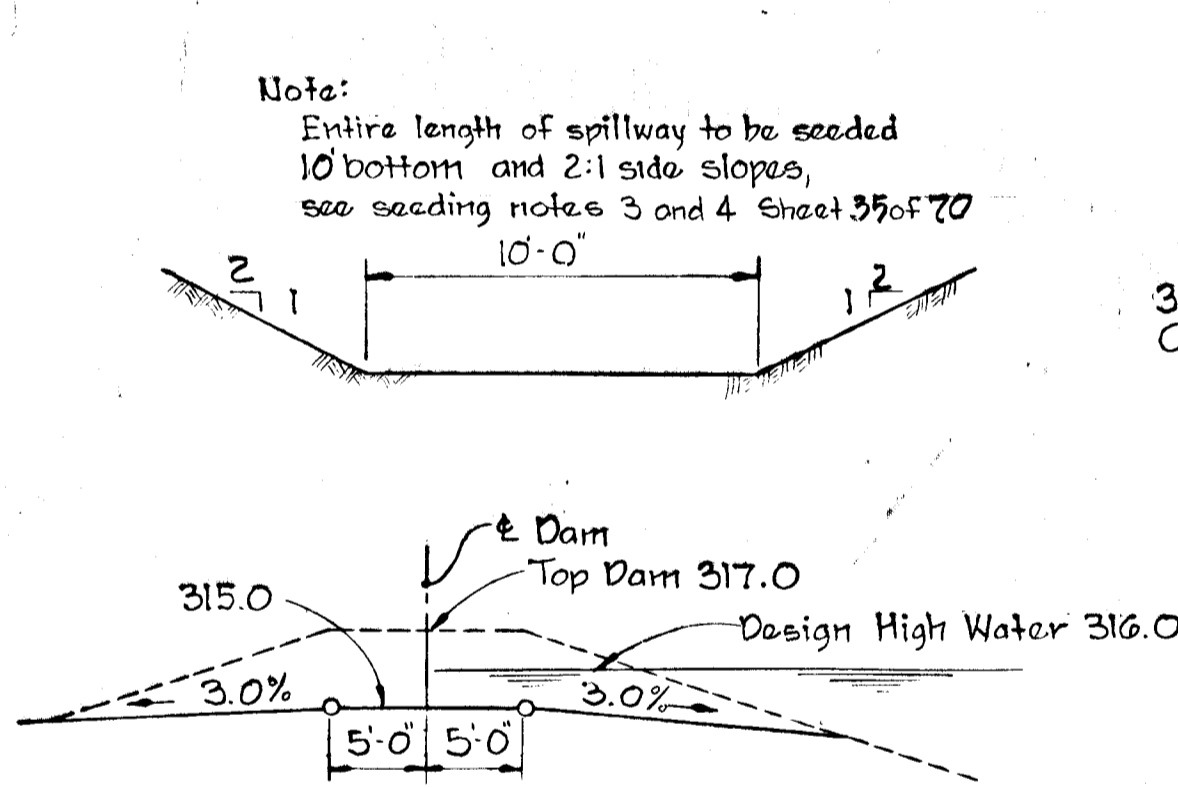


CROSS SECTION THRU DAM
No Scale

- Notes:
1. Sediment Pond and Spillway excavation including stripping equals 1250 cubic yards.
 2. Fill required for Earth Dam embankment equals 1050 cubic yards.
 3. See sheet 35 of 70 for Sediment Control notes.
 4. Program cleanout of sediment Basin at elev. 312.5 approx. once every 9.5 months.

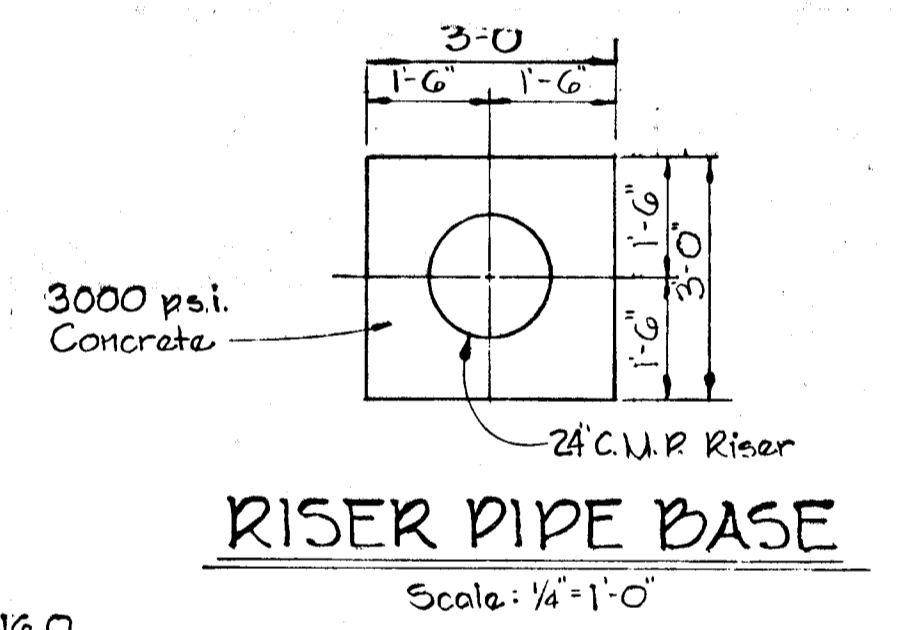


DETAIL ANTI-VORTEX AND TRASH RACK
No Scale



SECTIONS EMERGENCY SPILLWAY
No Scale

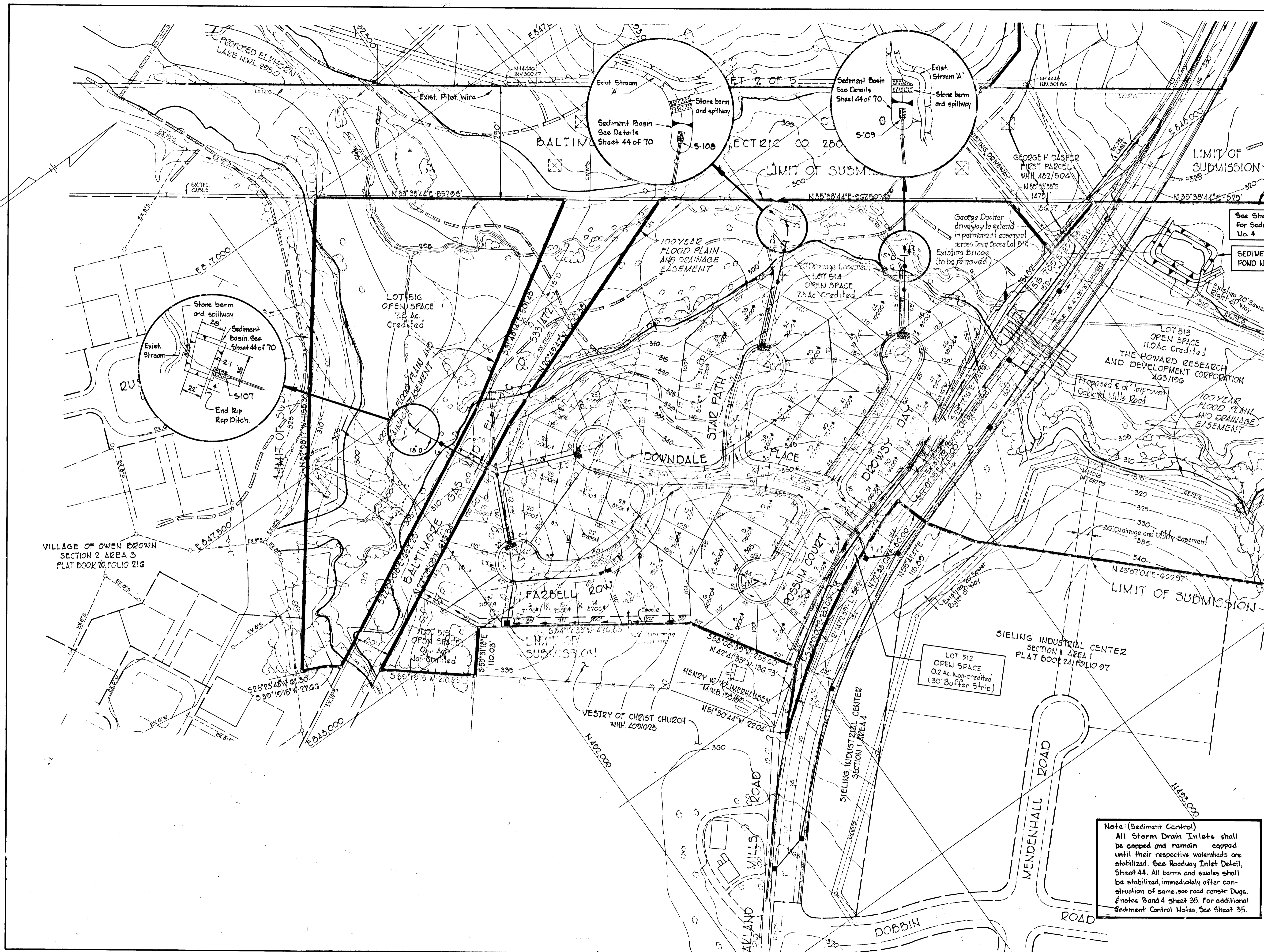
DEPARTMENT OF PUBLIC WORKS
B. M. McLeod 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE
J. H. Causey 5/31/74
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE



RISER PIPE BASE
Scale: 1/4" = 1'-0"

Rev. Date	Rev. No.	Revision Description
COLUMBIA 6 TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP.		
PROJECT AREA VILLAGE OF OWEN BROWN		
PROJECT TITLE SEDIMENT CONTROL POND No. 4		
SCALE: As Shown		DATE: 5/23/74
WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202		
<i>Kenneth A. McCord</i> KENNETH A. MCCORD Registered Engineer No. 1974		

DEPARTMENT OF PUBLIC WORKS
G. M. McLeod 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE
 OFFICE OF PLANNING AND ZONING
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE 5/31/74



See Sheet 38 for Sediment Pond No. 4
 SEDIMENT POND No. 4

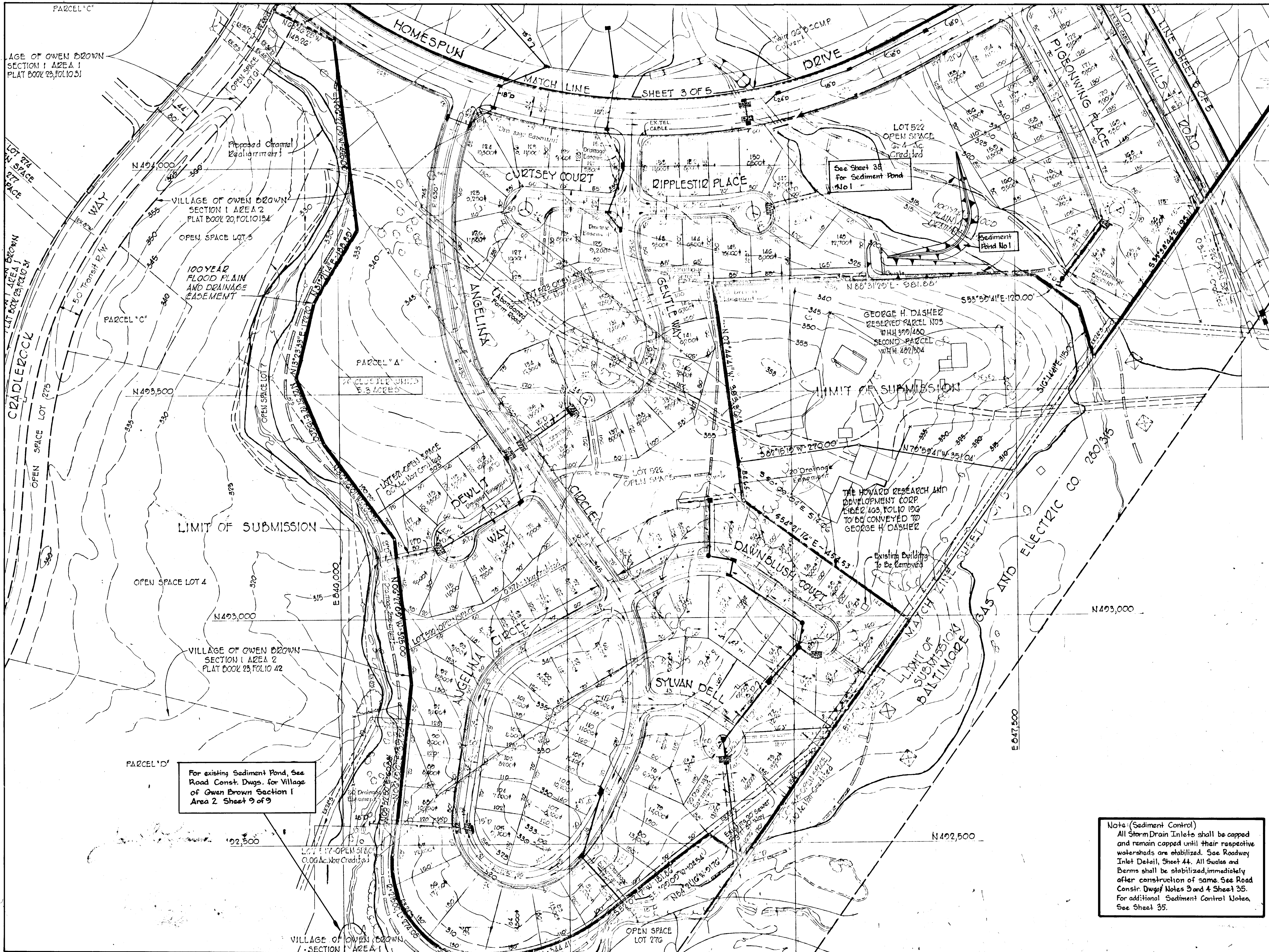
LOT 1
 SIELING INDUSTRIAL CENTER
 SECTION 1 AREA 2
 SHEET 3 OF 3
 PLAT BOOK 24, FOLIO G4

PARCEL 'D'
 SIELING INDUSTRIAL CENTER
 SECTION 1 AREA 2
 SHEET 2 OF 3
 PLAT BOOK 24, FOLIO G3

5/30/74
J. G. P.

Note: (Sediment Control)
 All Storm Drain Inlets shall be capped and remain capped until their respective watersheds are stabilized. See Roadway Inlet Detail, Sheet 4A. All berms and swales shall be stabilized, immediately after construction of same, see road const. Dugs, notes 3 and 4 sheet 35 For additional Sediment Control Notes See Sheet 35.

Rev. Date	Rev. No.	Revision	Description
COLUMBIA 6 TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP.			
PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4 AREA 1			
PROJECT TITLE SEDIMENT CONTROL PLAN			
SCALE: 1"=100'		DATE: 5/23/74	
WHITMAN REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202.			
<i>Kenneth A. McCord</i> KENNETH A. McCORD Registered Engineer No. 1974.			



DEPARTMENT OF PUBLIC WORKS
S. M. McLeod 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE
 OFFICE OF PLANNING AND ZONING
J. A. Carson 5/31/74
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE

For existing Sediment Pond, See Road Const. Dwg. for Village of Owen Brown Section 1 Area 2 Sheet 9 of 9

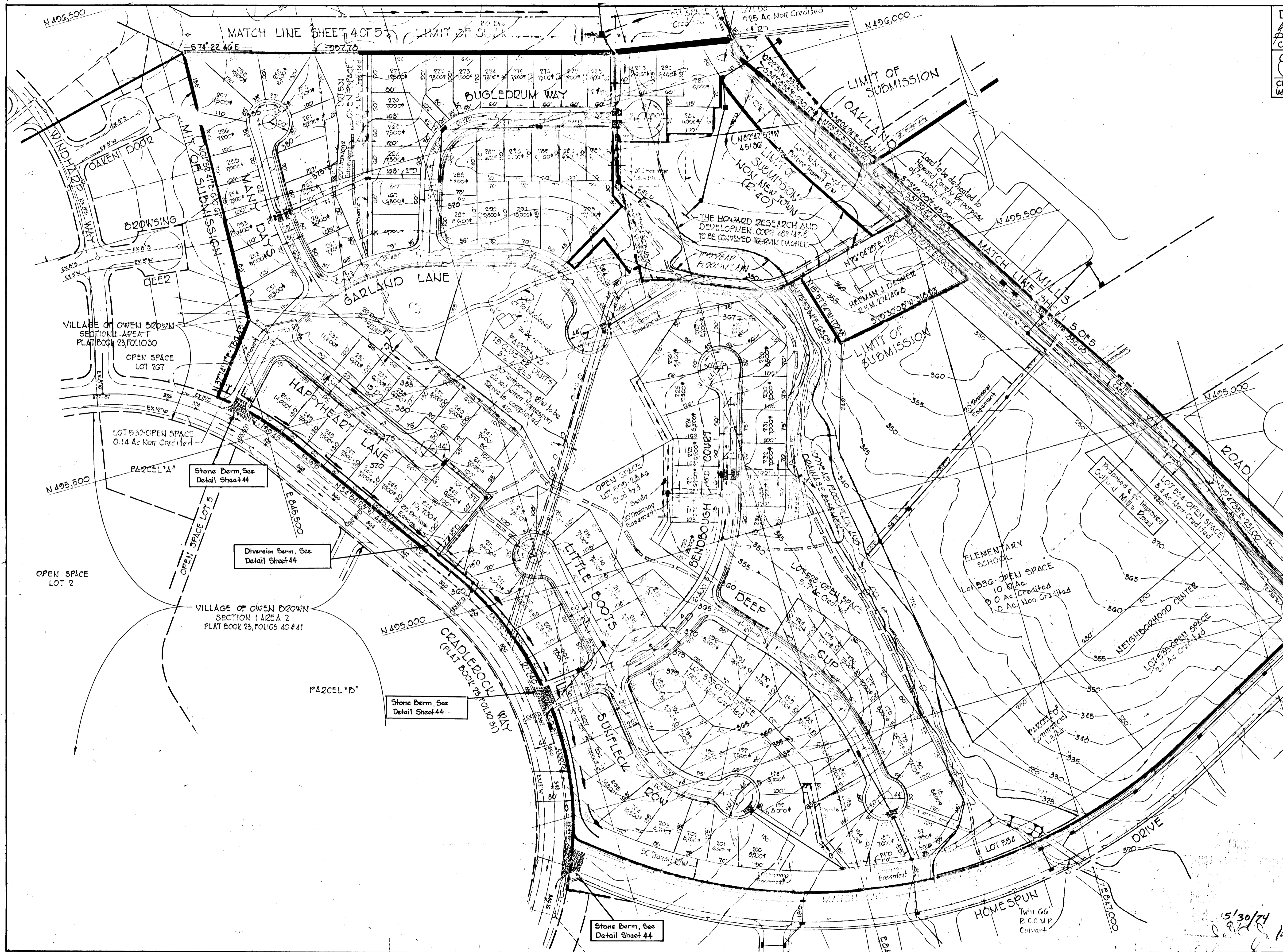
Notes: (Sediment Control)
 All Storm Drain Inlets shall be capped and remain capped until their respective watersheds are stabilized. See Roadway Inlet Detail, Sheet 44. All Swales and Berms shall be stabilized immediately after construction of same. See Road Const. Dwg. Notes 3 and 4. See Sheet 35. For additional Sediment Control Notes, See Sheet 35.

5/30/74
J. A. Carson

Rev. Date	Rev. No.	Revision Description
COLUMBIA 6 TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP.		
PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4 AREA 1		
PROJECT TITLE SEDIMENT CONTROL PLAN		
SCALE: 1"=100'		DATE: 5/23/74
WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202		
<i>Kenneth A. McCord</i> KENNETH A. MCCORD Registered Engineer No. 1974		

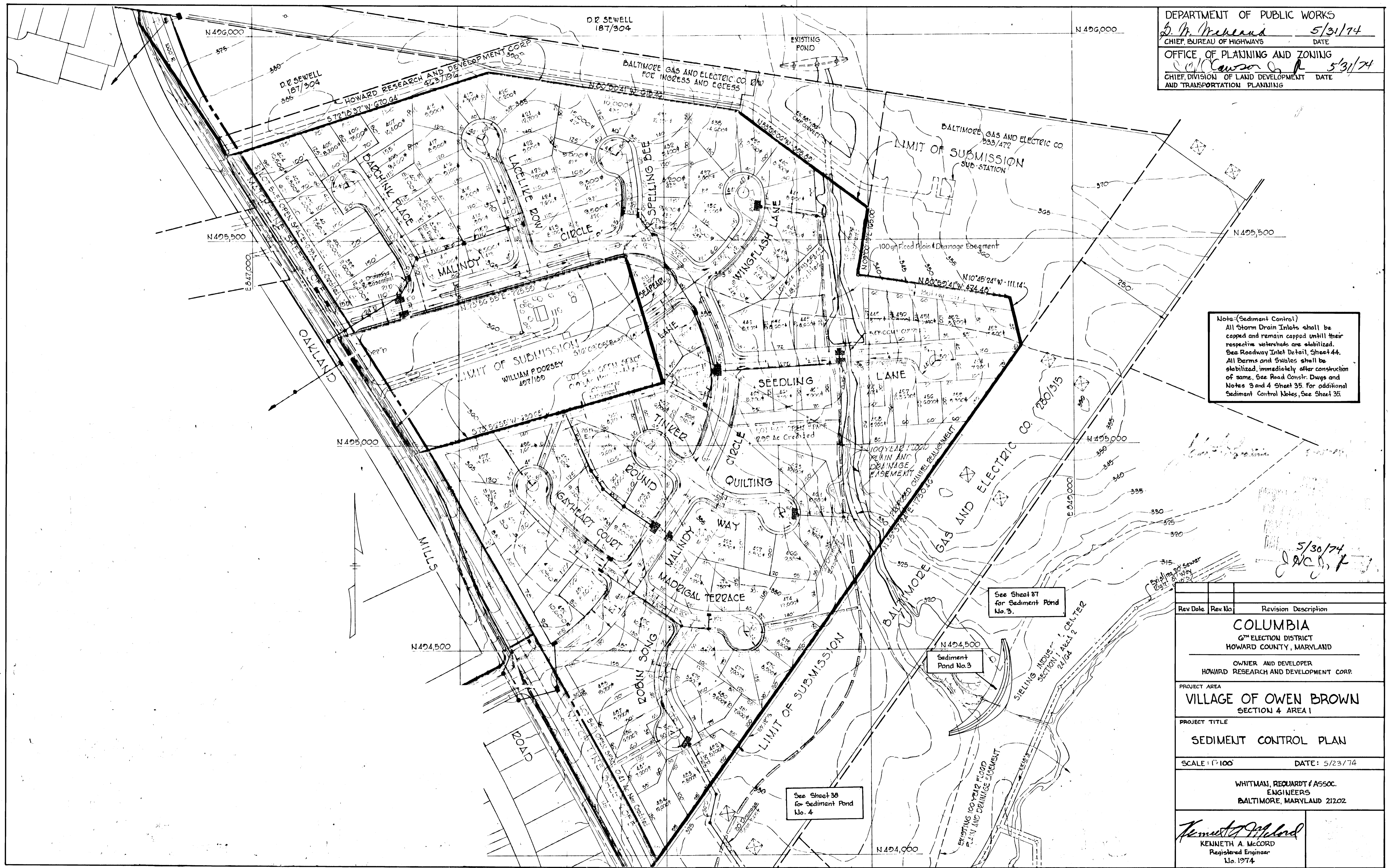
DEPARTMENT OF PUBLIC WORKS
S. N. McKeand 5/31/74
 CHIEF, BUREAU OF HIGHWAYS Date
 OFFICE OF PLANNING AND ZONING
Kenneth A. McCord 5/31/74
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE
 AND TRANSPORTATION PLANNING

Note: (Sediment Control)
 All Storm Drain Inlets shall be capped and remained capped until their respective watersheds are stabilized. See Roadway Inlet Detail, Sheet 44. All berms and swales shall be stabilized immediately after construction of same. See road Constr. Dwg. Notes 3/4 Sheet 35. For additional Sediment Control notes, See Sheet 35



Rev. Date	Rev. No.	Revision Description
COLUMBIA 6 TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP.		
PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4 AREA 1		
PROJECT TITLE SEDIMENT CONTROL PLAN		
SCALE: 1"=100'		DATE: 5/23/74
WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202		
<i>Kenneth A. McCord</i> KENNETH A. MCCORD Registered Engineer No. 1974		5/30/74 <i>[Signature]</i>

DEPARTMENT OF PUBLIC WORKS
S. M. McNeen 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE
 OFFICE OF PLANNING AND ZONING
W. J. Carson 5/31/74
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE



Note: (Sediment Control)
 All Storm Drain Inlets shall be capped and remain capped until their respective watersheds are stabilized. See Roadway Inlet Detail, Sheet 44.
 All Berms and Swales shall be stabilized, immediately after construction of same. See Road Constr. Dwg. and Notes 3 and 4 Sheet 35. For additional Sediment Control Notes, See Sheet 35.

5/30/74
J. W. Carson

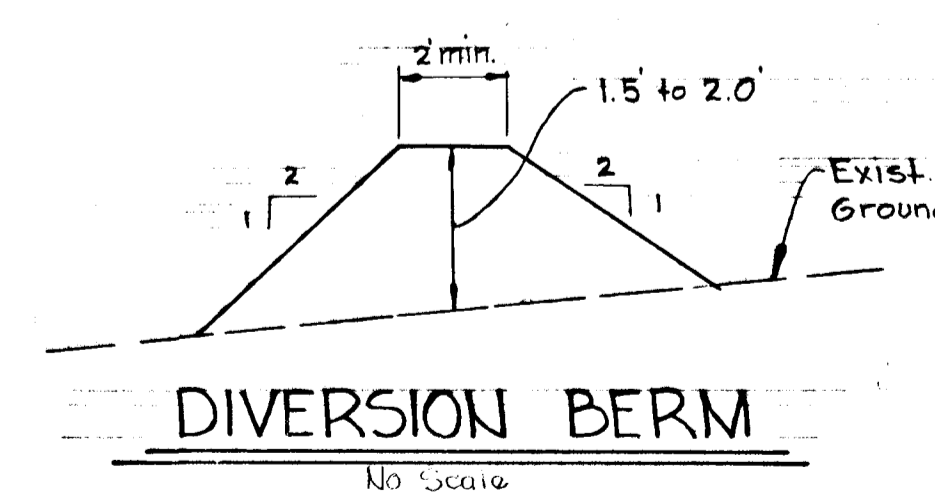
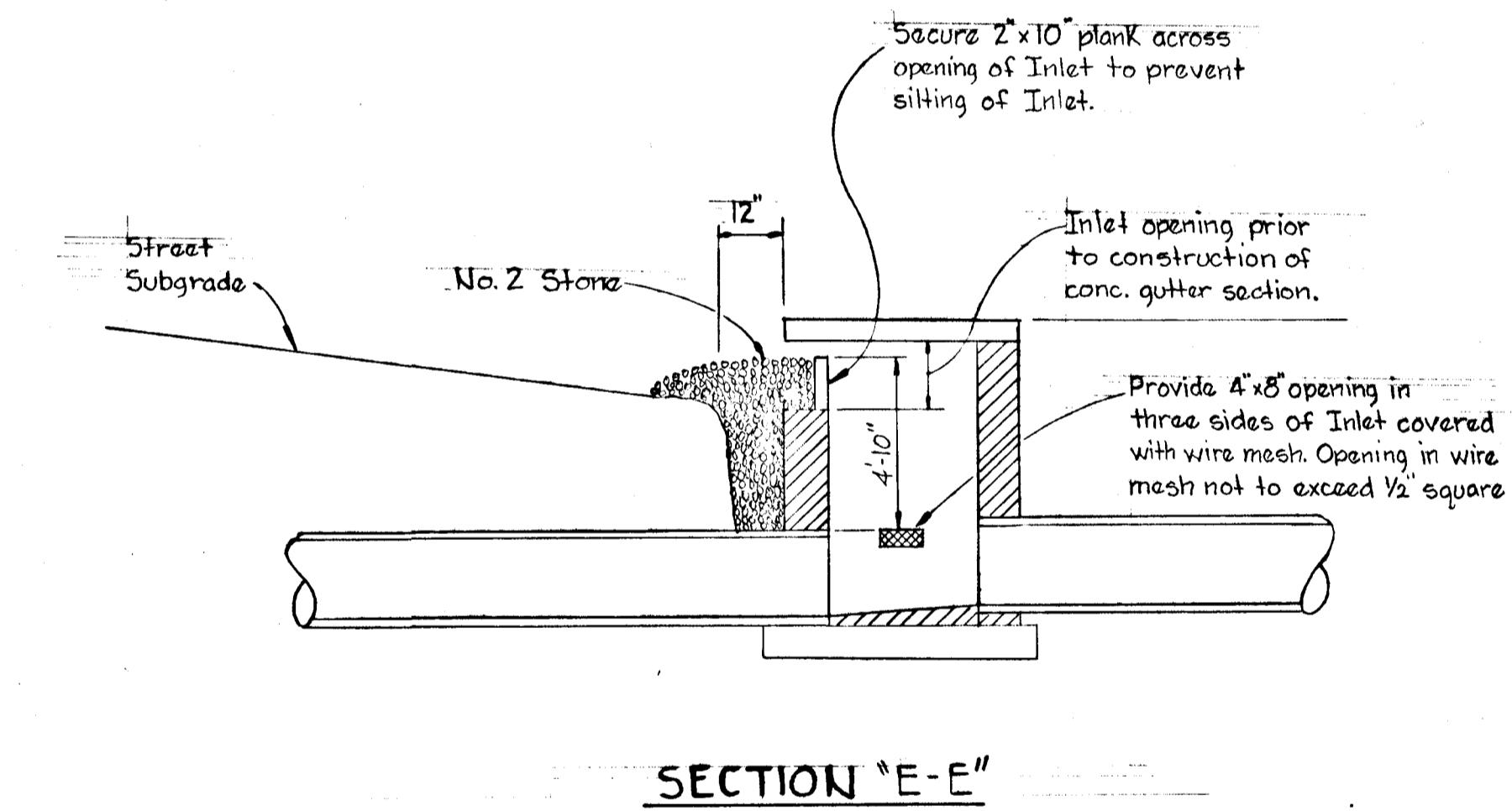
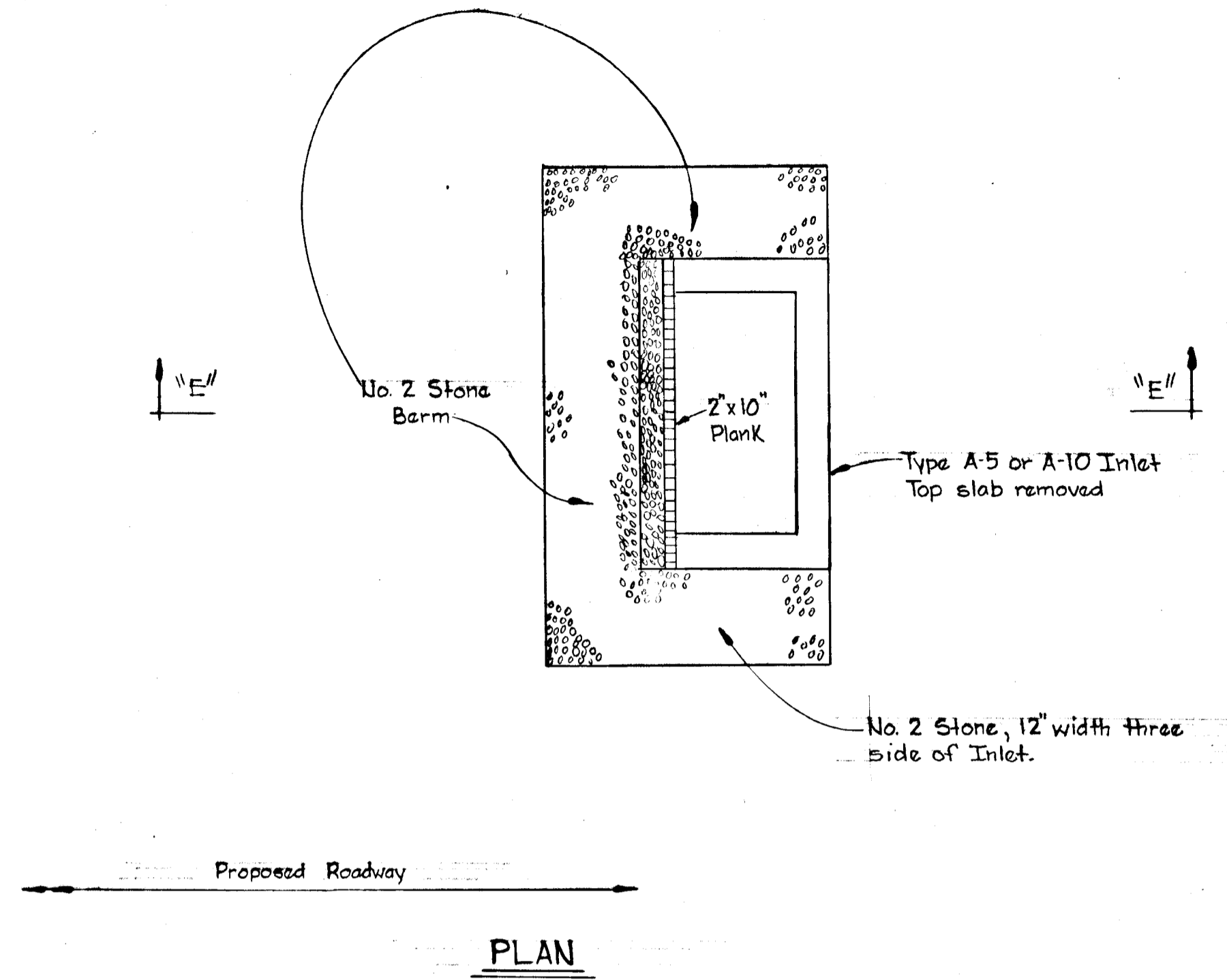
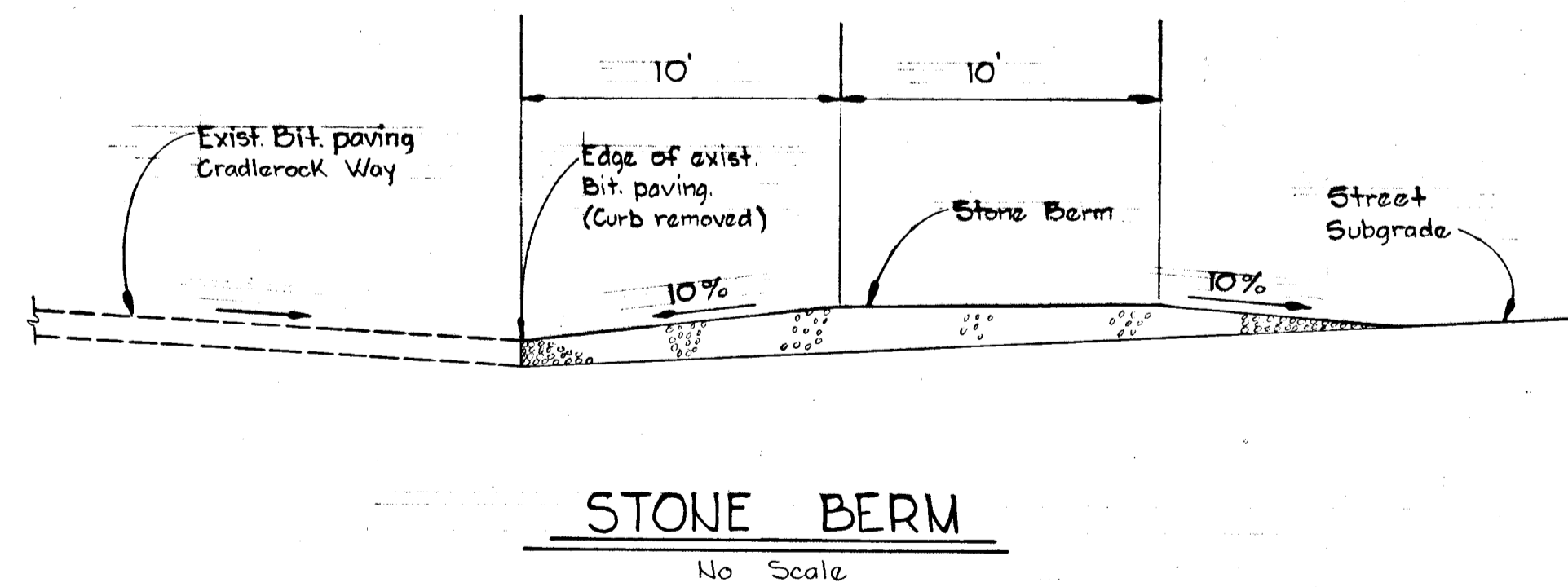
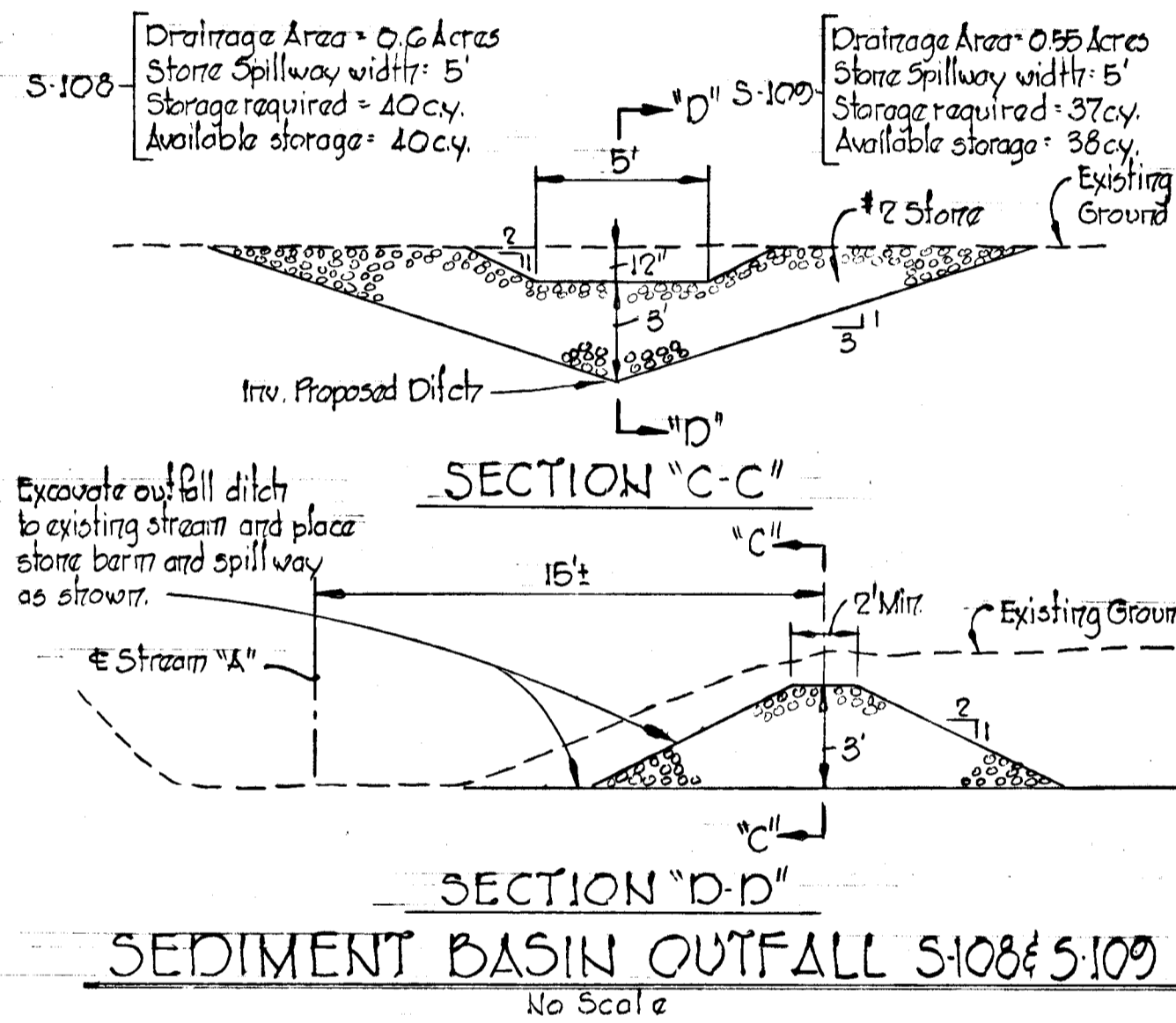
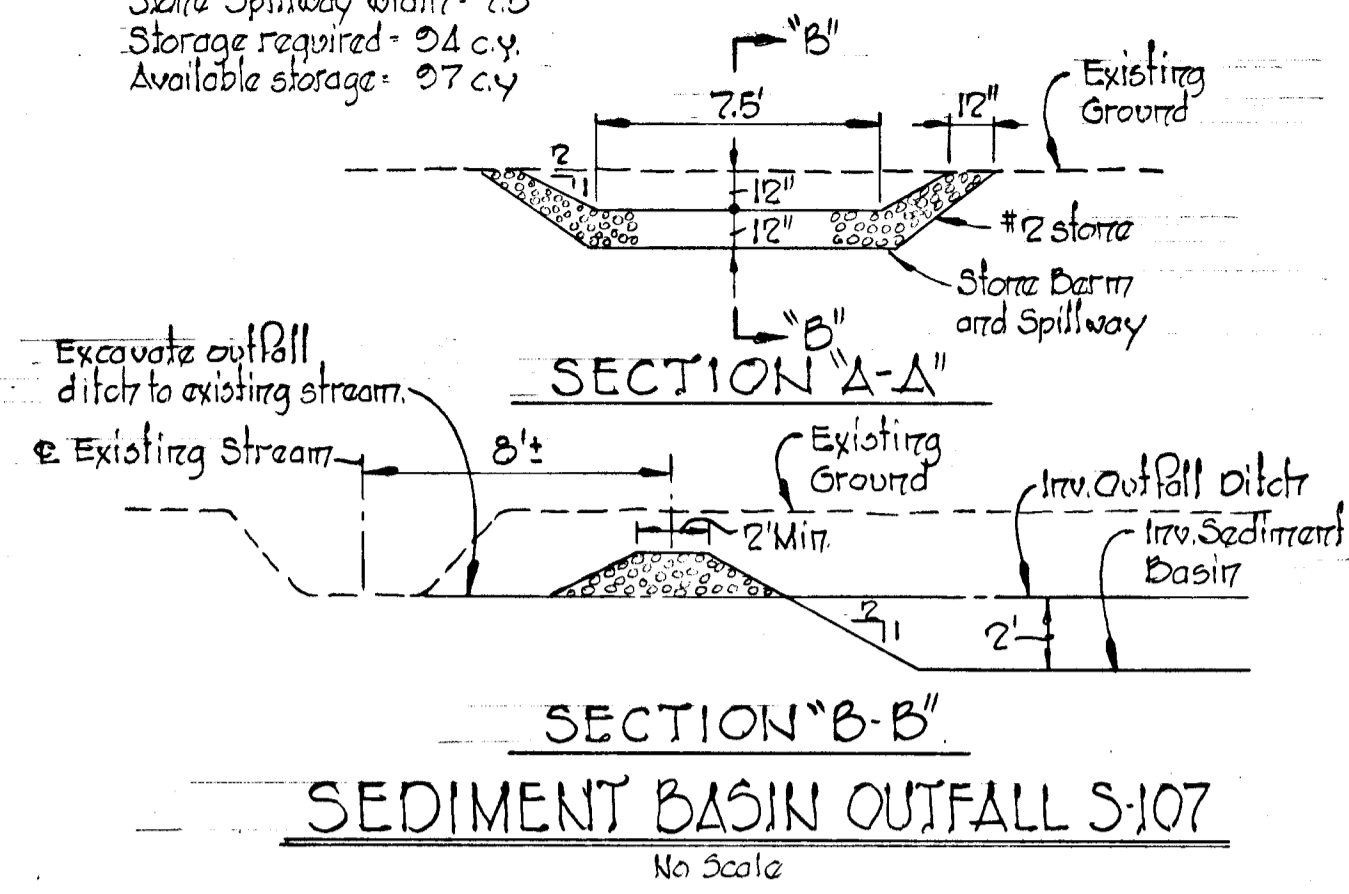
See Sheet 37 for Sediment Pond No. 3.

Sediment Pond No. 3

See Sheet 38 for Sediment Pond No. 4

Rev. Date	Rev. No.	Revision Description
COLUMBIA 6 TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP.		
PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4 AREA 1		
PROJECT TITLE SEDIMENT CONTROL PLAN		
SCALE: 1"=100'		DATE: 5/23/74
WHITMAN, REQUARDT & ASSOC. ENGINEERS BALTIMORE, MARYLAND 21202		
<i>Kenneth A. McCord</i> KENNETH A. McCORD Registered Engineer No. 1974		

Drainage Area = 1.4 Acres
 Stone Spillway width = 7.5'
 Storage required = 24 c.y.
 Available storage = 27 c.y.

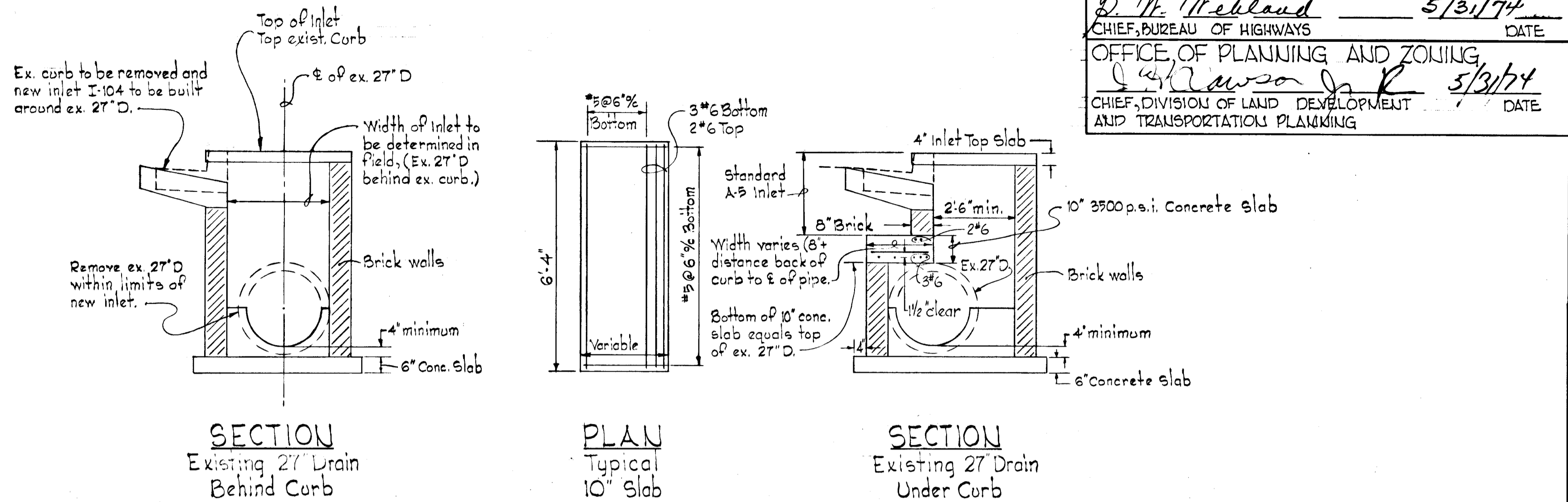
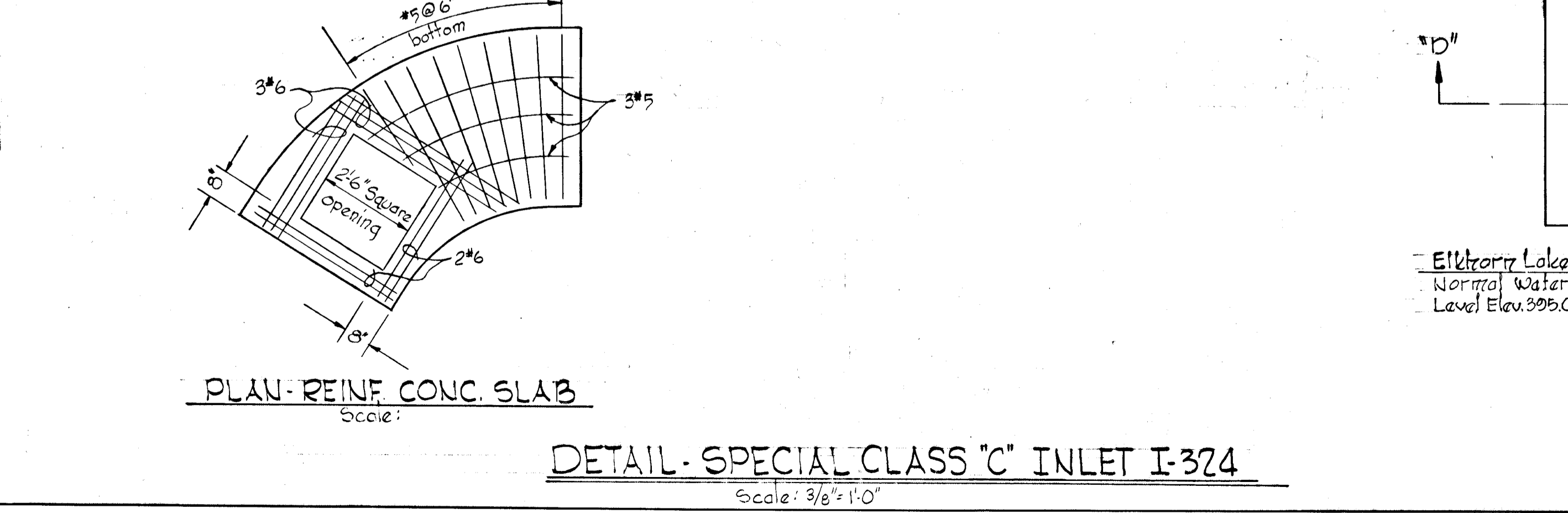
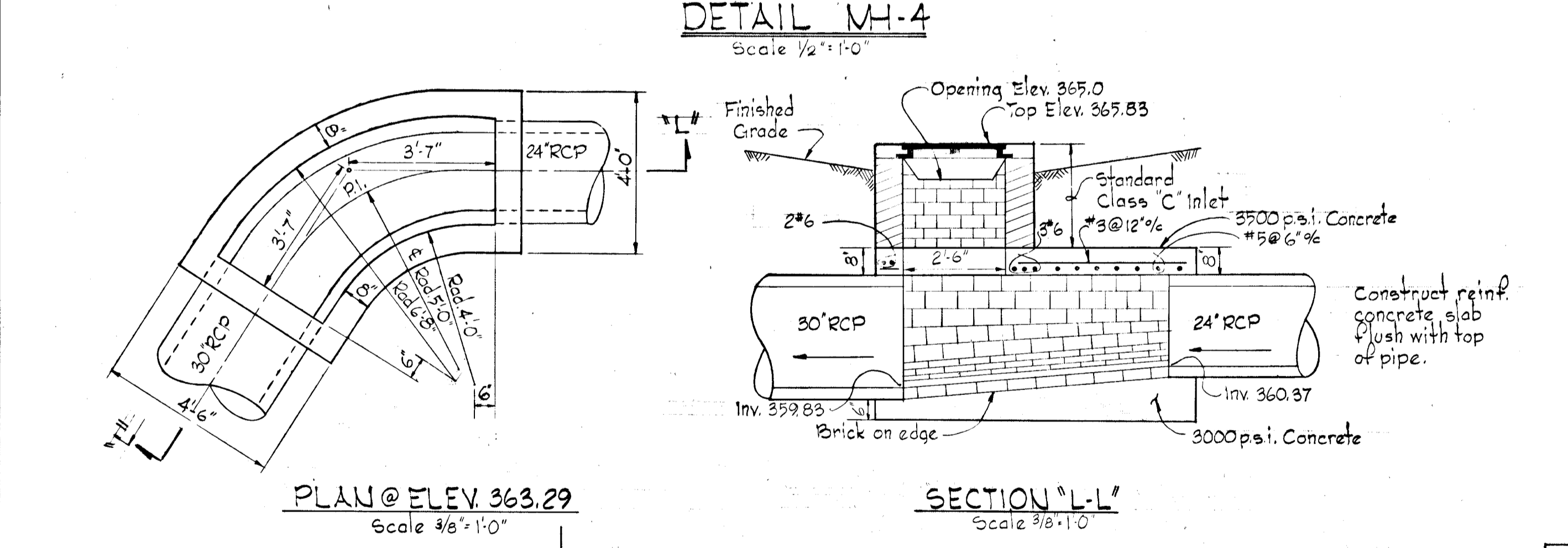
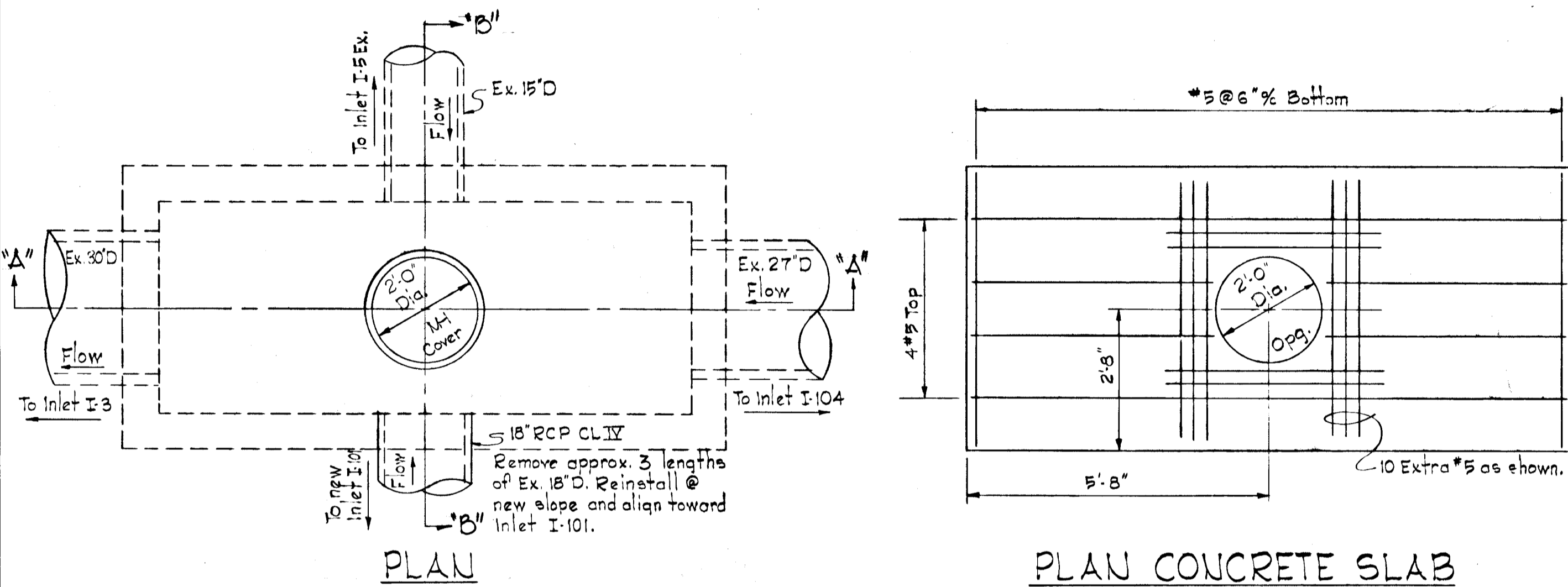
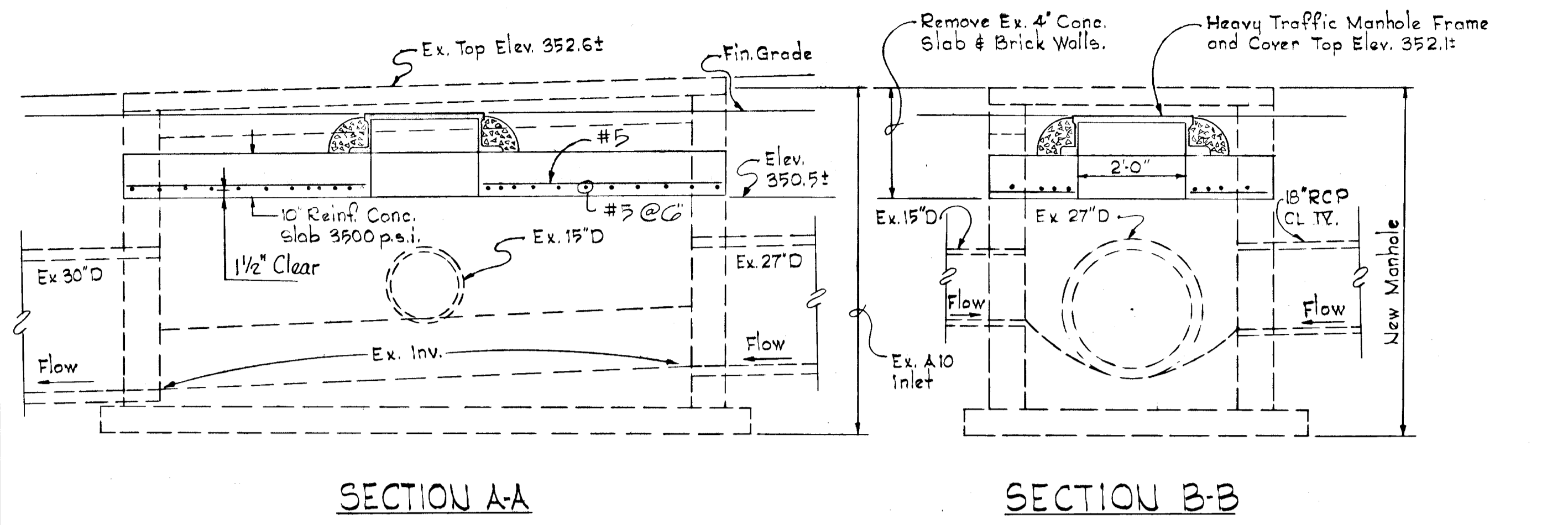


Note:
 Diversion Berms shall be stabilized.
 See notes 3 and 4 Sheet 35 of 70.

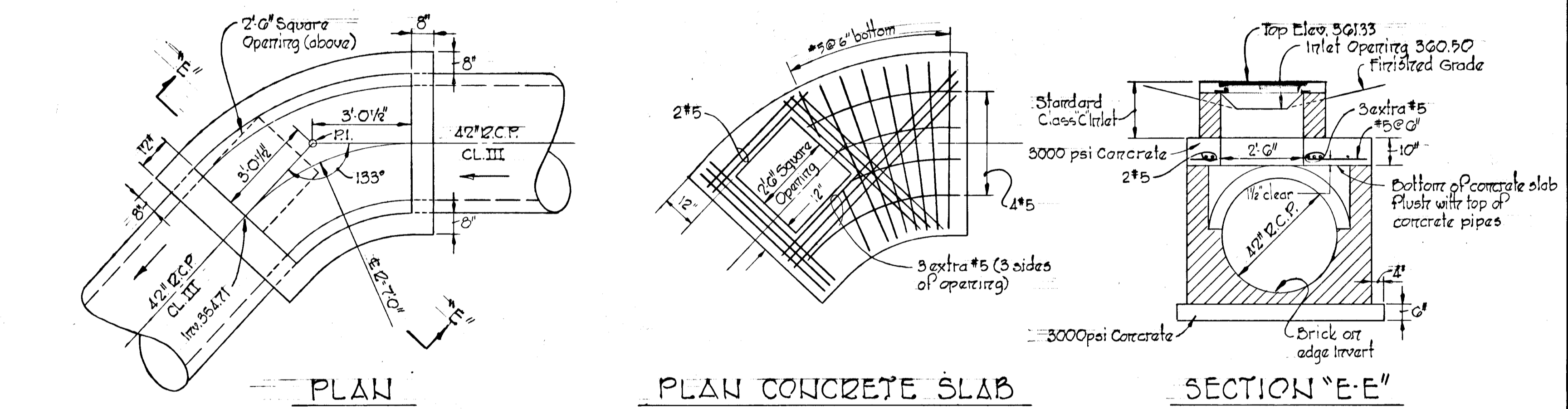
DEPARTMENT OF PUBLIC WORKS
S. M. McLeod 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE:
 OFFICE OF PLANNING AND ZONING
D. C. Rawson 5/31/74
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE:
 LAND TRANSPORTATION PLANNING

Rev. Date.	Rev. No.	Revision Description
COLUMBIA 6 TH ELECTIOU DISTRICT HOWARD COUNTY, MARYLAND OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP.		
PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4 AREA 1		
PROJECT TITLE SEDIMENT CONTROL DETAILS		
SCALE: As Shown		DATE: 5/23/74
WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202		
<i>Kenneth A. McCord</i> KENNETH A. McCORD Registered Engineer No. 1974		

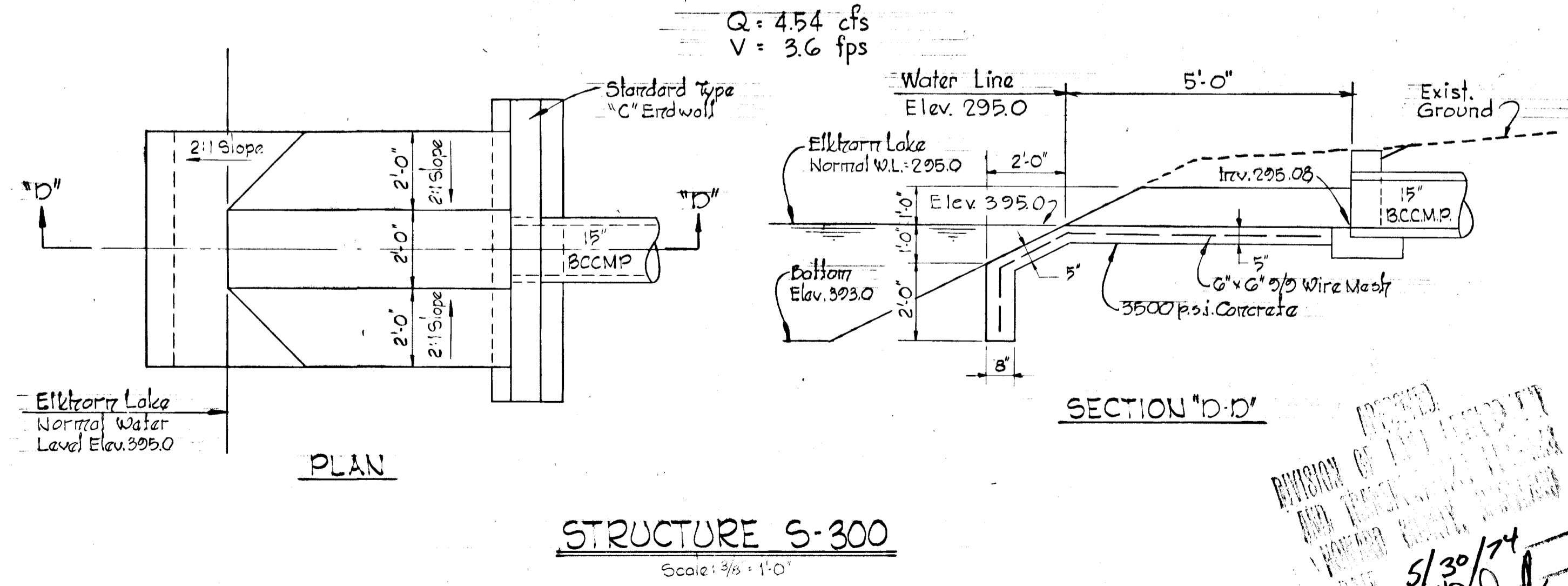
APPROVED
 DIVISION OF LAND DEVELOPMENT
 AND TRANSPORTATION PLANNING
 HOWARD COUNTY, MARYLAND
 DATE 5/30/74
JAC jr



DETAIL - INLET I-104
 No Scale

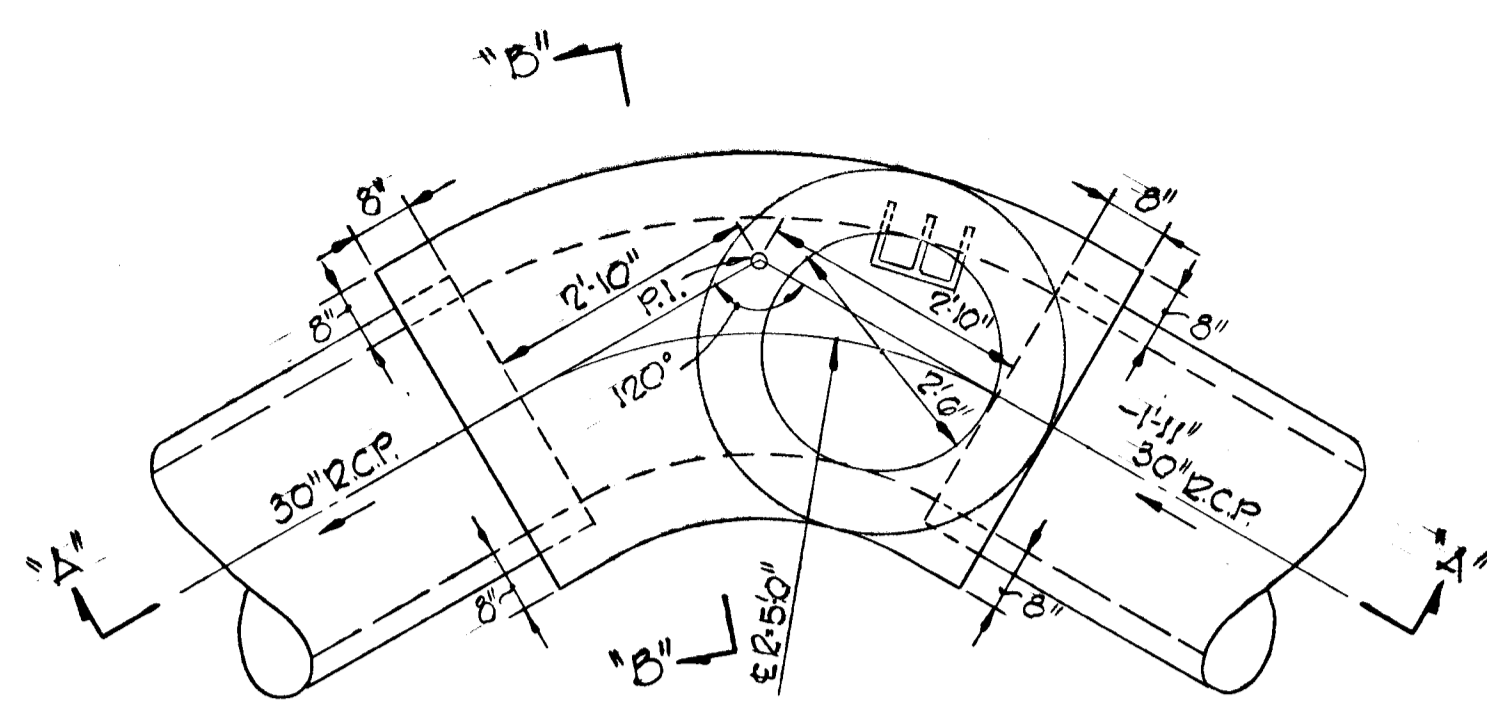


PLAN CONCRETE SLAB
 SPECIAL CLASS "C" INLET I-114
 Scale: 3/8" = 1'-0"

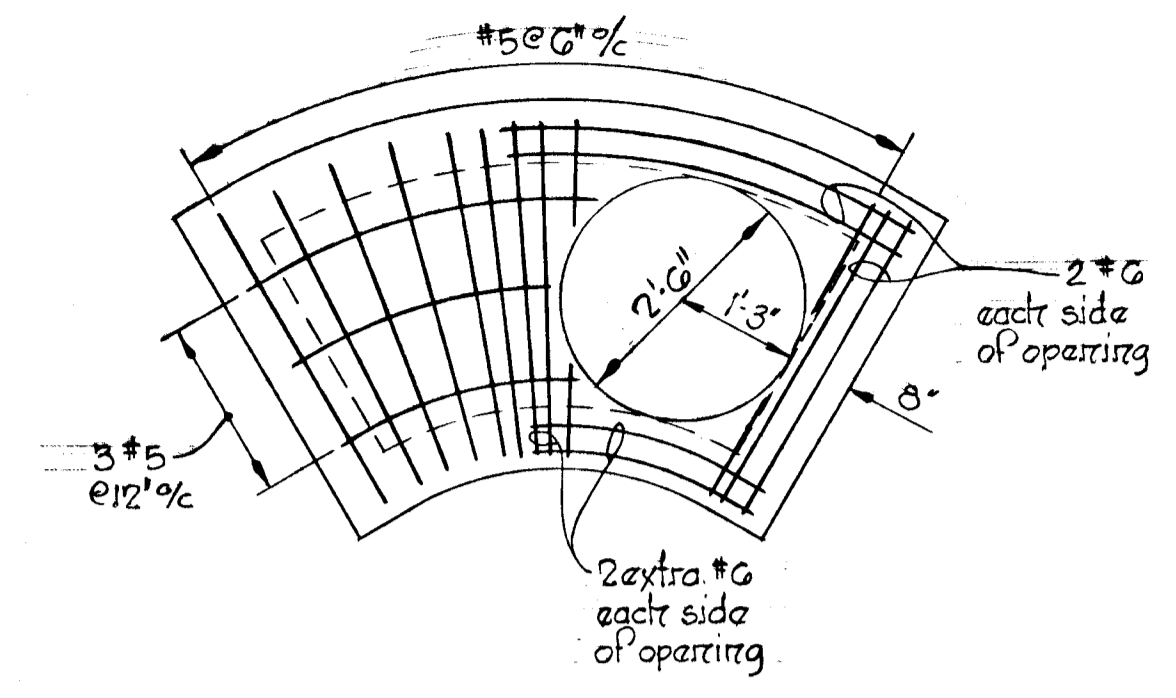


STRUCTURE S-300
 Scale: 3/8" = 1'-0"

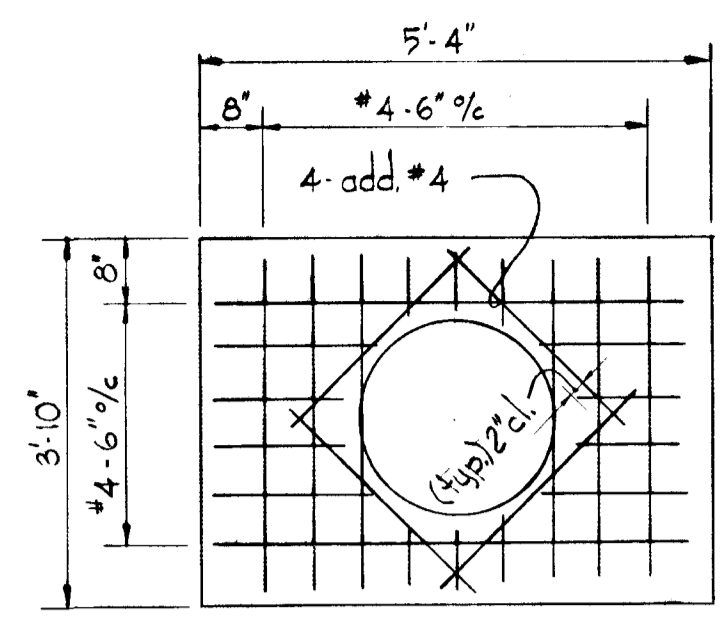
Rev. Date	Rev. No.	Revision Description
COLUMBIA 6 th ELECTION DISTRICT HOWARD COUNTY, MARYLAND OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP. PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4, AREA 1 PROJECT TITLE STORM DRAIN DETAILS SCALE: As Shown DATE: 5/23/74 WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202 <i>Kenneth A. McCord</i> KENNETH A. MCCORD Registered Engineer No. 1974		



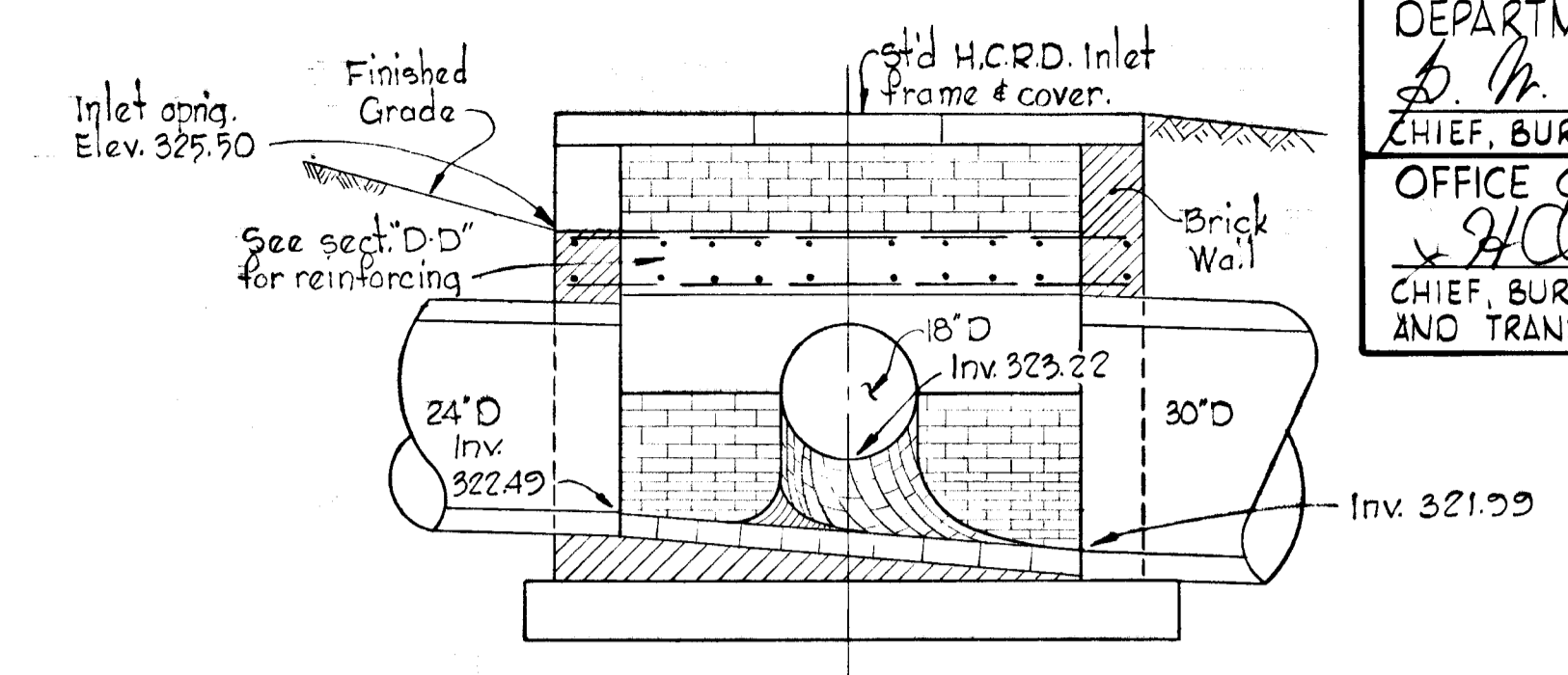
PLAN @ ELEV. 374.32



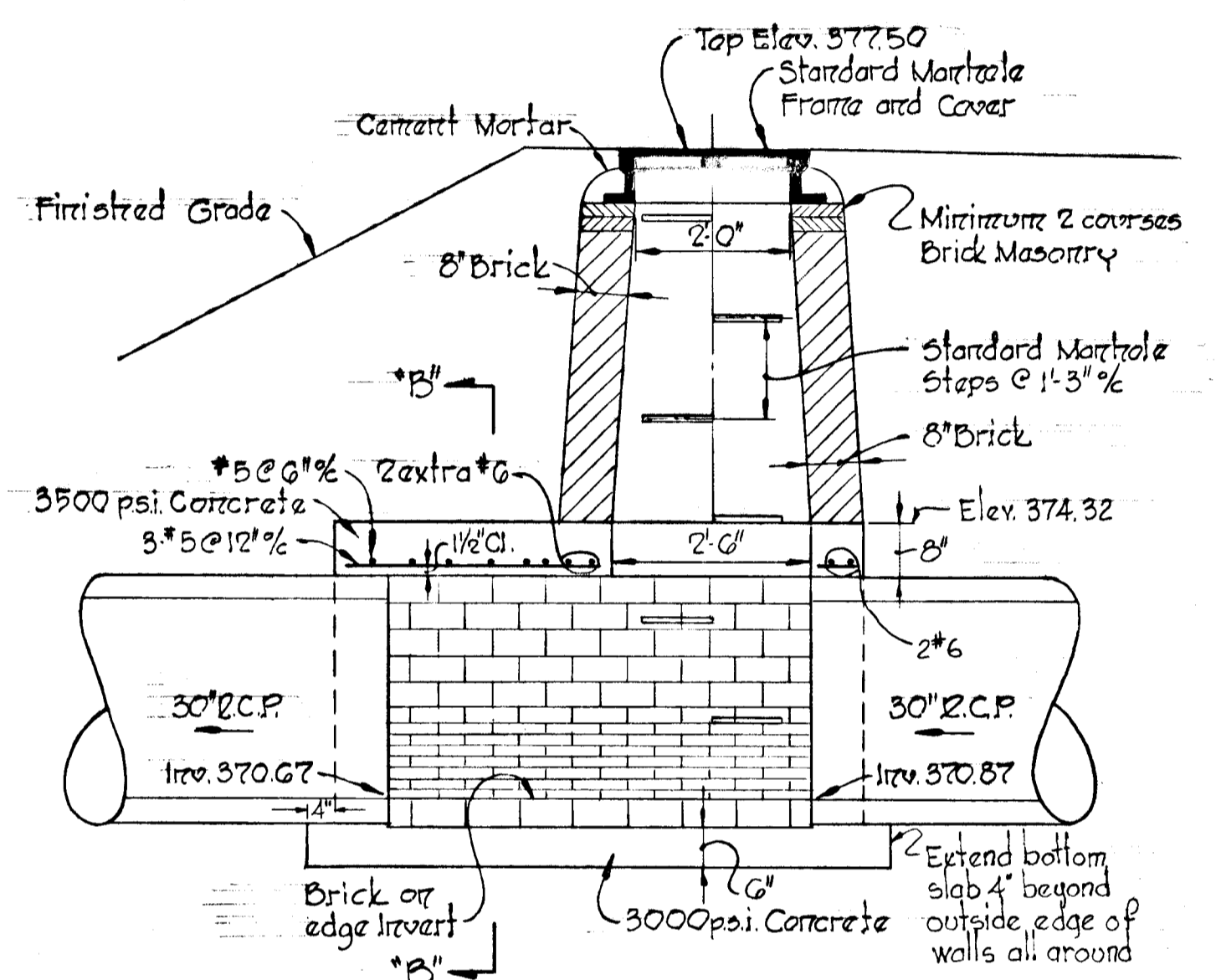
PLAN REINFORCED CONCRETE SLAB



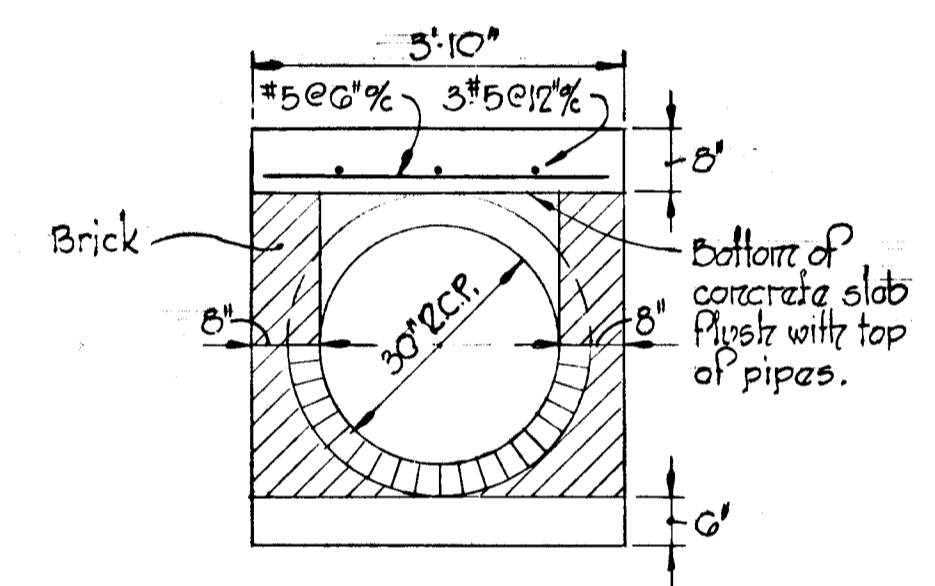
PLAN @ ELEV. 326.67



SECTION 'E-E'



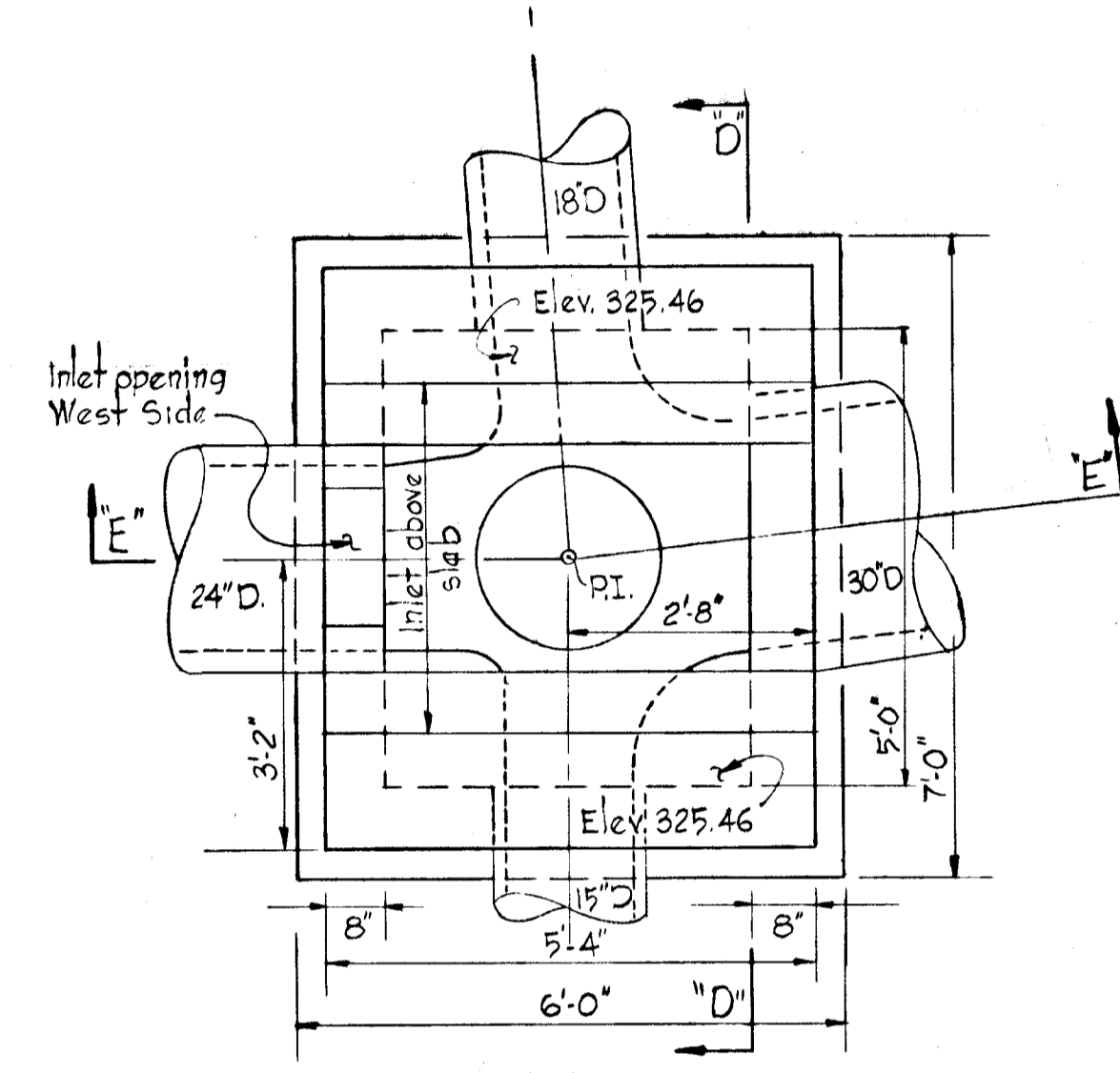
SECTION 'A-A'



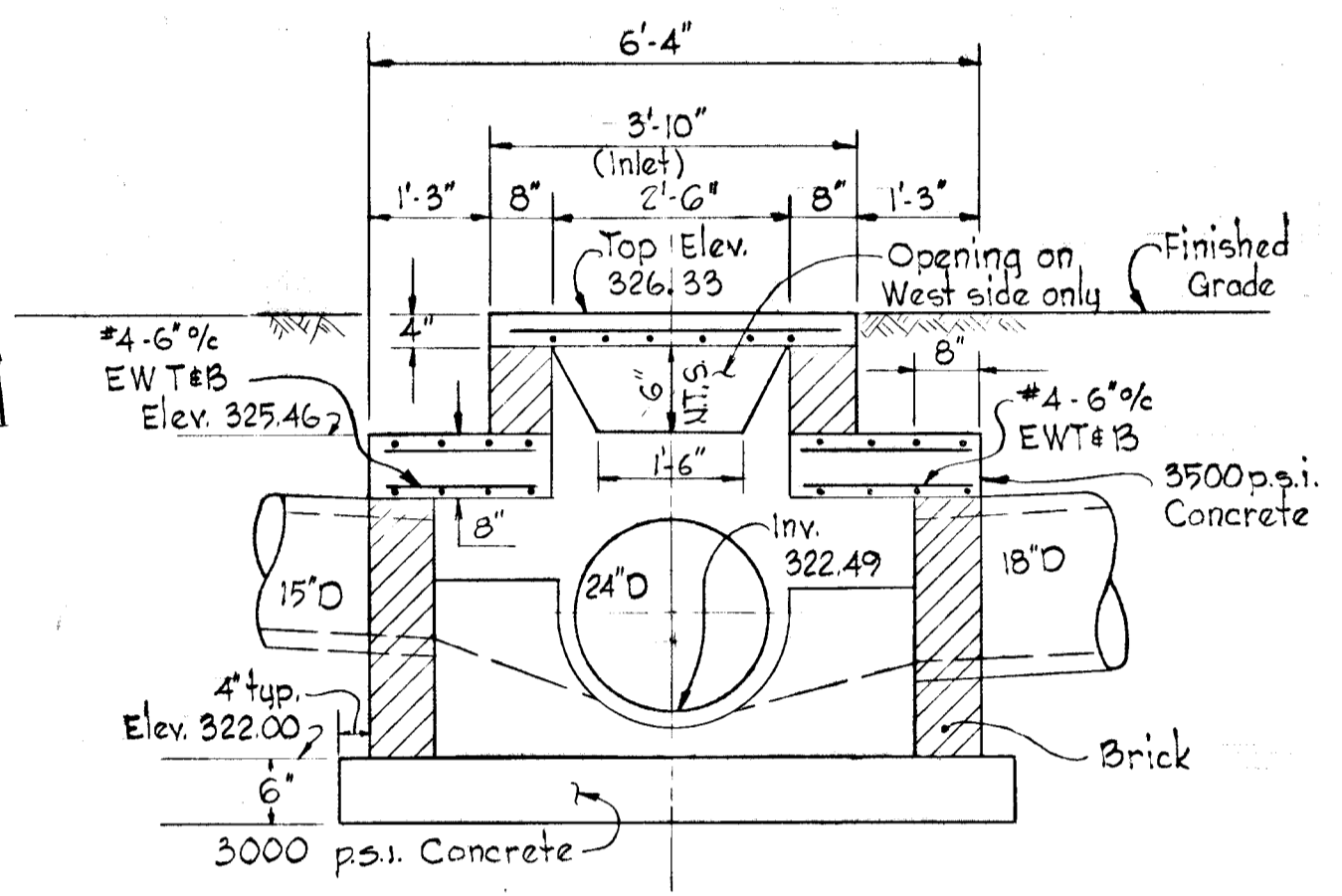
SECTION 'B-B'

DETAIL S-343

Scale: 1/2" = 1'-0"



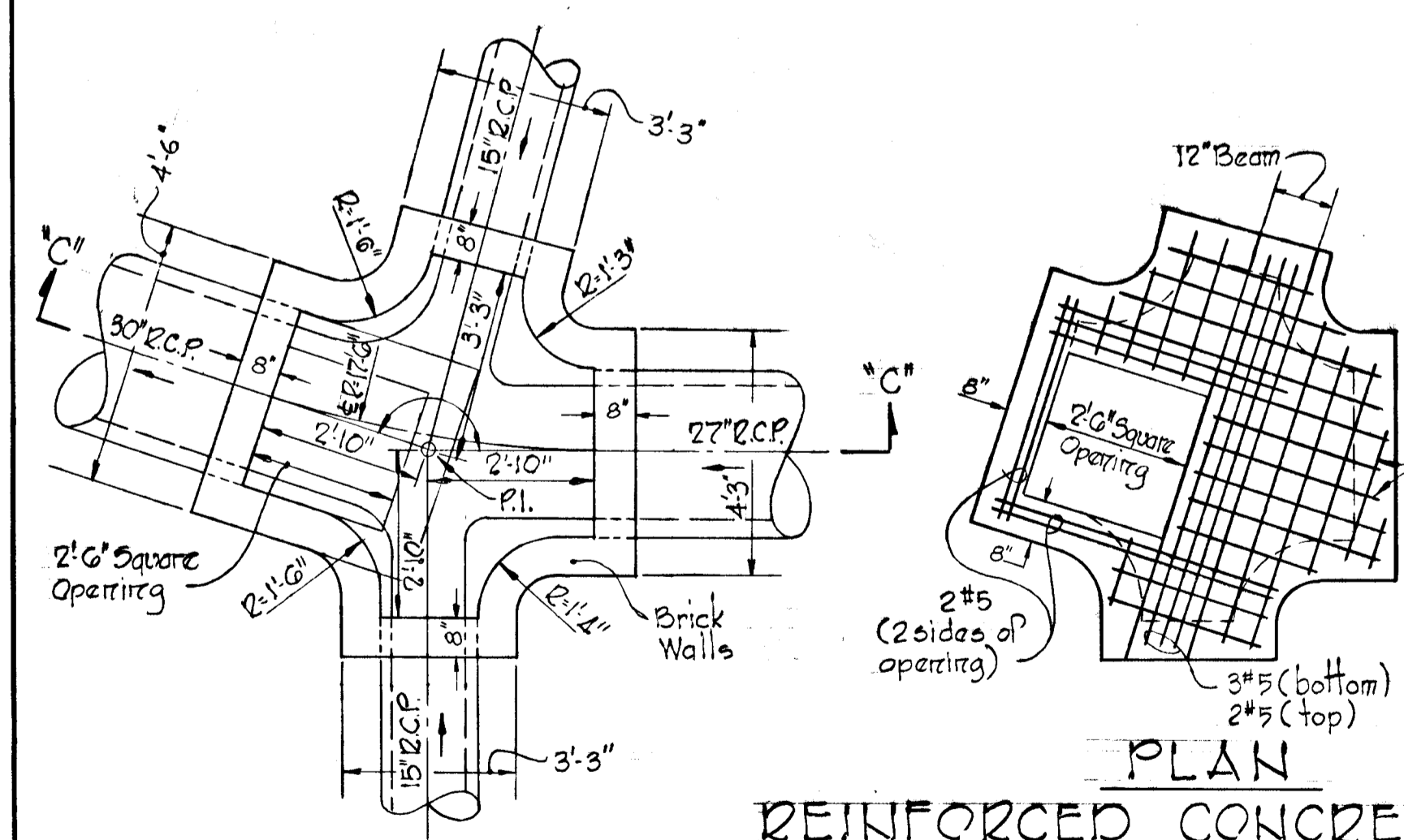
PLAN @ ELEV. 325.46



SECTION 'D-D'

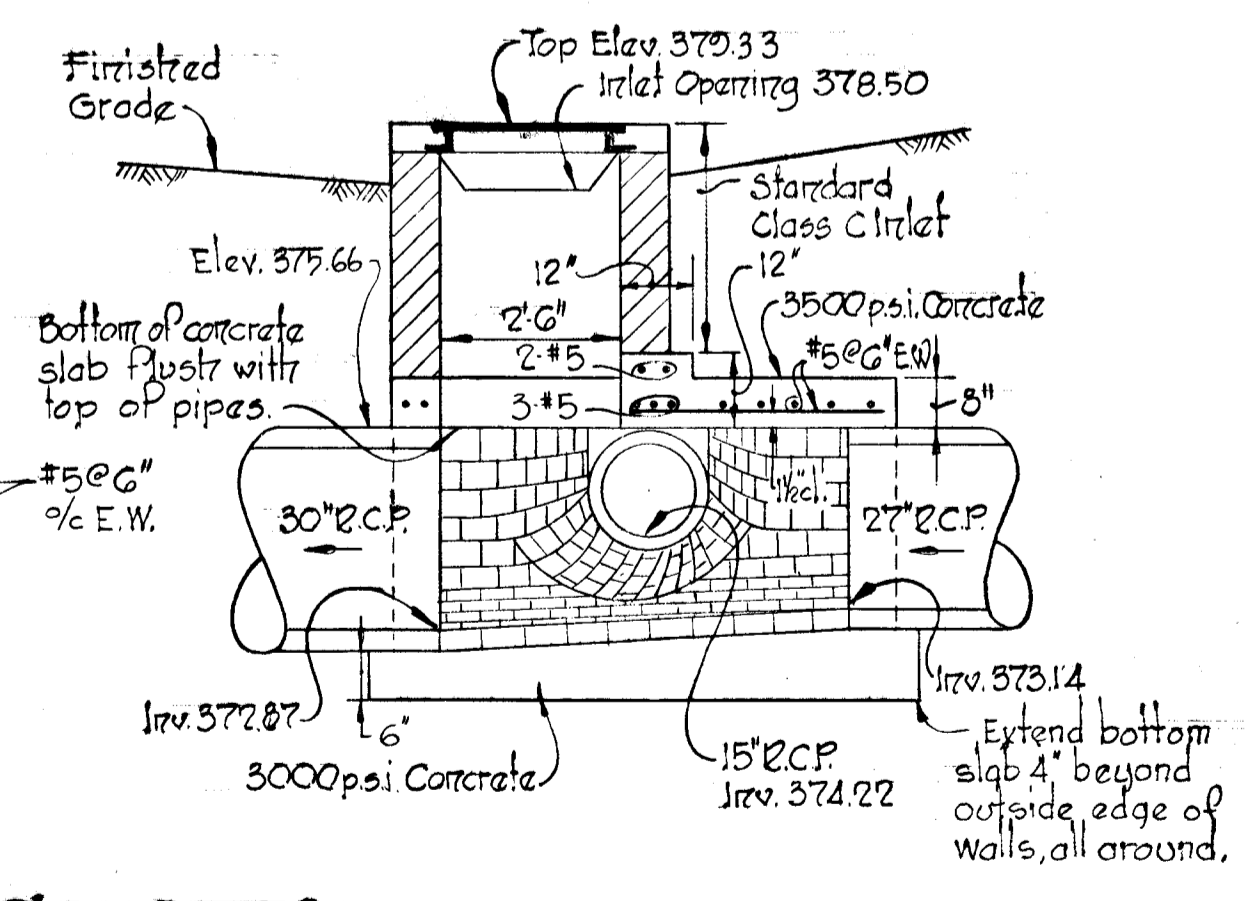
SPECIAL CLASS 'C' INLET I-22

Scale: 1/2" = 1'-0"



PLAN @ ELEV. 375.66

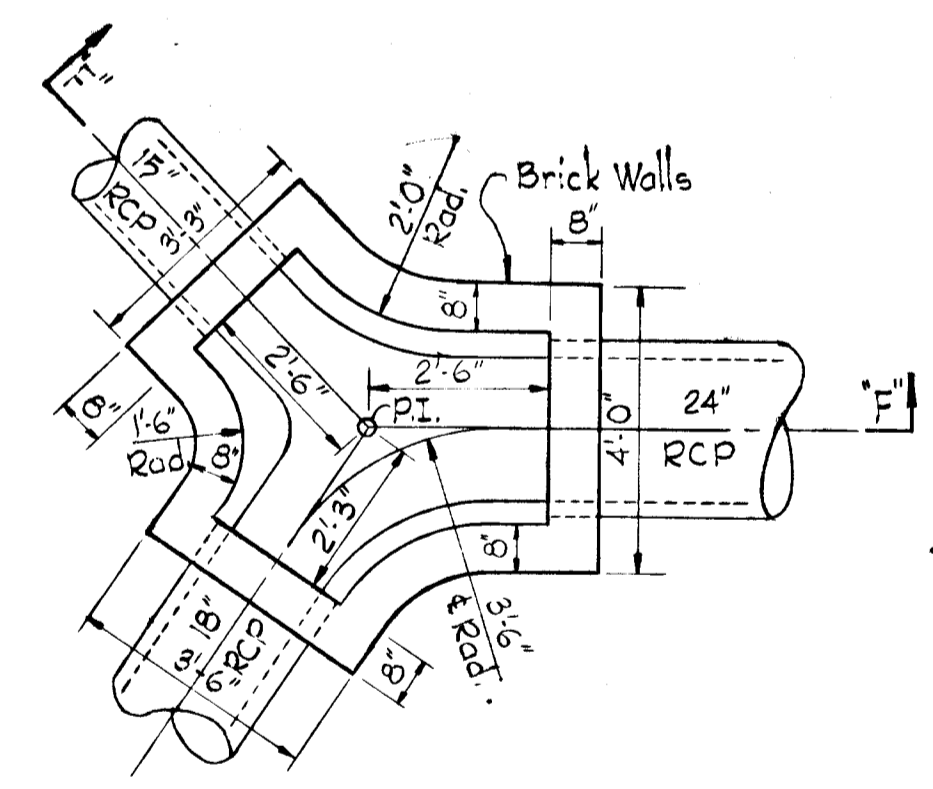
REINFORCED CONCRETE SLAB



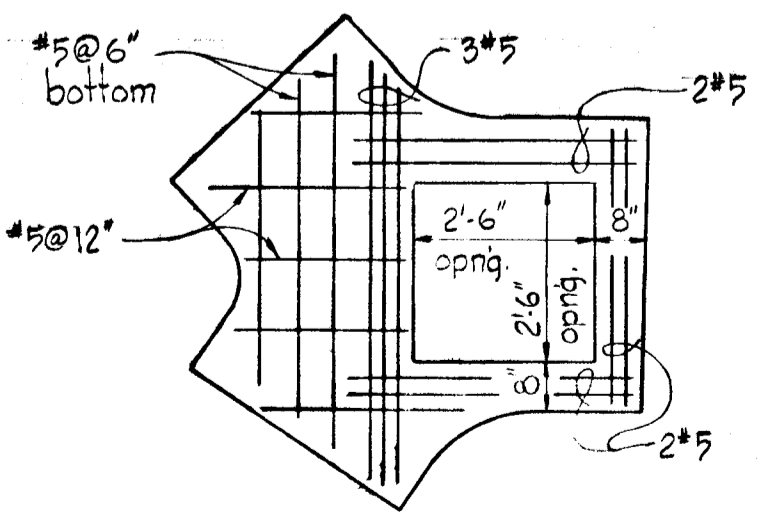
SECTION 'C-C'

SPECIAL CLASS 'C' INLET I-333

Scale: 3/8" = 1'-0"



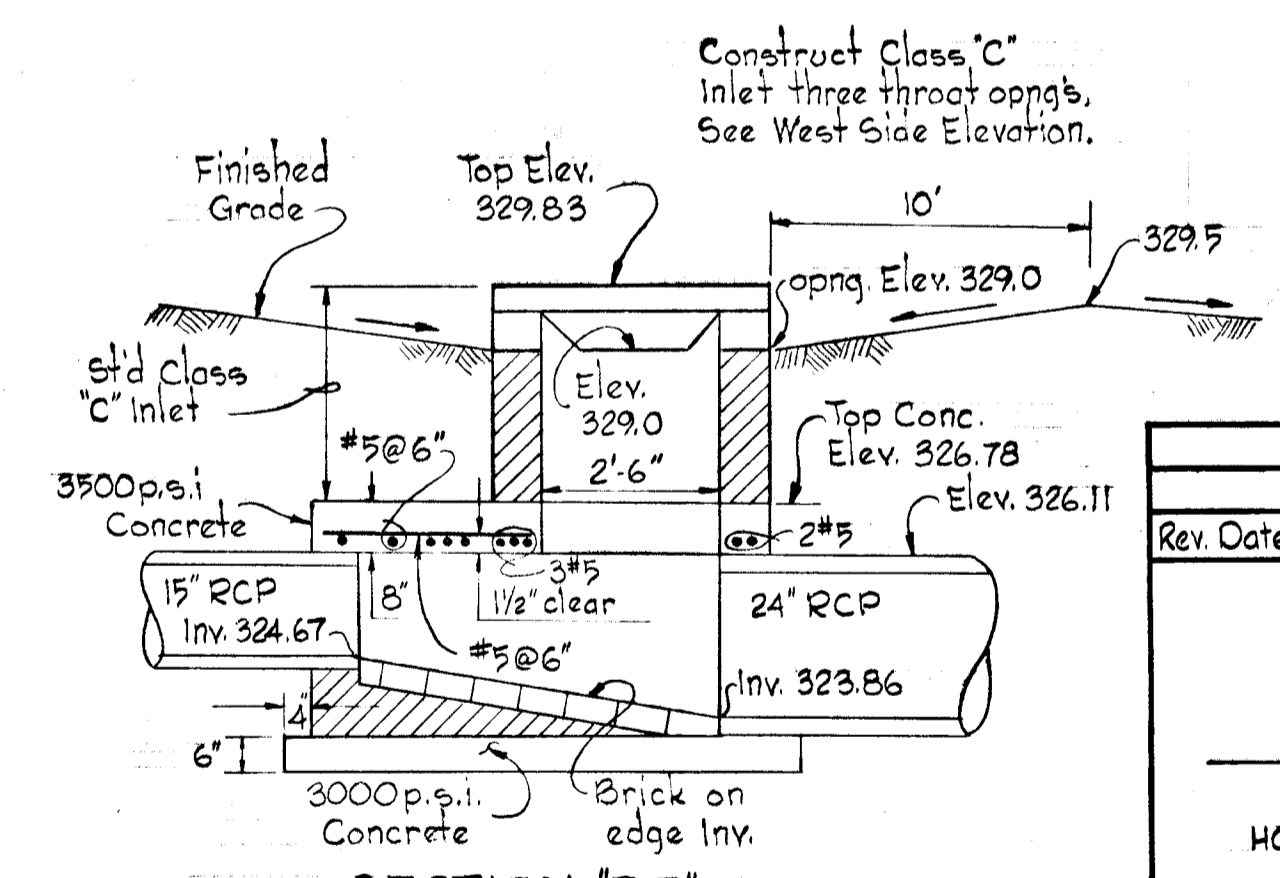
PLAN @ ELEV. 326.11



PLAN - STRUCTURAL SLAB

SPECIAL CLASS 'C' INLET I-19

Scale: 3/8" = 1'-0"



SECTION 'F-F'

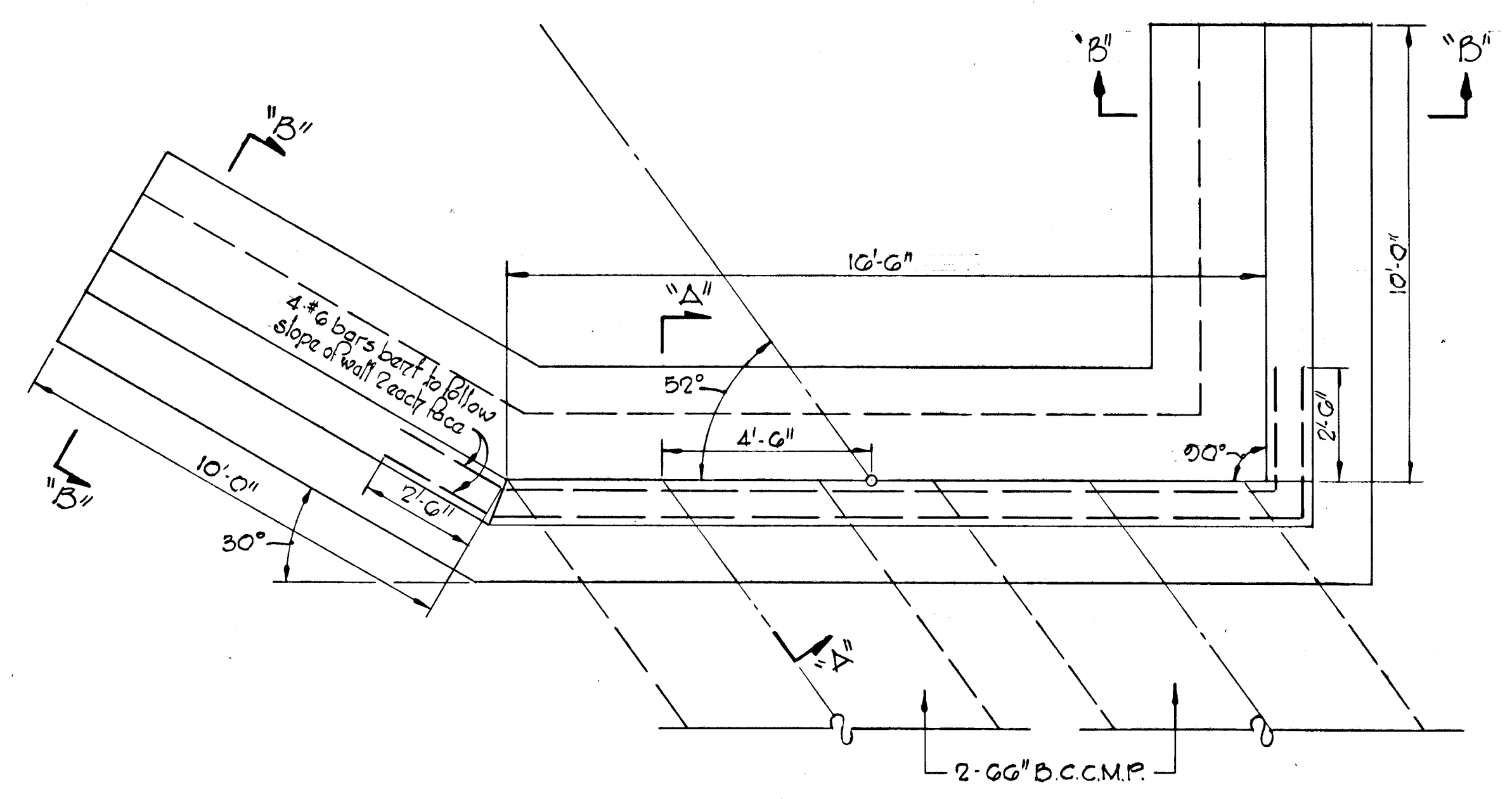
WEST SIDE ELEVATION

Construct Class 'C' Inlet three throat opngs. See West Side Elevation.

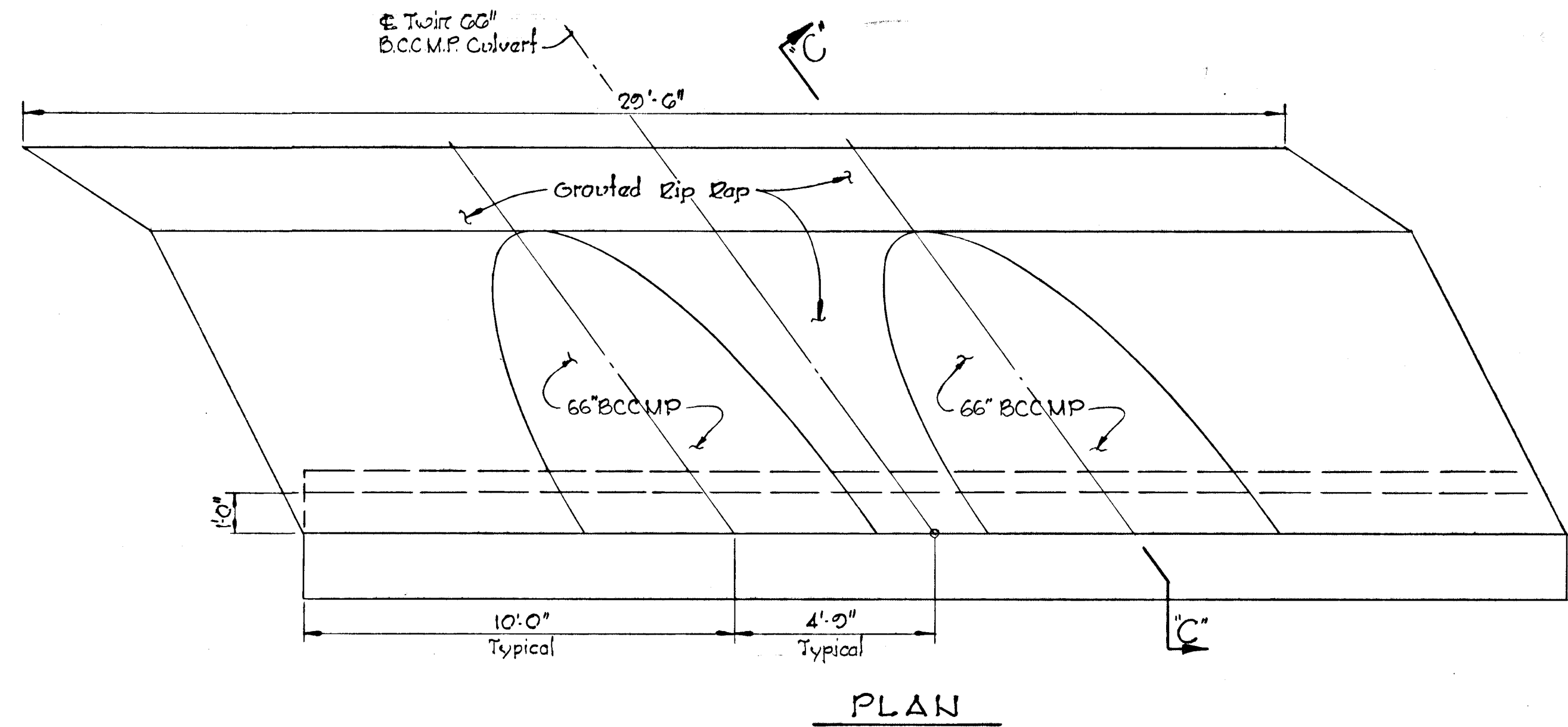
APPROVED
 DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING
 HOWARD COUNTY, MARYLAND
 DATE: 5/30/74
J. H. C. Jr.

Rev. Date	Rev. No.	Revision Description
		COLUMBIA 6 TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
		OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT, CORP
		PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4, AREA 1
		PROJECT TITLE STORM DRAIN DETAILS
		SCALE: As Shown DATE: 5/23/74
		WHITMAN, REQUART & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202
		<i>Kenneth A. McCord</i> KENNETH A. MCCORD Registered Engineer No. 1974

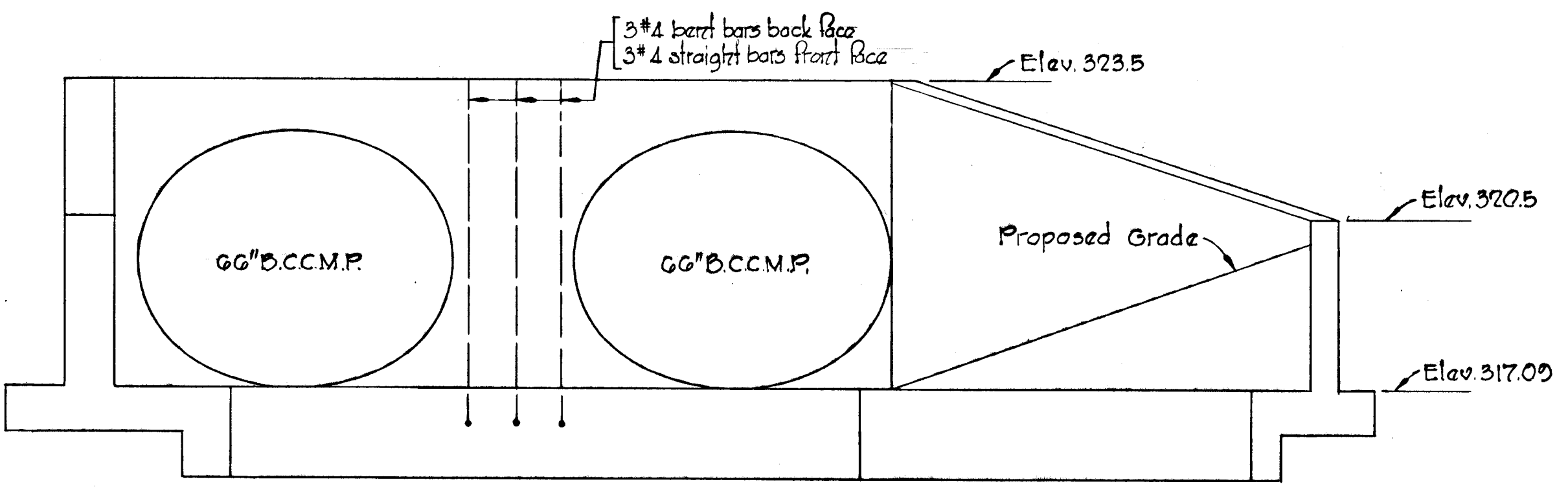
APPROVED
 DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING
 WILL 5/30/74
J. H. Lawson



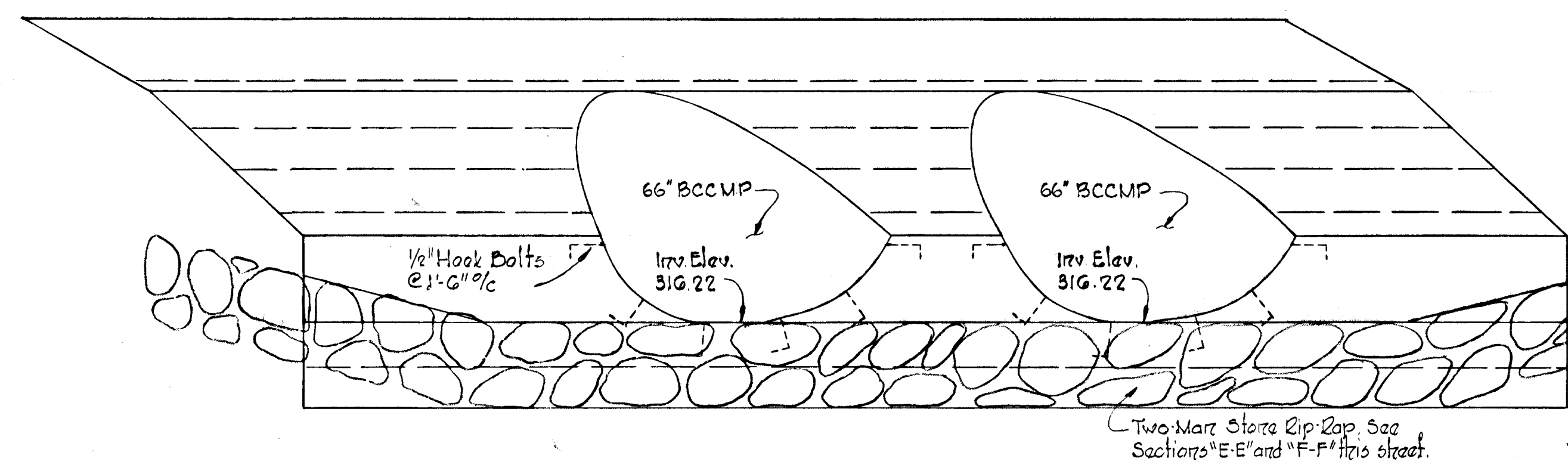
PLAN



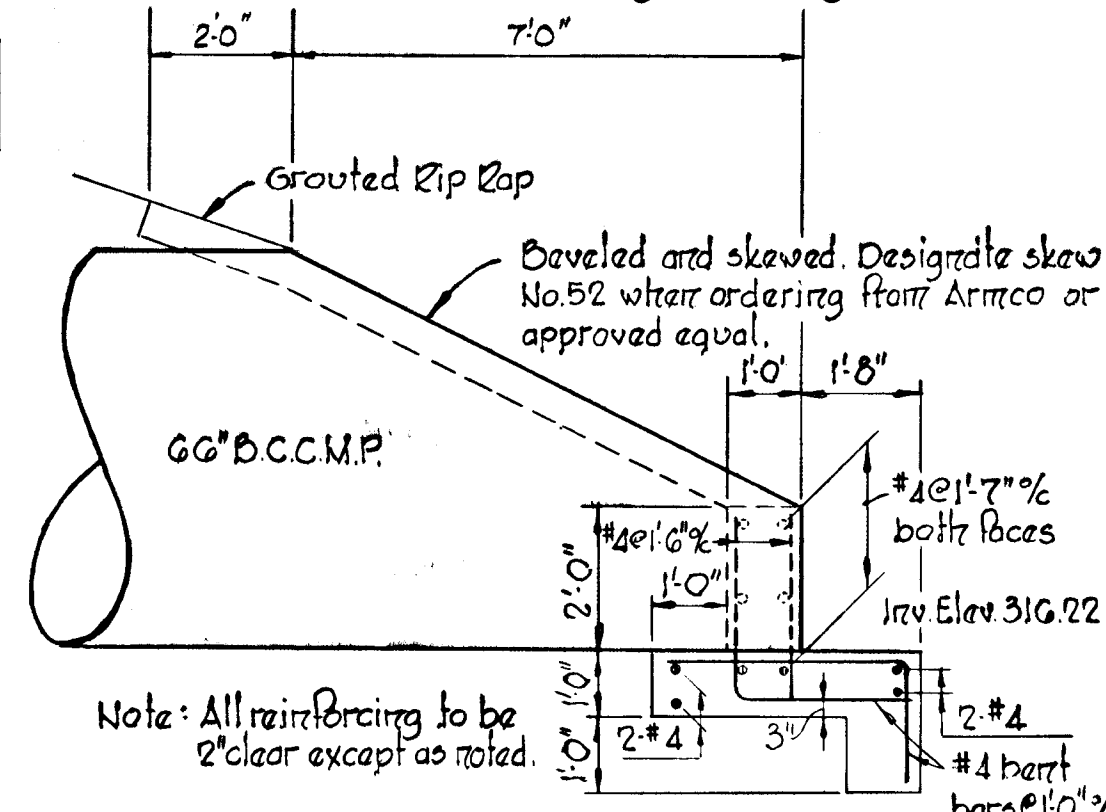
PLAN



ELEVATION

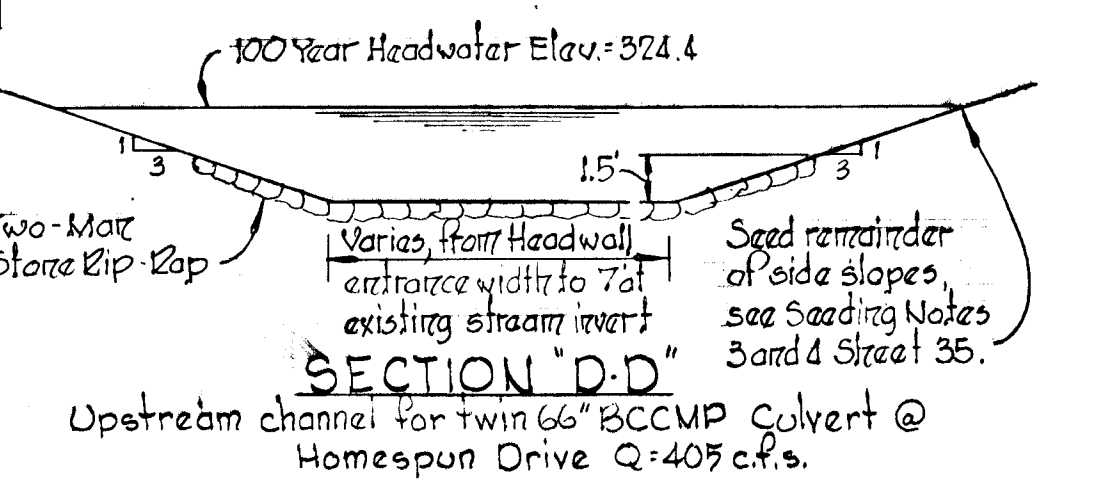


ELEVATION



SECTION "C-C"

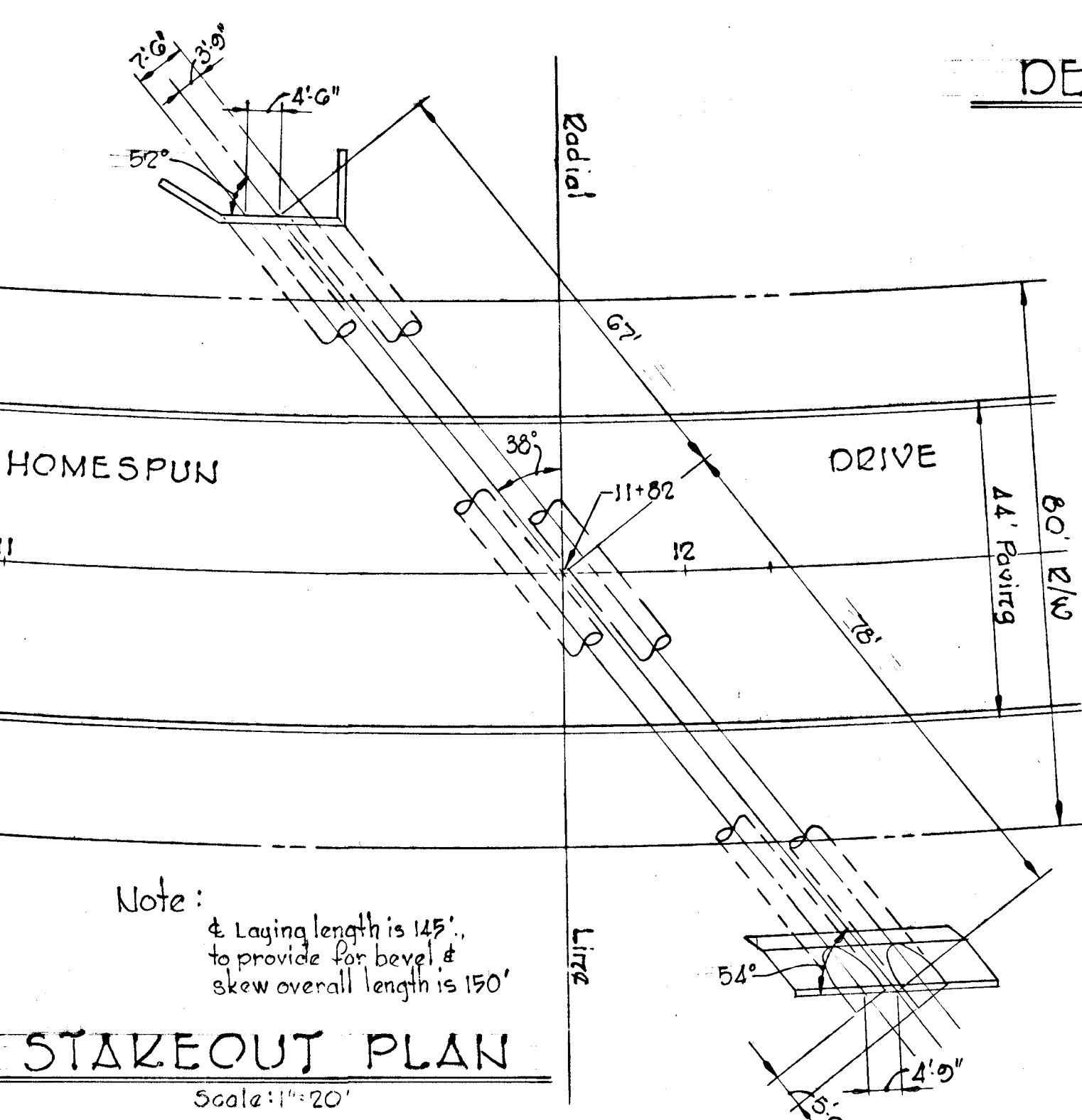
Note: All reinforcing to be 2' clear except as noted.



SECTION "D-D"

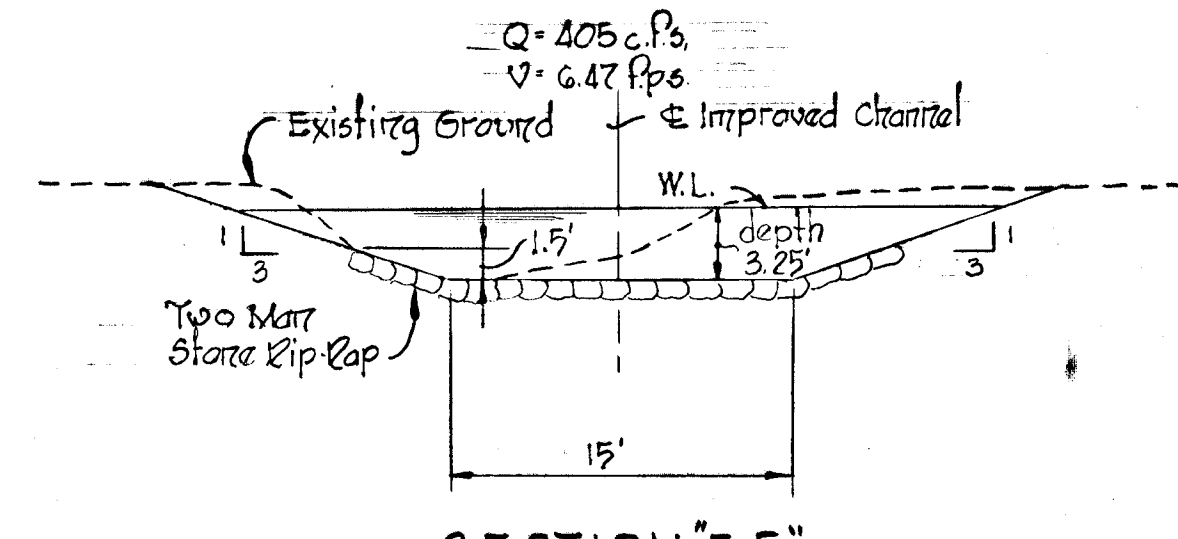
Upstream channel for twin 66" B.C.C.M.P. culvert @ Homespun Drive Q=405 c.f.s.

DETAILS - STRUCTURE "S2"
 Scale: 3/8" = 1'-0"



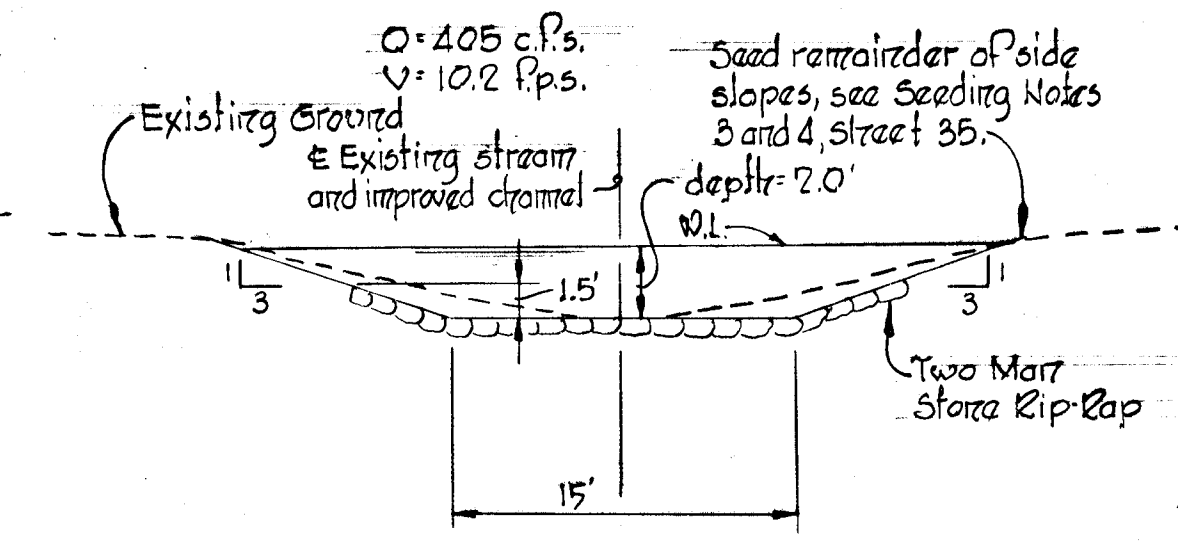
STAKEOUT PLAN
 Scale: 1" = 20'

Note: 4 Laying length is 145" to provide for bayel & skew overall length is 150"



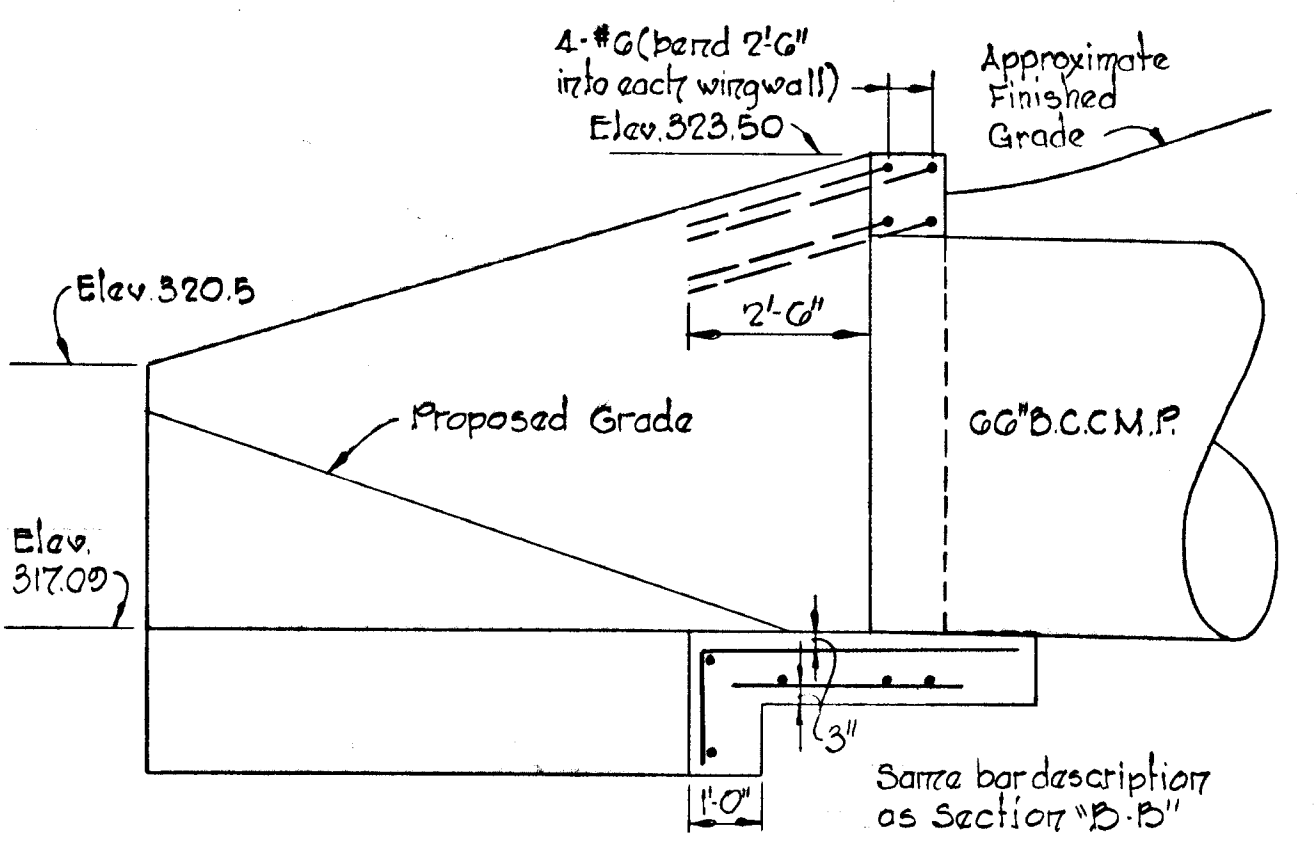
SECTION "E-E"

Downstream channel for Culvert (Twin 66") @ Homespun Dr.



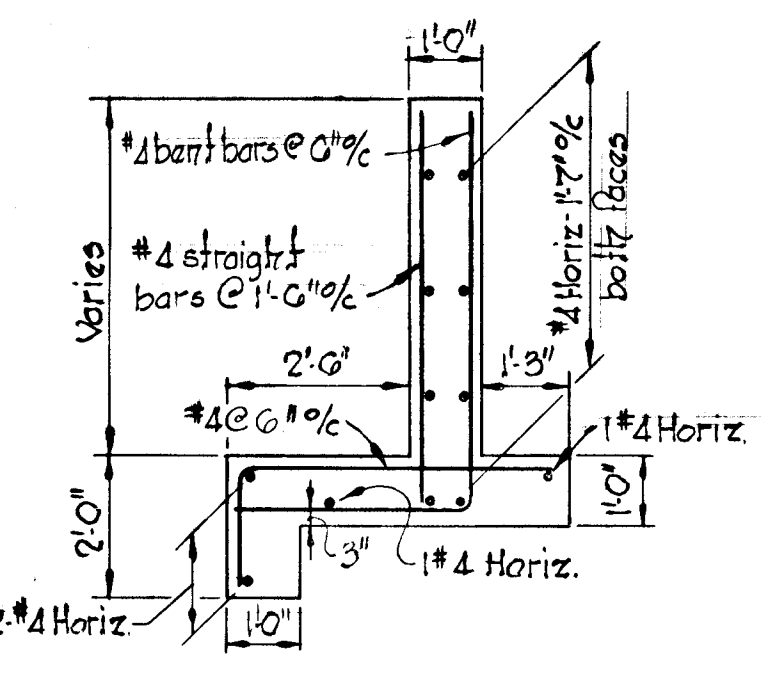
SECTION "F-F"

Downstream channel for Culvert (Twin 66") @ Homespun Dr.



SECTION "A-A"

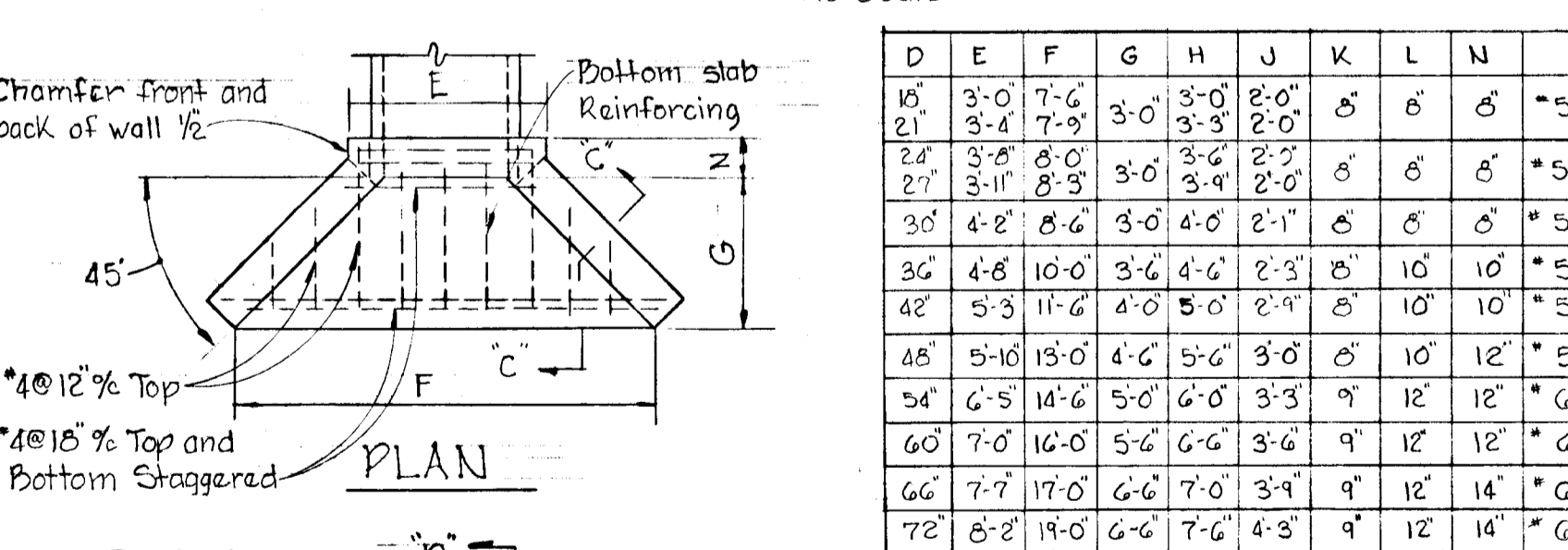
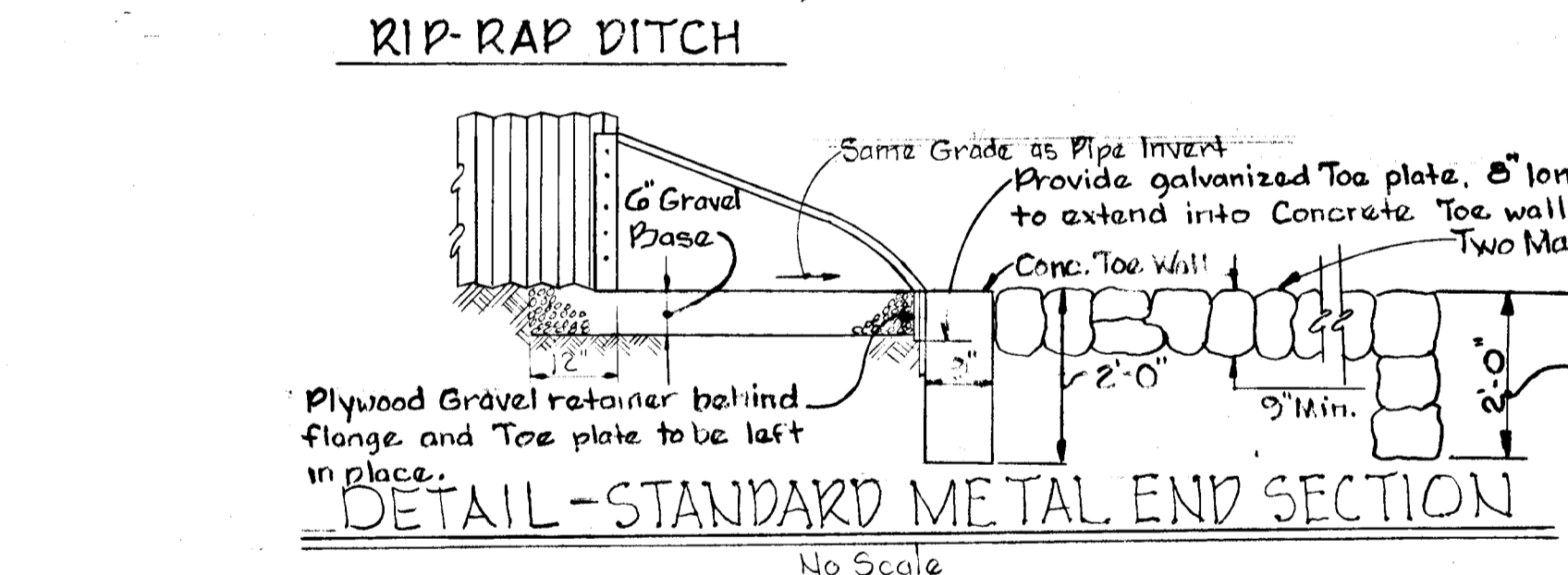
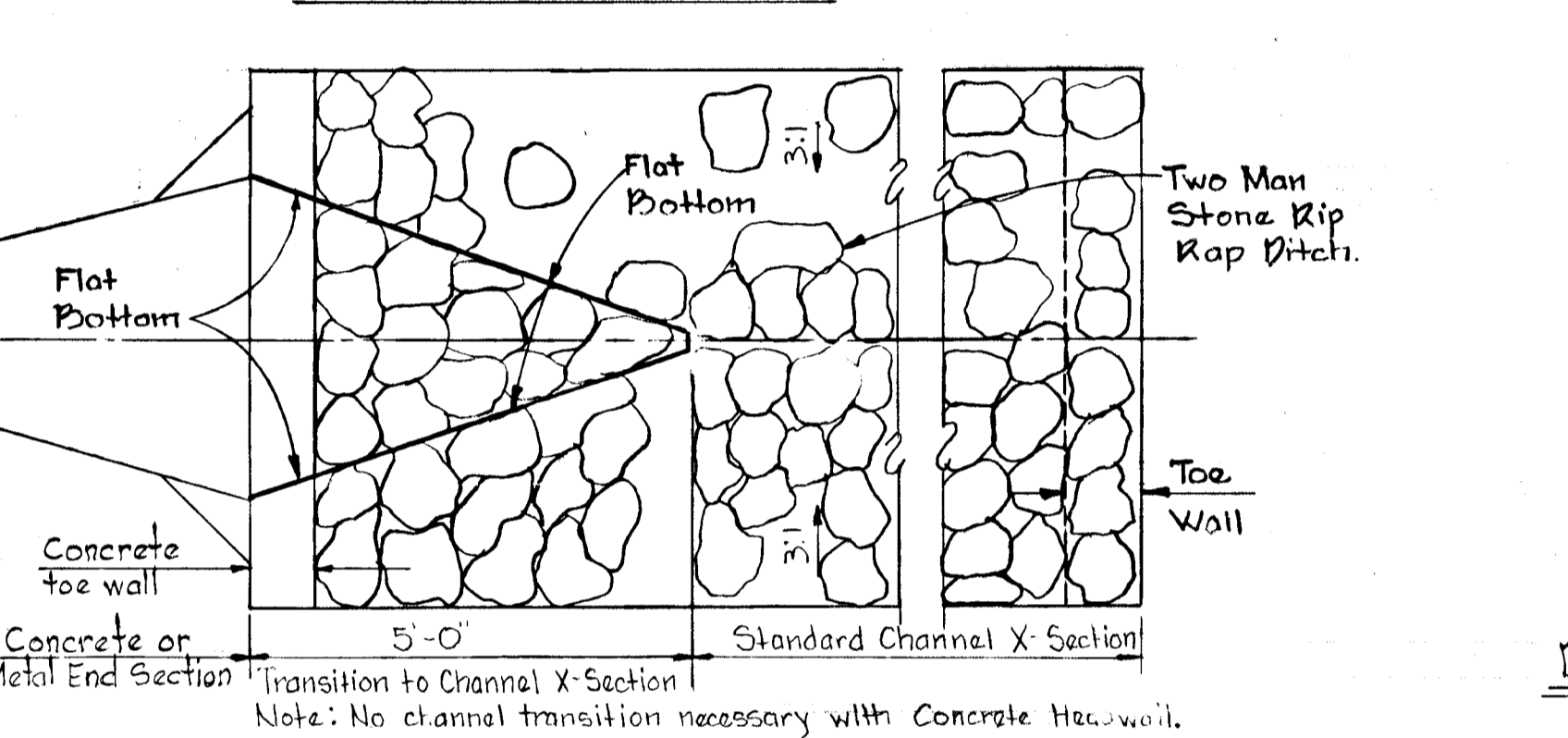
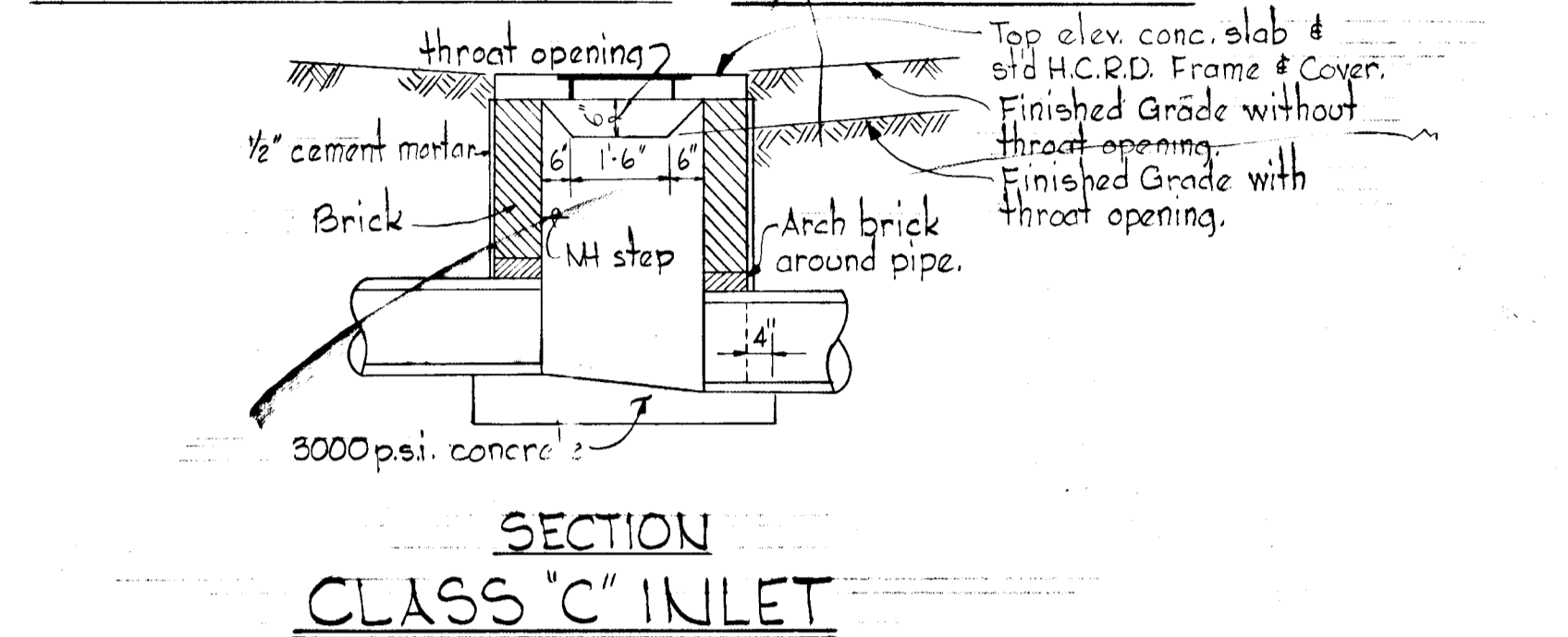
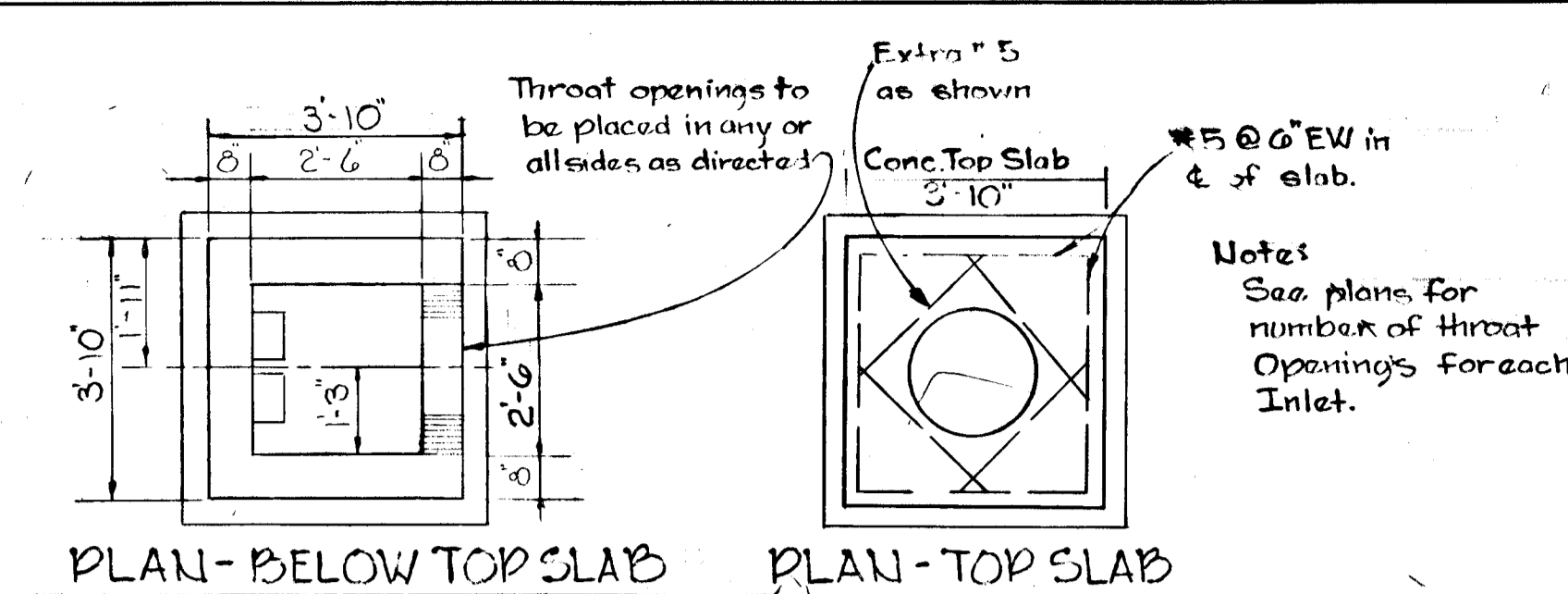
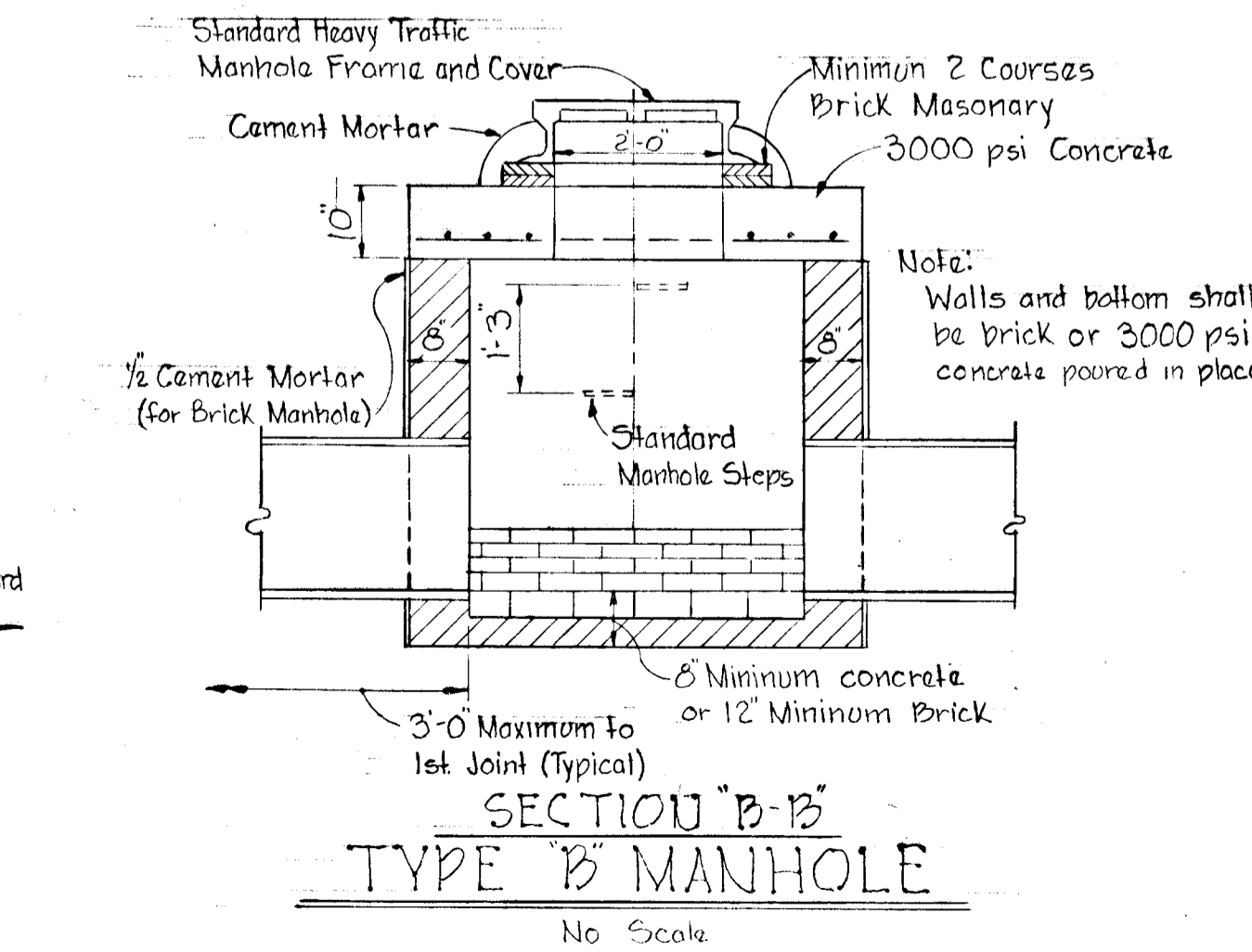
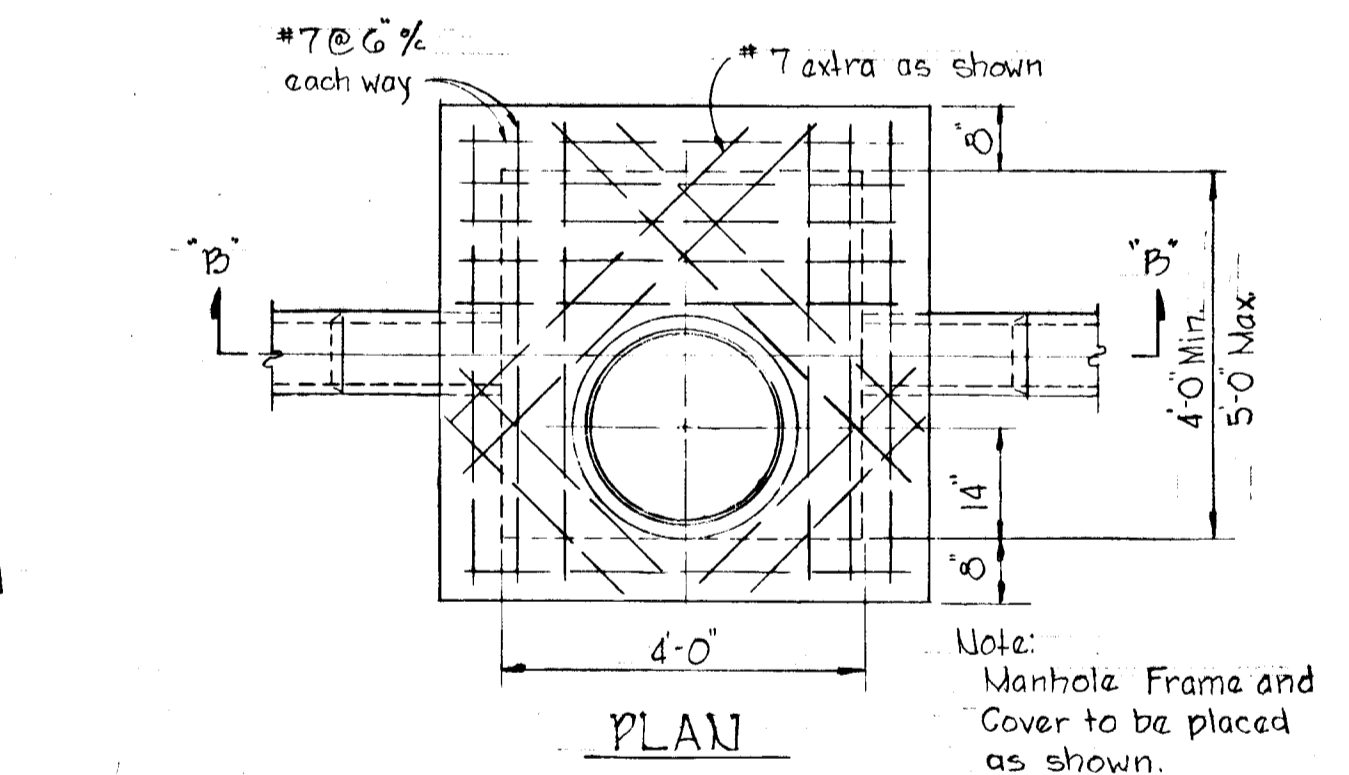
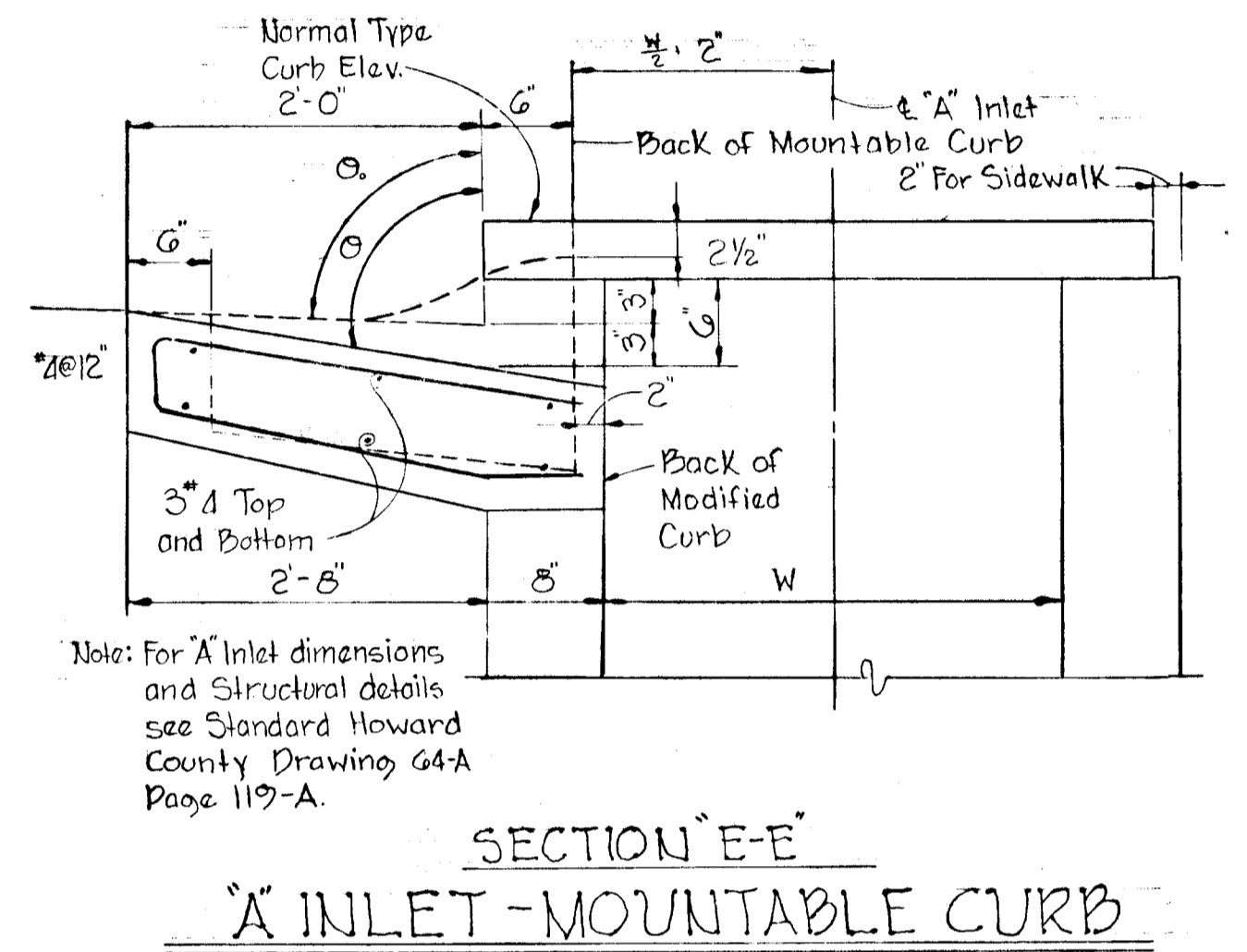
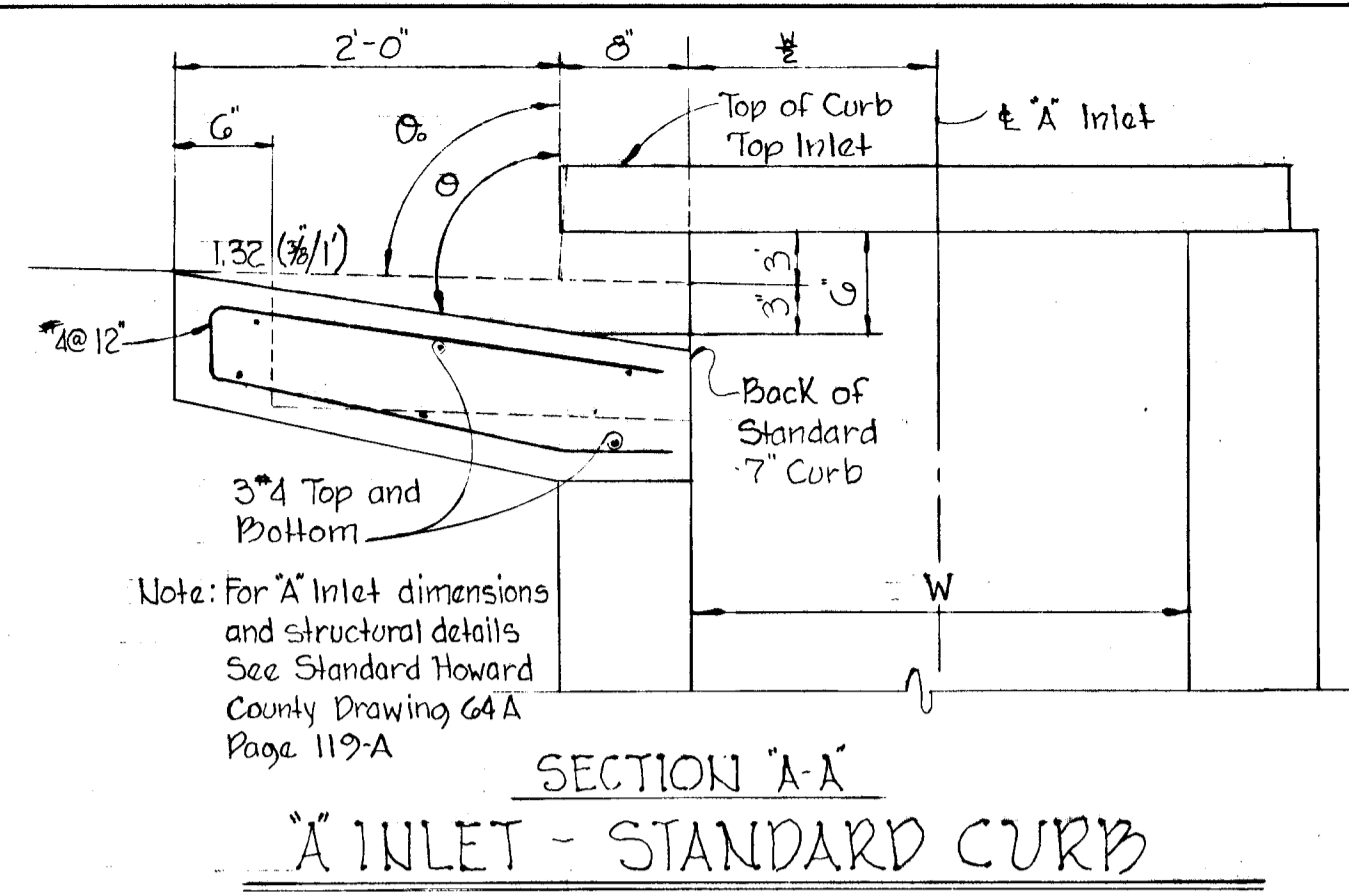
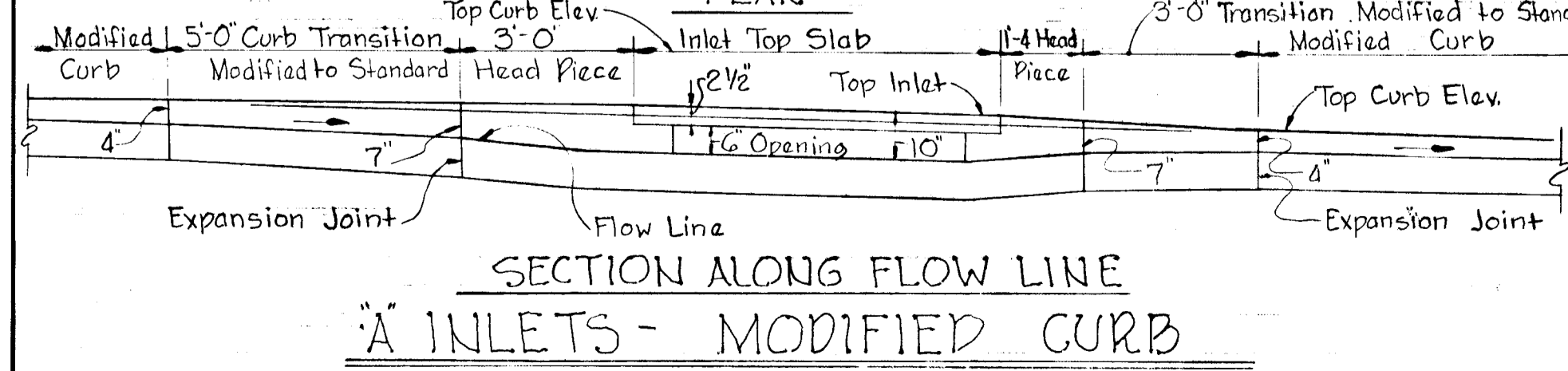
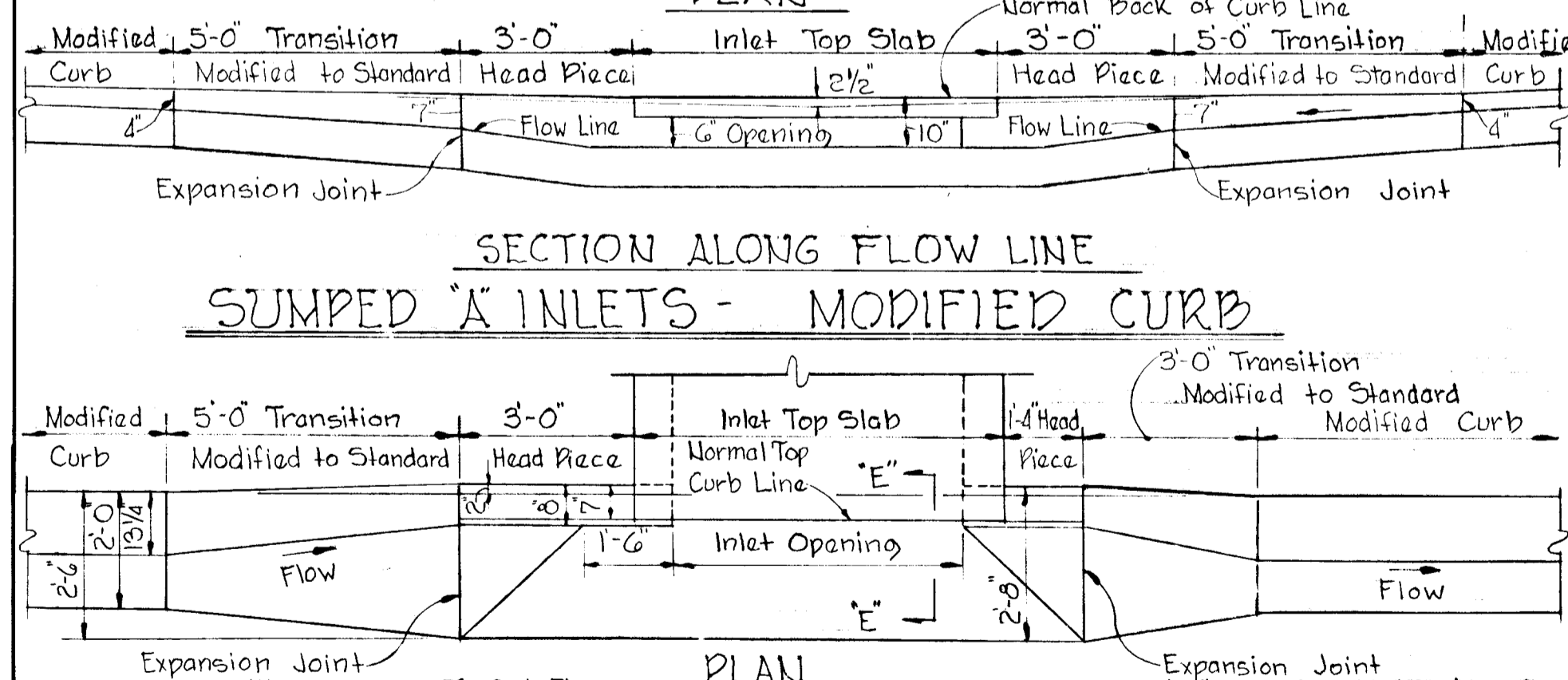
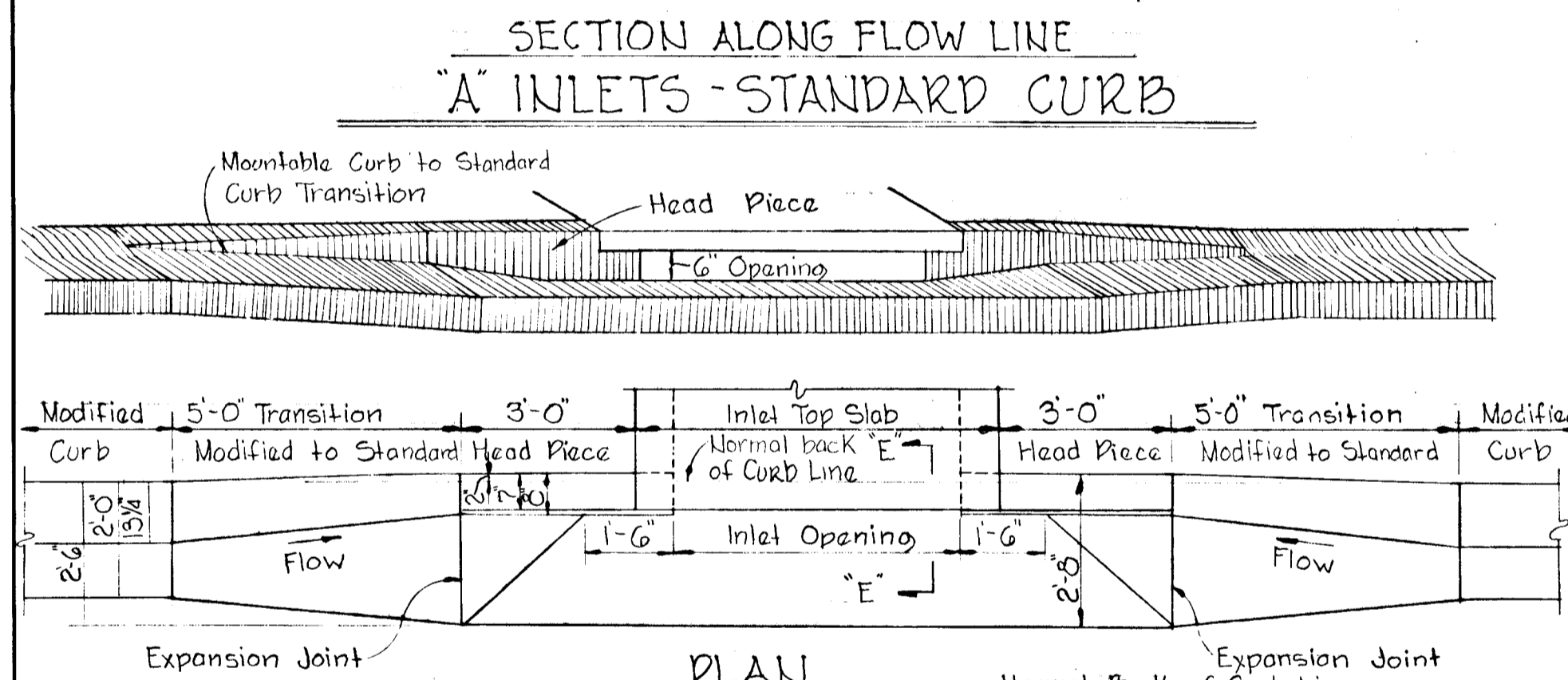
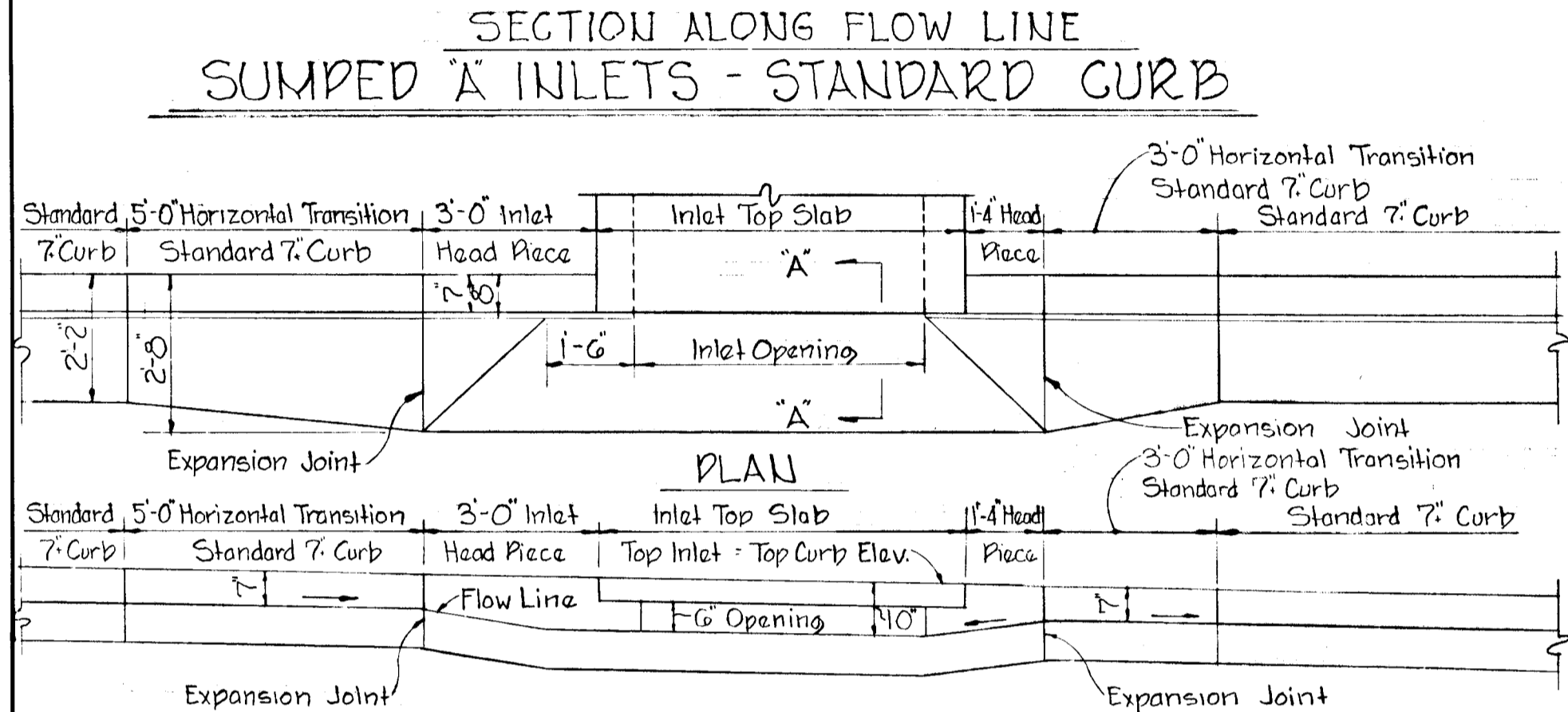
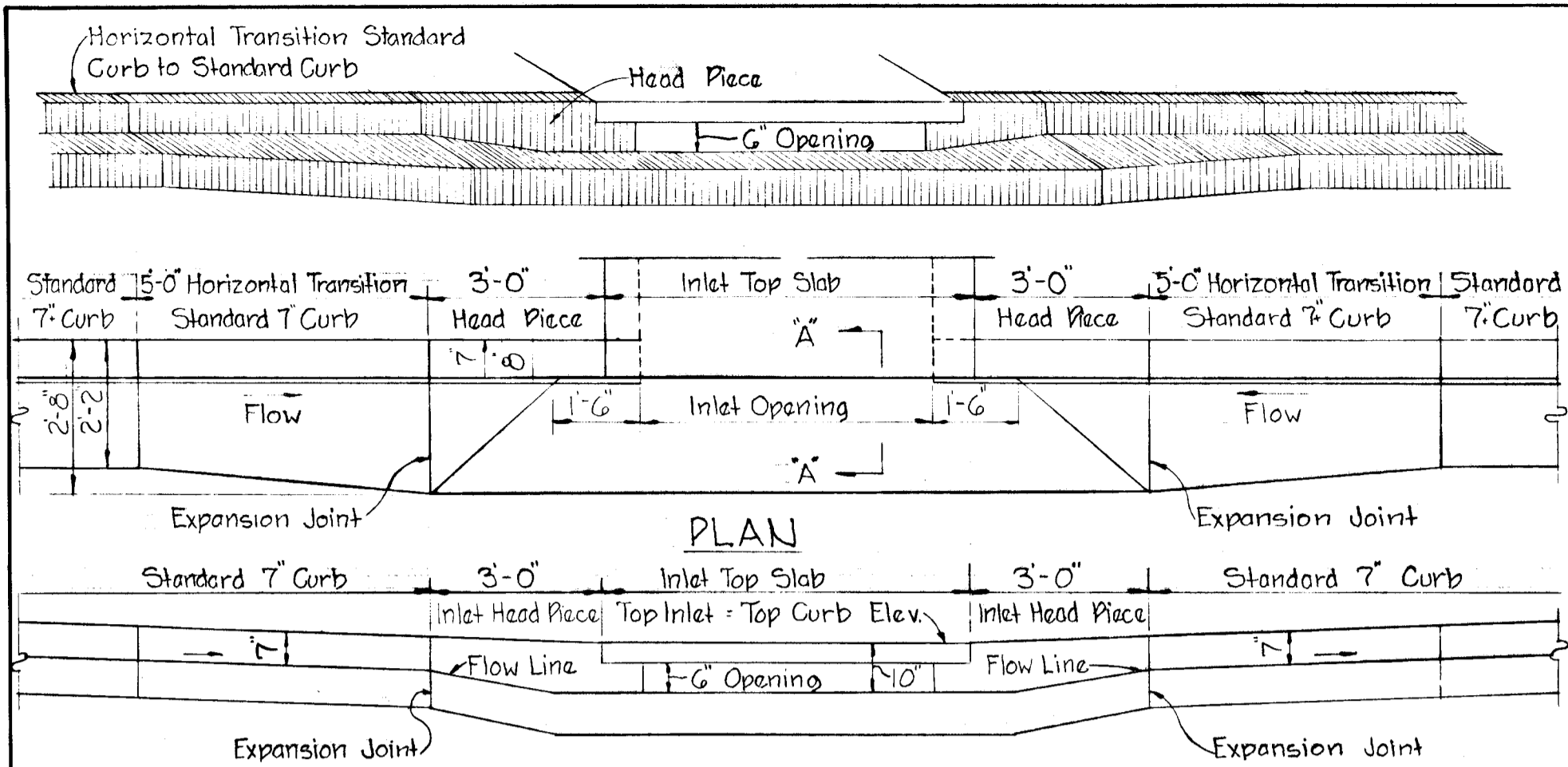
Note: All reinforcing to be 2' clear except as noted.



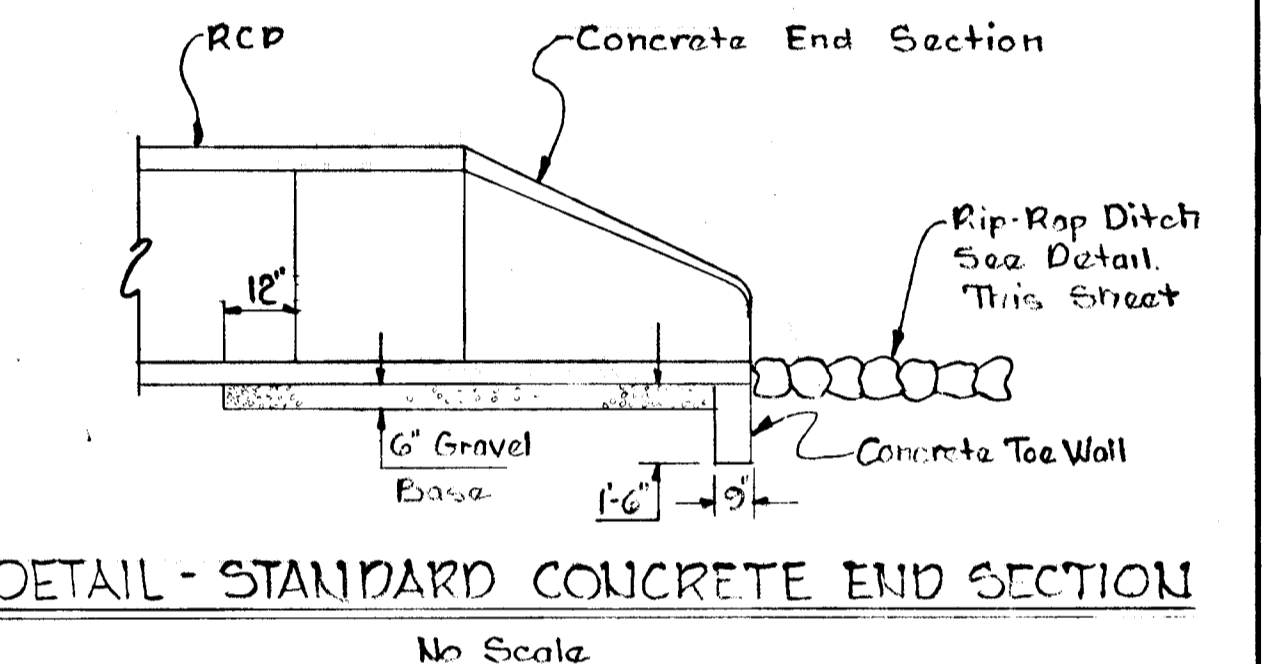
SECTION "B-B"

DETAILS - STRUCTURE "S1"
 (MODIFIED B-66 HEADWALL)
 Scale: 3/8" = 1'-0"

Rev. Date	Rev. No.	Revison Description
COLUMBIA		
GIBBLETON DISTRICT HOWARD COUNTY, MARYLAND		
OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP.		
PROJECT AREA		
VILLAGE OF OWEN BROWN		
SECTION 4, AREA 1		
PROJECT TITLE		
STORM DRAIN DETAILS		
SCALE: As Shown		DATE: 5/23/74
WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202		
<i>Kenneth A. McCord</i> KENNETH A. MCCORD Registered Engineer No. 1974		



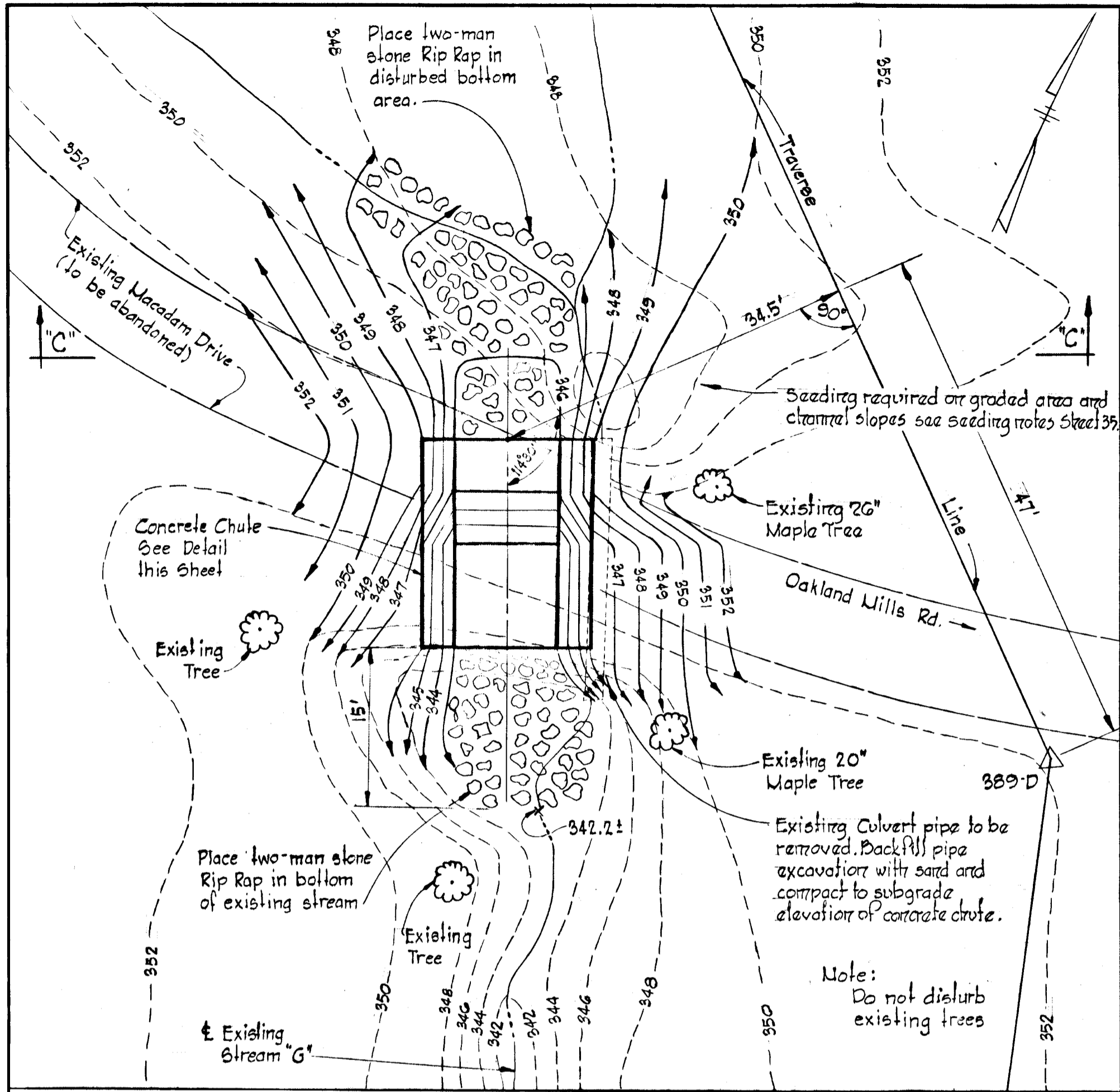
D	E	F	G	H	J	K	L	N	R
15	3'-0"	7'-6"	3'-0"	3'-0"	8'-0"	8'	8'	8'	*5@12"
21	3'-4"	7'-9"	3'-0"	3'-3"	8'-0"	8'	8'	8'	*5@12"
24	3'-8"	8'-0"	3'-0"	3'-6"	8'-0"	8'	8'	8'	*5@12"
27	3'-11"	8'-3"	3'-0"	3'-9"	8'-0"	8'	8'	8'	*5@12"
30	4'-2"	8'-6"	3'-0"	4'-0"	8'-0"	8'	8'	8'	*5@12"
36	4'-8"	10'-0"	3'-0"	4'-6"	8'-0"	8'	10'	10'	*5@12"
42	5'-3"	11'-6"	4'-0"	5'-0"	8'-0"	8'	10'	10'	*5@12"
48	5'-10"	13'-0"	4'-6"	5'-6"	8'-0"	8'	10'	12'	*5@12"
54	6'-5"	14'-6"	5'-0"	6'-0"	8'-0"	8'	12'	12'	*6@8"
60	7'-0"	16'-0"	5'-6"	6'-6"	8'-0"	8'	12'	12'	*6@8"
66	7'-7"	17'-0"	6'-0"	7'-0"	8'-0"	8'	14'	14'	*6@8"
72	8'-2"	19'-0"	6'-6"	7'-6"	8'-0"	8'	14'	14'	*6@8"



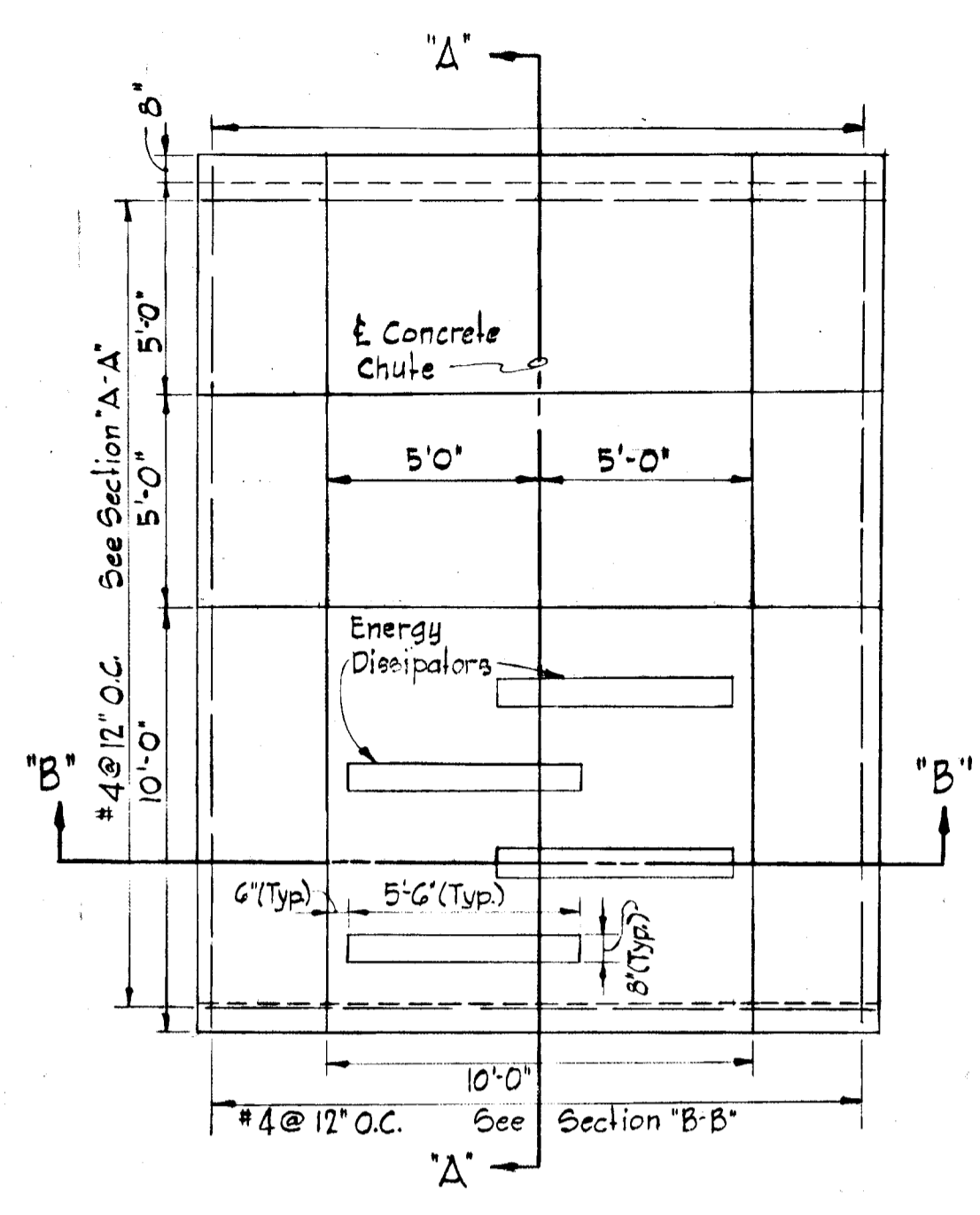
APPROVED
 DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING
 HOWARD COUNTY, MARYLAND
 5/30/74
J. J. Cawson

Rev. Date	Rev. No.	Revision Description
COLUMBIA GAZETTEMENT DISTRICT HOWARD COUNTY, MARYLAND OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP. PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4, AREA 1 PROJECT TITLE STORM DRAIN DETAILS		
SCALE: AS SHOWN		DATE: 5/23/74
WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202 <i>James A. McLeod</i> KEVINETH A. MCCOY Registered Engineer No. 1974		

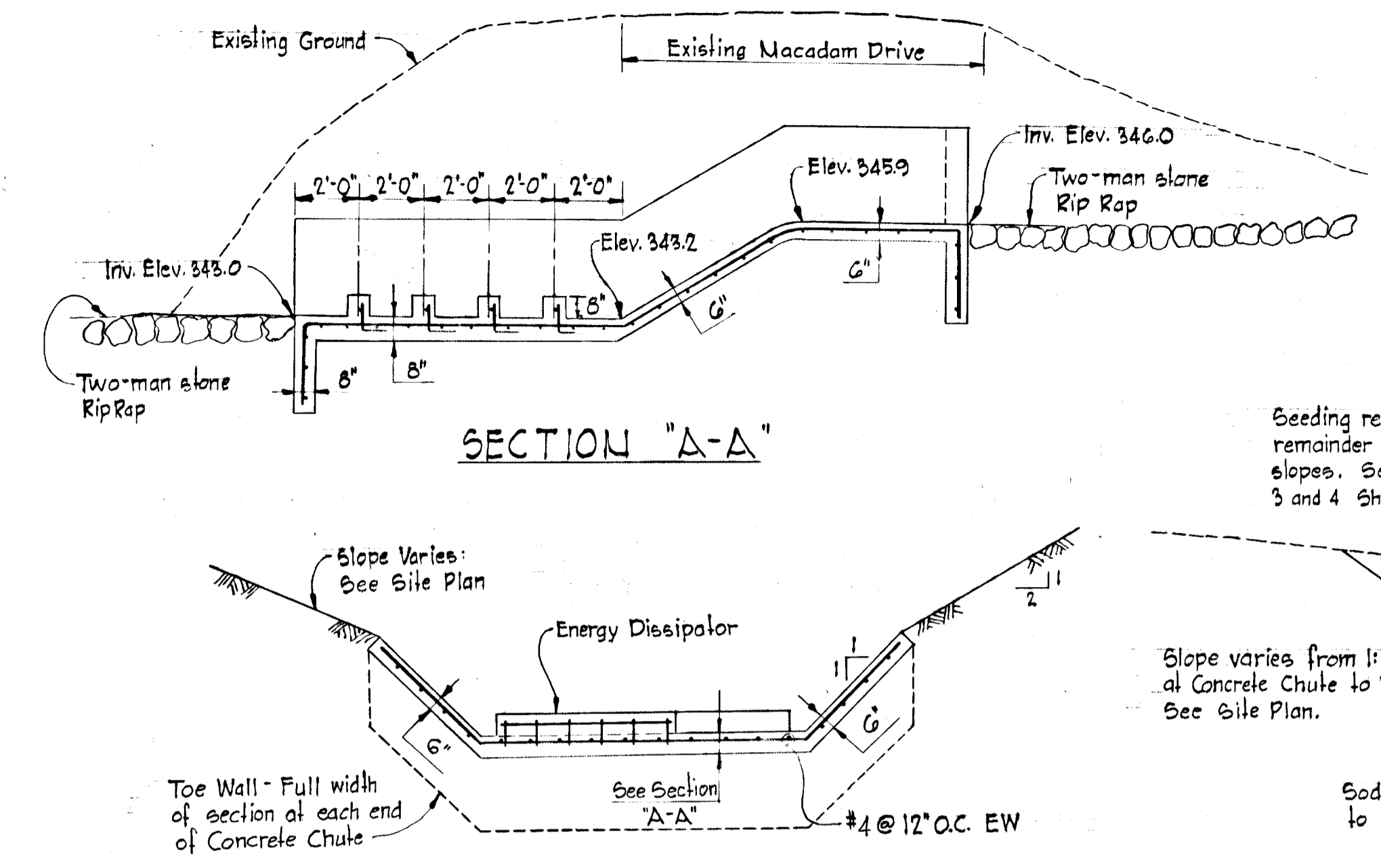
DEPARTMENT OF PUBLIC WORKS
B. H. McLeod 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE
 OFFICE OF PLANNING AND ZONING
S. Dawson 5/2/74
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE
 AND TRANSPORTATION PLANNING



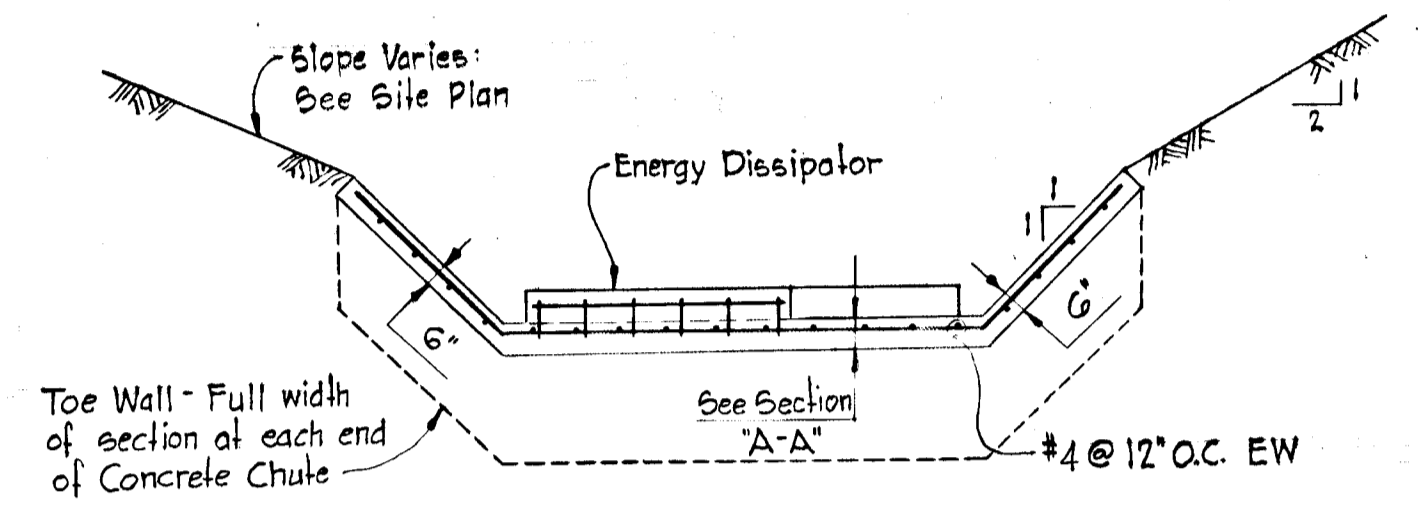
SITE PLAN
CONCRETE CHUTE - EXISTING STREAM 'G'
 Scale: 1" = 10'-0"



PLAN

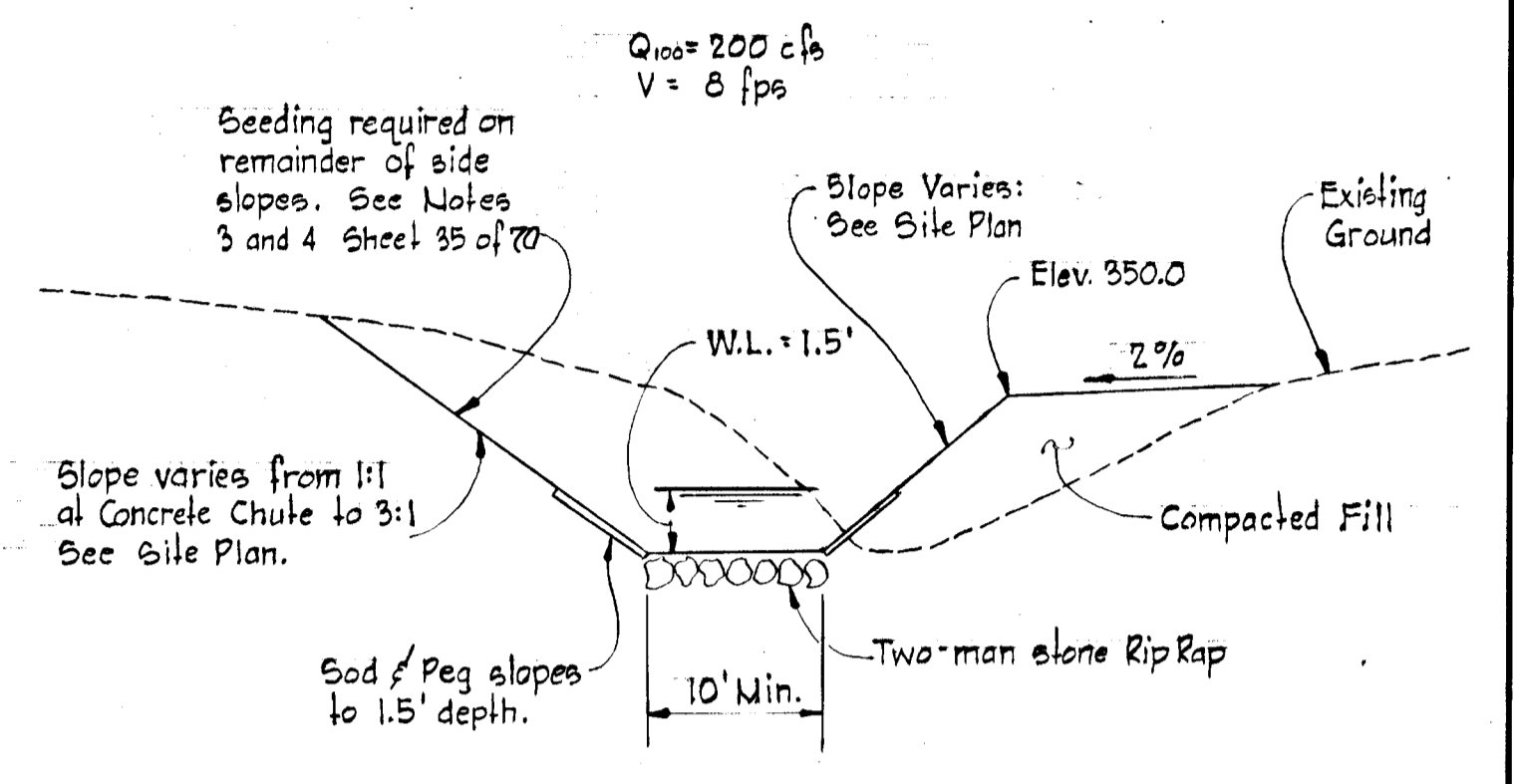


SECTION "A-A"



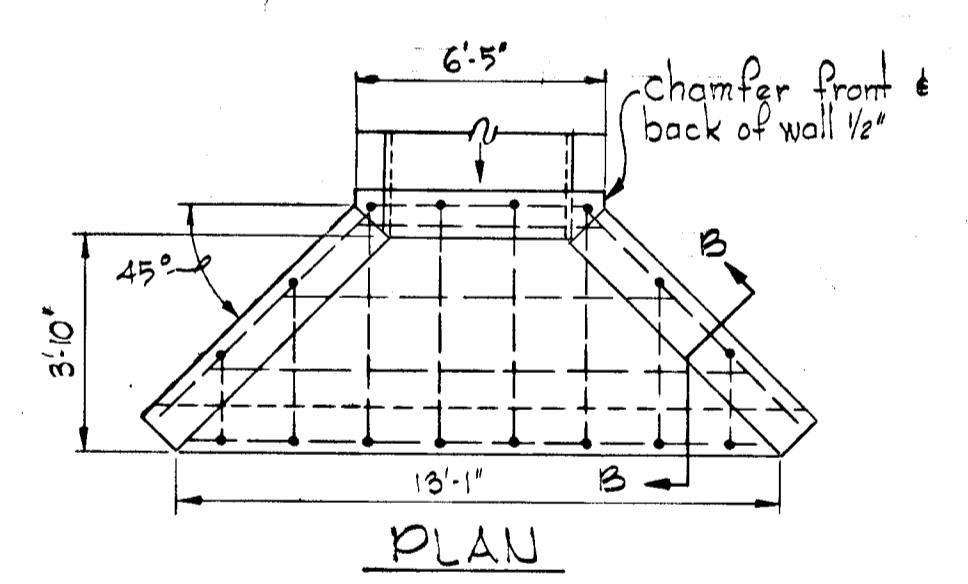
SECTION "B-B"

DETAIL - CONCRETE CHUTE
 Scale: 1/4" = 1'-0"

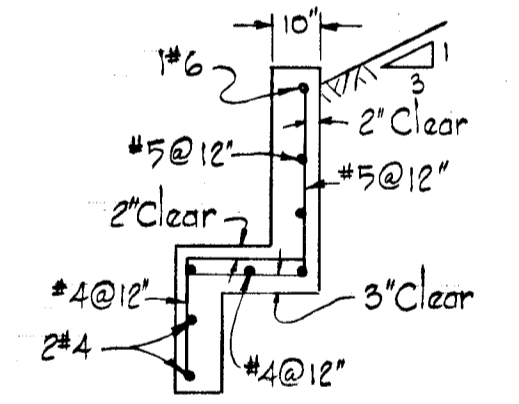


SECTION "C-C"

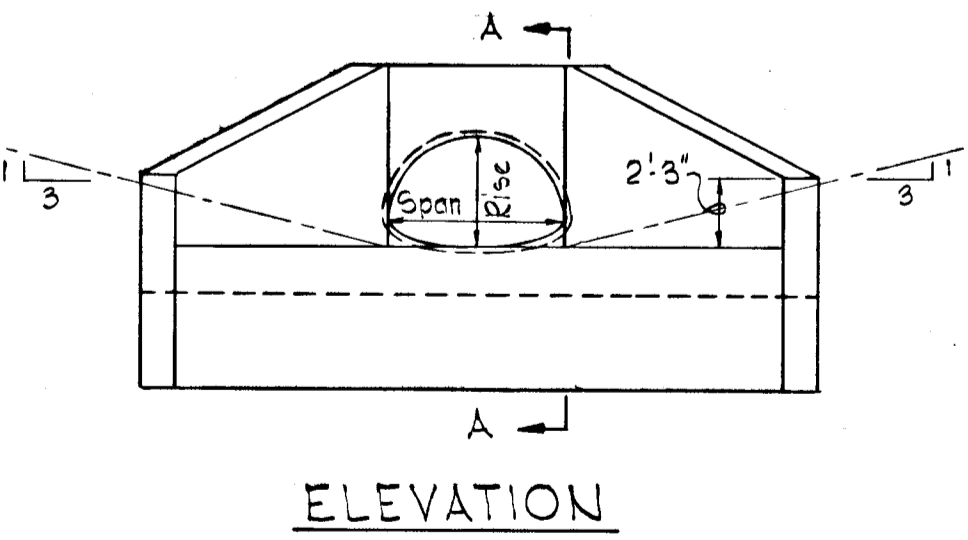
(Improved Stream Channel - See Site Plan This Sheet)
 Scale: Hor. 1" = 10'
 Ver. 1" = 5'



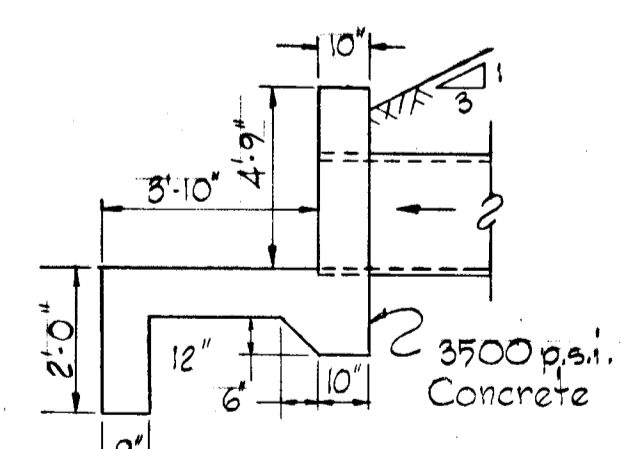
PLAN



SECTION "B-B"



ELEVATION



SECTION "A-A"
 (Reinforcing not shown, similar to B-B)

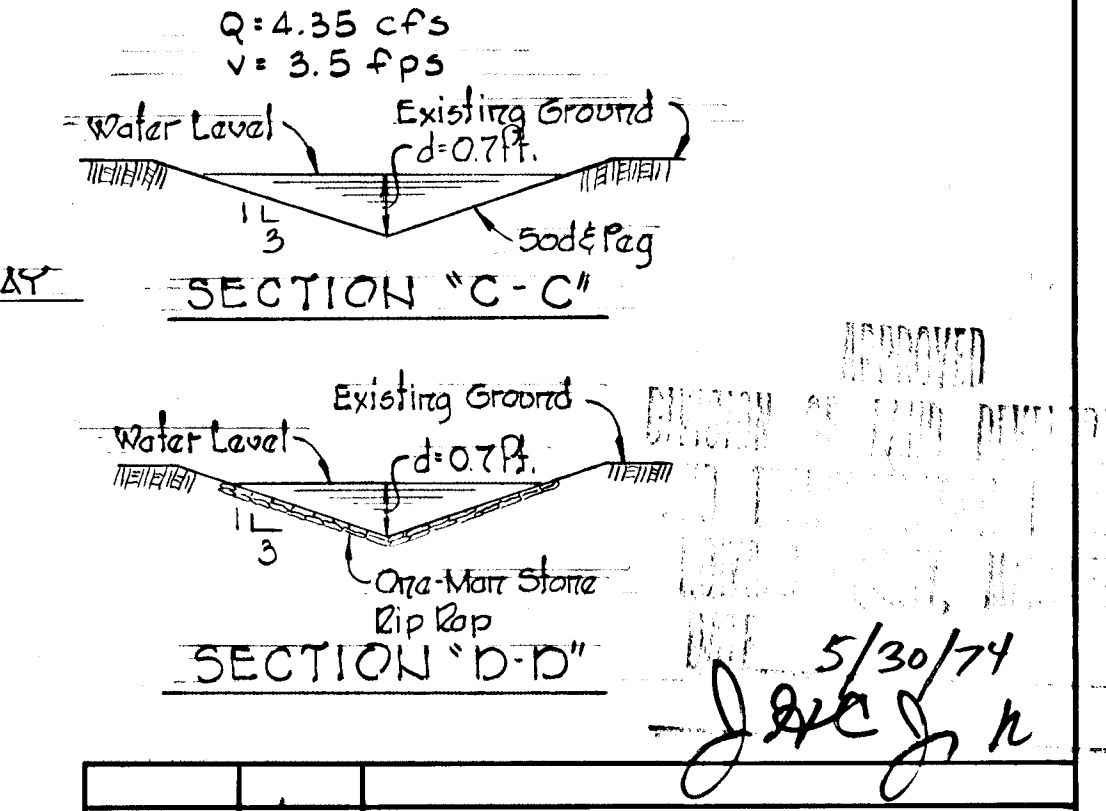
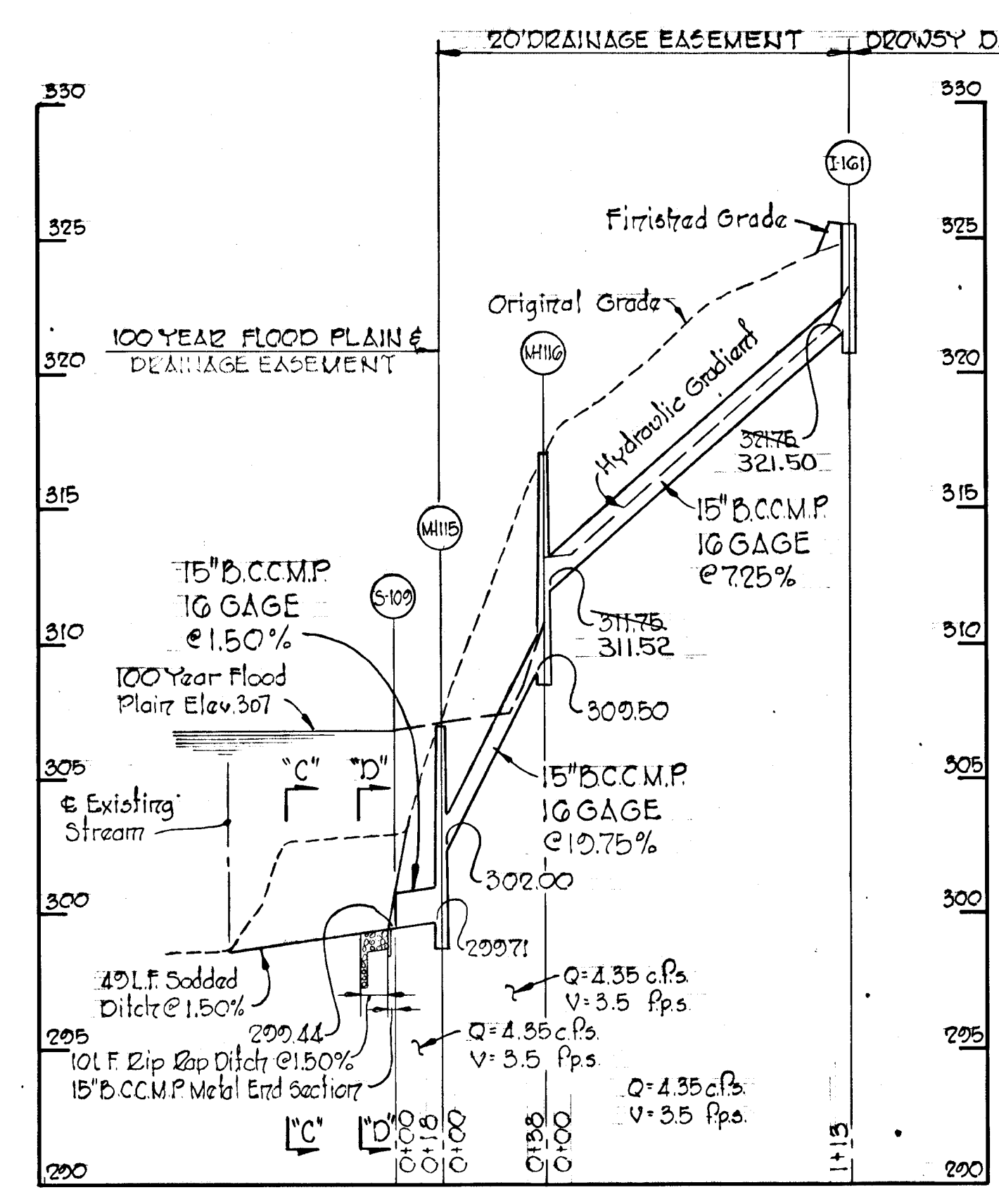
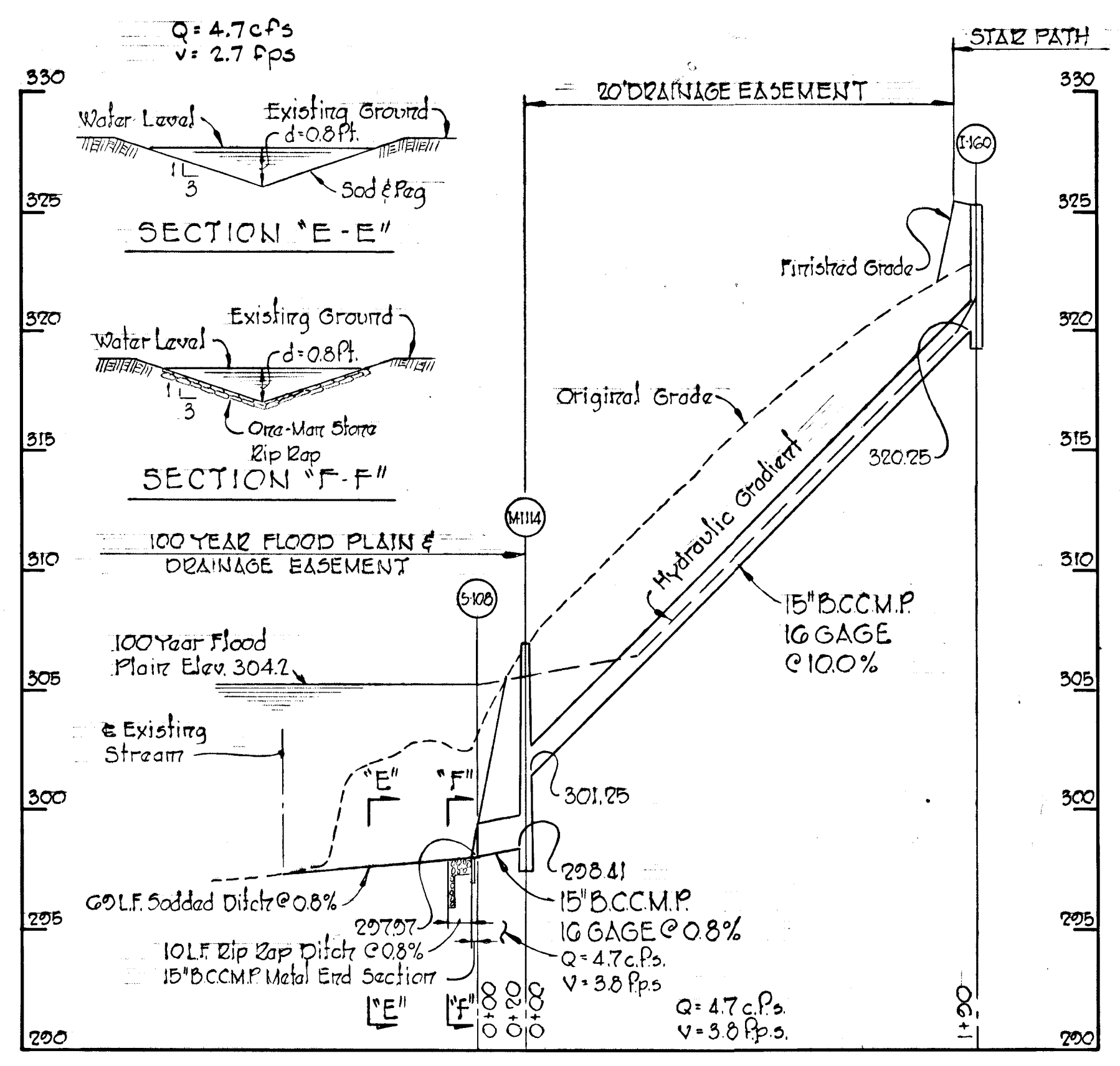
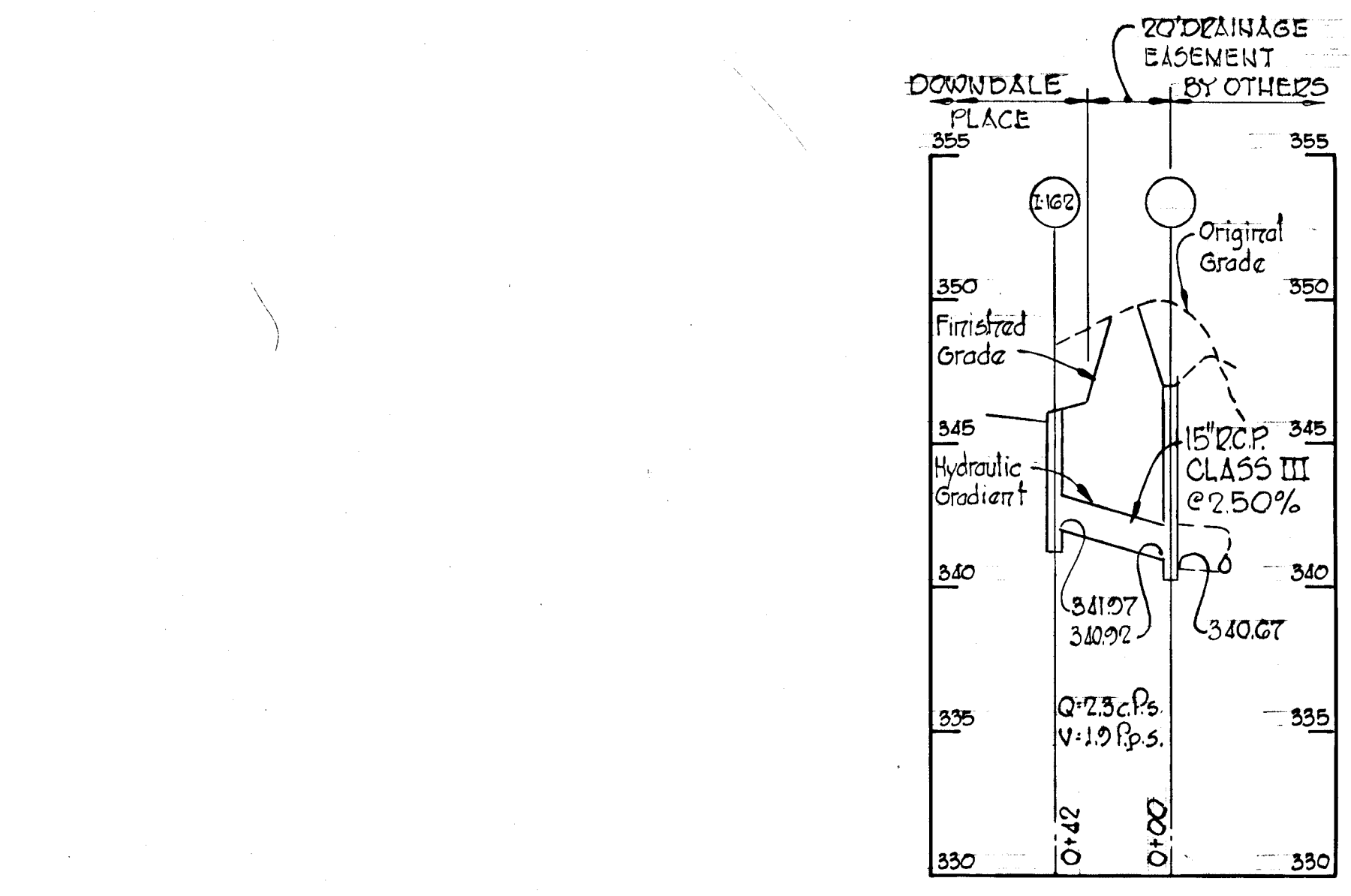
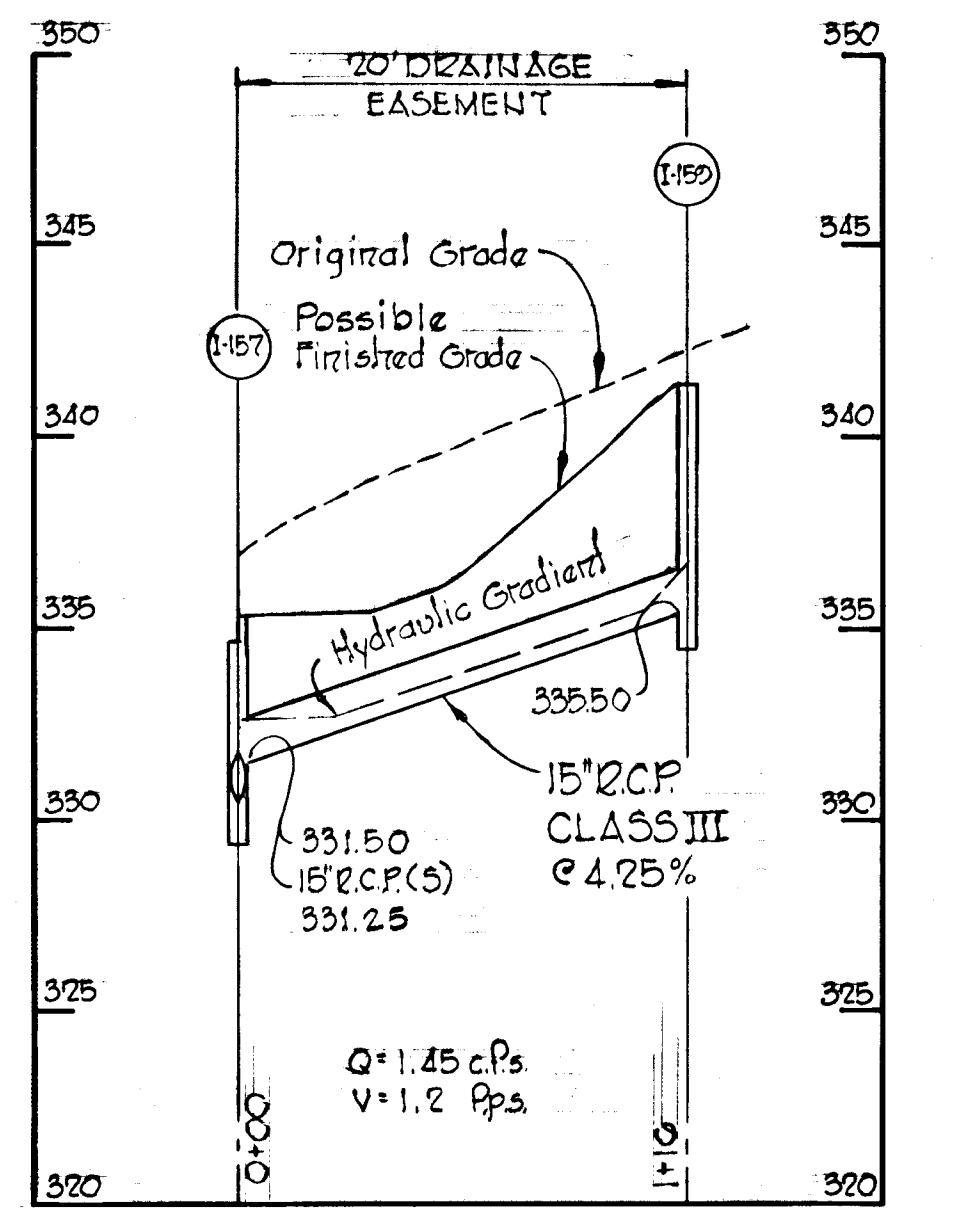
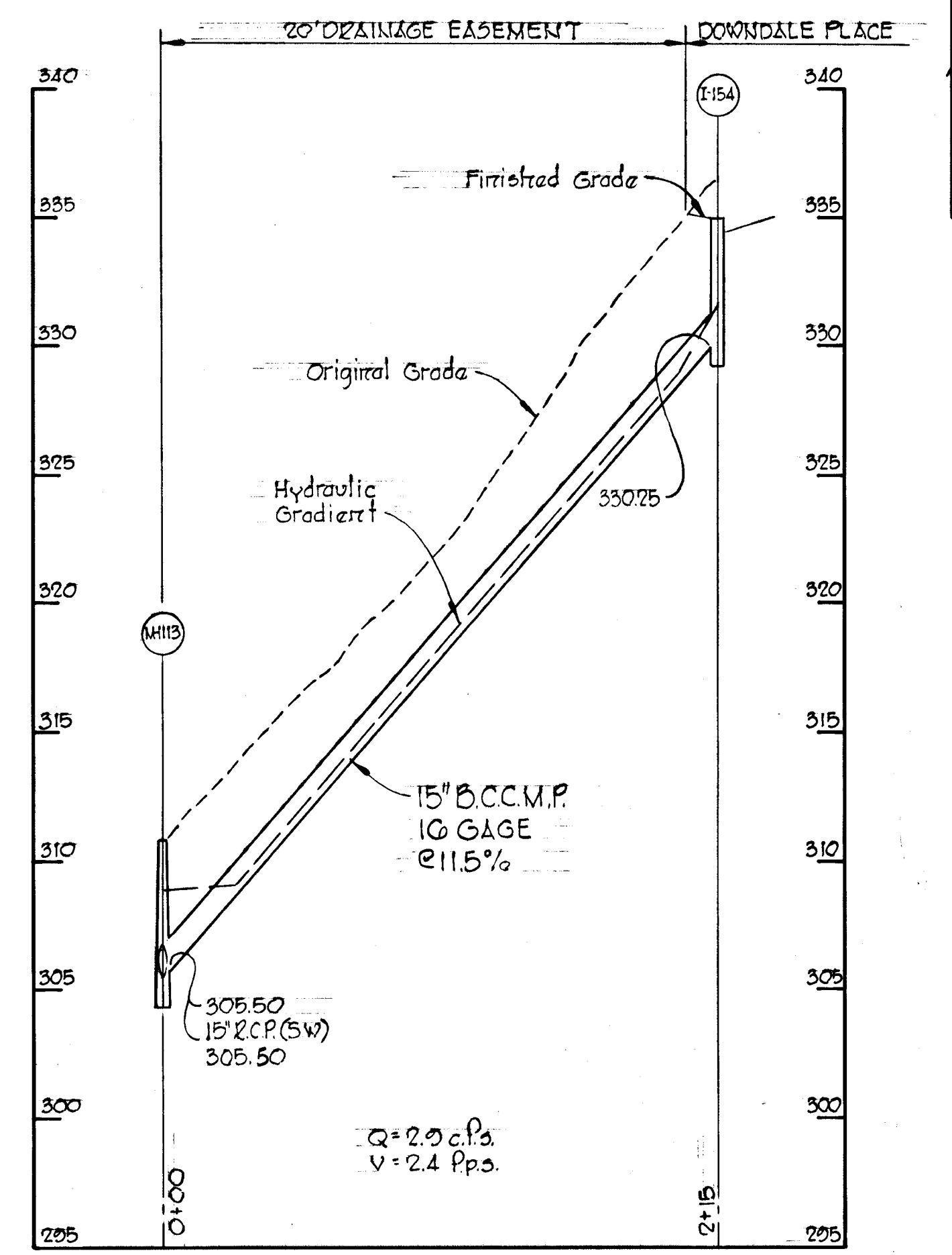
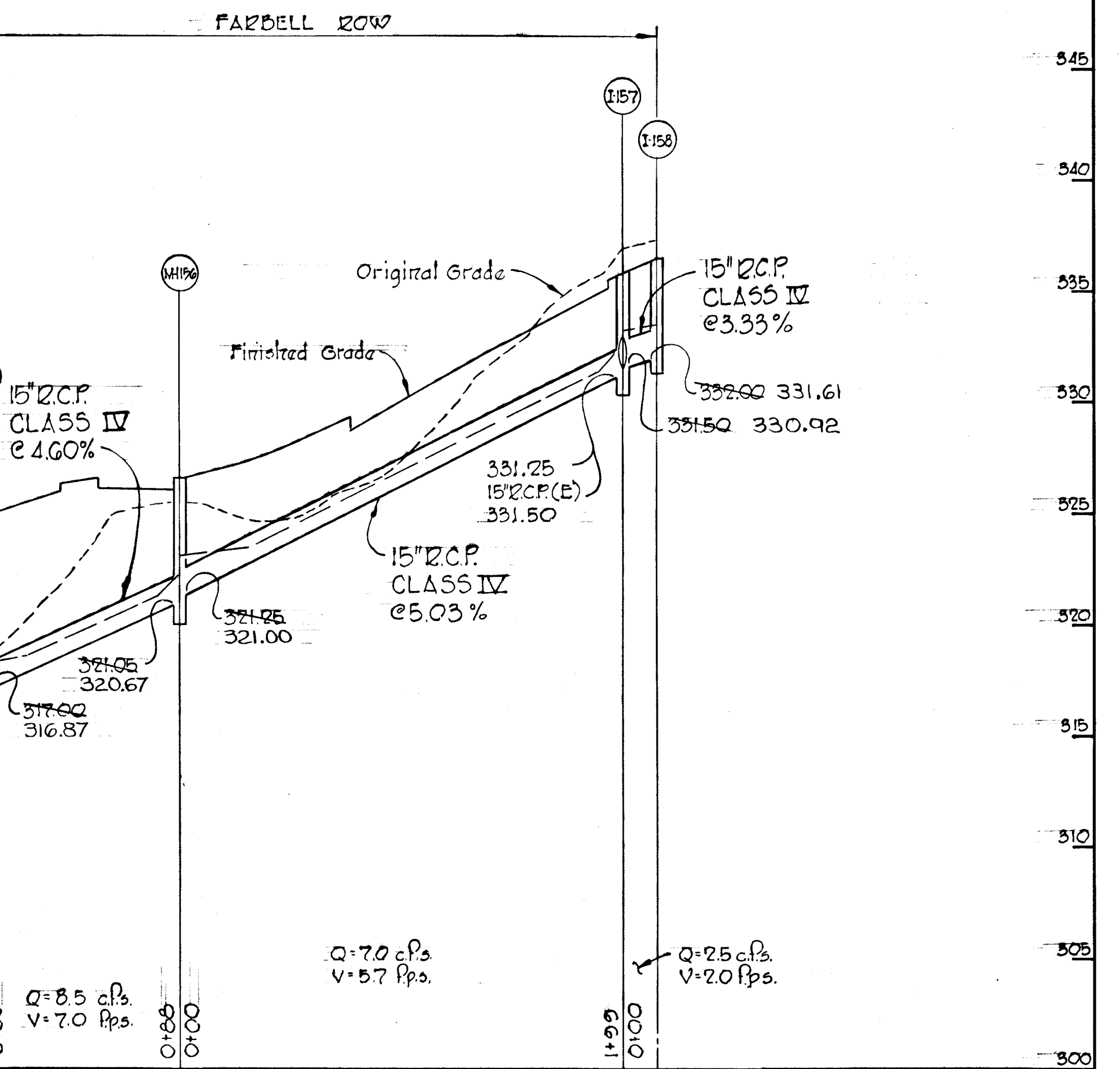
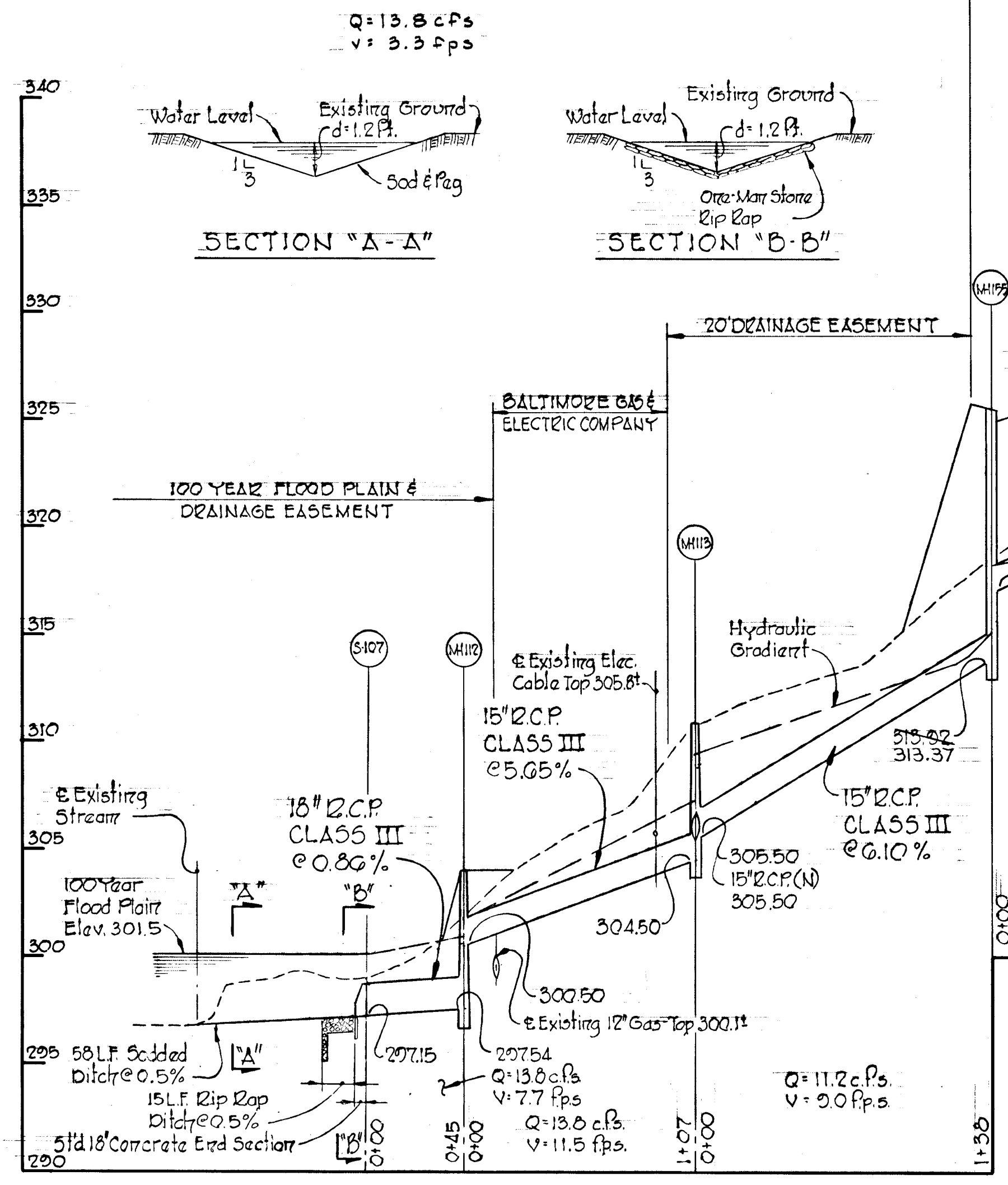
Note: Chamfer exposed edges 1"x1".

HEADWALL S-6
 No Scale

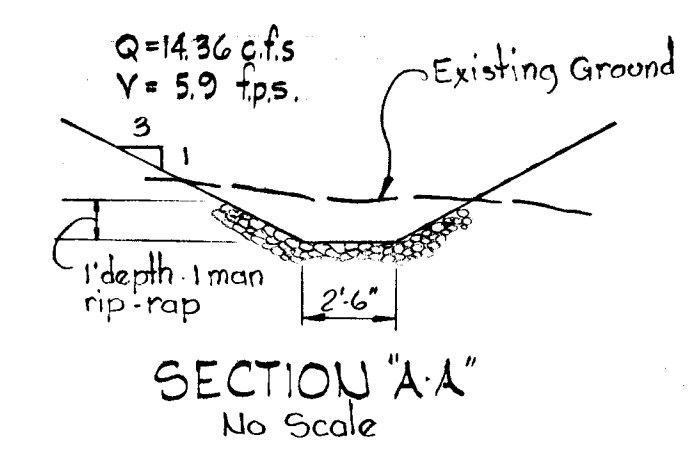
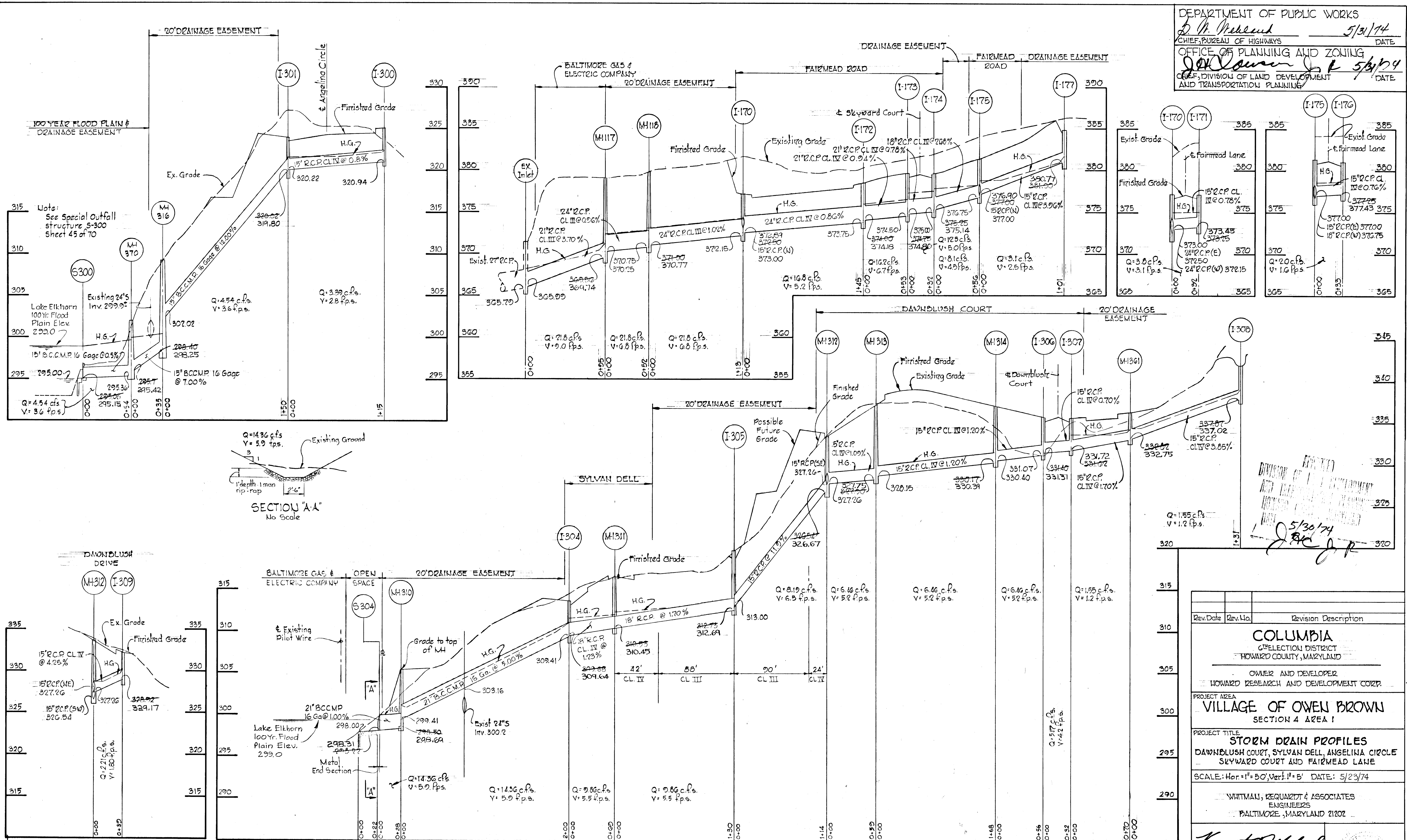
APPROVED
 DIVISION OF LAND DEVELOPMENT
 AND TRANSPORTATION PLANNING
 HENRIETTA G. WILSON
 DATE: 5/30/74
S. Dawson

Rev. Date	Rev. No.	Revision Description
COLUMBIA 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP.		
PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4 AREA 1		
PROJECT TITLE STORM DRAIN DETAILS		
SCALE: As Shown		DATE: 5/23/74
WHITMAN, REQUARDT/ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202		
<i>Kenneth A. McCord</i> KENNETH A. McCORD Registered Engineer No. 1974		

DEPARTMENT OF PUBLIC WORKS
 G. M. Ireland 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE
 OFFICE OF PLANNING AND ZONING
 J. S. Clawson J. F. 5/31/74
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE



Rev. Date	Rev. No.	Reviser	Description
COLUMBIA GELECTION DISTRICT HOWARD COUNTY, MARYLAND OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP. PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4, AREA 1 PROJECT TITLE STORM DRAIN PROFILES DOWNDALE PLACE, STAZ PATH FARBELL ROW AND DROWSY DAY SCALE: Hor: 1"=50', Vert: 1"=5' DATE: 5/23/74 WHITMAN, REOUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202 Kenneth A. McCozid Registered Engineer No. 1072			



5/30/74
 J. A. J. P.

Rev. Date	Rev. No.	Revision Description

COLUMBIA
 GEOTECHNICAL DISTRICT
 HOWARD COUNTY, MARYLAND

OWNER AND DEVELOPER
 HOWARD RESEARCH AND DEVELOPMENT CORP.

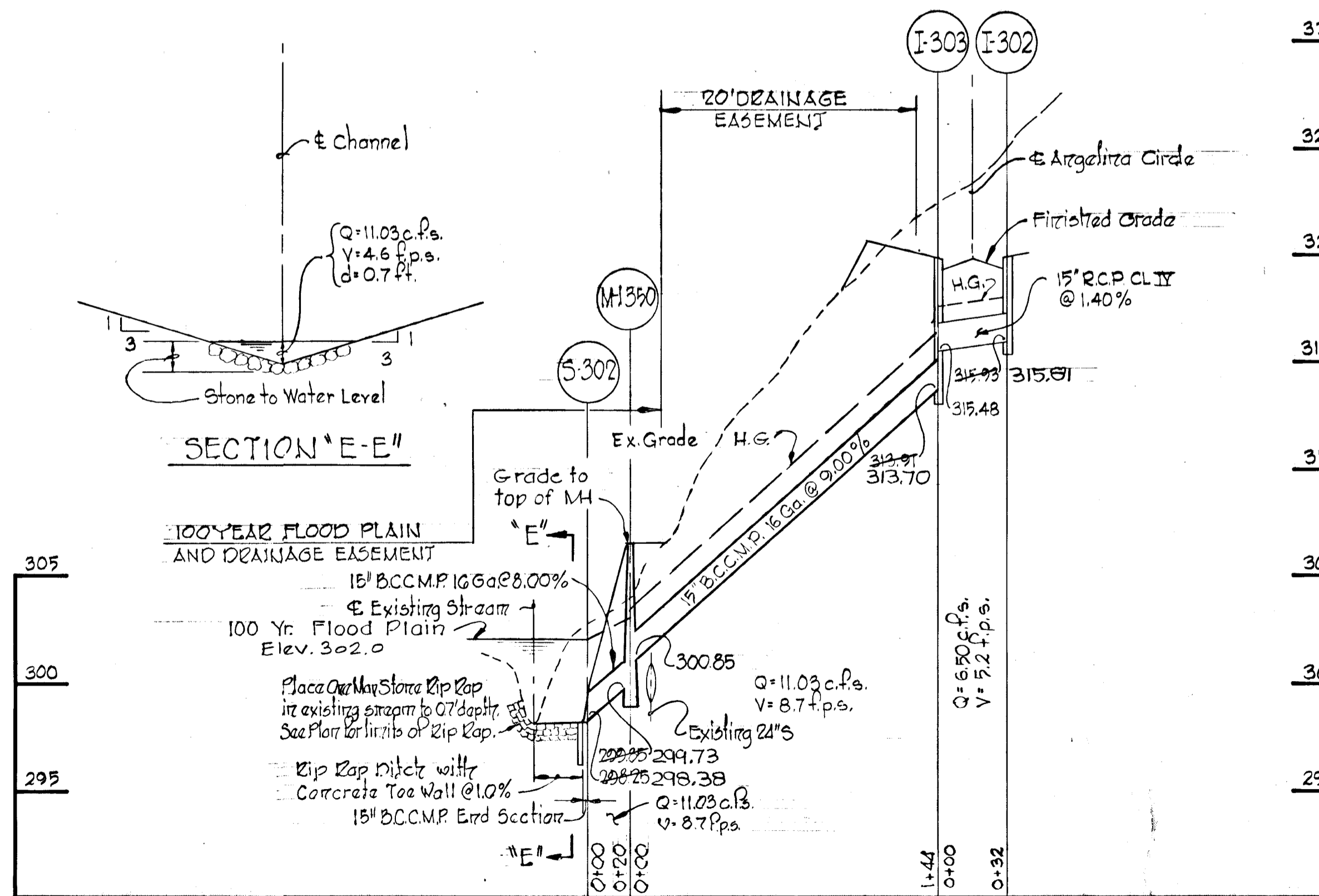
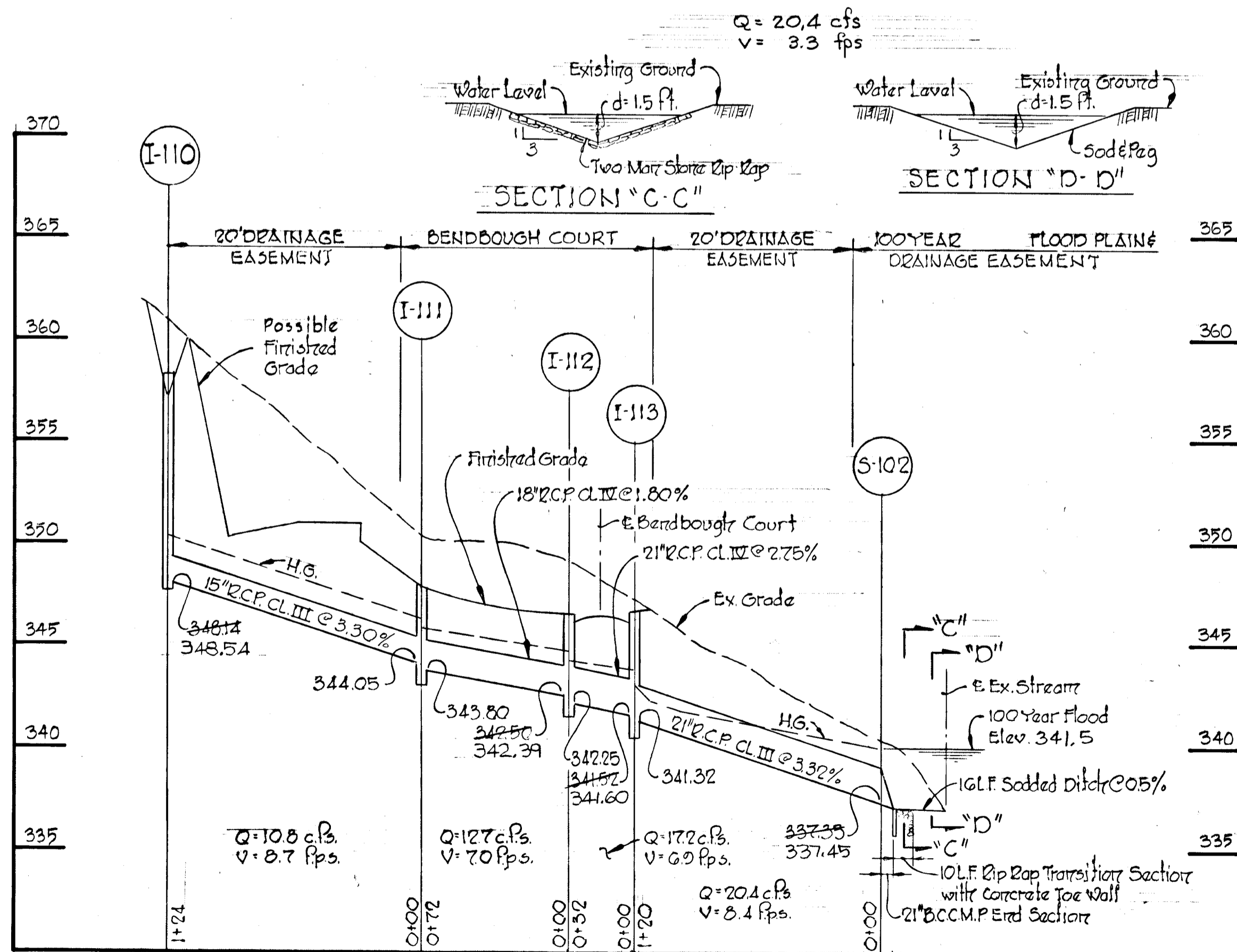
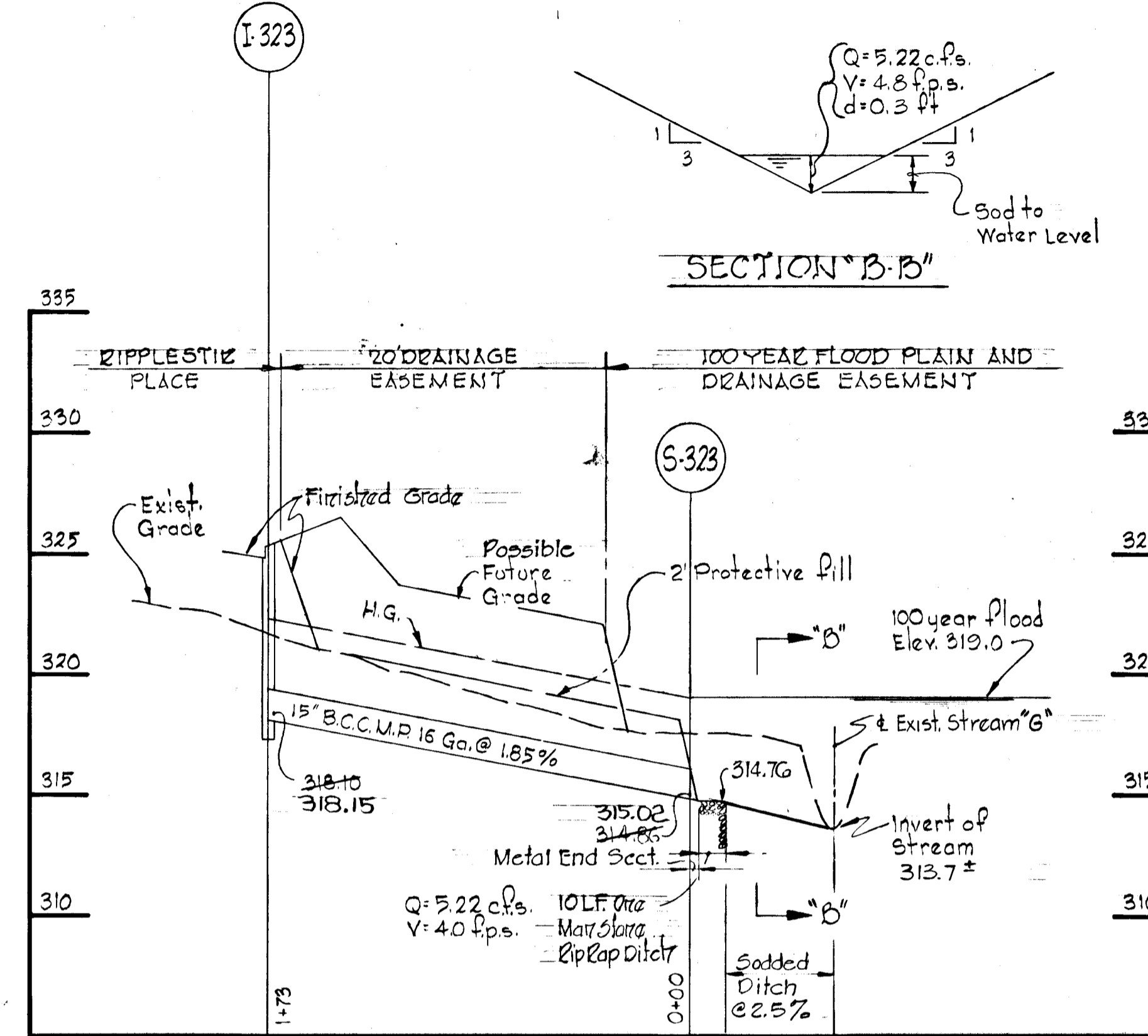
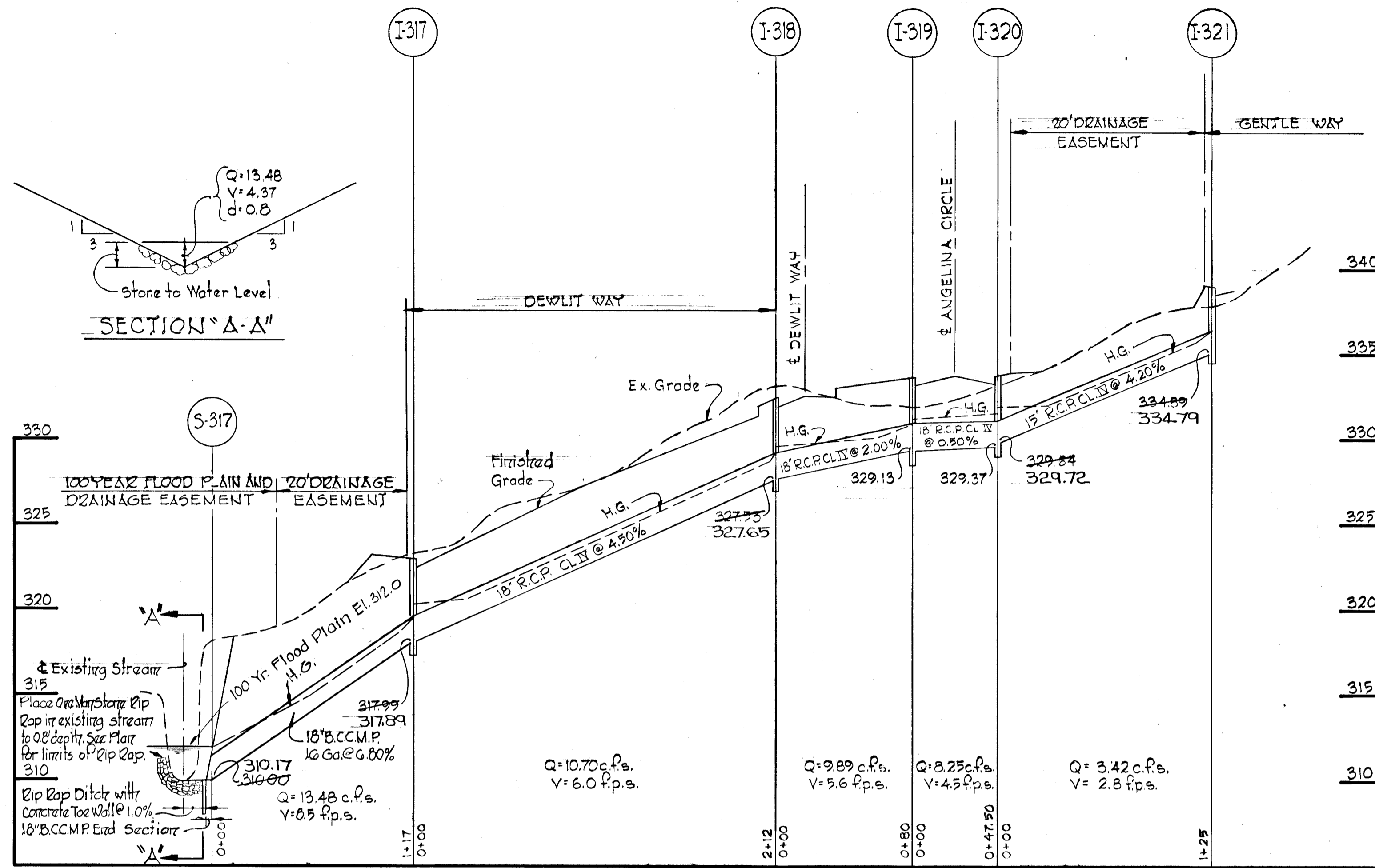
PROJECT AREA
VILLAGE OF OWEN BROWN
 SECTION 4 AREA 1

PROJECT TITLE
STORM DRAIN PROFILES
 DAWNBLUSH COURT, SYLVAN DELL, ANGELINA CIRCLE
 SKYWARD COURT AND FAIRMED LANE

SCALE: Hor: 1"=50', Ver: 1"=5'
 DATE: 5/23/74

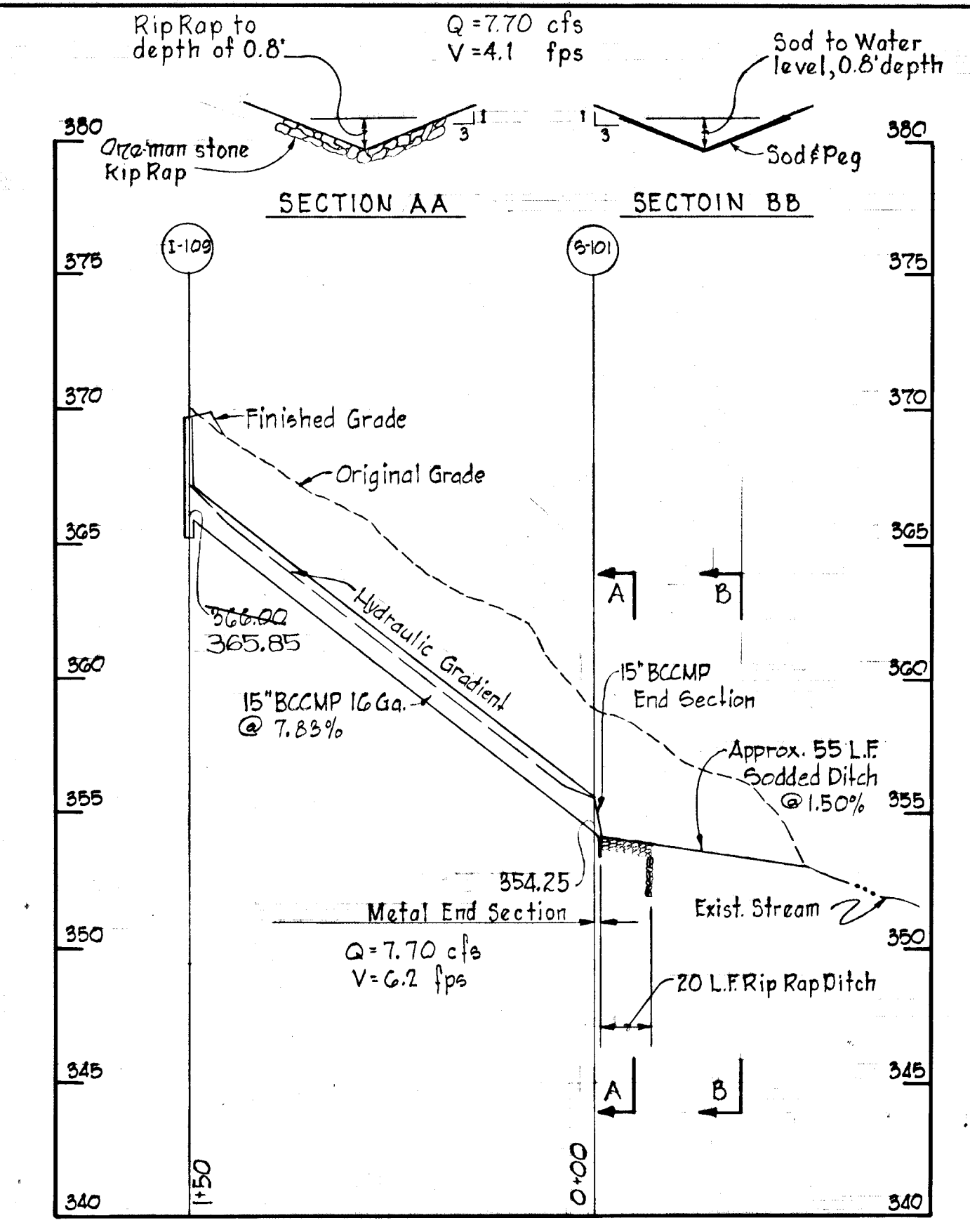
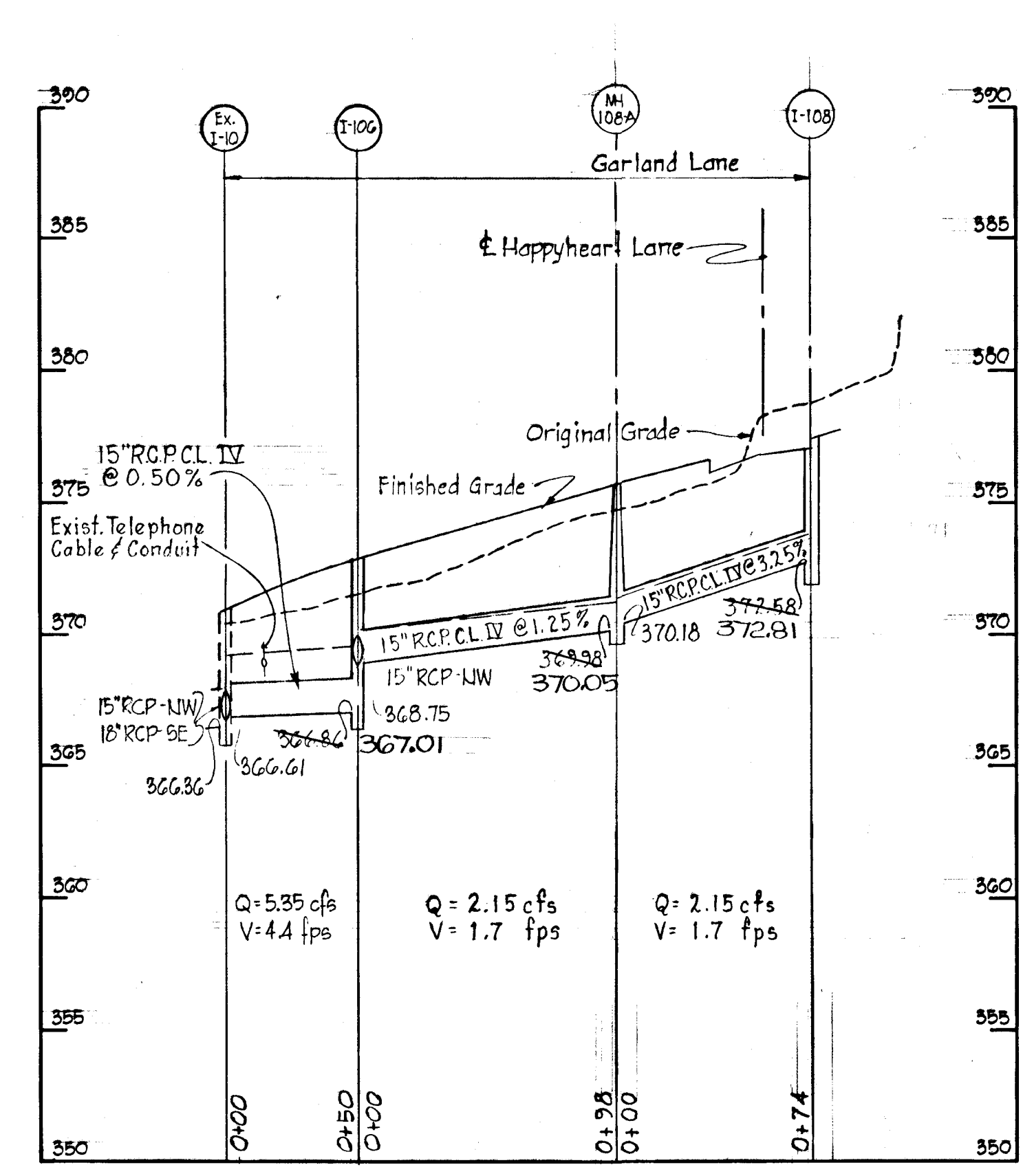
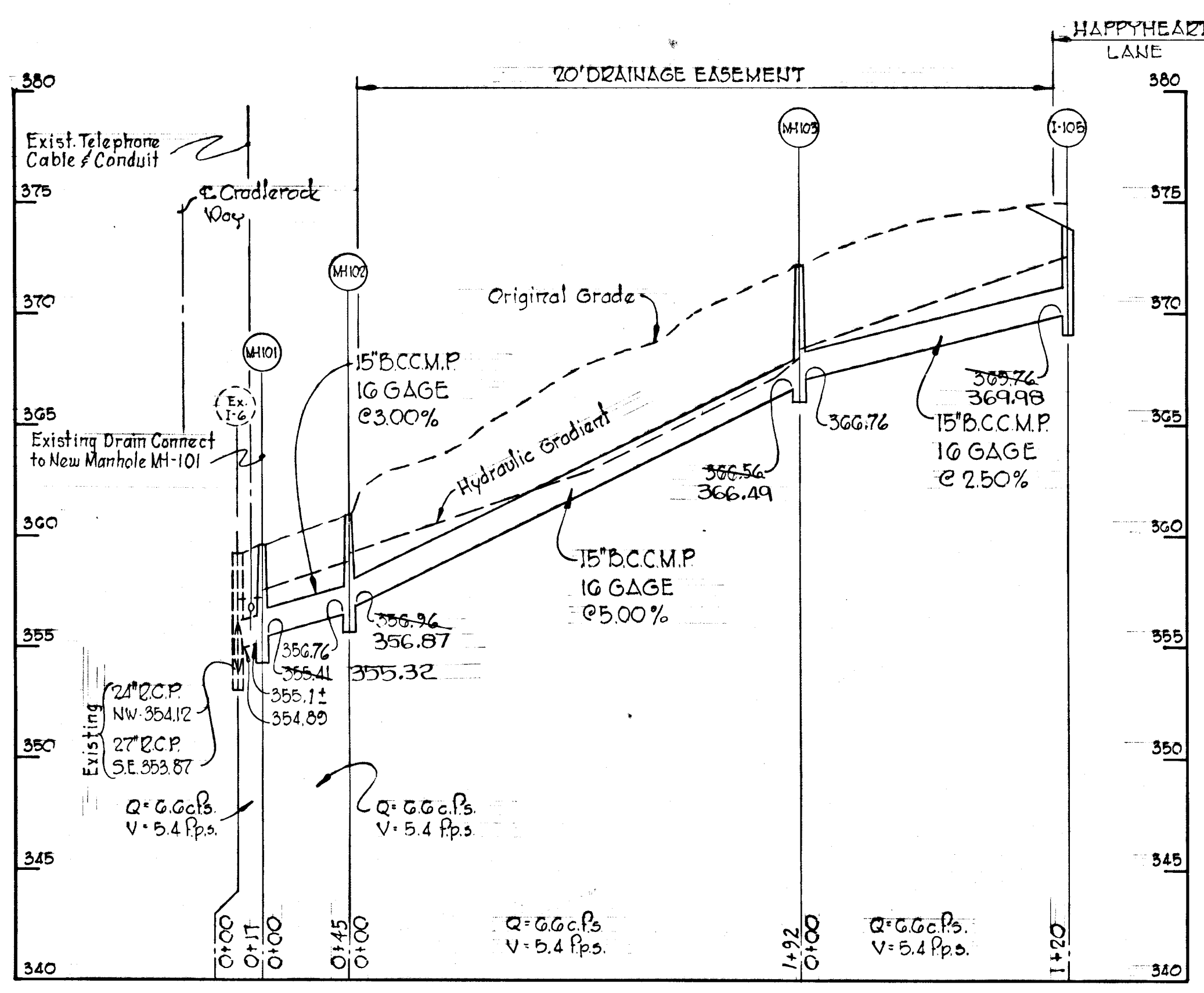
WHITMAN, REQUARTZ & ASSOCIATES
 ENGINEERS
 BALTIMORE, MARYLAND 21202

Kenneth A. McCoird
 KENNETH A. MCCOIRD
 Registered Engineer
 No. 1974

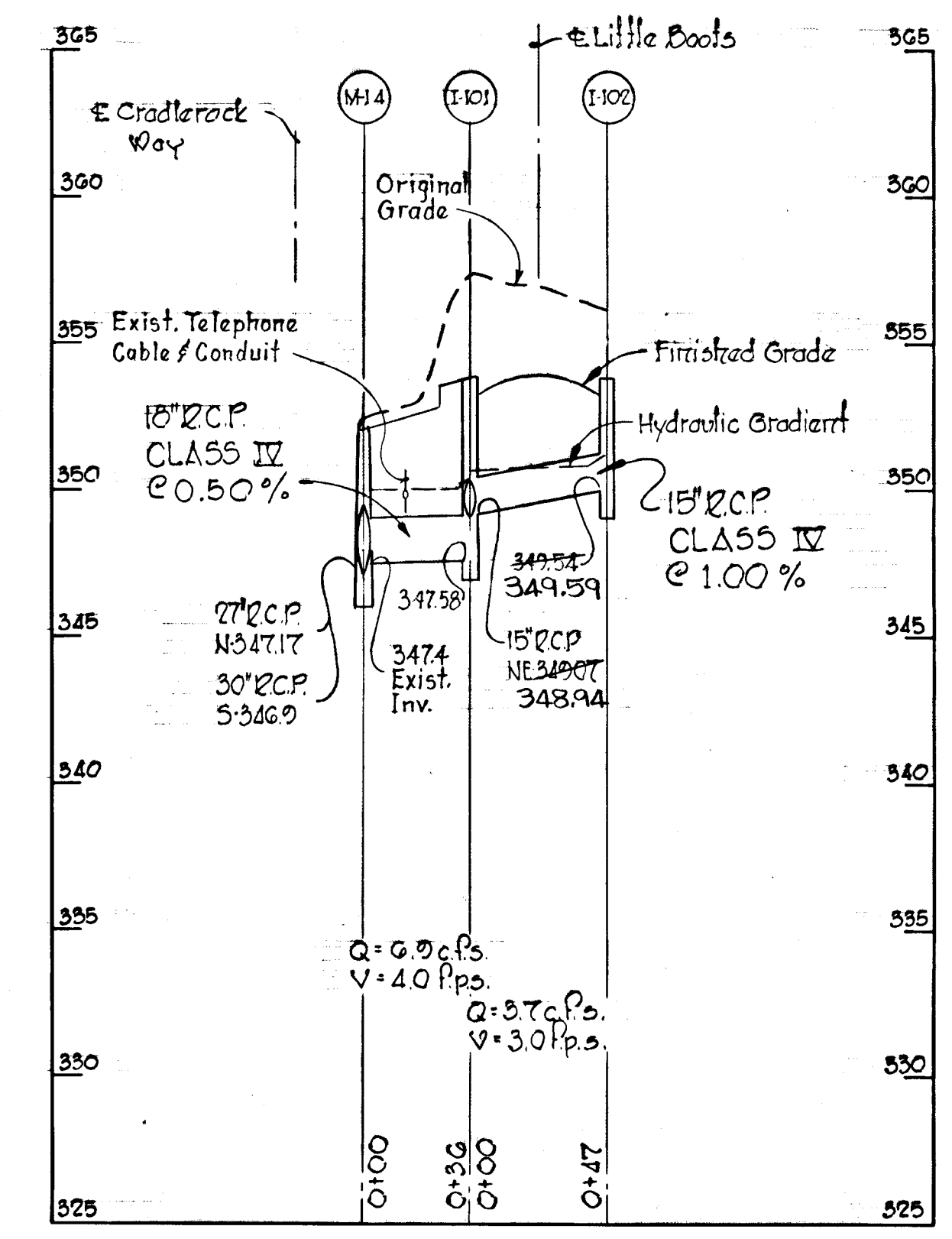
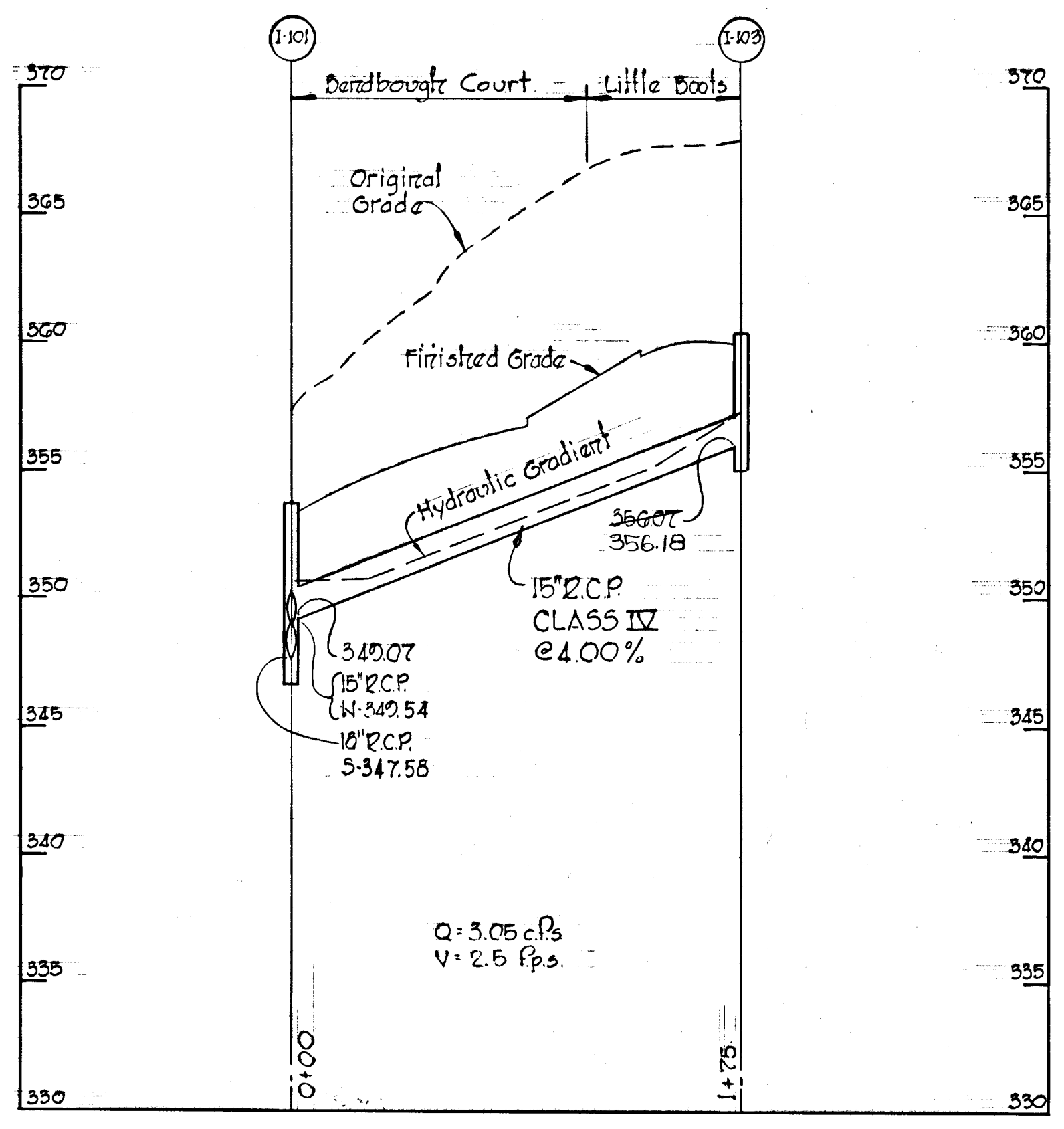
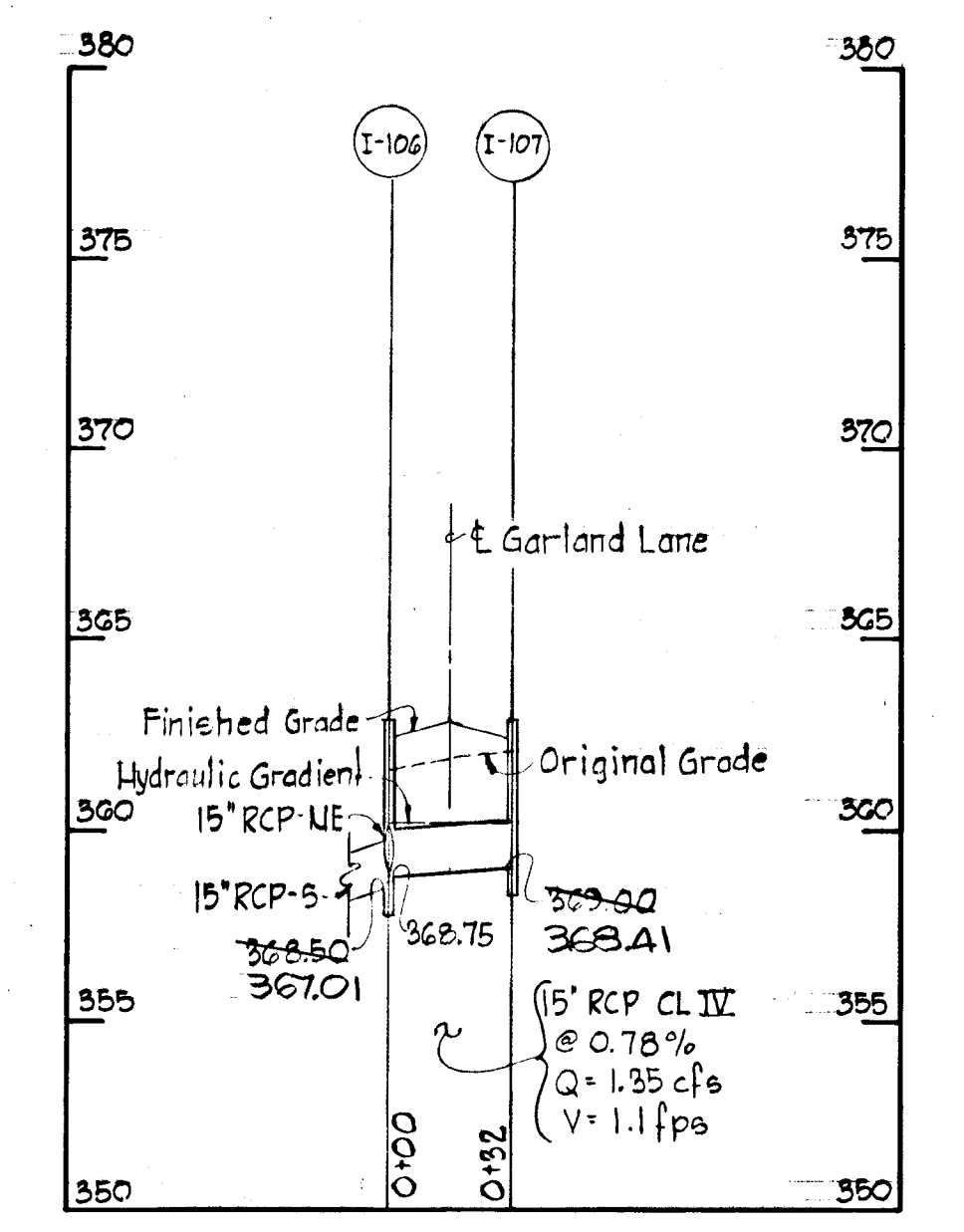


5/30/74
 J. H. Lawson

Rev. Date	Rev. No.	Revision Description
COLUMBIA 2 ND ELECTION DISTRICT HOWARD COUNTY MARYLAND		
OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP.		
PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4, AREA 1		
PROJECT TITLE STORM DRAIN PROFILES ANGELINA CIRCLE, DEWLIT WAY, BENDBOUGH COURT, RIPPLESTIR PLACE AND GENTLE WAY		
SCALE: Hor. 1"=50', Vert. 1"=5'		DATE: 5/23/74
WHITMAN, REQUART & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202		
 KENNETH A. McCORD Registered Engineer No. 1974		

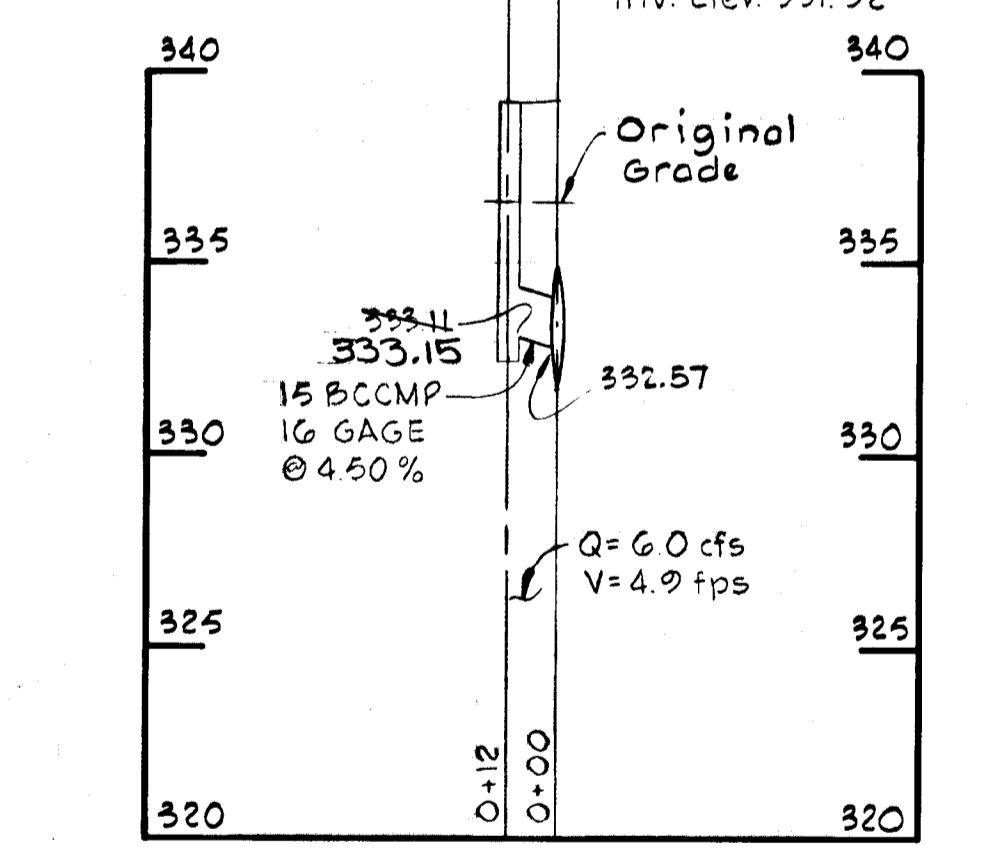
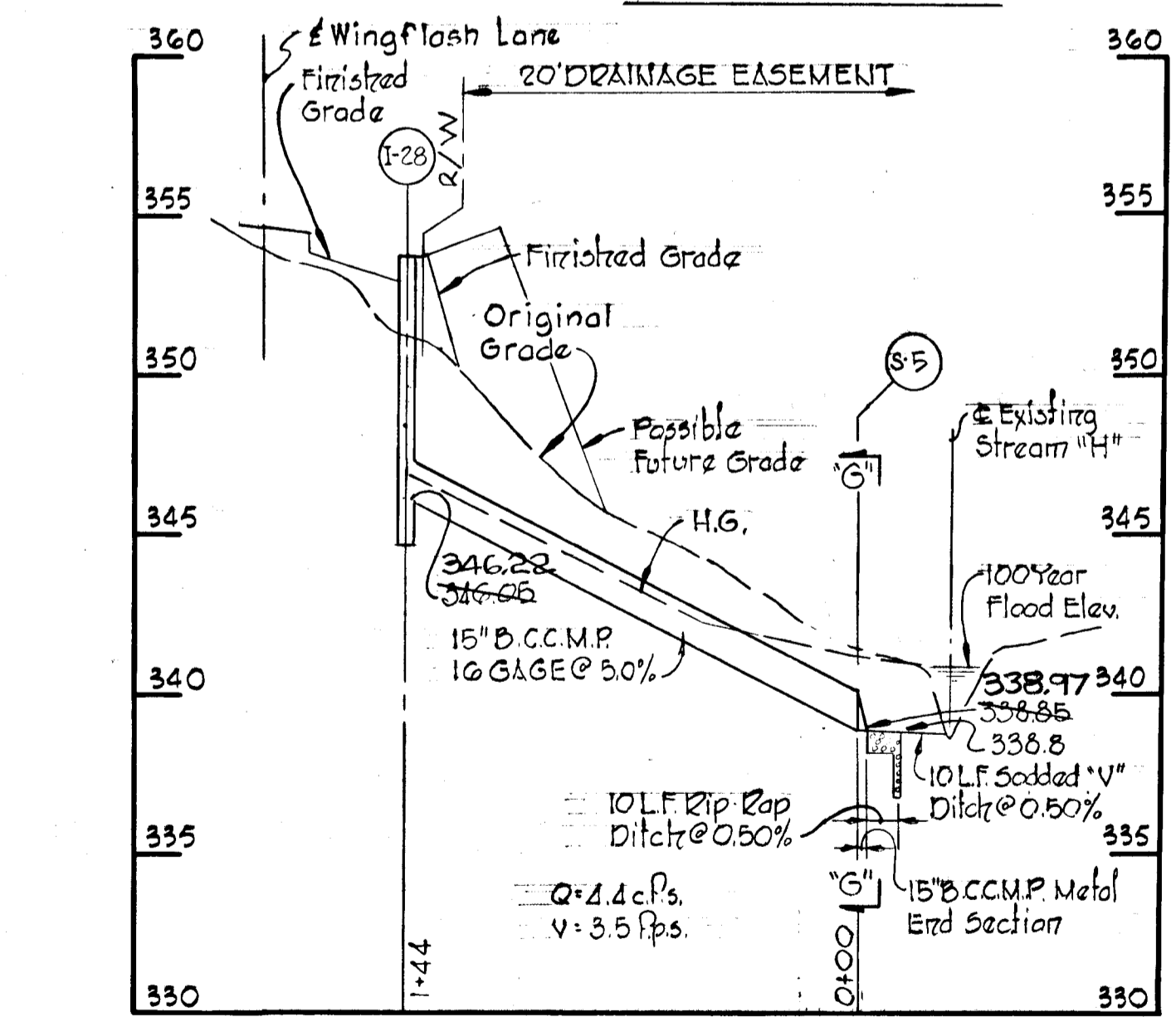
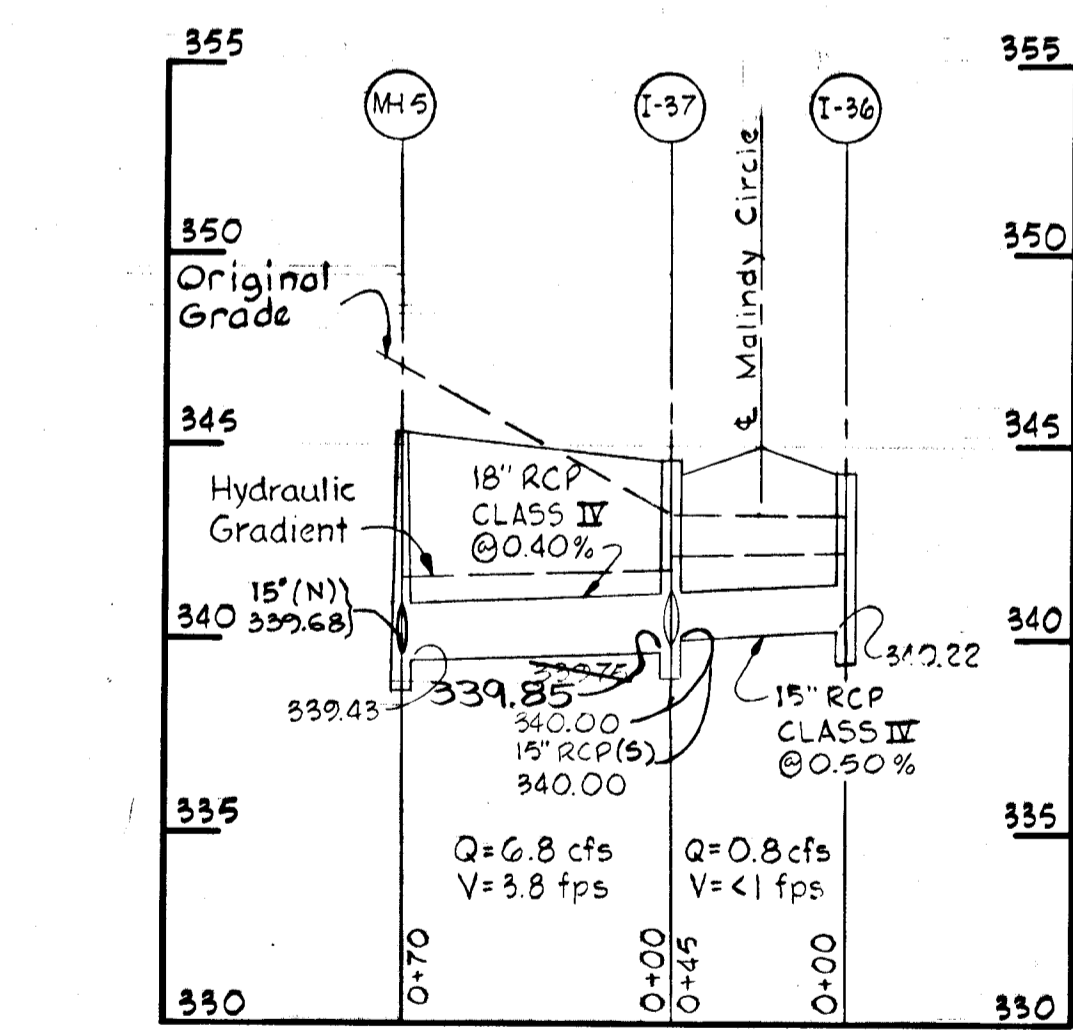
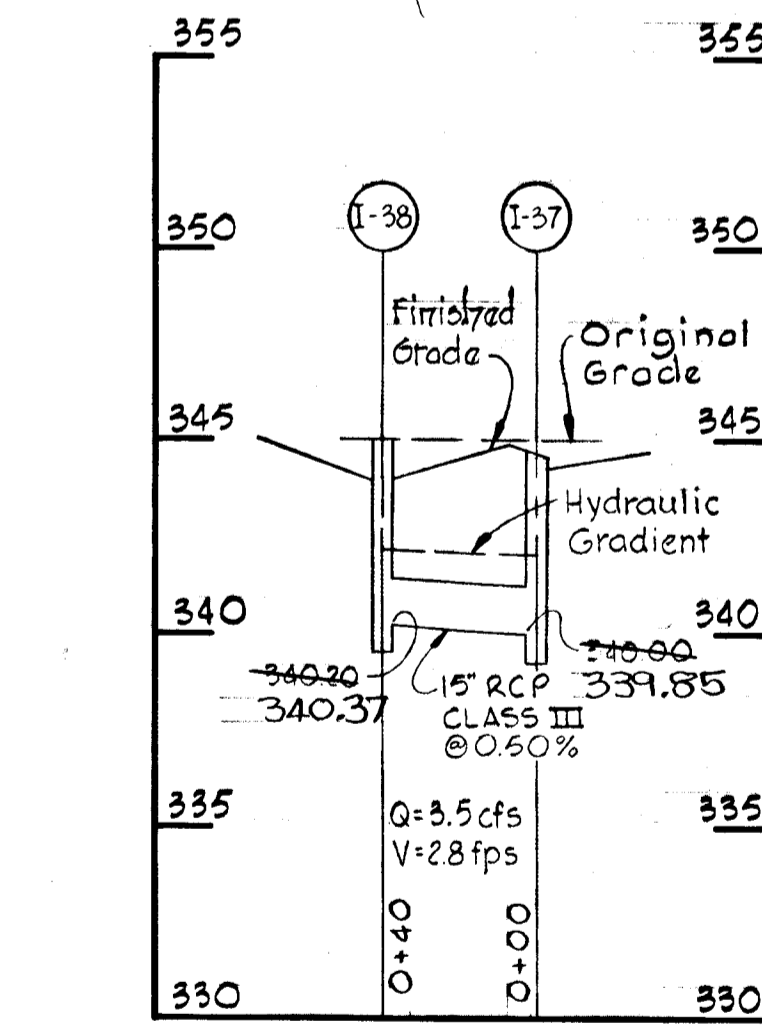
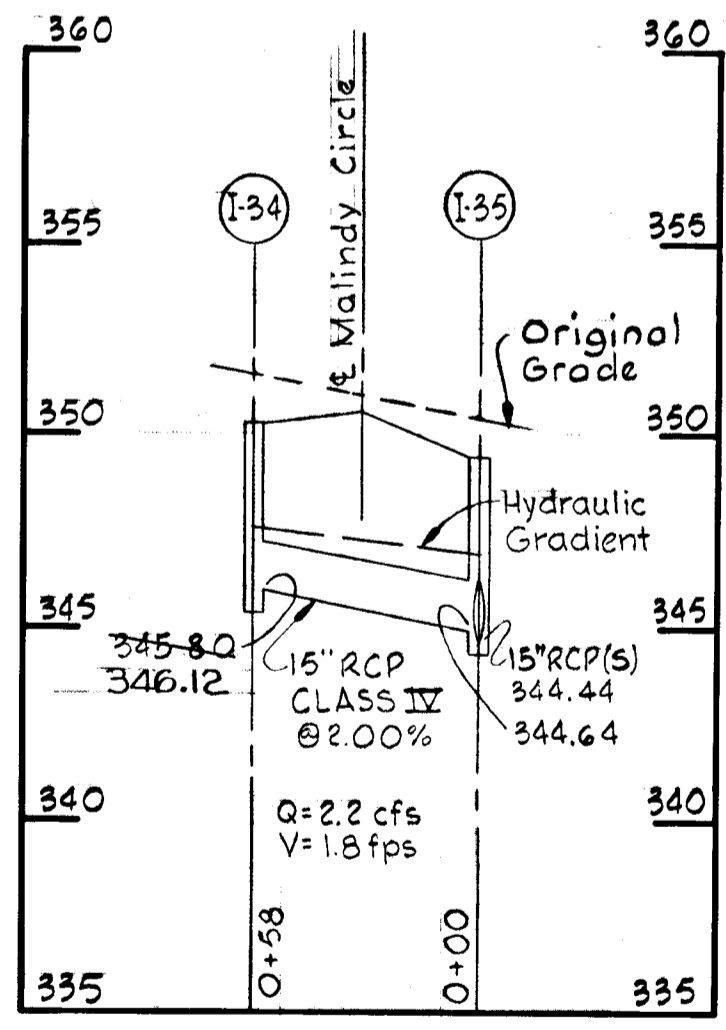
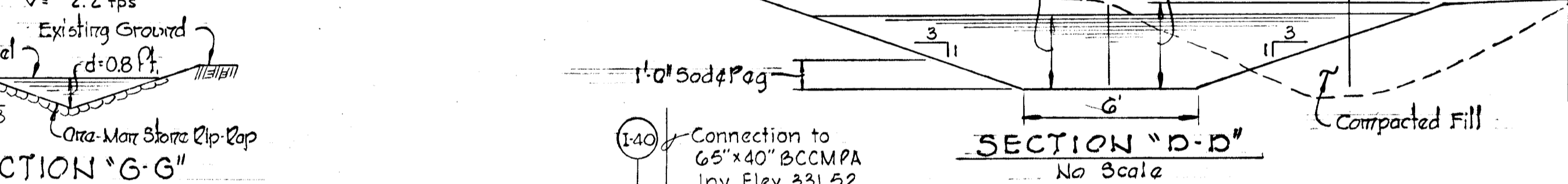
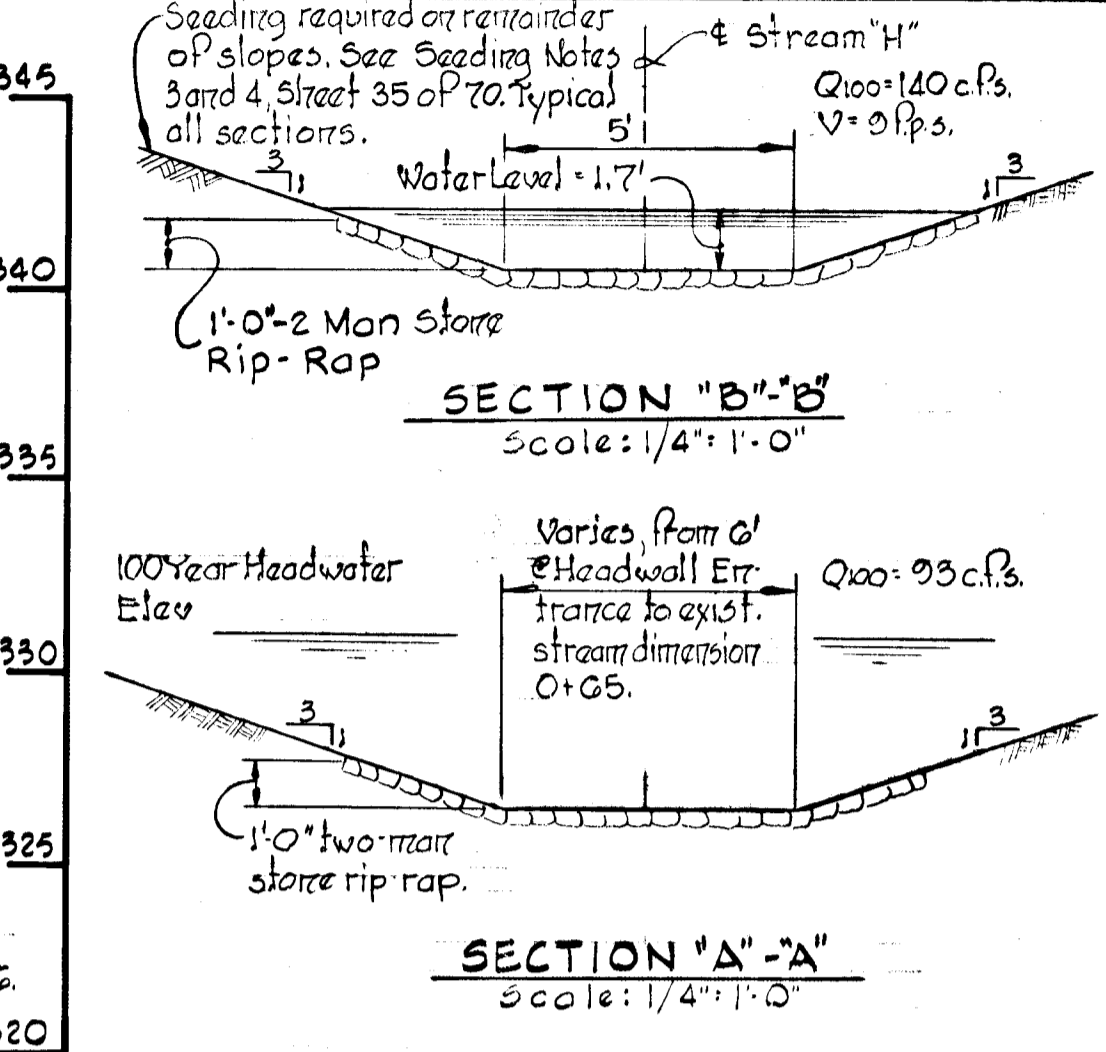
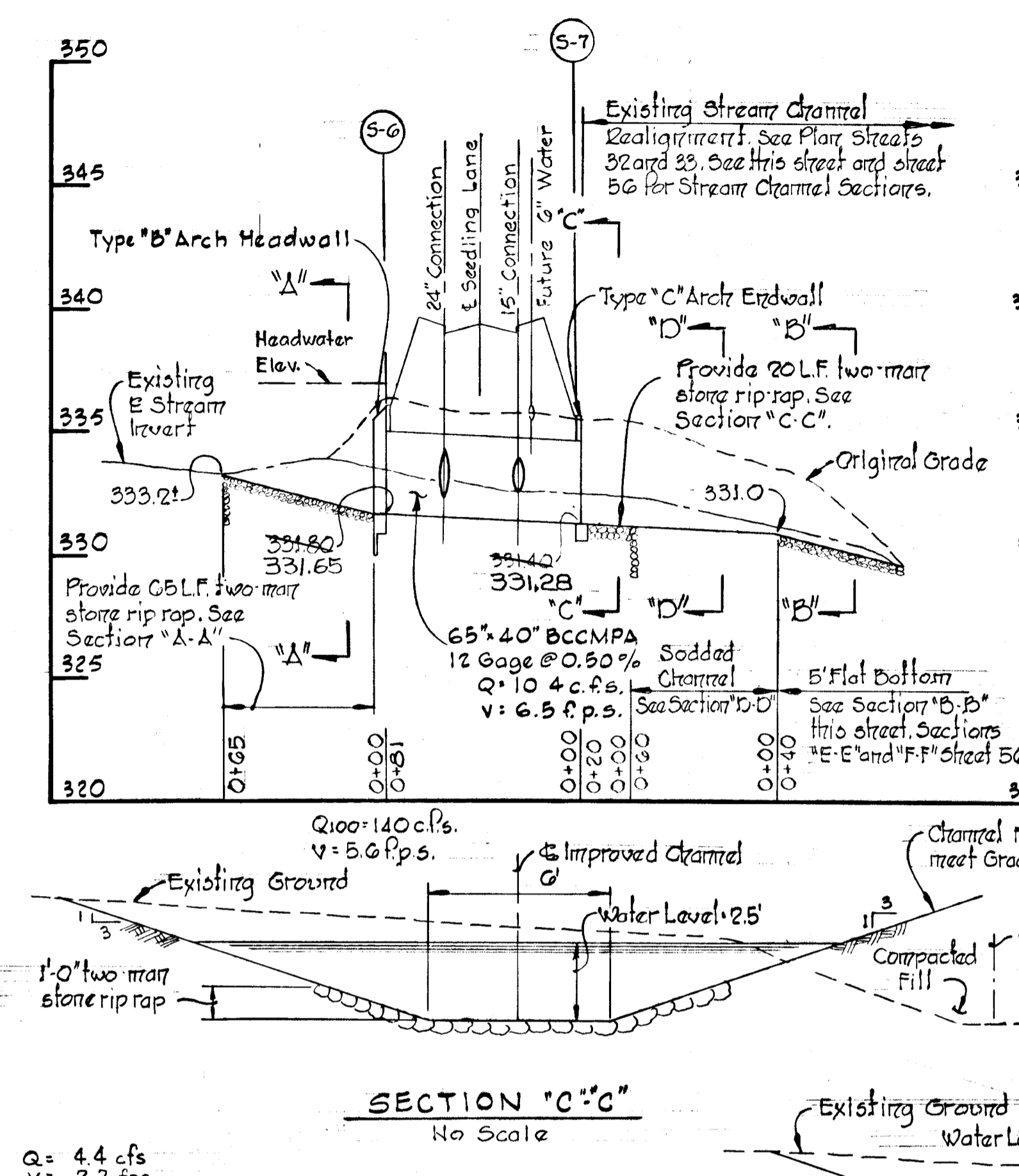
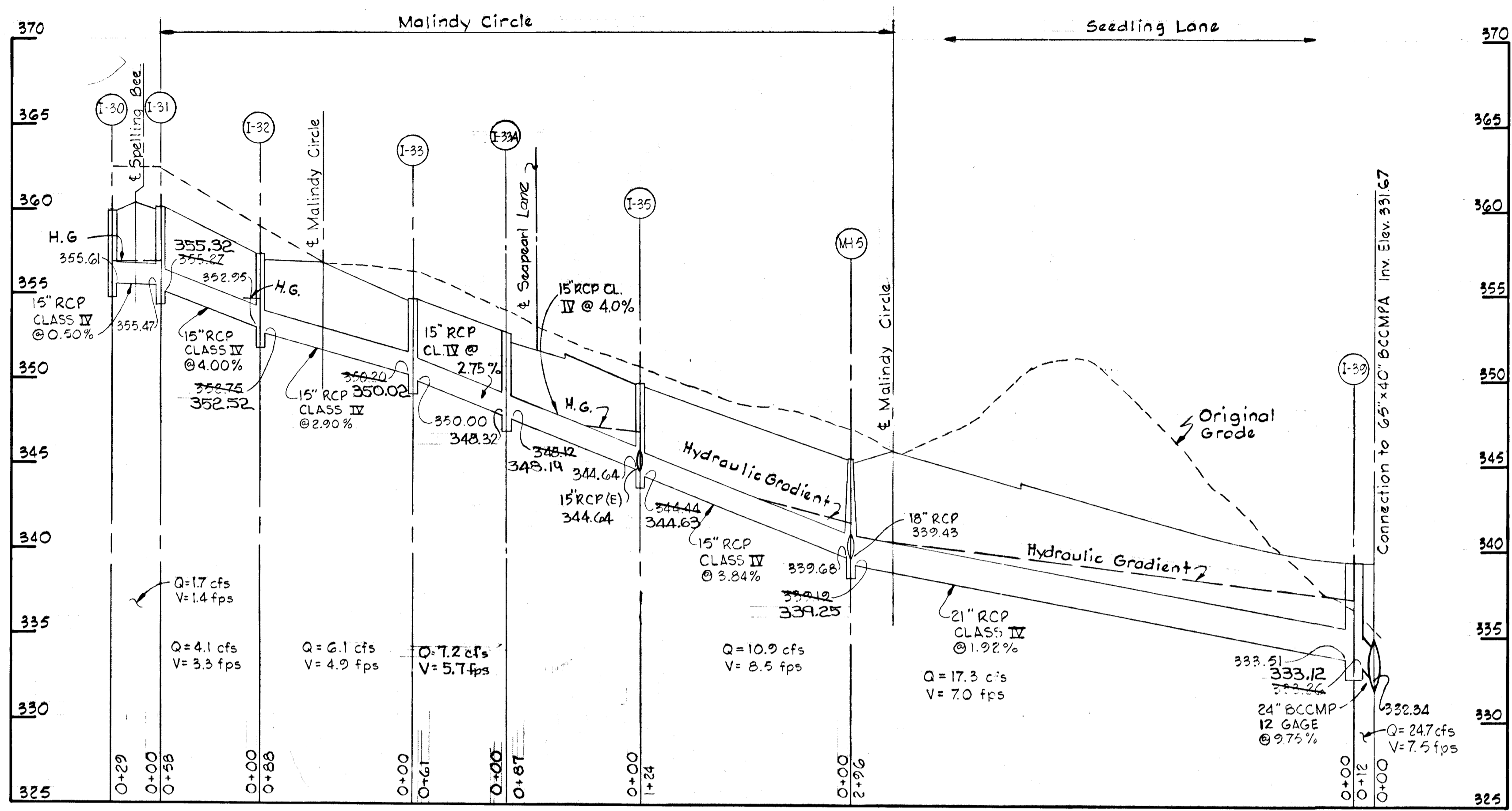


DEPARTMENT OF PUBLIC WORKS
 J. W. McLeod 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE
 J. J. McLeod 5/31/74
 CHIEF DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE

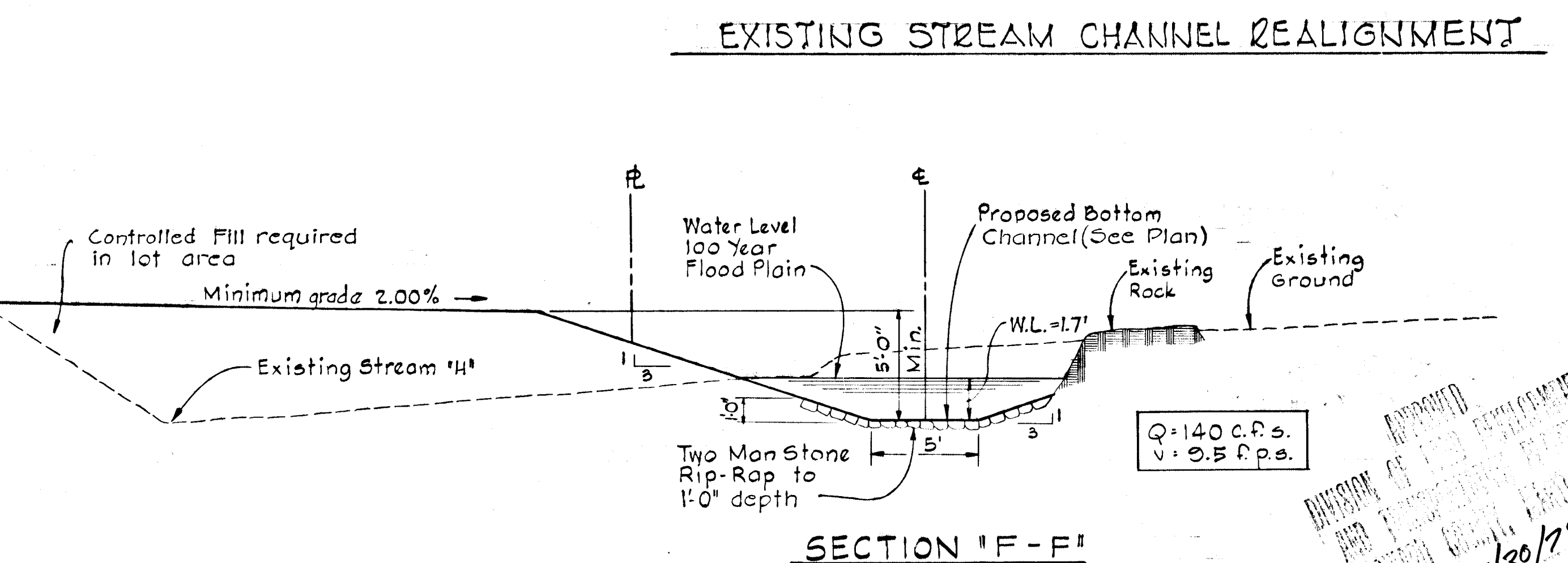
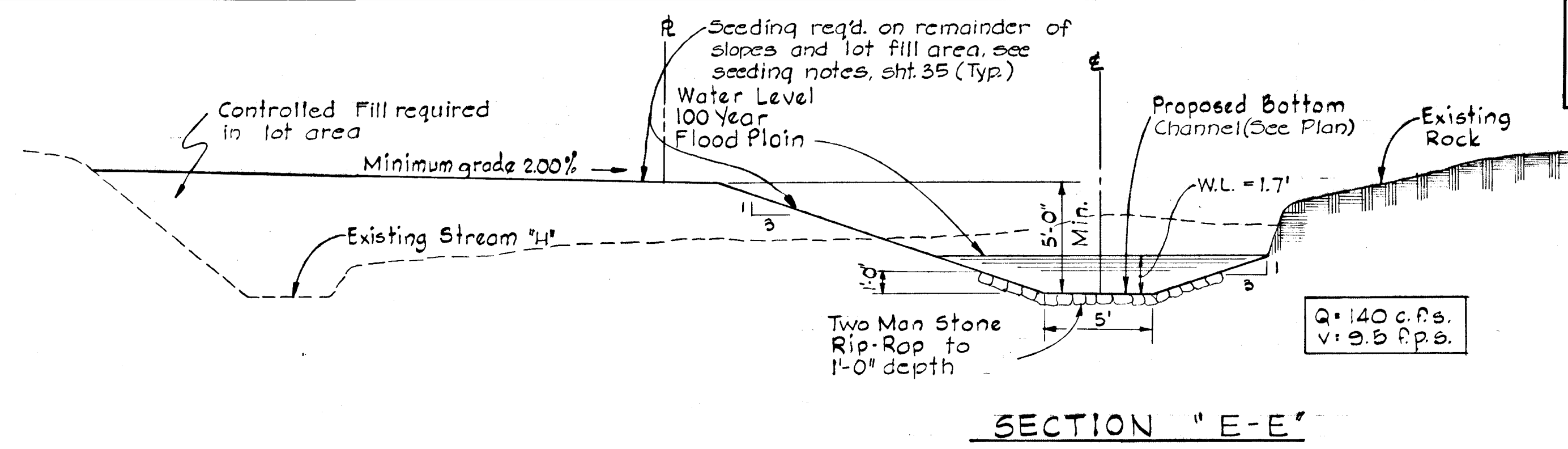
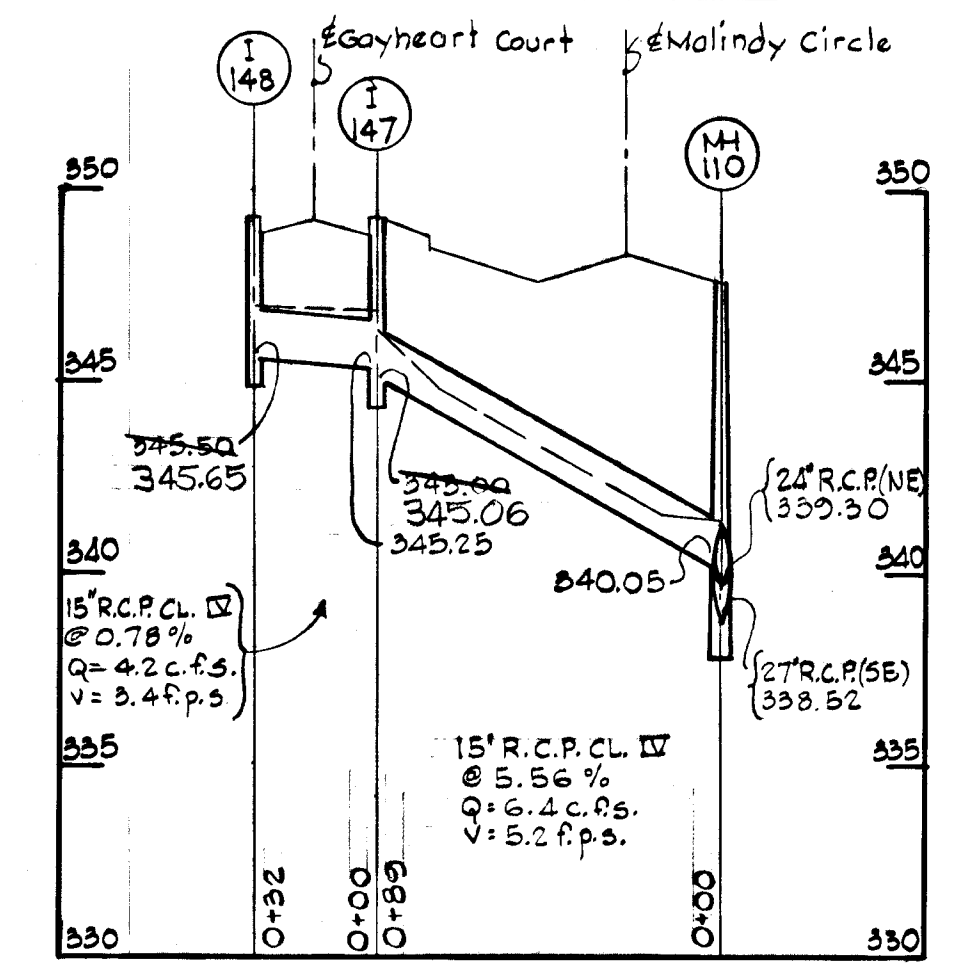
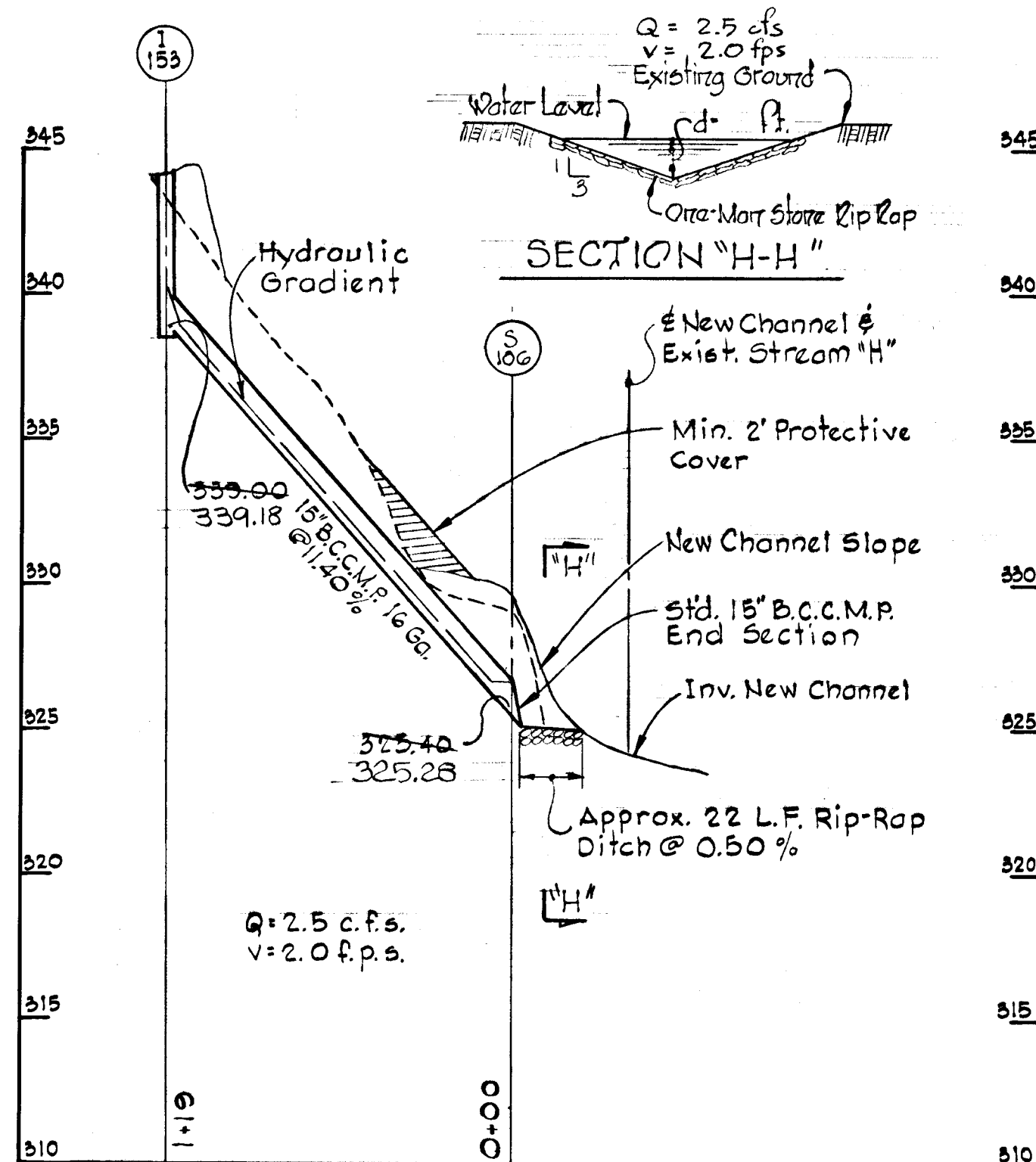
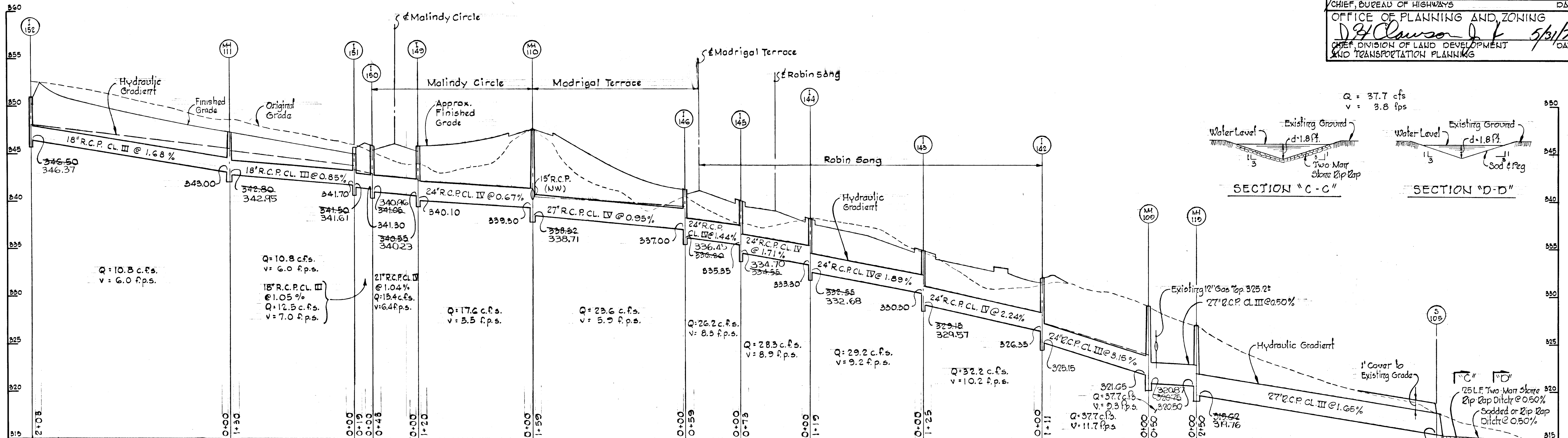


5/30/74
 J. J. McLeod

Rev. Date	Rev. No.	Revision Description
COLUMBIA GIBBLETON DISTRICT HOWARD COUNTY, MARYLAND OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP.		
PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4, AREA 1		
PROJECT STORM DRAIN PROFILES BENDBOUGH COURT, LITTLE BOOTS GARLAND LANE AND HAPPYHEART LANE		
SCALE: Hor: 1"=50', Vert: 1"=5'		DATE: 5/23/74
WHITMAN, REQUADT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202		
Kenneth A. McLeod KENNETH A. MEOLOD Registered Engineer No. 19724		

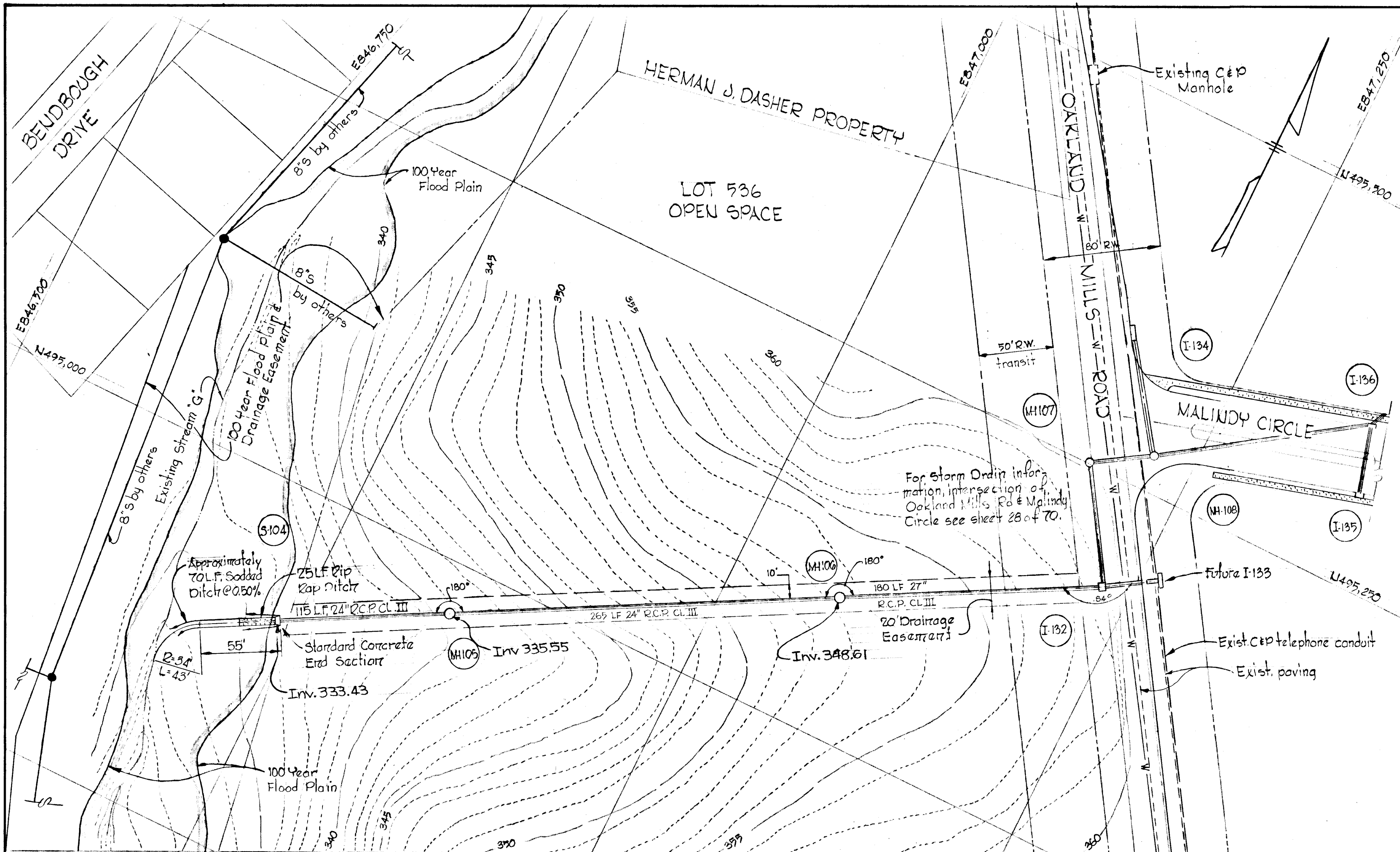


Rev. Date	Rev. No.	Revision Description
COLUMBIA 6 TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT, CORP. PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4, AREA 1 PROJECT TITLE STORM DRAIN PROFILES MALINDY CIRCLE, SEEDLING LANE WINGFLASH LANE AND SPELLING BEE SCALE: Hor: 1"=50', Vert: 1"=5' DATE: 5/23/74 WHITMAN, REQUART & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202 Kenneth A. McCord KENNETH A. MCCORD Registered Engineer No. 1974		



Rev. Date	Rev. No.	Revision Description
COLUMBIA 6 TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP.		
PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4, AREA 1		
PROJECT TITLE STORM DRAIN PROFILES MALINDY CIRCLE, GAYHEART COURT, MADRIGAL TERRACE, ROBIN SONG AND GUILTING WAY		
SCALE: Hor: 1" = 50', Vert: 1" = 5' DATE: 5/23/74		
WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202		
<i>Kenneth A. McCord</i> KENNETH A. MCCORD Registered Engineer No. 1974		

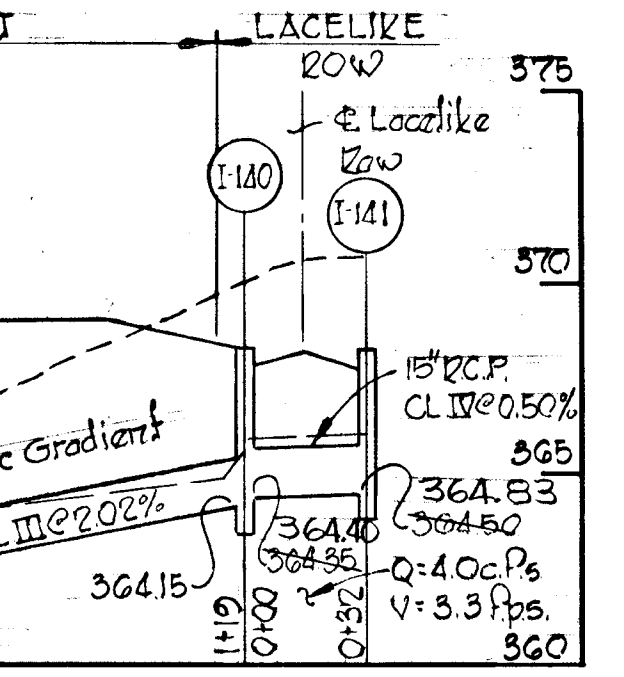
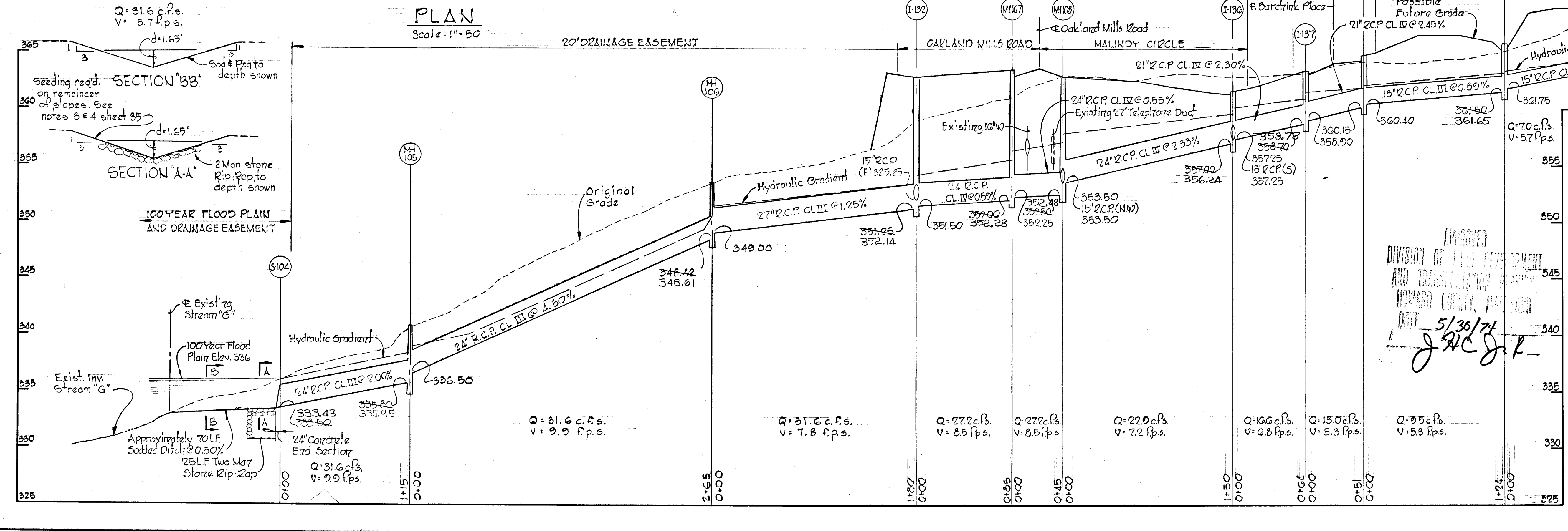
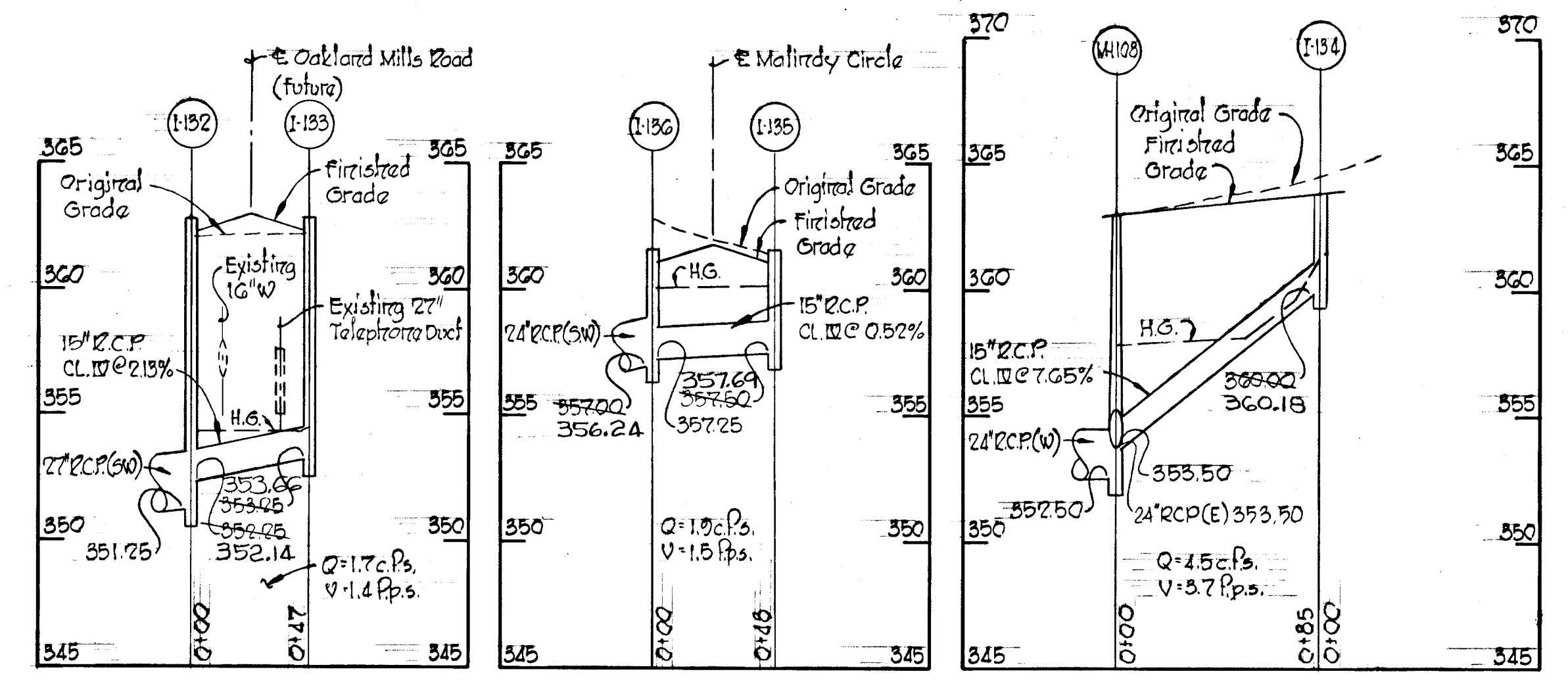
APPROVED
 5/30/74
JWC



STORM DRAIN STRUCTURE SCHEDULE

NO.	TYPE	TOP ELEV.	INV. ELEV.	LOCATION	
MH106	Type "B" Manhole	See detail	340.8	335.80	See Plan and Profile
MH108	Type "B" Manhole	Sheet 48	353.6	348.42	See Plan and Profile
S104	24" Concrete End Section			333.50	See Plan and Profile

DEPARTMENT OF PUBLIC WORKS
J. N. Heiland 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE
 OFFICE OF PLANNING AND ZONING
J. A. Clouser 5/31/74
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE



Rev. Date	Rev. No.	Revision Description

COLUMBIA
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

OWNER AND DEVELOPER
 HOWARD RESEARCH AND DEVELOPMENT CORP.

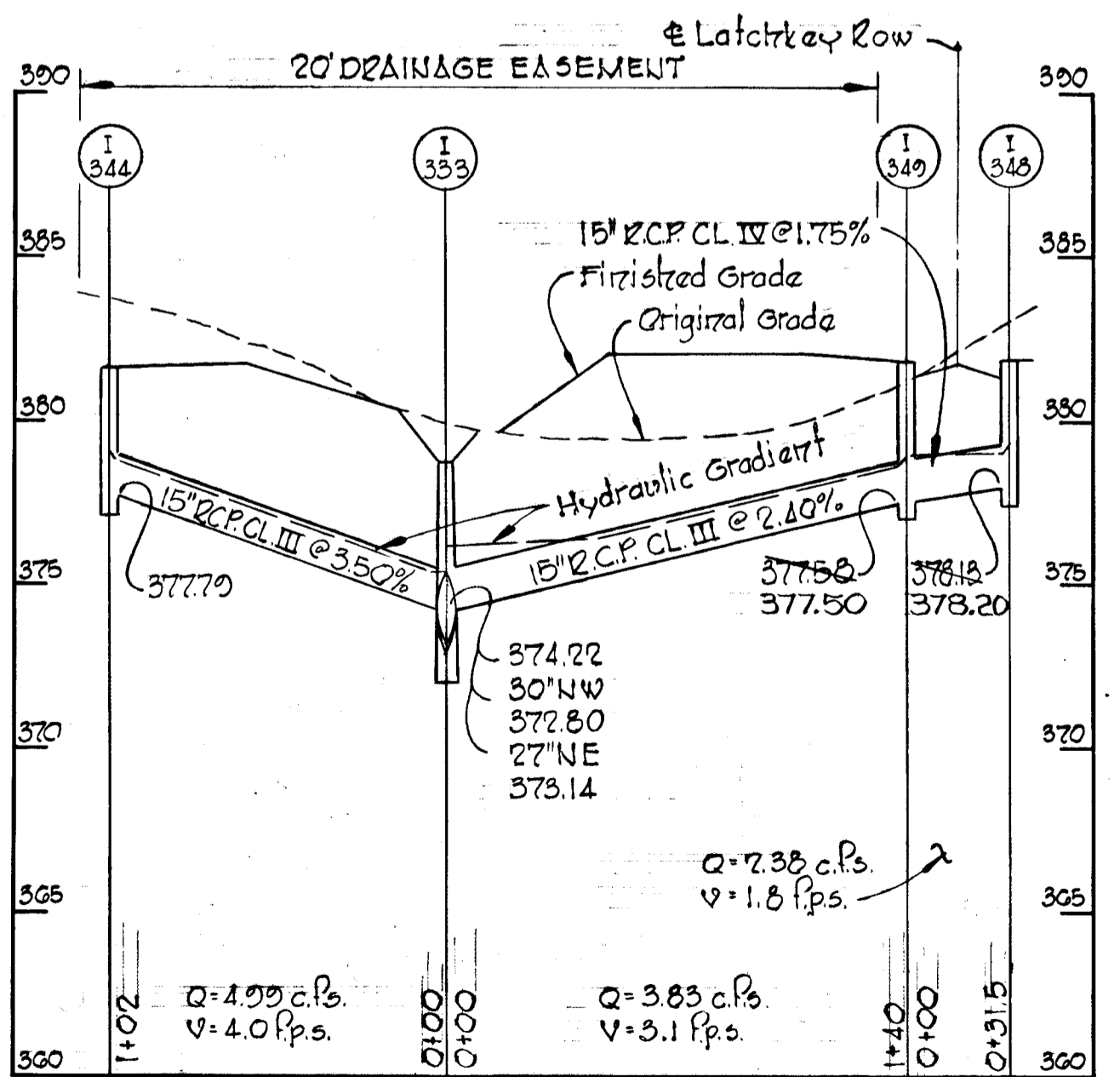
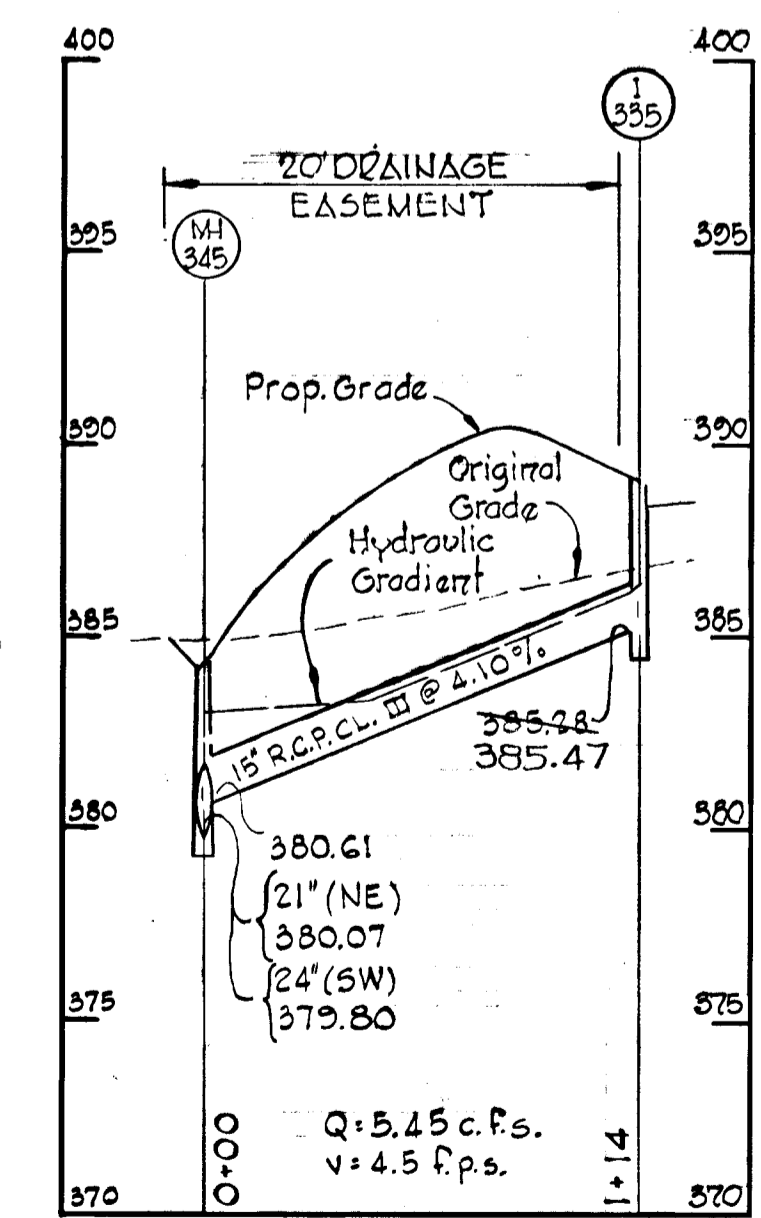
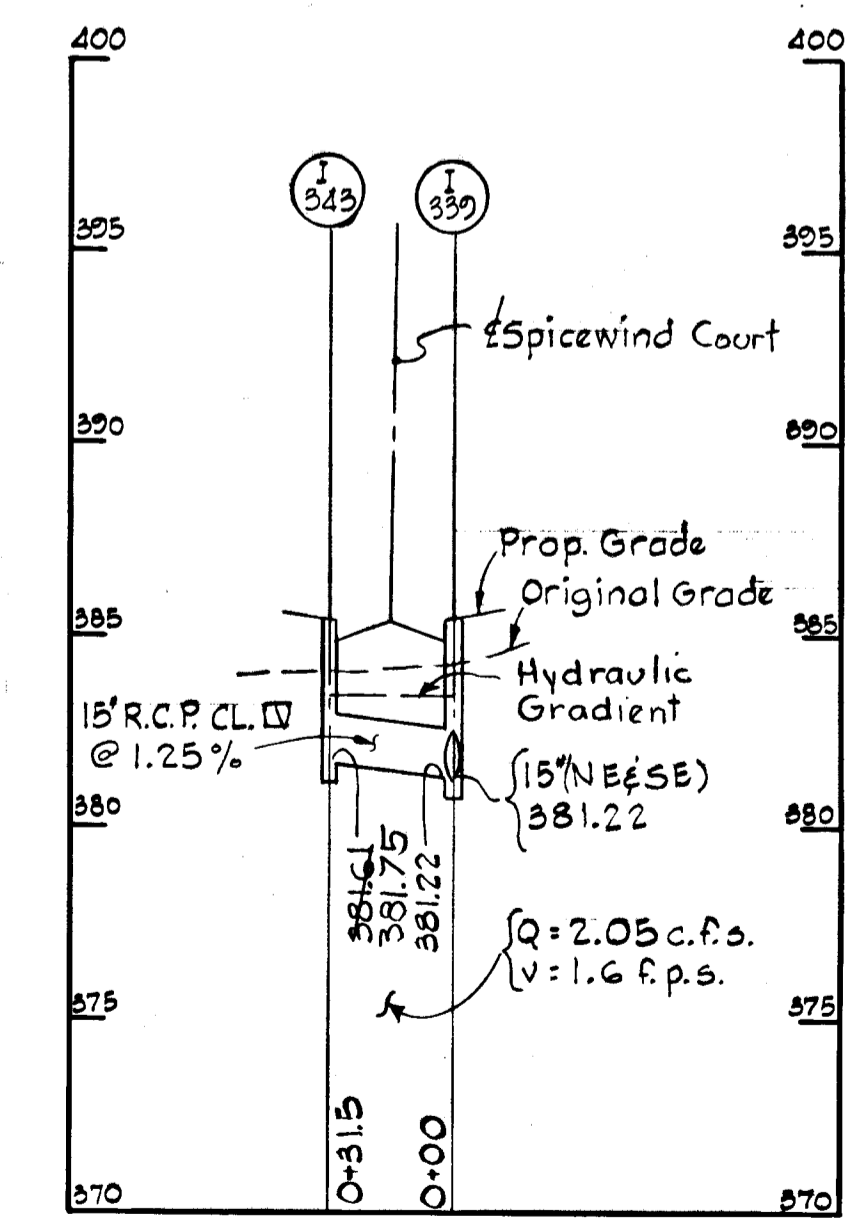
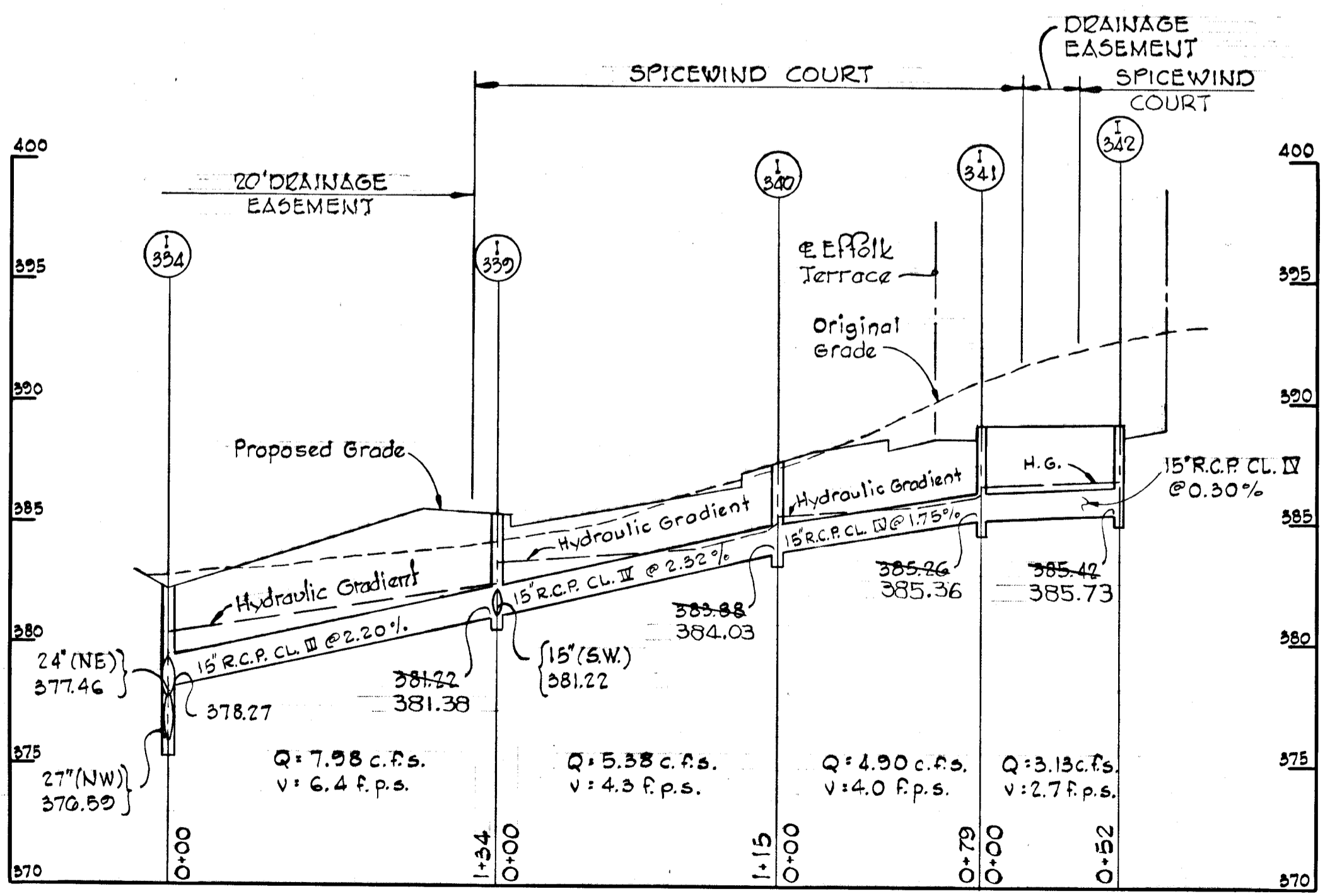
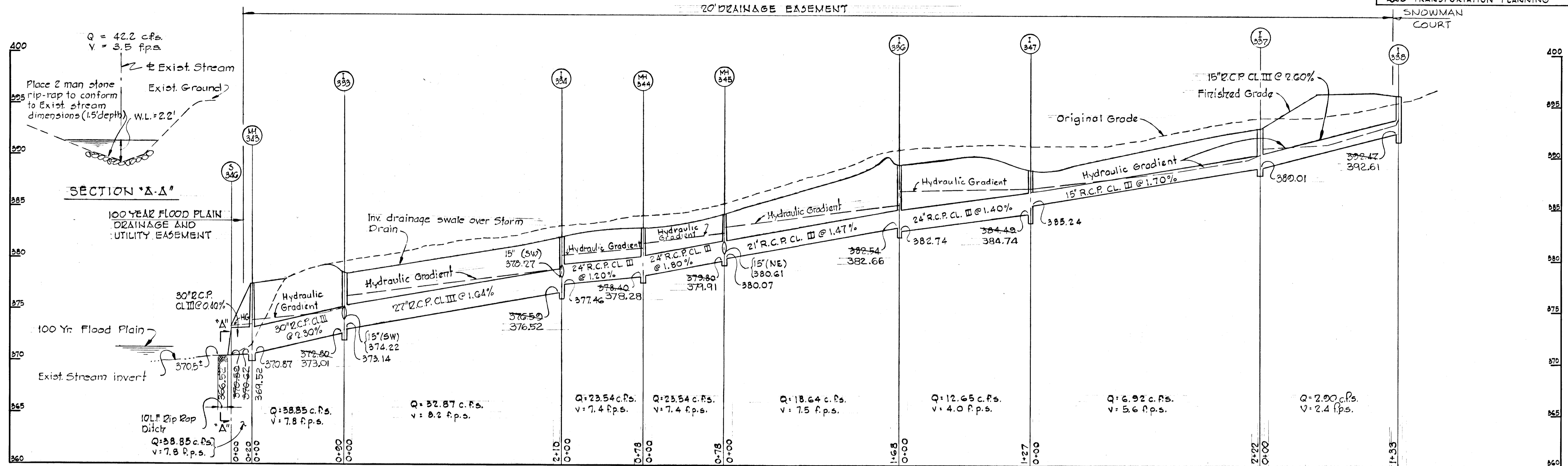
PROJECT AREA
VILLAGE OF OWEN BROWN
 SECTION 4, AREA 1

PROJECT TITLE
STORM DRAIN PROFILES
 MALINDY CIRCLE, OAKLAND MILLS RD, BARCHAINK PLACE
 LACELIKE ROW, LOT 536, PLAN AND PROFILE

SCALE: As Shown DATE: 5/23/74

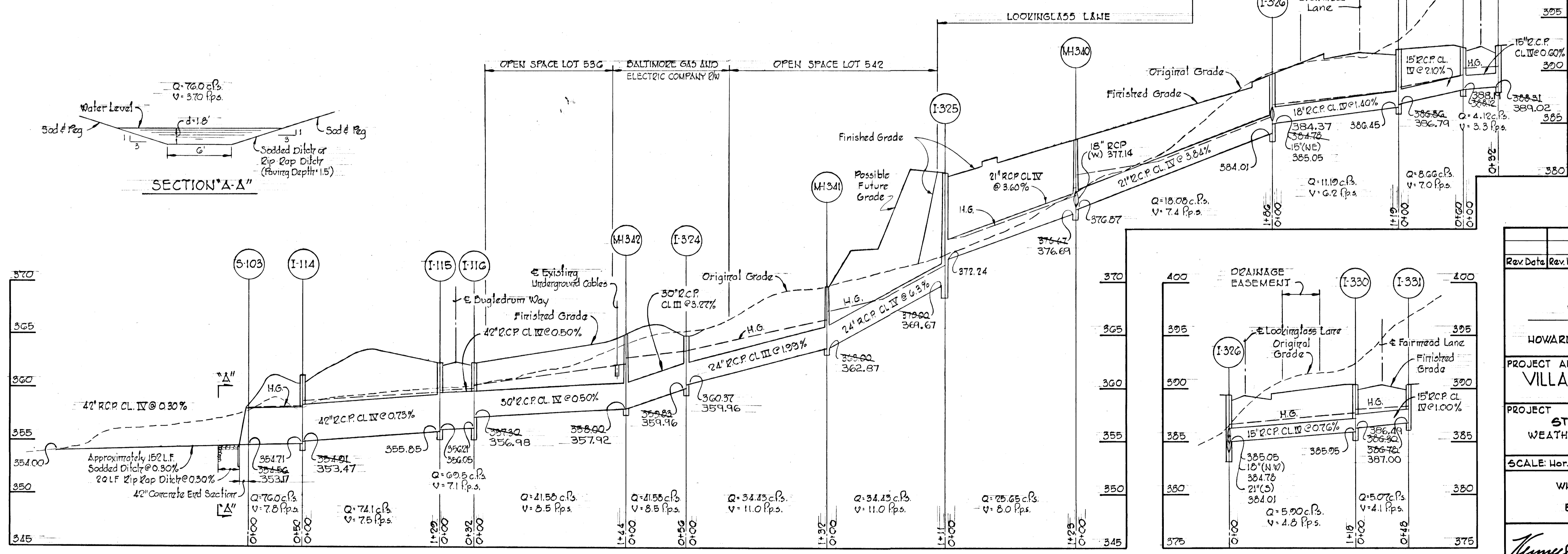
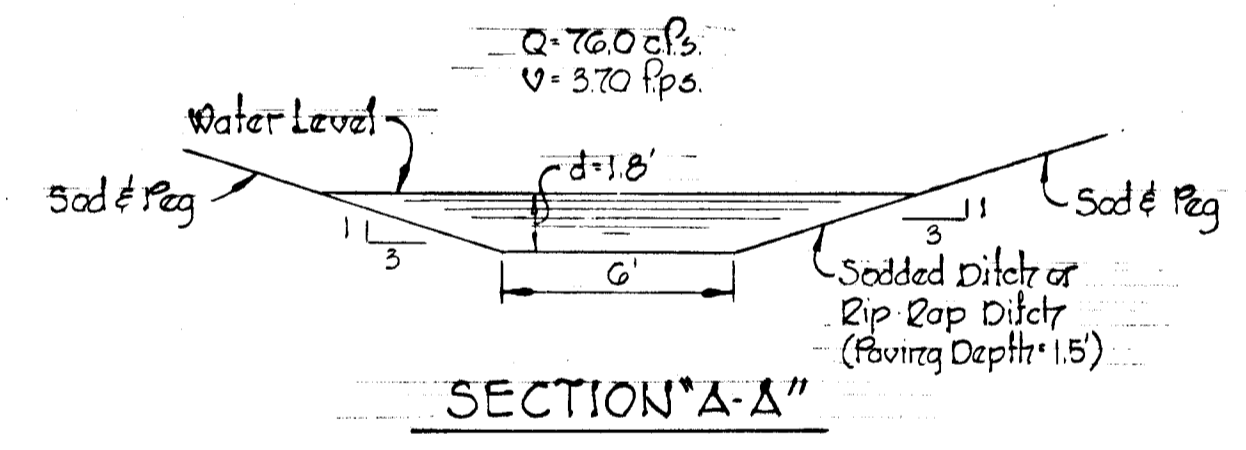
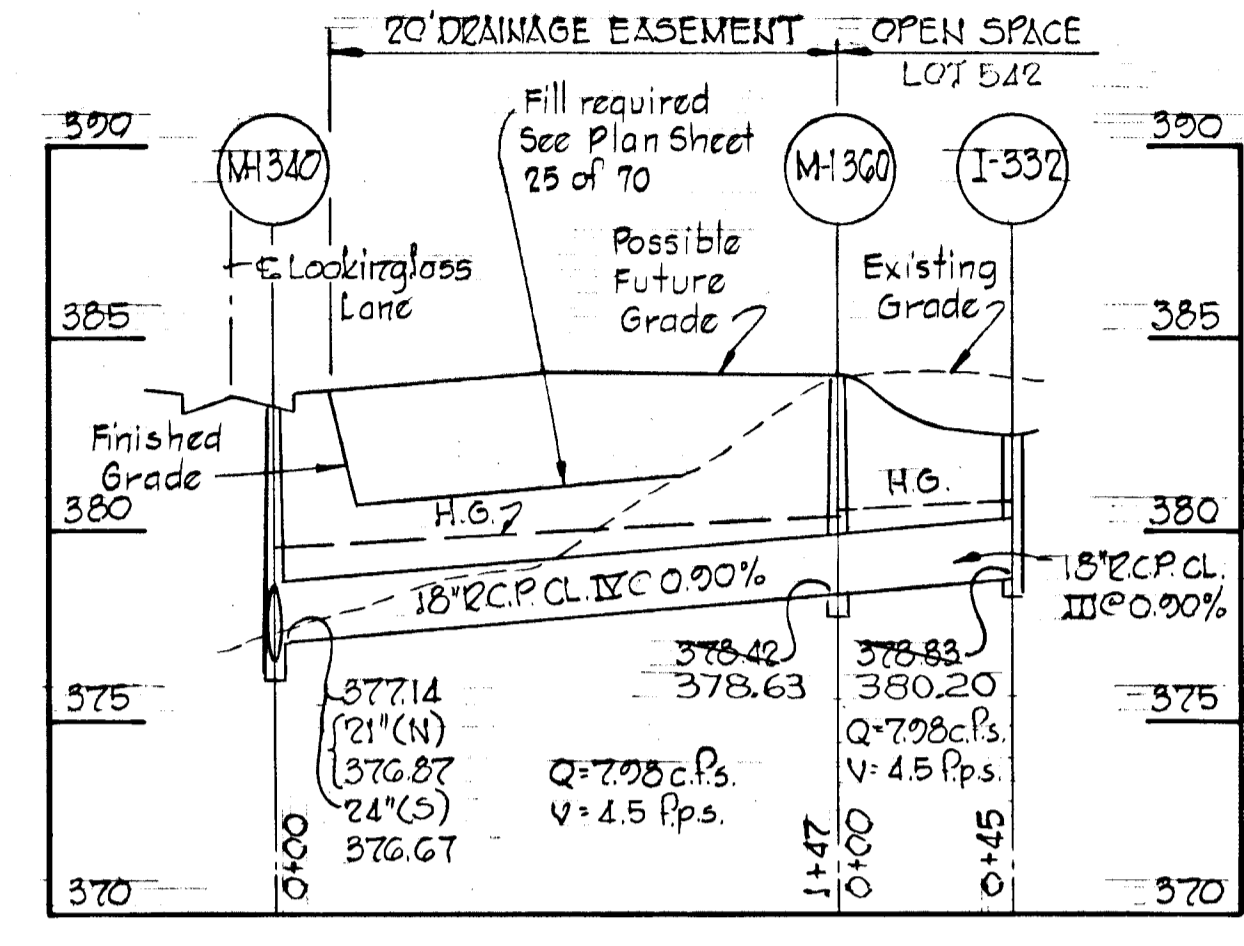
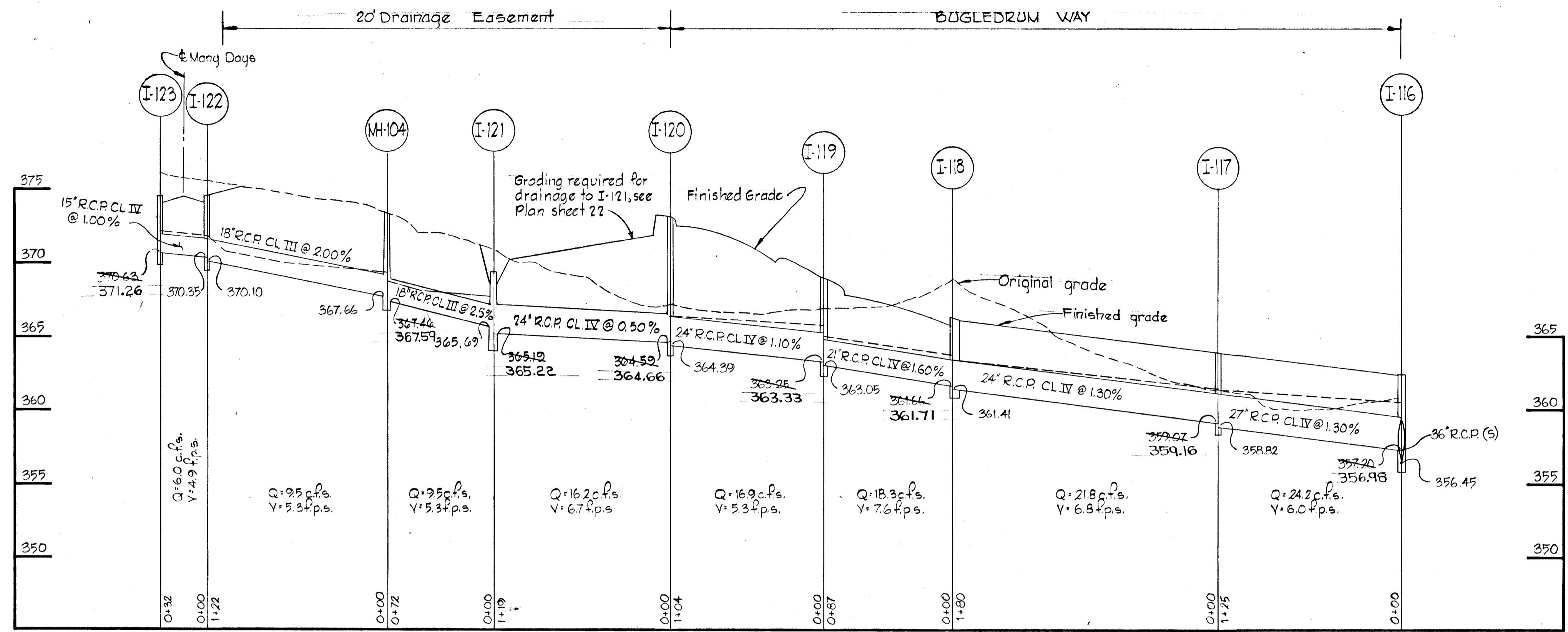
WHITMAN, REQUARDT & ASSOCIATES
 ENGINEERS
 BALTIMORE, MARYLAND 21202

James A. McCord
 KENNETH A. McCORD
 Registered Engineer
 No. 1974



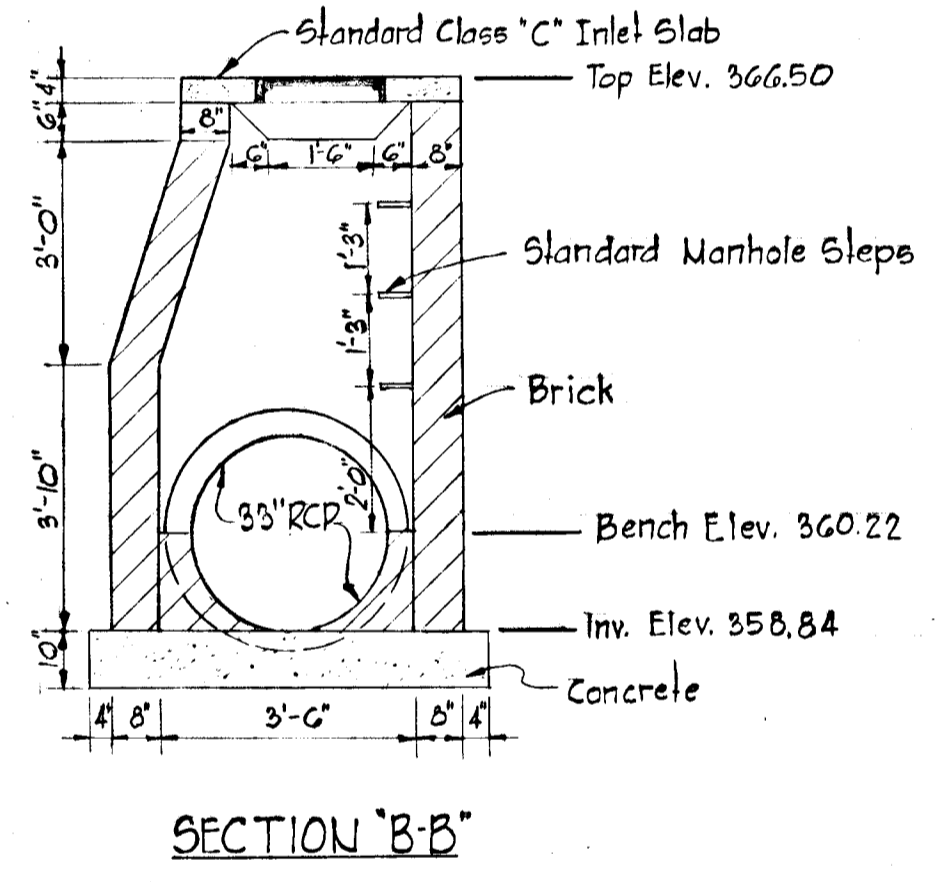
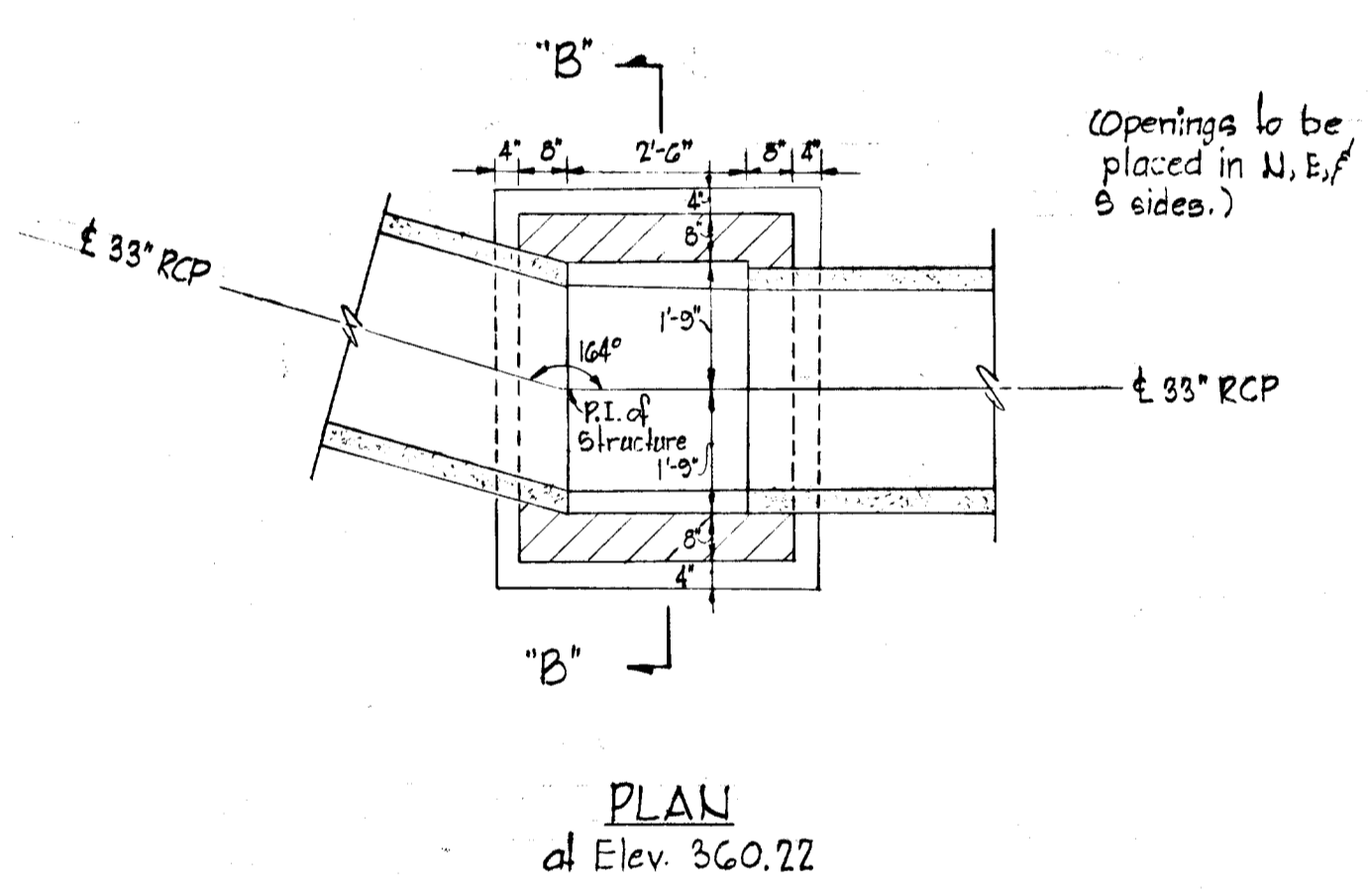
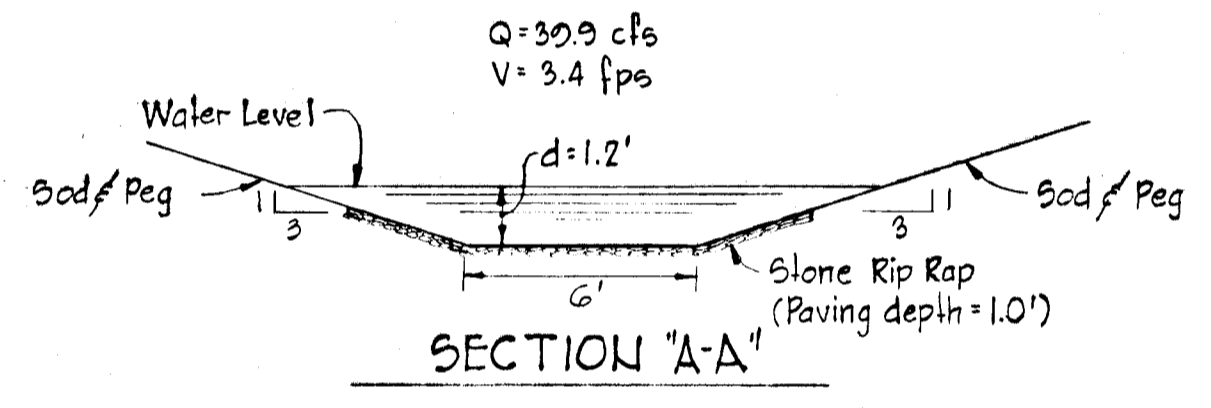
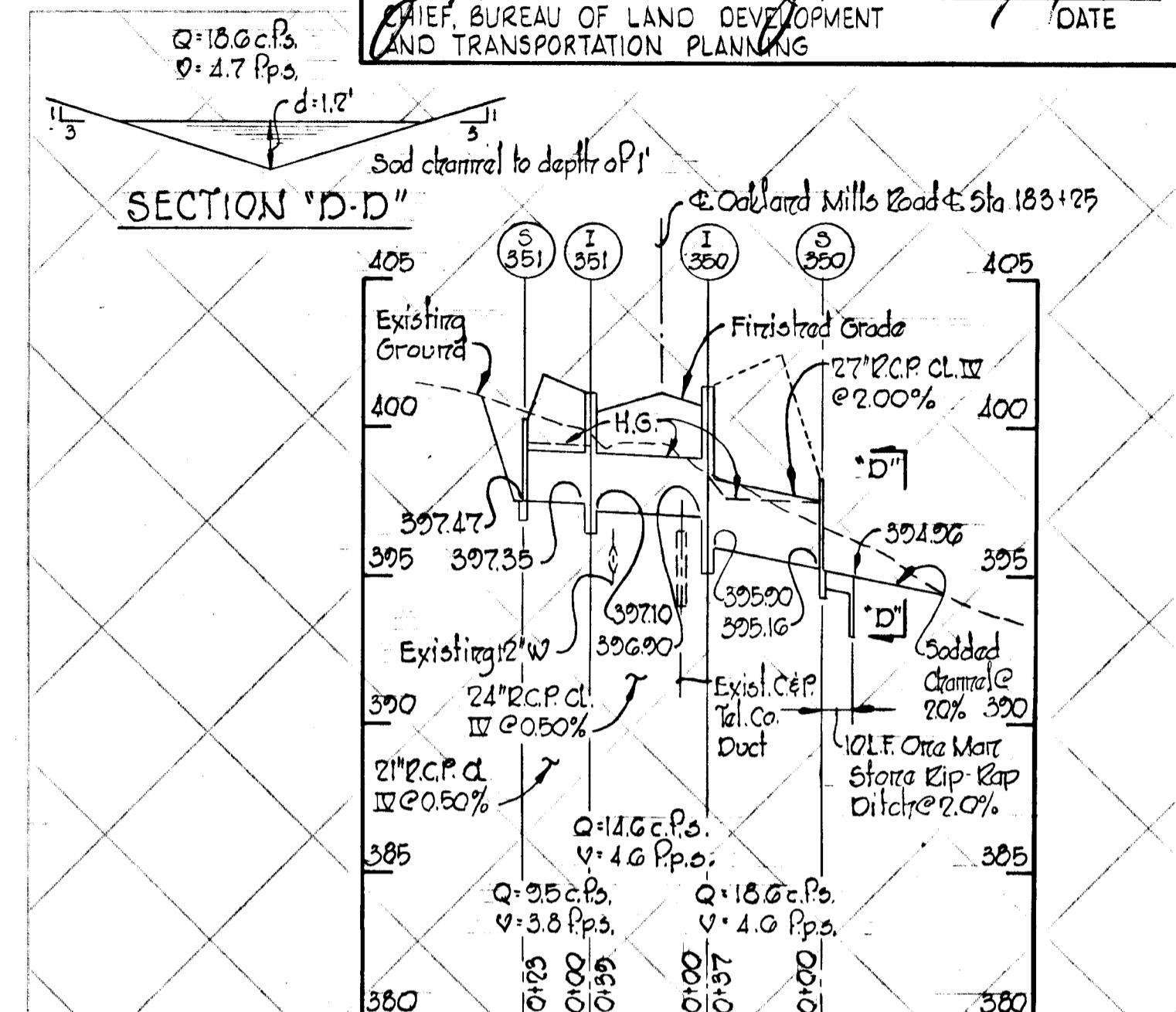
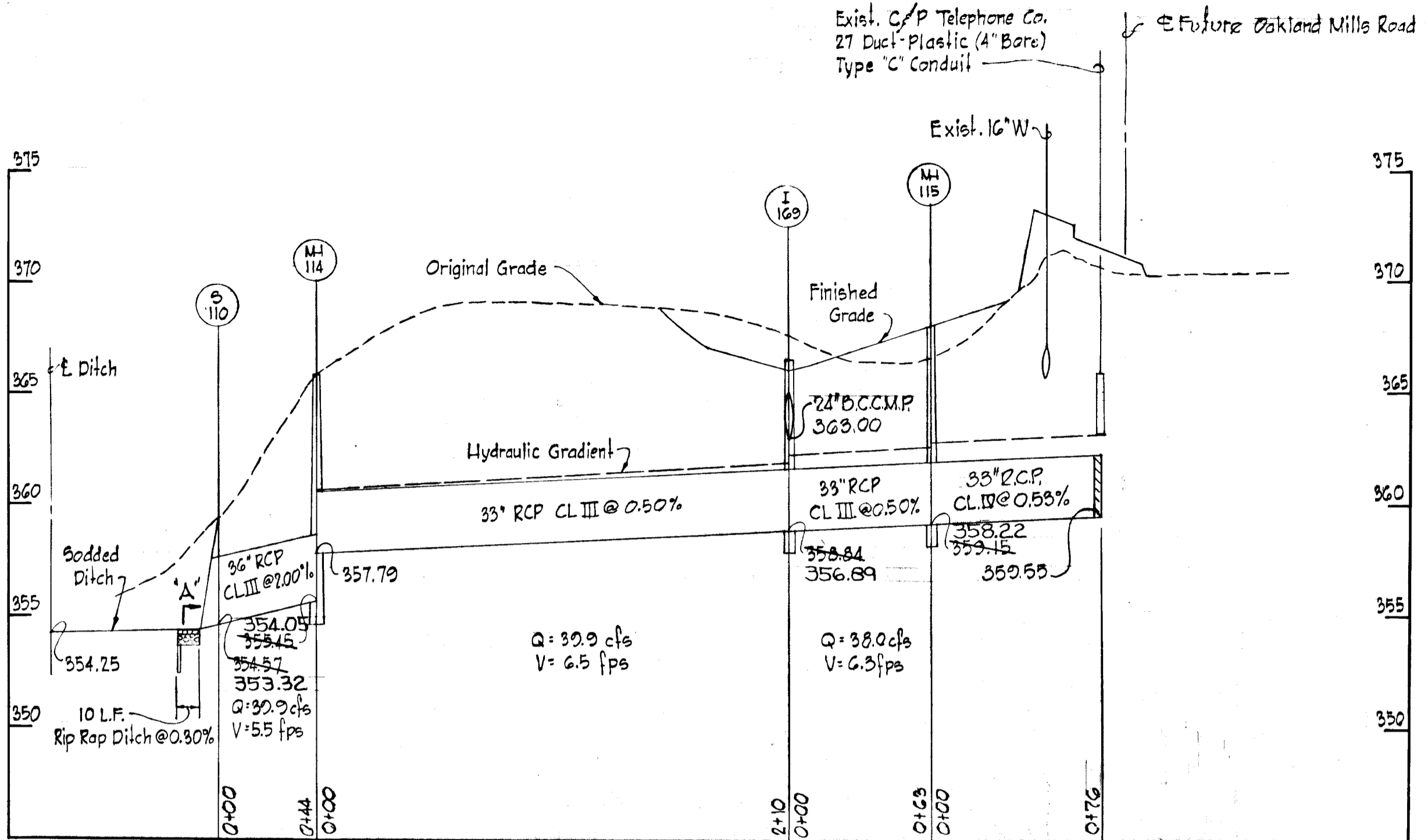
APPROVED
 DIVISION OF LAND DEVELOPMENT
 AND TRANSPORTATION PLANNING
 HOWARD COUNTY, MARYLAND
 DATE 5/30/74
J. H. Lawson Jr.

Rev. Date	Rev. No.	Revision Description
COLUMBIA 6 TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT, CORP. PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4, AREA 1 PROJECT TITLE STORM DRAIN PROFILES SPICEWIND COURT, LATCHKEY ROW ELFFOLLY TERRACE AND SNOWMAN COURT SCALE: Hor: 1"=50' Vert: 1"=5' DATE: 5/23/74 WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202 <i>Kenneth A. McCord</i> KENNETH A. MCCORD Registered Engineer No. 1974		



APPROVED
 DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING
 HOWARD COUNTY, MARYLAND
 DATE 5/30/74
 J. R. J. R.

Rev. Date	Rev. No.	Revision Description
COLUMBIA 6 TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP.		
PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4, AREA 1		
PROJECT STORM DRAIN PROFILES WEATHERWISE WAY, LOOKINGGLASS LANE AND BUGLEDZUM WAY		
SCALE: Hor. 1"=50', Vert. 1"=5' DATE: 5/23/74		
WHITMAN, REARD & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202		
Kenneth A. McCord Registered Engineer No. 1974		

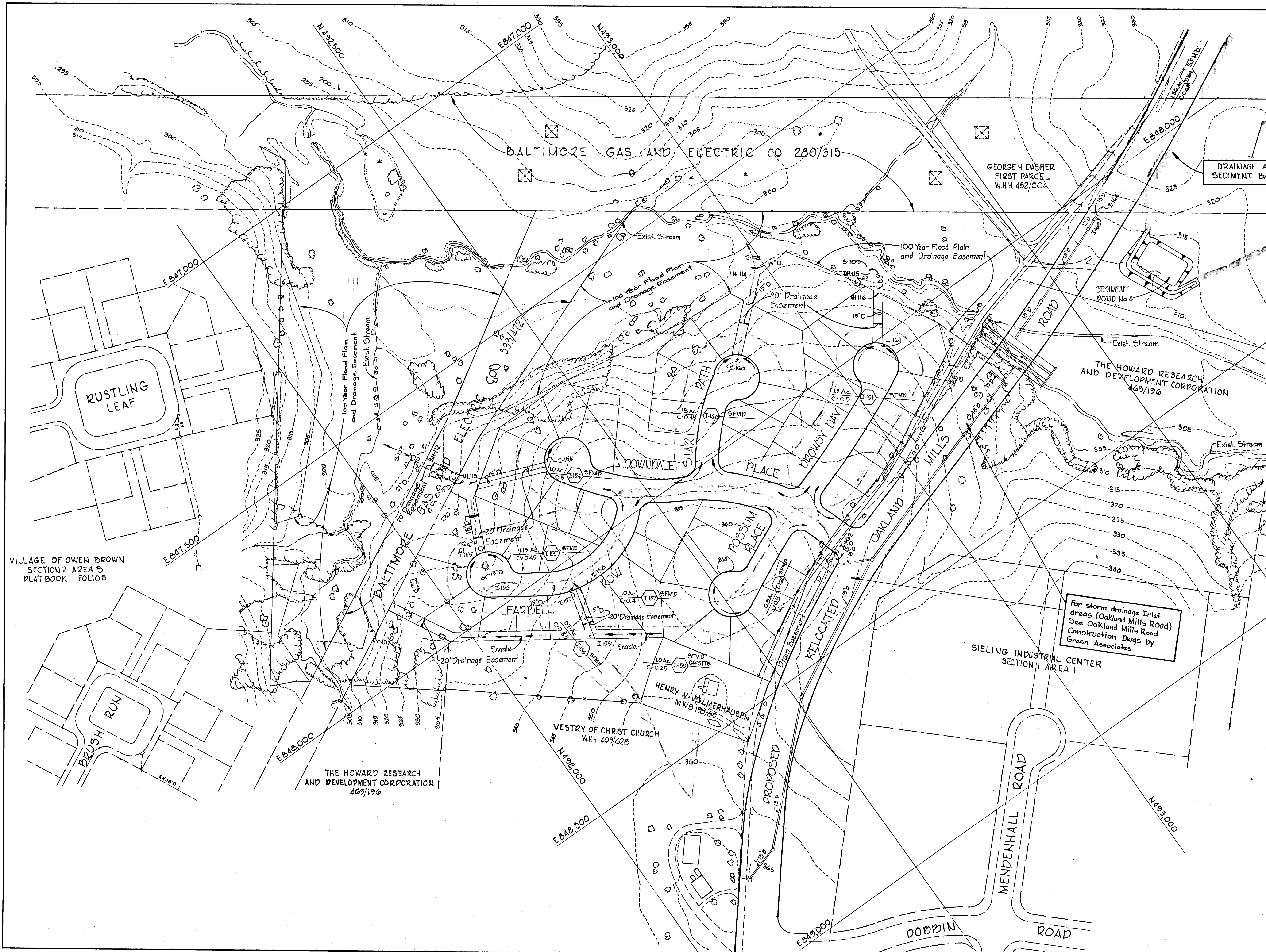


DETAIL - INLET I-169
 Scale 3/8" = 1'-0"

APPROVED
 DIVISION OF LAND DEVELOPMENT
 AND TRANSPORTATION PLANNING
 HOWARD COUNTY, MARYLAND
 DATE 5/30/74
J.P.C. L.

Rev. Date	Rev. No.	Revision Description
COLUMBIA 6 TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP.		
PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4, AREA 1		
PROJECT TITLE STORM DRAIN PROFILES AND DETAILS OAKLAND MILLS ROAD		
SCALE: As Shown		DATE: 5/23/74
WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202		
<i>Kenneth A. McCord</i> KENNETH A. MCCORD Registered Engineer No. 1974		

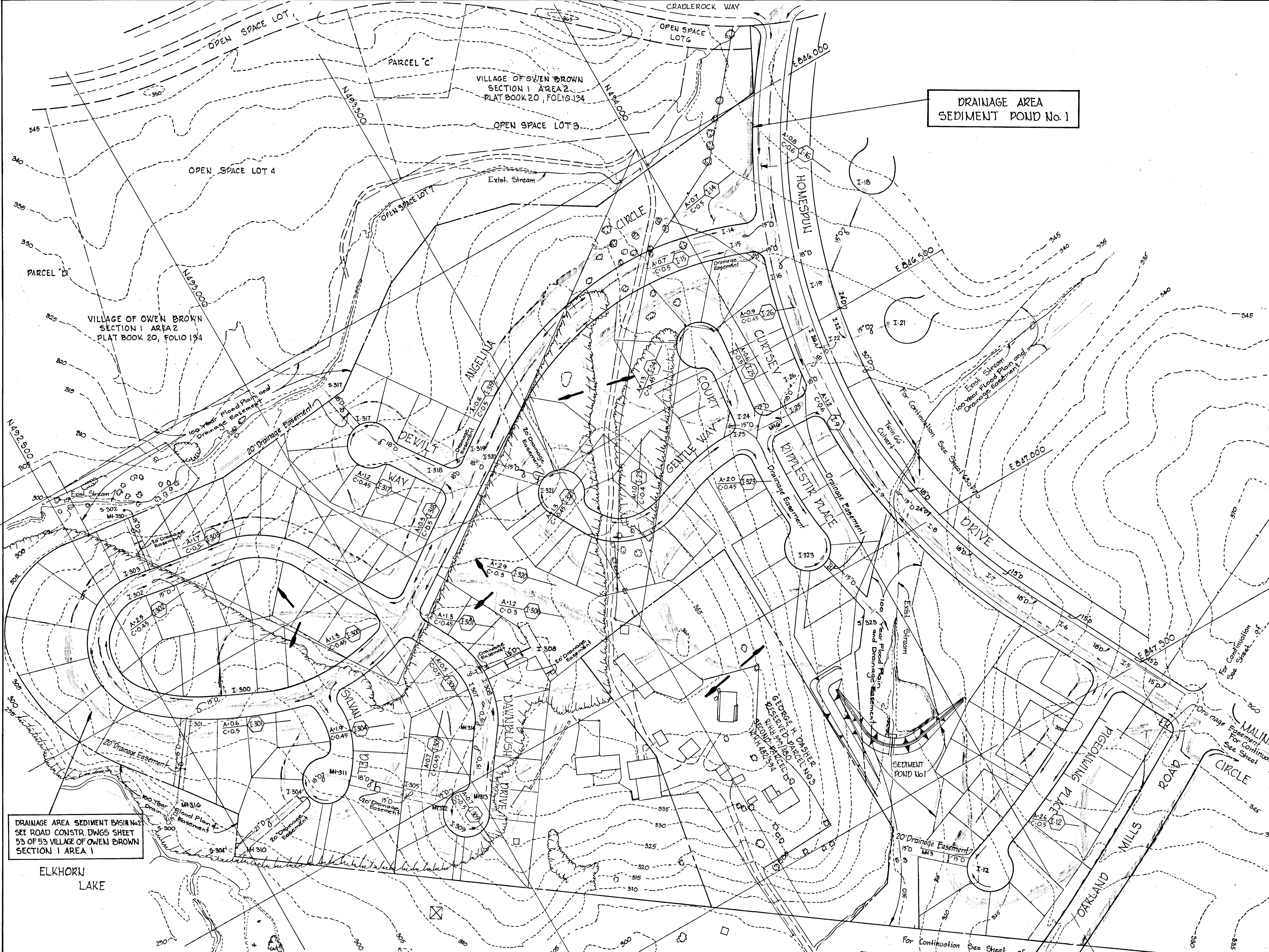
DEPARTMENT OF PUBLIC WORKS
J. W. McLeod 5/23/74
 CHIEF, BUREAU OF HIGHWAYS DATE
 OFFICE OF PLANNING AND ZONING
J. K. Clawson 5/23/74
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE



5/30/74
J. K. Clawson

Rev. Date	Rev. No.	Revision Description
COLUMBIA <small>CHELSEA DISTRICT HOWARD COUNTY, MARYLAND</small>		
<small>OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP.</small>		
<small>PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4, AREA 1</small>		
<small>PROJECT TITLE DRAINAGE AREA MAP</small>		
<small>SCALE: 1"=100'</small>		<small>DATE: 5/23/74</small>
<small>WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202</small>		
<i>Kenneth A. McLeod</i> KENNETH A. MCCOYD Registered Engineer No. 1974		

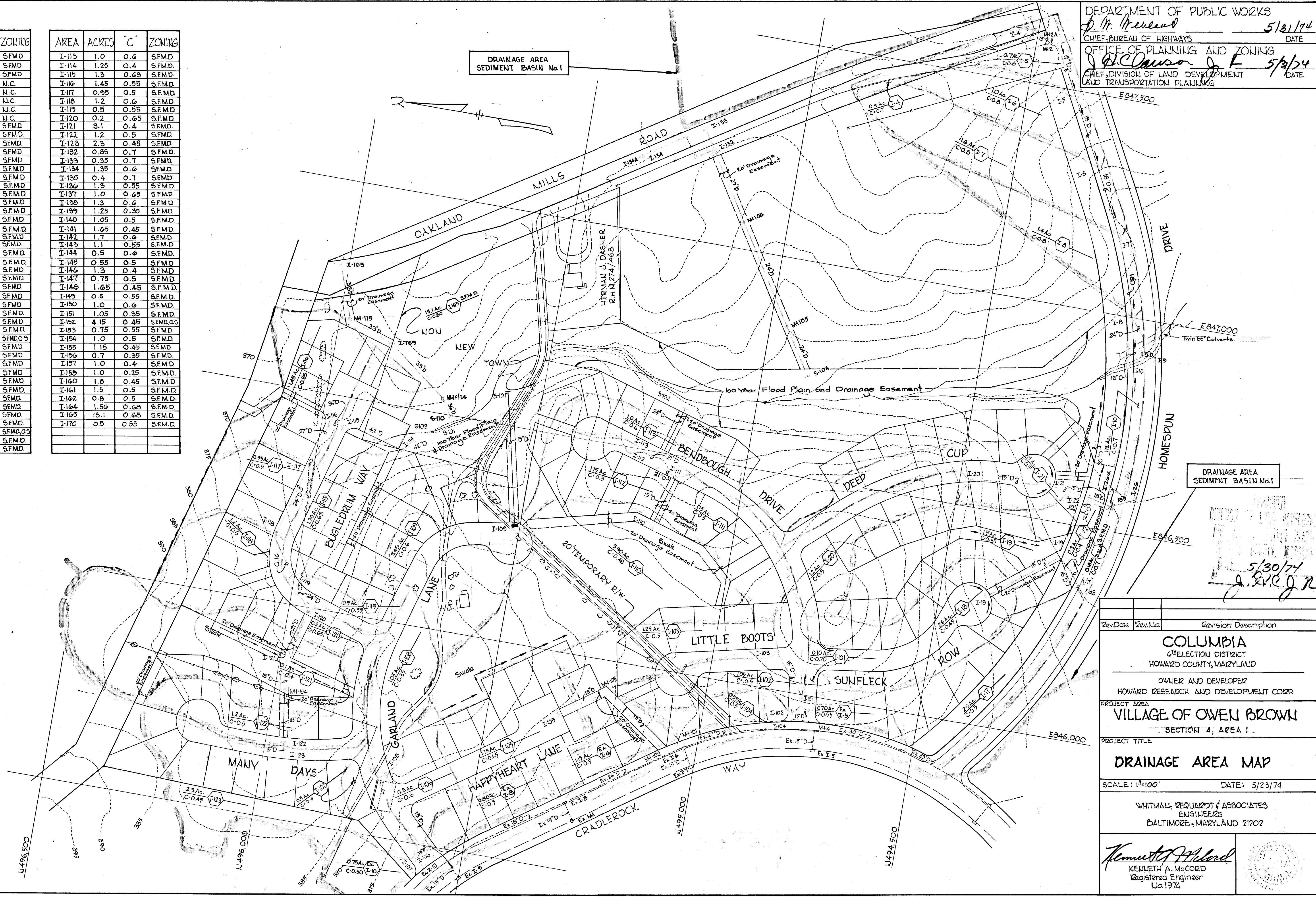
DEPARTMENT OF PUBLIC WORKS
J. M. McLeod 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE
 OFFICE OF PLANNING AND ZONING
J. J. Clavin 5/24/74
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE



Rev. Date	Rev. No.	Revision Description
COLUMBIA 2 ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP.		
PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4, AREA 1		
PROJECT TITLE DRAINAGE AREA MAP		
SCALE: 1"=100'		DATE: 5/23/74
WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202		
<i>James M. McLeod</i> KENNETH A. MCCOY Registered Engineer No. 1974		

DEPARTMENT OF PUBLIC WORKS
J. M. McCreary 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE
 OFFICE OF PLANNING AND ZONING
J. A. Conner 5/31/74
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE

AREA	ACRES	"C"	ZONING	AREA	ACRES	"C"	ZONING
I-1	0.2	0.5	SFMD	I-113	1.0	0.6	SFMD
I-2	0.2	0.7	SFMD	I-114	1.25	0.4	SFMD
I-3	0.6	0.7	SFMD	I-115	1.3	0.63	SFMD
I-4	0.4	0.7	N.C.	I-116	1.45	0.55	SFMD
I-5	0.7	0.8	N.C.	I-117	0.95	0.5	SFMD
I-6	1.0	0.8	N.C.	I-118	1.2	0.6	SFMD
I-7	1.6	0.8	N.C.	I-119	0.5	0.55	SFMD
I-8	1.4	0.8	N.C.	I-120	0.2	0.65	SFMD
I-9	1.2	0.6	SFMD	I-121	3.1	0.4	SFMD
I-10	1.12	0.7	SFMD	I-122	1.2	0.5	SFMD
I-12	2.6	0.5	SFMD	I-123	2.3	0.45	SFMD
I-14	0.7	0.5	SFMD	I-132	0.85	0.7	SFMD
I-15	0.7	0.5	SFMD	I-133	0.35	0.7	SFMD
I-16	0.8	0.6	SFMD	I-134	1.35	0.6	SFMD
I-17	2.0	0.5	SFMD	I-135	0.4	0.7	SFMD
I-18	2.6	0.45	SFMD	I-136	1.3	0.55	SFMD
I-19	0.7	0.35	SFMD	I-137	1.0	0.65	SFMD
I-20	1.2	0.5	SFMD	I-138	1.3	0.6	SFMD
I-21	1.5	0.5	SFMD	I-139	1.25	0.35	SFMD
I-22	0.3	0.4	SFMD	I-140	1.05	0.5	SFMD
I-23	1.0	0.4	SFMD	I-141	1.65	0.45	SFMD
I-24	1.3	0.45	SFMD	I-142	1.7	0.6	SFMD
I-25	0.6	0.5	SFMD	I-143	1.1	0.55	SFMD
I-26	0.9	0.45	SFMD	I-144	0.5	0.6	SFMD
I-26A	0.18	0.7	SFMD	I-145	0.55	0.5	SFMD
I-30	0.5	0.5	SFMD	I-146	1.3	0.4	SFMD
I-31	1.0	0.45	SFMD	I-147	0.75	0.5	SFMD
I-32	0.8	0.65	SFMD	I-148	1.65	0.45	SFMD
I-33	0.4	0.7	SFMD	I-149	0.5	0.55	SFMD
I-34	0.82	0.45	SFMD	I-150	1.0	0.6	SFMD
I-35	1.7	0.45	SFMD	I-151	1.05	0.35	SFMD
I-36	0.21	0.55	SFMD	I-152	4.15	0.45	SFMD, OS
I-37	0.9	0.5	SFMD	I-153	0.75	0.55	SFMD
I-38	1.5	0.4	SFMD, OS	I-154	1.0	0.5	SFMD
I-39	2.5	0.55	SFMD	I-155	1.15	0.45	SFMD
I-40	1.9	0.55	SFMD	I-156	0.7	0.35	SFMD
I-101	0.1	0.7	SFMD	I-157	1.0	0.4	SFMD
I-102	1.05	0.5	SFMD	I-159	1.0	0.25	SFMD
I-104	0.55	0.5	SFMD	I-160	1.8	0.45	SFMD
I-105	1.75	0.65	SFMD	I-161	1.5	0.5	SFMD
I-106	0.8	0.6	SFMD	I-162	0.8	0.5	SFMD
I-107	0.5	0.4	SFMD	I-164	1.56	0.68	SFMD
I-108	1.05	0.35	SFMD	I-165	18.1	0.68	SFMD
I-109	2.20	0.6	SFMD, OS	I-170	0.5	0.55	SFMD
I-110	3.9	0.45	SFMD, OS				
I-111	1.15	0.5	SFMD				
I-112	1.15	0.5	SFMD				



Rev. Date	Rev. No.	Revision Description

COLUMBIA
 COLLECTION DISTRICT
 HOWARD COUNTY, MARYLAND

OWNER AND DEVELOPER
 HOWARD RESEARCH AND DEVELOPMENT CORP.

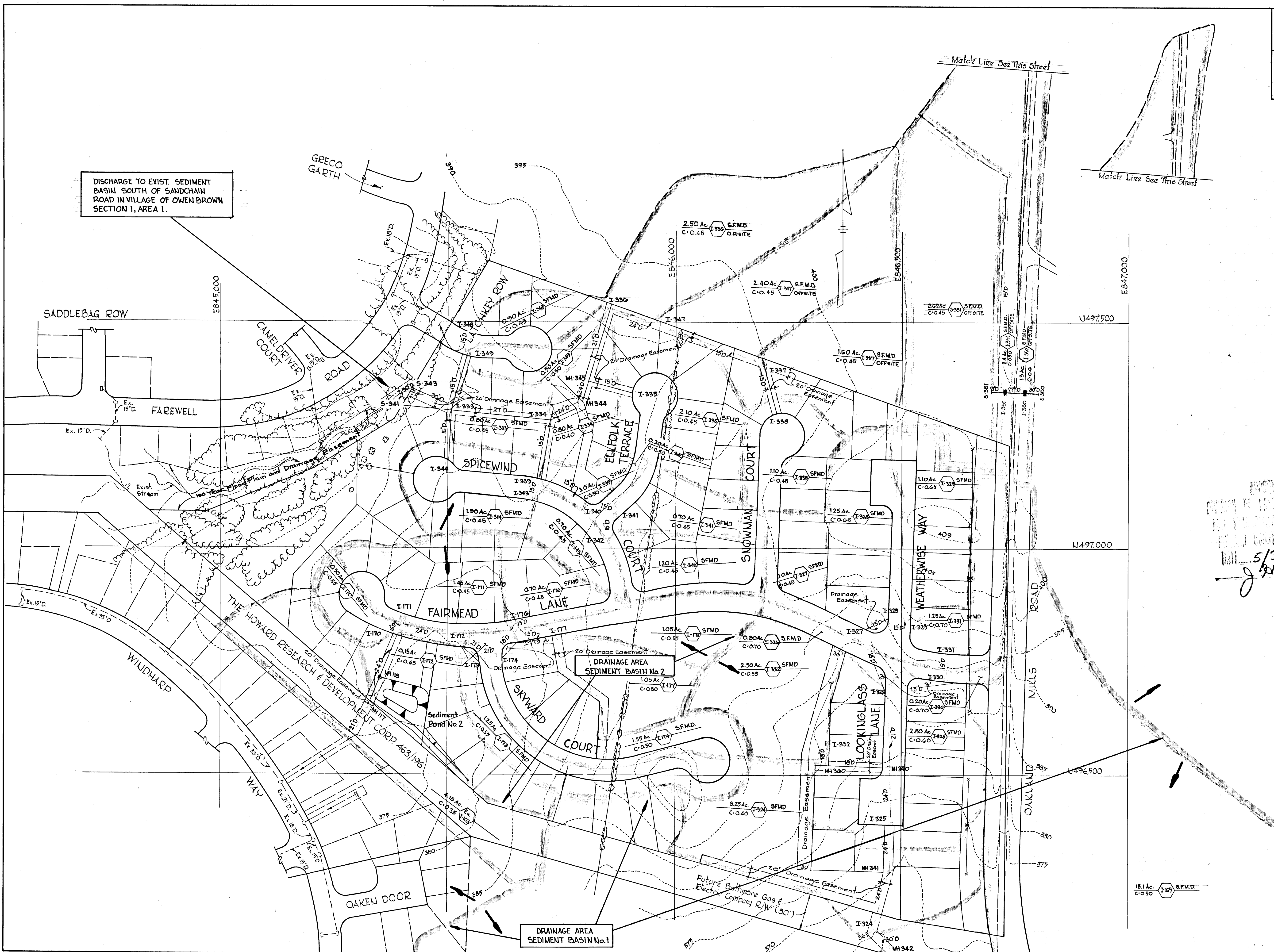
PROJECT AREA
VILLAGE OF OWEN BROWN
 SECTION 4, AREA 1

PROJECT TITLE
DRAINAGE AREA MAP

SCALE: 1"=100' DATE: 5/23/74

WHITMAN, REQUARDT & ASSOCIATES
 ENGINEERS
 BALTIMORE, MARYLAND 21202

Kenneth A. McCord
 KENNETH A. MCCORD
 Registered Engineer
 No. 1974



AREA	ACRES	"C"	ZONING
I-171	1.45	0.45	S.F.M.D.
I-172	0.15	0.65	S.F.M.D.
I-173	1.25	0.55	S.F.M.D.
I-174	1.55	0.5	S.F.M.D.
I-175	1.05	0.55	S.F.M.D.
I-176	0.7	0.45	S.F.M.D.
I-177	1.05	0.5	S.F.M.D.
I-300	1.3	0.45	S.F.M.D.
I-301	0.6	0.5	S.F.M.D.
I-302	2.5	0.45	S.F.M.D.
I-303	1.7	0.5	S.F.M.D.
I-304	1.9	0.45	S.F.M.D.
I-305	0.7	0.45	S.F.M.D.
I-306	0.5	0.5	S.F.M.D.
I-307	1.3	0.45	S.F.M.D.
I-308	1.2	0.2	S.F.M.D.
I-309	0.7	0.5	S.F.M.D.
I-317	1.2	0.45	S.F.M.D.
I-318	0.3	0.5	S.F.M.D.
I-319	0.6	0.5	S.F.M.D.
I-320	2.9	0.3	S.F.M.D.
I-321	1.3	0.45	S.F.M.D.
I-323	2.0	0.45	S.F.M.D.
I-324	3.25	0.4	S.F.M.D.
I-325	2.8	0.6	S.F.M.D.
I-326	0.3	0.7	S.F.M.D.
I-327	1.0	0.45	S.F.M.D.
I-328	1.25	0.65	S.F.M.D.
I-329	1.10	0.65	S.F.M.D.
I-330	0.2	0.7	S.F.M.D.
I-331	1.25	0.7	S.F.M.D.
I-332	2.5	0.55	S.F.M.D.
I-333	0.8	0.45	S.F.M.D.
I-334	0.8	0.40	S.F.M.D.
I-335	2.1	0.45	S.F.M.D.
I-336	2.5	0.45	S.F.M.D. OS
I-337	1.6	0.45	S.F.M.D. OS
I-338	1.1	0.45	S.F.M.D.
I-339	3.0	0.6	S.F.M.D.
I-340	0.2	0.5	S.F.M.D.
I-341	0.7	0.45	S.F.M.D.
I-342	1.2	0.45	S.F.M.D.
I-343	0.7	0.45	S.F.M.D.
I-344	1.9	0.45	S.F.M.D.
I-347	2.4	0.45	S.F.M.D. OS
I-348	0.9	0.45	S.F.M.D.
I-349	0.5	0.5	S.F.M.D.
I-350	1.3	0.6	S.F.M.D.
I-351	2.4	0.5	S.F.M.D.
S-351	3.62	0.45	S.F.M.D.

5/30/74
J. P. Carson

Rev. Date	Rev. No.	Revision Description

COLUMBIA
 CHIEF ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

OWNER AND DEVELOPER
 HOWARD RESEARCH AND DEVELOPMENT CORP.

PROJECT AREA
VILLAGE OF OWEN BROWN
 SECTION 4, AREA 1

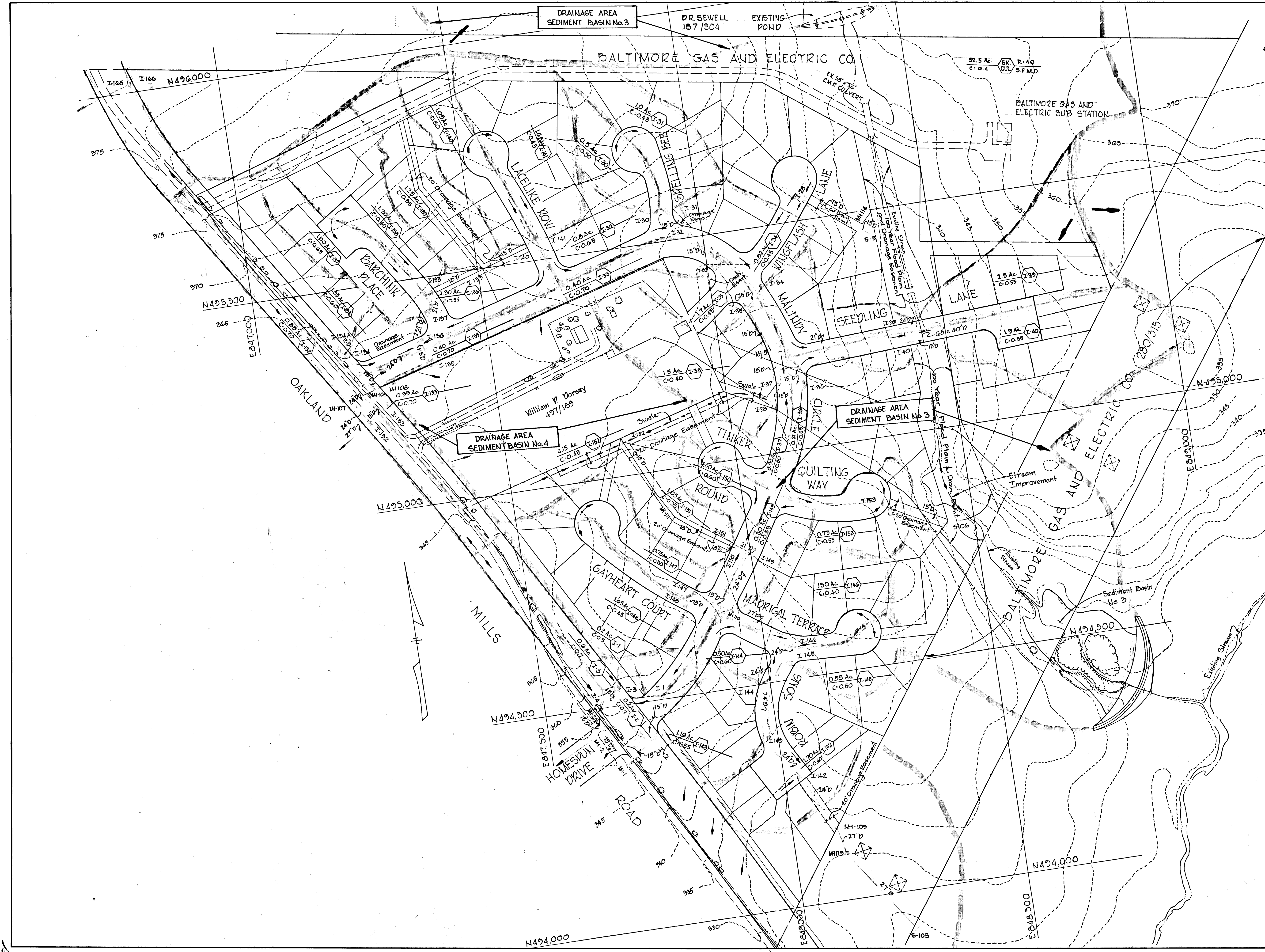
PROJECT TITLE
DRAINAGE AREA MAP

SCALE: 1"=100' DATE: 4/19/74

WHITMAN, REQUARDT & ASSOCIATES
 ENGINEERS
 BALTIMORE, MARYLAND 21202

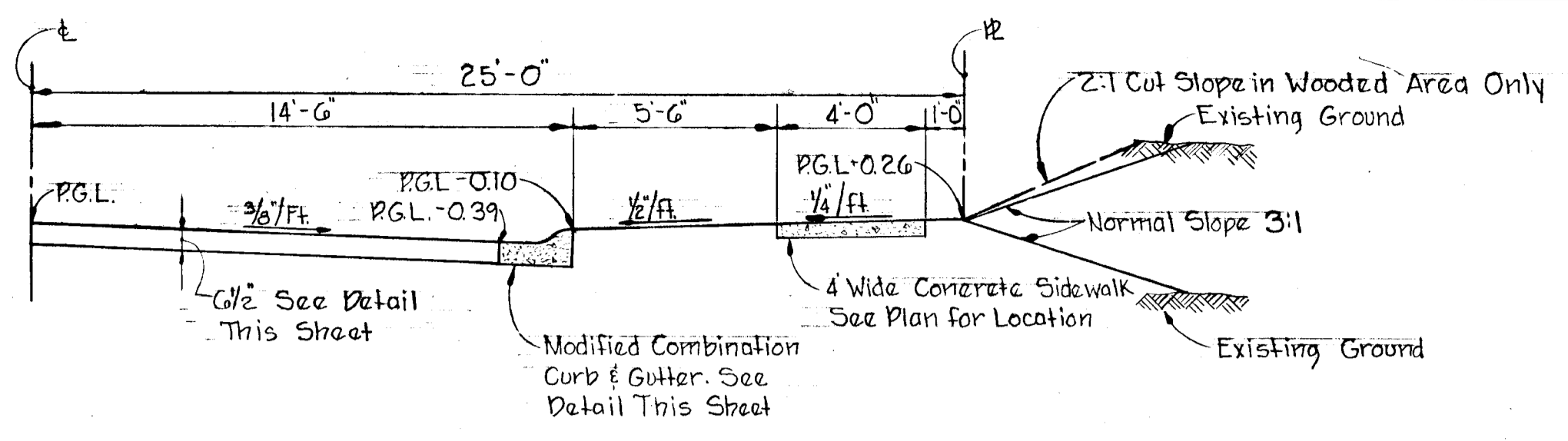
Kenneth A. McCord
 KENNETH A. McCORD
 Registered Engineer
 No. 1974

DEPARTMENT OF PUBLIC WORKS
B. M. McLeod 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE
 OFFICE OF PLANNING AND ZONING
J. P. Dawson 5/31/74
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE

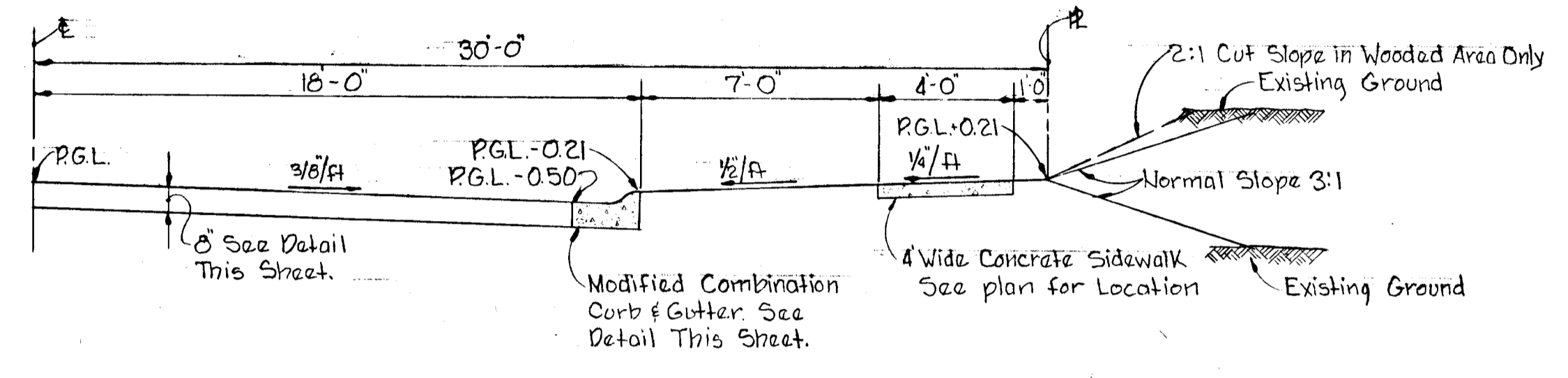


APPROVED
 J. P. Dawson
 5/30/74

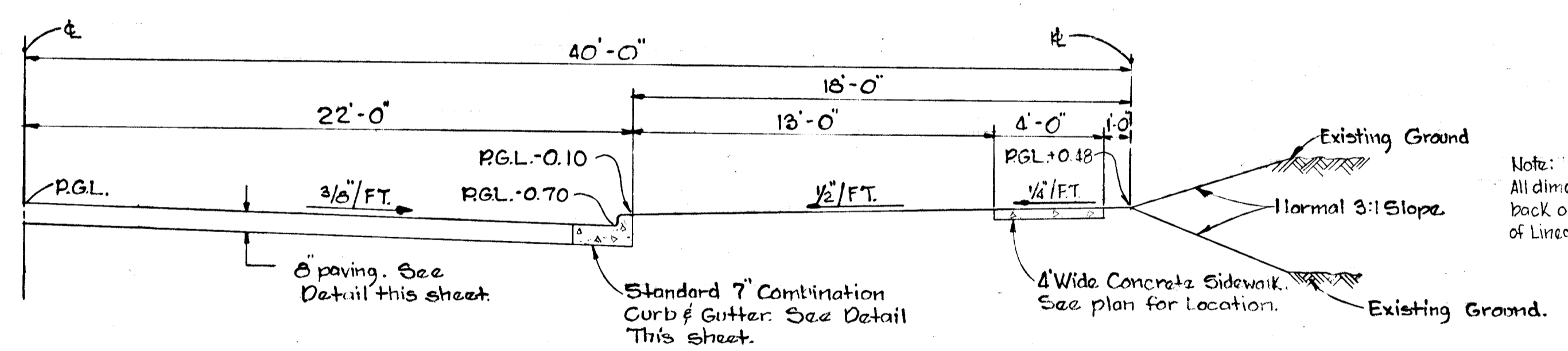
Rev. Date	Rev. No.	Revision Description
COLUMBIA ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP.		
PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4, AREA 1		
PROJECT TITLE DRAINAGE AREA MAP		
SCALE: 1"=100'		DATE: 4/19/74
WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202		
<i>James A. McLeod</i> KEENEITH A. MCCORD Registered Engineer No. 1974		



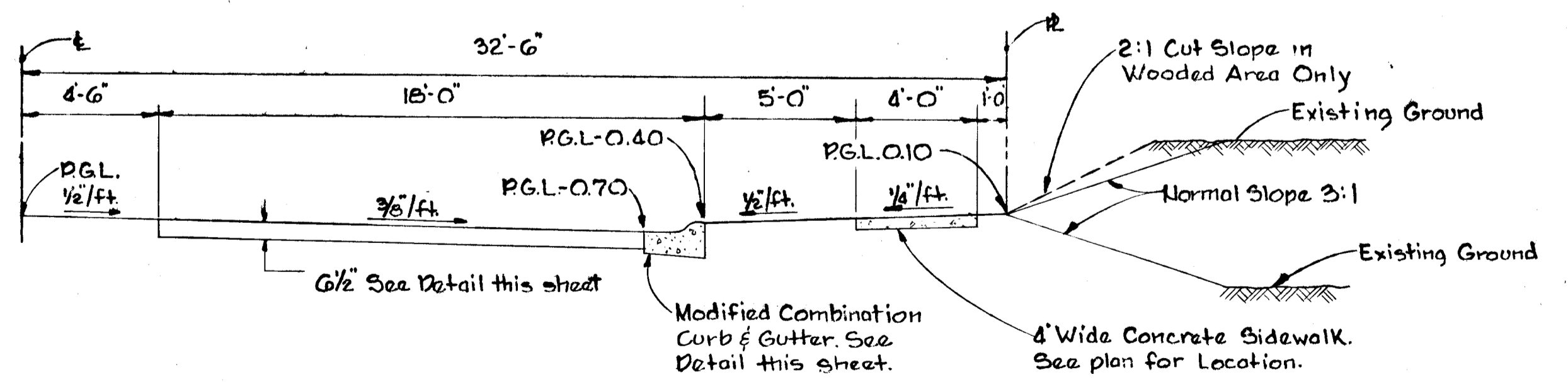
TYPICAL HALF SECTION
 50 R/W - 29 ROADWAY
 Scale: 1/4" = 1'-0"



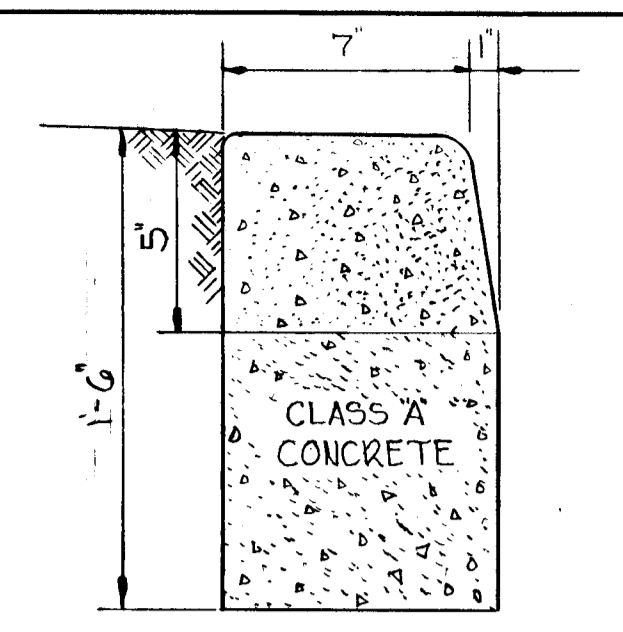
TYPICAL HALF SECTION
 60 R/W - 36 ROADWAY
 Scale: 1/4" = 1'-0"



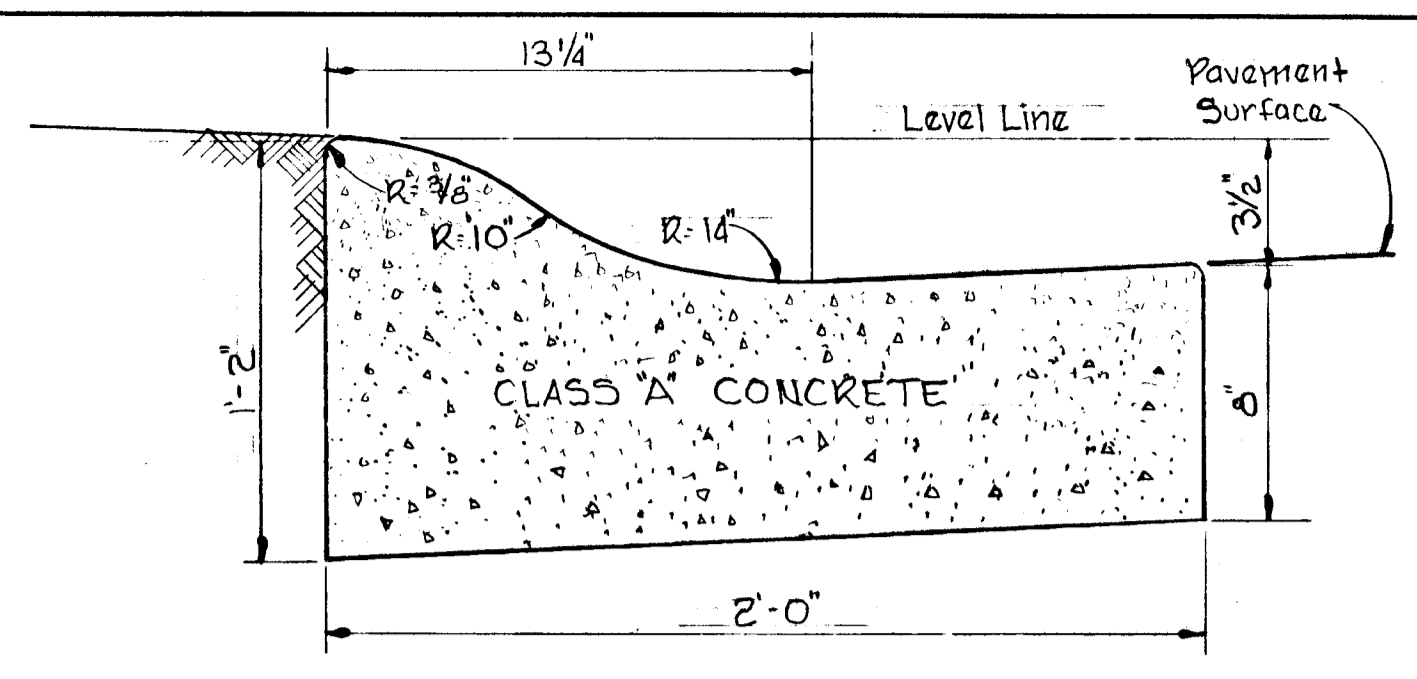
TYPICAL HALF SECTION (HOMESPU DRIVE)
 80 R/W - 44 ROADWAY
 Scale: 1/4" = 1'-0"



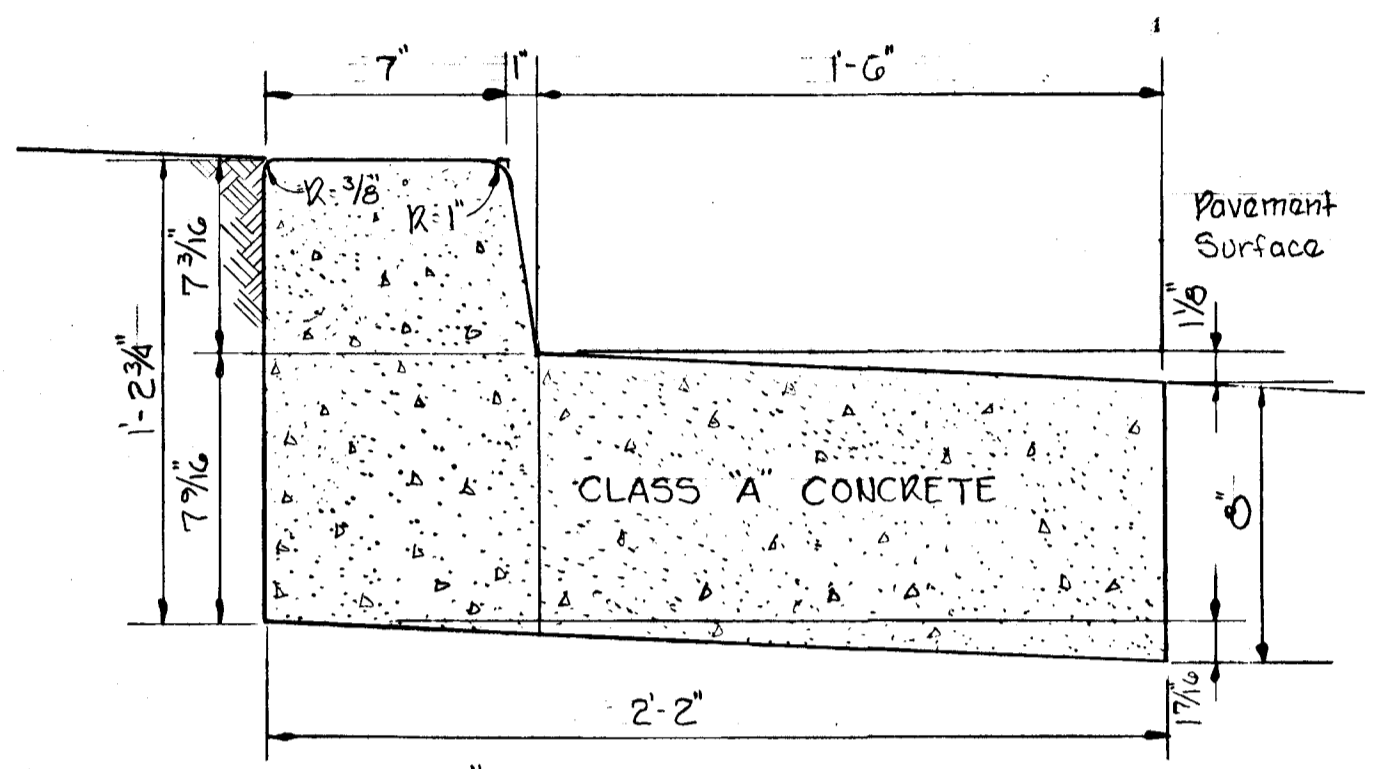
TYPICAL HALF SECTION
 65 R/W - TWO 18.0 ROADWAYS
 Scale: 1/4" = 1'-0"



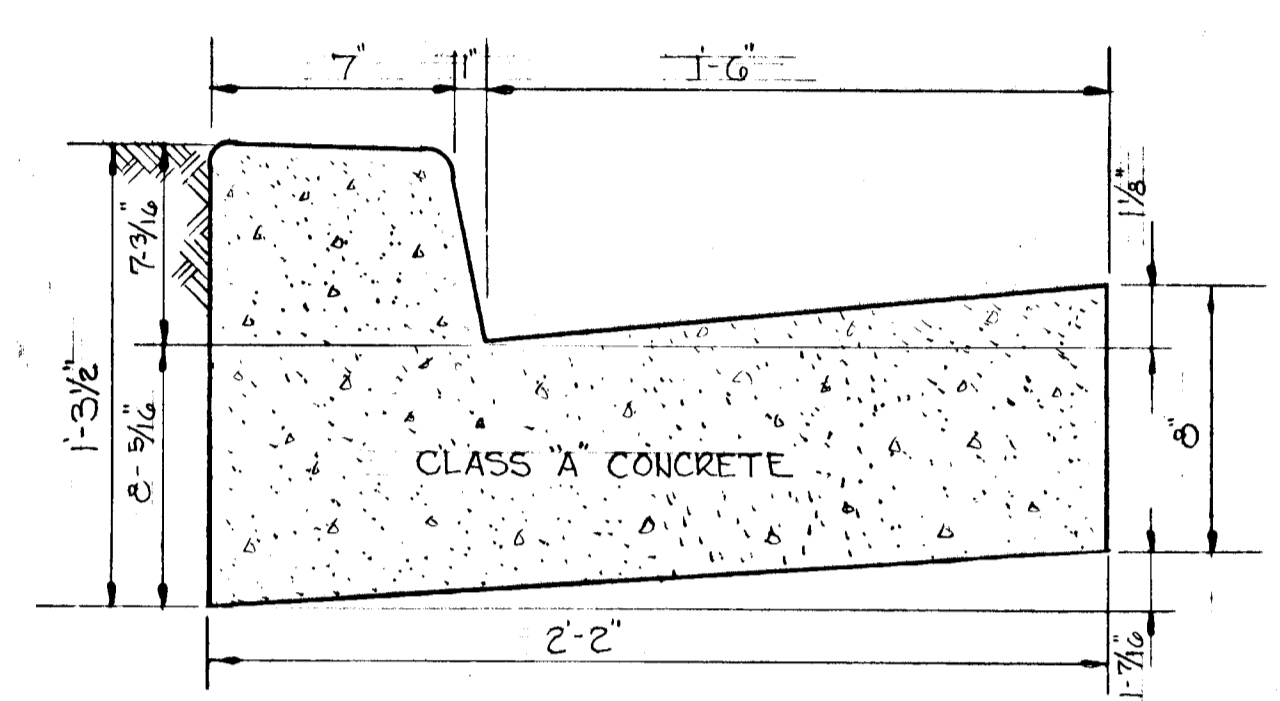
STANDARD BARRIER CURB
 No Scale



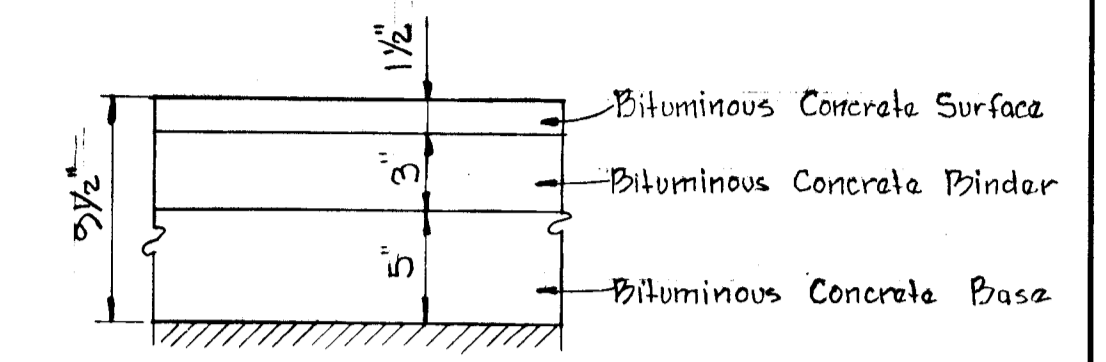
MODIFIED COMBINATION CURB & GUTTER
 No Scale



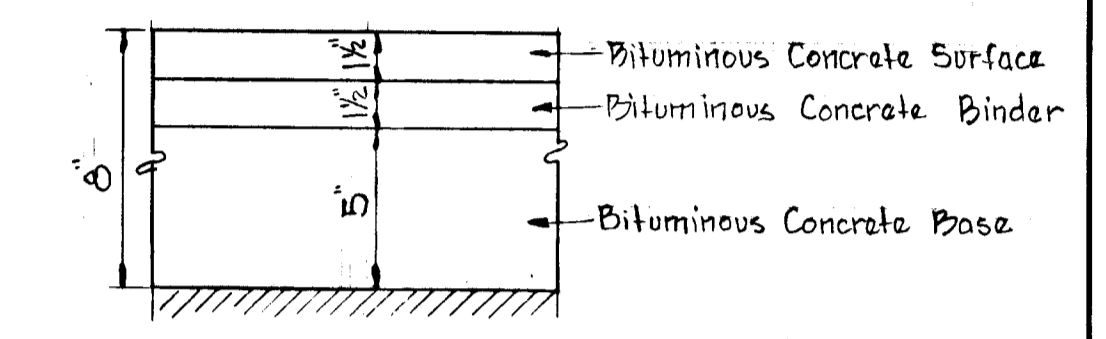
REVERSE 7" COMBINATION CURB & GUTTER
 No Scale



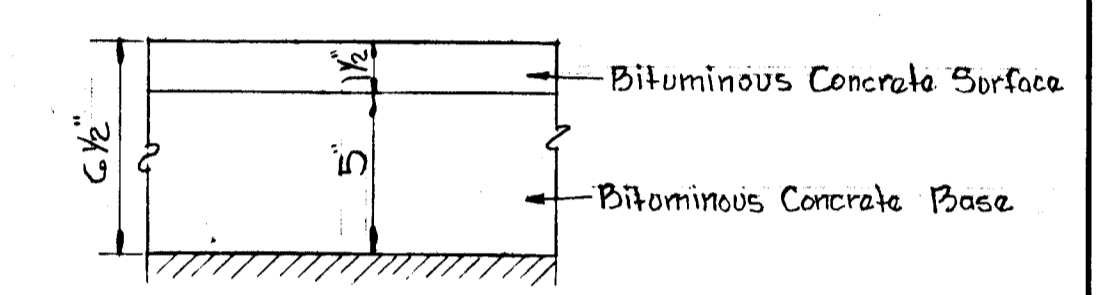
STANDARD 7" COMBINATION CURB & GUTTER
 No Scale



Howard County Std 17-12 page 67



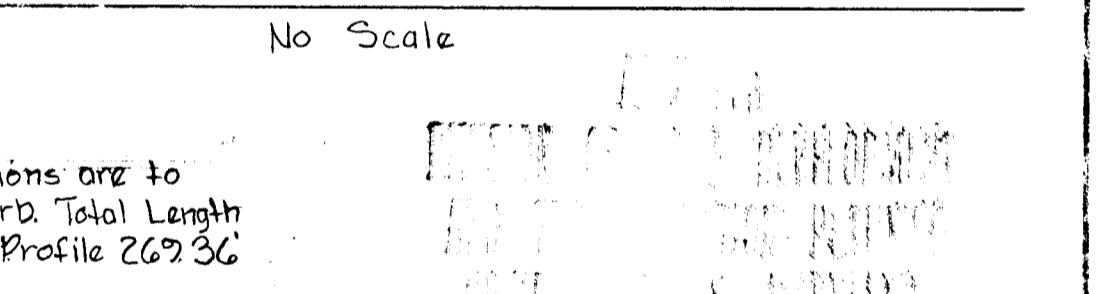
Howard County Std 17-10 page 65



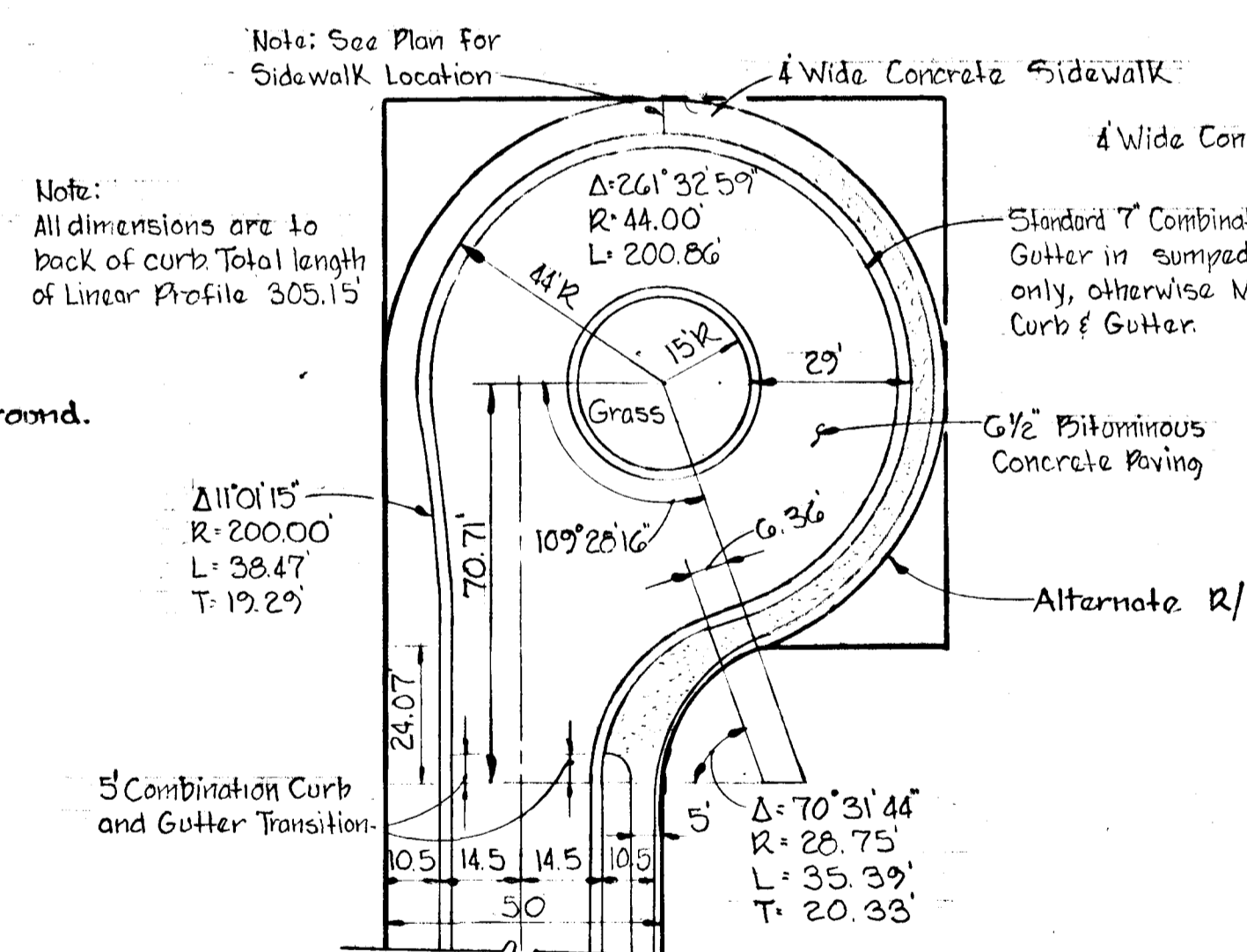
Howard County Std 17-11 page 66

NOTES
 1. Base will be printed in accordance with C-30-3 as provided in the Howard County Road Construction Code and Standard Specifications.
 2. Tack Coat is required in accordance with Section C-31-4 of the Howard County Road Construction Code and Standard Specifications.

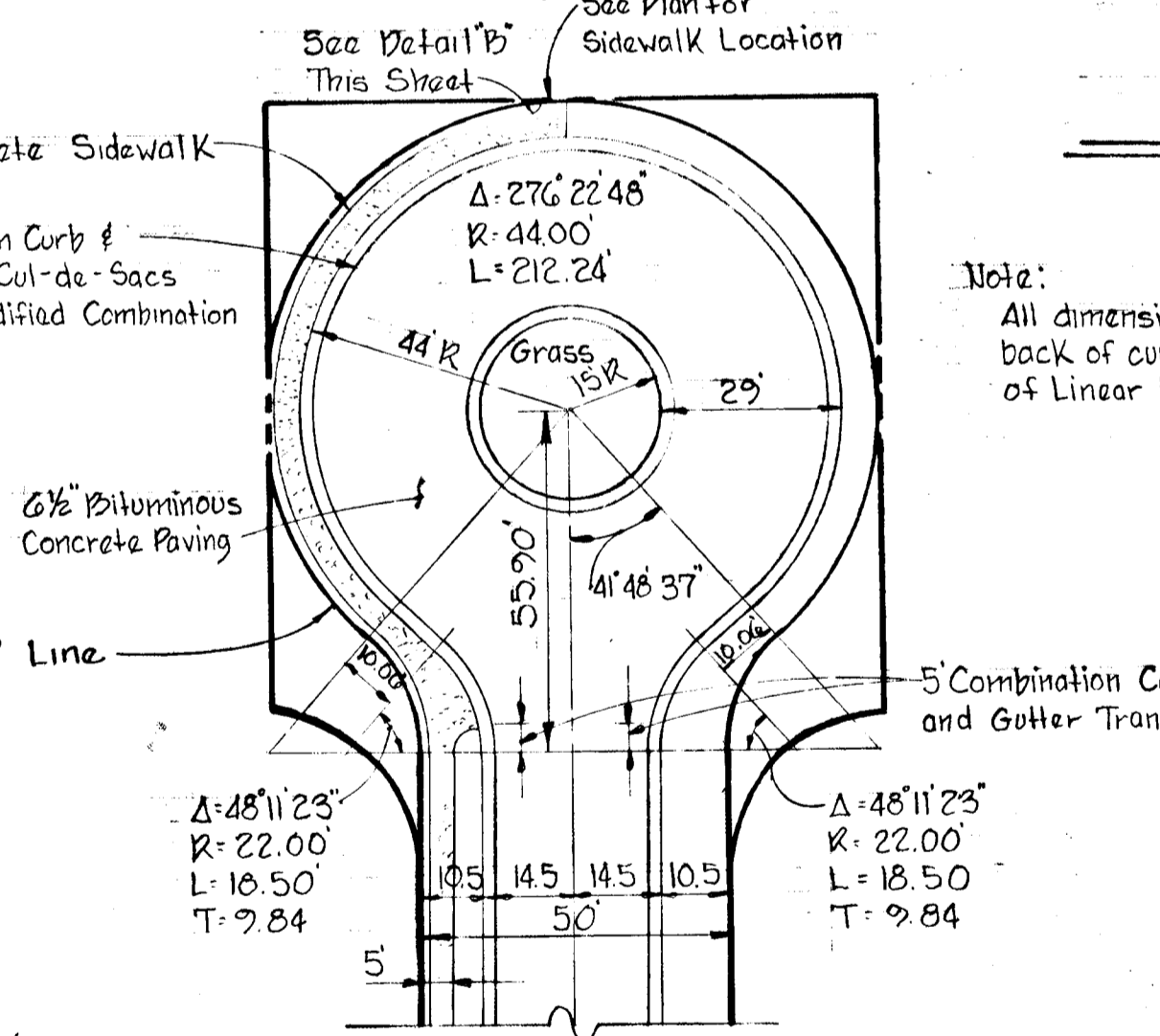
TYPICAL PAVING SECTIONS



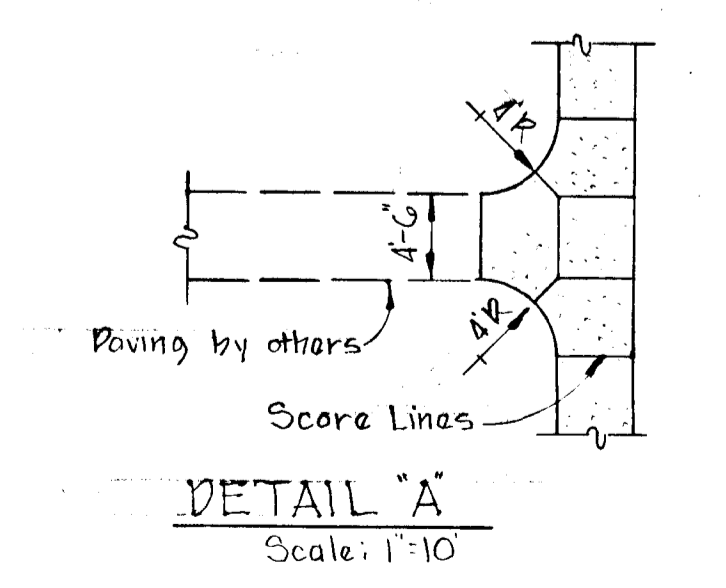
Note: All dimensions are to back of curb. Total Length of Linear Profile 269'36"



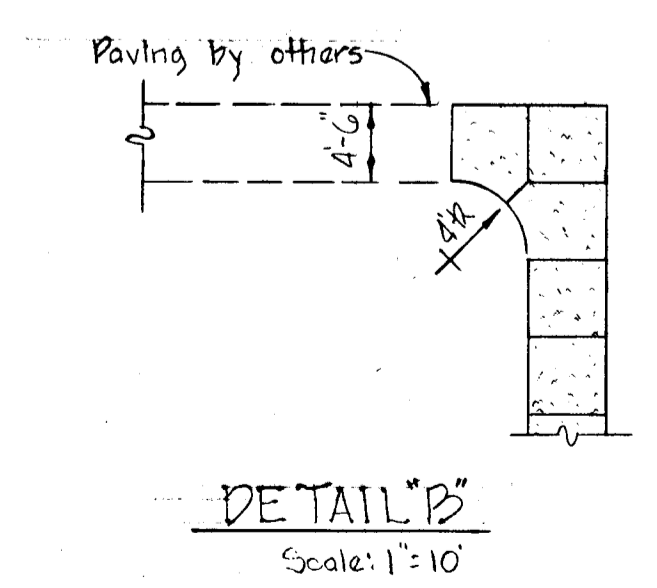
TYPICAL OFFSET CUL-DE-SAC DETAIL
 Scale: 1" = 30'



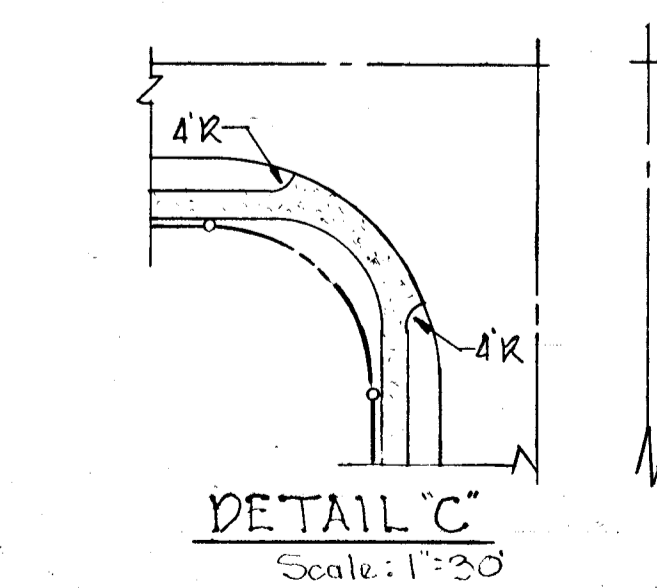
TYPICAL CUL-DE-SAC DETAIL
 Scale: 1" = 30'



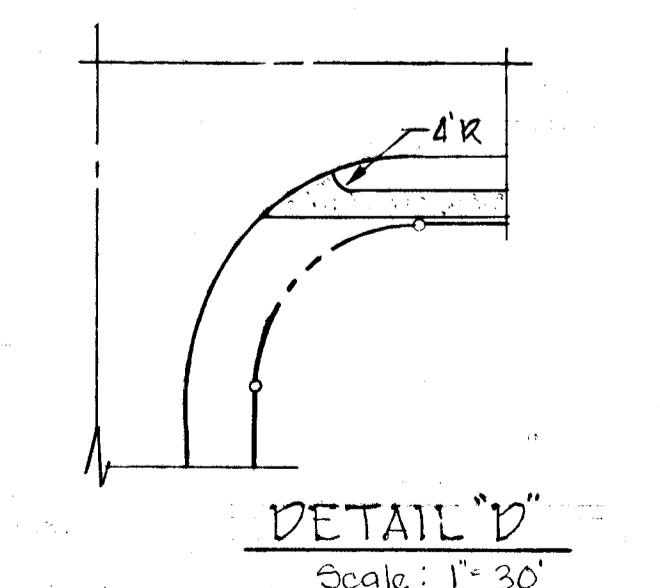
DETAIL "A"
 Scale: 1" = 10'



DETAIL "B"
 Scale: 1" = 10'



DETAIL "C"
 Scale: 1" = 30'

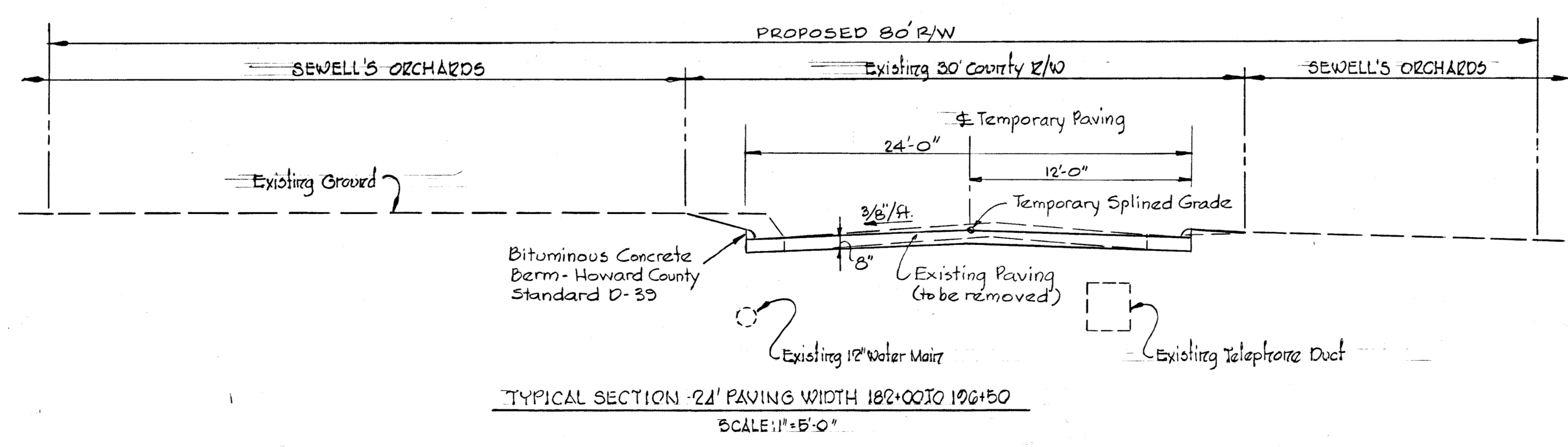
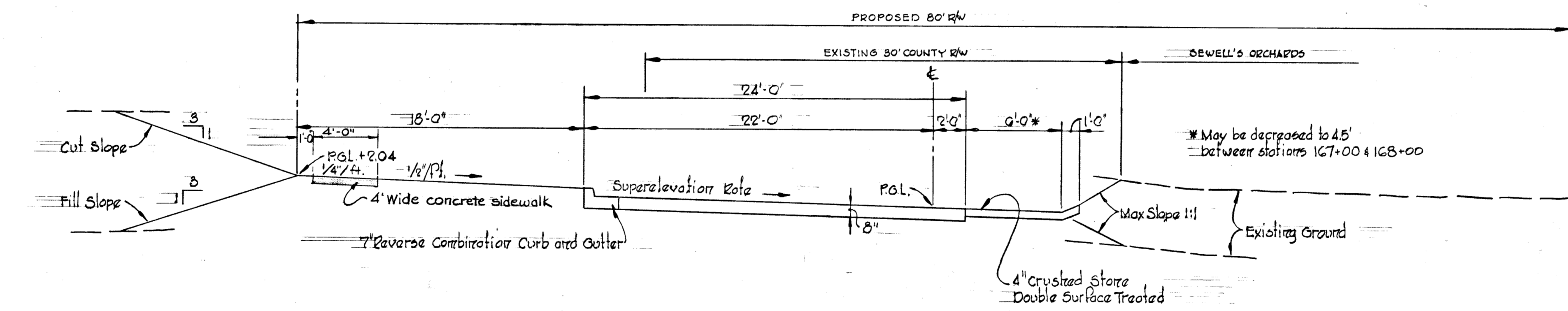
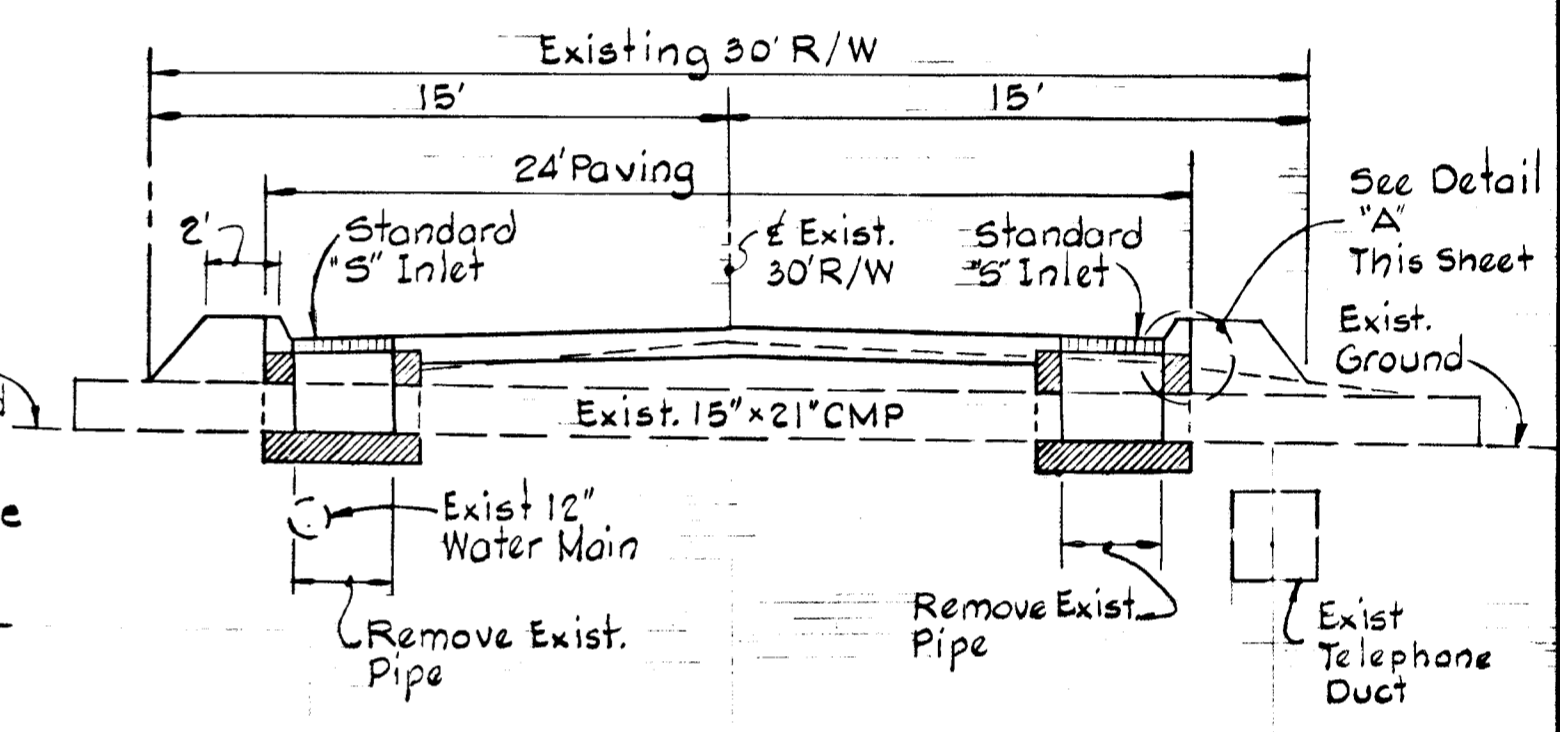
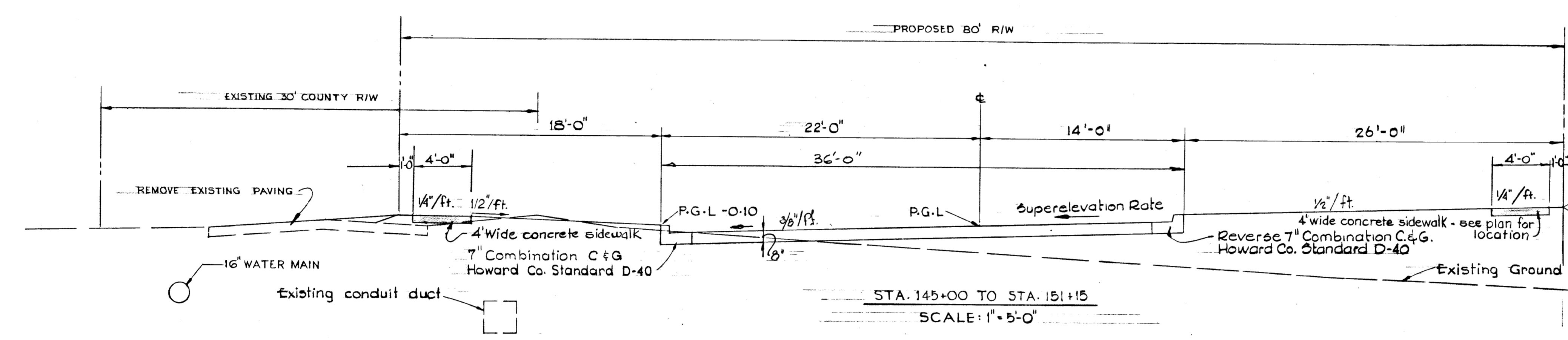
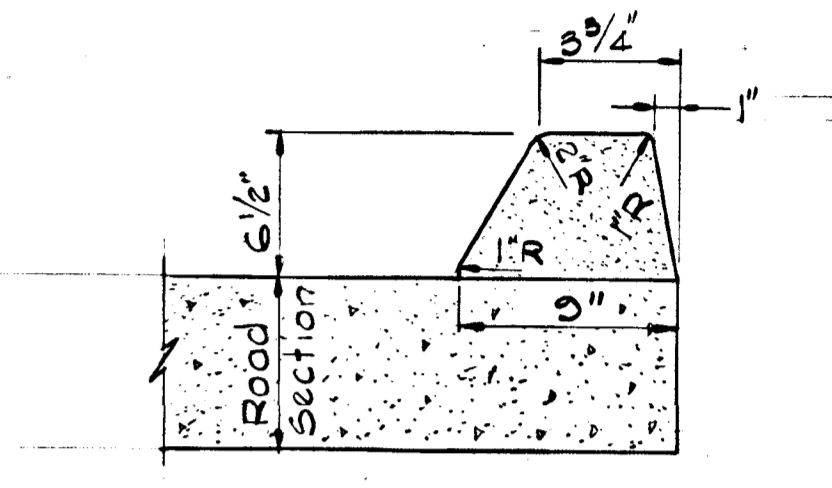
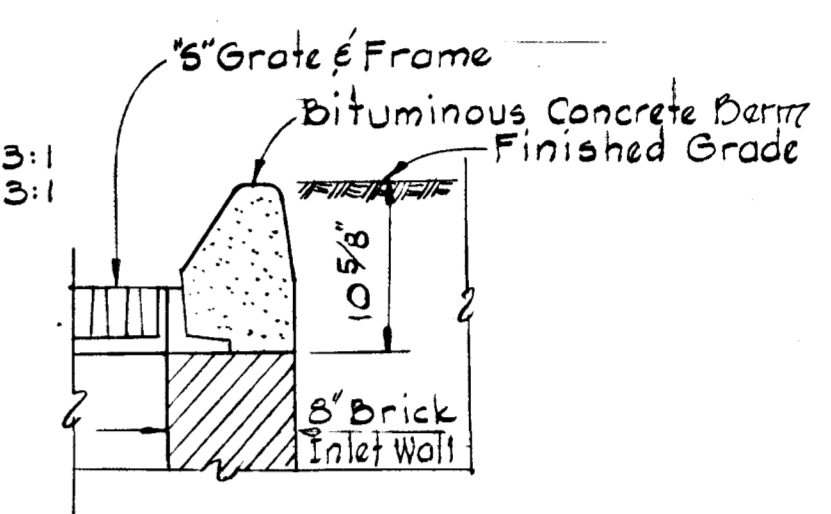
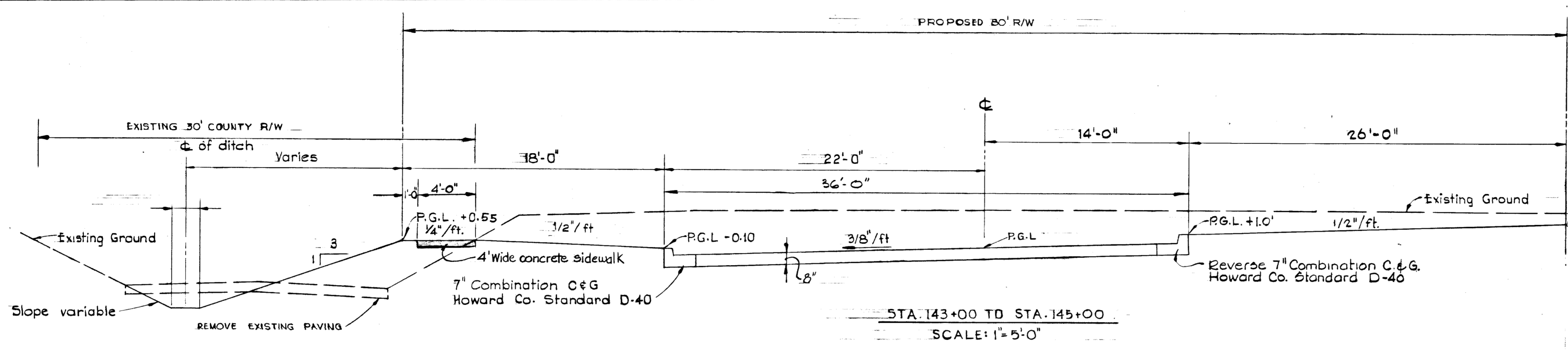


DETAIL "D"
 Scale: 1" = 30'

SIDEWALK DETAILS

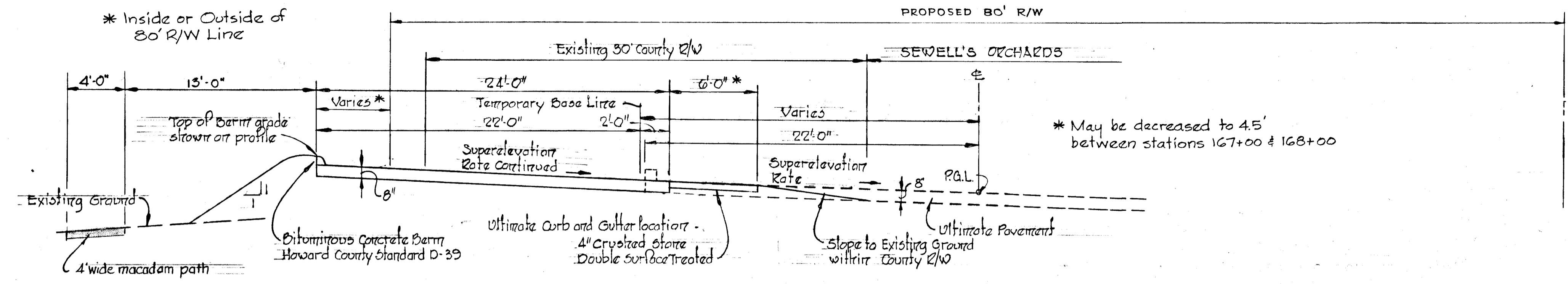
Rev. Date	Rev. No.	Revision Description
COLUMBIA 6 TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP.		
PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4 AREA 1		
PROJECT TITLE ROADWAY DETAILS		
SCALE: AS SHOWN		DATE: 5/23/74
WHITMAN, REQUARDT ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202		
Kenneth A. McCord Registered Engineer No. 1974		

DEPARTMENT OF PUBLIC WORKS
S. M. McLeod 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE
 OFFICE OF PLANNING AND ZONING
J. C. Johnson 5/31/74
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE

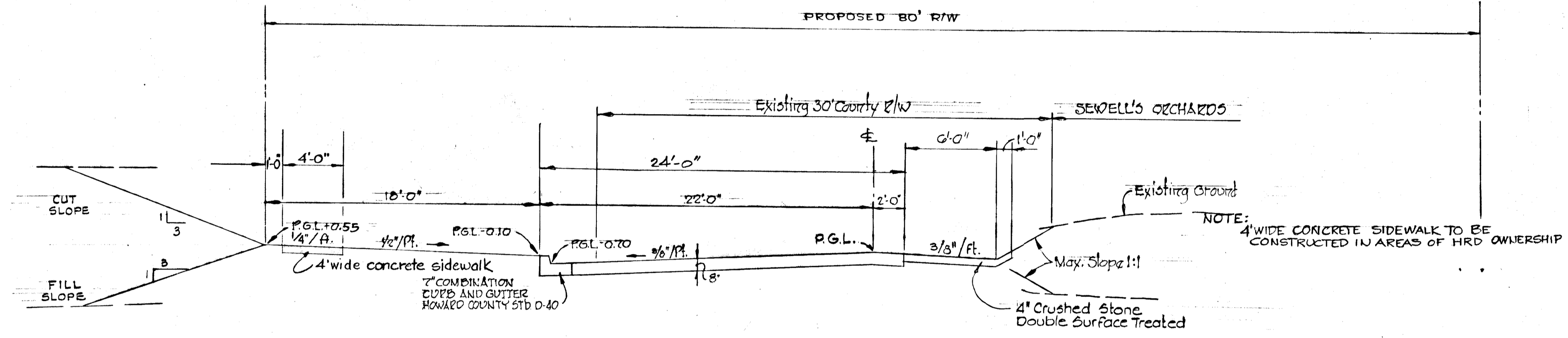


5/30/74
J. C. Johnson

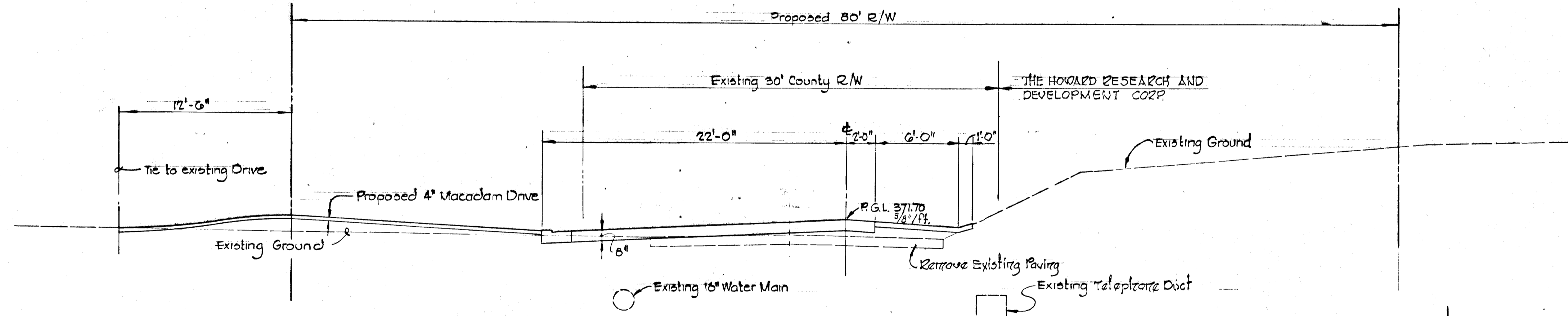
Rev. Date	Rev. No.	Revision Description
COLUMBIA 6 TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP.		
PROJECT AREA		
VILLAGE OF OWEN BROWN SECTION 4 AREA 1		
PROJECT TITLE		
OAKLAND MILLS ROAD		
SCALE: AS SHOWN		DATE: 5/23/74
WHITMAN, REQUARDT, ASSOCIATES ENGINEERS BALTIMORE, MARYLAND		
<i>Kenneth A. McCord</i> KENNETH A. MCCORD Registered Engineer No. 1974		



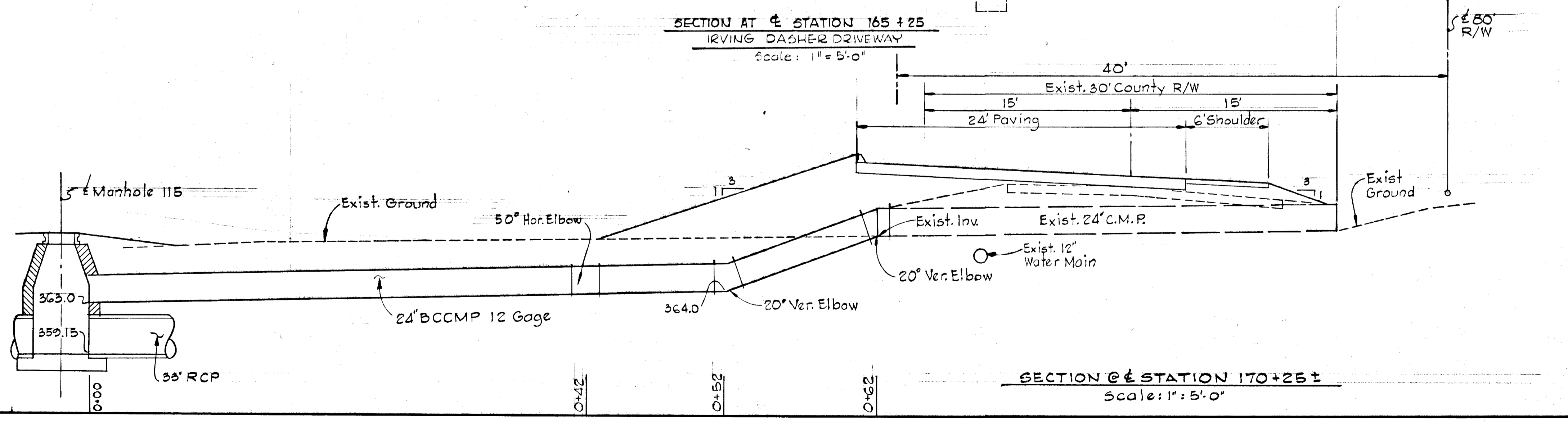
TYPICAL SECTION - 24' PAVING WIDTH SUPERELEVATED CONDITION 167+38.11 TO 173+39.09
 SCALE: 1" = 5'-0"



TYPICAL SECTION - 24' PAVING WIDTH-NORMAL CONDITION
 SCALE: 1" = 5'-0"



SECTION AT STATION 165+25
 IRVING DASHER DRIVEWAY
 Scale: 1" = 5'-0"

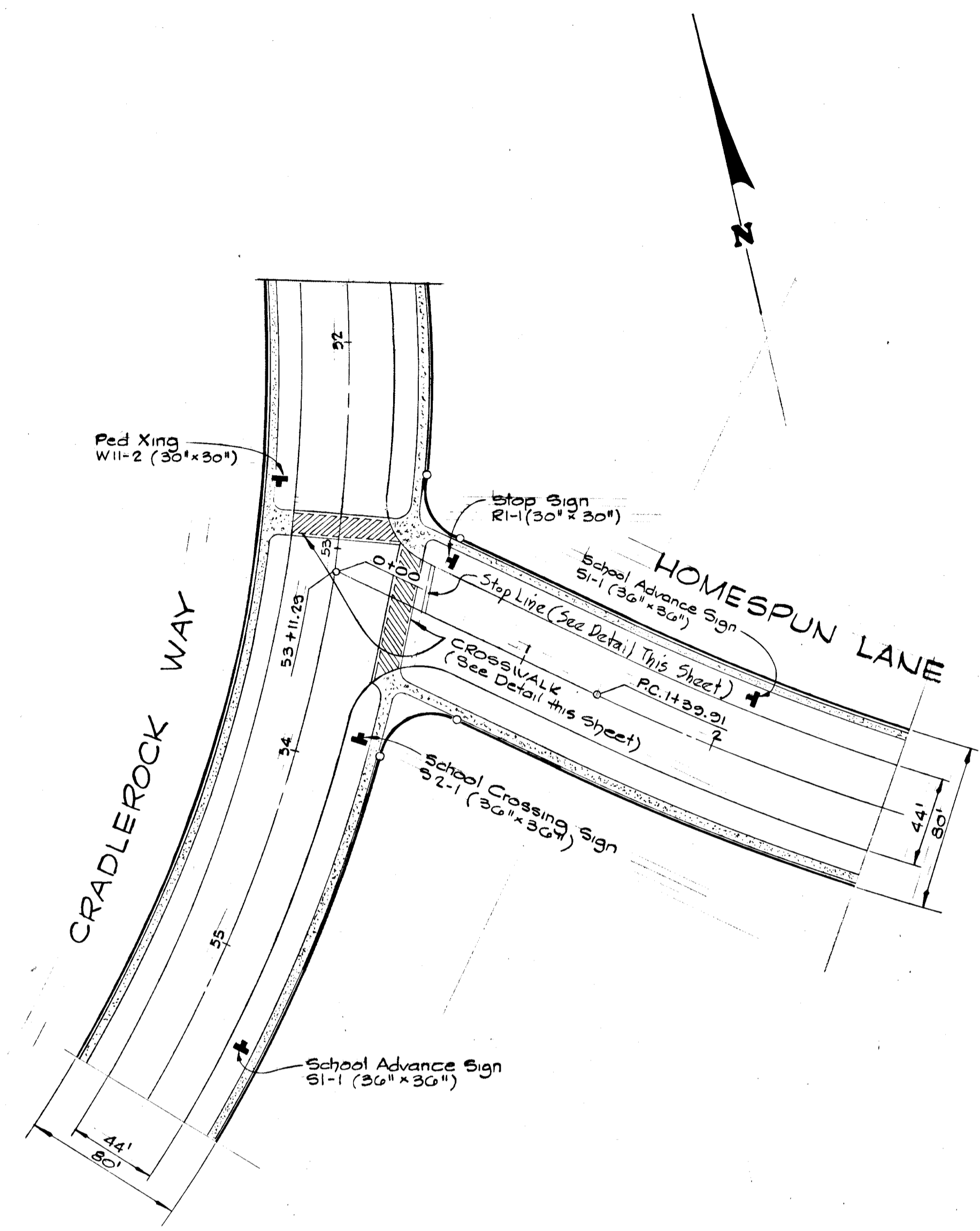


SECTION @ STATION 170+25 ±
 Scale: 1" = 5'-0"

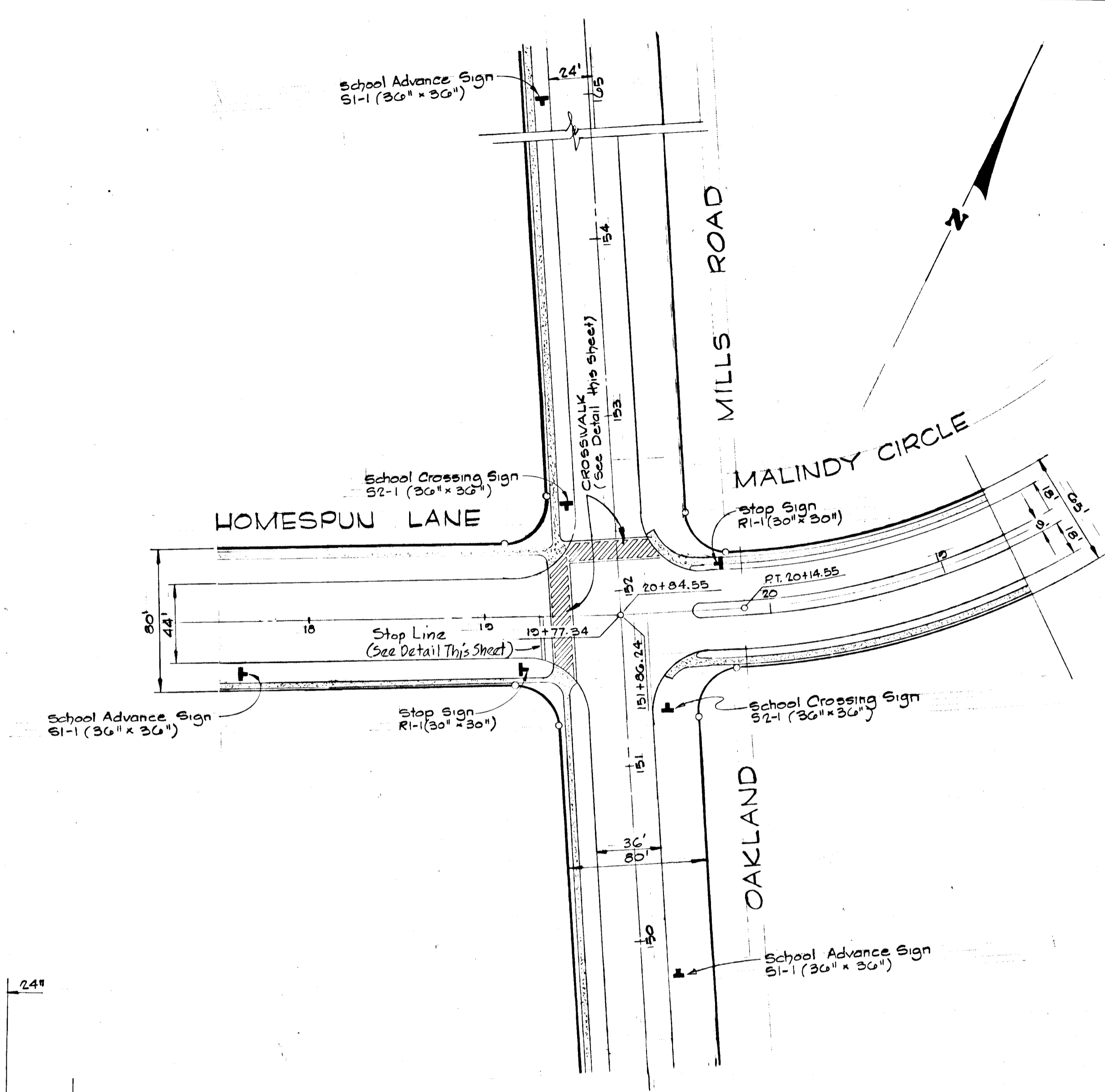
APPROVED
 DIVISION OF LAND DEVELOPMENT
 AND TRANSPORTATION PLANNING
 DATE: 5/30/74
J. P. Clawson, Jr.

Rev. Date	Rev. No.	Revision Description
COLUMBIA 6 th ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP.		
PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4 AREA 1		
PROJECT TITLE CROSS-SECTIONS & DRIVEWAY DETAILS OAKLAND MILLS ROAD		
SCALE: AS SHOWN		DATE: 5/23/74
WHITMAN, REQUAZDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202		
<i>Kenneth A. McCord</i> KENNETH A. MCCORD Registered Engineer No. 1974		

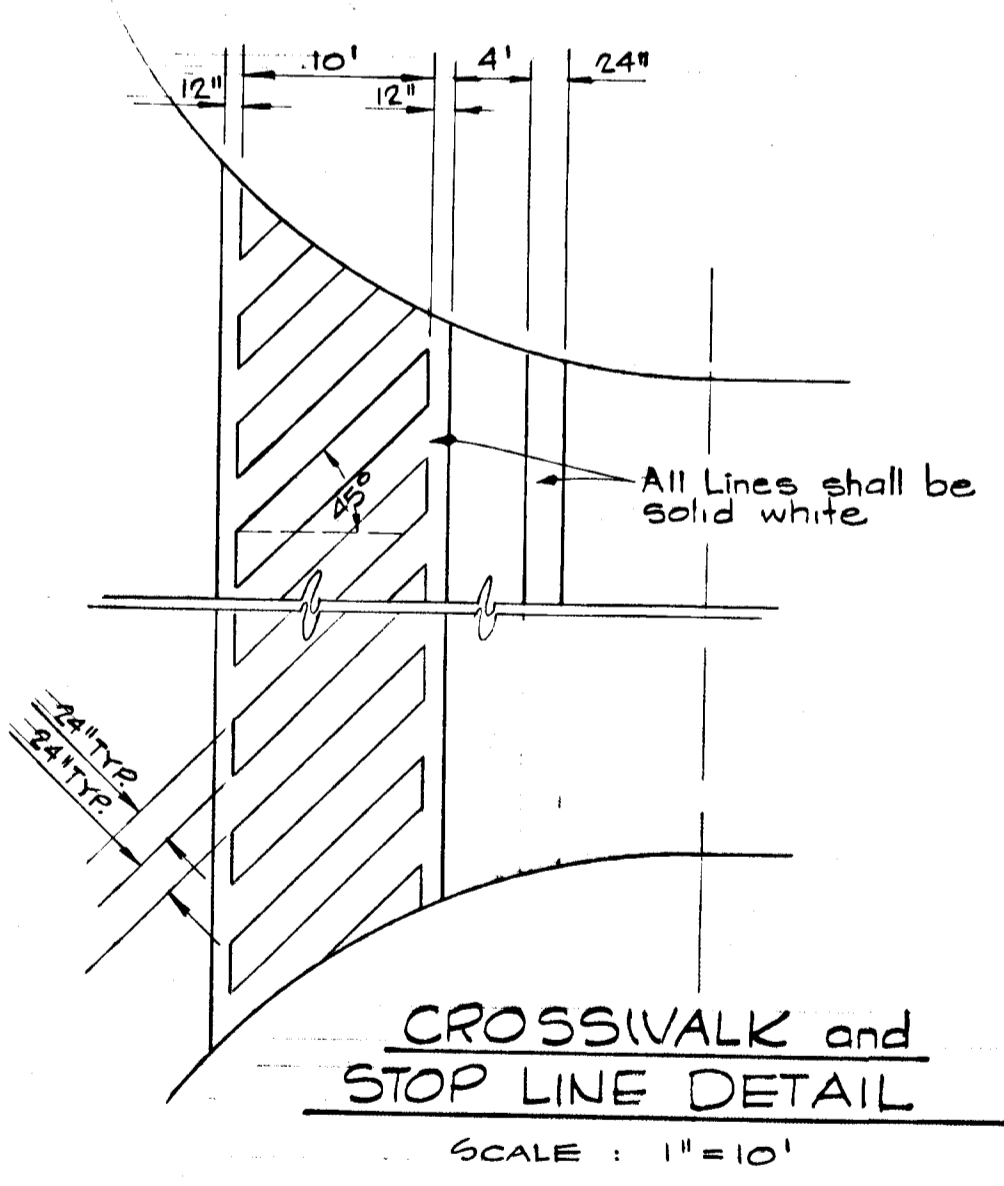
DEPARTMENT OF PUBLIC WORKS
D. W. Heiland 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE
 OFFICE OF PLANNING AND ZONING
J. H. Lawson, Jr. 5/31/74
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE



PLAN
 SCALE: 1" = 50'



PLAN
 SCALE: 1" = 50'



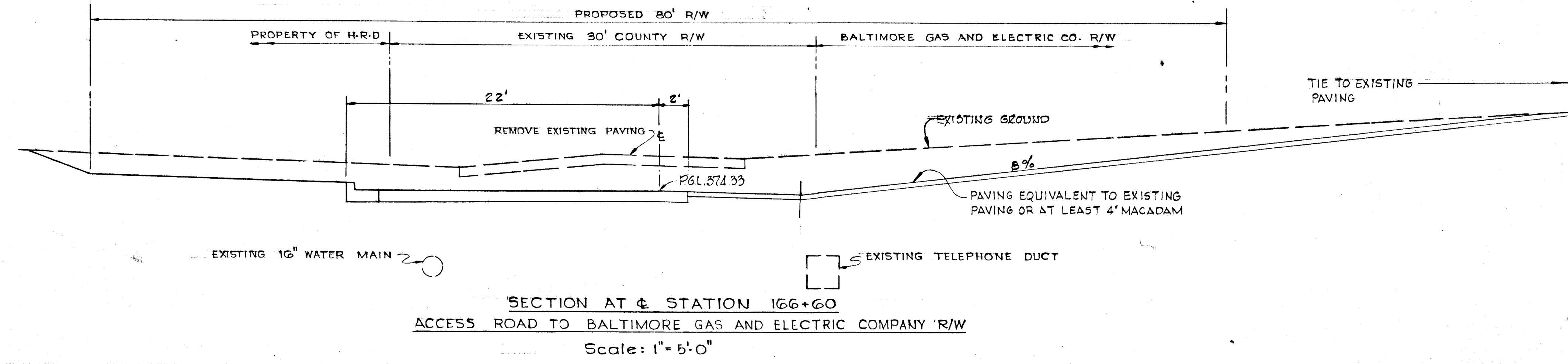
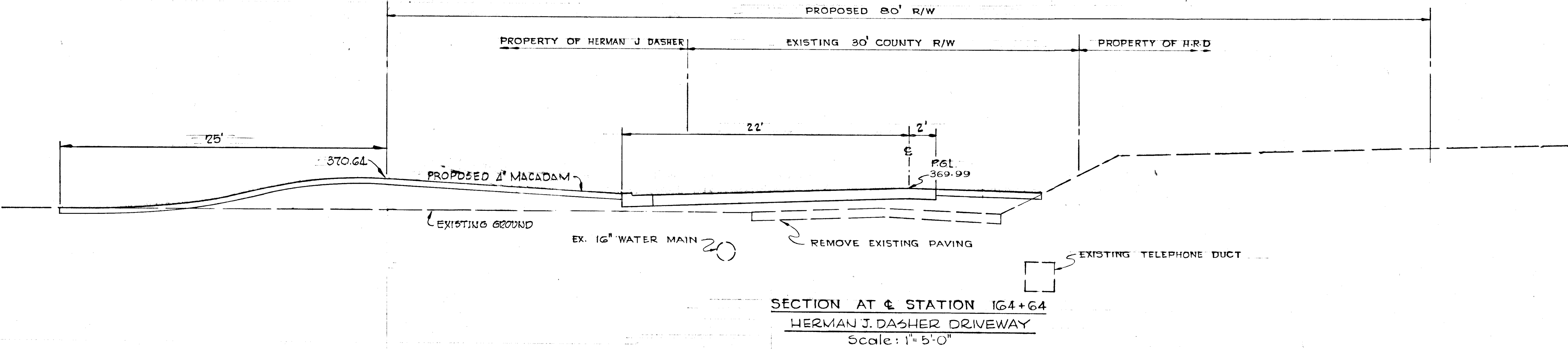
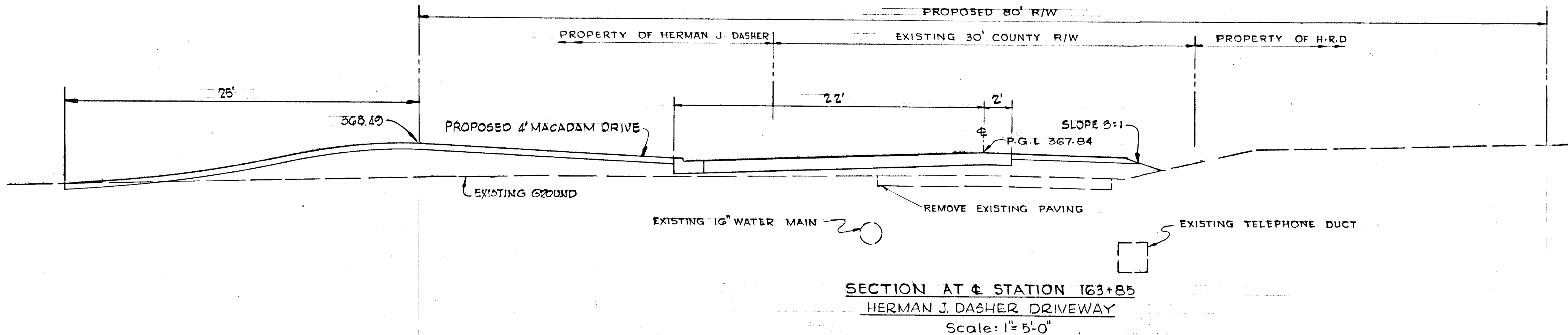
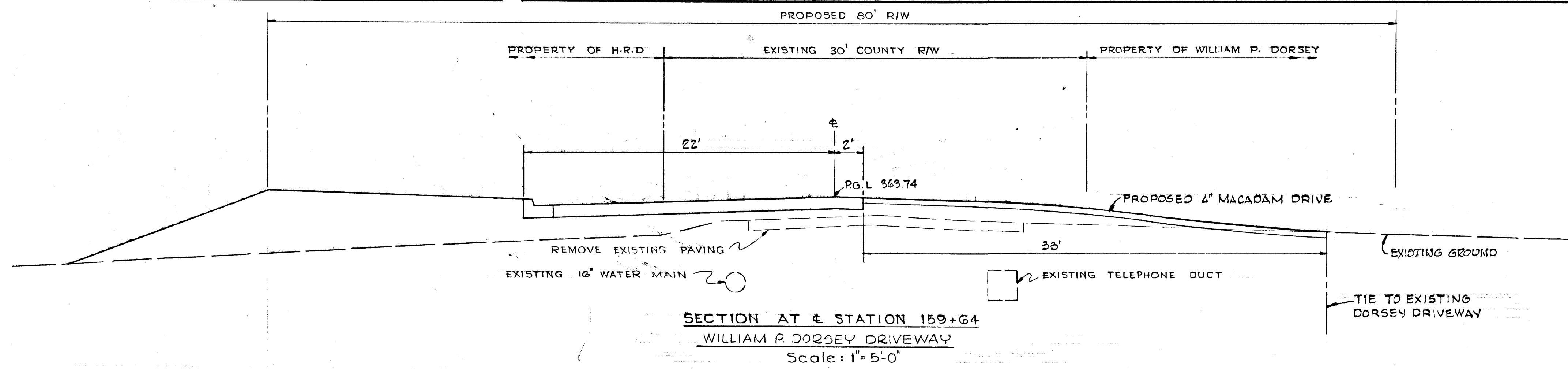
CROSSWALK and STOP LINE DETAIL
 SCALE: 1" = 10'

NOTE:
 1. Traffic control devices and their installation shall be in accordance with the Manual on Uniform Traffic Control Devices, 1971 Revised Edition.

APPROVED
 5/30/74
J. H. C. Jr.

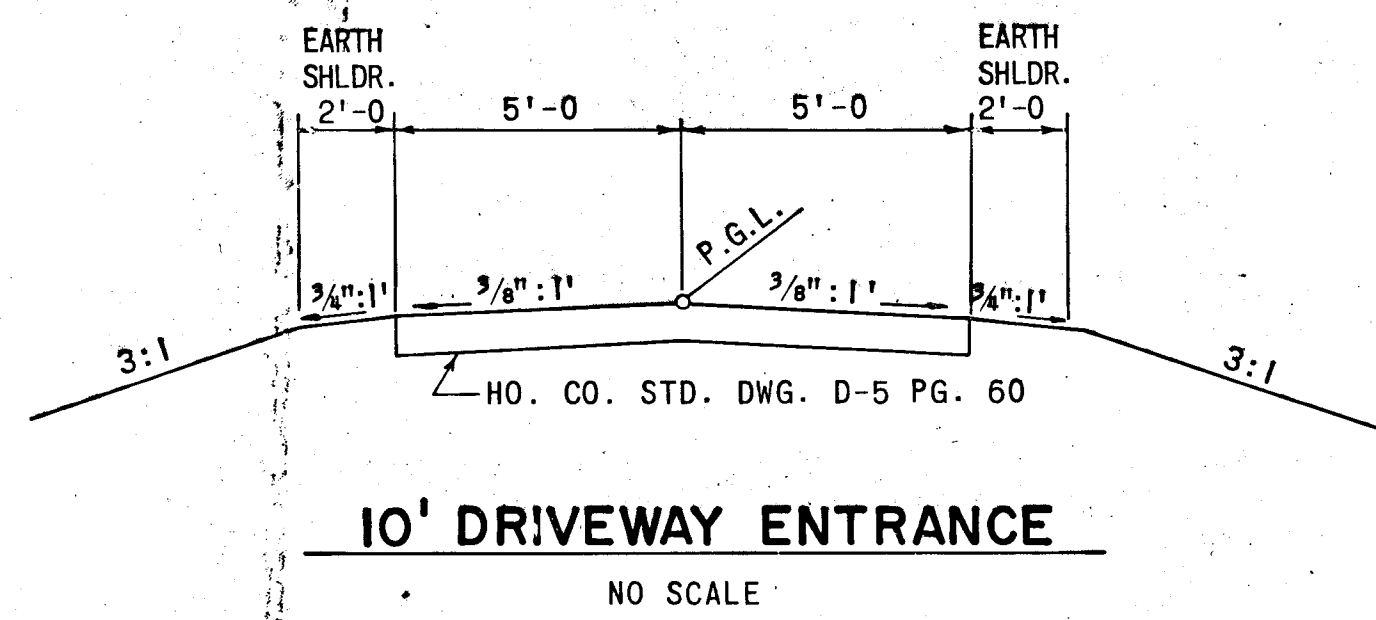
Rev. Date	Rev. No.	Revision Description
COLUMBIA 6 TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP.		
PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4 AREA 1		
PROJECT TITLE PEDESTRIAN AND SCHOOL CROSSING CONTROL		
SCALE: As Shown		DATE: 5/23/74
WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202		
<i>Kenneth A. McCord</i> KENNETH A. MCCORD Registered Engineer No. 1974		

DEPARTMENT OF PUBLIC WORKS
B. H. McLeod 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE
 OFFICE OF PLANNING AND ZONING
J. H. Dawson Jr. 5/31/74
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE



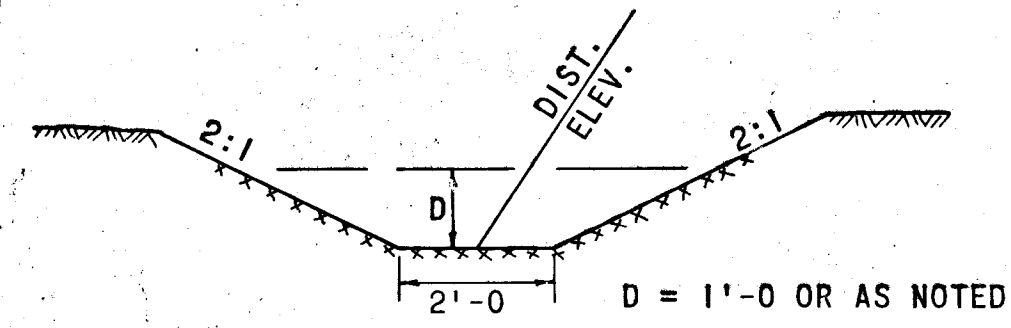
5/30/74
J. H. Dawson Jr.

Rev. Date	Rev. No.	Revision Description
COLUMBIA 6 TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP.		
PROJECT AREA VILLAGE OF OWEN BROWN SECTION 4 AREA 1		
PROJECT TITLE DRIVEWAY ENTRANCES OAKLAND MILLS ROAD		
SCALE: AS SHOWN		DATE: 5/23/74
WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND		
<i>Kenneth A. McCord</i> KENNETH A. McCORD Registered Engineer No. 1974		



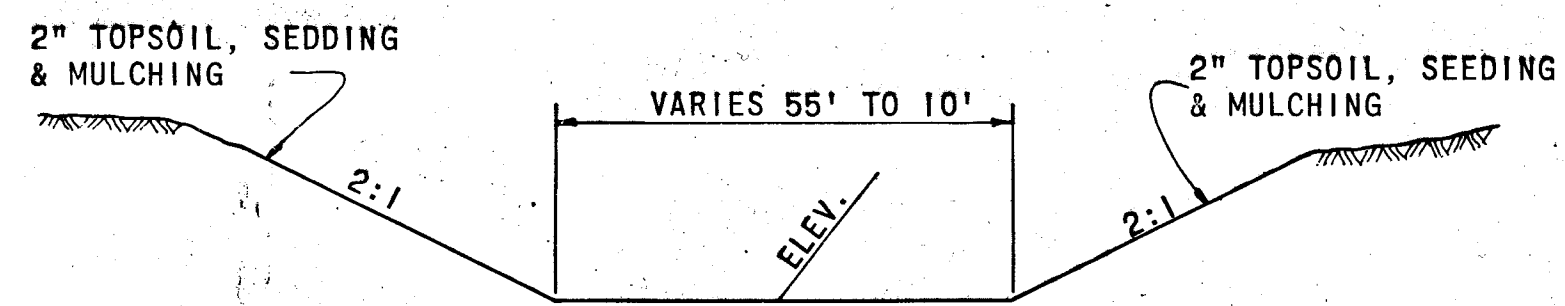
10' DRIVEWAY ENTRANCE

NO SCALE



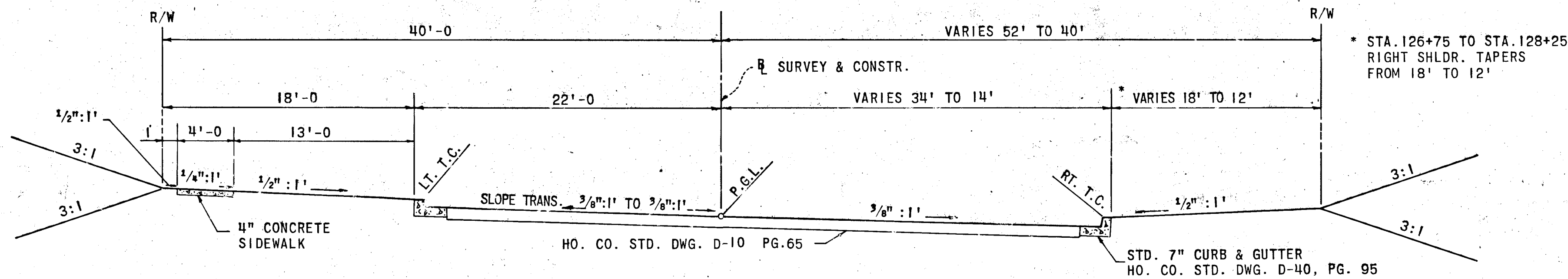
2' SOD SIDE DITCH

NO SCALE



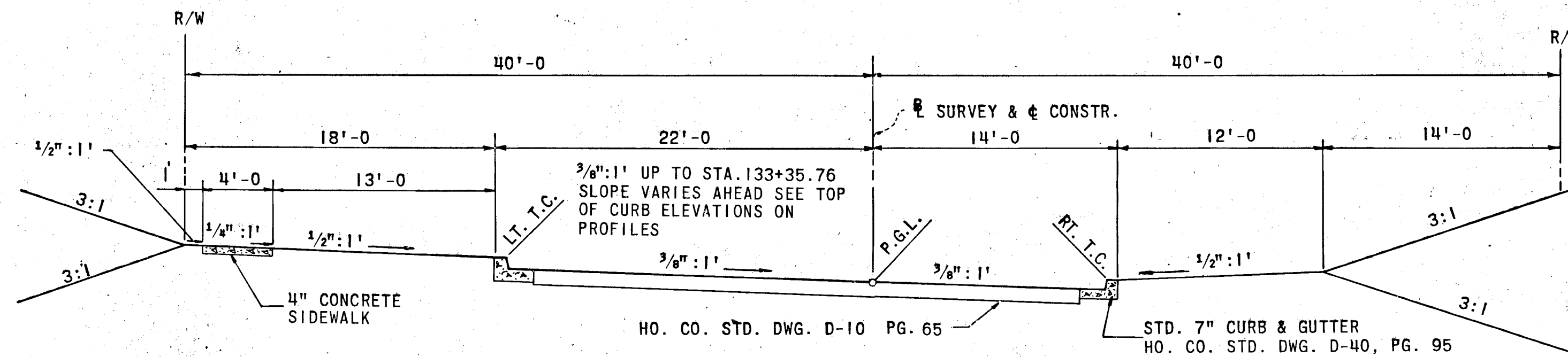
TYPICAL INLET & OUTLET DITCH @ STA. 139+50

NO SCALE



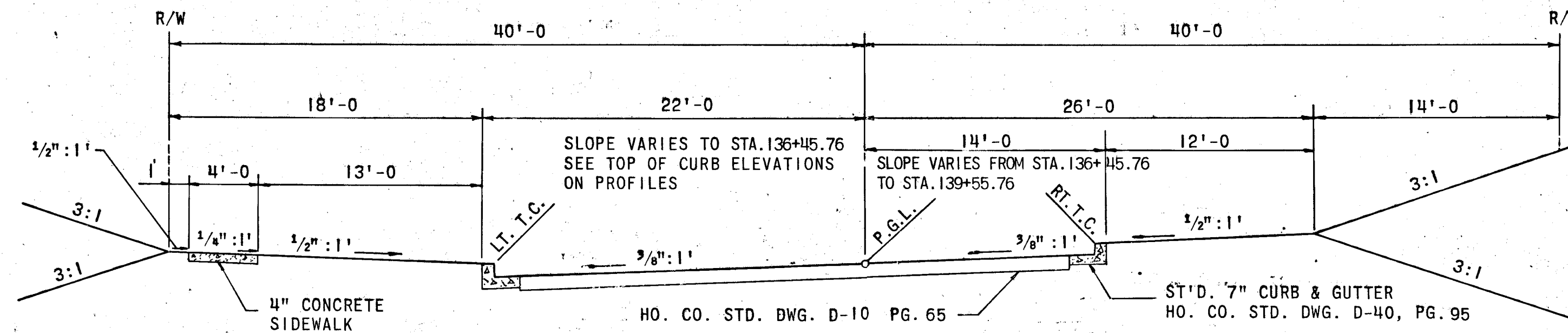
OAKLAND MILLS ROAD

STA. 125+47.64 TO STA. 131+75
SCALE: 1" = 6'-0"



OAKLAND MILLS ROAD

STA. 131+75 TO STA. 136+45.76
SCALE: 1" = 6'-0"



OAKLAND MILLS ROAD

STA. 136+45.76 TO STA. 143+00
SCALE: 1" = 6'-0"

BITUMINOUS CONCRETE SURFACE	1 1/2" BAND C-3	FINAL PHASE
BITUMINOUS CONCRETE BINDER	1 1/2" BAND A-3	
BITUMINOUS CONCRETE BASE	5" BAND C-2 OR G-3	FIRST PHASE

- CLEARING AND GRADING
SUBGRADE
BASE COURSE
BINDER COURSE
SURFACE COURSE
- ARTICLE C-1
ARTICLE C-2
ARTICLE C-31 OR C-33
ARTICLE C-31
ARTICLE C-31
- BASE WILL BE PRIMED IN ACCORDANCE WITH C-30-3 AS PROVIDED IN THE HOWARD COUNTY ROAD CONSTRUCTION CODE AND STANDARD SPECIFICATIONS.
 - TACK COAT IS REQUIRED IN ACCORDANCE WITH SECTION C-31-4 OF THE HOWARD COUNTY ROAD CONSTRUCTION CODE AND STANDARD SPECIFICATIONS.
 - TO BE CONSTRUCTED IN ACCORDANCE WITH THE HOWARD COUNTY ROAD CONSTRUCTION CODE AND SPECIFICATIONS.

SECTION D-10

BITUMINOUS CONCRETE SURFACE	1 1/2" BAND C-3
BITUMINOUS CONCRETE BASE	5" (GRAVEL MIX)

- CLEARING AND GRADING
SUBGRADE
BASE COURSE
SURFACE COURSE
- ARTICLE C-1
ARTICLE C-2
ARTICLE C-33
ARTICLE C-31
- TO BE CONSTRUCTED IN ACCORDANCE WITH THE HOWARD COUNTY ROAD CONSTRUCTION CODE AND SPECIFICATIONS

SECTION D-5

APPROVED
DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING
HOWARD COUNTY, MARYLAND
DATE: May 30, 1974
J.R. Jr. R.

GREEN ASSOCIATES, INC.
CONSULTING ENGINEERS
TOWSON, MARYLAND

4-16-74 2 REVISED PAVING WIDTH & SHLDR. WIDTH

COLUMBIA

6TH ELECTION DISTRICT HOWARD COUNTY

VILLAGE OF OWEN BROWN
SECTION 1 AREA 1
SIELING INDUSTRIAL CENTER
SECTION 1 AREA 1

TYPICAL SECTIONS

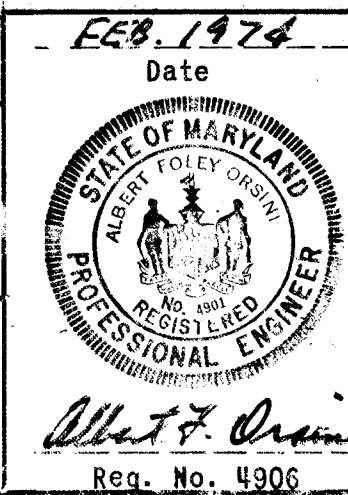
2 OF 9

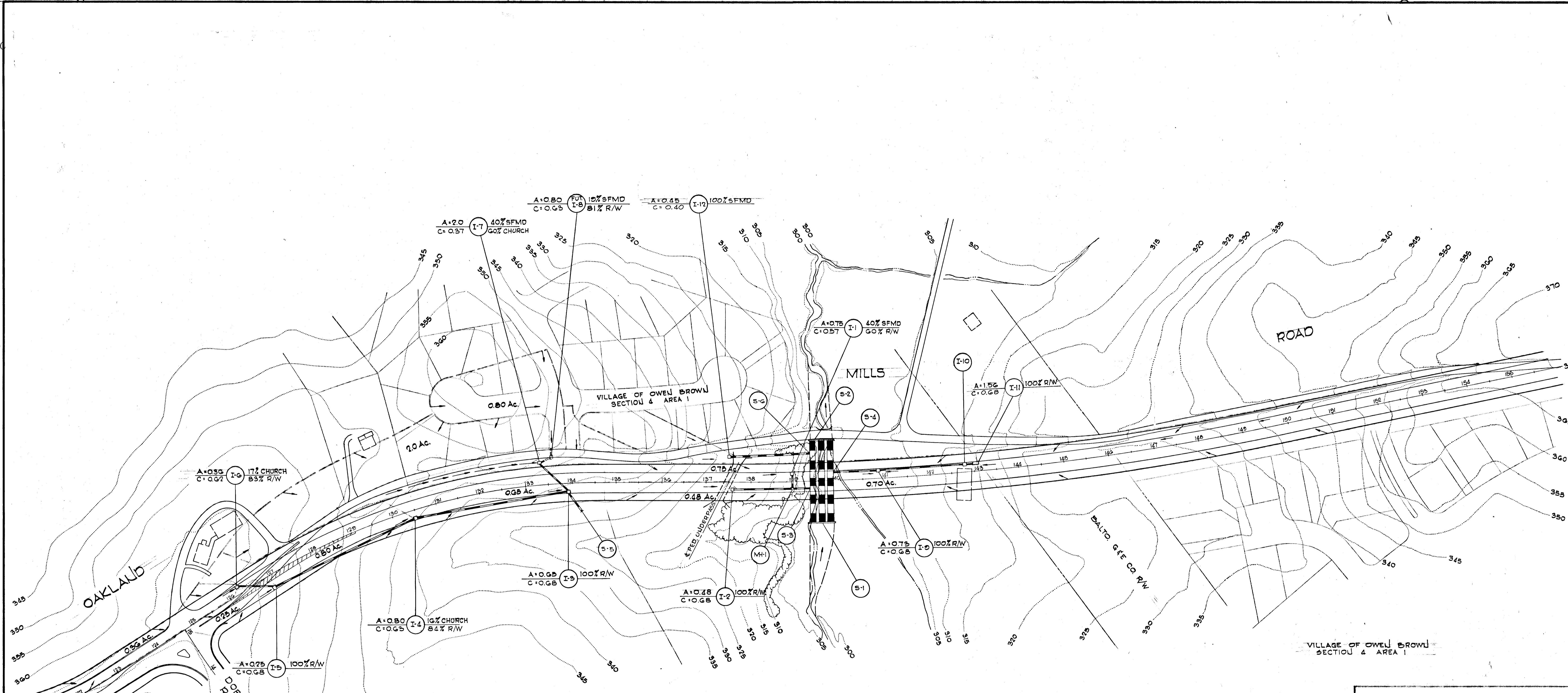
DEPARTMENT OF PUBLIC WORKS

S. M. McKeand 5/31/74
CHIEF, BUREAU OF HIGHWAYS DATE

OFFICE OF PLANNING AND ZONING

J. H. Clawson, Jr. 5/31/74
CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE

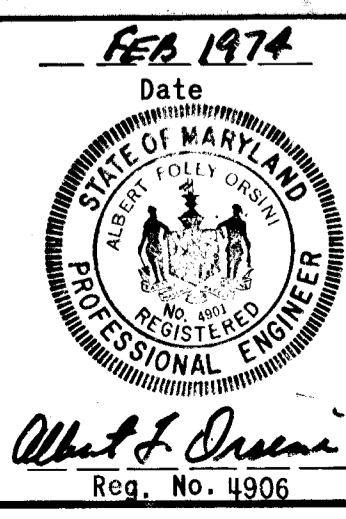




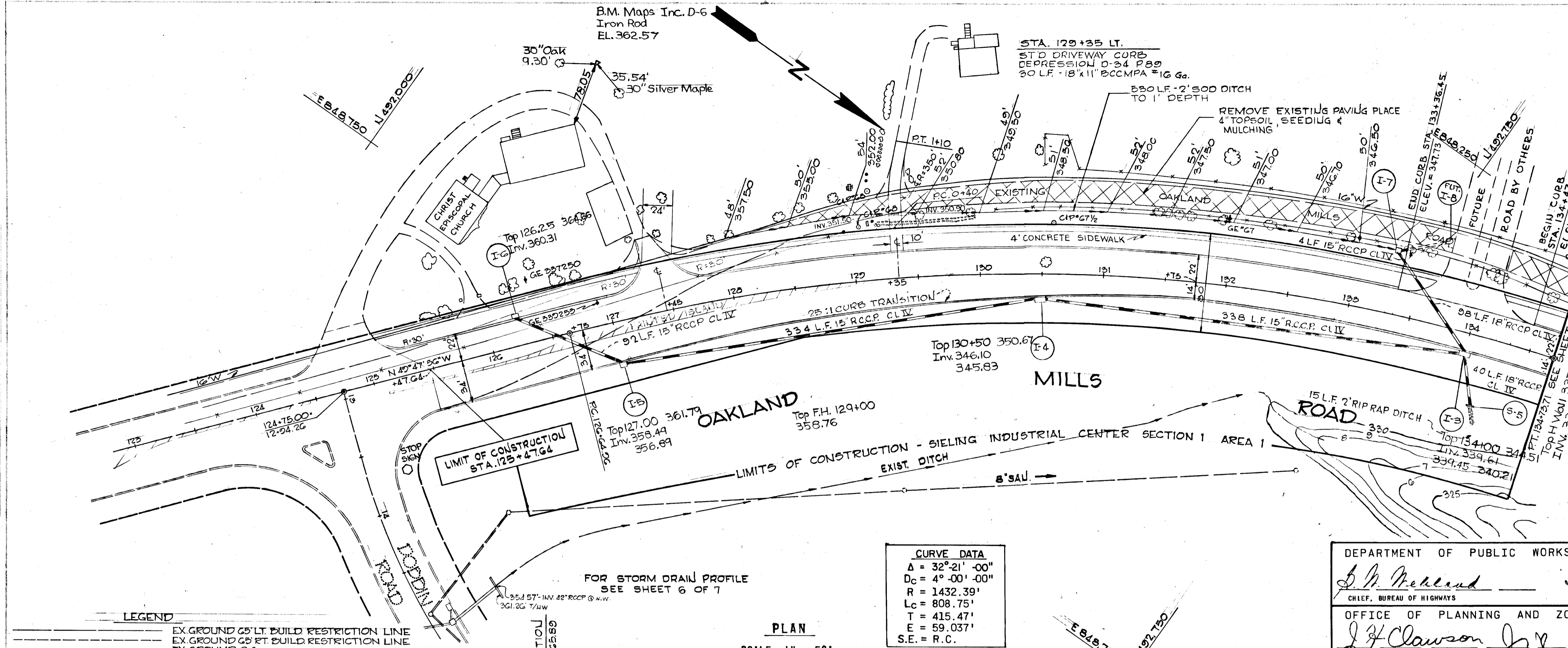
APPROVED
 DIVISION OF LAND DEVELOPMENT
 AND TRANSPORTATION PLANNING
 HOWARD COUNTY, MARYLAND
 DATE 5/30/74
 JHC jr

GREEN ASSOCIATES, INC. CONSULTING ENGINEERS TOWSON, MARYLAND		
3-12-74	I	REVISED S.D. DUE TO PED. UNDERPASS
Rev. Date	Rev. No.	Revision Description
COLUMBIA MARYLAND 6TH SECTION DISTRICT HOWARD COUNTY		
HOWARD RESEARCH AND DEVELOPMENT CORP. COLUMBIA, MARYLAND		
PROJECT AREA	VILLAGE OF OWEN BROWN SECTION 4 AREA 1 SIELING INDUSTRIAL CENTER SECTION 1 AREA 1	
PROJECT TITLE	DRAINAGE AREA MAP	
Prep. By K.A.L.	Scale 1" = 100'	Sheet No. 3 OF 9
Des. By D.C.	Date 4-17-1974	C.E.T.
Chk. By J.T.J.	Approved	

DEPARTMENT OF PUBLIC WORK
J. B. McLeod 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE
 OFFICE OF PLANNING AND ZONING
J. H. Clawson Jr. 5/31/74
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE



STRUCTURE SCHEDULE						
NO.	TYPE	LOCATION	INV. IN	INV. OUT	T.C.P. ELEV.	REMARKS
I-3	A-10	STA. 134+00-14' RT.	351.72 339.67	339.47	344.69	HO. CO. DWG. D-64A, PG. 119A
I-4	A-10	STA. 130+50-19' RT.	346.14	345.94	350.47	HO. CO. DWG. D-64A, PG. 119A
I-5	A-5	STA. 127+00-33' RT.	357.50	357.30	361.86	HO. CO. DWG. D-64A, PG. 119A
I-6	A-5	STA. 126+25-22' LT.	---	360.50	364.63	HO. CO. DWG. D-64A, PG. 119A
I-7	TYPE 'C'	STA. 133+30-52' LT.	340.90	340.65	TOP 347.00	HO. CO. DWG. D-64-C, PG. 119-C
I-8	FUTURE INLET	BY OTHERS	---	---	---	---
S-5	'C' ENDWALL	STA. 134+16-54' RT.	---	333.47	---	HO. CO. DWG. D-52, PG. 107



CURVE DATA

Δ = 32° 21' - 00"
 D_c = 4° - 00' - 00"
 R = 1432.39'
 L_c = 808.75'
 T = 415.47'
 E = 59.037'
 S.E. = R.C.

PLAN
 SCALE: 1" = 50'

DEPARTMENT OF PUBLIC WORKS
S. B. McLeod 5/31/74
 CHIEF, BUREAU OF HIGHWAYS DATE

OFFICE OF PLANNING AND ZONING
J. F. Clawson 5/31/74
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE

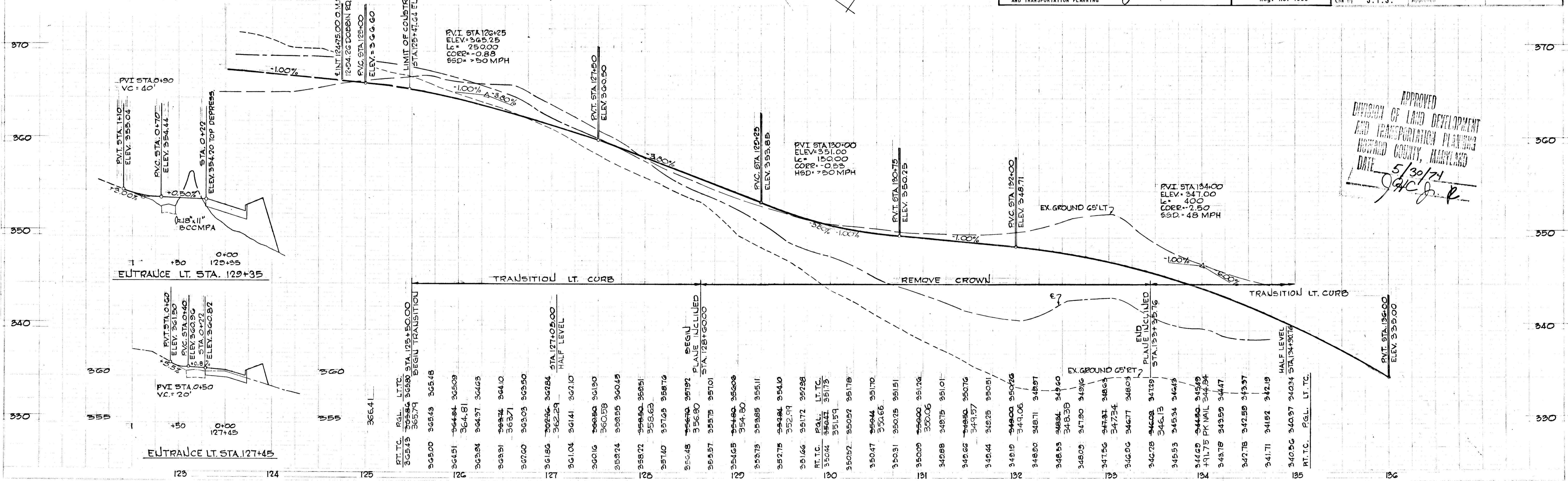


GREEN ASSOCIATES, INC.
 CONSULTING ENGINEERS
 TOWSON, MARYLAND

3-12-74 1 REVISED OUTLET FROM I-3 TO S-5
 4-16-74 2 REVISED PAVING WIDTH & SHLDR. WIDTH

COLUMBIA
 MARYLAND
 6TH ELECTION DISTRICT HOWARD COUNTY
 HOWARD RESEARCH AND DEVELOPMENT CORP.
 VILLAGE OF OWEN BROWN
 SECTION 4 AREA 1
 SIEMING INDUSTRIAL CENTER
 SECTION 1 AREA 1
 OAKLAND MILLS ROAD
 STA. 125+47.64 TO 134+73.71

Des. By K.A.L. Date AS SHOWN Dep. No. 4 OF 9
 Dir. By D.C. Date 4-17-1974 C.C.F. No.
 Chk. By J.T.J. Approved



APPROVED
 DIVISION OF LAND DEVELOPMENT
 AND TRANSPORTATION PLANNING
 HOWARD COUNTY, MARYLAND
 DATE 5/30/74
J. F. Clawson

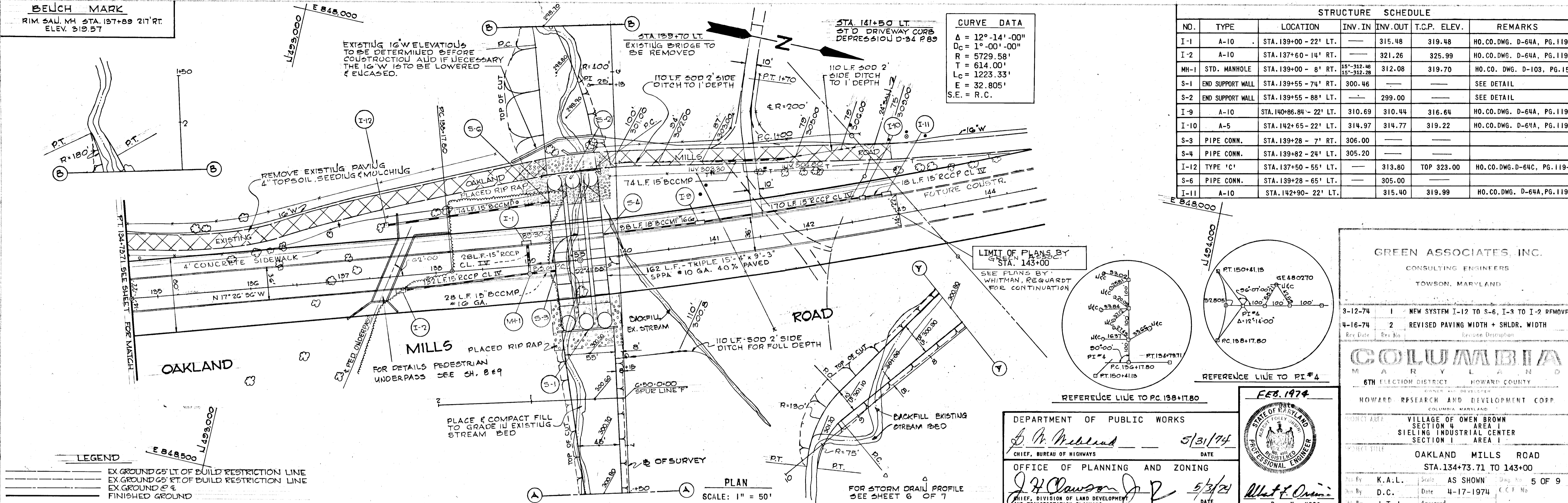
STATION	ELEVATION	REMARKS
125+00	366.41	PVI STA. 125+00
125+10	364.51	PVI STA. 125+10
125+20	362.61	PVI STA. 125+20
125+30	360.71	PVI STA. 125+30
125+40	358.81	PVI STA. 125+40
125+50	356.91	PVI STA. 125+50
125+60	355.01	PVI STA. 125+60
125+70	353.11	PVI STA. 125+70
125+80	351.21	PVI STA. 125+80
125+90	349.31	PVI STA. 125+90
126+00	347.41	PVI STA. 126+00
126+10	345.51	PVI STA. 126+10
126+20	343.61	PVI STA. 126+20
126+30	341.71	PVI STA. 126+30
126+40	339.81	PVI STA. 126+40
126+50	337.91	PVI STA. 126+50
126+60	336.01	PVI STA. 126+60
126+70	334.11	PVI STA. 126+70
126+80	332.21	PVI STA. 126+80
126+90	330.31	PVI STA. 126+90
127+00	328.41	PVI STA. 127+00
127+10	326.51	PVI STA. 127+10
127+20	324.61	PVI STA. 127+20
127+30	322.71	PVI STA. 127+30
127+40	320.81	PVI STA. 127+40
127+50	318.91	PVI STA. 127+50
127+60	317.01	PVI STA. 127+60
127+70	315.11	PVI STA. 127+70
127+80	313.21	PVI STA. 127+80
127+90	311.31	PVI STA. 127+90
128+00	309.41	PVI STA. 128+00
128+10	307.51	PVI STA. 128+10
128+20	305.61	PVI STA. 128+20
128+30	303.71	PVI STA. 128+30
128+40	301.81	PVI STA. 128+40
128+50	299.91	PVI STA. 128+50
128+60	298.01	PVI STA. 128+60
128+70	296.11	PVI STA. 128+70
128+80	294.21	PVI STA. 128+80
128+90	292.31	PVI STA. 128+90
129+00	290.41	PVI STA. 129+00
129+10	288.51	PVI STA. 129+10
129+20	286.61	PVI STA. 129+20
129+30	284.71	PVI STA. 129+30
129+40	282.81	PVI STA. 129+40
129+50	280.91	PVI STA. 129+50
129+60	279.01	PVI STA. 129+60
129+70	277.11	PVI STA. 129+70
129+80	275.21	PVI STA. 129+80
129+90	273.31	PVI STA. 129+90
130+00	271.41	PVI STA. 130+00
130+10	269.51	PVI STA. 130+10
130+20	267.61	PVI STA. 130+20
130+30	265.71	PVI STA. 130+30
130+40	263.81	PVI STA. 130+40
130+50	261.91	PVI STA. 130+50
130+60	260.01	PVI STA. 130+60
130+70	258.11	PVI STA. 130+70
130+80	256.21	PVI STA. 130+80
130+90	254.31	PVI STA. 130+90
131+00	252.41	PVI STA. 131+00
131+10	250.51	PVI STA. 131+10
131+20	248.61	PVI STA. 131+20
131+30	246.71	PVI STA. 131+30
131+40	244.81	PVI STA. 131+40
131+50	242.91	PVI STA. 131+50
131+60	241.01	PVI STA. 131+60
131+70	239.11	PVI STA. 131+70
131+80	237.21	PVI STA. 131+80
131+90	235.31	PVI STA. 131+90
132+00	233.41	PVI STA. 132+00
132+10	231.51	PVI STA. 132+10
132+20	229.61	PVI STA. 132+20
132+30	227.71	PVI STA. 132+30
132+40	225.81	PVI STA. 132+40
132+50	223.91	PVI STA. 132+50
132+60	222.01	PVI STA. 132+60
132+70	220.11	PVI STA. 132+70
132+80	218.21	PVI STA. 132+80
132+90	216.31	PVI STA. 132+90
133+00	214.41	PVI STA. 133+00
133+10	212.51	PVI STA. 133+10
133+20	210.61	PVI STA. 133+20
133+30	208.71	PVI STA. 133+30
133+40	206.81	PVI STA. 133+40
133+50	204.91	PVI STA. 133+50
133+60	203.01	PVI STA. 133+60
133+70	201.11	PVI STA. 133+70
133+80	199.21	PVI STA. 133+80
133+90	197.31	PVI STA. 133+90
134+00	195.41	PVI STA. 134+00

BELCH MARK
RIM. SAU. MH STA. 137+88 217 RT.
ELEV. 319.57

EXISTING 16" W ELEVATIONS TO BE DETERMINED BEFORE CONSTRUCTION AND IF NECESSARY THE 16" W IS TO BE LOWERED & EUCASED.

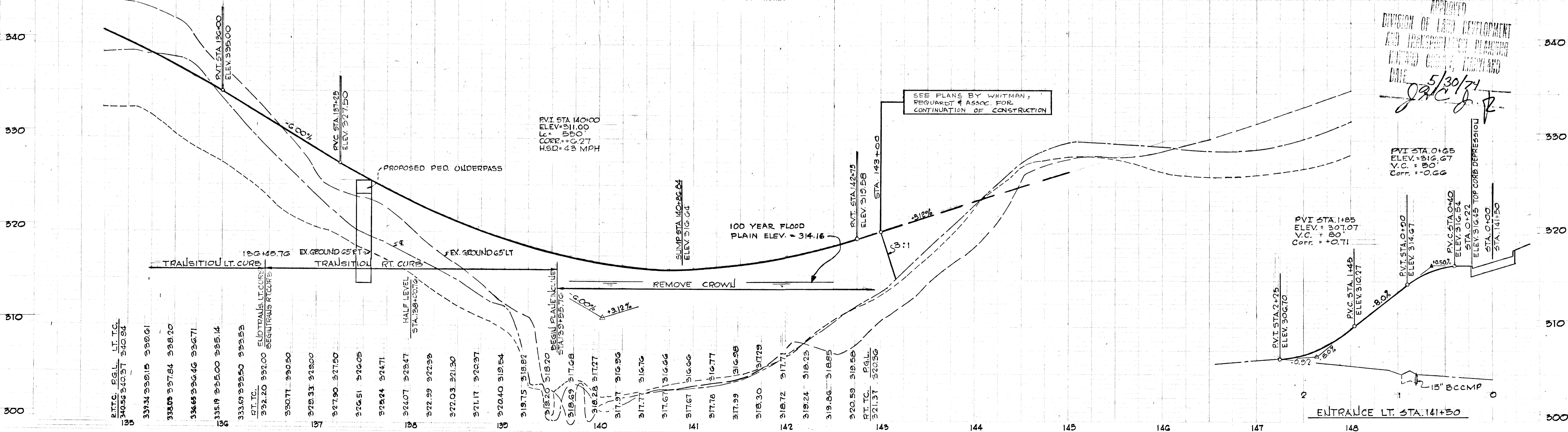
CURVE DATA
A = 12°-14'-00"
Dc = 1°-00'-00"
R = 5729.58'
T = 614.00'
Lc = 1223.33'
E = 32.805'
S.E. = R.C.

STRUCTURE SCHEDULE						
NO.	TYPE	LOCATION	INV. IN	INV. OUT	T.C.P. ELEV.	REMARKS
I-1	A-10	STA. 139+00 - 22' LT.	---	315.48	319.48	HO. CO. DWG. D-64A, PG. 119A
I-2	A-10	STA. 137+60 - 14' RT.	---	321.26	325.99	HO. CO. DWG. D-64A, PG. 119A
MH-1	STD. MANHOLE	STA. 139+00 - 8' RT.	15'-312.46	15'-312.28	319.70	HO. CO. DWG. D-103, PG. 158
S-1	END SUPPORT WALL	STA. 139+55 - 74' RT.	300.46	---	---	SEE DETAIL
S-2	END SUPPORT WALL	STA. 139+55 - 88' LT.	---	299.00	---	SEE DETAIL
I-9	A-10	STA. 140+86.84 - 22' LT.	310.69	310.44	316.64	HO. CO. DWG. D-64A, PG. 119A
I-10	A-5	STA. 142+65 - 22' LT.	314.97	314.77	319.22	HO. CO. DWG. D-64A, PG. 119A
S-3	PIPE CONN.	STA. 139+28 - 7' RT.	306.00	---	---	---
S-4	PIPE CONN.	STA. 139+82 - 24' LT.	305.20	---	---	---
I-12	TYPE 'C'	STA. 137+50 - 55' LT.	---	---	TOP 323.00	HO. CO. DWG. D-64C, PG. 119-C
S-6	PIPE CONN.	STA. 139+28 - 65' LT.	---	305.00	---	---
I-11	A-10	STA. 142+90 - 22' LT.	315.40	319.99	---	HO. CO. DWG. D-64A, PG. 119A



LEGEND
EX GROUND 65' LT. OF BUILD RESTRICTION LINE
EX GROUND 65' RT. OF BUILD RESTRICTION LINE
EX GROUND 6" & FINISHED GROUND

PVI STA. 134+00
ELEV. 317.00
V.C. = 400'
CORR. = 2.50
SSD = 48 MPH



DEPARTMENT OF PUBLIC WORKS
5/31/74
CHIEF, BUREAU OF HIGHWAYS

OFFICE OF PLANNING AND ZONING
5/3/74
CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING

REG. NO. 4905

GREEN ASSOCIATES, INC.
CONSULTING ENGINEERS
TOWSON, MARYLAND

3-12-74 1 NEW SYSTEM I-12 TO S-6, I-3 TO I-2 REMOVED
4-16-74 2 REVISED PAVING WIDTH + SHLDR. WIDTH

COLUMBIA
MARYLAND
6TH ELECTION DISTRICT HOWARD COUNTY

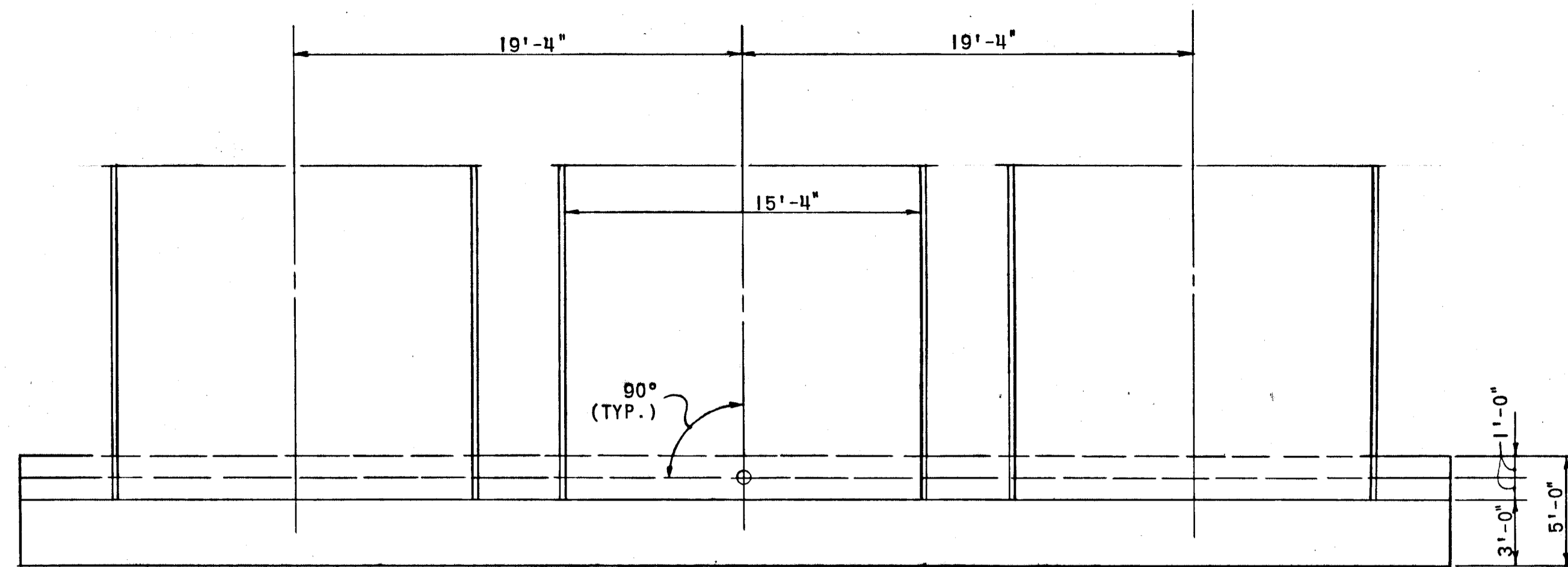
HOWARD RESEARCH AND DEVELOPMENT CORP.
COLUMBIA, MARYLAND

VILLAGE OF OWEN BROWN
SECTION 4 AREA 1
SIELING INDUSTRIAL CENTER
SECTION 1 AREA 1

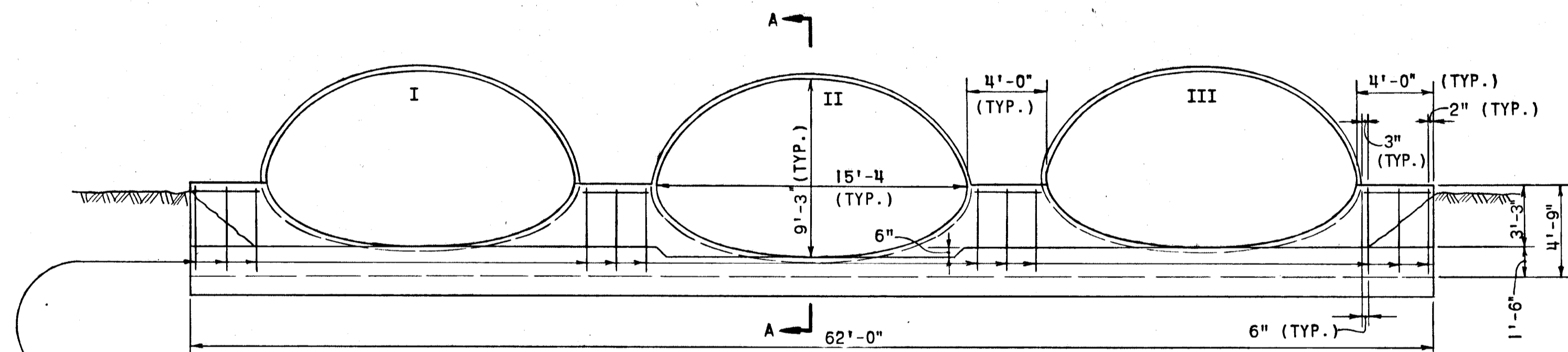
OAKLAND MILLS ROAD
STA. 134+73.71 TO 143+00

Scale AS SHOWN
Date 4-17-1974

APPROVED
DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING
HOWARD COUNTY, MARYLAND
5/30/74
JAC J.P.

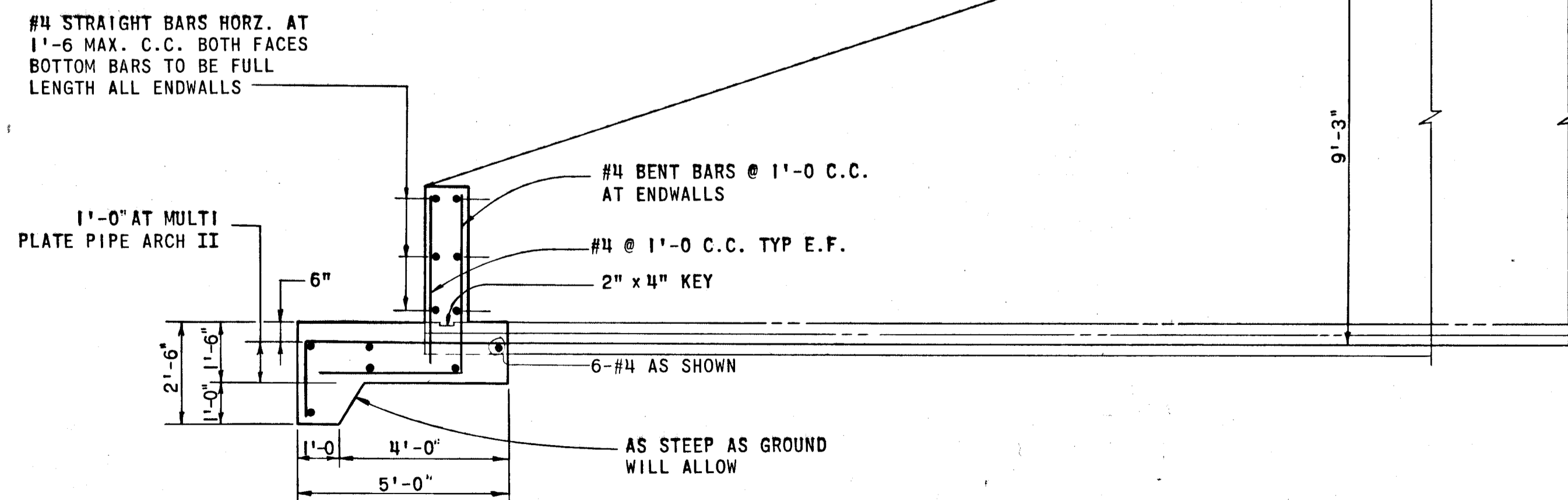


PLAN
TRIPLE 15'-4 x 9'-3 MULTI PLATE PIPE ARCH
SCALE: 3/16" = 1'-0



ELEVATION
SCALE: 3/16" = 1'-0

#4 STRAIGHT BARS HORIZ. AT 1'-6 MAX. C.C. BOTH FACES BOTTOM BARS TO BE FULL LENGTH ALL ENDWALLS

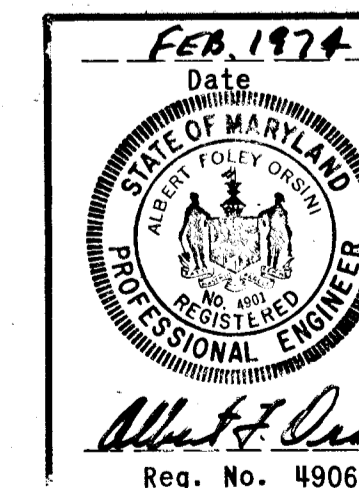


NOTE: INVERT AT MULTI PLATE PIPE ARCH II IS 6" LOWER THAN MULTI PLATE PIPE ARCH I AND III

SECTION 'A-A'
SCALE: 3/8" = 1'-0

APPROVED
DIVISION OF LAND DEVELOPMENT
AND TRANSPORTATION PLANNING
HOWARD COUNTY, MARYLAND
DATE 5/31/74
J.P.C. J.R.

DEPARTMENT OF PUBLIC WORKS
D.P. Mansueti 5/31/74
CHIEF, BUREAU OF HIGHWAYS DATE
OFFICE OF PLANNING AND ZONING
J.P. Clawson J.R. 5/31/74
CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE



GREEN ASSOCIATES, INC.
CONSULTING ENGINEERS
TOWSON, MARYLAND

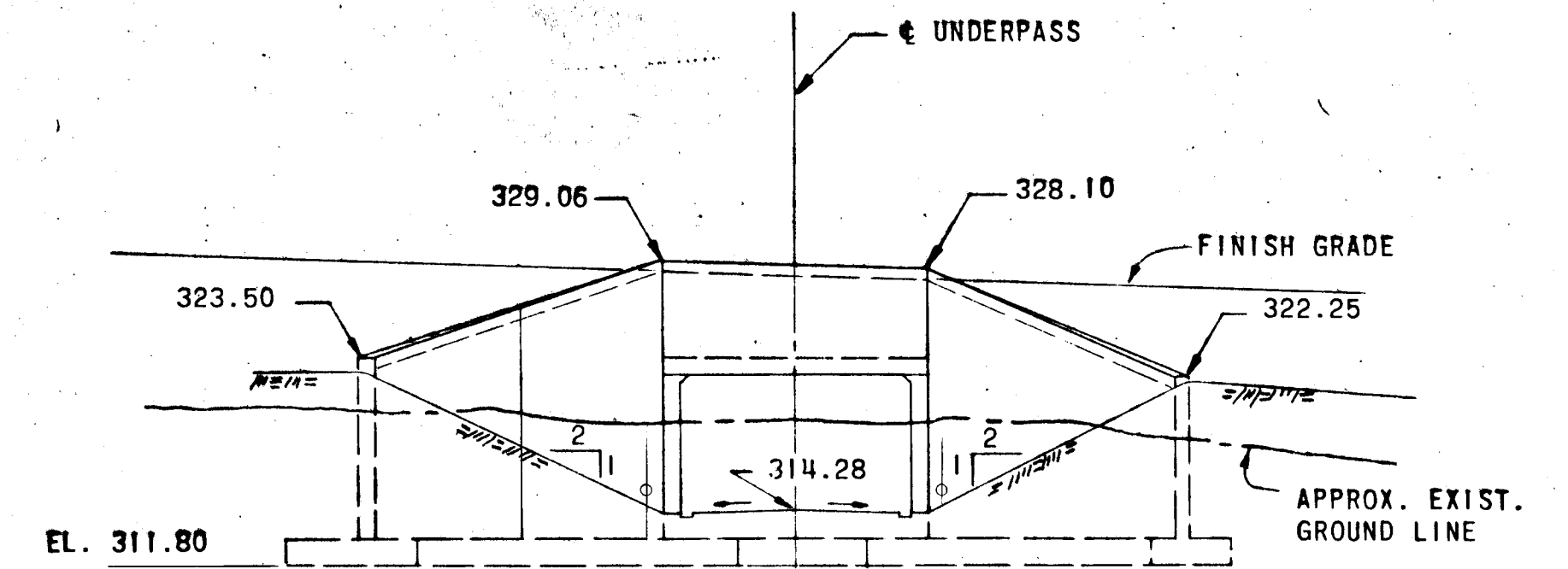
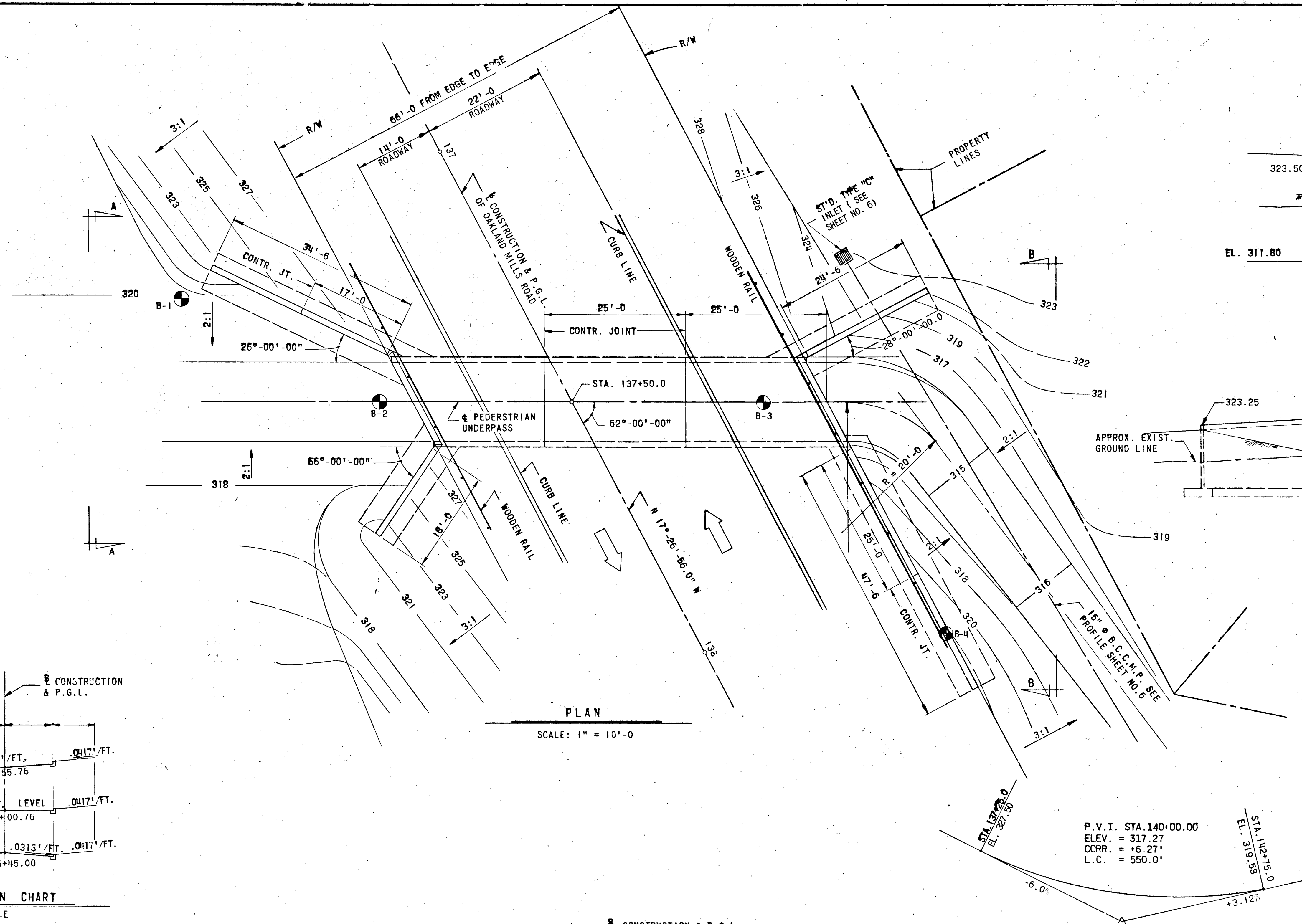
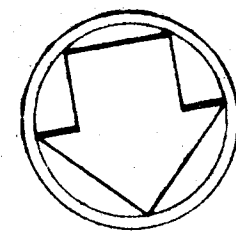
Date	Rev. No.	Revision Description
5/31/74		

COLUMBIA
M A R Y L A N D
6TH ELECTION DISTRICT HOWARD COUNTY
HOWARD RESEARCH AND DEVELOPMENT CORP.
VILLAGE OF OWEN BROWN
SECTION 4 AREA 1
SIELING INDUSTRIAL CENTER
SECTION 1 AREA 1

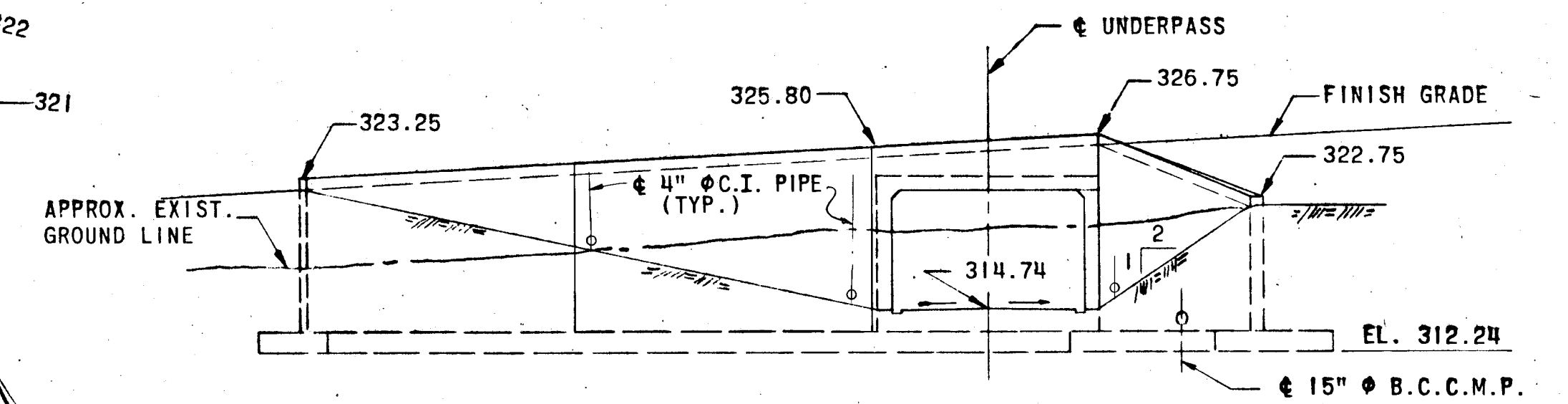
PROJECT TITLE
OAKLAND MILLS ROAD

Des. By: K.L.	Scale: AS NOTED	Doc. No. 7 OF 9
Drawn By: D.A.C.	Date: 4-17-1974	CCC No.
CHK By: J.T.J.	Approved:	

F-77-836



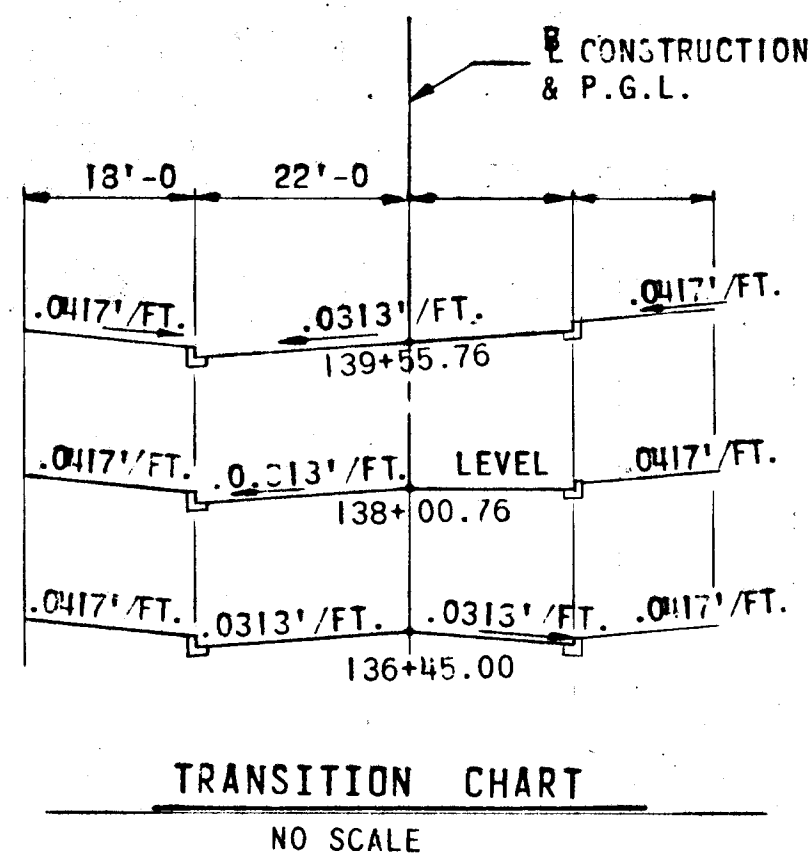
ELEVATION 'A-A'
SCALE: 1" = 10'-0"



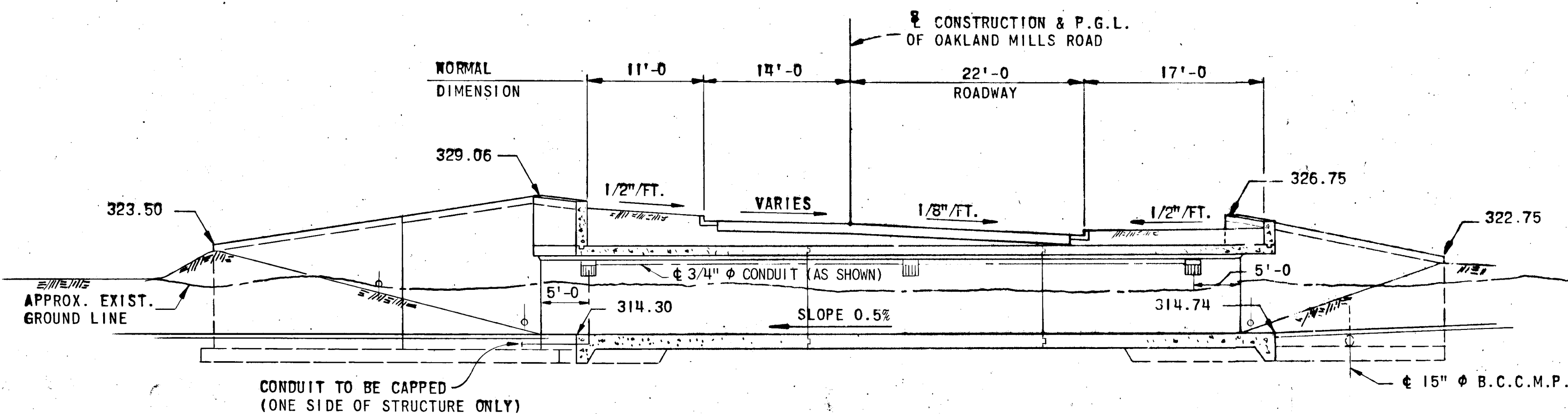
ELEVATION 'B-B'
SCALE: 1" = 10'-0"

GENERAL NOTES

- DATUM:
ALL ELEVATIONS REFER TO U.S.C. AND G.S. DATUM (MEAN SEA LEVEL OF SAND HOOK).
- SPECIFICATIONS:
S.R.C. SPECIFICATIONS AND ERRATA TO SPECIFICATIONS DATED MARCH 1968 AND SPECIAL PROVISIONS FOR MATERIALS AND CONSTRUCTION. A.A.S.H.O. STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES DATED 1969 FOR DESIGN INCLUDING 1971 INTERIM SPECIFICATIONS. FOR REINFORCED CONCRETE DESIGN FC = 1,200 LBS. PER SQ. IN.
- LOADING:
HS 20-44 AND BITUMINOUS CONCRETE PAVEMENT
- CONCRETE:
CLASS A-1 CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 LBS. PER SQ. IN AT 28 DAYS. SEE SPECIAL PROVISIONS.
- CAMFER:
ALL EXPOSED CORNERS OF CONCRETE SHALL BE CHAMFERED 3/4" X 3/4" WITH MILLED CHAMFER STRIPS. EXCEPT WHERE INDICATED BY THE FOLLOWING NOTATION ON THE PLANS, "DO NOT CHAMFER".
- REINFORCING STEEL:
REINFORCING STEEL SHALL CONFORM TO A.S.T.M. DESIGNATION A-615 GRADE 60. ALL SPLICES SHALL BE LAPPED A MINIMUM OF 24 BAR DIAMETERS UNLESS OTHERWISE NOTED.
MINIMUM COVER FOR ANY BAR SHALL BE 2" UNLESS OTHERWISE NOTED.
- KEYS:
ALL KEYS SHALL BE NOMINAL TIMBER SIZE.
- EXCAVATION: (SEE SPECIAL PROVISIONS)
- ⊙ INDICATES LOCATION OF TEST BORING



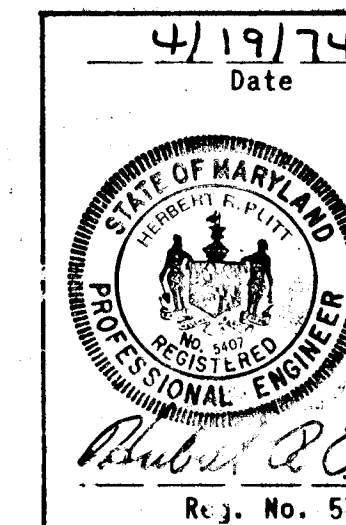
TRANSITION CHART
NO SCALE



LONGITUDINAL SECTION
SCALE: 1" = 10'-0"

PROFILE OF OAKLAND MILLS ROAD
NO SCALE

APPROVED
DIVISION OF LAND DEVELOPMENT
AND TRANSPORTATION PLANNING
HOWARD COUNTY, MARYLAND
DATE 5/30/74
J.P.G.



GREEN ASSOCIATES, INC.
CONSULTING ENGINEERS
TOWSON, MARYLAND

DEPARTMENT OF PUBLIC WORKS	
<i>J. M. McKeand</i>	5/31/74
CHIEF, BUREAU OF HIGHWAYS	DATE
OFFICE OF PLANNING AND ZONING	
<i>J. H. Clawson</i>	5/31/74
CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING	DATE
Rev. No.	Revision Description
COLUMBIA MARYLAND	
6TH ELECTION DISTRICT HOWARD COUNTY OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP. COLUMBIA, MARYLAND	
PROJECT AREA	VILLAGE OF OWEN BROWN SECTION 4 AREA 2
PROJECT TITLE	PEDERSTRIAN UNDERPASS AT STA. 137+50 OF OAKLAND MILLS ROAD
Des. By	L. J. W. Scale AS SHOWN Imp. No. 8 OF 9
Des. By	V. S. R. Date APRIL 1974 C.C.F. No.
Chk. By	L. J. W. Approved

10/1/80

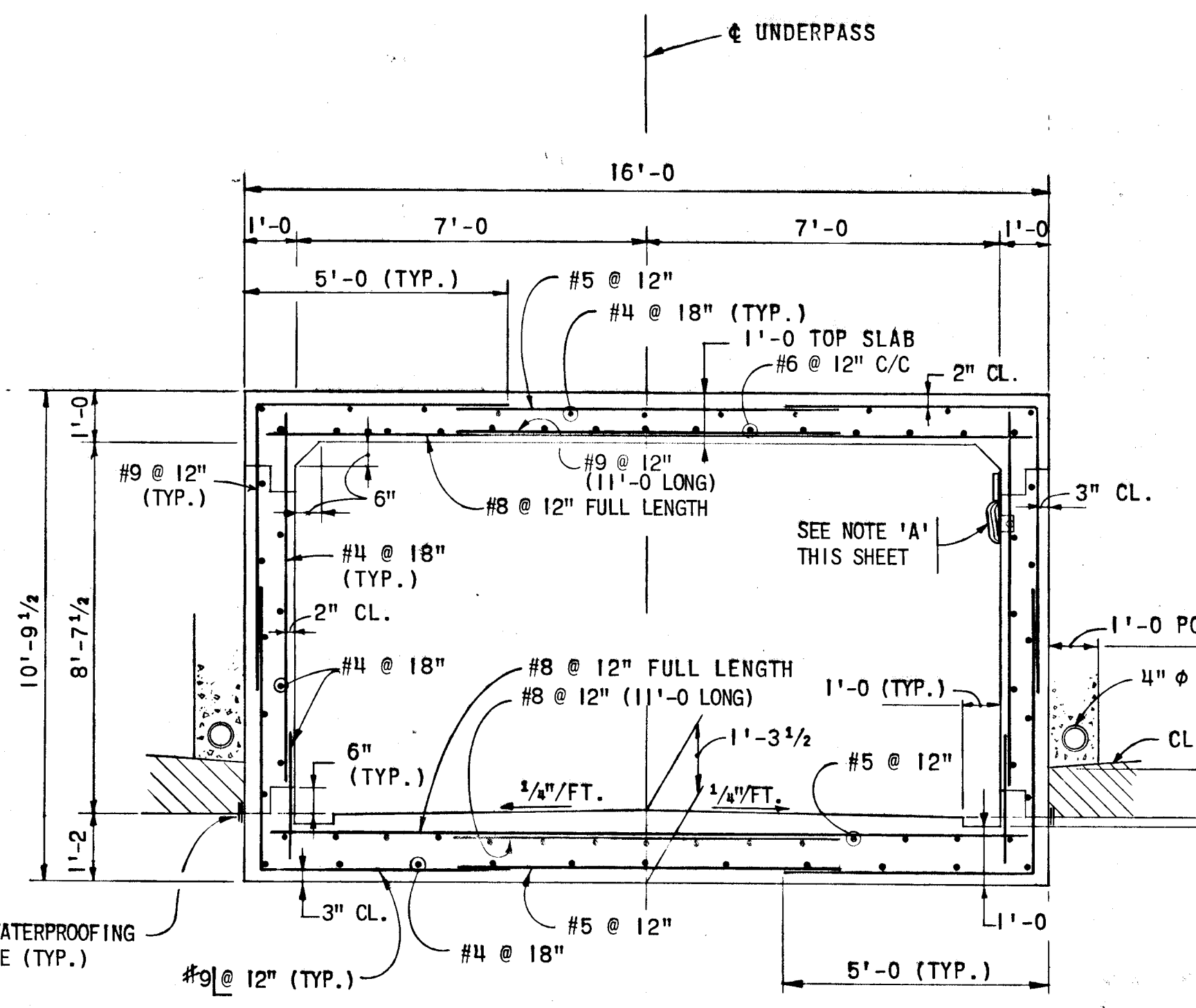
BORING NO. 1 STATION 137+03.00 51.0' RT. & SURVEY OAKLAND MILLS RD.				BORING NO. 2 STATION 137+35.00 34.0' RT. & SURVEY OAKLAND MILLS RD.				BORING NO. 3 STATION 137+60.00 31.0' LT. & SURVEY OAKLAND MILLS RD.			
320	2/3	1	10	2/3	1	8	4/4	1	10	MOTTLED REDDISH BROWN, MOIST, MEDIUM DENSE TO STIFF, MICACEOUS FINE SANDY SILT (ML), WITH TRACE OF CLAY.	
	7/10	2	18	4/6	2	18	4/5	2	18	MOTTLED REDDISH BROWN, MOIST, MEDIUM DENSE TO STIFF, MICACEOUS FINE SANDY SILT (ML), WITH LITTLE CLAY.	
	7/10	4	8	5/6	3	18	15/16	3	18	MOTTLED REDDISH BROWN, MOIST, MEDIUM DENSE TO STIFF, MICACEOUS FINE SANDY SILT (ML), WITH LITTLE CLAY.	
	4/5	4	8	3/5	4	18	12/16	4	18	MOTTLED REDDISH BROWN, MOIST, MEDIUM DENSE TO STIFF, MICACEOUS FINE SANDY SILT (ML), WITH LITTLE CLAY.	
310	5/13	5	18	6/8	5	18	10/12	5	18	MOTTLED REDDISH BROWN, MOIST, MEDIUM DENSE TO STIFF, MICACEOUS FINE SANDY SILT (ML), WITH LITTLE CLAY.	
300	20.0	6/7	6	20.0	10/8	6	20.0	6/8	6	18	REDDISH BROWN, MOIST, MEDIUM DENSE, MICACEOUS SILTY FINE TO MEDIUM SAND (SM-ML), WITH TRACE TO LITTLE CLAY.
290	WATER ON RODS @ 19.5' GROUND WATER DEPTH AFTER 2 HRS. @ 17.0 FT.			WATER ON RODS @ 18.5' GROUND WATER DEPTH AT COMPLETION 15.0 FT.			WATER ON RODS @ 19.0' GROUND WATER DEPTH AT COMPLETION 17.0 FT.				
	* TOPSOIL			* TOPSOIL			* TOPSOIL				

NOTE:
BORINGS WERE TAKEN BY
ATES ASSOC. OF MARYLAND INC.
ON MARCH 23, 1974

LEGEND:

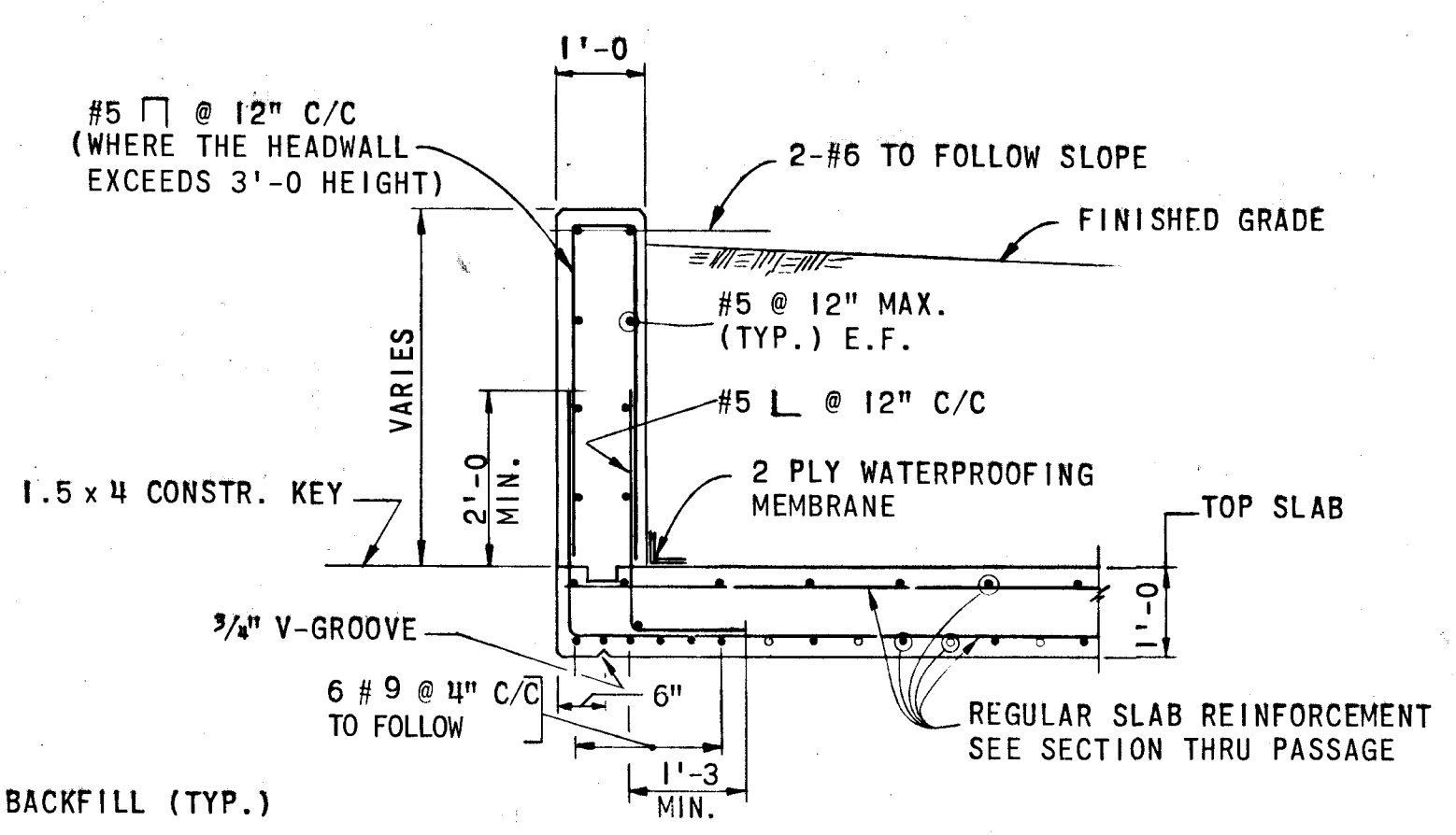
DEPTH BELOW SURFACE	NO. OF BLOWS PER 6"	SAMPLE NO.	% ROCK RECOVERY	SOIL DESCRIPTION
1.	HAMMER DROP 30 IN.			
2.	HAMMER WEIGHT 140 LBS.			
3.	PIPE SIZE 2"			
4.	HOLE DIA. 10"			
5.	BORING METHOD H.S.A.			

BORING NO. 4 STATION 138+19.00 39.0' LT. & SURVEY OAKLAND MILLS RD.				
317.7	3/6	1	18	MOTTLED REDDISH BROWN, MOIST, STIFF MICACEOUS FINE SANDY SILT (ML), WITH LITTLE CLAY.
312.2	7/9	2	18	MOTTLED REDDISH BROWN, MOIST, STIFF MICACEOUS FINE SANDY SILT (ML), WITH LITTLE CLAY.
	5/7	3	5	MOTTLED BROWN & GRAY, MOIST, MEDIUM DENSE MICACEOUS SILTY FINE TO MEDIUM SAND (SM-ML), WITH TRACE OF CLAY.
	7/8	4	18	MOTTLED BROWN & GRAY, MOIST, MEDIUM DENSE MICACEOUS SILTY FINE TO MEDIUM SAND (SM-ML), WITH TRACE OF CLAY.
	6/9	5	18	MOTTLED BROWN & GRAY, MOIST, MEDIUM DENSE MICACEOUS SILTY FINE TO MEDIUM SAND (SM-ML), WITH TRACE OF CLAY.
297.7	9/10	6	18	MOTTLED BROWN & GRAY, MOIST, MEDIUM DENSE MICACEOUS SILTY FINE TO MEDIUM SAND (SM-ML), WITH TRACE OF CLAY.
290	WATER ON RODS @ 16.0' GROUND WATER DEPTH AFTER 3 HRS. 13.5 FT.			
	* TOPSOIL			

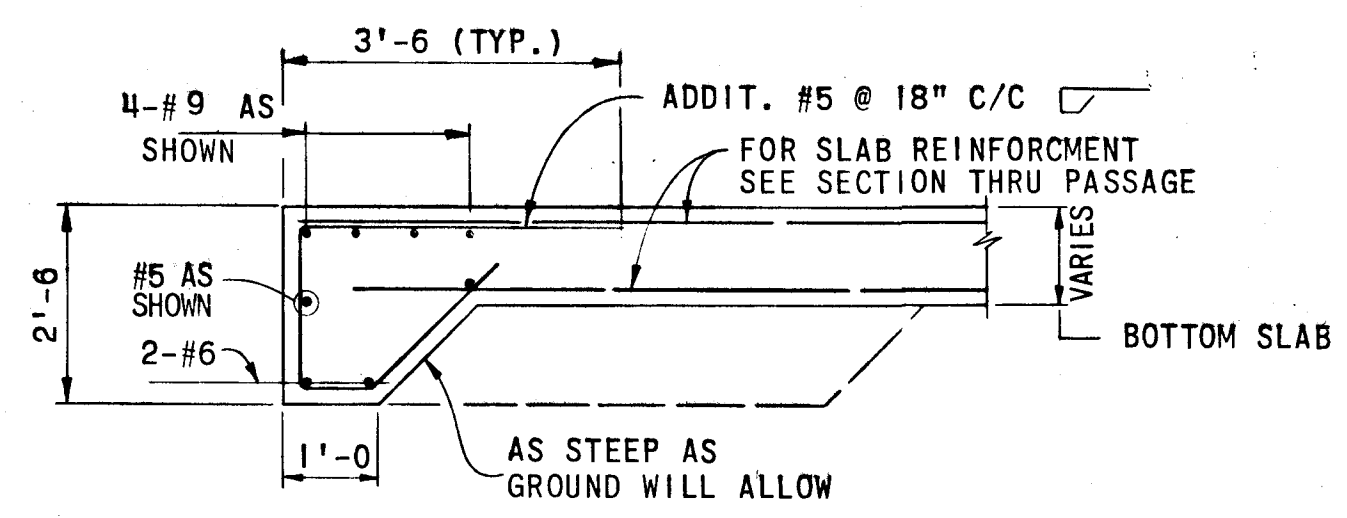


NOTE 'A'
4" x 4" x 3" WATERPROOF JUNCTION BOX AND UNDERPASS LIGHTS, SEE DETAIL THIS SHEET.

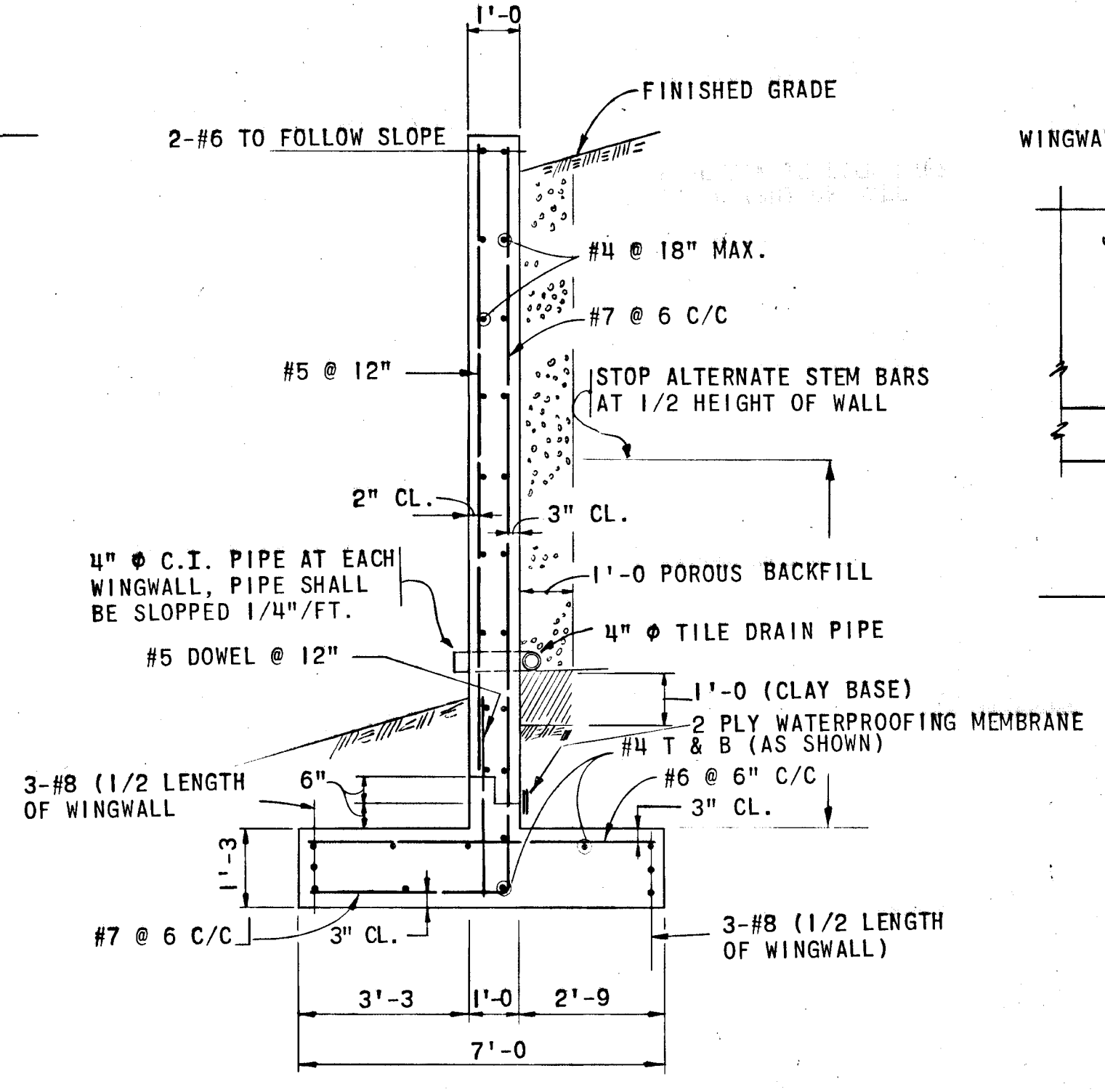
TYPICAL SECTION THRU PASSAGE
SCALE: 3/8" = 1'-0"



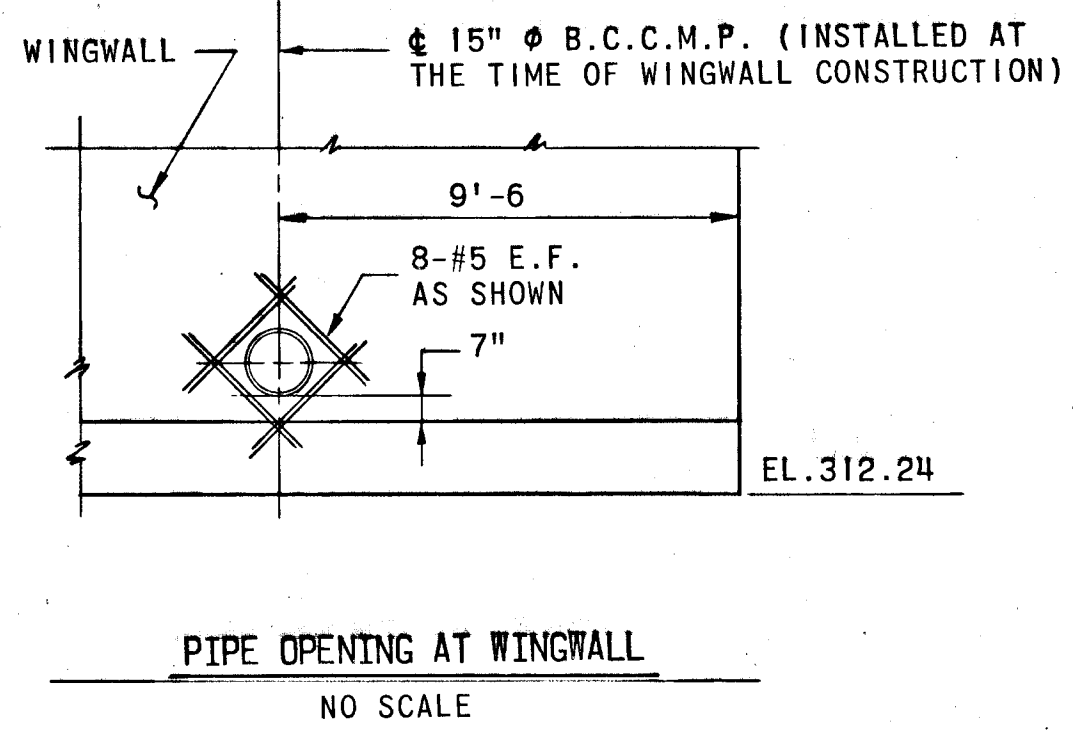
HEADWALL DETAIL
SCALE: 1/2" = 1'-0"



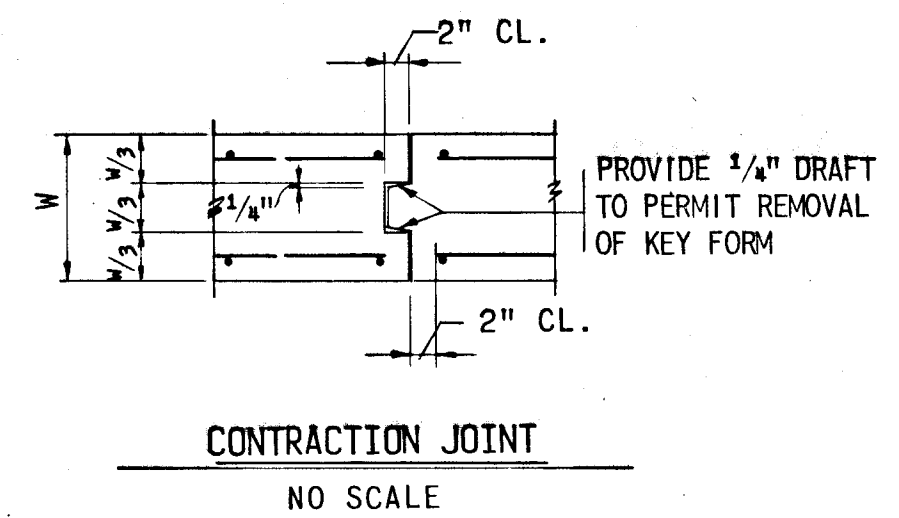
BOTTOM SLAB DETAIL
SCALE: 1/2" = 1'-0"



TYPICAL SECTION THRU WINGWALL
SCALE: 3/8" = 1'-0"



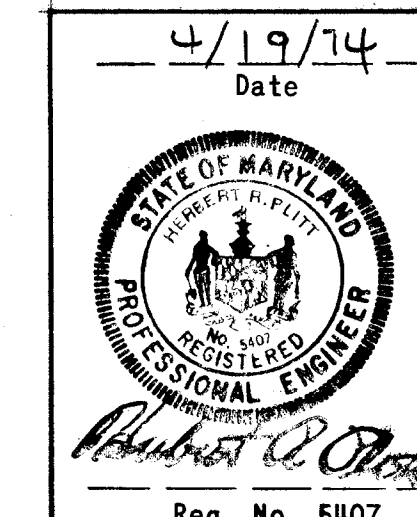
PIPE OPENING AT WINGWALL
NO SCALE



CONTRACTION JOINT
NO SCALE

- NOTES:
- FOR GENERAL NOTES, SEE SHEET NO. 8
 - DESIGN BEARING CAPACITY FOR WINGWALL FOOTINGS 2.2 KIPS/SQ. FT.
 - FOR LOCATION OF 4" C.I. PIPES, SEE SHEET NO. 8.

APPROVED
DIVISION OF LAND DEVELOPMENT
AND TRANSPORTATION PLANNING
HOWARD COUNTY, MARYLAND
DATE 5/29/74
J.P. J.P.

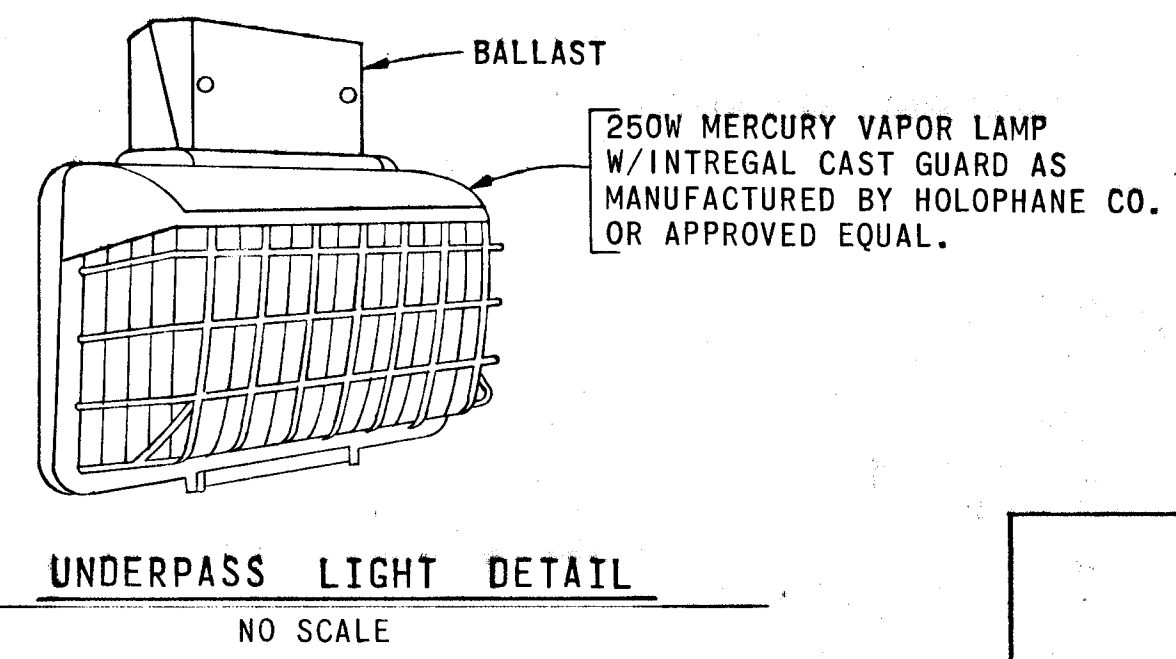


DEPARTMENT OF PUBLIC WORKS
5/13/74
CHIEF, BUREAU OF HIGHWAYS
OFFICE OF PLANNING AND ZONING
5/29/74
CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING

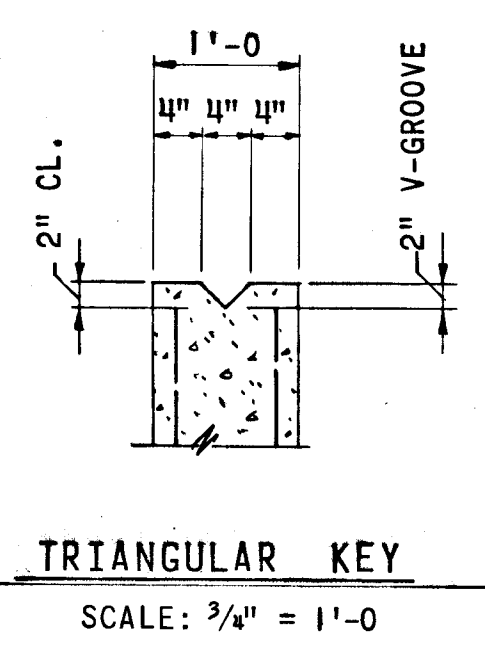
Rev. No.	Rev. Date	Rev. Description
1	5/29/74	ISSUED FOR CONSTRUCTION

STATE OF MARYLAND
HOWARD COUNTY
6TH ELECTION DISTRICT
HOWARD RESEARCH AND DEVELOPMENT CORP.
VILLAGE OF OWEN BROWN
SECTION 4 AREA 1
DETAILS - PEDESTRIAN UNDERPASS
AT STA. 137+50 OF OAKLAND MILLS ROAD
Des. By L.J.W. Date AS SHOWN 9 OF 9
Dwn. By V.S.K. Date APRIL 1974
Chk. By L.J.W. Date

GREEN ASSOCIATES, INC.
CONSULTING ENGINEERS
TOWSON, MARYLAND



UNDERPASS LIGHT DETAIL
NO SCALE



TRIANGULAR KEY
SCALE: 3/4" = 1'-0"

WINGWALL FOOTING LAYOUT
SCALE: 1/4" = 1'-0"

TYPICAL WINGWALL CONNECTION
SCALE: 1/4" = 1'-0"