

PLAN
 SUBMITTED
 PLOTTED
 NOTE BOOK INVENTORY CHECKED BY
 NO. DATE BY

ELIOT'S OAK ROAD

15+19.82 BACK
 = 0-05.00 AHEAD ELIOT'S OAK ROAD
 = CENTER LINE INTERSECTION
 = 0-01.47 HESPERUS DRIVE

TC 444.56
 TC 442.50
 TC 442.10
 N 506 984.053
 E 833 105.498

TC 441.70
 TC 440.70
 TC 439.17
 END OF SIDEWALK

CONSTRUCT 4' WIDE SIDEWALK
 MOUNTABLE CURB
 CONSTRUCT 4'-0" 5'-0" 6'-0" 7'-0" 8'-0"
 8" MACADAM PAVEMENT

N 507004.491
 E 833644.903
 P.C. 8+10.87
 MATCH LINE

PLAN
 SCALE: 1" = 50'

HESPERUS DRIVE

NOTES:
 1. ALL DIMENSION AND CURVE DATA FOR THE CURB LINES ARE TO THE BACK OF THE CURB
 2. T.C. IS THE ABBREVIATION FOR TOP OF CURB

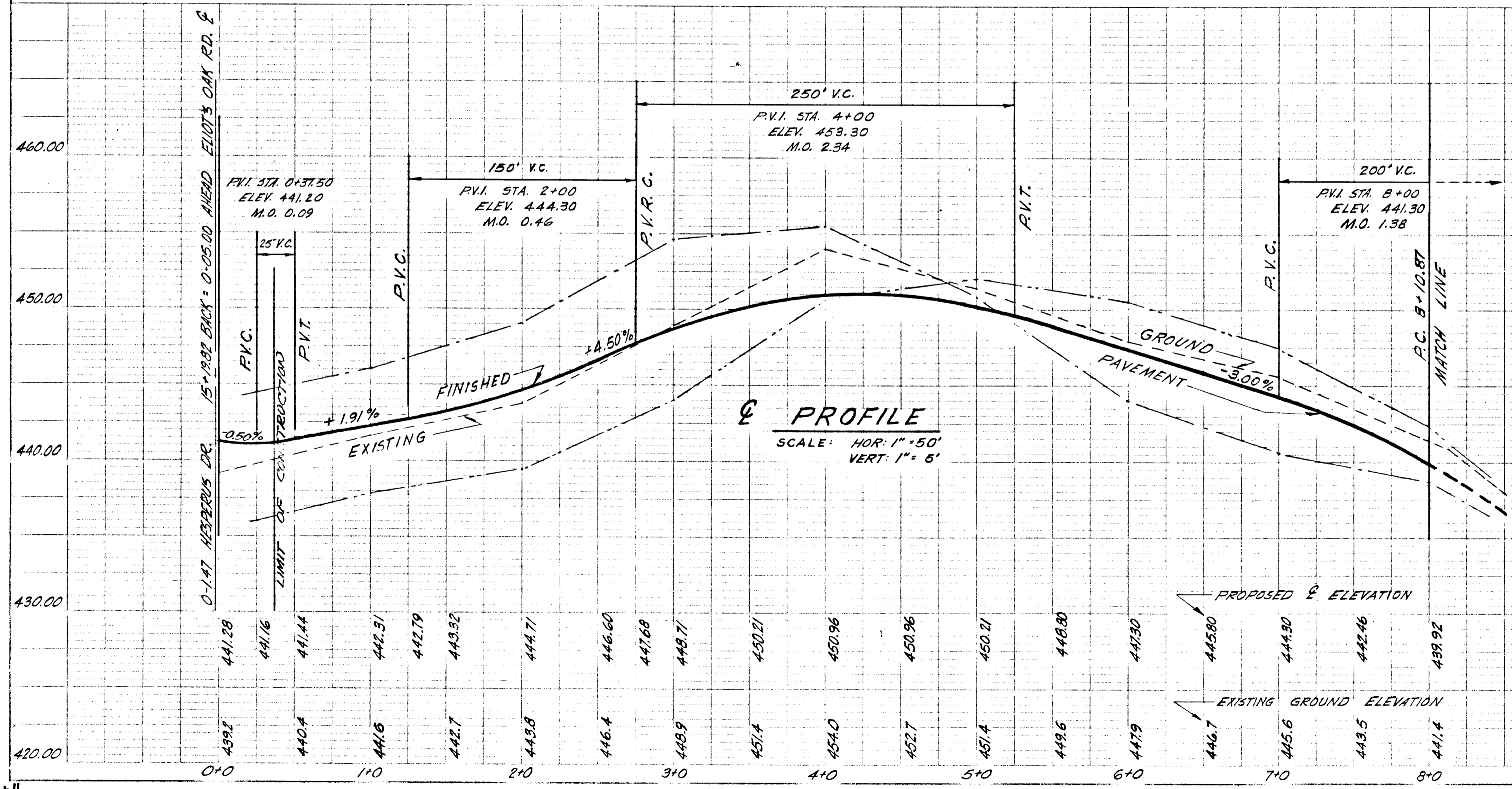
APPROVED
 PLANNING COMMISSION
 OF HOPKINS COUNTY
 DATE NOV 1 1967
J.W.C.



Richard P. Browne
 RICHARD P. BROWNE, P.E. & L.S.
 LIC. No. 5238 STATE MD.

Rev Date	Rev No	Revision Description
COLUMBIA MARYLAND		
THE ROUSE COMPANY THE VILLAGE OF CROSS KEYS, BALTIMORE, MARYLAND 21210		
PROJECT AREA VILLAGE OF HARPER'S CHOICE SEC. N ^o 1 LONGFELLOW AREA N ^o 2		
PROJECT TITLE PLAN & PROFILE HESPERUS DRIVE		
Des By	W.P.	Scale AS SHOWN
Drn By	J.V.M.	Date JUN 9 1967
Chk By	W.P.	Approved
Dwg No	1 OF 19	C.C.F. No

PROFILE
 SUBMITTED
 PLOTTED
 NOTE BOOK INVENTORY CHECKED BY
 NO. DATE BY



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

PLATE 1, PLAN-PROFILE
 RICHARDS & EISSER CO.
 487088 ALPHEUS ST. WASHINGTON, D.C. 20005

FILE N^o 1764
 F-47-33

STORM DRAINAGE STRUCTURE SCHEDULE						
No.	TYPE	LOCATION	INW. IN.	INW. OUT	T.C.P. ELEV.	REMARKS
I-1	MOD. S. COMB. SINGLE GRATE	SEE PLAN		395.50	400.49	DEPRESSED
I-2	MOD. S. COMB. SINGLE GRATE	11+86.30 - 0.5' RT.		428.50	408.45	DEPRESSED
I-3	MOD. S. COMB. SINGLE GRATE	11+59.80 - 14.5' RT.	400.86	400.80	404.90	DEPRESSED
I-4	MOD. S. COMB. SINGLE GRATE	12+97.33 - 14.5' LT.	15" 396.00	392.15	400.87	DEPRESSED
MH-1	STANDARD	15+23 - 12.83' FROM E.	15" 385.10		384.35	
MH-2	"G"	SEE PLAN	21" 384.60		386.50	
MH-3	"F"	12+97.33	392.80			



Richard P. Brown
 RICHARD P. BROWN, P.E., E.L.S.
 LIC. NO. 5238 STATE - MD.

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APPROVED
 PLANNING COMMISSION
 OF MARYLAND
 DATE NOV. 13 1967

Rev Date	Rev No	Revision Description

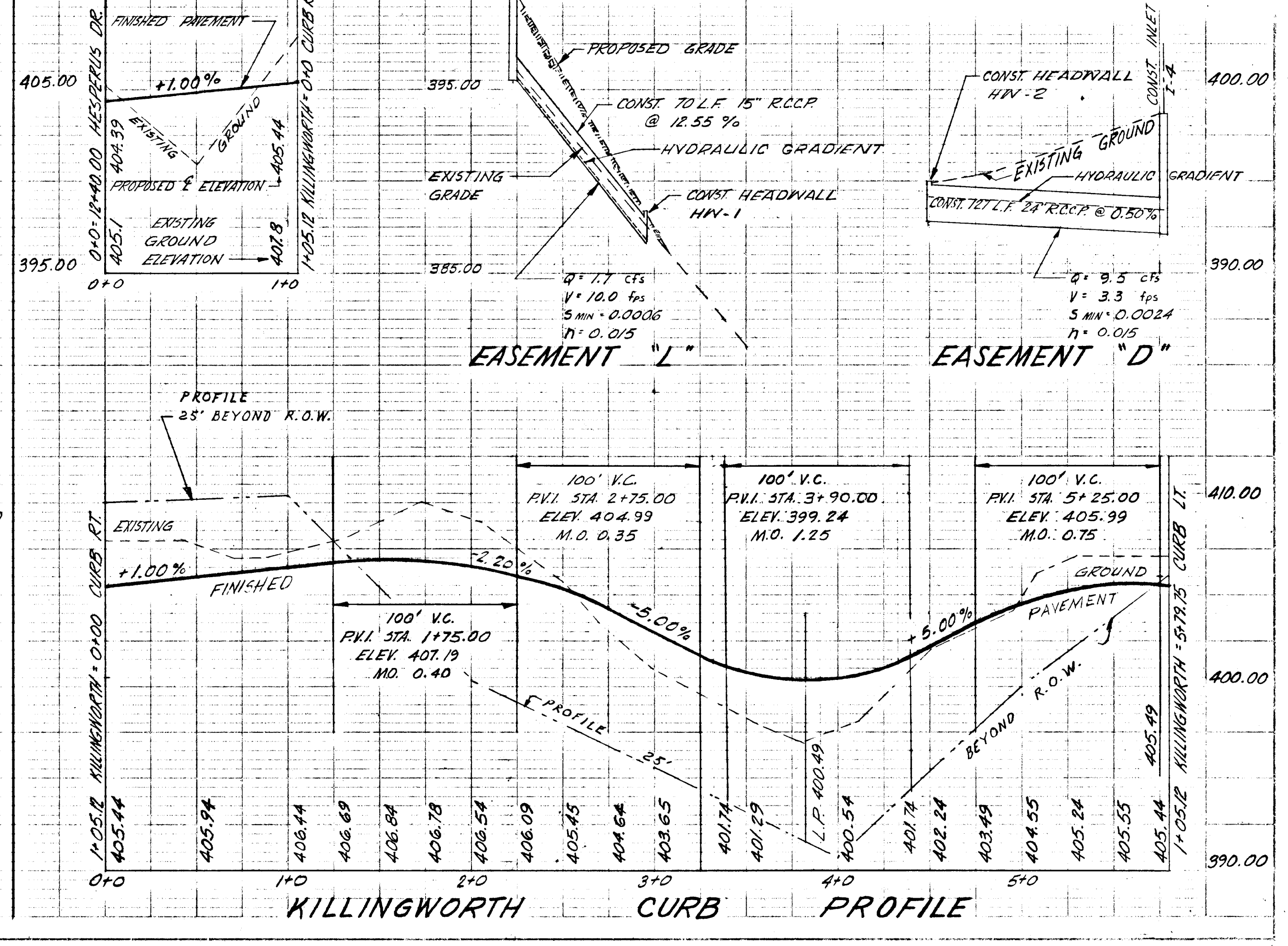
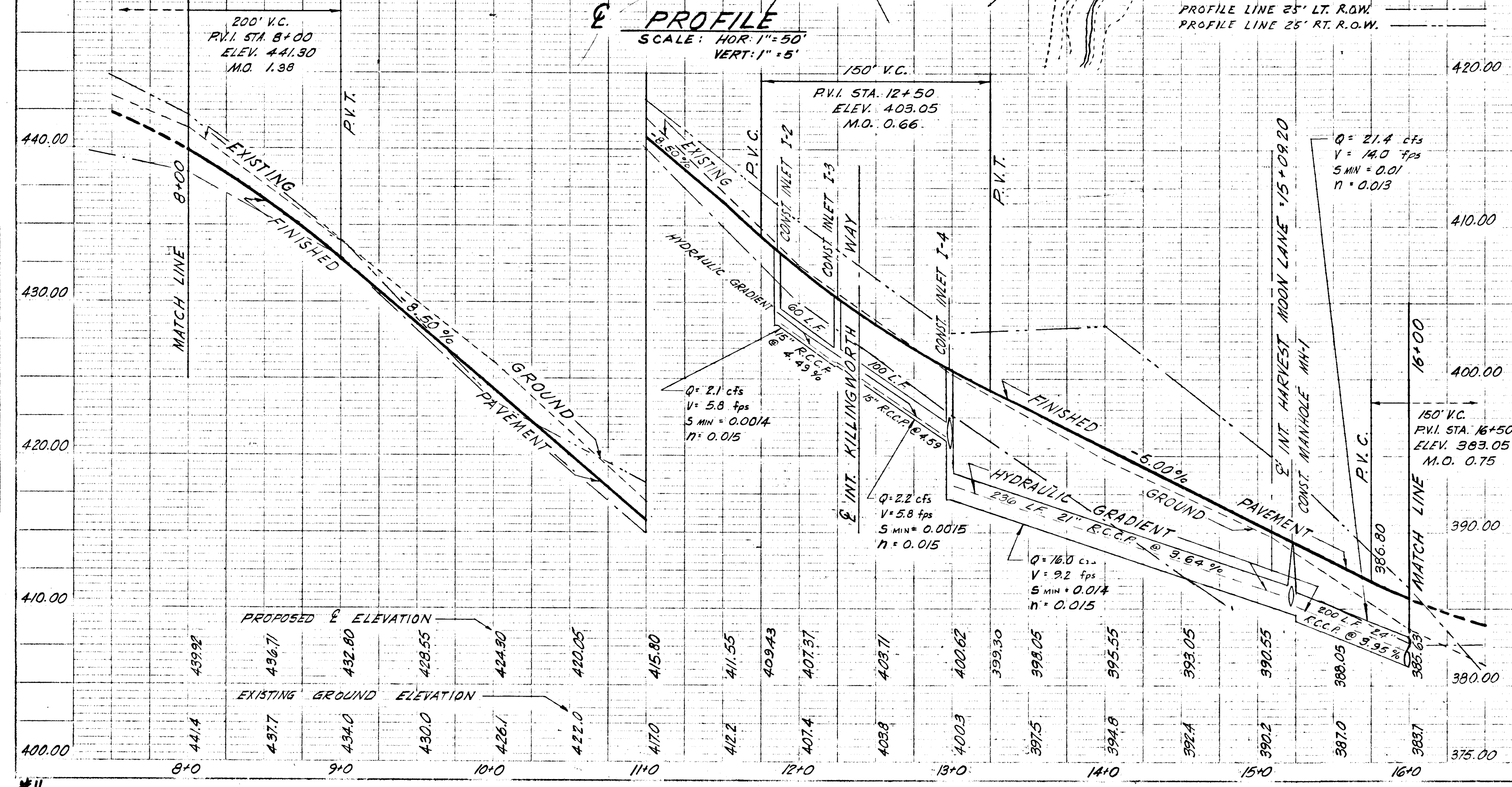
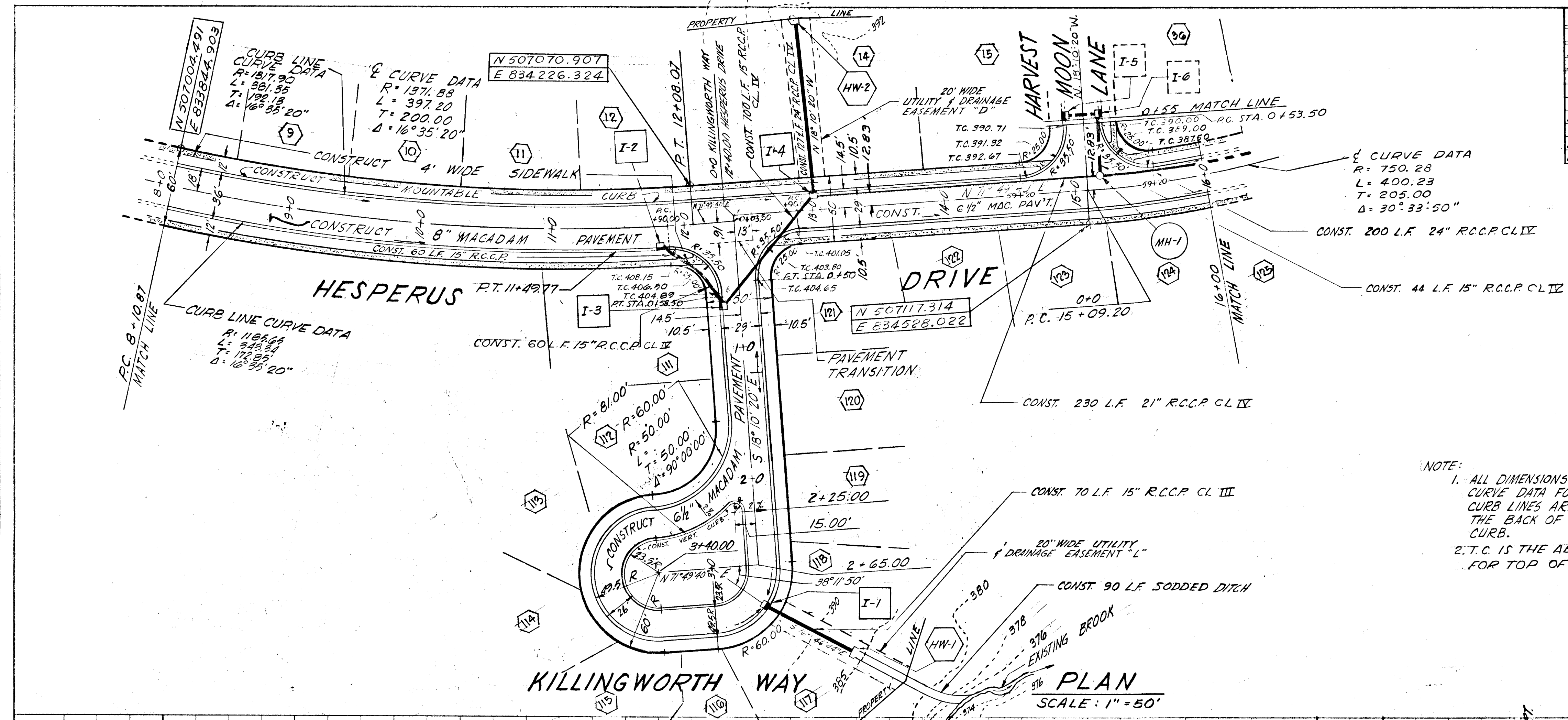
COLUMBIA
 MARYLAND

THE ROUSE COMPANY THE VILLAGE OF CROSS KEYS, BALTIMORE, MARYLAND 21210

PROJECT AREA
 VILLAGE OF HARDER'S CHOICE SEC. NO. 2
 LONGFELLOW AREA NO. 2

PROJECT TITLE
 PLAN & PROFILE
 HESPERUS DRIVE & KILLINGWORTH WAY

Des By: J.V.P. Scale: AS SHOWN Dwg No: 2 OF 19
 Drn By: J.V.M. Date: JUNE 9, 1967 C.C.F. No:
 Chk By: J.V.P. Approved



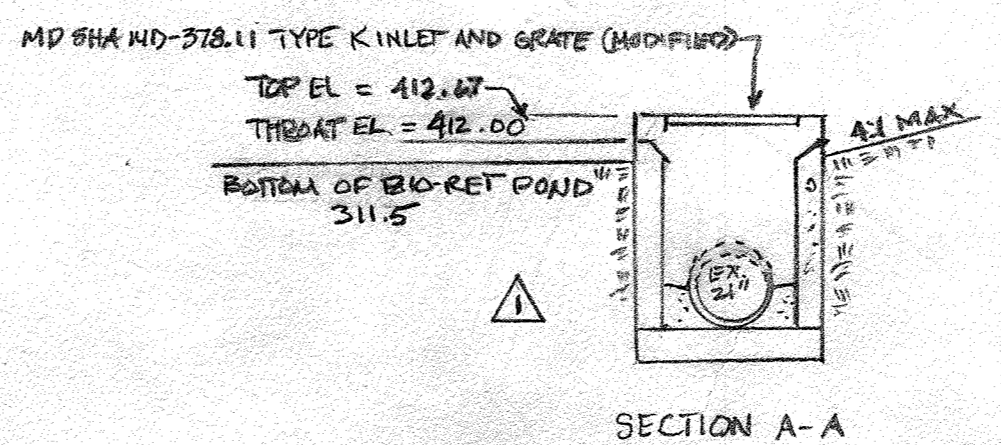
SEQUENCE OF CONSTRUCTION

- STEP 1 - INSTALL SHT FENCE AS SHOWN
- STEP 2 - EXPOSE EXISTING 12" PIPE AND DIG PIT FOR BASE
- STEP 3 - POUR MIN. 8" CONCRETE BASE
- STEP 4 - SET PRECAST K-INLET
- STEP 5 - FILL BOTTOM OF INLET WITH CONCRETE TO 1/2 PIPE
- STEP 6 - SAW CUT AND REMOVE TOP HALF OF EXISTING PIPE
- STEP 7 - GRADE BIO-RETENTION FACILITY & DIKE
- STEP 8 - STABILIZE ALL DISTURBED AREAS
- STEP 9 - REINSTATE FENCE

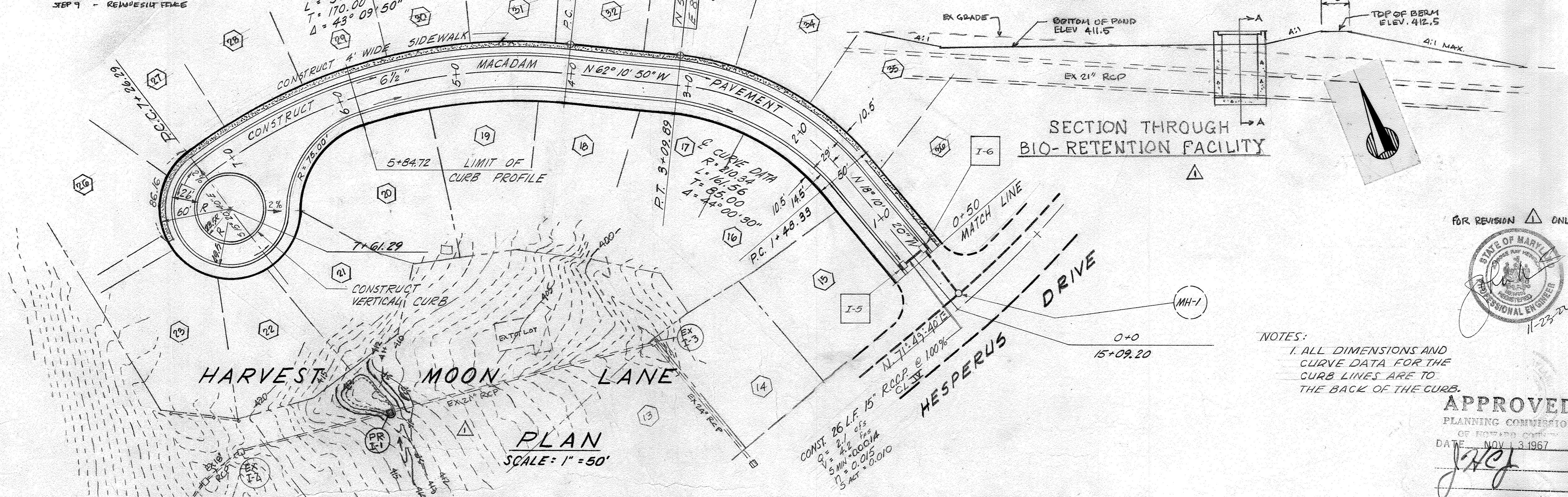
CURVE DATA
 $R = 429.77$
 $L = 323.74$
 $T = 170.00$
 $\Delta = 43^{\circ} 09' 50"$

STORM DRAINAGE STRUCTURE SCHEDULE

No.	TYPE	LOCATION	INV. IN	INV. OUT	TCP ELEV.	REMARKS
I-5	MOD. S. COMB. SINGLE GRATE	0+53.50 LT.	386.79	386.79		DEPRESSED
I-6	MOD. S. COMB. SINGLE GRATE	0+53.50 RT.	386.50	386.45		DEPRESSED
PR-1	MD SHA 378.11 TYPE K (MOD)	129' FROM EX E-2 OVER 21"	± 407.4	± 407.2	411.67	THROAT 412.10



SECTION THROUGH BIO-RETENTION FACILITY



PLAN
SCALE: 1" = 50'

NOTES:
 1. ALL DIMENSIONS AND CURVE DATA FOR THE CURB LINES ARE TO THE BACK OF THE CURB.

APPROVED
 PLANNING COMMISSION
 OF HARPER'S CHOICE
 DATE: NOV. 13, 1967

STATE OF MARYLAND
 REGISTERED PROFESSIONAL ENGINEER
 RICHARD D. BROWNE, P.E. & L.S.
 LIC. NO. 5238 STATE MD.

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 14910 EXPIRATION DATE 05/12/2024

Rev Date	Rev No	Revision Description
11-23-22	1	ADD INLET & BIO RET. FACILITY

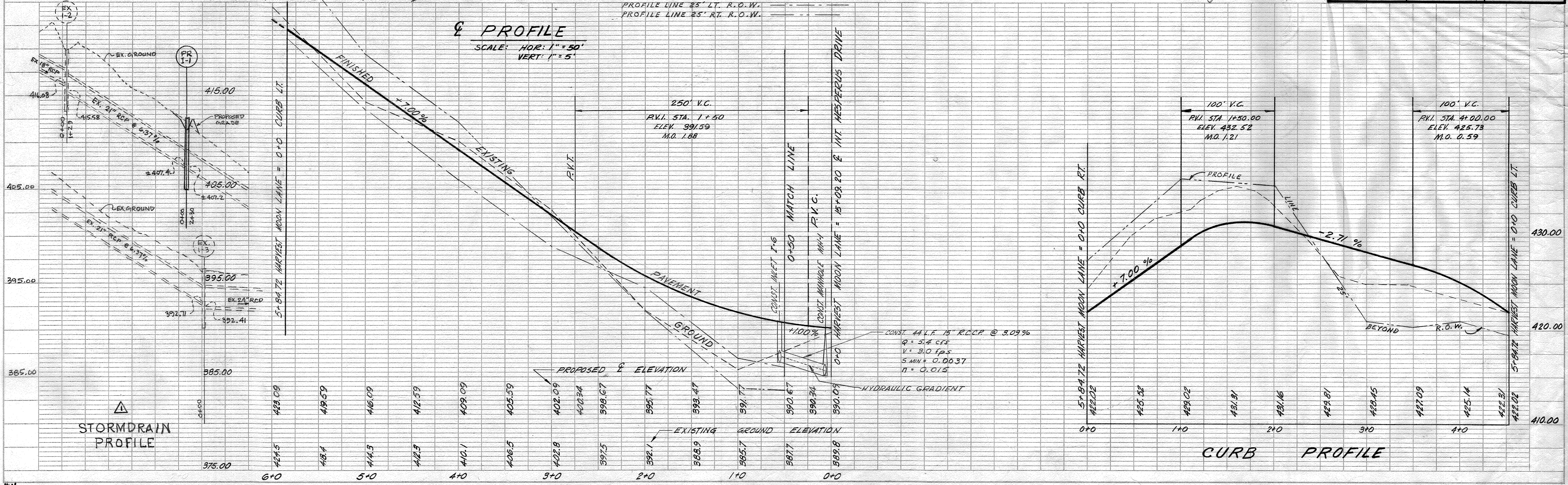
COLUMBIA MARYLAND
 THE ROUSE COMPANY THE VILLAGE OF CROSS KEYS, BALTIMORE, MARYLAND 21210

PROJECT AREA
 VILLAGE OF HARPER'S CHOICE SEC. N#1
 LONGFELLOW AREA N#2

PROJECT TITLE
 PLAN & PROFILE
 HARVEST MOON LANE

Des By: W.P. Scale: AS SHOWN Dwg No: 4 OF 19
 Drn By: J.V.M. Date: JUNE 9, 1967 C.C.F. No.
 Chk By: W.P. Approved

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



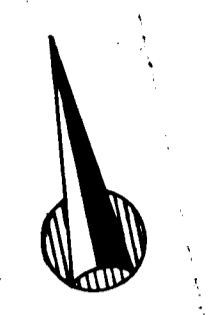
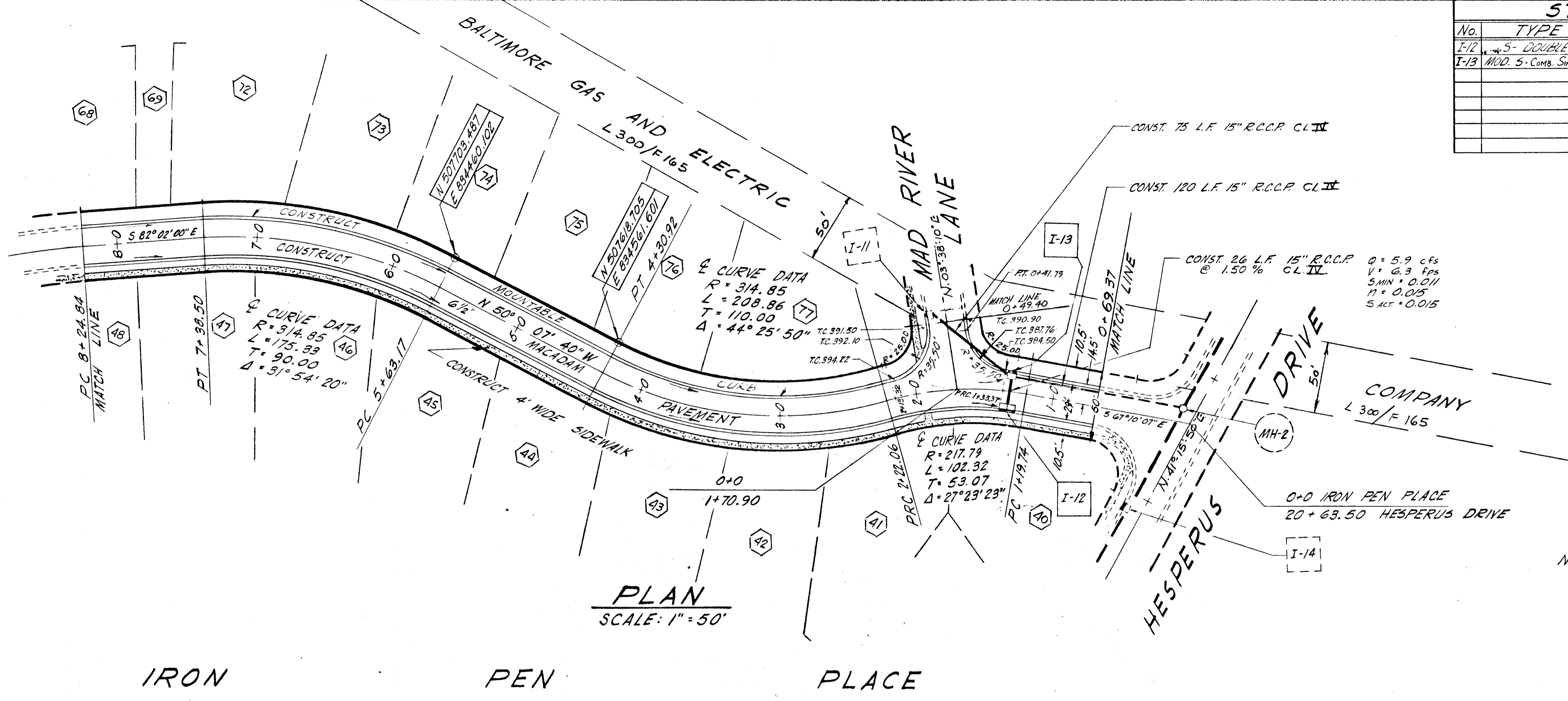
STORM DRAIN PROFILE

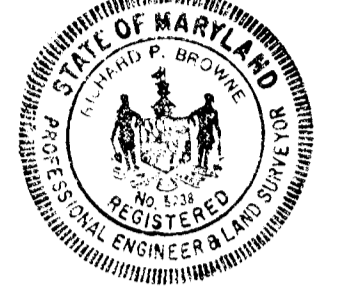
CURB PROFILE

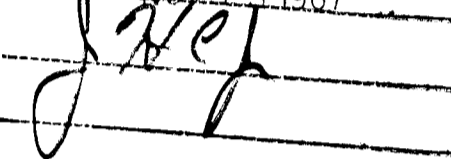
PLAN SURVEYED, PLOTTED, CHECKED, NOTE BOOK NO. BY DATE

PROFILE SURVEYED, PLOTTED, CHECKED, NOTE BOOK NO. BY DATE

STORM DRAINAGE STRUCTURE SCHEDULE						
No.	TYPE	LOCATION	INV. IN	INV. OUT	T.C. PELEY	REMARKS
I-12	5" DOUBLE GRATE	1+32.00 LT	380.92	387.21	887.21	DEPRESSED
I-13	MOD. 5" COMB. SINGLE GRATE	1+32.00 RT	380.50	380.46	887.21	DEPRESSED




 Richard P. Browne
 RICHARD P. BROWNE, P.E. & L.S.
 LIC. No. 5238 STATE MD

APPROVED
 PLANNING COMMISSION
 OF THE CITY OF BALTIMORE
 DATE NOV 11 1967


- NOTES:
- ALL DIMENSIONS AND CURVE DATA FOR THE CURB LINES ARE TO THE BACK OF THE CURB.
 - T.C. IS THE ABBREVIATION FOR TOP OF CURB.

Rev Date	Rev No	Revision Description
9-7-67	1	REVISED PROFILE STA. 0+00 TO 1+75

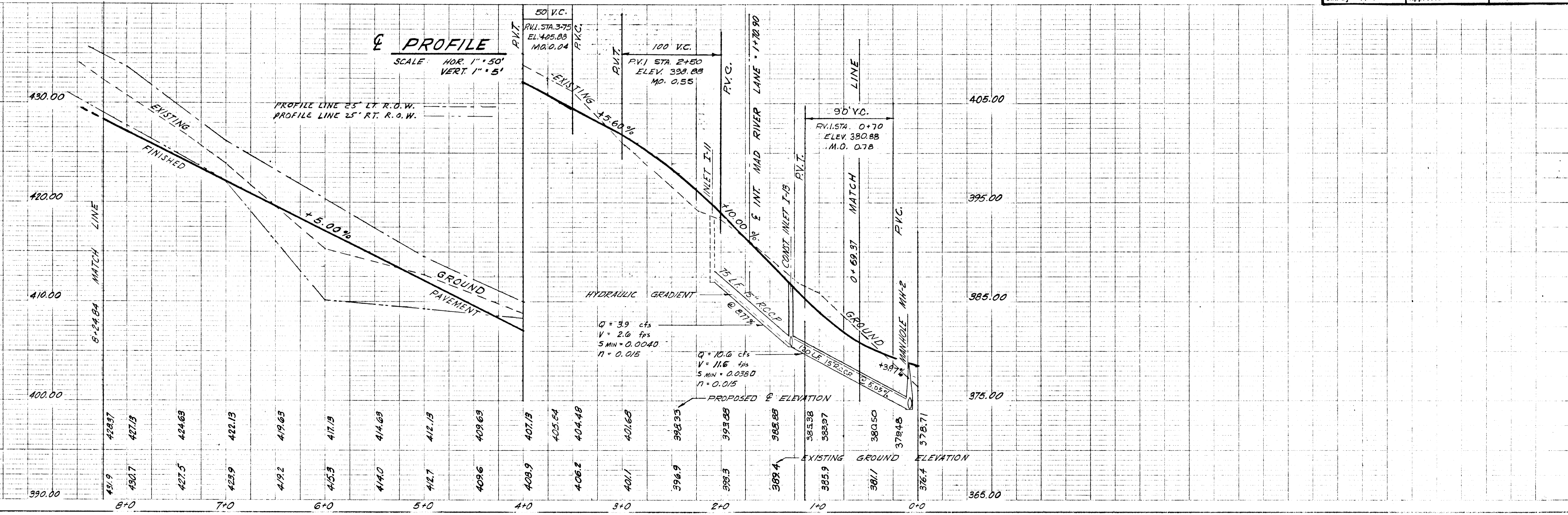
COLUMBIA MARYLAND

THE ROUSE COMPANY THE VILLAGE OF CROSS KEYS, BALTIMORE, MARYLAND 21210

PROJECT AREA
VILLAGE OF HARPER'S CHOICE SEC. N^o. 1
LONGFELLOW AREA N^o. 2

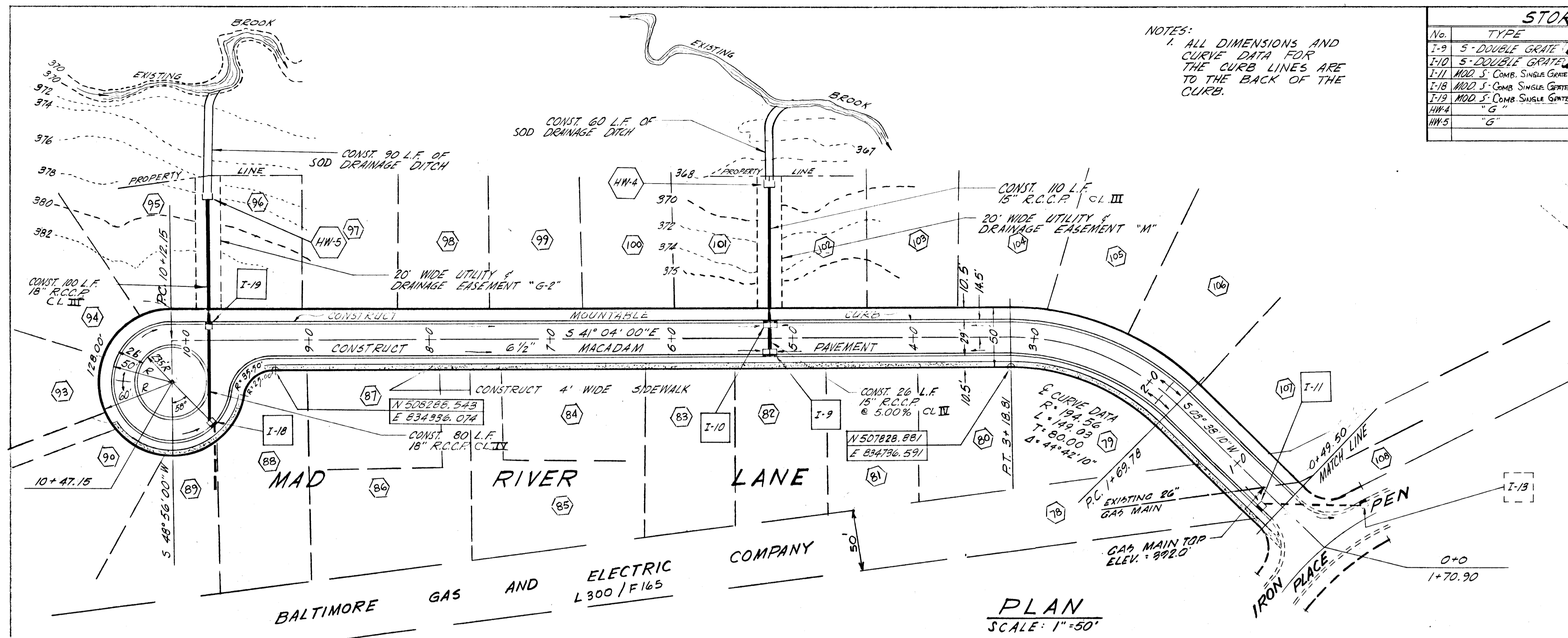
PROJECT TITLE
PLAN & PROFILE
IRON PEN PLACE

Des By	W. P.	Scale	AS SHOWN	Dwg No	5 OF 19
Drn By	J. W. M.	Date	JUN 9, 1967	C. C. F. No	
Chk By	W. P.	Approved			



PLAN
 NOTE: ALL DIMENSIONS AND CURVE DATA FOR THE CURB LINES ARE TO THE BACK OF THE CURB.
 T.C. IS THE ABBREVIATION FOR TOP OF CURB.

COLUMBIA T-57-29
 VILLAGE OF HARPER'S CHOICE
 LONGFELLOW AREA N^o. 2
 IRON PEN PLACE



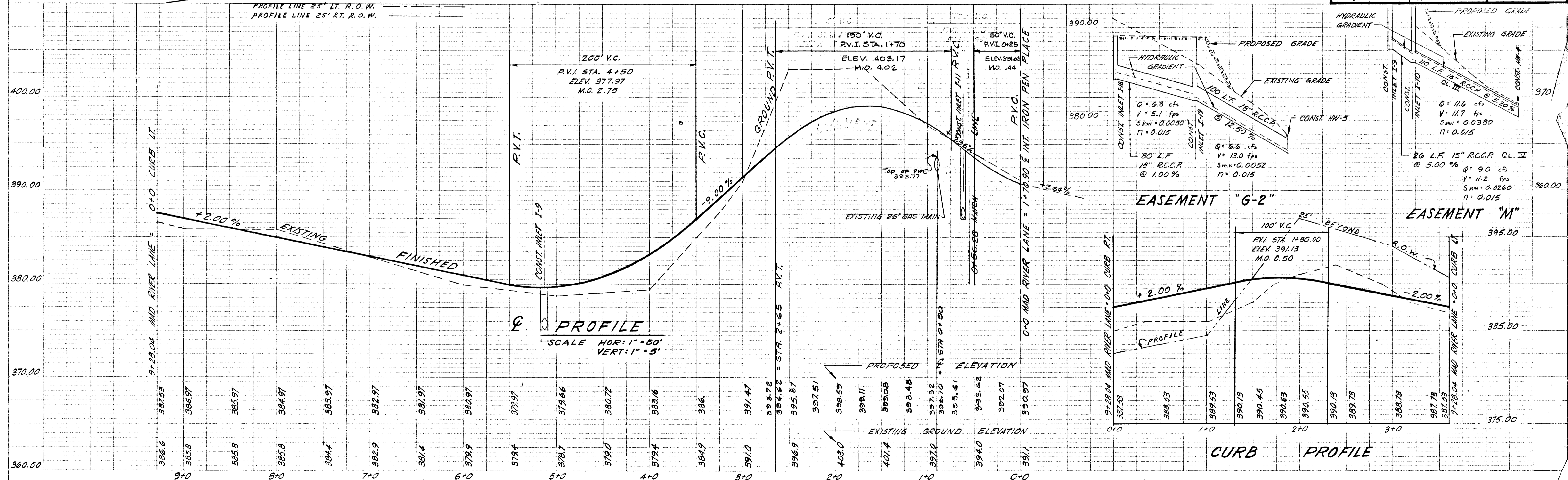
NOTES:
 1. ALL DIMENSIONS AND CURVE DATA FOR THE CURB LINES ARE TO THE BACK OF THE CURB.

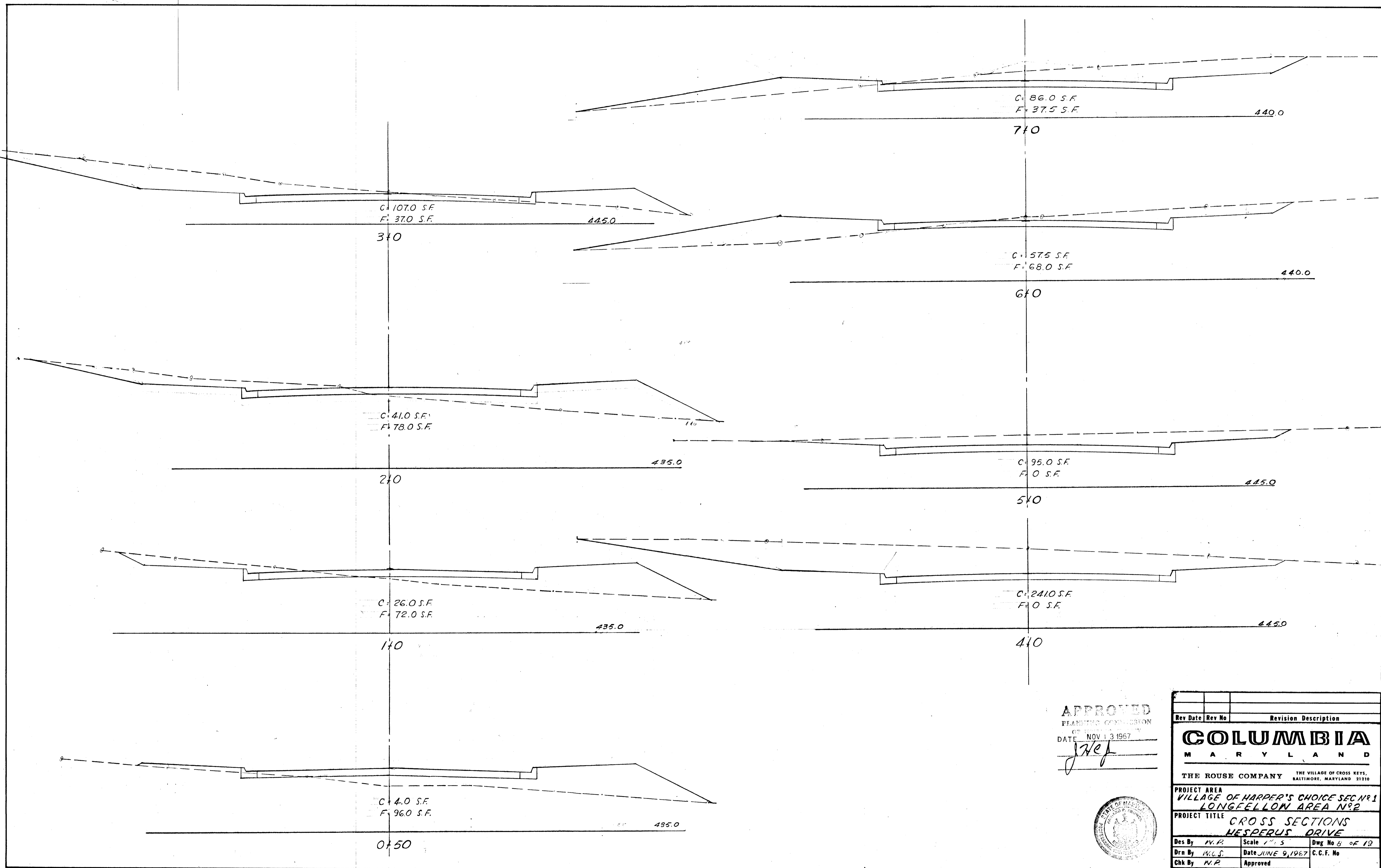
No.	TYPE	LOCATION	INV. IN	INV. OUT	T.C.P. ELEV.	REMARKS
I-9	5" DOUBLE GRATE	5+13.50 - 14.5' LT.	375.10	379.60	379.60	DEPRESSED
I-10	5" DOUBLE GRATE	5+13.50 - 14.5' RT.	378.80	373.65	379.60	DEPRESSED
I-11	MOD. S. COMB. SINGLE GRATE	0+53.00 - 14.5' LT.	387.00	391.60	391.60	DEPRESSED
I-18	MOD. S. COMB. SINGLE GRATE	SEE PLAN	384.40	384.36	389.10	DEPRESSED
I-19	MOD. S. COMB. SINGLE GRATE	9+78.81 - 14.5' RT.	382.16	382.10	388.53	DEPRESSED
HW-4	"G"	5+13.50 - 12.5' RT.		367.90		
HW-5	"G"			376.58		

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 RICHARD P. BROWNE, P.E. & L.S.
 LIC. No. 5238 STATE MD.

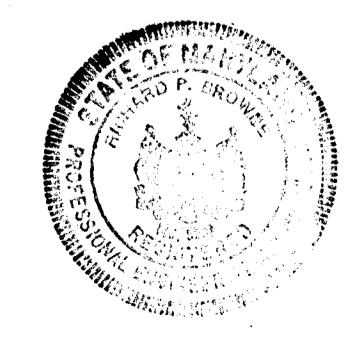
3/19/67	1	Revised title from 0+00 to 2+65.00
Rev Date	Rev No	Revision Description
COLUMBIA MARYLAND		
THE ROUSE COMPANY		THE VILLAGE OF CROSS KEYS, BALTIMORE, MARYLAND 21210
PROJECT AREA VILLAGE OF HARPER'S CHOICE SEC. NO. 1 LONGFELLOW AREA NO. 2		
PROJECT TITLE PLAN & PROFILE MAD RIVER LANE		
Des By	W.P.M.	Scale 1/8" = 1'-0"
Drn By	J.V.M.	Date JUN 2, 1967
Chk By	W.P.M.	Approved
Dwg No	7 OF 19	C.C.F. No

APPROVED
 PLANNING COMMISSION
 OF HARPER'S CHOICE
 DATE NOV. 13 1967



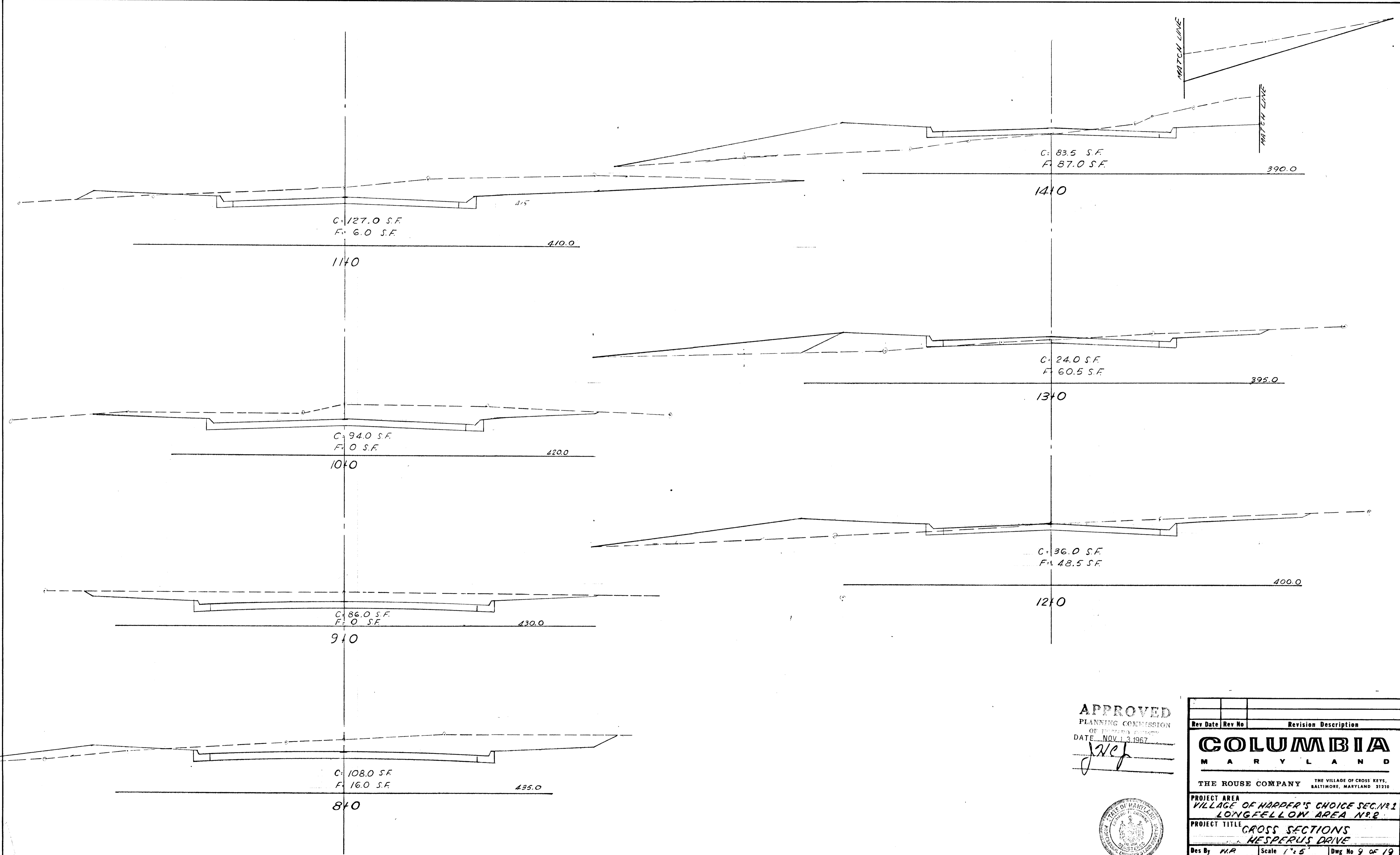


APPROVED
 PLANNING COMMISSION
 DATE NOV 13 1967
J. Hef

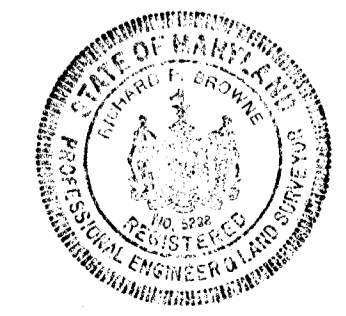


Rev Date	Rev No	Revision Description
COLUMBIA MARYLAND		
THE ROUSE COMPANY		THE VILLAGE OF CROSS KEYS, BALTIMORE, MARYLAND 21210
PROJECT AREA VILLAGE OF HARPER'S CHOICE SEC #1 LONGFELLOW AREA #2		
PROJECT TITLE CROSS SECTIONS VESPERUS DRIVE		
Des By	N.R.	Scale 1"=5'
Drn By	M.C.S.	Date JUNE 9, 1967
Chk By	N.R.	Approved
Dwg No 6 OF 12		C.C.F. No

#1

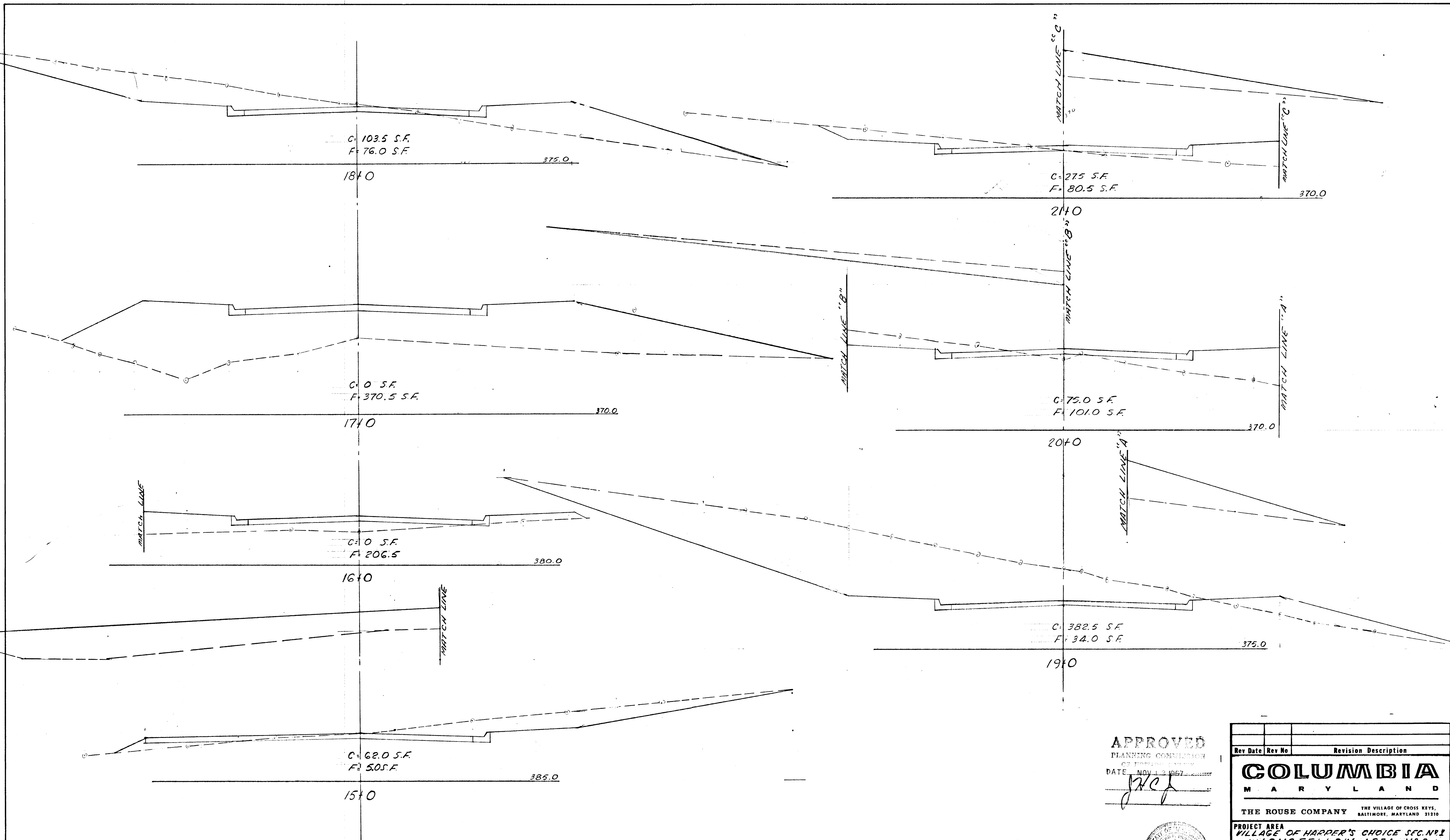


APPROVED
 PLANNING COMMISSION
 OF THE VILLAGE OF CROSS KEYS
 DATE NOV 13 1967
JWef

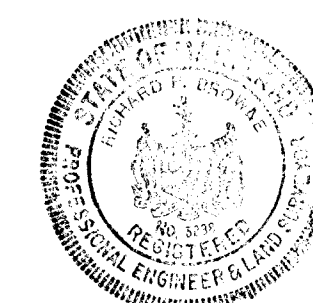


Rev Date	Rev No	Revision Description
COLUMBIA MARYLAND		
THE ROUSE COMPANY		THE VILLAGE OF CROSS KEYS, BALTIMORE, MARYLAND 21210
PROJECT AREA VILLAGE OF HARPER'S CHOICE SEC. NO. 2 LONGFELLOW AREA NO. 2		
PROJECT TITLE CROSS SECTIONS HESPERUS DRIVE		
Des By <i>M.R.</i>	Scale 1"=5'	Dwg No 9 of 19
Drn By <i>M.C.S.</i>	Date JUNE 9, 1967	C.C.F. No
Chk By <i>M.R.</i>	Approved	

#11



APPROVED
 PLANNING COMMISSION
 OF HARPER'S CHOICE
 DATE NOV 13 1967
[Signature]



Rev Date	Rev No	Revision Description

COLUMBIA
 MARYLAND
 THE ROUSE COMPANY THE VILLAGE OF CROSS KEYS, BALTIMORE, MARYLAND 21210

PROJECT AREA
 VILLAGE OF HARPER'S CHOICE SEC. NO. 1
 LONGFELLOW AREA NO. 2

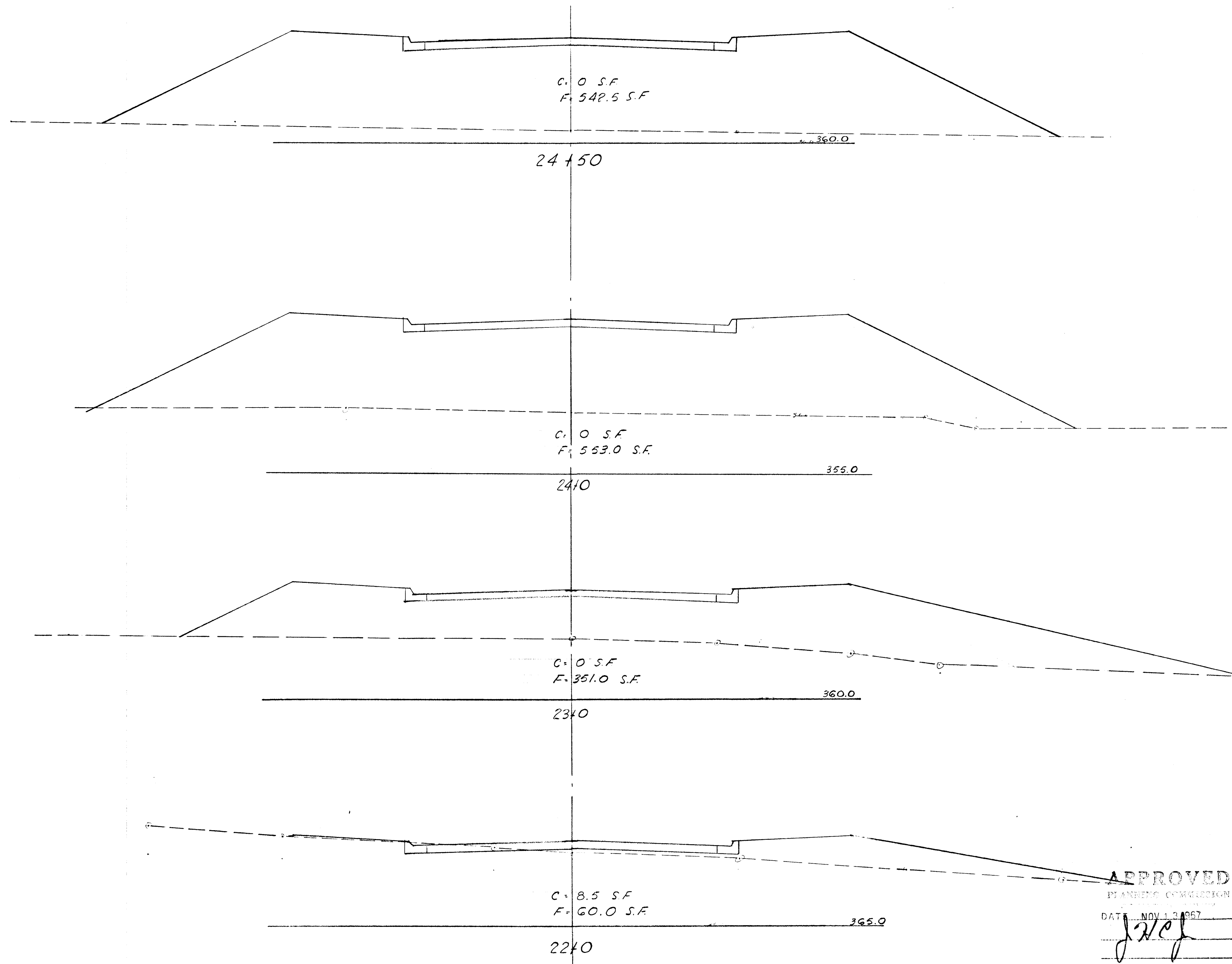
PROJECT TITLE
 CROSS SECTIONS
 HESPERUS DRIVE

Des By <i>N.R.</i>	Scale 1"=5'	Dwg No 10 of 19
Drn By <i>N.C.S.</i>	Date JUNE 9, 1967	C.C.F. No
Chk By <i>N.P.</i>	Approved	

395

#11

F-47-33

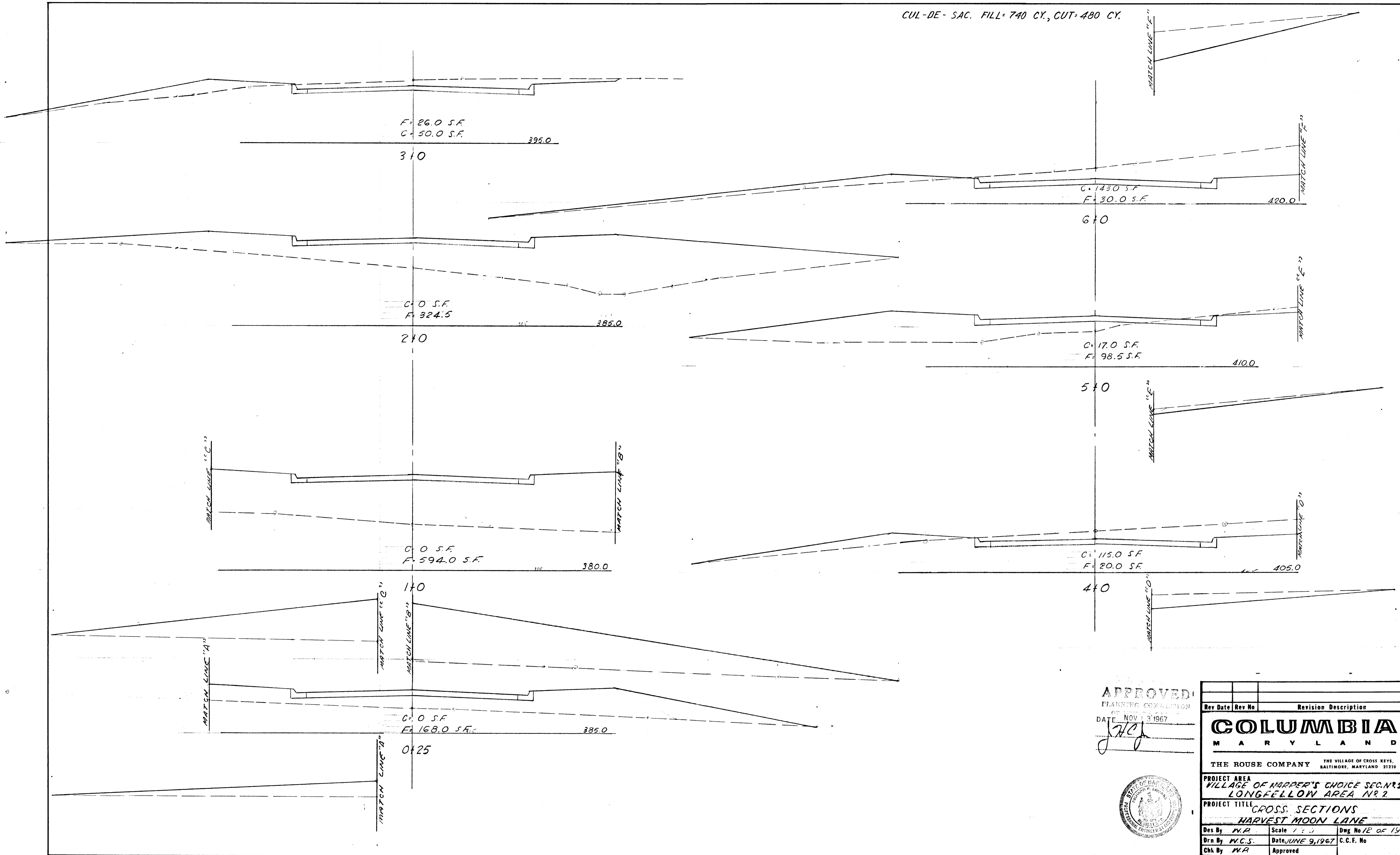


APPROVED
 PLANNING COMMISSION
 DATE NOV 1 3 1967
JWC

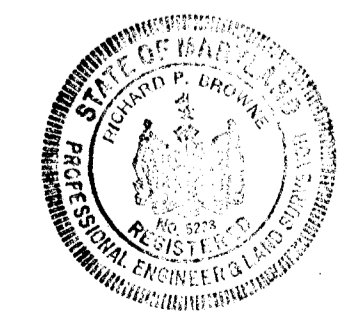


Rev Date	Rev No	Revision Description
COLUMBIA M A R Y L A N D		
THE ROUSE COMPANY THE VILLAGE OF CROSS KEYS, BALTIMORE, MARYLAND 21210		
PROJECT AREA VILLAGE OF HARPER'S CHOICE SECN#1 LONGFELLOW AREA N#2		
PROJECT TITLE CROSS SECTIONS HESPERUS DRIVE		
Des By <i>N.R.</i>	Scale 1"=5'	Dwg No 11 of 19
Drn By <i>W.C.S.</i>	Date JUNE 9, 1967	C.C.F. No
Chk By <i>NP</i>	Approved	

CUL-DE-SAC. FILL=740 CY., CUT=480 CY.



APPROVED
 PLANNING COMMISSION
 DATE NOV 13 1967
JWC



Rev Date	Rev No	Revision Description

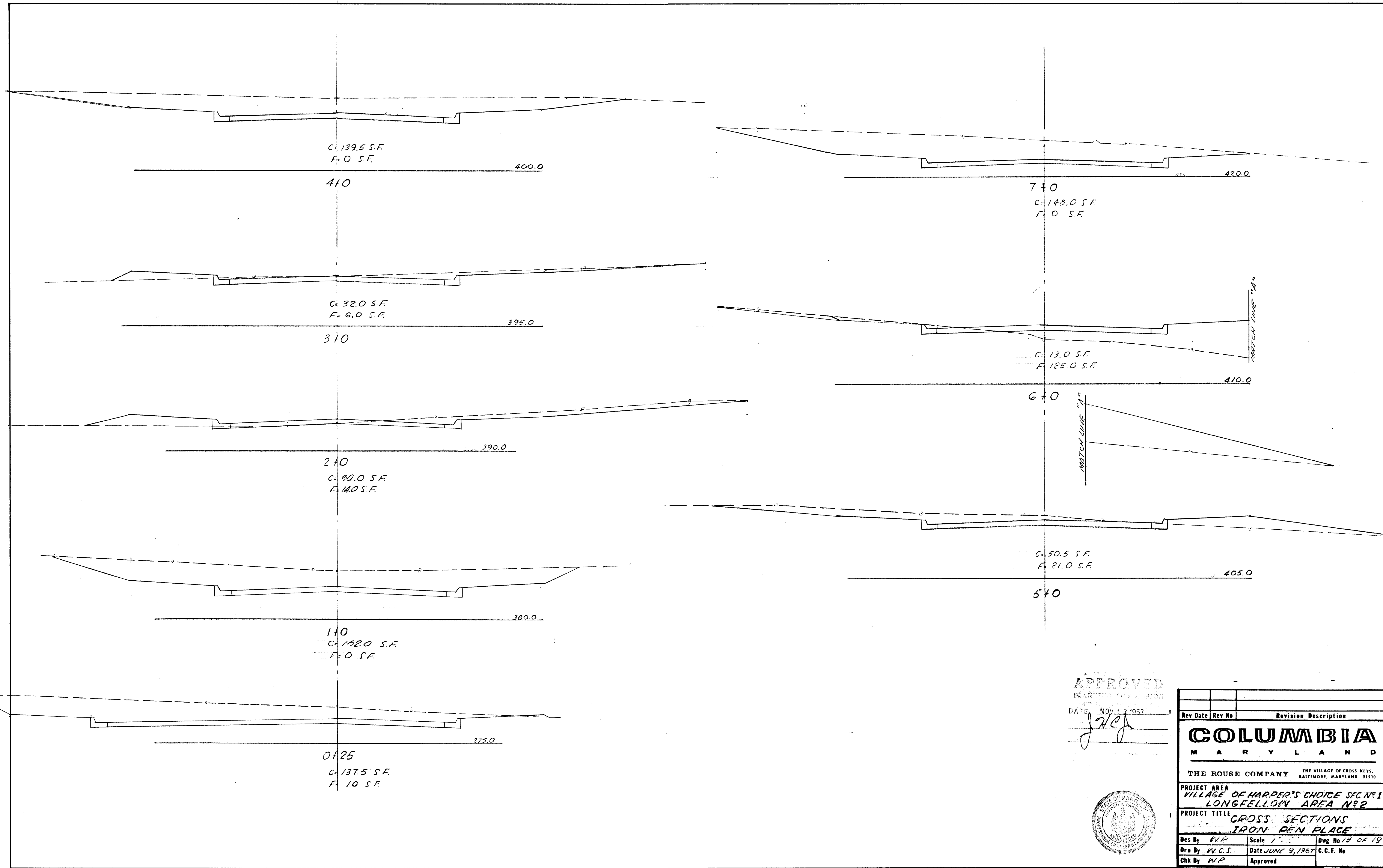
COLUMBIA
 MARYLAND

THE ROUSE COMPANY THE VILLAGE OF CROSS KEYS, BALTIMORE, MARYLAND 21210

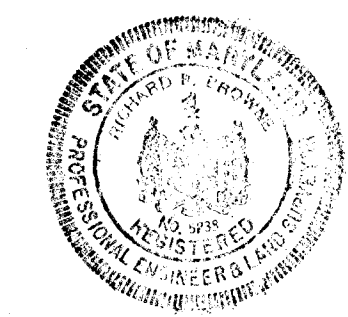
PROJECT AREA
 VILLAGE OF MAPPER'S CHOICE SEC. N. 2
 LONGFELLOW AREA N. 2

PROJECT TITLE
 CROSS SECTIONS
 HARVEST MOON LANE

Des By <i>M.R.</i>	Scale 1"=10'	Dwg No 12 OF 19
Drn By <i>M.C.S.</i>	Date JUNE 9, 1967	C.C.F. No
Chk By <i>M.R.</i>	Approved	



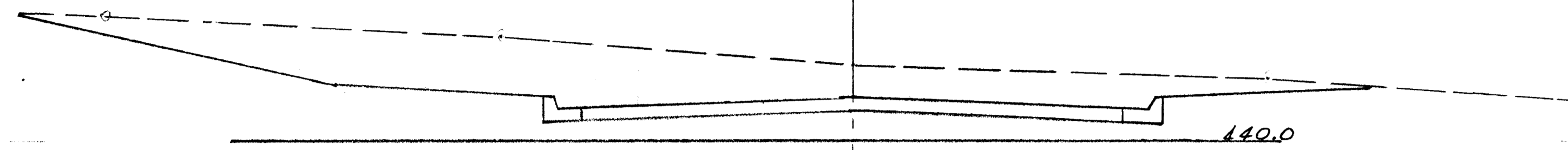
APPROVED
 HEARING OFFICER
 DATE NOV 12 1967
J.P.C.



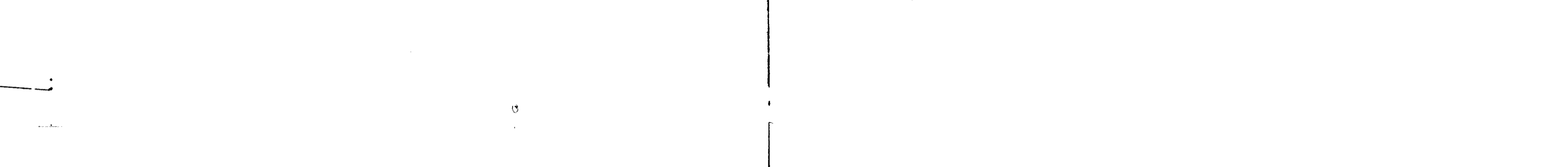
Rev Date	Rev No	Revision Description
COLUMBIA		
M A R Y L A N D		
THE ROUSE COMPANY		THE VILLAGE OF CROSS KEYS, BALTIMORE, MARYLAND 21210
PROJECT AREA VILLAGE OF HARPER'S CHOICE SEC. NO. 1 LONGFELLOW AREA NO. 2		
PROJECT TITLE CROSS SECTIONS IRON PEN PLACE		
Des By	W.P.	Scale 1" = 10'
Drn By	W.C.S.	Date JUNE 9, 1967
Chk By	W.P.	Approved
		Dwg No 18 OF 19
		C.C.F. No

CUL-DE-SAC: FILL = 80 CY, CUT = 1,110 CY.

CUL-DE-SAC: FILL = 890 CY, CUT = 0 CY.

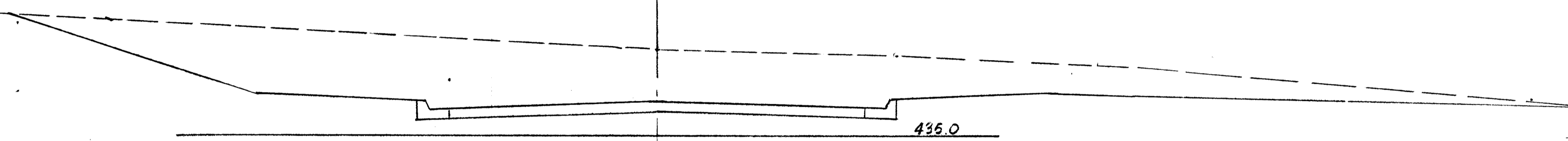


114.0
C = 133.5 S.F.
F = 0 S.F.

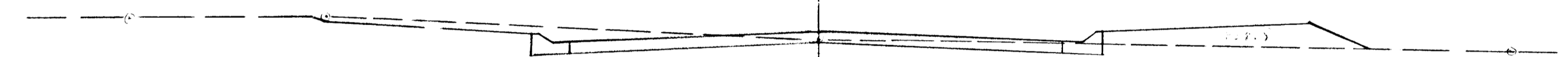


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F = 0 S.F.

1160.92

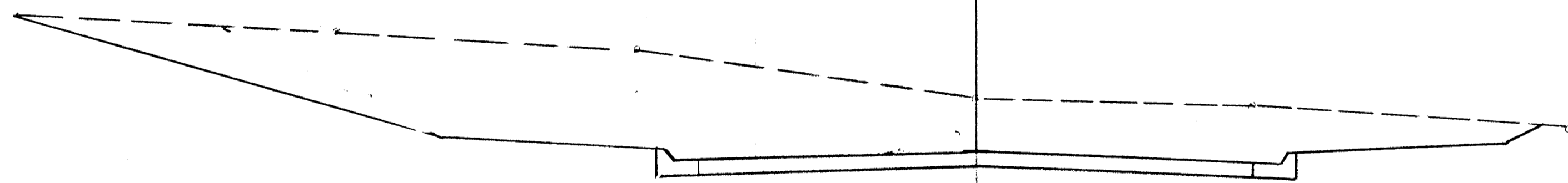


104.0
C = 255.0 S.F.
F = 0 S.F.



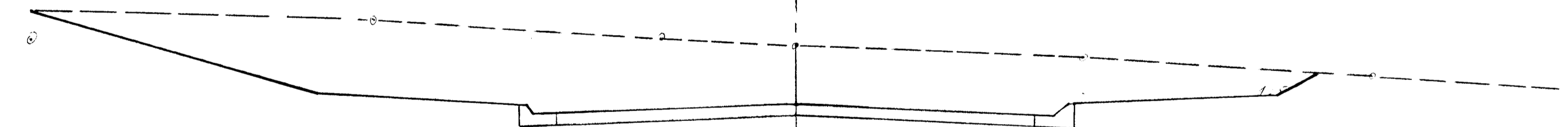
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F = 8.5 S.F.

140



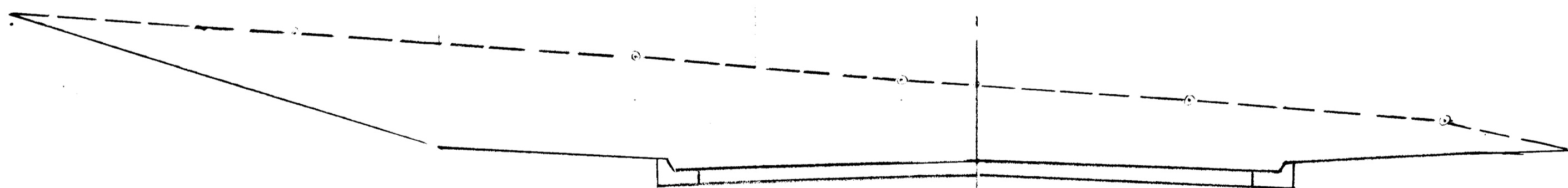
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F = 0 S.F.

94.0



C = 202.50 S.F.
F = 0 S.F.

130.0



C = 267.0 S.F.
F = 0 S.F.

84.0

420.0

LIGHT HOUSE COURT

APPROVED

PLANNING COM. SECON.

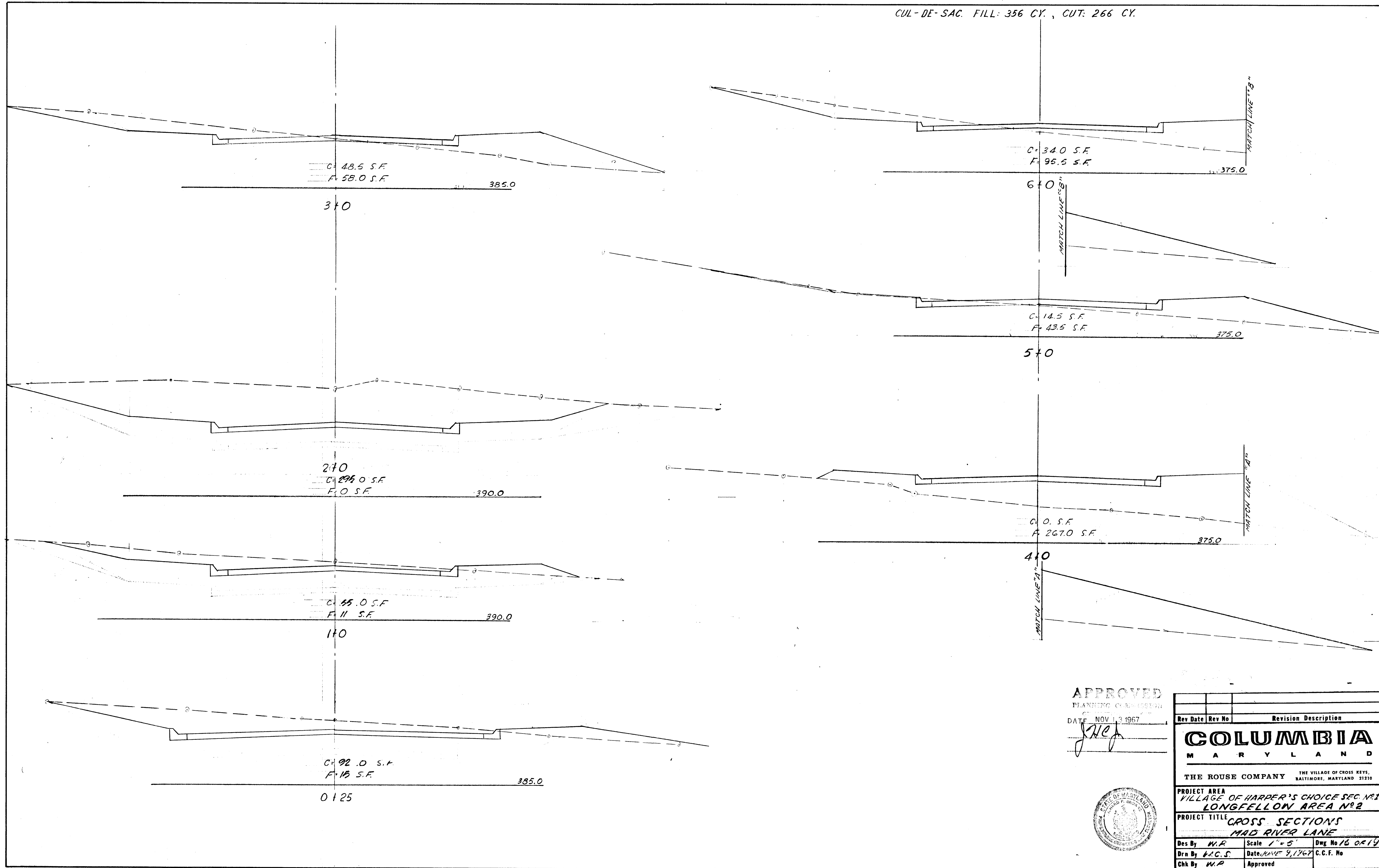
DATE NOV 12 1967

JWC

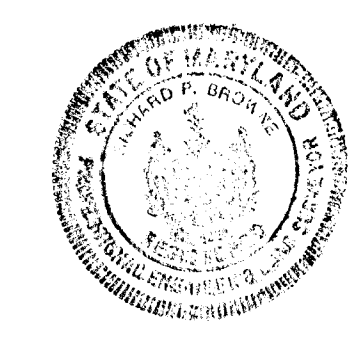


Rev Date	Rev No	Revision Description
COLUMBIA		
M A R Y L A N D		
THE ROUSE COMPANY THE VILLAGE OF CROSS KEYS, BALTIMORE, MARYLAND 21210		
PROJECT AREA VILLAGE OF HARPER'S CHOICE SEC. NO. 2 LONGFELLOW AREA NO. 2		
PROJECT TITLE CROSS SECTIONS IRON PEN PLACE & LIGHT HOUSE CT.		
Des By	Scale	Dwg No
ND	1" = 5'	14 OF 19
Drn By	Date	C.C.F. No
W.C.S.	JUNE 9, 1967	
Chk By	Approved	
W.P.		

CUL-DE-SAC. FILL: 356 CY., CUT: 266 CY.



APPROVED
 PLANNING COMMISSION
 DATE NOV 13 1967
J.H.C.



Rev Date	Rev No	Revision Description

COLUMBIA
 MARYLAND

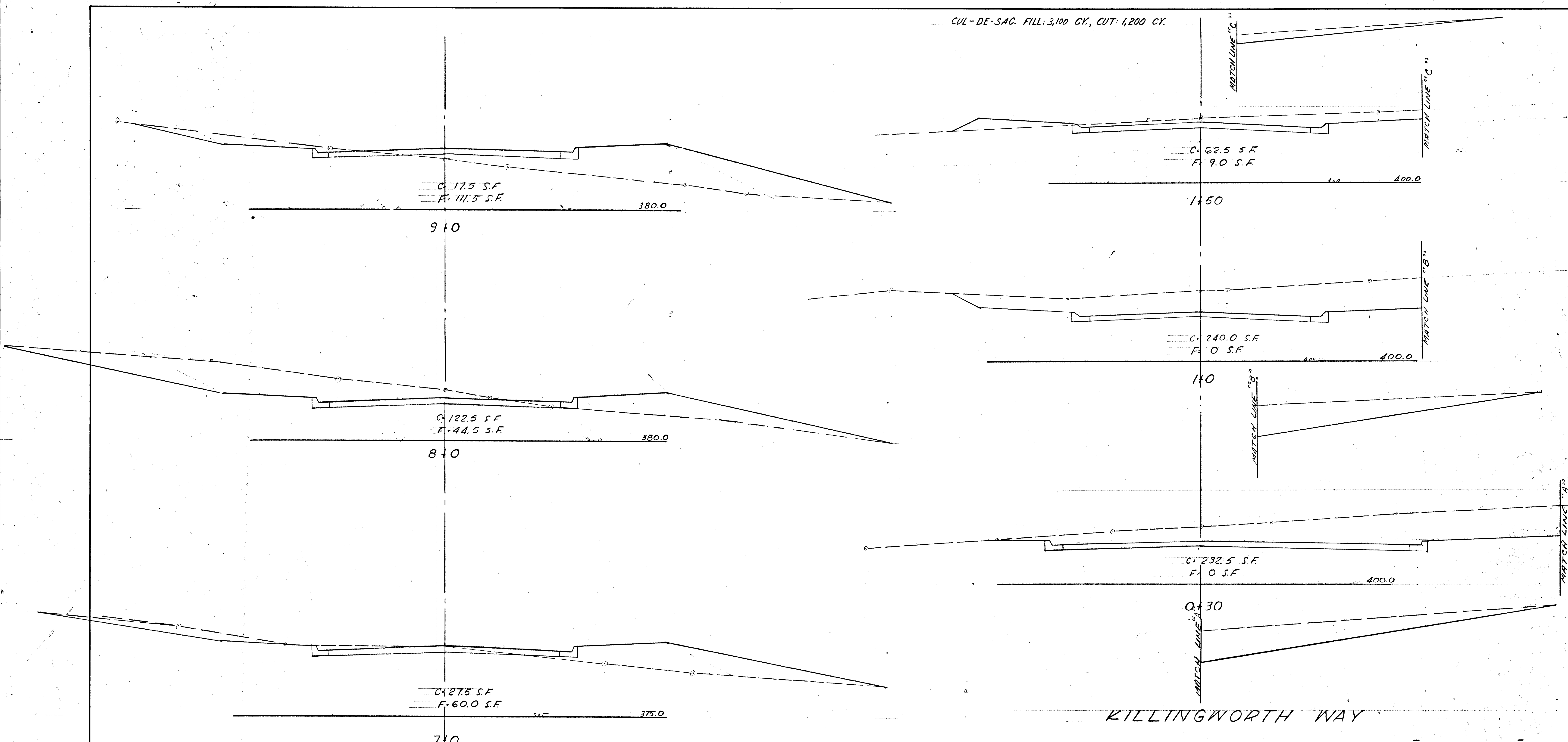
THE ROUSE COMPANY THE VILLAGE OF CROSS KEYS, BALTIMORE, MARYLAND 21210

PROJECT AREA
 VILLAGE OF HARPER'S CHOICE SEC. NO. 1
 LONGFELLOW AREA NO. 2

PROJECT TITLE
 CROSS SECTIONS
 MAD RIVER LANE

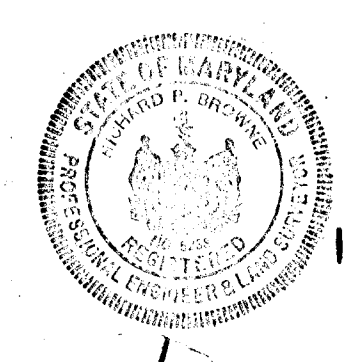
Des By <i>W.P.</i>	Scale 1" = 5'	Dwg No 16 OF 19
Drn By <i>W.C.S.</i>	Date <i>JUNE 9, 1967</i>	C.C.F. No
Chk By <i>W.P.</i>	Approved	

CUL-DE-SAC. FILL: 3,100 CY, CUT: 1,200 CY.



KILLINGWORTH WAY

APPROVED
 PLANNING COMMISSION
 OF THE VILLAGE OF CROSS KEYS
 DATE NOV 13 1967
J. J. [Signature]



Rev Date	Rev No	Revision Description

COLUMBIA
 MARYLAND

THE ROUSE COMPANY THE VILLAGE OF CROSS KEYS, BALTIMORE, MARYLAND 21210

PROJECT AREA
 VILLAGE OF HARPER'S CHOICE SEC. NO. 1
 LONGFELLOW AREA NO. 2

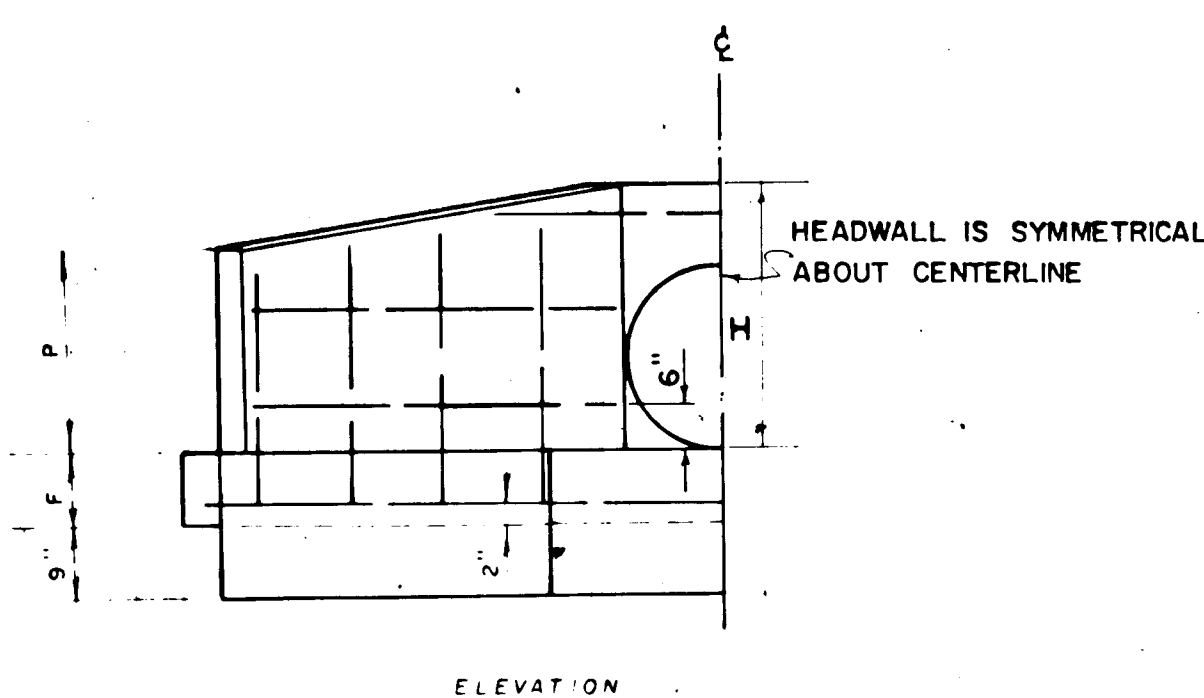
PROJECT TITLE
 CROSS SECTIONS
 MAD RIVER LANE & KILLINGWORTH WAY

Des By	Scale 1"=5'	Dwg No. 01-13
Drn By	Date JUNE 2, 1967	C.C.F. No
Chk By	Approved	

#11

MAD RIVER LANE
 KILLINGWORTH WAY

F-67-33



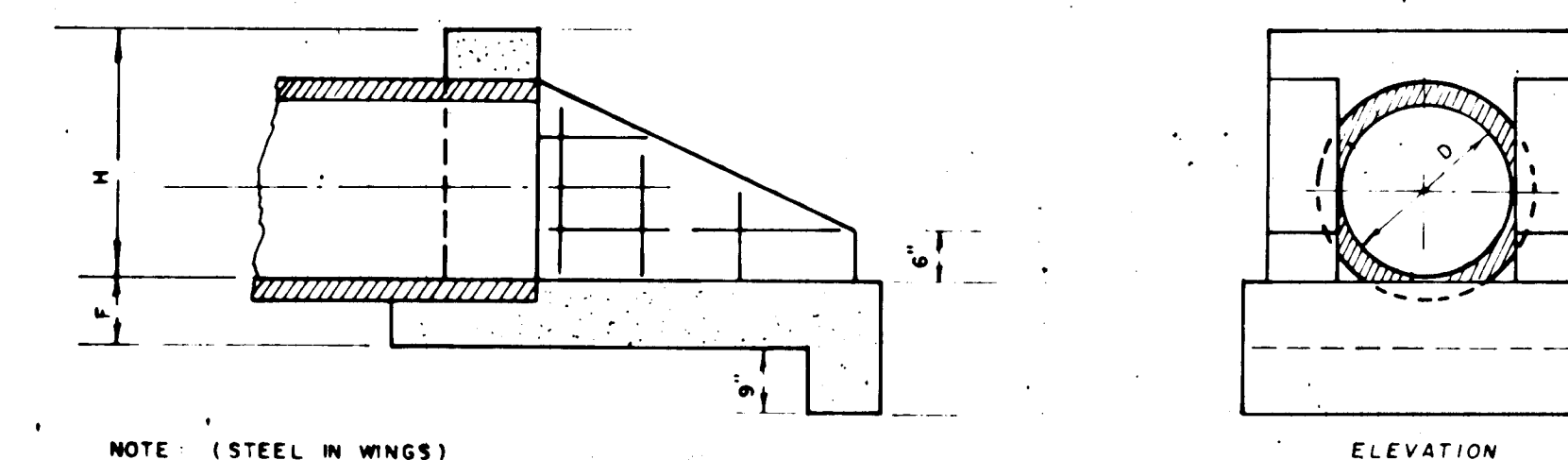
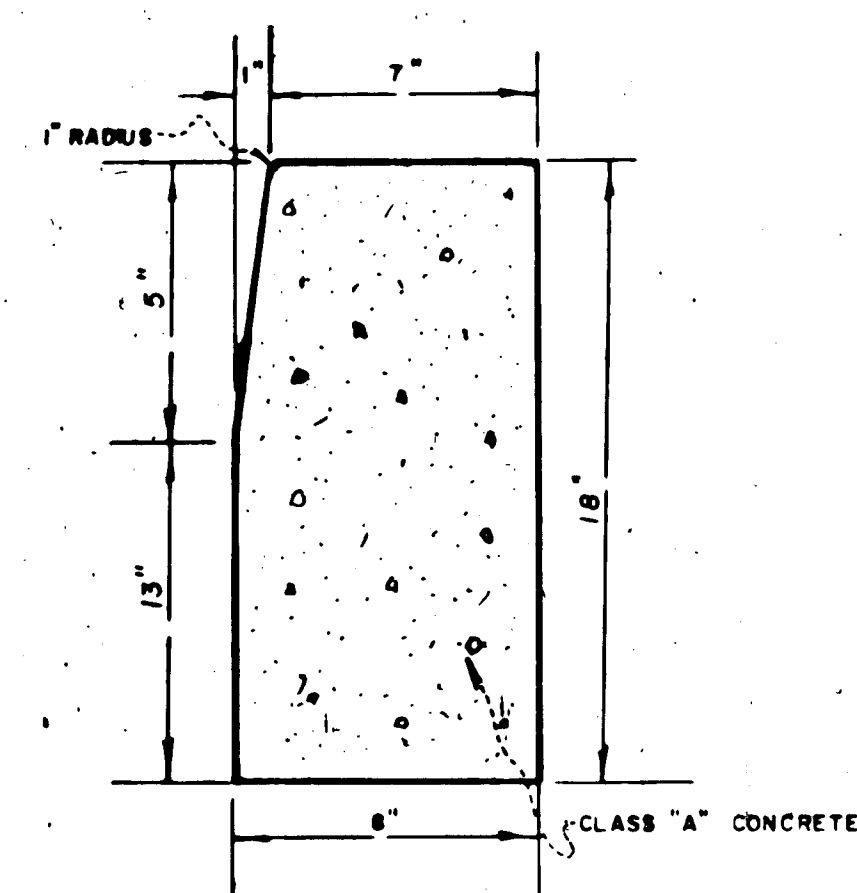
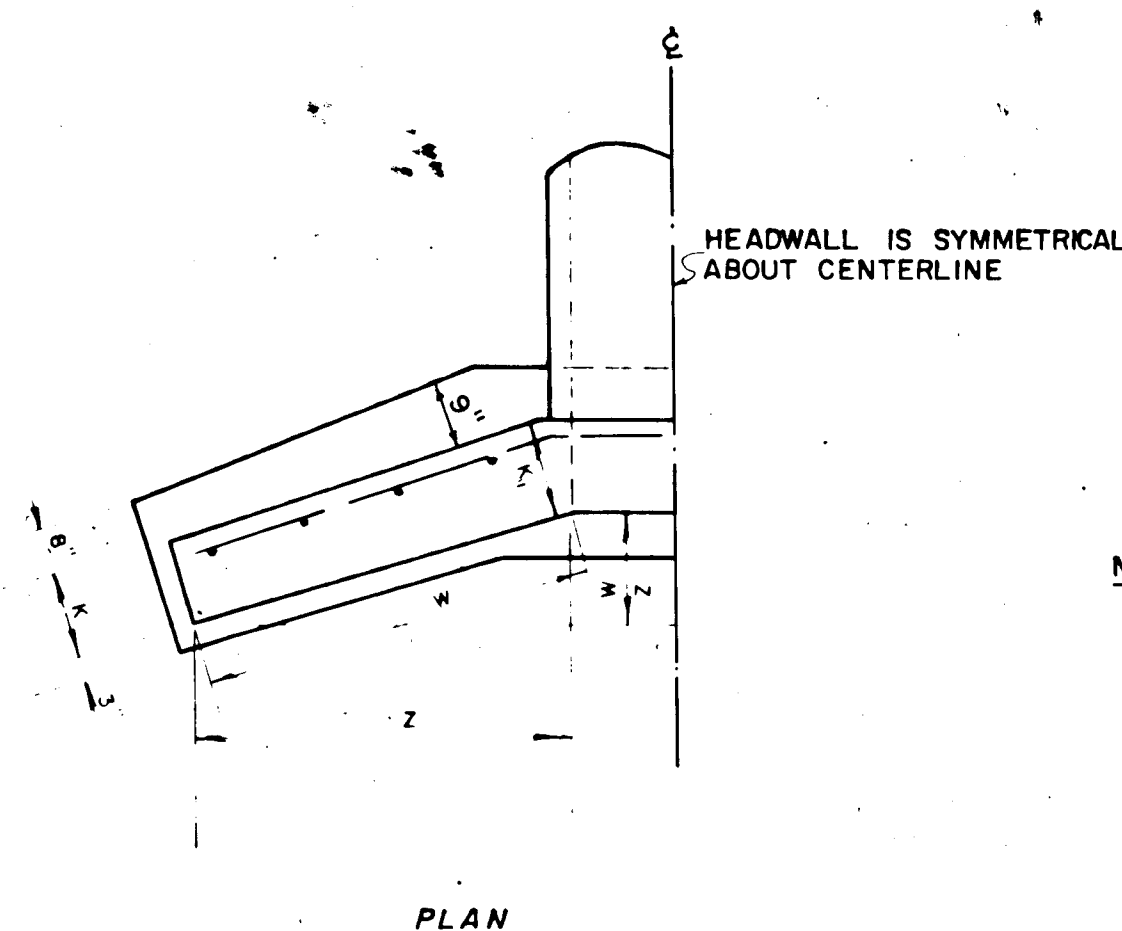
PIPE DIA	OPENING AREA SQ FT	DIMENSION FOR CONCRETE										QUANTITIES	
		L	B	F	H	W	X	Z	K ₁	K ₂	K ₃	CONC CU YDS	STEEL LBS
12"	0.79	1.9	9"	1.7	2.3	0.2	0.9	7"	1.3			0.55	38
15"	1.23	2.0	9"	1.8	2.6	0.2	0.9	8"	1.5			0.73	46
16"	1.39	2.1	9"	1.9	2.7	0.2	0.9	8"	1.5			0.75	46
18"	1.78	2.3	9"	2.2	3.0	0.2	0.9	8"	1.7			0.89	57
24"	3.14	3.0	12"	2.9	4.0	0.3	0.9	12"	2.1			1.64	82
30"	4.91	3.6	12"	3.4	4.8	0.3	0.9	12"	2.6			2.14	113
36"	7.07	4.0	12"	3.8	5.4	0.3	0.9	12"	3.0			2.48	132
42"	9.62	4.6	12"	4.5	6.4	0.3	0.9	12"	3.5			3.30	163
48"	12.57	5.0	12"	4.9	7.0	0.3	0.9	12"	3.6			3.85	193

NOTE: (STEEL IN WINGS)
VERT 3/4" BARS 12" C.C.
HOR 1/2" BARS 12" C.C.
HOOKED ON ONE END

NOTE: CHAMFER ALL EXPOSED EDGES
1"x1" OR AS DIRECTED

MODIFIED TYPE "F" HEADWALL

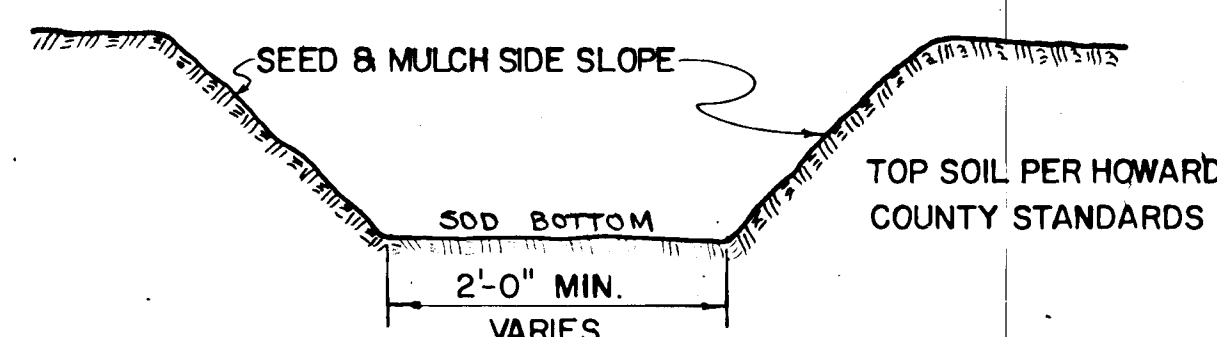
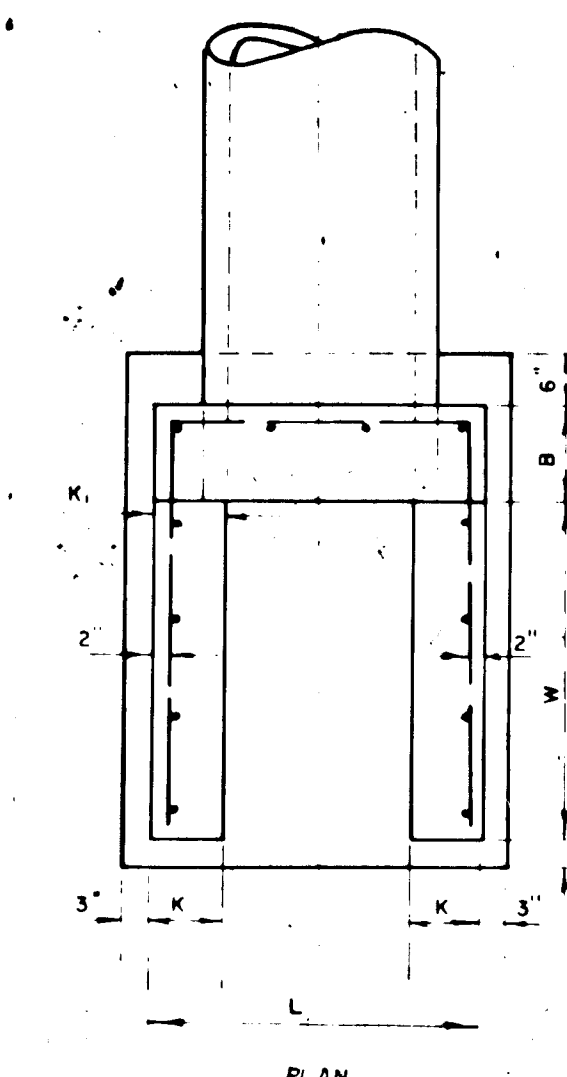
NOTE: 1. HEADWALLS FOR PIPE SIZES NOT SHOWN IN TABLE ABOVE, USE HEADWALL SPECIFIED FOR NEXT LARGEST PIPE.
2. HEADWALL IS MODIFIED IN ACCORDANCE WITH CASE 2 FOR A TYPE "F" ENDWALL AS INDICATED IN THE HOWARD COUNTY ROAD CONSTRUCTION CODE & STANDARD SPECIFICATIONS.



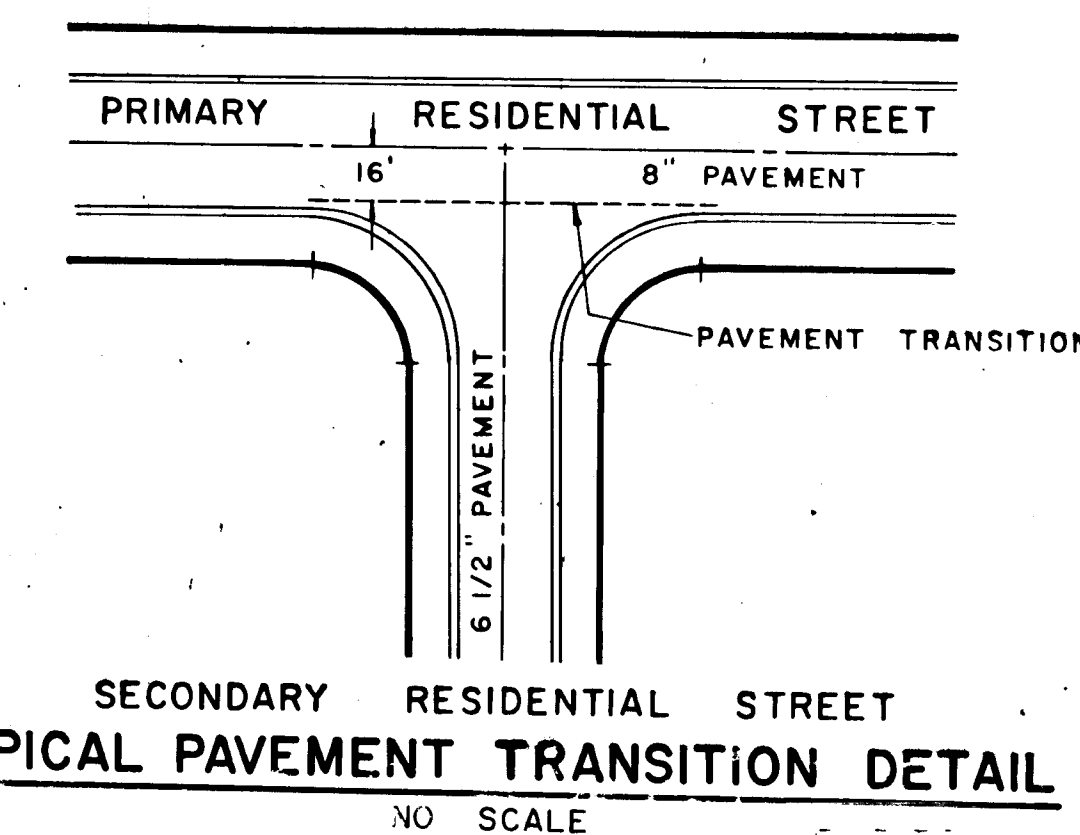
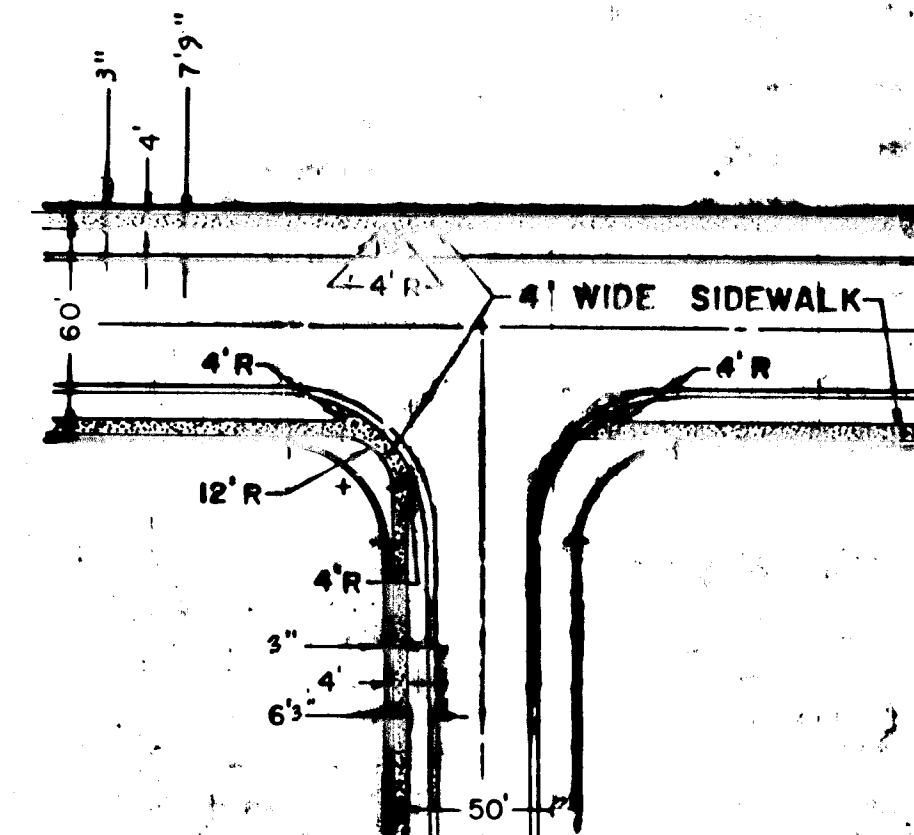
NOTE: (STEEL IN WINGS)
VERT 3/4" BARS 12" C.C.
HOR 1/2" BARS 12" C.C.
HOOKED ON ONE END
NOTE: CHAMFER ALL EXPOSED EDGES
1"x1" OR AS DIRECTED

PIPE DIA	OPENING AREA SQ FT	DIMENSIONS FOR CONCRETE										QUANTITIES	
		L	B	F	H	W	X	Z	K ₁	K ₂	K ₃	CONC CU YDS	STEEL LBS
12"	0.79	2.0	9"	1.7	2.4	0.2	0.9	6"				0.36	34
15"	1.23	2.3	9"	1.8	2.6	0.2	0.9	6"				0.47	37
16"	1.39	2.4	9"	1.9	2.7	0.2	0.9	6"				0.50	38
18"	1.78	2.6	9"	2.2	3.0	0.2	0.9	6"				0.61	53
24"	3.14	3.6	12"	2.9	4.0	0.3	0.9	9"				1.17	71
30"	4.91	4.0	12"	3.4	4.7	0.3	0.9	9"				1.62	91
36"	7.07	4.6	12"	3.8	5.4	0.3	0.9	9"				2.12	116
42"	9.62	5.0	12"	4.5	6.4	0.3	0.9	12"				3.15	141
48"	12.57	5.6	12"	4.9	7.0	0.3	0.9	12"				3.88	174

STANDARD TYPE "G" HEADWALL



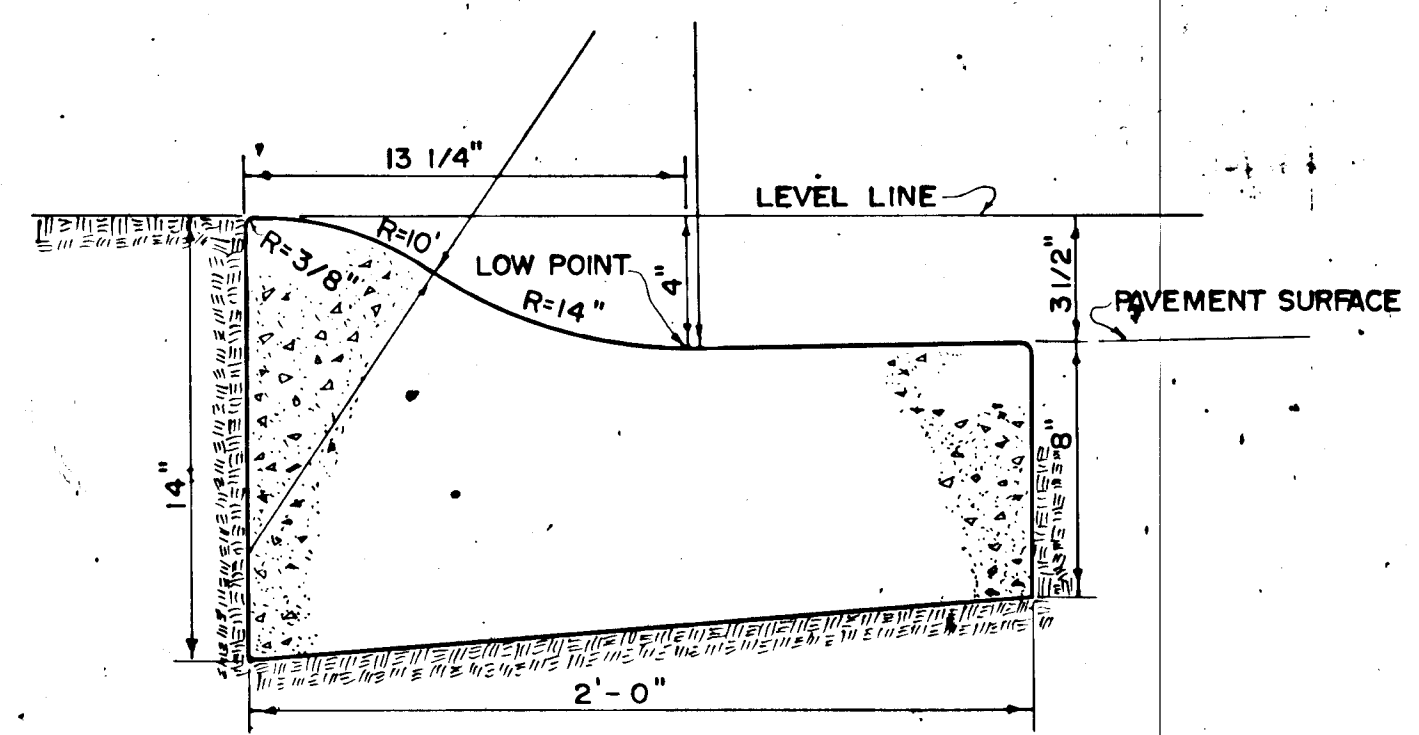
NOTE: ALL EXISTING DITCHES APPROACHING PROPOSED HEADWALLS SHALL BE TRIMMED IN ACCORDANCE WITH ARTICLE C-6 OF THE HOWARD CO. ROAD CONSTRUCTION CODE & STANDARD SPECIFICATIONS.



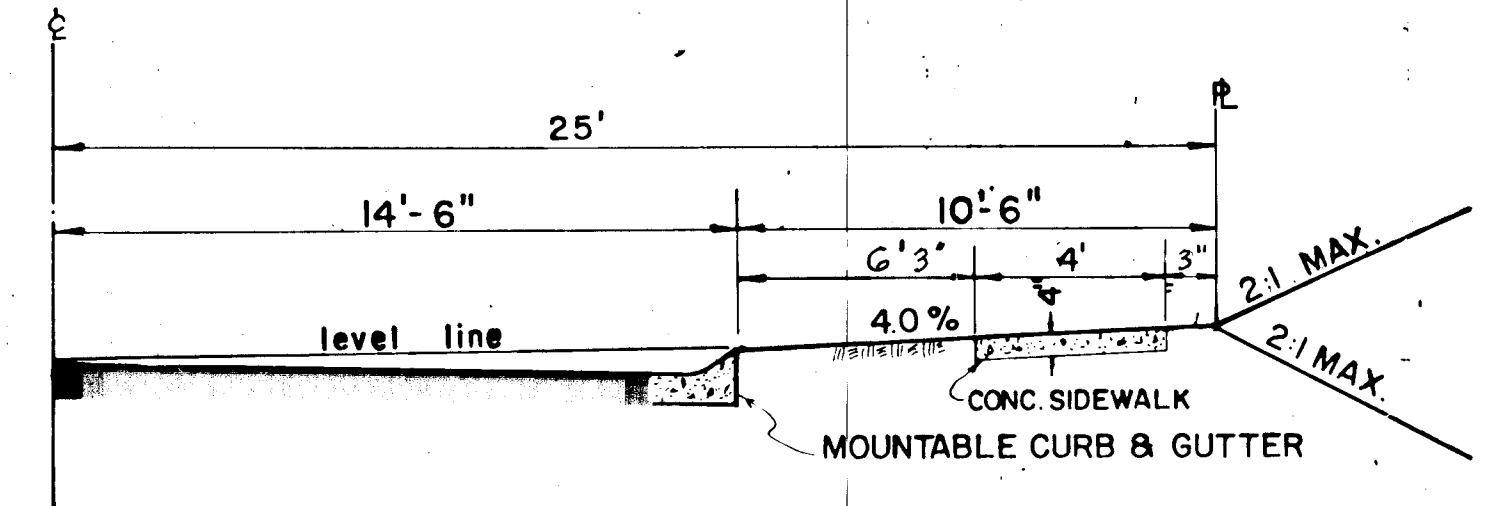
APPROVED
PLANNING COMMISSION
DATE NOV 13 1967
JAC

Richard P. Browne
RICHARD P. BROWNE, P.E. & L.S.
Lic. No. 5238 State MD.

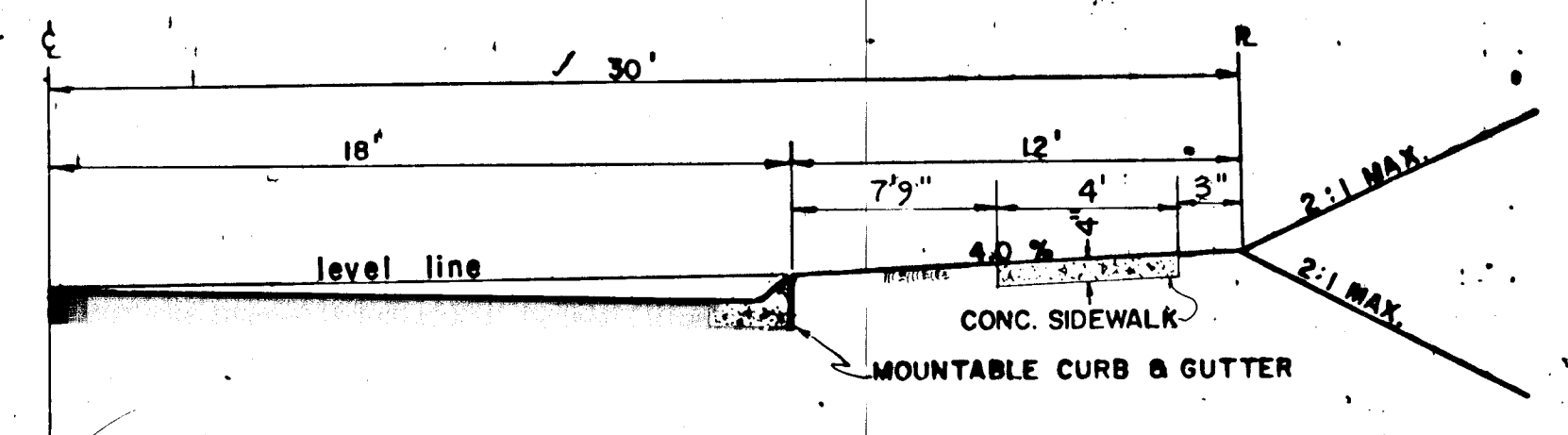
Rev Date	Rev No	Revision Description
COLUMBIA MARYLAND		
THE ROUSE COMPANY THE VILLAGE OF CROSS KEYS, BALTIMORE, MARYLAND 21210		
PROJECT AREA VILLAGE OF HARPER'S CHOICE SEC NO 2 LONGFELLOW AREA N52		
PROJECT TITLE CONSTRUCTION DETAILS		
Des By	Scale	Dwg No. 170019
Drn By	Date	JUNE 9, 1967 C.C.F. No
Chk By	Approved	



MOUNTABLE CURB & GUTTER
NO SCALE

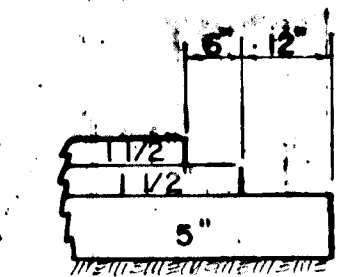


TYPICAL STREET HALF SECTION
NO SCALE

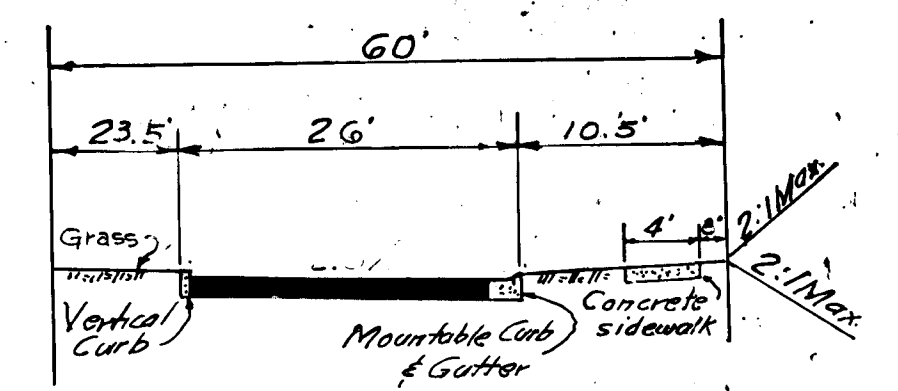


TYPICAL STREET HALF SECTION
NO SCALE

NOTE: SIDEWALK AT DRIVEWAYS IS 6" THICK.



TYPICAL EDGE OF PAVEMENT
(WHERE CURB IS NOT CONSTRUCTED)
NO SCALE



TYPICAL HALF SECTION - CUL-DE-SAC
NO SCALE

BITUMINOUS CONCRETE SURFACE	1.5" BAND C-3	FINAL PHASE
BITUMINOUS CONCRETE DIMPER	1.5" BAND A-3	
BITUMINOUS CONCRETE BASE (PLACED IN ONE COURSE)	5" BAND C-2 OR G-3	FIRST PHASE

CLEARING AND GRADING ARTICLE C-1
SUBGRADE ARTICLE C-2
BASE COURSE ARTICLE C-31 OR C-33
DIMPER COURSE ARTICLE C-31
SURFACE COURSE ARTICLE C-31

TO BE CONSTRUCTED IN ACCORDANCE WITH THE HOWARD COUNTY ROAD CONSTRUCTION CODE AND SPECIFICATIONS.

PRIMARY RESIDENTIAL STREET
NO SCALE

BITUMINOUS CONCRETE SURFACE	1.5" BAND C-3	FINAL PHASE
BITUMINOUS CONCRETE BASE (PLACED IN ONE COURSE)	5" BAND C-2 OR G-3	FIRST PHASE

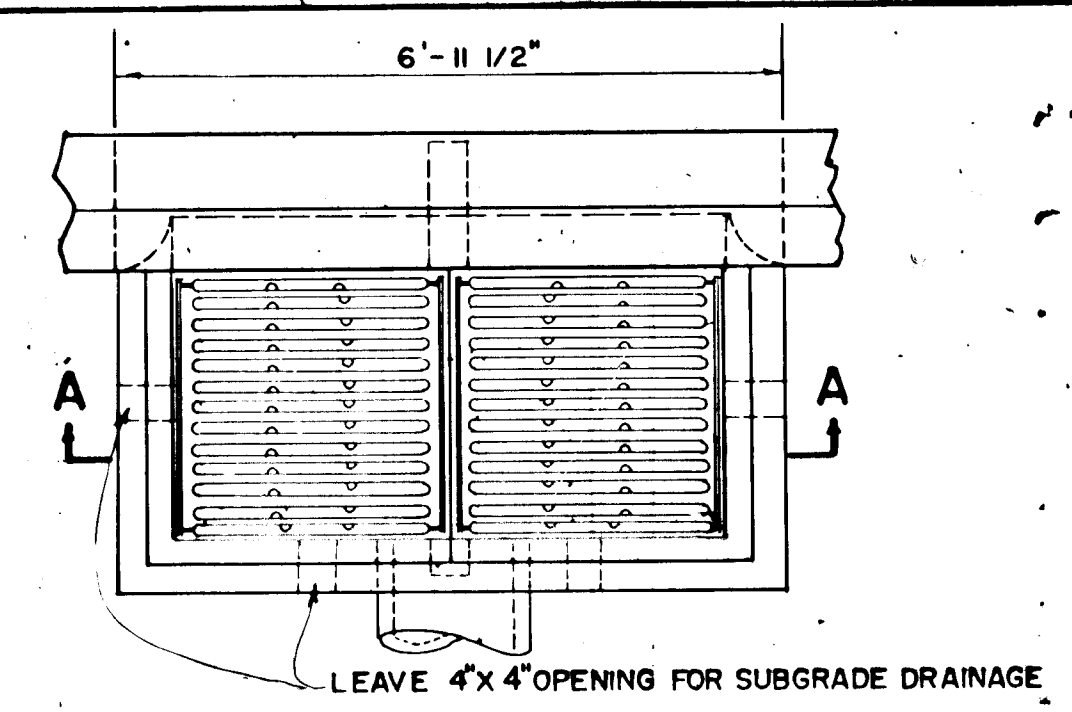
CLEARING and GRADING ARTICLE C-1
SUBGRADE ARTICLE C-2
BASE COURSE ARTICLE C-31 or C-33
SURFACE COURSE ARTICLE C-31

TO BE CONSTRUCTED IN ACCORDANCE WITH THE HOWARD COUNTY ROAD CONSTRUCTION CODE AND SPECIFICATIONS.

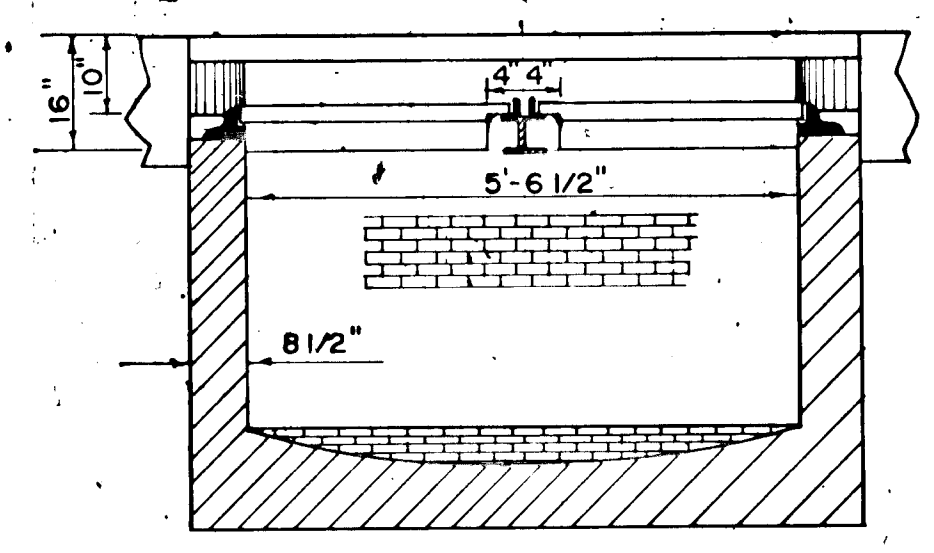
SECONDARY RESIDENTIAL STREET
NO SCALE

PAVEMENT SECTIONS

Richard R. Brown
RICHARD R. BROWN, P.E. & L.S.
Lic. No. 5238 State MD.



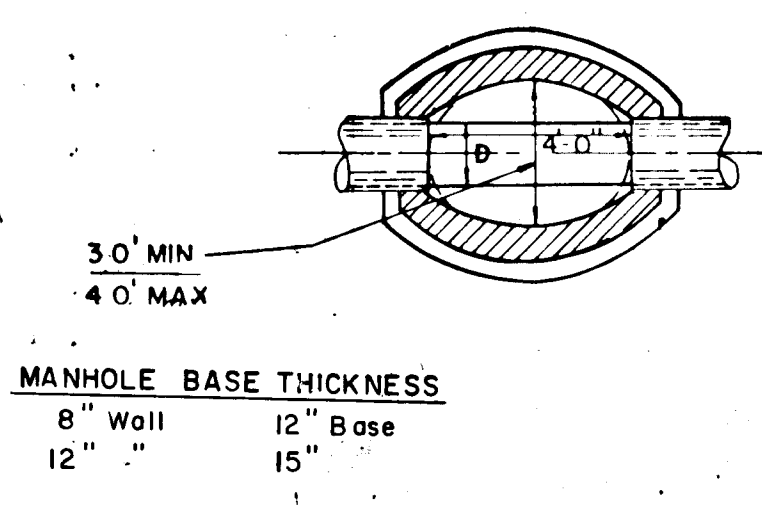
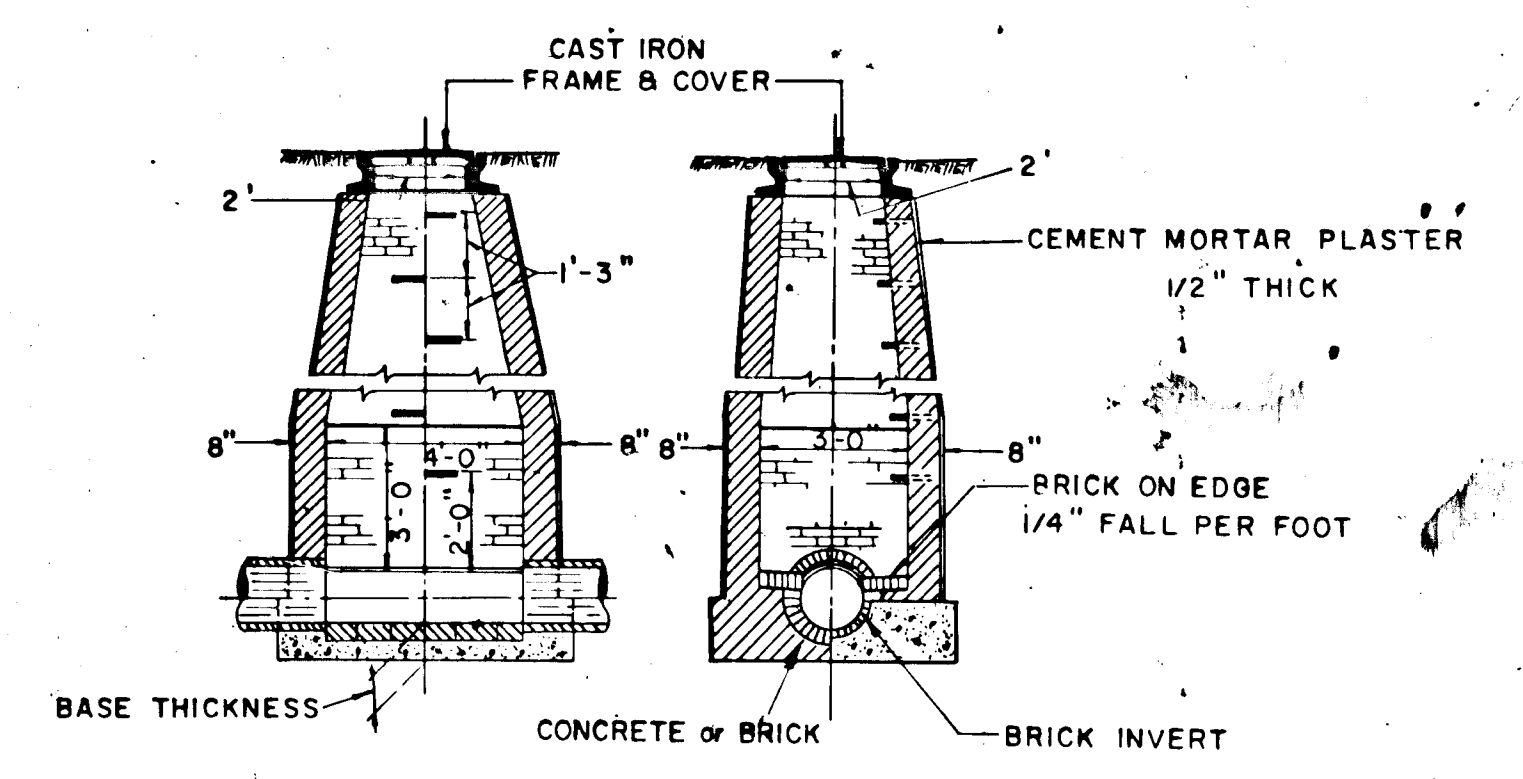
"S" COMBINATION INLET (DOUBLE GRATE)
NO SCALE



SECTION "A-A"
NO SCALE

BENCH HEIGHT ABOVE OUTGOING PIPE INVERT
Storm Water 0.5 D

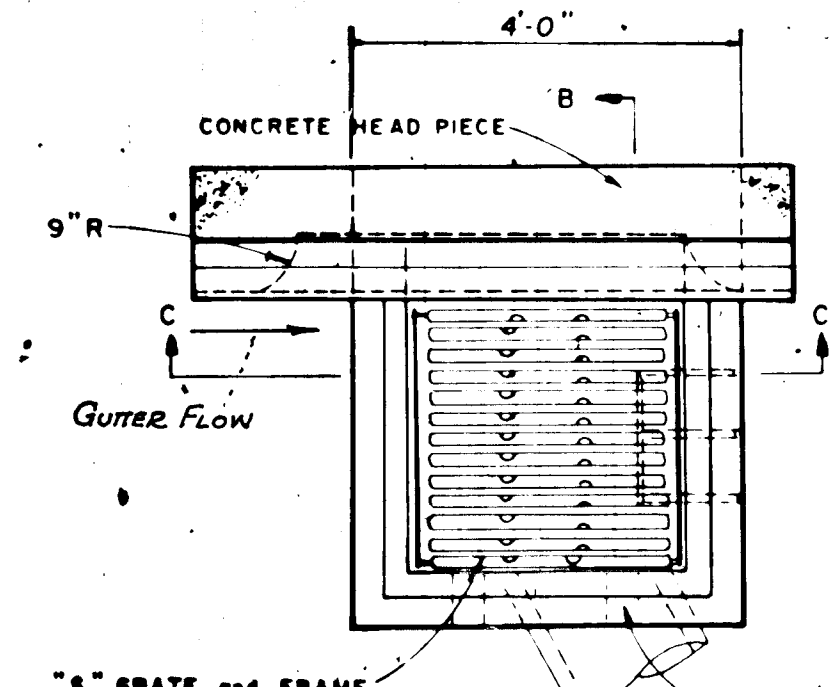
STANDARD MANHOLE DETAIL
NO SCALE



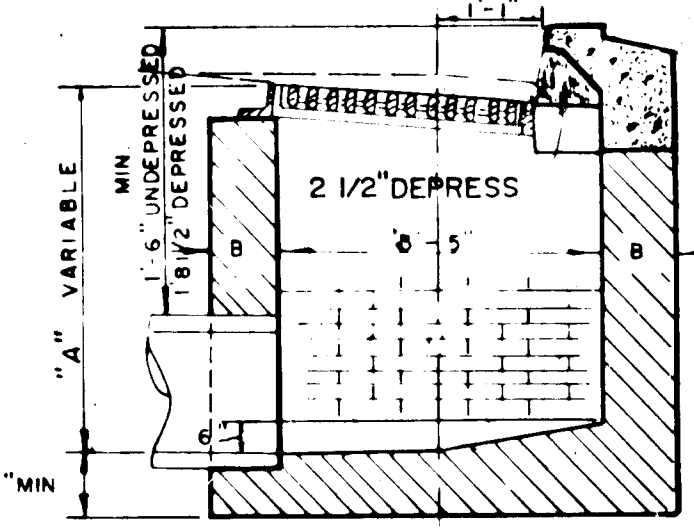
MANHOLE BASE THICKNESS
8" Wall 12" Base
12" 15"

MANHOLE WALL THICKNESS
8" to depth of 12'-0"
12" Below depth of 12'-0"
12" To depth of 24'-0"

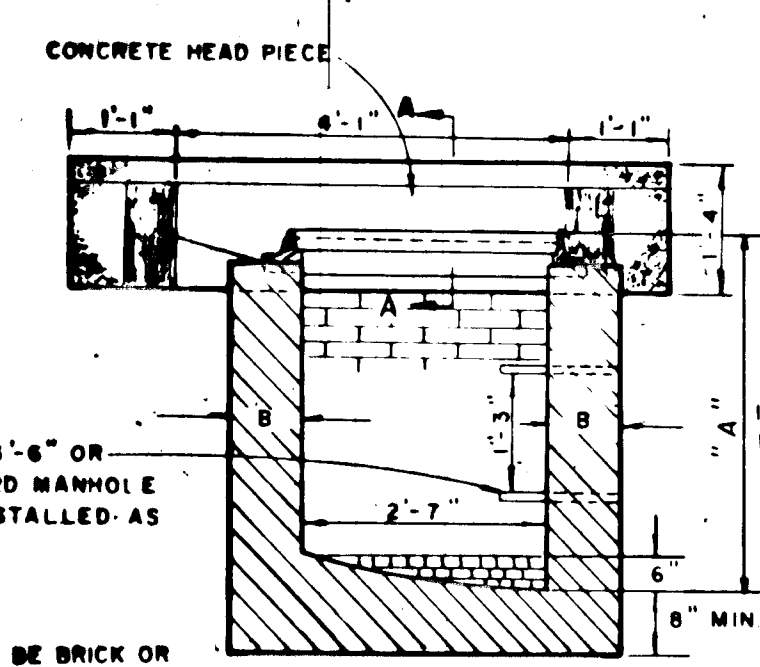
Rev Date	Rev No	Revision Description
COLUMBIA MARYLAND		
THE ROUSE COMPANY THE VILLAGE OF CROSS KEYS, BALTIMORE, MARYLAND 21210		
PROJECT AREA VILLAGE OF HARPER'S CHOICE SEC. NO. 1 LONGFELLOW AREA N.?		
PROJECT TITLE CONSTRUCTION DETAILS		
Des By	Scale AS NOTED	Dwg No. 91-12
Drn By	Date JUNE 21, 1991	C.C.F. No.
Chk By	Approved:	



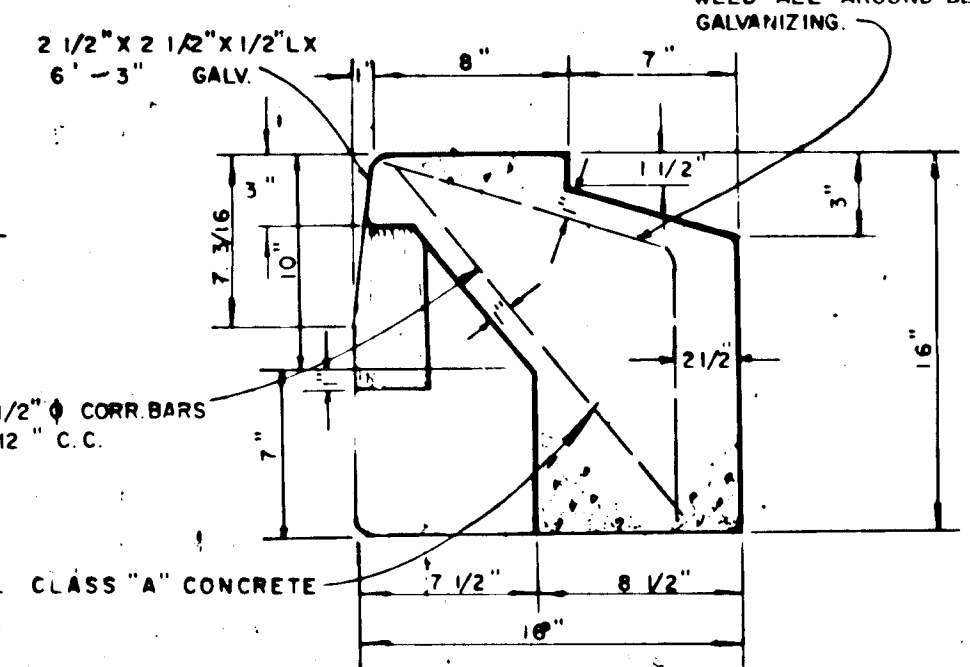
SECTION "B-B"



SECTION "A-A"



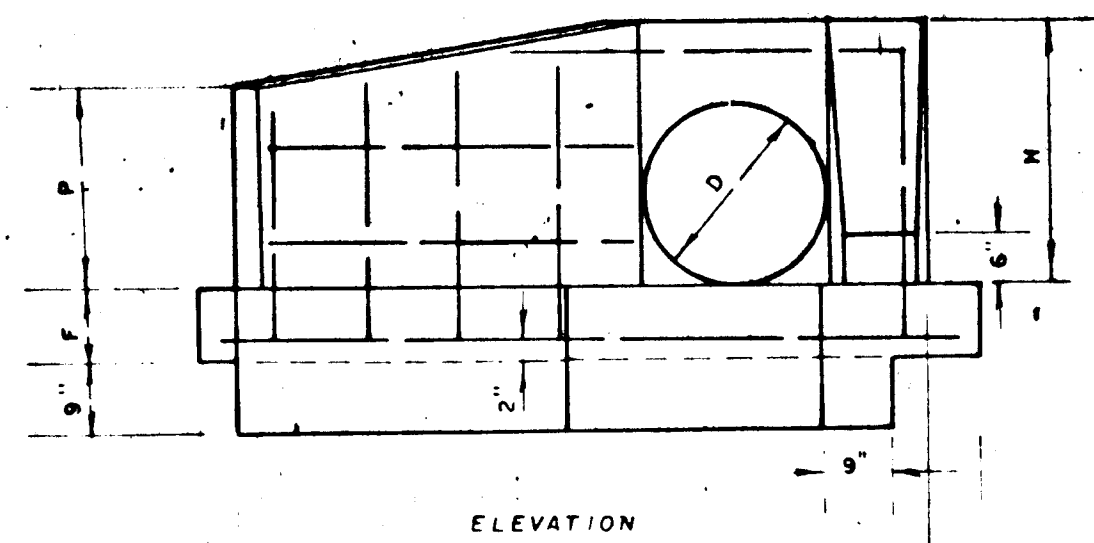
SECTION "C-C"



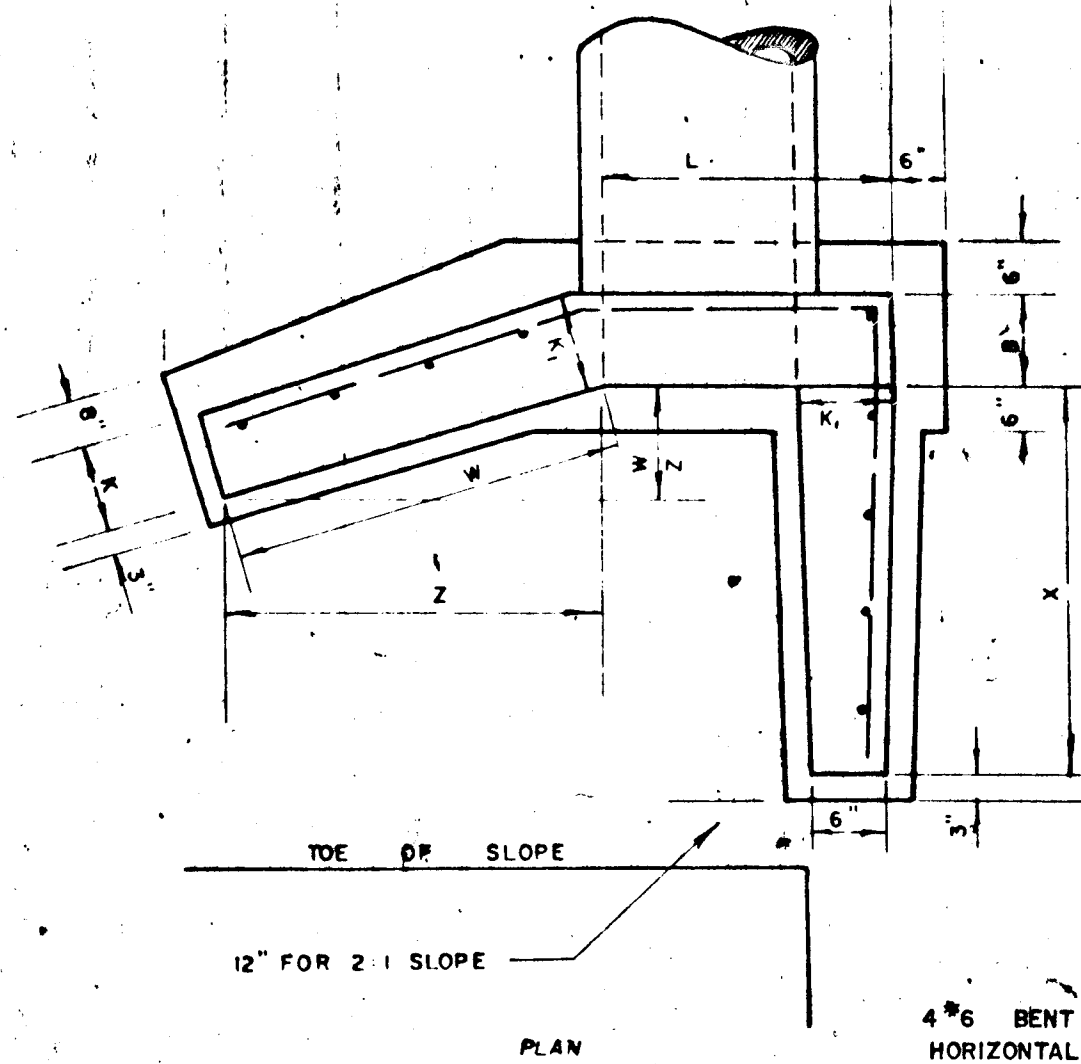
SECTION "A-A"

- NOTE:
1. THE WALLS AND INVERT SHALL BE BRICK OR PLAIN CLASS "A" REINFORCED CONCRETE.
 2. B = 8" WHERE A IS 7' OR LESS. B = 12" WHERE A IS 7' TO 11'.
 3. TOP 4" OF WALLS SHALL BE BRICK MASONRY. ADDITIONAL BRICK SHALL BE USED TO BRING THE GRATE TO EXISTING GRADE IF REQUIRED.
 4. WHERE BRICK IS USED INVERT SHALL BE LAID ON EDGE.

"S" COMBINATION INLET DETAIL MODIFIED (SINGLE GRATE)
NO SCALE



ELEVATION



PLAN

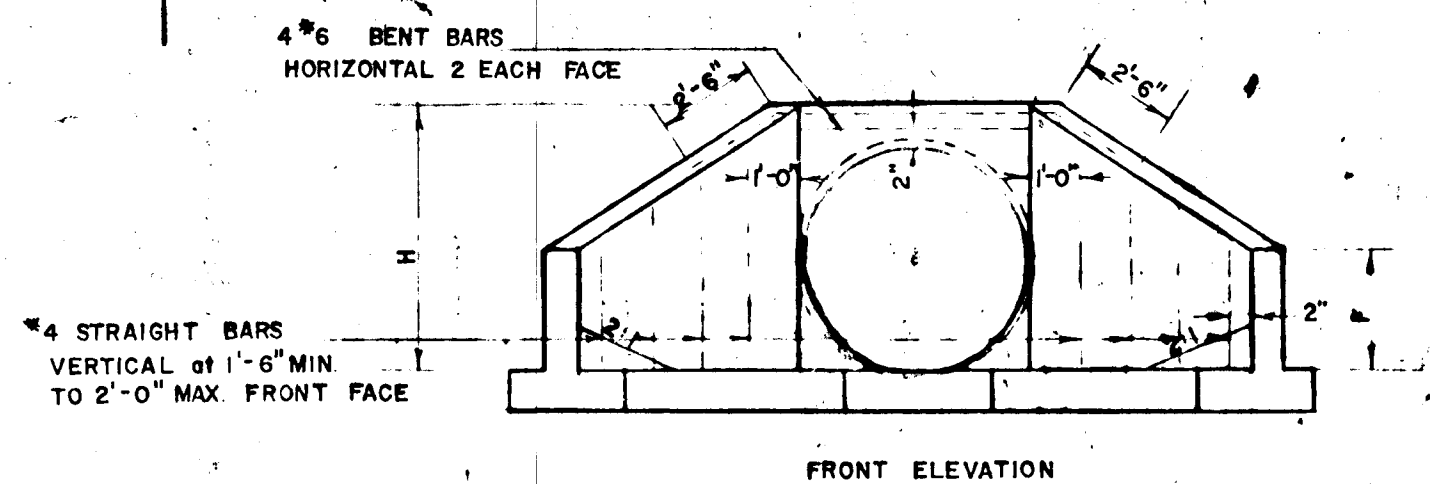
OPENING D IN FT	DIMENSION FOR CONCRETE											QUANTITIES	
	ENDWALL		WINGS							1 ENDWALL 2 WINGS		CONC. CU. YDS.	STEEL LBS.
	L	B	F	H	W	X	Z	K	P				
12	0.79	1'-9"	9"	1'-7"	2'-3"	1'-0"	2'-0"	9"	7"	1'-3"		0.55	38
15	1.23	2'-0"	9"	1'-7"	2'-6"	2'-2"	9"	9"	8"	1'-5"		0.73	46
16	1.39	2'-1"	9"	1'-11"	2'-6"	2'-3"	9"	9"	8"	1'-5"		0.75	46
18	1.78	2'-3"	9"	2'-2"	3'-0"	2'-7"	9"	8"	1'-7"		0.89	57	
24	3.14	3'-0"	12"	2'-9"	4'-0"	4'-0"	3'-5"	12"	11"	2'-1"		1.64	82
30	4.91	3'-6"	12"	3'-4"	4'-8"	4'-2"	4'-1"	12"	11"	2'-8"		2.14	113
36	7.07	4'-0"	12"	3'-0"	5'-4"	6'-2"	4'-7"	12"	11"	2'-0"		2.48	132
42	9.62	4'-6"	12"	3'-4"	6'-4"	7'-4"	5'-6"	12"	11"	3'-2"		3.30	163
48	12.57	5'-0"	12"	3'-4"	7'-0"	8'-4"	6'-7"	12"	11"	3'-6"		3.85	193

NOTE: (STEEL IN WINGS)
VERT. 3/4" BARS 12" C.C.
HOR. 1/2" BARS 12" C.C.
HOOKED ON ONE END

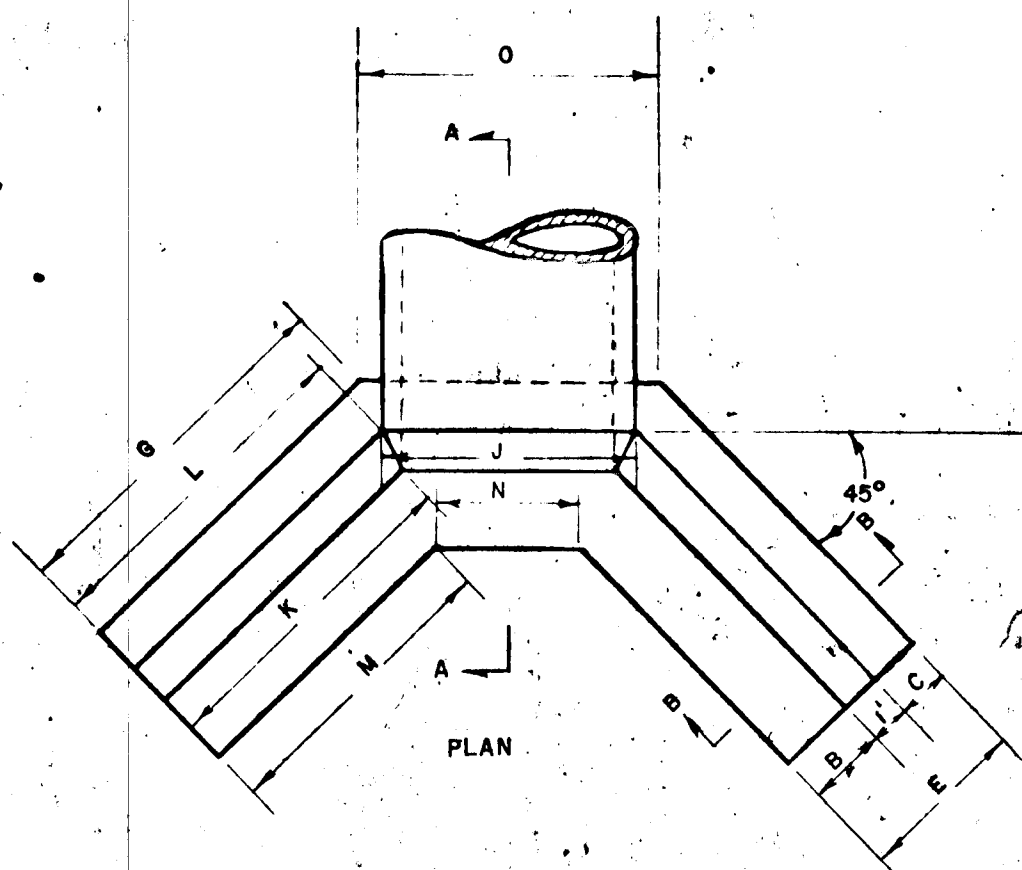
NOTE: CHAMFER ALL EXPOSED EDGES
1" x 1" OR AS DIRECTED.

STANDARD TYPE "F" ENDWALL

NOTE: 1. ENDWALLS WILL BE SET IN THE FIELD BY THE ENGINEER DURING CONSTRUCTION.
2. ENDWALL FOR 33" PIPE SHALL BE CONSTRUCTED TO THE DIMENSIONS FOR 36" PIPE DIAMETER.
3. WINGWALLS FOR TYPE "F" ENDWALLS SHALL BE CONSTRUCTED TO CONFORM TO THE ALIGNMENT OF EXISTING BROOK CHANNELS.

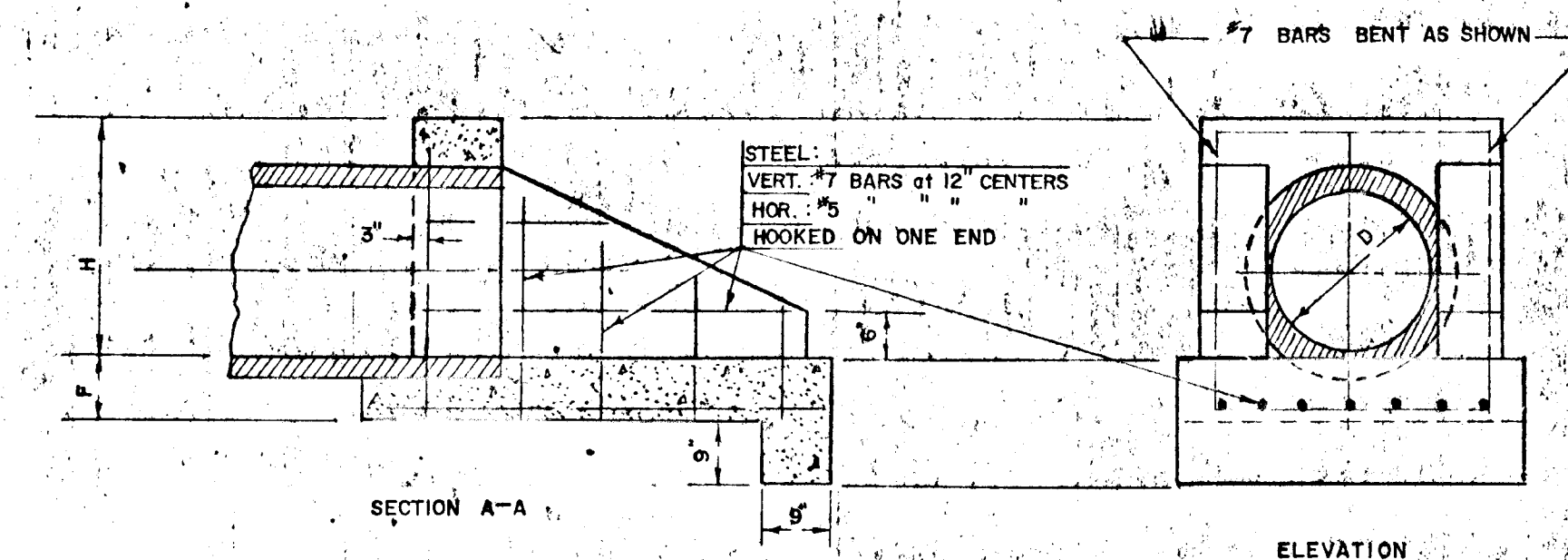


FRONT ELEVATION



PLAN

STANDARD SMALL "B" HEADWALL

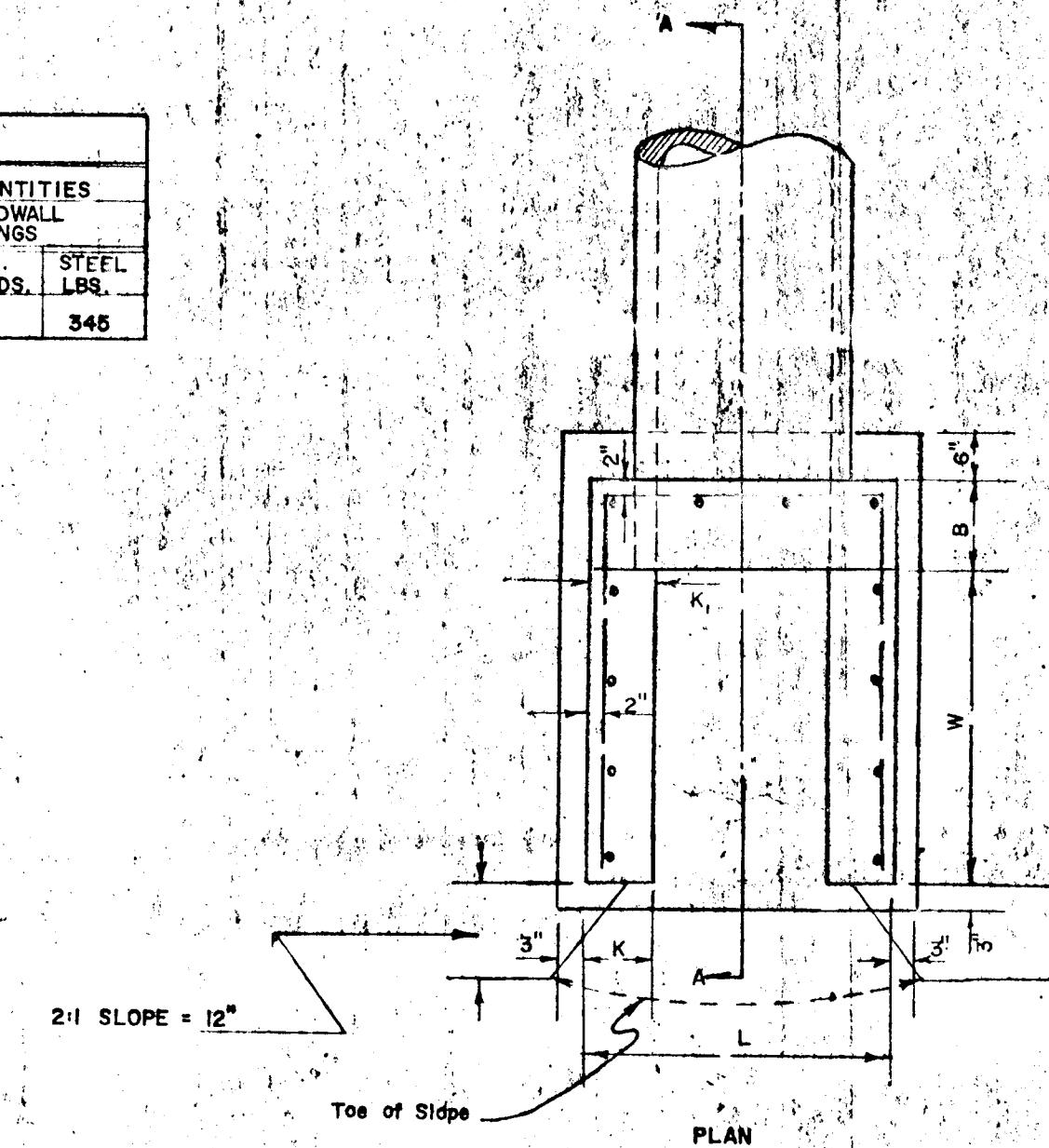


SECTION A-A

ELEVATION

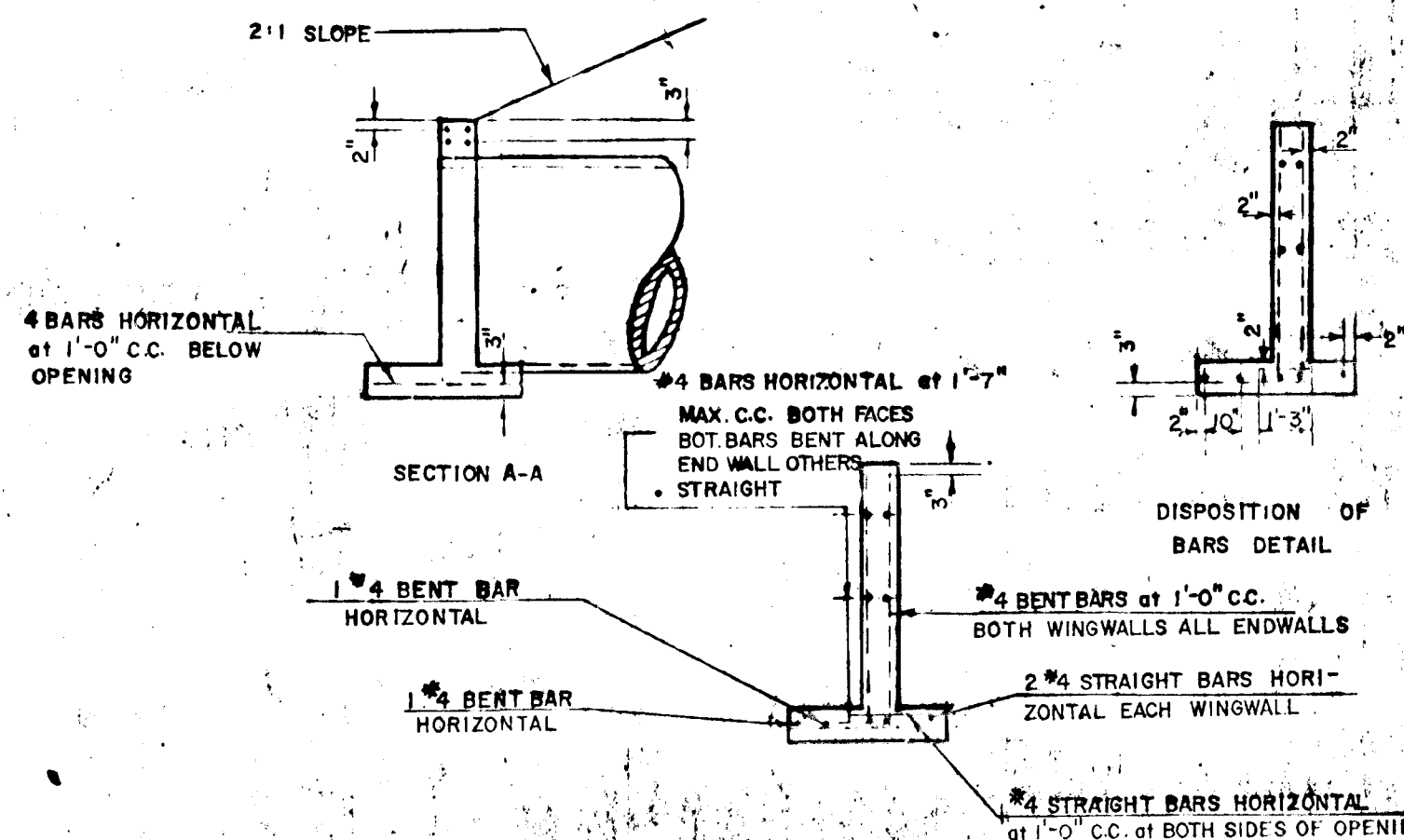
OPENING D IN FT	DIMENSION FOR CONCRETE											QUANTITIES	
	ENDWALL		WINGS							1 ENDWALL 2 WINGS		CONC. CU. YDS.	STEEL LBS.
	L	B	F	H	W	K	P						
54	15.90	6'-12"	12"	6'-0"	8'-10"	12"						4.84	346

NOTE: CHAMFER ALL EXPOSED EDGES
1" x 1" OR AS DIRECTED.



PLAN

SPECIAL TYPE "G" HEADWALL



SECTION A-A

DISPOSITION OF BARS DETAIL

OPENING D IN FT	DIMENSIONS											VOL. CONC. CU. Y.	STEEL LBS.		
	A	B	C	E	F	G	H	J	K	L	M			N	O
48	12.57	1'-4"	10"	3'-2"	2'-9"	1'-0 3/4"	5'-0"	4'-10"	6'-3 1/2"	8'-1 1/2"	5'-9"	1'-0 3/4"	5'-6"	43	262
54	15.9	1'-8"	11'-0"	3'-8"	3'-0"	1'-8 1/2"	5'-6"	5'-4"	6'-10 1/2"	8'-3 1/2"	6'-2 1/4"	1'-1 1/2"	6'-2"	53	301
60	19.64	1'-8"	11'-0"	3'-8"	3'-2"	1'-8 1/2"	6'-0"	5'-10"	7'-7 1/4"	9'-0 1/4"	6'-1 1/2"	1'-1 1/2"	6'-2"	60	361

GENERAL NOTES

SPECIFICATIONS: LATEST S.R.C.
CONCRETE: SEE S.R.C. SPECIFICATIONS
REINFORCING: DEFORMED STEEL BARS 4 & 6
CHAMFER: ALL EXPOSED EDGES 1" x 1" OR AS DIRECTED

Richard P. Browne
RICHARD P. BROWNE, P.E. & L.S.
Lic. No. 5238 State MD



APPROVED
PLANNING COMMISSIONER
DATE: 11/15/52

Revised: 8-57 Details for B & G Headwalls added