

COLUMBIA

HOWARD COUNTY, MARYLAND

CONSTRUCTION PLANS

VILLAGE OF HARPER'S CHOICE SECTION N^o 2

HOBBITS GLEN AREA N^o 1

JUNE 22, 1967

ELECTION DISTRICT 5

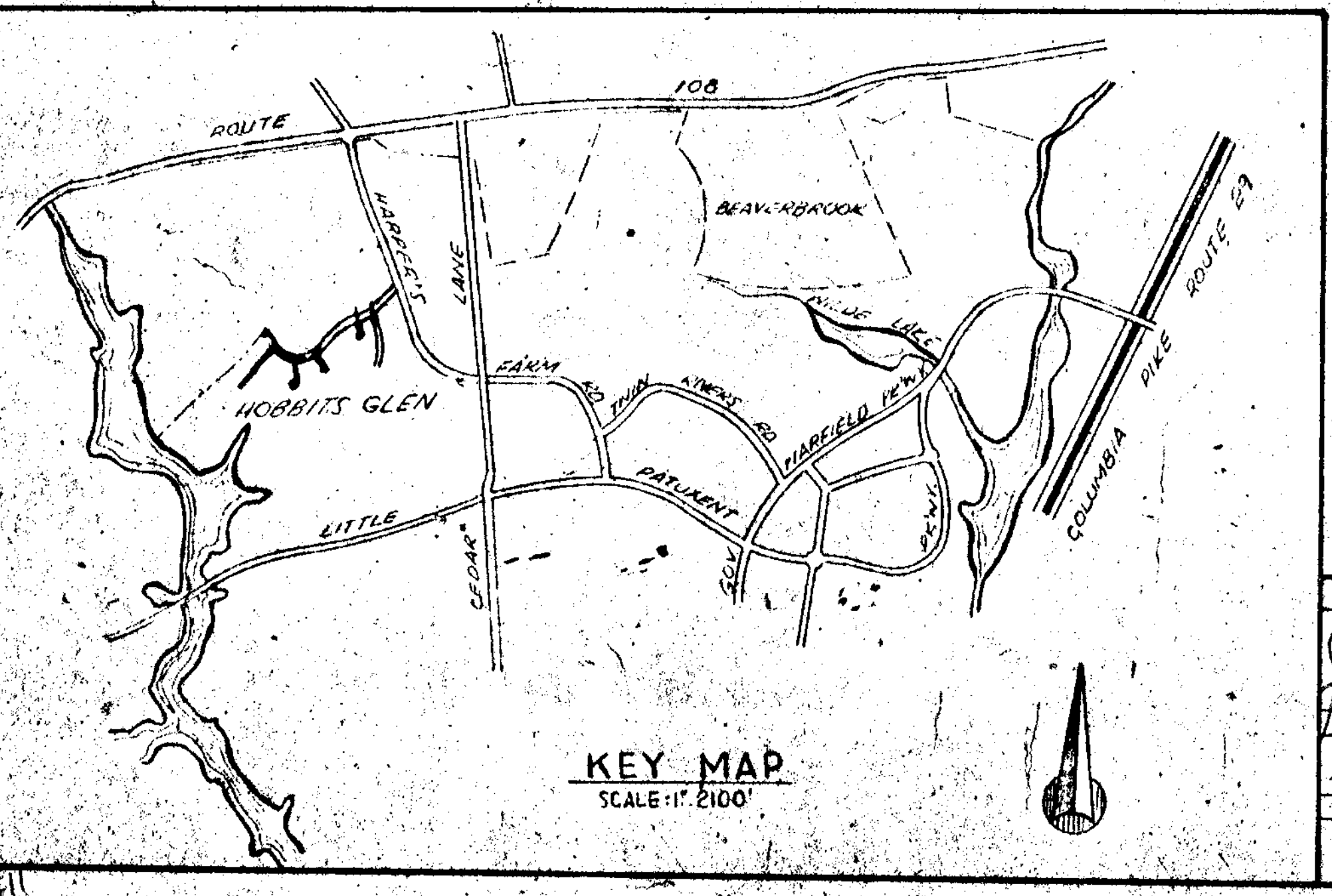
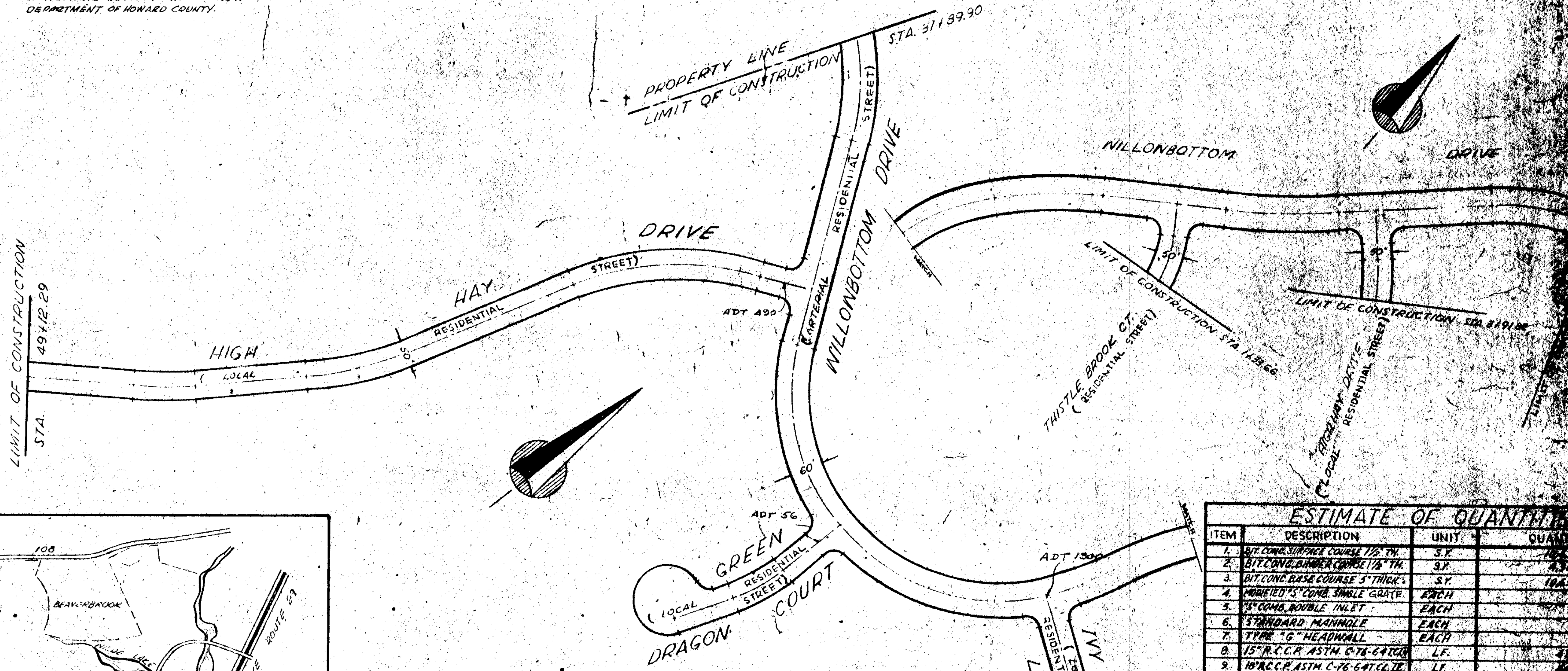
REVISIONS

SHEET INDEX

SHEET NO.	DESCRIPTION
1	PLAN PROFILE
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3	PLAN PROFILE
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5	PLAN PROFILE
6	PLAN PROFILE
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8	PLAN PROFILE
9 & 10	MISCELLANEOUS DETAILS

NOTES:

1. WILLOWBOTTOM DR. IS DESIGNED FOR 30 MPH TRAFFIC SPEED. ALL OTHER ROADS ARE DESIGNED FOR 20 MPH TRAFFIC SPEED IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIALS STANDARDS.
2. ALL DETAILS ARE FROM "ROAD CONSTRUCTION CODE AND STANDARD SPECIFICATIONS" ISSUED OR APPROVED BY THE COUNTY COMMISSIONERS OF HOWARD COUNTY AND THE ROAD DEPARTMENT OF HOWARD COUNTY.



OWNER & DEVELOPER
 HOWARD RESEARCH & DEVELOPMENT CORP.
 THE VILLAGE OF HARPER'S CHOICE
 BALTIMORE, MARYLAND

APPROVED HOWARD COUNTY EXAMINING COMM.
W. O. Bell 2-9-68
 CHIEF ENGINEER DATE
 APPROVED HOWARD COUNTY ROAD DEPARTMENT
Francis M. Williams Jan 2 1968
 ROAD SUPERINTENDENT DATE
 APPROVED HOWARD COUNTY METROPOLITAN COMM.
W. O. Bell 2-13-68
 CHIEF ENGINEER DATE

BROWNE-PANDULLO & ASSOCIATES
 ENGINEERS
 COLUMBIA, MARYLAND
 RICHARD F. BROWNE, P.E. & L.E.
 LIC. NO. 2886 STATE MD.



ITEM	DESCRIPTION	UNIT	QUANTITY
1.	BIT. CONC. SURFACE COURSE 1 1/2" TH.	S.Y.	10,250
2.	BIT. CONC. BINDER COURSE 1 1/2" TH.	S.Y.	10,250
3.	BIT. CONC. BASE COURSE 5" THICK.	S.Y.	10,250
4.	NO. 10 1/2" COMB. SINGLE GRATE	EACH	10
5.	5" COMB. DOUBLE INLET	EACH	10
6.	3" STANDARD MANHOLE	EACH	10
7.	TYPE "G" HEADWALL	EACH	10
8.	15" R.C.C.P. ASTM. C-76-64 CL. 12'	LF.	475
9.	18" R.C.C.P. ASTM. C-76-64 CL. 12'	LF.	100
10.	24" R.C.C.P. ASTM. C-76-64 CL. 12'	LF.	75
11.	30" R.C.C.P. ASTM. C-76-64 CL. 12'	LF.	100
12.	CONC. MOUNTABLE CURB	LF.	6,900
13.	CONC. VERTICAL CURB	LF.	700
14.	EARTH EXCAVATION - ROADWAY	C.Y.	10,250
15.	EARTH EXCAVATION DRAIN DITCHES	LF.	10,250
16.	PLACING OF TOPSOIL 4" THICK	S.Y.	10,250
17.	EARTH FILL (BORROW)	C.Y.	4,000
* INCLUDED WILLOWBOTTOM 20+00 TO 21+80.90			
* HIGHWAY 2+89.13 TO 3+91.01			
* 40+12.75 TO 43+00.00			
* IVY BUSH 0+20 TO 2+00			
* THISTLE BROOK 0+00 TO 1+86.60			
* GREEN DRAGON 0+00 TO 2+10			

FILE NO.

LOCATION	CURB RADIUS	PC STATION	PT STATION	T.C. ELEVATION		
				PC	MD-PT	PT
W. CORNER OF WILLOWBOTTOM HIGHWAY DR	35.50'	21.1500	21.152.43	421.80	419.75	418.90
E. CORNER OF WILLOWBOTTOM HIGHWAY DR	35.50'	21.1500	21.152.43	421.80	419.75	418.90
W. CORNER OF WILLOWBOTTOM & GREEN DRAGON CT	35.50'	21.1500	21.152.43	421.80	419.75	418.90
E. CORNER OF WILLOWBOTTOM & GREEN DRAGON CT	35.50'	21.1500	21.152.43	421.80	419.75	418.90

PLAN
SCALE: 1"=50'

STORM DRAINAGE STRUCTURE DATA				
NO.	TYPE	LOCATION	INV. IN	INV. OUT
29	5' CORR. DOUBLE GRATE	23+16.50 TO 23+17.50	418.00	417.00
30	Mod. 5' CORR. SINGLE GRATE	23+18.00 TO 23+19.00	417.00	416.00
31	STANDARD	23+20.00 TO 23+21.00	416.00	415.00
32	"6"	23+22.00 TO 23+23.00	415.00	414.00

HOBBITS GLEN GOLF COURSE

APPROVED
PLANNING COMMISSION
OF HOBBITS GLEN
DATE: *Jwe* 2-9-66



BROWNE-PANDELL
INCORPORATED
1000 BROADWAY
NEW YORK, N.Y. 10018

COLUMBIA

REGISTERED PROFESSIONAL ENGINEER
No. 12345
State of Maryland

DATE: _____
BY: _____
CHECKED: _____
NO. _____

DATE: _____
BY: _____
CHECKED: _____
NO. _____

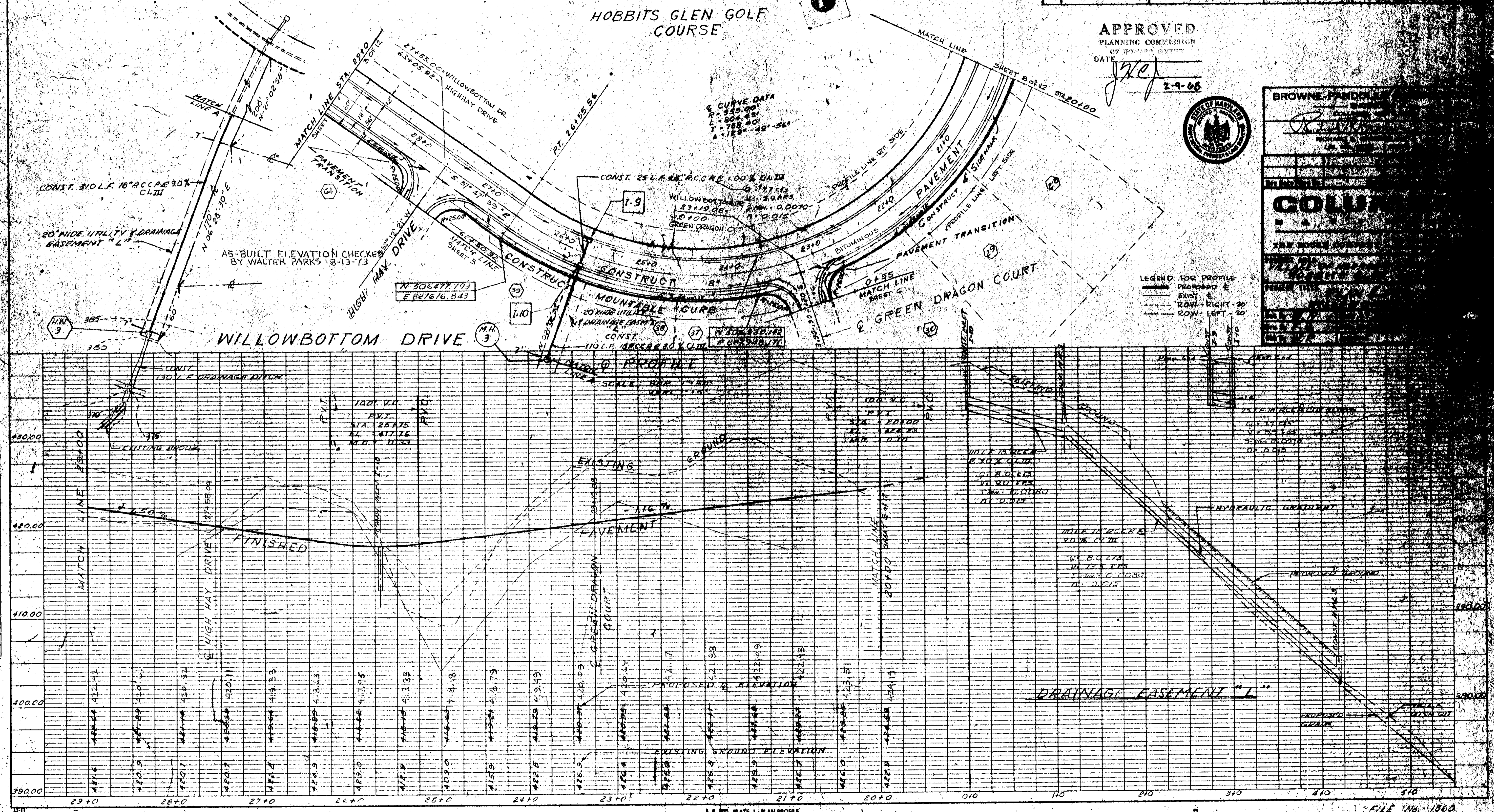


PLATE 1, PLAN-PROFILE
K&E
487006 ALBANY, N.Y.

FILE NO. 1860
M. CARSKI 3-12-74
Sheet 2 of 2
E-7-39

PLAN

SCALE: 1" = 50'

STORM DRAINAGE STRUCTURE SCHEDULE						
NO.	TYPE	LOCATION	INV. IN	INV. OUT	T.C.P. ELEV.	REMARKS
1/1	Mod. 15 Comb. Single Gate	56+85.20 - 4.5' RT	424.80	408.15	416.94	
1/2	Mod. 15 Comb. Single Gate	56+85.20 - 14.5' RT	424.80	408.15	416.94	
1/4	"	SEE PLAN		381.0		

AS-BUILT ELEVATIONS CHECKED BY
WALTER PARKS - AUGUST 13, 1973

Q CURVE DATA
R = 400.00'
L = 172.79'
T = 87.76'
Δ = 24° 45' 01"

LIMIT OF CONSTRUCTION
P.T. 31+89.90

APPROVED
PLANNING COMMISSION
OF HOWARD COUNTY
DATE: *Jef* 2-4-68



BROWNE-PANDULLO & ASSOCIATES
ENGINEERS
COLUMBIA, MARYLAND
RICHARD P. BROWNE, P.E. & L.L.
LIC. NO. 128

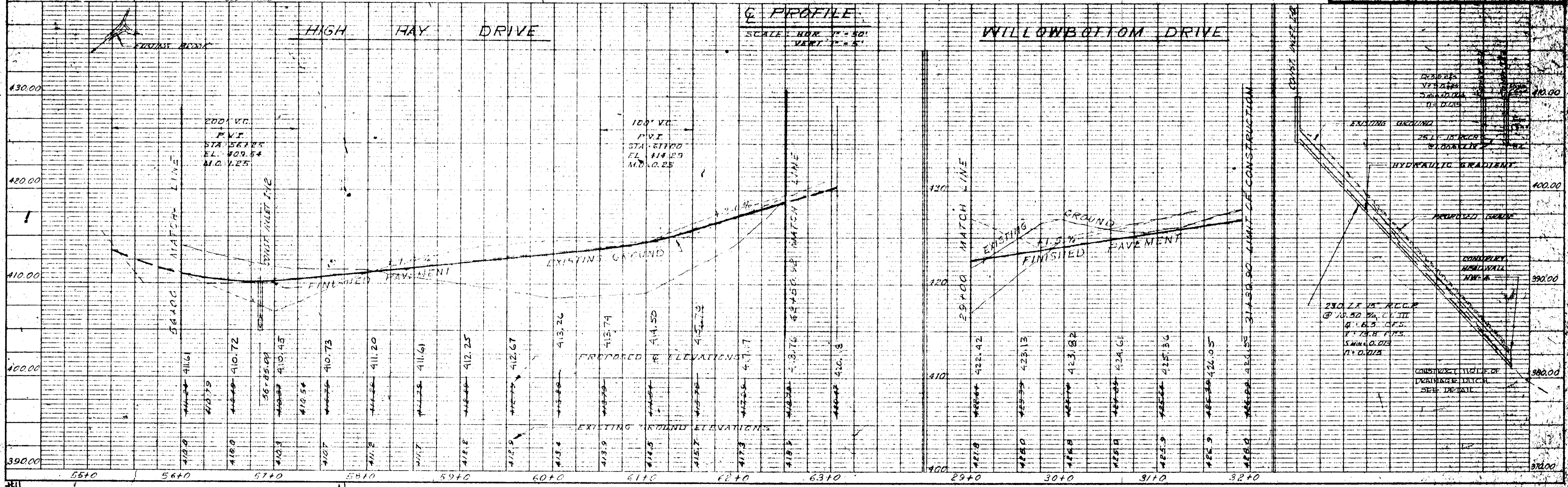
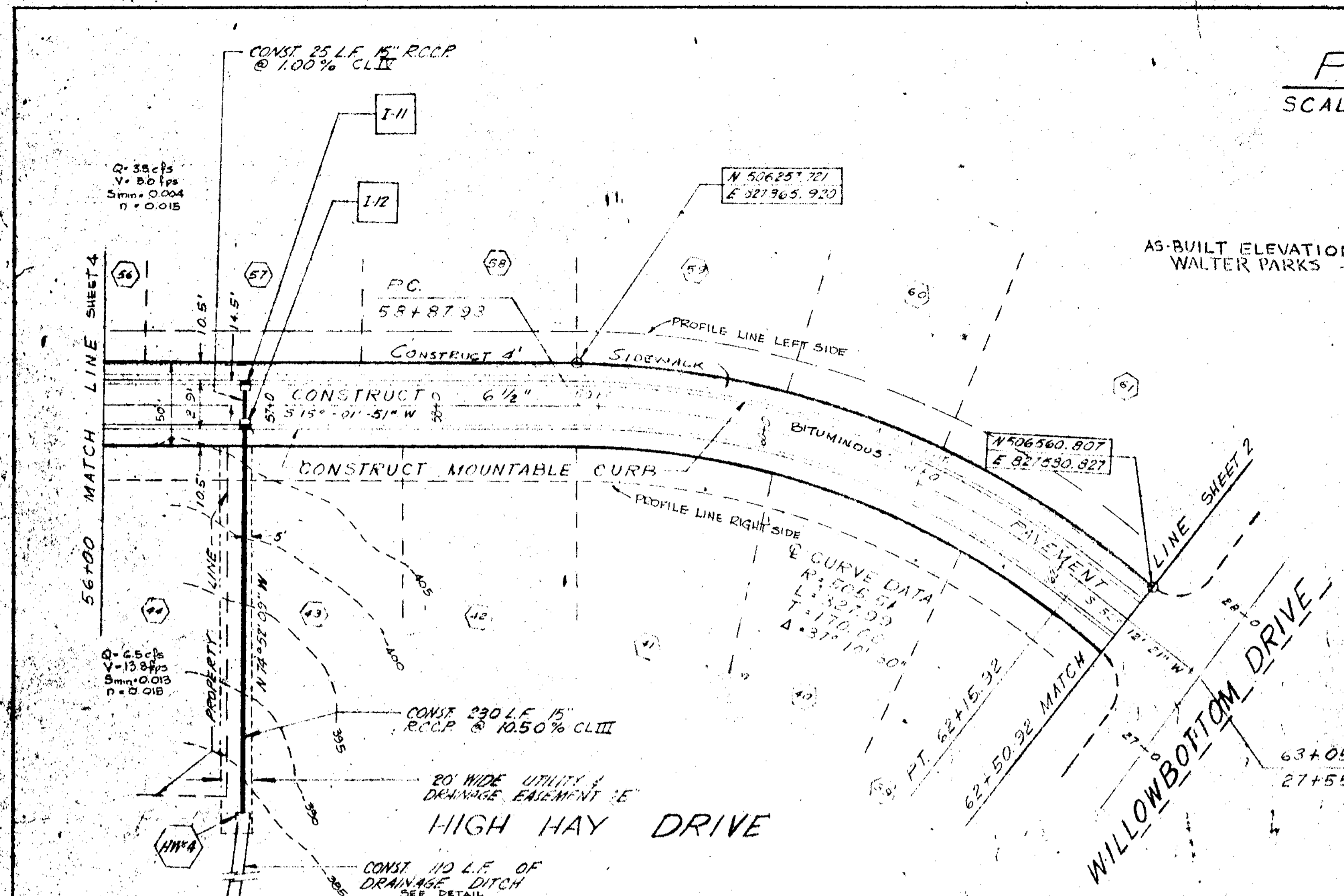
COLUMBIA
MARYLAND

THE ROUSE COMPANY

PROJECT AREA: VILLAGES OF HARRIS' CANYON, HOBBITS GLEN, ARDEN
PROJECT TITLE: PLAN & PROFILE
HIGH HAY DR & WILLOWBOTTOM DR

Des. By: W.P. (Walter Parks)
Chk. By: W.P. (Walter Parks)

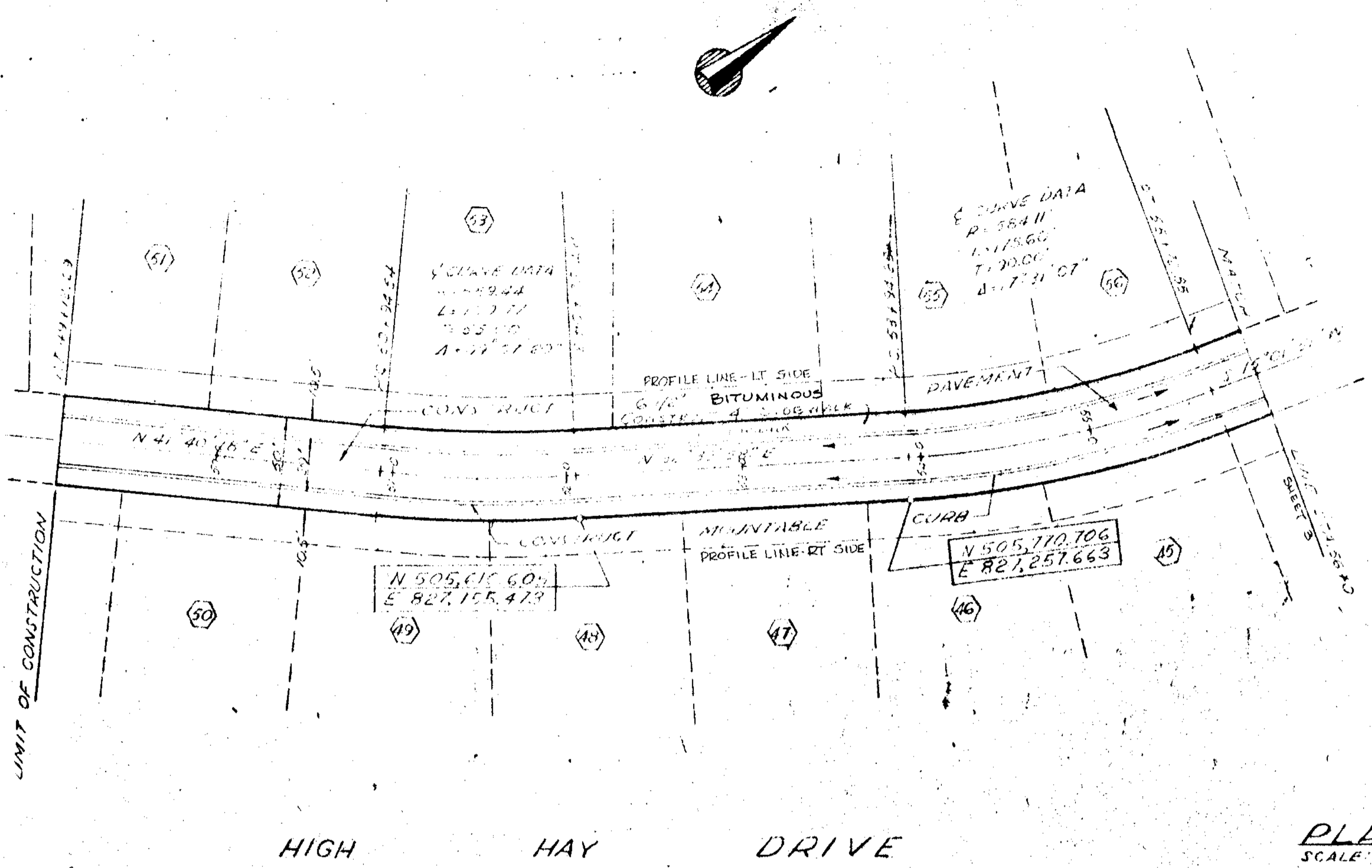
LEGEND FOR PROFILES
— PROPOSED &
— EXIST &
- - - ROW LINE RIGHT-20'
- - - ROW LINE LEFT-20'



PLAN
SURVEYED
PLOTTED
ALUMINUM CHECKED
NOTE BOOK
NO. OF ANY CHECKER

PROFILE
SURVEYED
GRADES CHECKED
NOTE BOOK
NO. OF ANY CHECKER
STRUCTURE NOTATIONS CHECKED

DATE	
BY	
SURVEYED	
PLOTTED	
NOTED	
NO. 1	
NO. 2	
NO. 3	
NO. 4	
NO. 5	
NO. 6	
NO. 7	
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NO. 97	
NO. 98	
NO. 99	
NO. 100	



PLAN
SCALE 1"=50'

APPROVED
PLANNING COMMISSION
OF HOWARD COUNTY
DATE: *J.P.C.* 2-9-69



BROWNE-PANDULLO & ASSOCIATES
ENGINEERS
COLUMBIA, MARYLAND

Richard P. Browne
RICHARD P. BROWNE, P.E. & L.S.
LIC. NO. 5235 STATE MD.

Rev No.	Rev Date	Revision Description
1		

COLUMBIA
MARYLAND

THE ROUSE COMPANY THE VILLAGE OF CHOICE CITY
BALTIMORE, MARYLAND 21201

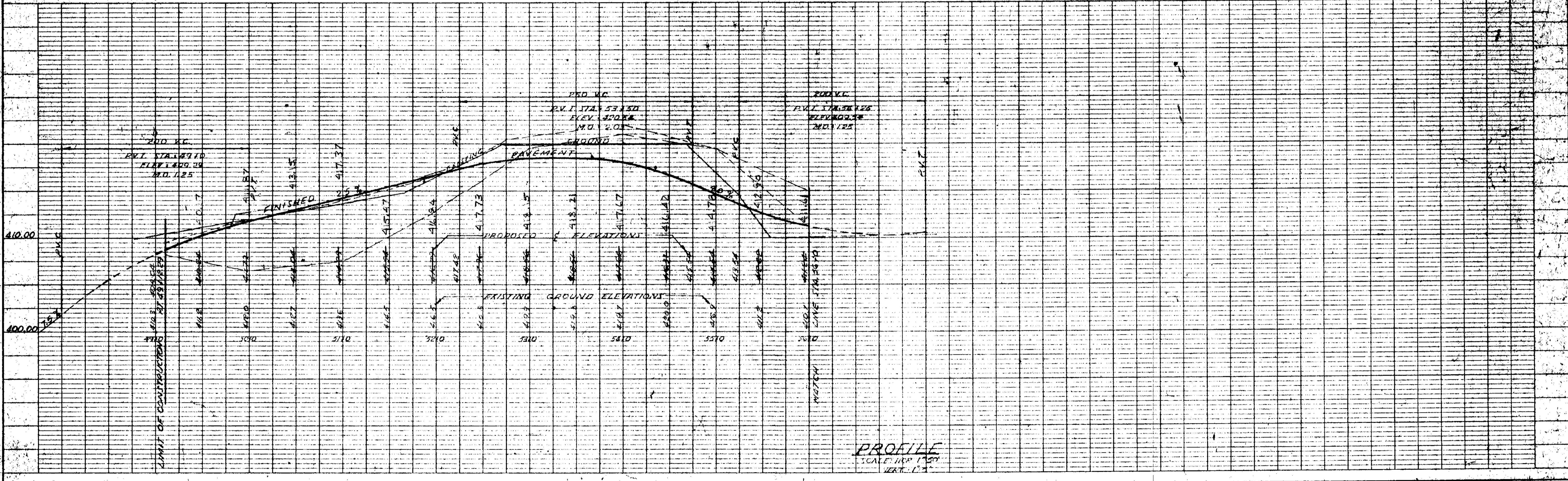
PROJECT AREA
VILLAGE OF HARPER'S CHOICE, SITE NO. 2
HOBBITS' GLEN AREA, NO. 1

PROJECT TITLE
PLAN & PROFILE
HIGH HAY DRIVE

Des By	W.P.	Scale	AS SHOWN (SEE PLAN)
Drawn By	W.G.S.	Date	JUNE 23, 1967 (S.E.E.S.)
Chk By	W.P.	Approved	

AS-BUILT ELEVATIONS CHECKED
BY WALTER PARKS AUGUST 13, 1973

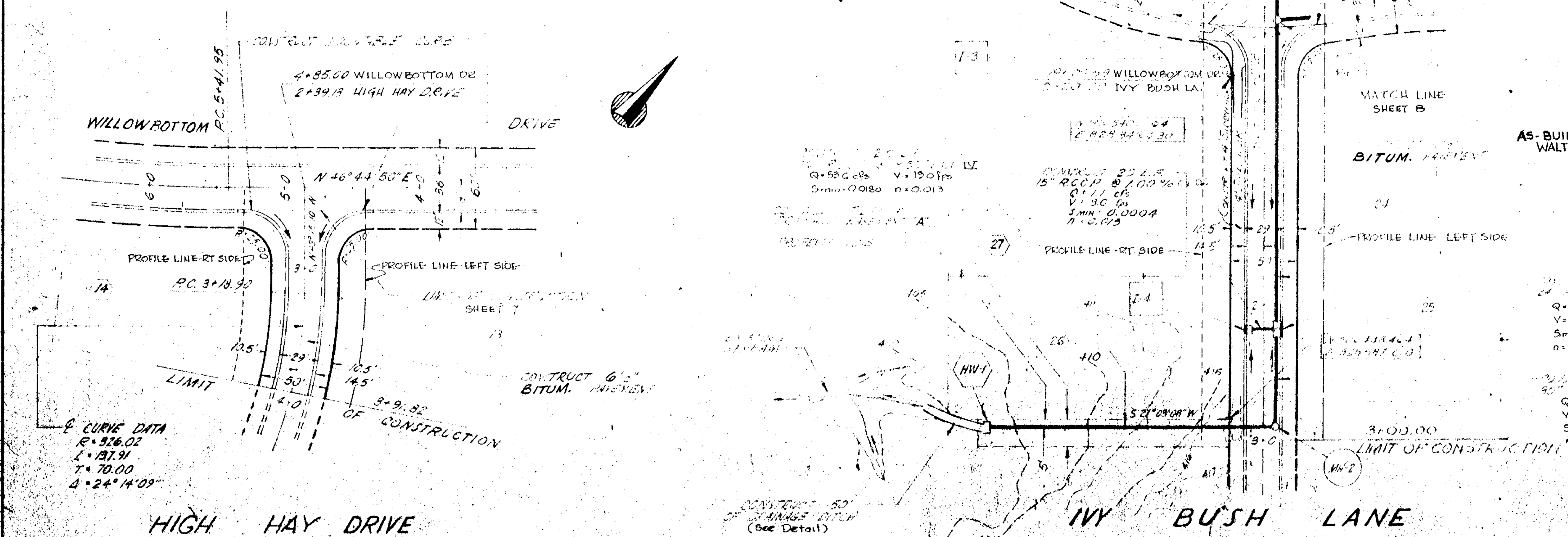
LEGEND FOR PROFILE
 — PROPOSED E
 - - - EXIST. E
 - - - ROW LINE RIGHT - 20'
 - - - ROW LINE LEFT - 20'



PROFILE
SCALE 1/4"=1' VERT. 1"=50'

LOCATION	CURB RADIUS	PC STATION	PT STATION	T.C. ELEVATION		
				PC	MID-PT	PT
S.E. CORNER OF WILLOWBOTTOM DRIVE & HIGH HAY DRIVE	35.00	4+35.00	4+81.25	460.25	459.25	
S.W. CORNER OF WILLOWBOTTOM DRIVE & HIGH HAY DRIVE	35.00	4+35.00	4+81.25	460.25	459.25	
S.E. CORNER OF WILLOWBOTTOM DRIVE & IVY BUSH LANE	35.00	4+55.59	4+72.25	460.25	459.15	
S.W. CORNER OF WILLOWBOTTOM DRIVE & IVY BUSH LANE	35.00	4+55.59	4+72.25	460.25	459.15	

PLAN
SCALE: 1" = 50'



STORM DRAINAGE STRUCTURE SCHEDULE						
NO.	TYPE	LOCATION	INV. IN	INV. OUT	T.C. ELEV.	REMARKS
1-4	MOD. 5' COMB. SINGLE GRATE	2+17.86 - 14.5' RT	412.37	412.19	412.19	DEPRESSED
1-5	5' COMB. DUAL R. GRATE	2+17.86 - 14.5' LT	5' 48.37	30' 417.83	412.19	DEPRESSED
MH-2	STANDARD	2+95.50 - 12' LT	416.30	416.40		RIM = 423.82
MH-1	"	SEE PLAN		393.53		

APPROVED
 PLANNING COMMISSION
 OF HOWARD COUNTY
 DATE: 2-9-68

BROWNE-PANDULLO & ASSOCIATES
 ENGINEERS
 COLUMBIA, MARYLAND
 RICHARD P. BROWNE, P.E. & L.S.
 LIC. NO. 5238 STATE MD.

Rev. Date: Rev. No: Revision Description:

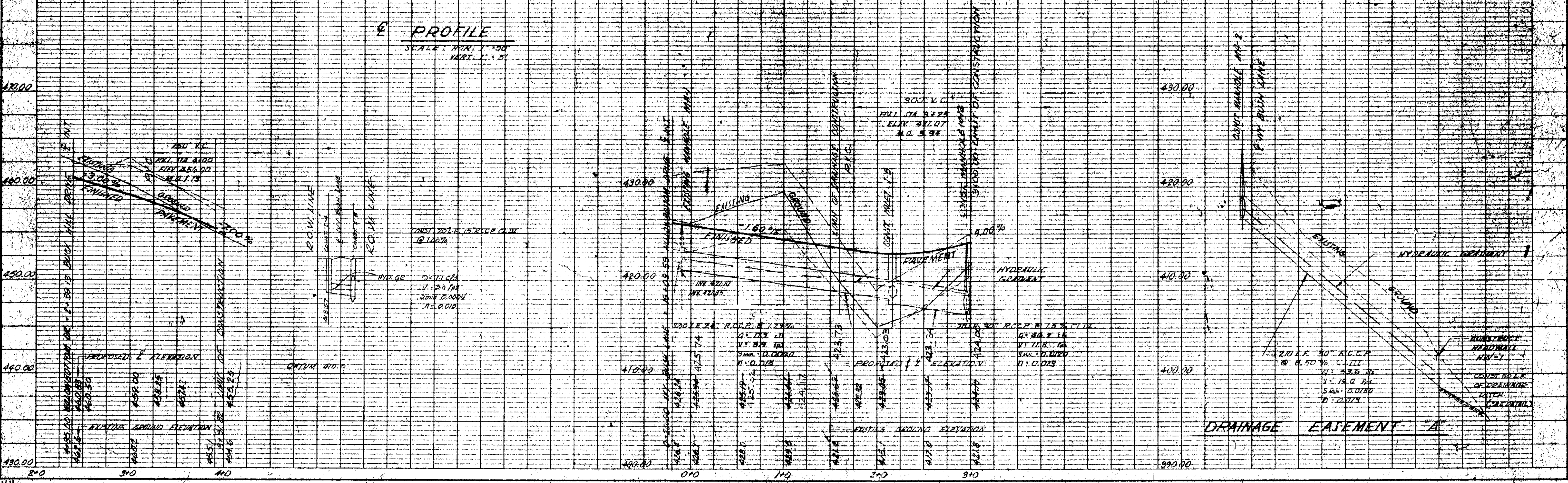
COLUMBIA MARYLAND

THE ROUSE COMPANY THE VILLAGE OF EDWARDS KEY, SALEM, MARYLAND 21151

PROJECT AREA: VILLAGE OF HARPER'S CHOICE SEC. NO. 2, HOBBITS GLEN AREA No. 1

PROJECT TITLE: **PLAN & PROFILE**
 HIGH HAY DR. & IVY BUSH LANE

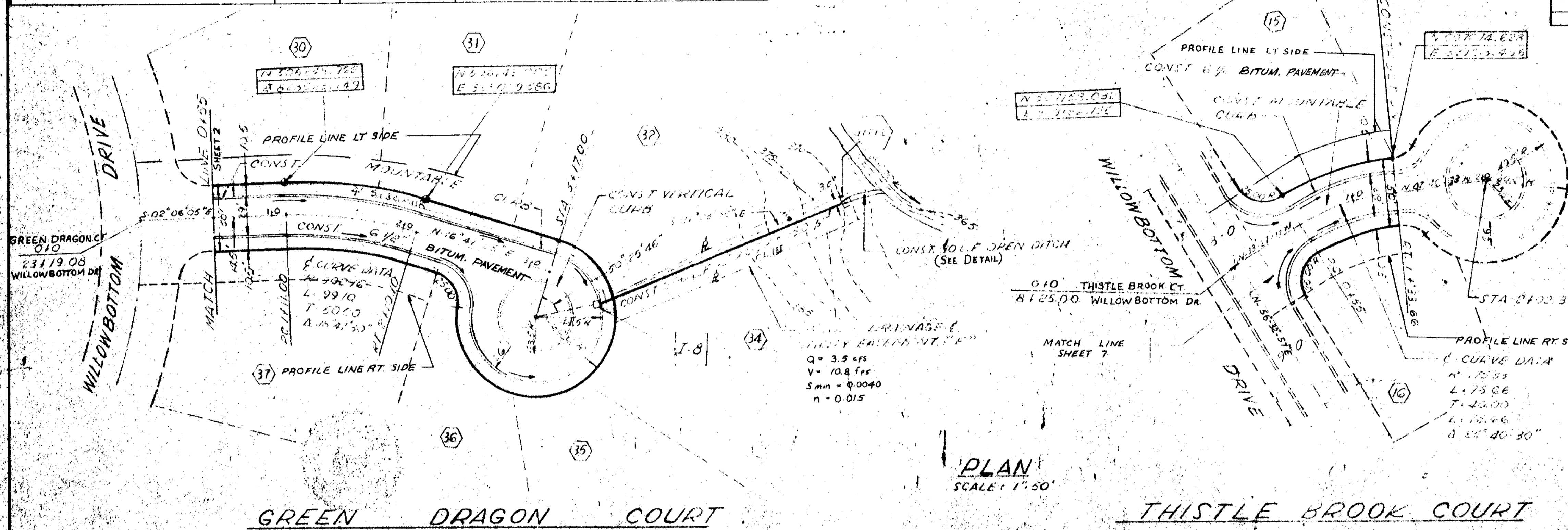
Des. By: W.F. Scale: AS SHOWN ON SHEET 5 OF 10
 Dwn. By: J.K.M. Date: JUNE 23, 1968, C.E.S. #
 Chk. By: W.C.A. Approved



LOCATION	CURB RADIUS	PC STATION	PT STATION	T.C. ELEVATION		
				PC	MID-PT.	PT.
S.W. CORNER OF THISTLE BROOK COURT & WILLOW BOTTOM DRIVE	25	92.35	100.00	44.12	42.20	40.20
S.E. CORNER OF THISTLE BROOK COURT & WILLOW BOTTOM DRIVE	25	100.00	107.65	44.12	42.20	40.20

STORM DRAINAGE STRUCTURE SCHEDULE							
NO.	TYPE	LOCATION	INV. IN	INV. OUT	T.C. ELEV.	REMARKS	
1	200 3" COMB STABLE GRATE	THISTLE BROOK COURT			43.77		
2		200 FROM H.W.2					

AS-BUILT ELEVATIONS CHECKED BY WALTER PARKS - AUGUST 13, 1973.



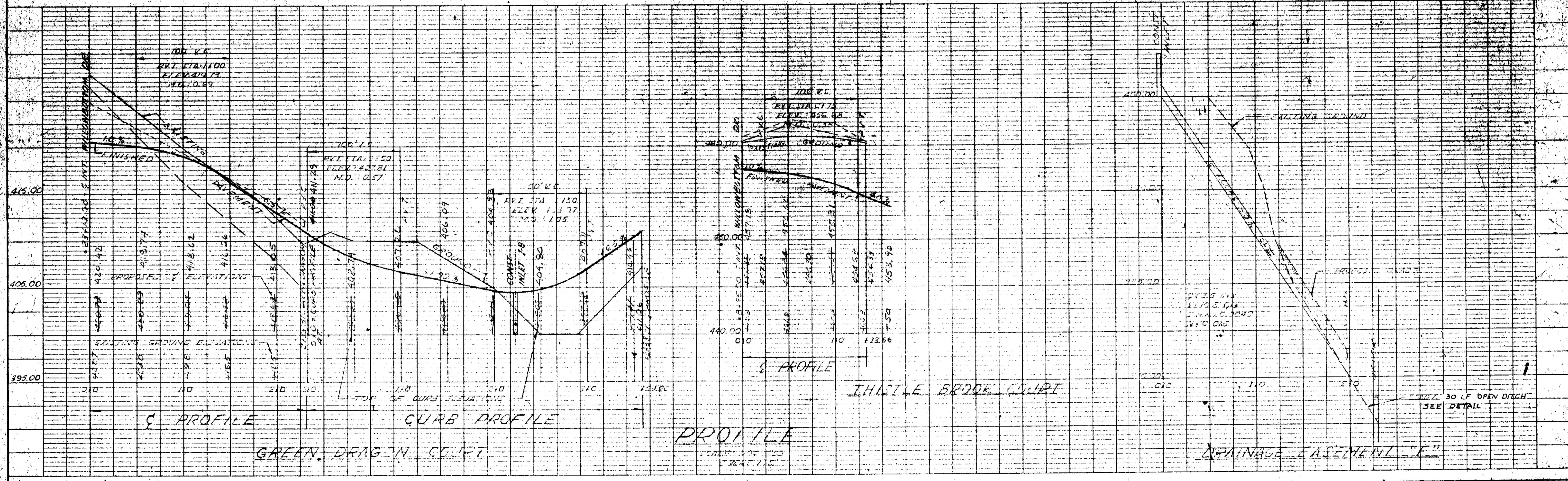
APPROVED
 PLANNING COMMISSION
 OF HOWARD COUNTY
 DATE: 7/20/73
 2-9-68

BROWNE-PANDULLO & ASSOCIATES
 ENGINEERS
 COLUMBIA, MARYLAND
 RICHARD P. BROWNE, P.E. & L.S.
 LIC. NO. 5238 STATE MD.

COLUMBIA MARYLAND

PROJECT AREA: VILLAGE OF HARPER'S CHOICE SEC. No. 2 HOBBITS GLEN AREA No. 1
 PROJECT TITLE: PLAN & PROFILE GREEN DRAGON COURT & THISTLE BROOK DR

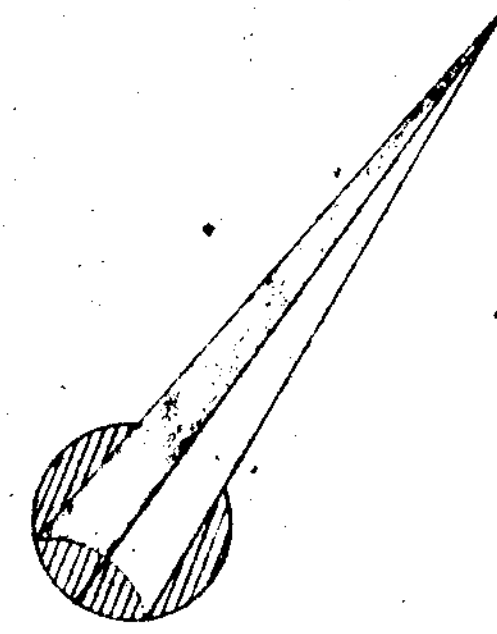
Des. By: W.P. Scale: AS SHOWN
 Dra. By: W.G.S. Date: JUNE 23, 1967
 Chk. By: W.P. Approved



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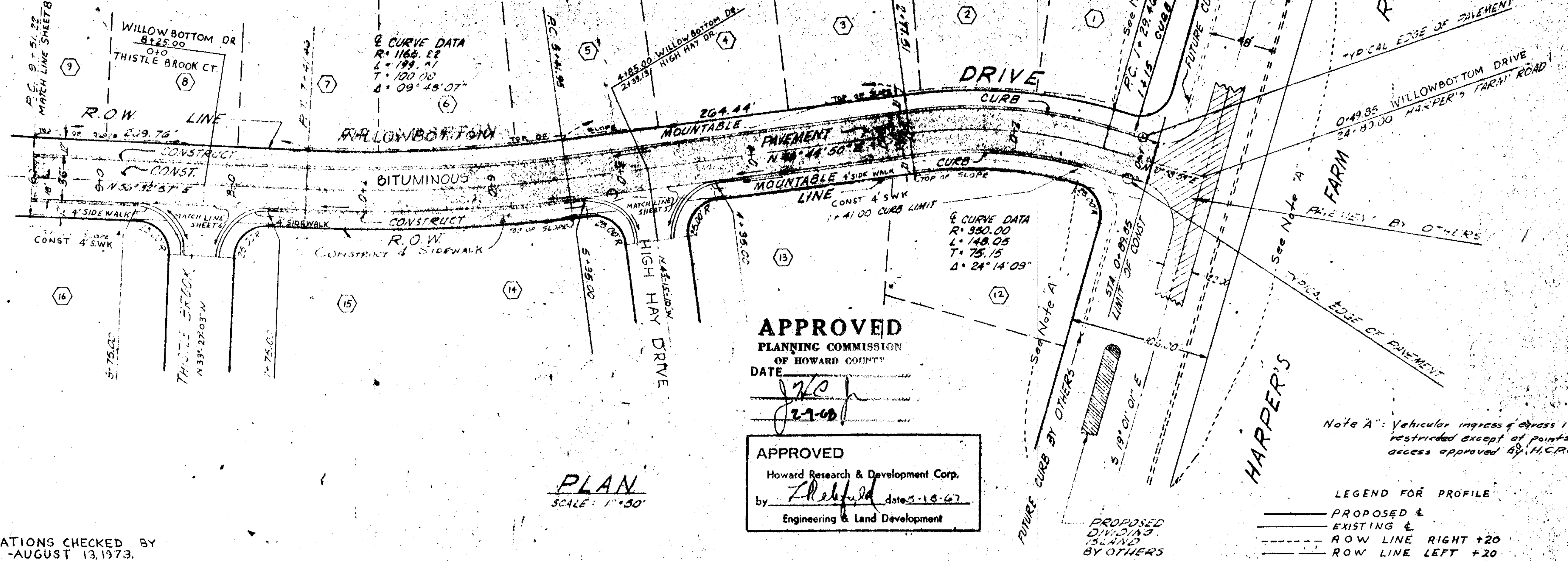
NOTE: ALL DIMENSIONS AND CURVE DATA TO BE THE CURB LINES ARE TO THE BACK OF THE CURB.



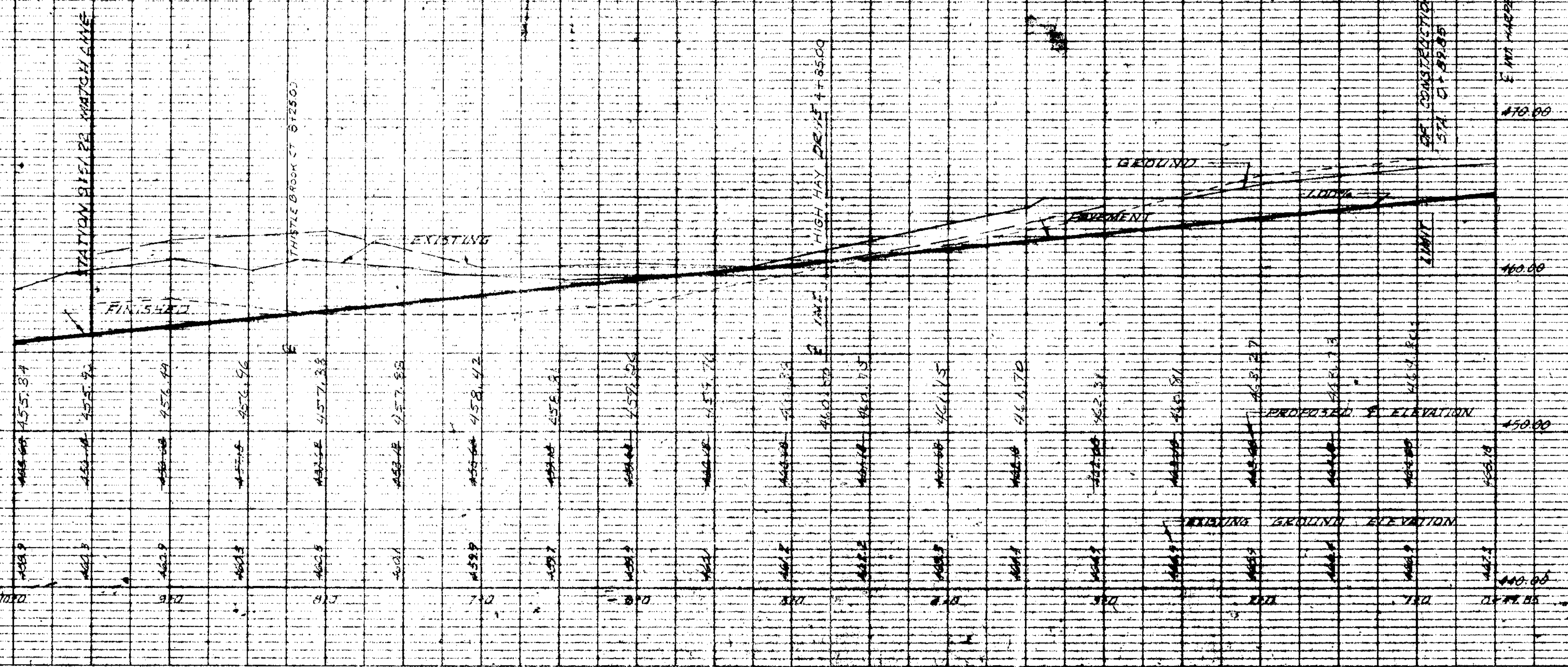
Richard P. Browne
 RICHARD P. BROWNE, P.E. & L.S.
 LIC No. 5238 STATE MD.



AS-BUILT ELEVATIONS CHECKED BY
 WALTER PARKS - AUGUST 13, 1973.



PROFILE
 SCALE: HORIZ. 1" = 30'
 VERT. 1" = 5'



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

Q = 4.4
V = 3.5
S min = 0.0060
n = 0.015

Q CURVE DATA
R = 355.00
L = 148.81
Δ = 24° 21' 58"

Q CURVE DATA
R = 470.00
L = 222.01
Δ = 69° 00' 00"

Q = 575 cfs
V = 4.5 fps
S min = .01
n = .015

Q CURVE DATA
R = 370.88
L = 330.90
Δ = 24° 21' 58"

CONSTRUCT STANDARD 14" INLET SINGLE GRATE
STA. 8199.39 - 10' OF E RADIUS TO CURVE
CURB PIECE ELEV. 421.85

CONSTRUCT 15" COMB. MOD. SINGLE GRATE
INLET STA. 8125.57A MPO - 10' OF E RADIUS TO CURVE
CURB PIECE ELEV. 437.11



Richard P. Brown, P.E. I.L.S.
LIC. No. 5238 STATE MD.

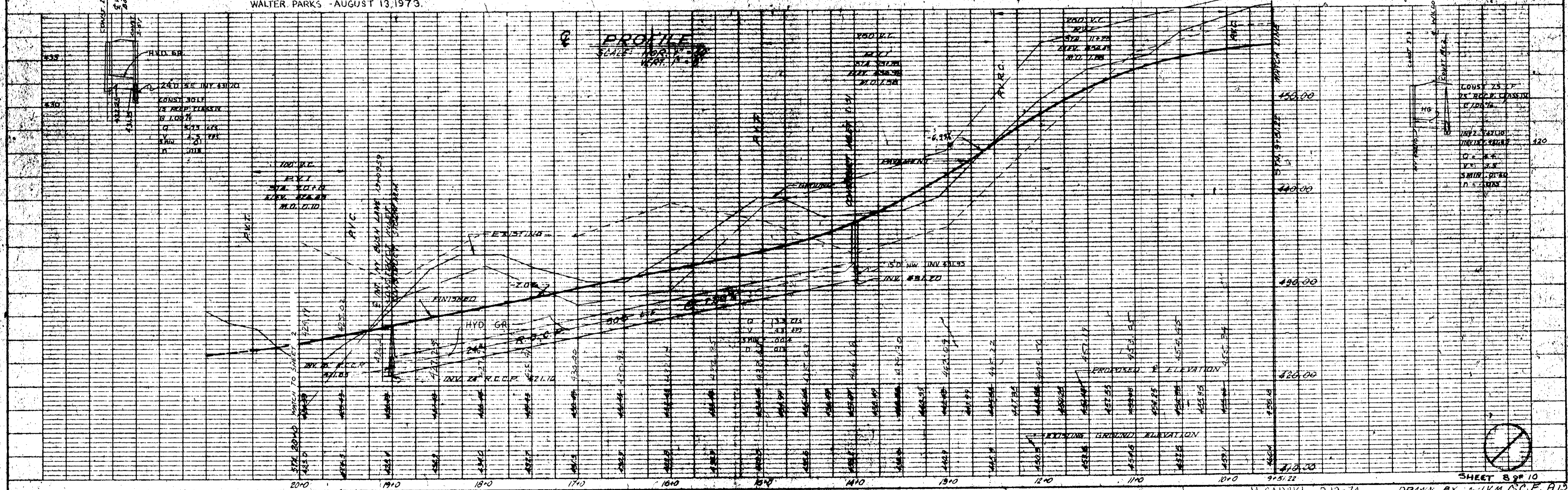
AS-BUILT ELEVATIONS CHECKED BY
WALTER PARKS - AUGUST 13, 1973.

PLAN
SCALE: 1" = 50'

LEGEND FOR PROFILE
 — PROPOSED E
 - - - EXISTING E
 - - - ROW LINE RIGHT + 20'
 - - - ROW LINE LEFT + 20'

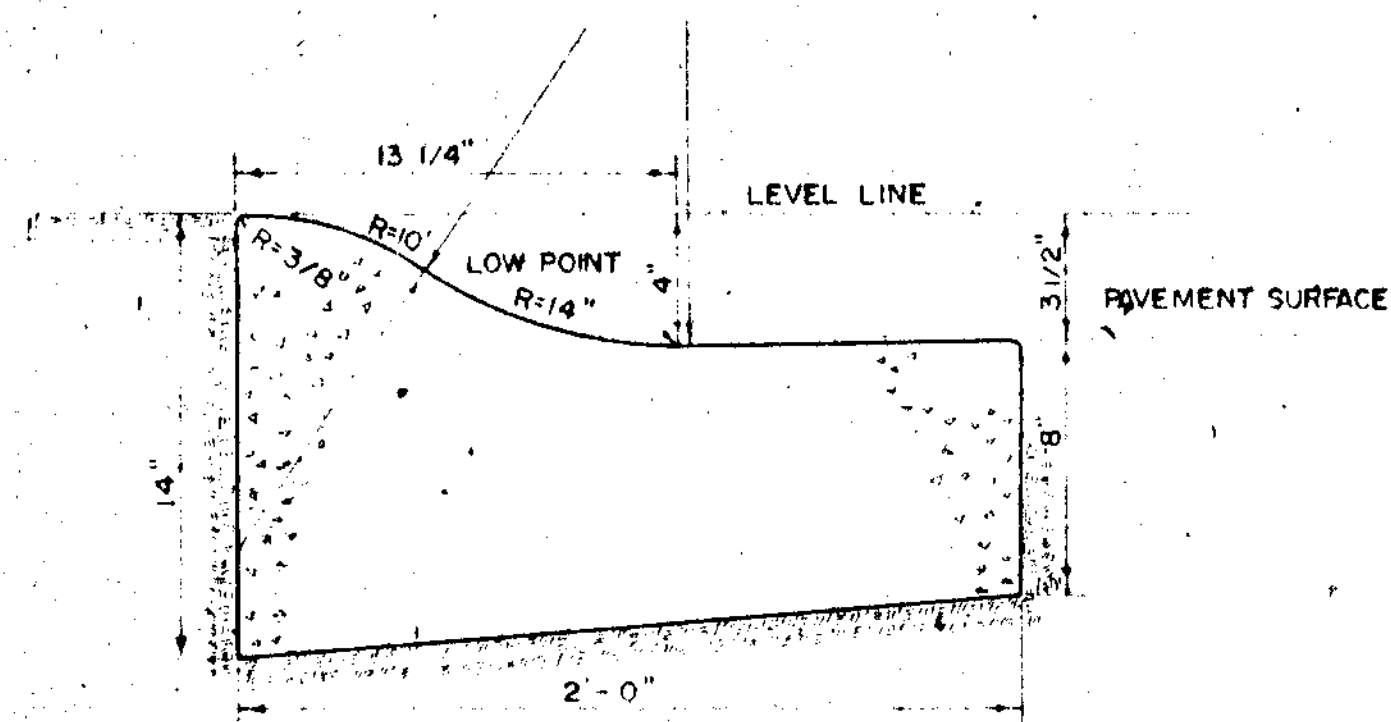
APPROVED
 Howard Research & Development Corp.
 by *[Signature]* date 5-15-67
 Engineering & Land Development

APPROVED
 PLANNING COMMISSION
 OF HOWARD COUNTY
 DATE: *[Signature]*
 2-9-68

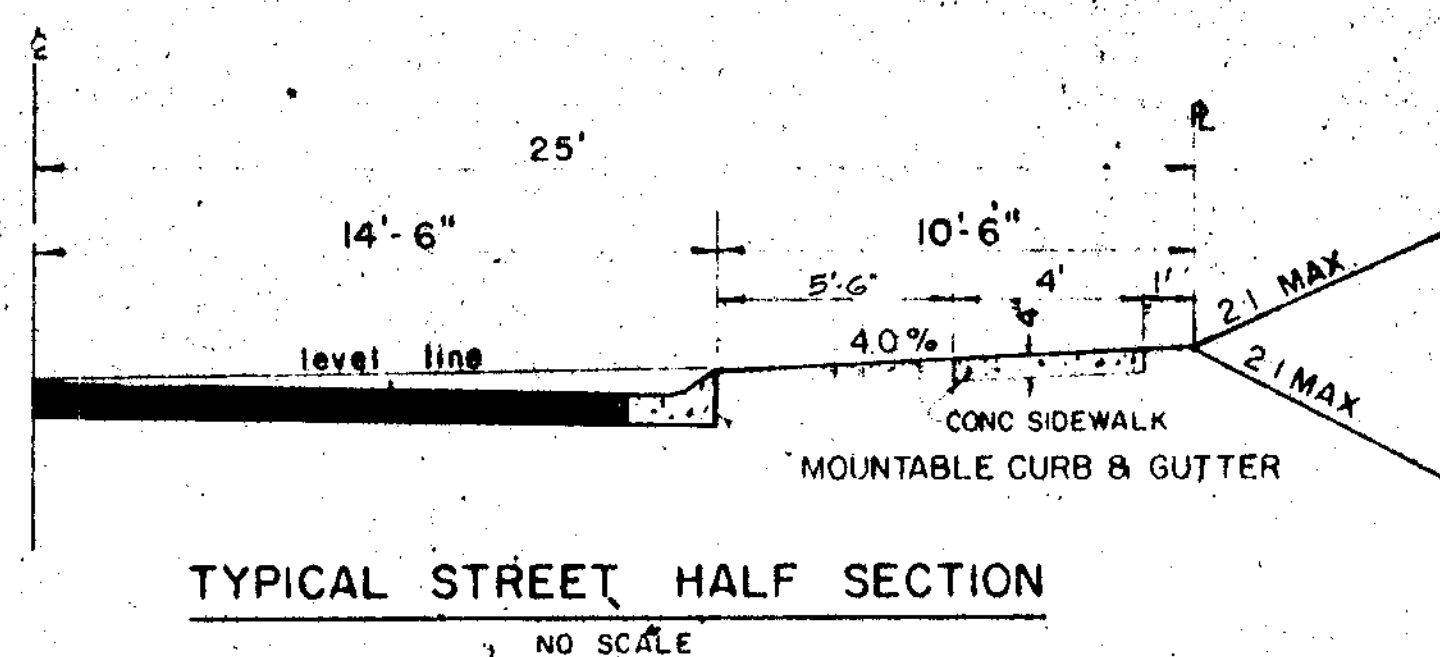


PLAN
 QUANTITY
 NOTED
 PLANNING
 CHECKED
 DATE

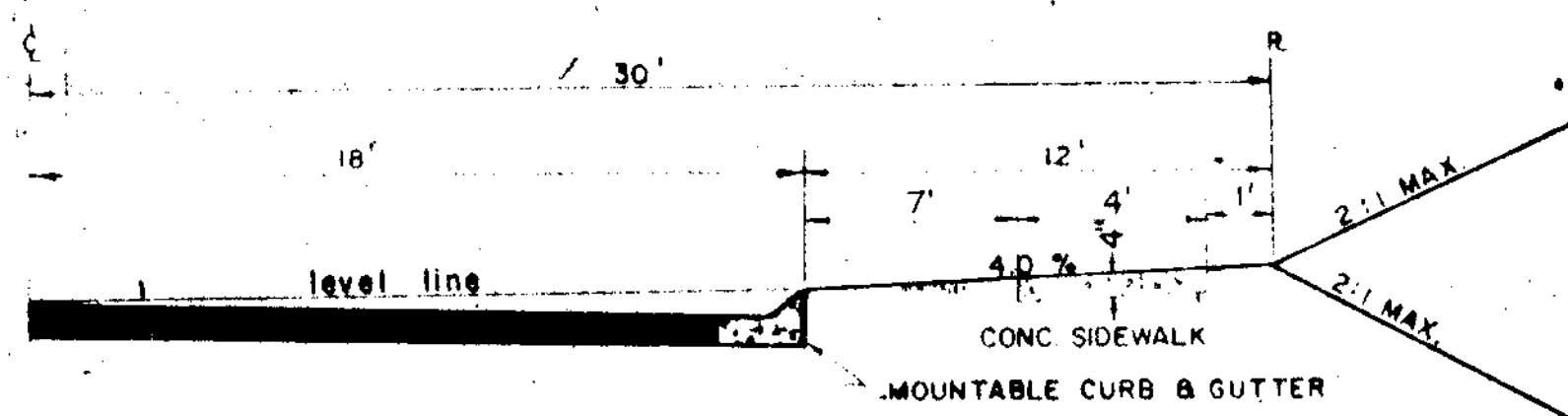
PROFILE
 QUANTITY
 NOTED
 PLANNING
 CHECKED
 DATE



MOUNTABLE CURB & GUTTER
NO SCALE



TYPICAL STREET HALF SECTION
NO SCALE



TYPICAL STREET HALF SECTION
NO SCALE

NOTE: SIDEWALK AT DRIVEWAYS IS 6" THICK

BITUMINOUS CONCRETE SURFACE	1.5" BAND C-3	FINAL PHASE
BITUMINOUS CONCRETE SINDER	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
SINDER 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

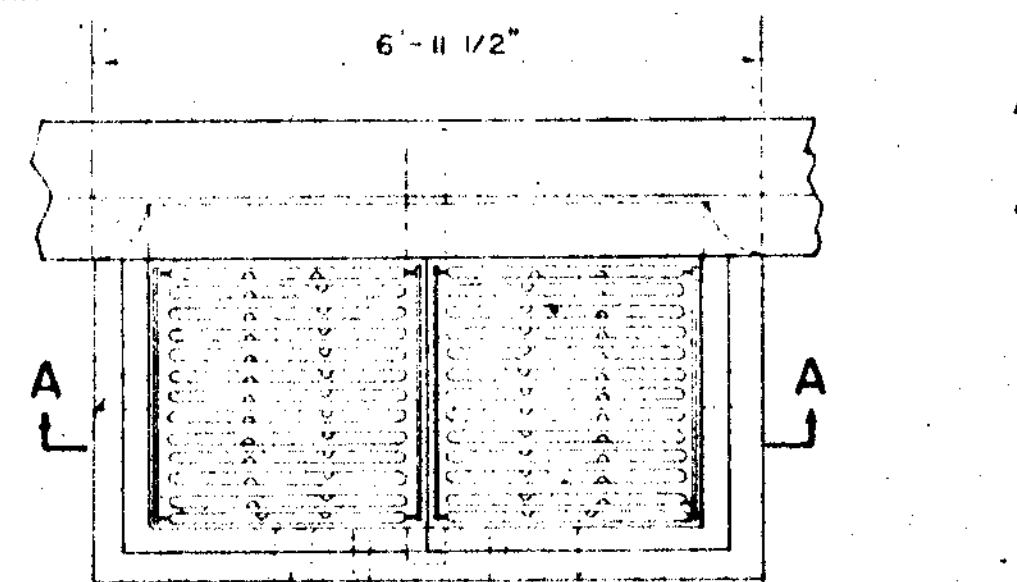
CLEARING and GRADING ARTICLE C-1
SUBGRADE ARTICLE C-2
BASE COURSE ARTICLE C-31 or C-33
SURFACE COURSE ARTICLE C-31

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

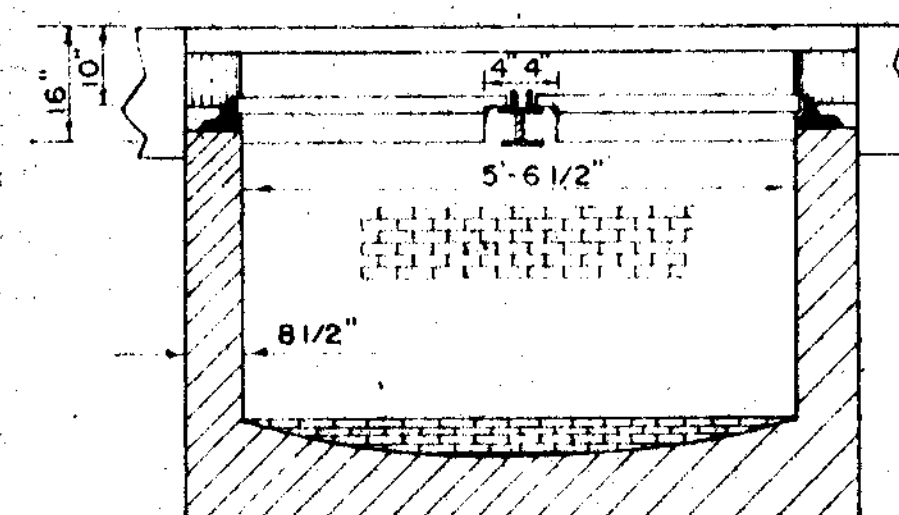
SECONDARY RESIDENTIAL STREET
NO SCALE

PAVEMENT SECTIONS

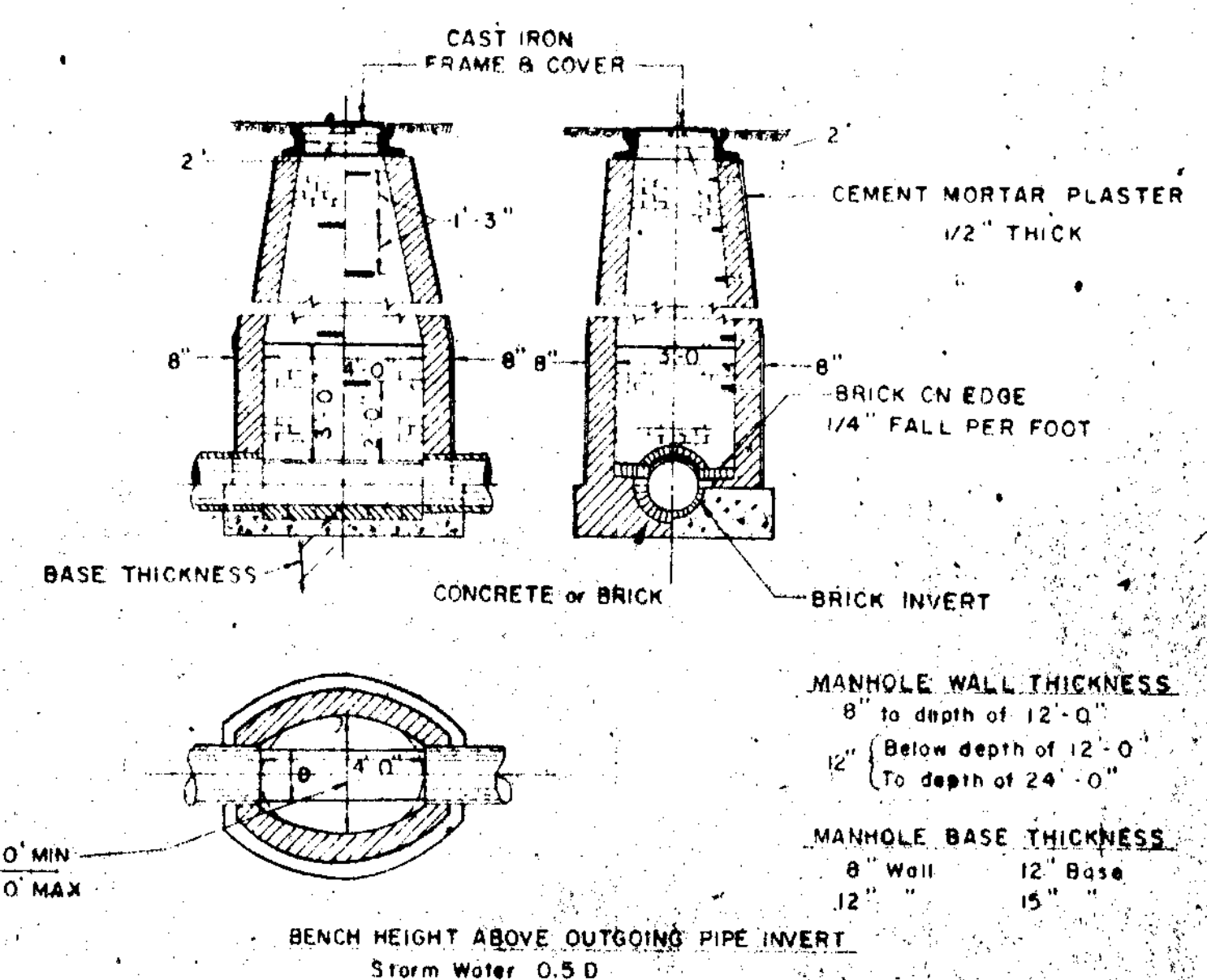
Richard H. Browne
RICHARD H. BROWNE, P.E. & L.S.
Lic. No. 9238 State MD.



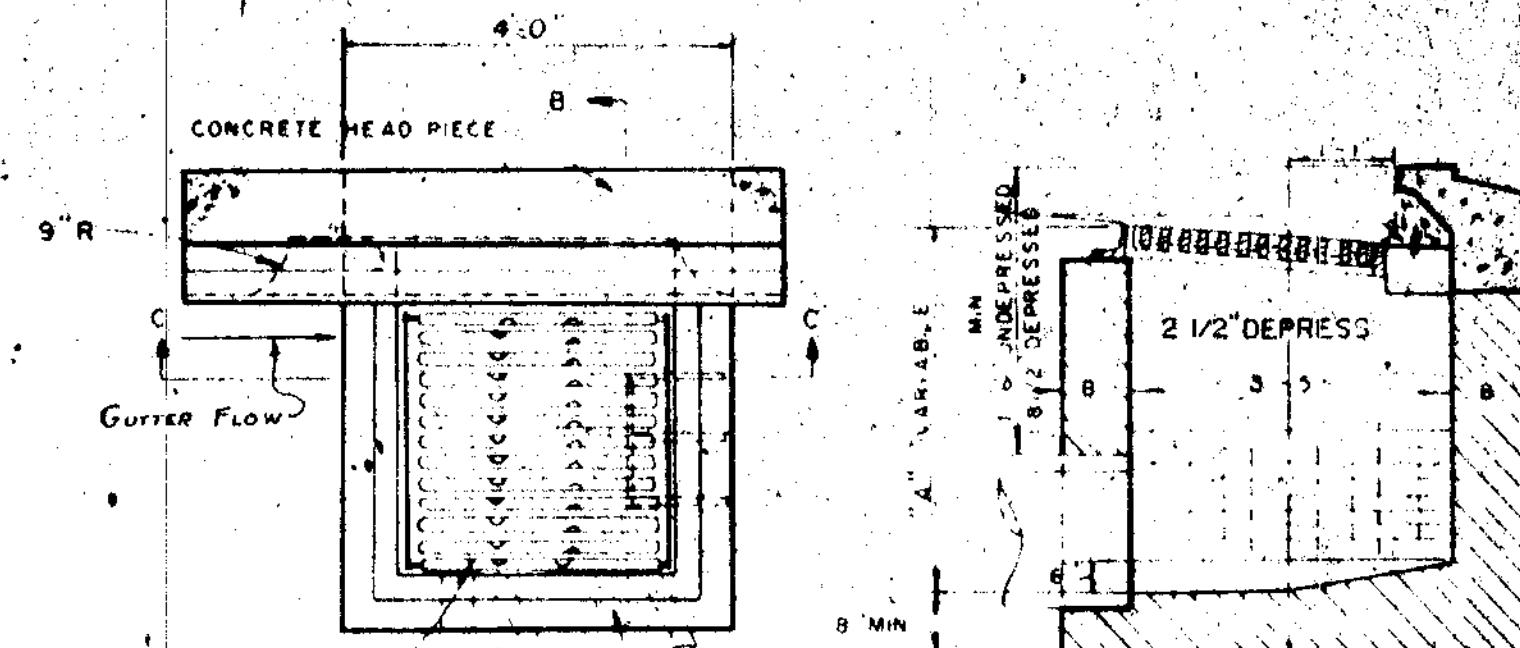
LEAVE 4' x 4' OPENING FOR SUBGRADE DRAINAGE
"S" COMBINATION INLET (DOUBLE GRATE)
NO SCALE



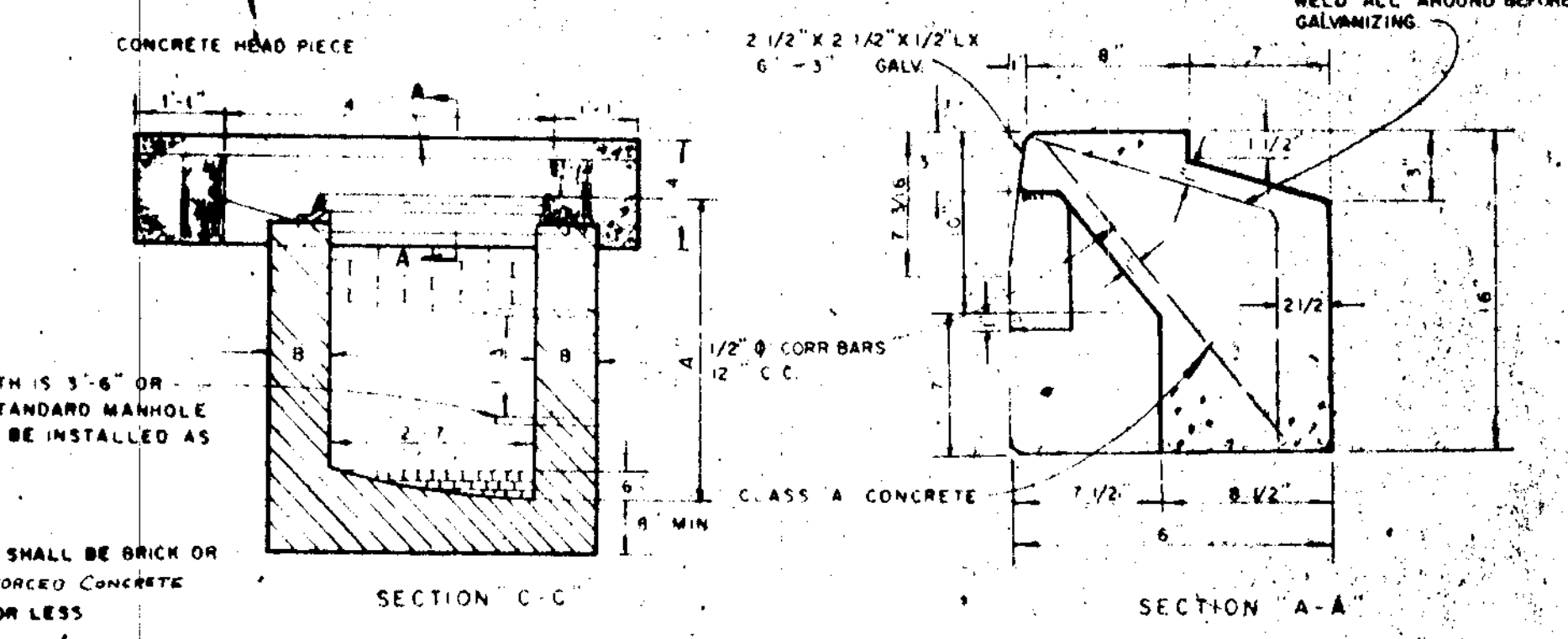
SECTION "A-A"
NO SCALE



STANDARD MANHOLE DETAIL
NO SCALE



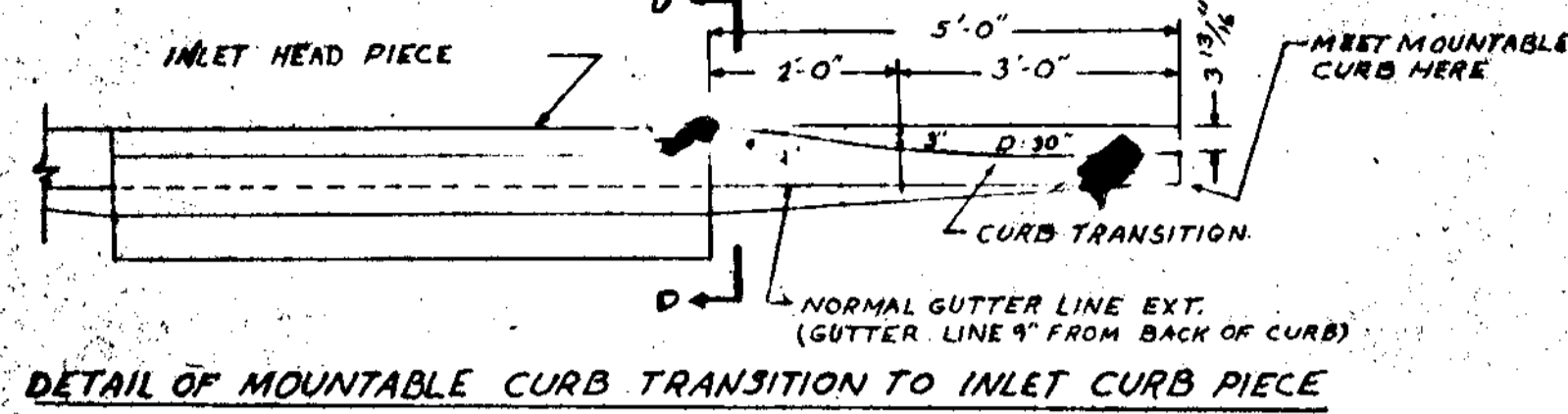
"S" COMBINATION INLET (SINGLE GRATE)
NO SCALE



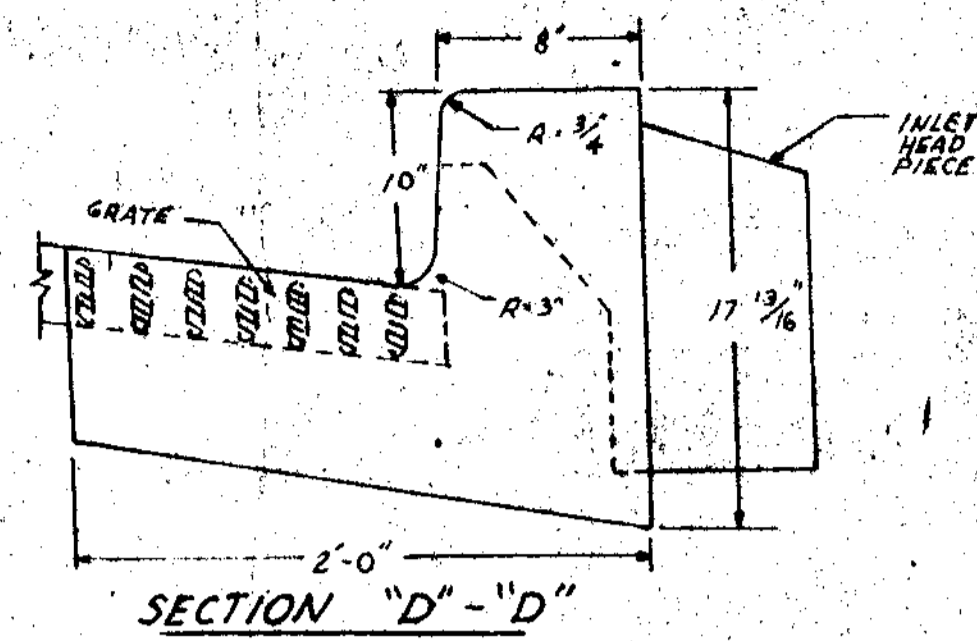
"S" COMBINATION INLET DETAIL (SINGLE GRATE) MODIFIED
NO SCALE

- NOTE:
1. THE WALLS AND INVERT SHALL BE BRICK OR PLAIN CLASS "A" REINFORCED CONCRETE
 2. B = 6" WHERE A IS 7' OR LESS
 3. B = 12" WHERE A IS 7' TO 11'
 4. TOP 4" OF WALLS SHALL BE BRICK MASONRY
 5. ADDITIONAL BRICK SHALL BE USED TO BRING THE GRATE TO EXISTING GRADE IF REQUIRED.
 6. WHERE BRICK IS USED INVERT SHALL BE LAID ON EDGE

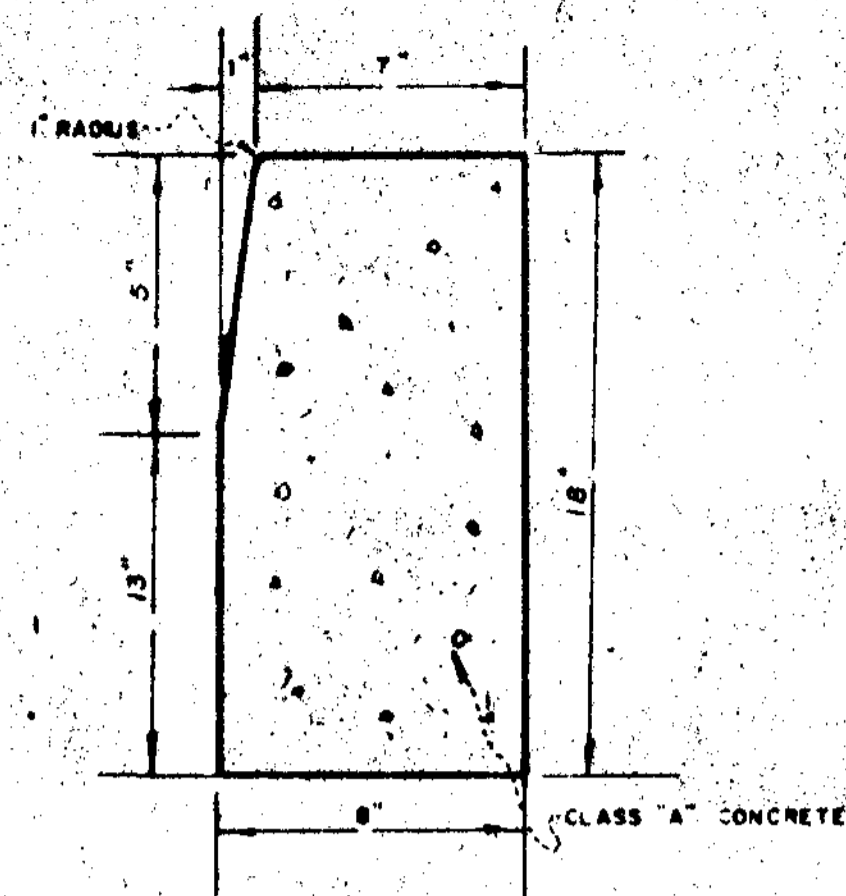
APPROVED
PLANNING COMMISSION
OF HOWARD COUNTY
DATE: *[Signature]* 2-9-08



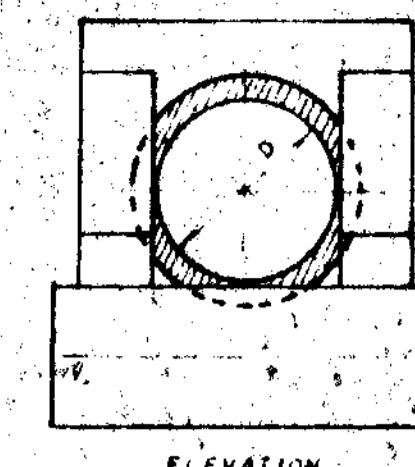
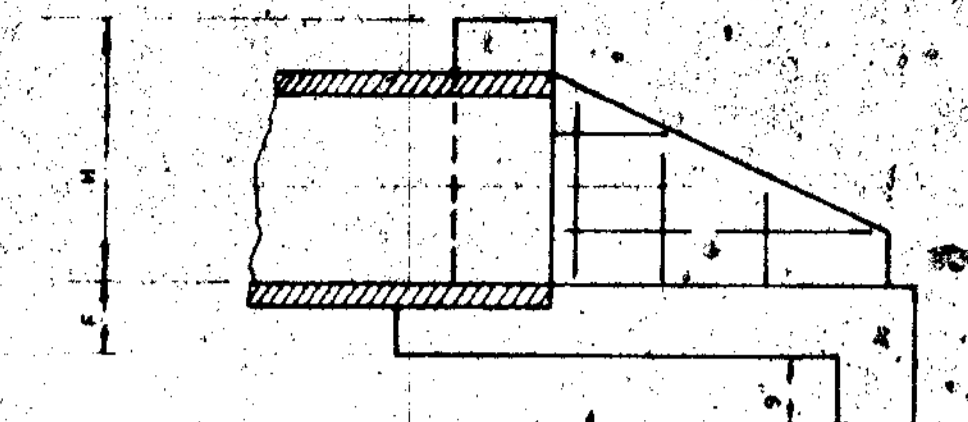
DETAIL OF MOUNTABLE CURB TRANSITION TO INLET CURB PIECE



SECTION "D"- "D"



VERTICAL CURB
NO SCALE

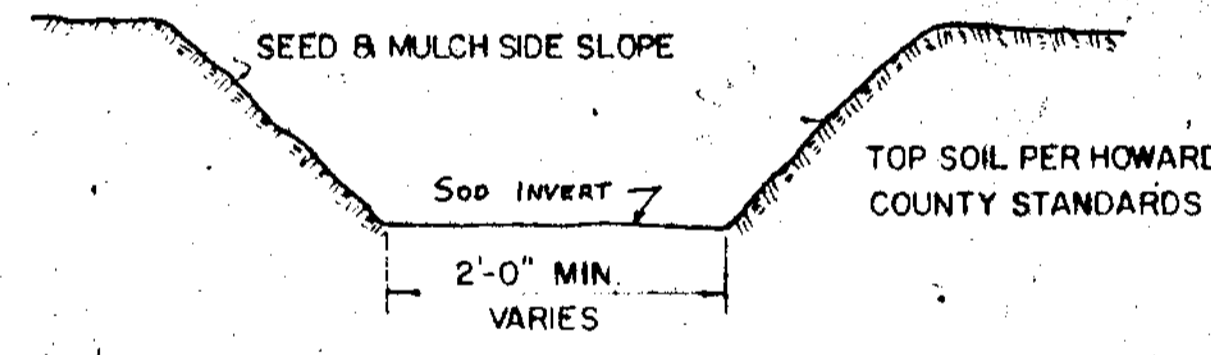


ELEVATION

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
1/4" OR AS DIRECTED

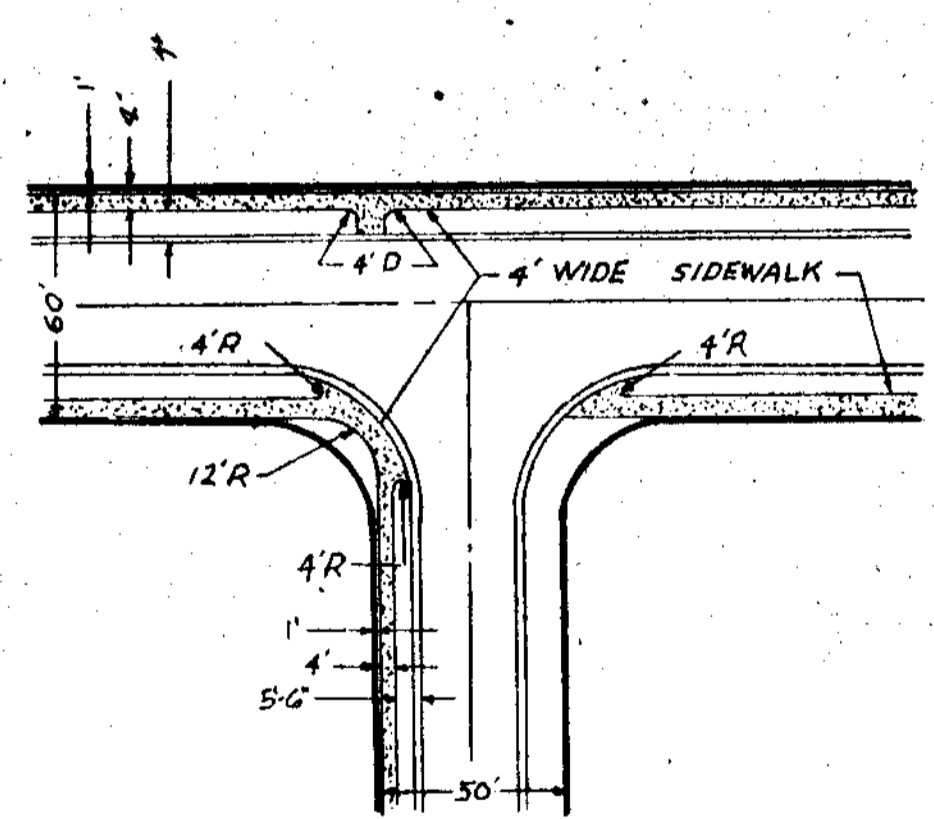
OPENING D IN FT.	DIMENSIONS FOR CONCRETE						QUANTITIES	
	HEADWALL L	B	F	H	W	K	CONC. CU YDS	STEEL LBS
12"	0.79	2.0	9"	1.7	4.6	6"	0.56	34
15"	1.23	2.5	9"	1.8	4.6	6"	0.47	37.4
16"	1.39	2.4	9"	1.8	4.6	6"	0.50	38
18"	1.78	2.6	9"	2.2	4.6	6"	0.61	53
24"	3.4	3.6	12"	2.6	4.6	9"	1.17	71
30"	4.9	4.0	12"	3.4	4.7	9"	1.62	91
36"	7.07	4.6	12"	3.8	4.6	9"	2.12	116
42"	9.62	5.6	12"	4.4	4.6	9"	3.15	141
48"	12.57	6.0	12"	4.4	4.6	9"	3.88	174

STANDARD TYPE "G" HEADWALL
PAGE 116 DRAWING D-61

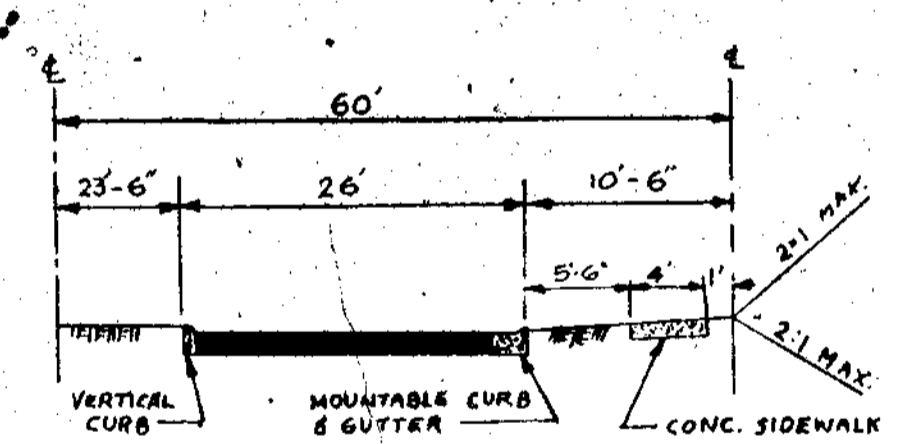


TYPICAL DRAINAGE DITCH

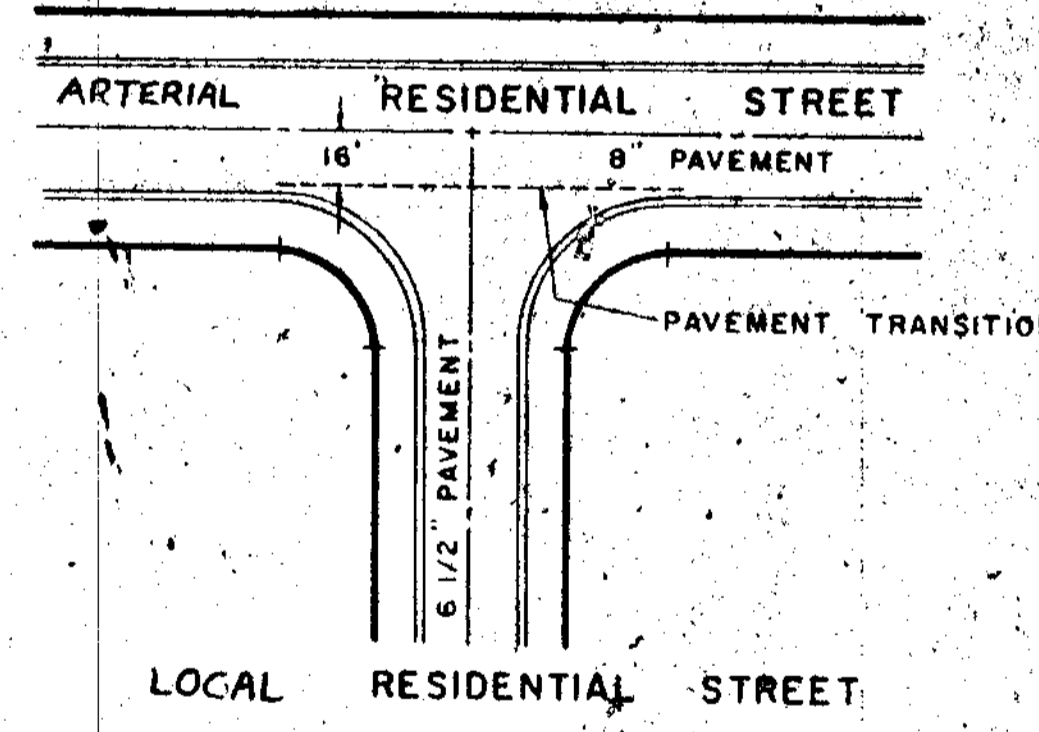
NOTE: ALL EXISTING DITCHES APPROACHING PROPOSED HEADWALLS SHALL BE TRIMMED IN ACCORDANCE WITH ARTICLE C-6 OF THE HOWARD CO. ROAD CONSTRUCTION CODE & STANDARD SPECIFICATIONS.



TYPICAL SIDEWALK DETAILS AT INTERSECTIONS
NO SCALE



TYPICAL HALF-SECTION CUL-DE-SAC
NO SCALE



TYPICAL PAVEMENT TRANSITION DETAIL
NO SCALE



APPROVED
PLANNING COMMISSION
OF HOWARD COUNTY
DATE 2-9-68