

REVISIONS

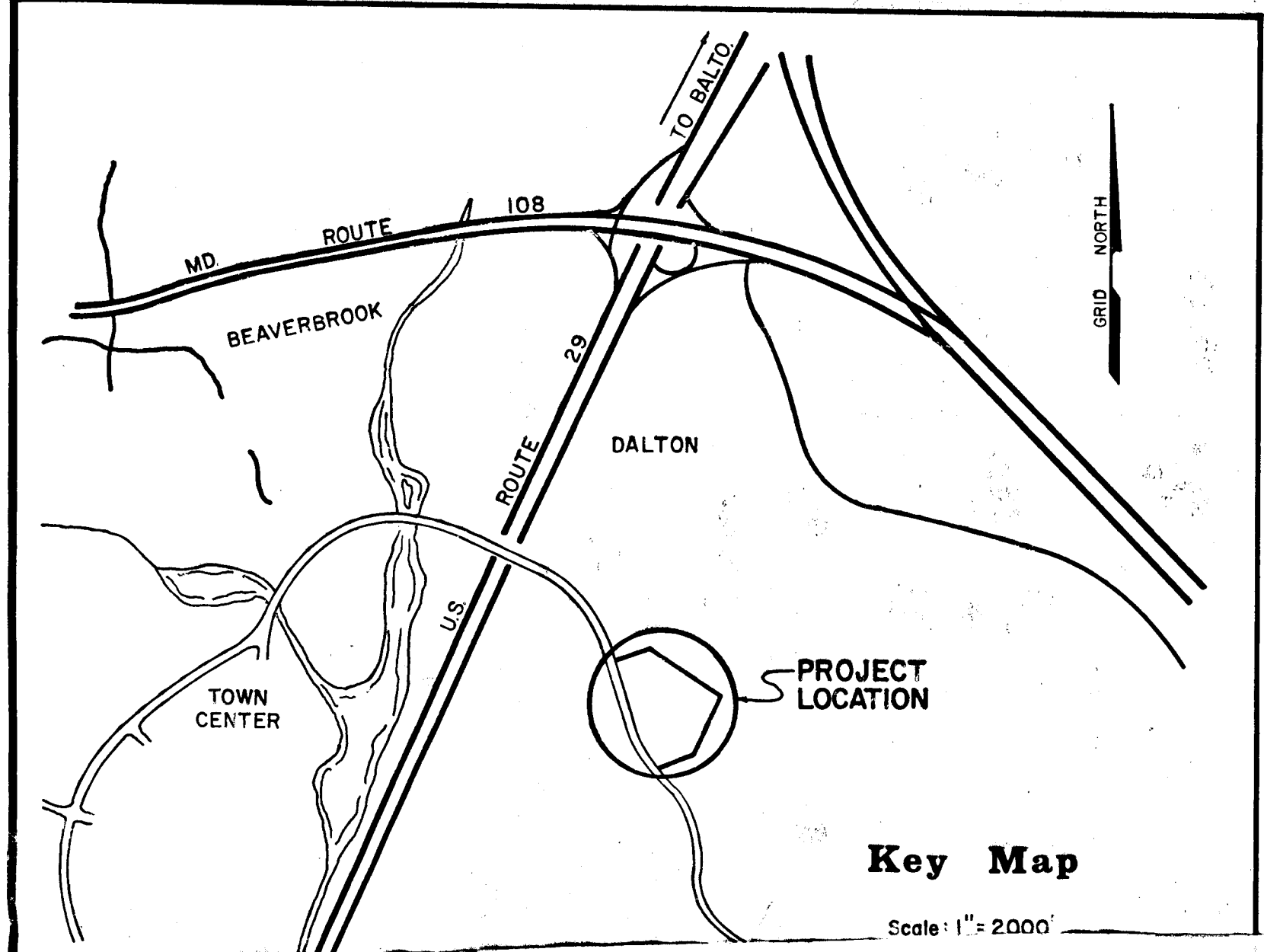
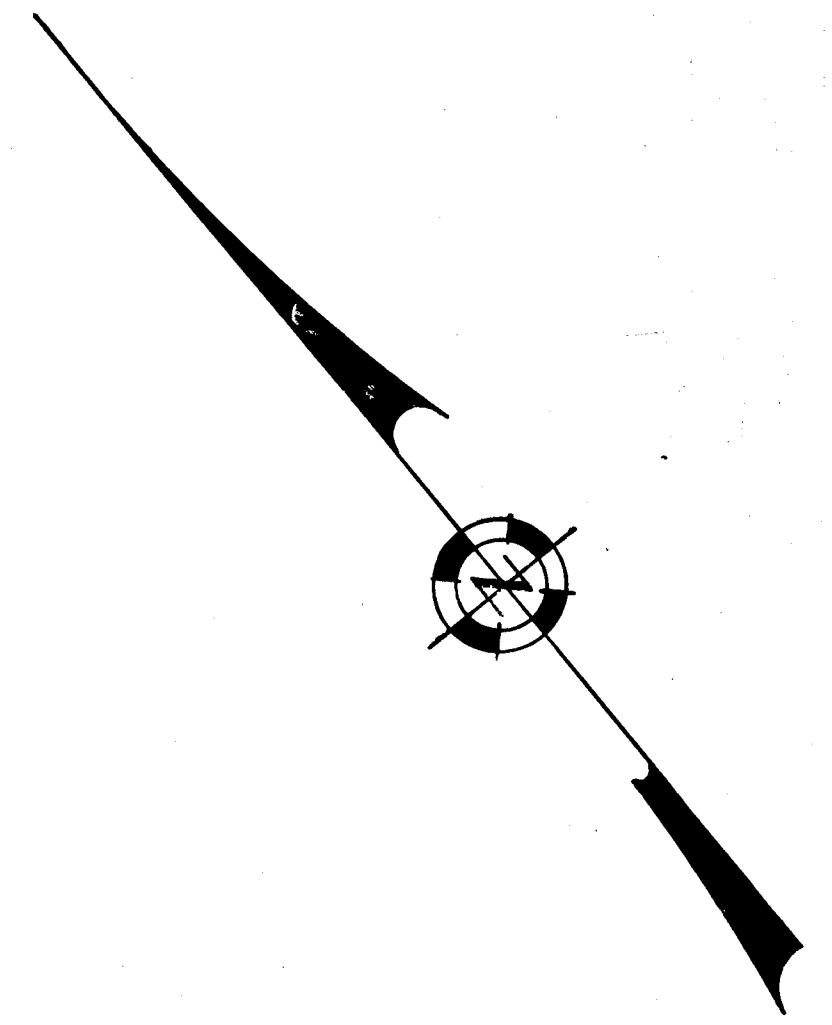
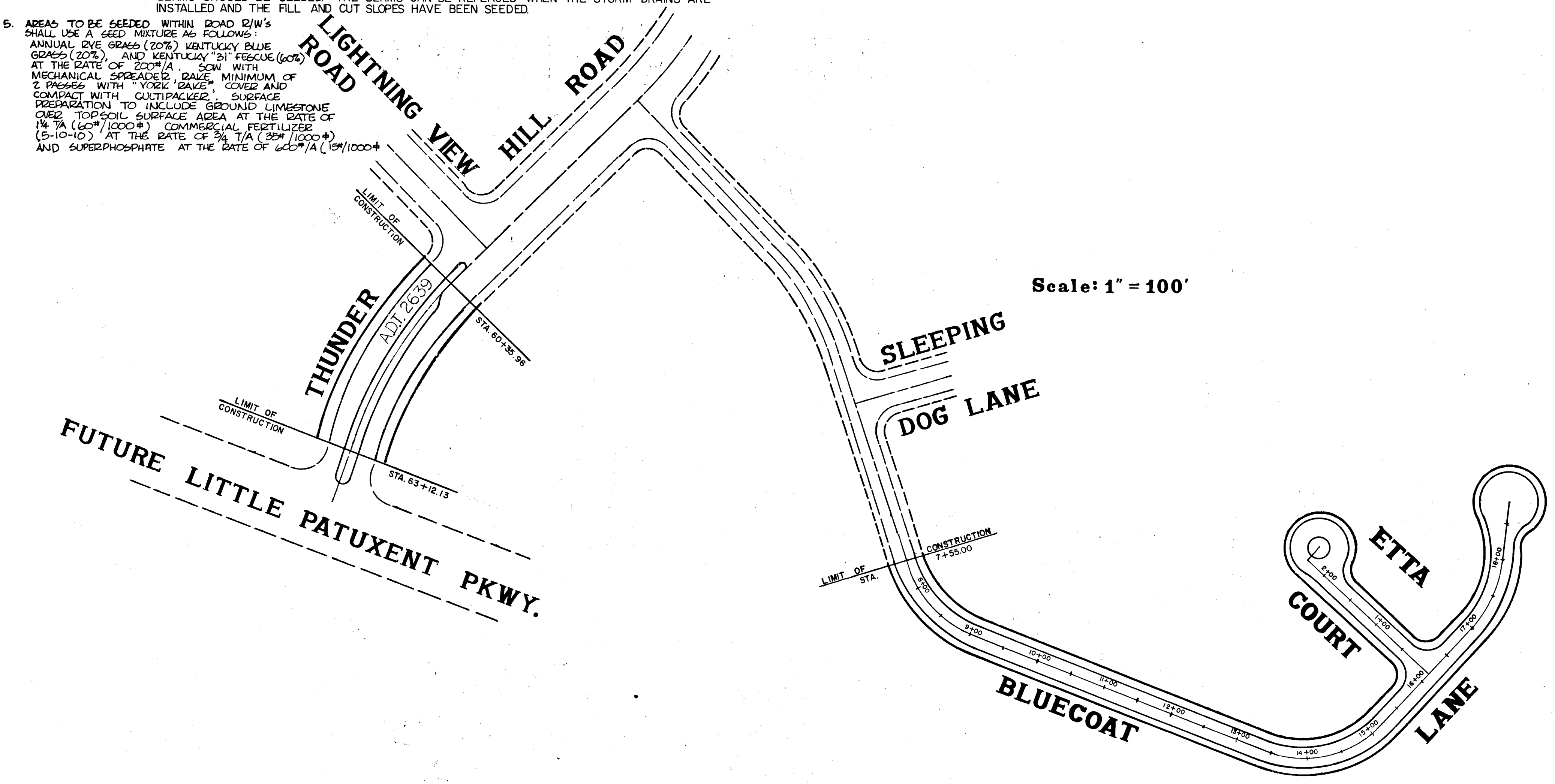
SHEET INDEX	
SHEET No.	DESCRIPTION
1.	TITLE SHEET
2.	BLUECOAT LANE STA. 7+55.00 - STA. 15+25
3.	BLUECOAT LANE STA. 15+25 - P.T. STA. 18+76.73
4.	ETTA COURT STA. 0+00 - STA. 2+30
5.	THUNDER HILL RD. STA. 60+35.96 - STA. 63+12.13
6.	ROADWAY DETAILS
7.	DRAINAGE AREA MAP

COLUMBIA

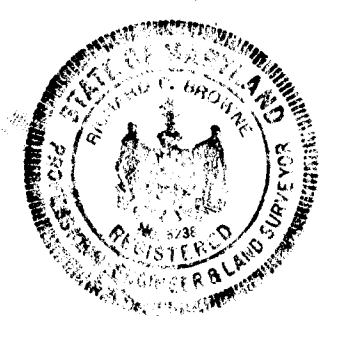
HOWARD COUNTY, MARYLAND
6th ELECTION DISTRICT

VILLAGE OF OAKLAND MILLS SEC. 1 THUNDER HILL AREA 4, PART A

- NOTES**
- ALL DETAILS ARE FROM THE ROAD CONSTRUCTION CODE AND STANDARD SPECIFICATIONS ISSUED OR APPROVED BY THE COUNTY COMMISSIONERS AND THE HOWARD COUNTY ROAD DEPARTMENT.
 - THUNDER HILL ROAD IS DESIGNED FOR 35 MPH TRAFFIC SPEED IN ACCORDANCE WITH THE AASHO.
 - ALL OTHER ROADS ARE DESIGNED FOR 25 MPH TRAFFIC SPEED IN ACCORDANCE WITH THE AASHO.
 - ALL FILL SLOPES AND CUT SLOPES IN THE EXCESS OF 4 VERTICAL FEET SHOULD BE BERMED WITH 18" HIGH DIVERSION BERMS TO HAVE POSITIVE GRADE TO TEMPORARILY CONSTRUCTED CHUTES. BERMS SHOULD BE SEEDED. THE BERMS CAN BE REPLACED WHEN THE STORM DRAINS ARE INSTALLED AND THE FILL AND CUT SLOPES HAVE BEEN SEEDED.
 - AREAS TO BE SEEDED WITHIN ROAD R/W'S SHALL USE A SEED MIXTURE AS FOLLOWS:
ANNUAL RYE GRASS (20%), KENTUCKY BLUE GRASS (20%), AND KENTUCKY "31" FESCUE (60%) AT THE RATE OF 200#/A. SOW WITH MECHANICAL SPREADER, MAINTAIN MINIMUM OF 2 PASSES WITH "VORTEX" COVER AND COMPACT WITH CULTIPACKER. SURFACE PREPARATION TO INCLUDE GROUND LIMESTONE OVER TOPSOIL SURFACE AREA AT THE RATE OF 1 1/2 T/A (60#/1000#) COMMERCIAL FERTILIZER (5-10-10) AT THE RATE OF 3/4 T/A (30#/1000#) AND SUPERPHOSPHATE AT THE RATE OF 60#/A (12#/1000#).



OWNER & DEVELOPER
THE HOWARD RESEARCH AND DEVELOPMENT CORP.
THE VILLAGE OF CROSS KEYS
BALTIMORE, MARYLAND



Certification by the Professional Engineer:
"I certify that the plan of development and the plan for control of silt and erosion meets the requirements, standards, and specifications of the Howard Soil Conservation District."
Richard P. Browne 19 Aug. 1969
(Signature) P.E. & L.S. # 5238 (Date)

Certification by the developer:
"I certify that all development and/or construction will be done according to this plan of development and plan of silt and sediment control."
The Howard Research & Development Corporation
by Thomas A. Garbutt, Agent 8-19-1969
(Signature) (Date)

Signature block for approval by the Howard Soil Conservation District:

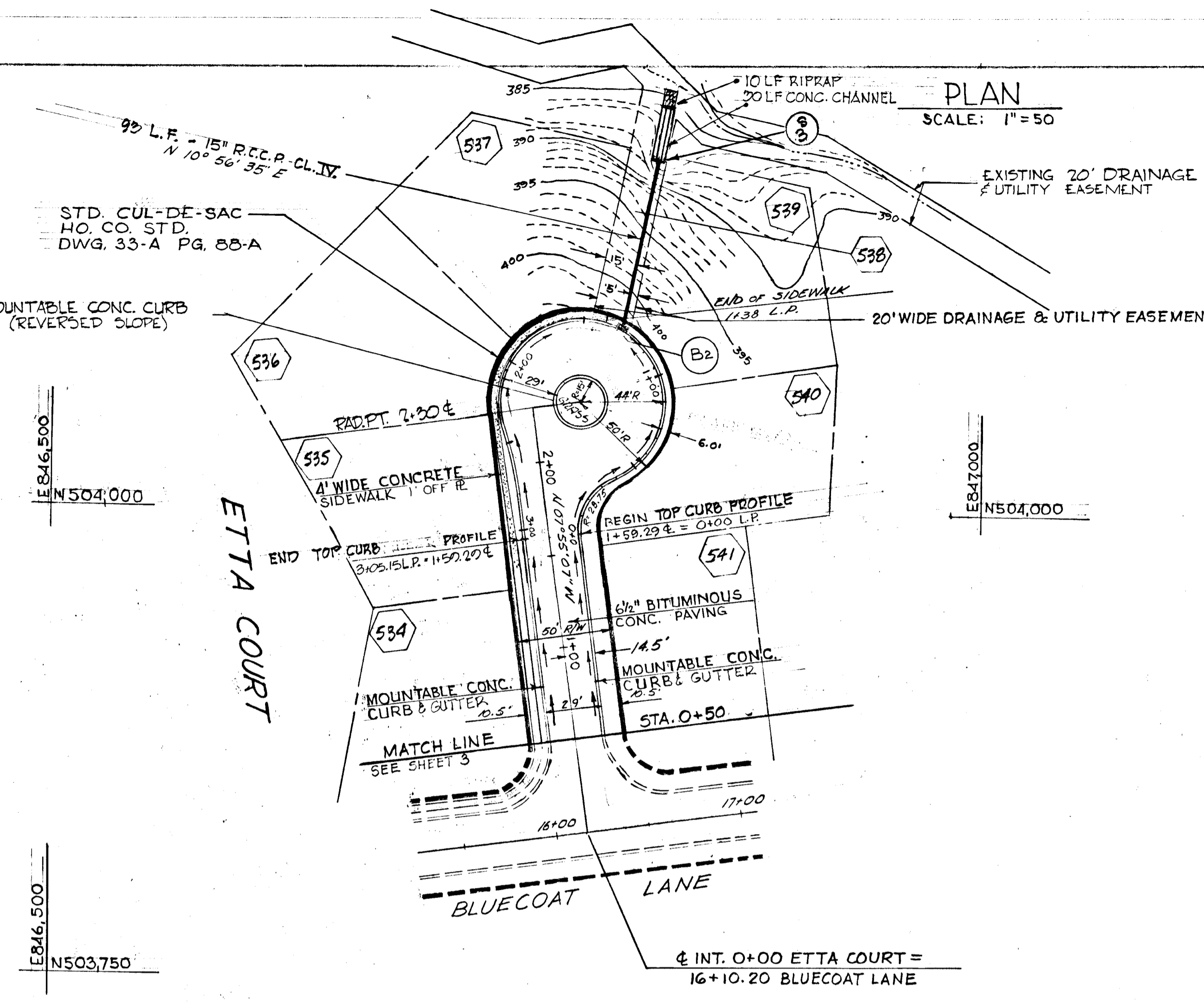


"This development plan is approved for soil erosion and sediment control by the Howard Soil Conservation District"
Reviewed Elmer J. Auer 8/6/69
Dist. Conservationist (Date)
Approved Robert V. Young 8/6/69
Howard S.C.D. (Date)

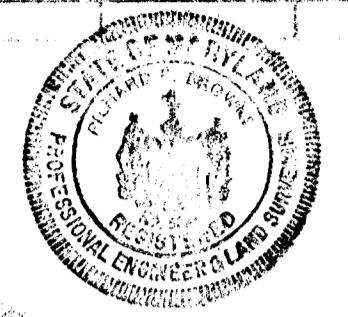
RICHARD P. BROWNE ASSOCIATED CONSULTING ENGINEERS - PLANNERS COLUMBIA, MARYLAND <u>Richard P. Browne</u> 2-20-69 RICHARD P. BROWNE, P.E. & L.S. LIC. NO. 5238 STATE MD.	APPROVED: DEPARTMENT OF PUBLIC WORKS <u>[Signature]</u> 4/14/70 CHIEF, BUREAU OF HIGHWAYS DATE
	APPROVED: OFFICE OF PLANNING AND ZONING <u>[Signature]</u> 5-4-70 CHIEF ENGINEER, DIVISION OF LAND DEVELOPMENT DATE

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

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



STORM DRAINAGE STRUCTURE SCHEDULE						
NO.	TYPE	LOCATION	INV. IN	INV. OUT	COL. ELEV.	REMARKS
B2	A-5 INLET	L.P. STA. 1+48.09	391.50	397.00		Ho. Co. Std. Dwg. D64-A Pg. 119-A
S3	Std. TYPE 'C' E.W.	L.P. STA. 1+48.09 23' RT.	386.50			Ho. Co. Std. Dwg. D-52 Pg. 107



Richard P. Browne
 RICHARD P. BROWNE 5238
 DATE: 2-28-69

BROWNE, PANDULLO & ASSOCIATES
 ENGINEERS
 COLUMBIA, MARYLAND

Rev. Date: _____ Rev. No.: _____ Revision Description: _____

COLUMBIA
 6TH ELECTION DISTRICT - HOWARD COUNTY D
 HOWARD RESEARCH AND DEVELOPMENT CORP.
 THE VILLAGE OF CROSS KEYS - BALTIMORE, MARYLAND 21210

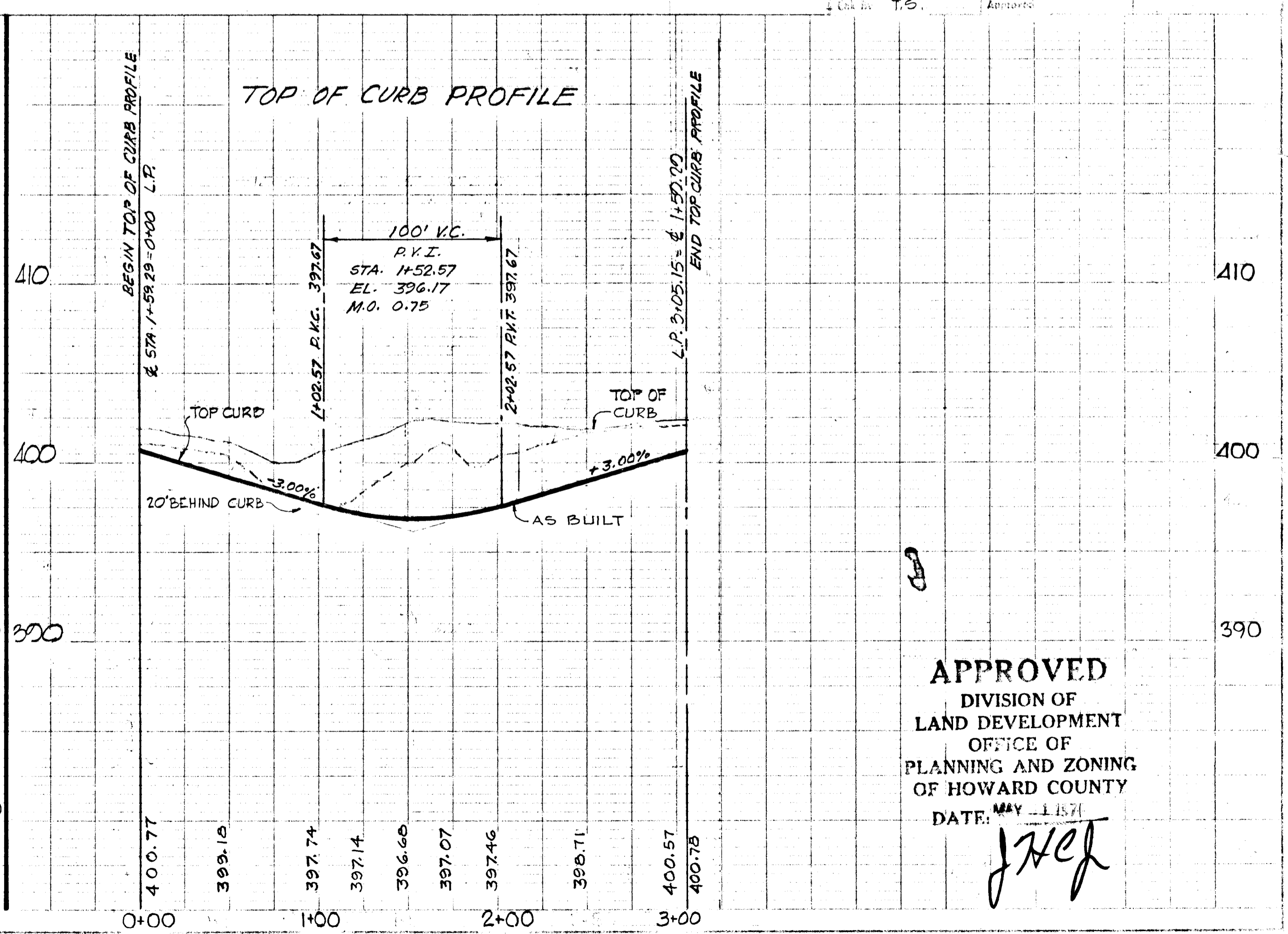
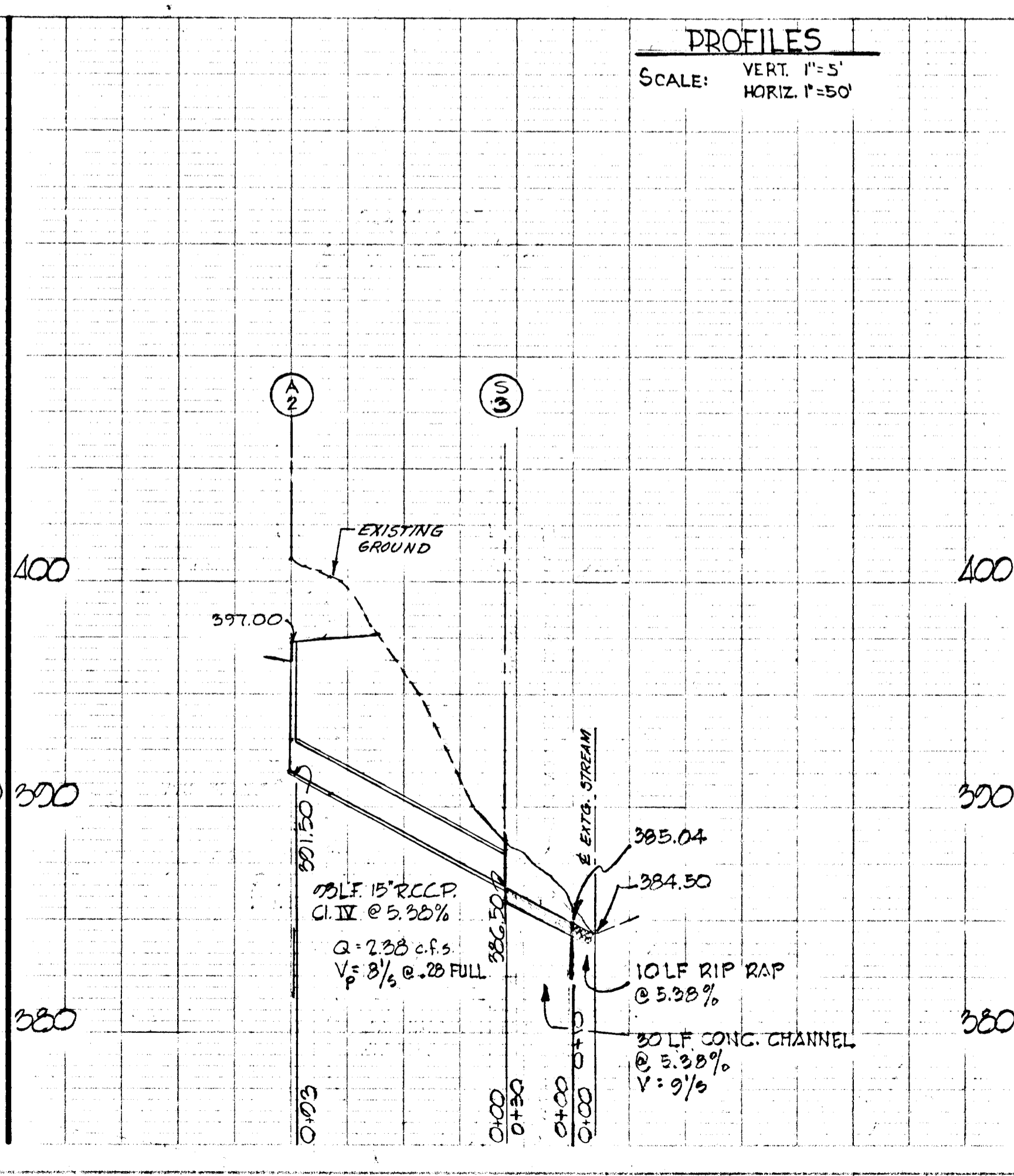
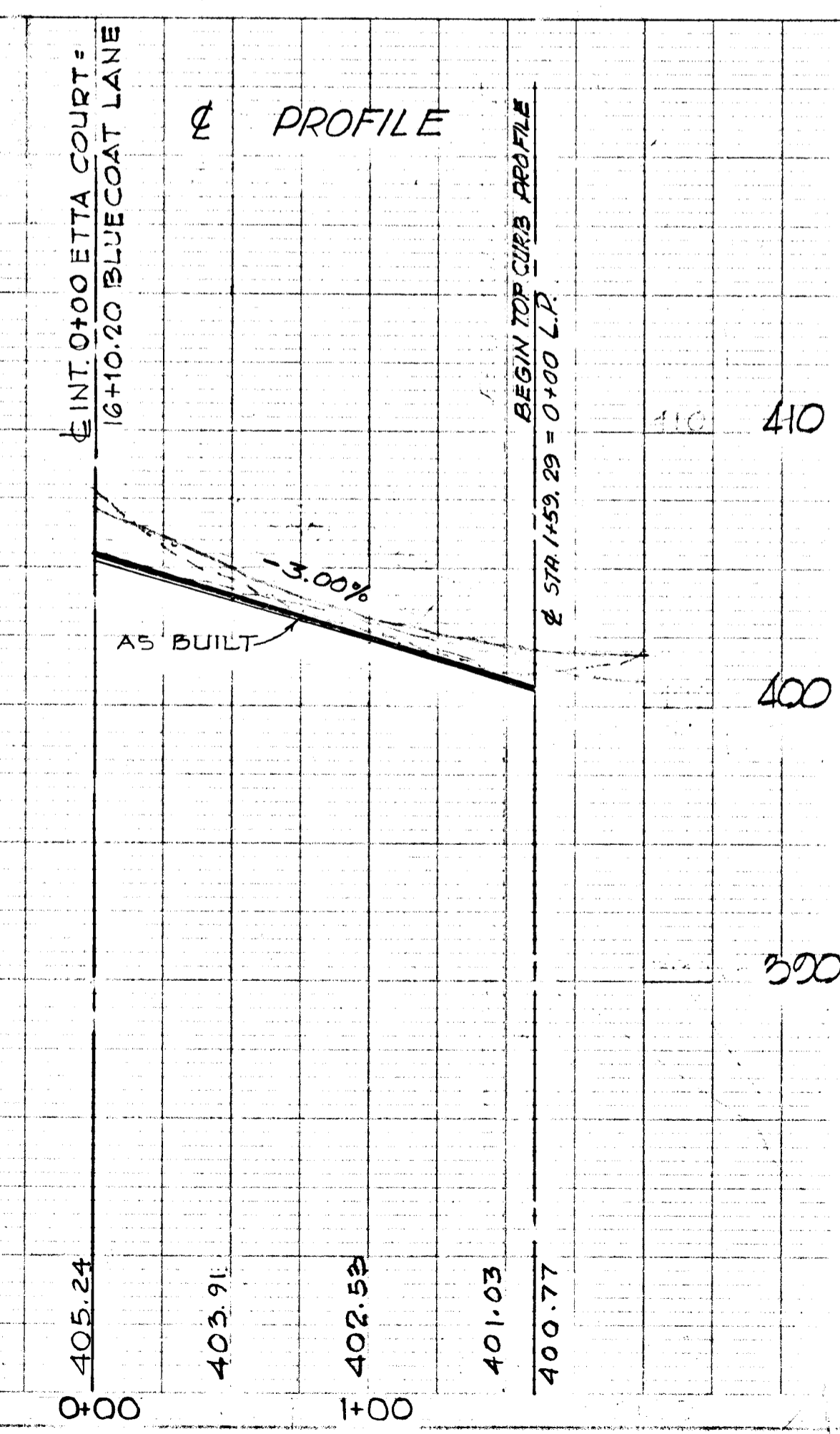
PROJECT: VILLAGE OF OAKLAND MILLS, SEC. 1 THUNDER HILL AREA 4, PART A

PROJECT TITLE: **ETTA COURT**
 PLAN & PROFILE

Drawn by: WK. Scale: AS SHOWN Date: 25 FEB. 69 Rev. No: 4 of 7
 Checked by: B.P. Date: _____ C.C. No: _____
 Approved by: T.S. Date: _____

LEGEND

EXISTING GROUND 20' R/W
 EXISTING GROUND 20' R/W
 EXISTING GROUND 20' R/W



APPROVED
 DIVISION OF
 LAND DEVELOPMENT
 OFFICE OF
 PLANNING AND ZONING
 OF HOWARD COUNTY
 DATE: MAY 1 1969
JHEP

STORM DRAINAGE STRUCTURE SCHEDULE						
NO.	TYPE	LOCATION	INV. IN	INV. OUT	T.C. P.E.L.V.	REMARKS
C-3	B-10 INLET	UP- ϵ Sta. 60+68.67 Lt. ϵ		386.56	390.49	Ho. Co. Std. Dwg. 64-B Pg. 110-B
E-3	B-20 INLET	UP- ϵ Sta. 62+88.67 Rt. ϵ	379.30	379.05	385.25	" " " "
D-3	B-10 INLET	DOWN- ϵ Sta. 62+98.67 Lt. ϵ	377.53	377.23	384.82	" " " "
S-11	Std. TYPE 'C' ENDWALL	SEE PROFILE		372.62		Ho. Co. Std. Dwg. D-52 Pg. 107
MH 16	Std. MANHOLE	ϵ Sta. 60+90 36.75' Rt. ϵ	18" 385.84	385.30		Ho. Co. Std. Dwg. D-108 Pg. 138
S-16	STD TYPE 'C' ENDWALL	AS SHOWN	379.70			Ho. Co. STD DWG. D-52 Pg. 107



Richard P. Browne
 RICHARD P. BROWNE 5238 DATE 1-28-69

RICHARD P. BROWNE ASSOCIATES
 CONSULTING ENGINEERS - PLANNERS
 COLUMBIA, MARYLAND

28 JUNE 69 1 EXTEND CONC. CHANNEL FROM
 S-11 - ADD S-16 & 60 LF 18" R.C.C.P. CL. IV

Rev Date Rev No Revision Description

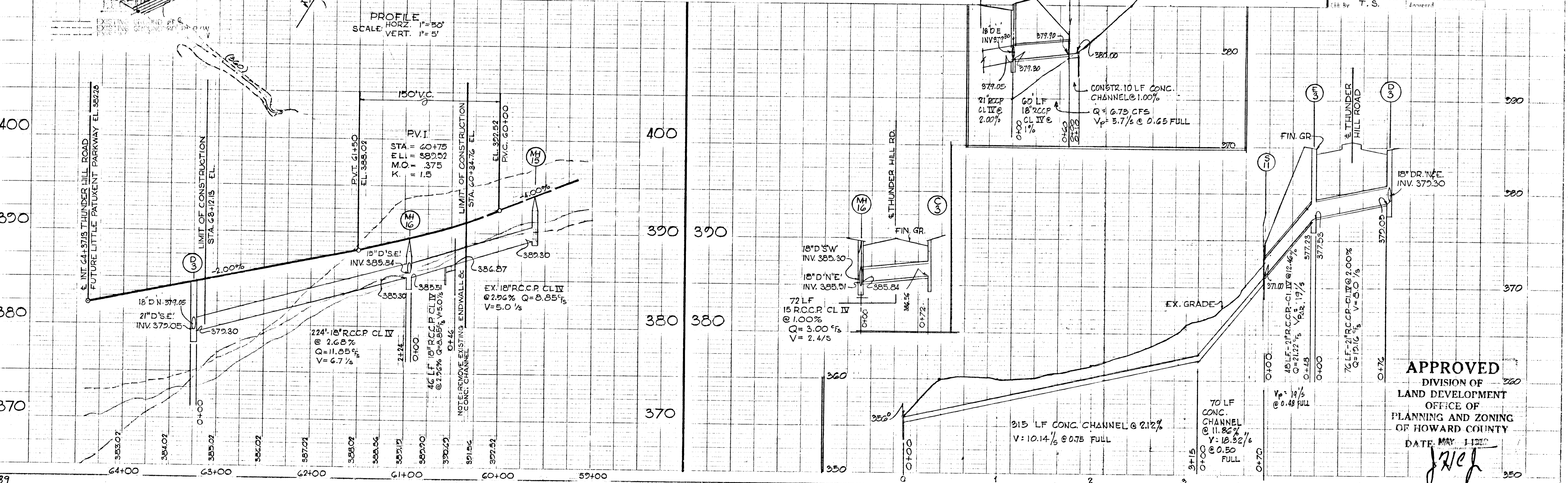
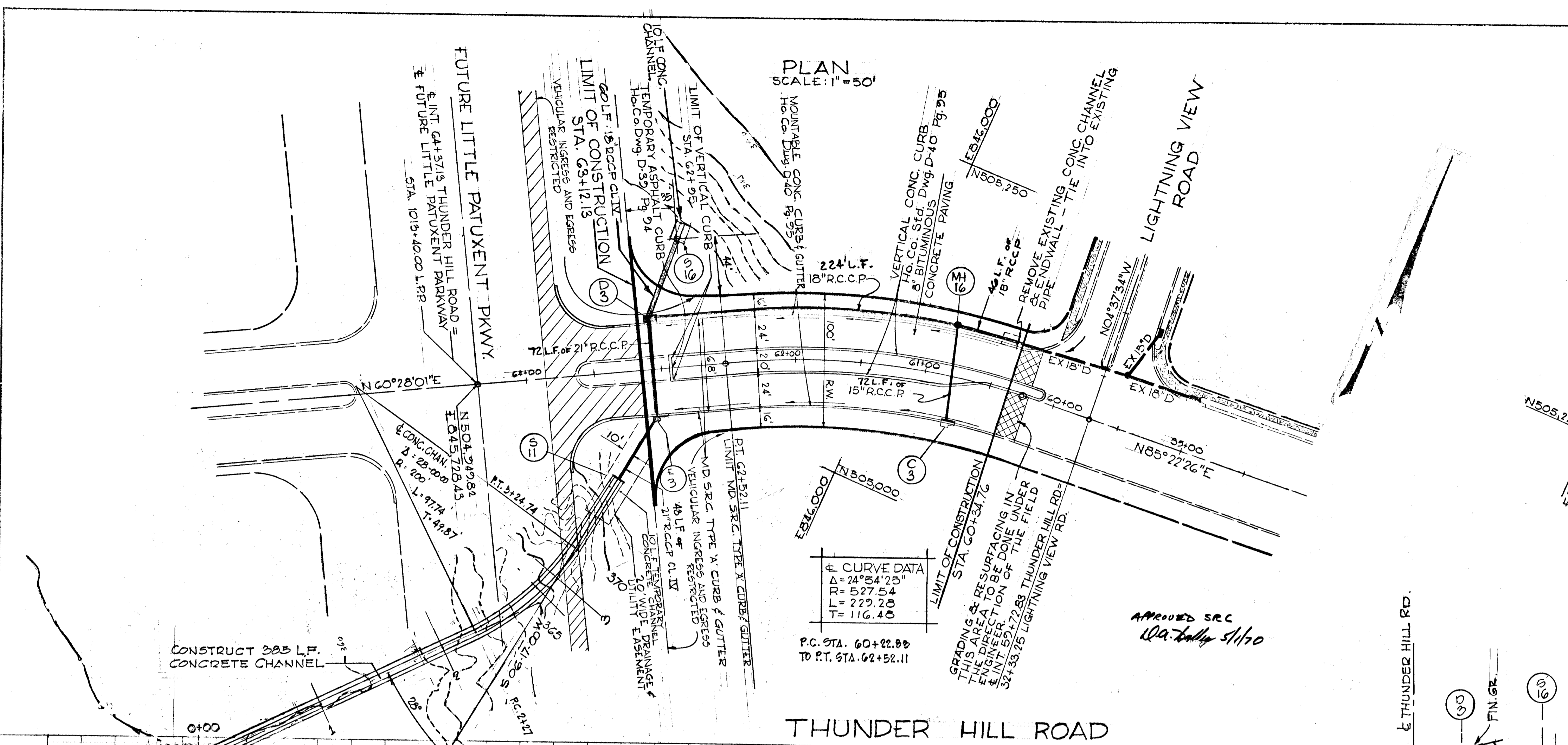
COLUMBIA
 MARYLAND
 2ND ELECTION DISTRICT HOWARD COUNTY

HOWARD RESEARCH AND DEVELOPMENT CORP.
 THE VILLAGE OF CROSS KEYS - BALTIMORE, MARYLAND 21210

PROJECT AREA
 VILLAGE OF OAKLAND MILLS SEC. 1
 THUNDER HILL AREA 4 PART A

PROJECT TITLE
 THUNDER HILL ROAD
 PLAN & PROFILE

Des. By T.S. Scale AS SHOWN Dwg. No. 5 of 7
 Surr. By B.P. Date 23 FEB. 69 C.C.F. No.
 Chk. By T.S. Approved



APPROVED
 DIVISION OF
 LAND DEVELOPMENT
 OFFICE OF
 PLANNING AND ZONING
 OF HOWARD COUNTY
 DATE MAY 1 1969

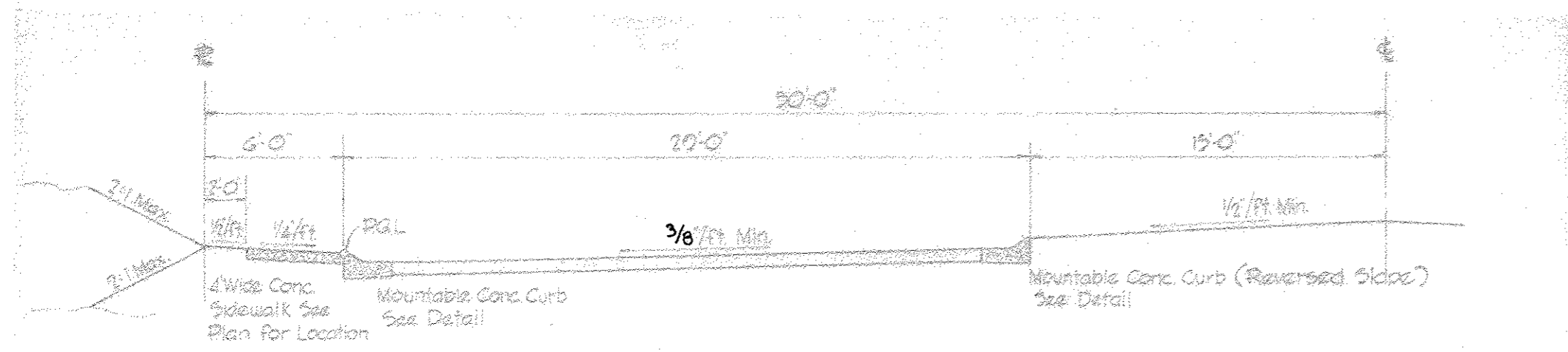
J.P.E.

AS-BUILT SEPTEMBER 22, 1973

F 69-32

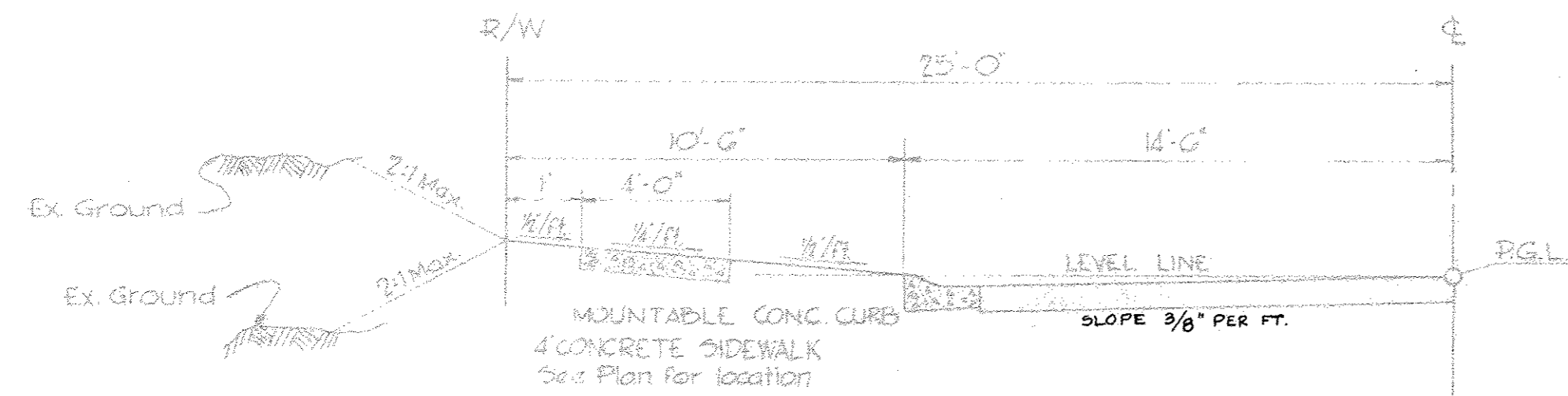
PLAN
 SURVEYED BY
 PLOTTED BY
 CHECKED BY
 DATE

PROFILE
 SURVEYED BY
 PLOTTED BY
 CHECKED BY
 DATE



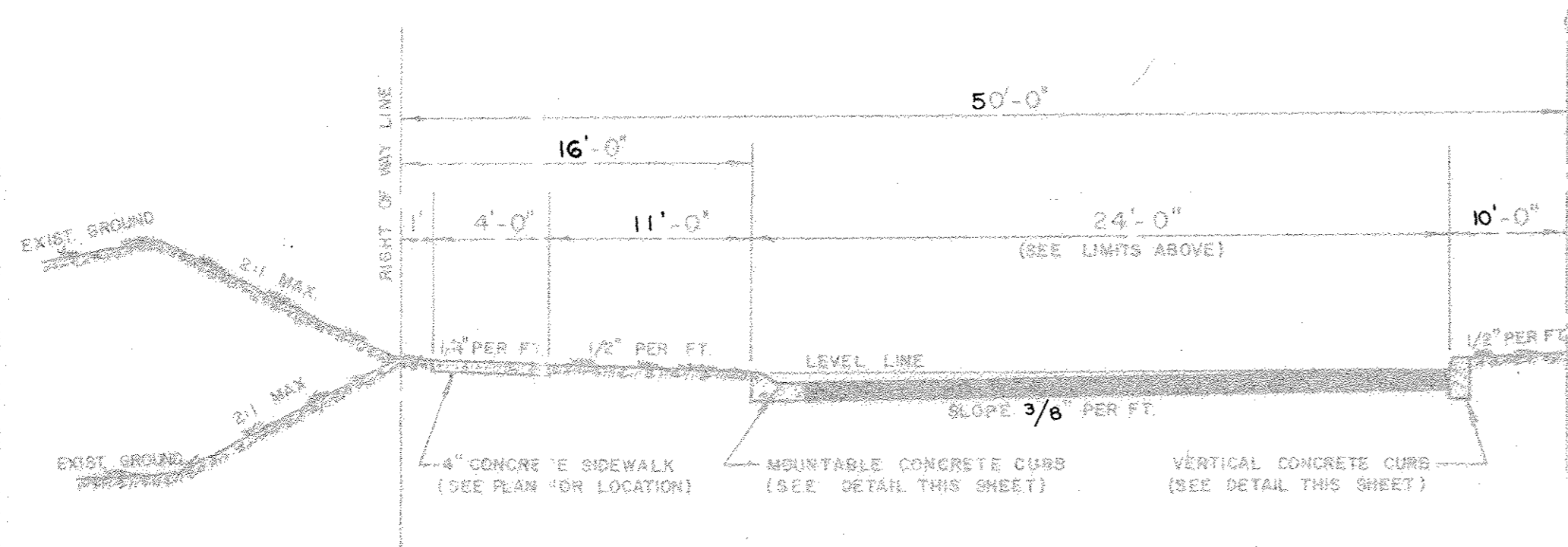
TYPICAL CUL-DE-SAC HALF-SECTION

NO SCALE



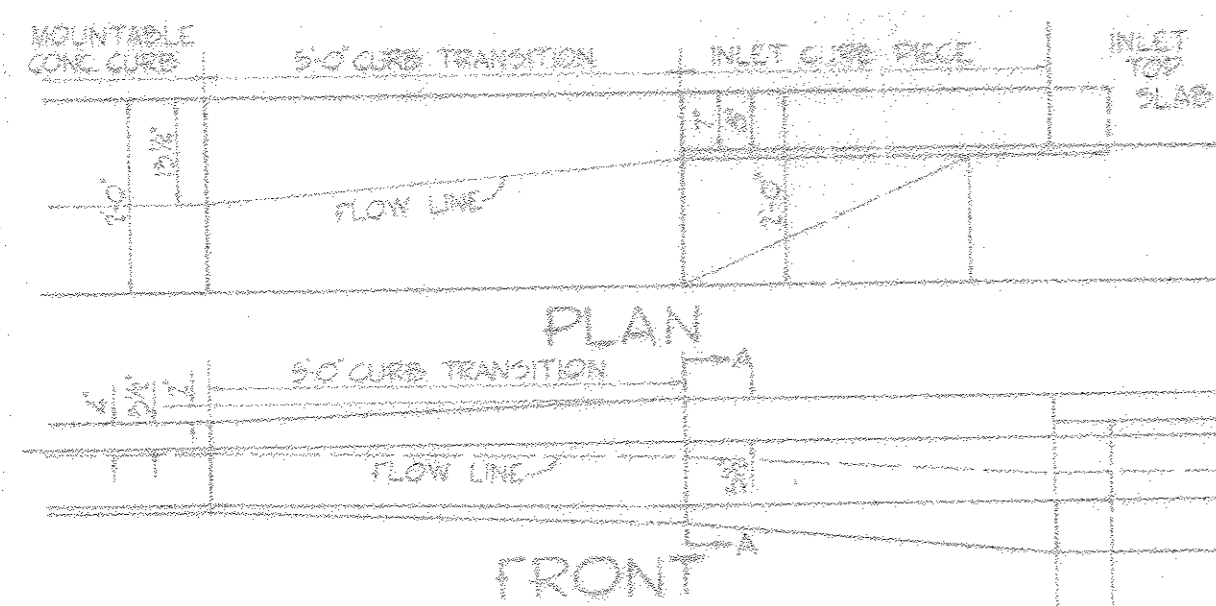
50' R.O.W. TYPICAL HALF-SECTION

NO SCALE



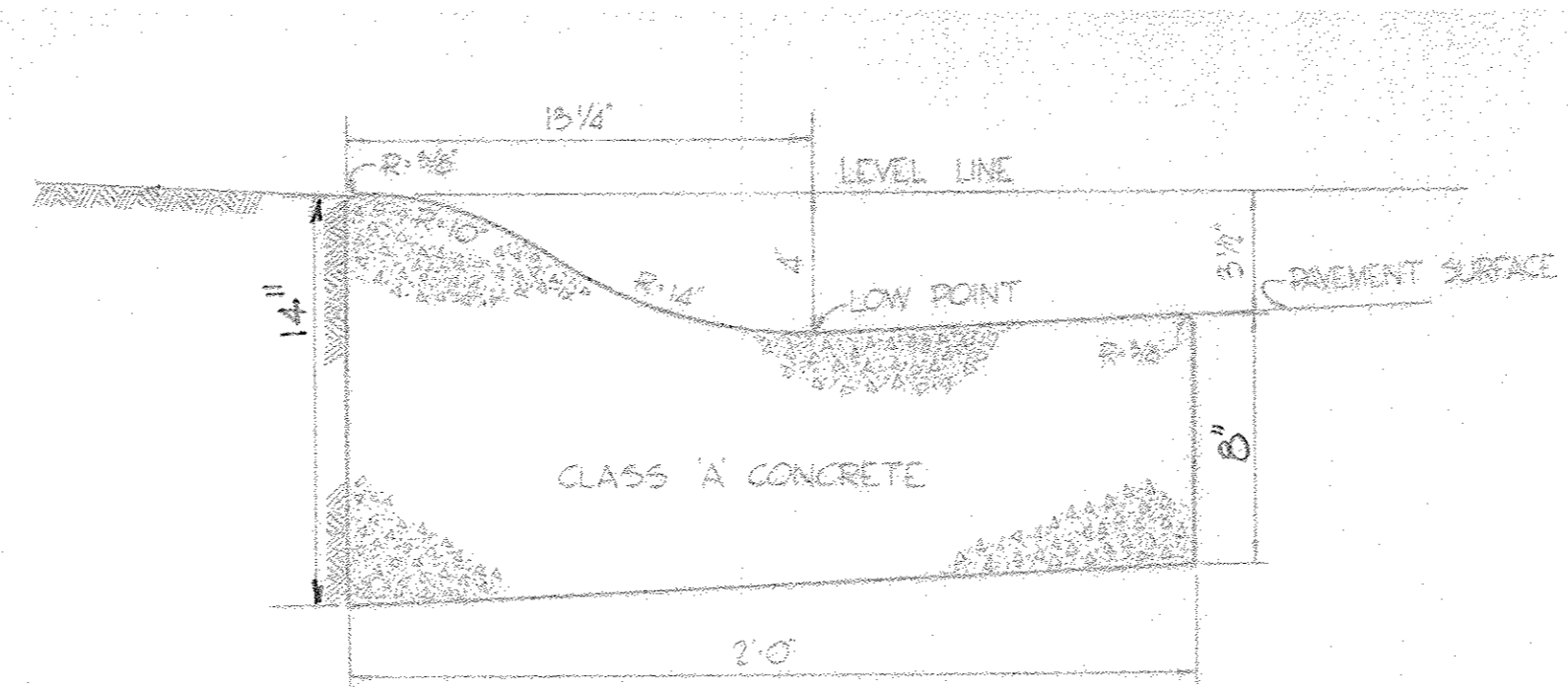
100' R.O.W. TYPICAL HALF-SECTION

NOT TO SCALE



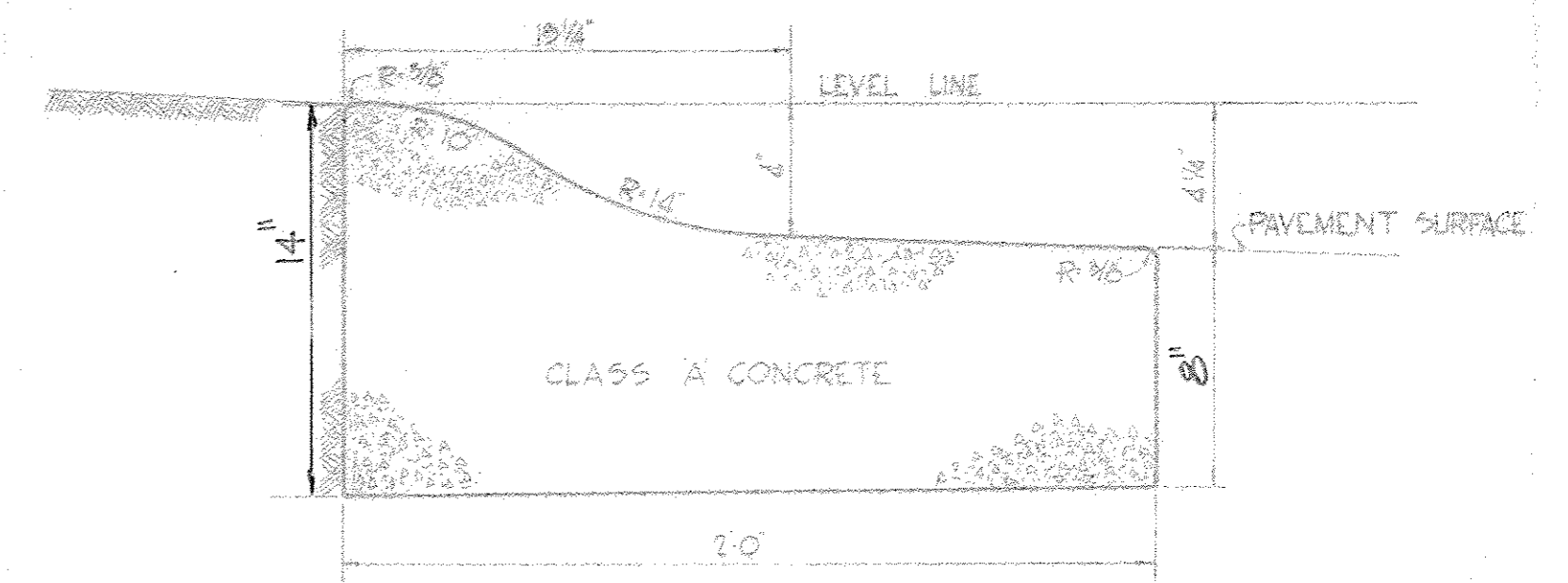
5' CURB TRANSITION

NOTE: TRANSITION TO BE PRECAST



MOUNTABLE CONCRETE CURB

NO SCALE
DWG. D-40 PAGE 95 HO. CO. CONST. CODE



MOUNTABLE CONCRETE CURB FOR CUL-DE-SAC ISLANDS

NO SCALE
DWG. D-40 P95 HO. CO. CONST. CODE

BITUMINOUS CONCRETE SURFACE	BAND C-3	FINAL PHASE
BITUMINOUS CONCRETE BASE PLACED IN ONE COURSE	BAND C-2 OR G-3	FIRST PHASE

CLEARING AND GRADING
SUBGRADE
BASE COURSE
SURFACE COURSE

ARTICLE C-1
ARTICLE C-2
ARTICLE C-31 or C-33
ARTICLE C-31

NOTE:
PAVEMENT TO BE CONSTRUCTED IN ACCORDANCE
WITH THE HOWARD COUNTY ROAD CONSTRUCTION
CODE AND SPECIFICATIONS DWG D-11 R3 26

6 1/2" PAVEMENT DETAIL

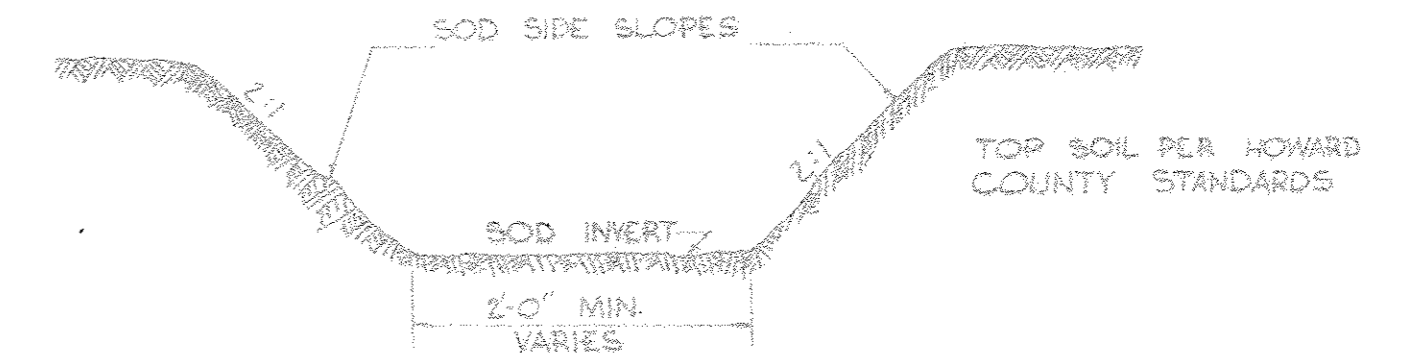
BITUMINOUS CONCRETE SURFACE	BAND C-3	FINAL PHASE
BITUMINOUS CONCRETE BINDER	BAND A-3	
BITUMINOUS CONCRETE BASE PLACED IN ONE COURSE	BAND C-2 OR G-3	FIRST PHASE

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

NOTE:
PAVEMENT TO BE CONSTRUCTED IN ACCORDANCE
WITH THE HOWARD COUNTY ROAD CONSTRUCTION
CODE AND SPECIFICATIONS DWG D-11 R3 26

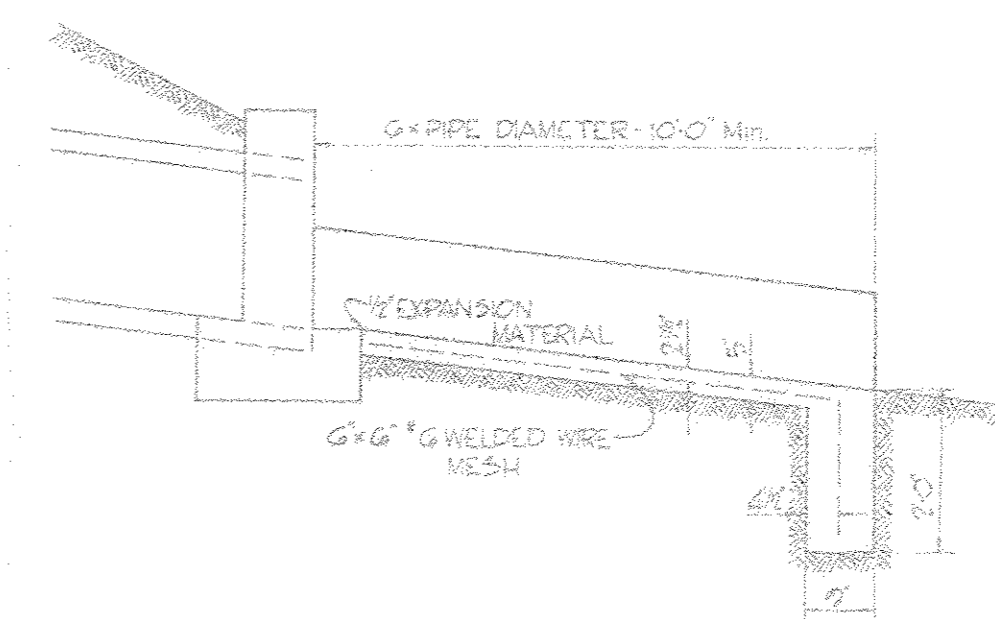
8" PAVEMENT DETAIL



TYPICAL DRAINAGE DITCH

NO SCALE

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



TYPICAL CONCRETE CHANNEL AND CUTOFF WALL

NO SCALE

APPROVED
DIVISION OF
LAND DEVELOPMENT
OFFICE OF
PLANNING AND ZONING
OF HOWARD COUNTY
DATE: MAY 1 1970



Richard P. Browne
RICHARD P. BROWNE 5235
DATE: 2-28-69

RICHARD P. BROWNE ASSOCIATES
CONSULTING ENGINEERS - PLANNERS
COLUMBIA, MARYLAND

Rev Date	Rev No	Revision Description
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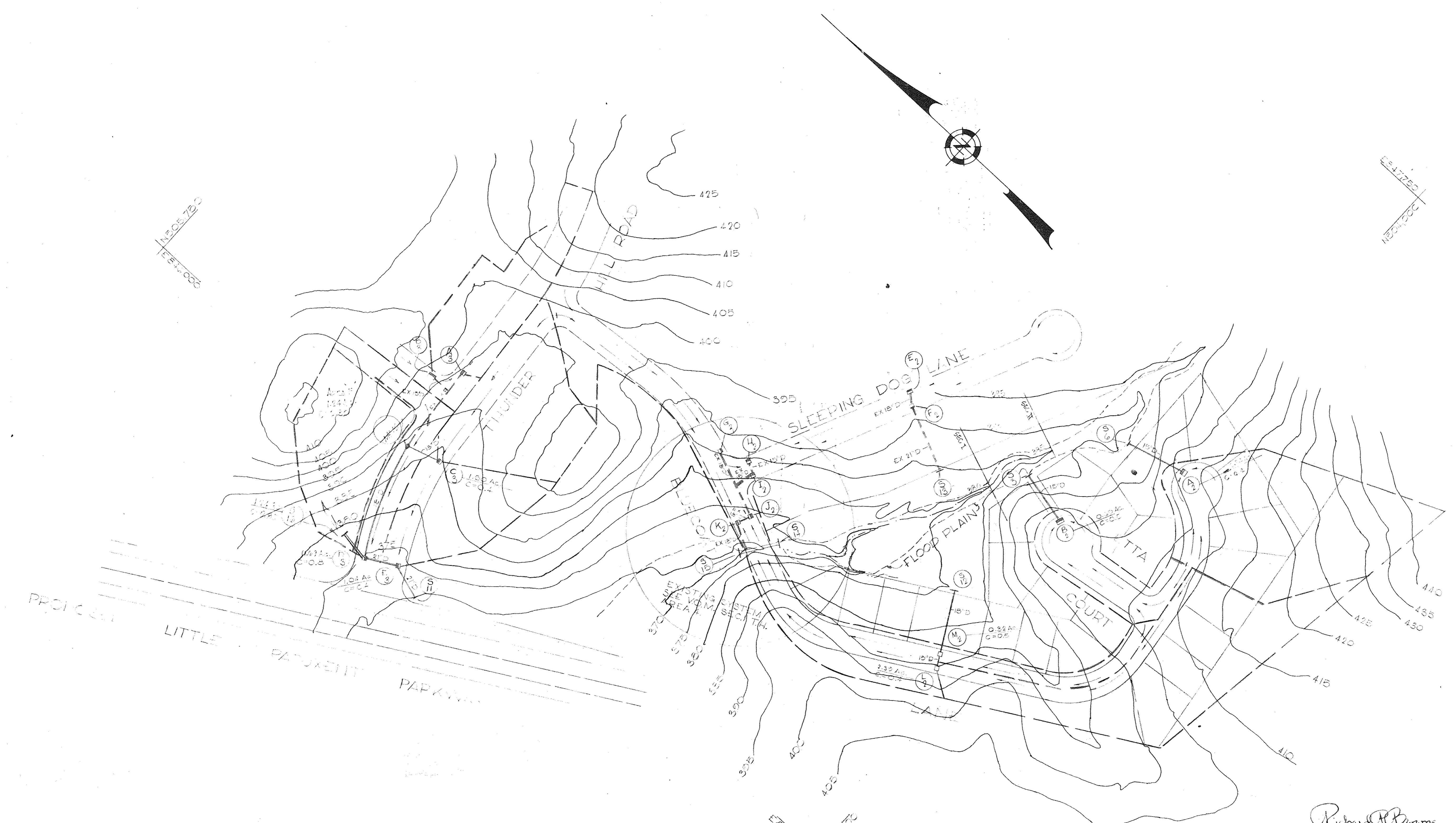
COLUMBIA
M A R Y L A N D
6TH ELECTION DISTRICT HOWARD COUNTY
OWNER AND DEVELOPER

HOWARD RESEARCH AND DEVELOPMENT CORP.
THE VILLAGE OF CROSS KEYS - BALTIMORE, MARYLAND 21210

PROJECT AREA
VILLAGE OF OAKLAND MILLS SEC. 1
THUNDER HILL AREA 4, PART A

PROJECT TITLE
ROADWAY DETAILS

Des By T.S.	Scale AS SHOWN	Dwg No 6 of 7
Drn By B.P.	Date 23 FEB. 69	C.C.F. No
Chk By T.S.	Approved	



ESTD 1936
ESTD 1936

ESTD 1936
ESTD 1936

ESTD 1936
ESTD 1936

APPROVED
DIVISION OF
LAND DEVELOPMENT
OFFICE OF
PLANNING AND ZONING
OF HOWARD COUNTY
DATE: 5-1-70
JNE

Richard P. Browne
RICHARD P. BROWNE 5235
DATE: 2-28-67

RICHARD P. BROWNE ASSOCIATES
CONSULTING ENGINEERS - PLANNERS
COLUMBIA, MARYLAND

Rev Date	Rev No	Revision Description

COLUMBIA
MARYLAND
OWNERS AND DEVELOPER
HOWARD RESEARCH AND DEVELOPMENT CORP.
THE VILLAGE OF OAKLAND MILLS - BALTIMORE, MARYLAND 21215

PROJECT AREA
VILLAGE OF OAKLAND MILLS SEC 1
THUNDER HILL AREA 4 PART A

PROJECT TITLE
DRAINAGE AREA MAP

Des By: T.S.	Scale: 1"=100'	Dwg No: 7 of 7
Drn By: B.P.	Date: 23 FEB 69	C.C.F. No
Chk By: T.S.	Approved	