

COLUMBIA

HOWARD COUNTY, MARYLAND
5TH ELECTION DISTRICT

ROAD CONSTRUCTION PLANS VILLAGE OF HICKORY RIDGE SECTION 1 AREA 6 LOTS B-1 THRU B-67 A RESUBDIVISION OF PARCEL "B"

GENERAL NOTES

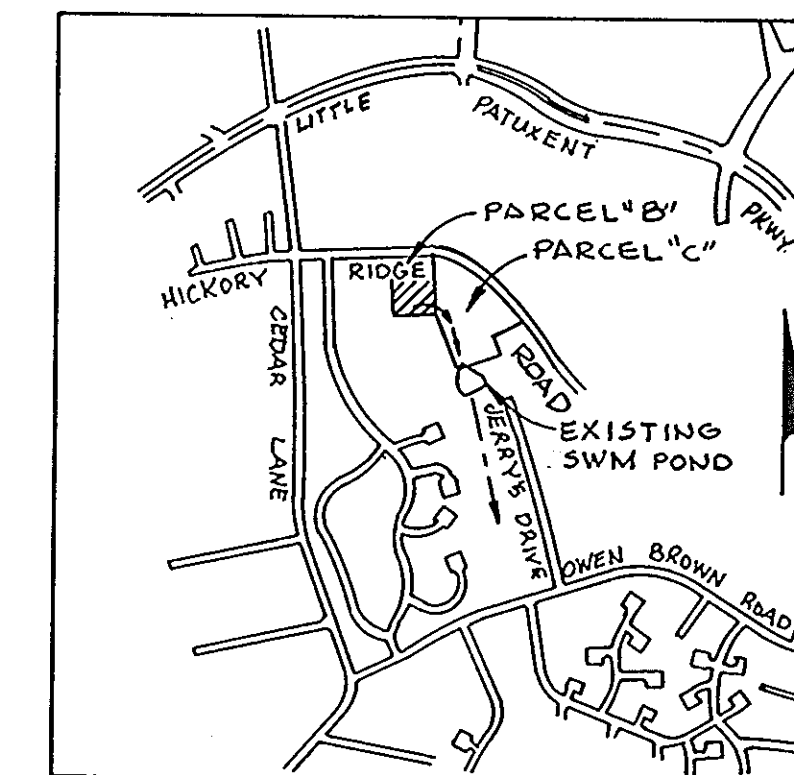
- All work shall be done in accordance with Howard County Road Construction Code and Standard Specifications.
- All utility companies must be notified 24 hours in advance of any construction.
- Secondary residential streets are designed for 30 m.p.h. traffic speed in accordance with AAASHO Standards.
- All inlets shall be Howard County Standard unless otherwise shown. All "A" inlets shall be depressed.
- Storm drain trenches within road rights-of-ways shall be backfilled and compacted in accordance with Howard County Road Code.
- Any damage to public rights-of-ways or paving will be corrected at the developer's expense.

SHEET INDEX	
NO.	DESCRIPTION
1	TITLE SHEET
2	PLAN AND PROFILE
3	STANDARD DETAILS
4	STORM DRAIN PROFILES AND DRAINAGE AREA MAP
5	DETAILS
6	STORM WATER MANAGEMENT POND

REFERENCES

VERTICAL: CROSS CUT IN BOLT ON FIRE HYDRANT 24" RIGHT OF & STA. 14+55.2 HICKORY RIDGE ROAD - ELEV. 448.04.
IRON PIPE 15" LEFT OF STORM DRAIN STRUCTURE S-1 ELEV. 422.61

HORIZONTAL: PK. NAIL IN CURB 22" RIGHT OF & STA. 14+65.2 HICKORY RIDGE ROAD N 501689.61, E 833516.13
IRON PIPE 15" LEFT OF STORM DRAIN STRUCTURE S-1 N 501066.34, E 833485.13



VICINITY MAP
Scale: 1" = 2,000'

SEDIMENT CONTROL AND STORM WATER MANAGEMENT

It is the intent to enlarge the existing storm water management pond (approved for Parcel 'C' under SDP 79-77C) to satisfy the sediment and storm water requirements for PARCEL "B". See computations submitted with the Parcel "B" Preliminary Plan (File P 80-18C).

See Letter of Approval from S.C.S. dated 4/24/80 for the sediment control provisions for the entire site which includes the roadway. (File SDP 80-126)

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

APPROVED: *Robert J. Zehn* 6-17-80
HOWARD S.C.D. DATE

REVIEWED FOR HOWARD S.C.D.

AND MEETS TECHNICAL REQUIREMENTS
James M. Vela DATE 6-17-80
SIGNATURE
U.S. SOIL CONSERVATION SERVICE

DEVELOPER
HOWARD HOMES COMMUNITIES INC.
P.O. BOX 802
COLUMBIA, MARYLAND



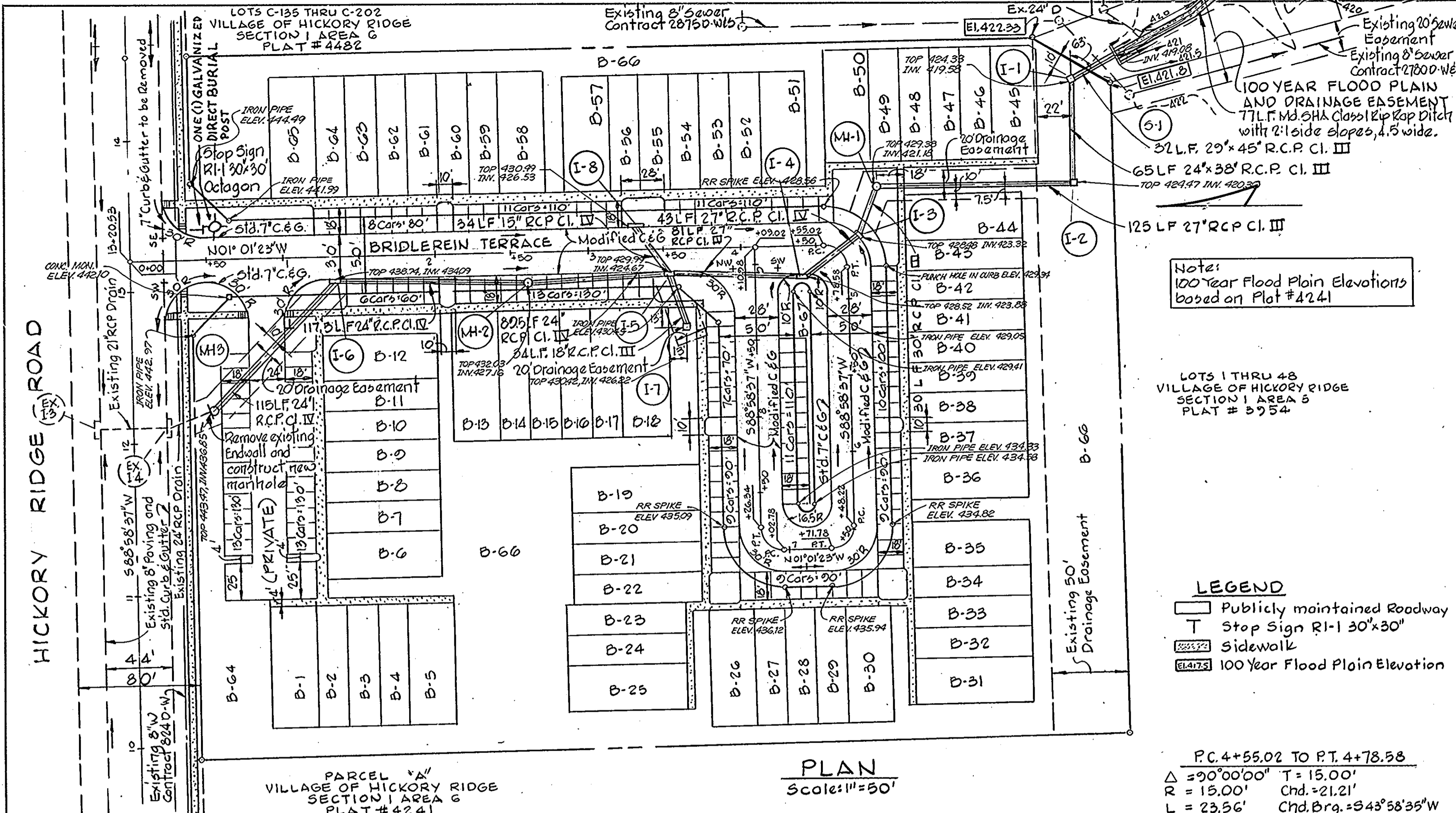
WHITMAN, REQUARDT & ASSOCIATES
ENGINEERS
BALTIMORE, MARYLAND
Kenneth A. McCord
KENNETH A. McCORD
Registered Engineer
No. 1974

DEPARTMENT OF PUBLIC WORKS
William E. Reid 7-14-80
CHIEF, BUREAU OF ENGINEERING DATE
OFFICE OF PLANNING AND ZONING
John W. Muschman 6-18-80
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

CERTIFICATION BY THE DEVELOPER
"I certify that all development and or construction will be done according to this plan of development and plan for Erosion and Sediment Control, and I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents as are deemed necessary."
Lee D. Rosenberg
Lee D. Rosenberg Date:

CERTIFICATION BY THE ENGINEER
"I certify that this plan for Erosion and Sediment Control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."
Kenneth A. McCord
Kenneth A. McCord PE 1974 Date:

DATE	
BY	
REVISIONS	
PROFIT	
ALIGNMENT CHECKED	
BY	
NOTE BOOK	
NO.	
BY	
DATE	



STORM DRAIN STRUCTURE SCHEDULE

NO.	TYPE	TOPELEV.	INV. IN	INV. OUT	LOCATION
I-1	Standard Class 'C' Inlet	424.33	419.74	419.32	See Plan and Profile
I-2	Standard Class 'C' Inlet	425.33	420.37	420.22	See Plan and Profile
I-3	Standard A-5 Inlet, width: 25"	428.64	423.37	423.12	See Detail Sheet 4
I-4	Standard A-5 Inlet, width: 25"	428.84	423.97	423.77	See Detail Sheet 4
I-5	Standard A-5 Inlet, width: 25"	430.15	424.84	424.39	Inlet to Right of Sta. 3+53.52
I-6	Standard A-10 Inlet, width: 25"	438.69	433.86	433.66	Inlet to Right of Sta. 1+35.00
I-7	Standard Class 'C' Inlet	430.33	---	426.00	See Plan and Profile
I-8	Standard A-10 Inlet, width: 25"	430.45	---	426.62	Inlet to Left of Sta. 3+32.02
MH-1	Standard Manhole	429.70	422.02	422.37	See Plan and Profile
MH-2	Type 'B' Manhole	431.90	427.25	427.05	Inlet to Right of Sta. 2+59.52
MH-3	Standard Manhole	443.50	436.76	436.56	See Plan and Profile
E-1	Standard Type 'C' Endwall	422.55	---	419.07	See Plan and Profile

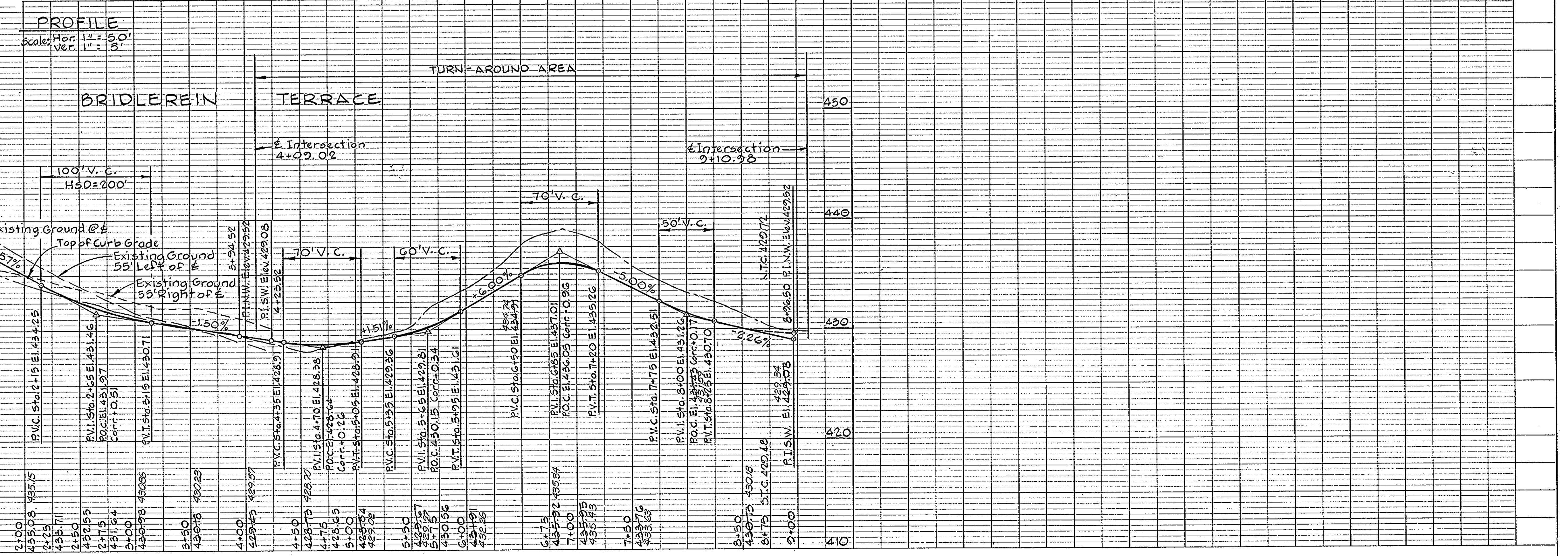
DEPARTMENT OF PUBLIC WORKS
Kenneth A. McCord 7-14-80
 CHIEF, BUREAU OF ENGINEERING - DATE
 OFFICE OF PLANNING & ZONING
John W. Munn 6-18-80
 CHIEF, DIVISION OF LAND DEVELOPMENT - DATE

NOTES:
 1. Standard A-5 and A-10 Inlets, Howard County Dwg. 64A, Page 119A.
 2. Standard Class 'C' Inlet, Howard County Dwg. 64C, Page 119C.
 3. Standard Manhole, Howard County Dwg. 103, Page 158.
 4. Standard Type 'C' Endwall For Arch Pipe, Howard County Dwg. D-53, Page 106.
 5. For Storm Drain Profiles See Sheet 4 of 4.
 6. * Denotes inlets with deflectors, see detail sheet 3 of 4.

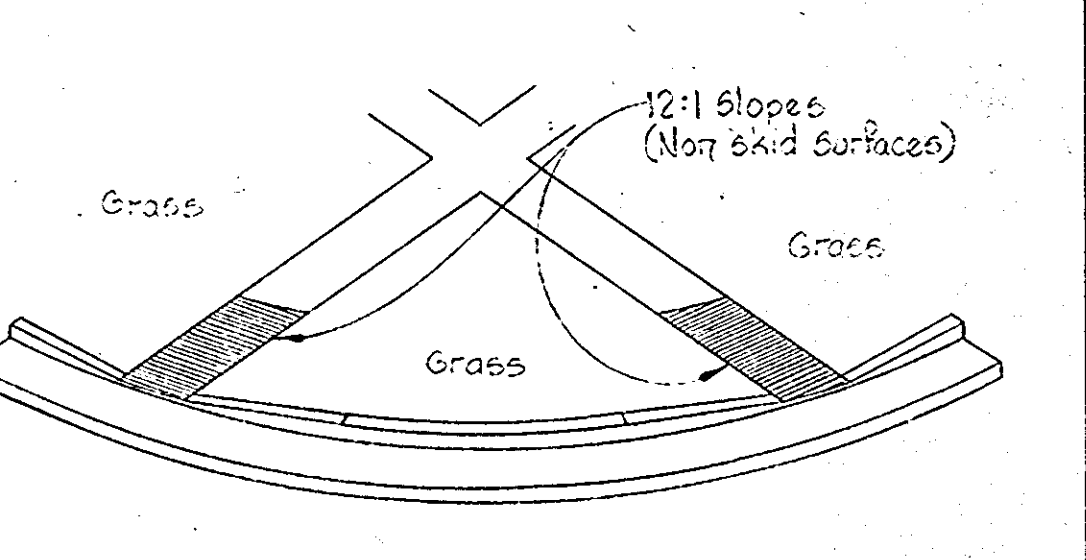
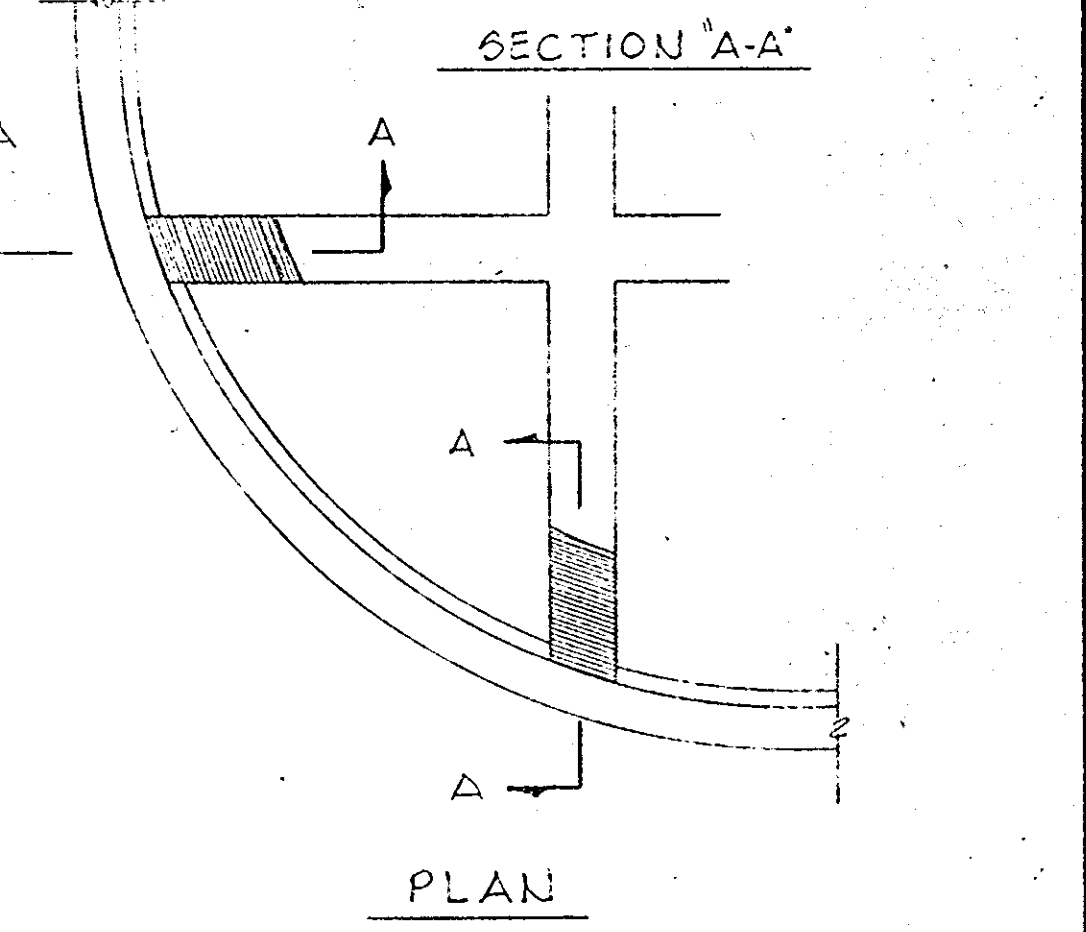
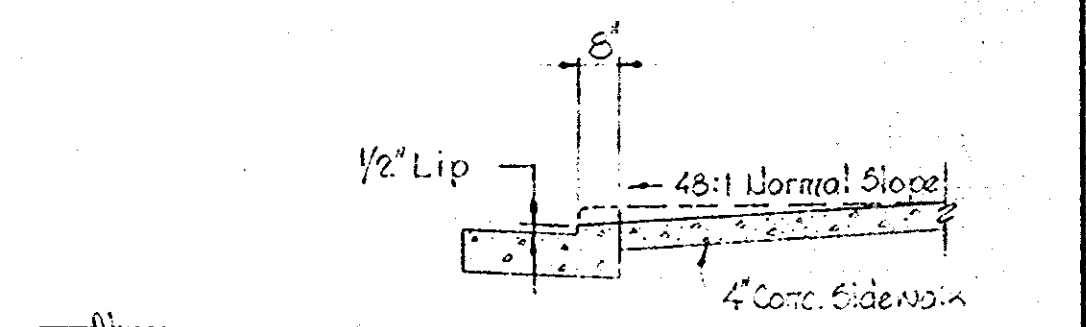
NOTES:
 Inlets I-1, I-2 and I-7 To Have Throat Openings on all 4 sides.
 Throat Opening Elev:
 I-1 Elev. 423.50
 I-2 Elev. 424.50
 I-7 Elev. 429.50

-NOTE-
 AS-BUILT SURVEY VERIFIED BY KENNETH A. McCORD M.D. REG. ENGINEER No. 1974 AS OF JUNE 3, 1981

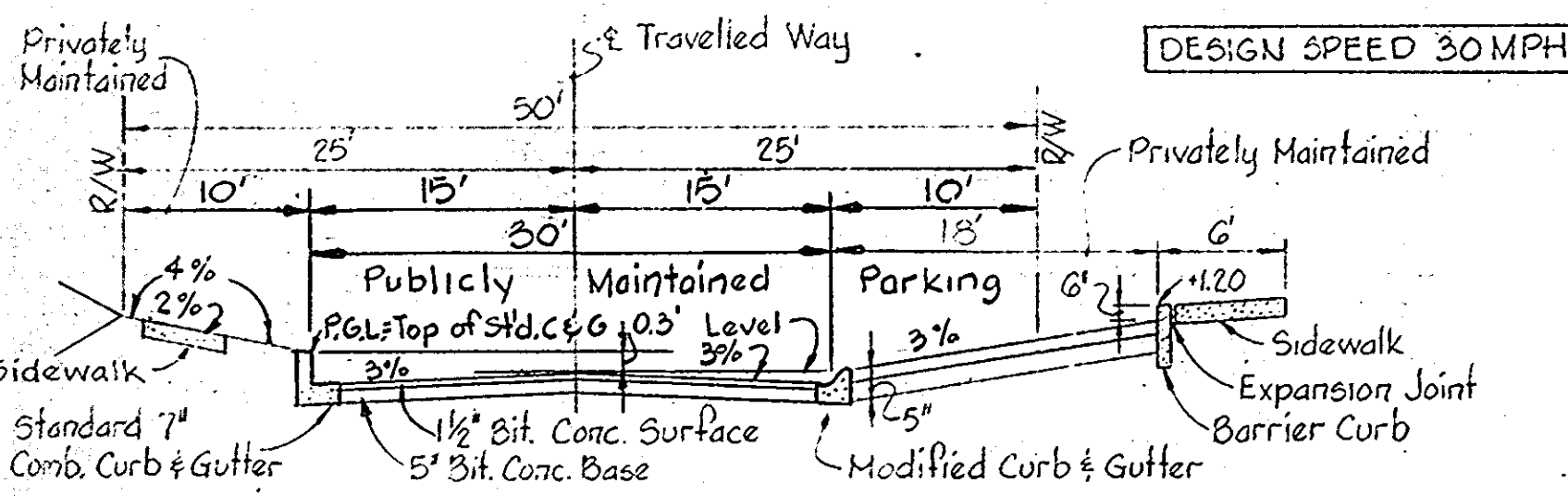
NOTE:
 For Hickory Ridge Road profile, and storm drains, see Road Construction Drawings for the Village of Hickory Ridge Section 1 Area G, dated 6/30/78 by Purdum and Jeschke.



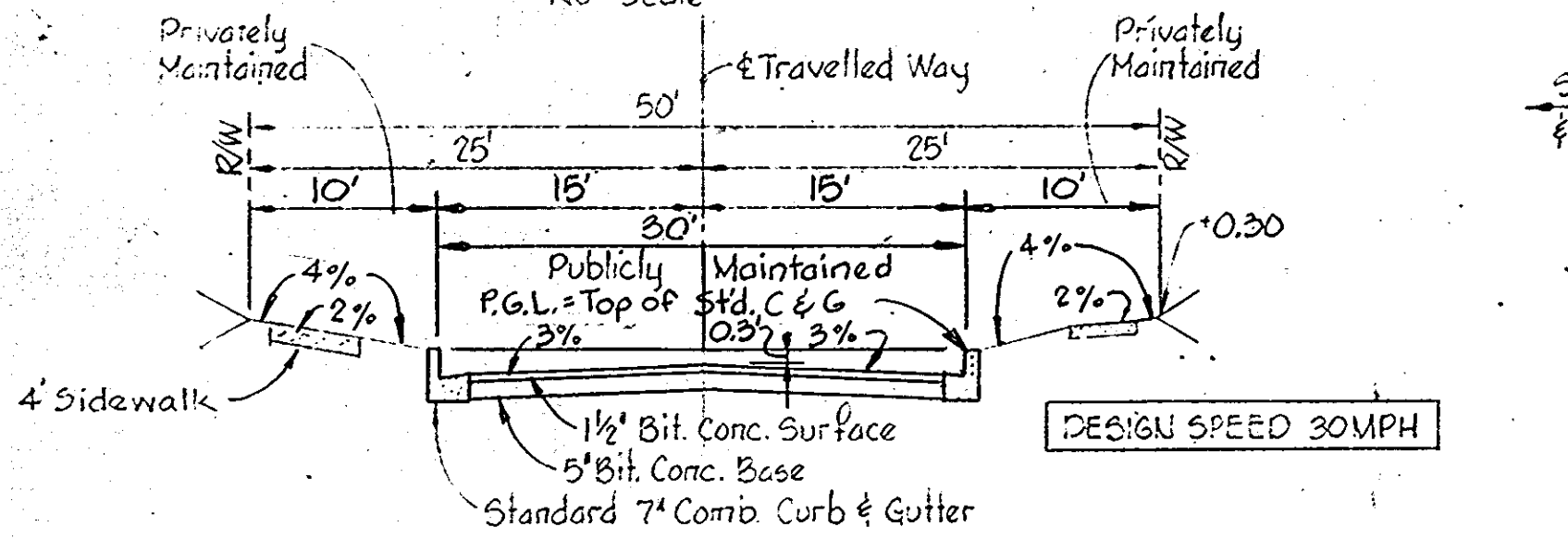
DATE	
BY	
REVISIONS	
PROFIT	
ALIGNMENT CHECKED	
BY	
NOTE BOOK	
NO.	
BY	
DATE	



ISOMETRIC VIEW
 SIDEWALK RAMP
 No Scale



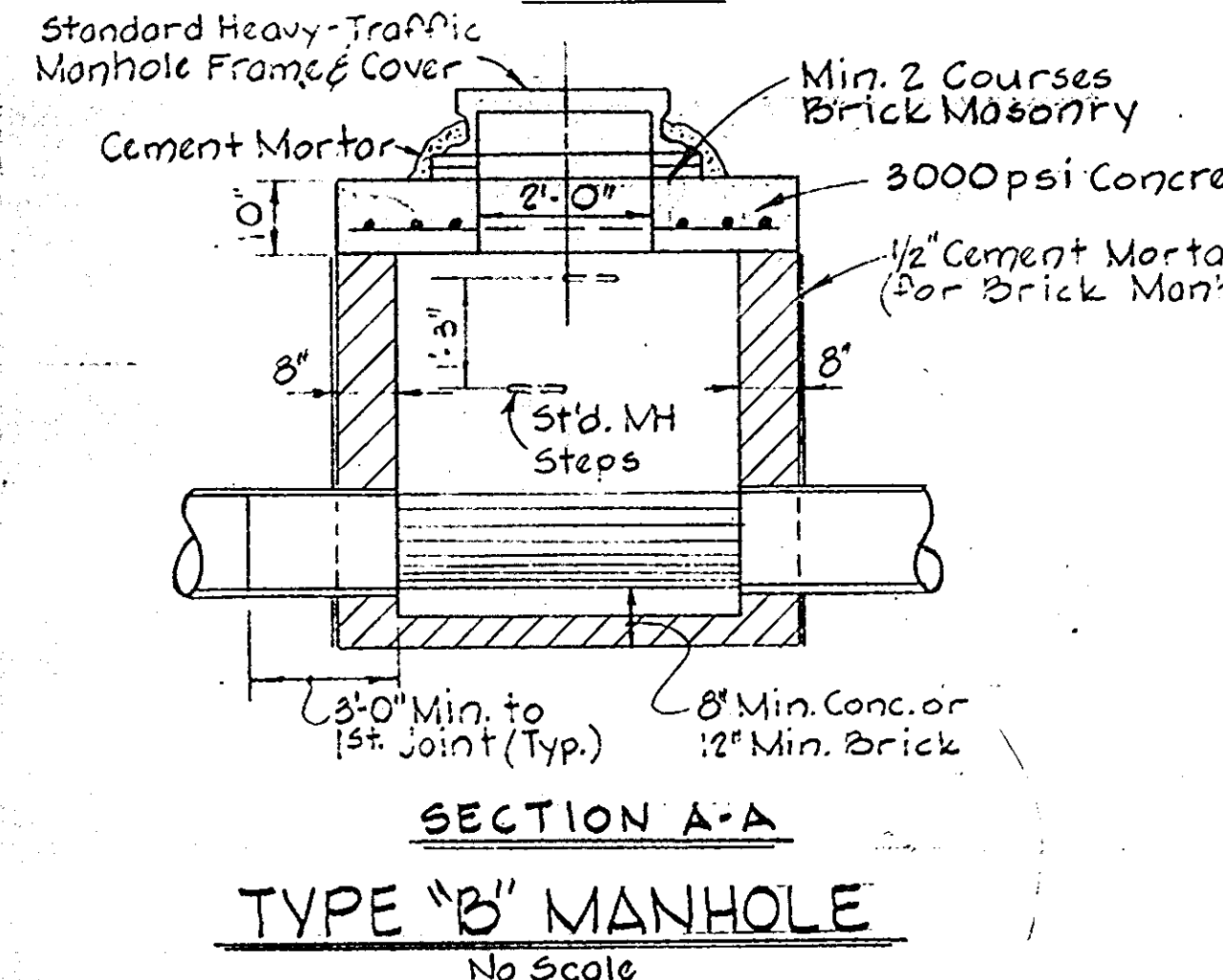
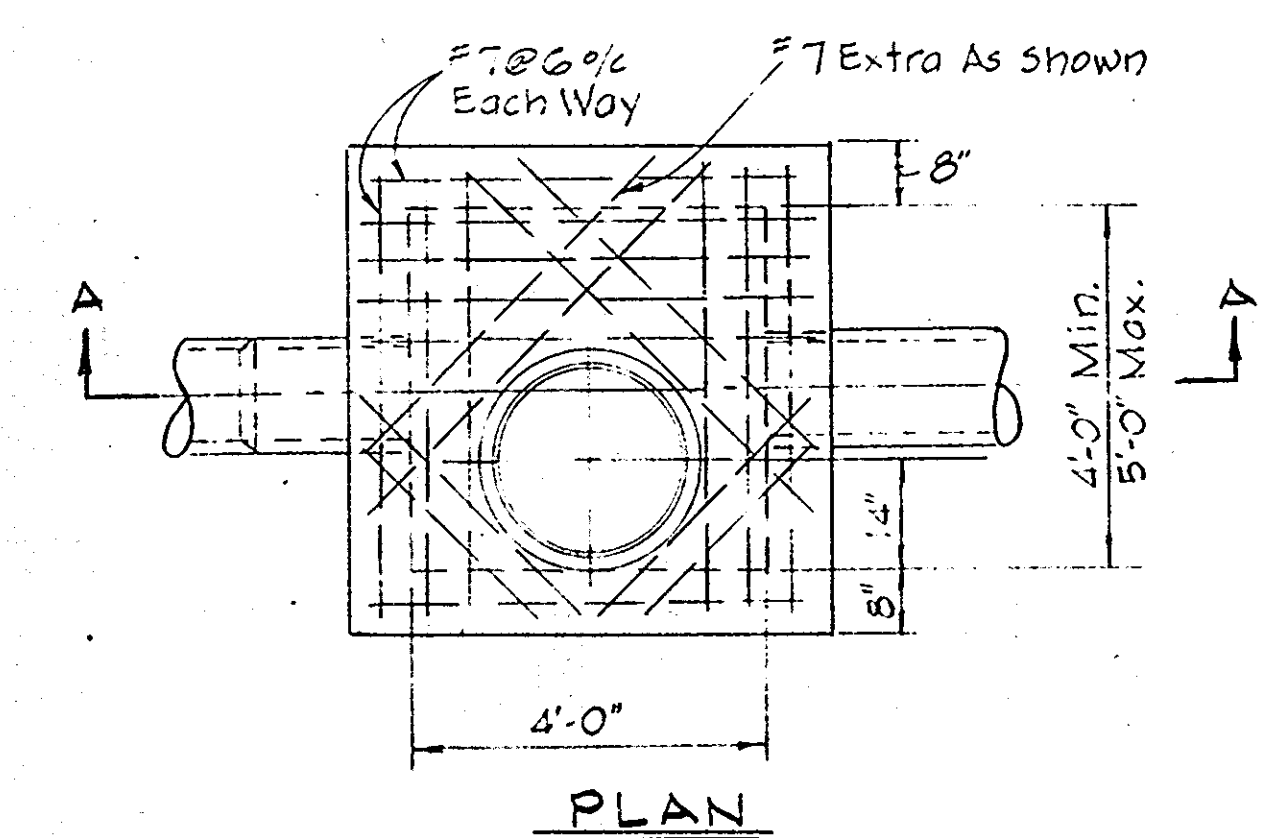
STA. 3+22 TO STA. 4+60
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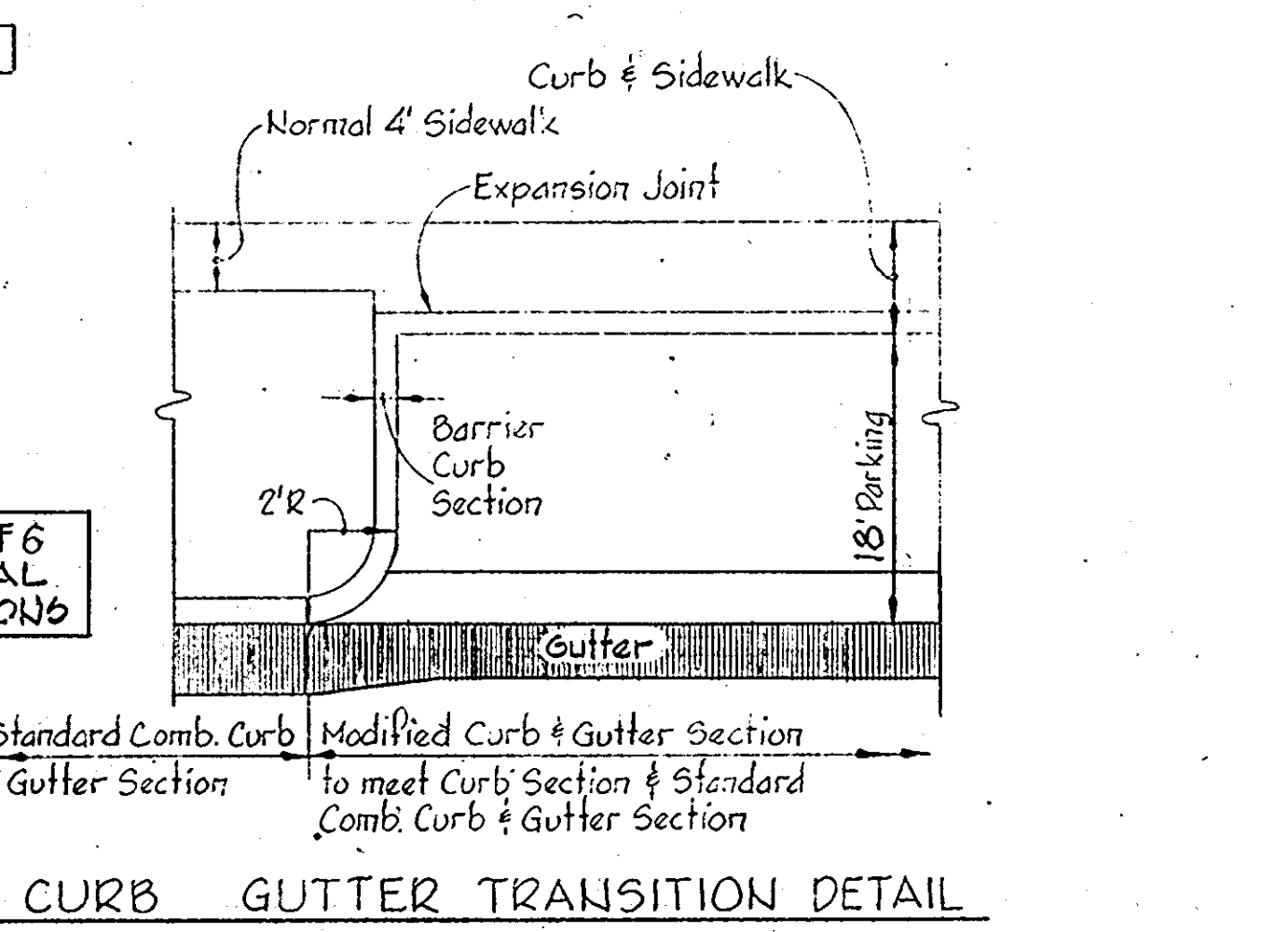
STA. 0+22 TO STA. 1+22
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NOTES:

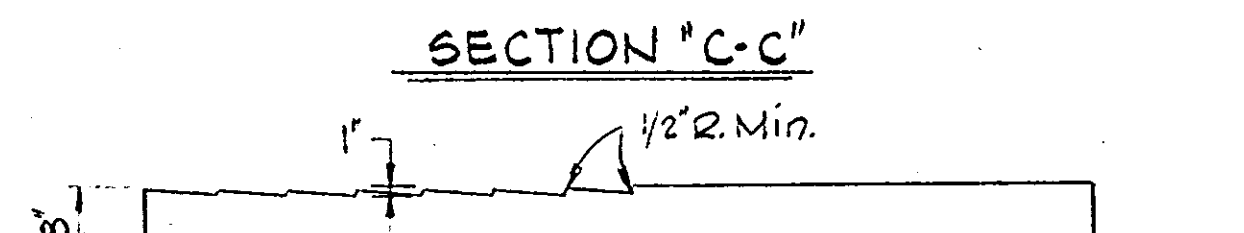
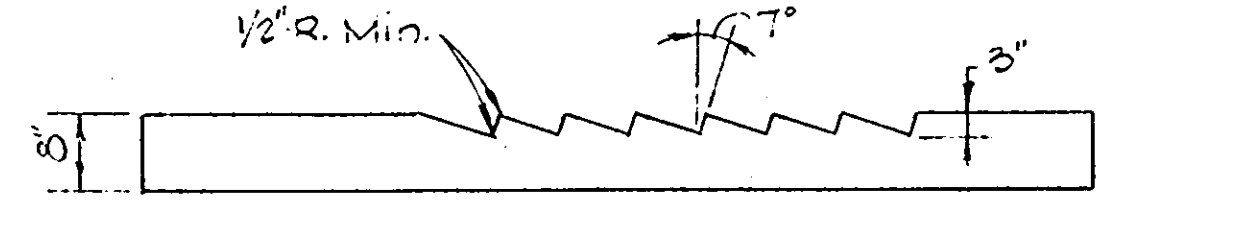
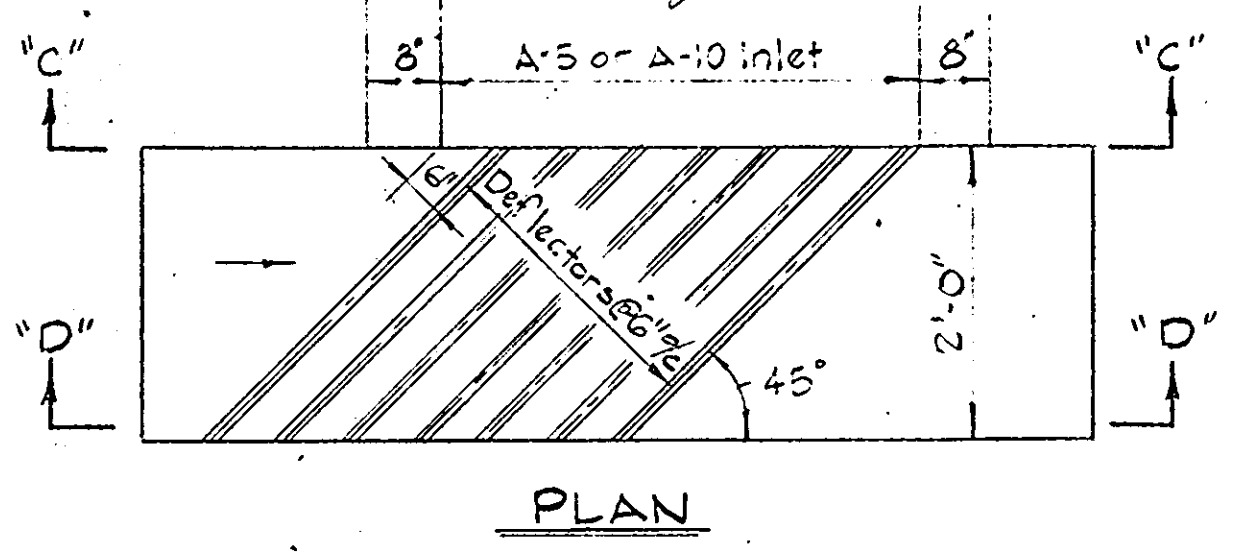
- Standard 7" Comb and Modified Curb and Gutter shall be in accordance with County Standard D-40, Page 95.
- Paving (6 1/2") shall be in accordance with County Standard D-11, Page 66.
- Transition from Standard 7" Comb Curb and Gutter to Modified Curb and Gutter shall be in accordance with detail shown on this sheet.
- Tack Coat is required in accordance with Section C-31-4 of the Howard County Road Construction Code and Standard Spec.
- Base will be primed in accordance with C-30-3 as provided in the Howard County Road Construction Code and Standard Spec.
- Paving (6") shall be in accordance with County Standard D-13, Page 68.
- Sidewalks shall be in accordance with County Standard D-14, Page 69.
- All material and construction methods shall be in accordance with the Howard County Road Construction Code.



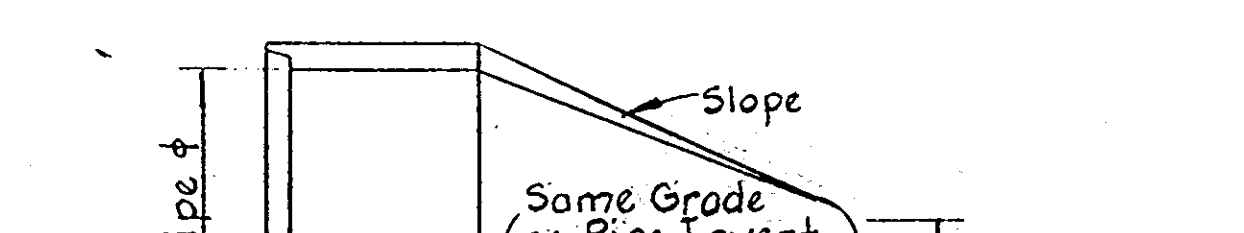
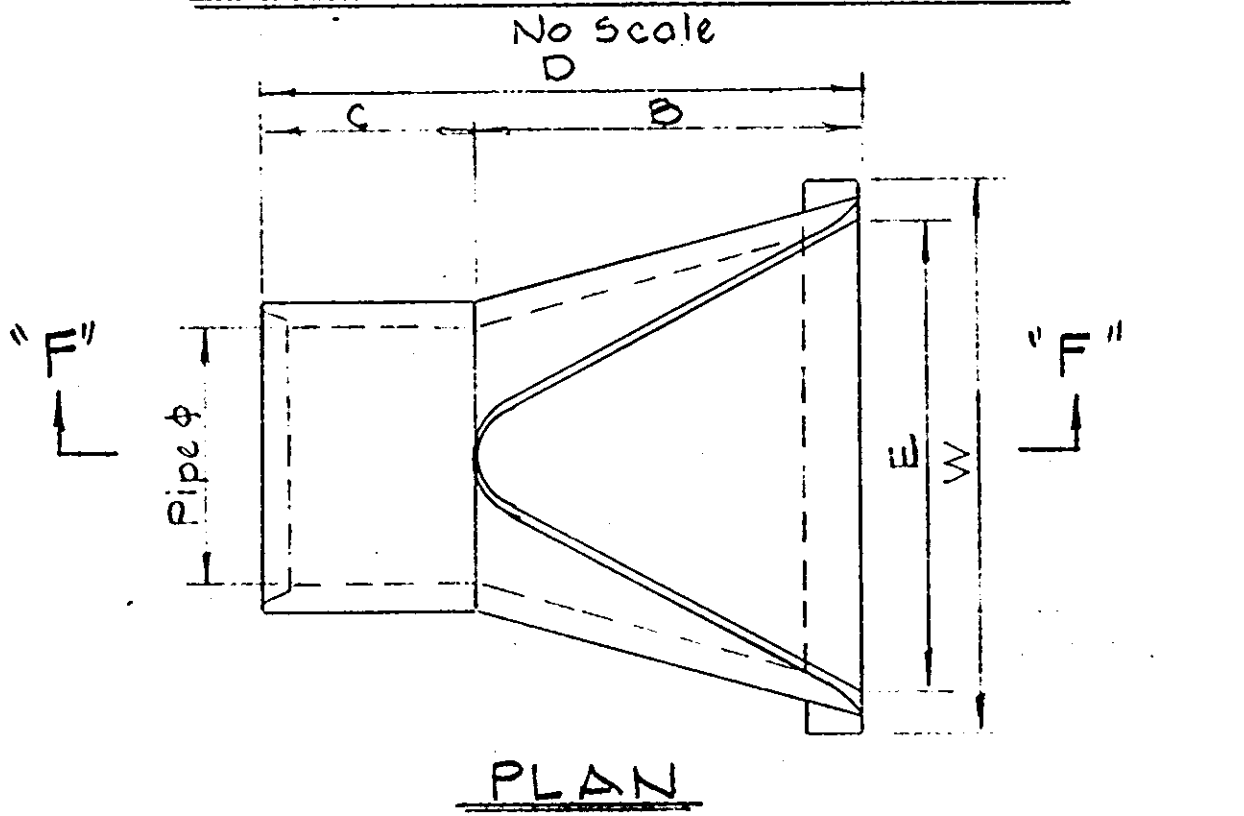
TYPE "B" MANHOLE
 No Scale



CURB GUTTER TRANSITION DETAIL
 No Scale

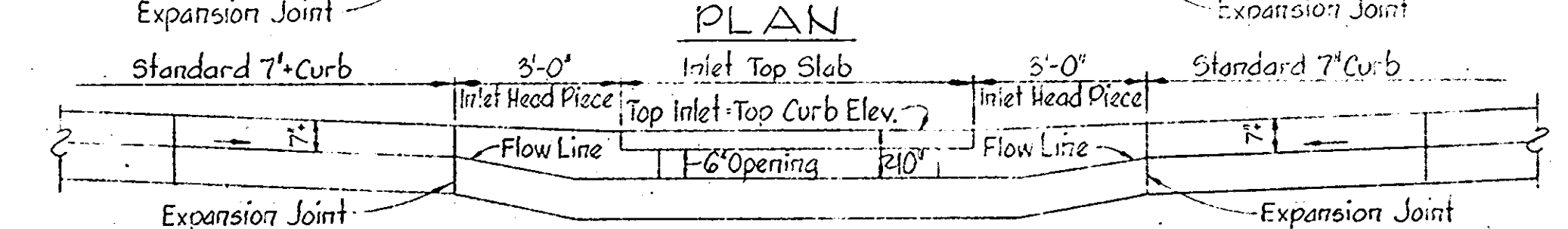
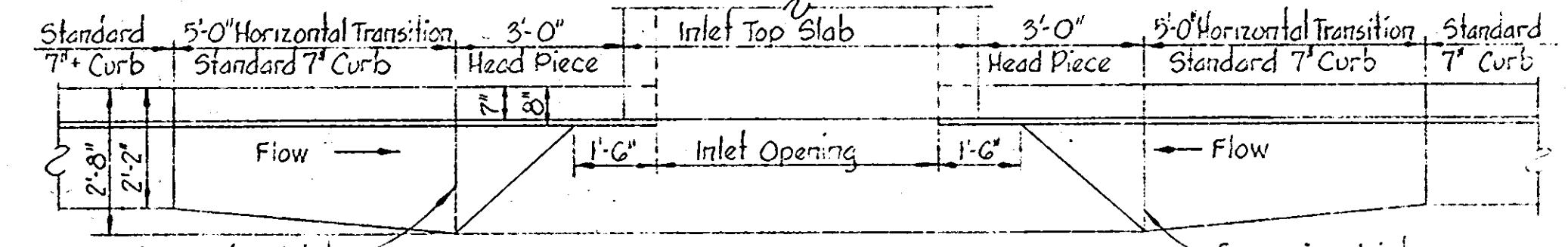
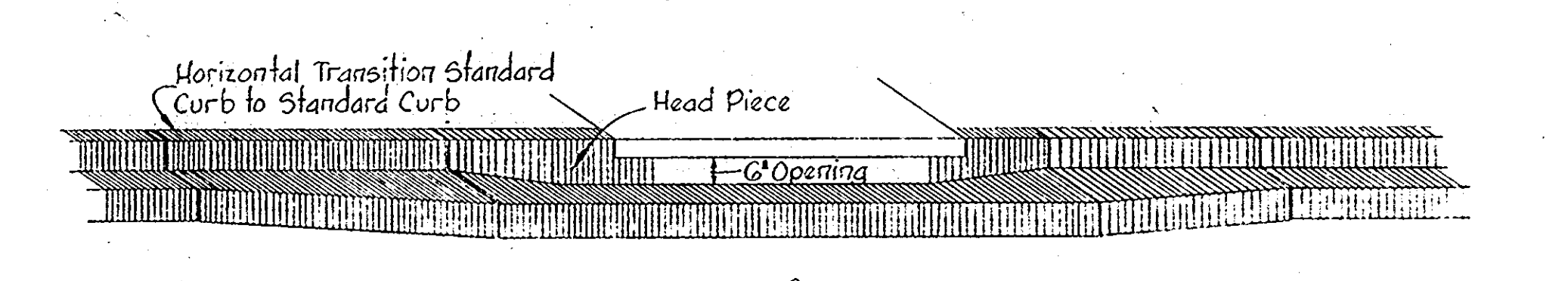


DEFLECTOR DETAIL
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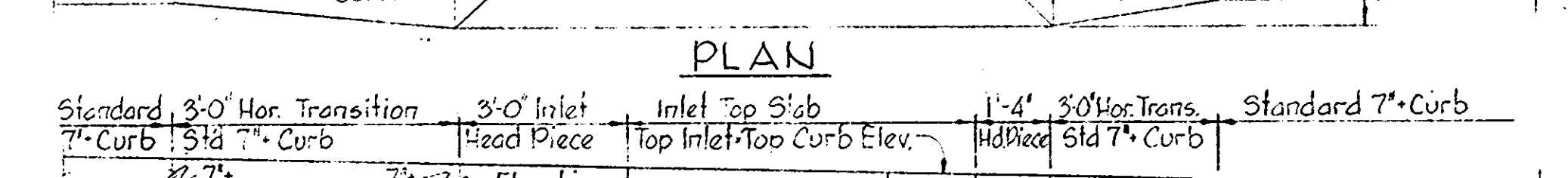
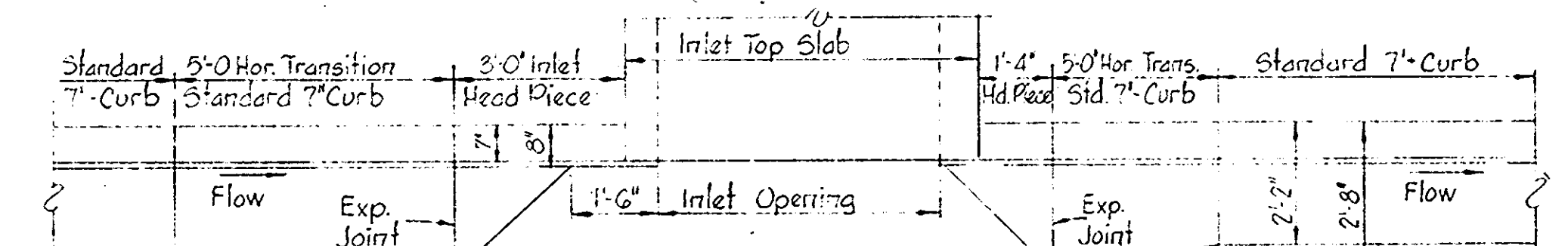


CONCRETE END SECTION DETAIL
 No Scale

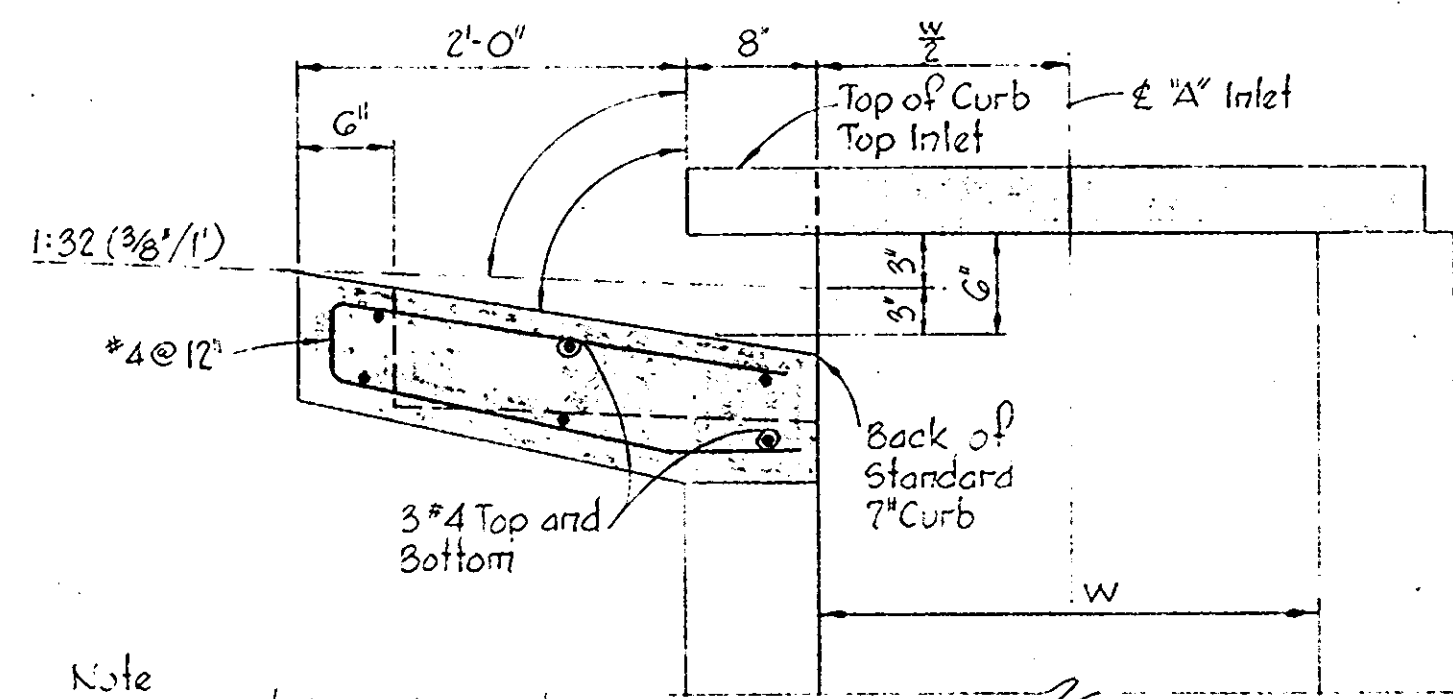
PIPE	SLOPE	A	B	C	D	E	W	X	Y
18"	3:1	0"	2'-3"	3'-10"	6'-11"	3'-0"	4'-0"	12"	0"
24"	3:1	0 1/2"	3'-7 1/2"	6'-4 1/2"	11'-1 1/2"	4'-0"	5'-0"	15"	0"
30"	3:1	1'-0"	4'-6"	11'-7 1/2"	16'-1 1/2"	5'-0"	6'-0"	15"	0"
36"	3:1	1'-3"	5'-3"	12'-10 1/2"	18'-1 1/2"	6'-0"	7'-3"	15"	0"



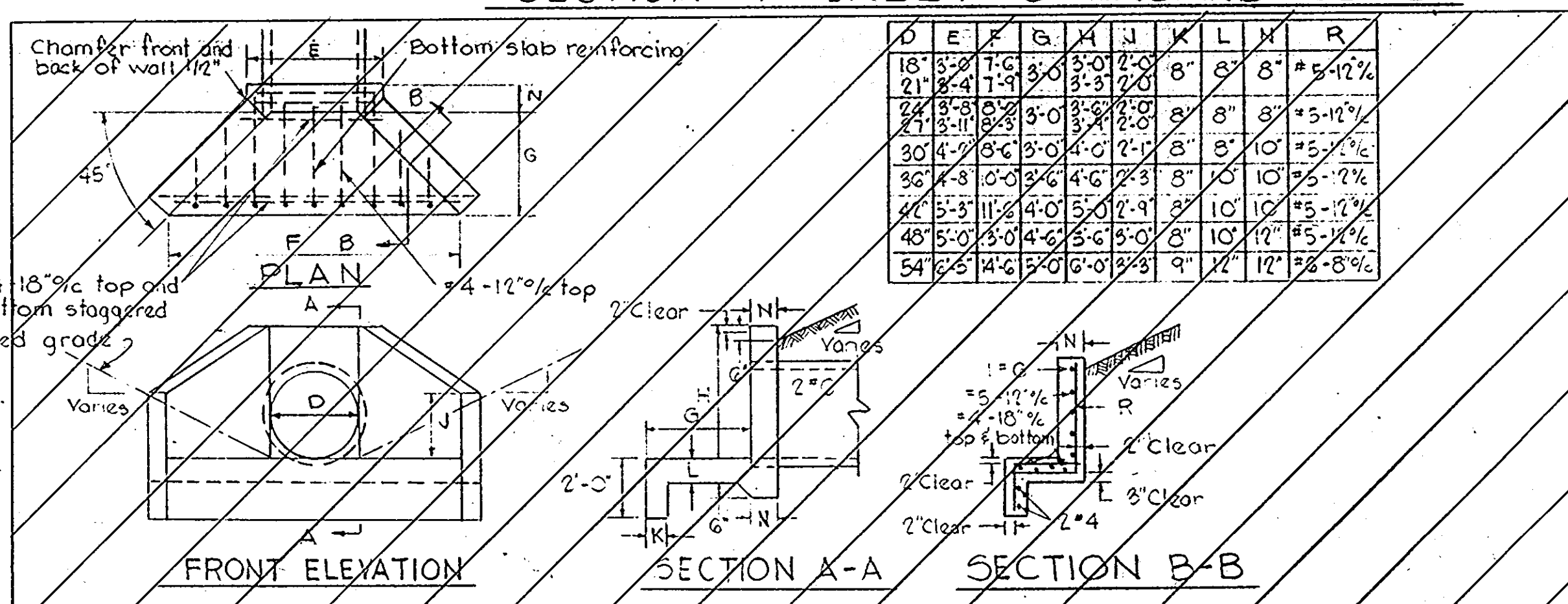
SECTION ALONG FLOW LINE
 SUMPED "A" INLETS - STANDARD CURB



SECTION ALONG FLOW LINE
 "A" INLETS - STANDARD CURB



SECTION "A" INLET STANDARD CURB



TYPE "A" HEADWALL
 No Scale

Rev. Date	Rev. No.	Revision Description
5/21/80	1	As per Planning & DPW Comments

COLUMBIA
 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 OWNER AND DEVELOPER
 HOWARD HOMES COMMUNITIES, INC.

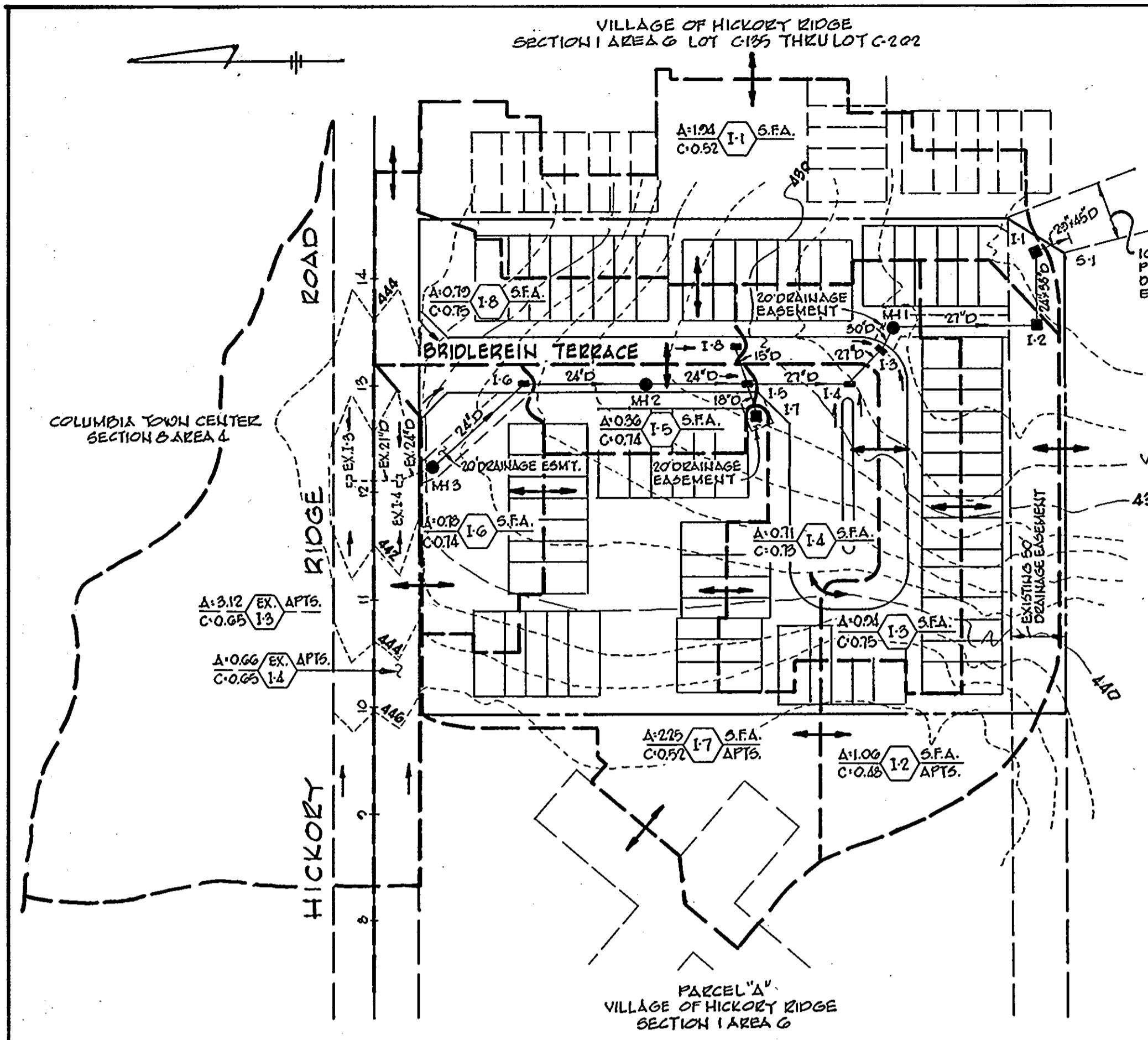
PROJECT AREA
VILLAGE OF HICKORY RIDGE
 SECTION 1 AREA 6 LOTS B-1 TO B-6
 A RESUBDIVISION OF PARCEL "B"

PROJECT TITLE
STANDARD DETAILS

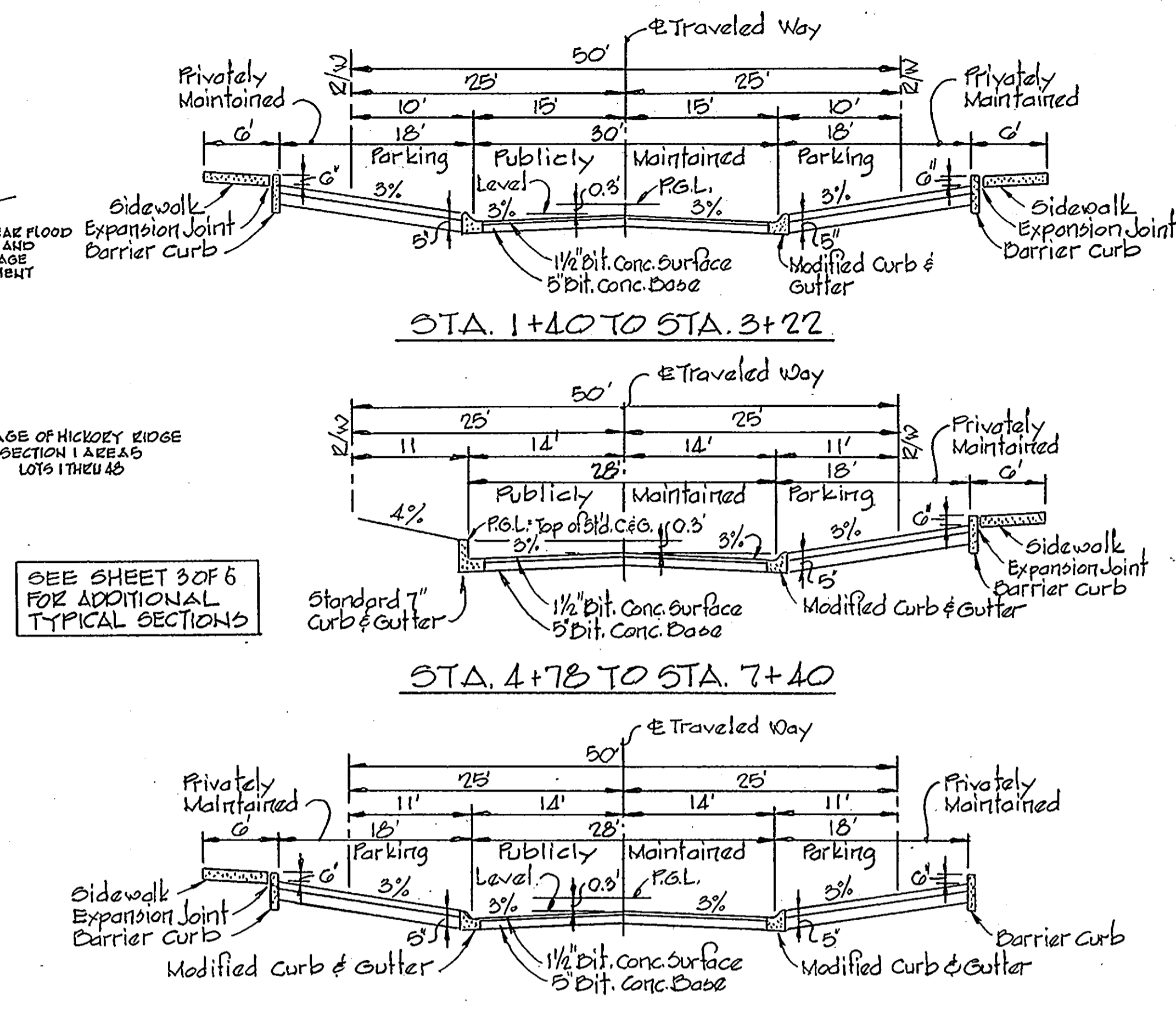
SCALE: AS SHOWN DATE

WHITMAN, REQUARDT & ASSOCIATES
 ENGINEERS
 BALTIMORE, MARYLAND 21202

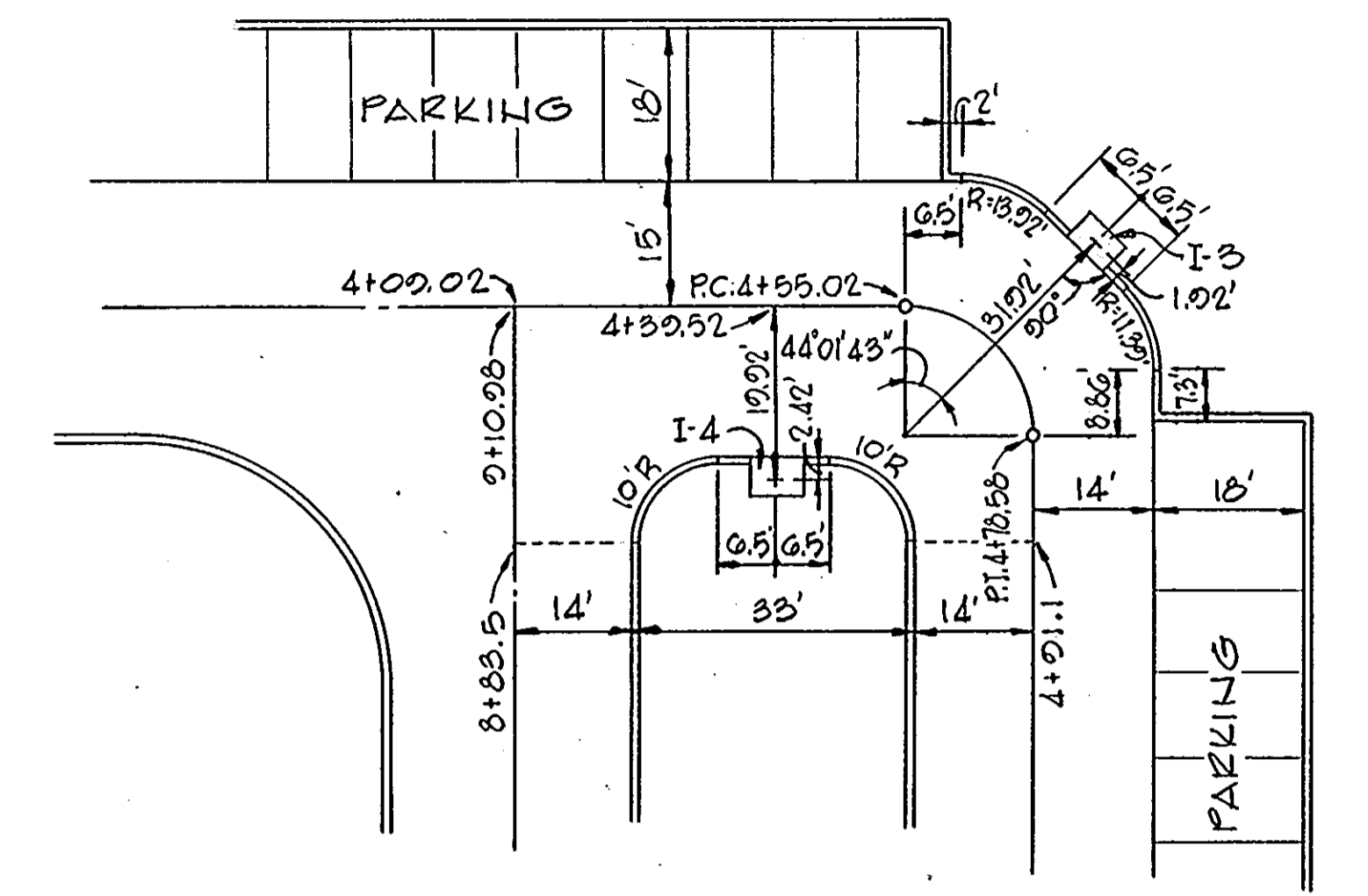
Kenneth A. McCord
 KENNETH A. McCORD
 Registered Engineer
 No. 1974



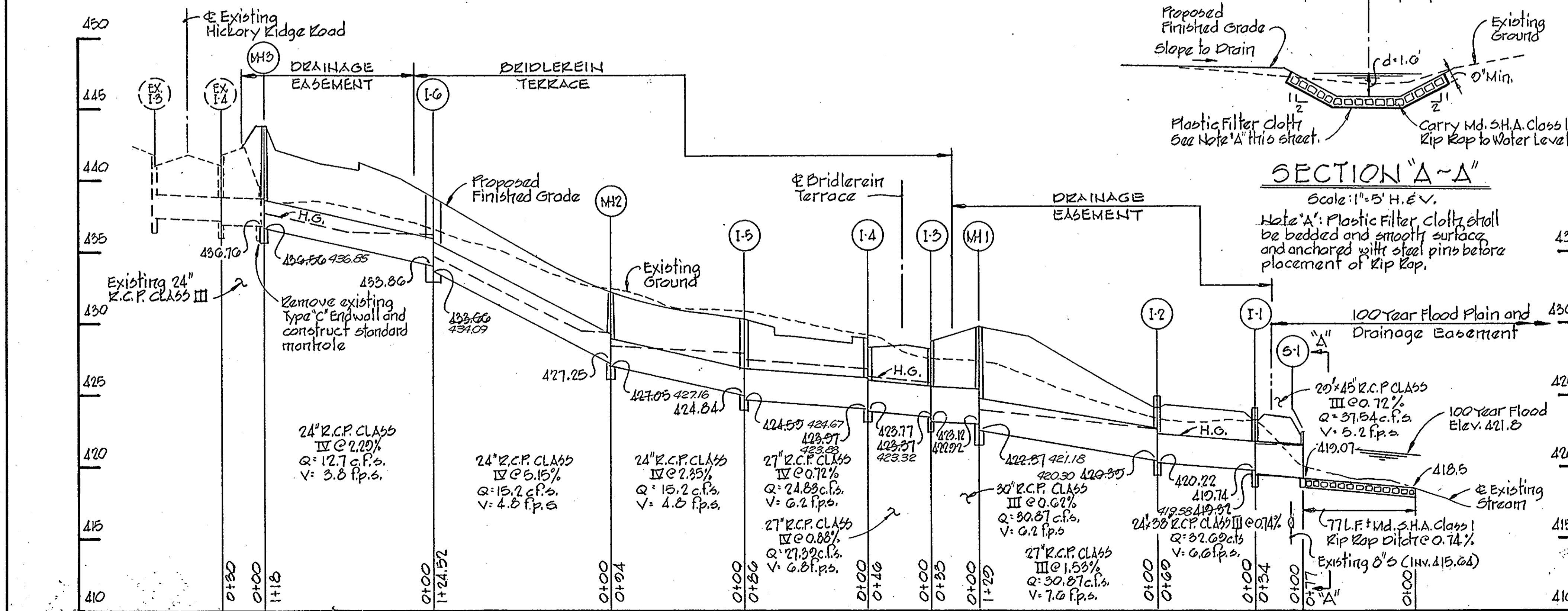
DRAINAGE AREA MAP
 Scale: 1" = 100'



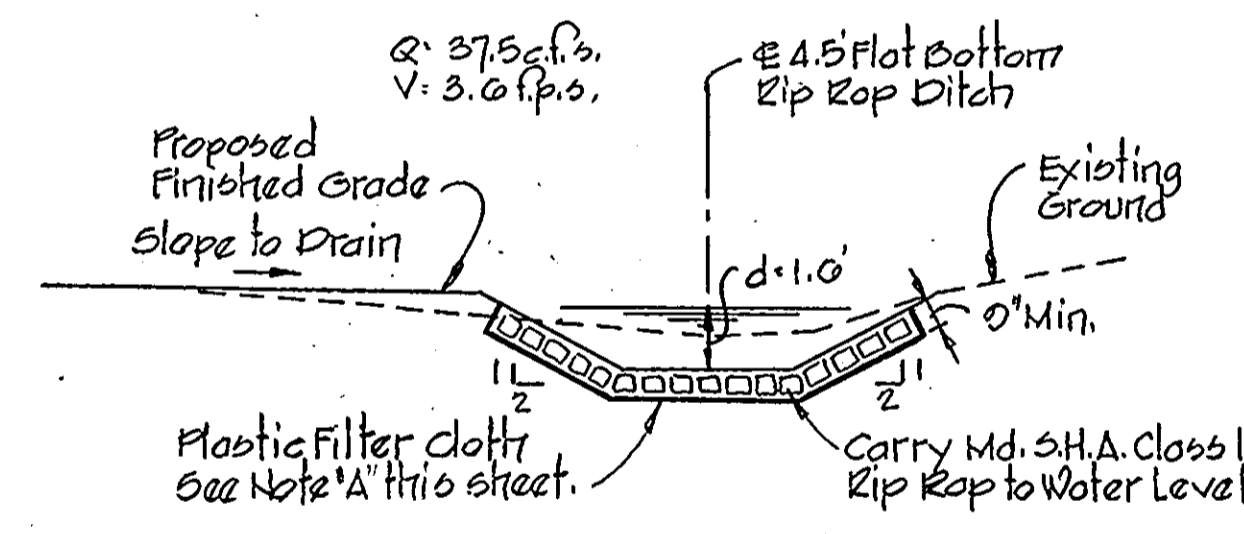
TYPICAL SECTIONS - BRIDLEREIN TERRACE
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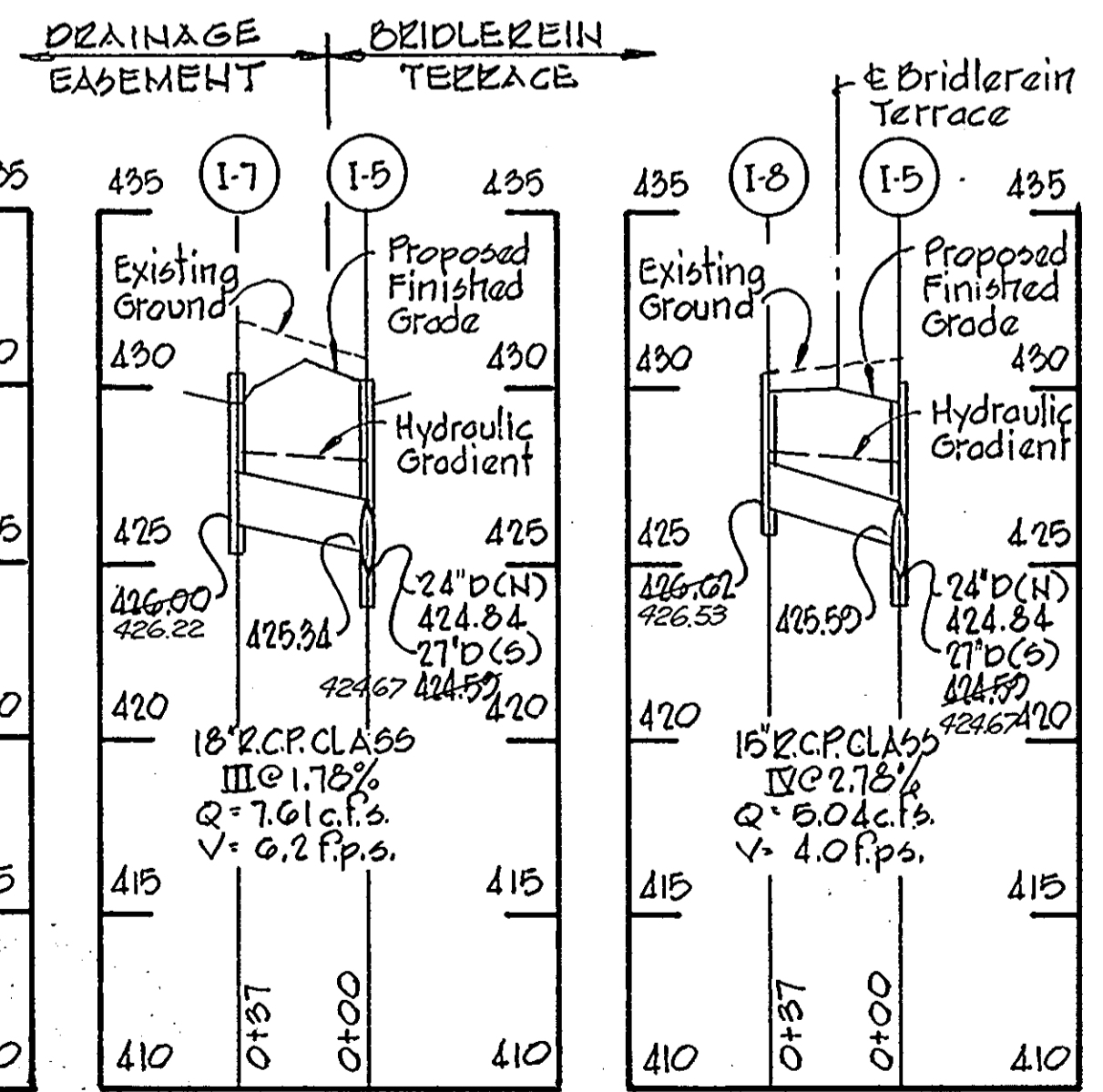
STAKEOUT OF INLETS I-3 AND I-4
 Scale: 1" = 20'



PROFILES
 Scale: Horiz. 1" = 50'
 Vert. 1" = 5'

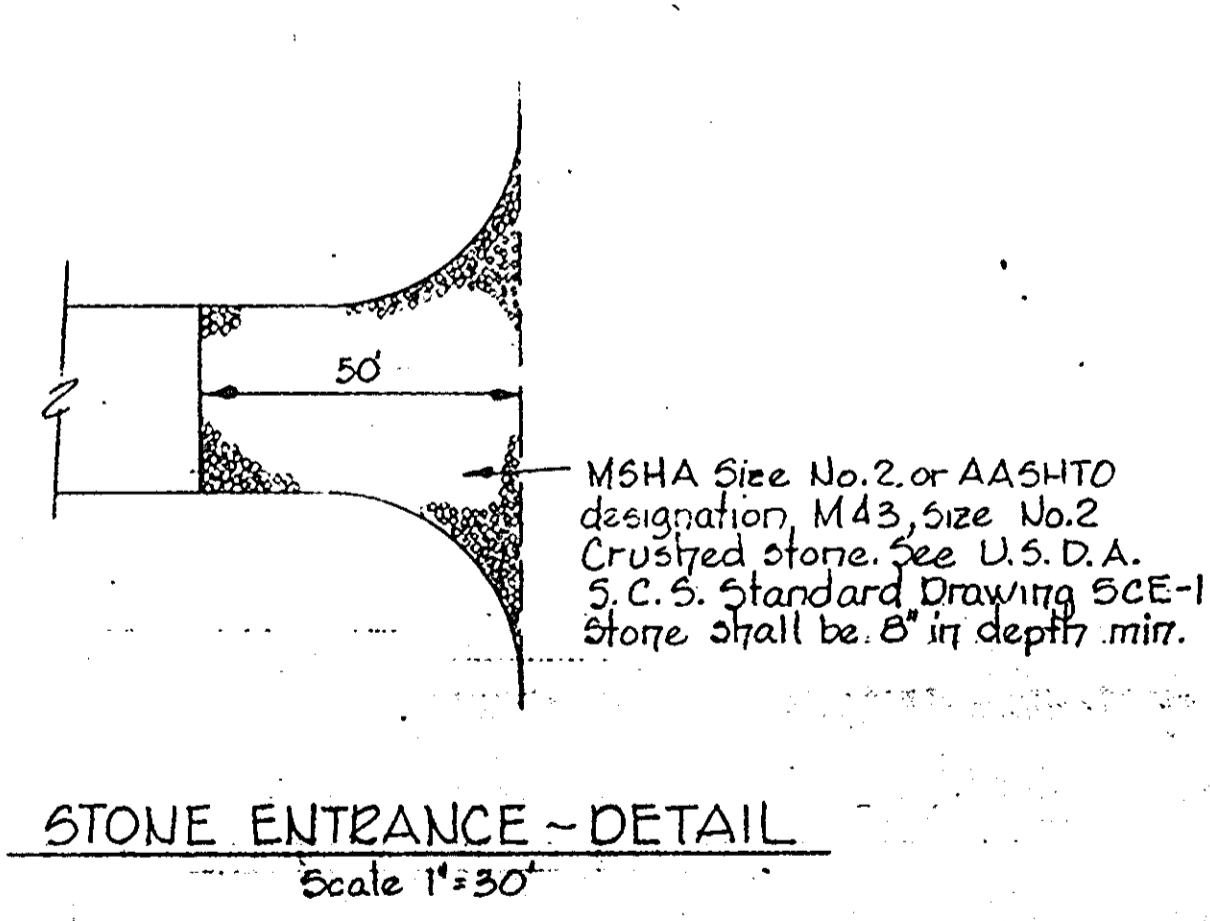
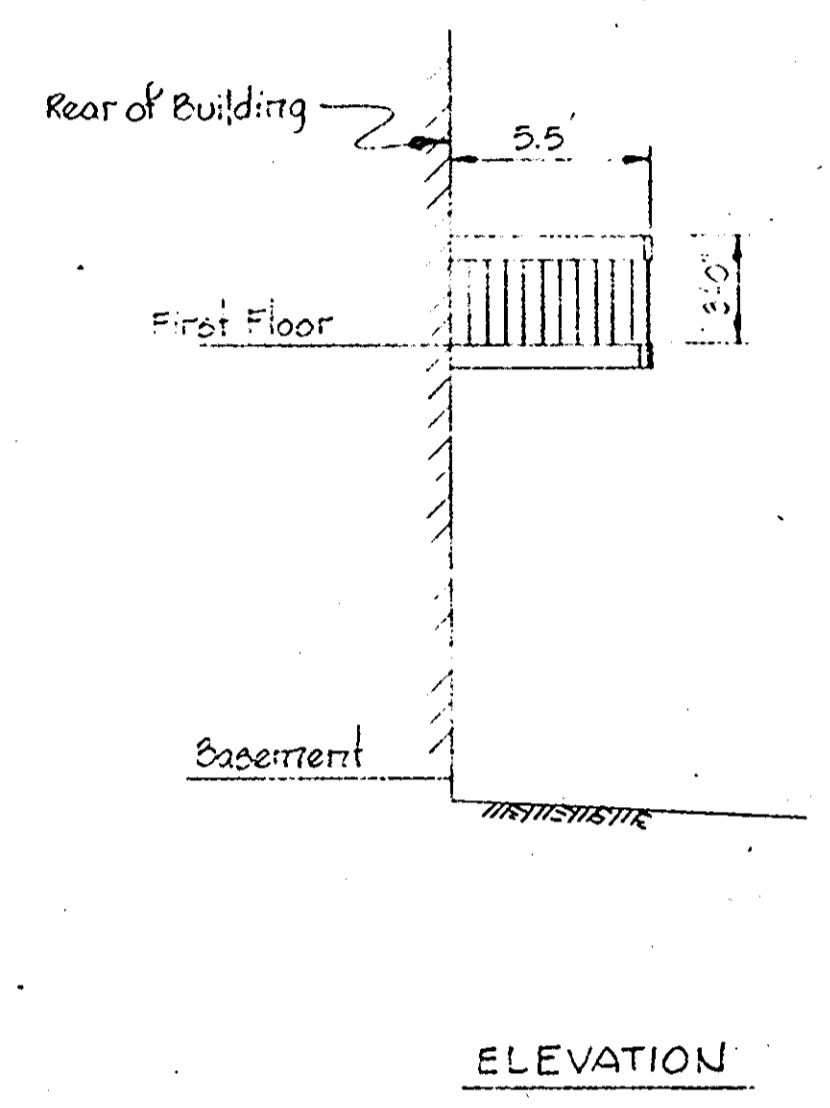
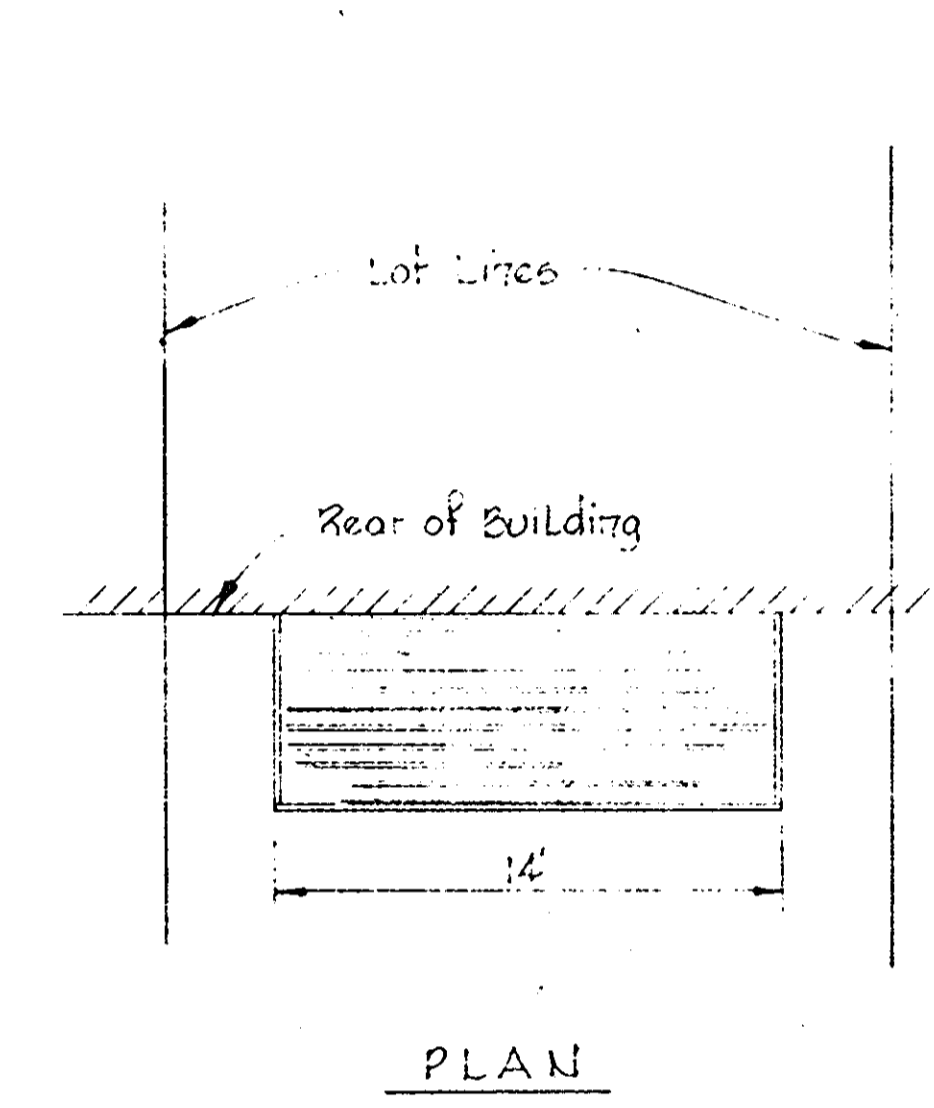
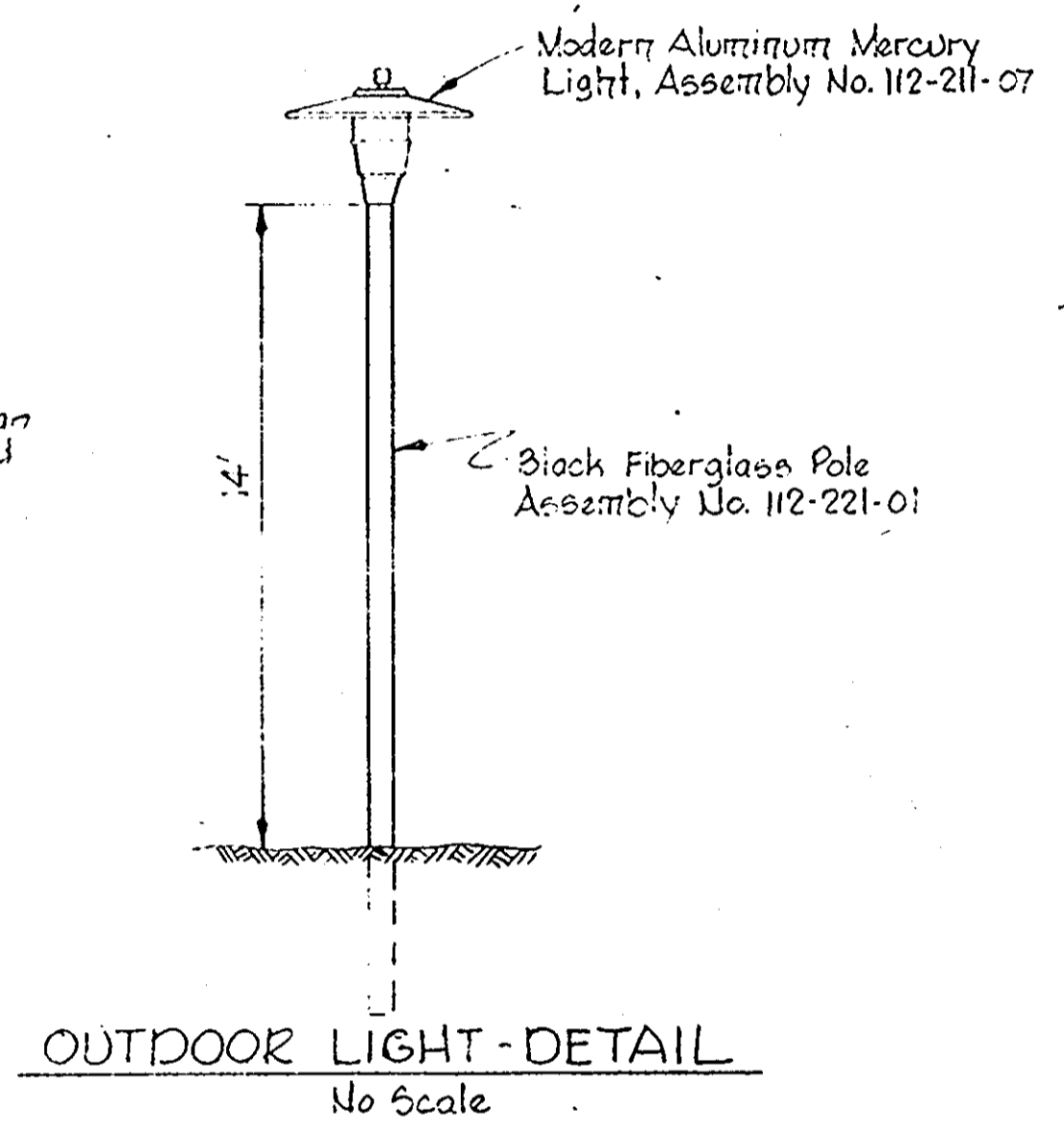
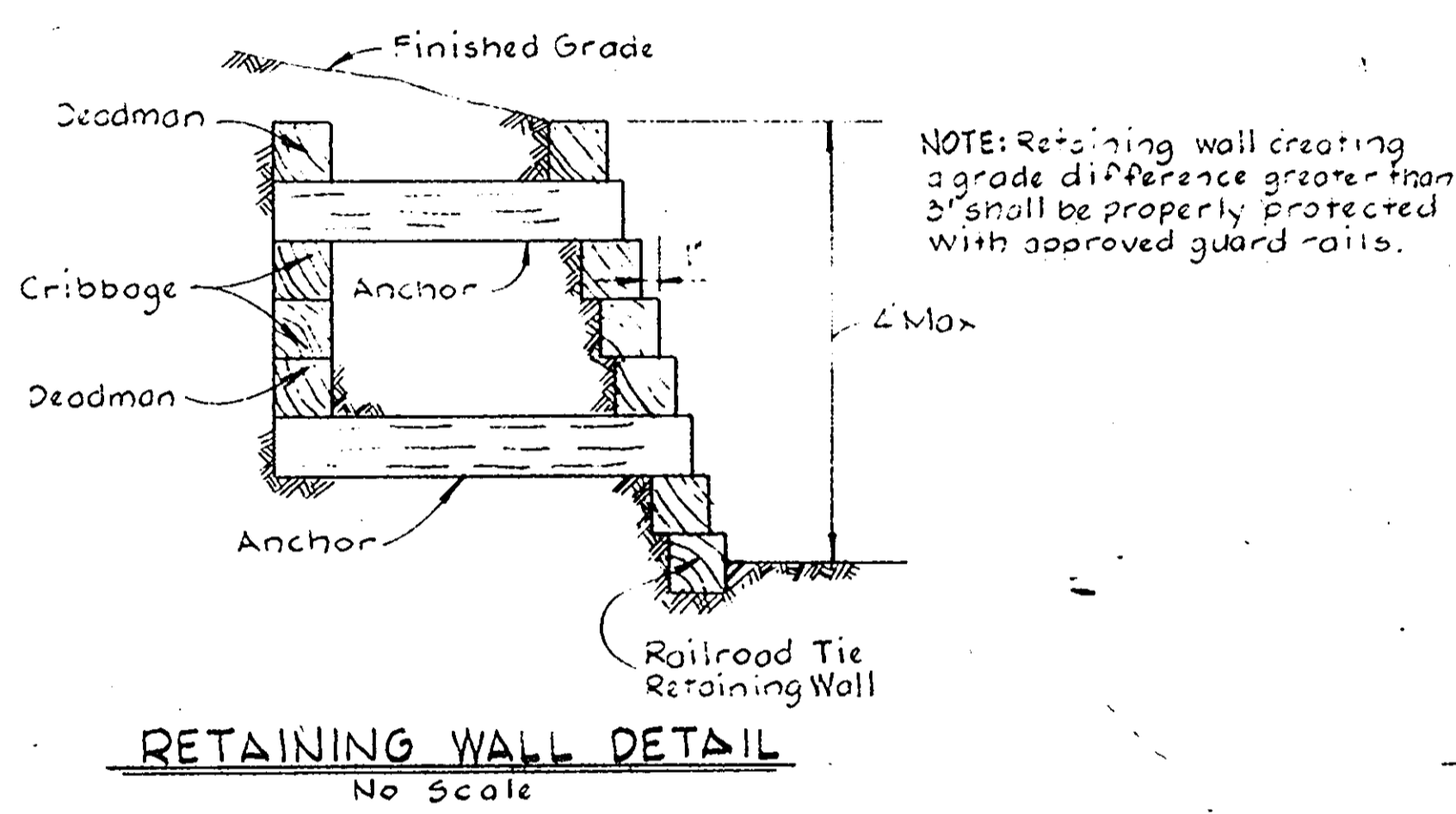
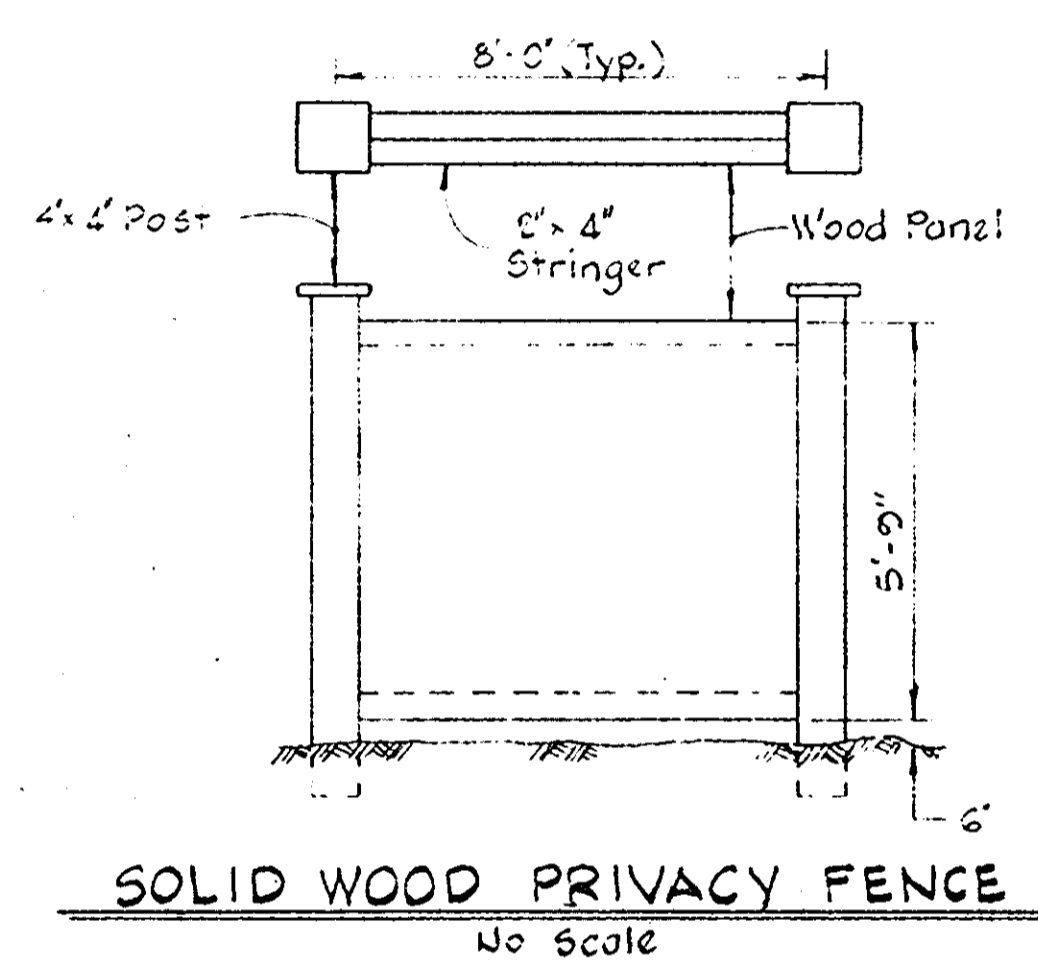
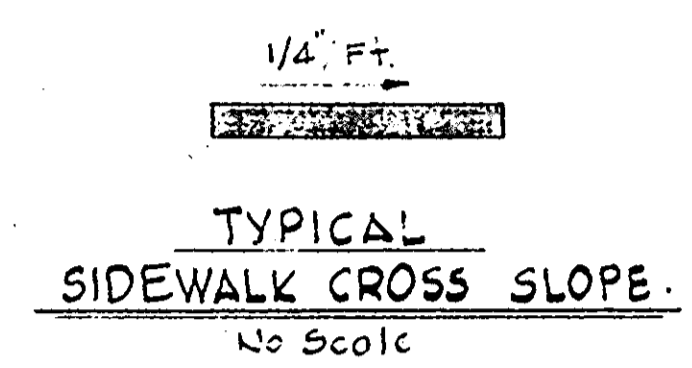
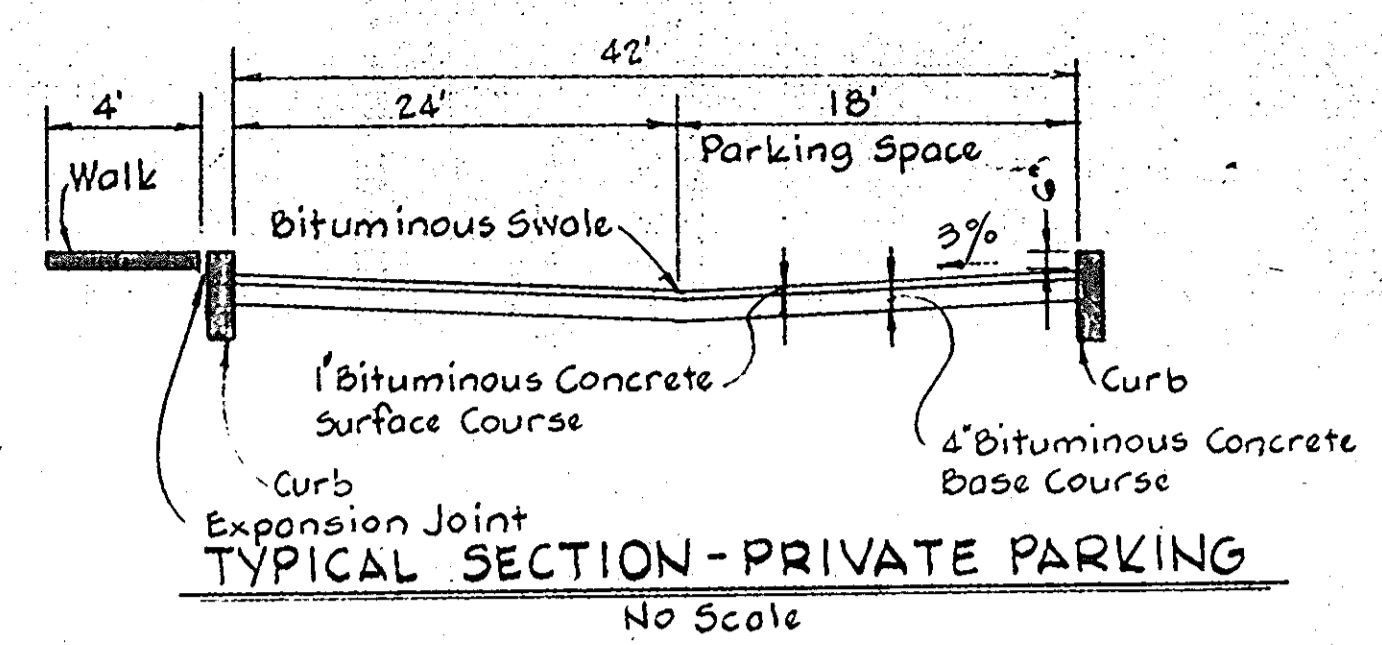
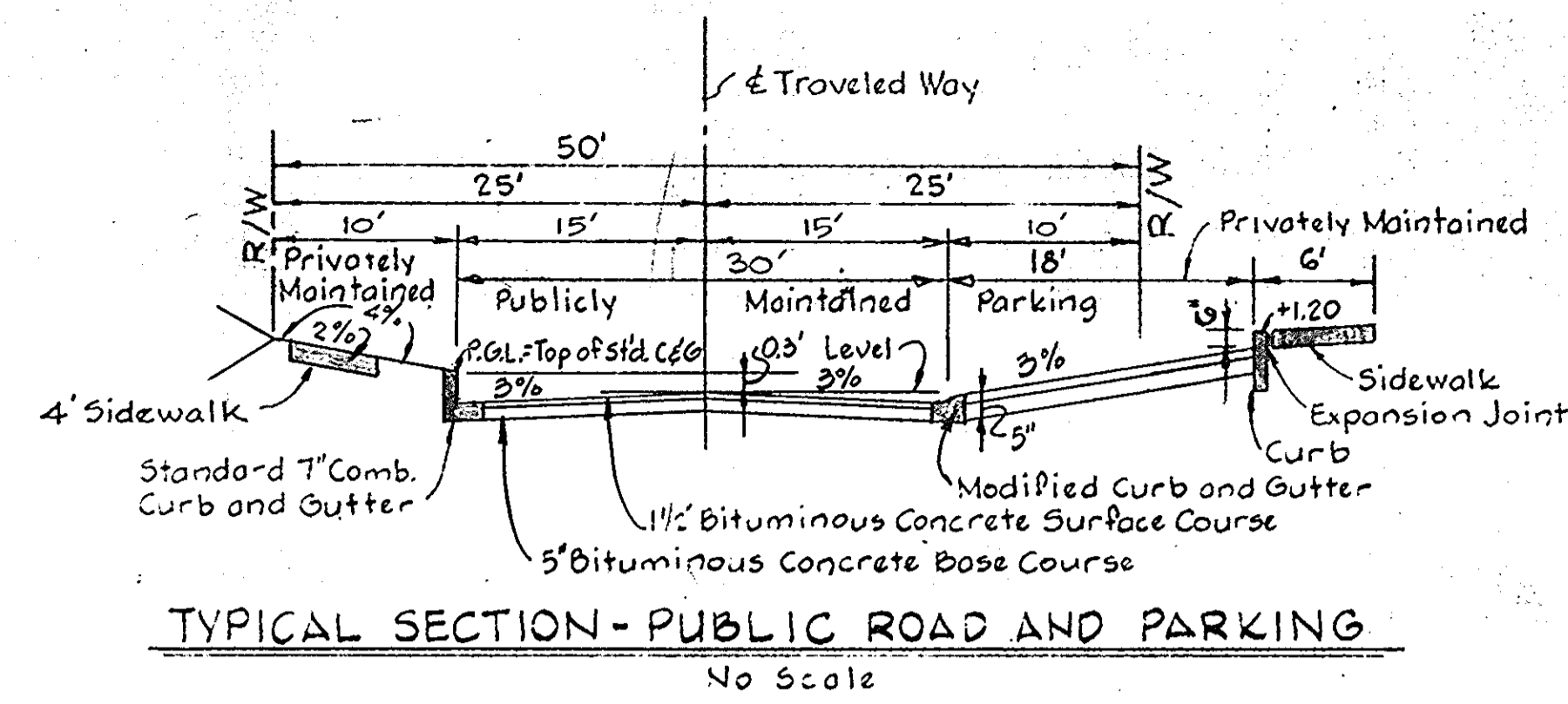


SECTION A-A
 Scale: 1" = 5' H. & V.



-NOTE-
 AS-BUILT SURVEY VERIFIED BY KENNETH A. McCORD
 MD. REG. ENGINEER No. 1974 AS OF JUNE 3, 1981

5/21/80	1	As per Planning & DPW Comments
Rev. Date	Rev. No.	Revision Description
COLUMBIA 5 TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
OWNER AND DEVELOPER HOWARD HOMES COMMUNITIES, INC.		
PROJECT AREA VILLAGE OF HICKORY RIDGE SECTION I AREA G LOTS B-1 TO B-67 A REBUDIVISION OF PARCEL B		
PROJECT TITLE DRAINAGE AREA MAP STORM DRAIN DETAILS		
SCALE: AS SHOWN		DATE
WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202		
Kenneth A. McCord KENNETH A. McCORD Registered Engineer No. 1974		



- SEQUENCE OF CONSTRUCTION**
1. Use existing storm water management and sediment control pond (see SDP 79-77C) during this phase of construction.
 2. Clear and grub, strip and grade site.
 3. Install utilities.
 4. Construct roads and houses.
 5. Fine-grade, sod or seed all disturbed areas. Seeding as per specifications below.
 6. After grass is established in the drainage area, refurbish pond for its permanent role of storm water management.

- PERMANENT SEEDING SPECIFICATIONS**
- Lime = 2 Tons/acre agricultural ground limestone
 Fertilizer = 1000 lbs./acre (10-10-10)
 Seeding = 100 lbs./acre of the following:
 - 20% Kentucky Blue Grass
 - 20% Merion Blue Grass
 - 55% Creeping Red Fescue
 - 5% Redtop
- Mulch Required - Mulch area with straw at the rate of 75 lbs./1000 sq. ft. or 15 Tons/acre.
 Anchor with asphalt at the rate of 480 gallons/acre.
 Stabilization of slopes steeper than 3:1 shall be planted with crownvetch including (0.34 lbs./1000 sq. ft.) Kentucky 31 Tall Fescue 40 lbs/acre (1 lb./1000 sq. ft.)

- GENERAL NOTES**
1. See "Sequence of Construction" this sheet.
 2. Contractor to notify the Howard County Dept. of Inspections and Permits at least 3 days before starting work shown on these drawings.*
 3. The approved storm water management Pond, which has been constructed out off the southwest corner of the property, satisfies all sediment control requirements for this section. See Sheets 4 and 5 of 7, File SDP 79-77 for stabilization of disturbed areas and flushing of storm drains, see Sheet 5 of 7, File SDP 79-77.
- * Telephone No. 992-2436

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.
 COUNTY HEALTH OFFICER _____ DATE _____
 APPROVED HOWARD COUNTY OFFICE OF PLANNING AND ZONING
 PLANNING DIRECTOR _____ DATE _____
 CHIEF, DIVISION OF LAND DEVELOPMENT _____ DATE _____
 APPROVED FOR PUBLIC WATER, PUBLIC SEWER AND STORM DRAINAGE SYSTEMS AND ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 DIRECTOR _____ DATE _____
 CHIEF, BUREAU OF ENGINEERING _____ DATE _____

CERTIFICATION BY THE DEVELOPER

"I CERTIFY THAT ALL DEVELOPMENT AND OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL, AND I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY!"

Lee B. Rosenberg
 DATE 3-24-80

CERTIFICATION BY THE ENGINEER

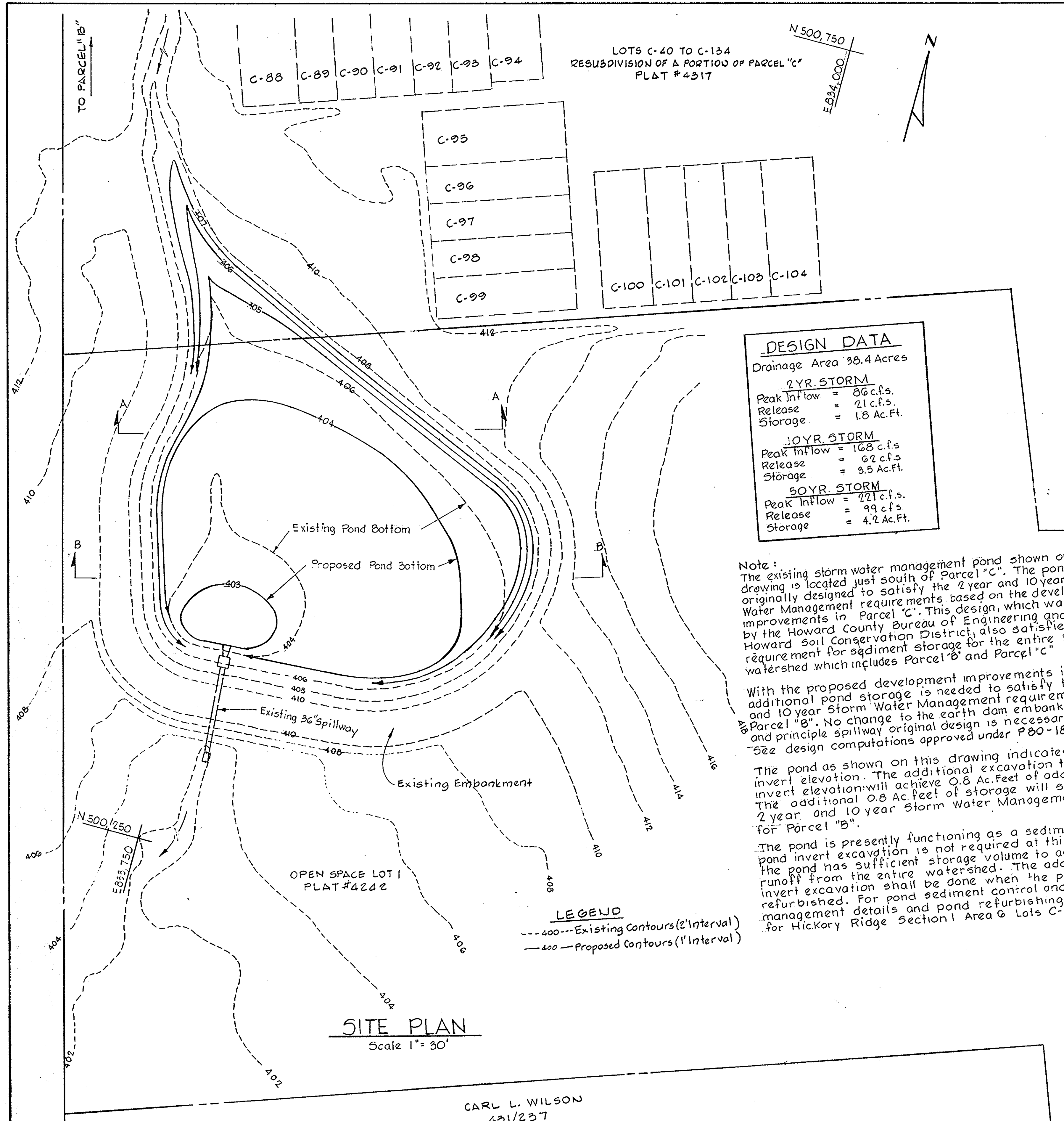
"I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

Kenneth A. McCord
 DATE 3-24-80
 KENNETH A. MCCORD, P.E. 1974

REVIEWED FOR HOWARD COUNTY S.C.D. NAME _____ AND MEETS THE TECHNICAL REQUIREMENTS
 SIGNATURE _____ DATE 6-17-80
 U.S. SOIL CONSERVATION SERVICE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT
 APPROVED: Robert W. Zilber
 HOWARD S.C.D. DATE 6-17-80

Rev. Date	Rev. No.	Revision Description
COLUMBIA 5 th ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
OWNER AND DEVELOPER HOWARD HOMES COMMUNITIES, INC.		
PROJECT AREA VILLAGE OF HICKORY RIDGE SECTION 1 AREA G LOTS B-1 TO B-6 A RESUBDIVISION OF PARCEL "B"		
PROJECT TITLE DETAILS		
SCALE: AS SHOWN DATE _____		
WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202		
SIGNATURE: Kenneth A. McCord		REGISTERED ENGINEER No. 1074



DESIGN DATA

Drainage Area 38.4 Acres

2 YR. STORM
Peak Inflow = 86 c.f.s.
Release = 21 c.f.s.
Storage = 1.8 Ac.Ft.

10 YR. STORM
Peak Inflow = 168 c.f.s.
Release = 62 c.f.s.
Storage = 3.5 Ac.Ft.

50 YR. STORM
Peak Inflow = 221 c.f.s.
Release = 99 c.f.s.
Storage = 4.2 Ac.Ft.

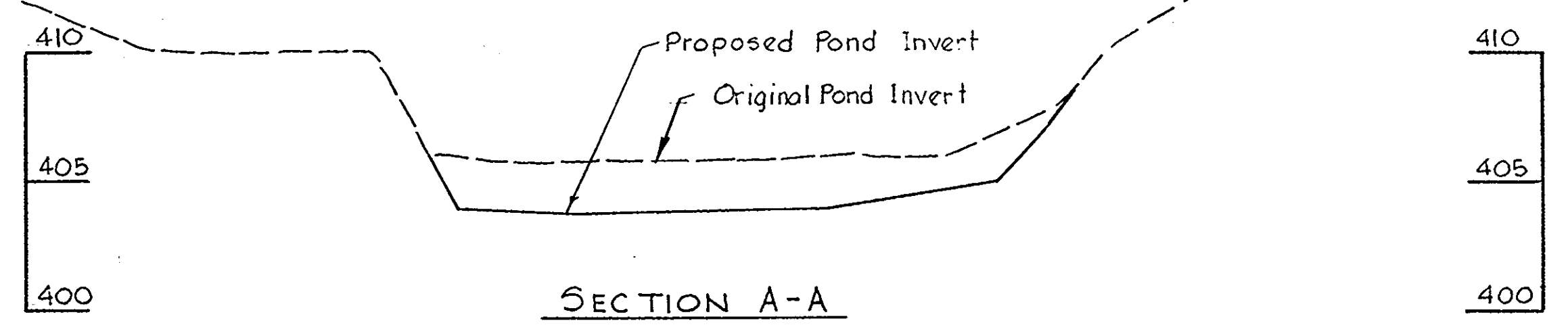
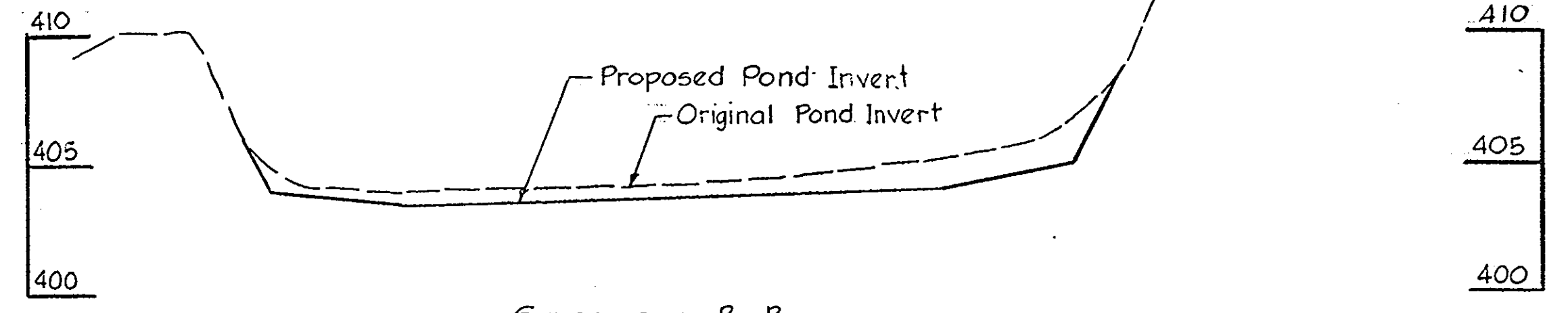
Note:
The existing storm water management pond shown on this drawing is located just south of Parcel "C". The pond was originally designed to satisfy the 2 year and 10 year 5 storm Water Management requirements based on the development improvements in Parcel "C". This design, which was approved by the Howard County Bureau of Engineering and the Howard Soil Conservation District, also satisfies the requirement for sediment storage for the entire 38.4 acre watershed which includes Parcel "B" and Parcel "C".

With the proposed development improvements in Parcel "B", additional pond storage is needed to satisfy the 2 year and 10 year Storm Water Management requirements for Parcel "B". No change to the earth dam embankment and principle spillway original design is necessary. See design computations approved under P80-18C.

The pond as shown on this drawing indicates a new pond invert elevation. The additional excavation to the new pond invert elevation will achieve 0.8 Ac.Feet of additional storage. The additional 0.8 Ac.Feet of storage will satisfy the 2 year and 10 year Storm Water Management requirements for Parcel "B".

The pond is presently functioning as a sediment basin. The pond invert excavation is not required at this time because the pond has sufficient storage volume to accept sediment runoff from the entire watershed. The additional pond invert excavation shall be done when the pond is refurbished. For pond sediment control and storm water management details and pond refurbishing see site plans for Hickory Ridge Section I Area G Lots C-1 thru C-39. (SPP 79-77C).

LEGEND
--- Existing Contours (2' Interval)
--- Proposed Contours (1' Interval)



DEPARTMENT OF PUBLIC WORKS	
<i>William E. Riley</i>	7-14-80
CHIEF, BUREAU OF ENGINEERING	DATE
OFFICE OF PLANNING & ZONING	
<i>William M. Mendenhall</i>	6-18-80
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE

Rev. Date	Rev. No.	Revision Description
COLUMBIA 5 th ELECTION DISTRICT HOWARD COUNTY, MARYLAND OWNER AND DEVELOPER HOWARD HOMES COMMUNITIES, INC.		
PROJECT AREA VILLAGE OF HICKORY RIDGE SECTION I AREA G LOTS B-1 TO B-67 A RESUBDIVISION OF PARCEL B		
PROJECT TITLE STORM WATER MANAGEMENT POND		
SCALE: AS SHOWN		DATE
WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202		
<i>Kenneth A. McCord</i> KENNETH A. MCCORD Registered Engineer No. 1974		

CERTIFICATION BY THE DEVELOPER

"I CERTIFY THAT ALL DEVELOPMENT AND OR CONSTRUCTION OF THIS POND WILL BE DONE ACCORDING TO THESE PLANS OF DEVELOPMENT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY. DEVIATION FROM THIS PLAN WILL NOT BE MADE UNLESS AUTHORIZED BY THE HOWARD SOIL CONSERVATION DISTRICT. I WILL AUTHORIZE A REGISTERED PROFESSIONAL ENGINEER TO SUPPLY THE HOWARD SOIL CONSERVATION DISTRICT OFFICE WITH AN AS-BUILT PLAN OF THIS POND WITHIN 30 DAYS OF THE PONDS COMPLETION."

Lee B. Rosenberg
LEE B. ROSENBERG
DATE 3-24-80

CERTIFICATION BY THE ENGINEER

"I CERTIFY THAT THIS PLAN FOR SMALL POND CONSTRUCTION REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH A RED-LINED "AS-BUILT" OF THE POND WITHIN 30 DAYS OF COMPLETION."

Kenneth A. McCord
KENNETH A. MCCORD, P. E. #1974
DATE 3-24-80

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

James M. H. ...
S. SOIL CONSERVATION SERVICE
DATE 6-17-80

THESE PLANS FOR SMALL POND CONSTRUCTION SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

APPROVED: *Robert W. Ziehm* 6-17-80
HOWARD S. C. D. DATE
PLAN NUMBER