

SHEET INDEX

SHEET NO.	DESCRIPTION
1	TITLE
2	CARVED STONE AND MINSTREL WAY
3	MINSTREL WAY
4	STORM DRAIN PROFILE & DETAILS
5	DRAINAGE AREA MAP & SEDIMENT CONTROL PLAN.

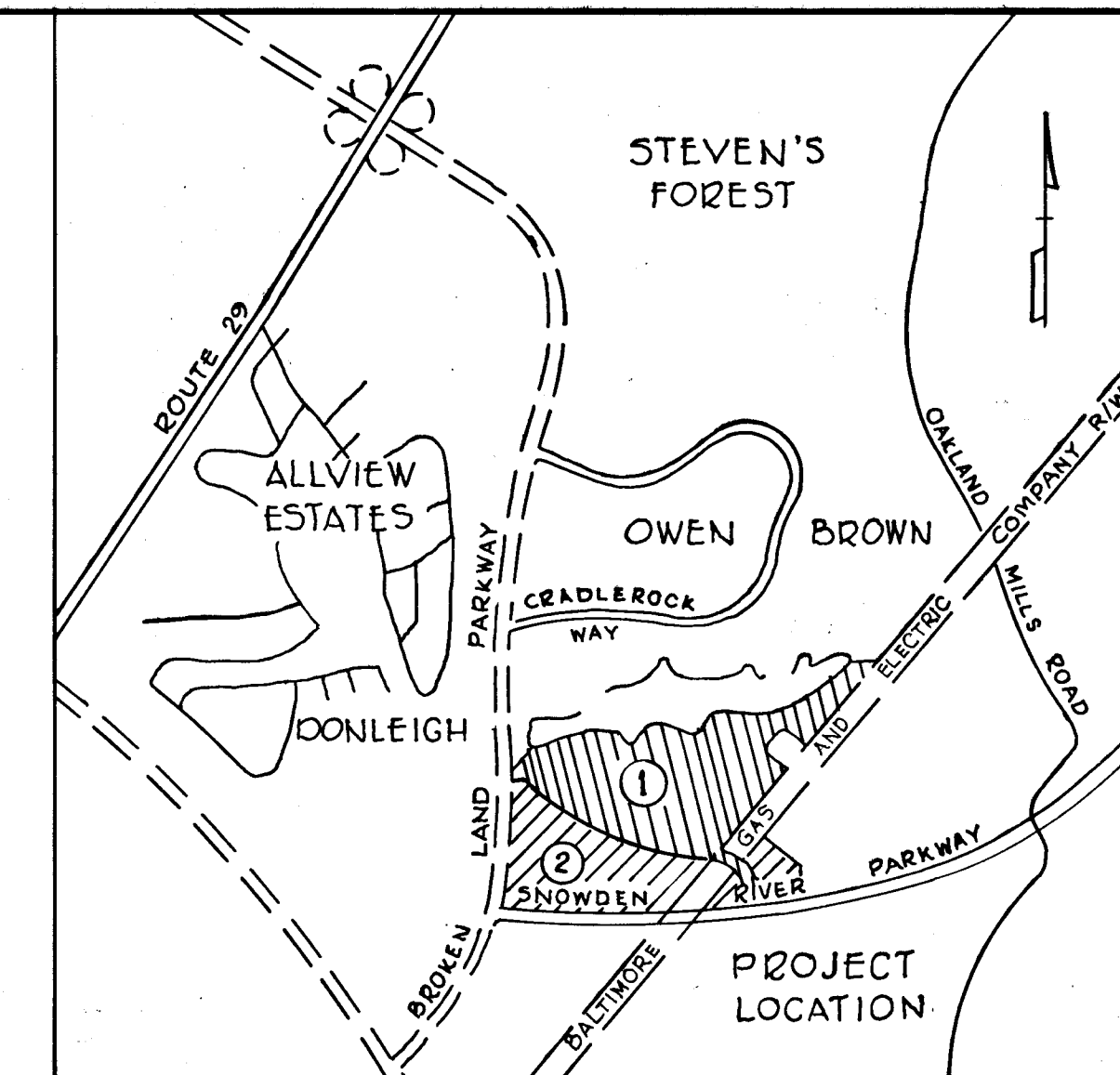
COLUMBIA

HOWARD COUNTY, MARYLAND
6TH ELECTION DISTRICT

ROAD CONSTRUCTION PLANS VILLAGE OF OWEN BROWN RESUBDIVISION SECTION 2 AREA 1 & 2

ESTIMATE OF QUANTITIES

ITEM	DESCRIPTION	UNIT	QUANTITIES
1.	BITUMINOUS CONCRETE SURFACE COURSE 1 1/2" THICK	S.Y.	6544
2.	BITUMINOUS CONCRETE BINDER COURSE 3" THICK	S.Y.	6544
3.	BITUMINOUS CONCRETE BASE COURSE 5" THICK	S.Y.	6544
4.	STANDARD 7" COMBINATION CURB AND GUTTER	L.F.	2892
5.	PLACING TOPSOIL 6" THICK	S.Y.	4100
6.	UNCLASSIFIED EXCAVATION (ROADWAY)	C.Y.	6913
7.	CONCRETE SIDEWALK 4" THICK	L.F.	2895
8.	18" R.C.P. CLASS IV	L.F.	357
9.	18" R.C.P. CLASS IV	L.F.	75
10.	21" R.C.P. CLASS IV	L.F.	47
11.	24" R.C.P. CLASS IV	L.F.	295
12.	27" R.C.P. CLASS IV	L.F.	185
13.	27" C.M.P. 12 GAGE	L.F.	30
14.	STANDARD "A-5" INLET (2.5' WIDTH)	EA.	4
17.	STANDARD MANHOLE	EA.	3
18.	SPECIAL MANHOLE	EA.	1
19.	36" C.M.P. 12 GAGE (RISE)	L.F.	5.5



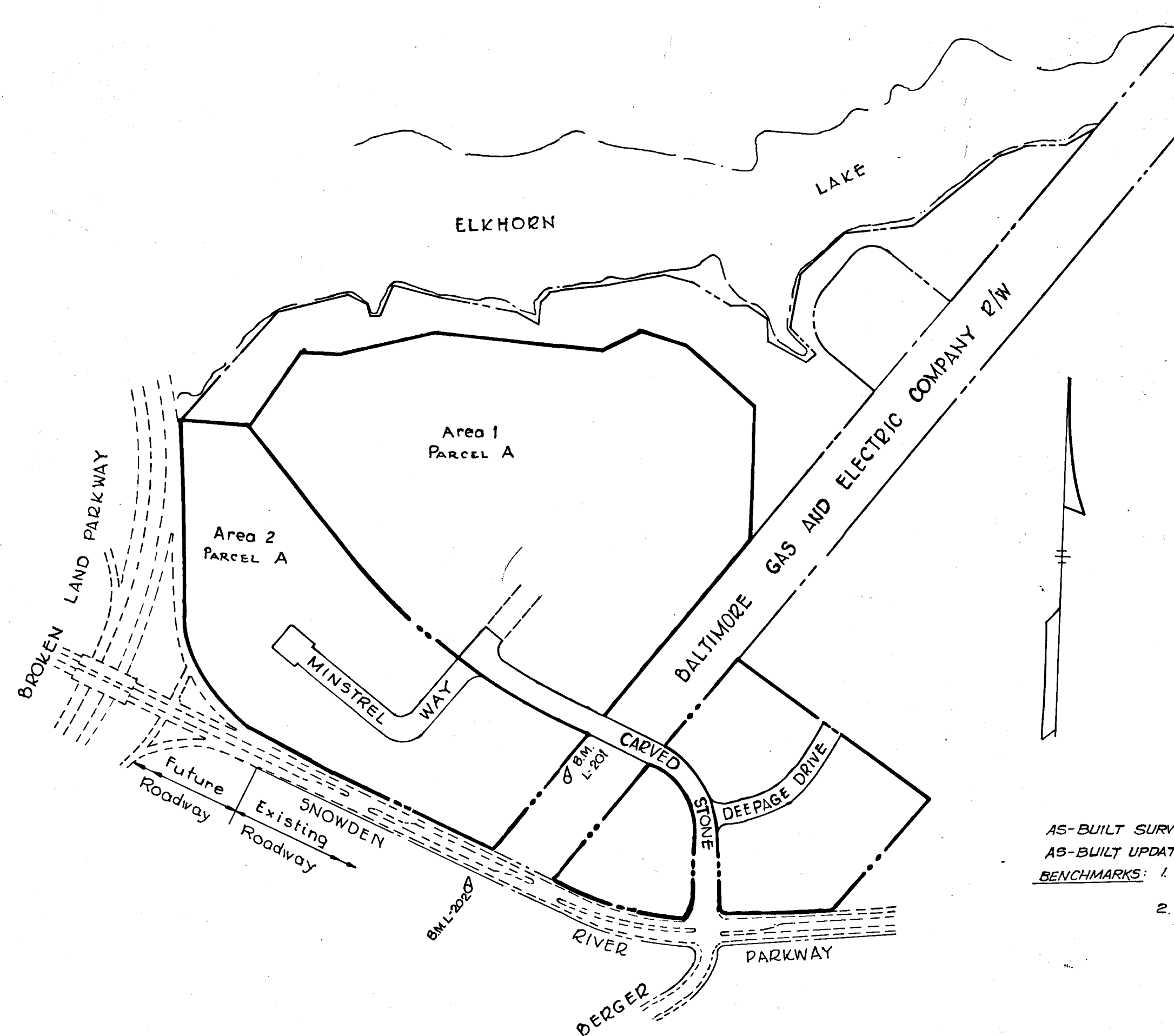
VICINITY MAP
Scale: 1" = 3000'

GENERAL NOTES

- All work shall be performed in accordance with the Howard County Road Construction Code and Standard Specifications
- All utility companies shall be notified 24 hours in advance of construction
- Brick bulkhead shall be installed in all storm drain stubs
- All inlets shall be Howard County standards unless otherwise shown
- All street curb returns shall have a 35.5' radii unless otherwise noted
- Storm drain trenches within road rights of way shall be backfilled and compacted in accordance with Howard County Road Code.
- Approximate location of existing utilities are shown. The Contractor shall take all necessary precautions to protect the existing utilities and to maintain uninterrupted service. Any damage incurred due to contractor's operations shall be repaired immediately at the contractor's expense.
- The contractor shall test pit existing utilities where directed by the Owner, a minimum of two weeks in advance of construction operations.
- Temporary compacted, 18" high Earth Fill Diversion Berms should be constructed above the lips of all slopes on the ROW concurrently with the initial grading and directed to undisturbed soil areas at the end of each day.
- All swales shall be sodded and tamped and all slopes shall be seeded or sodded in conjunction with the Howard County Soil Conservation District and the Howard County Planning Board Standards entitled "Standards and Specifications for Soil Erosion and Sediment Control in Urbanizing Areas"
- Contractor to notify the Howard County Soil Conservation District at least 24 hours before starting work shown on these drawings.
- All disturbed slope areas to be stabilized as soon as grading is completed
- On all fills in sump areas, Reliance Plastic & Chemical Company Flexible Tube Down Drains and Pans, or approved equal shall be used
- All Reinforced Concrete for storm drain structures shall have minimum 28 day strength of 3500 psi.
- Permanent Seeding: Agricultural Ground Limestone - 2 tons/acre. Fertilizer (5-10-10) - 1000 lbs/acre. Seeding - 100 lbs/acre of the following, 20% Kentucky Blue Grass, 20% Merion Blue Grass, 55% Creeping Red Fescue, 5% Redtop.

BENCH MARKS

- Bench Mark L-201 Elev. 946.89
Plate Bolt X-marked Southwest corner Gas and Electric Tower #29
- Bench Mark L-202 Elev. 931.29
Large Common Nail base of Gas and Electric Pole #457196



AS-BUILT SURVEY: 6/5/80
AS-BUILT UPDATED: 8/17/84 BY WALT PARK, LAND SURVEYOR No. 5539
BENCHMARKS: 1. TOP FH. STA. 13+14 CARVED STONE, LEFT SIDE: 363.64
2. TOP FH. STA. 0+76.00 STAGHORN PATH, RT. SIDE: 360.43

LOCATION PLAN

Scale: 1" = 400'

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. Deviation from this plan will not be made unless authorized by the Howard Soil Conservation District."

John T. Zigan 5/30/74
Signature of Developer Date

Reviewed for Howard Soil Conservation District and meets Technical Requirements
James M. Helms 5/31/74
Signature Date
U.S. Soil Conservation District

This development Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.
Approved *Robert W. Zichem* 5-31-74
Howard Soil Conservation District Date

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

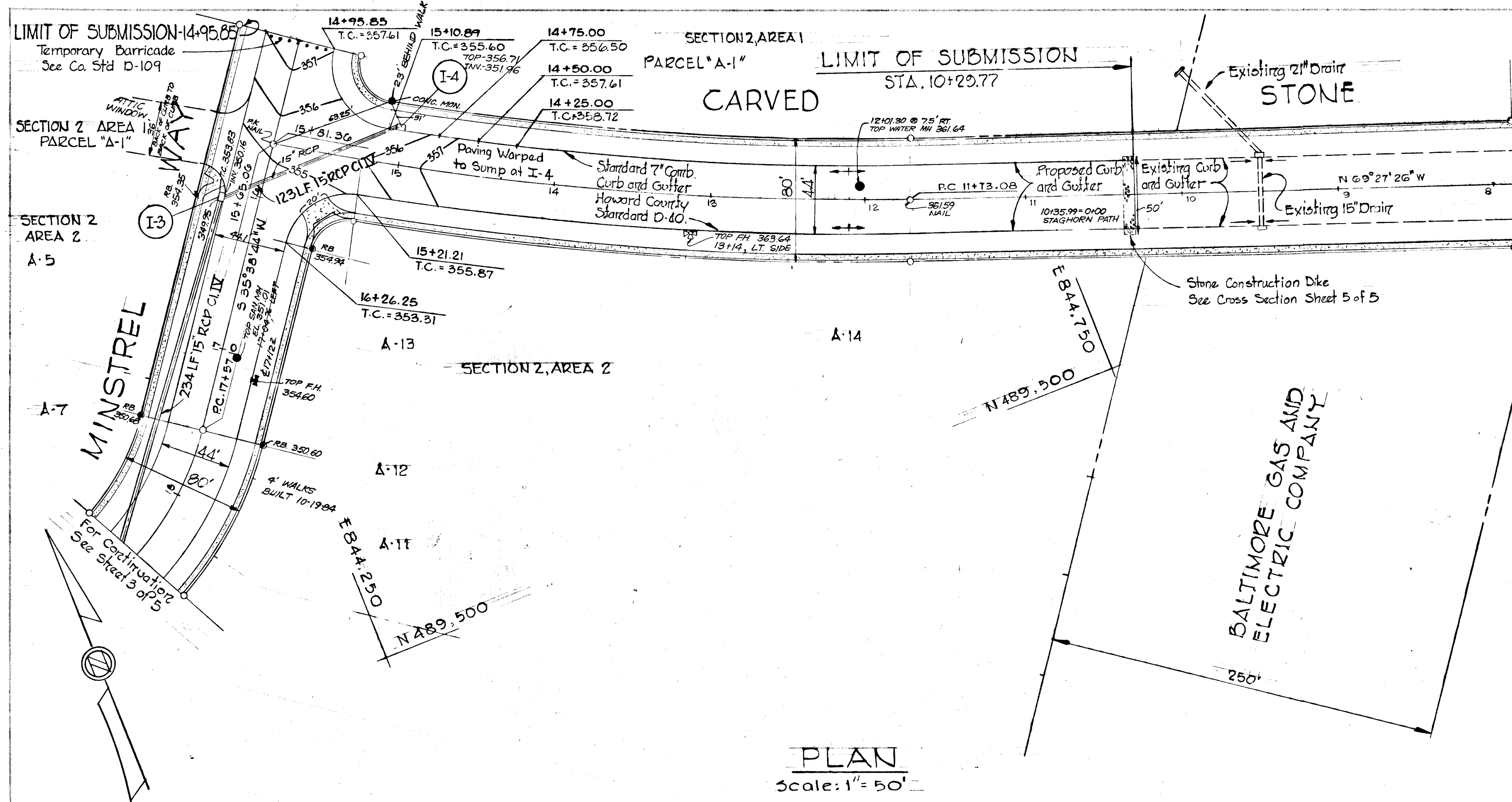
WHITMAN REQUARDT & ASSOCIATES
ENGINEERS
BALTIMORE, MARYLAND 21202
Kenneth A. McCord
KENNETH A. McCORD
Registered Engineer
NO. 1974



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

OWNER AND DEVELOPER
THE HOWARD RESEARCH AND DEVELOPMENT CORP
COLUMBIA, MARYLAND

AS-BUILT 6-5-80 - UPDATED, AUG. 17, 1984



DATE	REVISION
9/30/82	Eliminated lot lines

CURVE DATA	
P.C. 11+73.08 TO $\frac{1}{2}$ MINSTREL WAY	
$\Delta = 12^\circ 34' 36"$	$T = 204.96$
$R = 1,860.00'$	$Ch = 407.46$
$L = 408.28'$	$Ch Brg = N.63^\circ 10' 08" W.$

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

STORM DRAIN STRUCTURE SCHEDULE			
NO.	TYPE	TOP ELEV.	INVELEV.
I-3	Standard A-5 Inlet - width 2.5'	354.00	349.95
I-4	Standard A-5 Inlet - width 2.5'	355.71	351.75

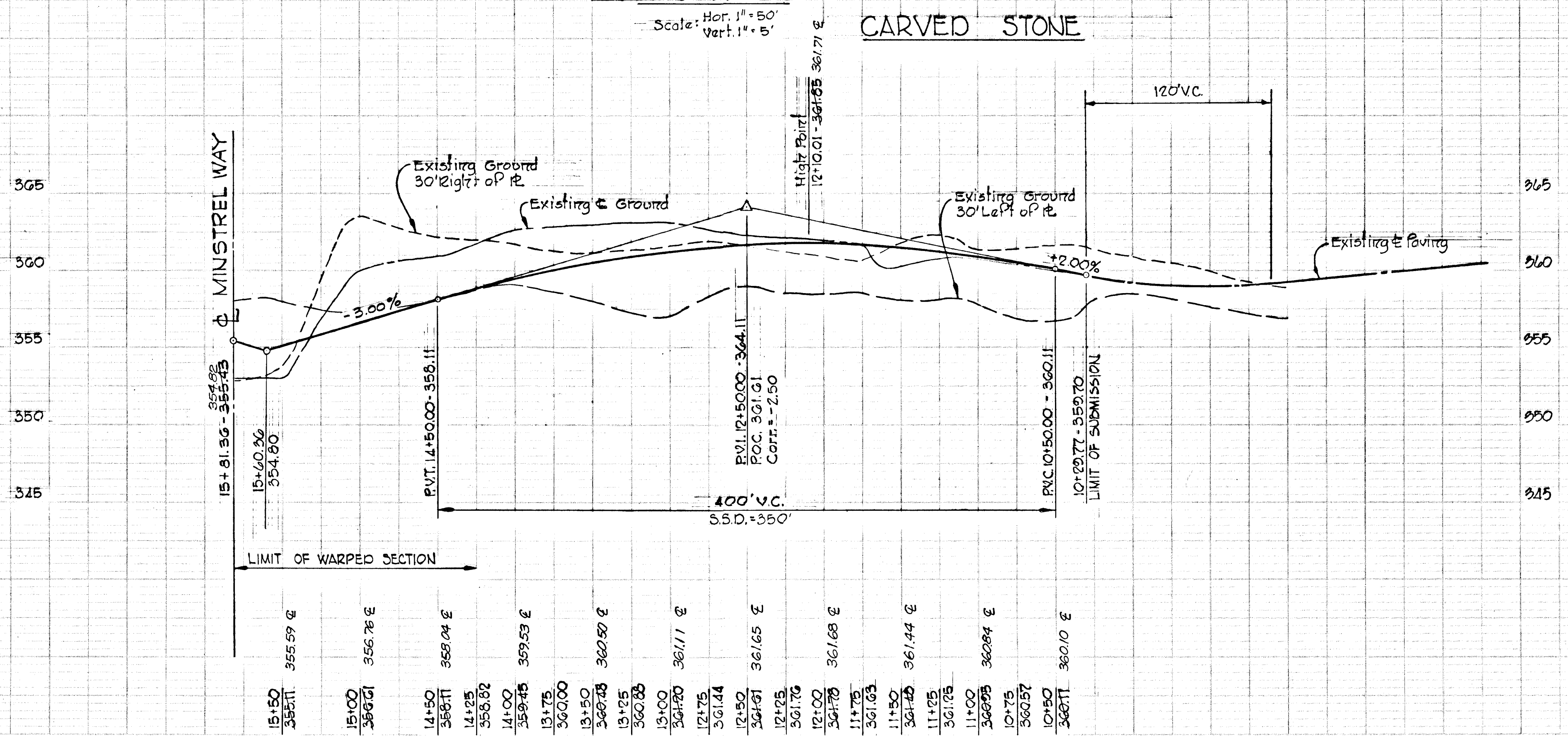
Rev. No.	Rev. Date	Revision Description
1	9-30-82	Eliminated lot lines - revised File No.

COLUMBIA
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 OWNER AND DEVELOPER
 HOWARD RESEARCH AND DEVELOPMENT CORP.
 PROJECT AREA
VILLAGE OF OWEN BROWN
 SECTION 2, AREAS 1 & 2
 PROJECT TITLE
**PLAN AND PROFILE
 CARVED STONE
 and MINSTREL WAY**
 SCALE: AS SHOWN DATE: May 23, 1974
 WHITMAN, REQUARDT & ASSOCIATES
 ENGINEERS
 BALTIMORE, MARYLAND 21202

AS-BUILT 6/5/80
 AS-BUILT INFORMATION CERTIFIED BY
 WALTER PARK, LAND SURVEYOR No. 5539
 AS-BUILT UPDATED 6/17/82
 BY WALTER PARK, LAND SURVEYOR
 WALK ADDITION - OCT. 19, 1982
 W PARK

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

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

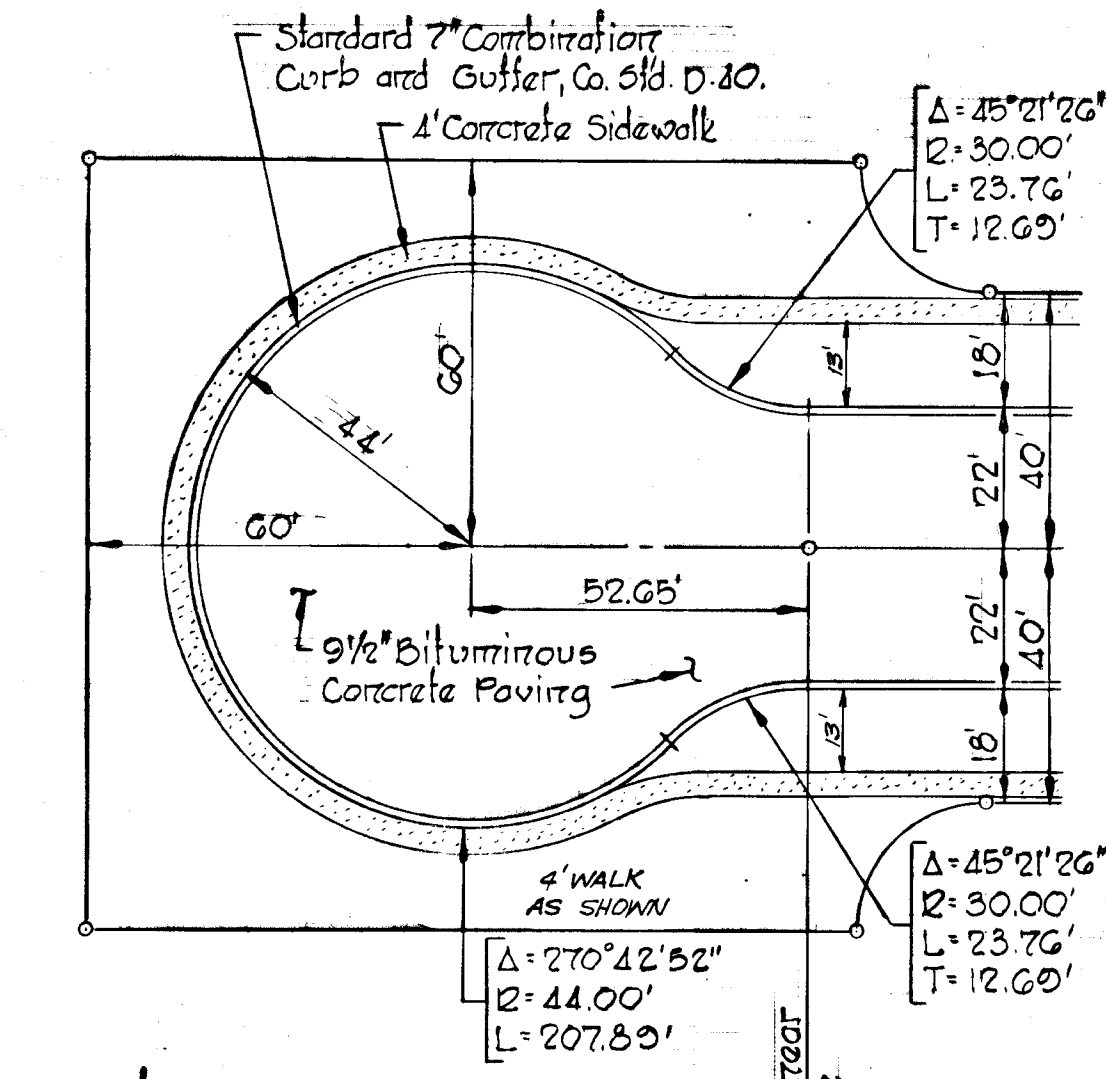
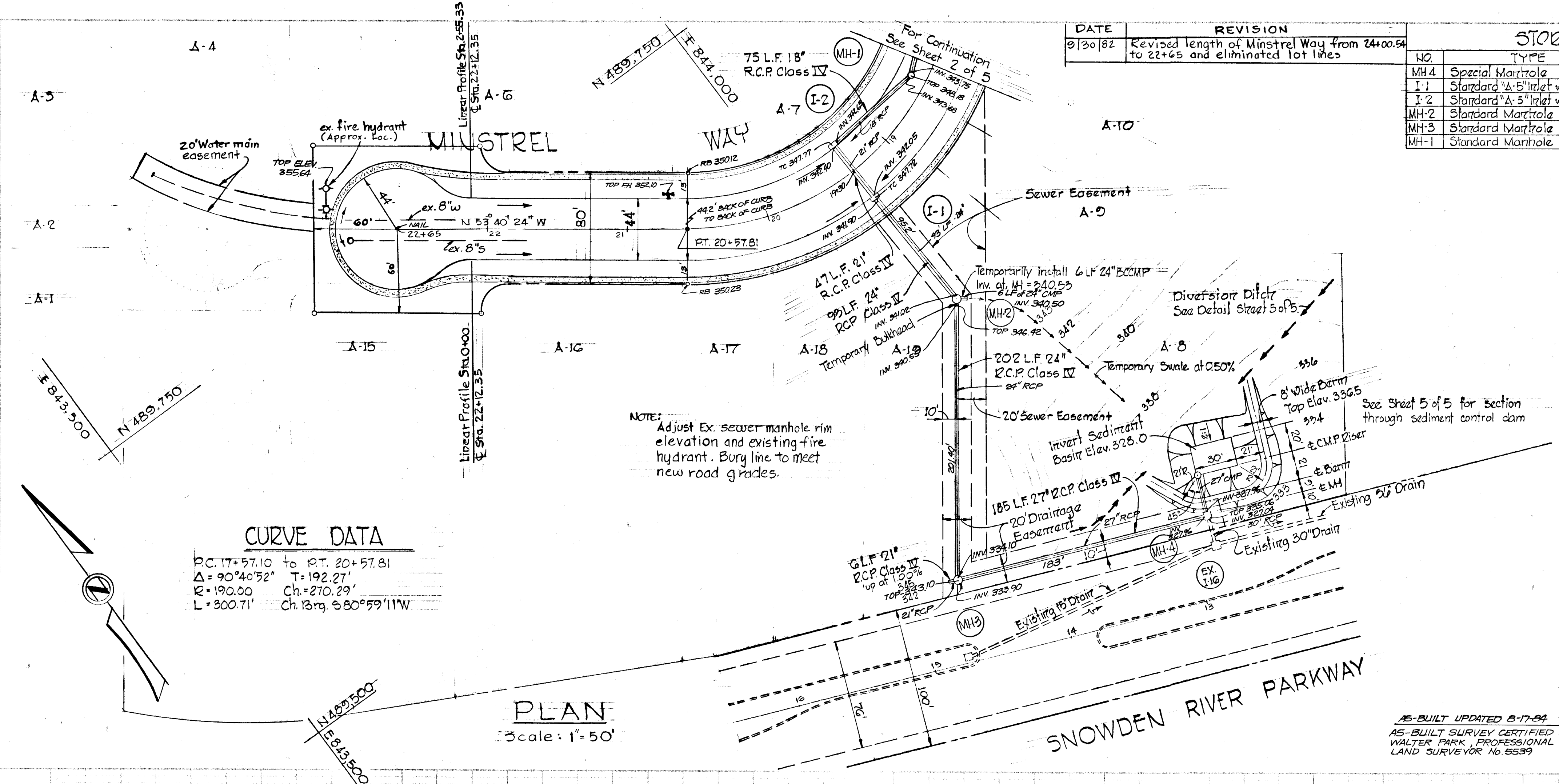


APPROVED
 DIVISION OF LAND DEVELOPMENT
 AND TRANSPORTATION PLANNING
 HOWARD COUNTY, MARYLAND
 DATE 5/30/74
J. H. Dawson, Jr.

DATE	REVISION
9/30/82	Revised length of Minstrel Way from 24+00.54 to 22+65 and eliminated lot lines

STORM DRAIN STRUCTURE SCHEDULE			
NO.	TYPE	TOP ELEV.	INVERT ELEV.
MH-4	Special Manhole	325.0	327.0
I-1	Standard "A-5" Inlet width: 25"	347.32	341.90
I-2	Standard "A-5" Inlet width: 25"	347.32	342.62
MH-2	Standard Manhole	346.82	340.83
MH-3	Standard Manhole	342.5	333.02
MH-1	Standard Manhole	348.21	343.62

DEPARTMENT OF PUBLIC WORKS	
<i>J.H. McCloud</i>	5/31/74
CHIEF, BUREAU OF HIGHWAYS	DATE
OFFICE OF PLANNING AND ZONING	
CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION	DATE



Rev. No.	Rev. Date	Revision Description
1	9-30-82	Length of Minstrel Way, lot lines, File No.

COLUMBIA
 6th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

OWNER AND DEVELOPER
 HOWARD RESEARCH AND DEVELOPMENT CORP.

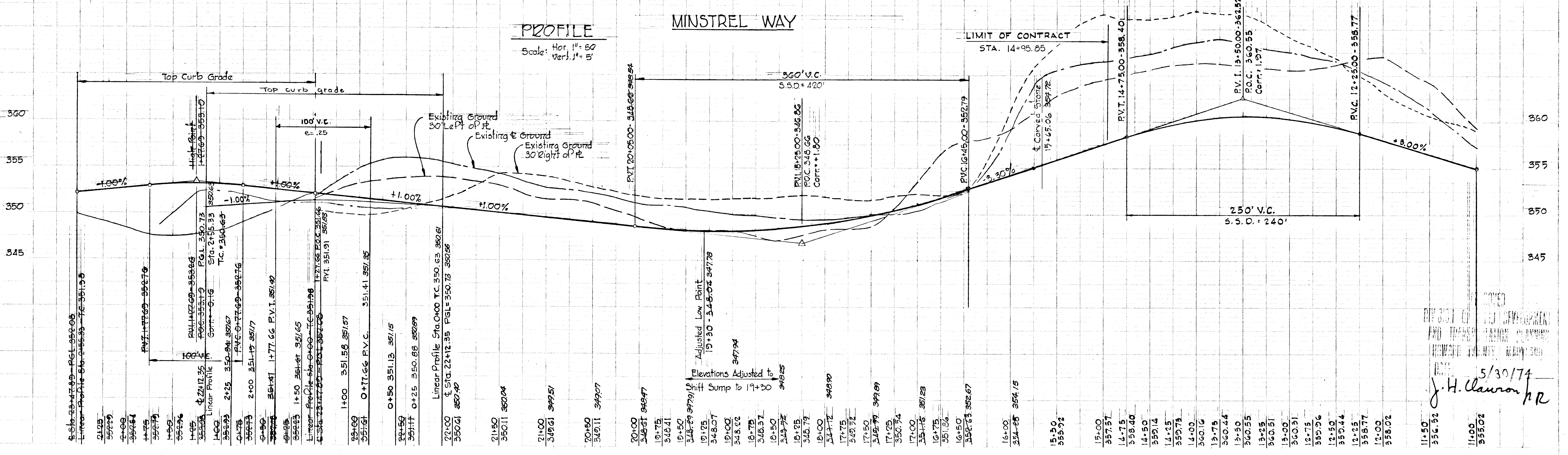
PROJECT AREA
VILLAGE OF OWEN BROWN
 SECTION 2, AREAS 1 & 2

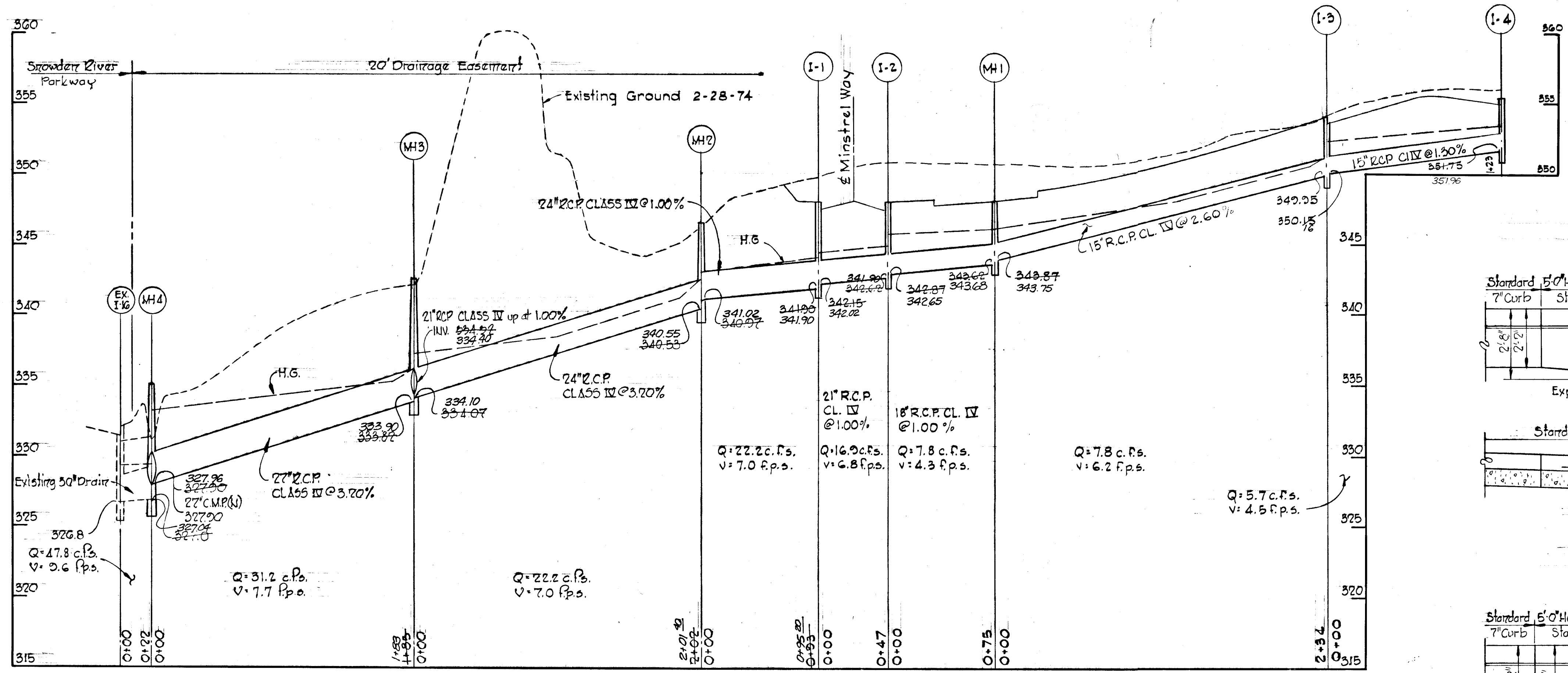
PROJECT TITLE
PLAN & PROFILE
MINSTREL WAY

SCALE: AS SHOWN DATE: May 23, 1974

WHITMAN, REQUARDT & ASSOCIATES
 ENGINEERS
 BALTIMORE, MARYLAND 21202

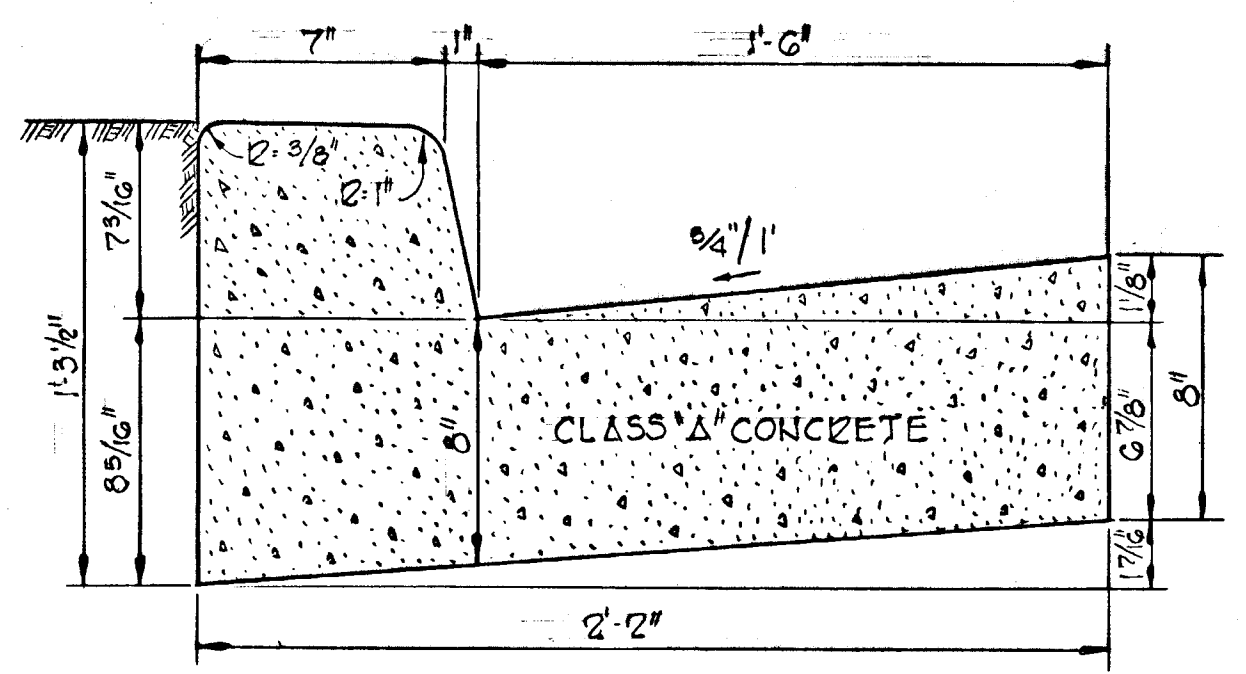
Kenneth A. McCord
 KENNETH A. MCCORD
 Registered Engineer
 No. 1974





MINSTREL WAY

SCALE: HORZ 1" = 50'
 VER 1" = 5'

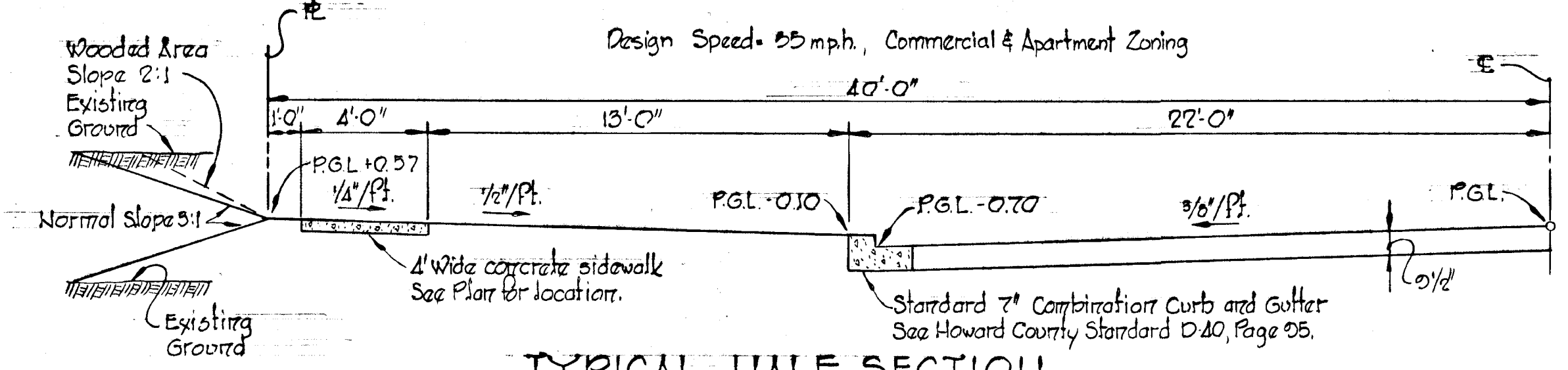


STANDARD 7" COMBINATION CURB & GUTTER
 NO SCALE

1.5"	3"	6"
Bituminous Concrete Surface	Bituminous Concrete Binder	Bituminous Concrete Base

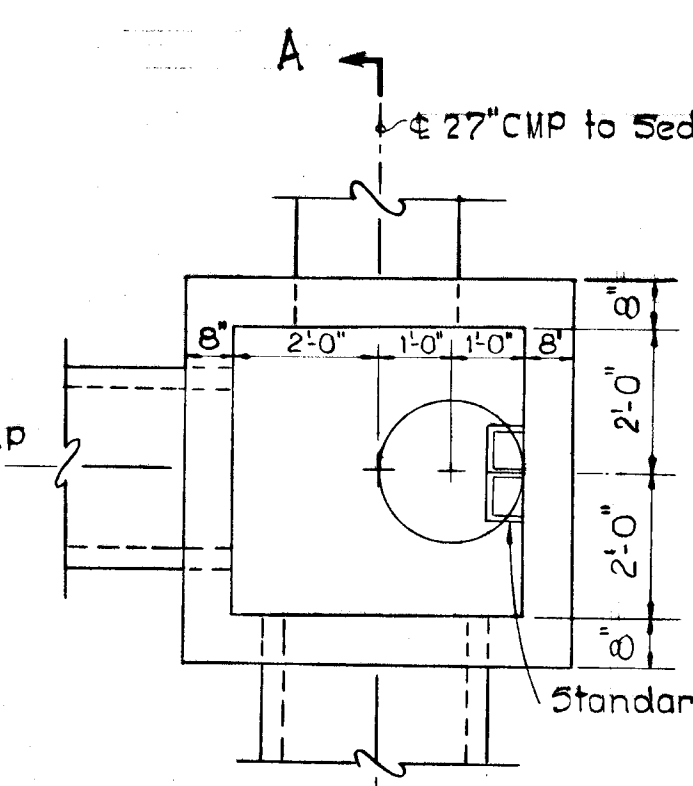
- Notes:
- See Howard County Standard Dig. D-12, Page G7.
 - Base will be primed in accordance with C-30.3 as provided in the Howard County Road Construction Code and Standard Specifications.
 - Tack coat is required in accordance with section C-31.4 of the Howard County Road Construction Code and Standard Specifications.

TYPICAL PAVING SECTION
 NO SCALE



TYPICAL HALF SECTION
 80' R/W - 44' ROADWAY

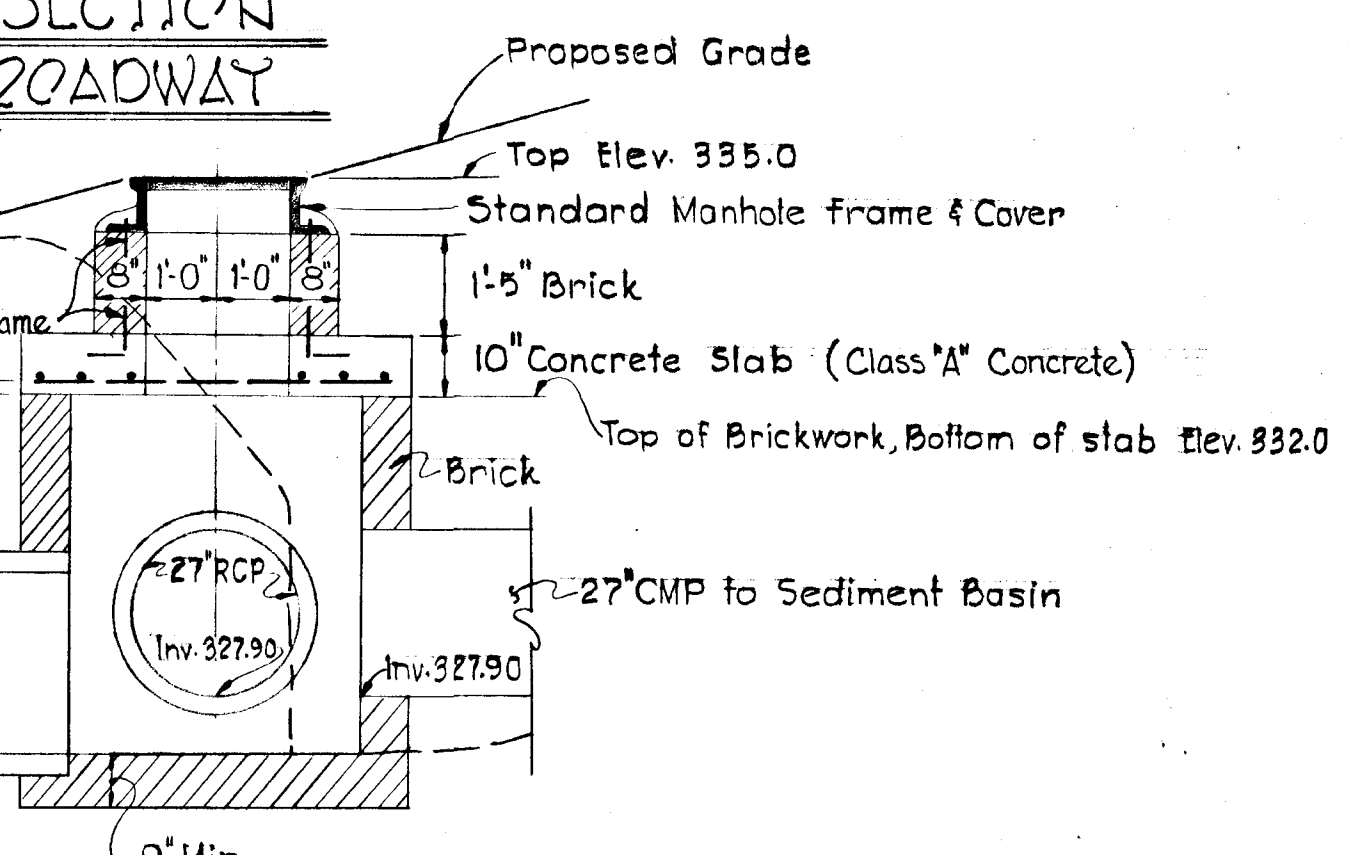
SCALE: 1/4" = 1'-0"



PLAN at Elev. 332.0

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

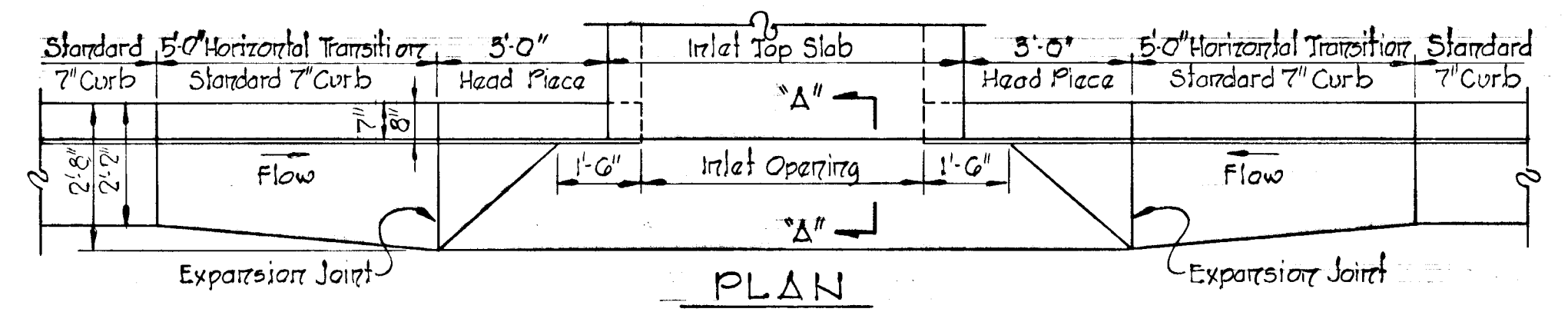
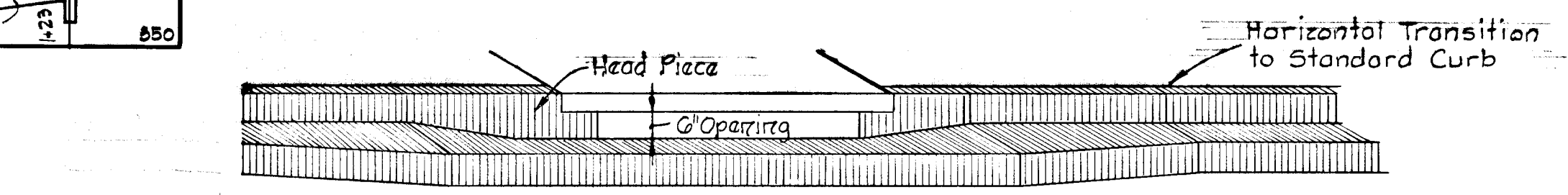
DETAIL - MANHOLE 4



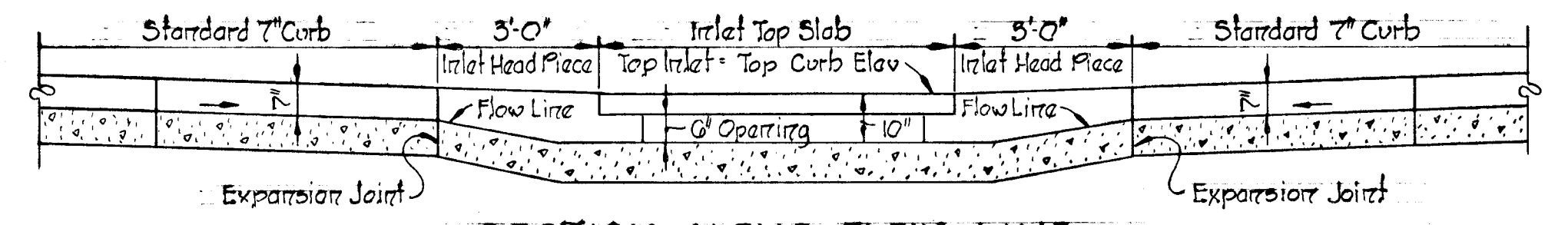
SECTION A-A

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

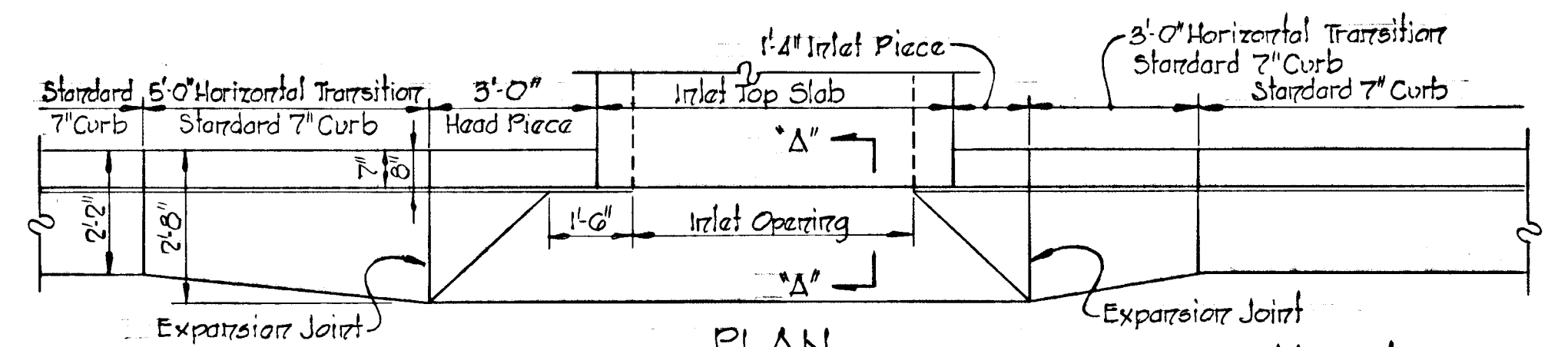
- Note: 1) Remove existing Headwall and approximately 3LF 30" RCP.
 2) 27" CMP to Sediment Basin to be extended to a future system.
 3) Arch brick on edge over crown of all pipes.



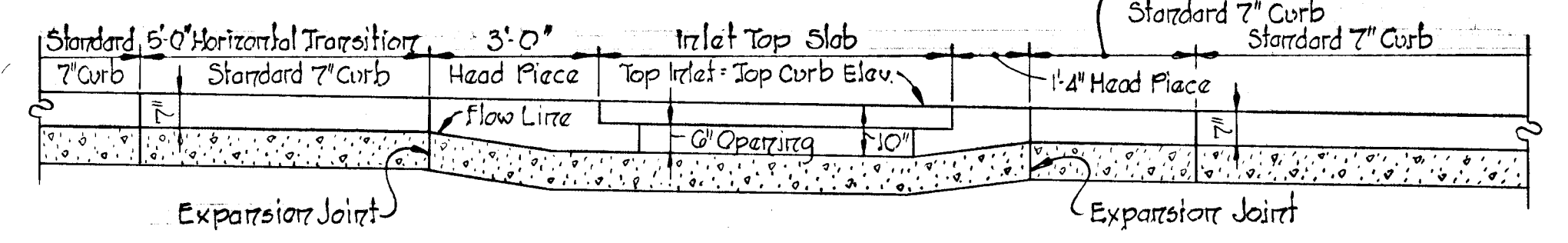
PLAN



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

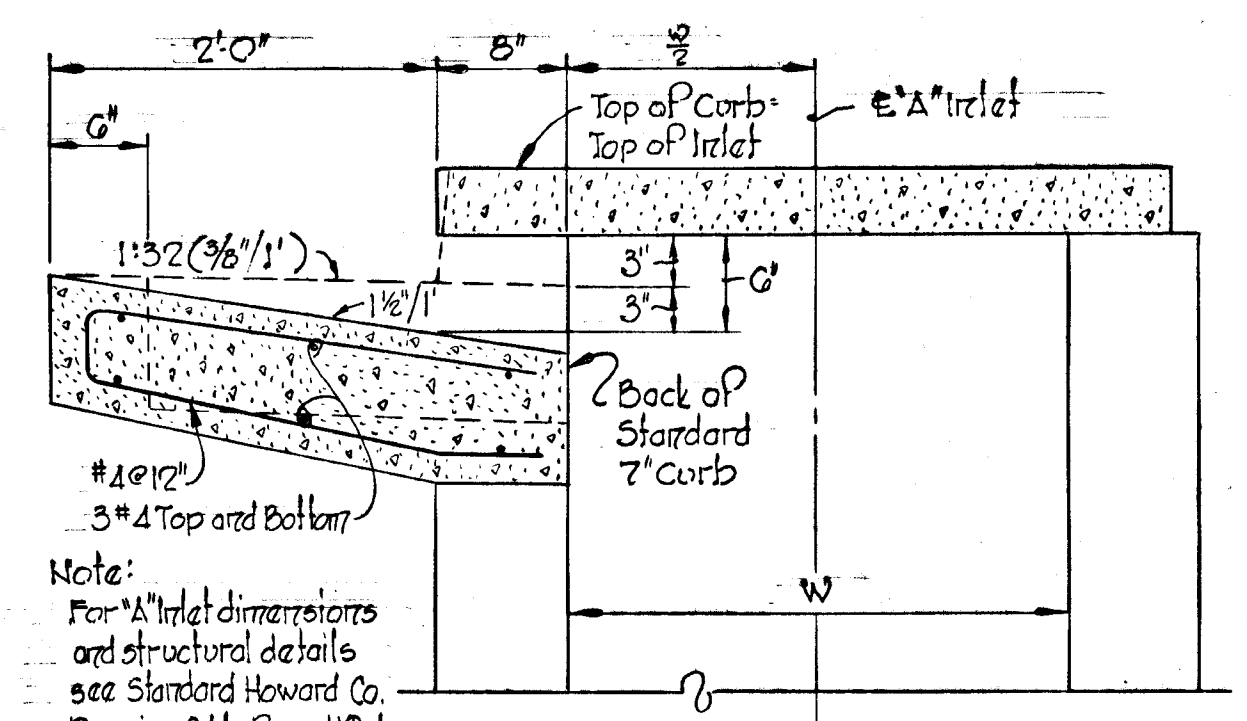


PLAN



SECTION ALONG FLOW LINE
"A" INLETS - STANDARD CURBS

AS-BUILT 6-5-80
 AS-BUILT INFORMATION CERTIFIED BY WALTER PARK, LAND SURVEYOR No. 5539
 AS-BUILT UPDATED 8-17-84



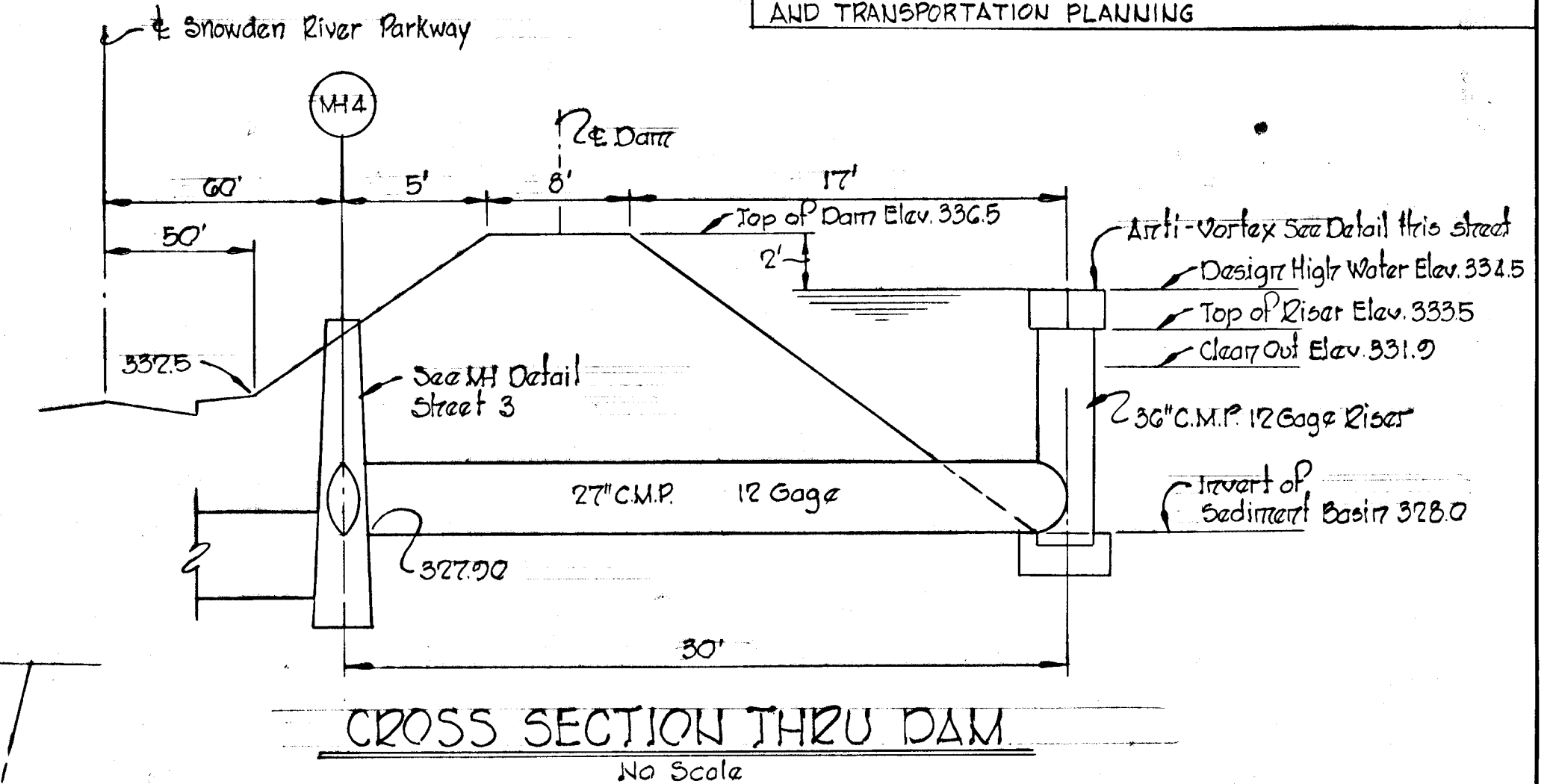
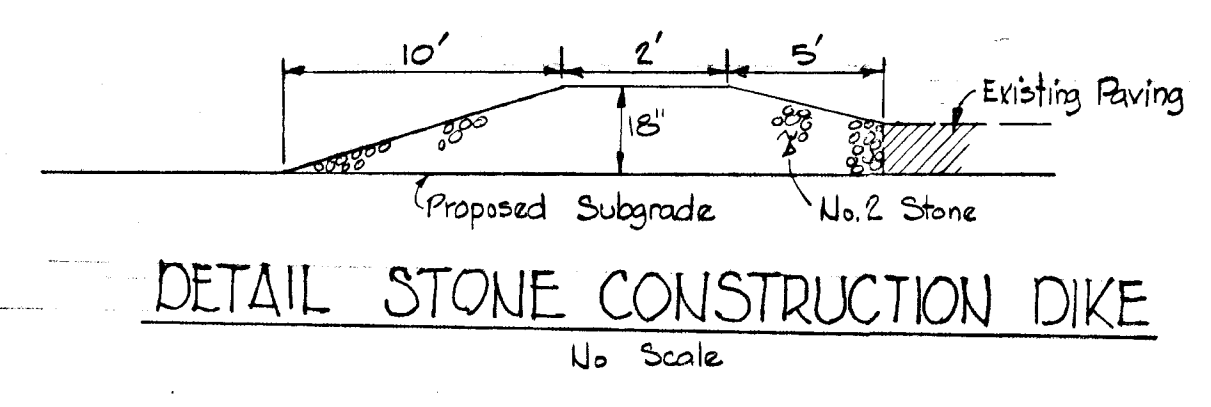
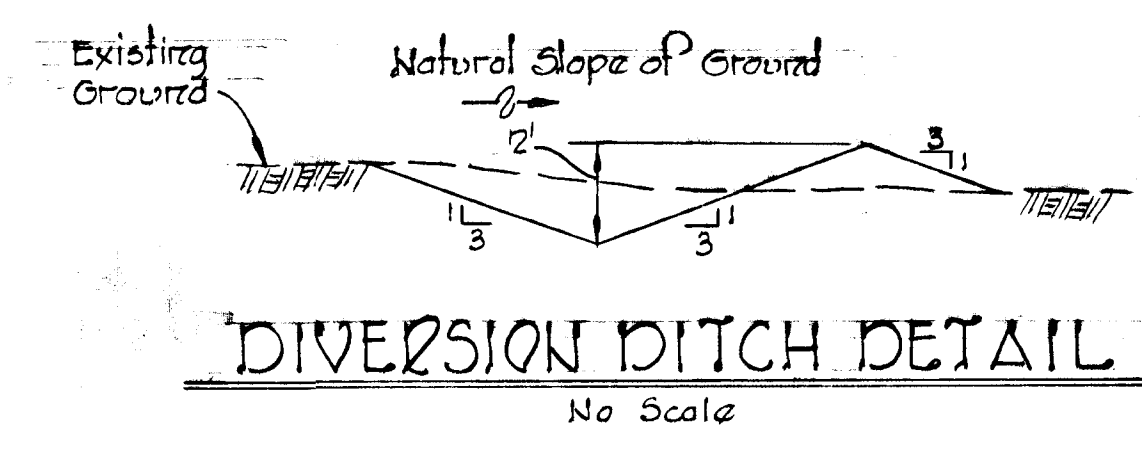
SECTION "A-A"

"A" INLET - STANDARD CURBS

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 2, AREAS 1 & 2 PROJECT STORM DRAIN PROFILES AND DETAILS SCALE: AS SHOWN DATE: May 23, 1974 WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202 <i>Kenneth A. McCord</i> KENNETH A. MCCORD Registered Engineer No. 1974		

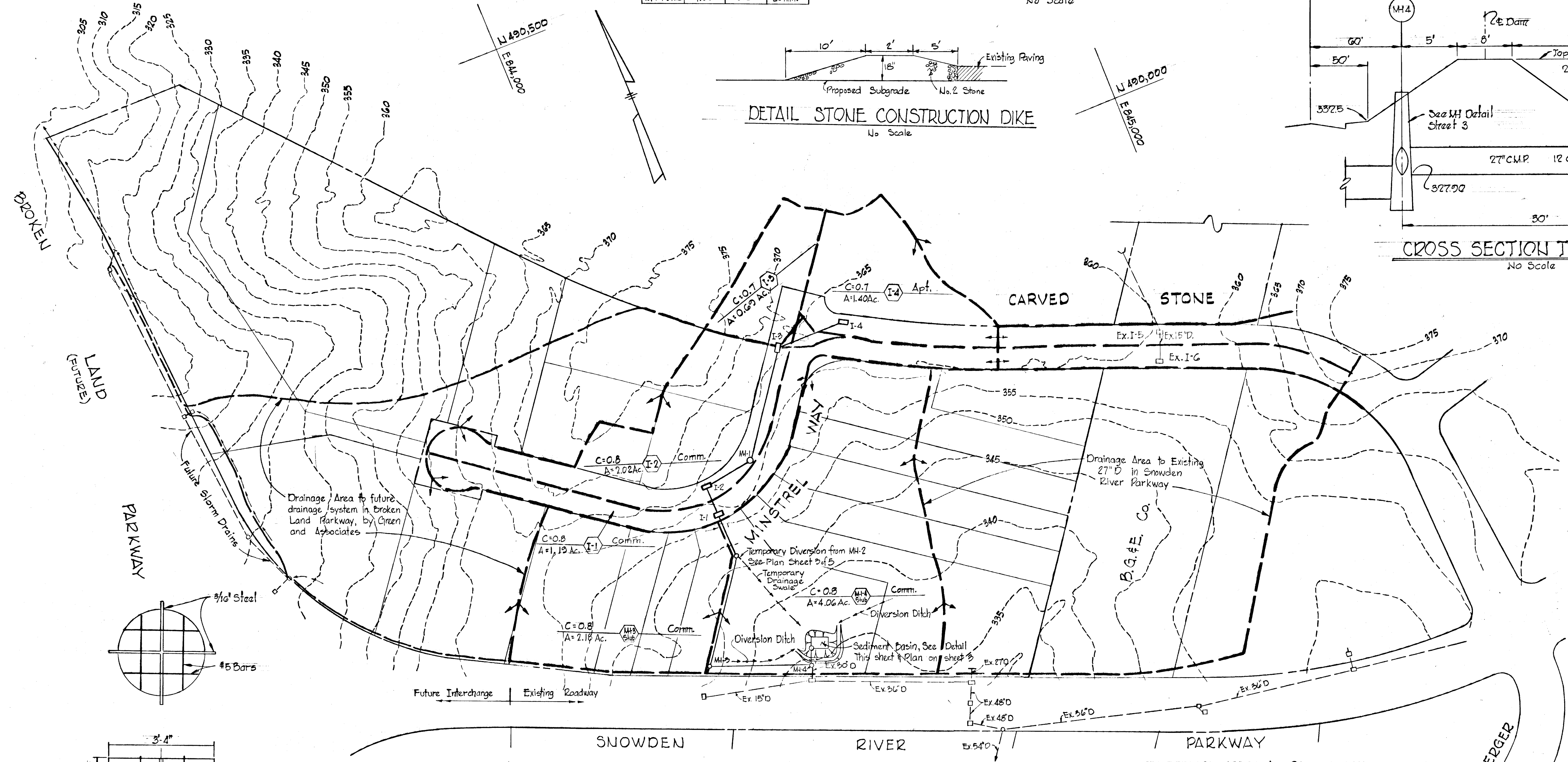
5/31/74
 DATE

Area	Acres	C	Zoning
I-1	1.15	0.8	Comm.
I-2	2.02	0.8	Comm.
I-3	0.69	0.7	Apt.
I-4	1.40	0.7	Apt.
MH-3 Sub	2.18	0.8	Comm.
MH-4 Sub	4.06	0.8	Comm.



SEDIMENT CONTROL NOTES

- All sediment controls must be constructed prior to 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 rye grass (20%), Kentucky bluegrass (20%), and Kentucky 31 fescue (60%) at the rate of 200#/ac. Sow with mechanical spreader, rake minimum of two passes with York Rake, cover and compact with cultipacker. Surface preparation to include ground limestone over topsoil surface area at the rate of 1 1/4 ton/ac. (60#/1000²) commercial fertilizer (5-10-10) at the rate of 3/4 ton/ac. (35#/1000²) super phosphate at the rate of 600#/ac. (15#/1000²)
- Mulch seeded areas with straw at rate of 75#/1000² or 1.5 tons/ac. Anchor with asphalt at rate of 480gal/ac.
- Prior to grading the contractor shall give 24 hours notice to the Howard Soil Conservation District and the Howard County Bureau of Licenses, Inspections and Permits.
- Inlets I-3 and I-4 shall be capped and remain capped until their respective watersheds have been stabilized. See detail this sheet.
- All berms and drainage swales shall be stabilized immediately after construction. See Sed. Control Notes 3 and 4, and Gen. Note 15.
- Provide a temporary storm water diversion at MH-2 as shown on Plan Sheet 5 of 5.
- Provide a stone construction dike on Carved Stone at station 10+29.77. See Sheet 2 of 5.



Rev. Date	Rev. No.	Revision Description

COLUMBIA
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 OWNER AND DEVELOPER
 THE HOWARD RESEARCH AND DEVELOPMENT CORP.

PROJECT AREA
VILLAGE OF OWEN BROWN
 SECTION 2, AREAS 1 & 2

PROJECT TITLE
DRAINAGE AREA MAP AND SEDIMENT CONTROL PLAN

Scale: 1"=100' Date: May 23, 1974

WHITMAN, REQUARDT & ASSOCIATES
 ENGINEERS
 BALTIMORE, MARYLAND 21202

APPROVED
 DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING
 H. H. CLAWSON, JR.
 DATE: 5-30-74
 H. H. CLAWSON, JR.
 Registered Engineer
 No. 1974

CONSTRUCTION SEQUENCE

- Construct Sediment Basin including MH-4, barrel and riser pipes, diversion ditches.
- Install Stone Construction Dike on Carved Stone.
- Construct the storm drain system from MH-4 to MH-2, bulkheading the pipe and providing diversion berms around the excavation after each days work.
- Provide the temporary outlet at MH-2 and bulkhead the pipe to MH-3 at MH-2.
- Construct the temporary swale from MH-2 to the sediment basin.
- Proceed with the remainder of the storm drain and roadway construction.

Note:
 For existing storm drainage in Snowden River Parkway, see Road Construction Drawings "Snowden River Parkway" by Matz, Childs and Assoc.

