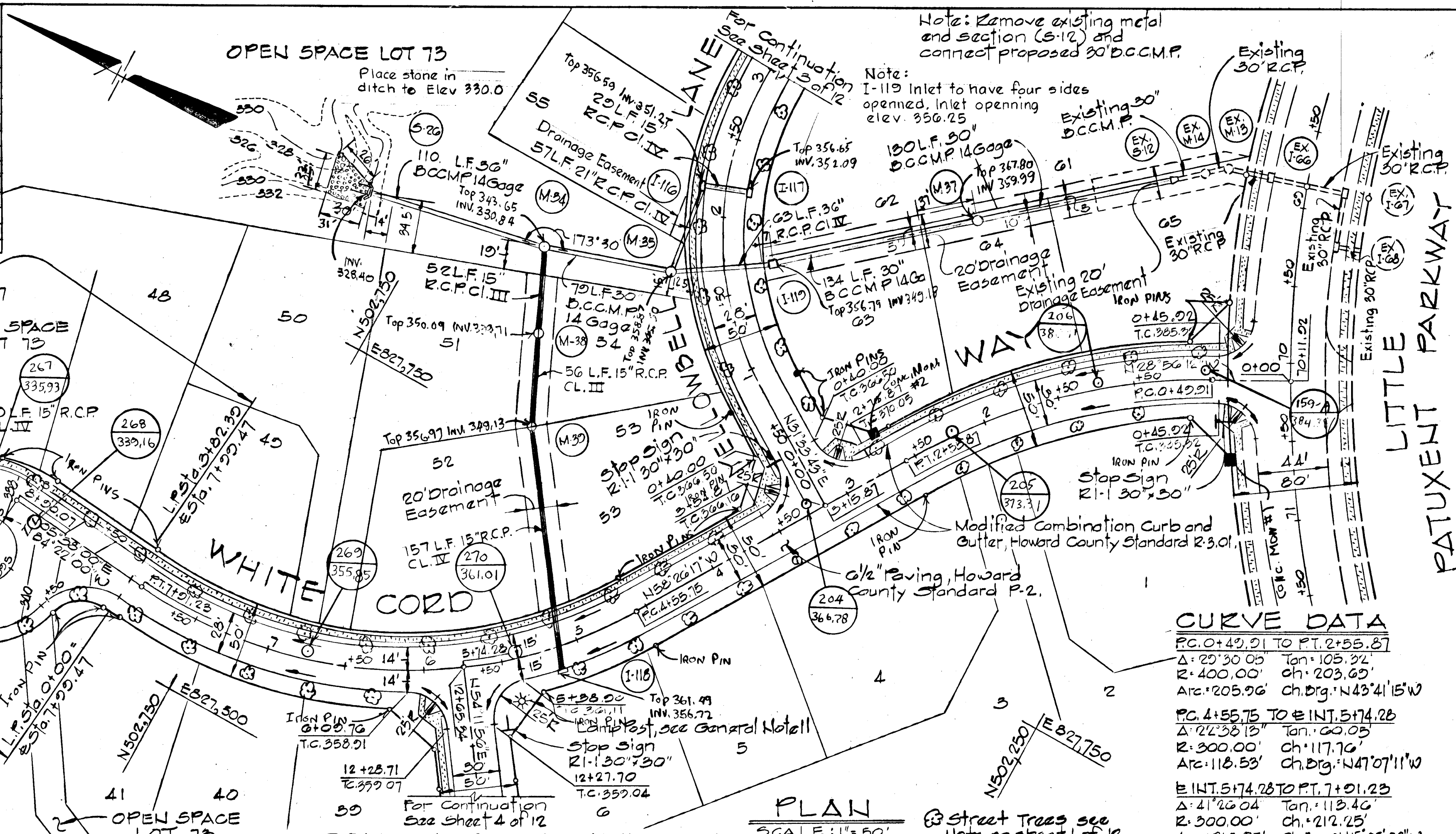
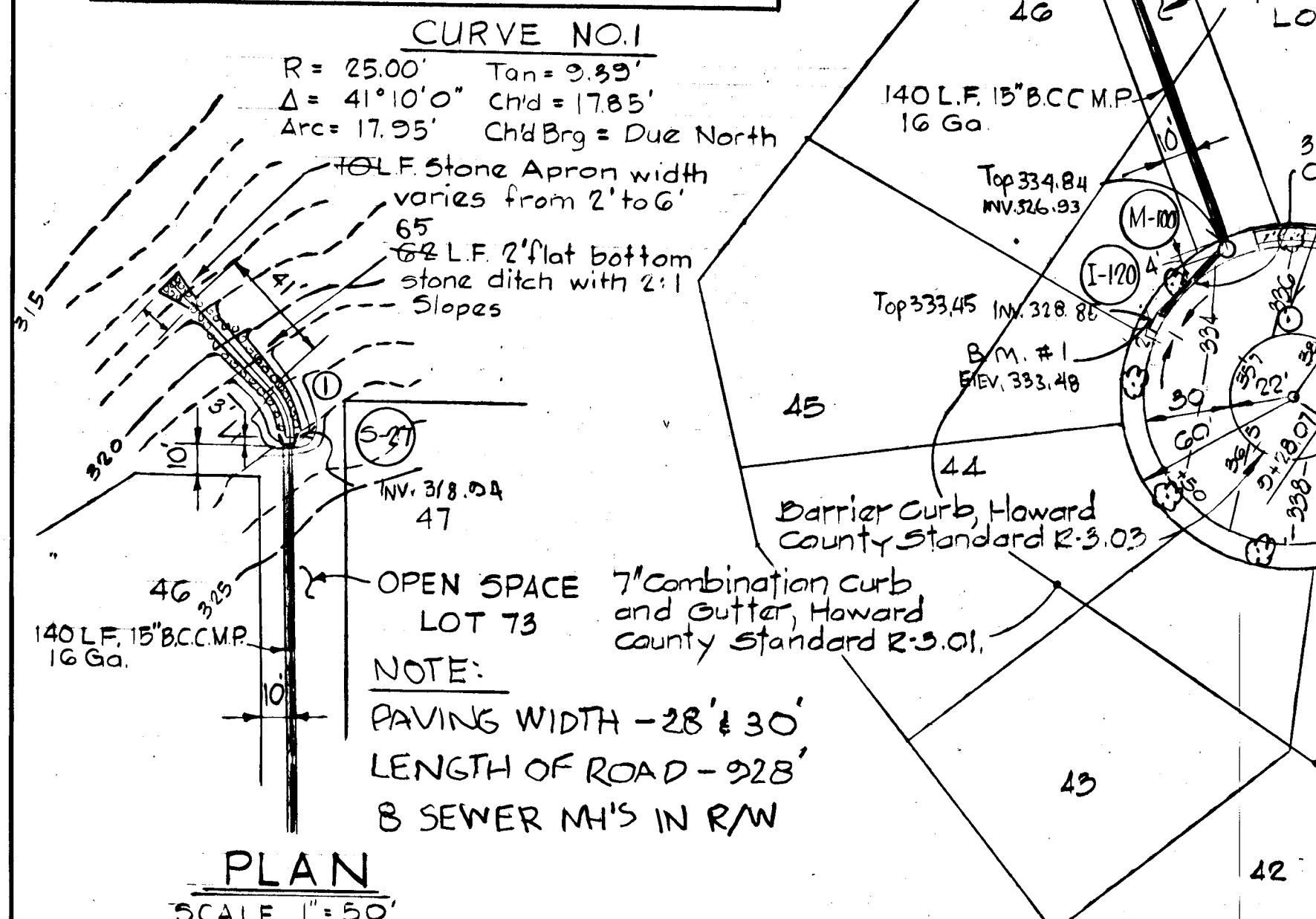


STORM DRAIN STRUCTURE SCHEDULE

NO.	TYPE	TOPEL	INV. IN	INV. OUT	LOCATION
I-116	A-5 Inlet (width 25) 5D 4.01	356.70	351.77	351.27	± Inlet 16.17' Left ± Sta. 2+18.10
I-117	A-5 Inlet (width 25) 5D 4.01	356.70	351.93	351.33	± Inlet 16.92' Right ± Sta. 2+18.10
I-118	A-5 Inlet (width 25) 5D 4.01	351.71	356.94	356.94	± Inlet 16.92' Left ± Sta. 5+14.93
I-119	Type D Inlet	354.11	357.08	350.74	± Inlet 32.00' Right ± Sta. 1+67.89
M-34	Standard Manhole G.5.01	344.00	334.46	330.71	See Plan & Profile
M-35	Standard Manhole G.5.01	355.90	349.02	346.21	± Manhole 33.38' Left ± Sta. 1+64.91
M-36	Standard Manhole G.5.01	368.00	360.71	360.51	See Plan & Profile
M-37	Standard Manhole G.5.01	346.15	341.15	339.90	See Plan & Profile
M-38	Standard Manhole G.5.01	357.25	351.53	349.66	See Plan & Profile
M-39	Type A Headwall 3D 3.11	333.07	328.57	328.51	See Plan & Profile
I-120	A-5 Inlet (width 25) 5D 4.01	333.39	328.85	328.85	± Inlet 11.92' back L.P. Sta. 2+02.23
M-40	Standard Manhole G.5.01	324.60	319.03	319.01	See Plan & Profile
M-41	Standard Manhole G.5.01	324.60	328.67	327.10	See Plan & Profile

*Use dimensions for 18" Headwall

NOTE:
SEE HOWARD COUNTY STANDARD
R504 FOR CUL-DE-SAC CURVE DATA



DEPARTMENT OF PUBLIC WORKS

PC 2000-2 R.S. 12-4-84
 CHIEF, BUREAU OF ENGINEERING DATE
 OFFICE OF PLANNING & ZONING
 John W. Murchman 11-19-84
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE
 AND ZONING ADMINISTRATION

NOTE:
FOR EXISTING LITTLE PATUXENT
 PARKWAY PLAN AND PROFILE, SEE
 CONSTRUCTION DRAWINGS FOR
 VILLAGE OF HICKORY RIDGE
 SECTION 3 AREAS (F 84-51)

REV. DATE	REV. NO.	REVISION DESCRIPTION
12/9/84	2	Added Street Trees
8/16/84	1	As Per D.P.W. E.S.C.S. Comment

COLUMBIA
 5th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

OWNER AND DEVELOPER
 HOWARD RESEARCH AND DEVELOPMENT CORPORATION

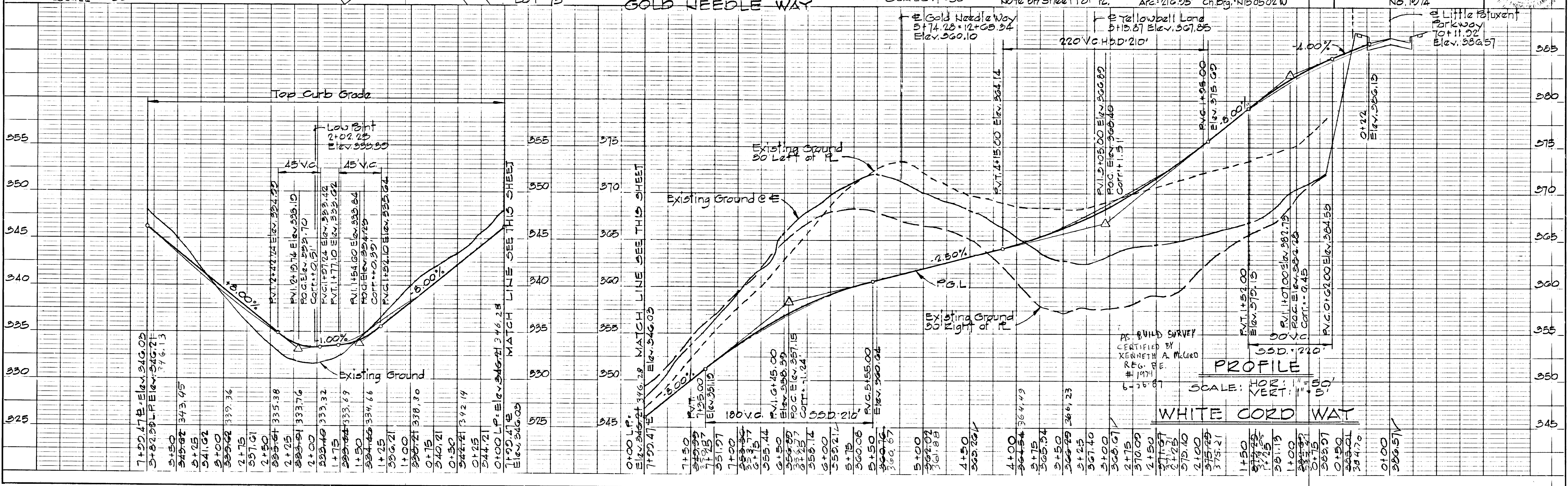
PROJECT AREA
 VILLAGE OF HICKORY RIDGE
 SECTION 3 AREA 7

PROJECT TITLE
 PLAN AND PROFILE
 WHITE CORD WAY

SCALE: AS SHOWN DATE:

WHITMAN, REQUARDT AND ASSOCIATES
 ENGINEERS
 BALTIMORE, MARYLAND 21218

Kenneth A. McCord
 KENNETH A. MCCORD
 Registered Engineer
 No. 10774



11-20-84
 CHIEF, BUREAU OF ENGINEERING DATE
 OFFICE OF PLANNING & ZONING
 John W. Woodman
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE
 AND ZONING ADMINISTRATION

NOTE: FOR EXISTING LITTLE PATUXENT PARKWAY PLAN AND PROFILE, SEE CONSTRUCTION DRAWINGS FOR VILLAGE OF HICKORY RIDGE SECTION 3 AREA 5 (F84-51). FOR EXISTING S-14 STORM DRAIN SYSTEM SEE VILLAGE OF HICKORY RIDGE SECTION 3 AREA 5 (F84-29).

DATE	REV. NO.	REVISION DESCRIPTION
12/5/84	2	Added Street Trees.
8/10/84	1	As P&D, P.W. & S.C.S. Comments

COLUMBIA
 5th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

OWNER AND DEVELOPER
 HOWARD RESEARCH AND DEVELOPMENT CORPORATION

PROJECT AREA
 VILLAGE OF HICKORY RIDGE
 SECTION 3 AREA 7

PROJECT TITLE
 PLAN AND PROFILE
 YELLOWBELL LAKE AND
 PRIVATE ROAD

SCALE: AS SHOWN DATE:

WHITMAN, REQUARDT AND ASSOCIATES
 ENGINEERS
 BALTIMORE, MARYLAND 21218

Kenneth A. McCord
 KENNETH A. MCCORD
 Registered Engineer
 No. 1074

NOTE:
 PAVING WIDTH - 28'
 LENGTH OF ROAD - 431'
 3 SEWER M/S IN ROAD R/W

NOTE:
 SEE HOWARD COUNTY STANDARD
 R-3.04 FOR CUL-DE-SAC CURVE DATA.

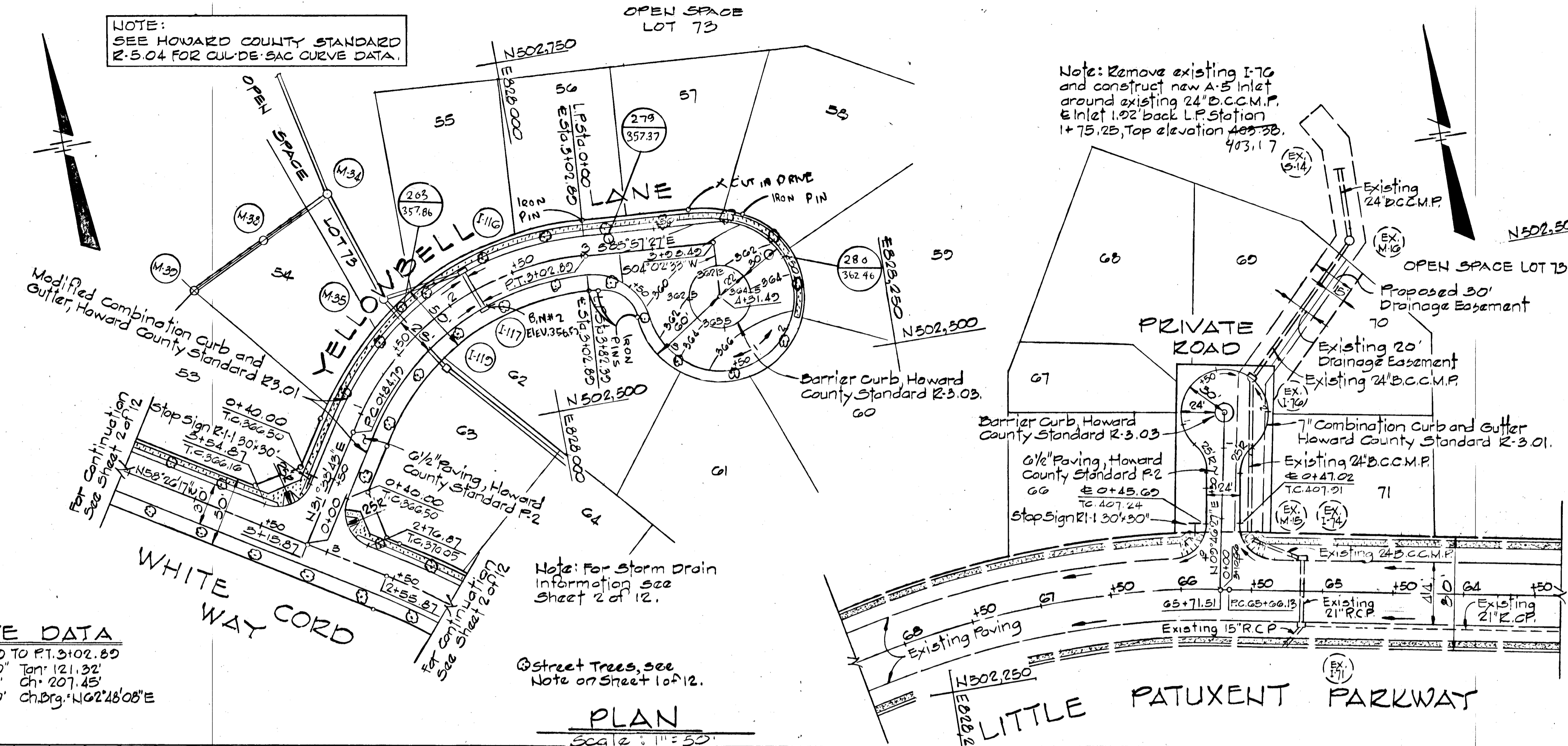
Note: Remove existing I-76
 and construct new A-5 Inlet
 around existing 24" B.C.C.M.P.
 & Inlet 1.02' back L.P. Station
 1+75.25, Top elevation 405.38,
 403.17

DATE	BY

PLAN	NO.

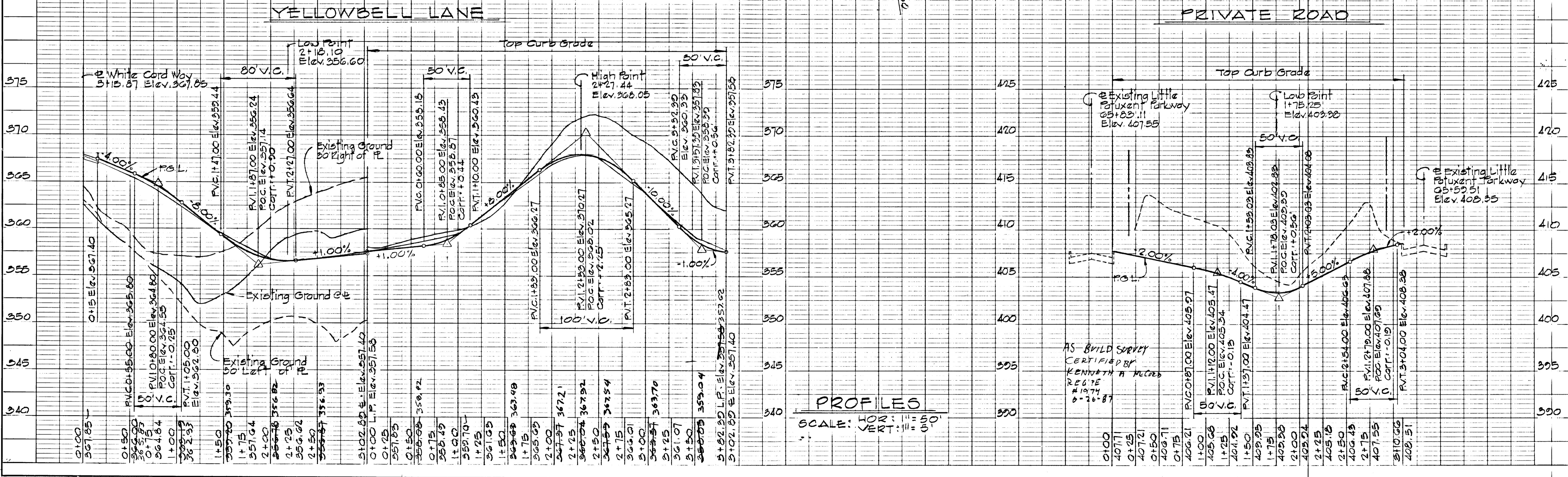
DATE	BY

PROFILE	NO.



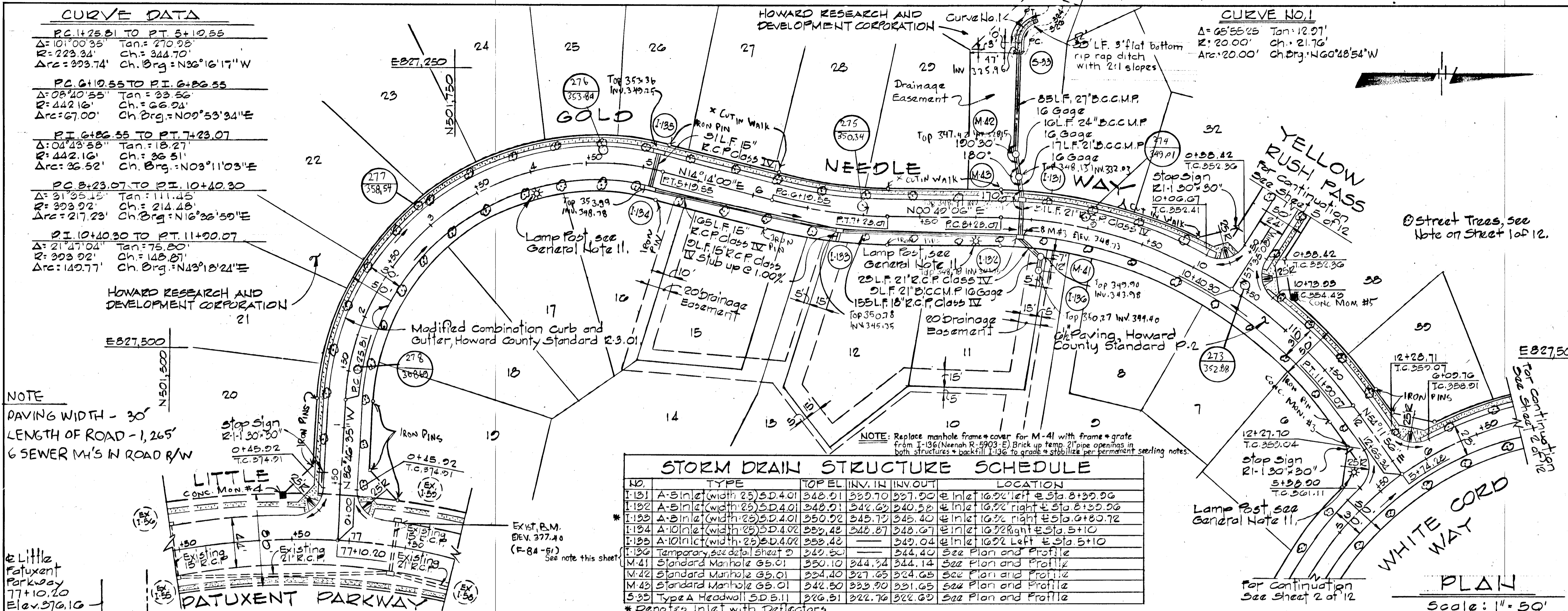
CURVE DATA
 PC: 0+84.79 TO PT: 3+02.89
 Δ: 92°28'50" Tan: 121.32'
 R: 200.00' Ch: 207.45'
 Arc: 218.10' Ch. Brg: N62°48'08"E

PLAN
 Scale: 1" = 30'



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

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CURVE DATA

PC 14+25.51 TO PT 5+10.55
 $\Delta = 101^{\circ}00'35''$ Tan = 270.93
 $R = 223.34'$ Ch = 344.70'
 $\text{Arc} = 393.74'$ Ch. Brg = $N36^{\circ}16'17''W$

PC 6+10.55 TO PT 6+26.55
 $\Delta = 08^{\circ}10'55''$ Tan = 33.56
 $R = 442.16'$ Ch = 66.24'
 $\text{Arc} = 67.00'$ Ch. Brg = $N09^{\circ}53'34''E$

PT 6+26.55 TO PT 7+23.07
 $\Delta = 04^{\circ}43'58''$ Tan = 118.27
 $R = 442.16'$ Ch = 66.24'
 $\text{Arc} = 36.52'$ Ch. Brg = $N03^{\circ}11'03''E$

PC 8+23.07 TO PT 10+40.30
 $\Delta = 21^{\circ}35'12''$ Tan = 111.45
 $R = 393.92'$ Ch = 145.21'
 $\text{Arc} = 217.23'$ Ch. Brg = $N16^{\circ}26'59''E$

PT 10+40.30 TO PT 11+00.07
 $\Delta = 21^{\circ}47'02''$ Tan = 75.20
 $R = 393.92'$ Ch = 145.21'
 $\text{Arc} = 149.77'$ Ch. Brg = $N43^{\circ}18'24''E$

CURVE NO. 1

$\Delta = 65^{\circ}55'25''$ Tan = 12.91'
 $R = 20.00'$ Ch = 21.76'
 $\text{Arc} = 20.00'$ Ch. Brg = $N60^{\circ}48'54''W$

NOTE
 PAVING WIDTH - 30'
 LENGTH OF ROAD - 1,265'
 6 SEWER MH'S IN ROAD R/W

STORM DRAIN STRUCTURE SCHEDULE

NO.	TYPE	TOP EL.	IN. IN	IN. OUT	LOCATION
I-131	A-10 Inlet (width 23) S.D. 4.01	348.51	339.70	337.50	Inlet 100% left E Sta 8+39.96
I-132	A-10 Inlet (width 23) S.D. 4.01	348.51	342.62	340.52	Inlet 100% right E Sta 8+39.96
I-133	A-10 Inlet (width 23) S.D. 4.01	350.92	345.72	345.40	Inlet 100% right E Sta 9+18.72
I-134	A-10 Inlet (width 23) S.D. 4.01	352.48	348.87	348.67	Inlet 100% right E Sta 5+10
I-135	A-10 Inlet (width 23) S.D. 4.01	353.42	349.04	349.04	Inlet 100% left E Sta 5+10
M-41	Temporary, see detail sheet 2	349.50	344.40	344.40	See Plan and Profile
M-42	Standard Manhole 65.01	350.10	344.24	344.14	See Plan and Profile
M-43	Standard Manhole 65.01	354.40	327.65	324.65	See Plan and Profile
M-43	Standard Manhole 65.01	346.50	323.90	321.65	See Plan and Profile
S-33	Type A Headwall S.D. 5.11	326.51	322.76	322.60	See Plan and Profile

* Denotes inlet with Deflectors

DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF ENGINEERING DATE
 OFFICE OF PLANNING & ZONING
 John W. Munchman 11-20-84
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE
 AND ZONING ADMINISTRATION

NOTE:
 FOR EXISTING LITTLE PATUXENT
 PARKWAY PLAN AND PROFILE, SEE
 CONSTRUCTION DRAWINGS FOR
 VILLAGE OF HICKORY RIDGE
 SECTION 3 AREA 5 (F-84-51)

REV. DATE	REV. NO.	REVISION DESCRIPTION
11/6/87	3	Convert M-41 to Yard Inlet
12/3/84	2	Added Street Trees
8/16/84	1	As Per D.F.W. E.S.G.S. Comments

COLUMBIA
 5th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

OWNER AND DEVELOPER
 HOWARD RESEARCH AND DEVELOPMENT CORPORATION

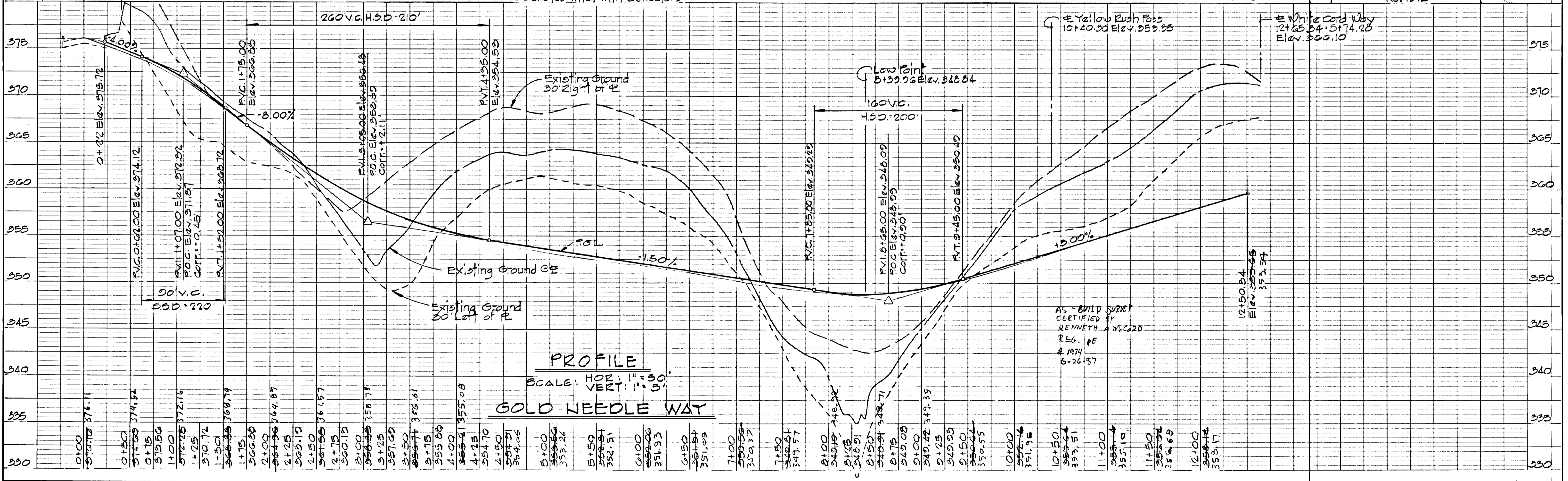
PROJECT AREA
 VILLAGE OF HICKORY RIDGE
 SECTION 3 AREA 7

PROJECT TITLE
 PLAN AND PROFILE
 STA. 0+00 TO STA. 12+65.34

SCALE: AS SHOWN DATE:

WHITMAN, REQUARDT AND ASSOCIATES
 ENGINEERS
 BALTIMORE, MARYLAND 21218

Kenneth A. McCord
 Registered Engineer
 No. 1974



PROFILE
 SCALE: HOR: 1" = 50'
 VERT: 1" = 5'
GOLD NEEDLE WAY

AS-BUILD SURVEY
 CERTIFIED BY
 KENNETH A. MCCORD
 REG. P.E.
 # 1974
 6-26-87

DATE: _____ BY: _____

PLAN

REVISIONS

NO. DATE BY DESCRIPTION

DATE: _____ BY: _____

PROFILE

REVISIONS

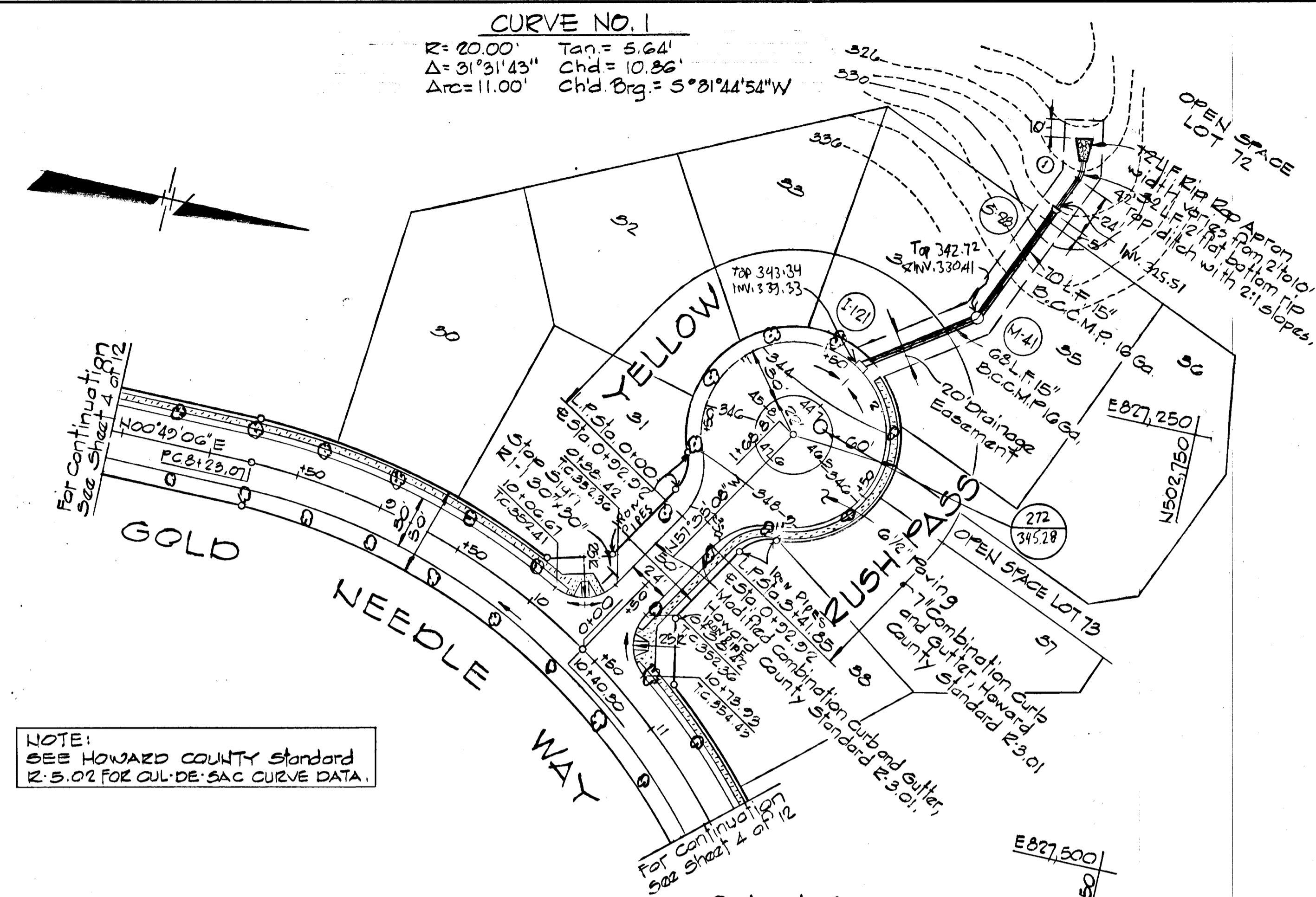
NO. DATE BY DESCRIPTION

DEPARTMENT OF PUBLIC WORKS
Kearin & Reay 12.4.
 CHIEF, BUREAU OF ENGINEERING DATE
 OFFICE OF PLANNING & ZONING
Schulz-Mueselman 11-20-84
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE
 AND ZONING ADMINISTRATION

STORM DRAIN STRUCTURE SCHEDULE					
NO.	TYPE	TOP EL.	INV. IN	INV. OUT	LOCATION
1-121	A-2 Inlet (width 2.5) S.D. 4.01	343.77	—	330.33	Inlet 1.02' back L.P. Sta. 1+70.02
M-41	Standard Manhole 6 5.01	337.21	331.77	330.49	See Plan and Profile
5-28	Type 'A' Headwall S.D. 5.11	325.51	325.51	325.49	See Plan and Profile

*Use dimensions for 18" Headwall

NOTE:
 PAVING WIDTH - 24'
 LENGTH OF ROAD - 163'
 1 SEWER MH IN ROAD R/W



REV/DATE	REV. NO.	REVISION DESCRIPTION
12/3/84	2	Added Street Trees
8/16/84	1	As Per DPW & S.C.S. Comments

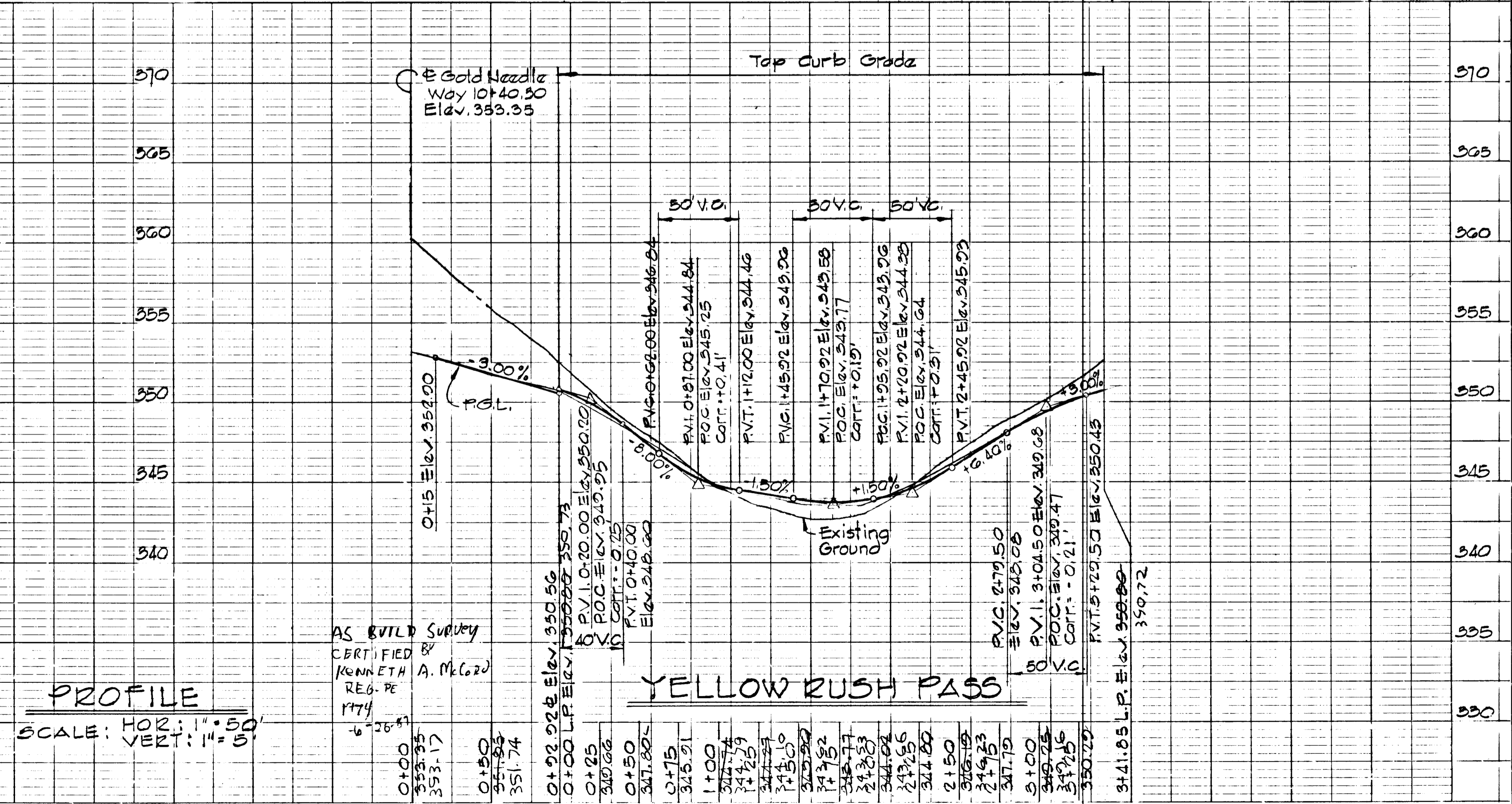
COLUMBIA
 5th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

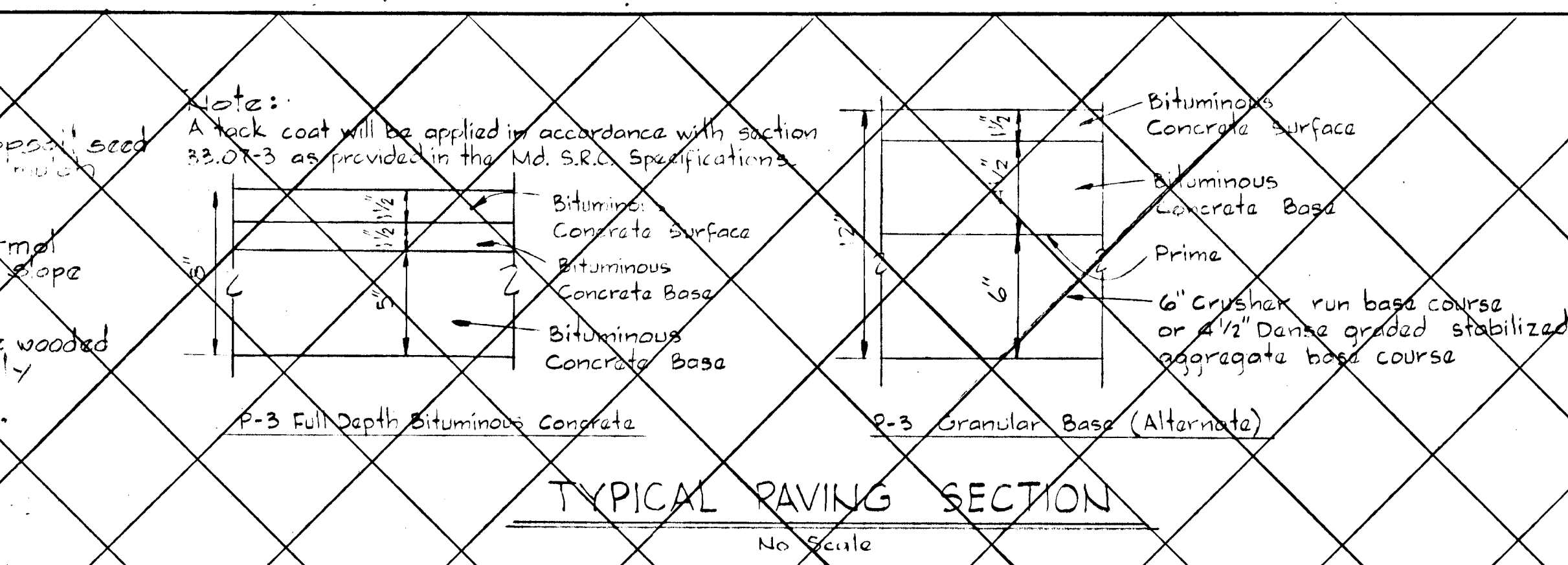
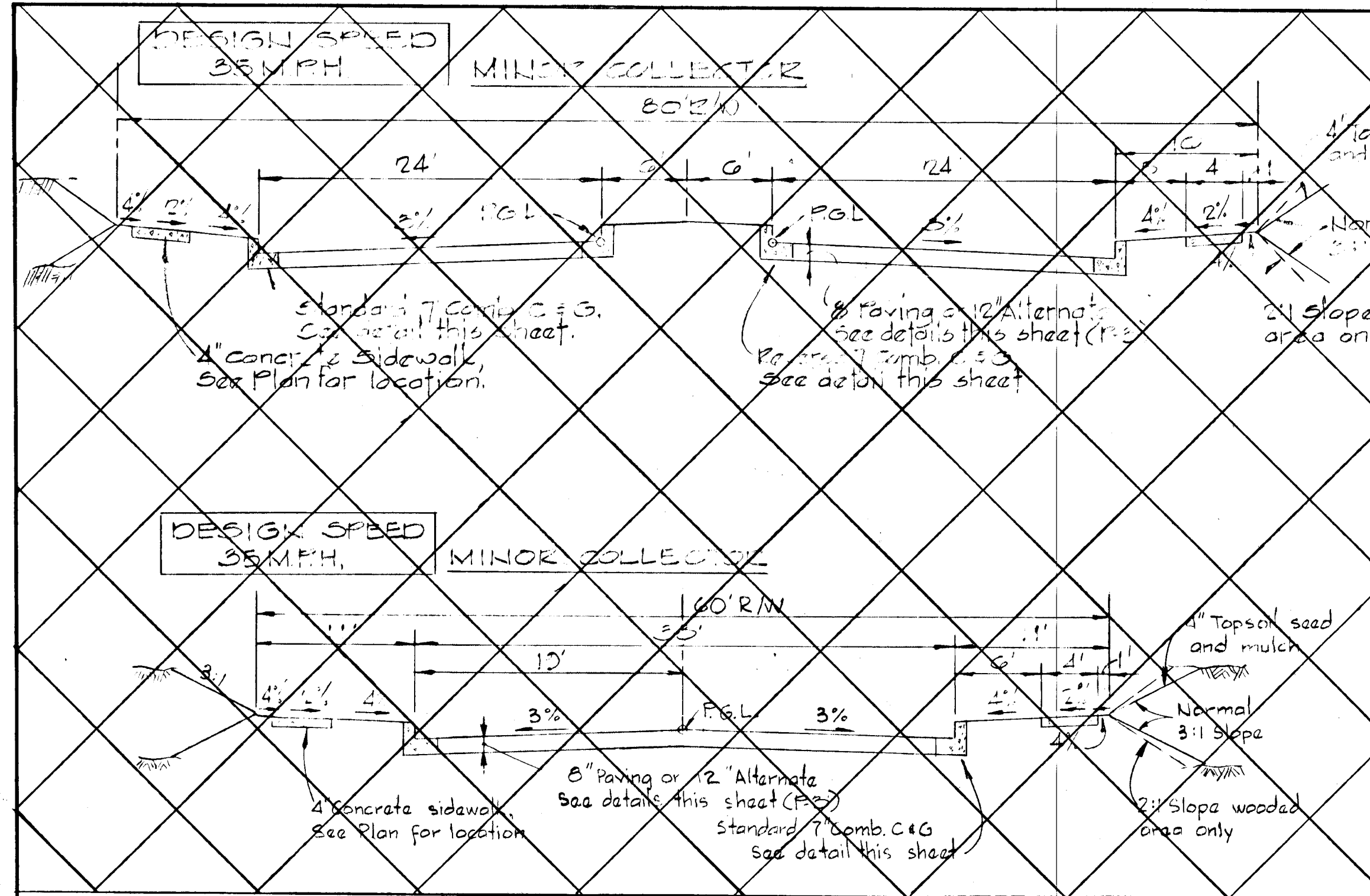
OWNER AND DEVELOPER
 HOWARD RESEARCH AND DEVELOPMENT CORPORATION
 PROJECT AREA
 VILLAGE OF HICKORY RIDGE
 SECTION 3 AREA 7

PROJECT TITLE
 PLAN AND PROFILE
 YELLOW RUSH PASS

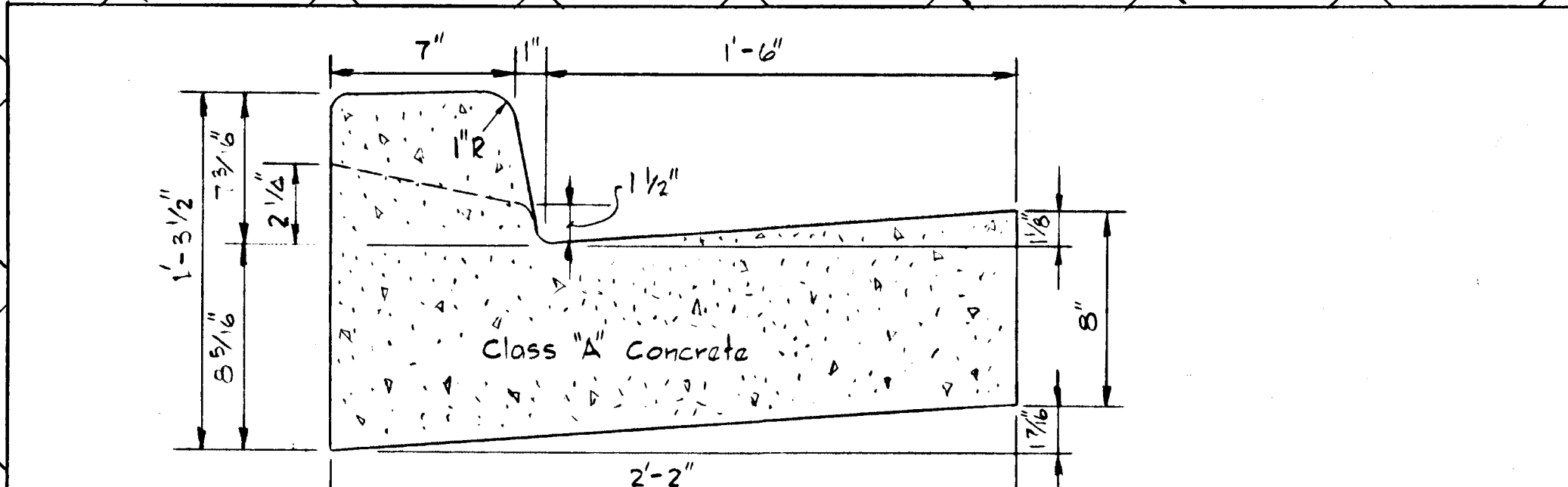
SCALE: AS SHOWN DATE:
 WHITMAN, REQUARDT AND ASSOCIATES
 ENGINEERS
 BALTIMORE, MARYLAND 21215

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

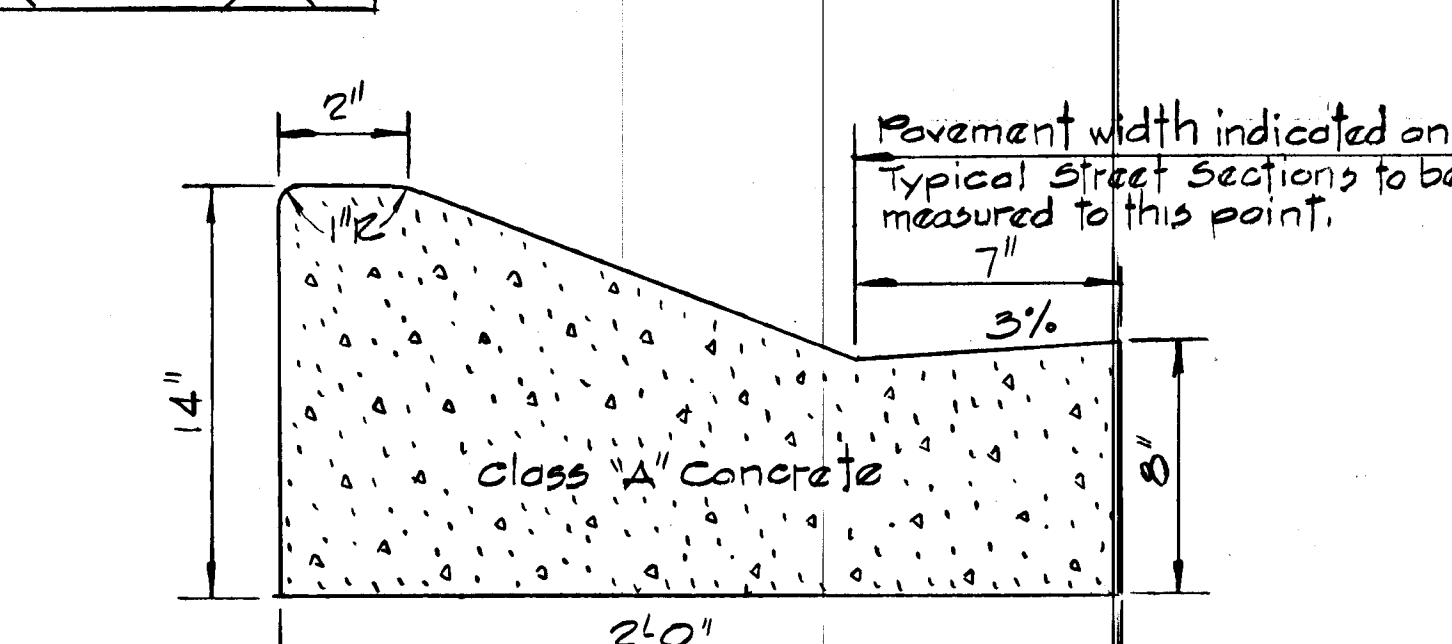




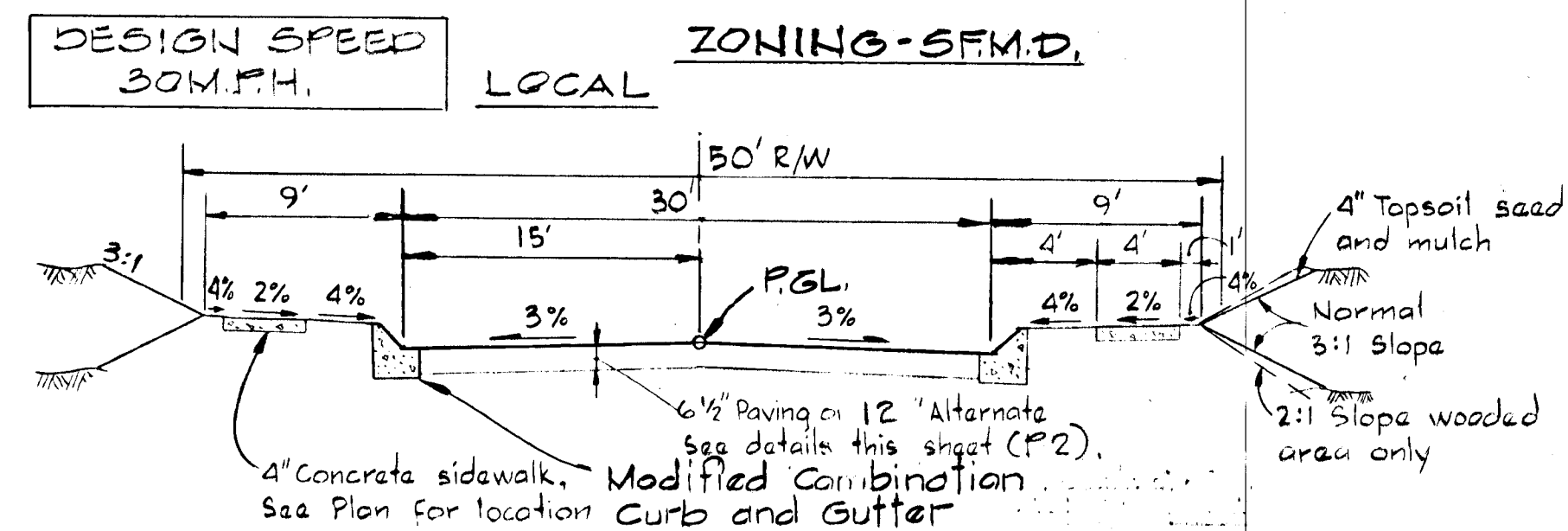
TYPICAL PAVING SECTION
No Scale



STANDARD 7" COMBINATION CURB & GUTTER
No Scale

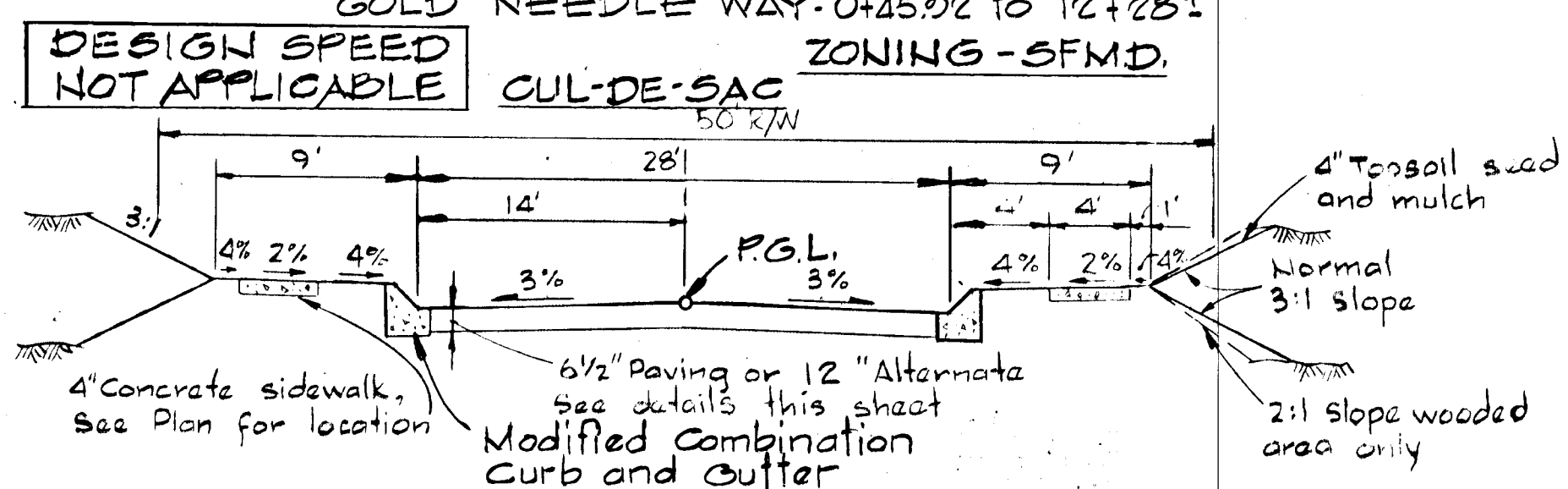


MODIFIED COMBINATION CURB & GUTTER
No Scale



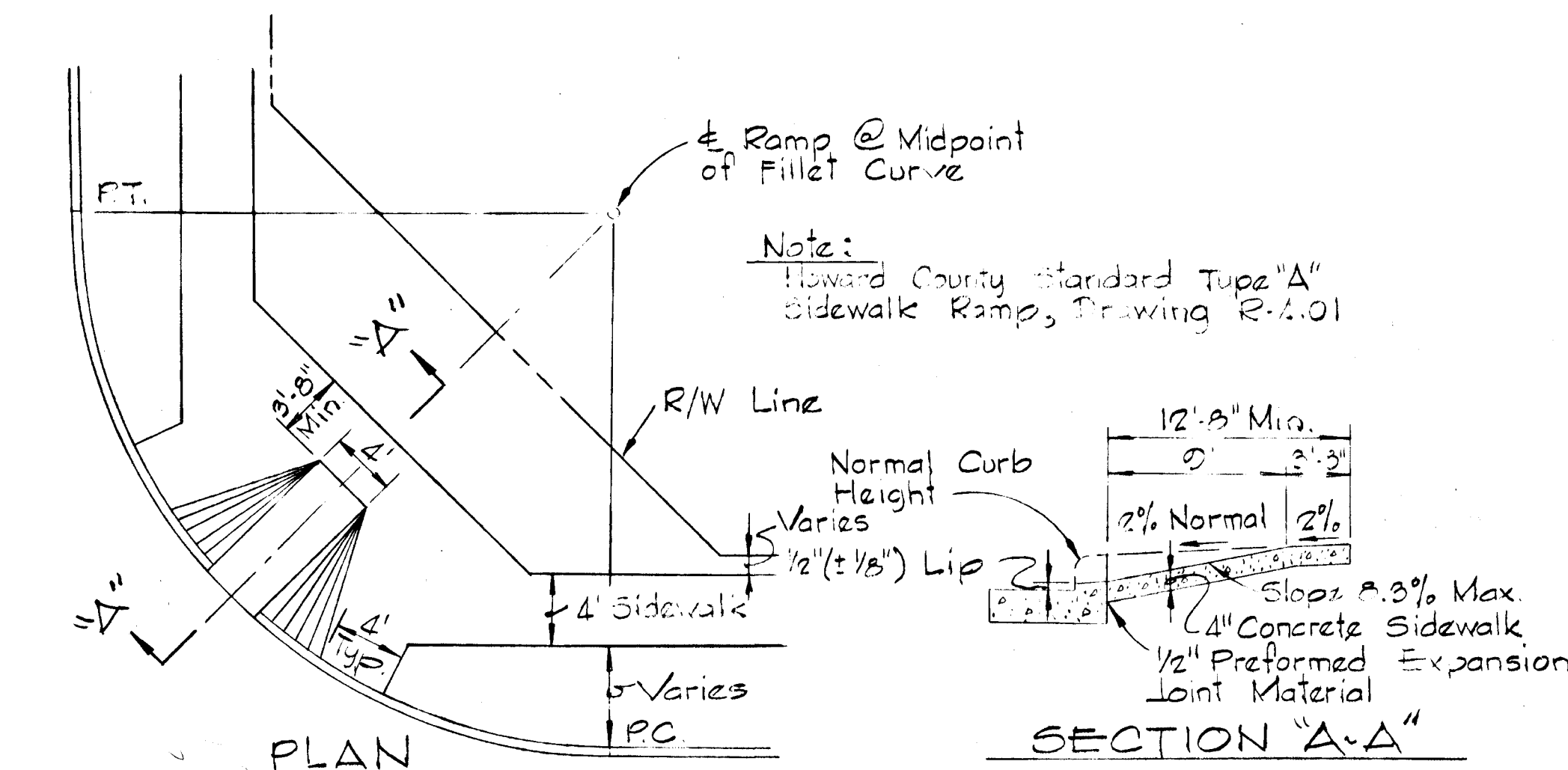
TYPICAL SECTION
No Scale

WHITE CORD WAY - 0+45.02 to 5+33.00
 GOLD NEEDLE WAY - 0+45.02 to 12+28.1

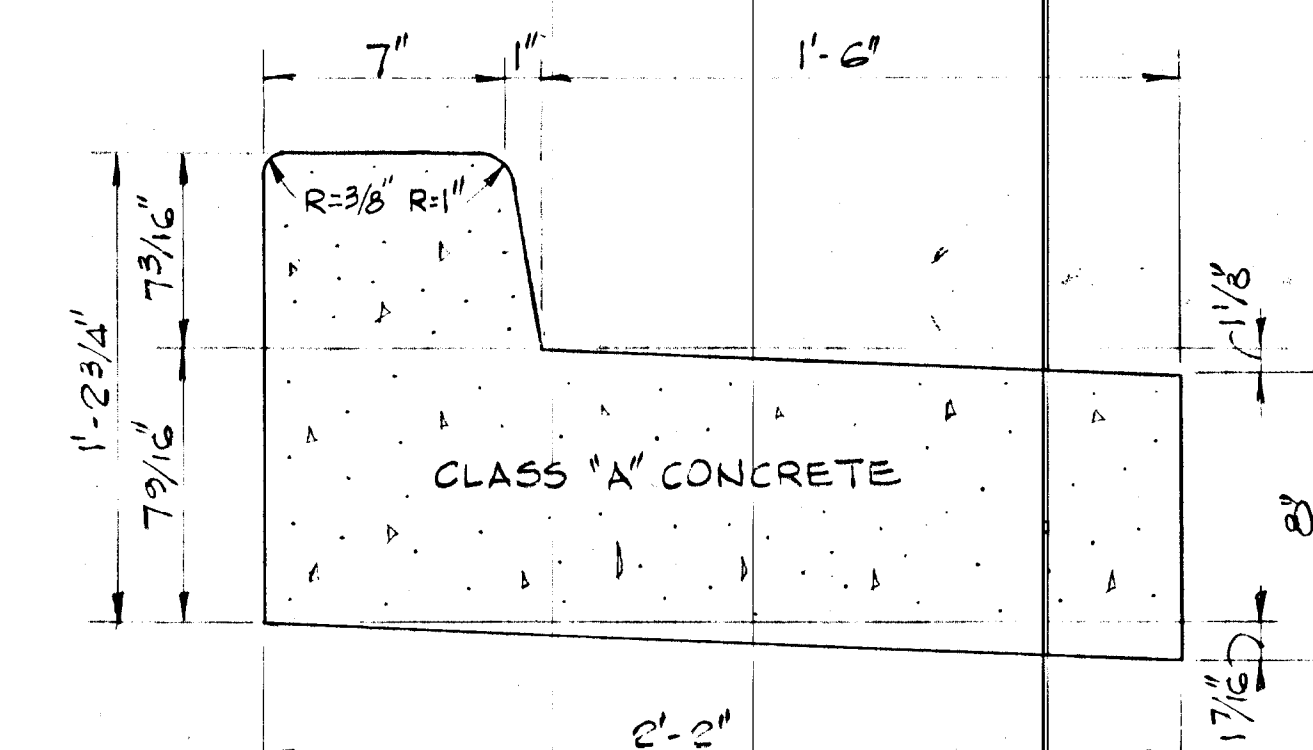


TYPICAL SECTION
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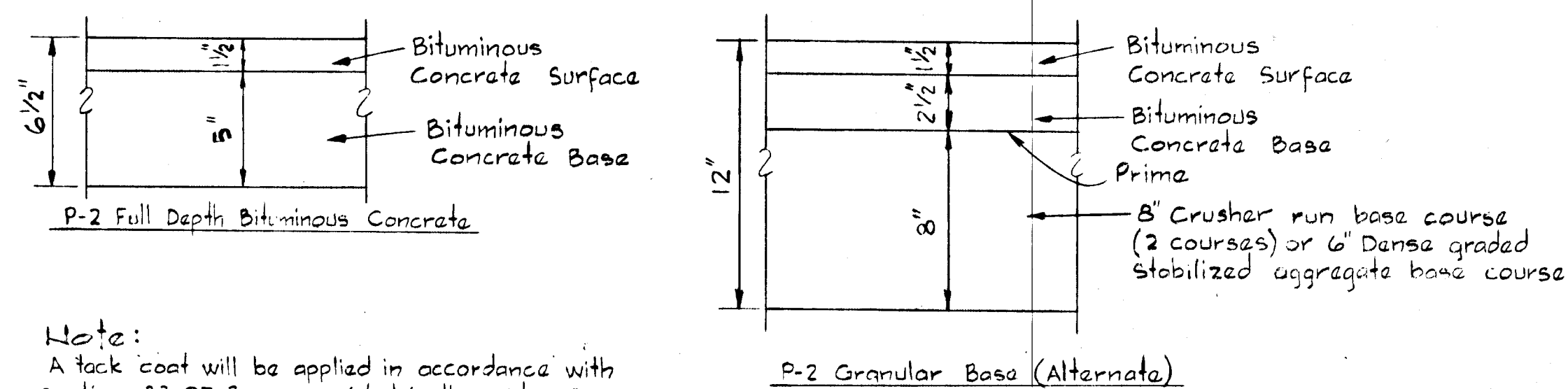
WHITE CORD WAY - 6+00.76 to 7+00.47
 YELLOWBELL LANE - 0+40 to 3+02.80



WHEEL CHAIR RAMP DETAIL
No Scale

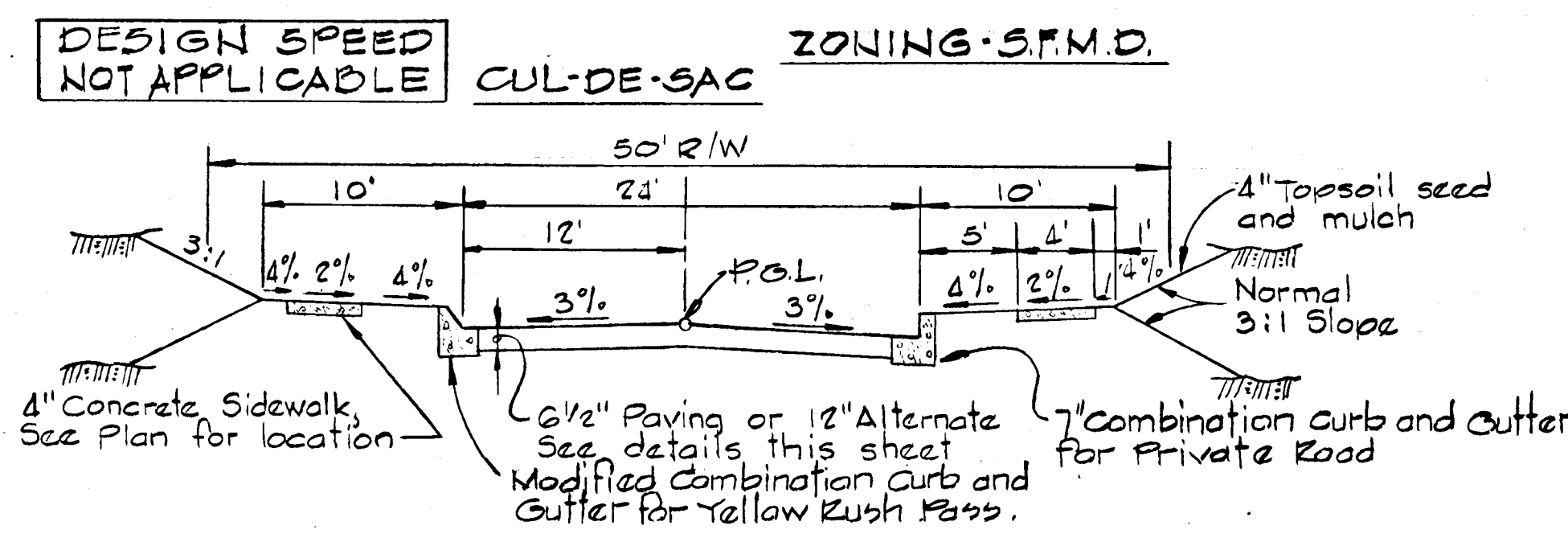


REVERSE 7" COMBINATION CURB & GUTTER
No Scale



Note:
 A tack coat will be applied in accordance with section 33.07-3 as provided in the Md. S.R.C. Specifications.

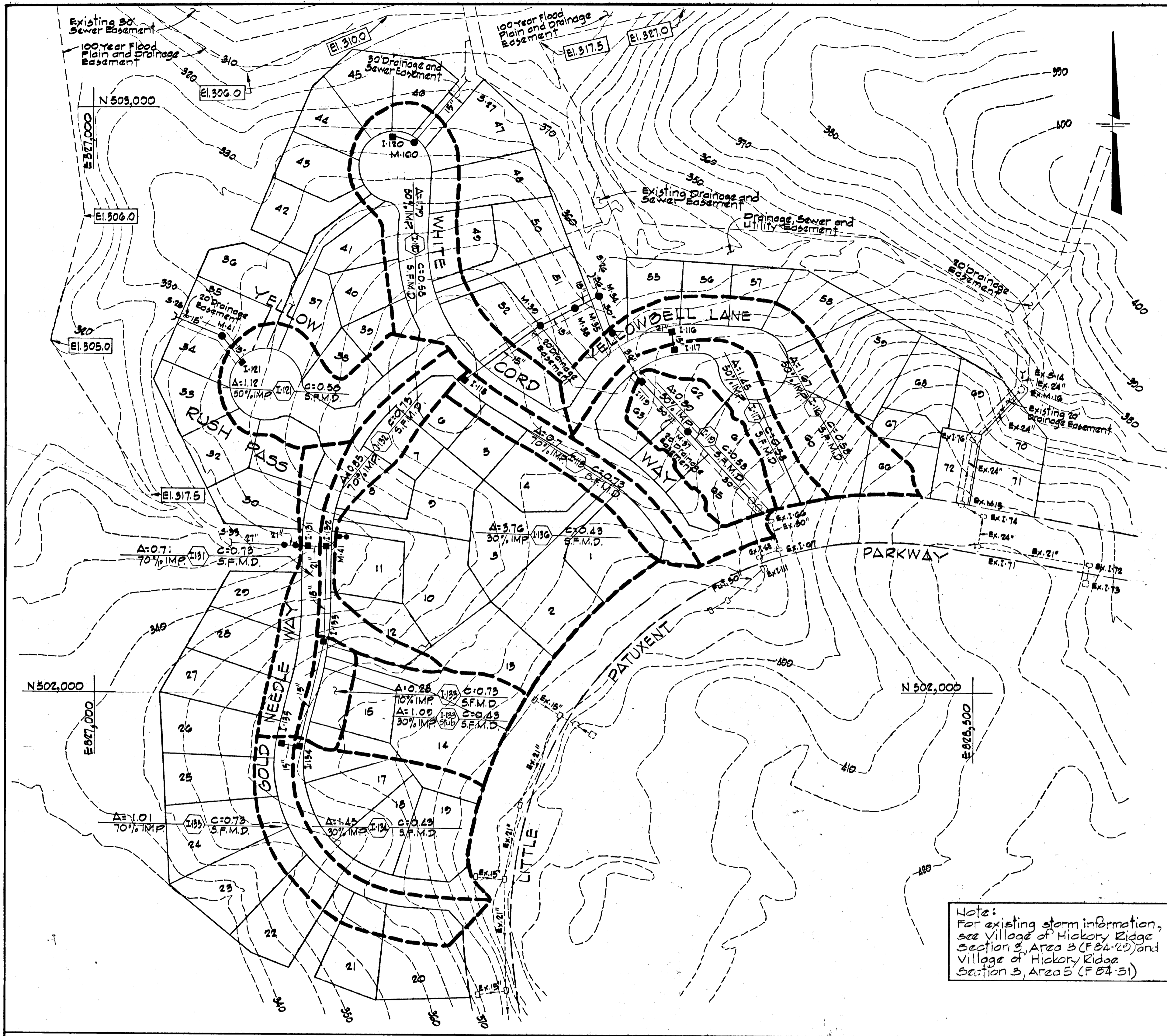
TYPICAL PAVING SECTION
No Scale



TYPICAL SECTION
No Scale

YELLOW RUSH PASS - 0+33.42 to 0+02.02
 PRIVATE ROAD - 0+45± to 0+82±

8/16/84	1	As Per D.P.W. & S.C.S. Comments
REV. DATE	REV. NO.	REVISION DESCRIPTION
COLUMBIA 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND OWNER AND DEVELOPER THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION THE ROUSE BUILDING COLUMBIA, MARYLAND 21144		
PROJECT AREA VILLAGE OF HICKORY RIDGE SECTION 3 AREA 7		
PROJECT TITLE ROADWAY DETAILS		
SCALE: AS SHOWN	DATE	
WHITMAN, REQUARDT AND ASSOCIATES ENGINEERS 2315 ST. PAUL STREET BALTIMORE, MARYLAND 21218		
<i>Kenneth A. McCord</i> KENNETH A. McCORD Registered Engineer No. 1974		



Note:
 For existing storm information,
 see Village of Hickory Ridge
 Section 3, Area 3 (F84-23) and
 Village of Hickory Ridge
 Section 3, Area 5 (F84-51)

DRAINAGE AREA MAP
 Scale: 1"=100'

DEPARTMENT OF PUBLIC WORKS
William S. Day 12-2-84
 CHIEF BUREAU OF ENGINEERS DATE
 OFFICE OF PLANNING AND ZONING
John W. Murchman 11-20-84
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE

Rev. Date	Rev. No.	Revision Description
8/14/84	1	As per D.P.W. & S.C.E. comments

COLUMBIA
 1st ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

OWNER AND DEVELOPER
 HOWARD RESEARCH AND DEVELOPMENT CORP.

PROJECT AREA
 VILLAGE OF HICKORY RIDGE
 SECTION 3 AREA

PROJECT TITLE
DRAINAGE AREA MAP

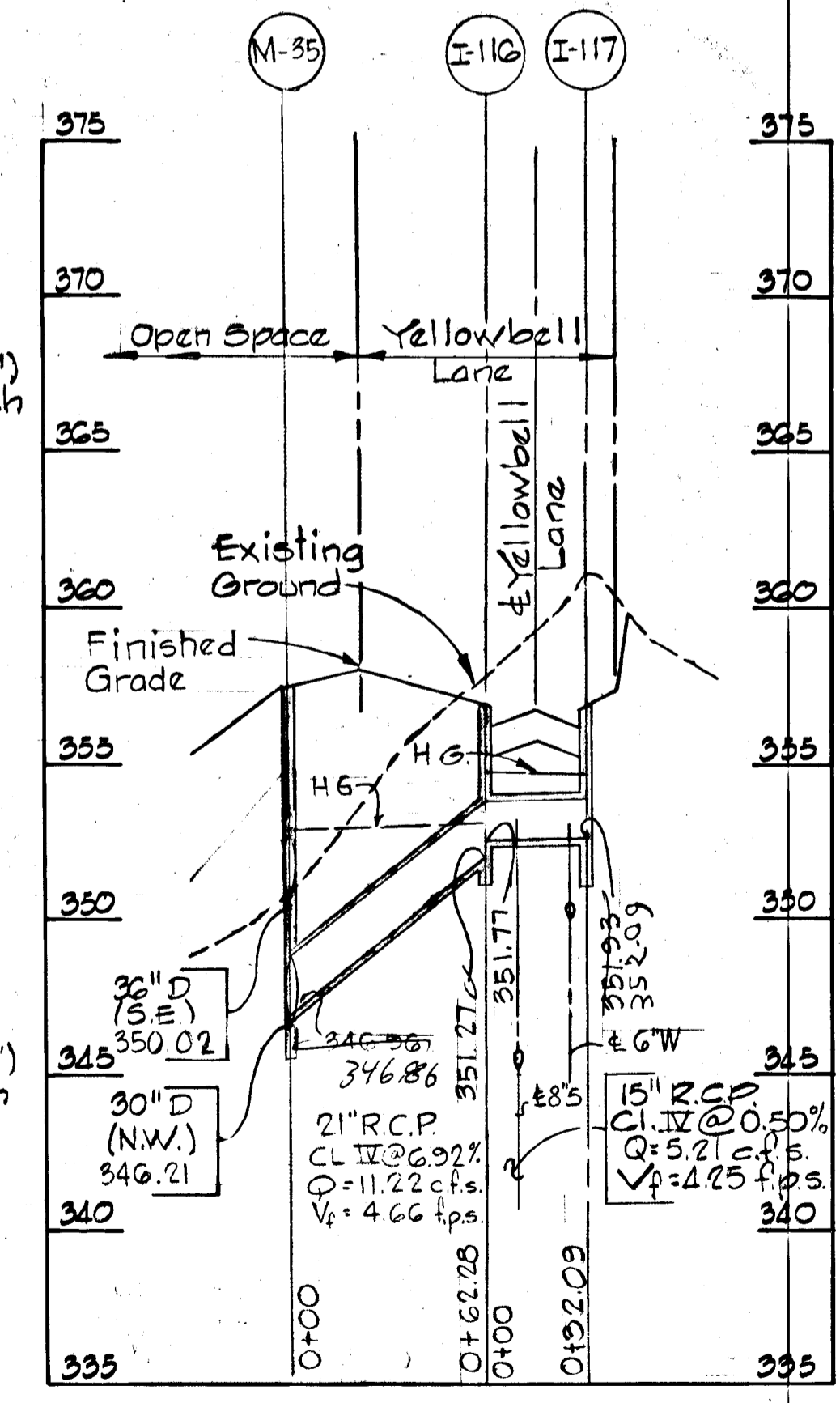
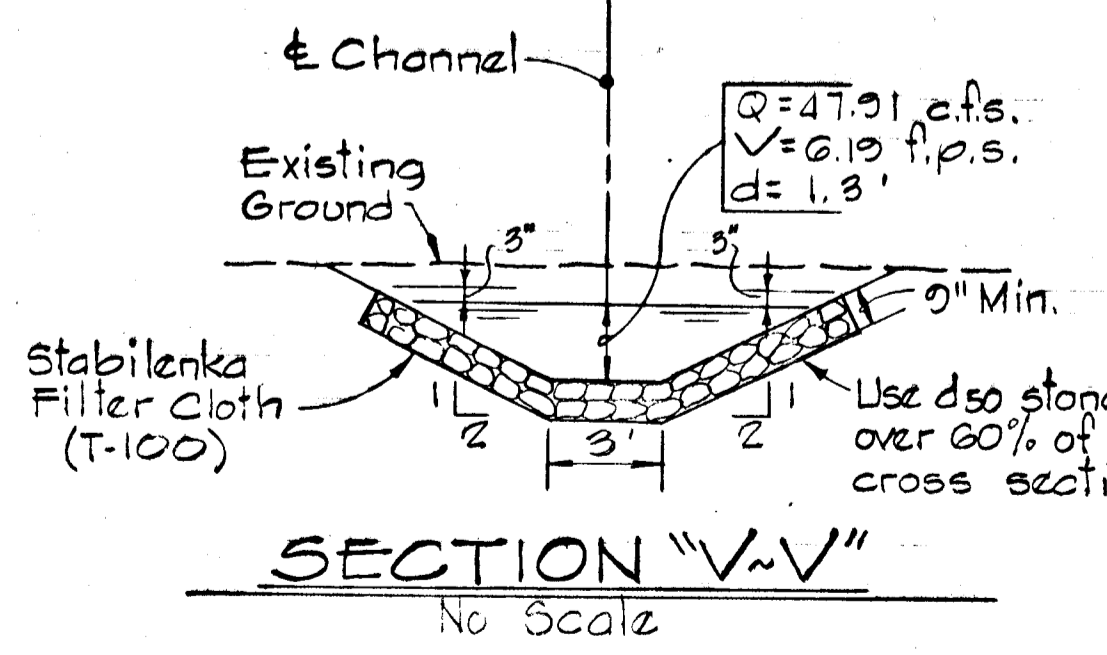
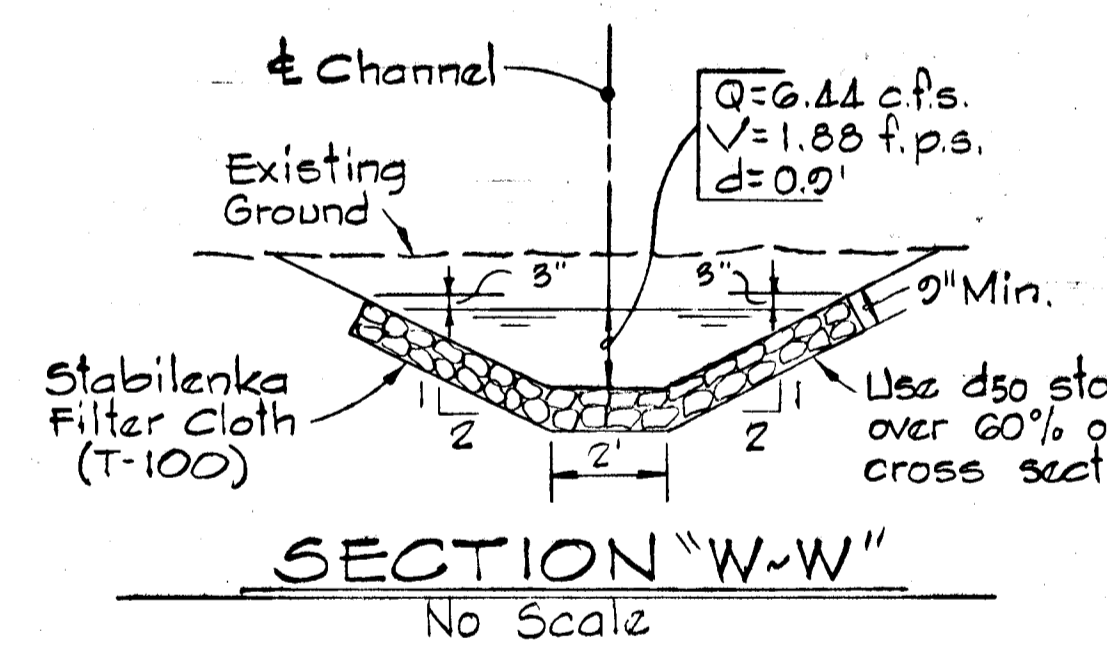
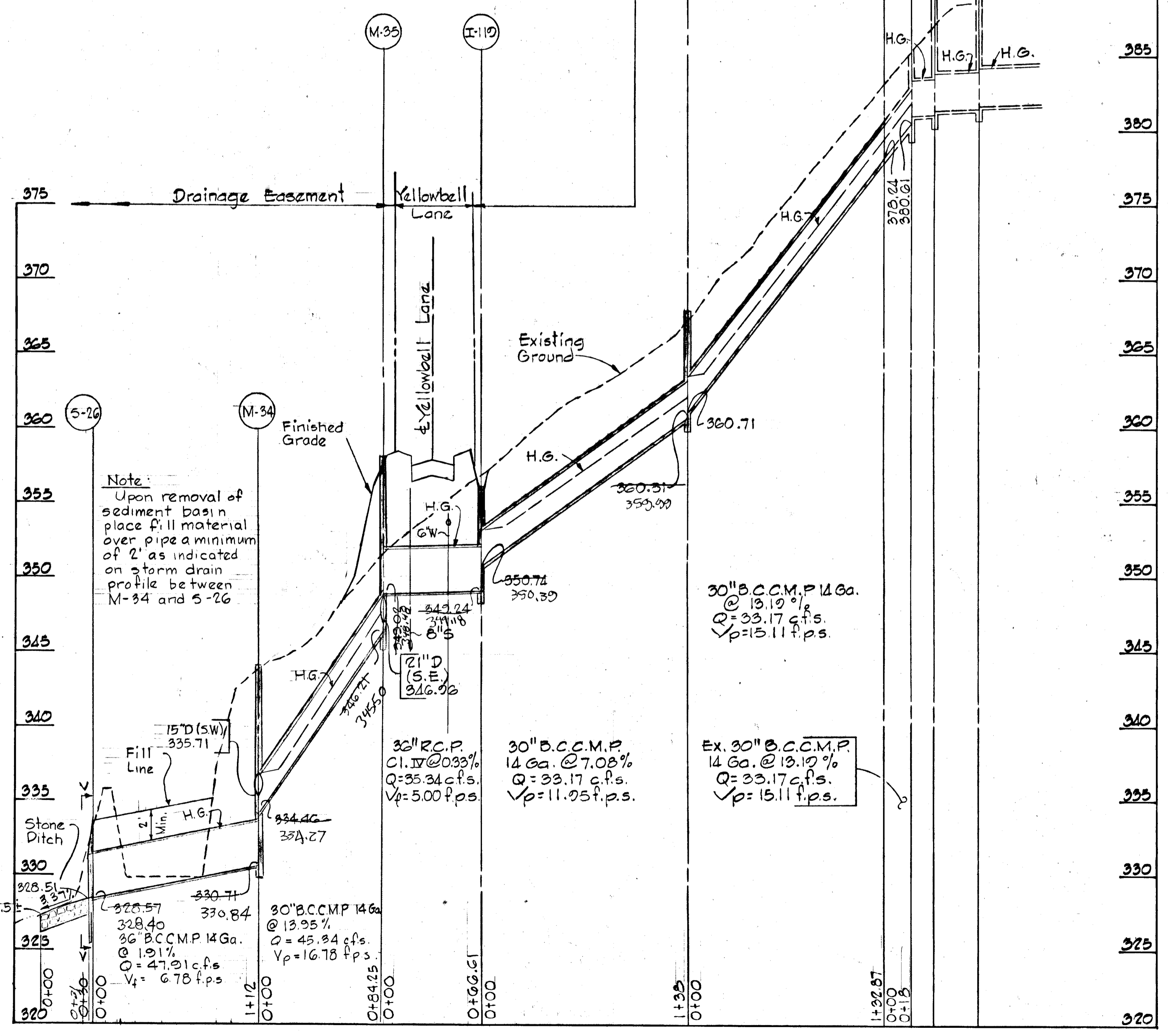
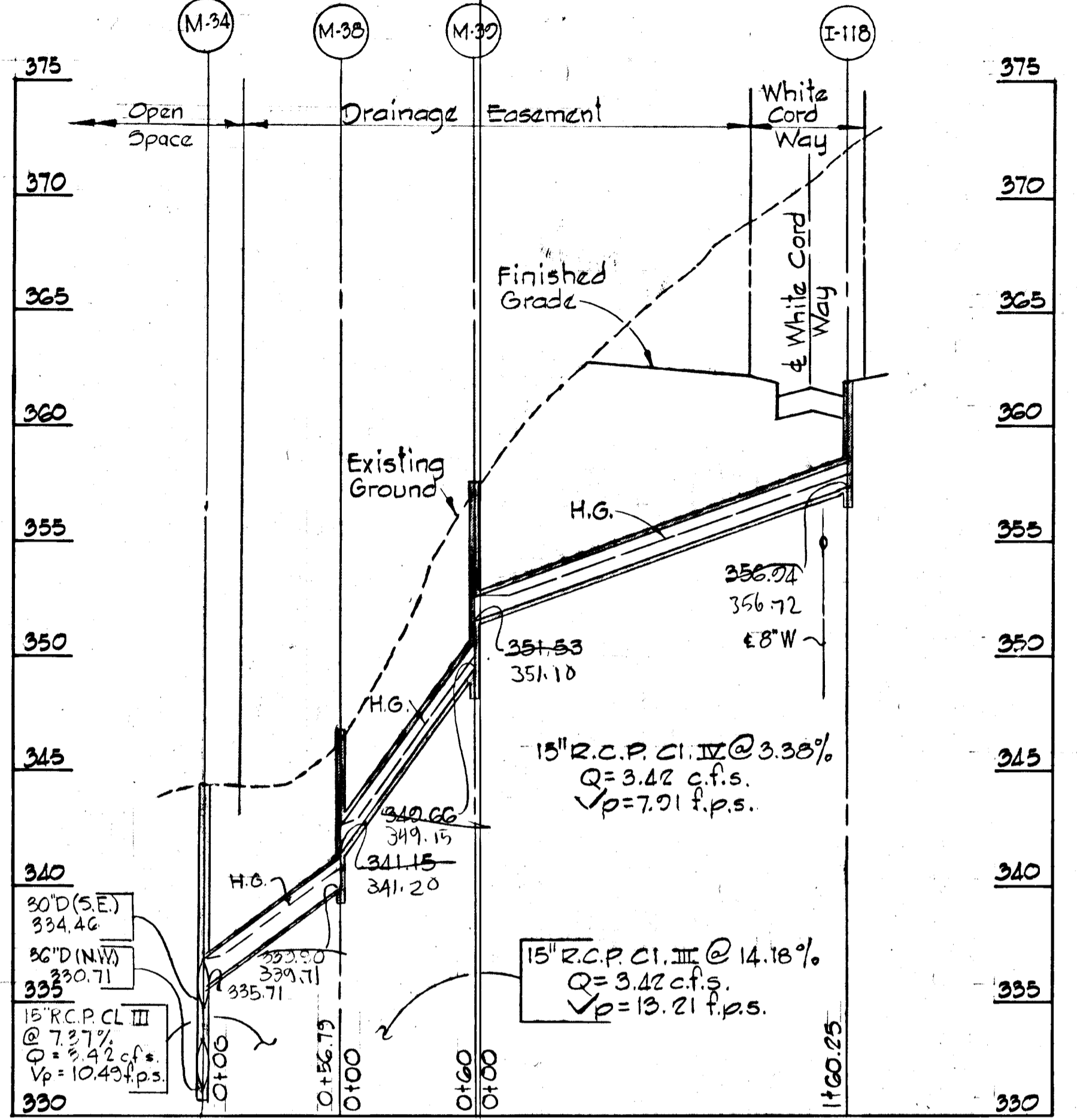
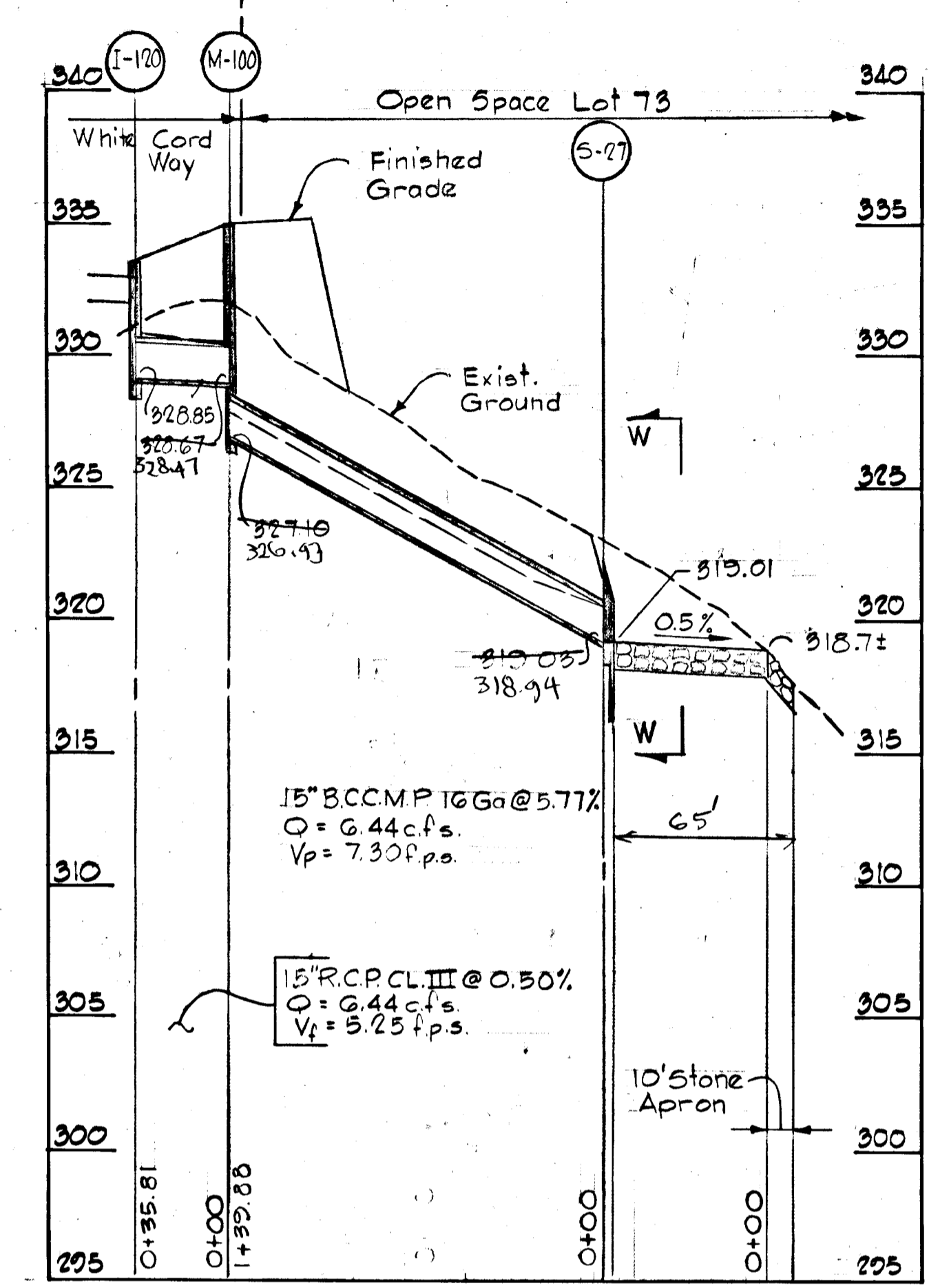
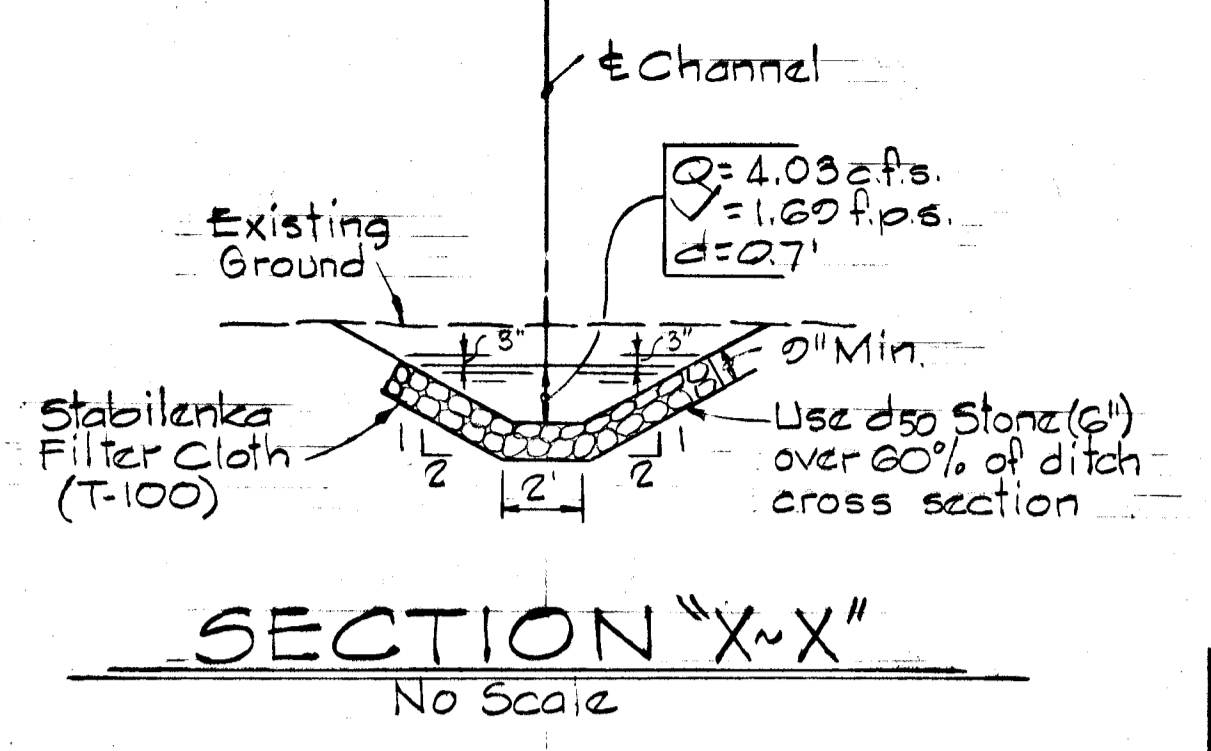
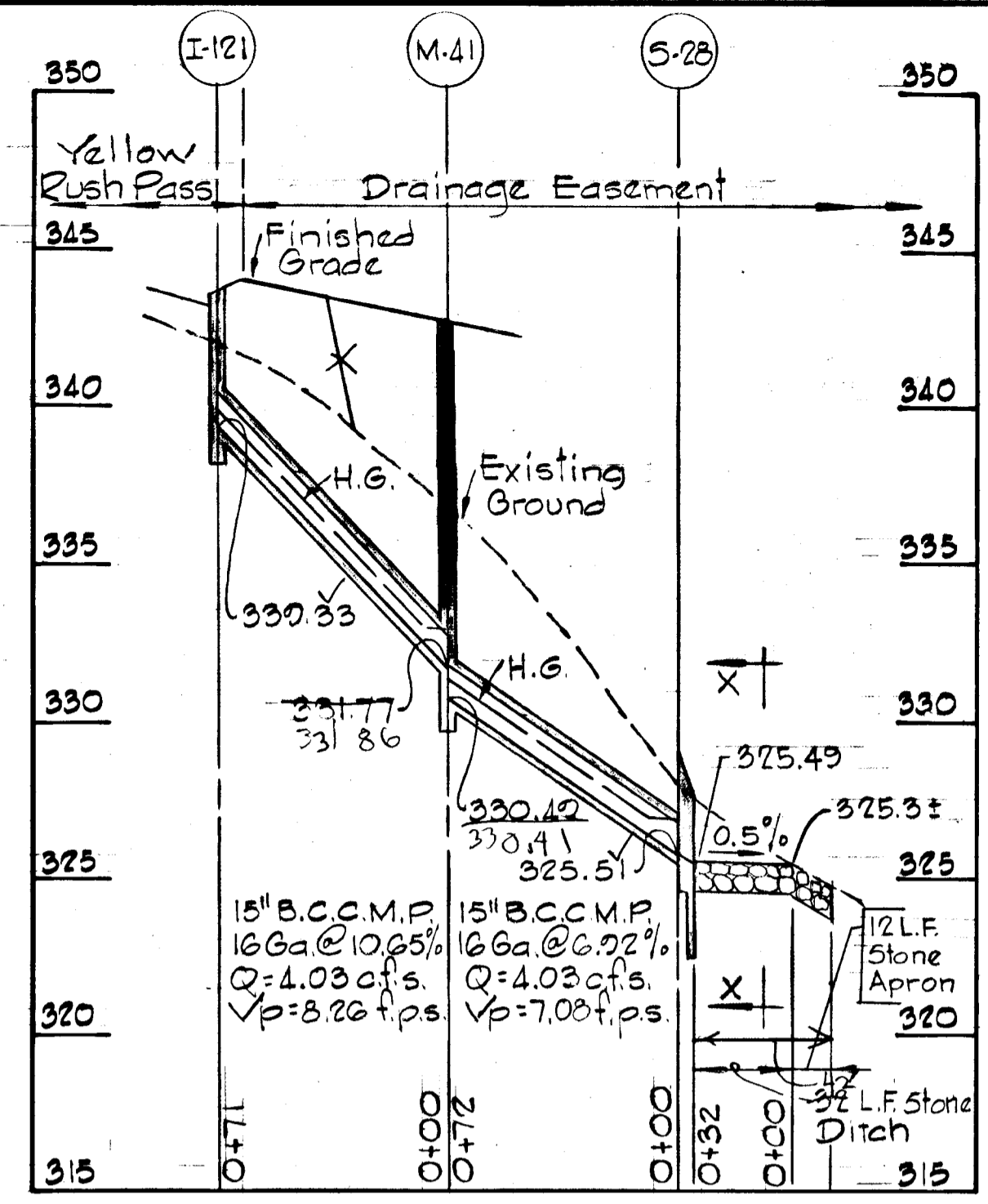
SCALE: 1"=100' DATE:

WHITMAN, REQUARDT & ASSOCIATES
 ENGINEERS
 BALTIMORE, MARYLAND 21218

Kenneth A. McCord
 KENNETH A. MCCORD
 Registered Engineer
 No. 1274

42

Note:
 The type of bedding used for storm drain pipe shall be Class C, shaped subgrade. If rock is encountered, the trench invert should be overexcavated 6-inches and the overexcavation of 6-inches refilled with granular material.



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

AS BULD SURVEY
 CERTIFIED BY
 KENNETH A. McCORD
 REG. PE
 1974
 6-26-87

Rev. No.	Rev. Date	Revision Description
1	8/10/84	As Per D.F.W. & S.C.S. Comments

COLUMBIA
 5th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

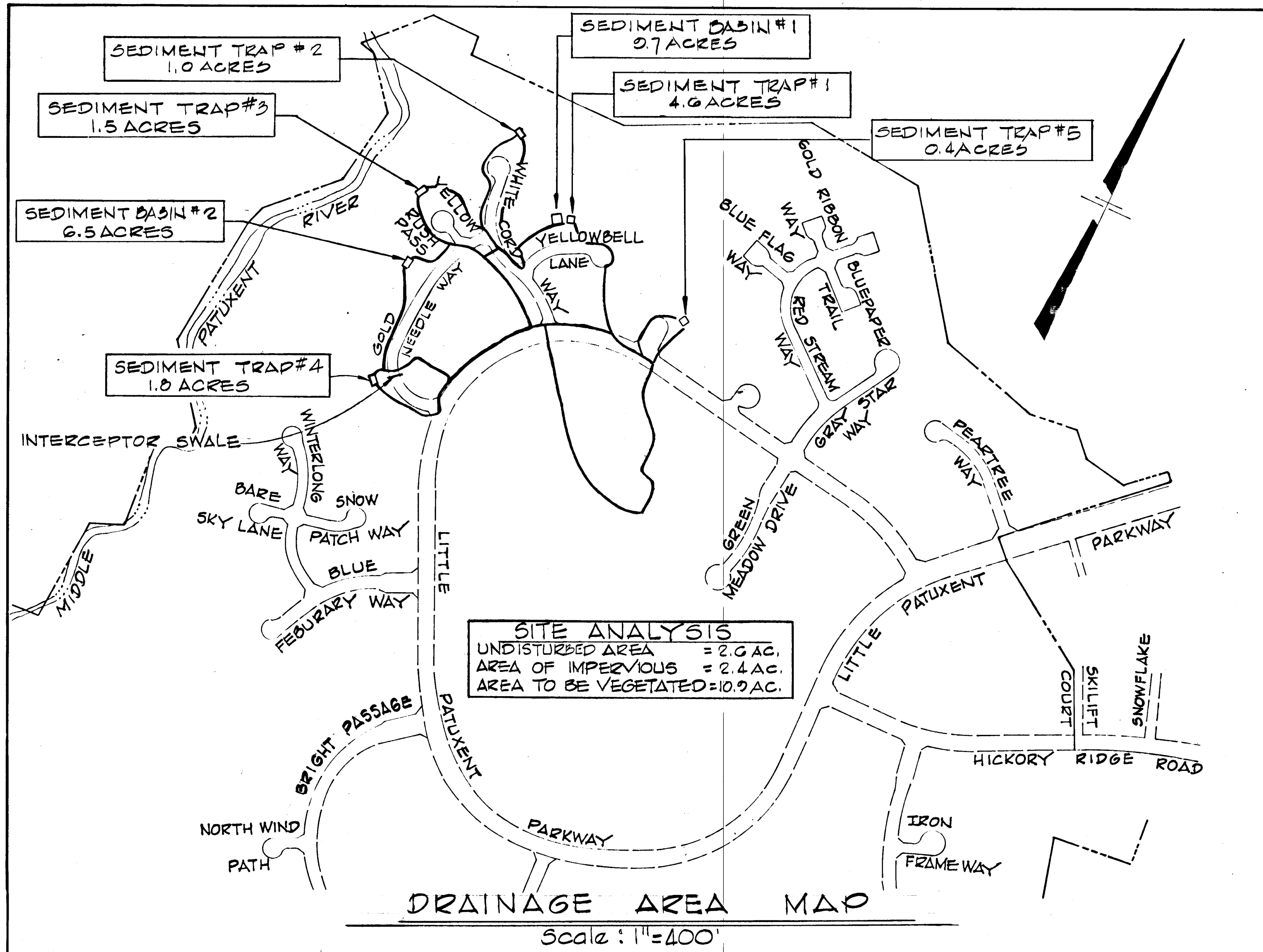
OWNER AND DEVELOPER
 HOWARD RESEARCH AND DEVELOPMENT CORPORATION

PROJECT AREA
 VILLAGE OF HICKORY RIDGE
 SECTION 3 AREA 7

PROJECT TITLE
STORM DRAIN PROFILES

SCALE AS SHOWN DATE:
 WHITMAN, REQUARDT AND ASSOCIATES
 ENGINEERS
 2315 ST PAUL STREET
 BALTIMORE, MARYLAND 21218

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



SITE ANALYSIS
 UNDISTURBED AREA = 2.0 AC.
 AREA OF IMPERVIOUS = 2.4 AC.
 AREA TO BE VEGETATED = 10.9 AC.

DRAINAGE AREA MAP

Scale: 1"=400'

SEQUENCE OF CONSTRUCTION

1. Obtain Grading Permit.
2. Construct Stabilized Construction Entrance on White Cord Way and Gold Needle Way.
3. Clear and grub areas for sediment control facilities only.
4. Construct Sediment Basins, Traps and Diversion Dikes. (Except Diversion Dike between M-30 and Trap #1 which is to be installed after storm drain from Ex. 5-12 to Sediment Basin #1 is in operation).
5. Stabilize Diversion Dikes with temporary seeding, see specifications this sheet.
6. Strip and rough grade Limits of Construction.
7. Construct Interceptor Swale-Gold Needle #13, White Cord #4 & #5.
8. Construct all utilities except storm drain pipes and structures within sediment basins 1 and 2.
9. Fine grade roads, construct curb and gutter, sidewalks and seed disturbed areas with permanent seeding, see specifications this sheet.
10. Pave roads.
11. Remove all sediment control facilities after grass is established in the contributing drainage areas, stabilize "Sediment Trap Removal Area" see Permanent Seeding Notes this sheet.
12. After stabilization is completed remove sediment basins 1 and 2 and complete storm drain systems.

PERMANENT SEEDING NOTES

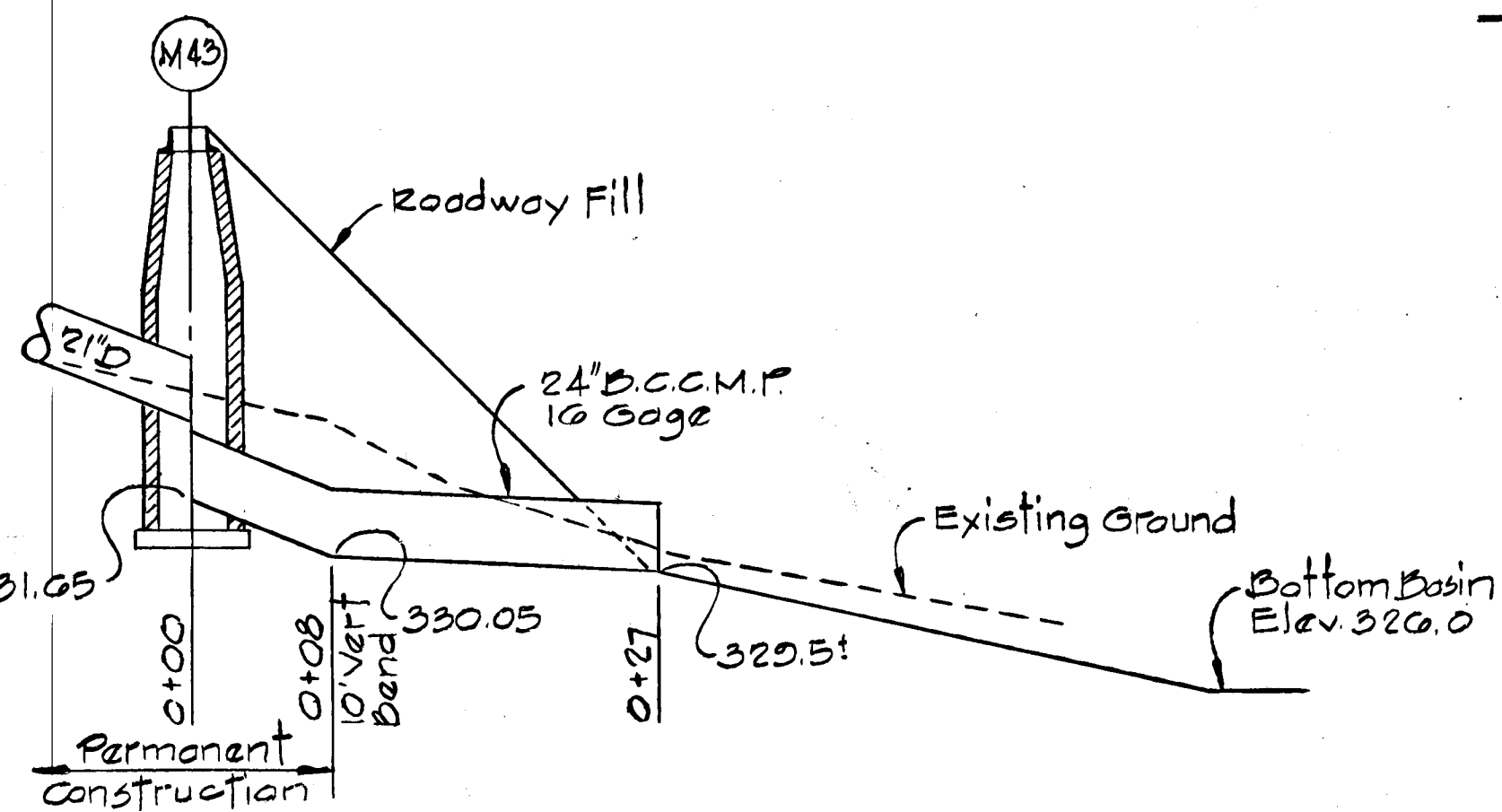
LIME - 2 tons/acre agricultural ground limestone.
 FERTILIZER - 1000 lbs./acre (10-10-10)
 SEEDING - 100 lbs./acre of the following:
 20% Kentucky Blue Grass, 20% Merion Blue Grass, 55% Creeping Red Fescue, 5% Redtop.
 Mulch Required - Mulch area with straw at the rate of 75 lbs./1000 # or 1.5 tons/acre. Anchor with asphalt at the rate of 180 gallons/acre. Stabilization of slopes steeper than 3:1 shall be planted with crownvetch at the rate of 20 lbs./acre, or 0.40 lbs./1000 # and Kentucky 31 Tall Fescue at the rate of 40 lbs./acre or 1 lb./1000 #.

SPECIAL NOTES:

1. All perimeter controls and slopes 3:1 or steeper must be stabilized within 7 days of initial disturbance with temporary seed and mulch per standards and specifications. All other graded areas on the project site must receive permanent or temporary stabilization within 14 days.
2. All sediment traps and basins must be fenced and warning signs posted around their perimeter in accordance with Volume 1, chapter 12 of the Howard County Design Manual, Storm Drainage.

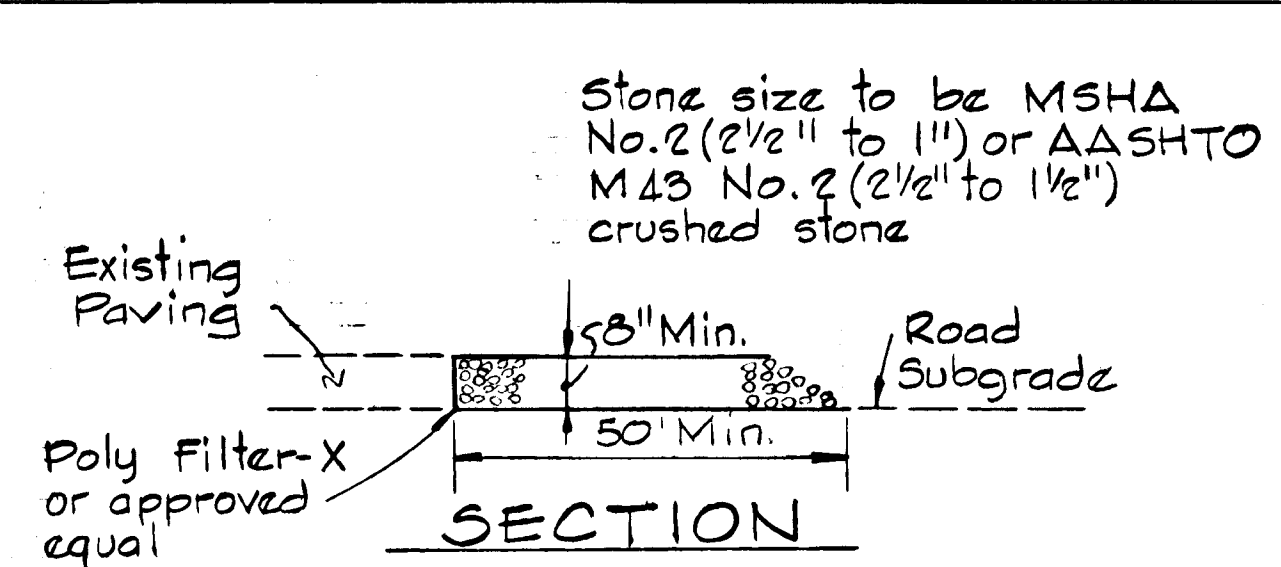
SEDIMENT CONTROL NOTES

1. See "Sequence of Construction" this sheet.
2. The sediment control measures shall be constructed as shown on these drawings.
3. All temporary sediment control devices shall be seeded as specified in Notes 4 and 5. All other surfaces to be permanently seeded. See Specifications this sheet.
4. The temporary sediment control devices shall be hydroseeded as follows:
 a. Ground Limestone (50 lbs./1000 #)
 b. Fertilizer - 10-10-10 (25 lbs./1000 #)
 c. Seed - Italian Rye Grass (40 lbs./acre)
 5. Mulch with straw at the rate of 50 lbs./1000 # or one ton/acre. Anchor with asphalt at the rate of 180 gallons/acre.
6. Prior to starting any work the contractor shall notify Howard County Sediment Control Division at least 24 hours in advance.



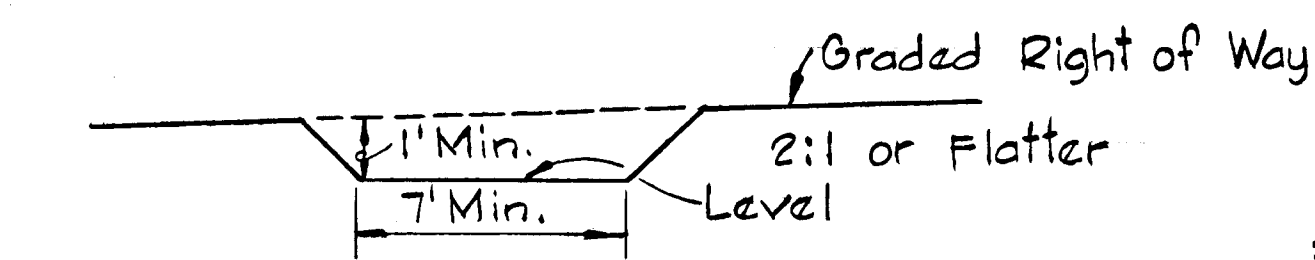
SECTION THRU 24\"/>

Scale: Horiz: 1"=10'
 Vert: 1"=5'



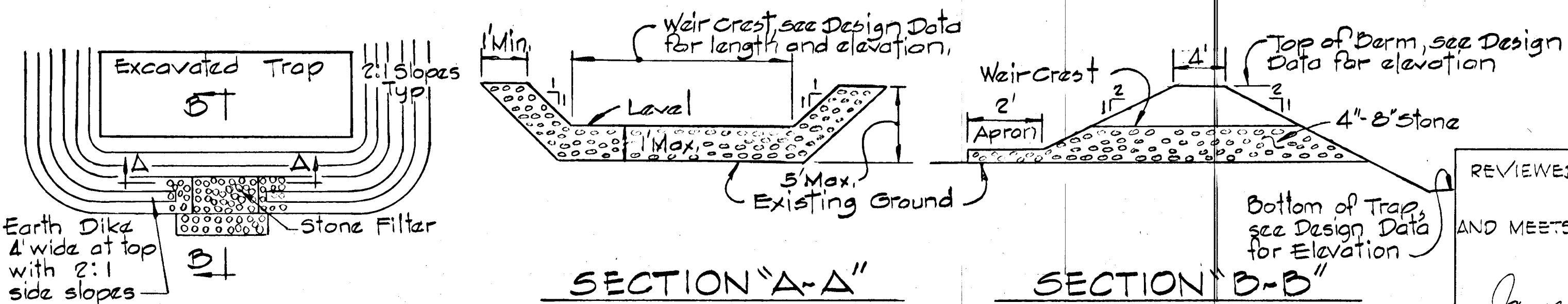
STABILIZED CONSTRUCTION ENTRANCE DETAIL

No Scale



INTERCEPTOR SWALE

No Scale

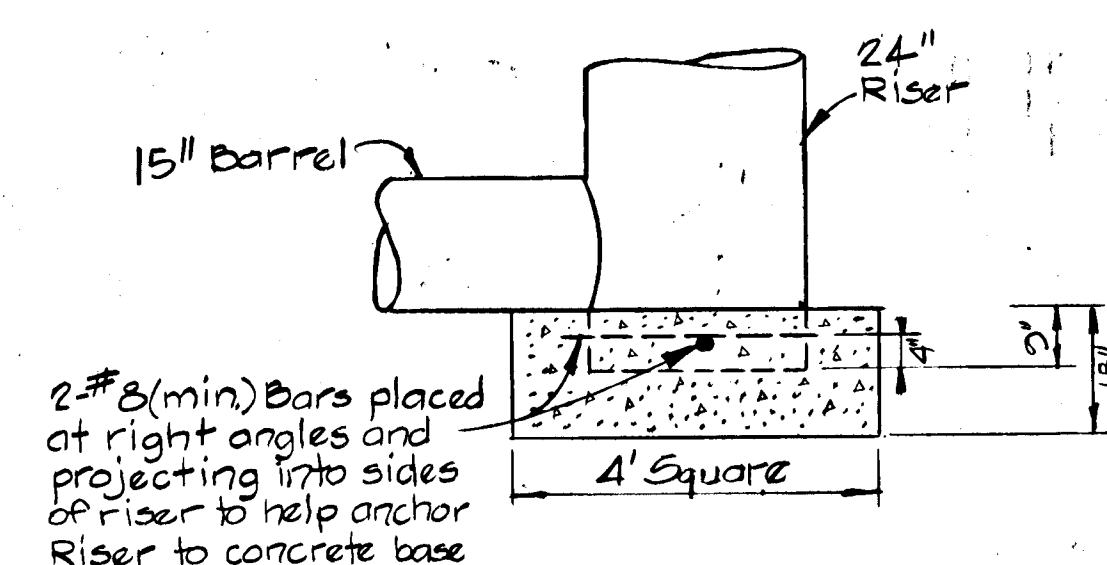


PLAN - EXCAVATED TRAP

SECTIONS THRU STONE FILTER

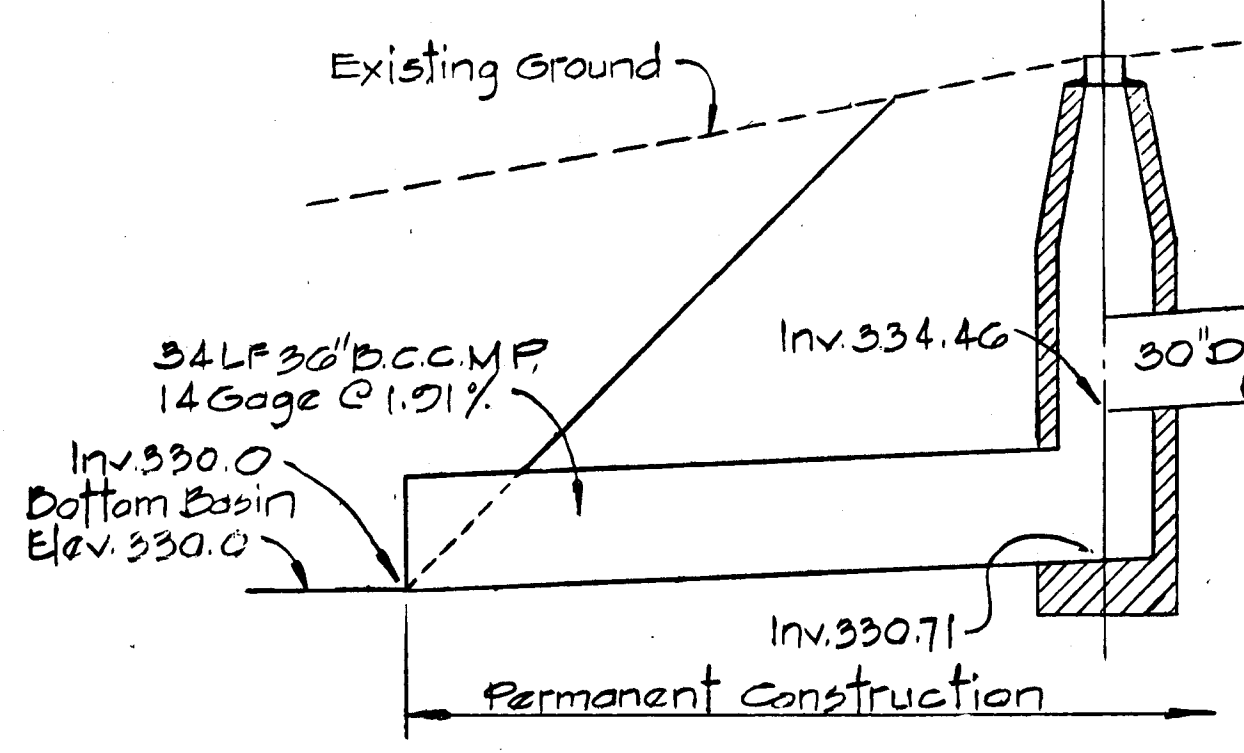
STONE OUTLET SEDIMENT TRAP (#1, #2, #3, #4 & #5)

No Scale



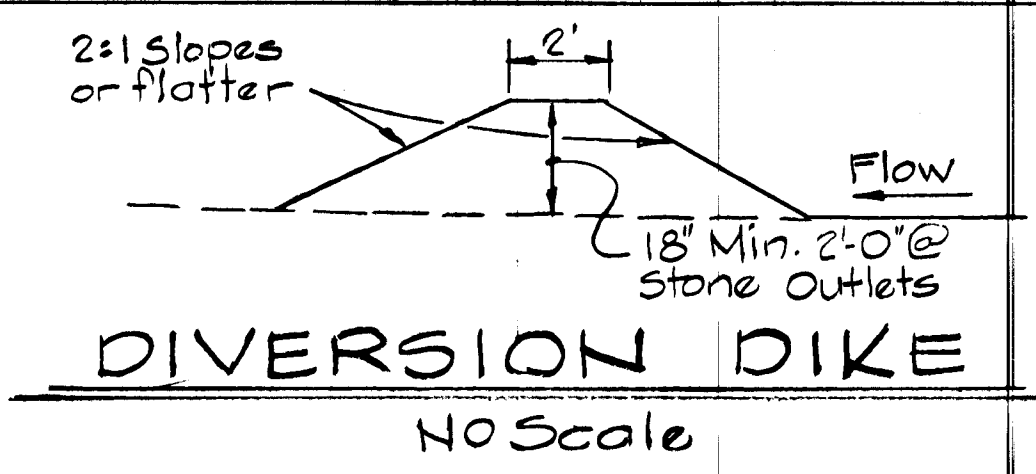
RISER BASE DETAIL

No Scale



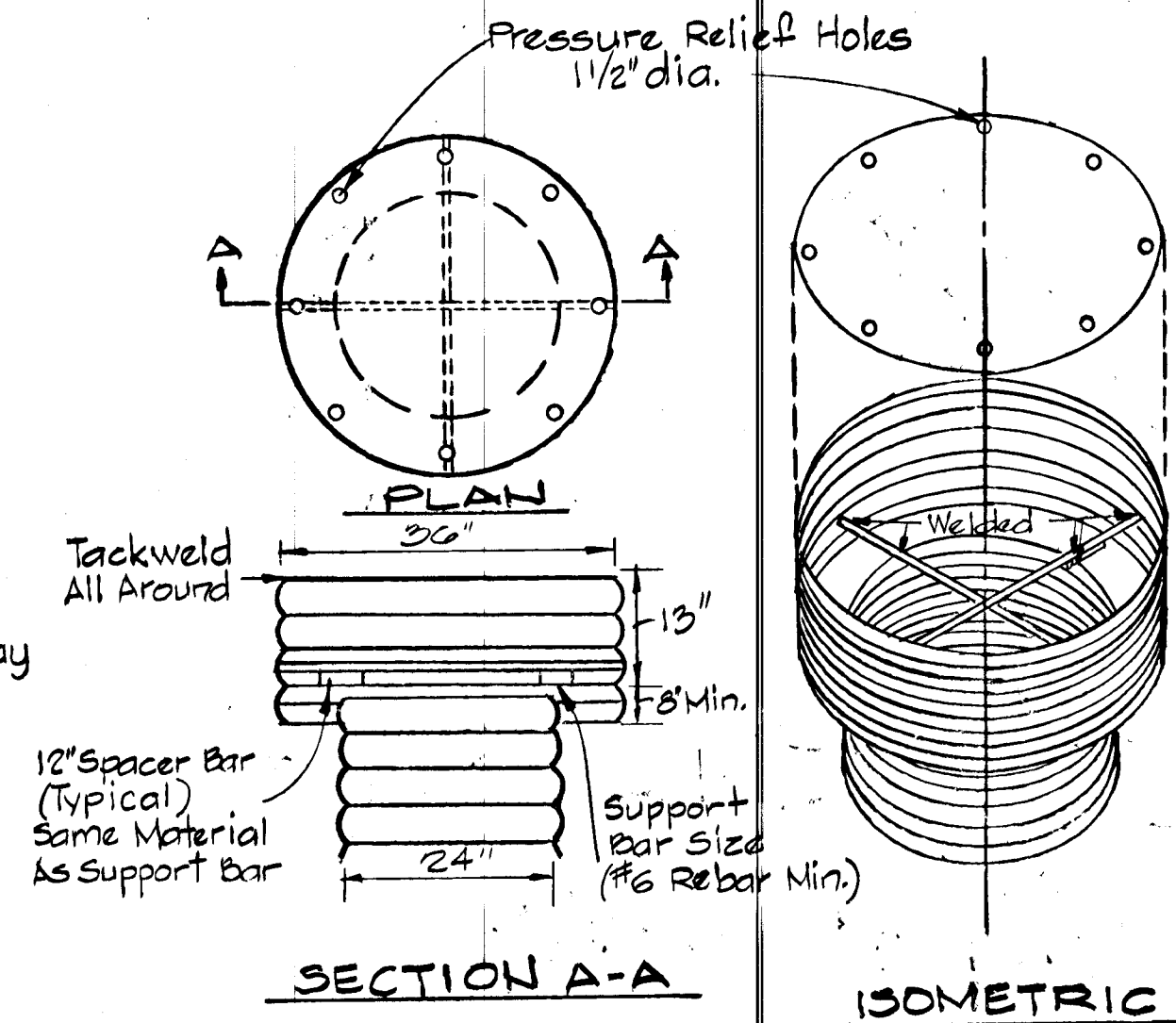
SECTION THRU 36\"/>

Scale Horiz: 1"=10'
 Vert: 1"=5'



DIVERSION DIKE

No Scale



CONCENTRIC TRASH RACK AND ANTI-VORTEX DEVICE

No Scale

Top is 14 gage corrugated metal or 1/8\"/>

Cylinder is 10 gage corrugated metal pipe or fabricated from 1/8\"/>

- NOTES:**
1. The cylinder must be firmly fastened to the top of the riser.
 2. Support bars are welded to the top of the riser or attached by straps bolted to top of riser.

DEPARTMENT OF PUBLIC WORKS
 William E. Reidy 12.14.84
 CHIEF, BUREAU OF ENGINEERING DATE
 OFFICE OF PLANNING AND ZONING
 John W. Mueselman 11.20.84
 CIVIL DIVISION OF LAND DEVELOPMENT, PLANNING AND ZONING ADMINISTRATION DATE

REVIEWED FOR HOWARD SOIL AND MEETS TECHNICAL REQUIREMENTS
 James McElroy 11/26/84
 DATE
 US SOIL CONSERVATION SERVICE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 APPROVED: Howard S.C.D. DATE

REV. DATE	REV. NO.	REVISION DESCRIPTION
9/17/84	2	As Per S.C.S. Comments
8/16/84	1	As Per D.P.W. & S.C.S. Comments

CERTIFICATION BY THE DEVELOPER

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPT. OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."
 Walter E. Woodbury 4/27/84
 WALTER E. WOODBURY 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 4/27/84
 KENNETH A. MCCORD DATE

COLUMBIA 5th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

OWNER AND DEVELOPER
 HOWARD RESEARCH AND DEVELOPMENT CORPORATION
 PROJECT AREA
 VILLAGE OF HICKORY RIDGE SECTION 3 AREA 7

PROJECT TITLE
 SEDIMENT CONTROL DRAINAGE AREA MAP AND DETAILS

SCALE: As Shown DATE:

WHITMAN, REQUARDT AND ASSOCIATES ENGINEERS
 BALTIMORE, MARYLAND 21215

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

SEDIMENT TRAP #4
 DESIGN DATA
 DRAINAGE AREA: 1.8 ACRES
 VOLUME REQUIRED: 671.8-1206 C.Y.
 VOLUME AVAILABLE: 122 C.Y.
 TOP BERM ELEV.: 347.0
 DESIGN CAPACITY ELEV.: 346.0
 BOTTOM TRAP ELEV.: 343.0
 STONE OUTLET WIDTH: 11'

SEDIMENT TRAP #3
 DESIGN DATA
 DRAINAGE AREA: 1.5 ACRES
 VOLUME REQUIRED: 1.5 x 671.8 = 1007.7 C.Y.
 VOLUME AVAILABLE: 107 C.Y.
 TOP BERM ELEV.: 332.0
 DESIGN CAPACITY ELEV.: 331.0
 BOTTOM TRAP ELEV.: 328.0
 STONE OUTLET WIDTH: 9'

SEDIMENT TRAP #2
 DESIGN DATA
 DRAINAGE AREA: 1.0 ACRES
 VOLUME REQUIRED: 1.0 x 671.8 = 671.8 C.Y.
 VOLUME AVAILABLE: 68 C.Y.
 TOP BERM ELEV.: 322.0
 DESIGN CAPACITY ELEV.: 321.0
 BOTTOM TRAP ELEV.: 319.0
 STONE OUTLET WIDTH: 6'

SEDIMENT TRAP #1
 DESIGN DATA
 DRAINAGE AREA: 1.6 ACRES
 VOLUME REQUIRED: 1.6 x 671.8 = 1074.9 C.Y.
 VOLUME AVAILABLE: 310 C.Y.
 TOP BERM ELEV.: 342.0
 DESIGN CAPACITY ELEV.: 341.0
 BOTTOM TRAP ELEV.: 339.5
 STONE OUTLET WIDTH: 19'

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."
 Walter E. Woodford 4-27-84
 WALTER E. WOODFORD 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 4-27-84
 KENNETH A. MCCORD P.E. 1074 DATE

RESPONSIBLE PERSONNEL
CERTIFICATION
 "I CERTIFY THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT."
 Walter E. Woodford 4-27-84
 WALTER E. WOODFORD DATE

REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS
 James M. Helmer 11/26/84
 U.S. SOIL CONSERVATION SERVICE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 APPROVED [Signature] 11/26/84
 HOWARD S.C.D. DATE

2/10/84	2	As Per S.C.S. Comments
8/19/84	1	As Per D.P.W. & S.C.S. Comments
REV. DATE	REV. NO.	REVISION DESCRIPTION

COLUMBIA
 5th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

OWNER AND DEVELOPER
 HOWARD RESEARCH AND DEVELOPMENT CORPORATION

PROJECT AREA
 VILLAGE OF HICKORY RIDGE
 SECTION 3 AREA 7

PROJECT TITLE
 SEDIMENT CONTROL PLAN

SCALE: 1"=30' DATE:

WHITMAN, REQUARDT AND ASSOCIATES
 ENGINEERS
 BALTIMORE, MARYLAND 21218

Kenneth A. McCord
 KENNETH A. MCCORD
 Registered Engineer
 No. 1074



SEDIMENT TRAP #5
DESIGN DATA
 DRAINAGE AREA = 0.4 ACRES
 VOLUME REQUIRED = 0.4 x 0.7 = 0.28 CY.
 VOLUME AVAILABLE = 0.27 CY.
 TOP BERM ELEV. 337.0
 DESIGN CAPACITY ELEV. 336.0
 BOTTOM TRAP ELEV. 334.0
 STONE OUTLET WIDTH = 5'

BASIN CONSTRUCTION SPECIFICATIONS

Site Preparation
 Areas under the embankment shall be cleared, grubbed, and stripped of topsoil to remove trees, vegetation, roots or other objectionable material. In order to facilitate clean-out and restoration, the pool area (measured at the top of the pipe spillway) will be cleared of all brush, trees, and other objectionable materials.

Embankment
 The fill material shall be taken from approved areas shown on the plans. It shall be clean mineral soil free of roots, woody vegetation, oversized stones, rocks, or other objectionable material. Relatively pervious materials such as sand or gravel (Unified Soil Classes GW, GP, SW & SP) shall not be placed in the embankment. Areas on which fill is to be placed shall be scarified prior to placement of fill. The fill material shall contain sufficient moisture so that it can be formed by hand into a ball without crumbling. If water can be squeezed out of the ball, it is too wet for proper compaction. Fill material shall be placed six-inch to eight-inch thick continuous layers over the entire length of the fill. Compaction shall be obtained by roading and hauling the construction equipment over the fill so that the entire surface of each layer of the fill is traversed by at least one wheel or tread track of the equipment or by the use of a compactor. The embankment shall be constructed to an elevation 10 percent higher than the design height to allow for settlement.

Pipe Spillways
 The riser shall be securely attached to the barrel or barrel stub by welding the full circumference making a watertight structural connection. The barrel stub must be attached to the riser at the same percent (angle) of grade as the outlet conduit. The connection between the riser and the riser base shall be watertight. All connections between barrel sections must be achieved by approved watertight band assemblies. (See page 18.22 for details.) The barrel and riser shall be placed on a firm, smooth foundation of impervious soil. Pervious materials such as sand, gravel, or crushed stone shall not be used as backfill around the pipe or anti-seep collars. The fill material around the pipe spillway shall be placed in four inch layers and compacted under and around the pipe to at least the same density as the adjacent embankment.

A minimum depth of two feet of hand compacted backfill shall be placed over the pipe spillway before crossing it with construction equipment. Steel base plates on risers shall have at least 2-1/2 feet of compacted earth, stone or gravel placed over it to prevent flotation.

Emergency Spillway
 The emergency spillway shall be installed in undisturbed ground. The achievement of planned elevations, grades, design width, entrance and exit channel slopes are critical to the successful operation of the emergency spillway and must be constructed within a tolerance of ± 0.2 feet.

Vegetative Treatment
 Stabilize the embankment and emergency spillway in accordance with the appropriate vegetative Standard and Specifications immediately following construction. In no case shall the embankment remain unstabilized for more than seven(7) days.

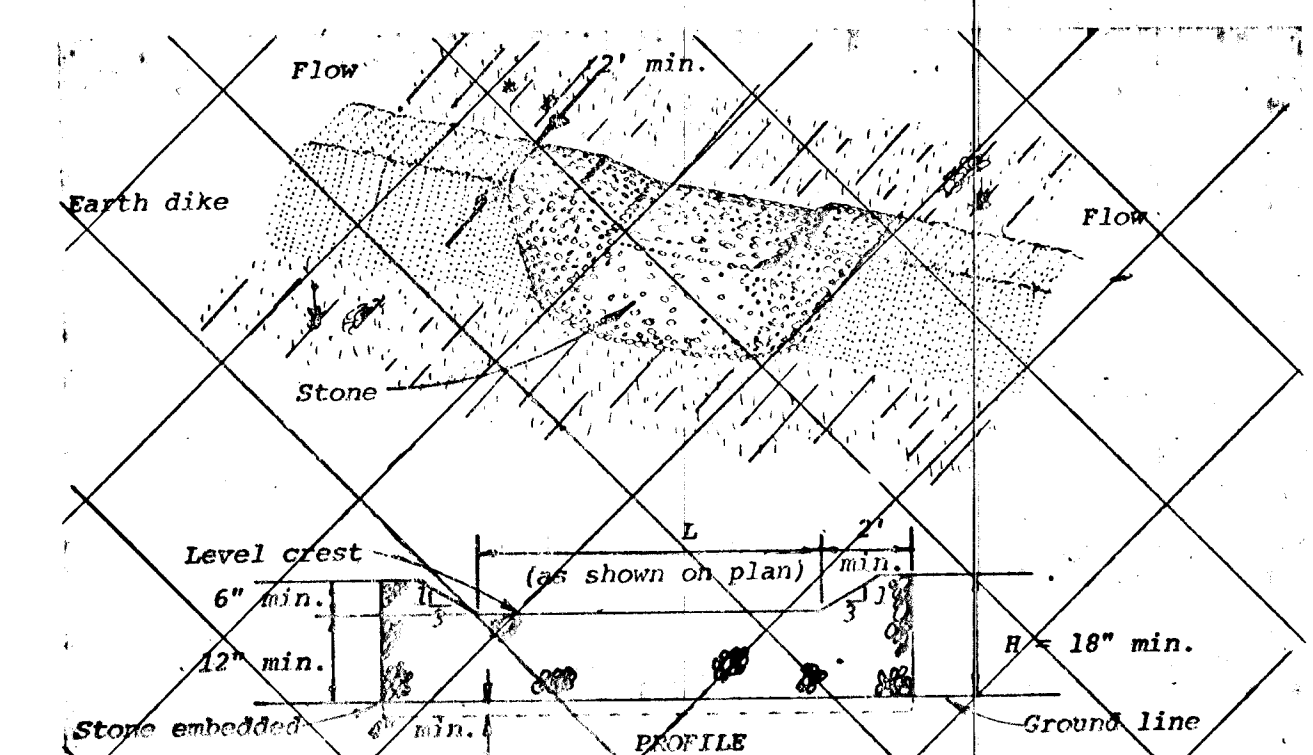
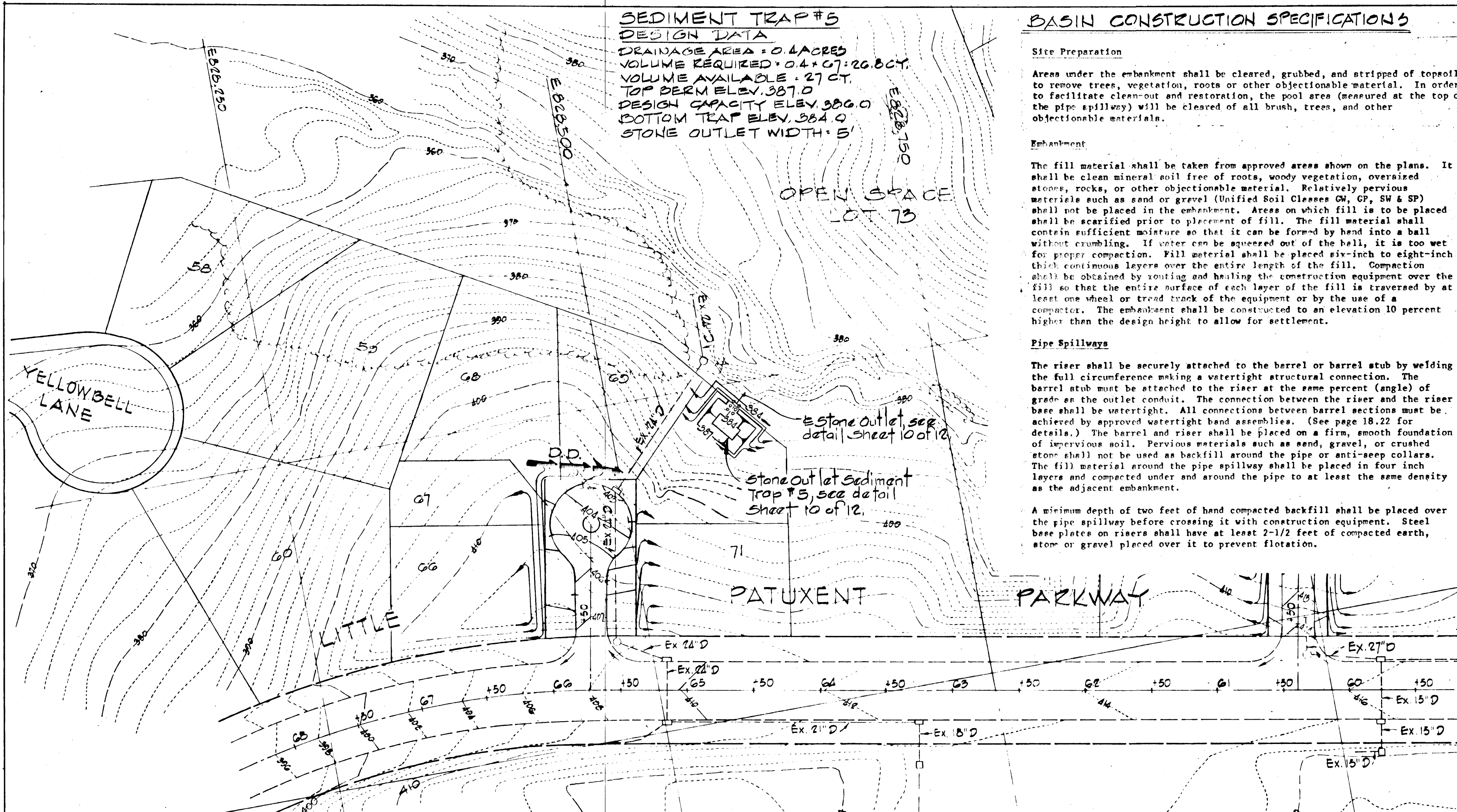
Erosion and Pollution Control
 Construction operations shall be carried out in such a manner that erosion and water pollution will be minimized. State and local laws shall be complied with concerning pollution abatement.

Safety
 State and local requirements shall be met concerning fencing and signs, warning the public of hazards of soft sediment and floodwater.

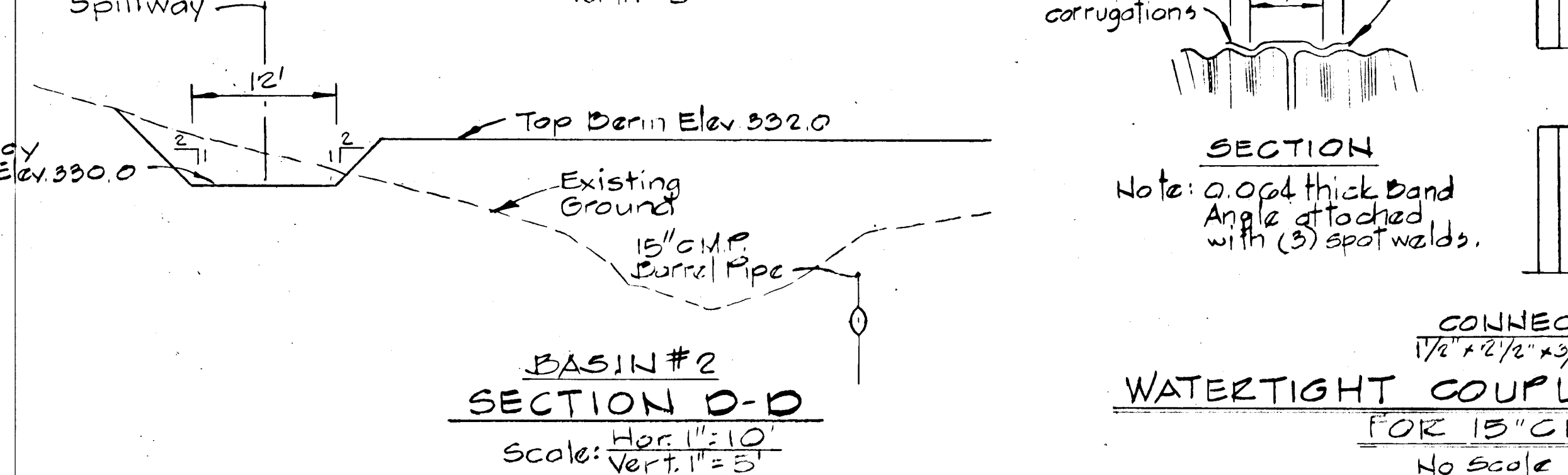
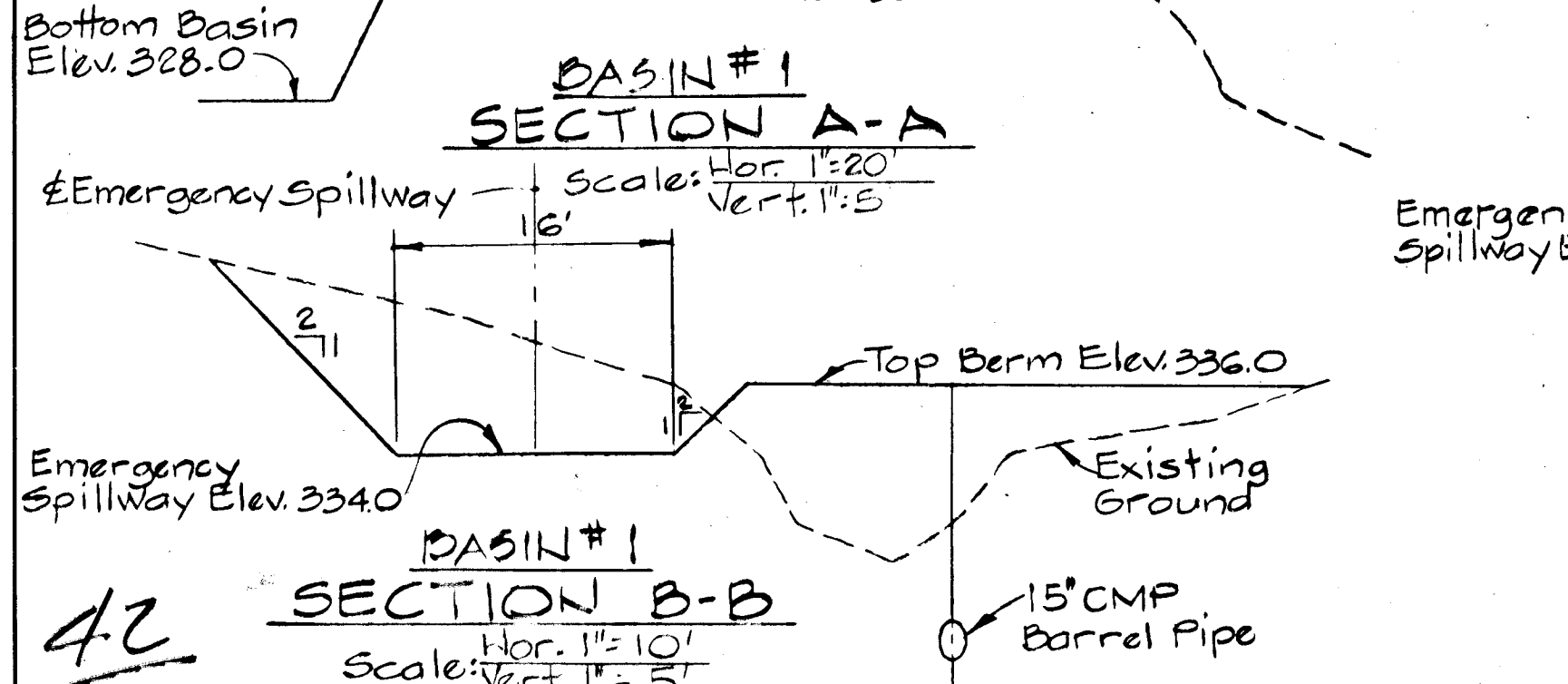
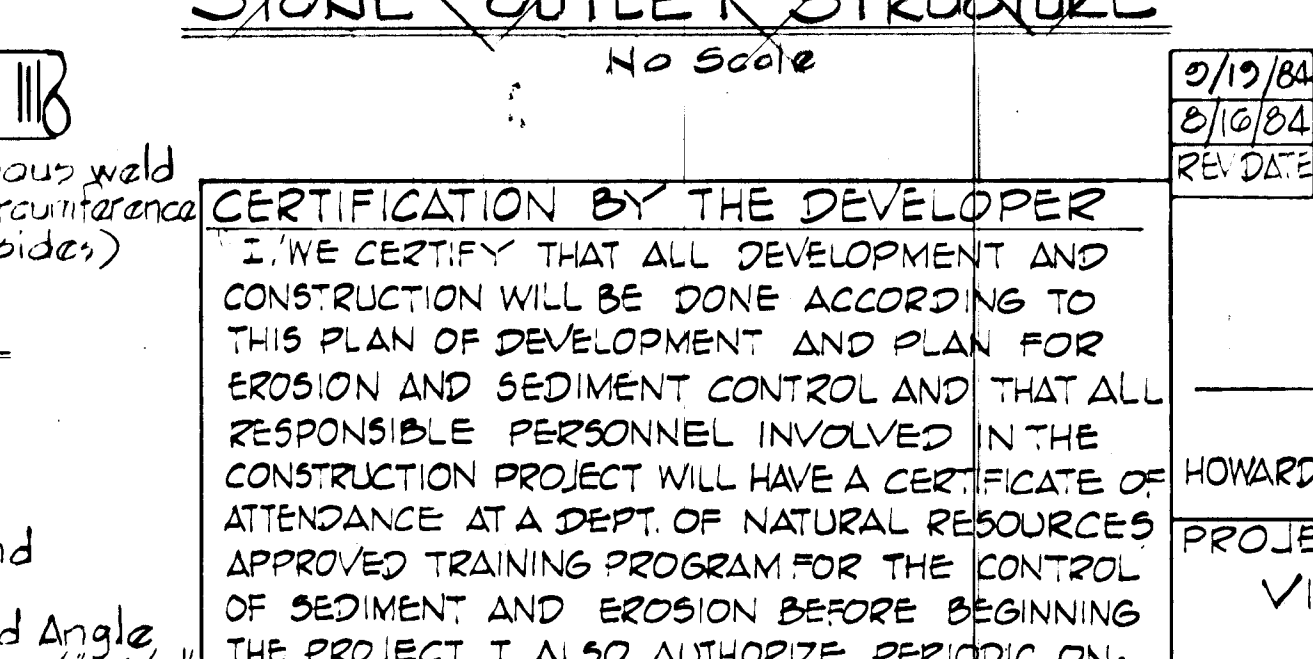
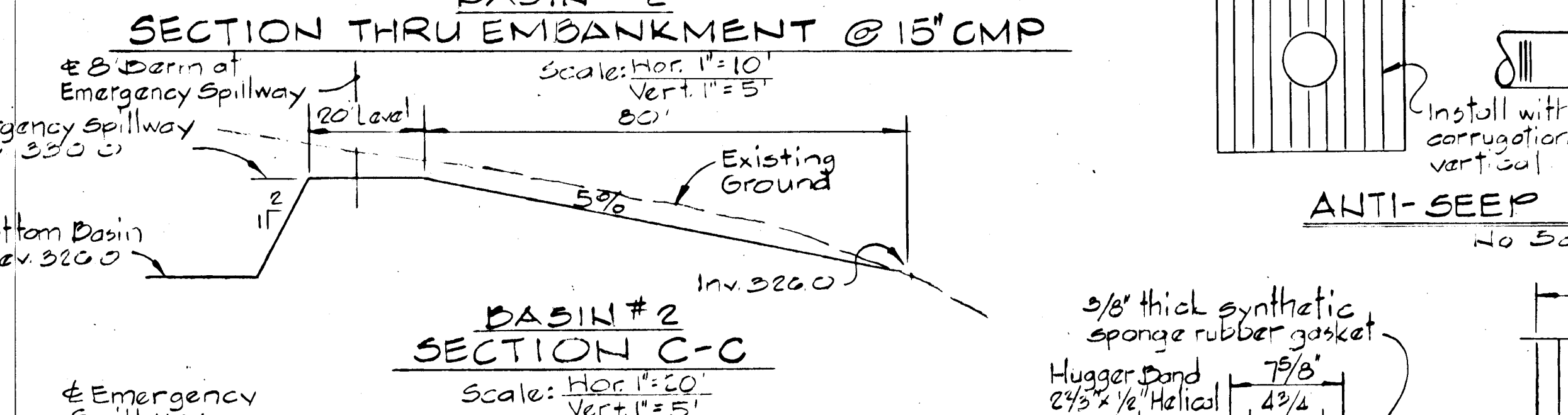
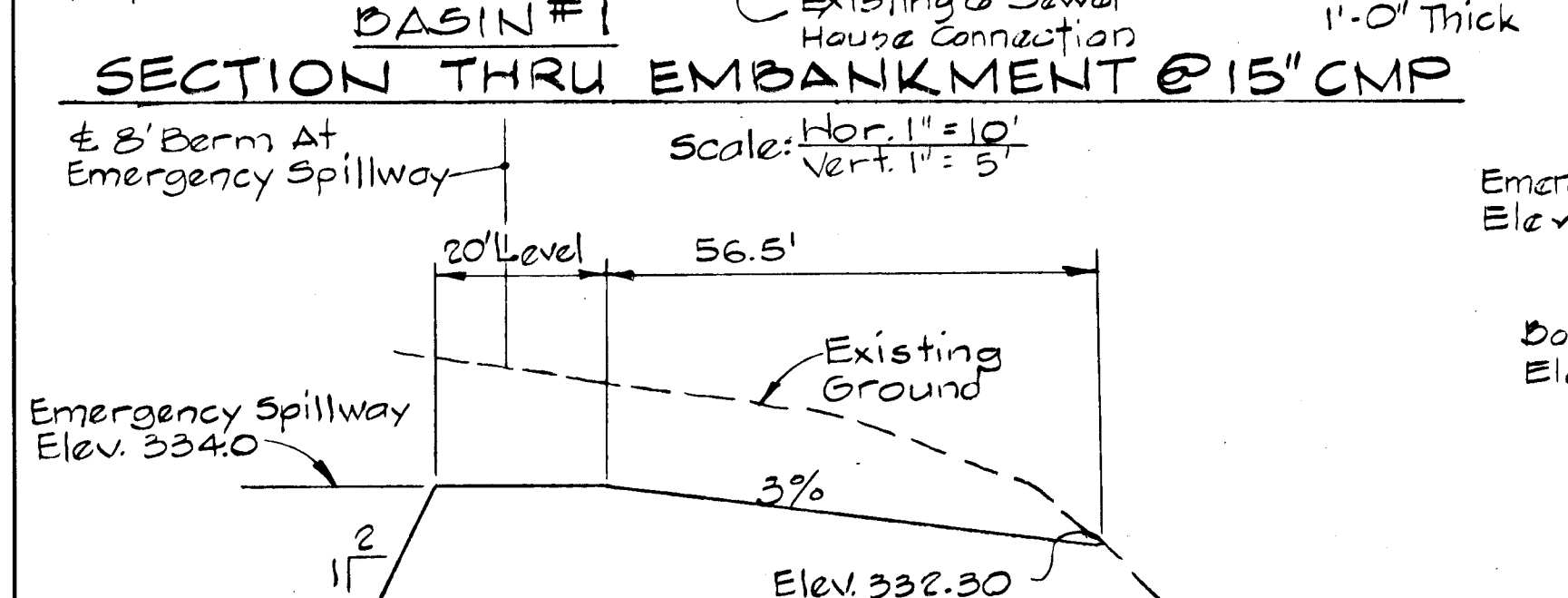
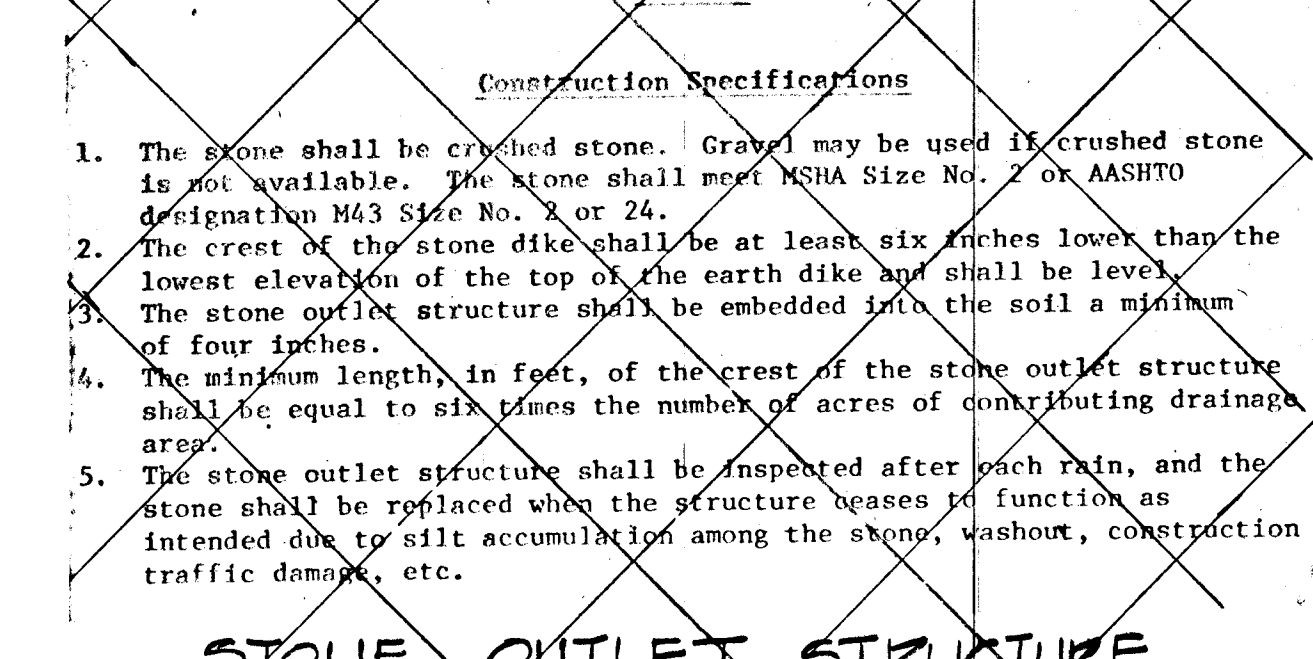
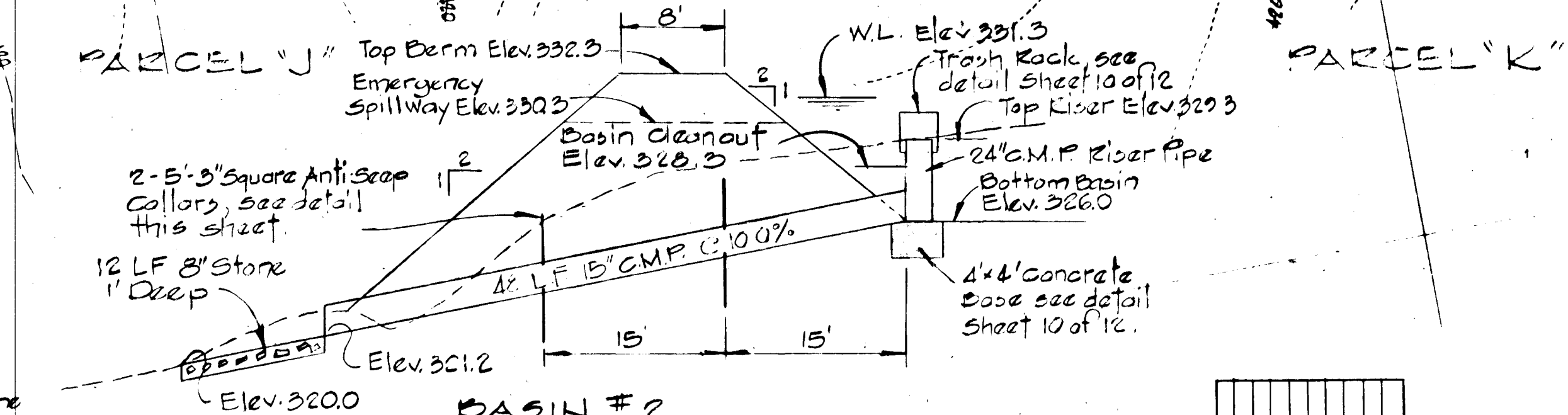
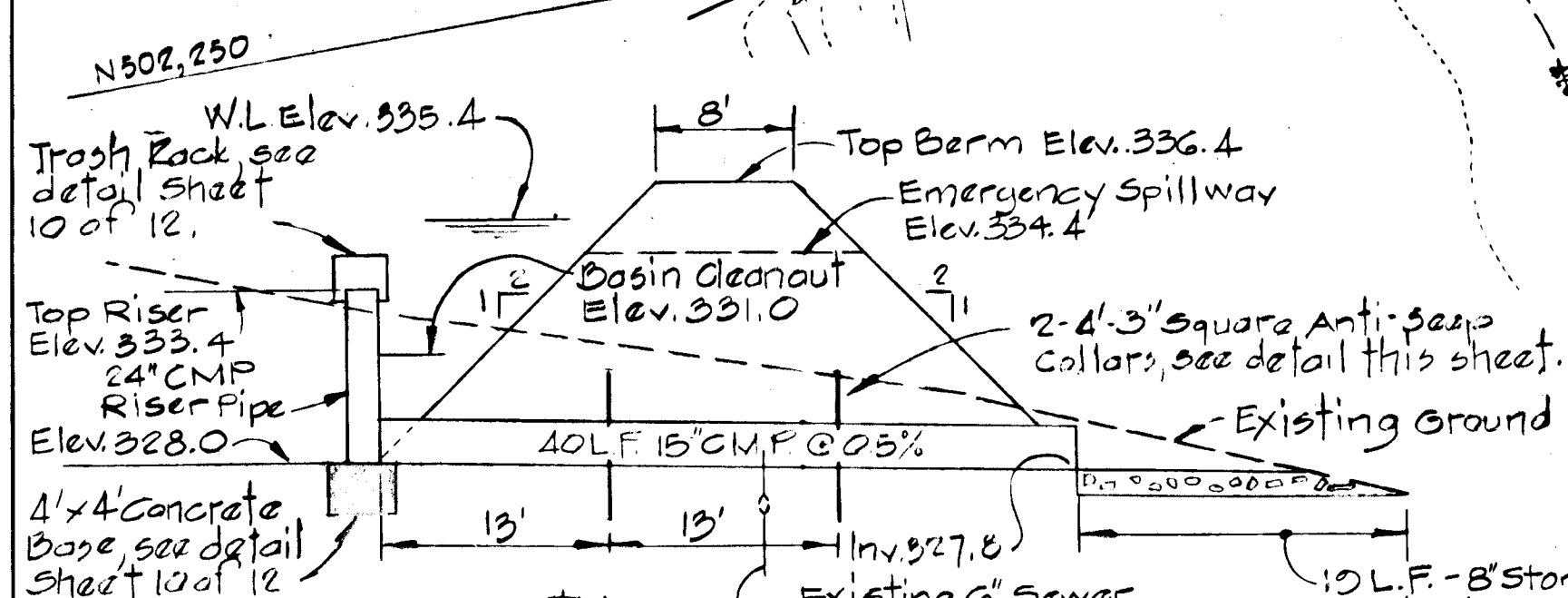
Maintenance
 1. Repair all damages caused by soil erosion and construction equipment at or before the end of each working day.
 2. Sediment shall be removed from the basin when it reaches the specified distance below the top of the riser. This sediment shall be placed in such a manner that it will not erode from the site. The sediment shall not be deposited downstream from the embankment, adjacent to a stream or flood plain.

Final Disposal
 When temporary structures have served their intended purpose and the contributing drainage area has been properly stabilized, the embankment and resulting sediment deposits are to be leveled or otherwise disposed of in accordance with the approved sediment control plan. The proposed use of a sediment basin site will often dictate final disposition of the basin and any sediment contained therein. If the site is scheduled for future construction, then the basin material and trapped sediments must be removed, safely disposed of, and backfilled with a structural fill. When the basin area is to remain open space the pond may be pumped dry, graded and back filled.

DEPARTMENT OF PUBLIC WORKS
 12.4.84
 CHIEF, BUREAU OF ENGINEERING
 OFFICE OF PLANNING AND ZONING
 John W. Muschman 11-20-84
 CHIEF, DIVISION OF LAND DEVELOPMENT, DATE AND ZONING ADMINISTRATION



REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS
 James M. Nelson 11/26/84
 DATE
 U.S. SOIL CONSERVATION SERVICE
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 APPROVED [Signature] 11/26/84
 HOWARD SCD DATE



CERTIFICATION BY THE DEVELOPER
 I, WALTER E. WOODFORD, CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPT. OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.
 WALTER E. WOODFORD 4/27/84
 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 4/27/84
 DATE

REV. DATE	REV. NO.	REVISION DESCRIPTION
9/19/84	2	As Per S.C.S. Comments
9/16/84	1	As Per D.P.W. & S.C.S. Comments

COLUMBIA 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORPORATION
 PROJECT AREA VILLAGE OF HICKORY RIDGE SECTION 3 AREA 7
 PROJECT TITLE SEDIMENT CONTROL PLAN
 SCALE: 1"=50' DATE:
 WHITMAN, REQUARDT AND ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21218
 KENNETH A. MCCORD Registered Engineer No. 1074