

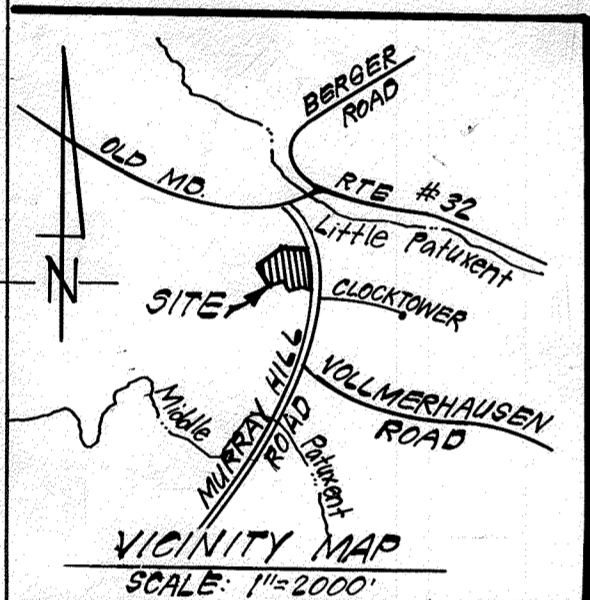
NOTE: 10/25/2023 - Capital project D-1154 R 1177 (EP-16-33) titled Woodpark Lane Stormwater Pond Repair was cleared to repair the riser and barrel, and the out-fall along a Middle Pasture River Tributary illustrated within the limits of this site plan.

GENERAL NOTES

- All Construction & Materials, shall be in accordance with the latest details and Specifications of Howard Co. & Md SHA.
- Types of storm drain structures refer to the Standard Details of Howard County & Maryland State Highway Administration.
- Trench Compaction for Storm Drains within Road or Street right-of-way limits shall be in accordance with Howard Co Design Manual Vol III.
- Information concerning underground utilities was obtained from available records, but the Contractor must determine the exact location and elevation of the mains by digging test pits, by hand, at all utility crossings, well in advance of construction.
- All utility companies shall be notified 24 hrs in advance of construction.
- All traffic control services, parking and signing to be done in accordance with the Manual of Uniform Traffic Control Devices, 1971 Edition.
- Sag and Crest Vertical Curves were designed in accordance with "A Policy on Geometric Design of Rural Highways", 1965, by A.A.S.H.O.
- Provide Concrete Sidewalk Ramps in Curbs (Max. 12:1 Slopes; 4 ft wide) where shown in plan. See Ho Co. Std. Detail R-4.01.
- Design Speed: 28' Paving = 25 mph; 30' Paving = 30 mph.
- Sidewalks adjacent to Parking Areas to be 6' wide. All other sidewalks to be 4' wide. See det. sht. 13.
- Zoning: New Town - Attached Land Use.
- Street Name Signs shall be provided at all intersections.
- Storm Water Management for this project to be provided in adjacent ponds.

CURVE DATA
 PC 5106.58 to PT 6164.91
 R=275.00'
 Δ=53°03'02"
 L=158.63'
 T=81.53'
 CHD=52°43'39" W
 156.44'

CURVE DATA
 PC 3159.55 to PT 4116.31
 R=320.00'
 Δ=10°05'30"
 L=56.36'
 T=28.26'
 CHD=53°16'16" W
 56.29'



CURVE DATA
 PC 1102.88 to PT 2160.74
 R=375.00'
 Δ=24°07'08"
 L=157.06'
 T=80.12'
 CHD=94°39'05" W
 156.69'

FOR CONTINUATION SEE SHEET 2

PLAN
 SCALE: 1" = 50'

DEVELOPER'S/BUILDER'S CERTIFICATE

"I hereby 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."

William J. Rowe 9-28-82
 Signature of Developer/Builder Date

ENGINEER'S CERTIFICATE

I hereby 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.

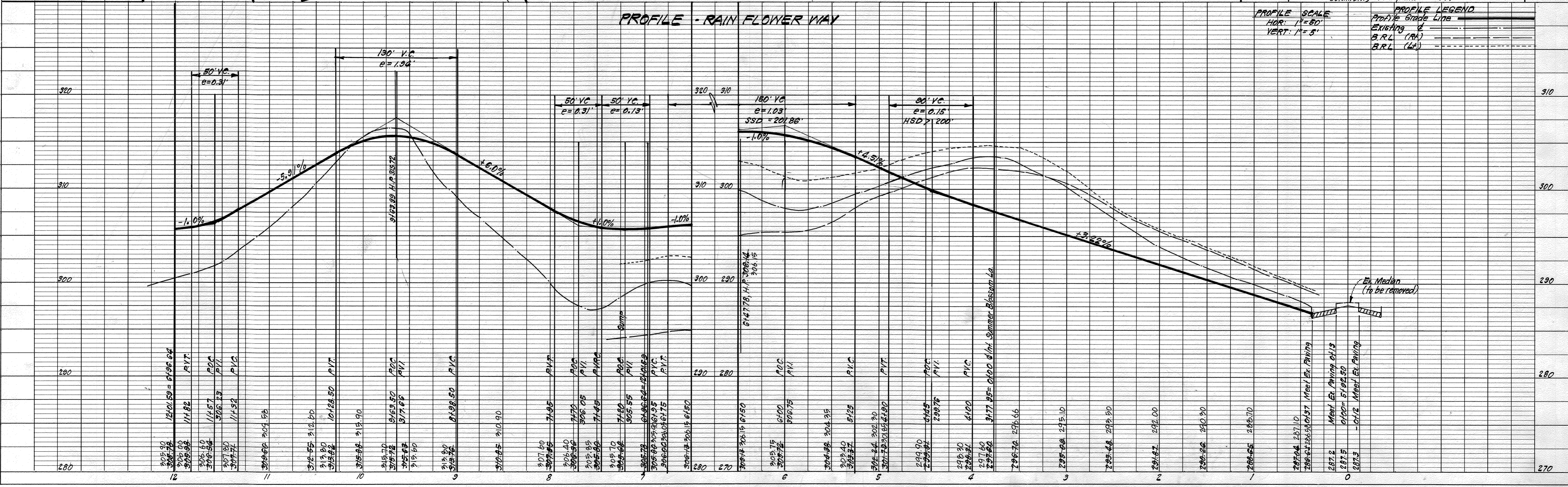
G. Nelson Clark 9-27-82
 Date

Reviewed for... HOWARD... S.C.D.
 Name
 and meets Technical Requirements
James M. Schatz 10/28/82
 Signature Date
 U.S. Soil Conservation Service

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

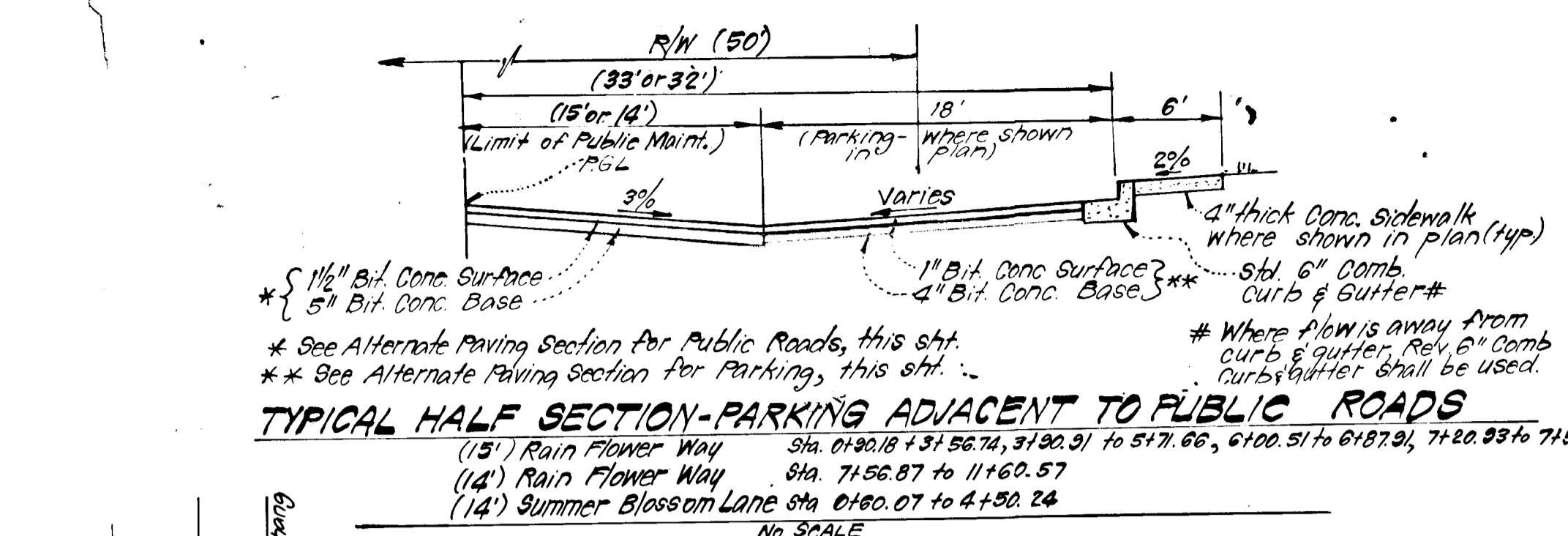
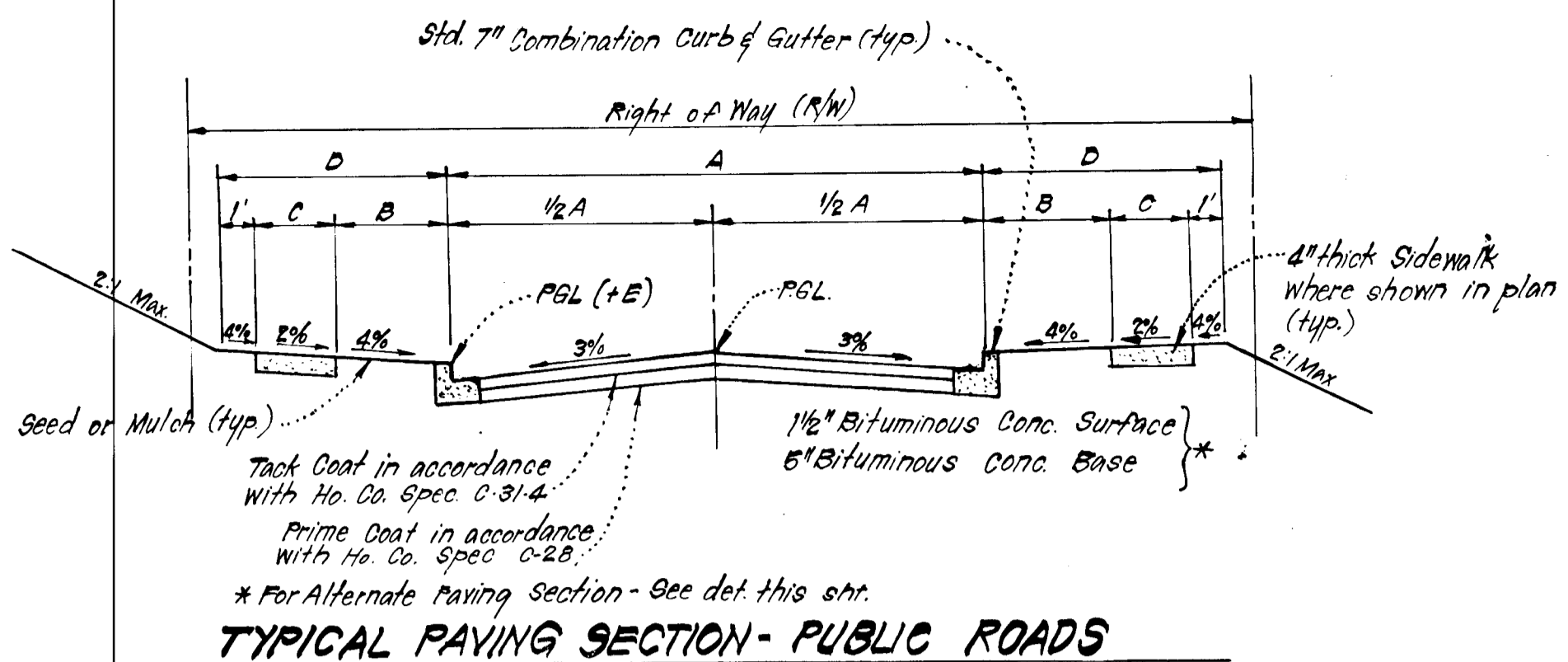
William J. Rowe 10/28/82
 Approved Date

APPROVED: Department of Public Works	
Chief, Bureau of Engineering <i>John M. Schatz</i> 10/28/82	
APPROVED: Howard County Office of Planning and Zoning	
Chief, Division of Land Development & Zoning Administration <i>John M. Schatz</i> 10/28/82	
CLARK · FINEFROCK & SACKETT ENGINEERS · PLANNERS · SURVEYORS	
11315 LOCKWOOD DRIVE · SILVER SPRING, MARYLAND 20904 · (301) 593-3400	
DESIGNED	J.L.S. ROAD CONSTRUCTION PLANS
DRAWN	K.I.W. RAIN FLOWER WAY LOTS C1 THRU C-33
CHECKED	J.L.S. COLUMBIA
DATE	9-28-82
SCALE	AS SHOWN
LEGEND	DRAWING 1 OF 7
FILE NO.	80-066-D



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

PROFILE LEGEND
 Profile Grade Line
 Existing &
 B.R.L. (RA)
 B.R.L. (L)



STRUCTURE SCHEDULE									
No.	TYPE	INV. IN	INV. OUT	TOP ELEV.		REMARKS	LOCATION		
				UPPER	LOWER				
* I-1	A-10 Inlet w/Deflectors	282.90	282.60	287.98	287.63	Ho. Co. Std. SD/4.02	W=3'-6"	4 St. 0+70.67 Rain Fl. Way 15' Lt.	
* I-2	A-10 Inlet w/Deflectors	284.40	283.40	287.97	287.62	Ho. Co. Std. SD/4.02	W=3'-6"	4 St. 0+70.50 Rain Fl. Way 15' Lt.	
* M-3	Shallow Manhole	287.98	287.86	291.54	291.54	Ho. Co. Std. G/1.05	4'-8" Sq.	4 St. 1+28 Rain Fl. Way 21' Lt.	
* I-4	A-10 Inlet w/Deflectors	292.68	291.90	296.24	296.89	Ho. Co. Std. SD/4.02	W=3'-6"	4 St. 3+27 Rain Fl. Way 15' Lt.	
* I-6	A-10 Inlet w/Deflectors	-	294.46	298.78	298.34	Ho. Co. Std. SD/4.02	W=3'-6"	4 St. 0+66.65 Summ. Bloss. La. 14' W.	
* S-7	End Section	277.00	277.41	-	-	Ho. Co. Std. SD/5.51	6" x 6" Dia = 15"	See Plan	
* M-7A	Brick Manhole	282.00	278.42	287.50	287.50	Ho. Co. Std. G/1.01	48" Rd.	See Plan	
* I-8	A-10 Inlet	298.50	297.94	305.75	306.75	Ho. Co. Std. SD/4.02	W=3'-6"	4 St. 7+12.43 Rain Fl. Way 15' Lt.	
* I-11	A-10 Inlet	299.00	298.90	306.24	306.22	Ho. Co. Std. SD/4.02	W=3'-6"	4 St. 1+51.90 Rain Fl. Way 15' Lt.	
* I-12	C Inlet	-	299.50	303.00	303.00	Ho. Co. Std. SD/4.11	2'-6" Sq.	See Plan	

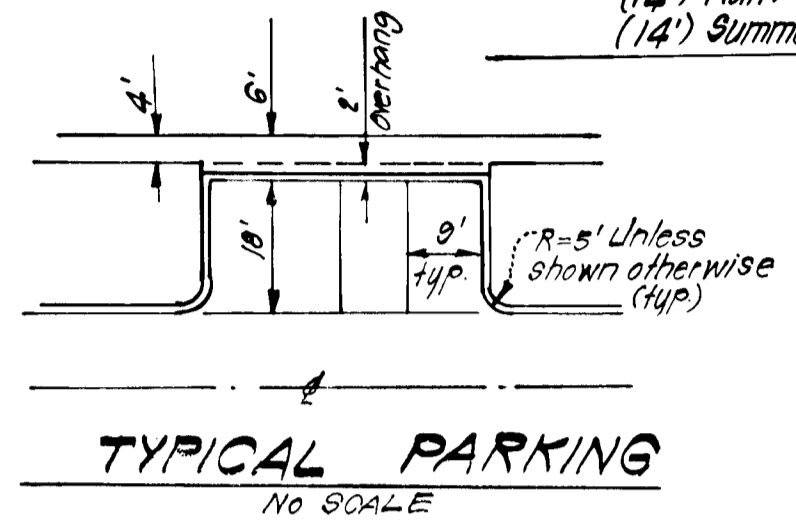
* See Ho. Co. Std. 30/4.83 for Inlet deflectors.

Note: All Inlets to have stubs of 6" PVC Pipe for Underdrains (all sides). All Inverts to be fully developed.

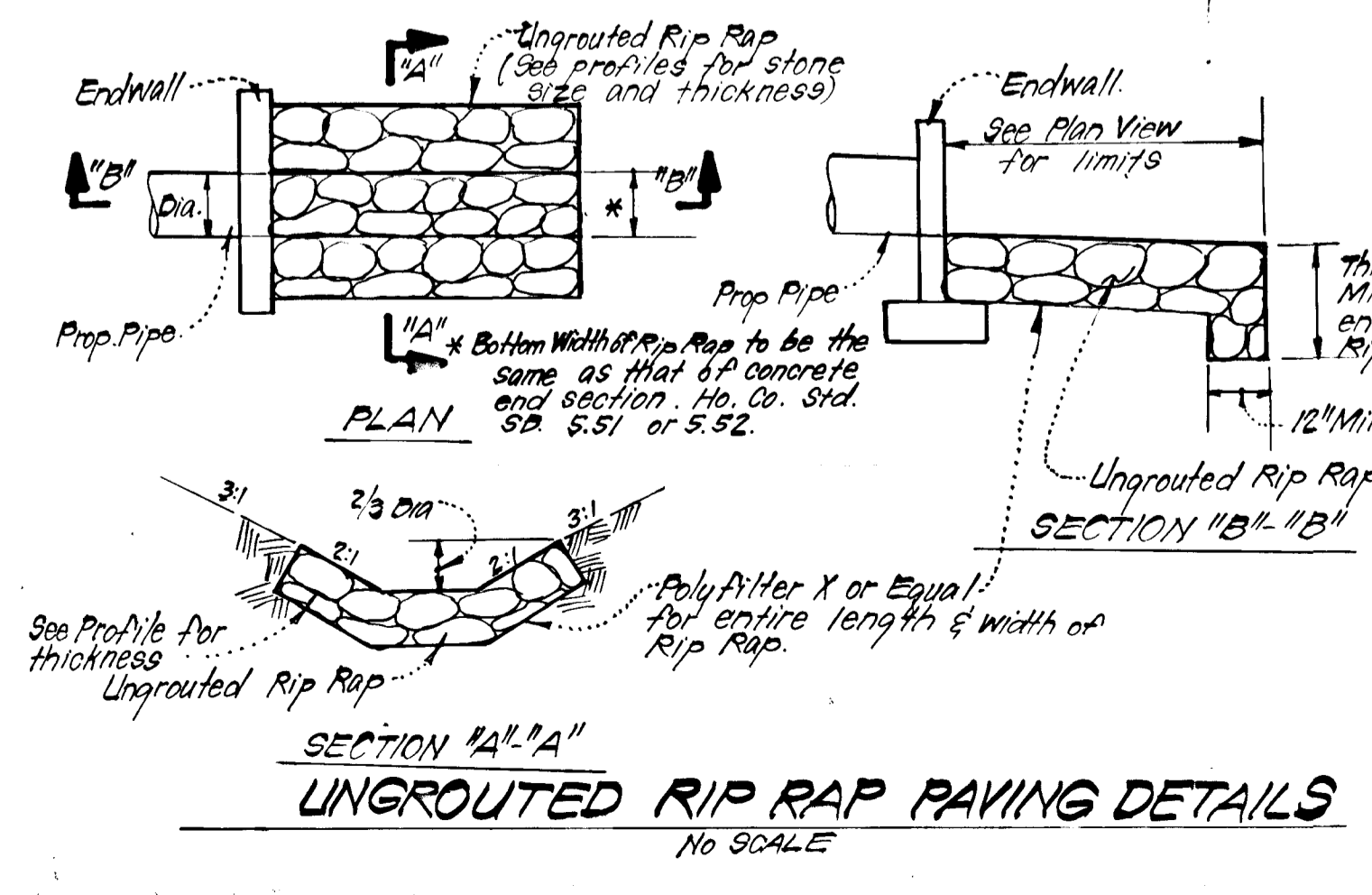
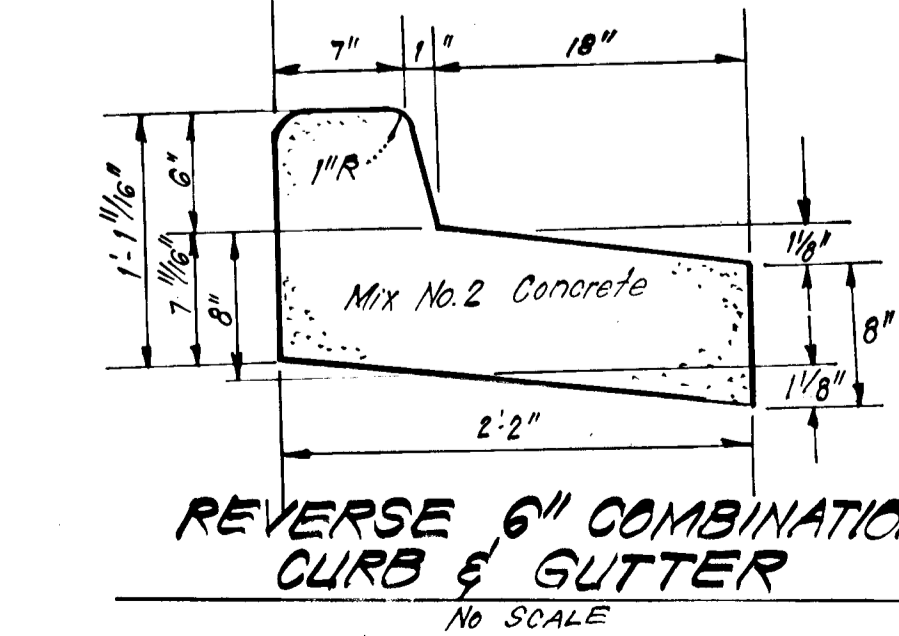
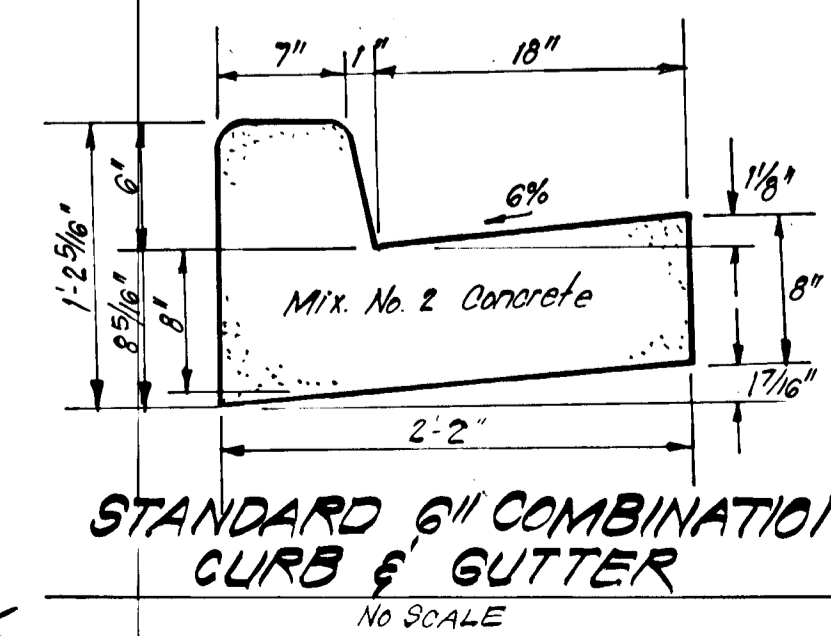
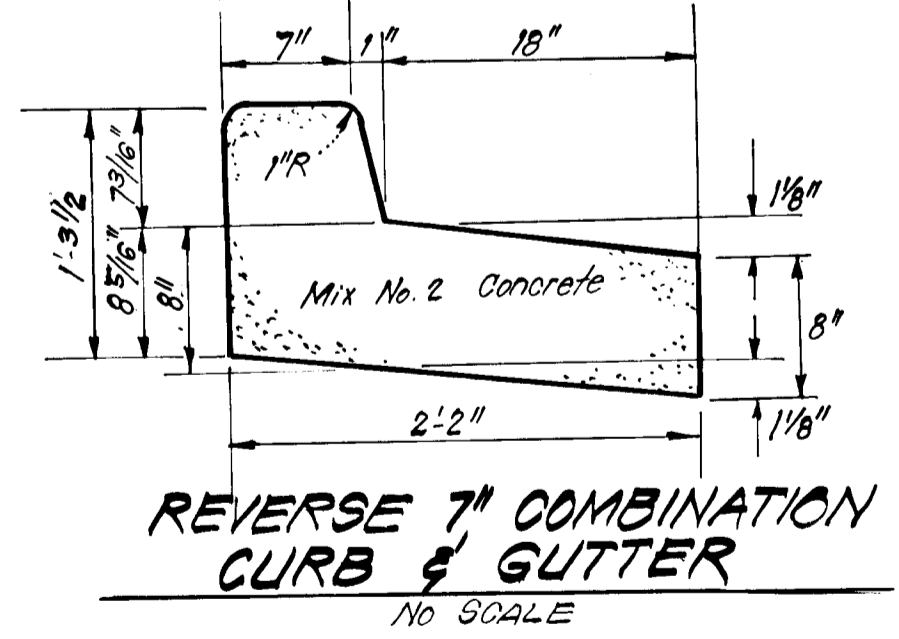
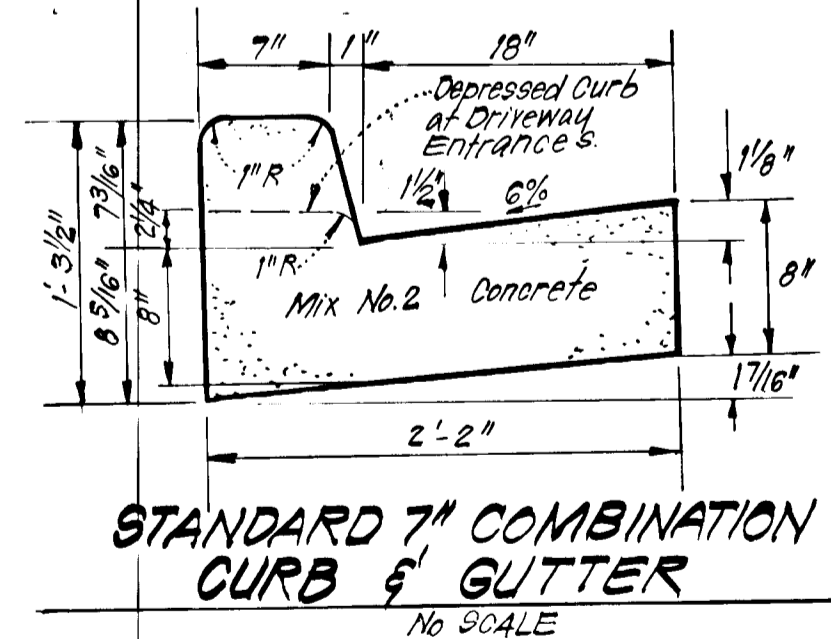
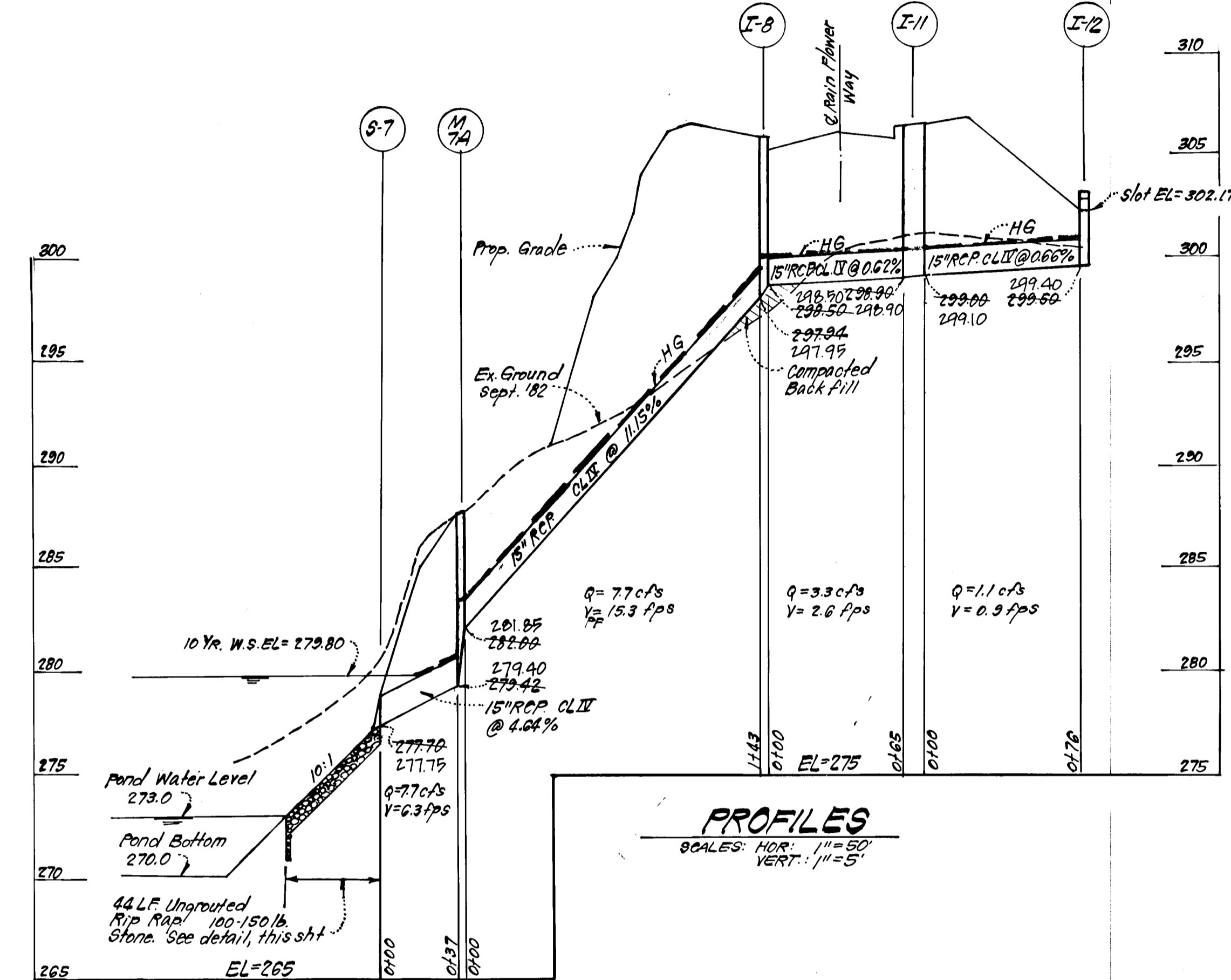
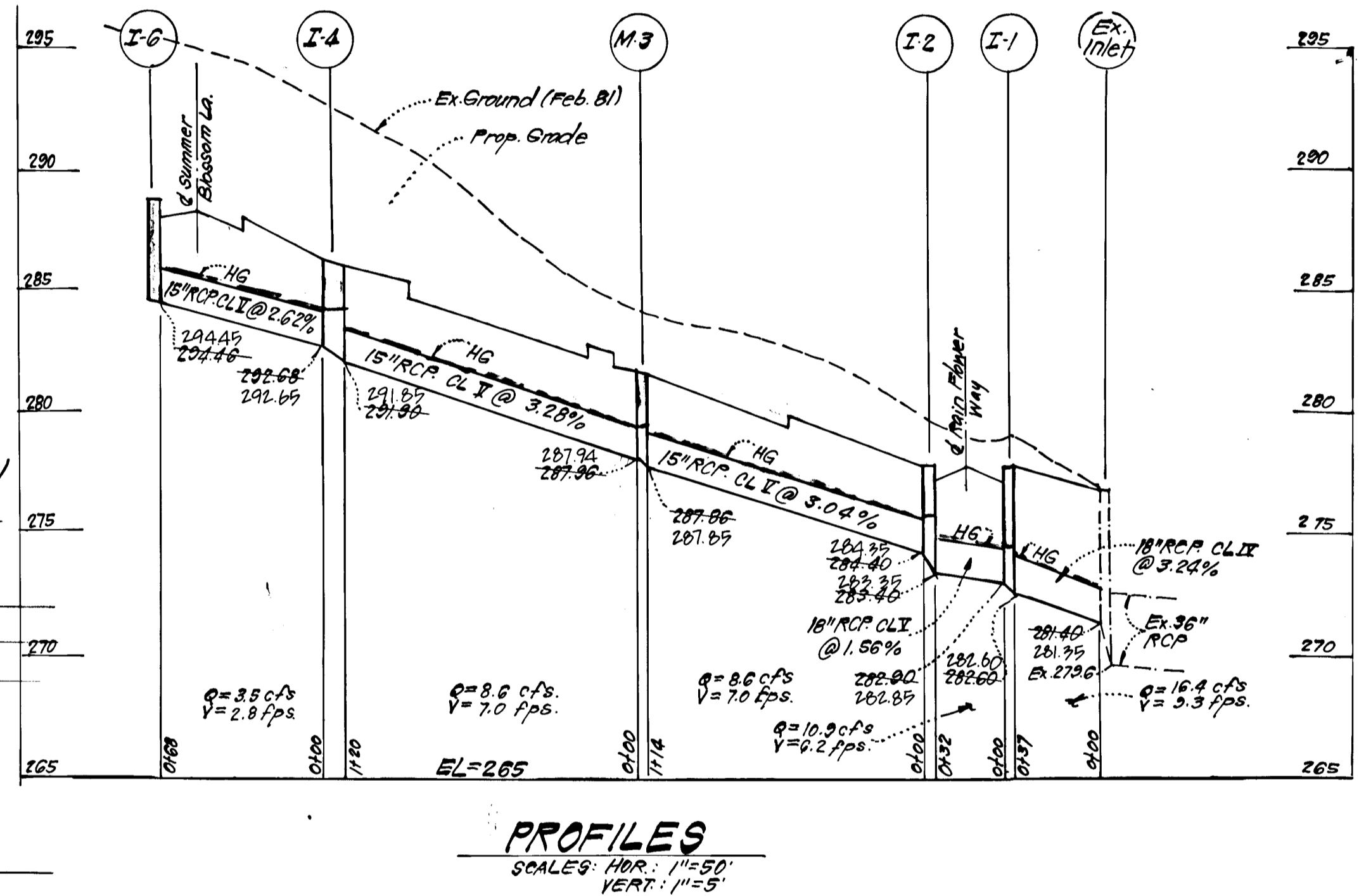
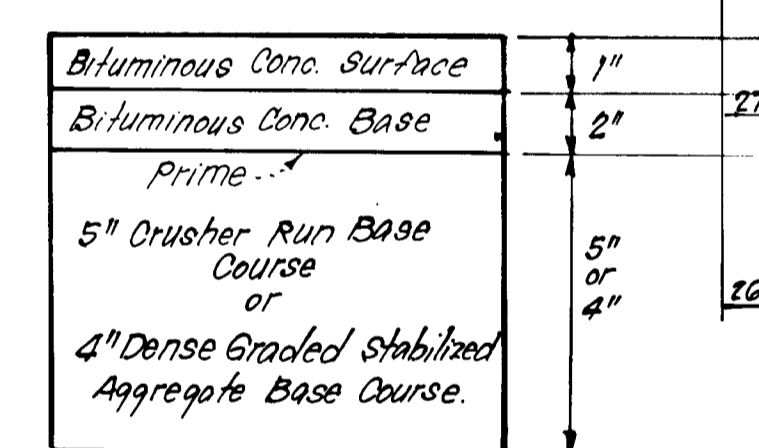
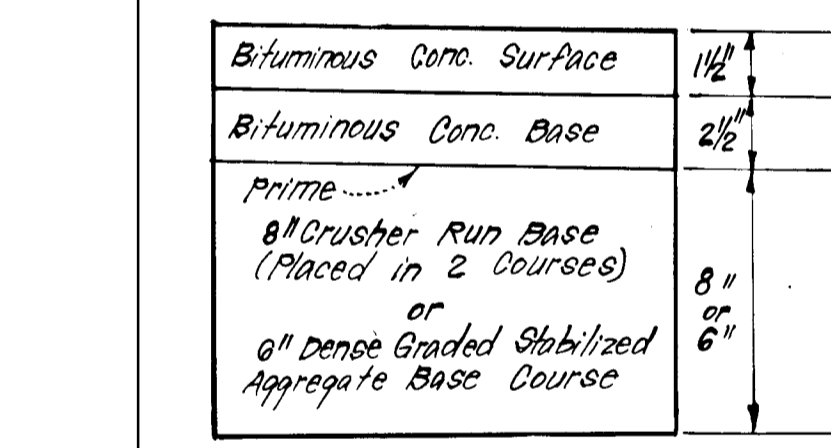
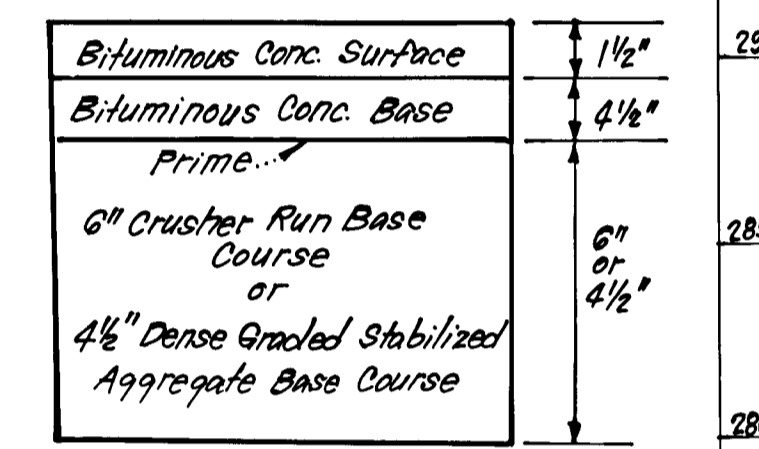
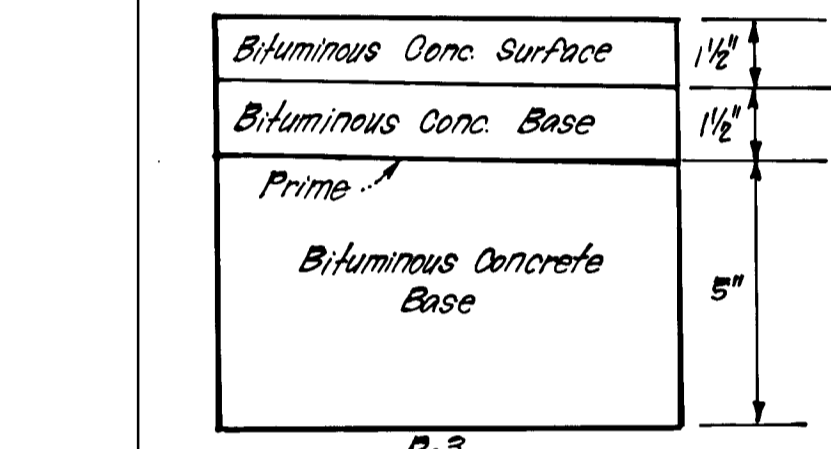
Provide Slots in North & East side of Inlet (Slot EL = 302.17)

No SCALE

STREET NAME & STATION	TYPE OF TRAFFIC	A	B	C	D	R/W	DESIGN SPEED	ZONING	E
Rain Flower Way 0+121 to 0+136.16, 3+566.74 to 3+600.81, 6+87.91 to 7+120.83, 8+172.62 to 8+66.51	LOCAL	15'	4'	4'	3'	50'	30 mph	N.T. Attach Land Use	710
Rain Flower Way 10+60.57 to 10+115.9	CUL DE SAC	14'	4'	4'	3'	50'	25 mph	N.T. Attach Land Use	714
Summer Blossom Lane 0+00 to 0+60.07	CUL DE SAC	14'	4'	4'	3'	50'	25 mph	N.T. Attach Land Use	714



PIPE SCHEDULE		
SIZE	TYPE	LENGTH
15"	RCP CLV	302 LF
15"	RCP CLV	321 LF
18"	RCP CLV	32 LF
18"	RCP CLV	37 LF



Reviewed for: Howard, S.C.D.

Name: James M. Nelson

and meets Technical Requirements

Signature: [Signature]

U.S. Soil Conservation Service

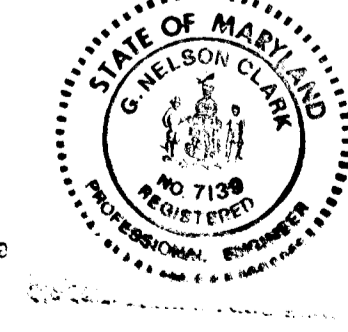
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

Approved: [Signature] Date: 9-27-82

ENGINEER'S CERTIFICATE

I hereby 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.

Approved: [Signature] Date: 9-27-82



DEVELOPER'S/BUILDER'S CERTIFICATE

"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."

Signature of Developer/Builder: [Signature]

Date: 9-28-82

APPROVED: Department of Public Works

10-26-82

APPROVED: Howard County Office of Planning and Zoning

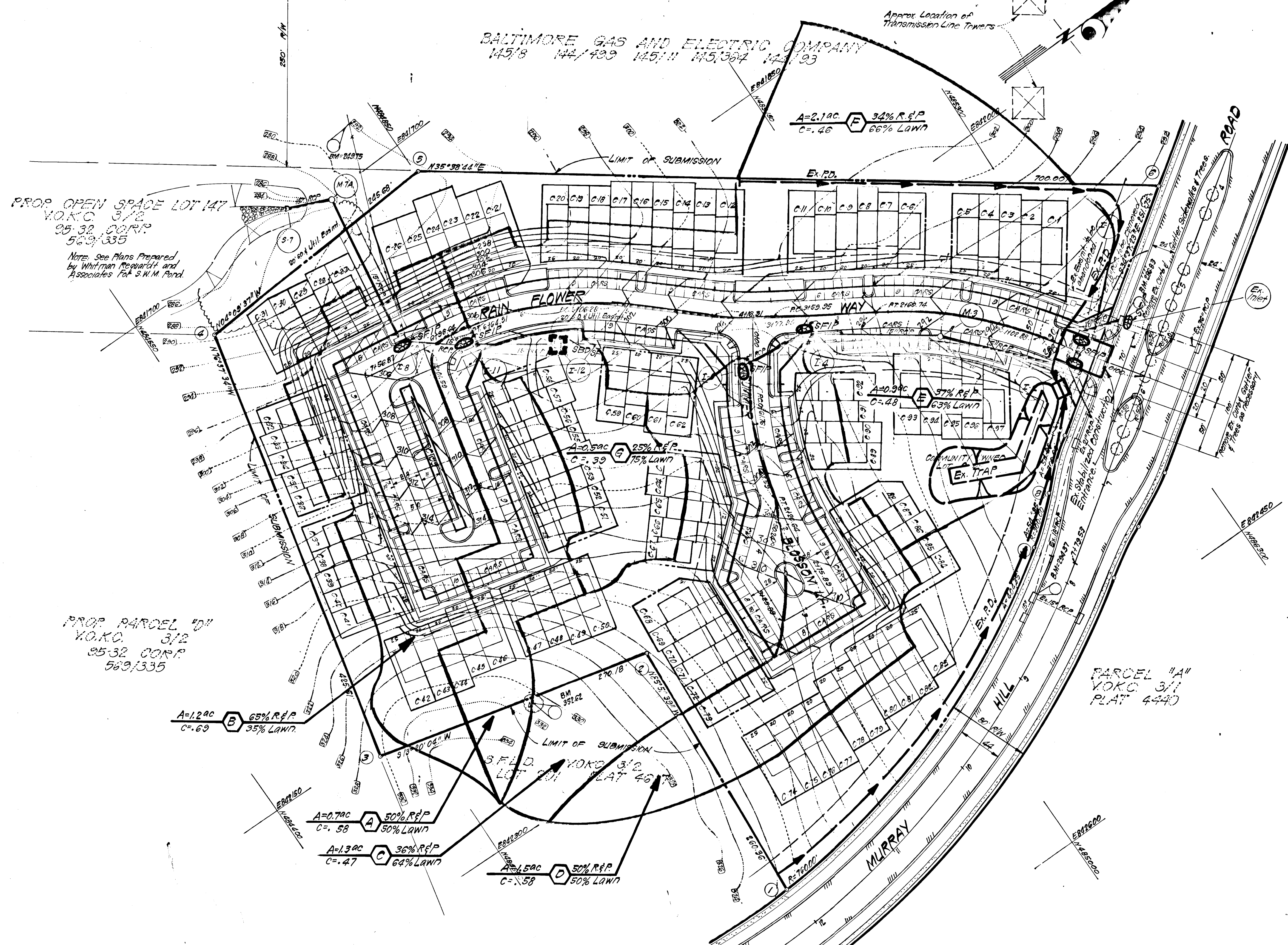
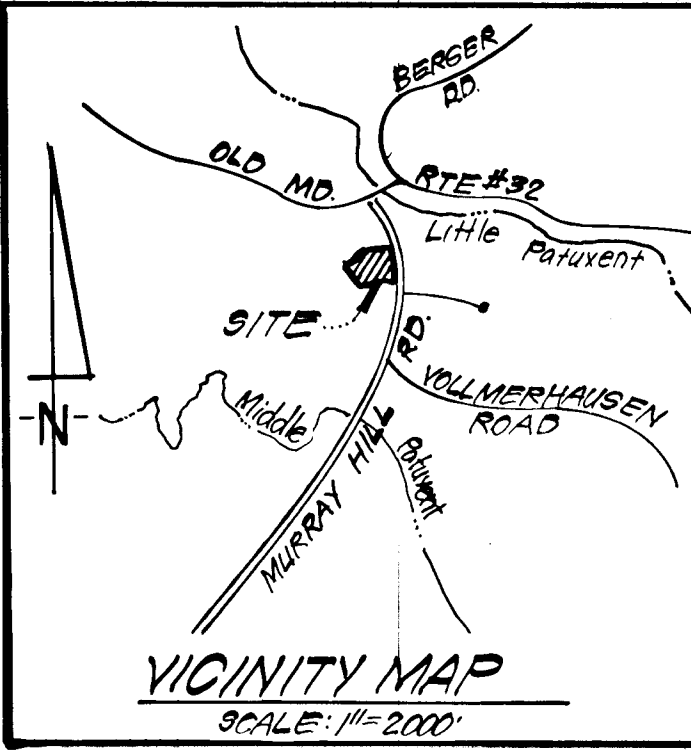
10-26-82

CLARK • FINEFROCK & SACKETT
ENGINEERS • PLANNERS • SURVEYORS

11314 LOCKWOOD DRIVE SILVER SPRING, MARYLAND 20904 (301) 593-3400

DESIGNED	JLS	ROAD CONSTRUCTION PLANS	SCALE
DRAWN	JLS	PROFILES & DETAILS	AS SHOWN
CHECKED	JLS	LOTS C-1 THRU C-99	DRAWING
DATE	9-28-82	COLUMBIA	30F7
		VILLAGE OF KINGS CONTRIVANCE	JOB NO.
		SECTION 3 AREA 2	80-066
		6TH ELECTION DISTRICT	FILE NO.
		HOWARD COUNTY, MARYLAND	80-066-D

FOR: THE HOWARD RESEARCH & DEVELOPMENT CORP.
The Rouse Company Building
Columbia, Maryland 21044



PROP. OPEN SPACE LOT 147
 Y.O.C. 3/2
 95-32 CORP.
 589/335

Note: See Plans Prepared
 by Whitman Requardt and
 Associates for S.W.M. Pond

PROP. PARCEL "D"
 Y.O.C. 3/2
 95-32 CORP.
 589/335

PARCEL "A"
 Y.O.C. 3/1
 PLAT 4440

Note: Existing Sediment & Erosion Control to be Utilized
 See Previously Approved Sediment & Erosion & Grading
 Plan GP-83-13.

- LEGEND:**
- Contour Interval 2 Ft.
 - Existing Contour
 - Proposed Storm Drain
 - Ex. Perimeter Dike
 - Stone Filter Inlet Protection
 - Stray Bale Dike or Silt Fence

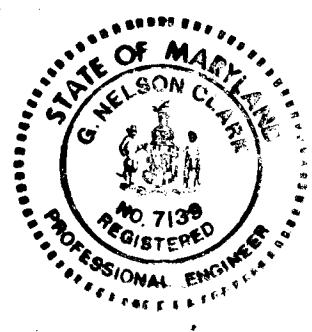
BALTIMORE GAS AND ELECTRIC COMPANY
 145/8 144/489 145/11 145/384 145/93

Reviewed for Howard S.C.D.
 Name
 and meets Technical Requirements
 Signature James M. Delaney Date 10-22-82
 U.S. Soil Conservation Service

THIS DEVELOPMENT PLAN IS APPROVED
 FOR SOIL EROSION AND SEDIMENT
 CONTROL BY THE HOWARD SOIL
 CONSERVATION DISTRICT.
 Signature William H. King Date 10-22-82
 Approved

DEVELOPER'S/BUILDER'S CERTIFICATE
 "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."
 Signature William E. Pendergast Date 9-25-82

ENGINEER'S CERTIFICATE
 I hereby 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 Conserva-
 tion District.
 Signature G. Nelson Clark Date 9-27-82



APPROVED: Department of Public Works
 Signature William E. Pendergast Date 10-26-82
 Chief, Bureau of Engineering
 APPROVED: Howard County Office of Planning & Zoning
 Signature Arthur W. Mumford Date 10-26-82
 Chief, Division of Land Development & Zoning Administration

CLARK • FINEFROCK & SACKETT
 ENGINEERS • PLANNERS • SURVEYORS
 11314 LOCKWOOD DRIVE • SILVER SPRING, MARYLAND 20904 • (301) 593-3400

DESIGNED	ROAD CONSTRUCTION PLANS SEDIMENT EROSION CONTROL PLAN & DRAINAGE AREA MAP LOTS OF THRU C. 93	SCALE	1"=50'
DRAWN		DRAWING	4077
CHECKED		JOB NO.	80-066
DATE	9-28-82	FILE NO.	80-066-D

OWNER: The Howard Research & Development Corp.
 The Rouse Company Building
 Columbia, Maryland 21024

#445

GENERAL NOTES

- Grading Permits shall be obtained prior to installation of Sediment Control & Grading.
- All Sediment and Erosion Control Measures will be installed and stabilized according to this plan prior to any other grading, clearing or disturbance of the existing surface of the site. See note #6 for stabilization except that the seed mixture will be annual rye applied at a rate of 1.4 lbs/1000 sf.
- Notify the Bureau of Inspections and Permits at least 24 hrs. before starting any work.
- All Sediment Control Practices to conform to the "Standards and Specifications for Soil Erosion and Sediment Control in Developing Areas" and shall be adjusted to meet actual field conditions.
- Stabilization of Disturbed ground to be done as soon after construction as possible.
- All disturbed area to be stabilized in accordance with the following Specifications:
 - Seed - certified 85% germination applied at the rate of 3 lbs/1000 sf Mixture - 40% Kentucky Blue, 20% chewing Fescue, 20% Kentucky 31 and 20% annual rye
 - Fertilizer - 10-10-10 applied at a rate of 23 lbs/1000 sf Ground Agricultural Lime or Dolomitic Lime applied at a rate of 20 lbs/1000 sf
 - Mulch - Weed free grain straw applied at a rate of 70-90 lbs/1000 sf Mulch shall be secured to the ground by any approved method i.e.; asphalt tacks, chemical binder etc.
 - All Sod used shall be Maryland State Certified.
- All structural Sediment Control Measures are to remain in place until permission for their removal has been obtained from the Bureau of Inspections and Permits.
- On-Site Inspection and Maintenance of all Sediment Control Measures including clean out of Sediment Traps and Dikes, and proper establishment of all planned vegetative measures will be the responsibility of the developer or his representative on the site, on a continuing day to day basis.
- It will be the developers responsibility to provide additional Sediment & Erosion Control Devices to protect stabilized areas during construction.
- The Contractor shall keep all public roads free of sediment deposits left from traffic leaving construction site.
- Approval of this plan is conditional upon the approval of Sediment Control Plan for the off-site waste or borrow area prior to the import of any borrow or export of waste to or from this site.
- All pipes to be blocked at the end of each day. See detail this sheet.
- Total Amount of Straw Bales or Silt Fence shown = 35 L.F.

SITE ANALYSIS:

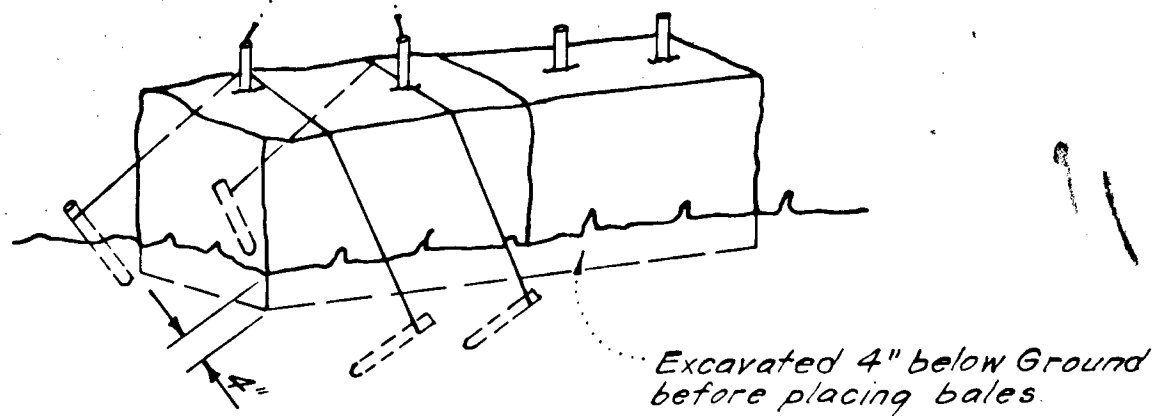
- Total Area: 8.030 Acres
- Area to be Roofed: None Acres
- Area to be Paved: 2.050 Acres
- Area to be Seeded: 4.350 Acres
- Area Undisturbed: 2.430 Acres

CONSTRUCTION SEQUENCE:

- Cleanout and maintain Existing Sediment & Erosion Control. (Rough Grading & Clearing Complete)
- Construct Storm Drainage & Utilities. Immediately install SFIP's & SBD's.
- Final grade & construct paving & sidewalks.
- Stabilize all other disturbed areas onsite in accordance with stds & specs.
- Remove Sediment & Erosion Control after all areas draining to them have been stabilized.

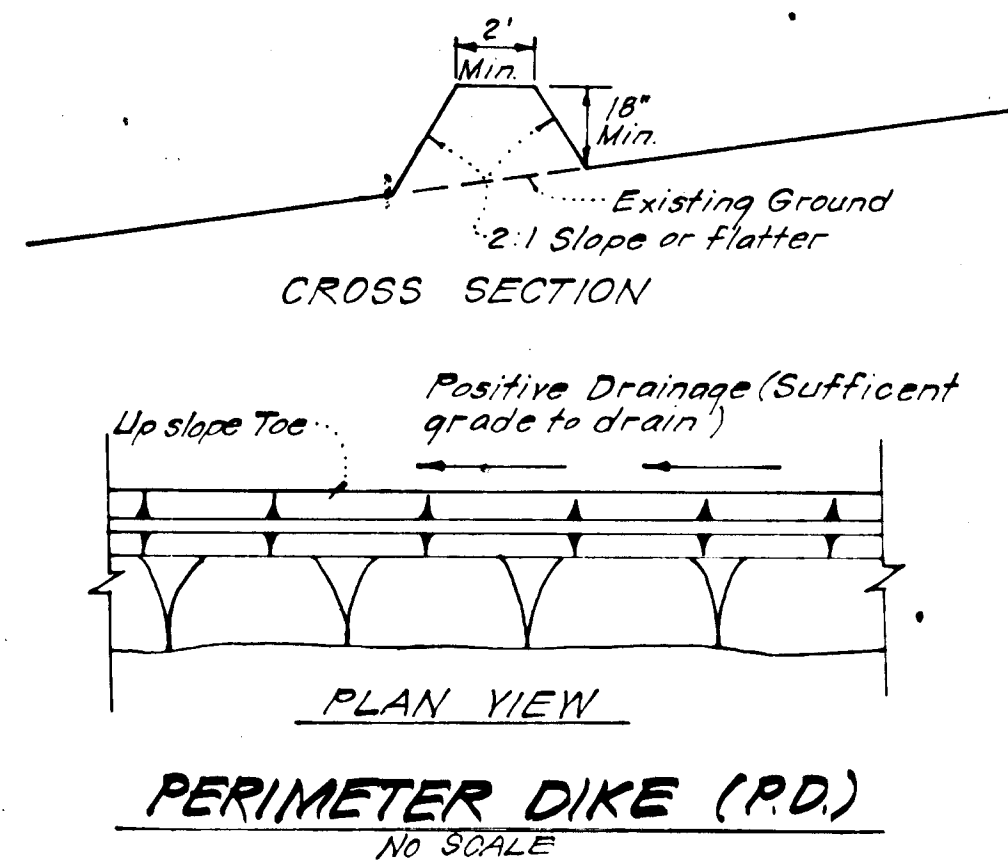
All bales shall be tied with non-weathering materials, i.e., wire, nylon.

Two rebars or wooden stakes driven through each hole 1 1/2" - 2" into ground. Rebars to be driven flush with top of bales.



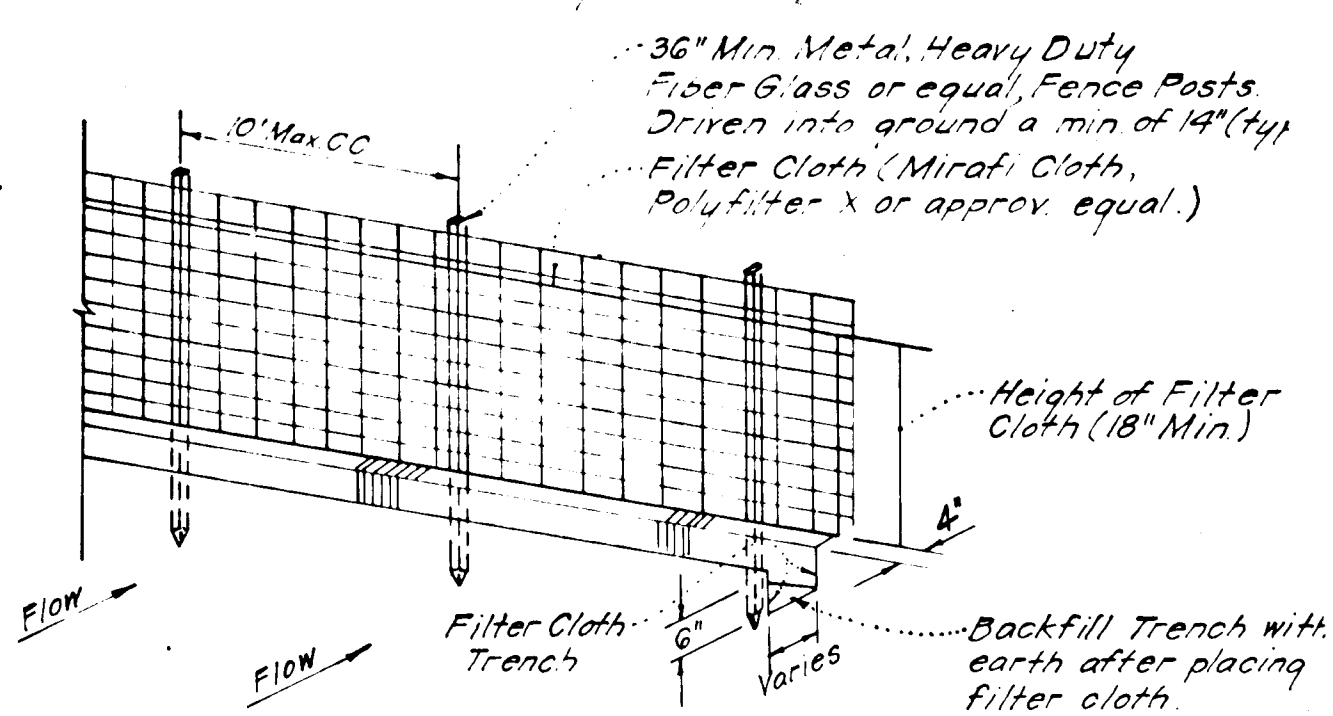
Note:
1. In lieu of the use of rebars each straw bale may be fastened to ground with pegs (4 per bale and wire or nylon as shown above.)

STRAW BALE DIKE DETAIL (S.B.D.)
No SCALE



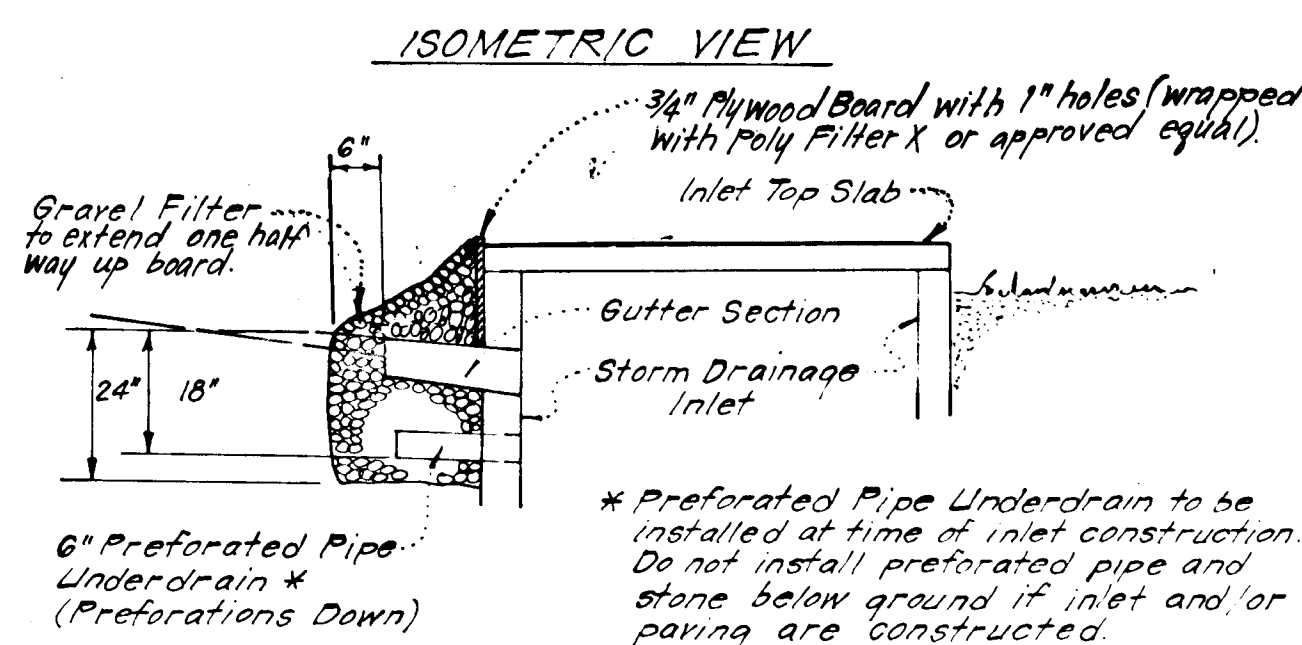
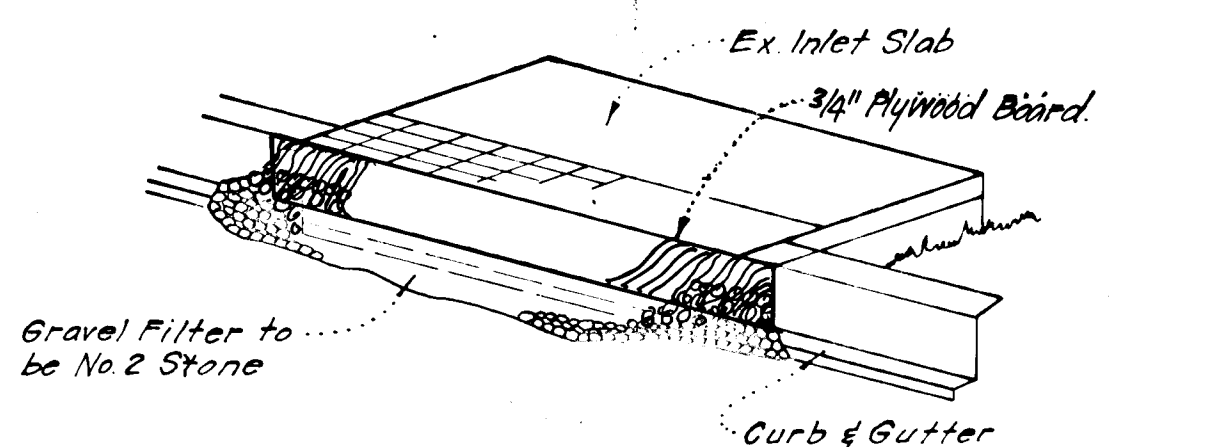
PERIMETER DIKE (P.D.)
No SCALE

Woven wire fence - Min 14 gage; 6" Max spacing

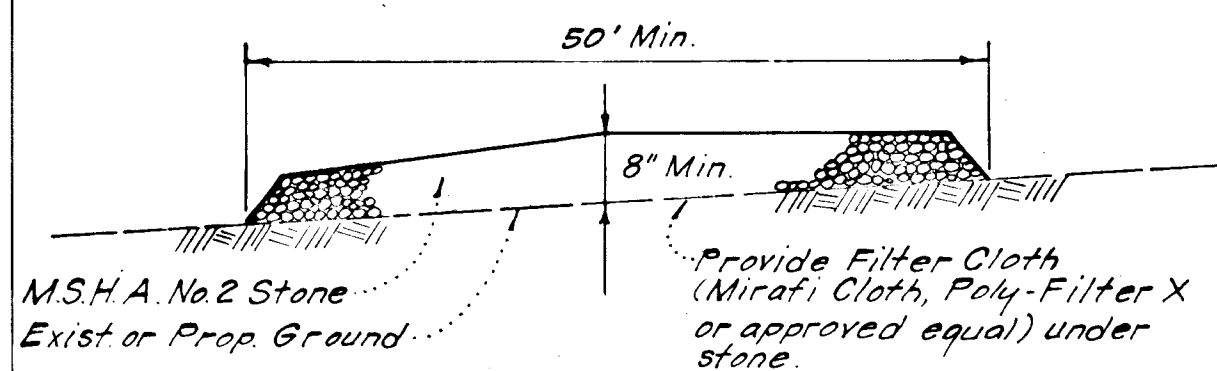


Notes:
1. Woven Wire Fence to be fastened securely to fence posts by use of wire ties.
2. Filter Cloth to be fastened securely to Woven Wire, by use of wire ties spaced every 24" x 24".

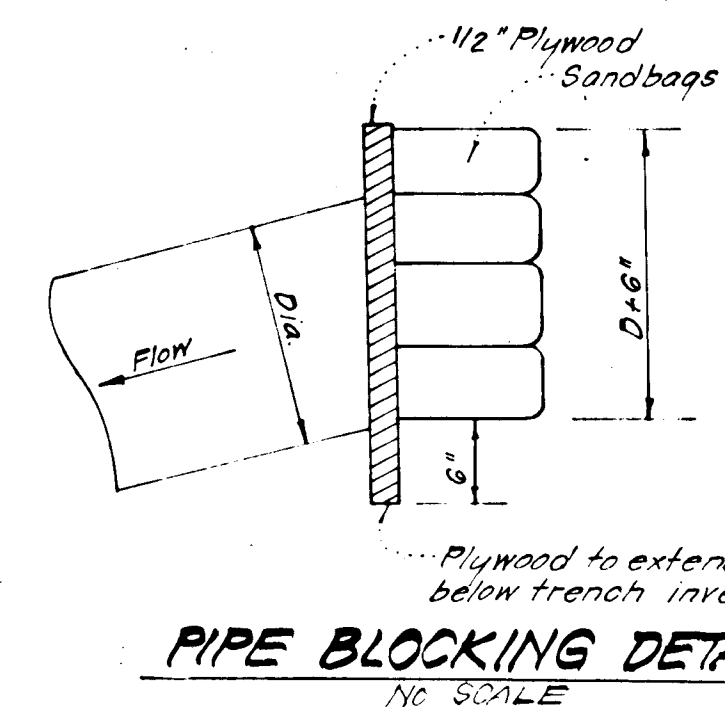
SILT FENCE DETAIL (SF)
No SCALE



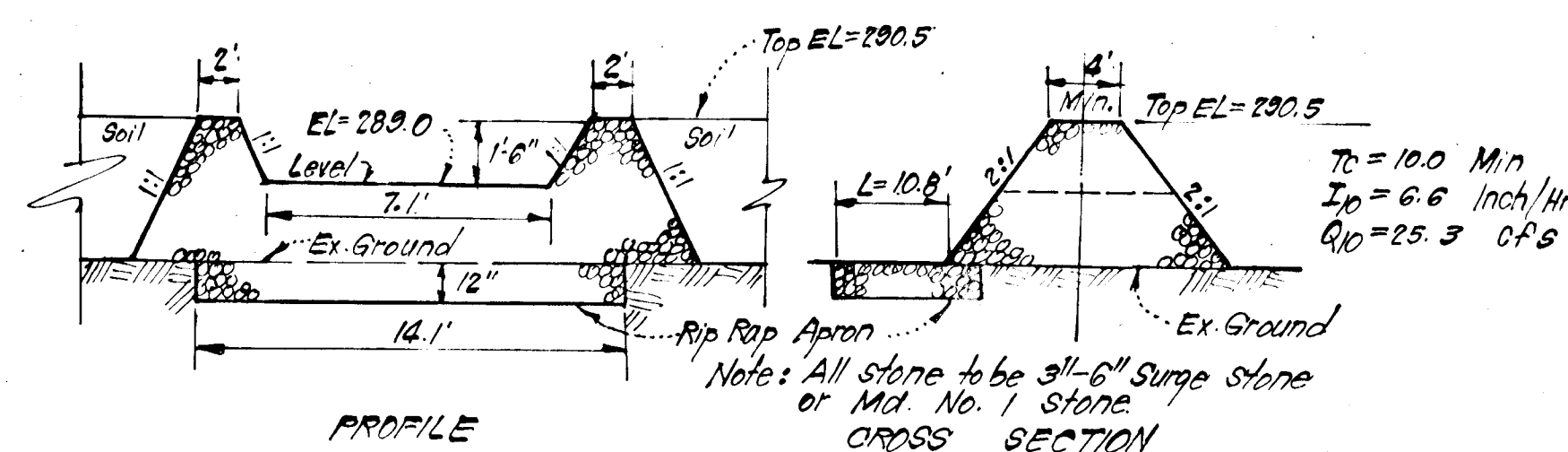
STONE FILTER INLET PROTECTION (SFIP)
No SCALE



STABILIZED CONSTRUCTION ENTRANCE
No SCALE



PIPE BLOCKING DETAIL
No SCALE

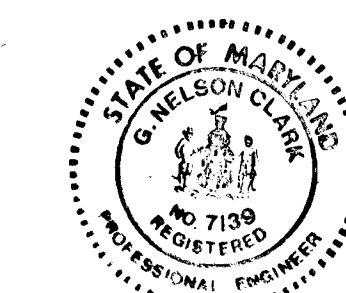


SPECIAL STONE OUTLET STRUCTURE DETAIL (S.O.S.T.)
No SCALE

Reviewed for: HOWARD S.C.D.
Name
and meets Technical Requirements
James M. Nelson Date
Signature
U.S. Soil Conservation Service
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
William M. Nelson 9-27-82
Approved Date

DEVELOPER'S/BUILDER'S CERTIFICATE
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Walter E. ... 9-28-82
Signature of Developer/Builder Date

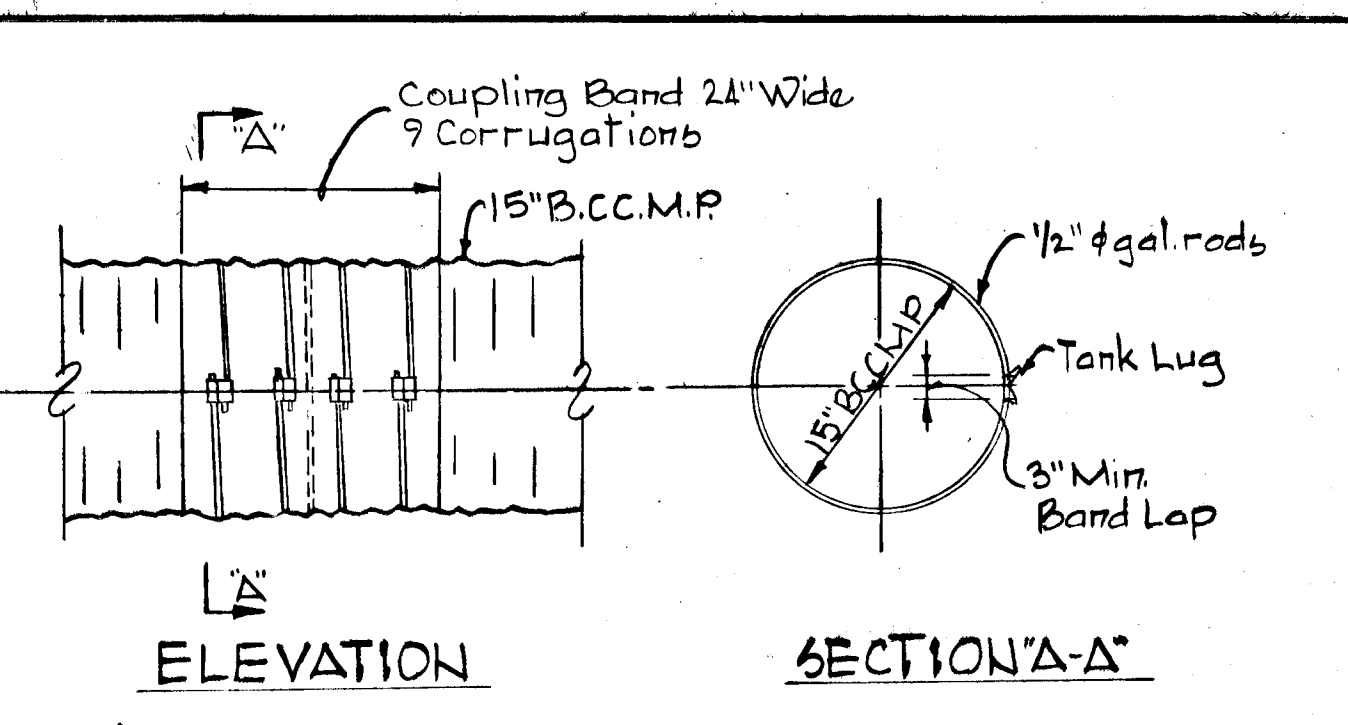
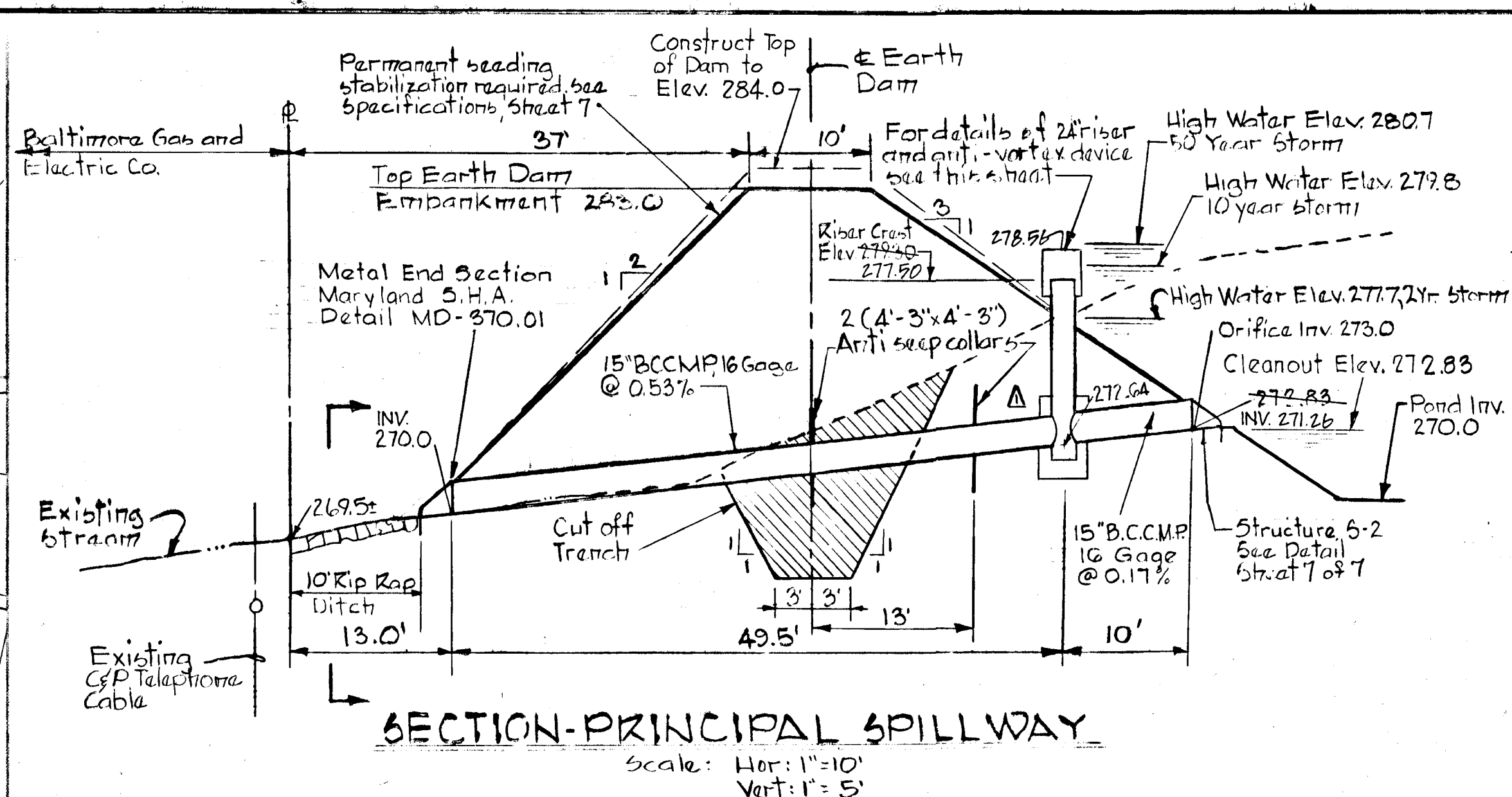
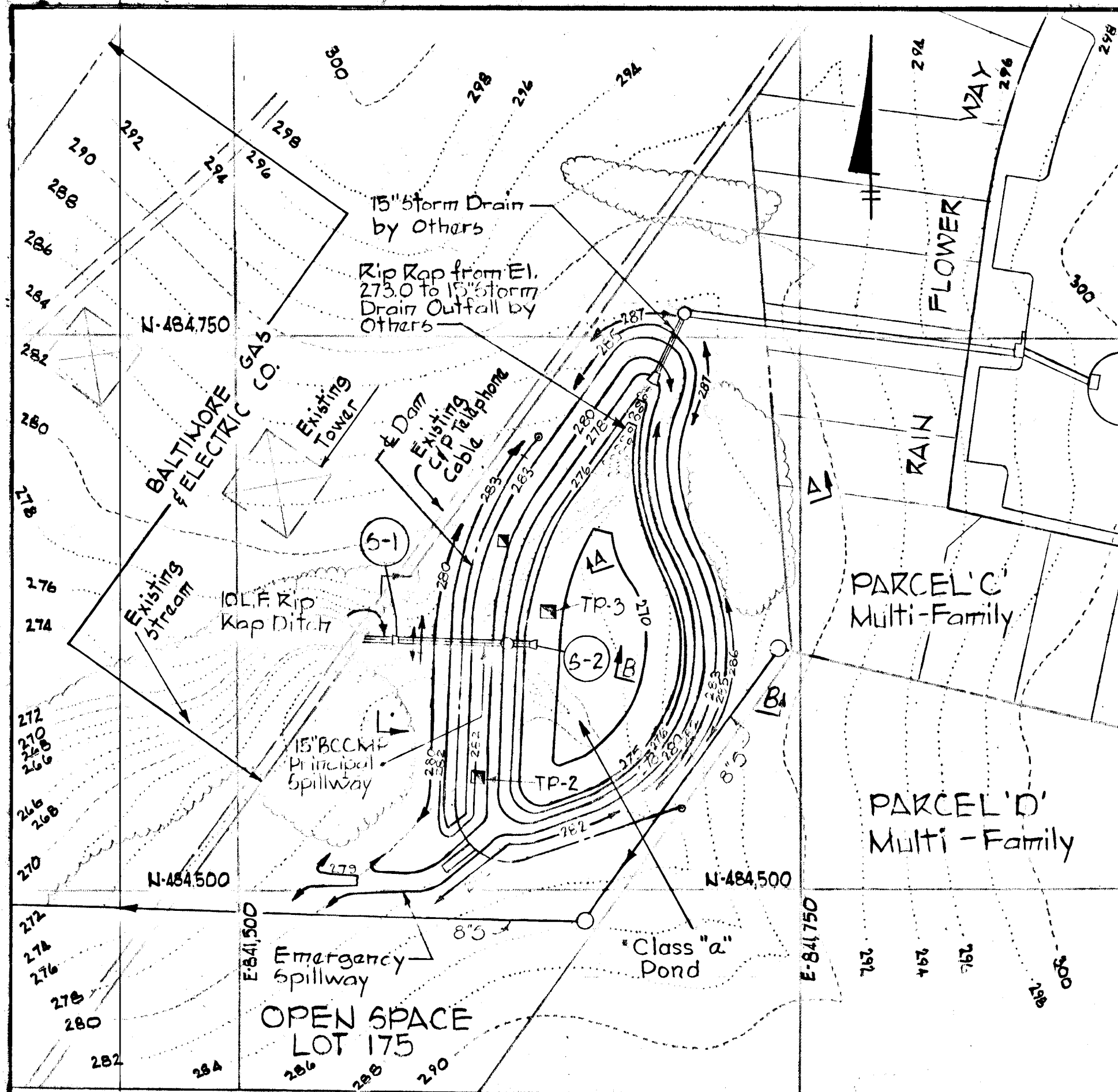
APPROVED: Department of Public Works
James M. Nelson 10-26-82
Chief, Bureau of Engineering
APPROVED: Howard County Office of Planning and Zoning
John W. ... 10-26-82
Chief, Division of Land Development & Zoning Administration Date



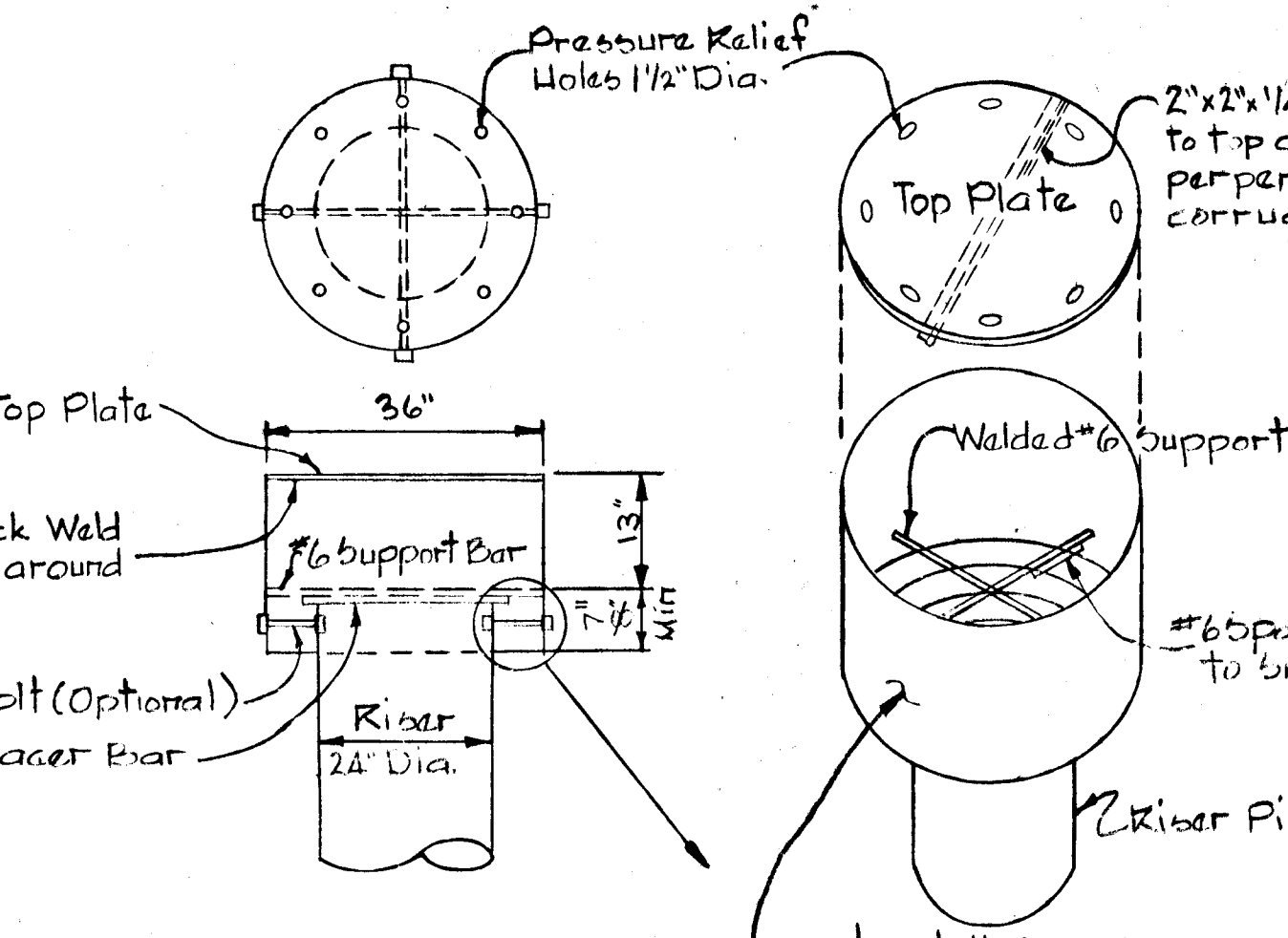
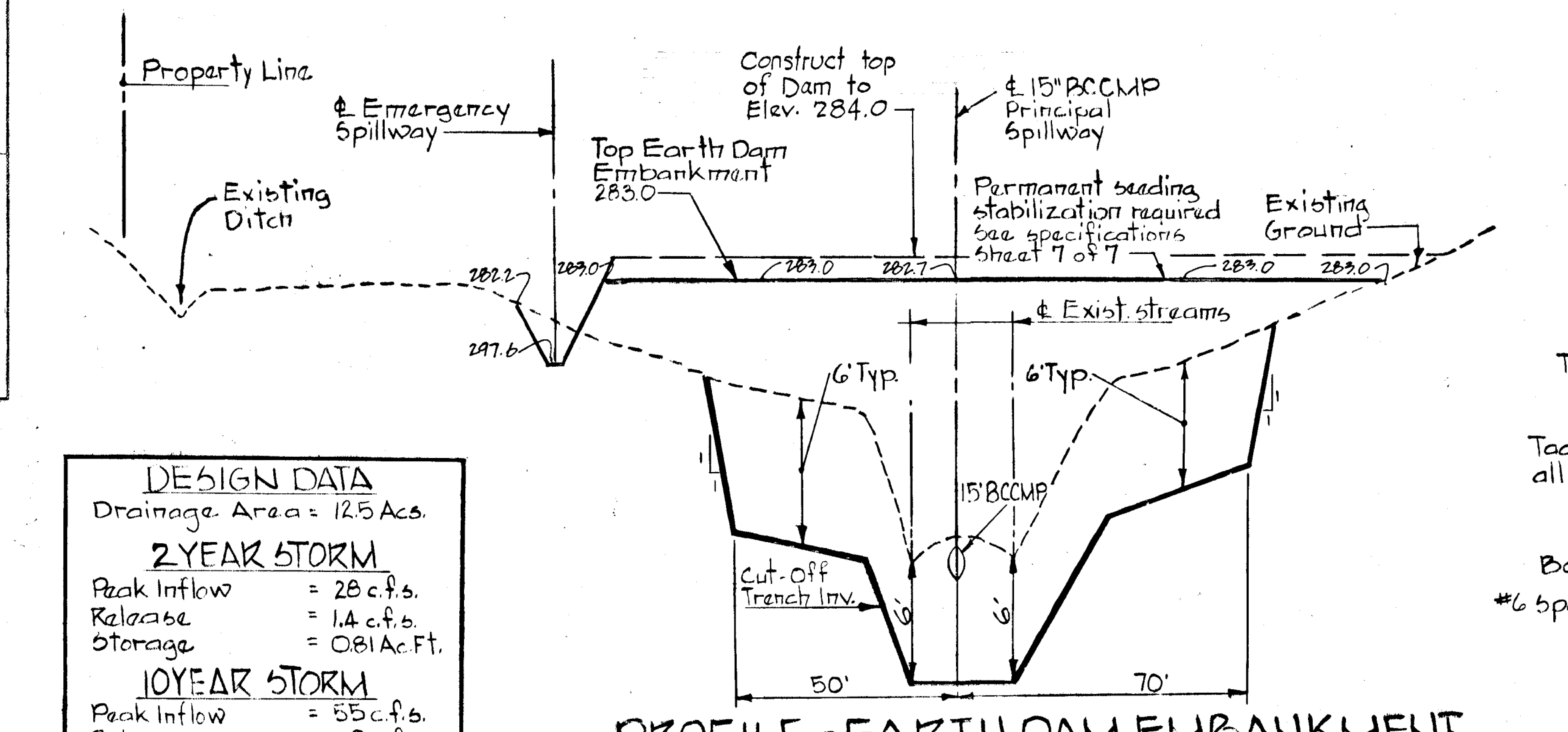
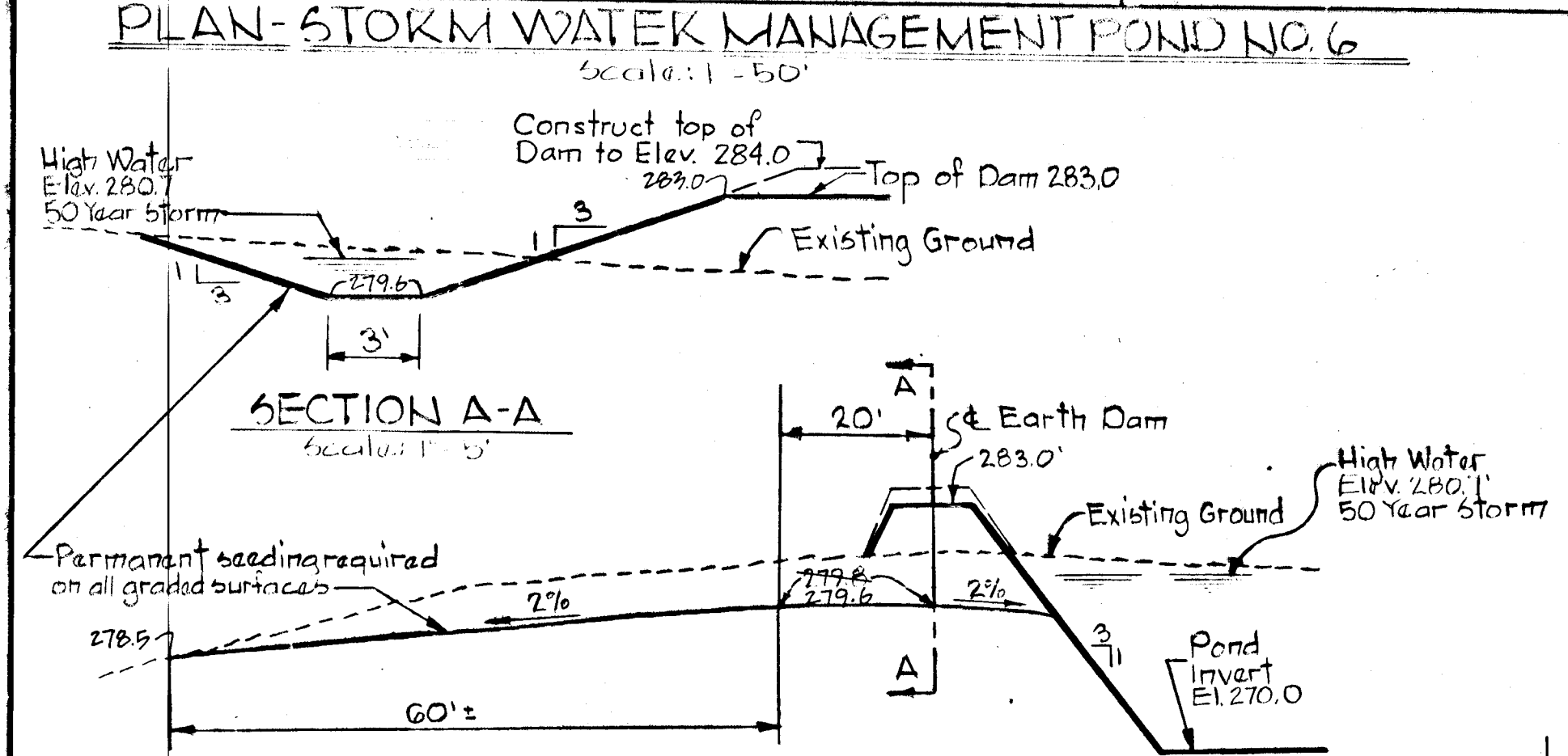
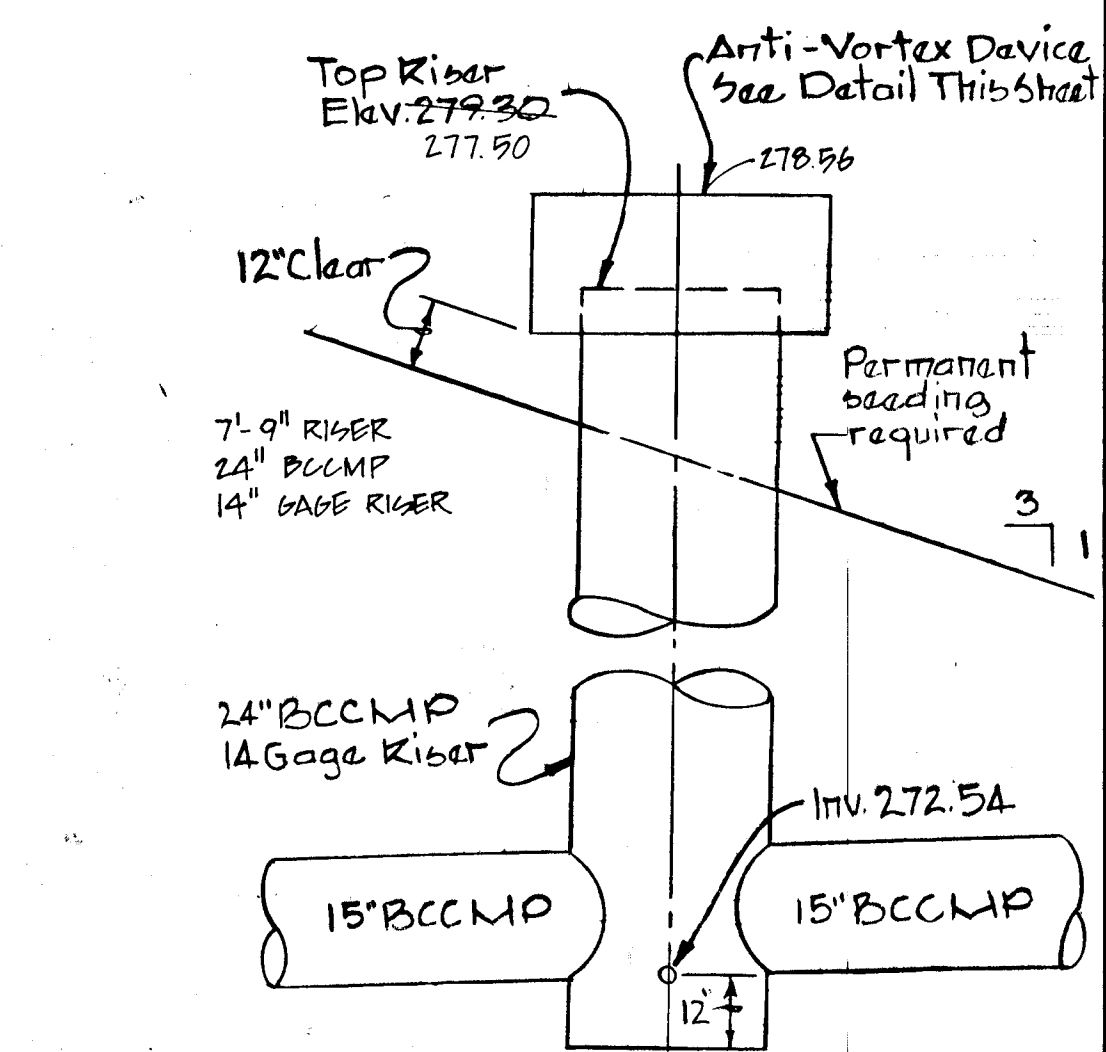
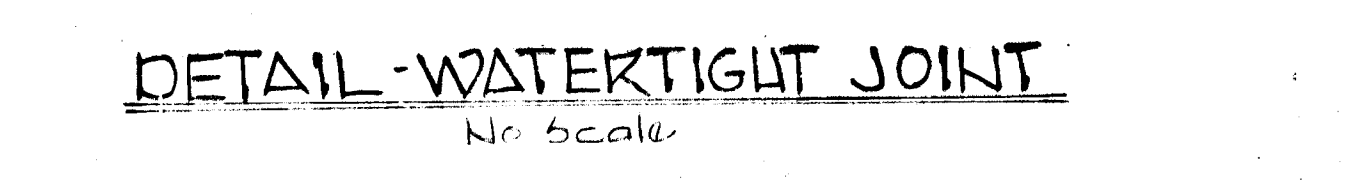
ENGINEER'S CERTIFICATE
I hereby certify that this plan for Erosion and Sediment Control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.
James M. Nelson 9-27-82
Date

CLARK • FINEFROCK & SACKETT ENGINEERS • PLANNERS • SURVEYORS 11315 LUX WOOD DRIVE, LETHBRIDGE, MARYLAND 21084 301-543-1419	
DESIGNED J.L.S.	ROAD CONSTRUCTION PLANS SEDIMENT & EROSION CONTROL DETAILS LOTS C-1 THRU C-29
DRAWN K.I.W.	COLUMBIA
CHECKED J.L.S.	VILLAGE OF KING'S CONTRIVANCE SECTION 3 AREA 2 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DATE 9-28-82	FOR: THE HOWARD RESEARCH & DEVELOP CORP. The Rouse Company Building Columbia, Maryland 21044
SCALE As Shown	DRAWING 507
	JOB NO. 80-066
	FILE NO. 80-066-D

#445



Notes:
 1. Galvanized rods shall be 1/2" dia. and threaded 9" at both ends, 6' long.
 2. The coupling band shall have sufficient length to give a minimum 3" band lap.
 3. The coupling band shall be 16 gage.
 4. Rivets in the longitudinal seam under the collar to be omitted and seam stick welded.
 5. The coupling band shall be asphalt coated - Type A.
 6. Field application of asphalt base shall be cement coated with asbestos fibers (root cement) applied at top of the coupling bands.



Notes:
 1. Top plate to be 1/4" steel plate.
 2. Outer shell to be of same gage metal as the riser may be formed sheet steel or corrugated steel.
 3. Attachment to riser may be welded but recommend bolts as shown with bolts directly under the reinforcing rods as shown for maintenance reasons.
 4. Bolts for risers to be 1/2" diameter.
 5. Bituminous coat all surfaces, after fabrication and attachment to riser.

DESIGN DATA
 Drainage Area = 12.5 Acs.

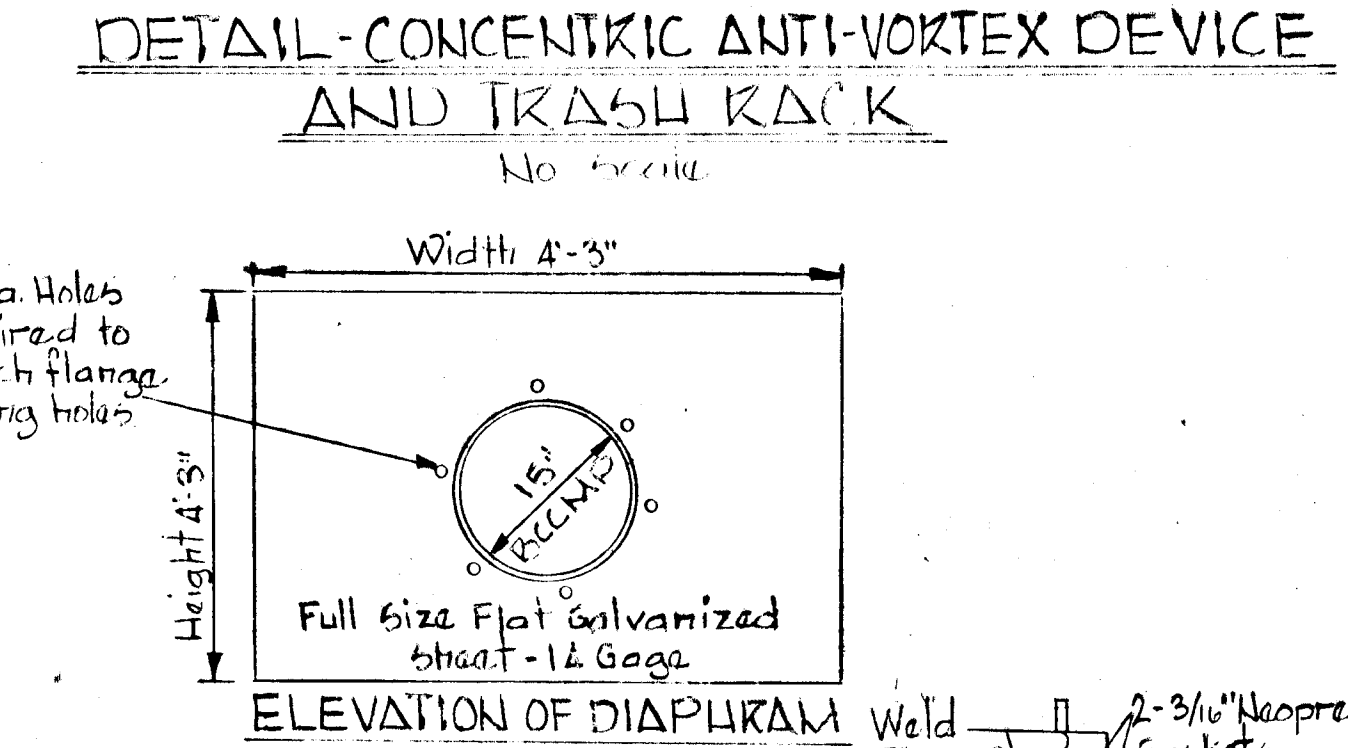
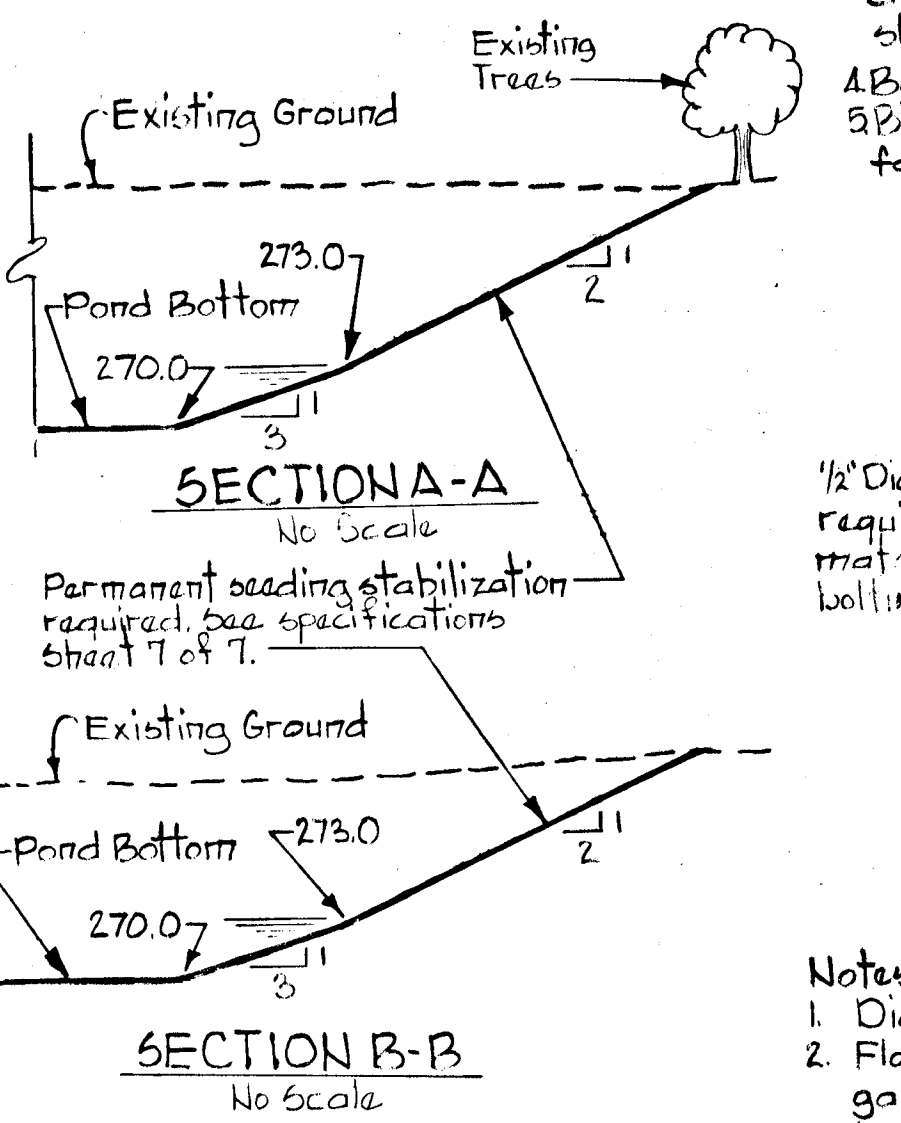
2 YEAR STORM
 Peak Inflow = 28 c.f.s.
 Release = 1.4 c.f.s.
 Storage = 0.81 Ac.Ft.

10 YEAR STORM
 Peak Inflow = 55 c.f.s.
 Release = 9 c.f.s.
 Storage = 1.4 Ac.Ft.

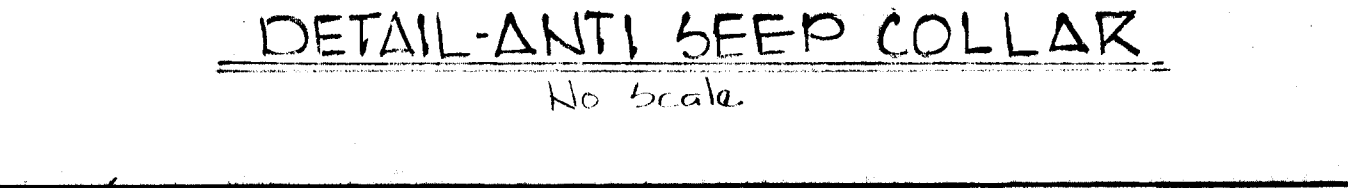
50 YEAR STORM
 Peak Inflow = 75 c.f.s.
 Release = 17 c.f.s.
 Storage = 1.6 Ac.Ft.

SEDIMENT CONTROL

Drainage Area = 2.5 Acs.
 Sediment Vol. Required = 12.5 x 67 = 837.5 cu. yd.
 Sediment Vol. Available = 2717 cu. yd.
 Cleanout elevation = 272.83



Notes:
 1. Diaphragm to be asphalt coated - single dip.
 2. Flange - bolts - nuts - washers shall be galvanized cadmium plated or stainless steel bolt size 3/8" with hex head with nut and flat washer.
 3. Flange to be attached to outside end of pipe with full weld and asphalt coated neoprene gasket to have bolt holes to match flange design.
 4. After welding damaged zinc coating to be:
 A. Thoroughly clean damaged area with wire brush.
 B. Paint damaged area with two coats zinc oxide-zinc dust paint.



RESPONSIBLE PERSONNEL CERTIFICATION
 "I hereby 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 Woodford
 WALTER WOODFORD Date

CERTIFICATION BY THE DEVELOPER
 "I certify that all development and/or construction will be done according to these plans of development, pond construction and erosion and sediment control. 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 provide the Howard Soil Conservation District with a red-lined "as built" of the pond within 30 days of completion."
 Walter Woodford
 WALTER WOODFORD Date

CERTIFICATION BY THE ENGINEER
 "I certify that this plan for pond construction, erosion, and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan 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. No. 1974 Date 2-19-81

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.
 U.S. Soil Conservation Service Date

These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.
 Approved Robert J. Zimm 5/27/81
 HOWARD SOIL CONSERVATION DISTRICT DATE Plan Number

Rev. No.	Rev. Date	Revision Description
1	5/8/83	As Built (Concrete Base for 4' Elev.)

COLUMBIA
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

OWNER AND DEVELOPER
 HOWARD RESEARCH AND DEVELOPMENT CORPORATION

PROJECT AREA
 VILLAGE OF KINGS CONTRIVANCE
 SECTION 3 AREA 2

PROJECT TITLE
 STORM WATER MANAGEMENT POND NO 6
 FOR PARCEL C & D

SCALE: AS SHOWN DATE

WHITMAN, REQUARDT & ASSOCIATES
 ENGINEERS
 BALTIMORE, MARYLAND 21202

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

SPECIFICATIONS

PERMANENT SEEDING (See General 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 areas with straw at the rate of 75 lbs/1000 sq ft or 15 tons/acre.
 Anchor with asphalt at the rate of 450 gallons/acre.
 Stabilization of slopes steeper than 3:1 shall be planted with crownvetch including 15 lbs/acre (0.34 lbs/1000 sq ft) Kentucky 31 Tall Fescue 40 lbs/acre (11 lb/1000 sq ft)

EARTH DAM EMBANKMENT

1. Suitable material from the pond excavation may be used for the embankment
2. Suitable material shall be placed in 8" layers and compacted to 90% of A55HTD-180
3. Moisture content of the suitable material shall be within the range of 3% below optimum moisture to 3% above optimum moisture
4. Area under the embankment shall be cleared and grubbed to remove all trees, vegetation, roots or other objectionable material and topsoil stripped.
5. The fill material shall be free from roots, stumps, wood, rubbish, oversized stones, frozen earth or other objectionable materials. The fill height all along the length of the embankment shall be increased by 10%.
6. Fill materials shall be placed in 8" maximum thickness (before compaction) layers which are to be continuous over the entire length of the fill. The most porous material shall be placed in the downstream portions of the embankment.
7. Compaction shall be by multiple wheel pneumatic tired roller, vibratory roller or other types of acceptable rollers. Rolling of each layer shall be continuous over its entire area and the roller shall make sufficient coverage to insure that the required density has been obtained.

PRINCIPLE SPILLWAY

1. Backfill around B.C.C.M.P. barrel shall be placed in horizontal layers not to exceed 4 inches in thickness and compacted by hand tampers or other compaction equipment. At no time during the backfilling operation shall construction equipment be allowed to operate closer than 4 feet to any part of the B.C.C.M.P. barrel. Under no circumstances shall the contractor drive equipment over any part of the B.C.C.M.P. barrel unless there is a compacted fill to a depth of 24 inches or greater over the B.C.C.M.P. barrel.
2. The B.C.C.M.P. barrel shall be firmly and uniformly bedded throughout its entire length. Where rock or other unsuitable soil is encountered under the pipe, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

CONCRETE

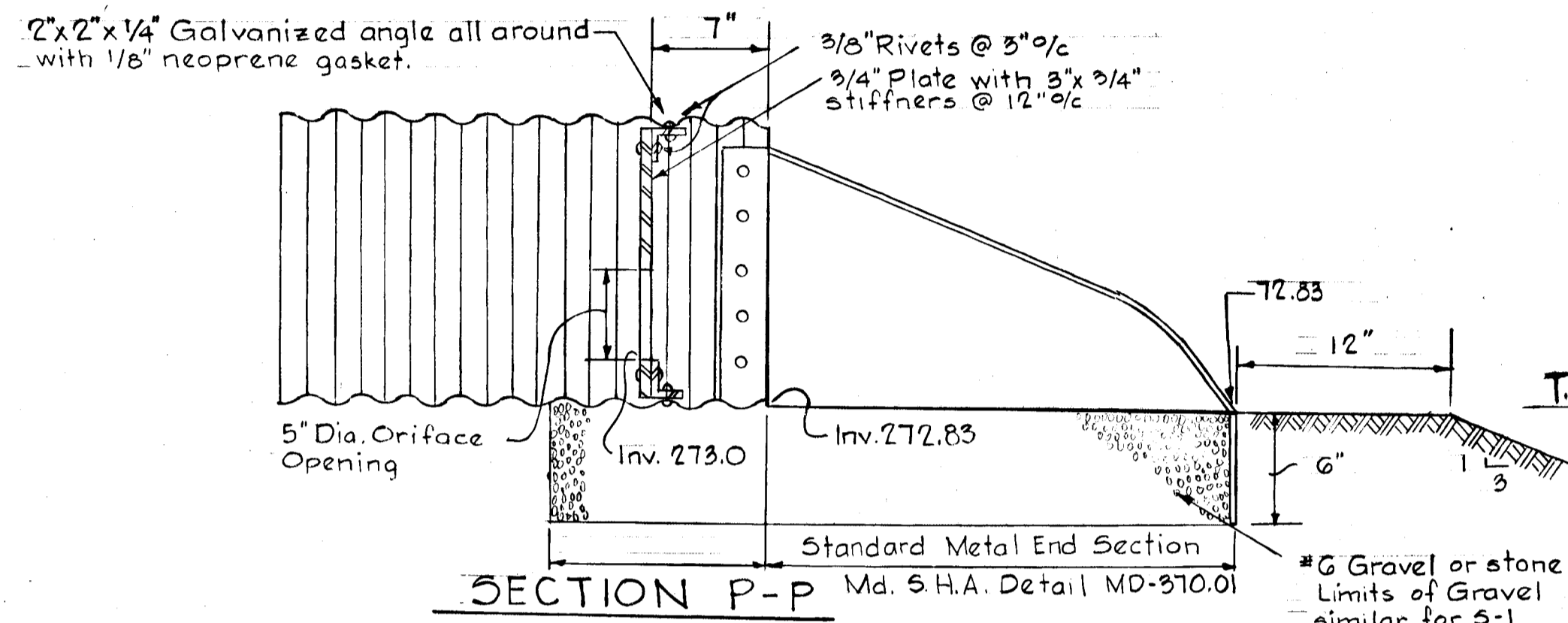
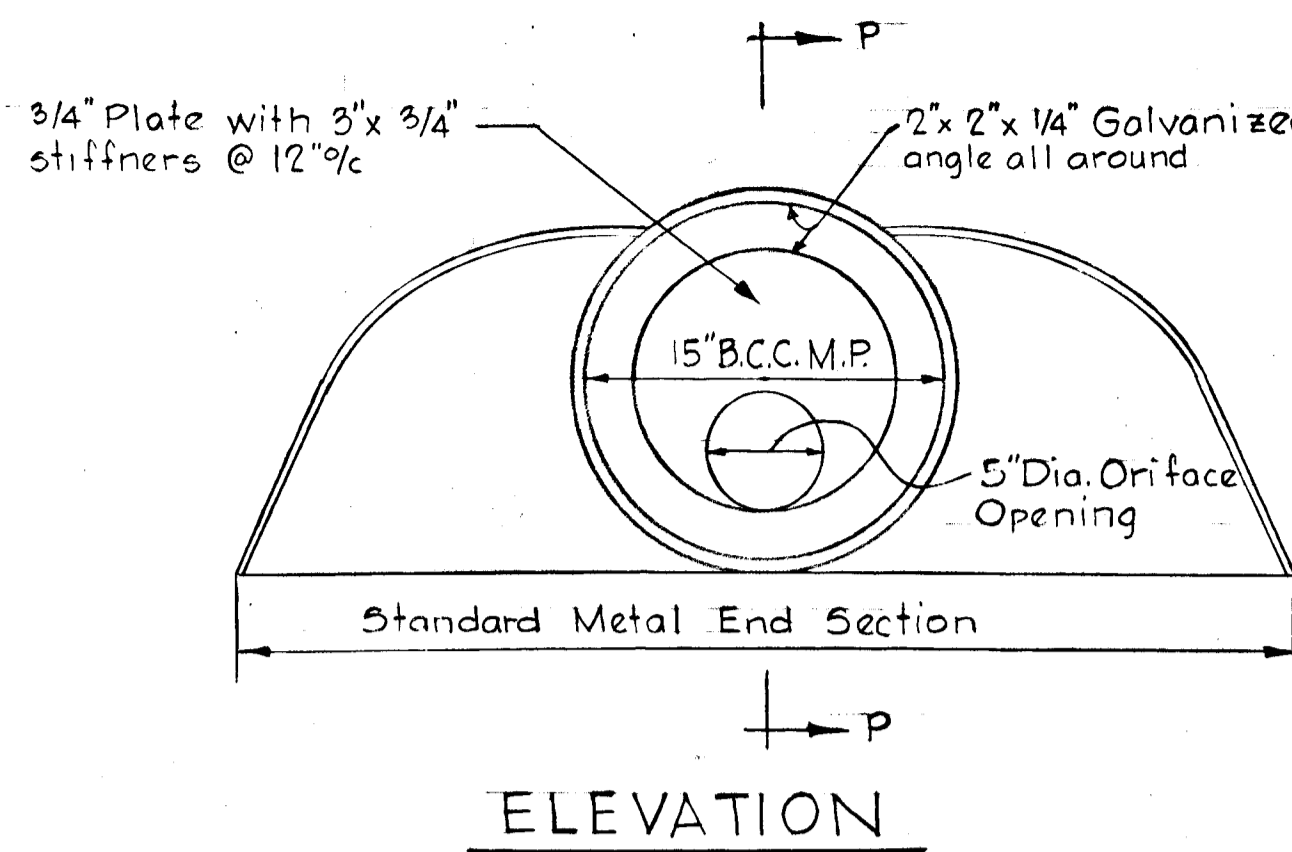
1. Concrete shall have a minimum of 6 bags of cement per cubic yard and water content not to exceed 6 gallons per bag of cement. Slump shall range 3"-4". All concrete shall be transit mix.

GENERAL NOTES

1. The Pond shall function initially as a sediment Basin. The Pond shall be constructed prior to any construction work intended within the drainage area. See drainage area map on this sheet.
2. Initial construction shall include all the work as shown.
3. Permanent seeding is required for all the graded surfaces within the limits where permanent seeding is required. Initial permanent seeding shall be applied to all cut and fill embankments from toe to top of slope (El. 273.0 to 290.0) and top elevation at the earth dam construction. Refurbishing of the Pond shall be done after development construction is complete and grass is established within the pond drainage area. Refurbishing of the pond shall include permanent re-seeding of all the disturbed graded surfaces, the cleaning of the principle spillway, outfall ditch, the emergency spillway, and sediment removal to Elev. 272.83
4. After the Pond is completely refurbished the owner shall submit As Built drawings to the Howard County Soil Conservation District.
5. Poly Filter-X cloth (CARTHAGE MILLS INCORPORATED) or equal shall be placed under all rip rap construction full length and width of rip rap.
6. Stone shall be Maryland S.H.A. Class I medium rip rap unless otherwise noted.
7. For Sequence of Construction, see Sheet 4 of 7

DEPARTMENT OF PUBLIC WORKS

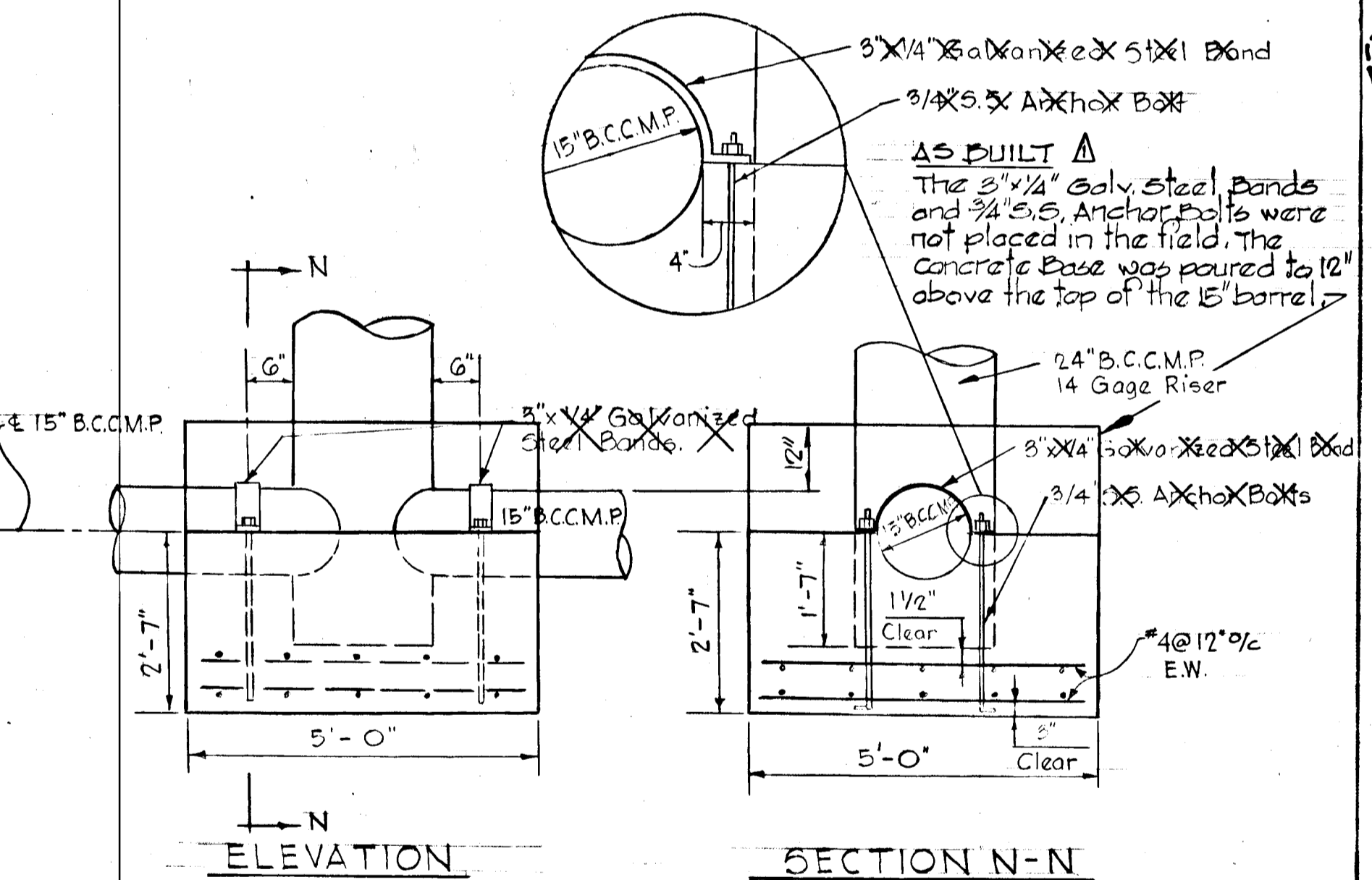
W. C. ... 6-2-81
 CHIEF, BUREAU OF ENGINEERING
OFFICE OF PLANNING & ZONING
 Acting Louis ... 6-27-81
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE



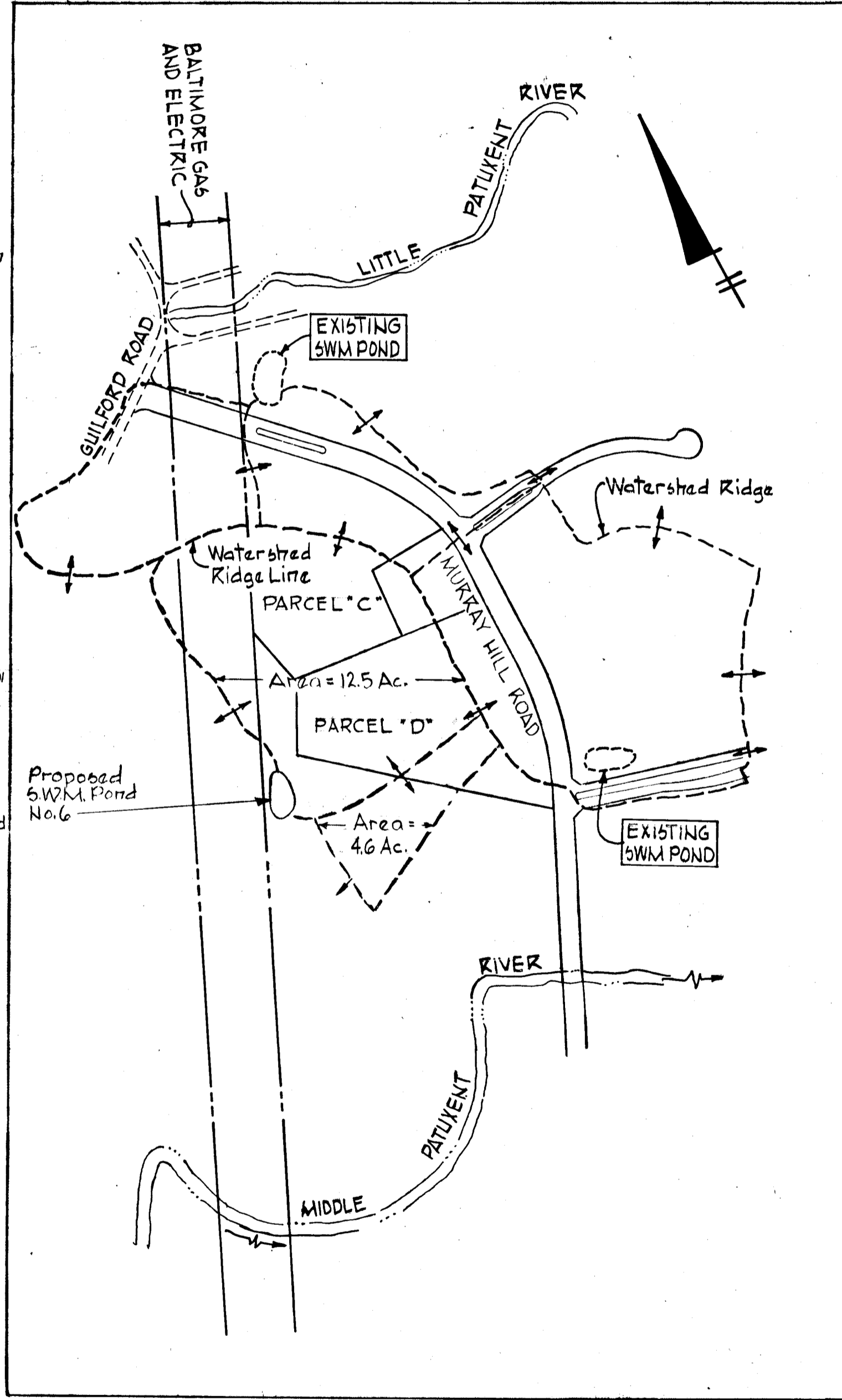
DETAIL - STRUCTURE 5-2 AND ORIFICE
 Scale 1/2" = 1'-0"

10'	Topsoil	Limit of excavation approaching bedrock surface
30'	Red brown silt and clay, little medium sand, medium dense, dry (M.L.)	
60'	Red coarse sand, little silt, little clay, medium dense, wet (S.F.)	
120'	Red coarse sand and decomposed rock fragments to 6" little silt, very dense and density increasing with depth, dry (S.F.)	
TR1	Limit of excavation approaching bedrock surface	
10'	Topsoil	Limit of excavation approaching bedrock surface
40'	Brown silt and medium sand, occasional boulder to 6" medium dense, moist (M.L.)	
50'	Gray coarse to medium sand, dense, wet (S.F.)	
70'	Red coarse sand and rock fragments, trace clay, very dense and density increasing with depth, wet (S.F.)	
100'	Red coarse sand and rock fragments, very dense, dry (S.F.)	
180'	Red coarse sand and rock fragments to 18" very dense, dry (S.F.)	
TR2	Limit of excavation approaching bedrock surface	
15'	Topsoil	Limit of excavation approaching bedrock surface
25'	Gray organic clay, medium sand, soft moist (O.L.)	
50'	Gray silt and medium sand, medium dense, moist (M.L.)	
60'	Red coarse sand, little clay, little decomposed rock, dense, wet (S.F.)	
120'	Gray coarse sand, some decomposed rock fragments to 6" dense and increasing density and rock fragments with depth moist (S.F.)	
TR3	Limit of excavation approaching bedrock surface	

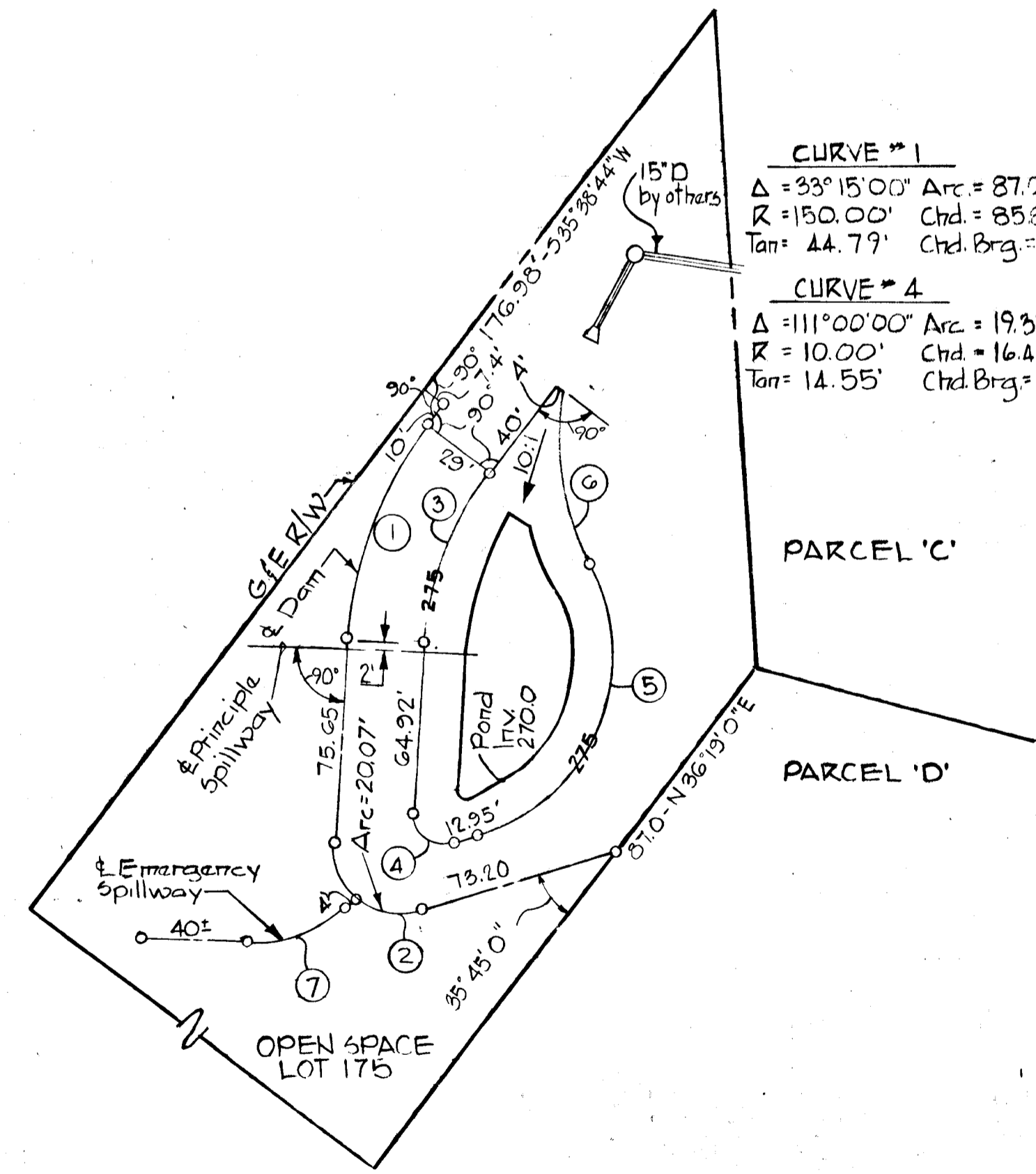
TEST PITS



DETAIL CONCRETE BASE
 No Scale



DRAINAGE AREA MAP
 No Scale



POND STAKEOUT PLAN
 Scale: 1" = 50'

CURVE #	Δ	R	Tan	Chd. Brg.
CURVE #1	33°15'00"	150.00'	44.79'	61°24'30"W
CURVE #2	111°00'00"	10.00'	14.55'	552°26'00"E
CURVE #3	33°15'00"	150.00'	44.79'	61°24'30"W
CURVE #4	111°00'00"	10.00'	14.55'	552°26'00"E
CURVE #5	100°15'00"	70.00'	83.79'	52°26'00"E
CURVE #6	36°55'21"	107.12'	35.76'	67.84°
CURVE #7	44°00'00"	50.00'	36.40'	20.20°

CURVE DATA-POND No. 6

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Walter Woodford
 Date

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Walter Woodford
 Date

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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.
 Approved: Kenneth A. McCord, Registered Engineer No. 1974
 Date: 5/27/81
 Plan Number

3/15/82	Δ	As Built (Concrete Base for 24' Rear)
Rev. Date	Rev. No.	Revision Description
COLUMBIA 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORPORATION		
PROJECT AREA VILLAGE OF KINGS CONTRIVANCE SECTION 3 AREA 2		
PROJECT TITLE STORM WATER MANAGEMENT POND NO. 6 FOR PARCEL C & D		
SCALE: AS SHOWN	DATE	
WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202		
Kenneth A. McCord KENNETH A. McCORD Registered Engineer No. 1974		