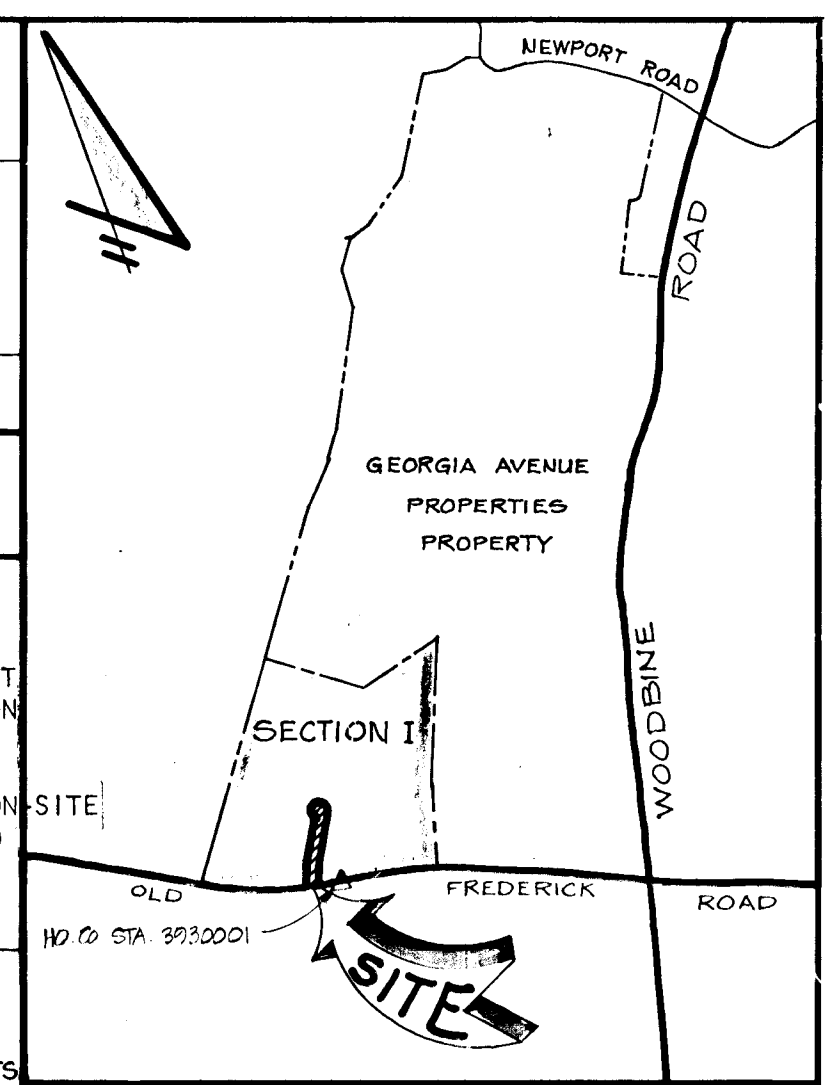


REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS
 U.S. SOIL CONSERVATION SERVICE DATE: 2/11/86
 THIS DEVELOPMENT IS APPROVED SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT
 Stephen J. Hall DATE: 2/11/86
 SOIL CONSERVATION DISTRICT

APPROVED DEPARTMENT OF PUBLIC WORKS
 DATE: 2/18/86
 CHIEF, BUREAU OF ENGINEERING
 APPROVED OFFICE OF PLANNING & ZONING
 DATE: 2/13/86
 CHIEF, DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION



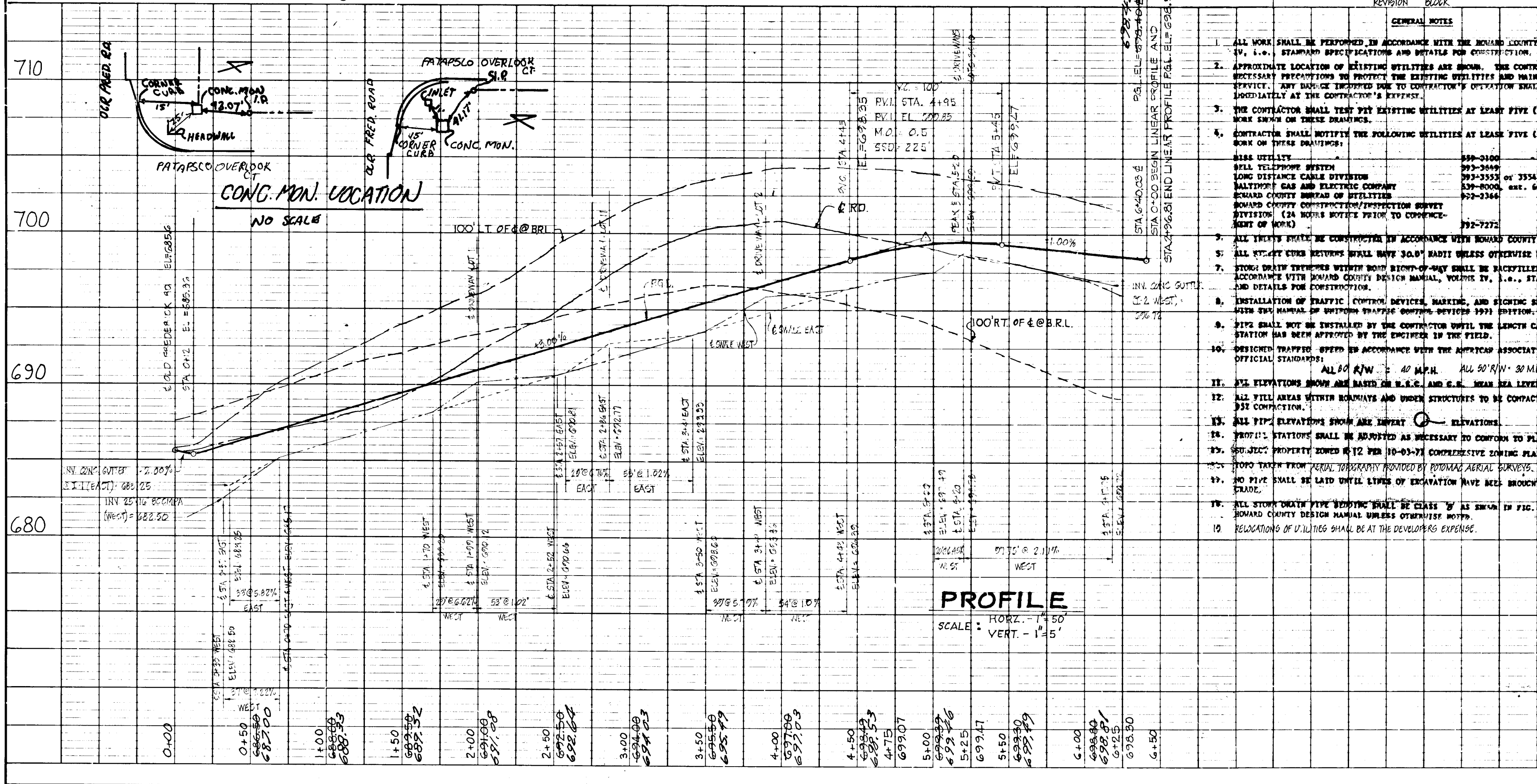
DEVELOPER'S CERTIFICATE
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPT. OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING IN THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.
 DATE: 2-8-85
 DEVELOPER: Water-Armak

ENGINEER'S CERTIFICATE
 I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 DATE: 8/9/85

VICINITY MAP
 1" = 2000'

OWNER & DEVELOPER
 GEORGIA AVENUE PROPERTIES, INC.
 96 E. DODD LEE III
 13630 GEORGIA AVENUE
 WHEATON, MD 20996

TITLE: SEDIMENT CONTROL PLAN - PLAN AND PROFILES			
PROJECT:	PATAPSCO OVERLOOK - SECTION I - LOTS 1 THRU 11		
LOCATION:	4TH ELECTION DISTRICT	HOWARD COUNTY, MD.	
DATE:	MARCH, 1981	DESIGN BY:	A.L.M.
SCALE:	AS SHOWN	JOB NO.:	80113
		DRAWING NO.:	1 OF 4
boender associates		engineers/surveyors/planners	
BALTIMORE 301 465-7777 • SALISBURY 301 749-1286			



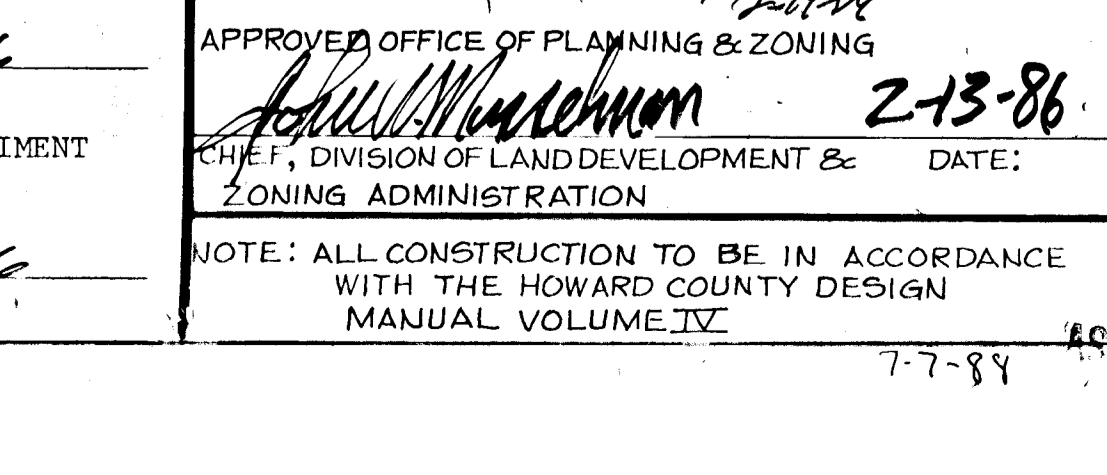
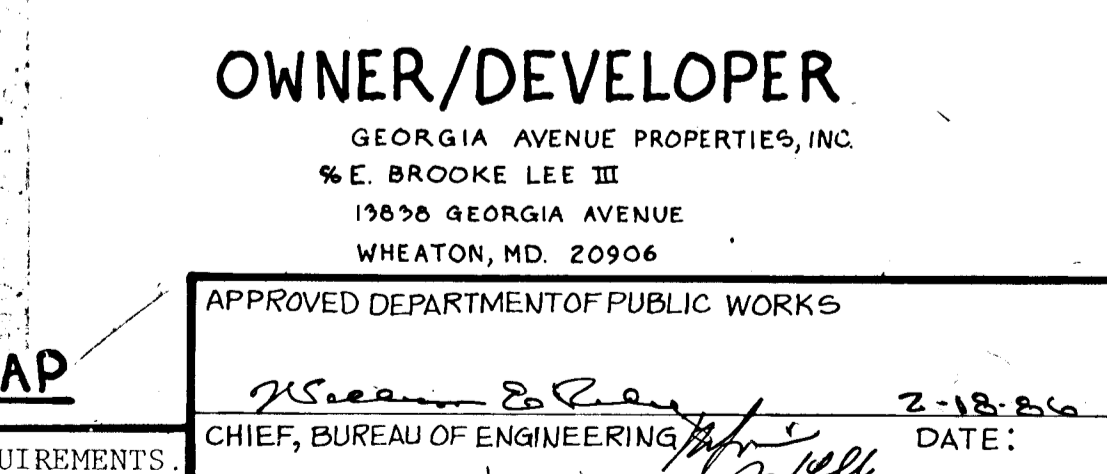
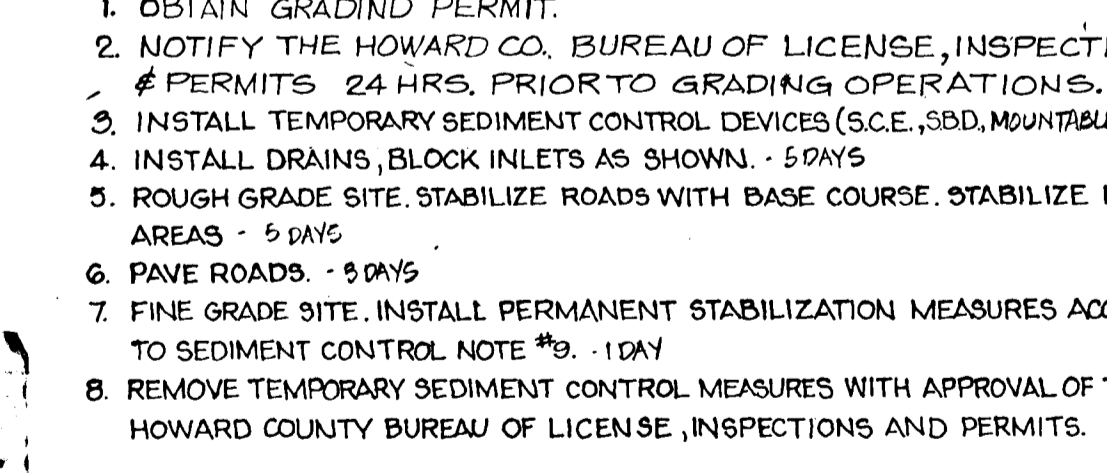
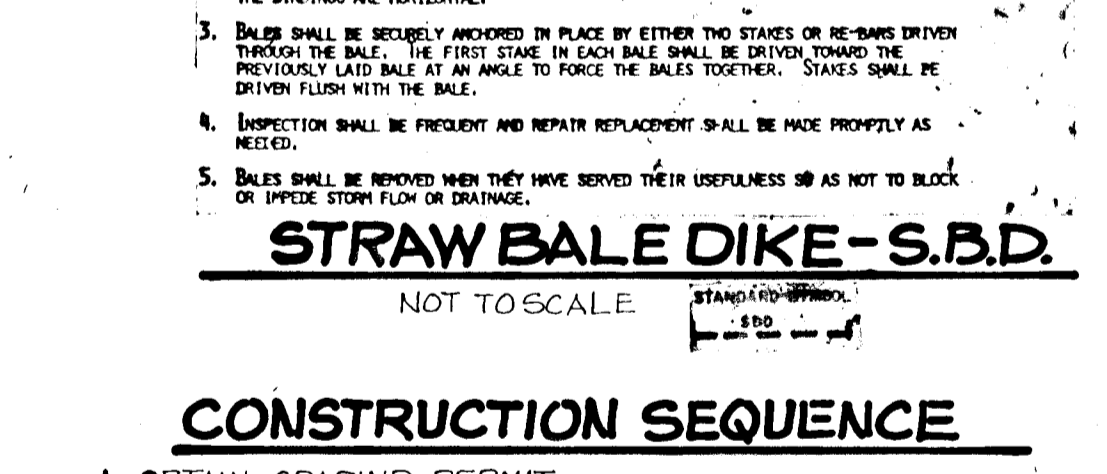
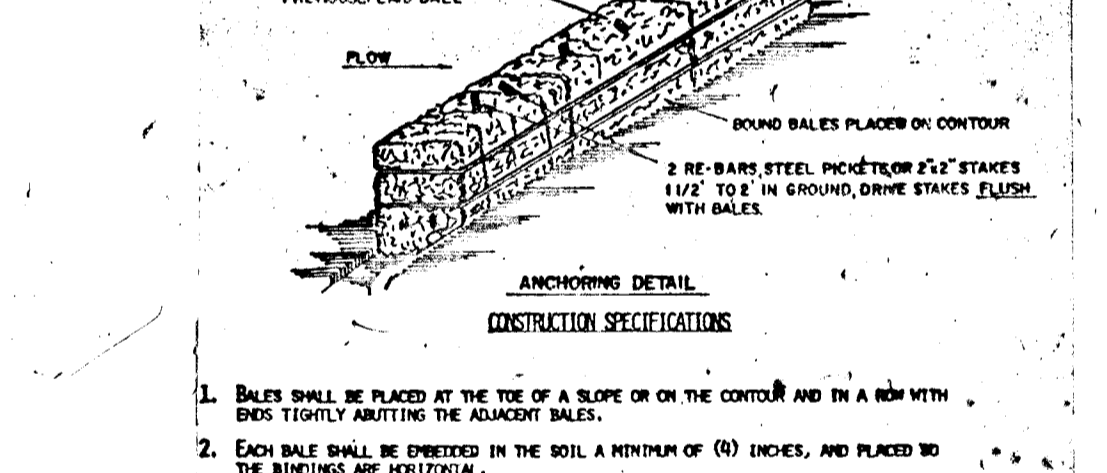
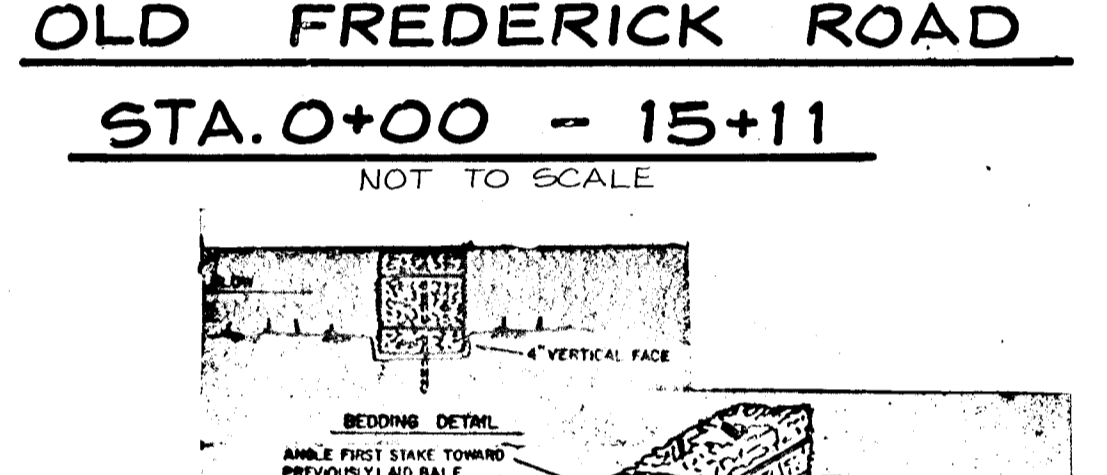
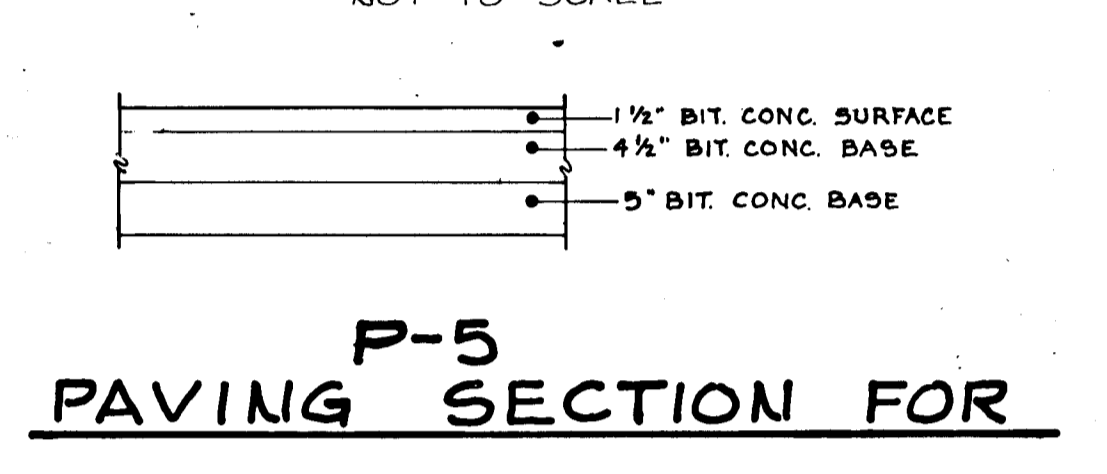
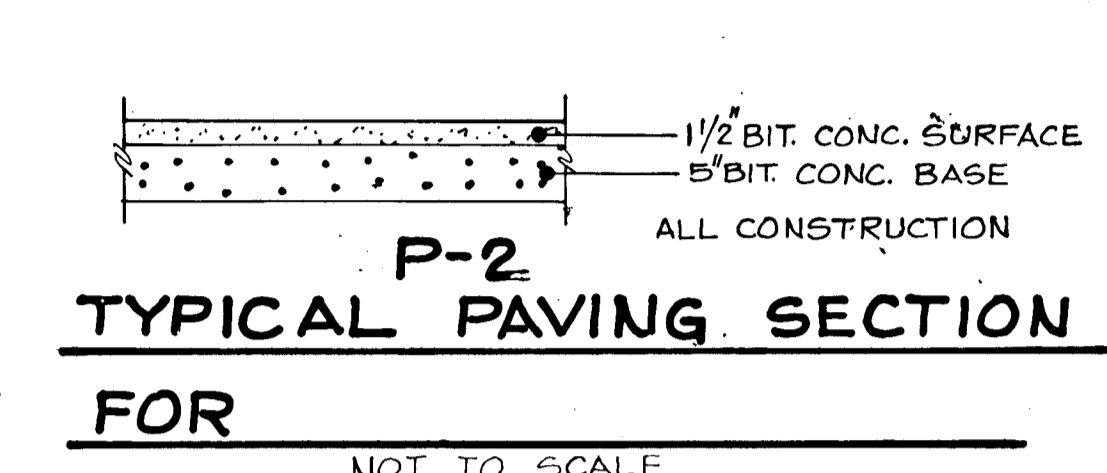
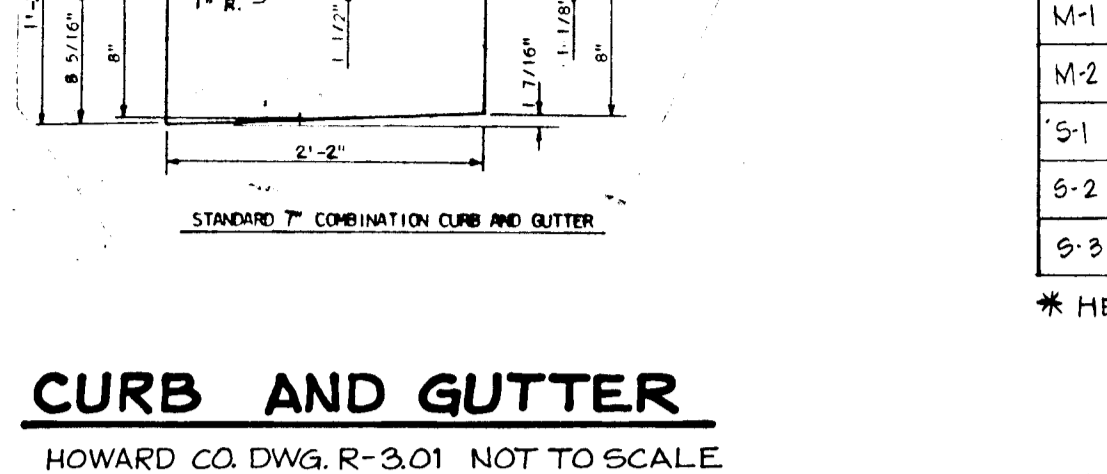
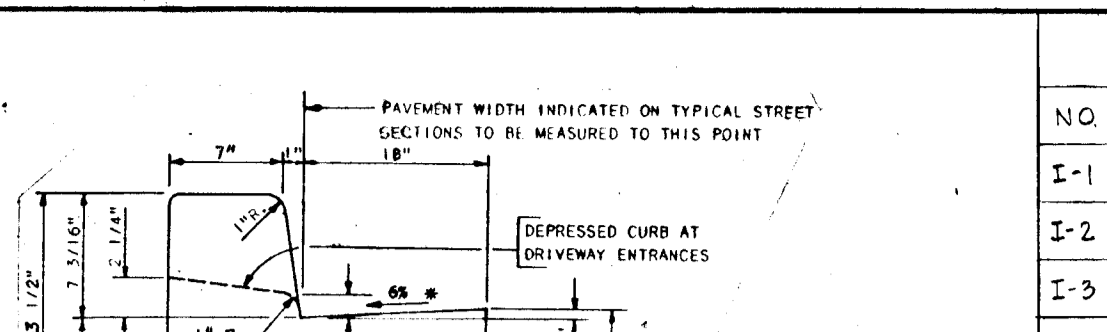
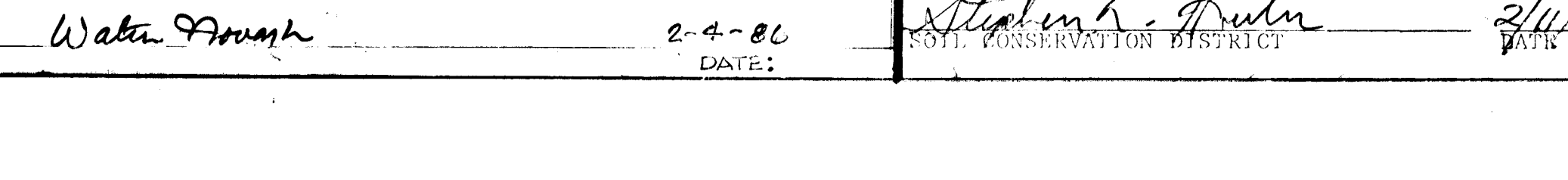
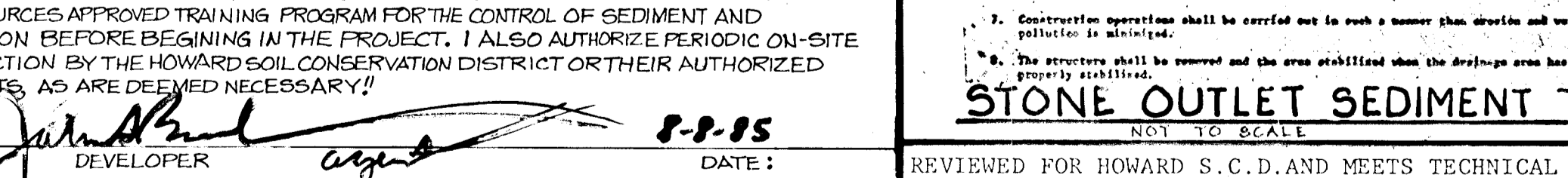
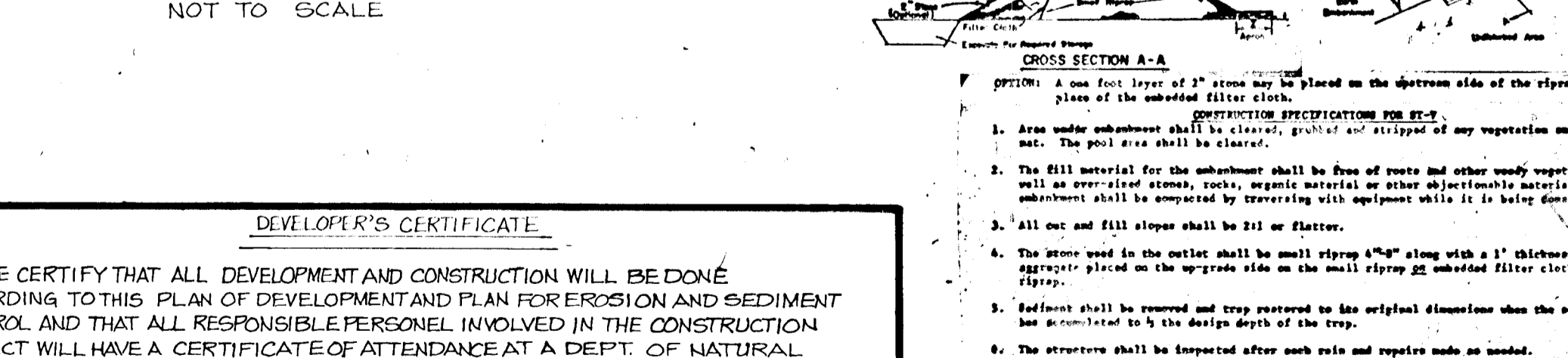
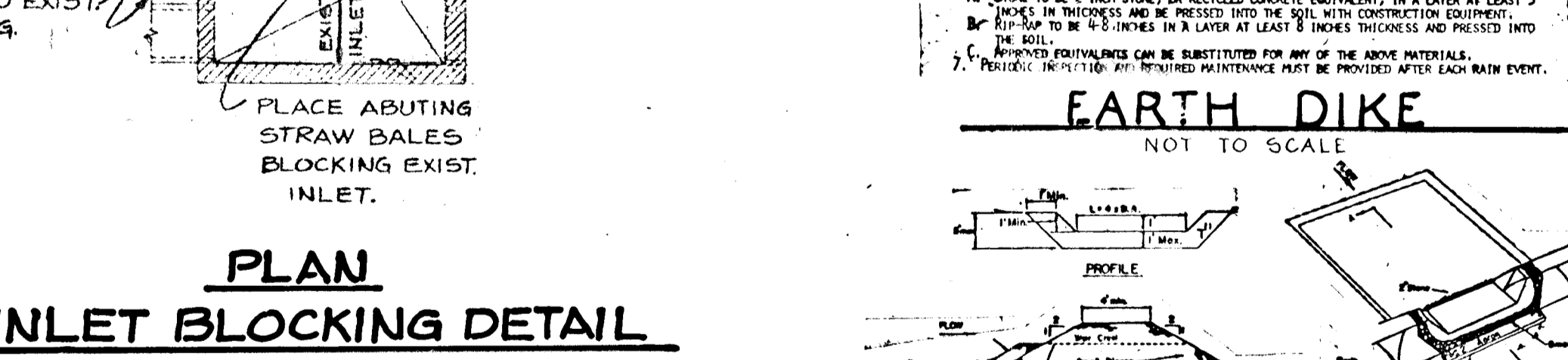
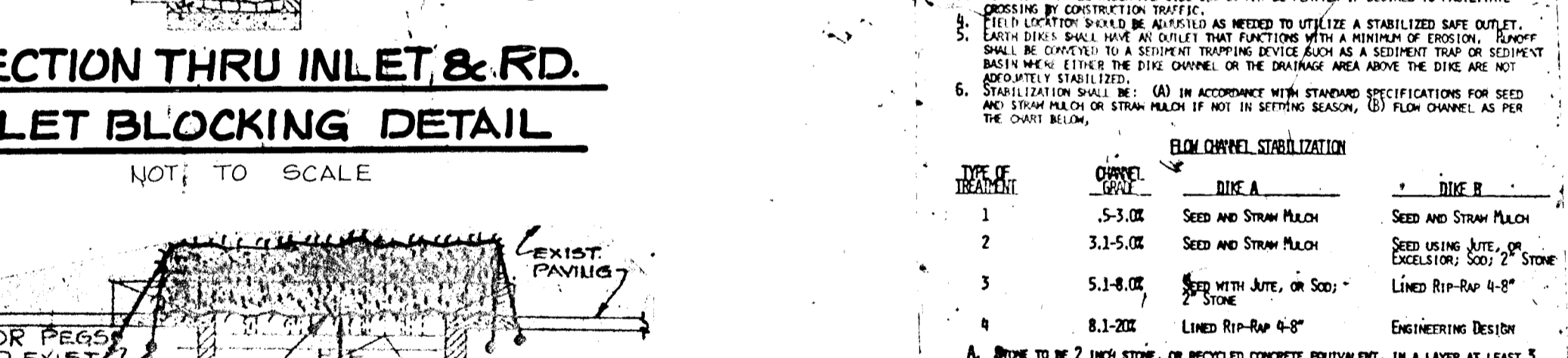
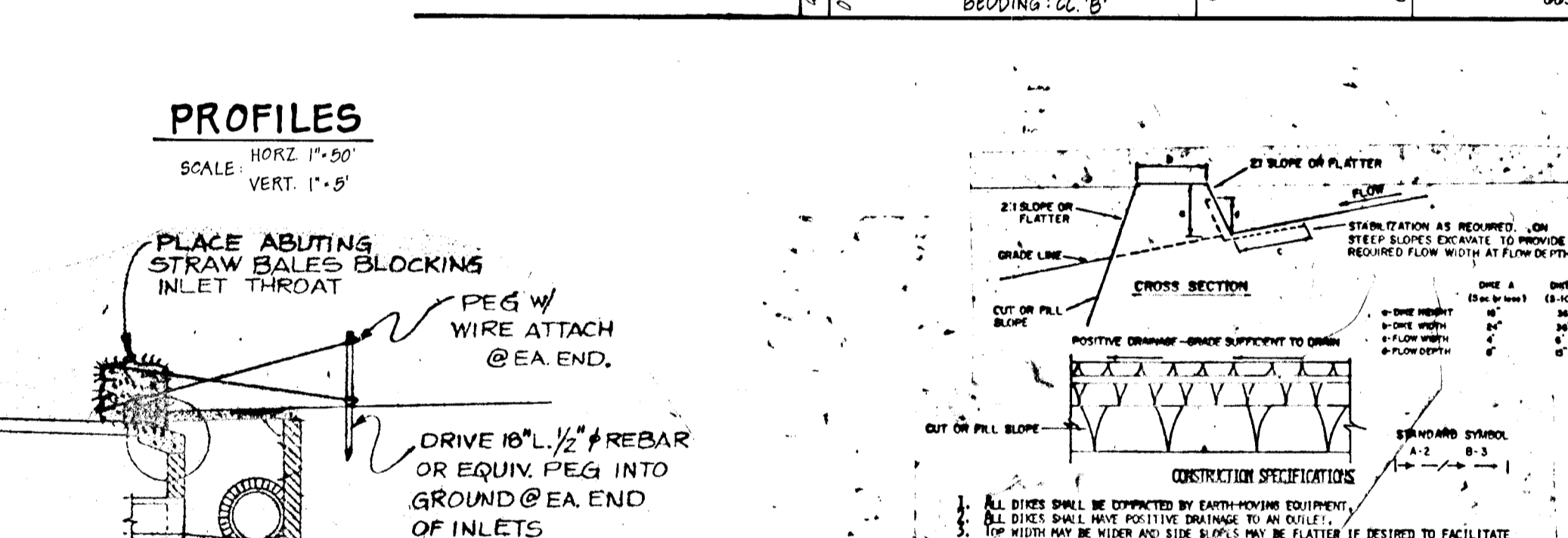
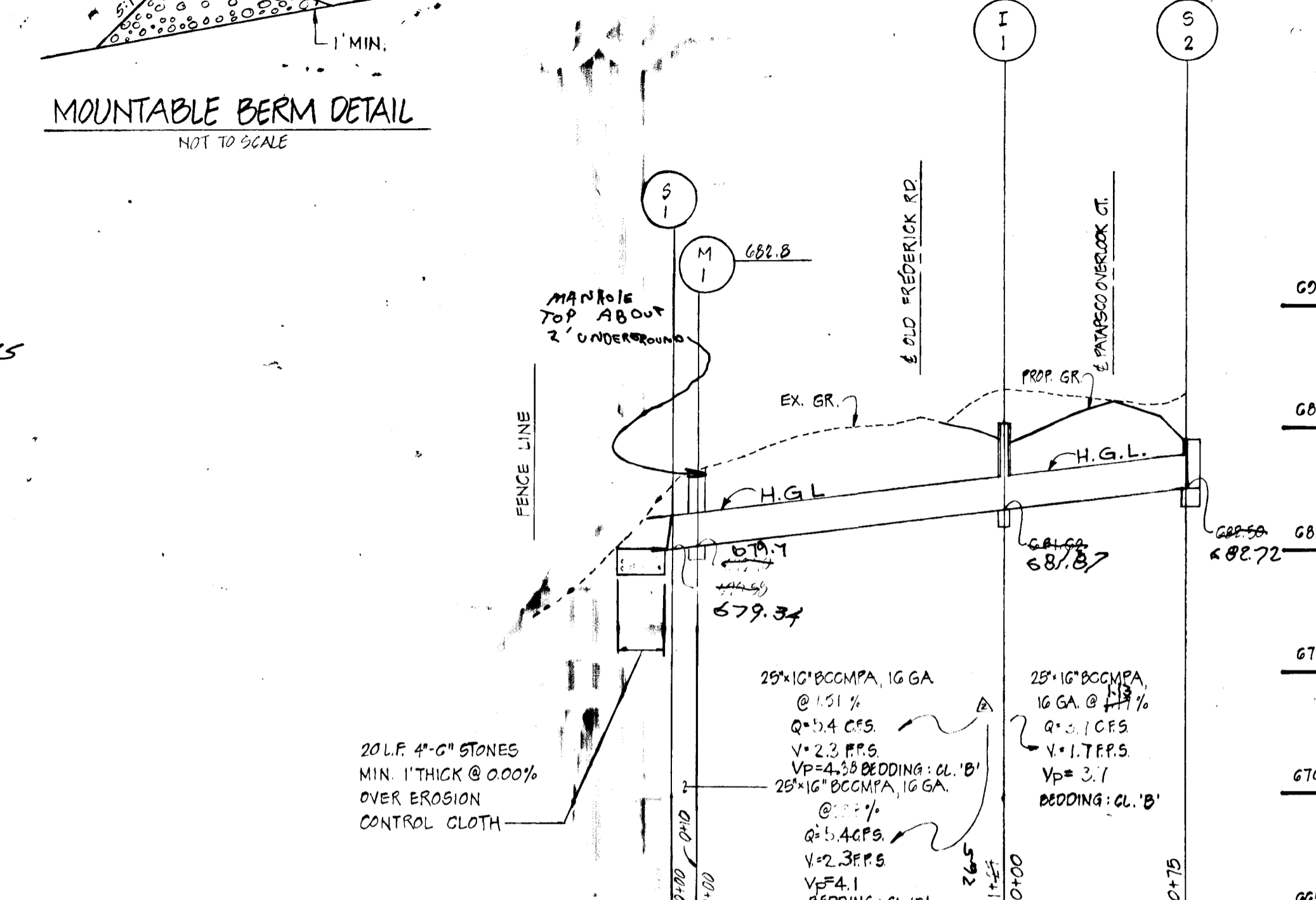
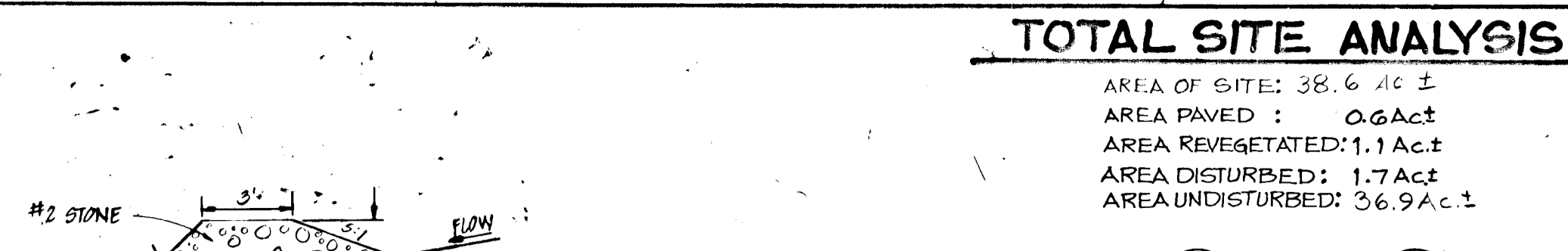
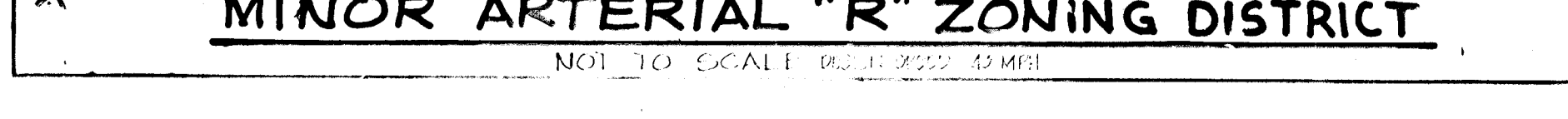
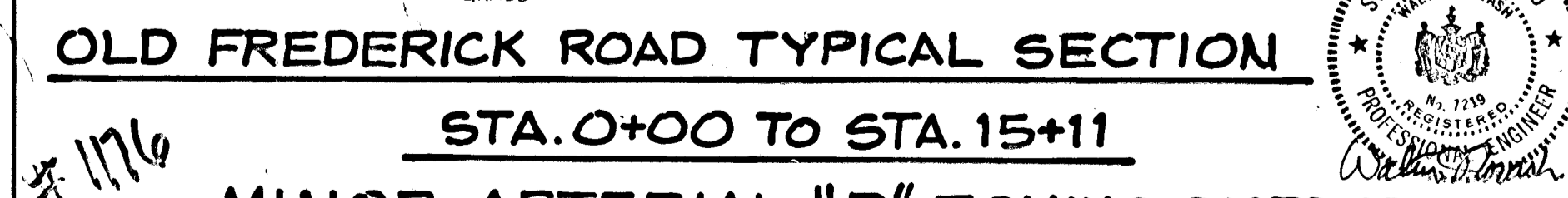
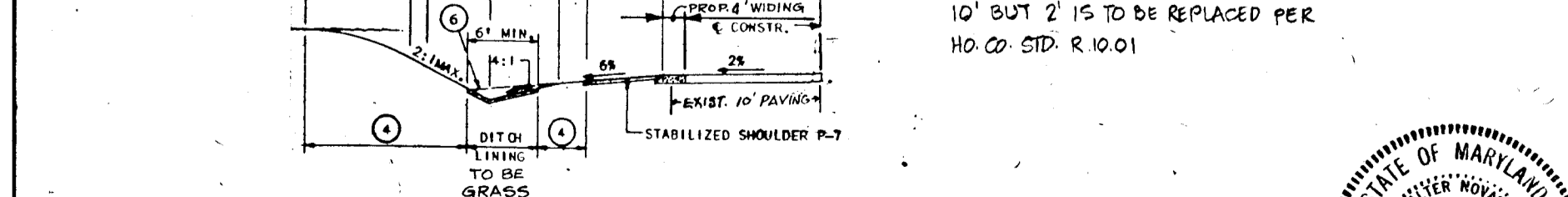
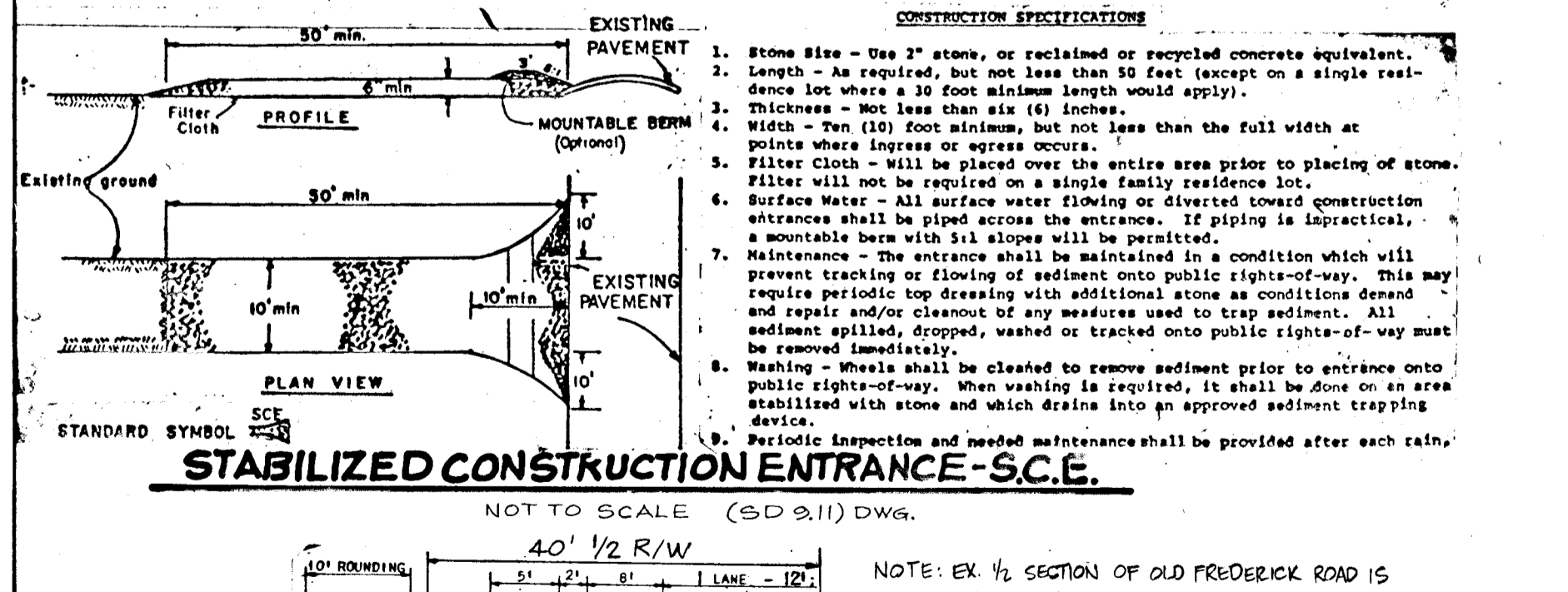
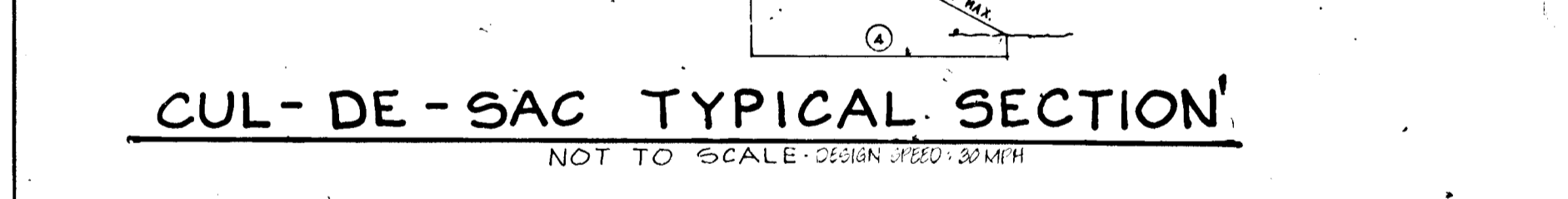
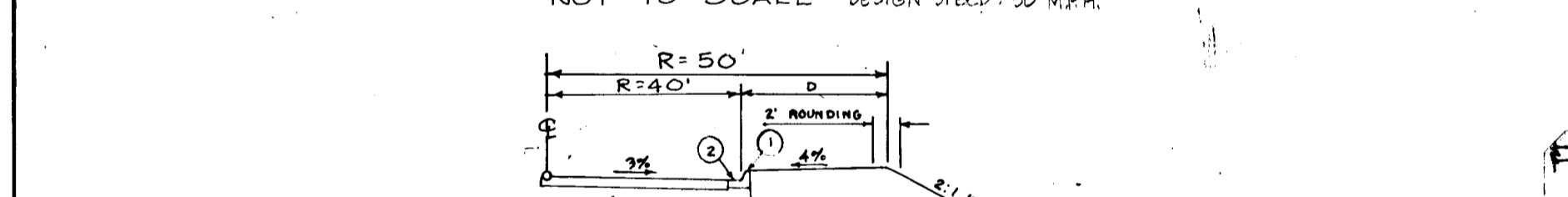
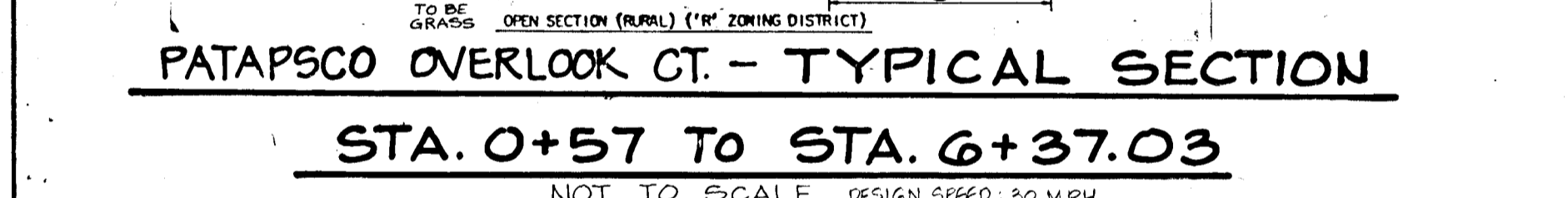
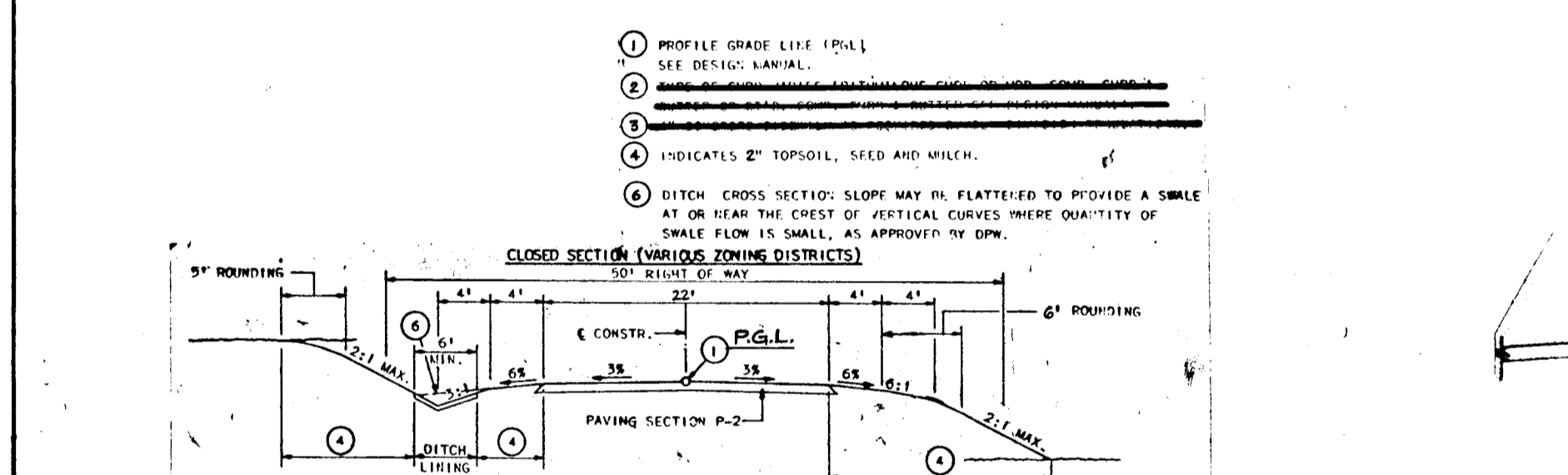
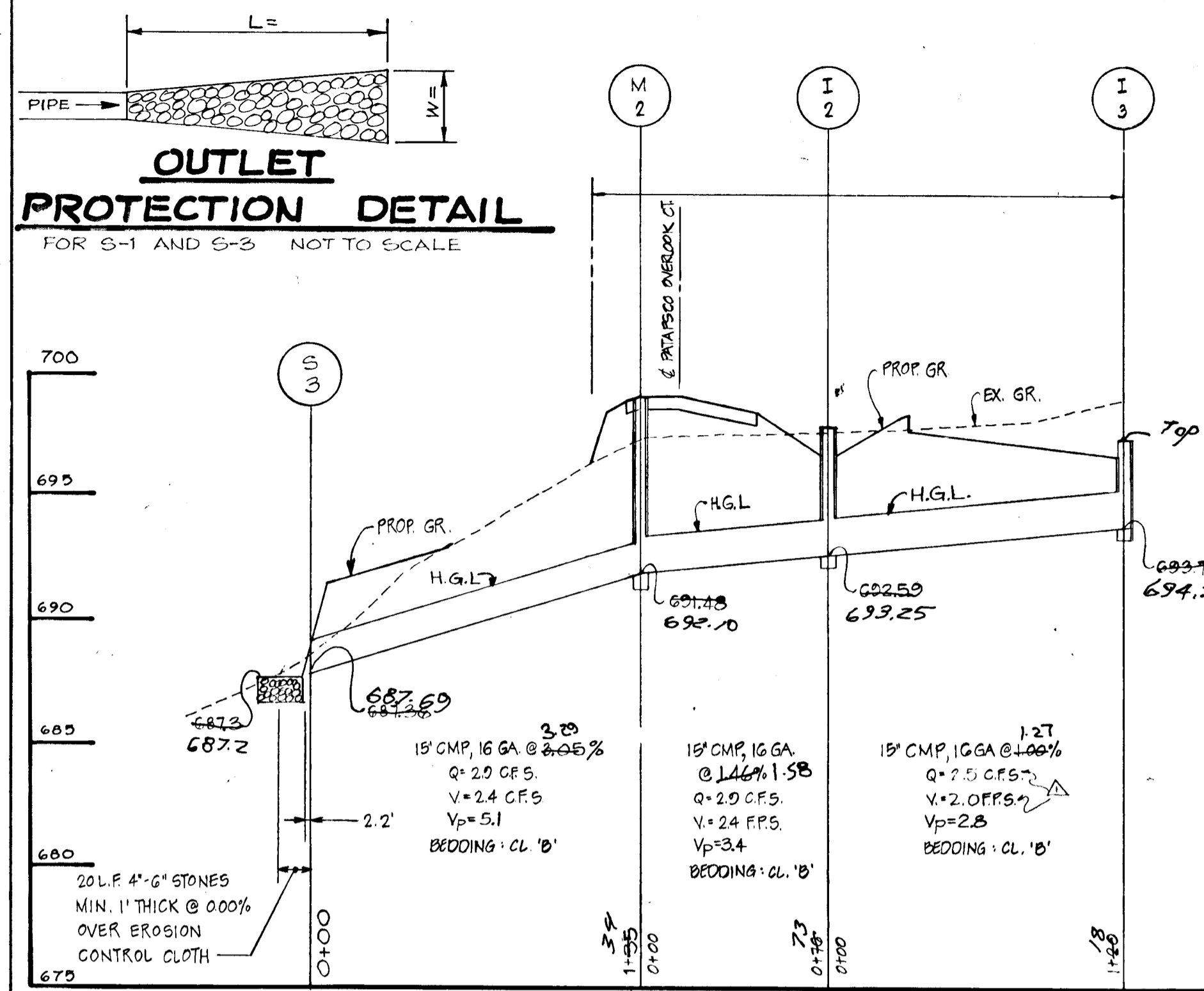
OP. NO.	DATE	REVISION	DESCRIPTION
1	3-18-81	REVISED MANHOLE ONE ON PLAN AND PROFILE	

GENERAL NOTES

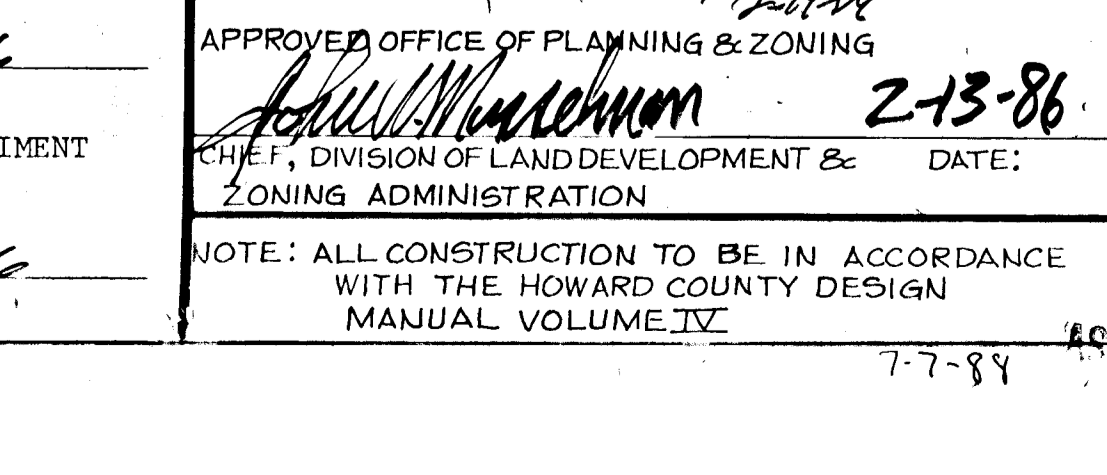
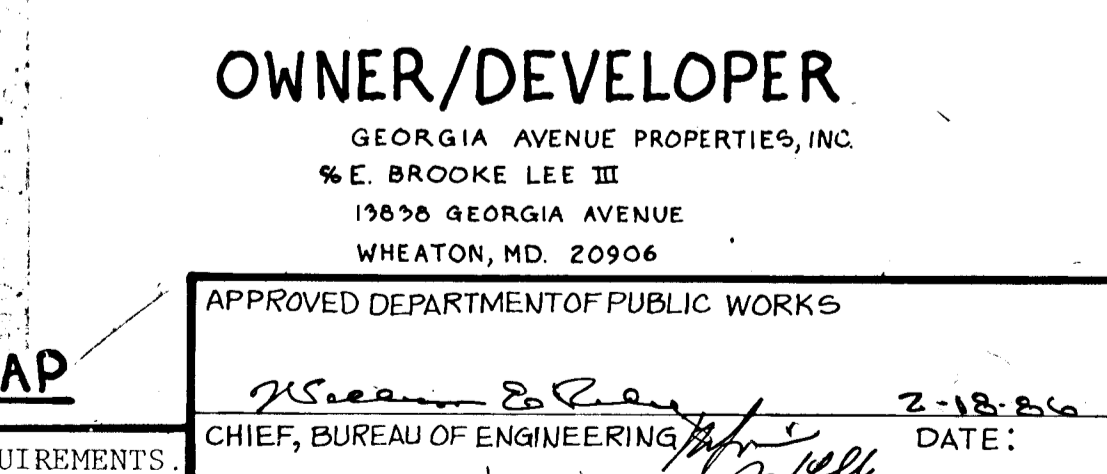
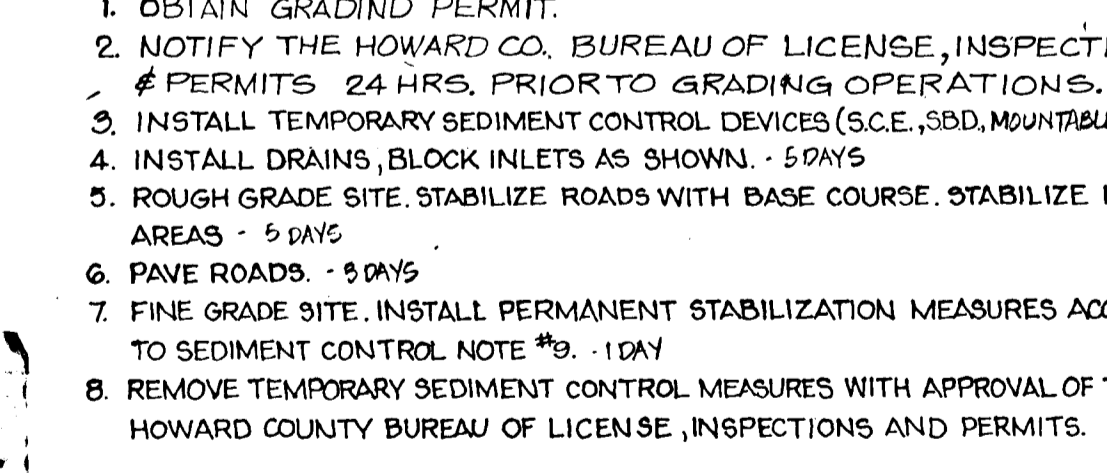
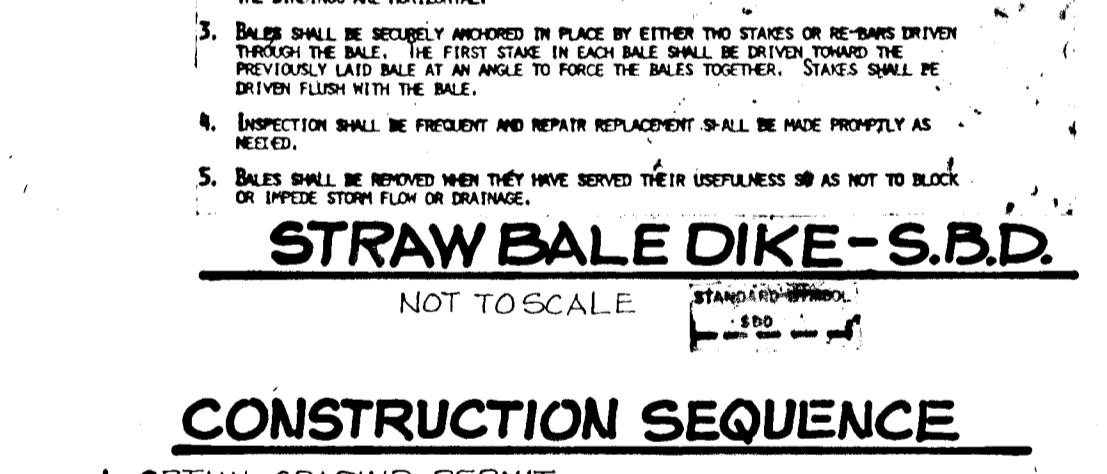
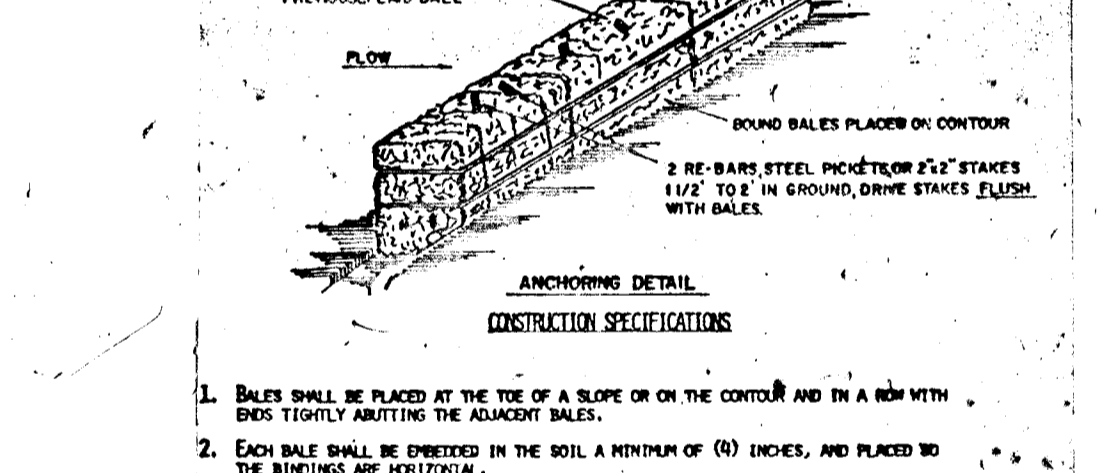
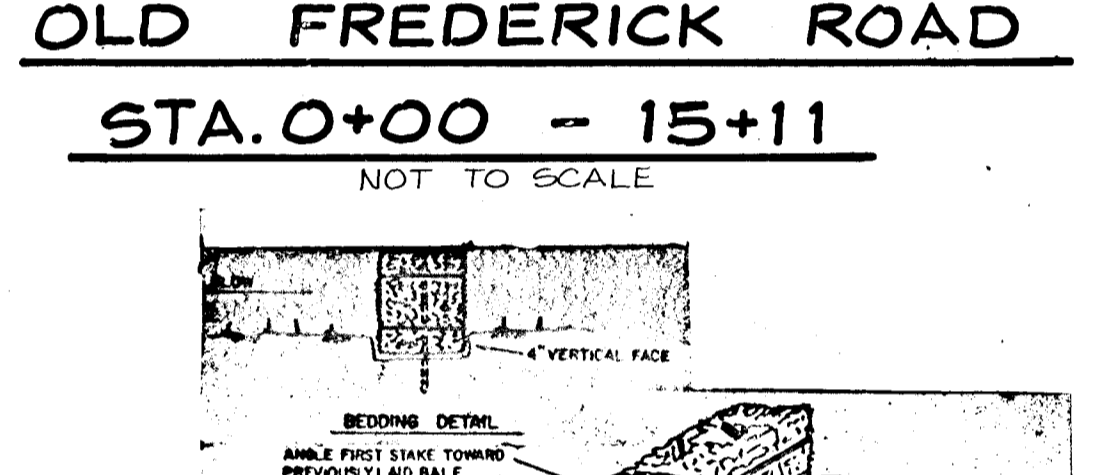
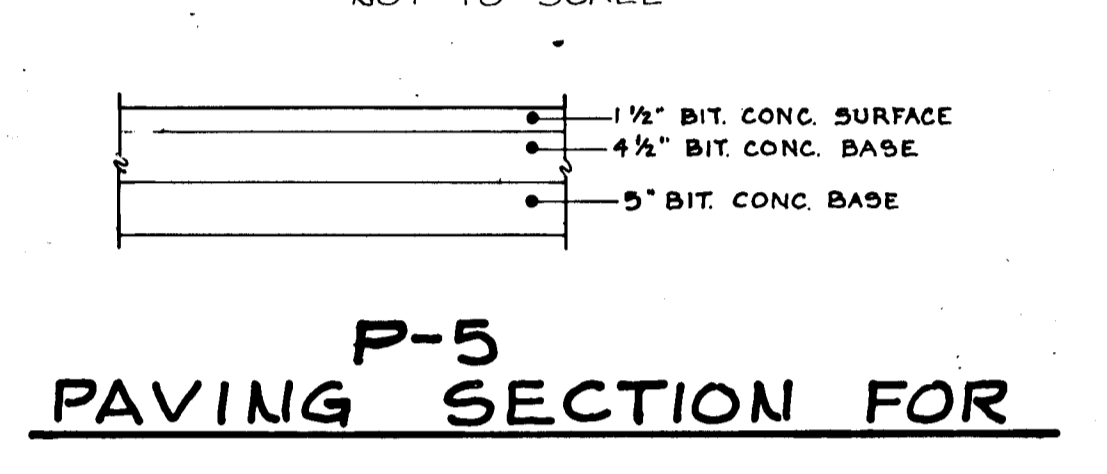
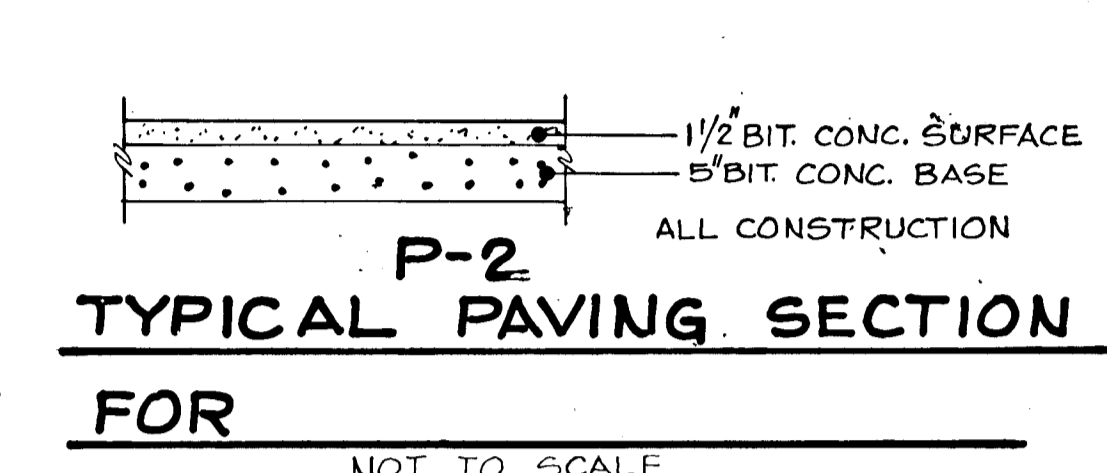
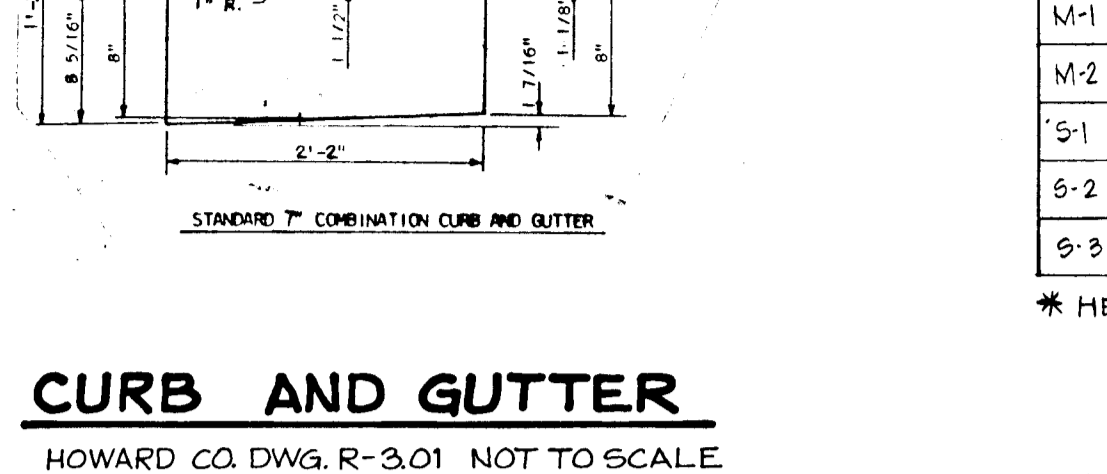
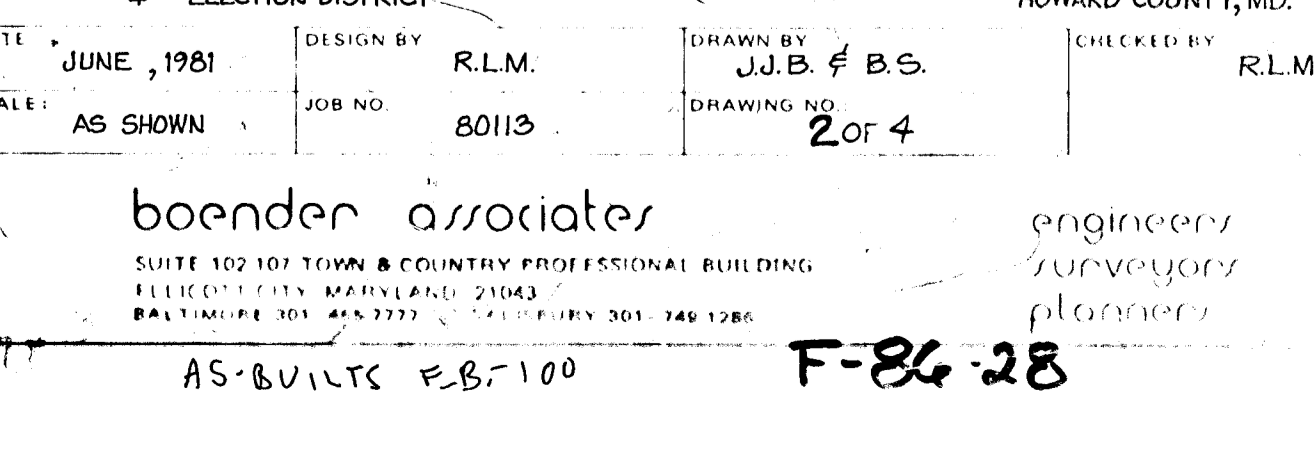
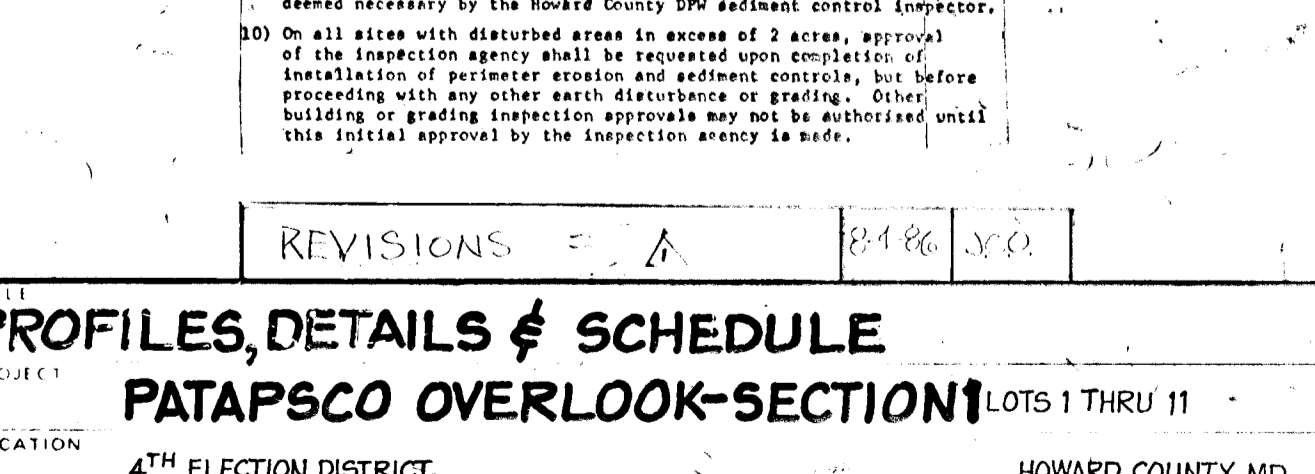
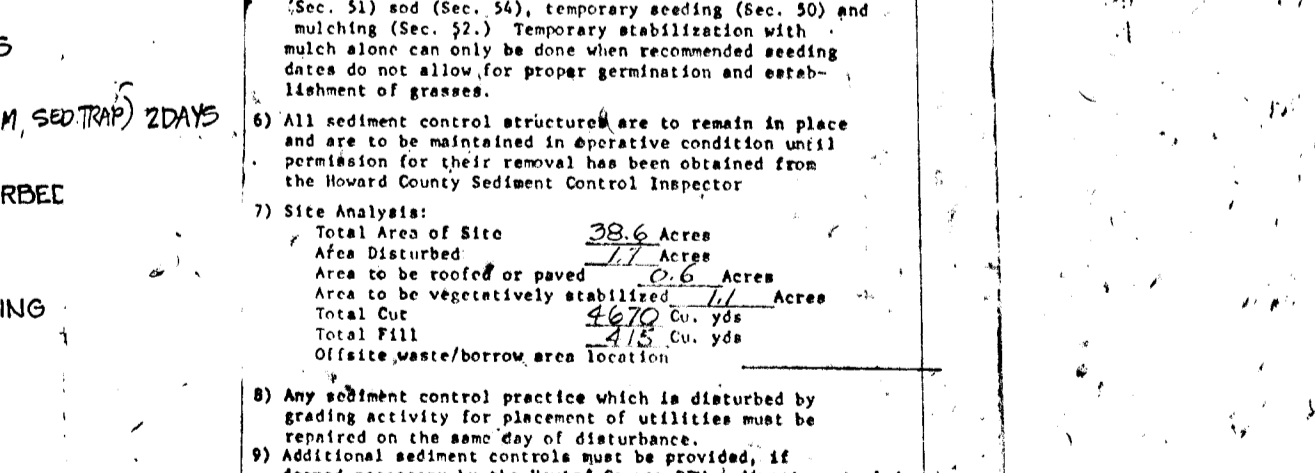
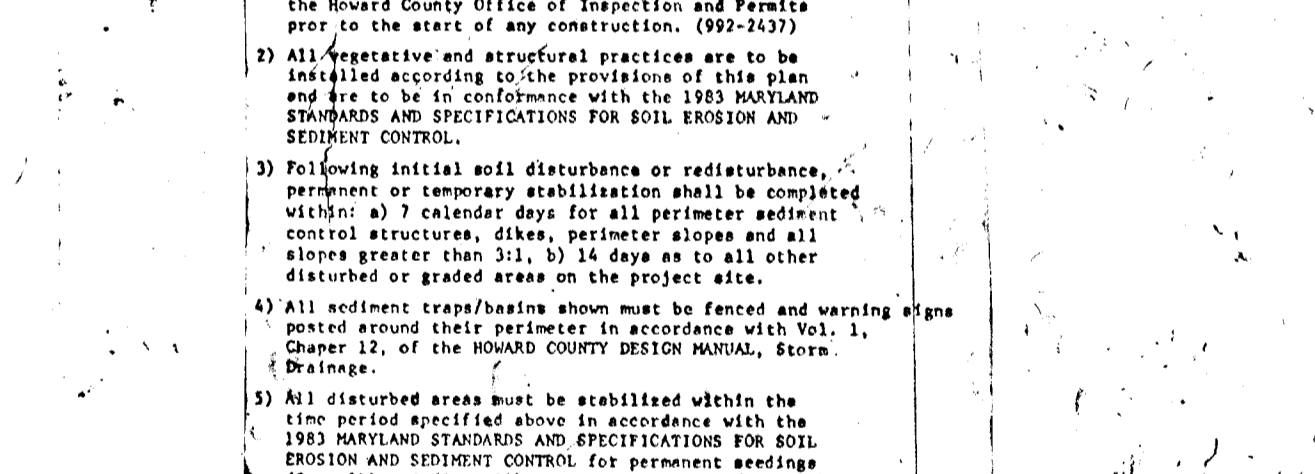
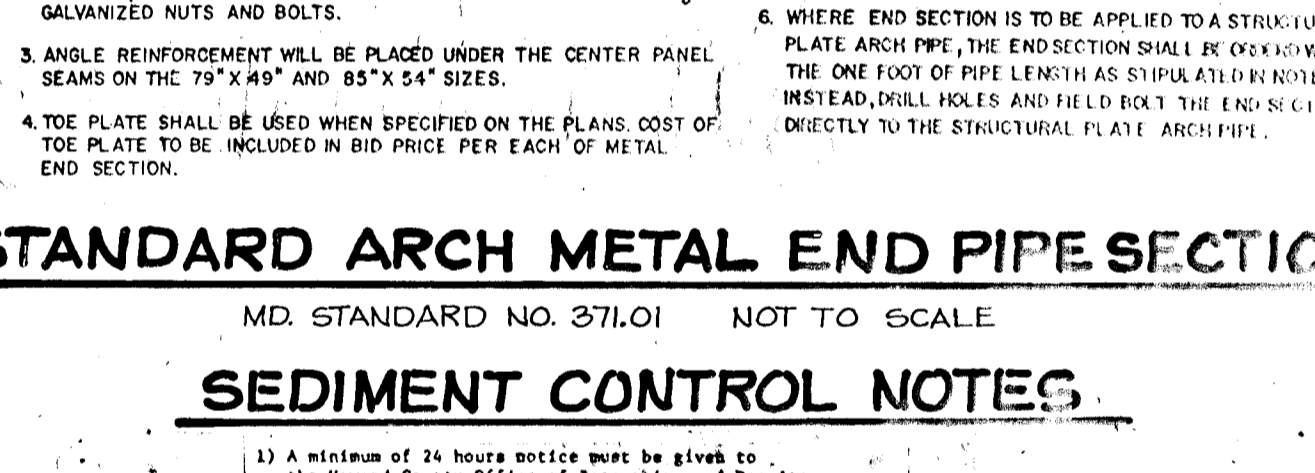
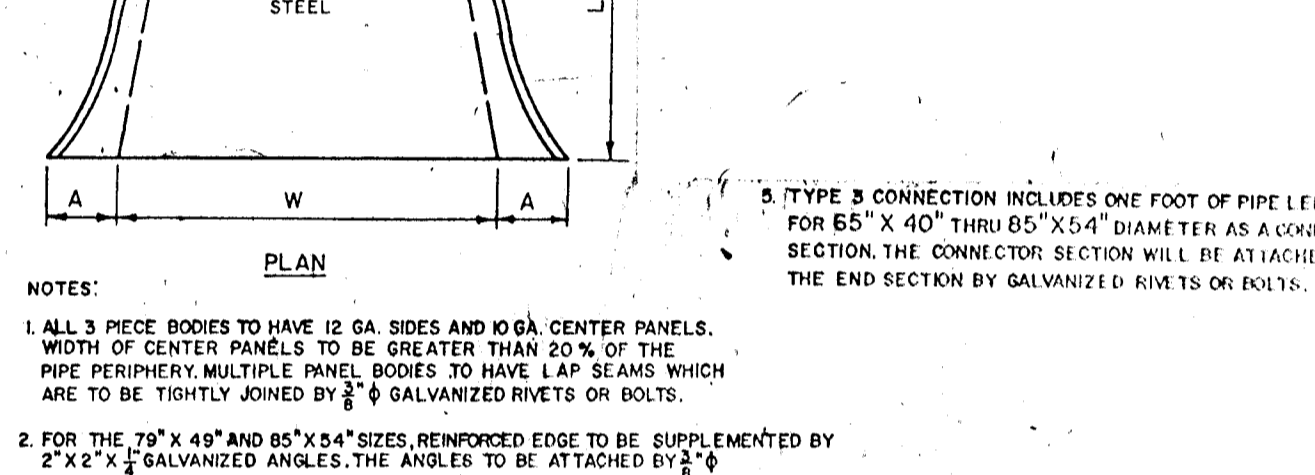
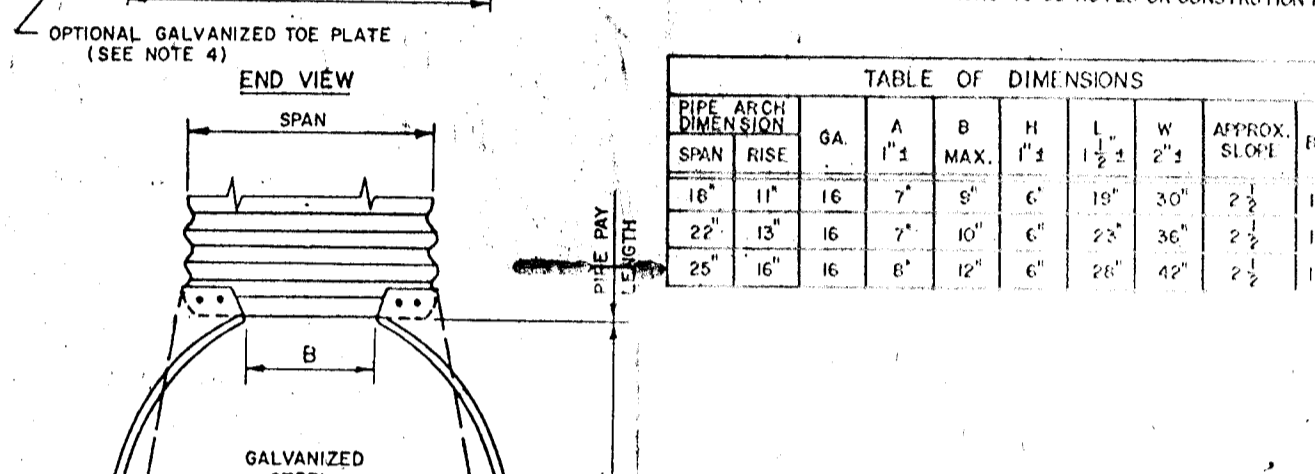
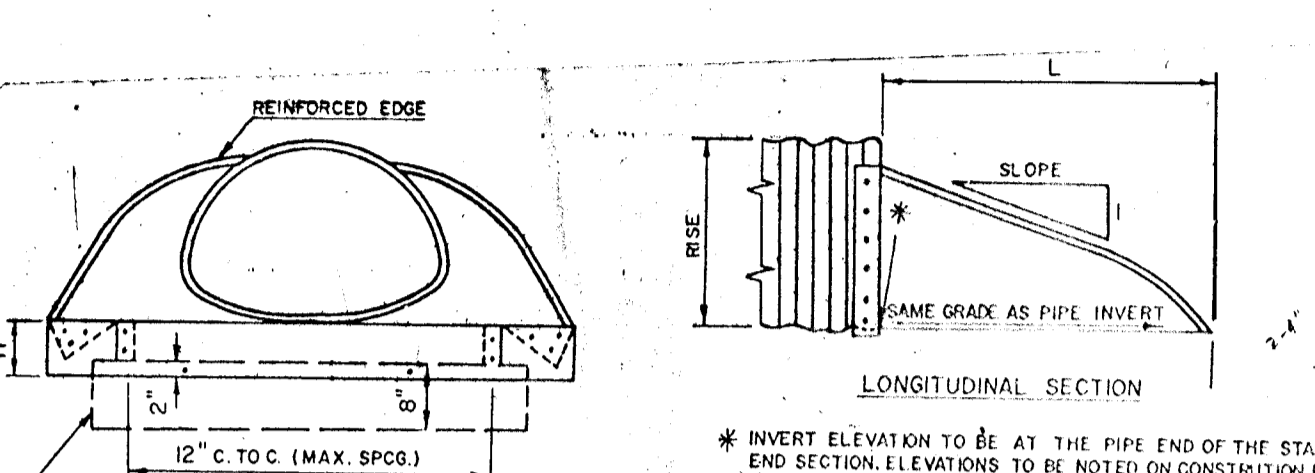
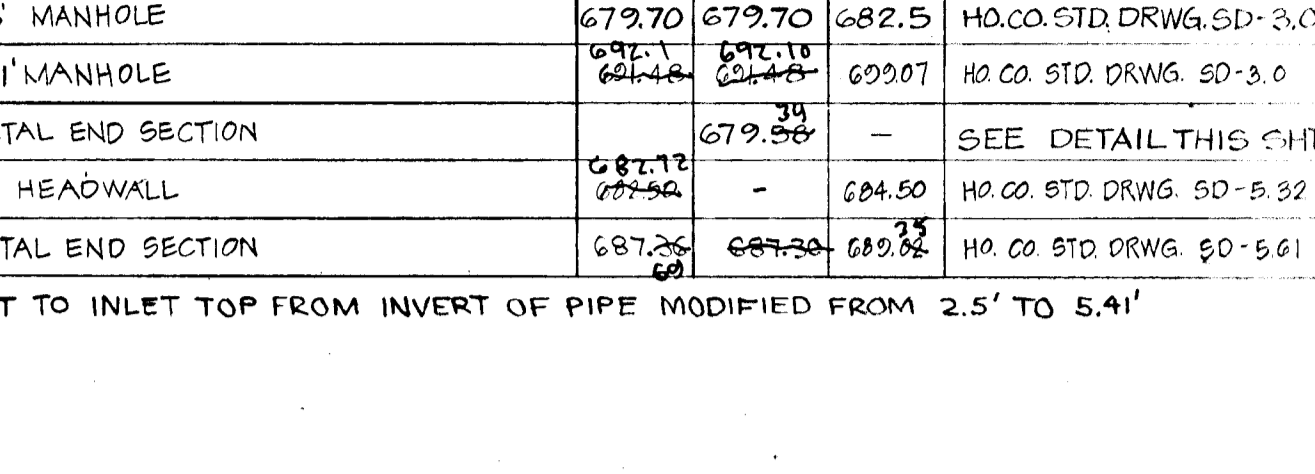
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOL. IV, I.I., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL TEST ALL EXISTING UTILITIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK ON THESE DRAWINGS:

SEWER UTILITY	899-3100
TELEPHONE SYSTEM	993-3400
LONG DISTANCE CABLE DIVISION	993-3555 or 3334
MARYLAND GAS AND ELECTRIC COMPANY	899-8000, ext. 691
HOWARD COUNTY DEPT. OF UTILITIES	899-3344
HOWARD COUNTY CONSTRUCTION/INSPECTION SURVEY DIVISION (24 HOURS NOTICE PRIOR TO COMMENCEMENT OF WORK)	712-7275
- ALL UTILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- ALL UTILITY CROSSINGS SHALL HAVE 30" BARI UNLESS OTHERWISE NOTED.
- STORM DRAIN STRUCTURES WITHIN RIGHT-OF-WAY SHALL BE BACKFILLED AND COMPLETED IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL, VOLUME IV, I.I., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
- INSTALLATION OF TRAFFIC CONTROL DEVICES, MARKING, AND SIGNING SHALL BE IN ACCORDANCE WITH THE MANUAL OF TRAFFIC CONTROL DEVICES, REVISED 1983 EDITION.
- PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
- DESIGNED TRAFFIC SPEEDS IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIAL STANDARDS: ALL 40 MPH, ALL 50 MPH, 50 MPH.
- PIPE ELEVATIONS SHOWN ARE BASED ON U.S.C. AND S.M. MEAN SEA LEVEL DATUM, 1929.
- ALL FILL AREAS WITHIN ROADS AND UNDER STRUCTURES TO BE CONTACTED TO A STRUCTURE FOR CONSTRUCTION.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- PROFIT L STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- PROPERTY ZONED R-12 PER 10-83-17 COMPREHENSIVE ZONING PLAN.
- TOPO DATA FROM AERIAL PHOTOGRAPHS PROVIDED BY HOWARD COUNTY ENGINEERS.
- NO PIPE SHALL BE LAID UNTIL LEVELS OF EXCAVATION HAVE BEEN EXPOSED WITHIN 3" OF FINISHED GRADE.
- ALL STORM DRAIN PIPE BENDING SHALL BE CLASS "B" AS SHOWN IN FIG. 11.4, VOLUME I OF HOWARD COUNTY DESIGN MANUAL UNLESS OTHERWISE NOTED.
- REGULATIONS OF U.I.11000 SHALL BE AT THE DEVELOPER'S EXPENSE.

STRUCTURE	L	W	STONE SIZE
S-1	20'	10'	4" - 6"
S-3	20'	10'	4" - 6"



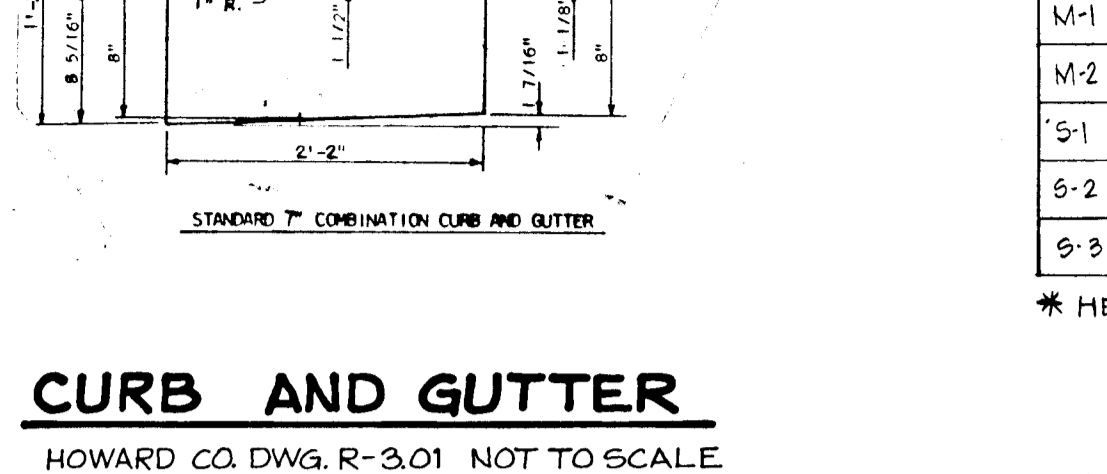
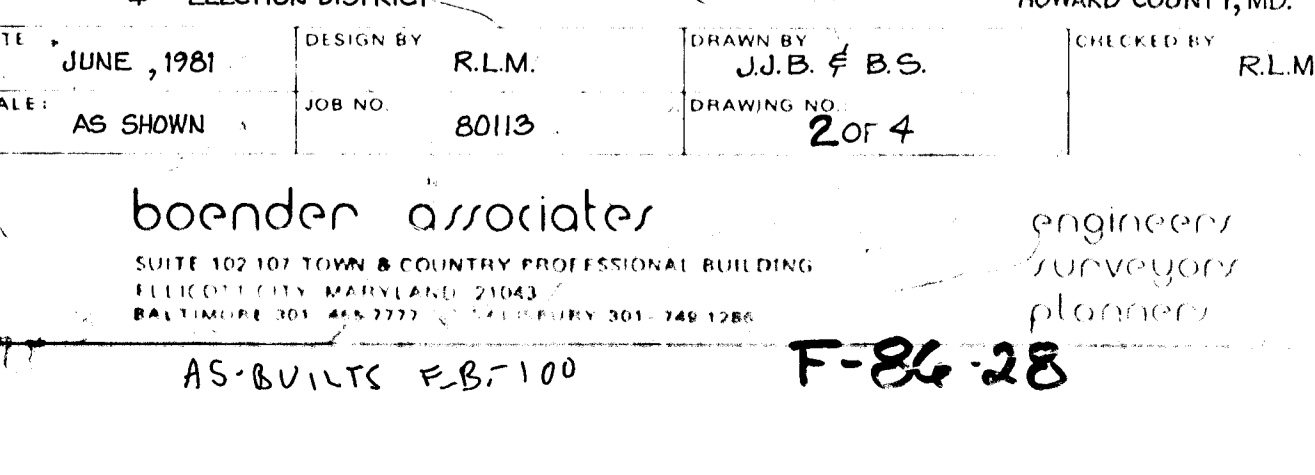
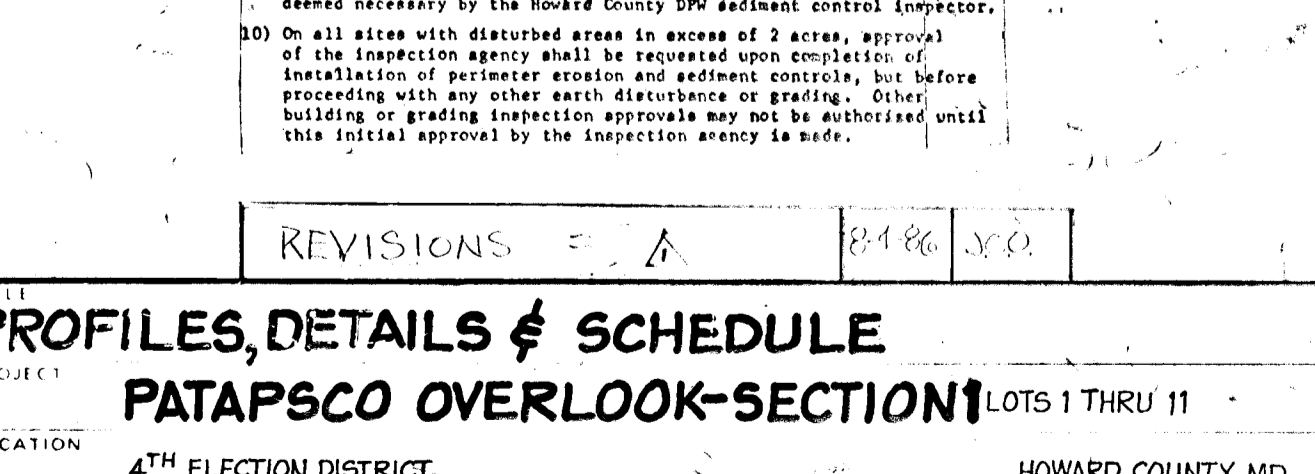
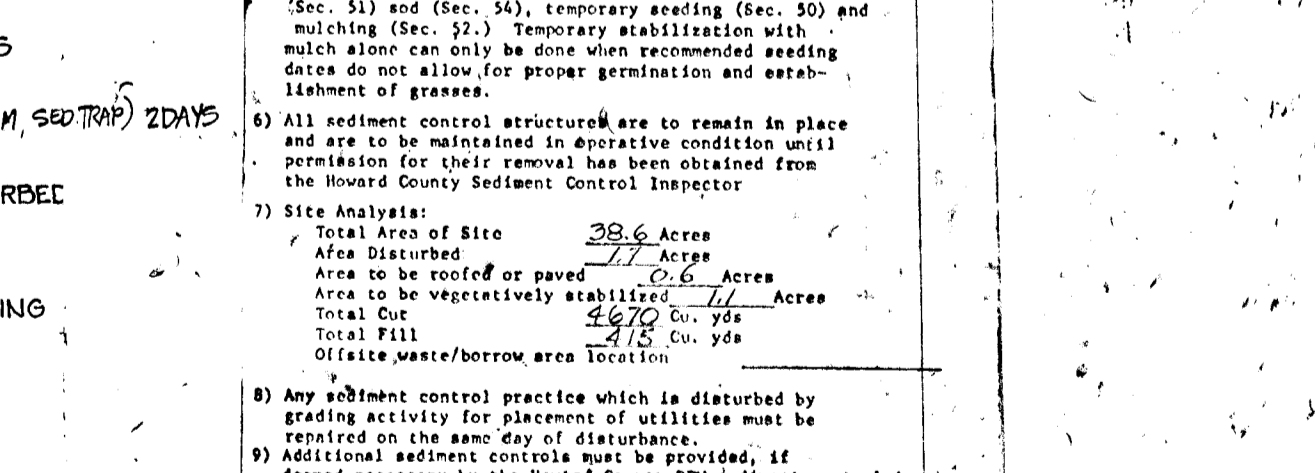
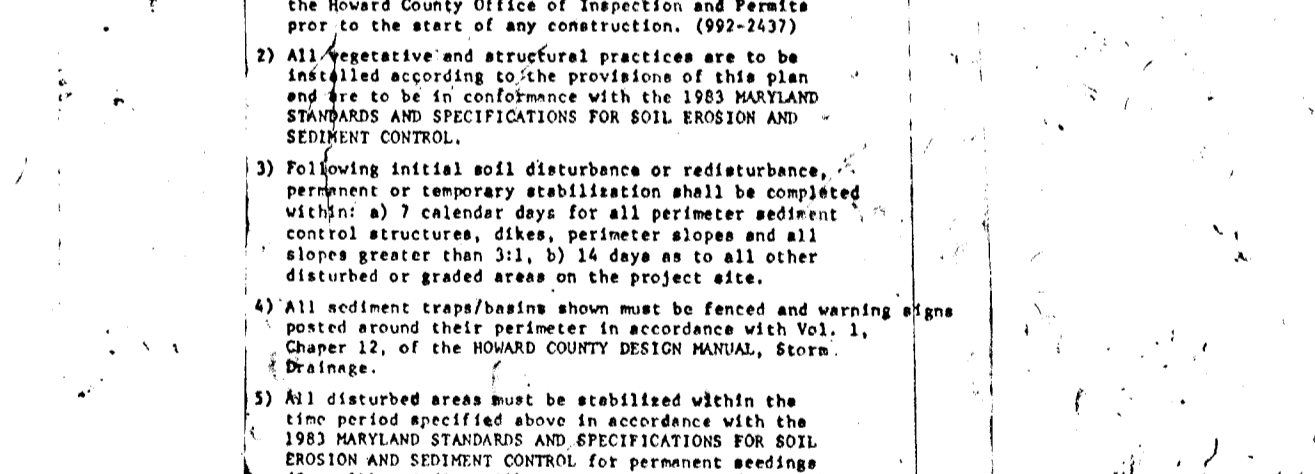
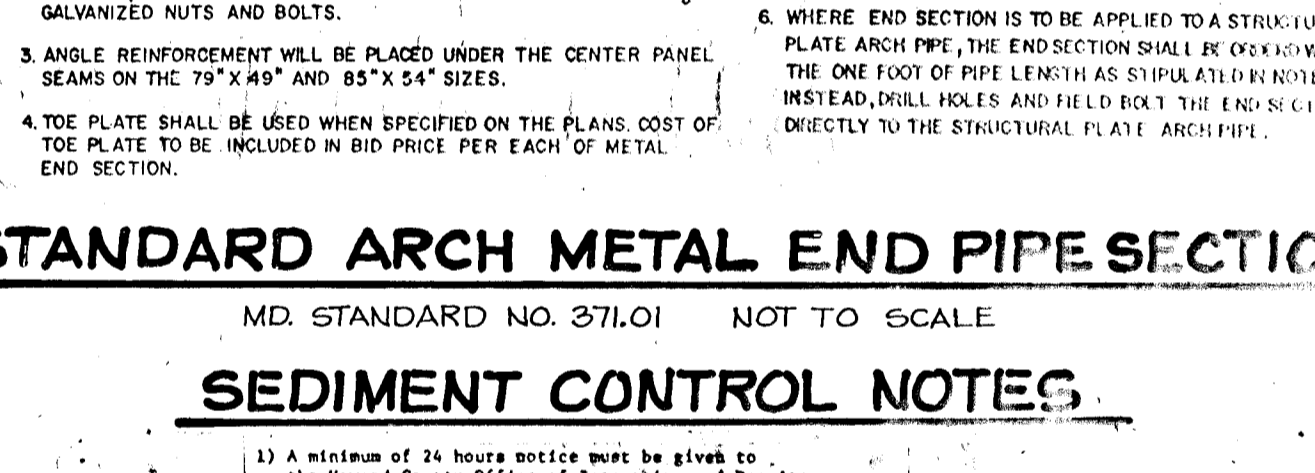
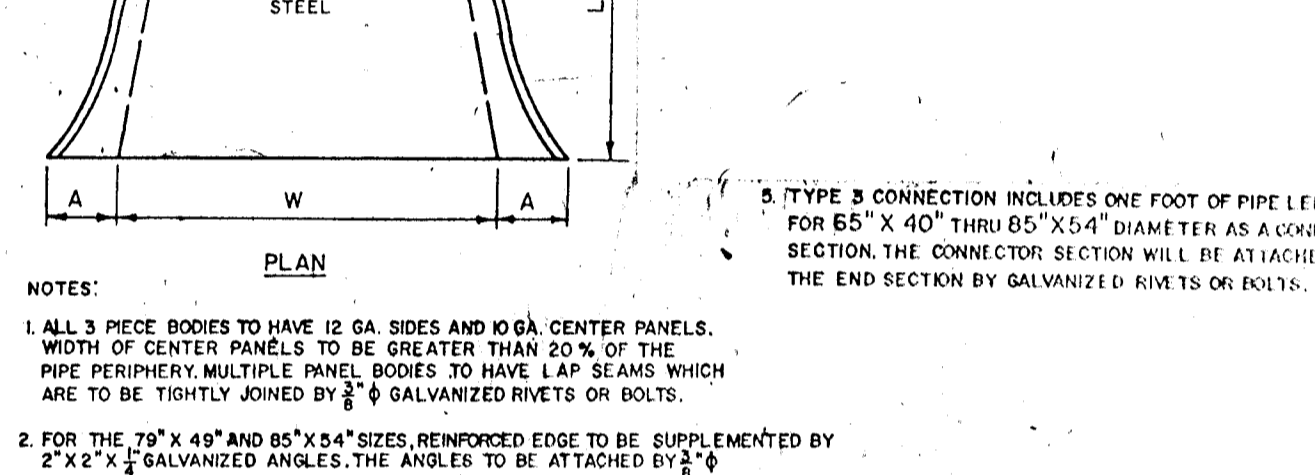
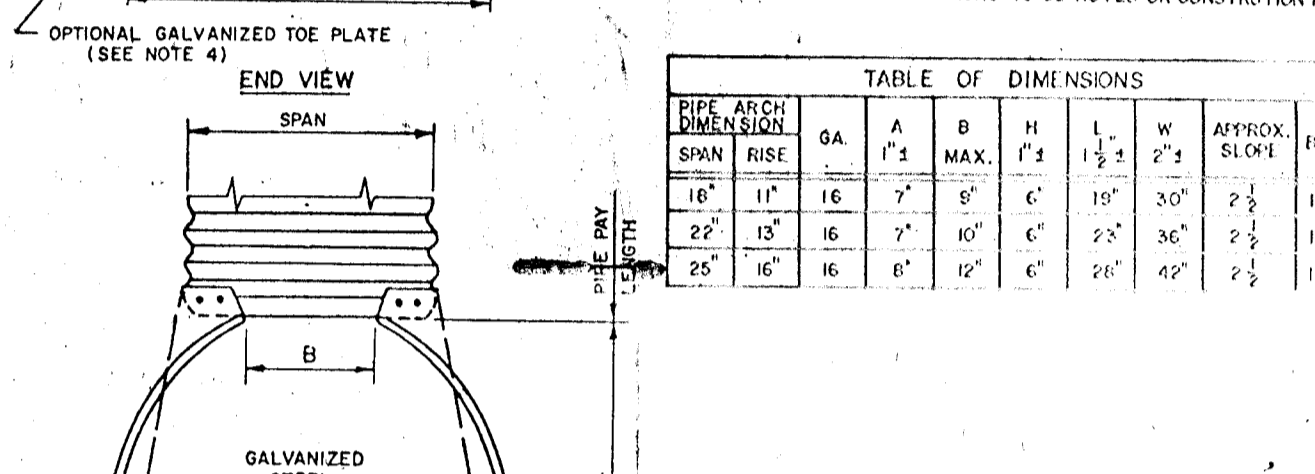
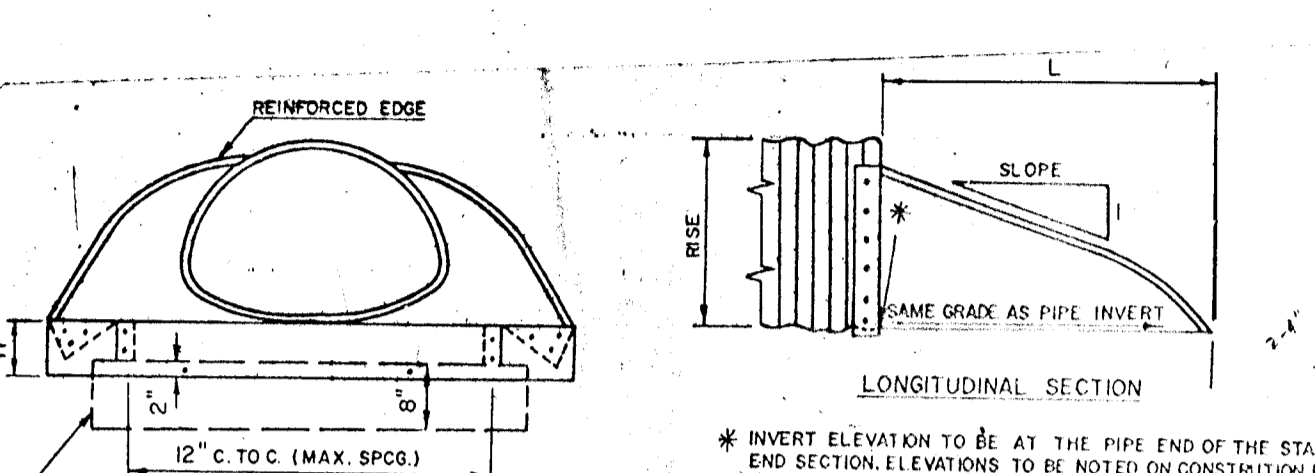
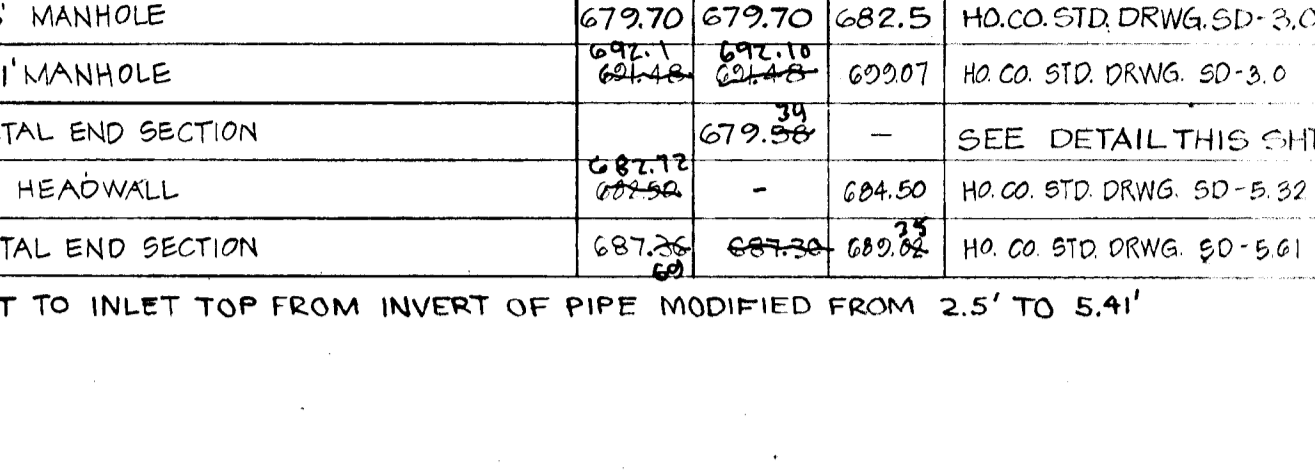
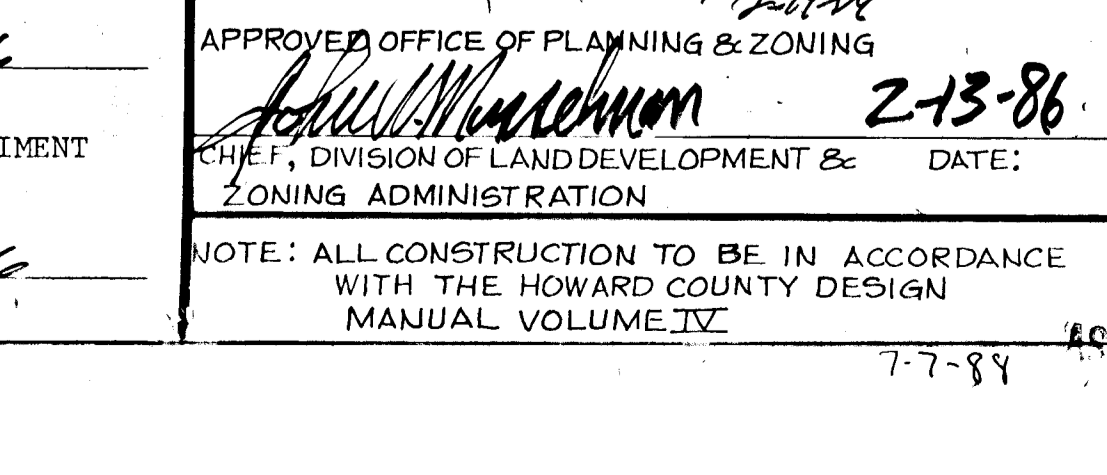
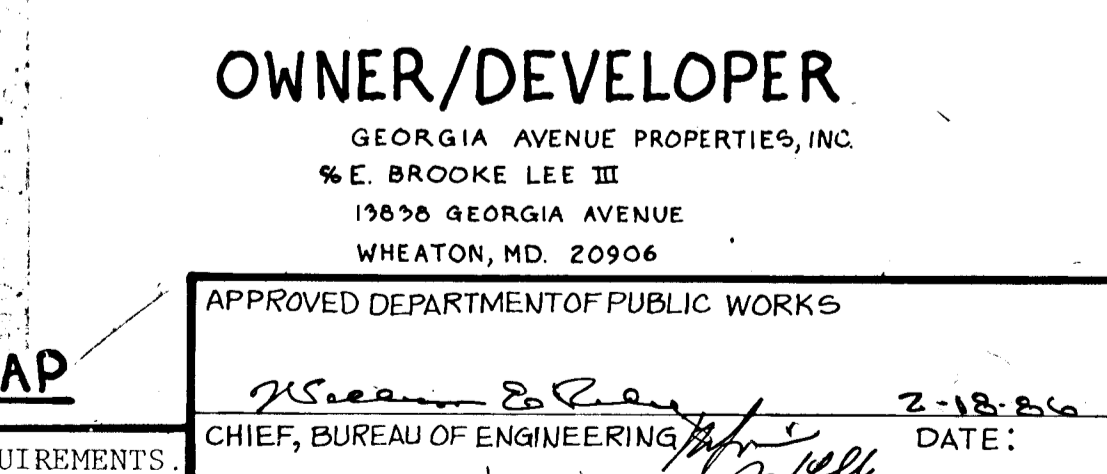
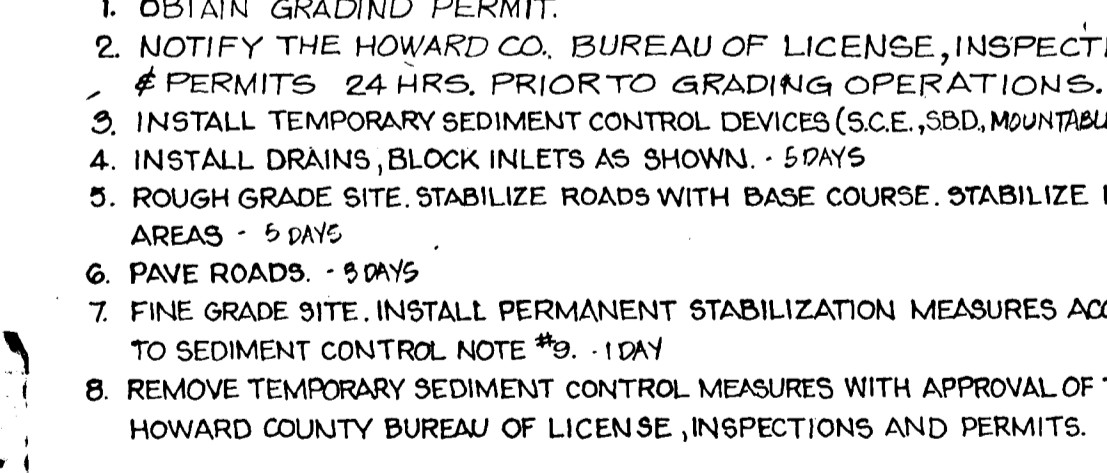
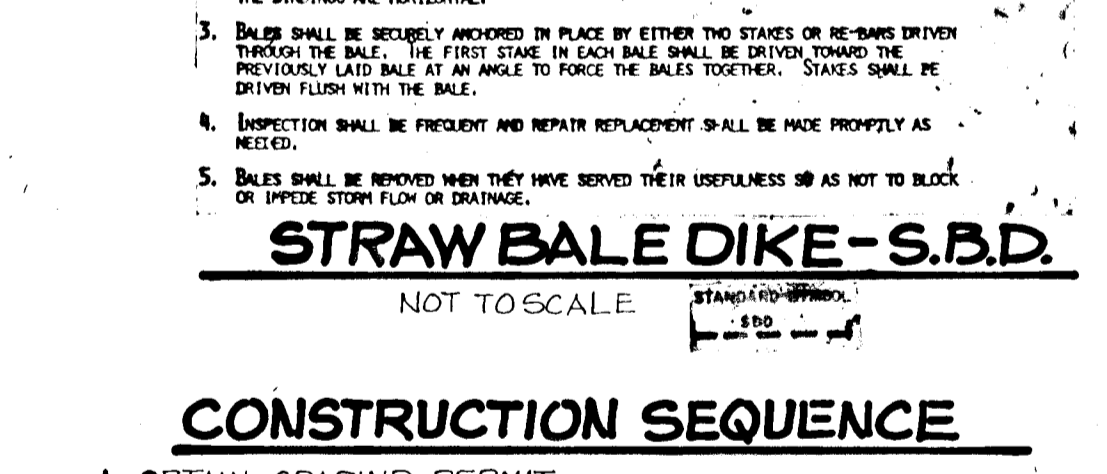
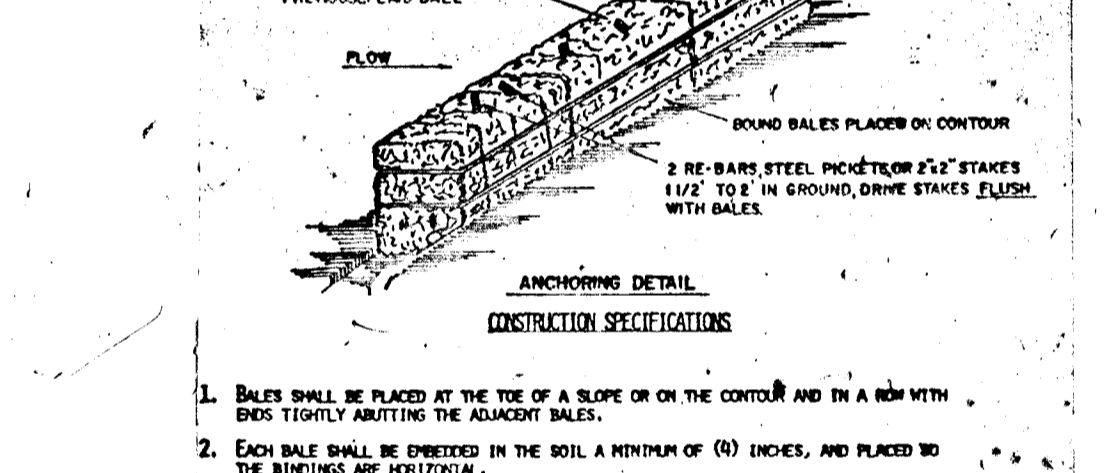
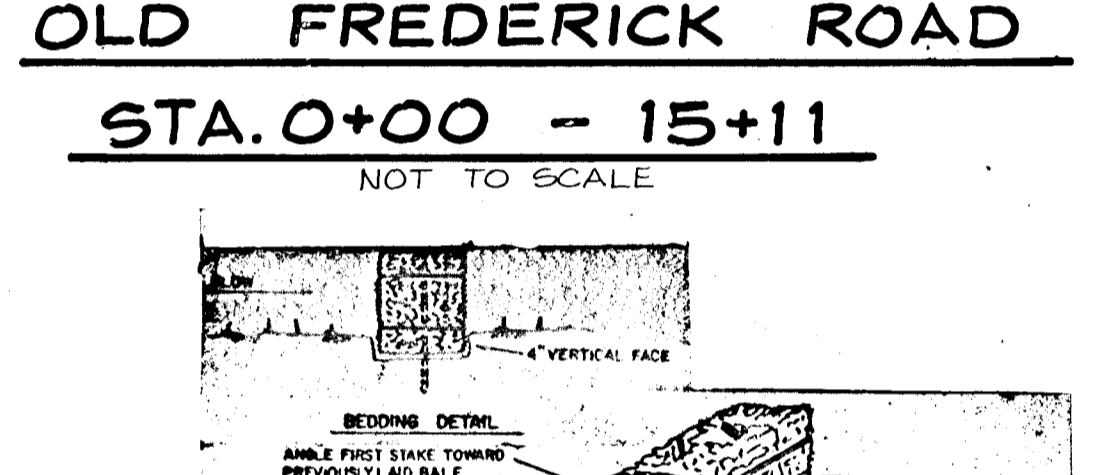
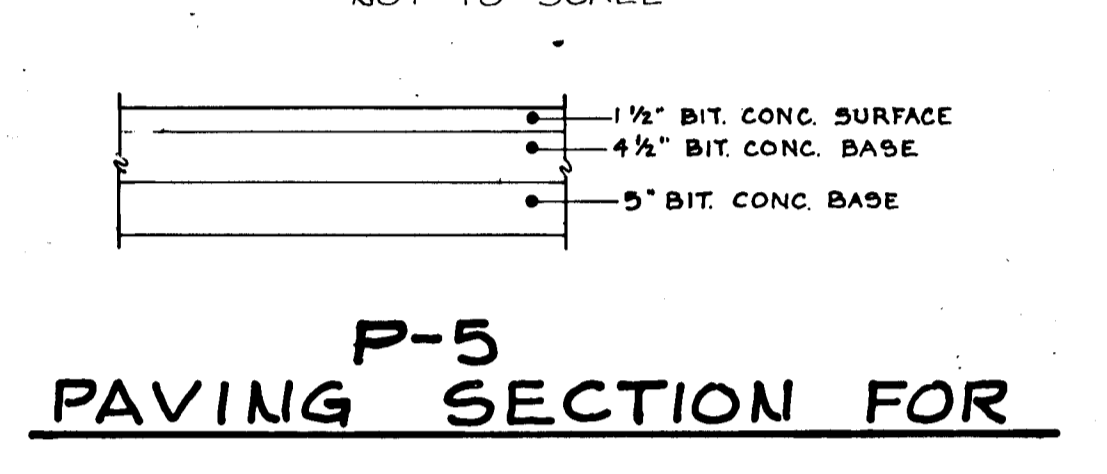
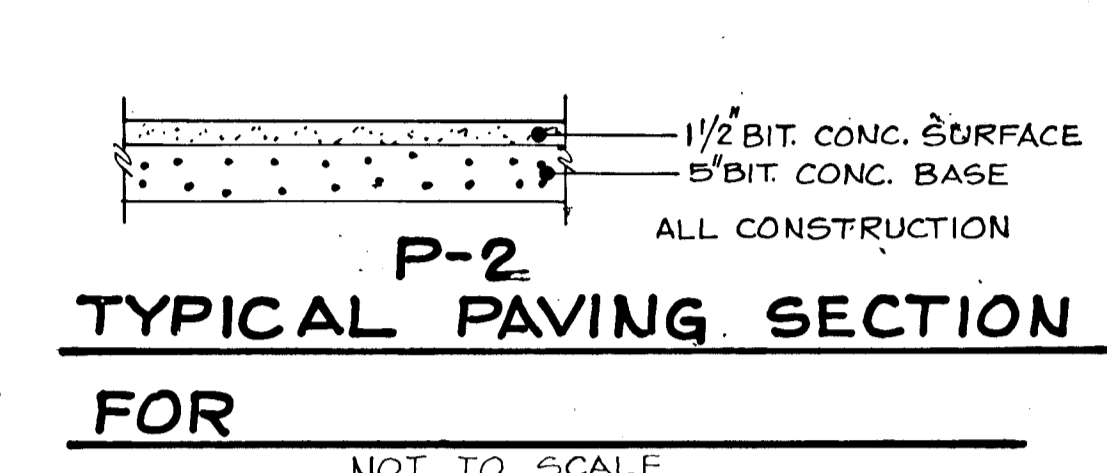
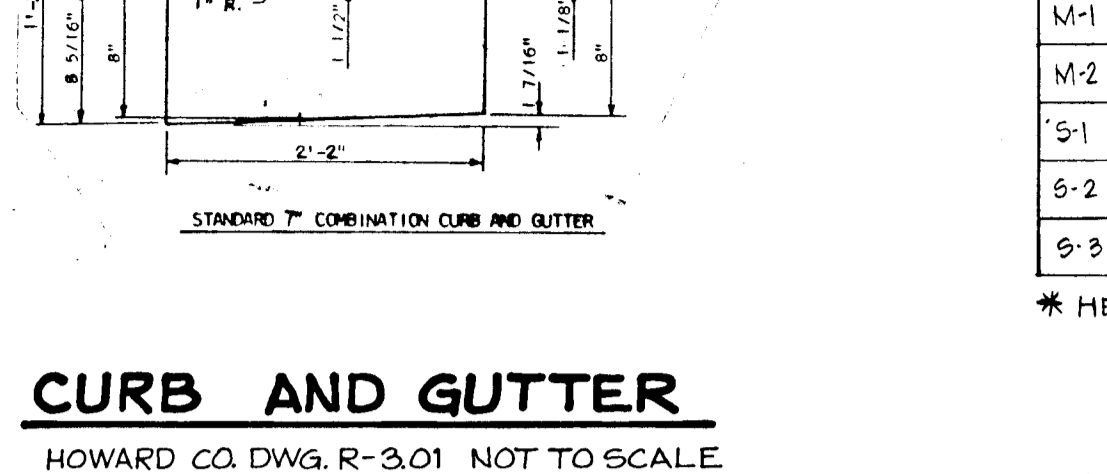
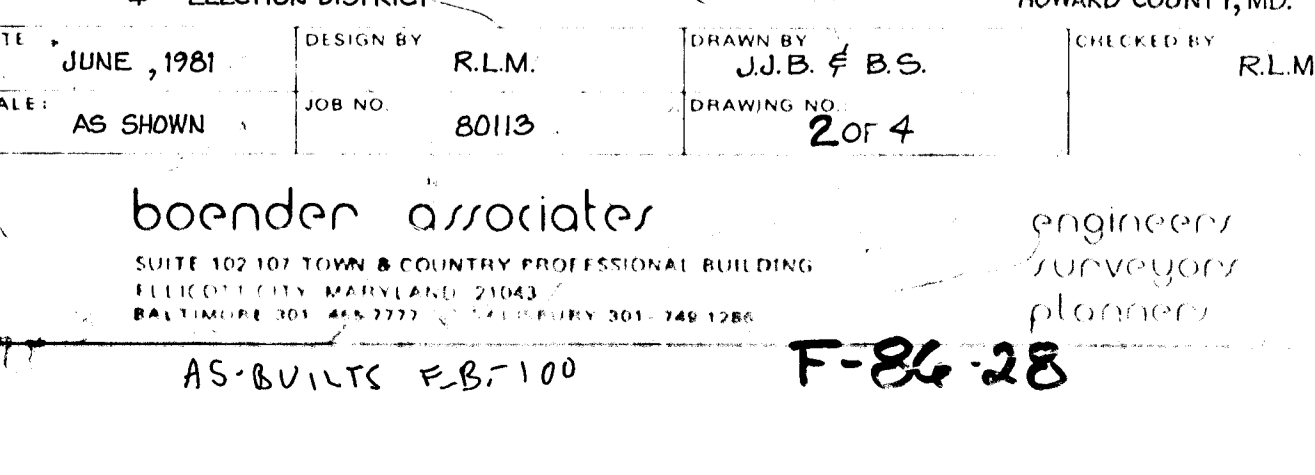
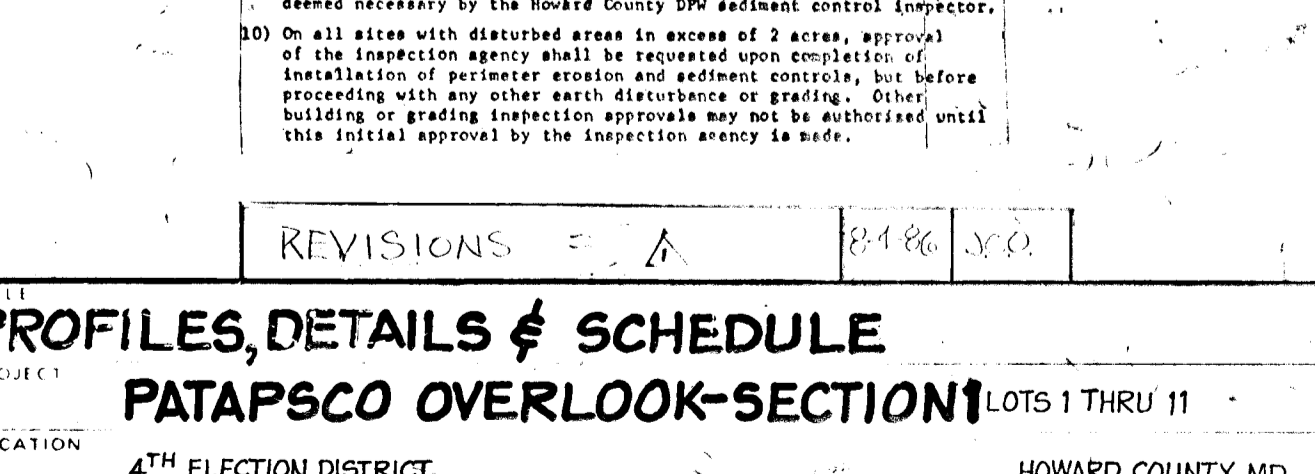
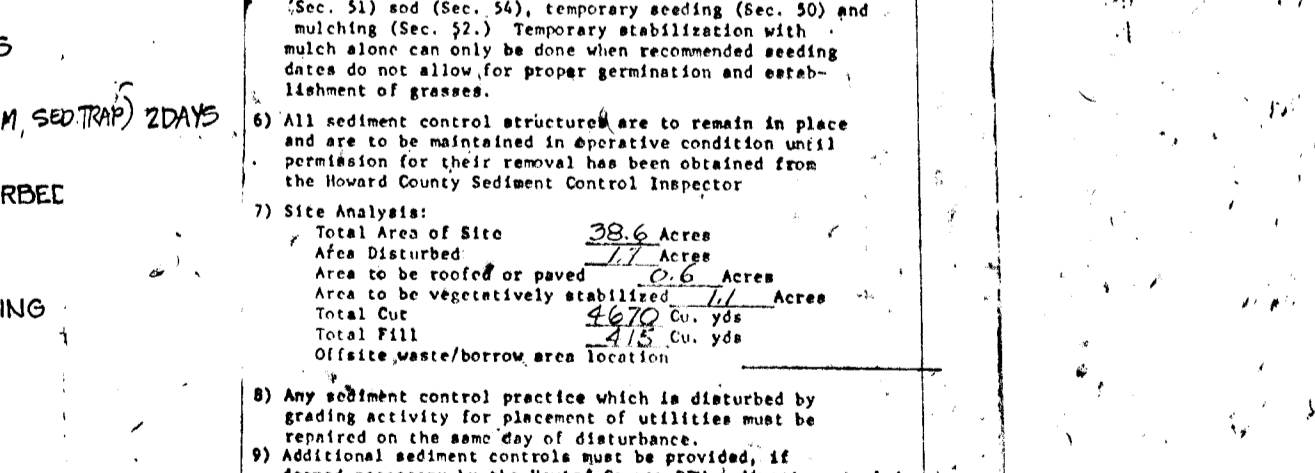
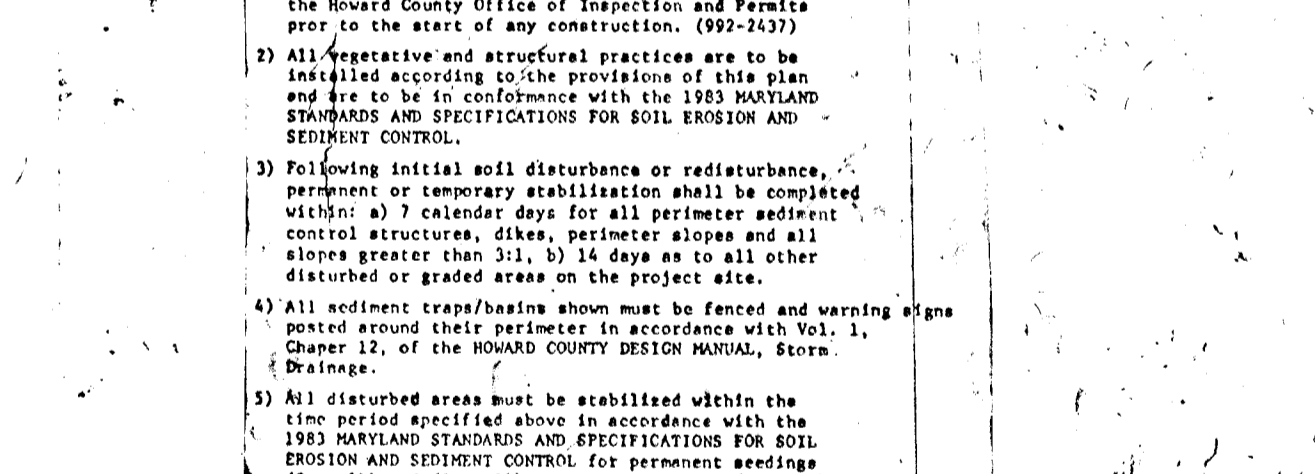
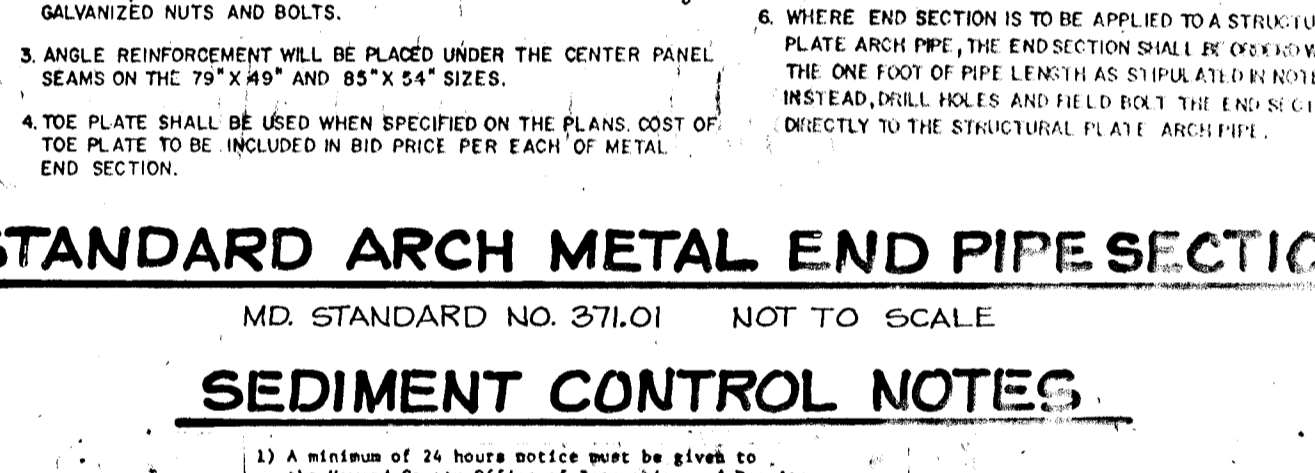
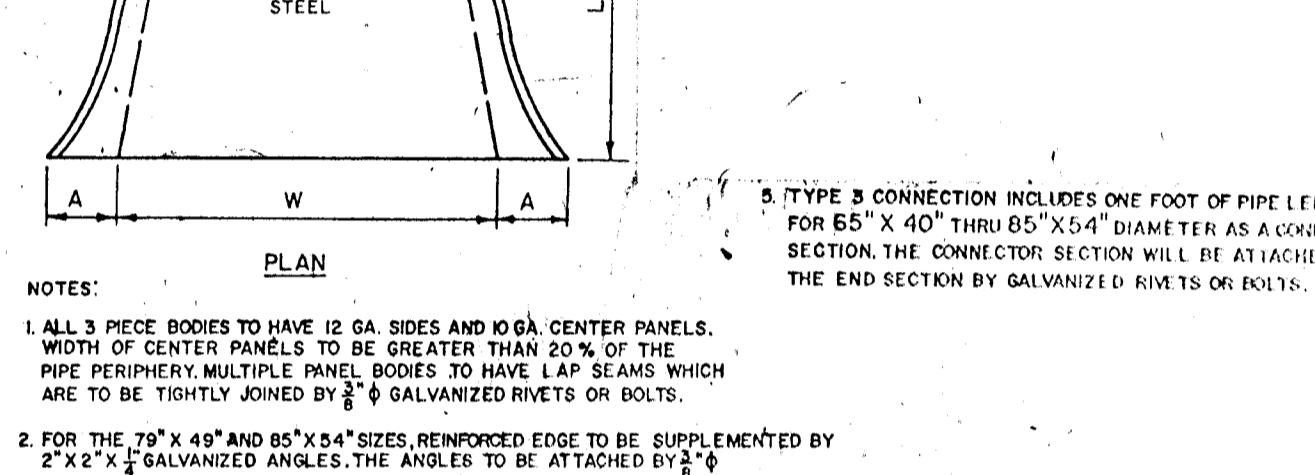
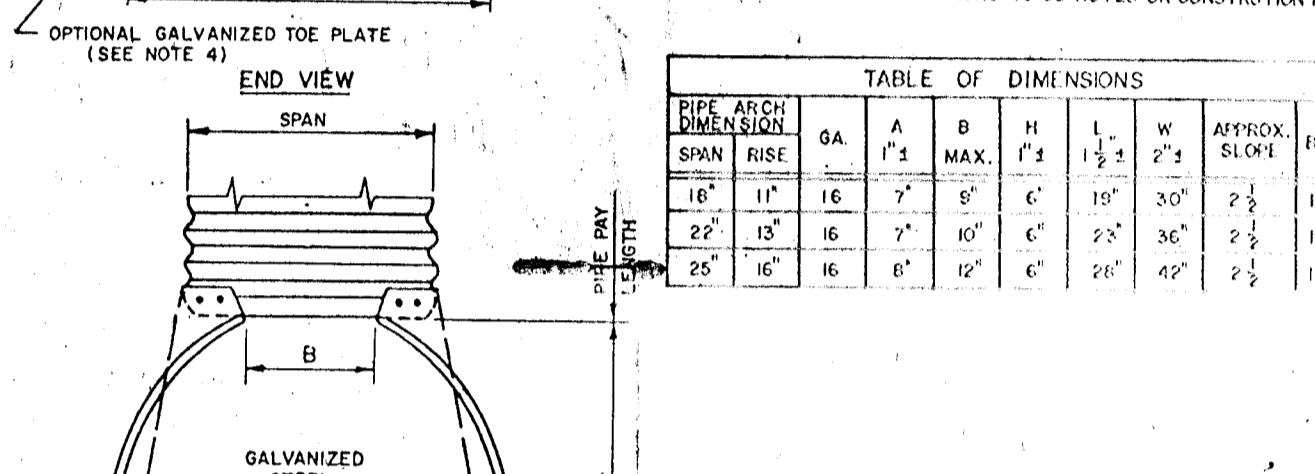
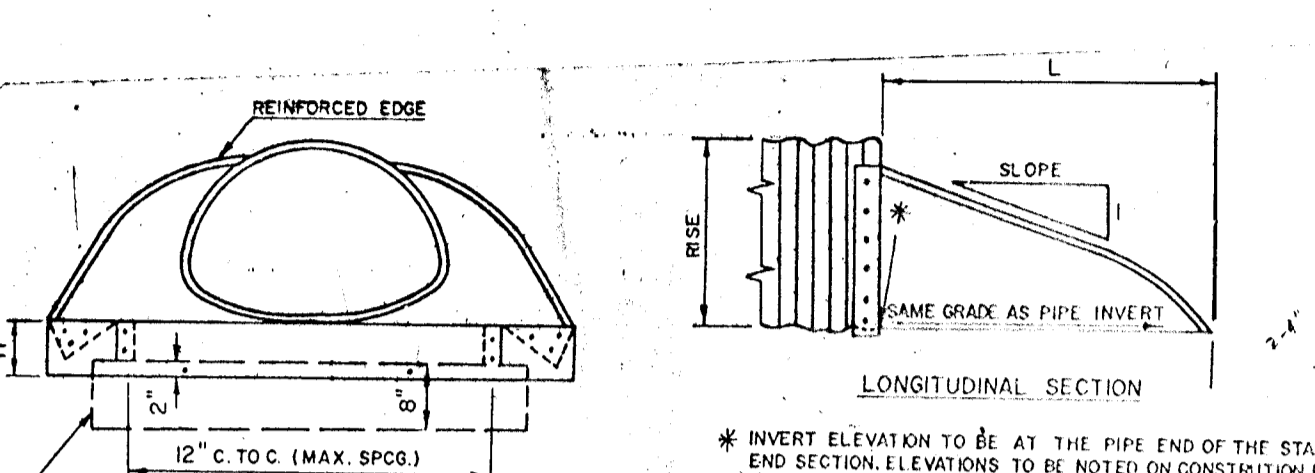
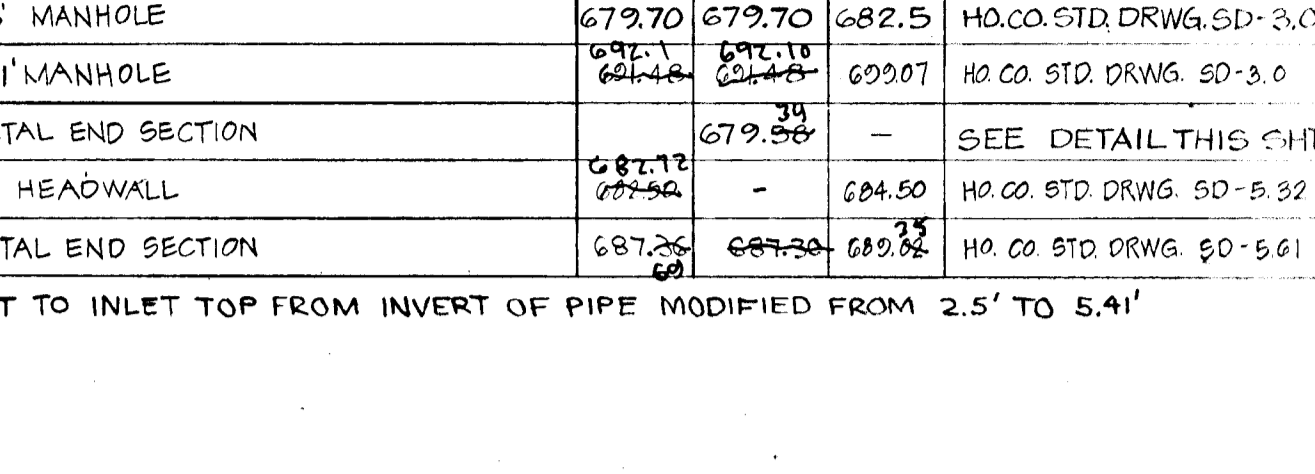
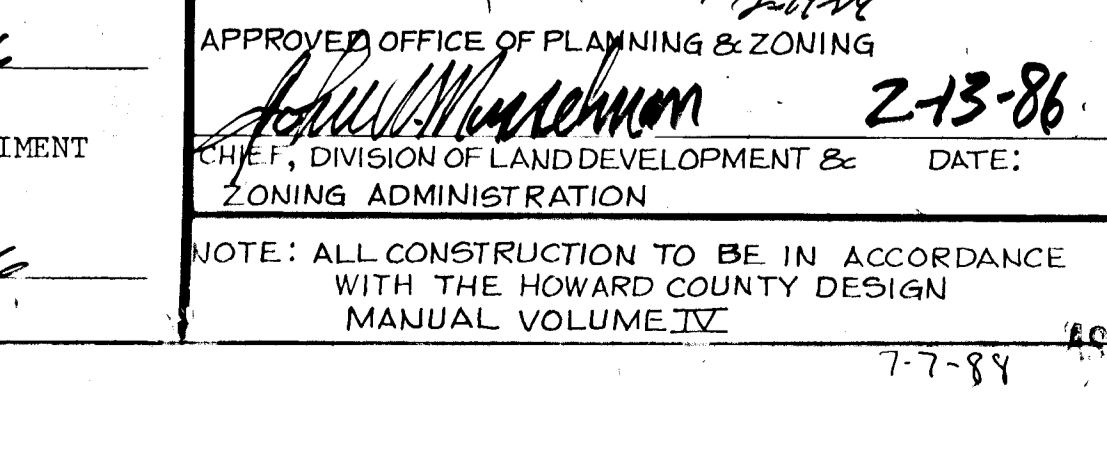
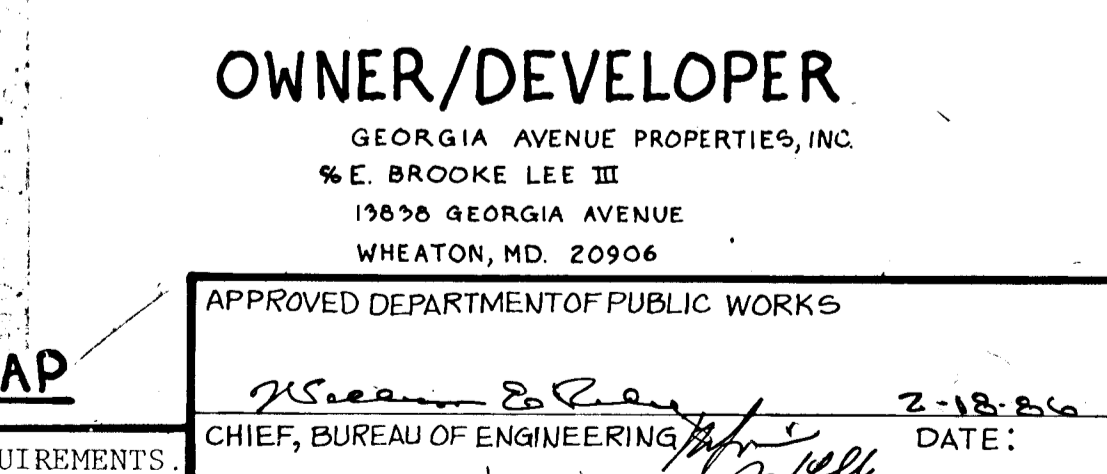
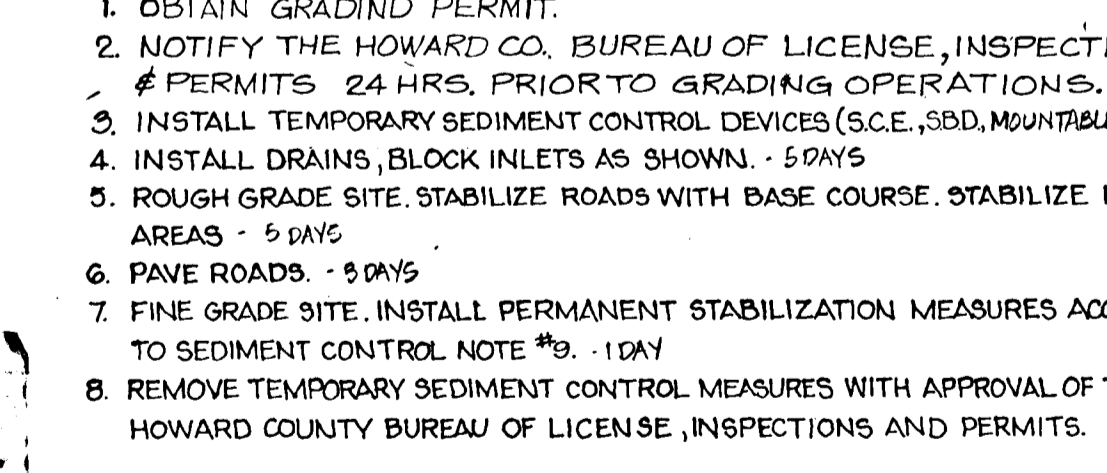
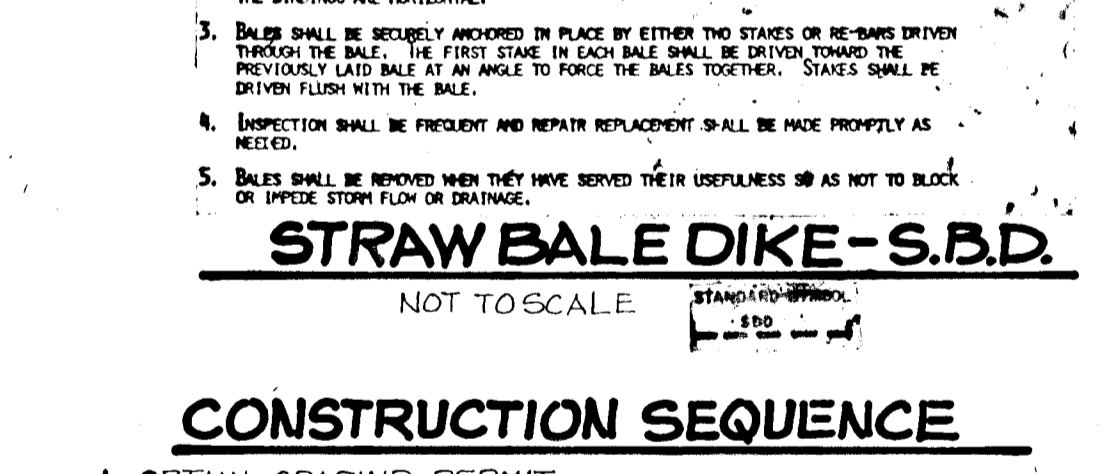
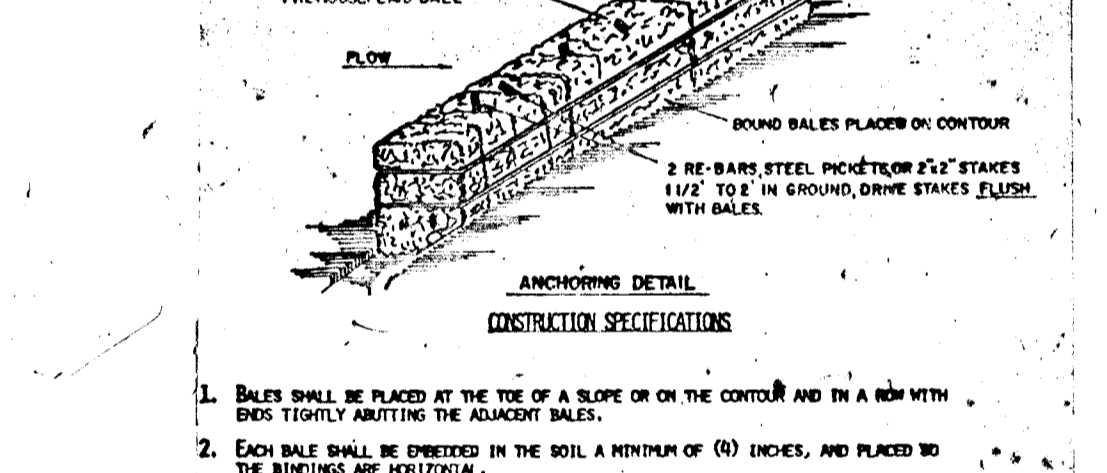
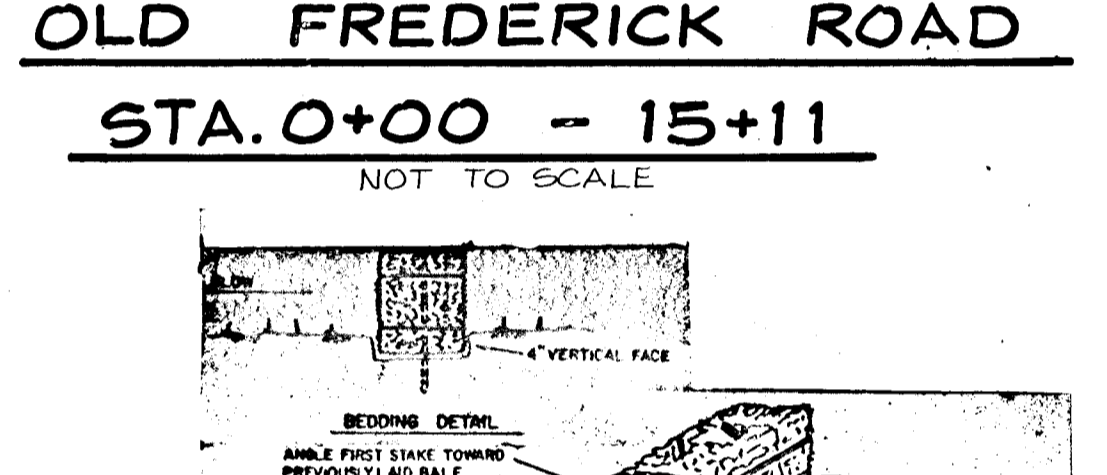
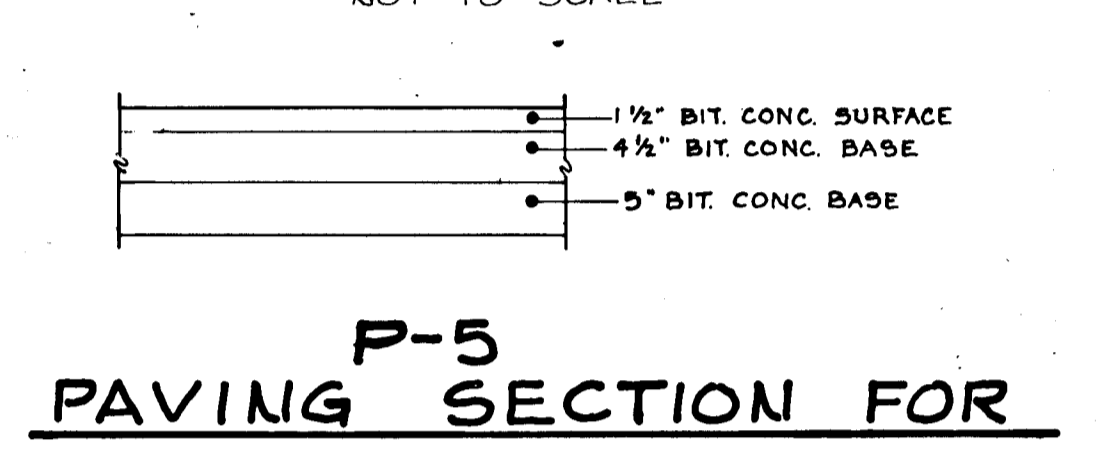
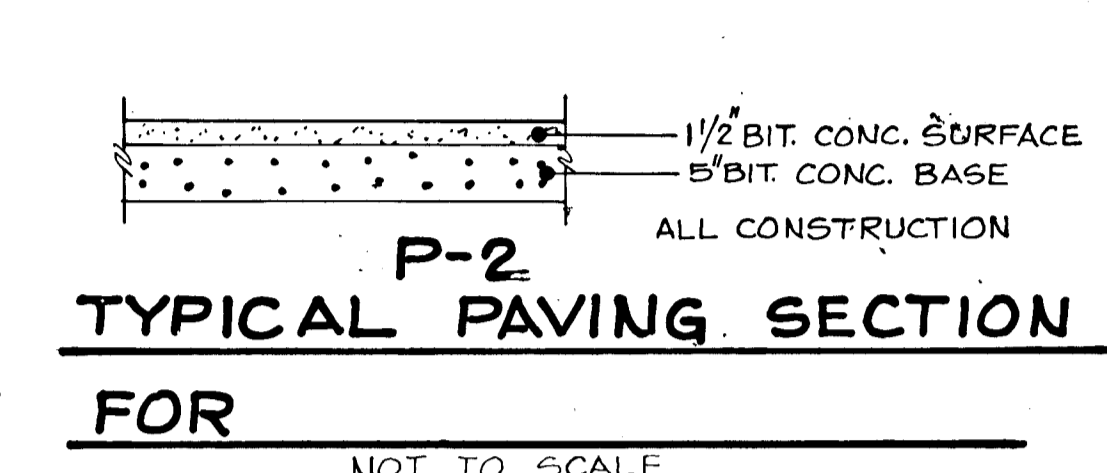
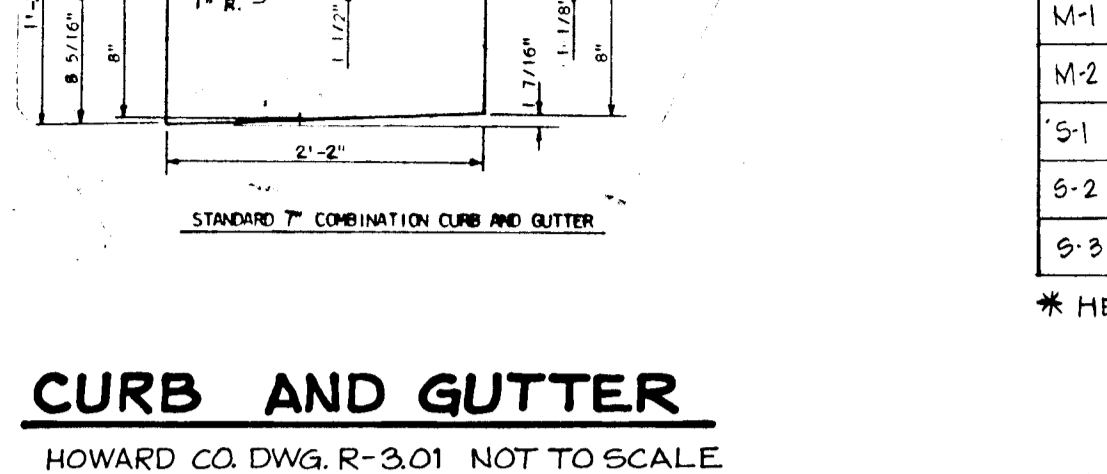
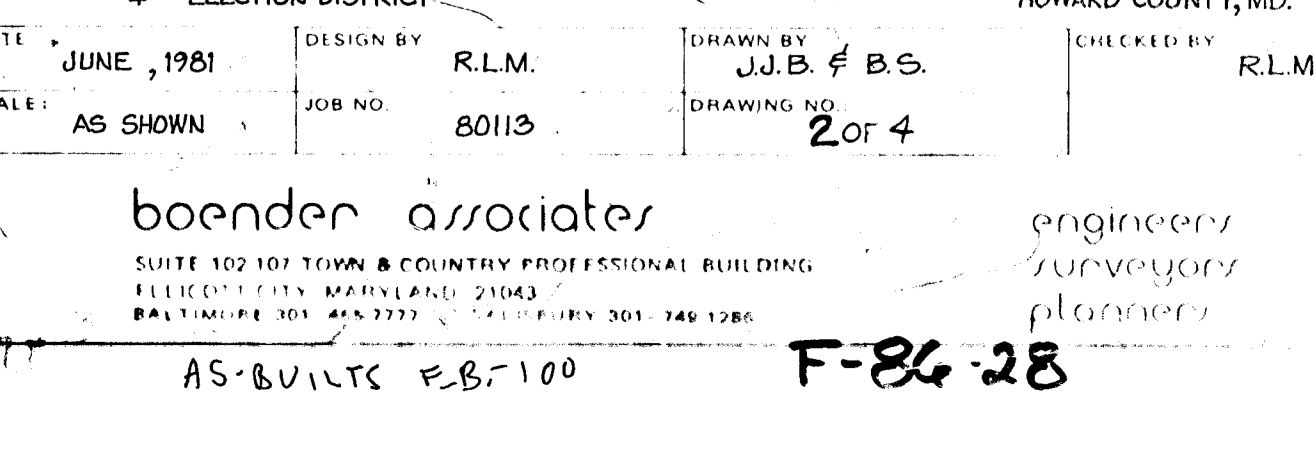
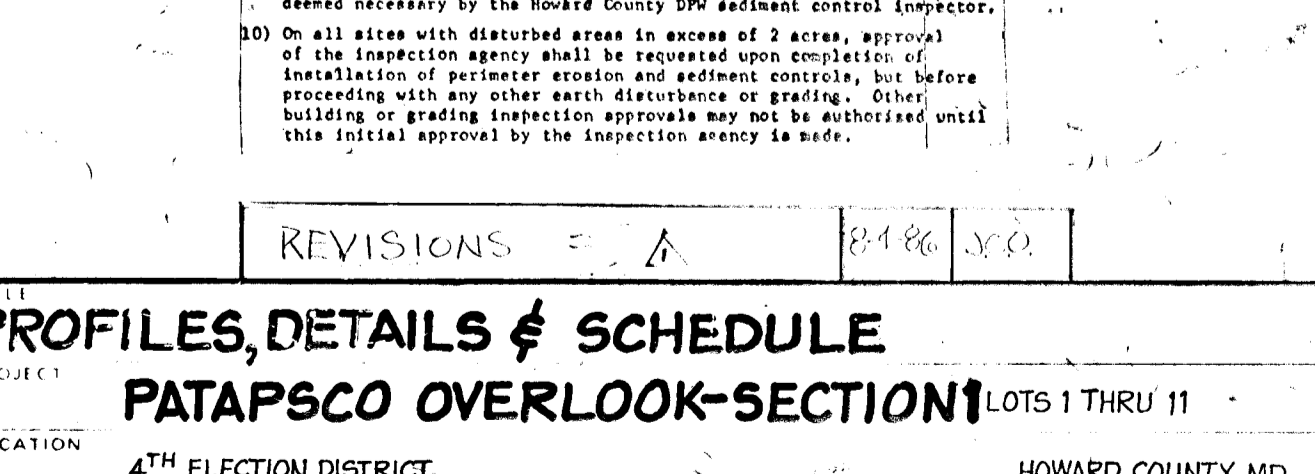
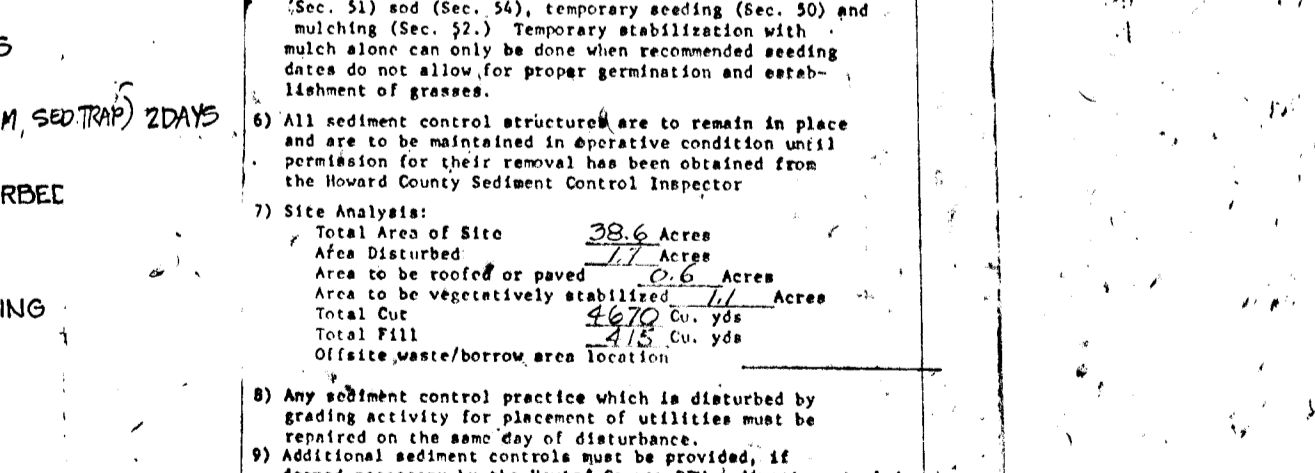
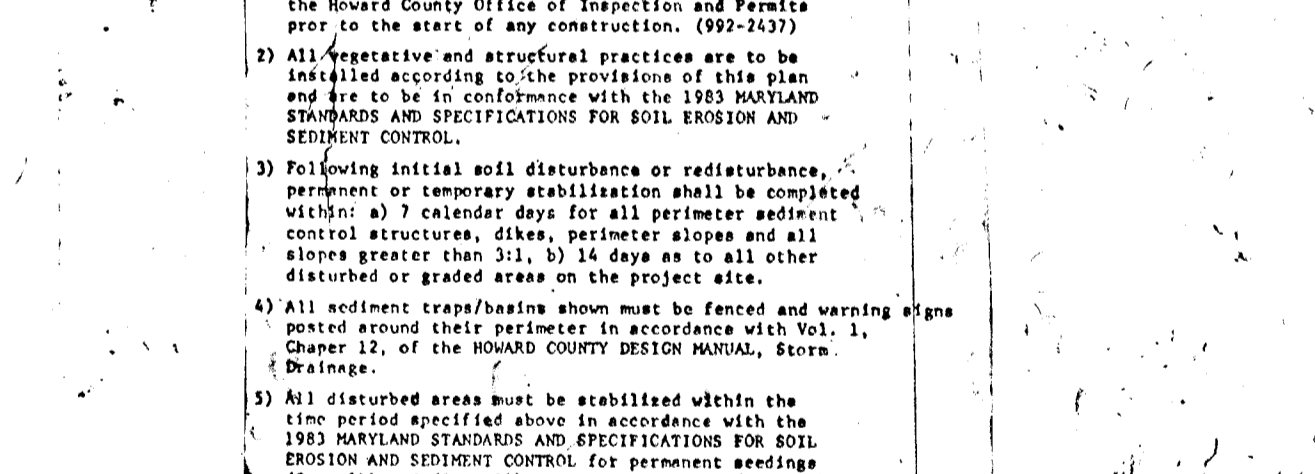
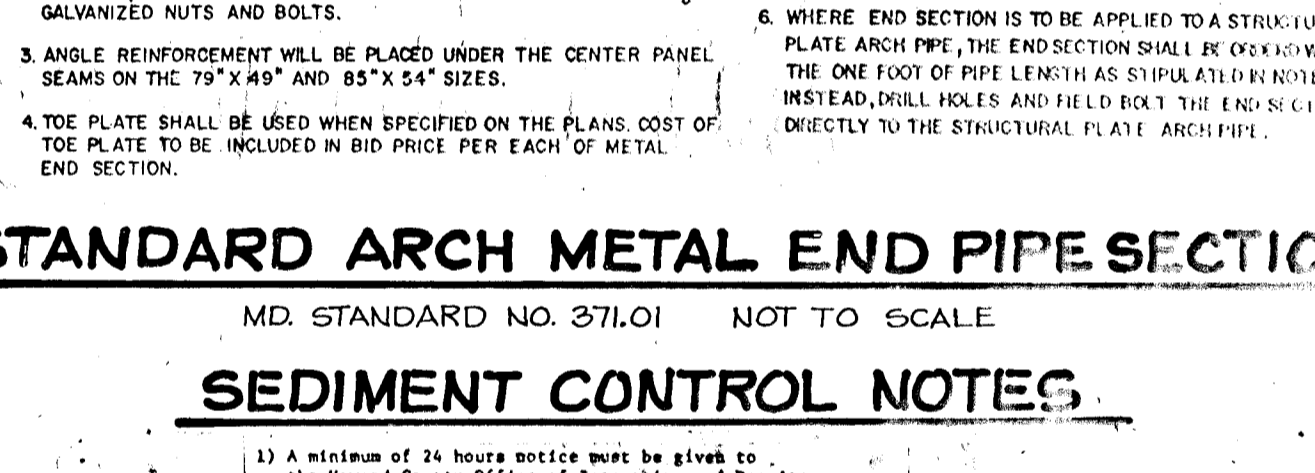
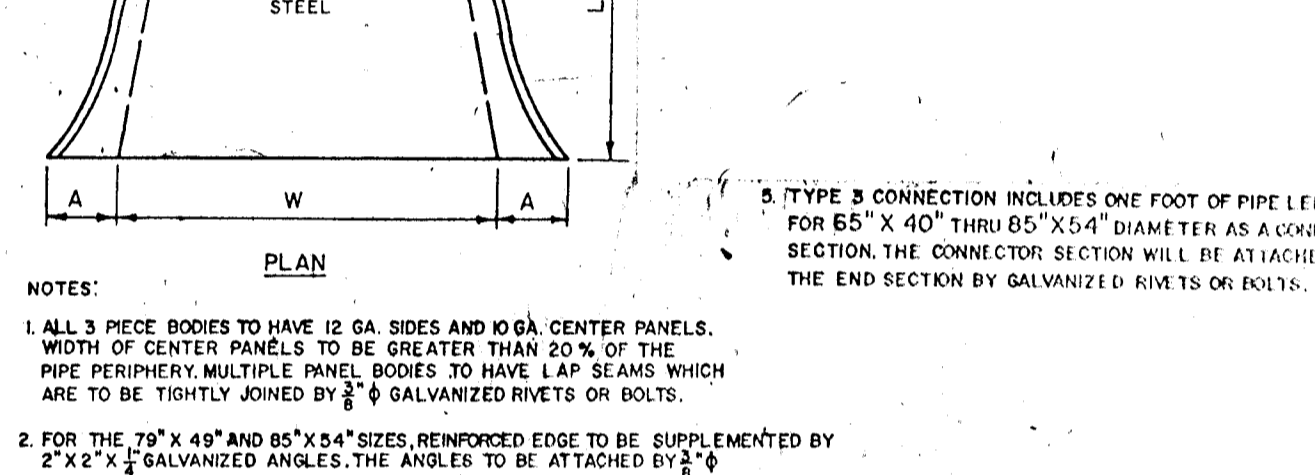
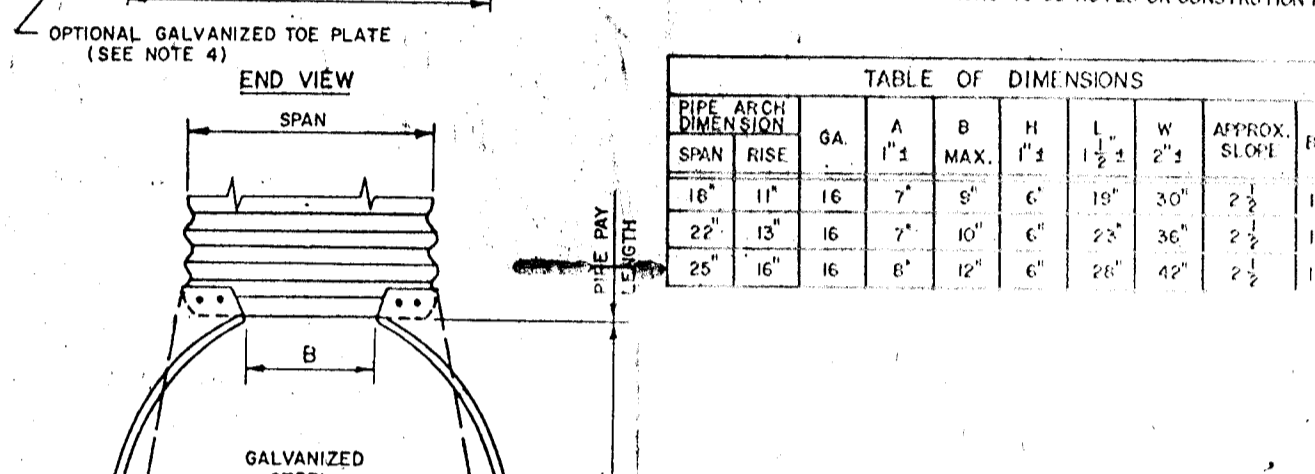
NO	TYPE	INVERT	TOP OF	REMARKS
I-1	'K' INLET (MODIFIED TOP FL.)	681.62	681.62	HO. CO. STD. DRWG. S.D. 4.17
I-2	'K' INLET (MODIFIED TOP FL.)	677.59	677.59	HO. CO. STD. DRWG. S.D. 4.17
I-3	'A-5' INLET	693.55	693.55	HO. CO. STD. DRWG. S.D. 4.01
M-1	'B' MANHOLE	679.70	679.70	HO. CO. STD. DRWG. S.D. 3.03
M-2	'A-1' MANHOLE	681.18	681.18	HO. CO. STD. DRWG. S.D. 3.0
S-1	METAL END SECTION	681.18	679.50	SEE DETAIL THIS CHIT.
S-2	'B' HEADWALL	681.18	684.50	HO. CO. STD. DRWG. S.D. 3.32
S-3	METAL END SECTION	681.18	684.50	HO. CO. STD. DRWG. S.D. 3.31



PIPE ARCH DIMENSION	GA.	A	B	H	L	W	APPROX. SLOPE	BODY
18"	16"	7"	7"	6"	18"	30"	2%	IFC
22"	18"	7"	7"	6"	22"	36"	2%	IFC
25"	18"	6"	6"	6"	25"	42"	2%	IFC

NOTES:

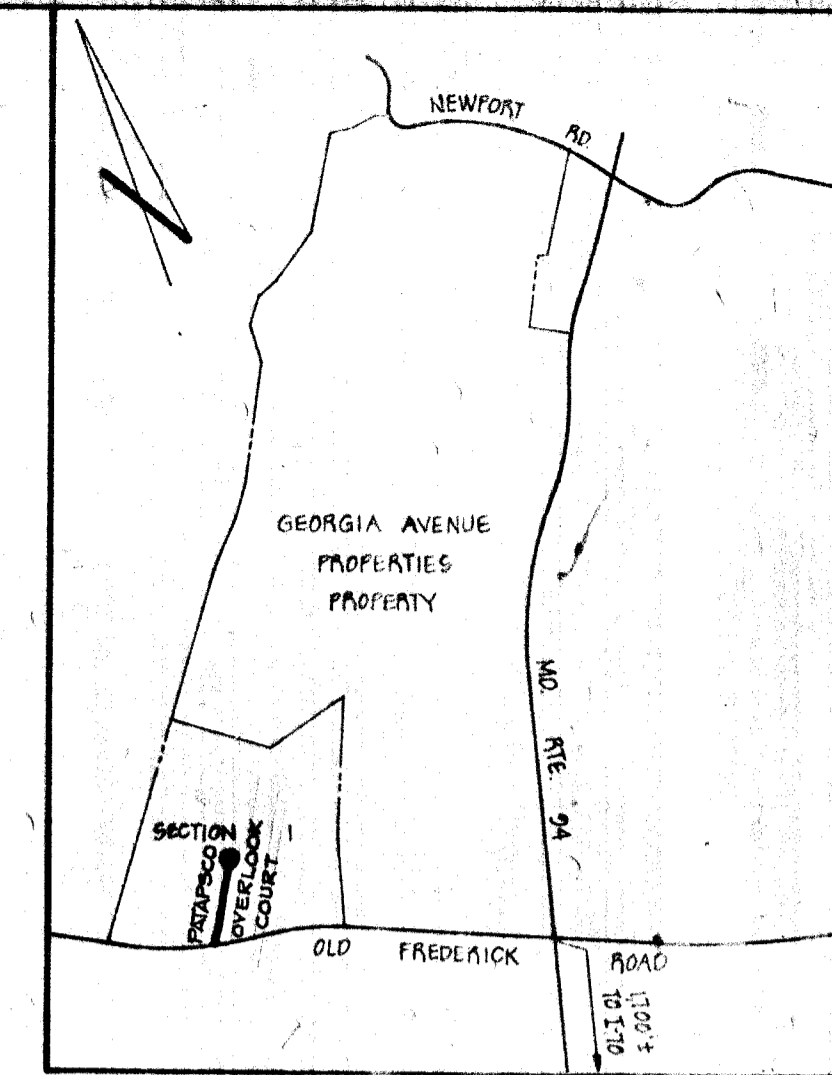
1. ALL 3" PIPE BODIES TO HAVE 12 GA SIDES AND 10 GA CENTER PANELS. WIDTH OF CENTER PANELS TO BE GREATER THAN 20% OF THE PIPE PERIPHERY. MULTIPLE PANEL BODIES TO HAVE LAP SEAMS WHICH ARE TO BE TIGHTLY JOINED BY 2" GALVANIZED RIVETS OR BOLTS.
2. FOR THE 20" X 42" AND 25" X 42" SIZES, REINFORCED EDGE TO BE SUPPLEMENTED BY 2" X 2" GALVANIZED ANGLES. THE ANGLES TO BE ATTACHED BY 2" GALVANIZED NUTS AND BOLTS.
3. ANGLE REINFORCEMENT WILL BE PLACED UNDER THE CENTER PANEL SEAMS ON THE 20" X 42" AND 25" X 42" SIZES.
4. THE PLATE SHALL BE USED WHEN SPECIFIED ON THE PLANS. COST OF THE PLATE TO BE INCLUDED IN BID PRICE PER EACH OF METALS.
5. TYPE B CONNECTION INCLUDES ONE FOOT OF PIPE LENGTH FOR 85" X 40" THRU 85" X 54" DIAMETER AS A CONNECTION SECTION. THE CONNECTION SECTION WILL BE ATTACHED TO THE END SECTION BY GALVANIZED RIVETS OR BOLTS.
6. WHERE END SECTION IS TO BE APPLIED TO A STRUCTURAL PLATE ARCH PIPE, THE END SECTION SHALL BE DRIVEN WITH SEAMS ON THE 75" X 42" AND 85" X 54" SIZES. INSTEAD, SPLIT HIKES AND FIELD BOLTS TO BE ATTACHED DIRECTLY TO THE STRUCTURAL PLATE ARCH PIPE.



PERCOLATION TEST DATA

LOT NO.	AVERAGE PER TIME IN MINUTES FOR 2ND INCH.	MAX DEPTH PERMITTED FOR EFFLUENT PIPE TO ENTER SEWAGE DISPOSAL AREA AT ITS HIGHEST ELEV. WITH REF TO EX. GRADE AT TIME OF TEST.
1	6 MIN.	4'
2	9 MIN.	4'
3	6 MIN.	3'
4	6 MIN.	3'
5	6 MIN.	4'
6	9 MIN.	3'
7	12 MIN.	4'
8	6 MIN.	4'
9	10 MIN.	4'
10	9 MIN.	4'
11	14 MIN.	4'

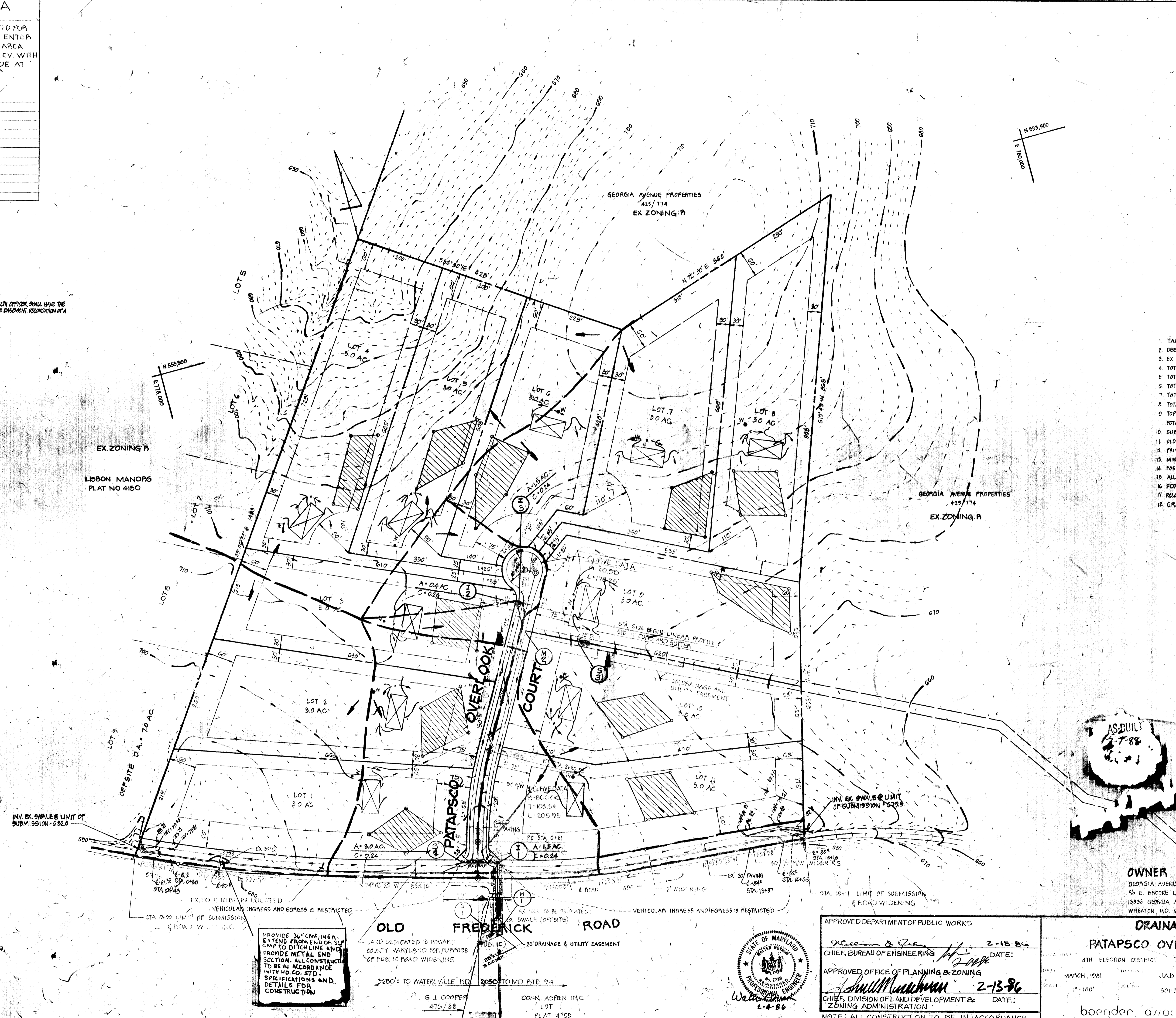
THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT VARIANCES FOR ENDRICHMENTS INTO THE PRIVATE SEWAGE EASEMENT. RECONSTRUCTION OF A MODIFIED SEWAGE EASEMENT SHALL NOT BE NECESSARY.



VICINITY MAP
SCALE: 1"=1200'

GENERAL NOTES

- TAX MAP: 2 PART OF PARCEL 32
- DEED REFERENCE 429/774
- EX. ZONING: PA
- TOTAL NO. OF LOTS: 11
- TOTAL AREA OF LOTS: 33.0 AC
- TOTAL AREA OF ROAD DEDICATION: 2.3 AC
- TOTAL AREA OF FLOODPLAIN: NONE
- TOTAL AREA OF SECTION 1: 35.3 AC
- TOPO SHOWN HEREON IS BASED ON AERIAL PHOTOGRAPHY PREPARED BY POTOMAC AERIAL SURVEYS
- SUBJECT TO V.F. 81-40
- OLD FREDERICK ROAD IS AN EXISTING, COUNTY MAINTAINED, PUBLIC ROAD.
- PRIVATE WATER AND SEWER TO BE UTILIZED
- MINIMUM LOT SIZE: 3.0 ACRES
- POSITIVE DRAINAGE TO BE MAINTAINED IN ALL DITCHES AND SWALES
- ALL SEDIMENT CONTROL MEASURES TO BE PROVIDED ON FINAL PLANS
- POP SOILS MAP, SEE SKETCH PLAN (5-BI-16)
- RELOCATION OF UTILITIES SHALL BE AT THE DEVELOPER'S EXPENSES.
- GRADING ON LOTS NOT PART OF THIS CONTRACT OR PWA.



E WATER AND
S SEWER

EX. ZONING: PA
LIBSON MANOPS
PLAT NO 4150



OWNER & DEVELOPER
GEORGIA AVENUE PROPERTIES, INC.
90 E BROOKE LEE III
18888 GEORGIA AVENUE
WHEATON, MD. 20906

PROVIDE 30" CMP 146A
CITING FROM END OF 30"
PROVIDE METAL END
SECTION. ALL CONSTRUCTION
TO BE IN ACCORDANCE
WITH MD. CO. STD.
SPECIFICATIONS AND
DETAILS FOR
CONSTRUCTION

OLD FREDERICK ROAD
LAND DEDICATED TO HOWARD COUNTY, MARYLAND FOR PURPOSE OF PUBLIC ROAD WIDENING
20' DRAINAGE & UTILITY EASEMENT
6 J COOPER 476/88
CONN. ASPEN, INC. LOT PLAT 4768



APPROVED DEPARTMENT OF PUBLIC WORKS
[Signature] 2-18-86
CHIEF, BUREAU OF ENGINEERING DATE:
APPROVED OFFICE OF PLANNING & ZONING
[Signature] 2-13-86
CHIEF, DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION DATE:
NOTE: ALL CONSTRUCTION TO BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL VOLUME IV

DRAINAGE AREA MAP
PATAPSCO OVERLOOK-SECTION I - LOTS 1 THRU 11
4TH ELECTION DISTRICT TAX MAP: 2 PARCEL 32 HOWARD COUNTY, MD.
DATE: MARCH, 1981 DRAWN BY: JAB. DR. / J.L.B.
SCALE: 1"=100' 20115 DRAWING NO: 3 OF 4
boender, associates

#1176

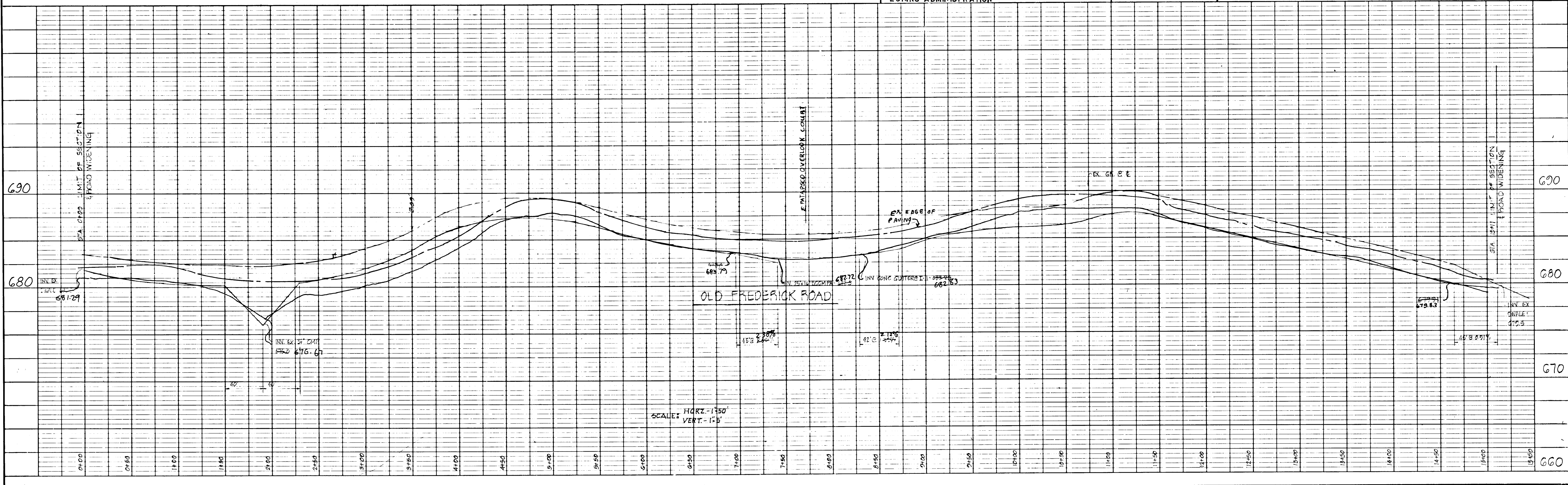
DATE _____ BY _____
 SURVEYED _____
 PLAN _____
 NOTE BOOK _____
 NO. _____

DATE _____ BY _____
 SURVEYED _____
 PROFILE _____
 NOTE BOOK _____
 NO. _____

OWNER & DEVELOPER
 GEORGIA AVENUE PROPERTIES, INC.
 % E BROOKE LEE III
 15858 GEORGIA AVENUE
 WHEATON, MD. 20906

PROJECT: OLD FREDERICK ROAD PROFILE OF SWALE			
TITLE: PROFILE OF SWALE ALONG OLD FREDERICK RD LOTS I THRU II			
LOCATION: 4TH ELECTION DISTRICT		HOWARD COUNTY, MD	
DATE: MARCH, 1981	DESIGN BY: O.N.	DRAWN BY: O.N.	CHECKED BY: A.L.M.
SCALE: AS SHOWN	JOB NO.: 80113	DRAWING NO.: 4 OF 4	
boender associates		engineers surveyors planners	
BALTIMORE 301-465-7777 • SALISBURY 301-749-1286			

APPROVED DEPARTMENT OF PUBLIC WORKS	
<i>William B. Reilly</i>	DATE: 2-18-81
CHIEF, BUREAU OF ENGINEERING	
APPROVED OFFICE OF PLANNING & ZONING	
<i>William M. ...</i>	DATE: 2-13-86
CHIEF, DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION	



#1176