

QUANTITIES		
Items	Estimated	As Built
27" Sewer	3705 L.F.	3,648 L.F.
8" Sewer	10 L.F.	7.5 L.F.
Manholes	135 V.F.	147.8 V.F.

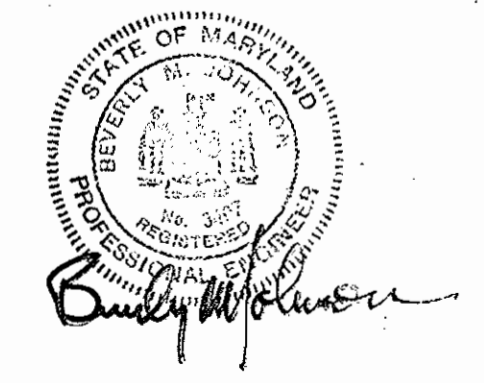
**CAPITAL PROJECT S-4-6069
CONTRACT NO. 2722-S**

**MIDDLE PATUXENT INTERCEPTOR
MURRAY HILL ROAD TO MH. NO. 208
HOWARD COUNTY, MARYLAND**

DEPARTMENT OF PUBLIC WORKS

- GENERAL NOTES**
- Approximate location of existing utilities is shown. The Contractor shall take all necessary precautions to protect existing utilities and to maintain uninterrupted service. Any damage incurred shall be repaired immediately to the satisfaction of the Engineer by the Contractor at the Contractor's expense.
 - The Contractor shall locate existing utilities a minimum of two weeks in advance of construction operations in vicinity of utilities. Cost shall be included in the unit price bid for excavation.
 - Contractor shall notify the following utilities or agencies at least five (5) days before starting work shown on these plans.
Miss Utility - 1-800-441-8355
State of Maryland Department of Water Resources 501-267-5551
Baltimore Gas & Electric Company 582-8242
 - Clear all utilities by a minimum of 6". Clear all poles 2'-0" minimum, or tunnel as required. Cost for tunneling or bracing poles shall be included in the unit prices bid for excavation.
 - All pipe elevations shown are invert elevations.
 - All manholes shall be 4' - 0" I.D. unless otherwise noted.
 - The Contractor shall provide a pipe joint in each sewer main within 2'-0" of the exterior manhole walls.
 - Watertight manhole frame and cover to be used where indicated on drawings [Standard Detail S-12 (RCR-63A)] Where watertight manhole frame and cover is used, set top of frame 1'-8" above finished grade.
 - For details not shown on the Contract Drawings see Standard Details bound in the specifications.
 - Trees are to be protected from damage to the maximum extent.
 - Contractor shall remove trees, stumps and roots along line of excavation as directed by the Engineer. Payment for such removal shall be included in the unit price bid for excavation and backfill for sewer mains.
 - Horizontal and Vertical Controls are based on the Maryland State Grid Coordinate System.

REV.	DATE	REMARKS



PURDUM & JESCHKE
ENGINEERS
1023 N. CALVERT ST.
BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
6-28-77
DATE

CONTRACT NO. 2722-S
CAPITAL PROJECT NO. S-4-6069

LOCATION MAP
OF SANITARY SEWERS

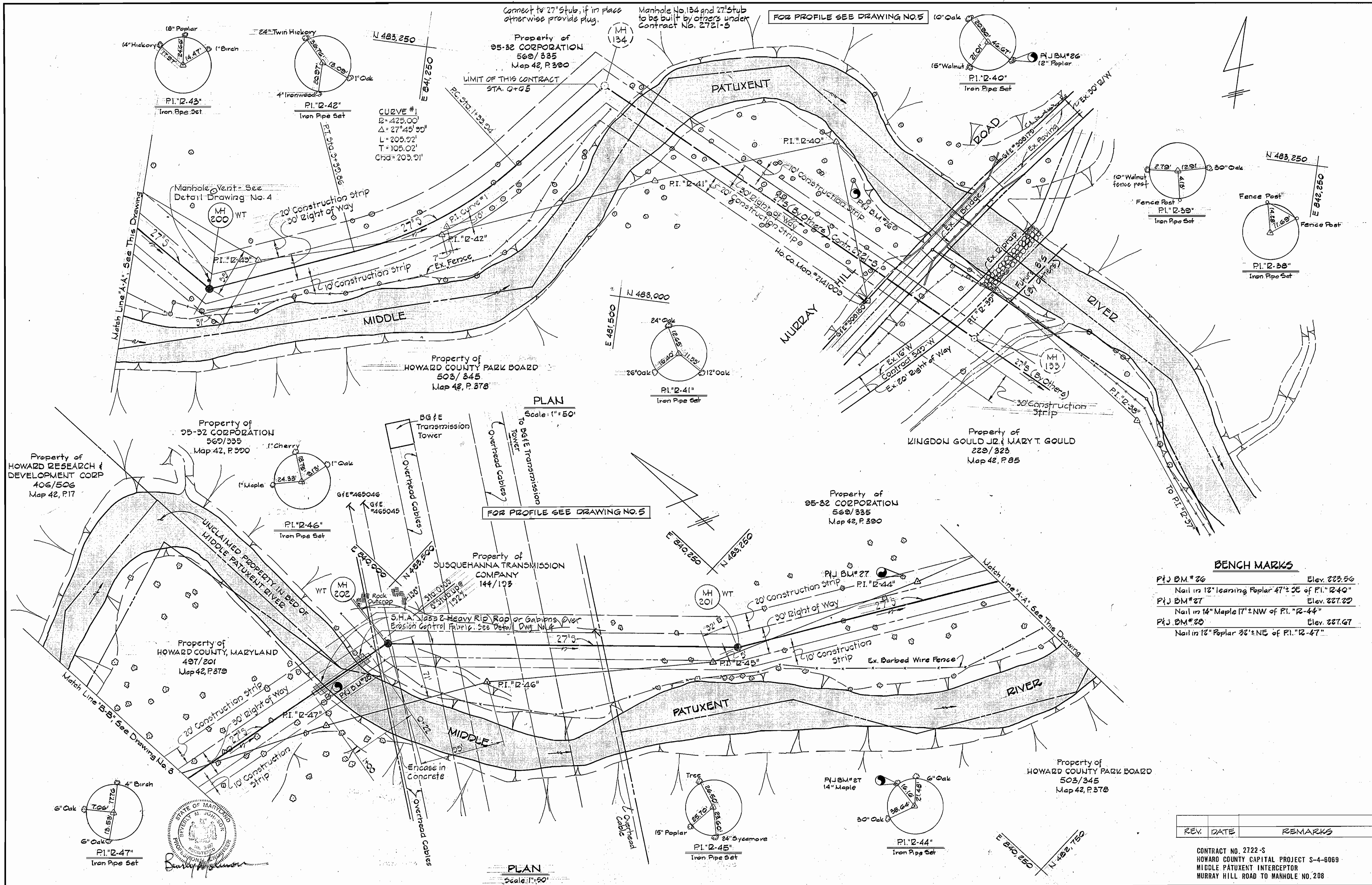
CONTRACT NO. 2722-S
HOWARD COUNTY CAPITAL PROJECT
S-4-6069
MIDDLE PATUXENT INTERCEPTOR
MURRAY HILL ROAD TO MANHOLE NO. 208
ELECTION DISTRICT NO. 6
HOWARD COUNTY, MARYLAND

DRAWING NO.	SCALE	MAPS
1	AS SHOWN	221-40
5		221-41

WS 722 S/1

As Built August 20, 1980

WS 722 S/2



BENCH MARKS

PJ BM #26	Elev. 223.56
Nail in 18" leaning Poplar 47' SE of P.I. "12-40"	
PJ BM #27	Elev. 227.22
Nail in 14" Maple 17' NW of P.I. "12-44"	
PJ BM #28	Elev. 227.67
Nail in 18" Poplar 32' NE of P.I. "12-47"	

REV.	DATE	REMARKS

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PURDUM & JESCHKE
 ENGINEERS
 1023 N. CALVERT ST.
 BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 DIRECTOR OF PUBLIC WORKS DATE: 6-25-77
 CHIEF-BUREAU OF ENGINEERING DATE: 6-27-77

CONTRACT NO. X722-S
 CAPITAL PROJECT NO. S-4-6069

PLAN
 OF SANITARY SEWERS

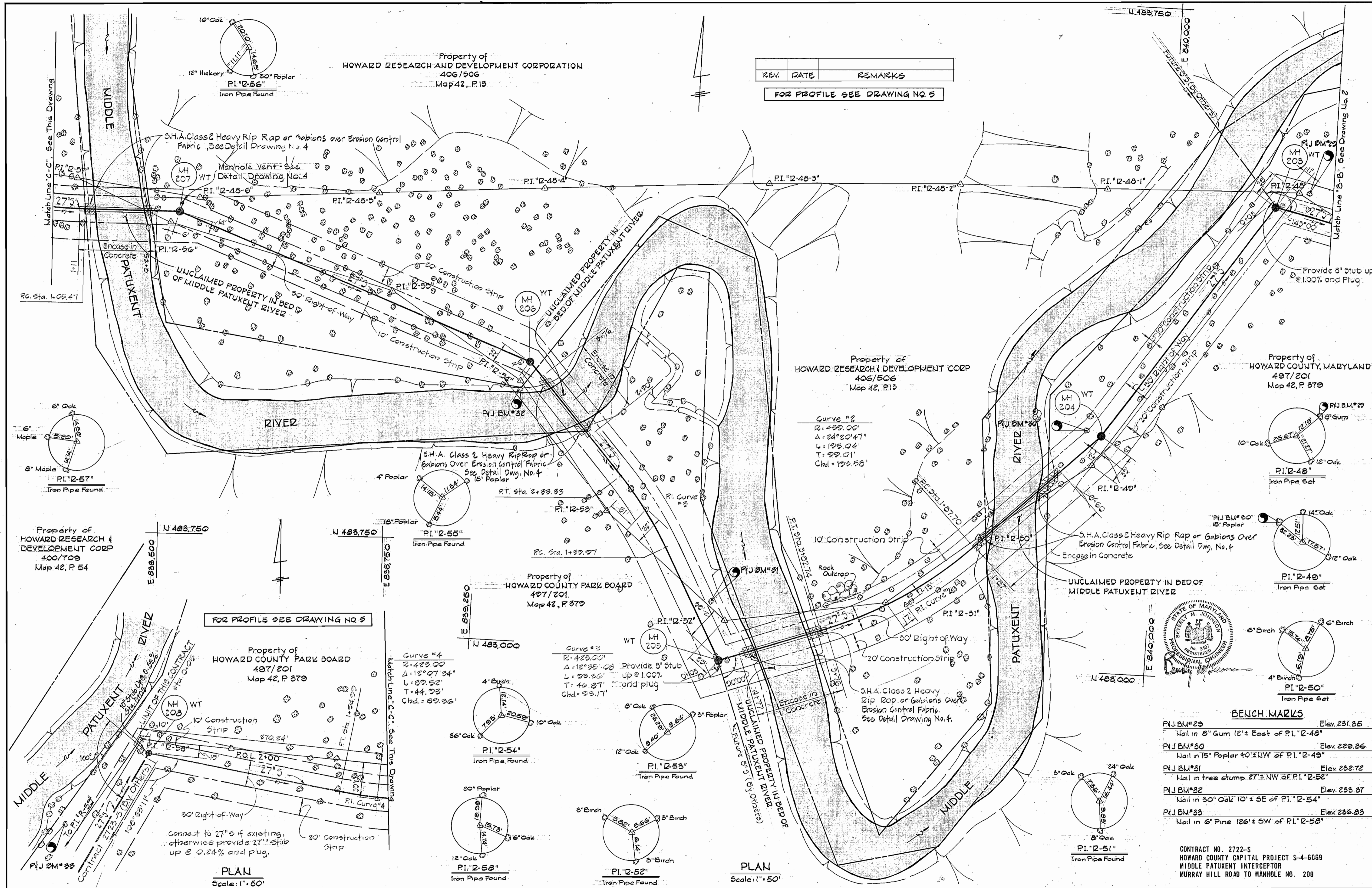
MIDDLE PATUXENT INTERCEPTOR
 ELECTION DISTRICT NO. 6
 HOWARD COUNTY, MARYLAND

DRAWING NO. 2 OF 5
 SCALE 1" = 50'

DESIGNED REP
 DRAFTED REC
 CHECKED TAF

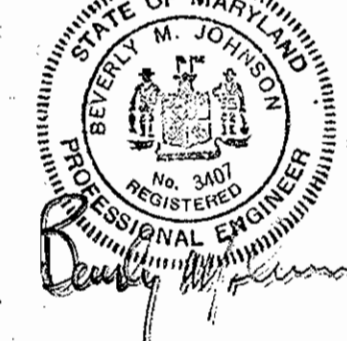
As Built August 20, 1980

WS 722 S/3



REV.	DATE	REMARKS

FOR PROFILE SEE DRAWING NO. 5



BENCH MARKS

PJBM#29	Elev. 231.35
Nail in 8" Gum (2'± East of P.I. "2-48")	
PJBM#30	Elev. 229.26
Nail in 15" Poplar 40'± NW of P.I. "2-49"	
PJBM#31	Elev. 232.72
Nail in tree stump 27'± NW of P.I. "2-52"	
PJBM#32	Elev. 233.37
Nail in 30" Oak 10'± SE of P.I. "2-54"	
PJBM#33	Elev. 236.83
Nail in 6" Pine 126'± SW of P.I. "2-58"	

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 BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: *W.O. Gilbert* 6-28-77
 Chief Bureau of Engineering: *W.O. Gilbert* 6-27-77

CONTRACT NO. 722-S
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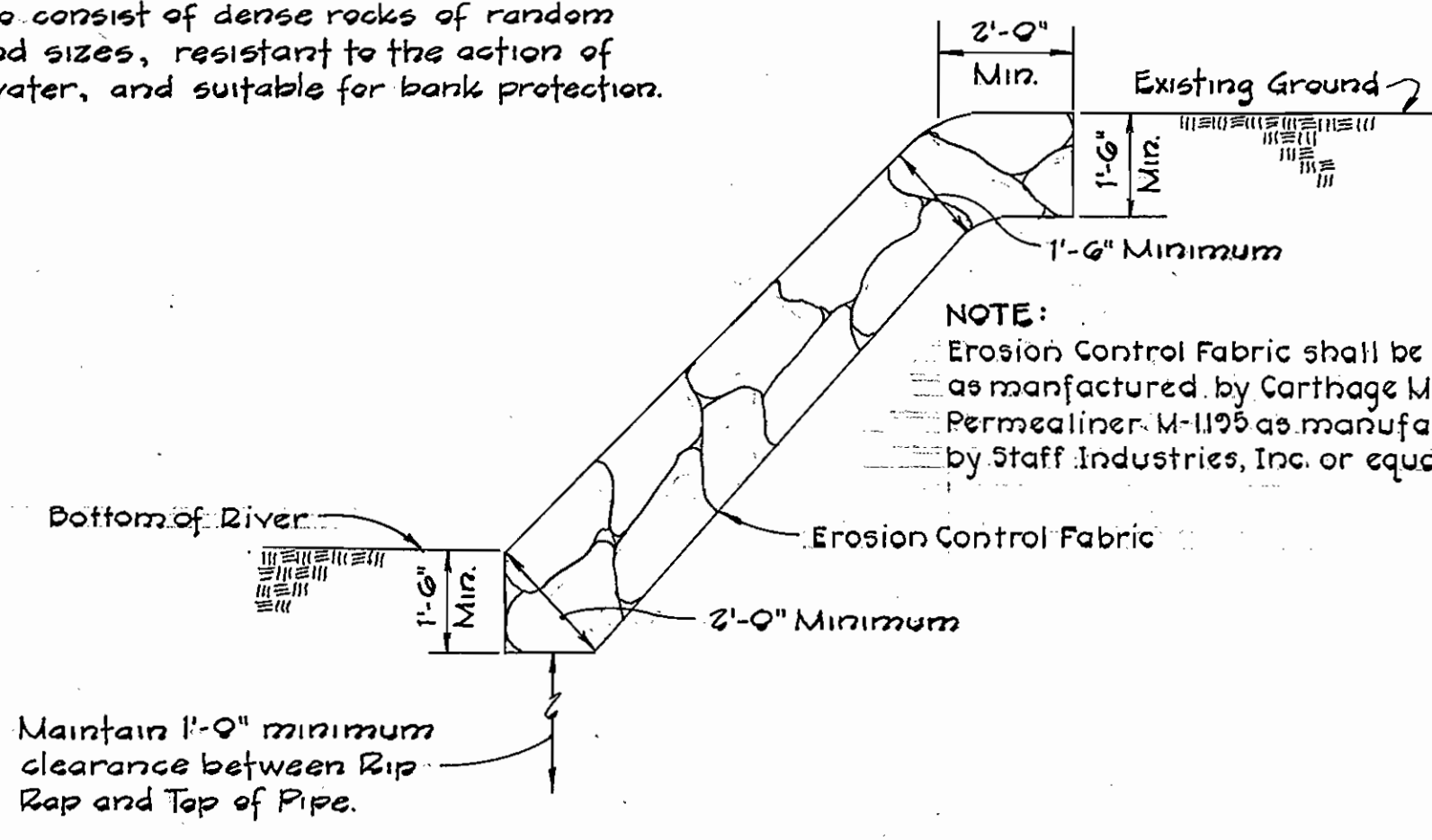
PLAN
 OF SANITARY SEWERS

MIDDLE PATUXENT INTERCEPTOR
 ELECTION DISTRICT NO. 6
 HOWARD COUNTY, MARYLAND

DRAWING NO.	SCALE	DESIGNED	REP.
3	AS SHOWN	DRAFTED	REC.
OF 5		CHECKED	TAF.

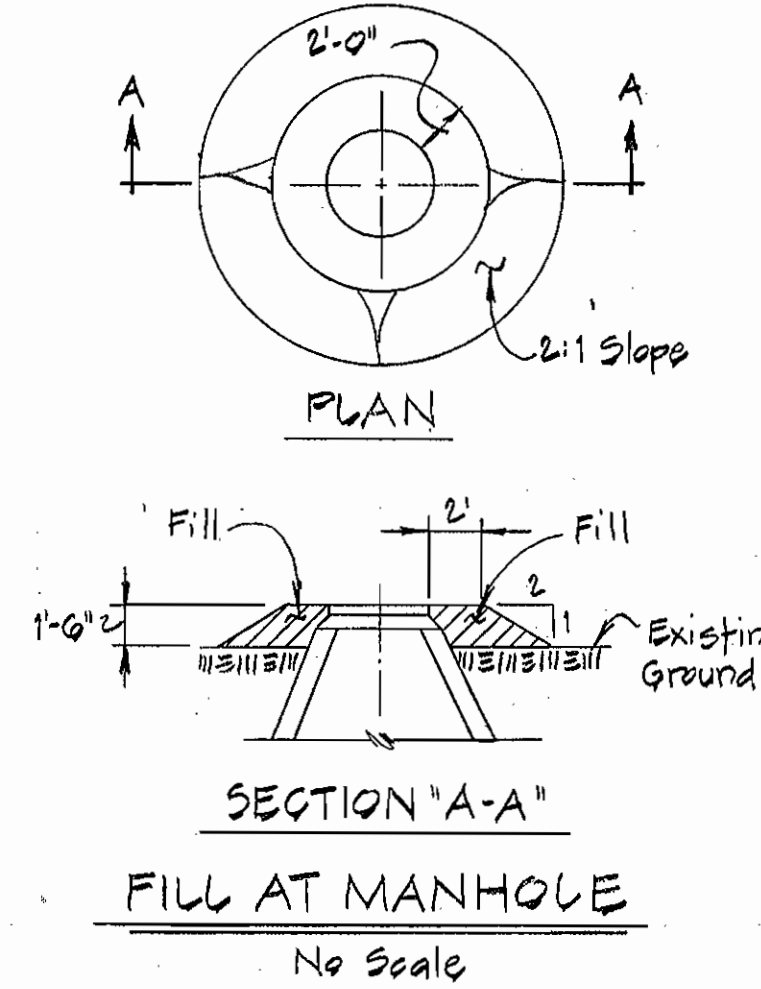
As Built August 20, 1980

Rip Rap to consist of dense rocks of random shapes and sizes, resistant to the action of air and water, and suitable for bank protection.



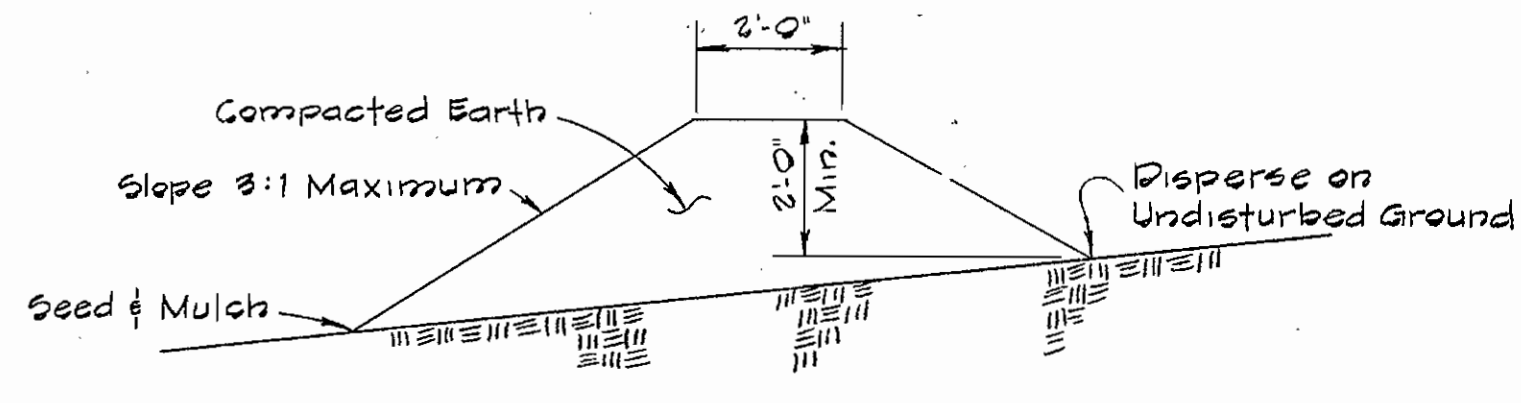
NOTE:
Erosion Control Fabric shall be Poly-Filter-X as manufactured by Carthage Mills, Permealiner-M-1195 as manufactured by Staff Industries, Inc. or equal.

**S.H.A. CLASS 2
LOOSE-LAID GROUTED RIP RAP DETAIL**
No Scale



**SECTION "A-A"
FILL AT MANHOLE**
No Scale

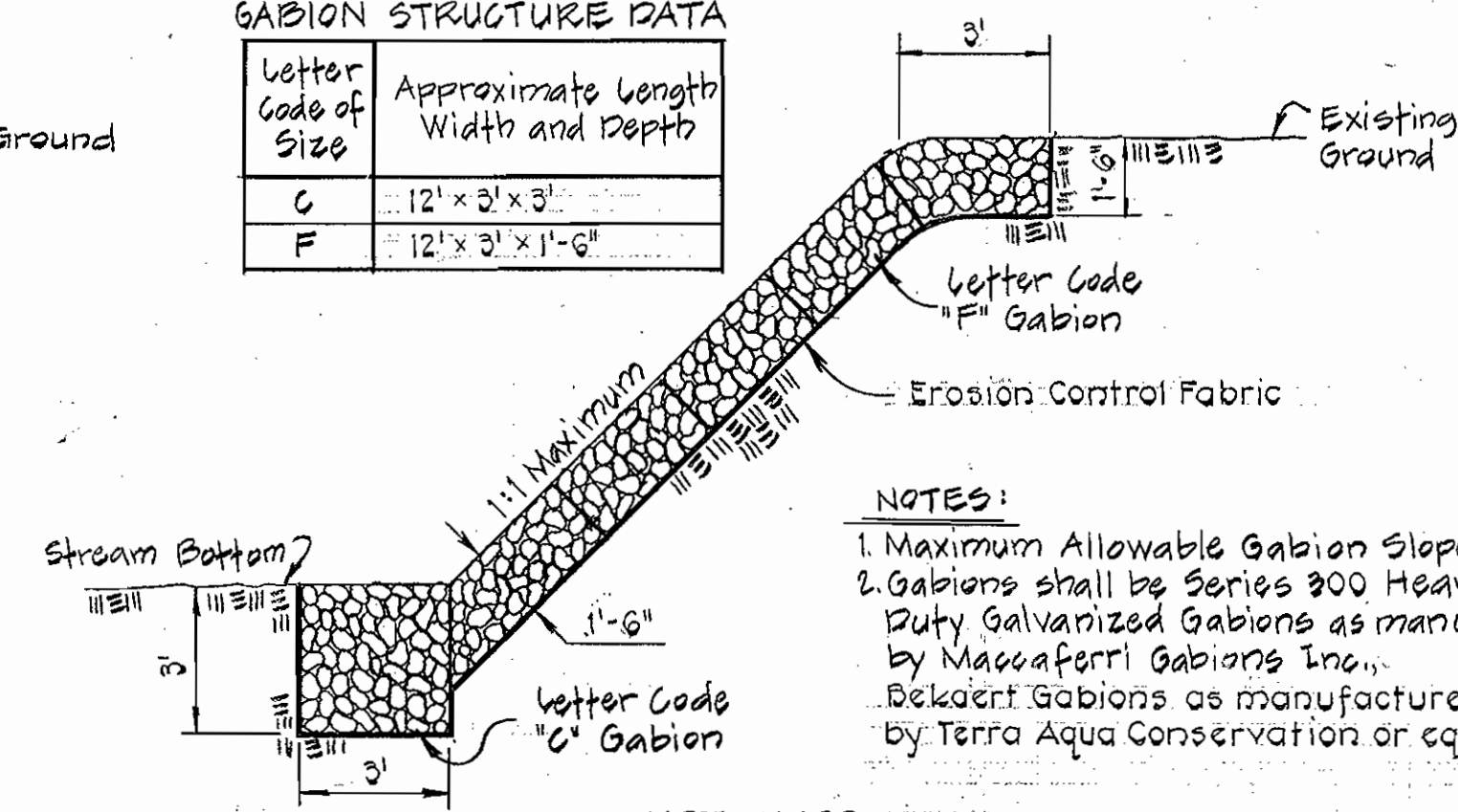
Diversion berms are required every 250 feet on continuous slopes of 4% or greater. The berms shall conform to the typical section shown hereon and shall be constructed across the construction areas immediately after the backfilling of the pipe trench and prior to placing stabilization in order to prevent erosion of the backfilled areas.



TEMPORARY EARTH DIVERSION BERM
No Scale

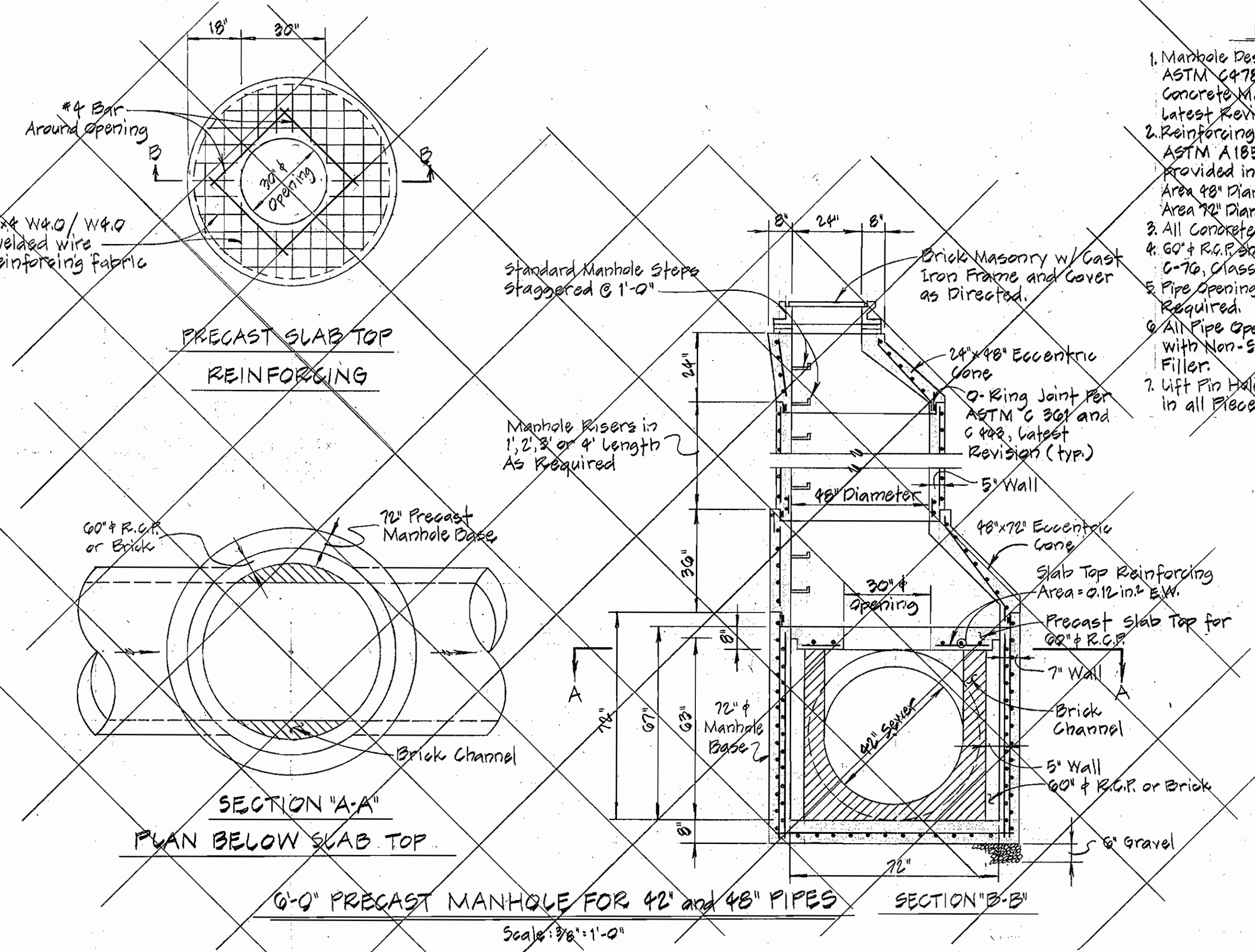
GABION STRUCTURE DATA

Letter Code of Size	Approximate Length Width and Depth
C	12' x 2' x 3'
F	12' x 3' x 1'-6"



NOTES:
1. Maximum Allowable Gabion Slope 1:1
2. Gabions shall be Series 300 Heavy Duty Galvanized Gabions as manufactured by Maccaferri Gabions Inc., Bekart Gabions as manufactured by Terra Aqua Conservation or equal.

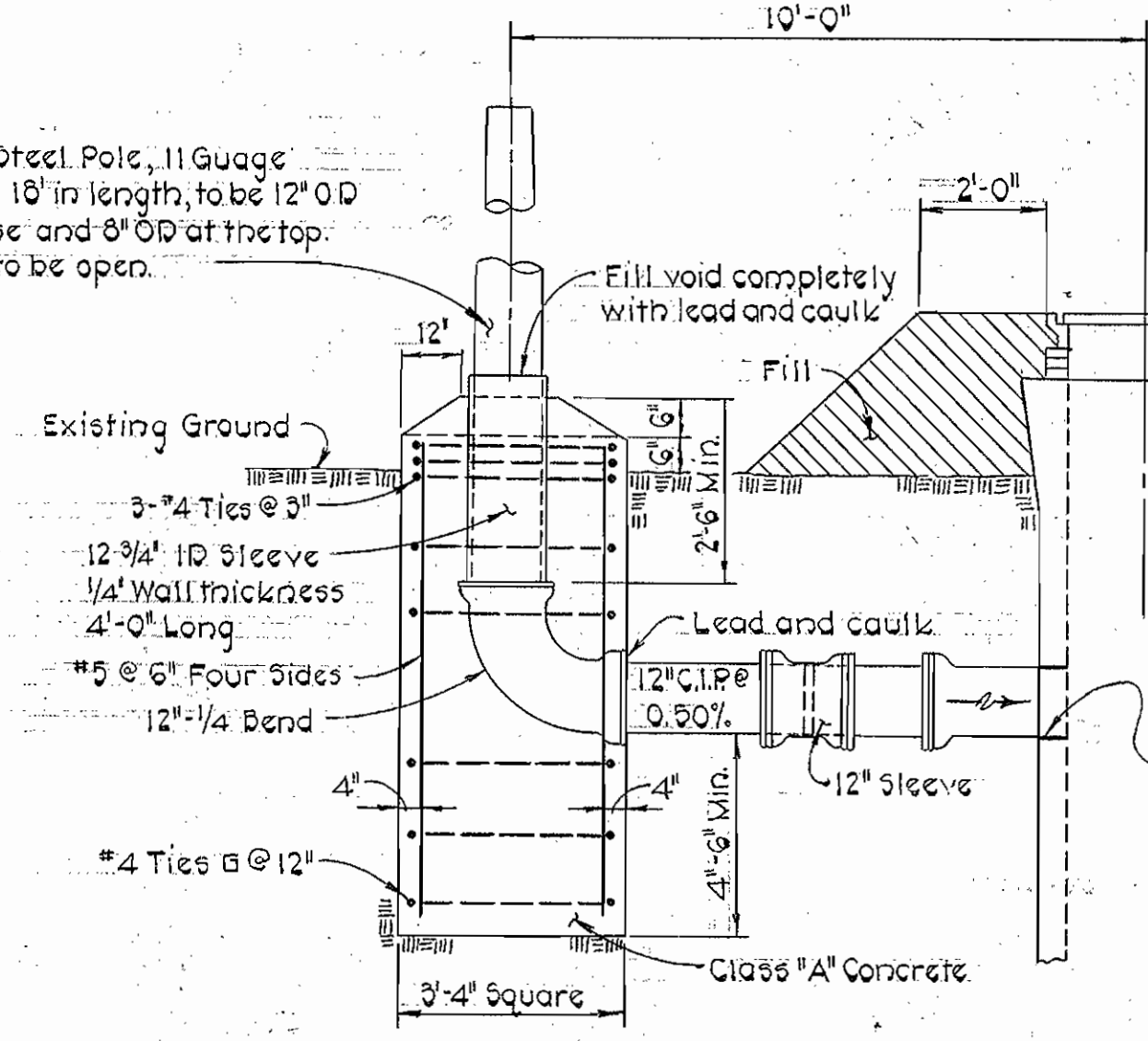
**NOT USED
GABION DETAIL**
No Scale



6'-0" PRECAST MANHOLE FOR 42" and 48" PIPES
Scale: 3/8" = 1'-0"

NOTES:
1. Manhole Design shall conform to ASTM C478 Precast Reinforced Concrete Manhole Sections, Latest Revision.
2. Reinforcing shall conform to ASTM A185 and shall be provided in Bells and Spigots. Area 48" Diameter = 0.12 in²/Vert. Ft. Area 42" Diameter = 0.17 in²/Vert. Ft.
3. All Concrete shall be 4000 p.s.i.
4. 60# R.C.P. shall conform to ASTM C-76, Class I.
5. Pipe Openings shall be Provided As Required.
6. All Pipe Openings shall be sealed with Non-Shrink Grout Joint Filler.
7. Lift Pin Holes shall be provided in all Pieces for Handling.

Tapered Steel Pole, 11 Gauge minimum 18" in length, to be 12" O.D. at the base and 8" O.D. at the top. Both ends to be open.



MANHOLE YENT DETAIL
No Scale

Steel Pole shall be sandblasted and painted with the following coatings in accordance with the manufacturer's recommendations.
(a) Interior - 2 Coats 413 Themec-Tar Exterior - 2 Coats 66 Hi-Build as manufactured by Themec Co. Inc.
(b) Interior - Bitumastic 300-M Exterior - Glamortex-301 Enamel as manufactured by Koppers Co. Inc. or equal
Non-Shrink Grout Joint Filler

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**PURDUM & JESCHKE
ENGINEERS**
1023 N. CALVERT ST.
BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
M. P. Reson 6-28-77 W. O. P. Libert 6-27-77
DIRECTOR OF PUBLIC WORKS DATE CHIEF-BUREAU OF ENGINEERING DATE

CONTRACT NO. 2722-S
CAPITAL PROJECT NO. S-4-6069

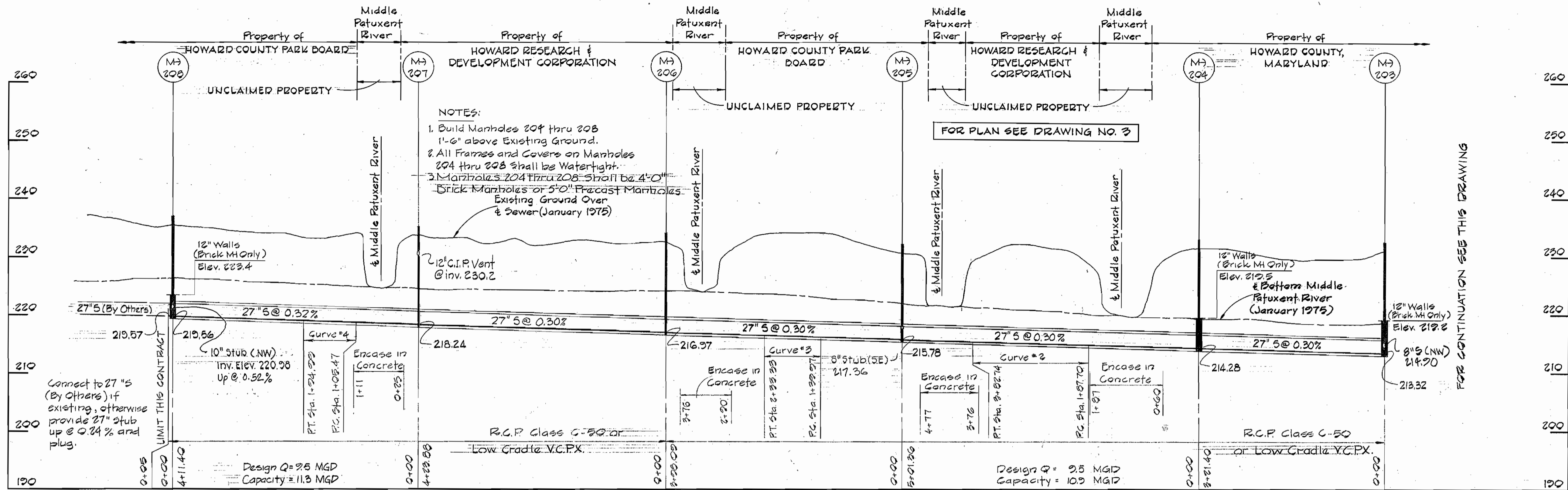
DETAILS

MIDDLE PATUXENT INTERCEPTOR
ELECTION DISTRICT NO. 6
HOWARD COUNTY, MARYLAND

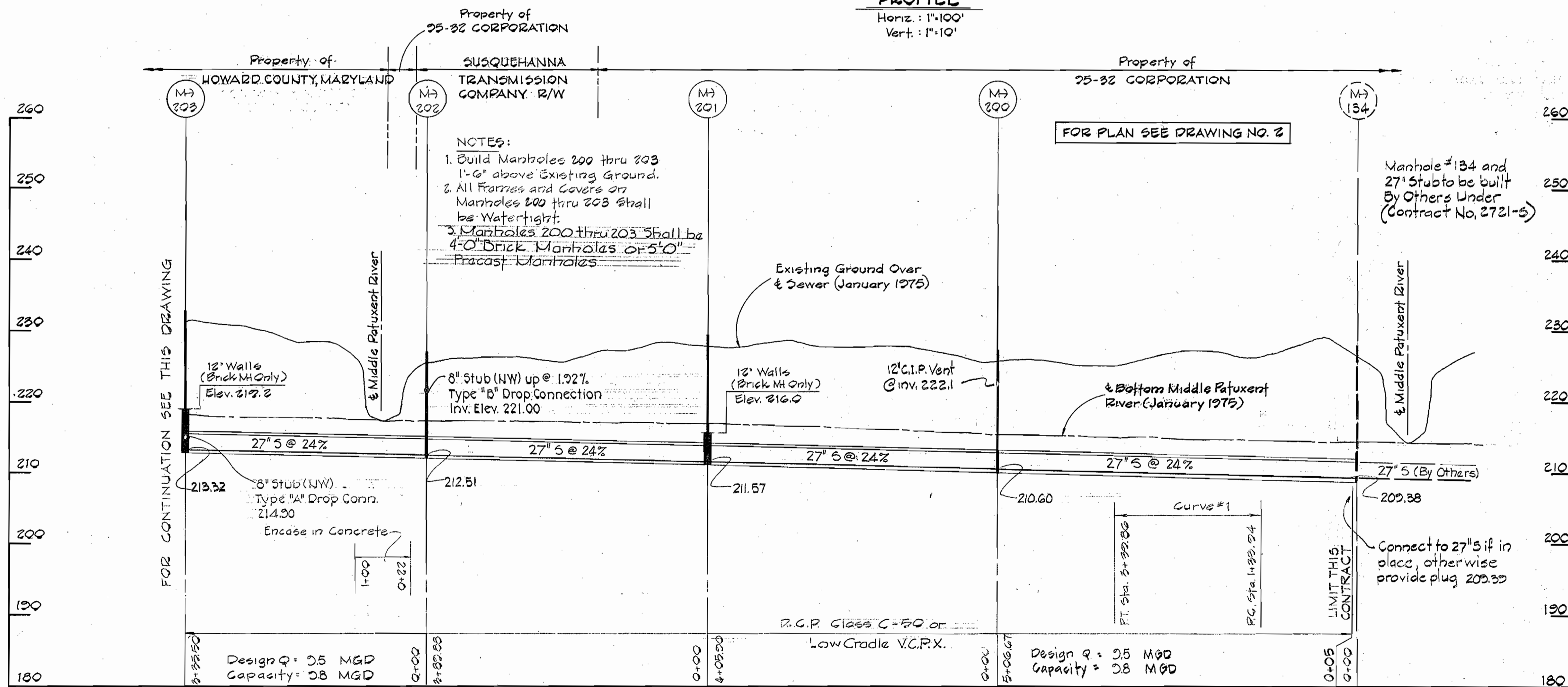
DRAWING SCALE
NO. 4 OF 5 AS SHOWN
DESIGNED: REP
DRAFTED: REC
CHECKED: TAF

WS 722 S/4

WS 722 S/5



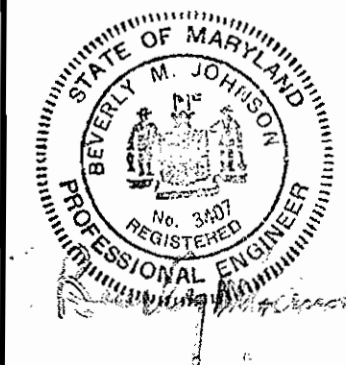
PROFILE
 Horiz.: 1"=100'
 Vert.: 1"=10'



PROFILE
 Horiz.: 1"=100'
 Vert.: 1"=10'

REV.	DATE	REMARKS

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PURDUM & JESCHKE
 ENGINEERS
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 BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: M. [Signature] DATE: 6-27-77
 Chief-Bureau of Engineering: W.O. [Signature] DATE: 6-27-77

CONTRACT NO. 2722-S
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PROFILES
 OF SANITARY SEWERS

MIDDLE PATUXENT INTERCEPTOR
 ELECTION DISTRICT NO. 6
 HOWARD COUNTY, MARYLAND

DRAWING NO. 5 OF 5	SCALE AS SHOWN	DESIGNED: REP DRAFTED: REC CHECKED: TAF
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As Built August 20, 1980