

QUANTITIES		
Item	Estimated	As-Built
30" Sewer	4250 L.F.	4186 L.F.
8" Sewer	20 L.F.	20 L.F.
Manholes	205 V.F.	218 V.F.

CAPITAL PROJECT S-4-6069

CONTRACT NO. 2724-S

# MIDDLE PATUXENT INTERCEPTOR KINDLER ROAD TO U.S. ROUTE 29 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 days before starting work shown on these plans.  
State Highway Administration 301-531-5533  
Miss Utility 1-800-441-8355 & AT&T Miss Utility 1-301-558-0100  
State of Maryland - Department of Water Resources 301-267-5551  
Colonial Pipeline Company 301-791-4841
- Clear all utilities by a minimum of 6". Clear all poles 2'-0" minimum, or tunnel as required. Cost for tunneling or bracing at poles shall be included in the unit prices bid for excavation.
- All pipe elevations shown are invert elevations.
- All manholes shall be 4'-0" Brick or 5'-0" Precast Manholes.
- 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-83A). Where watertight manhole frame and cover is used, set top of frame 1'-6" above finished grade.
- For details not shown on the Contract Drawings see Standard details bound in 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.

CONTRACT NO. 2724-S  
HOWARD COUNTY CAPITAL PROJECT S-4-6069  
MIDDLE PATUXENT INTERCEPTOR  
KINDLER ROAD TO U.S. ROUTE 29

REV.	DATE	REMARKS



*Charles H. Lee*

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

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

CONTRACT NO. 2724-S  
CAPITAL PROJECT NO. S-4-6069  
6-27-77  
CHIEF BUREAU OF ENGINEERING DATE

LOCATION MAP  
OF SANITARY SEWERS

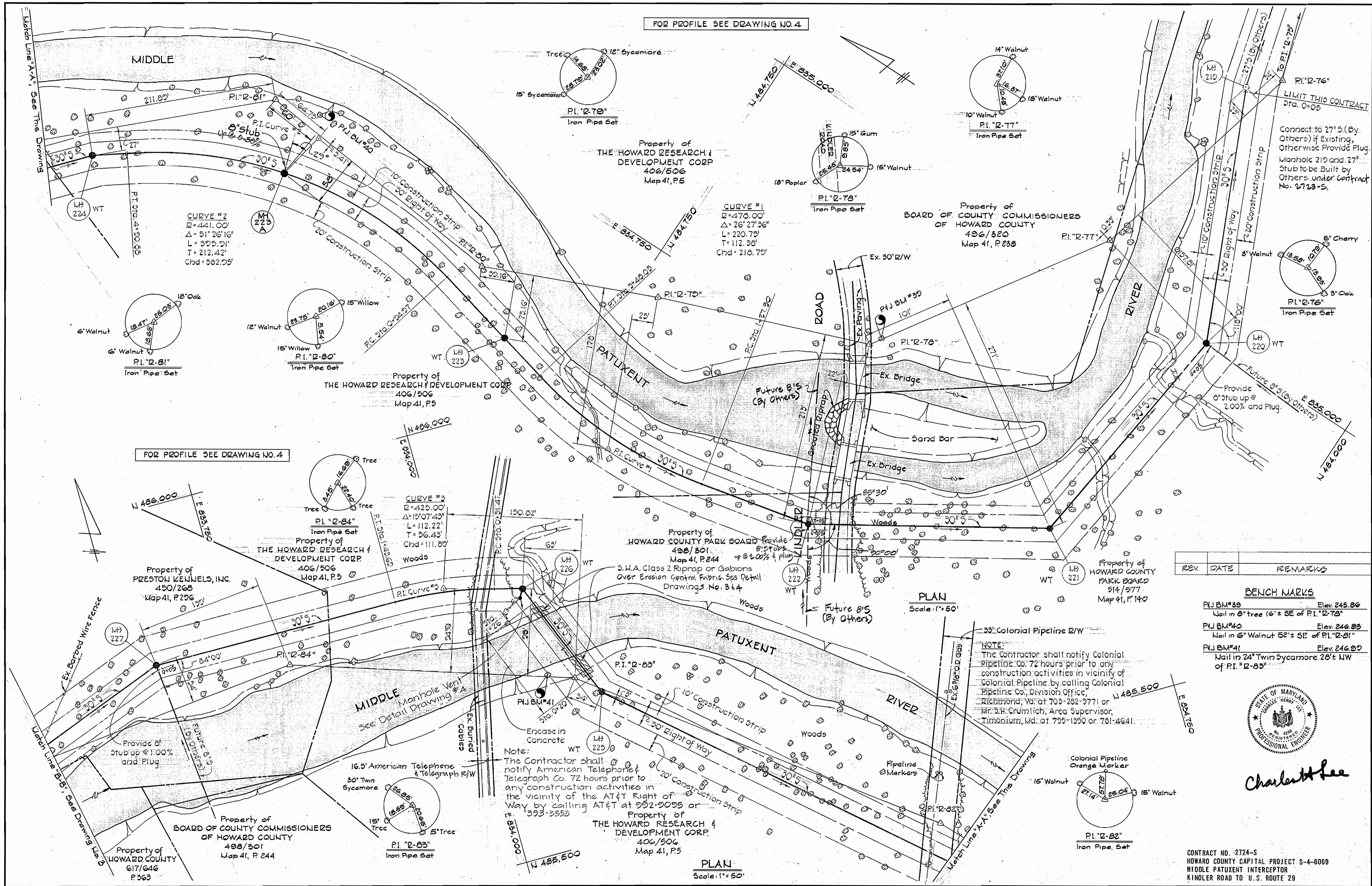
MIDDLE PATUXENT INTERCEPTOR  
ELECTION DISTRICT NO. 6  
HOWARD COUNTY, MARYLAND

DRAWING NO. 1 OF 5	SCALE AS SHOWN	HAPS: 222-40 221-40
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WS 724 S/1

As Built August 20, 1980

WS 724 S/2



FOR PROFILE SEE DRAWING NO. 4

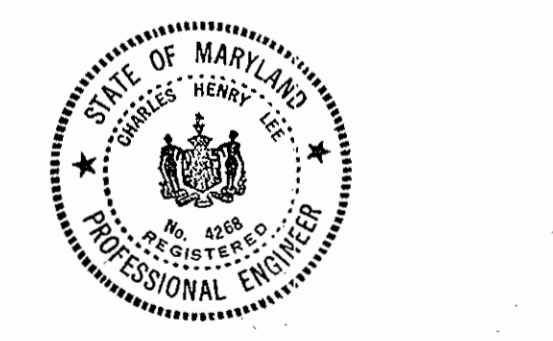
FOR PROFILE SEE DRAWING NO. 4

PLAN Scale: 1" = 50'

PLAN Scale: 1" = 50'

REV.	DATE	REMARKS

- BENCH MARKS**
- PJ BM#39 Elev. 245.86  
Nail in 8" tree (6' ± SE of P.I. "2-78")
  - PJ BM#40 Elev. 246.85  
Nail in 6" Walnut 52' ± SE of P.I. "2-81"
  - PJ BM#41 Elev. 246.99  
Nail in 24" Twin Sycamore 28' ± NW of P.I. "2-83"



Charles Lee

CONTRACT NO. 2724-S  
 HOWARD COUNTY CAPITAL PROJECT S-4-8069  
 MIDDLE PATUXENT INTERCEPTOR  
 KINLER ROAD TO U.S. ROUTE 29

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

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

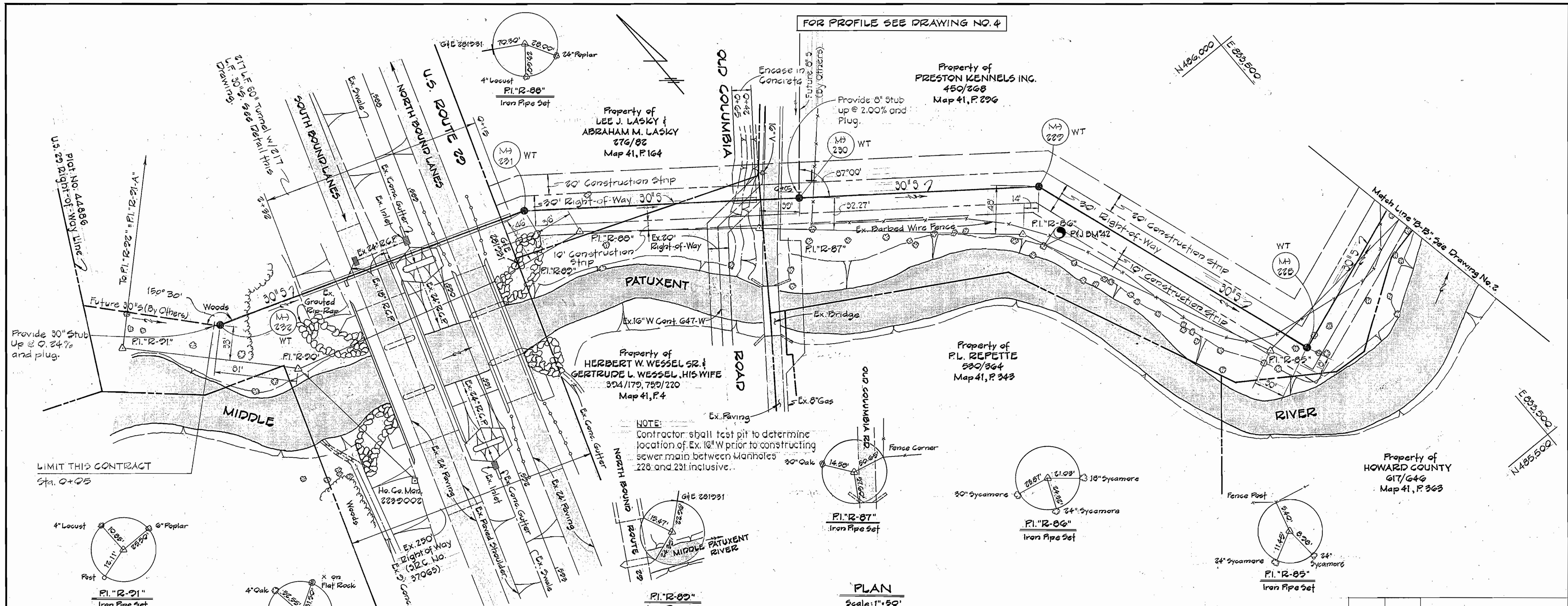
CONTRACT NO. 2724-S  
 CAPITAL PROJECT NO. S-4-8069

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 ARZ. CHECKED REP.

August 20, 1980



FOR PROFILE SEE DRAWING NO. 4

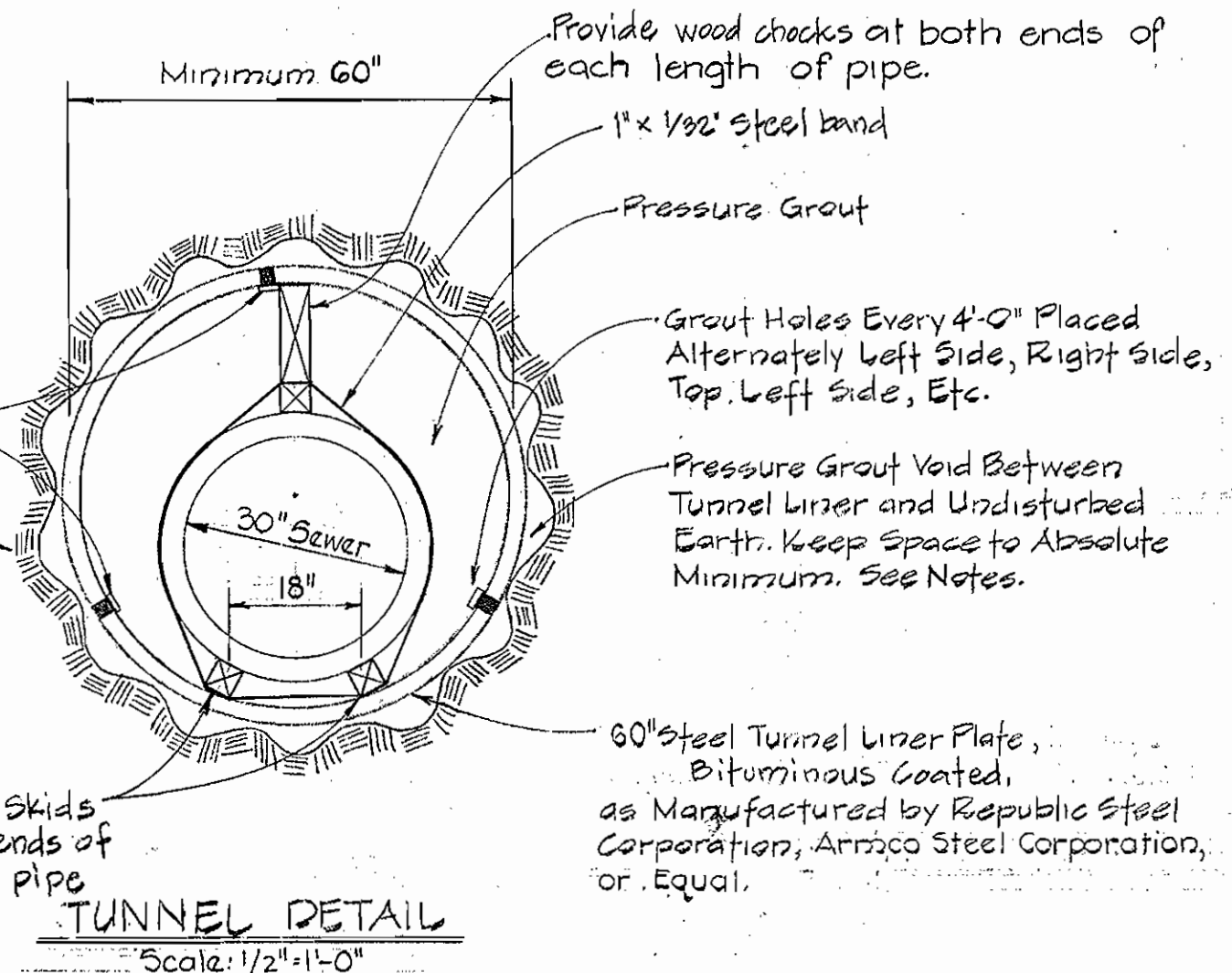
NOTE:  
Contractor shall test pit to determine location of Ex. 16" W prior to constructing sewer main between Manholes 228 and 231 inclusive.

PLAN  
Scale: 1"=50'

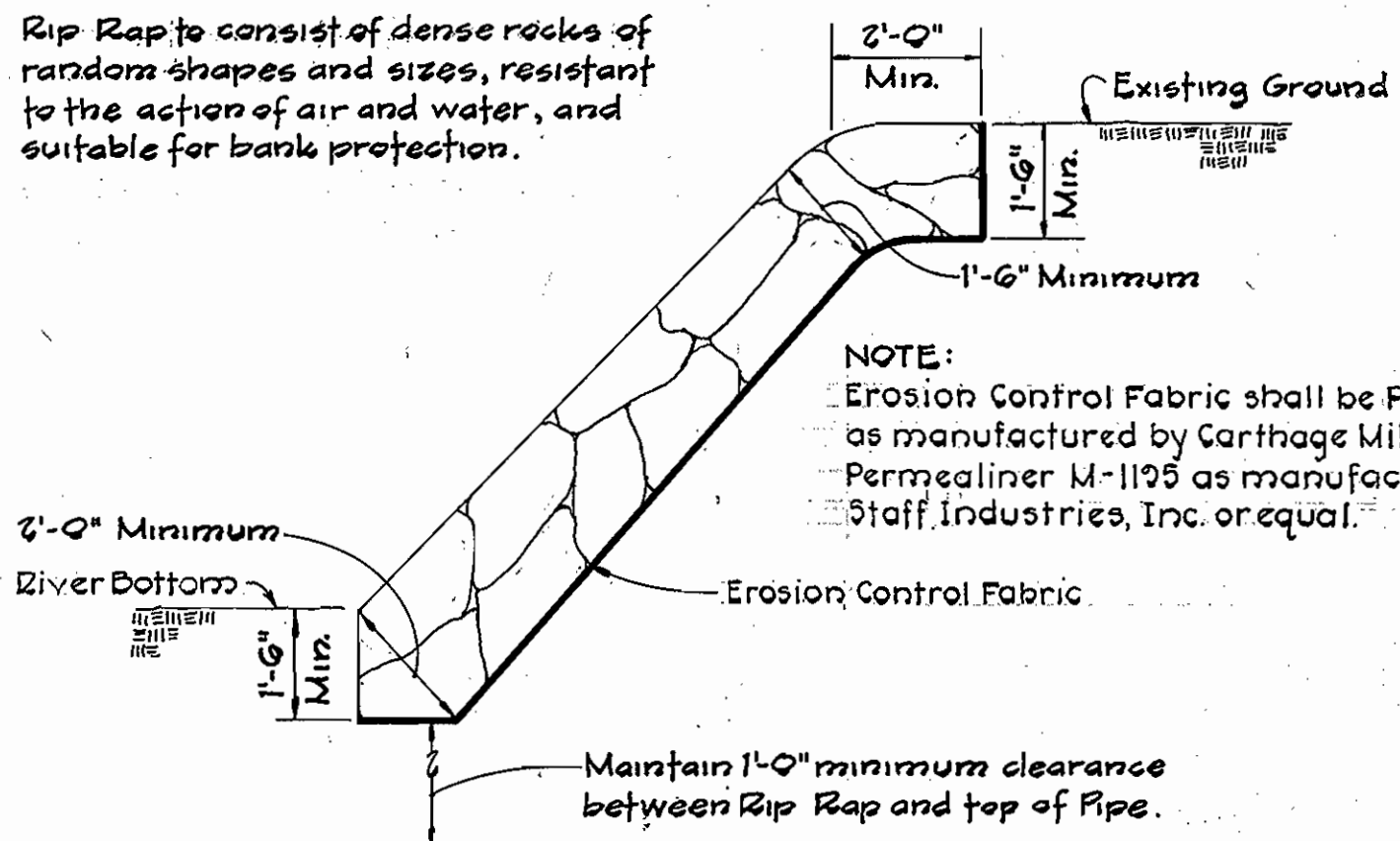
REV.	DATE	REMARKS

**BENCH MARKS**  
 P.J. BM #42 Elev. 250.46  
 Nail in 10" tree 21'+SE of P.I. R-86"

- NOTES:
- The Excavated Opening shall fit closely the Outside Shape of the Liner Plates.
  - Where too much Ground is Removed, the Annular Space between Plates and Earth shall be Grouted Promptly or Temporarily Filled with Hay and Later Grouted.
  - Grout shall be injected in Lower Holes first, Moving Up as the Back Space is Filled. Plugs shall be Installed in Holes After Filling of Each One.
  - Construct Bulkhead at Both Ends of Tunnel.

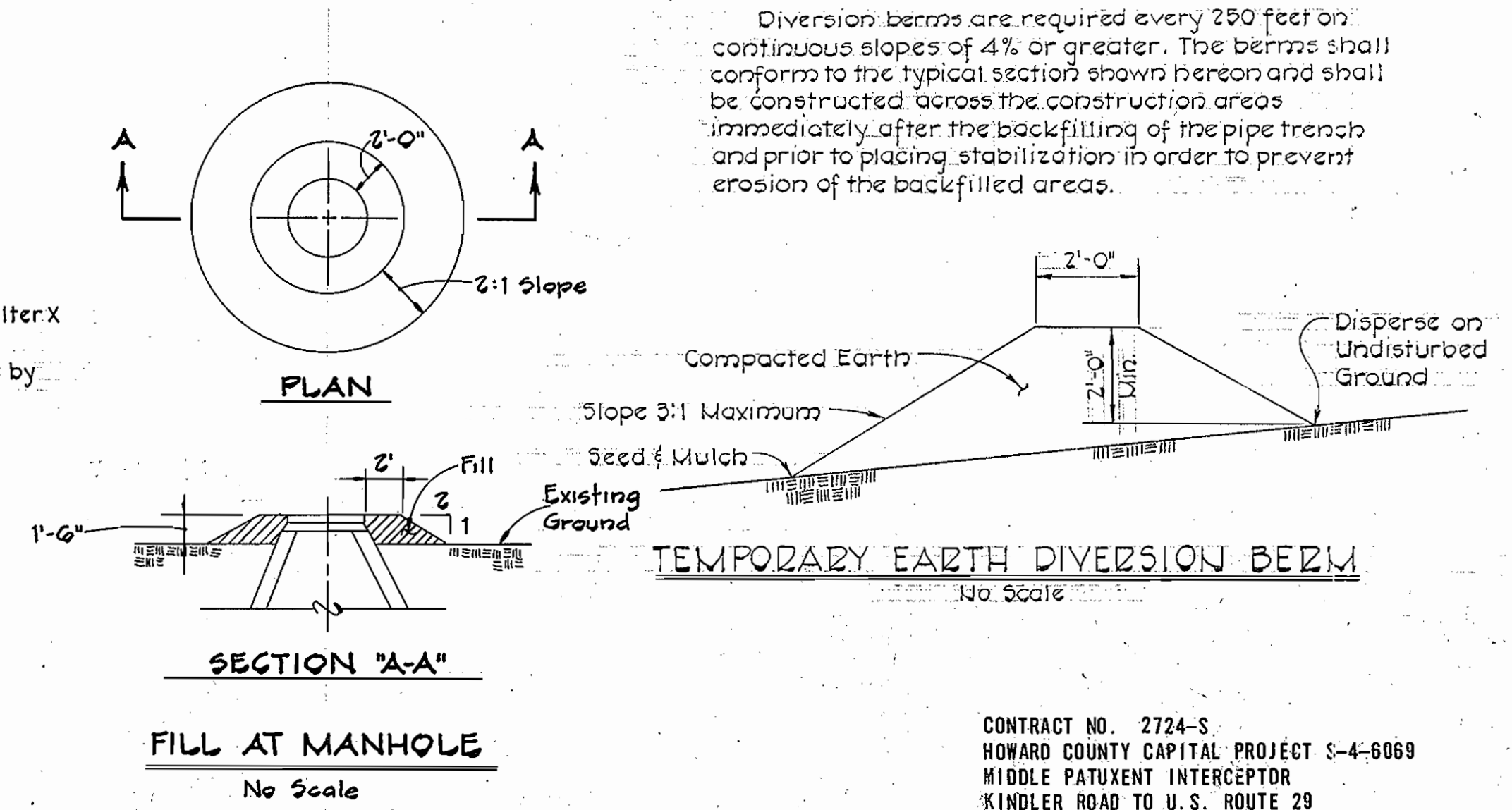


Rip Rap to consist of dense rocks of random shapes and sizes, resistant to the action of air and water, and suitable for bank protection.

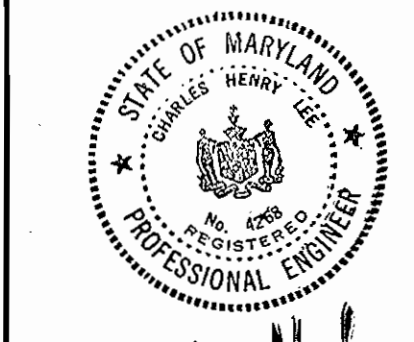


LOOSE-LAID GROUNDED S.H.A. CLASS 2  
RIP RAP DETAIL  
No Scale

LINER PLATE DIMENSIONS	
SUPPLIER	GAGE
REPUBLIC	12
ARMCO	14



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.



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

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
6-25-77  
DIRECTOR OF PUBLIC WORKS DATE

CONTRACT NO. 2724-S  
CAPITAL PROJECT NO. S-4-6069

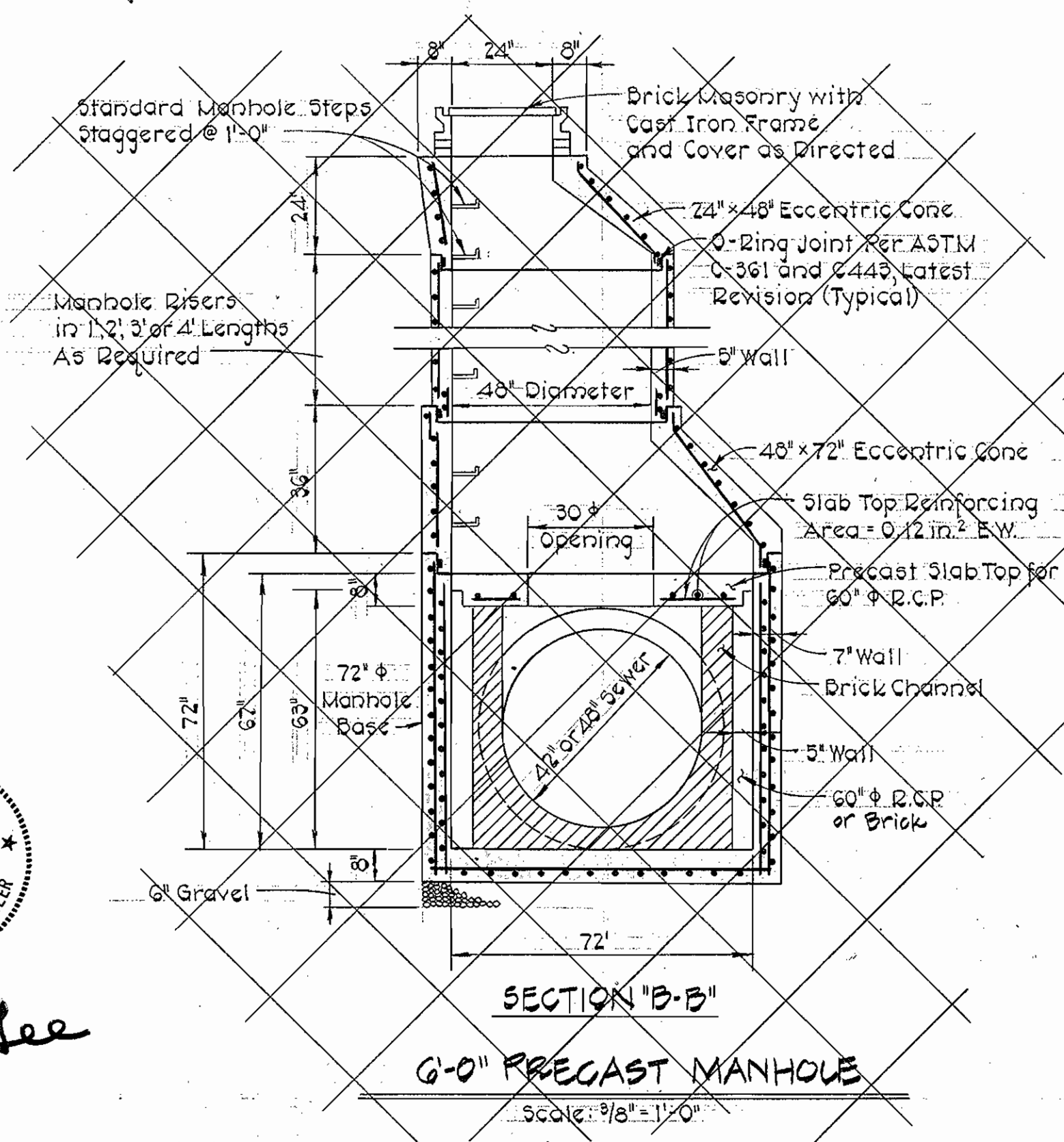
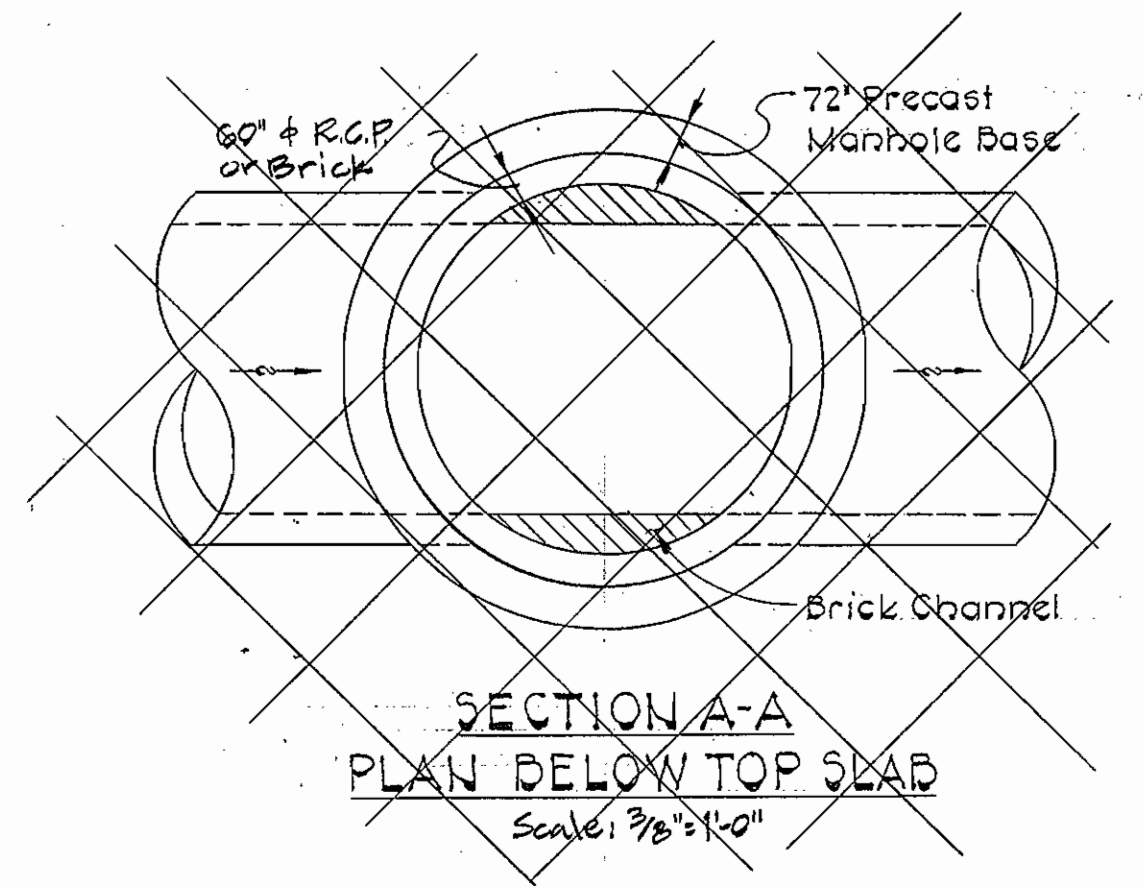
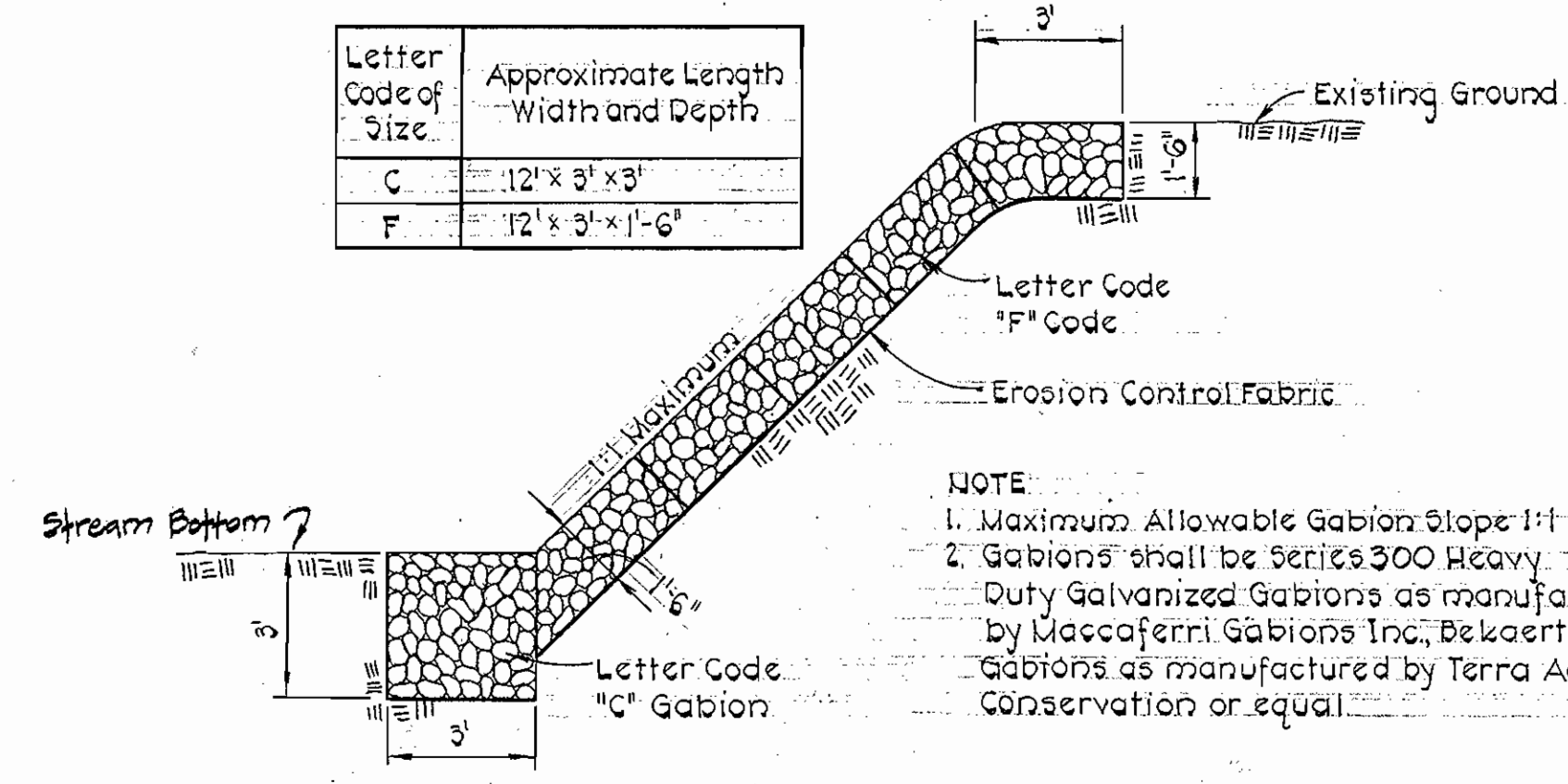
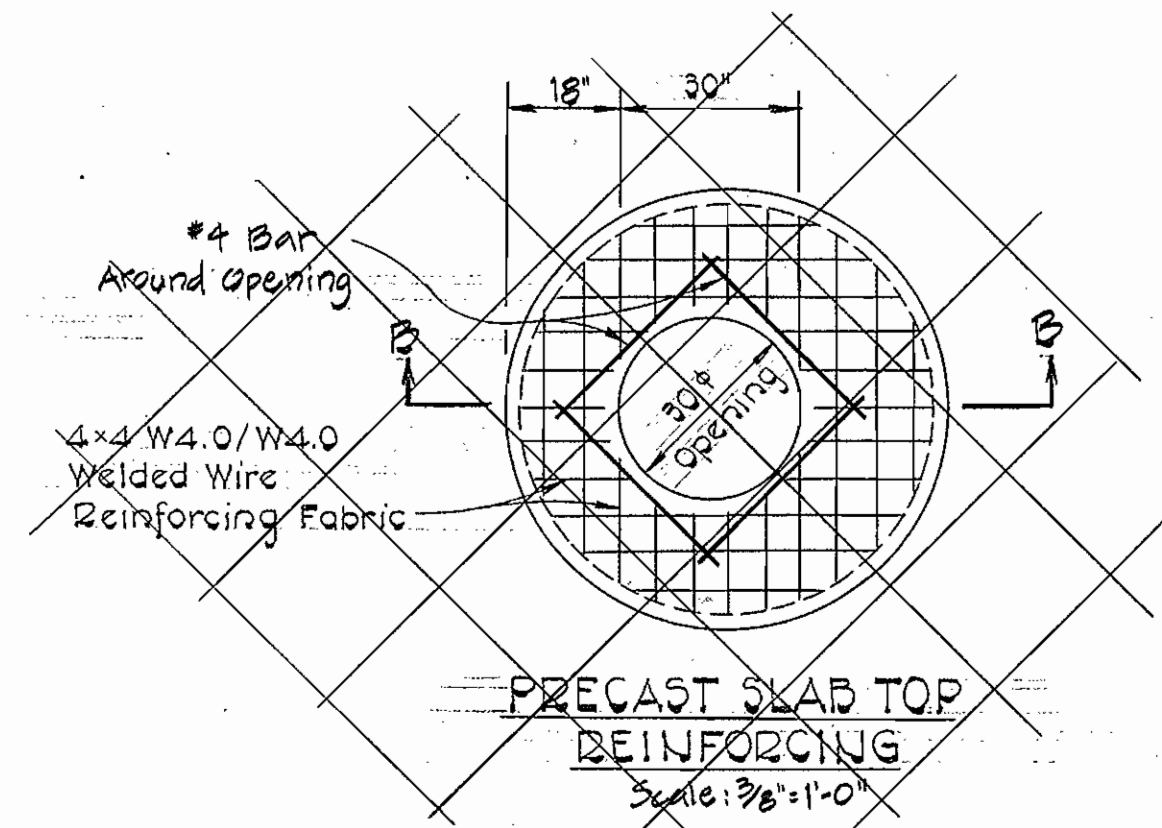
PLAN AND DETAILS  
OF SANITARY SEWERS

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

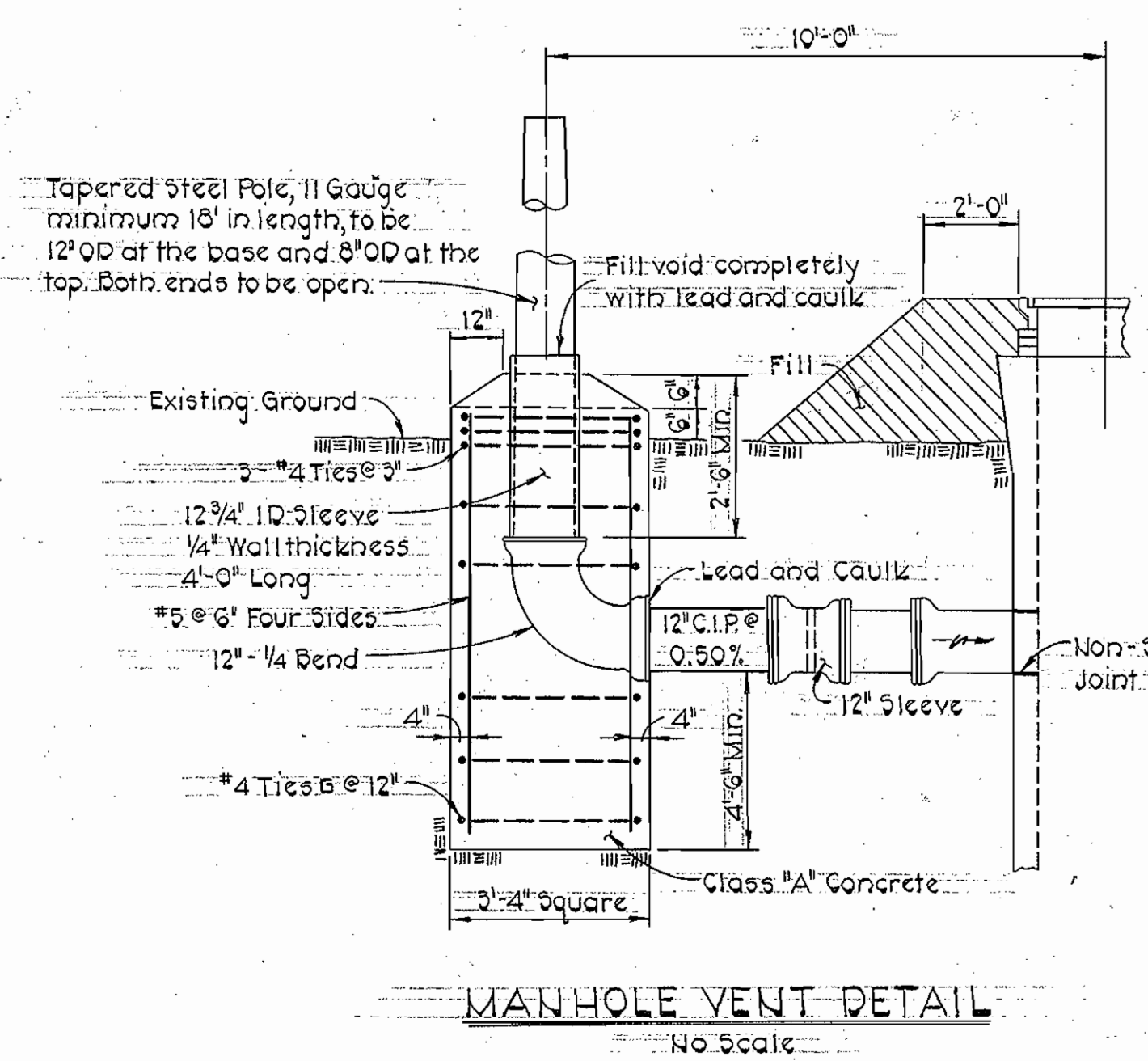
DRAWING NO. 3 OF 5  
SCALE AS SHOWN

WS 724 S/3

As Built August 20, 1980



- NOTES:
- Manhole Design shall conform ASTM C476 Precast Reinforced Concrete Latest Revision.
  - Reinforcing shall conform to ASTM A185 and shall be provided in bells and spigots.
  - All concrete shall be 4,000 p.s.i.
  - 60" R.C.P. shall conform to ASTM C-76 for Class II R.C.P.
  - Pipe Openings shall be provided as required.
  - All Pipe Openings shall be sealed with Non-Shrink Grout Joint Filler.
  - Lift Pin Holes shall be provided in all pieces for handling.



Steel Pole shall be sandblasted and painted with the following coatings in accordance with the manufacturer's recommendations:  
 (a) Interior - 2 Coats 413 Themic-Tar Exterior - 2 Coats 66 Hi-Build as manufactured by Themic Co. Inc.  
 (b) Interior - Bitumastic 300-M Exterior - Giamortex 501 Enamel as manufactured by Koppers Co. Inc. or equal.



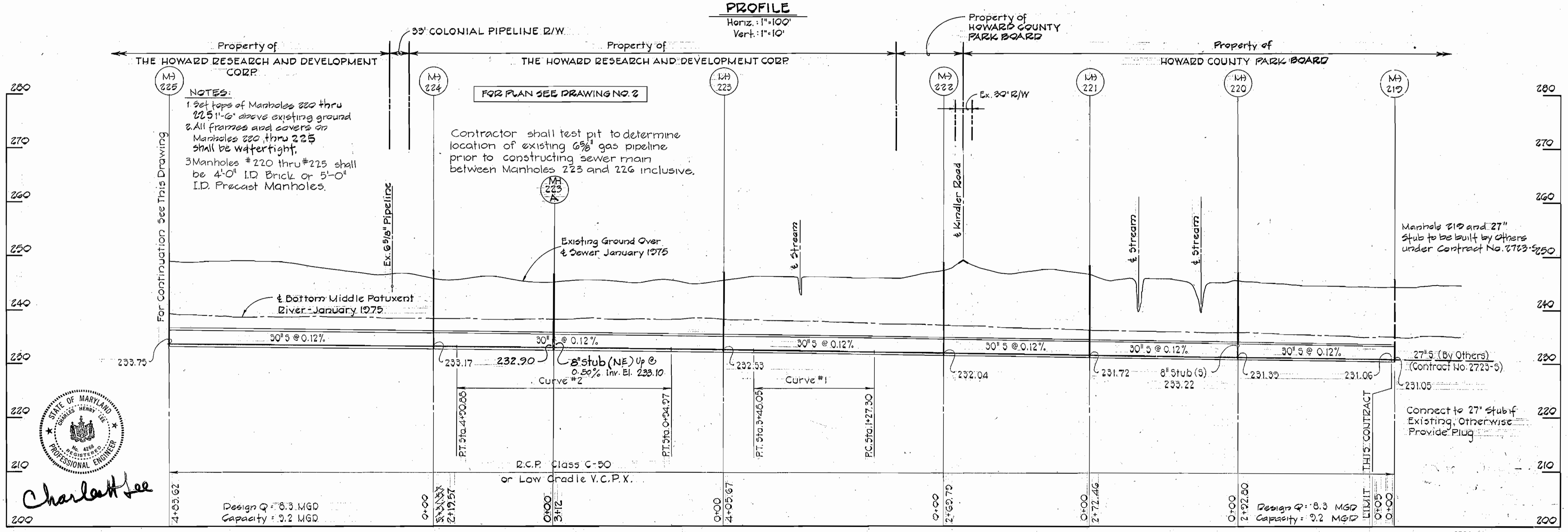
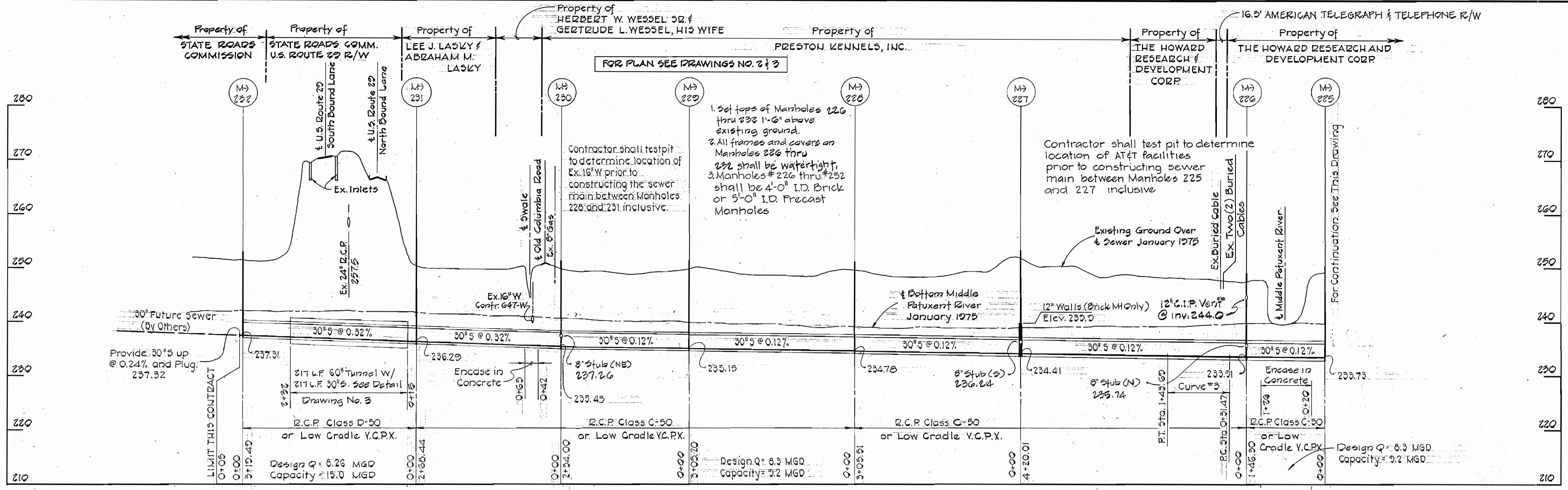
Charles Lee

WS 724 S/H

PURDUM & JESCHKE ENGINEERS 1023 N. CALVERT ST. BALTIMORE, MARYLAND	DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND M. Pagan 6-27-77 DIRECTOR OF PUBLIC WORKS DATE	CONTRACT NO. 2724-S CAPITAL PROJECT NO. S-4-6069	DETAILS	MIDDLE PATUXENT INTERCEPTOR ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND	DRAWING NO. 4 OF 5	SCALE AS SHOWN	DESIGNED: REP DRAFTED: REC CHECKED: REP
					REV.	DATE	REMARKS

CONTRACT NO. 2724-S  
 HOWARD COUNTY CAPITAL PROJECT S-4-6069  
 MIDDLE PATUXENT INTERCEPTOR  
 KINLOD ROAD TO U.S. ROUTE 29

WS 724 S/5



Charles Lee

REV.	DATE	REMARKS

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

**DEPARTMENT OF PUBLIC WORKS**  
HOWARD COUNTY, MARYLAND  
DATE: 6-27-77  
DATE: 6-27-77

CONTRACT NO. 724-S  
CAPITAL PROJECT NO. S-4-6069

PROFILES

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

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