

NOTES:  
 1. For General Notes see drawing No. 4.  
 2. For Test Gradient see hydraulic profile drawing No. 6.

**CONTRACT 146-S**  
**PATAPSCO RIVER INTERCEPTOR**  
**HOWARD COUNTY METROPOLITAN COMMISSION**  
**ELLICOTT CITY, MARYLAND**

42" Lock Joint Pipe Used Prestressed Conc. Embedded Cylinder Pipe with rubber and steel joint (SP-12)

Stakeout F/B 4315 - Diary  
 Diary # 1, 2, 3 & 4 F/B 4323 - 1  
 F/B 4314 - 2  
 F/B 4315 - 3  
 F/B 4322 - 4  
 F/B 4322 also 145-S Stakeout

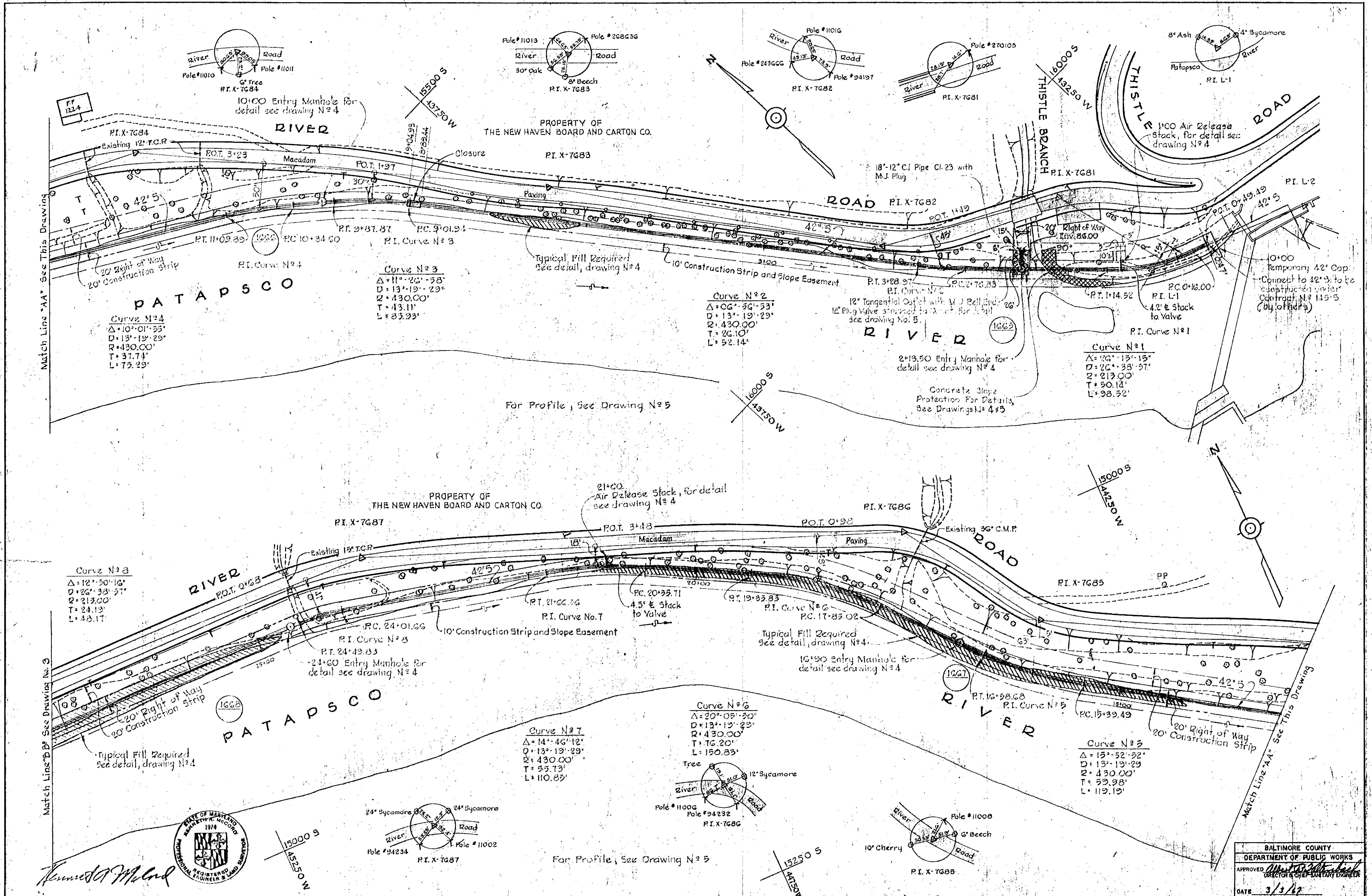


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BALTIMORE COUNTY  
 DEPARTMENT OF PUBLIC WORKS  
 APPROVED *Albert W. Altshuler*  
 DIRECTOR & CHIEF SANITARY ENGINEER  
 DATE 3/3/62

WHITMAN, REQUARDT & ASSOCIATES ENGINEERS 1304 ST. PAUL ST. BALTIMORE, MARYLAND	HOWARD COUNTY METROPOLITAN COMMISSION 12/22/60 DATE <i>W O Libbert</i> CHIEF ENGINEER	CONTRACT NO. 146-S	PATAPSCO INTERCEPTOR LOCATION PLAN THISTLE RD. TO FRÉDERICK RD.	ELECTION DISTRICT ELLICOTT CITY NO.2	DRAWING NO. 1 OF 6 SCALE AS SHOWN
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WHITMAN, REQUARDT & ASSOCIATES  
ENGINEERS  
1304 ST. PAUL ST.  
BALTIMORE, MARYLAND

HOWARD COUNTY METROPOLITAN COMMISSION  
12/22/66  
DATE

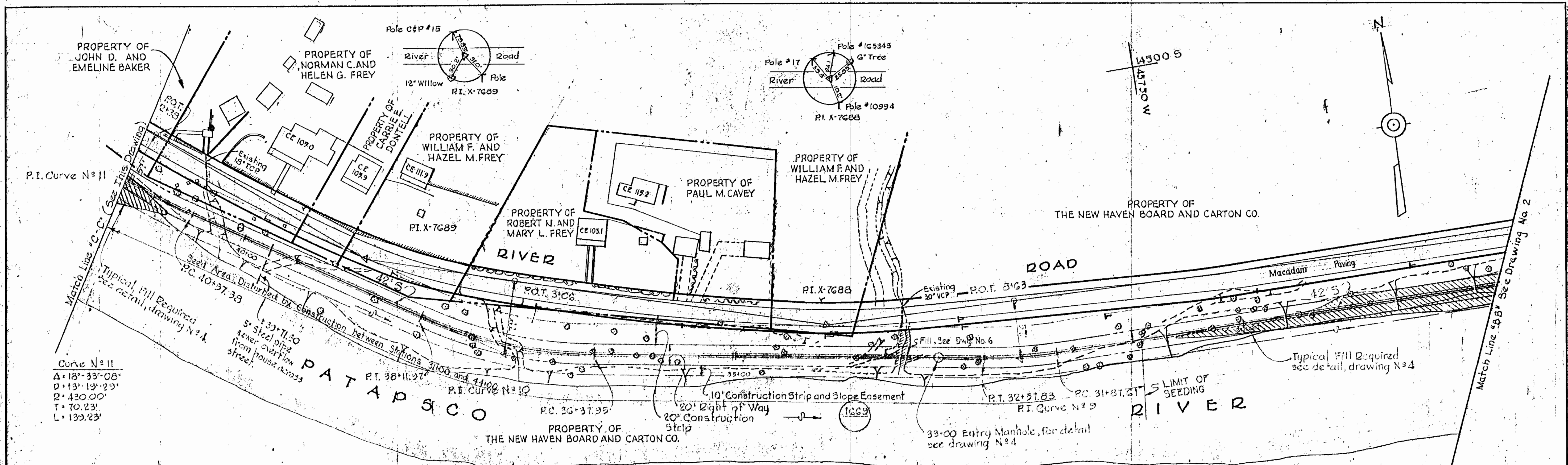
CONTRACT NO. 146-S

PATAPSCO INTERCEPTOR  
PLAN  
THISTLE RD. TO FREDERICK RD.

ELECTION DISTRICT  
ELLICOTT CITY NO.2

BALTIMORE COUNTY  
DEPARTMENT OF PUBLIC WORKS  
APPROVED: [Signature]  
DIRECTOR & CHIEF SANITARY ENGINEER  
DATE 3/3/47  
DRAWING NO. 2 OF 6  
SCALE 1" = 50'





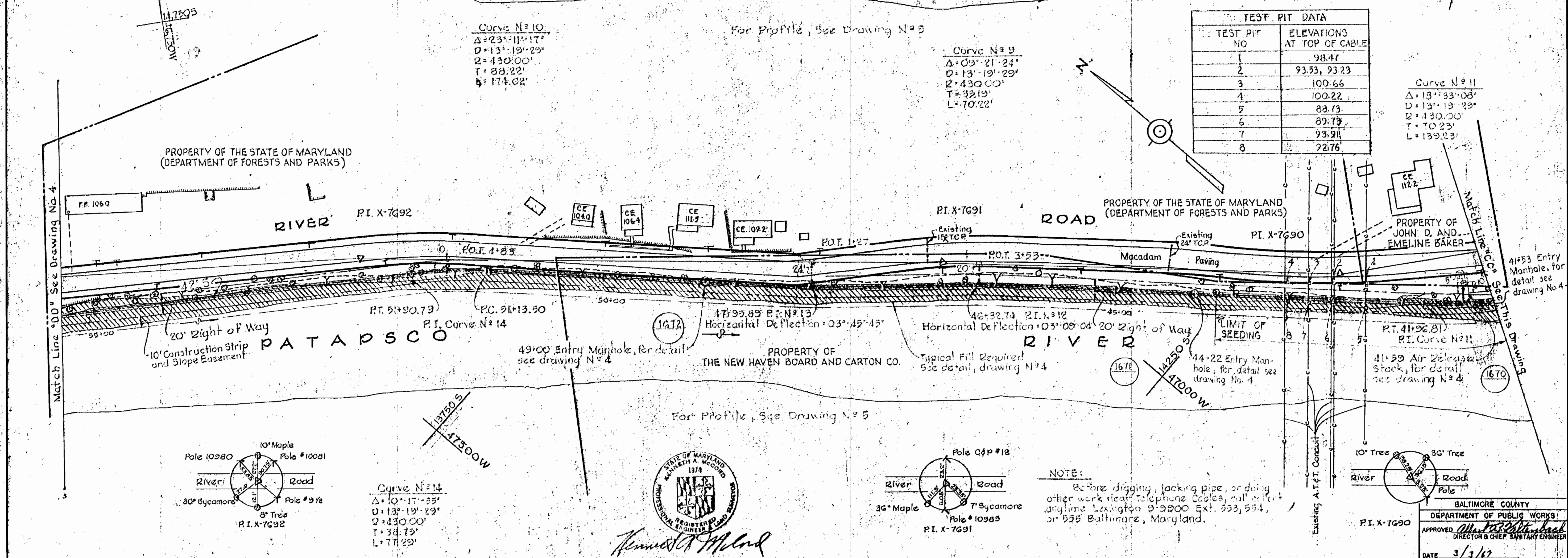
Curve No 11  
 $\Delta = 18^{\circ} 33' 08''$   
 $D = 13^{\circ} 19' 29''$   
 $R = 430.00'$   
 $T = 70.23'$   
 $L = 139.23'$

Curve No 10  
 $\Delta = 23^{\circ} 11' 17''$   
 $D = 13^{\circ} 19' 29''$   
 $R = 430.00'$   
 $T = 88.22'$   
 $L = 174.02'$

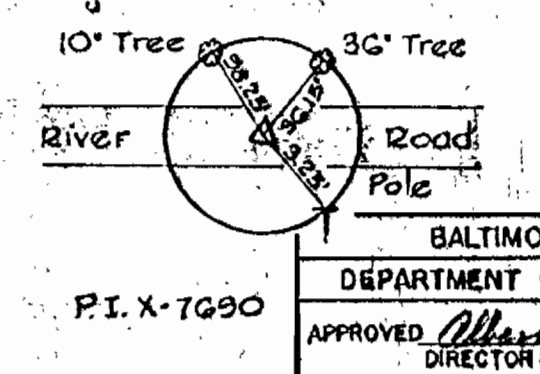
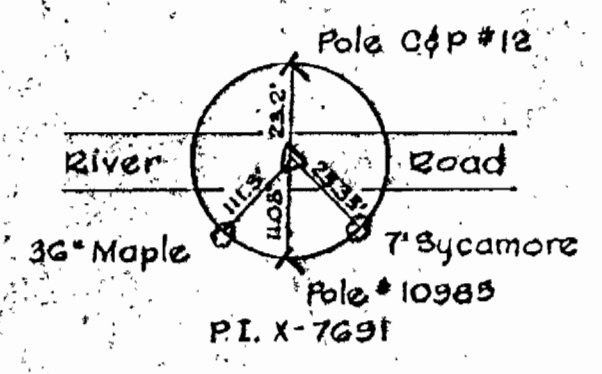
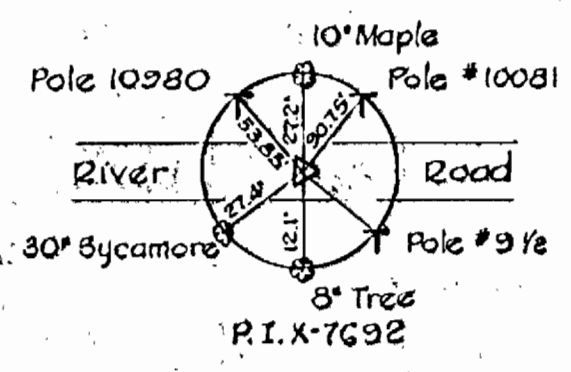
Curve No 9  
 $\Delta = 09^{\circ} 21' 24''$   
 $D = 13^{\circ} 19' 29''$   
 $R = 430.00'$   
 $T = 32.19'$   
 $L = 70.22'$

Curve No 11  
 $\Delta = 13^{\circ} 33' 08''$   
 $D = 13^{\circ} 19' 29''$   
 $R = 430.00'$   
 $T = 70.23'$   
 $L = 139.23'$

TEST PIT NO	ELEVATIONS AT TOP OF CABLE
1	98.47
2	93.53, 93.23
3	100.66
4	100.22
5	89.73
6	89.73
7	93.91
8	92.76



Curve No 14  
 $\Delta = 10^{\circ} 17' 35''$   
 $D = 13^{\circ} 19' 29''$   
 $R = 430.00'$   
 $T = 38.73'$   
 $L = 77.29'$



NOTE:  
 Before digging, jacking pipe, or doing other work near telephone cables, call electric anytime Lexington 9-9900 Ext. 353, 554, or 525 Baltimore, Maryland.

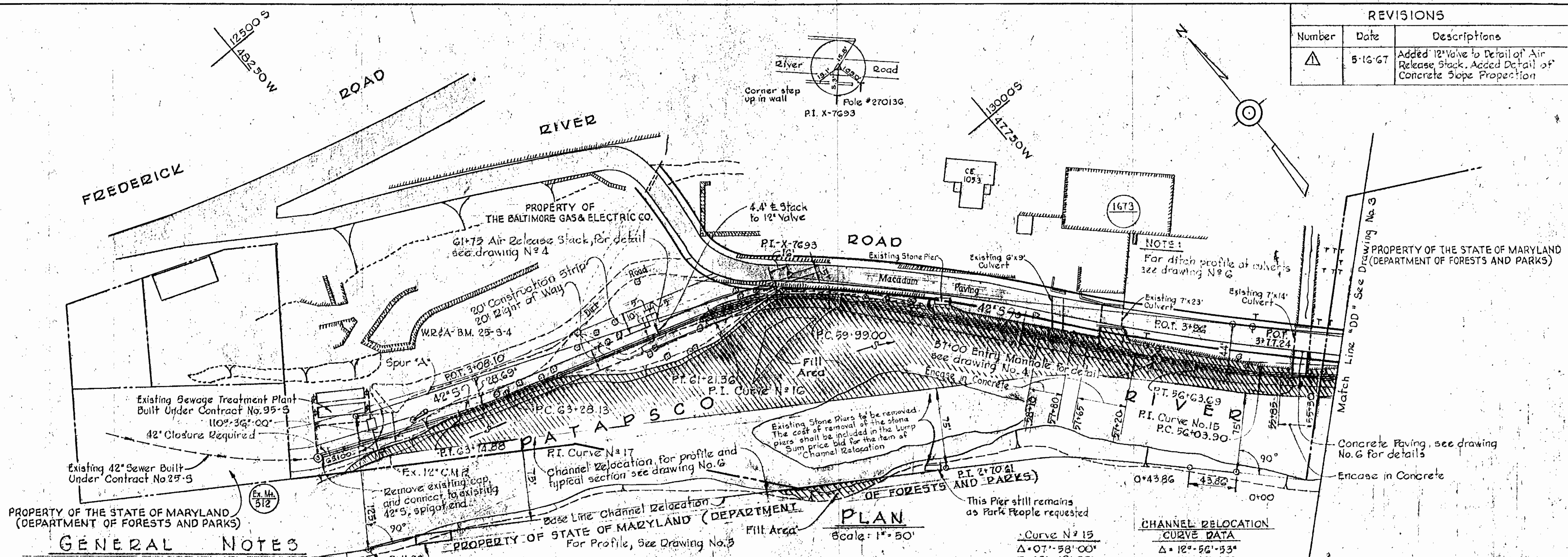


*Kenneth J. McLeod*

WHITMAN, REQUARDT & ASSOCIATES ENGINEERS 1304 ST. PAUL ST. BALTIMORE, MARYLAND	HOWARD COUNTY METROPOLITAN COMMISSION 12/22/66 DATE <i>W. O. Lister</i> CHIEF ENGINEER	CONTRACT NO. 146-S	PATAPSCO INTERCEPTOR PLAN THISTLE RD. TO FREDERICK RD.	ELECTION DISTRICT ELLICOTT CITY NO. 2	DRAWING NO. 3 OF 6 SCALE 1"=50'
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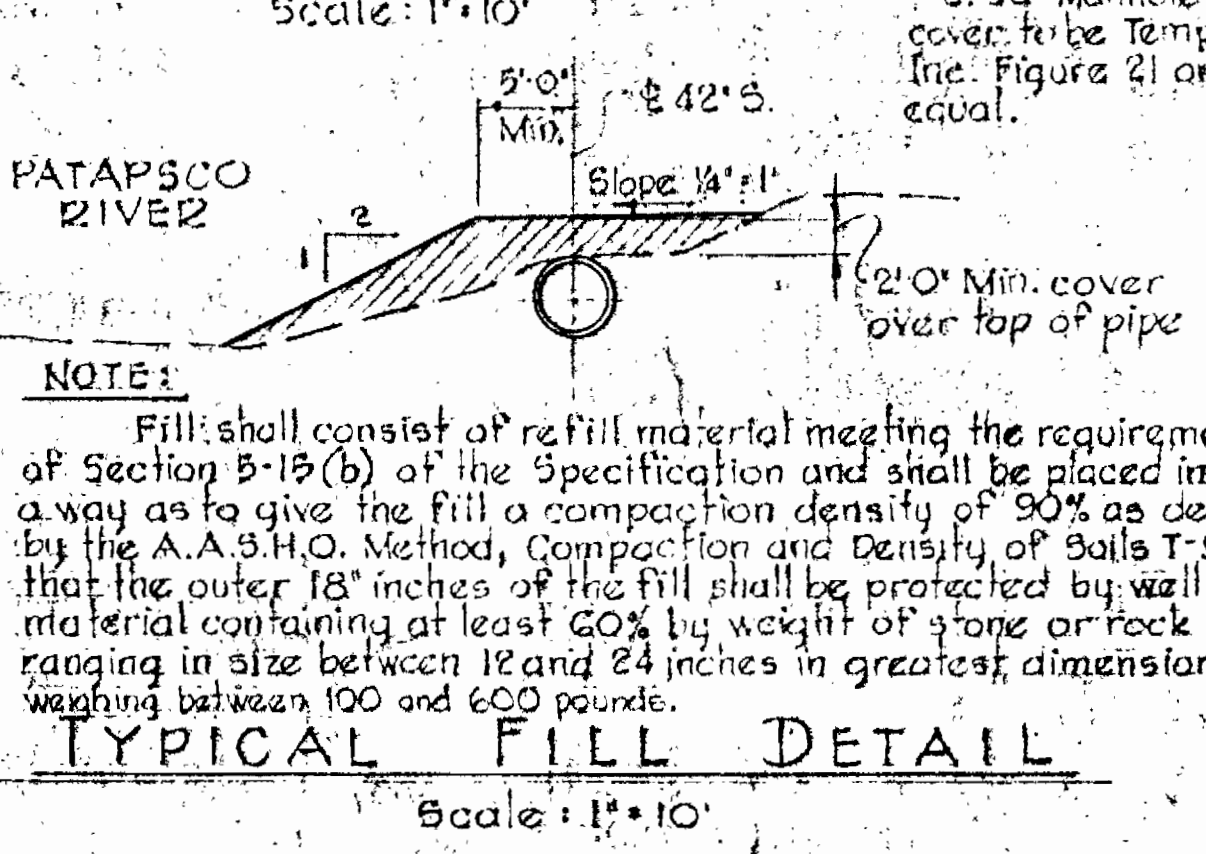
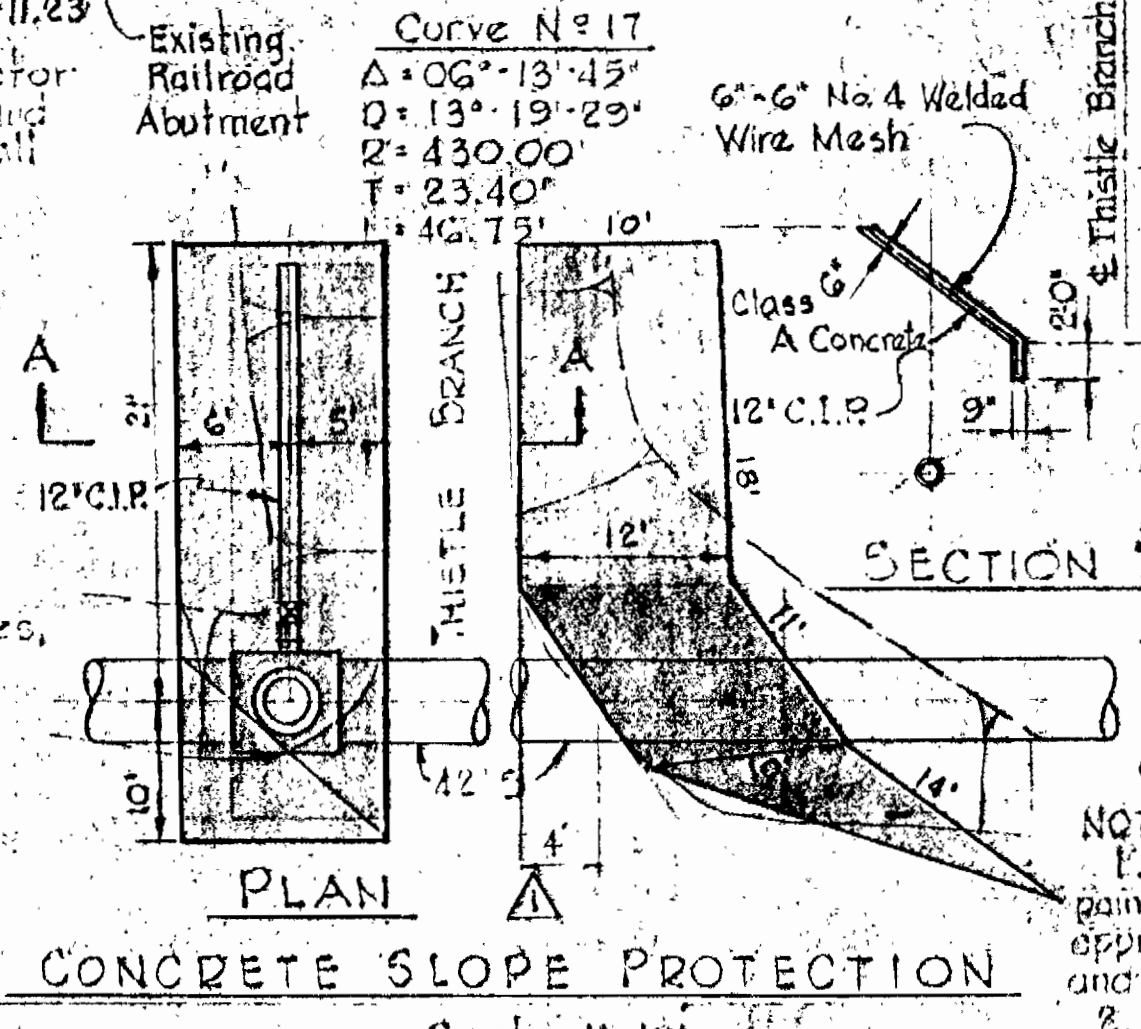


REVISIONS		
Number	Date	Descriptions
△	5-16-67	Added 12" Valve to Detail of Air Release Stack. Added Detail of Concrete Slope Protection



**GENERAL NOTES**

- Approximate location of existing mains are shown. The Contractor shall take all necessary precaution to protect the existing mains and services and maintain uninterrupted supply. Any damage incurred shall be repaired immediately at Contractor's expense.
- All pipe elevations shown are invert.  $\odot$  Elevation
- The Contractor shall locate existing utilities a minimum of two weeks in advance of construction operation in vicinity of utilities.
- For all standard details, see standards bound in specifications.
- Build all manholes to indicated elevation.
- Before digging, jacking pipe, or doing other work near Telephone Cables, call collect anytime Lexington 9-3900 Ext. 553, 554, or 555 Baltimore, Maryland.
- The cost of furnishing and placing fill in accordance with the typical fill detail and the typical section vicinity of Station 37+00 and as specified shall be included and covered in the unit prices bid for items of "Trench Excavation and Back-Fill for 42-inch Sewer".
- Area within indicated limits disturbed by construction will be seeded in accordance with the applicable specifications.
- Cast Iron Pipe and Fittings
  - All cast iron pipe shall be centrifugally cast and shall be furnished in accordance with ASA Specification A21.4-1962 (AWWA C106-G2) or A21.8-1962 (AWWA C103-G2) ASA Class 23. End design shall conform to ASA Specifications A21.11-1964 (AWWA C111-G4).
  - All cast iron fitting and specials shall be finished in accordance with AWWA Specification C110-52 (ASA A21.10-1952) for short body cast iron fittings with thickness of metal and weights as specified in the Cast Iron Pipe Association's handbook for Class 230.
  - All cast iron pipe and fittings shall be cement lined in accordance with the requirements of American Standard Specifications for Cement Mortar Lining for Cast Iron Pipe and Fittings, A21.4-1964 (AWWA C104-G4), except that the thickness shall be twice that Section 4-10. Thickness of Lining, paragraph 4.10.1 and the curing shall be effected by the application of a bituminous seal coating which shall continuously cover and seal the cement mortar.
- All 42-inch Pipe furnished under this contract shall be non-floating pressure sewer pipe meeting the requirements of Section 12-07 of the Specifications.



**Curve # 15**

Scale: 1" = 50'

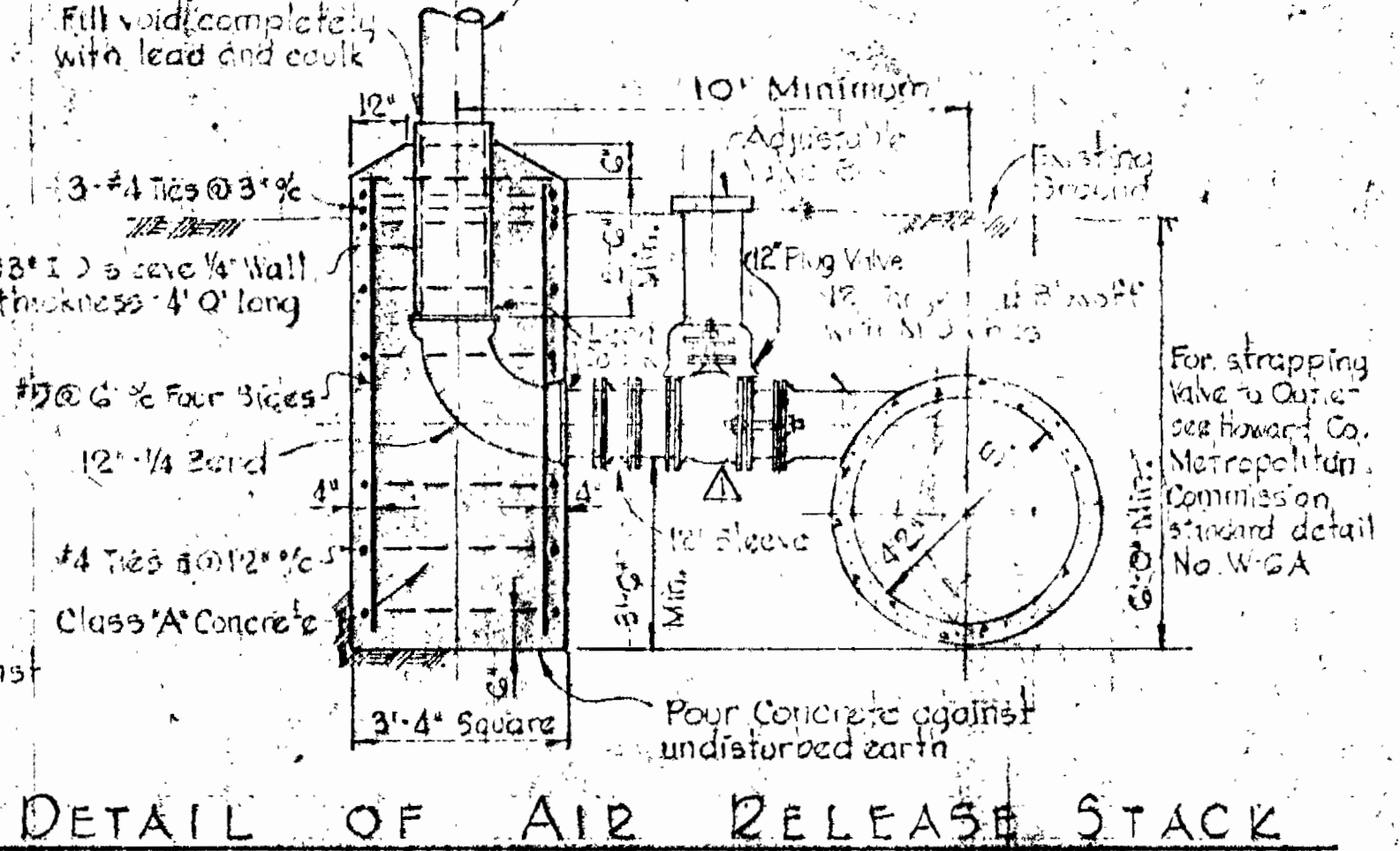
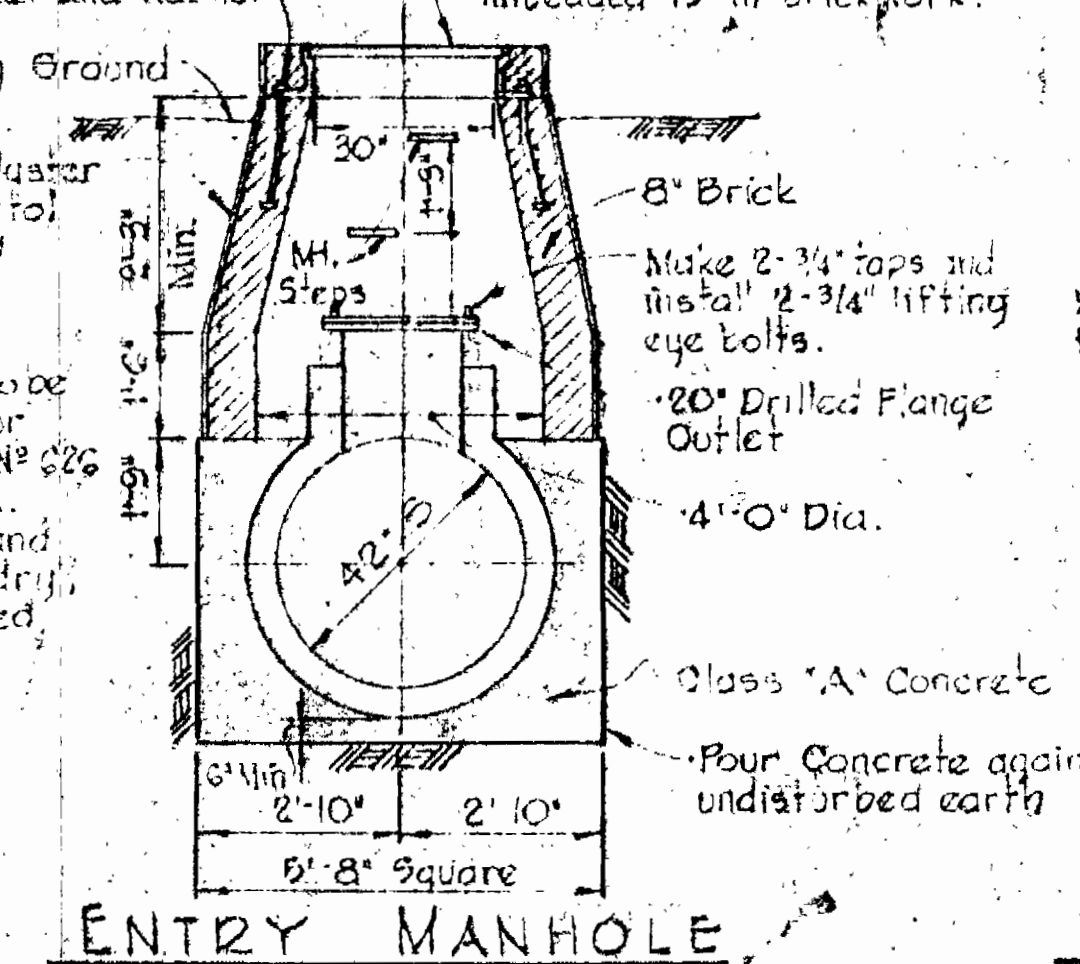
△ = 07° 58' 00"  
 D = 13° 19' 29"  
 R = 430.00'  
 T = 29.94'  
 L = 59.79'

**Curve # 16**

△ = 32° 36' 29"  
 D = 26° 38' 57"  
 R = 215.00'  
 T = 62.89'  
 L = 122.36'

**CHANNEL RELOCATION CURVE DATA**

△ = 12° 56' 53"  
 D = 05° 43' 46"  
 R = 1000.00'  
 T = 113.48'  
 L = 229.51'

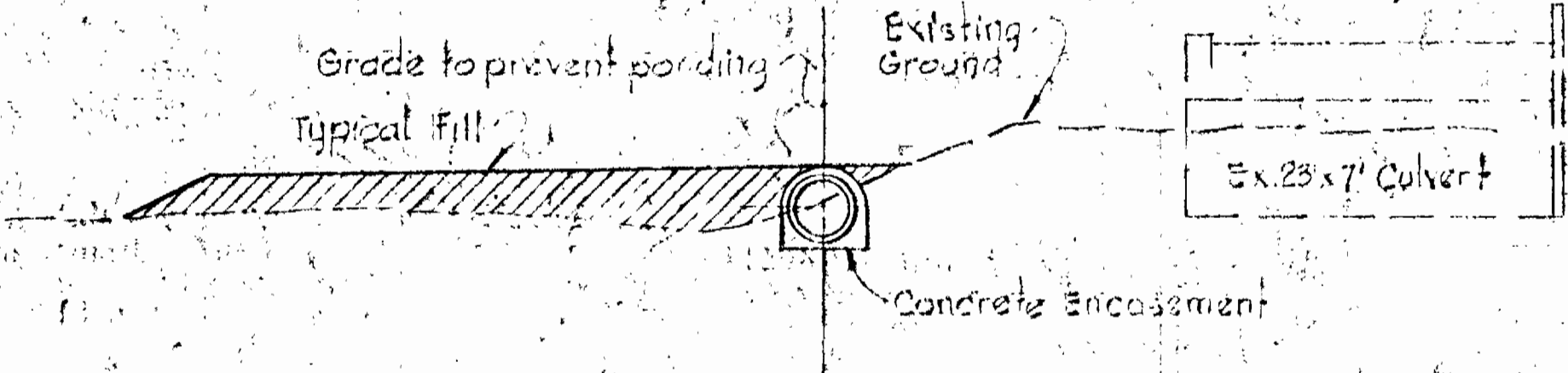


BALTIMORE COUNTY  
 DEPARTMENT OF PUBLIC WORKS  
 APPROVED: *[Signature]*  
 DIRECTOR & CHIEF SANITARY ENGINEER  
 DATE: 3/3/67



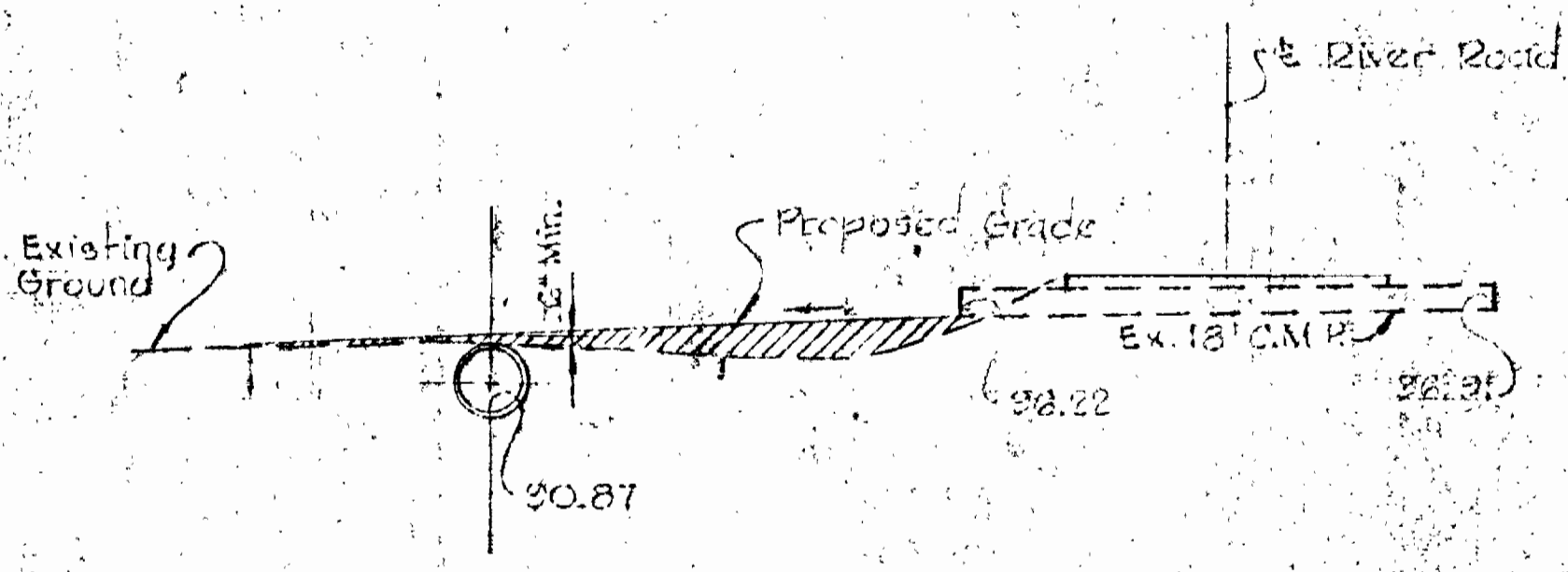
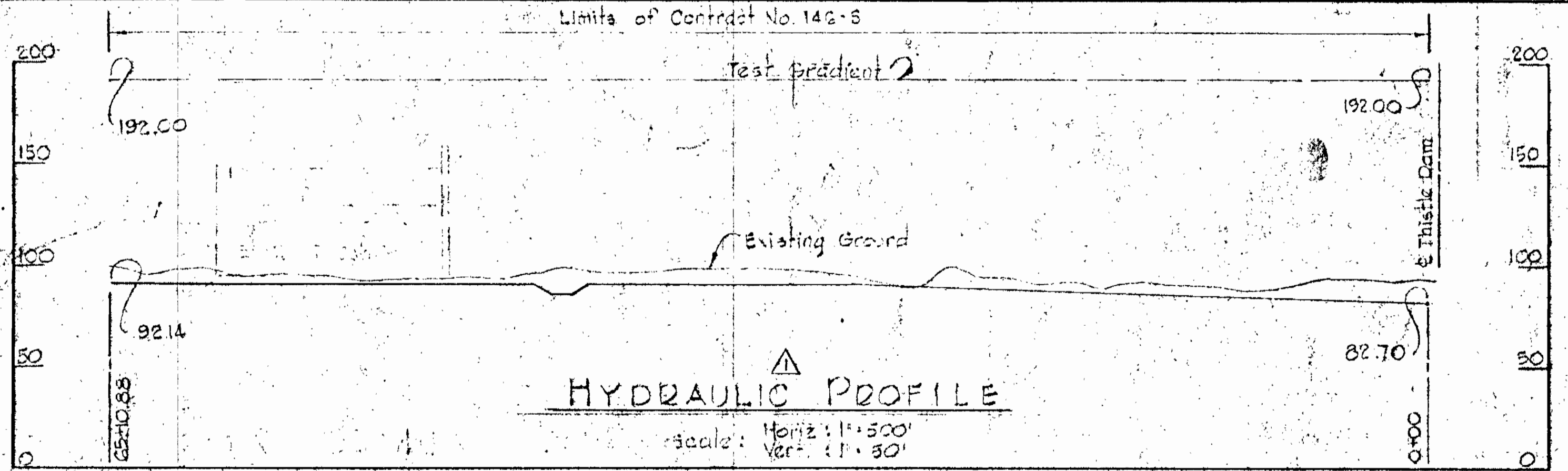




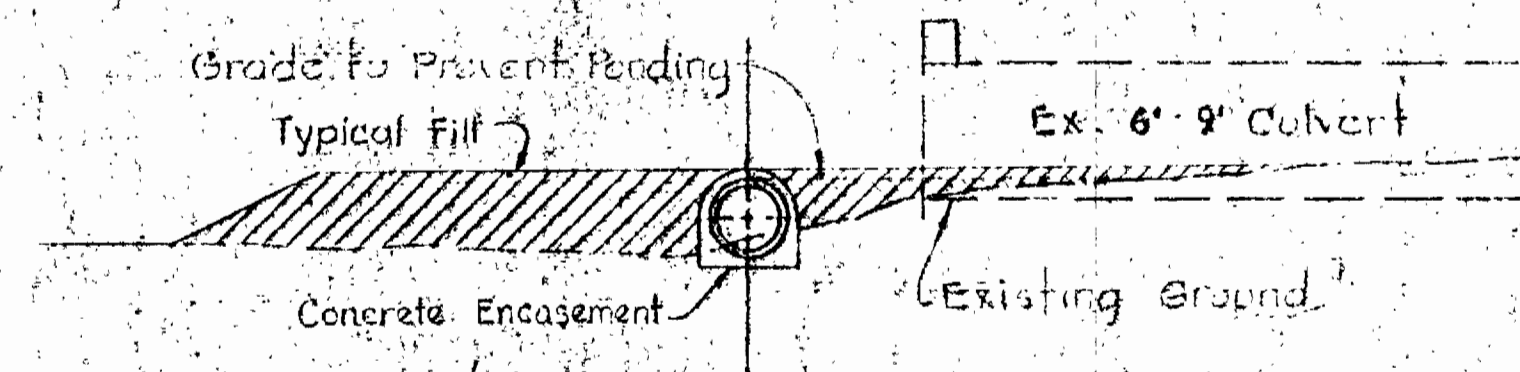


DITCH PROFILE AT STA. 57+40  
Scale: 1"=10'

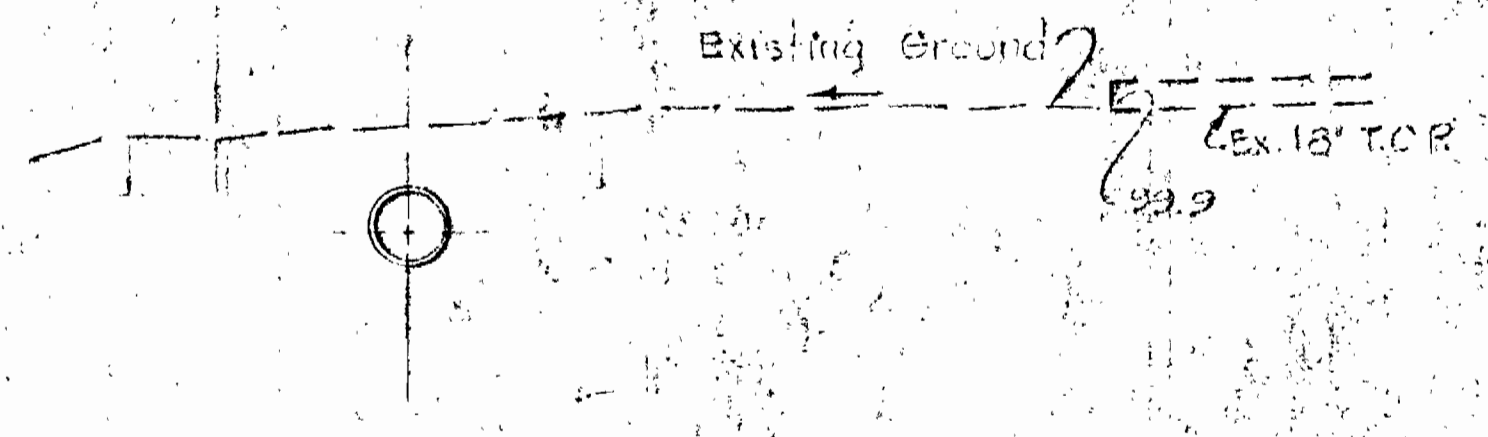
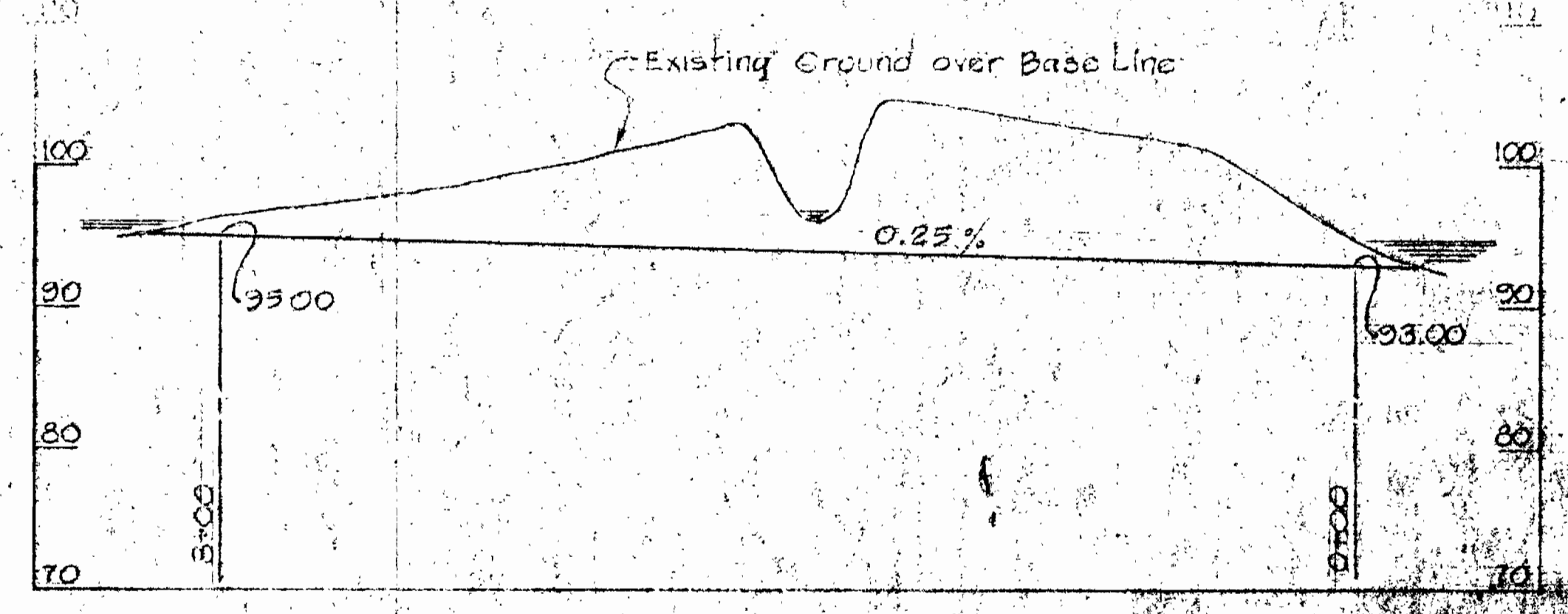
NOTE:  
The cost of furnishing and placing of required fill in accordance with the specification including necessary material, labor, tools and equipment required to construct the ditches to the profile and dimensions indicated on this drawing shall be included and covered in the unit prices bid for items of Trench Excavation and backfill for 42" Sewer.



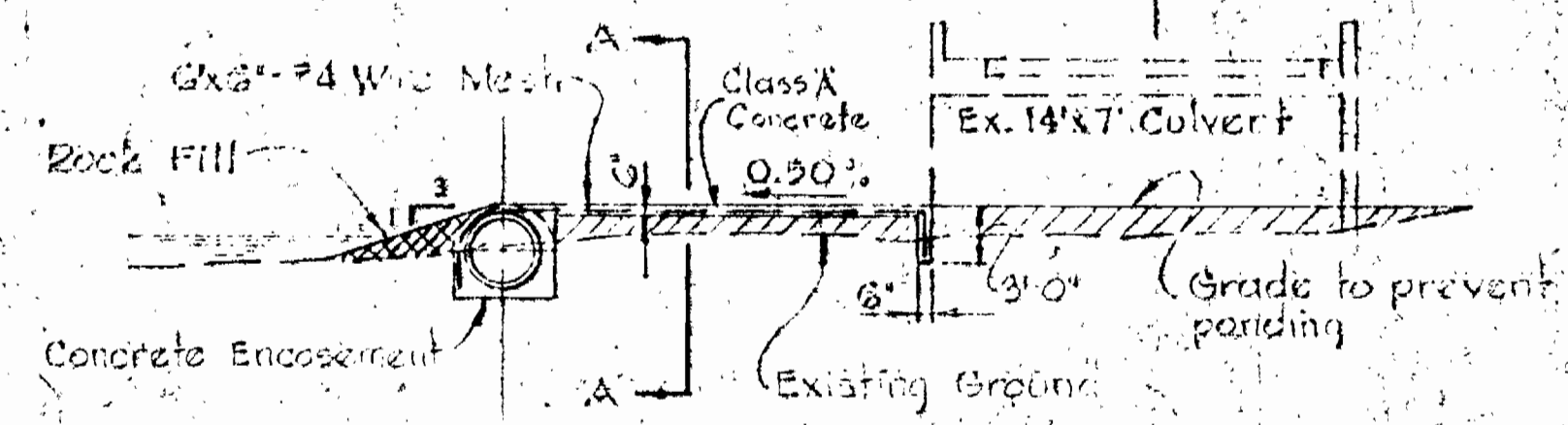
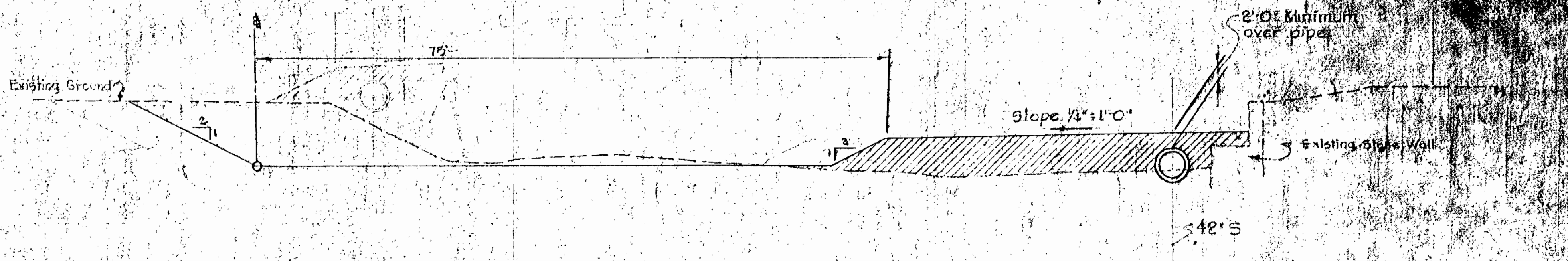
DITCH PROFILE AT STA. 33+35  
Scale: 1"=10'



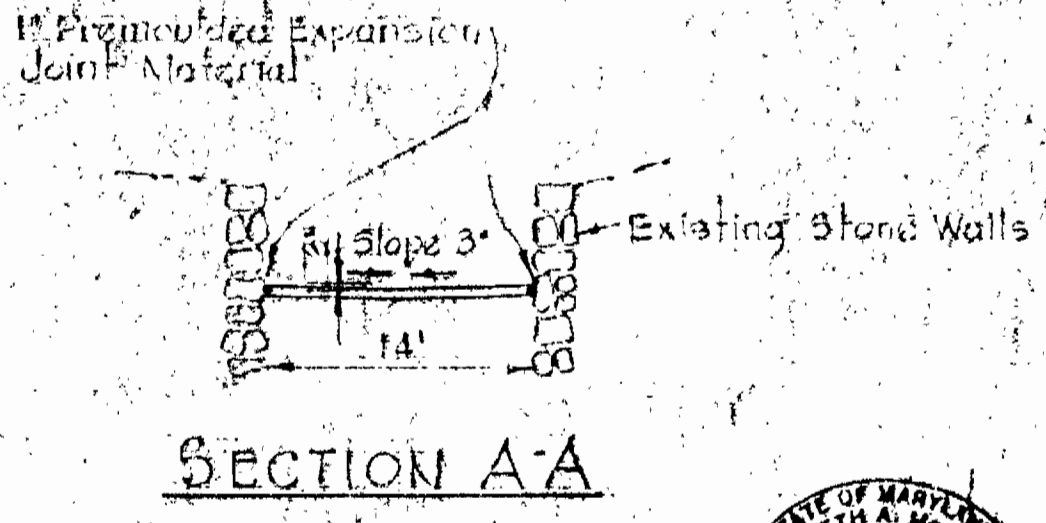
DITCH PROFILE AT STA. 57+92  
Scale: 1"=10'



DITCH PROFILE AT STA. 40+27  
Scale: 1"=10'



DITCH PROFILE AT STA. 55+68  
Scale: 1"=10'



NOTE:  
1. The cost of placing the required fill shall be included and cover in the lump sum price bid for the item of Channel Relocation.  
2. Fill shall consist of refill material meeting the requirements of Section 5-15(b) of the specification and shall be placed in such a way as to give the fill a compaction density of 90% as determined by the A.A. S.H.O. Method, Compaction and Density of Soil T-99 except that the over 18 inches of the fill shall be protected by well graded material containing at least 60% by weight of stone or rock particles ranging in size between 1/2 and 2 1/2 inches in greatest dimension and weighing between 100 and 600 pounds.



*Kenneth A. McLeod*

BALTIMORE COUNTY		
DEPARTMENT OF PUBLIC WORKS		
APPROVED	<i>Robert A. [Signature]</i>	DIRECTOR & CHIEF SANITARY ENGINEER
DATE	3/3/62	

REVISIONS	Number	Date	Description
1	5-16-67		Added Hydraulic Profile

WHITMAN, REQUARDT & ASSOCIATES  
ENGINEERS  
1304 ST. PAUL ST.  
BALTIMORE, MARYLAND

HOWARD COUNTY METROPOLITAN COMMISSION  
12/22/60  
DATE  
*W. O. Libbert*  
CHIEF ENGINEER

CONTRACT NO. 146-S

PATAPSCO INTERCEPTOR  
DETAILS  
THISTLE RD TO FREDERICK RD.

ELECTION DISTRICT  
ELLCOTT CITY NO. 2

DRAWING NO. 6 OF 6  
SCALE AS SHOWN