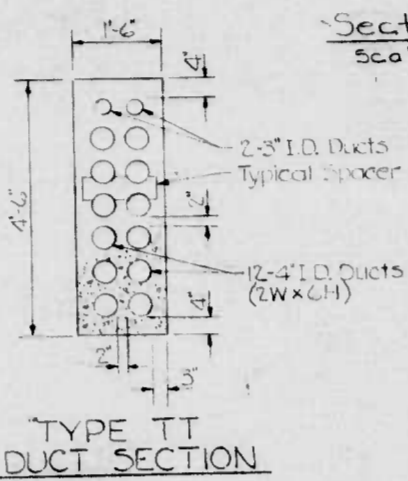
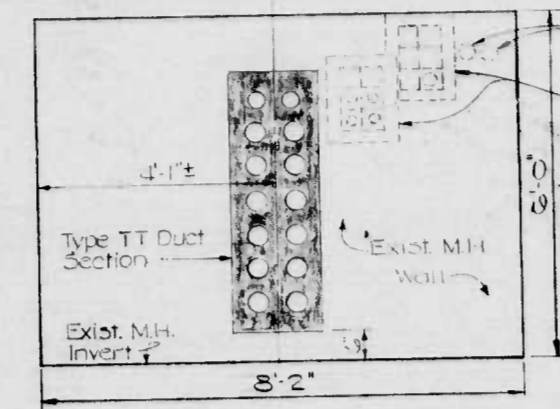
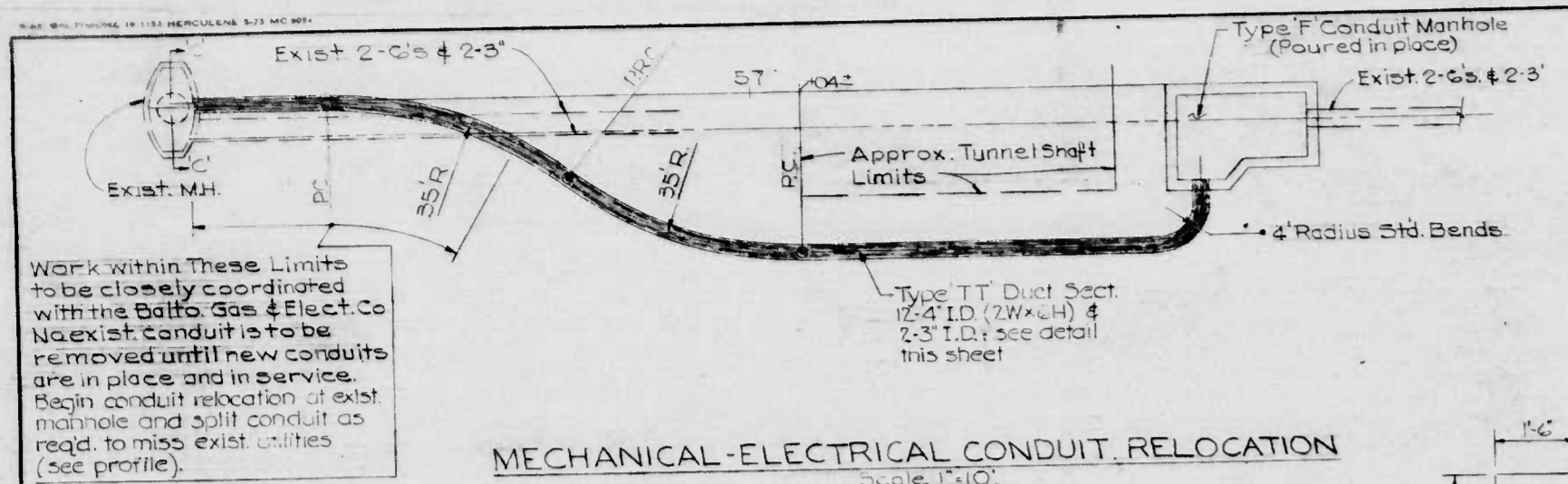
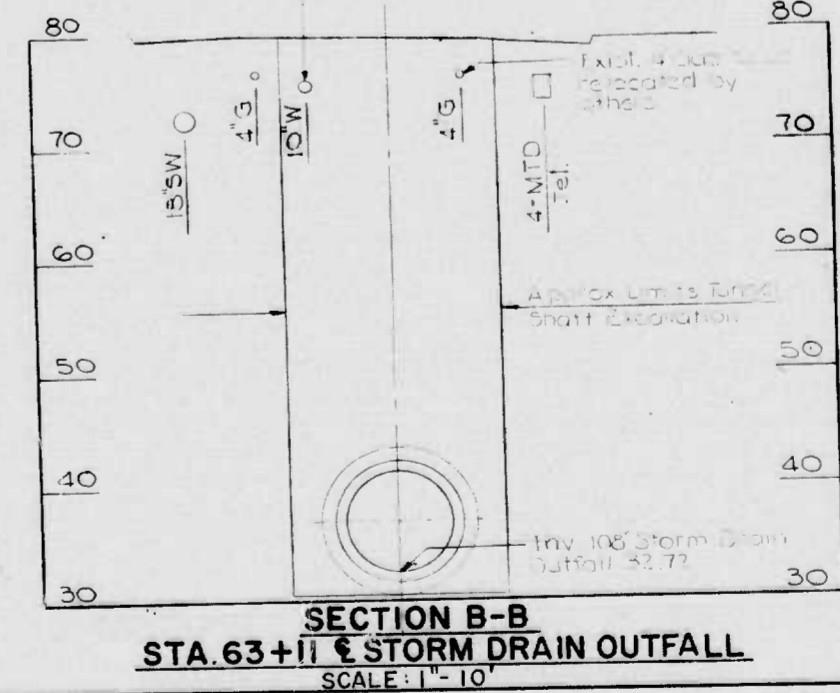
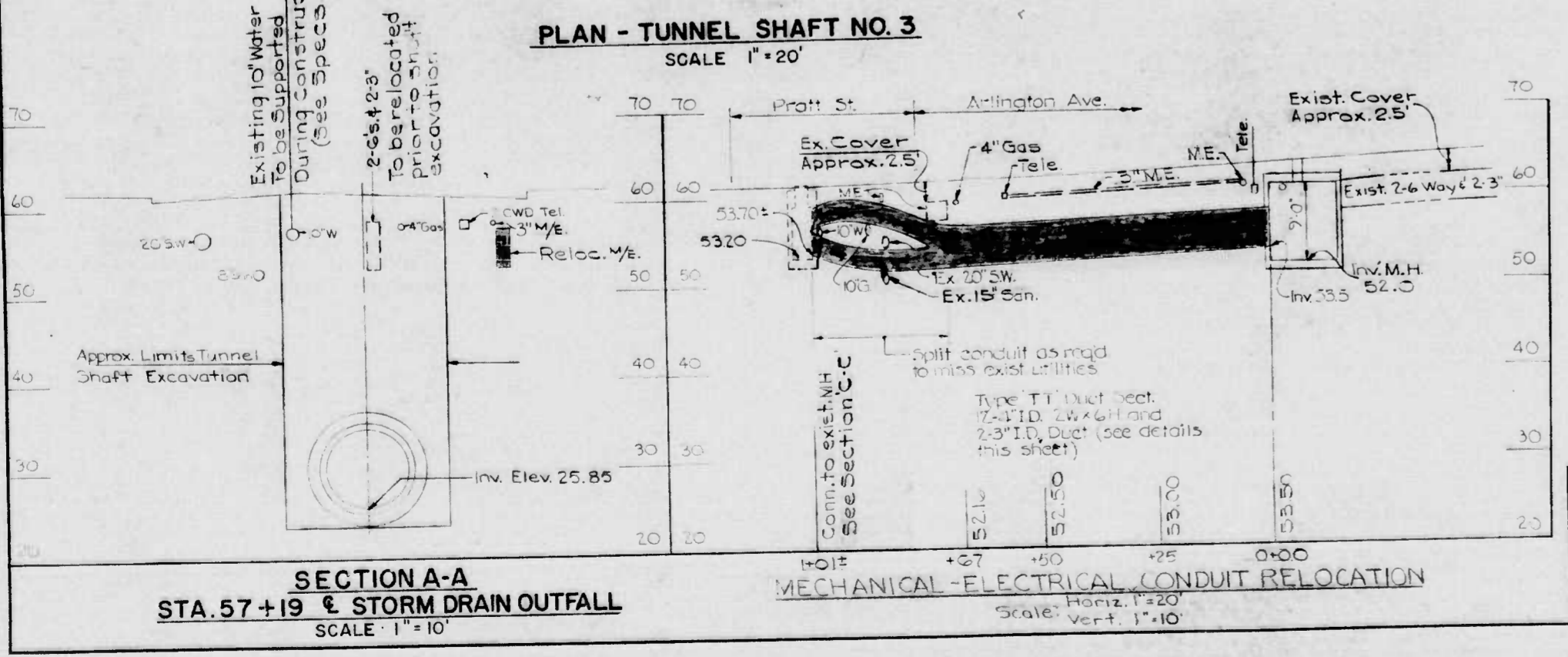
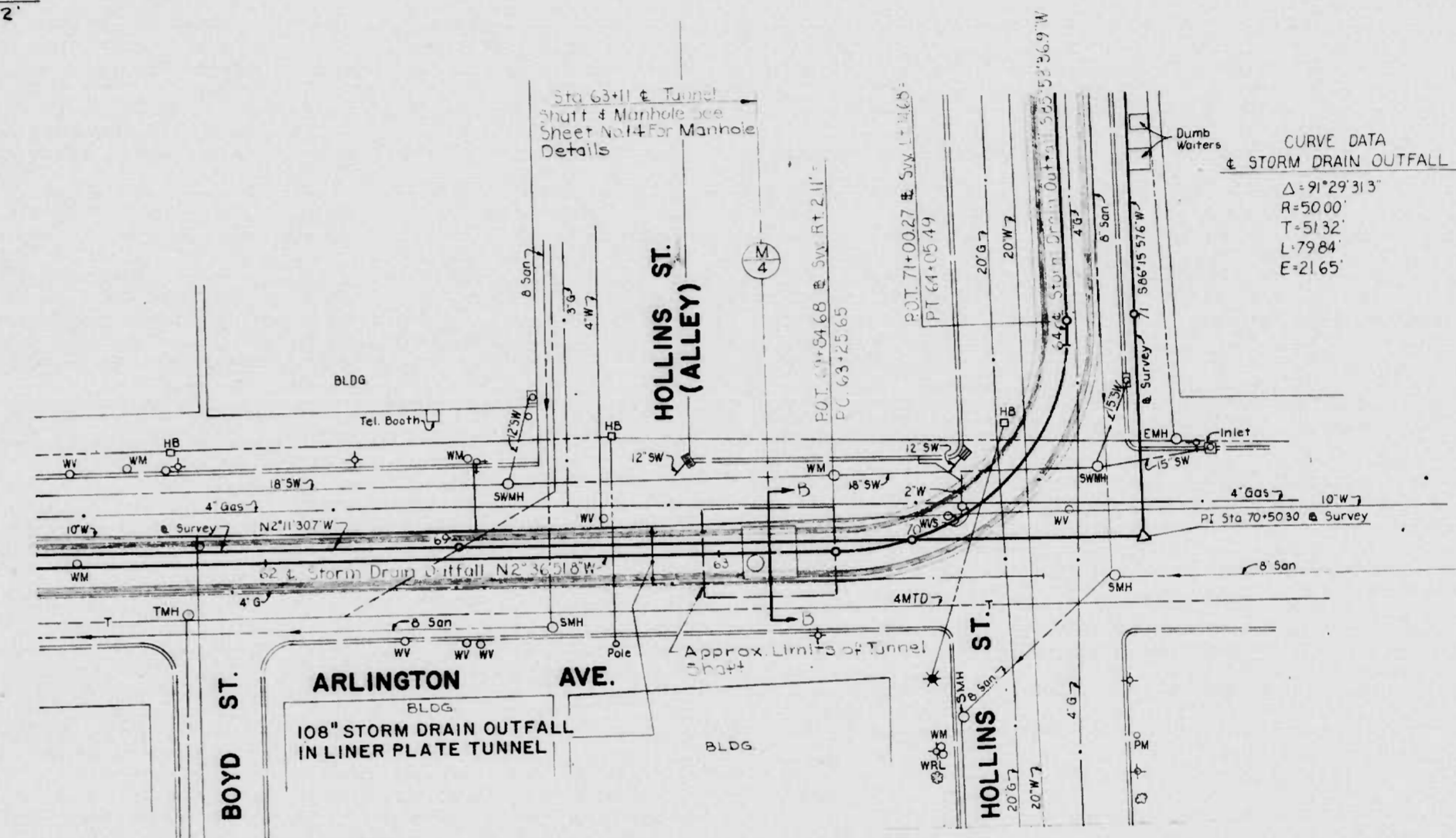
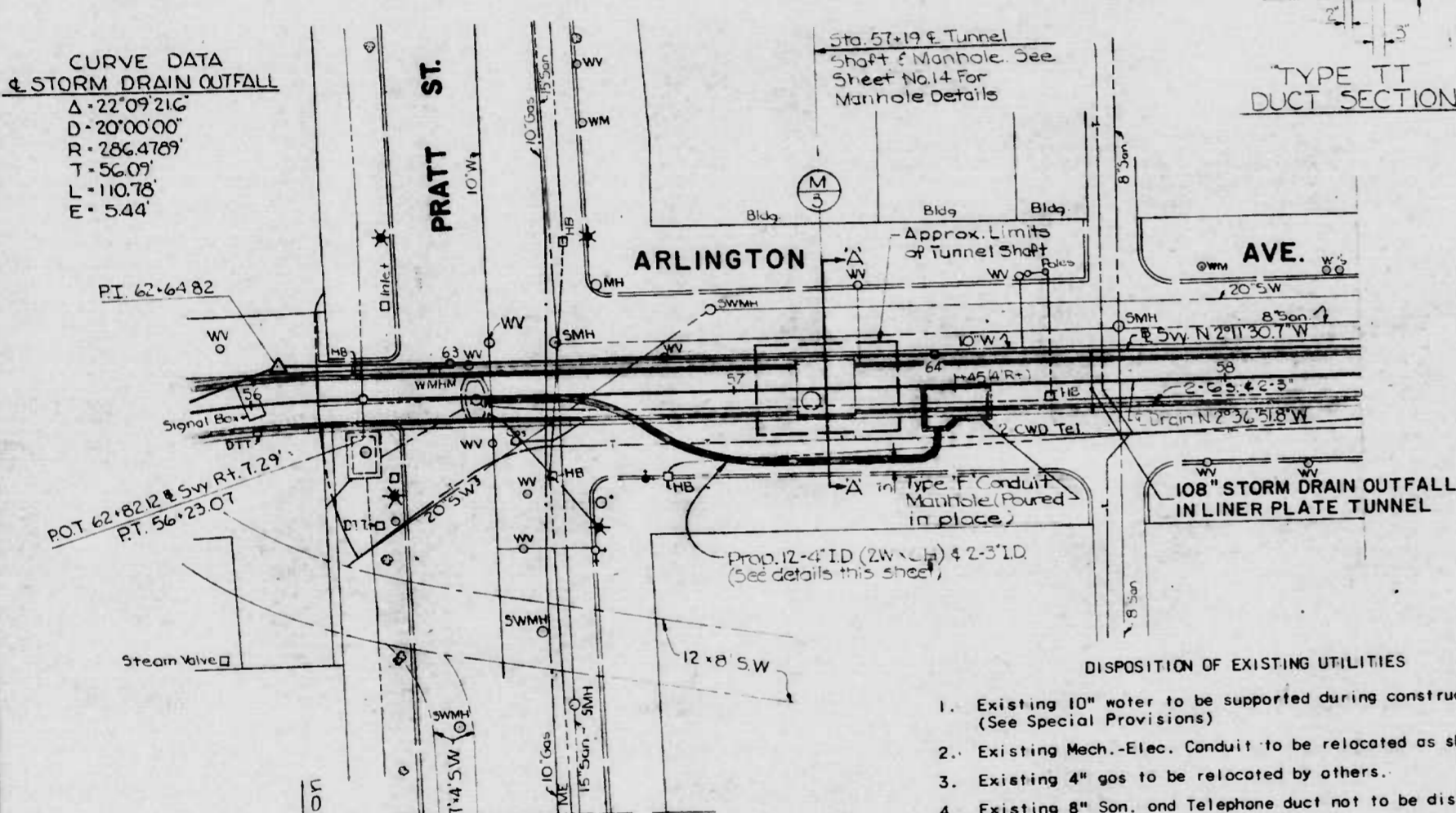


PROJECT NO.	DATE	DESIGNER	CHECKER	SHEET NO.
3	MD, I-170-8(10)	10	16	



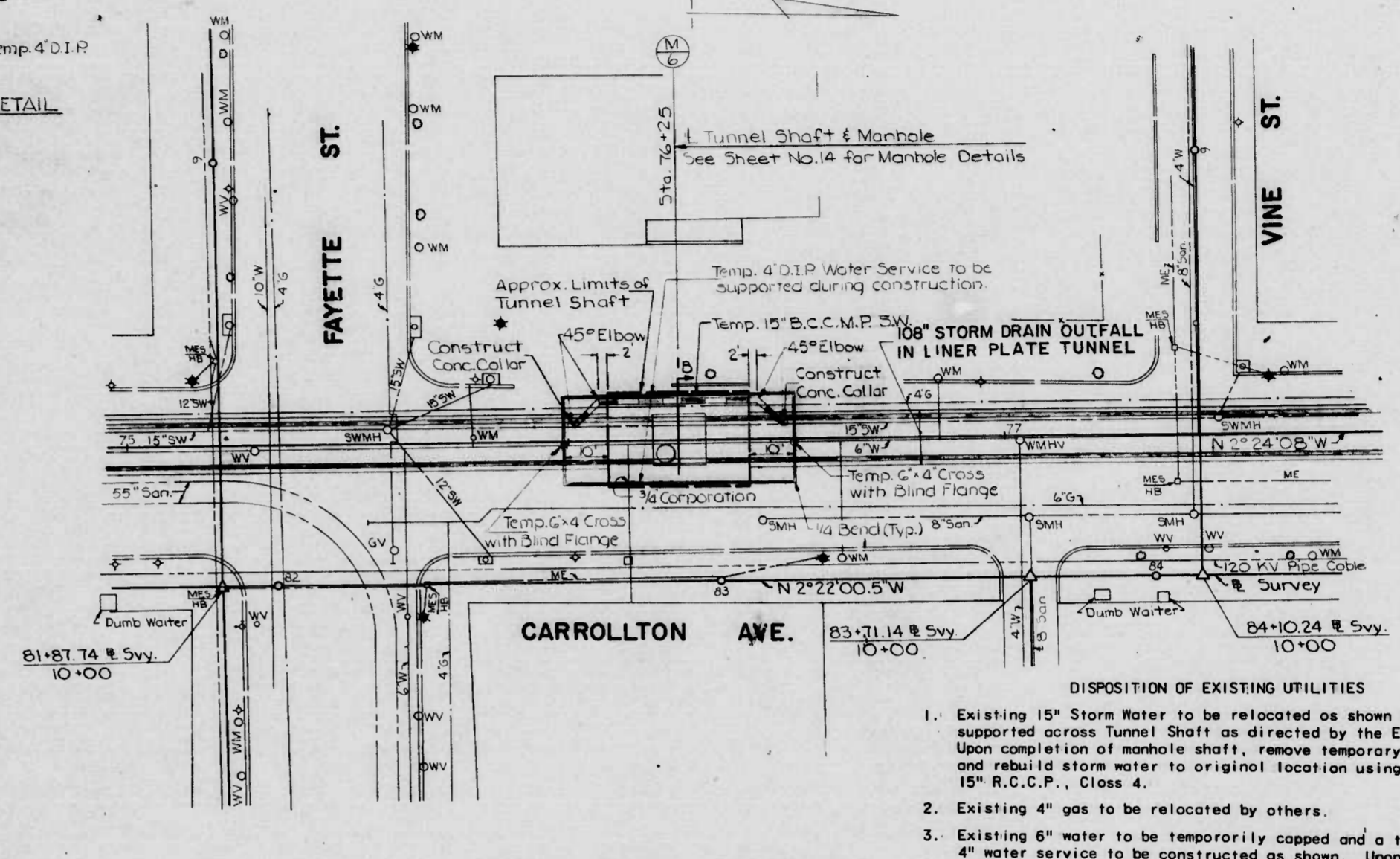
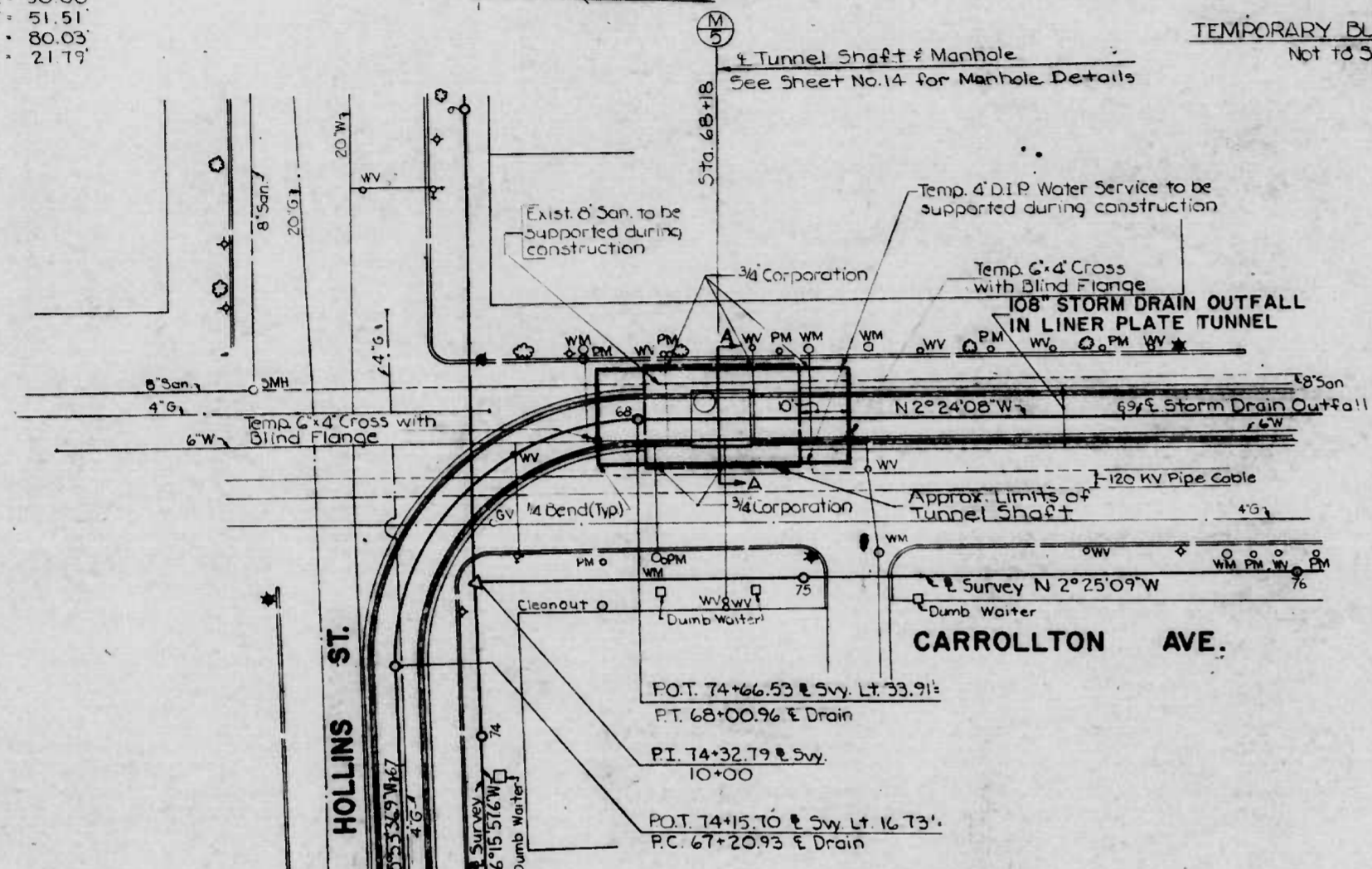
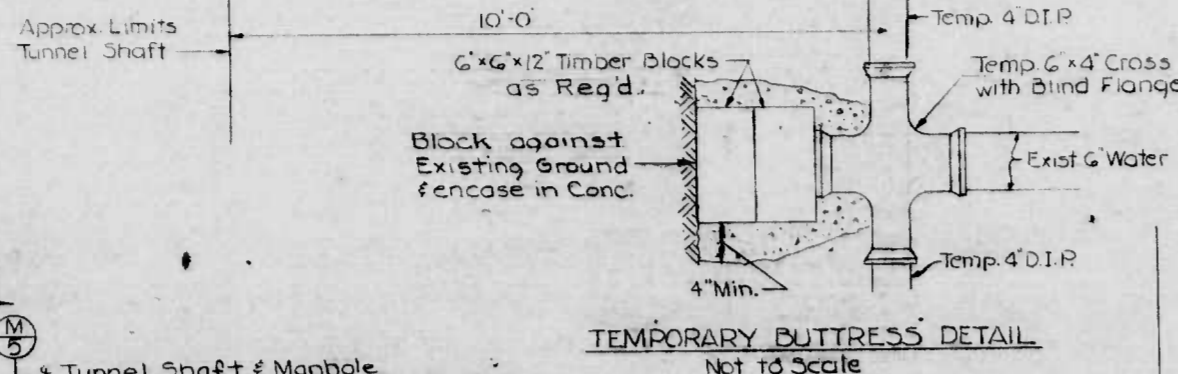
CURVE DATA & STORM DRAIN OUTFALL
 $\Delta = 22^{\circ}09'21''$
 $D = 20'00'00''$
 $R = 286.4769'$
 $T = 56.09'$
 $L = 110.76'$
 $E = 544'$



REVISIONS	CONSULTANT	CITY OF BALTIMORE DEPARTMENT OF PUBLIC WORKS	STATE HIGHWAY ADMINISTRATION OF MARYLAND INTERSTATE DIVISION FOR BALTIMORE CITY
ADDENDUM No. 1 May 7/1974	BALLARD-DIVER JOINT VENTURE CONSULTING ENGINEERS OWINGS MILLS, MARYLAND	INTERSTATE ROUTE 170 STORM DRAIN OUTFALL I-170 TO SOUTH OF CARROLL STREET TUNNEL SHAFT NO 3 & TUNNEL SHAFT NO 4 DETAILS SCALE: AS SHOWN	DATE: MARCH 1974 DRAWN BY R.A.W. TRACED BY R.A.W. DES. BY C.A.J. CHK. BY K.L.E. F.A.P. NO. I-170-8(10) S.H.A. NO. BC-259-9-815 BALTO. CITY NO. 2234
			SHEET NO. 10 of 17

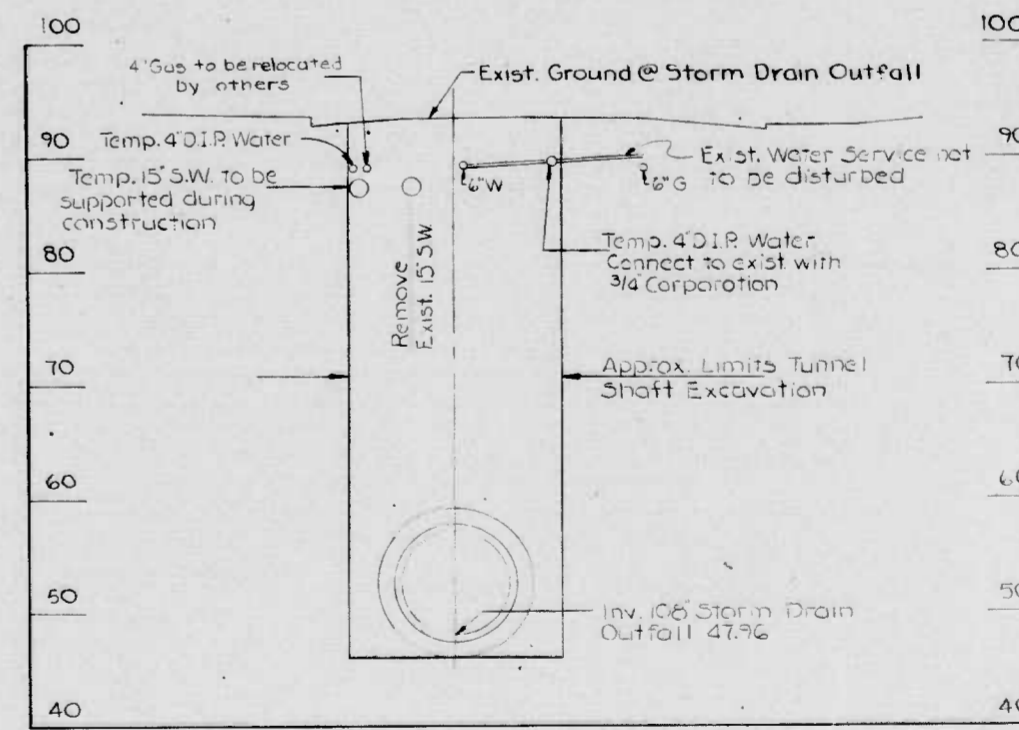
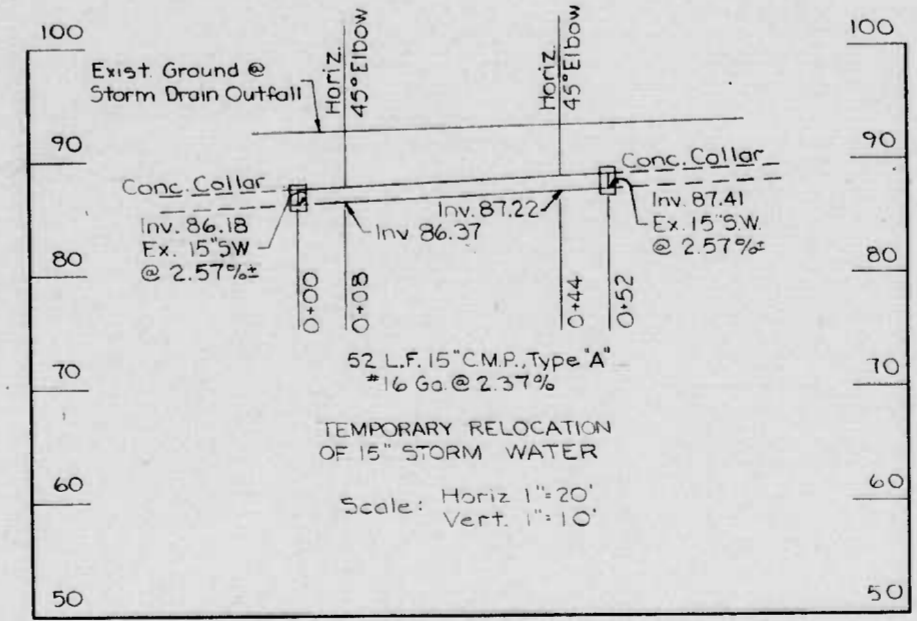
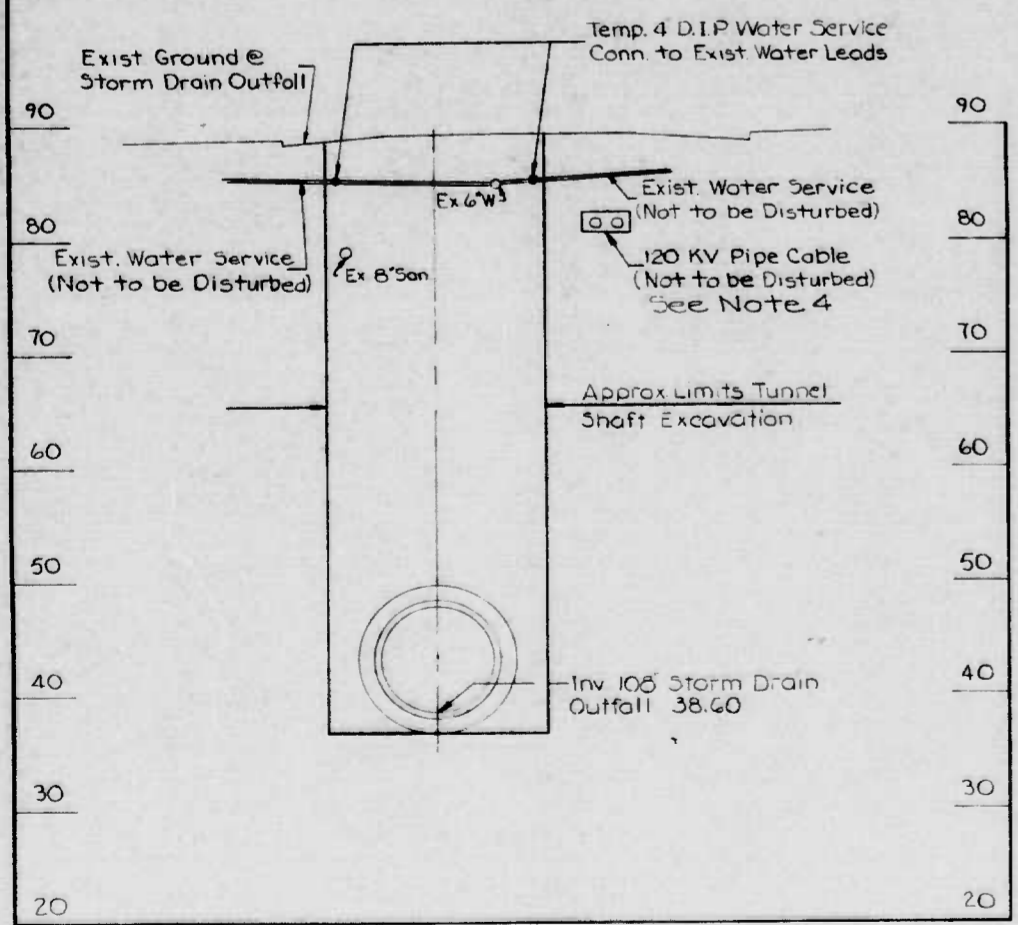
FEMA REGION	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD.	I-170-8(10)	11	17

CURVE DATA
 & STORM DRAIN OUTFALL
 Δ=91°42'15"
 R=50.00'
 T=51.51'
 L=80.03'
 E=21.17'



- DISPOSITION OF EXISTING UTILITIES
- Existing 15" Storm Water to be relocated as shown and supported across Tunnel Shaft as directed by the Engineer. Upon completion of manhole shaft, remove temporary drain and rebuild storm water to original location using 15" R.C.C.P., Class 4.
 - Existing 4" gas to be relocated by others.
 - Existing 6" water to be temporarily capped and a temporary 4" water service to be constructed as shown. Upon completion of manhole stack and backfilling, restore 6" water to original location using 6" Ductile Iron Pipe, and reconnect water services.

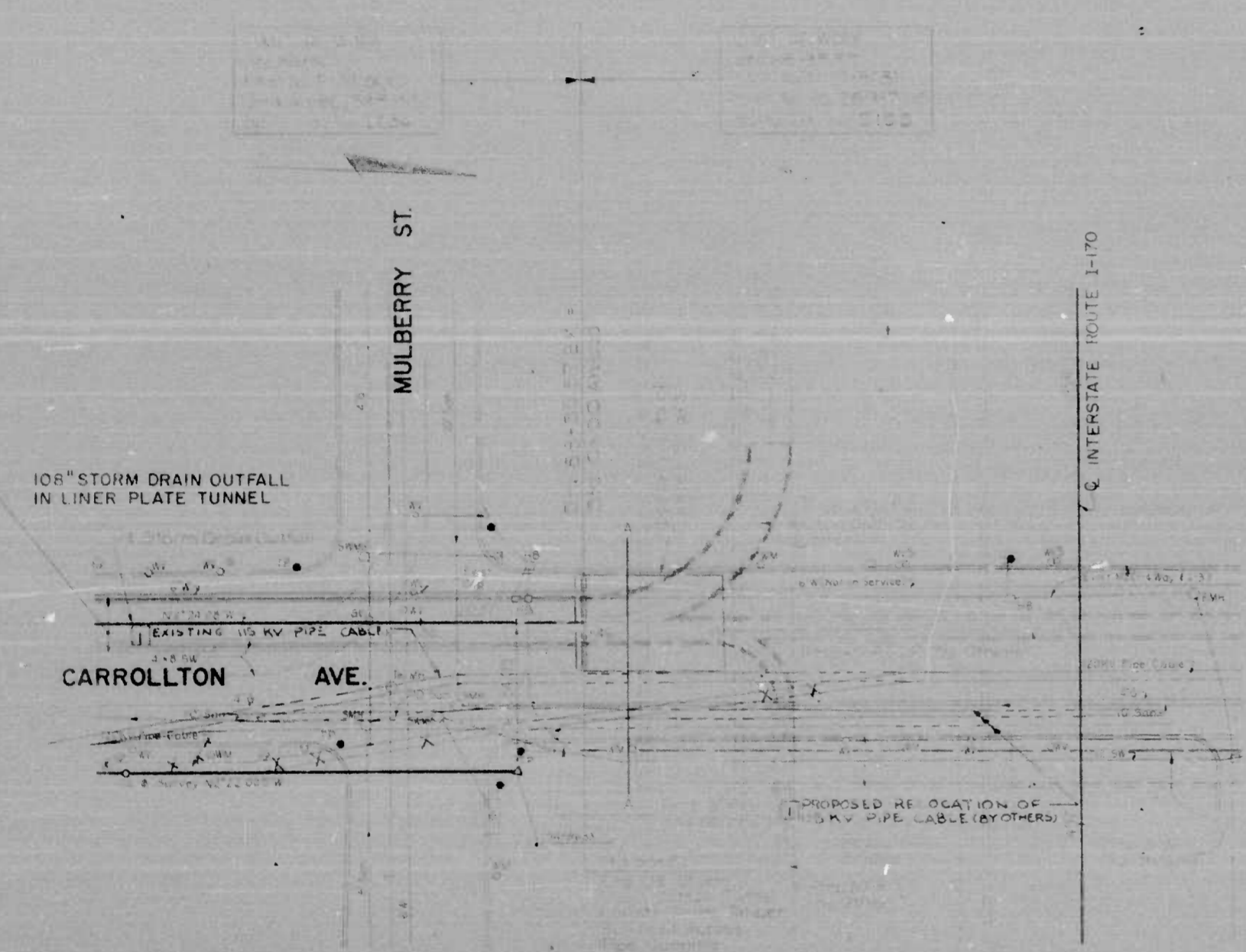
- DISPOSITION OF EXISTING UTILITIES
- Existing 6" water to be temporarily capped as shown. A temporary 4" water service to be constructed as shown to service those houses interrupted by capping 6" water. Upon completion of the manhole stack and backfilling, restore water main to original location using 6" Ductile Iron Pipe and reconnect water services.
 - The existing 8" Sanitary to be supported through the tunnel shaft or temporarily relocated around the shaft using 8" V.C.P. (Extra Strength). Upon completion of the manhole stack and backfilling, reconnect service connections in original location.
 - Existing gas line connections are to be relocated by others.
 - The Asphaltic Compound protective coating of the existing 120 KV Pipe Cable is not to be disturbed. The Baltimore Gas and Electric Company shall be notified immediately if any damage to the protective coating occurs.



SECTION A-A
 STA. 68+18 & STORM DRAIN OUTFALL
 SCALE 1"=10'

SECTION 9-B
 STA. 76+25 & STORM DRAIN OUTFALL
 SCALE 1"=10'

REVISIONS	CONSULTANT	CITY OF BALTIMORE DEPARTMENT OF PUBLIC WORKS	STATE HIGHWAY ADMINISTRATION OF MARYLAND INTERSTATE DIVISION FOR BALTIMORE CITY
	BALLARD-DIVER JOINT VENTURE CONSULTING ENGINEERS OWINGS MILLS, MARYLAND	INTERSTATE ROUTE 170 STORM DRAIN OUTFALL I-170 TO SOUTH OF CARROLL STREET TUNNEL SHAFT NO 5 & TUNNEL SHAFT NO 6 DETAILS SCALE AS SHOWN	DATE: MARCH 1974
		DRAWN BY: I.R.K. TRACED BY: I.R.K.	DES. BY: C.A.J. CHK. BY: K.L.E.
		F.A.P. NO. I-170-8(10) S.H.A. NO. BC-259-9-815 BALTO. CITY NO. 2234	SHEET NO. 11 of 17

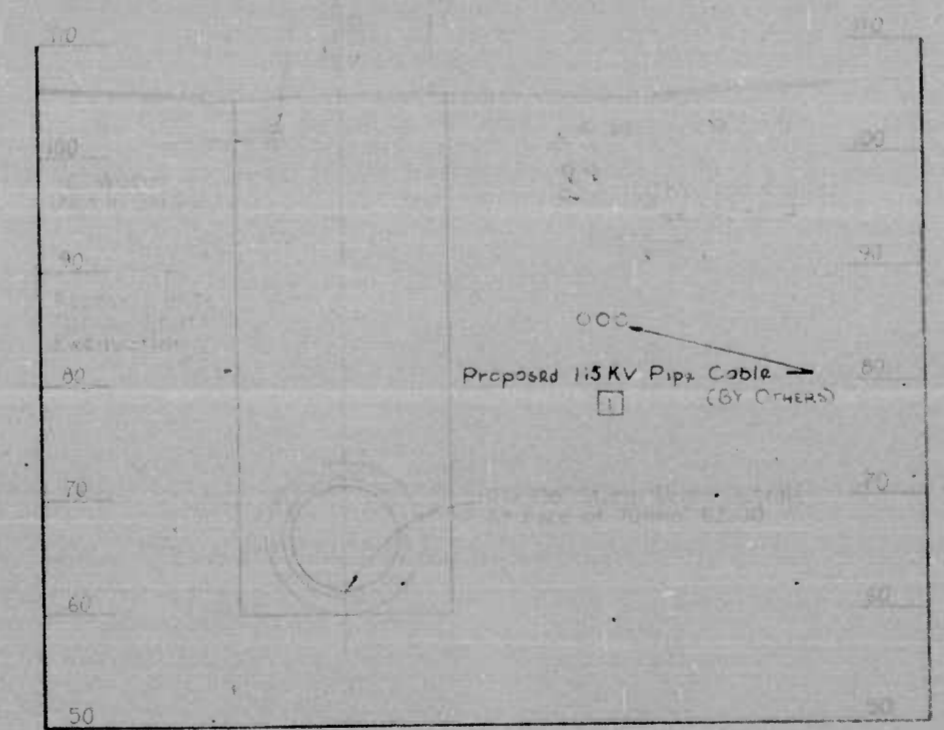


NOTE: The I-170 grading, retaining wall and storm drain junction chamber construction is to be performed by others under the I-170 Roadway Contract. Excavation and backfill of Tunnel Shaft No. 7 is to be coordinated with the Contractor for I-170-8100 with the concurrence of the Engineer.

PLAN - TUNNEL SHAFT NO. 7
SCALE 1"=20'

DISPOSITION OF EXISTING UTILITIES

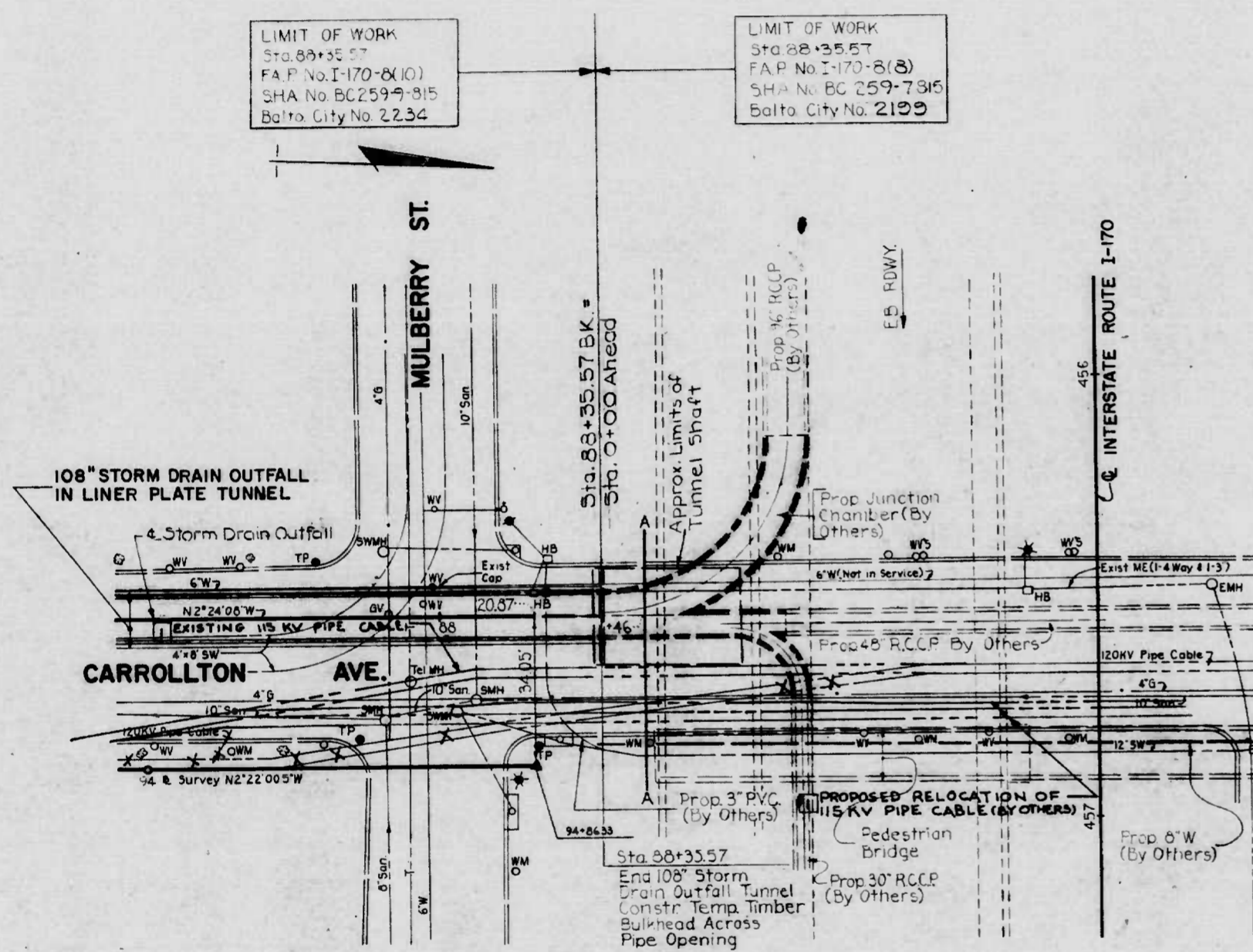
1. The existing 6" water in the tunnel shaft limits is not in service and shall be removed within the limits of the tunnel shaft excavation.
2. The existing W-E Conduit (1.4" and 1.3") is to be abandoned after new conduits are constructed by others.
3. All other existing utilities shall be protected and maintained in service during the tunnel construction.
4. The Asphaltic compound protective coating of the existing 120 KV Pipe Cable is not to be disturbed. The Baltimore Gas and Electric Company shall be notified immediately if any damage to the protective coating occurs.



SECTION A-A
STA. 88+46 ± & STORM DRAIN OUTFALL
SCALE 1"=10'

REVISIONS 1 REVISED 7/8/74	CONSULTANT BALLARD-DIVER JOINT VENTURE CONSULTING ENGINEERS OWINGS MILLS, MARYLAND	CITY OF BALTIMORE DEPARTMENT OF PUBLIC WORKS		STATE HIGHWAY ADMINISTRATION OF MARYLAND INTERSTATE DIVISION FOR BALTIMORE CITY	
		INTERSTATE ROUTE 170 STORM DRAIN OUTFALL I-170 TO SOUTH OF CARROLLTON STREET TUNNEL SHAFT NO. 7 DETAILS		DRAWN BY I.R.K. CHECKED BY J.R.K.	DES. BY C.A.U. CDS BY B.L.E.
SCALE AS SHOWN		DATE MARCH 1974		PLAN NO. I-170-8100 SHAFT NO. BC-250-3-815	SHEET NO. 12 OF 17

FEMA REGION	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD.	I-170-8(10)	12	17

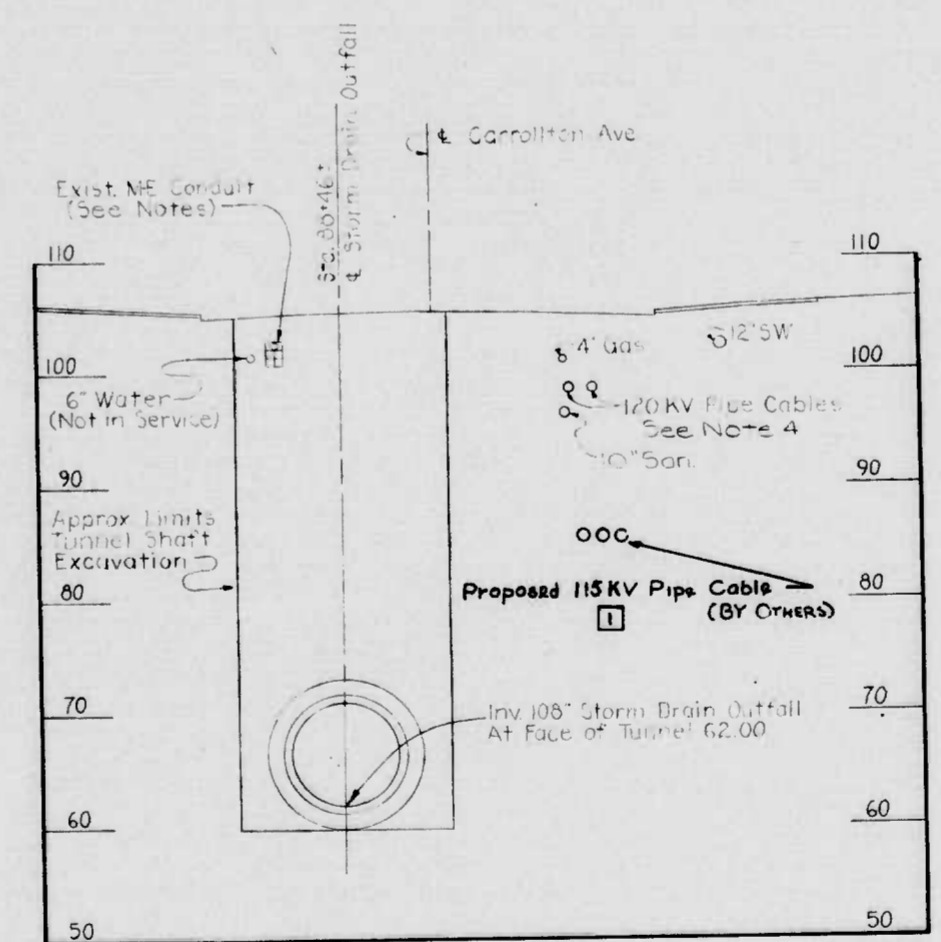


PLAN - TUNNEL SHAFT NO. 7
SCALE 1" = 20'

DISPOSITION OF EXISTING UTILITIES

1. The existing 6" water in the tunnel shaft limits is not in service and shall be removed within the limits of the tunnel shaft excavation.
2. The existing M-E Conduit (1-4 way and 1-3") is to be abandoned after new conduits are constructed by others.
3. All other existing utilities shall be protected and maintained in service during the tunnel construction.
4. The Asphaltic Compound protective coating of the existing 120 KV Pipe Cable is not to be disturbed. The Baltimore Gas and Electric Company shall be notified immediately if any damage to the protective coating occurs.

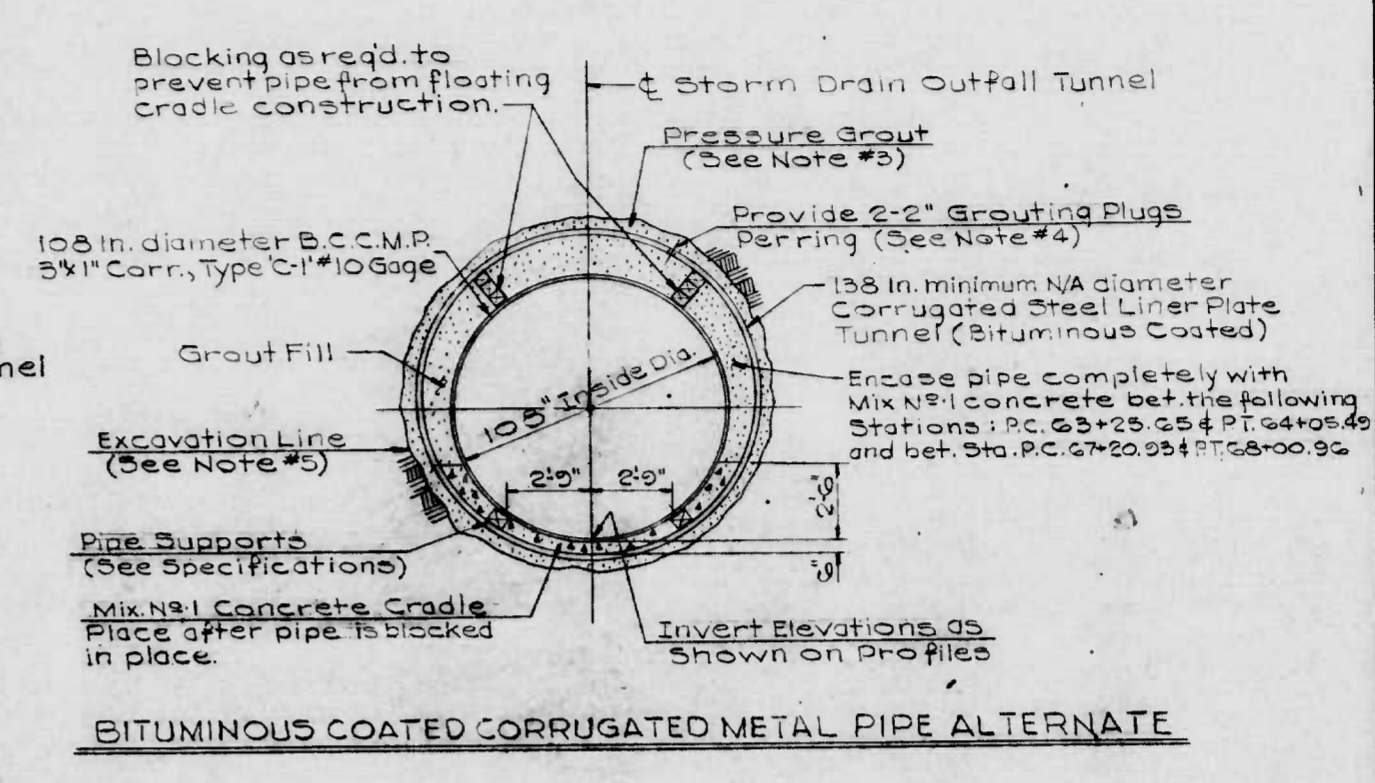
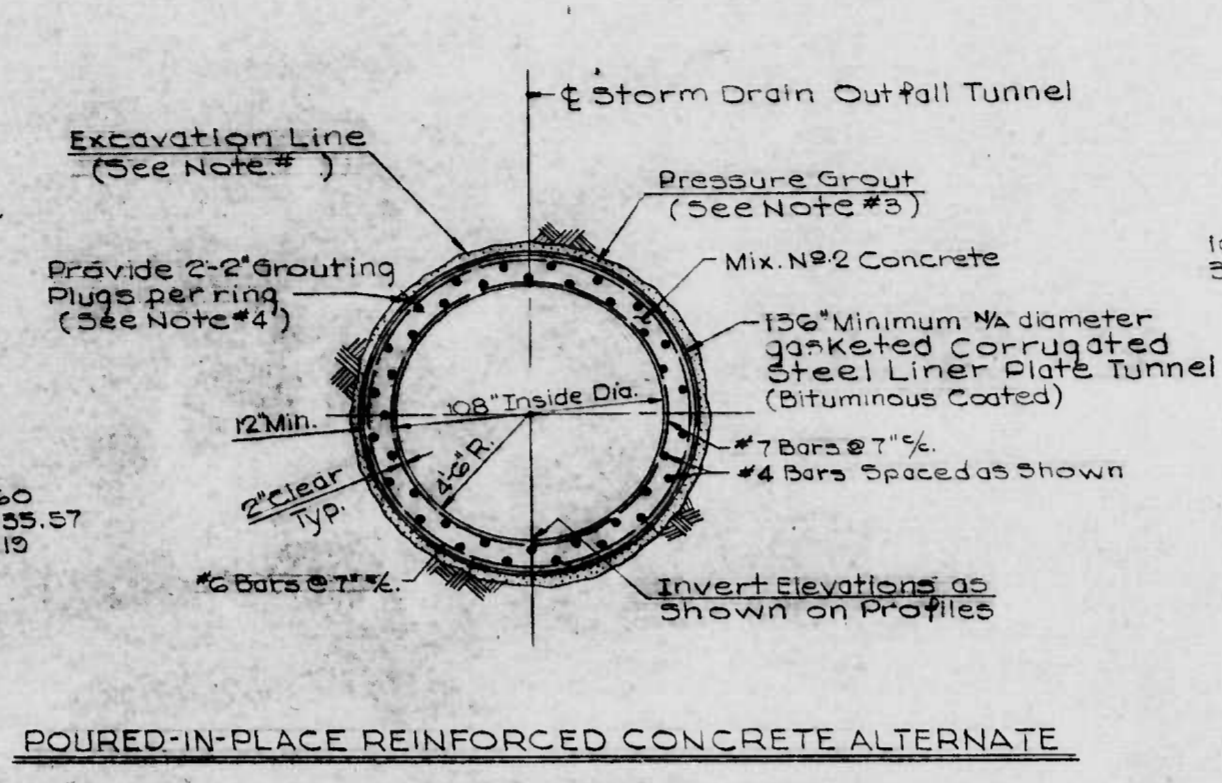
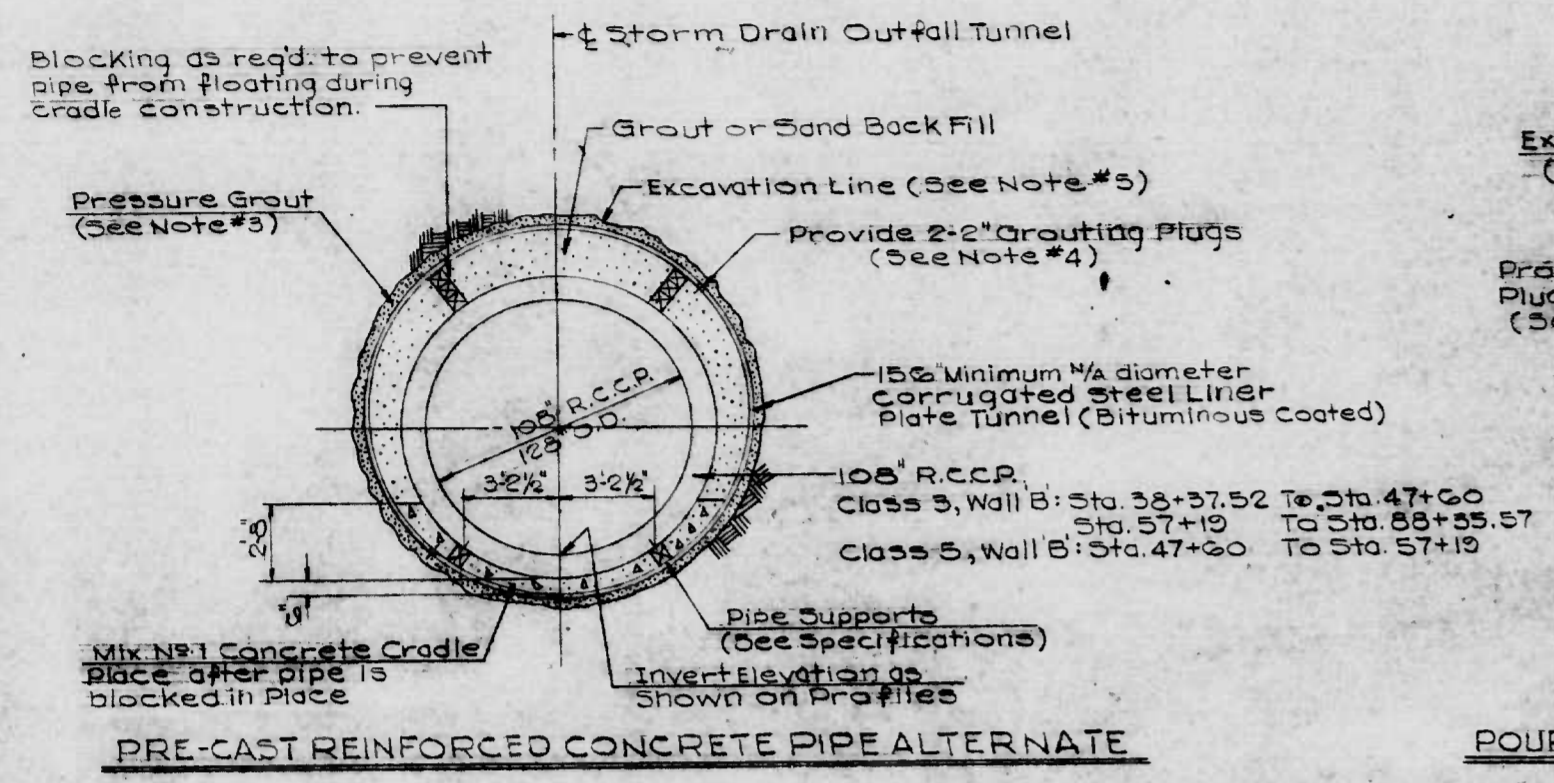
NOTE: The I-170 grading, retaining wall and storm drain junction chamber construction is to be performed by others under the I-170 Roadway Contract. Excavation and backfill of Tunnel Shaft No. 7 is to be coordinated with the Contractor for I-170-8(8) with the concurrence of the Engineer.



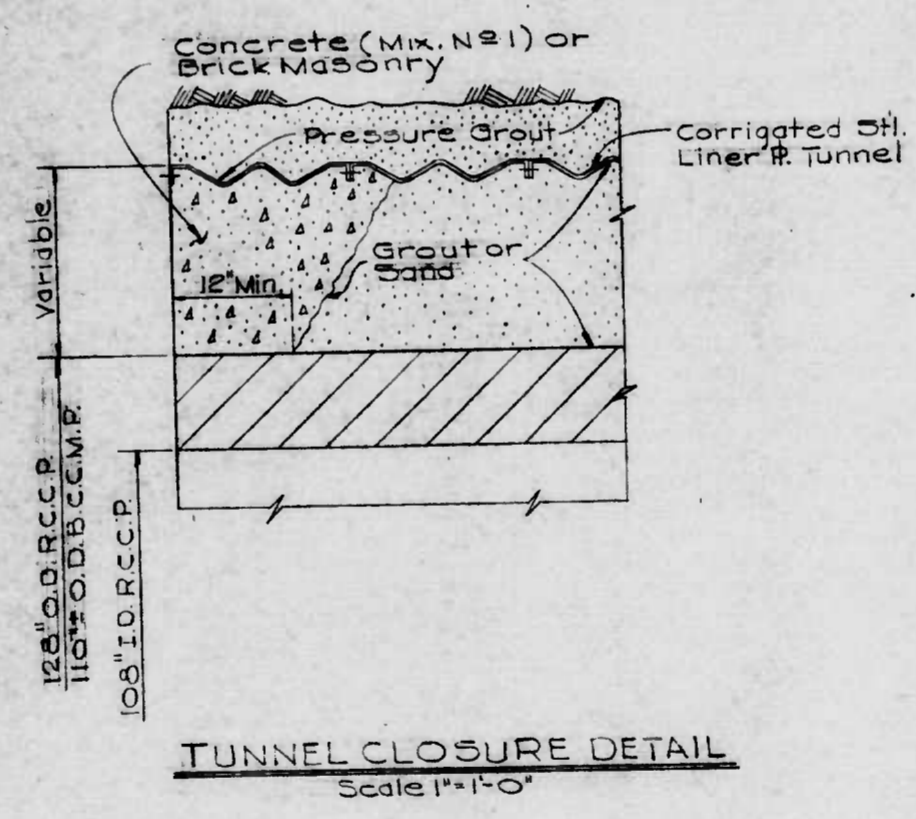
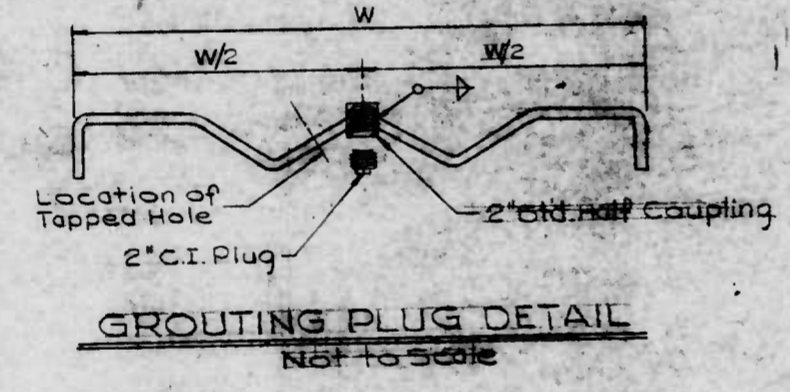
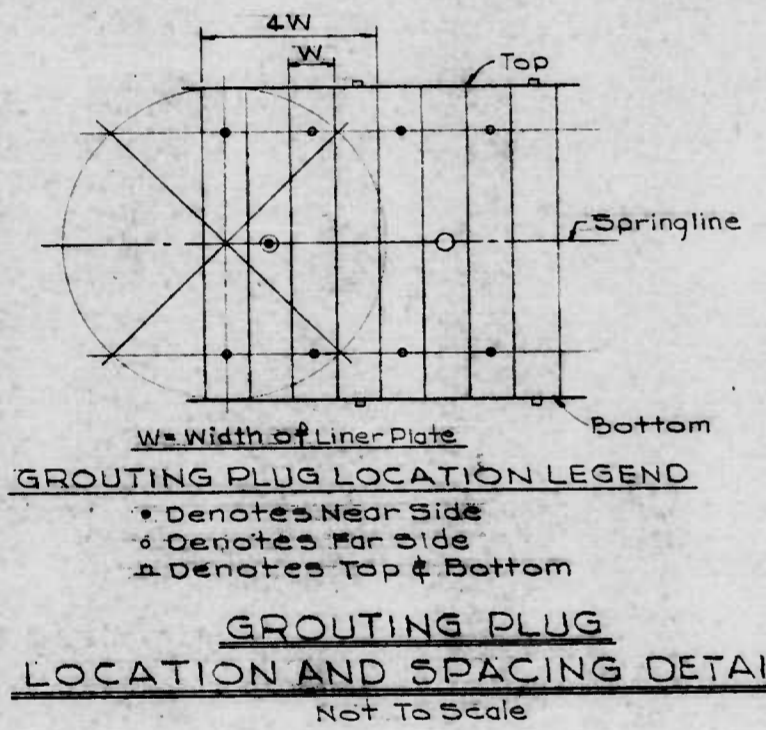
SECTION A-A
STA. 88+46± & STORM DRAIN OUTFALL
SCALE 1" = 10'

REVISIONS	CONSULTANT	CITY OF BALTIMORE DEPARTMENT OF PUBLIC WORKS	STATE HIGHWAY ADMINISTRATION OF MARYLAND INTERSTATE DIVISION FOR BALTIMORE CITY				
<table border="1"> <tr> <td>REVISIONS</td> <td>DATE</td> </tr> <tr> <td>1. REVISED 7/8/74</td> <td></td> </tr> </table>	REVISIONS	DATE	1. REVISED 7/8/74		BALLARD-DIVER JOINT VENTURE CONSULTING ENGINEERS OWINGS MILLS, MARYLAND	INTERSTATE ROUTE 170 STORM DRAIN OUTFALL I-170 TO SOUTH OF CARROLL STREET TUNNEL SHAFT NO. 7 DETAILS SCALE: AS SHOWN	DRAWN BY: I.R.K. TRACED BY: I.R.K. F.A.P. NO. I-170-8(10) S.H.A. NO. BC-259-9-915 BALTO. CITY NO. 2234 DES. BY: C.A.J. CHK. BY: K.L.E. SHEET NO. 12A of 17
REVISIONS	DATE						
1. REVISED 7/8/74							
		DATE: MARCH 1974					

FHWA REGION	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD	I-170-8(10)	13	17

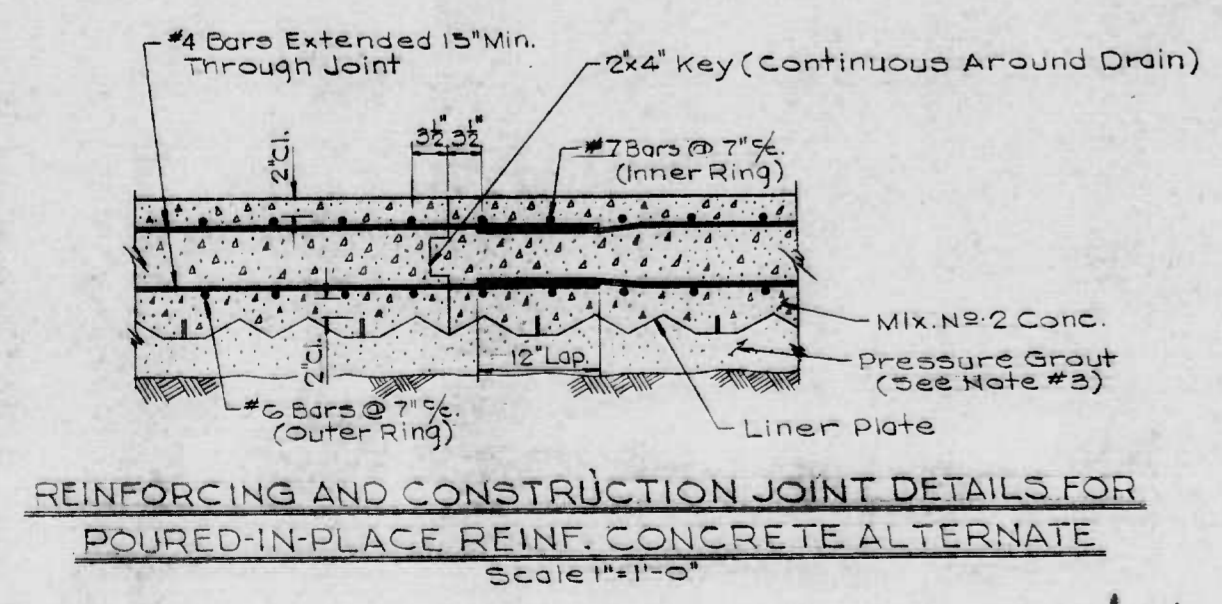


TYPICAL TUNNEL SECTIONS
Scale 1/4"=1'-0"



GENERAL NOTES

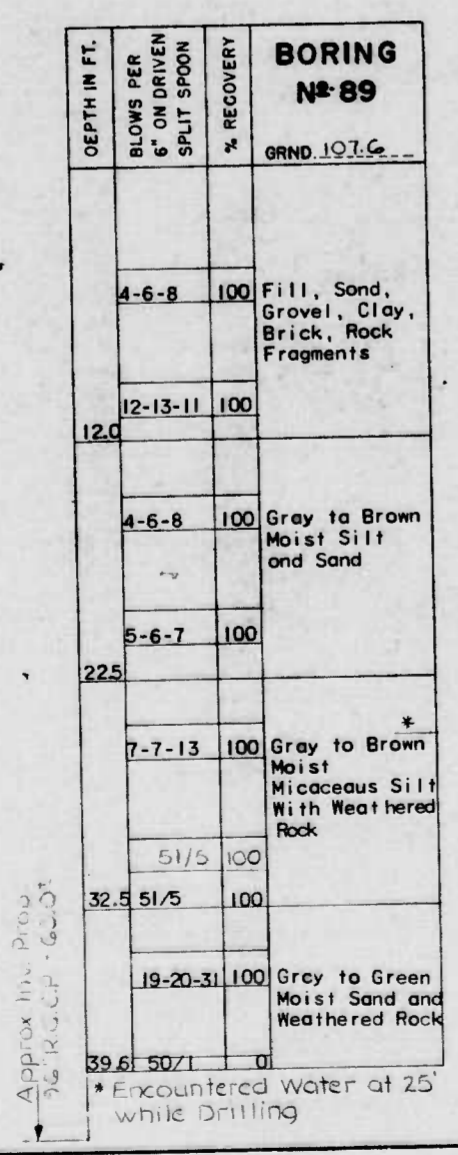
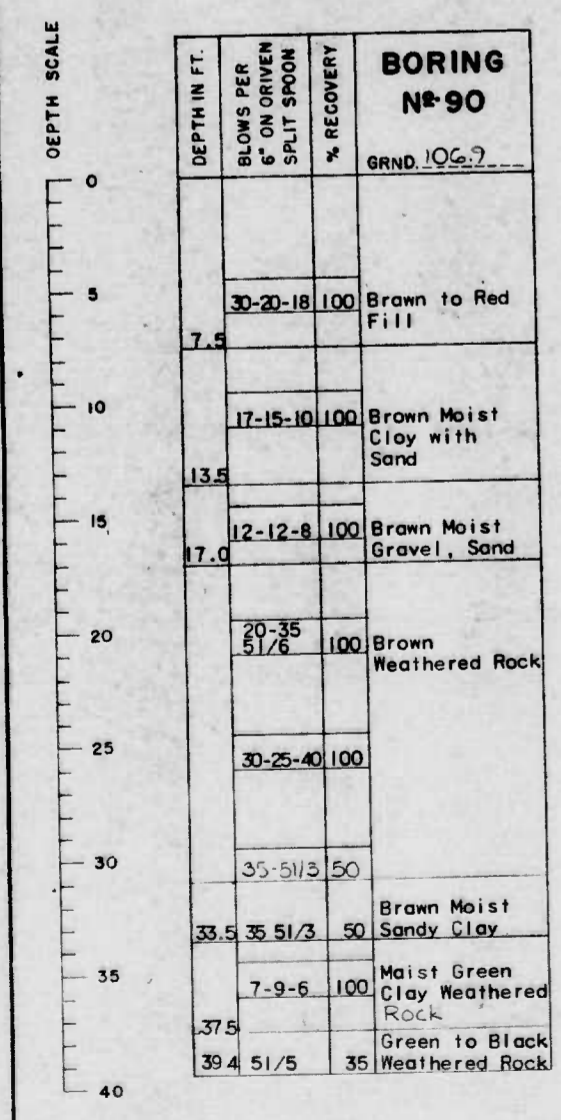
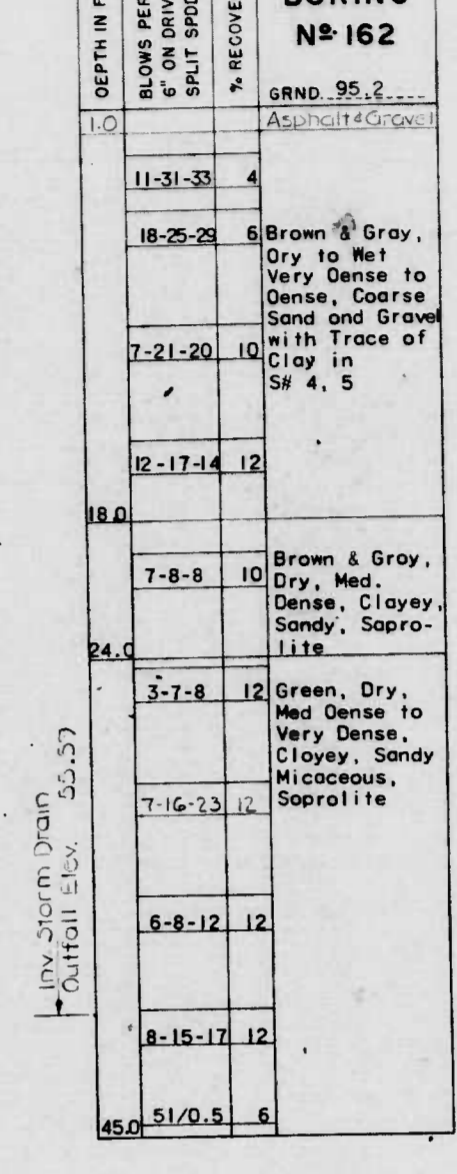
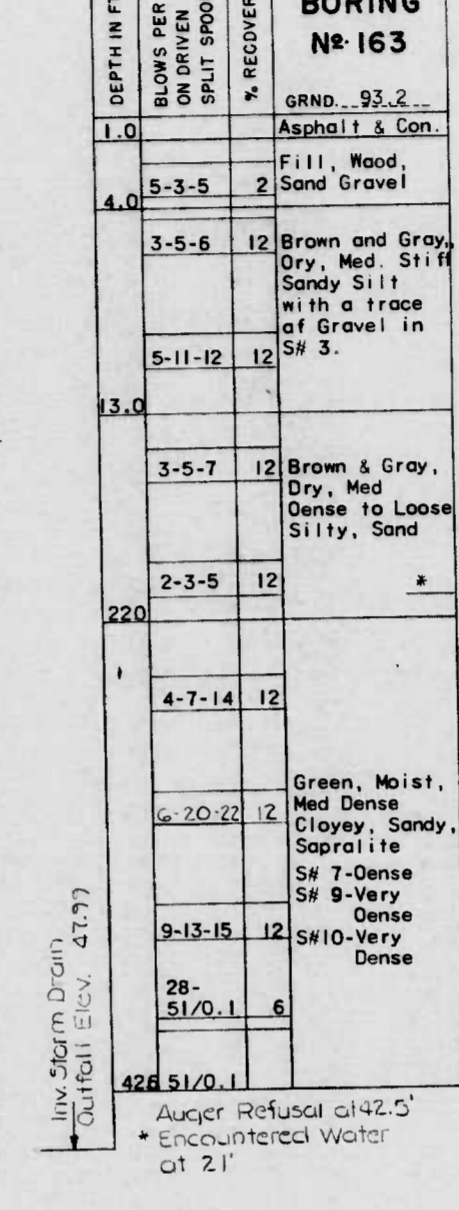
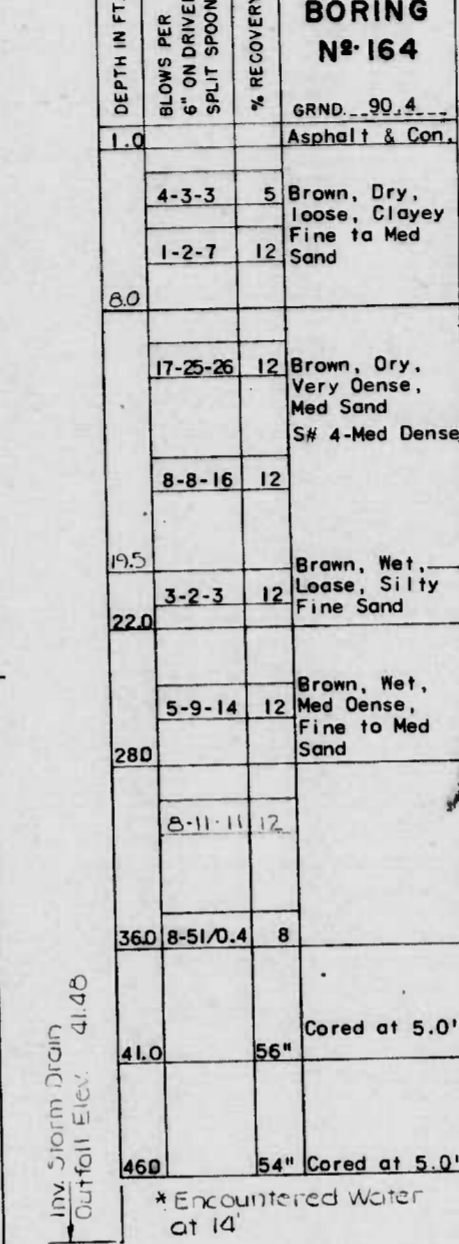
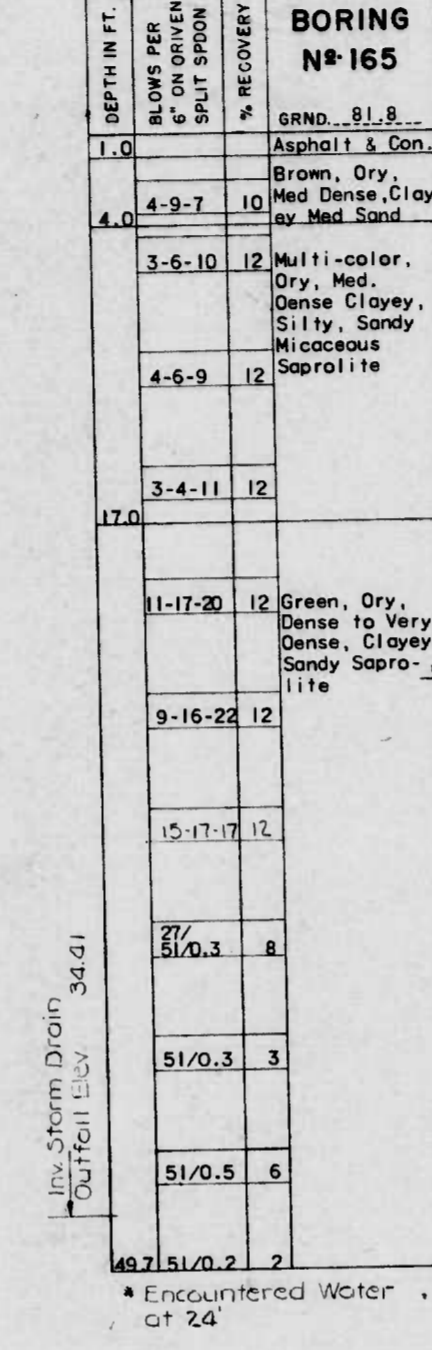
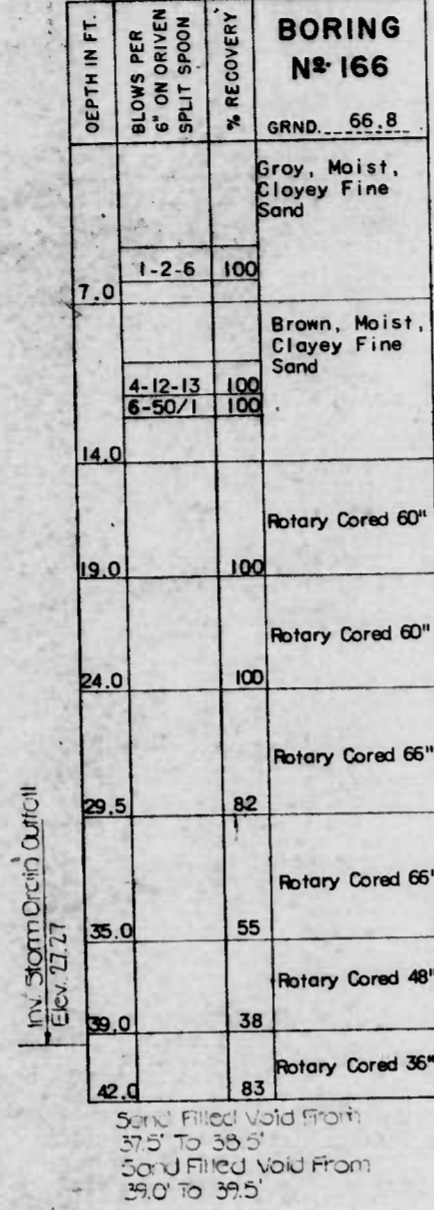
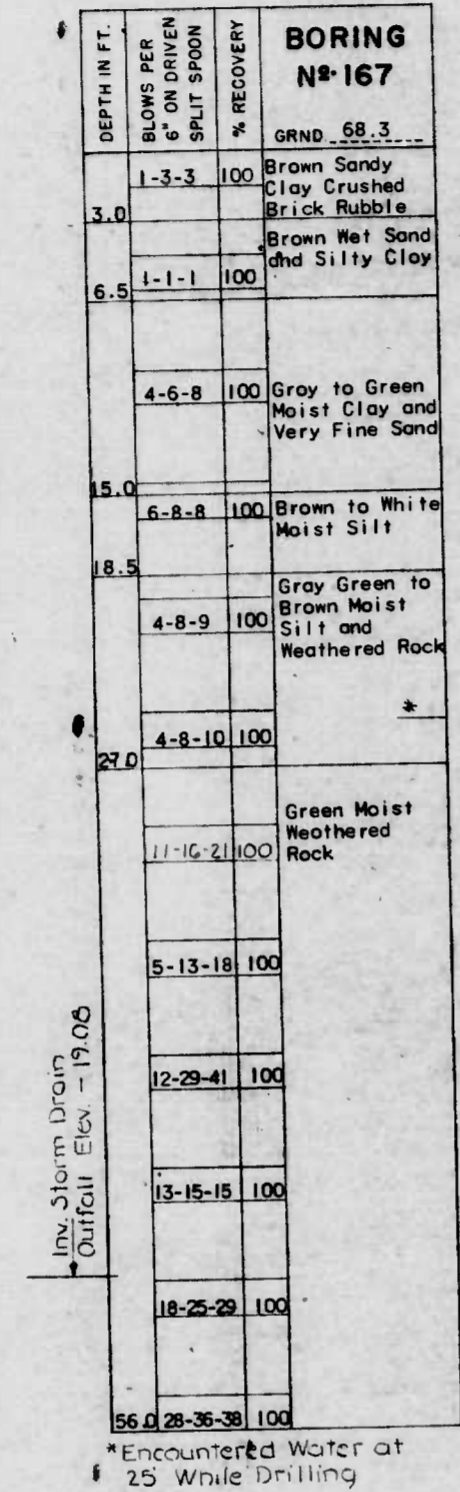
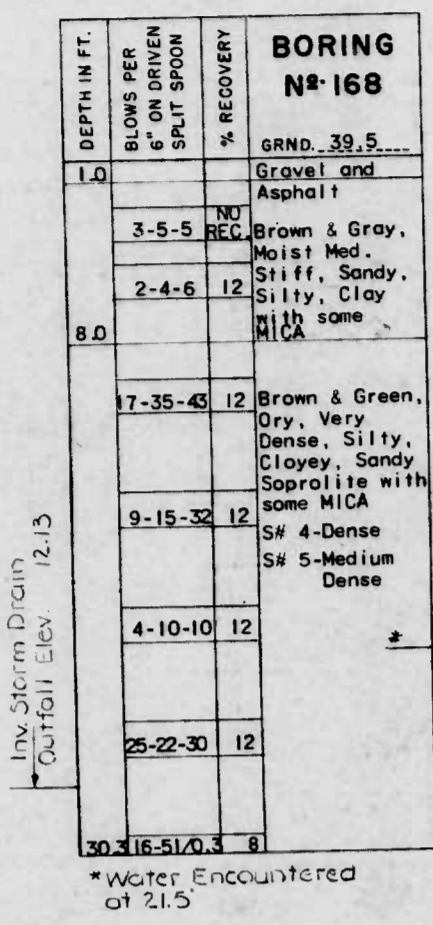
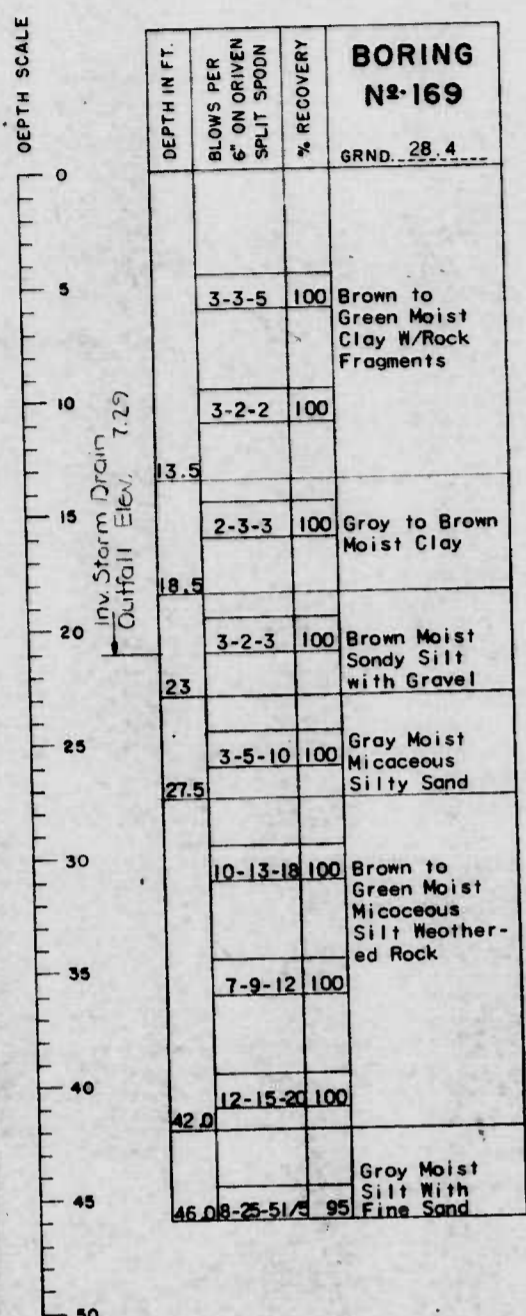
1. SPECIFICATIONS:
Design: A.A.S.H.O. Standard Specifications for Highway Bridges Dated 1973
Construction: Maryland S.H.A. Specifications for Materials Highways, Bridges and Incidental Structures Dated 1968 and Errata and Special Provisions
2. The Minimum thickness of the Liner Plates, except between Sta. 47+60 and Sta. 57+19, shall be as follows:
- | Natural Axis (N/A) Diameter | 2 Flange Type | 4 Flange Type |
|-----------------------------|---------------|---------------|
| 15 1/2 in. | 0.154 in. | 0.232 in. |
| 13 1/2 in. | 0.135 in. | 0.172 in. |
| 13 1/8 in. | 0.135 in. | 0.172 in. |
- Between Sta. 47+60 and Sta. 57+19, under The Baltimore and Ohio Railroad Company's Mount Clare Yards, the tunnel liner plates shall have a minimum section Modulus of 0.1035 in.³
3. The annular space between the liner plate tunnel and earth is to be kept to an absolute minimum and grouted in accordance with the Special Provisions.
4. Two 2 inch Grouting Plugs are to be provided for each ring - Staggered @ 45° from the preceding ring. See Grouting Plug Location and Spacing Details.
5. The excavation line shown in the details does not represent the actual excavation line nor is the space between this line and the liner plates to be constructed as indicative of the amount of grout required.
6. The Contractor shall have the option of constructing the storm drain outfall using one of the three alternates detailed herein. The alternate selected by the contractor in his bid shall be used for the entire length of the project except around the fifty (50) foot radius curves shown on the plans (curves numbered 3 and 4) where any one of the three alternates will be considered.



REVISIONS	CONSULTANT	CITY OF BALTIMORE DEPARTMENT OF PUBLIC WORKS	STATE HIGHWAY ADMINISTRATION OF MARYLAND INTERSTATE DIVISION FOR BALTIMORE CITY
	BALLARD-DIVER JOINT VENTURE CONSULTING ENGINEERS OWINGS MILLS, MARYLAND	INTERSTATE ROUTE 170 STORM DRAIN OUTFALL I-170 TO SOUTH OF GARROLL STREET TYPICAL TUNNEL DETAILS	DRAWN BY K.L.E. TRACED BY D.M.S. F.A.P. NO. I-170-8(10) S.H.A. NO. BC-259-9-815 BALTO. CITY NO. 2234
		SCALE: AS SHOWN	DATE: MARCH 1974
			DES. BY K.L.E. CHK. BY M.K.K. SHEET NO. 13 OF 17

BORINGS

FHWA REGION	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD.	I-170-8-10	15	17



NOTES

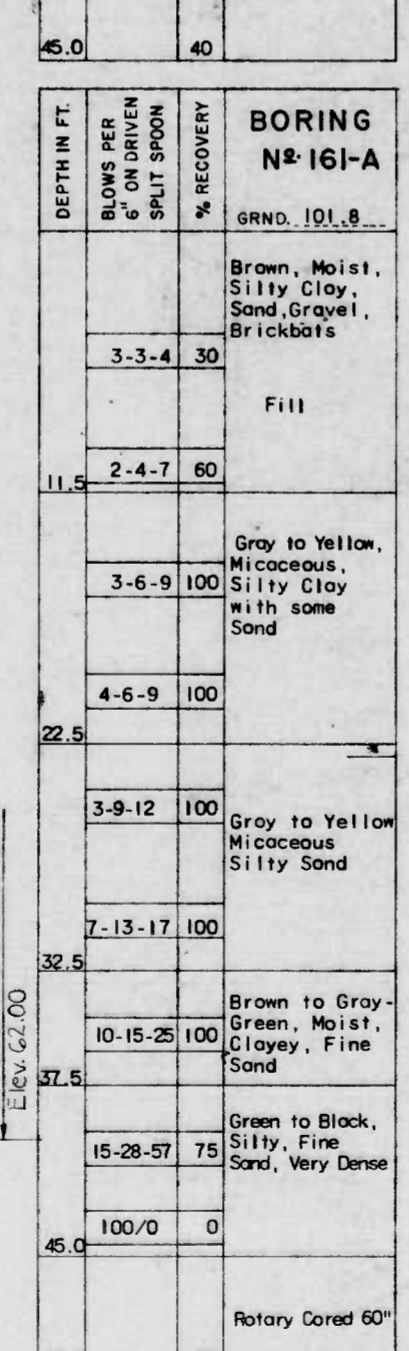
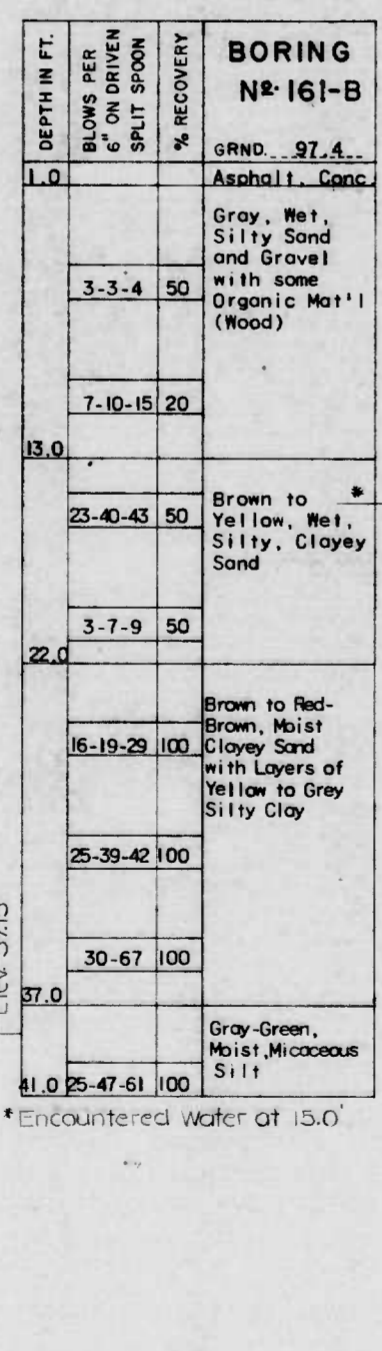
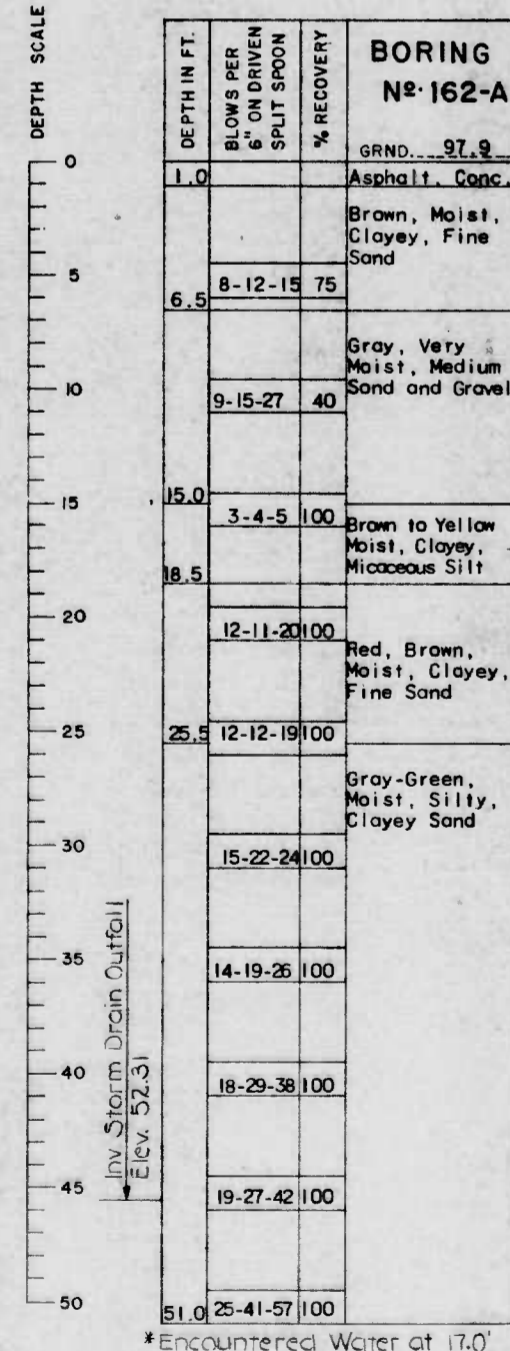
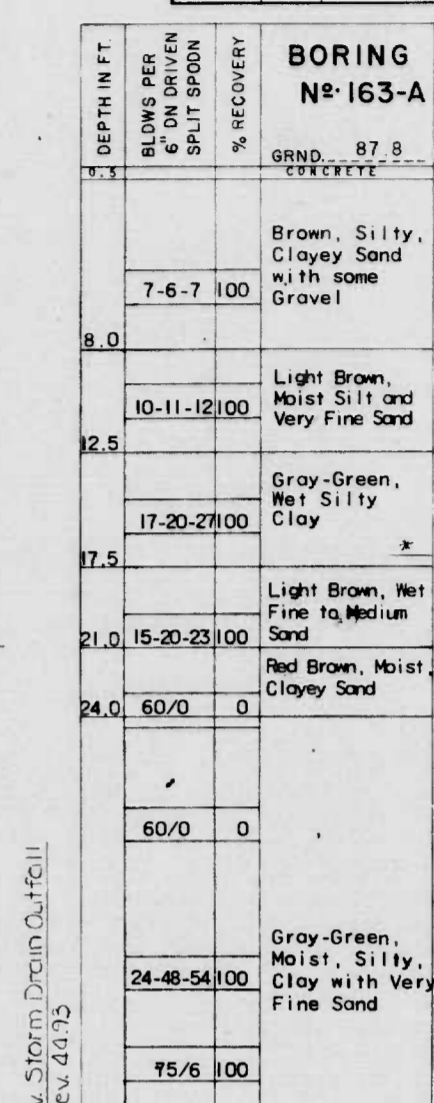
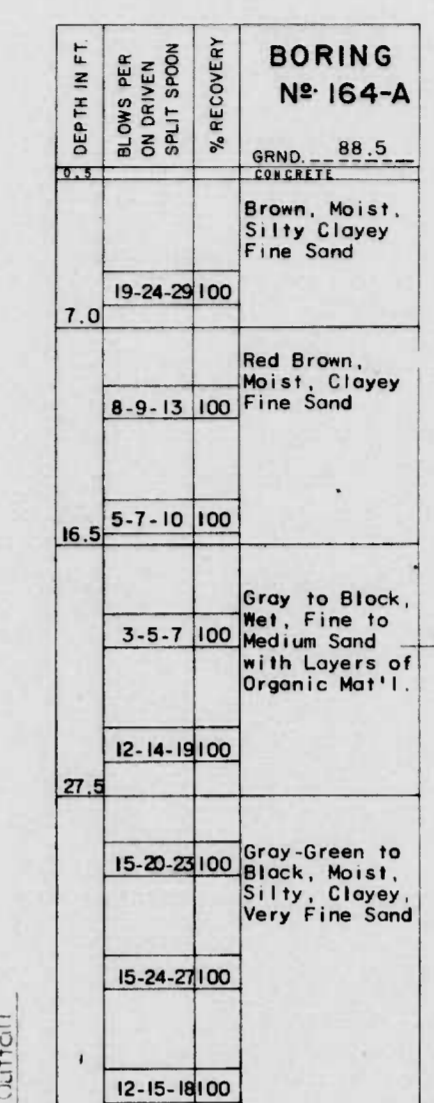
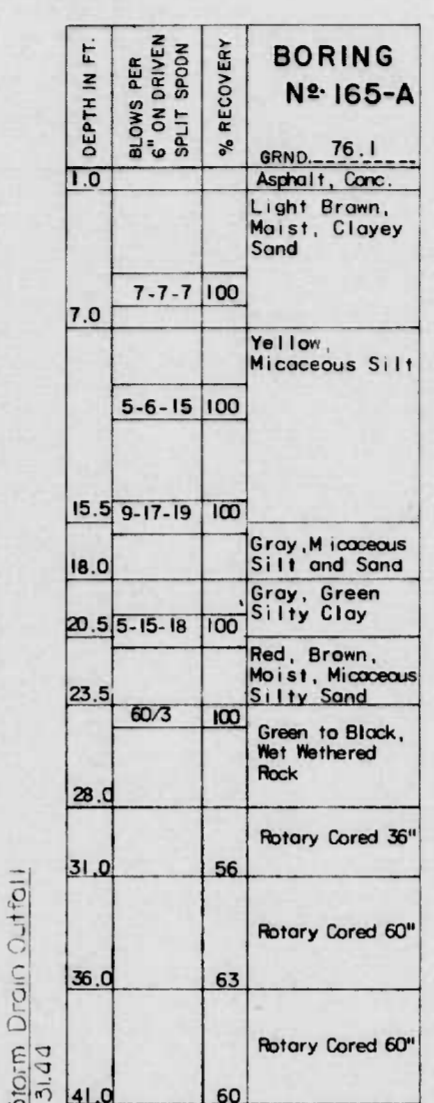
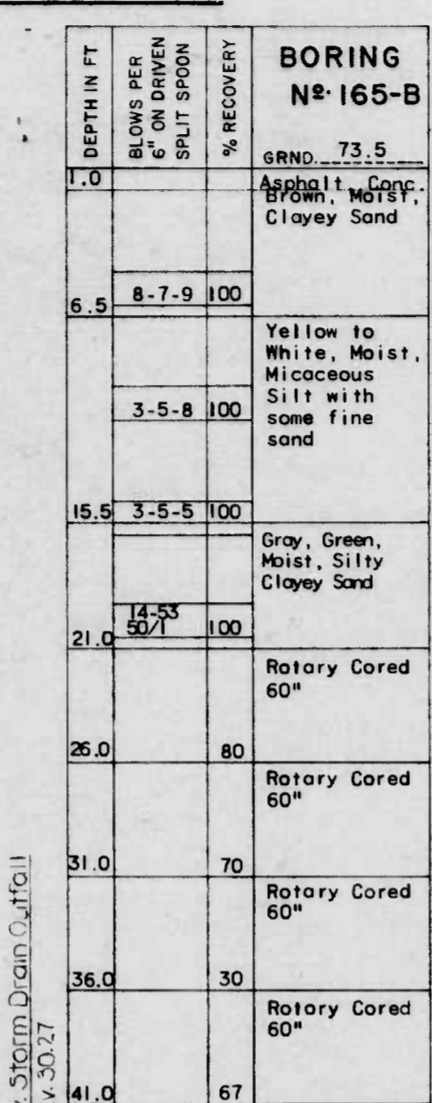
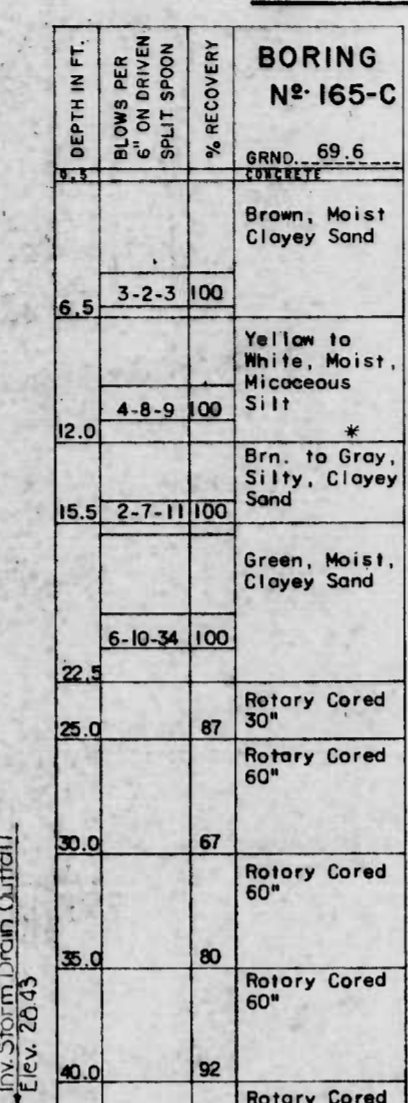
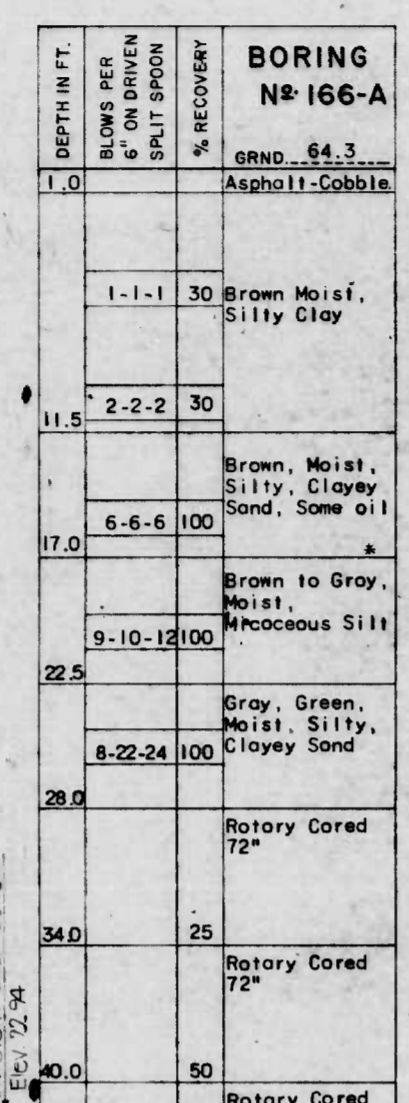
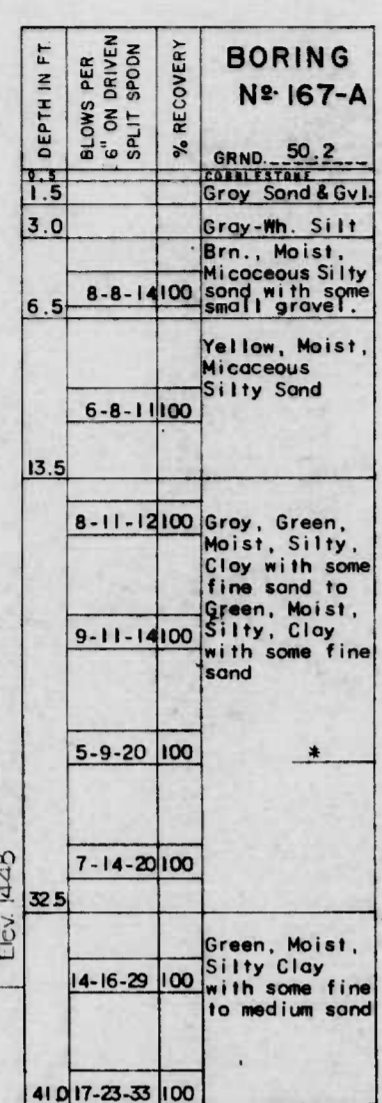
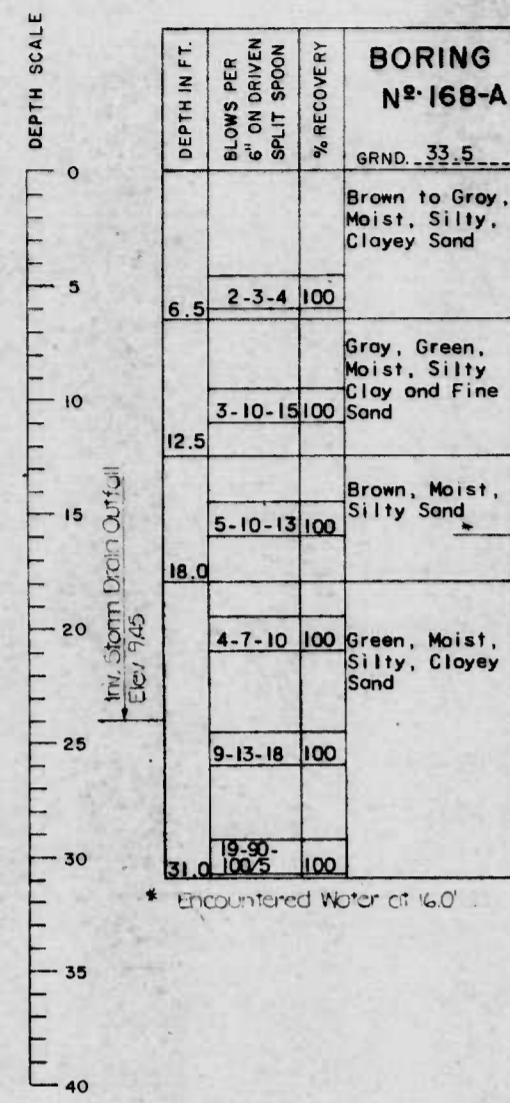
- Boring Method - Hollow Stem Auger
- Standard Penetration Test - Driving 2" O.D. Sampler With 140 Lb. Hammer Falling 30", Blow Count Made at 6" Intervals
- Soil Classifications Shown Are Visual
- For Boring Locations, See Plan Sheets

NOTE
SEE SHEET NO. 16 FOR ADDITIONAL BORINGS.

REVISIONS	CONSULTANT	CITY OF BALTIMORE DEPARTMENT OF PUBLIC WORKS	STATE HIGHWAY ADMINISTRATION OF MARYLAND INTERSTATE DIVISION FOR BALTIMORE CITY
	BALLARD DIVER JOINT VENTURE CONSULTING ENGINEERS OWINGS MILLS, MARYLAND	INTERSTATE ROUTE 170 STORM DRAIN OUTFALL I-170 TO SOUTH OF CARROLL STREET BORINGS	DRAWN BY D.M.S. DES. BY TRACED BY CHK. BY
		SCALE: 1"=5'-0" VERT.	DATE: MARCH 1974
			SHEET NO. 15 OF 17

BORINGS

FED. REGION	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD.	I-170-8-(10)	16	17



NOTE
SEE SHEET NO. 15 FOR ADDITIONAL BORINGS

REVISIONS	CONSULTANT	CITY OF BALTIMORE DEPARTMENT OF PUBLIC WORKS & STATE HIGHWAY ADMINISTRATION OF MARYLAND INTERSTATE DIVISION FOR BALTIMORE CITY	
	BALLARD DIVER JOINT VENTURE CONSULTING ENGINEERS OWINGS MILLS, MARYLAND	INTERSTATE ROUTE 170 STORM DRAIN OUTFALL I-170 TO SOUTH OF CARROLL STREET BORINGS	DRAWN BY O.M.S. TRACED BY F.A.P. NO. I-170-B(10) S.H.A. NO. BC-259-9-B15 BALTO. CITY NO. 2234
		DES. BY	CHECK BY
			SHEET NO. 16 OF 17
		SCALE: 1"=5'-0" VERT.	DATE: MARCH 1974

SUMMARY OF QUANTITIES

FHWA REGION	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD	I-170-8(10)	17	17

IDENT. NO.	PAY ITEM	UNIT	QUANTITY	CONTINGENT QUANTITY	PROPOSAL QUANTITY
PRELIMINARY ITEMS					
101	Engineer Facilities	L.S.	L.S.		L.S.
102	Maintenance of Traffic	L.S.	L.S.		L.S.
103	Construction Stakeout	L.S.	L.S.		L.S.
104	Mobilization	L.S.	L.S.		L.S.
105	On The Job Training	HR.			4,000
GRADING ITEMS					
201	Test Pit Excavation	C.Y.			100
202	Removal of Existing Curb	L.F.	40		100
203	Removal of Existing Combination Curb and Gutter	L.F.	40		100
204	Removal of Existing Pavement	S.Y.	25		50
205	Removal of Existing Sidewalk	S.Y.	25		50
206	Removal of Existing Masonry	C.Y.	25		40
DRAINAGE ITEMS					
301	Class 3 Excavation for Incidental Construction	C.Y.		50	50
302	Selected Backfill Using #6 Aggregate	C.Y.		250	250
303	Selected Backfill Using Crusher Run	C.Y.		250	250
304	15 In. R. C. Pipe Class 4	L.F.	55		55
305	15 In. B.C.C.M. Pipe, Type A, #16 Gauge and Fittings	L.F.	52		52
306	Class P-1 Concrete for Miscellaneous Structures	C.Y.		10	10
307	Class B Concrete/Miscellaneous Structures	C.Y.		10	10
308	Ordinary Brick Masonry For Miscellaneous Structures	C.Y.		10	10
STRUCTURE ITEMS					
401	Excavating and Sheeting Tunnel Shaft No. 1	L.S.	L.S.		L.S.
402	Excavating and Sheeting Tunnel Shaft No. 2	L.S.	L.S.		L.S.
403	Excavating and Sheeting Tunnel Shaft No. 3	L.S.	L.S.		L.S.
404	Excavating and Sheeting Tunnel Shaft No. 4	L.S.	L.S.		L.S.
405	Excavating and Sheeting Tunnel Shaft No. 5	L.S.	L.S.		L.S.
406	Excavating and Sheeting Tunnel Shaft No. 6	L.S.	L.S.		L.S.
407	Excavating and Sheeting Tunnel Shaft No. 7	L.S.	L.S.		L.S.
408	Excavating and Tunneling For 108 In. R.C.C.P. Storm Drain	L.F.	4,932		4,932
409	Excavating and Tunneling For 108 In. Paired-In-Place S. D.	L.F.	4,943		4,943
410	Excavating and Tunneling For 108 In. B.C.C.M.P. Storm Drain	L.F.	4,932		4,932
411	Furnishing and Placing 108 In. R.C.C.P. In Tunnel	L.F.	4,943		4,943
412	Furnishing and Pouring-In-Place 108 In. Reinforced Concrete S.D.	L.F.	4,943		4,943
413	Furnishing and Placing 108 In. B.C.C.M.P. In Tunnel	L.F.	4,943		4,943
414	Manhole Structure No. 1	L.S.	L.S.		L.S.
415	Manhole Structure No. 2	L.S.	L.S.		L.S.
416	Manhole Structure No. 3	L.S.	L.S.		L.S.
417	Manhole Structure No. 4	L.S.	L.S.		L.S.
418	Manhole Structure No. 5	L.S.	L.S.		L.S.
419	Manhole Structure No. 6	L.S.	L.S.		L.S.
420	Sheeting Left In Place	S.P.	22,150		22,500
PAVING ITEMS					
501	Variable Depth Sub-Base Using Crusher Run	Ton	340		350
502	Crusher Run Aggregate For Maintenance of Traffic	Ton		15	15
503	Bituminous Concrete Using Band ST./STONE	Ton	95		100
504	Bituminous Concrete Using Band B-1	Ton	190		200
505	Bituminous Concrete for Maintenance of Traffic, Stone or Slag	Ton		15	15
506	Patching Existing Pavement Using Cl. H.E.S. Concrete	S.Y.	555		600
507	Calcium Chloride	Ton		2	2
SHOULDER ITEMS					
601	B.C. Type A Curb 7 In. x 20 In.	L.F.	60		120
602	Std. Type A Comb. Curb and Gutter 12 In. Gutter Pan 9 In. Depth	L.F.	60		120
603	5 In. Concrete Sidewalk	S.F.	100		200
UTILITY ITEMS					
801	Type TT Duct Section 12-4 In. I.O. & 2-3 In. I.O. Fibers	L.F.	100		105
802	This number not used.				
803	Type F Manhole - Mechanical Electrical	L.S.	L.S.		L.S.
804	Manhole Roof Slab - Mechanical Electrical	L.S.	L.S.		L.S.
805	4 In. Ductile Iron Pipe and Fittings	L.F.	300		300
806	6 In. Ductile Iron Pipe and Fittings	L.F.	110		110
807	3/4 In. Copper Pipe, Type K Water Service Incl. Top & Fittings	Eo.	5		10
808	1 In. Copper Pipe, Type K Water Service Incl. Top & Fittings	Eo.		10	10
809	2 In. Copper Pipe, Type K Water Service Incl. Top & Fittings	Eo.		10	10
810	Temp. Relocation of Sanitary Sewer House Connection	Eo.		5	5
811	Reconstruct Exist. Sanitary Sewer House Connection	Eo.		5	5
812	Class H.E.S. Concrete For Buttresses	C.Y.		5	5
813	Class 'C' Concrete, Contingent	C.Y.		5	5

REVISIONS Addendum No. 1 May 7, 1974	CONSULTANT BALLARD-DIVER JOINT VENTURE CONSULTING ENGINEERS OWINGS MILLS, MARYLAND	CITY OF BALTIMORE DEPARTMENT OF PUBLIC WORKS INTERSTATE ROUTE 170 STORM DRAIN OUTFALL TO SOUTH OF CARROLL STREET SUMMARY OF QUANTITIES	STATE HIGHWAY ADMINISTRATION OF MARYLAND INTERSTATE DIVISION FOR BALTIMORE CITY
SCALE: NONE		DATE: MARCH 1974	DRAWN BY: C.A.J. TRACED BY: M.B. F.A.P. NO. I-170-8(10) S.H.A. NO. BC-259-9-815 BALTO. CITY NO. 2234
		DES. BY: C.A.J. CHK. BY: K.L.E.	SHEET NO. 17 of 17

NO.	DATE	REV. AND PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD.	I-170-8(10)	2	17

SOIL LEGEND

	FILL MAT'L.		A-7, CLAY
	A-3, SAND, NON-PLASTIC		A-7-2, SANDY CLAY
	A-2, SAND & FINES		A-2-7, CLAYEY SAND
	A-4-2, SANDY SILT		A-2-4, SILTY SAND
	A-4, SILT		A-5 MICA, DIATOMS, DECOMPOSED ROCK
	BLOWS PER FOOT		PLAN LOCATION OF SOIL BORINGS
	BLOWS PER FRACTIONAL FOOT		BORING TARGETS AND PROFILES SCALE: HORIZ. NONE VERT. 1"=10'

L.L. - LIQUID LIMIT P.I. - PLASTICITY INDEX N.P. - NON PLASTIC
M.D.D. & O.M.C. - MAXIMUM DRY DENSITY AND OPTIMUM MOISTURE CONTENT
AS DETERMINED BY A.A.S.H.O. DESIGNATION T-100 METHOD 'C'

ABBREVIATIONS

B.C.C.M.P.	- BITUMINOUS COATED CORRUGATED METAL PIPE	M.E.	- MECHANICAL-ELECTRICAL
Bit.	- BITUMINOUS	Mfg.	- MANUFACTURING
Constr.	- BASE LINE OF CONSTRUCTION	M.H.	- MANHOLE
Survey	- BASE LINE OF SURVEY	M.T.D.	- MULTI-TERRA COTTA DUCT
Blk.	- BLOCK	Mtl.	- METAL
B.M.	- BENCH MARK	P.M.	- PARKING METER
Br.	- BRICK	P.S.	- POLICE SIGNAL
C.B.	- CATCH BASIN	R.C.C.P.	- REINFORCED CONCRETE PIPE
C & G	- CURB AND GUTTER	Ret. St.	- RETAIL STORE
C.I.P.	- CAST IRON PIPE	Ret. W.	- RETAINING WALL
Conc.	- CONCRETE	S.	- SIGN
C.P.	- CLEANOUT PLUG	Son.	- SANITARY SEWER LINE
C & P.	- CHESAPEAKE & POTOMAC TELEPHONE CO.	Sh.	- SHINGLE
(d)	- DEAO VALVE	S.L.	- STREET LIGHT
D.I.P.	- DUCTILE IRON PIPE	S.M.H.	- SANITARY MANHOLE
Dwg.	- DWELLING	S.P.P.	- STRUCTURAL PLATE PIPE
Elev.	- ELEVATION	Sta.	- STATION
E.M.H.	- ELECTRIC MANHOLE	Std. Pl.	- STANDARD PLATE
F.H.	- FIRE HYDRANT	Sto.	- STONE
F.B.	- FIRE ALARM BOX	Sty.	- STORY
Fr.	- FRAME	S.W.	- STORM WATER
G.	- GAS MAIN	S.W.M.H.	- STORM WATER MANHOLE
Gar.	- GARAGE	T & T	- TRANSIT AND TRAFFIC
G.B.	- GAS BOX	TeI. MH.	- TELEPHONE MANHOLE
G & E	- GAS AND ELECTRIC CO.	T.P.	- TRAFFIC POLE
G.M.H.	- GAS MANHOLE	U.D.	- UNDERDRAIN
G.R.	- GUARD RAIL	V.C.P.	- VITRIFIED CLAY PIPE
G.V.	- GAS VALVE	V.C.P.X.	- VITRIFIED CLAY PIPE EXTRA STRENGTH
G.W.	- GUY WIRE	W.	- WATER MAIN
H.B.	- HAND BOX	W.B.R.	- WESTBOUND ROADWAY
H.W.	- HEADWALL	W.M.	- WATER METER
Inv.	- INVERT	W.M.H.V.	- WATER MANHOLE VALVE
Mas.	- MASONRY	W.V.	- WATER VALVE
M.B.	- MAIL BOX		

LEGEND

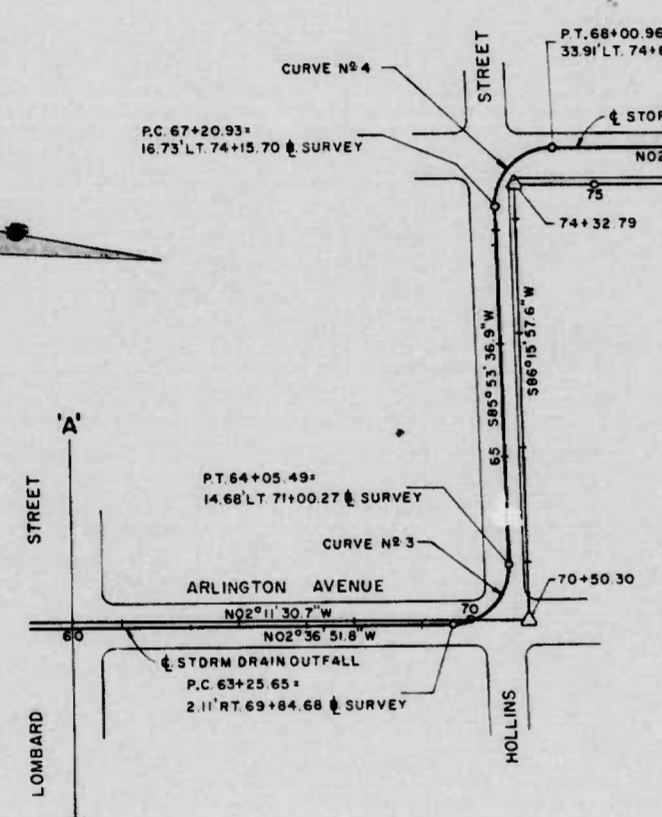
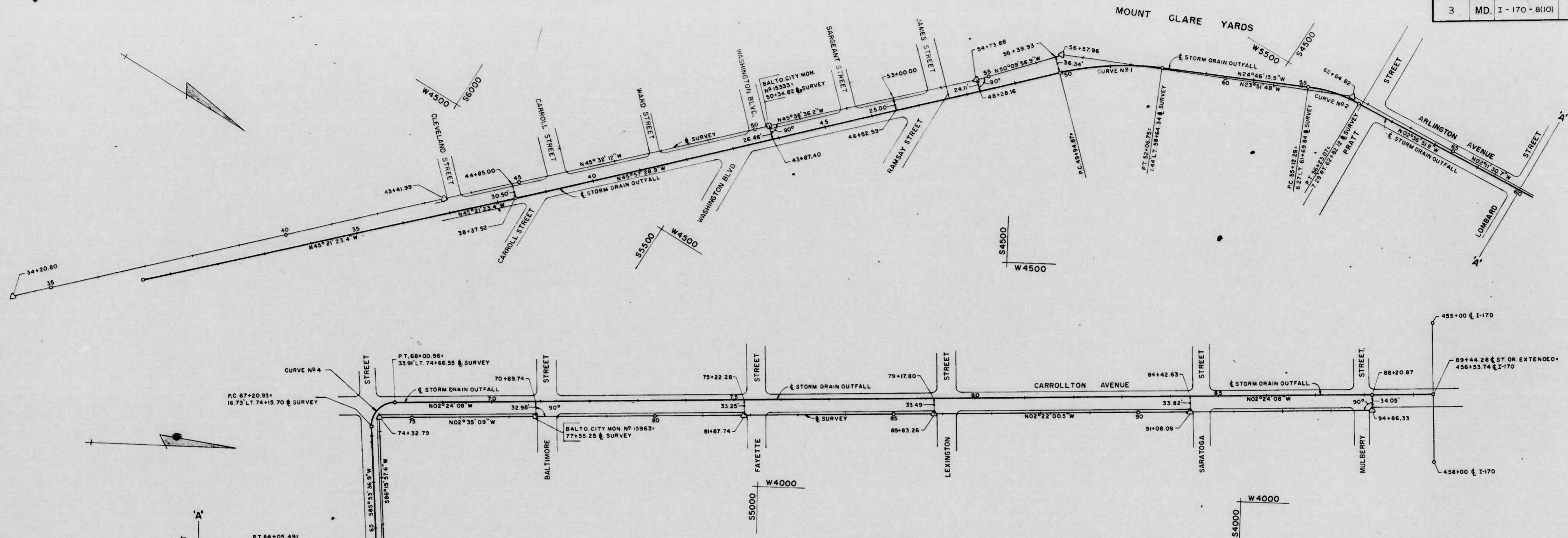
EXISTING	PROPOSED
	CITY BENCH MARK
	INTERMEDIATE BENCH MARK
	BALTIMORE CITY MONUMENT
	BASELINE OF SURVEY
	CENTERLINE CONSTRUCTION
	ROADWAY, DRIVEWAY, SIDEWALK
	CURB LINE
	HEGGE
	TREE
	MANHOLE
	GAS VENT PIPE
	FLAGPOLE
	ALL TYPE FENCES
	GUARD RAIL
	RIGHT OF WAY OR EASEMENT LINE
	RUINS OR FOUNDATIONS
	RETAINING WALL
	RAILROAD
	WATER MAIN
	SANITARY SEWER LINE
	STORM WATER: 12" TO 42" O.I.A. 48" O.I.A. AND LARGER
	GAS MAIN
	UNDERGROUND CONDUIT
	TRANSIT AND TRAFFIC DUCT
	CURB INLET
	GRATE INLET
	FIRE HYDRANT
	VALVE, METER-WATER
	VALVE, BOX-GAS
	ELEC. H.B. & COND. (INSTALLED BY BALTO. GAS & ELEC. CO.)
	LIGHT POLE (INSTALLED BY BALTO. GAS & ELEC. CO.)
	LIGHT POLE TO BE REMOVED BY BALTO. G & E CO.
	UTILITY POLE
	UTILITY POLE WITH TRANSFORMER
	GUY POLE
	STREET SIGN
	LIGHT POLES WITH CATWALK & TRANSFORMERS
	UTILITY POLES WITH CATWALK & TRANSFORMERS
	TELEPHONE (UNDERGROUND LINES)
	OVERHEAD TRAFFIC CONTROL SWITCH
	MECHANICAL-ELECTRICAL HAND BOX
	FIRE OR POLICE CALL BOX
	FIRE OR POLICE CALL BOX ON UTILITY POLE
	TRAFFIC POLE
	TEMPORARY POLE WITH LIGHT
	UTILITY LINES ABANDONED
	UTILITY LINES TO BE ABANDONED AND REMOVED
	UTILITY PLUG
	BILLBOARD
	ITEM TO BE REMOVED

EXPLANATORY NOTES AND REFERENCES

- VERTICAL CONTROL**
THE LOCATION AND ELEVATIONS OF BENCH MARKS ARE SHOWN ON THE PLAN SHEETS. ALL ELEVATIONS SHOWN ARE BASED ON BALTIMORE CITY DATUM.
- HORIZONTAL CONTROL**
THE PROJECT IS ORIENTED TO CONFORM WITH THE BALTIMORE CITY GRID SYSTEM.
- SPECIFICATIONS**
STATE ROADS COMMISSION, SPECIFICATIONS FOR MATERIALS, HIGHWAYS, BRIDGES AND INCIDENTAL STRUCTURES, DATED MARCH, 1968 AND REVISED THEREOF OR ADDITIONS THERETO INCLUDED IN THE PROPOSAL AND SPECIAL PROVISIONS.
- STANDARD PLATES**
ALL BALTIMORE CITY STANDARD PLATES REFERRED TO IN THE PLANS ARE INCLUDED IN THE SPECIAL PROVISIONS.
- MAINTENANCE OF TRAFFIC**
SPECIAL ATTENTION IS DIRECTED TO THE REQUIREMENTS FOR MAINTENANCE OF TRAFFIC DURING THE CONSTRUCTION OF THIS PROJECT. SEE SPECIAL PROVISIONS.
- EXISTING UTILITIES**
EXISTING UTILITY LOCATIONS SHOWN ON PLANS ARE APPROXIMATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE EXACT LOCATIONS PRIOR TO COMMENCING WORK. THE NECESSARY RELOCATION AND/OR ADJUSTMENT OF THE EXISTING UTILITIES WILL BE PERFORMED BY OTHERS UNLESS OTHERWISE PROVIDED FOR IN THE PROPOSAL OR SPECIAL PROVISIONS.
- OBSTRUCTIONS**
"OBSTRUCTIONS" ARE SHOWN ON THE DRAWINGS FOR THE CONVENIENCE OF THE CONTRACTOR ONLY, AND THE CITY DOES NOT WARRANT OR GUARANTEE THE CORRECTNESS OR THE COMPLETENESS OF THE INFORMATION GIVEN. THE CONTRACTOR MUST VERIFY ALL SUCH INFORMATION TO HIS OWN SATISFACTION.
- INVERT ELEVATIONS**
IF APPROVED BY THE ENGINEER PROPOSED INVERT ELEVATIONS MAY BE MODIFIED TO MEET CONDITIONS ENCOUNTERED DURING INSTALLATION OF UNDERGROUND FACILITIES.
- MATERIALS SALVAGED IN CONSTRUCTION**
THESE MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE OF CONSTRUCTION EXCEPT FOR THOSE ITEMS PROVIDED FOR SALVAGE AS SHOWN ON THE PLANS OR IN THE SPECIAL PROVISIONS.

REVISIONS	CONSULTANT	CITY OF BALTIMORE DEPARTMENT OF PUBLIC WORKS & STATE HIGHWAY ADMINISTRATION OF MARYLAND INTERSTATE DIVISION FOR BALTIMORE CITY	
	BALLARD-DIVER JOINT VENTURE CONSULTING ENGINEERS OWINGS MILLS, MARYLAND	INTERSTATE ROUTE 170 STORM DRAIN OUTFALL I-170 TO SOUTH OF CARROLL STREET LEGEND AND GENERAL NOTES	DRAWN BY RAW TRACED BY RAW DES BY CAJ CHK BY KLE
		SCALE: DATE: MARCH 1974	F.A.P. NO. I-170-8(10) S.H.A. NO. BC-259-9-815 BALTO. CITY NO. 2234 SHEET NO. 2 OF 17

FHWA REGION	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD.	I-170-B(10)	3	17

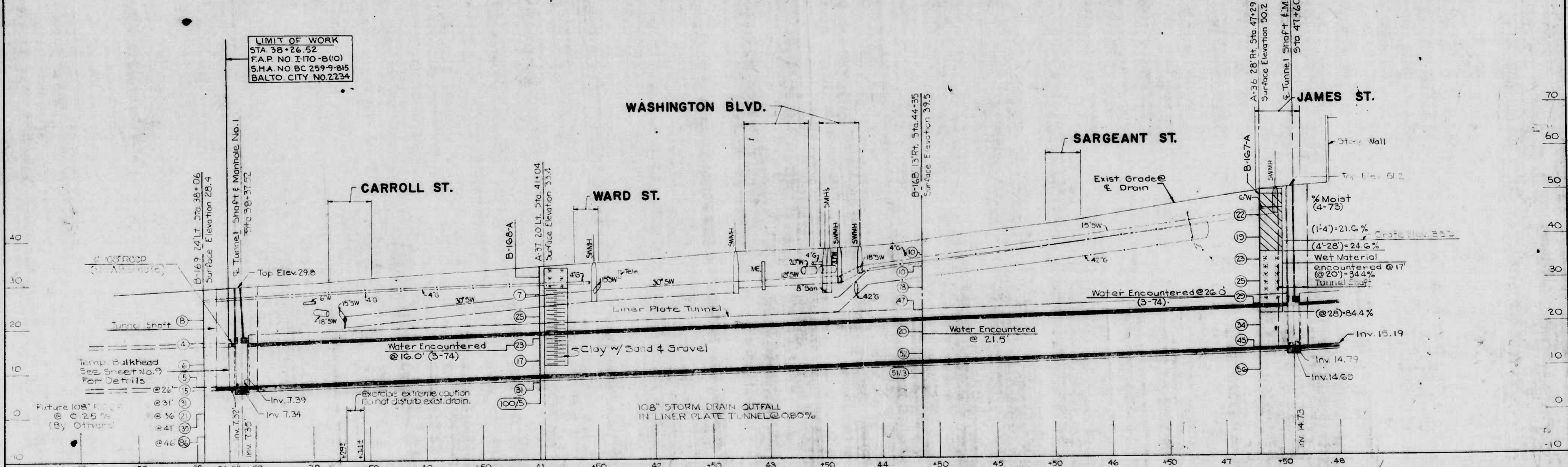
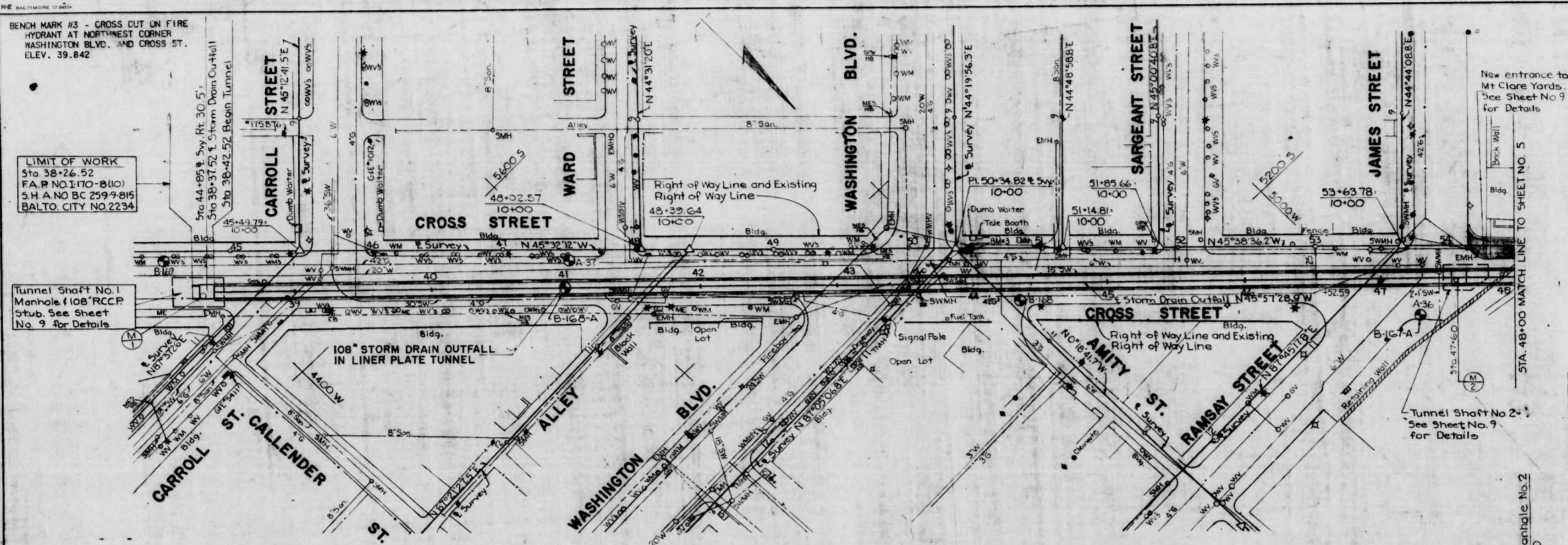


CURVE DATA						
CURVE NO.	Δ	Dc	R	T	Lc	E
1	21°11'15.4"	10°00'00"	572.9578'	107.16'	211.88'	9.94'
2	22°09'21.6"	20°00'00"	286.4789'	56.09'	110.78'	5.44'
3	91°29'31.3"	50°00'00"	50.00'	51.32'	79.84'	21.65'
4	91°42'15.1"	50°00'00"	50.00'	51.51'	80.03'	21.79'

BASELINE SURVEY		CENTERLINE STORM DRAIN OUTFALL	
STATION	COORDINATES	STATION	COORDINATES
	SOUTH WEST		SOUTH WEST
43+41.99	5813.0374 4314.5192	38+37.52=MH No. 1	5691.0979 4395.2214
50+34.82=Balto. City Mon. 15333	5327.7436 4808.9904	46+52.59	5124.4753 4981.1166
54+73.66	5020.9373 5122.7656	47+60.00=MH No. 2	5049.8034 5058.3283
56+57.96	4902.8838 5264.2860	48+28.16	5002.4224 5107.3208
62+64.82	4347.9051 5509.7939	P.C. 49+94.87	4886.5230 5227.1625
70+50.30	3562.9925 5539.8356	P.I. Curve No. 1	4812.0255 5304.1939
74+32.79	3587.9017 5921.5086	P.T. 52+06.75	4714.7230 5349.0930
77+55.25=Balto. City Mon. 15963	3265.7694 5936.0567	P.C. 55+12.29	4437.2985 5477.1073
81+87.74	2833.6483 5953.9172	P.I. Curve No. 2	4386.3684 5500.6084
85+83.26	2438.4657 5970.2509	P.T. 56+23.07	4330.3361 5503.1669
91+08.09	1914.0835 5991.9248	57+19.00=MH No. 3	4234.5011 5507.5428
94+86.33=M-8 I-170 Survey	1536.1640 6007.5451	63+11.00=MH No. 4	3643.1173 5534.5483
		P.C. 63+25.65	3628.4833 5535.2145
		P.I. Curve No. 3	3577.2174 5537.5554
		P.T. 64+05.49	3580.8923 5588.7429
		P.C. 67+20.93	3603.4805 5903.3695
		P.I. Curve No. 4	3607.1691 5954.7470
		P.T. 68+00.96	3555.7046 5956.9060
		68+18.00=MH No. 5	3538.6740 5957.6204
		70+89.79	3267.1315 5969.0119
		75+22.28	2835.0214 5987.1393
		76+25.00=MH No. 6	2732.3831 5991.4451
		79+17.80	2439.8489 6003.7172
		84+42.63	1915.4801 6025.7149
		88+20.87	1537.5702 6041.5685
		89+44.28 Storm Drain Outfall Extended = 456+53.74 I-170	1414.2649 6046.7412

REVISIONS	CONSULTANT BALLARD-DIVER JOINT VENTURE CONSULTING ENGINEERS OWINGS MILLS, MARYLAND	CITY OF BALTIMORE DEPARTMENT OF PUBLIC WORKS & STATE HIGHWAY ADMINISTRATION OF MARYLAND INTERSTATE DIVISION FOR BALTIMORE CITY	
		INTERSTATE ROUTE 170 STORM DRAIN OUTFALL TO SOUTH OF CARROLL STREET STAKEOUT DATA	DRAWN BY O.M.S. DES BY K.L.E. TRACED BY O.M.S. CHK. BY C.A.J.
SCALE: 1"=100'		DATE MARCH 1974	SHEET NO. 3 OF 17

PER. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD.	I-170-8-10	4	17



REVISIONS	CONSULTANT	CITY OF BALTIMORE DEPARTMENT OF PUBLIC WORKS & STATE HIGHWAY ADMINISTRATION INTERSTATE DIVISION FOR BALTIMORE CITY	
	BALLARD-DIVER JOINT VENTURE CONSULTING ENGINEERS OWINGS MILLS, MARYLAND	INTERSTATE ROUTE 170 STORM DRAIN OUTFALL I-170 TO SOUTH OF CARROLL STREET PLAN & PROFILE STA 38+00 TO STA 48+00 SCALE: PLAN 1"=40' PROFILE VERT. 1"=10'	DRAWN BY: R.A.W. CHECKED BY: R.A.W. F.A.P. NO. I-170-8(10) S.H.A. NO. BC-259-9-815 BALTO. CITY NO. 2234
			DES. BY: C.A.J. CHK. BY: K.L.E. SHEET NO. 4 of 17

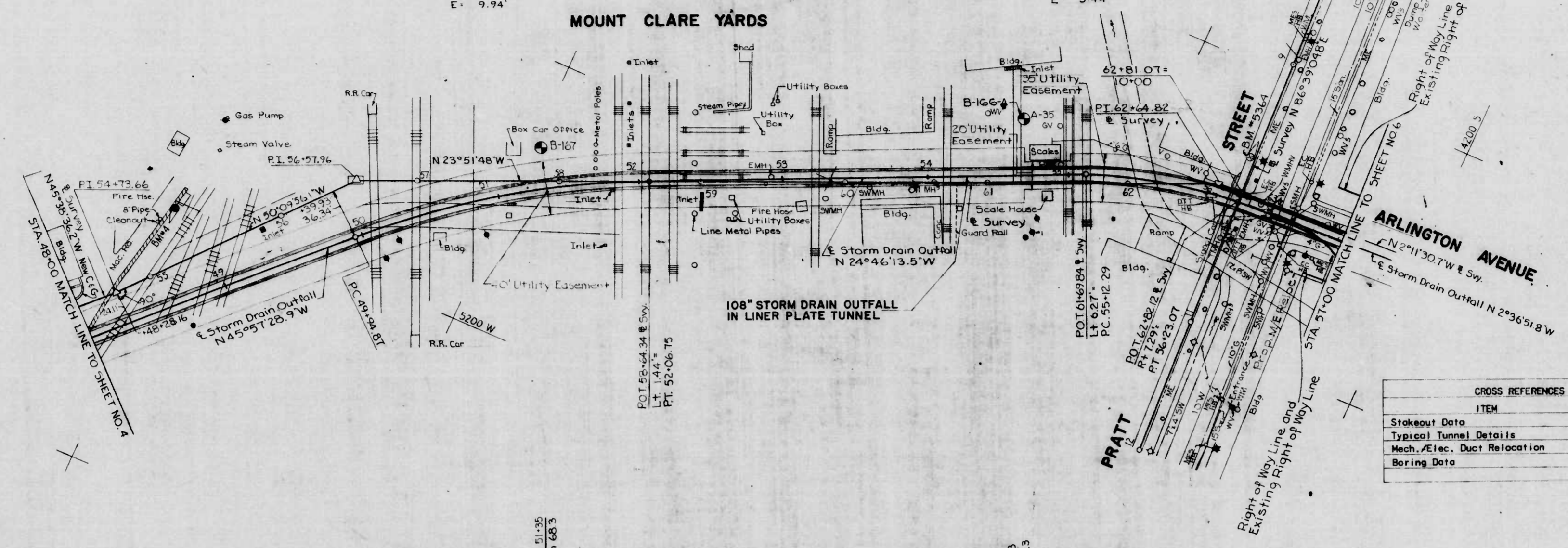
BENCH MARK #4 - □ CUT TOP WALL 3.9' EAST OF FIRE HOSE SHED NO. 23
ELEV. 67.334

BENCH MARK #5364 - BRASS SCREW SET IN EAST END OF CONC. DOOR STEP.
ENTRANCE TO EMPLOYMENT OFFICE OF B. & O.
MT. CLARE SHOP ON SOUTH SIDE OF PRATT ST.
ELEV. 62.794

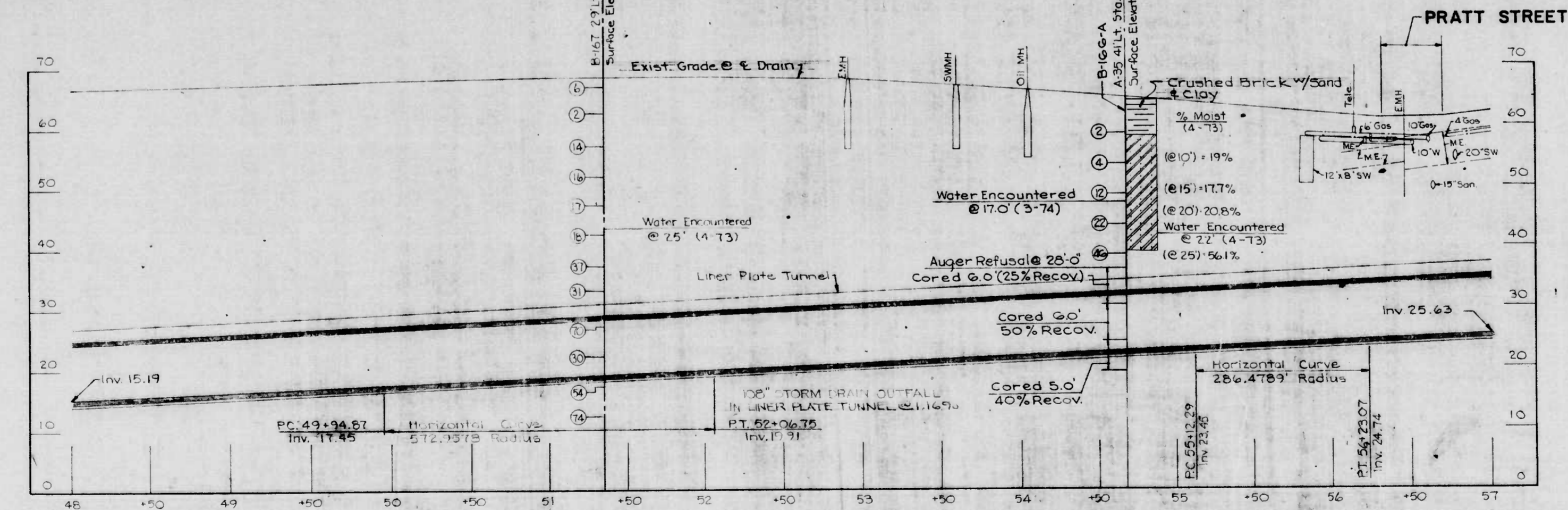
CURVE DATA
 § STORM DRAIN OUTFALL
 Δ: 21°11'15.4"
 D: 107000'
 R: 512.9578'
 T: 107.16'
 L: 211.87'
 E: 9.94'

CURVE DATA
 § STORM DRAIN OUTFALL
 Δ: 22°09'21.6"
 D: 207000'
 R: 286.4789'
 T: 56.09'
 L: 110.78'
 E: 5.44'

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD.	I-170-810	5	17



CROSS REFERENCES	
ITEM	SHEET NO.
Stakeout Data	3
Typical Tunnel Details	13
Mech./Elec. Duct Relocation	10
Boring Data	15 & 16

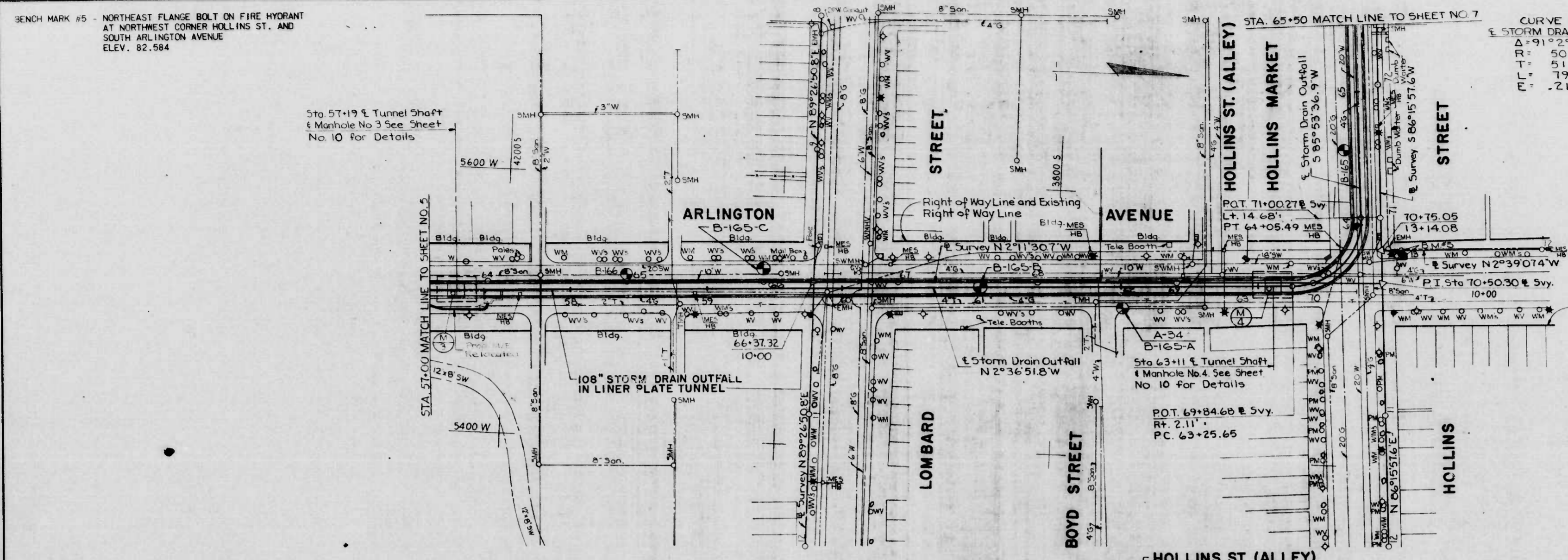


PROFILE NOTES:
 1. Profile is shown for Liner Plate Tunnel and 108" F.C.C.P. Alternates.
 2. Invert elevations shown also apply to the Liner Plate Tunnel with Fixed-in-Place Reinf. Concrete Alternates and 108" PCCMB Alternates.
 3. Existing Utilities: Only the Parallel Existing Utilities located within 8' of the centerline of the proposed 108" Storm Drain Outfall Tunnel have been shown.

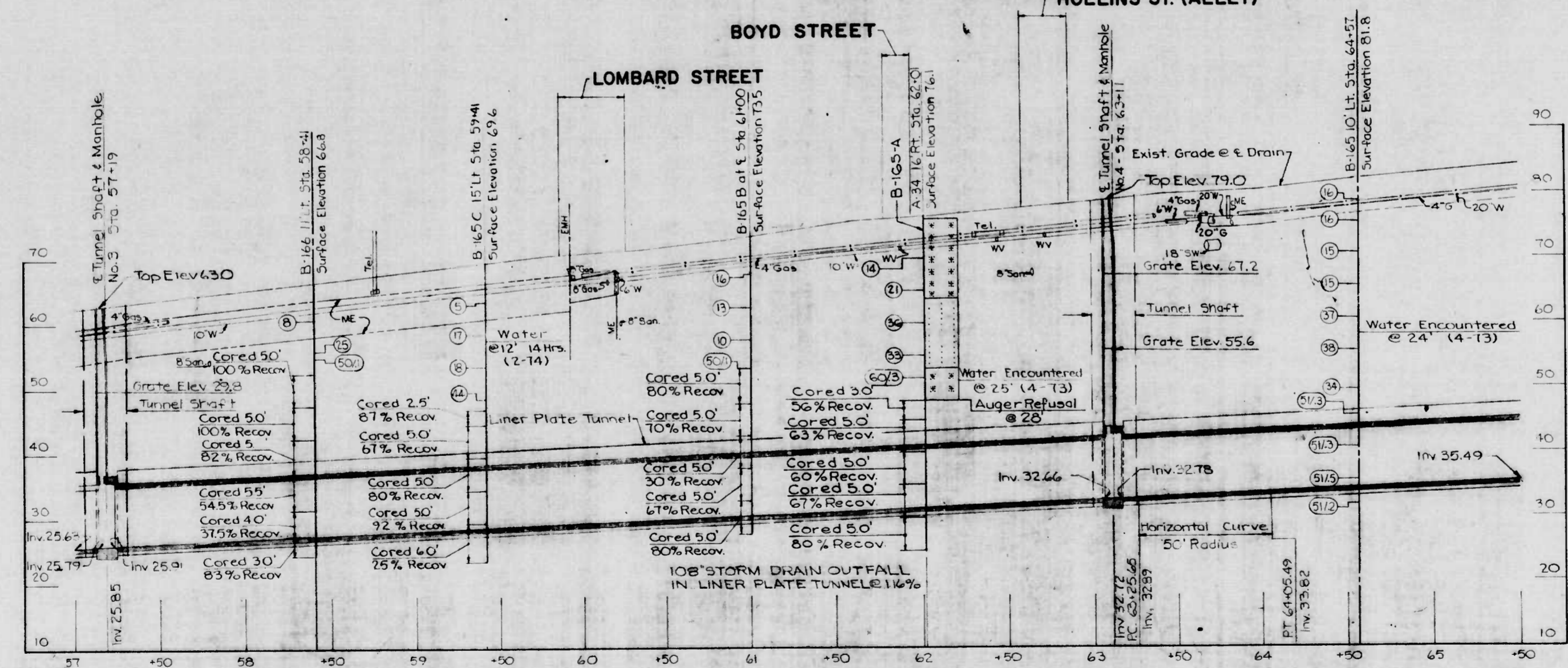
REVISIONS	CONSULTANT	CITY OF BALTIMORE DEPARTMENT OF PUBLIC WORKS & STATE HIGHWAY ADMINISTRATION INTERSTATE DIVISION FOR BALTIMORE CITY
	BALLARD-DIVER JOINT VENTURE CONSULTING ENGINEERS OWINGS MILLS, MARYLAND	INTERSTATE ROUTE 170 STORM DRAIN OUTFALL PLAN & PROFILE STA 48+00 TO STA 57+00 DRAWN BY: R.A.W. DES. BY: C.A.J. TRACED BY: R.A.W. CHK. BY: K.L.E. F.A.P. NO. I-170-810 S.H.A. NO. BC-259-9-815 BALTO. CITY NO. 2234
		DATE: MARCH 1974 SCALE: PLAN 1"=40' PROFILE VERT. 1"=10' SHEET NO. 5 of 17

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD, I-170-8(10)		6	17

CURVE DATA
 STORM DRAIN OUTFALL
 Δ = 91° 29' 31.3"
 R = 50.00'
 M.T. = 51.32'
 P.T. = 19.84'
 M.T. = 21.65'



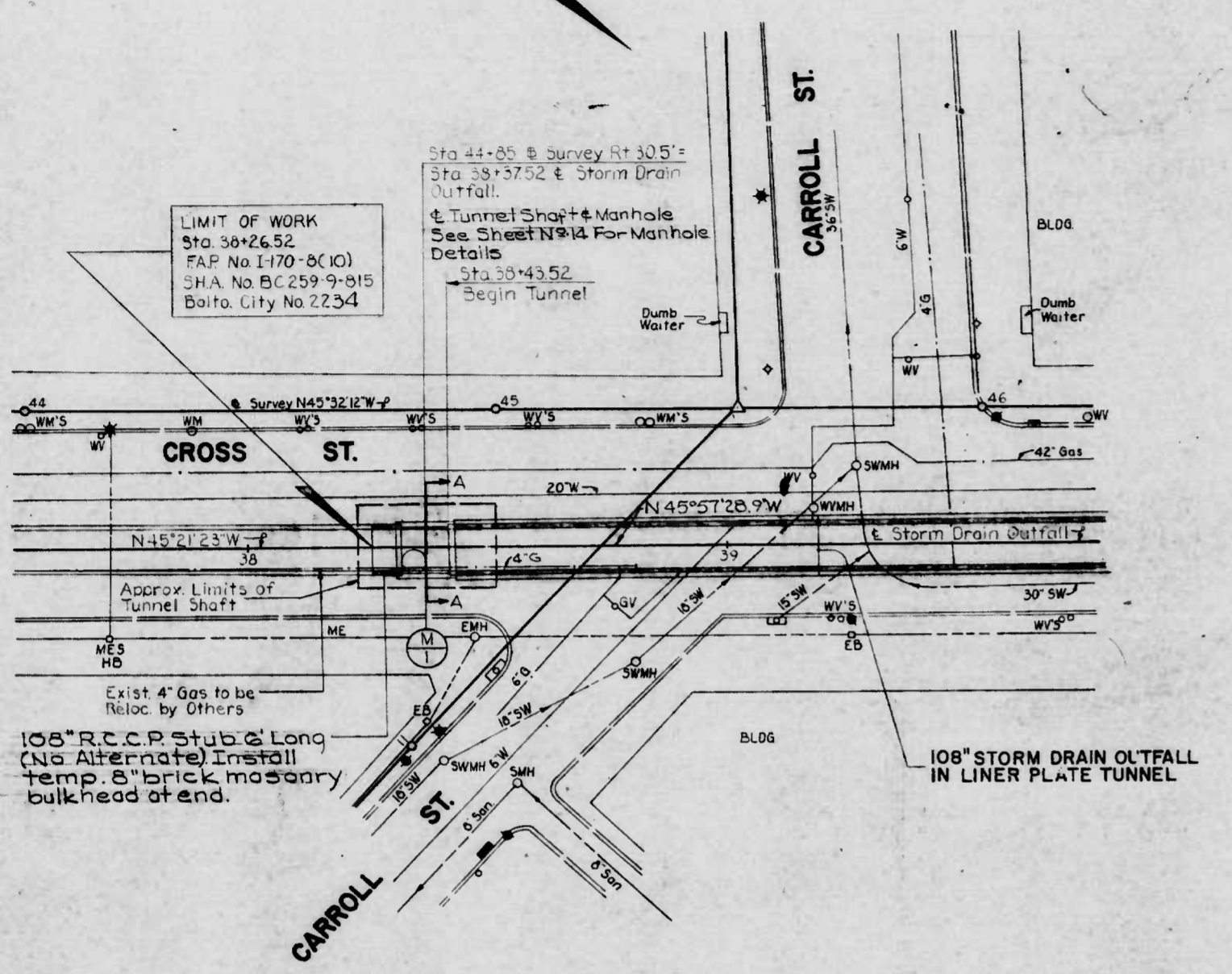
CROSS REFERENCES	
ITEM	SHEET NO.
Stakeout Data	3
Tunnel Shaft Details	10
Typical Tunnel Details	13
Typical Manhole Details	14
Mech/Elec. Duct Relocation	10
Boring Data	15 & 16



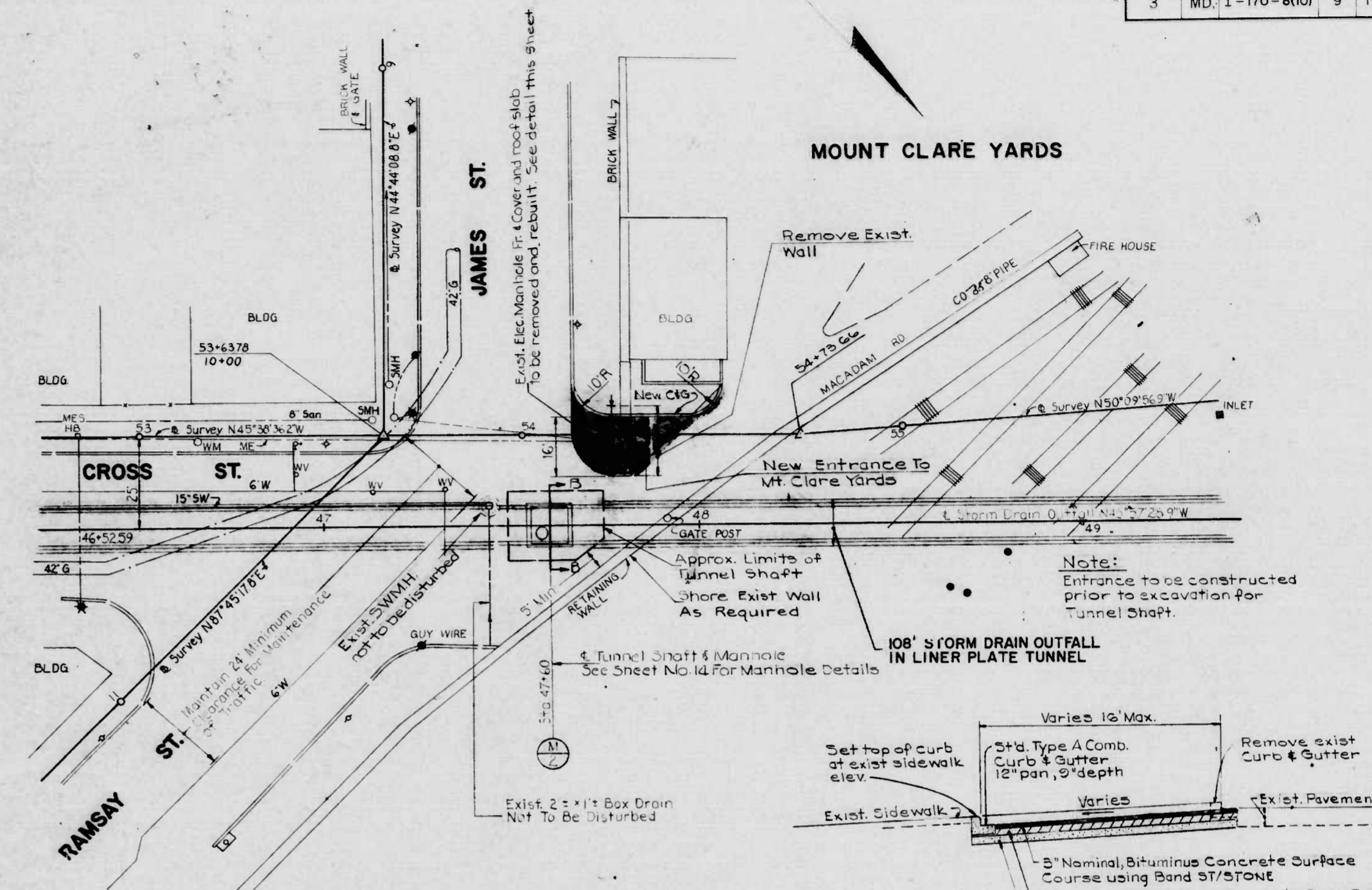
PROFILE NOTES:
 1. Profile is shown for Liner Plate Tunnel and 108" R.C.C.P. Alternate.
 2. Invert elevations shown also apply to the Liner Plate Tunnel with Bored in Place Reinf. Concrete Alternate and 108" R.C.C.P. Alternate.
 3. Existing Utilities: Only the Parallel Existing Utilities located within 8' of the centerline of the proposed 108" Storm Drain Outfall Tunnel have been shown.

REVISIONS	CONSULTANT	CITY OF BALTIMORE DEPARTMENT OF PUBLIC WORKS &		STATE HIGHWAY ADMINISTRATION INTERSTATE DIVISION FOR BALTIMORE CITY	
	BALLARD-DIVER JOINT VENTURE CONSULTING ENGINEERS OWINGS MILLS, MARYLAND	INTERSTATE ROUTE 170 STORM DRAIN OUTFALL I-170 TO SOUTH OF CARROLL STREET PLAN & PROFILE STA 57+00 TO STA 65+50 SCALE: PLAN 1"=40' PROFILE VERT. 1"=10'		DRAWN BY: R.A.W. TRACED BY: R.A.W. F.A.P. NO. I-170-8(10) S.H.A. NO. BC-259-9-815 BALTO. CITY NO. 2234	
		DATE: MARCH 1974		DES. BY: C.A.J. CHK. BY: K.L.E.	SHEET NO. 6 of 17

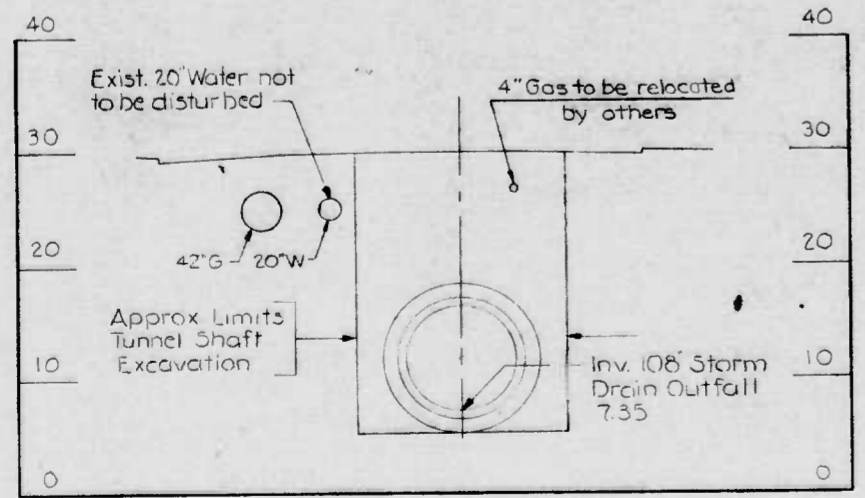
EMVA REGION	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD.	I-170-8(10)	9	17



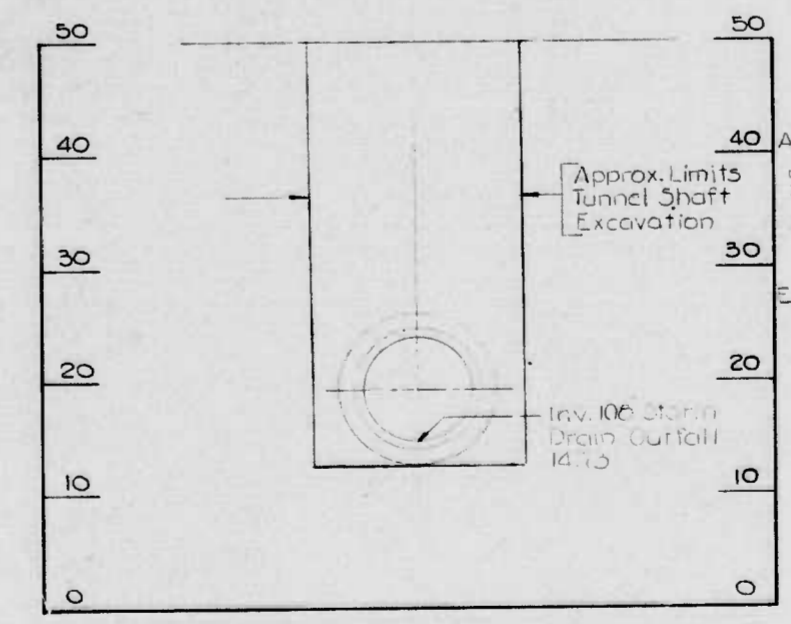
PLAN - TUNNEL SHAFT NO. 1
SCALE 1"=20'



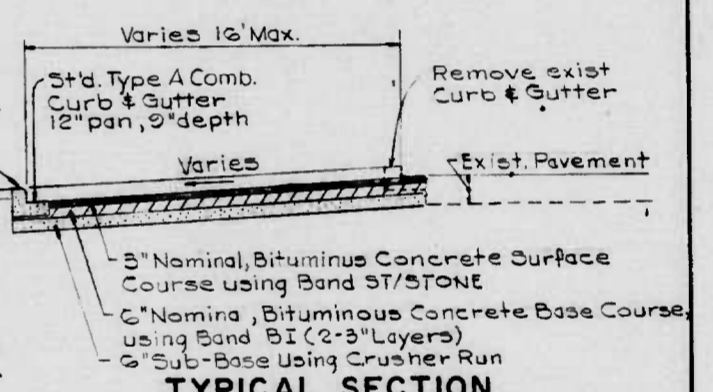
PLAN - TUNNEL SHAFT NO. 2
SCALE 1"=20'



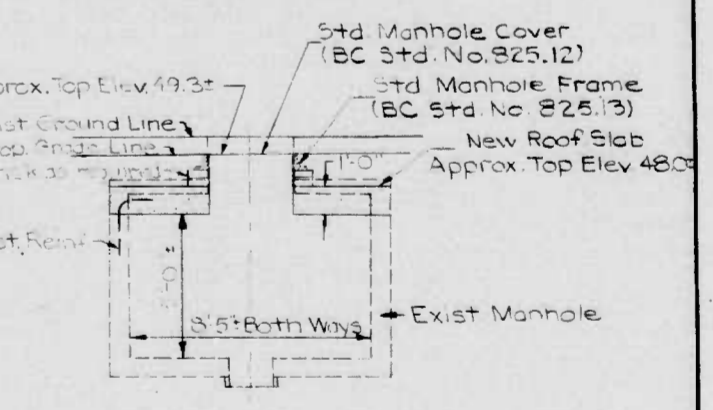
SECTION A-A
STA. 38+37.52 & STORM DRAIN OUTFALL
SCALE 1"=10'



SECTION B-B
STA. 47+60 & STORM DRAIN OUTFALL
SCALE 1"=10'



TYPICAL SECTION
ENTRANCE TO MOUNT CLARE YARDS
SCALE 1"=5'

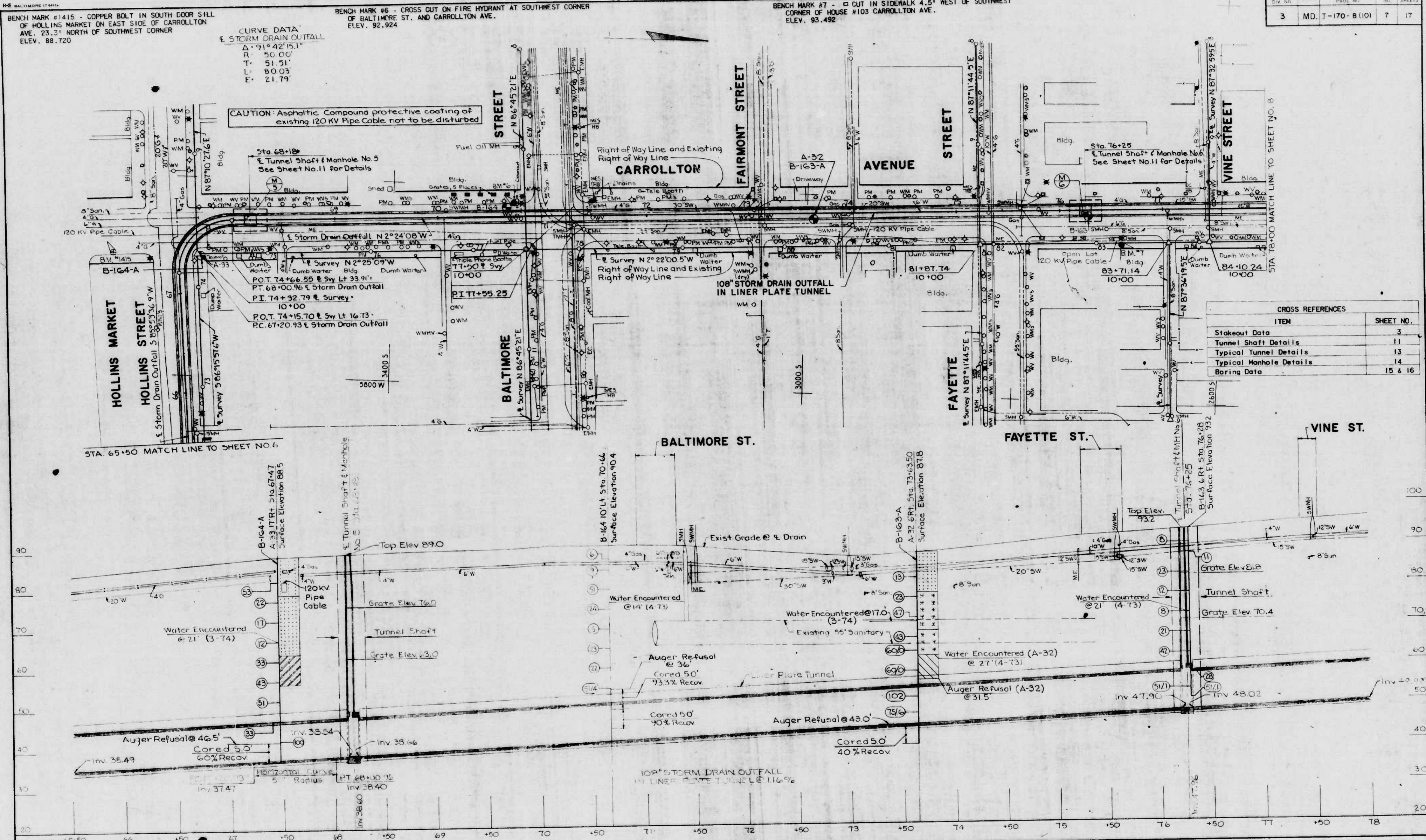


MECHANICAL-ELECTRICAL MANHOLE
ROOF LOWERING DETAILS
SCALE 1/4"=1'-0"

- NOTES:
1. Remove exist. roof slab and manhole walls as required.
 2. Bend exist. reinf. 12 in. min. into new roof slab.
 3. New reinforcing to be similar to that shown on Balto. City Std. No. BC.825.10 for Type 'K' Manhole.

REVISIONS	CONSULTANT	CITY OF BALTIMORE DEPARTMENT OF PUBLIC WORKS	STATE HIGHWAY ADMINISTRATION OF MARYLAND INTERSTATE DIVISION FOR BALTIMORE CITY
	BALLARD-DIVER JOINT VENTURE CONSULTING ENGINEERS OWINGS MILLS, MARYLAND	INTERSTATE ROUTE 170 STORM DRAIN OUTFALL I-170 TO SOUTH OF CARROLL STREET TUNNEL SHAFT NO. 1 & TUNNEL SHAFT NO. 2 DETAILS SCALE: AS SHOWN	DATE: MARCH 1974 DRAWN BY: R.A.W. TRACED BY: R.A.W. F.A.P. NO. I-170-8(10) S.H.A. NO. BC-259-9-815 BALTO. CITY NO. 2234
			DES. BY: C.A.J. CHK. BY: K.L.E. SHEET NO. 9 OF 17

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD	I-170-8(10)	7	17

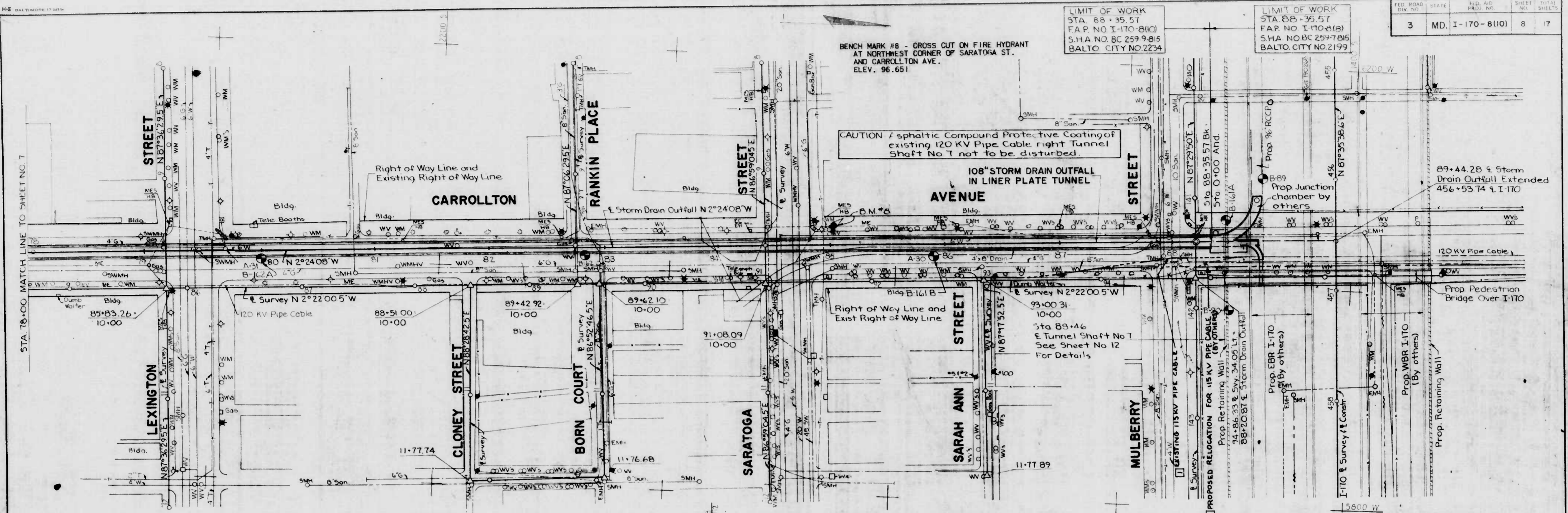


CROSS REFERENCES	
ITEM	SHEET NO.
Stakeout Data	3
Tunnel Shaft Details	11
Typical Tunnel Details	13
Typical Manhole Details	14
Boring Data	15 & 16

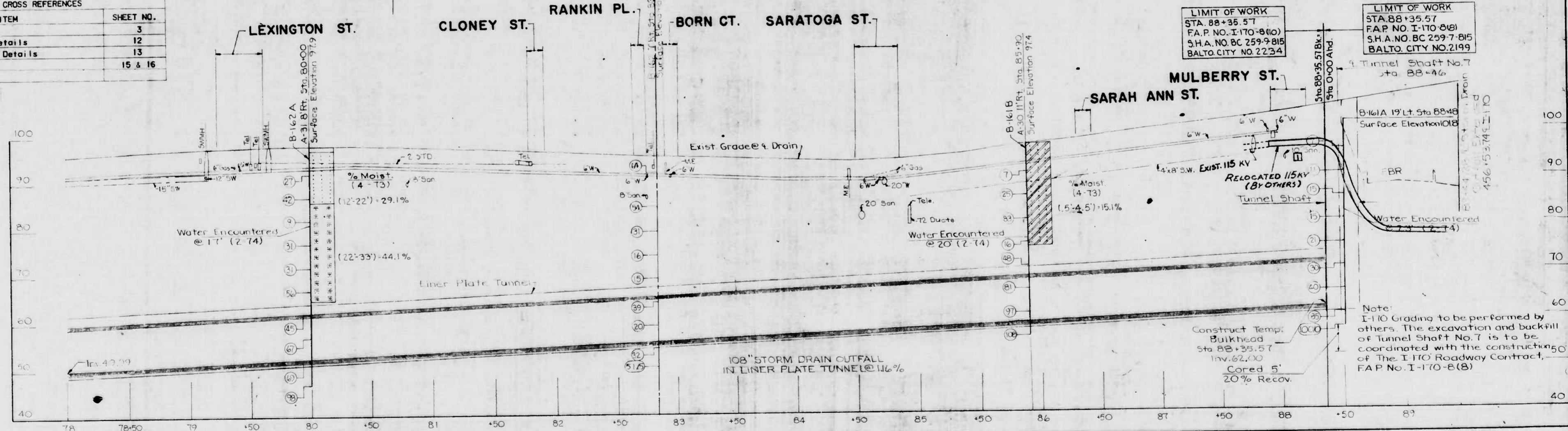
PROFILE NOTES
 1. Profile is shown for Liner Plate Tunnel and 108" R.C.C.P. Alternative
 2. Invert elevations shown also apply to the Liner Plate Tunnel with
 3. Existing Utilities: Only the Parallel Existing Utilities located
 within 8' of the center line of the proposed 108" Storm Drain
 Outfall Tunnel have been shown.

REVISIONS (Empty table for revisions)	CONSULTANT BALLARD-DIVER JOINT VENTURE CONSULTING ENGINEERS OWINGS MILLS, MARYLAND	CITY OF BALTIMORE DEPARTMENT OF PUBLIC WORKS & STATE HIGHWAY ADMINISTRATION INTERSTATE ROUTE 170 STORM DRAIN OUTFALL I-170 TO SOUTH OF CARROLL STREET PLAN & PROFILE STA 65+50 TO STA 78+00 HORZ. 1"=40' PROFILE VERT. 1"=10' DATE: MARCH 1974	
		DRAWN BY: R.A.W. TRACED BY: R.A.W. F.A.P. NO. I-170-8(10) S.H.A. NO. BC-259-9-815 BALTO. CITY NO. 2234	DES. BY: C.A.J. CHK. BY: K.L.E.
		SHEET NO. 7 of 17	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD.	I-170-8(10)	8	17



CROSS REFERENCES	
ITEM	SHEET NO.
Stakeout Data	3
Tunnel Shaft Details	12
Typical Tunnel Details	13
Boring Data	15 & 16



PROFILE NOTES:
 1. Profile is shown for Liner Plate Tunnel and 108" RCCP Alternates
 2. Invert elevations shown also apply to the Liner Plate Tunnel with Reinforced Concrete Alternate and 108" RCCP Alternate
 3. Existing UTILITIES Only the Parallel Existing UTILITIES located within 5' of the centerline of the proposed 108" Storm Drain

REVISIONS 1 REVISED 7/8/74	CONSULTANT BALLARD-DIVER JOINT VENTURE CONSULTING ENGINEERS OWINGS MILLS, MARYLAND	CITY OF BALTIMORE DEPARTMENT OF PUBLIC WORKS & STATE HIGHWAY ADMINISTRATION INTERSTATE DIVISION FOR BALTIMORE CITY	
		INTERSTATE ROUTE 170 STORM DRAIN OUTFALL I-170 TO SOUTH OF CARROLL STREET PLAN AND PROFILE STA 78+00 TO STA. 89+00 HORIZ. 1"=40' PROFILE VERT. 1"=10' DATE: MARCH 1974	
		DRAWN BY: R.A.W. TRACED BY: R.A.W. F.A.P. NO. I-170-8(10) S.H.A. NO. BC-259-9-815 BALTO. CITY NO. 2234	DES. BY: C.A.J. CHK. BY: K.L.E. SHEET NO. 8A of 17

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD	I-170-8(10)	1	17

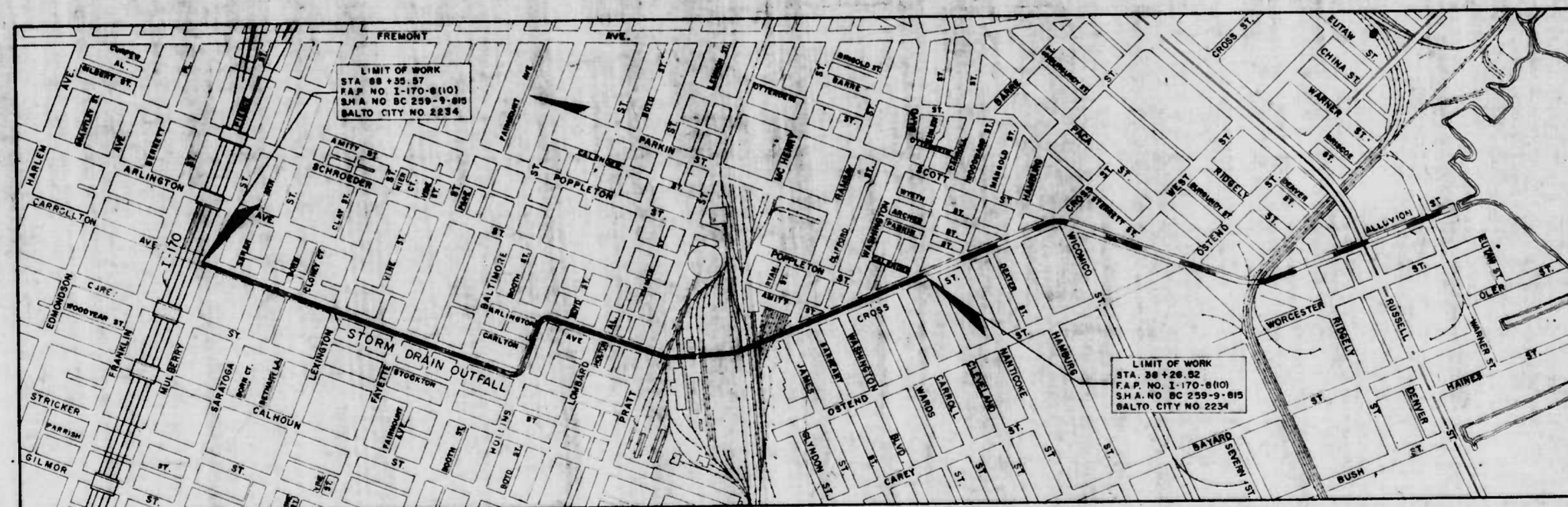
INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET AND LOCATION PLAN
2	LEGEND AND GENERAL NOTES
3	STAKEOUT DATA
4	PLAN & PROFILE STA. 38+00 TO STA. 48+00
5	PLAN & PROFILE STA. 48+00 TO STA. 57+00
6	PLAN & PROFILE STA. 57+00 TO STA. 65+50
7	PLAN & PROFILE STA. 65+50 TO STA. 78+00
8	PLAN & PROFILE STA. 78+00 TO STA. 89+00
9	TUNNEL SHAFT NO.1 DETAILS (CROSS & CARROLL STS.)
	TUNNEL SHAFT NO.2 DETAILS (CROSS & JAMES/RAMSAY STS.)
10	TUNNEL SHAFT NO.3 DETAILS (ARLINGTON AVE. & PRATT ST.)
	TUNNEL SHAFT NO.4 DETAILS (ARLINGTON AVE. & HOLLINS ST.)
11	TUNNEL SHAFT NO.5 DETAILS (CARROLLTON AVE. & HOLLINS ST.)
	TUNNEL SHAFT NO.6 DETAILS (CARROLLTON AVE. & FAYETTE ST.)
12	TUNNEL SHAFT NO.7 DETAILS (CARROLLTON AVE. & MULBERRY ST.)
13	TYPICAL TUNNEL DETAILS
14	TYPICAL MANHOLE DETAILS
15 B16	BORINGS
17	SUMMARY OF QUANTITIES
8A	RED LINE REVISION INDICATES PROP. LOCATION OF 115 KV PIPE CABLE BY OTHERS
12A	RED LINE REVISION INDICATES PROP. LOCATION OF 115 KV PIPE CABLE BY OTHERS

CITY OF BALTIMORE
DEPARTMENT OF PUBLIC WORKS
AND
THE STATE HIGHWAY ADMINISTRATION
INTERSTATE DIVISION FOR BALTIMORE CITY
FEDERAL AID PROJECT NO. I-170-8(10)
STATE HIGHWAY ADMINISTRATION NO. BC-259-9-815
CITY OF BALTIMORE BUREAU OF ENGINEERING
HIGHWAY ENGINEERING DIVISION CONTRACT NO. 2234

INTERSTATE ROUTE 170
STORM DRAIN OUTFALL
I-170 TO SOUTH OF CARROLL STREET

BALTIMORE CITY SURVEY BOOKS	
BOOK NO.	DESCRIPTION
I-170-213	STORM DRAIN OUTFALL - TRAVERSE REFERENCES AND TIES TO BALTO. CITY SURVEY CONTROL. SIDE STREET SPUR LINES - WARNER ST. TO LOMBARD ST.
I-170-214	STORM DRAIN OUTFALL - LEVELS
I-170-215, 216 & 217	STORM DRAIN OUTFALL - TOPOGRAPHY, UTILITY ELEVATIONS AND CROSS SECTIONS
I-170-218, 219 & 220	SIDE STREETS - REFERENCES & TOPOGRAPHY WARNER STREET TO PRATT STREET
I-170-221 & 222	SIDE STREETS - SPUR LINES, REFERENCES & TOPOGRAPHY - LOMBARD ST. TO SARAH ANN ST.
I-170-223, 224, 225 & 226	SIDE STREETS - BENCH MARKS, PROFILES & CROSS SECTIONS - WARNER STREET TO SARATOGA STREET
I-170-227	STORM DRAIN OUTFALL - BORING & AUGER LOCATIONS



LOCATION PLAN
SCALE 1"=500'

LENGTH OF PROJECT 5009 FEET

RIGHT OF WAY PLAT NO. I-170-12

RIGHT OF WAY LINES SHOWN ON THESE PLANS DO NOT INCLUDE EASEMENT THEY ARE FOR ASSISTANCE IN INTERPRETING THE PLANS. THESE LINES DO NOT REPRESENT THE OFFICIAL PROPERTY ACQUISITION LINES. FOR OFFICIAL FEE RIGHT OF WAY AND EASEMENT INFORMATION, SEE THE APPROPRIATE RIGHT OF WAY PLAT OR PLATS.

NOTE: EFFECTIVE JULY 1, 1977, IN ACCORDANCE WITH THE PROVISION OF CHAPTER 526 OF THE ACTS OF THE 1970 GENERAL ASSEMBLY WHEREVER THE TITLE "STATE ROADS COMMISSION" AND/OR TERM "COMMISSION" IS USED, IT SHALL BE CONSTRUED TO BE "THE STATE HIGHWAY ADMINISTRATION."

CHECKED BY: BUREAU OF ENGINEERING WATER DIVISION WASTE WATER DIVISION HIGHWAY ENGINEERING DIVISION SURVEY AND RECORDS DIVISION BUREAU OF UTILITY OPERATIONS LIGHTING SECTION HIGHWAY MAINTENANCE DIV. CONDUIT SECTION HIGHWAY MAINTENANCE DIV.	INITIALS R.J.R./B.P. W.A.H./B.P. W.J.S. G.L.N./B.P. G.L.N./B.P.	DATE 3-6-74 3-6-74 3-6-74 3-6-74 3-6-74	CITY OF BALTIMORE DEPARTMENT OF PUBLIC WORKS APPROVAL RECOMMENDED APPROVED DIRECTOR OF PUBLIC WORKS	PREPARED BY BALLARD-DIVER JOINT VENTURE CONSULTING ENGINEERS 17 GWYNNS MILL COURT OWINGS MILLS, MARYLAND 21117 SIGNED DATE	CITY OF BALTIMORE APPROVED David A. Conroy 3/6/74 SEDIMENTATION AND EROSION CONTROL REPRESENTATIVE	THE STATE HIGHWAY ADMINISTRATION REVIEWED AND APPROVAL RECOMMENDED APPROVAL RECOMMENDED APPROVED CHIEF ENGINEER	U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION APPROVED DIVISION ENGINEER
	DEPARTMENT OF TRANSIT AND TRAFFIC INITIALS J.W.B.	DATE 3-6-74	DATE 3/5/74	DATE 3/5/74	DATE 3/6/74	DATE 3/6/74	DATE 3/6/74

1987