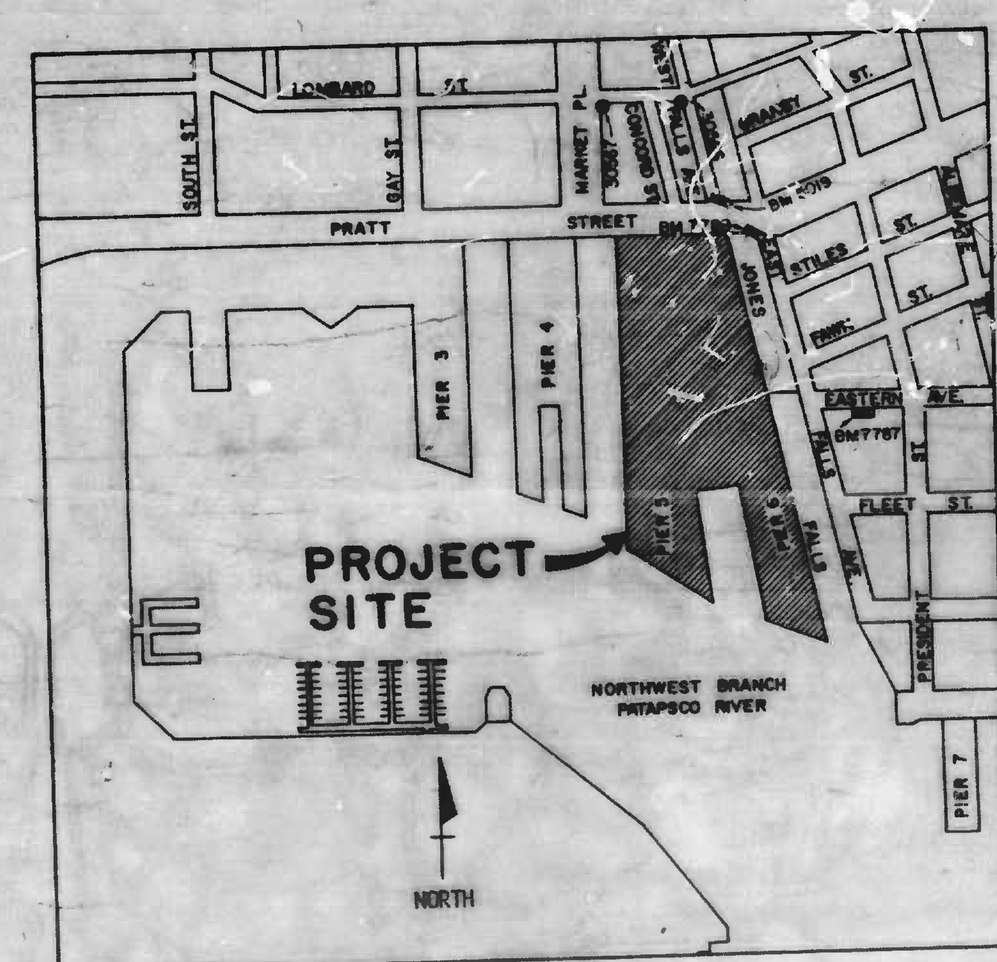
RATIO - 24

CITY OF BALTIMORE
DEPARTMENT OF TRANSPORTATION
HIGHWAY AND BRIDGE ENGINEERING

CITY OF BALTIMORE HIGHWAY AND BRIDGE ENGINEERING CONTRACT NO. 3162

PIERS 5 AND6 - UTILITIES



LOCATION PLAN

SCALE IN FEET

200 0 200 400 600 800

BENCH MARKS

BM 5019 — EL. 13.305

SQUARE (□) CUT ON TOP OF STONE RET. WALL ON W.SIDE JONES FALLS AT N.E. COR. PRATT STREET AND W.FALLS AVENUE.

BM 7767 — EL. 9.863

SQUARE (□) CUT W.END OF BOTTOM STONE STEP, ENTRANCE TO 2 S.B. PUMPING STATION, S.SIDE EASTERN AVENUE, 140'± E. OF EAST FALLS AVENUE.

BM 7768 — EL. 16.692

BRONZE U.S.C.G. MARKER IN CONCRETE BLOCK E. END CONCRETE GUARD WALL AT S.W. CORNER PRATT STREET AND EAST FALLS AVE.

CITY TRAVERSE POINTS

30566

GALVANIZED PLUG ON S.W. CORNER OF LOMBARD STREET AND WEST FALLS AVENUE, 4.3' OFF THE BUILDING.

30567

SQUARE (□) CUT ON RIM OF M.H.- S.E. COR. LOMBARD STREET AND MARKET PLACE, 13.9' FROM C.C.C. CAMPUS BUILDING.

DEPARTMENT OF TRANSPORTATION

HIGHWAY ENGINEERING

BRIDGE ENGINEERING

TRAFFIC ENGINEERING

Acting UTILITY ENGINEERING

APPROVED

COMMISSIONER OF TRANSPORTATION

HIGHWAYS AND BRIDGES

OPERATIONS

TRAFFIC AND UTILITIES

DRAWING SHEET 1 OF 13

10-15-87

WHITMAN, REQUARDT AND ASSOCIATES
ENGINEERS
2315 ST. PAUL STREET
BALTIMORE, MARYLAND

2/17/87
DATE

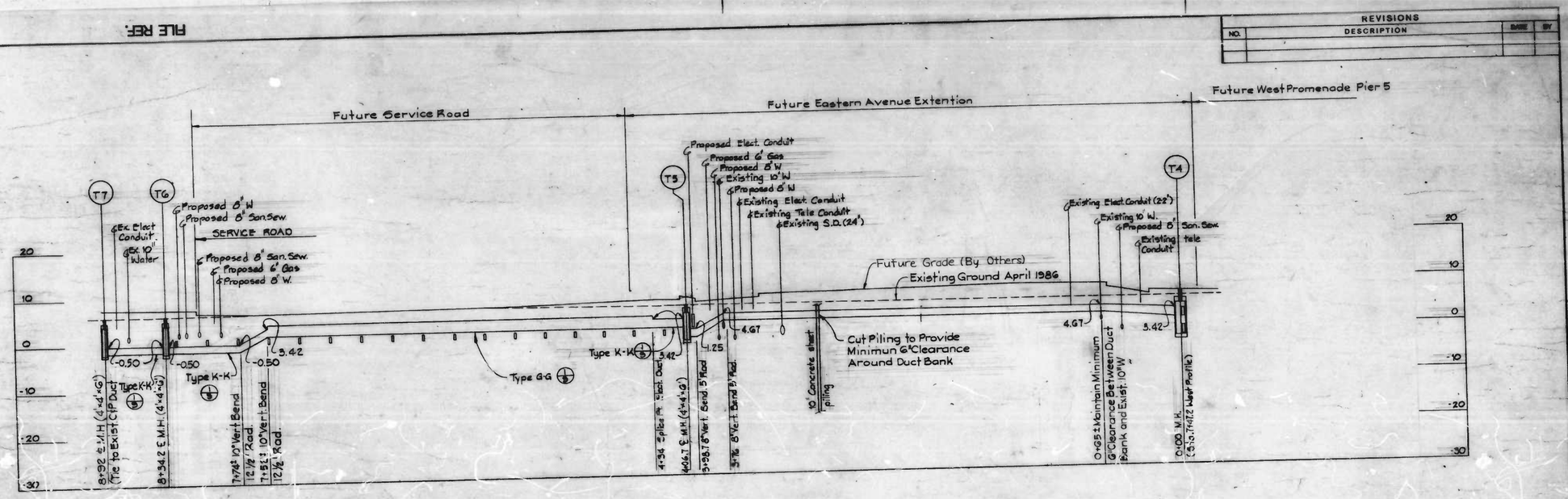
	B. OF N. REVIEW	R/W RELEASE	GRADE E.S.T.	HIGHWAY DESIGN	STRUCTURAL	DRAINAGE	LIGHTING	CONDUIT	SEDIMENTATION AND EROSION CONTROL	TRAFFIC	WASTE WATER ENGINEERING	WATER ENGINEERING
BY:		[illegible]	R. Thomas	Carter	R. Chen	[illegible]	DPK	DPK	[illegible]	[illegible]	[illegible]	[illegible]
DATE:		1/14/87	1/14/87	1/14/87	7/28/87	8-25-87	1/30/87	7/14/87	8/14/87	8/31/87	7/24/87	7/27/87

3162

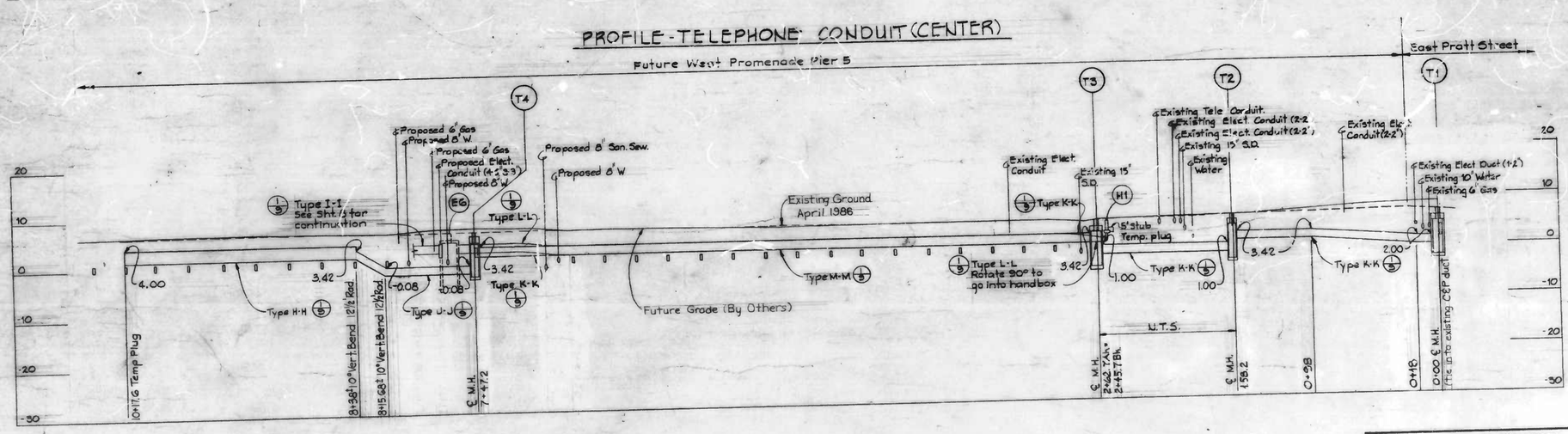
RATIO - 24

FILE REF.

REVISIONS			
NO.	DESCRIPTION	DATE	BY



PROFILE - TELEPHONE CONDUIT (CENTER)



PROFILE - TELEPHONE CONDUIT (WEST)

DRAWN BY .....
EXAMINED BY .....

KEUFFEL & ESSER 8-9502

W.O. 80299

WHITMAN, REQUARDT AND ASSOCIATES
ENGINEERS
BALTIMORE MARYLAND

CITY OF BALTIMORE
DEPARTMENT OF TRANSPORTATION
HIGHWAY AND BRIDGE ENGINEERING

CONTRACT NO. 3162

PIERS 5&6 UTILITIES

BALTIMORE CITY CONDUIT PROFILES

SCALE HORIZ. 1" = 40'
VERT. 1" = 10'

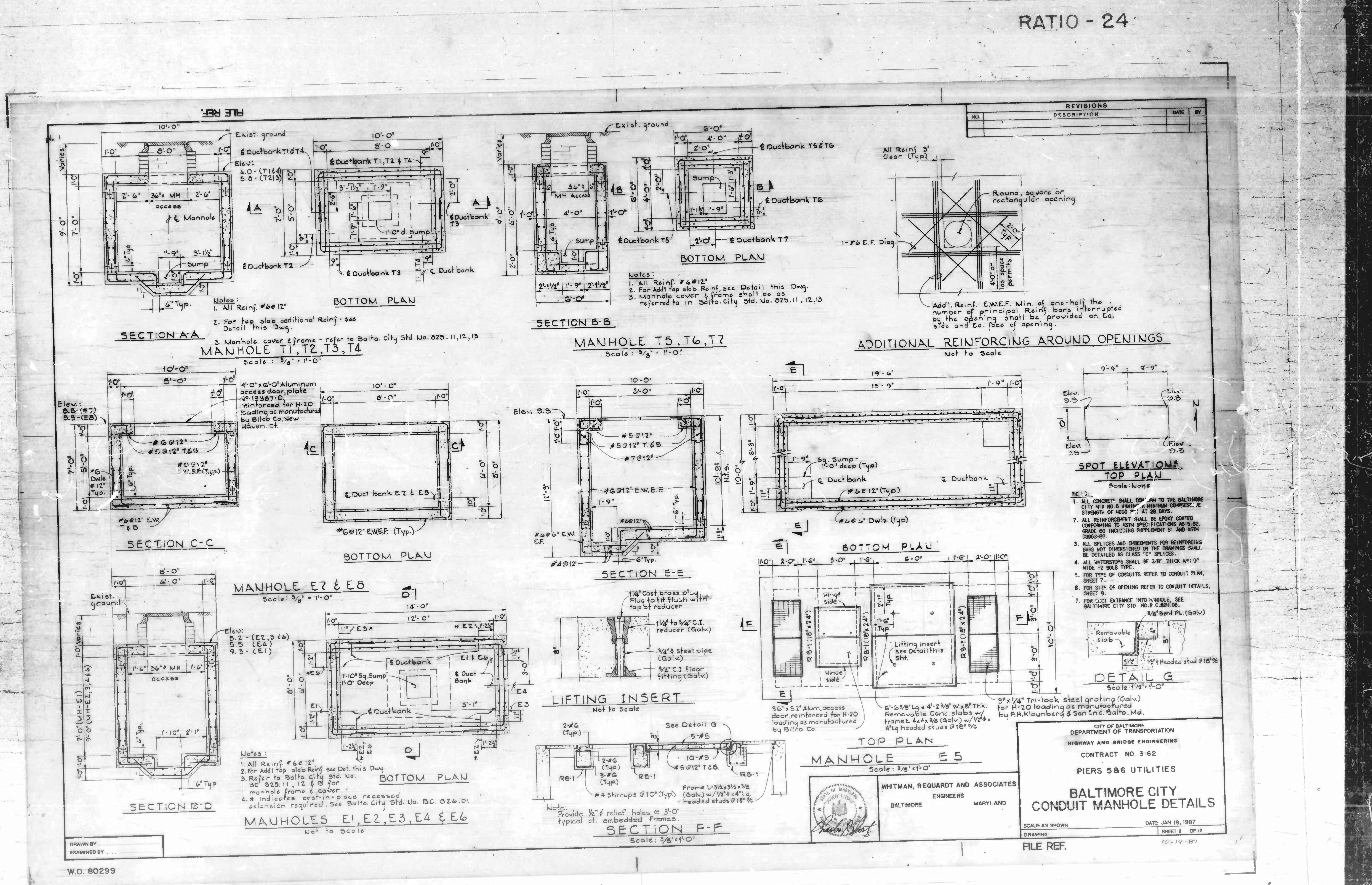
DATE JAN. 19, 1987

DRAWING

SHEET 10 OF 13

10-15-87

FILE REF.

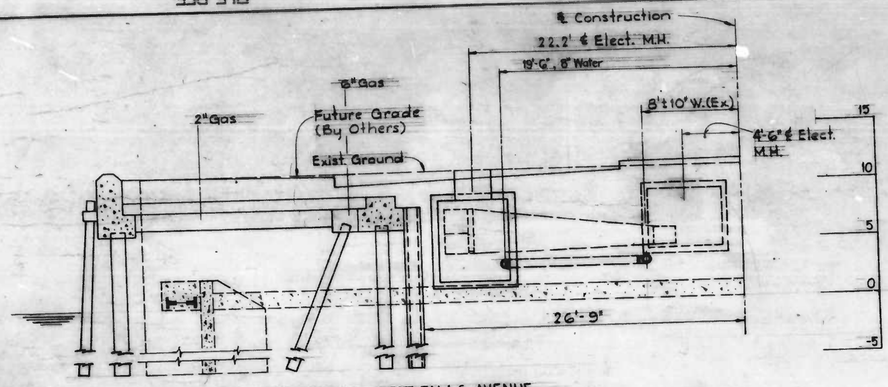


RATIO - 24
FILE REF.
REVISIONS
NO. DESCRIPTION DATE BY
SECTION A-A
BOTTOM PLAN
MANHOLE T1, T2, T3, T4
Scale: 3/8" = 1'-0"
Notes:
1. All Reinf. #6@12"
2. For top slab additional Reinf.- see Detail this Dwg.
3. Manhole cover & frame - refer to Balto. City Std. No. 825.11, 12, 13
SECTION B-B
BOTTOM PLAN
MANHOLE T5, T6, T7
Scale: 3/8" = 1'-0"
Notes:
1. All Reinf. #6@12"
2. For Add'l top slab Reinf., see Detail this Dwg.
3. Manhole cover & frame shall be as referred to in Balto. City Std. No. 825.11, 12, 13
ADDITIONAL REINFORCING AROUND OPENINGS
Not to Scale
All Reinf. 3" Clear (Typ.)
Round, square or rectangular opening
Add'l. Reinf. E.W.E.F. Min. of one-half the number of principal Reinf. bars interrupted by the opening shall be provided on Ea. side and Ea. face of opening.
SECTION C-C
BOTTOM PLAN
MANHOLE E7 & E8
Scale: 3/8" = 1'-0"
4'-0" x 6'-0" Aluminum access door, plate No 13387-D, reinforced for H-20 loading as manufactured by Bilco Co. New Haven, Ct.
SECTION E-E
BOTTOM PLAN
SPOT ELEVATIONS TOP PLAN
Scale: None
NOTES:
1. ALL CONCRETE SHALL CONFORM TO THE BALTIMORE CITY MIX NO.5 HAVING A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
2. ALL REINFORCEMENT SHALL BE EPOXY COATED CONFORMING TO ASTM SPECIFICATIONS A615-82, GRADE 60 INCLUDING SUPPLEMENT S1 AND ASTM D3963-82.
3. ALL SPLICES AND EMBEDMENTS FOR REINFORCING BARS NOT DIMENSIONED ON THE DRAWINGS SHALL BE DETAILED AS CLASS "C" SPLICES.
4. ALL WATERSTOPS SHALL BE 3/8" THICK AND 9" WIDE -2 BULB TYPE.
5. FOR TYPE OF CONDUITS REFER TO CONDUIT PLAN, SHEET 7.
6. FOR SIZE OF OPENING REFER TO CONDUIT DETAILS, SHEET 9.
7. FOR DUCT ENTRANCE INTO MANHOLE, SEE BALTIMORE CITY STD. NO. B.C.824.06.
SECTION D-D
BOTTOM PLAN
MANHOLES E1, E2, E3, E4 & E6
Not to Scale
Notes:
1. All Reinf. #6@12"
2. For Add'l top slab Reinf. see Det. this Dwg.
3. Refer to Balto. City Std. No. BC 825.11, 12 & 13 for manhole frame & cover.
4. * Indicates cast-in-place recessed extension required. See Balto. City Std. No. BC. 826.01
LIFTING INSERT
Not to Scale
1 1/4" Cast brass plug. Plug to fit flush with top of reducer
1 1/4" to 3/4" C.I. reducer (Galv.)
3/4" ϕ Steel pipe (Galv.)
3/4" C.I. floor fitting (Galv.)
SECTION F-F
Scale: 3/8" = 1'-0"
Note: Provide 1/2" ϕ relief holes @ 3'-0" typical all embedded frames.
Frame L-3 1/2 x 3 1/2 x 3/8 (Galv.) w/ 1/2" ϕ x 4" Lg. headed studs @18" c/c
TOP PLAN
MANHOLE E5
Scale: 3/8" = 1'-0"
36" x 52" Alum. access door reinforced for H-20 loading as manufactured by Bilco Co.
6'-6 3/8" Lg. x 4'-2 3/8" W. x 8" Thk. Removable Conc. slabs w/ frame L 4x4x3/8 (Galv.) w/ 1/2" ϕ x 4" Lg headed studs @18" c/c
3" x 1/4" Tri-lock steel grating (Galv.) for H-20 loading as manufactured by F.H. Klaunberg & Son Inc. Balto., Md.
DETAIL G
Scale: 1 1/2" = 1'-0"
3/8" Bent PL. (Galv.)
Removable slab
1/2" ϕ Headed stud @18" c/c
WHITMAN, REQUARDT AND ASSOCIATES
ENGINEERS
BALTIMORE MARYLAND
CITY OF BALTIMORE
DEPARTMENT OF TRANSPORTATION
HIGHWAY AND BRIDGE ENGINEERING
CONTRACT NO. 3162
PIERS 5&6 UTILITIES
BALTIMORE CITY
CONDUIT MANHOLE DETAILS
SCALE AS SHOWN
DATE: JAN 19, 1987
DRAWING
SHEET 11 OF 12
FILE REF.
10-19-87
DRAWN BY
EXAMINED BY
W.O. 80299

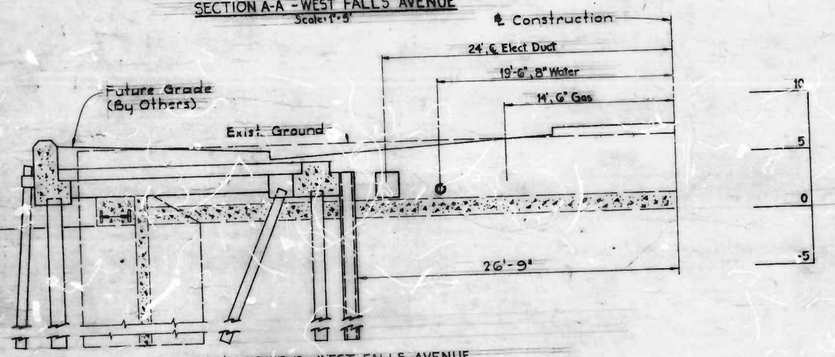
RATIO - 24

FILE REF.

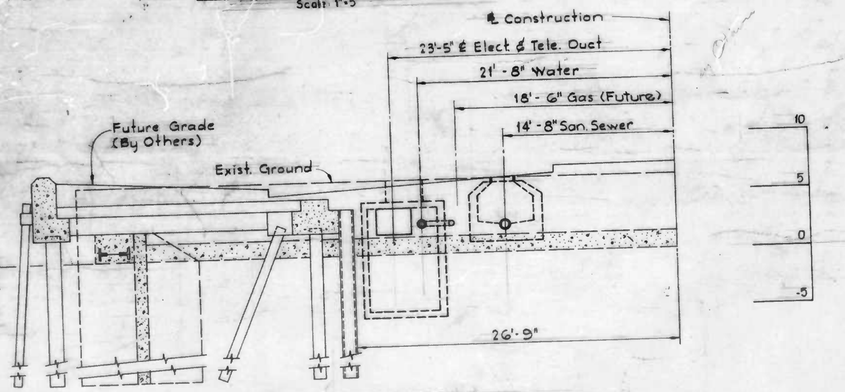
REVISIONS			
NO.	DESCRIPTION	DATE	BY



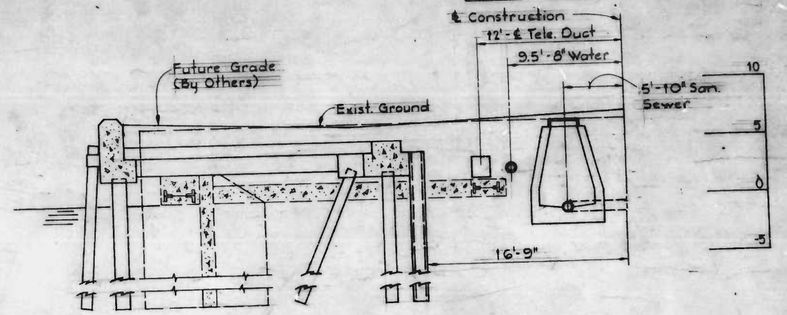
SECTION A-A - WEST FALLS AVENUE
Scale: 1"=5'



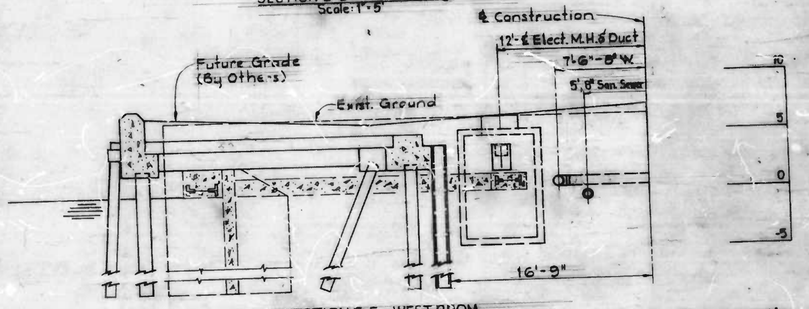
SECTION B-B - WEST FALLS AVENUE
Scale: 1"=5'



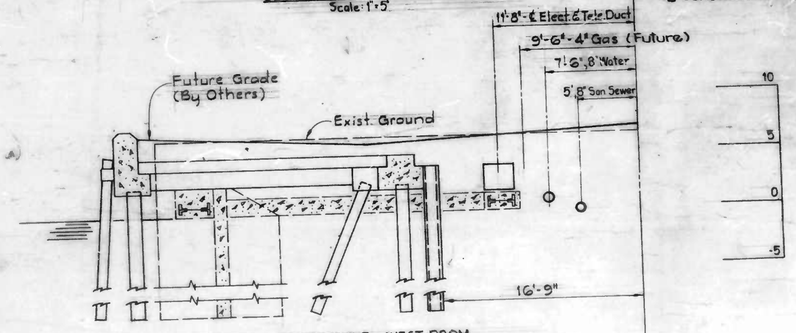
SECTION C-C - SERVICE DRIVE
Scale: 1"=5'



SECTION D-D - WEST PROM.
Scale: 1"=5'



SECTION E-E - WEST PROM.
Scale: 1"=5'



SECTION F-F - WEST PROM
Scale: 1"=5'

CITY OF BALTIMORE
DEPARTMENT OF TRANSPORTATION
HIGHWAY AND BRIDGE ENGINEERING

CONTRACT NO. 3162

PIERS 5&6 UTILITIES

CROSS SECTIONS

SCALE AS SHOWN
DATE JAN. 19, 1987
DRAWING:
SHEET 12 OF 13

FILE REF.

10-15-87

WHITMAN, REQUARDT AND ASSOCIATES
ENGINEERS
BALTIMORE MARYLAND

DRAWN BY
EXAMINED BY

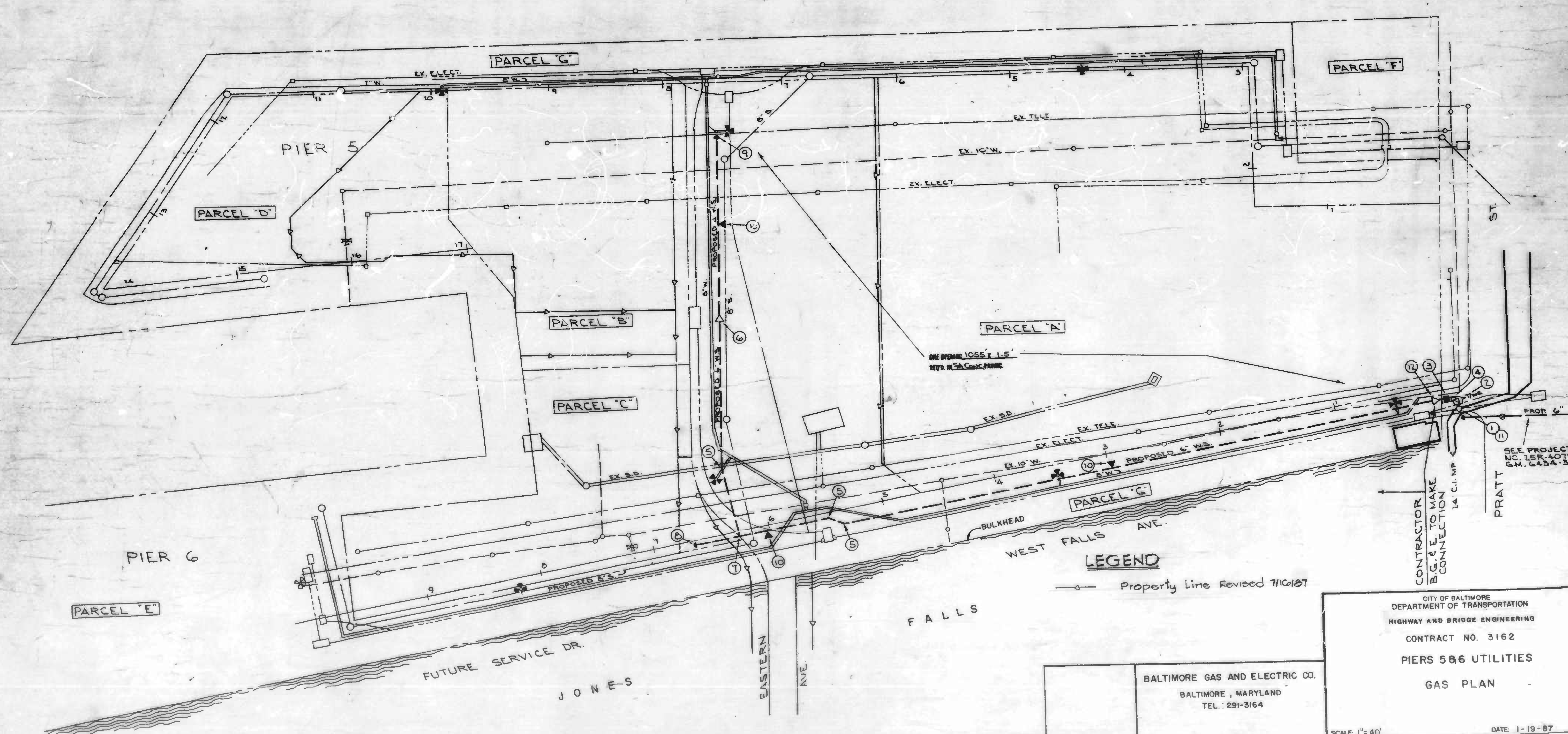
KEUFFEL & ESSER B-9653

RATIO - 24

G.M. 9037-1
INSTALL ABOUT 855' OF 6" W.S. GAS MAIN (MP)

G.M. 9037-2
INSTALL ABOUT 165' OF 4" W.S. GAS MAIN (MP)

ITEM	NUMBER		ONE-WAY DISTANCE (B)	SLACK (C)	TOTAL QUANTITY	SIZE	DESCRIPTION	GAS SPEC. PAGE	MATERIAL NUMBER
1					1	2"	TEE, STREET		31-6[illegible]
2					1	2"	COUPLING, INSUL.		40-188
3					1	2"	COUPLING, NON-INSUL.		40-187
4					1	2"	ELBOW 90°		40-236
5					3	6"	ELBOW, 45°		40-928
6					1	6"	X 4" REDUCER		40-674
7					1	6"	TEE		40-675
8					1	6"	CAP, WELD		40-932
9					1	4"	CAP, WELD		40-937
10					3		ANODE, 17 lb.		30-190
11					1		SMALL FRAME & COVER		205-506-1
12					1	6"	X 2" REDUCER		40-657
					855'	6"	W.S. GAS MAIN		40-319
					165'	4"	W.S. GAS MAIN		40-316
					35'	2"	W.S. GAS MAIN		40-311



LEGEND

—o— Property Line Revised 7/10/87

BALTIMORE GAS AND ELECTRIC CO.
BALTIMORE, MARYLAND
TEL.: 291-3164

CITY OF BALTIMORE
DEPARTMENT OF TRANSPORTATION
HIGHWAY AND BRIDGE ENGINEERING

CONTRACT NO. 3162

PIERS 5&6 UTILITIES

GAS PLAN

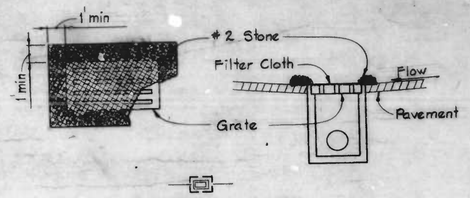
SCALE: 1" = 40'
DATE: 1-19-87
SHEET 13 OF 13
DRAWING:
10-19-87

Test 100 psig - 20 min.

W.O. 80299

RATIO - 24

FILE REF.



STANDARD SYMBOL

CONSTRUCTION SPECIFICATIONS

1.) Place a piece of approved filter cloth (40-85) sieve at least 2' larger in both dimensions than the grate over the drop inlet as shown on the standard drwg.

2) Place clean 2' stone over the filter fabric in such a manner as to prevent water from entering the inlet under the filter cloth.

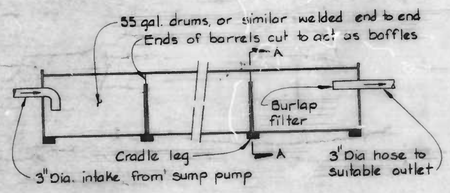
3.) This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.

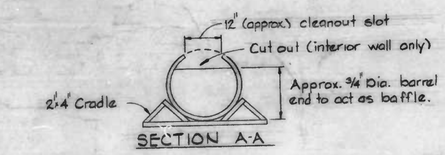
4.) Assume that storm flow does not bypass inlet by installing temporary earth or asphalt dikes directing flow into inlet.

5.) Provide suitable traffic protection and warning devices around all inlets in paved or trafficated areas while sediment control devices are in place.

TYPE 1 INLET PROTECTION - DETAIL

No Scale





SECTION A-A

1) Clean out sediment tank when one third (1/3) filled with silt.

2.) Steel drums are used as an example due to thier ready availability, Any tanks may be used, Providing that the volume meets the following formula: Pump discharge (G.P.M.) x 16 = (Cubic Foot Storage)

3.) All Sediment collected in the tank shall be disposed of in a sediment trapping device or as approved by the inspector.

PORTABLE SEDIMENT TANK

No Scale

DRAWN BY
EXAMINED BY

80299

SUGGESTED SEQUENCE OF CONSTRUCTION

A. CONDITIONS

THE CONTRACTOR WILL SUBMIT WRITTEN NOTIFICATION TO THE BALTIMORE CITY SEDIMENT CONTROL REPRESENTATIVE AT LEAST THREE WORKING DAYS BEFORE STARTING ANY GRADING ACTIVITIES. STATING THE FOLLOWING:

1. THE DAY HE INTENDS TO START WORK.
2. THE SOURCE OF ALL BORROW MATERIAL.
3. THE DESIGNATED STOCKPILE AREA.
4. THE CONTRACTOR'S STAGING AREA.
5. THE DISPOSAL SITE FOR ALL EXCESS MATERIAL.
6. THE CONSTRUCTION SEQUENCE.
7. THE COMPLETION DAY OF THE WORK.

B. INSTALL TYPE 1 INLET PROTECTION.

C. PERFORM REQUIRED CONSTRUCTION ACTIVITIES AS SHOWN ON THE PLANS.

D. NO PUMPING FROM UTILITIES EXCAVATIONS WILL BE ALLOWED DIRECTLY INTO CITY SYSTEM UNTIL IT IS FILTERED BY WAY OF THE PORTABLE SEDIMENT TANK AS SHOWN ON THIS SHEET.

E. ALL EXCAVATION MATERIAL SHALL BE PLACED ON THE HIGH SIDE WHENEVER POSSIBLE AND CONFINED TO AN AREA WHERE IT WILL NOT OBSTRUCT THE NORMAL FLOW OF DRAINAGE COURSES.

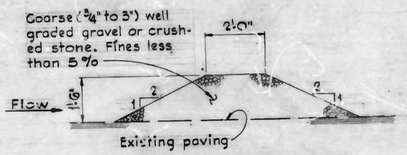
F. CONTINUOUS INSPECTION AND MAINTENANCE OF ALL SEDIMENT CONTROL DEVICES WILL BE REQUIRED.

G. ALL UTILITY TRENCHES TO BE STABILIZED WITH BITUMINOUS CONCRETE PATCH IN ACCORDANCE WITH BALTIMORE CITY STANDARD NO. BC-576. 1D

H. ALL DISTURBED AREAS SHALL BE STABILIZED IN ACCORDANCE WITH SCS STANDARDS.

I. REMOVE TEMPORARY EROSION CONTROL MEASURES ONLY AFTER WRITTEN APPROVAL FROM BALTIMORE CITY'S SEDIMENT AND EROSION CONTROL INSPECTOR.

DEPARTMENT OF PUBLIC WORKS, BUREAU OF HIGHWAYS
ENVIRONMENTAL SERVICES DIVISION, EROSION
AND SEDIMENT CONTROL SECTION
309 MUNICIPAL BUILDINGS
BALTIMORE, MARYLAND 21202
PHONE (301) 396-3693



STONE DIKE SECTION

Scale: 1/2" = 1'-0"

LEGEND

Inlet Protection

Stone Dike

EROSION AND SEDIMENT CONTROL NOTES

1. THE CONTRACTOR MUST COMPLY WITH ALL REQUIREMENTS OF THE "BALTIMORE CITY EROSION AND SEDIMENT CONTROL MANUAL" AND THE "1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" (SCS STANDARD SPECIFICATIONS) AS DISTRIBUTED AND MODIFIED BY THE BALTIMORE CITY SEDIMENT CONTROL SECTION.

   NOTHING HEREIN RELIEVES THE CONTRACTOR FROM COMPLYING WITH ANY AND ALL OTHER FEDERAL, STATE OR MUNICIPAL REGULATIONS.

2. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF TWO ACRES, THE PERMITTEE SHALL REQUEST THAT A BALTIMORE CITY EROSION AND SEDIMENT CONTROL INSPECTOR INSPECT AND APPROVE THE WORK, COMPLETED AT THE STATES OF CONSTRUCTION SPECIFIED BELOW, TO ENSURE ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN, THE GRADING OR BUILDING PERMIT, AND THIS MANUAL.
   a. UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, PRIOR TO PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE; AND
   b. UPON FINAL STABILIZATION BEFORE REMOVAL OF SEDIMENT CONTRDLS.
3. ALL SEDIMENT CONTROLS AND CRITICAL SLOPES MUST BE STABILIZED WITHIN SEVEN CALENDAR DAYS. ALL OTHER DISTURBED AREAS ON THE PROJECT SITE MUST BE STABILIZED WITHIN FOURTEEN CALENDAR DAYS. ALL STOCKPILE AREAS MUST BE STABILIZED (TEMPORARY STABILIZATION) IN SEVEN (7) CALENDAR DAYS.
4. NO PUMPING FROM FOUNDATION EXCAVATIONS WILL BE ALLOWED DIRECTLY INTO CITY SYSTEM UNTIL IT IS FILTERED BY WAY OF THE PORTABLE SEDIMENT TANK AS SHOWN ON THIS SHEET.
5. ALL EXCAVATED MATERIAL SHALL BE PLACED ON THE HIGH SIDE OF THE EXCAVATION WHENEVER POSSIBLE AND CONFINED TO AN AREA WHERE IT WILL NOT OBSTRUCT THE NORMAL FLOW OF DRAINAGE COURSES.
6. CONTINUOUS INSPECTION AND MAINTENANCE OF ALL SEDIMENT CONTROL DEVICES WILL BE REQUIRED. ADDITIONALLY, INSPECTION AND REQUIRED MAINTENANCE SHALL BE PERFORMED AFTER EACH RAIN.
7. ALL STOCKPILED EARTH AND TOPSOIL SHALL BE PROTECTED BY A SILT FENCE ALL STOCK PILES INTENDED TO REMAIN OR REMAINING INACTIVE MORE THAN 30 DAYS SHALL BE STABILIZED BY TEMPORARY SEEDING.
8. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING SEDIMENT CONTROL PERMITS FROM THE APPROPRIATE AGENCY FOR OFFSITE BORROW OR SPOIL AREAS.

EARTHWORK BALANCE (C.Y.)

DESCRIPTION	EXCAVATION	FILL	BORROW
UTILITY CONSTRUCTION	3750	3750	--

OWNERS/DEVELOPERS CERTIFICATION

"I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION AND/OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS PLAN AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATION OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT."

SIGNATURE OWNER/DEVELOPER — James A. Zitz 3/5/87 PRINT SAME / DATE

204 Municipal Bldg. — ADDRESS — 396-4600 PHONE

ENGINEER'S CERTIFICATION

"I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL, WORKABLE PLAN BASED ON PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE BALTIMORE CITY EROSION AND SEDIMENT CONTROL SECTION.

SIGNATURE — 1-27-87 DATE — Charles R. Lortz PRINT SAME

2315 St Paul Street ADDRESS — (301) 235-3451 PHONE

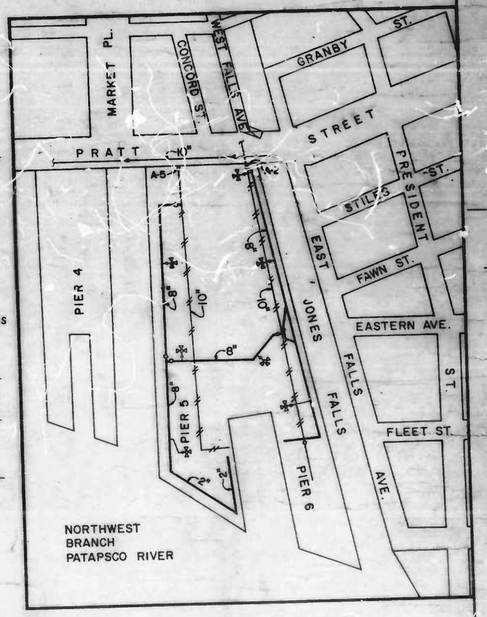
APPROVED BY: Frederick Mace 3/9/87 EROSION AND SEDIMENT CONTROL REPRESENTATIVE

Notes:
1. 100 year flood level is El. 8.8. All of Piers 5 and 6 are below El. 8.8.
2. Contractor is responsible for preventing the tracking of dirt onto Pratt Street from all vehicles.
3. No Stockpiling of earth will be permitted.
4. Limit of Disturbance shall be confined to the Rights-of-Way (Parcel "G").

REVISIONS			
NO.	DESCRIPTION	DATE	BY

VALVE SHUTDOWN SEQUENCE

CLOSE VALVES	WORK AREA
A-2	PIER 6 AT PRATT ST. CONSTRUCT TEMPORARY SPLIT BUTTRESS. CONNECT TO EXISTING 10" WITH 10"x8" REDUCER AND 8"- 1/8 BEND. CAP AND ABANDON 10" SOUTH OF PRATT STREET.
A-5	PRATT STREET. SHUT VALVE A-5 TO MAKE CONNECTION TO EXISTING 10" INCH. CUT AND CAP 10"W SOUTH OF CONNECTION.



SHUTDOWN DIAGRAM

SCALE: NONE

PHASED STABILIZATION CHART					
ACTIVE	INACTIVE	AREA	SQUARE FEET	TYPE OF STABILIZATION	SEQUENCE
	X	A	149,200	BITUMINOUS CONCRETE PAVEMENT.	G

WHITMAN, REQUARDT AND ASSOCIATES
ENGINEERS
BALTIMORE MARYLAND

CITY OF BALTIMORE
DEPARTMENT OF TRANSPORTATION
HIGHWAY AND BRIDGE ENGINEERING

CONTRACT NO.

PIERS 5&6 UTILITIES

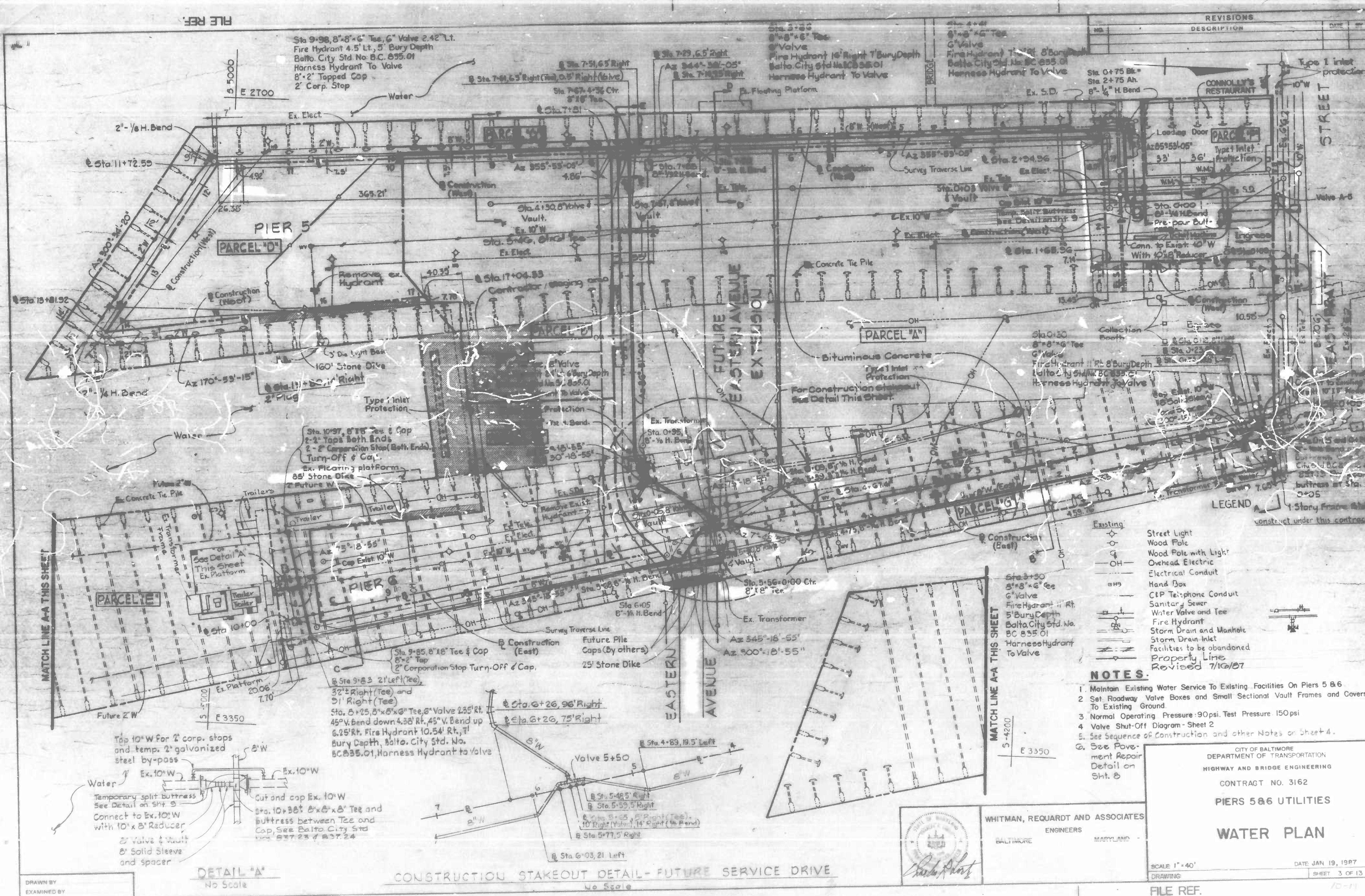
SEDIMENT AND EROSION CONTROL PLAN & DETAILS

SCALE AS SHOWN — DATE JAN 19,1987

DRAWING — SHEET 2 OF 13

FILE REF. 10-15-87

RATIO - 24



LEGEND

Existing

- Street Light
- Wood Pole
- Wood Pole with Light
- Overhead Electric
- Electrical Conduit
- Hand Box
- C&P Telephone Conduit
- Sanitary Sewer
- Water Valve and Tee
- Fire Hydrant
- Storm Drain and Manhole
- Storm Drain Inlet
- Facilities to be abandoned
- Property Line

Revised 7/10/87

NOTES

1. Maintain Existing Water Service To Existing Facilities On Piers 5 & 6
2. Set Roadway Valve Boxes and Small Sectional Vault Frames and Covers To Existing Ground
3. Normal Operating Pressure: 90 psi. Test Pressure 150 psi
4. Valve Shut-Off Diagram - Sheet 2
5. See Sequence of Construction and other Notes on Sheet 4.
6. See Pavement Repair Detail on Sht. 8

WHITMAN, REQUARDT AND ASSOCIATES
ENGINEERS
BALTIMORE MARYLAND

CITY OF BALTIMORE
DEPARTMENT OF TRANSPORTATION
HIGHWAY AND BRIDGE ENGINEERING

CONTRACT NO. 3162

PIERS 5&6 UTILITIES

WATER PLAN

SCALE 1" = 40'
DATE JAN 19, 1987
DRAWING
SHEET 3 OF 13

FILE REF.

10-14-87

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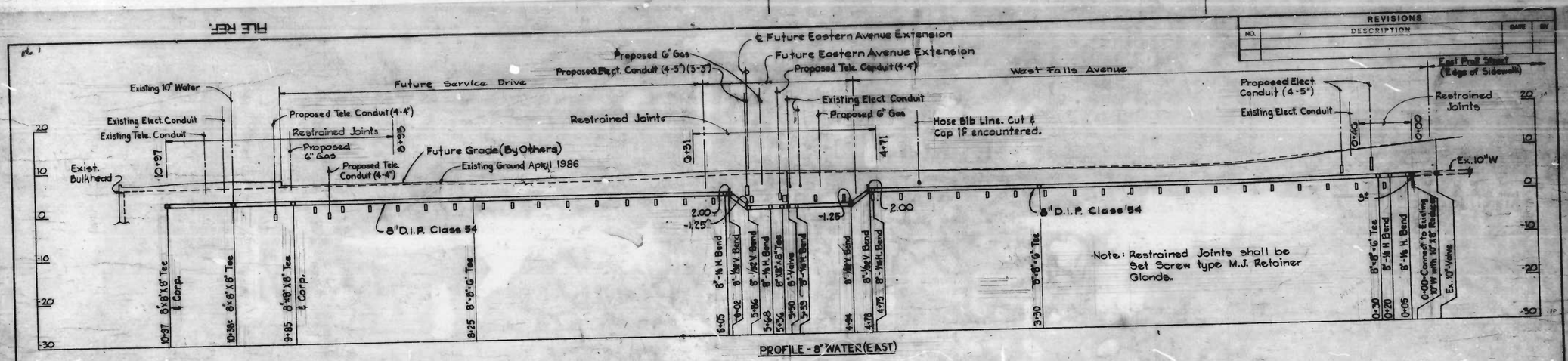
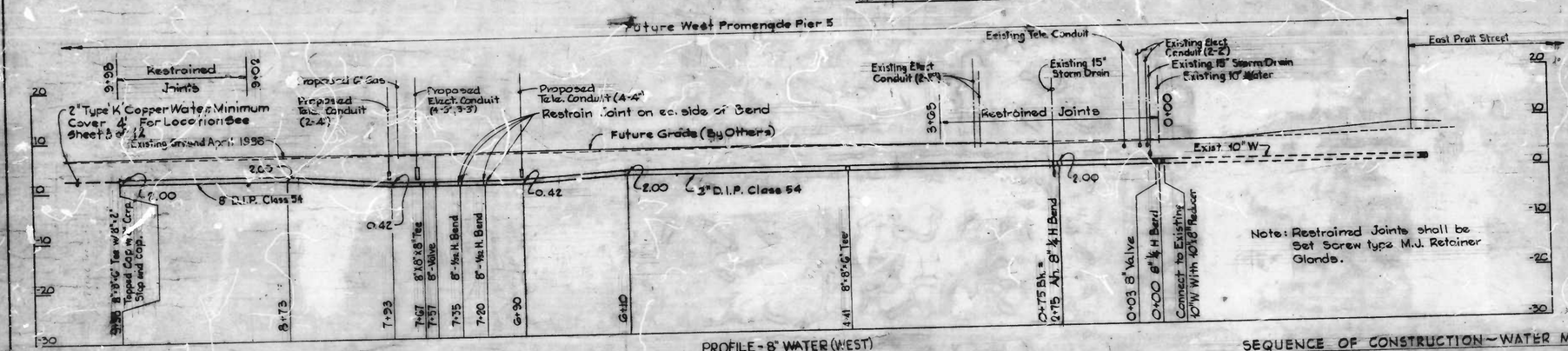
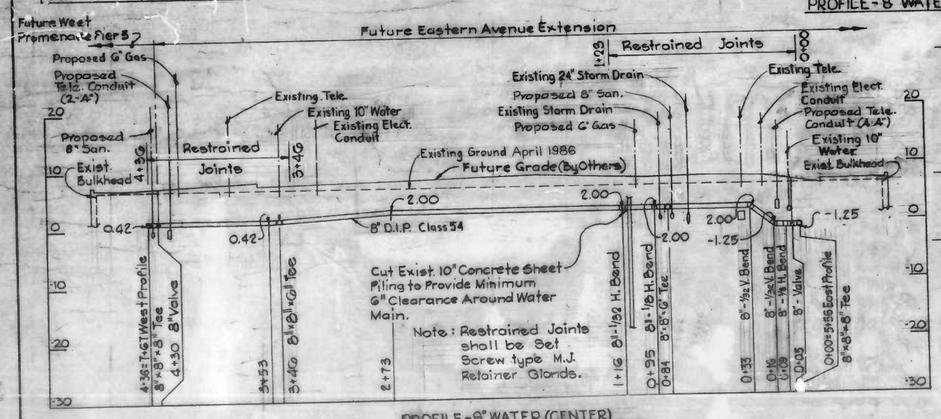


PROFILE - 8" WATER (EAST)



PROFILE - 8" WATER (WEST)



PROFILE - 8" WATER (CENTER)

8" WATER - COORDINATES

EAST WATER MAIN	NORTH COORDINATE	EAST COORDINATE
0+05 - 1/8H-BEND	-9978.5	3000.5
0+20 - 1/8H-BEND	-9906.005	3019.389
4+75 - 1/16H-BEND	-9626.193	3129.726
5+99 - 1/16H-BEND	-9489.426	3120.983
5+50 - 8"VALVE	-9509.097	3123.771
5+56 - 8X8 TEE	-9505.871	3125.282
5+68 - 1/8H-BEND	-9517.979	3126.334
6+05 - 1/8H-BEND	-9536.039	3160.076
9+85 - 8X8 TEE	-9903.626	3256.406
10+38 - 8X8 TEE	-9917.2	3205.2
10+97 - 8X8 TEE	-9932.018	3148.064

CENTER WATER MAIN	NORTH COORDINATE	EAST COORDINATE
0+05 - 8"VALVE	-9507.138	3120.456
0+09 - 1/8H-BEND	-9508.162	3116.586
0+95 - 1/8H-BEND	-9582.823	3073.042
1+16 - 1/32H-BEND	-9587.847	3052.728
4+30 - 8"VALVE	-9605.196	2739.882

WEST WATER MAIN	NORTH COORDINATE	EAST COORDINATE
0+00 - 10"X8"RED., 8"-1/4B.		
0+75 - 8X =	-9119.061	2695.882
2+79 - 1/4H-BEND	-9558.964	2727.592
7+20 - 1/32H-BEND	-9573.710	2731.601
7+35 - 1/32H-BEND	-9595.653	2733.180
7+57 - 8"VALVE	-9605.627	2739.897
7+67 - 8"X8" TEE	-9623.314	2761.993
- 2"-1/8H-BEND	-5139.610	2956.098
- 2"-1/4H-BEND		

NOTES:

1. Existing valves shall be operated by City Water Maintenance Forces only.
2. The proposed water main shall be installed in accordance with the Baltimore City Standard Specifications and the book of Standards.
3. Notify the Bureau of Water and Wastewater Maintenance Division two weeks in advance of starting work, at 396-0245.
4. Minimum cover for 2 inch Type K copper pipe is 4'0".

SEQUENCE OF CONSTRUCTION - WATER MAINS

1. Close Valve A-5 when Connollys will be shut down. Cut existing 10" at 0+00 (West) install 10"x 8" Red., 8" bend, 8" valve and vault. Close new valve, open Valve A-5.
2. Install 8" and 2" water (West).
3. Install 8" water (Center).
4. Install temp. 2" by-pass at 10+38 Rt. & Lt. on existing 10"W to maintain service to Music Pavilion.
5. Cut and cap existing 10"N & S of new line. See Detail A.
6. Install 8" water (East), South from Sta. 5+50 (℄) including valve to 10+07.
7. Sterilize and test mains.
8. Connect to Music Pavilion Service. See Detail A.
9. Remove 2" by-pass and close and cap corporation stops.
10. Install 8" water (East) north of valve 5+50 to about Sta. 0+05 (E).
11. Test and sterilize main between 0+05 and 5+50.
12. Close Valve A-2.
13. Cut and connect to existing 10" water at Sta. 0+00.
14. Open Valve A-2.

WHITMAN, REQUARDT AND ASSOCIATES
ENGINEERS
BALTIMORE MARYLAND

CITY OF BALTIMORE
DEPARTMENT OF TRANSPORTATION
HIGHWAY AND BRIDGE ENGINEERING

CONTRACT NO. 3162

PIERS 5&6 UTILITIES

WATER PROFILES

SCALE: HORIZ. 1" = 40' VERT. 1" = 10'
DATE: JAN. 19, 1987
DRAWING:
SHEET 4 OF 13

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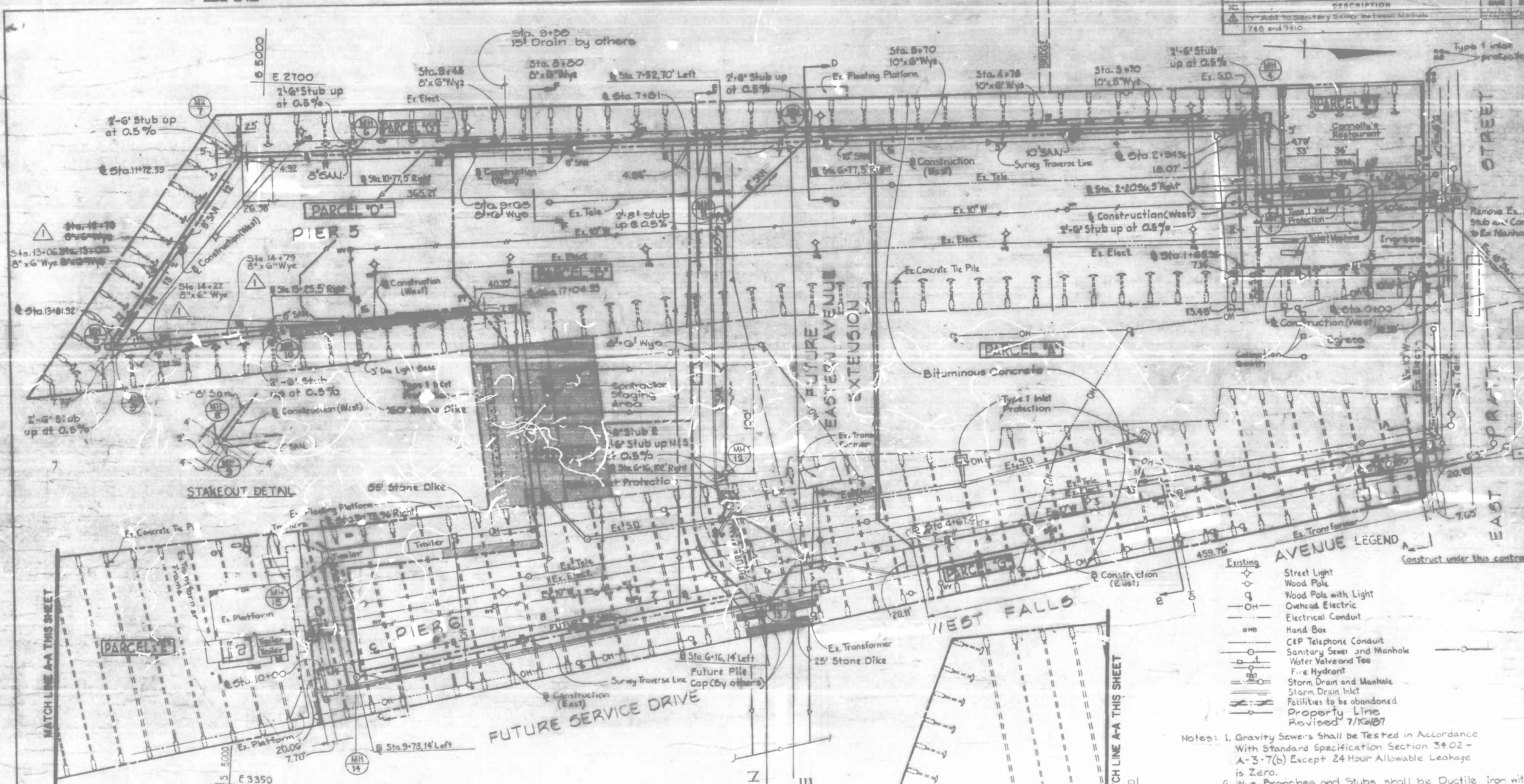

LEGEND

Existing

- Street Light
- Wood Pole
- Wood Pole with Light
- Overhead Electric
- Electrical Conduit
- Hand Box
- C&P Telephone Conduit
- Sanitary Sewer and Manhole
- Water Valve and Tee
- Fire Hydrant
- Storm Drain and Manhole
- Storm Drain Inlet
- Facilities to be abandoned
- Property Line

Construct under this contract

Revised 7/16/87

Notes:
1. Gravity Sewers Shall be Tested in Accordance With Standard Specification Section 34.02-A-3-7(b) Except 24 Hour Allowable Leakage is Zero.
2. Wye Branches and Stubs shall be Ductile Iron with push on joints and plugged with a plug that will allow Zero Leakage.
3. See Pavement Repair Detail on Sht. 8.

SANITARY SEWER - CENTERLINE COORDINATES OF MANHOLES

MANHOLE NUMBER	NORTH COORDINATE	EAST COORDINATE
MH. 1	-3935.909N	2799.479E
MH. 2	-3960.902N	2818.347E
MH. 3	-4126.436N	2830.257E
MH. 4	-4135.694N	2701.590E
MH. 5	-4521.736N	2729.365E
MH. 6	-4920.292N	2758.041E
MH. 7	-5018.538N	2765.109E
MH. 8	-5128.496N	2951.049E
MH. 9	-5120.748N	2965.626E
MH. 10	-4980.169N	2992.441E
MH. 11	-4531.160N	[illegible]09.564E
MH. 12	-4580.191N	3044.493E
MH. 13	-4550.785N	[illegible]
MH. 14	-4895.728N	3247.099E
MH. 15	-4923.612N	3140.693E

NOTE:
LEAKAGE TEST - Zero leakage is required in the test of the proposed sewer lines.

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DEPARTMENT OF TRANSPORTATION
HIGHWAY AND BRIDGE ENGINEERING

CONTRACT NO 3162

PIERS 5&6 UTILITIES

SANITARY SEWER PLAN

SCALE 1" = 40' DATE JAN 19, 1987
DRAWING SHEET 5 OF 13

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FILE REF.

NO	REVISIONS DESCRIPTION	DATE	BY
1	'Y' Added to Sanitary Sewer between Manholes 7 & 8 and 9 & 10		

EAST PRATT STREET

Future West Promenade Pier 5

Proposed Tele. Conduit (2'-4")
Proposed 6" Gas
Proposed Elect. Conduit (4'-5", 3'-3")
Proposed 8" Water
Proposed Tele. Conduit (4'-4")
Future Grade (By Others)
Existing Ground April 1986
Existing Tele. Conduit
Existing Elect. Conduit (2'-2")
Existing 10" Water
Existing Elect. Conduit (2'-2")
Existing 12" Storm Drain (Abandoned)
Existing Elect. Conduit (2'-2")

Sta. 2+98 8"x6" Wye
Sta. 2+73 8"x6" W
Sta. 2+08 8"x6" Wye
Sta. 1+80.04 10"x8" Wye
Sta. 1+55.04 10"x8" Wye
Sta. 0+80.04 10"x8" Wye

MH 6 Type 'A' MH
MH 5 Type 'A' MH
MH 4 Type 'A' MH
MH 3 Type 'A' MH
Ex. MH

Inv. 0.29
Inv. 0.19
6" Stub W Inv. 0.29 up at 0.5%
Sta. 2+98 8" Drain by others
Inv. -1.41
8"(E) Inv. -1.41
Inv. -1.57
6" Stub W Inv. -1.41 up at 0.5%
Inv. -2.65
6" Stub W Inv. -2.65 up at 0.5%
Inv. -2.75
Inv. -2.97
Inv. -3.07
6" Stub E Inv. -2.97 up at 0.5%
Inv. -4.28 Remove Ex. 15" Stub and Conn. to Ex. Manhole
15"(LE) -4.46 6'(W) -0.44

Match Line A-A This Sheet
8" cl. 52 DIP @ 0.40%
Std. Chan. No. 2 BC 870.30
Std. Chan. No. 12 With Chan. to W Added for Stub BC 870.34
10" cl. 52 DIP @ 0.25%
Std. Chan. No. 2 BC 870.30
Std. Chan. No. 1 BC 870.30
10" cl. 52 DIP @ 0.74%
0+00 4+00 3+67 0+00 0+79 0+00 4+63.5 0+00

PROFILE 10" & 8" SANITARY SEWER (WEST)

Future Service Drive
Future Eastern Avenue Extension
Future West Promenade

Existing Elect. Conduit
Existing 10" Water
Existing Tele. Conduit
Proposed 6" Gas
Existing 24" Storm Drain
Proposed 8" Water
Proposed Elect. Conduit (4'-5", 3'-3")
Future Grade (By Others)
Existing Ground April 1986
Existing Elect. Conduit
Existing 10" Water
Proposed Tele. Conduit (4'-4")
Existing Tele. Conduit
Prop. Tele. Conduit
Prop. 8" Water

Sta. 1+57 8"x6" Wye

MH 13 Type 'A' MH
MH 12 Type 'A' MH
MH 11 Type 'A' MH
MH 5 Type 'A' MH

Inv. 0.72
Inv. 0.62
Inv. 0.15
10" Concrete Sheet Piling
Inv. 0.05
8" Stub E 6" Stub S Inv. 0.16 up at 0.5%
Inv. -0.83
8" Stub S & N Inv. -0.89 up at 0.5%
Inv. -0.99
Inv. -1.41
8"(S) Inv. -1.41
6" Stub W Inv. -1.41 up at 0.5%
10"(N) Inv. -1.57

Note: Future Profile Contingent Upon Construction of New Bulkhead Along Jones Falls

Match Line B-B This Sheet
Future 8" @ 0.40%
Future 8" @ 0.40%
8" cl. 52 DIP @ 0.40%
8" cl. 52 DIP @ 0.40%
0+00 1+16 0+00 2+37 0+00 1+05 0+00

PROFILE 8" SANITARY SEWER EASTERN AVENUE EXTENSION

Sta. 0+93 8"x6" Wye
Sta. 0+45 8"x6" Wye
Sta. 1+35 8"x6" Wye

Future West Promenade Pier 5

6" Stub E & W Inv. 2.45 up at 0.5%
Future Grade (by Others)
Exist. Elect. Conduit
Existing Ground April 1986

MH 10 Type 'A' MH
MH 9 Type 'A' MH
MH 8 Type 'A' MH
MH 7 Type 'A' MH

Inv. 2.45
Inv. 1.88
Inv. 1.78
Inv. 1.64
Inv. 1.74
6" Stub E Inv. 1.88 up at 0.5%
Inv. 0.78
6" Stub S Inv. 0.78 up at 0.5%
Inv. 0.68

Terminal Manhole (Baltimore City Std. BC 870.03)
1+43
Std. Chan. No. 2 BC 870.30
Std. Chan. No. 1 BC 870.31
Std. Chan. No. 2 BC 870.35
8" cl. 52 DIP @ 0.40%
6" cl. 52 DIP @ 0.40%
8" cl. 52 DIP @ 0.40%
6" cl. 52 DIP @ 0.40%
8" cl. 52 DIP @ 0.40%
0+00 0+08 0+00 2+16 0+00 0+58
Match Line A-A This Sheet

PROFILE 8" SANITARY SEWER (WEST)

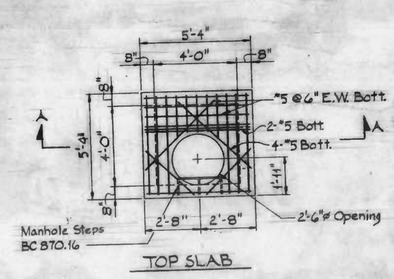
Proposed 2" Water
Existing Tele. Conduit
Existing Elect. Conduit
Existing 10" Water
Exist. Bulkhead
Proposed Tele. Conduit (4'-4")
Future Service Drive
Existing Ground April 1986
Future Grade (By Others)

MH 15
MH 14

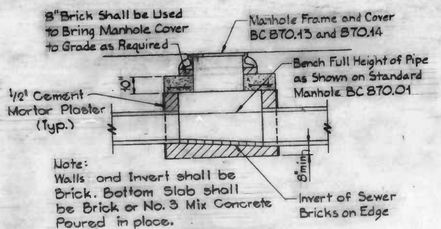
Inv. 2.69
Inv. 2.25
Inv. 2.15

(Baltimore City Std. BC. 870.03)
Future 8" @ 0.40%
Future 8" @ 0.40%
Match Line B-B This Sheet
1+10 0+00 3+57

PROFILE 8" SANITARY SEWER (EAST)



TOP SLAB



SECTION A

DETAILS - TYPE 'A' MANHOLE
Not to Scale

Note: Set Manhole Frame and Cover to Existing Ground.

NOTE:
LEAKAGE TEST - Zero leakage is required in test of the proposed sewer lines.

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DEPARTMENT OF TRANSPORTATION
HIGHWAY AND BRIDGE ENGINEERING
CONTRACT NO. 3162
PIERS 5&6 UTILITIES

SANITARY SEWER PROFILES

SCALE: HORIZ: 1" = 40'
VERT: 1" = 10'
DATE: JAN. 19, 1987
DRAWING
SHEET 6 OF 13

FILE REF.

10-19-87

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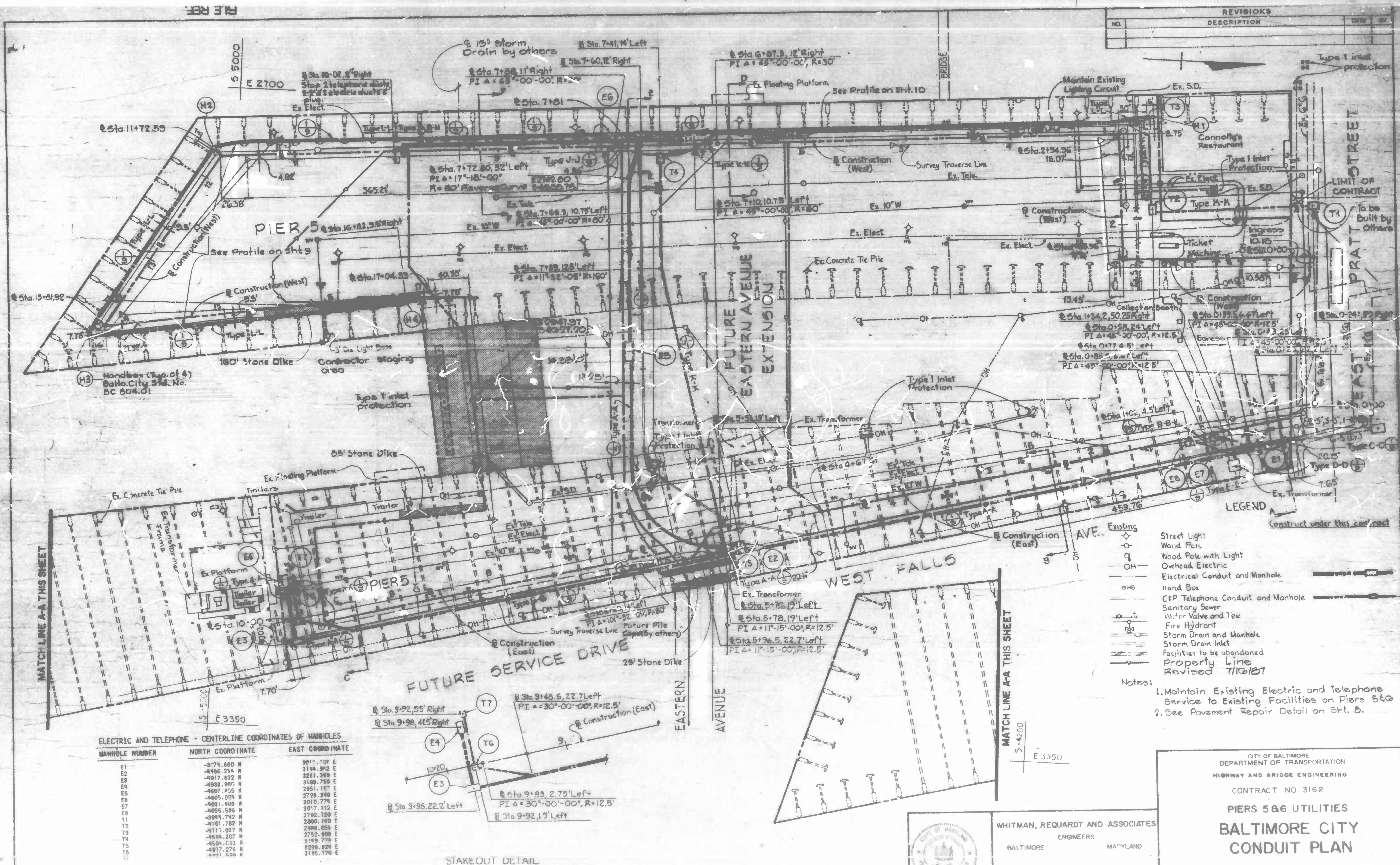

LEGEND

A — Construct under this contract

Existing		Proposed
	Street Light	
	Wood Pole	
	Wood Pole with Light	
—OH—	Overhead Electric	
	Electrical Conduit and Manhole	
HB	Hand Box	
	C&P Telephone Conduit and Manhole	
	Sanitary Sewer	
	Water Valve and Tee	
	Fire Hydrant	
	Storm Drain and Manhole	
	Storm Drain Inlet	
	Facilities to be abandoned	
	Property Line	

Revised 7/10/87

Notes:
1. Maintain Existing Electric and Telephone Service to Existing Facilities on Piers 5&6
2. See Pavement Repair Detail on Sht. 8.

ELECTRIC AND TELEPHONE - CENTERLINE COORDINATES OF MANHOLES

MANHOLE NUMBER	NORTH COORDINATE	EAST COORDINATE
E1	-3[illegible]74.680 N	30[illegible].207 E
E2	-4486.254 N	3144.942 E
E3	-4917.832 N	3261.369 E
E4	-4933.980 N	3199.750 E
E5	-4607.[illegible]56 N	2951.157 E
E6	-4605.024 N	2728.340 E
E7	-4031.403 N	3010.774 E
E8	-4055.586 N	3017.112 E
T1	-3944.742 N	2792.120 E
T2	-4101.782 N	2800.160 E
T3	-4111.027 N	2896.056 E
T4	-4584.207 N	2752.909 E
T5	-4504.033 N	3149.779 E
T6	-4917.276 N	3239.824 E
T7	[illegible]	3185.170 E

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HIGHWAY AND BRIDGE ENGINEERING
CONTRACT NO. 3162
PIERS 5&6 UTILITIES
BALTIMORE CITY
CONDUIT PLAN

SCALE: 1" = 40' DATE: JAN 19, 1987
DRAWING: SHEET 7 OF 13

FILE REF.

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RATIO - 24

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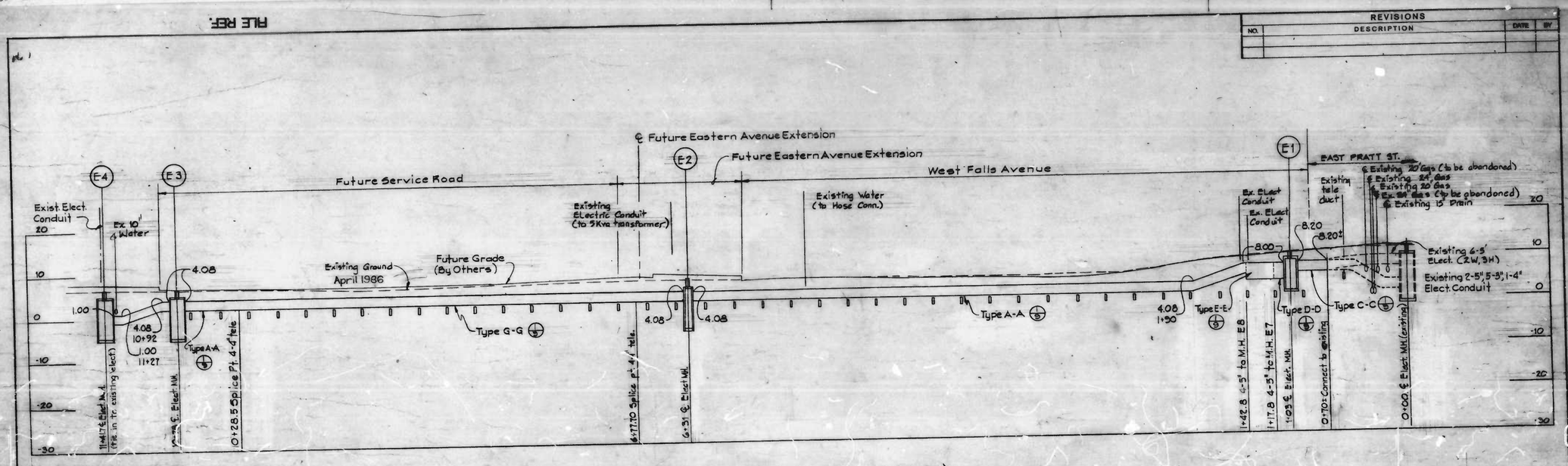
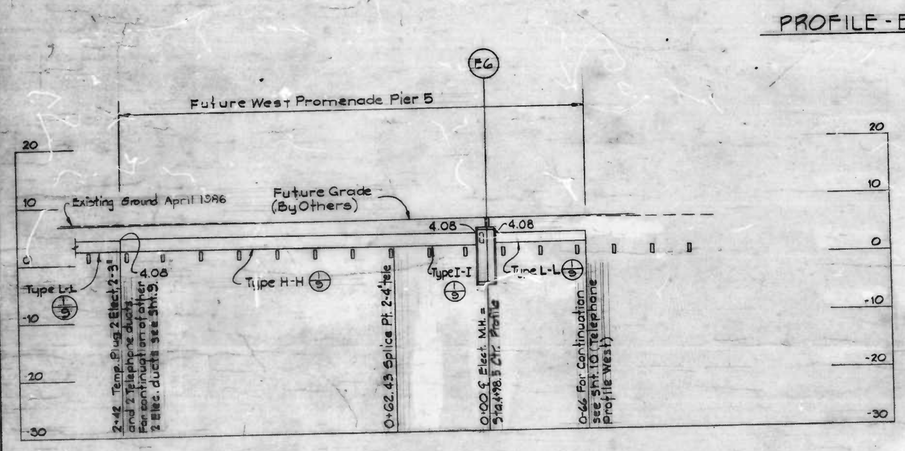
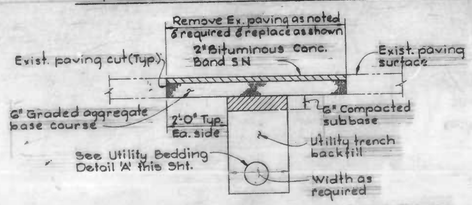
NO.	DESCRIPTION	DATE	BY



PROFILE - ELECTRICAL CONDUIT (EAST)

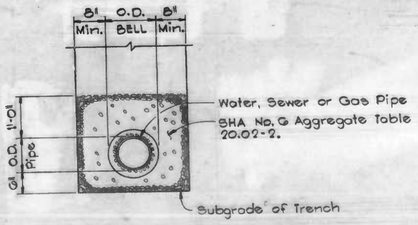


PROFILE - ELECTRICAL CONDUIT (WEST)



PAVEMENT REPAIR DETAIL

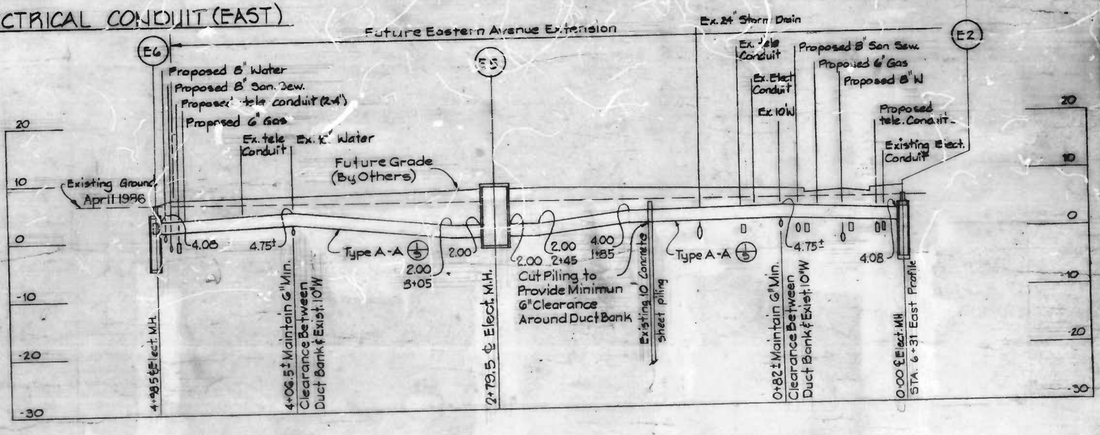
Not to Scale



DETAIL - 'A'

Not to Scale

PROFILE - ELECTRICAL CONDUIT (CENTER)



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CITY OF BALTIMORE
DEPARTMENT OF TRANSPORTATION
HIGHWAY AND BRIDGE ENGINEERING

CONTRACT NO. 3162

PIERS 5&6 UTILITIES

BALTIMORE CITY CONDUIT PROFILES

SCALE: HORIZ. 1" = 40'
VERT. 1" = 10'

DATE: JAN. 19, 1987

DRAWING

SHEET 8 OF 13

10-19-87

RATIO - 24

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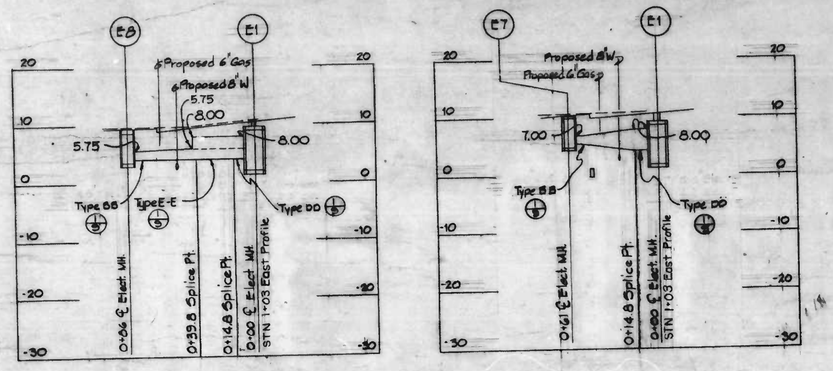
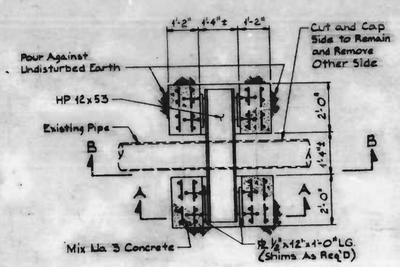
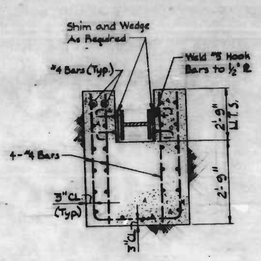


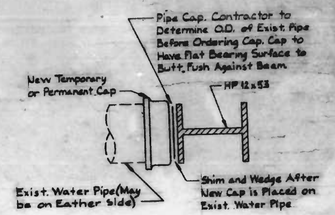
PROFILE - ELECTRICAL CONDUIT



PLAN

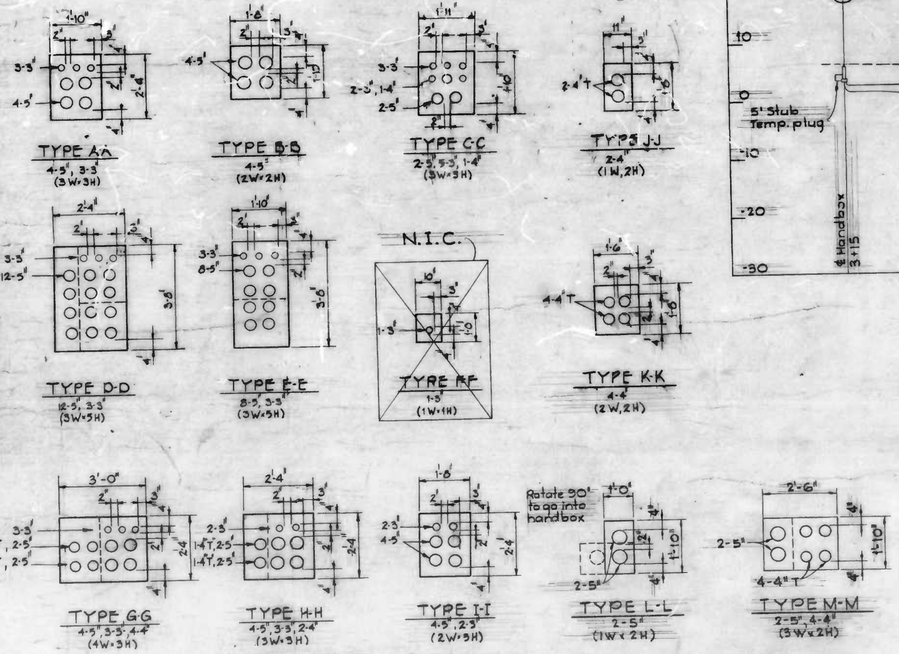


SECTION A-A

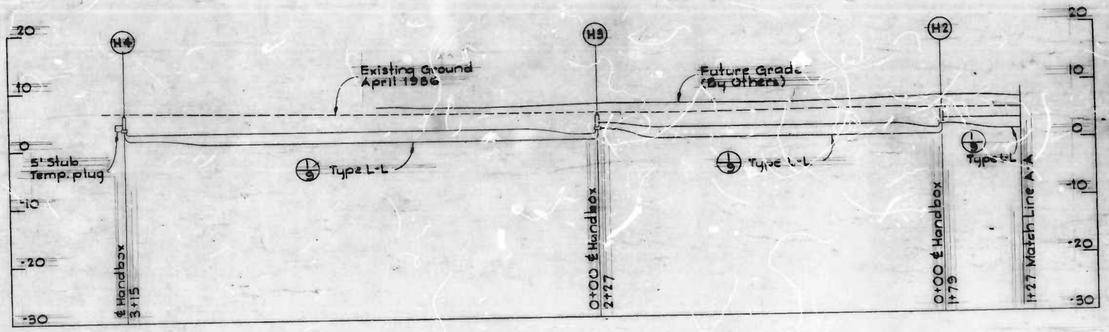


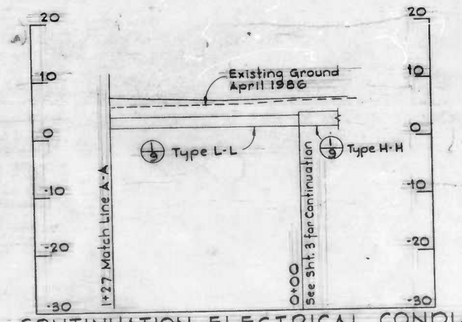
SECTION B-B

TEMPORARY SPLIT BUTTRESS - 10" WATER MAIN
See Plan Location on Detail "A" and 0+00 West on Sht. 3
Scale: None



CONDUIT DETAILS
Scale - ½" = 1'-0"





CONTINUATION ELECTRICAL CONDUIT PROFILE (WEST)

Note:
Connect both conduits of Type L-L duct to handboxes. Rotate ducts 90° to bring the conduits into handboxes side by side.

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ENGINEERS
BALTIMORE MARYLAND

CITY OF BALTIMORE
DEPARTMENT OF TRANSPORTATION
HIGHWAY AND BRIDGE ENGINEERING

CONTRACT NO. 3162

PIERS 5&6 UTILITIES

BALTIMORE CITY CONDUIT PROFILES & DETAILS

SCALE: AS SHOWN
DATE: JAN 19, 1987
DRAWING
SHEET 9 OF 13

10-15-87