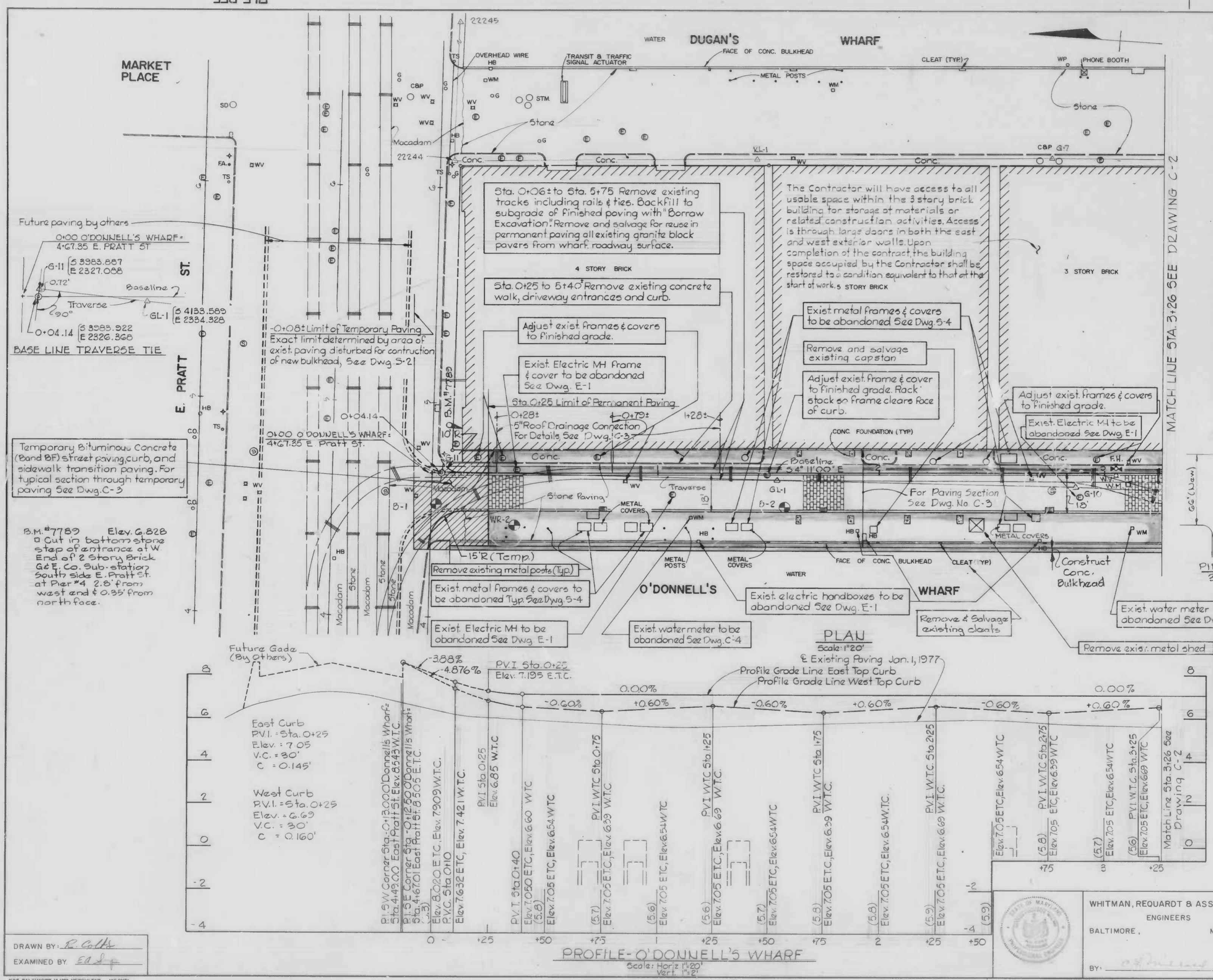


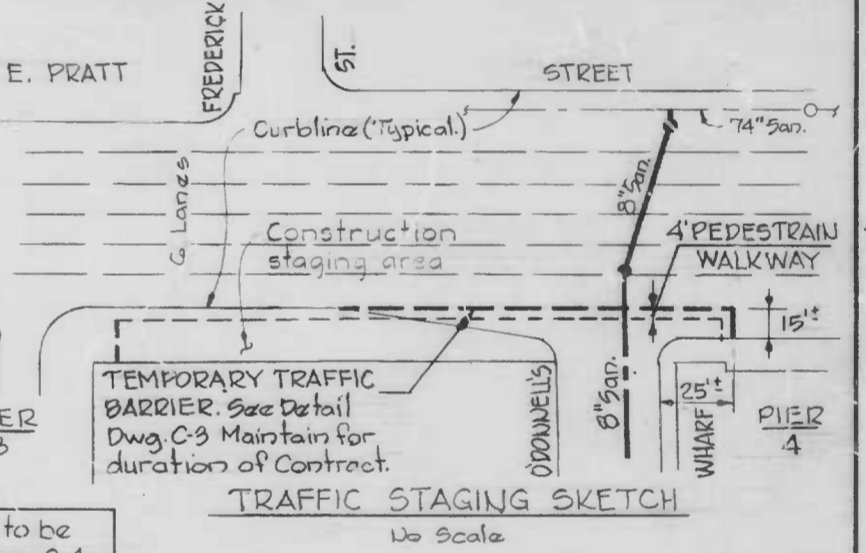
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REVISIONS			
NO.	DESCRIPTION	DATE	BY

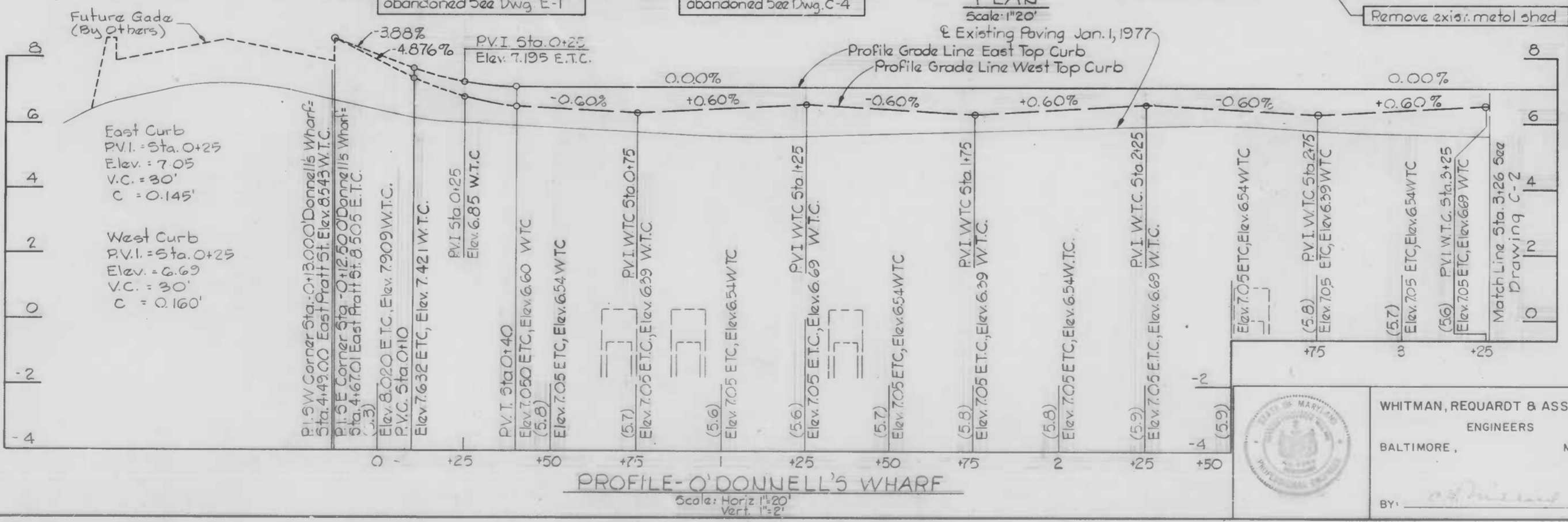
TRAFFIC AND CONSTRUCTION STAGING NOTES

- Notify the City of Baltimore, Department of Transit and Traffic at least three (3) weeks prior to doing any work within E. Pratt Street right-of-way.
- Install temporary signs, markings, barricades and other traffic control devices in accordance with City of Baltimore, Department of Public Works, Bureau of Engineering, Standard No. BC 104.04 and the "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", 1971 Edition before undertaking any work in street rights-of-way.
- Install temporary decking, temporary refill and temporary bituminous concrete paving or plating in accordance with City of Baltimore, Department of Public Works, Bureau of Engineering, Standard No. BC-576.17 over active construction to maintain lanes in E. Pratt Street open as required in Note 6 below.
- Maintain pedestrian and vehicular access to Maritime Museum on South end of O'Donnell's Wharf from Wood Street during construction.
- Maintain access for trucks to public scale on north side of Harbor Master's Office on Wood Street during normal hours of operation.
- Construction within E. Pratt Street
 - Construct continuous temporary traffic barrier in accordance with the Detail shown on Drawing No. C-3 along projection of the new south curbline of E. Pratt Street to restrict traffic from the south curb lane for the duration of the Contract as shown on the sketch below.
 - During construction of the Sanitary Sewer across E. Pratt Street as shown on the sketch below.
 - Maintain a minimum of four (4) eastbound traffic lanes open during Non-Peak Hour Traffic Periods.
 - Maintain a minimum of six (6) eastbound traffic lanes open during Peak Hour Traffic Periods (7:00 A.M. to 9:00 A.M. and 4:00 P.M. to 6:00 P.M. MONDAY THROUGH FRIDAY).
 - Maintain a minimum four (4) foot wide pedestrian walkway along south side of E. Pratt Street around construction area.
- Construction within O'Donnell's Wharf (Pier 4) - Closed for duration of construction between E. Pratt Street and Wood Street except as required by Note 4 above.



GENERAL NOTES

- Existing topography, elevations, and utilities are based on "PLAT SHOWING THE OUTLINE, TOPOGRAPHY AND UTILITIES OF THE BALTIMORE GAS ELECTRIC COMPANY PROPERTY LOCATED ON PIER No. 4 AND IMPROVEMENTS, TOPOGRAPHY AND UTILITIES OF ALL OF PIER No. 4 LOCATED ON THE SOUTH SIDE OF PRATT STREET" dated JANUARY 21, 1977, prepared by the City of Baltimore, Department of Public Works, Bureau of Engineering, Surveys and Records Division.
- The Contractor shall protect all existing Baltimore City Topographic Traverse Points and Bench Marks until the Construction Baseline and Construction Bench Marks are established and referenced by the Contractor.
- For Location of New Utilities, including Water, Sanitary Sewer, Storm Drain, Electrical and Telephone see Drawing No. C-4, C-5, E-1 and E-2.



DRAWN BY: *R. Calka*
 EXAMINED BY: *E. J. [Signature]*

WHITMAN, REQUARDT & ASSOCIATES
 ENGINEERS
 BALTIMORE, MARYLAND

CITY OF BALTIMORE
 DEPARTMENT OF PUBLIC WORKS
 BUREAU OF ENGINEERING

CONTRACT NO. 2470r

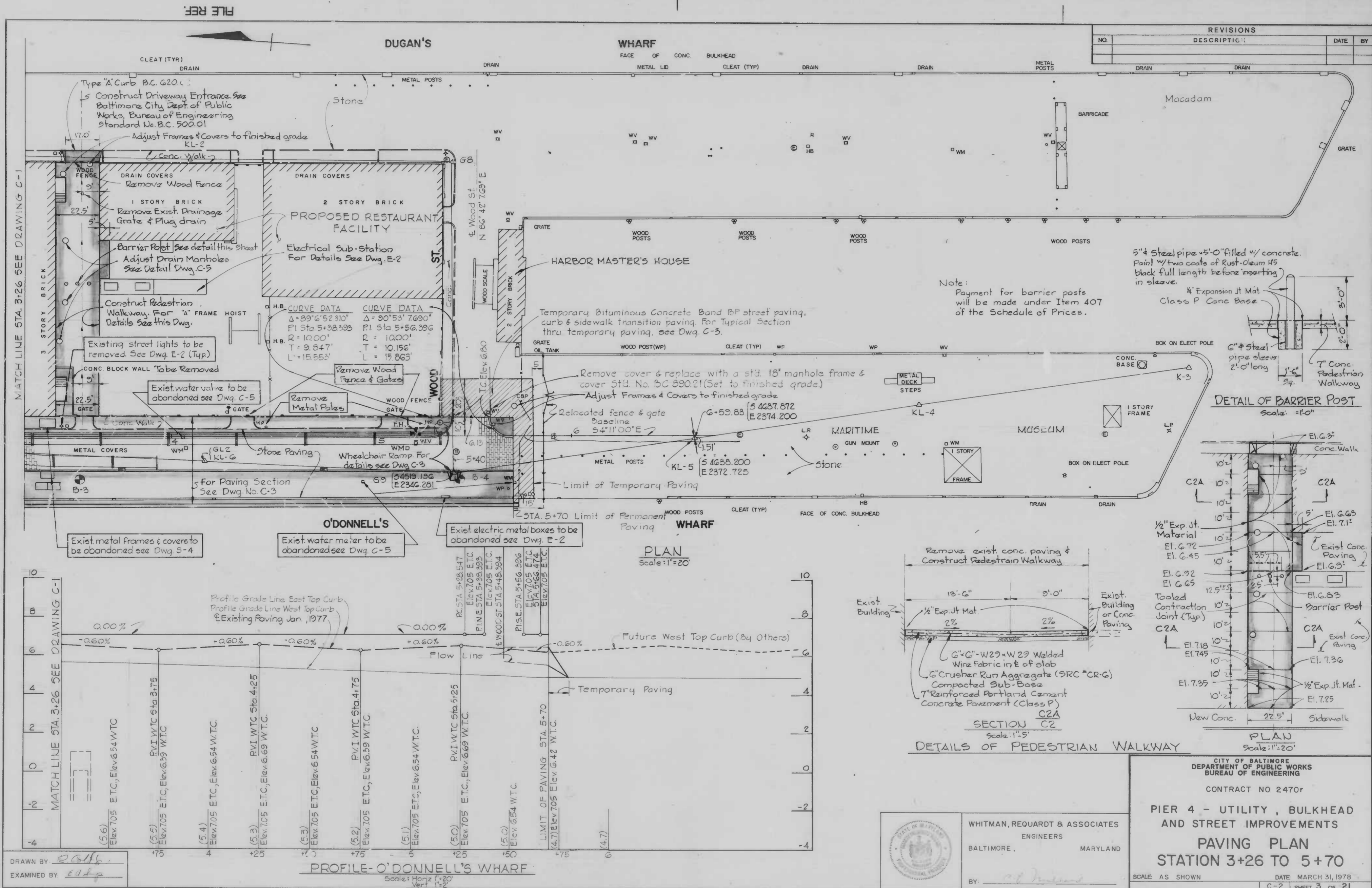
PIER 4 - UTILITY, BULKHEAD AND STREET IMPROVEMENTS

PAVING PLAN
 STATION 0+25 TO 3+26

SCALE AS SHOWN DATE MARCH 31, 1978
 C-1 SHEET 2 OF 21

FILE BALTIMORE 11 1978 HERCULENE MC 808-8
 WO 7258-2

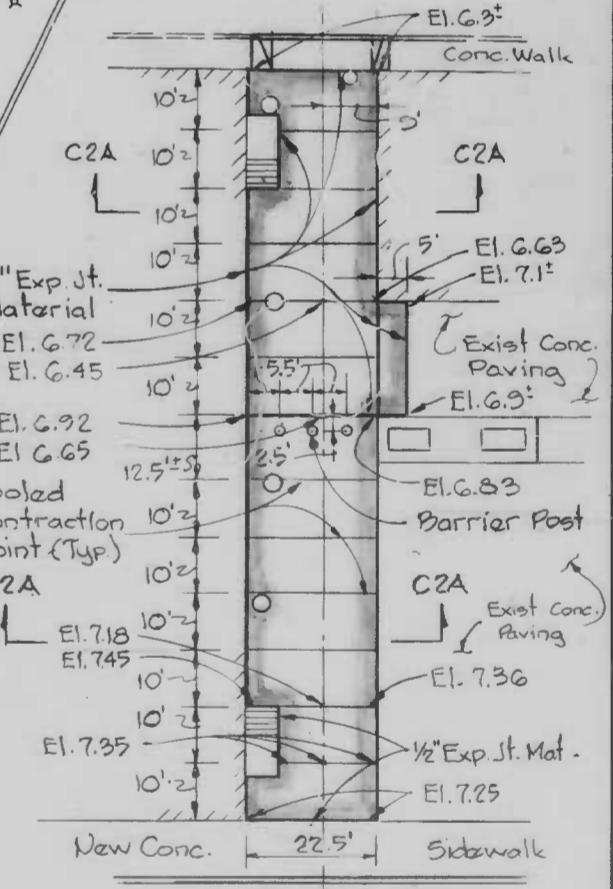
FILE REF.



REVISIONS			
NO.	DESCRIPTION	DATE	BY

Note:
Payment for barrier posts will be made under Item 407 of the Schedule of Prices.

DETAIL OF BARRIER POST
Scale: 1"=1'-0"



DETAILS OF PEDESTRIAN WALKWAY
Scale: 1"=2'-0"

Remove exist. conc. paving & Construct Pedestrian Walkway

13'-6" 9'-0"

Exist. Building 1/2" Exp. Jt. Mat. 2% 2% Exist. Building or Conc. Paving

6" x 6" - W29 x W29 Welded Wire Fabric in E of slab
6" Crusher Run Aggregate (SRC *CR-G)
Compacted Sub-Base
7" Reinforced Portland Cement Concrete Pavement (Class P)

SECTION C2A
Scale: 1"=2'-0"

CITY OF BALTIMORE
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BUREAU OF ENGINEERING

CONTRACT NO 2470r

PIER 4 - UTILITY, BULKHEAD AND STREET IMPROVEMENTS

PAVING PLAN
STATION 3+26 TO 5+70

SCALE AS SHOWN DATE MARCH 31, 1978
C-2 SHEET 3 OF 21

WHITMAN, REQUARDT & ASSOCIATES
ENGINEERS
BALTIMORE, MARYLAND

BY: *[Signature]*

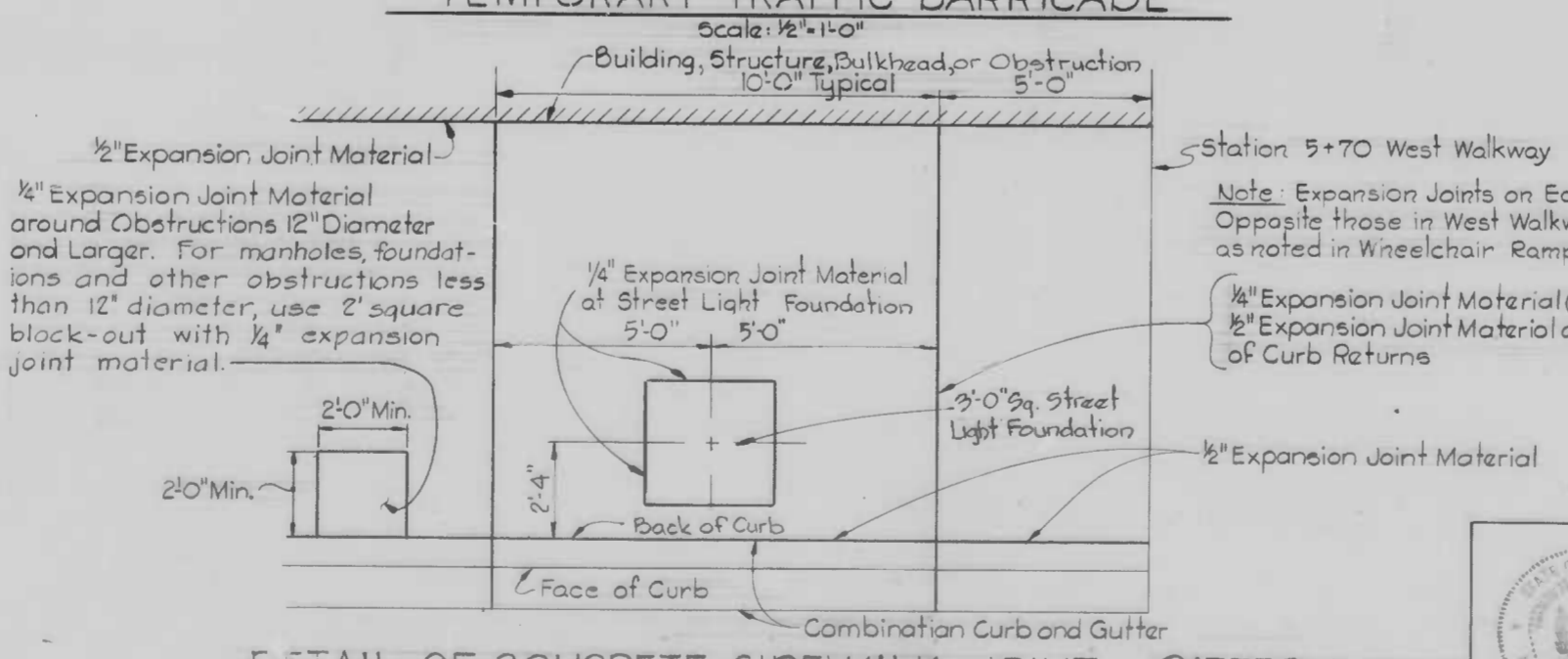
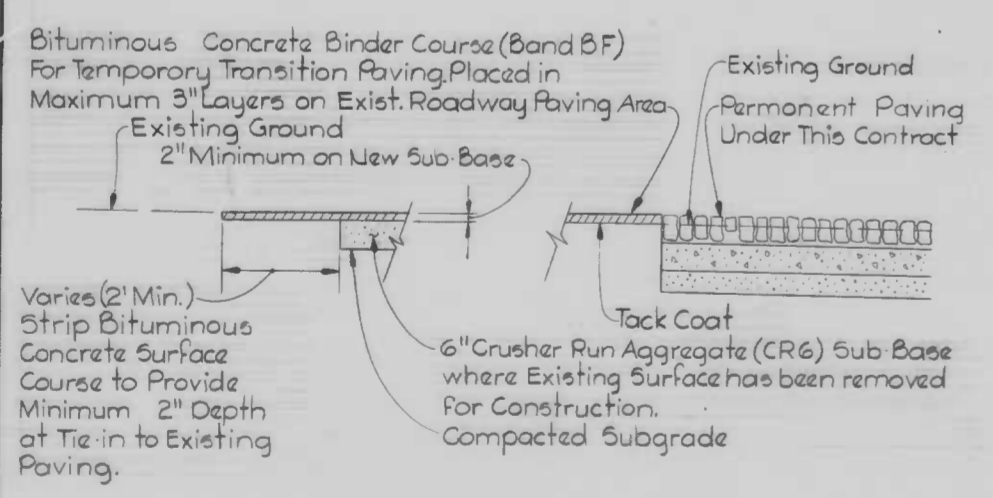
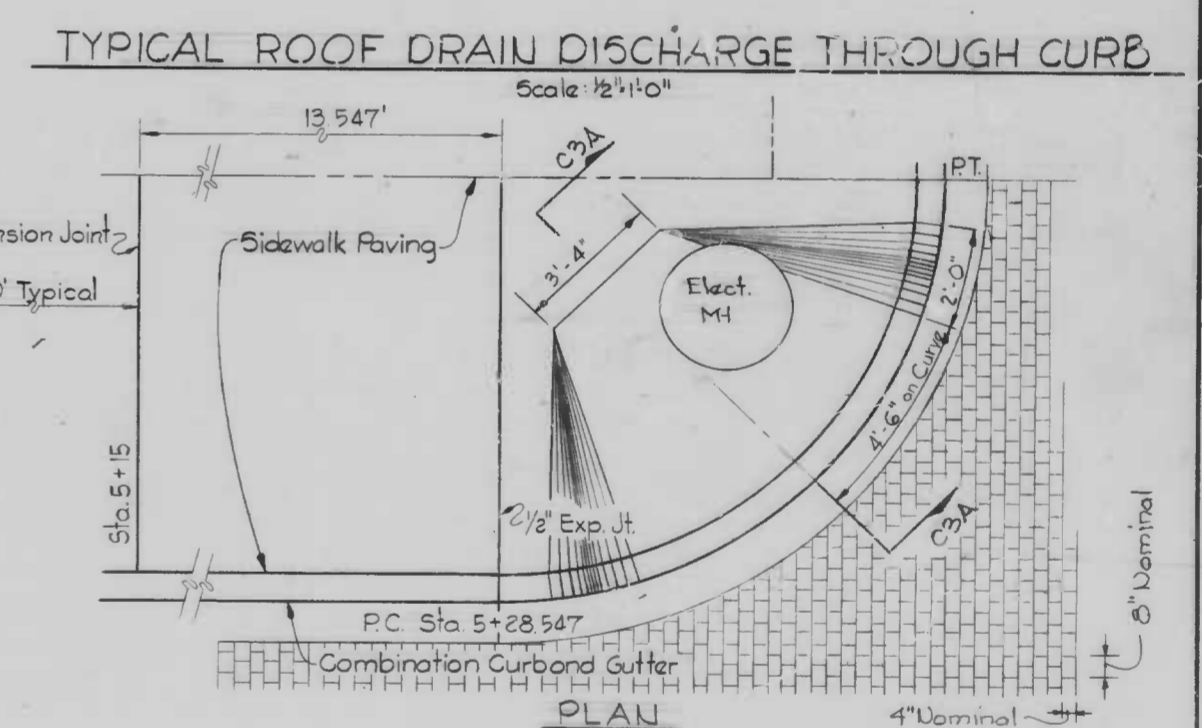
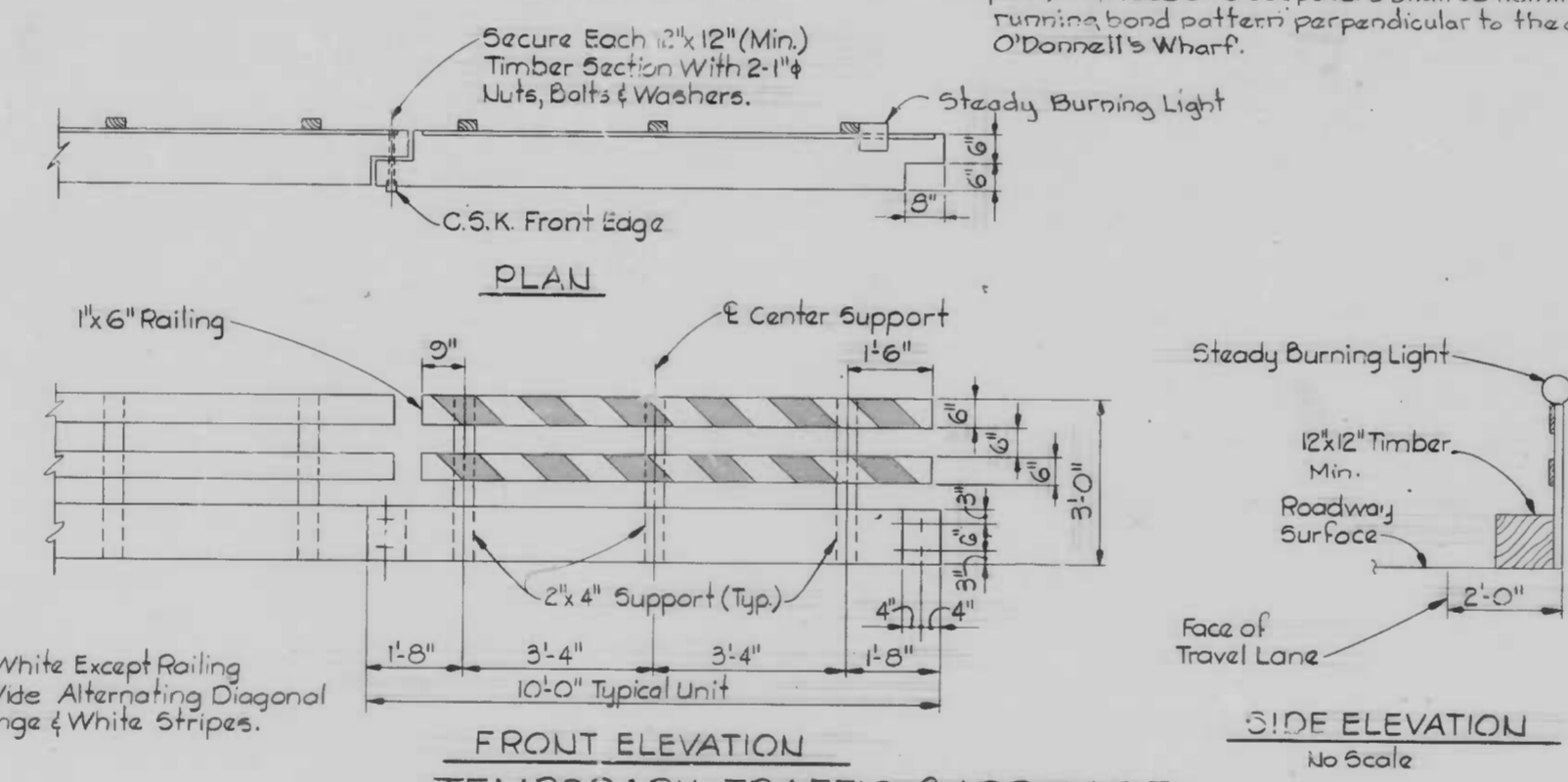
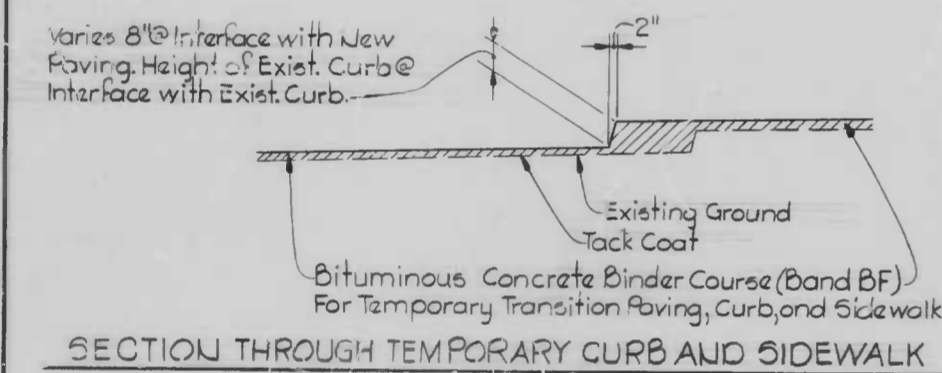
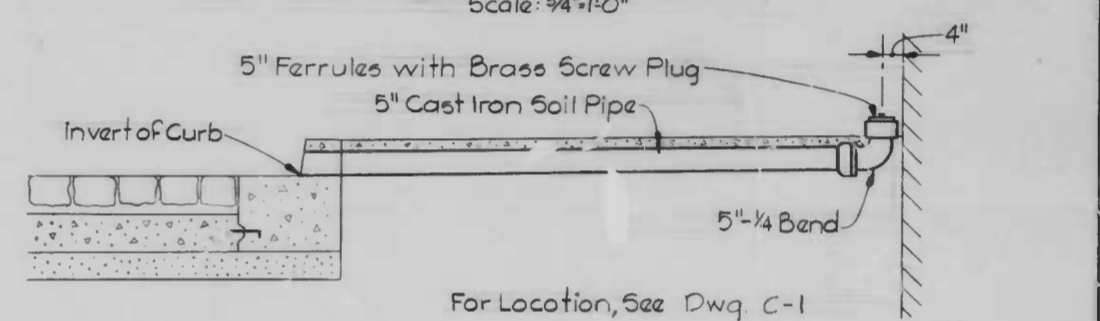
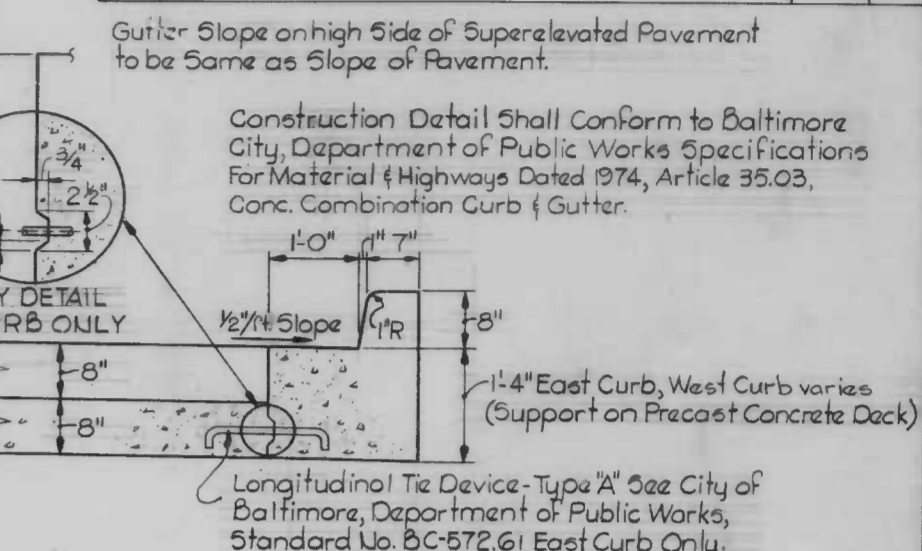
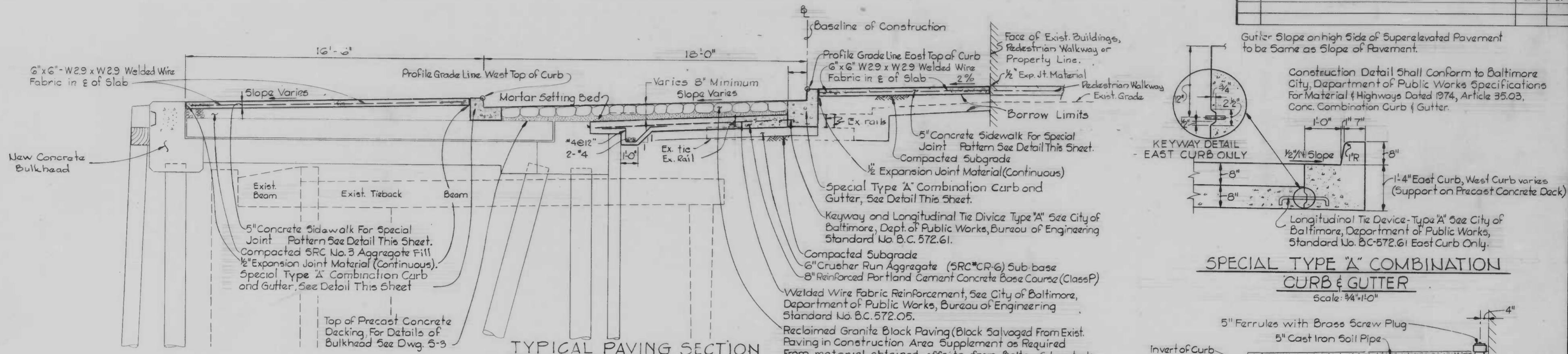
DRAWN BY: *[Signature]*
EXAMINED BY: *[Signature]*

K&E BALTIMORE 14 1223 HERCULENE MC 6226
WO. 7258-2

FILE REF.

FILE REF.

REVISIONS			
NO.	DESCRIPTION	DATE	BY



DETAILS OF TEMPORARY TRANSITION PAVING
Scale: 3/8"=1'-0"

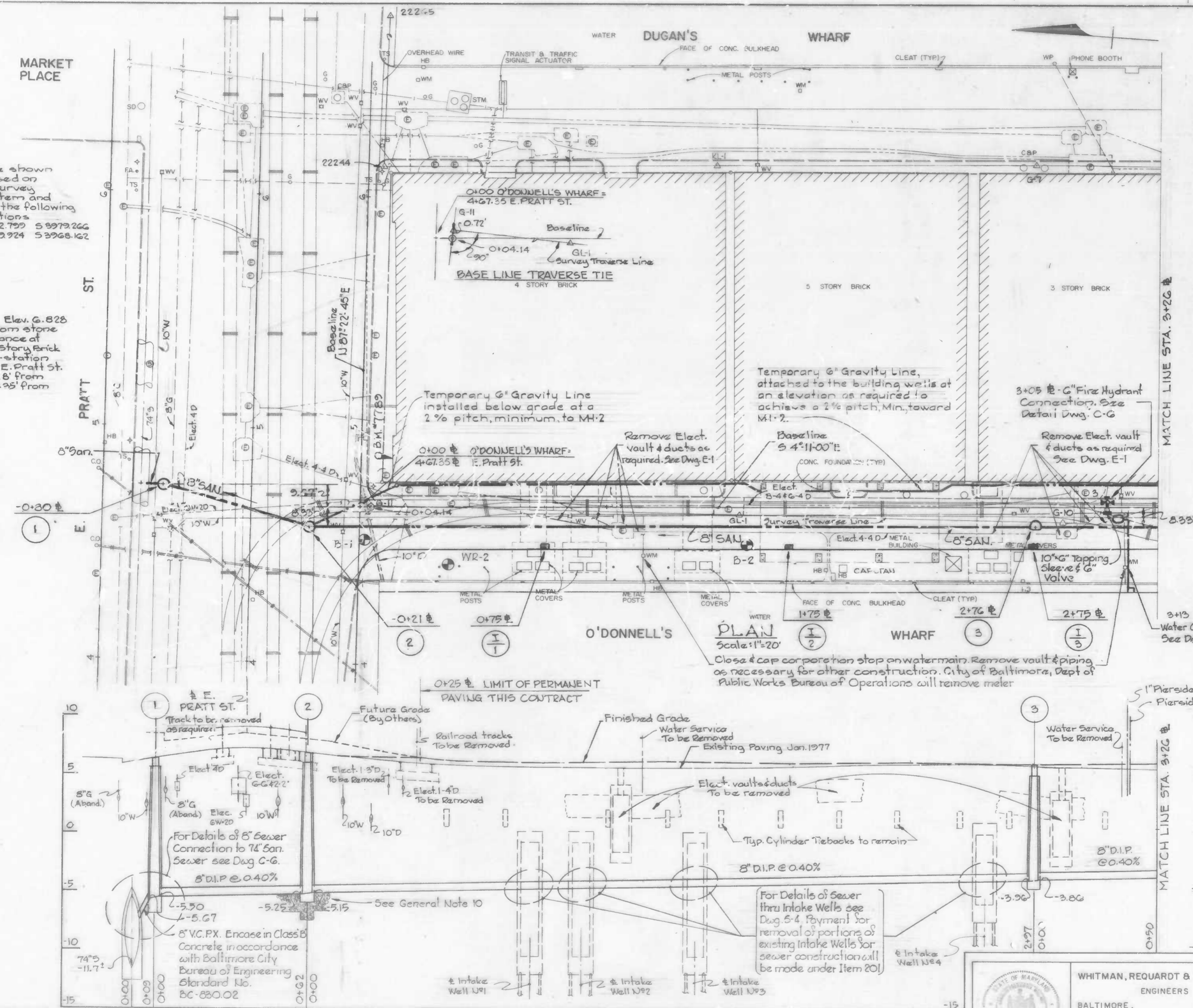
DRAWN BY: *R. Kelly*
EXAMINED BY: *E. J. P.*

WHITMAN, REQUARDT & ASSOCIATES
ENGINEERS
BALTIMORE, MARYLAND

CITY OF BALTIMORE
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
CONTRACT NO. 2470r
**PIER 4 - UTILITY, BULKHEAD
AND STREET IMPROVEMENTS**
PAVING DETAILS
SCALE AS SHOWN
DATE: MARCH 31, 1978
C-3 SHEET 4 OF 21

FILE REF.

FILE REF.



REVISIONS			
NO.	DESCRIPTION	DATE	BY

- GENERAL NOTES**
- All utility work shall be done in accordance with the City of Baltimore, Department of Public Works, Bureau of Engineering "BOOK OF STANDARDS" unless otherwise shown on the drawings.
 - Existing water valves and hydrants shall be operated by the Bureau of Operations personnel only.
 - Existing paving disturbed by utility construction outside the limits of permanent and temporary paving shown on Drawing Nos. C-1 and C-2 shall be repaired in accordance with the City of Baltimore, Department of Public Works, Bureau of Engineering Standard No. BC 576-20.
 - Prior to excavating below top of pipe within 10 feet horizontally of existing water mains, drive sheeting at limits of proposed excavation to protect water main foundation.
 - Existing utilities and structures are shown in accordance with information available as indicated in Note 1, Drawing No. C-1 and some limited test pit information obtained in July, 1977. The City does not warrant or guarantee the correctness or the completeness of the information shown. The Contractor shall verify all such information to his own satisfaction before working in the area of existing utilities.
 - Notify the Bureau of Operations at 396-0320 at least three (3) days before starting any work.
 - Notify "MISS UTILITY" at 959-0100 at least three (3) days prior to starting work stating (1) Nature of work, (2) Location of job and Contract Number, and Time and Date for starting work so that The Baltimore Gas and Electric Company can mark its facilities.
 - For Traffic and Construction Staging Notes, see Drawing No. C-1.
 - For proposed underground Electrical and Telephone Conduit Systems see Drawing No. E-1 & E-2.
 - Gravel cradles are required under all Sanitary Sewers. All backfill shall be "Contingent Trench Backfill" material mechanically tamped. For details, see City of Baltimore, Department of Public Works, Bureau of Engineering Standard No. BC 830.01 for Extra Strength Clay Pipe with dimension "A" modified to read 1'-6".
 - For Storm Drain Inlet and Sanitary Sewer Manhole Schedules see Drawing No. C-5.
 - The Contractor shall observe extreme caution when working over or near existing water facilities.
 - Since there are backflow preventers included in the proposed water system, it will be necessary for the managing agency to periodically inspect, test, and repair them to eliminate the danger of contaminating the public water supply.
 - All pier-side water connections shall be properly drained in the winter months to prevent freezing.
 - Application for the installation of new or the abandonment of existing water services for the proposed Pier 4 construction shall be made to the Customer Accounts Division, Bureau of Consumer Services, 3001 Druid Park Drive.

LEGEND

EXISTING	CONSTRUCT. UNDER THIS CONTRACT
Electrical Duct	See Dwg. E-1 & E-2
Steam	None
C&P Telephone	See Dwg. E-1 & E-2
Sanitary Sewer	None
Water	None
Gas	None
Storm Drain	Boring
None	Temporary Sewer

Topo traverse shown hereon is based on Baltimore Survey Control System and are based on the following Traverse Stations
 A22244 E 2472.759 S 9979.266
 A22245 E 2743.924 S 3368.162

B.M. #7789 Elev. 6.828
 a Cut in bottom stone step of entrance of W. End of 2 story Brick G.A.E. Co. Sub-station South side E. Pratt St. at Plan # 4-28 from West and 4' 0.95' from north face.

PLAN
 Scale: 1"=20'

PROFILE 8" SANITARY SEWER O'DONNELL'S WHARF

Scale: Horiz. 1"=20'
 Vert. 1"=4'



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 ENGINEERS
 BALTIMORE, MARYLAND

CITY OF BALTIMORE
 DEPARTMENT OF PUBLIC WORKS
 BUREAU OF ENGINEERING

CONTRACT NO. 2470r

PIER 4 - UTILITY, BULKHEAD AND STREET IMPROVEMENTS

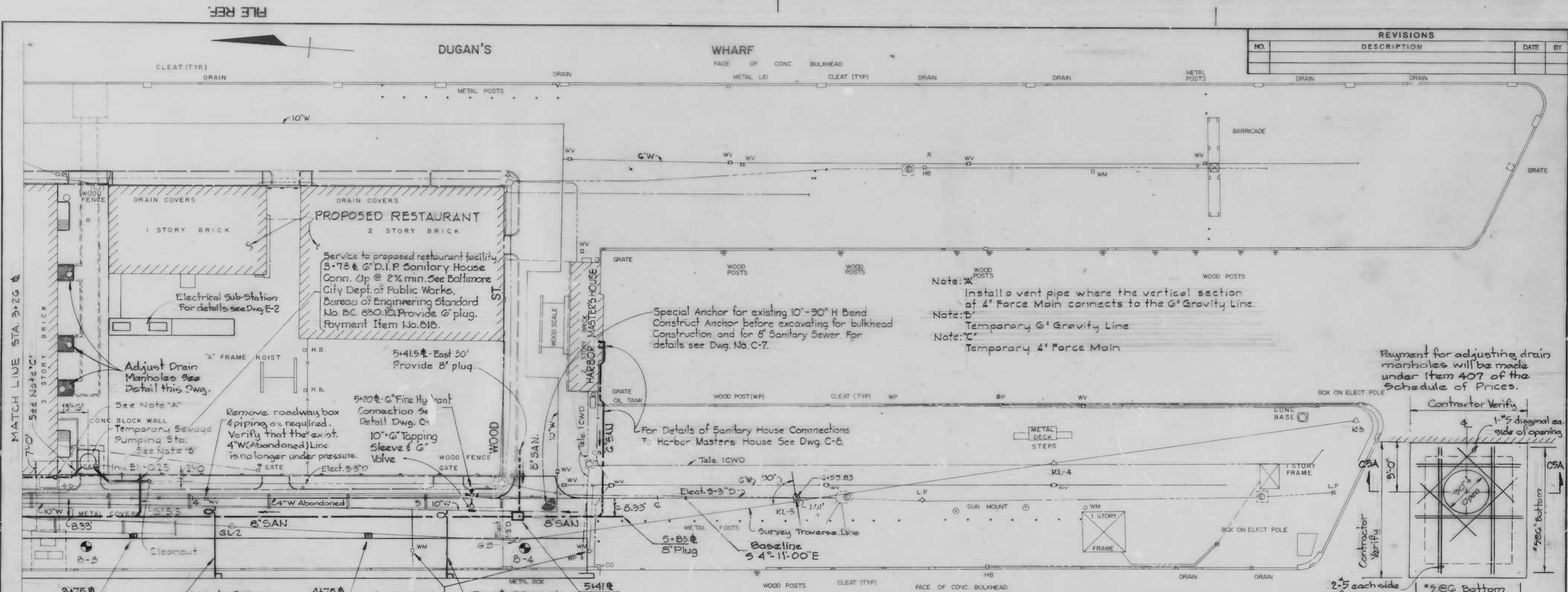
UTILITY PLAN
 STATION 0+00 TO 3+26

SCALE AS SHOWN DATE MARCH 31, 1978
 C-4 SHEET 5 OF 21

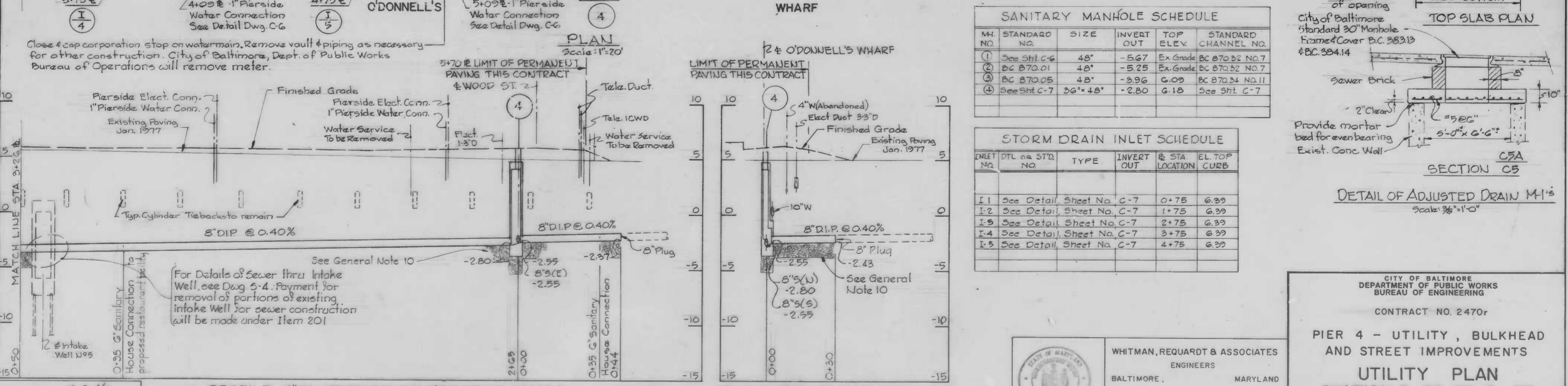
DRAWN BY: *R. Kelly*
 EXAMINED BY: *E. A. Kelly*

W.O. 7258-2

FILE REF.



REVISIONS			
NO.	DESCRIPTION	DATE	BY



DRAWN BY: R. Colla
 EXAMINED BY: E. J. P.

WHITMAN, REQUARDT & ASSOCIATES
 ENGINEERS
 BALTIMORE, MARYLAND

BY: *[Signature]*

CITY OF BALTIMORE
 DEPARTMENT OF PUBLIC WORKS
 BUREAU OF ENGINEERING

CONTRACT NO. 2470r

PIER 4 - UTILITY, BULKHEAD AND STREET IMPROVEMENTS

UTILITY PLAN
 STATION 3+26 TO 5+75

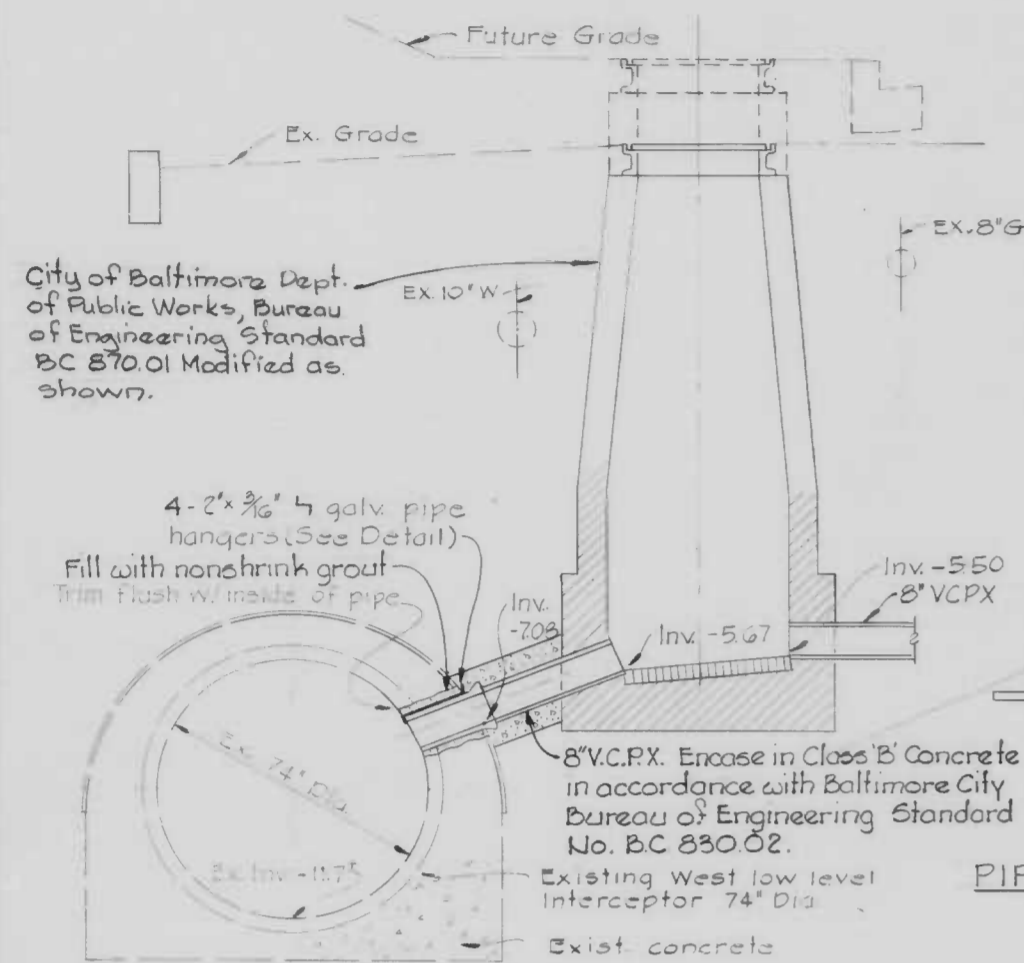
SCALE AS SHOWN DATE: MARCH 31, 1978
 C-5 SHEET 6 OF 21

K&E BALTIMORE 1978 PERCULENE NO. 8888
 W.O. 7258-2

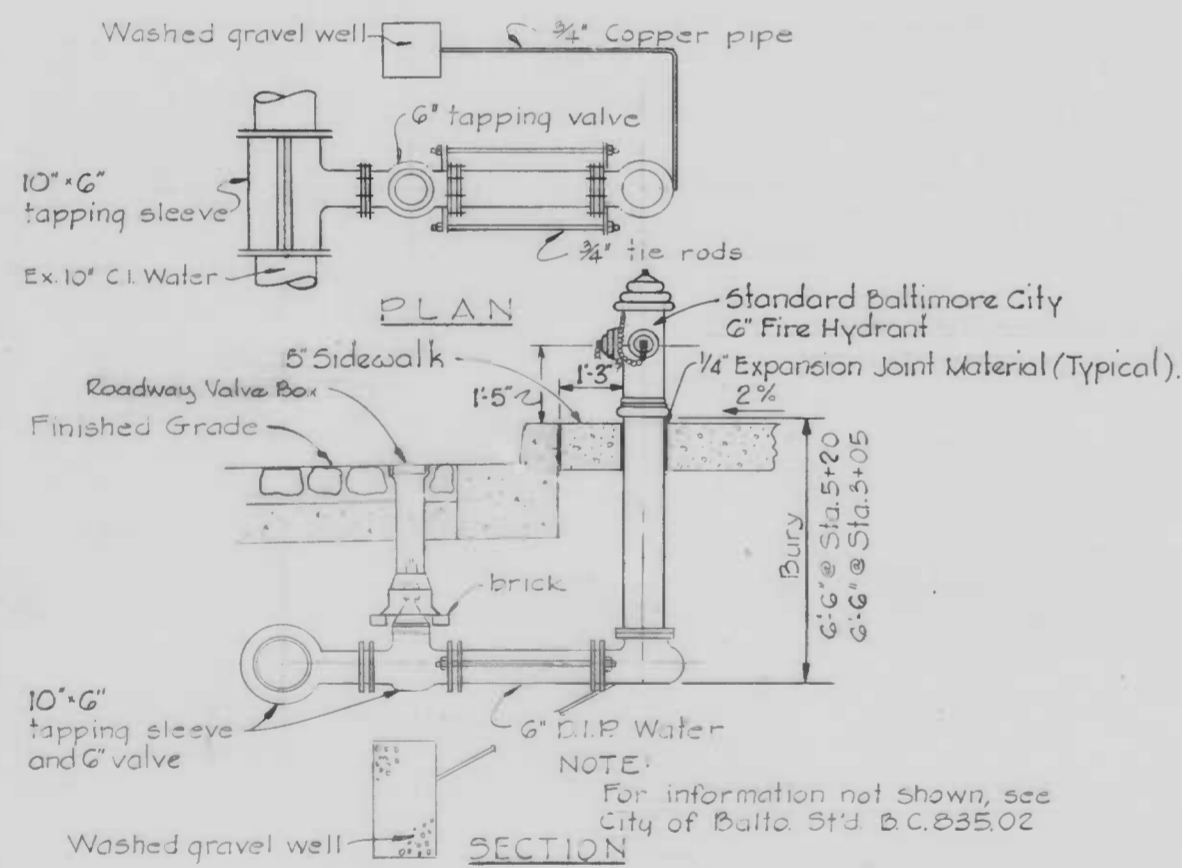
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FILE REF.

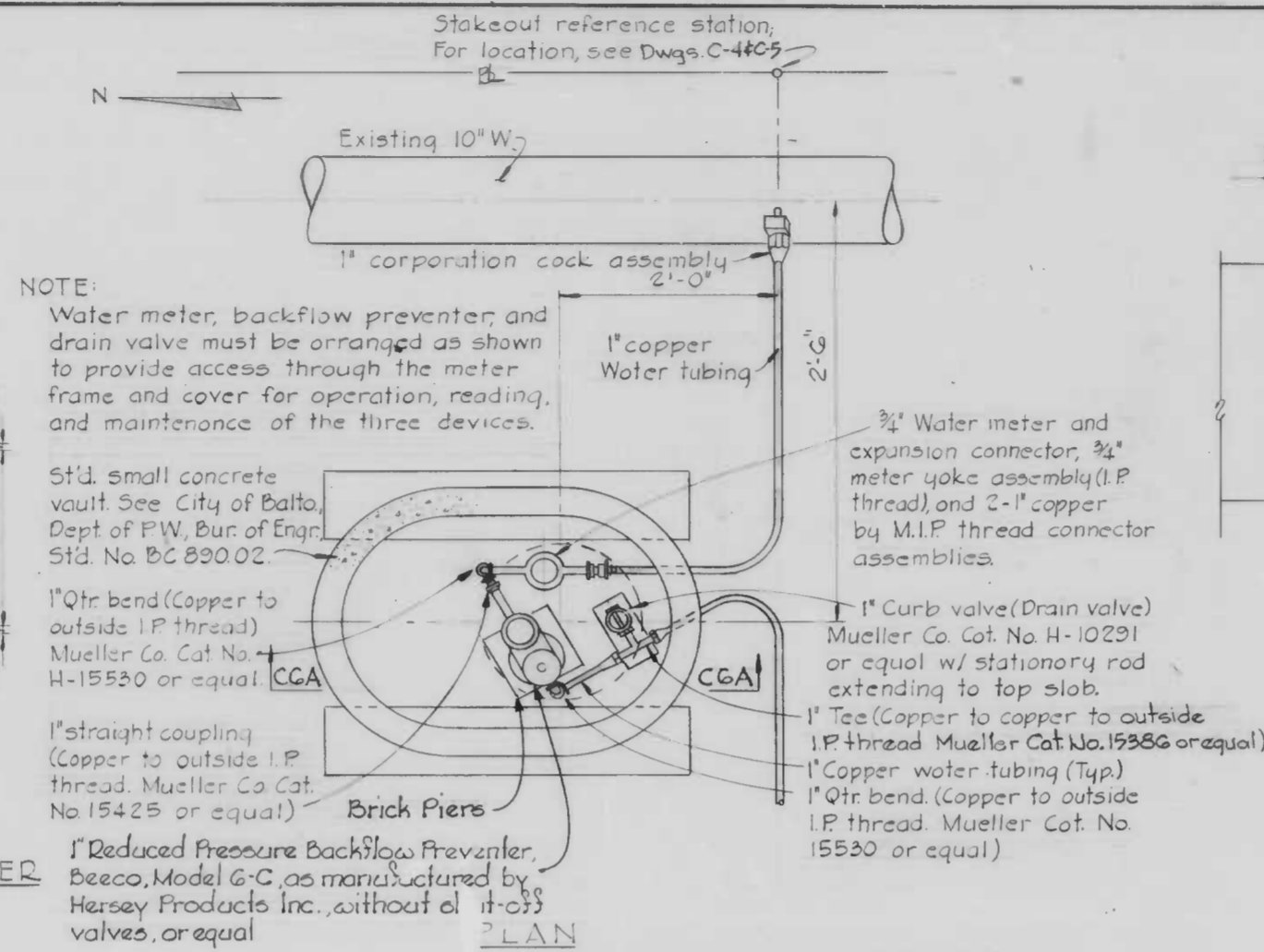
REVISIONS			
NO.	DESCRIPTION	DATE	BY



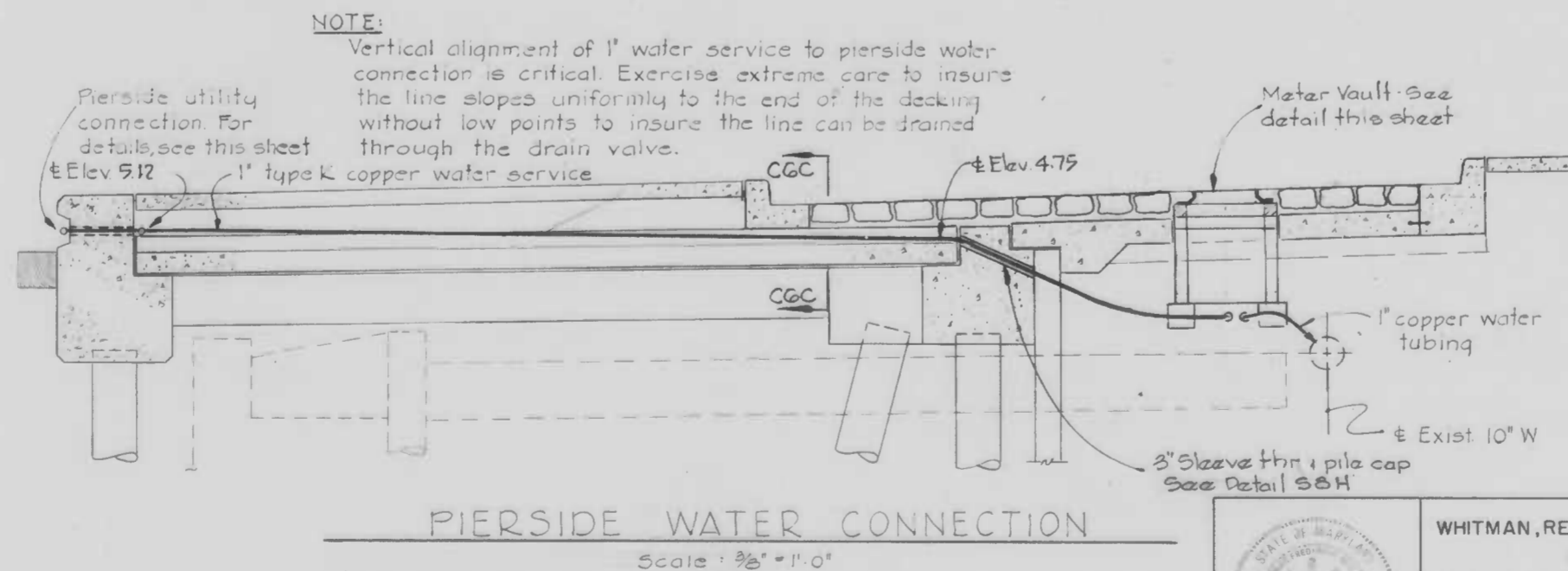
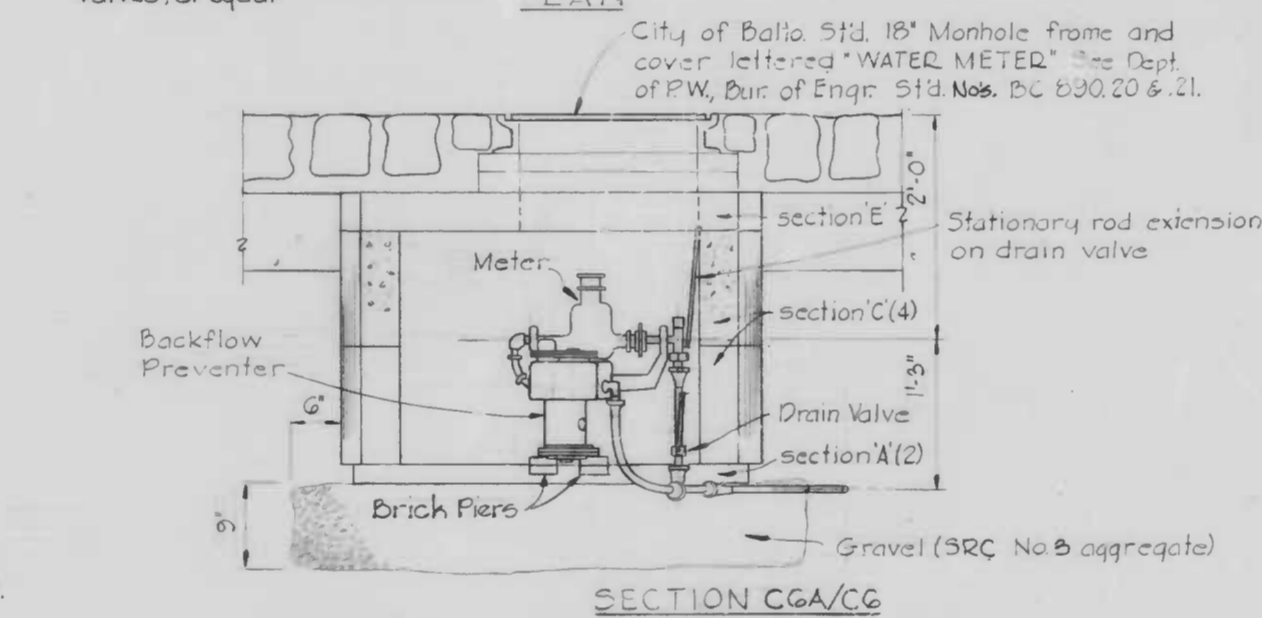
DETAILS OF SANITARY SEWER CONNECTION TO EXISTING 74" INTERCEPTOR
Scale: 3/8" = 1'-0"



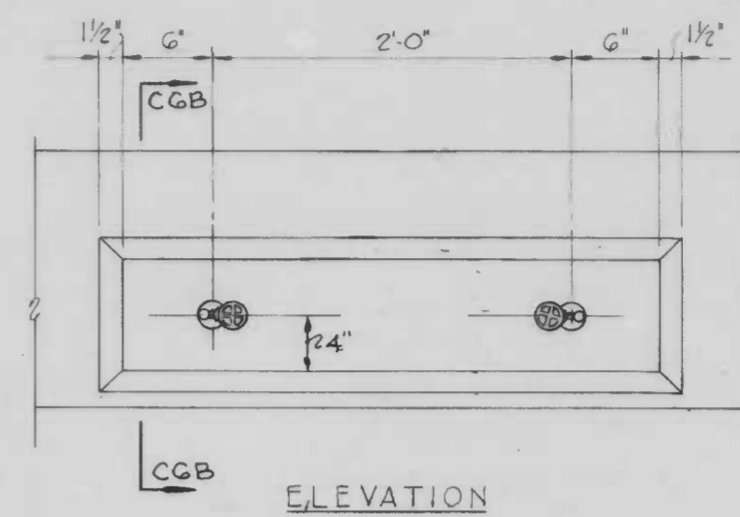
DETAIL OF FIRE HYDRANT AT STA. 3+05 & 5+20
No Scale



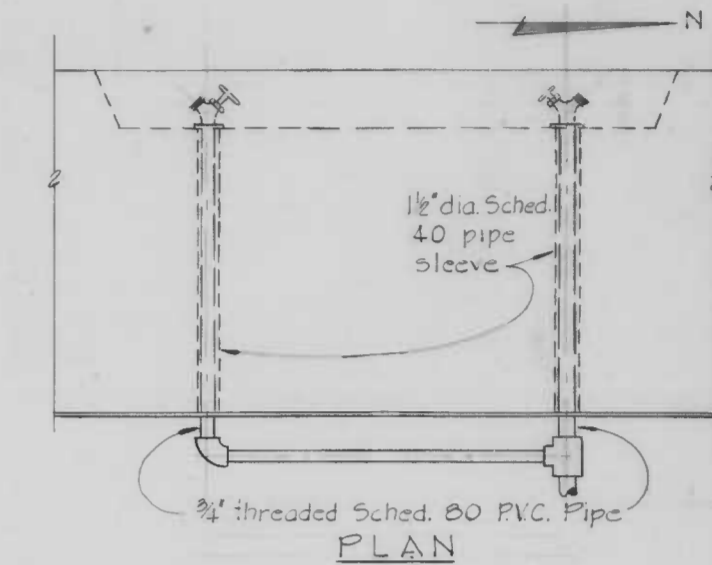
DETAIL OF METER VAULT FOR PIERSIDE WATER CONNECTION
Scale: 1" = 1'-0"



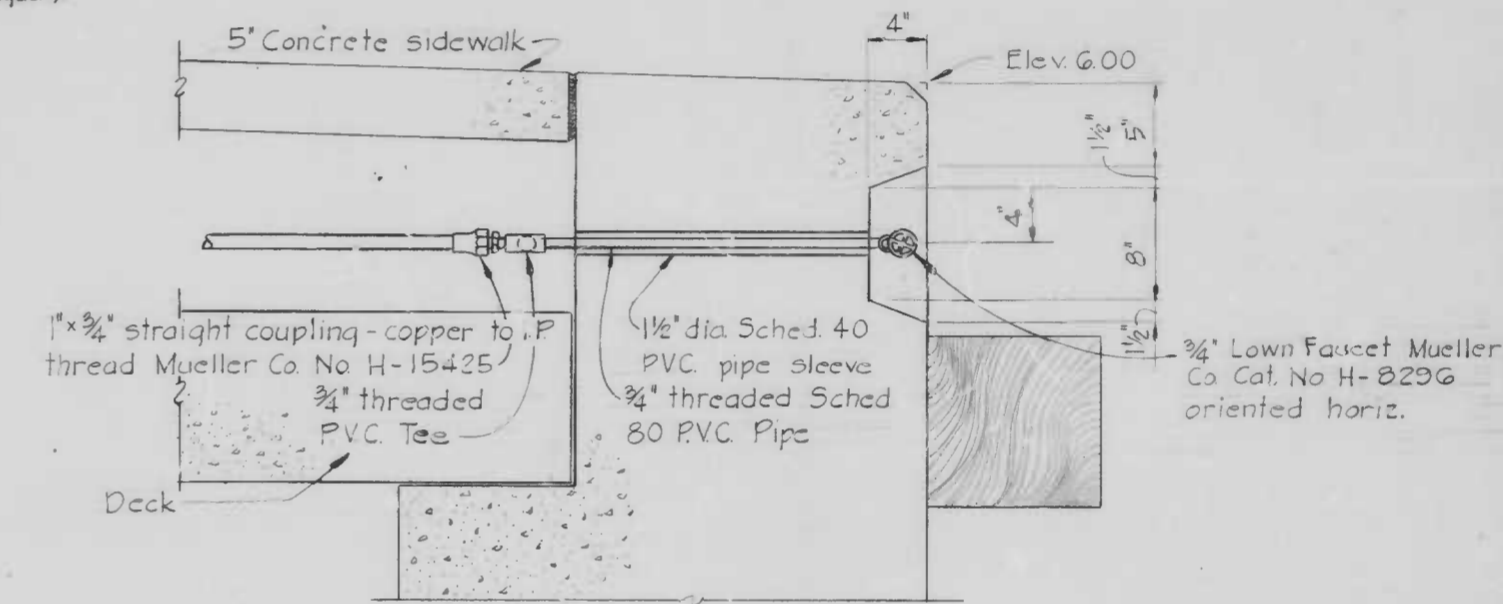
PIERSIDE WATER CONNECTION
Scale: 3/8" = 1'-0"



ELEVATION

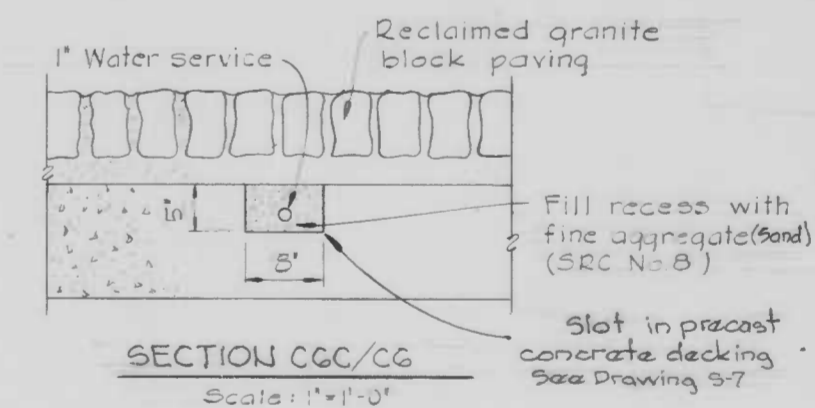


PLAN



SECTION CGB/CG

DETAILS OF PIERSIDE UTILITY CONNECTION
Scale: 1/8" = 1'-0"



SECTION CGC/CG

DRAWN BY: *RCM*
EXAMINED BY: *EDP*

MADE IN BALTIMORE 10 1285 HERCULENE INC. 6000
WC 7258-2



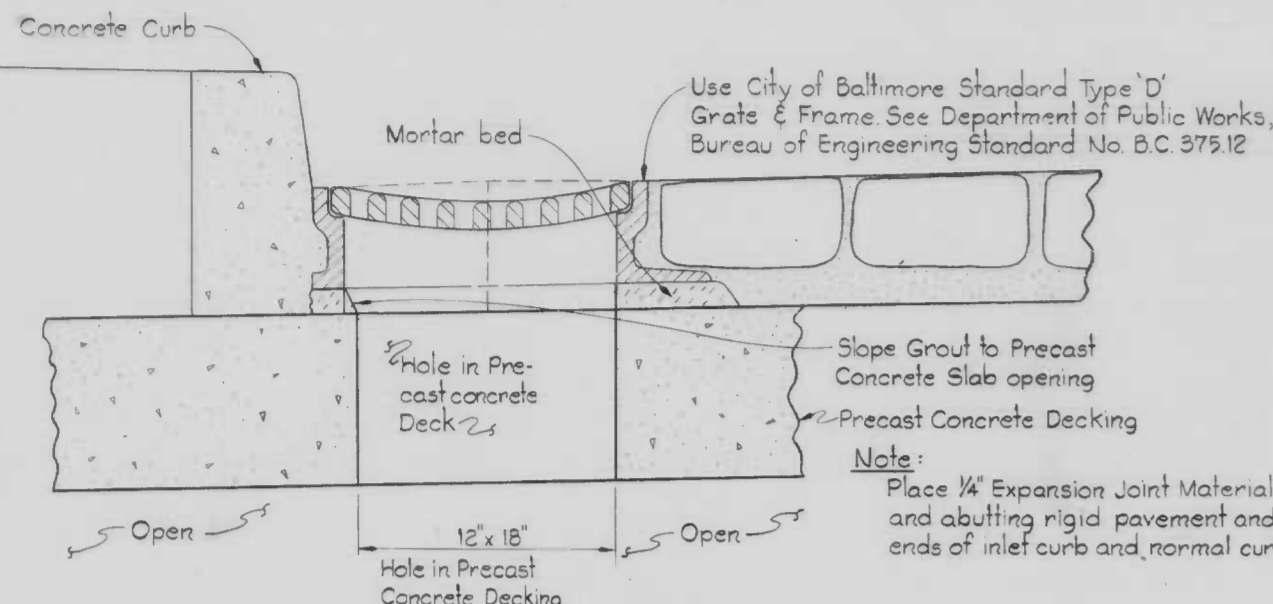
WHITMAN, REARDON & ASSOCIATES
ENGINEERS
BALTIMORE, MARYLAND
BY: *[Signature]*

CITY OF BALTIMORE
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
CONTRACT NO. 2470r
PIER 4 - UTILITY, BULKHEAD AND STREET IMPROVEMENTS
UTILITY DETAILS
SCALE AS SHOWN DATE MARCH 31, 1978
C-6 SHEET 7 OF 21

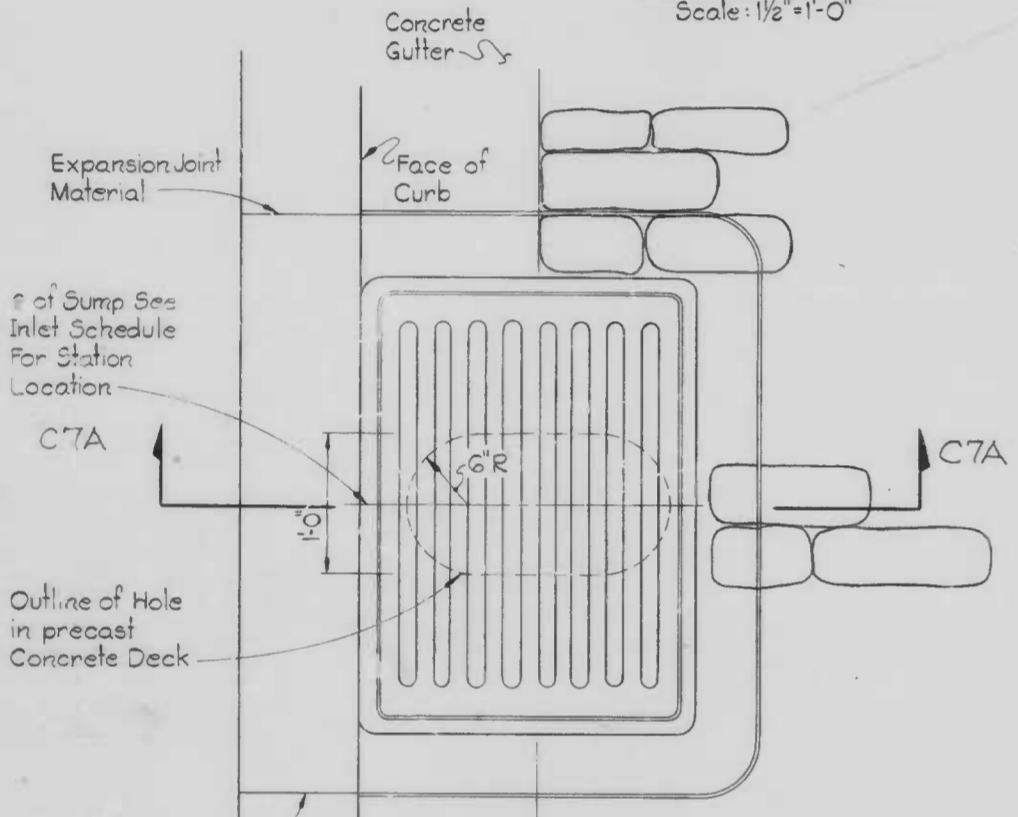
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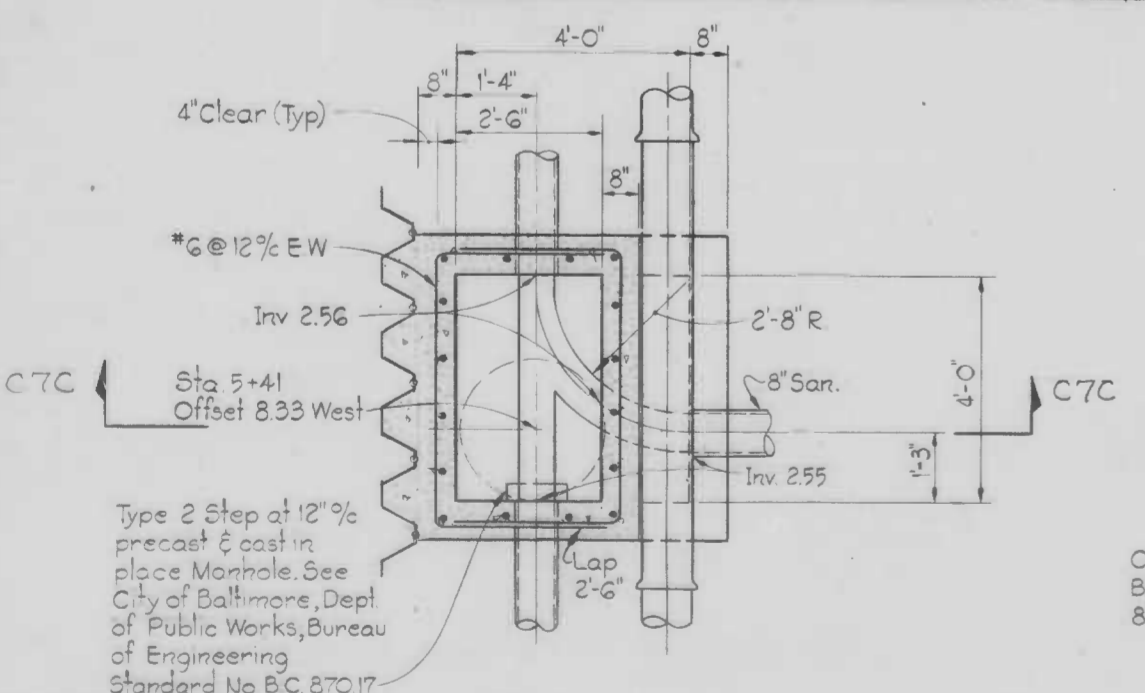
REVISIONS			
NO.	DESCRIPTION	DATE	BY



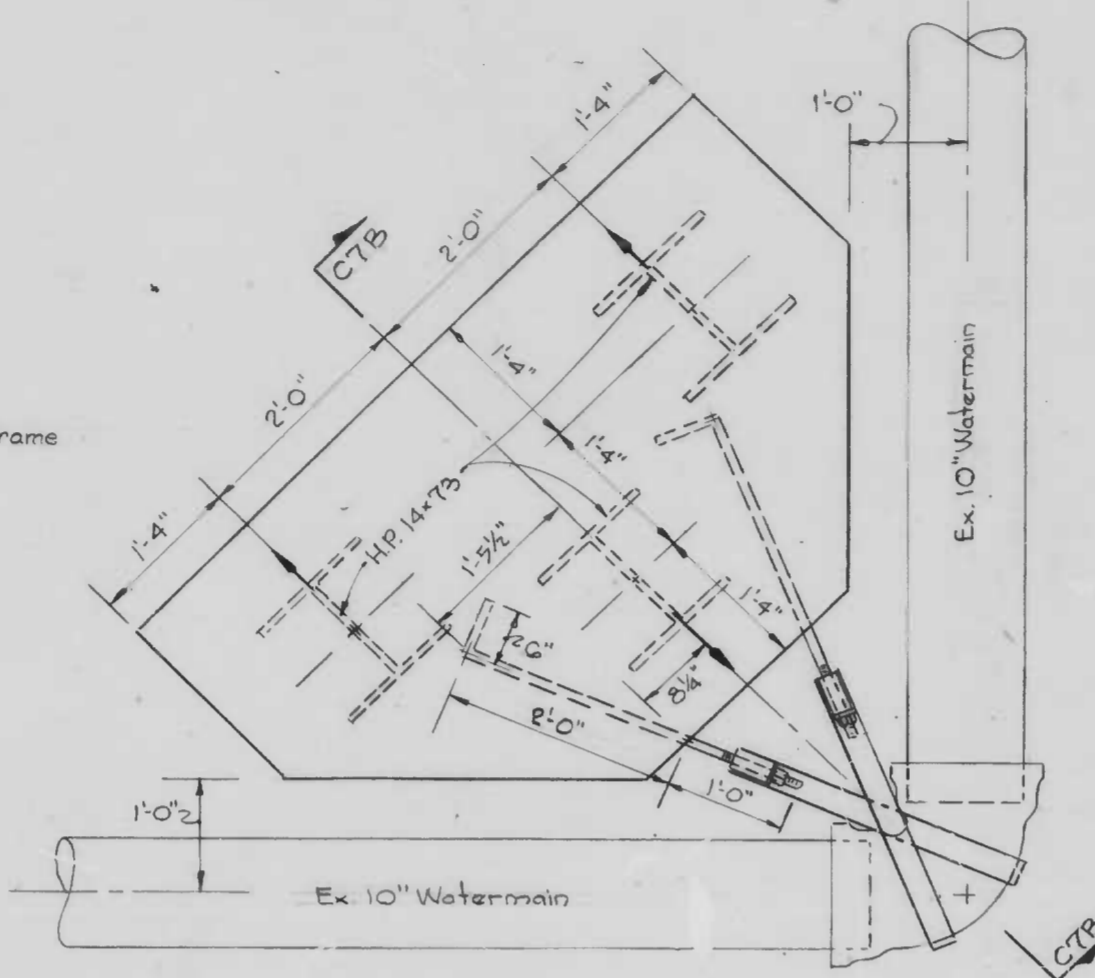
SECTION C7A/C7
Scale: 1/2" = 1'-0"



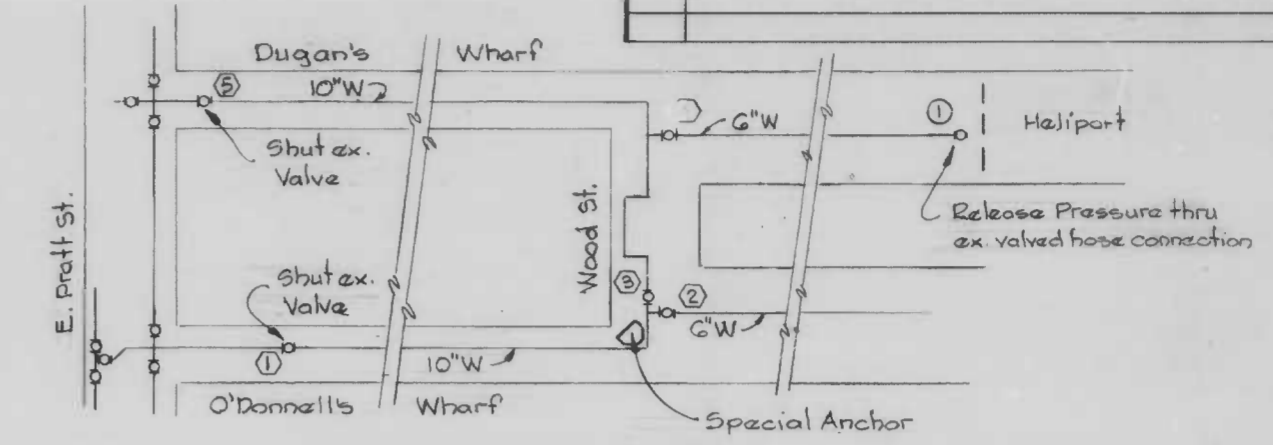
PLAN
Scale: 1/2" = 1'-0"
TYPICAL DETAIL OF INLET NO'S 1-12, 3, 4 & 5



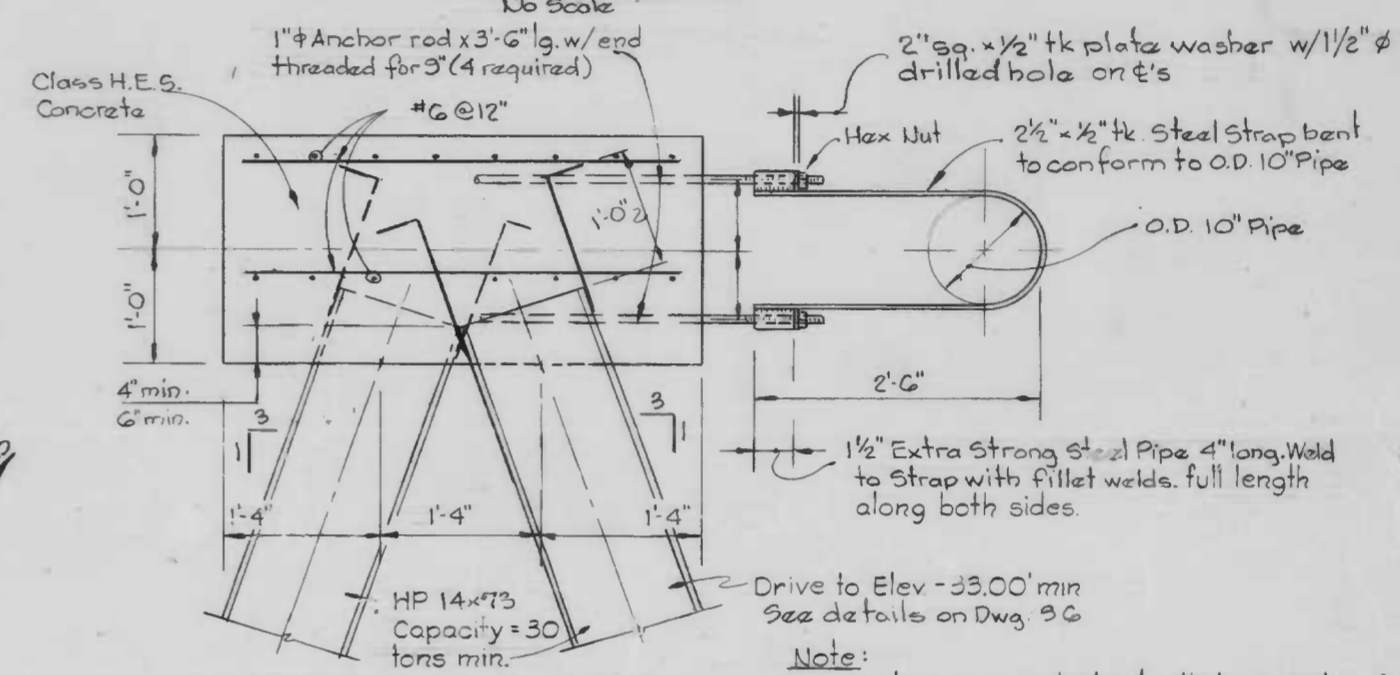
PLAN



PLAN



WATER SHUT-OFF DIAGRAM
No Scale



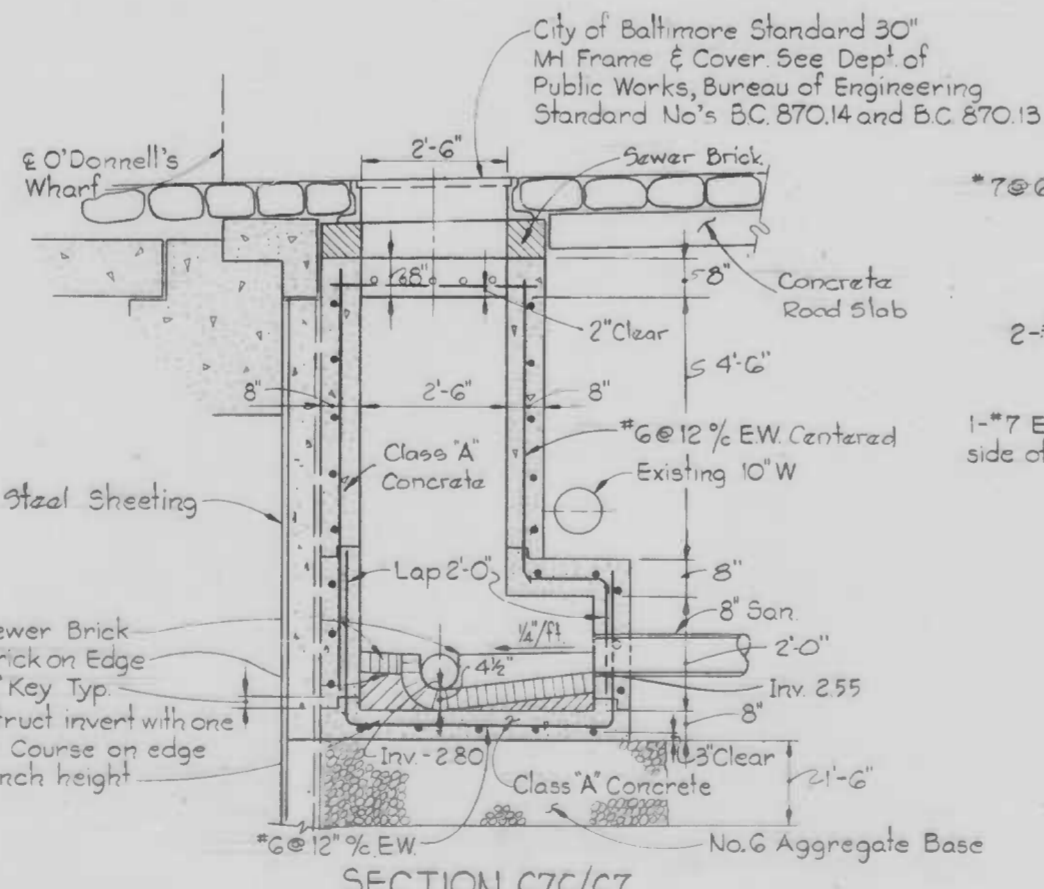
SECTION C7B/C7

Note:
Paint all exposed steel with two coats of Coppers Co. Inc Bitumastic #50.

DETAIL OF SPECIAL ANCHOR
Scale: 1" = 4'-0"

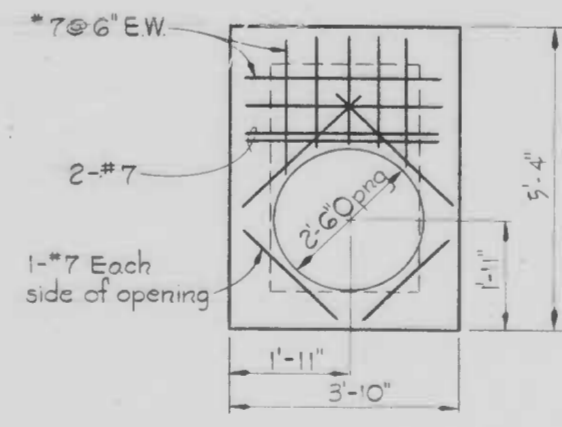
SEQUENCE OF CONSTRUCTION FOR SPECIAL ANCHOR

1. Excavate to determine the exact location of existing 10" watermain. DO NOT EXCAVATE BEHIND BUTTRESS OR DISTURB PIPE FOUNDATION.
2. Layout and Construct the Special Anchor, drive piles and pour concrete pile cap with anchor bolts. Concrete must be allowed to cure for at least 15 days before anchor straps are attached to the anchor bolts.
3. Turn existing water valves (1) & (2) off and reduce line pressure to zero by opening valved hose connection (1). Note: Draining of existing water system between valves (1) & (2) is not required. (See Shut-off Diagram)
4. Remove exist buttress from behind existing 30" Horiz Bend exercising care to prevent disturbance of existing joints.
5. Install and tighten anchor straps around existing 30" Horiz Bend.
6. Close hose connection (1) and open Valves (1) & (2) to return system to operating pressure. Backfill excavation with Contingent Trench Backfill Material.
7. Before turning off valves, notify existing water users and the Customer Accounts Division, Bureau of Consumer Services, 3001 Druid Park Drive, of the time of shut-off. Once the valves are turned off the contractor shall work continuously until the system is returned to operating pressure.
8. See Paragraph SC-2G, "Date of Completion", of the Special Provisions in the Special Specifications for further requirements.



SECTION C7C/C7

DETAIL OF SANITARY MH4
Scale: 1/2" = 1'-0"



TOP SLAB PLAN

DRAWN BY: *Ralls*
EXAMINED BY: *EALP*

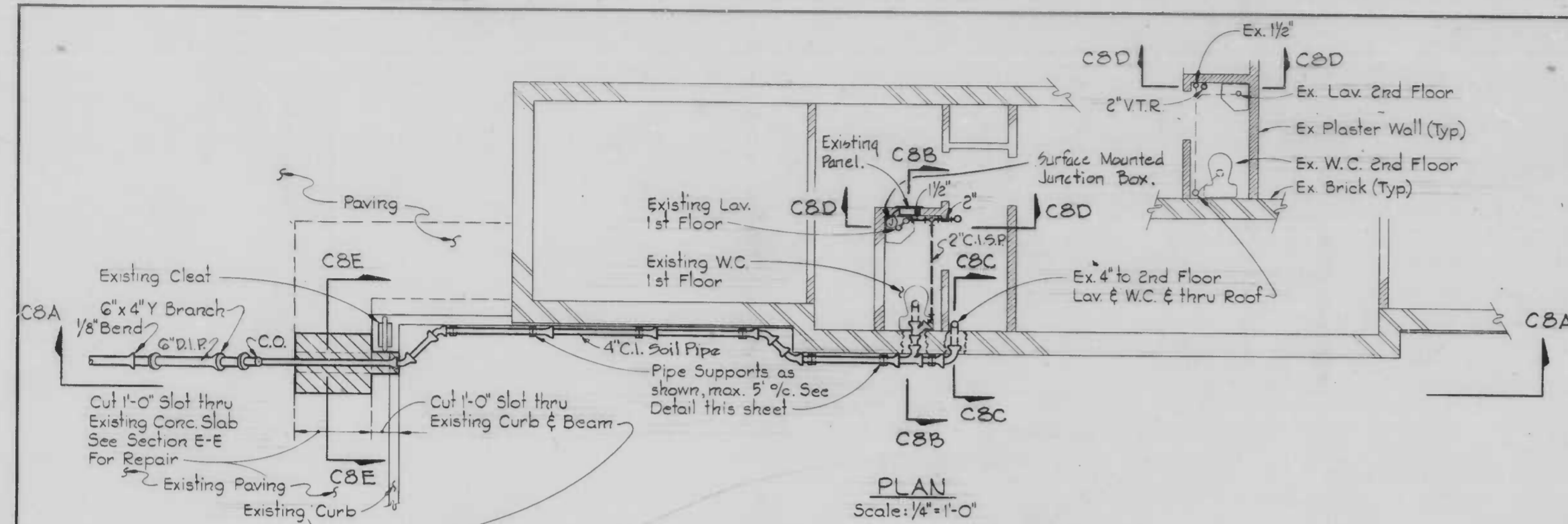
W.C. 7255-2

WHITMAN, REQUARDT & ASSOCIATES
ENGINEERS
BALTIMORE, MARYLAND
BY: *[Signature]*

CITY OF BALTIMORE
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
CONTRACT NO. 2470r
PIER 4 - UTILITY, BULKHEAD
AND STREET IMPROVEMENTS
UTILITY DETAILS
SCALE AS SHOWN
DATE: MARCH 31, 1978
C-7 SHEET 8 OF 21

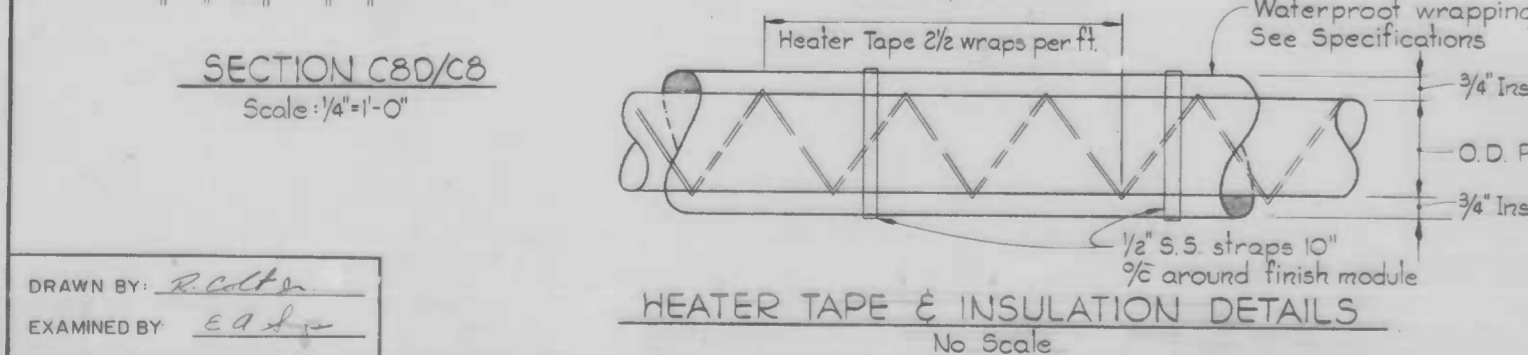
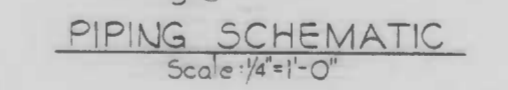
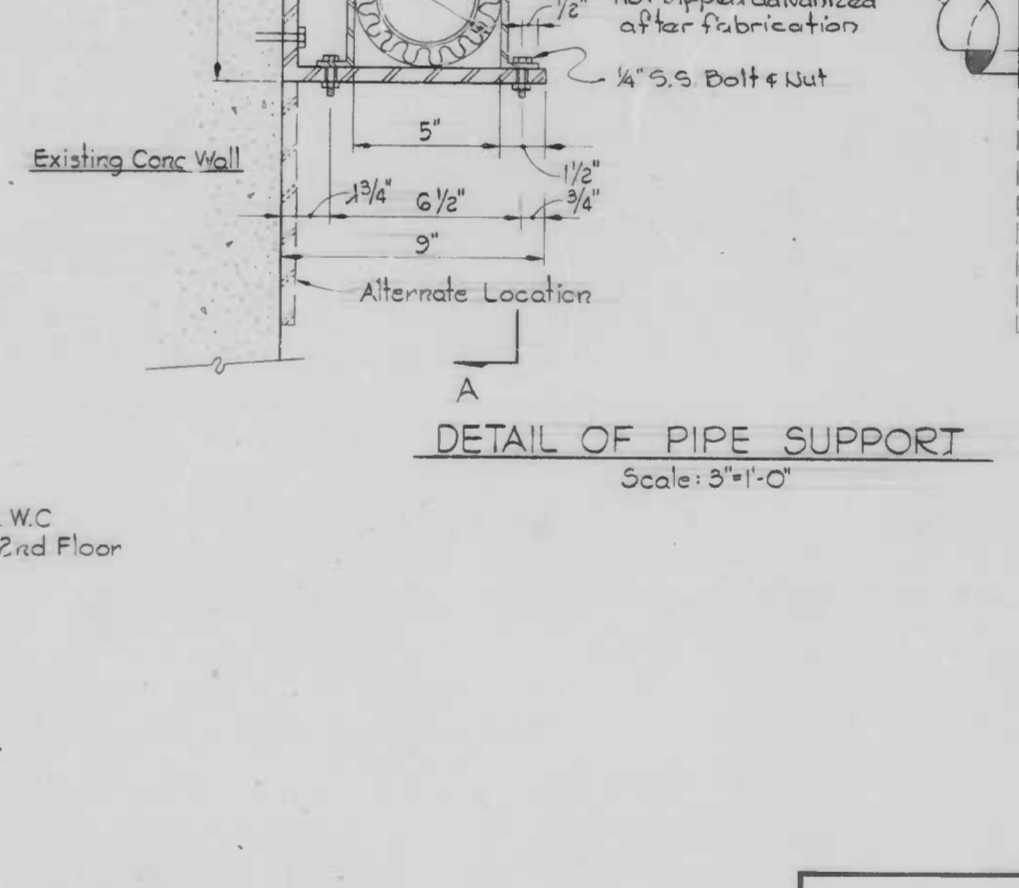
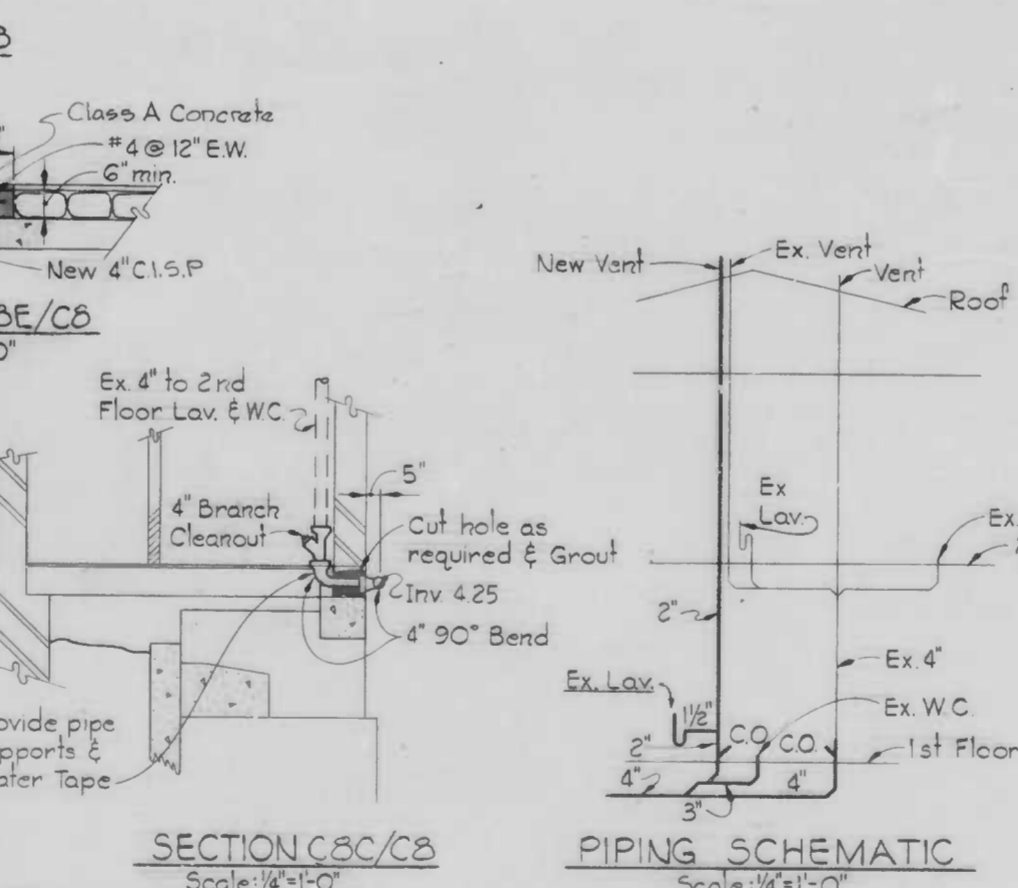
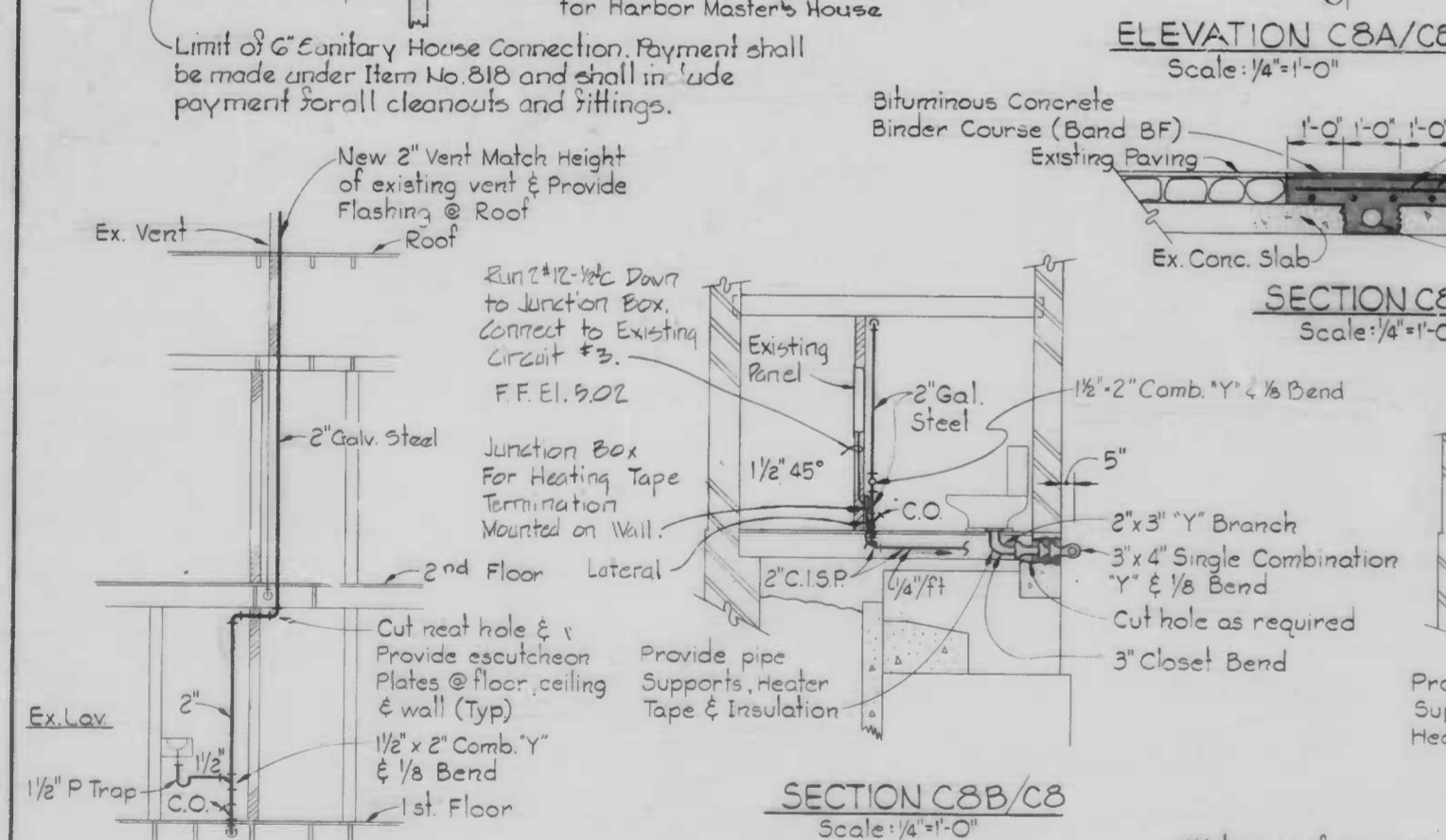
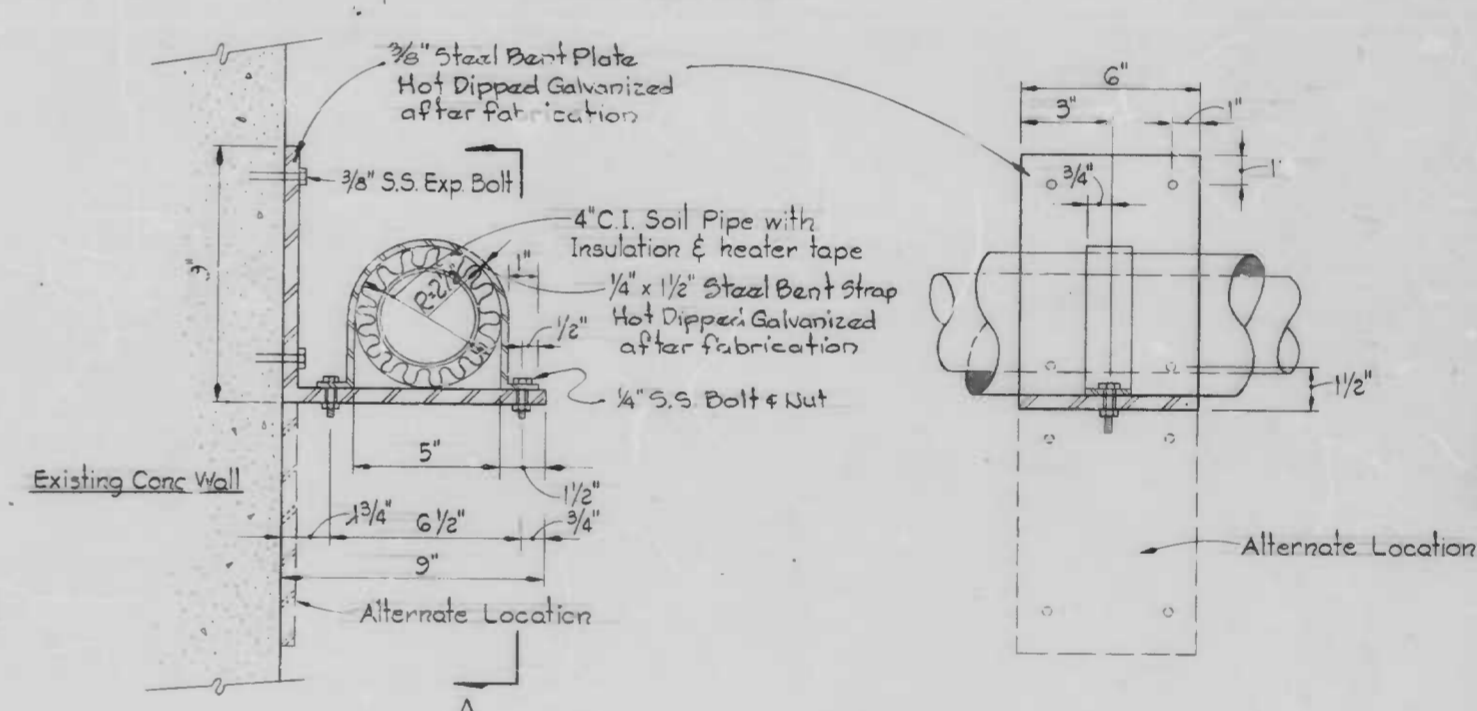
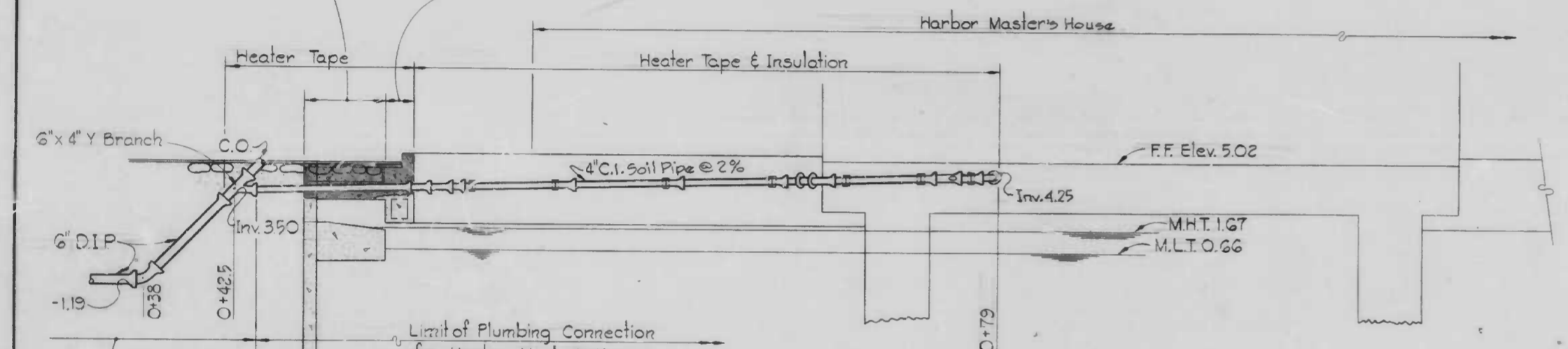
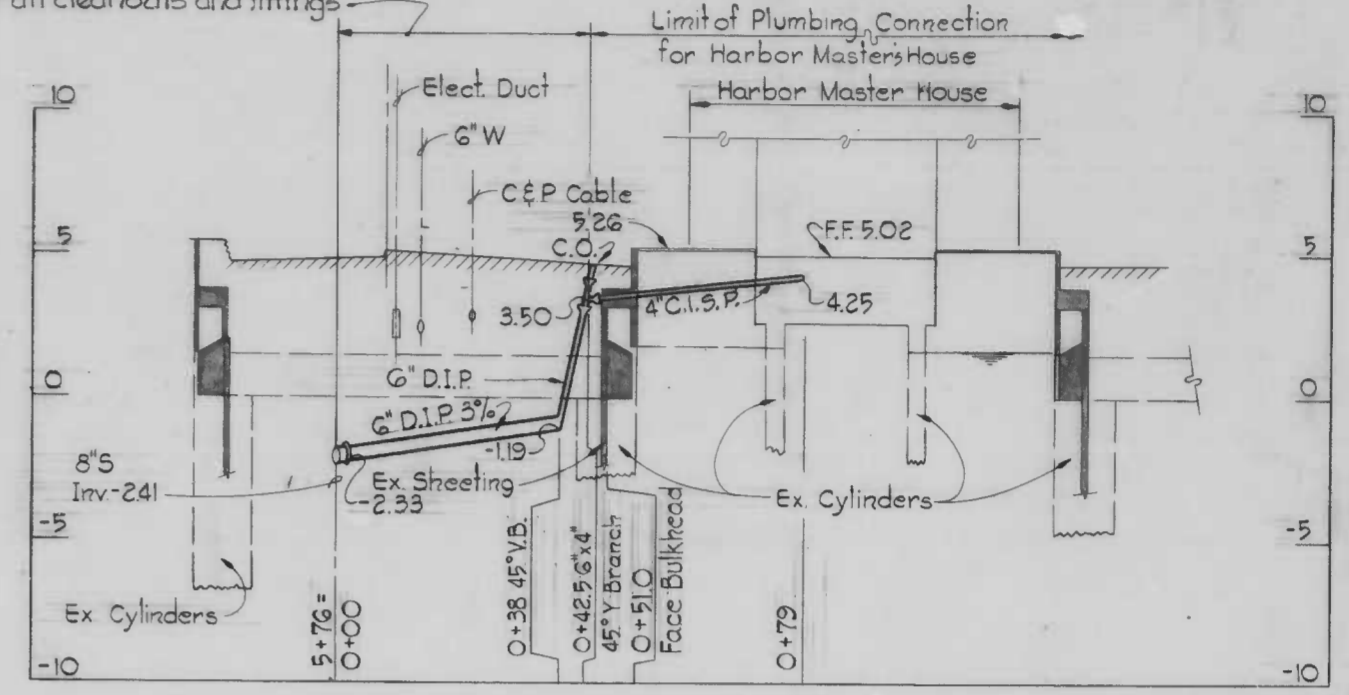
FILE REF.

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Limit of Sanitary House Connection. Payment shall be made under Item No 818 and shall include payment for all cleanouts and fittings.

REVISIONS			
NO.	DESCRIPTION	DATE	BY



DRAWN BY: *R. J. ...*
EXAMINED BY: *E. J. ...*

W.D. 7258-2



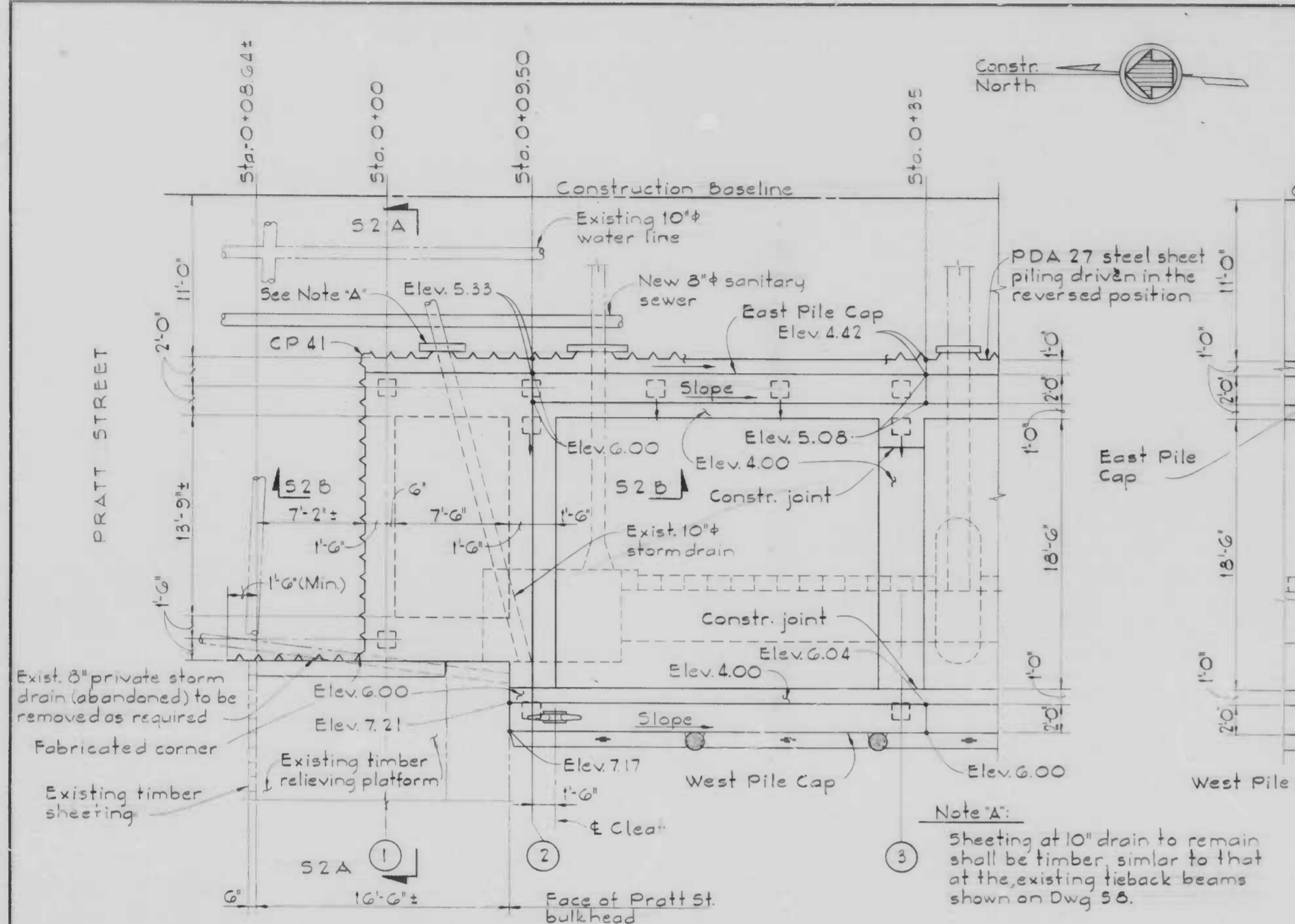
WHITMAN, REARDON & ASSOCIATES
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BALTIMORE, MARYLAND

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DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
CONTRACT NO. 2470r
PIER 4 - UTILITY, BULKHEAD
AND STREET IMPROVEMENTS
**DETAILS SANITARY CONNECTION
TO HARBOR MASTERS HOUSE**
SCALE AS SHOWN DATE MARCH 31, 1978
C-6 SHEET 9 OF 21

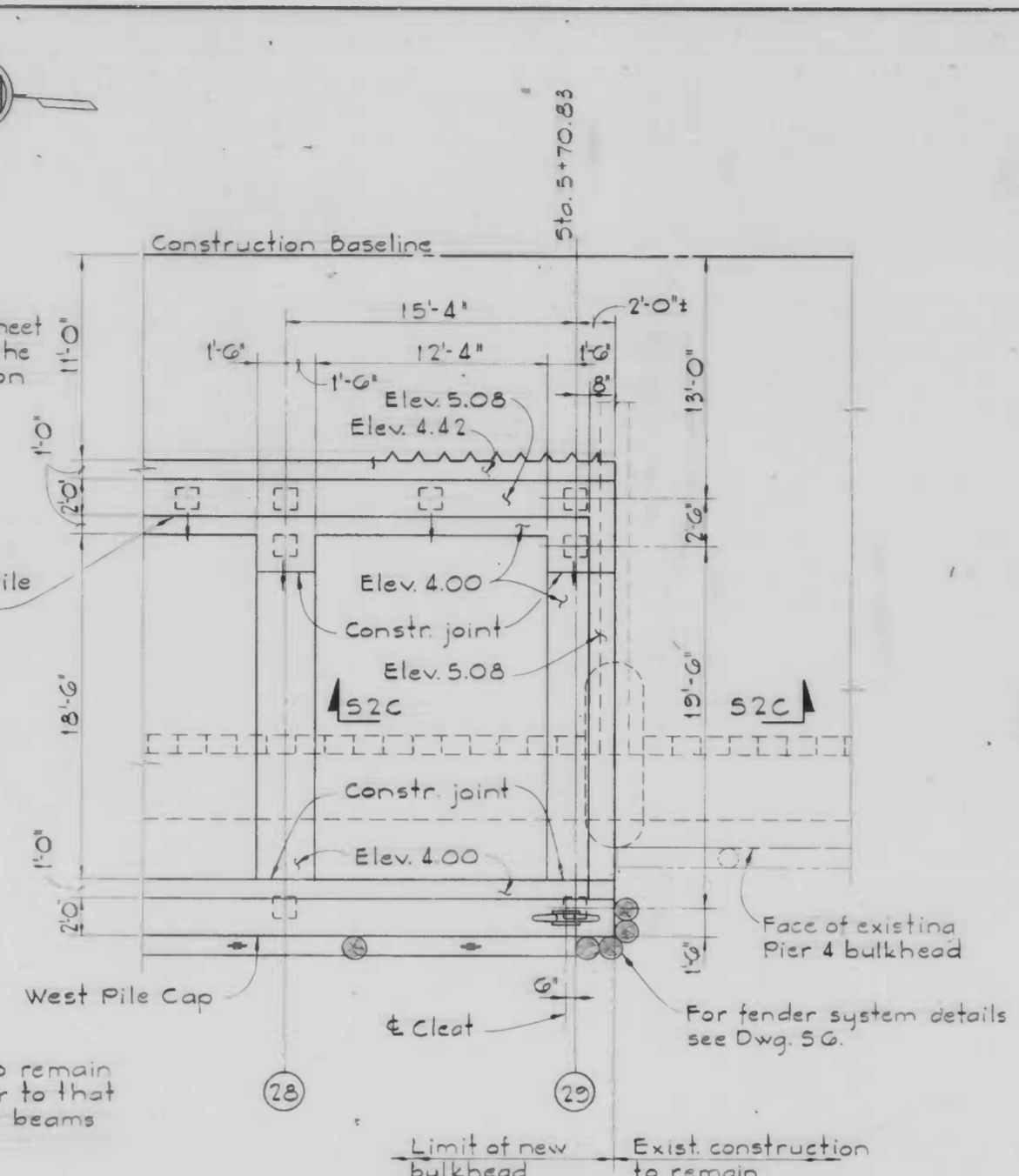
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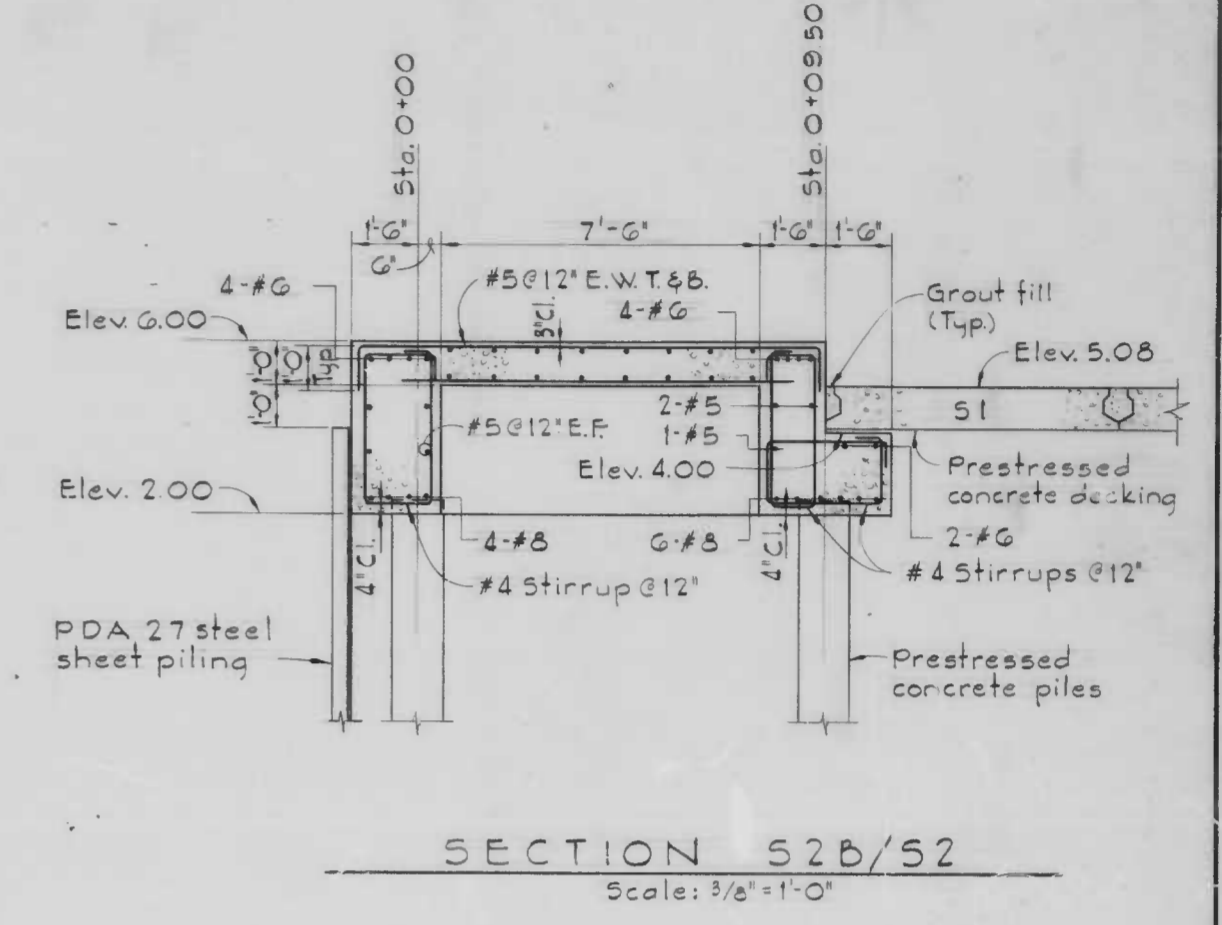
REVISIONS			
NO.	DESCRIPTION	DATE	BY



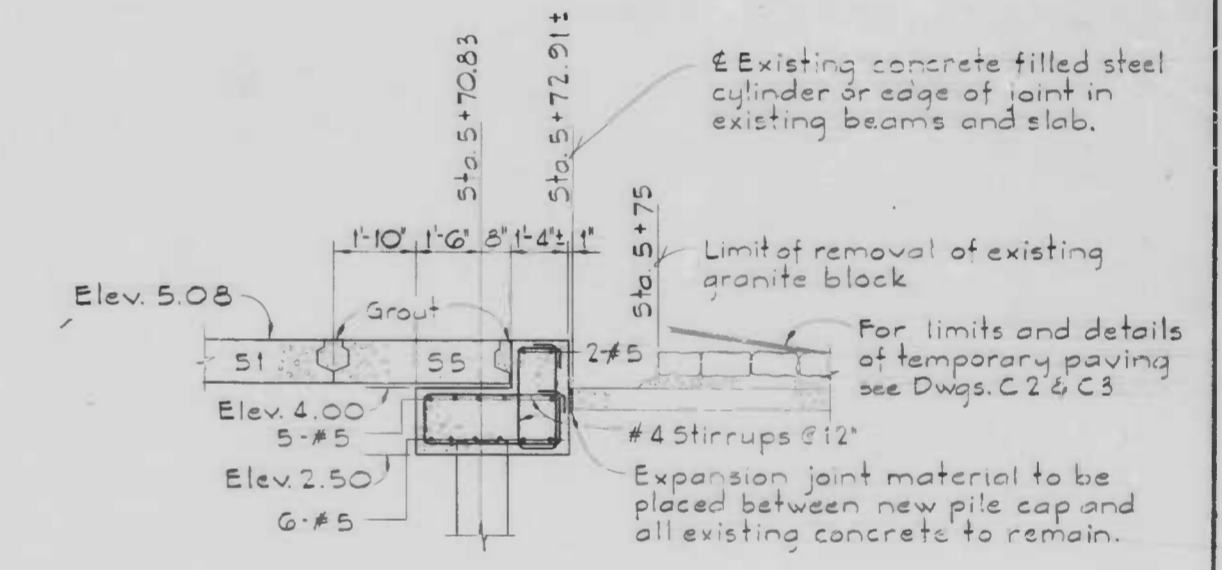
PART PLAN - NORTH END
Scale: 3/16" = 1'-0"



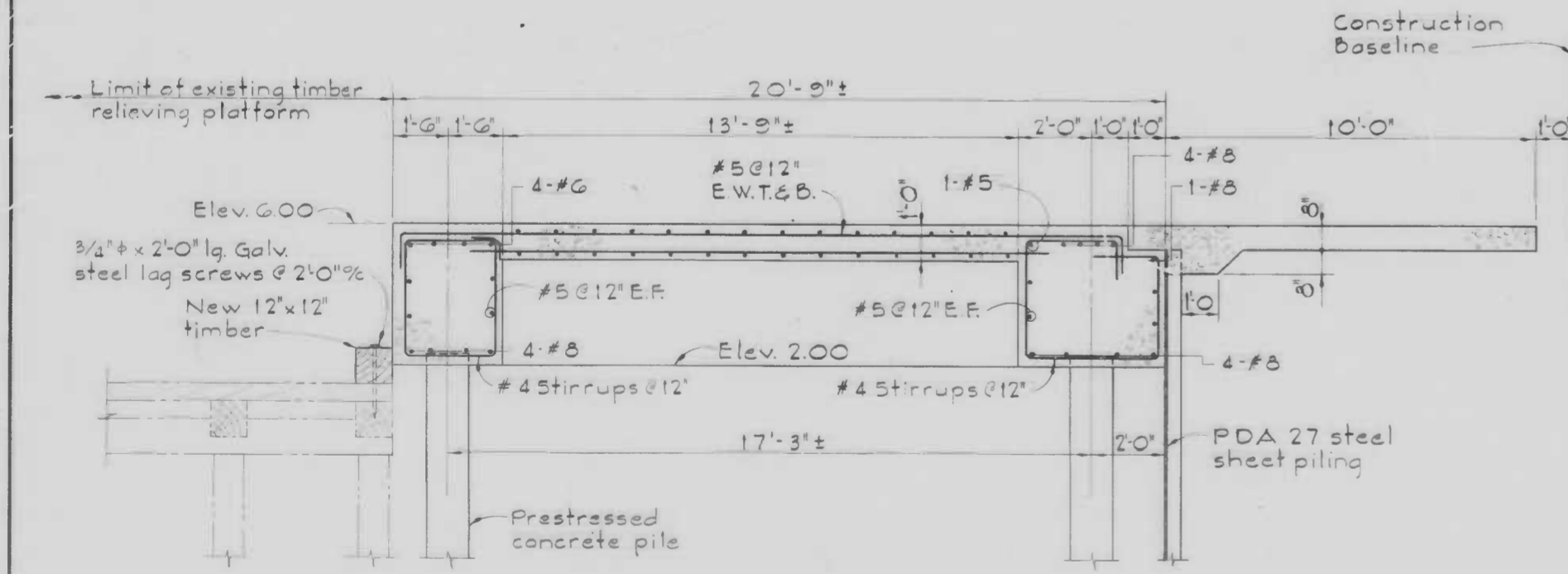
PART PLAN - SOUTH END
Scale: 3/16" = 1'-0"



SECTION 52B/52
Scale: 3/8" = 1'-0"



SECTION 52C/52
Scale: 3/8" = 1'-0"



SECTION 52A/52
Scale: 3/8" = 1'-0"

- NOTES:
1. Dimensions to existing construction shall be verified by the Contractor in the field prior to construction.
 2. The drawing shows the structural sizes and arrangement where the new bulkhead construction meets the existing Pratt Street bulkhead. Bent spacing and bulkhead width shall be adjusted in the field to suit the actual limits of the existing bulkhead.
 3. Remove the existing fender system along the Pratt Street bulkhead only as required for new construction.
 4. The station given for the southern limit of the new bulkhead is approximate only. The actual limit shall be the north end of the existing beams supported on the existing concrete cylinder and shall be determined in the field. Cores shall be taken in both removal work and new construction to prevent damage to the existing bulkhead to remain, which is in a state of significant deterioration.

DRAWN BY *E.H. Brown*
EXAMINED BY *C.W. Bradley*

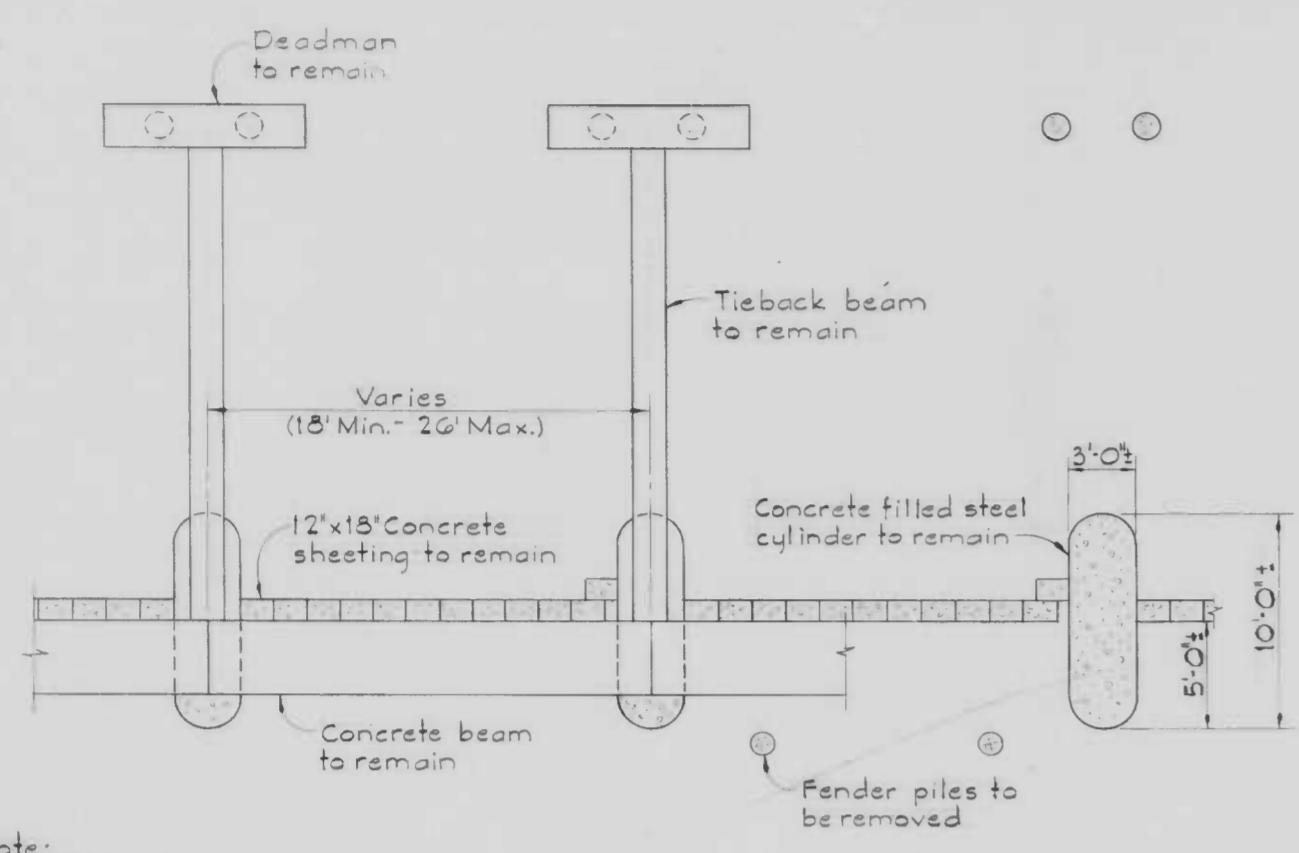
WHITMAN, REQUARDT & ASSOCIATES
ENGINEERS
BALTIMORE, MARYLAND
BY *[Signature]*

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DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
CONTRACT NO 2470r
PIER 4 - UTILITY, BULKHEAD
AND STREET IMPROVEMENTS
PART PLANS
AND SECTIONS
SCALE AS SHOWN DATE MARCH 31, 1978
S 2 SHEET 11 OF 21

FILE REF.

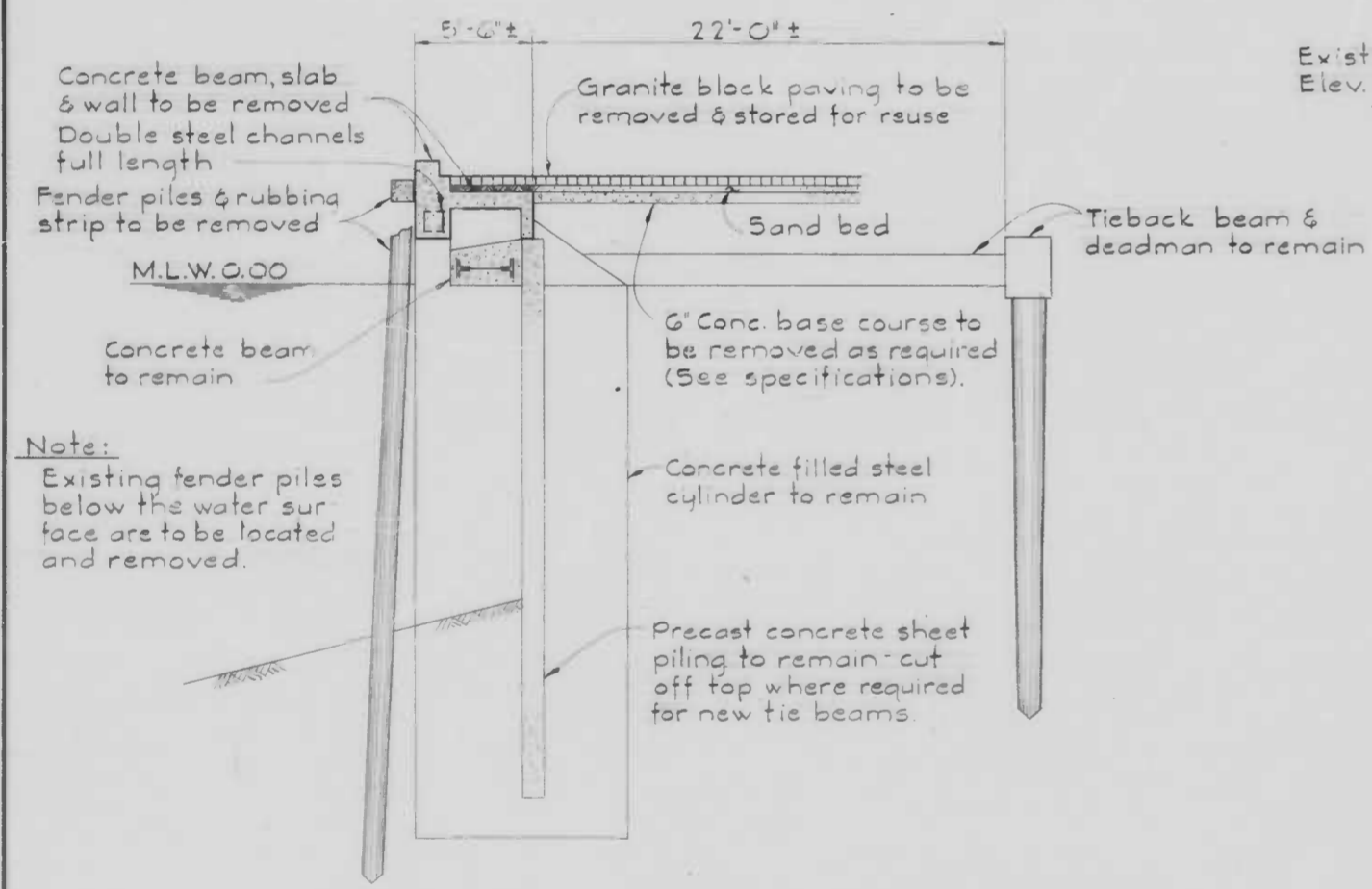
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NO.	DESCRIPTION	DATE BY



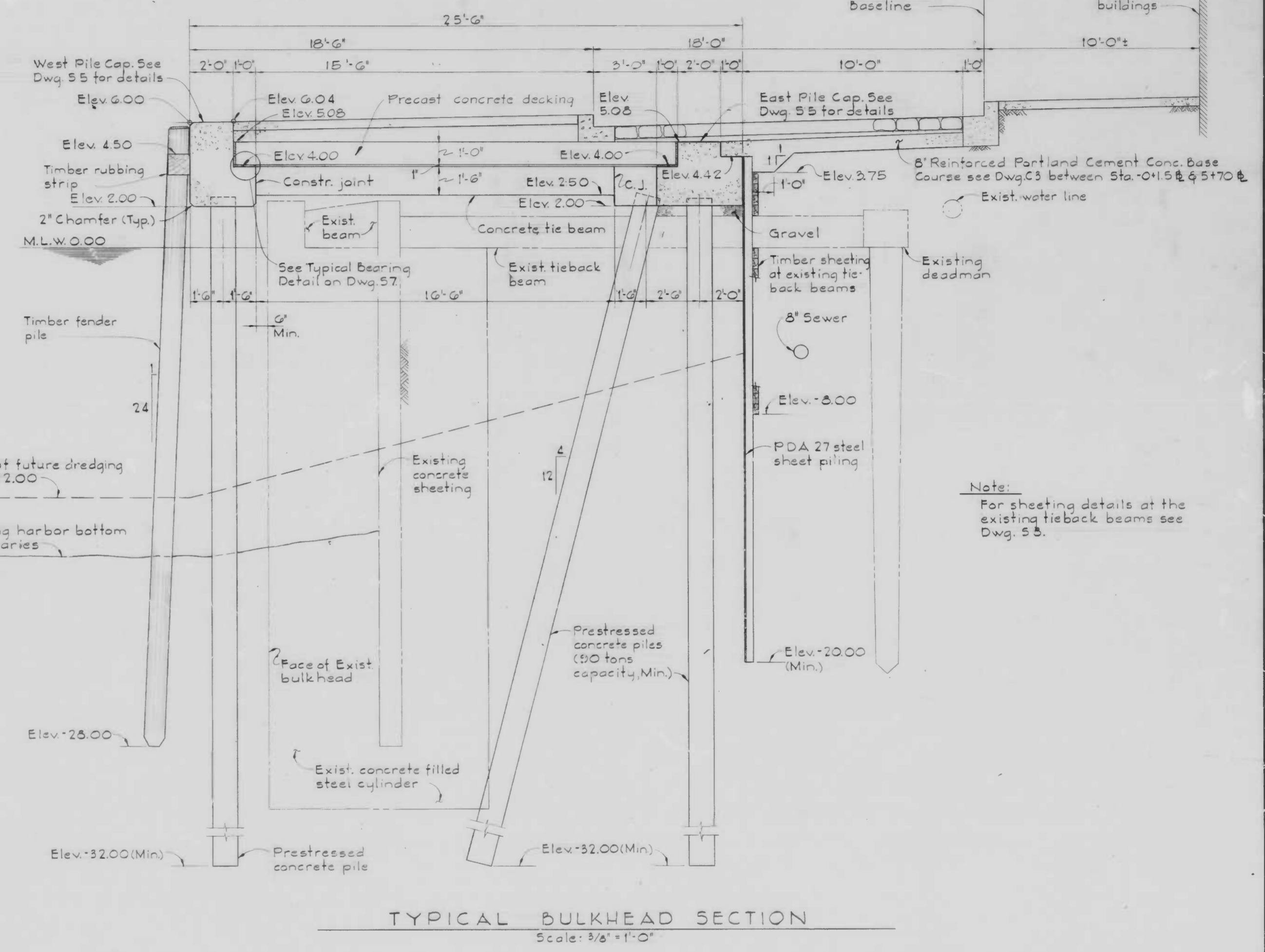
Note:
The existing bulkhead structure shall be removed only as required for new construction and its structural integrity maintained as far as practicable.

PART PLAN - EXISTING
Scale: 3/16" = 1'-0"



Note:
Existing fender piles below the water surface are to be located and removed.

TYPICAL SECTION - EXISTING TO BE REMOVED
Scale: 3/16" = 1'-0"



TYPICAL BULKHEAD SECTION
Scale: 3/8" = 1'-0"

Note:
For sheeting details at the existing tieback beams see Dwg. 55.

DRAWN BY *L.H. Retzke*
EXAMINED BY *C.W. Brinkley*

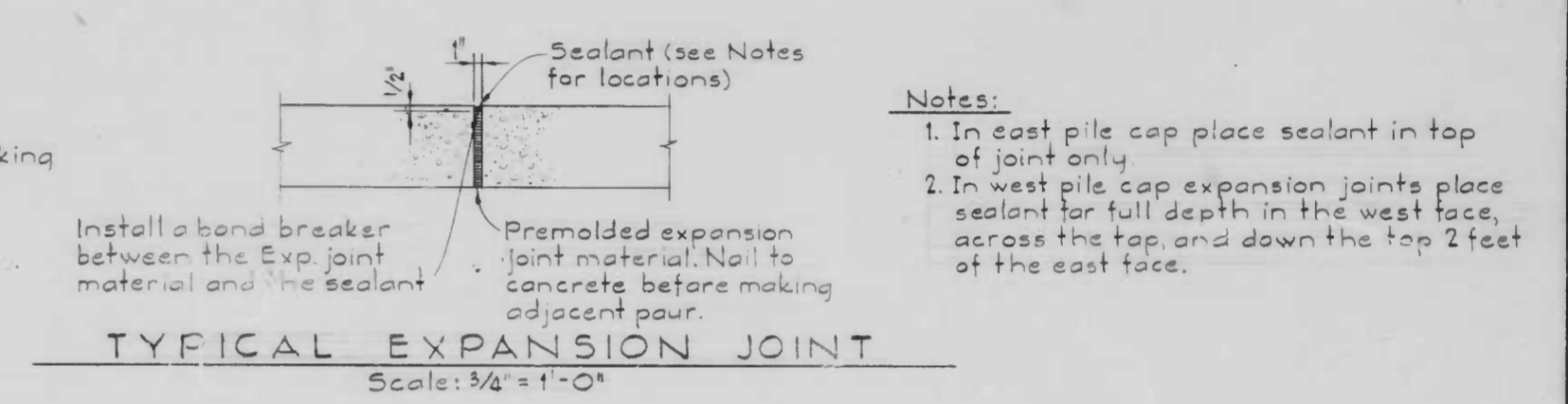
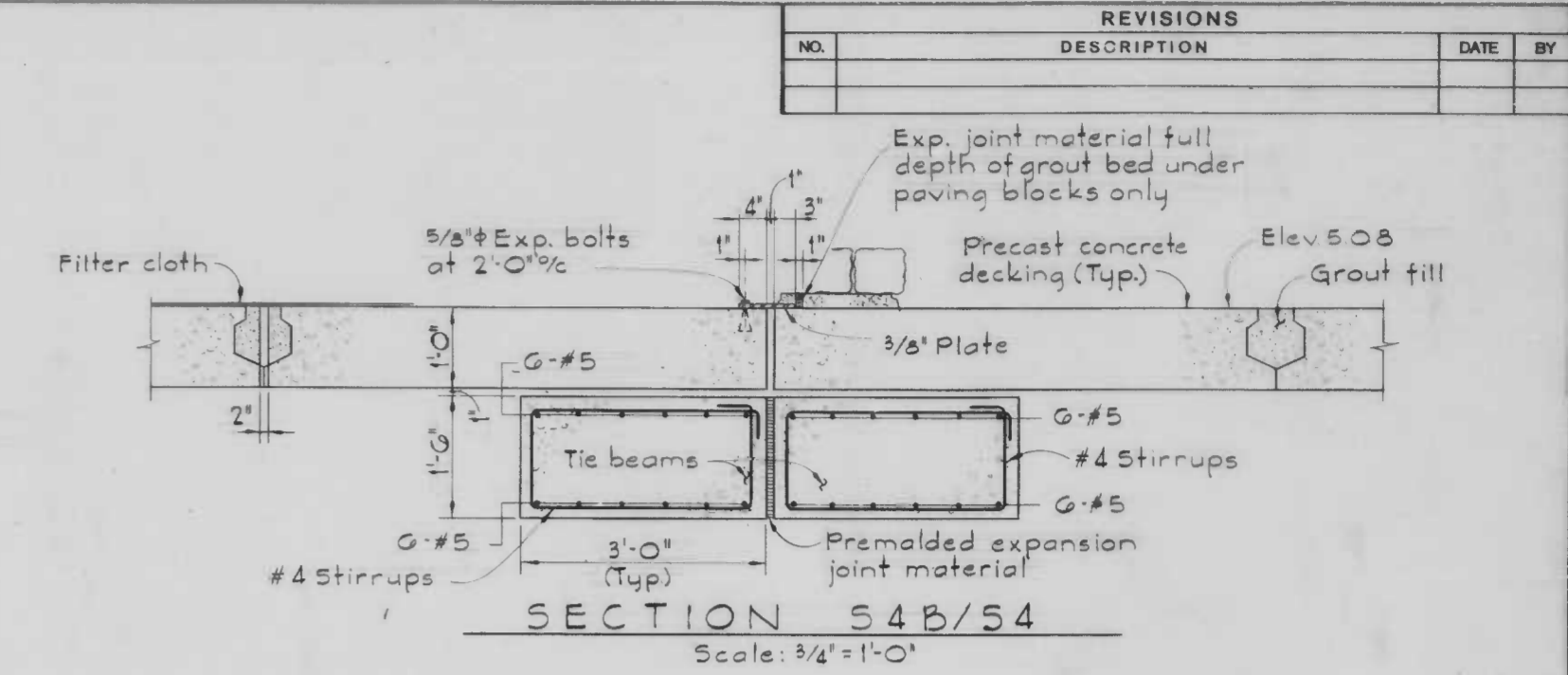
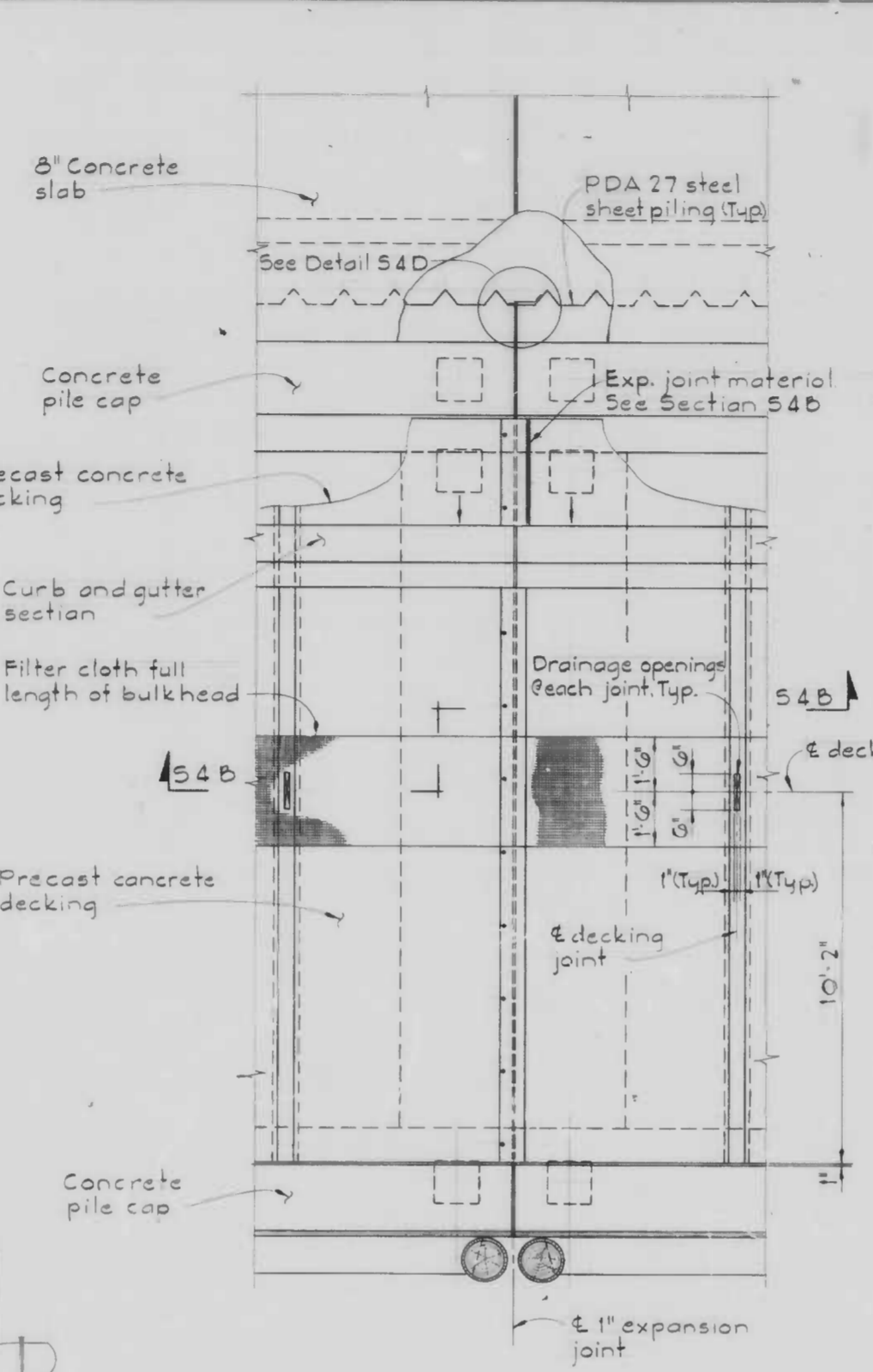
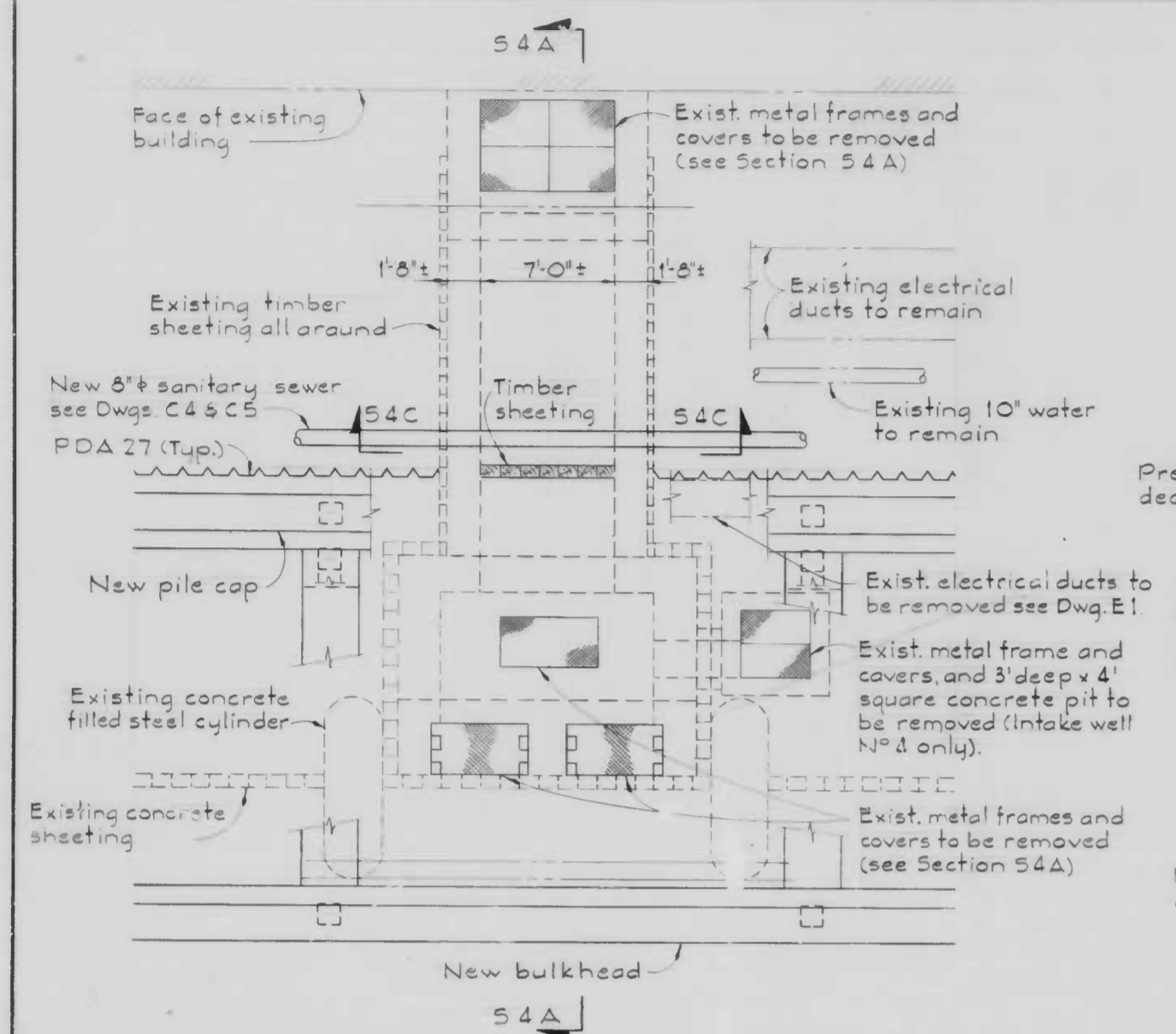
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 CONTRACT NO. 24707
PIER 4 - UTILITY, BULKHEAD AND STREET IMPROVEMENTS
TYPICAL SECTIONS
 SCALE: AS SHOWN DATE: MARCH 31, 1978
 S 3 SHEET 12 OF 21

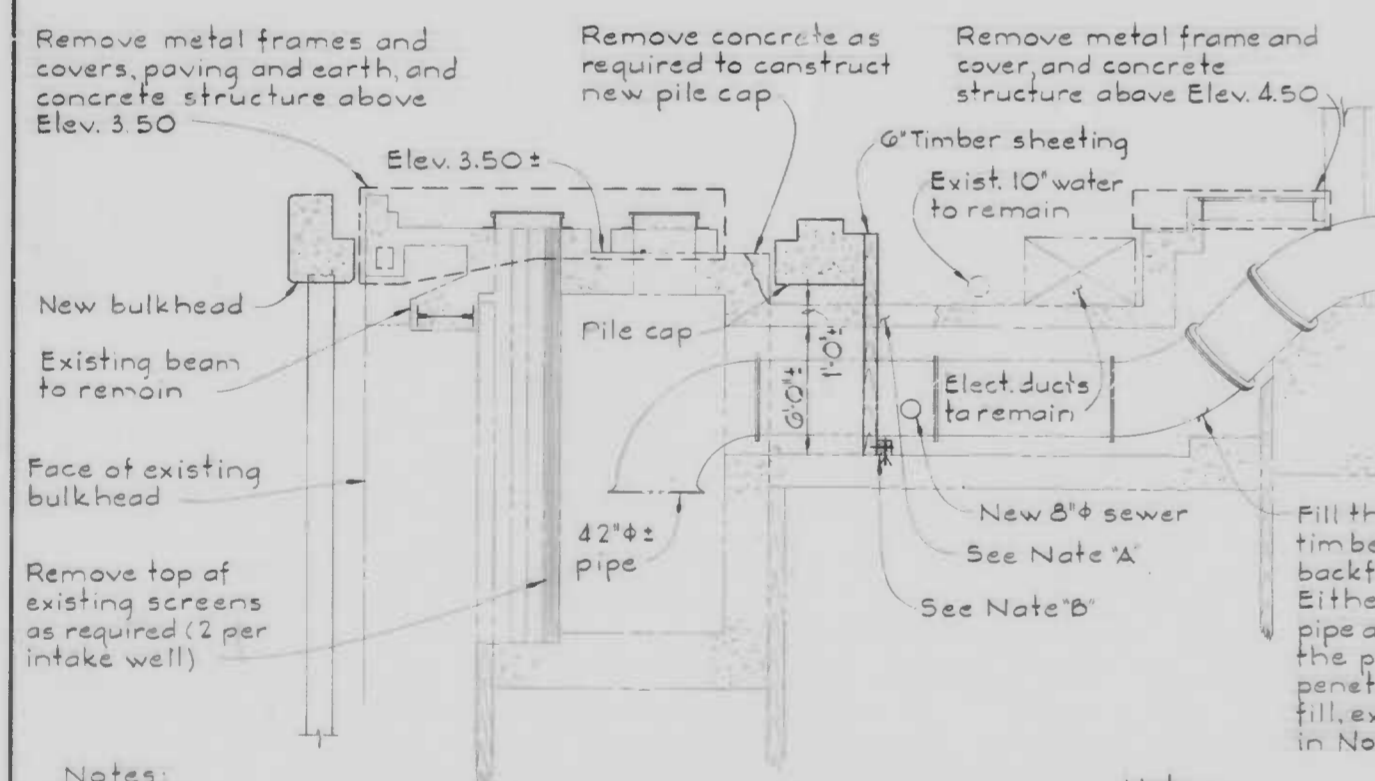
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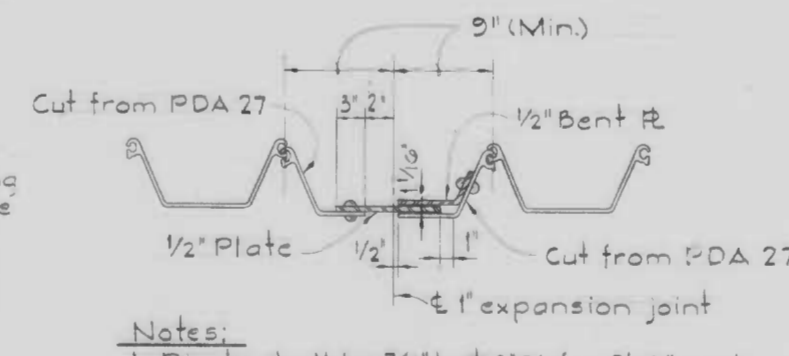


- Notes:**
1. In east pile cap place sealant in top of joint only.
 2. In west pile cap expansion joints place sealant for full depth in the west face, across the top, and down the top 2 feet of the east face.

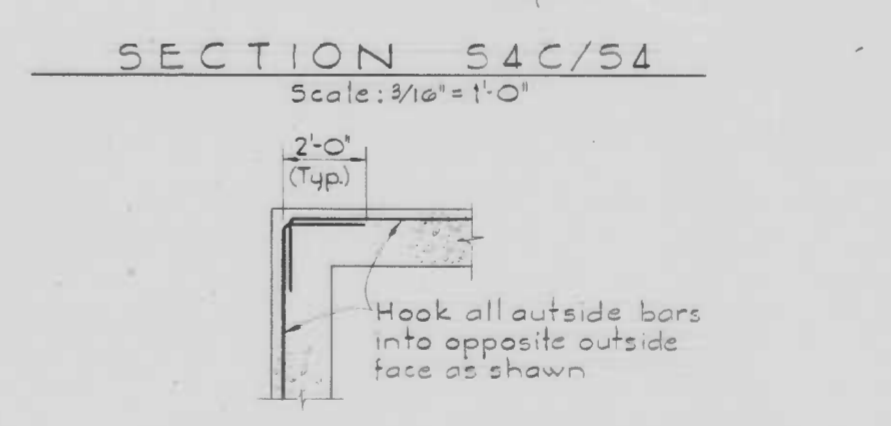
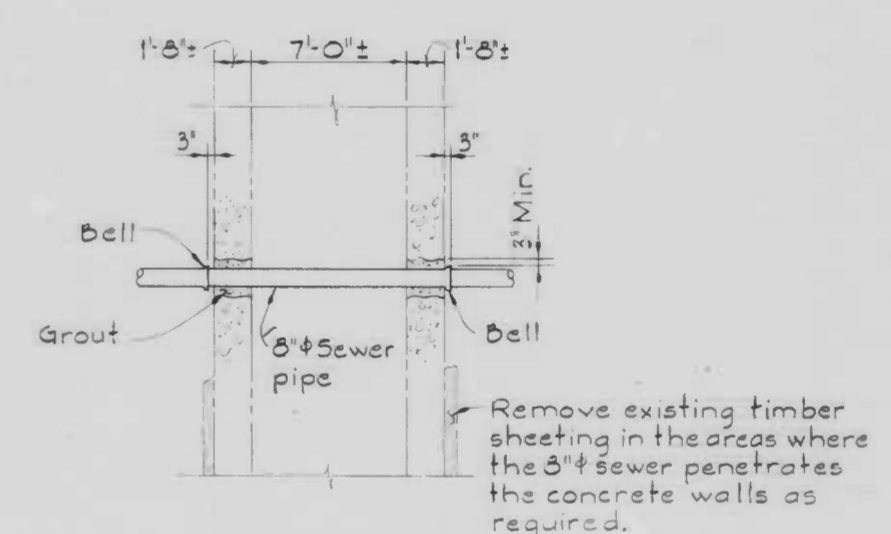


- Notes:**
- Remove existing pipe and concrete slab and walls as required to install timber sheeting and 8" sanitary sewer. Leave top slab in place below existing water line and electrical ducts to remain.
 - New 8"x8" timber. Expansion bolt to existing bottom slab w/ 4- 3/4" Galv. steel expansion bolts. Fasten to each piece of timber sheeting w/ 2- 3/4" lag screws.

- Note:**
42" pipe shown in tunnel may be smaller or nonexistent at the other intake wells.
- Note:**
Payment for removing portions of the Intake Wells will be made under Item 201 of the Schedule of Prices.



- Notes:**
1. Rivets shall be 7/8" at 3" o/c for 2'-0" each end and the remaining at 6" o/c. Equivalent weld may be used.
 2. Drive expansion joint pieces first, then work each way toward the existing tiebacks. Increase the width of the expansion joint pieces as required to minimize the gaps between the sheet piling and the existing tieback beams.



DRAWN BY *[Signature]*
EXAMINED BY *[Signature]*



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CONTRACT NO 2470r

PIER 4 - UTILITY, BULKHEAD AND STREET IMPROVEMENTS

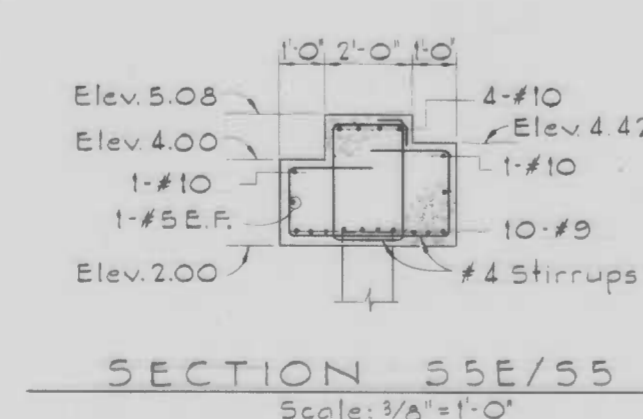
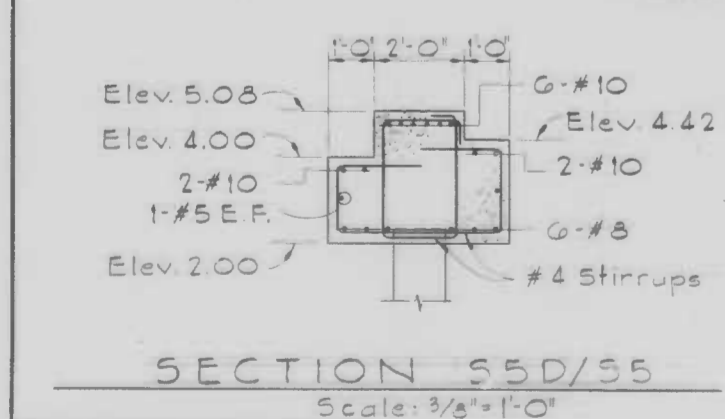
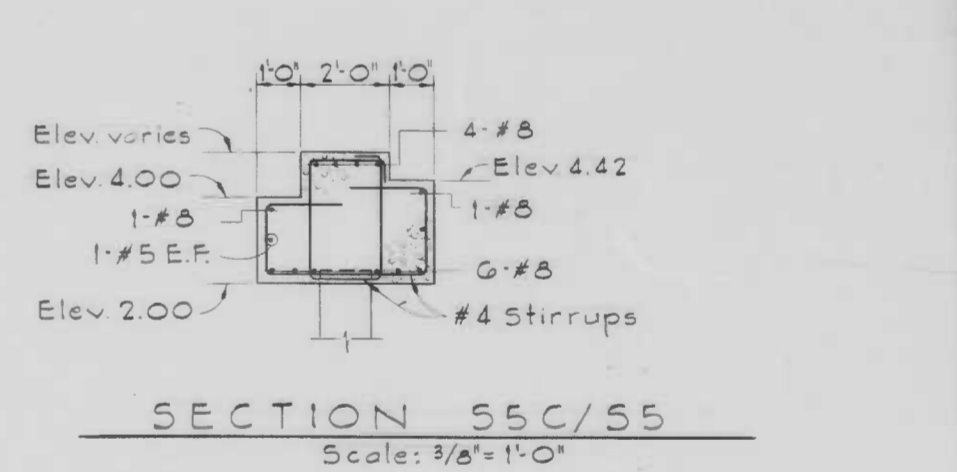
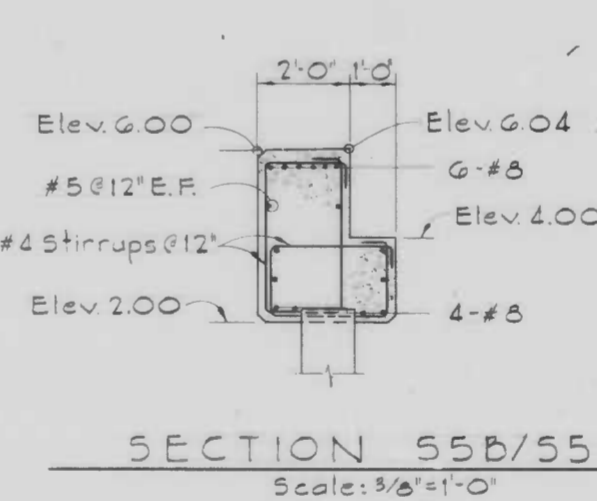
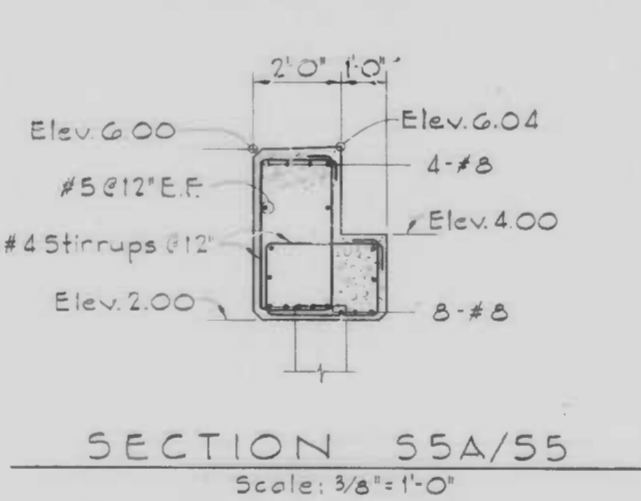
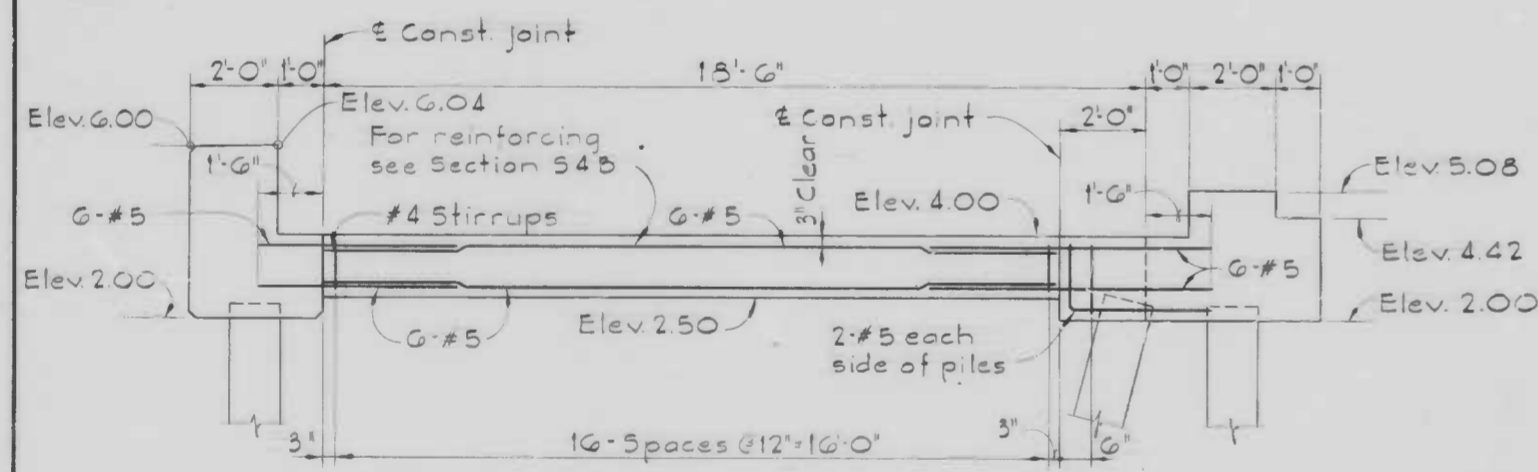
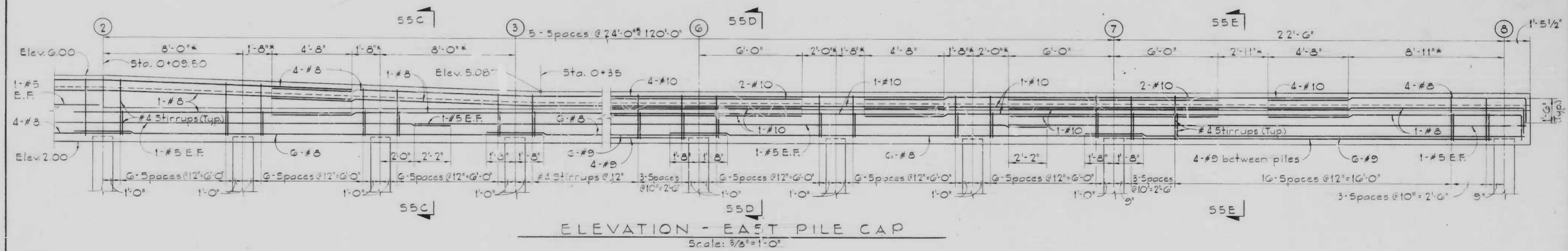
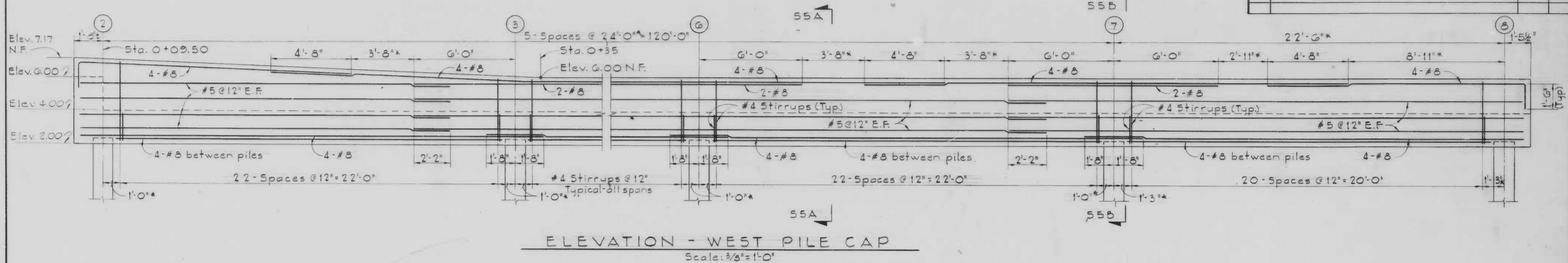
PART PLANS AND SECTIONS

SCALE: AS SHOWN DATE: MARCH 31, 1978
S 4 SHEET 13 OF 21

FILE REF.

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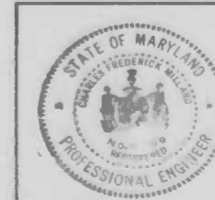
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NOTES:

- West Pile Cap
 - Reinforcing shown in the Elevation and Sections for portions of the pile cap between pile bents 2 and 8 is typical for all other spans.
 - Stirrups spacing shall be 12" throughout.
- East Pile Cap
 - Positive moment (bottom) reinforcing for all spans exceeding 11 feet shall be as shown for the spans between pile bents 7 and 8, and in Section 55E. Bottom reinforcing for all other spans shall be as shown between pile bents 2 and 3, bents 6 and 7, and in Sections 55C and 55D.
 - Negative moment (top) reinforcing shown over the piles at pile bents 6 and 7, and in Section 55D, shall also be used over the piles at bents 4, 5, 13, 14, 17 and 18. Top reinforcing over all other piles shall be as shown over the piles between bents 2 and 3, and in Section 55C.
 - Stirrup spacing shall be 12 inches, except at the ends of spans exceeding 20 feet which shall be 3 spaces at 10 inches as shown in the span between bents 7 and 8.
- Dimensions in both the east and west pile caps that will vary in the spans not shown are indicated with an asterisk (*) on the Elev.
- Splice top reinforcing bars only at midspan and bottom bars only over pile supports.
- Provide construction joints at a maximum spacing of 30 feet and located at approximately the quarter point of a span.

DRAWN BY *L. J. Reynolds*
EXAMINED BY *C. R. Hart*

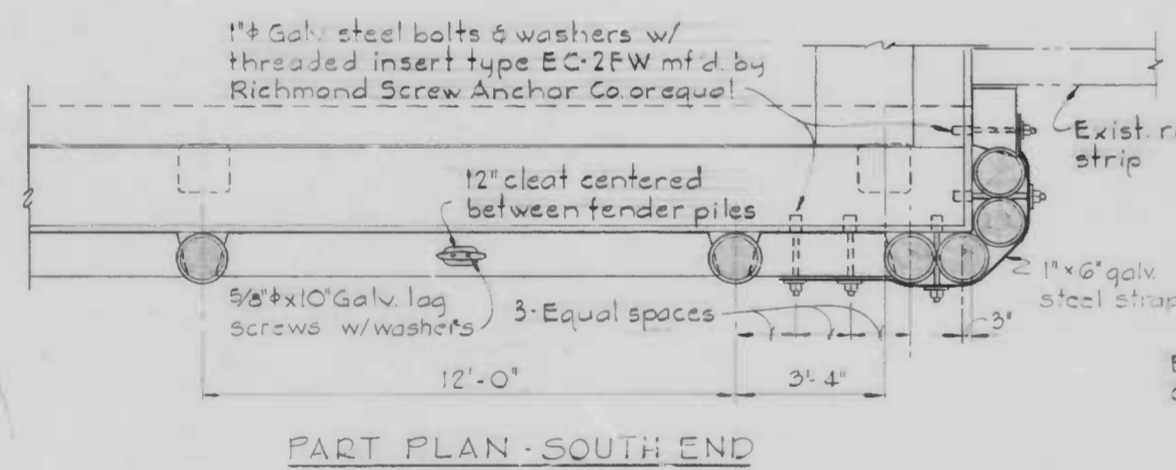
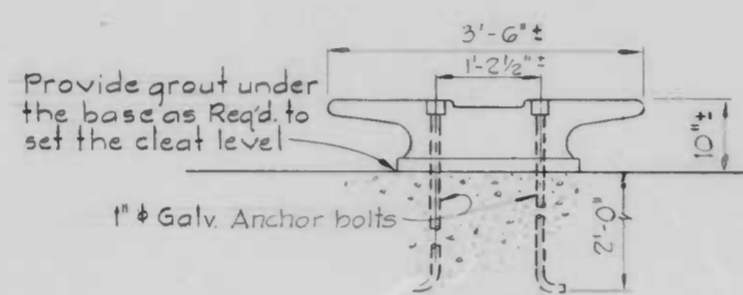
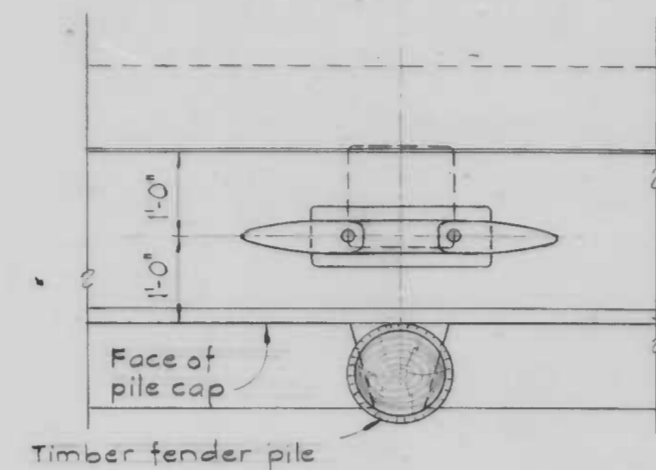
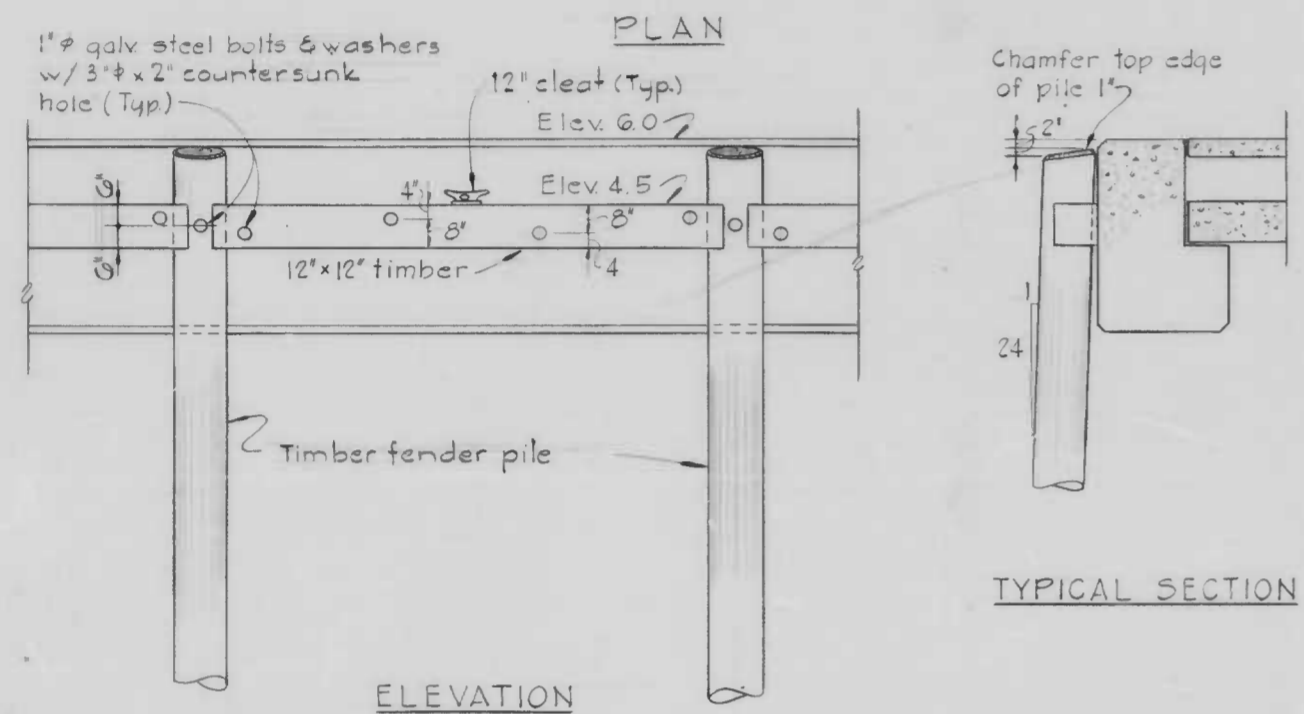
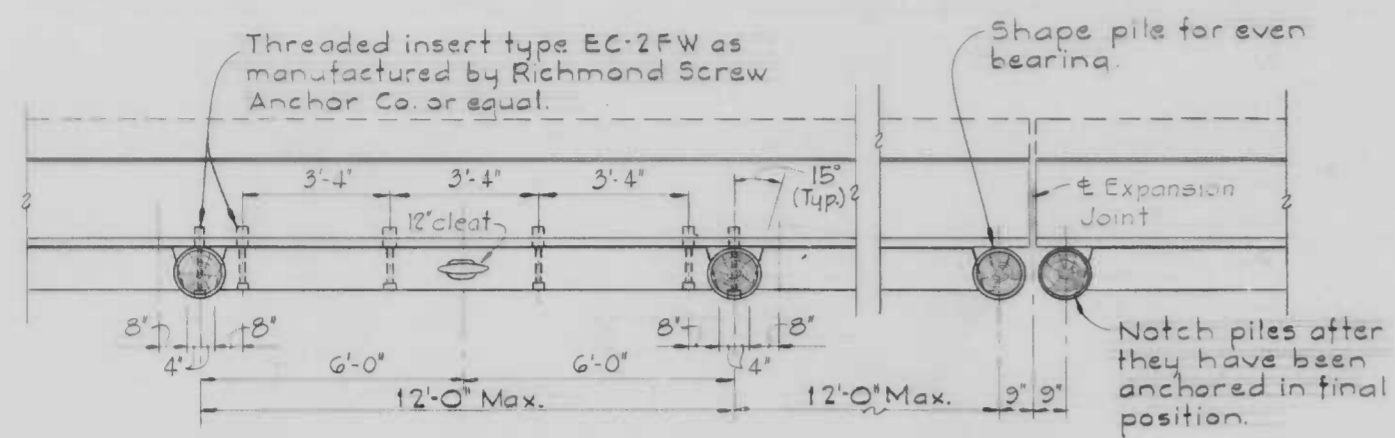


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ENGINEERS
BALTIMORE, MARYLAND
BY *L. J. Reynolds*

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CONTRACT NO. 2470r
**PIER 4 - UTILITY, BULKHEAD
AND STREET IMPROVEMENTS**
**BEAM ELEVATIONS
AND SECTIONS**
SCALE: AS SHOWN DATE: MARCH 31, 1978
S 5 SHEET 14 OF 21

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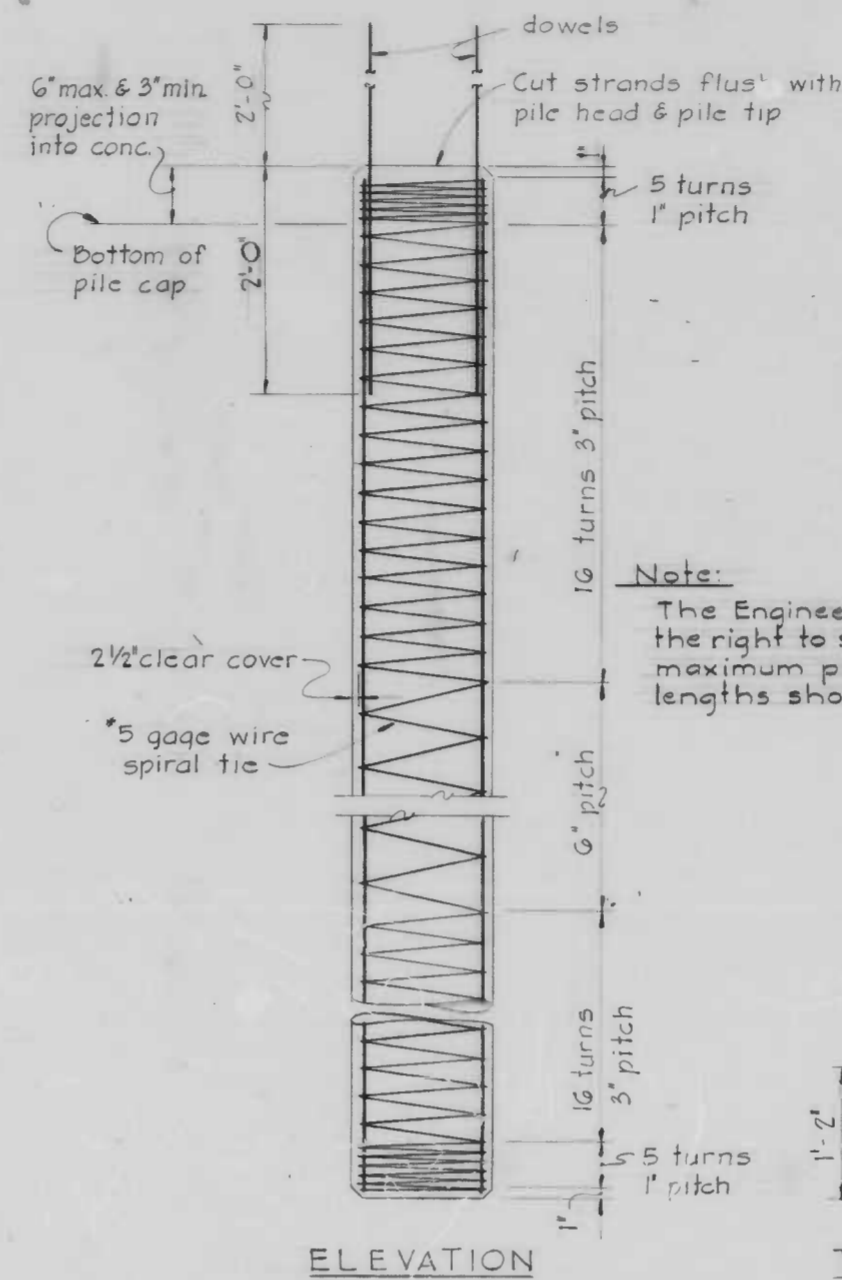
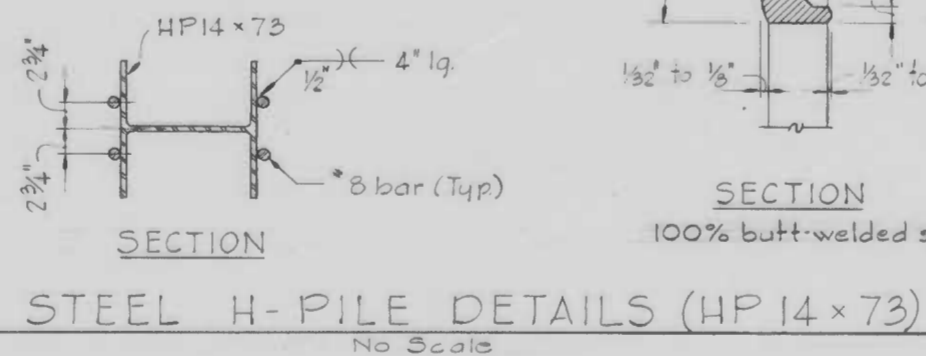
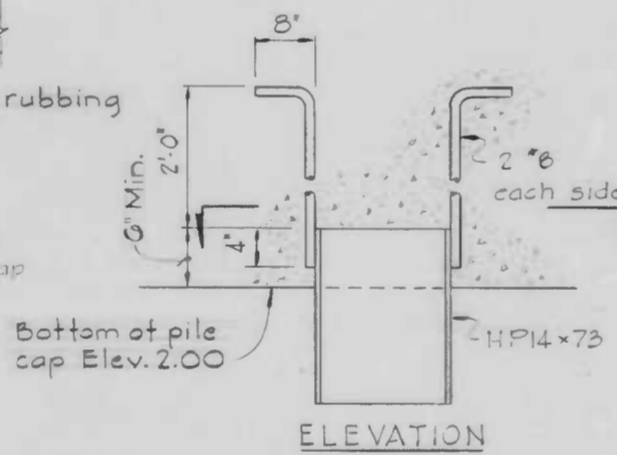
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TYPICAL FENDER SYSTEM

Scale: 3/8" = 1'-0"

- Notes:
1. Timber fender piles shall be driven to a minimum tip elevation of 28.00 and a bearing value of not less than 20 tons.
 2. Offset 12' cleats as required to avoid interference with pierside utility (water) connections.



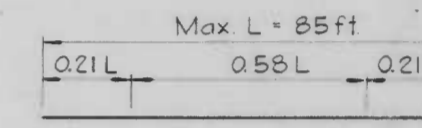
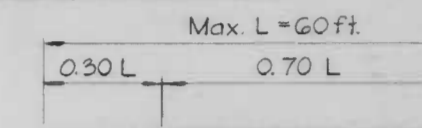
Note:

The Engineer reserves the right to shorten the maximum pick-up lengths shown.

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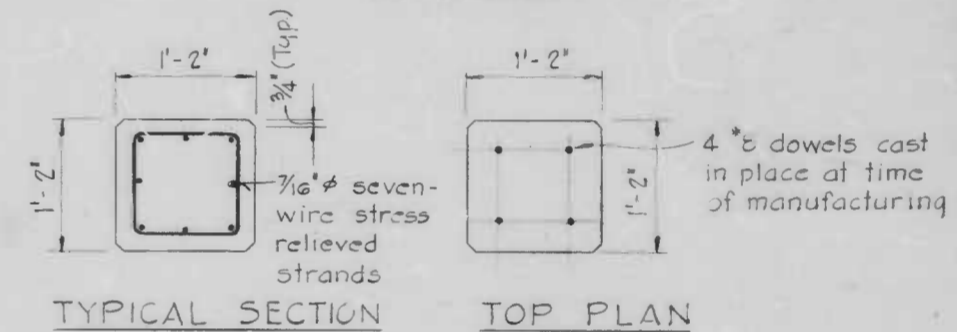
PRESTRESSED PILE NOTES

1. Design load for piles = 90 tons bearing plus a moment of 25 kip feet, or stresses due to handling, whichever is greater.
2. Test load for piles shall be equal to twice the design load. See pile plan for location and specifications for other requirements.
3. Pile splices will not be permitted.
4. Pile concrete shall have a minimum compressive strength of 5,000 psi at 28 days. Dowels shall be grade 60 conforming to ASTM A615-72. For wire strands, spiral reinforcement and all other requirements see specifications.



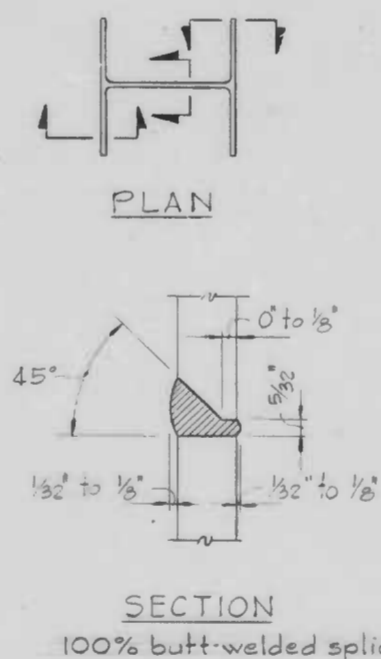
PILE PICK-UP DATA

Not to Scale



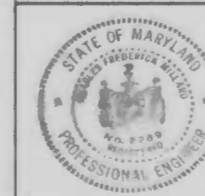
PRESTRESSED CONCRETE PILE DETAILS

Scale: 1" = 1'-0"



DRAWN BY *J.A. Barbey*

EXAMINED BY *R. R. ...*



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ENGINEERS
BALTIMORE, MARYLAND

BY *R. R. ...*

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DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

CONTRACT NO. 2470r

PIER 4 - UTILITY, BULKHEAD
AND STREET IMPROVEMENTS

FENDER SYSTEM AND
PILE DETAILS

SCALE AS SHOWN DATE MARCH 31, 1978

S 6 SHEET 15 OF 21

FILE REF.

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STRUCTURAL NOTES

CAST-IN-PLACE CONCRETE

- All cast-in-place concrete shall have a minimum compressive strength of 4,000 psi at 28 days.
- Reinforced concrete is designed and shall be detailed and constructed in accordance with current ACI specification 318-71.
- All reinforcing steel shall be grade 60, except stirrups and ties, which shall be grade 40, and shall conform to ASTM specification A615-72.
- Concrete cover for reinforcement shall be as follows unless noted otherwise on the drawings:
 - On the bottom and sides of beams and slabs - 3 inches
 - On the top of beams and slabs - 2 inches.
- Minimum laps for reinforcing bars shall be as follows unless shown otherwise on the drawings:
 - #6 or smaller = 41 bar diameters
 - #7 = 45 bar diameters
 - #8 = 51 bar diameters
 - #9 = 58 bar diameters
- Minimum laps shall be increased by 40 percent for top reinforcing in beams and slabs 14 inches or more in thickness
- All exposed concrete edges shall be chamfered 3/4 inches unless noted otherwise.
- Construction and expansion joints shall be as shown on the drawings, with no additional joints used nor any omitted, except by written authorization of the Engineer.
- See Civil and Electrical drawings for all embedded items, such as pipe sleeves, conduits, openings, etc., which interfere with concrete construction. No concrete may be poured before all embedded items are in place and all openings boxed out.

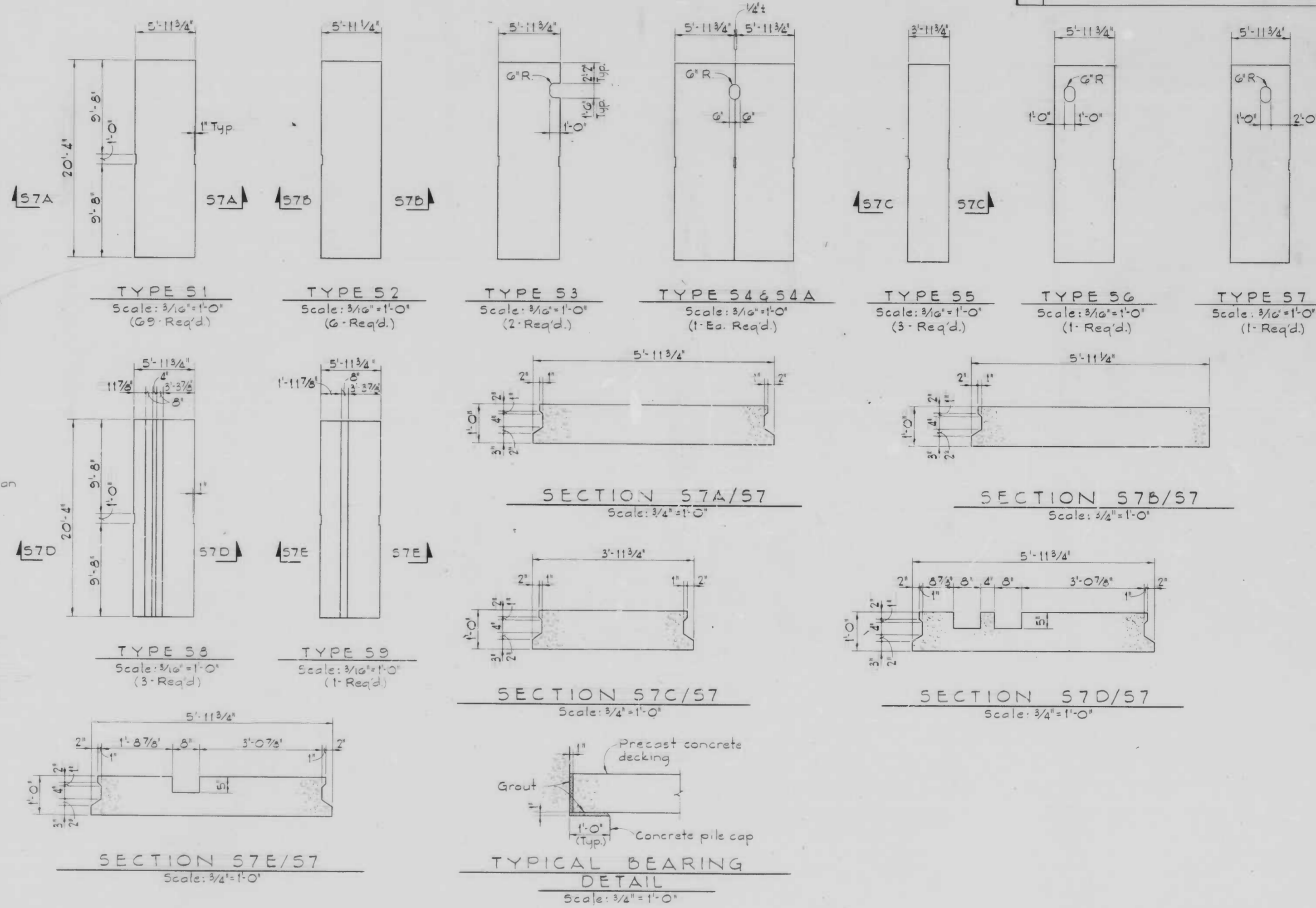
PRESTRESSED DECKING

- Prestressed decking sections shall be designed for the superimposed dead loads shown and a live load of 200psf or an HS20-44 truck.
- Decking concrete shall have a minimum compressive strength of 5,000 psi at 28 days. For strands and other requirements, see specifications.
- Provide a grout bed under each end to insure full and even bearing. After the decking is in place, grout the joint between the ends of the decking and the face of the supports, and between decking joints.
- For details at expansion joints, see Drawing S4.
- Concrete cover for reinforcement shall be 2 inches.
- Precast decking unit widths allow for an average joint width between the sides of adjacent units of 1/4 inch. Number of decking units required is shown only for the convenience of the Contractor. The Contractor shall verify the number of each type required and he shall verify the panel width and spacing required to satisfactorily complete the job.

Note:

Concrete admixture "FX-32" Catalytic Agent as manufactured by Fox Industries, Inc., Baltimore, Maryland or approved equal shall be added at the rate of one quart of admixture per sack of cement for all cast-in-place concrete.

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 EXAMINED BY: *[Signature]*



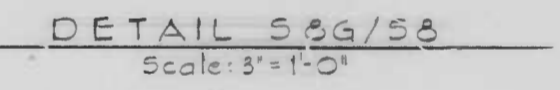
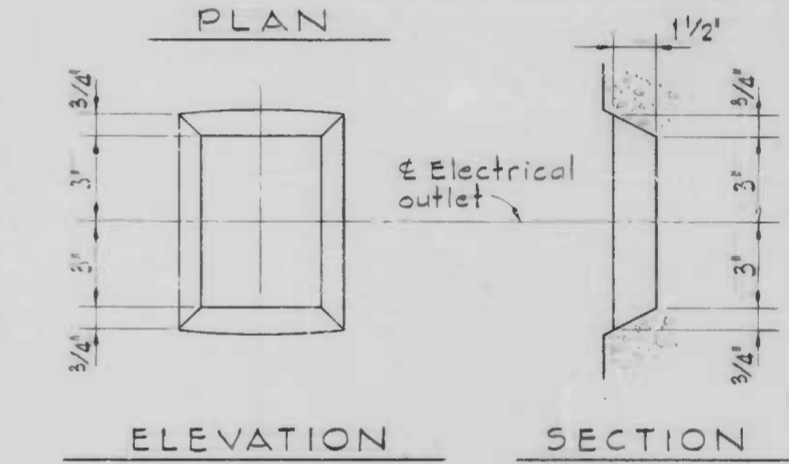
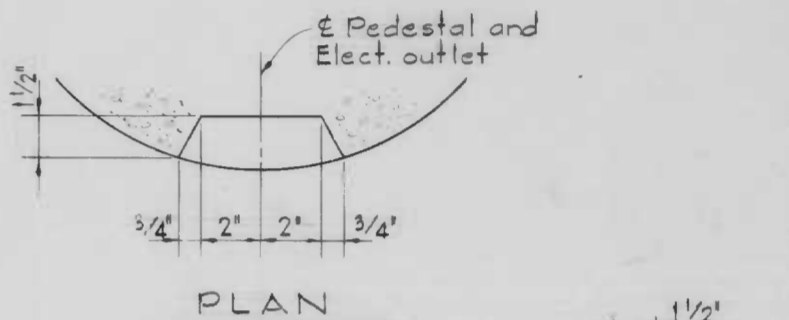
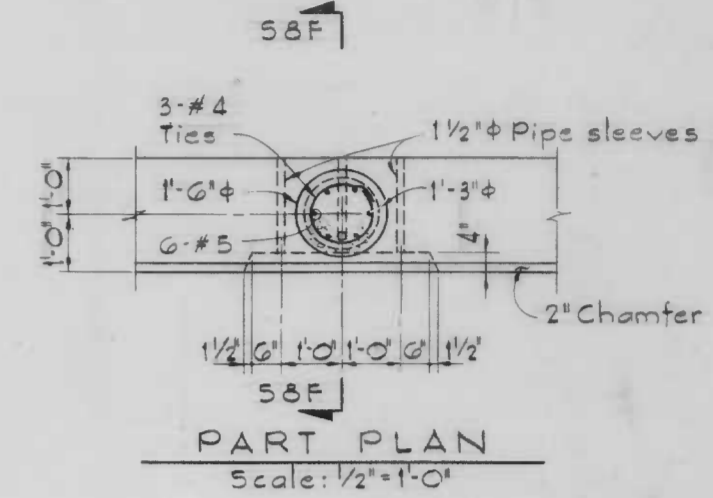
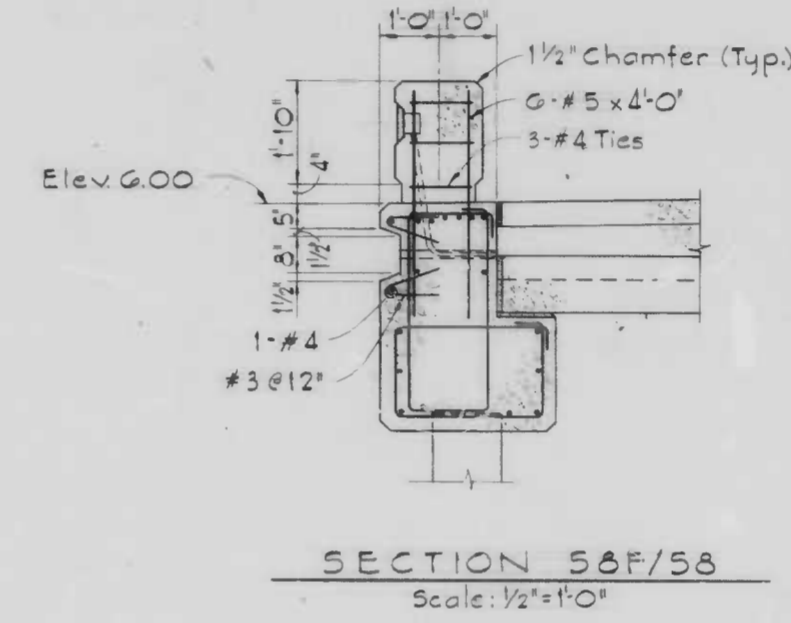
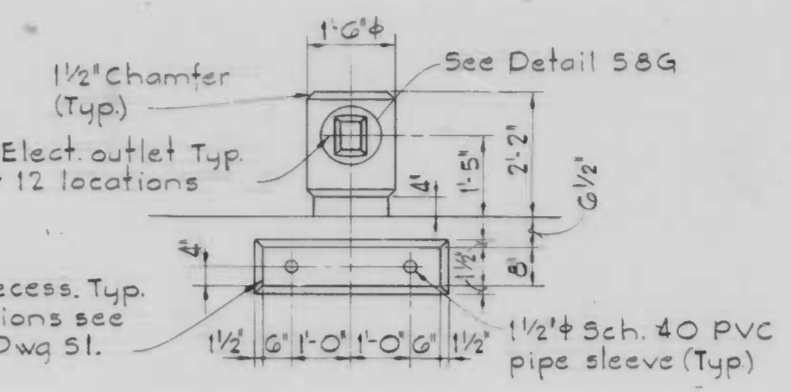
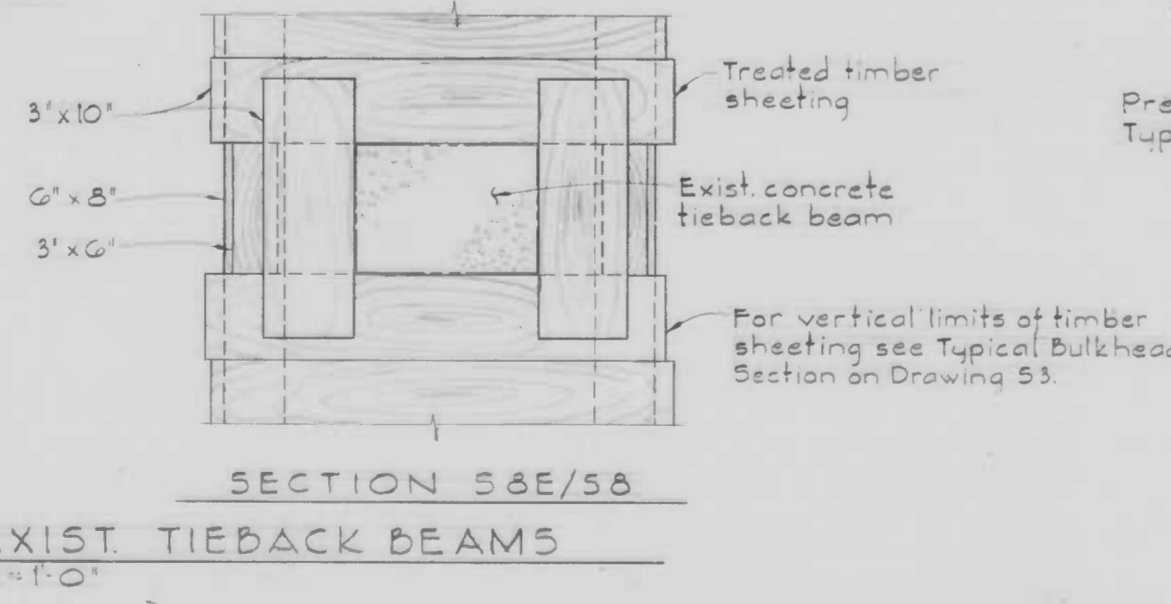
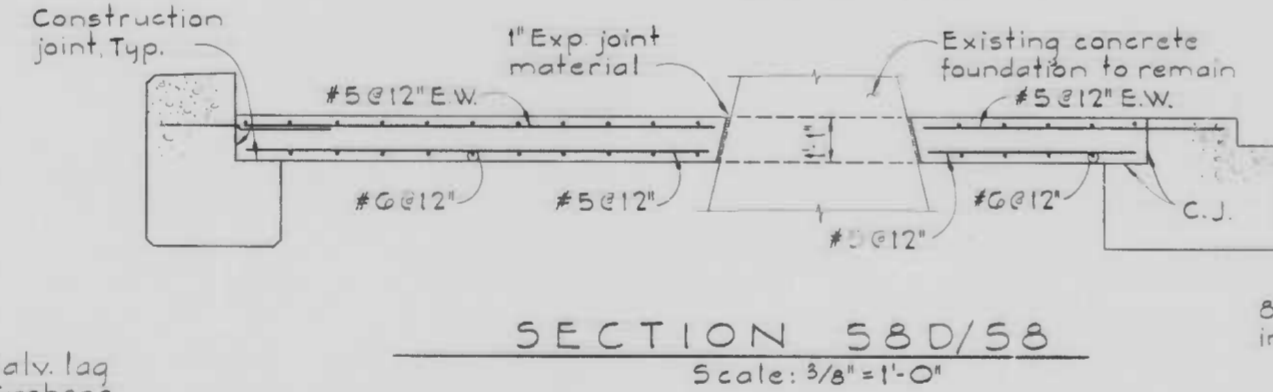
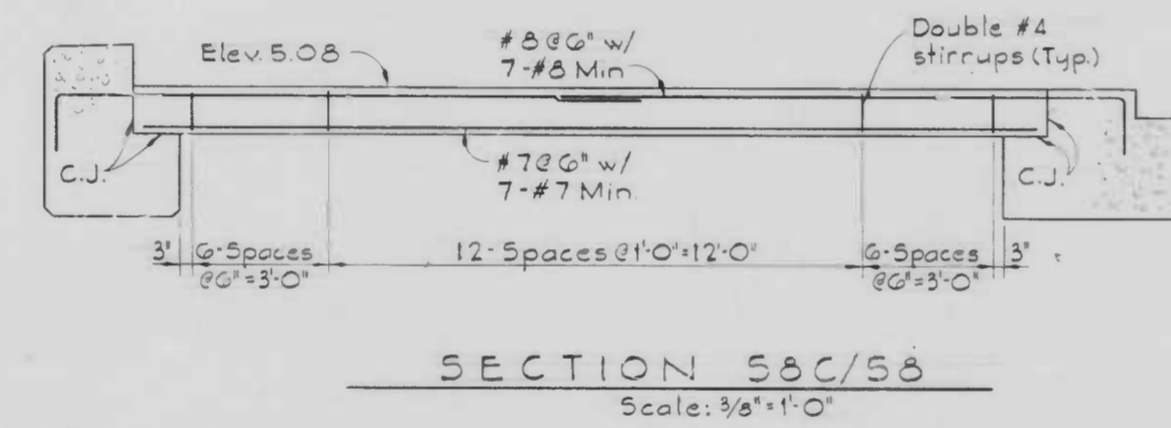
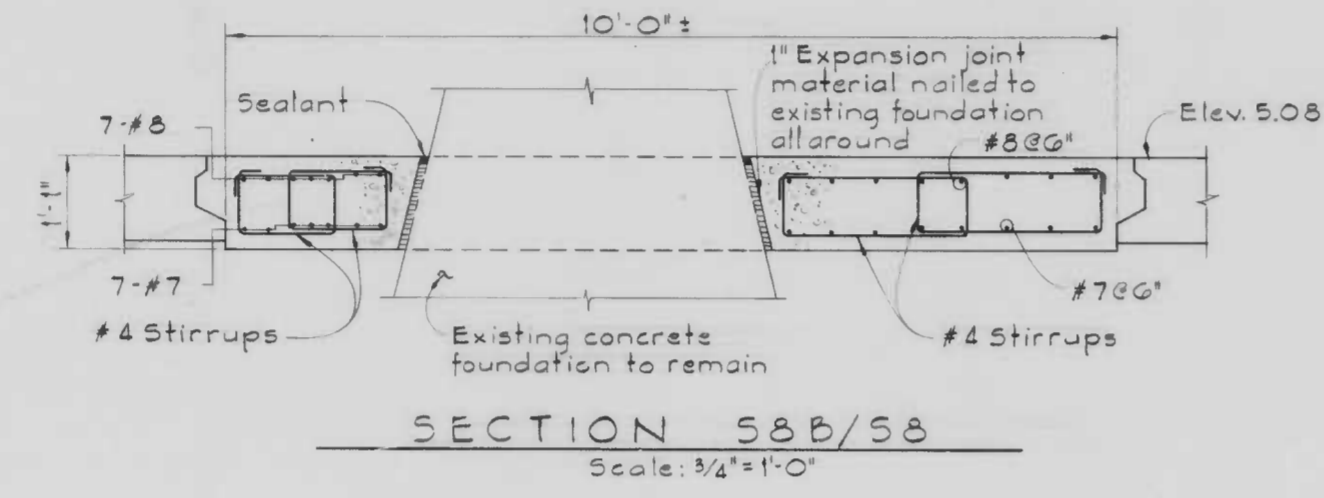
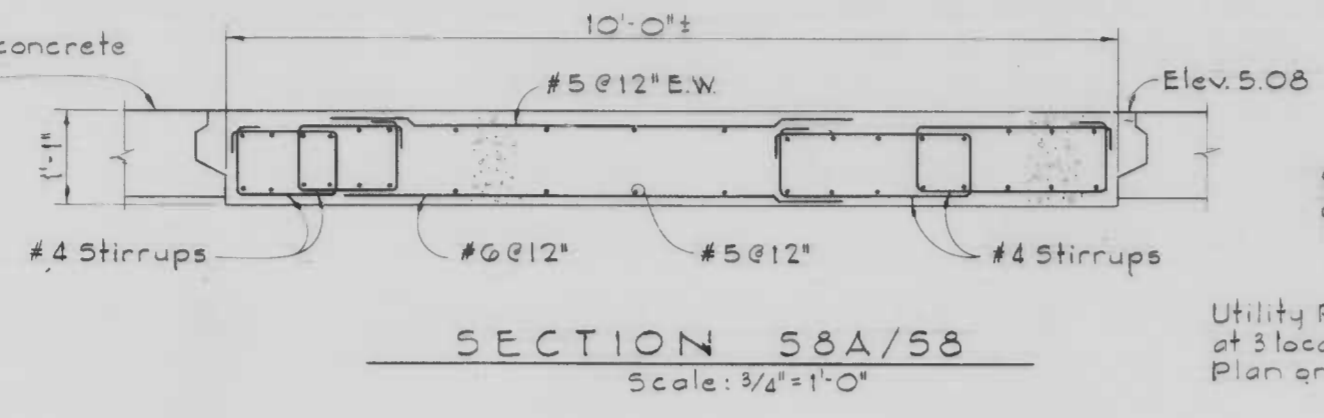
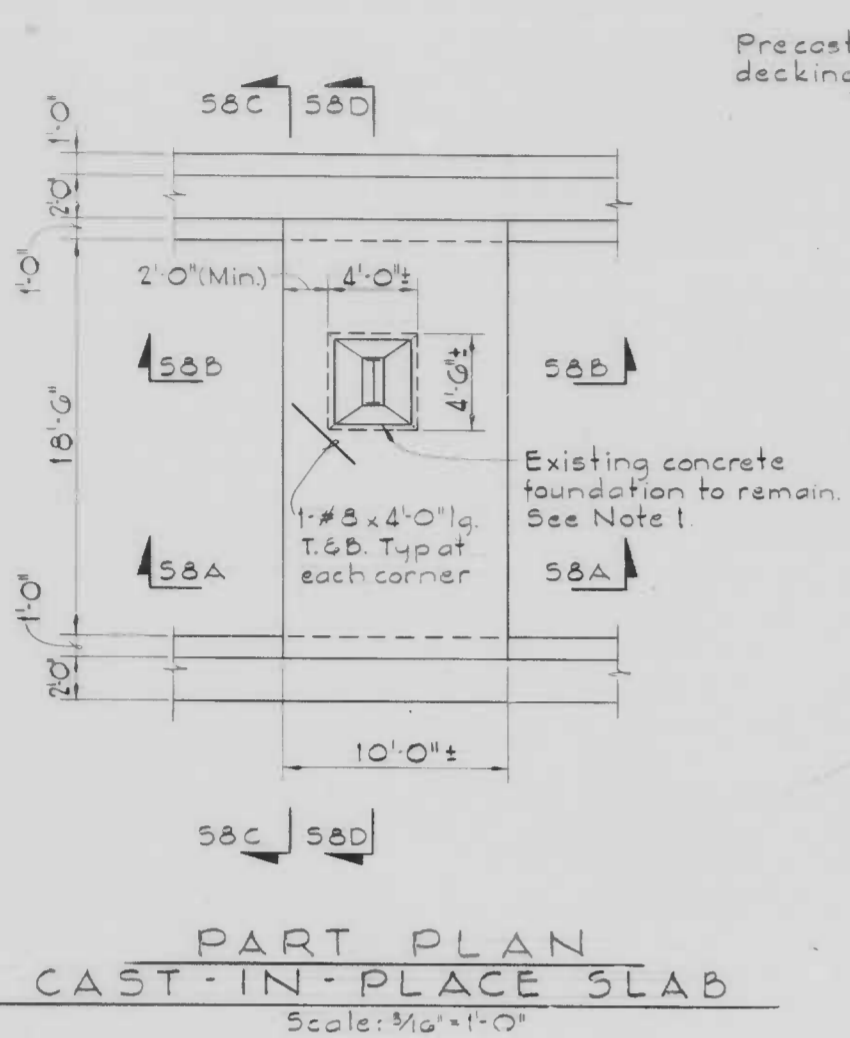
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 ENGINEERS
 BALTIMORE, MARYLAND
 BY: *[Signature]*

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 CONTRACT NO 2470r.
 PIER 4 - UTILITY, BULKHEAD
 AND STREET IMPROVEMENTS
 NOTES AND
 DECKING DETAILS
 SCALE: AS SHOWN DATE: MARCH 31, 1978
 S 7 SHEET 16 OF 21

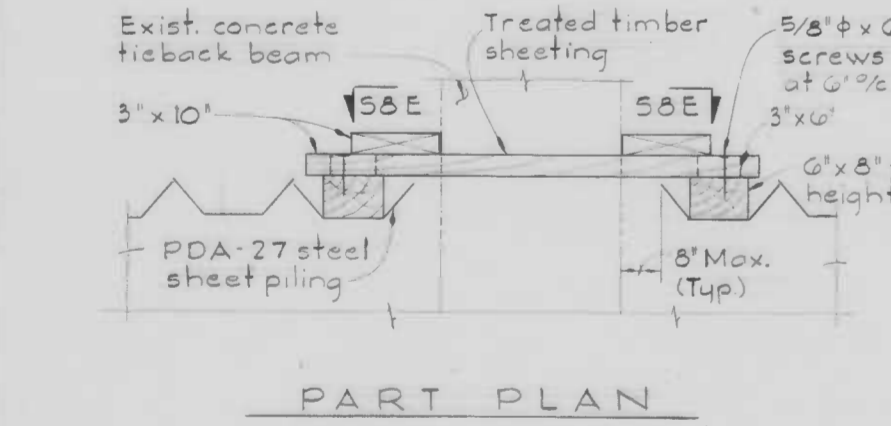
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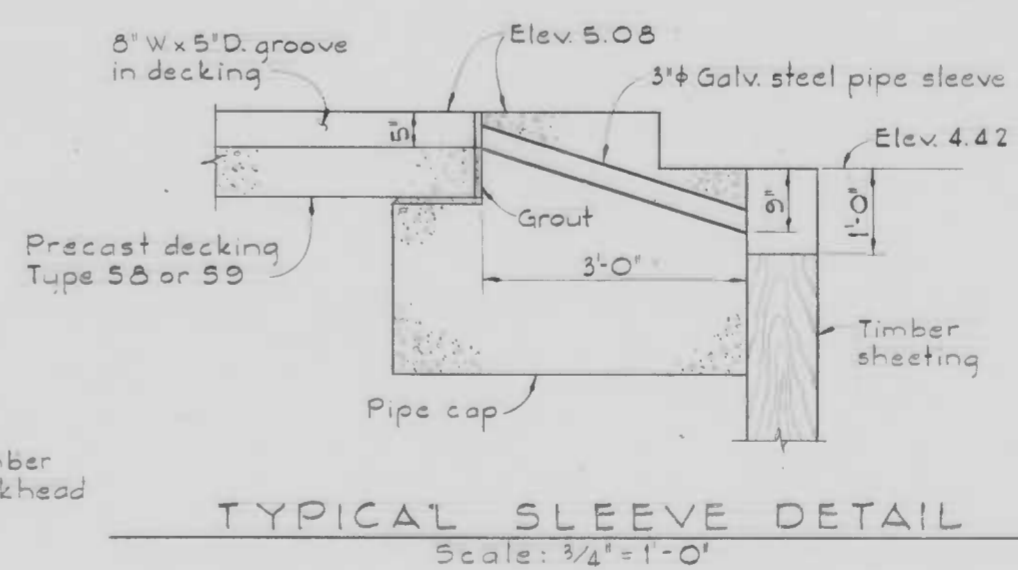
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NO.	DESCRIPTION	DATE	BY



- NOTES**
- Test pits to expose and examine the existing foundations shall be dug at the 3 locations shown on Drawing S1. See the specifications, "Test Pit Excavation", for requirements. The structural integrity of the foundations shall be maintained.
 - Part Plan and Sections shown are typical for the cast-in-place slabs around the 4 existing foundations to remain at the locations shown on Drawing S1.
 - Reinforcing details shown will vary with each slab depending on the location of the foundation within the slab. Size and location of all the foundations must be verified by the Contractor in the field.



TIMBER SHEETING DETAILS AT EXIST. TIEBACK BEAMS
Scale: 3/4"=1'-0"



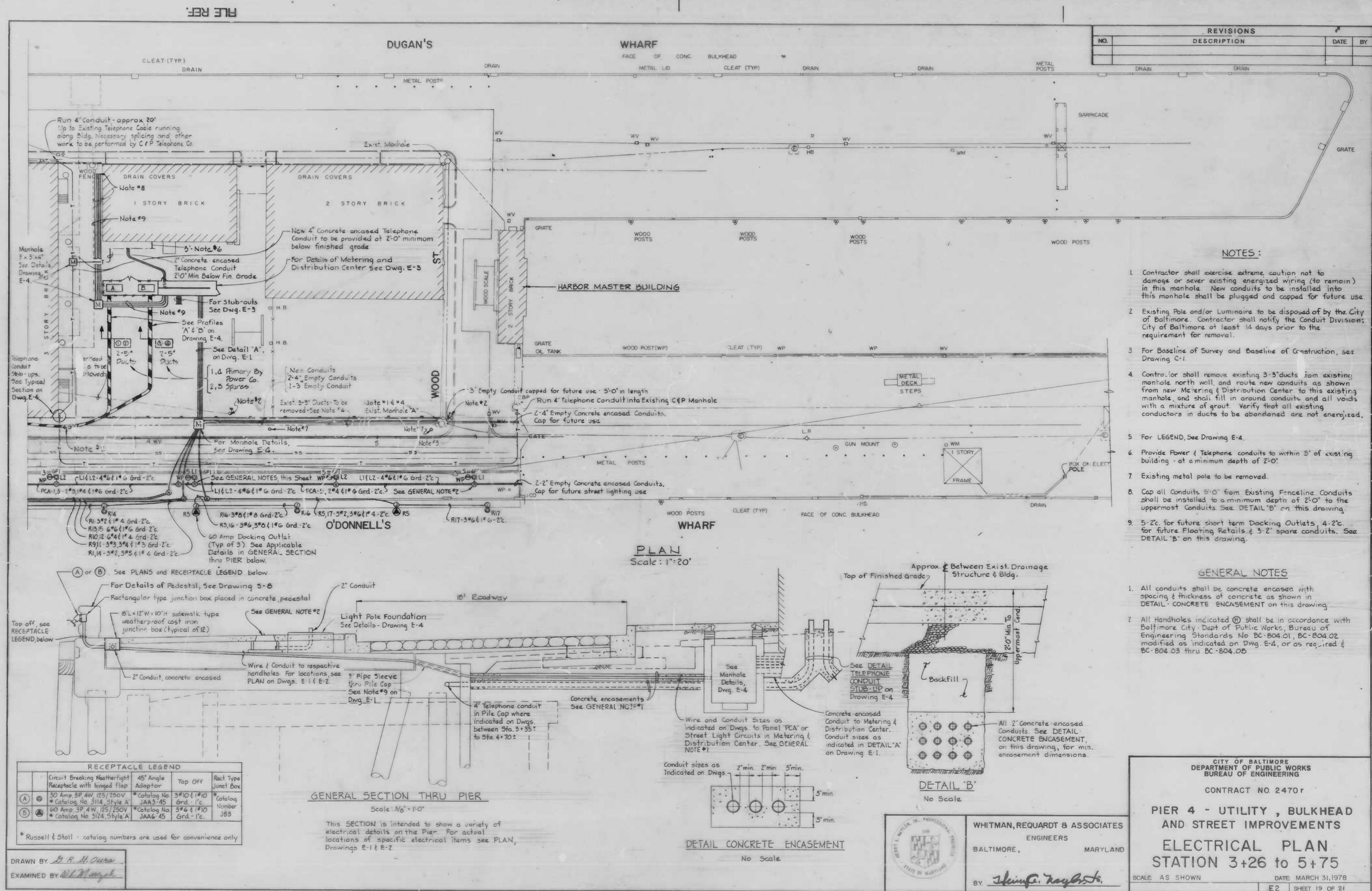
- Notes:**
- Center one sleeve at each groove in the decking (7 required). See Plan on S1 for locations.
 - Drive or cut the timber sheeting to the depth shown at each sleeve.

DRAWN BY: *[Signature]*
EXAMINED BY: *[Signature]*

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**PART PLANS
AND SECTIONS**
SCALE AS SHOWN DATE: MARCH 31, 1978
S 8 SHEET 17 OF 21

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DRAWN BY *A. R. M. Owen*
 EXAMINED BY *W. H. Morgan*

W.O. 7256-2



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BY *W. H. Morgan*

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 BUREAU OF ENGINEERING

CONTRACT NO. 2470 r

PIER 4 - UTILITY, BULKHEAD AND STREET IMPROVEMENTS

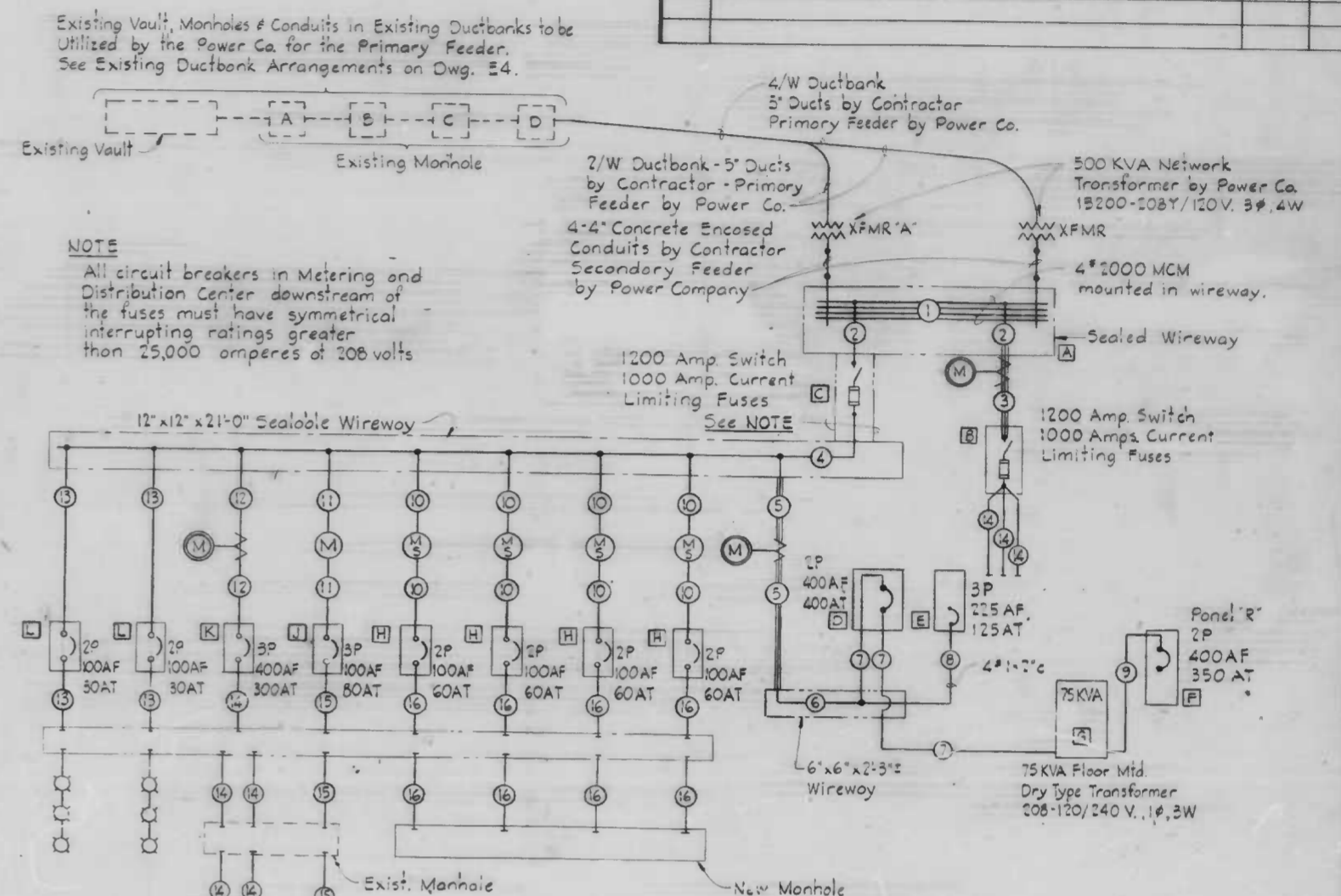
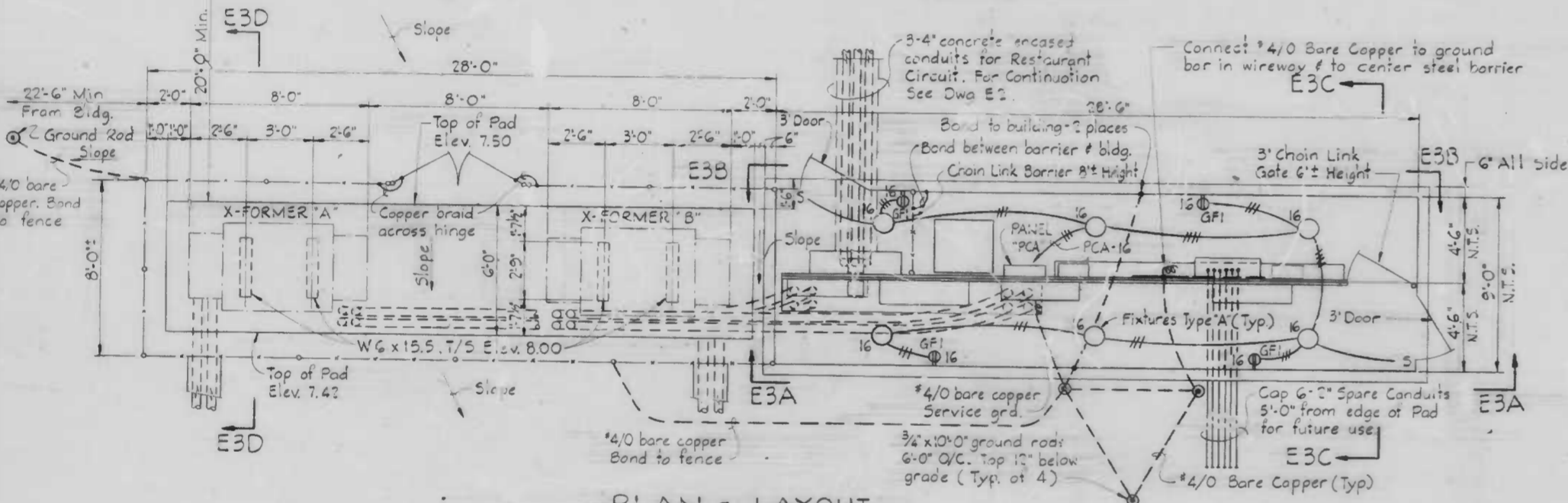
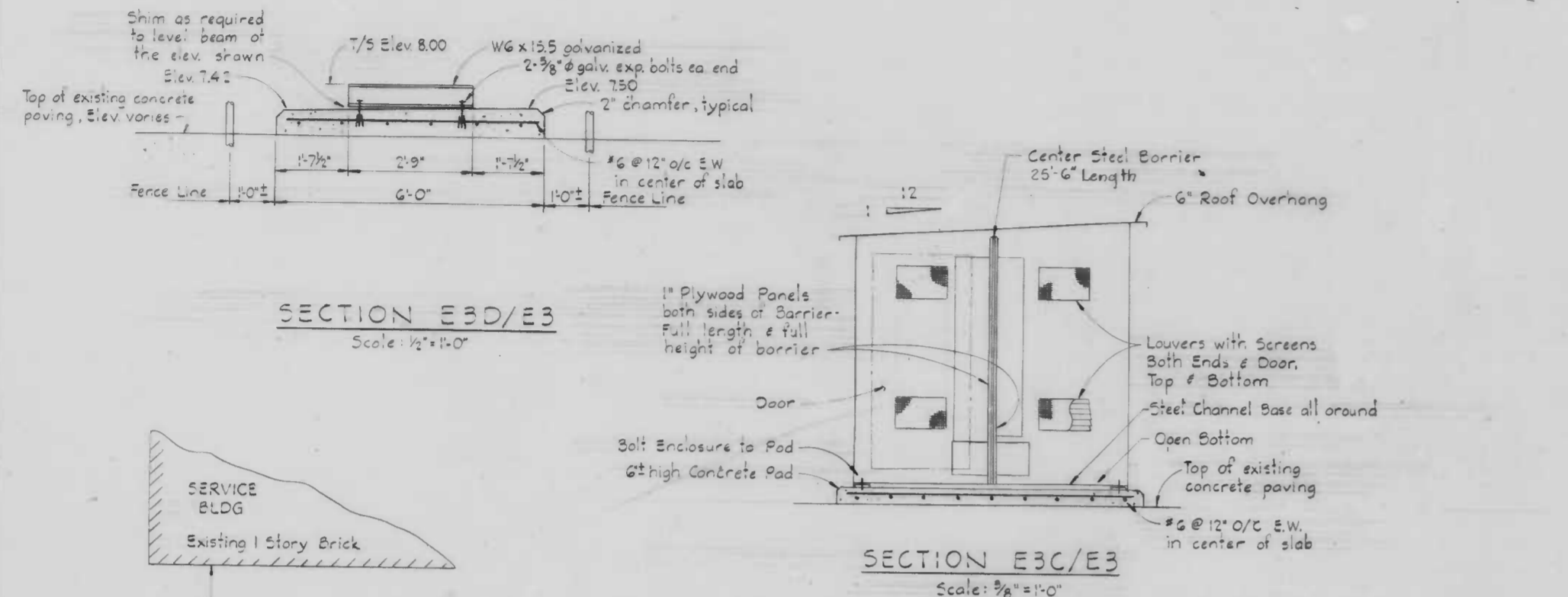
ELECTRICAL PLAN
STATION 3+26 TO 5+75

SCALE AS SHOWN DATE MARCH 31, 1978
 E2 SHEET 19 OF 21

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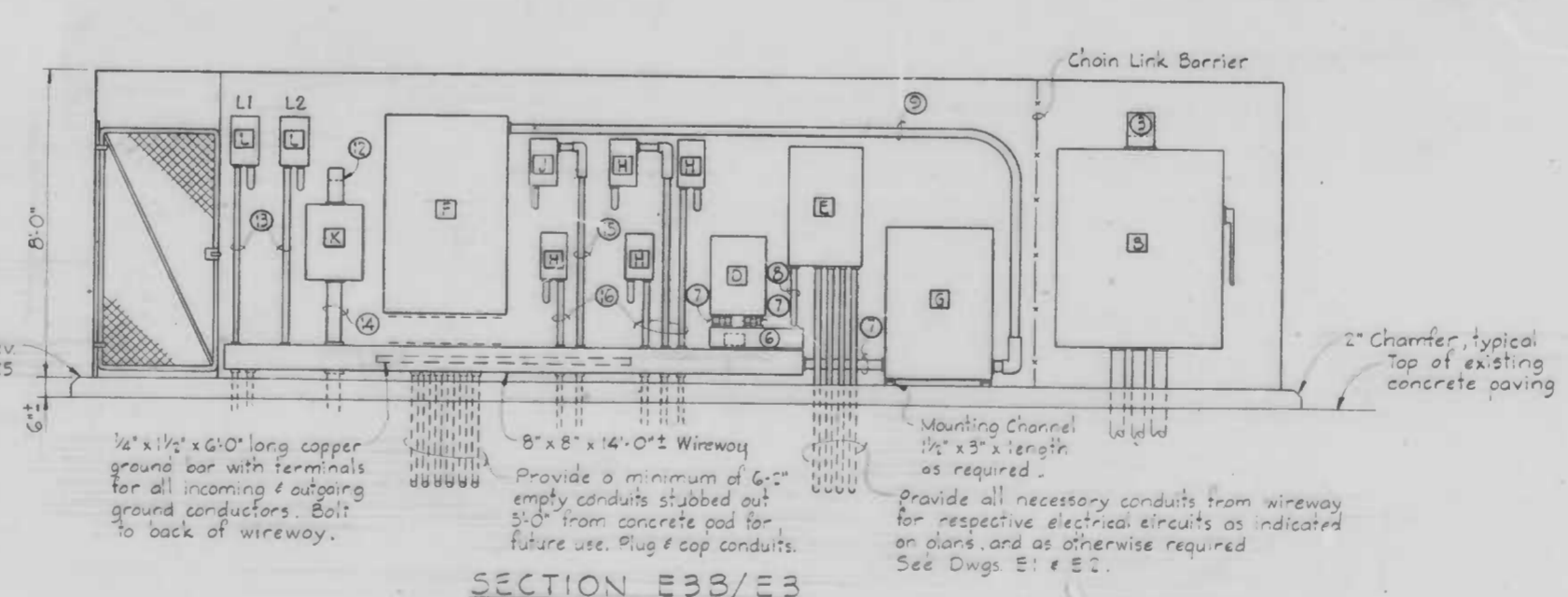
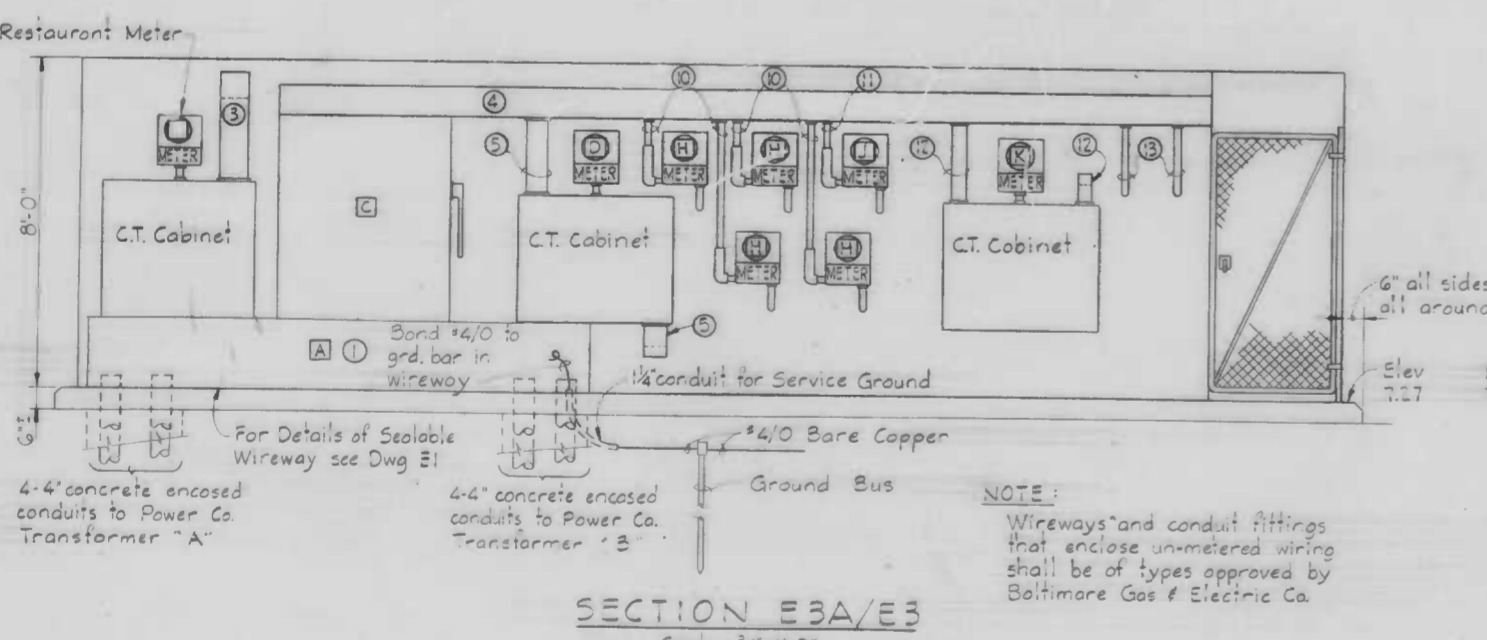
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- ① 4" 2000 MCM
 - ② 3 Sets - 4" 500 MCM
 - ③ 3 Sets - 4" 500 MCM - 8" x 8" Wireway
 - ④ 2 Sets - 4" 500 MCM - 12" x 12" Wireway
 - ⑤ 2 Sets - 4" 250 MCM - 6" x 4" Wireway
 - ⑥ 2 Sets - 4" 250 MCM - 6" x 6" Wireway
 - ⑦ 2 Sets - 2" 3/0 - 2" c
 - ⑧ 4" 1" - 2" c
 - ⑨ 3" 500 MCM - 3" c
 - ⑩ 3" 1" - 1 1/2" c
 - ⑪ 4" 2/0 - 2 1/2" c
 - ⑫ 4" 400 MCM - 4" x 4" Wireway
 - ⑬ 2 1/2" # 1/0 Grd. - 1" c
 - ⑭ 4" Empty Conduit
 - ⑮ 3" Empty Conduit
 - ⑯ 2" Empty Conduit
- A Sealed Wireway 24" H. x 18" D. x 11 1/2" L
 - B Switch - Restaurant Circuit
 - C Main Switch
 - D Enclosed Circuit Breaker - Baltimore City Circuit
 - E Panel "PCA" 208Y/120V, 3P, 4W
 - F Panel "R" 120/240V, 1P, 3W
 - G 75 KVA Dry Type Transformer 208-120/240V
 - H Enclosed Circuit Breaker - Floating Retail (Fut)
 - I Harbor Master Bldg. (Future)
 - J Maritime Museum (Future Panel "M-M")
 - K Street Lighting Circuits
- M Meter
 - MS Meter Socket Only
 - MT Current Transformer & Meter

ONE LINE DIAGRAM
No Scale



- Notes:
- Relocate meters that do not conform to the mounting height requirements stipulated in Baltimore Gas & Electric Company's "Electric Service and Metering Manual, 1977 Edition". Meters shall be installed on the plywood panel at locations that meet the approval of Baltimore Gas & Electric Company and the Owner.
 - Modify conduit and wireway runs as necessitated by meter relocations.

DRAWN BY *Beatty*
EXAMINED BY *W. M. Mosek*

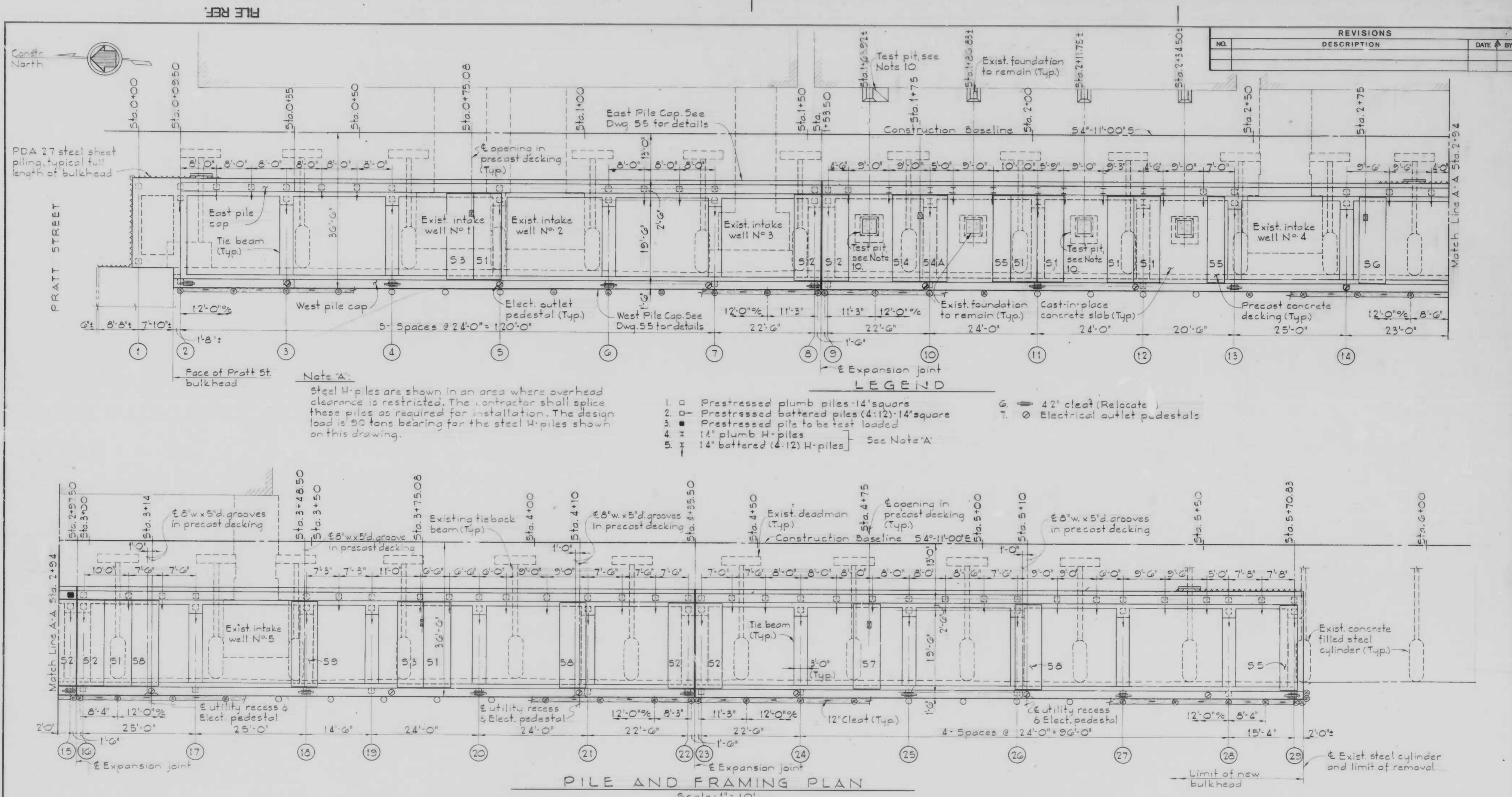
METERING AND DISTRIBUTION CENTER
Weatherproof Construction
Scale: 3/8" = 1'-0"

WHITMAN, REQUARDT & ASSOCIATES
ENGINEERS
BALTIMORE, MARYLAND
BY *Hauff, Requardt, Jr.*

CITY OF BALTIMORE
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
CONTRACT NO. 2470
PIER 4 - UTILITY, BULKHEAD
AND STREET IMPROVEMENTS
ELECTRICAL SERVICE AND
METERING DETAILS
SCALE AS SHOWN DATE MARCH 31, 1978
E 3 SHEET 20 OF 21

W.O. 7258-2

FILE REF.



Note 'A':
Steel H-piles are shown in an area where overhead clearance is restricted. The contractor shall splice these piles as required for installation. The design load is 90 tons bearing for the steel H-piles shown on this drawing.

NOTES

1. For enlarged plans at each end of new bulkhead, see Dwg. 52.
2. For typical section through new bulkhead, see Dwg. 53.
3. For part plan and typical section of existing bulkhead structure showing approximate limits of removal, see Dwg. 53.
4. For typical section through intake wells and expansion joint details, see Dwg. 54.
5. For pile and fender system details, see Dwg. 56.
6. For concrete decking details and general notes, see Dwg. 57.
7. For data on the baseline of construction, see Dwg. C1.
8. Existing concrete piers, tieback beams, deadmen and intake structures shown on this and other sheets are for the convenience of the Contractor and there is no warranty or guarantee of the correctness or completeness of the information shown. The Contractor shall verify the size and location of all existing structures to his own satisfaction.
9. For existing utilities to be maintained, see Civil and Electrical drawings.
10. Test pits shall be dug at 3 locations to expose, examine and evaluate the condition of the existing foundations. See "Test Pit Excavations" in the Specifications for requirements.
11. For cast-in-place slab details at the existing foundations see Dwg. 56.
12. Unless shown otherwise, precast decking shall be Type S1.

DRAWN BY *L.B. [Signature]*
EXAMINED BY *S.W. [Signature]*

WHITMAN, REQUARDT & ASSOCIATES
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CONTRACT NO. 2470r

PIER 4 - UTILITY, BULKHEAD AND STREET IMPROVEMENTS

PILE AND FRAMING PLAN

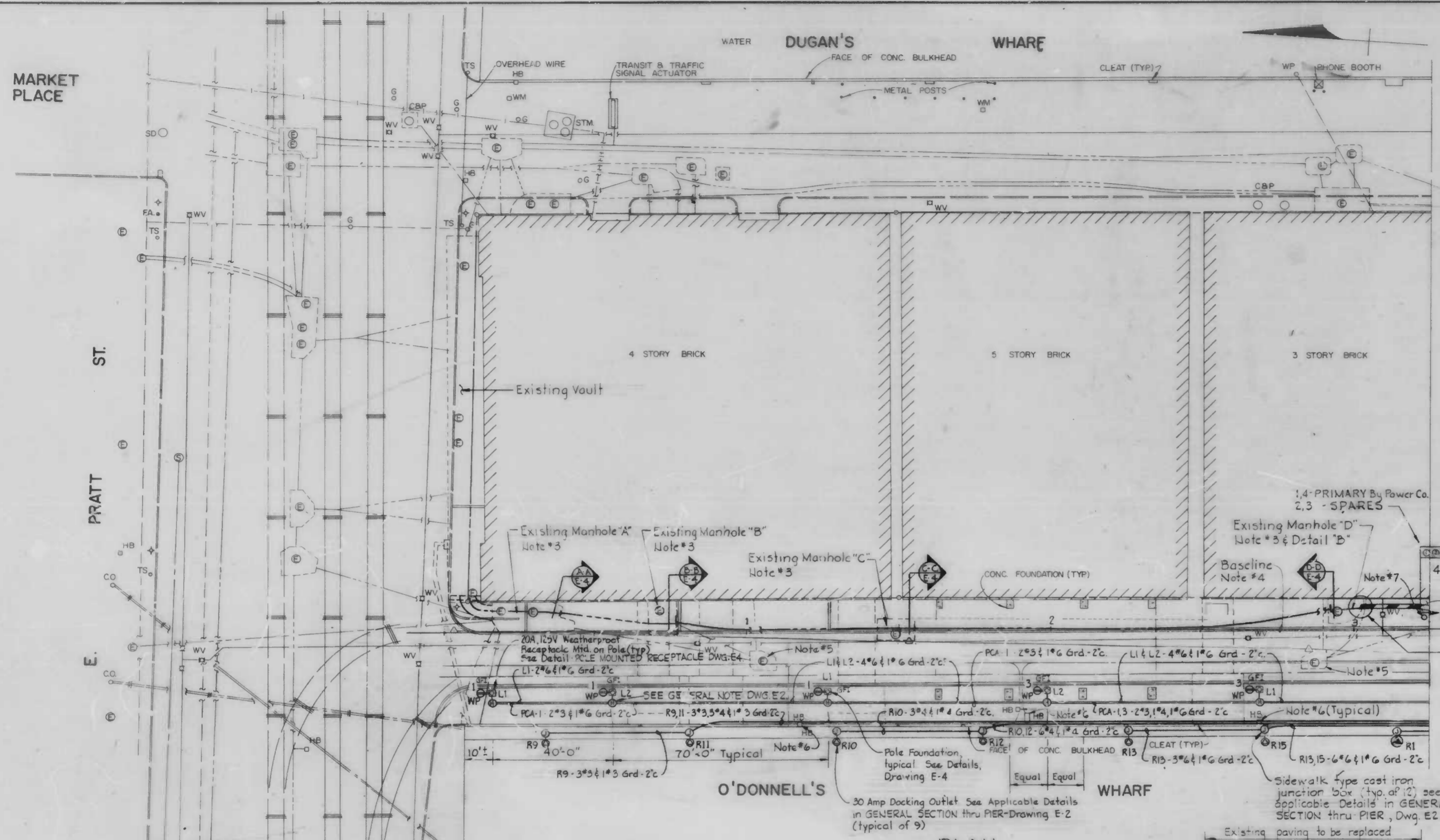
SCALE: AS SHOWN DATE: MARCH 31, 1978
S 1 SHEET 10 OF 21

FILE REF.

FILE REF.

REVISIONS			
NO.	DESCRIPTION	DATE	BY

MARKET PLACE



NOTES:

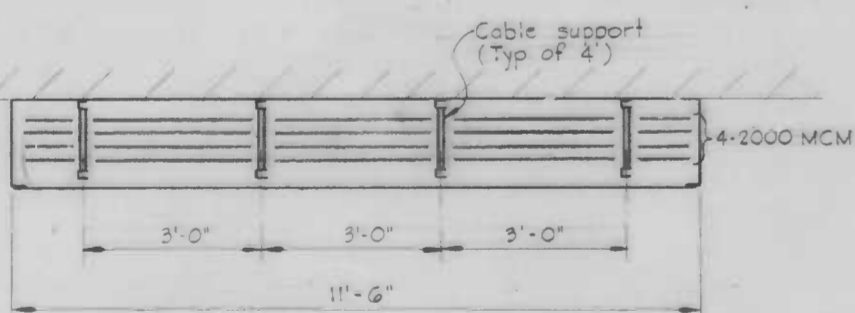
1. For LEGEND see Drawing E-4.
2. Provide conduit expansion fittings in all conduits at all expansion joints, construction joints and wherever else linear movement can occur.
3. Where indicated plug un-used calls of exist. clay ducts and un-used conduits of new ductbanks.
4. For Baseline of Survey and Baseline of Construction. See Drawing C-1.
5. Abandon existing electrical manholes and related ductbanks. Verify that all existing conductors in manholes to be abandoned are not energized.
6. Remove existing Handboxes and abandon wire and conduit. Verify that all existing conductors are not energized.
7. Existing metal pole to be removed.
8. All conduits shall be concrete encased, with minimum dimensions, as shown on Detail Concrete Encasement, Dwg. E-2.
9. Provide pipe sleeves thru pile gap for all conduits penetrating pile caps. Sleeves shall be at least one pipe size larger than conduits. See GENERAL SECTION THRU PIER, Dwg. E-2.

ST. PRATT

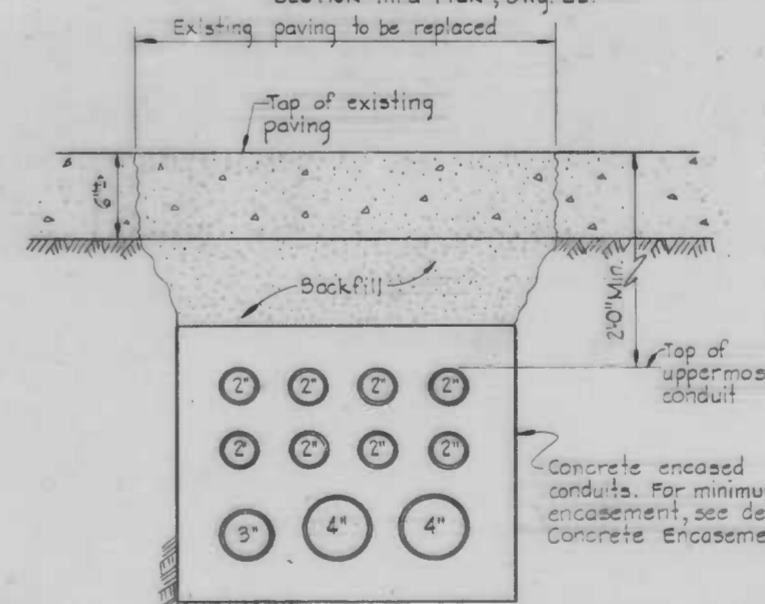
O'DONNELL'S

WHARE

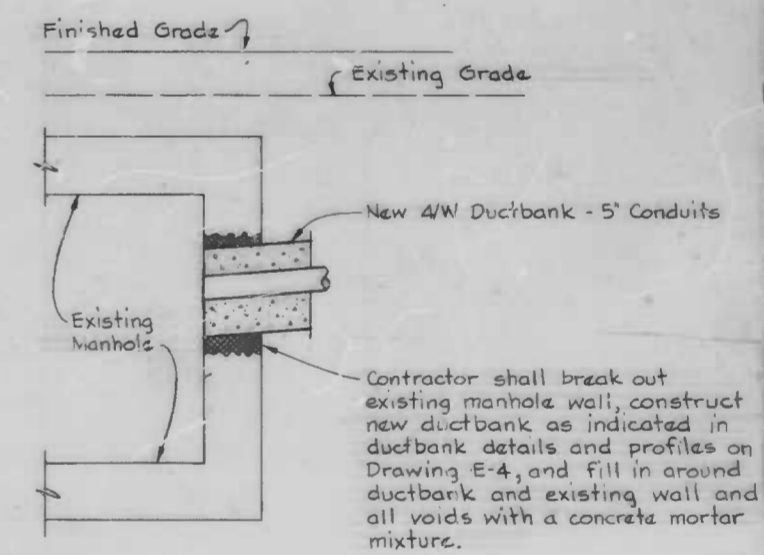
PLAN
Scale: 1" = 20'



PLAN - SEALABLE WIREWAY
Scale: 1/2" = 1'-0"
Reference Sheet E-3



DETAIL "A"
No Scale



DETAIL "B"
No Scale

DRAWN BY: *G. R. St. Ours*
EXAMINED BY: *R. K. Morgan*

W.O. 7258-2

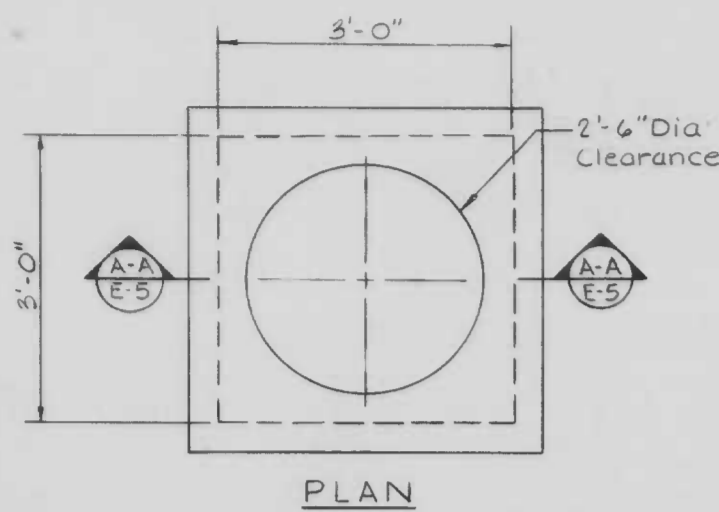


WHITMAN, REARDON & ASSOCIATES
ENGINEERS
BALTIMORE, MARYLAND
BY: *Henry J. Reardon*

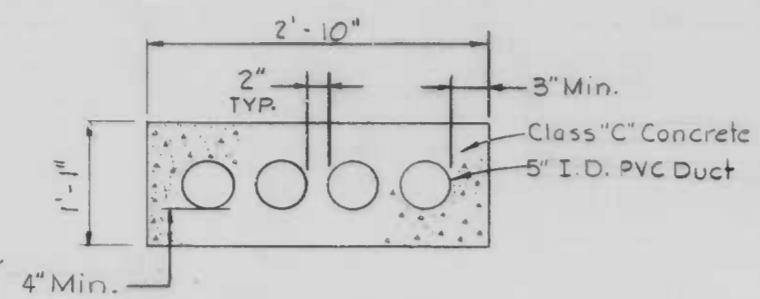
CITY OF BALTIMORE
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BUREAU OF ENGINEERING
CONTRACT NO. 2470 r
PIER 4 - UTILITY, BULKHEAD
AND STREET IMPROVEMENTS
ELECTRICAL PLAN
STATION 0+00 TO 3+75
SCALE: AS SHOWN DATE: MARCH 31, 1978
E1 SHEET 18 OF 21

FILE REF.

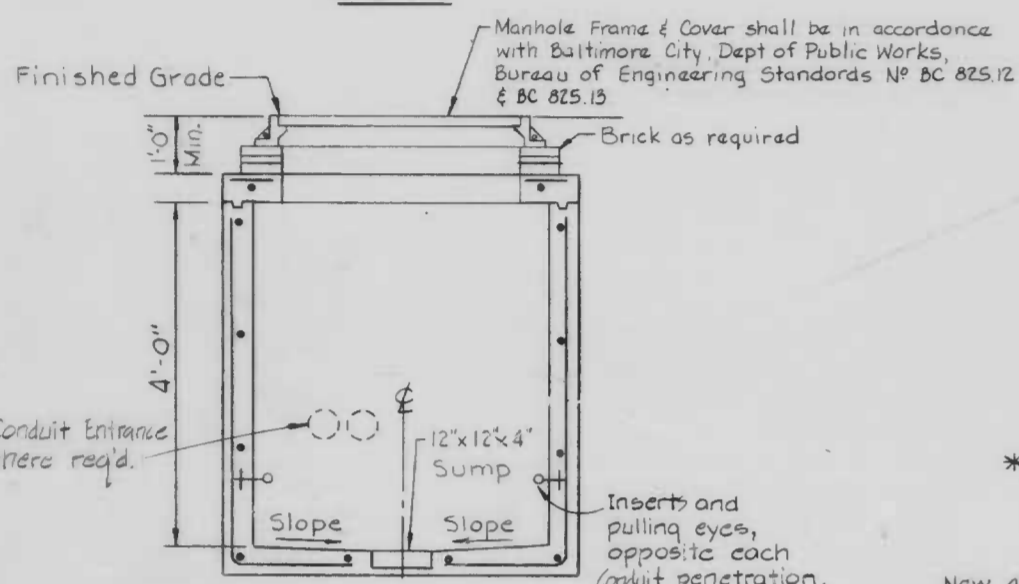
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PLAN

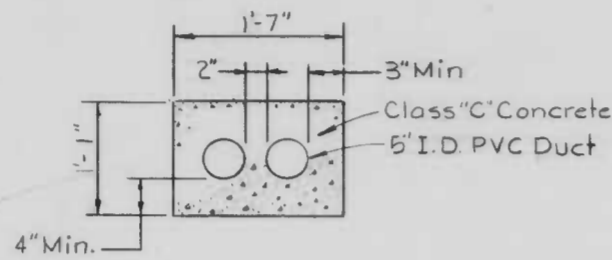


* 4-5" DUCTS
Scale: 1"=1'-0"



SECTION A-A
E-5

MANHOLE DETAILS
(PRE-CAST REINFORCED)
(TO BE SUPPLIED IN ONE SECTION)
No Scale



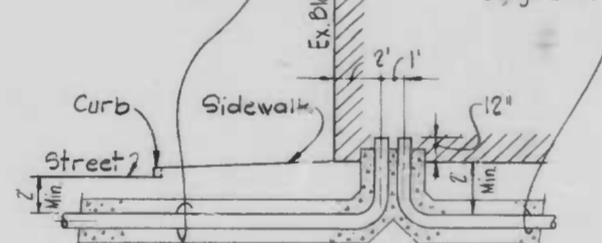
* 2-5" DUCTS
Scale: 1"=1'-0"

DUCTBANK DETAILS

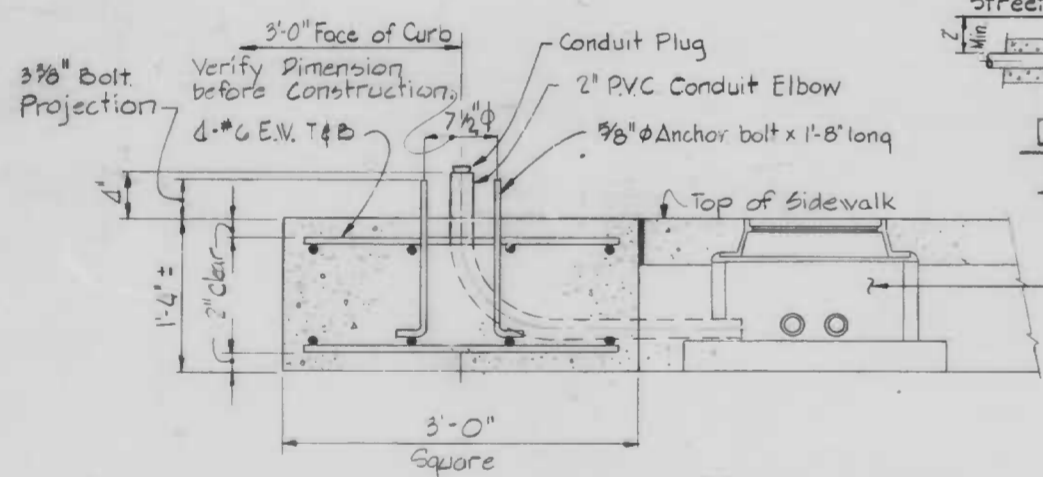
* Joints at adjacent ducts shall be staggered

New 4" Concrete-encased Telephone Conduit thru Concrete Pole Cap, and to existing C & P Handhole at existing Harbor Master Bldg. See Dwg. E-2.

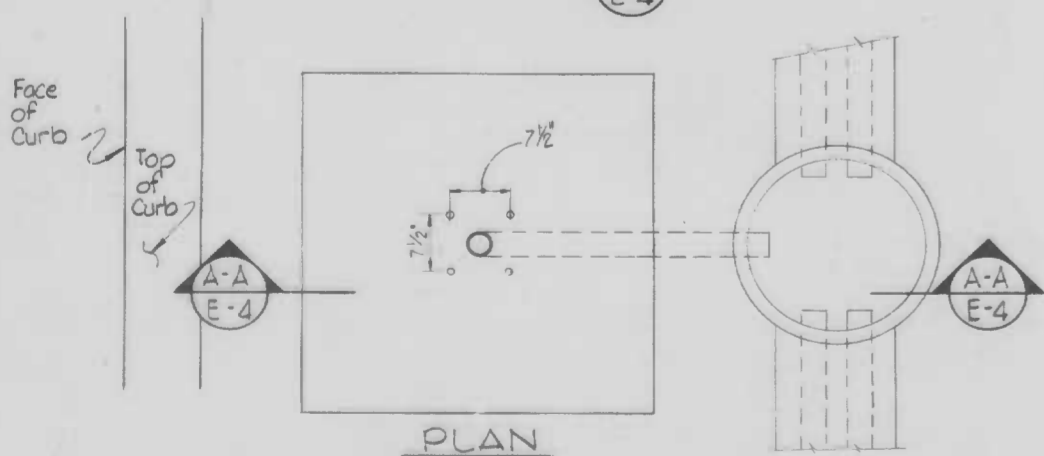
New 4" Concrete-encased Telephone Conduit from new tap off of existing telephone line at Southeast Corner of Existing Bldg. See Dwg. E-2.



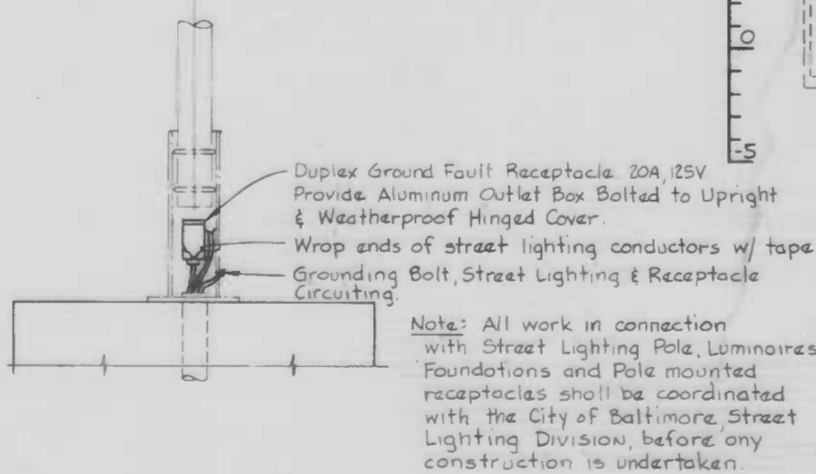
DETAIL TELEPHONE CONDUIT STUB-UPS
No Scale



SECTION A-A
E-4

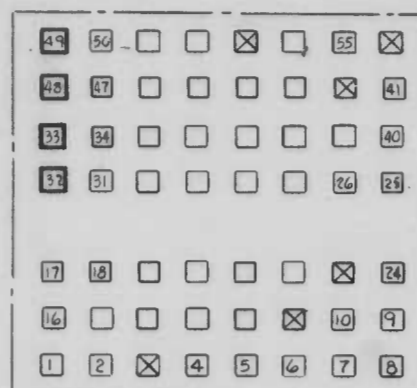


PLAN
LIGHT POLE FOUNDATION
Scale: 1"=1'-0"

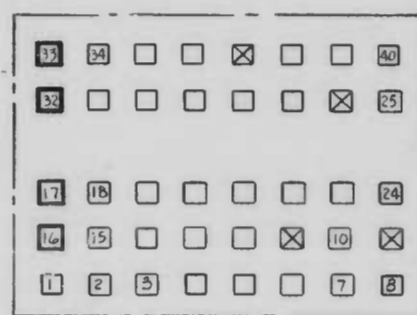


DETAIL - POLE MOUNTED RECEPTACLE
No Scale

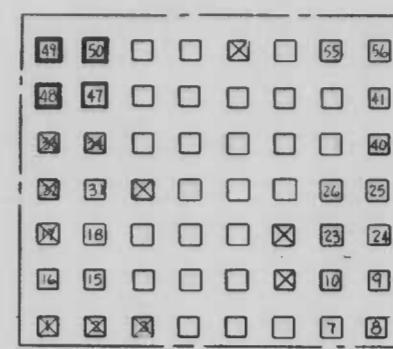
Note: All work in connection with Street Lighting Pole, Luminaires, Foundations and Pole mounted receptacles shall be coordinated with the City of Baltimore, Street Lighting Division, before any construction is undertaken.



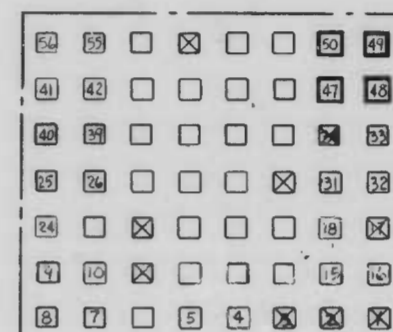
* SECTION A-A
E-1
In Existing Manhole "A"
Duct No's 32, 33, 48 & 49 Available
for use under this Contract



* SECTION B-B
E-1
In Existing Manhole "B"
Duct No's 16, 17, 32 & 33 Available
for use under this Contract



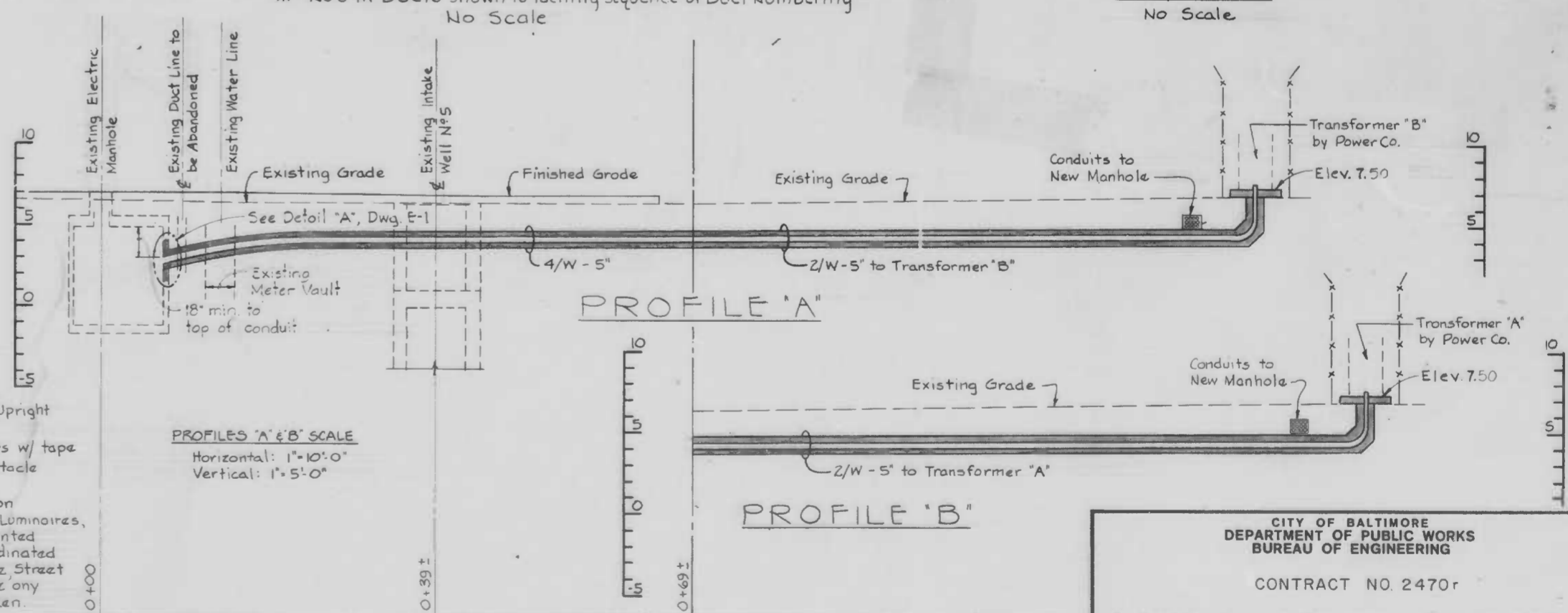
* SECTION C-C
E-1
In Existing Manhole "C"
Duct No's 47, 48, 49 & 50 Available
for use under this Contract



* SECTION D-D
E-1
In Existing Manhole "D"
Duct No's 47, 48, 49 & 50 Available
for use under this Contract

EXISTING DUCTBANK ARRANGEMENTS

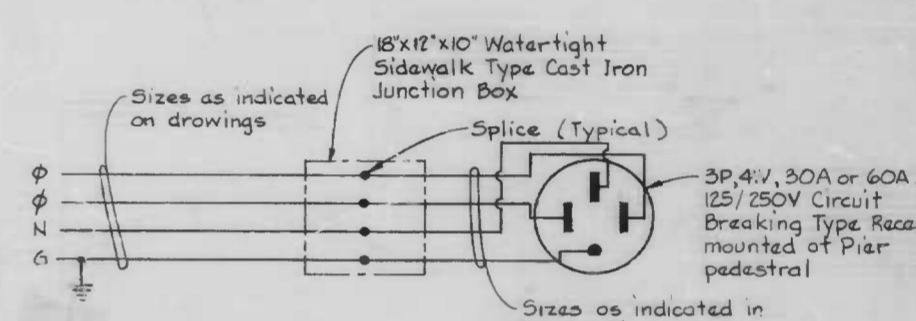
ALL EXISTING DUCTS
X Denotes Existing Wiring in Ducts
* No's in Ducts shown to identify Sequence of Duct Numbering
No Scale



REVISIONS			
NO.	DESCRIPTION	DATE	BY

LEGEND

- Outlet - Incandescent
- Outlet - Duplex Convenience Outlet
- Outlet - Circuit Breaking Receptacle - 30A, 3P, 4W, 125/250V, 1φ
- Outlet - Circuit Breaking Receptacle - 60A, 3P, 4W, 125/250V, 1φ
- Junction Box - Weatherproof
- Handhole - Manhole
- Pole Foundation, Duplex Convenience Outlets (Street Light by others)
- Switch - Single Pole
- Ductbank - N° of Ducts as indicated on drawings.
- Primary Cable - by Power Co.
- Home Run - Number of arrows indicates number of circuits
- Conduit - Telephone



WIRING DIAGRAM
125/250V
No Scale

CITY OF BALTIMORE
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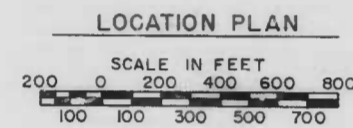
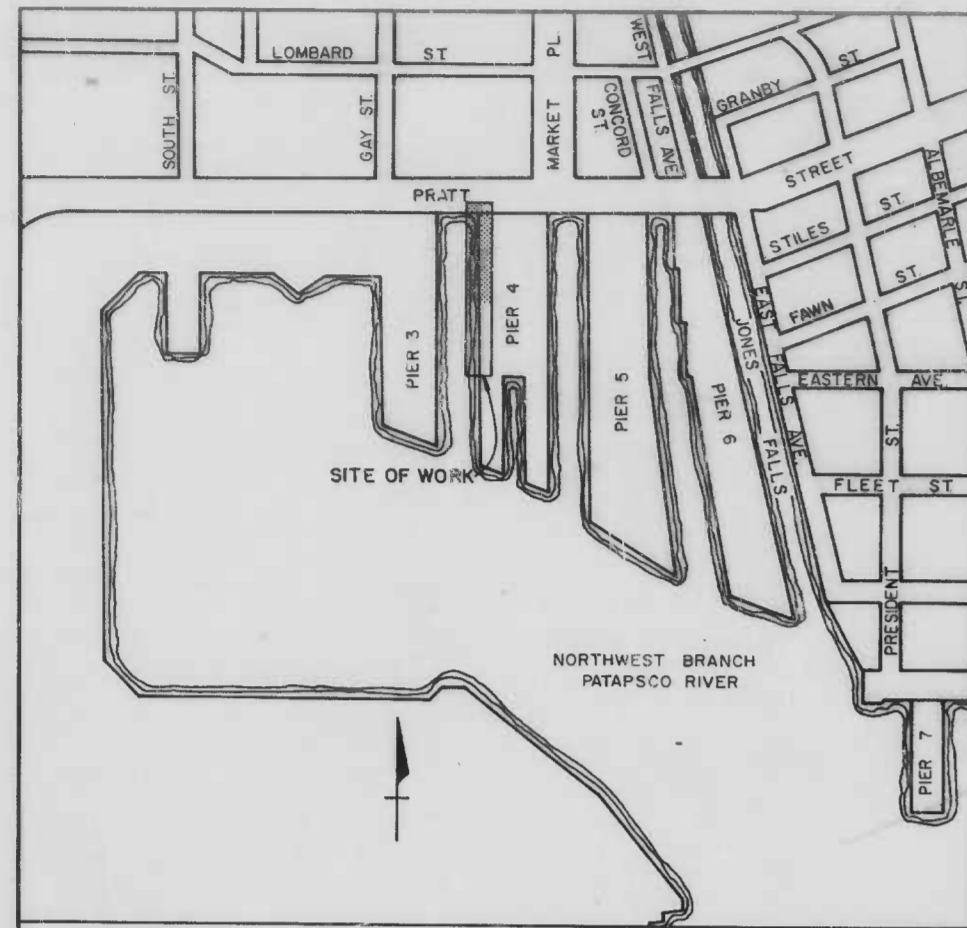
PIER 4 - UTILITY, BULKHEAD AND STREET IMPROVEMENTS
MANHOLE, DUCT AND MISCELLANEOUS DETAILS

SCALE AS SHOWN DATE MARCH 31, 1978
E 4 SHEET 21 OF 21

WHITMAN, REQUARD & ASSOCIATES
ENGINEERS
BALTIMORE, MARYLAND

BY: *Henry O. Taylor, Jr.*

DRAWN BY *B. R. H. Oakes*
EXAMINED BY *W. H. Morgan*



CITY OF BALTIMORE
DEPARTMENT OF PUBLIC WORKS
 BUREAU OF ENGINEERING



INDEX OF DRAWINGS

SHEET NO.	DWG. NO.	TITLE
1		TITLE SHEET
<u>CIVIL</u>		
2	C 1	PAVING PLAN STATION 0+25 TO 3+26
3	C 2	PAVING PLAN STATION 3+26 TO 5+70
4	C 3	PAVING DETAILS
5	C 4	UTILITY PLAN STATION 0+00 TO 3+26
6	C 5	UTILITY PLAN STATION 3+26 TO 5+75
7	C 6	UTILITY DETAILS
8	C 7	UTILITY DETAILS
9	C 8	DETAILS SANITARY CONNECTION TO HARBOR MASTERS HOUSE
<u>STRUCTURAL</u>		
10	S 1	PILE AND FRAMING PLAN
11	S 2	PART PLANS AND SECTIONS
12	S 3	TYPICAL SECTIONS
13	S 4	PART PLANS AND SECTIONS
14	S 5	BEAM ELEVATIONS AND SECTIONS
15	S 6	FENDER SYSTEM AND PILE DETAILS
16	S 7	NOTES AND DECKING DETAILS
17	S 8	PART PLANS AND SECTIONS
<u>ELECTRICAL</u>		
18	E 1	ELECTRICAL PLAN STATION 0+00 TO 3+26
19	E 2	ELECTRICAL PLAN STATION 3+26 TO 5+75
20	E 3	ELECTRICAL SERVICE AND METERING DETAILS
21	E 4	MANHOLE, DUCT AND MISCELLANEOUS DETAILS

CONTRACT NO. 2470r

**PIER 4 - UTILITY,
 BULKHEAD AND
 STREET IMPROVEMENTS**

<p>WHITMAN, REQUARDT & ASSOCIATES ENGINEERS 1304 ST. PAUL STREET BALTIMORE, MARYLAND</p>	<p>MARCH 31, 1978 DATE</p> <p><i>Charles P. ...</i> REG. NO. 2289</p>	<p><i>William L. O'Keefe</i> CHIEF, HIGHWAY ENGINEERING DIV.</p> <p><i>Frank H. ...</i> CHIEF, WASTE WATER DIVISION</p>	<p><i>Joseph F. ...</i> CHIEF, SURVEYS AND RECORDS</p> <p><i>R. J. ...</i> CHIEF, WATER DIVISION</p>	<p><i>Walter A. ...</i> DIRECTOR, CONSTR. & BLDGS. INSPECTION</p> <p><i>William E. ...</i> HEAD, BUREAU OF ENGINEERING</p>	<p><i>Henry ...</i> COM., TRANSIT AND TRAFFIC</p> <p><i>...</i> DIRECTOR OF PUBLIC WORKS</p>
	<p>COMM, HOUSING AND COMMUNITY DEVELOPMENT</p>	<p>CITY OF BALTIMORE</p>	<p>SHEET 1 OF 21</p>		