

ADDENDUM NO. 2

NOTE:
CONTRACTOR SHALL REMOVE A MINIMUM OF 18" OF GRANULAR MATERIAL (BUT AT LEAST TO THE SUBGRADE ELEVATION FOR PAVEMENT SECTION "D") BELOW THE EXISTING ASPHALT WITHIN AREA "A" AND USE THE MATERIAL TO BACKFILL AREA "B" TO SUBGRADE.

ADDITIONAL FILL MATERIAL REQUIRED WITHIN AREA "B" SHALL MEET THE REQUIREMENTS FOR STRUCTURAL FILL.

ALL FILLING AND COMPACTING OPERATIONS SHALL BE PLACED IN ACCORDANCE WITH SPECIFICATION FOR EARTHWORK. ALL BROKEN ASPHALT SHALL BE REMOVED FROM THE SITE.

PAVING, FENCE & CURBS @ PIER ENDS

N.T.S.
C302, C303 C320



Whitacre Engineers, Inc.
Consulting Engineering & Land Planning
2124 SO. "K" STREET P.O. BOX 5677
TACOMA, WASHINGTON 98405 (206) 272-5144



MARK	REVISION	BY	APP.	DATE
1	REVISED TO AS-BUILT	R.J.S.		11-15-85

DRAWN <u>B.C.</u>		PORT OF TACOMA	
DATE <u>5-30-84</u>		TACOMA TERMINALS, INC.	
CHECKED <u>J.P.</u>		MISCELLANEOUS DETAILS	
DATE <u>5-30-84</u>			
CHECKED <u>P.</u>			
DATE <u>5-30-84</u>			
CONT. NO. <u>560</u>			
FIELD BOOK (S)		SCALE <u>AS NOTED</u>	
APPROVED <u>John A. Petter</u>		DATE <u>5/3/84</u>	
PROJECT MANAGER <u>P. MacLeod</u>		DATE <u>5/3/84</u>	
CHIEF ENGINEER		SHEET <u>35</u> OF <u>88</u>	
		DRAWING NO. <u>EP-3880-23-C320</u>	

LEGEND

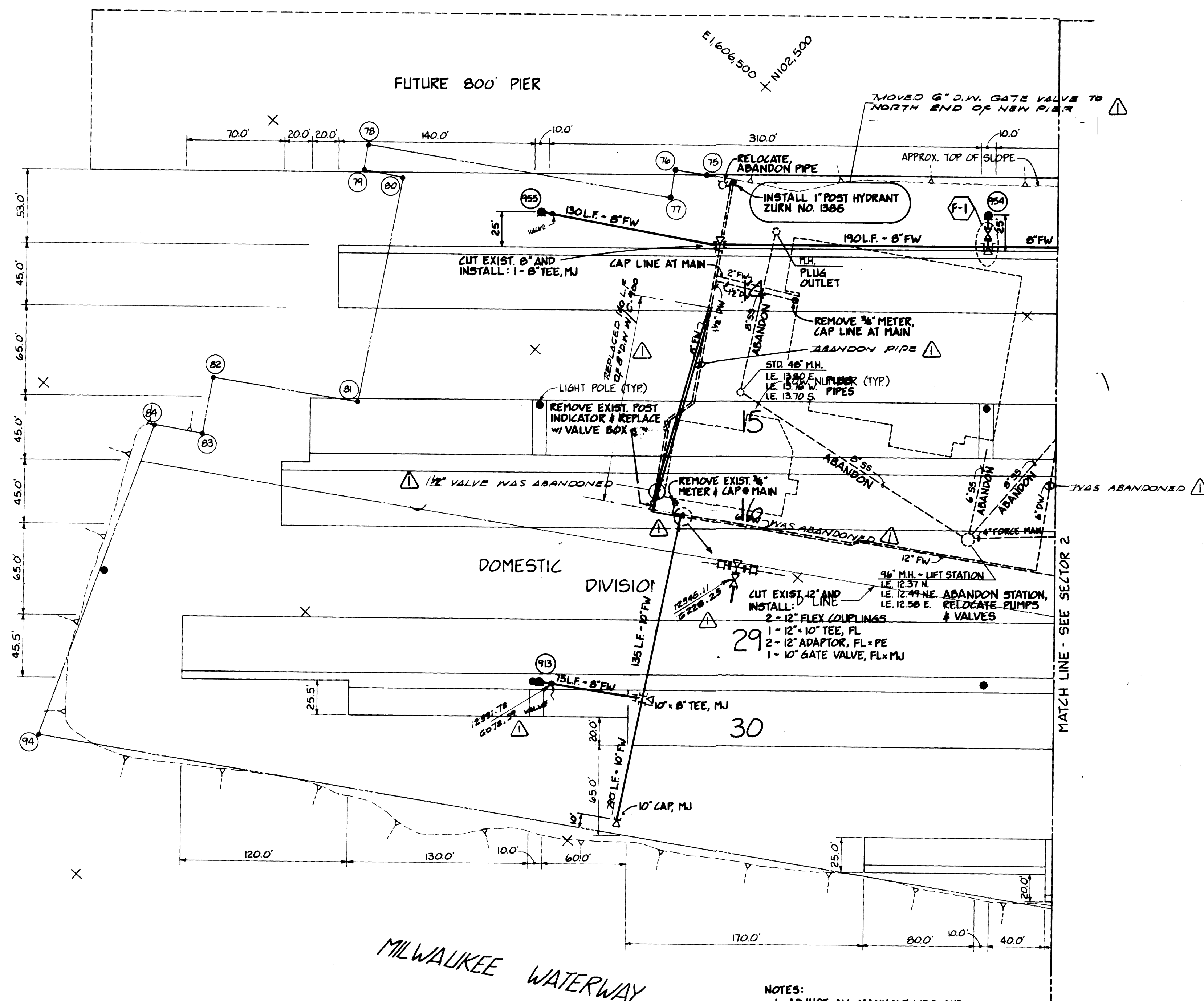
- NOTES:
 1. SEE C101, C301 & E101 FOR ADDITIONAL SITE DRAWING LEGENDS.
 2. SEE C201 FOR LEGEND OF EXISTING FEATURES.
 3. MANHOLE AND FIRE HYDRANT NUMBERS REFER TO HORIZONTAL COORDINATES.

SANITARY SEWER	SS
FIRE WATER	FW
DOMESTIC WATER	DW
MANHOLE	○
FIRE HYDRANT	●
CONCRETE BLOCKING	⊥
CONNECTION & FITTINGS CALLOUT	(F-6)

F-1	1 - 8" x 6" Tee, MJ x FL 1 - Hydrant per Standard Detail
F-2	Cut existing 12" pipe and install: 2 - 12" Flex Couplings 2 - 12" Adaptors, FL x PE 1 - 12" x 8" Tee, FL 1 - 8" Adaptor, FL x MJ
F-3	1 - 10" x 6" Tee, MJ x FL 1 - Hydrant per Standard Detail
F-4	Cut existing 12" pipe and install: 2 - 12" Flex Couplings 2 - 12" Adaptors, FL x PE 1 - 12" x 6" Tee, FL 1 - Hydrant per Standard Detail
F-5	1 - 10" Tee, FL 2 - 10" Gate Valves, FL x MJ 1 - 10" Adaptor, FL x MJ
F-6	1 - 12" Adaptor, FL x MJ 1 - 12" 90° ELL, FL 1 - 12" x 18" Reducer, FL 2 - 18" Flex Couplings 1 - 18" Tee, MJ 1 - 18" Gate Valve, MJ PVC Pipe, Length as Required
F-7	1 - 10" 45° ELL, FL 1 - 10" x 6" Tee, FL 2 - 10" Adaptors, FL x MJ
F-8	1 - 10" x 8" Tee, MJ 1 - Hydrant per Standard Detail
F-9	1 - 10" x 8" Cross, MJ
F-10	1 - 10" x 6" Tee, MJ
F-11	2 - 10" Adaptors, FL x MJ 1 - 10" 45° ELL, FL 1 - 10" Tee, FL 1 - 10" x 8" Tee, FL 1 - 10" Gate Valve, FL x MJ 1 - 10" Gate Valve, FL 1 - 8" Adaptor, FL x MJ
F-12	1 - 10" Tee, MJ
F-13	1 - 8" Adaptor, FL x MJ 1 - 8" 45° ELL, FL 1 - 8" x 6" Reducer, FL 1 - Hydrant per Standard Detail
F-14	1 - 8" x 6" Tee, MJ x FL 1 - Hydrant per Standard Detail 1 - Length 8" Pipe 1 - 8" Cap, MJ

D-1	Cut existing 6" pipe and install: 1 - 6" 90° ELL, MJ
D-2	1 - 6" 90° ELL, MJ
D-3	1 - 6" Double Strap Saddle with 2" Tap 1 - 2" Gate Valve, MJ
D-4	1 - 6" x 3" Tee, FL 1 - 6" x 4" Reducer, FL 1 - 4" Gate Valve, FL x MJ 1 - 3" Gate Valve, FL 1 - 6" Adaptor, FL x MJ 1 - 3" Adaptor, FL x MJ
D-5	1 - 3" Tee, PVC 1 - 3" x 1-1/2" Reducer 1 - 1-1/2" Gate Valve
D-6	1 - 3" x 2" Reducer 1 - 2" Tee, PVC 1 - 2" Gate Valve, MJ
D-7	1 - 2" x 1-1/2" Reducer 1 - 1-1/2" Tee, PVC 2 - 1-1/2" Gate Valves
D-8	2 - 4" Adaptors, FL x MJ 1 - 4" x 3" Tee, FL 1 - 3" Gate Valve, FL 1 - 3" Adaptor, FL x MJ 1 - 3" x 2-1/2" Reducer
D-9	1 - 4" Double Strap Saddle with 1-1/2" Tap 1 - 1-1/2" Gate Valve
D-10	1 - 4" x 3" Tee, PVC
D-11	1 - 3" Tee, PVC 1 - 3" x 2" Reducer 1 - 3" Gate Valve, MJ 1 - 2" Gate Valve, MJ
D-12	1 - 3" x 2" Tee, PVC 1 - 2" Gate Valve, MJ 1 - 3" x 1-1/2" Reducer 1 - 1-1/2" Gate Valve
D-13	1 - 3" x 1-1/2" Tee, PVC 1 - 1-1/2" Gate Valve

COMMENCEMENT BAY
 E1605,750 +
 N102,750 +



- NOTES:
 1. ADJUST ALL MANHOLE LIDS AND WATER SYSTEM VALVE BOXES TO FINISH GRADE.
 2. PLACE MARKERS AT EACH FIRE HYDRANT ON THE PROJECT SITE. MARKERS SHALL BE STIMSONITE "LIFELITE" OR APPROVED EQUAL. ADHESIVE SHALL BE EPOXY PER MANUFACTURER'S RECOMMENDATION. INSTALL MARKERS IN ACCORDANCE WITH REQUIREMENTS FOR LANE MARKERS. EXACT LOCATION OF MARKERS TO BE DETERMINED BY THE ENGINEER.

50 0 50 100 150
 SCALE IN FEET

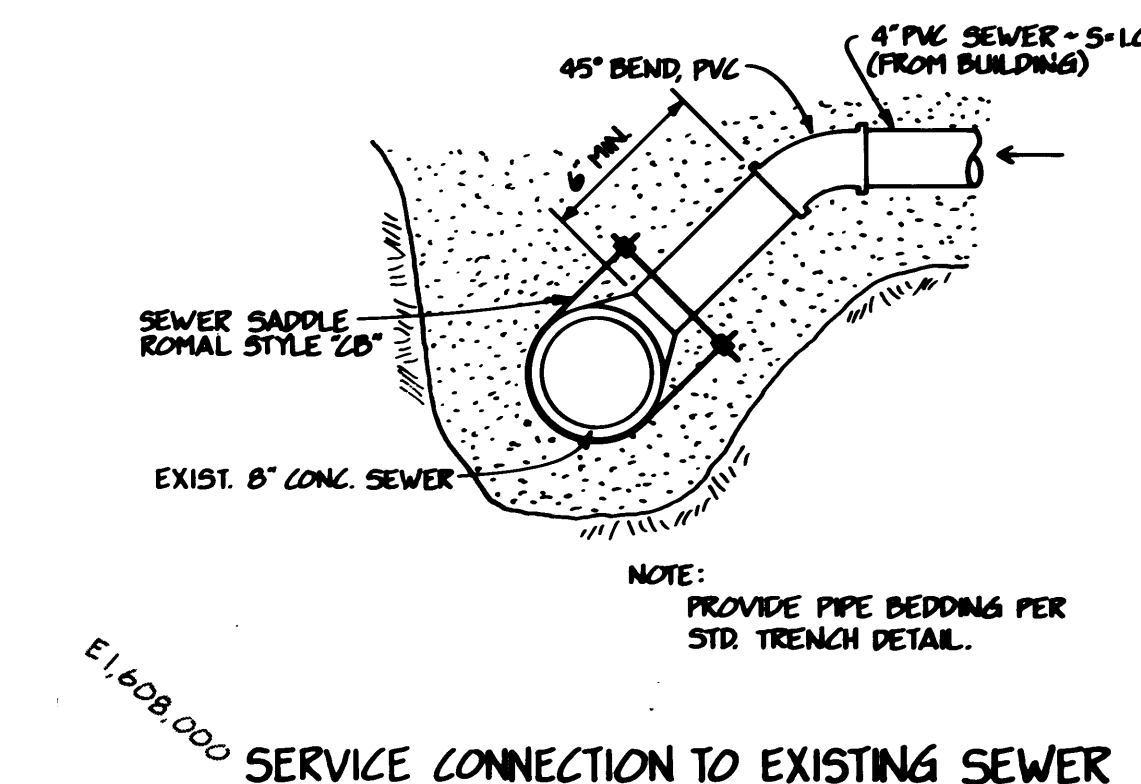
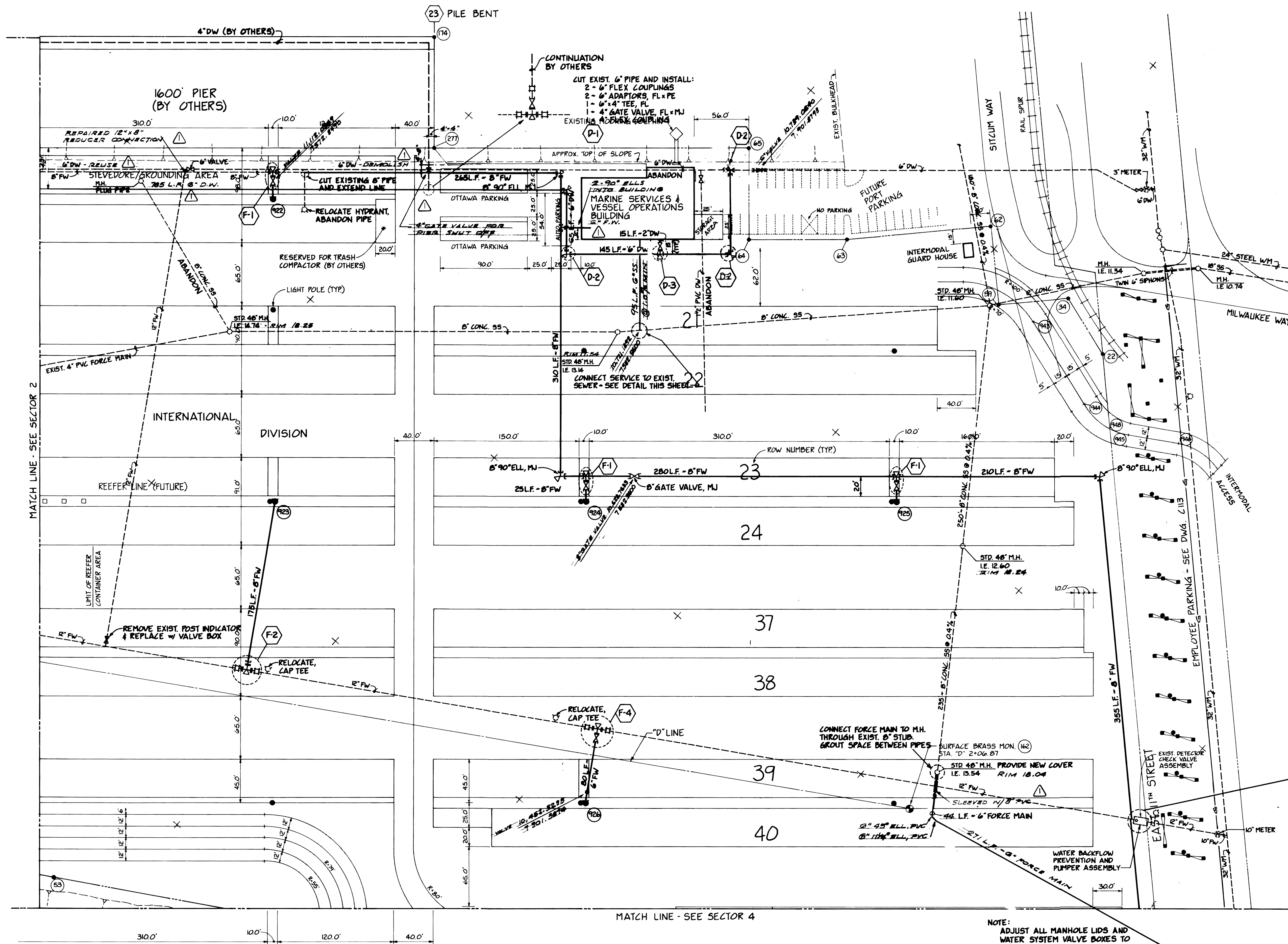


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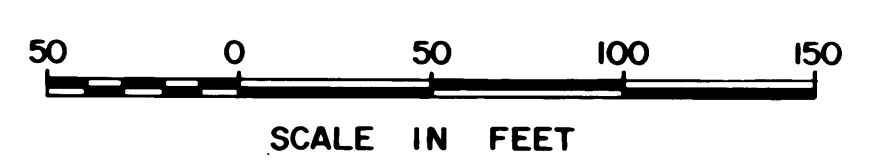


REVISION	BY	APP.	DATE
REVISED TO AS BUILT	A.J.S.		11/14/85

DRAWN: RMT DATE: 5-30-84		PORT OF TACOMA TACOMA TERMINALS, INC. SANITARY SEWER & WATER PLAN	
CHECKED: JGL DATE: 5/31/84			
CHECKED: P DATE: 5-30-84			
CONT. NO. 560			
FIELD BOOK (S)		SCALE: AS NOTED	
APPROVED: [Signature] PROJECT MANAGER: [Signature] CHIEF ENGINEER: [Signature]		DRAWING NO. EP-3880-23-C401 SHEET 36 OF 88	



- CUT EXIST. 12" PIPE AND INSTALL:
- 2 - 12" FLEX COUPLINGS
 - 2 - 12" ADAPTORS, FL = PE
 - 1 - 12" GATE VALVES, FL
 - 1 - 12" x 10" CROSS, FL
 - 1 - 10" GATE VALVE, FL = MJ
 - 1 - 8" GATE VALVE, FL = MJ
 - 1 - 10" x 8" REDUCER, FL



NOTE: ADJUST ALL MANHOLE LIDS AND WATER SYSTEM VALVE BOXES TO FINISH GRADE.

DRAWN RHT		DATE 5-30-84		PORT OF TACOMA	
CHECKED JDD		DATE 5/21/84		TACOMA TERMINALS, INC.	
CHECKED P		DATE 5-30-84		SANITARY SEWER & WATER PLAN	
CONT. NO. 560		FIELD BOOK (S)		SCALE AS NOTED	
APPROVED [Signature]		DATE 5/31/84		DRAWING NO.	
PROJECT MANAGER [Signature]		DATE 5/31/84		EP-3880-23-C403	
CHECK ENGINEER [Signature]		DATE		SHEET 38 OF 88	



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REVISION	BY	APP.	DATE
REVISED TO AS BUILT	R.J.S.		11/5/85

MATCH LINE - SEE SECTOR 2

MATCH LINE - SEE SECTOR 3

53

MILWAUKEE WATERWAY

MILWAUKEE WATERWAY BRIDGE
(BY OTHERS)

NOTE:
DASHED LINES INDICATE FUTURE
MARINE YARD EXPANSION.

HAZARDOUS WASTE
CONTAINMENT AREA - SEE C417

DOMESTIC
DIVISION

INTERNATIONAL
DIVISION

PIYALLUP WATERWAY

MATCH LINE - SEE SECTOR 5

NOTE:
FOR PLACEMENT OF FIRE
HYDRANTS, LIGHT POLES AND
GUARD POSTS (TYPICAL (3)
LOCATIONS ON THIS SHEET) SEE

10
1316

M.H. 902
R.M. 18.79
I.E. 11.65 - 8' IN
I.E. 11.53 - 8' OUT

NOTE:
THE NUMBERING SYSTEM FOR SCALES
4.5 & 6 IS FOR CONTRACT PURPOSES
ONLY.



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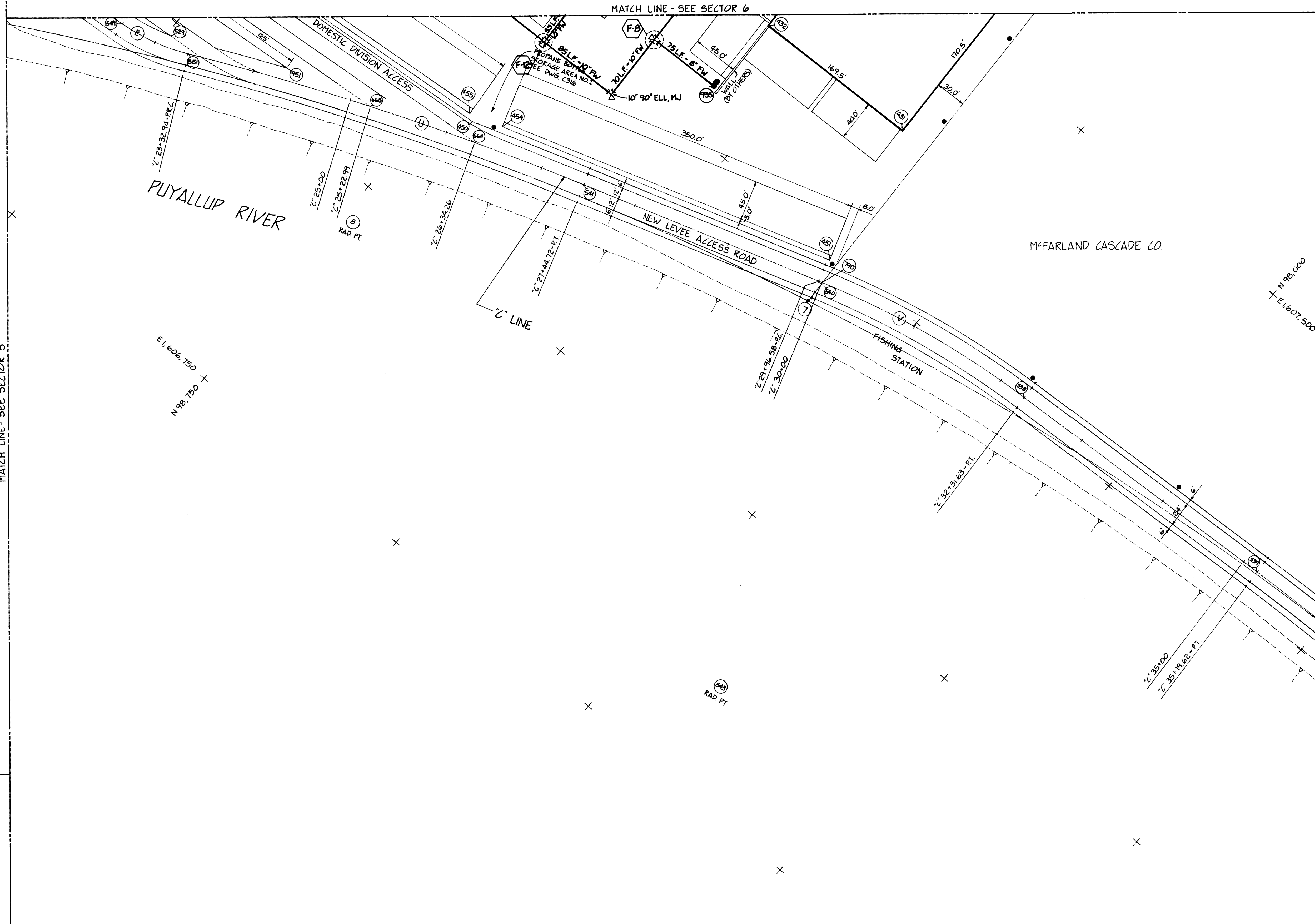
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	REVISED TO AS-BUILT	A.J.S.		12-6-88

DRAWN RHT
DATE 5-30-84
CHECKED SDB
DATE 5/2/84
CHECKED P
DATE 5/20/84
CONT. NO. 560

PORT OF TACOMA
TACOMA TERMINALS, INC.
SANITARY SEWER & WATER PLAN

FIELD BOOK (S)	SCALE AS NOTED
APPROVED <i>John J. Tarrant</i> 5/21/84 PROJECT MANAGER <i>John J. Tarrant</i> 5/21/84 CHIEF ENGINEER	DRAWING NO. EP-3880-23-C404 SHEET 39 OF 88

MATCH LINE - SEE SECTOR 5



MATCH LINE - SEE SECTOR 10

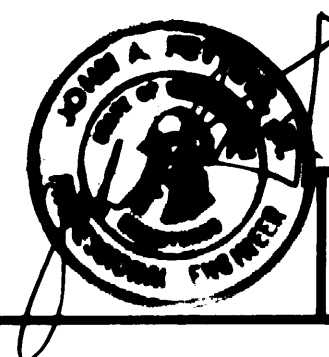
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DRAWN RHT
DATE 5-30-84
CHECKED JHT
DATE 5/31/84
CHECKED P
DATE 5-30-84
CONT. NO. 560

PORT OF TACOMA
TACOMA TERMINALS, INC.
SANITARY SEWER & WATER PLAN

FIELD BOOK (S)
APPROVED JHT
DATE 5/31/84
PROJECT MANAGER RHT
DATE 5/31/84
CHIEF ENGINEER

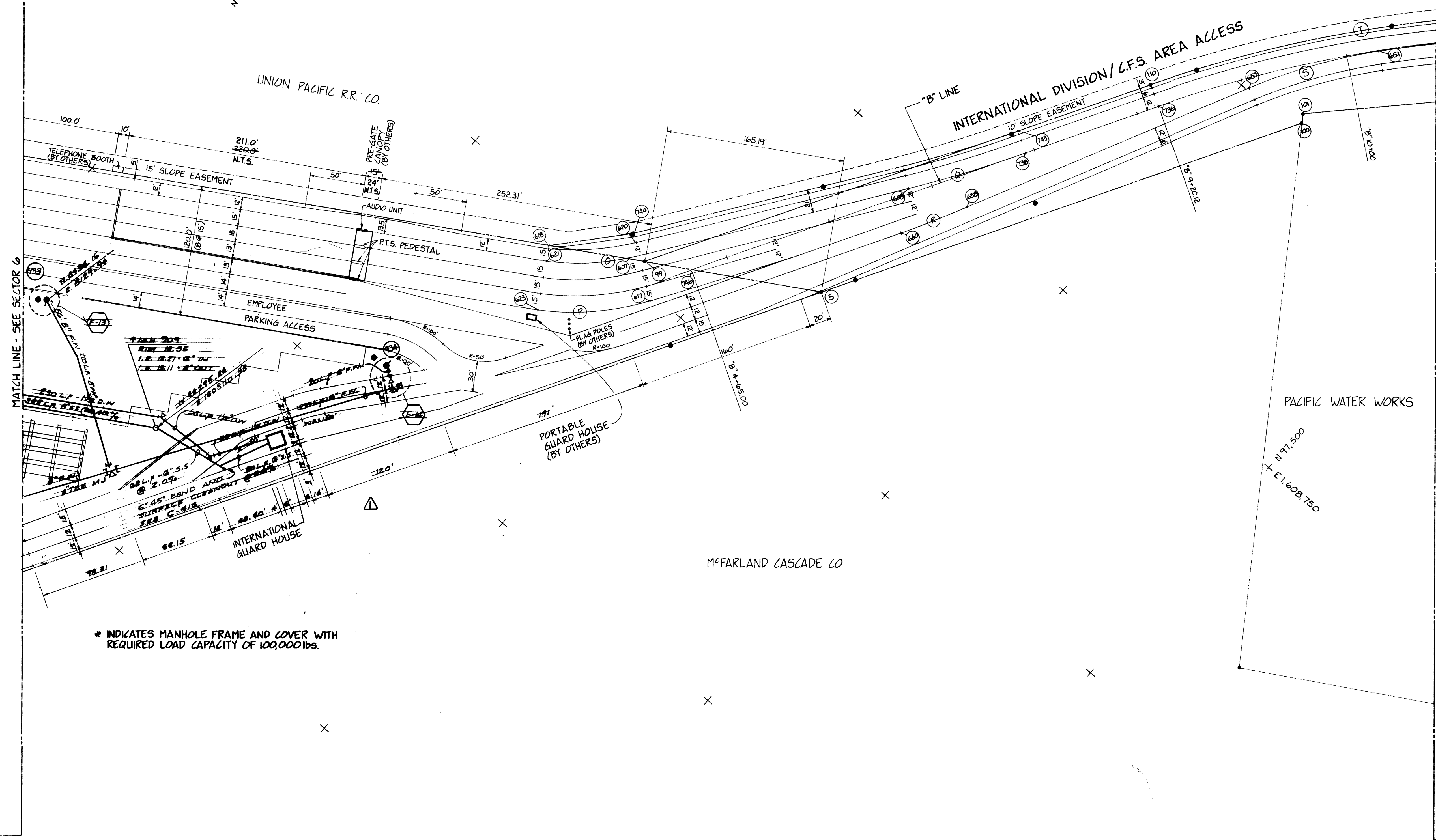
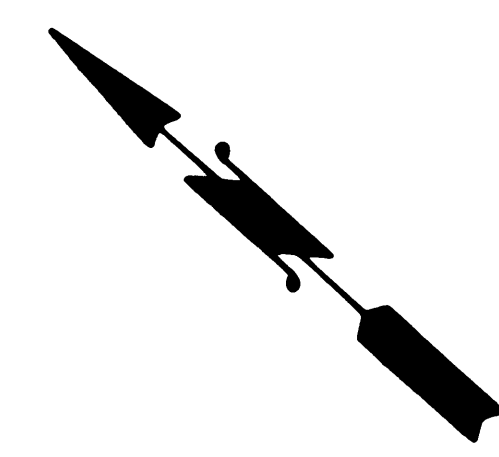
SCALE AS NOTED
DRAWING NO. EP-3880-23-C407
SHEET 41 OF 88



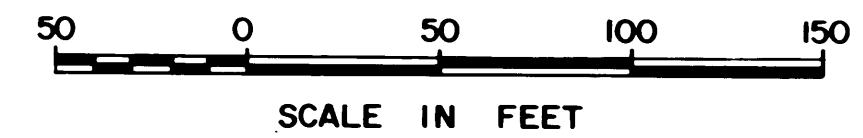
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MARK	REVISION	BY	APP.	DATE
	NO AS-BUILT REVISIONS			



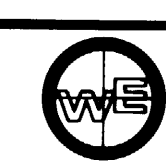
* INDICATES MANHOLE FRAME AND COVER WITH
REQUIRED LOAD CAPACITY OF 100,000 lbs.



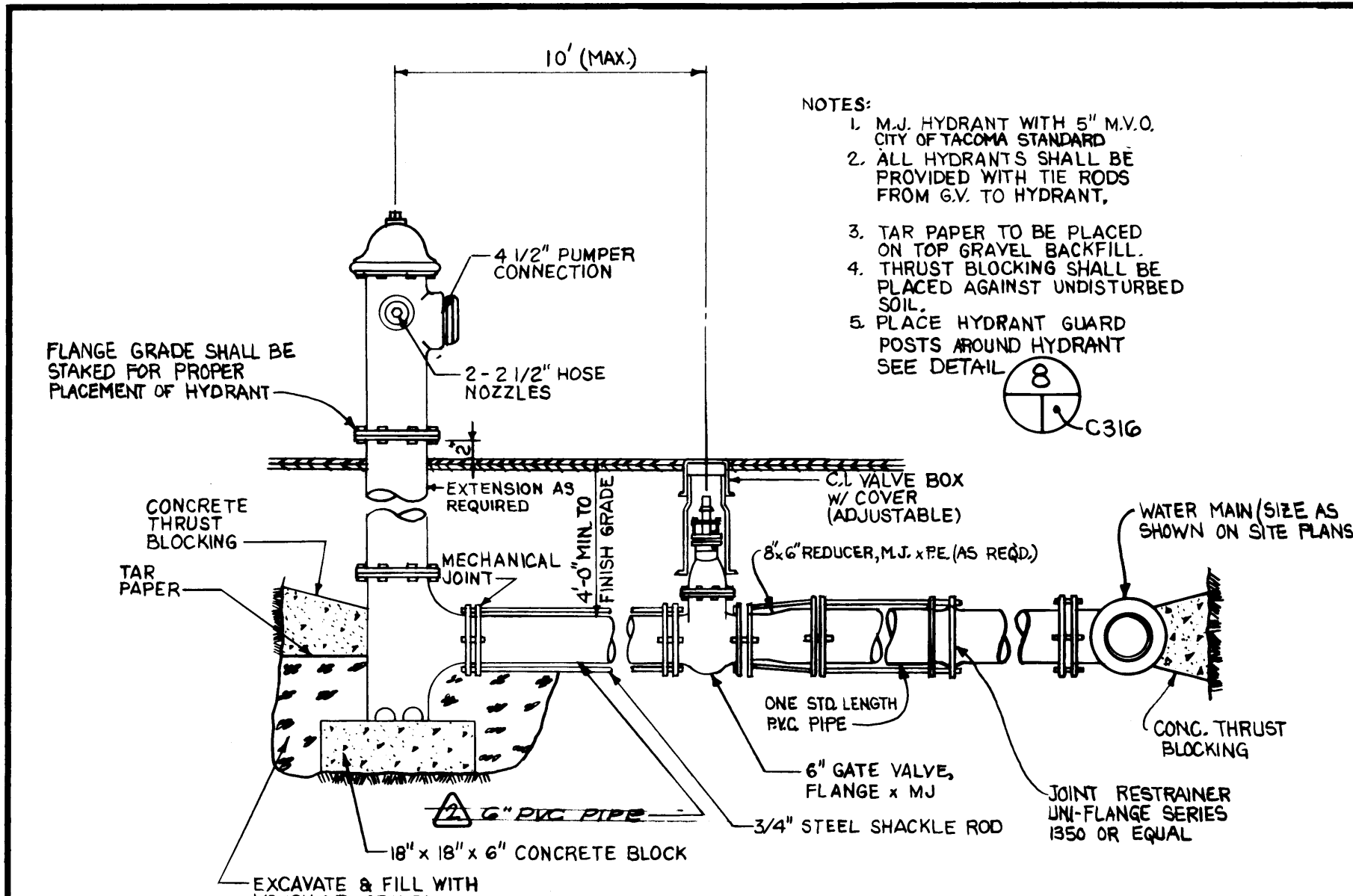
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CHECKED <i>[Signature]</i>		DATE 5/31/84	
CHECKED <i>[Signature]</i>		DATE 5-30-84	
CONT. NO. 560		SCALE AS NOTED	
FIELD BOOK (S)		APPROVED <i>[Signature]</i> 5/31/84	
PROJECT MANAGER <i>[Signature]</i>		DATE 5/31/84	
CHIEF ENGINEER <i>[Signature]</i>		DATE 5/31/84	
PORT OF TACOMA TACOMA TERMINALS, INC. SANITARY SEWER & WATER PLAN		DRAWING NO. EP-3880-23-C408	
		SHEET 42 OF 88	



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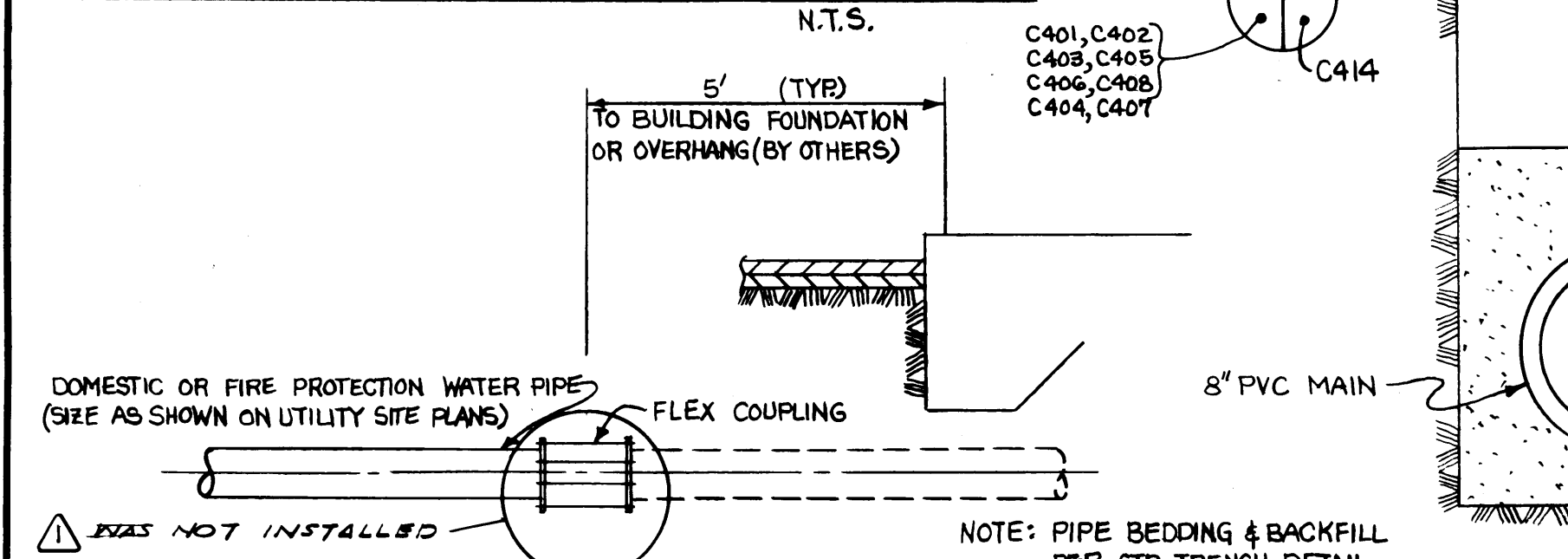


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Δ	REVISED TO AS-BUILT	R.J.S.		11/18/88



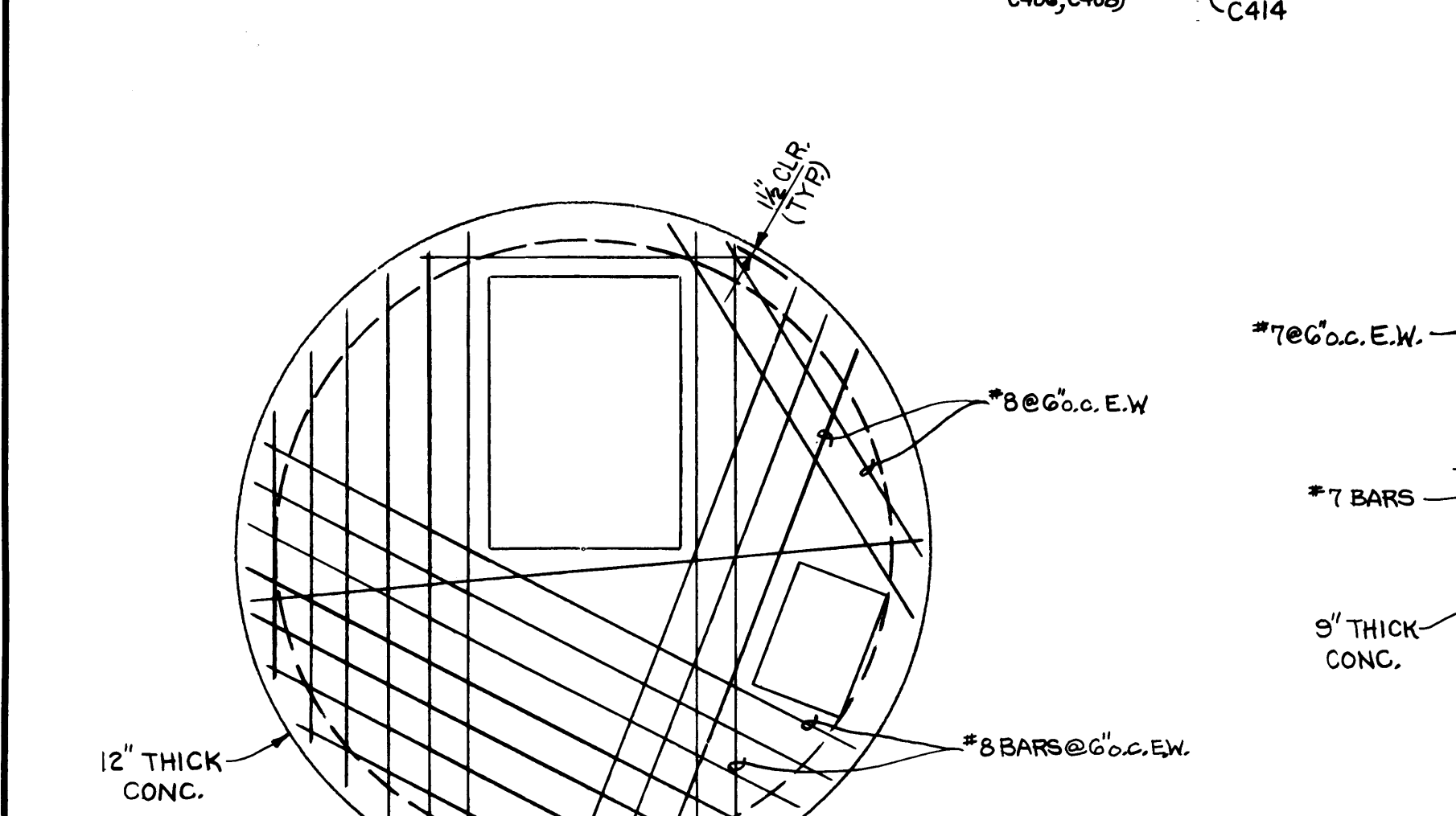
SHACKLE RODS SHALL BE CLEANED AND GIVEN 1 COAT OF AN APPROVED PRIMER (RED LEAD OR ZINC CHROMATE) AFTER CUTTING AND BEFORE INSTALLATION. AFTER INSTALLATION RODS SHALL BE PAINTED WITH ONE COAT OF AN APPROVED BITUMINOUS PAINT.

STANDARD HYDRANT DETAIL



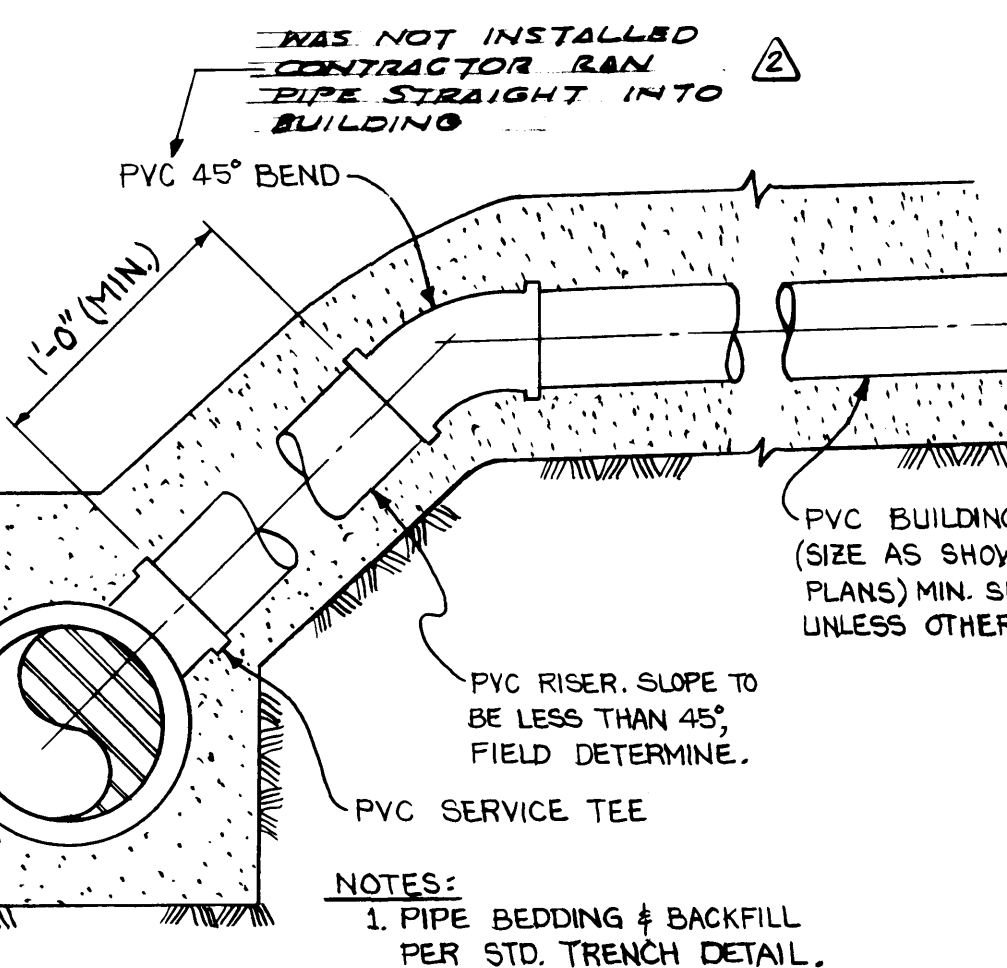
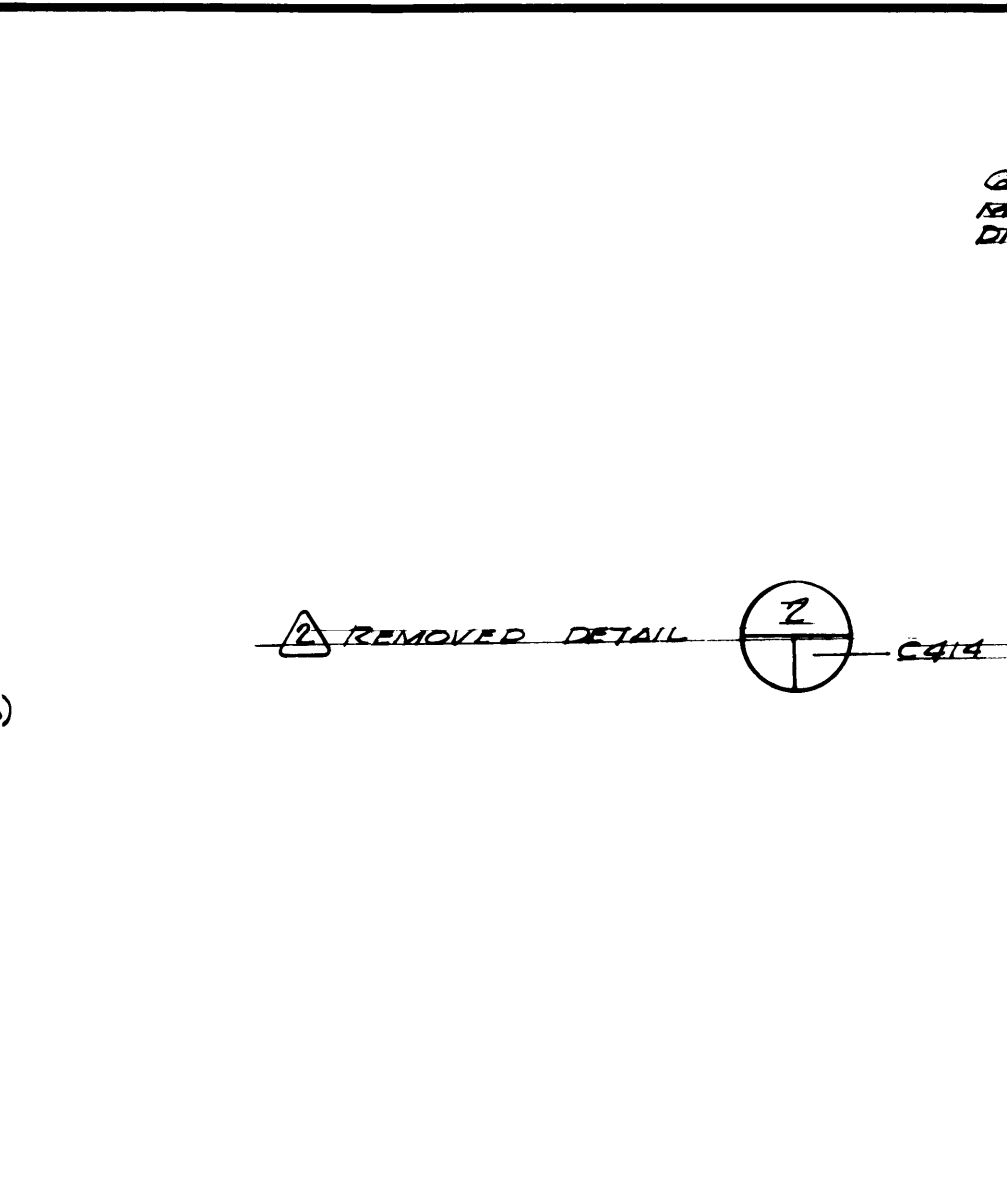
TYPICAL BUILDING CONNECTION-WATER

NOTES: 1. REBAR TO BE PLACED 1 1/2 inch ABOVE BOTTOM SURFACE. 2. LOCATION OF ACCESS HATCHES IN PUMP STATION PER MANUFACTURER



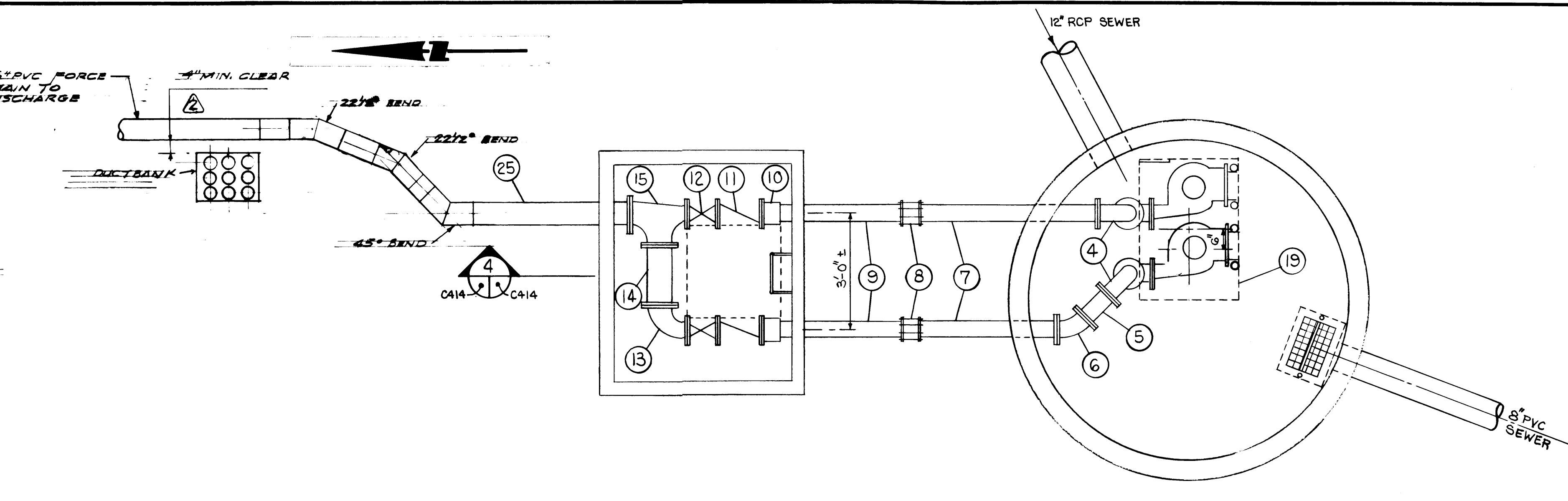
NOTE: 1. REBAR TO BE PLACED 1 1/2 inch ABOVE BOTTOM SURFACE. 2. LOCATION OF ACCESS HATCHES IN PUMP STATION PER MANUFACTURER

LIDS FOR SEWAGE LIFT STATION

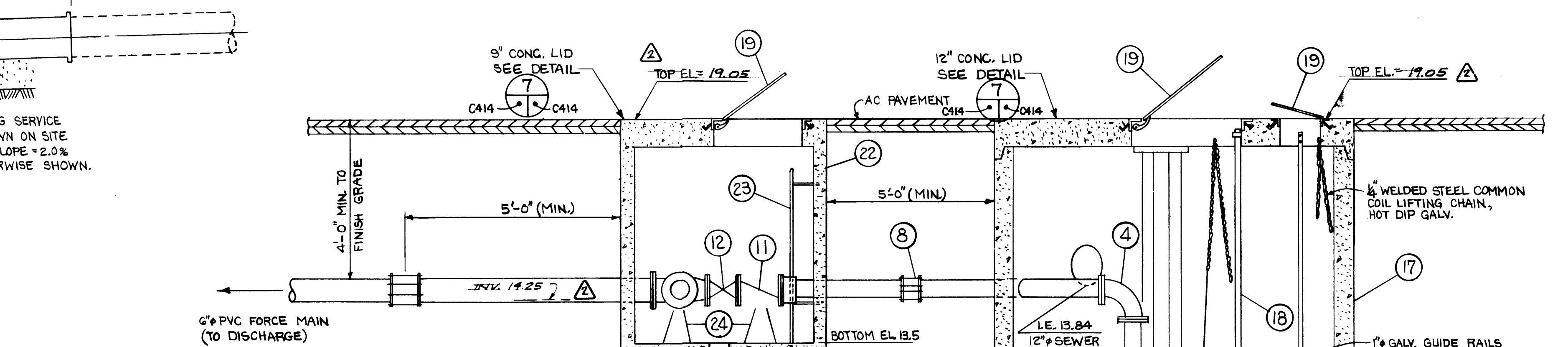


NEW SEWER SERVICE DETAIL

NOTES: 1. PIPE BEDDING & BACKFILL PER STD. TRENCH DETAIL.



SEWAGE LIFT STATION - PLAN



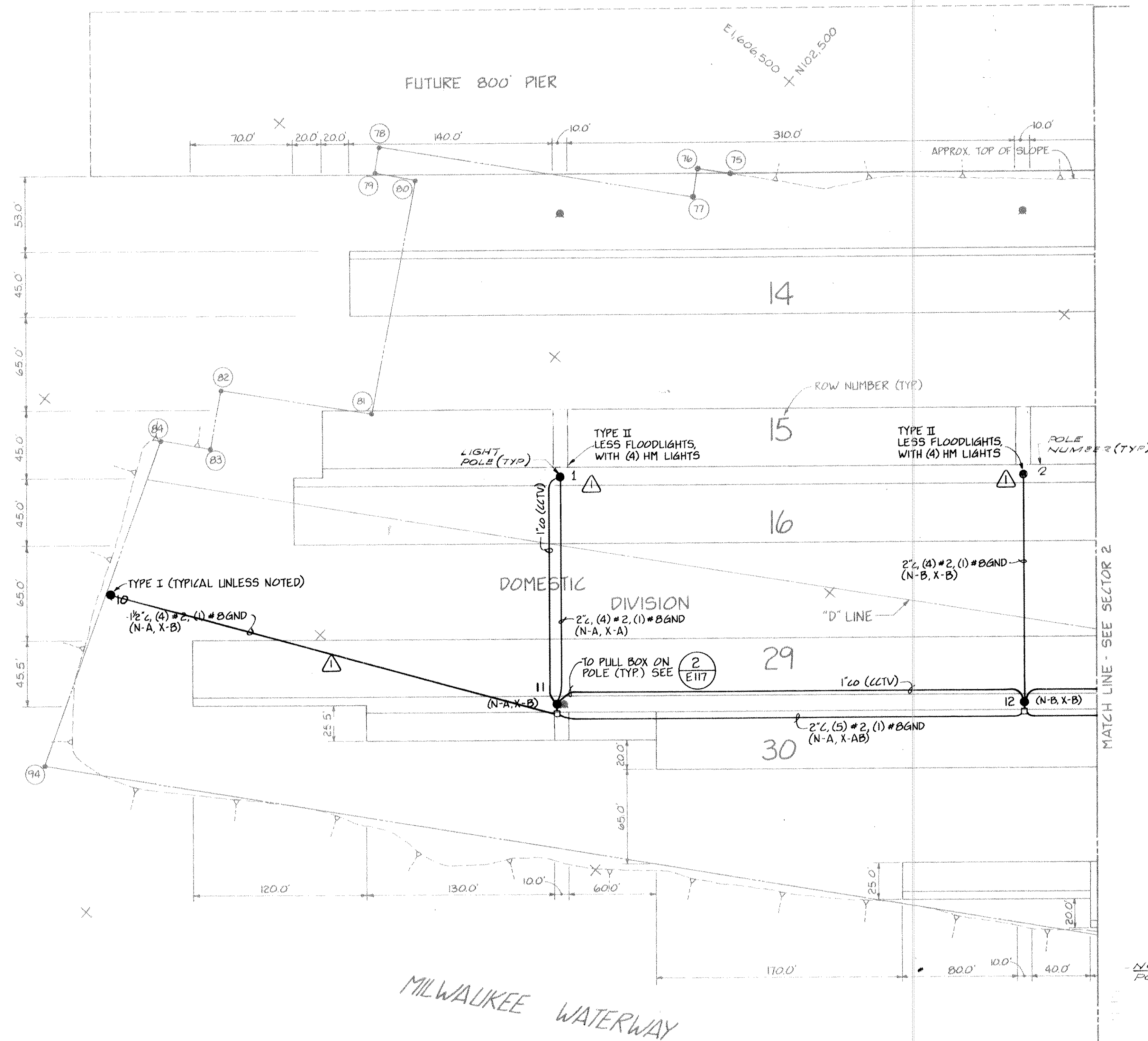
SEWAGE LIFT STATION - SECTION

NOTES: 1. PIPE BEDDING & BACKFILL PER STD. TRENCH DETAIL.

- Existing Sewage Pumps Relocated (See Specs.)
- 4" 90° Base Elbow, Quick Disconnect
- 4" Ductile Iron Pipe, FL, Length as Required
- 4" 90° Long Radius Elbow, FL
- 4" Spool, Length as Required
- 4" 45° Elbow, FL
- 4" Ductile Iron Pipe, FL x PE, Length as Required
- 4" Flex Coupling
- 4" Ductile Iron Pipe, PE
- 4" Flanged Coupling Adaptor
- 4" Check Valve
- 4" Gate Valve
- 6" x 4" 90° Reducing Elbow, FL
- 6" Spool, 18" Long
- 4" x 6" x 6" Tee, FL
- 6" Flex Coupling
- 96" Ø Pre-Cast Concrete Manhole
- Galvanized Slide Rails, Size per Pump Manufacturer
- Galvanized Steel Access Hatch (See Specs.)
- Lifting Chain, Size per Pump Manufacturer
- Liquid Level Controls (See Specs.)
- Valve Vault (See Specs.)
- Galvanized MH Access Ladder (APWA Standard Plan #1)
- Concrete Supports with Steel Shims and Grout
- 6" Ductile Iron Pipe, FL x PE, Length as Required.
- Strainer Basket (See Specs.)

DRAWN B.C.		DATE 3-8-84	
CHECKED J.B.		DATE 5/16/84	
CHECKED P		DATE 5-30-84	
CONT. NO. 560		FIELD BOOK (S)	
APPROVED [Signature]		DATE 5/2/84	
PROJECT MANAGER [Signature]		DATE 7-11-84	
CHIEF ENGINEER [Signature]		DATE 5/31/84	
SCALE AS NOTED		DRAWING NO. EP-3880-23-C414	
SHEET 43 OF 88			

COMMENCEMENT BAY
E 1605.750 +
N 102.730 +

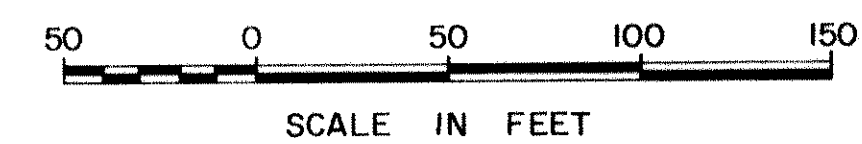


LEGEND
AREA LIGHTING CIRCUIT CODE:
N - NORTH AREA
S - SOUTH AREA
P - PIER AREA
V - VIADUCT AREA
N-AB - NORTH AREA, PHASES A & B
X - SECURITY ALL AREAS
E - EAST AREA
W - WEST AREA
I - INTL ACCESS ROAD
L - LEVEE ACCESS ROAD
#BAND - BAWA GROUND WIRE
#1/0NEUT - 1/0AWG NEUTRAL WIRE
2" - 2" SCHEDULE 80 PVC CONDUIT
2" - SAME, CONDUIT ONLY
2"RGS - 2" PVC COATED RIGID GALVANIZED STEEL CONDUIT

FIRE ALARM WIRING CODE:
12/3 SH - (3) CONDUCTOR 12 AWG SHIELDED

GENERAL CODE:
■ HANDHOLE, AS NOTED, OR BY BUILDING CONTRACTOR
□ BURIED ENCASED DUCT SYSTEM, HS-20 LOADING
— BURIED SCHEDULE 80 PVC CONDUIT
□ HANDHOLE, 3030LA, AT LIGHT POLES REQUIRING SPLICING
□* MANHOLE REQUIRING 100 KIP LOAD CAPACITY
CCTV CLOSED CIRCUIT TELEVISION
● FLOODLIGHT, UNLESS NOTED
●-I STREET LIGHT

NOTE: COMMUNICATIONS MANHOLE SIZES:
POWER & UTILITY VAULT NUMBERS EST-1LA WITH OVER 4 DUCTS ENTERING ANYSIDE, COVERS TO BE 30" ROUND CAST IRON. UTILITY VAULT NUMBERS 447-1LA WITH 4 DUCTS OR LESS ENTERING ANYSIDE, COVERS TO BE 24" ROUND CAST IRON.



PORT OF TACOMA	
TACOMA TERMINALS, INC.	
POWER, LIGHTING & COMMUNICATIONS PLAN	
DRAWN RHT DATE 5-31-84	SCALE AS NOTED
CHECKED JTC DATE 5-31-84	DRAWING NO. EP-3880-23-E101
CHECKED J DATE 5-31-84	SHEET 47 OF 88
CONT. NO. 560	
FIELD BOOK (S)	DATE 5/31/84
APPROVED [Signature]	DATE 5/31/84
PROJECT MANAGER [Signature]	DATE 5/31/84
CHIEF ENGINEER [Signature]	DATE 5/31/84

[Handwritten signatures and stamps]

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REVISION	BY	APP.	DATE
REVISED TO AS BUILT	J.S.		1/8/85

PILE BENT (104)

SITCUM WATERWAY

PIERHEAD LINE

1600' PIER (BY OTHERS)
See sheet # E 116

WATERSIDE RAIL

LANDSIDE RAIL

STEVEDORE/GROUNDING AREA

N101.250

E1607.250

+14 NEW

50 0 50 100 150
SCALE IN FEET

DRAWN RHT
DATE 5-31-84
CHECKED JPC
DATE 5-31-84
CHECKED P
DATE 5-31-84
CONT. NO. 560

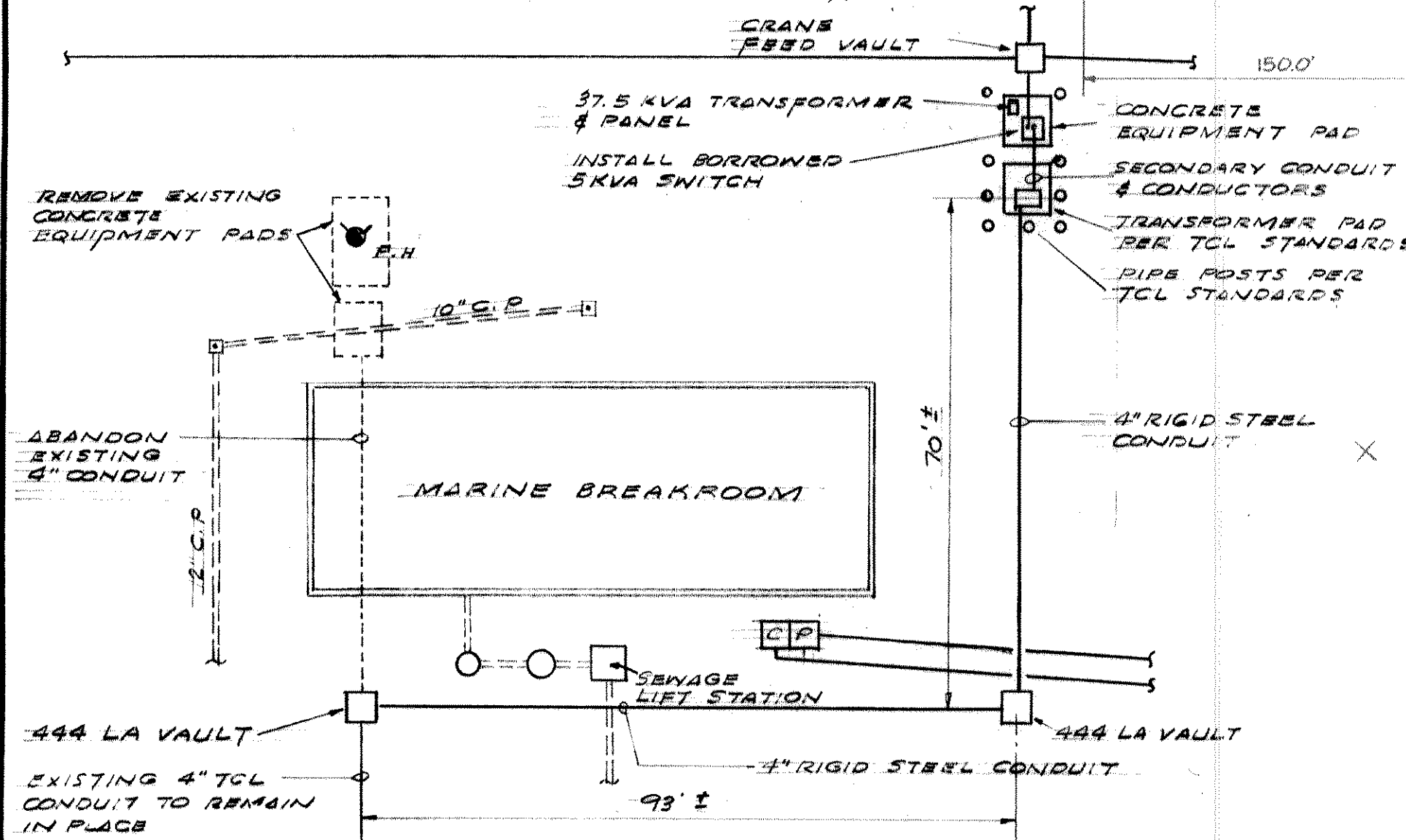
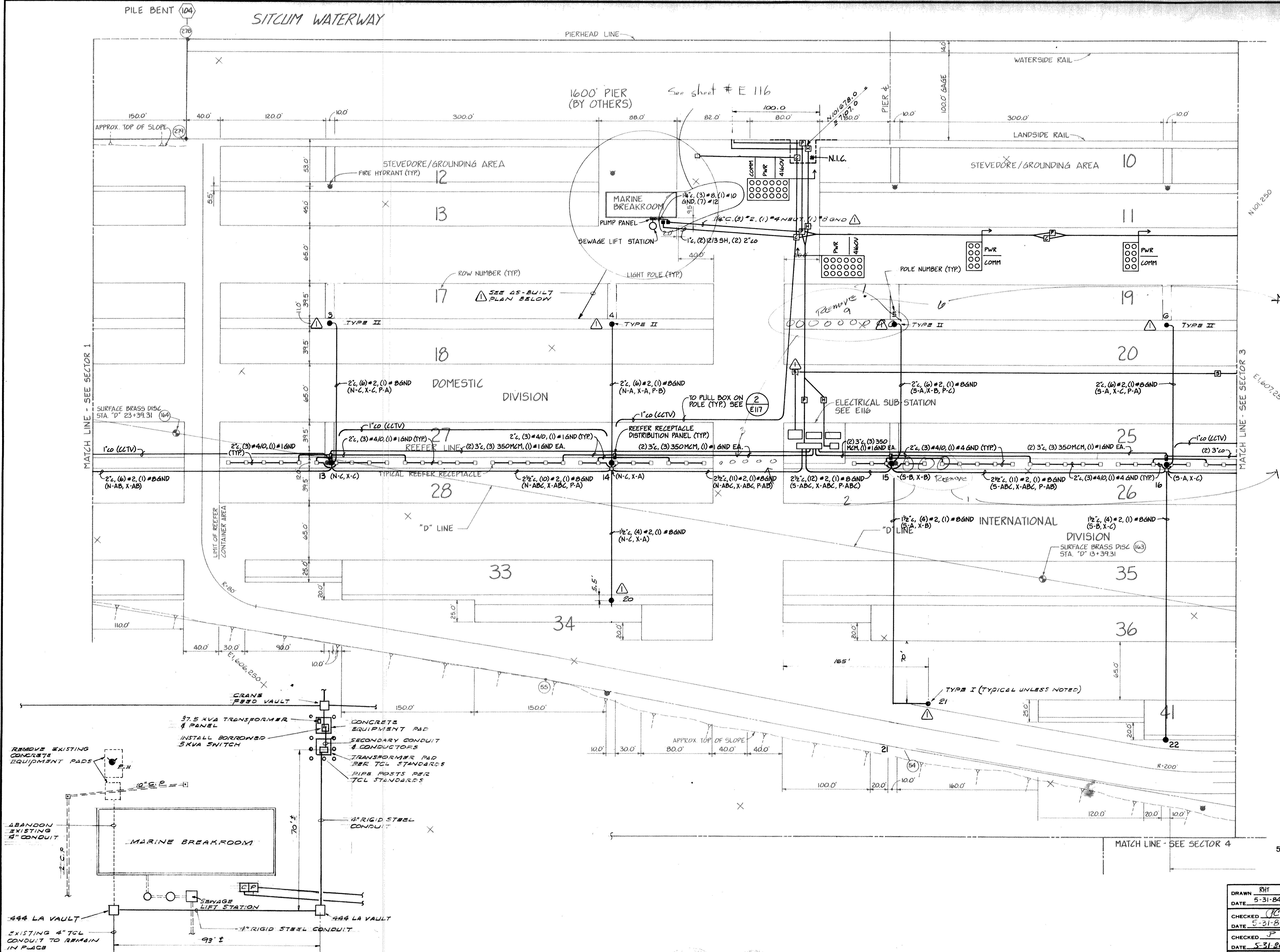
PORT OF TACOMA
TACOMA TERMINALS, INC.
POWER, LIGHTING &
COMMUNICATIONS PLAN

FIELD BOOK (S)
APPROVED
DATE 5/31/84
DATE 7/2/84

SCALE AS NOTED
DRAWING NO.
EP-3880-23-E102
SHEET 48 OF 58

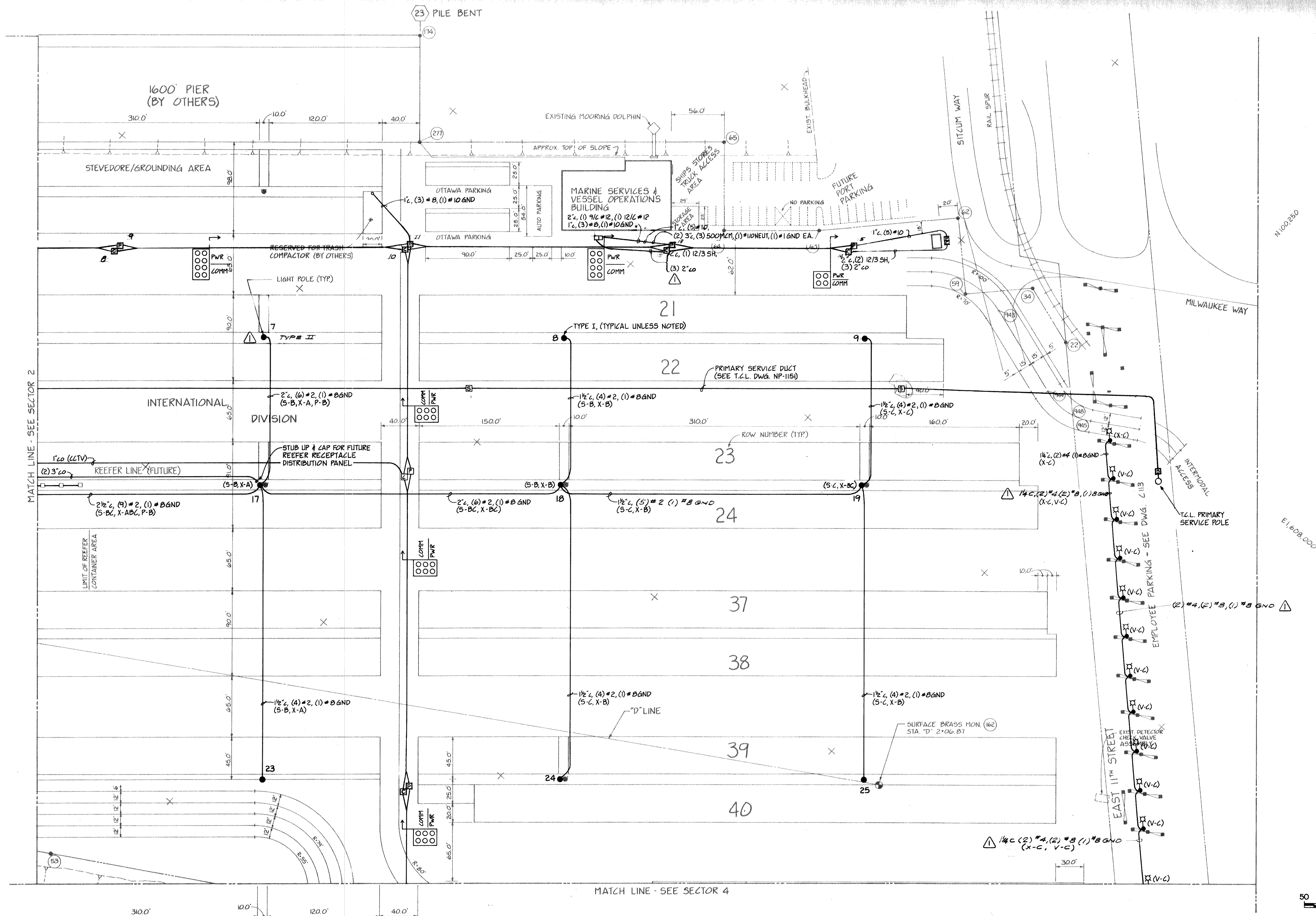
Whitacre Engineers, Inc.
Consulting Engineering & Land Planning
224 26th Ave. S.E. Tacoma, WA 98402
TACOMA, WASHINGTON 98402 (206) 272-3144

REVISION
BY
DATE



PART ELECTRICAL PLAN AT MARINE BREAKROOM SCALE 1"=50 FEET

NOTE: TOL WILL REMOVE EXISTING CABLE FROM EXISTING 4" TOL CONDUIT AND REPAIR NEW CABLE TO NEW TRANSFORMER. TOL WILL REMOVE EXISTING CABLE FROM EXISTING 4" TOL CONDUIT AND REPAIR NEW CABLE TO NEW TRANSFORMER. TOL WILL REMOVE EXISTING CABLE FROM EXISTING 4" TOL CONDUIT AND REPAIR NEW CABLE TO NEW TRANSFORMER.



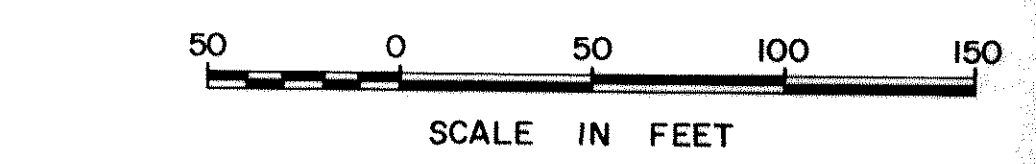
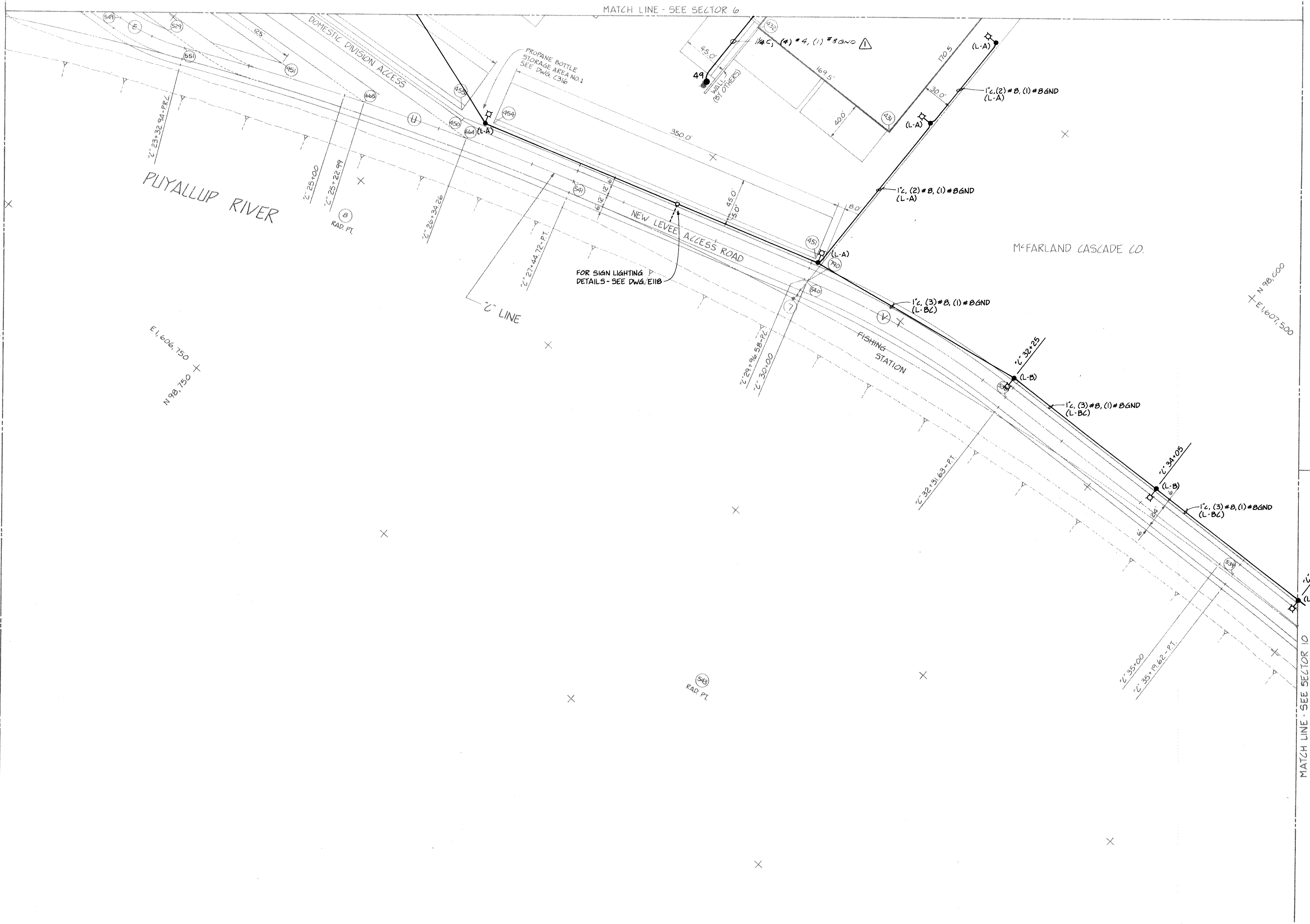
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SCALE IN FEET

DRAWN RHT		PORT OF TACOMA TACOMA TERMINALS, INC. POWER, LIGHTING & COMMUNICATIONS PLAN	
DATE 5-31-84			
CHECKED JLC			
DATE 5-31-84			
CHECKED P			
DATE 5-31-84		CONT. NO. 560	
FIELD BOOK (S)		SCALE AS NOTED	
APPROVED [Signature]		DATE 5/31/84	
PROJECT MANAGER [Signature]		DATE 5/31/84	
CHIEF ENGINEER [Signature]		DATE 5/31/84	
REVISIONS		DRAWING NO. EP-3880-23-E103	
SHEET 49 OF 88			

Whitacre Engineers, Inc.
 Consulting Engineering & Land Planning
 204-3RD ST. N. STREET APT. 300 3077
 TACOMA, WASHINGTON 98408 (206) 272-3100

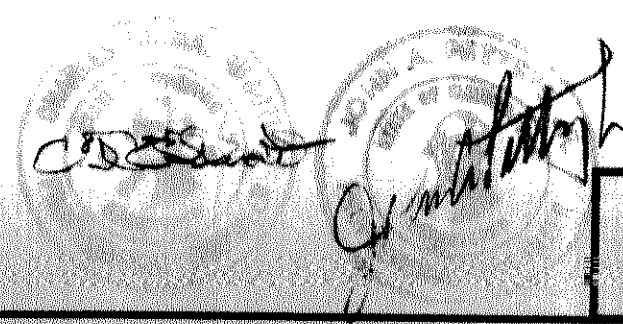
Whitacre Engineers, Inc.
Consulting Engineering & Land Planning
204 E. W. STREET, P.O. BOX 3677
TACOMA, WASHINGTON 98401 (206) 771-5144

MATCH LINE - SEE SECTOR 5



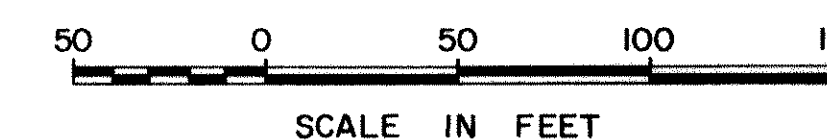
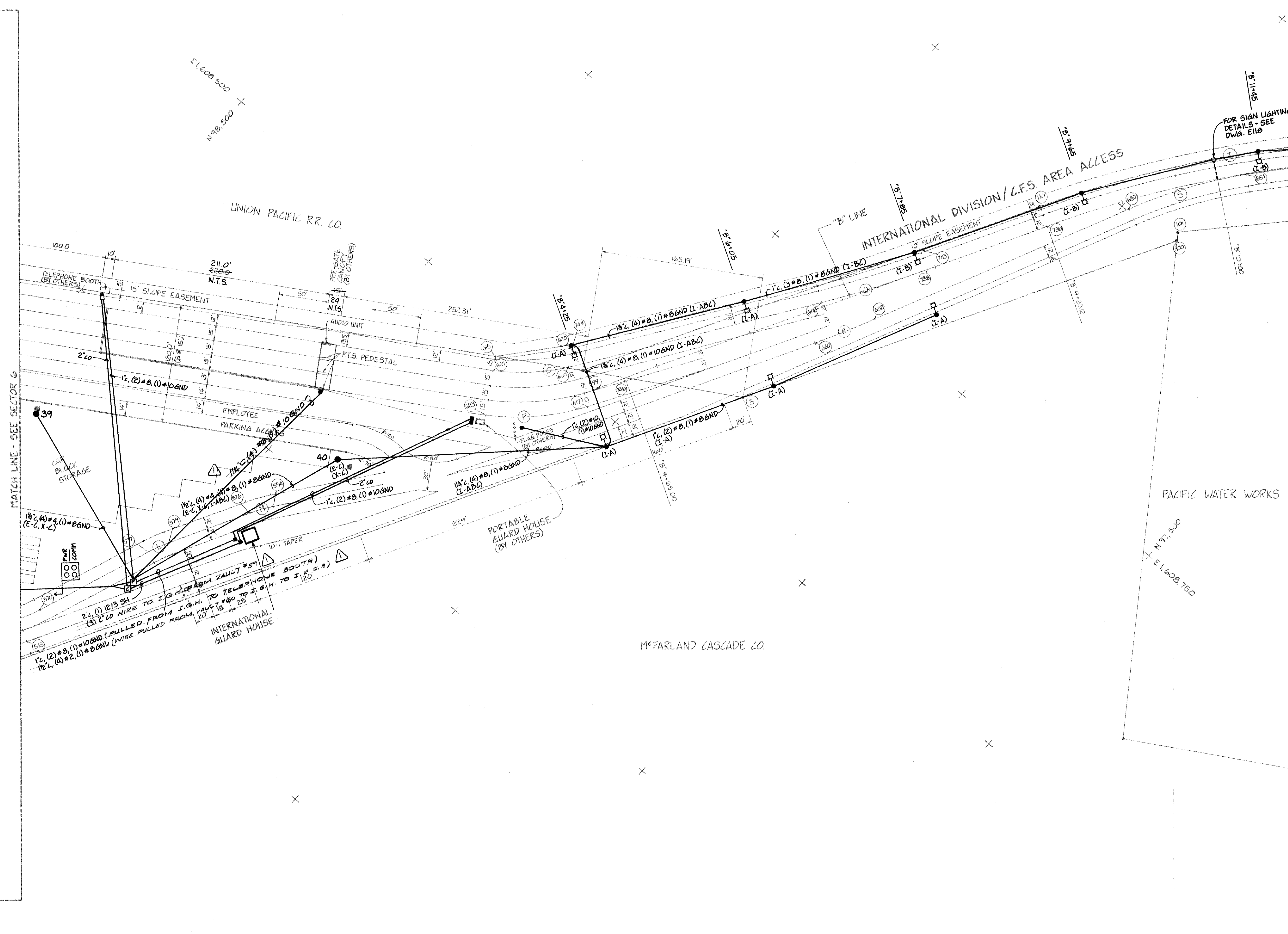
DRAWN RHT		DATE 5-31-84	
CHECKED JRC		DATE 5-31-84	
CHECKED P		DATE 5-31-84	
CONT. NO. 560			
FIELD BOOK (S)		SCALE AS NOTED	
APPROVED [Signature]		DRAWING NO.	
PROJECT MANAGER [Signature]		DATE 7/3/84	
CHIEF ENGINEER [Signature]		DATE 5/21/84	
		SHEET 53 OF 88	


PORT OF TACOMA
TACOMA TERMINALS, INC.
POWER, LIGHTING & COMMUNICATIONS PLAN



Whitacre Engineers, Inc.
Consulting Engineering & Land Planning
2725 15th, N.E. SEATTLE, WA 98105
TACOMA, WASHINGTON 98405 (206) 272-5144

MARK	REVISION	BY	APP.	DATE
1	REVISED TO AS SHOWN	W.E.		4/2/84

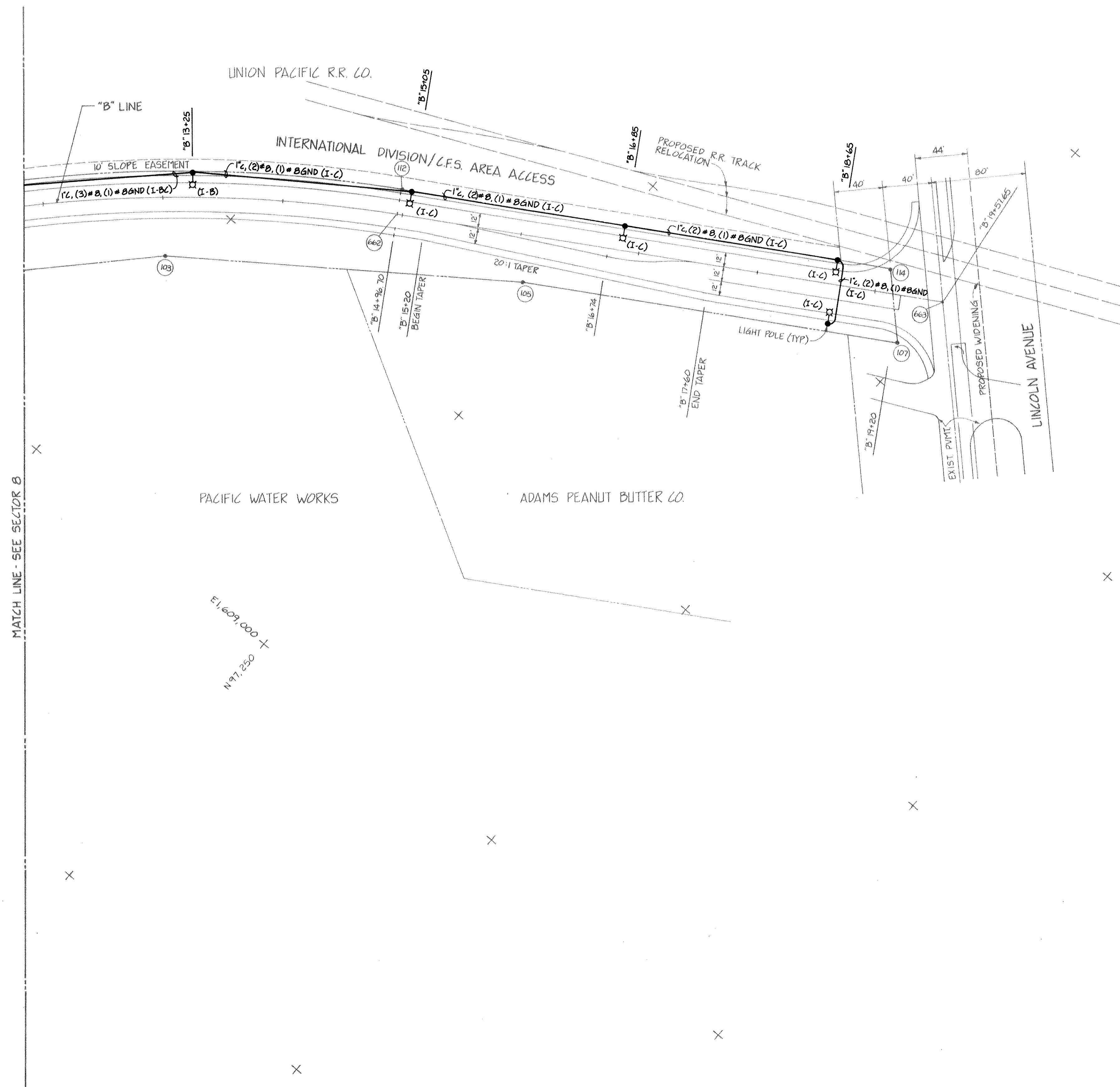


DRAWN <u>RHT</u>		PORT OF TACOMA	
DATE <u>5-31-84</u>			
CHECKED <u>RS</u>		TACOMA TERMINALS, INC.	
DATE <u>5-31-84</u>			
CHECKED <u>J</u>		POWER, LIGHTING & COMMUNICATIONS PLAN	
DATE <u>5-31-84</u>			
CONT. NO. <u>560</u>			
FIELD BOOK (S)		SCALE <u>AS NOTED</u>	
APPROVED 		DRAWING NO.	
PROJECT MANAGER		DATE <u>5/31/84</u>	
DATE <u>5/31/84</u>		EP-3880-23-E108	
SHEET <u>54</u> OF <u>88</u>			

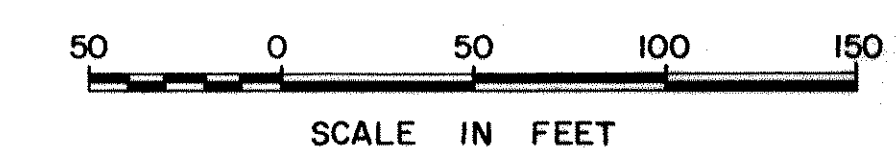
Whitacre Engineers, Inc.
Consulting Engineering & Land Planning
2124 SO. 'K' STREET P.O. BOX 5677
TACOMA, WASHINGTON 98404 PHONE 772-7444



⚠	REVISED TO AS-BUILT	R.J.S.	1/2	
MARK	REVISION	BY	APP	D



MATCH LINE - SEE SECTOR B

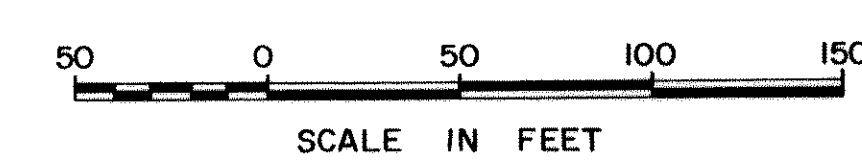
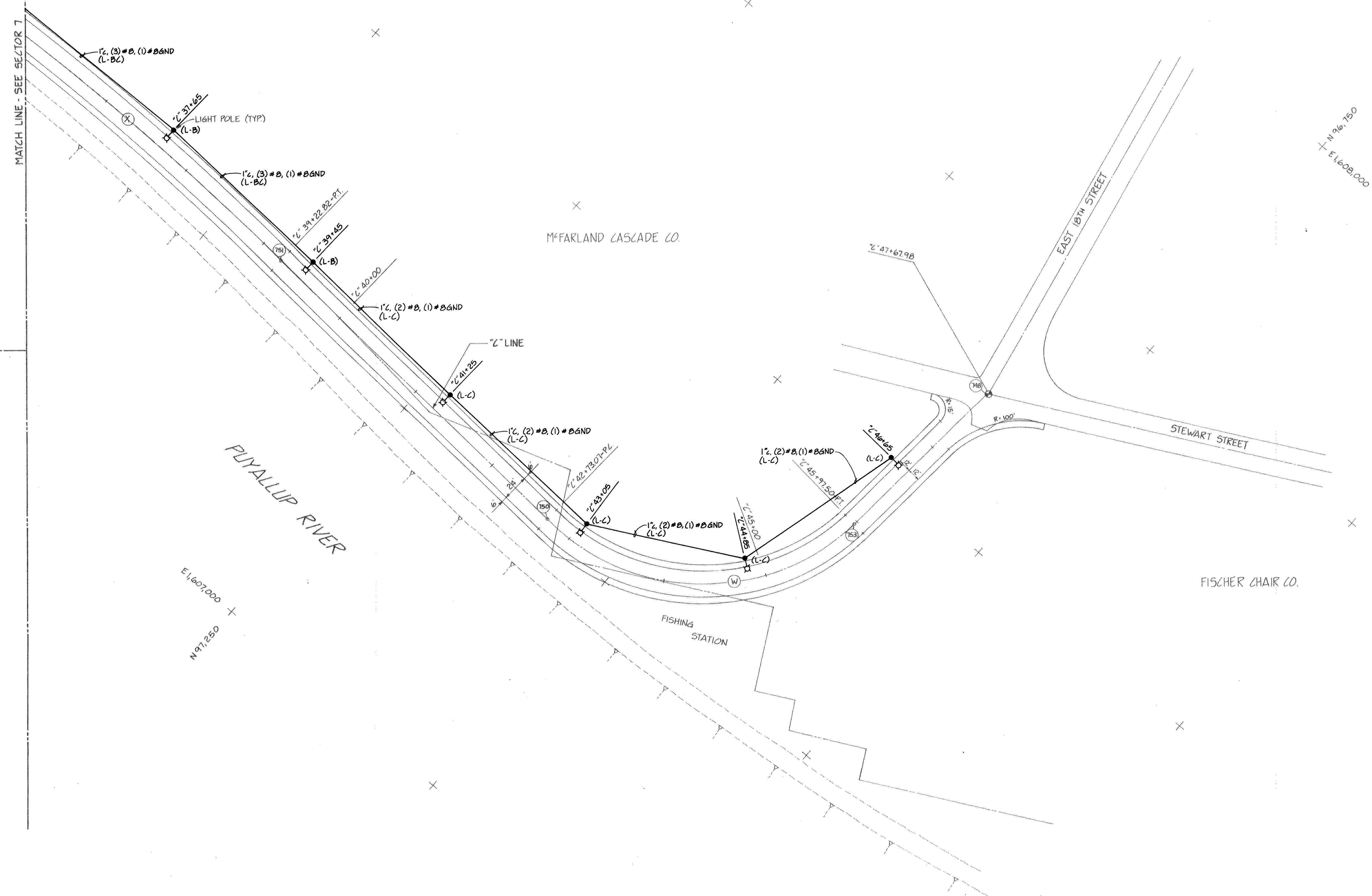
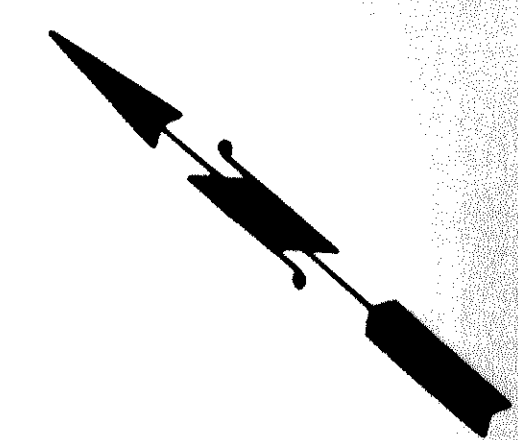


DRAWN RHT DATE 5-31-84 CHECKED [Signature] DATE 5-31-84 CHECKED [Signature] DATE 5-31-84 CONT. NO. 560		PORT OF TACOMA TACOMA TERMINALS, INC. POWER, LIGHTING & COMMUNICATIONS PLAN	
APPROVED [Signature] PROJECT MANAGER DATE 5/31/84 CHIEF ENGINEER		SCALE AS NOTED DRAWING NO. EP-3880-23-E109 SHEET 55 OF 88	

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 2124 SO. K STREET P.O. BOX 5677
 TACOMA, WASHINGTON 98405 (206) 372-5144



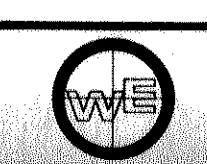
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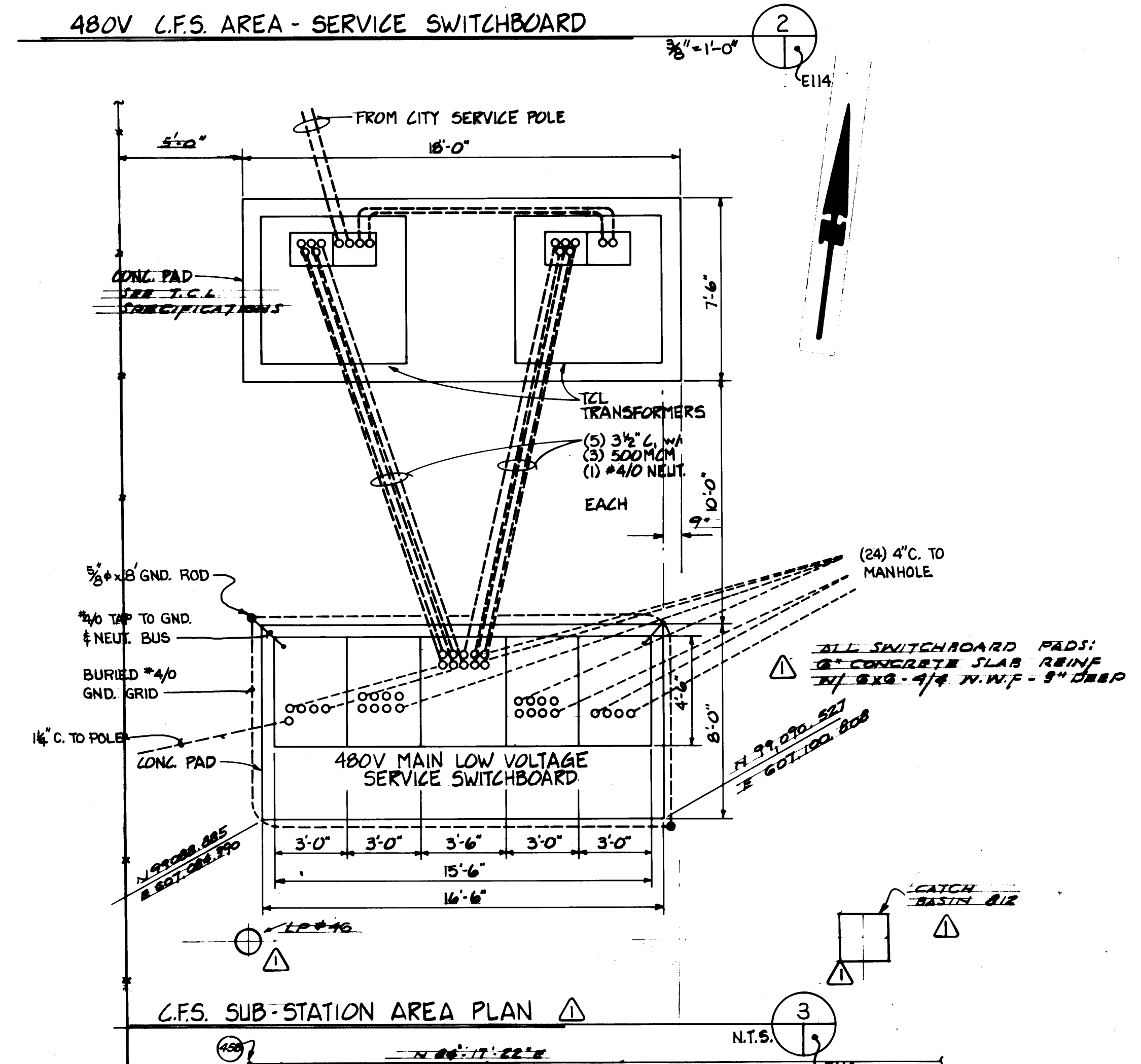
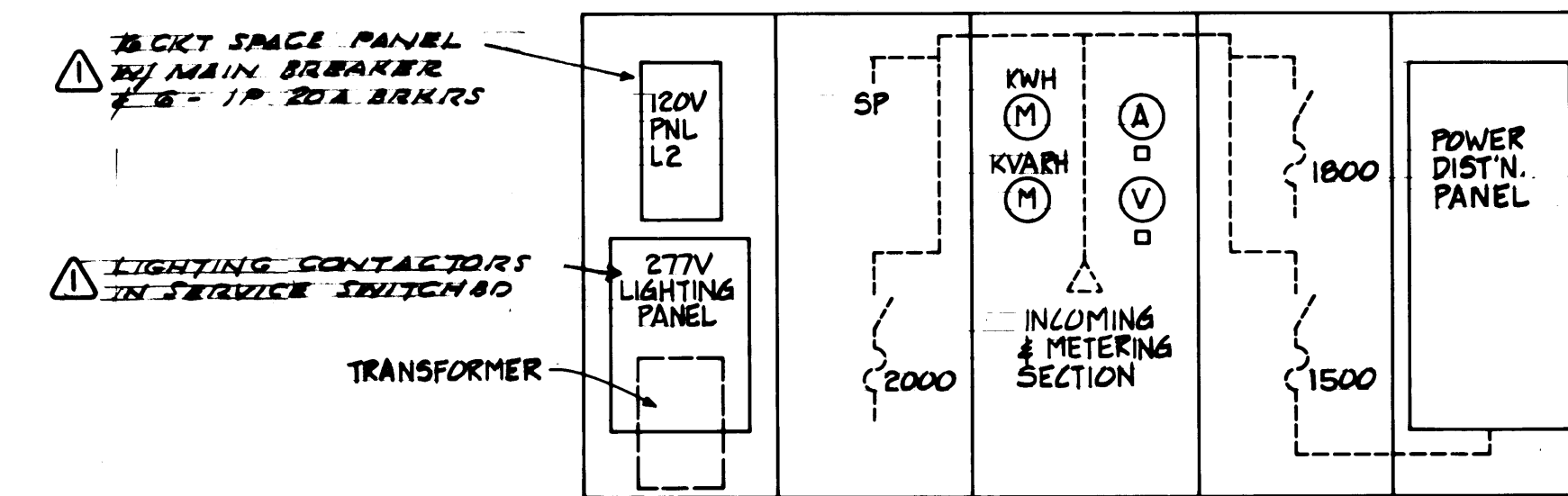
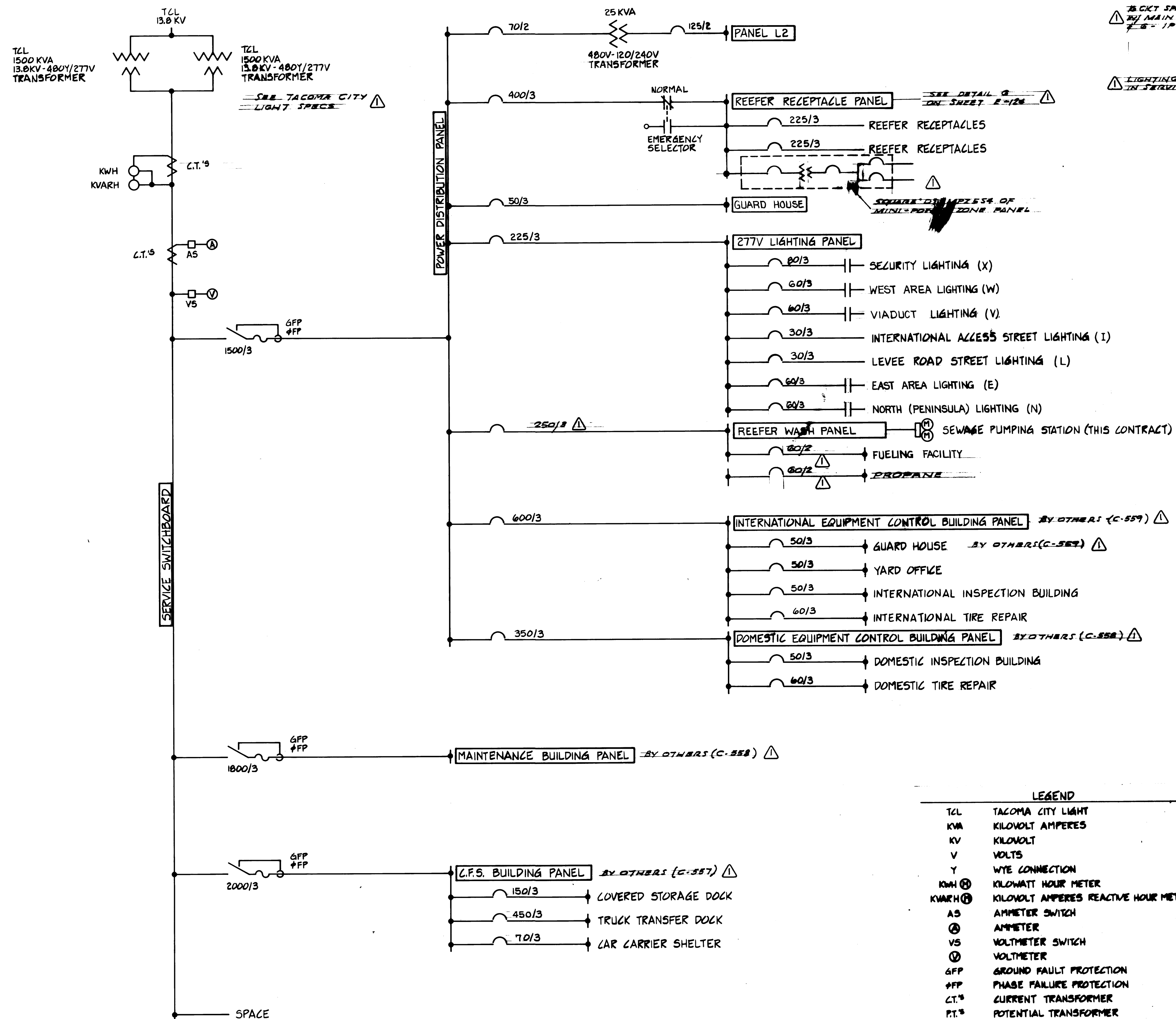
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DATE <u>5-31-84</u>			
CHECKED <u>JC</u>			
DATE <u>5-31-84</u>			
CHECKED <u>P</u>			
DATE <u>5-31-84</u>		CONT. NO. <u>560</u>	
FIELD BOOK (S)		SCALE <u>AS NOTED</u>	
APPROVED <u>[Signature]</u>		DRAWING NO. <u>EP-3880-23 E110</u>	
PROJECT MANAGER <u>[Signature]</u>		DATE <u>5/31/84</u>	
CHIEF ENGINEER <u>[Signature]</u>		SHEET <u>56</u> OF <u>88</u>	





Whitacre Engineers, Inc.
Consulting Engineering & Land Planning
2124 SO. "K" STREET P.O. BOX 5817
TACOMA, WASHINGTON 98405 (206) 272-5144

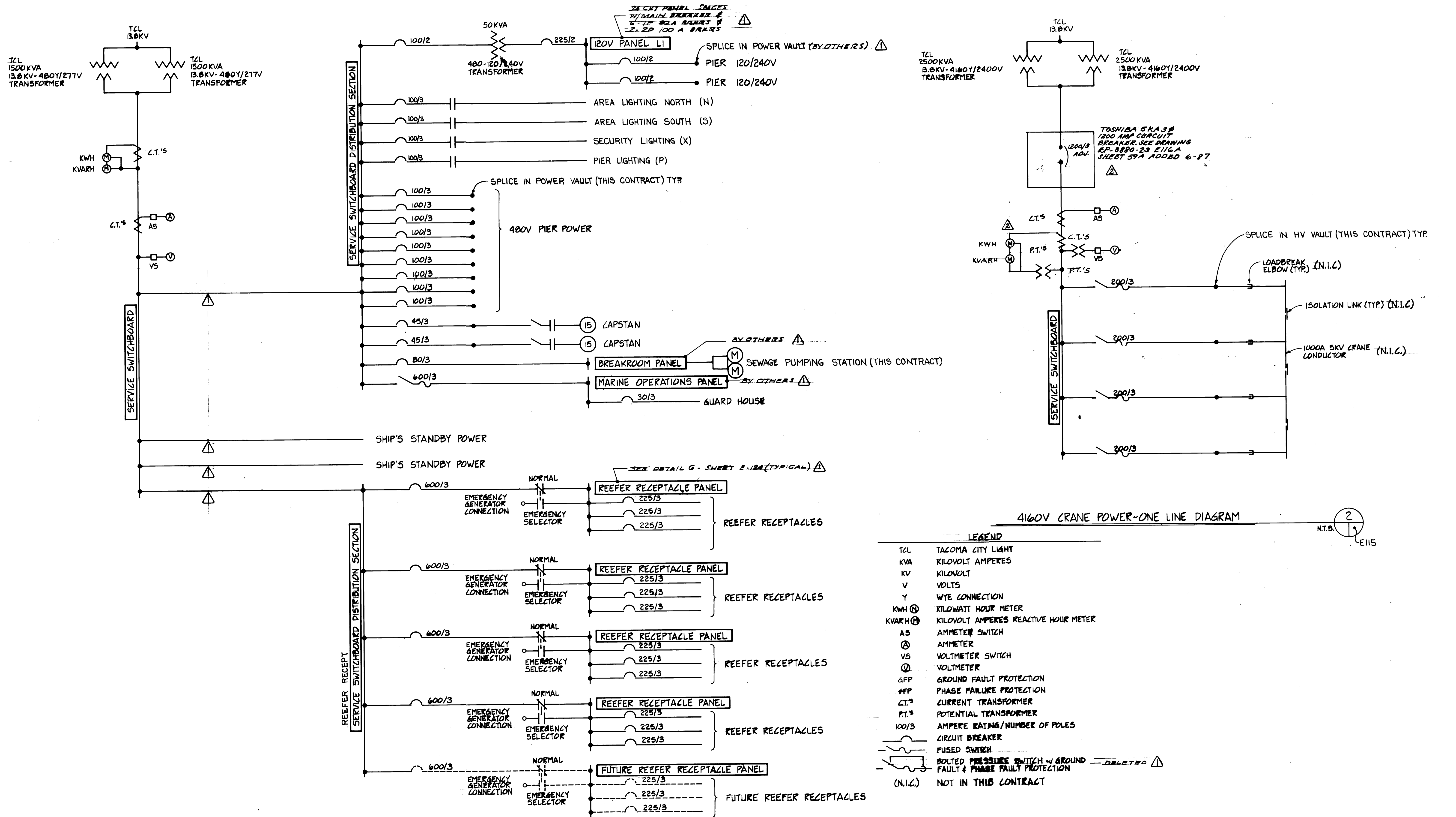


MARK	REVISION	BY	APP.	DATE
	NO AS-BUILTS REVISIONS	A.J.S.		



	LEGEND
TCL	TACOMA CITY LIGHT
KVA	KILOVOLT AMPERES
KV	KILOVOLT
V	VOLTS
Y	WYE CONNECTION
KWH Ⓜ	KILOWATT HOUR METER
KVARH Ⓜ	KILOVOLT AMPERES REACTIVE HOUR METER
AS	AMMETER SWITCH
Ⓜ	AMMETER
VS	VOLTMETER SWITCH
Ⓜ	VOLTMETER
GFP	GROUND FAULT PROTECTION
Ⓜ	PHASE FAILURE PROTECTION
CT. Ⓜ	CURRENT TRANSFORMER
PT. Ⓜ	POTENTIAL TRANSFORMER
100/3	AMPERE RATINGS/NUMBER OF POLES
	CIRCUIT BREAKER
	FUSED SWITCH
	BOLTED PRESSURE SWITCH w/ GROUND FAULT & PHASE FAULT PROTECTION
(N.I.L.)	NOT IN THIS CONTRACT

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DRAWN	<u>RY</u>														
DATE	<u>5/23/04</u>														
CHECKED	<u>PC</u>														
DATE	<u>5/23/04</u>														
CHECKED	<u>P</u>														
DATE	<u>5-31-04</u>														
CONT. NO.	<u>560</u>														
FIELD BOOK (S) APPROVED <u>[Signature]</u> <u>5/31/04</u> PROJECT MANAGER <u>[Signature]</u> DATE <u>5/31/04</u> CREDIT OFFER <u>[Signature]</u> DATE <u>5/31/04</u>	SCALE. AS NOTED DRAWING NO. EP-3000-23-E114 SHEET 57 OF 88														

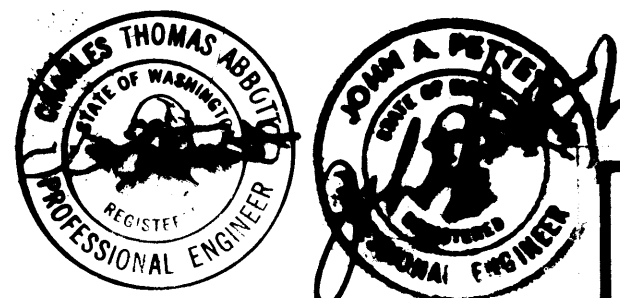


480V MARINE TERMINAL ~ ONE LINE DIAGRAM

4160V CRANE POWER~ONE LINE DIAGRAM

N.T.S. 1/2 E115

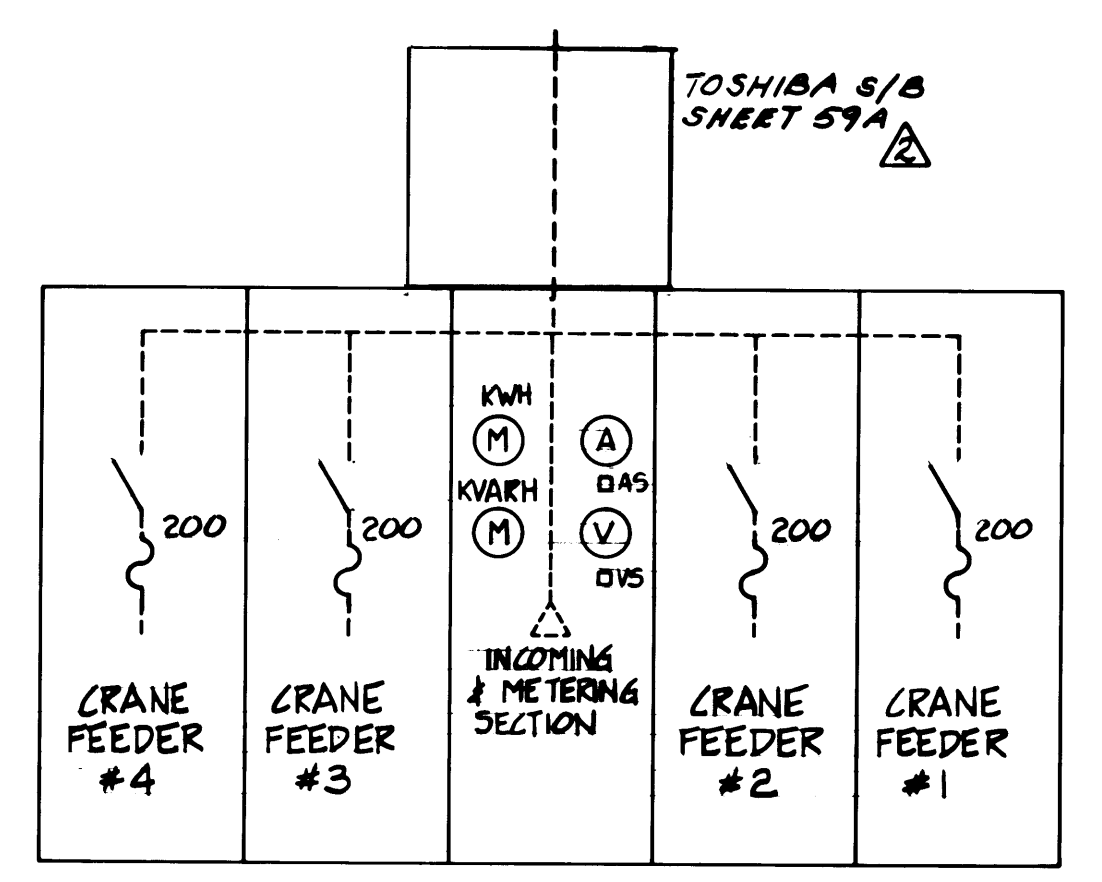
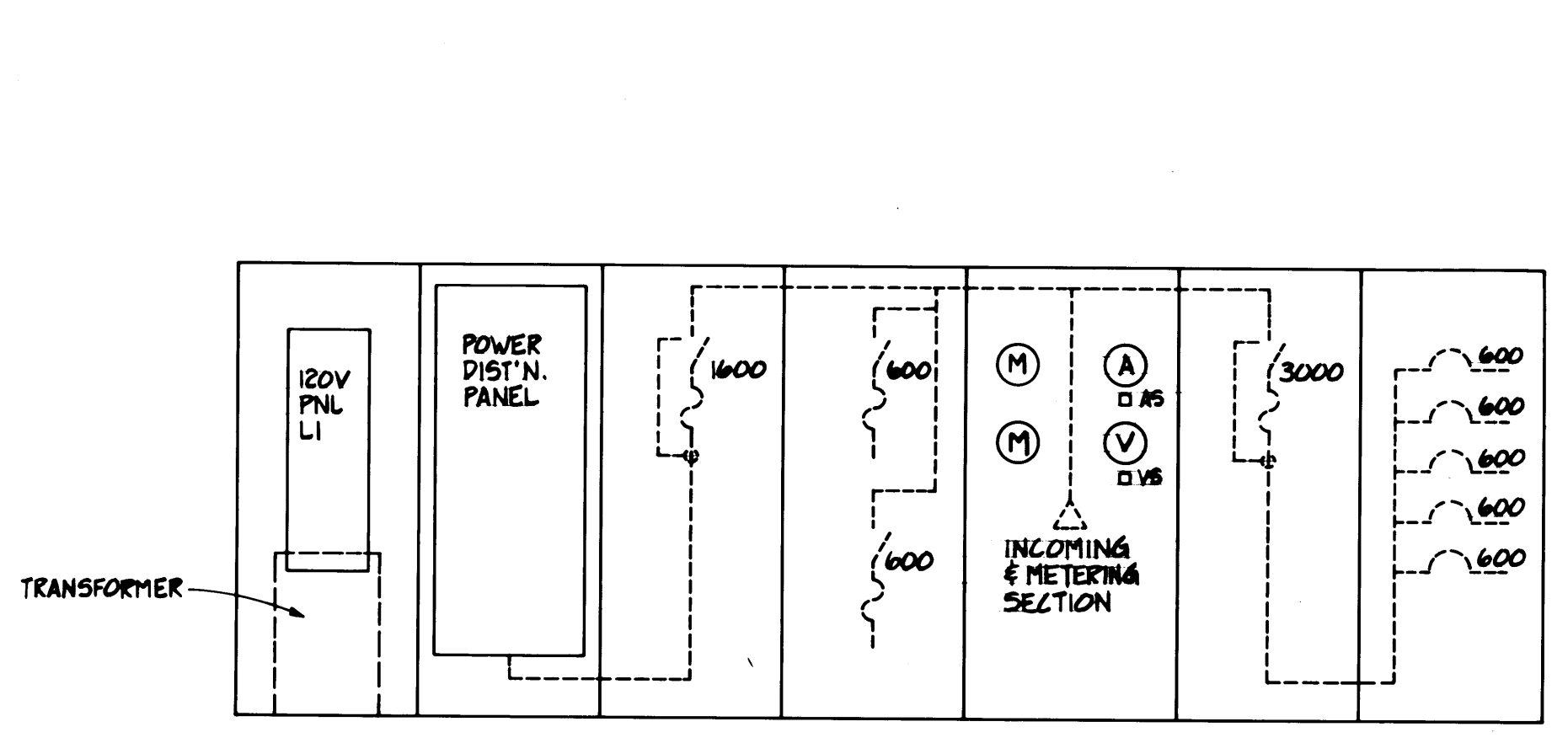
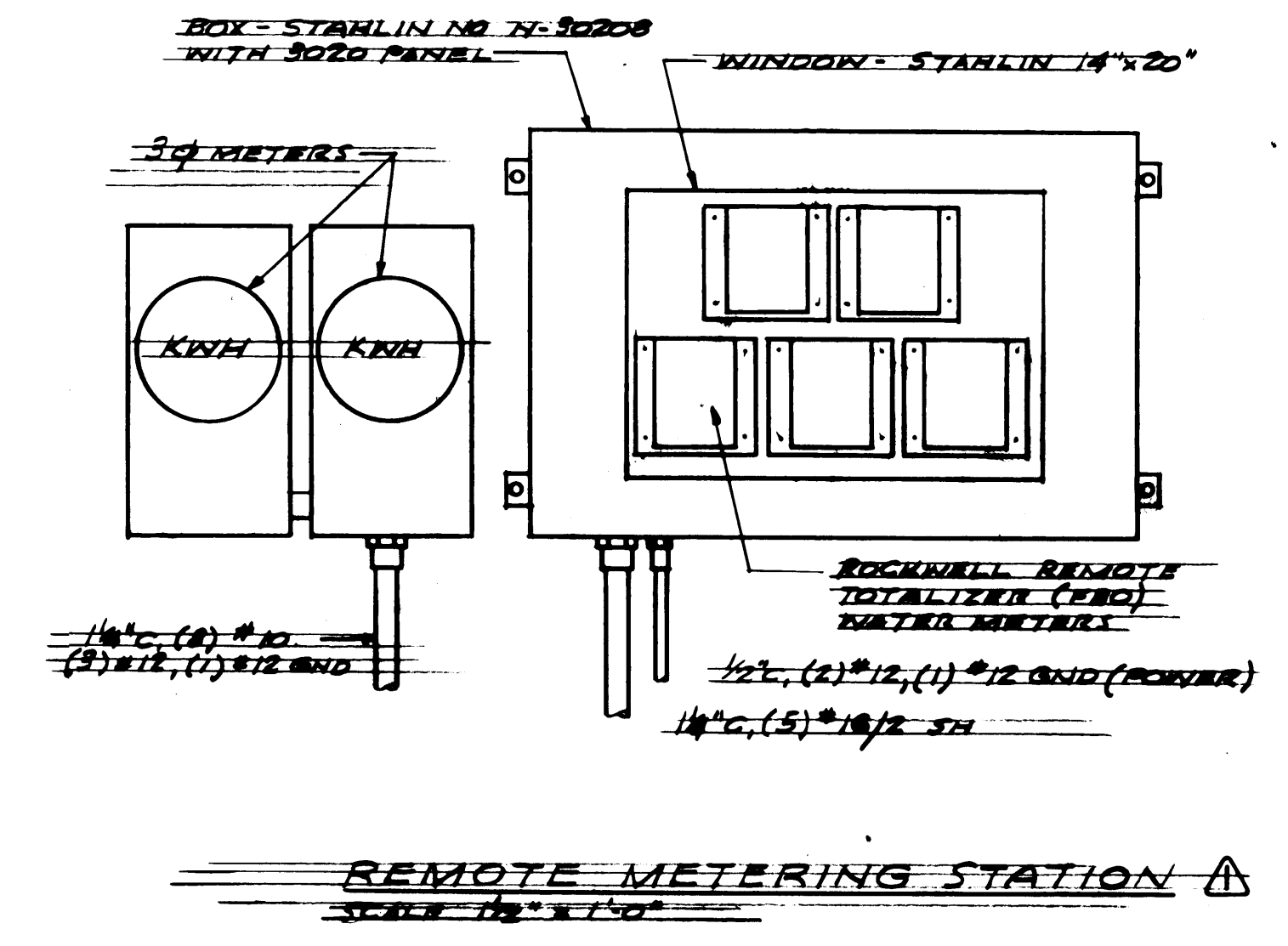
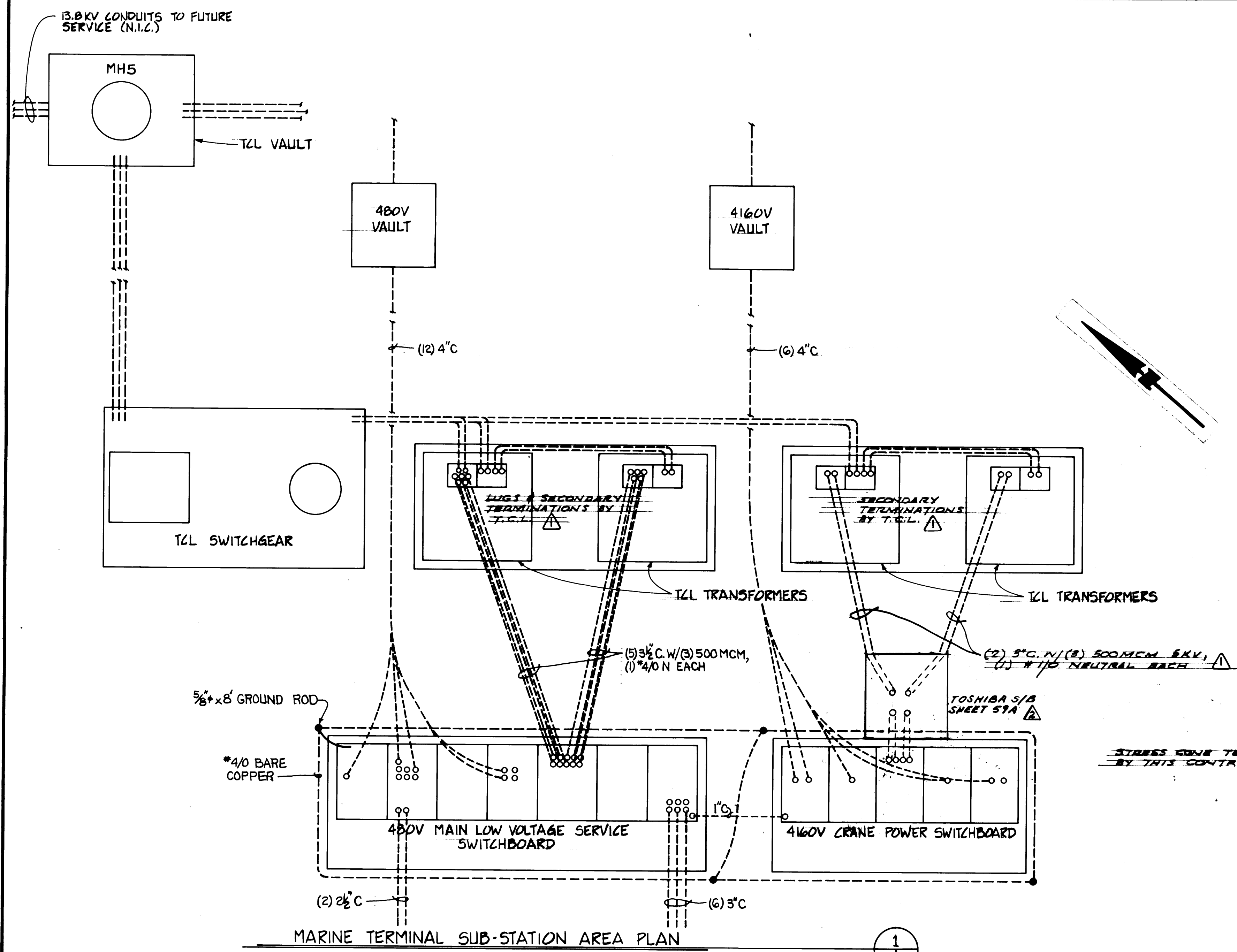
N.T.S. 2/2 E115



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Consulting Engineering & Land Planning
2124 SO. N. STREET P.O. BOX 9677
TACOMA, WASHINGTON 98406 (206) 272-9444

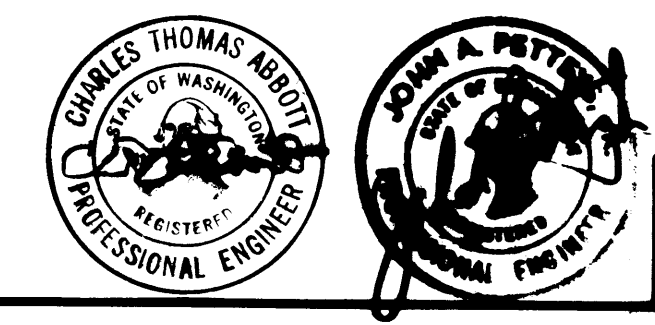
MARK	REVISION	BY	APP.	DATE
1	REVISED 1200 AMP CIRCUIT	D.M.		3-31-84
2	REVISED TO AS BUILT	R.J.S.		11-25-88

DRAWN: JST DATE: 3/23/84		APPROVED: [Signature] DATE: 5/31/84	
CHECKED: JTC DATE: 3/23/84		PROJECT NUMBER: EP-3880-23 DATE: 5/31/84	
CHECKED: P DATE: 5-31-84		SHEET: 58 OF 88	
CONT. NO. 560		SCALE: NONE	
FIELD BOOK (S)		DRAWING NO. EP-3880-23-E115	



- LEGEND
- TCL TACOMA CITY LIGHT
 - KVA KILOVOLT AMPERES
 - KV KILOVOLT
 - V VOLTS
 - Y WYE CONNECTION
 - KWH KILOWATT HOUR METER
 - KVARH KILOWATT AMPERES REACTIVE HOUR METER
 - AS AMPHETER SWITCH
 - A AMPHETER
 - VS VOLTMETER SWITCH
 - V VOLTMETER
 - GFP GROUND FAULT PROTECTION
 - FPF PHASE FAILURE PROTECTION
 - CT. CURRENT TRANSFORMER
 - PT. POTENTIAL TRANSFORMER
 - 100/3 AMPERE RATING/NUMBER OF POLES
 - CIRCUIT BREAKER
 - FUSED SWITCH
 - BOLTED PRESSURE SWITCH w/ GROUND FAULT & PHASE FAULT PROTECTION (N.I.C.) NOT IN THIS CONTRACT

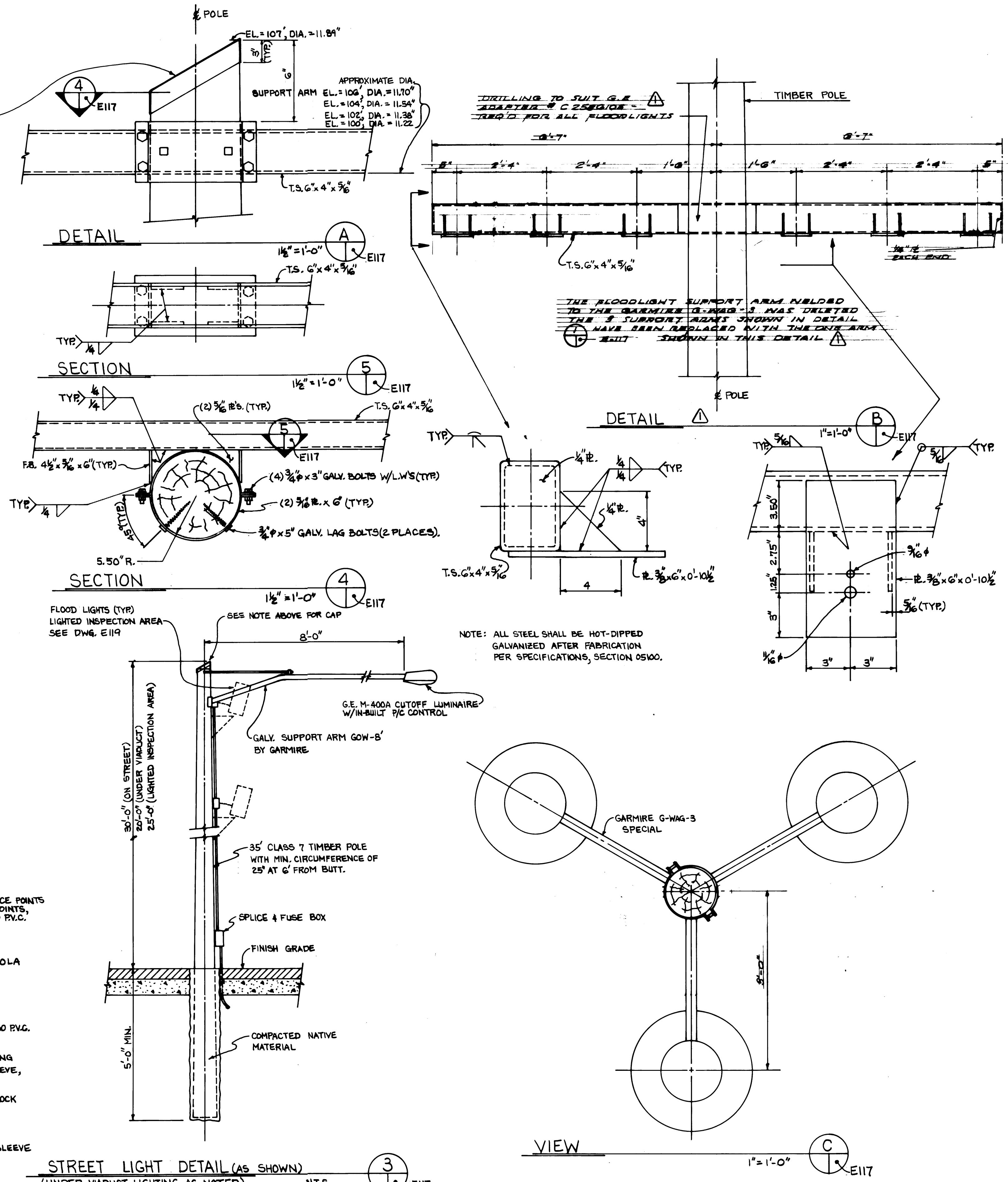
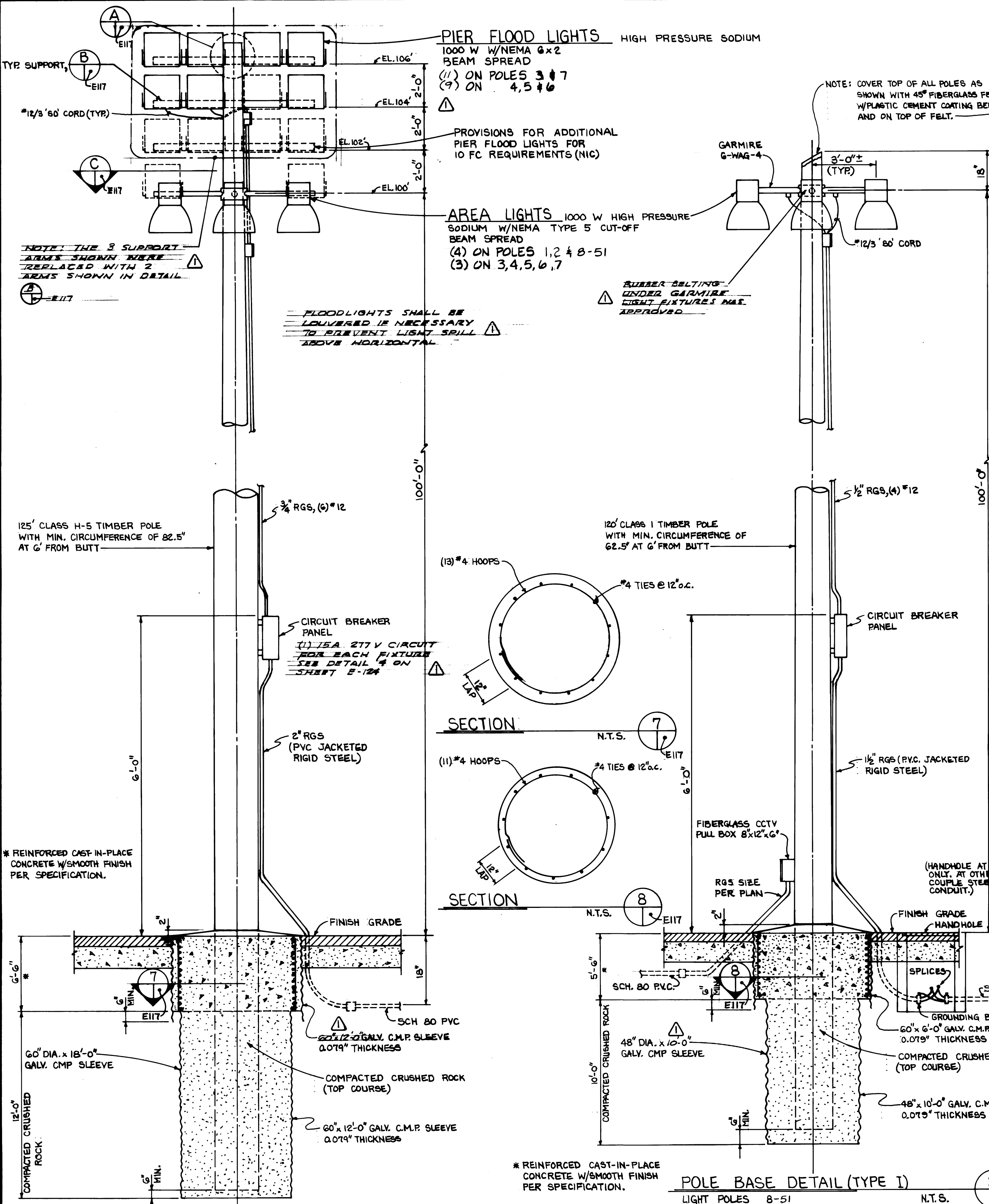
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CHECKED: JC DATE: 3/23/84		MARINE TERMINAL AND CRANE POWER SERVICE DETAILS	
CHECKED: [Signature] DATE: 5/21/84		CONT. NO. 560	
FIELD BOOK (S)		SCALE: AS NOTED	
APPROVED: [Signature] DATE: 5/31/84		DRAWING NO. EP-3880-23-E116	
PROJECT MANAGER: [Signature] DATE: 5/21/84		SHEET: 59 OF 88	



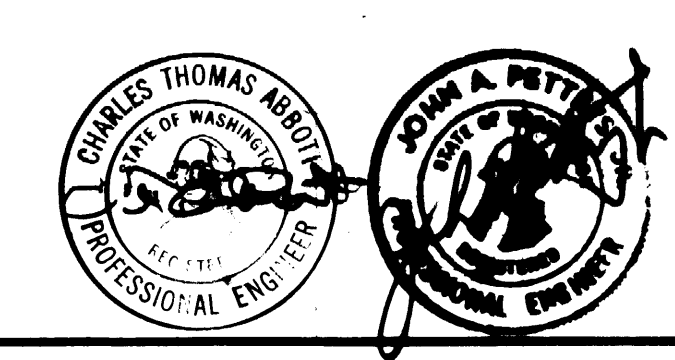
Whitacre Engineers, Inc.
Consulting Engineering & Land Planning
204 SO. 1st STREET P.O. BOX 1077
TACOMA, WASHINGTON 98402 (206) 272-8444



REVISION	BY	APP.	DATE
REVISED TOSHIBA S/B	D.W.		1-31-88
REVISED TO AS-BUILT	A.L.B.		11-28-88

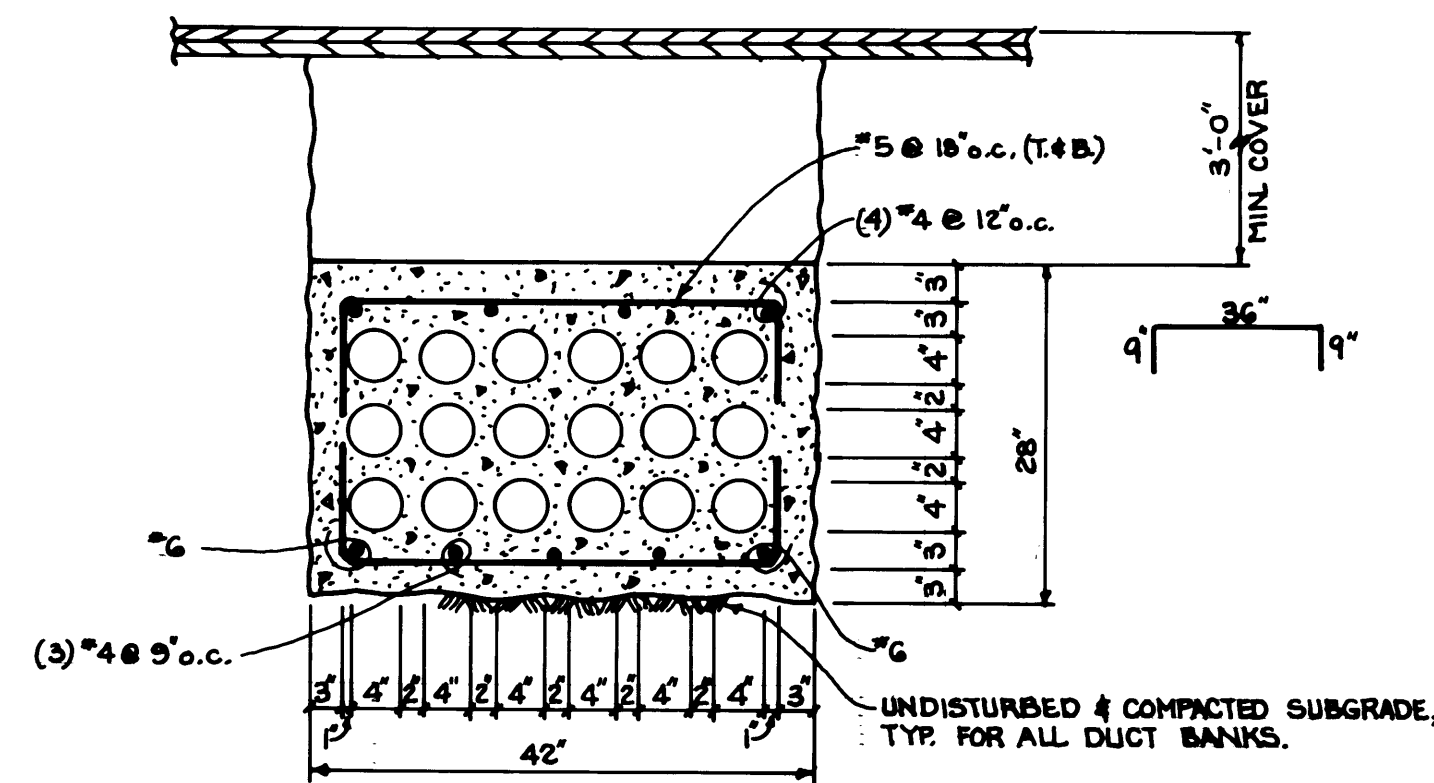


DRAWN B.C. DATE 5-12-84		PORT OF TACOMA	
CHECKED [Signature] DATE 5-31-84		TACOMA TERMINALS, INC.	
CHECKED [Signature] DATE 5-31-84		LIGHTING DETAILS	
CONT. NO. 560		SCALE AS NOTED	
FIELD BOOK (S)		DRAWING NO.	
APPROVED [Signature] DATE 5/31/84		EP-3880-23-E117	
PROJECT MANAGER [Signature]		SHEET 60 OF 88	
DATE 5/31/84			

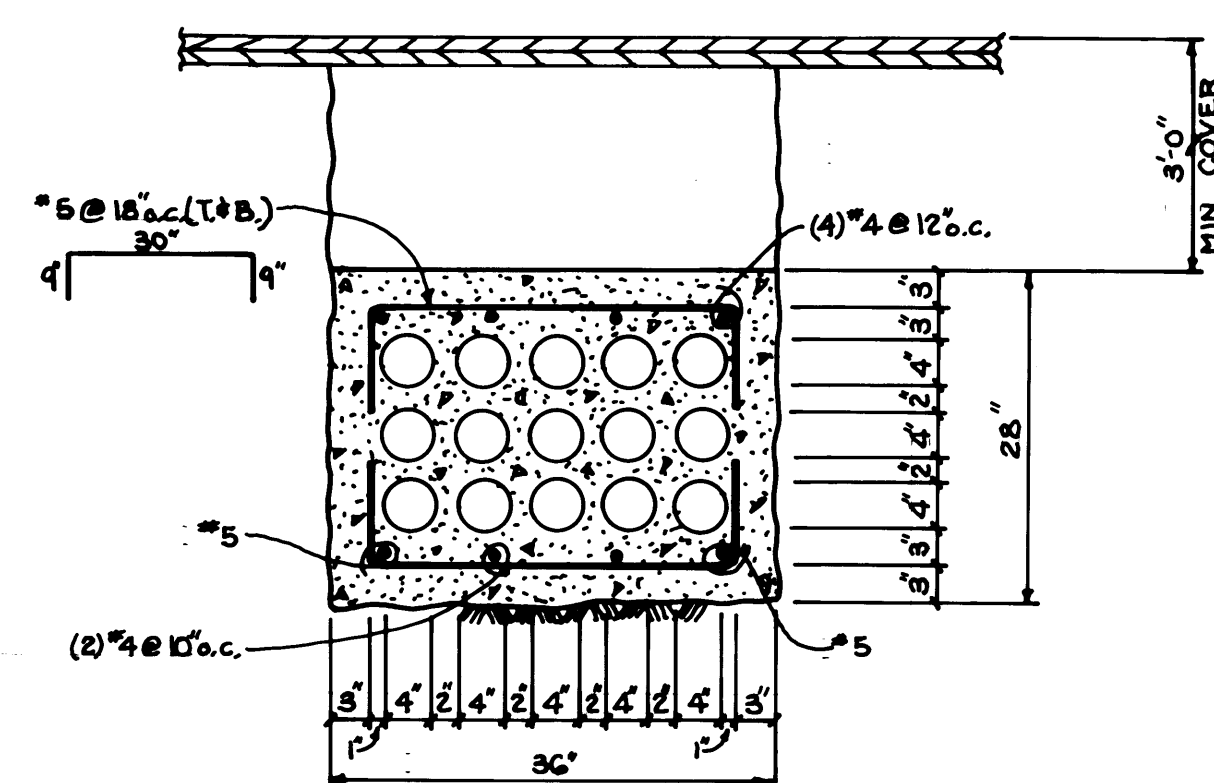


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Consulting Engineering & Land Planning
2124 SO. 1ST STREET, P.O. BOX 8877
TACOMA, WASHINGTON 98406 (206) 272-2444

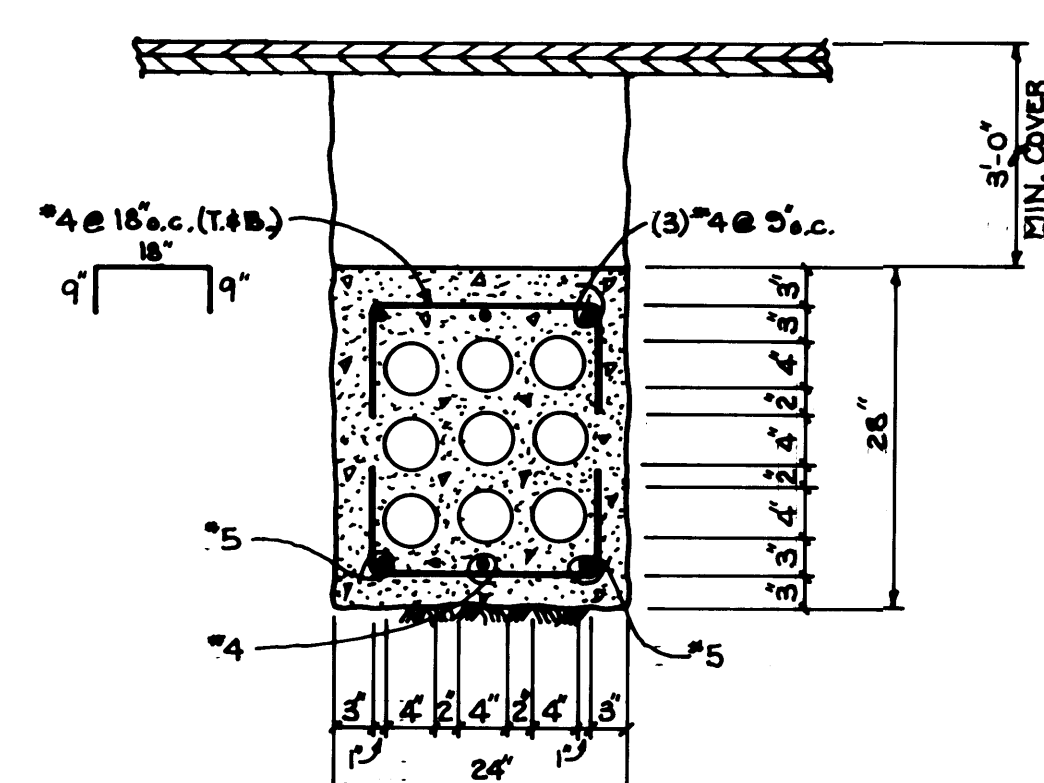
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REVISED TO AS BUILT	[Signature]	[Signature]	5/31/84



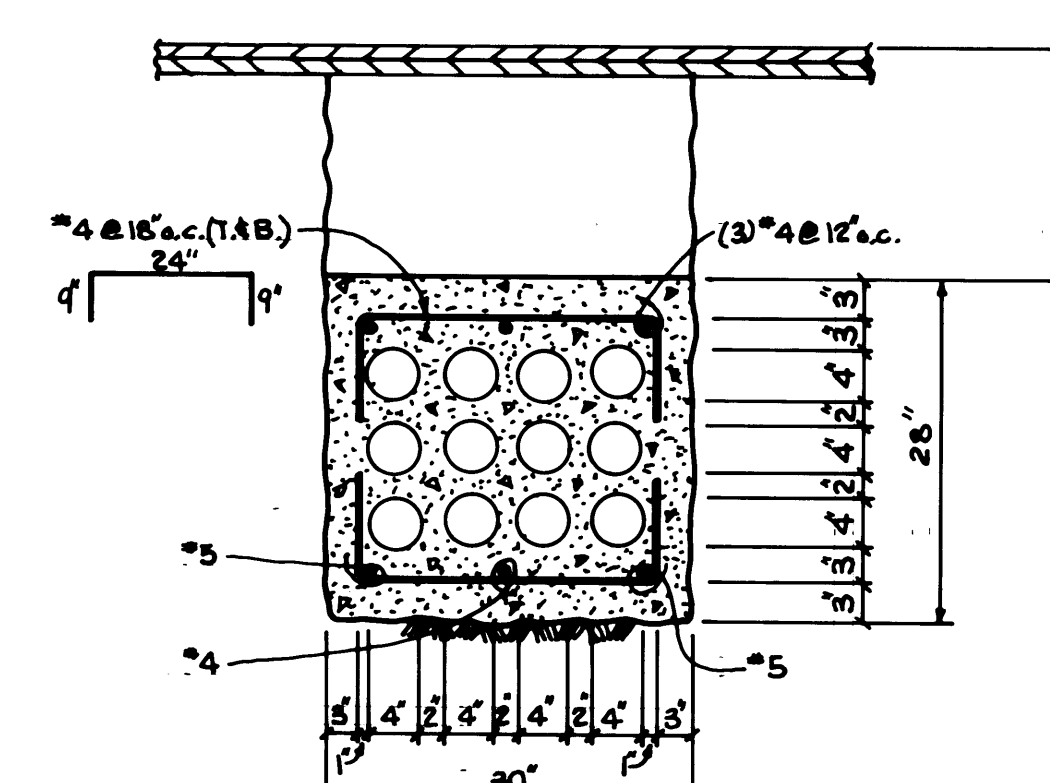
SECTION 1
3/4" = 1'-0" E118



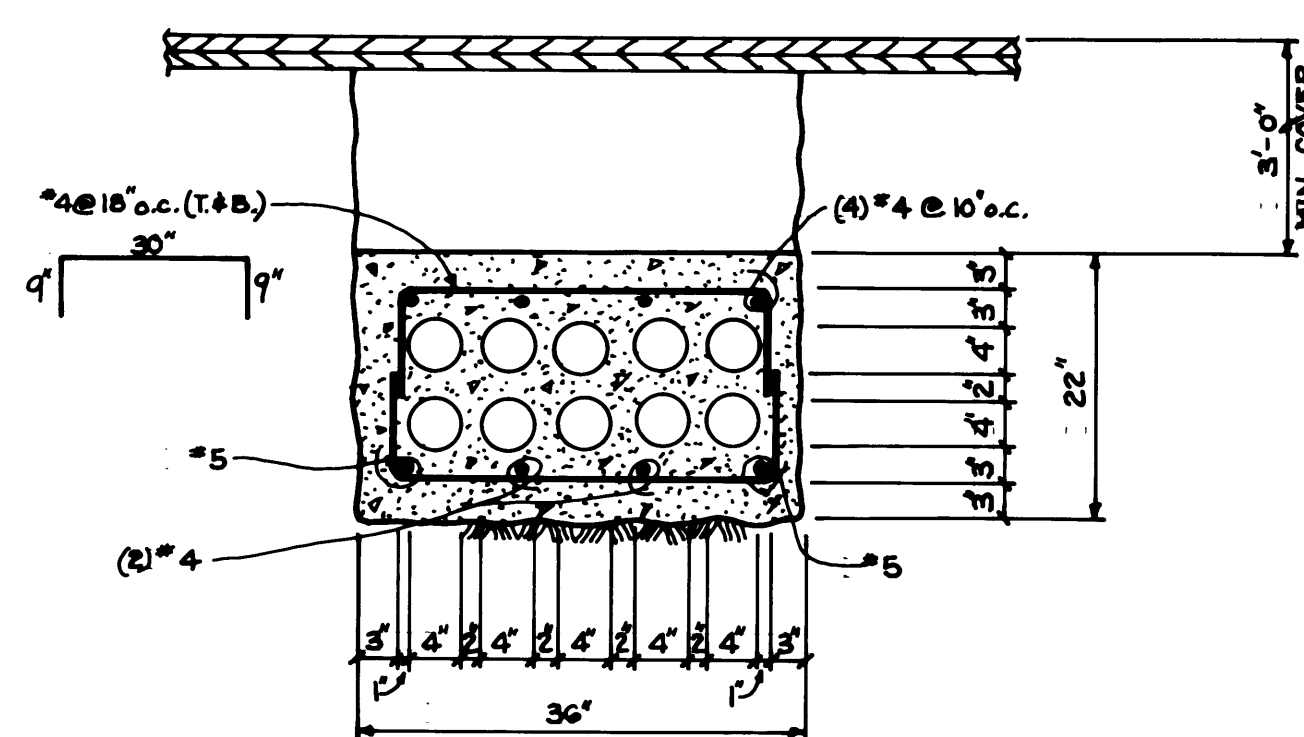
SECTION 2
3/4" = 1'-0" E118



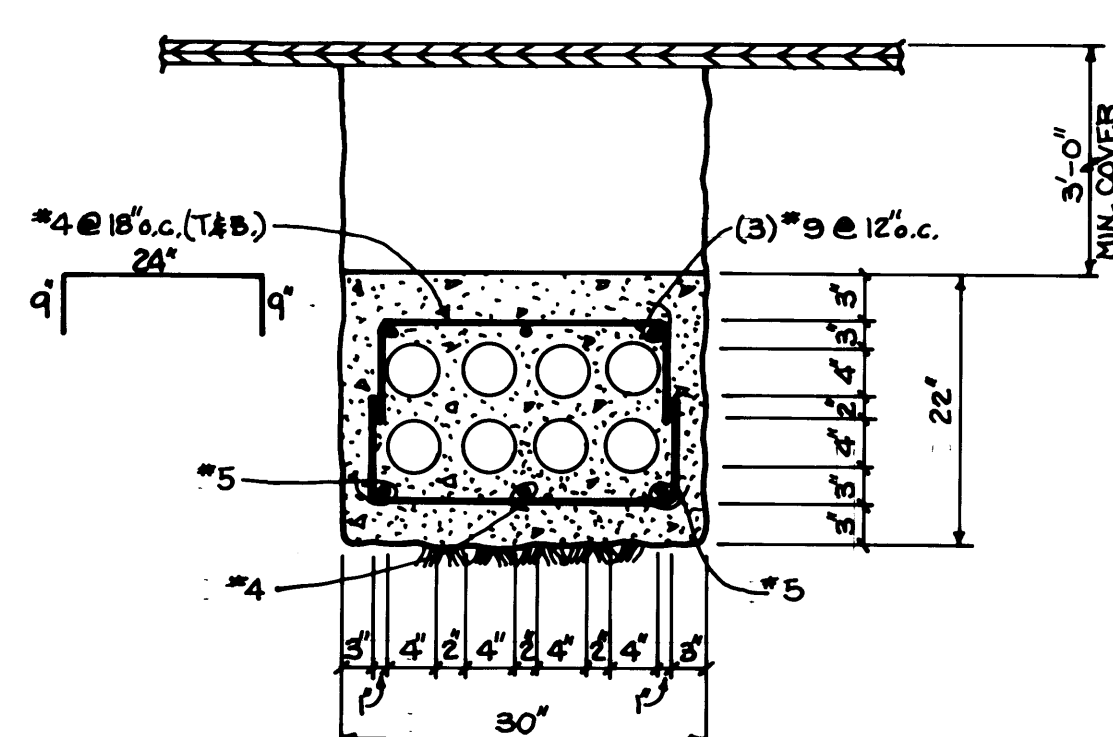
SECTION 3
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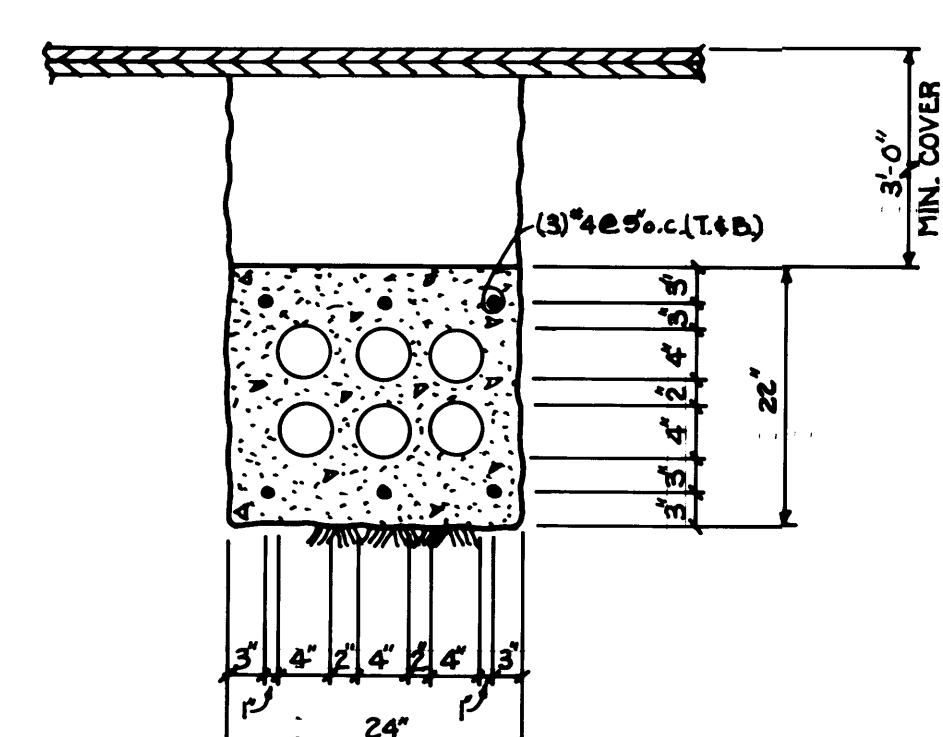
SECTION 4
3/4" = 1'-0" E118



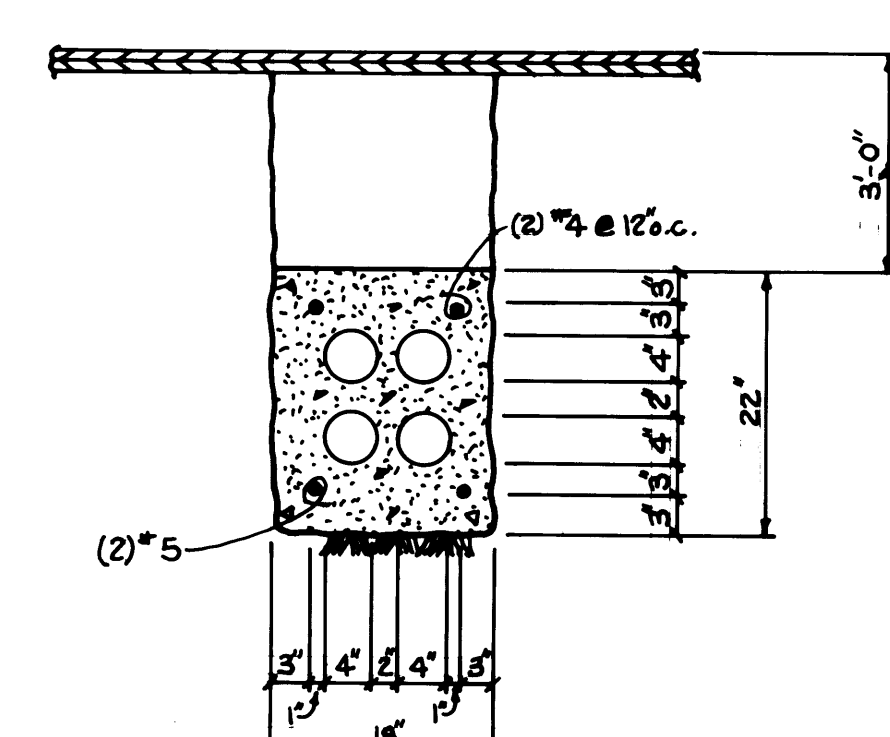
SECTION 5
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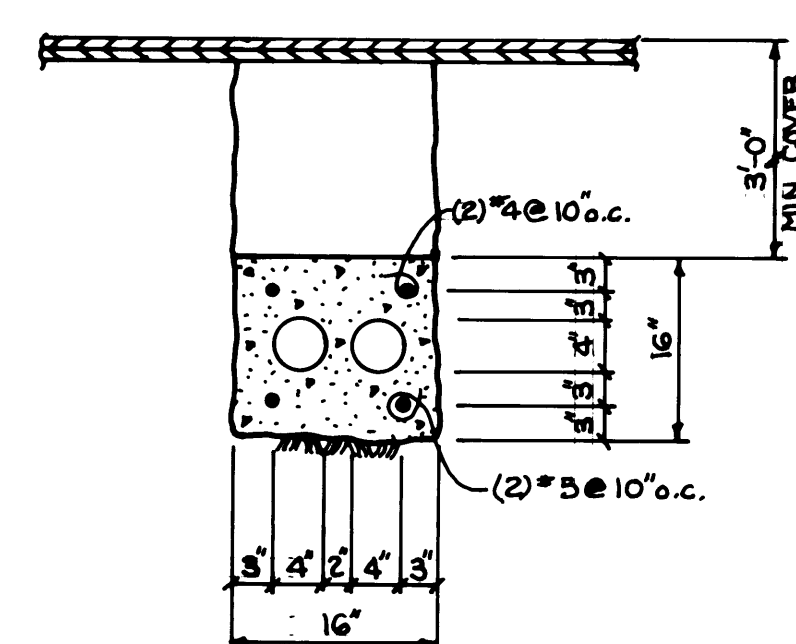
SECTION 6
3/4" = 1'-0" E118



SECTION 7
3/4" = 1'-0" E118

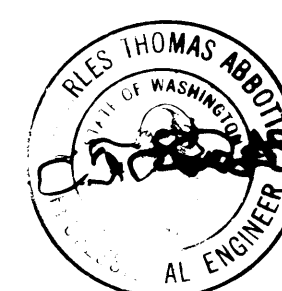


SECTION 8
3/4" = 1'-0" E118



SECTION 9
3/4" = 1'-0" E118

- NOTES:
- 1) THE TRENCH BEDDING AND BACKFILL SHALL BE MECHANICALLY COMPACTED TO 90% DENSITY PER SPECIFICATIONS, SECTION 02200.
 - 2) CONCRETE SHALL BE 3000 PSI PER SPECIFICATIONS, SECTION 03300.
 - 3) ALL REINFORCING SHALL BE GRADE 60.
 - 4) ALL CONDUIT SHALL BE 4" TYPE "EB" PVC PER SPECIFICATIONS, DIVISION 16.
 - 5) ADD ONE GALLON OF RED DYE PER CUBIC YARD MIXED IN THE TRUCK.



Whitacre Engineers, Inc.
Consulting Engineering & Land Planning
204 SO. Y. STREET, P.O. BOX 3177
TACOMA, WASHINGTON 98402 252-377-2444



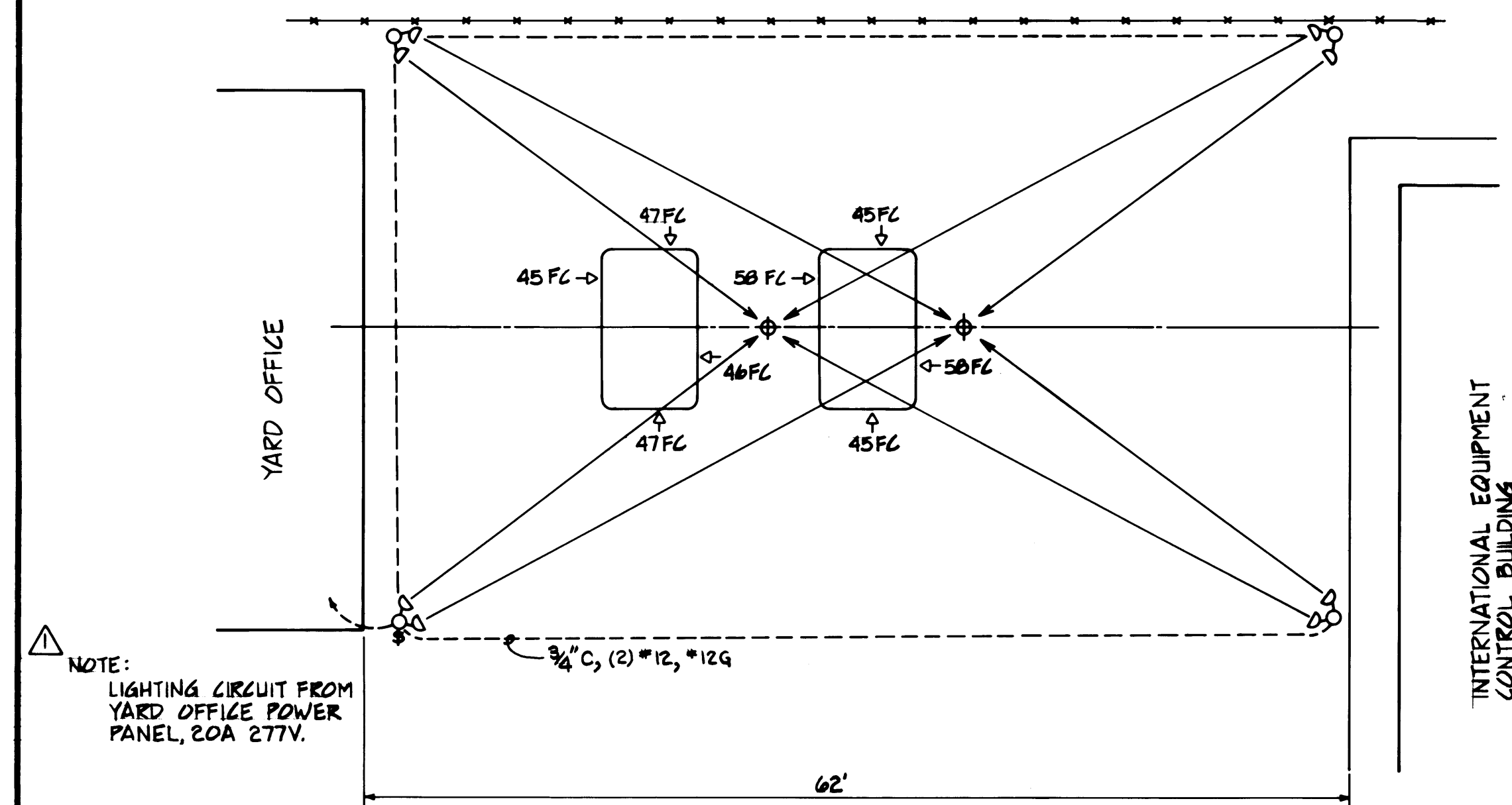
REVISION	BY	APP.	DATE
NO AS-BUILT REVISION			

DRAWN	B.C.
DATE	5/31/84
CHECKED	GC
DATE	5-31-84
CHECKED	P
DATE	5-31-84
CONT. NO.	560

PORT OF TACOMA
TACOMA TERMINALS, INC.
DUCT BANK DETAILS

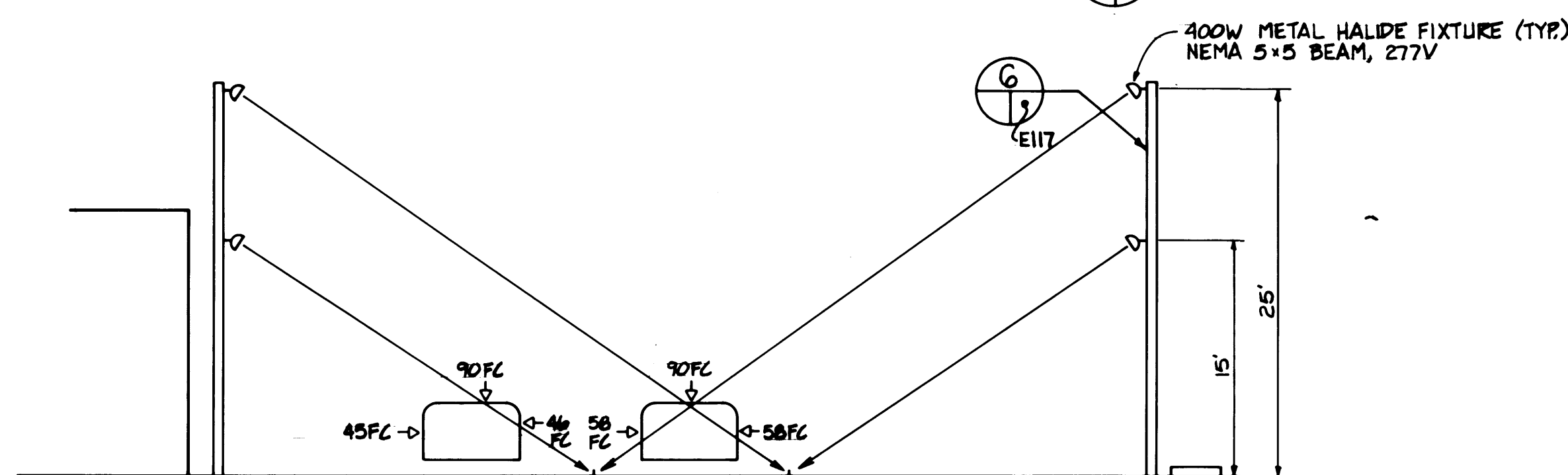
APPROVED	5/31/84
PROJECT MANAGER	DATE
CHIEF ENGINEER	DATE

SCALE	AS NOTED
DRAWING NO.	EP-3000-21-E118
SHEET	61 OF 88



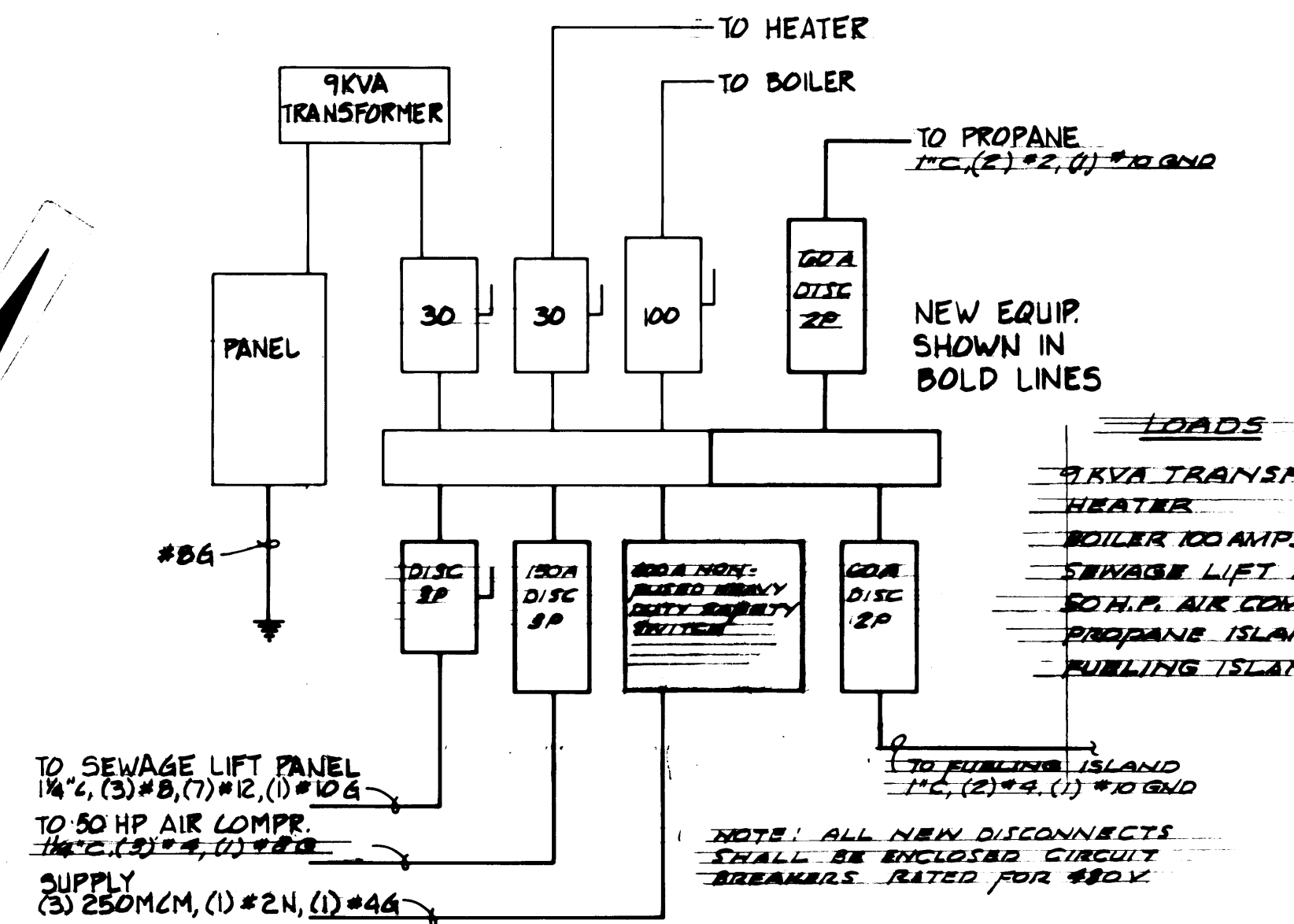
PLAN - LIGHTED INSPECTION AREA

1/8" = 1'-0" E119



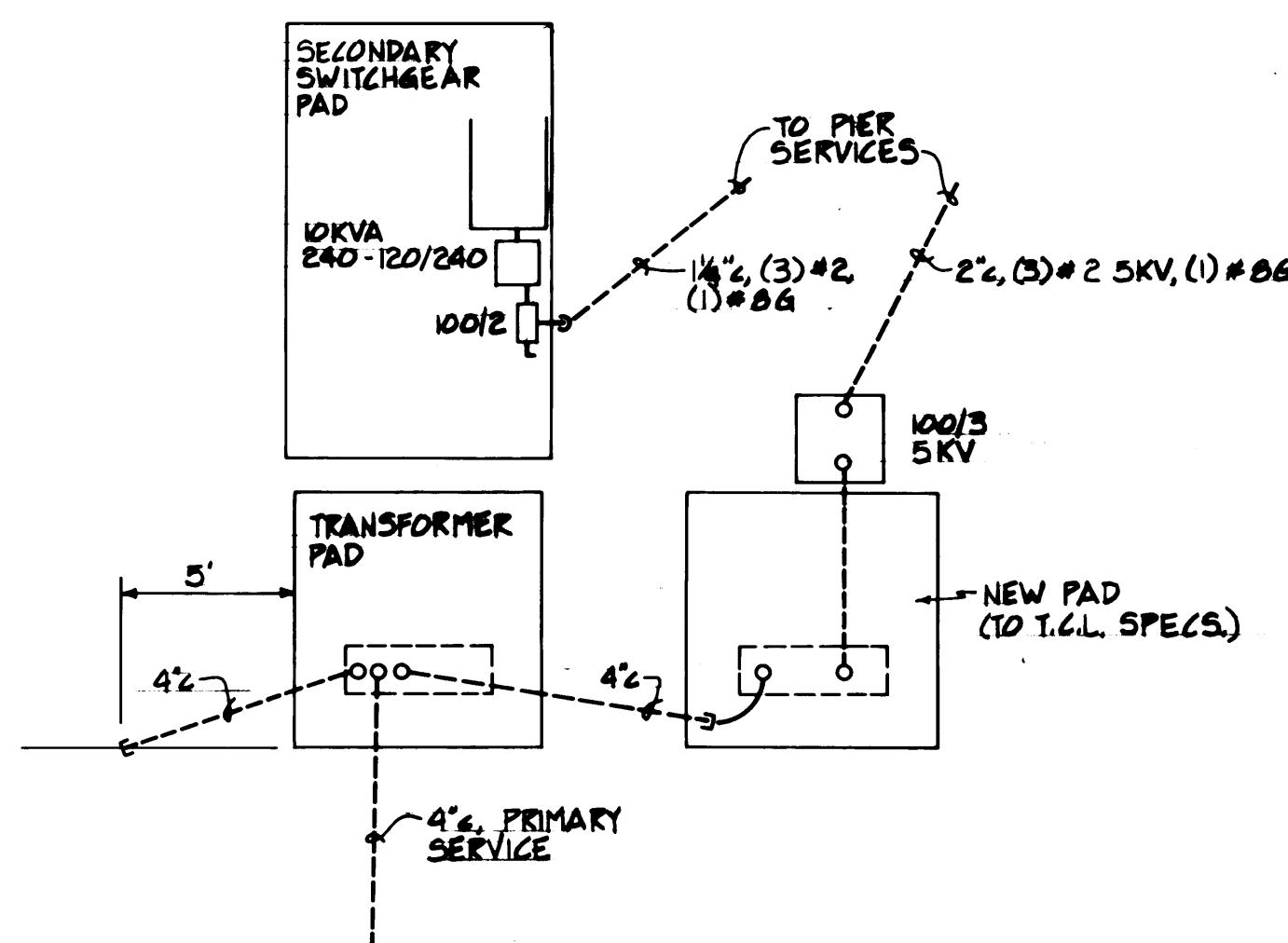
ELEVATION - LIGHTED INSPECTION AREA

2/8" = 1'-0" E119



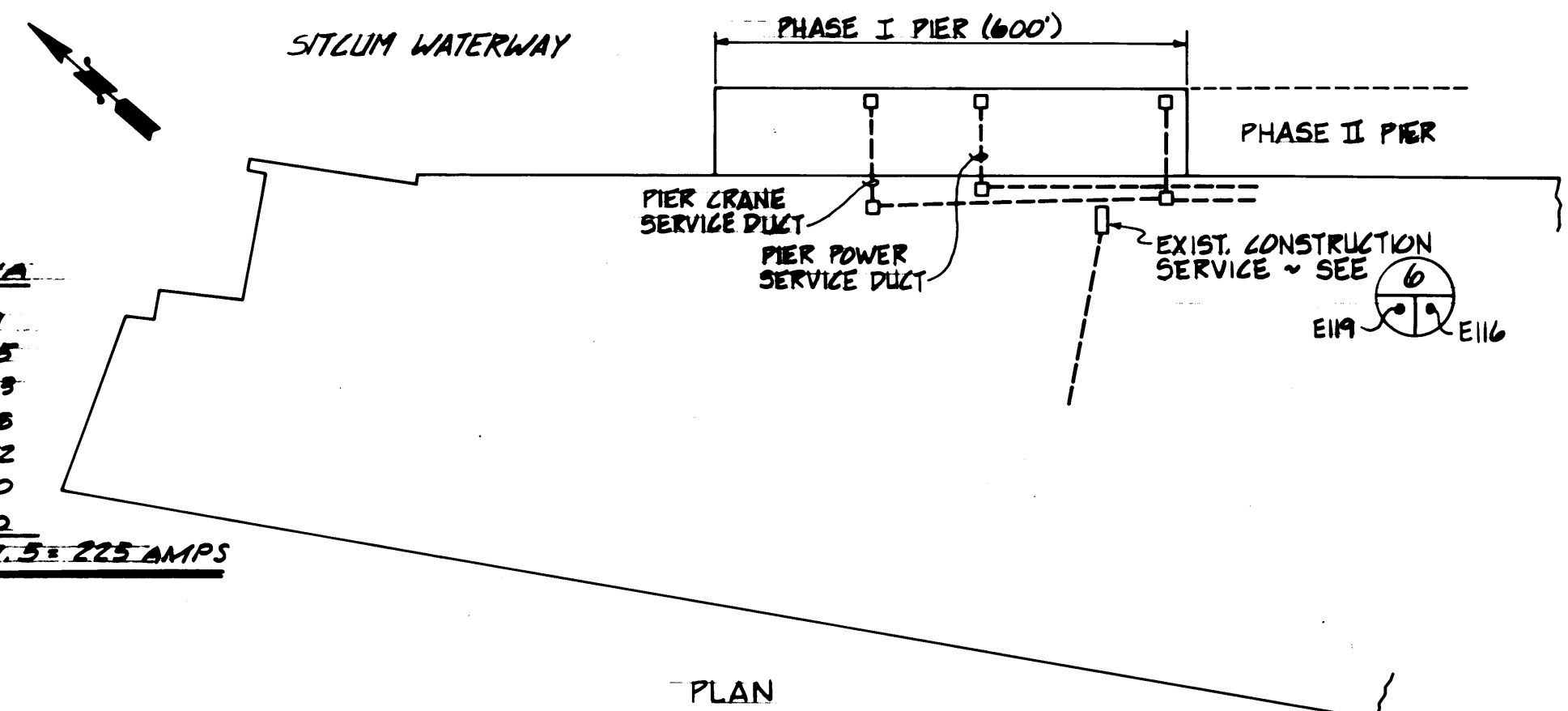
BOILER HOUSE ELECTRICAL SERVICE DETAIL

3 N.T.S. E119



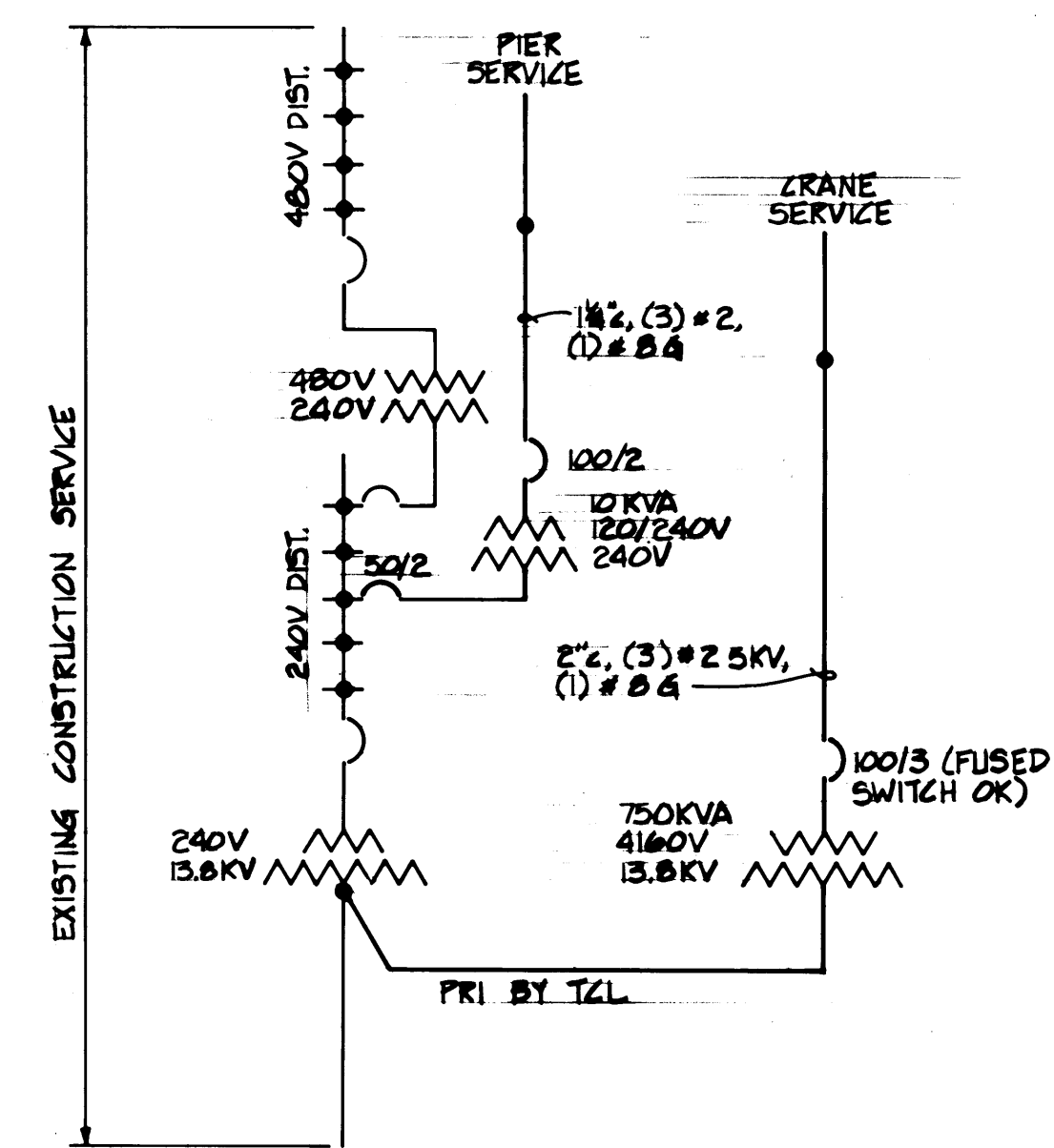
CONSTRUCTION SERVICE

6 N.T.S. E119



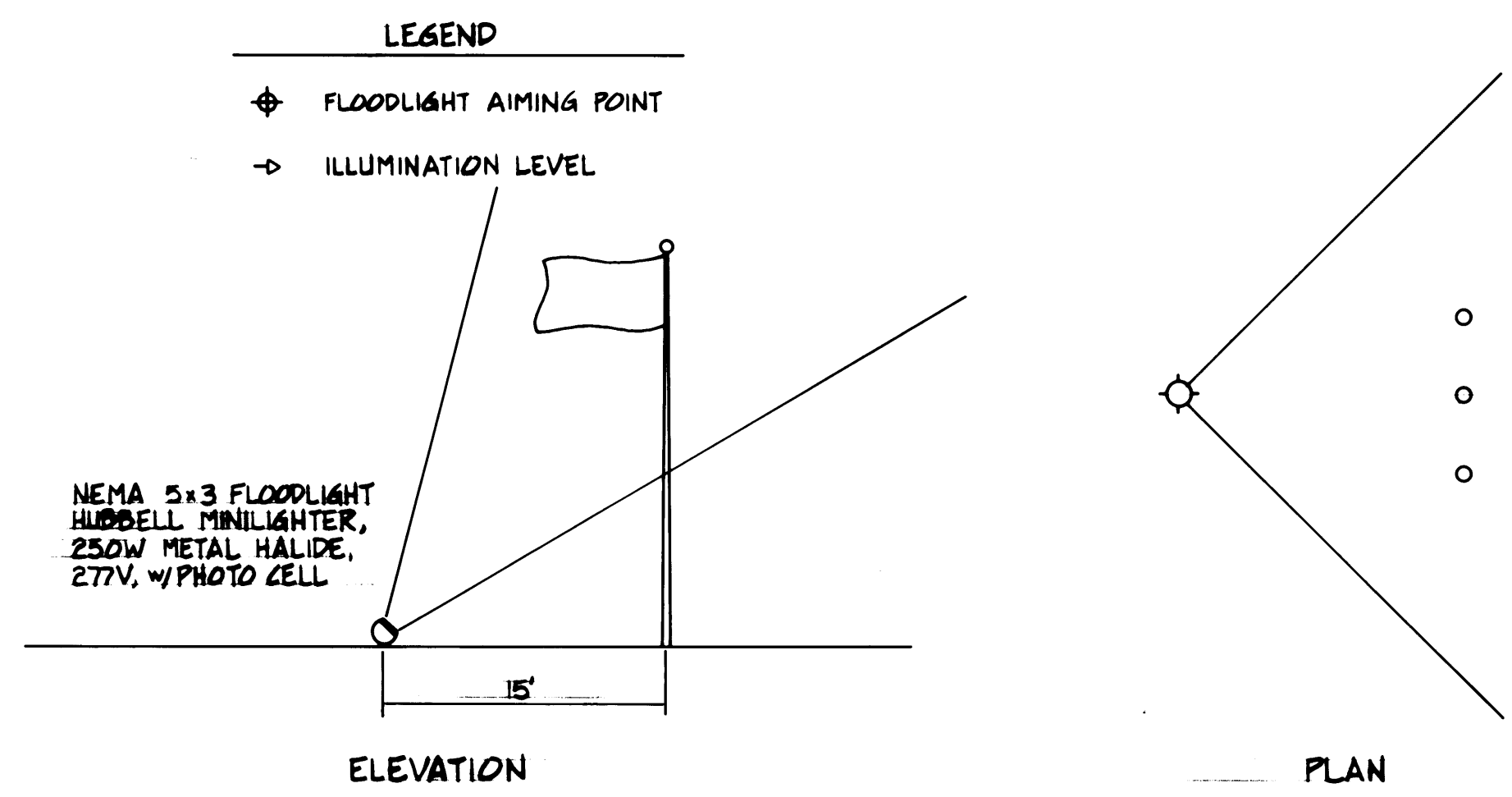
T.I. MARINE TERMINAL AREA - TEMPORARY CRANE POWER

5 N.T.S. E119



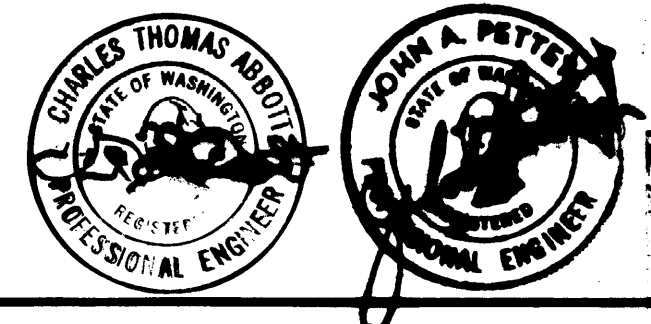
ONE LINE DIAGRAM - TEMPORARY CRANE POWER

7 N.T.S. E119



FLAGPOLE FLOODLIGHTING

4 N.T.S. E119



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Consulting Engineering & Land Planning
204 SO. 1ST STREET, BOX 907
TACOMA, WASHINGTON 98402 (206) 272-2444

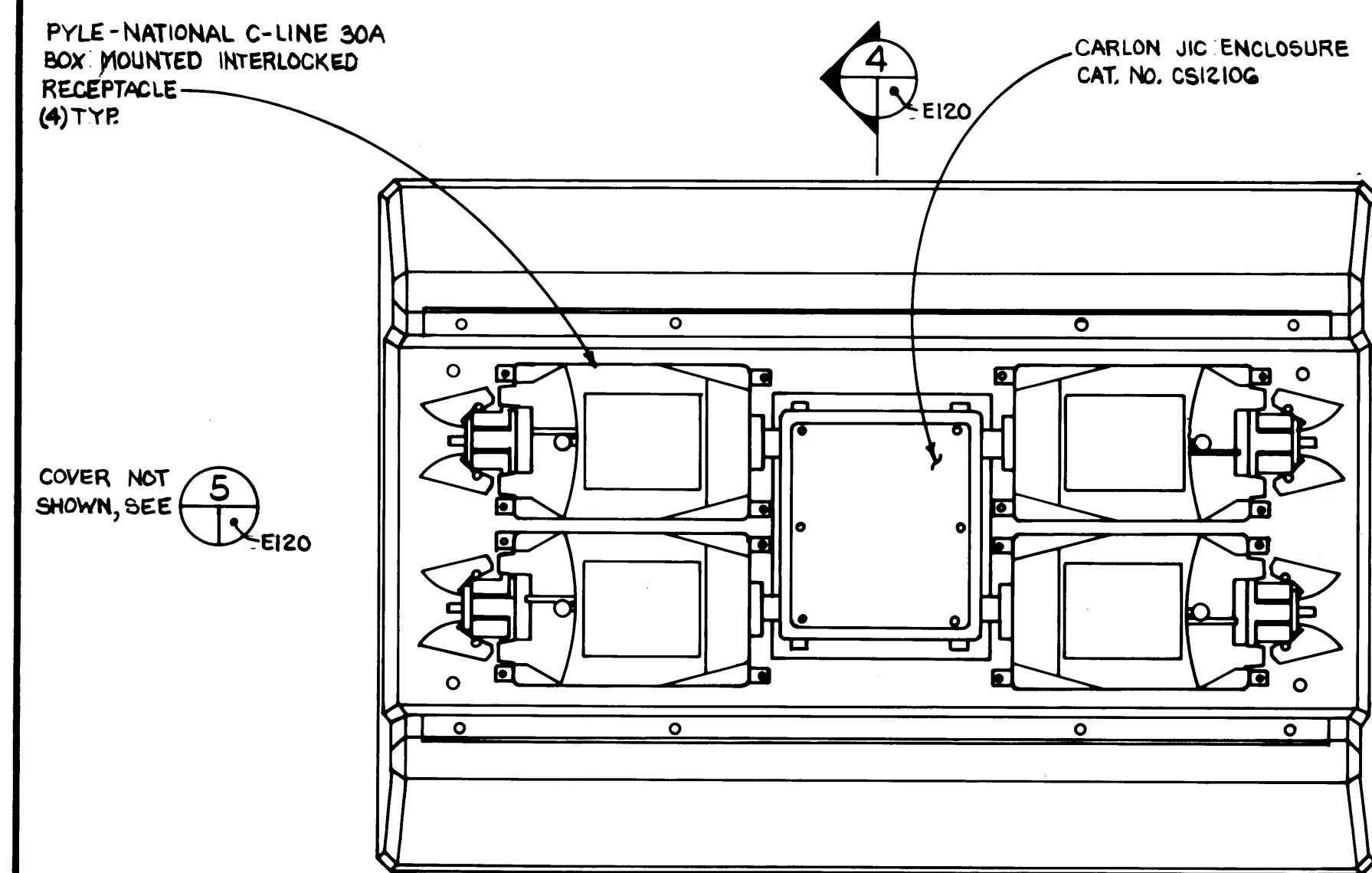
REVISION	BY	APP.	DATE
REVISED TO AS-BUILT	J.T.S.		5/21/84
REVISED PER ADDENDUM NO. 2	BT	GC	7/11/84

DRAWN	DATE
CHECKED	DATE
CHECKED	DATE
CHECKED	DATE

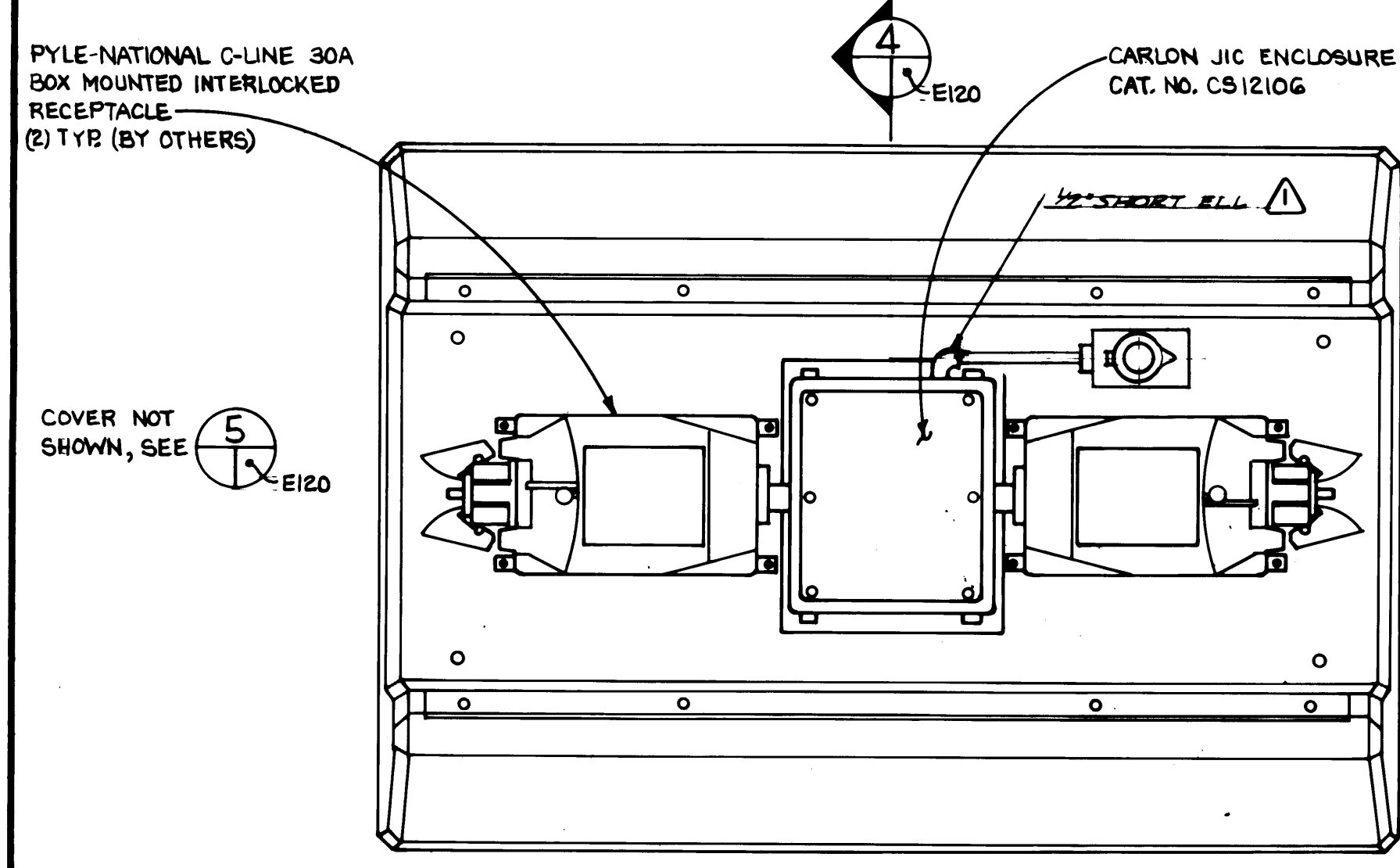
FIELD BOOK (S)	APPROVED
PROJECT NO. 560	

PORT OF TACOMA
TACOMA TERMINALS, INC.
LIGHTING DETAILS

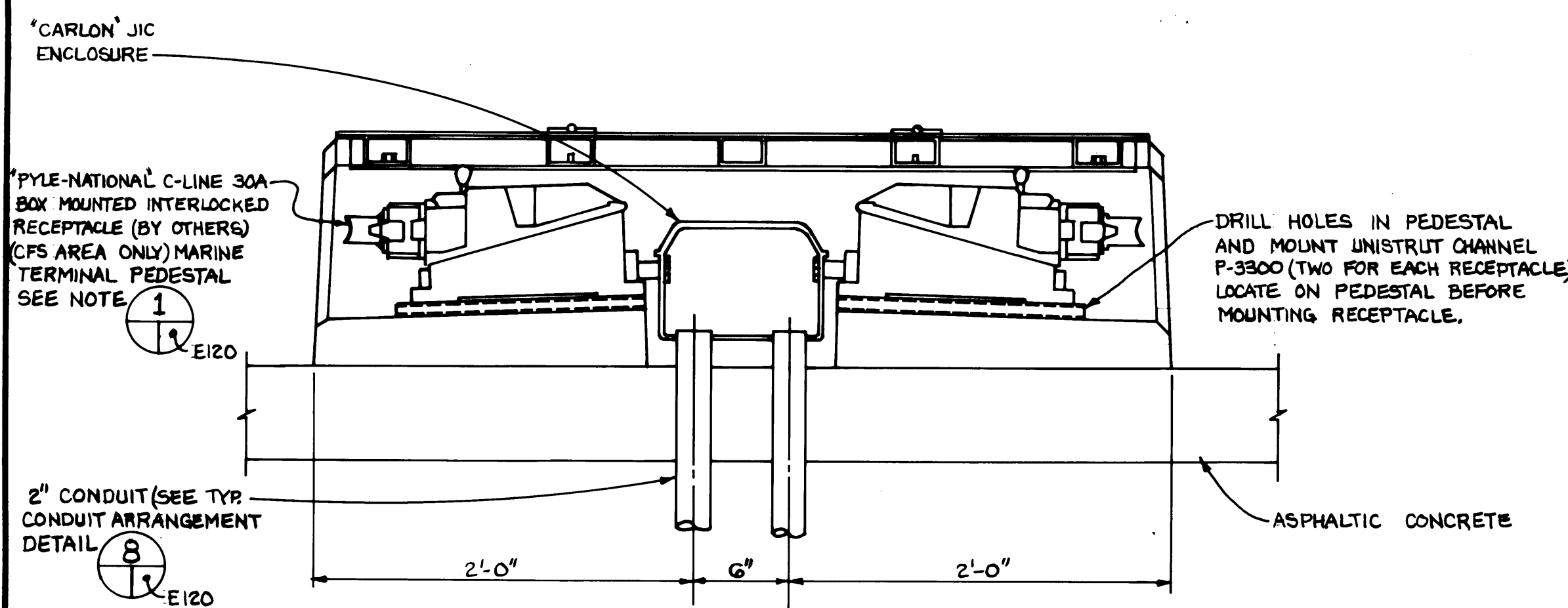
SCALE - AS NOTED	DRAWING NO.
	EP-3880-23-E119
SHEET	62 OF 88



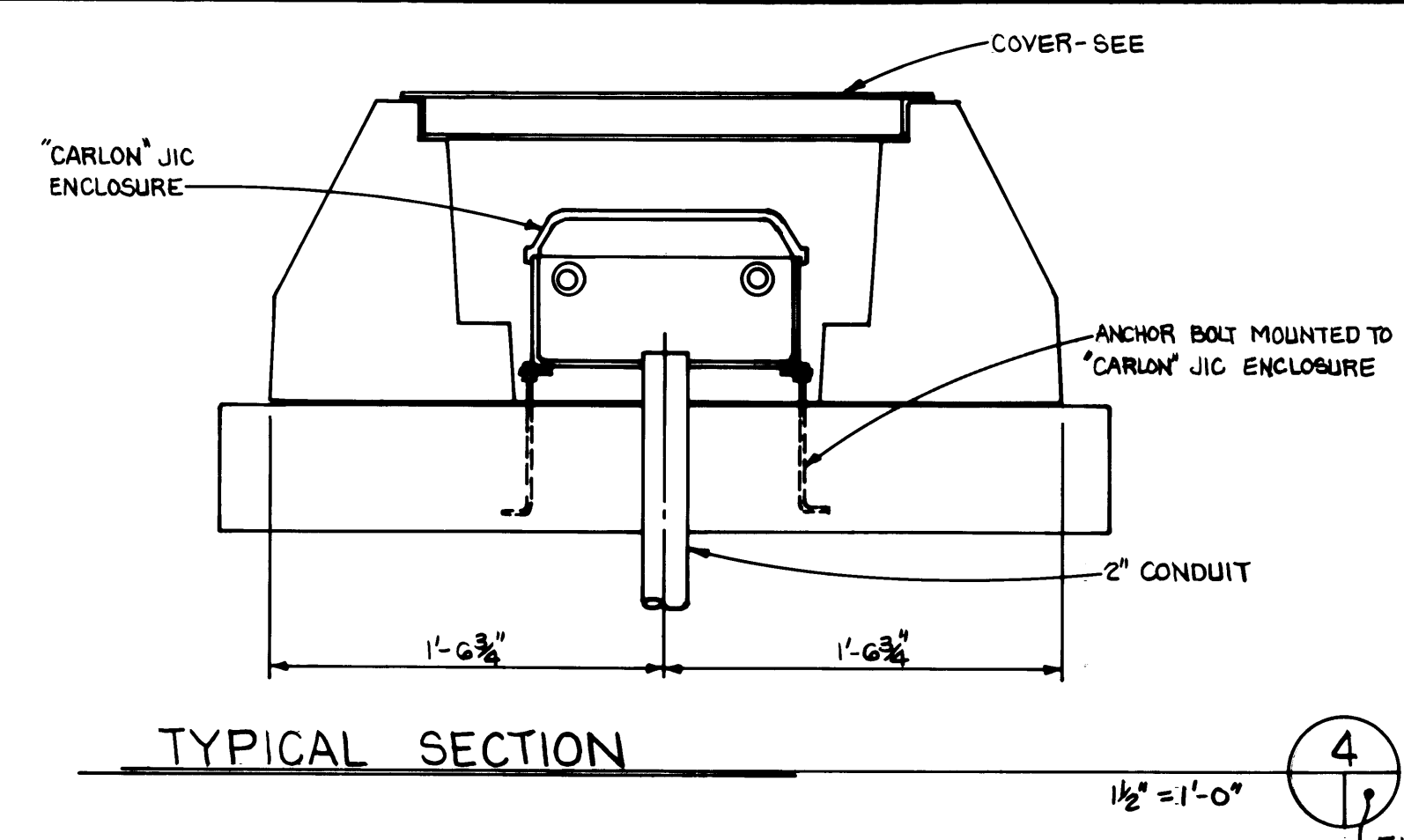
MARINE YARD REFRIGERATED CONTAINER RECEPTACLE PEDESTAL
PLAN VIEW ~ QTY. 50 REQUIRED



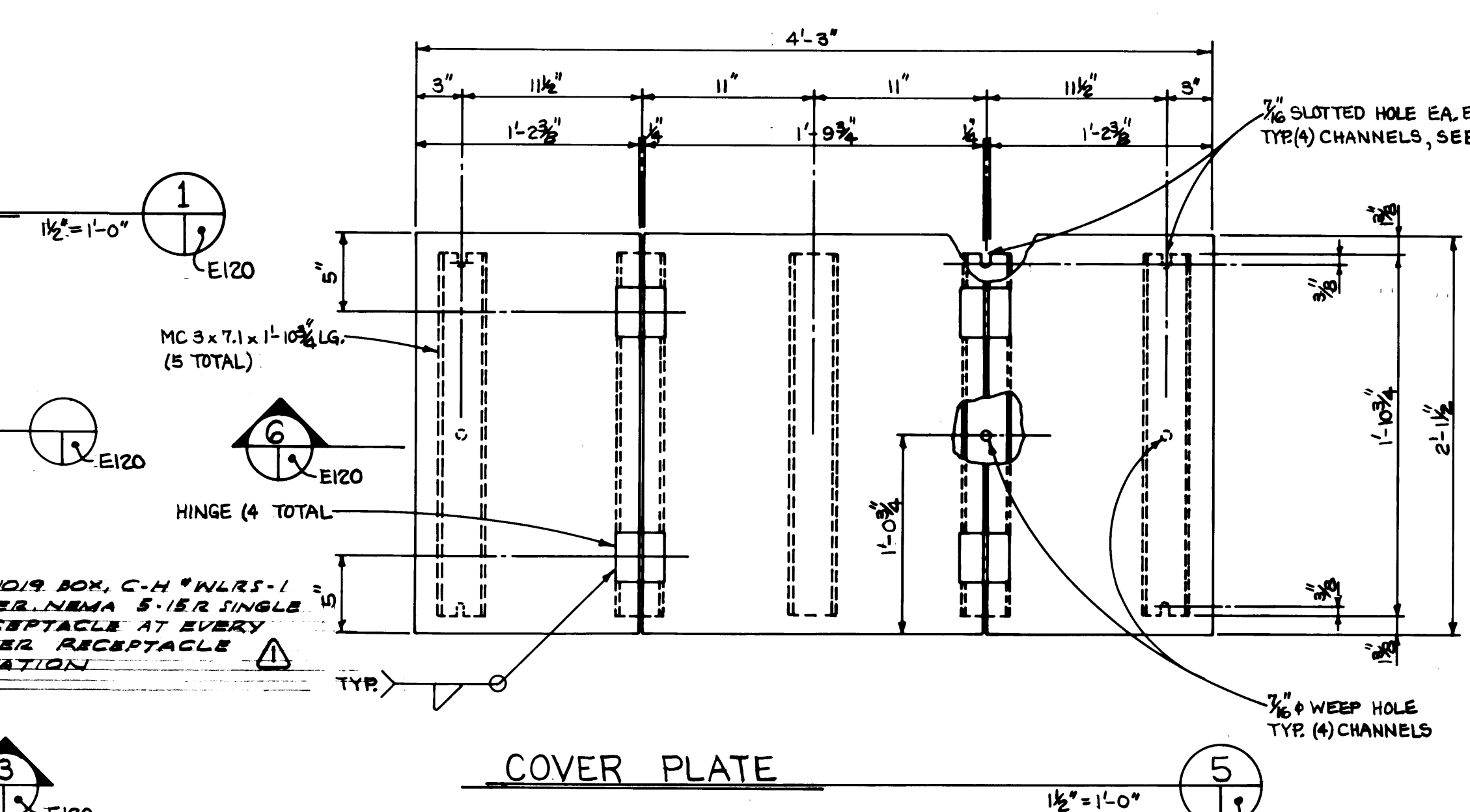
CFS AREA REFRIGERATED CONTAINER RECEPTACLE PEDESTAL
PLAN VIEW ~ QTY. 20 REQUIRED



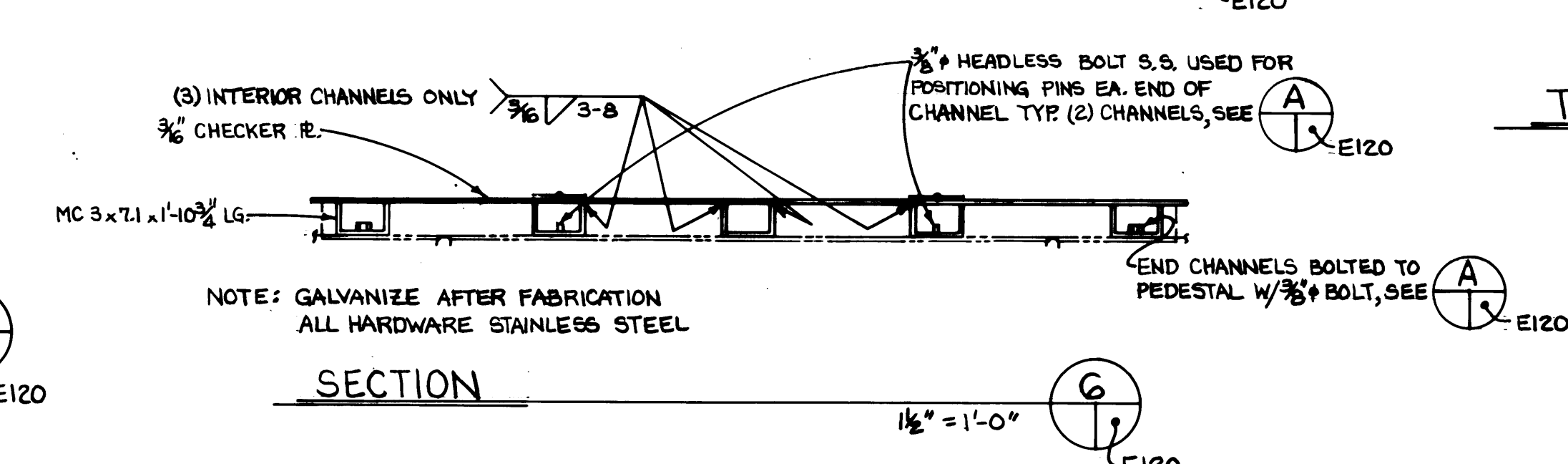
TYPICAL CROSS SECTION



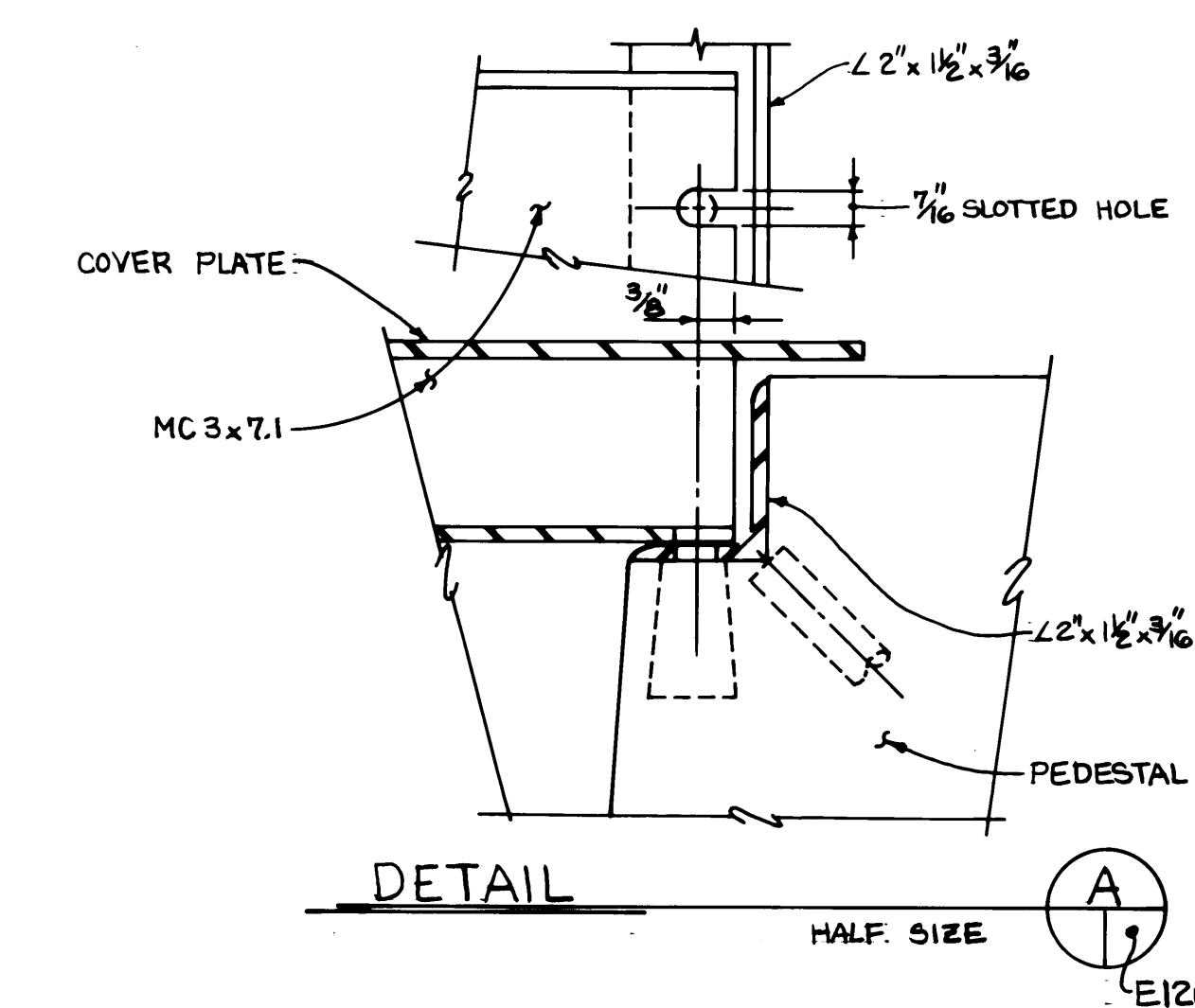
TYPICAL SECTION



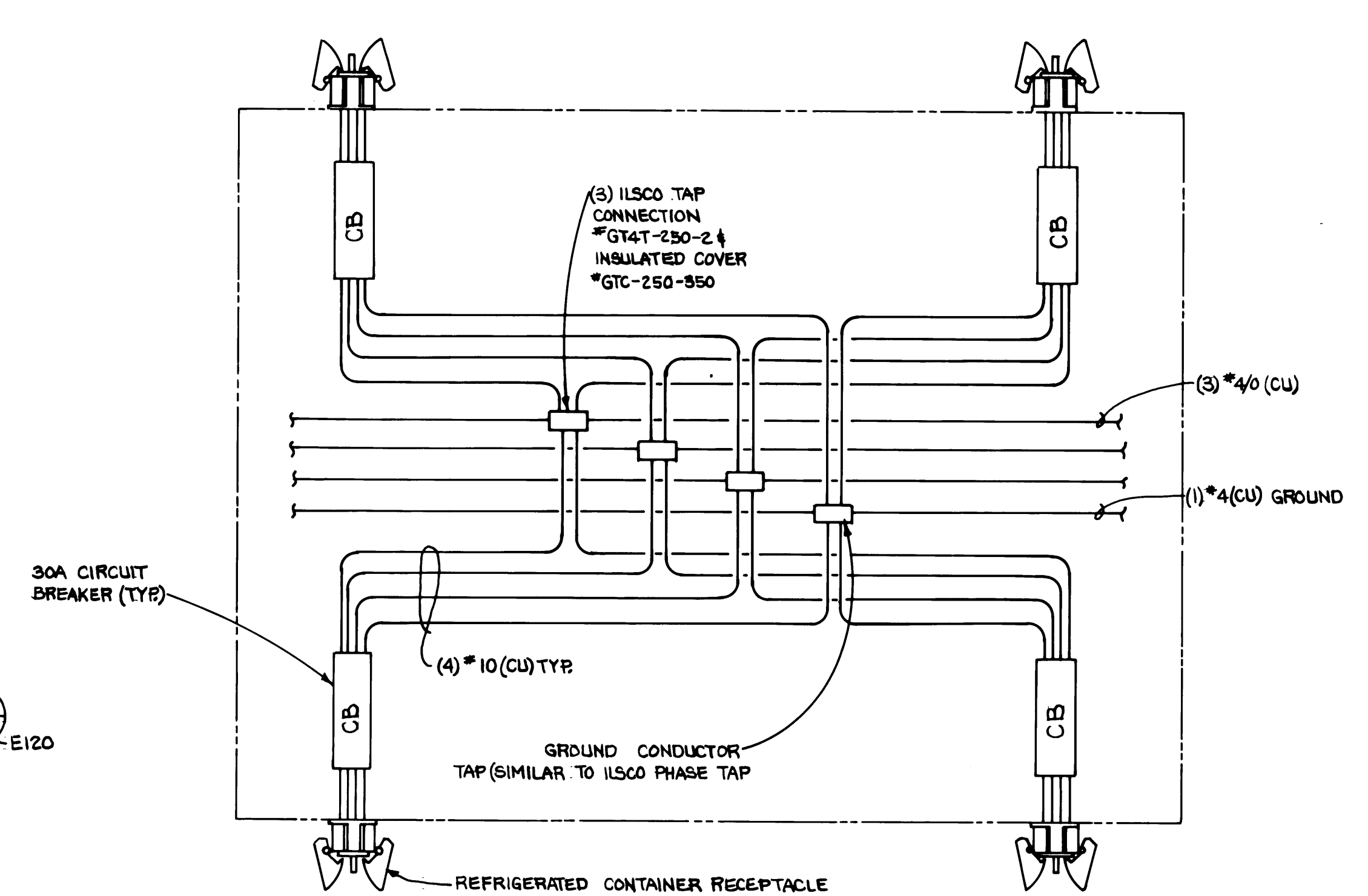
COVER PLATE



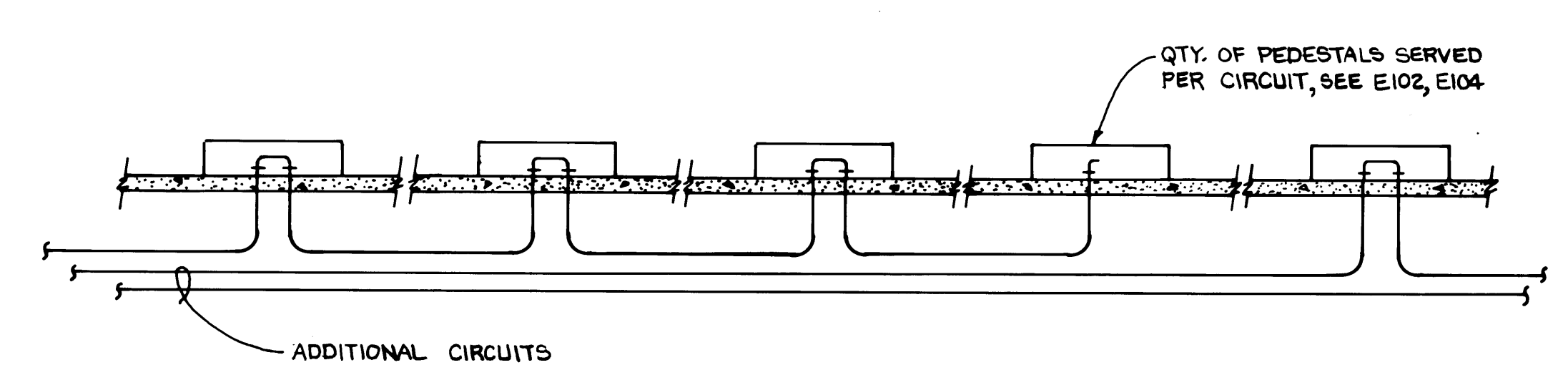
SECTION



DETAIL



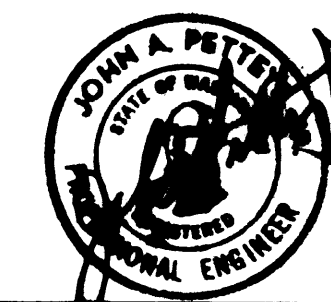
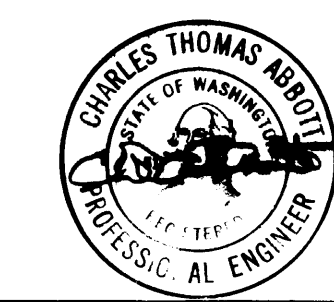
TYPICAL REFRIGERATED CONTAINER PEDESTAL WIRING DIAGRAM



TYPICAL REFRIGERATED CONTAINER CONDUIT ARRANGEMENT

- NOTE: (MARINE TERMINAL AREA)
1. ELECTRICAL CONTRACTOR TO REMOVE PEDESTALS IN SEATTLE SEALAND YARD AND REINSTALL COMPLETE IN TACOMA TERMINALS YARD.
 2. ELECTRICAL CONTRACTOR TO ASSEMBLE AND INSTALL OWNER FURNISHED RECEPTACLES, CARLON BOX, WIRING CONNECTIONS AND INSTALL RECEPTACLE PEDESTALS COMPLETE AS INDICATED.

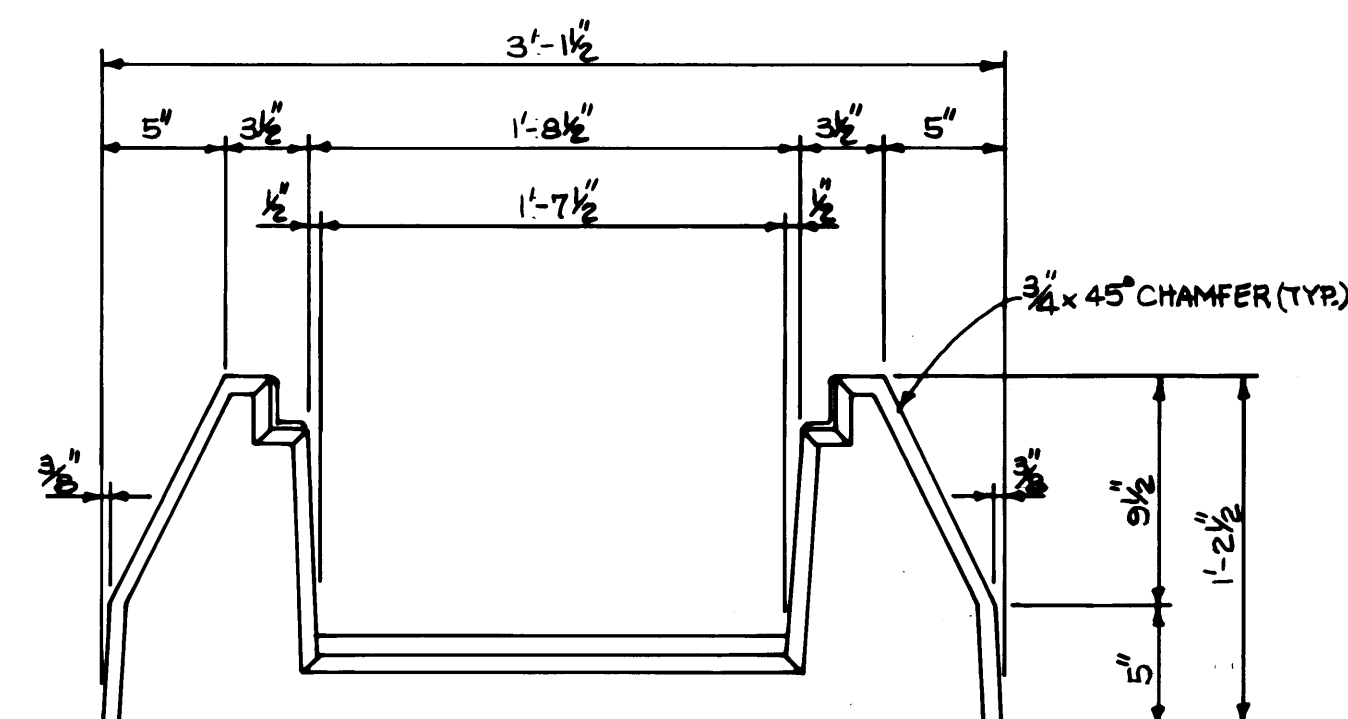
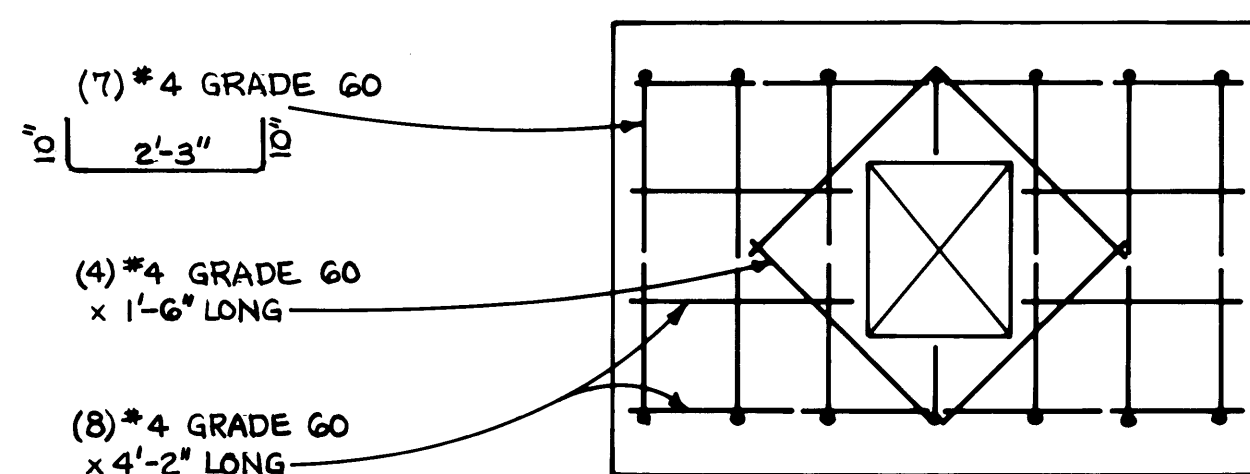
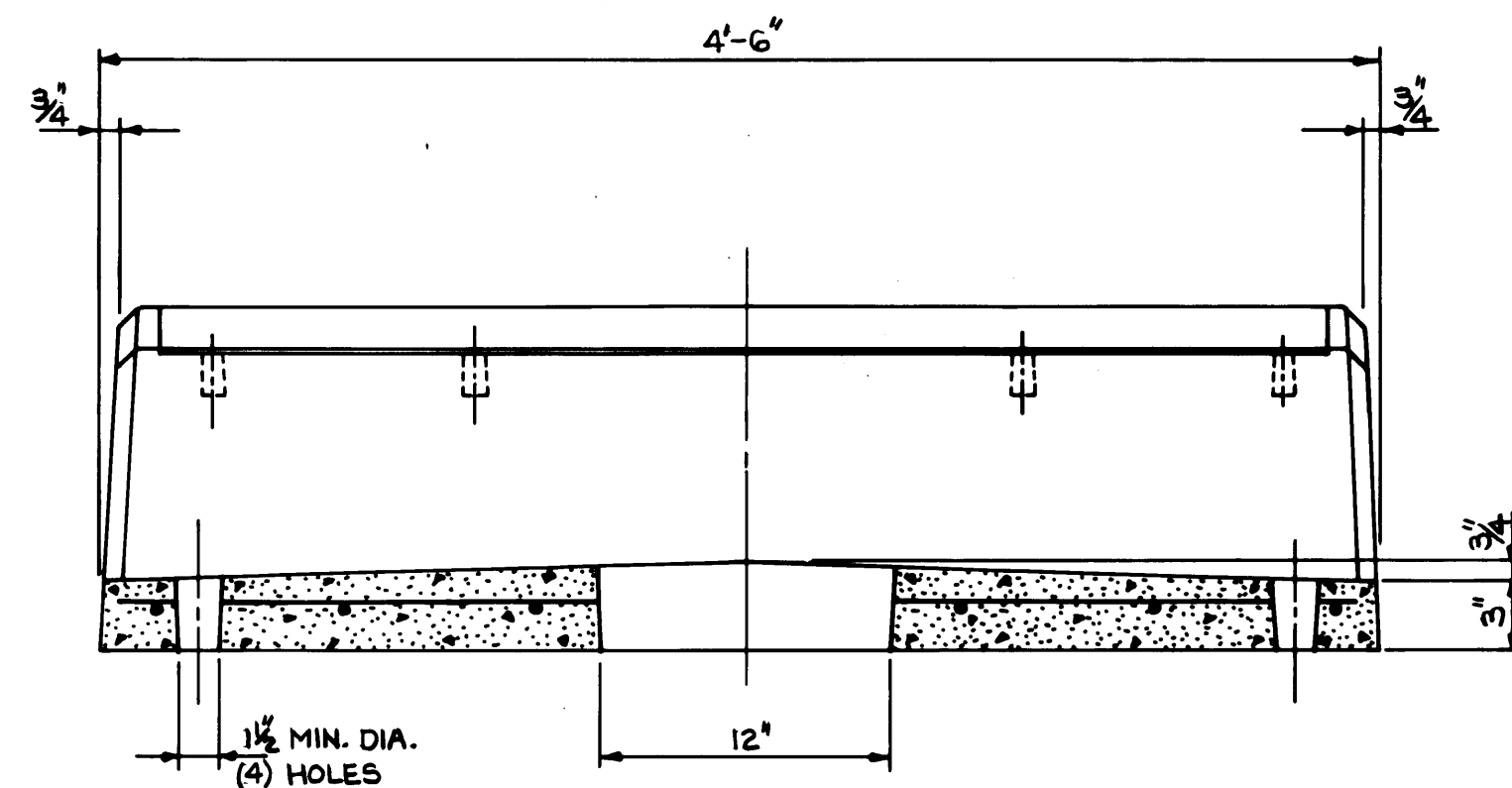
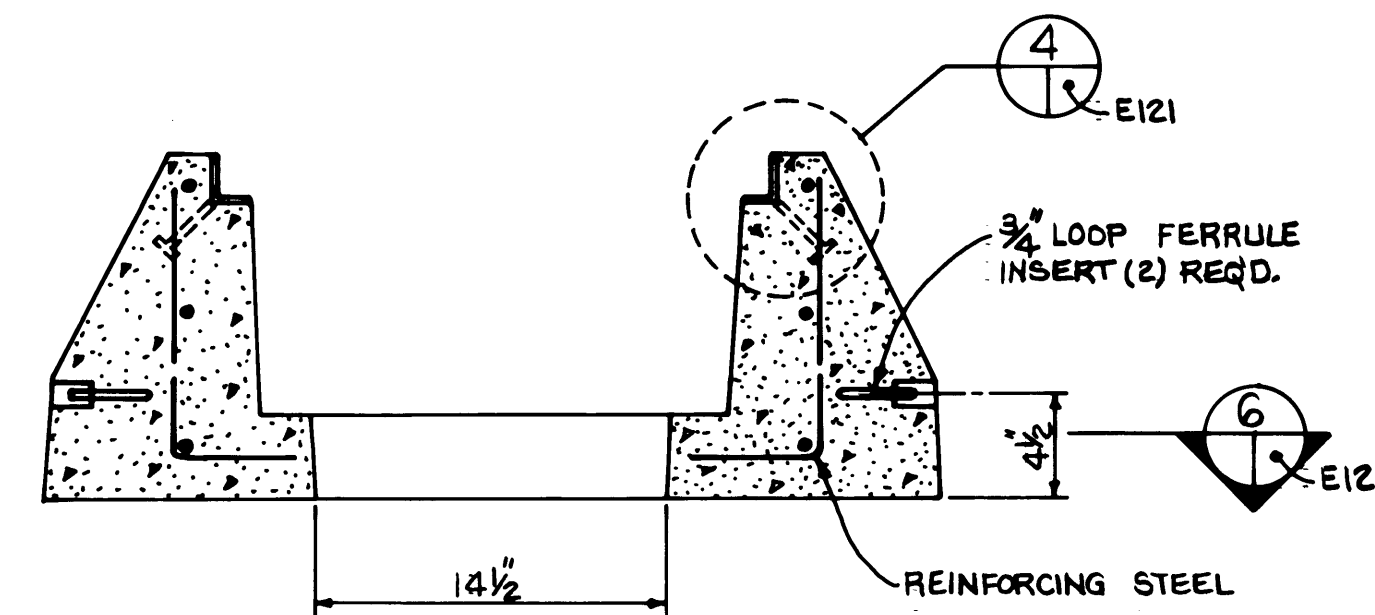
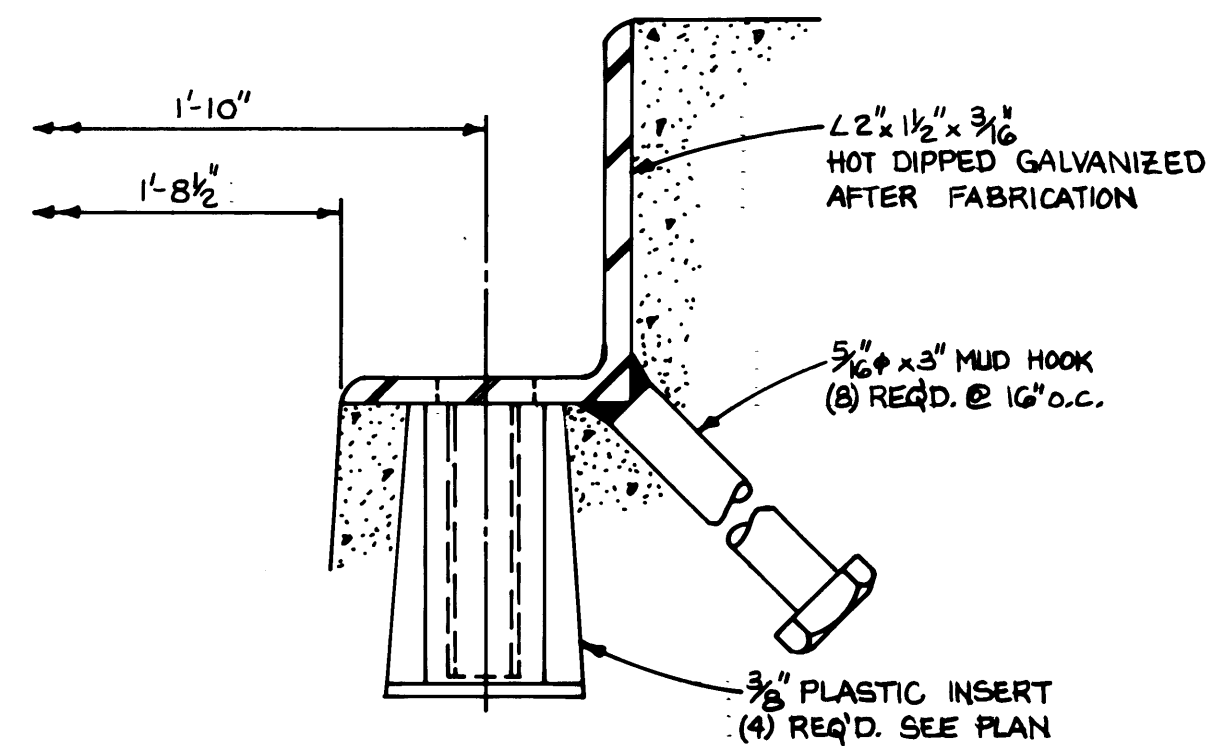
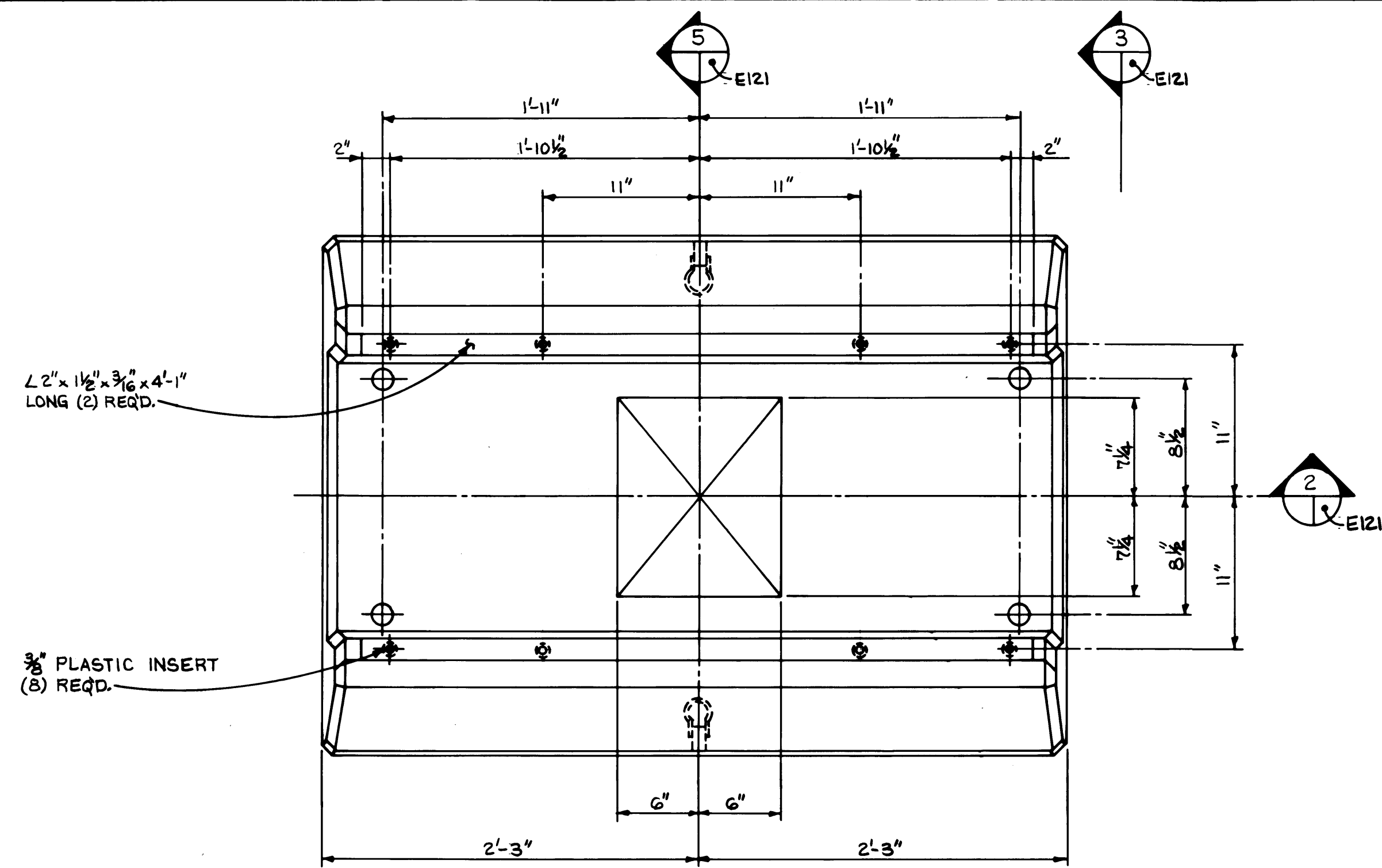
DRAWN B.C. DATE 5/31/84 CHECKED RC DATE 5-31-84 CHECKED P DATE 5-31-84 CONT. NO. 560		PORT OF TACOMA TACOMA TERMINALS, INC. ELECTRICAL DETAILS	
FIELD BOOK (S) APPROVED <i>[Signature]</i> 5/31/84 PROJECT MANAGER <i>[Signature]</i> 5/31/84 CHIEF ENGINEER		SCALE AS NOTED DRAWING NO. EP-3890-23-E120 SHEET 63 OF 88	



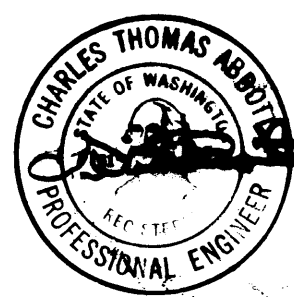
Whitacre Engineers, Inc.
 Consulting Engineering & Land Planning
 2101 SO. "K" STREET P.O. BOX 9077
 TACOMA, WASHINGTON 98401 206-272-2044



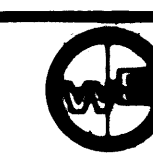
REVISION	BY	APP.	DATE
1	REVISOR		
2			
3			
4			
5			



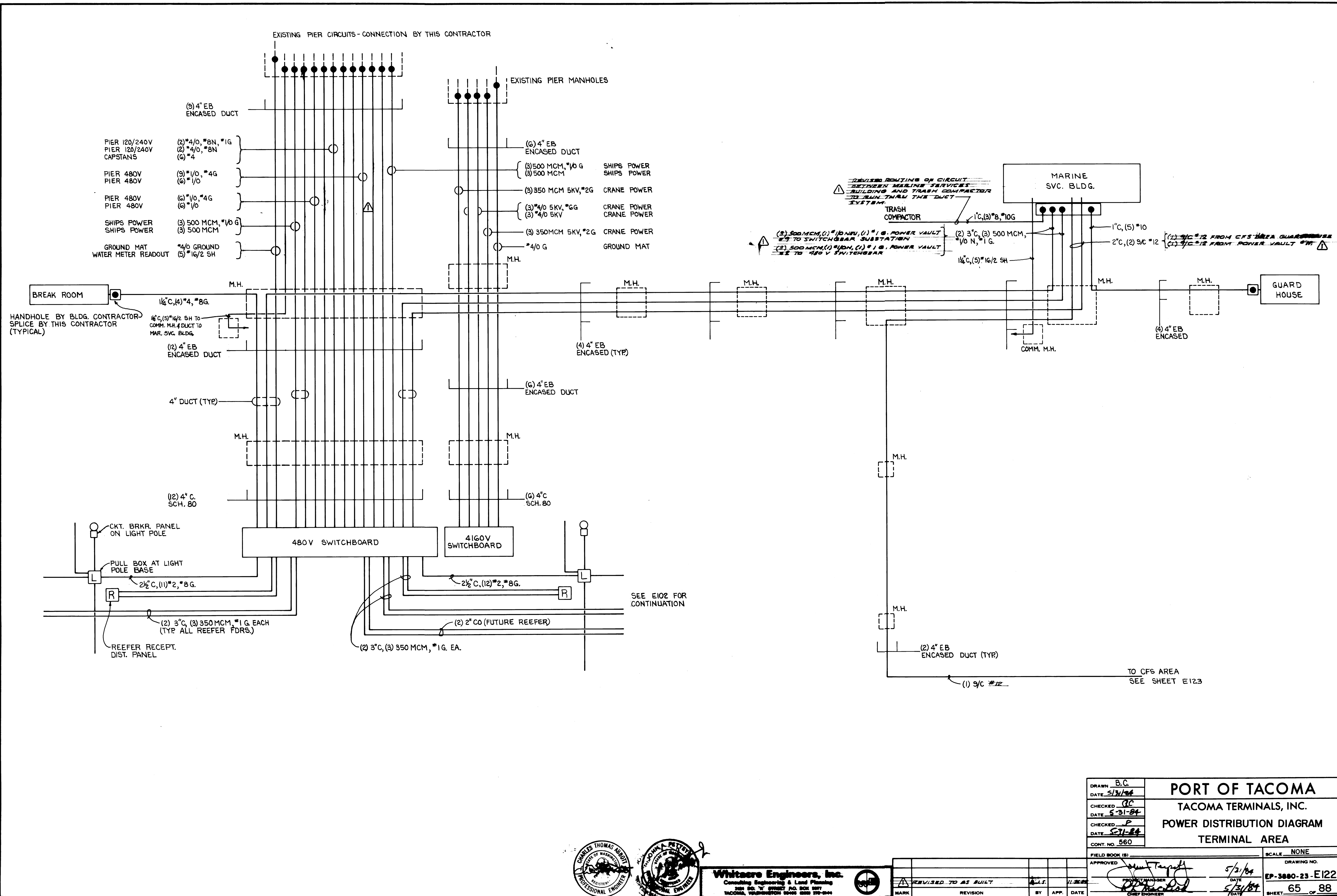
DRAWN B.C.		PORT OF TACOMA	
DATE 5/15/84		TACOMA TERMINALS, INC.	
CHECKED J.C.		ELECTRICAL DETAILS	
DATE 5-31-84			
CHECKED P			
DATE 5-31-84			
CONT. NO. 560			
FIELD BOOK (S)		SCALE AS NOTED	
APPROVED [Signature]		DRAWING NO.	
DATE 5/31/84		EP-3880-23-E121	
PROJECT MANAGER [Signature]		64 OF 88	
DATE 5/31/84			
CHIEF ENGINEER [Signature]			



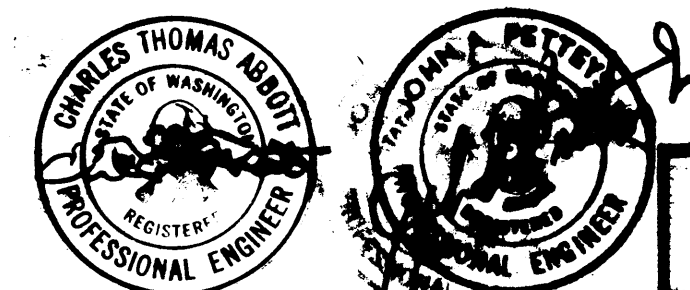
Whitacre Engineers, Inc.
Consulting Engineering & Land Planning
1001 80th St. Tacoma, WA 98403
TACOMA, WASHINGTON 98403 252-2144



MARK	REVISION	BY	APP.	DATE

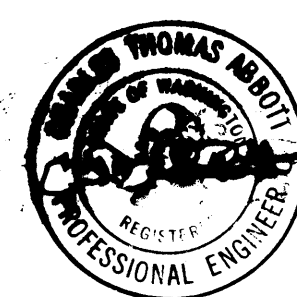
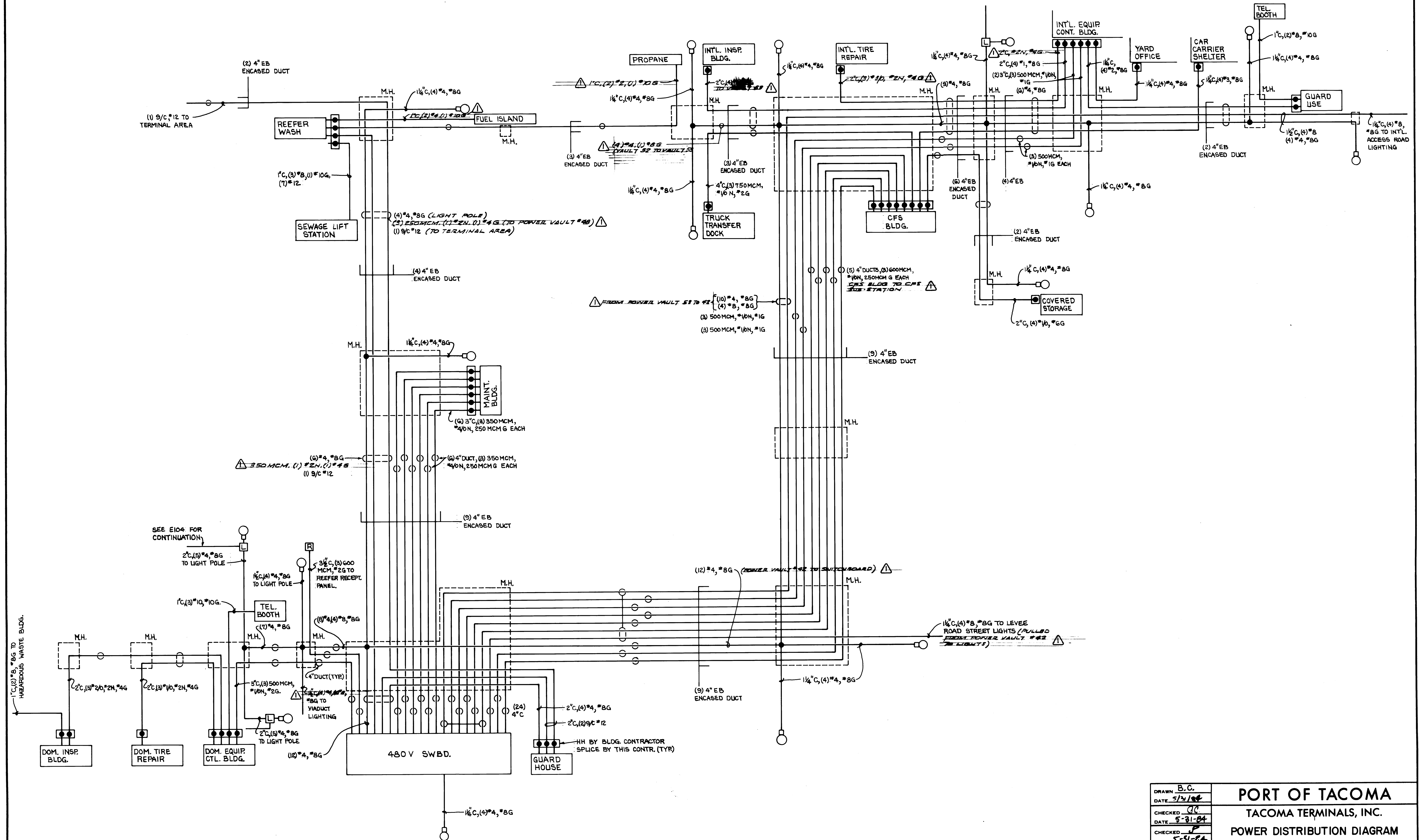


DRAWN B.C.		PORT OF TACOMA	
DATE 5/31/84		TACOMA TERMINALS, INC.	
CHECKED J.C.		POWER DISTRIBUTION DIAGRAM	
DATE 5-31-84		TERMINAL AREA	
CHECKED P			
DATE 5-31-84			
CONT. NO. 560			
FIELD BOOK (S)		SCALE NONE	
APPROVED [Signature]		DRAWING NO.	
DATE 5/31/84		EP-3080-23-E122	
PROJECT MANAGER [Signature]		SHEET 65 OF 88	
DATE 5/31/84			
CHIEF ENGINEER [Signature]			



Whitacre Engineers, Inc.
 Consulting Engineering & Land Planning
 1000 2nd St. SE, Suite 100, Box 1001
 Tacoma, Washington 98402 252-2100

MARK	REVISION	BY	APP.	DATE
Δ	REVISED TO AS BUILT	J.S.		11-28-84



Whitcomb Engineers, Inc.
 Consulting Engineering & Land Planning
 304 SO. Y STREET, P.O. BOX 597
 TACOMA, WASHINGTON 98402 (206) 272-2444

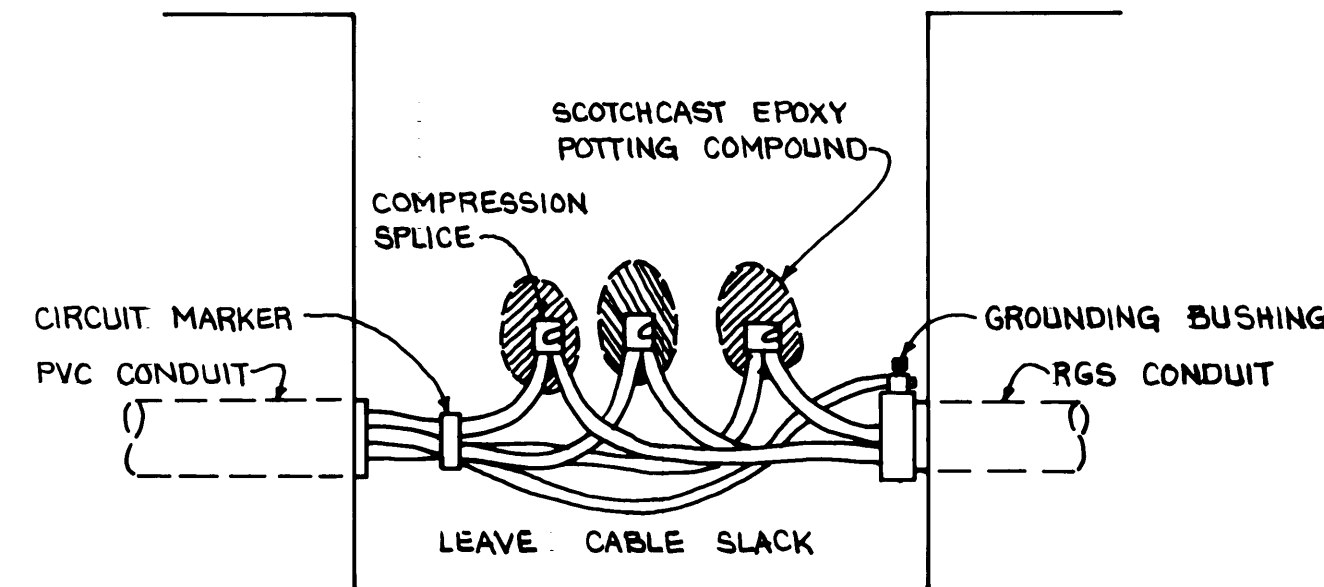


REVISION	BY	APP.	DATE
1	J.S.		5/21/84
2			
3			
4			
5			

DRAWN: B.C.		PORT OF TACOMA TACOMA TERMINALS, INC. POWER DISTRIBUTION DIAGRAM C.F.S. AREA	
DATE: 5/21/84			
CHECKED: J.C.			
DATE: 5-31-84			
DATE: 5-31-84			
CONT. NO. 560		SCALE: NONE	
FIELD BOOK (S)		DRAWING NO.	
APPROVED: [Signature]		DATE: 5/21/84	
[Signature]		DATE: 5/21/84	
CHIEF ENGINEER		SHEET 66 OF 88	

NP SCHEDULE

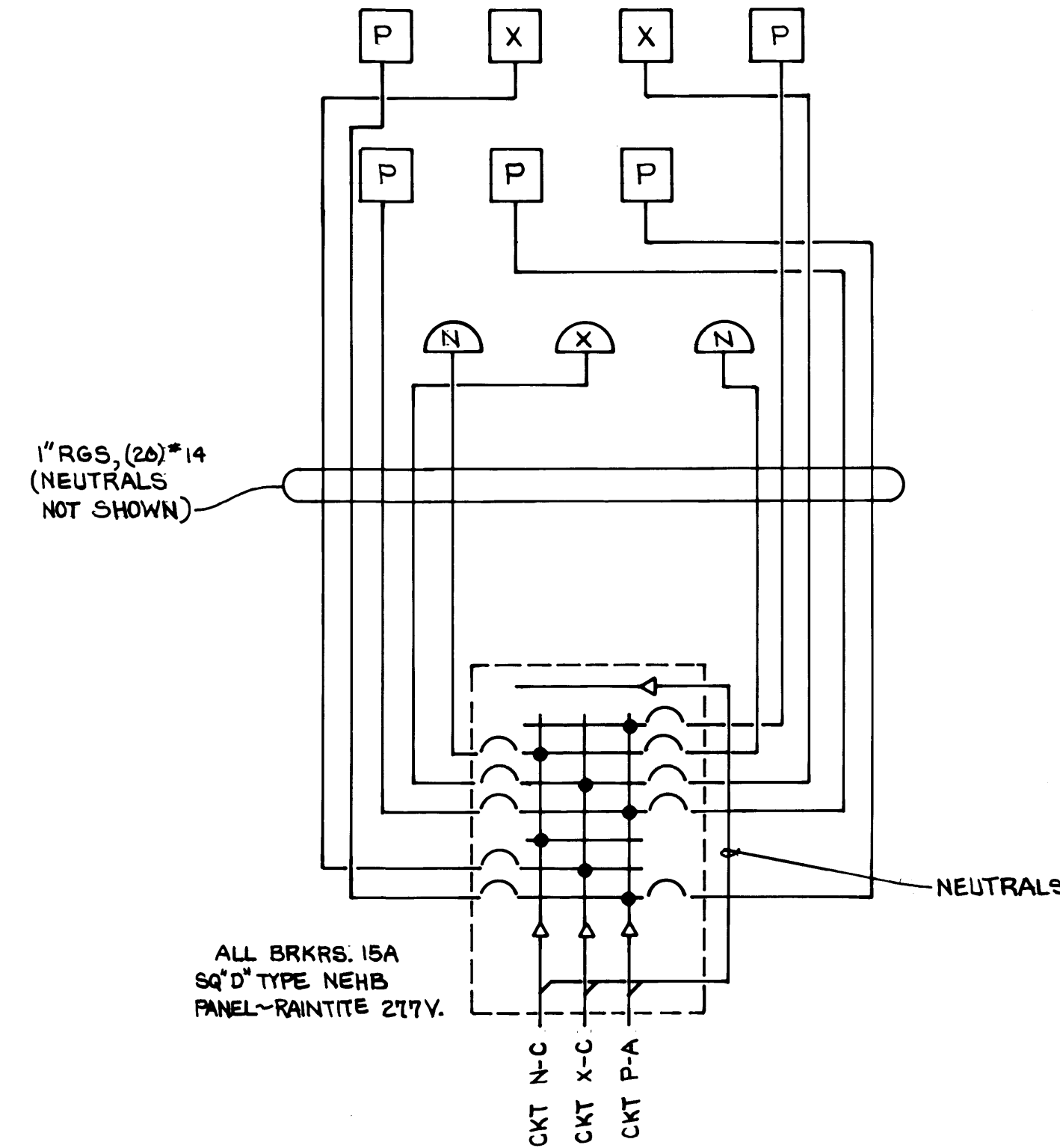
- N1 MARINE TERMINAL SECURITY LIGHTING
- N2 MARINE TERMINAL NORTH END LIGHTING
- N3 MARINE TERMINAL SOUTH END LIGHTING
- N4 MARINE TERMINAL PIER LIGHTING
- N5 CFS AREA SECURITY LIGHTING
- N6 CFS AREA NORTH END LIGHTING
- N7 CFS AREA VIADUCT LIGHTING
- N8 CFS AREA EAST SIDE LIGHTING
- N9 CFS AREA WEST SIDE LIGHTING



TYPICAL UNDERGROUND SPLICE

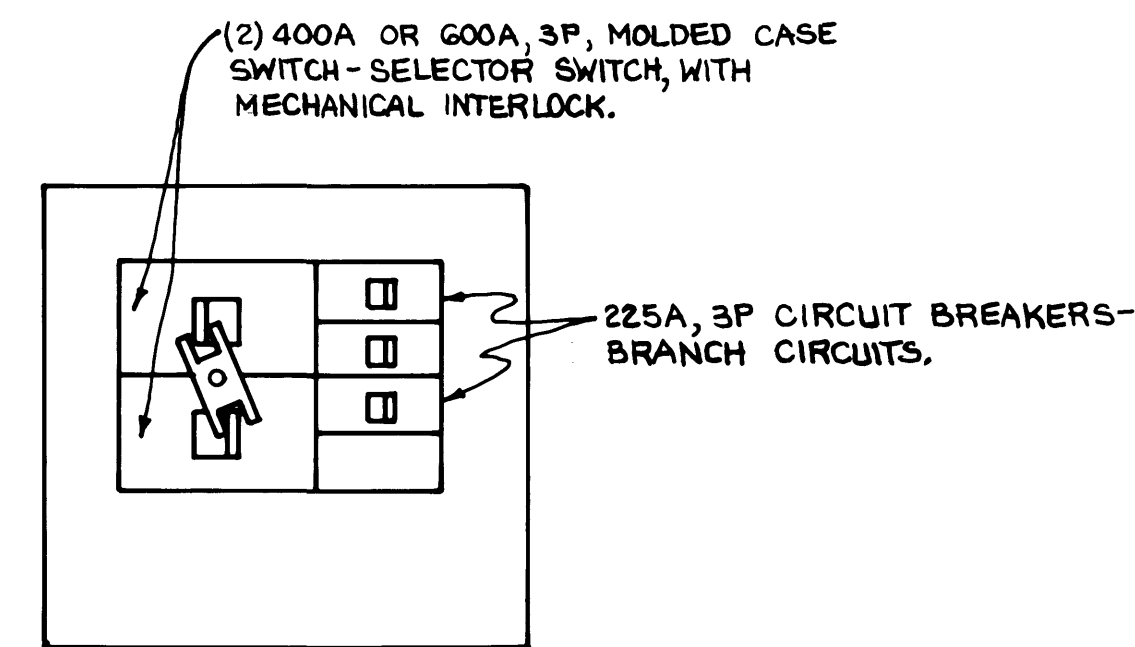
DETAIL

3
E124



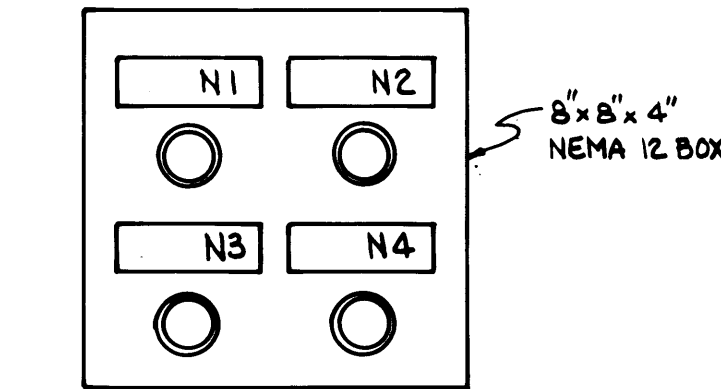
TYPICAL LIGHTING POLE CONNECTION DIAGRAM

4
E124

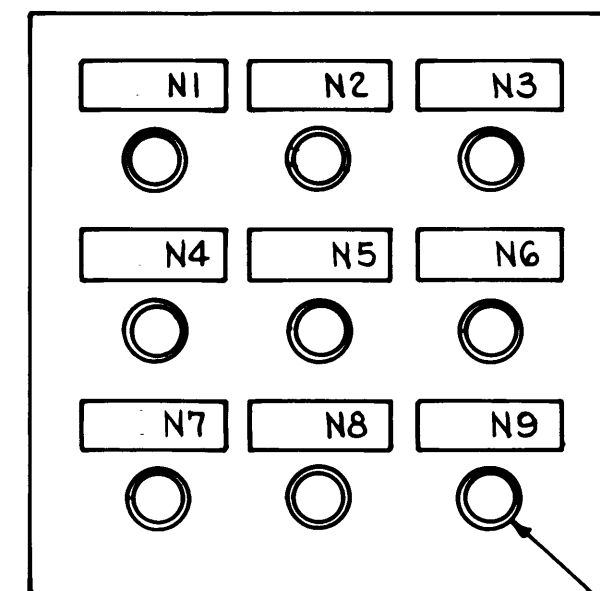


REEFER RECEPTACLE DISTRIBUTION PANEL

6
E124



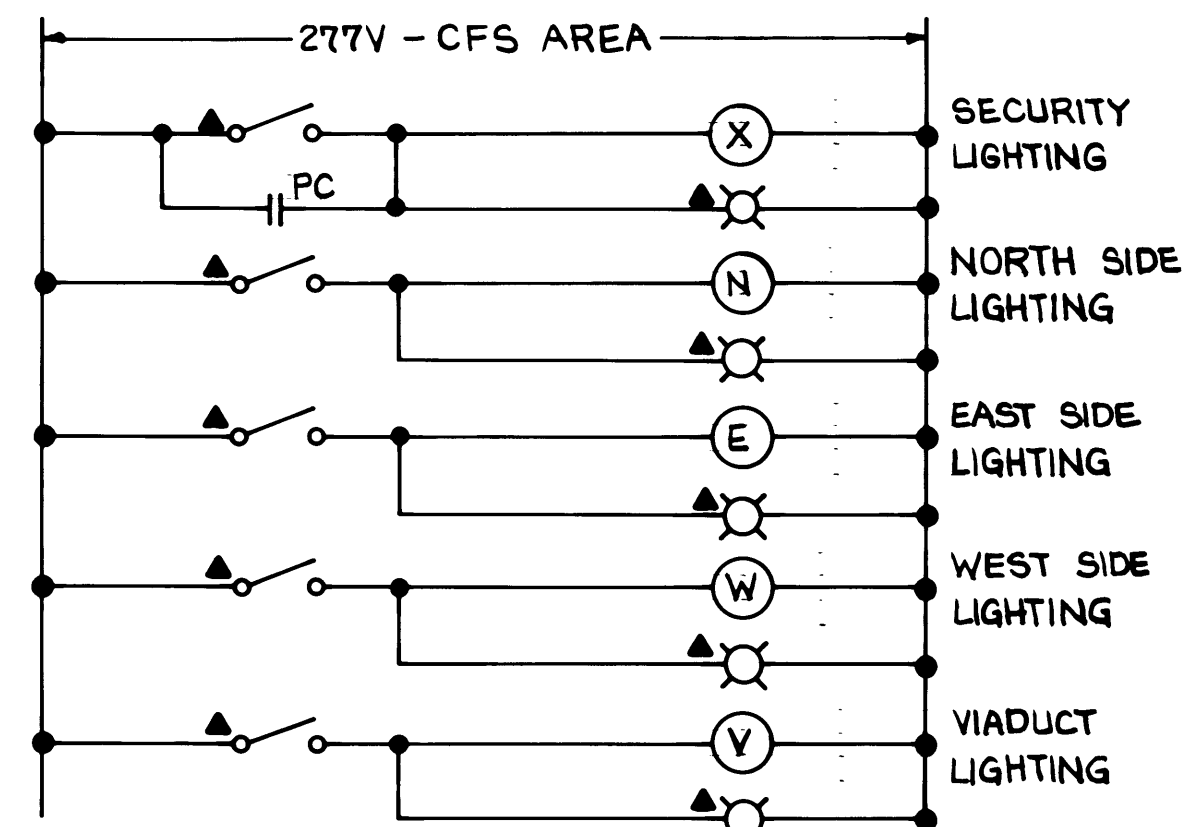
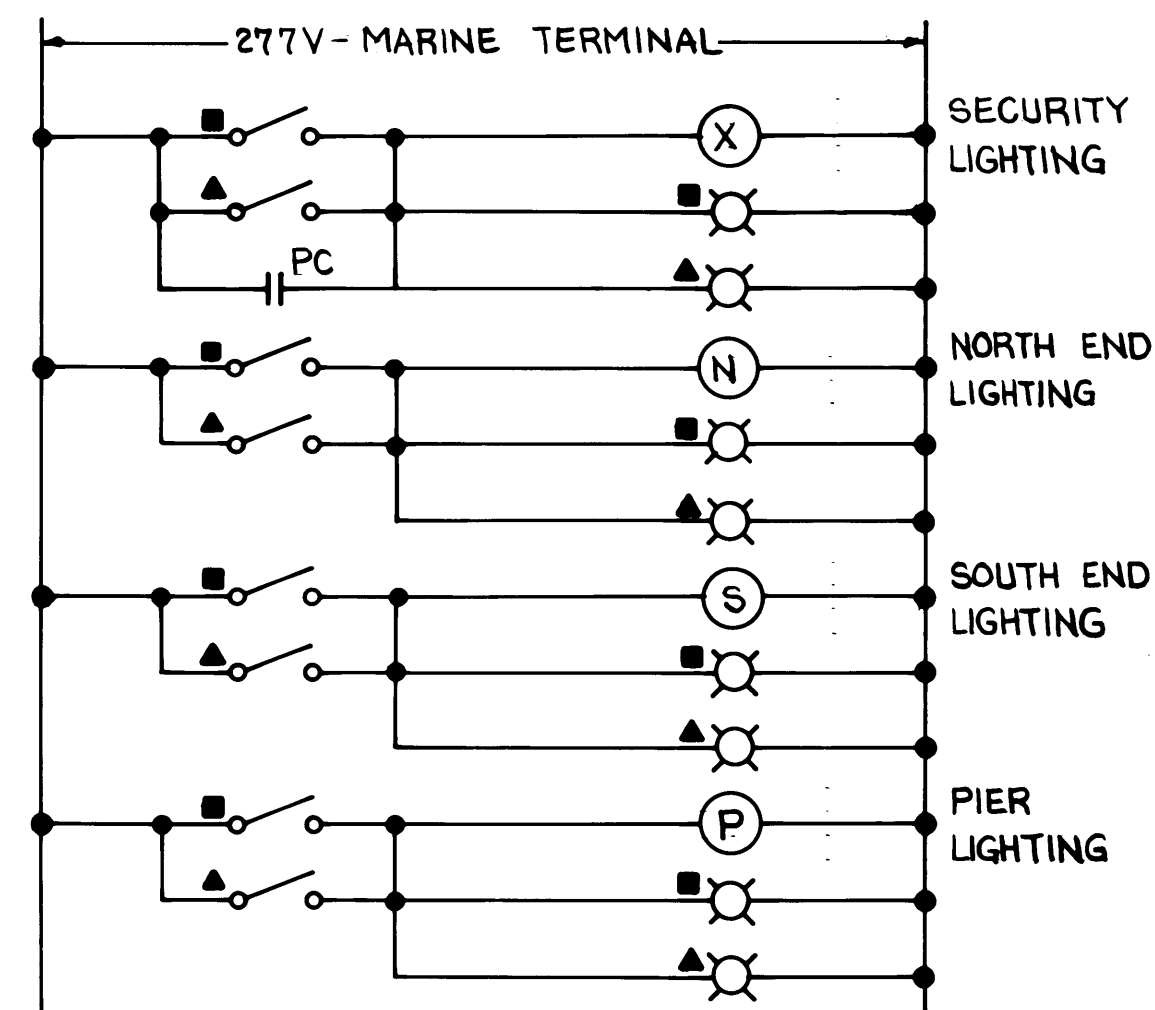
MARINE SVC. BLDG. STA.



DOMESTIC GUARD HOUSE STA.
CONTROL UNIT, LIGHTED,
SQ D 9001-LR-363 LABAW3

AREA LIGHTING CONTROL STATIONS

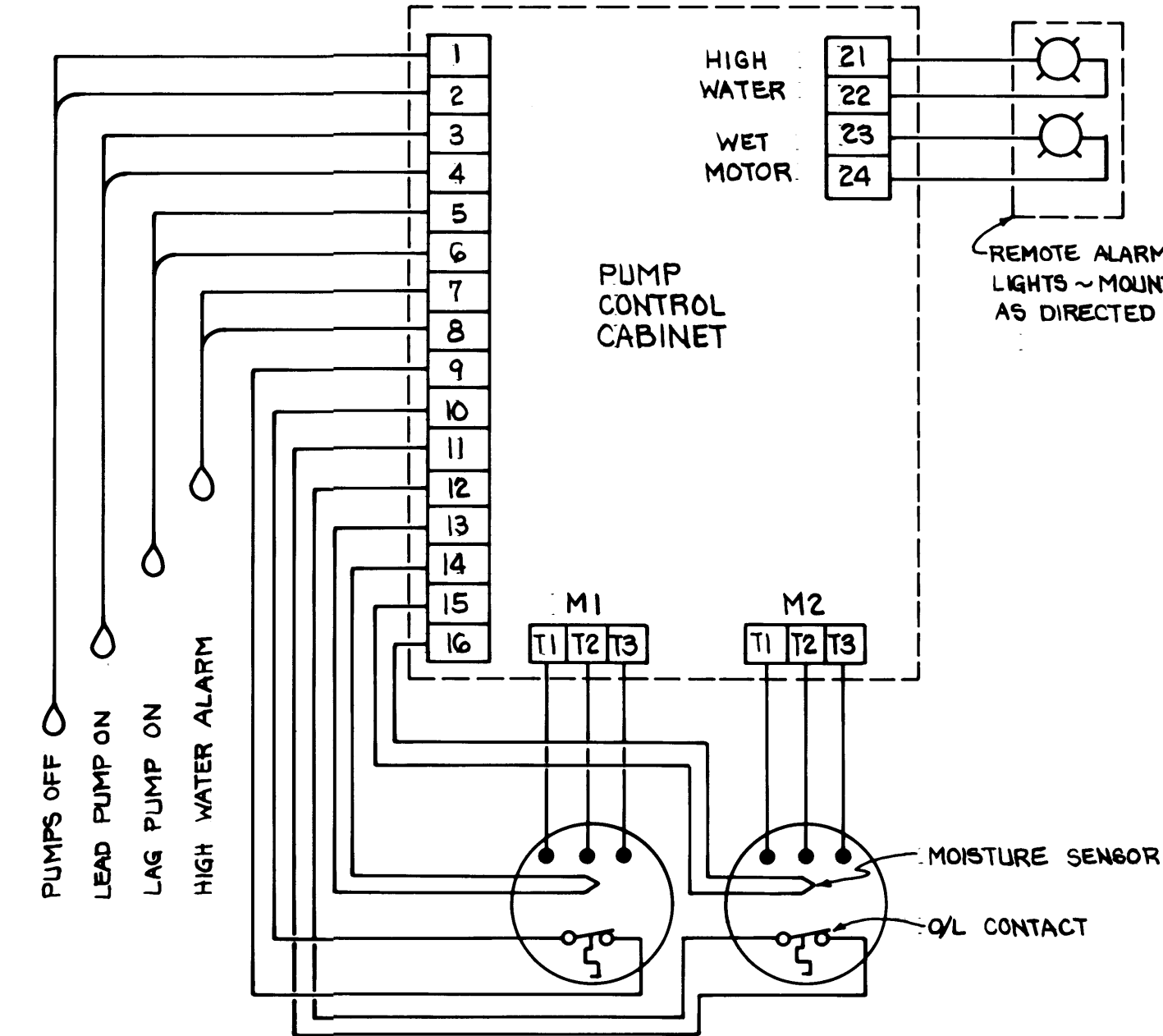
1
E124



- ▲ CONTROL STATION IN DOMESTIC GUARD HOUSE
- CONTROL STATION IN MARINE SERVICES BLDG.

AREA LIGHTING CONTROL DIAGRAM

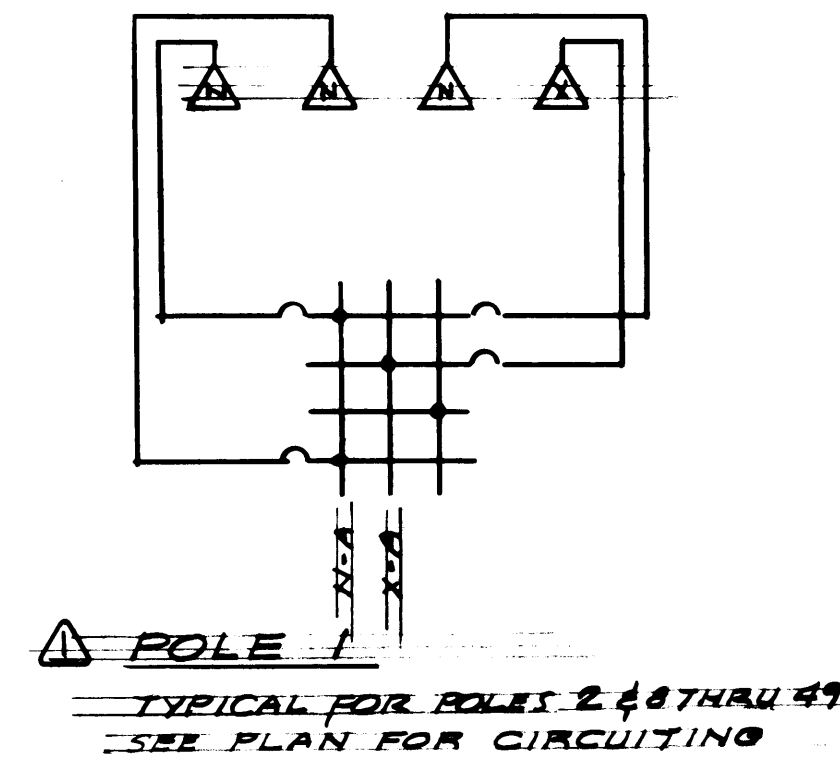
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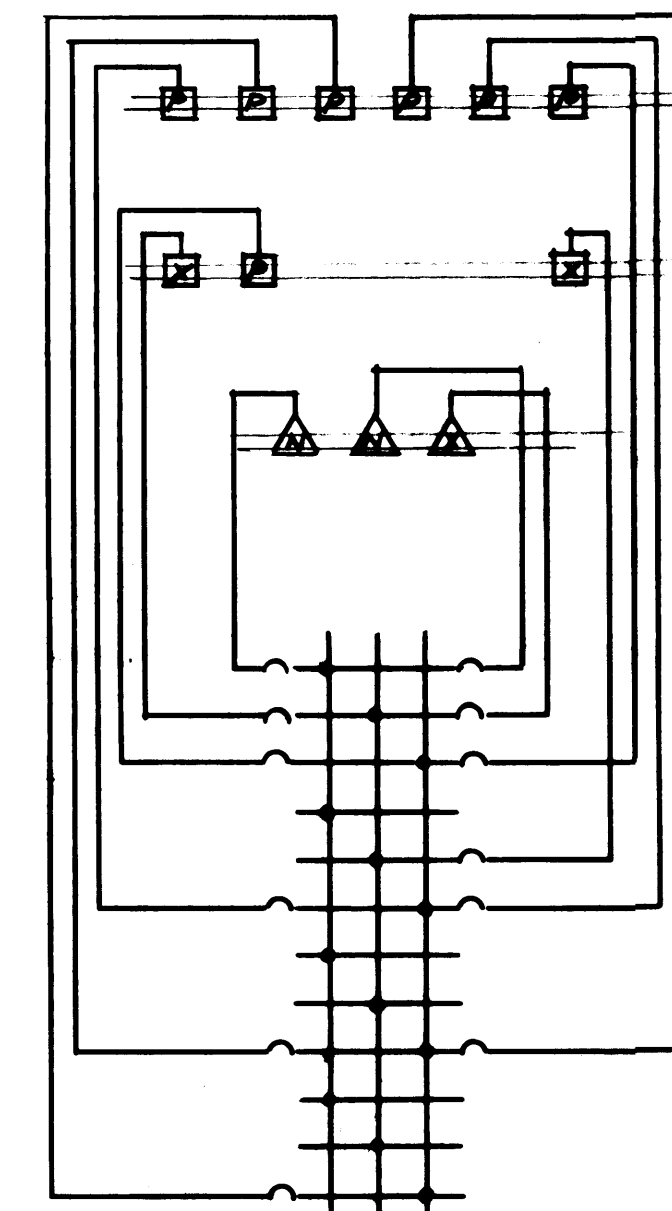
ELECTRICAL DIAGRAM

SEWAGE LIFT STATION DETAIL

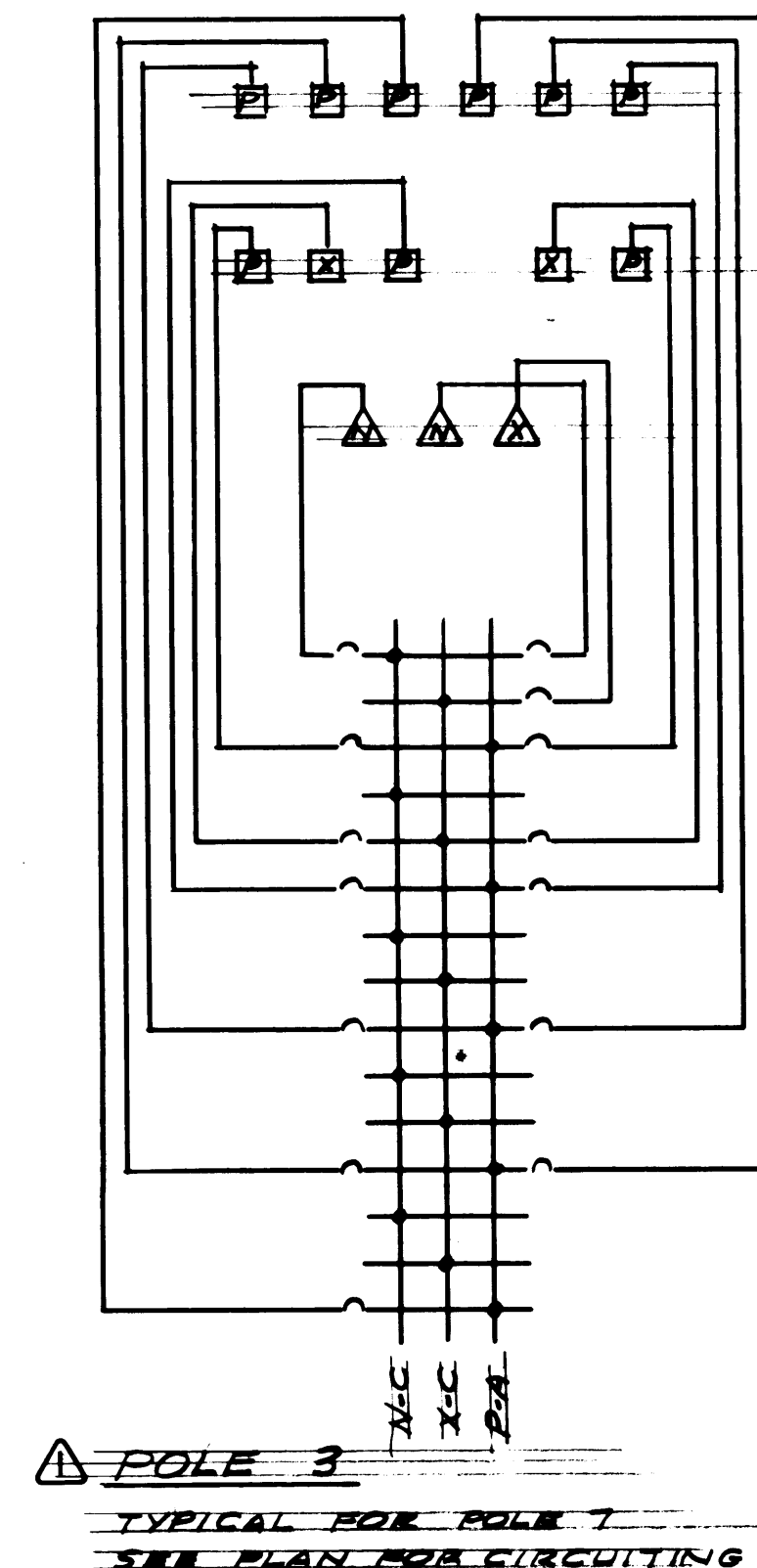
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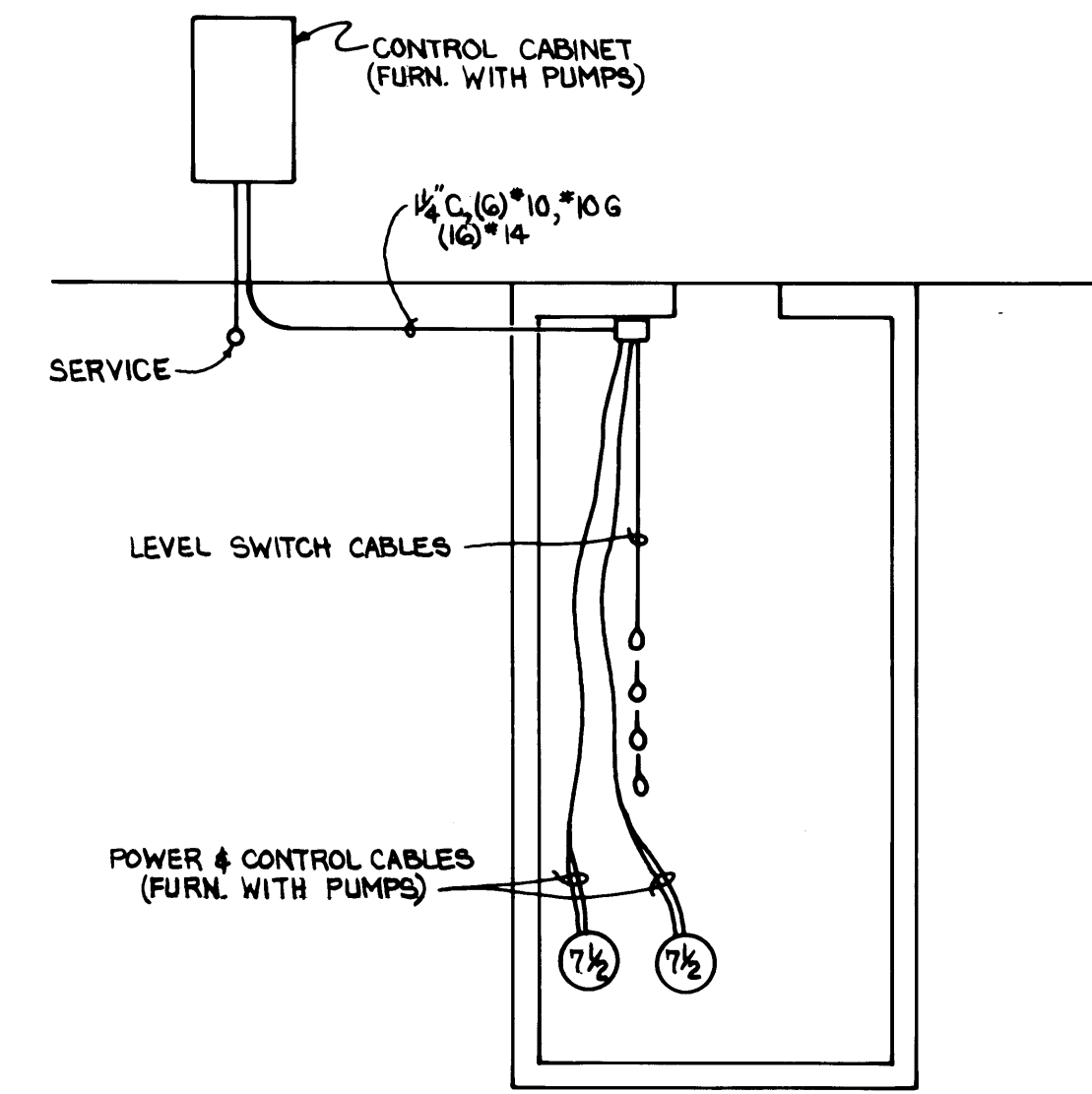
POLE
TYPICAL FOR POLES 2 & 3 THRU 49
SEE PLAN FOR CIRCUITING



POLE 4
TYPICAL FOR POLES 5 & 6
SEE PLAN FOR CIRCUITING

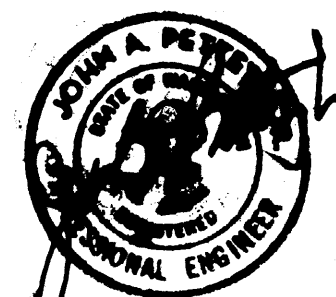
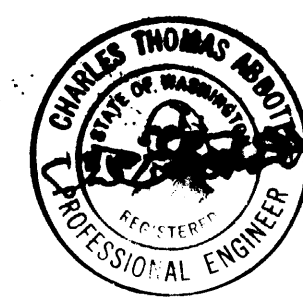


POLE 3
TYPICAL FOR POLE 1
SEE PLAN FOR CIRCUITING



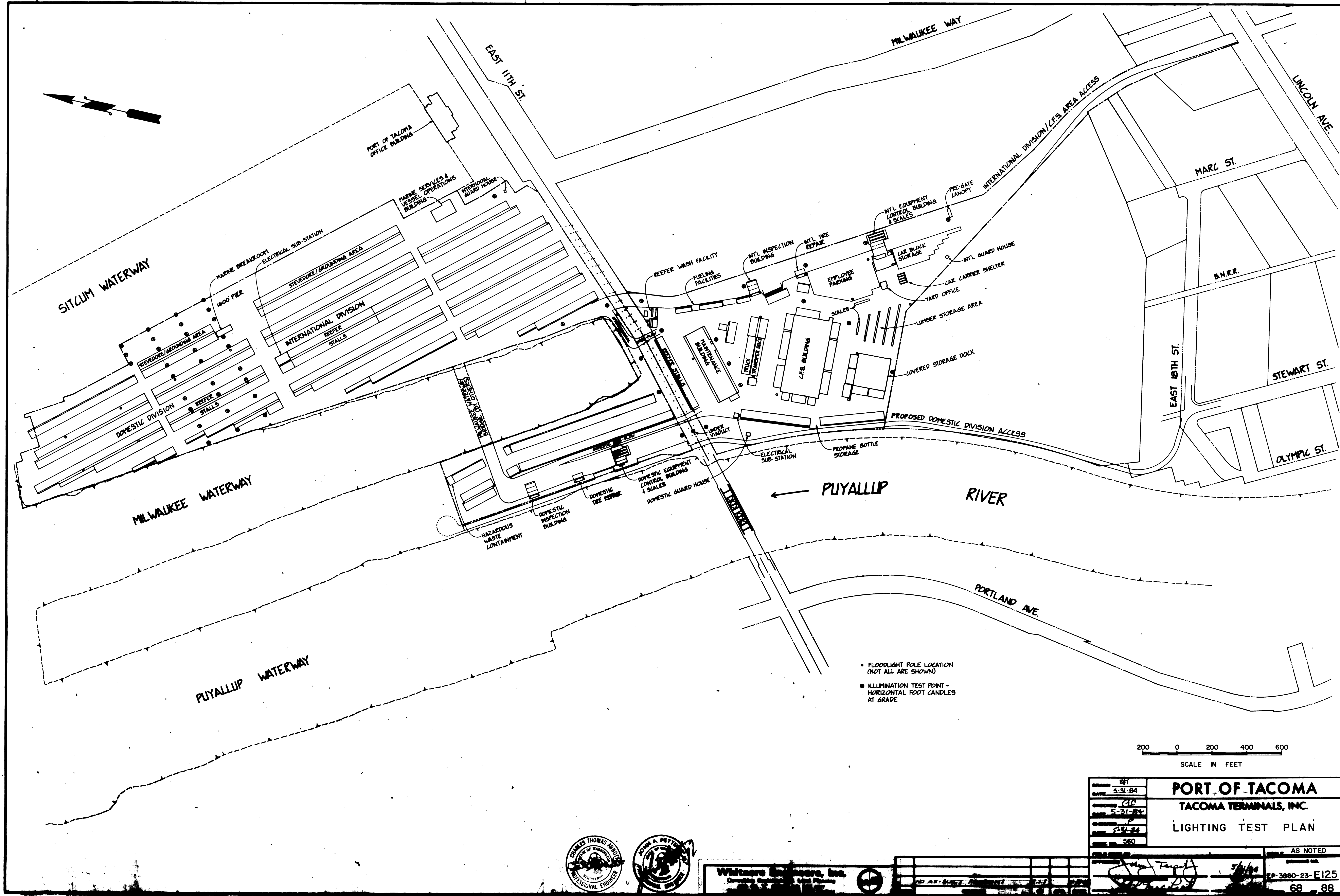
SECTION THROUGH
SEWAGE LIFT STATION

DRAWN B.C. DATE 5/31/84		PORT OF TACOMA TACOMA TERMINALS, INC.	
CHECKED PC DATE 5-31-84		LIGHTING DISTRIBUTION DIAGRAM	
CHECKED P DATE 5-31-84		CONT. NO. 560	
FIELD BOOK (S)		SCALE NONE	
APPROVED [Signature] DATE 5/31/84		DRAWING NO. EP-3880-23-E124	
PROJECT MANAGER [Signature] DATE 5/31/84		SHEET 67 OF 88	
CHIEF ENGINEER [Signature]			

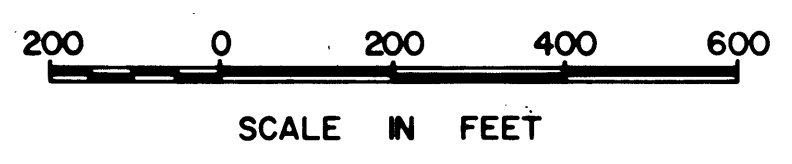


Whitacre Engineers, Inc.
Consulting Engineering & Land Planning
2500 1st St. SE
TACOMA, WASHINGTON 98402 (206) 255-2044

MARK	REVISION	BY	APP.	DATE
	REVISED TO AS-BUILT	R.J.S		11-27-84



- FLOODLIGHT POLE LOCATION (NOT ALL ARE SHOWN)
- ILLUMINATION TEST POINT - HORIZONTAL FOOT CANDLES AT GRADE



PORT OF TACOMA TACOMA TERMINALS, INC. LIGHTING TEST PLAN	
DATE: 5-31-84	AS NOTED
BY: J. A. PETTY	EP-3880-23-F125
CHECKED: J. A. PETTY	68 88
APPROVED: J. A. PETTY	



Whitcomb Engineers, Inc.
Consulting Engineers and Planners
2000 1st Avenue
Tacoma, WA 98402

MATCH LINE - SEE SECTOR 2

MATCH LINE - SEE SECTOR 3

53

MILWAUKEE WATERWAY

MILWAUKEE WATERWAY BRIDGE
(BY OTHERS)

HAZARDOUS WASTE
CONTAINMENT AREA

74

DOMESTIC
DIVISION

75

76

72

73

INTERNATIONAL
DIVISION

72

73

1" COMPRESSED AIR LINE
CONNECT BOTH ENDS TO COMPRESSED
AIR PIPING FOR BUILDINGS. SEE BUILDING
DRAWINGS.

DOMESTIC
EQUIPMENT
BUILDING

DOMESTIC
EQUIPMENT
BUILDING

NEW LEVEE ACCESS ROAD

PIYALLUP WATERWAY

2
MIIB

2
MIIB

PIYALLUP WATERWAY

PIYALLUP WATERWAY

PIYALLUP WATERWAY

PIYALLUP WATERWAY

PIYALLUP WATERWAY

PIYALLUP WATERWAY

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PIYALLUP WATERWAY

PIYALLUP WATERWAY

PIYALLUP WATERWAY

PIYALLUP WATERWAY

PIYALLUP WATERWAY

PIYALLUP WATERWAY

(3) PNEUMATIC TUBES - DOMESTIC EQUIPMENT
CONTROL BLDG. TO PRE-GATE UNDER 1100 ST. E.
(1) AUDIO UNIT CONDUIT
(1) POINT-TO-POINT MESSENGER
SYSTEM TO C.E.S. BLDG.

NOTE: P.T.S. SUB-CONTRACTOR MUST COORDINATE
CONDUIT LOCATIONS WITH OTHER UTILITIES AND
STRUCTURES INCLUDING:
STORM SEWER
SANITARY SEWER & WATER
POWER & COMMUNICATIONS
SCALES

1" COMPRESSED AIR LINE.
SEE DRAWING M301
FOR CONTINUATION.

NOTE: SEE DRAWING NO. C-111 & C-112 FOR DETAIL UNDER VIADUCT.

PORT OF TACOMA

TACOMA TERMINALS, INC.

P.T.S., AIR, & LUBE OIL LINES

AS NOTED

