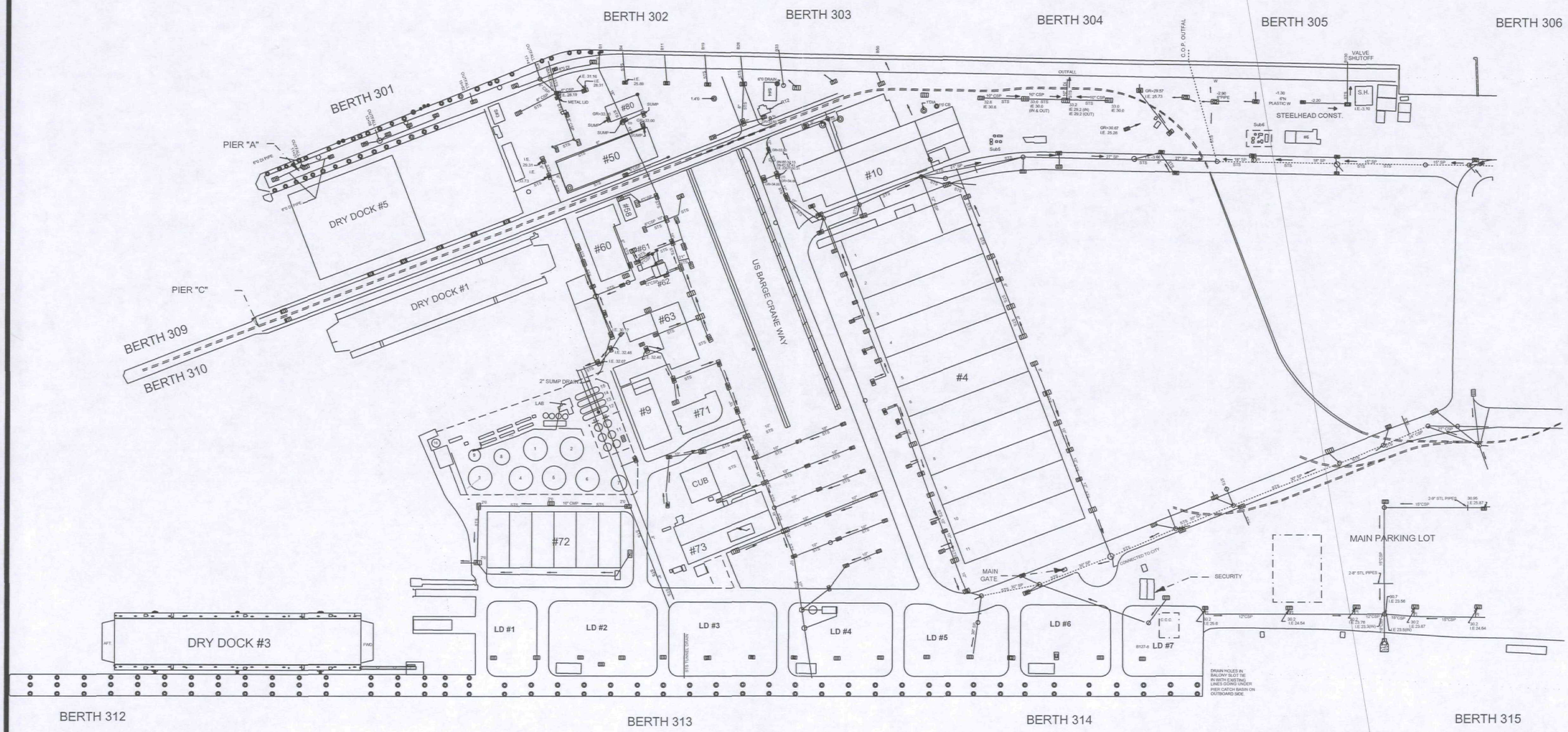
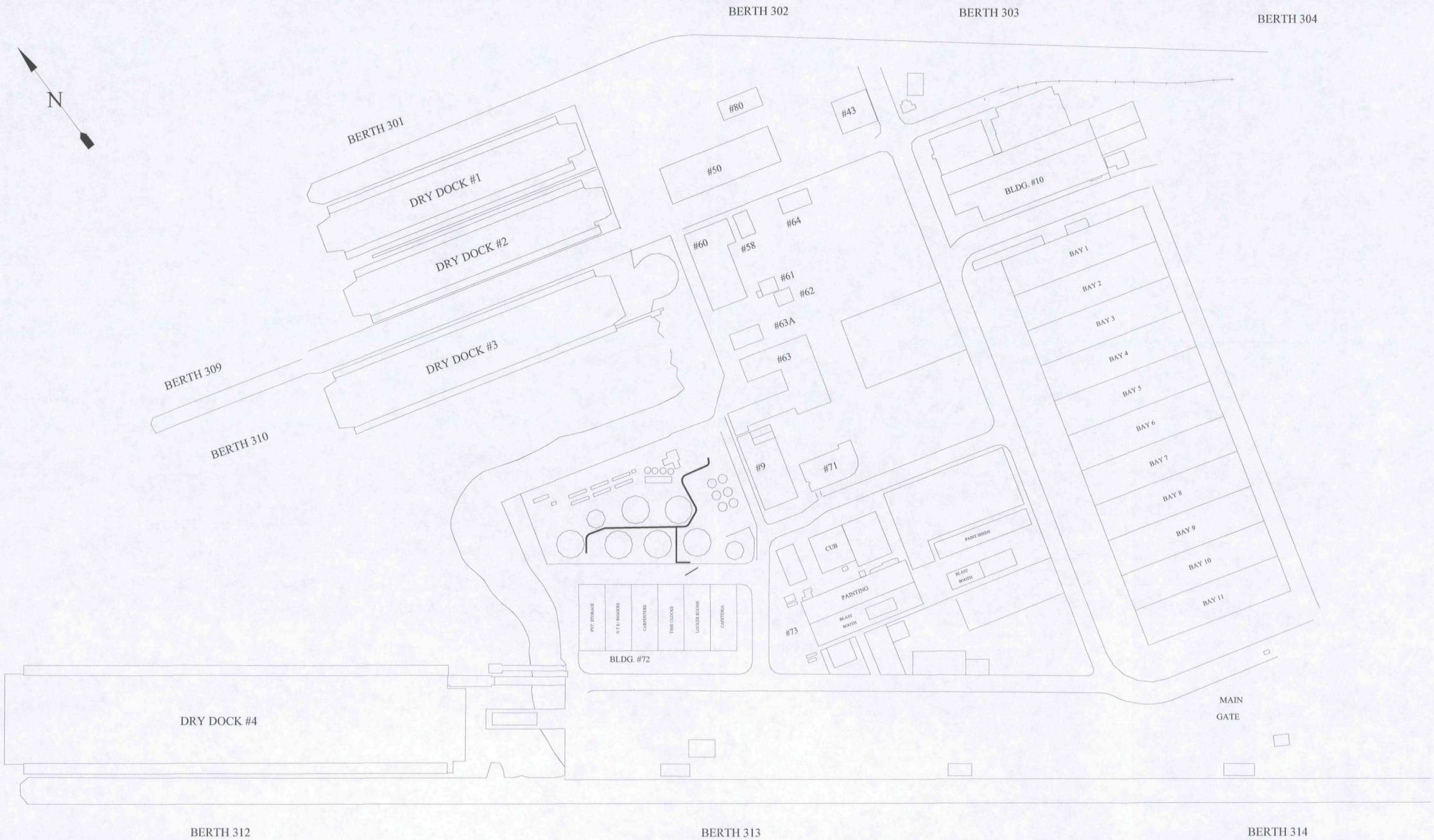
PORSF 11.3.119.1 v.24
7/1/09

SWAN ISLAND BASIN

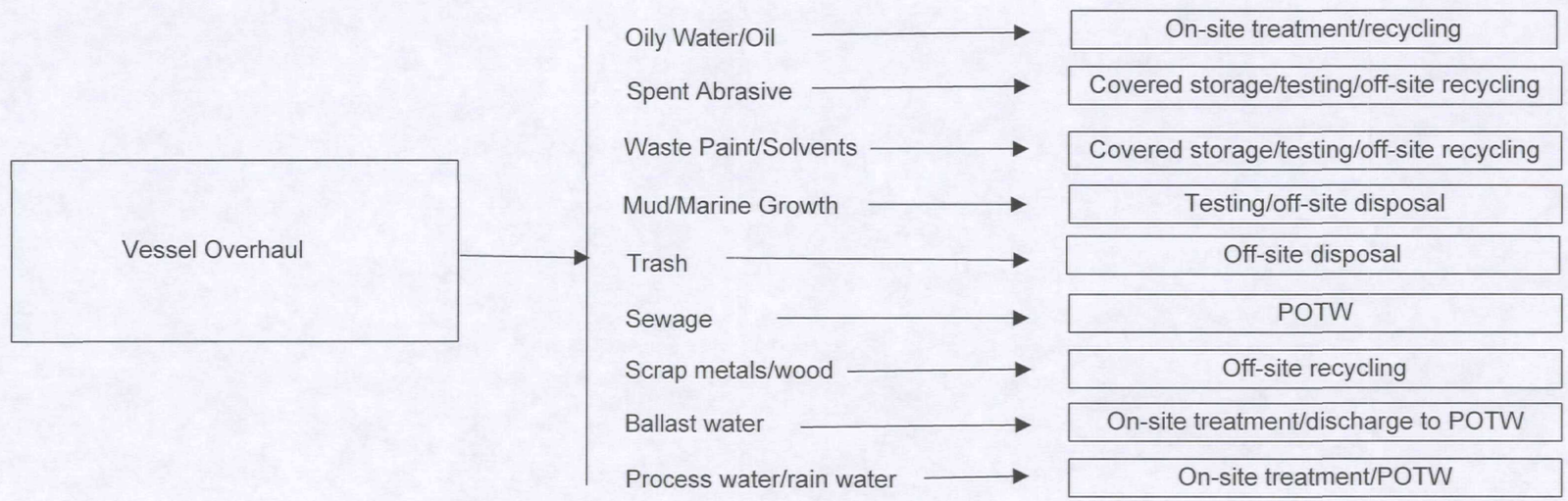


DRY DOCK LOCATIONS 2007 TO PRESENT

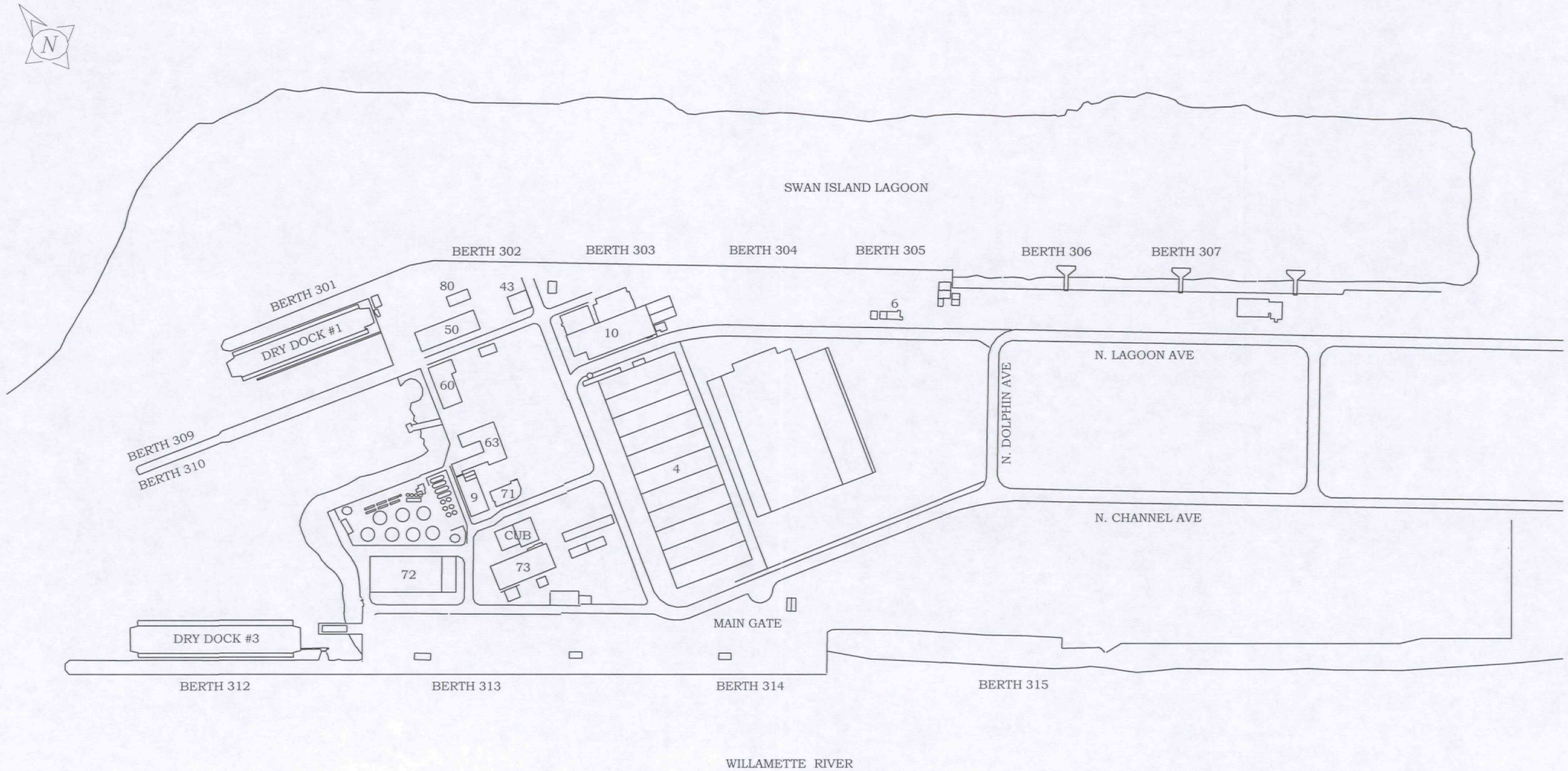
USEPA SF
1363934



DRY DOCK LOCATIONS 1979 - 1992

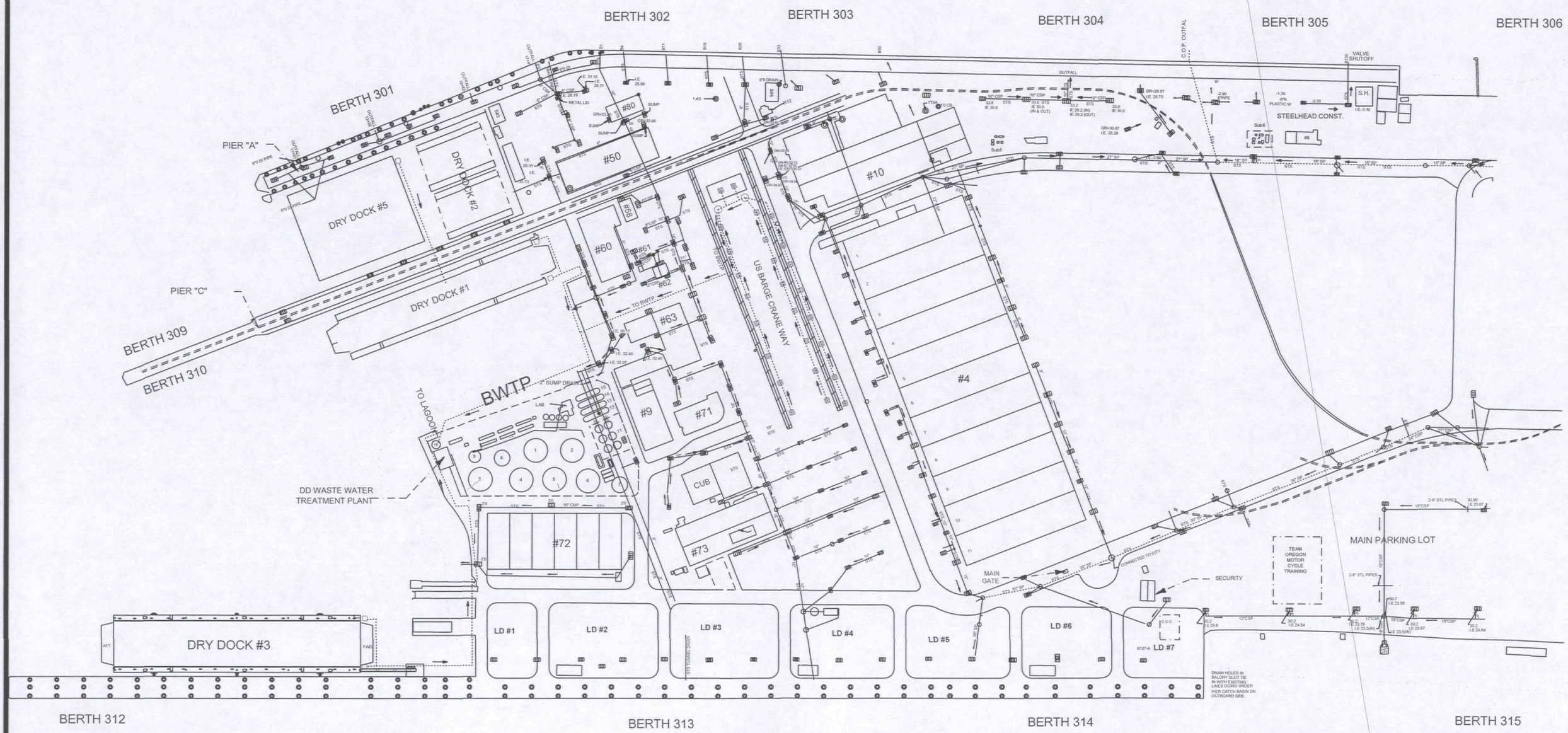


PROCESS DIAGRAM FOR VESSEL REPAIR



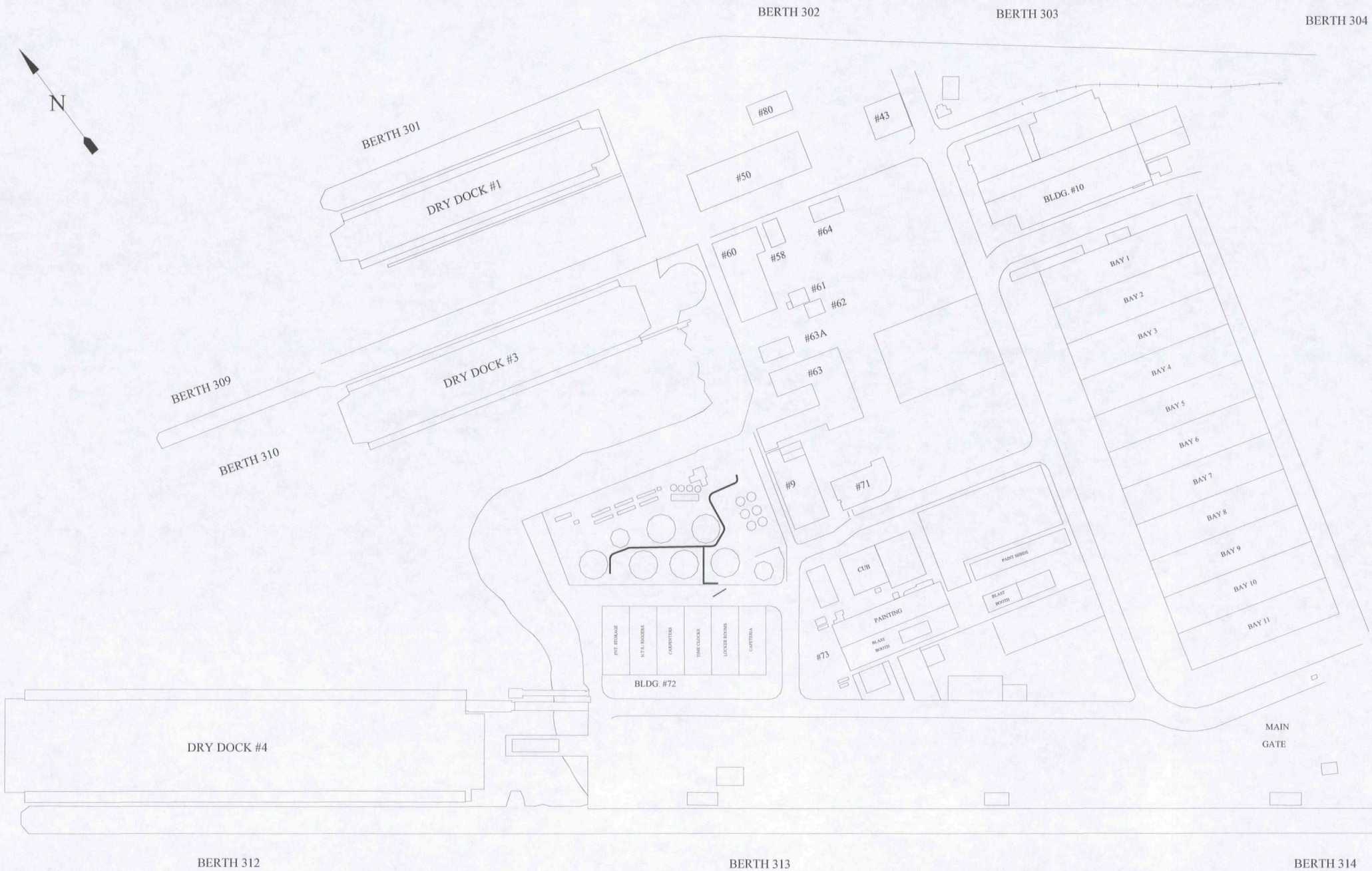
DRY DOCK LOCATIONS 2003 - 2007

SWAN ISLAND BASIN

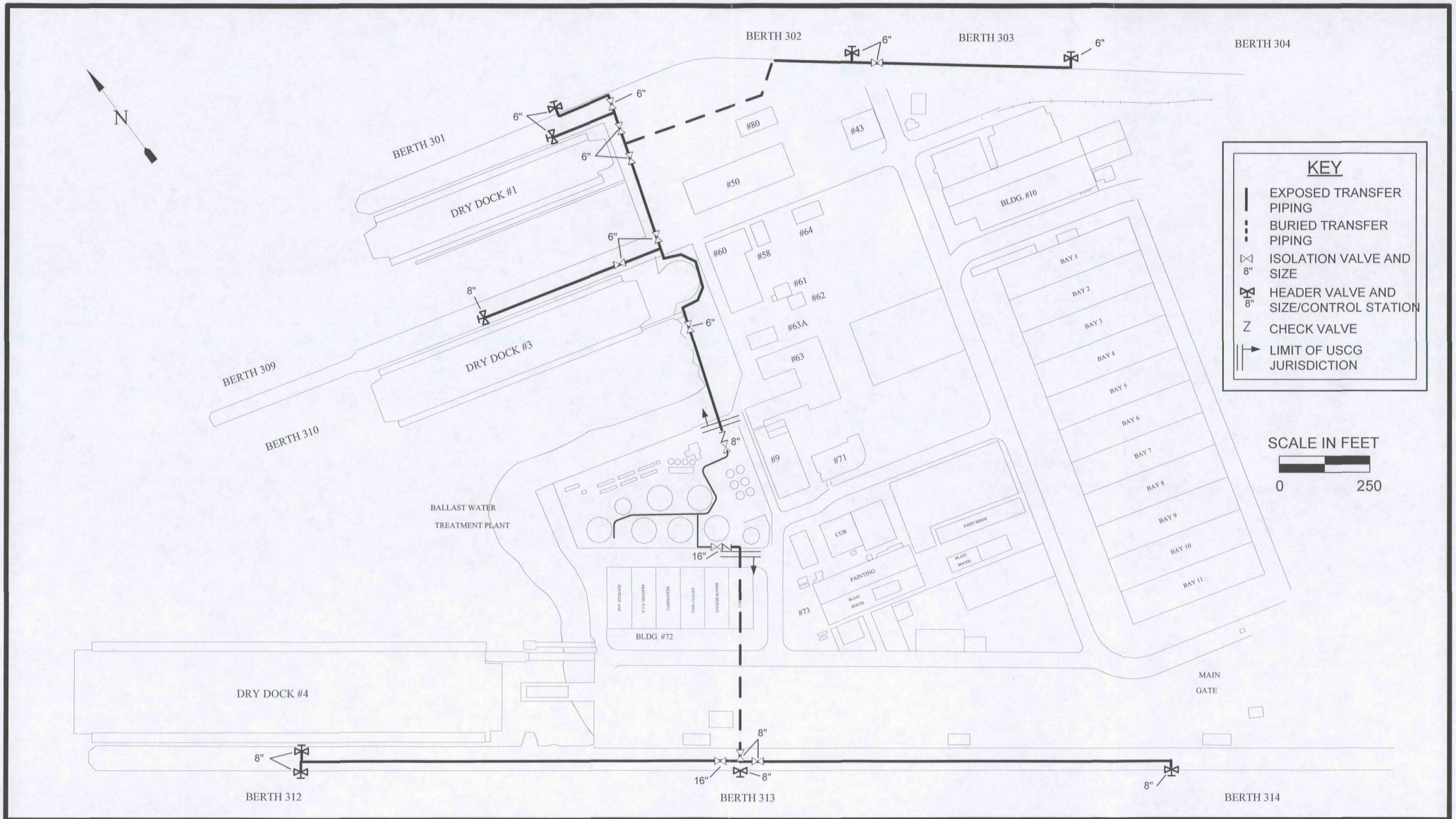


CASCADE GENERAL
PORTLAND SHIPYARD

PORTLAND SHIPYARD STORMWATER DRAINAGE

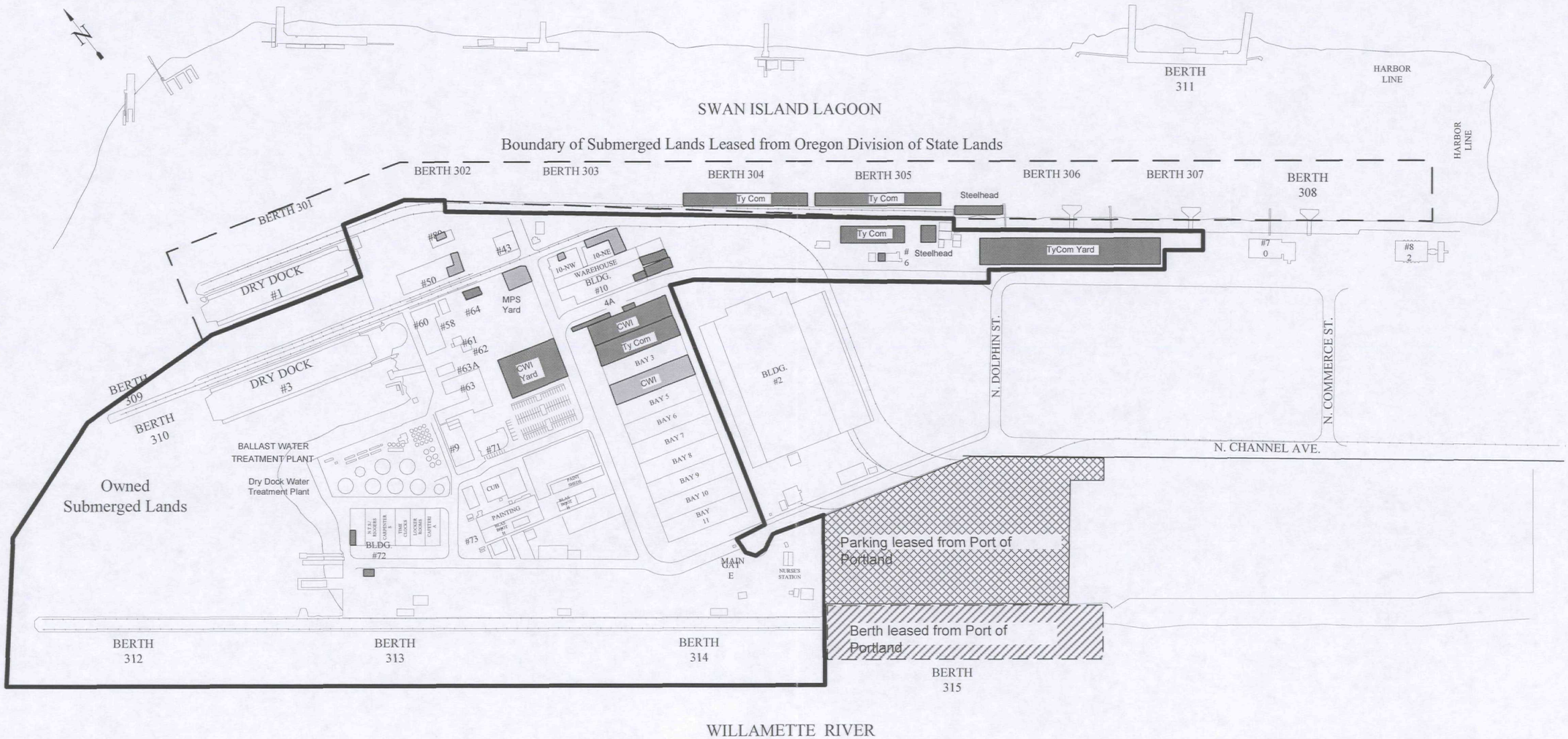


DRY DOCK LOCATIONS 1992 - 2002



FIXED TRANSFER FACILITY PIPING AND VALVE DIAGRAM

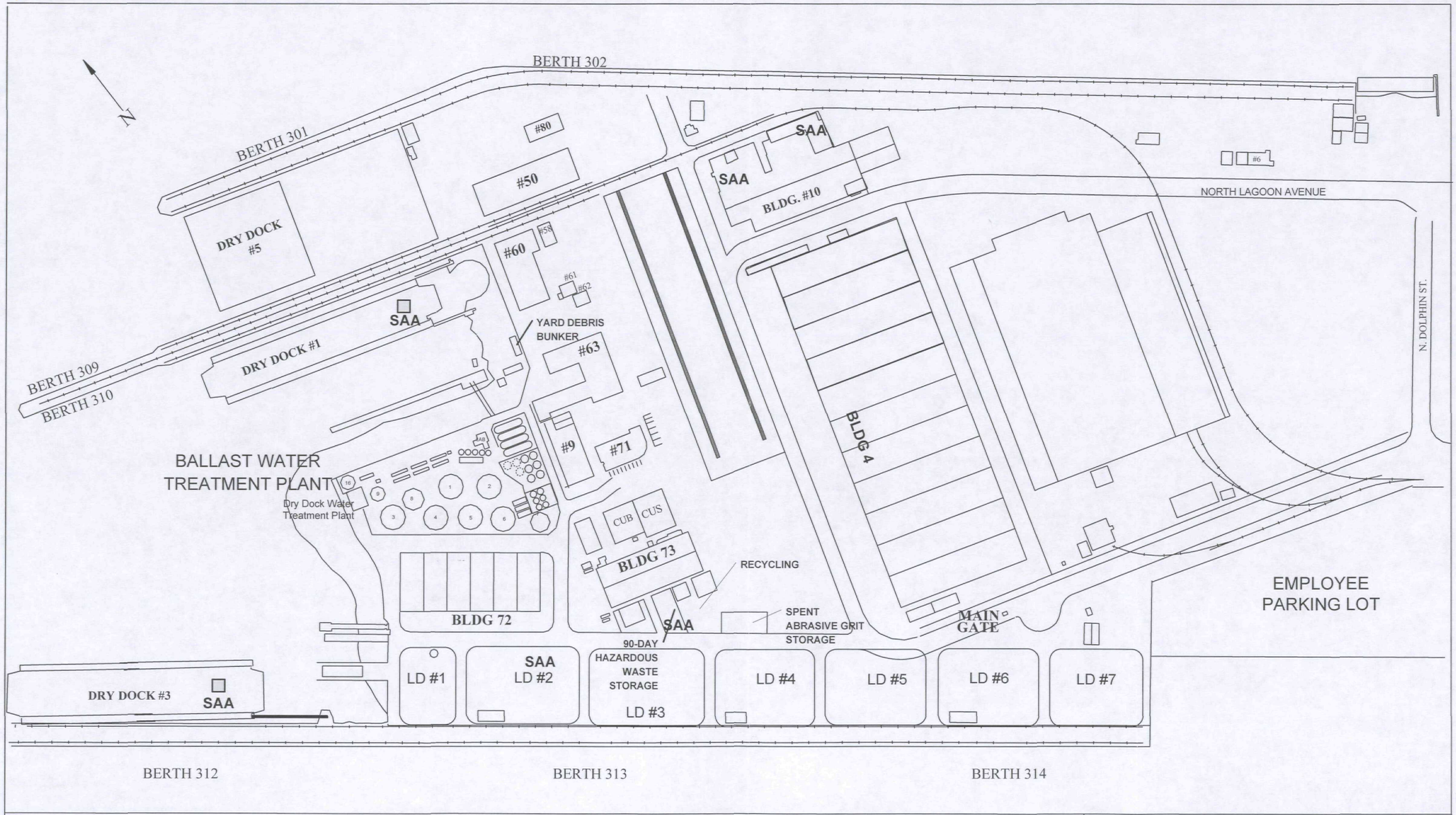
FIGURE 4



CASCADE GENERAL
PORTLAND SHIPYARD

APPROXIMATE SCALE: 1" = 400'

PORTLAND SHIPYARD FACILITY MAP



WASTE STORAGE AREAS

KEY

SAA..... SATELLITE ACCUMULATION AREA

Equipment Repair and Maintenance Shops

Scrap Metals
Scrap Wood
Trash
Oils
Aerosol Cans
Degreasers

Machine Shops

Scrap Metal
Trash
Oils
Aerosol Cans
Degreasers

Ship Repair

Scrap Metals
Scrap Wood
Trash
Oils
Aerosol Cans
Degreasers
Paint
Solvent
Abrasive
Mud
Marine Growth
Lights

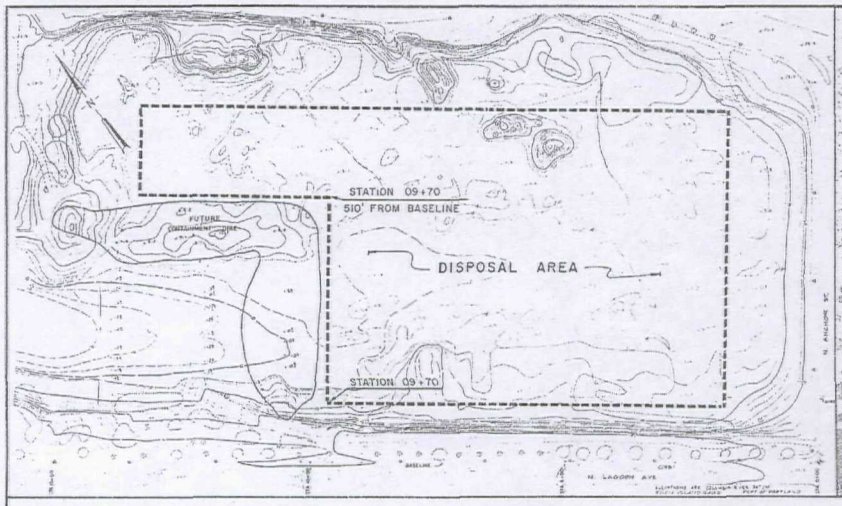
Dry Docks

Mud
Waste Water
Stormwater
Trash

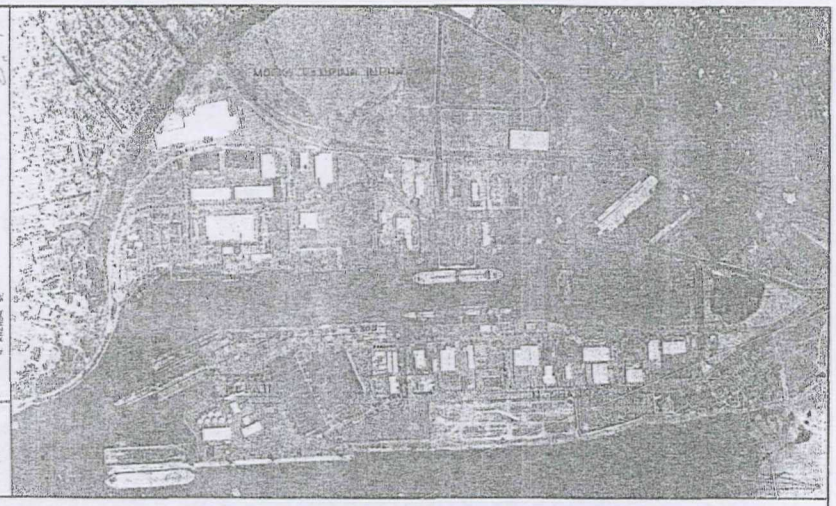
Treatment Plant

Mud
Waste Water
Stormwater
Trash

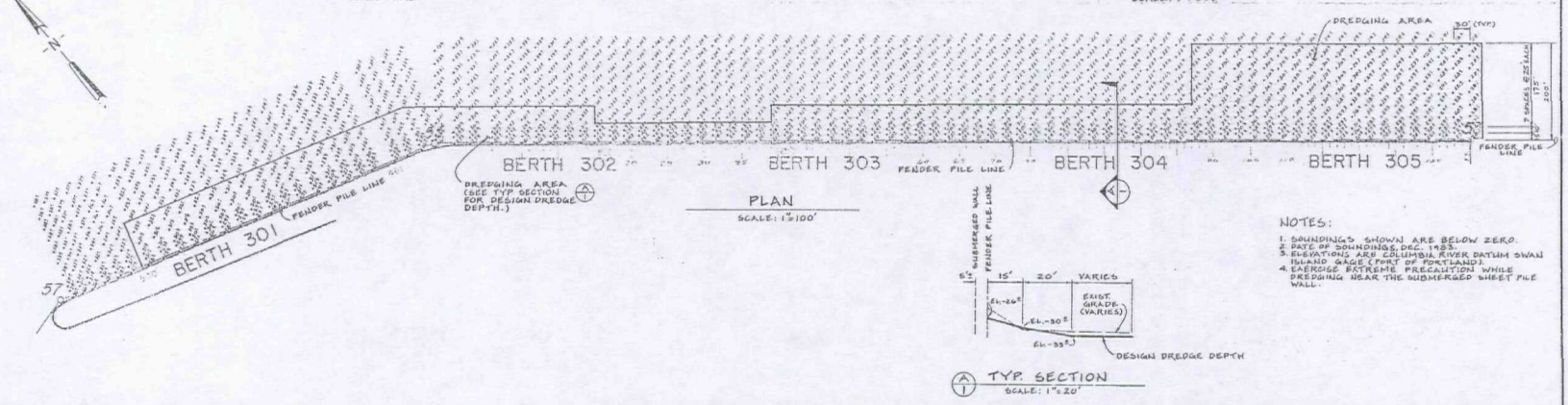
QUESTION 37 RESPONSE



DISPOSAL AREA PLAN
SCALE: 1"=100'



SITE PLAN
SCALE: 1"=600'



PLAN
SCALE: 1"=100'

TYP. SECTION
SCALE: 1"=20'

NOTES:

1. SOUNDINGS SHOWN ARE BELOW ZERO.
2. DATE OF SOUNDINGS, DEC. 1985.
3. ELEVATIONS ARE COLUMBIA RIVER DATUM SWAN ISLAND GAGE (PORT OF PORTLAND).
4. EXERCISE EXTREME PRECAUTION WHILE DREDGING NEAR THE SUBMERGED SHEET PILE WALL.

NO	DATE	BY	REVISIONS	CK'D	APP'V'D	NO	DATE	BY	REVISIONS	CK'D	APP'V'D
						1	7-9	LP	AS BIG		

THE PORT OF PORTLAND
PORTLAND, OREGON

MANAGER, SHIP REPAIR YARD
PROJECT MANAGER
MANAGER, PORT CONSTRUCTION
DIRECTOR, ENGINEERING SERV.
DIRECTOR, MARINE SERV.

DESIGNED BY	D. GOYAL
DRAWN BY	SH. KOHANI
CHECKED BY	D.L. DITTMER
DATE	JUNE, 1985
SCALE	AS SHOWN

PORTLAND SHIP REPAIR YARD
BERTH 301-305 DREDGING

SUBMITTED BY
PE OR SENR. DESIGN MANAGER

DRAWING NO. YA 85-23 1/1

SEP 18 1987

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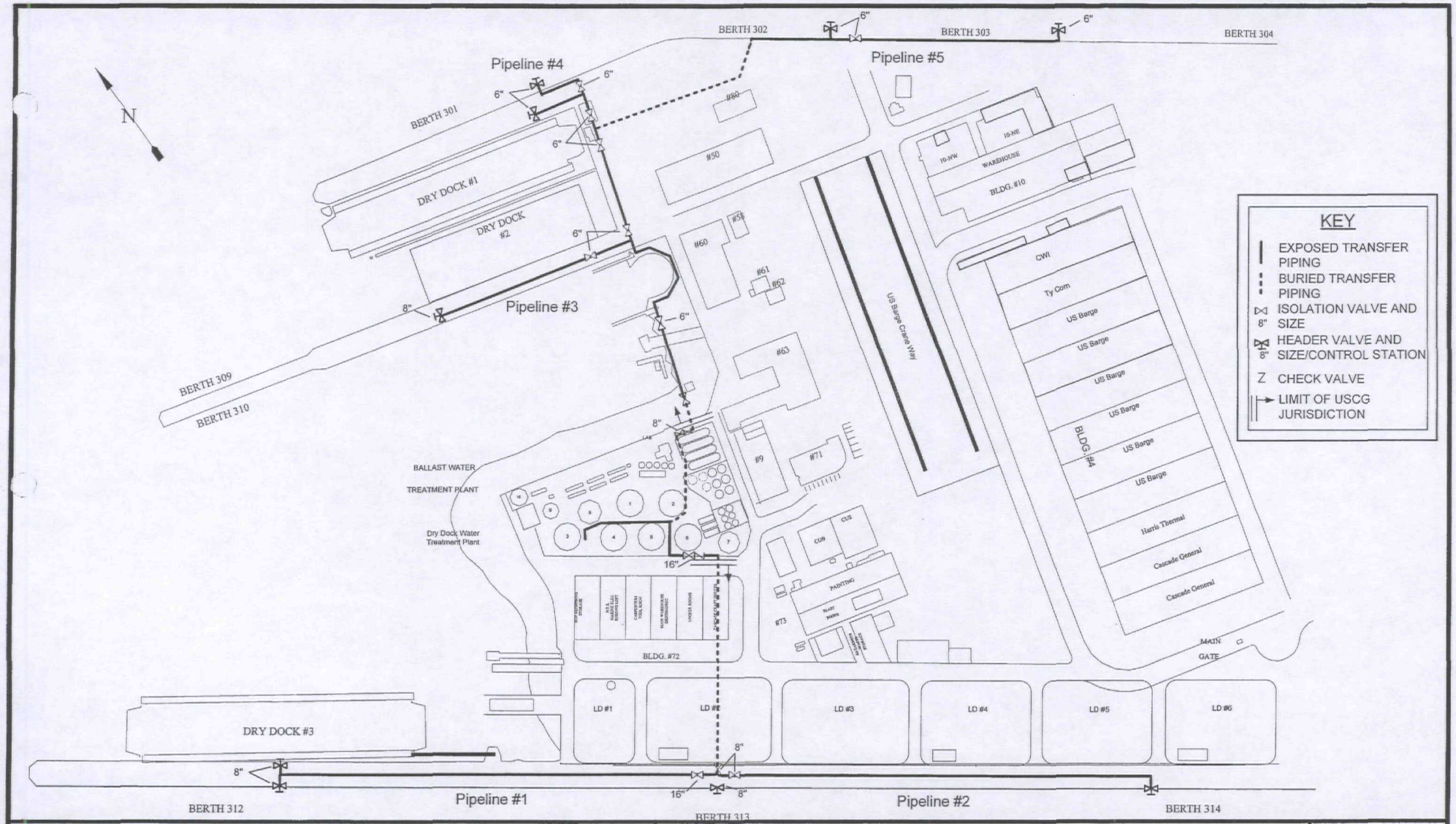
MICROFILMING IMAGE SYSTEMS NO. 771-2061

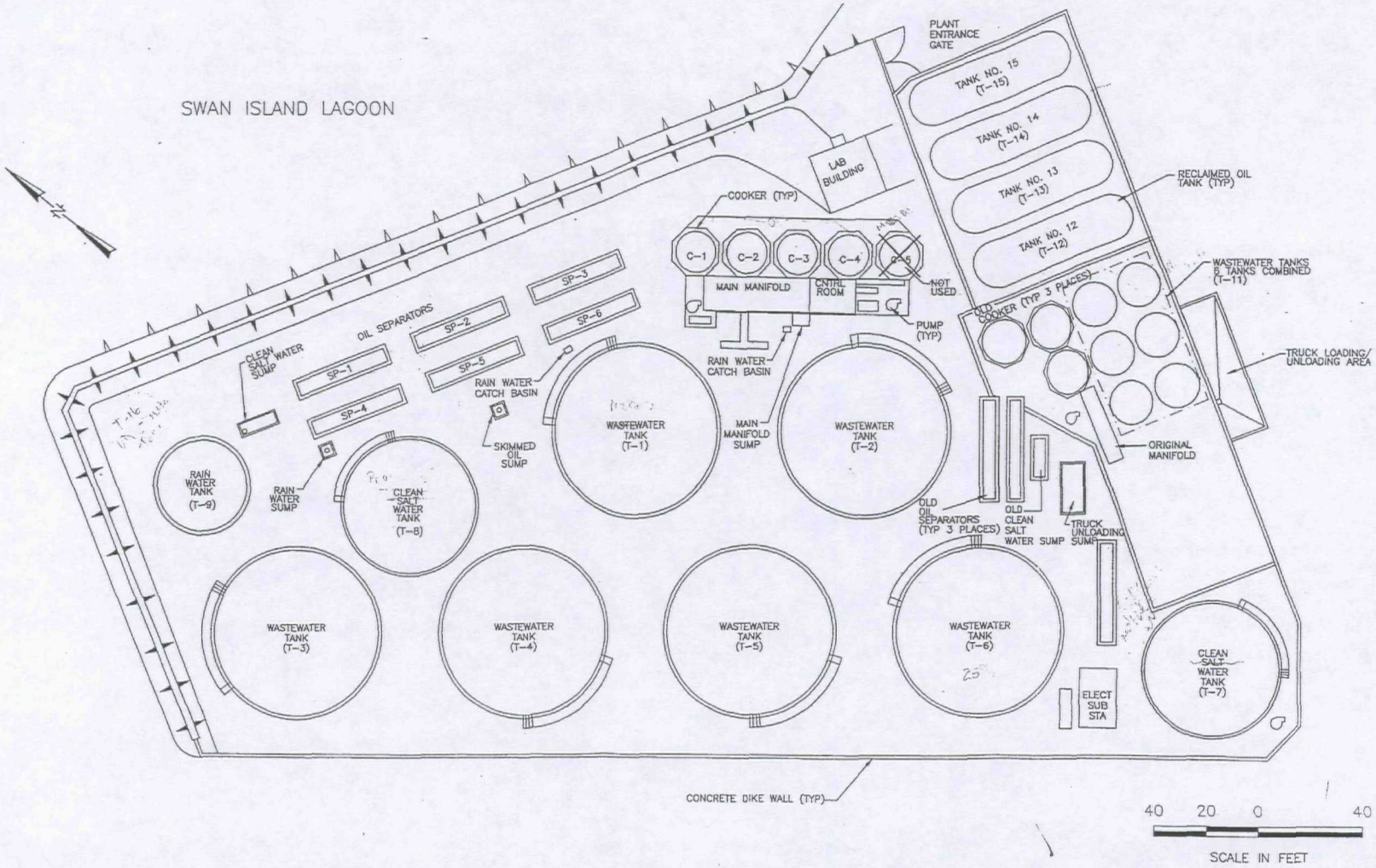


CASCADE GENERAL
PORTLAND SHIPYARD

SCALE IN FEET
0 250

BALLAST WATER TREATMENT PLANT PIPING AND VALVE DIAGRAM

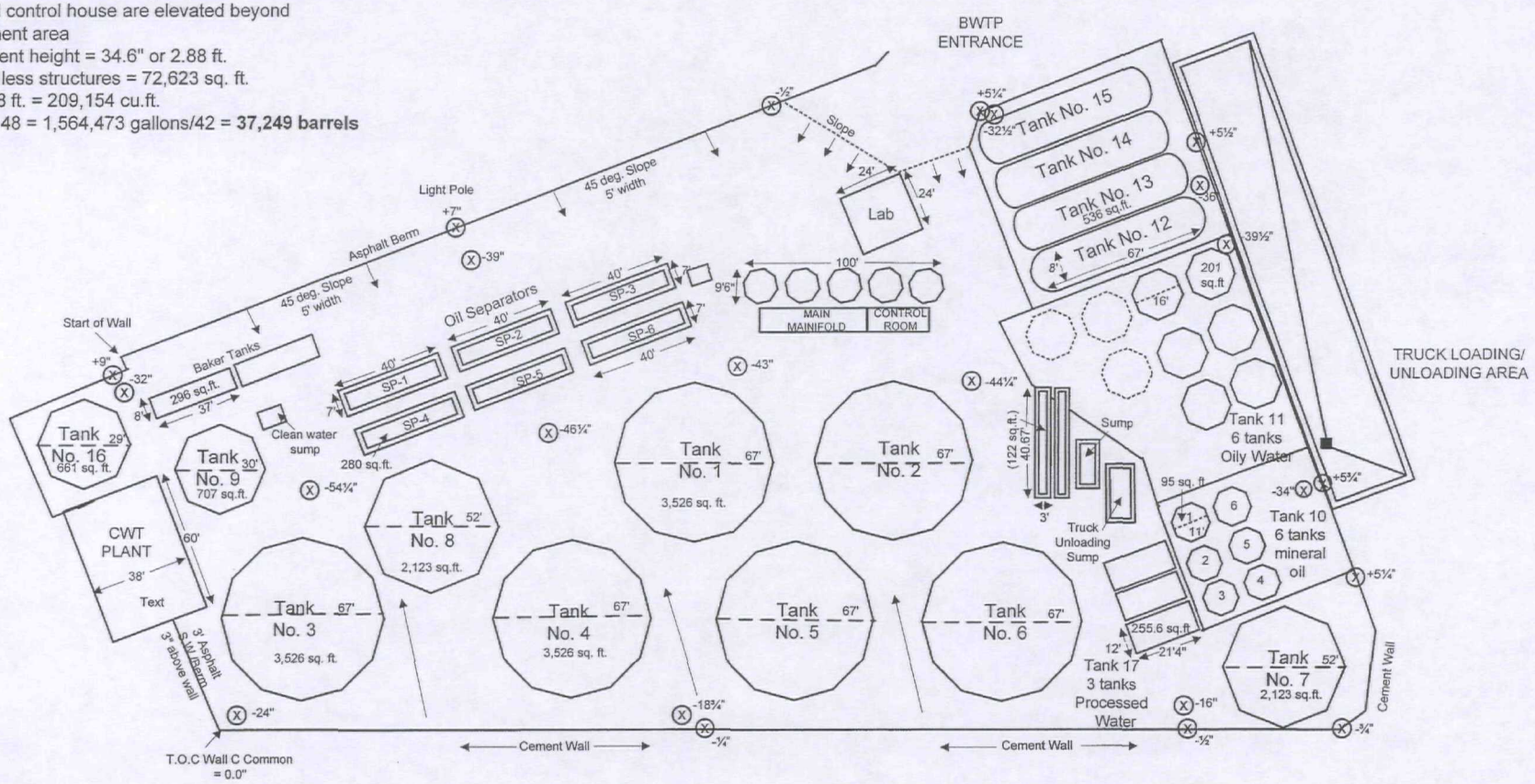
FIGURE 4



DESIGNED BY: TCW	SCALE: AS SHOWN	centurywest ENGINEERING CORPORATION	PORT OF PORTLAND PORTLAND, OREGON	PORTLAND SHIP YARD BALLAST WATER TREATMENT PLANT LAYOUT	FIGURE 3-1
DRAWN BY : LDM	DATE : 09/10/93				
CHECKED BY :	FILE :				
PROJECT NO.: 4003805102-4002					

Notes

Total Containment Area: Approximately 108,725 sq.ft.
Tanks 12-15 are 1 ft. above ground, actual tank diameter is 15' and length = 75' however, area within avg. containment height (2.88') is 8' x 67' = 536 sq. ft. per tank.
Main manifold and control house are elevated beyond average containment area
Average containment height = 34.6" or 2.88 ft.
Containment area less structures = 72,623 sq. ft.
72,623 sq. ft x 2.88 ft. = 209,154 cu.ft.
209,154 cu. ft. x 7.48 = 1,564,473 gallons/42 = **37,249 barrels**



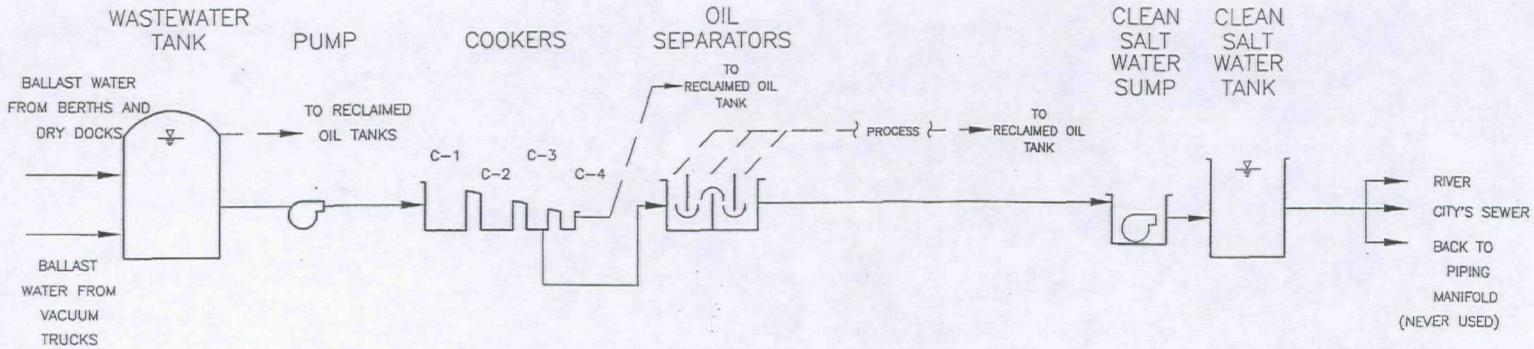
CASCADE GENERAL
PORTLAND SHIPYARD

2007

BALLAST WATER TREATMENT PLANT CONTAINMENT CAPACITY

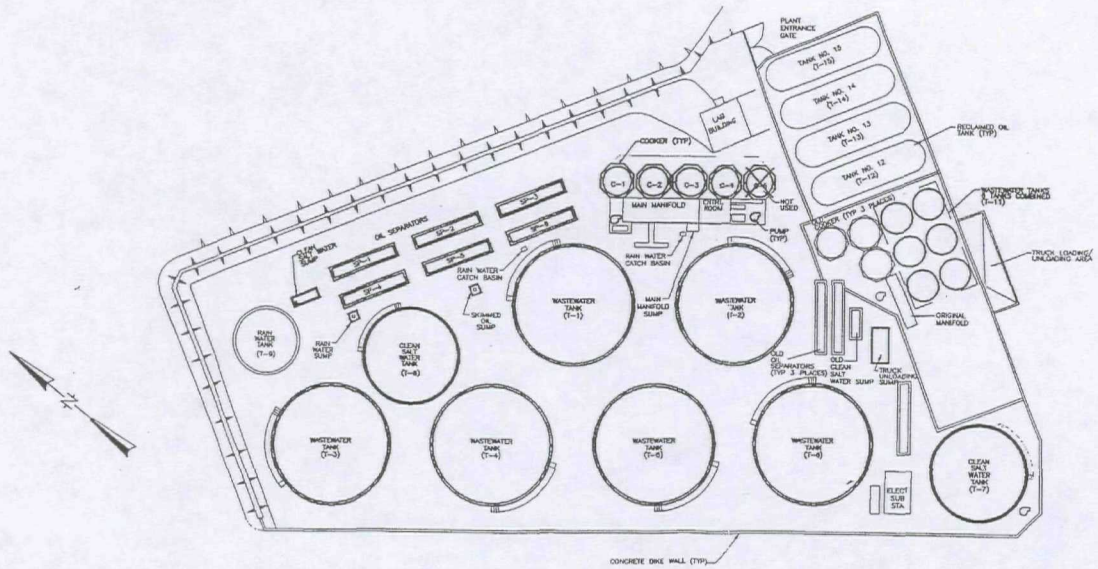
FIGURE 3

BALLAST WATER FLOW

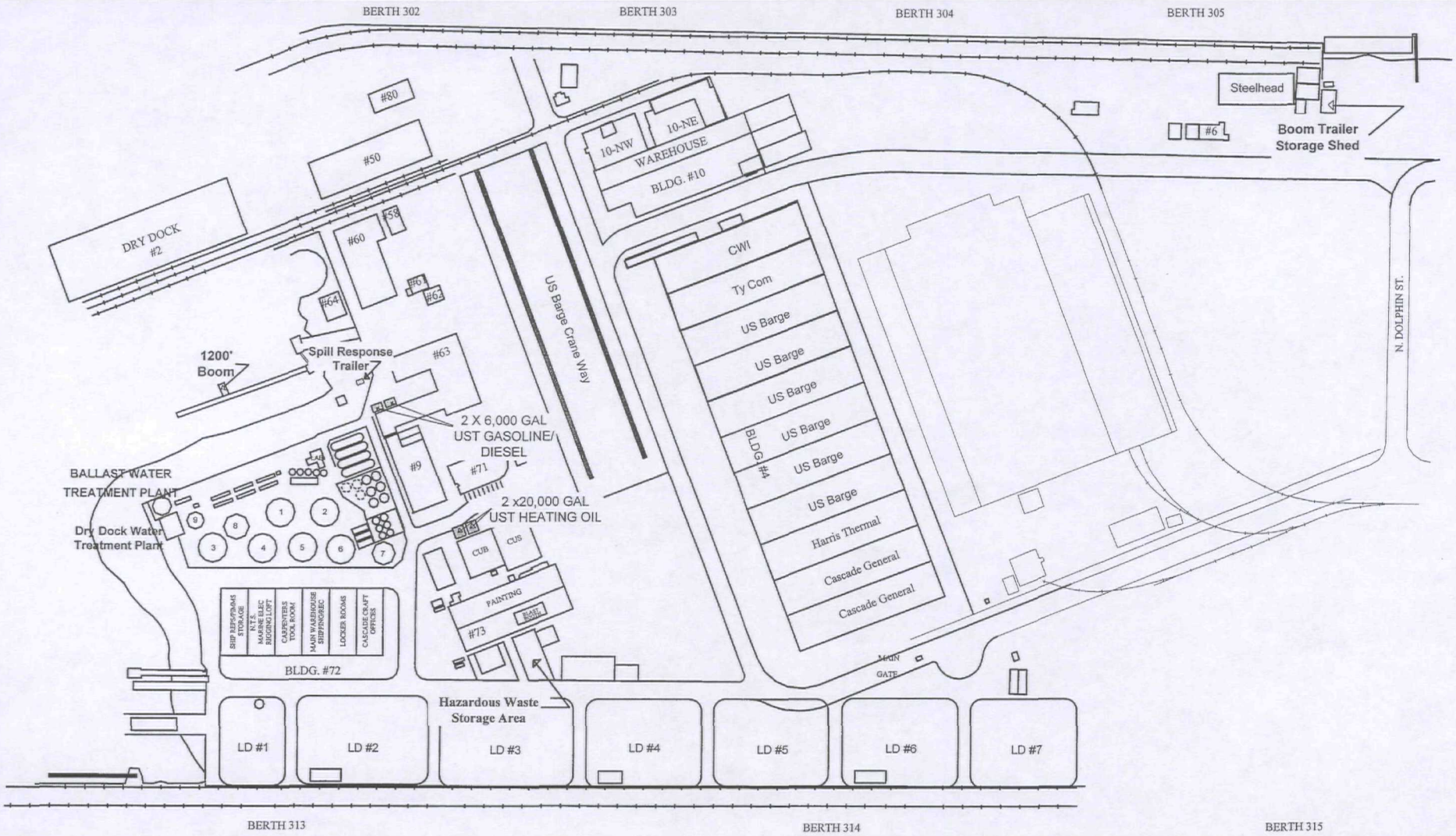


WATER FLOW

OIL FLOW



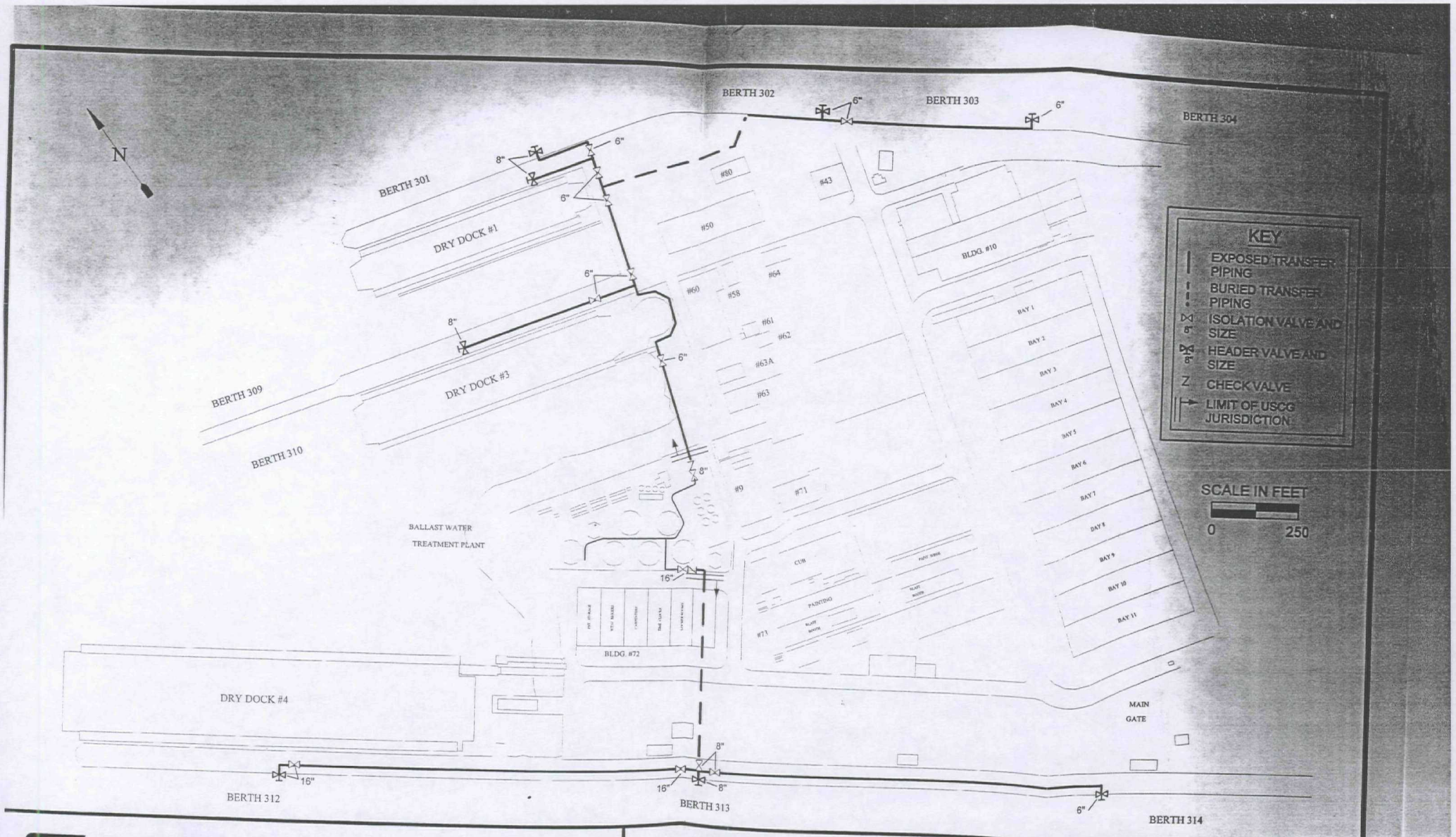
* DESIGNED BY: TCW	SCALE: NO SCALE	centurywest ENGINEERING CORPORATION	PORT OF PORTLAND PORTLAND, OREGON	PORTLAND SHIP YARD BALLAST WATER FLOW SCHEMATIC	FIGURE 3-6
DRAWN BY : LDM	DATE : 10/28/93				
CHECKED BY :	FILE :				
PROJECT NO.: 4003805102-4002					



CASCADE GENERAL
PORTLAND SHIPYARD

HAZARDOUS WASTE STORAGE AREA AND RESPONSE EQUIPMENT LOCATIONS

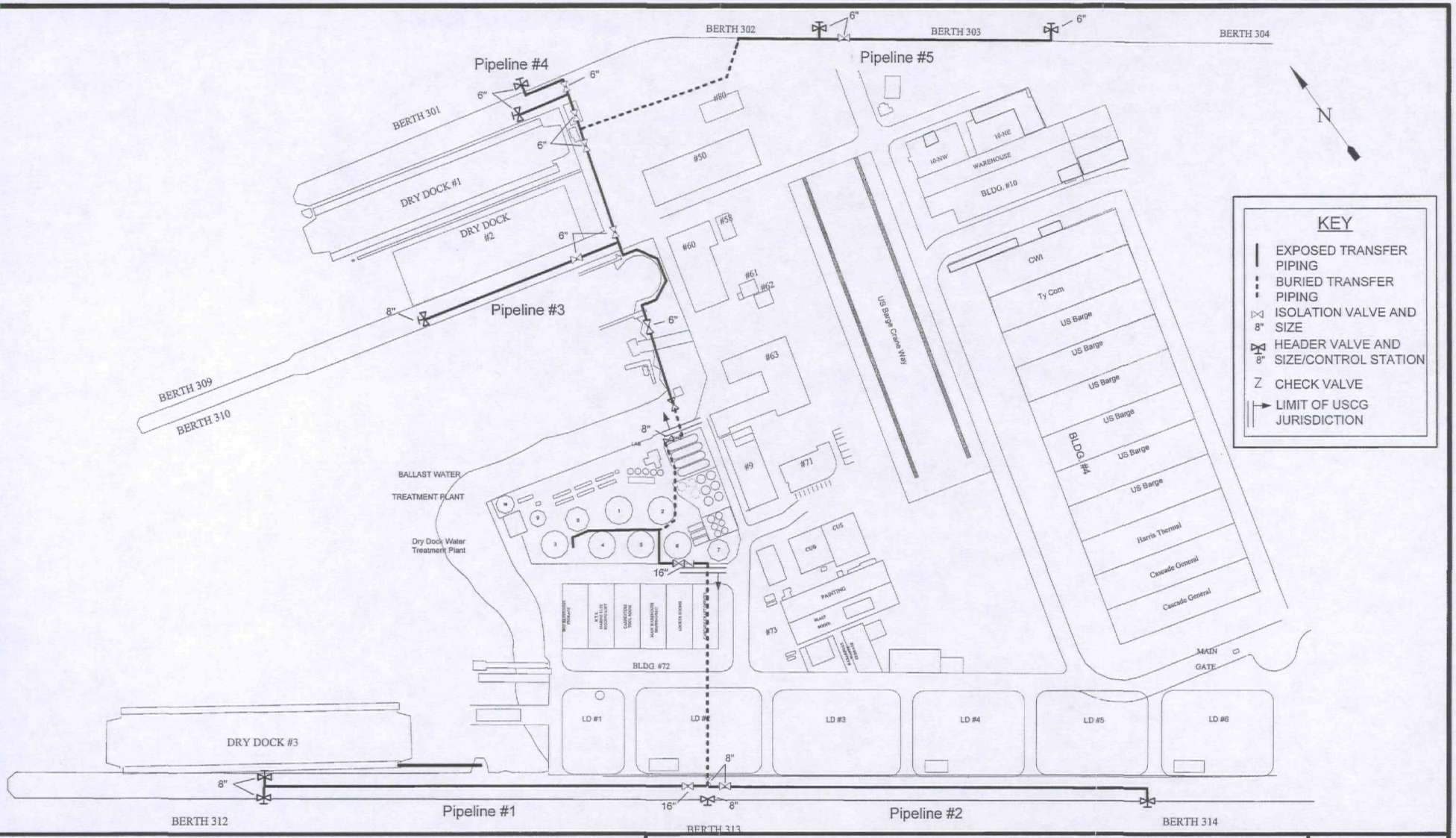
FIGURE 7



CASCADE GENERAL
PORTLAND SHIPYARD

FIXED TRANSFER FACILITY PIPING AND VALVE DIAGRAM

FIGURE 3

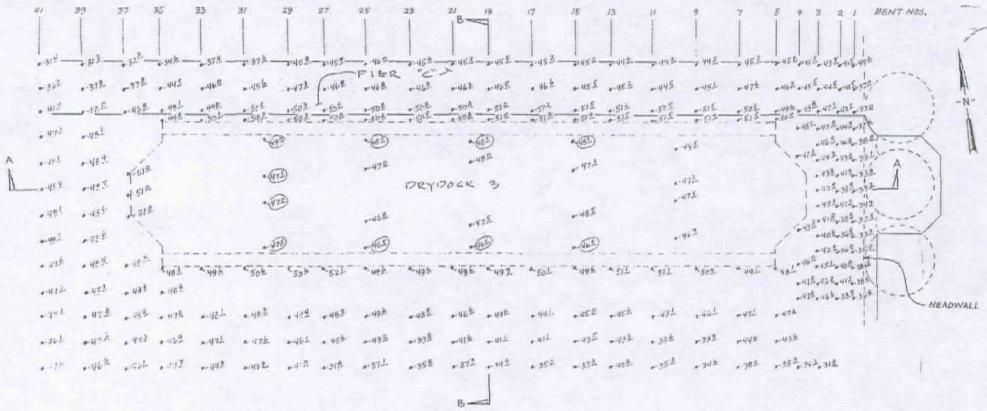


CASCADE GENERAL
PORTLAND SHIPYARD

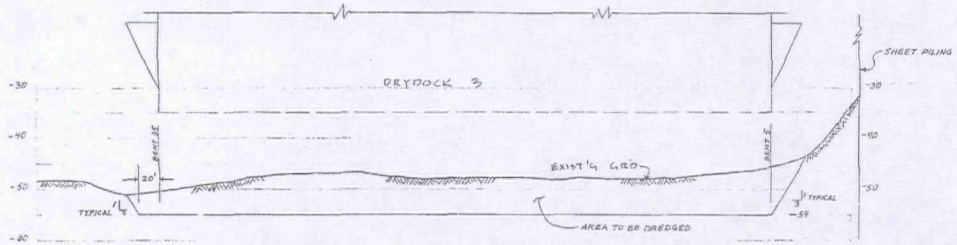
SCALE IN FEET
0 250

FIXED TRANSFER FACILITY PIPING AND VALVE DIAGRAM

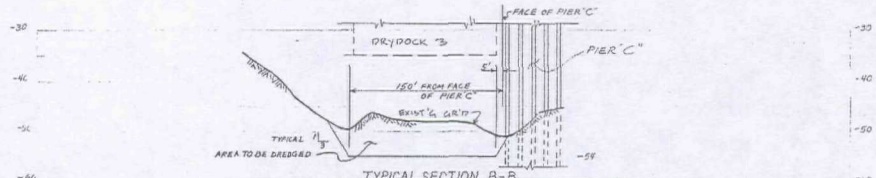
FIGURE
2.2.1-D2



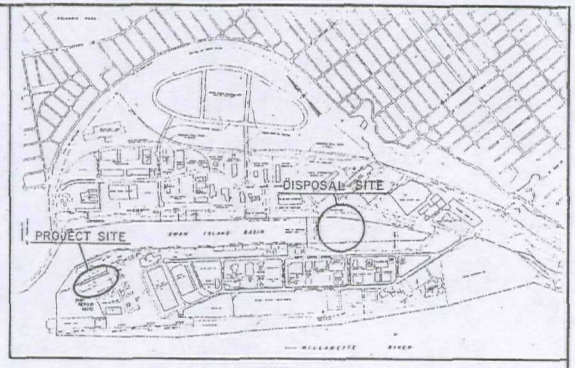
PLAN
SCALE: 1" = 50'



TYPICAL SECTION A-A
SCALE: 1" = 10' VERT.
1" = 50' HORIZ.



TYPICAL SECTION B-B
SCALE: 1" = 10' VERT.
1" = 50' HORIZ.



VICINITY MAP
N.T.S.

NOTES & LEGEND

1. SOUNDINGS -48 DATED 11-5-81
2. SOUNDINGS -46.6 DATED 2-24-81.
3. DATUM: U.S.E.D.
4. DRY DOCK #3 WILL BE MOVED FROM THE BASIN PRIOR TO THE START OF DREDGING. THE HANDLING OF D.D. #3 MOVE OUT AND BACK TO BERTH WILL BE DONE BY THE PORT OF PORTLAND.
5. △ THE BASIN SHALL BE DREDGED AS FOLLOWS:
   - A. DREDGE FROM APPROXIMATELY BENT 37, FULL WIDTH, INBOARD TO BENT 9. THE SOUTH BASIN SLOPE SHALL BE CUT FROM THE TOP TOWARD THE BOTTOM. DRY DOCK 3 WILL BE MOVED IN ON BERTH TO APPROXIMATELY BENT 20, BY THE PORT, FOLLOWING COMPLETION OF THIS WORK.
   - B. DREDGE FROM APPROXIMATELY BENT 3, FULL WIDTH, OUTBOARD TO BENT 9. THE EAST AND SOUTH BASIN SLOPES SHALL BE CUT FROM THE TOP TOWARD THE BOTTOM.

NO	DATE	BY	REVISIONS	CK'D	APP'V'D	NO	DATE	BY	REVISIONS	CK'D	APP'V'D
						△1	12-81	SR	REVISED PER ADDENDUM #1		

THE PORT OF PORTLAND
PORTLAND, OREGON

PROJECT MANAGER — MANAGER OF PORT CONSTRUCTION
DIRECTOR, PLANNING SERVICES — DIRECTOR, ENGINEERING SERVICES

DESIGNED BY	B. HOCKLEY
DRAWN BY	L. COOK
CHECKED BY	K. ASBURY
DATE	NOV. 1981
SCALE	SHOWN

PORTLAND SHIP REPAIR YARD
DRYDOCK #3 BASIN DREDGING
PLAN & SECTIONS

SUBMITTED BY: SENIOR PROJECT MANAGER

DRAWING NO. YA 81-15 1/1

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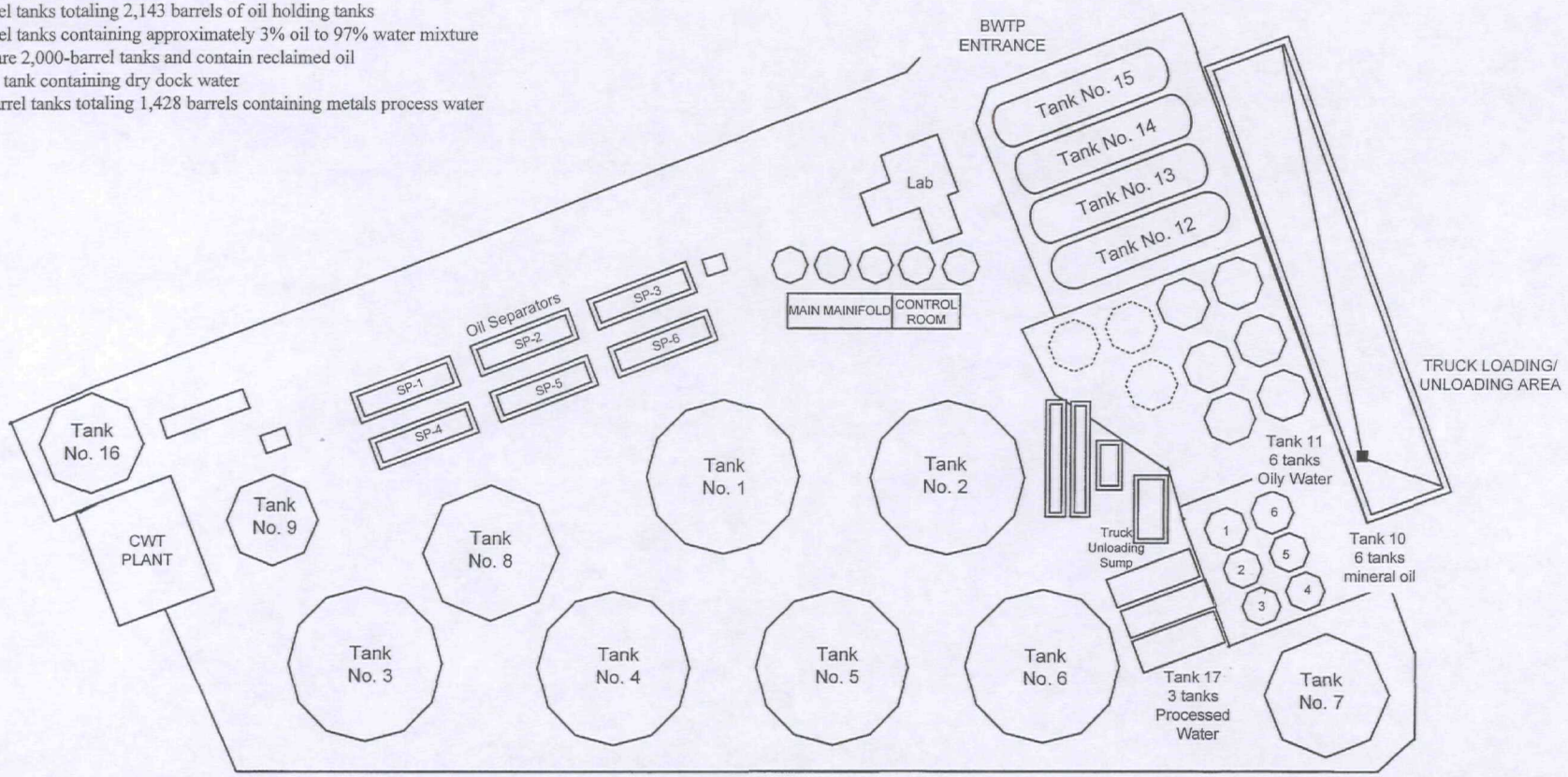
Notes

T-1 is a 24,000-barrel tank containing metals water
T-2 contains approximately 80% oil to 20% water mixture and is 24,000 barrels in capacity
T-3 through T-6 are 24,000-barrel tanks containing approximately 25% oil to 75% water mixture
T-7 and T-8 are 15,000 barrel capacity processed water tanks
T-9 is an 1888-barrel capacity tank used for storing rain water
T-10 is six 357-barrel tanks totaling 2,143 barrels of oil holding tanks
T-11 is six 533-barrel tanks containing approximately 3% oil to 97% water mixture
T-12 through T-15 are 2,000-barrel tanks and contain reclaimed oil
T-16 is 2,380-barrel tank containing dry dock water
T-17 is three 476-barrel tanks totaling 1,428 barrels containing metals process water

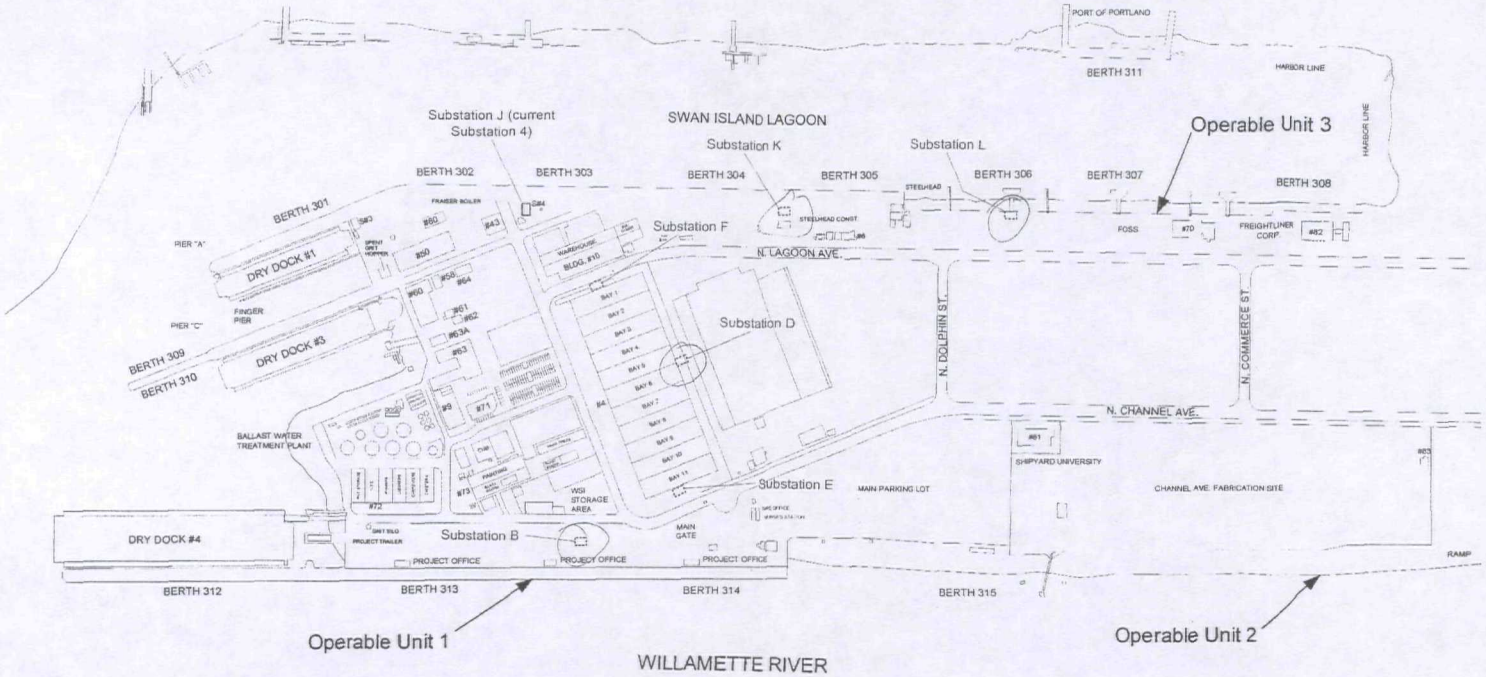


CASCADE GENERAL
PORTLAND SHIPYARD

2007

BWTP STORAGE TANKS AND SIZES

FIGURE 2



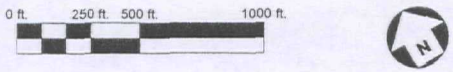
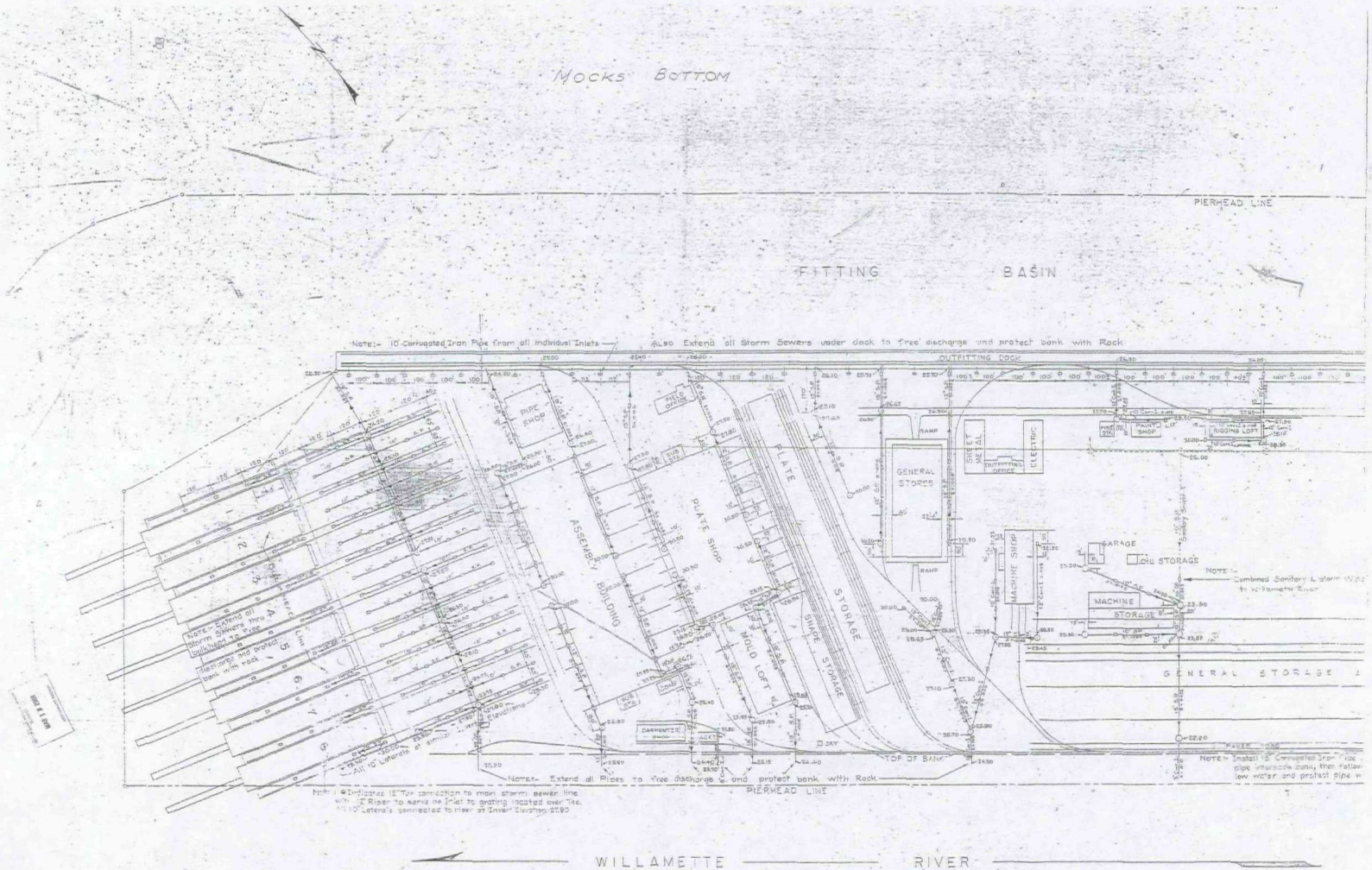
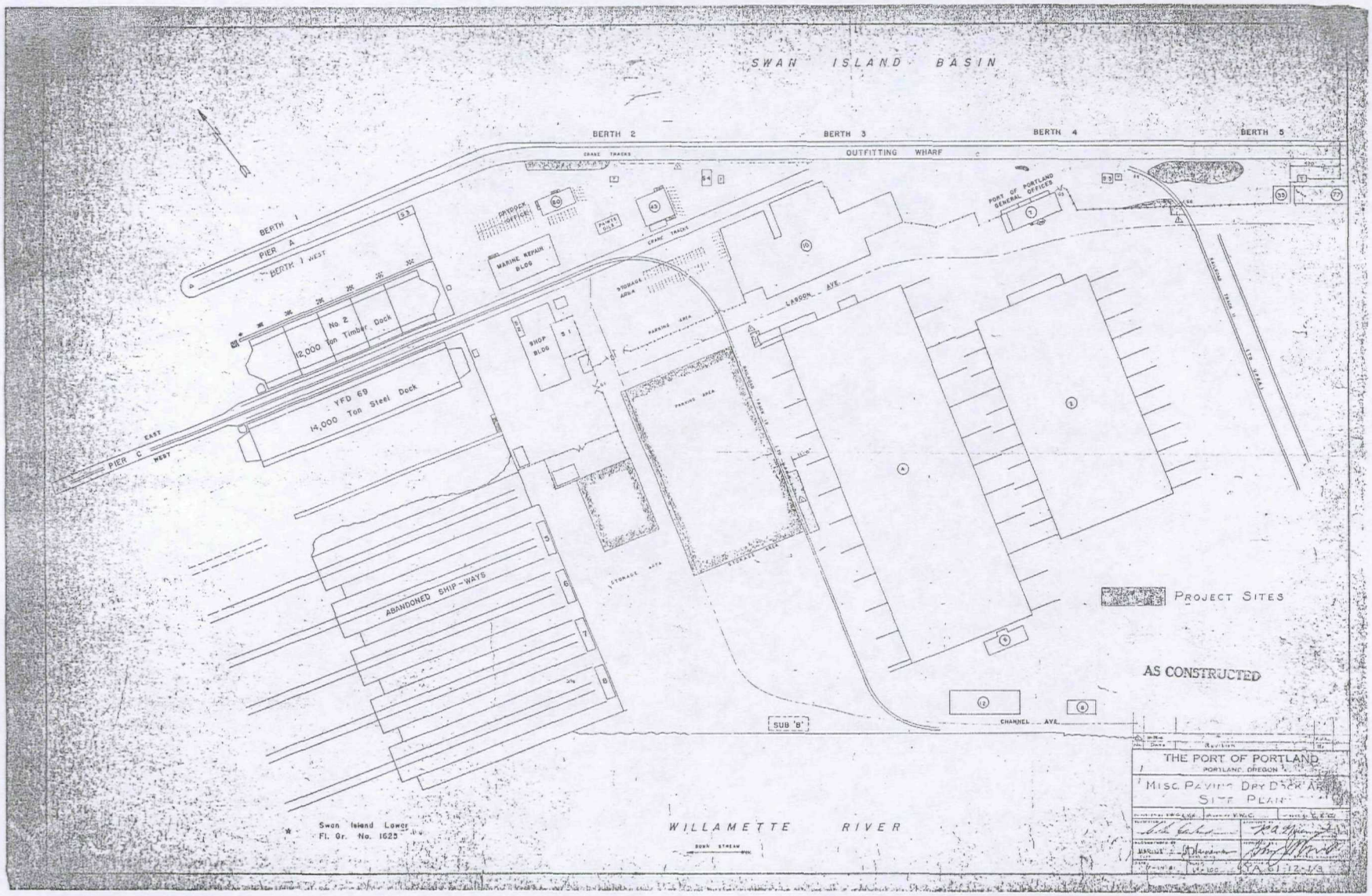


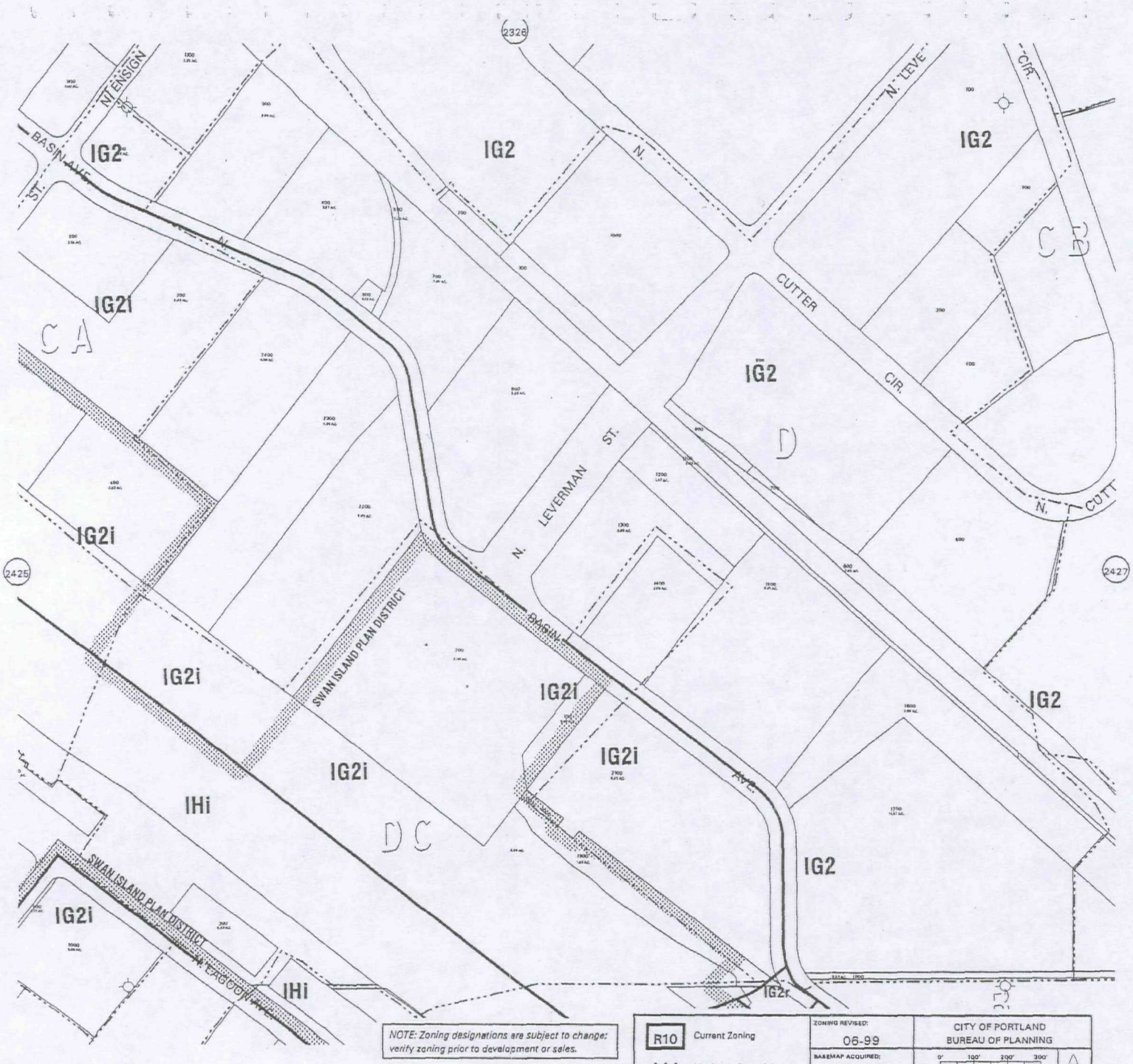
Figure 13
Kaiser-Era Substation Locations on Operable Unit 1
SIUF OU1 Phase II RI Work Plan Addendum

BRIDGEWATER GROUP, INC.


MOCKS BOTTOM
PIERHEAD LINE
FITTING BASIN
NOTE:- 10" Corrugated Iron Pipe from all individual Inlets
Also Extend all Storm Sewers under dock to free discharge and protect bank with Rock
OUTFITTING DOCK
PIPE SHOP
FIELD OFFICE
ASSEMBLY BUILDING
PLATE SHOP
MOLD LOFT
PLATE STORAGE
SHAPE STORAGE
GENERAL STORES
RAMP
SHEET METAL
OUTFITTING OFFICE
ELECTRIC
MACHINE SHOP
MACHINE SHOP
RIGGING LOFT
GARAGE
OIL STORAGE
MACHINE STORAGE
GENERAL STORAGE
Note:- Combined Sanitary & storm sewer to Willamette River
Note:- Extend all Storm Sewers thru bulkhead to free discharge and protect bank with rock
CARPENTER SHOP
TOP OF BANK
Note:- Extend all Pipes to free discharge & and protect bank with Rock
PIERHEAD LINE
WILLAMETTE RIVER


SWAN ISLAND BASIN
BERTH 2
BERTH 3
BERTH 4
BERTH 5
OUTFITTING WHARF
CRANE TRACKS
BERTH 1
PIER A
BERTH 1 WEST
DRYDOCK OFFICES
MARINE REPAIR BLDG
PUMPS BLDG
STORAGE AREA
PORT OF PORTLAND GENERAL OFFICES
LAGOON AVE.
PARKING AREA
No 2
12,000 Ton Timber Dock
SHOP BLDG
YFD 69
14,000 Ton Steel Dock
EAST
PIER C
WEST
ABANDONED SHIP-WAYS
PROJECT SITES
AS CONSTRUCTED
SUB 'B'
CHANNEL AVE.
WILLAMETTE RIVER
DOWN STREAM
Swan Island Lower
Fl. Gr. No. 1625
THE PORT OF PORTLAND
PORTLAND, OREGON
MISC. PAVING DRY DOCK AREA
SITE PLAN
YA 61-12-1/3

YA 61-12-1/3



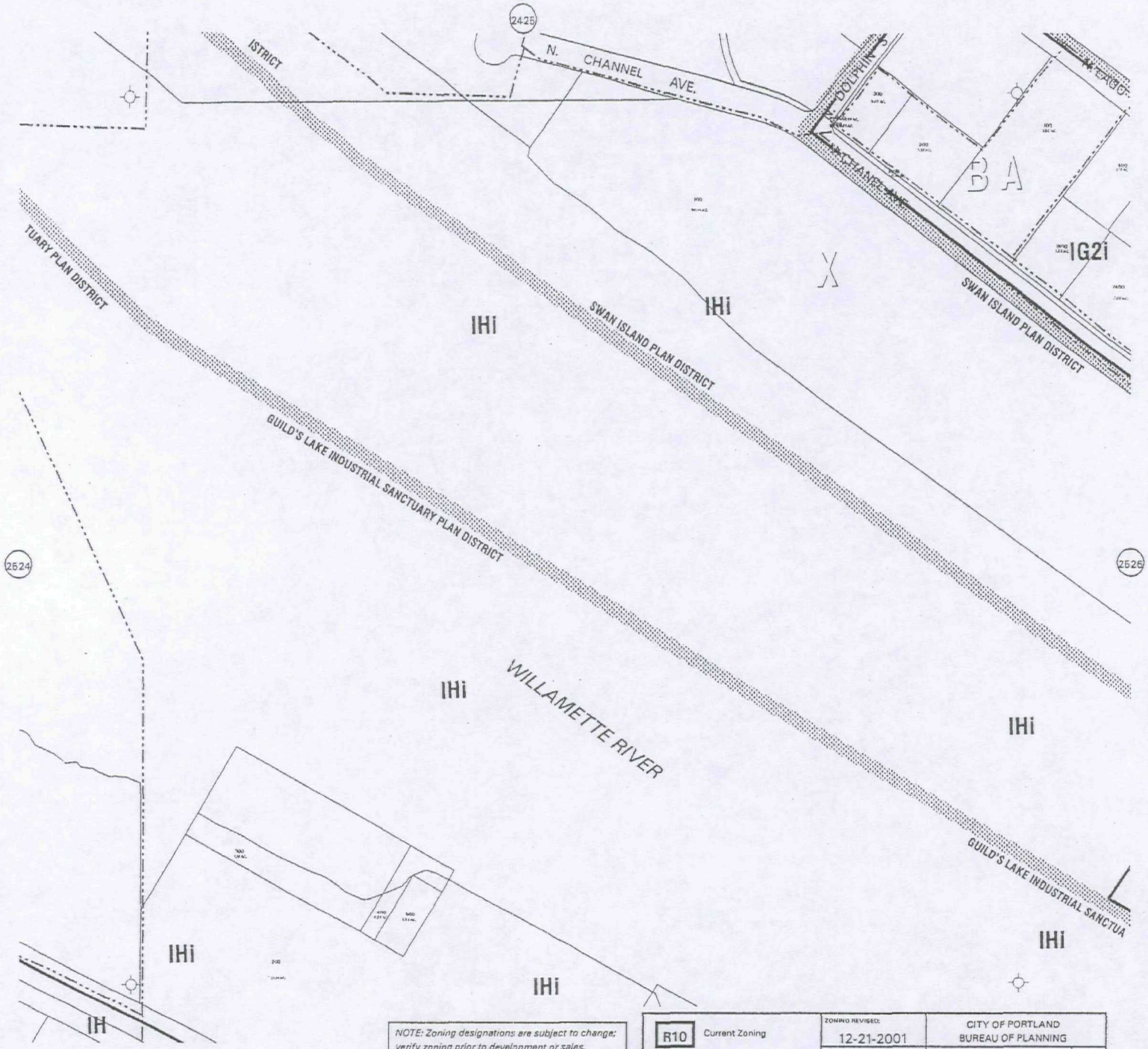
NOTE: Zoning designations are subject to change; verify zoning prior to development or sales.

Plan District Boundary

Historic or Conservation District or N.R.M.P. Boundary

Zoning Line

R10 Current Zoning	ZONING REVISED: 06-99	CITY OF PORTLAND BUREAU OF PLANNING
(R10) Maximum Potential Zoning as per Comprehensive Plan	BASEMAP ACQUIRED: 10 - 99	0' 100' 200' 300' SCALE IN FEET
State ID Map Boundary	LEGAL DESCRIPTION: SE 1/4 SEC. 17 - 1N - 1E	2426



NOTE: Zoning designations are subject to change; verify zoning prior to development or sales.

Plan District Boundary

Historic or Conservation District or N.R.M.P. Boundary

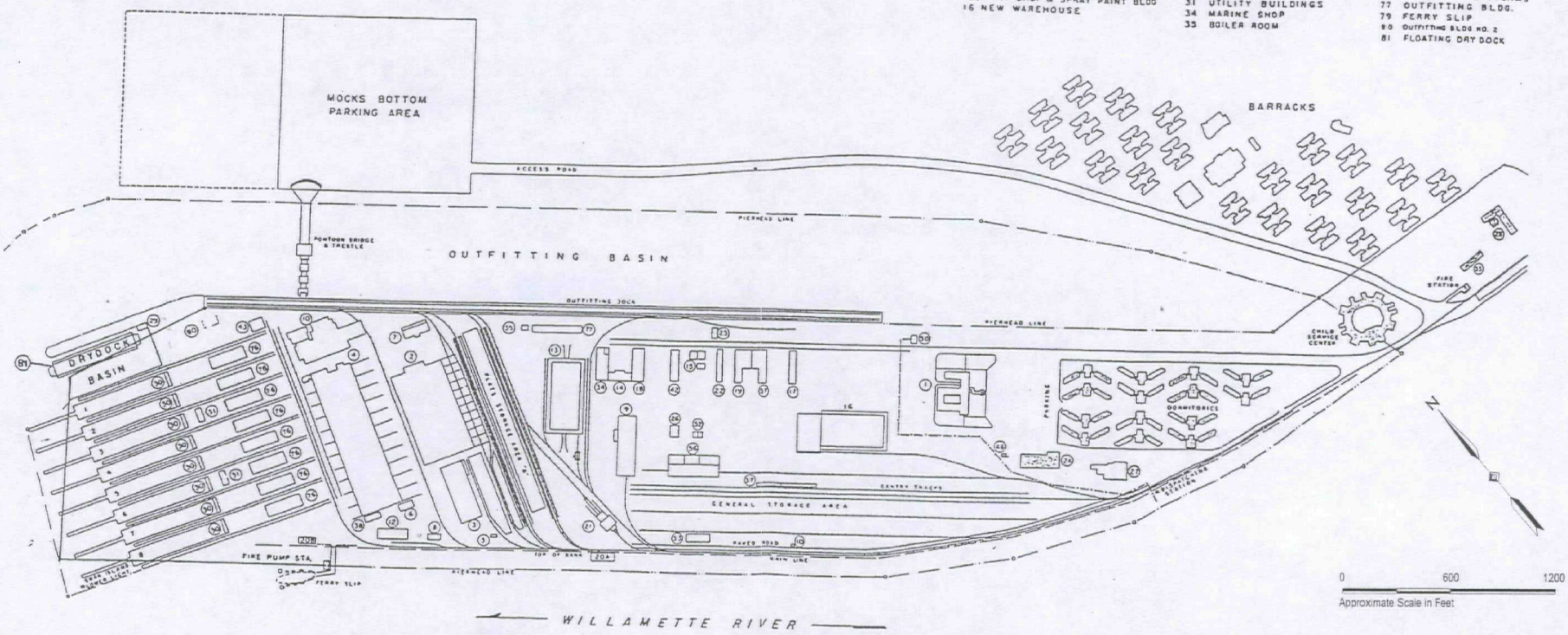
Zoning

R10	Current Zoning	ZONING REVISED: 12-21-2001	CITY OF PORTLAND BUREAU OF PLANNING
(R10)	Maximum Potential Zoning as per Comprehensive Plan	BASEMAP ACQUIRED: 11 - 2001	0' 100' 200' 300' SCALE IN FEET N
	State ID Map Boundary	LEGAL DESCRIPTION: NW 1/4 SEC. 20 - 1N - 1E	2525

Reproduced at the National Archives-Pacific Alaska Region (Seattle)

DESCRIPTION

1 MAIN ADMINISTRATION BLDG.
2 PLATE SHOP
3 MOLD LOFT
4 ASSEMBLY BLDG.
5 OXYGEN HOUSE
6 COMPRESSOR HOUSE
7 FIELD OFFICE
8 ACETYLENE BLDG.
9 MACHINE SHOP
10 PIPE SHOP & WELDING
12 CARPENTER SHOP
13 GENERAL STORES
14 OLD ADMINISTRATION BLDG.
15 PAINT SHOP & SPRAY PAINT BLDG
16 NEW WAREHOUSE
17 RIGGING LOFT
18 ELECTRIC SHOP
19 SHEET METAL SHOP
20 SUBSTATIONS
21 BOILER ERECTION BLDG.
22 JOINER BLDG.
23 LUNCH ROOM
24 I.B.M. & PERSONNEL BLDG.
26 REPAIR GARAGE
27 CAFETERIA
28 WELDING SCHOOL
29 SUB STATION
30 WAY END BUILDINGS
31 UTILITY BUILDINGS
34 MARINE SHOP
35 BOILER ROOM
37 MOTOR SHED
38 EQUIPMENT MAINTENANC
40 LUMBER YARD OFFICE
42 CABLE CUTTING BLDG.
43 PIPE ASSEMBLY BLDG
46 A.F. OF L. LABOR JOB O
50 GUARD OFFICE
52 OIL HOUSE
53 SALVAGE DEPOT
55 VOCATIONAL SCHOOL
56 MACHINERY STORAGE
57 COPPER SHOP
76 STORAGE PLATFORMS
77 OUTFITTING BLDG.
79 FERRY SLIP
80 OUTFITTING BLDG NO. 2
81 FLOATING DRY DOCK



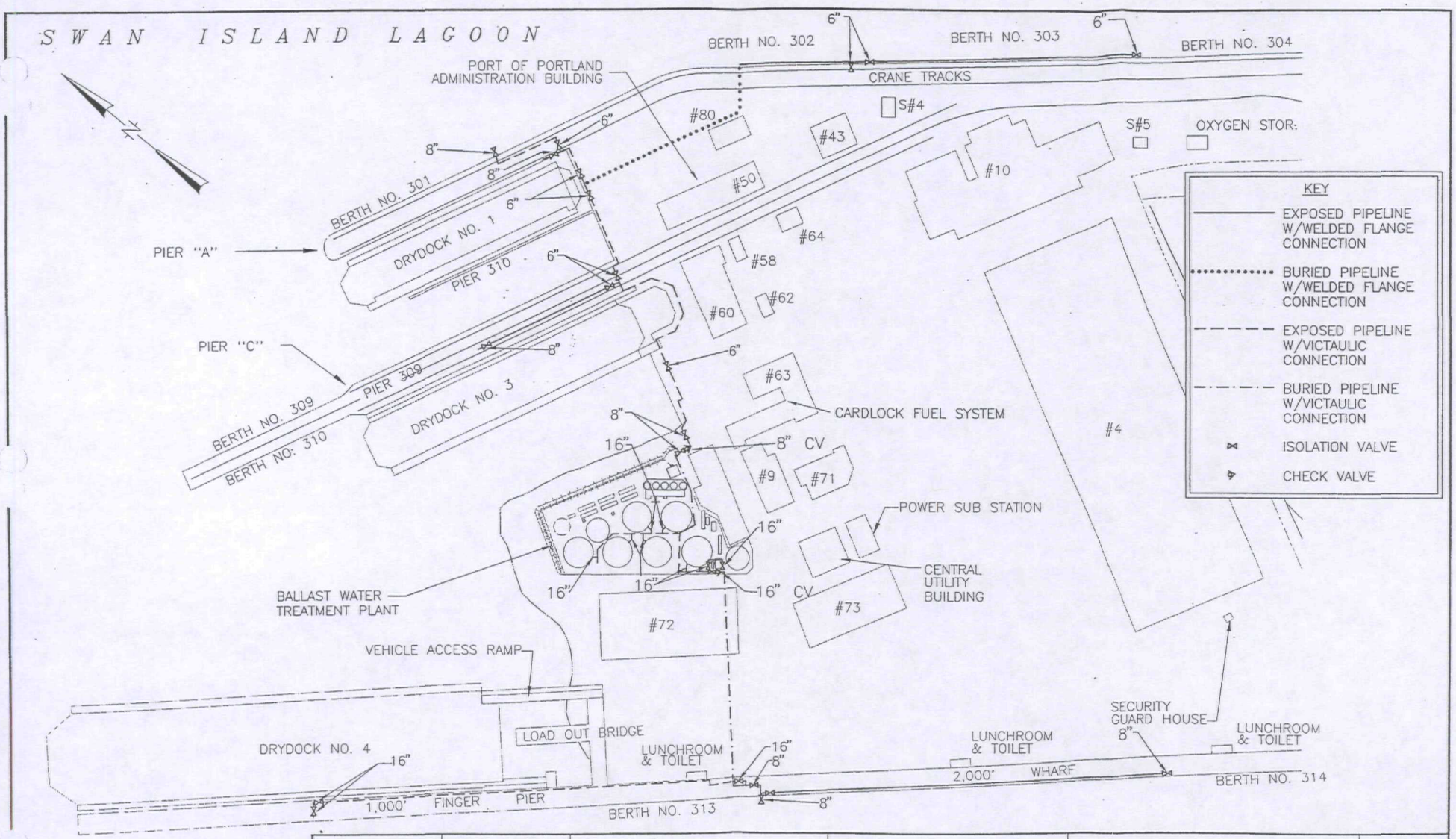
Kaiser Shipyard Layout - 1945

Supplemental PA
Swan Island Upland Facility
Portland, Oregon

DRAFT

Ash Creek Associates, Inc.
Environmental and Construction Consultants

Project Number	1115-03	Figure
December 2006		9



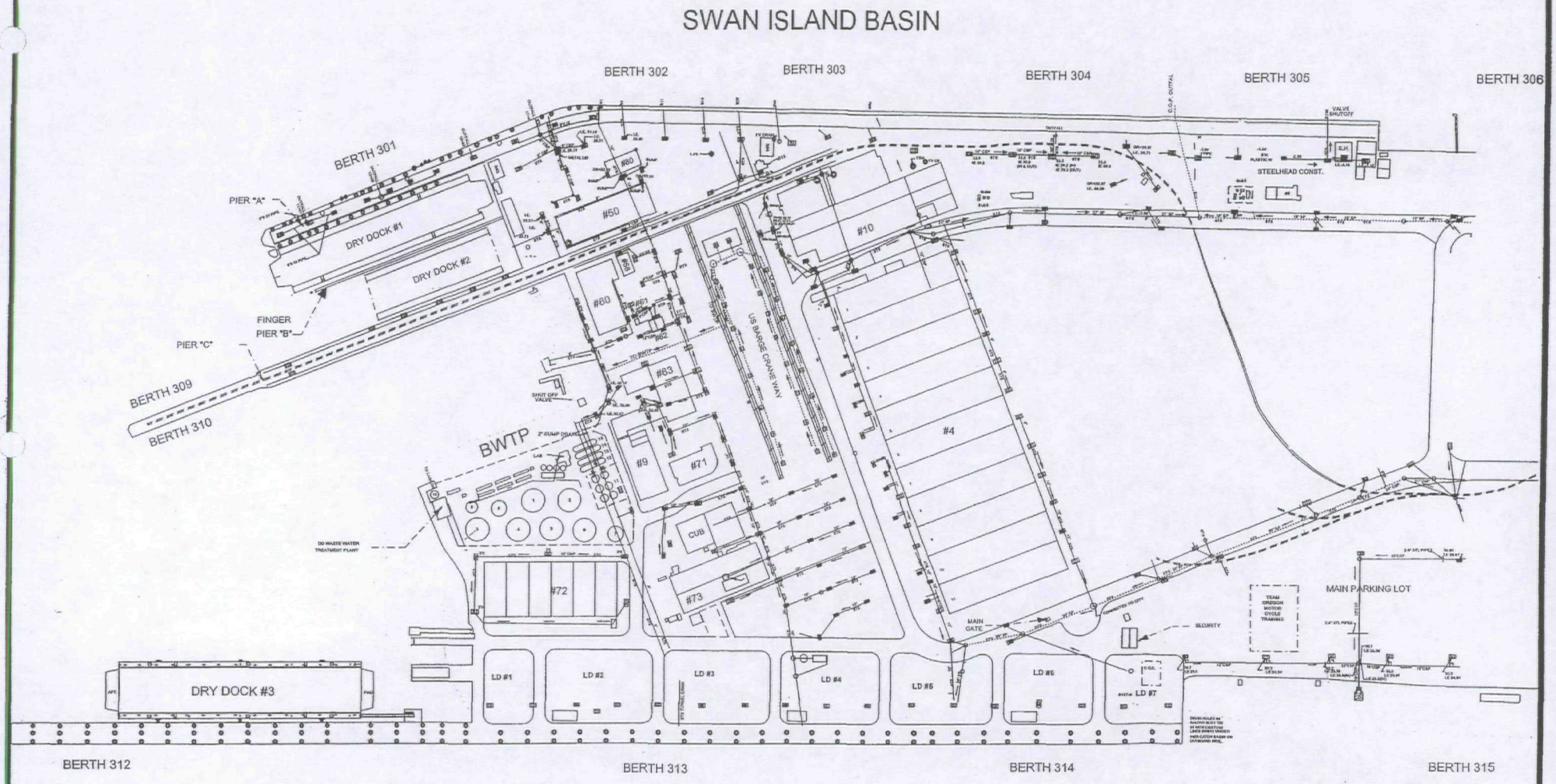
DESIGNED BY: MR	SCALE: AS SHOWN
DRAWN BY: RAW	DATE: 08/30/93
CHECKED BY:	FILE:
PROJECT NO.: 4003805102-4001	

centurywest ENGINEERING CORPORATION

PORT OF PORTLAND PORTLAND, OREGON

PORTLAND SHIP YARD BALLAST WATER PIPELINE AND VALVES

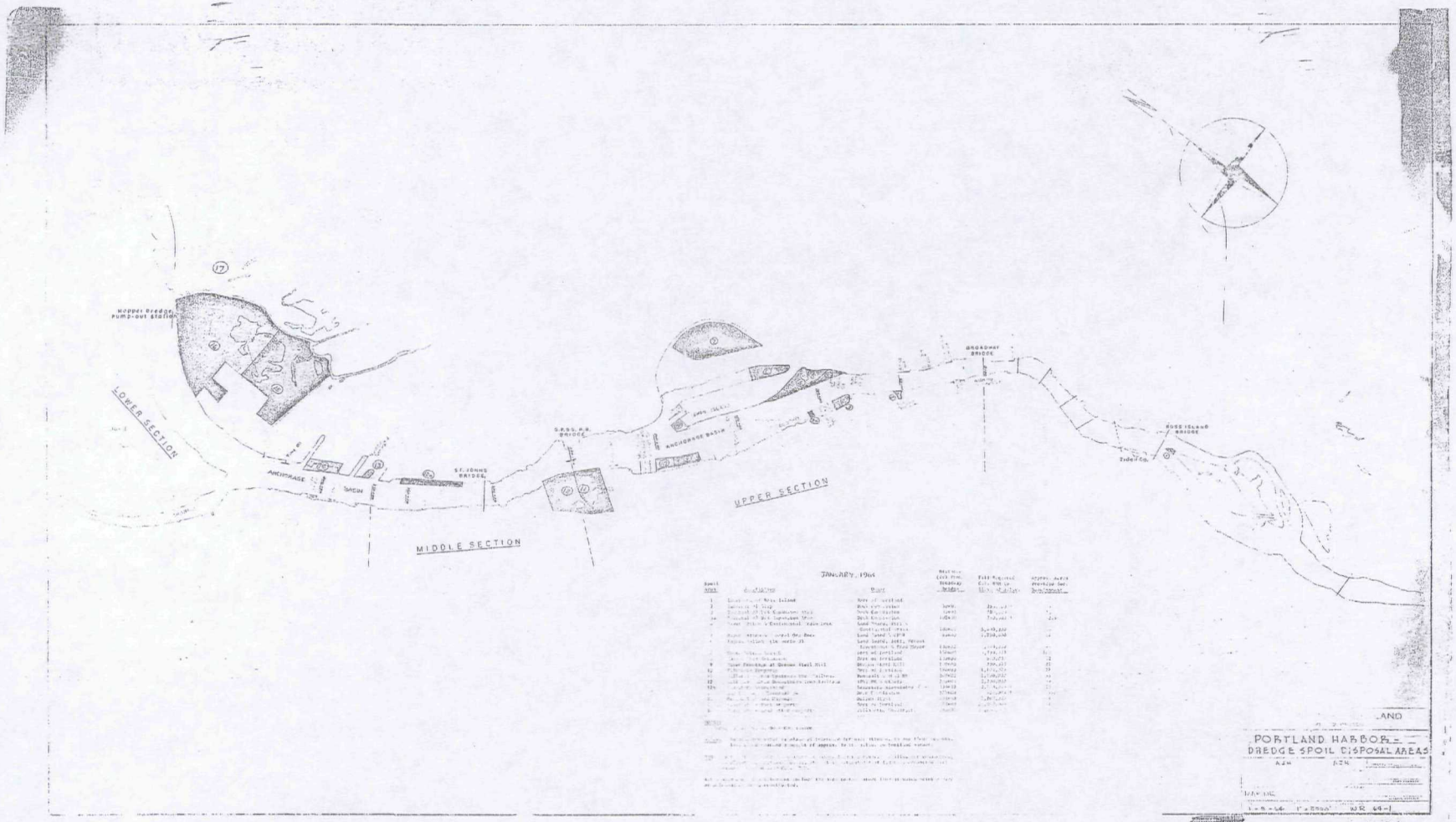
FIGURE 3-2



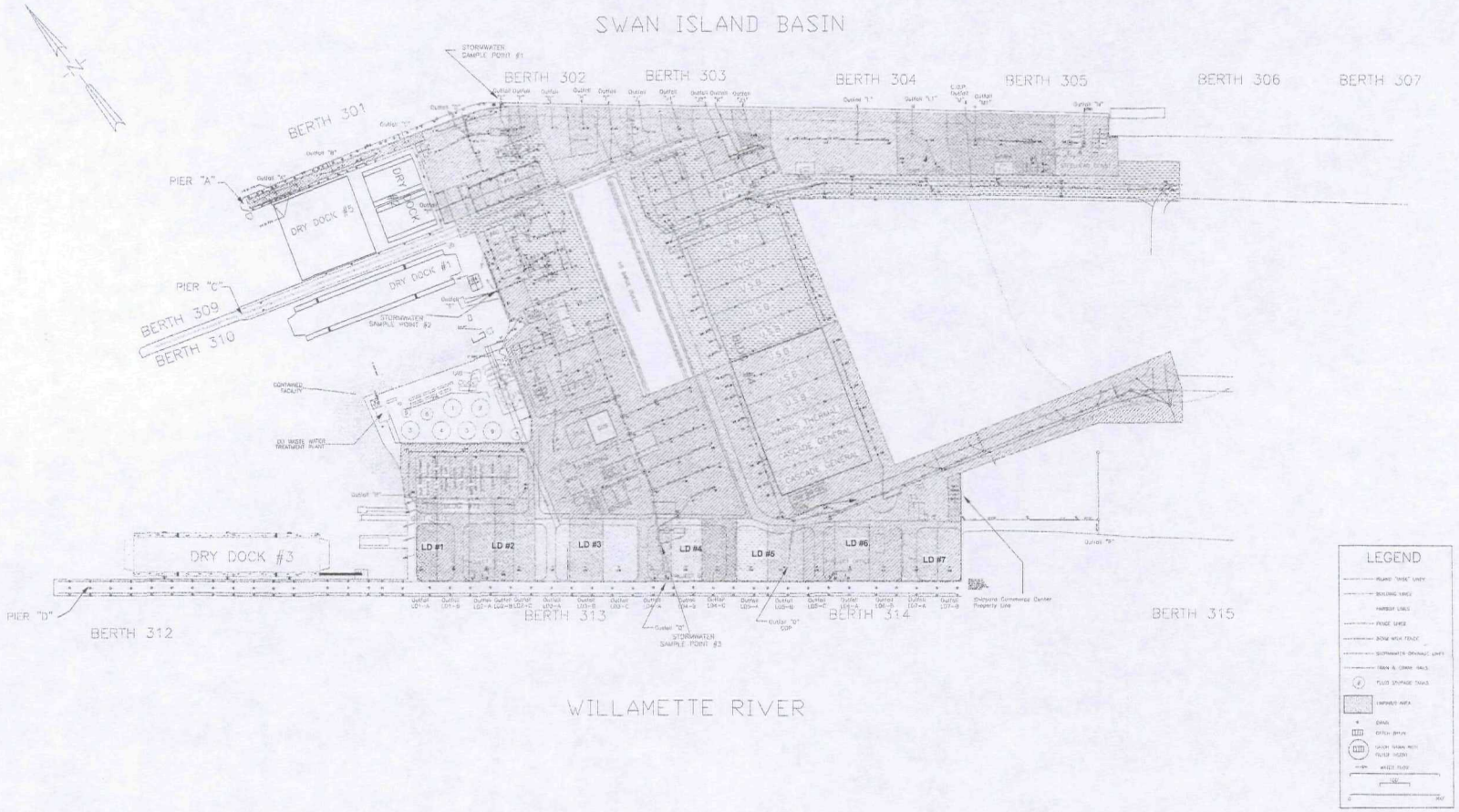
CASCADE GENERAL
PORTLAND SHIPYARD

PORTLAND SHIPYARD DRAINAGE DIAGRAM

FIGURE 5

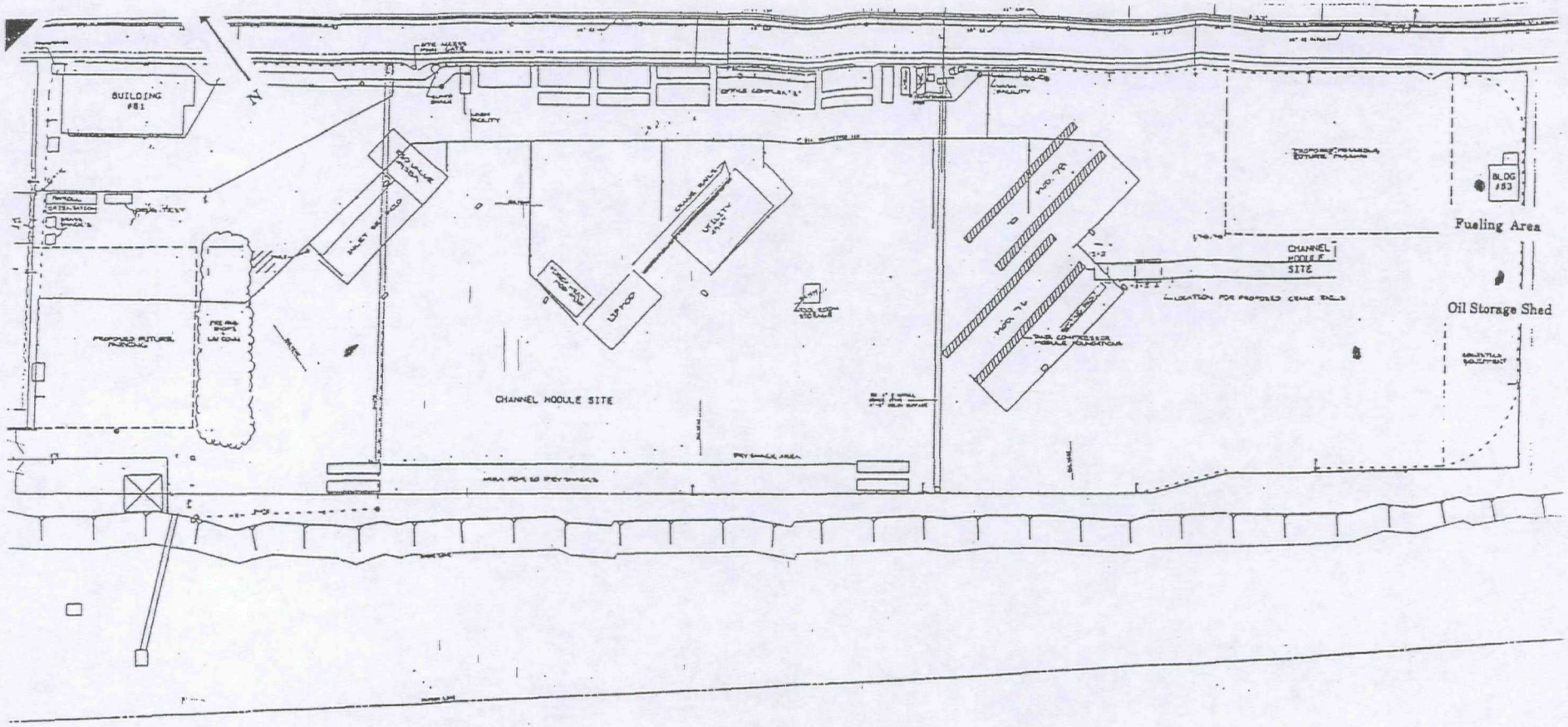

Hopper Dredge Pump-out Station
LOWER SECTION
ANCHORAGE BASIN
ST. JOHNS BRIDGE
MIDDLE SECTION
S.P.&S.R.R. BRIDGE
ANCHORAGE BASIN
UPPER SECTION
BROADWAY BRIDGE
ROSE ISLAND BRIDGE
PORTLAND HARBOR
DREDGE SPOIL DISPOSAL AREAS
1-8-64
1" = 2000'
WR 64-1

WR 64-1



CASCADE GENERAL
PORTLAND, OREGON

Environmental	L. JEWELL	042003	SWPCP	
Outfall Drainage Drawings	L. JEWELL	04-07-2003	FIGURE 2.1.2	

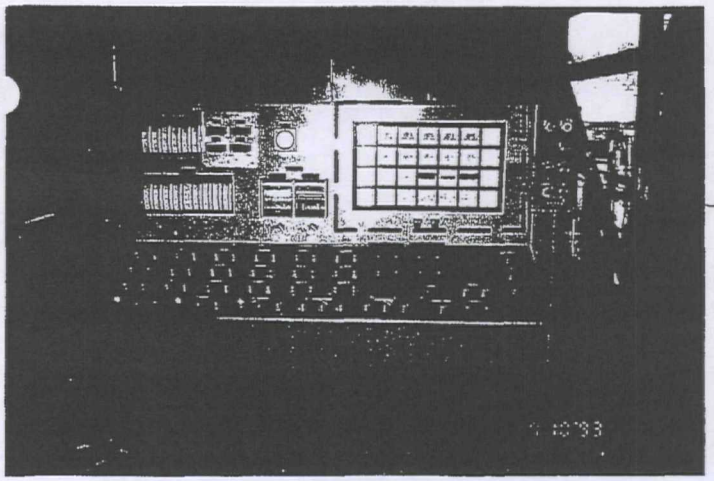


Area of Petroleum Staining

Sandblast Sand On Ground

not to scale

N. Channel Ave
Fabrication Site-2
Figure 7



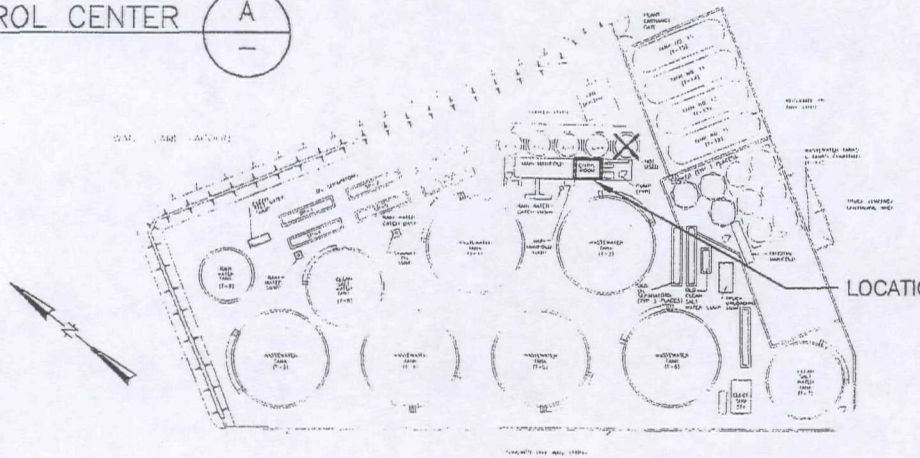
B
—

LAHH 1 TANK-T1 LEVEL HIGH	LAHH 2 TANK-T2 LEVEL HIGH	LAHH 3 TANK-T3 LEVEL HIGH	LAHH 4 TANK-T4 LEVEL HIGH	LAHH 5 TANK-T5 LEVEL HIGH	LAHH 6 TANK-T6 LEVEL HIGH	
LAH-1 TANK-T1 FULL	LAH-2 TANK-T2 FULL	LAH-3 TANK-T3 FULL	LAH-4 TANK-T4 FULL	LAH-5 TANK-T5 FULL	LAH-6 TANK-T6 FULL	
LAH-7 TANK-T7 FULL	LAH-8 TANK-T8 FULL	LAH-9 COOKER-C5 FULL	SUMP NO.1 CLEAN WATER LEVEL HIGH	RAIN WATER LEVEL HIGH	SUMP NO. 2 CLEAN WATER LEVEL HIGH	
SCAH-1 CLEAN WATER SUMP NO 1 CONDUCTIVITY HIGH	PHAL-1 CLEAN WATER SUMP NO 1 PH LOW	PHAH-1 CLEAN WATER SUMP NO 1 PH HIGH	SCAH-2 CLEAN WATER SUMP NO 2 CONDUCTIVITY HIGH	PHAL-2 CLEAN WATER SUMP NO 2 PH LOW	PHAH-2 CLEAN WATER SUMP NO 2 PH HIGH	

TEST 6 ACKNOW 6

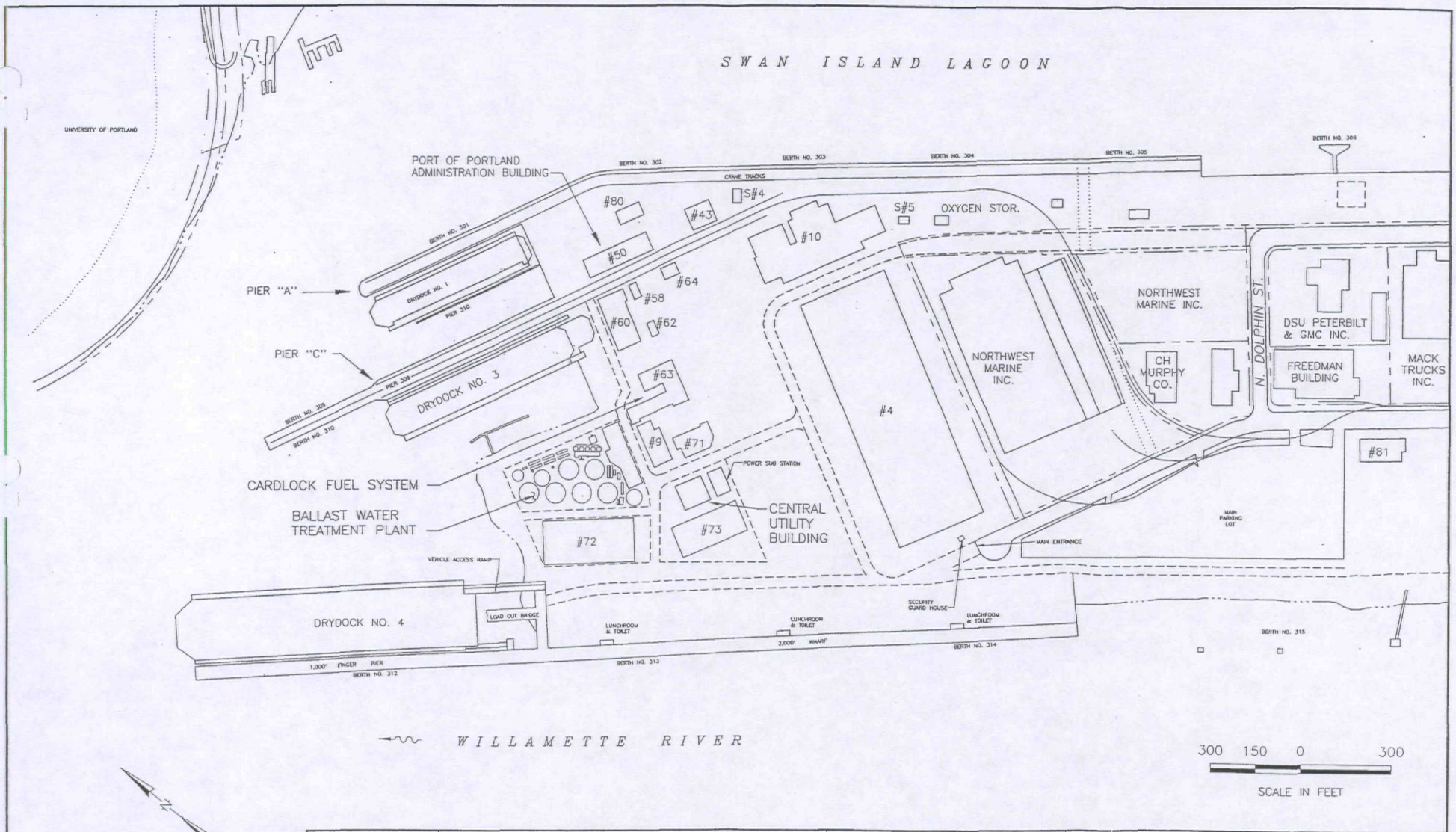
MOTOR CONTROL CENTER A —

ALARM PANEL B —

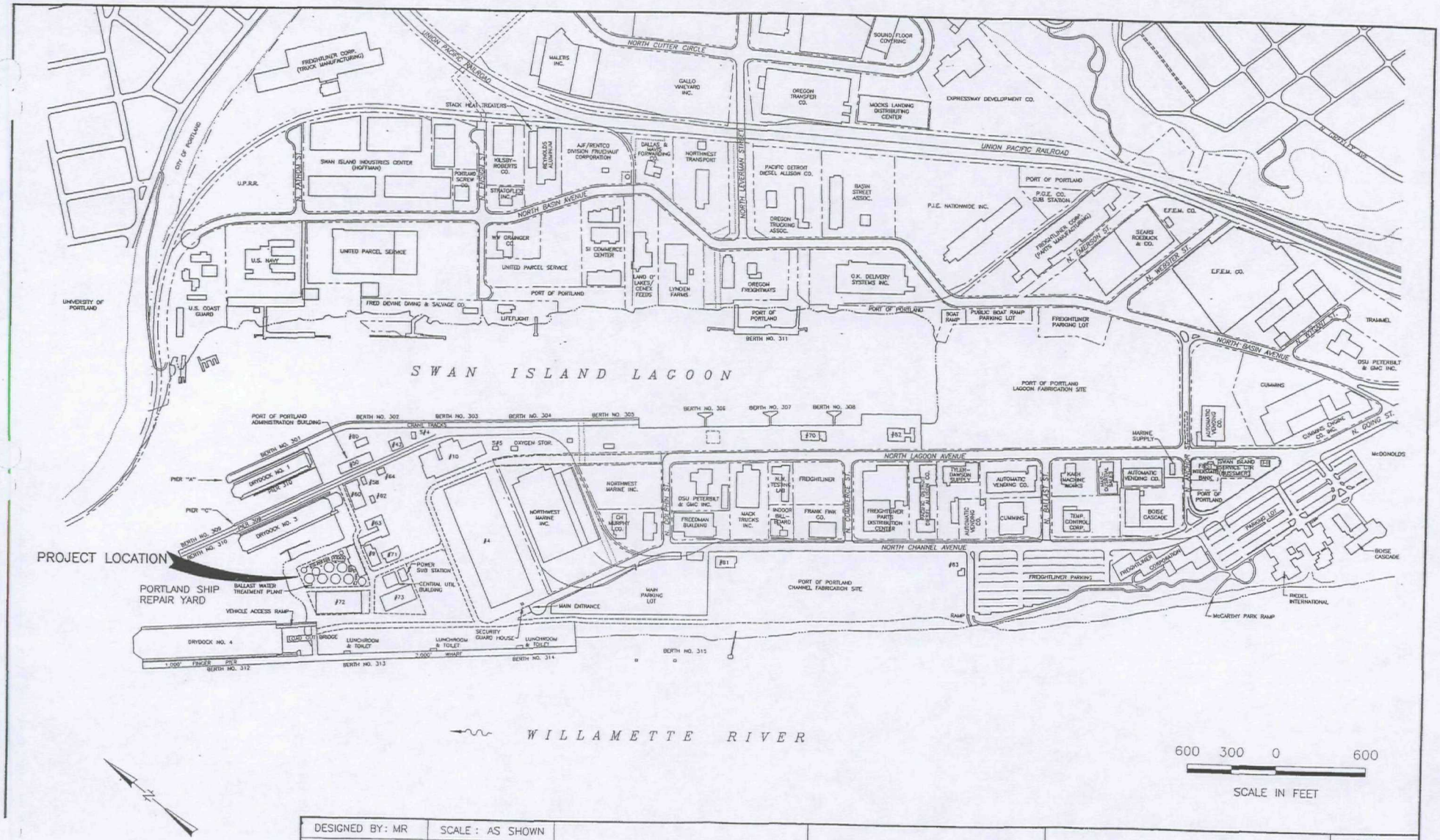


LOCATION OF MOTOR CONTROL CENTER

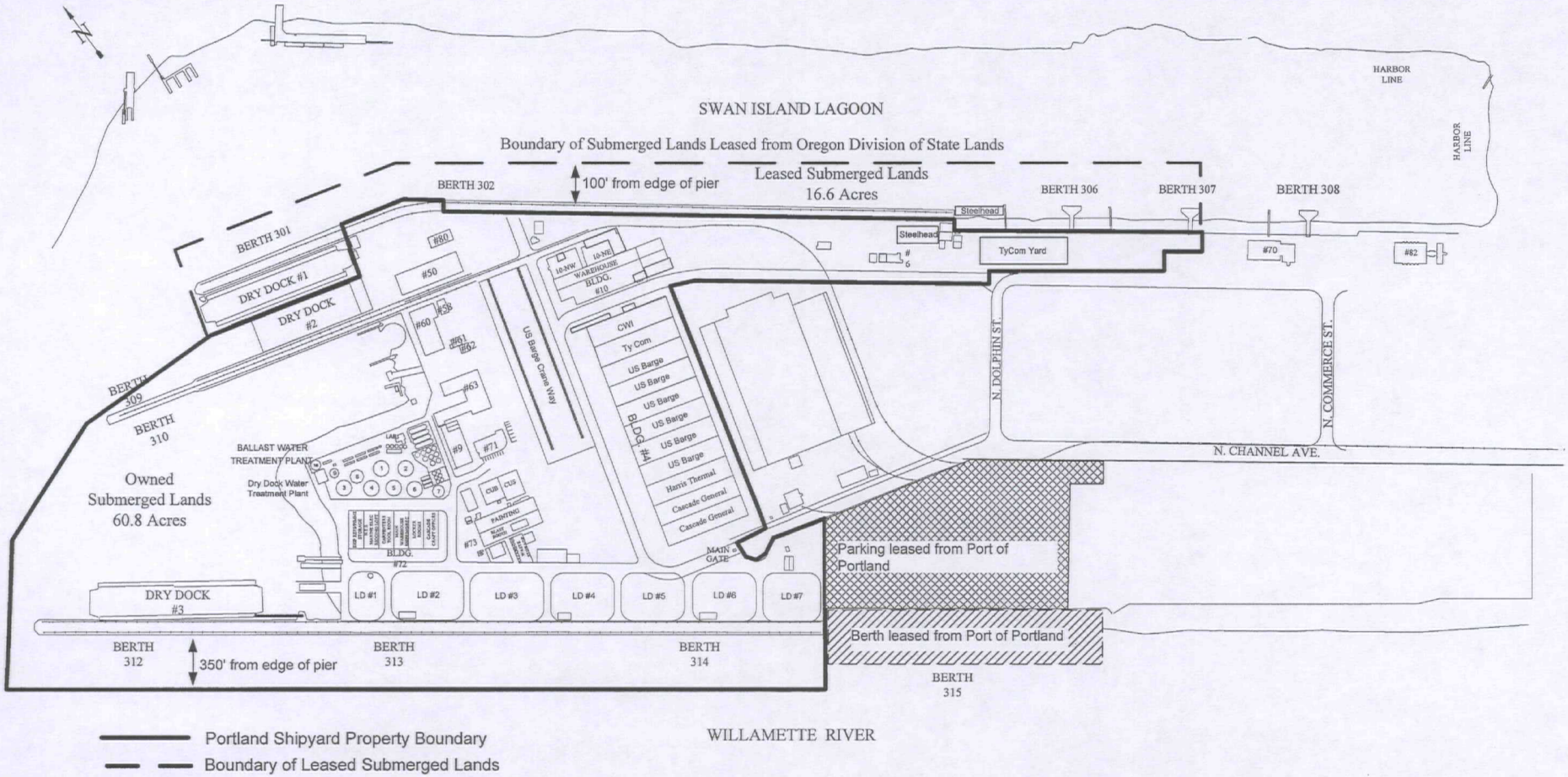
DESIGNED BY: TCW	SCALE : NO SCALE	centurywest ENGINEERING CORPORATION	PORT OF PORTLAND PORTLAND, OREGON	PORTLAND SHIP YARD INSTRUMENTATION PANEL	FIGURE 4-2
DRAWN BY : LDM	DATE : 10/28/93				
CHECKED BY :	FILE :				
PROJECT NO.: 4003805102-4002					



* DESIGNED BY: MR	SCALE: AS SHOWN	centurywest ENGINEERING CORPORATION	PORT OF PORTLAND PORTLAND, OREGON	PORTLAND SHIP YARD SITE MAP	FIGURE 2-2
DRAWN BY : RAW	DATE : 08/30/93				
CHECKED BY :	FILE :				
PROJECT NO.: 4003805101-4001					



DESIGNED BY: MR	SCALE: AS SHOWN	centurywest ENGINEERING CORPORATION	PORT OF PORTLAND PORTLAND, OREGON	PORTLAND SHIP YARD VICINITY MAP
DRAWN BY : RAW	DATE : 08/30/93			FIGURE 2-1
CHECKED BY :	FILE :			
PROJECT NO.: 4003805101-4001				

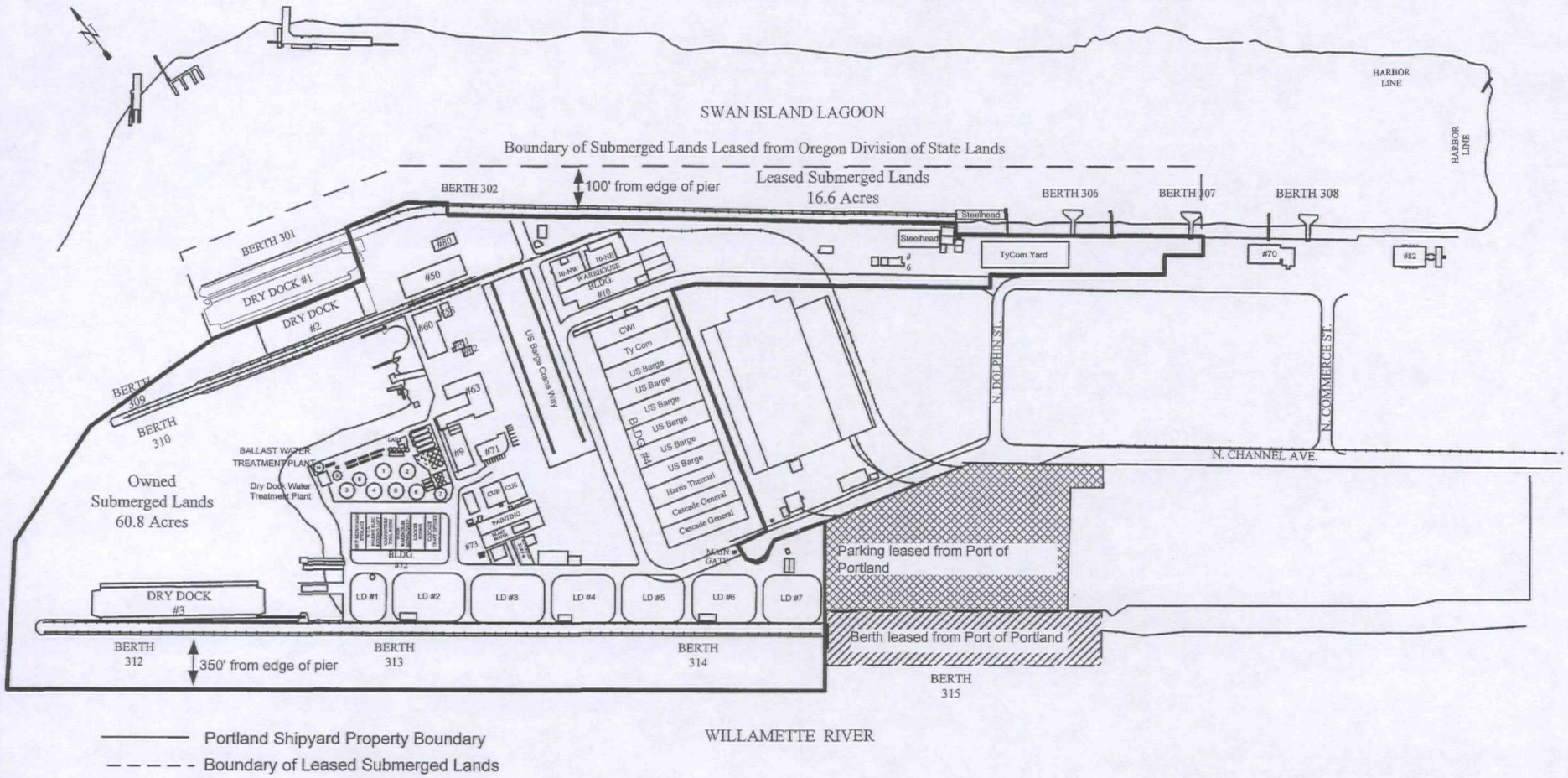


CASCADE GENERAL
PORTLAND SHIPYARD

APPROXIMATE SCALE: 1" = 400'

PORTLAND SHIPYARD SITE PLAN DIAGRAM

FIGURE
2.2.1-E

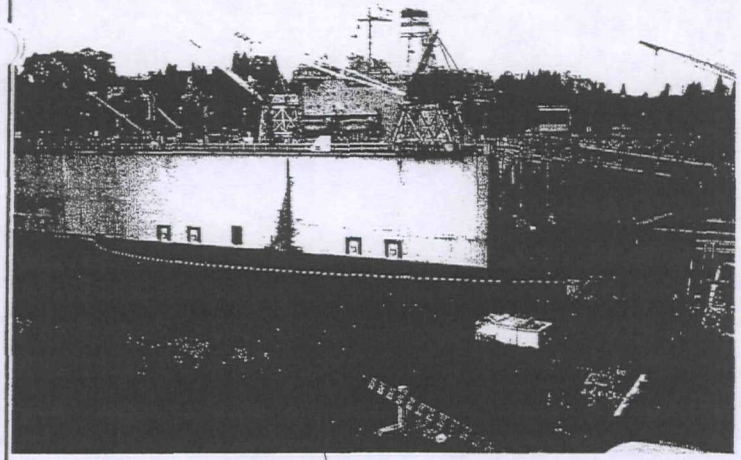


CASCADE GENERAL
PORTLAND SHIPYARD

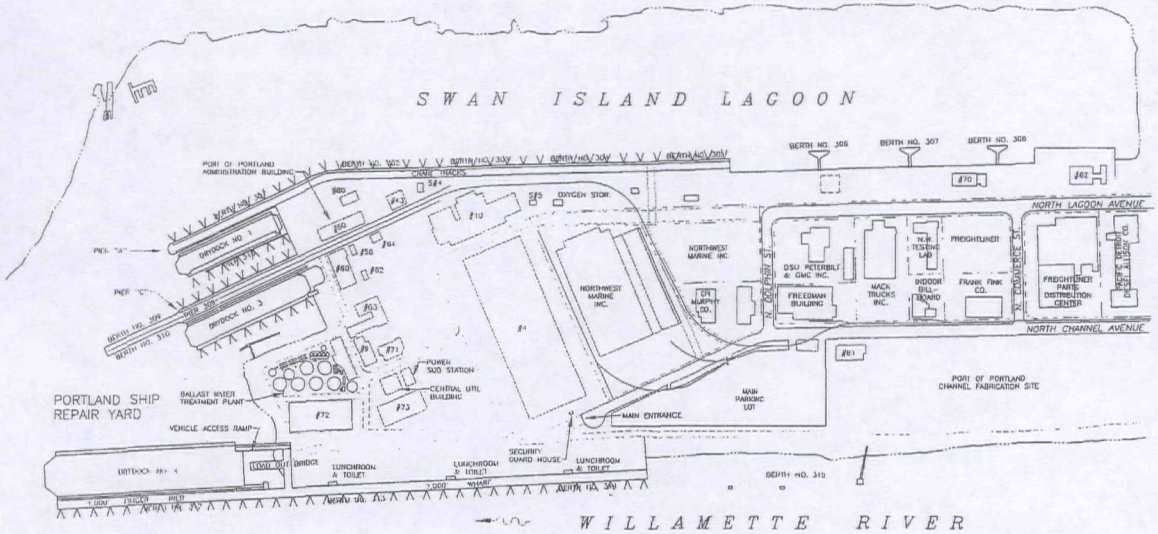
APPROXIMATE SCALE: 1" = 400'

PORTLAND SHIPYARD SITE PLAN DIAGRAM

FIGURE 1



PERMANENT BOOM

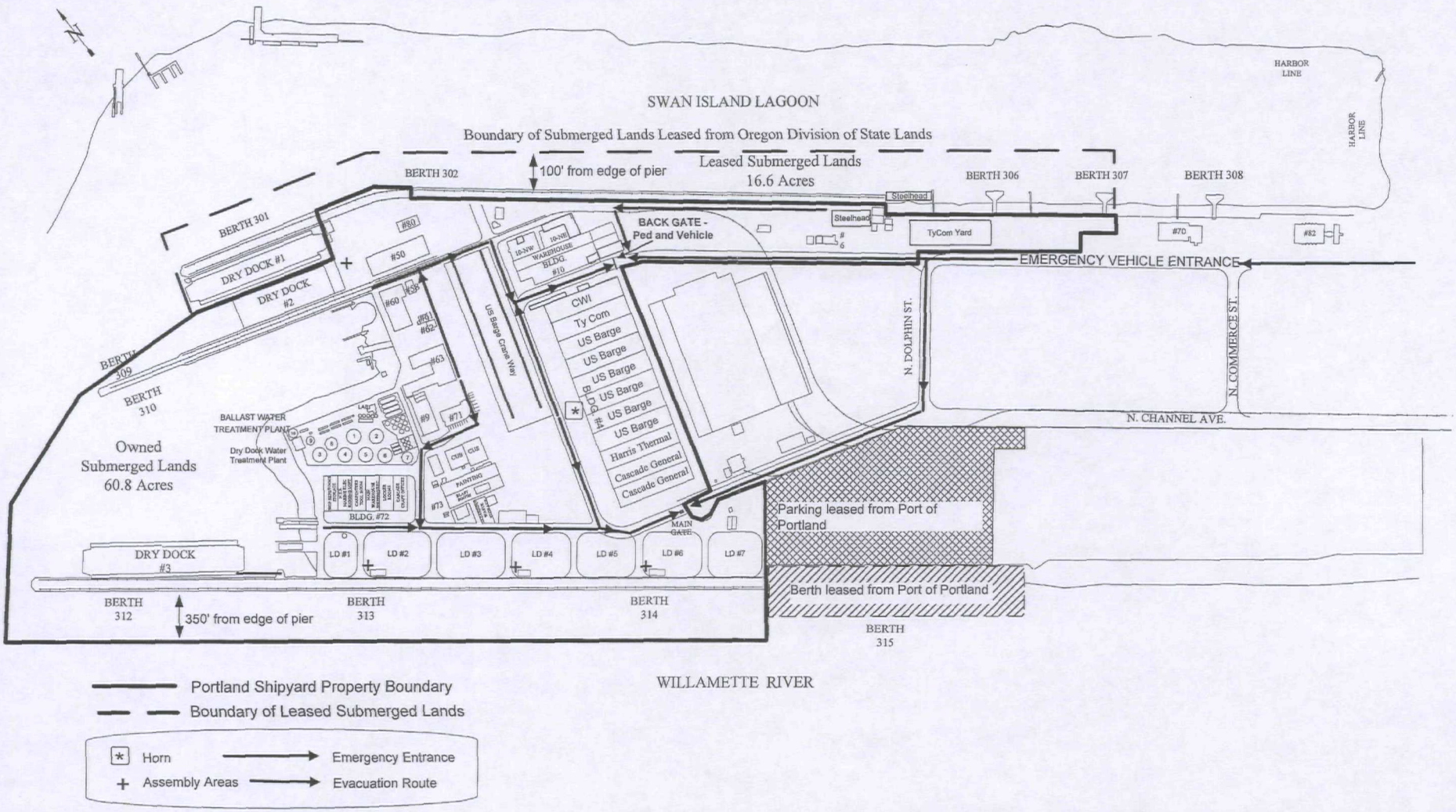


V V V V V PERMANENT BOOM

600 300 0 600

SCALE IN FEET

DESIGNED BY: MR	SCALE: AS SHOWN	centurywest ENGINEERING CORPORATION	PORT OF PORTLAND PORTLAND, OREGON	PORTLAND SHIP YARD PERMANENT BOOM LOCATION	FIGURE 5-1
DRAWN BY : LDM	DATE : 11/3/93				
CHECKED BY :	FILE :				
PROJECT NO.: 4003805101-4001					



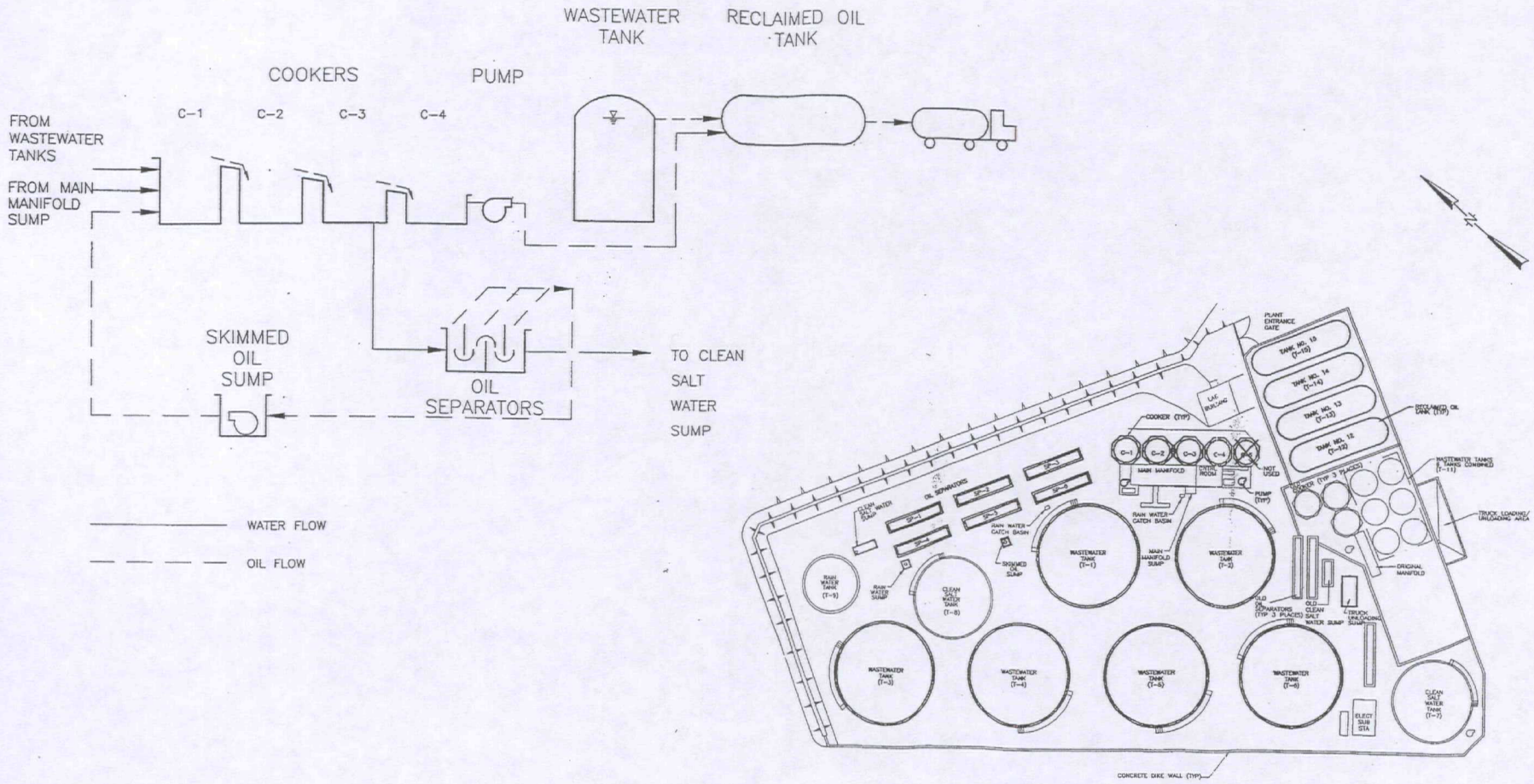
CASCADE GENERAL
PORTLAND SHIPYARD

APPROXIMATE SCALE: 1" = 400'

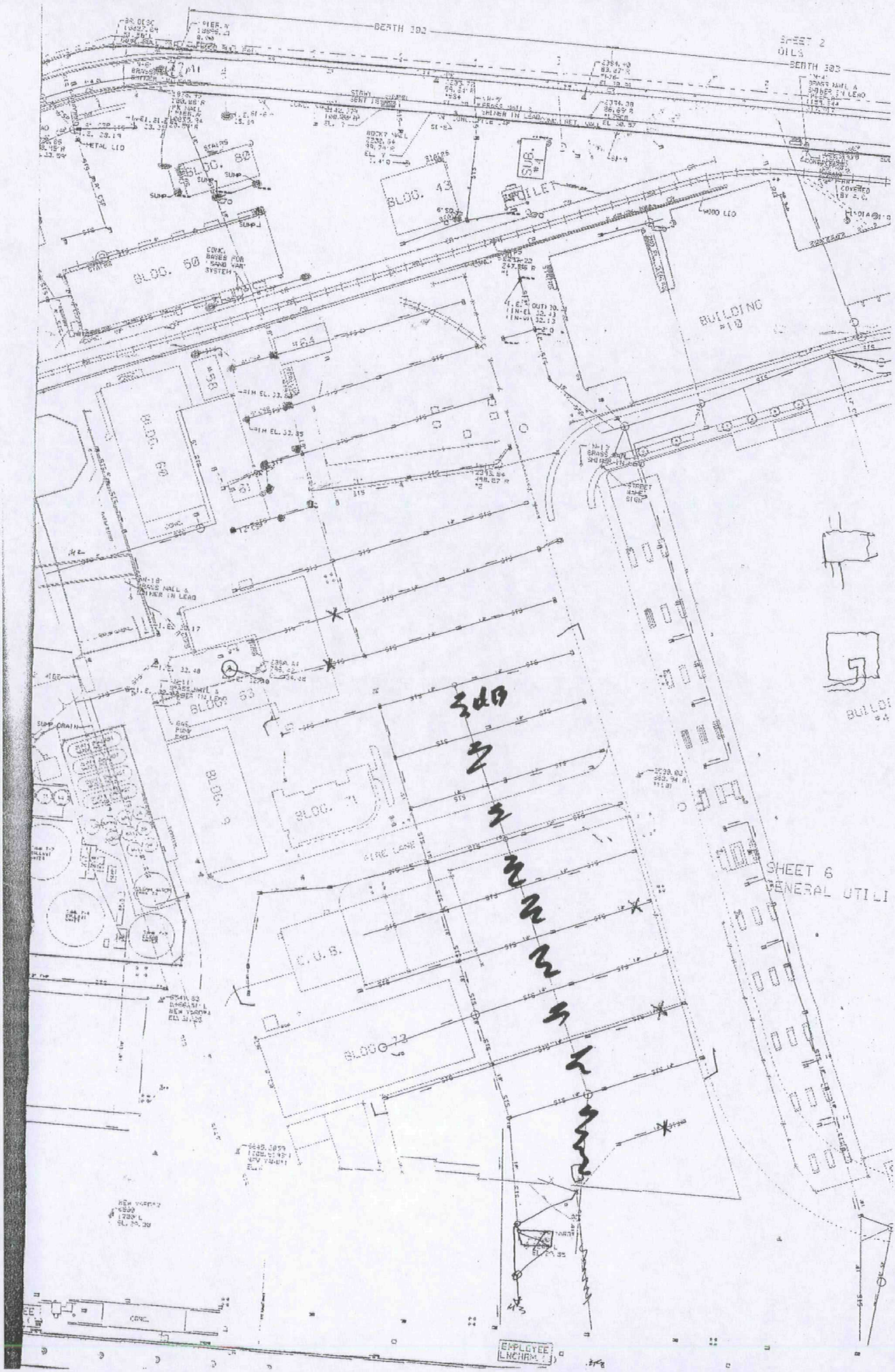
PORTLAND SHIPYARD EVACUATION MAP

FIGURE 6

PROCESSED OIL FLOW



* DESIGNED BY: TCW	SCALE : NO SCALE	centurywest ENGINEERING CORPORATION	PORT OF PORTLAND PORTLAND, OREGON	PORTLAND SHIP YARD PROCESSED OIL FLOW SCHEMATIC	FIGURE 3-10
DRAWN BY : LDM	DATE : 10/28/93				
CHECKED BY :	FILE :				
PROJECT NO.: 4003805102-4002					


BERTH 102
BERTH 103
SHEET 2
OILS
BLDG. 80
BLDG. 43
BLDG. 50
BUILDING #10
BLDG. 60
BLDG. 63
BLDG. 71
BLDG. 72
C.U.B.
FIRE LANE
SHEET 6
GENERAL UTILI
EMPLOYEE
LUNCHROOM

Reproduced at the National Archives-Pacific Alaska Region (Seattle)

DESCRIPTION

1 MAIN ADMINISTRATION BLDG.
2 PLATE SHOP
3 MOLD LOFT
4 ASSEMBLY BLDG.
5 OXYGEN HOUSE
6 COMPRESSOR HOUSE
7 FIELD OFFICE
8 ACETYLENE BLDG.
9 MACHINE SHOP
10 PIPE SHOP & WELDING
12 CARPENTER SHOP
13 GENERAL STORES
14 OLD ADMINISTRATION BLDG
15 PAINT SHOP & SPRAY PAINT BLDG
16 NEW WAREHOUSE
17 RIGGING LOFT
18 ELECTRIC SHOP
19 SHEET METAL SHOP
20 SUBSTATIONS
21 BOILER ERECTION BLDG.
22 JOINER BLDG.
23 LUNCH ROOM
24 I. B. M. & PERSONNEL BLDG
26 REPAIR GARAGE
27 CAFETERIA
28 WELDING SCHOOL
29 SUB STATION
30 WAY END BUILDINGS
31 UTILITY BUILDINGS
34 MARINE SHOP
35 BOILER ROOM
37 MOTOR SHED
38 EQUIPMENT MAINTENAN(
40 LUMBER YARD OFFICE
42 CABLE CUTTING BLDG.
43 PIPE ASSEMBLY BLD(
46 A.F.OF L. LABOR JOB O(
50 GUARD OFFICE
52 OIL HOUSE
53 SALVAGE DEPOT
55 VOCATIONAL SCHOOL
56 MACHINERY STORAGE
57 COPPER SHOP
76 STORAGE PLATFORMS
77 OUTFITTING BLDG.
79 FERRY SLIP
80 OUTFITTING BLDG NO 2
81 FLOATING DRY DOCK

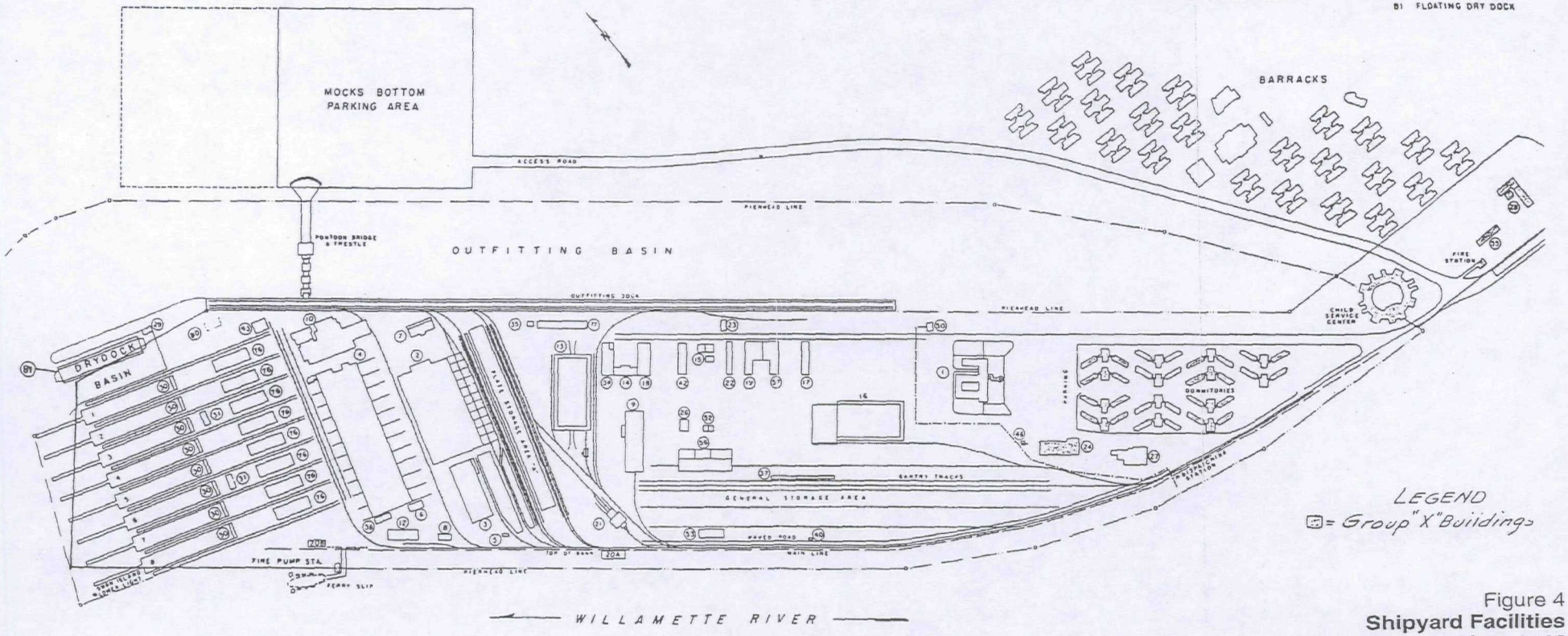
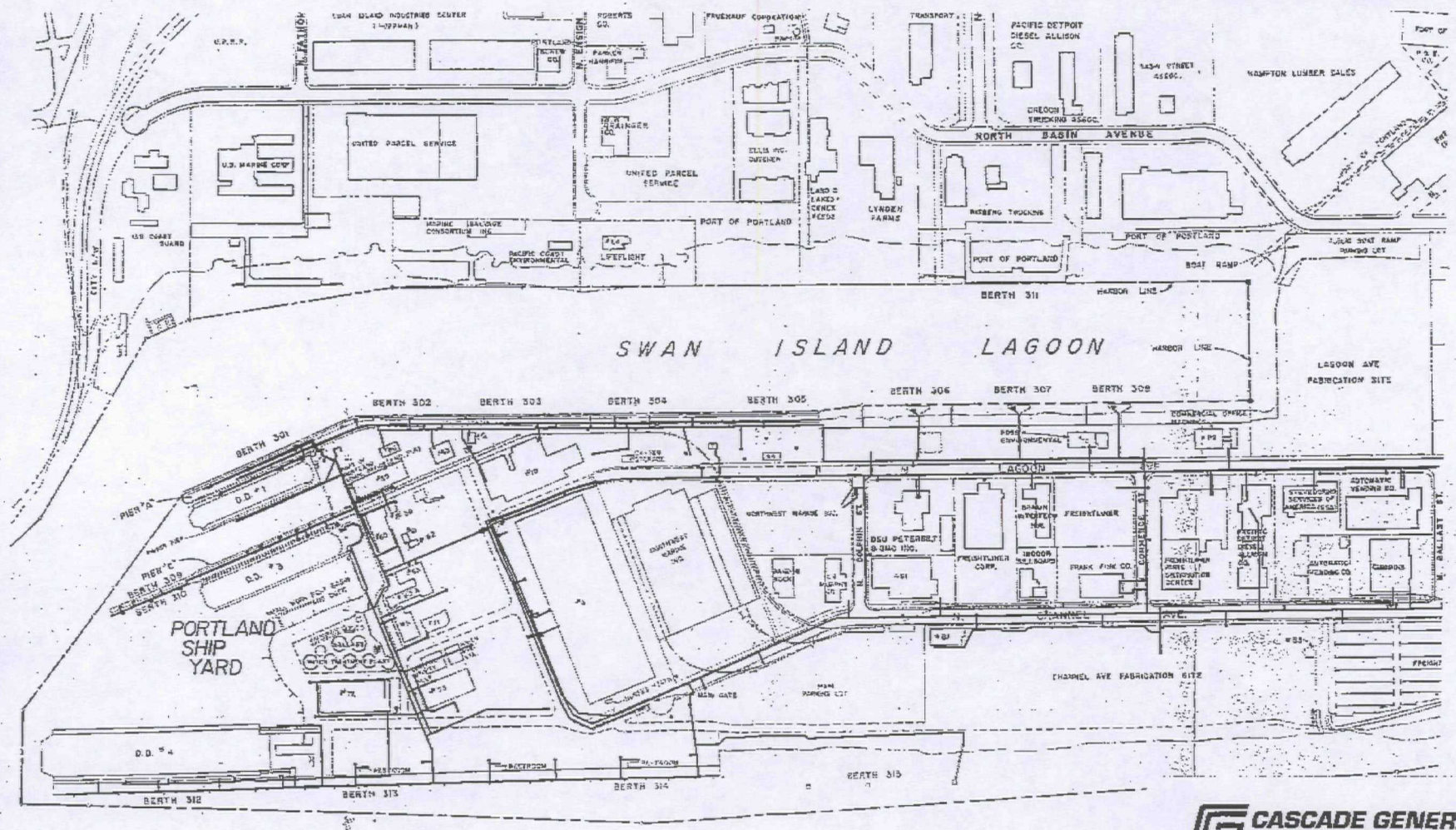


Figure 4
Shipyard Facilities circa 1945

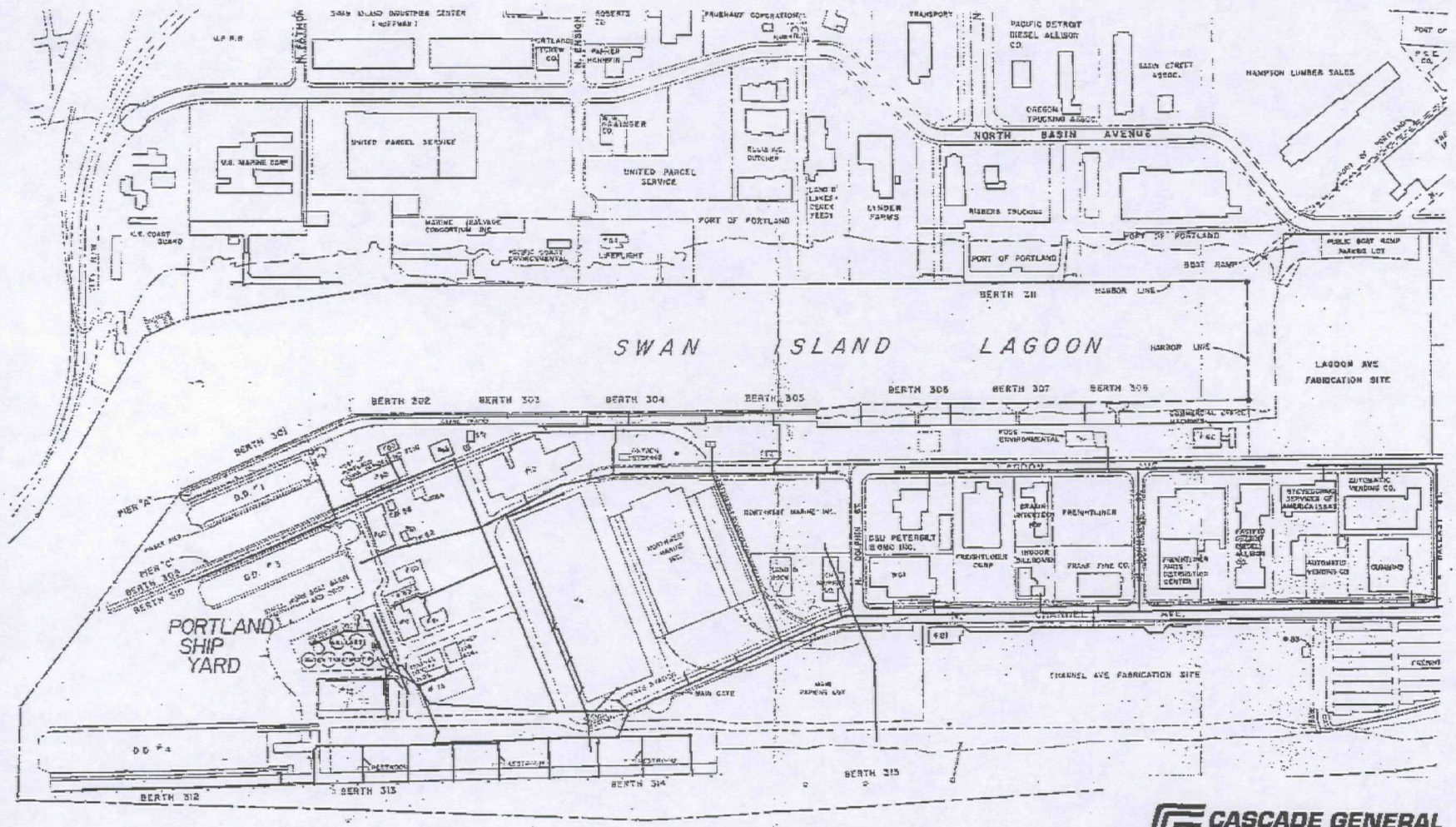


CASCADE GENERAL
PORTLAND SHIPYARD

This plan is for illustration purposes only and not intended as the final site plan.

Utilities
All of the utility distribution systems are owned by the Port of Portland. This includes compressed air, oxygen, natural gas, storm sewer, sanitary sewer, steam, potable water, fire system water, river water, ballast water, telephone and electricity. The electrical distribution system includes fixed and portable transformers.

WATER SYSTEM



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PORTLAND SHIPYARD

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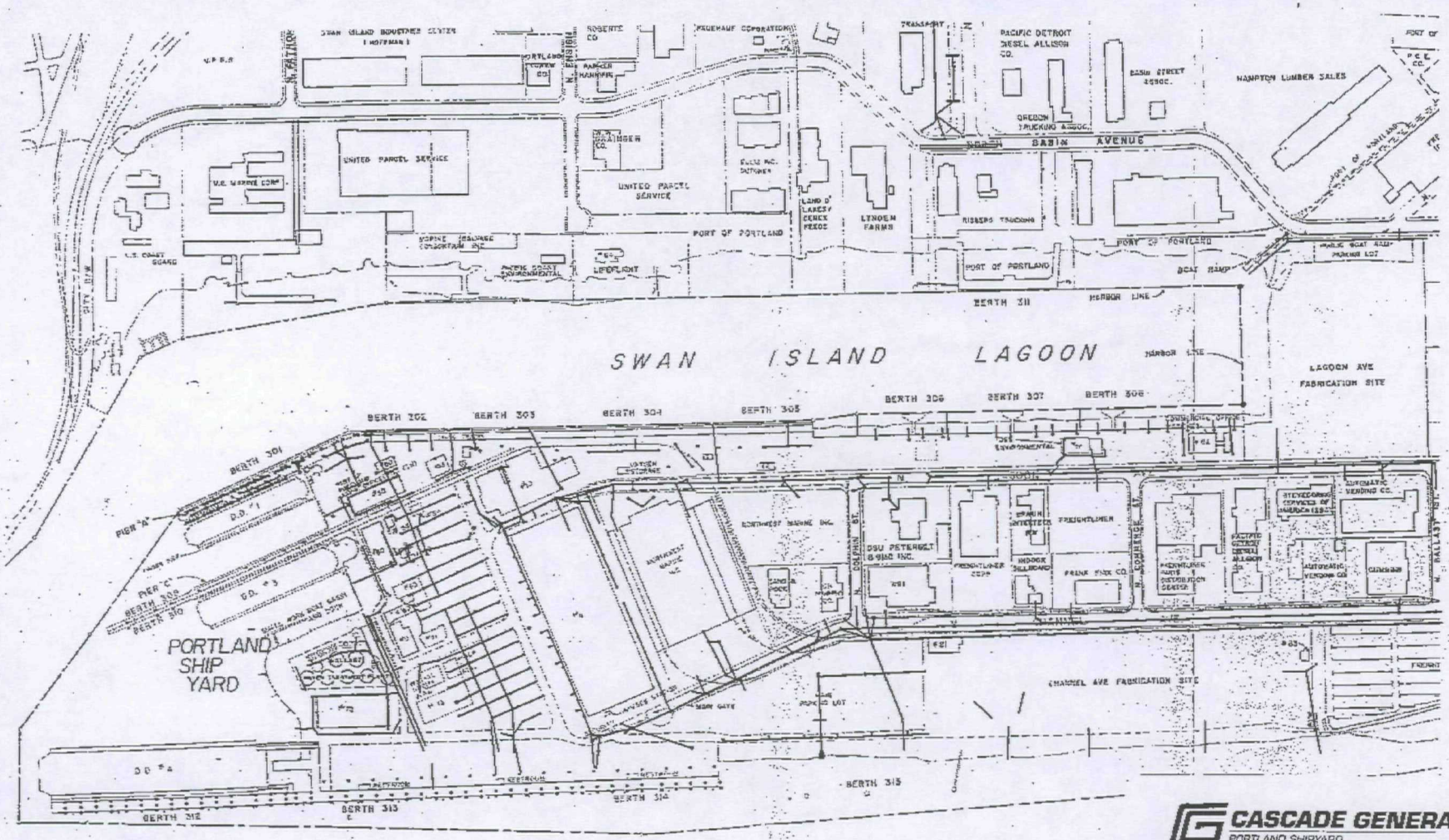
SANITARY SEWER SYSTEM



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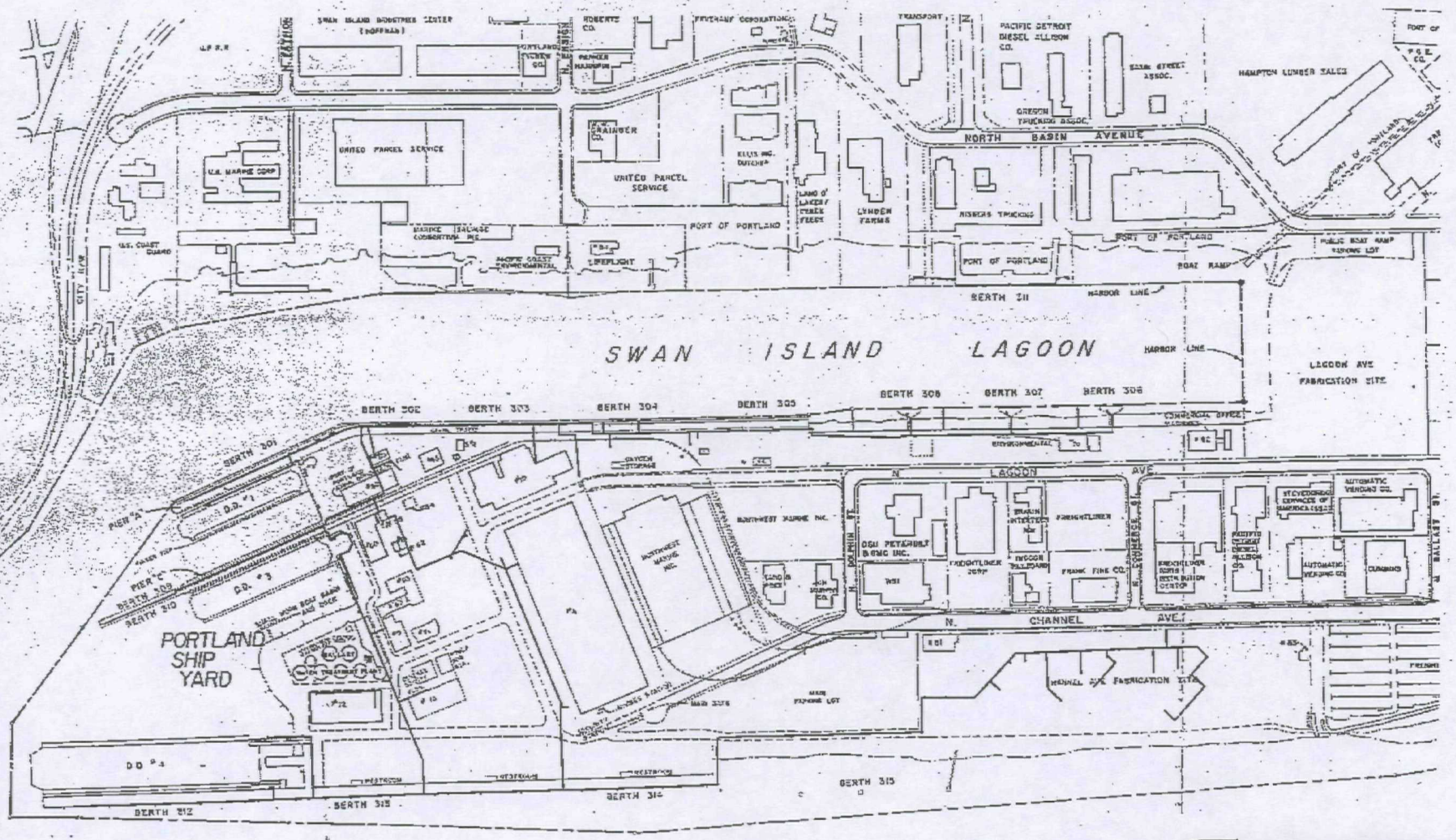
STORM SEWER SYSTEM



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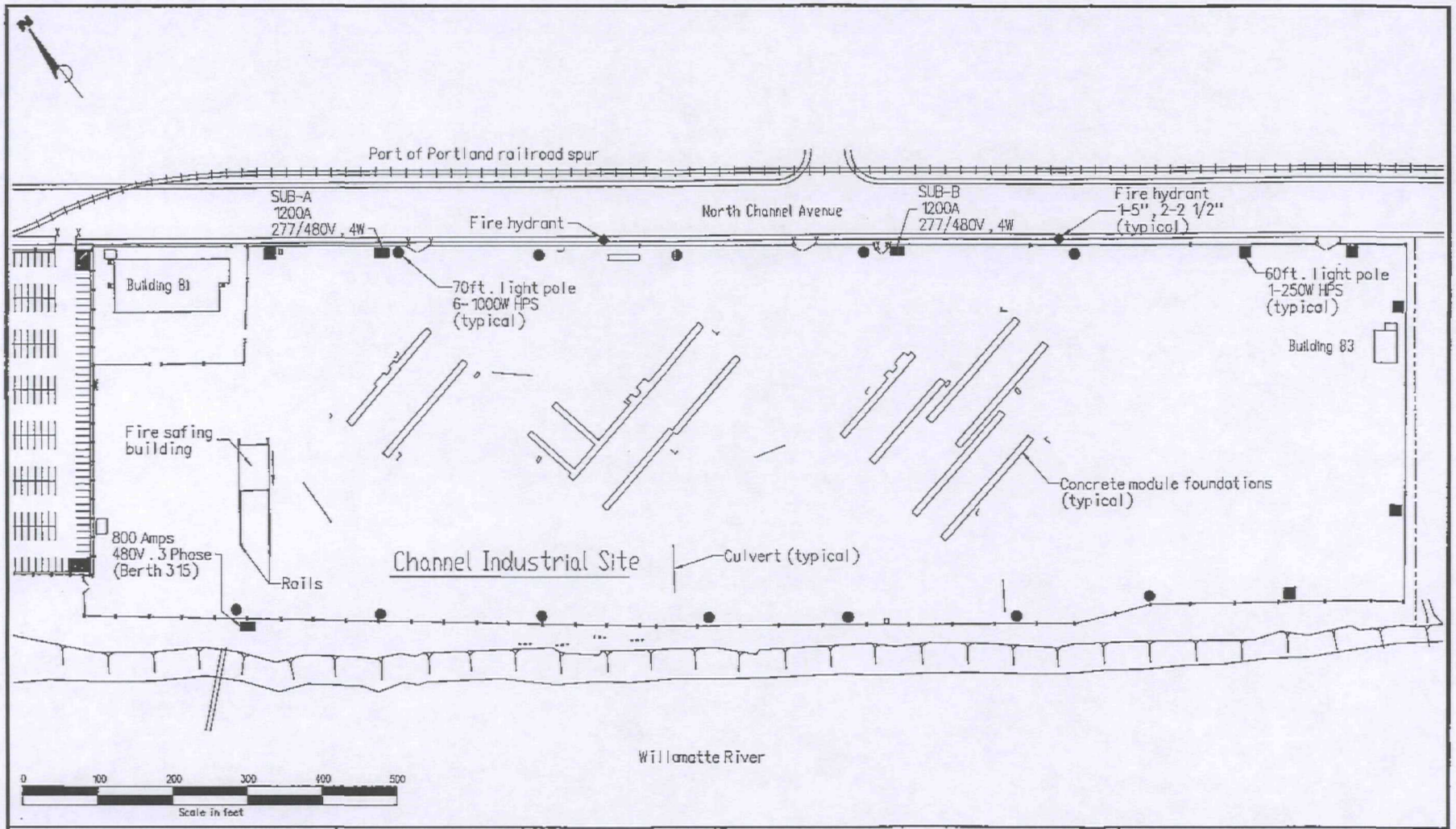
CASCADE GENERAL
PORTLAND SHIPYARD

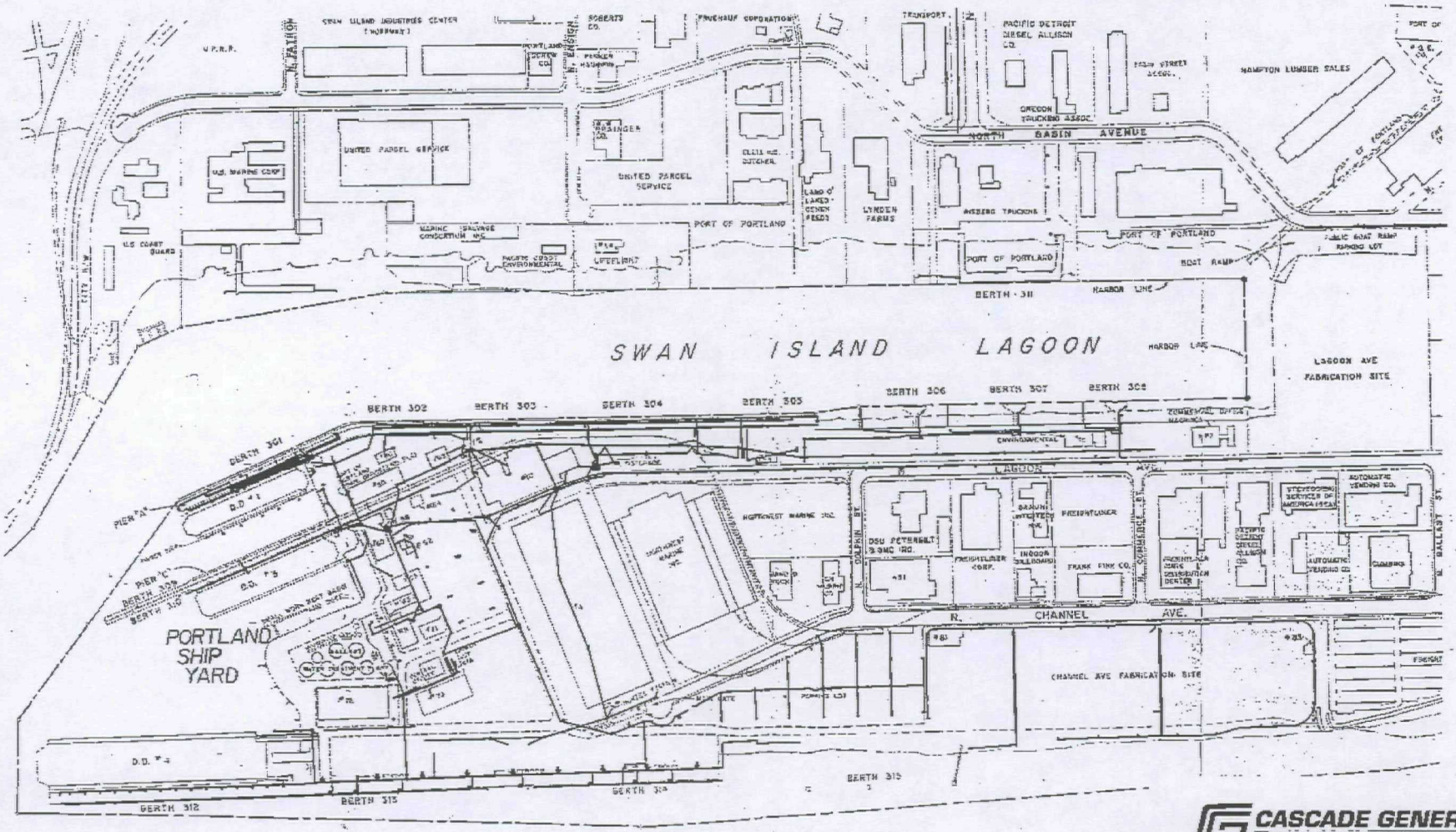
AIR SYSTEM



Port of Portland

Bldgs., Lighting, Power, Hydrants

4-4-94 | ARCOSITE.CAD 1/1



CASCADE GENERAL
PORTLAND SHIPYARD

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Utilities
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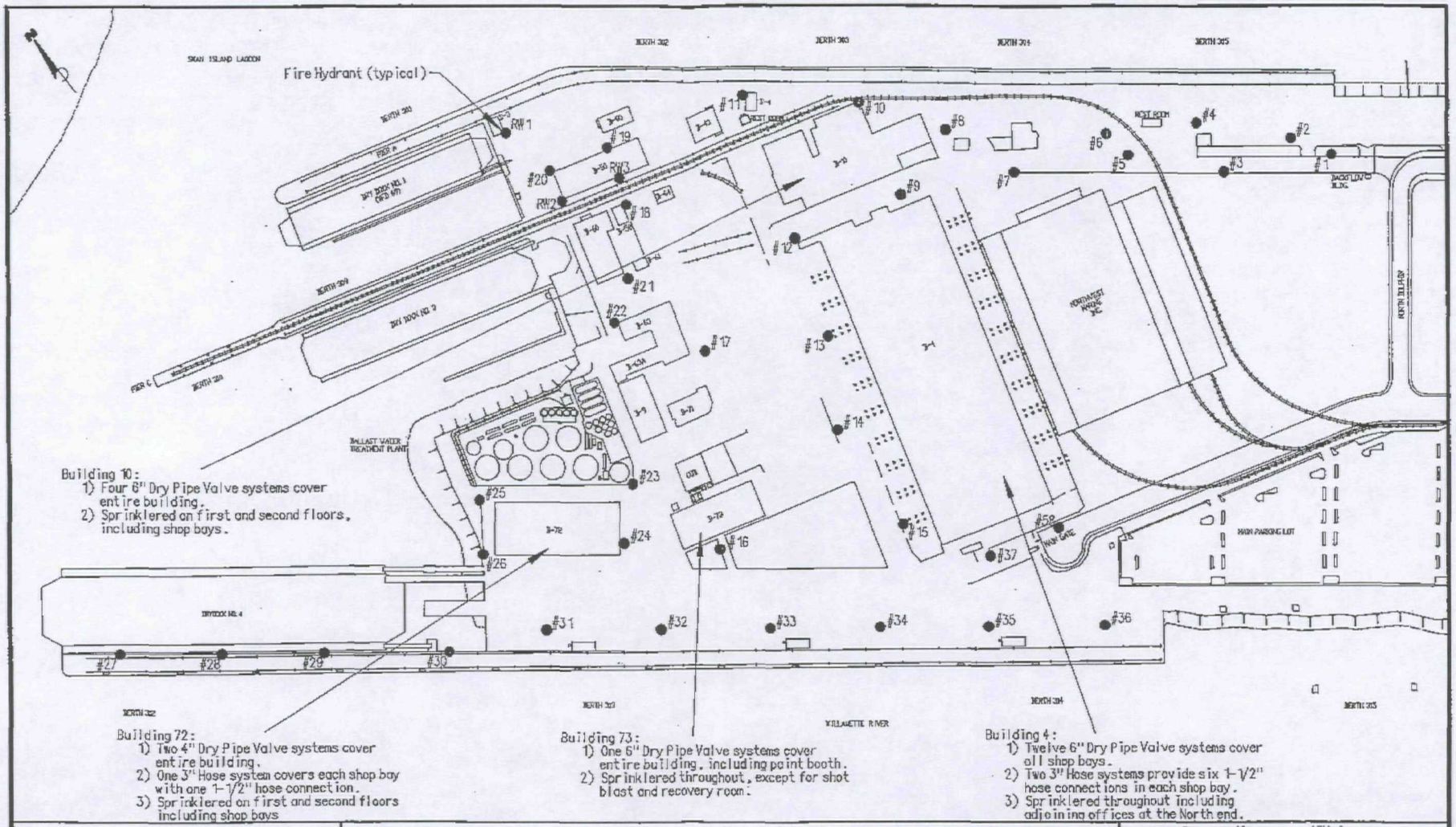
ELECTRICAL SYSTEM



Port of Portland

Fire Response Plan
Fire Hydrant Locations & Specific Systems

4-4-94 | MHIHYDNT.CAD 1/1

PSRY UNDERGROUND TANK LOCATIONS

N
W — E
S

1. Crosby & Overton, legally abandoned
2. Port, unused, removed (26-89-166)
3. NMIW, legally abandoned } offsite
4. NMIW, legally abandoned
5. Port, Diesel, removed (26-89-166)
6. Port, unleaded, removed
7. Port, diesel, removed } (26-89-166)
8. NMIW, regular, removed
9. Port, fuel oil, abandoned, to be sand filled, cannot remove (26-89-166)
10. Cascade General, regular, removed
11. Cascade General, unleaded, removed (26-89-166)
12. Port, boiler fuel
13. Port, boiler fuel } (26-93-6019)
14. Port, glycol
15. Port, new fiberglass tank, diesel
16. Port, new fiberglass tank, unleaded

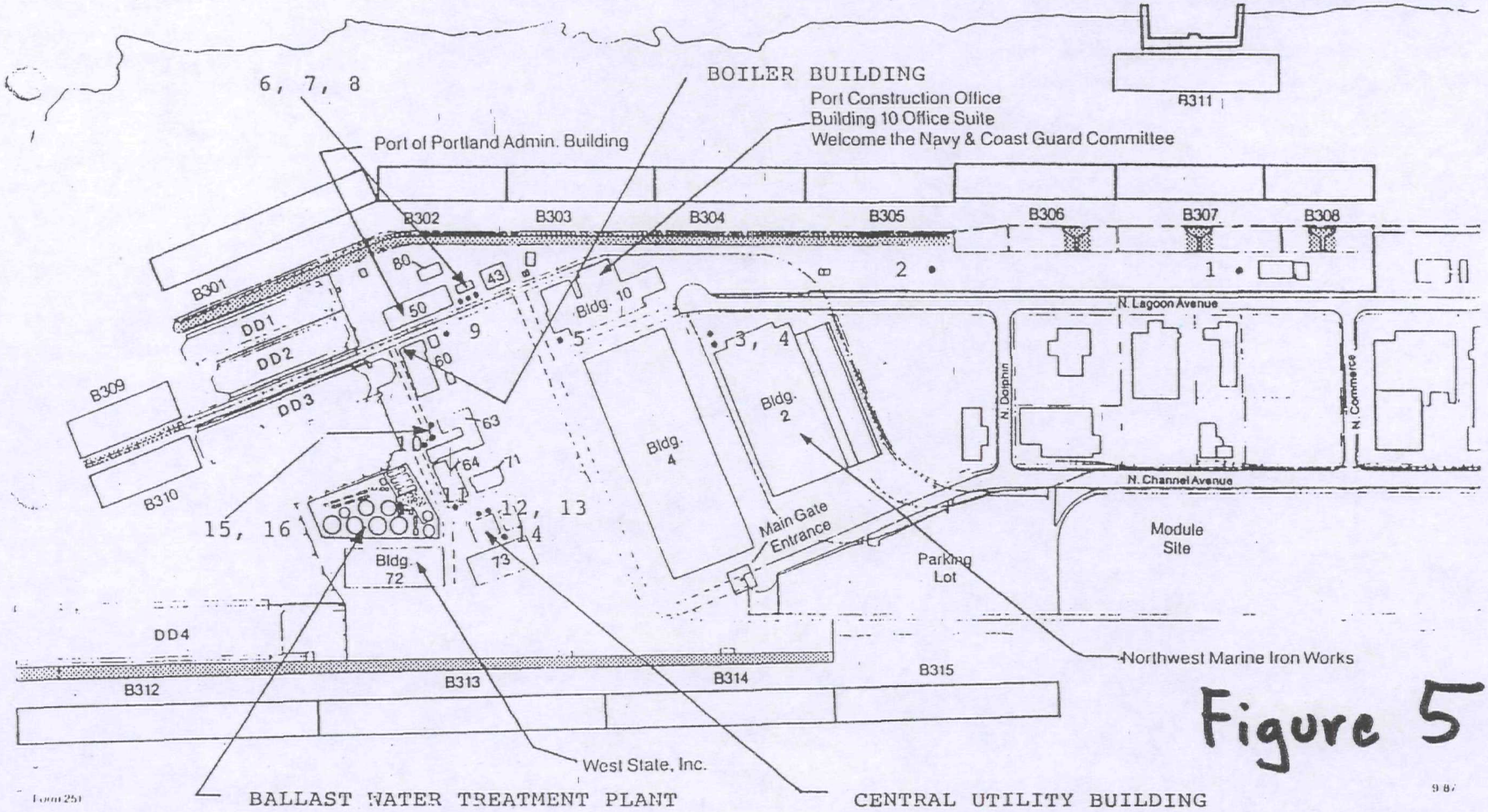
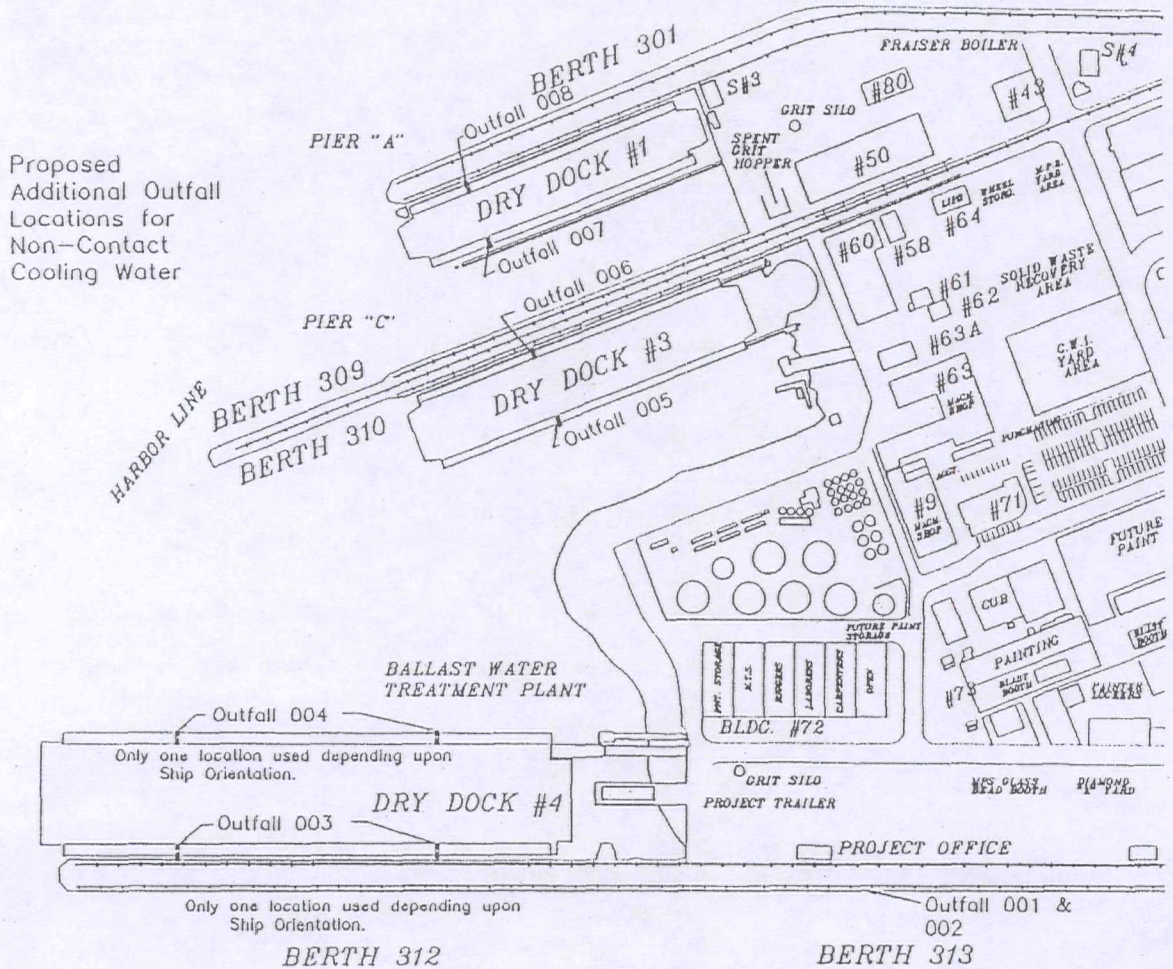


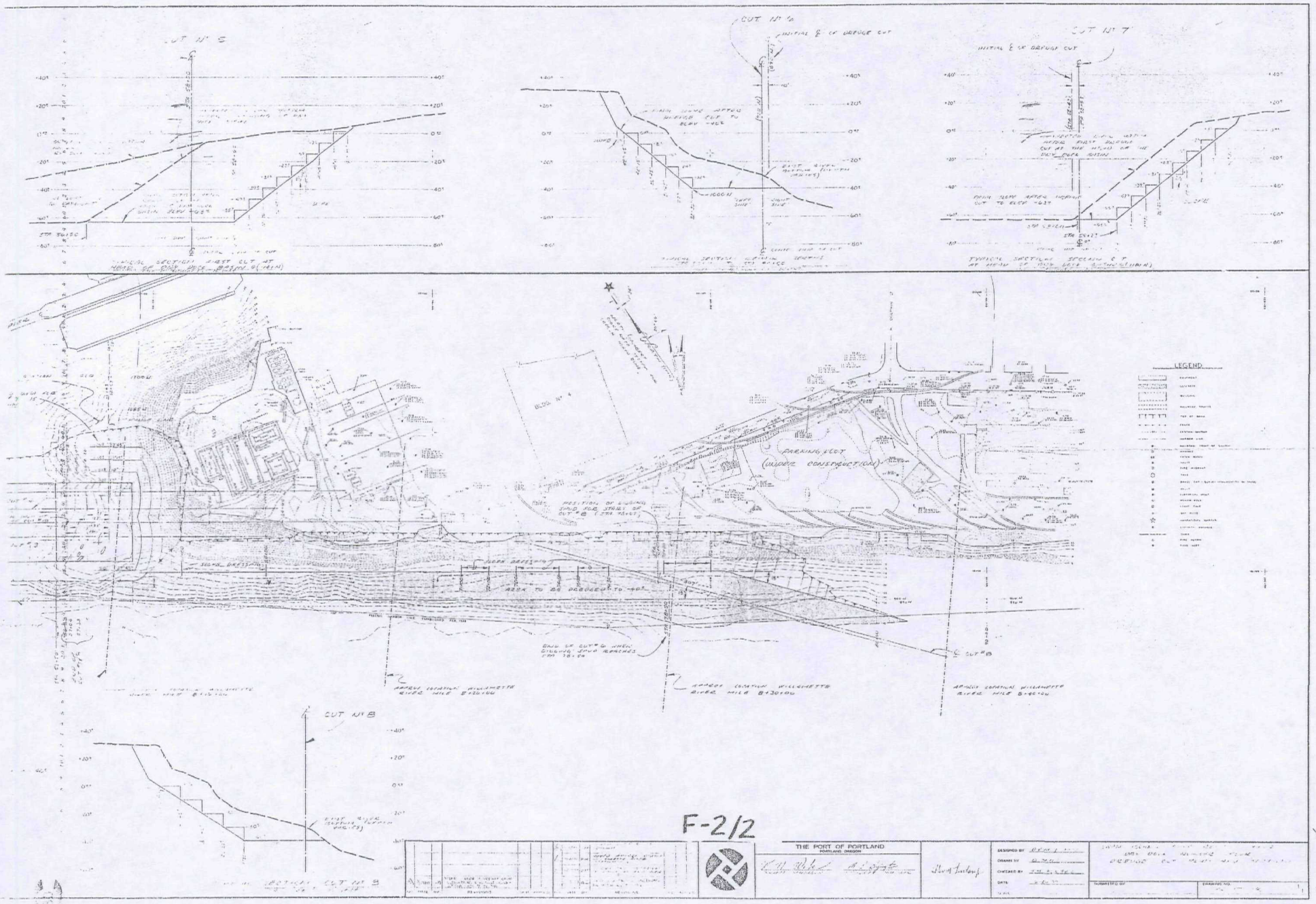
Figure 5



CASCADE GENERAL
PORTLAND SHIPYARD

PROPOSED DRYDOCK OUTFALL LOCATIONS

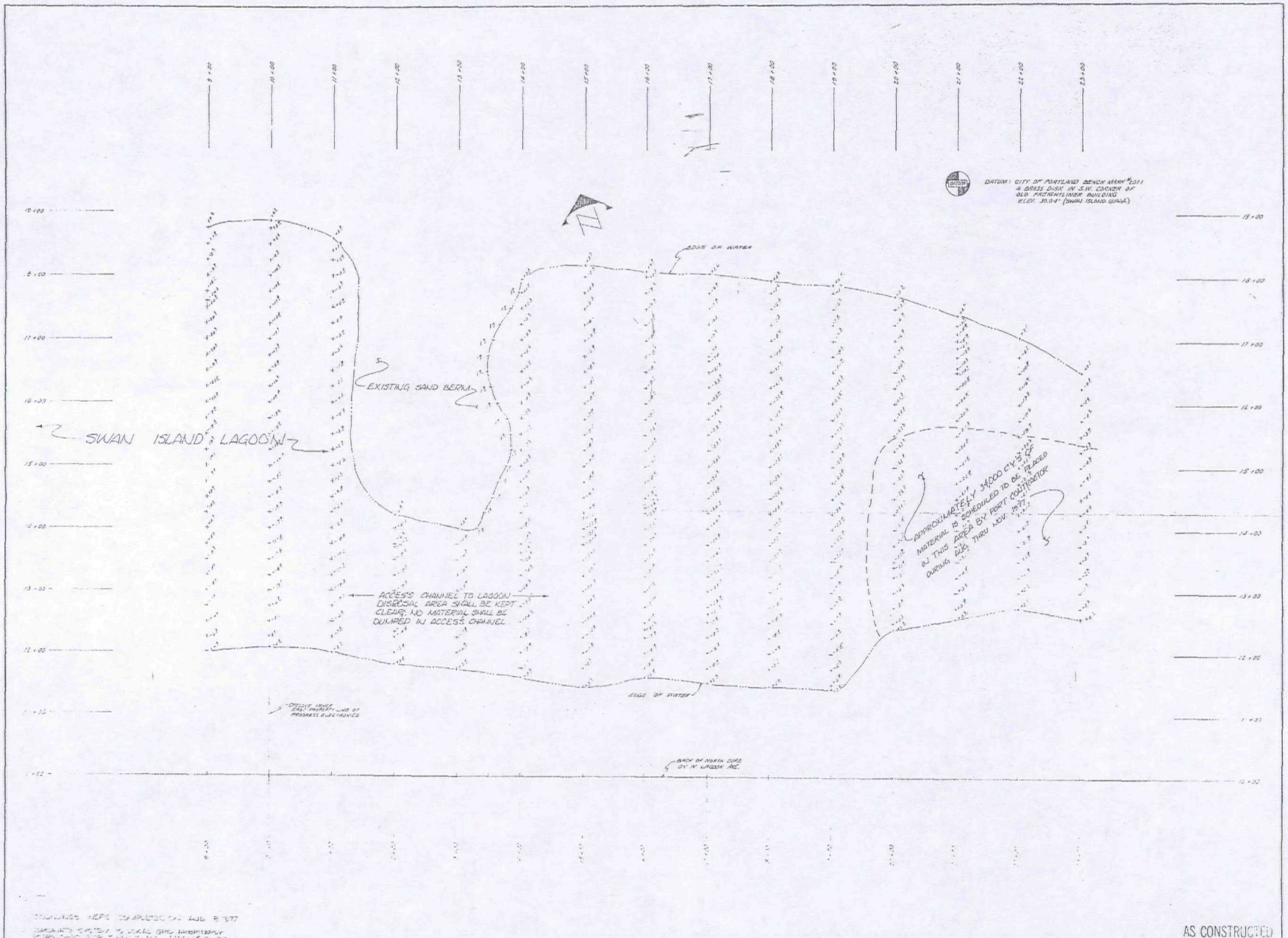
SHEET 1



F-2/2

77-28

1 of 2



AS CONSTRUCTED

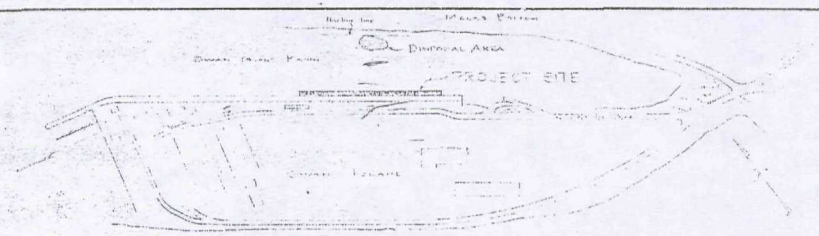
THE PORT OF PORTLAND
PORTLAND, OREGON

SWAN ISLAND SHIP REPAIR YARD EXPANSION
BERTHS, UTILITIES AND PAVING

SWAN ISLAND LAGOON DISPOSAL AREA

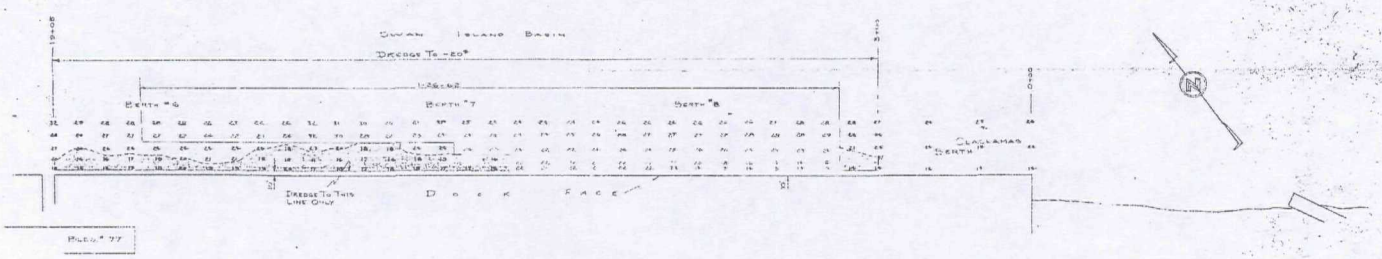
YA 77-501 C-7

YA
77-501



PROJECT SITE PLAN

Scale - Feet



PLAN

Scale 1" = 100'

Approximate Area To Be Dredged

1-26-62

No.	Date	Revision	By	Appr.
1	11-10-61	-50' Contour, Channel, Note,		

THE PORT OF PORTLAND

PORTLAND, OREGON

SWAN ISLAND

DREDGING of BERTHS 6, 7 & 8

Prepared by J.R.W. Drawn by D.A.C. Checked by J.R.W.

Submitted by — Approved by — Chief Engineer

Recommended by — Marine Supt. — Port Engineer

Approved by — Port Manager

Date 11-10-61 Scale As Shown Drawing No. YA-61-20-A

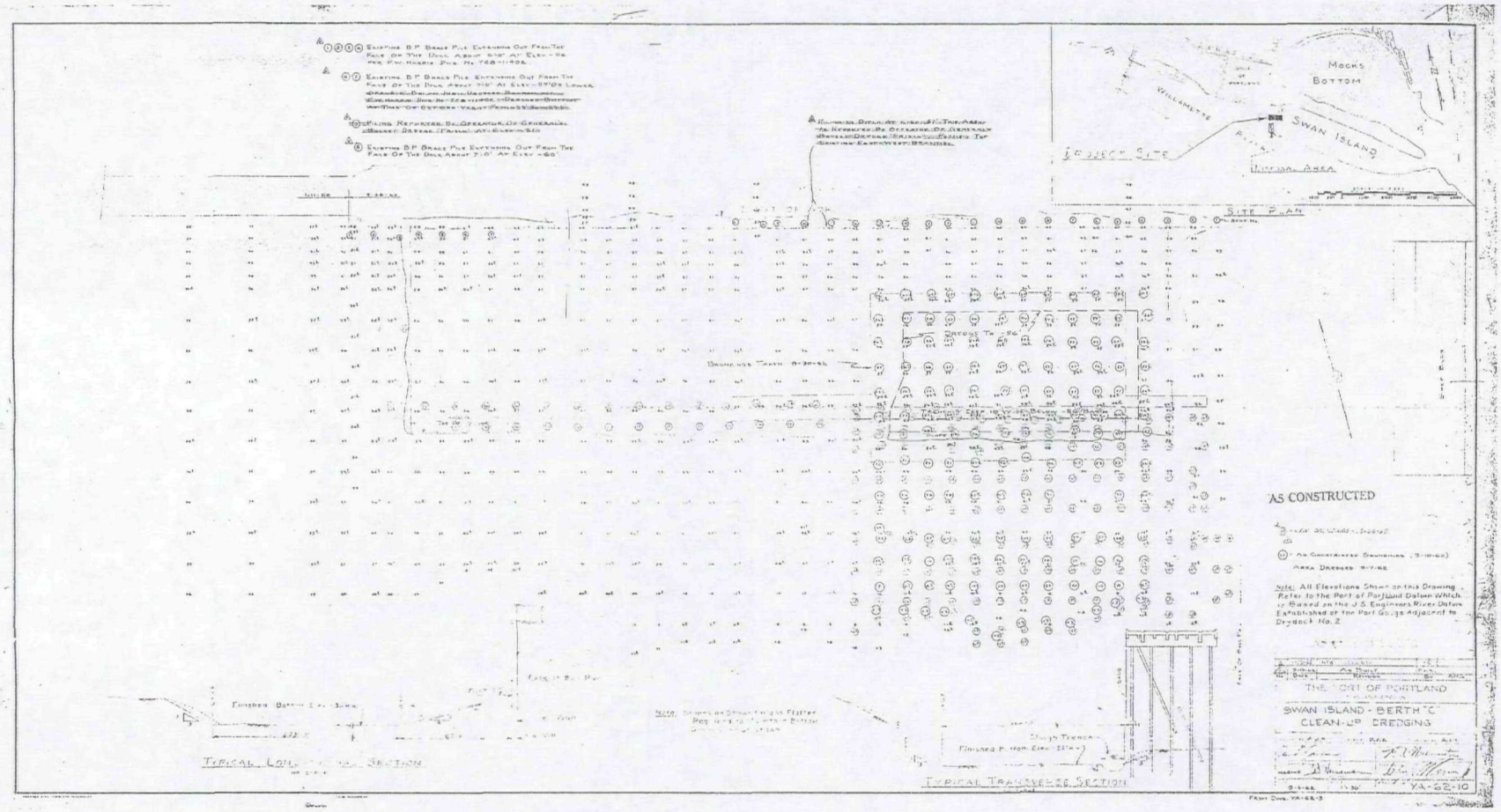
* U.S. Engineers River Datum

Date of Soundings: Sept. 1961

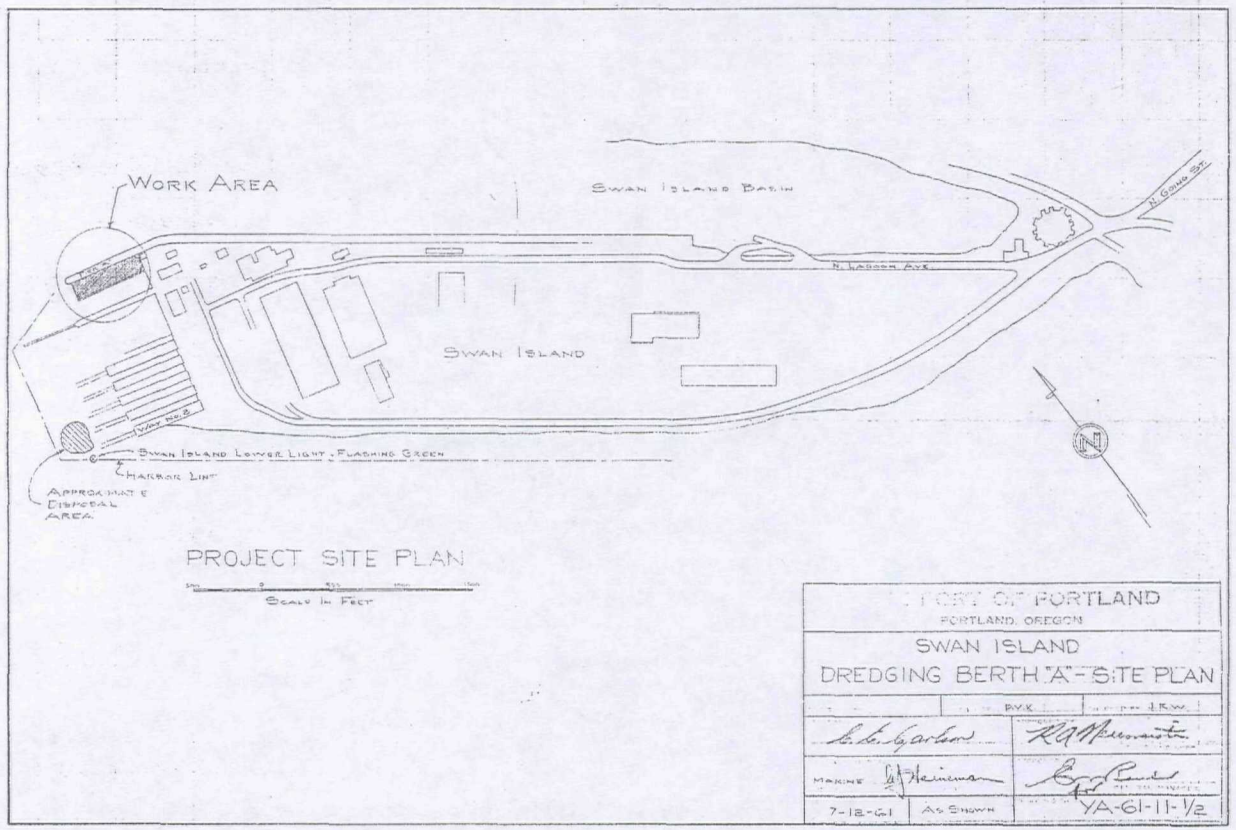
⚠ Soundings Taken By Echo Sounding Device

YA

61-20-A

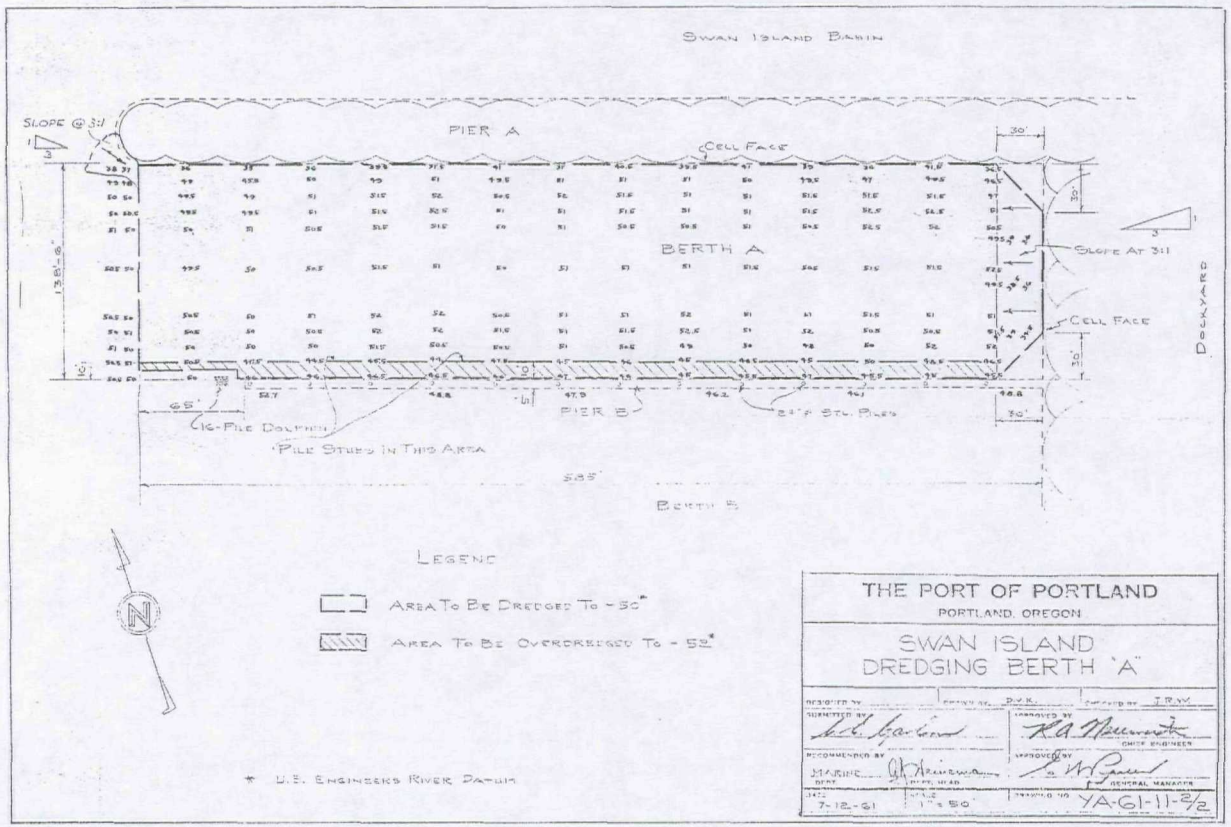

Mocks Bottom
Willamette River
Swan Island
Project Site
Vicinity Area
Site Plan
Typical Longitudinal Section
Typical Transverse Section
Finished Bottom Elev. -35.0
Dredge Trench
Finished Bottom Elev. -35.0
As Constructed
Area Dredged 8-7-62
Note: All Elevations Shown on this Drawing Refer to the Port of Portland Datum Which is Based on the U.S. Engineers River Datum Established at the Port Gauge Adjacent to Drydock No. 2
The Port of Portland
Swan Island - Berth "C"
Clean-Up Dredging
YA-62-10

YA 62-10



PORT OF PORTLAND PORTLAND, OREGON		
SWAN ISLAND DREDGING BERTH "A" - SITE PLAN		
	P.V.K.	J.R.W.
MARINE		
7-12-61	AS SHOWN	YA-61-11-1/2

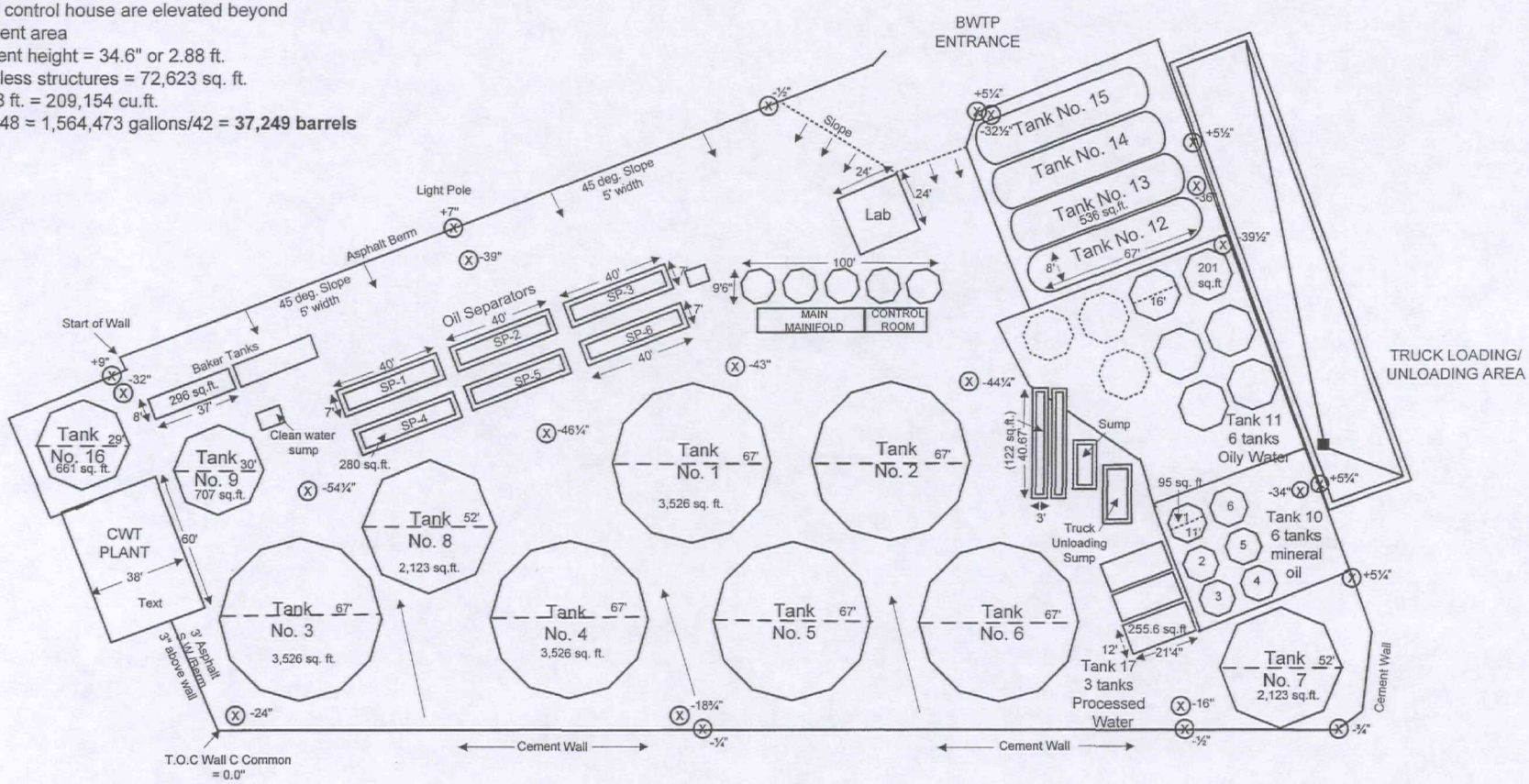
YA 61-11-1/2


SWAN ISLAND BASIN
SLOPE @ 3:1
PIER A
CELL FACE
30'
BERTH A
SLOPE AT 3:1
CELL FACE
DOLLYARD
PIER B
16-PILE DOLPHIN
PILE STUBS IN THIS AREA
24" ϕ STL. PILES
585'
BERTH B
LEGEND
AREA TO BE DREDGED TO -50*
AREA TO BE OVERDREDGED TO -52*
* U.S. ENGINEERS RIVER DATUM
THE PORT OF PORTLAND
PORTLAND, OREGON
SWAN ISLAND
DREDGING BERTH "A"
DESIGNED BY
DRAWN BY D.V.K.
CHECKED BY J.R.W.
SUBMITTED BY
APPROVED BY
CHIEF ENGINEER
RECOMMENDED BY
MARINE
CHIEF, HEAD
APPROVED BY
GENERAL MANAGER
DATE 7-12-61
SCALE 1" = 50'
DRAWING NO. YA-61-11-2/2

YA 61-11-2/2

Notes

Total Containment Area: Approximately 108,725 sq.ft.
Tanks 12-15 are 1 ft. above ground, actual tank diameter is 15' and length = 75' however, area within avg. containment height (2.88') is 8' x 67' = 536 sq. ft. per tank.
Main manifold and control house are elevated beyond average containment area
Average containment height = 34.6" or 2.88 ft.
Containment area less structures = 72,623 sq. ft.
72,623 sq. ft x 2.88 ft. = 209,154 cu.ft.
209,154 cu. ft. x 7.48 = 1,564,473 gallons/42 = **37,249 barrels**

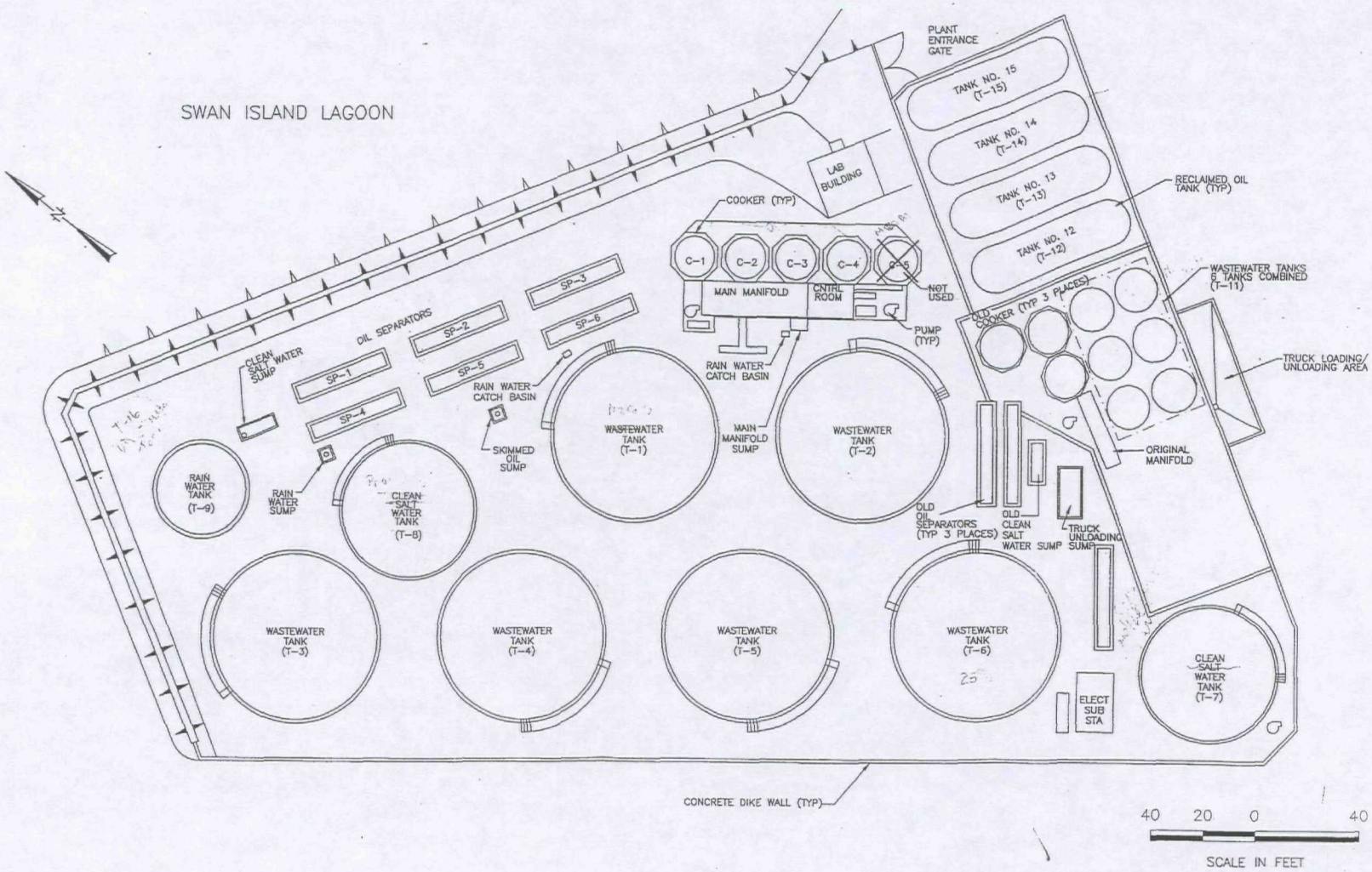


CASCADE GENERAL
PORTLAND SHIPYARD

2007

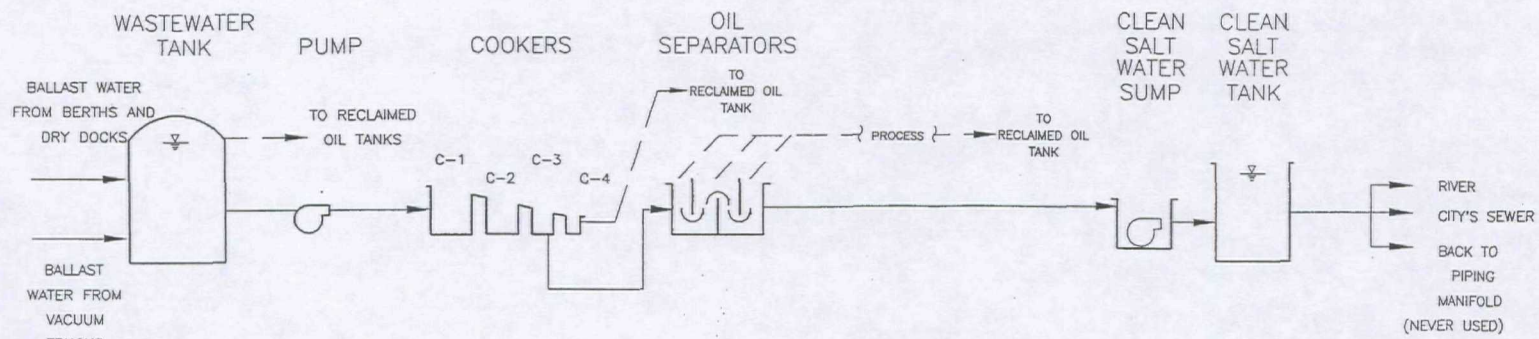
BALLAST WATER TREATMENT PLANT CONTAINMENT CAPACITY

FIGURE 3



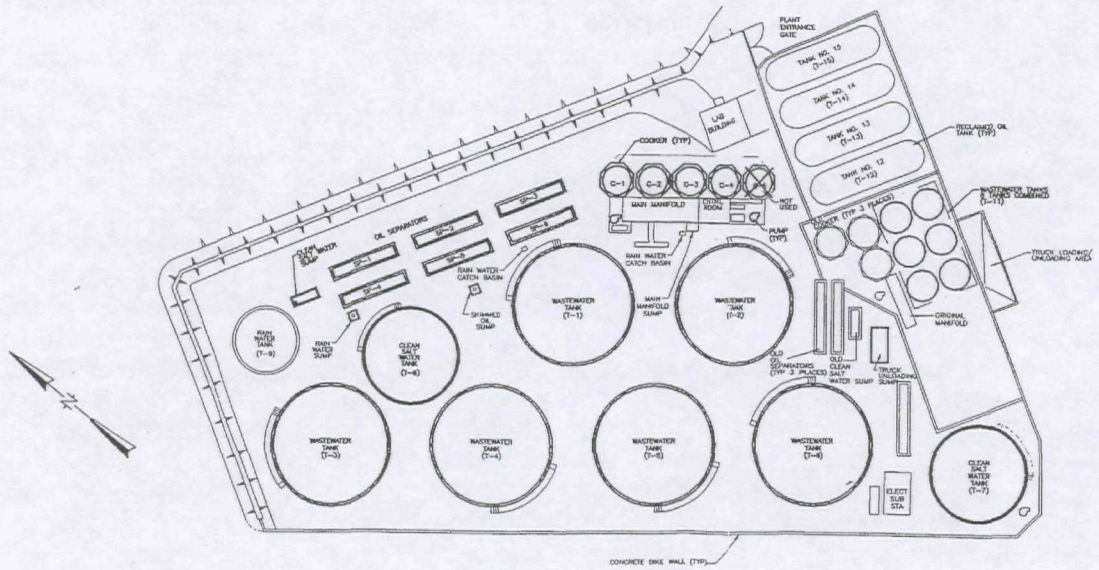
DESIGNED BY: TCW	SCALE: AS SHOWN	centurywest ENGINEERING CORPORATION	PORT OF PORTLAND PORTLAND, OREGON	PORTLAND SHIP YARD BALLAST WATER TREATMENT PLANT LAYOUT	FIGURE 3-1
DRAWN BY : LDM	DATE : 09/10/93				
CHECKED BY :	FILE :				
PROJECT NO.: 4003805102-4002					

BALLAST WATER FLOW



WATER FLOW

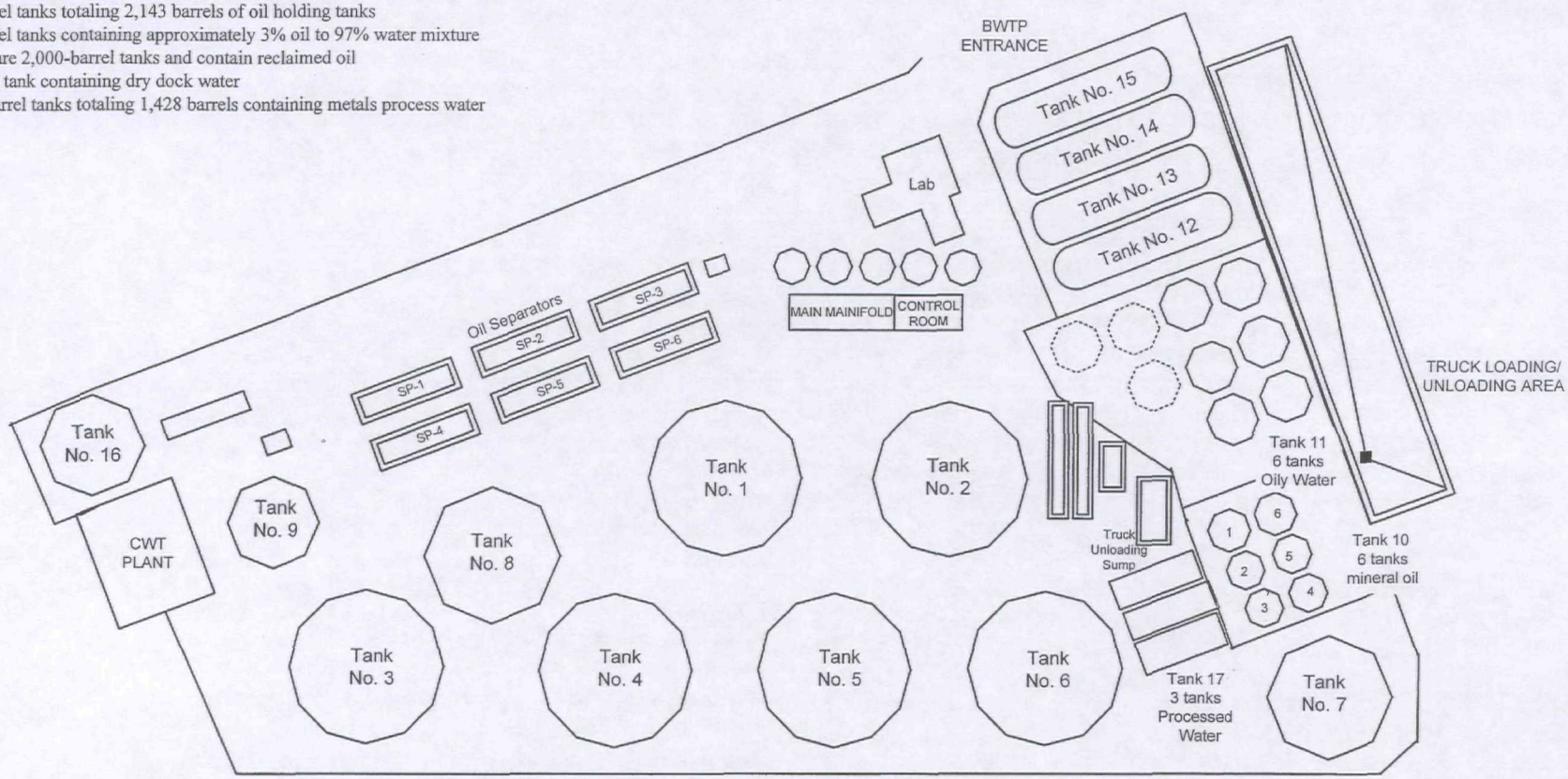
OIL FLOW



* DESIGNED BY: TCW	SCALE: NO SCALE	centurywest ENGINEERING CORPORATION	PORT OF PORTLAND PORTLAND, OREGON	PORTLAND SHIP YARD BALLAST WATER FLOW SCHEMATIC	FIGURE 3-6
DRAWN BY : LDM	DATE : 10/28/93				
CHECKED BY :	FILE :				
PROJECT NO.: 4003805102-4002					

Notes

T-1 is a 24,000-barrel tank containing metals water
T-2 contains approximately 80% oil to 20% water mixture and is 24,000 barrels in capacity
T-3 through T-6 are 24,000-barrel tanks containing approximately 25% oil to 75% water mixture
T-7 and T-8 are 15,000 barrel capacity processed water tanks
T-9 is an 1888-barrel capacity tank used for storing rain water
T-10 is six 357-barrel tanks totaling 2,143 barrels of oil holding tanks
T-11 is six 533-barrel tanks containing approximately 3% oil to 97% water mixture
T-12 through T-15 are 2,000-barrel tanks and contain reclaimed oil
T-16 is 2,380-barrel tank containing dry dock water
T-17 is three 476-barrel tanks totaling 1,428 barrels containing metals process water

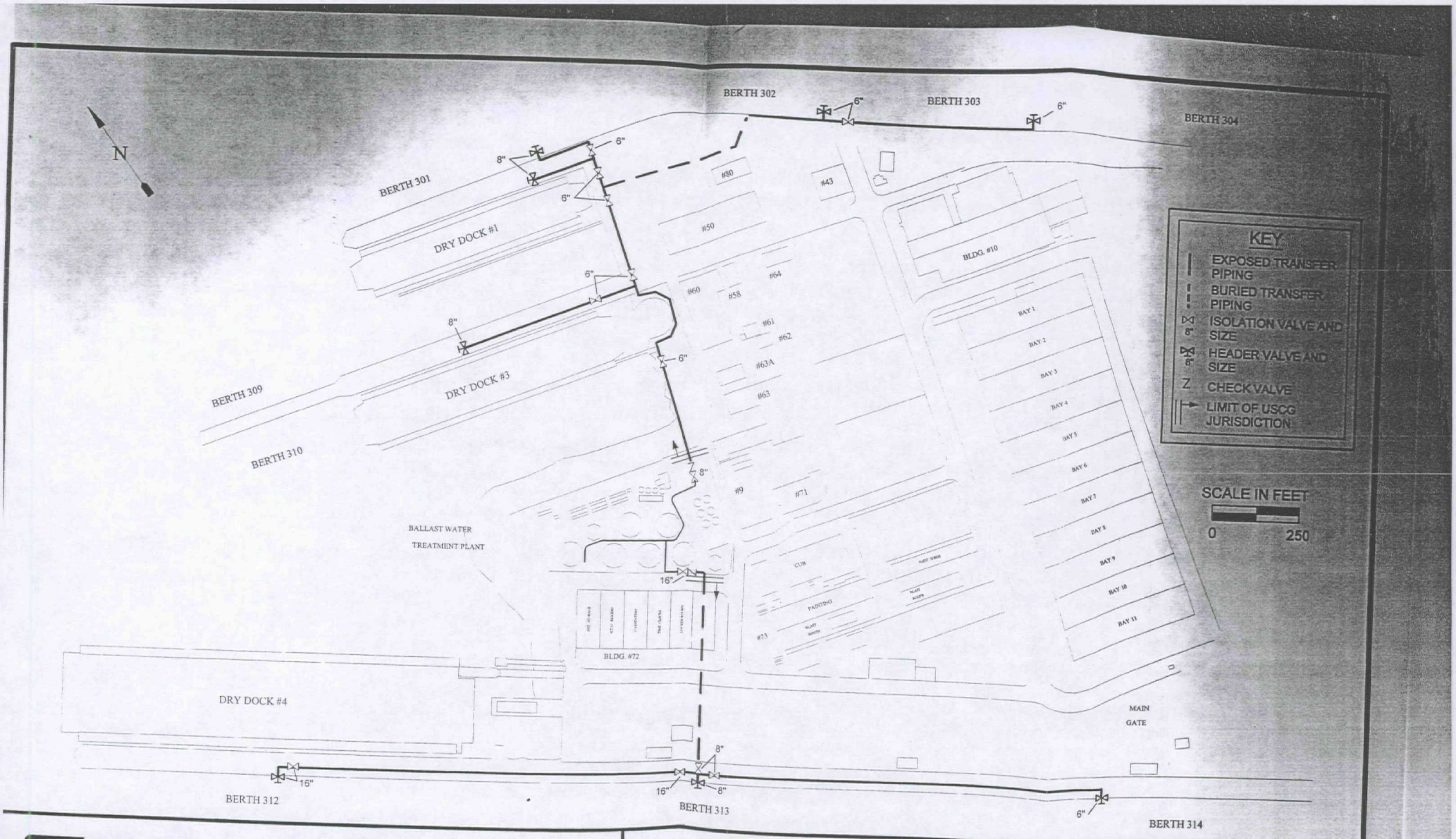


CASCADE GENERAL
PORTLAND SHIPYARD

2007

BWTP STORAGE TANKS AND SIZES

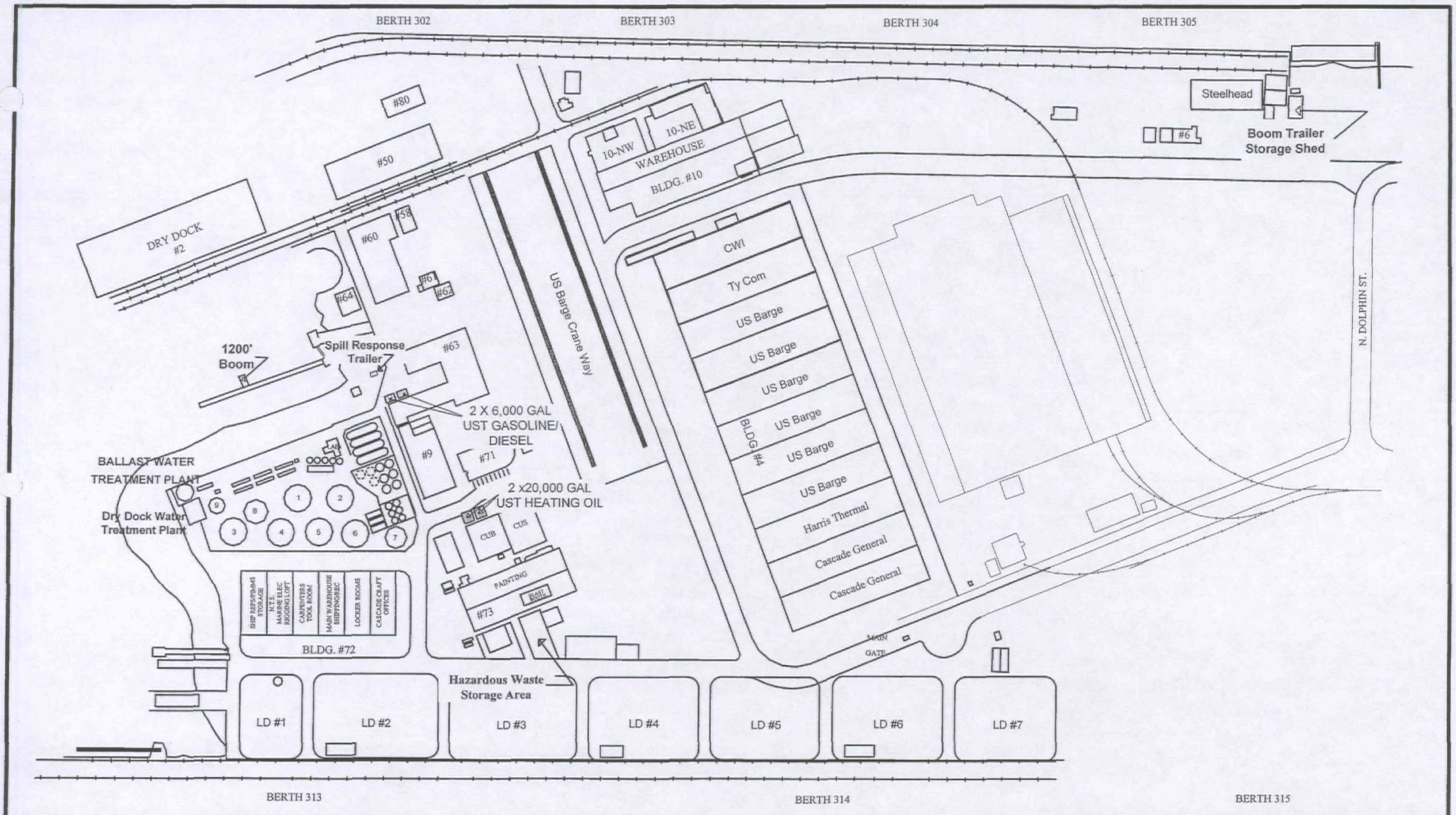
FIGURE 2



CASCADE GENERAL
PORTLAND SHIPYARD

FIXED TRANSFER FACILITY PIPING AND VALVE DIAGRAM

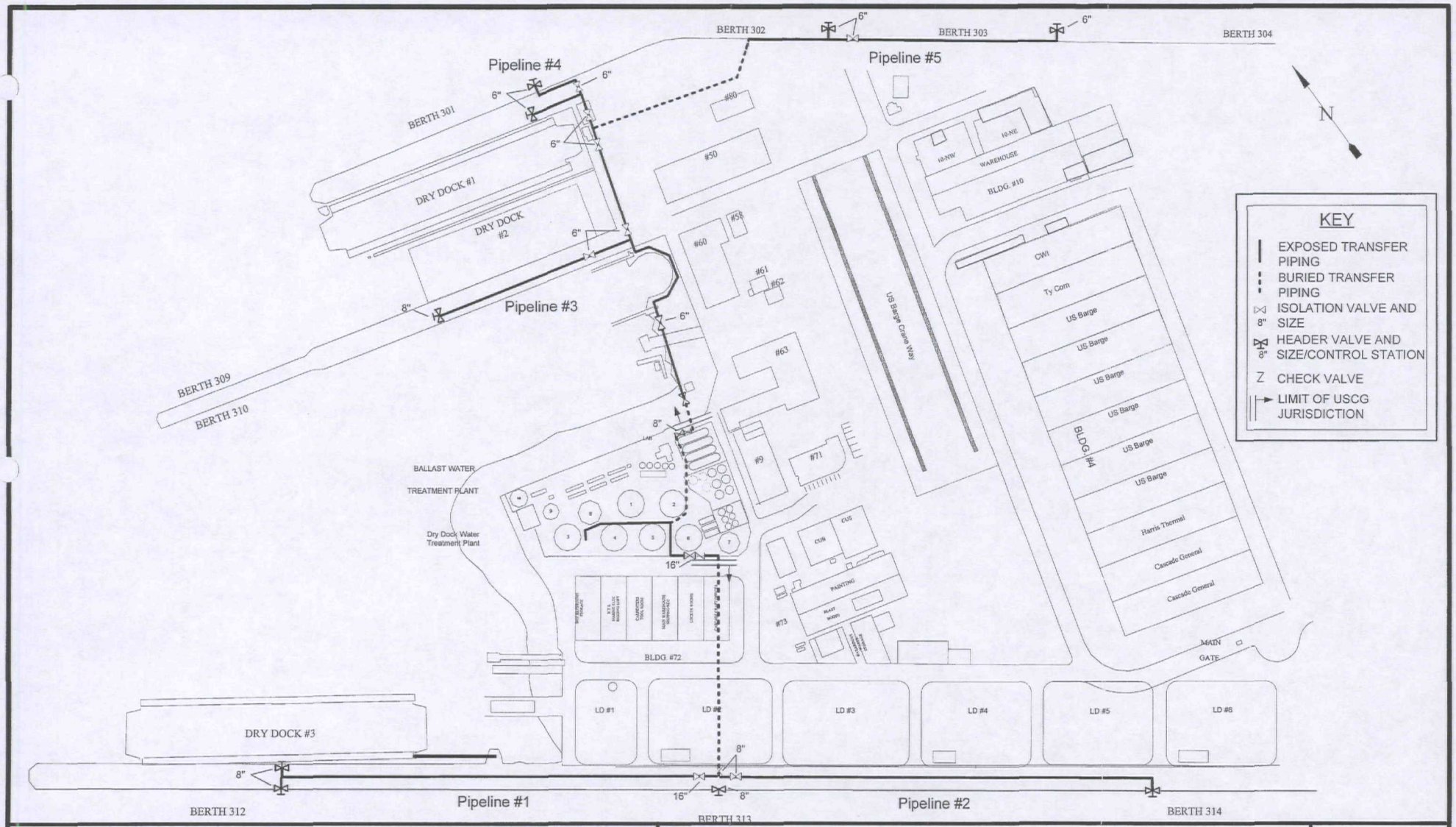
FIGURE 3



CASCADE GENERAL
PORTLAND SHIPYARD

HAZARDOUS WASTE STORAGE AREA AND RESPONSE EQUIPMENT LOCATIONS

FIGURE 7

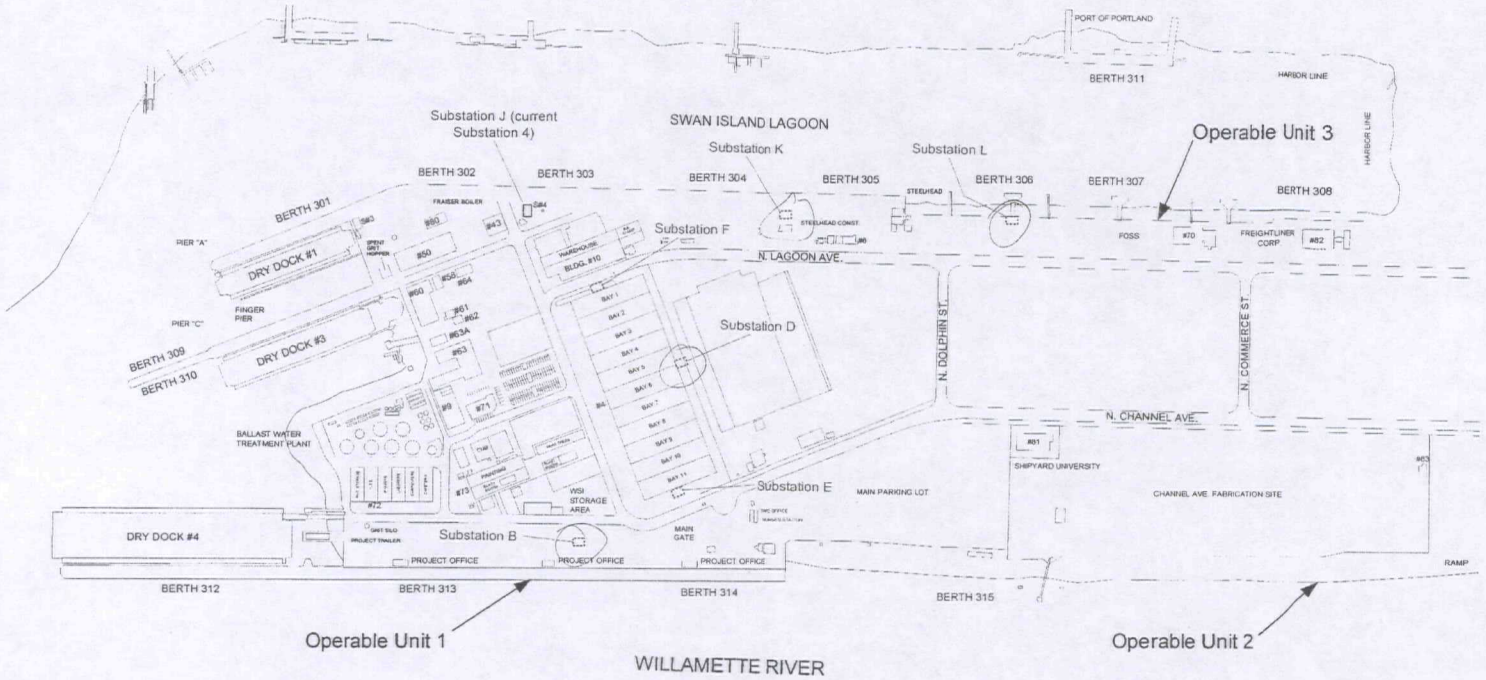


CASCADE GENERAL
PORTLAND SHIPYARD

SCALE IN FEET
0 250

FIXED TRANSFER FACILITY PIPING AND VALVE DIAGRAM

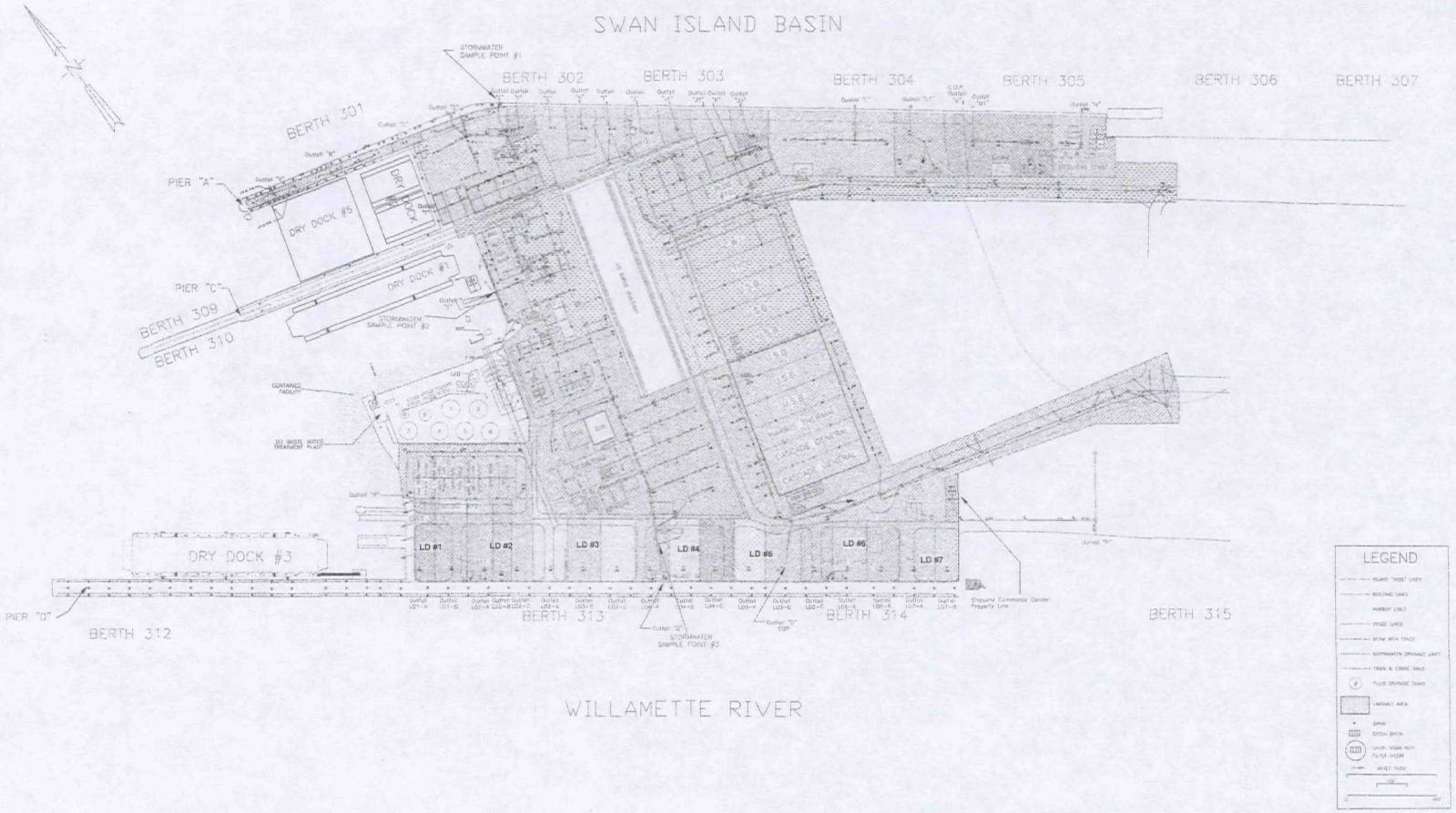
FIGURE
2.2.1-D2



0 ft. 250 ft. 500 ft. 1000 ft.

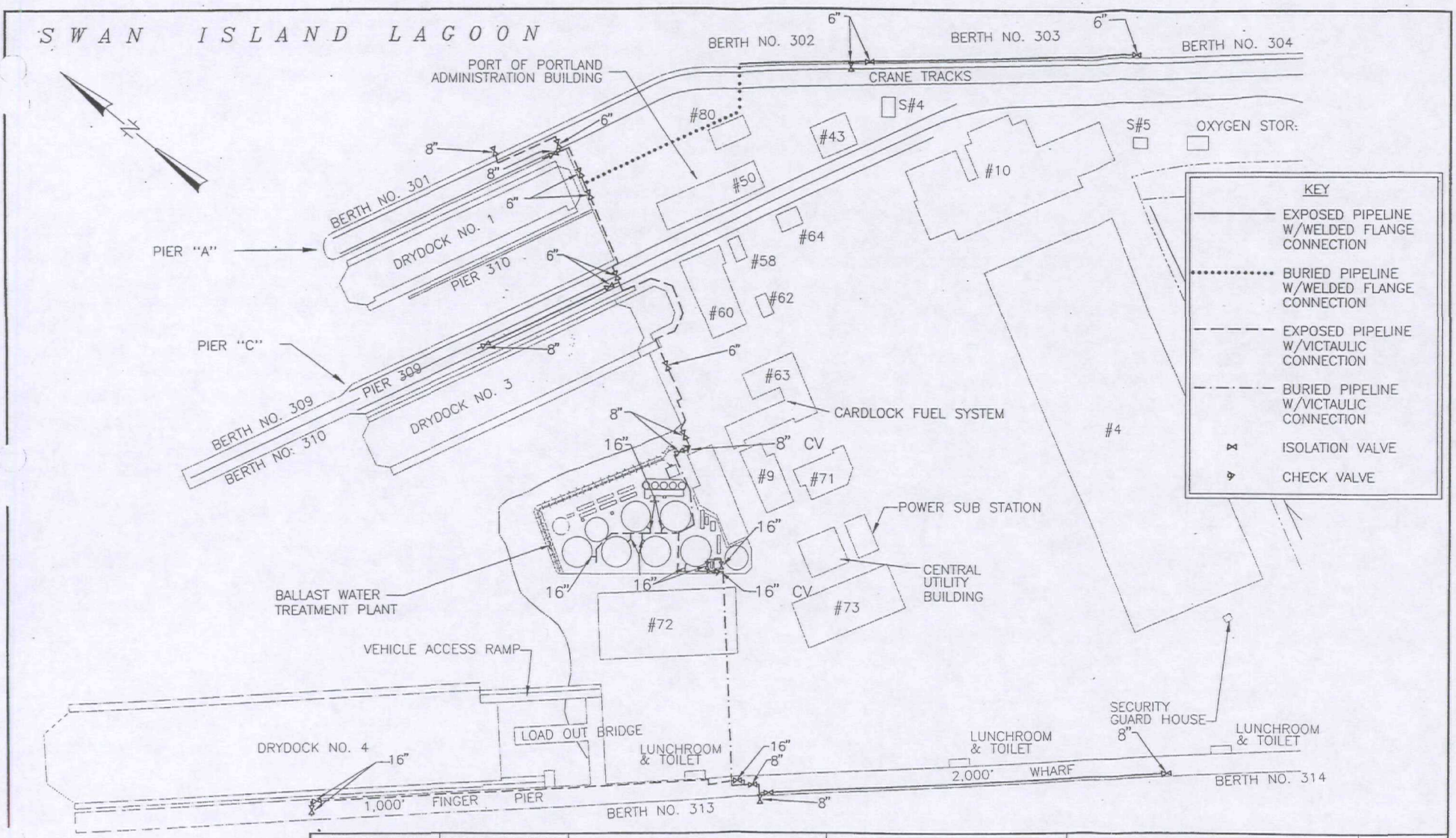
Figure 13
Kaiser-Era Substation Locations on Operable Unit 1
SIUF OU1 Phase II RI Work Plan Addendum

BRIDGEWATER GROUP, INC.



CASCADE GENERAL
PORTLAND, OREGON

Environmental	L. JEWELL	042808	SWPCP
Outfall Drainage Drawing	L. JEWELL	04-07-2008	FIGURE 4.1.3



DESIGNED BY: MR	SCALE: AS SHOWN	centurywest ENGINEERING CORPORATION	PORT OF PORTLAND PORTLAND, OREGON	PORTLAND SHIP YARD BALLAST WATER PIPELINE AND VALVES
DRAWN BY: RAW	DATE: 08/30/93			
CHECKED BY:	FILE:			
PROJECT NO.: 4003805102-4001				

FIGURE 3-2

REFERENCE DRAWINGS	
REF NO.	L O C A T I O N
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[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
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[illegible]	[illegible]
[illegible]	[illegible]
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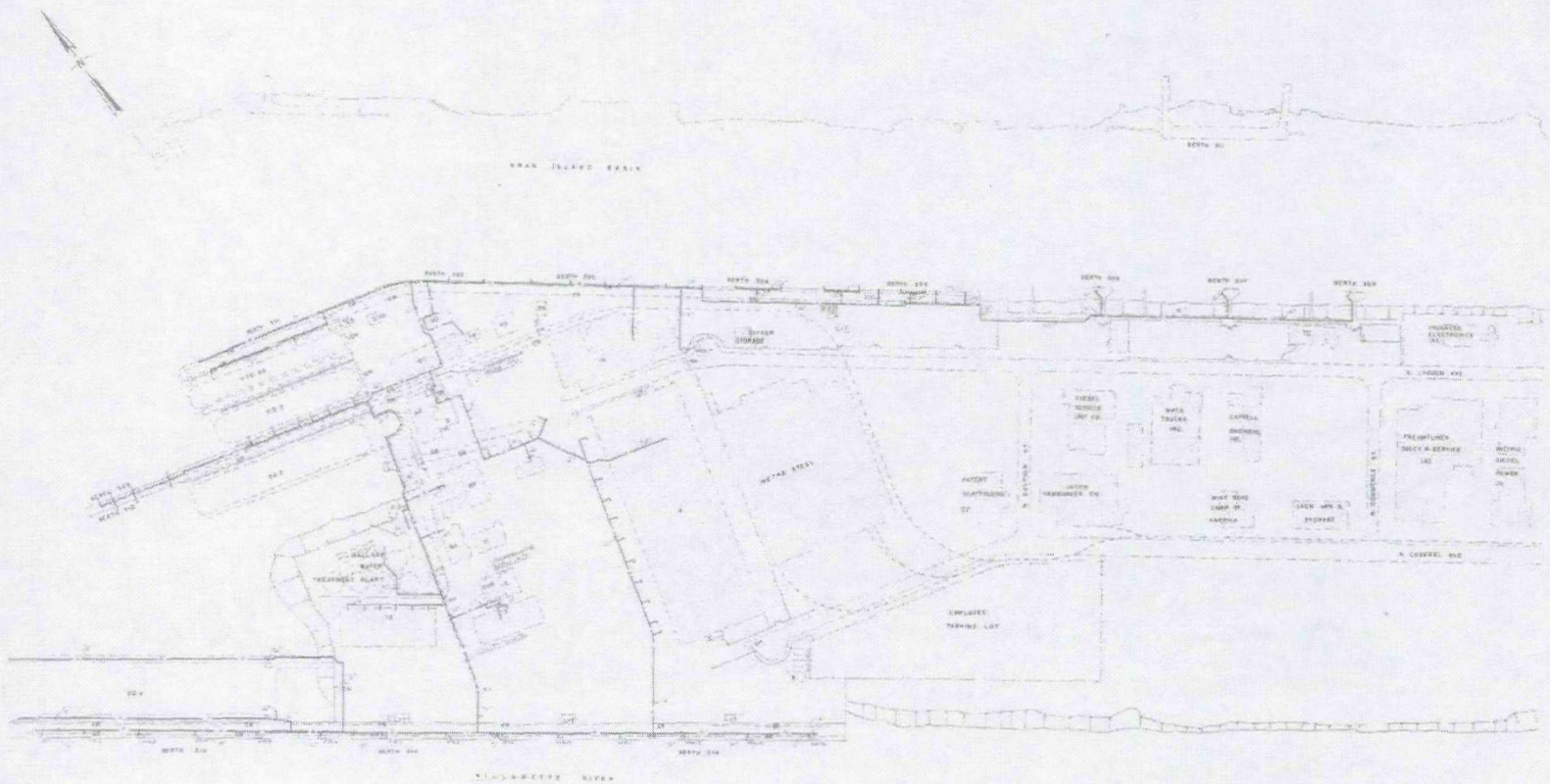
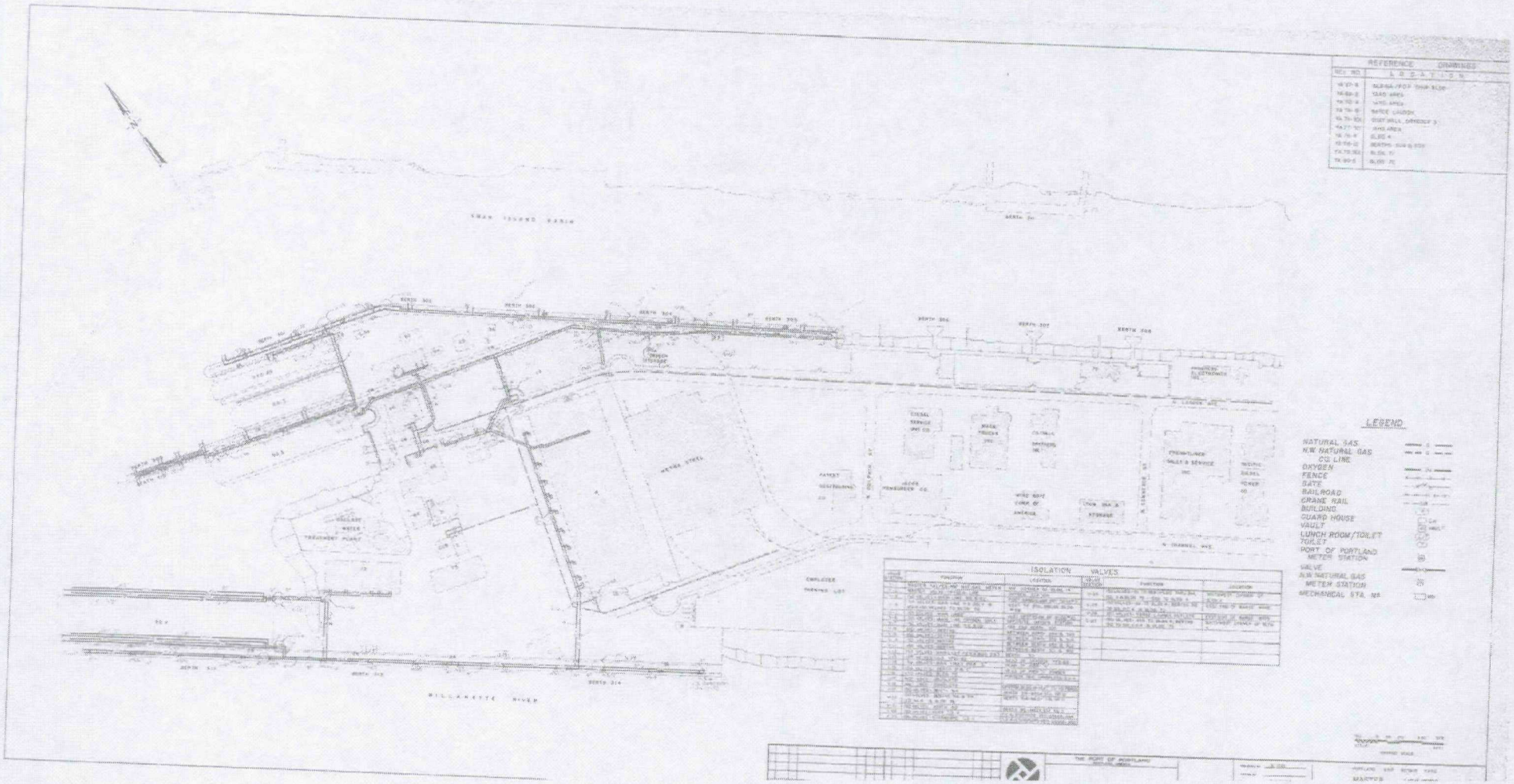
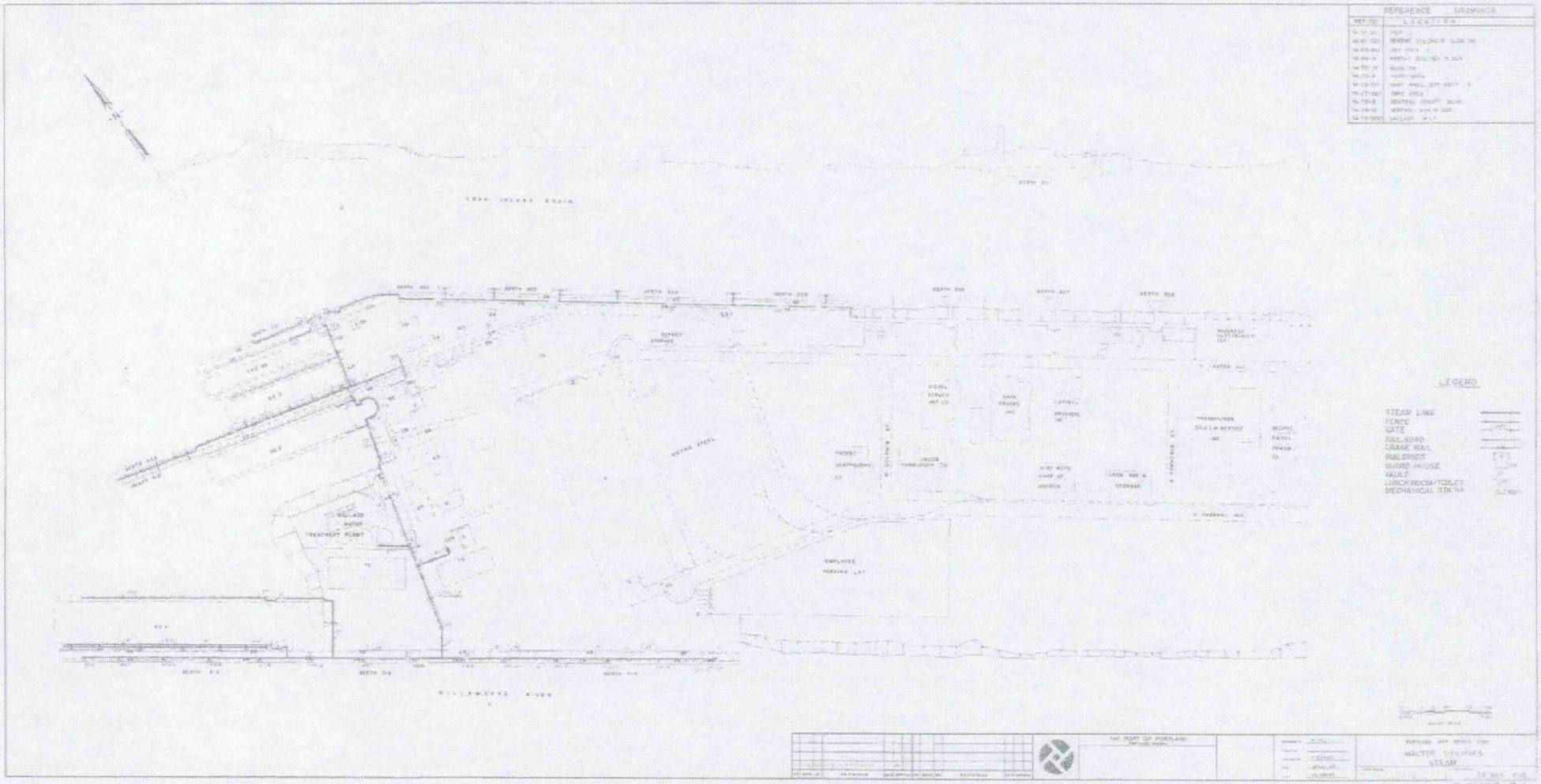
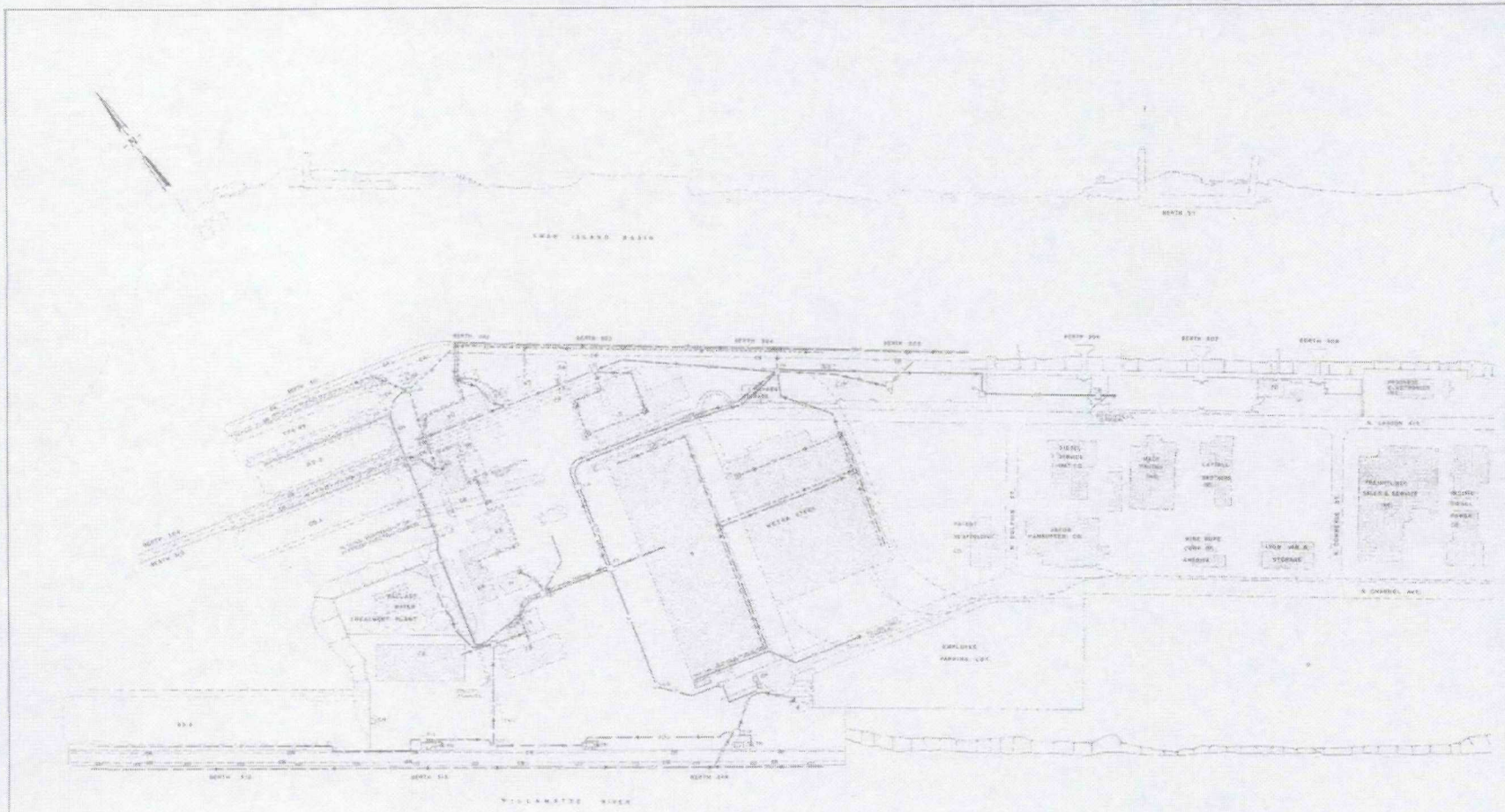



REFERENCE DRAWINGS
LEGEND
NATURAL GAS
N.W. NATURAL GAS CO. LINE
OXYGEN
FENCE
GATE
RAILROAD
CRANE RAIL
BUILDING
GUARD HOUSE
VAULT
LUNCH ROOM/TOILET
TOILET
PORT OF PORTLAND METER STATION
VALVE
N.W. NATURAL GAS METER STATION
MECHANICAL STA. NO.
ISOLATION VALVES
WILLAMETTE RIVER
THE PORT OF PORTLAND


REFERENCE DRAWINGS
LEGEND
STEAM LINE
FENCE
GATE
RAILROAD
CRANE RAIL
BULDRCS
SLURRY HOUSE
VAULT
LUNCH ROOM/TOILET
MECHANICAL STRUTS
WILLAMETTE RIVER
THE PORT OF PORTLAND

REFERENCE DRAWINGS	
REF. NO.	L O C A T I O N
16-73-4	YARD AREA
16-73-28	N. LAGOON AVE.
16-76-30	BLDG. 71
16-77-50	S.E.C.T. FARMBOX YARD AREA
00-66-100	11,000 TON STEEL FLOATING DRY DO
00-77-500	DRY DOCK 4
0781-1	DRY DOCK 4



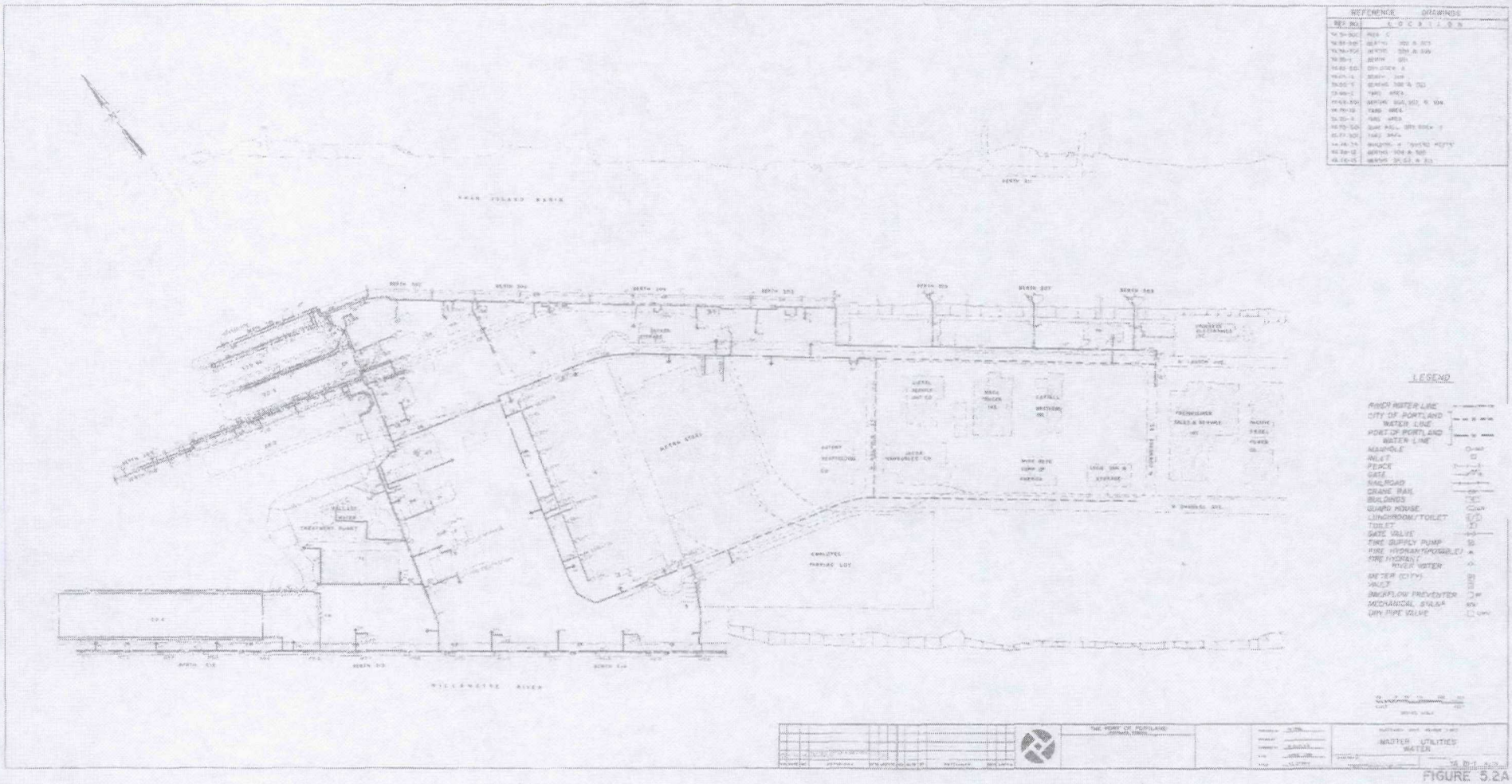
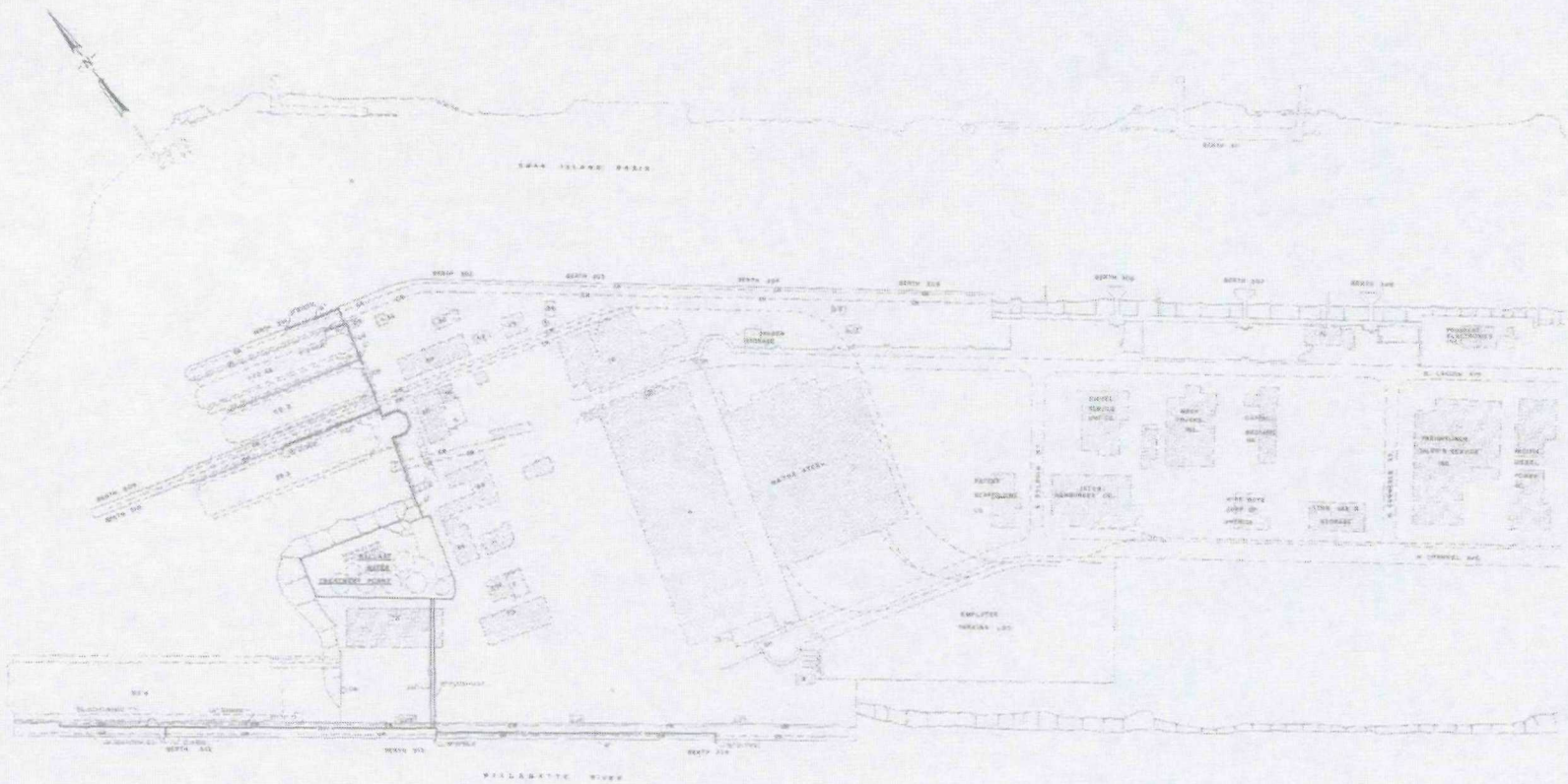
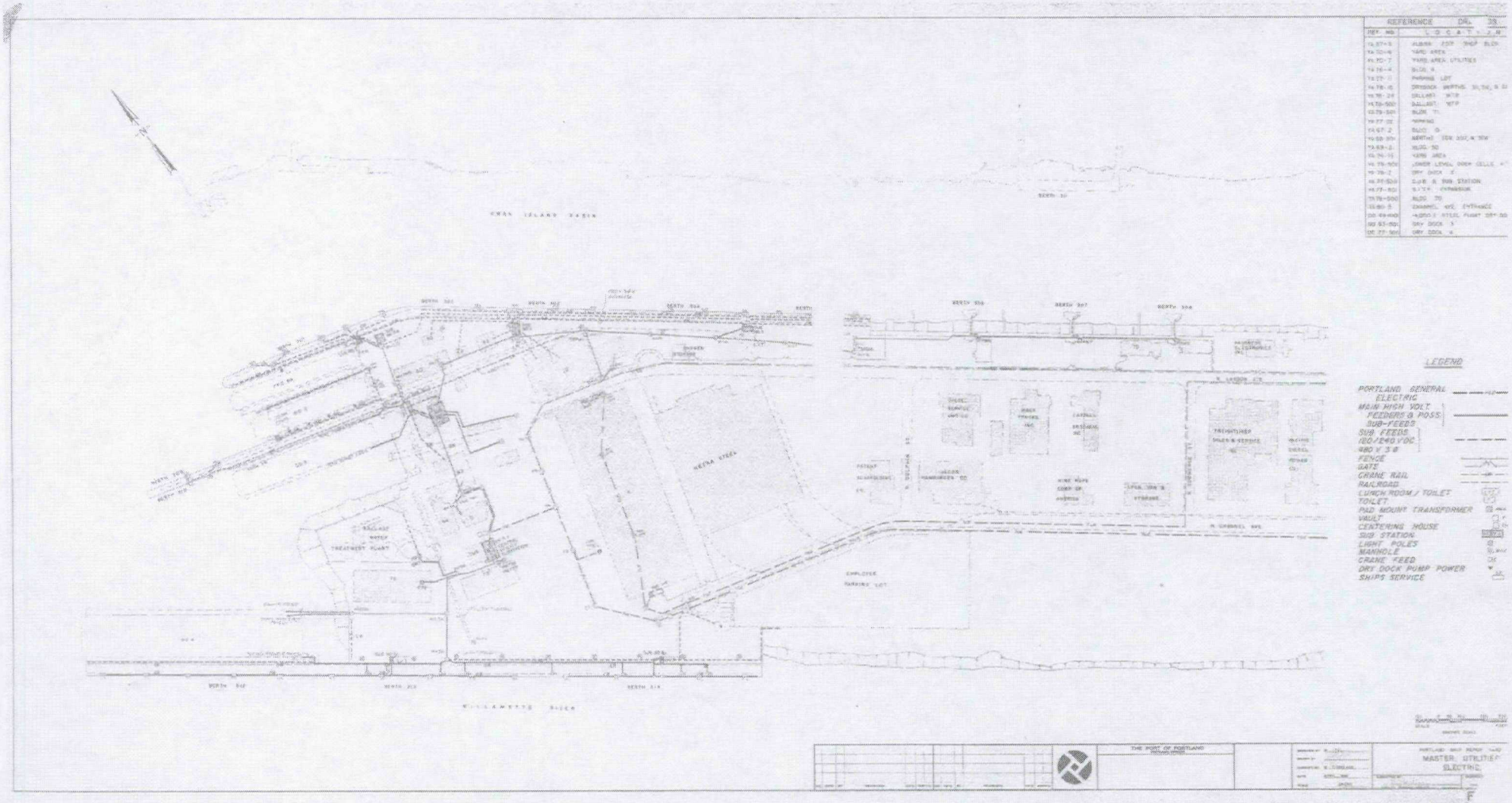
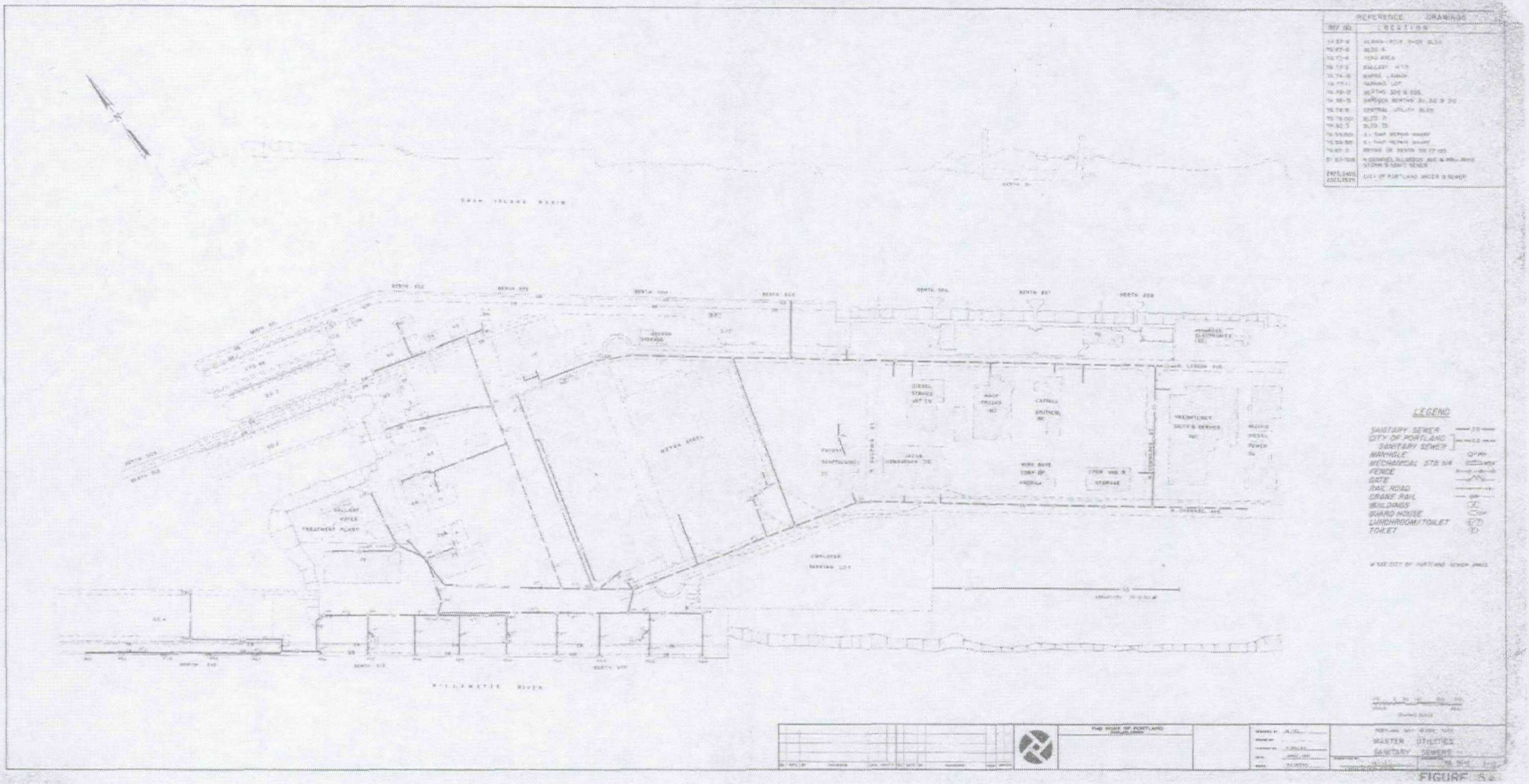

REFERENCE DRAWINGS
LEGEND
MAIN WATER LINE
CITY OF PORTLAND WATER LINE
PORT OF PORTLAND WATER LINE
MANHOLE
INLET
FENCE
GATE
RAILROAD
CRANE RAIL
BUILDINGS
GUARD HOUSE
LUNCHROOM/TOILET
TOILET
GATE VALVE
FIRE SUPPLY PUMP
FIRE HYDRANT(TROUBLE)
FIRE HYDRANT RIVER WATER
METER (CITY)
VALVE
BACKFLOW PREVENTER
MECHANICAL SALAS
DRY PIPE VALVE
WILLAMETTE RIVER
THE PORT OF PORTLAND
MASTER UTILITIES WATER

FIGURE 5.2A

REFERENCE DRAWINGS	
REF NO.	LOCATION
76-79-500	BALLAST W.T.P.
76-77-902	TANK BASE
76-79-21	TANK BASE
14.00-1	DEPTH 921




REFERENCE DRL. 38
LEGEND
PORTLAND GENERAL ELECTRIC
MAIN HIGH VOLT. FEEDERS & POSS. SUB-FEEDS
SUB FEEDS
120/240 V OC
480 V 3 Ø
FENCE
GATE
CRANE RAIL
RAILROAD
LUNCH ROOM / TOILET
TOILET
PAD MOUNT TRANSFORMER
VAULT
CENTERING HOUSE
SUB STATION
LIGHT POLES
MANHOLE
CRANE FEED
DRY DOCK PUMP POWER
SHIPS SERVICE
SWAN ISLAND BASIN
NEERA STEEL
TREATMENT PLANT
EMPLOYEE PARKING LOT
WILLAMETTE RIVER
THE PORT OF PORTLAND
MASTER UTILITIES
ELECTRIC


REFERENCE DRAWINGS
REV NO.
LOCATION
PORTLAND CITY OF PORTLAND WATER & SEWER
SWAN ISLAND BASIN
NORTH 102
NORTH 103
NORTH 104
NORTH 105
NORTH 106
NORTH 107
NORTH 108
NORTH 109
NORTH 110
NORTH 111
NORTH 112
NORTH 113
NORTH 114
NORTH 115
NORTH 116
NORTH 117
NORTH 118
NORTH 119
NORTH 120
NORTH 121
NORTH

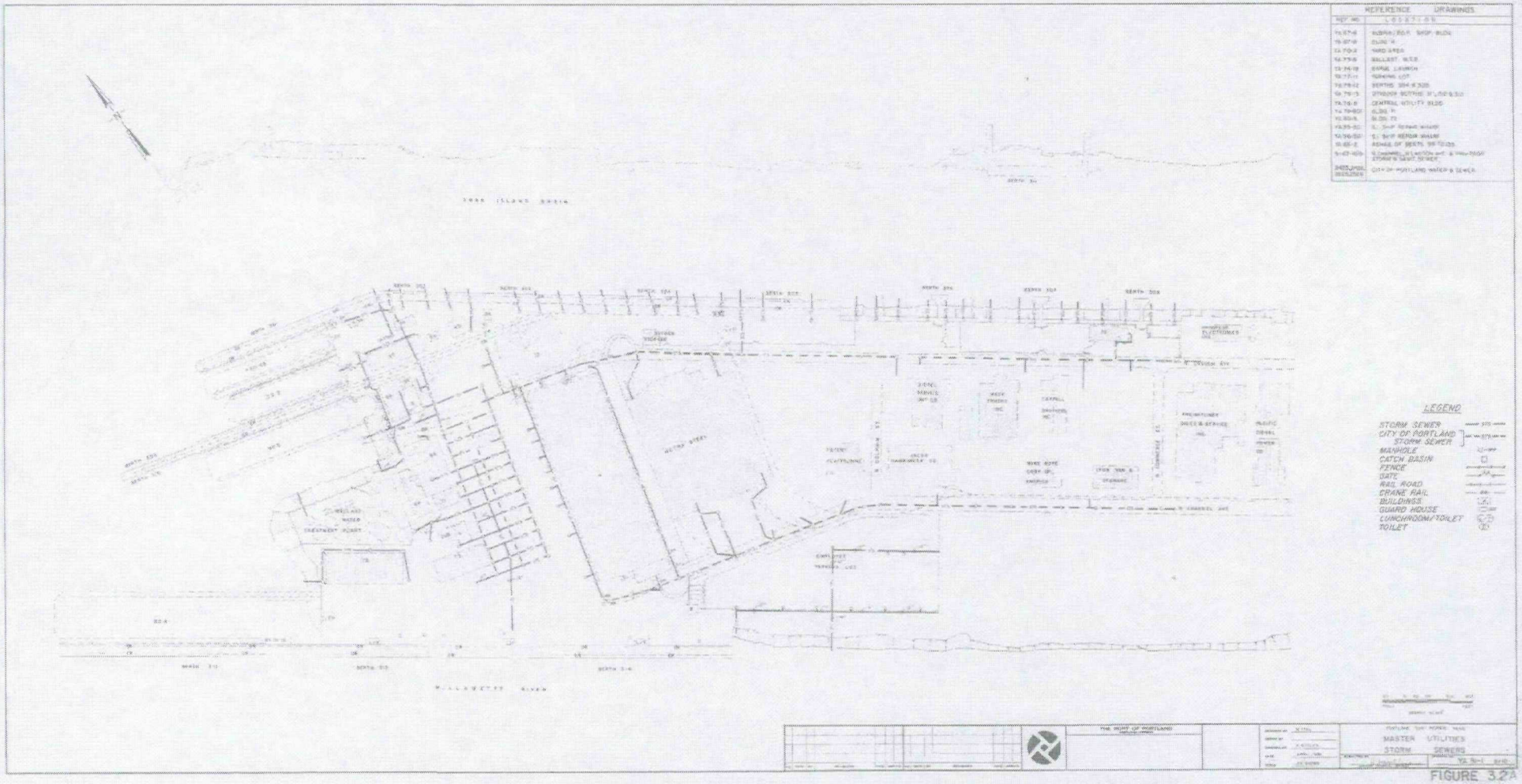
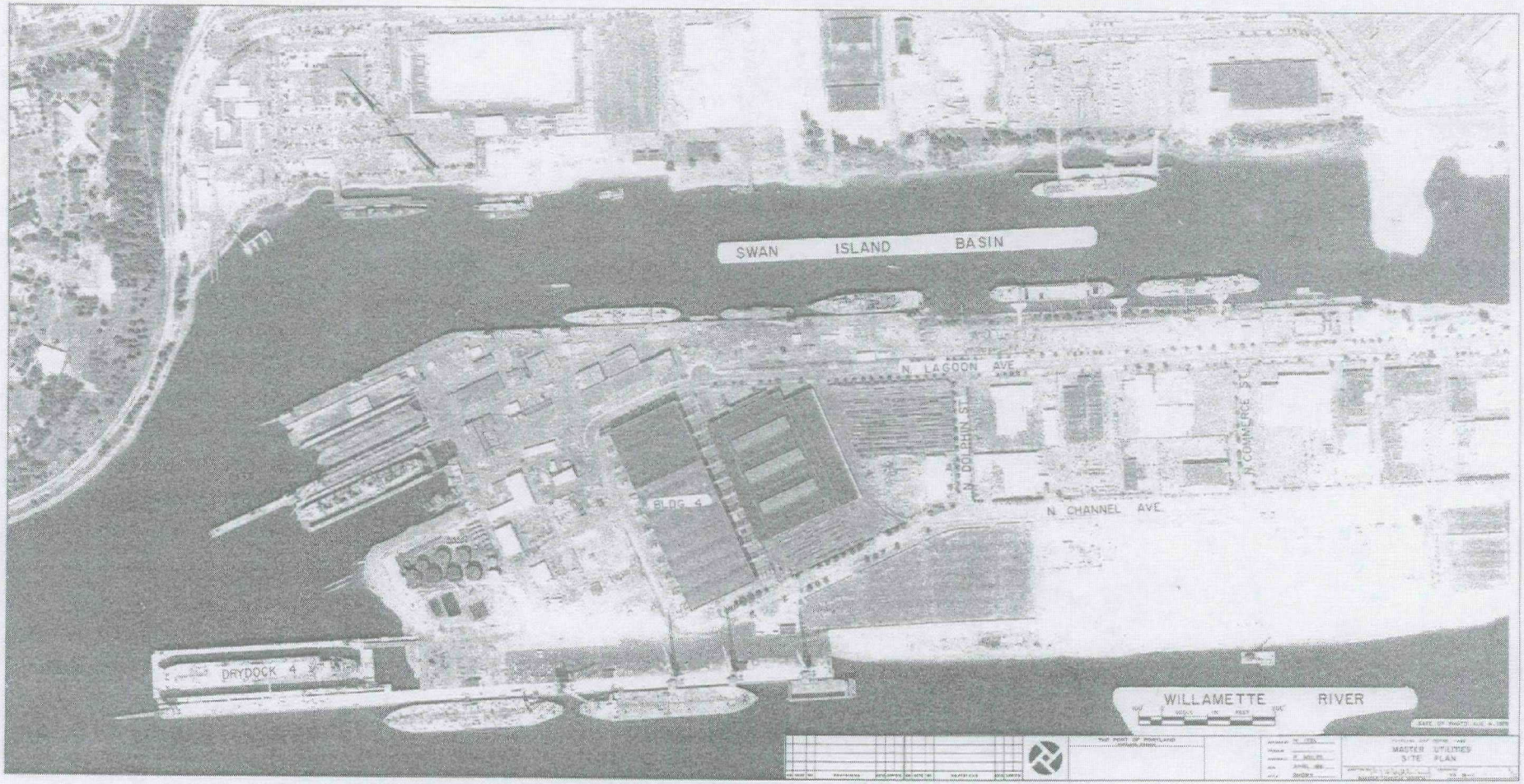

REFERENCE DRAWINGS
LEGEND
STORM SEWER
CITY OF PORTLAND STORM SEWER
MANHOLE
CATCH BASIN
FENCE
GATE
RAIL ROAD
CRANE RAIL
BUILDINGS
GUARD HOUSE
LUNCHROOM/TOILET
TOILET
THE PORT OF PORTLAND
MASTER UTILITIES
STORM SEWERS

FIGURE 3.2A


SWAN ISLAND BASIN
N LAGOON AVE
N COMMERCE ST
N CHANNEL AVE
BLDG 4
DRYDOCK 4
WILLAMETTE RIVER
THE PORT OF PORTLAND
MASTER UTILITIES
SITE PLAN

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 SIXTH AVENUE
SEATTLE, WA 98101

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