

MAINE STATE LEGISLATURE

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AUGUSTA, MAINE

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MAINE DEPARTMENT OF TRANSPORTATION
PORT DEVELOPMENT STUDY

SUPPLEMENT TO
REPORT ON
CARGO PORT
ALTERNATIVES



SEPTEMBER 1978

FAY, SPOFFORD & THORNDIKE, INC.



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MAINE DEPARTMENT OF TRANSPORTATION

SUPPLEMENT TO REPORT ON
CARGO PORT ALTERNATIVES

September 1978

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SCOPE

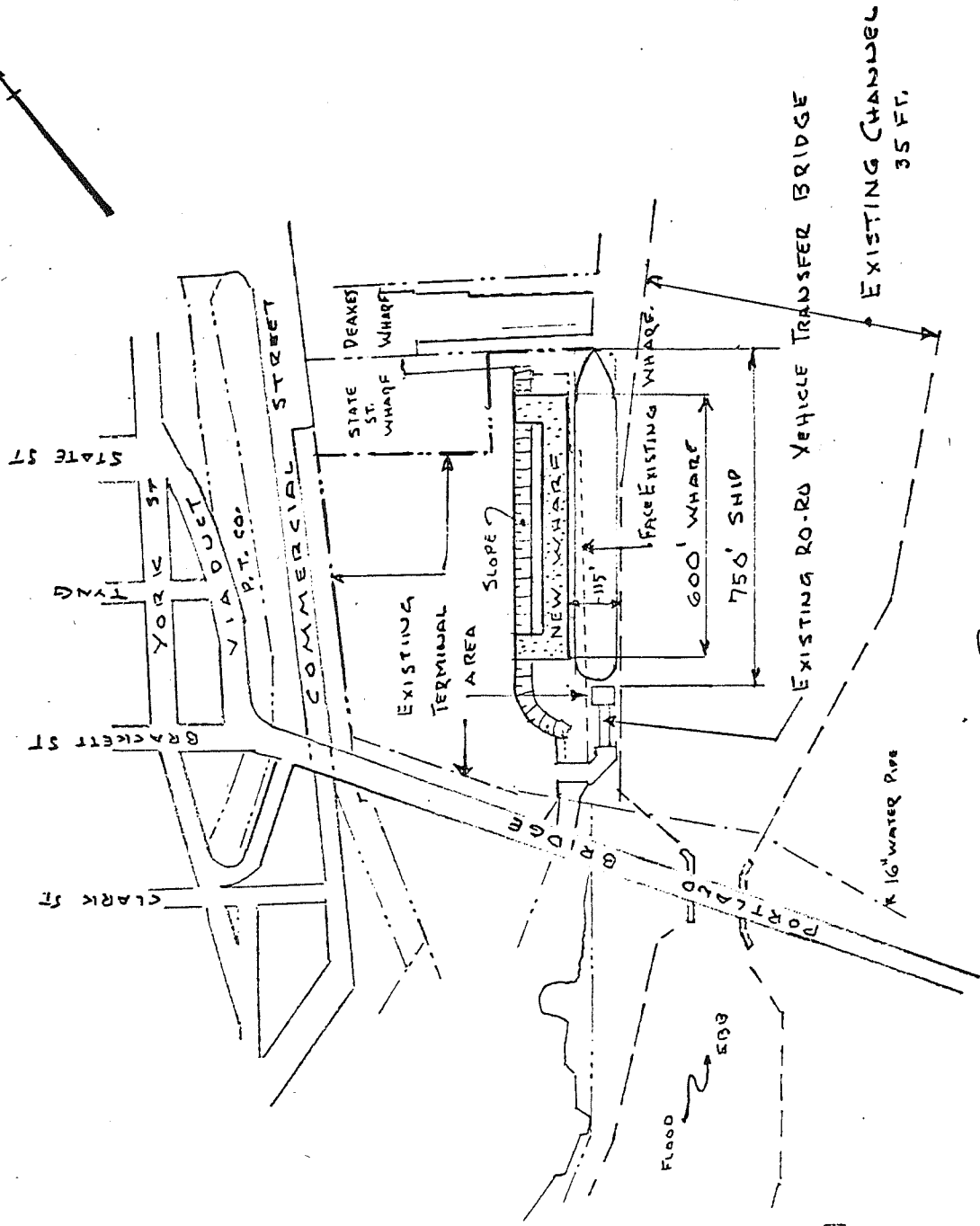
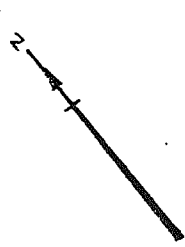
Portland Terminal No. 1 (International Ferry)--Portland

This report contains sketches in plan and section of a new wharf and berth for the Portland Terminal No. 1 Area (International Ferry) in Portland. A construction cost estimate for such a facility is also included, and should be compared to those submitted to the Maine Department of Transportation in the Cargo Port Alternatives report.

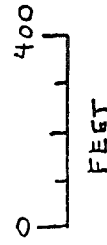
Minimum Terminal Facilities

Minimum marine terminal facilities for Portland and Sears Island are also contained in this supplemental report. The facilities described and estimated in the supplemental report represent the minimum wharf and berth areas that FST feels should be provided for a modern marine cargo terminal. The intent of these facilities is such that they can be readily expanded in the future, as required. The facilities described, and their costs, reflect only the provision (i.e., by MDOT) of the basic wharf and berth area for a new cargo facility. Ancillary features, such as transit sheds, freezers, container storage areas, access roads, utilities, lighting equipment, etc., are assumed to be provided by others.

The apron width indicated is intended to allow the operation of present-day 300-ton mobile truck cranes which may be used for the transfer of containerized cargo. Handling operations must be adjusted to suit the limitations of these facilities, however, as the minimum widths will not permit the passage of vehicles around a truck crane operating on the apron.



PLAN



NOTE: IF EXISTING RO-RO TRANSFER BRIDGE IS RELOCATED - 800' SHIP MAY BE BERTHED. THIS PLAN ASSUMES THAT SHIP CANNOT BE BERTHED IN EXISTING CHANNEL. ACQUISITION OF "DEAKES WHARF" MAY BE NECESSARY FOR BERTHING 800FT SHIP.

FIG. 14

MAINE, DEPT. OF TRANSPORTATION
MARINE TERMINAL STUDY
PORTLAND TERMINAL No.1 AREA - PORTLAND
(INTERNATIONAL FERRY)

NEW WHARF - PLAN

FAY, SPOFFORD & THORNDIKE, INC., BOSTON

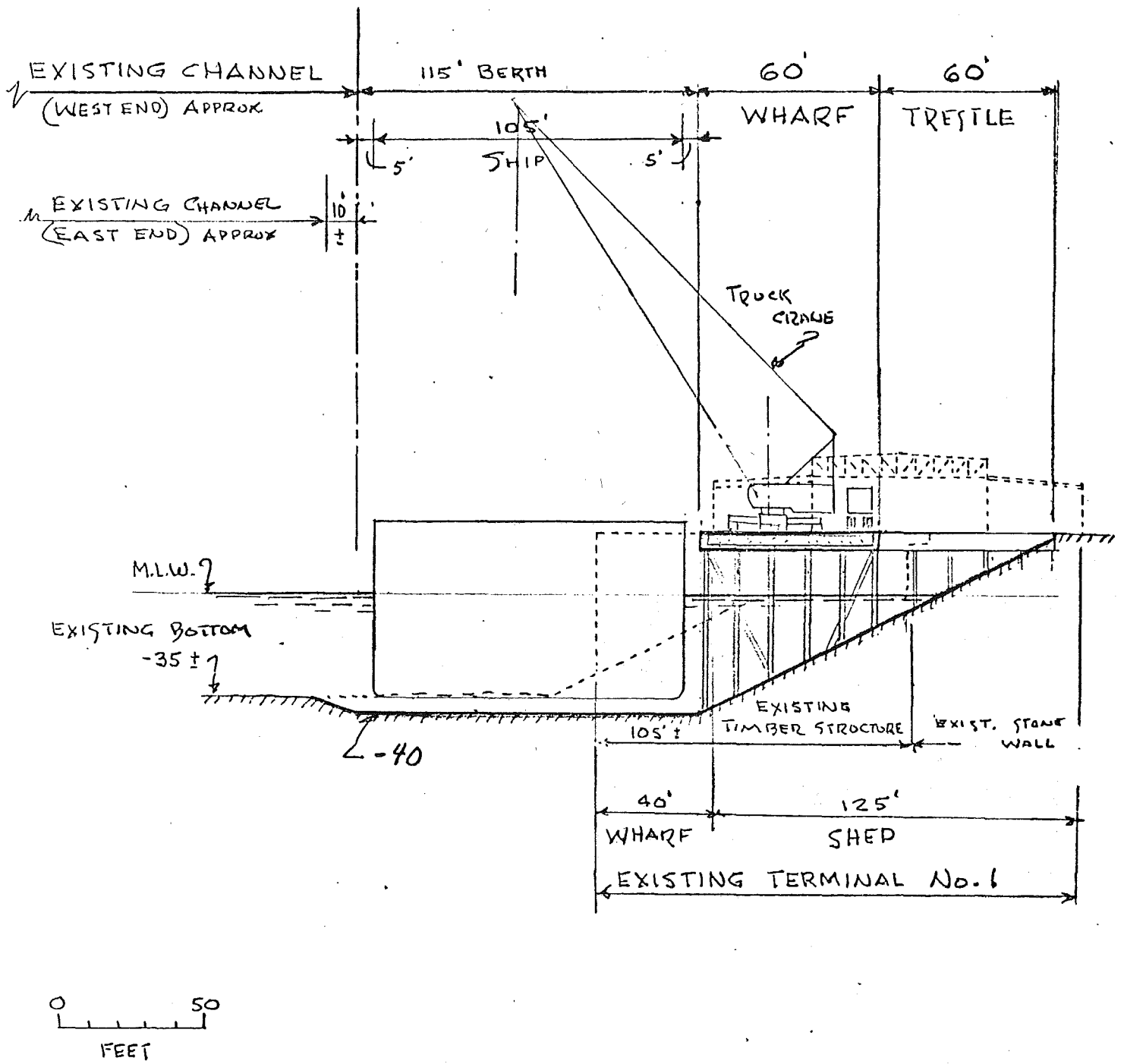


FIG. 15

MAINE, DEPT. OF TRANSPORTATION
 MARINE TERMINAL STUDY
 PORTLAND TERMINAL No. 1 AREA-PORTLAND
 NEW WHARF - CROSS SECTION

FAY, SPOFFORD & THORNDIKE, INC. - BOSTON

TABLE 4
September 15, 1978

MAINE PORT DEVELOPMENT STUDY COST ESTIMATE

WHARF AT PORTLAND TERMINAL NO. 1 AREA (INTERNATIONAL FERRY) -
PORTLAND

<u>Item</u>	<u>Estimated Cost</u>
1. Basic 600-Foot- Long Wharf	\$4,900,000
2. Wharf Approach Structure	500,000
3. Wharf Extension	--
4. Excavation and Dredging	1,100,000
5. Approach Embankment and Roadway	--
6. Rip-Rap for Side Slopes	400,000
TOTAL ESTIMATED COST	<u>\$6,900,000</u>

NOTE: Cost Estimate based on November 1977 construction costs for comparison with Maine Port Development Study dated January 1978.

Reference Sketches: Figures 14 and 15

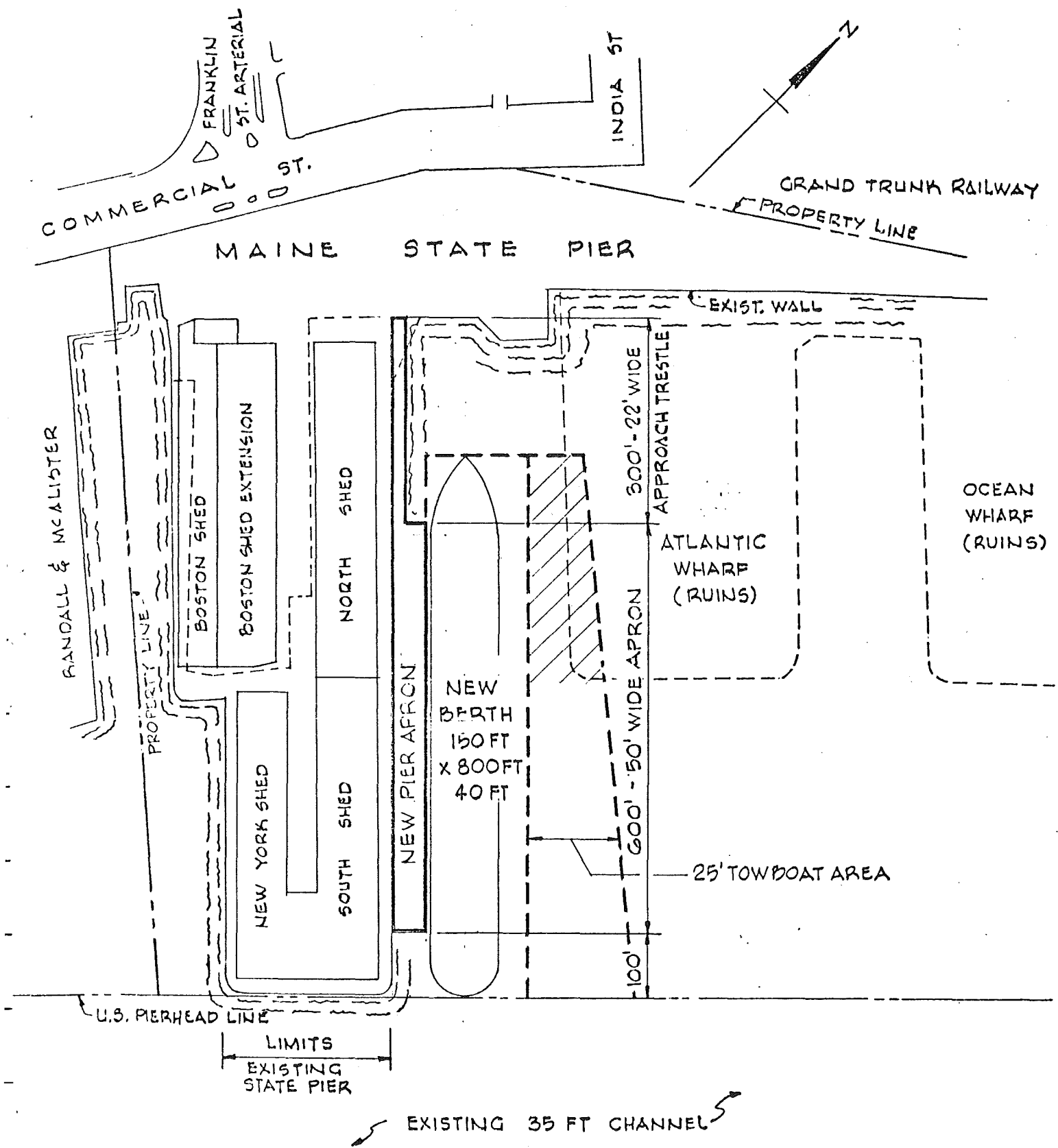
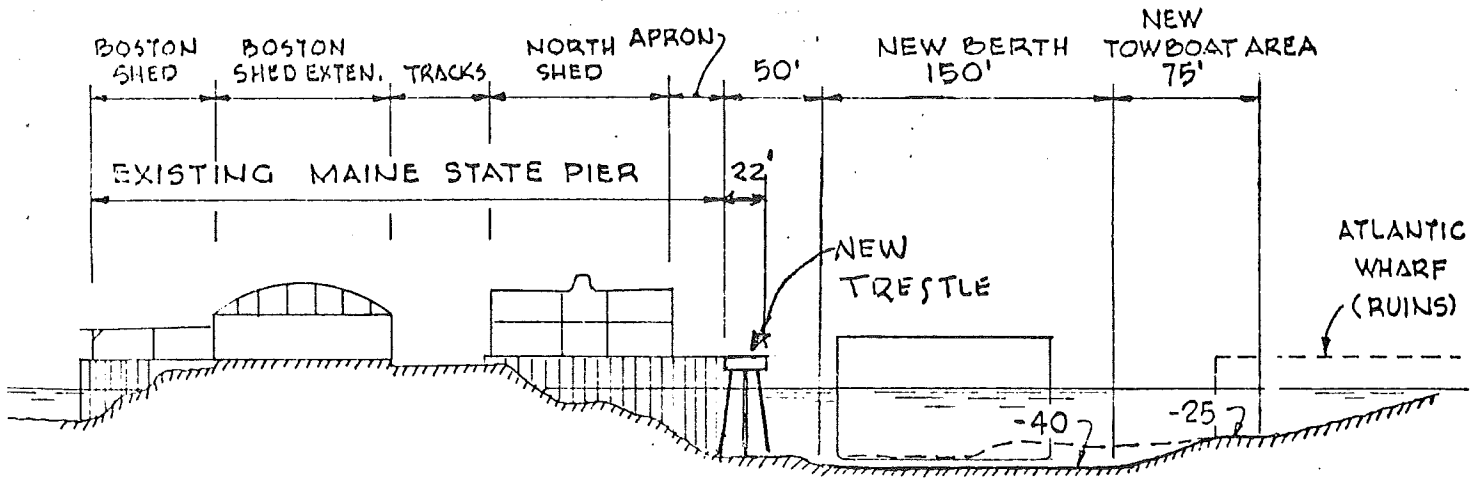


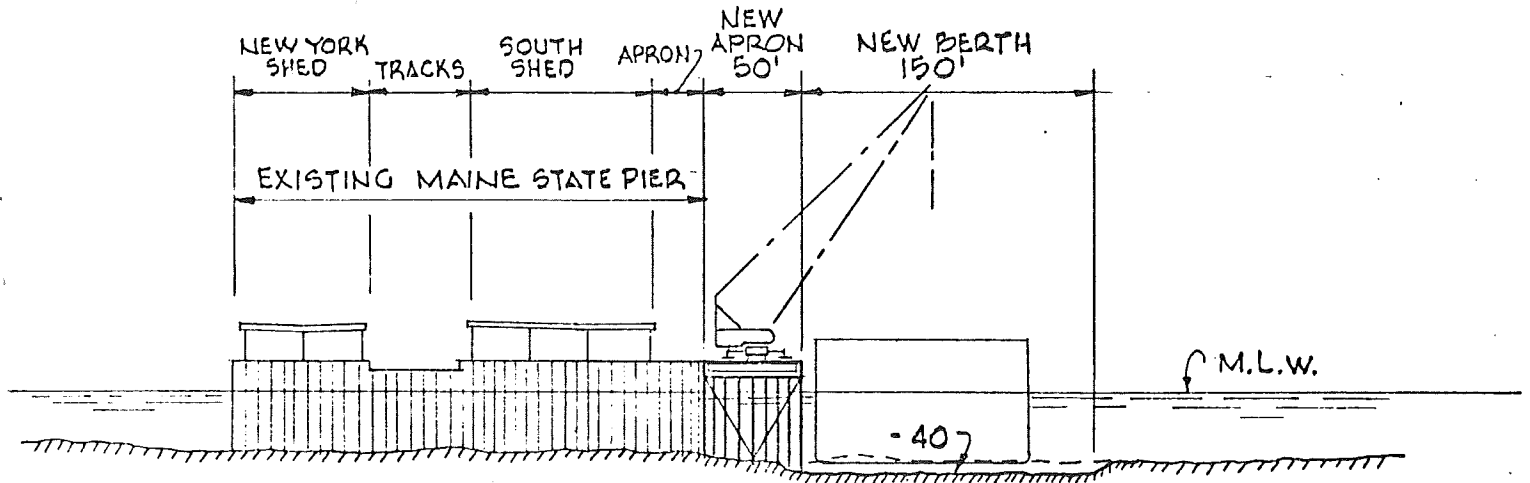
FIG. 16

MAINE DEPT. OF TRANSPORTATION
 MARINE TERMINAL STUDY
 MAINE STATE PIER - PORTLAND
 MINIMUM WHARF - PLAN
 FAY, SPOFFORD & THORNDIKE, INC. BOSTON

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CROSS SECTION AT TRESTLE



CROSS SECTION

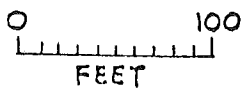


FIG. 17

MAINE DEPT. OF TRANSPORTATION
 MARINE TERMINAL STUDY
 MAINE STATE PIER - PORTLAND
 MINIMUM WHARF-CROSS SECTIONS
 FAY, SPOFFORD & THORNDIKE, INC. BOSTON

TM-063D
 SEP 16, 78

BANGOR & ARROOSTOOK R.R. Co. Pier



EXISTING
35 FT
TURNING BASIN

R.6

R.R. TRACK

800' BERTH
100' WHARF

WHARF

40 FT
DEPTH

ROADWAY
EMBANKMENT

SHORE LINE

C.M.P.

B & A R.R. Co.

FUTURE

NOTE: WHARF LOCATION IS
AS SHOWN FOR SCHEME D
PREVIOUSLY STUDIED

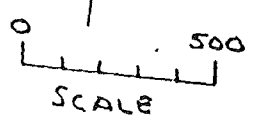


FIG. 18,

MAINE DEPT. OF TRANSPORTATION
MARINE TERMINAL STUDY
SEARSPORT - SEARS ISLAND
MINIMUM TERMINAL - GENERAL PLAN

FAY, SPOFFORD & THORNDIKE, INC.

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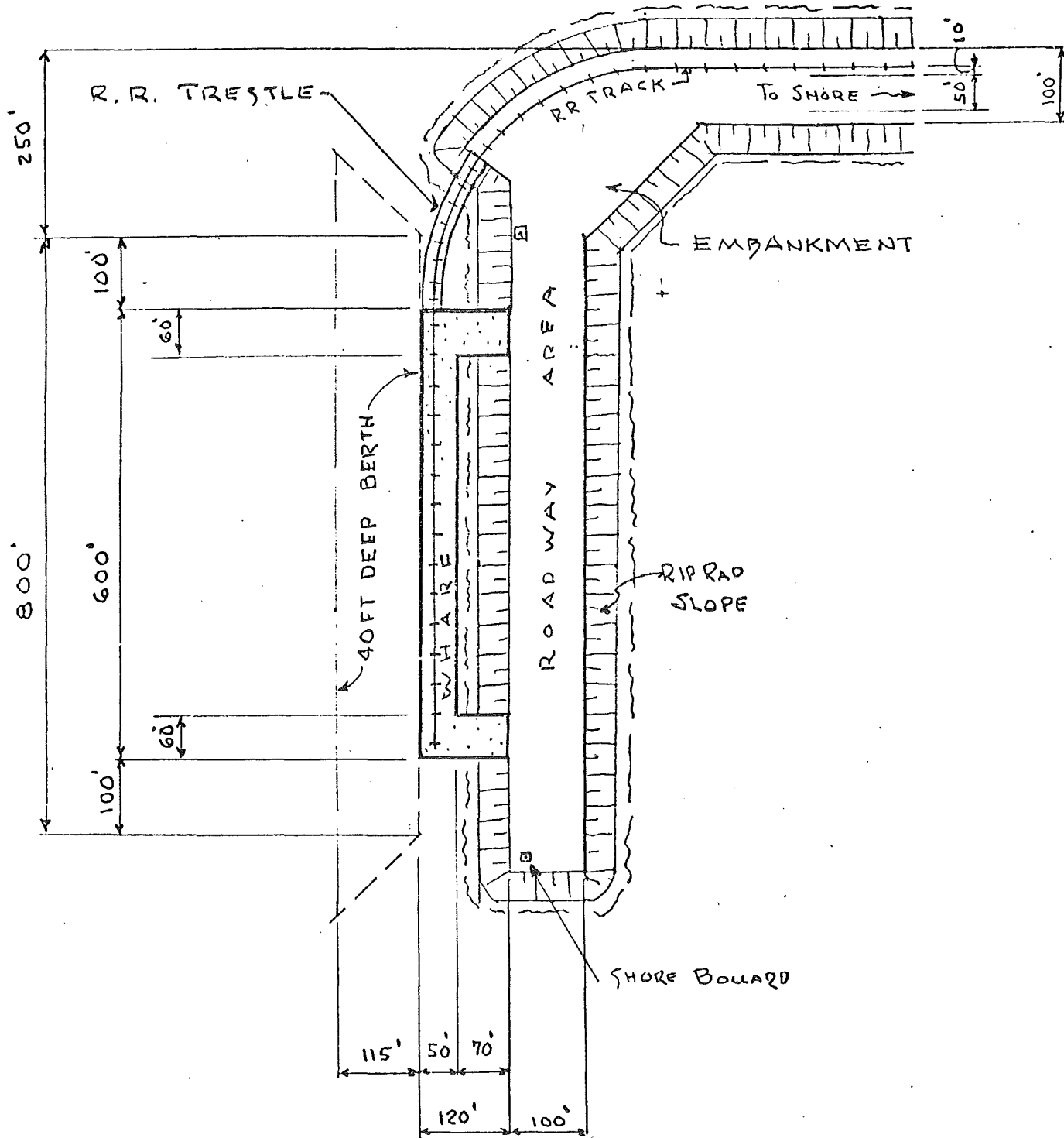
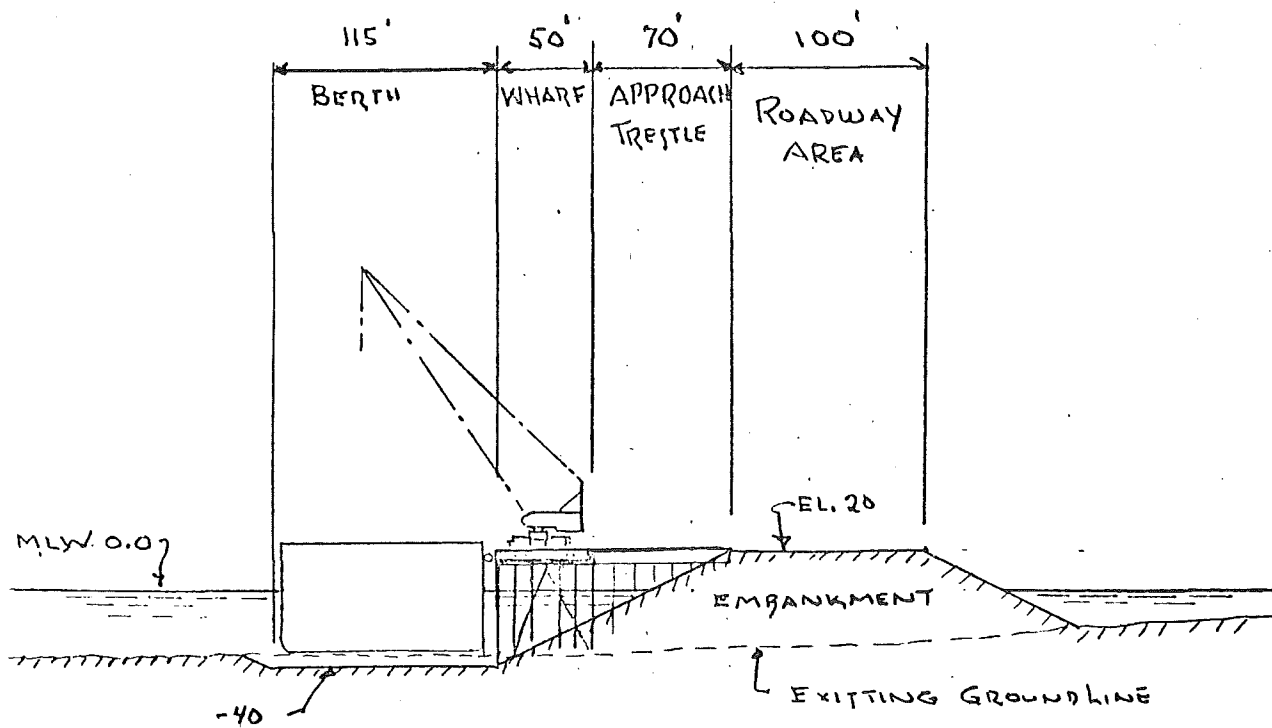


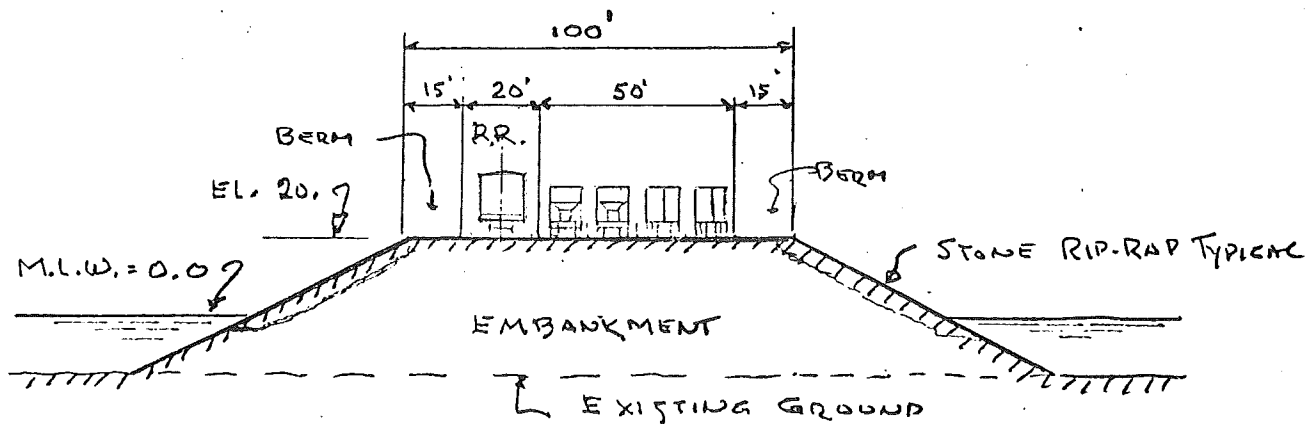
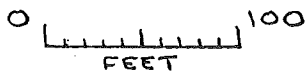
FIG. 19
 MAINE DEPT. OF TRANSPORTATION
 MARINE TERMINAL STUDY
 SEARSPORT- SEARS ISLAND
 MINIMUM TERMINAL-PLAN

FAY, SPOFFORD & THORNDIKE, INC.

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CROSS SECTION AT WHARF



CROSS SECTION AT ROADWAY EMBANKMENT
WHARF TO SHORE

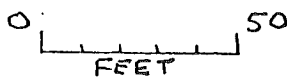


FIG. 20

MAINE DEPT. OF TRANSPORTATION
MARINE TERMINAL STUDY
SEARS PORT - SEARS ISLAND
MINIMUM TERMINAL - CROSS SECTIONS

FAY, SPOFFORD & THORNDIKE, INC

TABLE 5

September 20, 1978

MAINE PORT DEVELOPMENT STUDY COST ESTIMATE

MINIMUM TERMINAL FACILITY AT STATE PIER,
 PORTLAND AND SEARSPORT, SEARS ISLAND

<u>Item</u>	<u>Estimated Cost</u>	
	<u>State Pier, Portland</u>	<u>Searsport, Sears Island</u>
1. Basic 600-Foot-Long Wharf	\$4,900,000	\$3,600,000
2. Wharf Approach Structures	1,000,000	500,000
3. Wharf Extension	--	--
4. Excavation and Dredging	200,000	300,000
5. Approach Embankment and Roadway	--	2,300,000
6. Rip-Rap	--	1,300,000
7. Railroad Trestle Structure	--	<u>600,000</u>
TOTAL ESTIMATED COST	\$6,100,000	\$8,600,000

NOTE: Cost Estimates based on November 1977 construction costs for comparison with Maine Port Development Study dated January 1978.

Reference Sketches: Figures 16 through 20.

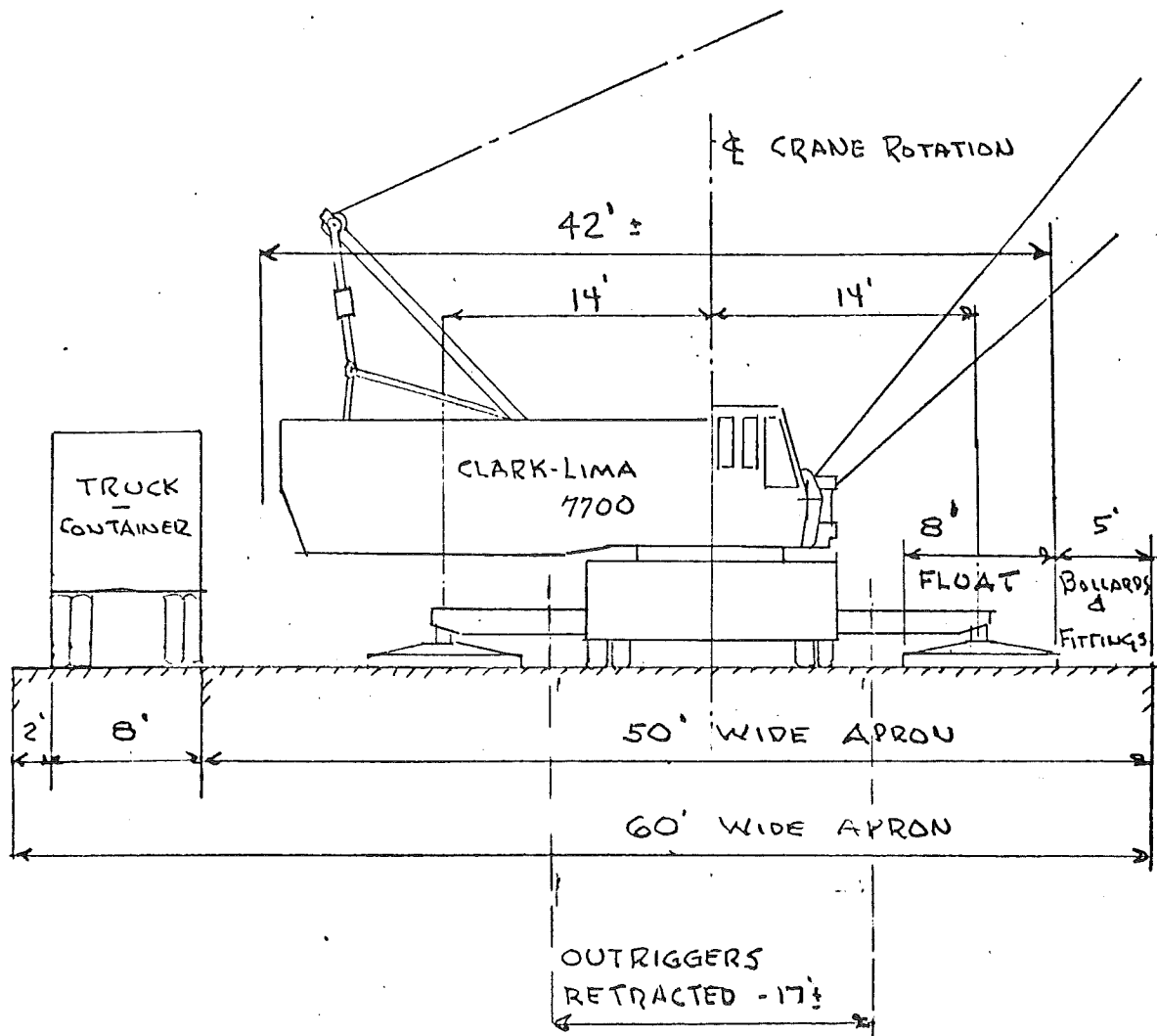
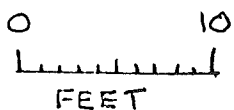


FIG. 21

MAINE DEPT OF TRANSPORTATION
MARINE TERMINAL STUDY

APRON WIDTH FOR
300 TON CAPACITY
TRUCK CRANE (CLARK LIMA)

FAY, SPOFFORD & THORNDIKE, INC.



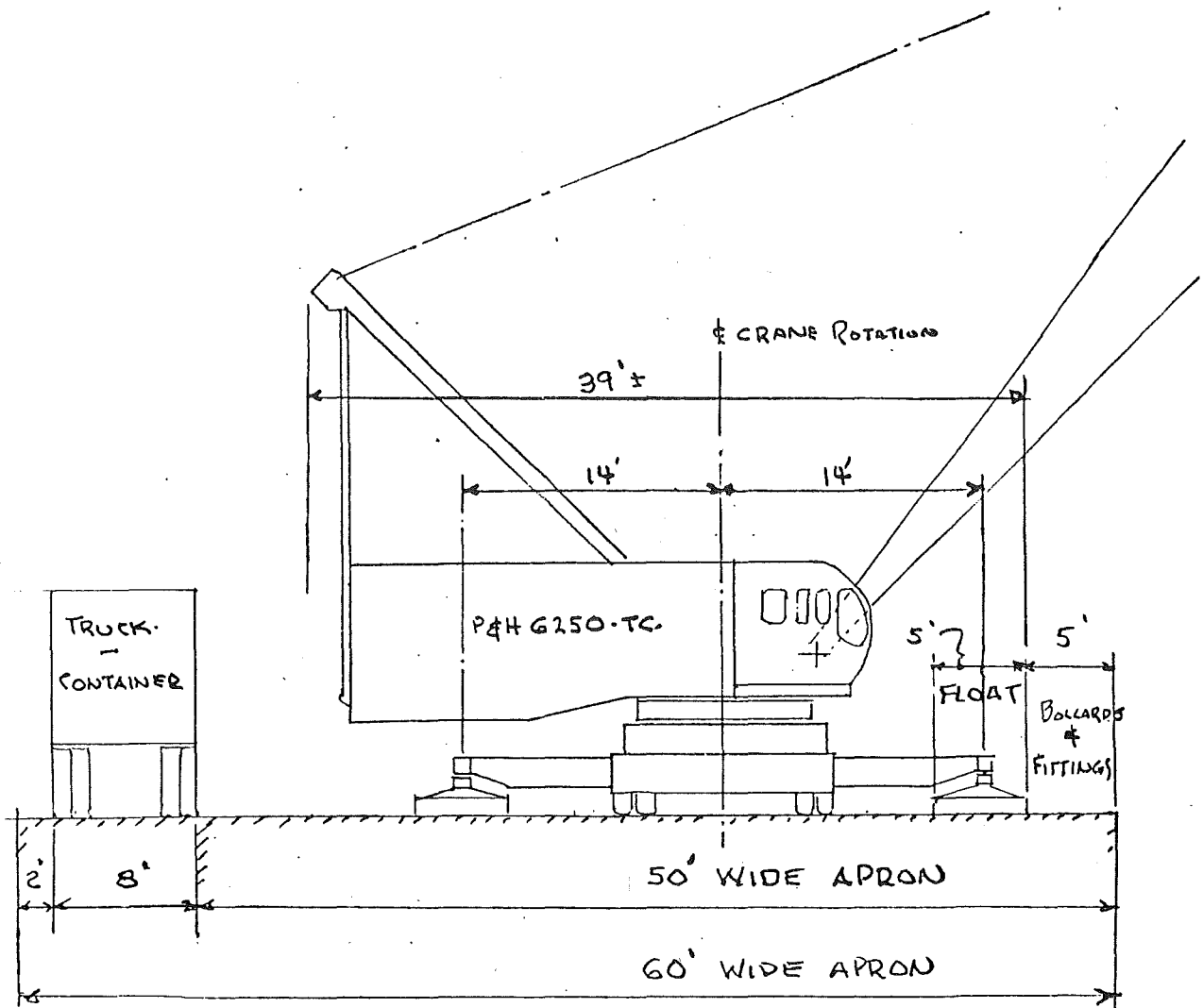


FIG. 22

MAINE DEPT OF TRANSPORTATION
MARINE TERMINAL STUDY

APRON WIDTH FOR
300 TON CAPACITY
TRUCK CRANE (P&H)

FAY, SPOFFORD & THORNDIKE INC



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