

U.S. NAVAL BASE, PEARL HARBOR, BOAT SHOP
(U.S. Naval Base, Pearl Harbor, Naval Shipyard, Facility No. 12)
Seventh Street near Avenue E
Pearl Harbor
Honolulu County
Hawaii

HABS HI-447

HI-447

HABS

HI-447

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN BUILDINGS SURVEY
PACIFIC GREAT BASIN SUPPORT OFFICE

National Park Service
U.S. Department of the Interior
1111 Jackson Street
Oakland, CA 94607

HISTORIC AMERICAN BUILDINGS SURVEY

U.S. NAVAL BASE, PEARL HARBOR, BOAT SHOP
(U.S. Naval Base, Pearl Harbor, Naval Shipyard)
(Facility No. 12)

HABS
HI-447

HABS No. HI-447

(page 1)

Location:

Seventh Street near Avenue E
Pearl Harbor Naval Base
City and County of Honolulu, Hawaii

This building falls within the UTM coordinates of the Pearl Harbor, Naval Shipyard as defined in the location section of the overview report HABS No. HI-483.

Significance:

Facility 12 is located within the Pearl Harbor National Historic Landmark. It is significant as part of the initial development of Pearl Harbor Naval Base at the beginning of World War I. It was among the major shop buildings in the initial phase of construction at the Shipyard that began in 1912, and has remained a Boat Shop for repairs and storage since that time. It is part of a still-extant group of buildings from that period that include Facilities 6, 14, 15, and adjacent Facility 7, the Shipwright and joiner shop with which Facility 12 later was joined. Facility 12 is a prominent structure characteristic of a distinctive type and period of industrial building construction and the first large industrial facility at Pearl Harbor to use a low pitched roof. It also is functionally important to the Shipyard's operations. This building remains an important part of the architectural continuum at the Shipyard and supports the grouping of historic facilities visible along Seventh Street outside the Controlled Industrial Area.

Description:

Facility 12 was constructed as a steel-framed, high one-story, open-sided structure. It has a slightly-pitched gable-roof with very broad, braced eaves and a shallow lower pent roof that originally was continuous around the perimeter. This facility's form became more common a quarter of a century later when it was used extensively for facilities constructed during World War II. The original building is organized on a structural grid of 15, 20' bays long by one, 63' bay wide, with an overall size of about 302' x 65' (20,447 square feet). The approximate overall height of the building is 40'. Facility 12 faces and is oriented perpendicular to Seventh Street on its east end.

After construction, Facility 12 was joined with Facility 7, closed on the north side, with a band of sloped clerestory windows bridging the gap between Facility 12's north eave line and Facility 7's lower south eave line. The clerestory windows were later replaced with the present corrugated siding panels. A large gutter was installed to catch the runoff from the south plane of Facility 7's roof and the higher north plane of Facility 12's roof. The buildings also were joined by a low

**U.S. NAVAL BASE, PEARL HARBOR, BOAT SHOP
(U.S. Naval Base, Pearl Harbor, Naval Shipyard)
(Facility No. 12)
HABS No. HI-447 (Page 2)**

wood-framed partial mezzanine which has since been replaced with the present steel-framed, concrete-decked continuous mezzanine at the level of Facility 7's second floor.

A one-story, steel-framed, open-sided lean-to addition was constructed on the south side of Facility 12 across all but the two westernmost bays. That structure is 16' wide with the same 20' bays aligning with those of the original building. It now has a partial wood-framed mezzanine.

The foundation is slab-on-grade concrete with concrete footings supporting the building's structural steel columns. The original exposed slab now is largely overlaid with a finish floor of wood planks over sleepers.

Structural columns occur on the grid and at the midpoint of the end walls. Separate columns supporting bridge crane rails are located just inside each structural column to support a 20-ton crane. The columns of the building and bridge crane are wide-flange structural sections. Clear-span, steel trusses fabricated from angle sections in a variant of the "warren" truss configuration support the main roof and are bridged by purlins. This framing is covered with bituminous built-up roofing over tongue and groove wood decking. The pent roof is steel-framed and covered with corrugated metal roofing, as is the lean-to structure. Metal-to-metal connections in the structural system are riveted.

The Facility 12 of today is altered from its original appearance as it evolved to meet the Navy's mission needs. It has a highly utilitarian and irregular look to it now after undergoing alterations and joining with Facility 7. This junction developed mainly from the enclosure of the space between the ends of the two buildings below the eaves and the sloped clerestory spanning between the eaves. The extent of lateral and vertical enlargement of a door opening on the west end forced an odd, beveled-offset in the left jamb and the raising of a portion of the pent roof. The originally open-sided building was further enclosed across the full width of the east and west ends, except at the roof trusses behind the pent roof on the east end and half of the west end of the building.

Although most design features are common to the period of original construction, the joining with Facility 7, the eaves, and pent roof below are unique to this building at the Shipyard. The partial curtain wall consists of corrugated metal panel siding, some windows on the building's ends and similar siding on the south side at the two western-most bays. Where the exterior of the building has not been enclosed with siding there now is chain-link fencing. The mezzanine between Facility 7 and 12 has continuous partitions of vertical tongue-and-groove wood siding, and ceiling panels or metal screening overhead. This area is divided into various rooms for toilet facilities, offices, and storage. The area below this mezzanine is open on both

**U.S. NAVAL BASE, PEARL HARBOR, BOAT SHOP
(U.S. Naval Base, Pearl Harbor, Naval Shipyard)
(Facility No. 12)
HABS No. HI-447 (Page 3)**

long sides, effectively merging the two buildings at the main floor level. The floor of the partial mezzanine on the south side is expanded metal screening.

On the east end the windows are small, approximately-square industrial-type metal sash windows without trims in one row of seven closely-spaced units over a row of three widely-spaced units with simple wood trims. All of the windows on the east end are below the pent roof. On the west end there is one larger window unit high up between Facility 12 and 7. The one door on the east end of the building is to the left side of the wall and about 9' wide by 8' high. It is a single sliding, heavy-wood-framed type door with wide stiles and rails. The panels are of diagonal orientation with inset beveled tongue-and-groove boards. This door type is similar to other wood industrial doors commonly used in the Shipyard's initial construction period. A large, chain-link gated opening is on the west end that coincides with the location of train rails that formerly served the building. As shown in the plans for another building, access for the train required a door no larger than that on building 12's east end. The later irregular enlargement probably was to accommodate larger boats than those worked on when the ends of the building originally were enclosed. This enlarged opening possibly replaced a door similar to that extant on the east end.

The original construction of Facility 12 and subsequent alterations appear to have been in substantial accordance with the few design drawings that were located. However, the joining of Facility 12 to Facility 7 was poorly resolved and compromised the design integrity and character of the two buildings.

Historical Context:

Construction of Facility 12 was part of the initial base build-up. With concerns rising in 1914 for national security, the 63rd Congress passed the Naval Militia Act, authorizing the establishment of the Division of Naval Militia Affairs that encouraged states and territories with undeveloped deep-water ports to consider establishing Naval Militia organizations and promote harbor development. Hawaii responded by passing the necessary laws, and by June 1915 a local Naval Militia was established. The Appropriations Act for 1913-1914 well exceeded 2 million dollars and includes the bulk of appropriations for new construction in founding the Operating Naval Base at Pearl Harbor.

The original structure of Facility 12, based on dated historical photographs, was constructed in the period between October 1914 and May 1915 as the Shipyard Boat Shop for repairs and storage and has continued in that use since then. Its basic outline is shown in a drawing dated March 1912 by the Public Works Department along with those of the other early buildings at the Shipyard. The original framing design drawings for Facility 12 were prepared by the Bureau

**U.S. NAVAL BASE, PEARL HARBOR, BOAT SHOP
(U.S. Naval Base, Pearl Harbor, Naval Shipyard)
(Facility No. 12)
HABS No. HI-447 (Page 4)**

of Yards and Docks and dated January 5, 1914 and the foundation drawings and structural column plan were dated April 16, 1914. No floor plans or exterior elevations were located.

The clerestory that joined Facilities 12 and 7 in 1919 is referred to in a February 3, 1919 drawing as an "apron roof." Details of this clerestory, consisting of a band of wood-framed windows, are shown in the 1919 drawing, although the windows have been removed. The clerestory is now covered with corrugated metal.

The wood-framed mezzanine addition between the buildings is dated July 19, 1920. From a photograph dated April 30, 1919, upon completion of the clerestory, none of Facility 12 had been enclosed, and the original pent roof on the north and west sides of the building was still intact.

The lean-to addition on the south side is shown in drawings dated October 3 and 7, 1940. Drawings for the framing and slab of the present mezzanine between Facility 7 and 12 are dated July 28, 1941. Drawings for the new locker, toilet, and storage facilities at the mezzanine and the enclosure of the space between the buildings, appear to be dated February 15, 1942. Construction of this work was completed in 1942. The present mezzanine originally stopped two bays short of the west end of the adjoining buildings. It was later extended to the end after October 1945. No drawings or photographs were located indicating when any other enclosure of Facility 12 might have occurred, when the wood flooring was installed, nor when the original clerestory windows were replaced with the present corrugated panels.

The base's railroad network that extended into the interior of most significant large buildings at the Shipyard was abandoned well after World War II. No remnants of the railroad tracks that originally served Facility 12 remain.

For an overview of the Naval Shipyard see HABS No. HI-483.

Sources:

Original and subsequent drawings reviewed for this building are on digitally scanned images or microfilm at Pacific Division, Naval Facilities Engineering Command (NAVFAC EFD Pacific) Plan Files. Historic photos of this building are located at the National Archives II, Still Photo Section, RG 71 CA.

Almy, Capt. E.D., Cmdr. J.J. Manning, and Lt. Cmdr. Philip Lemler
1940 Letter Report dated 29 April 1940 to the Secretary of the Navy on Development of Fourteenth Naval District. In National Archives, San Bruno, RG 181, 14th ND, District Staff Hdqtrs., General Correspondence [Formerly Classified] 1936-1944, Box 1, Folder 1-1(1) Developments.

**U.S. NAVAL BASE, PEARL HARBOR, BOAT SHOP
(U.S. Naval Base, Pearl Harbor, Naval Shipyard)
(Facility No. 12)
HABS No. HI-447 (Page 5)**

Anonymous

n.d. A brief history of Pearl Harbor in its relation to the U.S. Navy. Shipyard Public Affairs Officer's files.

Commander, Navy Region Hawaii

2000 Pearl Harbor Naval Complex, Cultural Resources Management Plan, Pearl Harbor, HI.

Commander, Navy Region Hawaii

2002 Integrated Cultural Resources Management Plan, Pearl Harbor Naval Complex, Pearl Harbor, HI.

Contractors Pacific Naval Air Bases

n.d. *Technical Report and Project History, Contracts NOy-3550 and NOy 4173:* On microfilm at Pacific Division Naval Facilities Engineering Command Library.

Fogel, Frederick F.

1980 Historic Resources Inventory Form for Bldg #12. Prepared by Pearl Harbor Naval Shipyard, Facilities Planning & Programming for State Historic Preservation Office.

HABS/HAER Documents

var. dates For those resources on the Navy database at the time the CRMP (Contract No. NB62742-93-D-0502) was prepared, the HABS/HAER numbers assigned have been included in the electronic database as an additional field, as noted in Appendices: Pearl Harbor Naval Complex Cultural Resources Management Plan, 1998, p. A-6.

Pearl Harbor Naval Shipyard

1992 Historic Preservation Documentation Program, photocopied document dated 15DEC92 including Appendix B Historic Inventory.

U.S. Navy Bureau of Yards and Docks.

1921 Activities of the Bureau of Yards and Docks. Navy Department, World War 1917-1918. Washington: Government Printing Office.

Project Information:

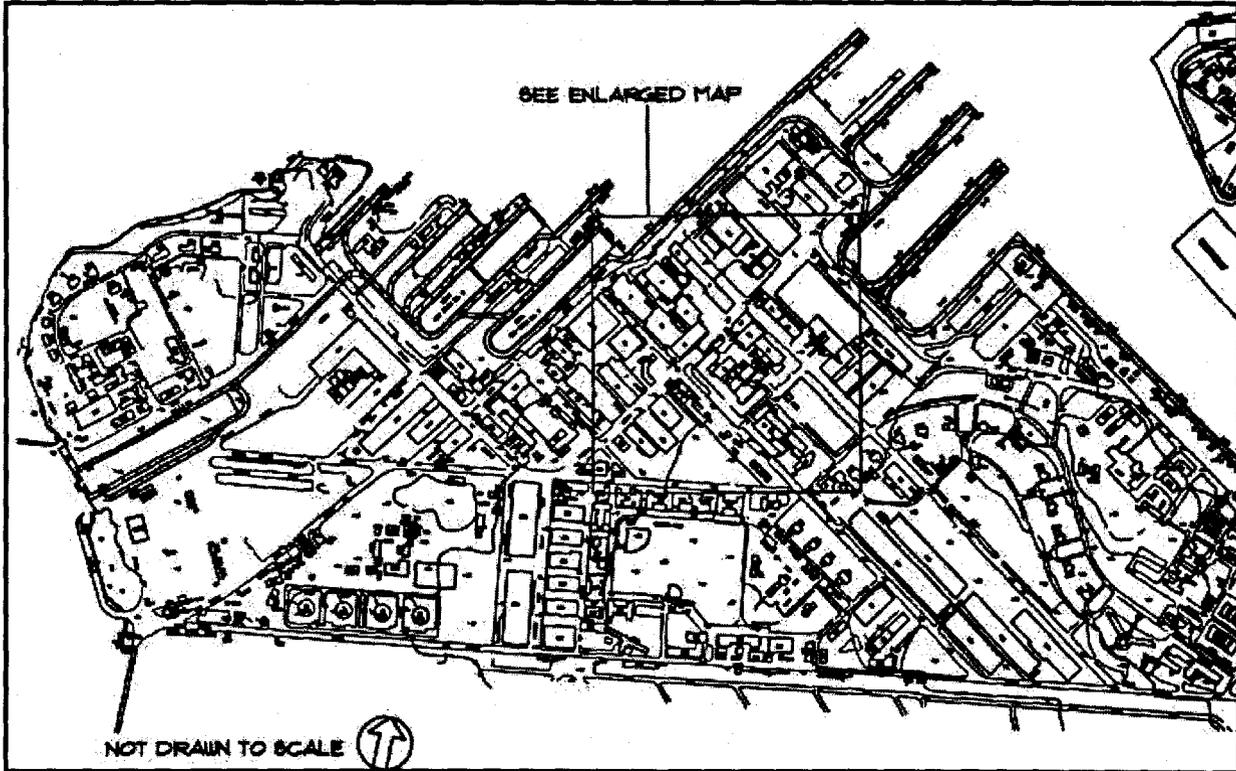
Photo documentation and recordation of this facility by the Navy has been done in anticipation of future alterations or potential demolition of the structure. Photo documentation of historic facilities by the Navy assists in expediting planned undertakings by having the documentation prepared prior to taking actions. Also, photo documentation assists the Navy in gaining more information about its historic facilities to assist in making proactive management decisions.

**U.S. NAVAL BASE, PEARL HARBOR, BOAT SHOP
(U.S. Naval Base, Pearl Harbor, Naval Shipyard)
(Facility No. 12)
HABS No. HI-447 (Page 6)**

This project is being supervised by Jeffrey Dodge A.I.A., Historic Preservation Specialist at the Pacific Division, Naval Facilities Engineering Command (NAVFAC EFD Pacific). The photographic documentation was undertaken by David Franzen, photographer. Douglas P. Luna, AIA/Architect, consultant to Mason Architects, Inc. prepared the written documentation. The field work and research was conducted for this report between July 2001 and December 2001.

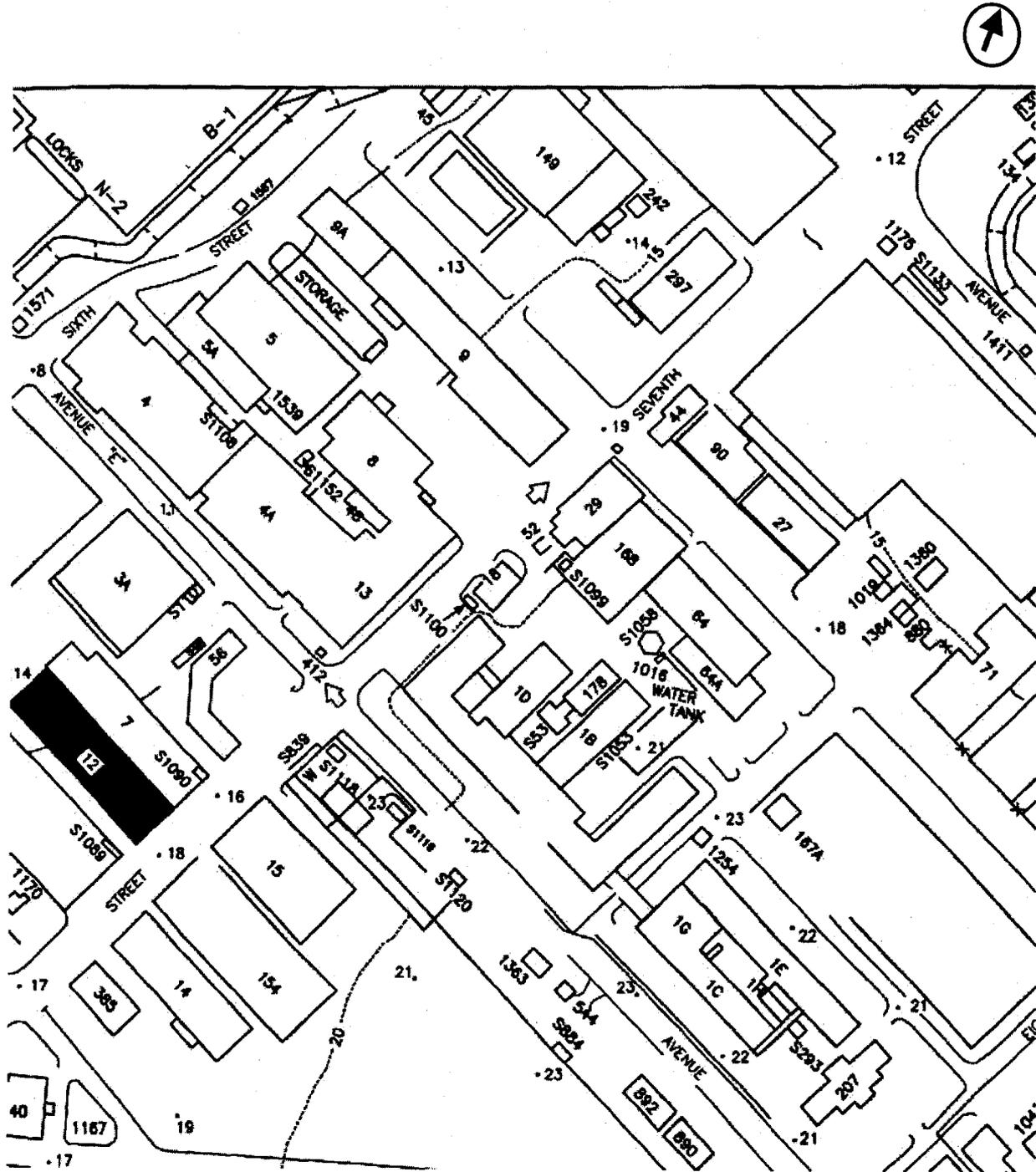
U.S. NAVAL BASE, PEARL HARBOR, BOAT SHOP
(U.S. Naval Base, Pearl Harbor, Naval Shipyard)
(Facility No. 12)
HABS No. HI-447 (Page 7)

Shipyard Map



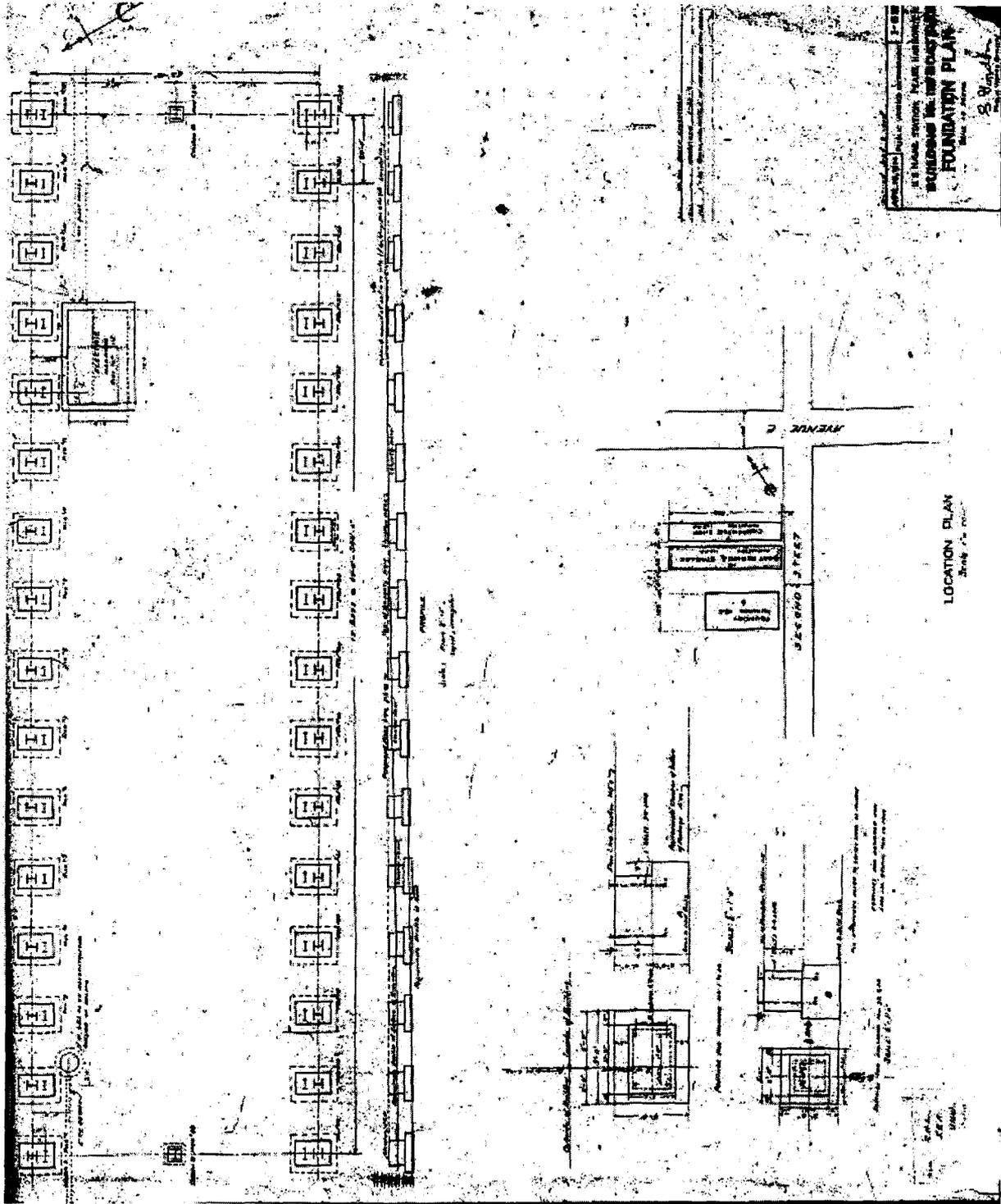
U.S. NAVAL BASE, PEARL HARBOR, BOAT SHOP
(U.S. Naval Base, Pearl Harbor, Naval Shipyard)
(Facility No. 12)
HABS No. HI-447 (Page 8)

Enlarged Area Map (reduced, not to scale)



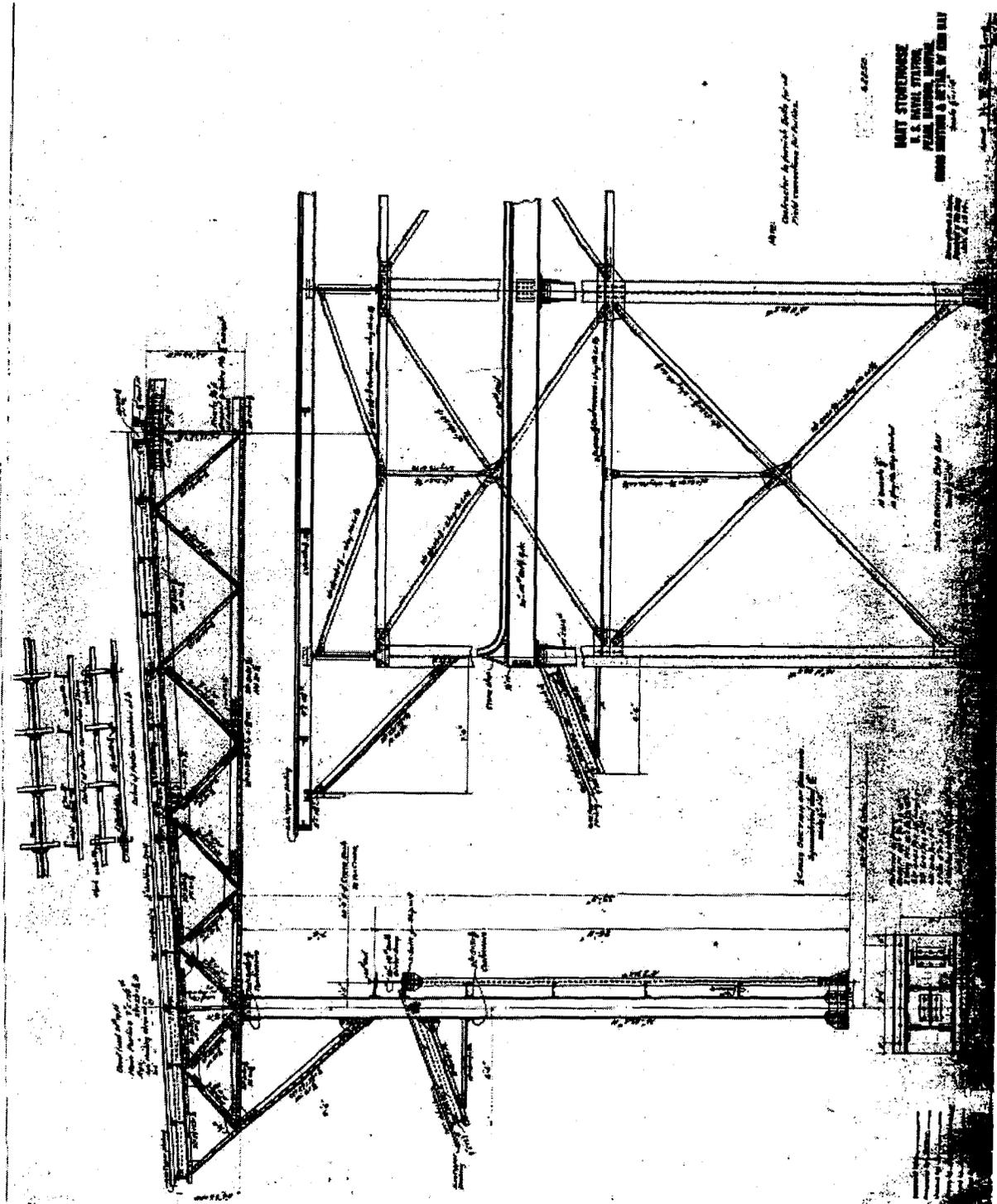
U.S. NAVAL BASE, PEARL HARBOR, BOAT SHOP
(U.S. Naval Base, Pearl Harbor, Naval Shipyard)
(Facility No. 12)
HABS No. HI-447 (Page 9)

Foundation Plan and Location Plan (Drawing No. I-62, dated 9/9/1914) (reduced, not to scale)



U.S. NAVAL BASE, PEARL HARBOR, BOAT SHOP
(U.S. Naval Base, Pearl Harbor, Naval Shipyard)
(Facility No. 12)
HABS No. HI-447 (Page 10)

Cross Section and Detail of End Bay (Drawing No. 62258, dated 1/5/1914) (reduced, not to scale)



U.S. NAVAL BASE, PEARL HARBOR, BOAT SHOP
(U.S. Naval Base, Pearl Harbor, Naval Shipyard)
(Facility No. 12)
HABS No. HI-447 (Page 12)

Painting Floor Plan, Elevations and Wall Section (Drawing No. 7021820, dated 4/3/1980)
(reduced, not to scale)

