

U.S. NAVAL BASE, PEARL HARBOR, HEAVY ORDNANCE
STOREHOUSE & ANNEX
(U.S. Naval Base, Pearl Harbor, Naval Shipyard, Facility Nos. 39 &
39A)
Avenue D near Eighth Street intersection, adjacent to the west of
Parking Lot "A"
Pearl Harbor
Honolulu County
Hawaii

HABS HI-477

HI-477

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HI-477

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, HEAVY ORDNANCE STOREHOUSE & ANNEX (U.S. Naval Base, Pearl Harbor, Naval Shipyard) (Facility No. 39 and 39A)

HABS No. HI-477

Location:

Avenue D near Eighth Street Intersection
Adjacent to the west of Parking lot "A"
Pearl Harbor Naval Base
City and County of Honolulu, Hawaii

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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. This building's UTM coordinates are: 04.608450.2361560.

Significance:

Facility 39 is located within the Pearl Harbor National Historic Landmark and is a contributing resource to that site. It is an intact example of the large storehouses built during the expansion of facilities at Pearl Harbor during World War II, demonstrative of this distinctive type of architecture and period of military construction. It has always been used for heavy ordnance storage. Solely the Ordnance Section occupied it until 1945 when it was also released to be used by the Industrial Department.

Facility 39A is the abutting lean-to connected to Facility 39. It is associated with the great expansion of facilities at Pearl Harbor to meet the needs for storage of supplies during World War II. Both facilities have integrity of location, design, setting, materials, workmanship and association.

Description:

Facility 39 is a utilitarian single-story structure with a rectangular floor plan and minimal detailing. The building is set on a foundation of reinforced concrete on concrete piles. It is of steel frame construction and spans twelve 20'-0" bays long and 4 bays wide. The inner bays along the width of the building measure 19'-8" with the exterior bays approximately 19'-6". The dimensions of the building are 240'-0" in length by 78'-4-7/8" in width. At the ridge line the building is approximately 78'-4". The height of the building to the eaves is 46'-0" and the overall floor area is 19,926 square feet.

Steel columns bolted on concrete footings support the structure, which is fitted with crane rail girders extending the length of the building. The girders support an overhead crane with a 30-ton capacity main hook. The primary exterior material of the walls is 24 gauge corrugated metal paneling. The very slightly pitched (1/4" and 12") gable roof is framed with riveted steel trusses with diagonal members. This steel framing supports a 4"-thick concrete roof slab, used on facilities in this area to protect from incendiary bombs. The

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eaves are very close to the exterior vertical wall plane and the roof is finished with bituminous built-up roofing material. Galvanized metal guttering extends along the perimeter. Sloping canopies extend 5'-1- $\frac{1}{2}$ " over the rolling doors and window area of the north side of the building. These lower canopy roofs are composed of composition roofing over 1" x 8" shiplap.

The south and north facades have a 14'-0" x 17'-0" rolling door at their west corners and a 14'-0" x 23'-6" rolling door at the east corners, originally operated by bevel gears and a hand crank. These doors are constructed of metal sheets and Douglas fir framing, connecting in mortise and tenon joints. The east end entry is a 3'-0" x 6'-2- $\frac{5}{8}$ " metal, wide-access door. All original windows were held in two parallel rows of continuous steel sashes along the entire north and south sides of the building. These have been replaced from inside the building with wood boards. There were 46 sash of 20-light fixed glass in the upper row. The lower row consisted of only 38 sash of 24-lights with a 4-light pivot window. Each light was 14" x 20", the glass listed as "dbl. strength obscure" on an original drawing (NAVFAC EFD Pacific drawing # I-N060271). The fenestration pattern was the same at both the east and west elevation but with only 15 sash at the upper and lower rows. Wood louvers originally ran the perimeter of the building, extending a width of 5'-9- $\frac{1}{2}$ " immediately under the roofline. Metal siding now covers this area.

The interior of the building has an industrial warehouse appearance that corresponds to the needs of storing heavy material. One 30-ton capacity overhead crane installed on steel rails exists in the east end of the building. Initially the crane was used for access to deliveries from railway tracks. The railway tracks entered the building through the high doors at the southeast end and originally serviced the building. The tracks 3' wide are no longer used but some remnants of them are still visible. The floor is composed of 3" asphalt macadam on a rolled coral base, with a live load capacity of 800 lb. per square foot. Compressed air was supplied to the building by a 2- $\frac{1}{2}$ " underground line, shown in a 1945 drawing (NAVFAC EFD Pacific drawing # I-N06-513). Four single-clear-bulb hanging lights with metal covers are suspended in each of the twelve bays and there are no mechanical systems in the building.

Facility 39A abuts the south side of Facility 39. It is a single-story lean-to structure with a rectangular plan and minimal detailing. It is accessible from Facility 39 through two 20'-0" interior door openings in their common wall. Set on a concrete slab-on-grade foundation, the original building dimensions are 162.5'-0" x 32'-0" x 18'-0" high (5,154 square feet). The shed roof and walls are galvanized, corrugated steel panels. Metal I-beam rafters make up a visible roof framing system. The original door canopy of Facility 39 was removed during the attachment of Facility 39A.

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The floor surface in this facility is asphalt macadam. Wood-frame sliding doors of 14'-0" x 18'-0" dimensions are located at three exterior entries. There are five, 6'-0" x 18'-0" window openings placed 7'-0" from the floor on the south side of the structure, and two each on the east and west ends. These openings are all covered by 4" x 4" wire mesh. The interior is lit by single-bulb hanging light fixtures with metal reflectors that are suspended every 20' in each bay.

The built structure of both Facility 39 and Facility 39A followed the final original plans with some noted subsequent changes. Currently the condition of the fabric of both structures is recorded as being fair.

Historical Context:

The Navy Data Base records indicate that Facility 39 was completed in 1943 as a part of the Contractors Pacific Naval Air Bases (CPNAB) contract at a total cost of \$119,922. Drawings for the project were produced by the Public Works Department of the Fourteenth Naval District, Pearl Harbor, T.H. This facility was constructed as part of the great expansion to meet immediate and priority storage needs during the war. It has been used for heavy ordnance storage from World War II to the present, responding to the changing mission needs of the Navy. It is part of a group of such repositories including nearby anchor and chain storage. This facility became important during World War II due to the distance of Pearl Harbor from the sources of materials for the war effort and the need to insure consistent supplies for industrial uses.

Original plans show that Facility 39A was constructed as a lean-to addition to the southwest side of Facility 39 in 1944 for \$33,145. The initial use for this facility was to expand the ordnance storage capabilities of Facility 39. Over the years it has also been used as a machine shop and a fire control training center. Presently it is a general warehouse for the Navy. No alterations have been made to this structure.

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

Sources:

The original drawings for Facility 39 and 39A are on digitally scanned images or microfilm at Pacific Division, Naval Facilities Engineering Command (NAVFAC EFD Pacific) Plan Files. The original drawings for Facility 39A are specifically numbered 1-N06-473 through 1-N06-485. Some later drawings for these two buildings are also listed in the NAVFAC EFD Pacific microfilm index, under drawing numbers 1-N06-271 through 1-N6-520.

A copy of the 1947 property record card for Facility 39 and Facility 39A was obtained from the Naval Shipyard Facilities files along with a 1980 photograph of these two facilities.

A few historic photos of Facility 39 were found at the National Archives Photo Collection (RG71CB, Box 103 Folder "Storehouses").

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The Shipyard files also have on record some photographs of Facilities 39 and 39A that were taken in 1965 and 1980.

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, Fourteenth Naval District, District Staff Hdqtrs., General Correspondence [Formerly Classified] 1936-1944, Box 1, Folder 1-1(1) Developments.

Bureau of Yards and Docks
1946 "Building the Navy's Bases in World War II, Vol. I and II," U.S. Government Printing Office.

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.

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.

Nakahara, Kenneth
1980 Historic Resources Inventory Form for Bldg #39. Prepared by Pearl Harbor Naval Shipyard, Facilities Planning & Programming for State Historic Preservation Office.

Pearl Harbor Navy Yard
n.d. Typescript manuscript with 8 chapters, reporting on WWII activities on the Navy Yard's departments. From Robert F. Walden Collection, University of Hawaii Hamilton Library, Hawaii & Pacific Room.

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

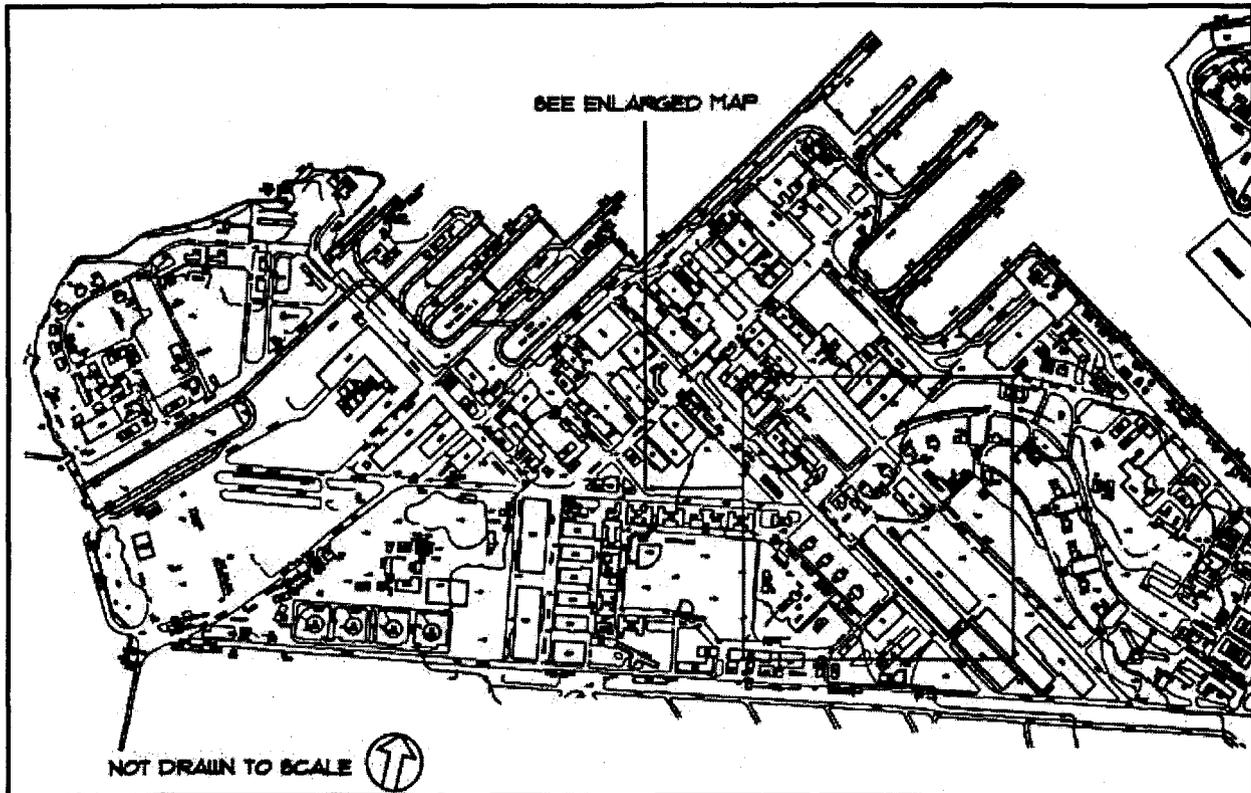
Project Information: Photo documentation and recordation of this facility by the Navy has been done in anticipation of future alterations or potential demolition of the structure. Photo documentation of historic facilities by the Navy assists in expediting planned undertakings by having the documentation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

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historic facilities to assist in making proactive management decisions. 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. Delta Lightner and Joanmarie N. Orłowski, Architectural Historians, of Mason Architects, Inc. prepared the written documentation. The field work and research was conducted for this report between July 2001 and December 2001.

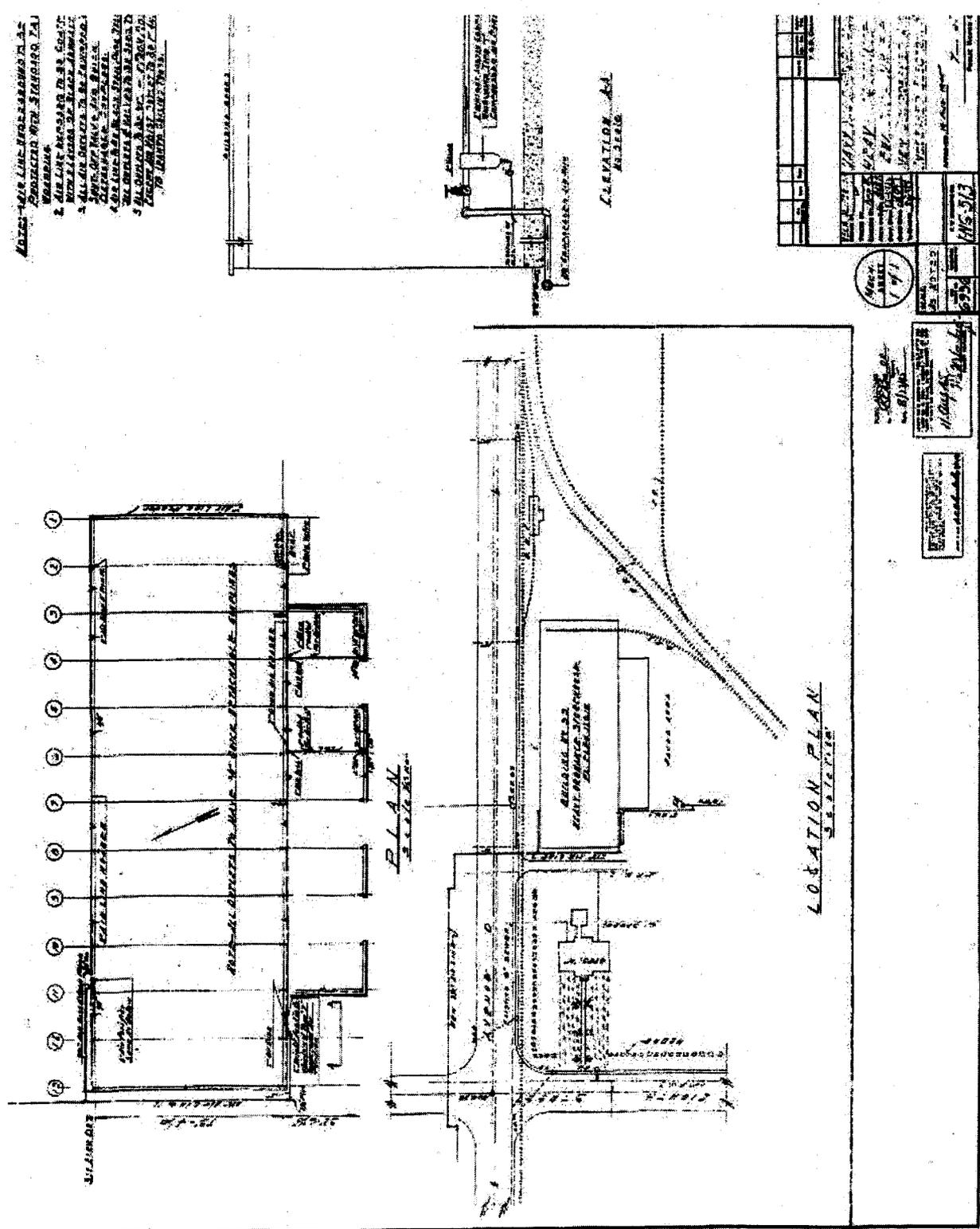
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Shipyard Map



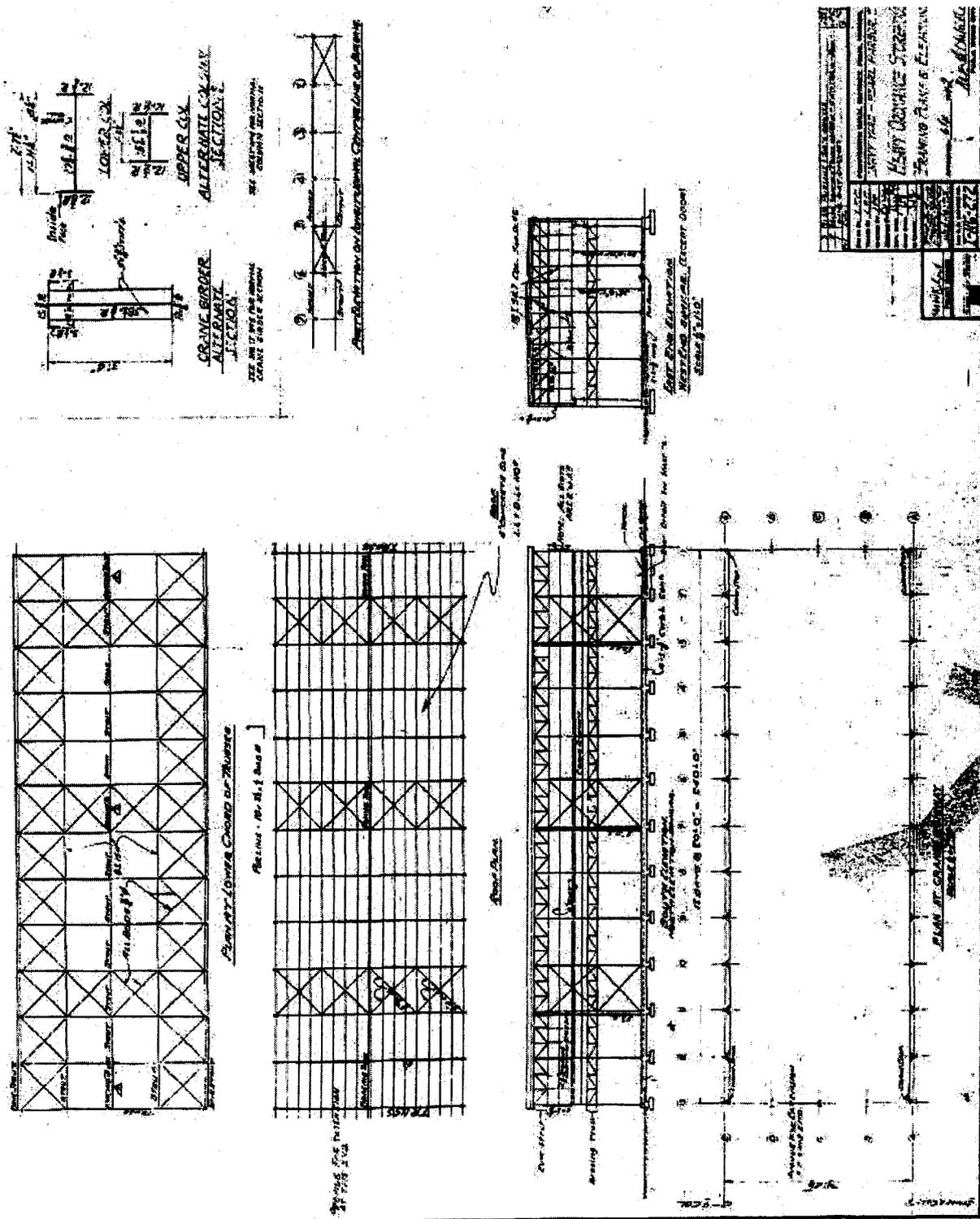
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Location Plan of Facility 39 and 39A (Drawing No. I-N6-513, dated 8/14/1945) (reduced, not to scale)



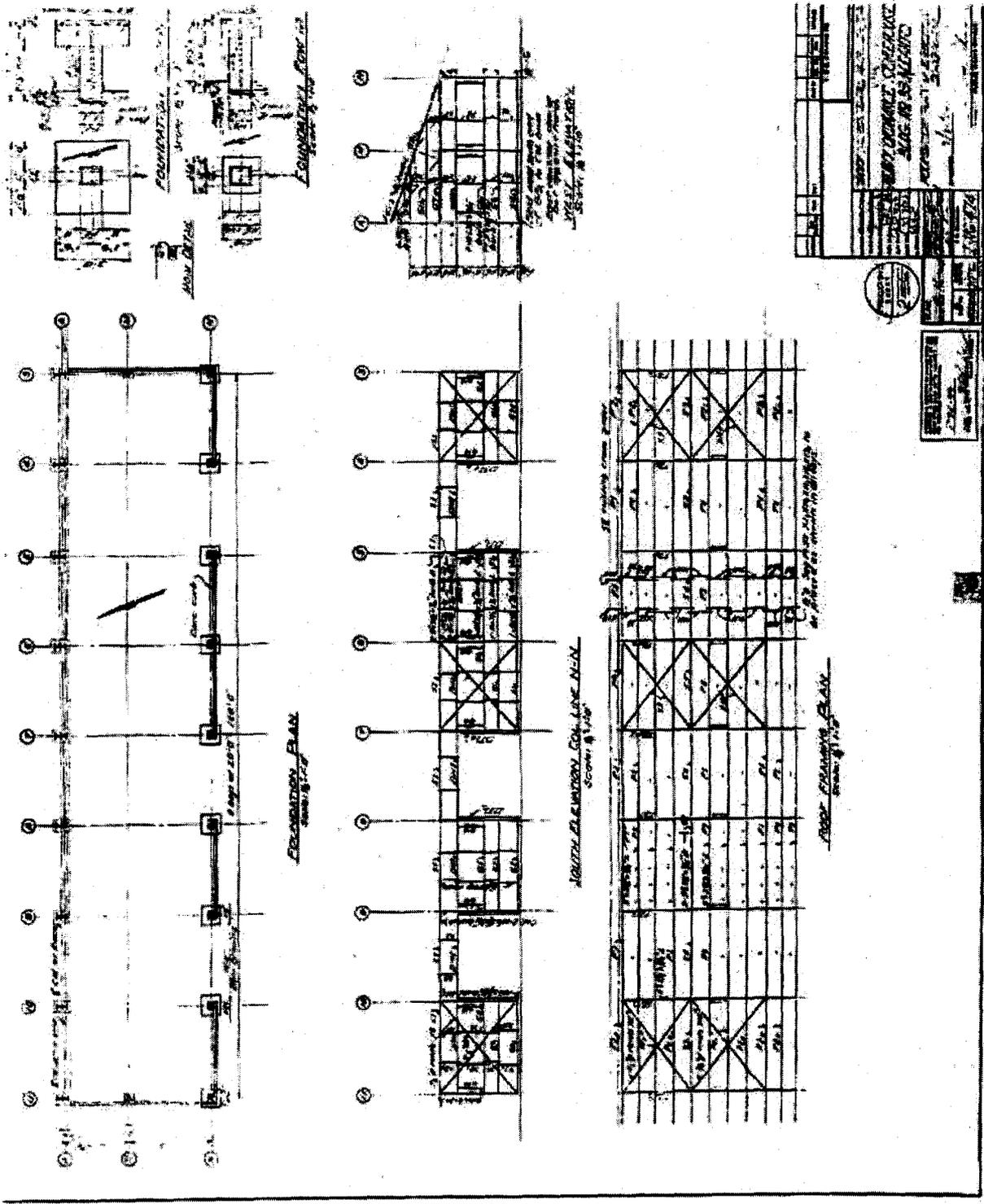
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Facility 39 - Framing Plans and Elevations (Drawing No. I-N06-272, dated 9/14/1942)
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Facility 39A – Foundation Plan and Erection Diagram (Drawing No. I-N06-474,
 dated 7/31/1944) (reduced, not to scale)



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Facility 39A – Section and Door Details (Drawing No. I-N06-475, dated 7/31/1944)
 (reduced, not to scale)

