

U.S. NAVAL BASE, PEARL HARBOR, OPERATIONS & MESSAGE
CENTER
(Navy Yard, Communications Office)
(U.S. Naval Base, Pearl Harbor, Naval Shipyard, Facility No. 178)
Behind Facility No. 1, corner of Avenue E & Seventh Street,
connected to Facility Nos. 1B & 1D by wooden bridges
Pearl Harbor
Honolulu County
Hawaii

HABS HI-454

HI-454

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HI-454

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, OPERATIONS AND MESSAGE CENTER
(U.S. Naval Base, Pearl Harbor, Naval Shipyard)
(Facility No. 178)

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Location: Behind Facility 1, the Administration Headquarters, which is at the corner of Avenue E and 7th Street
Connected to Facilities 1B and 1D by wooden bridges
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: Building 178 is located within the Pearl Harbor National Historic Landmark, and was completed as part of the initial build-up to World War II. It has a distinctive type and period of construction. Most bombproof construction is associated with the response to the Dec. 7, 1941 attack, but this facility is significant in that it was planned before the attack. It was the first Yard Communications Office in Pearl Harbor and was the hub of communications, both classified and unclassified, during World War II and up through the Cold War. This facility was in communication with intelligence facilities located in Building 167 and the Signal Tower. It was designed by master architect Vladimir Ossipoff, who worked under Contractors, Pacific Naval Air Bases, Contract No. 4173.

Description: Facility 178 is a two-story bombproof structure, made almost entirely of reinforced concrete. The building has a reinforced continuous-pour thickened concrete slab foundation measuring 5'-0" thick on the perimeter and 3'-0" on the interior portion. This building has a 6'-thick flat concrete roof which extends 3'-0" beyond the exterior wall surfaces to minimize bomb strike damage to the side walls. The exterior walls and second-floor slab measure 4'-0" in thickness. The building is rectangular in plan and measures 87'-8" long and 29'-0" wide. The second story is shorter in length, having a total length of 67', stepping in from the first floor on both sides of the elevation. A 3' -thick, 20' -wide reinforced concrete perimeter slab to protect from the results of near misses surrounds the building foundation. A later renovation added a wooden shiplap-sided one-room addition on the second floor of the south side.

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Functionally, the first floor originally held a bombproof and gas-proof office, a "top-secret" code room, a communications room, a machine room, and a decontamination chamber, shower, and dressing room. The second floor held offices and a connection bridge to Annex B of Administration Building 1. It also has window openings and was not intended to be bomb proof.

The structure of this building is simple and straightforward. The massiveness of the reinforced concrete structure is all that protects the building from attack. The roof and second floor, as well as the thick exterior walls, protects the communications room on the first floor where classified and top-secret information was handled. The floor-to-ceiling heights are relatively short, with the first floor having a height of 10' (the added space needed to allow for air conditioning ducts) and the second floor having a height of 8'. The squat size of the building helps to protect the building from lateral forces.

The roof has no additional roofing material besides high strength concrete. The thickness and density of the concrete (without having access to the specifications, it is not possible to examine nor comment on the type of concrete used in the structure) allows for the negation of a standard roofing material such as tar and gravel over the roof structure. The flat roof extends 3'-0" beyond the building face. It has an upturned edge along its perimeter, which prevents rainwater from running off the edges. Rainwater is drawn off through four drainpipes (4" galvanized pipes) located on the four corners of the structure, not at the edge of the roofline, and are attached to the exterior sides of the building. To accommodate four antenna cables that run from the first and second floor, bronze antenna lead-in sleeves were designed to penetrate through the roof structure. These sleeves measures 15 7/8" in diameter and are located on the east side of the building. Also, there are six antenna mast sockets to hold the antenna structures. Three sockets are spaced at equal intervals on both lengths of the roof.

Door openings are located on both the first and second floors. The first floor openings are located at both short ends of the building, the north and south elevations. These entries are 'protected' entries, such that the passageway to the door is zigzag in plan to minimize access of bomb fragments. Also, at the entry doors, an 'airlock' vestibule between two separate doors was designed to guard against heavier-than-air gas, smoke, and debris. All of the exterior doors, and many of the interior doors on the first floor, are air-tight steel doors, including those which lead into the decontamination chamber, shower room, and dressing rooms. The doors have metal

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spring hinges and a Jamison Wedge tight door fastener. The exterior doors on the second floor are located on the east and west sides of the structure. The east side door exits onto a wooden bridge that lead to the former Annex B of Administration Building No. 1. Another wooden bridge, which leads from the top of the steel exterior stair off the west side second floor exterior doors, was built to connect to the former Annex D of Administration Building No. 1.

Window openings measuring 5' wide and 8' high are symmetrical and utilitarian along the second floor of the bombproof structure. The openings are protected by expanded metal mesh attached to the face of the wall. Multi-light double-hung wood windows with plywood boards under the sill and blackout hood assemblies are inset approximately a foot behind each installation of expanded metal mesh. There are no window openings on the first floor. The first floor is ventilated by a large air conditioning system located in the large machine room (21' by 9'-9") on the north side of the first floor.

A few alterations have changed the configurations of the first and second floor layouts over the years. Soon after the facility was complete, the second floor was divided in two down the center, in the long direction of the building. Also, a new room for unclassified dispatch files was constructed off the south side on the second story. This was a wood construction addition that follows the outline of the first floor entry passageway below. The exterior is clad in simple drop siding and the flat roof extends 3'-0" beyond the walls. In 1951, the second floor was altered again to house a communication room. Since then, minor repairs and alterations have altered the interior.

Currently, the walls and ceilings are covered in acoustical tile, the floors are finished with vinyl tile, and modern fluorescent lights hang from the ceilings. These details are similar to those in the other bombproof facilities, i.e., Building 250. One of the steel entry doors has been removed. A sprinkler system is suspended from the ceiling. In some of the second floor window openings, the original steel windows have been replaced with jalousie windows.

Historical Context:

Facility 178 was designed by master architect Vladimir Ossipoff in 1941 (prior to the Pearl Harbor attack) to serve as the Navy Yard Communications Center. He worked under Contractors, Pacific Naval Air Bases, Contract No. 4173.

Prior to April 29, 1942, the District Communication Office performed the functions of the Yard Communication Office.

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On April 29, 1942, the Yard Communication Office was created, and on June 11, 1942, Facility 178 was occupied. There were several functions of this new office.

First, it was used as a Radio Shack. The radio shack acted as a Copy Fox -- it mimeographed copies and passed out messages to ships. It also handled incoming and outgoing messages. The NTX system was employed for the transmission of messages to the Mainland; those going to forward areas were sent via NTX to NPM where they were further transmitted. The radio shack also performed a variety of other Special Functions.

The second function was that of a Coding Vault. From the beginning until August 27, 1945, an active coding vault was maintained with at least two officers on duty during each of a continuous four-section watch. Incoming encoded messages were slipped through by the Radio Supervisor for decryption. When the message was "broken" it was placed in an envelope and sent up a tube directly to the Chief Warrant Officer (CWO) who sat topside. He checked it for errors and then passed it to a "confidential" write-up person.

Its third function was its role as a Classified Dispatch Section. Messages were processed and handled according to their classification. Matters that were classified, restricted, and Secret were written up by personnel, civilian employees and officers or enlisted persons authorized to handle classified material. Two messengers were employed to deliver these classified messages to addressees who may have routed them thereon. Top-secret messages were handled only by the Communications Officer and were kept in a special safe in the vault. They were delivered by the Communications Officer to the Commandant, and shown to such other officers as indicated by the Commandant. No extra copies were made of top-secret messages.

Its fourth function was its role as an Unclassified Write-up Section, where only non-classified dispatches were handled. Incoming messages were typed so that additional copies could be made and distributed; outgoing copies were checked by the CWO and sent to the Radio Shack for transmission. Copies of all messages were filed.

The fifth function was the Classified Filed. This department handled all mail, correspondence and files, top-secret, secret and confidential. All incoming material was carefully checked, logged in, and logged out, so that each piece of material was accounted for at all times. Outgoing traffic was handled similarly, and subject to the same careful handling, re-logging, assigning file numbers, etc. Correspondence was cross-

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referenced and filed according to source, date, and subject matter, so that there were always three sources of approach to a particular piece of information. All registered mail for the Navy Yard was delivered here.

See HABS No. HI-391 for additional history of World War II Bombproof Buildings.

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

Sources:

The original drawings for this building are on digitally scanned images or microfilm at Pacific Division, Naval Facilities Engineering Command (NAVFAC EFD Pacific) Plan Files. The remaining drawing numbers are I-N28-123, I-N28-139, I-N28-124, I-N28-151, I-N28-131, and I-N28-168.

Historic photos can be found at the National Archives II Number RG71CB Box 102 Folder "Navy Yard Communications." Yard and Docks neg. # 14631.

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.

Pearl Harbor Naval Shipyard

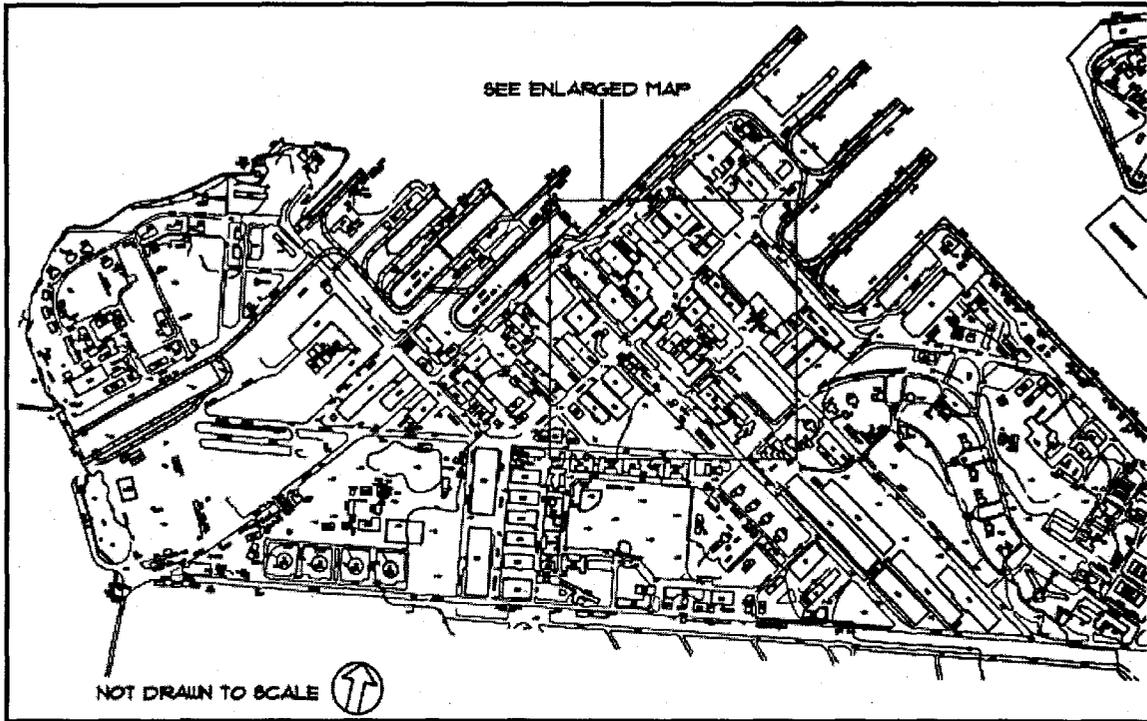
1992 Historic Preservation Documentation Program, photocopied document dated 15DEC92 including Appendix B Historic Inventory.

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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. 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. Lorraine M. Palumbo, Ph.D. Architectural Historian, of Mason Architects, Inc. prepared the written documentation. The field work and research was conducted for this report between July 2001 and December 2001

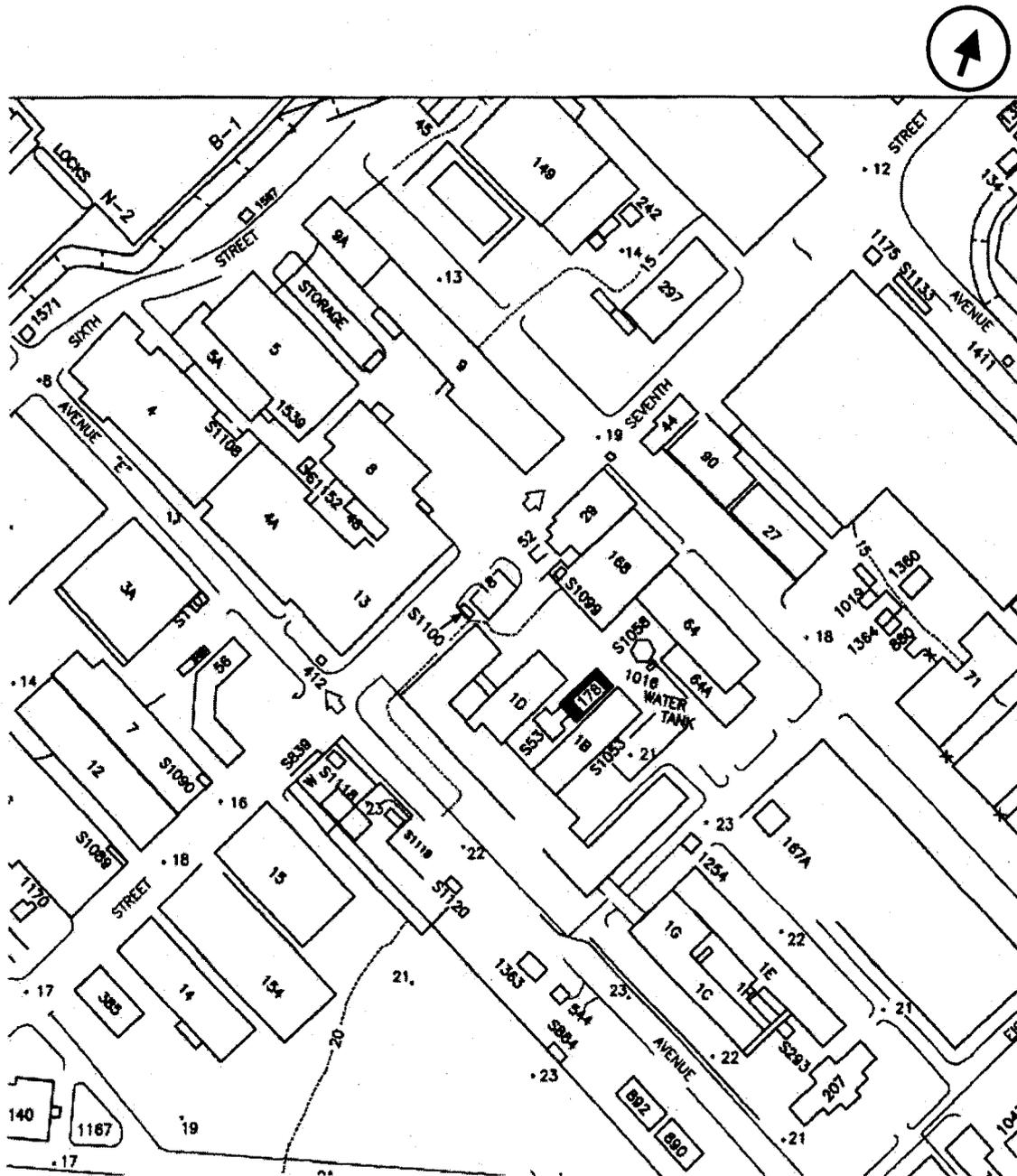
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Shipyard Map



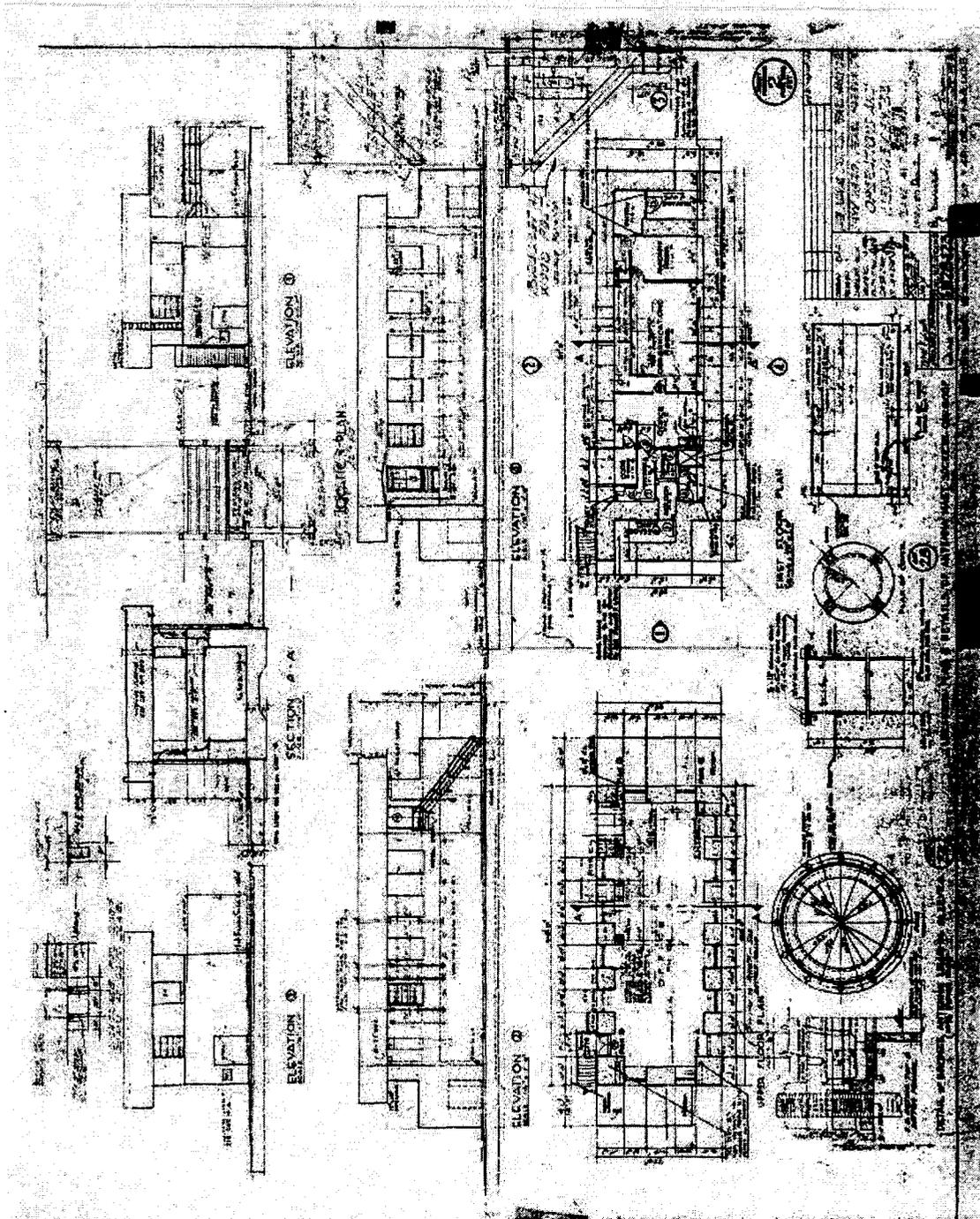
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Enlarged Area Map (reduced, not to scale)



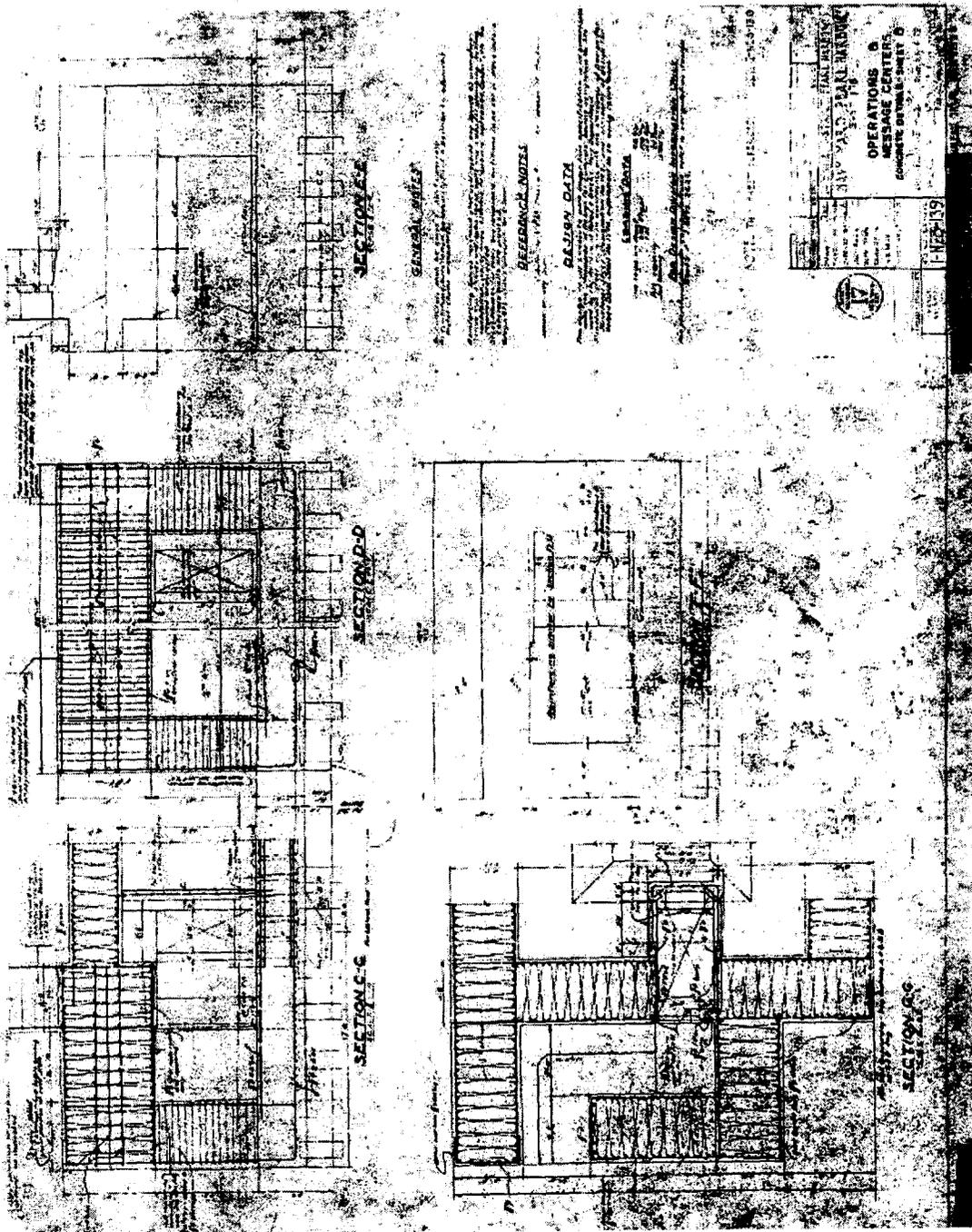
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Operations and Message Center, Plans and Elevations (Dec. 3, 1941 Drawing No. I-N-28-123) (reduced, not to scale)



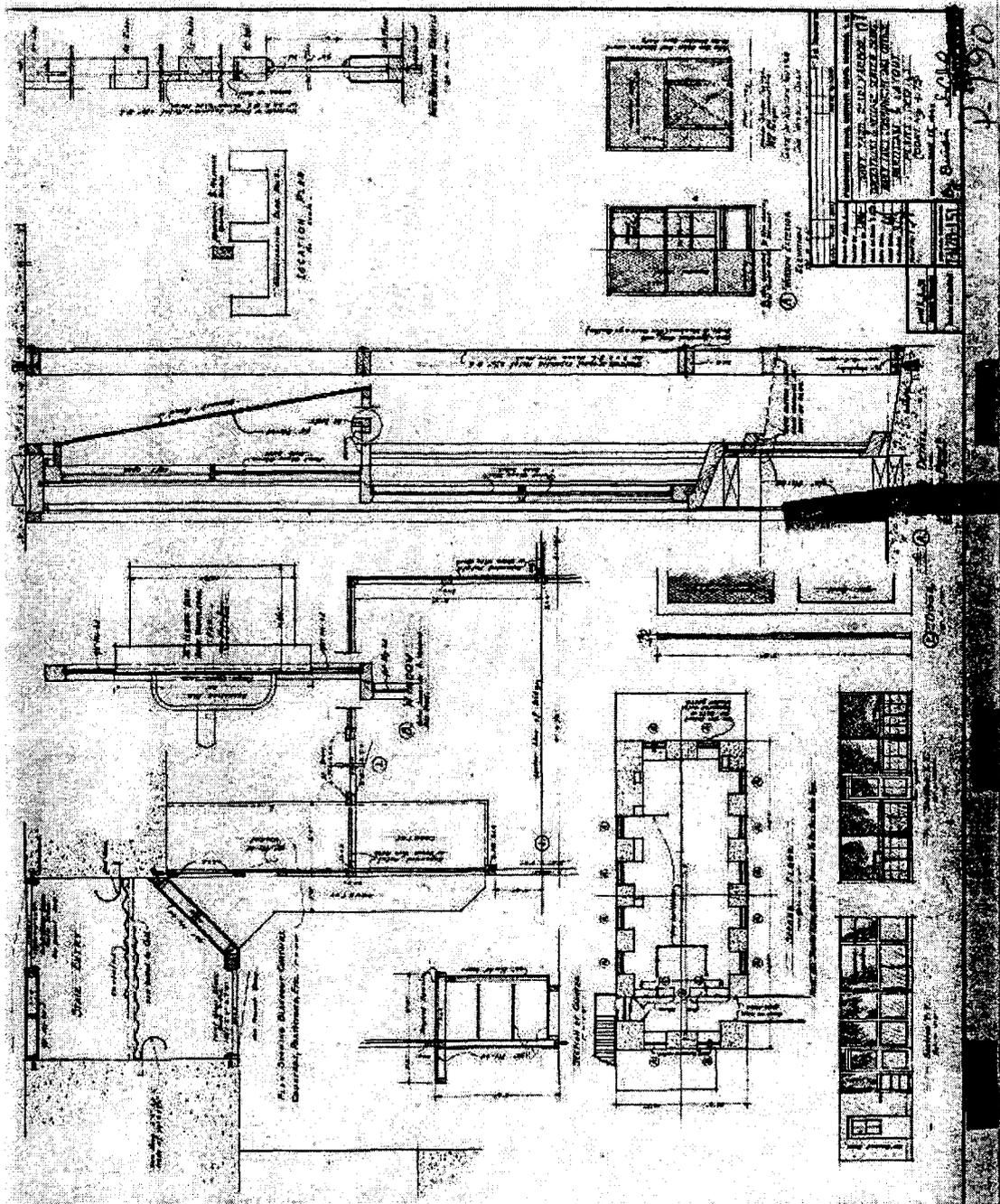
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Operations and Message Center, Concrete Wall Steel Reinforcing Details (Jan. 5,
1942 Drawing No. I-N28-139) (reduced, not to scale)



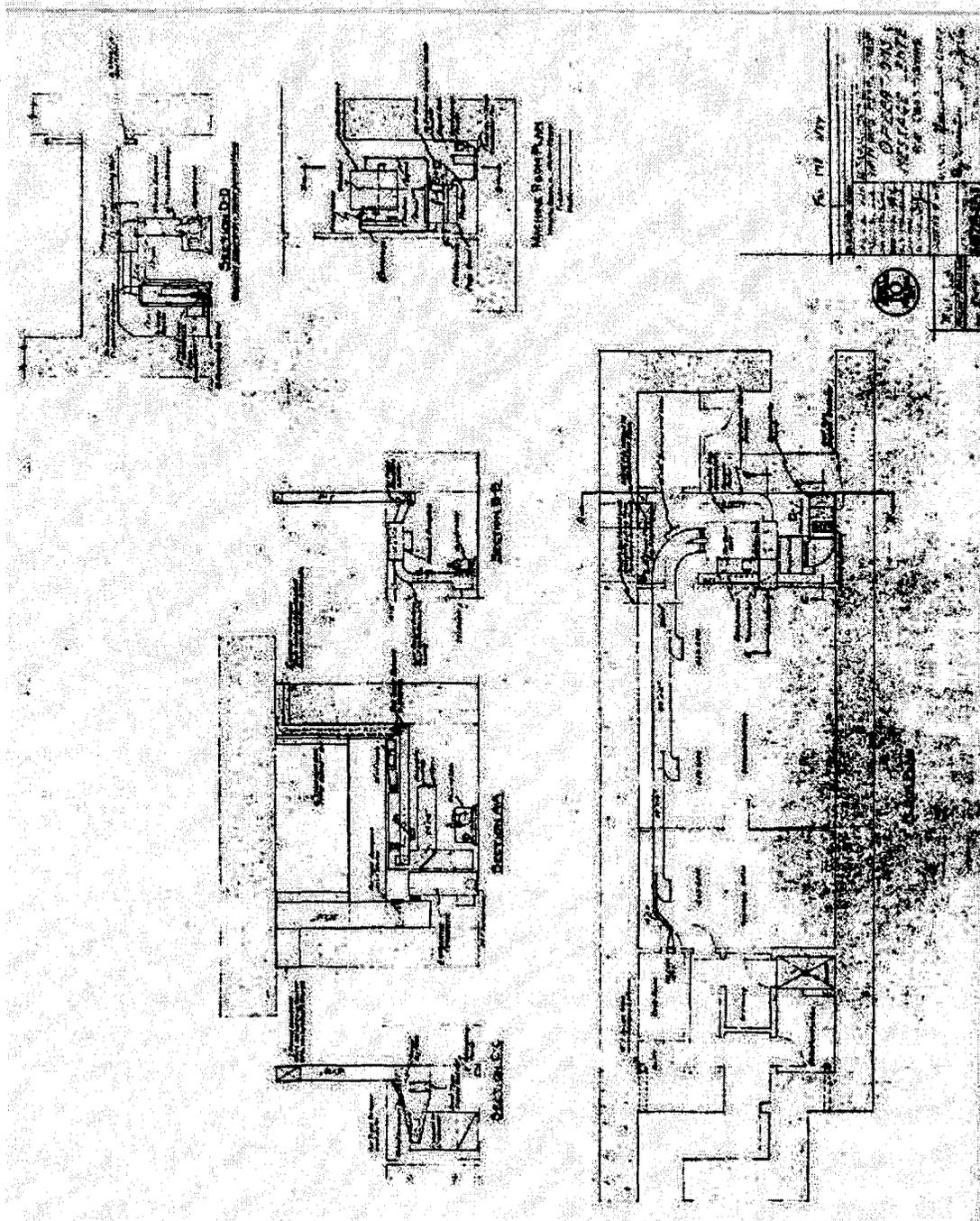
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Operations and Message Center, Interior Partition Plans and Details, Window
Details (May 15, 1942 Drawing No. I-N28-151) (reduced, not to scale)



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Operations and Message Center, Air Conditioning Plans, Sections and Details
(Dec. 3, 1941 Drawing No. I-N28-131) (reduced, not to scale)



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Operations and Message Center, Added Room for Unclassified Dispatch Files
 (Dec. 21, 1942 Drawing No. I-N28-168) (reduced, not to scale)

