KAHUKU NIKE MISSILE BATTERY OA-17, LAUNCHER AREA
(Kahuku Nike Missile Site 2)
(Schofield Barracks Military Reservation, Kahuku Training Area)
North Shore area, foothills southwest of Kahuku
Kahuku vicinity
Honolulu County
Hawaii

HAER HI-69-A
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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
PACIFIC GREAT BASIN SUPPORT OFFICE
National Park Service
U.S. Department of the Interior
1111 Jackson Street
Oakland, CA 94607

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Kahuku Nike Missile Battery OA-17, Launcher Area
(Kahuku Nike Missile Site 2)

HAER No. HI- 69-A

Location: North Shore area, in the foothills southwest of Kahuku
Honolulu County
Island of Oahu, Hawaii

UTM: Launcher Area:
4/605440/2396120
4/605480/2395930
4/605190/2395880
4/605160/2396060

Date of Construction: 1960

Engineer: United States Army Corps of Engineers with Contractors

Architect: United States Army Corps of Engineers with Contractors

Present Owner: United States Army

Present Occupant: United States Army

Present Use: Training area for United States Army troops

Significance: The Kahuku Nike Missile Battery Launcher Area contributes to the significance of the Nike Missile Battery because it was here that the missiles were assembled and prepared for launching. The launcher area structures are significant as relatively unaltered examples of Cold War era Nike Missile site construction. They are also a significant part of the most intact remaining Nike missile site in Hawaii.

Report Prepared by:

Katharine Slocumb, AIA
Architect/Architectural Historian
Mason Architects, Inc.
119 Merchant St., Suite 501
Honolulu, Hawaii 96813

Date: July 2004

DESCRIPTION:

The Launcher Area currently contains all the original buildings and nearly all the site features from when the base was in operation. It contains the 1) Missile Assembly and Test Building and the 2) Warhead Building where the missiles were assembled, the 3) Generator Building and 4) Frequency Converter Structures, the 5) missile launch pads and surrounding earth berms, 6) Underground Control Stations; and for security, the 7) Sentry Box, 8) Sentry Control Station, 9) Guard Towers, and 10) security fencing and floodlights. The facility was constructed in 1960.

The Launcher area is in its original configuration and appears to have been basically abandoned upon deactivation in 1970. The launch pads are paired together with two pairs on the upper road and one pair on the middle road. The Warheading building is sited at the end of the middle road. The Missile Assembly and Test Building and the Generator Building are located on the lower road. The small Sentry Box is located at the gated entry, while the Sentry control Station is located in the middle of the Launcher area. The two guard towers are located on opposite sides of the site along the fence line.

All of the structures are connected by roads and sidewalks, providing ease of movement about the site for both personnel and vehicles, such as the control and radar vans that carried essential equipment. The area is quite overgrown with little or no maintenance of the plant life, but the roads and walkways appear to be in fair to good condition.

Underground Control Stations (Facility Nos. 13, 14, 18)
There are three underground control stations at the Launcher area: one at each end of the long berm between the launch pads at the upper and middle road, and one at the middle of the berm fronting the launch pads at the east end of the site. The control centers are cast-in-place reinforced concrete structures, with a sloped double steel-covered wood entry door that opens into a stairway down into the structure. Overall plan dimensions are 12'-8" wide by 37'-4" long. Inside a hallway leads from the stair through a Kalamein door (steel encased solid wood door) into a small vestibule with a ladder leading up an escape hatch at the top of the earth berm. The escape hatch has a steel ladder and steel hatch cover. Another Kalamein door leads into a control room, which is 10 feet x 11 feet in plan and has an 8'-10" ceiling height. The control room originally contained a heater, vented to outside with filters and a sound trap. The concrete walls of the structure are 1'-0" thick, and the walls at the control room and vestibule are lined with reinforced concrete masonry blocks. The foundation is a reinforced 6" thick concrete slab. The structures were originally buried under a minimum of three feet of soil.

Sentry Box (Facility No. 20)
The sentry box is located at the entry to the Launcher Area, and was used to provide shelter to the guards while they were on duty. The building is a small concrete block structure with a concrete slab foundation and low-slope shed wood roof structure. Building dimensions are 5'-4" by 7'-4" in plan, and an 8'-4" ceiling height. The building originally had a wood panel door with glazing on one side and wood double-hung windows on the other three sides, but the door and windows are now gone. Inside is a small wood shelf under one window and the metal boxes that once covered the electrical panel and circuit breaker.

Launch Pads and Earth Berms (Facility Nos.22, 23, 26, 27, 30, 36)
Most of the continental U.S. NIKE sites housed the missiles in underground magazines, but the Hawaii sites all had open-air launchers mounted on concrete pads, surrounded by earth berms

The site has twelve launch pads; they are arranged with two pads side by side, surrounded by earth berms on three sides. There are eight launch pads in the upper (north) side of the site, and four pads below at the middle of the site. Each launch pad is a concrete slab, 25 feet x 90 feet. It has a six-foot square steel blast plate which has a blast deflector along one site. Various bolts are imbedded in the concrete for attachment of the missile launcher. There is also a below-grade concrete lined box that held the launcher controls. A part of one of the missile launcher frames remains at one of the pad sites

The large earth berms are located between the launcher pads and around the Warhead Building. The earth berms are 46 feet in width, about 10 feet high, with a six-foot wide flat area at the top of the berm.

Sentry Control Station (Facility No.28)
This building is located near the center of the Launcher Area, between the launch pads and the other structures at the site. It contained the controls for the protective lighting system as well as inter-communication equipment. The building is a concrete block structure with slightly peaked wood frame roof and a concrete slab foundation. The roofing is built-up roofing material. Building dimensions are 8'-0" by 12'-8" in plan, with an 8'-7" ceiling height. There are doors at two opposite sides and wood double-hung windows at all sides, which have wire mesh screens and precast concrete sills. Much of the housing for the electrical equipment remains inside.

Warheading Building (Facility No.37)
The Warheading building is located at the northeast side of the Launcher Area, and has earth berms surrounding it. These berms were intended to contain an explosion in the event that an accident occurred during missile assembly. The Warheading building is rectangular in plan, and is constructed of concrete blocks on a concrete floor slab. The slightly peaked roof has steel roof beams and steel decking with built-up roofing. A four-ton Zeigler glide monorail hoist track runs down the center of the ceiling; it was installed in 1962. The east and west ends of the building each have a large roll-down metal door. The adjacent wood pedestrian doors and all of the wood windows have been removed. The building was granted to the State of Hawaii Civil Defense Division for the storage of emergency medical supplies from 1970 to 1985.

Missile Assembly & Test Building (Facility No. 45)
This structure was used for the hydraulic and electronic testing of the various components of the NIKE missiles and their assembly into rocket fuselages. The Missile Assembly and Test Building is a one-story concrete block structure, approximately 40 feet x 40 feet, built on a concrete slab. The building originally had a chain-operated wood overhead door at the east and west ends; these two doors, as well as most other doors and windows, are now missing. Four window openings, which contain remnants of wood double-hung windows, are equally spaced along the north side. On the south side of the building there is a nine-foot by 30 foot cell, housing a toilet room, access from the interior and exterior, and a first aide room, accessed from

the exterior. Some of the original plumbing fixtures still remain. The sloped roof has open-web steel truss joist structure with corrugated steel decking, covered with built-up roofing.

Generator Building (Facility No.47)
The generator building was designed to house three generators, likely diesel powered, which provided power to a battery. NIKE bases typically received power from local utilities, but in the case of an engagement or emergency, the generators could supply power so that the battery was independent of external power sources. The generator building is a one-story concrete block structure, approximately 20 feet x 33 feet, built on a concrete slab. The concrete floor has 8" deep cable trenches around each generator pad. These trenches originally had steel cover plates. The sloped roof has open-web steel truss joist structure with corrugated steel decking, covered with built-up roofing. The roof has two roof ventilators. The original wood doors and windows are all missing. The building originally housed two 150 KW generators and five transformers. A shed was added in 1966. The generators were removed upon deactivation of the missile facility in 1970.

Transformer Building (Facility No. 48)
The construction date for this building on the real estate card is 1961, and it does not show on maps of the Launcher Area drawn in 1960. The building has concrete masonry walls and a concrete floor slab, with plan dimensions of 11'-0" by 17'-0" and an 8'-4" ceiling height. The original roof structure was replaced with wood rafters and wood roof sheathing. The building has a door and window opening on the north side, and two window openings at each of the other sides. The window openings are all four feet square. All window frames and the door have been removed. The building once held three 11-KVA transformers, one switch gear, and one 750KVA battery charger. No equipment remains inside.

Guard Towers (Facility Nos. T-150, T-151)
There are two wood guard towers, one at the east end of the site, and one at the west end. The tower at the east end of the site has collapsed at the base and has fallen over.

The towers have a wood frame base 12' square in plan, with three sets of diagonal bracing at each side. The wood platform on top, at approximately 29'-0" above the ground, is enclosed by a wood railing and has a small covered guard shelter room at the center that is six feet square in plan and 7'-6" tall. The lower walls of the guard shelter have wood louver openings 12" wide and 3'-0" tall, and the upper walls once had large glass windows, each 2'-8" by 4'-0". One side originally had a 2'-0" by 6'-10" wood door, which had a 1'-4" by 4'-0" window on either side; the door and the windows are all currently gone. A wood stair structure is constructed at one side and leads up to the platform level.

See HAER No. HI-69 for additional description of the overall installation.

HISTORICAL CONTEXT:

Four Nike Missile sites were constructed in Hawaii by the Army Corps of Engineers Honolulu District in 1959-1961; Battery OA-17 at Kahuku (redesignated Site 2 in 1967), OA-32 at Bellows Field (Sites 3 and 4), OA-63 at Barber's Point (Sites 6 and 7), and OA-84 at Dillingham Field (Site 1). The Kahuku site was operational from January 1961 to March 1970.

See HAER HI-69 for additional history of the installation.

SOURCES:

Carolan, Jane. NIKE Missile Battery PR-79, HAER No. RI-37, 1993.

Denfield, Colt. NIKE Hercules Missile Battery Summit Site, HAER No. AK-18, 1987.

Hawaii Guardsman (periodical produced by the Hawaii National Guard)

"Ready.... And Quite Able." March 1961, page 2.

"Hawaii to see NIKE Firing." September 1961, page 9.

"NIKE Site Tours, "Good Public Relations."" September 1962, page 21.

"They fired from Hawaii Battle-Stations." March 1962, page 3.

"Hawaii's New World Record." June 1964, page 10.

"Hawaii Missilemen Launch Beautification Projects." March 1965, page 12.

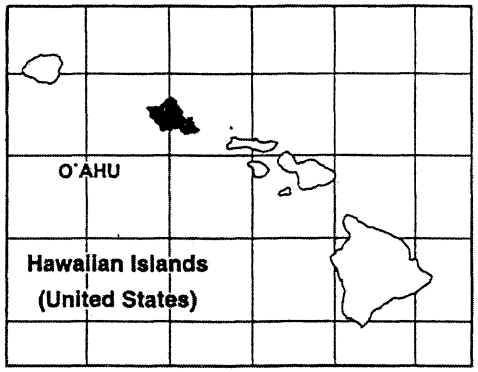
"NIKE Battery Best in Nation." Spring 1969, page 14.

Richards, John D. Newport NIKE Missile Battery D-57/58 Launch Area, HAER No. MI-80-2. 1994.

US Army Engineering Plan Files, Wheeler Army Air Field
Original Architectural drawings of buildings and Site Maps, 1960.

PROJECT INFORMATION:

This project was undertaken as mitigation for proposed alteration of the structures and area to create a Combined Arms Collective Training Facility for Army personnel training. The written description was prepared by Katharine Slocumb, Mason Architects, Inc., 119 Merchant St., Ste. 501, Honolulu, Hawaii 96813, in May 2003.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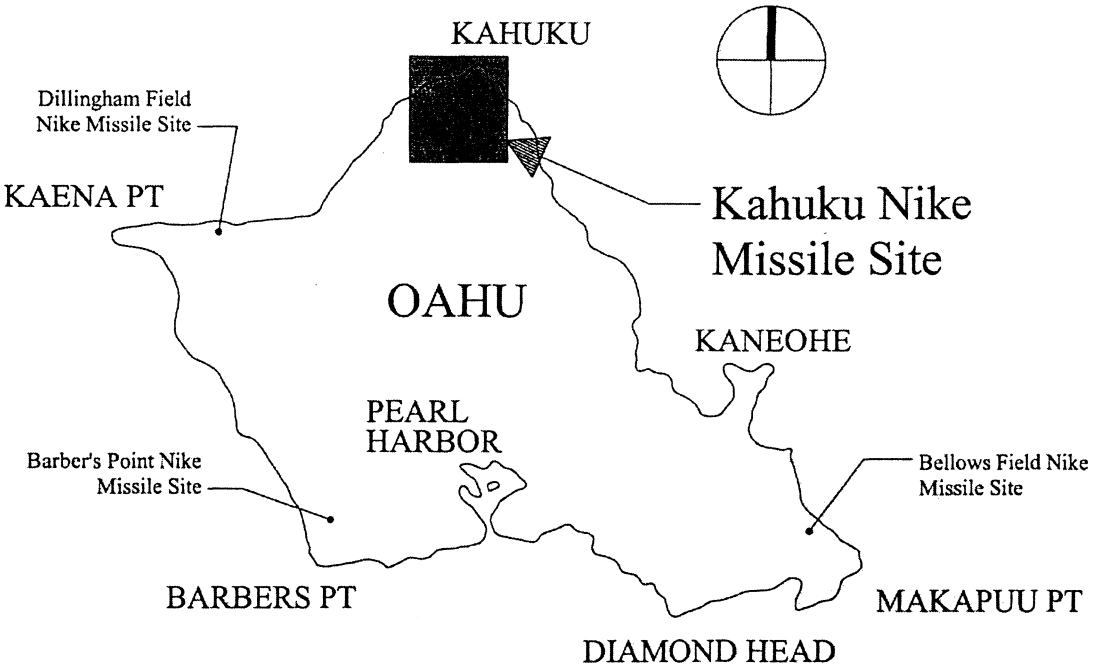
Hawaiian Islands
(United States)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Dillingham Field
Nike Missile Site
KAENA PT
Kahuku Nike
Missile Site
OAHU
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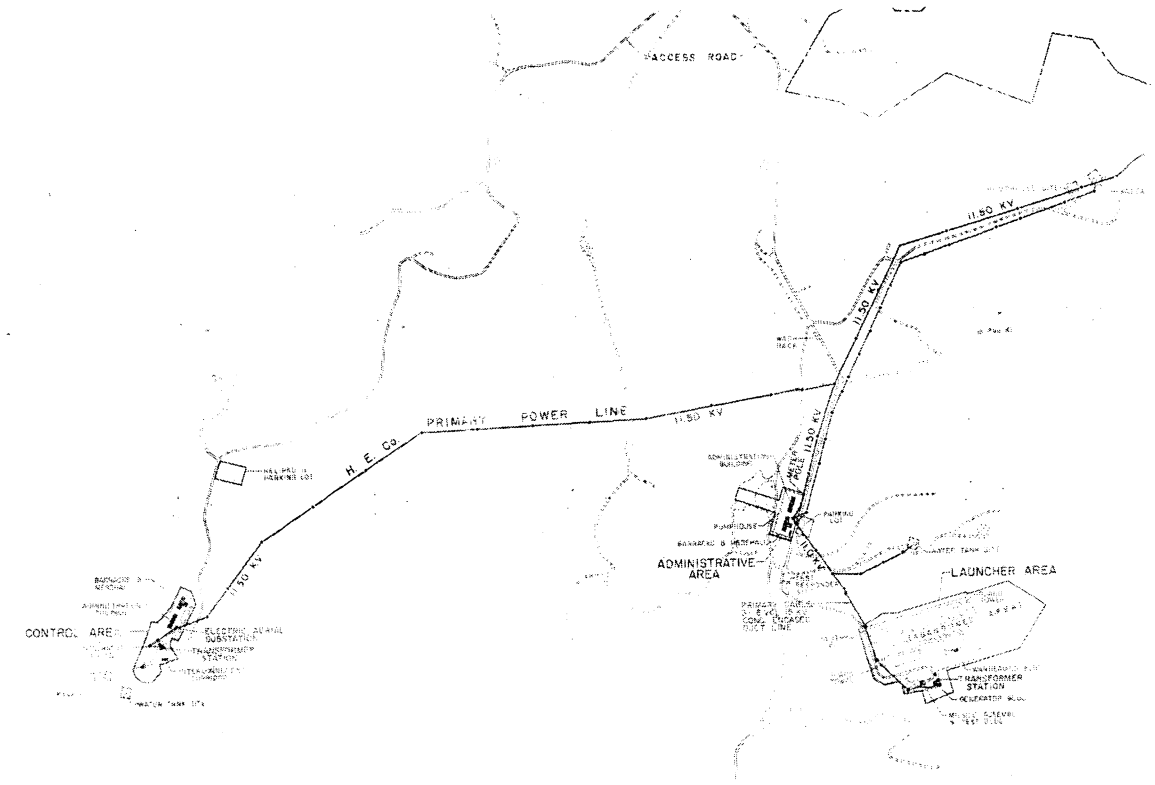
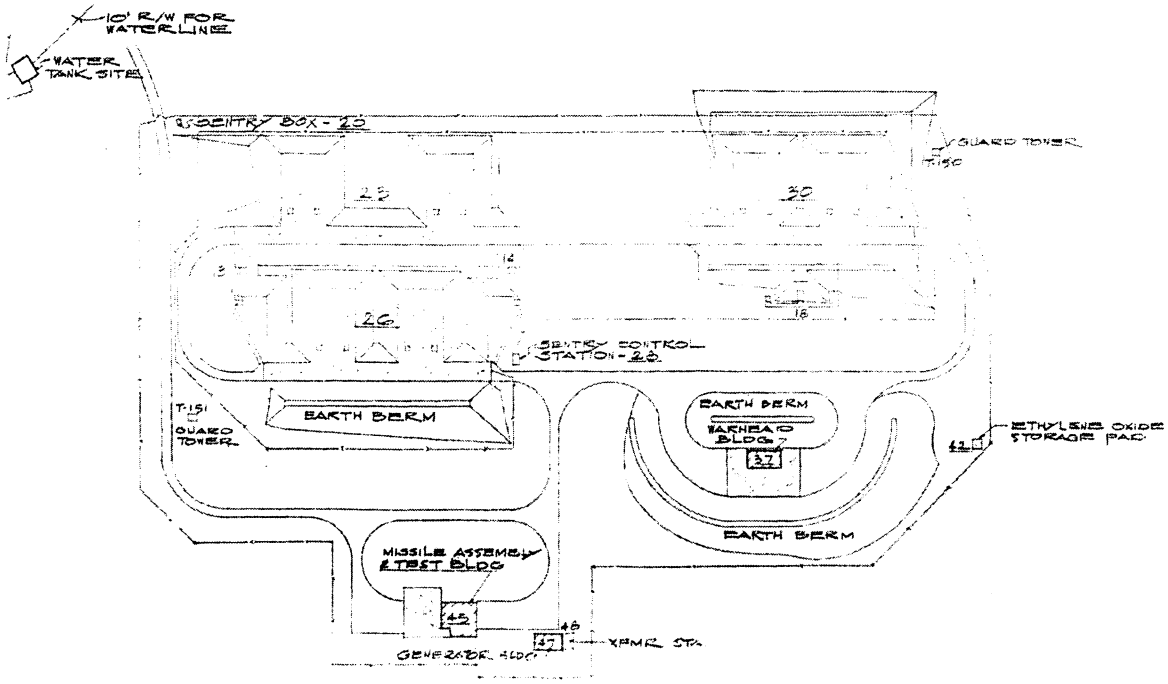
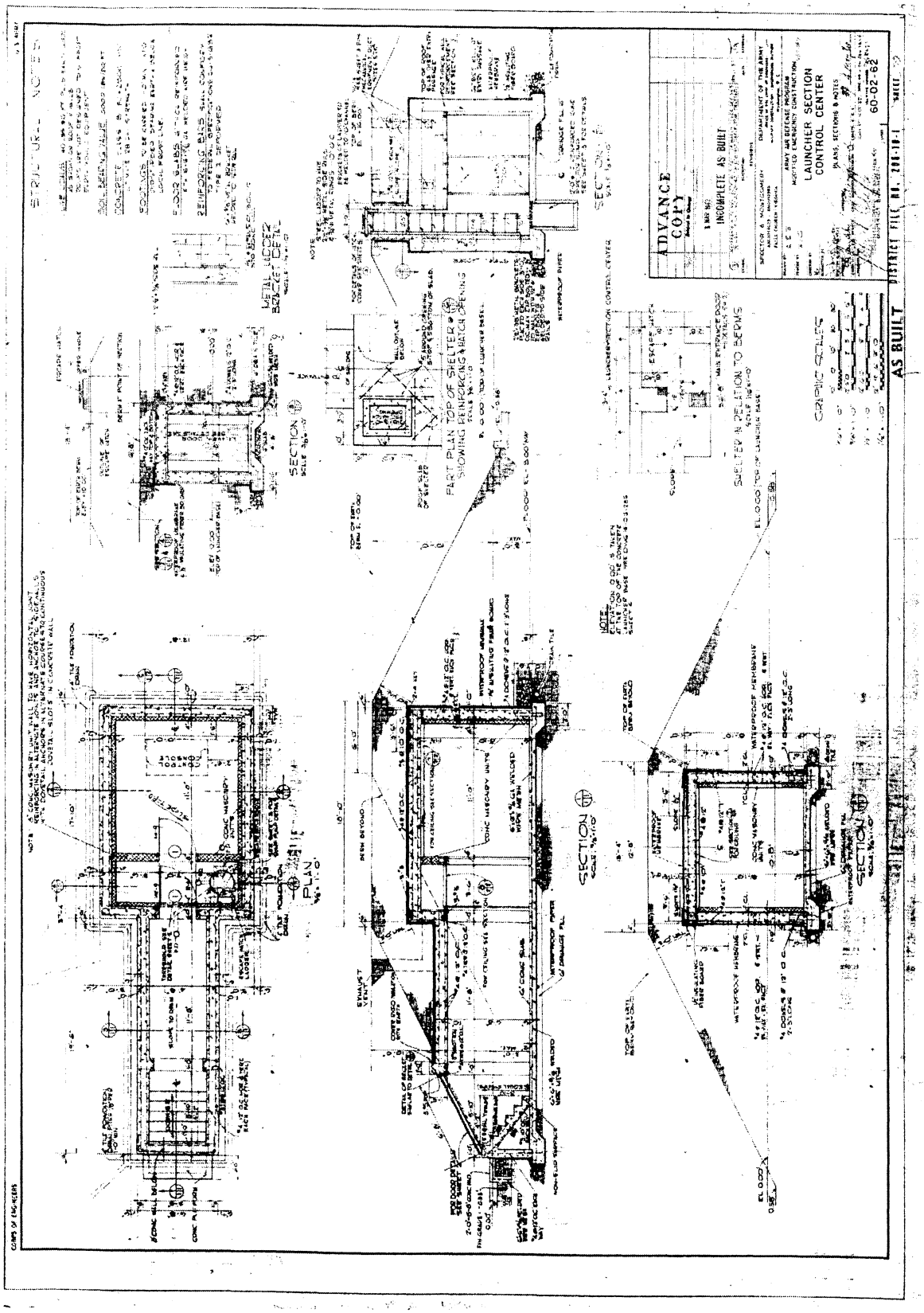
Bellows Field Nike
Missile Site
BARBERS PT
MAKAPUU PT
DIAMOND HEAD



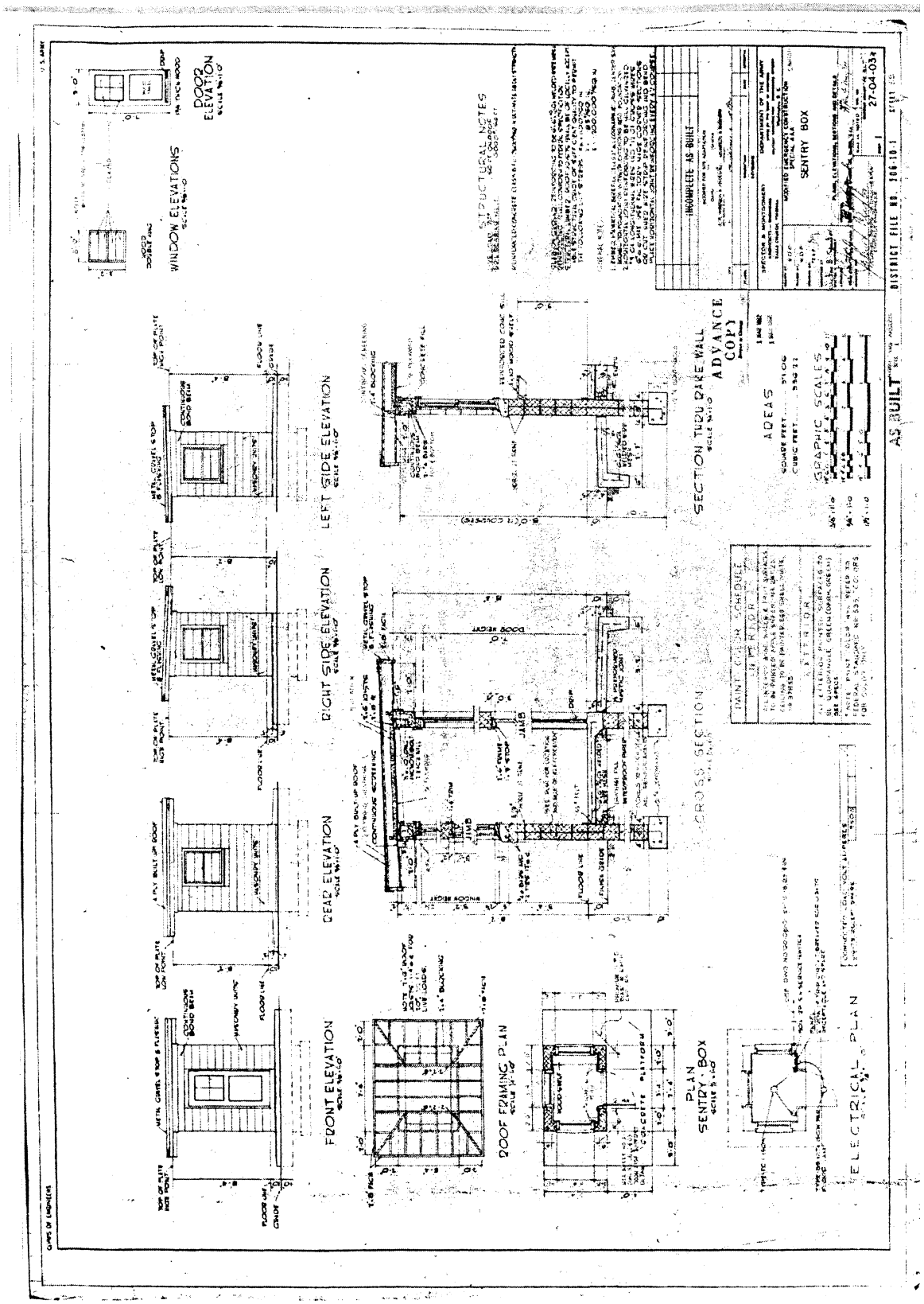
Former Kahuku Nike Missile Site



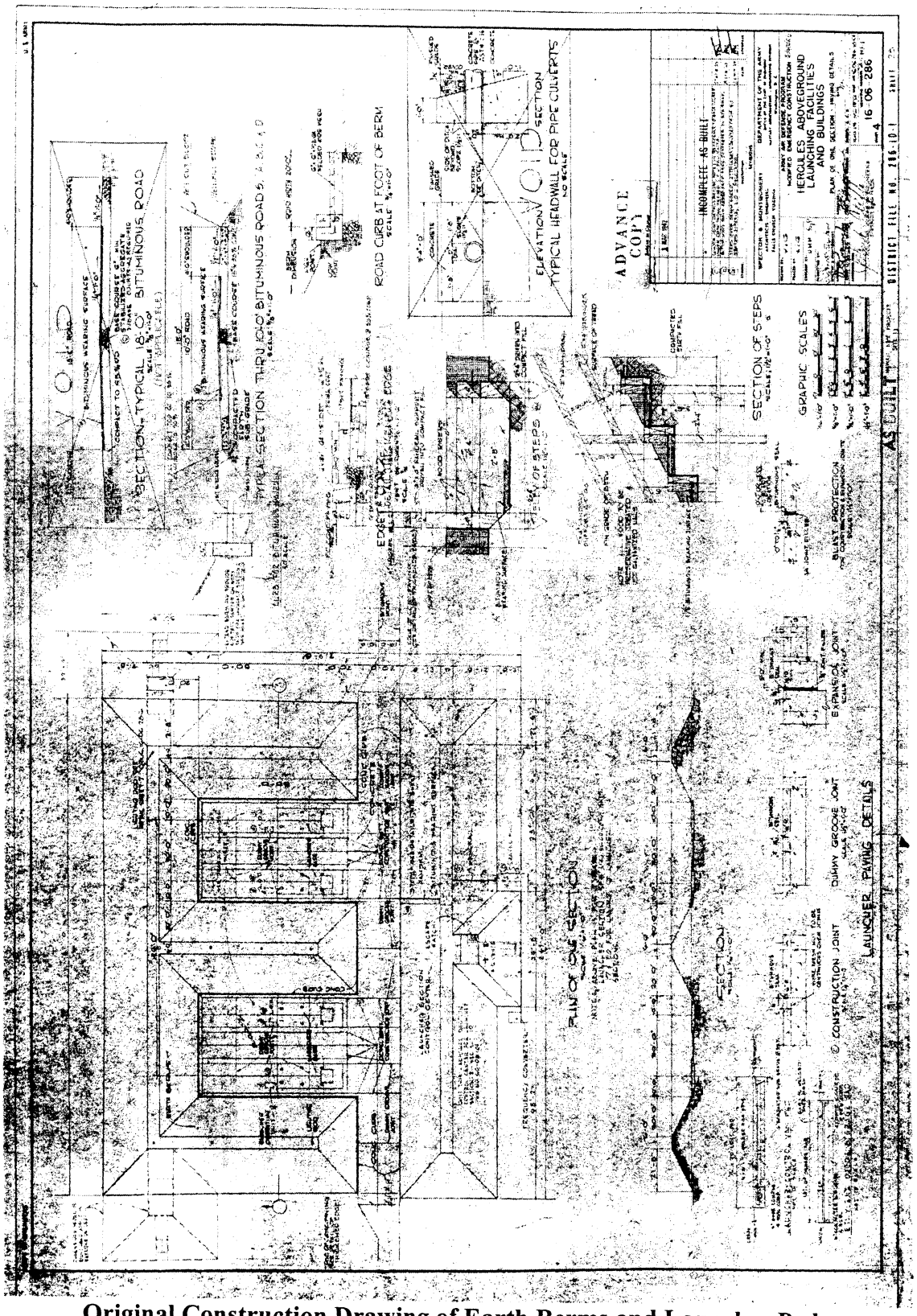
Launcher Area Site Plan



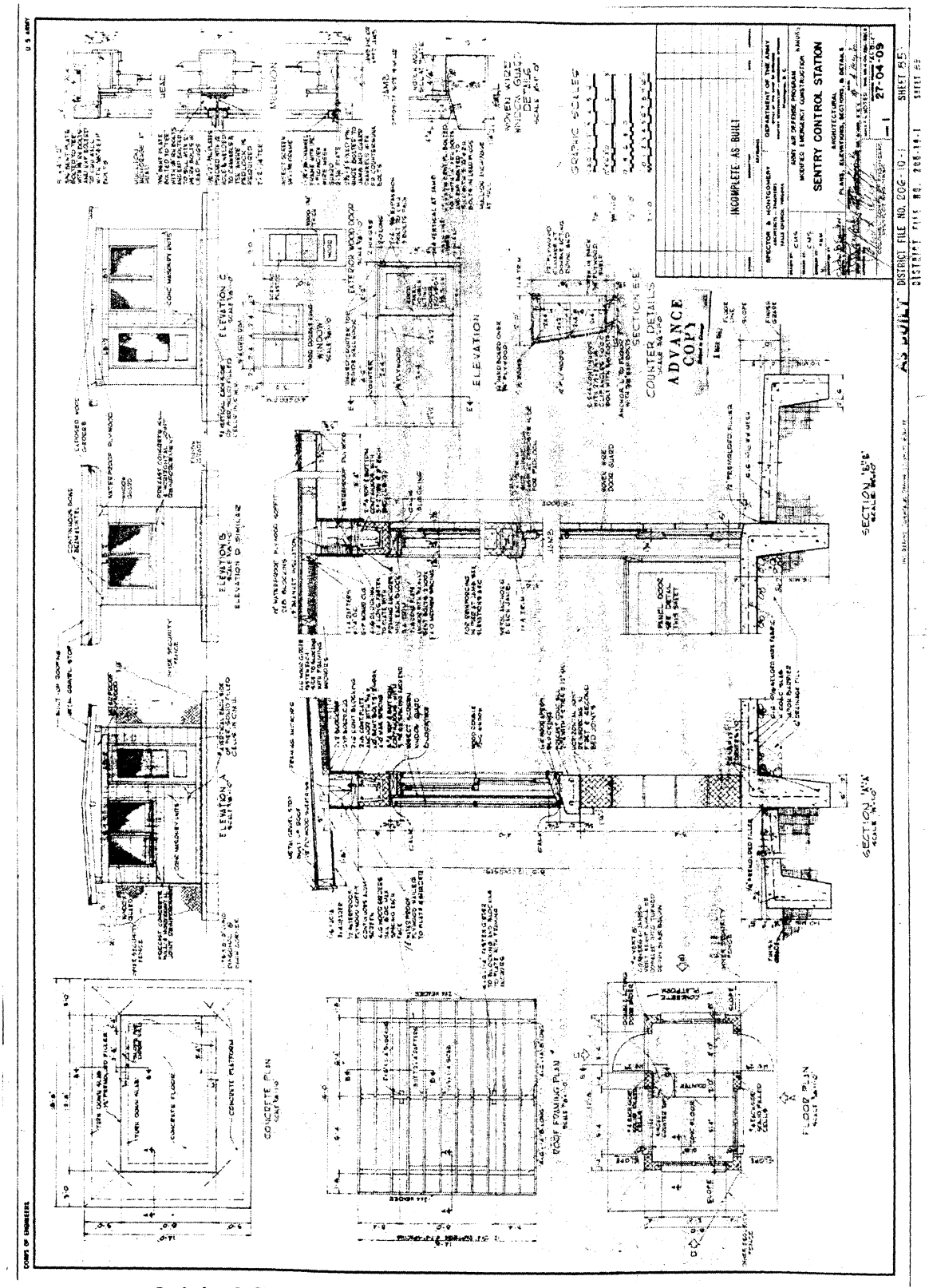
Original Construction Drawing of Underground Control Centers



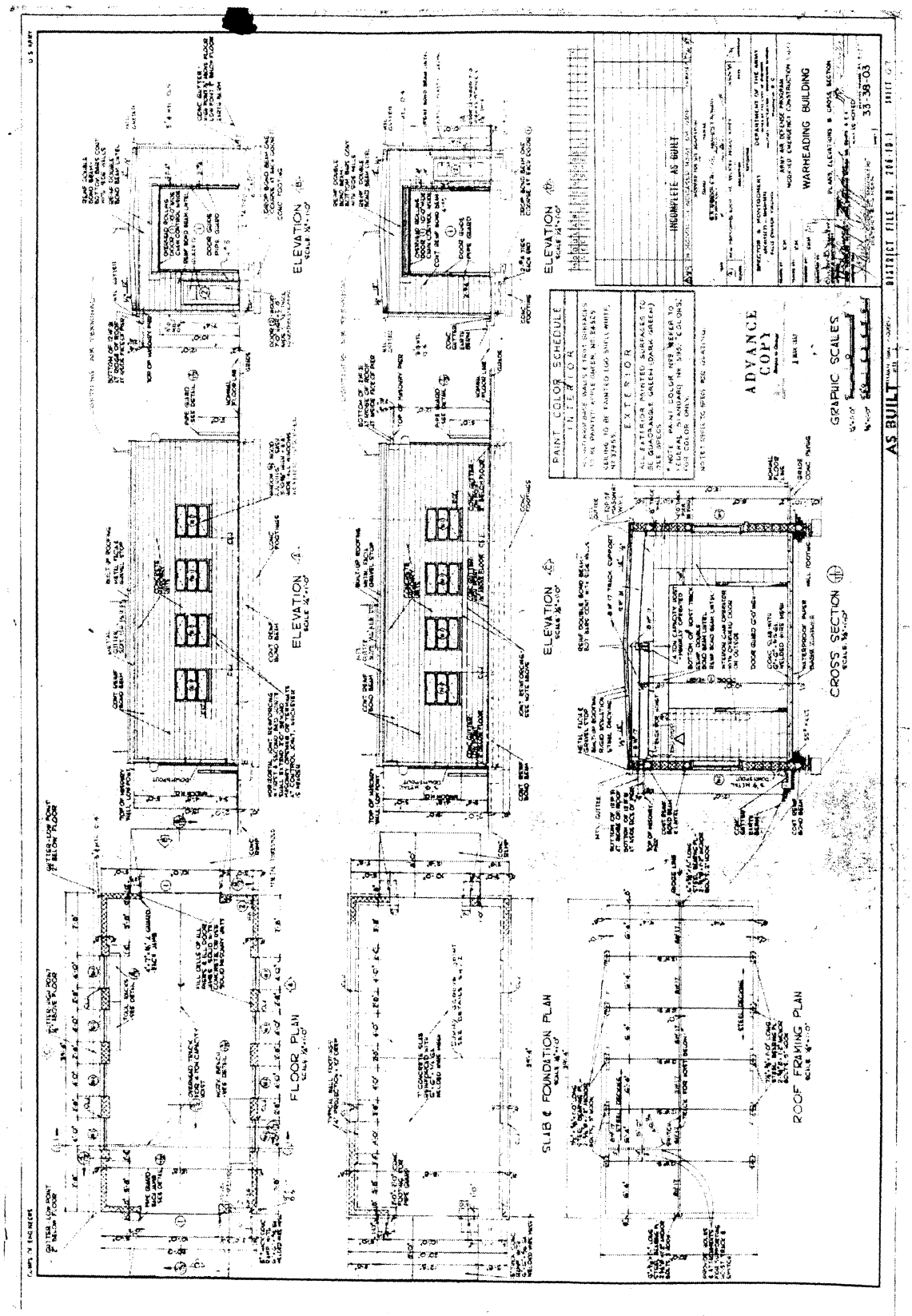
Original Construction Drawing of Sentry Box



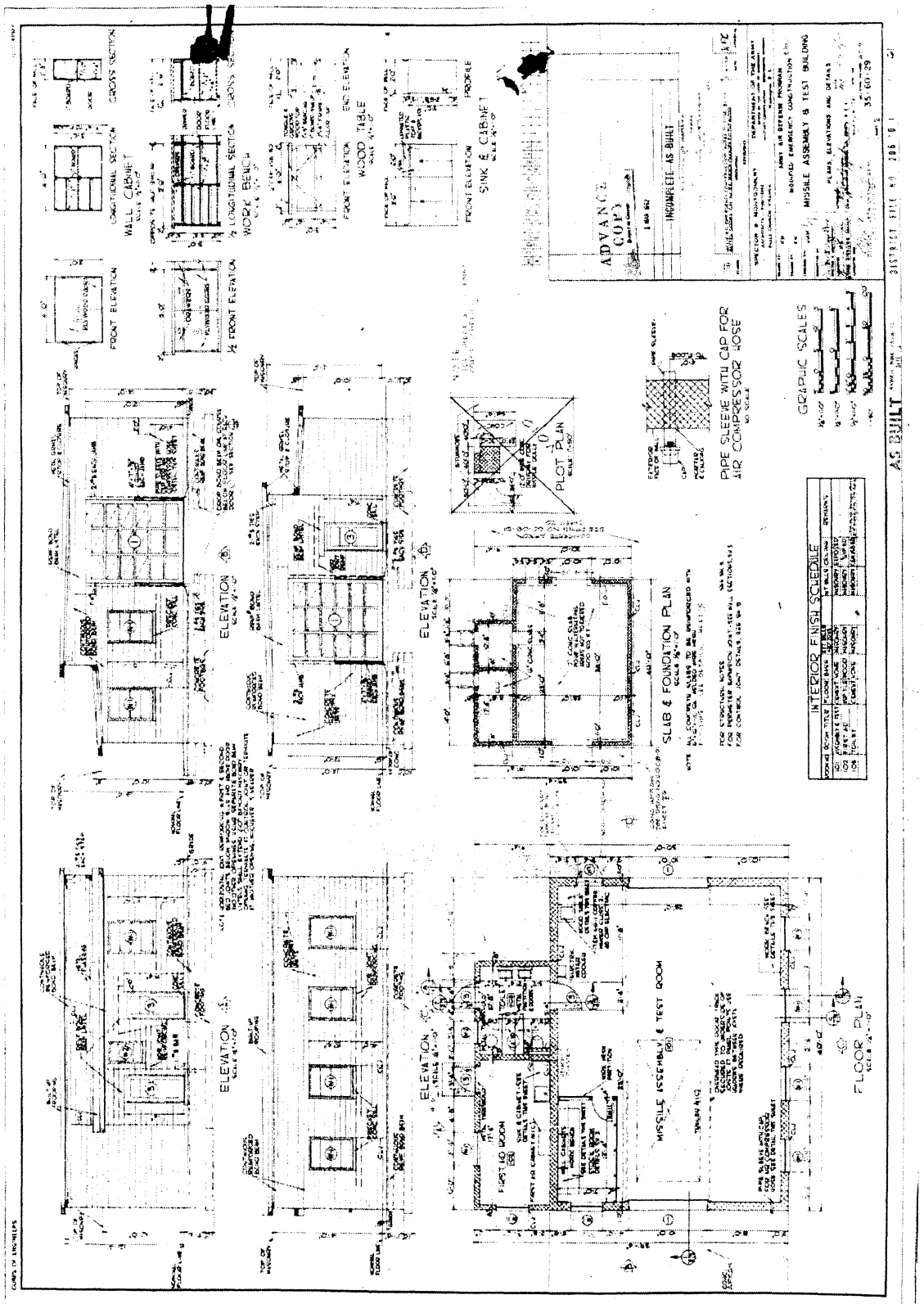
Original Construction Drawing of Earth Berms and Launcher Pads



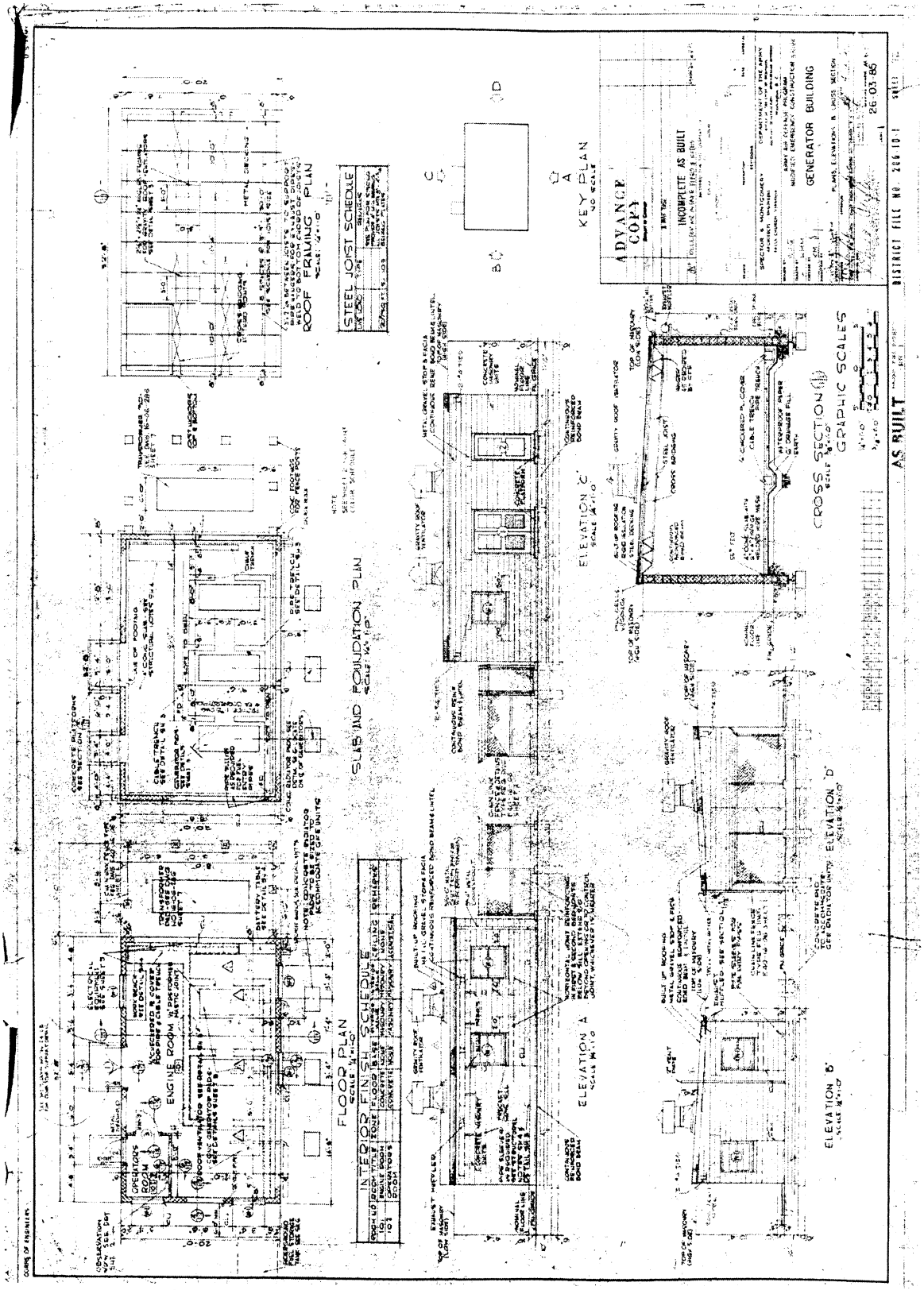
Original Construction Drawing of Sentry Control Station



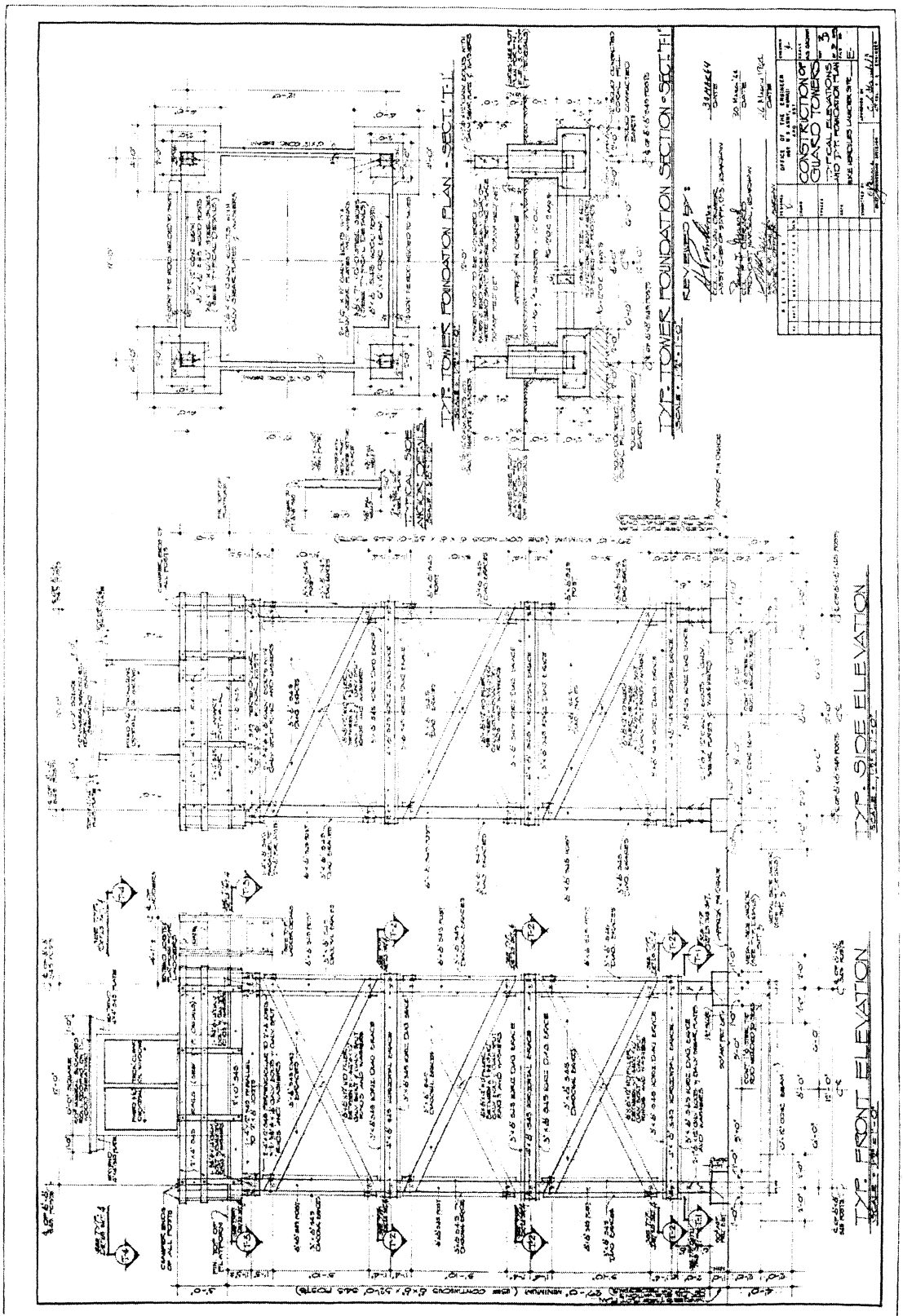
Original Construction Drawing of Warheading Building



Original Construction Drawing of Missile Assembly & Test Building



Original Construction Drawing of Generator Building



Original Construction Drawing of Guard Towers