

ELLSWORTH AIR FORCE BASE,
MESS AND ADMINISTRATION BUILDING
(Building No. 1107)
1561 Ellsworth Street
Black Hawk Vicinity
Meade County
South Dakota

HABS No. SD-21-T

HABS
SD-21-T

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN BUILDINGS SURVEY

National Park Service
Midwest Region
1709 Jackson Street
Omaha, Nebraska 68102-2571

HISTORIC AMERICAN BUILDING SURVEY

ELLSWORTH AIR FORCE BASE MESS AND ADMINISTRATION BUILDING (Building No. 1107)

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I. INTRODUCTION

Location: Ellsworth Air Force Base, 1561 Ellsworth Street, Black Hawk
Vicinity, Meade County, South Dakota.

Quad: Bend, SD

UTM: Zone 13

Date of Construction: 1952

Architect: U.S. Army Corps of Engineers, Omaha, Nebraska

Present Owner: United States Air Force

Present Occupant: Family Support Center

Present Use: Family Support Services

Significance: The Mess and Administration Building (Building No. 1107) is one of at least four enlisted men's mess halls constructed at the base during the early 1950s; all are of a similar configuration, and are probably of standard Strategic Air Command design. The buildings were constructed simultaneously with -- and adjacent to -- groups of SAC-type airmen dormitories. All were remodeled for new functions as central replacement dining facilities were constructed. This is one of two such buildings constructed in 1951-52 by the H&B Construction Company, a joint venture of two Rapid City construction firms. The mess halls were built next to a block of seventeen dormitory style airmen's barracks (1951), together providing the base with modern housing to supplement its World War II-era barracks. It represents Ellsworth's significant growth in both size and function during the Cold War era. Ellsworth, one of the Air Force's major bomber bases at that time, served as a repository of a larger portion of the nation's nuclear weapons arsenal, and became home to a nuclear missile wing.¹

Historian: Wayne Rosby and Lee Geiger
Rapid City, South Dakota
August, 1998

II. HISTORY

A. ELLSWORTH AIR FORCE BASE, 1942 - 1959

Ellsworth Air Force Base's history begins in 1941 when the Rapid City area was considered for an air base by the United States Army Air Corps. South Dakota's congressional delegation actively "boosted" South Dakota as a location for a military base. Congressman Francis Case promoted Rapid City as the best location. Reports suggest that Rapid City was selected as an air base site by General Henry H. Arnold, the commander of the Army Air Corps (AAC) because of the AAC's need for a gunnery range facility -- a large tract of undeveloped public land which could be used for bombing and target practice. General Arnold saw western South Dakota as an ideal site for such a facility. Rapid City was informed on December 10, 1941 that it had been chosen as the site for the new Rapid City Army Air Base (RCAAB).²

The project was assigned to the U.S. Army Corps of Engineers' Fort Peck (Montana) District.³ The base was to be built on land originally leased, but later purchased for \$52,000 for 1,898 acres of land, at the site of the Rapid City Municipal Airport.⁴ The base would have three runways and over 250 buildings, built to house some 5,000 men and to be used for the training of military bomber pilots and bombardiers for World War II.⁵

The general layout of the base, as well as the design of the airfield and runways, was designed by the Fort Peck office. The Corps' Kansas City office planned the base's street and road network. The designing of the water, sewer, and electrical systems for the base was contracted to a private engineering firm, A.E. Ellerbe & Company of St. Paul, Minnesota.⁶ A proposed site plan for the base was completed on January 1, 1942. The first building, the base's "detention barracks" but intended first as interim office space for the Army's planning and construction staff, was constructed between January 27 and March 1, 1942. This was the only building built by the Army. The rest of the construction was done by private contractors.⁷

The construction of RCAAB took place from April to September 30, 1942, when it was officially considered to be complete. There were two main private construction firms who were

contracted to do the construction. The base runway and utility systems were done by Northwestern Engineering Company of Rapid City, who subcontracted work to three other firms -- Bismarck Construction Company, Bismarck, North Dakota; Bonesteel & Hyde, Watertown, South Dakota; and McCree Company, St. Paul, Minnesota.⁸ The building construction was done by United Construction Company, an ad hoc consortium formed by smaller Rapid City contractors specifically to bid on the air base contract. Among the builders involved in the alliance were the Henry Carlson Company, Henry H. Hackett, S.W. Jonason, and R.A. Mark.⁹

The Army Corps of Engineers transferred the first group of completed buildings at RCAAB to the Second Air Force on July 31, 1942, and the base was officially activated on that date. The Army Air Force (AAF) received operational control of the entire facility on October 1, 1942. At the time of the transfer, the total cost of the new air base was listed at \$8,725,967.00.¹⁰

The mission of the RCAAB from the time of activation in 1942 until 1945 during World War II was to train crews in the operation of B-17 bomber aircraft for the Army Air Force's Second Air Force. The base's first commander was Colonel Charles B. Oldfield.¹¹ The training mission at RCAAB began as soon as the base's new runways were able to handle military takeoffs and landings. The AAF's 96th Bombardment Group stationed at Walla Walla, Washington was the first to train at RCAAB. The first of the group's seven B-17 "Flying Fortress" bombers touched down on September 29, 1942, marking the first official aircraft landing at RCAAB.¹²

During the nine months between September 1942 and June 1943, nine heavy bombardment groups and ten provisional groups completed B-17 training at RCAAB. This activity kept the base busy and at capacity. A head count at the end of 1942 showed 4,912 enlisted men and 620 officers stationed at RCAAB. The last bombardment group training at the base was completed during June 1943.¹³

In July 1943, RCAAB became a Combat Crew Training School (CCTS). RCAAB served as a CCTS continuously from July 1943 through July 1945. A head count in October 1944, for example, showed 4,278 Army personnel stationed at the base. They were supported by an on-base civilian workforce which numbered as high as 1,000.¹⁴

Germany's surrender in World War II on May 7, 1945 effectively sealed the fate of the B-17 training program at Rapid City. Personnel and equipment were reassigned elsewhere and the Second Air Force formally deactivated RCAAB on July 15, 1945; only 50 military personnel and 150 civilian workers remained at the base.¹⁵

Since the base's permanent closure would have dealt Rapid City a tremendous economic blow, local civic leaders joined with South Dakota's United States Senators (Francis Case and Karl Mundt) to lobby the War Department for Rapid City Air Base's retention. Army Air Force leaders soon informed Case and Mundt that the base would quickly be reactivated and given a different mission. The base was formally reactivated on July 21, 1945.¹⁶

The revived RCAAB was transferred to the Army Air Force's Third Air Force, a command then primarily engaged in training flight crews for short-range and tactical aircraft. The base's new mission was to become a training facility for weather reconnaissance flights, with crews using the P-61 "Black Widow" aircraft. The new mission saw portions of the base brought back to use, but staffing and operations levels were far less than during the busy war years; an August 1945 census counted only 1,651 military personnel assigned to RCAAB.¹⁷

In May 1946, the reconnaissance unit stationed at RCAAB was deactivated. Although the base itself was not closed, the departure of the AAF's reconnaissance aircraft left the facility without an active flying contingent. During the remainder of 1946, the RCAAB airfield saw only Army Reserve pilot training, and the rest of the facility was used only for military recruitment. The base's troop strength declined to approximately 450.¹⁸

In 1946 the Army Air Force reorganized into three air commands, with direct responsibilities for combat aircraft and their missions. The new Strategic Air Command (SAC) was devoted to strategic, long-range air combat; the Air Defense Command became responsible for domestic defense; and the Tactical Air Command was intended to support ground and naval troops in their wartime mission. These commands were activated in March 1946.¹⁹

On March 23, 1947, the AAF activated the 28th Bombardment Group and on May 3rd was formally assigned to RCAAB. On its reactivation, the Group began flying the B-29 “Superfortress”, the newest and largest of the World War II heavy bombers. Three squadrons of B-29s were stationed at Rapid City that summer. The 28th Group became a unit of the newly formed 28th Bombardment Wing, also a component of the Fifteenth Air Force and SAC. The 28th Bomb Wing was assigned to RCAAB on August 15, 1947.²⁰

As a result of the planning for AAF’s postwar airbase network, a complete examination of the branch’s organizational structure was undertaken. With tremendous growth of the AAF during the war years; its size and importance relative to the rest of the Army increased dramatically. It became evident that the two-part division (encompassing land and sea operations) military hierarchy needed to be reconfigured into a three-part structure (encompassing coequal land, sea, and air divisions) all coordinated by a central Department of Defense. General George C. Marshall and Dwight Eisenhower supported this idea, adding to the strong support by President Truman eventually resulting in its implementation. The National Security Act of 1947 finally saw the creation of a unified Department of Defense, as well as the formation of an independent United States Air Force. The USAF formally came into being on September 18, 1947.²¹

During this period of time, the United States saw its former allies in World War II become unfriendly, resulting in the onset of the “Cold War”. This Cold War period saw the American military forced to maintain an active defense and readiness posture in the event the Cold War would turn into a real war. This set the stage for RCAAB and the 28th Bomb Wing to emerge as major components of America’s Cold War defense network.²²

The arrival of the United States Air Force also mandated a name change for RCAAB. The base briefly became known simply as “Rapid City Air Field”, but on January 1, 1948 the Air Force formally changed the facility’s name to Weaver Air Force Base. The new name honored the late Major General Walter R. Weaver, a pioneering leader of the old Army Air Corps. The name change was not warmly welcomed in Rapid City. South Dakota government officials began an angry lobbying campaign to return Rapid City’s name to the base. The Weaver name was discarded in July 1948 and replaced with the designation Rapid City Air Force Base (RCAFB).²³

In May 1949, the base's fleet of B-29 aircraft was replaced by new B-36 "Peacemaker" bombers. At the time, the B-36 aircraft was the largest and most significant strategic component of the SAC Cold War arsenal. The B-36 was the first aircraft created specifically to carry nuclear bombs to Soviet and other overseas targets.²⁴

The RCAF B-36 program was assigned RB-36 craft in 1950, temporarily shifting the base's primary mission from one of combat to one of reconnaissance. As a result, the 28th Wing was transferred from the Fifteenth to the Eighth Air Force. The Eighth Air Force was also part of SAC. The RB-36 aircraft operated at RCAF B from 1950 to 1955, completing a number of aerial photography and reconnaissance projects throughout the world.²⁵

On March 18, 1953, an RB-36 returning to RCAF B crashed in Newfoundland, killing all aboard. Among the plane's passengers was General Richard E. Ellsworth, the commander of the 28th Wing. That June, in ceremonies presided over by Dwight D. Eisenhower, Rapid City Air Force Base was renamed Ellsworth Air Force Base (EAFB), in the General's memory.²⁶

A new generation of heavy bombardment aircraft, the B-52, began to arrive in quantity in 1955, and were first stationed at Ellsworth in 1957. During that time, continued flight training and a massive program of infrastructure improvements at Ellsworth worked to ensure that the base would remain a state-of-the-art bombardment facility. Construction at the base included runway improvements and additional hangars. A new control tower and other operational buildings were also constructed during the early 1950s, resulting in a new flight line for the base. The total number of military and civilian personnel working at the base grew from 3,283 in 1949 to a high of 7,139 in 1954.²⁷

One of the early 1950s construction projects at Ellsworth included a new, highly-secret, military installation located just to the north of the airbase. Completed in 1952, Rushmore Air Force Station (RAFS), was designed and constructed exclusively to store and maintain nuclear bombs and other weaponry for possible use by the heavy bombers stationed at Ellsworth.

Because of the extremely sensitive nature of the RAFS mission, its administration and operation was largely independent from that at Ellsworth. The station maintained its own housing, warehouse, and shop facilities. This arrangement continued until 1962, when RAFS was formally merged with Ellsworth.²⁸

In April 1955, the 28th Wing returned to the Fifteenth Air Force and the base's reconnaissance mission formally ended in October. Ellsworth resumed hosting B-36 aircraft intended for use in strategic long-range bombardment roles. Formal announcement of a B-52 assignment for the base came in early 1956. With this announcement, the base's role as an integral component of SAC, and as a key element in America's Cold War defense strategy, remained readily apparent and secure.²⁹

In the Spring of 1957, Ellsworth's fleet of B-36 bombers was retired when it became the official home of a fleet of new B-52 "Stratofortress" aircraft. The B-52, a versatile and reliable machine, formed the backbone of America's strategic bomber defense for the next three decades. Because of the heightened Cold War threat, there was concern of enemy attack, so that same year saw the arrival of a new air defense component at Ellsworth, with a series of four "Nike" missile facilities located to the north, south, east, and west of the base. These missiles were a replacement for anti-aircraft batteries, manned by Army troops. Fighter aircraft were also maintained at the base on a constant alert status.³⁰

Ellsworth's Nike sites were deactivated in 1959 when the perceived threat of Soviet aircraft traveling to South Dakota had lessened.³¹

B. ELLSWORTH AIR FORCE BASE, 1962 - 1994

In the early 1960s, the Air Force introduced a massive program to construct and deploy offensive long range nuclear missiles, and Ellsworth was assigned a major role in this effort. At Ellsworth, the program started with the construction of three Titan I missile complexes, each

facility housing three intercontinental nuclear missiles, stored in underground steel and concrete silos. The Titans assigned to Ellsworth were completed and made operational in 1962 -- the first of many ICBMs to be placed in South Dakota. ³²

The Titans were replaced after only a short period by the Minuteman I missile system, a more advanced missile technology, offering greater range and flexibility, as well as more efficient operations. During the cold War buildup of the early 1960s, hundreds of these Minuteman I missiles were placed in individual sites scattered across the American Midwest, making the Minuteman the standard Air Force ICBM. Ellsworth became the second Air Force Base designated to host a Minuteman Program in December 1960. The 44th Strategic Missile Wing (44SMW) was activated in 1962, to operate the missiles and was fully operational by October 1963, controlling 150 Minuteman silos in three widely scattered groups located north and east of the Base. The Titans were deactivated in 1965.³³

Throughout the 1960s and 1970s, Ellsworth's combination of heavy bombardment and missile operations made the base one of the premier installations of the Strategic Air Command, earning the appellation, "The Showplace of SAC". Staffing at the base consistently exceeded 6,000 throughout the period, and numerous physical improvements took place. By the mid-1980s, the Base had lost nearly all of its original World War II buildings.³⁴

In 1986, the last of these generations of B-52 bombers were retired. A new generation of heavy bombardment aircraft, the B-1B "Lancer" bomber, was Ellsworth's new assignment. They began arriving in January of 1987. The B-1Bs are proving themselves to be an effective and reliable component of the USAF's bomber fleet.³⁵

As international Cold War tensions began to dissolve, Ellsworth's nuclear ordnance was removed in 1991. Also in that year a decision was made to deactivate all of Ellsworth's 150 Minuteman missiles. The work of dismantling Ellsworth's missile program began immediately and was essentially complete by 1994, when the 44SMW was deactivated. A further change, highly symbolic of the end of the Cold War, was the deactivation of SAC itself in 1992; Ellsworth was then assigned to the newly-formed Air Combat Command (ACC).³⁶

C. MESS AND ADMINISTRATION BUILDING

With the functional and strategic changes brought about by the Cold War era and in response to the Korean War, came change in the staffing needs and improved facilities of the base. New housing and mess facilities for the unmarried men were among those additions.

Unlike the open barracks of previous housing, the new facilities took on a dormitory style. The style was a result of the Air Force's changing perceptions that military men needed some privacy as well as a relatively quiet environment, where they could get adequate sleep and concentrate on their studies. Eleven barracks for airmen were accompanied by two combination mess halls/administration buildings (Building No. 1107 and 1112). The two mess halls were wood-frame one story-buildings with a flat roof and asbestos-shingle wall cladding. Each building held a large mess hall, kitchen and several small offices.³⁷

Because of the "emergency" situation stimulated by the Korean War, some buildings were hurriedly constructed in 1951-52 using wood or steel frames and "10-year" asbestos-shingle wall finishes. This was in contrast to typical construction in the 1950s, which used more permanent brick masonry, concrete, or structural steel.³⁸

The Mess and Administration Building (Building No. 1107) located at 1561 Ellsworth Street, was completed on May 22, 1952. This was one of at least four enlisted men's mess halls constructed at the base during the early 1950s. Construction work was contracted to H&B Construction Company, a joint venture of two Rapid City construction firms. The construction cost was \$312,018.83.³⁹

III. ARCHITECTURAL DESCRIPTION

The plan form is a 93' x 148'-6" rectangle. The foundation is concrete. The floor is a reinforced structural concrete slab supported by structural concrete beams and columns. The roof structure is a wood post and beam system supporting wood joists, a wood roof deck and built-up asphalt roofing. The roof overhangs on all sides of the original building and terminates with a wood fascia approximately 12" wide. The siding was originally asbestos shingle, replaced by horizontal beveled boards.⁴⁰

The south wall has a variety of appurtenances. East to west, they include a low roofed canopy over a single door entrance with a concrete stoop, a lower roof enclosure over the stairway to the basement and a low roof canopy over a double door entrance and concrete stoop. There is one double hung window on the west end of this elevation, two double hung windows in the enclosed stairway to the basement and a group of four double hung windows located at the east end this elevation. The enclosures are additions to the original building.⁴¹

The east wall is largely comprised of five groups of four double hung windows.⁴²

The north wall has a group of four double hung windows at the east end. A low roofed shelter for the north entrance is open to the east and enclosed on the north and west. Directly west from this enclosed entrance is a lower roof enclosure over another stairway to the basement; it has three short double hung windows. Directly above this enclosed stairway are five double hung windows. Three more double hung windows continue to the west, then a single door entrance under a low roof that mirrors the double door entrance on the south elevation. This entrance roof is supported at the building wall and exterior corner posts. A concrete stoop rises from grade to floor level. Four more double hung windows follow west from this secondary entrance, then a fully enclosed concrete block addition with a single door and wood ramp to grade separates the last two double hung windows near the west end of this north elevation.⁴³

The west elevation has two concrete service docks. Located near the center of each of these docks is a single passage exit door. Both docks have simple pipe guardrails and steps leading to grade. This elevation has 15 double hung windows which begin on the north end of the elevation. The first is separated from the second and third by a door and then three groups of four double hung windows extend southward.⁴⁴

On the main floor level, the south and north western 45' of the building is storage with a classroom in the middle. The south western corner was originally kitchen dry storage and coolers and original quarry tile floor and ceramic tile wainscot remain through the majority of this space. The remodeled classroom which originally housed the main portion of the large kitchen is now

covered with carpeted floor, gypsum walls and ceilings. The northwestern corner has been converted into a waiting area with newer materials as well. A couple of the original dry storage spaces north of this waiting room still remain. The Relocation and Transition Service areas as well as an open plan office area occupy approximately the middle third of the plan form which used to be the main dining hall. Newer materials have again been used in the remodeling of these spaces. The eastern 19' of the building houses remodeled administrative offices and public toilets. This area is separated from the rest of the building by a 18' wide main entrance corridor/waiting area with stair enclosure on the south end and a shorter entrance/vestibule and stair enclosure on the north end. These entrance spaces are divided by an enclosed storage room and office.⁴⁵

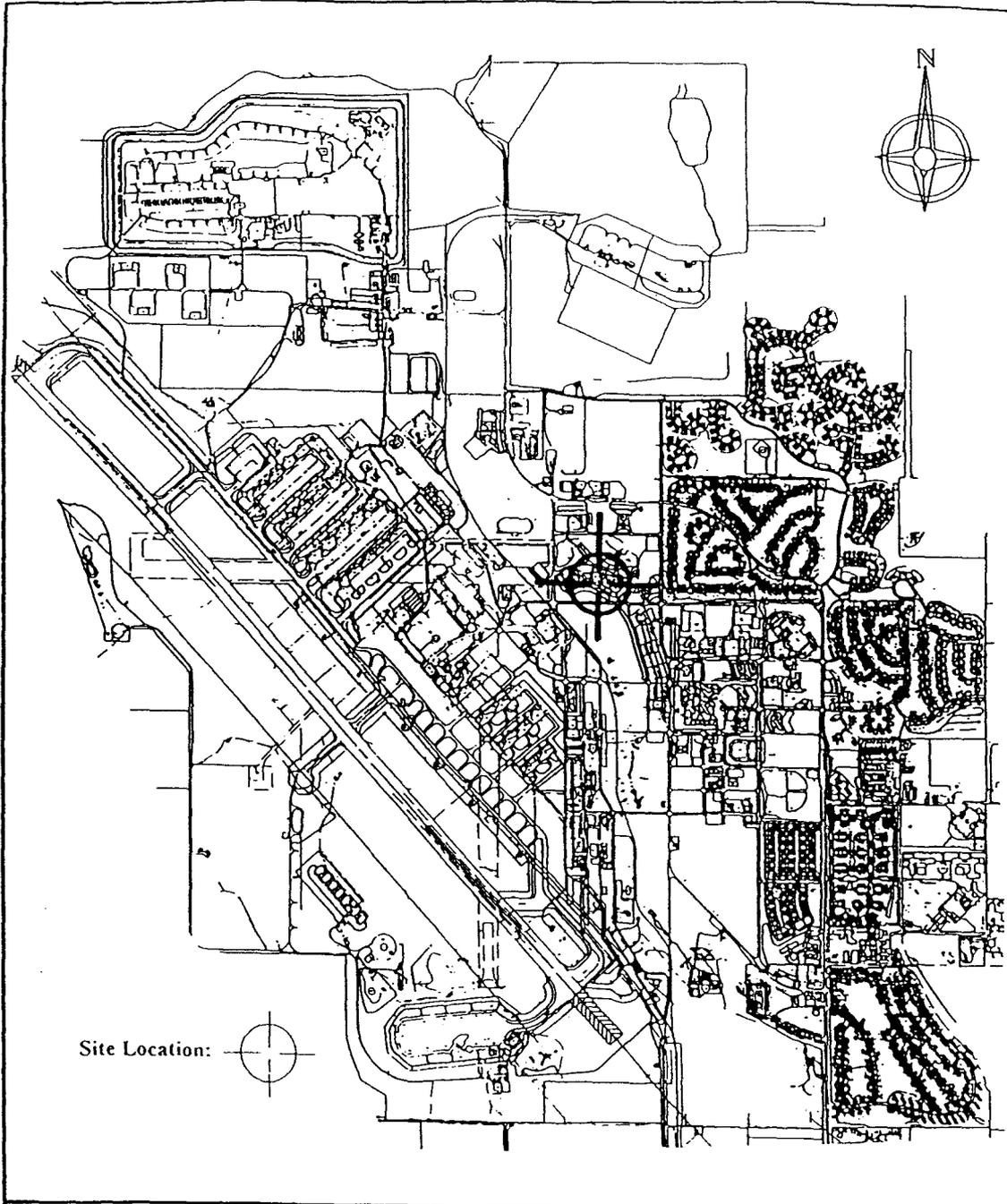
The basement plan is a 93' x 80' space partitioned into many rooms and is directly below the eastern end of the building. The boiler/mechanical room, 35' x 72', sits on the south west corner of the basement and exposes the building's concrete exterior walls on the south and newer partitions to the north. A 53' x 50' area comprised of remodeled and enclosed offices, storage and classroom make up the north west portion of the basement. Food storage, 30' x 18', occupies the south east corner of the basement and a large remodeled classroom, 36' x 18', occupies the north east corner.⁴⁶

NOTES

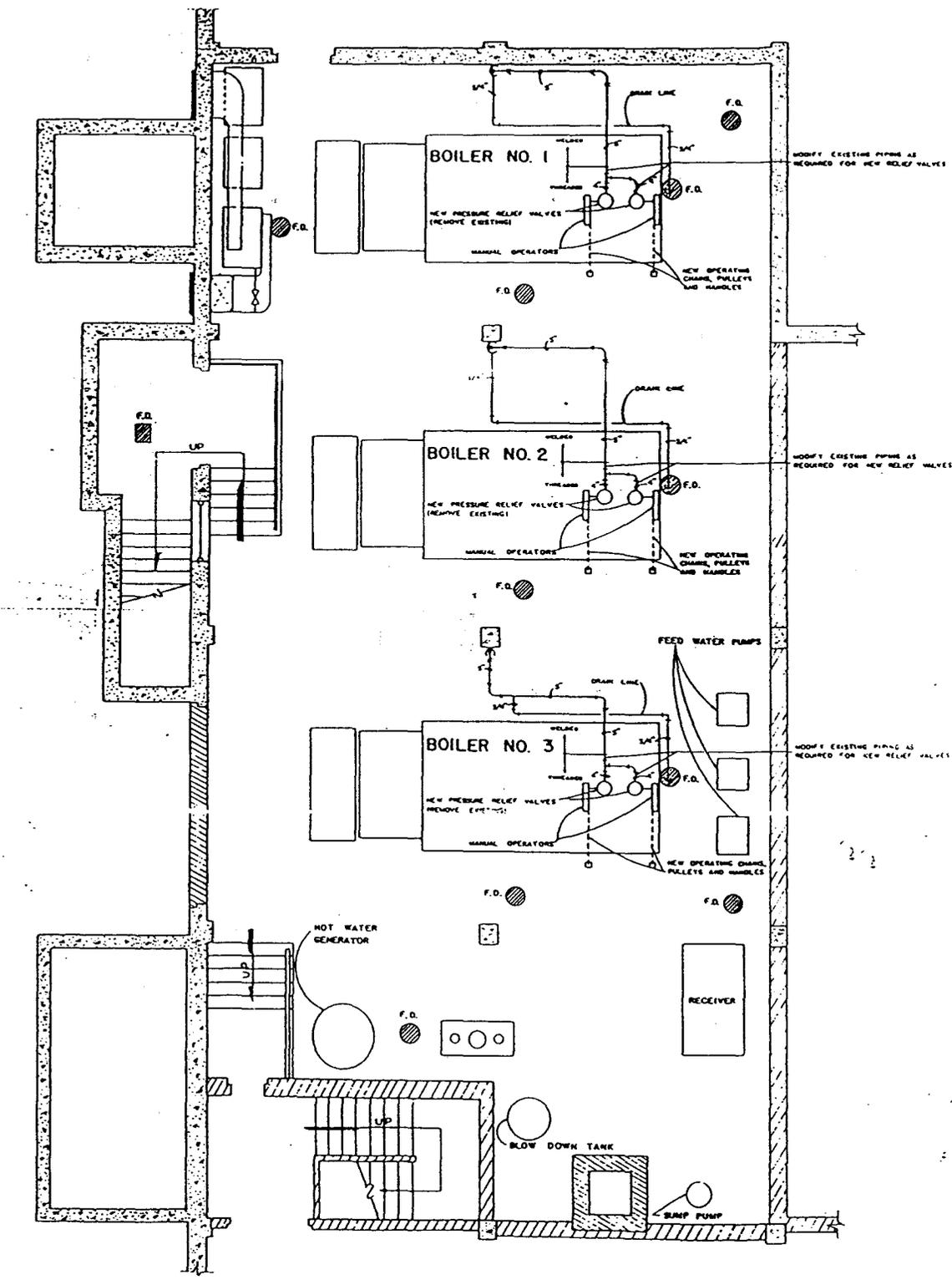
- 1 Hufstetler, Mark, "Ellsworth AFB History Sites Inventory", July, 1994.
- 2 Hufstetler, Mark, and McCormick, Mary, et al., draft, "Ellsworth Air Force Base, South Dakota, Statement of Historic Contexts", Renewable Technologies Inc., Butte, Montana, November, 1995, pages 42-43.
- 3 Ibid., 45.
- 4 Ibid., 47.
- 5 Ibid., 43.
- 6 Ibid., 45.
- 7 Ibid., 46.
- 8 Ibid., 50-51.
- 9 Ibid., 53.
- 10 Ibid., 55.
- 11 Ibid., 56.
- 12 Ibid., 58.
- 13 Ibid., 59.
- 14 Ibid.
- 15 Ibid., 60.
- 16 Ibid., 76-77.
- 17 Ibid., 77.
- 18 Ibid.
- 19 Ibid., 75.
- 20 Ibid., 77.
- 21 Ibid., 74.
- 22 Ibid., 75.

- 23 Ibid., 78.
- 24 Ibid., 79.
- 25 Ibid., 80.
- 26 Ibid., 81.
- 27 Ibid., 81-82.
- 28 Ibid., 83.
- 29 Ibid., 83-84.
- 30 Ibid., 110-111.
- 31 Ibid., 111.
- 32 Ibid.
- 33 Ibid.
- 34 Ibid.
- 35 Ibid., 112
- 36 Ibid.
- 37 Ibid., 100.
- 38 Ibid., 99
- 39 Hufstetler, Mark, "Ellsworth AFB History Sites Inventory", July, 1994.
- 40 File of blueprints and construction drawings, maintained at the Ellsworth AFB Maintenance Engineering Office.
- 41 Ibid
- 42 Ibid
- 43 Ibid
- 44 Ibid
- 45 "Real Property Records-Building 1107, Ellsworth AFB, South Dakota", Manuscript Records on file at the Real Property Office, Ellsworth AFB, South Dakota; Hufstetler, Mark, "Ellsworth AFB History Sites Inventory", July, 1994; and File of blueprints and construction drawings, maintained at the Ellsworth AFB Maintenance Engineering Office
- 46 Ibid.

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ELLSWORTH AIR FORCE BASE, SOUTH DAKOTA
Site Number: MD-EL-EL-00010
Historic Name: Mess & Administration Building
USAF Facility Number: 1107
USAF Nomenclature: FAM SPT CEN



IV. BIBLIOGRAPHY

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