

ELLSWORTH AIR FORCE BASE,  
AIRMEN'S DORMITORY  
(Building No. 1115)  
1392 Ellsworth Street  
Black Hawk Vicinity  
Meade County  
South Dakota

HABS No. SD-21-J

HABS  
SD-21-J

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN BUILDINGS SURVEY

National Park Service  
Great Plains Support Office  
1709 Jackson Street  
Omaha, Nebraska 68102-2571

# HISTORIC AMERICAN BUILDING SURVEY

## ELLSWORTH AIR FORCE BASE AIRMEN'S DORMITORY (Building No. 1115)

HABS No. SD-21-J

### I. INTRODUCTION

Location: Ellsworth Air Force Base, 1392 Ellsworth Street, Black Hawk Vicinity, Meade County, South Dakota.

Quad: Bend

UTM: Zone 13

Date of Construction: 1951

Architect: Army Corps of Engineers, Omaha, Nebraska

Present Owner: United States Air Force

Present Occupant: None

Present Use: Demolished

Significance: The Airmen's Dormitory (Building No. 1115) was one of seventeen dormitories built in 1951 to house seventy-four men each. 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 large portion of the nation's nuclear weapons arsenal, and became home to a nuclear missile wing.<sup>1</sup>

Historian: Wayne Rosby and Lee Geiger  
Rapid City, South Dakota  
December, 1996

## II. HISTORY

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).<sup>2</sup>

The project was assigned to the U.S. Army Corps of Engineers' Fort Peck (Montana) District.<sup>3</sup> 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.<sup>4</sup> 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.<sup>5</sup>

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.<sup>6</sup> 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.<sup>7</sup>

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.<sup>8</sup> 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.<sup>9</sup>

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.<sup>10</sup>

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.<sup>11</sup> 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.<sup>12</sup>

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.<sup>13</sup>

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.<sup>14</sup>

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 began to be reassigned elsewhere and the Second Air Force formally inactivated RCAAB on July 15, 1945; only 50 military personnel and 150 civilian workers remained at the base.<sup>15</sup>

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.<sup>16</sup>

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.<sup>17</sup>

In May 1946, the reconnaissance unit stationed at RCAAB was inactivated. 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.<sup>18</sup>

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.<sup>18</sup>

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-29's 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.<sup>20</sup>

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.<sup>21</sup>

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.<sup>22</sup>

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).<sup>23</sup>

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.<sup>24</sup>

The RCAFB 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 RCAFB from 1950 to 1955, completing a number of aerial photography and reconnaissance projects throughout the world.<sup>25</sup>

On March 18, 1953, an RB-36 returning to RCAFB 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.<sup>26</sup>

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.<sup>27</sup>

In addition to the variety of early 1950s construction projects at Ellsworth itself, the year 1952 saw work begin on a new, highly-secret, military installation located just to the north of the airbase. This facility, designated as 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.<sup>28</sup>

In April of 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.<sup>29</sup>

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.<sup>30</sup>

With the functional and strategic changes brought about by the Cold War era, and the preparation for the Korean War, came changes in the staffing needs and facilities at the base. New housing facilities for the unmarried men were among those additions.

Unlike the open barracks of previous housing, the new facilities took on a dormitory style. This style was a result of the Air Force's changing perception that military men needed some privacy as well as a relatively quiet environment, where they could get adequate sleep and concentrate on their studies. Building 1115 (like sixteen others) at Rapid City (Ellsworth) AFB was based on a plan modified from earlier prototype plans generated by the Strategic Air Command. The modifications were a result of the need to create new housing quickly and inexpensively due to pressures of expansion during the Korean War.<sup>31</sup>

The Strategic Air Command's (SAC) original dormitory style prototype was generated under the direction of Lt. General Curtis LeMay, SAC's commanding general. The concept was in response to a fire that destroyed an all wood sixty year old open barracks at Offitt Air Force Base in the late 1940s and the new concern for the effectiveness of training and retaining enlisted personnel. SAC's original prototype was a three story structural steel building with dorm rooms, built in storage closets, study desks shared toilet facilities between each pair of dorm rooms and common lounges. The plans for Building 1115 and the others at the base were generated through the Army Corps of Engineers in Omaha, Nebraska. This was an exception to the Air Force's customary procedure of relying on the Corps of Engineers for its building plans.<sup>32</sup>

The design provided for a two story wood frame structure over a partial basement and heating pipe tunnels. The basement covered approximately 50% of the building's footprint and contained space for the building's boiler and water heating system, laundry room, toilets, janitors closet, personal and general storage, and exit stairs.

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 rather than, as most buildings constructed in the 1950s, of more permanent brick masonry, concrete, or structural steel structures.<sup>33</sup>

Airmen's Dormitory (Building No. 1115) located at 1392 Ellsworth Street, was completed on October 23, 1951. This was one of seventeen wood-framed, two-story airmen's barracks constructed on the base in late 1951. Construction work was contracted to the South West Town Construction Company of Chicago, which employed local subcontractors for portions of the work. The construction cost was \$105,245.<sup>34</sup>

### III. ARCHITECTURAL DESCRIPTION

The dormitory is rectangular in plan, 181' - 8" by 30' - 0". The seven dormitory rooms and one toilet facility at each end of the building are enclosed in a 30' - 0" x 65' - 4" space. The 32' - 0" x 16' - 0" central lounge is enclosed on each long side by a continuation of the exterior bearing wall and a corridor bearing wall. The lounge was flanked at each end by mirror images of game storage, linen storage, and exit stair towers. The stair towers and the corridor wall of the lounge created an exterior courtyard of approximately 32' x 17' which was open on one long side. North and south of the central lounge/stair towers are eight rooms approximately 16' X 13', seven of which are dormitory rooms and one is a toilet, shower, and lavatory space. The rooms were arranged equally on both sides of a double loaded corridor which ended at an exit door. The dormitory rooms appear to have been relatively Spartan

in respect to finishes and furnishings with built in closets along the corridor walls being the only amenity. The finished dormitory room was approximately 16' x 12' less the depth of the closet. The second floor was virtually identical with the exit door opening onto a fire escape.<sup>35</sup>

The basement space was constructed of a twelve course concrete block wall with two-light fixed, steel, architectural projected sash basement windows located about the perimeter. The walls were painted. The concrete floor slab was generally unfinished as was the floor framing for the level above. The boiler room ceiling had a plaster ceiling as a fire resistive separation to the lounge space above.<sup>36</sup>

The upper levels were constructed of wood frame for walls, floor, and roof. The original asbestos shingle siding was replaced with metal horizontal beveled lap siding. The soffits and fascia were also replaced with metal components. A pair of double hung windows were centered in the exterior wall of each dormitory resident room and toilet/lavatory space. The roof was flat with a short overhang.<sup>37</sup>

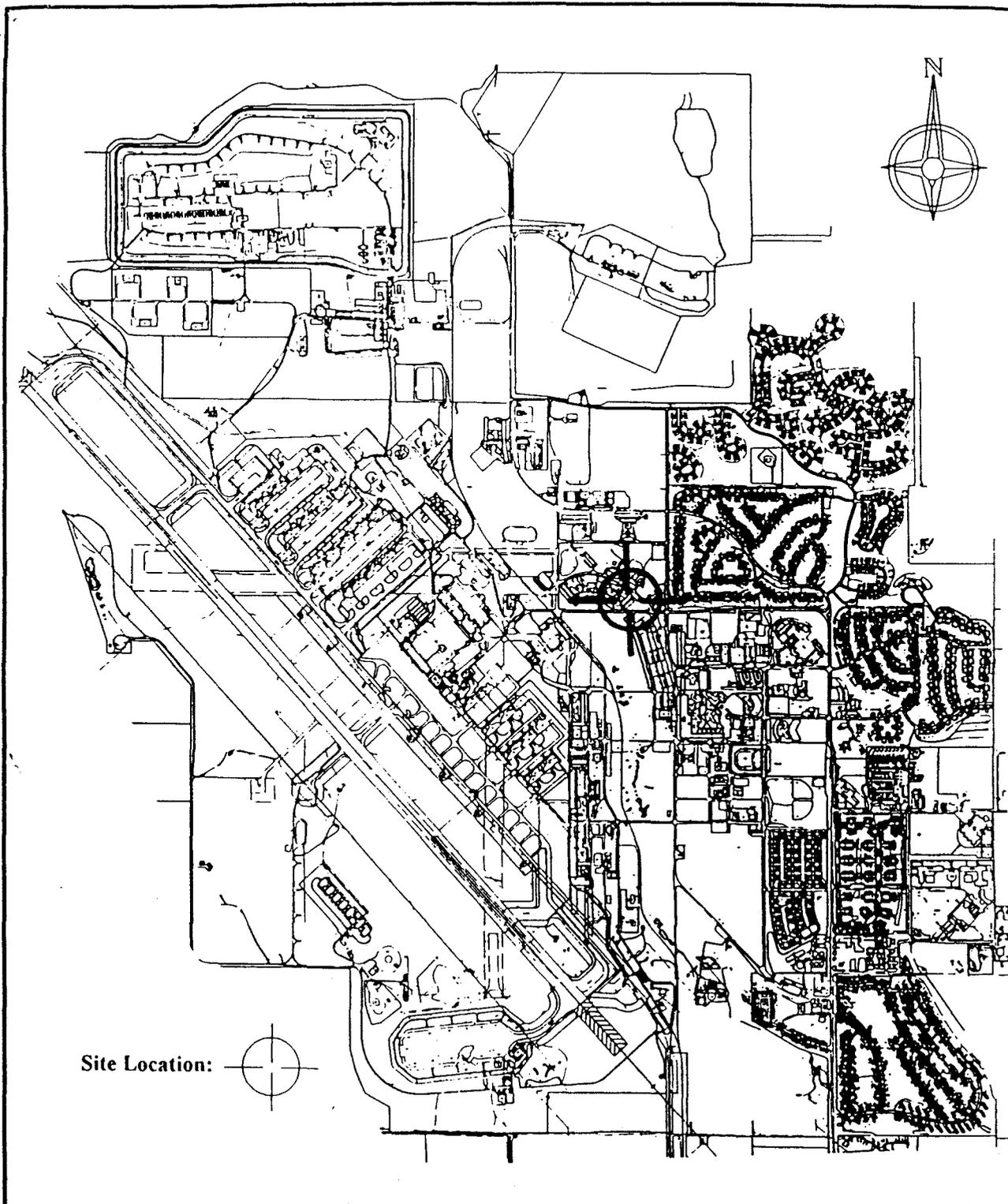
In 1975, the dormitory left wing's resident rooms and the toilet rooms were modified. The toilet room became a resident room and a single toilet, lavatory, and shower were added to all resident rooms. In the right wing, the rooms were converted to two room suites.<sup>38</sup>

At a later date the building became used as an office building, air conditioning and ductwork were introduced along with lay-in acoustic tile ceiling and fluorescent lay-in fixtures. The building was vacated and then demolished in 1996.<sup>39</sup>

NOTES

- 1 Johnson, Lon, "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., 98.
- 32 Ibid., 85.
- 33 Ibid., 99.
- 34 "Ellsworth AFB History Sites Inventory", July, 1994.
- 35 File of blueprints and construction drawings, maintained at the Ellsworth AFB Maintenance Engineering Office.
- 36 Ibid.
- 37 Ibid.
- 38 Ibid.
- 39 "Real Property Records-Building 1115, Ellsworth AFB, South Dakota", Manuscript Records on file at the Real Property Office, Ellsworth AFB, South Dakota.



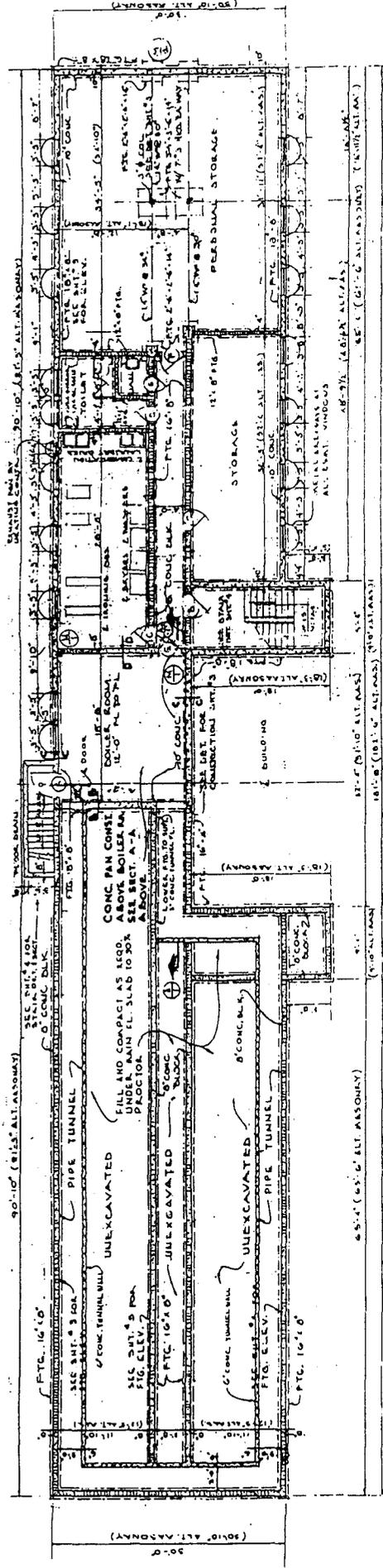
**ELLSWORTH AIR FORCE BASE, SOUTH DAKOTA**

Site Number: MD-EL-EL-00014

Historic Name: Airmen's Dormitory

USAF Facility Number: 1115

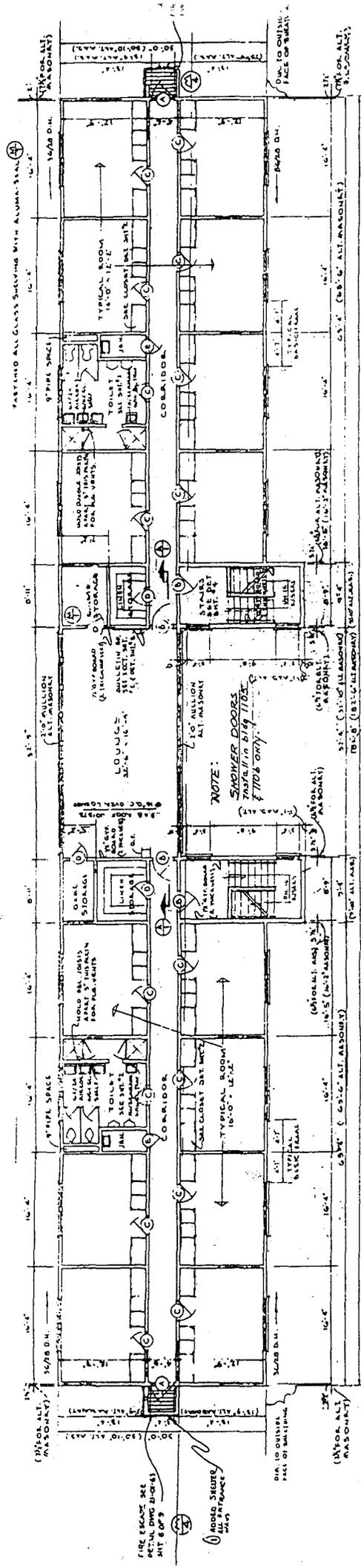
USAF Nomenclature: BSE ENGR ADMIN



THIS PLAN ACCOMPANIES CONTRACT NO. DA-25-086-F18-1011, MODIFICATION NO. 7

FOOTING & BASE EARTH FLOOR PLAN



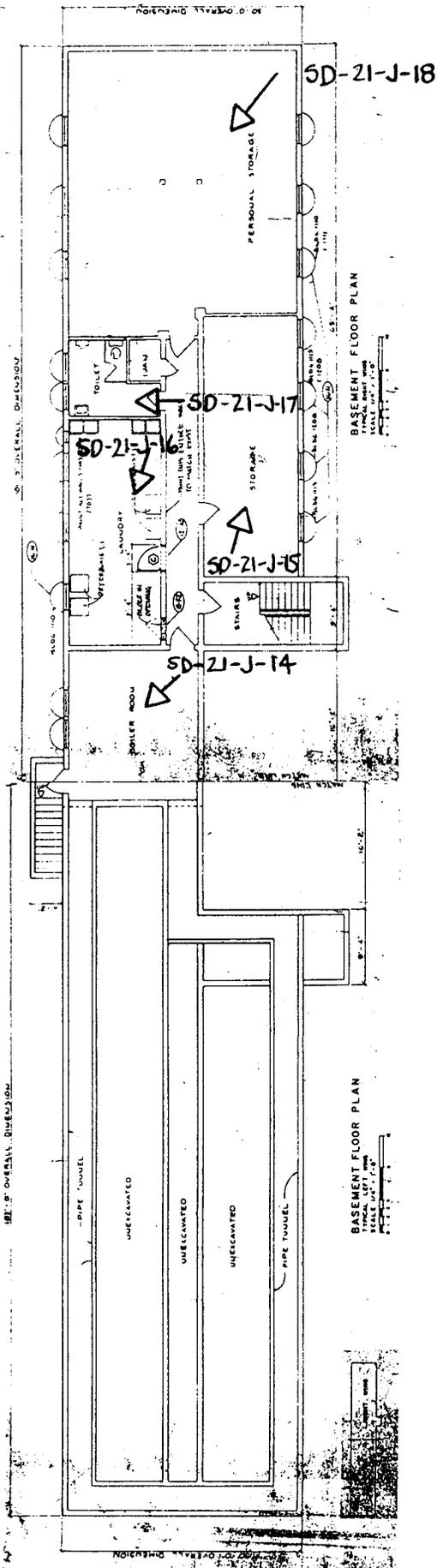


SECOND FLOOR PLAN  
 SCALE: 1/8" = 1'-0"

Ellsworth Air Force Base  
 Airmen's Dormitory  
 (Building No. 1115)  
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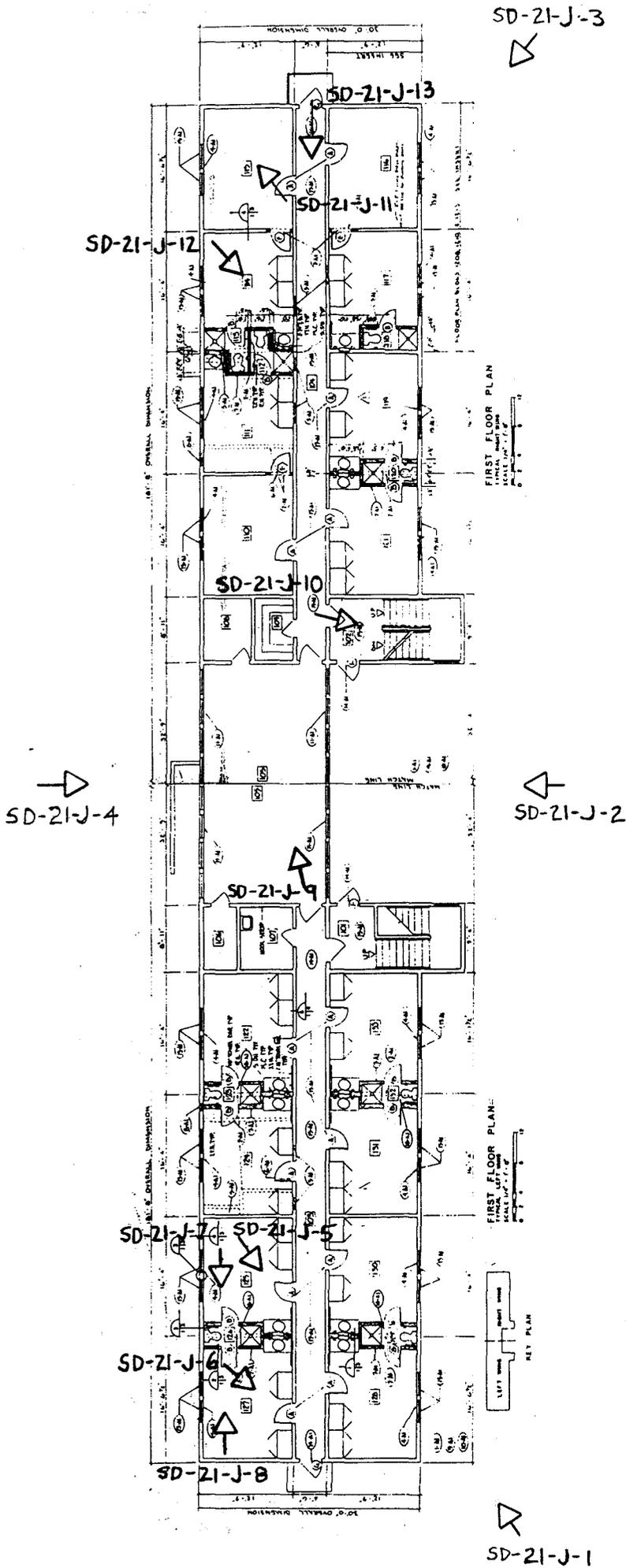
Original Plan

Ellsworth Air Force Base  
Airmen's Dormitory  
(Building No. 1115)  
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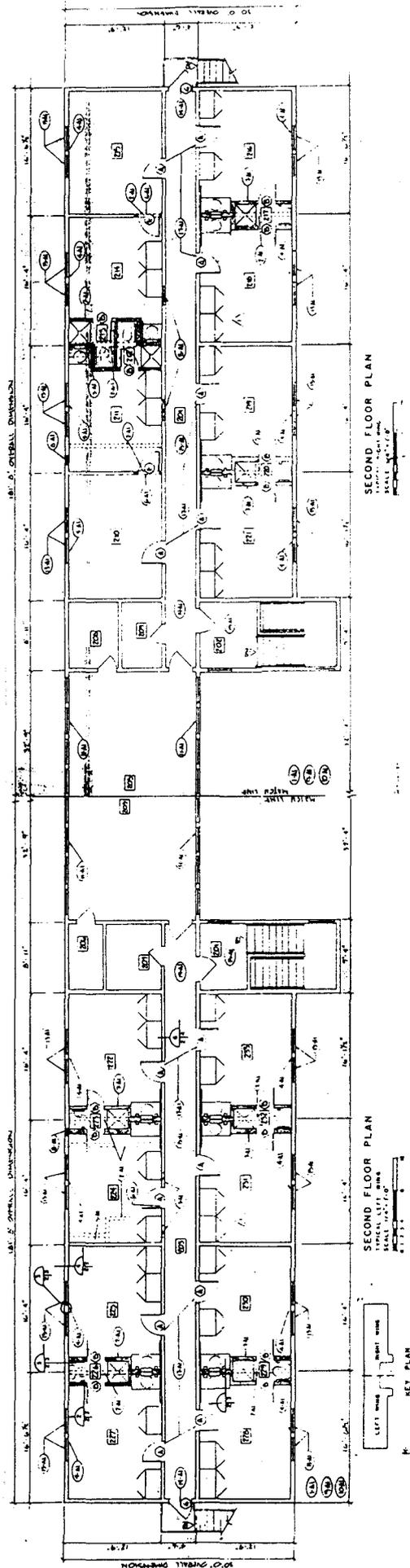
Remodel Plan

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Remodel Plan

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Remodel Plan

#### IV. BIBLIOGRAPHY

File of blueprints and construction drawings, maintained at the Ellsworth AFB Maintenance Engineering Office.

Hufstetler, Mark and McCormick, Mary, et al., draft, "Ellsworth Air Force Base, South Dakota: Statement of Historic Contexts", Renewable Technologies Inc., Butte Montana, November, 1996.

Johnson, Lon, "Ellsworth AFB History Sites Inventory", 1994.

"Real Property Records-Building 1115, Ellsworth AFB, South Dakota"  
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