ELLSWORTH AIR FORCE BASE,
GROUP ADMINISTRATION & SECURE STORAGE BUILDING
(Building No. 7810)
2372 Westover Avenue
Black Hawk Vicinity
Meade County
South Dakota

HABS No. SD-21-W

HABS
SD-21-W

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
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I. INTRODUCTION

Location:	Ellsworth Air Force Base, 2372 Westover Avenue, Black Hawk Vicinity, Meade County, South Dakota.
Quad:	Bend, SD
UTM:	Zone 13
Date of Construction:	1953
Architect:	U.S. Army Corps of Engineers, Omaha, Nebraska
Present Owner:	United States Air Force
Present Occupant:	Military Personnel Center/28th Support Group Headquarters/Legal Office/Pass and Registration
Present Use:	Military Personnel Center/28th Support Group Headquarters/Legal Office/Pass and Registration

Significance: Building No. 7810, a multi-purpose building, was constructed in 1953 as part of the substantial expansion of the base during that period. This is one of the largest office buildings to be constructed at the base. 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 was

formed 28th Bombardment Wing, also a component of the Fifteenth Air Force and SAC. The 28th Bomb Wing 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 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.[25]

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.[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 inactivated 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]

The 1951-56 construction projects at Ellsworth transformed the base from a relatively small, simply-built facility into a large complex with a diverse array of building forms, including many permanent structures.[37]

The continued growth of manpower at Ellsworth following the Korean War caused a need for additional housing and mess hall facilities for base personnel, as well as base administration offices.[38]

C. GROUP ADMINISTRATION & SECURE STORAGE BUILDING

The 1953 Group Administration Building (Building No. 7810) is a large, multi-purpose building. It was built as part of the substantial expansion of the base during that period. The building is one of the largest office buildings to be constructed at the base. It was built from plans developed by the Army Corps of Engineers of the Omaha, Nebraska, office at a cost of $307,669.05. It was completed on October 23, 1953. Its use, beginning as group administration

and storage facility, has changed through the years to personnel office, group headquarters, legal offices, and registration office.[39]

III. ARCHITECTURAL DESCRIPTION

The Group Administration & Secure Storage Building is a two story, military vernacular structure with a basement. It has a "U" shaped plan comprised of three rectangular elements. The largest and central rectangular element is 180' X 48'. Its long axis is oriented east and west on the site. Connected to each end of this main section, on the north side, are two 80' X 36' rectangular wings. These wing's long axis is oriented north and south.[40] Typical for walls, most upper and main/ground level group of windows line up horizontally with each other. Visible from all sides is a large square brick chimney from the mechanical room, which extends beyond the roofline of the structure.[41]

Construction materials for the building include: reinforced concrete foundations; concrete basement floors that were originally covered with asphalt tile; wood joists and decking for first and second floors (originally covered with asphalt tile) and stud walls. The exterior was originally covered with horizontal asbestos shingles siding. It is now sided in horizontal metal siding. The interior walls are finished with 3/8" sheetrock. The roof is slow pitch with 5-ply built-up and gravel. The roof fascia is covered with metal flashing. Replacing the original steel frame windows are modern aluminum clad casement windows.[42]

The building's main entrance structure is on the south wall. There are 15 groups of casement windows in sets of four, symmetrically spaced from corner to corner. The building's main entrance structure is a 13'-2" X 7'-6" aluminum curtain wall system with glass walls and a sloped roof.[43]

Fenestration and door arrangement on the west wall are south and north: one group of four casement windows for both floor levels; one steel door and frame with half glass at each floor level. There is a set of steel stairs and landing for the second floor exterior door leading to the ground floor. North from these doors there are: three groups of four casement windows; two groups of two casement windows; one group of four casement windows for both floor levels. On the lower/ground level, the wall terminates with two groups of six casement windows. On the upper level, the wall terminates with one awning window and one group of two awning windows.[44]

The north walls include the end walls of the east and west wings, along with the main massing. The west wing end is comprised of one awning window at each corner of the second level and a central steel door and frame with half glass. Steel stairs and landing for the second floor exterior door connect to the ground floor. There is one group of two casement windows at each corner of the first/ground level and an aluminum curtain wall enclosure directly below the second level's steel landing. The east wing end is comprised of one group of four casement windows at each corner of the second level and one central steel door and frame with half glass. A set of steel stairs and landing for the second floor exterior door lead to the ground floor. The first/ground level for the east wing contains only a central steel door and frame with half glass. On the main building mass, fenestration west to east is six groups of two casement windows evenly spaced on the second level; then five groups of four casement windows. Features for the main/ground level of this central element from west to east are: one group of two casement windows; one steel door and frame with half glass; four groups of two casement windows; four groups of four casement windows, and one group of two casement windows and an enclosure for an exterior door.[45]

Features from the second level of the east wall from north to south are: one set of four casement windows; one set of two casement windows; two groups of casement windows in sets of six; four groups of two casement windows; one set of four casement windows; one steel door and frame with half glass and steel landing and stairs leading to main/ground level; and one group of four casement windows. The features for the main/ground level on this east elevation from north to south are: two groups of six-set casement windows; four sets of two casement windows; and a steel door and frame with half glass.[46]

In the middle of the central element on the first floor is the building's main entrance. Once past the entrance's vestibule, a lobby area leads to two, long, double-loaded corridors oriented east and west and a stairway to the north for accessing the second and basement levels. The spaces along both corridors are empty offices. The west wing is also comprised of empty offices with one enclosed stairway leading to the second floor. At the end of this west wing, there is an open room the full width of the wing, with an exterior vestibule. The east wing also contains an enclosed stairway to the second floor. There is one office with a large storage room and one large open

space occupying two thirds of this wing. The north end is terminated with an open room and small stage platform. All spaces are finished. The majority of these spaces have carpeted floors, finished gypsum walls, suspended acoustical tiled ceilings and wood trim throughout.

The second floor houses the Legal/Pass and Registration Offices for the base. These offices are accessed from the main stairway in the middle of the central element, which opens into a lobby. South of this lobby is an enclosed receptionist office. West, through a doorway, is a double-loaded corridor that extends through to the west wing. The west wing is terminated by a court room with access to the outside. The entire length of the double-loaded corridor has occupied offices, meetings rooms, restrooms and support spaces.

East from the second floor's lobby, an open, double-loaded corridor extends through to the east wing. The east wing is terminated by a large open office space with access to the outside. Along both sides of the corridor are unoccupied rooms. All spaces are finished and have carpeted floors, finished gypsum walls, suspended acoustical tile ceilings, and wood trim.

The basement occupies the northeast quarter of the main central element. It is accessed from the interior by the main stairs and from the exterior by open and linear concrete stairs and passageway. The 23'-8" X 19'-3" mechanical room is directly west of the main interior stairway and is only accessible from the exterior. Directly north of this main interior stairway is a small room. East from the main stairway are interconnected rooms. All spaces are finished and have carpeted floors, finished gypsum walls, suspended acoustical tile ceilings, and wood trim.

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., 111.

32 Ibid.

33 Ibid.

34 Ibid.

35 Ibid., 112.

36 Ibid.

37 Ibid., 86

38 Ibid., 100.

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

40 "Real Property Records-Building 7810, Ellsworth AFB, South Dakota", Manuscript Records on file at the Real Property Office, Ellsworth AFB, South Dakota; Johnson, Lon, "Ellsworth AFB History Sites Inventory," July, 1994.

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

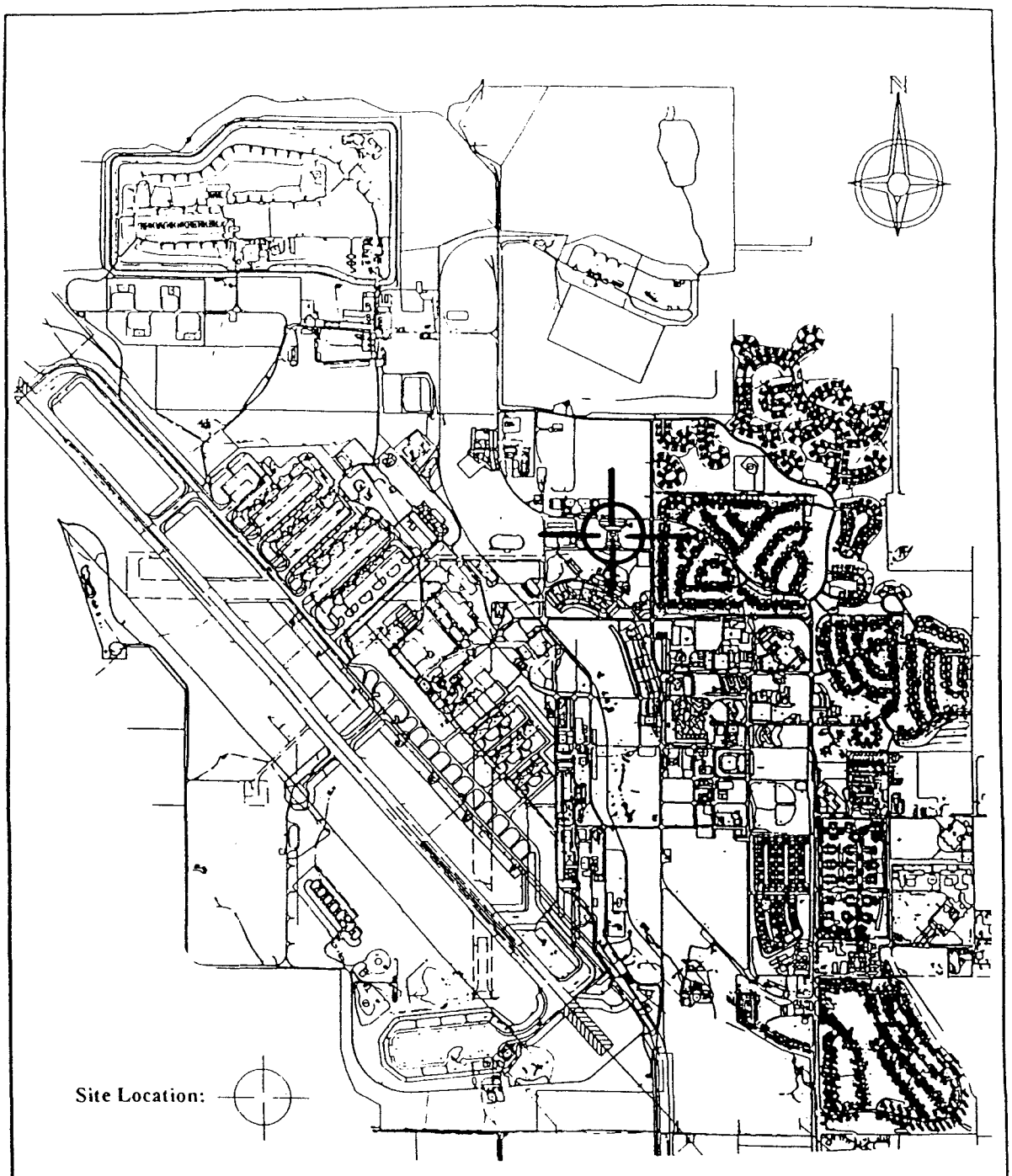
42 Johnson, Lon, "Ellsworth AFB History Sites Inventory," July, 1994; "Real Property Records-Building 7810, Ellsworth AFB, South Dakota", Manuscript Records on file at the Real Property Office, Ellsworth AFB, South Dakota; File of blueprints and construction drawings, maintained at the Ellsworth AFB Maintenance Engineering Office.

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

44 Ibid.

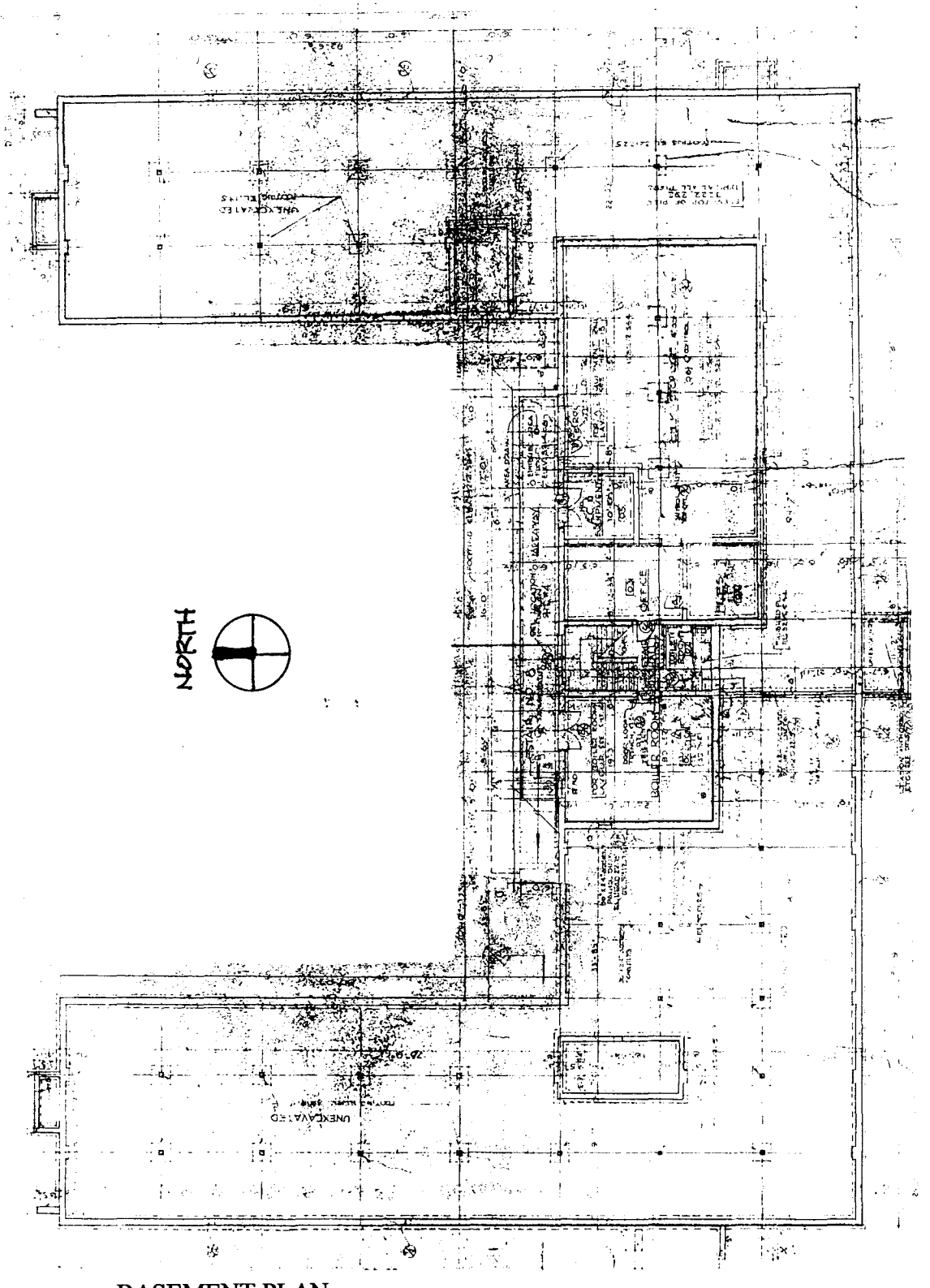
45 Ibid.

46 Ibid.

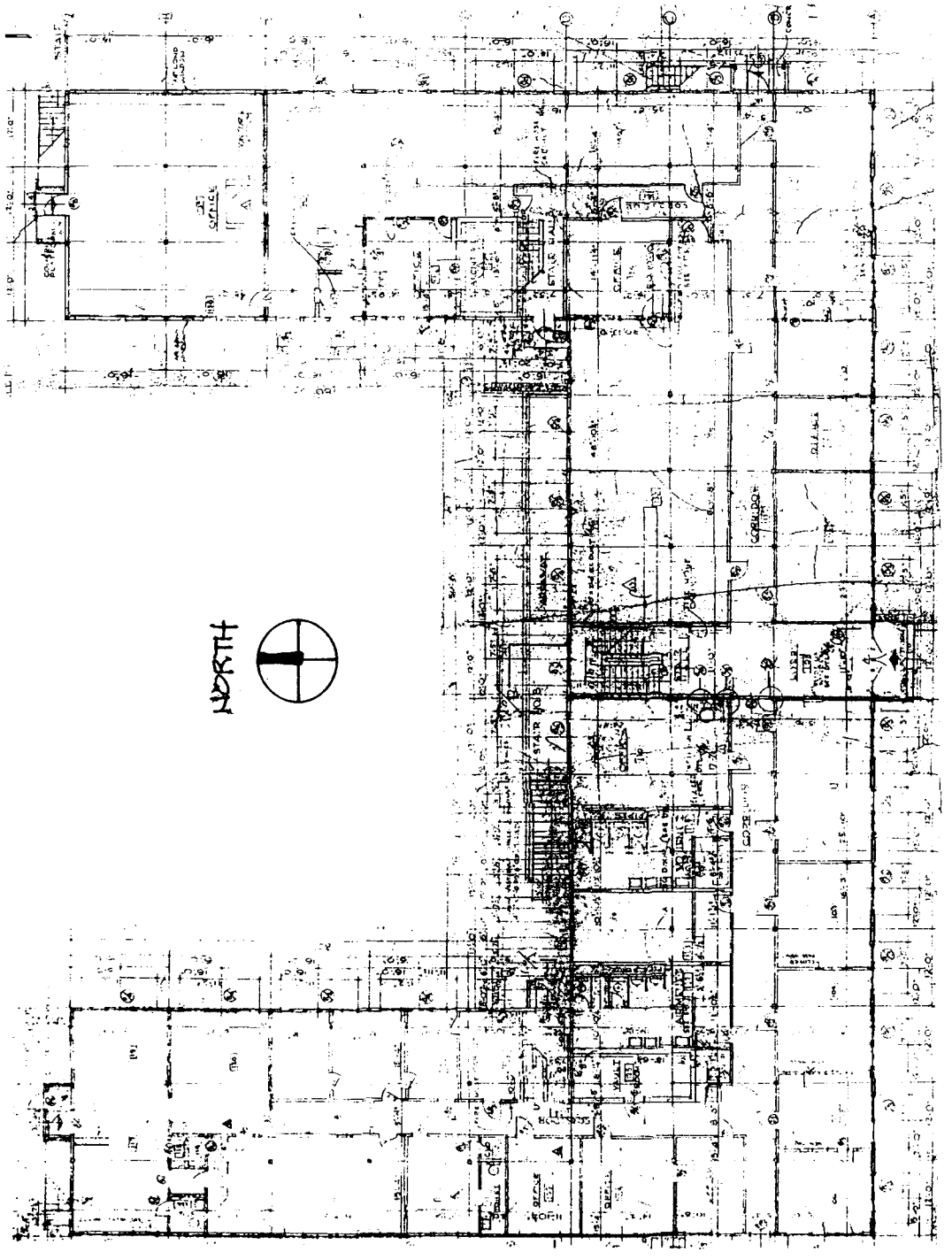


ELLSWORTH AIR FORCE BASE, SOUTH DAKOTA
Site Number: MD-EL-EL-00033
Historic Name: Group Admin. & Secure Storage
USAF Facility Number: 7810
USAF Nomenclature: BASE PERSONNEL OFC

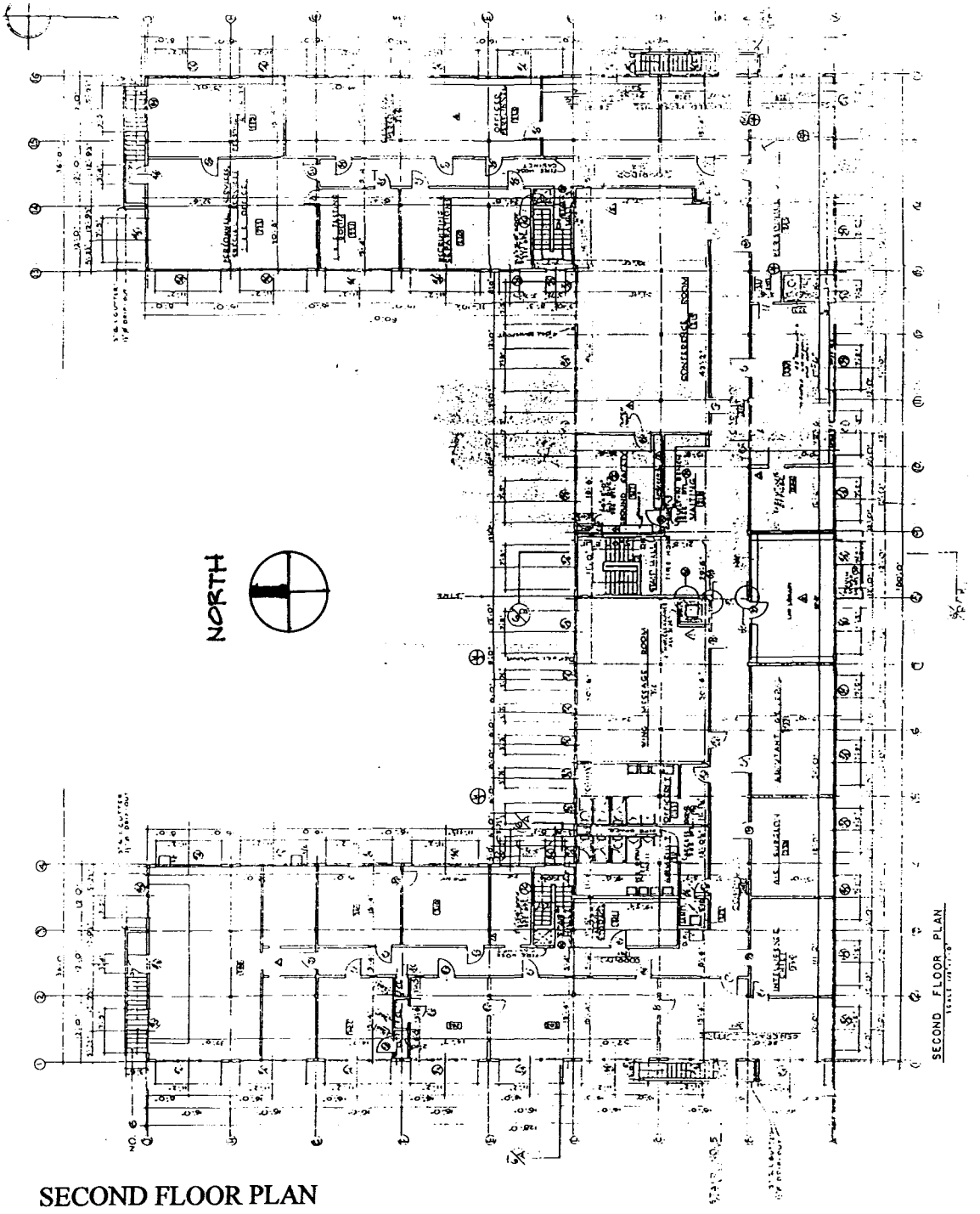
Ellsworth Air Force Base
Group Administration & Secure Storage Building
(Building No. 7810)
HABS No. SD-21-W
(Page 15)



BASEMENT PLAN



FIRST FLOOR PLAN



SECOND FLOOR PLAN

IV. BIBLIOGRAPHY

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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 7810, Ellsworth AFB, South Dakota" Manuscript Records on file at the Real Property Office, Ellsworth AFB, South Dakota.