NATIONAL HOME FOR DISABLED VOLUNTEER SOLDIERS -
BATTLE MOUNTAIN SANITARIUM, WARD 4
(Hot Springs Veterans Administration Medical Center, Domiciliary 4)
(VA Black Hills Health Care System - Hot Springs Campus, Building No. 4)
500 North Fifth Street
Hot Springs
Fall River County
South Dakota

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

REDUCED COPIES OF MEASURED DRAWINGS

FIELD RECORDS

HISTORIC AMERICAN BUILDINGS SURVEY
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HISTORIC AMERICAN BUILDINGS SURVEY

NATIONAL HOME FOR DISABLED VOLUNTEER SOLDIERS – BATTLE MOUNTAIN SANITARIUM, WARD 4
(Hot Springs Veterans Affairs Medical Center, Building No. 4)
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HABS No. SD-24-T

Location: 500 North 5th Street, Hot Springs, Fall River County, South Dakota

The coordinates for Ward 4 are 43.436482 N, -103.477733 W, and they were obtained through Google Earth in June 2013 with, it is assumed, NAD 1983. There is no restriction on the release of the locational data to the public.

Present Owner: Department of Veterans Affairs, Black Hills Health Care System

Present Use: Vacant

Significance: Built between 1903 and 1907, Ward 4 is one of six ward buildings attached to the pavilion-plan hospital complex at Battle Mountain Sanitarium. Architect Thomas Rogers Kimball arranged the six wards around a circular connecting corridor like the spokes of a wheel, with the Administration Building at the front of the complex and the Mess Hall/Service Building to the rear. While the circular arrangement was less common, the practice of maximizing natural light and ventilation in open hospital wards was a hallmark of the pavilion plan type in this period. The ward buildings at Battle Mountain also featured an unusual system of ramps for vertical circulation instead of stairs and a forced air ventilation system designed by Pierce, Richardson, and Neiler, Engineers, of Chicago.

Service spaces such as the bathrooms, linen storage, and nurses' office were grouped closest to the attached corridor at one end of the ward pavilions. Large open wards with day rooms at the end and generous windows occupied the remainder of the first and second floors. Ward 4 (original designated Ward 2) was designed according to a standard plan for three of the six BMS wards (Buildings No. 3, 4, and 5). The other three wards (6, 7, and 8) are a mirror image. Battle Mountain Sanitarium was unique within the National Home system in its primary purpose as a medical facility. Veterans would travel for short term treatment of acute conditions before returning to other primarily residential NHDVS branches. The location in Hot Springs utilized the natural thermal mineral springs and dry mountain air for treatment of conditions such as arthritis, and later tuberculosis.

Historian: Lisa Pfueller Davidson, Ph.D., HABS Staff Historian

PART I. HISTORICAL INFORMATION
A. Physical History:

1. Date of erection: 1903-1907

2. Architect: Thomas Rogers Kimball, Omaha, Nebraska
Engineers (ventilation system): Pierce, Richardson and Neiler, Chicago

3. Original and subsequent uses: Until recently, Ward 4 continued to be used for veterans' housing with offices in the basement. Currently it is vacant.

4. Builder: Reynard and Oak, Omaha, Nebraska

5. Original plans and construction: Ward 4 (original designated Ward 2) was designed according to a standard plan for three of the six BMS wards (Buildings No. 3, 4, and 5). The other three wards (6, 7, and 8) are a mirror image. The original design is still largely intact, including the connecting ramps, service area, large open wards with day room at the end, and wrap around two-story porches.

6. Alterations and additions: Ward 4 has been altered by the early addition of exterior fire escapes, adding or moving interior walls, and updating of fixtures and finishes. Additional offices were created in the basement, and several two-bed wards added to the second floor. Elevators were installed, eliminating the tearooms and dumbwaiters. The utility closet, bathrooms, and shower rooms were completely reconfigured ca. 1950s.

B. Historical Context: See overview historical context HABS No. SD-24 for additional information on the Battle Mountain Sanitarium and the NHDVS.

For individual building reports see:

HABS No. SD-24-A NHDVS-Battle Mountain Sanitarium, Administration Building
HABS No. SD-24-F NHDVS-Battle Mountain Sanitarium, Mess Hall
HABS No. SD-24-O NHDVS-Battle Mountain Sanitarium, Plunge Bath/Chapel
HABS No. SD-24-P NHDVS-Battle Mountain Sanitarium, Laundry/Chapel
HABS No. SD-24-B NHDVS-Battle Mountain Sanitarium, Governor's Quarters
HABS No. SD-24-H NHDVS-Battle Mountain Sanitarium, Conservatory
HABS No. SD-24-W NHDVS-Battle Mountain Sanitarium, Treasurer's Quarters
HABS No. SD-24-X NHDVS-Battle Mountain Sanitarium, Engineer's Quarters
HABS No. SD-24-Y NHDVS-Battle Mountain Sanitarium, Duplex Quarters
HABS No. SD-24-K NHDVS-Battle Mountain Sanitarium, Bandstand
HABS No. SD-24-Z NHDVS-Battle Mountain Sanitarium, Grand Staircase

HABS No. SD-24-J NHDVS-Battle Mountain Sanitarium, Tuberculosis Hospital

The National Asylum for Disabled Volunteer Soldiers (renamed National Home for Disabled Volunteer Soldiers in 1873) was established by an Act of Congress signed by President Lincoln in March 1865. Federal officials recognized the growing need to care for Union soldiers injured during their Civil War service and subsequently unable to support themselves. This unprecedented federal effort paralleled many state and local initiatives to care for disabled soldiers as the wounded filtered back North after years of fighting. The initial legislation did not specify where the Asylums would be located, but the general understanding was that several sites in different parts of the northern states would be needed. By 1930 when the National Homes were incorporated into the new Veterans Administration, the system had grown to include veterans of multiple conflicts cared for at eleven campuses located around the country.

Battle Mountain Sanitarium, the tenth expansion of the National Home for Disabled Volunteer Soldiers, was built between 1903 and 1907 in Hot Springs, South Dakota. Hot Springs was a mineral springs resort located in the Black Hills of South Dakota. A territorial soldiers' home was established there in 1889. Local politicians and Hot Springs residents started promoting their location for a new NHDVS branch in the 1890s. The innovative hospital plan, with pavilion wards radiating from a circular corridor and ramps between levels, represented an advance in veterans' health care and a new approach for the NHDVS. The importance of the hospital within the NHDVS Branches had been growing throughout the late nineteenth century as medical treatment became more sophisticated.

Unlike many earlier branches of the NHDVS, which saw gradual expansion and additions to their physical plants, Battle Mountain Sanitarium was constructed in one, multi-year construction campaign. Omaha-based architect Thomas Rogers Kimball designed a striking Mission Revival hospital of local red sandstone which included the Administration Building with a dramatic dome, six wards arranged in a spoke-like fashion around a courtyard encircled with hallways, and the matching Mess Hall/Service Building attached at the rear. Kimball was well-known in Omaha and beyond. He later became a Fellow and then President of the American Institute of Architects and served on many high profile competition juries and commissions.[1]

While the site would include officers' quarters, a conservatory, stable, and powerhouse designed by Kimball, the building campaign began with the main hospital structure. The plans were approved by the Board of Managers in late 1902. At this time the *Hot Springs Weekly Star* reported:

> All the patients will be housed in the ward buildings. Each ward building will be two stories in height and in each will [be] bathrooms, nurses, bedding, tea, locker, and toilet rooms. Each ward will have its sun bath and smoking room, and its own wide, covered veranda….The capacity of the institution at first will be 336

[1] William L. Steele, "Thomas Rogers Kimball: An Appreciation," *The Octagon: A Journal of the American Institute of Architects* 6, no. 10 (October 1934): 3-4.

patients in the regular wards, with an added overflow capacity of 120 by utilizing portions of the ward buildings' basements.[2]

The tea room was a small dining room for the use of the nurses and for preparing patient trays if necessary. The article also indicated plans were underway for a special ventilation system in the hospital ward, noting that "the buildings will be heated by steam, save for the hospital proper, which will be heated by warm, fresh air. A system of natural and accelerated ventilation is contemplated."[3] Detailed attention to fresh air exchange was seen as critical to good hospital design in this period. Since Kimball's hospital experience was limited, he sought outside expertise for this feature.

Kimball visited the site in February 1903 to continue fine tuning his design and consult with his team. He was accompanied by S. G. Neiler, a Chicago-based mechanical engineer, a Mr. Potter, a hydraulic engineer also from Chicago, and Frank Rooney from his Omaha office. Neiler's firm designed the ventilation system for the wards. Rooney would be moving to Hot Springs in a few weeks to serve as superintendent of construction. Test borings were taken and plans made to remove about ten feet of earth from the site during grading. The local newspaper reported proudly that "Architect Kimball is occasionally changing his plans somewhat - improving upon his first designs - and proposes to make this sanitarium the finest in the world, having every modern improvement, not only being beautiful in architecture, but being supplied with every up-to-date device that such an institution should have."[4]

The overriding concern of the pavilion plan type hospital was providing cross ventilation for healthful airflow and avoiding cross-contamination. Each "pavilion" or ward was attached to the rest of the complex by a narrow corridor, allowing maximum light and air exposure on three sides. The spoke-like arrangement at Hot Springs was an interesting solution to this design challenge. In just a few years, medical experts and architects would begin to vigorously seek alternatives, but the basic ideals of fresh air and sanitary conditions first espoused by Florence Nightingale in the mid-nineteenth century continued to hold sway over the medical profession and their architects.[5] Administrators were cautioned to pay utmost attention to cleanliness; rounded corners, painted plaster walls, and hard wood floors would aid in this critical endeavor. These ideas were still prevalent decades later at Battle Mountain Sanitarium. The pavilion plan form was still considered the most effective solution to creating hygienic hospital designs in this period, even as standards of medical care were undergoing new changes.

Floor plans labeled "Proposed Battle Mountain Sanitarium" are undated (probably c. 1902), but seem to show Ward 4 largely as constructed. This ward shared the same plan as the other two on the east side of the hospital complex. In the basement the main space is labeled

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[2] "National Sanitarium," *Hot Springs Weekly Star*, 26 December 1902, 1.
[3] "National Sanitarium," *Hot Springs Weekly Star*, 26 December 1902, 1.
[4] "Planning for Work," *Hot Springs Weekly Star*, 27 February 1903, 1.
[5] Florence Nightingale, *Notes on Hospitals* (London: Longman, Green, Longman, Roberts, and Green, 3rd revised edition, 1863); See also *Hospital Plans: Five Essays Relating to the Construction, Organization, and Management of Hospitals Contributed by their Authors for the use of the Johns Hopkins Hospital of Baltimore* (New York: William Wood & Co., 1875).

"unfinished" while the service area near the connecting hyphen included four small storerooms and a room labeled "service" containing two dumbwaiters (Figure 1). The first floor plan shows 28 beds each placed between windows (Figure 2). The day room at the outer end of the pavilion is designated as the "smoking room." A hall travels through the connecting service block with toilet room, bath room, patients' clothing locker room on one side, and a nurses' room, linen closet, and tea room where the dumbwaiters are located. The ramps providing access between floors are indicated starting at the center of the hall in the service block.

A more detailed version of the "Typical Floor Plan" for the three east wards is dated June 11, 1903 (Figures 3 and 4). These drawings show the first and second floors in more detail, with notes regarding pulp floors in the ward, fir floor boards at the wrap-around porch, and interior finishes of hard pine. Pulp floors were a hard fiber-based composite material considered sanitary for a hospital setting, being non-absorbent and easy to clean. Pairs of ventilation ducts are indicated at the center and ends of the wards. Air from each floor was kept separate and mechanically circulated via a system of vents and ducts connecting from the fan room in the basement to ventilators in the roof.

The general construction contract was let to Reynard and Oak of Omaha on August 5, 1903. Ground was broken for the Sanitarium on August 17th and grading began almost immediately.[6] In March 1905 it was reported that nearly all the excavating for the main hospital was complete as well as the stone work on the Service Building and Wards 1, 2, 3, 4, and 6 (now Wards 3, 4, 5, 6, and 8). Ward 5 (now Ward 7) was complete to the basement and the administration building was receiving its "finishing touches by the masons."[7] The system of "switch back" ramps between the floors of the wards was especially noted and praised as uniquely suited to patients with rheumatism. The 1905 *Annual Report* noted that in spite of delay, "the work was found to be very satisfactory, the buildings, constructed from stone taken from the local quarries, being fine in appearance and of the most substantial character."[8]

Work continued through 1906, and offices of the National Sanitarium were moved into the new Administration Building in November 1906.[9] Official opening was planned for the spring of 1907. On March 15, 1907 the Governor and Head Surgeon of the new Sanitarium, Col. Rudolphus D. Jennings, received Captain Palmer, Inspector General Elwell and other NHDVS officials. They stayed in the Administration Building guest rooms and ate in the officers' dining room in the Mess Hall/Service Building.[10] Newspaper coverage of the opening provided more details about the ventilation systems in the wards:

> The ward buildings and other distinctively hospital portions are furnished with the most modern and up to date heating and ventilation system known to engineers,

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[6] Clippings, "Contract is Awarded," *Hot Springs Weekly Star*, 9 August 1903; "Are Moving the Dirt," *Hot Springs Weekly Star*, 21 August 1903, Battle Mountain Sanitarium Museum.
[7] Clipping, "Battle Mountain Sanitarium," *Hot Springs Weekly Star*, 31 March 1905, Battle Mountain Museum.
[8] NHDVS Board of Managers, *Annual Report for the Fiscal Year 1905* (Washington, DC: GPO, 1906), 10.
[9] Battle Mountain Sanitarium transcribed newspaper articles, 23 November 1906, Hot Springs Public Library.
[10] NHDVS Board of Managers, *Annual Report for the Fiscal Year 1906* (Washington, DC: GPO, 1907), 6; Battle Mountain Sanitarium transcribed newspaper articles, 15 March 1907, Hot Springs Public Library.

> furnishing each patient 50 cubic feet of air per minute, thoroughly purified by passing through coke screens, and a jet of water, and then heated to the desired temperature and autimatically [sic.] delivered through ducts located in the ceiling of each ward room.

The article also mentions that Ward 3 (now Ward 5) included a thermostat-controlled cooling device in its air purification system. Perhaps even more importantly, rounded corners and edges were provided to make it easier to keep the wards clean.[11]

Once opened, Battle Mountain Sanitarium began gradually admitting patients. The first to arrive in early April was Charles Wibert from the Marion Branch in Indiana. Nearly fifty more transfers, many from the Western Branch in Leavenworth, Kansas, were expected about a week later.[12] The official opening date was May 1, 1907. The NHDVS *Annual Report* for fiscal year 1907 stated:

> [Battle Mountain] is fully equipped with modern appliances for the treatment of disease and is provided with skilled medical officers, nurses, and necessary attendants. Its facilities have not as yet been fully availed of by members of the Home, but it is hoped that as the curative properties of the waters of the springs and the advantages that this institution affords for the cure and alleviation of disease become better known it will be filled to capacity.[13]

Veterans could remain at Battle Mountain only as long as their conditions showed improvement; in the 1908-09 fiscal year 865 veterans receive treatment here. Battle Mountain specialized in treatment of musculoskeletal, gastrointestinal, and respiratory conditions, as well as skin diseases which would benefit from hydrotherapy in the mineral spring plunge pool incorporated into the hospital building.

An illustrated souvenir booklet of the Battle Mountain Sanitarium published in 1909 provides an excellent overview of the facility in these early years. The author of the booklet credited the success of the building to careful planning, sound advice from medical professionals, and the expertise of the architect. Each 28-bed ward (two per ward building) had a ventilation system designed by Pierce, Richardson and Neiler, Engineers, of Chicago:

> The fresh air for these ward rooms is thoroughly purified and cleansed by passing through coke screens and a strong jet of water, and then heated or cooled to the desired temperature, and automatically delivered through ducts located in the ceiling of each ward. There is a corresponding deliverance from the ward rooms of all foul air through a screened duct located under each bed. So perfect is this removal of tainted air that all unpleasant odors from medicines or anything else is undiscoverable.[14]

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[11] "Million Dollar Sanitarium for Veterans," *Hot Springs Weekly Star*, 17 May 1907, 3.
[12] "National Sanitarium Open," *Hot Springs Weekly Star*, 12 April 1907, 1.
[13] NHDVS Board of Managers, *Annual Report for the Fiscal Year 1907* (Washington, DC: GPO, 1908), 9.
[14] *Battle Mountain Sanitarium, Hot Springs, South Dakota*, (c. 1909), 18, Battle Mountain Museum Collection.

This system represented an impressive version of the current best practices in hospital design. Although the belief that "bad air" or miasma caused illness had been abandoned, there was still a strong interest in using fresh air and sunlight to facilitate sanitary conditions. Calculations regarding air exchange and the cubic feet of air per patient were seen as crucial to healthy conditions. The projecting ducts running up the walls and down the center of each ward ceiling are visible in early photographs of the wards (Figures 5 and 6). Any early cooling or filtering equipment has been removed, but portions of the original ductwork are still visible in the attic of Ward 4. Early *Inspection Reports* of Battle Mountain Sanitarium noted the ventilation systems of the wards, with an average of 50 cubic feet per man, "changed every minute."[15] There was also a concern about fire escapes, with the original ladders viewed as insufficient. In 1915 fire escapes were added to the exterior of the wards.[16]

Designating Battle Mountain a sanitarium rather than another branch residential home indicated the growing emphasis on medical care by the NHDVS.[17] The aging of the member population and the steady decrease of their numbers presented a particular challenge to the NHDVS. More costly medical care was needed, increasing per capita costs. This situation persisted and grew more urgent with the advent of World War I. Now rather than slowly becoming obsolete through age and deferred maintenance, the Homes would need to serve a new generation of disabled veterans, many with tuberculosis caused by trench warfare conditions. The new conflict would create unprecedented veteran demand for medical care.

In the mid-1920s the Veterans Bureau began construction of the new tuberculosis hospital at Battle Mountain. Built 1925-26, this new hospital reflected the changing mission of the "second generation" of veterans' hospitals to rehabilitation and outpatient care through modern medical techniques.[18] In 1930, NHDVS was reorganized into a new Veterans Administration. The NHDVS was no longer an autonomous agency; now their primarily domiciliary services were just one of many offered by the Veterans Administration.[19] At this time the large demand for tuberculosis treatment at Hot Springs was starting to wane and the new hospital began to be used for general medical care. The original hospital functioned as a 548-bed domiciliary, while the 1920s hospital was a 255-bed medical/surgical facility. With the wards now served as dormitory-style living quarters for veterans, this original portion of the Battle Mountain Sanitarium now a residential facility like the other NHDVS branches.

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[15] Inspector-General's Office, *Inspection Report – National Home for Disabled Volunteer Soldiers* (Washington, DC: GPO, 1910), 33.
[16] Inspector-General's Office, *Inspection Report – National Home for Disabled Volunteer Soldiers* (Washington, DC: GPO, 1915), 90. See also Inspector-General's Office, *Inspection Report – National Home for Disabled Volunteer Soldiers* (Washington, DC: GPO, 1911), 31.
[17] Suzanne Julin, "National Home for Disabled Volunteer Soldiers – Assessment of Significance and National Historic Landmark Recommendations." (2008), 32-33. U.S. Department of the Interior, National Park Service, Washington, DC.
[18] See Trent Spurlock, Karen E. Hudson, Dean Doerrfeld and Craig A. Potts, "United States Second Generation Veterans Hospitals," National Register of Historic Places Multiple Property Documentation Form, 2011. National Park Service, U.S. Department of the Interior, Washington, DC.
[19] Judith Gladys Cetina, "A History of the Veterans' Homes in the United States, 1811-1930" (Ph.D. dissertation, Case Western Reserve University, 1977), 382-383.

During the mid-1950s, renovations to the domiciliary included new asphalt tile floors, fluorescent lighting, and new bathroom fixtures in the wards (Figures 7 and 8).[20] Some three-quarter height partitions were added to separate beds in the wards. While this change marred the original ventilation scheme of the open ward, creating some semi-private spaces was the priority now. Floor plans from 1952 indicate the layout of Building No. 4 shortly before some of these changes (Figure 9). The light partitions are present and all the rooms in the service area except the bath and shower rooms have been converted into 1 or 2-bed wards. The elevator has not yet been added and the bath and shower rooms retain their original configuration. The ventilation ducts are still indicated at the center of the ward, with the fan room surrounded by offices in the basement.

A Director's Report on Domiciliary Activities from 1966 noted that the facility continued to be near capacity with residents.[21] Additional partitions and fans were installed in sections of the domiciliary at this time. The connecting corridors were still seen as an advantage in allowing veterans to move between living quarters in the former wards and other parts of the complex without being exposed to the weather. The innovative ramps, however, were now seen as too steep, especially for wheelchairs.

During the 1980s and 90s, changes to the complex continued to be focused on upgrades and expansion of the general hospital. In 1996 the complex's name was changed to Hot Springs Medical Center of the VA Black Hills Health Care System. This change represented a consolidation of the VA Medical Centers at Hot Springs and at Fort Meade. Surgical cases requiring an overnight stay were now handled at Fort Meade.[22] Today the Hot Springs campus is an active medical center providing care for veterans of World War II, Korea, Vietnam and more recent conflicts. The original hospital complex is used currently for inpatient treatment with some wards still used as temporary domiciliaries. Recently the Department of Veterans Affairs was considering closing the Hot Springs campus in spite of community protest. Kimball's Mission Revival hospital complex retains its historic character and remains a highly significant federal medical facility for veterans in the Black Hills of South Dakota and beyond.

PART II. ARCHITECTURAL INFORMATION

A. General Statement

1. Architectural character: Ward 4 is one of six wings radiating around the circular corridor of the Battle Mountain Sanitarium's original Mission Revival hospital building. It extends to the east/southeast side of complex. Its red tile roof and sandstone walls are consistent with the rest of the hospital complex. The bathrooms, nurse's office, and tea room with dumbwaiters originally were clustered in the service

[20] Elks National Service Commission and Hot Springs Lodge, *Yesterday, Today and Tomorrow: A Pictorial Portrayal of the Hot Springs Veterans Administration Center on the Occasion of its Fiftieth Anniversary* (May 1957), 27. Battle Mountain Museum Collection.
[21] Typescript, "Domiciliary Program - VA Center, Hot Springs, South Dakota," (1966). Battle Mountain Museum.
[22] *Celebrating a Century of Caring for America's Heroes - VAMC Hot Springs, South Dakota, 1907-2007*, (2007) [100th Anniversary booklet]. Battle Mountain Museum Collection.

area which is identified on the exterior as the pyramidal roof section closest to the corridor. The north elevation has a porch that wraps around the day room at the end of the open ward.

2. Condition of fabric: Good.

B. Description of Exterior:

1. Overall dimensions: 192 feet, 8 inches long by 40 feet, one inch wide

2. Foundations: Ward 4 has tall rusticated sandstone foundations laid in a random ashlar pattern. The exterior foundations form a raised basement and are topped by a course of smoothly dressed stone serving as a water table.

3. Walls: Ward 4 has sandstone walls with the rusticated blocks laid in a random ashlar pattern. The walls step back slightly at the open ward portion of the building and again at the day room bay on the end.

4. Structural system, framing: Ward 4 has load-bearing sandstone walls with heavy timber roof trusses. A metal pole adds additional support at the first floor service hall area. The heavy beam roof trusses are visible in the attic. The trusses include metal bolts and differ over the ward and service areas. The smaller service area has two lattice trusses with wood beams and vertical metal rods supporting the pyramidal roof. The roof is common rafter with purlins and the floor structure sixteen inch joists on metal hangers. There is a stone firewall in the attic between the service area and open ward. In the larger space over the ward there are six Queen post trusses with metal poles for a vertical member connecting the ridge and the horizontal member. There are unusual cut off studs resting on poles between the first and third bays in the ward area - these are consistent throughout the wards and appear to be original. Perhaps this configuration accommodated the original ventilation ducts which have been removed. Wood summer beams and posts are visible in the basement, with metal crickets between the post and beam.

5. Porch: Ward 4 has a two-story inset porch along the north side of the building and around the day room end. It is wider at the north elevation and narrows as it travels around the day room, where it is contained within the half-octagonal roof. The wood porch is supported by tall rusticated sandstone piers with dressed caps. Large beams projecting from the walls rest on the stone piers and have overhanging carved ends. The beams for the second floor and roof sit on stone brackets at the wall. Each vertical porch support is formed by two square posts bolted at either side of the beam. On the first floor the posts have decorative brackets on each outer side. On the second floor a pair of lighter roof beams with carved ends is sandwiched above a short cross beam with carved ends. The decorative arrangement of these structural features adds to the Mission Revival appearance of the building. The porch ceilings have exposed rafters with decorative rafter ends and the floors are wood tongue and

groove, with a wide combination ovolo/ogee molding along the outer edge. The balusters have been removed and the area below the hand rail filled in with large wire mesh. Additional wire grates are located above the hand rail up to the porch ceiling on the second floor.

6. Fire Escapes: A wall-mounted metal ladder with a hatch through the porch floor served as an early fire escape. This feature appears on the original drawings. This ladder is located at the south end of the day room porch area. In addition there is a two-story metal fire escape added to the south side of Ward 4. It has open stairs with half-turn landings and metal hand rails. The landing floors are metal grates. The first exterior fire escapes were added by 1915; the existing one is probably a mid-twentieth century replacement.

7. Chimneys: Ward 4 has an internal sandstone chimney at its east end wall (day room). The chimney has the same rusticated sandstone as the wall and a replacement concrete cap (the original was sandstone).

8. Openings:

    a. Doorways and doors: Ward 4 has exterior doorways located at the southeast corner of the basement, at the fire escape first and second floors, and at the porch at both the first and second floors. Doorways into the corridor are described in the interior doorways section below. All of the exterior openings are rectangular with recent replacement doors. The openings are framed by dressed stone with a quoin edge. The basement door is accessed via a concrete stair traveling down from grade. The fire escape doorways were created from original window openings and retain their transoms. The doors at the porches on the first and second floors are modern replacements with glazing in the top half. These openings also have storm doors. For each floor, one opening is located at the service area near the west end of the porch and another in the middle of the open ward. The ward doorway originally contained a two-leaf door that has been replaced with a wide single leaf modern door. The remaining two porch doors on each level are located at either side of the day room. The transoms here have been filled in.

    b. Windows: The typical Ward 4 window opening is rectangular with a six over six divided light wood sash set directly into the stone wall. The first floor windows have rectangular three light transoms set into the stone with their own dressed stone frame. Similar transoms for the second floor windows are round arch with three vertical divided lights. The sashes have drops at the meeting rail corners. The openings have a wide frame of dressed stone with a quoined edge. The basement windows are set into deep window wells where the grade rises towards the center corridor.

9. Roof:

    a. Shape, covering: Ward 4 has a low pitched pyramidal roof over the service area closest to the corridor. The roof then steps down slightly to a cross hip roof over the open ward and a lower half octagonal section at the day room. All the roofs are sheathed with red clay Spanish tile.

    b. Eaves: Ward 4 has wide open eaves with decorative rafter ends and external gutters with downspouts.

    c. Ventilators: There are galvanized metal ventilators near each end of the open ward hipped roof.

C. Description of Interior:

1. Floor plans: The Ward 4 building is attached to the center corridor via a series of ramps, with the basement, first and second floors at different heights than the floor levels of the two-level corridor. The service functions were housed in the block closest to the corridor, with the ward wings extending from the other side of a firewall. The basement contains a series of small offices, storage and mechanical rooms generally arranged along a double loaded corridor. The service sections of the two ward floors have been altered, particularly by the addition of an elevator at the former tea room and the reconfiguration of the bath/shower rooms. The open ward spaces on both floors are largely intact, with small rooms added close to the service area on the second floor (4A) and three-quarter height partitions between some of the beds. The partitions are painted wood panels in metal frames bolted to the floors and wall. The attic is unfinished, with a wood walkway over the joists for maintenance access.

2. Ramps/Stairways: All of the Battle Mountain Sanitarium ward buildings feature an innovative use of ramps instead of stairs between finished floors. The ramps are steeper than current ADA standards and change pitch once where a doorway used to be mid-ramp. They have wall-mounted wood hand rails on both sides. As each upward ramp enters the service area of a ward floor, there is a square post balustrade with a dark brown varnish finish. This balustrade is on both sides of the ramp at the second floor and fully articulated with square newels with caps. At the first floor the balustrade is shorter and only on one side. Instead of a newel this balustrade has a metal structural pole rising to the ceiling. A wood newel pilaster is located at the wall between the ramps.

    There is a dogleg stair behind a door that provides access from the second floor hall to the attic. A varnished bead board half wall serves as a balustrade for the stair. There is ogee molding at each stair nose and plain wood baseboard 12 inches high. There is wood trim around the stair opening in the attic floor. The

first flight is three steps shorter than the second. There is evidence of a door added inside the stair and now removed.

3. Flooring: The original wood pulp floors in the upper floors are covered by a variety of later materials, including twelve inch square asphalt tiles, twelve inch square vinyl tiles, vinyl sheet flooring with a tan faux mosaic design, and recent wood laminate flooring (day rooms). The concrete floors in the basement are generally covered with sheet flooring, square tiles, or commercial carpet.

4. Wall and ceiling finish: The walls are plaster with rounded corners, particularly on the first and second floors where patients were housed. Areas where fiberboard walls have been added in the basement have angled corners. There are also remnants of a modular plastic and metal wall system in part of the basement. Applied vinyl or composite baseboards are used on all three finished levels. The attic is unfinished, with a stone firewall between the service and ward portions of the building.

   Plaster ceilings were used throughout the building. The ceiling is lower in the day rooms than the wards and service area. Areas of the basement have remnants of older acoustic tiles affixed directly to the ceiling. Acoustic tile drop ceilings have been added in the open wards and service area rooms. The original ventilation duct conduit which projected at the center of the ward ceiling is now encased by modern ductwork and the drop ceiling. The wood lathe and plaster construction of this duct conduit is still visible in the attic.

5. Openings:

   a. Doorways and Doors: The entrances from the corridor to the connecting hyphen have two-leaf metal doors with push bar hardware, Norwalk auto closers, and fixed wire glass lights. Additional two-leaf doors at the mid-point of the ramps, where the ward building begins, are no longer extant. Doorways between the open ward and adjacent spaces had doors set directly in the plaster walls with rounded sanitary edges. Doorways to the area rooms and basement offices include a mix of original and added openings. The original doorways have a wide tapered molding which projects slightly and has a thick bead at the outer edge and two over two recessed panel wood doors. The other common door is a mid-1950s replacement of solid wood with a medium brown veneer (door to attic, bathrooms, shower rooms). A similar door with a small square fixed light appears at the doorways between the wards and day rooms.

      Other recent replacement doors have lever handles such as those leading to the porches and between the service area and wards. Original drawings indicate that doorway between the service area and ward originally had a two-leaf door; this opening now has a wide modern door. On both patient

floors one window on the south elevation was converted into a doorway for the fire escape. It contains a modern door, but the trim was retained and extended to match. There is a recent metal door in the attic firewall. The opening in this stone wall has a brick relieving arch.

b. Windows: At the interior the windows are set into the wall with rounded plaster edges. Each window has a projecting wood sill with a stepped apron below, usually with a dark brown varnish finish (wards) or painted (basement and shower/bathrooms). The window hardware includes sash locks and recessed finger plates. In the wards the window openings have a section of flat wood panel between the window sash and transoms.

6. Decorative features and trim: There is a large tan brick fireplace surround with a keystone and a wood mantel in the day room at the end of each ward. The hearth has been covered by modern wood laminate flooring, but the inside of the firebox is brick. Otherwise, the interior finishes were deliberately kept unornamented and easy to clean for sanitary purposes.

7. Hardware: The typical door hardware is a brass knob and escutcheon with keyed locks above the knobs. Later doors have push bar or lever handles. Window hardware consists of sash locks and recessed finger plates.

8. Mechanical equipment:

a. Heating, ventilation: The ward buildings had an elaborate series of vents and ducts to move air, keeping with contemporary standards of hospital design. There was a fan room located in the basement, roughly under the center of the wards. Remnants of this system are most clearly visible in the attic, with vents flanking the firewall door and ductwork running along the center of the attic in a trough that projects on the ward ceiling below. Incoming air was delivered through this large ceiling duct. The intakes for outgoing air were located along the exterior wall and the ventilation ducts met in the middle of the attic. They then vented up through the roof ventilators between the second and third, and fifth and sixth truss. A surviving section of ductwork is between the fifth and sixth truss. The ducts also connect toward the end near the day rooms. The intake vents are still in place here. The ductwork now includes linked square and round sections of painted galvanized metal suspended above the trough.

The radiators throughout the building are a mid-twentieth century model of thin fins in a metal cover. Radiant heat was provided via a central boiler when the original ventilation system was deactivated.

b. Lighting: Currently Ward 4 has a variety of fluorescent ceiling fixtures, including modern fluorescent lighting incorporated into the drop ceilings.

c. Plumbing: Ward 4 was built with plumbing, including bathroom and shower rooms on each patient floor. Later changes have included installing external pipes in some areas and completely reconfiguring the bath and shower rooms. Currently the housekeeping closets on the patient floors have a floor utility sink in the corner. Each of these floors also has a shower room with one older vitreous china tub, and two shower stalls. The bathrooms have a row of six wall-mounted sinks along the exterior wall. These porcelain-coated cast-iron sinks have mixer faucets and the piped are enclosed behind a built-out covered with six inch square white ceramic tiles. Two vitreous china urinals with metal dividers and five toilets with metal stalls are located along the inner wall. All of these fixtures seem to date to the same period of renovations during the mid-twentieth century (after 1952).

There is a small water closet with a toilet and wall-mounted in the sink located in the basement designated for female employees of the basement offices. The fixtures and finish indicate that it was added during the 1930s.

D. Site:
1. Historic landscape design: Ward 4 is attached to the Battle Mountain Sanitarium hospital complex. The spaces between the wards include lawns.

PART III. SOURCES OF INFORMATION

A. Architectural drawings: Copies of Thomas Rogers Kimball's drawings for many of the original buildings are located in the Maintenance/Engineering Office at the Hot Springs campus. The Department of Veterans Affairs Washington, D.C. central office (VACO) microfilm drawings collection (PLIARS) was not available for this project but many of the originals accessed at Hot Springs appeared to have been scanned for PLIARS. Additional original drawings, including presentation watercolors, are located in RG3607 Thomas Rogers Kimball Papers at the Nebraska State Historical Society, Lincoln, Nebraska. Some original drawings, including site plans, have not been located. See footnotes and figures for specific drawings accessed for this report.

B. Early Views: The best sources of early views are the published souvenir books from 1909 and 1919. The Battle Mountain Sanitarium Museum located on site has copies of these publications as well as many original historic photographs. The Nebraska State Historical Society and the Helen Magee Heritage Room at the Hot Springs Public Library are other good sources for early photographs. See citations in the figure captions and in the footnotes.

C. Selected Bibliography:

Collections and Archives –
Hot Springs, SD -

Battle Mountain Sanitarium Museum (includes an informal archive), Hot Springs Campus, VA Black Hills Health Care System.

Maintenance/Engineering Department, Hot Springs Campus, VA Black Hills Health Care System.

Helen Magee Heritage Room, Hot Springs Public Library.

Lincoln, Nebraska -
RG 3607 - Thomas Rogers Kimball Papers, Nebraska State Historical Society.

Washington, DC-
Department of Veterans Affairs Central Office [VACO] Library [NHDVS Annual Reports and Inspection Reports].

Battle Mountain Sanitarium files, Federal Preservation Officer, Office of Construction and Facilities Management, VACO.

Published Sources and Reports –
Battle Mountain Sanitarium, Hot Springs, South Dakota. c. 1909.

Battle Mountain Sanitarium: Branch National Home for Disabled Volunteer Soldiers. Omaha: Douglas Printing Company, c. 1919.

Board of Managers – National Home for Disabled Volunteer Soldiers, *Annual Reports*, various years; many volumes include *Proceedings* of the Board of Managers meetings.

Celebrating a Century of Caring for America's Heroes - VAMC Hot Springs, South Dakota, 1907-2007, (2007) [100th Anniversary booklet].

Cetina, Judith Gladys. "A History of the Veterans' Homes in the United States, 1811-1930," Ph.D. dissertation, Case Western Reserve University, 1977.

Inspector General's Office. *Annual Report of Inspection - National Home for Disabled Volunteer Soldiers*. Washington, DC: GPO, 1894- . [author name and exact title vary]

Julin, Suzanne. "National Home for Disabled Volunteer Soldiers – Assessment of Significance and National Historic Landmark Recommendations." 2008. U.S. Department of the Interior, National Park Service, Washington, D.C..

Julin, Suzanne. "Battle Mountain Sanitarium, National Home for Disabled Volunteer Soldiers," Hot Springs, Fall River County, South Dakota. National Historic Landmark Registration Form, 2008. U.S. Department of the Interior, National Park Service, Washington, D.C.

Steele, William L. "Thomas Rogers Kimball: An Appreciation," *The Octagon: A Journal of the American Institute of Architects* 6, no. 10 (October 1934): 3-4.

Spurlock, Trent, Karen E. Hudson, Dean Doerrfeld and Craig A. Potts. "United States Second Generation Veterans Hospitals," National Register of Historic Places Multiple Property Documentation Form, 2011. National Park Service, U.S. Department of the Interior, Washington, DC.

PART IV. PROJECT INFORMATION

Documentation of Ward 4/Building No. 4 as a representative ward pavilion at the Battle Mountain Sanitarium of the National Home for Disabled Volunteer Soldiers was undertaken in 2013-14 by the Historic American Buildings Survey (HABS) of the Heritage Documentation Programs division of the National Park Service, Richard O'Connor, Chief. The project was sponsored by the Department of Veterans Affairs (DVA), Office of Construction and Facilities Management, Kathleen Schamel, Federal Preservation Officer. Project planning was coordinated by Catherine Lavoie, Chief, HABS; and by Douglas Pulak, Deputy Federal Preservation Officer, DVA. The field work was undertaken and the measured drawings were produced by Project Supervisor Mark Schara, AIA, HABS Architect, HABS Architects Paul Davidson, Daniel De Sousa, and Ryan Pierce, Jobie Hill (University of Oregon) and Emma Greenberg (Louisiana State University). The historical reports were written by HABS Historian Lisa P. Davidson. The large format photography was undertaken in 2008 by HABS Photographer James W. Rosenthal and in 2013 by HABS Contract Photography Renee Bieretz. Vital assistance was provided by Dena Sanford at the Midwest Regional Office, National Park Service, and by Patrick Lyke, Douglas Sprinkle, and other VA staff members at the Hot Springs Campus.

PART V. ILLUSTRATIONS

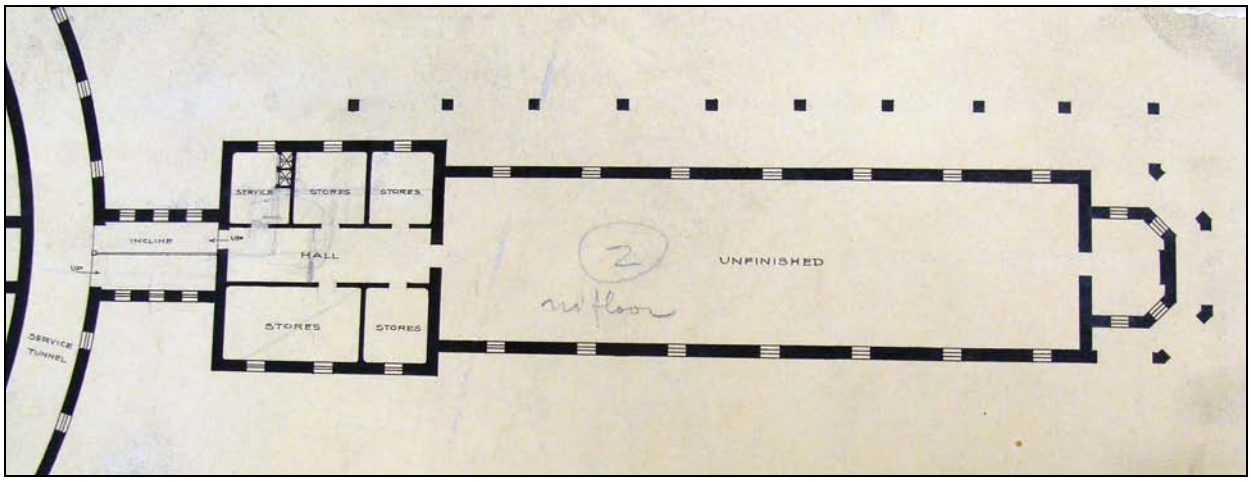

Figure 1: Excerpt of "Proposed Battle Mountain Sanitarium Basement Floor Plan" showing Ward 2 (4), c. 1902
Source: Kimball Papers, Nebraska State Historical Society

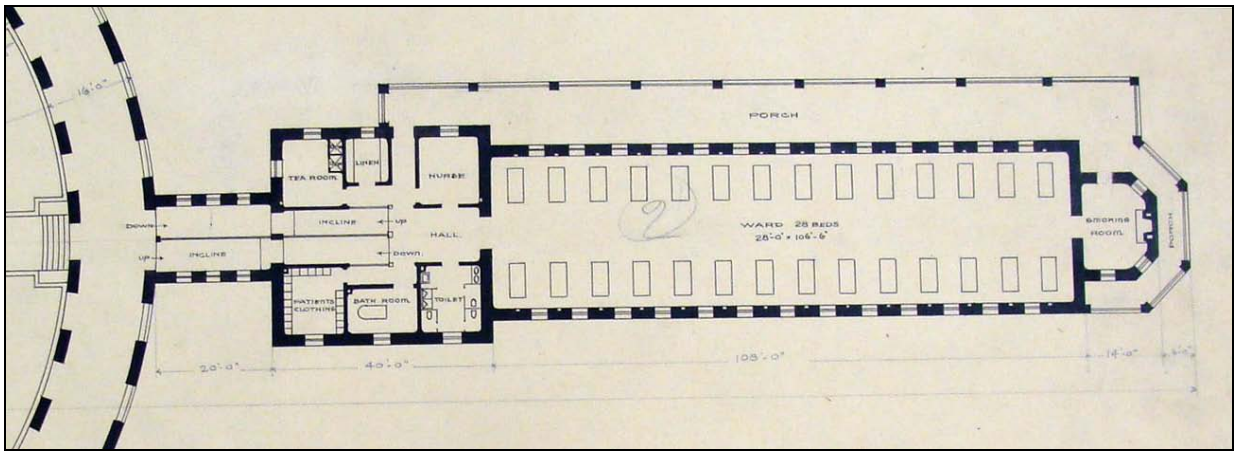

Figure 2: Excerpt of "Proposed Battle Mountain Sanitarium First Floor Plan" showing Ward 2 (4), c. 1902
Source: Kimball Papers, Nebraska State Historical Society

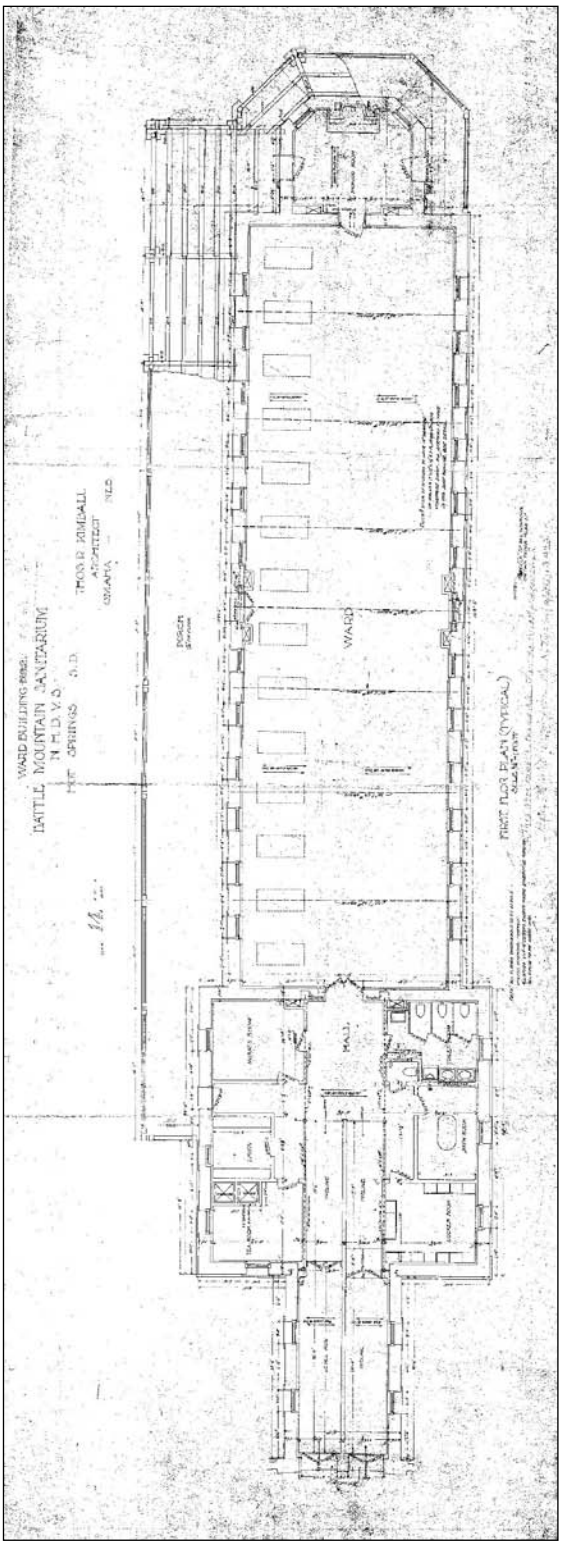

Figure 3: Thomas Rogers Kimball, Ward 2 (now 4), First Floor Plan (Typical), (11 June 1903)
Source: Hot Springs Campus Drawing Files

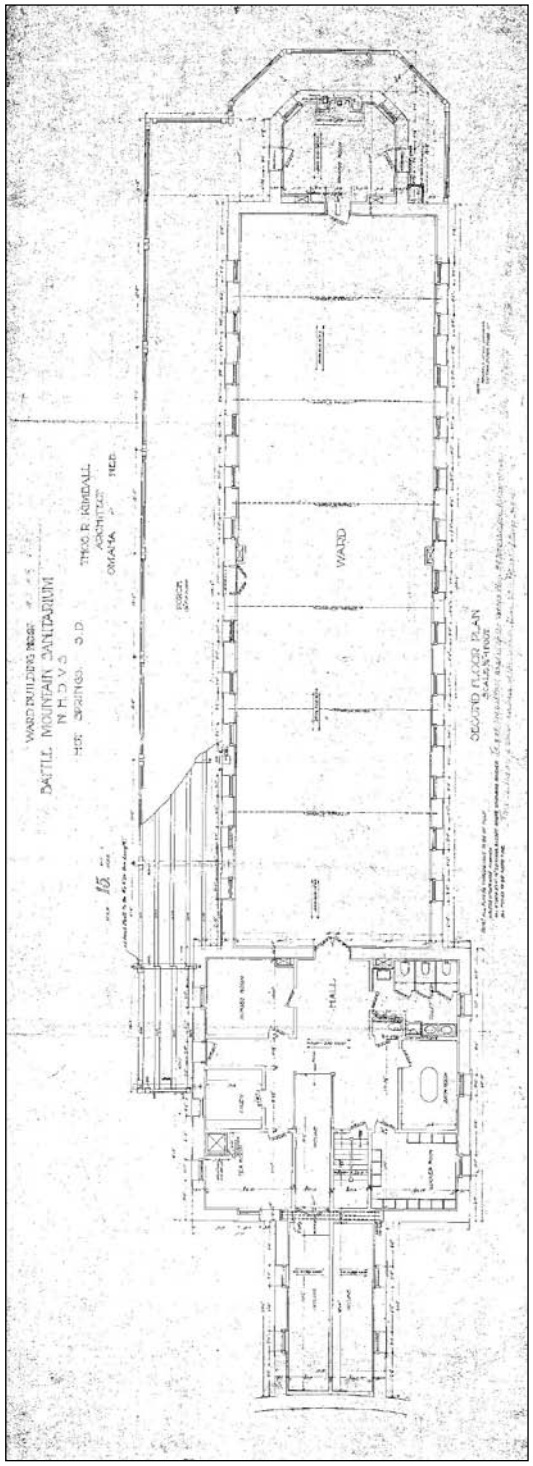

Figure 4: Thomas Rogers Kimball, Ward 2 (4), Second Floor Plan (Typical), (11 June 1903)
Source: Hot Springs Campus Drawing Files

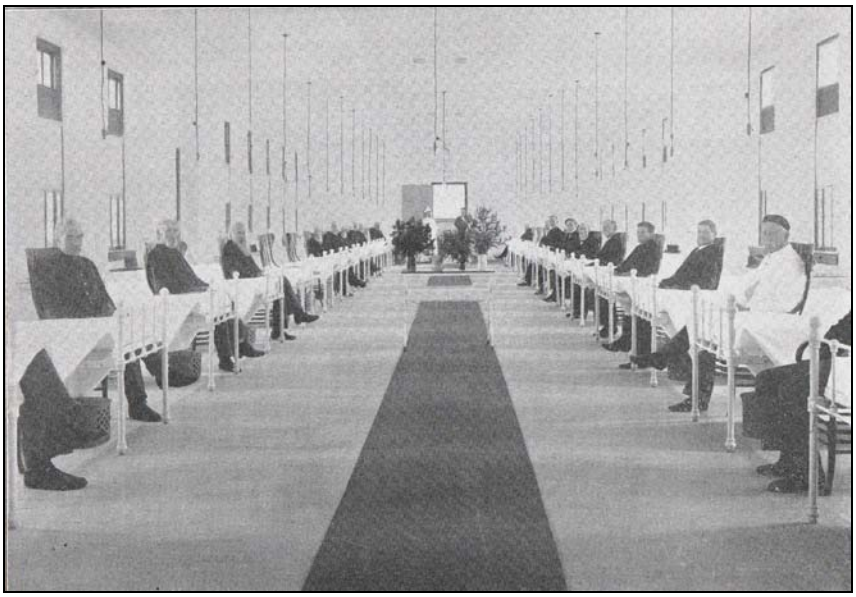

Figure 5: Interior of Ward 1 (First Floor), c. 1909
Source: *Battle Mountain Sanitarium, Hot Springs, South Dakota*

Figure 6: Interior of Ward 5 (Second Floor), (December 1929)
Note ventilation ducts and intake on ceiling and side walls.
Source: Courtesy of Hot Springs Public Library

Figure 7: Interior of Ward, c. 1940
Source: Battle Mountain VA Museum Collection

Figure 8: Interior of Ward, c. 1960
Source: Battle Mountain VA Museum Collection

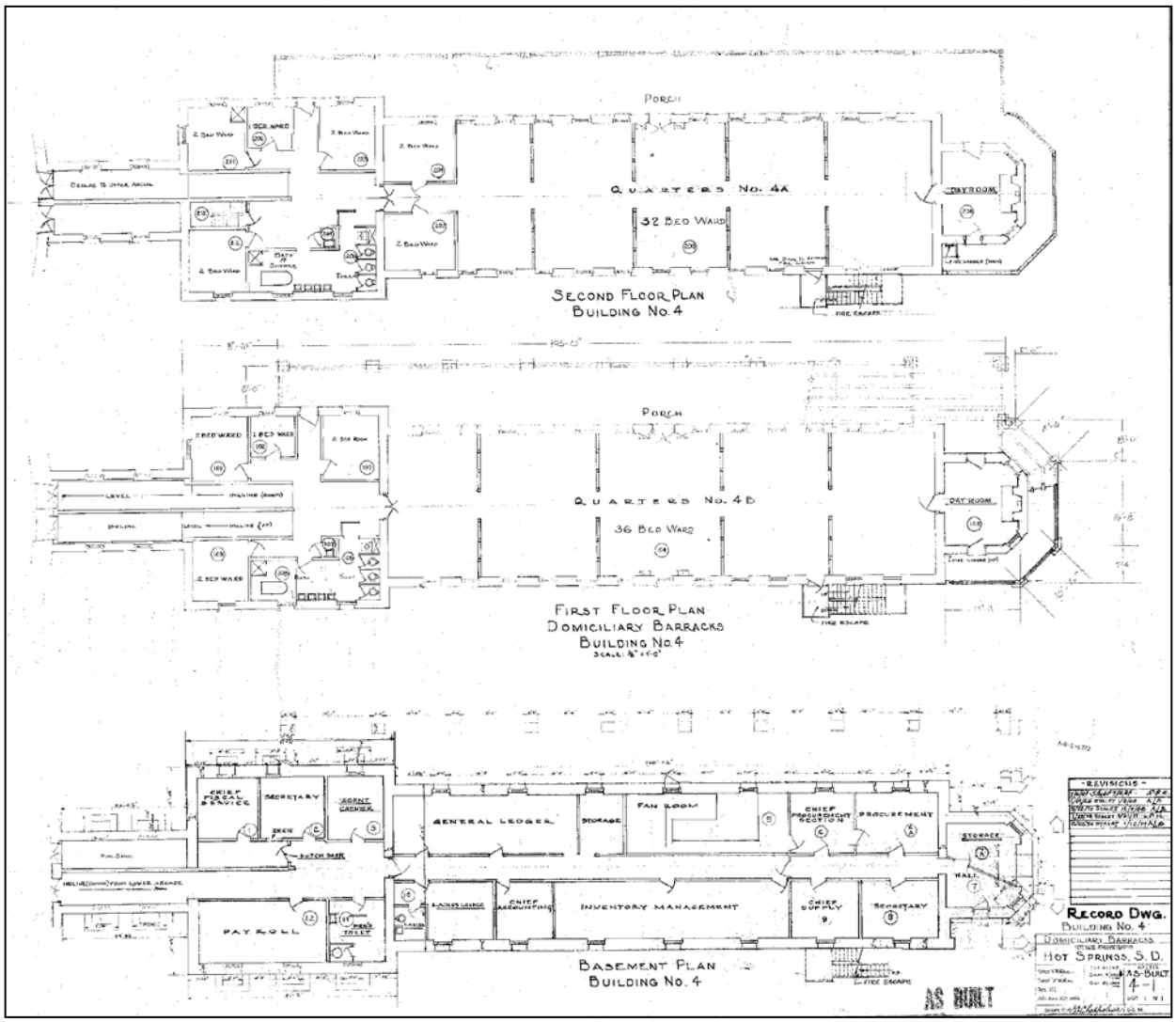

Figure 9: Building No. 4 Floor Plans, (20 August 1952)
Source: Hot Springs Campus Drawing Files