

# Cultural Resources Assessment for the Fort Lowell-Adkins Steel Property within Historic Fort Lowell, Tucson Pima County, Arizona

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Submitted to

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**Desert Archaeology, Inc.**

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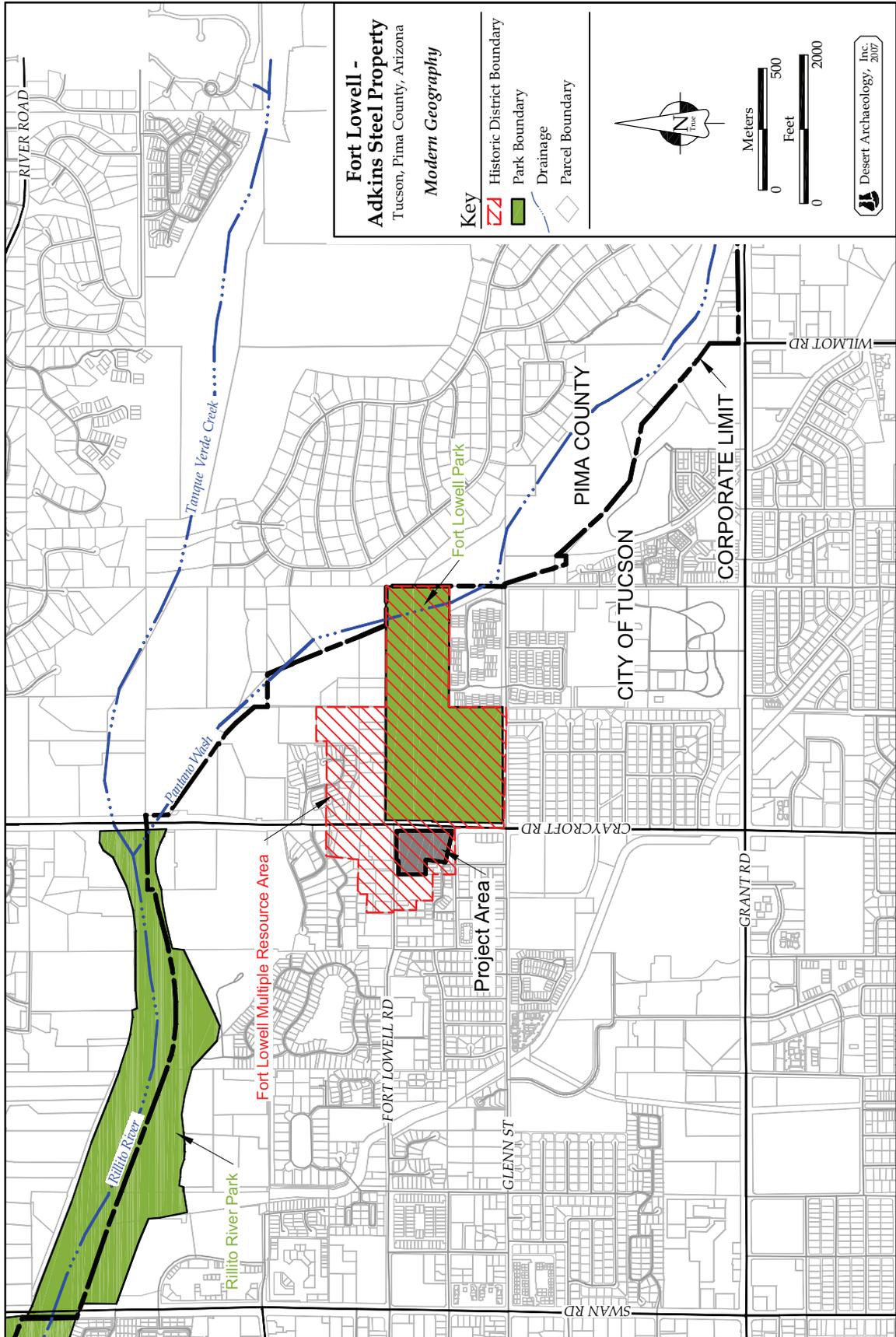


Figure 2. Modern geography of Fort Lowell and the Fort Lowell-Adkins Steel property.

## Fort Lowell

A military post was initially established by the U.S. Army in the downtown portion of Tucson in 1856, following the departure of the Mexican military in March of that year. The post was not permanent, and the soldiers occasionally left the community unprotected when, for example, they were stationed elsewhere or when the Confederate Army took control of the village for a few months in 1862 (Peterson 1976).

On 29 August 1866, the military post at Tucson was made permanent, with the post officially named Camp Lowell on 11 September 1866 (Peterson 1976; Post Returns, NARA microfilm 63, roll 942). The camp was located south of modern-day Broadway Boulevard, and remained at that location until 1873. It served as a supply depot for other camps in Arizona until 1871. Soldiers occasionally left the fort to patrol or to pursue Apaches (Peterson 1976).

For various reasons, such as the need for expansion, poor living conditions (soldiers bunked in tents), the prevalence of malaria in the Santa Cruz River environs, and civilian complaints about drunken soldiers, commanders recommended that the camp be relocated along the Rillito, at a point along the creek 6 miles northeast of Tucson. On 10 March 1873, the decision to move the camp reached Tucson, and near the end of March 1873, the troops were relocated, initially living in canvas tents (Peterson 1976).

Construction of permanent buildings soon began. Contracts for the production of adobe bricks were assigned to the lowest bidder. In October 1873, Lord & Williams won with a bid of \$30.60 per 1,000 bricks "in the wall" (*Arizona Citizen* 1873a).

Work was well underway in September 1873, when it was reported that:

We were out at Camp Lowell Wednesday and found about forty men, citizens and soldiers, employed putting a roof on the commanding officer's building and the guard-house. These buildings are well constructed as far as they have gone. Gen. Carr and Maj. Furey are much embarrassed in prosecuting the work, by not having any means to work with. They have not even transportation and of course until they are better supplied, but little progress can be hoped for. In exploring the country a few days since for the purpose of laying off a military reserve, they discovered a few miles north of the post a beautiful little lake of pure water, filled with fish (*Arizona Citizen* 1873b).

The project area was mapped by the Surveyor General's Office (later the Government Land Office), and a map was completed on 31 December 1873 (Figure 4). At that time, the northeast quarter of Section

35 had some trees, a house near the northwestern corner, and a small canal running off Rillito Creek (or perhaps a road; the map is not clear). The commanding officer's building at Camp Lowell is depicted on the map, suggesting it was completed at that time.

Work paused in 1874, when construction funds were withheld. Soldiers were also out following raiding Apaches. In December, the commander of the fort went to Prescott, and his complaints led to the provision of funding to complete the fort (Peterson 1976:8-9). Initial construction continued into 1875.

### Building Camp Lowell

The building of this camp has been in slow progress for about two years. We learn that only about \$19,000 have been expended so far in the work, and that it will require \$10,000 more to complete the post in proper shape. We are pleased to learn by this dispatch of the present advancement of the work:

CAMP LOWELL, June 22. - The construction of Camp Lowell is now nearly completed. In all, there are seven sets of officers quarters, two sets of quarters for infantry and one for cavalry companies, and one for regimental band, besides suitable and well built offices for the post adjutant and quartermaster, also guard house, store-houses, corrals, etc. Considering the limited means for its construction and the lack of their seasonable availability, the post has been well and cheaply built, and is now among the best of the Territory... (*Arizona Citizen* 1875a).

In August, it was reported that:

Col. John N. Andrews, Eighth Infantry, showed us around during our short stay, and we were surprised to see the many good buildings, and the air of comfort on every hand...The quarters of the officers and men are substantially finished, although much is to be done in the way of putting the grounds around including the parade ground, in nice order... (*Arizona Citizen*, 7 August 1875b).

At completion, the fort was centered around a large parade ground with a flagstaff in its center south side. The seven officer's quarters were located along the southern edge with a double row of cottonwood trees along their front, known as Officer's Row. The commanding officer's quarters was in the center, with three officer's quarters on each side. Adobe walls enclosed the backyards of each of the houses, and a picket fence framed their front (Peterson 1976:13). A map drafted in 1876 shows the layout of the post (Figure 5). A clearer version was re-drawn for publication in 1976 (Figure 6), although some errors were introduced in this version.

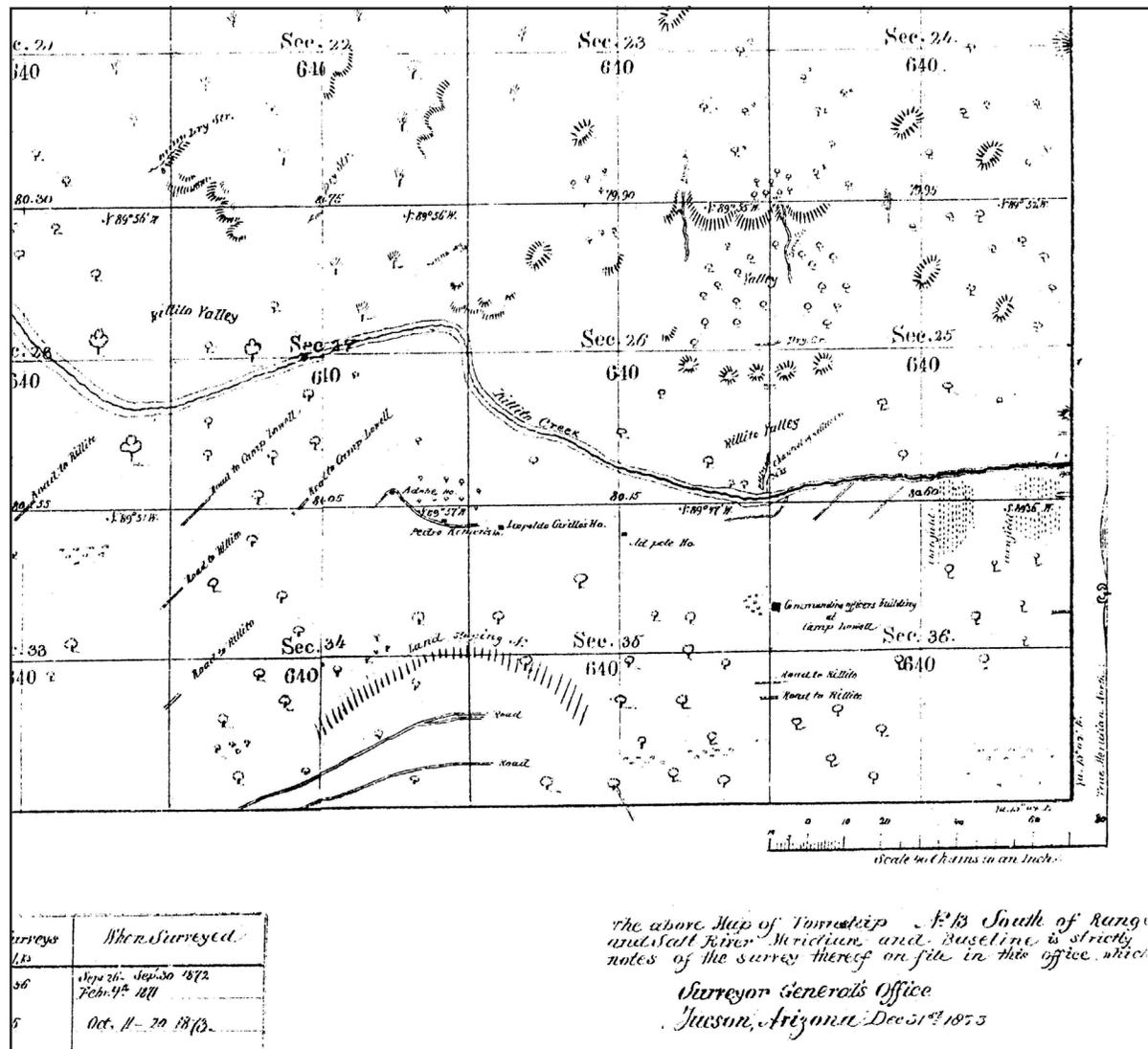


Figure 4. A portion of the Surveyor General’s Office map completed in 1873, including the northeast quarter of Section 35 of Township 13 South, Range 14 East, which is the location of the Fort Lowell-Adkins Steel property.

On the western side of the parade ground were the adjutant’s office, bake house, guardhouse, quartermaster and commissary offices, and the post trader’s store. The quartermaster and commissary’s warehouse, quartermaster corral, blacksmith shop, cavalry band headquarters, cavalry company quarters, infantry company quarters, three company kitchens, cavalry corral, and at least two privies were on the northern side of the parade ground. The infantry company quarters, a kitchen, and a privy, the hospital and its kitchen, and at least eight married non-commissioned officer’s quarters were on the eastern side of the parade ground (Peterson 1976). A telegraph office was also present, but is not depicted on the 1876 map (AHS photo 12880). Additional wood structures – barracks, sheds, and equipment buildings – were constructed in the mid-1880s,

when the fort was at full capacity (Peterson 1976:15). Two additional non-commissioned officer’s quarters were built along the eastern side of Officer’s Row in the late 1880s.

The fort initially continued to use the National Cemetery in downtown Tucson for the burials of soldiers. The last known military burial in this cemetery was in 1881 (O’Mack 2006:117). Seventy-four burials were removed from the National Cemetery and re-interred at a new cemetery that was established near Fort Lowell, also perhaps in 1881 (O’Mack 2006:21-26). This cemetery was located southeast of the fort, and was in use until the fort was abandoned in 1891. Eighty burials were disinterred and taken to the San Francisco National Cemetery (including west side burials 1275-1296, 1053-1055, 1059, 1063, and 1366-1387). Some burials,

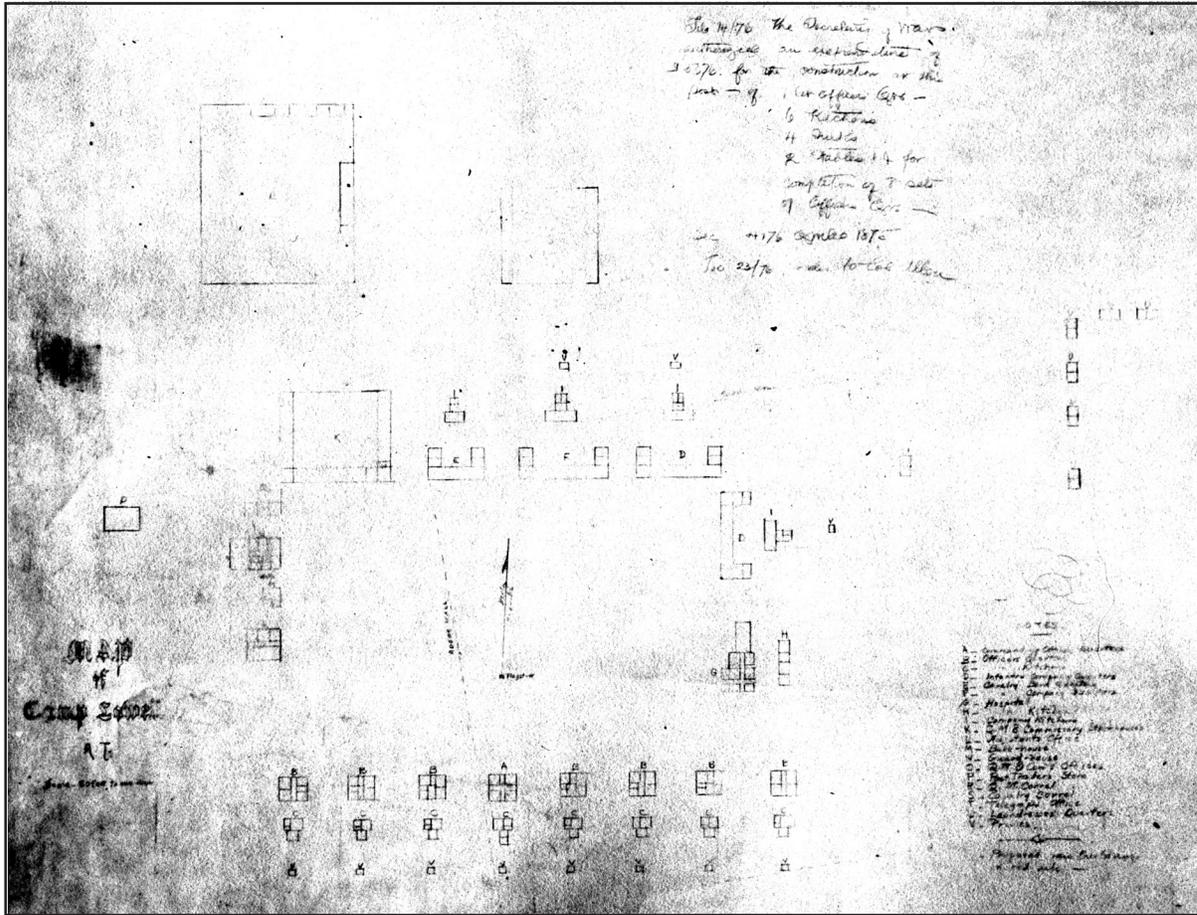


Figure 5. The 1876 map of Fort Lowell (AHS/SAD 12880).

including those of civilians, were left in place (Edith C. Tompkins collection, MS 790, AHS/SAD).

The exact location of the Fort Lowell Cemetery is not known. A map in the Edith Tompkins manuscript collection suggests it was located on the southern side of "Cienaga Road" southeast of the fort in the northeast quarter of Section 36 (MS 790, AHS/SAD) (Figure 7). The cemetery was relocated on private property in 1952, when members of the local Post 549 of the Veteran's of Foreign War received information from the U.S. Army Command. A photograph in a local newspaper clearly shows grave depressions and the base of a grave marker (*Arizona Daily Star* 1952).

The original buildings at the fort had adobe brick walls. Pine beams brought from the Santa Catalina Mountains were laid across the tops of the walls. Over these beams, saguaro ribs were positioned, and earth was packed on top. During the rainy seasons of 1876, 1877, and 1878, the roofs leaked, and earth and mud fell into the rooms (Weaver 1947:73). Tin roofs were not installed until sometime after mid-1879. Porches and screen doors were added in 1882; the milled lumber and other materials required were

easier to transport after the 1880 railroad arrival in Tucson. Overall, little money was spent for maintenance, repair, and new construction at the fort (Peterson 1976:10).

An average of 10 officers and 140 enlisted men were stationed at Fort Lowell, with the number of men increasing in 1883, from one company to three companies, due to the increased military efforts against the Apache (Schuler 2000; Weaver 1947:76). The highest number of officers stationed at one time at the fort was 18. There was usually more than one officer living in each of the seven officer's quarters at the post. The number of rooms allotted varied by rank, with a lieutenant receiving one room, a captain two rooms, a major three rooms, and a colonel four rooms (David Faust, personal communication 2007). Enlisted men lived in barracks along the northern side of the parade ground. Despite the physical separation of Tucson and the post, soldiers and civilians frequently traveled between the two, often participating in social and sporting events.

During the 1870s and 1880s, the post was a supply depot for other camps and forts in Arizona. Soldiers at the post participated in sorties against hostile

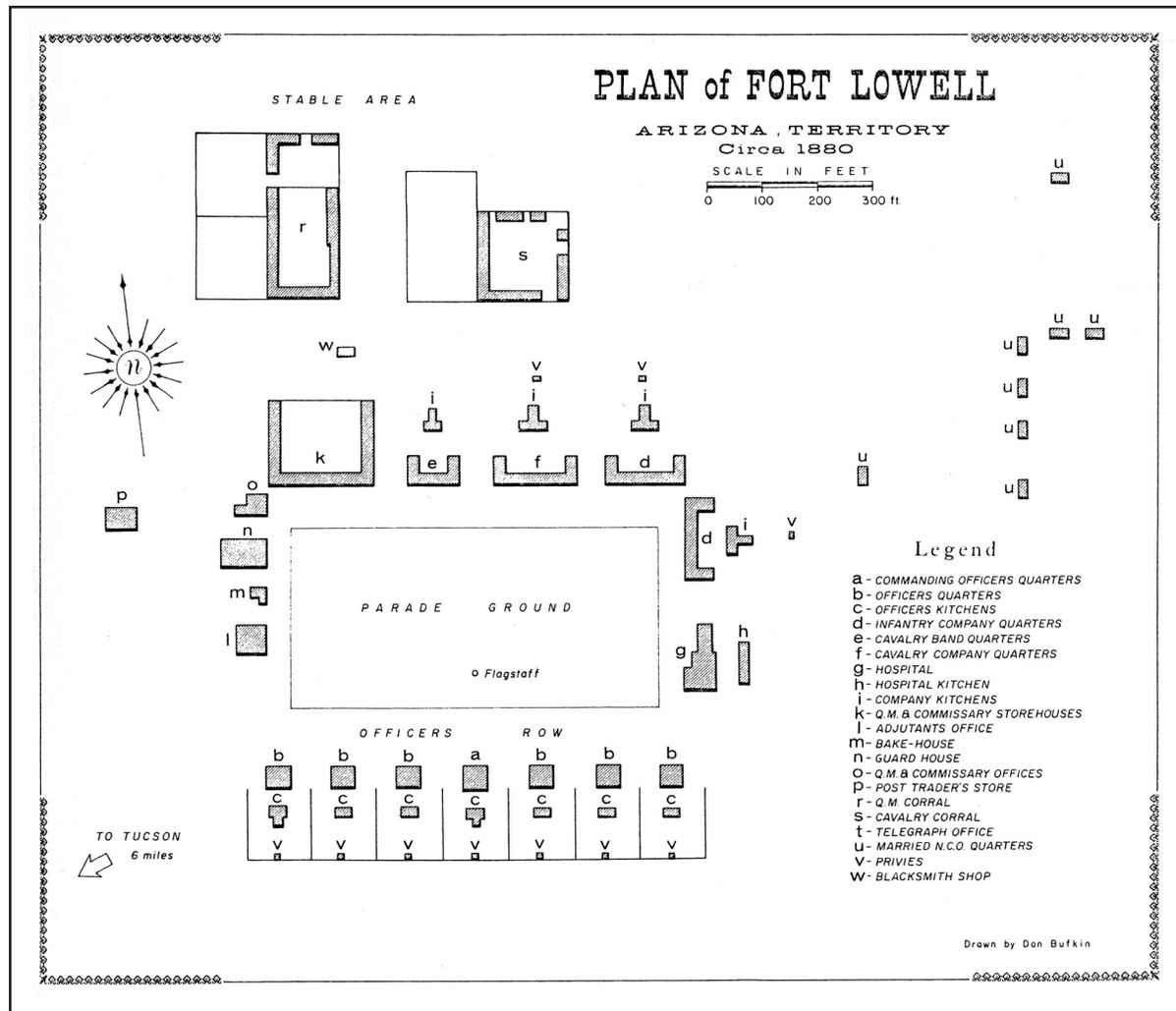


Figure 6. The 1876 map of Fort Lowell, redrawn by Don Bufkin (Peterson 1976).

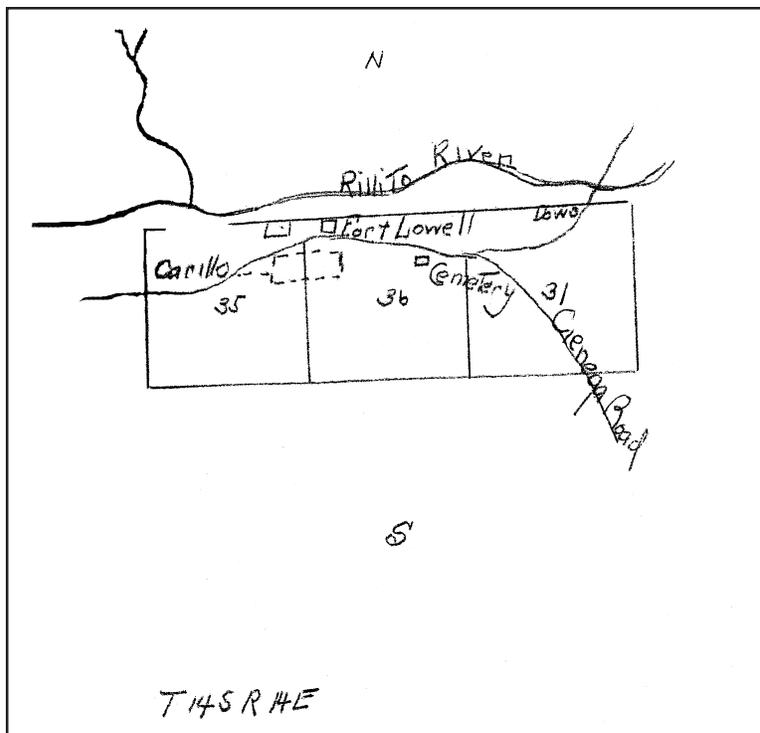
Native Americans, most commonly, various groups of Apaches. Camp Lowell officially became Fort Lowell in 1879. The mid-1880s saw the final subjugation of the Apaches, with the surrender of Geronimo in 1886. As Apache issues decreased in the next few years, the U.S. Army began to focus its efforts along the U.S.-Mexico border. It became increasingly apparent that the number of military posts in Arizona could be reduced. The decision was made to abandon Fort Lowell, and, on 14 February 1891, the last soldiers left the fort. In April 1891, the fort was transferred to the Department of the Interior to be sold as surplus property (Peterson 1976:14-17). Some of the usable materials from the site were stripped and taken to Fort Yuma for reuse (David Faust, personal communication 2007).

Interest in obtaining the land of Fort Lowell arose in the mid-1890s. Henry Ransom, an African-American resident of Tucson, attempted to claim 160 acres

of the fort in 1895 (apparently unsuccessfully) (*Arizona Daily Citizen* 1895).

In 1896, the *Arizona Daily Citizen* reported that the Department of the Interior, General Land Office, had authorized the sale of buildings and the land for the NE ¼ of NE ¼ and the SE ¼ of NE ¼ of Section 35. The buildings located on the NW ¼ of SW ¼ of Section 36 were also to be sold, but the land was to be kept for school purposes. The buildings on Section 36 were to be removed, or the land leased by the purchaser (*Arizona Daily Citizen* 1896).

An auction was held on 18 November 1896, and the portable portions of buildings sold. Windows, doors, and their frames, beams, tin roofing, and wood flooring were sold and removed. Many items were reportedly purchased by Lyman Wakefield, who later incorporated the materials into homes he was building in downtown Tucson (Fort Lowell ephemeral file, AHS). The cottonwood trees lining



**Figure 7.** A hand-drawn copy of the United States Army map, showing the location of the Fort Lowell Cemetery (Edith Tompkins manuscript collection, MS 790, Arizona Historical Society, Tucson).

Officer's Row were cut down (Peterson 1976:17). Afterwards, some buildings became the residences of local Mexican-American families. Others decayed due to neglect and vandalism. Portions of the Fort Lowell Reservation were sold to private citizens, and another large piece was given to the University of Arizona.

The first preservation efforts occurred in the late 1920s. Tucson residents held a dance to raise money to purchase the lease on the fort, valued at \$750 (Fort Lowell ephemeral file, 1920s, AHS). Mr. and Mrs. W. C. Harrington, who owned the portion of the fort east of Craycroft Road, were asked not to damage the standing adobe walls on their property in June 1929 (*Tucson Citizen* 1929). Additional money was raised later in the year (*Arizona Daily Star* 1929). Dr. Byron Cummings of ASM used the money to obtain a lease of 40 acres of Fort Lowell. The Harringtons were subsequently paid a total of \$1,500 for improvements they had made on the property, with the University of Arizona contributing \$750, and moneys collected by Mrs. George Kitt and the Tucson Chamber of Commerce providing another \$750. The Harringtons were also paid a yearly lease fee. The Arizona Archaeological and Historical Society then organized an effort to fill in potholes at the site (Bieg et al. 1976:73).

The 1930s saw an attempt to create a national monument through the National Park Service (*Arizona Daily Star* 1936). In 1932, a Fort Lowell Bill came before the United States Congress but failed to pass (Bieg et al. 1976:74). In 1933, adobe walls were built along the eastern side of Craycroft Avenue and on the northern side of the main portion of Fort Lowell by the Civil Works Administration (C.W.A.). Two years later, the C.W.A. from Camp SP-11, under the direction of Charles Maguire, created diversion ditches, constructed checkdams, and filled in gullies along the portion of the fort east of Craycroft Road (Fort Lowell ephemeral file, AHS). Work at the site ended in 1936, when funding of the program was cut (Bieg et al. 1976:74). Maguire continued to interview local residents in 1937 and 1938, collecting information about life at the fort, the appearance of structures, the location of the fort flagpole, and architectural elements from buildings. He also prepared a

master plan for the proposed park (Fort Lowell ephemeral file, AHS). Unfortunately, this effort failed. Historic American Building Survey forms, plan view, cross-section, exterior façade drawings, photographs, and data sheets were prepared by Maguire and other government personnel for the second officer's quarter's kitchen, the third officer's quarters, and the post hospital (online at the Library of Congress website, <<http://memory.loc.gov/>>).

Maguire completed a map in June 1937 for a proposed Fort Lowell State Park (Figure 8). This map indicates that, for the Fort Lowell-Adkins Steel property, the adjutant's office, bake house, and guard-house were in ruins. The first and second officer's quarters and the third officer's quarter's privy were standing. The third officer's quarters and the second officer's quarters were occupied. The first and third kitchens and the first and second privies were in ruins. All three of the latrines were marked as having fallen walls. The adobe walls demarking individual yards for the officer's quarters were partially intact.

Another map was drafted by Philip Contzen in the same general time period (Figure 9). Contzen's map varies quite dramatically from Maguire's map in some details. It does include the Fort Lowell-Adkins Steel property.

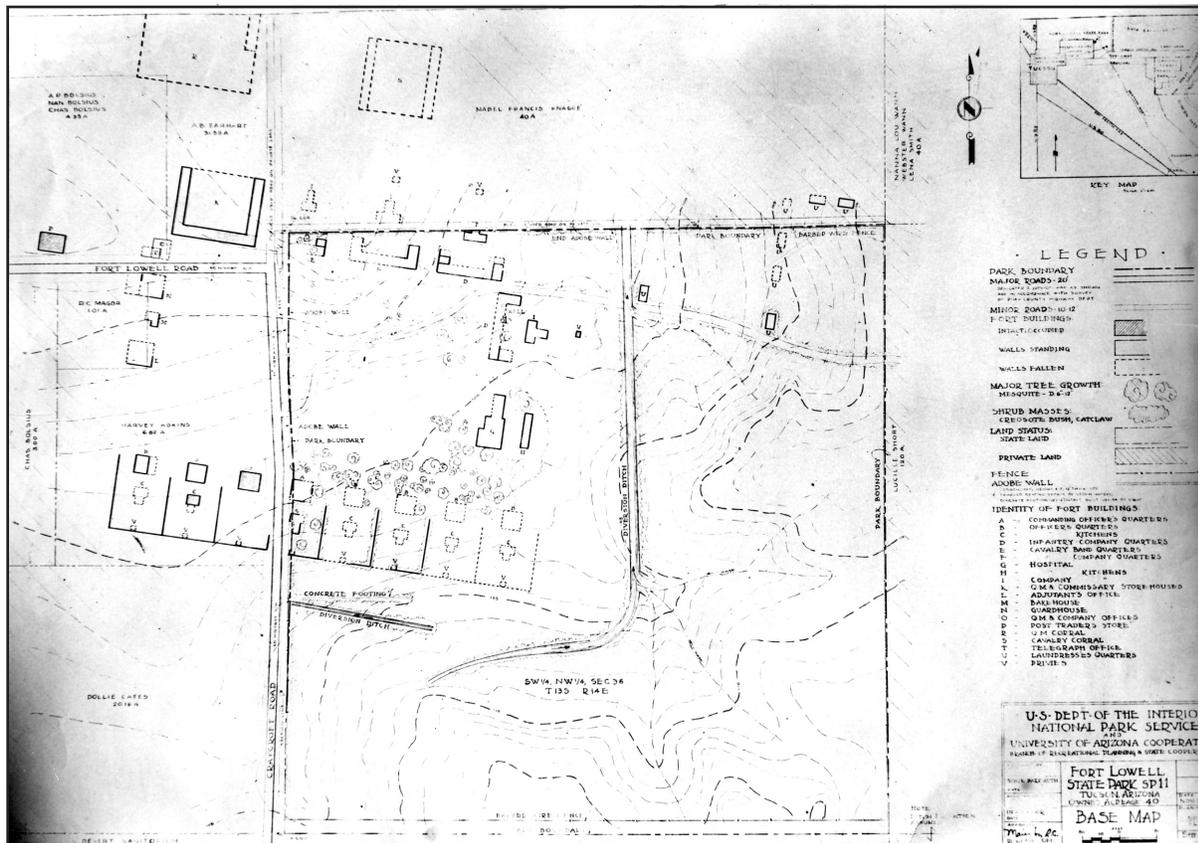


Figure 8. A 1937 map of Fort Lowell, drafted by Charles Maguire (AHS/SAD 12887).

In 1941, the president of the University of Arizona instructed Dr. Emil Haury of ASM to turn the fort over to another agency. Subsequently, in 1944, the property was auctioned, and it was purchased by the postmaster of Flagstaff, George Babbitt. He bought it for \$9,000, presumably to help save the ruins (Bieg et al. 1976:74).

Babbitt, in turn, sold the land for \$220 to a local Boy Scout troop in 1945. The scouts planned to reconstruct several of the buildings, but lacked the necessary funding. They were able to erect a shelter over the ruins of the hospital building (Bieg et al. 1976:74; Fort Lowell ephemeral file, 1940s, AHS). In 1952, members of the Veterans of Foreign Wars located the post's cemetery, although unfortunately, this location was later lost again (Bieg et al. 1976:74).

Pima County acquired the property in 1957, paying the Boy Scouts \$50,000 for 37 acres. The county then established the Fort Lowell Historical and Recreational Area (Fort Lowell ephemeral file, 1950s, AHS).

Pima County soon prepared plans to develop the park for recreation. These plans included destruction of much of the fort area for athletic fields. Concerned citizens organized and presented an alternate plan to the county. A committee was established in 1960

to plan reconstruction of the commanding officer's quarters and its kitchen. Archaeologist Al Johnson spent 16 days excavating these structures, privies, and a trash dump (*Arizona Daily Star* 1960; MS 265, AHS). The Junior League donated \$10,000, and an architect prepared plans for the new buildings. Construction began in 1962, and the dedication ceremony was held in November 1963 (*Tucson Citizen* 1963).

In 1971, publication of *Tucson's Historic Districts* noted that Fort Lowell was one of five remaining historic areas the city should consider as possible historic districts. Three years later, local residents and property owners petitioned the Pima County Planning and Zoning Commission to make Fort Lowell a historic zone. The spring of 1976 saw planning students from the University of Arizona canvassing the neighborhood to determine which buildings and structures might be considered historic (Bieg et al. 1976:3-4). The Fort Lowell Multiple Resource Area was nominated to the National Register of Historic Places in 1977, and was listed on the National Register on 10 April 1978 (National Register form). Inventory forms created during this process are housed at AHS (MS 265, binder in file).

Additional properties have been added to the park or entered into public ownership. The Hardy

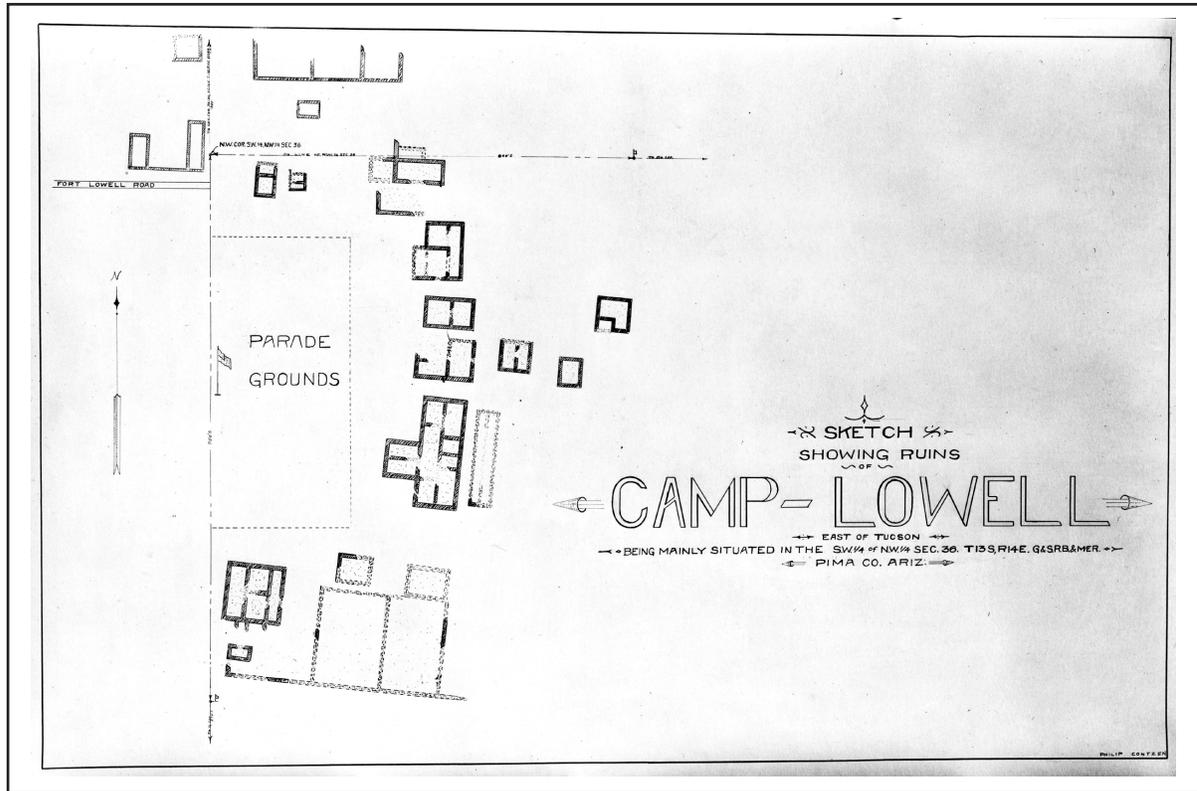


Figure 9. An undated map of Fort Lowell, drafted by Philip Contzen (AHS/SAD BN 207929).

property, north of the main portion of the park, was acquired in 1985. This was the location of the kitchens and privies of the cavalry company and the infantry company, along with the cavalry stables (Thiel 1994). The City of Tucson also acquired the northwestern portion of Fort Lowell in the 1990s. This area contained the quartermaster and commissary storehouses, the blacksmith shop, and the quartermaster stables (Thiel 1997). The acquisition of the Fort Lowell-Adkins Steel property completes public ownership of the core of historic Fort Lowell.

#### Post-Fort Lowell Use of the Fort Lowell-Adkins Steel Property

Fort Lowell was occupied by civilians after its 1891 abandonment, although little is known about these individuals. Period photographs show families living in some of the buildings, including the quartermaster commissary. Strings of dried chili peppers, *ristras*, suggest these were Mexican-Americans, because this form of food preservation is typically associated with this ethnic group in Tucson.

Identification of the residents is made difficult by their invisibility in contemporary records. Tucson City Directories did not include this area. The residents did not purchase the properties so there

are no deeds at the Pima County Recorder's Office. The 1900 U.S. census population schedules provide the best chance to identify the individuals who lived at the fort. Research by Lannie Hartman indicates the people listed on Sheets 14A through 17B of Enumeration District 46 lived in the Fort Lowell area, although it is not known which (if any) lived in the fort buildings. Examination of the census records further reveals that the area was home to Euro-Americans, Chinese immigrants, and Mexican-Americans. The Chinese were working as gardeners, and many of their neighbors were farmers and day laborers. The post-fort occupation both within and adjacent to Fort Lowell has been referred to as "El Fuerte." This appears to be a modern name assigned to the area and has become popular since the 1980s (Turner et al. 1982). It does not appear in historic documents and an every-word search of the *Tucson Citizen* for 1899 to 1921, available on a subscription genealogy website, did not locate a single instance of the term in use.

The 18 November 1896 auction resulted in the stripping of usable materials from most of the remaining buildings, accelerating their destruction through erosion. Photographs taken in the early 1900s clearly show the lack of wooden structural elements, such as window frames and roofs, and the concurrent enlargement of door and window openings and the

melting of adobes along the parapets of buildings (Fort Lowell photographs, AHS).

Lyman W. Wakefield purchased the SE ¼ of the NE ¼ of Section 35, totaling 40 acres, from the U.S. government on 19 April 1897 (BLM Serial No. AZ AZAA 011023, online at <[www.glorerecords.blm.gov/PatentSearch](http://www.glorerecords.blm.gov/PatentSearch)>). The owners of the Fort Lowell-Adkins Steel property are summarized in Table 2.

Lyman Wakefield was born on 5 October 1853, in New York, son of James M. Wakefield and Clarinda Brown. He was married on 11 May 1881, in Pima County, to Anna R. Patrick, with both residents of Pantano at the time (Negley and Lindley 1994:80). Anna was born in May 1866, in Missouri. Wakefield was the Sheriff of Pima County on 4 June 1900, when the census was taken (he served in that office from 1899-1900). Wakefield lived at 205 East 3rd Street in Tucson with his wife, their five living children (Walter, William, Edith, Clarence, and Margaret), a boarder, and a servant (Lyman Wakefield household, 1900 U.S. census, Pima County, Arizona Territory, ED 47, SD 11, sheet 4A). Wakefield likely viewed ownership of the property as an investment, as there is nothing to suggest he or his family lived on the property. Lyman Wakefield died in Tucson on 30 September 1919, from prostrate hypertrophy and infection and is buried in Evergreen Cemetery (see <<http://genealogy.az.gov/azdeath/020/10202839.pdf>>).

On 28 December 1899, Lyman and Anna Wakefield sold their 40 acres for \$1.00 to Thomas Grindell (Pima County DRE 30:256-257). Grindell was born circa 1870, in Platteville, Wisconsin, son of William Grindell and Margaret McCurry. He grew up in Platteville, where his father was a cabinetmaker (Western Historical Company 1881:906). Thomas moved to Arizona and was a resident of Nogales in November 1896 (Pima County DRE 27:635). Thomas Grindell sold the land to his younger brother, Edward Page Grindell, on 20 March 1902, also for \$1.00 (Pima County DRE 32:640).

Edward Grindell was born on 3 July 1873, in Platteville, Wisconsin. On 25 June 1900, Edward lived in Precinct 1 of Tucson and was working as a newspaper editor (Edward P. Grindell household, 1900 U.S. census, Pima County, Arizona Territory, ED 46, sheet 16A). Edward lived in Douglas at the Gadsden Hotel on 26 April 1910, where he was the secretary for the Chamber of Commerce (Nathaniel Grant household, 1910 U.S. census, Cochise County, Arizona Territory, ED 19, sheet 8A). He was described on his World War I draft registration card, created in September 1918, as being tall and slender with gray eyes and black hair. At that time, he was working as a railway agent for the El Paso and Southwestern Railway and living at McNeal, Cochise County, Arizona (WW I draft registration card, online at <[www.ancestry.com](http://www.ancestry.com)>).

Given his white collar status, it seems unlikely that Edward lived on or farmed the property. He may have rented it out instead. On 5 November 1904, Edward Grindell sold the land for \$10.00 to Irvin Douglas (Pima County DRE 45:476). Efforts to locate information about the Douglas family were unsuccessful. They apparently did not remain in Pima County for long, and were not counted on the U.S. census here.

On 22 May 1908, Irvin and Maude Douglas sold the land to Robert D. Cole (Pima County mortgages 23:689). Robert Cole was born in September 1862, in Missouri, and was married circa 1884, to Mary L. (—?—). In June 1900, the couple, their three living children (Rena, James, and Robert), and Robert's father Frank S. Cole lived in Tucson, with Robert working as a farmer (Robert D. Cole household, 1900 U.S. census, Pima County, ED 46, sheet 15B). Robert Cole and his brother William farmed in the area and had already purchased a three-sevenths stake in an irrigation ditch from Bernardino Diaz for \$150 on 23 May 1899. The ditch ran south from the southern side of the Rillito, and their interest allowed unrestricted use of water in the ditch on Mondays, Tues-

**Table 2.** Fort Lowell property owners.

Grantor	Grantee	Date	Reference
United States	Lyman W. Wakefield	19 April 1897	BLM Serial No. AZ AZ A
Lyman and Anna Wakefield	Thomas Grindell	28 December 1899	Pima County DRE 30:256-2
Thomas Grindell	Edward Page Grindell	20 March 1902	Pima County DRE 32:640
Edward Grindell	Irvin Douglas	5 November 1904	Pima County DRE 45:476
Irvin and Maude Douglas	Robert D. Cole	22 May 1908	Pima County Mortgages 23
Robert and Mary Cole	Dixie L. Cate	29 June 1908	Pima County DRE 45:558-5
Dixie L. Cate estate	Dolly Cate		Pima County DRE 47:471
Dolly Cate	Harvey and Fronia Adkins	3 February 1928	Pima County DRE 155:4
Adkins family	OT Gila, LLC	13 March 2006	Pima County Docket 12759
OT Gila, LLC	City of Tucson	9 March 2006	Pima County Docket 12759

days, and Wednesdays (Pima County DRE 30:82). Robert's other land purchases in the Fort Lowell area included 50 acres on the southern side of Section 26 (north of the Adkins Steel parcel), the 80 acres immediately north and west of the Adkins Steel parcel, and land in Section 31 (Pima County DRE 28:710, 30:540, 35:268, 42:298, 45:466, 45:550, 46:155, 46:166). The earliest transaction indicates Cole was in Tucson by 19 September 1898 (Pima County DRE 28:710).

Several irrigation canals (also called *acequias*, or ditches) were run from Rillito Creek to fields on the south and north (Figure 10). The Corbett or Douglas Ditch runs to the north of the Fort Lowell-Adkins Steel property, and was apparently once owned by Irvin Douglas. Some of these canals are still visible north of Fort Lowell Park.

Mr. Dixie L. Cate purchased the property from the Coles on 29 June 1908, paying them \$10.00 and agreeing to pay off the mortgage the Coles had from the Douglasses (Pima County DRE 45:558-559). Richard Longstreet "Dixie" Cate was born on 23 September 1864, in James County, Tennessee, the son of George Oliver Cate and Mary D. Allison. He was married on 27 March 1895, in Hamilton County, Tennessee, to Dolly (often also spelled Dollie) Monger (International Genealogical Index, online at <[www.familysearch.org](http://www.familysearch.org)>). Dolly was born in October 1871, in Tennessee. The identity of her parents has not been confirmed, and a child by that name has not been located on the 1880 U.S. census. It is unclear if Dolly was her given name, or if it was a nickname (Dolly is often a shortened form of Dorothy).

On 9 June 1900, Dixie and Dollie Cate lived in James County, Tennessee, with Dixie working as a farmer (Dixie Cate household, 1900 U.S. census,

James County, TN, ED 7, SD 3, sheet 5A). The couple had moved to Arizona by 13 December 1907, when Dixie purchased a lot in the Feldman Addition of Tucson (Pima County DRE 43:707). Over the next year, several additional lots were purchased in that area (Pima County DRE 44:181, 44:183, 44:726). The 1908 Tucson City Directory (probably created in 1907) lists D. L. Cate as a chicken rancher living at 5th Avenue and Drachman Street in Tucson (Kimball 1908:80).

Dixie's sister, Nellie Davis Cate, had married Charles F. Gulden circa 1887. He was a railroad conductor, and the couple lived at 54 Council Street in June 1900 (Charles Gulden household, 1900 U.S. census, Pima County, ED 49, sheet 18A). Dixie and Dolly Cate almost certainly came to Tucson at the invitation of Dixie's sister.

Dixie died from pulmonary tuberculosis on 18 December 1908, while living near Fort Lowell: "He was 44 years of age and was a brother of Mrs. Charles Golden. He came to this country for his health, but he failed steadily. He was a native of Tennessee and was quite well known in that state." Dixie was buried in Evergreen Cemetery (Dixie L. Cate, Return of a Death, online at <<http://genealogy.az.gov/azdeath/005/10052798.pdf>>; *Tucson Citizen* 1908). Dolly Cate was subsequently assigned ownership of the couple's property (Pima County DRE 47:471). On 24 February 1909, Dolly paid off the Irwin mortgage on the property (Pima County DRE 46:189, 46:325).

In May 1910, Dolly (last name incorrectly listed as Cole) was living near Fort Lowell with two young girls, listed as "Mollie Cole" (Lottie) and "Ruth Cole." The U.S. census states that these are her daughters, but this is incorrect (Dolly Cole household, 1910 U.S. census, Pima County, Arizona, ED

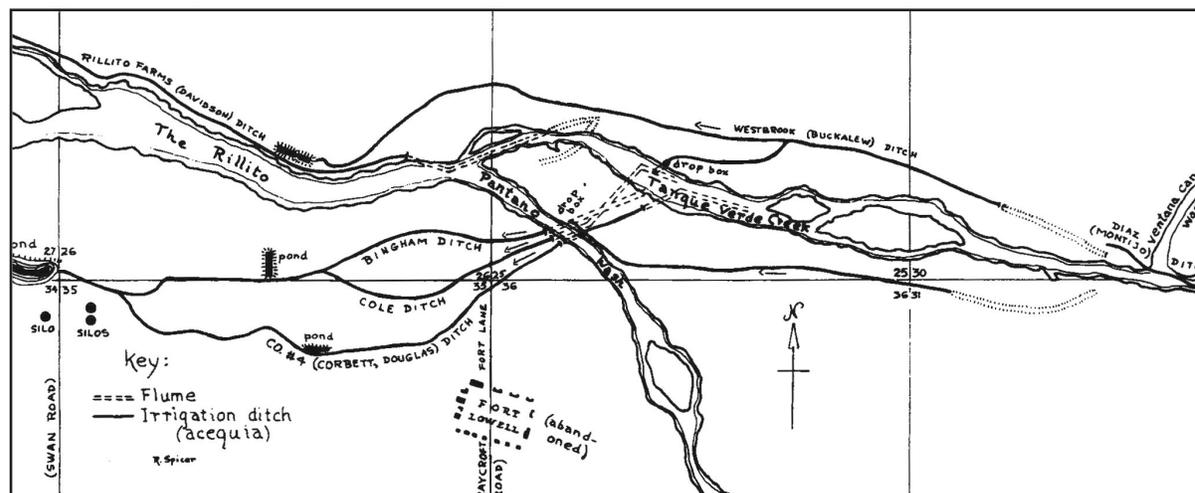


Figure 10. Irrigation ditches located in the Fort Lowell area (Turner et al.).

95, SD 1, sheet 10B). The two girls were probably orphaned and Dolly was raising them. They do not appear to be related to the former Cole owners.

Dolly Cate opened "Mrs. Cate's Tuberculosis Sanatorium" in the officer's quarters in the current project area. In 1918, "Mrs. Dollie Cate" was listed in the Tucson City Directory as living in the "Rural Free Delivery 2" area (Tucson Directory Company 1918). In January 1920, Dolly Cate was running a "rest ranch" with two nieces, Ruth Monger (age 21) and an 18-year-old girl whose given name was not recorded, but who must be Lottie Monger. Thirteen invalid males lived at the rest home, all white men between the ages of 21 and 48 (D. Cate household, 1920 U.S. census, Pima County, Arizona, Ed 80, SD 2, sheet 5A).

Dolly Cate sold the property to Harvey and Fronia Adkins on 3 February 1928. She received \$10.00 and "other valuable considerations." In turn, the Adkins received 6.5 acres "together with certain household furniture and furnishings" (Pima County DRE 155:4). Dolly was still in Tucson on 9 April 1930, when she and her niece Ruth O. Monger lived at 720 East Speedway Boulevard. She owned the house, which was valued at \$6,000, but did not have a radio. She was reported to be the proprietor of a boarding house (Dollie Cate household, 1930 U.S. census, Pima County, Arizona, ED 34, sheet 8B). City directories reveal that Dolly lived at that address until 1944. From 1946 through 1962, she lived at 1115 North 9th Avenue. She died on 8 October 1964, and is buried in Block 30, Section B, Lot 159 of Evergreen Cemetery in Tucson.

Mrs. Cate's Funeral Set for Tuesday. Funeral services for Mrs. Dolly Cate, 93, a longtime Tucson resident who formerly operated a convalescent rest home at Ft. Lowell, will be held at 10 a.m. tomorrow at Bring's Funeral Home. She died Thursday at a local rest home. Mrs. Cate, who lived at 1115 N. 9th Ave., was born near Chattanooga, Tenn. She came to Tucson in 1907 with her late husband Richard Cate. From about 1909 until the 1920s, she operated a convalescent home in the fort buildings. She is survived by two nieces, Miss Ruth Monger of Tucson, and Mrs. C. N. Cooke of Hydesville, California. Burial will be in Evergreen Cemetery (*Tucson Daily Citizen* 1964).

Dolly's nieces, who were apparently sisters, were traced further. Ruth O. Monger was born on 9 January 1899, in Georgia, never married, and died on 16 August 1977, in Humboldt County, California (California Death Index, online at <[www.ancestry.com](http://www.ancestry.com)>). She is likely the Ruth Monger, born in January 1899, living with her parents William C. Monger and Laura (-?-) in Flomaton, Escambia County,

Florida. Her father worked as a telegraph operator (William C. Monger household, 1900 U.S. census, Escambia County, FL, ED 18, sheet 14B). William C. Monger was, in turn, the son of Byrd Monger and Sarah Hess. In 1880, he lived with his parents and siblings Myra (age 7), Rufus, and Gus in the 5th Civil District of James County, Tennessee (Byrd Monger household, 1880 U.S. census, James County, Tennessee, ED 61, page 31). The Myra listed in this census may be Dolly (Monger) Cate; however, Dolly would have been 8 years old in 1880, instead of 7 years old. Census records are often incorrect, however.

Lottie Allen Monger was born on 7 June 1901, in Alabama, was married on 30 September 1922, in Pima County to Cecil Norman Cooke, and died on 8 June 1993, in Humboldt County, California. Her mother's maiden name was Roy (California Death Index; Negley and Lindley 1997:67). Cecil Cooke was born in East Preston, Sussex, England, on 12 January 1901, and died in Humboldt County on 16 February 1978 (California Death Index; see also <<http://freebmd.rootsweb.com/>>). The couple were the parents of a son, Cecil Norman Cooke, Jr., born circa 1924, in Arizona. They lived in Santa Cruz County, Arizona, on 9 April 1930, with Cecil working as the chief engineer of a utility plant (Cecil Norman Cooke household, 1930 U.S. census, Santa Cruz County, Arizona, ED 10, sheet 4A). In the future, it may be possible to contact the descendants of Cecil and Lottie Cooke for family photographs and other information about Dolly Monger Cate.

Harvey Adkins was born on 18 September 1872, in Jasper County, Illinois, the son of Thomas Jefferson Adkins and Dicy Ann Brooks (see <<http://james.thenamecenter.com/sheets/f3666.html>> for family group sheets on the Adkins family). He was married on 17 May 1898, to Sophronia "Fronia" Bragg. Fronia was born on 15 September 1872, in Clay County, Illinois, the daughter of John Wesley Bragg and Hannah Dyson (*Arizona Daily Star* 1955). The couple were the parents of five children: Vinda Adkins Ortega (1900-1944), Virginia Alice Adkins Beam (1903-1985), Dicey Minerva Adkins (1905-1927), Marion Heber Adkins (1908-1986), and Belva Naomi Adkins (1911-1999). The family lived in Newton, Jasper County, Illinois, in 1910 and 1920, with Harvey working as a dairy farmer (1910 U.S. census, Jasper County, Illinois, ED 87, SD 14, sheet 6B; 1920 U.S. census, Jasper County, Illinois, ED 110, SD 15, sheet 1B). Harvey registered for the draft on 12 September 1918, and reported he had a medium build, was of medium height, and had blue eyes and black hair (WW I draft registration, online at <[www.ancestry.com](http://www.ancestry.com)>).

The Adkinses had moved to Tucson around August 1926, to bring their daughter Dicey to a tuber-

culosis sanatorium (Old Fort Lowell Neighborhood Association 2005:33). The family was living on Fort Lowell Road, at the Cate's rest home, on 15 June 1927, when Dicey died from pulmonary tuberculosis at age 21. She was subsequently buried in Evergreen Cemetery: "Miss Adkins had lived here only six months, coming from Newton, Illinois. She is survived by her parents, three sisters and a brother all of whom are in Tucson" (Dicy Minerva Adkins, Original Certificate of Death, online at <<http://genealogy.az.gov/azdeath/035/10350392.pdf>>; Old Fort Lowell Neighborhood Association 2005:33; *Tucson Citizen* 1927). According to a family member, Dicey's body was later moved to East Lawn Cemetery (Lannie Hartman, personal communication 2007).

According to a Fort Lowell Inventory form, the Adkins family constructed an adobe house on the property in 1927. They constructed a second adobe house around 1935 (MS 265, black binder in file, AHS).

On 9 April 1930, Harvey and Fronia operated the "Adkins Rest Ranch" at Fort Lowell. Their daughter Belva was living with them. There were 13 residents of the ranch, 10 men and three women. All 13 residents were white, ranged in age from 23 to 51, and with one exception, had been born in the United States. The facility was valued at \$8,000; the family did not own a radio at that time (1930 U.S. census, Pima County, Arizona, ED 10, SD 3, sheet 4B). In 1938 and 1940, Harvey and Fronia were reported to be running the Adkins Rest Home (Tucson City Directories 1938 and 1940). The Adkins family operated the rest home until at least 1950 at 5615 East Fort Lowell Road (Old Fort Lowell Neighborhood Association 2005:33; Tucson City Directory 1950).

Fronia Adkins was a member of the Valley Christian Church in Tucson (*Arizona Daily Star* 1955). She died on 9 September 1955, at her home at 2951 North Craycroft Road from pneumonia, complicated by the effects of a stroke she had suffered seven months earlier (Fronia Adkins, Certificate of Death, online at <<http://genealogy.az.gov/azdeath/0220/02201696.pdf>>). Harvey Adkins died on 11 January 1958, at the family home in Tucson. He and Fronia are buried in the Grantwood Memorial Park (later East Lawn Cemetery) (*Tucson Daily Citizen* 1958).

Marion Adkins, born on 12 December 1908, and a son of Harvey and Fronia Adkins, started the Adkins Trucking and Steel Manufacturing business on the property in 1934. Marion's son Harry Adkins recalled: "In the '40s we were doing steel buildings and tanks and in the '50s pretty much tanks, for everybody and the City of Tucson" (Old Fort Lowell Neighborhood Association 2005:35). Marion was married to Lovetta Nova Merchant, who was born

on 20 May 1913. The 1938 and 1940 Tucson City Directories list Marion H. Adkins as living on Fort Lowell Road with his wife Loretta, and working as a trucker. In 1950, they lived at 5603 East Fort Lowell Road, with Marion listed as a welder and operating the Adkins Steel Manufacturing Company (Tucson City Directory 1950).

Residential Property Record Cards were filled out for the Adkins family home (10-110-09-032A) and the historic Fort Lowell Officer's Quarters (10-110-09-350) on 2 June 1965. At that time, the Adkins family home was described as a solid masonry structure with Spanish tile roofing. The assessor reported that the home was constructed in 1935, based on information provided by Marion Adkins. Other buildings and structures built by members of the Adkins family include a water tower and a windmill adjacent to their home, a large steel shed (built circa 1935), a nearby adobe house, several concrete slabs, a chicken coop, and a large concrete tank next to a well.

Marion Adkins lived at 5460 East Ft Lowell Road in 1970, with his business address at 5450 East Fort Lowell (Tucson City Directory 1970). He died in January 1986, in Tucson (Social Security Death Index). Lovetta N. Adkins died on 4 July 2002, in Colorado, where she had moved to live with her daughter (Social Security Death Index; Lannie Hartman, personal communication 2007). The couple's son Harry Adkins took over the family business, which operated within the project area until the spring of 2007.

There had been several attempts over the years by the City of Tucson to purchase the property from the Adkins family. These attempts were not successful. In the early 2000s, Pima County became interested in the acquisition of properties with significant cultural resources and the Fort Lowell-Adkins Steel Property was identified as a property of interest. A local developer Oasis Tucson, Inc. (later OT Gila, LLC), made a deal to purchase the property. Concerns over the sale led to the creation of "An Intergovernmental Agreement between Pima County and the City of Tucson for the Rehabilitation, Restoration and Management of the "Adkins Steel" parcel at Historic Fort Lowell," which was approved by the Pima County Board of Supervisors on 6 March 2007. Pima County provided money from the May 2004 Bond election (2004 Bond Project 4.4, Fort Lowell Acquisition and San Pedro Chapel) to purchase the property. A complex land exchange and sale subsequently occurred, with the developer receiving another parcel along Speedway Boulevard in exchange for the Fort Lowell-Adkins Steel Property. The Adkins family formally sold the parcel to OT Gila, LLC in March 2006 (Pima County Docket

12759:5128). On 9 March 2006, OT Gila, LLC, sold the property for \$1.00 to the City of Tucson (Pima County Docket 12759:5132).

### Fort Lowell Buildings and Structures on the Fort Lowell-Adkins Steel Property

More in-depth research was conducted for the Fort Lowell-era buildings and structures located on the Fort Lowell-Adkins Steel property. Research was directed toward creating a more comprehensive understanding of the materials used in these buildings, how they were repaired and maintained, their internal layout, and what happened to these features after the fort was abandoned. At least 12 buildings, the southwestern portion of the parade ground, and the adobe walls enclosing the backyards of the officer's quarters are located within the Fort Lowell-Adkins Steel property (Table 3).

The amount of documentary information available for each structure varies. A particularly important source of information is a set of typewritten transcripts of requests for repairs for the post, held at AHS as Manuscript 266.

#### Guardhouse

The guardhouse is located in the northern portion of the Fort Lowell-Adkins Steel parcel, immediately south of Fort Lowell Road and west of the Adkins steel barn. It was constructed in 1873 during the initial work at the new post. The 1876 map of Camp Lowell provides information about the layout of the structure (Figure 11). An 1875 report noted:

The guard house, probably one of the best in the Territory is 52 feet square, external measurements, to which is attached a corral, or inclosed yard, 28 by 48 feet, interior measurement. This inclosure is for the use of the prisoners when not at labor. The building has two halls at right angles to each other, cutting it each way nearly through the center. It is divided into a general prisoners' room (with stone walls) 20-1/6 by 19-3/4, a guard room 19-3/4 by 18-1/2, room for garrison prisoners 18-1/2 by 11, room for officers of the guard 16 by 11, room for sergeant of the guard 8 by 11 feet, a wash room and a tool room. All of the rooms are ten feet high, lighted by windows with iron gratings, and are excellently ventilated at the eaves. There are in addition, four cells each 7-1/2 by 4-1/4 feet, 10 feet in height, like the general prisoners' room, built of stone, all the rest of the buildings being constructed of adobes. Only the cells are used for prisoners, the balance of the building being used as adjutant's office, library, and quarters for the non-commissioned staff. Prisoners are kept in tents (Fort Lowell ephemeral file, AHS).

**Table 3.** Fort Lowell buildings and structures on the Fort Lowell-Adkins Steel property.

Structure designation on the 1876 map	Type
N	Guard house
M	Bake house
L	Adjutant's office
B	Officer's quarters [no. 1]
B	Officer's quarters [no. 2]
B	Officer's quarters [no. 3]
C	Officer's kitchen [for no. 1]
C	Officer's kitchen [for no. 2]
C	Officer's kitchen [for no. 3]
V	Privy [for no. 1]
V	Privy [for no. 2]
V	Privy [for no. 3]
	Parade ground
	Backyard enclosing walls

An April 1882 report noted: "Roof of tin in good condition except needing painting. Walls in fair condition. Doors and windows and some repairs needed and painting, and a board floor required. It contains six rooms and five cells, with an aggregate capacity of two thousand, four hundred square feet floor surface." A request for wood floors for the building was turned down in 1882, but four new doors and six windows (each with 12 panes of glass) were approved (MS 266, file 2, AHS).

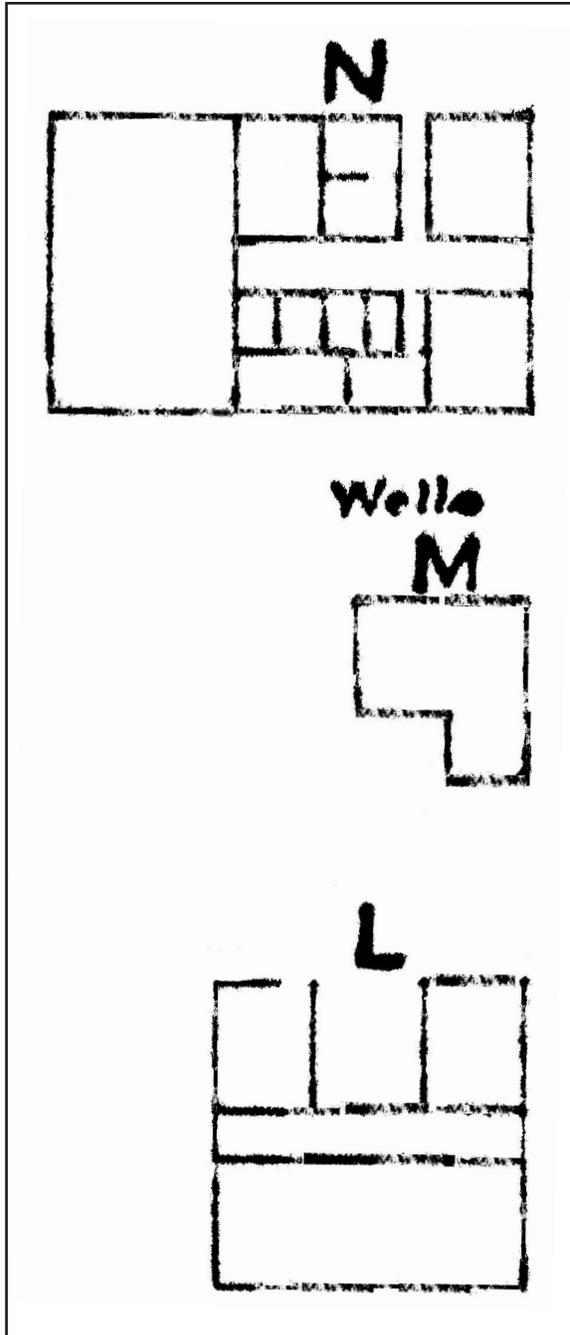
Estimates for the flooring (at \$217.32) of the guardhouse, prepared on 31 March 1883, provide the dimensions of each room in the building (MS 266, file 2, AHS):

- guard room, 20 ft by 20 ft
- general prison room, 20.5 ft by 20 ft
- garrison prison room, 19 ft by 12 ft
- small room, 11 ft by 8 ft
- small room, 16 ft by 11 ft
- small room, 12 ft by 10 ft
- four cells, 8 ft by 4.5 ft
- one cell, 8 ft by 7 ft
- main hall, 50 ft by 7 ft
- cross hall, 37 ft by 4 ft

A request for the construction of *porticos* (porches) costing \$160.91 was submitted to the Army on 31 March 1883 (MS 266, file 1, AHS).

An 1889 report on the buildings states:

Building No 15.—One story part of adobe and part of stone, dirt roof covered with tin, height of building 14 feet, porch in front, has 6 rooms and 5 cells.



**Figure 11.** Close-up of the Fort Lowell guardhouse, bakery, and adjutant's office from the 1876 map.

1 room 19'8 x 10\9', and 4 cells 5' x 7' are of stone, the other rooms & cell are of adobe 1 room 19'8" x 14', 2 8' x 17', 1 11' x 18', 1 10' x 11' and one cell 7' x 8', there is also a yard enclosed with adobe walls 30' x 49' and 9 feet high. Building used as Post Guard House, cost not known, date of construction supposed to be 1875" (MS 266, file 4, AHS).

The building was in use until 1891. At the 18 November 1896 auction, the starting bid for the guard-

house was set at \$10.00 (*Arizona Daily Citizen* 1896). The building was probably stripped of materials after the 1896 auction sale. A photograph taken in the early 1900s and on exhibit at the Fort Lowell Museum, shows that the door and the window frames had been removed, along with the roof.

In June 1937, the building was reported to be in ruins (AHS photograph 12887). In 1976, at least one portion of the stone walls was several feet tall (Fort Lowell Inventory Form, MS 265, black binder in box, AHS). Today, it is visible only as a set of rock and mortar foundations that protrude slightly from the ground surface.

As part of the mapping phase of this project, the foundations were lightly swept to expose their alignments, and the outlines of the visible walls were mapped (Figure 12). The rock alignments are probably well preserved below the modern ground surface.

#### *Bake House*

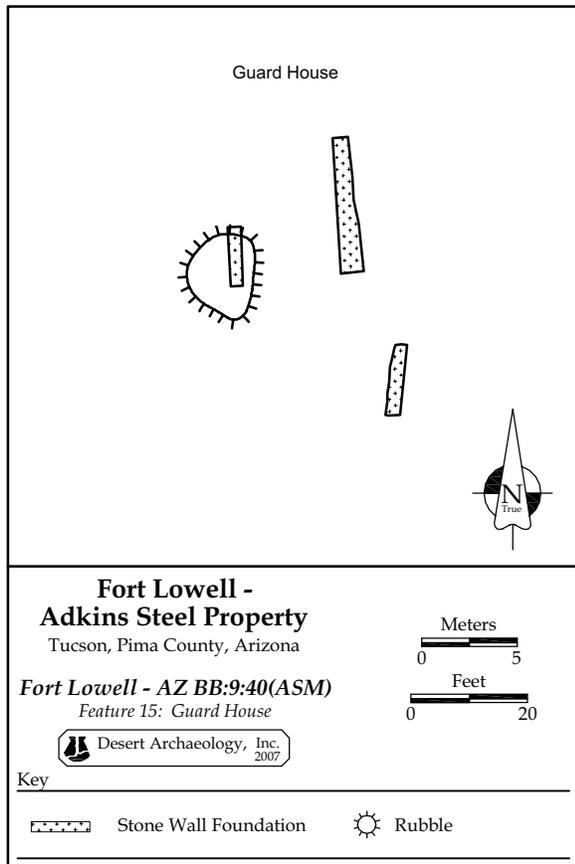
The bake house was located south of the guardhouse. This was an L-shaped structure where bread (and probably other baked goods) was prepared for the post's troops. A well was located a short distance north of this building (see Figure 11) (MS 266, file 1, AHS).

An 1875 report states:

The post bakery measures 31-1/6 by 15-1/4 feet, and has an addition for the ovens; this extension is 13-1/3 by 18-1/6 feet, external measurement. The building is divided into three rooms; one, the bake room is 12 by 15-7/12 feet, another is 11-5/12 by 4-7/12 feet, the third 11-5/12 by 6-7/12 feet is used as a sleeping room by the baker. The walls of this house are 10 feet high; the ventilation is at the eaves. Capacity of the ovens, two hundred rations (Fort Lowell ephemeral file, AHS).

A request for an additional room for the bake house "to mix and handle dough away from the heat of the ovens" along with repairs to the smoky chimney, were not approved after a request was submitted on 13 July 1876. The addition was proposed for the south side of the building and would have measured 18 ft long (east-west) by 15 ft wide (north-south) (Figure 13). A map drawn for the request reveals that the two ovens of the bake house were located on the west side of the building in a room measuring about 16 ft long (north-south) by 12 ft (east-west), while a flooring estimate from 31 March 1883 indicates the "old building" room measured 30 ft long by 12 ft wide (MS 266, files 1 and 2, AHS).

In April 1882, it was reported: "Roof of tin and good, but needs painting. Walls in good condition. Plastering in side needs some repairs. Doors and



**Figure 12.** Visible wall alignments of the Fort Lowell guardhouse.

windows need slight repairs and painting, one room required flooring." A manta cloth ceiling was installed in the bake house in 1882, costing \$14.50 and requiring 70 yards of cloth. Other repairs done in that year included the installation of a floor in one room (probably the oven room) and repairs to two doors and some windows (MS 266, file 2, AHS).

In March 1883, a request for *porticos* (porches) costing \$154.16 for the bakery was submitted to the U.S. Army (MS 266, file 1, AHS).

The bakery was described in an 1889 report. "Building No 16. — One story adobe, porch in front, dirt roof covered with tin, has two (2) rooms 16' x 18' & 12' x 27'6", also has a single bake oven, used as Post Bakery, cost not known, date of construction supposed to be 1875" (MS 266, file 4, AHS).

The building was appraised at \$8.00 in 1896, prior to the post-fort auction (*Arizona Daily Citizen* 1896). In June 1937, the L-shaped building was in ruins. No surface indications for this structure are present today. During the removal of a large underground fuel storage tank in August 2007, a section of a fired brick and mortar foundation that likely formed part of this structure was located. These remains will be discussed in the separate monitoring report. The

bakery was probably extensively disturbed by placement of the large underground fuel storage tank, although additional portions of the building are likely present below the modern ground surface.

#### *Adjutant's Office*

The adjutant's office was the location of administrative offices, court martial trials, and the post library (Peterson 1976:9-10). It was present on the south side of the bake house. The 1876 map of Camp Lowell indicates the structure had three equal-sized rooms on the northern side of a central (east-west) hallway and a single room on the south side (see Figure 11). Between 1884 and 1888, the post library was located within the building (Weaver 1947:85).

In April 1882, a report stated that the adjutant's office had: "Roof of tin in good order but needs painting. Doors and windows need slight repairs and some painting. Three rooms and hall should be floored.... This building contains four rooms and a hall, with an aggregate capacity of two thousand, five hundred square feet floor surface." A wood floor was approved for the building later that month. Other work done in the building included repairing windows, doors, and other woodwork (MS 266, file 2, AHS).

On 31 March 1883, a request for the installation of *porticos* (porches) for the adjutant's office, priced at \$480.66, was submitted to the U.S. Army (MS 266, file 1, AHS).

An 1889 description of fort building states:

Building No 17. — One story adobe, porch on 3 sides, dirt roof covered with tin, has 4 rooms & hall, 2 15' x 18', 1 18' x 18', 1 18' x 50', Hall 11' x 50'. Building used as office by Comd'g Officer and First Adj't, Library & School Room, and Quarters for Sergt Major and Regt Qr Mr, Sergt 4th Cavalry, cost not known, date of construction supposed to be 1875 (MS 266, file 4, AHS).

The administrative building was appraised at \$15.00 prior to the post-fort auction (*Arizona Daily Citizen* 1896). Following the abandonment of the post, the adjutant's office was stripped of wood elements. A photograph on display at the Fort Lowell Museum, dating to the early 1900s, shows the roofless structure already experiencing erosion around door and window openings. In June 1937, it was reported to be in ruins.

No evidence for the adjutant's office is currently visible on the ground surface. It is uncertain if sub-surface remains of this adobe structure are present.

#### *Parade Ground*

The parade ground was a flat, cleared area in the center of the fort (see Figures 5 and 6). A row of cot-

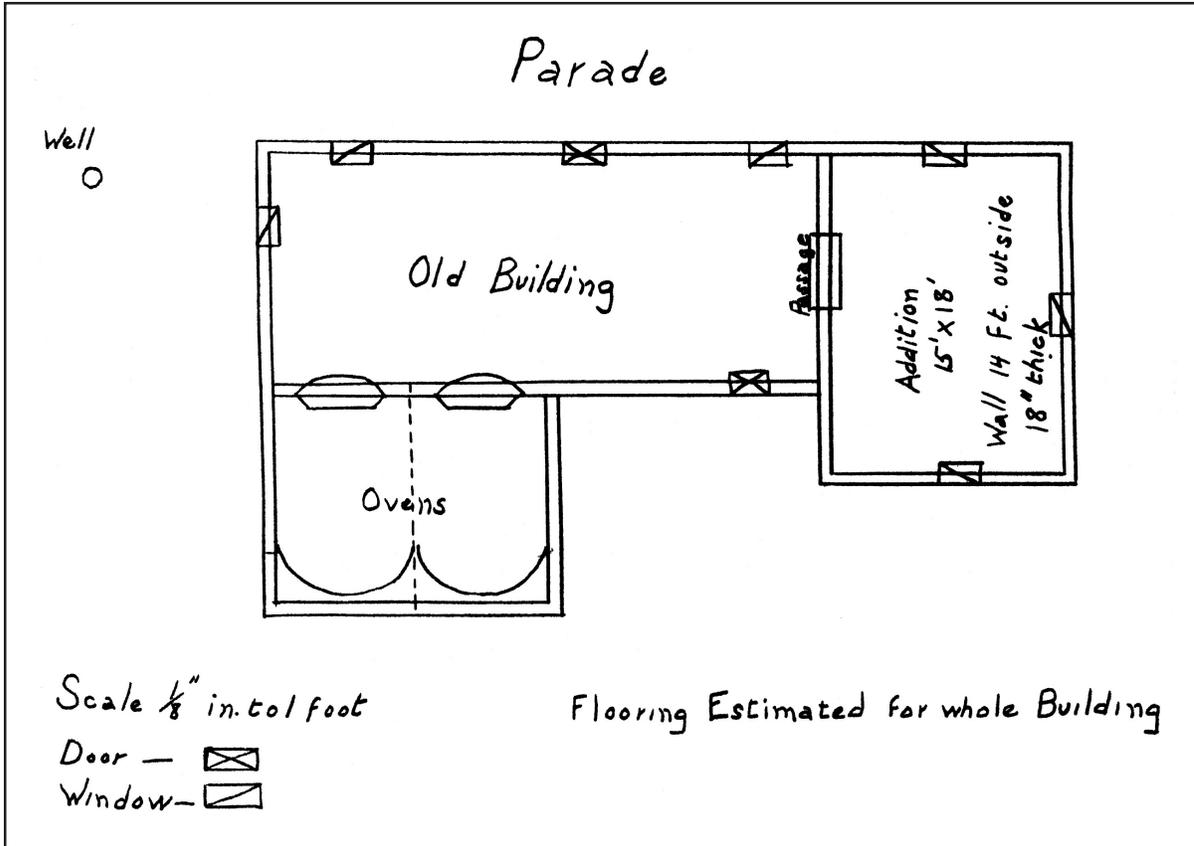


Figure 13. Map of the Fort Lowell bakery with a proposed addition, 1876.

tonwood trees and an *acequia* were present along its south side. The post flagpole was located in front of the commander's quarters, on the southern side of the parade ground, east of the Fort Lowell-Adkins Steel property. Mesquite trees were present along the west side of the ground. This area was the location of training exercises, typically conducted in the morning (Fort Lowell ephemeral file, AHS).

The parade ground is invisible on the modern ground surface of the Adkins Steel property. It may be possible to see the tamped surface of the parade ground, the adjacent *acequia*, or the planting holes of the cottonwood trees through careful archaeological fieldwork.

*Officer's Quarters*

The three officer's quarters on the Fort Lowell-Adkins Steel property are arranged in a row, running northwest to southeast (Figure 14). The commanding officer's quarters and four additional officer's quarters were immediately to the east. The officer's quarters (and presumably their kitchens and privies) were constructed in 1874-1875 (Peterson 1976:10). Military documents suggest they were numbered from 1 on the west to 3 on the east.

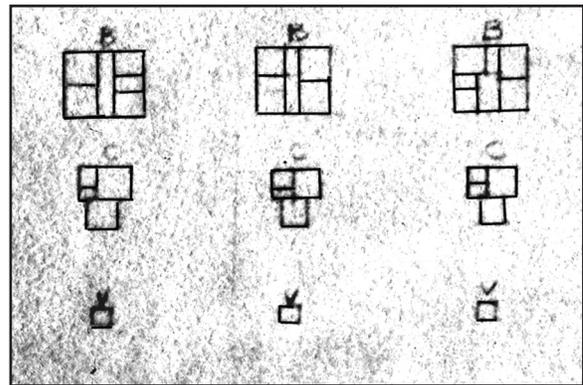


Figure 14. Close-up of Fort Lowell officer's quarters no. 1, no. 2, and no. 3, their kitchens, and their privies.

The 1876 map suggests the western three differed slightly in their floor plans. In April 1882, a report stated:

There are seven buildings or sets of Officers Quarters. Roofs of tin in good condition with the exception of needing a good coat of paint. Walls in good condition with few exceptions. Doors, windows, and other woodwork are generally more or

less warped and imperfect from climate effect, and need considerable minor repairs and painting. These can be put in fair condition at a comparatively small cost... About thirty six screen doors are required for summer use. Each set of Quarters should have a floored porch built all around as a protection against the intense heat which prevails for a good part of the year. The area between the mail building and the kitchens (without side walls) are covered with dirt roofs, are very leaky, and many of the *Vegas* (rafters) are warped and weakened by the weight of the dirt so that there is danger of the roofs falling in. I would recommend that these roofs be repaired and covered with tin. Quarters No. 1 contains nine rooms counting kitchen and store rooms, with an aggregate capacity of one thousand nine hundred and thirty square feet of floor surface... (MS 266, file 2, AHS).

On 7 March 1879, a report by James Biddle on the condition of the officer's quarters stated: "In the rainy season the water leaks through the mud roofs and makes them almost uninhabitable and certainly unhealthy." He recommended that tin rather than shingle roofs be placed over the dirt roofs because the tin was "better in every way, and would last longer, besides they would cost less" (MS 266, file 1, AHS).

A report prepared on 1 July 1879 states that:

There are seven buildings or sets of Officer's quarters. The roofs of all leak more or less during rainy weather. These are made of small sticks of a kind of cactus called sahuaro laid transversely and close together upon the *vegas*, or rafters, and covered with earth the depth of six or more inches in the style mostly used in this part of the country and generally known as dirt roofs. It is evident that the dirt was not of the proper kind, nor properly put on when built as the leakage is far greater than with ordinary private houses in this vicinity. There is as much dirt now on the roofs as it is advisable to put with regard to the safety of the occupants—and this remark will apply to all the buildings at the Post. Some of the *Vegas* are decayed and cracked and it would perhaps take about thirty new ones at an aggregate cost of about three hundred and fifty (\$350.00) dollars, counting cost of labor and materials to replace the unserviceable ones.

The adobe walls are in good condition, with a few exceptions, where they have been slightly damaged by leakage—and if roofs were repaired or renewed soon—the walls might be repaired at a nominal cost say, not to exceed one hundred (100) dollars and last for an indefinite time.

The doors and windows are some of them warped and rickety owing to the effect of dryness of this climate upon wooden fabrics made up in California. This can, however, be repaired at slight cost

of labor and materials—not exceeding, say seventy five (75) dollars....

No. 1 contains nine rooms counting kitchen and closets or storerooms, with an aggregate capacity of two thousand, one hundred and fifty (2,150) sq. ft. floor surface.

No. 2, 3, 5, 6 and 7 each contains seven rooms, counting kitchen and hall with an aggregate capacity of nineteen hundred and thirty (1930) sq. ft. floor surface to each set... No additions, alterations or repairs have been made during last year, excepting a few rooms have been floored, one in quarters No. 1 since my arrival at the Post, (April 1st, 1879) and some minor, but necessary repairs of doors and windows—these at no estimable cost in money (MS 266, file 1, AHS).

The new roofs were subsequently approved on 29 July 1879 (MS 266, file 1, AHS).

Work conducted on the quarters in 1882 included the repair and painting of doors, windows, and other woodwork, replastering of exterior walls (18 days work for a skilled mason and a helper for the six quarters), and installation of a manta ceiling in the kitchen and another room of an unspecified quarters (MS 266, file 2, AHS). On 31 March 1883, a request for construction of *porticos* (porches) for each of the three quarters was submitted to the U.S. Army. They were priced at \$515.85 each (MS 266, file 2, AHS). Another request was for flooring and "hand brick" chimneys and hearths to be installed in three rooms of quarters no. 1 (kitchen and dining room) and two rooms in quarters no. 2 and no. 3 (including the kitchen) for between \$82.27 and \$86.37. Another report stated that doors and window frames needed resetting. At that time, the post surgeon was living in quarters no. 3 (MS 266, file 2, AHS).

According to the recollections of Mrs. Ben Heney in 1936 (she lived at the fort as a child), one of the residents of officer's quarter no. 3 was Colonel Cornelius C. Smith (Maguire 1938). In 1882, seven married officers (two with children) and six single officers lived in the six quarters assigned to officers (Schuler n.d.). In the mid 1880s: "there are now four officers (some of whom are married) living in two sets of quarters, necessitating the use of common halls, yards, etc., a very objectionable arrangement..." (MS 266, file 3, AHS).

In an 1889 buildings report prepared by the Quartermaster General, descriptions of the quarters were provided. Unfortunately, it is uncertain which quarters are referred to, because they are not numbered the same as other documents, which number them from left to right as 1 through 7. In this document, Building No. 1 is the commanding officer's house, which is usually designated No. 4.

Building No. 2.—One story adobe, Porch in front and both sides, height of building 14 feet, has dirt roof covered with tin, has six (6) living rooms, 2 14'6" x 18', 1 15' x 15', 1 12' x 12', 1 10' x 21', 1 7' x 15'6", and bath room 10'6" x 11', also Hall 7' x 15'6" has one story adobe kitchen separated from main building with two (2) rooms Kitchen 15' x 15' Servants Room 15' x 15'. Building now used as Quarters by Capt. I. A. Mason, 4th Cavalry, cost of building not known date of construction supposed to be 1875.

Building No 3.—Same as building No. 2, excepting that it is used as quarters by 1st Lt. C. H. Murray, 4th Cavalry.

Building No 4.—Same as building No. 2, excepting that there are two (2) bathrooms, not occupied, recently used as quarters by Lt. W. E. Wilder, 4th Cavalry (MS 266, file 4, AHS).

The three officer's quarters "5 rooms hall and buildings" were each appraised at \$50.00 prior to the November 1896 auction (*Arizona Daily Citizen* 1896). Photographs taken in 1901 show that officer's quarters no. 1 had been stripped of its roof, door frames, and window frames (Figures 15 and 16). Portions of the adobe walls, especially above the window openings, were starting to fall. Officer's quarters no. 2 appears to have been intact, with only a section of the western parapet missing. Officer's

quarters no. 3 was intact and had a wood addition at the southwestern corner of the building (AHS photographs 61561 and 270989).

In 1936, the western two officer's quarters had walls standing and the third quarters was occupied. The third officer's quarters was documented by the Historic American Building Survey in 1940, with a plan view map, cross sections, and exterior façade and detail drawings (Figure 17). These reveal that the original house had seven rooms (two bedrooms, a dining room, *zaguan* [hallway], living room, pantry, and kitchen), with a bath added to the southwestern corner of the house, and porches on the north and south facades. Corner fireplaces were present in each bedroom and in the living room. The house has remained largely intact since the 1940 HABS documentation.

A. E. (Gene) Magee (1907-1999) was an electrical engineer and pilot who photographed many locations in Tucson from the air. His photographs of Fort Lowell, taken in the 1940s and 1950s, show the general area was mostly undeveloped, with a series of fields along the south side of the fort. Several photographs of the east side of Fort Lowell show ruins of the eastern three officer's quarters, the hospital, and the infantry company quarters. A third photograph, looking south, provides a detailed look at the Fort Lowell-Adkins Steel property (Figure 18). The second and third officer's quarters are apparently



Figure 15. Photograph of Fort Lowell Officer's Row, with officer's quarters no. 1 on the far right (AHS/SAD 27089).



**Figure 16.** Photograph of Fort Lowell Officer's Row, with officer's quarters no. 3 and its wooden addition (AHS/SAD 61561).

roofed, as is the second kitchen. The first officer's quarters has been reduced to perhaps a single roofed room. A concrete water tank is present directly behind it. West of the first quarters is a standing portion of the wall that once enclosed the backyard. Two homes are visible toward the front of the lot.

A photograph taken on 25 October 1960 (AHS 24,888) shows the east side of the third quarters. The house appears to be in good condition and was occupied. An evaporative cooler is visible in a window, and a back porch is attached to the southern side of the building.

In contrast, the second officer's quarters and its adjoining kitchen were heavily damaged in April 1970 in a fire, according to a property card from the Pima County Assessor's office. It has remained a ruin since that time. Officer's quarters no. 1, which was partially roofed in the 1930s to 1940s, has since become a ruin, with a few sections of interior walls still standing.

Pima County Assessor's cards, updated in 1976, note that the third officer's quarters was "unoccupied—house in state of decay—historical value only." The second officer's quarters was described as "2nd house on lot #039 abandoned—in state of decay walls and roof crumbling... was burned 4-11-1970 per owner." However, a survey of Fort Lowell

buildings in 1976 indicates the third officer's quarters was occupied at that time (Bieg et al. 1976:33). Two University of Arizona archaeology students, Michael Faught and Ken Matesich, lived in the quarters in the mid-1970s. Matesich states that the house had been vacant for several years and that he and Faught made minor repairs in an attempt to make the building more livable (Ken Matesich, personal communication to Arthur Stables 2007). One of the Adkins granddaughters subsequently lived in the house in the 1990s and 2000s.

The first and second quarters and their kitchens were mapped in September 2007 as part of the present project (Figure 19). These buildings are in ruins, lacking roofs and with portions of their walls collapsed. These buildings are also being stabilized as part of the preliminary work conducted by Pima County. The third officer's quarters is in much better condition, but is starting to deteriorate due to its leaking roof. Pima County is also currently undertaking emergency stabilization of this building.

#### *Officer's Kitchens*

Each of the officer's quarters had a summer kitchen located a few feet south of the main house. These kitchens were made from adobe brick with

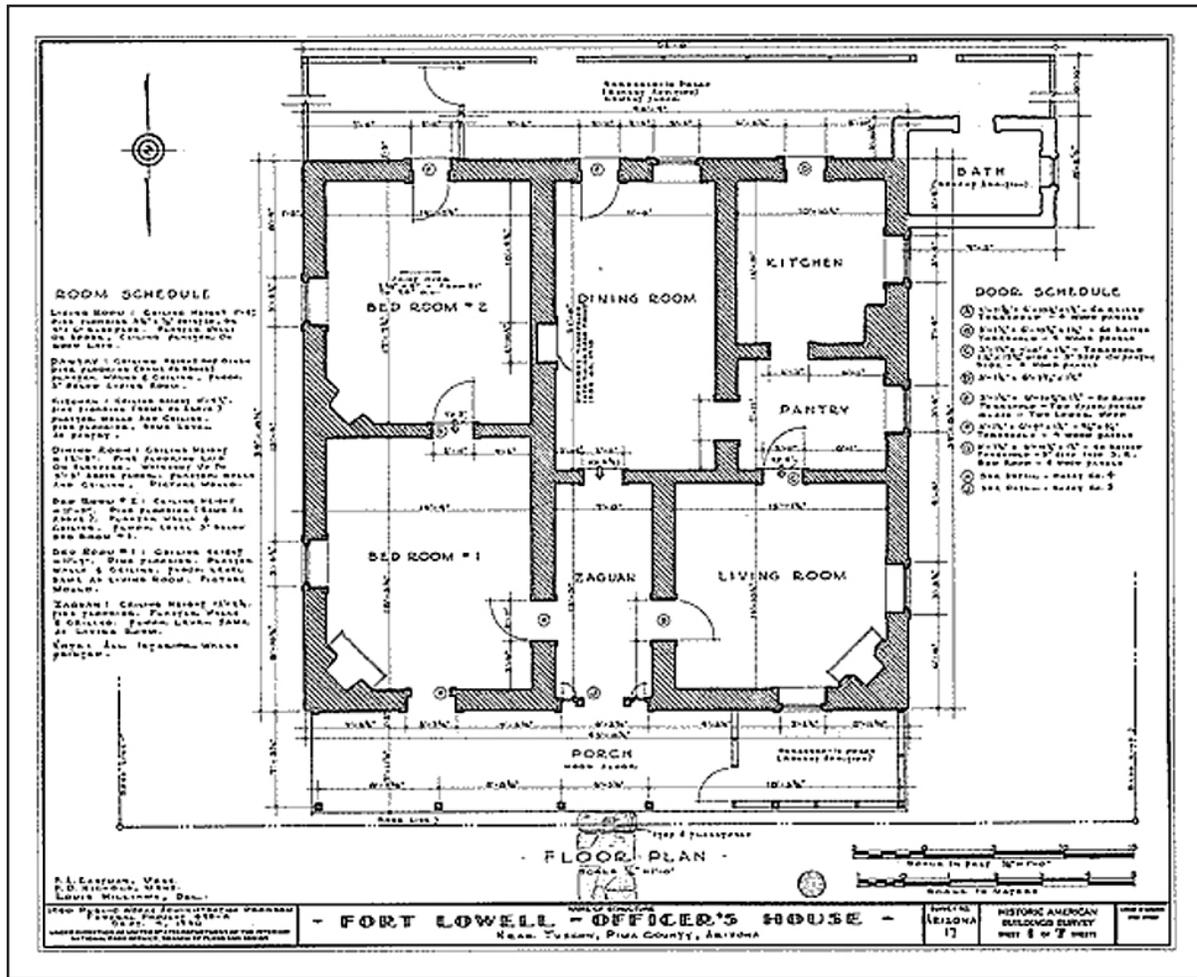


Figure 17. Historic American Building Survey drawings of Fort Lowell officer's quarters no. 3. (Courtesy, Library of Congress.)

flat roofs and originally had dirt floors. The 1876 map indicates each kitchen was divided into two rooms with a probable porch present on the southern side of each kitchen (see Figure 14). One of the two rooms was used as servant quarters, and the other was a kitchen where cooking took place during the hot summer months (Schuler n.d.).

On 1 July 1879, it was reported: "All the kitchens need flooring... Painting: All the doors, windows, blinds, washboards &c, and at least one good coat of paint at a cost of about two hundred and twenty-five (225) dollars counting labor and material" (MS 266, file 1, AHS). The floors appear to have been installed sometime after 1882, when the initial request for flooring was denied (Weaver 1947:75). A partially burned wooden floor is present in the kitchen for officer's quarters no. 2.

There was a question about if the third kitchen was ever built. However, it is present on the 1876 map, although it does not appear on the 1930s Maguire map. The most likely explanation is that the

kitchen for the third officer's quarters was demolished, and no visible traces were present by the 1930s.

In June 1937, the westernmost kitchen was in ruins, and the second kitchen was occupied. The Historic American Building Survey prepared documentation of the second kitchen in 1940. Plan view and profile drawings were prepared by Louis Williams. Fireplaces or stoves were present in the southeastern and northwestern corners of the building. On 6 July 1940, photographer Donald W. Dickensheets documented this structure with a photograph looking to the west. A poured-in-form concrete foundation had been retrofitted around the exterior of the lower foundation. Concrete capping blocks (which probably date to 1920, based on newspapers adhering to their undersides) were present along the roofline. According to the Pima County Assessor's card, the structure burned in 1970.

The first and second kitchens were mapped in September 2007 (see Figure 19). Both buildings are in ruins and are being stabilized by replacing adobe

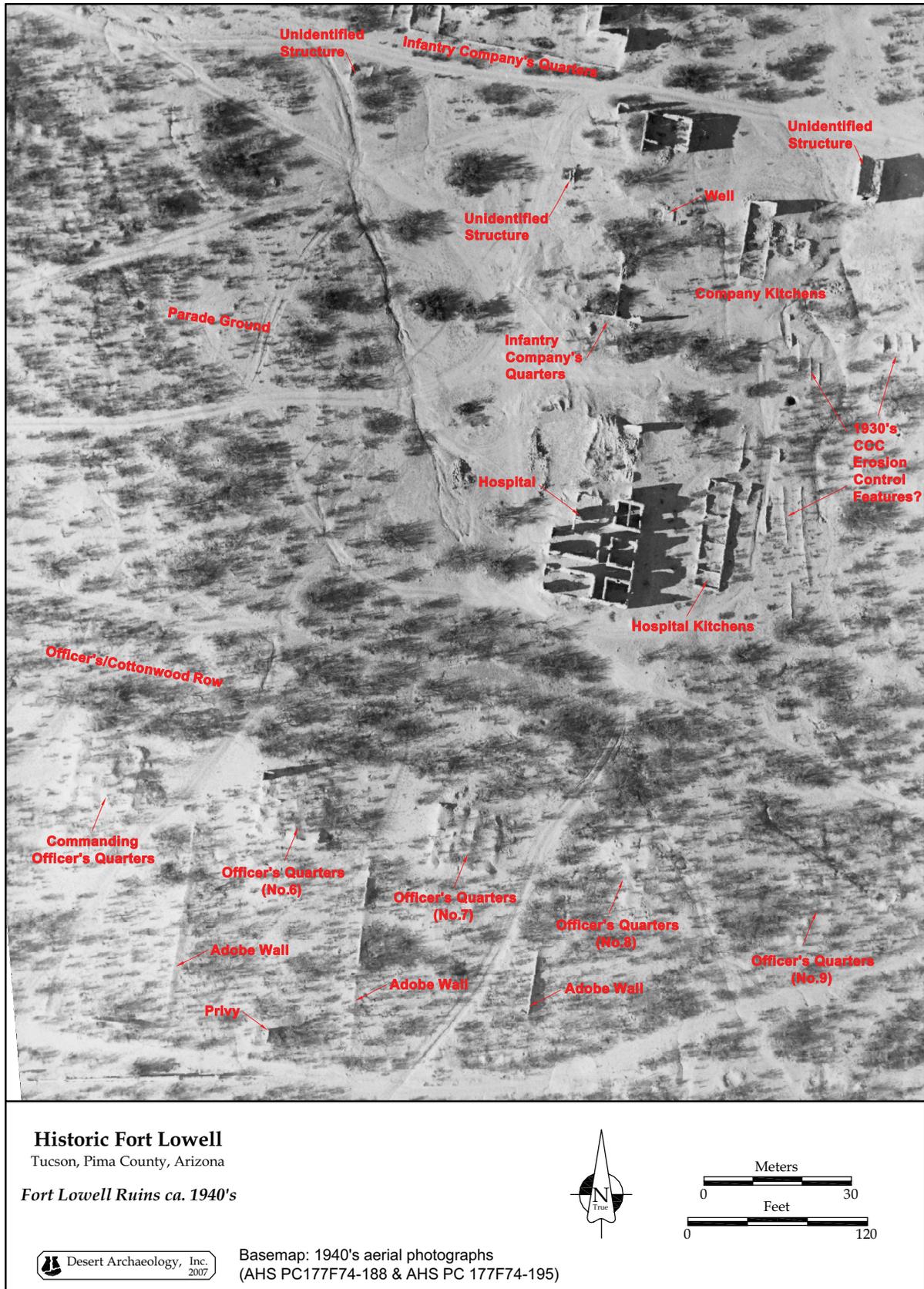


Figure 18. Aerial photograph of Fort Lowell from the 1940s, looking to the southwest (AHS/SAD PC 177, File 74, #188 and #195).

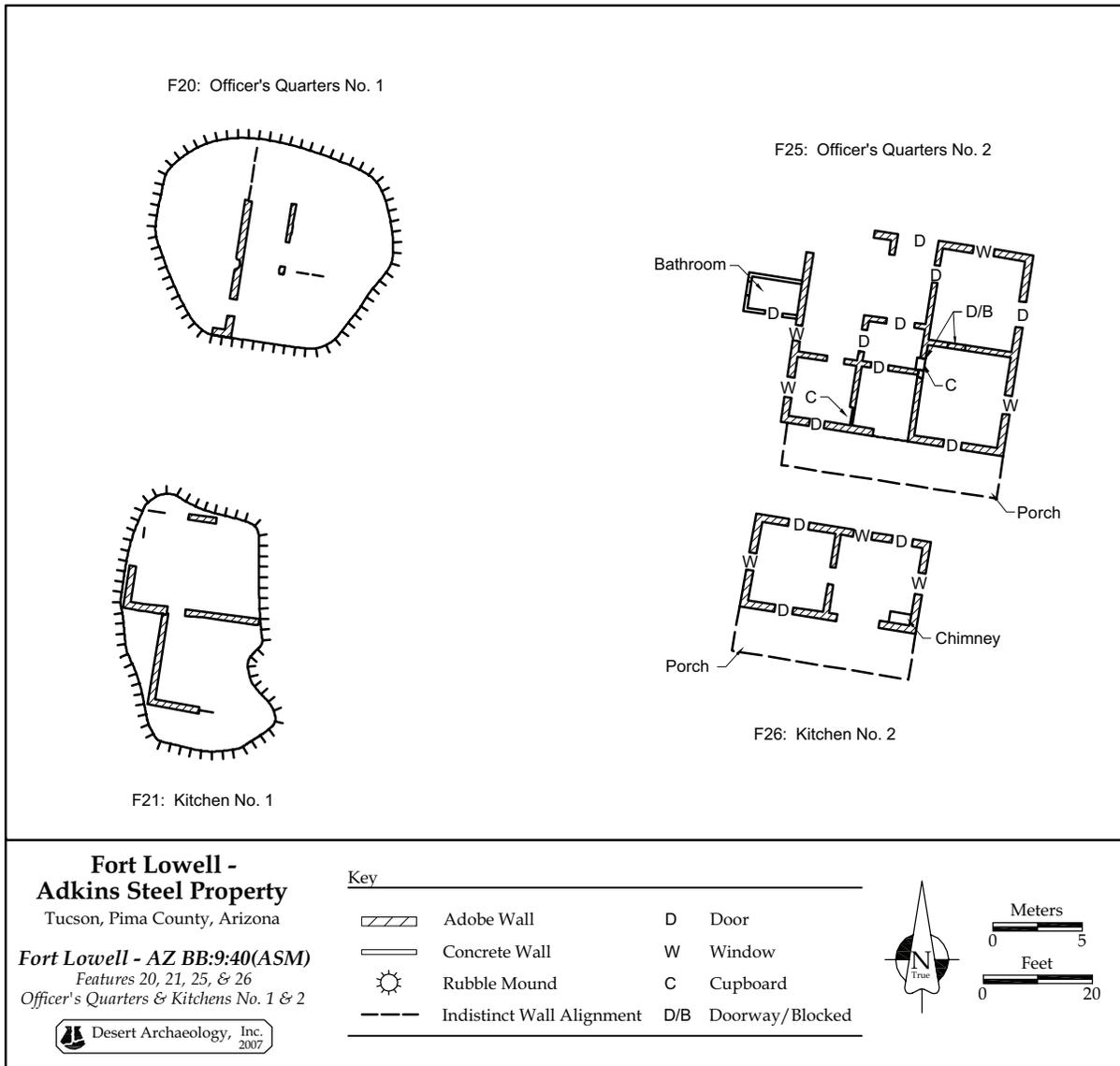


Figure 19. Archaeological remains of Fort Lowell officer's quarters no. 1 and no. 2 and their kitchens in 2007.

bricks where necessary and by capping the top of the existing walls.

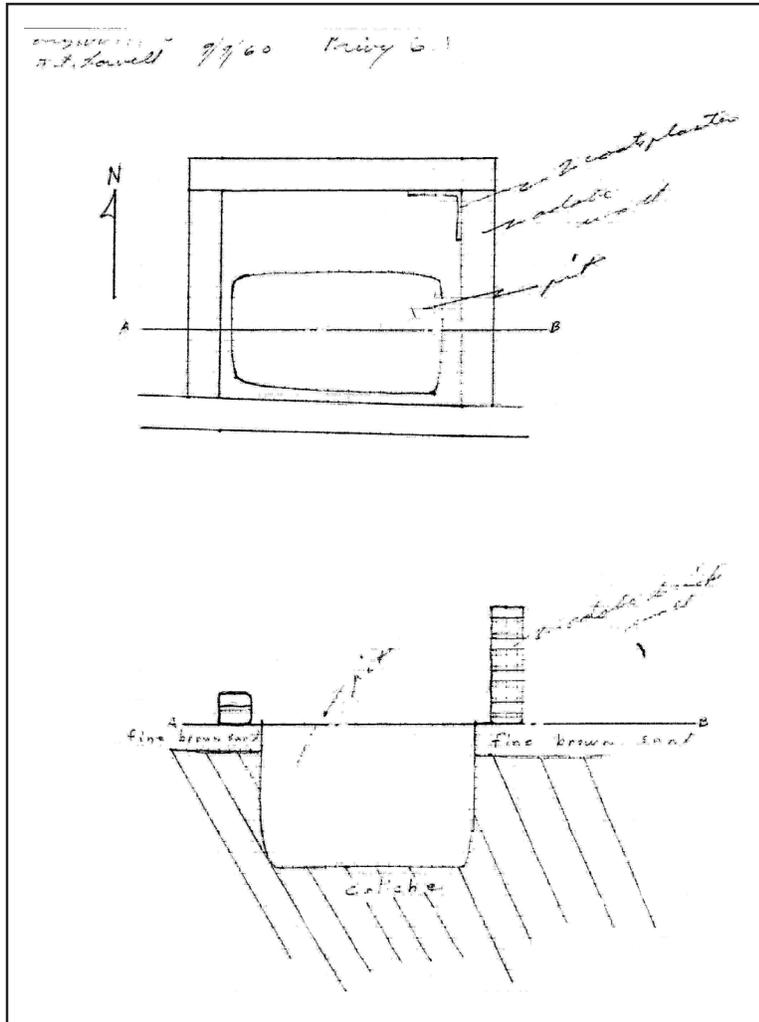
*Officer's Privies*

The officer's privies were built from adobe brick and were located along the adobe wall at the back of the officer's quarters' backyards (see Figure 13). The privy pits for officer's quarters nos. 4-7 were excavated by Alfred Johnson in 1960. Privy no. 4 had a pit measuring 1.65 m long, 1.25 m wide, and 1.20 m deep. The dimensions of the structure were not reported. The back patio wall was also the back wall of this privy. The adobe foundation of privy no. 5 was 2.45 m long and 2.00 m wide. The actual privy pit was 1.95 m long, 1.30 m wide, and 1.30 m deep. The privies for quarters no. 6 and no. 7 were nearly

identical to privy no. 5. Privy no. 6 had two coats of plaster on the interior (Figure 20).

The privies for quarters nos. 1-3 were located behind (south of) the kitchens, along the back wall of the walls enclosing the backyards. They had adobe walls and probably a wooden door. The type of roofing is unknown. No photographs of these privies have been located. In June 1937, the three were reported to have "walls fallen" (AHS photograph 12887). The privies were reportedly dug twice each by artifact collectors in the 1960s. Ken Matesich reports that the walls of the third privy were visible in the 1970s (personal communication to Arthur Stables 2007).

A depression for the privy for officer's quarters no. 1 is visible on the ground surface in August 2007. No evidence for the other two privies was visible.



**Figure 20.** Plan view and cross section drawing of the privy at Fort Lowell officer's quarters no. 6, excavated in 1960 (AHS/SAD MS 265).

### *Backyard Enclosing Walls*

Adobe walls were constructed to enclose the backyard of each of the officer's quarters. These adobe walls are depicted on the 1876 map, and are noted on the 1937 map of the fort as still standing. These adobe walls were likely built directly on the existing ground surface.

A small portion of the wall separating the backyard of officer's quarters no. 2 and officer's quarters no. 3 was located in September 2007. The upper surface of the wall is flush with the ground and is barely visible. Its location should be marked to prevent people from driving over it.

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