



# Fort Lowell Park Master Plan

Final Report  
November 2009

**POSTER  
FROST**  
ASSOCIATES, INC.

ARCHITECTURE  
PLANNING  
URBAN DESIGN



## Final Report

# Fort Lowell Park Master Plan

November 2009

Prepared under contract to:  
Pima County Cultural Resources  
and Historic Preservation Office

Pima County Public Works Center  
201 N. Stone Avenue, 6th Floor  
Tucson, Arizona 85701-1207  
Tel: 520.740.6684  
Fax: 520.243.1610

### Project Team:



317 North Court Avenue  
Tucson, Arizona 85701  
Tel: 520.882.6310  
Fax: 520.882.0725

Poster Frost Associates  
Architects/Planners/Project Manager

SAGE Landscape Architecture and Environmental  
Landscape Architecture and Environmental

Wood, Patel and Associates  
Civil and Hydrology

Desert Archaeology, Inc.  
Prehistoric and Historic Archaeology

ConsultEcon  
Economic/Marketing/Business

Crocker Ltd.  
Adobe Conservation

TLCP Structural Inc.  
Structural Engineers

Bruce Hilpert  
Interpretation

Burns Wald-Hopkins Shambach Architects  
Consulting Architects

John Welch  
Tribal Liaison

Compusult, Inc.  
Cost Estimating

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## Stakeholders

### Pima County Board of Supervisors

Richard Elías, Chairman, Supervisor, District 5  
Ann Day, Supervisor, District 1  
Ramón Valadez, Supervisor, District 2  
Sharon Bronson, Supervisor, District 3  
Raymond J. Carroll, Supervisor, District 4

### Pima County Staff

C.H. Huckelberry, Pima County Administrator

### *Pima County Cultural Resources and Historic Preservation Office*

Linda Mayo, Cultural Resources Manager  
Loy Neff, Program Coordinator  
Simon Herbert, Program Coordinator

### Fort Lowell Restoration Advisory Committee

#### Members

Larry Hecker, Chair  
Elaine Hill  
Frank McClure  
Anne Woosley  
Peggy Sackheim  
Patsy Waterfall  
David Yubeta

### City of Tucson Mayor and Council

Bob Walkup, Mayor  
Mike Letcher, City Manager  
Regina Romero, Ward One  
Rodney Glassman, Ward Two  
Karin Uhlich, Ward Three  
Shirley Scott, Ward Four  
Steve Leal, Ward Five  
Nina J. Trasoff, Ward Six

### City of Tucson Staff

Jim Conroy, Parks and Recreation, East District  
Midge Irwin, Parks and Recreation, East District  
Jonathan Mabry, Historic Preservation Officer  
Lynne Birkinbine, Environmental Manager

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### Image Sources / Photography Credits

<i>AHS</i>	Arizona Historical Society
<i>CE</i>	ConsultEcon, Inc.
<i>DAI</i>	Desert Archaeology, Inc.
<i>ESRI</i>	Environmental Research Institute, Inc.
<i>NA</i>	National Archives
<i>PC</i>	Pima County
<i>PFA</i>	Poster Frost Associates
<i>SAGE</i>	SAGE Landscape Architecture and Environmental



# Introduction and Master Plan Overview

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Figure 4: (Top) Proposed historic Fort interpretation aerial at Fort Lowell Park.

Figure 5: (Left) Proposed handling of Officer's Row.

Figure 6: (Right) Pantano Wash trail and signage improvements.

## Introduction

The following is in partial fulfillment of the Intergovernmental Agreement (IGA) between Pima County and the City of Tucson, for the Rehabilitation, Restoration and Management of the “Adkins Parcel” at Historic Fort Lowell (contract No. 01-73-T-139256-0307 of 2007).

The IGA instructed that a Master Plan be developed for the Adkins parcel, into which the Restoration Plan for the Adkins Parcel would fit. In 2007, Pima County contracted Poster Frost Associates (PFA) to conduct this master plan study as a tool for treating the Fort Lowell historic resources.

Early in the planning process, it was recognized that arriving at a Master Plan for the Adkins Parcel (5.5 acres), required understanding the entire 70-acre Fort Lowell Park. Under a contract amendment, the scope was expanded to include a more comprehensive Master Plan, which permitted

careful study of all the parks resources to ensure the Adkins Parcel Restoration Plan would properly fit within the larger context of the entire park.

The IGA directed the creation of a Fort Lowell Restoration Advisory Committee to assist in the development of the plans, and their committed involvement has been critical to the process. The IGA also stipulated that the City and County would need to approve both the Master Plan and the Restoration Plan before the County moved forward to implement work on the Adkins Parcel portion of the project. Implementation of the Restoration Plan for the Adkins Parcel will represent the first “piece” of the re-defined Historic Fort Lowell Park.

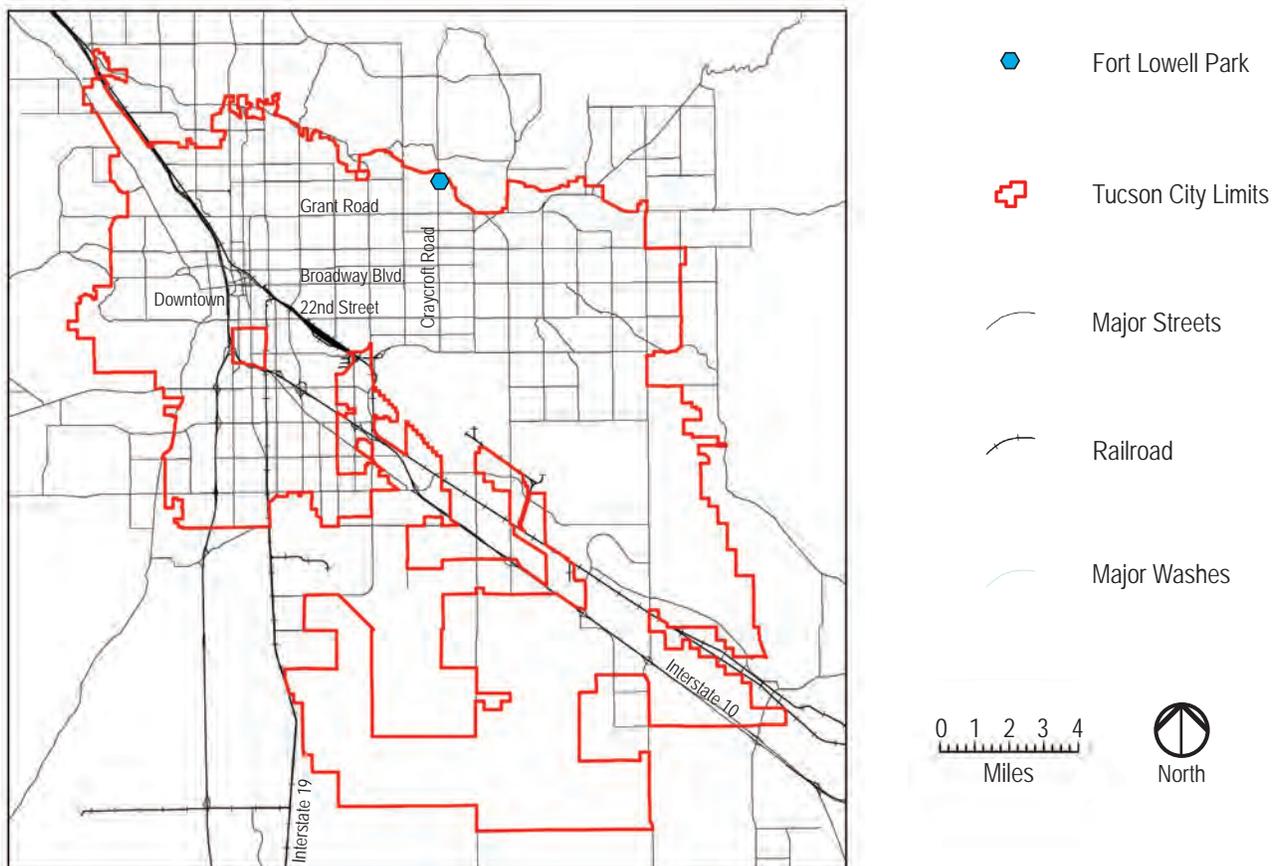


Figure 7: Location of Fort Lowell Park within the City of Tucson (redrawn from COT Department of Urban Planning and Design).

## Master Planning Process *(see flow chart, following page)*

A comprehensive 13-month planning process was used to achieve a Final Conceptual Master Plan with a broad consensus of support from a variety of users, administrators, neighbors, preservationists, and other stakeholders. The principal institutional project participants include:

- Pima County (Office of Cultural Resources & Historic Preservation)
- City of Tucson (Parks and Recreation Department)
- Fort Lowell Restoration Advisory Committee (FLRAC)
- Fort Lowell Historic Zone Advisory Board
- Old Fort Lowell Neighborhood Association
- Tucson-Pima County Historical Commission
- State Historic Preservation Office (SHPO)

The FLRAC provided comprehensive guidance and leadership through monthly meetings. Additionally, between June 2008 and February 2009, there was an Adjacent-Neighborhoods Visioning Workshop as a project kick-off followed by three well-attended Public Meetings. These public meetings were held to receive input at different stages of the Master Plan. Focus groups were held with a group of students from a public elementary school and a local Boy Scout Troop to collect input from a future generation of Park users. Meetings were held with the organized athletic and recreation users (Fort Lowell Little League and Soccer clubs and aquatic and tennis users.) Finally, consultation with nine American Indian Tribes was initiated and will continue as the planning is completed and the Master Plan moves to implementation.

The project participation process was extensive and was marked by a series of milestone meetings:

- Adjacent Neighborhoods' Visioning Workshop, June 25, 2008
- Background Report, Meeting #1, September 3, 2008
- Three Alternative Concept Plans, Meeting #2, November 19, 2008

- Draft Preferred Concept Plan, Meeting #3, February 18, 2009

The Draft Preferred Concept Plan was then evaluated through a series of historic reviews from March - August 2009, including:

- The Fort Lowell Historic Zone Advisory Board
- State Historic Preservation Officer
- Tucson-Pima County Historic Commission

The final work products consisted of three different documents:

- Fort Lowell Park Master Plan, Background Report
- Fort Lowell Park Master Plan, 2009 (including contract language of *Feasibility Study and Business Plan*)
- Preservation Plan for the Adkins Parcel at Fort Lowell Park (under contract as *Restoration Plan*)

Final reviews of the projects include reviews by City and County staff, City of Tucson Mayor and City Council, Pima County Board of Supervisors review and approval, June - November 2009

# Fort Lowell: Project Flow & Schedule (updated 10/1/2009)

## Concept Master Plan

**Fort Lowell Restoration Advisory Committee (FLRAC)**  
**Concept Master Plan** (Approved 6/24/2009)

**Approved Concept Plan**  
 FLRAC Letter for COT & BOS

## Restoration Plan

**Poster Frost completes 1<sup>st</sup> Draft of Restoration Plan**  
 Sent out packages to FLRAC on 9/14/2009

FLRAC Review of Restoration Plan

**FLRAC Votes on final Restoration Plan**  
 (Approved 9/30/2009)

**Approved Preservation Plan (Restoration Plan)**  
 FLRAC Letter to COT & BOS

**Pima County (BOS)**  
 11/03/2009

**City of Tucson (M&C)**  
 Study Session 2 pm 10/27/2009

**Plan Acceptance Phase**

**Plan Accepted**

**SHPO Review & Concurrence of Preservation Plan**  
 Send on 10/1/2009

**TPCHC Review**  
 November (TBD)

**OFLNA & FLHZAB Review**  
 October-November TBD

Solicitation for Design Through County QCL:  
 10/16/2009 (TBD)

**Design Phase**  
 12/1/2009 - 6/3/2010

Continuing consultation during Design Phase with: SHPO, TPCHC, OFLNA & FLHZAB

Procurement for Construction, permitting, & bidding:  
 6/3/10-10/2010

**Construction Phase**  
 10/2010 - 10/2011

Figure 8: Fort Lowell Project Flow and Schedule.

## Master Plan: Final Concept Plan Overview

The Historic Fort Lowell Park Master Plan, 2009 and the Preservation Plan for the Adkins Parcel at Fort Lowell Park will guide the rehabilitation, preservation, enhancement, development, and operations of Historic Fort Lowell Park, Tucson Arizona. The Master Plan is intended to have a 15-year plan horizon with a recommended update at five and ten years out. The last comprehensive Master Plan in for the site was completed in 1985. This Master Plan was precipitated by the City of Tucson acquisition of the fragile historic Adkins Parcel, with assistance from Pima County. The acquisition joins the Commissary parcel, the Hardy parcel, and the greater Fort Lowell Park site to make an approximately 70-acre regional park.

### Project Goals

Protect important natural and cultural resources.  
Reveal all of the stories and the layers of history that define Fort Lowell Park.  
Provide park experiences for a variety of age and interest groups.  
Respect the relationship between Fort Lowell Park and surrounding neighborhoods.  
Establish good park access and connectivity to surrounding sites and amenities.

### Project Guidelines

- Balance historic and recreational uses within the park. In the context of the site constraints, increase the quality of recreation facilities, not the quantity.
- Tell all stories of the people of Fort Lowell Park but give priority to the Fort era. Define the spatial character of the Fort and the Parade Grounds..
- Use rehabilitation, preservation, adaptive re-use, restoration and reconstruction as appropriate, in that order of priority. Be creative.
- Cross Craycroft safely at grade. Improve parking and circulation. Strengthen neighborhood/ regional connectivity.
- Balance recreational, cultural and natural landscapes.
- Keep main phase capital costs in the \$5 - \$10

million range. Additional capital costs should be put off to future phases. In this environment of limited public budget resources, keep management, operational and maintenance costs modest.

### Master Plan Structure: Creation of Discreet Zones

Overall, the 70-acre Fort Lowell site is complex, and are grouped into functional zones of similar activities.

#### *Zone 1 – Fort Lowell Historic Zone*

This zone encompasses the buildings grouped around the historic Fort Lowell Parade Grounds and stretches across both sides of North Craycroft Road. The goal of the design approach is to define the spatial character of Fort Lowell as it appeared between 1873 and 1891 by using historic buildings and building ruins, new buildings on historic footprints, new “ghosted” frames re-visioning historic buildings, landscape features, and interpretive elements.

- Buildings and resources remaining from the Fort era, including Officers’ Quarters #1, #2, and #3 at the Adkins parcel are preserved and rehabilitated. The ruins of Officers’ Quarters #1 and #2 are protected by a roof that defines its original building shape. Officers’ Quarters #3 is rehabilitated to its 1880 form and will be open for visits.
- A new cottonwood alley on its historic axis will be replanted. Historic picket fences will be replaced.
- The Commissary Building is preserved as

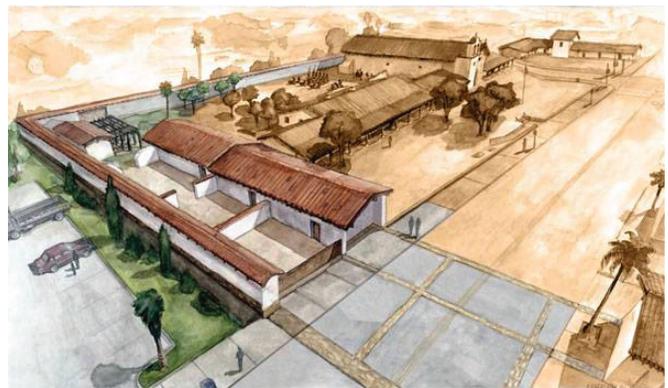


Figure 9: “Ghosting” strategy used at the Santa Barbara Presidio.

rehabilitated by the Bolsius family, but the number of residential units are reduced to bring it in line with current HR-1 zoning and to allow public access to the historic rooms. A gift shop and bookstore may be added. Some group activities may take place in the Commissary patio.

- A new ramada building is built on the footprint of the Adjutants Office and will serve as an orientation pavilion to welcome visitors to the site.
- In Craycroft Road, the footprints of Commanding Officers' Quarters (#4) and the Cavalry Band Quarters will be carved into the Craycroft asphalt. A new HAWK pedestrian crossing will be aligned on the cottonwood alley.
- On the east side of Craycroft, the Commanding Officer's Quarters (counted as Officer's Quarters #4) was reconstructed in 1963 in roughly the same place as the original Officer's Quarter #5. This structure is currently used by the Arizona Historical Society Museum. It should be noted that the Museum, reconstructed in 1963, was constructed 30 feet north of its proper alignment, but will remain in its current location to recognize, interpret, and celebrate Tucson's earliest preservation efforts. This building will remain a museum with limited hours of use until a new museum is built east of the eastern edge of the Parade Grounds. Once the museum has been relocated, the future of this building should be re-evaluated.
- Officers Quarters #6 and #7 will be memorialized as steel family ramadas mimicking the size and form of the original buildings. The western-most Barracks Building on the north side of the Parade Grounds will be similarly treated.
- The Hospital Building will be preserved and roof-protected but with the use of contemporary materials to define the extent and shape of the much-larger original hospital.
- The Barracks Building on the area east of the Parade Grounds are framed to mimic the size and form of the original buildings, with their exact function yet to be determined.

- The Donaldson House will be adaptively re-used as a community meeting space (with very limited parking as is) and a community garden.

#### *Zone 2 – Organized Sports Fields Zone*

This zone consolidates the sports fields now scattered around the Fort Lowell site, improving the quality, orientation, lighting and access of these fields. This zone includes:

- Four championship-quality, lighted soccer fields
- Two championship-quality, lighted Little League fields
- One championship-quality full-size lighted baseball field, reoriented to the proper direction
- The corner of Craycroft and Glenn is highlighted as a park gateway with a corner pedestrian plaza and the possible relocation of the Chief Trumpeter statue to this highly visible location.
- Additional and improved on-street parking is provided along Glenn Street for users of these sports fields.

#### *Zone 3 – Swimming, Tennis, and Active Recreation Zone*

This zone houses the more active recreation programs including:

- Improved tennis and pool facilities that allow for the current high rate of use for a variety of user groups. A new pool house and a renovated existing pool house will improve the aquatic facilities. A snack bar, restrooms, and shaded bleachers will serve both swimming and tennis.
- Improved and increased parking with enhanced landscape and an internal loop road
- Upgraded fitness areas with a variety of options serving a variety of users and age groups.
- The pond will remain and be enhanced with additional trails and vegetation.
- A full circuit multi-use asphalt trail will provide a one-mile loop around the park

#### *Zone 4 – Pantano Wash Natural Area and Native American Interpretation*

This zone is the location of the natural areas of the

site and includes the following:

- The natural resource areas along the Pantano Wash are protected and enhanced
- Environmental education programs are proposed to be run out of the current maintenance building in possible partnership with the Tucson Audubon Society.
- Other environmental education will be developed through enhanced signage, interpretive trails, dedicated classroom space, and programs focusing on sustainability and habitat restoration.
- Improved interpretation of Hohokam lifeways through new signage and archaeological exhibits.
- The pecan grove dating to 1940's will be restored.

## Preservation Plan for the Adkins Parcel at Fort Lowell Park

This represents the first portion being implemented under the Fort Lowell Park Master Plan, and utilizes approximately \$1.2 million remaining from the 2004 County Bond. The Adkins Parcels form one side of *Zone 1 – Fort Lowell Historic Zone*, as outlined above. Specifically, the treatments of Adkins Parcels resources are recommended as follows, subject to further study and acceptance by project participants:

### Officers' Quarters #1

- Preserve as a ruin and add a structure that defines the original shape and volume.

### Officers' Quarters #2

- Preserve as a ruin and add a protective structure that both defines the original shape and volume and shields the substantial remaining adobe resources from further deterioration.

### Officers' Quarters #3

- Rehabilitate to its 1880 (fort-era) form. Open the site for structured visits.

### Remainder of Adkins Parcel

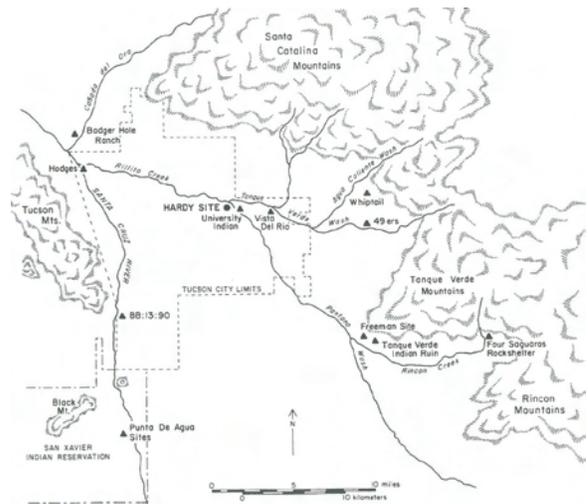
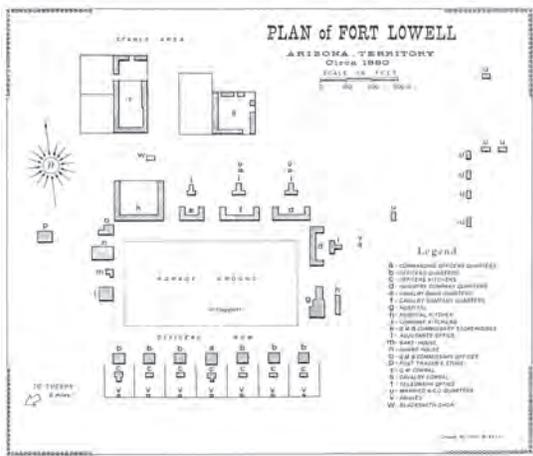
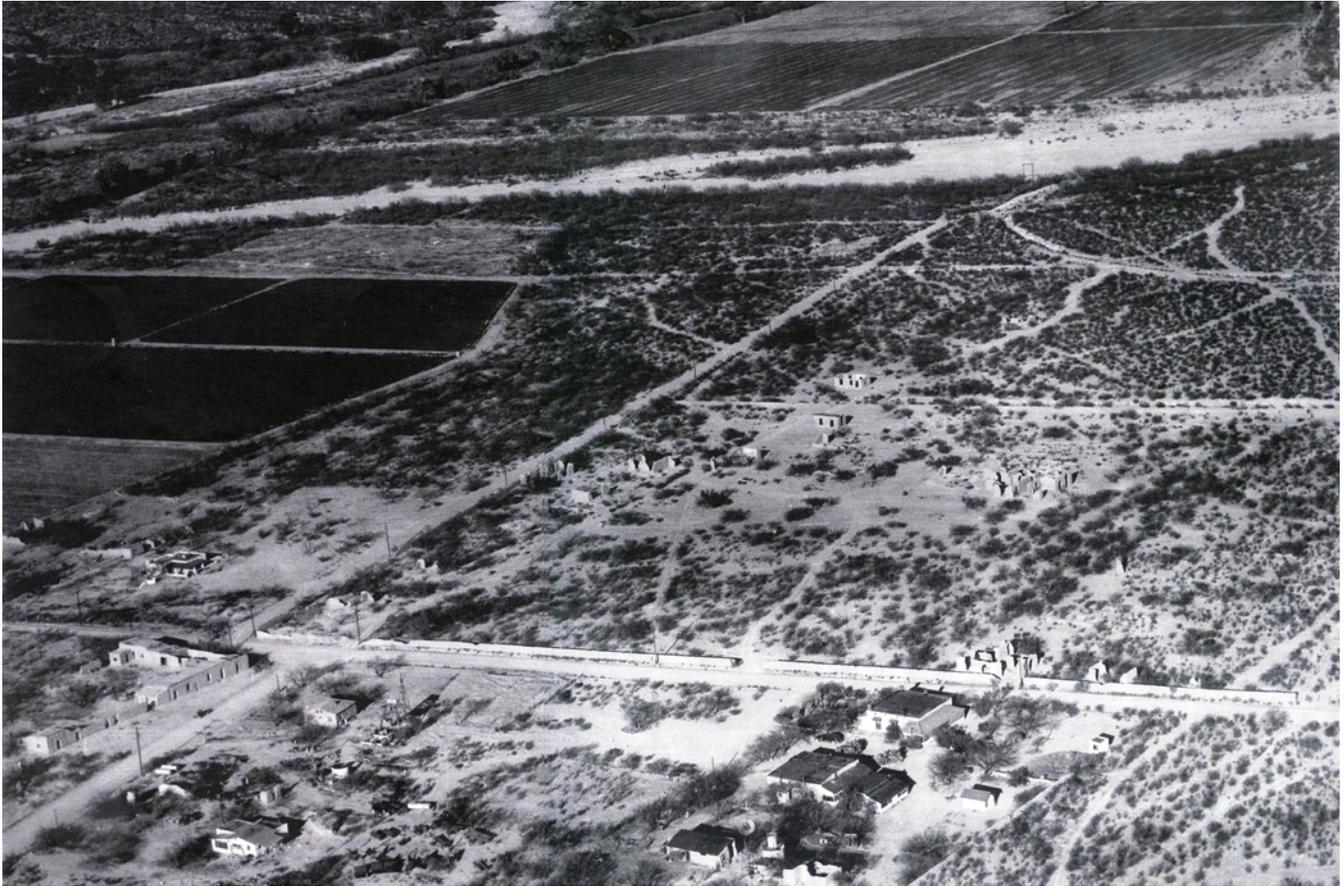
- Replant a new cottonwood allee on its historic axes.
- Re-build the historic picket fences as per historic photographs.
- Build a new ramada building on the footprint of the Adjutant's Office and have it serve as an orientation pavilion to welcome visitors to the site. This structure will define the original shape and volume of the historic building
- Stabilize the 1934 Adkins Residence so that it remains until its future can be decided after the Master Plan is partially implemented
- Remove the partially collapsed residence located west of the fabrication shed.
- After careful documentation, remove the ca.1940s Steel Fabrication Shed.
- Build a new parking area on the western portion of the site to provide access to the Adkins Parcel park.
- Plant limited and selective landscaping
- Install interpretive signs showing the fort-era and subsequent history of the site.

## Phasing and Costs

The project will be executed in three phases:

- Phase 1 (\$1.18 million, 2009-2011): Restoration of the Adkins parcel buildings including work on Officers Quarters #1, #2 and #3.
- Phase 2 (\$11.8 million, 2011-2013): All elements of the Master Plan except those elements in Phase 1 and 3. (Phase 2 may need to be broken into two phases, depending on available funding from Bonding and other sources..)
- Phase 3 (\$2.56 million, 2016-2017): a new 6000 square foot historical museum south and west of the pond.

The total cost of the Build-Out of Master Plan equals \$15.7 million.



# Timeline and Historical Narrative

Previous Page:

Figure 10: (Top) 1940's aerial.

Figure 11: 1876 Plan of Fort Lowell. Redrawn by Don Bufkin.

Figure 12: Hardy Site Location Map. By Charles Sternberg.

## Timeline and Historical Narrative

The following historical timeline narrative and sequence is an abridged and edited version of a longer historical analysis developed by **Homer Thiel** and other staff at **Desert Archaeology Inc.** For a more complete discussion please refer to three other documents:

- 1. Fort Lowell Park Master Plan, Background Report, Final Report, May 2009**, Prepared by *Poster Frost Associates* under contract to: *Pima County Cultural Resources and Historic Preservation Office*.
- 2. Cultural Resources Assessment for the Fort Lowell – Adkins Steel Property within Historic Fort Lowell, Tucson, Pima County, Arizona, March 2008**, Technical Report No. 2008-08. Prepared by *Desert Archaeology, Inc.* under contract to: *Pima County Cultural Resources and Historic Preservation Office*.
- 3. Cultural Resources Assessment for the Fort Lowell Park, the Donaldson/Hardy Property, and the Quartermaster and Commissary Storehouse Property within Historic Fort Lowell, Tucson Pima County Arizona, March 2008**, Technical Report No. 2009-02. Prepared by *Desert Archaeology, Inc.* under contract to: *Pima County Cultural Resources and Historic Preservation Office*.

### Historical Summary

The history of the Southwest and of the Tucson Basin is marked by a close relationship between people and the natural environment. Environmental conditions have strongly influenced subsistence practices and social organization, and social and cultural changes have, in turn, made it possible to more efficiently exploit environmental resources. The Tucson valley is the historical context of the current site of Fort Lowell Park. While it is true that this particular stretch of riparian eco-system along the western bank of the Pantano Wash (at its confluence with the Tanque Verde Wash to form the Rillito) has relatively recent inhabitation, the valley context of Fort Lowell Park itself has been occupied by a wide range of people, over a long period of time,

evolving through a series of historical periods:

- Paleoindian Period (11,500? -7500 B.C.)
- Archaic Period (7500-2100 B.C.)
- Early Agricultural Period (2100 B.C.-A.D. 50)
- Early Ceramic Period (A.D. 50-500)
- Hohokam Sequence [the first period of human occupation of this Fort Lowell site] (A.D. 500-1450)
- Protohistoric Period (A.D. 1450-1697)
- Spanish and Mexican Periods (A.D. 1697-1856)
- American Period (1856-Present).

### Paleoindian Period (11,500?-7500 B.C.)

Archaeological investigations suggest the Tucson Basin was initially occupied some 13,000 years ago, a time much wetter and cooler than today. The Paleoindian period is characterized by small, mobile groups of hunter-gatherers who briefly occupied temporary campsites as they moved across the countryside in search of food and other resources (Cordell 1997:67). The hunting of large mammals, such as mammoth and bison, was a particular focus of the subsistence economy. Paleoindian use of the Tucson Basin is supported by archaeological investigations in the nearby San Pedro Valley and elsewhere in southern Arizona. However, because Paleoindian sites have yet to be found in the Tucson Basin, the extent and intensity of this occupation are unknown.

### Archaic Period (7500-2100 B.C.)

The transition from the Paleoindian period to the Archaic period was accompanied by marked climatic changes. During this time, the environment came to look much like it does today. Archaic period groups pursued a mixed subsistence strategy, characterized by intensive wild plant gathering and the hunting of small animals. The only early Archaic period (7500 - 6500 B.C.) site known from the Tucson Basin is found in Ruelas Canyon, south of the Tortolita Mountains (Swartz 1998:24). However, middle Archaic period sites dating between 3500 and 2100 B.C. are known from the bajada zone surrounding

Tucson, and, to a lesser extent, from floodplain and mountain areas. Archaic period sites in the Santa Cruz floodplain were found to be deeply buried by alluvial sediments, suggesting more of these sites are present, but undiscovered, due to the lack of surface evidence.

Early Agricultural Period (2100 B.C.-A.D. 50)

The Early Agricultural period (previously identified as the Late Archaic period) was the period when domesticated plant species were first cultivated in the Greater Southwest. The precise timing of the introduction of cultigens from Mexico is not known, although direct radiocarbon dates on maize indicate it was being cultivated in the Tucson Basin and several other parts of the Southwest by 2100 B.C. (Mabry 2007). By at least 400 B.C., groups were living in substantial agricultural settlements in the floodplain of the Santa Cruz River. Recent archaeological investigations suggest canal irrigation also began sometime during this period. All excavated sites to date contain small, round, or oval semi-subterranean pithouses, many with large internal storage pits. At some sites, a larger round structure is also present, which is thought to be for communal or ritual purposes.

important in the diet and increased in importance through time. However, gathered wild plants such as tansy mustard and amaranth seeds, mesquite seeds and pods, and agave hearts were also frequently used resources. As in the preceding Archaic period, the hunting of animals such as deer, cottontail rabbits, and jackrabbits, continued to provide an important source of protein.

Early Ceramic Period (A.D. 50-500)

Although ceramic artifacts, including figurines and crude pottery, were first produced in the Tucson Basin during the Early Agricultural period (Heidke and Ferg 2001; Heidke et al. 1998), the widespread use of ceramic containers marks the transition to the Early Ceramic period (Huckell 1993). Architectural features became more formalized and substantial during the Early Ceramic period, representing a greater investment of effort in construction, and perhaps more permanent settlement. A number of pithouse styles are present, including small, round, and basin shaped houses, as well as slightly larger subrectangular structures. As during the Early Agricultural period, a class of significantly larger structures may have functioned in a communal or ritual manner.

Agriculture, particularly the cultivation of corn, was

Reliance on agricultural crops continued to increase, and a wide variety of cultigens including maize,

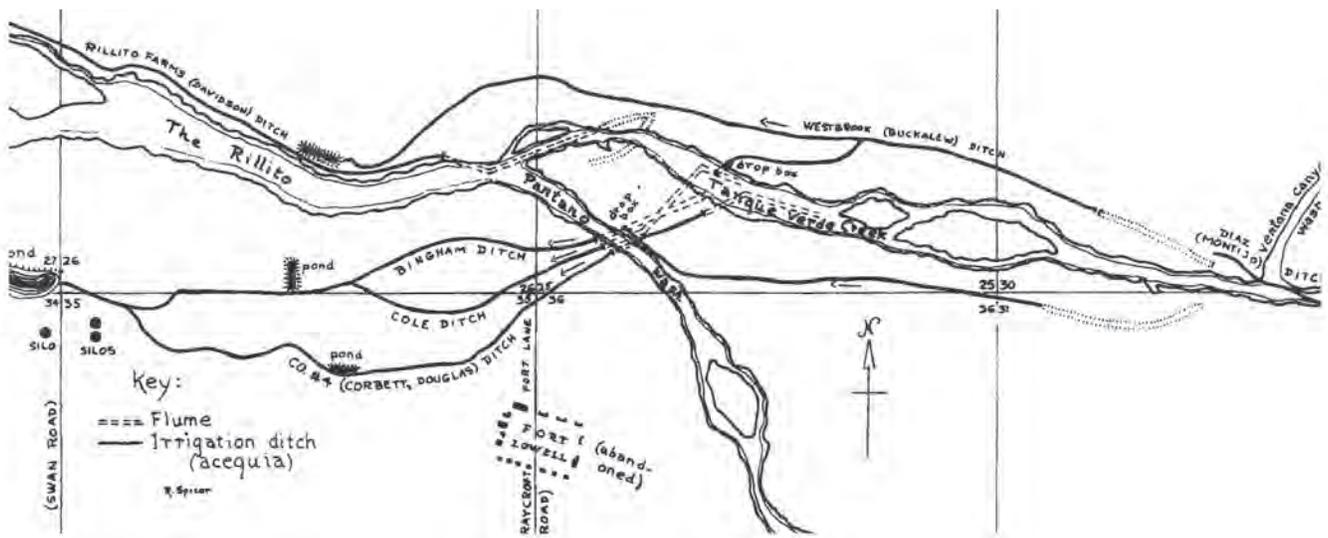


Figure 13: Irrigation ditches located in the Fort Lowell area.

beans, squash, cotton, and agave were an integral part of the subsistence economy. Populations grew as farmers expanded their crop production to floodplain land near permanently flowing streams, and it is assumed that canal irrigation systems also expanded. Evidence from archaeological excavations indicates trade in shell, turquoise, obsidian, and other materials intensified and that new trade networks developed.

#### Hohokam Sequence (A.D. 500-1450) [pre-Classic (A.D. 500-1150), Classic (A.D. 1150-1450)]

The Hohokam diverged from the preceding periods in a number of other important ways:

- (1) pithouses were clustered into formalized courtyard groups, which, in turn, were organized into larger village segments, each with their own roasting area and cemetery
- (2) new burial practices appeared (cremation instead of inhumation), in conjunction with special artifacts associated with death rituals
- (3) canal irrigation systems were expanded and, particularly in the Phoenix Basin, represented huge investments of organized labor and time
- (4) large communal or ritual features, such as ballcourts and platform mounds, were constructed at many village sites.

At the start of the pre-Classic, small pithouse hamlets and villages were clustered around the Santa Cruz River. However, beginning about A.D. 750, large, nucleated villages were established along the river or its major tributaries (Doelle and Wallace 1991). Between A.D. 950 and 1150, Hohokam settlement in the Tucson area became even more dispersed, with people utilizing the extensive bajada zone as well as the valley floor (Doelle and Wallace 1986). Above ground adobe compound architecture appeared for the first time, supplementing, but not replacing, the traditional semi-subterranean pithouse architecture (Hauray 1928; Wallace 1995).

Sometime around A.D. 500 populations in southern and central Arizona began to aggregate into large villages. These villages would remain the focal

point of habitation for the next 600 years. Though information about the Hardy at the current location of Fort Lowell Park site is limited, it appears to be one of these primary villages (Gregonis 1997). Located above the confluence of the Pantano and Tanque Verde washes, occupants of the Hardy site would have been well positioned to take advantage of arable land and relatively plentiful water. The number of trash mounds identified, in conjunction with the likelihood that many others were destroyed, points to a village-sized population living at the Hardy site. Like many of the large villages, the Hardy site appears to have been abandoned by the Tanque Verde phase (A.D. 1150-1300).

Prehistoric archaeological resources were first noted at Fort Lowell in 1884 by Adolf Bandelier (Gregonis 1997:viii). In 1917, Dt. Robert F. Gilder, University of Nebraska, was surprised to find prehistoric pottery sticking out of the adobe walls. An archaeological excavation was conducted between 1976 and 1978 by the Arizona State Museum. Linda Gregonis subsequently prepared a site card for the Hardy site in 1979. This prehistoric Hohokam site encompasses a large area surrounding historic Fort Lowell. The 1976-1978 excavations took place on the eastern side of the park near the pecan grove; 36 features were documented including nine pit structures, “caliche borrow pits, possible storage pits, a work area, roasting pits, a cemetery-offertory area, and enigmatic groups of postholes” (Gregonis 1997:11). The features dated from about A.D. 650 to A.D. 1300, and indicate the occupation was both lengthy and intensive. This period includes the Snaketown phase (A.D. 700-750), the early Cañada del Oro phase (A.D. 750-850), the Rillito phase (A.D. 850-950), the Late Rincon phase (A.D. 1100-1300), and the Tanque Verde phase (A.D. 1150-1300). Artifacts and/or pithouses from all these phases, were found scattered throughout the Fort Lowell Park area.

#### Protohistoric Period (A.D. 1450-1697)

Recent research suggests that aggregation and abandonment in the Tucson area may be related to

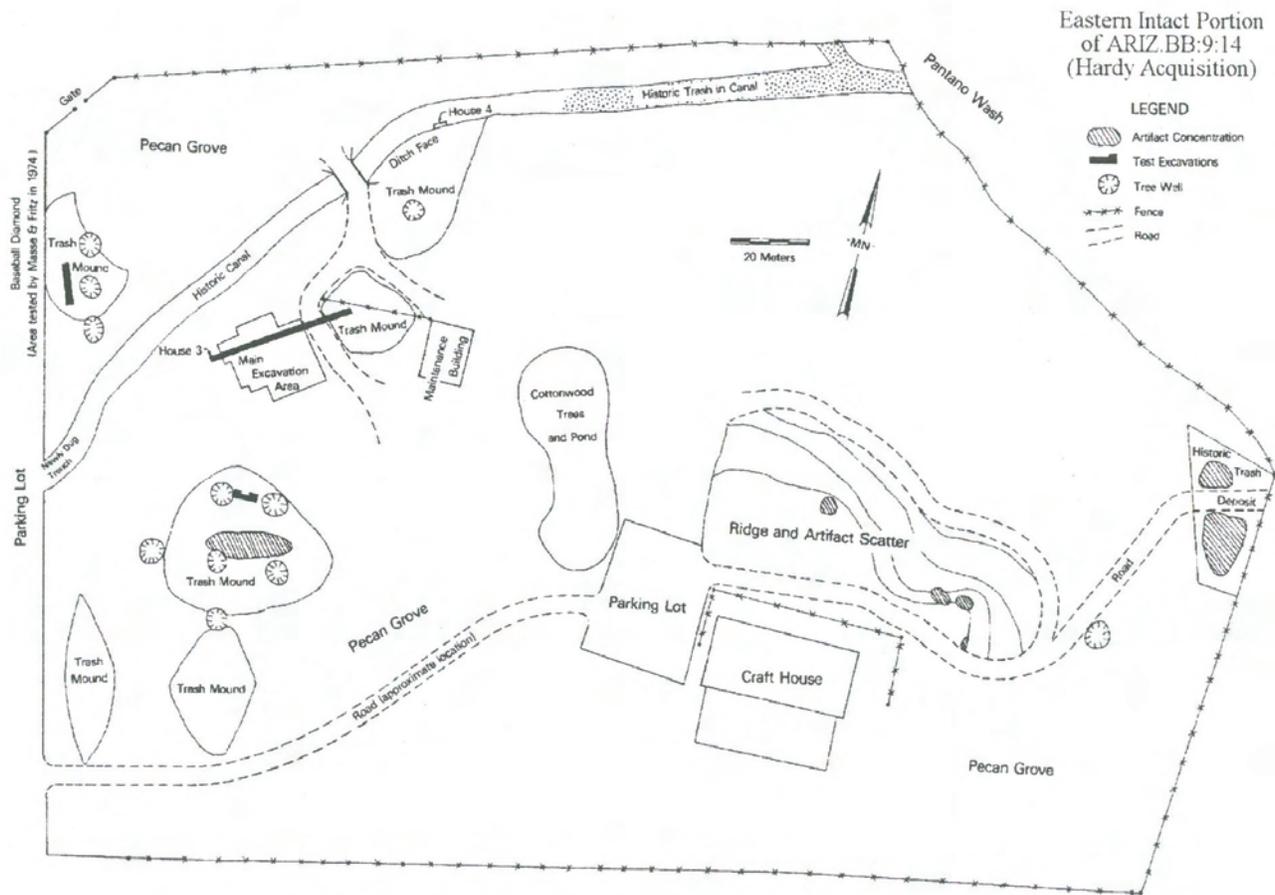


Figure 14: Tested and excavated areas at the Hardy Site. By Steven Gregonis.

an increase in conflict and possibly warfare (Wallace and Doelle 1998). By A.D. 1450, the Hohokam tradition, as presently known, disappeared from the archaeological record. Little is known of the period from A.D. 1450, when the Hohokam disappeared from view, to A.D. 1697, when Father Kino first traveled to the Tucson Basin (Doelle and Wallace 1990). By that time, the Tohono O’odham people were living in the arid desert regions west of the Santa Cruz River, and groups who lived in the San Pedro and Santa Cruz valleys were known as the Sobaipuri (Doelle and Wallace 1990; Masse 1981). Both groups spoke the O’odham language and, according to historic accounts and archaeological investigations, lived in oval jacal surface dwellings rather than pithouses. One of the larger Sobaipuri communities was located at Bac, where the Spanish Jesuits, and later the Franciscans, constructed the

mission of San Xavier del Bac (Huckell 1993; Ravesloot 1987). However, due to the paucity of historic documents and archaeological research, little can be said regarding this inadequately understood period.

#### Spanish and Mexican Periods (A.D. 1697-1856)

Spanish exploration of southern Arizona began at the end of the seventeenth century A.D. Early Spanish explorers in the Southwest noted the presence of Native Americans living in what is now the Tucson area. These groups comprised the largest concentration of population in southern Arizona (Doelle and Wallace 1990). In 1757, Father Bernard Middendorf arrived in the Tucson area, establishing the first local Spanish presence. Fifteen years later, construction of the San Agustín Mission near a Native American village at the base of A Mountain

was initiated, and by 1773, a church was completed (Dobyns 1976:33).

In 1775, the site for the Tucson Presidio was selected on the eastern margin of the Santa Cruz River floodplain. In 1776, Spanish soldiers from the older presidio at Tubac moved north to Tucson, and construction of defensive and residential structures began. The Tucson Presidio was one of several forts built to counter the threat of Apache raiding groups who had entered the region at about the same time as the Spanish (Thiel et al. 1995; Wilcox 1981). Spanish colonists soon arrived to farm the relatively lush banks of the Santa Cruz River, to mine the surrounding hills, and to graze cattle. Many indigenous settlers were attracted to the area by the availability of Spanish products and the relative safety provided by the presidio. The Spanish and Native American farmers grew corn, wheat, and vegetables, and cultivated fruit orchards. The San Agustín Mission was known for its impressive gardens (Williams 1986).

In 1821, Mexico gained independence from Spain, and Mexican settlers continued farming, ranching, and mining activities in the Tucson Basin. By 1831, the San Agustín Mission had been abandoned

(Elson and Doelle 1987; Hard and Doelle 1978), although settlers continued to seek the protection of the presidio walls.

American Period (1856-Present)

Through the 1848 settlement of the Mexican American War and the 1853 Gadsden Purchase, Mexico ceded much of the Greater Southwest to the United States, establishing the international boundary at its present location. The U.S. Army established its first outpost in Tucson in 1856, and in 1873, founded Fort Lowell at the confluence of the Tanque Verde Creek and Pantano Wash, to guard against continued Apache raiding.

*Camp 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).

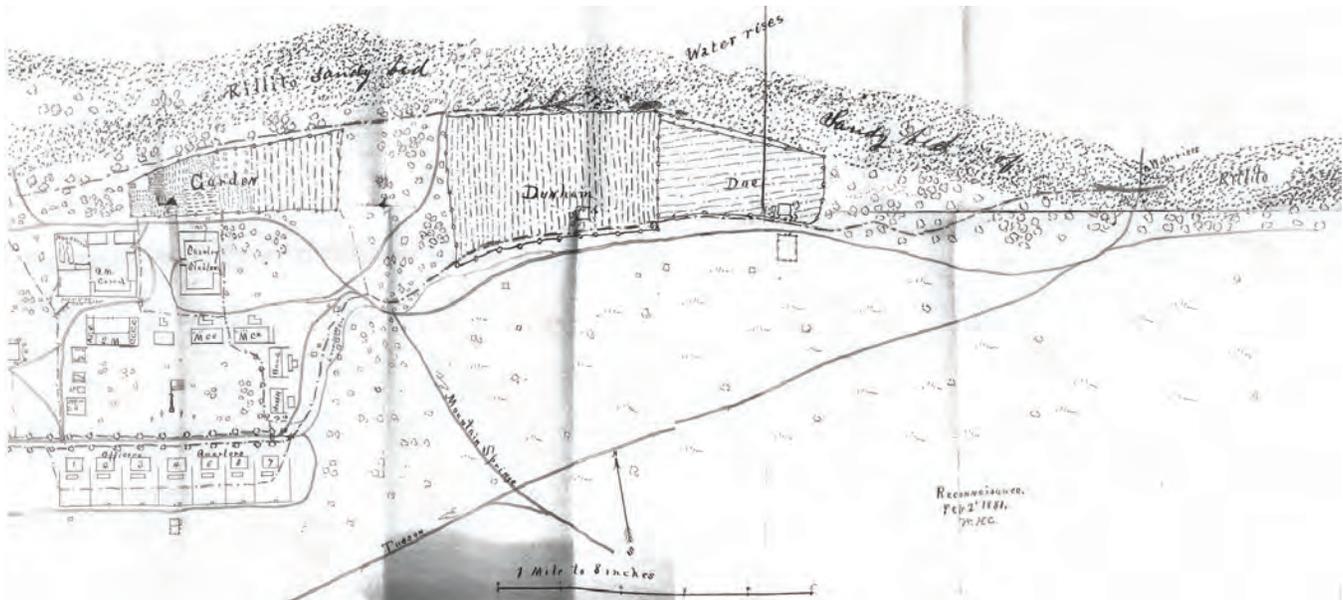


Figure 15: 1881 Map.

*Fort Lowell Period, 1873 – 1891*

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).

The project area was mapped by the Surveyor General’s Office, and a map was completed on 31

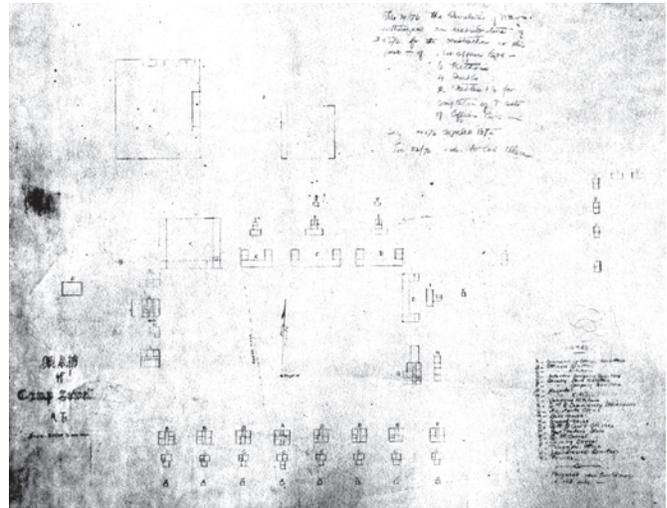


Figure 16: 1876 map of Fort Lowell

December 1873. 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

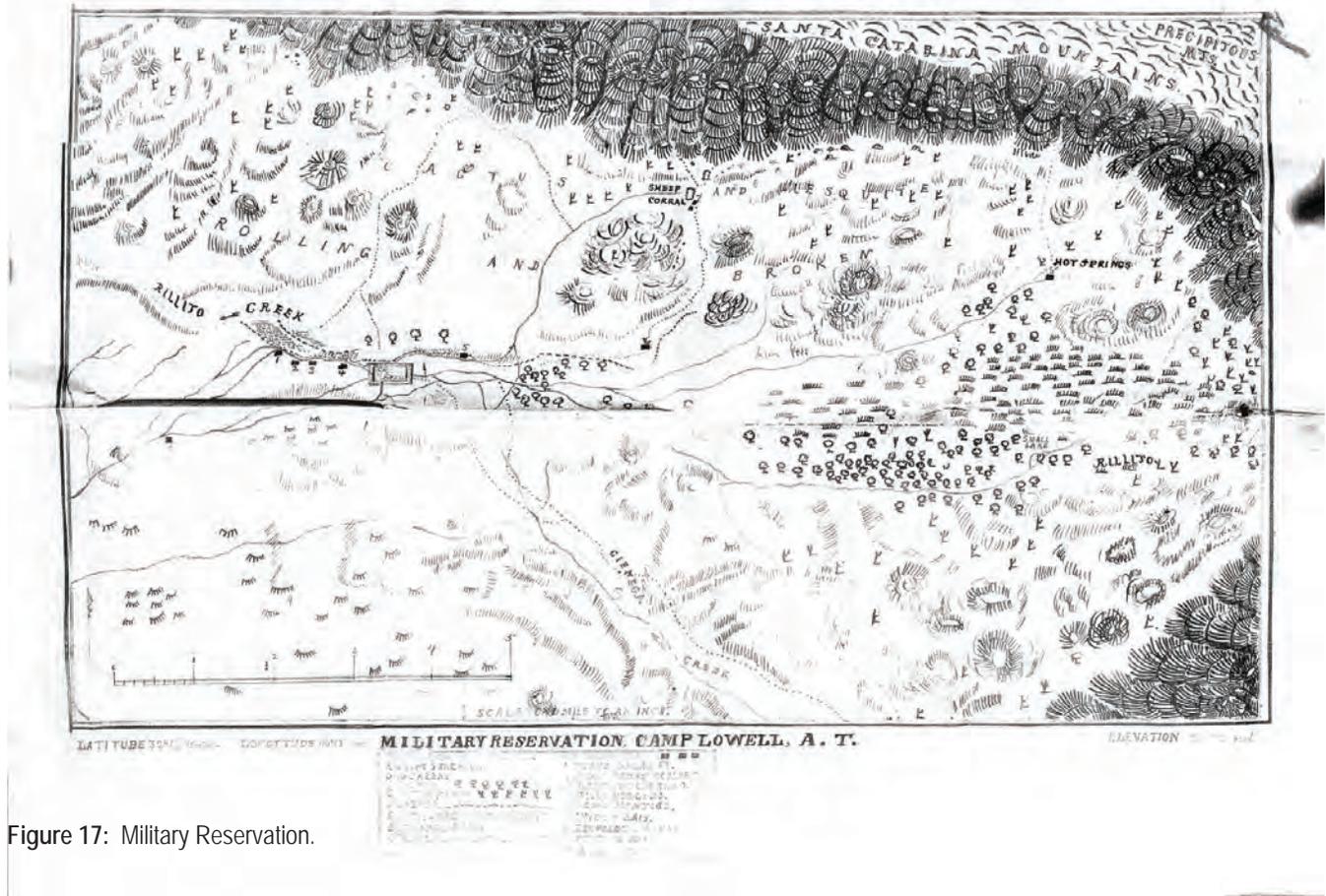


Figure 17: Military Reservation.

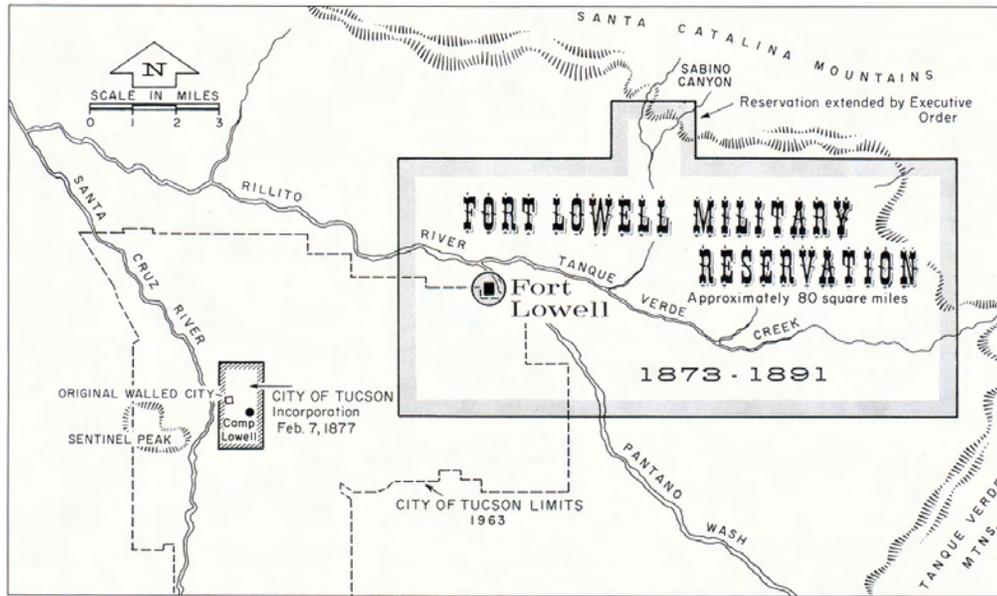


Figure 18: Location of Fort Lowell, Redrawn by Don Bufkin.

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.

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. In April 1885 it was reported that the officer's quarters were shaded and screened by "a beautiful paling of living ocotillos" (Mearns 1907:109). 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.

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).

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. The Fort Lowell military reservation was increased in



Figure 20: Cottonwood Lane, looking west, around 1889.

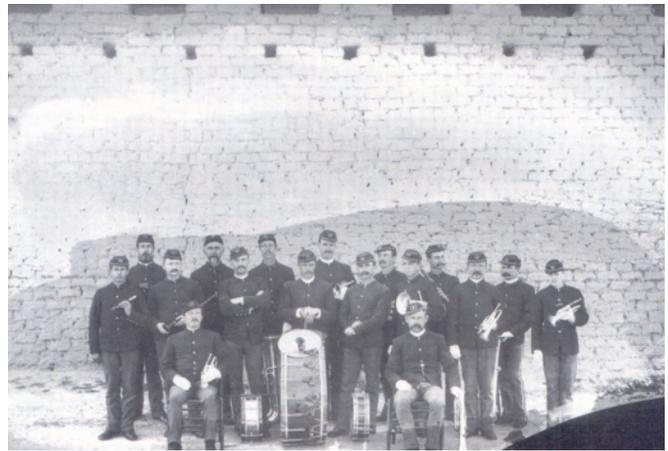


Figure 21: Fourth Cavalry Band.



Figure 19: Fort Lowell, Parade Ground looking south.

size in the early 1880s to ensure a good supply of water. Seventeen ranches were expropriated by the government, with the owners complaining that they were not fully compensated. During this process three maps were prepared by fort employees, showing the location of ranches and water sources (NARA Record Group 49, Division K, Boxes 13 and 14). Many of the people living on the reservation refused to leave. A list prepared in June 1887 contains 56 household with a total of 55 men, 58 woman, and 157 children. The majority was Mexican-Americans, but a few European-Americans, an African-American woman, and several Chinese men were counted (NARA Record Group 49, Division K, Box 14).

Soldiers at the post participated in sorties against hostile 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).

#### *Post-Fort Lowell Era: Salvage and Mexican-American Settlement*

The removal of soldiers from the fort probably led to the systematic salvaging of furniture, ordinance, and other useful items by the United States military. Some of the building materials were apparently stripped from structures and taken to Fort Yuma for reuse (David Faust, personal communication 2007).

A caretaker, W. C. Dunn, was appointed to watch over the abandoned fort, apparently in 1892. William Crawford Dunn, born in Virginia in 1836, was a former soldier in Company B of the 3rd US Cavalry and had been wounded in the recently concluded Indian wars (NARA Record Group 49, Division K, Boxes 13 and 14; William C. Dunn Civil War Pension Index, online at [www.ancestry.com](http://www.ancestry.com)). Dunn sent a series of letters to the Government Land Office detailing happenings on the fort reservation. In December 1892, the six laundresses quarters were reported to be useless, other buildings were in good repair although some needed roof work, and that the



Figure 22: Fort Lowell, 1904.



Figure 23: Photograph of Fort Lowell Officer's Row, with officer's quarters no. 1 on the far right.

Adjutant's Office was in use as a schoolhouse. In February 1893 a military officer asked to salvage the flagpole for re-use elsewhere.

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). Many others were successful in obtaining land within the greater Fort Lowell reservation including George Doe, Chesley Aldrich, Bradford Daily, Alexander Wilkins, Carmen Romero, Jesus Salazar, and Tomas Gonzales (NARA Record Group 49, Division K, Box 13). The main core of the fort remained within federal ownership.

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. An auction was held on 18 November 1896, and many

of the buildings were sold. The auction raised a total of \$1,080. The purchasers stripped the windows, doors, and their frames; beams, tin roofing, and wood flooring. Many items were later incorporated the materials into homes built in downtown Tucson (Fort Lowell ephemeral file, AHS). Afterwards, some buildings became the residences of local Mexican-American families, although little is known about these individuals. Other buildings decayed due to neglect and vandalism.

The University of Arizona started a military cadet program in 1896, continuing it into the early 20th century. The battalion was open to male students, who wore summer or winter uniforms to class and practiced military exercises. The battalion often used Fort Lowell as a training ground. The cadet program continued to march out to Fort Lowell, traveling back and forth from the University to Fort Lowell twice in the spring of 1920 (Tucson Citizen,

9 April 1920).

The Boy Scouts of Tucson also marched out to the fort for camping adventures. In April 1912, the newly formed troop camped out just to the north of the fort. The boys spent a week at the fort (Tucson Citizen, 2 April 1912). They were led by a pair of University of Arizona cadets, who had practical experience in camping (Tucson Citizen, 2 April 1912). Another group camped at the fort for several days in April 1914 (Tucson Citizen, 11 April 1914).

The Boy Scouts would continue to have a presence at the fort into the 1950s. George Babbitt, a former postmaster for Flagstaff, had purchased the east half of Fort Lowell from the State of Arizona. The Arizona State Museum had been caring for the property since the 1930s, including doing some

stabilization work on the hospital ruins. In 1941, the president of the University of Arizona decided to end that involvement. Babbitt purchased the land for \$9,000. He later returned the land to the state and the Boy Scouts purchased it for \$220 in September 1945 (Tucson Citizen, 11 September 1945). The Boy Scouts would go on to build a protective roof over part of the hospital in the mid-1950s.

### Sanatorium Period and Other Uses

The early 1900s also saw the opening of at least three sanitariums in and around Fort Lowell. Dollie Cate operated one on the south side of Fort Lowell Road beginning in 1908 (Thiel et al. 2008), taking care of tubercular patients in Officers Quarters 1, 2, and 3. Dollie Cate was born in 1871 in Tennessee and had moved to Tucson with her husband Dixie in search for a cure for his tuberculosis. Unfortunately,



Figure 24: A 1937 map of Fort Lowell, drafted by Charles Maguire.

he died in 1908. Mrs. Cate's sold her sanitarium to Harvey and Fronia Adkins in February 1928. The Adkins had moved to Tucson to try to cure their daughter Minerva's tuberculosis, but like Dixie Cate, Minerva Adkins died from the disease in 1927 (Thiel et al. 2008). The Adkins operated a rest home in the Officers Quarters into the 1940s.

Mrs. Nellie Swan operated another, in the old John "Pie" Allen post sutler's store, on the north side of Fort Lowell Road. Her place was called the Swan Ranch and was in operation as early as 1916 (Tucson Citizen, 5 September 1916). Mrs. Swan sold her sanitarium, then called the Fort Lowell Health Resort, to members of the St. John family in 1925 (Pima County DRE 103:484), and the operation of the sanitarium ceased sometime in the next few years.

The ruins of the fort became a popular spot for visitors. The decaying walls were a big draw, and were also a convenient place to hang strings of chili peppers. Many picnickers and campers traveled from Tucson to spend time in the fort, posing for pictures and looking for mementoes (Tucson Citizen, 21 July 1917, 2 March 1920). Not everyone was interested in seeing the ruins. A Major Brown, who was stationed at the fort in 1890, visited Tucson in 1912 and told a newspaper reporter that "I like to think of Fort Lowell as it used to be, and I don't care to see it in ruins" (Tucson Citizen, 12 April 1912).

Several silent movies were filmed within the ruins. In December 1917, Douglas Fairbanks arrived in Tucson and motored out to Fort Lowell for a day of filming. Allan Dwan directed the film, "Headin' South," with Frank Campeau playing the movie's villain. The movie was released in February 1918. In May 1919, the film 'Chasing Rainbows' (also called "Sadie") was partially filmed at the fort. The film was released in August 1919 and is still extant.

Interest in the historical nature of the site began in 1918, when the Chamber of Commerce considered

the placement of a sign at the fort explaining its significance (Tucson Citizen, 14 August 1918). The first preservation efforts took place in the late 1920s. The Tucson Chamber of Commerce had a historical commission which passed a resolution asking the State Legislature to pass a bill establishing the fort as a State Historic Monument, with the Arizona State Museum to manage the monument. On 15 March 1929, the State Senate passed Senate Bill 100, which withdrew 40 acres of State land on which the majority of the fort stood, from sale or homestead entry. The land was placed in trust for the State of Arizona with the Arizona State Museum supervising its use (City of Tucson Parks & Recreation Department 1985). Portions of Fort Lowell were sold to private citizens beginning in 1896. During the 20th century these properties saw modern usage.

The Adkins family had purchased the southwestern portion of the fort from Dollie Cate in 1928. Initially they operated a rest home but in the 1930s son Marion Adkins started the Adkins Trucking and Steel Manufacturing Company. The family built two small adobe homes, a concrete-clad manufacturing barn, a windmill, and several other buildings on the property. Steel tank production lasted up into the 2000s (Thiel et al. 2008).

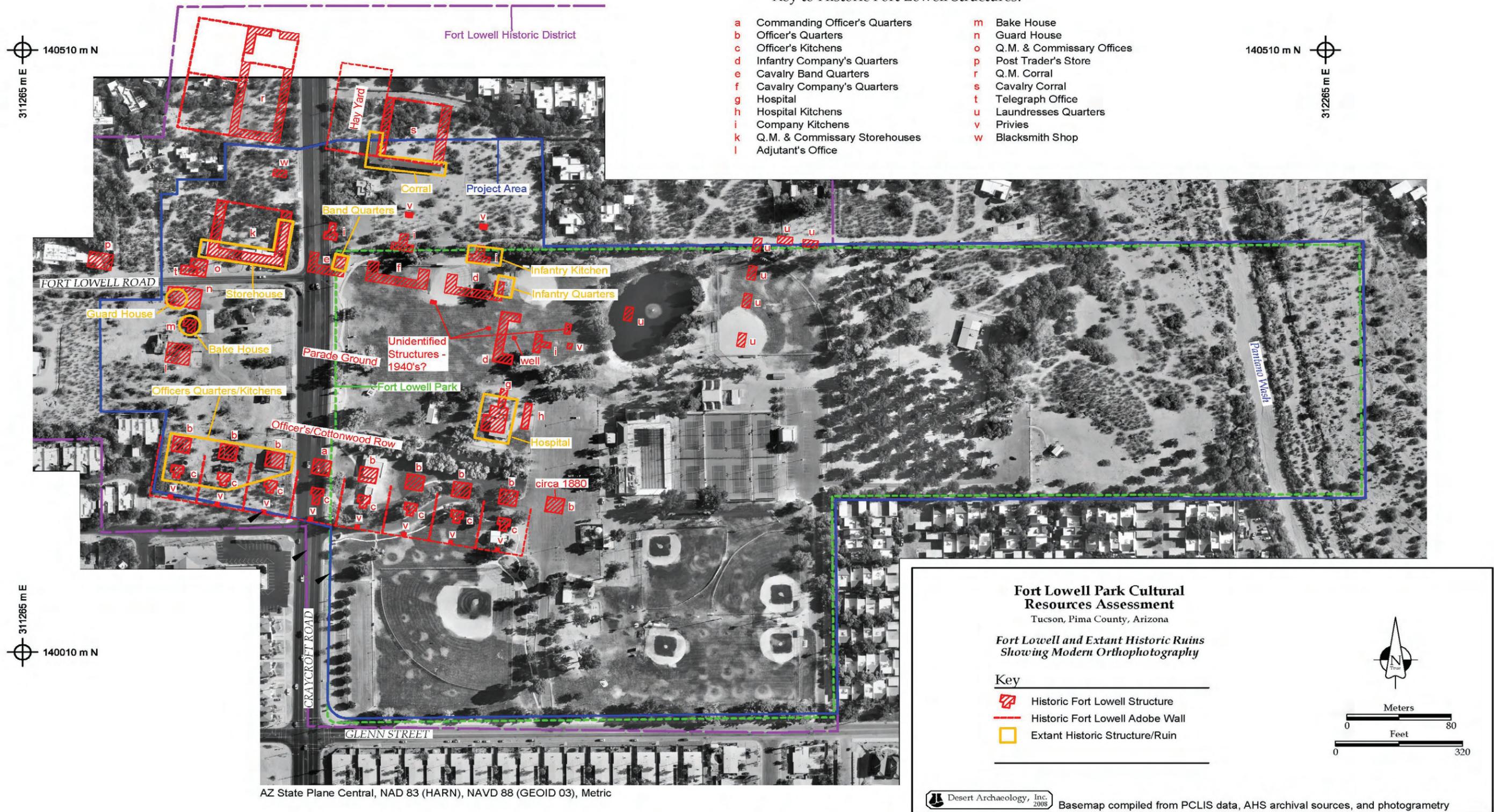
Charles, Peter, and Nan Bolsius came to Tucson (having lived in Holland, Iowa, California, and most recently, New Mexico) and worked to restore the former John "Pie" Allen Sutler's Store into a house in the 1930s. Beginning in the 1940s they did the same to the Quartermaster and Commissary Storehouse, re-using some original walls and rebuilding others from the foundations up. Hard-carved doors, lintels, and cupboards decorate the apartments they created within the ruins (Thiel 1997).

John and Janet Donaldson purchased the former Cavalry Corral portion of the fort in 1947. They built a house on the property and lived there until 1978. They sold the property to Craig and Susan Hardy, who lived there until they sold the land to

Timeline and Historical Narrative

Key to Historic Fort Lowell Structures:

- |   |                               |   |                           |
|---|-------------------------------|---|---------------------------|
| a | Commanding Officer's Quarters | m | Bake House                |
| b | Officer's Quarters            | n | Guard House               |
| c | Officer's Kitchens            | o | Q.M. & Commissary Offices |
| d | Infantry Company's Quarters   | p | Post Trader's Store       |
| e | Cavalry Band Quarters         | r | Q.M. Corral               |
| f | Cavalry Company's Quarters    | s | Cavalry Corral            |
| g | Hospital                      | t | Telegraph Office          |
| h | Hospital Kitchens             | u | Laundresses Quarters      |
| i | Company Kitchens              | v | Privies                   |
| k | Q.M. & Commissary Storehouses | w | Blacksmith Shop           |
| l | Adjutant's Office             |   |                           |



AZ State Plane Central, NAD 83 (HARN), NAVD 88 (GEOID 03), Metric

Desert Archaeology, Inc. 2008 Basemap compiled from PCLIS data, AHS archival sources, and photogrammetry

Figure 25: Fort Lowell and Extant Historic Structures Showing Modern Orthophotography.

# Historical Timelines, Fort Lowell Park and Tucson Valley

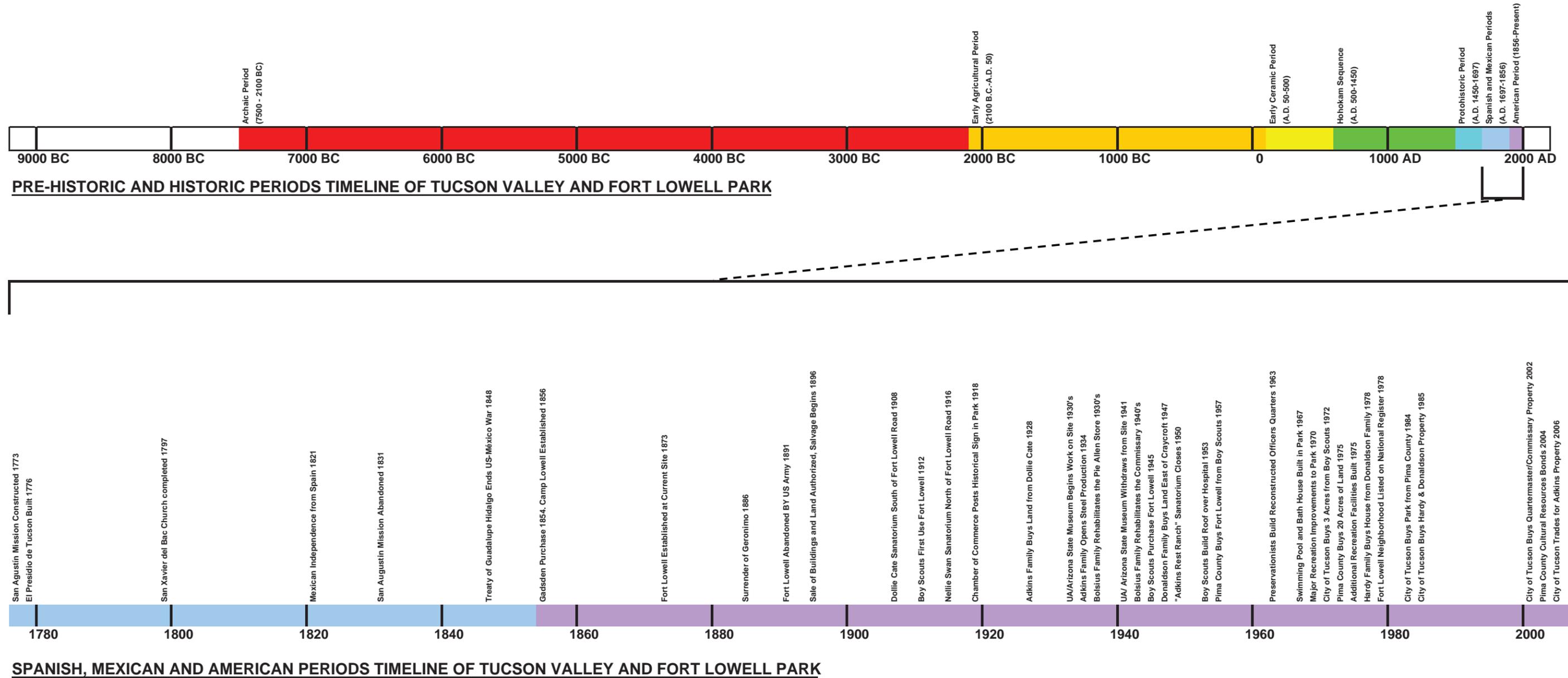


Figure 26: Historical Timelines, Fort Lowell Park and Tucson Valley.

the City of Tucson in 1984. The house was used by several non-profit groups until the early 1990s and has stood vacant since that time (Thiel 1994).

#### *Fort Lowell as a Public Park*

Pima County purchased the property containing most of historic Fort Lowell on 7 August 1957. They reportedly paid the Catalina Scouts \$50,000. The county then established the Fort Lowell Historical and Recreational Area (Fort Lowell ephemeral file, 1950s, AHS). The County had already closed the park in July 1957 due to increased vandalism, with adobe walls being knocked over (Tucson Citizen, 1 August 1957).

Pima County soon prepared plans to develop the park for recreation. Initial plans called for replanting the cottonwood trees on Officer's Row, construction of a museum, and creation of picnic areas (Tucson Citizen, 1 August 1957). These plans were scrapped and new plans drawn up that 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 cost of reconstruction was calculated to be \$40,000. The Junior League donated \$10,000, Pima County \$28,000, the Sheriff's Posse of Pima County \$1,500, and the Civil War Centennial Committee \$150. Architect William Goldblatt prepared plans for the new buildings, including visiting a home on N. Euclid Avenue that incorporated an original door from an officer's quarters. Construction began in 1962, and the dedication ceremony was held on Veteran's Day, 11 November 1963 (Arizona Daily Star, 12 November 1963; Goldblatt 1964; Tucson Citizen, 12 November 1963; Dedication brochure on file at the Arizona Historical Society). About 700 people attended the opening ceremony for the new museum, with George Babbitt serving as keynote speaker (Arizona Daily Star, 12 November 1963).

The reconstructed officer's quarters and kitchen were built with a concrete block core with unfired adobe brick veneer. Sahuaro ribs, oak, and pine logs were obtained from the region. Milled lumber, including redwood, was imported, Fired bricks and wall caps were locally made (Goldblatt 1964).

Concurrently, Pima County began development of other portions of the park. A contract for site grading and the placement and compaction of 24,000 cubic yards of fill was let in 1961 (Tucson Citizen, 9 May 1961). A deep well turbine pump was installed that same year, probably for watering the area to promote grass growth (Tucson Citizen, 14 June 1961). A contract to install sewer lines within the park was given to the E. P. Huniker Construction Company in May 1963 (Tucson Citizen, 1 May 1963). Craycroft and Glenn Roads, adjacent to the park, were proposed for paving and the installation of curbs and sewers in 1964, with the work completed the following year. By 1963, an estimated \$55,000 had been spent on the park (Tucson Citizen, 14 June 1963, 18 February 1964, 5 February 1965).

A swimming pool, a wading pool, and bath house were built in 1967, four years after local residents petitioned the county for this improvement (Tucson Citizen, 14 June 1963; 21 April 1967). The existing sewers were not big enough to handle the pool overflow, so a small pond was constructed on the park to hold this water. Several ramadas were also constructed for use by picnickers and people attending sporting events. By 1970, the park had ramadas, a major baseball field, six Pee Wee League fields, playground equipment, a museum, a swimming pool, and a wading pool (Tucson Citizen, 17 June 1970). An archery range was to be installed in the northeast corner of the park in 1971 (Tucson Citizen, 19 August 1971). Tennis courts were in place by November 1972 (Tucson Citizen, 27 November 1972). Soccer was being played at the park by November 1974 (Tucson Citizen, 8 November 1974). Additional baseball fields and a

racquetball court were to be constructed in 1975, leading one Tucson resident to complain that the park was favoring recreation over history and archaeology (Tucson Citizen, 24 December 1974).

A variety of cultural and sports events took place within the park. In April 1965, a Pioneer Jubilee was held that included a Mormon chuck wagon supper and a “pageant honoring the American pioneer. Music and dancing” (Tucson Citizen, 10 April 1965). Arts and crafts fairs were held at the park in the late 1960s, with items made in a Crafts Center at the park offered for sale. (Tucson Citizen, 17 May 1969). Swimming competitions were also held at the newly completed pool in the late 1960s (Tucson Citizen, 22 July 1969). Other events included Cavalry Field Days, Easter Egg hunts, potluck suppers, wedding receptions, family reunions, and meetings. In March 1973, the 100th anniversary of the establishment of the fort at the location was marked by a large celebration, including a pageant “If Adobes Could Talk.” The pageant had a variety of vignettes including “Portrayal of Papago Culture,” “Tucson- the Mexican Village,” “Won Toi’s Celestial Restaurant,” and “Fort Lowell in Summer” (Tucson Citizen, 10 March 1973; pageant program, Fort Lowell ephemeral file, AHS).

In 1971, the 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).

The recreated officer’s quarters within the park

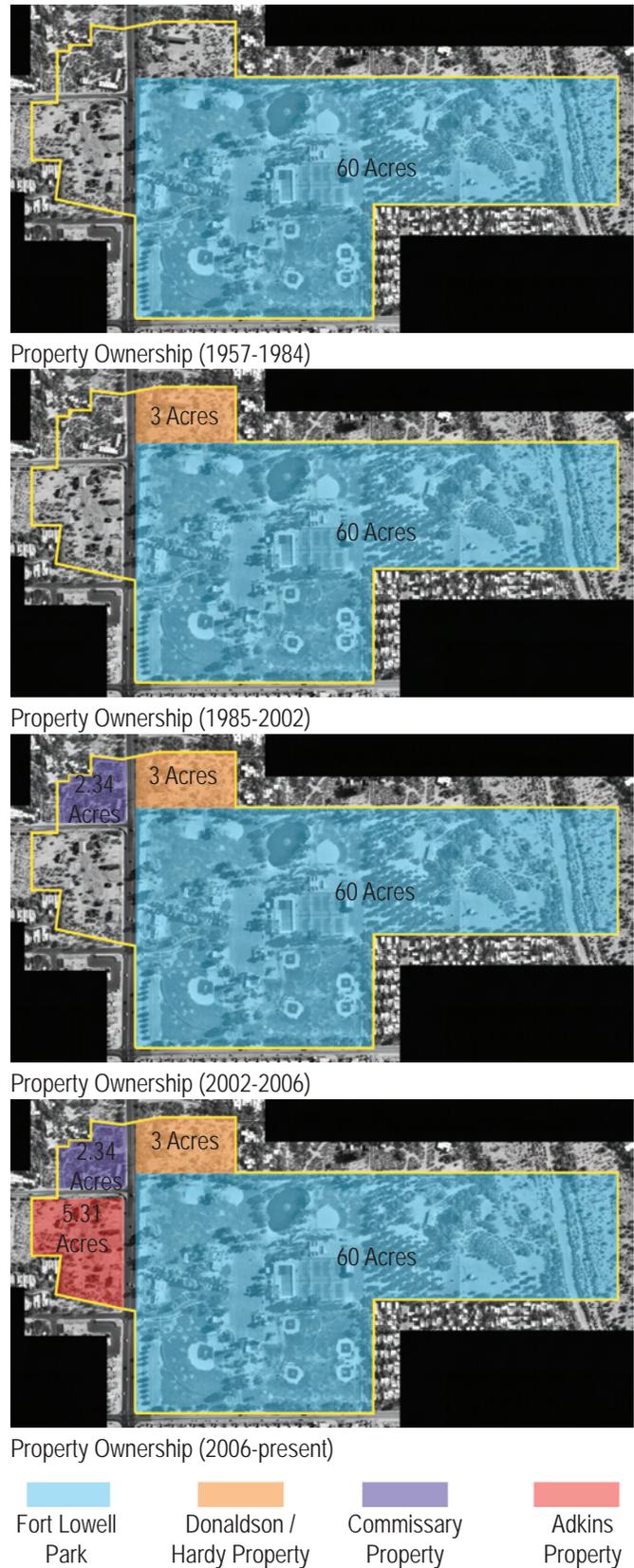
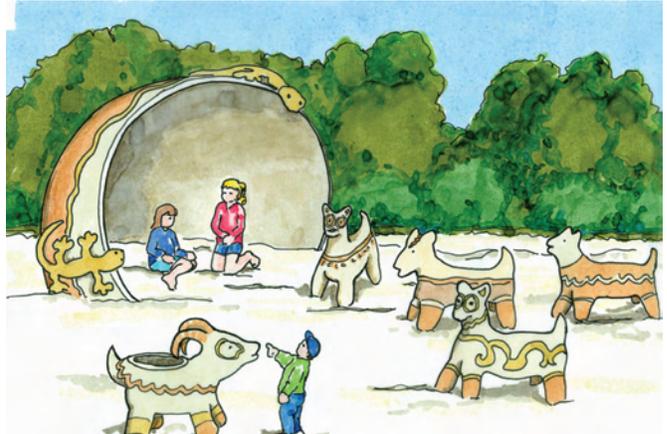


Figure 27: Fort Lowell Park - Acquisitions over time.

suffered major damage in a storm in 1982. The following year saw the restoration of the building and the adjacent kitchen (Arizona Daily Star, 12 August 2008).

The City of Tucson acquired the park from Pima County on 4 October 1984 (Pima County DRE 7387:553). A Master Plan was prepared the following year that discussed the historic and archaeological character of Fort Lowell, existing conditions, citizen participation, project objectives, and a plan (City of Tucson Parks & Recreation Department 1985). The City went on to acquire the Donaldson/Hardy property in 1984, the Quartermaster and Commissary Storehouse/Bolsius property in 2002, and the Fort Lowell-Adkins Steel property in 2006. A new master planning process was established by Pima County in 2007.

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# Master Plan

Previous Page:

Figure 28: (Top) Fort Lowell Park Master Plan graphic.

Figure 29: (Left) Cottonwood Lane near Officer's Quarters #6 & #7.

Figure 30: (Right) New play areas and Hohokam interpretation.

## Overall Concept Plan

The Historic Fort Lowell Park Master Plan, 2009 and the Preservation Plan for the Adkins Parcel at Fort Lowell Park will guide the rehabilitation, preservation, enhancement, development, and operations of Historic Fort Lowell Park, Tucson Arizona. The Master Plan is intended to have a 15-year plan horizon with a recommended update at five and ten years out. The last comprehensive Master Plan in for the site was completed in 1985. This Master Plan was precipitated by the City of Tucson acquisition of the fragile historic Adkins parcel, with assistance from Pima County. The acquisition joins the Commissary parcel, the Hardy parcel, and the greater Fort Lowell Park site to make an approximately 70-acre regional park.

### Master Plan Goals

- Protect important natural and cultural resources.
- Reveal all of the stories and the layers of history that define Fort Lowell Park.
- Provide park experiences for a variety of age and interest groups.
- Respect the relationship between Fort Lowell Park and surrounding neighborhoods.
- Establish good park access and connectivity to surrounding sites and amenities.

### Master Plan Guidelines

- Balance historic and recreational uses within the park. In the context of the site constraints, increase the quality of recreation facilities, not the quantity.
- Tell all stories of the people of Fort Lowell Park but give priority to the Fort era. Define the spatial character of the Fort and the Parade Grounds..
- Use rehabilitation, preservation, adaptive re-use, restoration and reconstruction as appropriate, in that order of priority. Be creative.
- Cross Craycroft safely at grade. Improve parking and circulation. Strengthen neighborhood/ regional connectivity.
- Balance recreational, cultural and natural landscapes.
- Keep main phase capital costs in the \$5 - \$10

million range. Additional capital costs should be put off to future phases. In this environment of limited public budget resources, keep management, operational and maintenance costs modest.

### Master Plan Variables

The Master Plan process examined a number of variables, including historic treatments, for the buildings and features of Fort Lowell Park. These seven variables were analyzed to arrive at the final recommendations included in the Master Plan.

- *Uses*: The balance between recreation uses and history
- *Stories*: The eras of history that will be represented
- *Treatments*: The preservation approach(es) to be used (Preservation, Rehabilitation, Restoration, Reconstruction.)
- *Circulation*: The treatment of Craycroft Road
- *Landscape*: The approach to the landscape
- *Management*: Organizational structures and costs
- *Capital Investment*: Capital costs

### Interpretive Treatments

A primary objective of the management of the Master Plan is to provide meaningful interpretation to visitors. While interpretation takes many forms, Freeman Tilden's definition captures the essence of the process. He defines interpretation as "an educational activity which aims to reveal meanings and relationships through the use of original objects, by firsthand experience, and by illustrative media, rather than simply to communicate factual information."

Fort Lowell Park already contains many excellent interpretive features, including the Fort Lowell Museum, interpretive signs placed around the Parade Ground, and the Hohokam interpretive area that will be expanded upon during implementation of the Master Plan. Museum exhibits, interpretive site signage and docent-led tours will all add value

to the experience of visiting the Adkins Parcel.

A unique aspect of the Master Plan is the use of interpretive “ghosting” to delineate the outline of a missing or partially missing building. This technique has been used effectively by architect Robert Venturi at Franklin Court in Philadelphia to create a spatial experience for Ben Franklin’s former residence. At Fort Lowell Park, there is currently little experiential understanding of how Fort Lowell was spatially organized; much of the historic fabric has been lost or has been heavily impacted by development, transportation corridors, and existing park elements. The use of interpretive “ghosting” supports one of the primary goals of the Master Plan: *To tell all stories but give priority to the Fort era. Define the spatial character of the Fort.*

At Fort Lowell Park, interpretive “ghosting” will be used to define the volume of buildings located historically along the edges of the Parade Ground. In turn, these “ghosted” structures will reinforce the Parade Ground as the primary and formal organized space at Fort Lowell. The physical definition of the Parade Ground is especially important in a military setting of ceremony and uniformity. Furthermore, at Officer’s Quarters #2, “ghosting” will be used to both define the volume of the original building and protect the remaining adobe walls. Unlike the protective roof built in the 1950s above the Hospital ruins (or, for that matter, the protective roof over the famous Casa Grande ruins), the “ghosted” roof on Officer’s Quarters #2 will serve the additional purpose of re-creating the historic volume of the building form.

At locations where it is not feasible to construct a three-dimensional outline of a building, such as for the location of Officer’s Quarters #4 located in the middle of Craycroft Road, an inscribed, flush-with-the-ground “footprint” of the building’s outline will be created. At Craycroft Road, the outline of Officer’s Quarters #4 will be indicated through a change in the color and / or texture and / or material

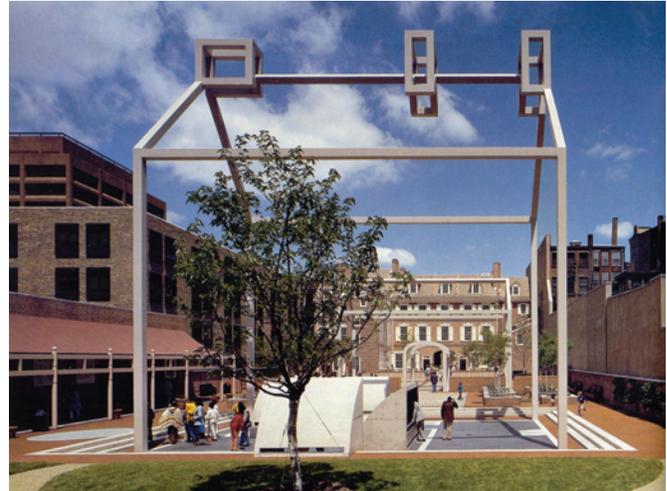


Figure 31: Franklin Court in Philadelphia serves as a useful example of the “ghosting” proposed for Officer’s Quarters #6 & 7.



Figure 32: Casa Grande ruins and shade structure.

of the pavement. This technique was successfully used at the Santa Barbara Presidio. This technique could also be used to successfully create the layout of the Fort as a more immediate predecessor to full “ghosting.”

#### Final Master Plan

The final Master Plan is organized around a graphic Build-Out Site Plan (see fold-out next page) that represents the full 15-year phased development of the Fort Lowell Park as a mixed-use historic, interpretive, recreational and open space community resource.

The Master Plan graphic Build-Out Site Plan is in turn divided into four separate zones of related uses. The zones represent a way of understanding the Fort Lowell Park organization of uses and users.

The four proposed use zones of Fort Lowell Park are as follows:

*Zone 1 – Fort Lowell Historic Zone*

This zone encompasses the buildings grouped around the historic Fort Lowell Parade Grounds and stretches across both sides of North Craycroft Road. The goal of the design approach is to define the spatial character of Fort Lowell as it appeared between 1873 and 1891 by using historic buildings and building ruins, new buildings on historic footprints, new “ghosted” frames re-visioning historic buildings, landscape features, and interpretive elements. Zone 1 includes all of the Adkins Parcel, the park area east of Craycroft that constitutes the original Fort Lowell Parade Grounds and surrounding buildings, and the Donaldson / Hardy Parcel.

*Zone 2 – Organized Sports Fields Zone*

This zone consolidates the sports fields now scattered around the site into a single location on the south side of Fort Lowell Park. The proposed design changes in this area are focused on improving the quality, orientation, and lighting of these fields, as well as improving user parking and participant access. Given the limited physical space of Fort Lowell Park and the desire to retain active recreational uses, the proposed landscape design opts for quality over

quantity; improving the functional quality of fields in lieu of increasing their numbers.

*Zone 3 – Swimming, Tennis, and Active Recreation Zone*

This zone houses the more active recreation programs including tennis, pool facilities, a snack bar, restrooms, and shaded bleachers will serve both swimming and tennis. It also provides for improved and increased parking, enhanced landscape, upgraded fitness areas serving a variety of users and age groups, the pond with enhanced trails and vegetation, and a one-mile full circuit multi-use (mostly) asphalt trail around the park.

*Zone 4 – Pantano Wash Natural Area and Native American Interpretation*

This zone includes the natural resource areas along the Pantano Wash, which are proposed to be protected and enhanced. Environmental education will be the focus of this zone providing exhibits, enhanced signage, interpretive trails, dedicated classroom space, and programs focusing on sustainability and habitat restoration. The zone calls for improved interpretation of Hohokam life-ways through new signage and exhibits. The pecan grove dating to the 1940’s will be restored.



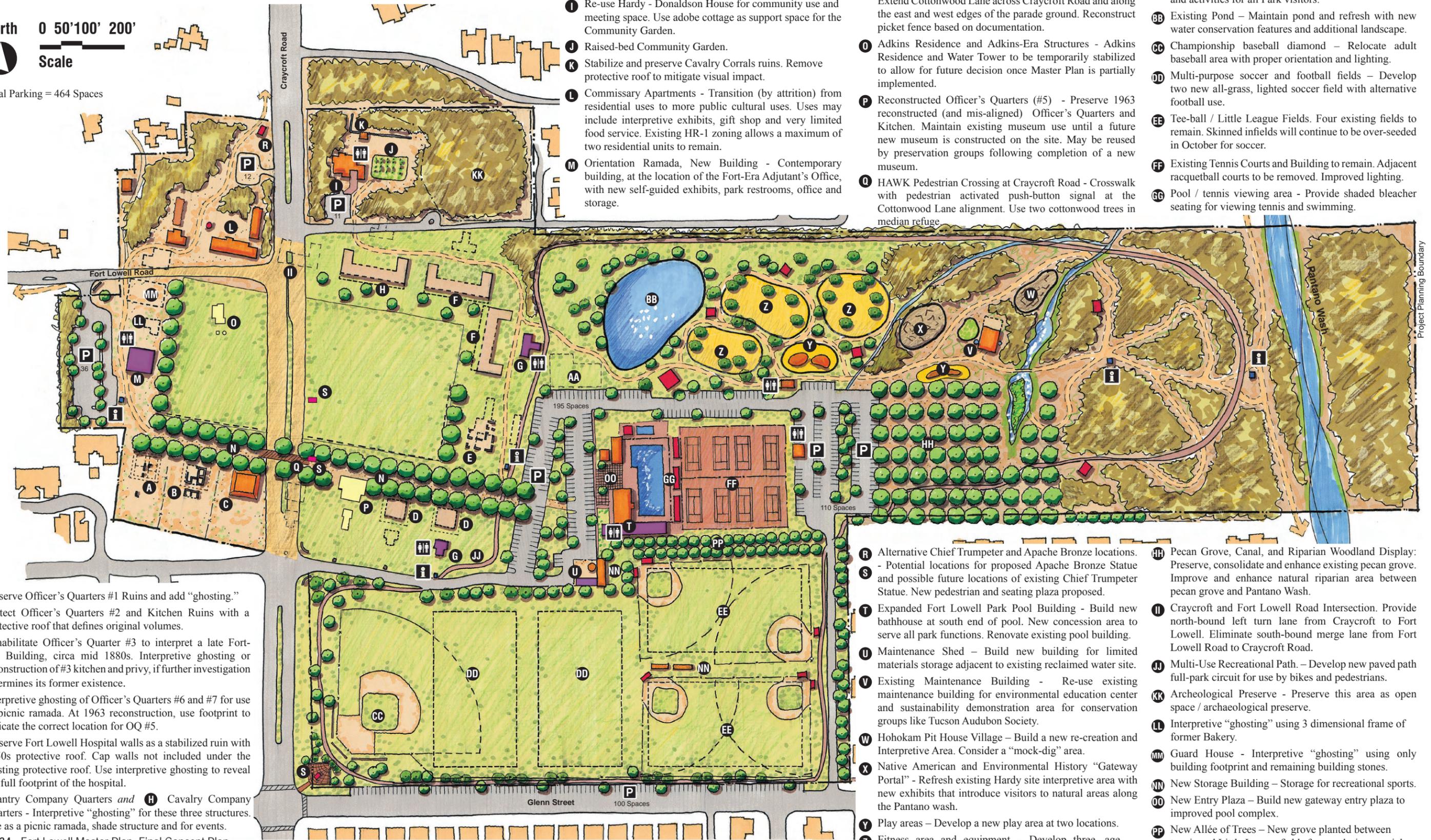
Figure 33: Master Plan Zones.

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# Fort Lowell Park Master Plan, Final Concept Plan

North 0 50'100' 200'  
Scale

Total Parking = 464 Spaces



- A** Preserve Officer's Quarters #1 Ruins and add "ghosting."
- B** Protect Officer's Quarters #2 and Kitchen Ruins with a protective roof that defines original volumes.
- C** Rehabilitate Officer's Quarter #3 to interpret a late Fort-Era Building, circa mid 1880s. Interpretive ghosting or reconstruction of #3 kitchen and privy, if further investigation determines its former existence.
- D** Interpretive ghosting of Officer's Quarters #6 and #7 for use as picnic ramada. At 1963 reconstruction, use footprint to indicate the correct location for OQ #5.
- E** Preserve Fort Lowell Hospital walls as a stabilized ruin with 1950s protective roof. Cap walls not included under the existing protective roof. Use interpretive ghosting to reveal the full footprint of the hospital.
- F** Infantry Company Quarters and **H** Cavalry Company Quarters - Interpretive "ghosting" for these three structures. Use as a picnic ramada, shade structure and for events.

Figure 34: Fort Lowell Master Plan, Final Concept Plan.

- G** Contemporary building, at the location of a Fort-Era building, to serve as public restrooms and storage.
- I** Re-use Hardy - Donaldson House for community use and meeting space. Use adobe cottage as support space for the Community Garden.
- J** Raised-bed Community Garden.
- K** Stabilize and preserve Cavalry Corrals ruins. Remove protective roof to mitigate visual impact.
- L** Commissary Apartments - Transition (by attrition) from residential uses to more public cultural uses. Uses may include interpretive exhibits, gift shop and very limited food service. Existing HR-1 zoning allows a maximum of two residential units to remain.
- M** Orientation Ramada, New Building - Contemporary building, at the location of the Fort-Era Adjutant's Office, with new self-guided exhibits, park restrooms, office and storage.

- N** Cottonwood Lane - Transition existing misaligned rows to the correct location with selective removal and replanting. Extend Cottonwood Lane across Craycroft Road and along the east and west edges of the parade ground. Reconstruct picket fence based on documentation.
- O** Adkins Residence and Adkins-Era Structures - Adkins Residence and Water Tower to be temporarily stabilized to allow for future decision once Master Plan is partially implemented.
- P** Reconstructed Officer's Quarters (#5) - Preserve 1963 reconstructed (and mis-aligned) Officer's Quarters and Kitchen. Maintain existing museum use until a future new museum is constructed on the site. May be reused by preservation groups following completion of a new museum.
- Q** HAWK Pedestrian Crossing at Craycroft Road - Crosswalk with pedestrian activated push-button signal at the Cottonwood Lane alignment. Use two cottonwood trees in median refuge.

- AA** New Fort Lowell Museum at Phase 3. A comprehensive site history museum. Building may contain food service and activities for all Park visitors.
- BB** Existing Pond - Maintain pond and refresh with new water conservation features and additional landscape.
- CC** Championship baseball diamond - Relocate adult baseball area with proper orientation and lighting.
- DD** Multi-purpose soccer and football fields - Develop two new all-grass, lighted soccer field with alternative football use.
- EE** Tee-ball / Little League Fields. Four existing fields to remain. Skinned infields will continue to be over-seeded in October for soccer.
- FF** Existing Tennis Courts and Building to remain. Adjacent racquetball courts to be removed. Improved lighting.
- GG** Pool / tennis viewing area - Provide shaded bleacher seating for viewing tennis and swimming.

- R** Alternative Chief Trumpeter and Apache Bronze locations. - Potential locations for proposed Apache Bronze Statue and possible future locations of existing Chief Trumpeter Statue. New pedestrian and seating plaza proposed.
- S** Expanded Fort Lowell Park Pool Building - Build new bathhouse at south end of pool. New concession area to serve all park functions. Renovate existing pool building.
- T** Maintenance Shed - Build new building for limited materials storage adjacent to existing reclaimed water site.
- V** Existing Maintenance Building - Re-use existing maintenance building for environmental education center and sustainability demonstration area for conservation groups like Tucson Audubon Society.
- W** Hohokam Pit House Village - Build a new re-creation and Interpretive Area. Consider a "mock-dig" area.
- X** Native American and Environmental History "Gateway Portal" - Refresh existing Hardy site interpretive area with new exhibits that introduce visitors to natural areas along the Pantano wash.
- Y** Play areas - Develop a new play area at two locations.
- Z** Fitness area and equipment - Develop three, age-differentiated fitness areas for people of all ages.
- HH** Pecan Grove, Canal, and Riparian Woodland Display: Preserve, consolidate and enhance existing pecan grove. Improve and enhance natural riparian area between pecan grove and Pantano Wash.
- II** Craycroft and Fort Lowell Road Intersection. Provide north-bound left turn lane from Craycroft to Fort Lowell. Eliminate south-bound merge lane from Fort Lowell Road to Craycroft Road.
- JJ** Multi-Use Recreational Path. - Develop new paved path full-park circuit for use by bikes and pedestrians.
- KK** Archeological Preserve - Preserve this area as open space / archaeological preserve.
- LL** Interpretive "ghosting" using 3 dimensional frame of former Bakery.
- MM** Guard House - Interpretive "ghosting" using only building footprint and remaining building stones.
- NN** New Storage Building - Storage for recreational sports.
- OO** New Entry Plaza - Build new gateway entry plaza to improved pool complex.
- PP** New Allée of Trees - New grove planted between tennis and Little League fields for use during special events such as the Fort Lowell Soccer Shootout.



Figure 35: "Bird's Eye" Perspective of Fort Lowell Park Master Plan, Zone 1 Looking West.



Figure 36: View of “Ghosted” Officer’s Quarters #6 & #7 from Cottonwood Lane with Existing 1963 Fort Lowell Museum in the Distance.



Figure 37: View of Officer's Quarters #2 with "Ghosting" (far right), Officer's Quarters #3 rehabilitated as a late Fort-era building (center) and the 1963 reconstructed Officer's Quarters (left) from the Parade Ground at the Adkins Parcel.

## Zone 1 – FORT LOWELL HISTORIC ZONE

Zone 1, in 2009, spans both sides of Craycroft Road and Fort Lowell Road but historically represents the undivided Fort Lowell itself. Zone 1 is spatially structured around the historic Parade Grounds (approximately 200' x 300'), the centerpiece of the Fort, which was originally surrounded by a series of functional and uniform-by-category army structures on all four sides. Those structures remain in a variety of conditions from the best preserved Officer's Quarters (OQ) #3, to the ruins of OQ #2, #1, and the Hospital; to the remnants of several other structures; to the subterranean footprints of others; others that are completely gone; and finally one, Officer's Quarters #5, that was reconstructed (but not in the precise historic location) in 1963.

Today, the original Fort is divided into four quadrants by the intrusion of Craycroft Road and Fort Lowell Road. As a result, Zone 1 consists of four separate parcels:

- The Adkins Parcel on the southwest. This 5.31 acre site was acquired in 2006.
- The Commissary Parcel on the northwest. This 2.34 acre site was acquired in 2002.
- The Donaldson/Hardy Parcel on the northeast. This 3 acre site was acquired in 1985.
- And the northwest corner of the original Fort Lowell Park Parcel. This approximately 8 acre site was part of the 1957 acquisition of Fort Lowell Park by Pima County from the Boy Scouts.

Within the Fort Lowell Park Master Plan, Zone 1, the Fort Lowell Historic Zone, is intended to provide a primary focus for interpretation to the public of the Fort Lowell era (1873-1891). It will seek to do that, first and foremost, by re-creating the spatial character of the Parade Grounds and its surrounding structures. The following is the guiding strategy for our preservation treatment and approach for building and landscape elements:

- Where buildings are intact (as in Officer's Quarters #3 and in the Commissary), they will be preserved, rehabilitated as necessary, and open to the public with an interpretative focus.



Figure 38: Zone 1 Keyplan.

- Where buildings are ruins (as in OQ # 1 and OQ #2, and in the Hospital), they will be spatially re-created with contemporary steel “ghosted” frame structures that will serve the dual purpose of protecting the remaining historical resources in ruins and recreating the historic volume of the buildings as a building frame.
- Where buildings are gone entirely (the Bake House, the Adjutant's Office, the Cavalry and Infantry Quarters, the guardhouse, etc.), they will either be replaced by new functional buildings or ramadas that mimic their earlier volume (and are used for a public purpose), or their footprints will be memorialized.
- Where contemporary intrusions, such as buildings or landscape elements, mar the spatial form of the Parade Grounds, they will be removed on a case-by-case basis. The two exceptions to this are: 1. Craycroft Road, which will obviously not be removed, but rather changes, in its character – paving pattern, color etc – will be used to make the Parade Grounds appear whole once again and 2. The Adkins House, which will be preserved and protected until a future determination of its fate.
- And finally, where landscape elements have been removed (the Cottonwood Lane allee and the picket fence) they will be replanted or re-built.

The building-by-building or feature-by-feature treatment of the elements of Zone 1, the Fort Lowell Historic Zone is as follows:

## A. Officer's Quarters #1

*Preserve Officer's Quarters #1 Ruins and add "ghosting."*

Officer's Quarters #1 offers visitors an opportunity to see the effects of time on adobe. This building, appearing greatly modified from its Fort-era appearance, as an outbuilding or stable, in a 1940s aerial image, contains a few segments of adobe walls surrounded by significant adobe melt. Cyclical maintenance should be applied to the remaining adobe walls to preserve them as a ruin. Sacrificial mud caps and the repair of basal coving to prevent collapse will be required to preserve the walls.

As the western-most building, the placement of Officer's Quarters #1 anchors the southwest corner of the site and the historic "Parade Grounds." To give this location the "weight" it needs to anchor the corner, a steel "ghosted" frame structure will be placed over the remaining walls to illustrate the original footprint and volume of the building. A frame of the lower wrap-around porch will also be constructed. The "ghosting" on Officer's Quarters #1 will be visually consistent with the "ghosting" employed on Officer's Quarters #2. The major difference will be that Officer's Quarters #2 will have a solid roof and Officer's Quarters #1 will be open on top. The roof of the lower porches at both structures will be the same perforated metal.

Visitors will be able to walk around the outside of Officer's Quarters #1. If additional protection of the fragile adobe walls is required, ocotillo fencing could be placed at the exterior of the "ghosted" porches to secure the ruins. This treatment is consistent with the ocotillo fencing shown in historical photographs.

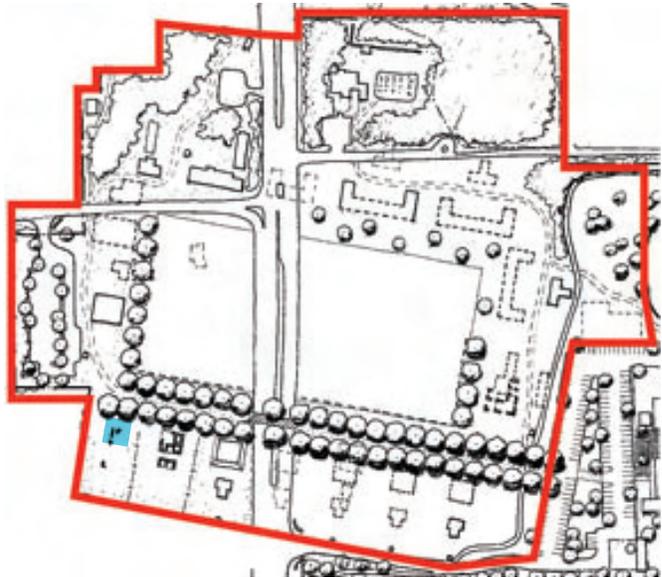


Figure 39: Zone 1 Key Plan.



Figure 40: Officer's Quarter #1, facing southwest, 2008.



Figure 41: Officer's Quarter #1, facing southwest, 2008.

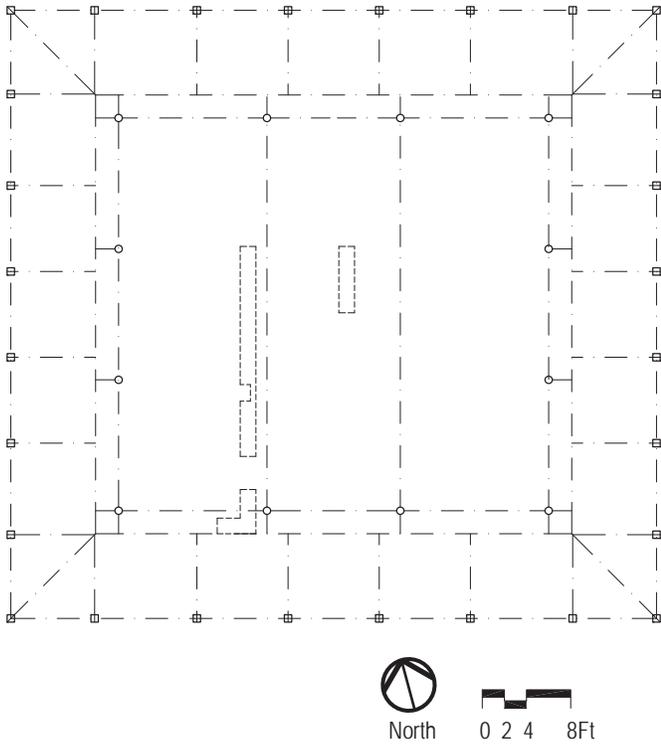


Figure 42: Officer's Quarters #1 proposed floor plan showing new steel "ghosting" over existing adobe walls.

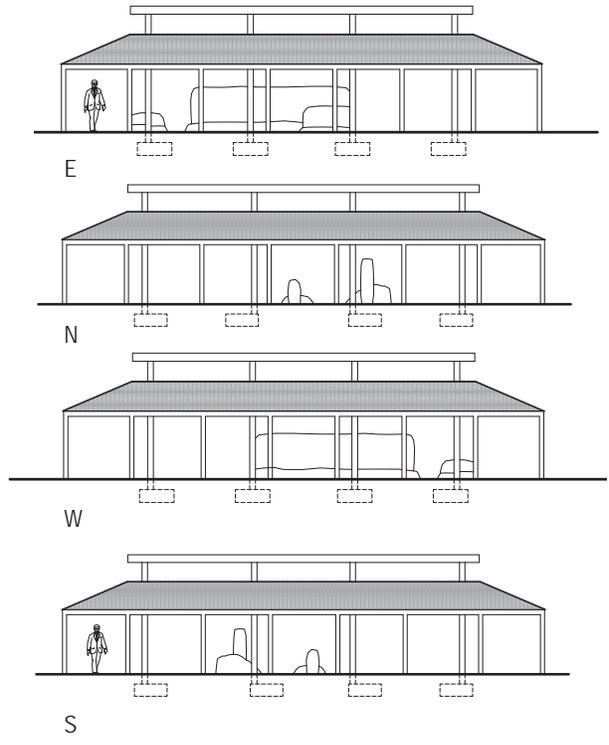


Figure 44: Officer's Quarters #1 proposed elevations.



Figure 43: Proposed "Ghosting" to recreate the volume of Officer's Quarters #1. View looking southwest.

## B. Officer's Quarters #2

*Protect Officer's Quarters #2 and Kitchen Ruins with a protective roof that defines original volumes.*

Officer's Quarters #2 was modified for use as a sanatorium rest-home in the early 20th Century. In the early 1970s, a fire caused significant damage to the wood elements on the building, exposing the adobe walls to prolonged damage over the next three decades. Even with these changes, the outline of an original Fort-era building remains. Furthermore, portions of Officer's Quarters #2 and Kitchen out-building remain intact, providing a good indication of the relationship between the main building and ancillary Kitchen. As noted above, the detail of how the two buildings were connected is unclear as historic documents and previous site drawings and models are inconclusive.

Officer's Quarters #2 provides a good example of how the decision-making process for building treatments in this Master Plan evolved. During preliminary versions of the Master Plan, both preservation (preserve what exists) and restoration (take away later alterations and re-build what is missing) treatments were proposed. A key point to keep in mind when considering various treatments is that preservation and rehabilitation (adaptive re-use) are generally favored by the Secretary of the Interior's Standards, over restoration and reconstruction (rebuilding from scratch with appropriate documentation) because preservation and rehabilitation approaches maintain and honor the existing historic material (fabric) and do not involve the addition of features that could be considered speculative.

A restoration treatment for OQ#2 would have required rebuilding portions of the building, including adobe walls, roof framing and wood doors and windows damaged during the fire in the early 1970s. The documentary evidence required to construct these missing features is available in Fort-Era Army correspondence and Historic American Building Survey (HABS) documents dating to the late 1930s. Furthermore, OQ#3 still exists and can

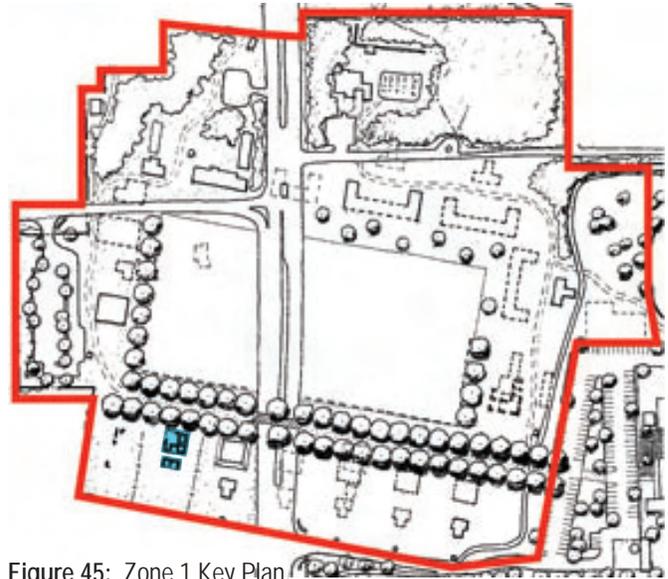
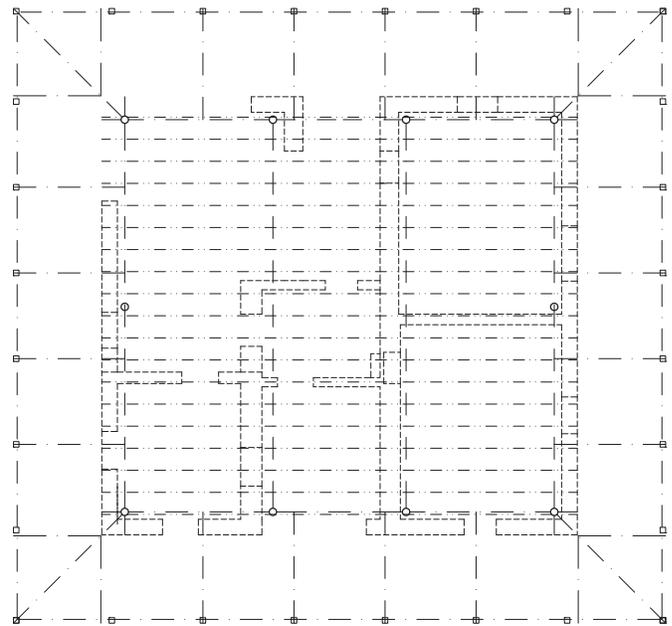
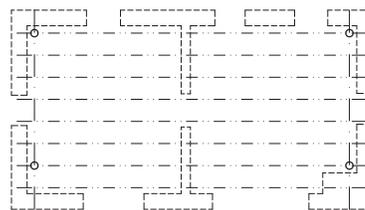


Figure 45: Zone 1 Key Plan.



Officer's Quarters #2



Officer's Quarters #2  
Kitchen



North



Figure 46: Officer's Quarters #2 proposed floor plan showing new steel "ghosting" over existing adobe walls.



Figure 47: Current east elevation of Officer's Quarters #2.

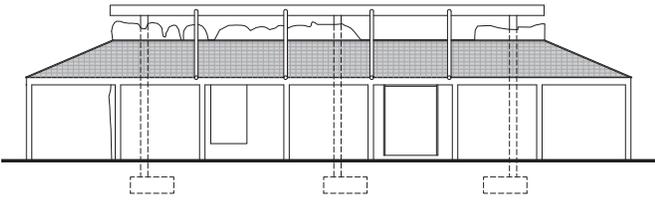


Figure 48: Proposed east elevation of Officer's Quarters #2.



Figure 49: Officer's Quarters #2 showing proposed "ghosting". View looking southwest.

be used to reconstruct missing features. Given the amount of information available, restoration could have been considered a valid preservation treatment for OQ#2.

The relationship of the seven variables further directed the recommended treatment for OQ#2. Since no programmatic need for exhibit or usable space was identified during the planning process, there was not a large demand for a restored OQ#2. The additional capital and management costs associated with a restored building also influenced the final recommendation. Preservation became the preferred treatment once future use, capital cost, management, and interpretive value (stories) were also considered.

Visitors will be able to walk around the outside of Officer's Quarters #2.

### C. Officer's Quarters #3

*Rehabilitate Officer's Quarter #3 to interpret a late Fort-Era Building, circa mid-1880s. Interpretive "ghosting" or reconstruction of #3 kitchen and privy, if further historic archaeological investigation determines its former existence.*

The Adkins Parcel and this Zone 1, Fort Lowell Historic Zone, contains the best-preserved, largely-intact Officer's Quarters #3.

Officer's Quarters #3 is proposed to be experienced as a late 19th Century building, providing the visitor a glimpse into how an Officer and his family lived. It is anticipated that Officer's Quarters #3 will be open periodically for docent-led tours. The building will not be mechanically heated or cooled to further exhibit how a thick-walled adobe helps to mitigate the diurnal temperature swings of the desert.

Many of the interior features, including wood floors, fireplaces, wood trim, and plaster ceilings and walls appear to date to the mid 1880's. These features will be preserved. A number of doors and windows dating to the Fort-era exist will be restored. Features that were added in the early 20th Century, including built-in cabinets, interior and exterior concrete slabs, and exterior porches, will be documented and removed.

Features that no longer exist will be rebuilt based on available documentation. The most significant feature that will be rebuilt is the porch that is shown in images dating to the final decade of the Fort. The porches are believed to have been added by the mid 1880s. Unfortunately, there are no pictures showing the south wall of the Officer's Quarters to provide information on the presence of a porch on all four sides. Archaeologist Al Johnson determined that a ramada linked Officer's Quarters #5 with its kitchen building when conducting investigations in 1960. Additional research will need to be conducted during the design phase to collaborate the exact details of the Fort-era porches.

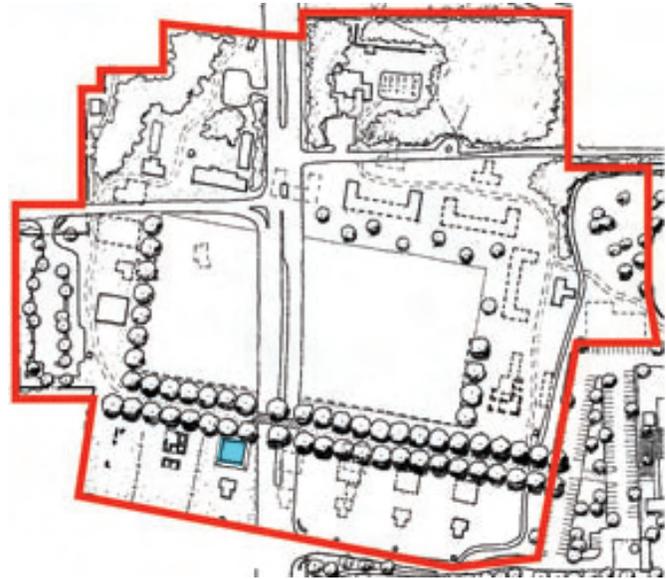


Figure 50: Zone 1 Key Plan.

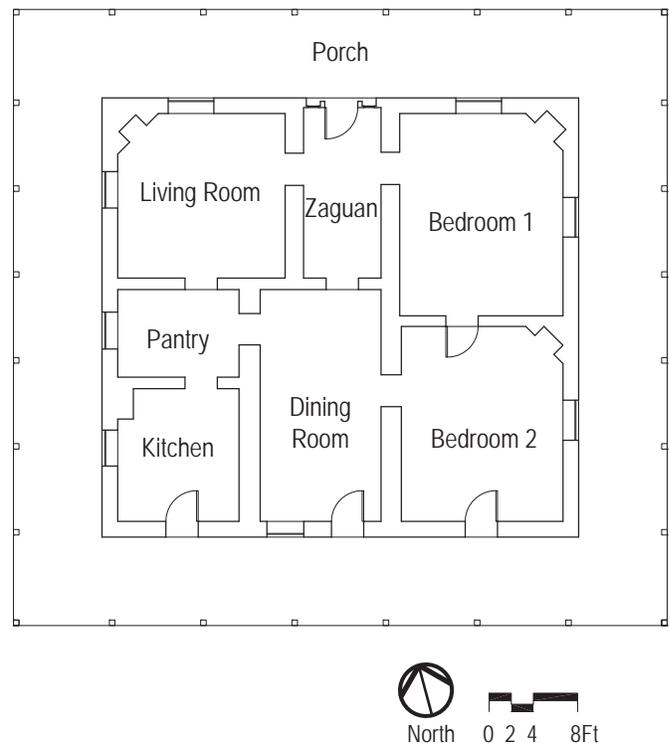


Figure 51: Officer's Quarters #3 Proposed Floor Plan.



Figure 52: 2008 view of Officer's Quarters #3 from the northwest.

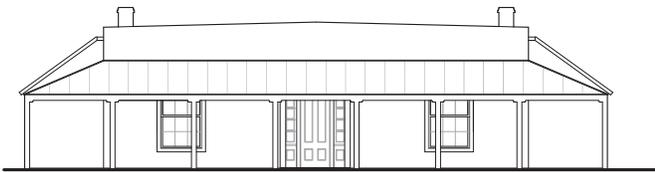


Figure 53: Officer's Quarter #3, proposed north elevation.

Ultimately, the treatments selected for the three Officer's Quarters are based on a strategy to maximize their interpretive value, as a whole, rather than as individual elements; that the way to best reveal one of the most powerful narratives on the Adkins Parcel, the varying condition of the three Officer's Quarters, is to preserve the buildings and ruins, rather than unifying them through restoration. The contrasting condition of the resources lends itself to a dynamic experience where visitors will see how fire, weather and time have impacted fragile building fabric.



Figure 55: Officer's Quarters #3 at center, circa 1904.



Figure 54: Proposed rehabilitation of Officer's Quarters #3. View looking southwest.

## D. Officer's Quarters #6 and #7

*Interpretive “ghosting” of Officer’s Quarters #6 and #7 for use as picnic ramadas. At 1963 reconstruction, use footprint to indicate the correct location for OQ #5.*

Officer’s Quarters #6 and #7 will be memorialized as steel frame family ramadas mimicking the size and form of the original buildings. These two ramadas will be large in scale, divisible for multiple park/picnic users or reserved as large party ramadas for family or organizational events. They will be shaded by the steel structures, but not dried in from the rain. Permanent picnic tables and benches will be provided throughout the ramada structure. Each ramada includes three masonry fireplaces / chimneys for use as BBQs (located in the same location as the historic fireplaces would have been located in the former Officer’s Quarters.)

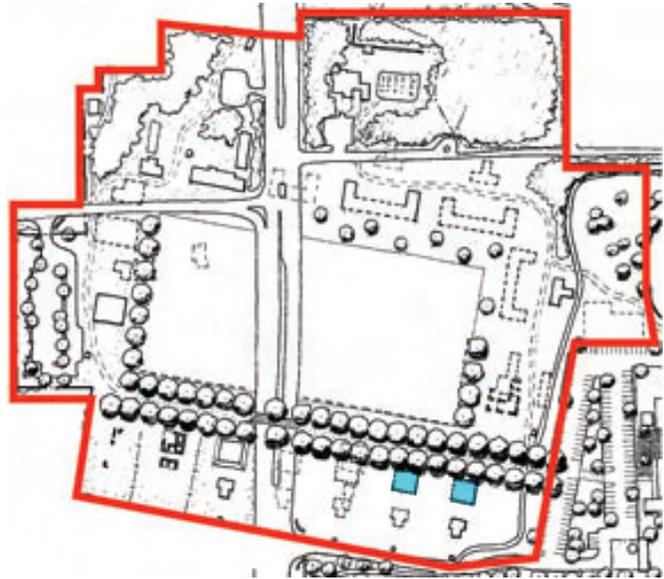


Figure 56: Zone 1 Key Plan.

Each structure is proposed to be 1,710 square feet. The structures are of steel and consist of a grid of 16 steel columns. 6 steel beams / rim joists create an outline of the parapet. 21 steel tubes run east / west to create a roof enclosure. 1” steel rebar are attached to the tube at approximately 4” on center to create a saguaro ceiling affect. The ramadas include a four-sided porch. The porch measures an additional 1,580 square feet. The ground plane, including under the porches is brick laid on sand. Each ramada includes three masonry fireplaces / chimneys for use as BBQs (located in the same location as the historic fireplaces would have been.)

There will also be “ghosted” Kitchen out-buildings south of Officer’s Quarters #6, which is an additional 905 square feet. The outline of building volume only is created from painted steel framing. The height is approximately 12’. No floor or roof is proposed for these structures.

On the footprint of Officer’s Quarters #7 Kitchen Building, a new building will be constructed to serve as public restrooms and as site and park storage. A more complete description of this building is included under Master Plan element “G”.

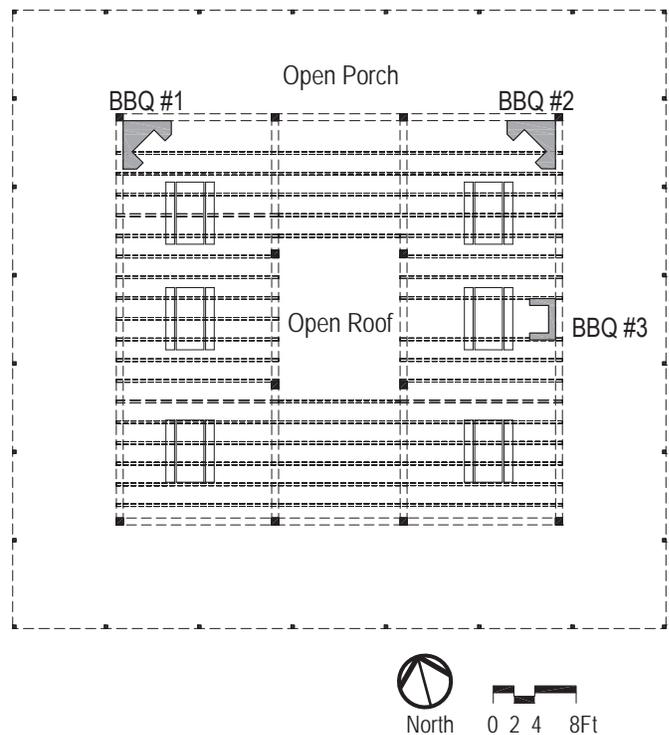


Figure 57: “Ghosted” Officer’s Quarters as a Picnic Ramada.

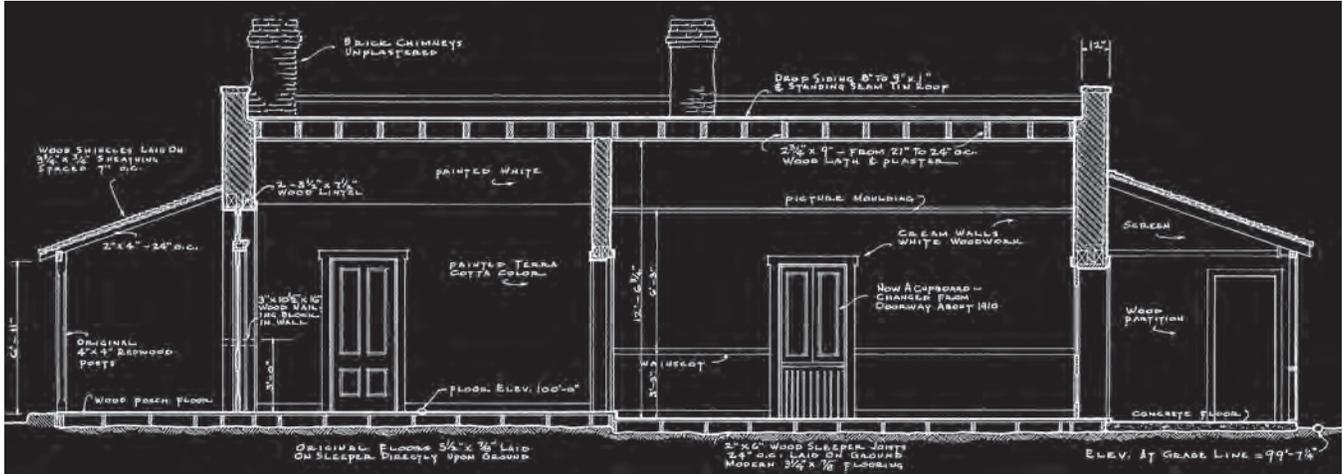


Figure 58: Section of Officer's Quarters #3 from the 1940 HABS drawings. The "Ghosting" of OQ #6 & #7 is based on this section.



Figure 59: Internal view of interpretive ghosting of Officer's Quarters #6 and #7 for use as picnic pavilions.

## E. Fort Lowell Hospital

*Preserve Fort Lowell Hospital walls as a stabilized ruin with 1950s protective roof. Cap walls not included under the existing protective roof. Use interpretive “ghosting” to reveal the full footprint of the hospital.*

The remains of the Fort Lowell Hospital and the previous preservation efforts and interventions are best used to interpret: 1. the early and effective (though not particularly beautiful) efforts to protect the ruin by the Boy Scouts and, 2. the effects, over time, of the elements on unprotected adobe walls. The existing Boy Scout protective roof may require some re-engineering and, clearly, some maintenance. Minor repairs could be made to the exposed adobe wall bases and caps; or they could simply be left and interpreted with a photo-narrative demonstrating adobe’s slow decline with age; perhaps an interesting allegory in that location.

The Master Plan recommends a new steel frame “ghosting” of the building footprint including the exterior porch on all sides of the hospital ruins. The current treatment does not accurately depict the size and extent of the Hospital footprint. The historic rhythm of the porch columns provides an opportunity to re-create a strong sense of the original building, particularly those portions that are now gone. The framing and structure approach will be similar to that proposed for Officers Quarters #1.

The outside face of the porch will have columns at 8’ on center. A second row of columns inset 8’ will create the porch volume, the building wall face, and the parapet height and volume. There will be a perforated sheet metal roof on the porch similar to Officer’s Quarters #1 and #2. These will be supported by beams connecting the inner and outer column lines and connecting from column to column at the outside line of columns. At the outside face of the new columns, will be a new 6’ high steel fence to keep people from entering the ruins.

The existing Boy Scout roof will remain and be repaired. There will be extensive interpretive

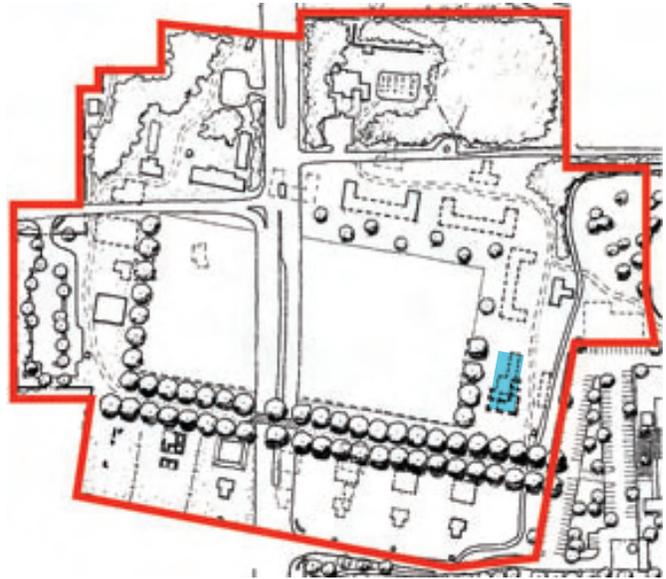


Figure 60: Zone 1 Key Plan

signage and explanation of these early and important community preservation efforts.

The repair of the existing protective roof will be as follows:

- Replace and Repair Corrugated metal roof
- Provide lateral bracing at the existing six columns
- Paint entire structure



Figure 61: Fort Lowell Hospital in the late 1880's. View from Parade Ground, looking east.



Figure 62: Existing view of Fort Lowell hospital.

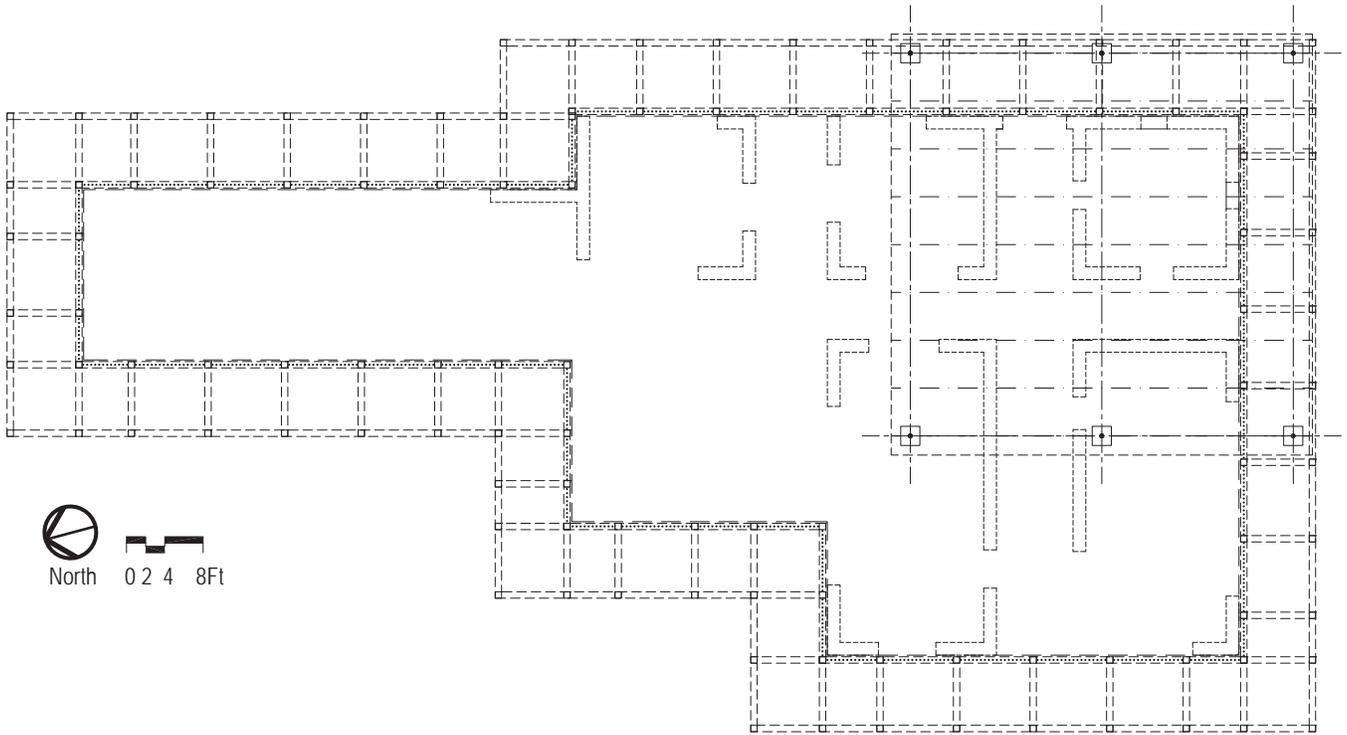


Figure 63: Hospital Ruins proposed floor plan showing "ghosting".

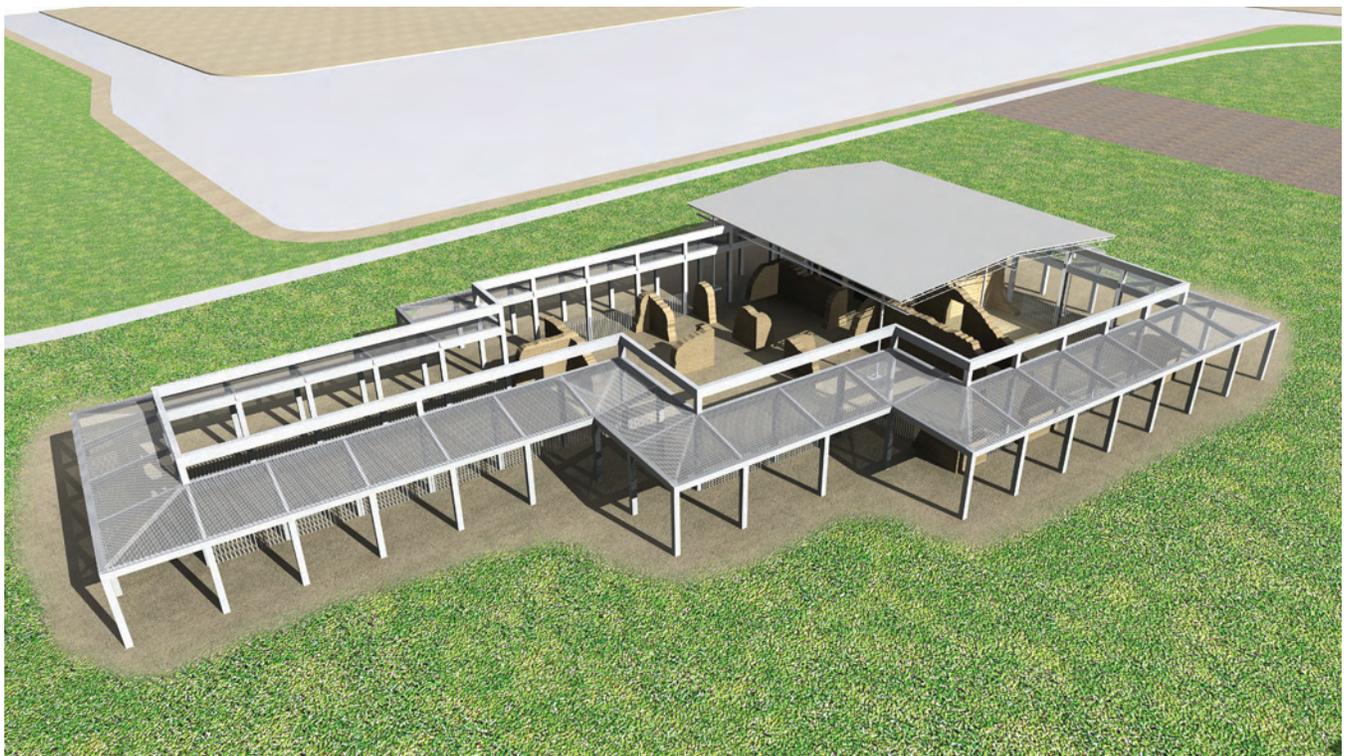


Figure 64: Hospital Ruins shown with existing protective roof (1950's) and with new fencing to reflect footprint of original building.

## F. Infantry Company Quarters and H. Cavalry Company Quarters

*Interpretive “ghosting” for these three structures. Use as a picnic ramada, shade structure and for special events.*

These barracks that housed the infantry and cavalry on-site are largely gone. Various remnant walls and piles of melted adobe exist in the area, but there are no intact structures to preserve. The Master Plan approach here will be to build new functional steel frame family ramadas that mimic the mass, volume and form of the barracks that once occupied these locations. Design and construction of these structures will be preceded by historic archaeology to locate footings and to determine what building elements and/or artifacts remain from the Fort Lowell era. All remaining historic fabric will be protected and interpreted. Other interpretive information will tell the story of the cavalry and infantry on this site. Like the barracks, the ramadas themselves will be linear in design with a U-shaped footprint, and divided as appropriate for multiple family use. The construction and form will be similar to Officer’s Quarters #6 and #7 described above. Each structure will be approximately 5300 square feet and will accommodate either large family parties or will be divided into eight or so separate family areas for each of the three structures. Approximately 24 separate families can be accommodated. Parking will be provided in the improved larger Fort Lowell Park parking lots to the east of these three ramadas.

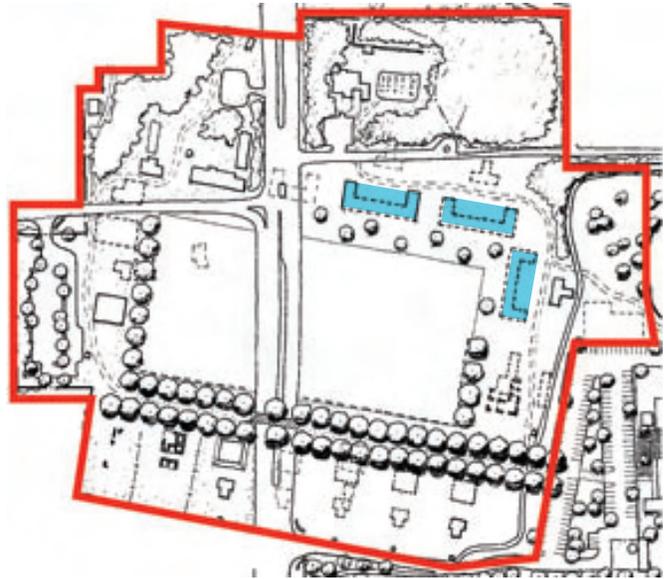


Figure 66: Zone 1 Key Plan.



Figure 67: Cavalry Infantry Quarters Ruins facing west.



Figure 65: Proposed “Ghosting” of Infantry Company Quarters looking west across the Parade Ground.

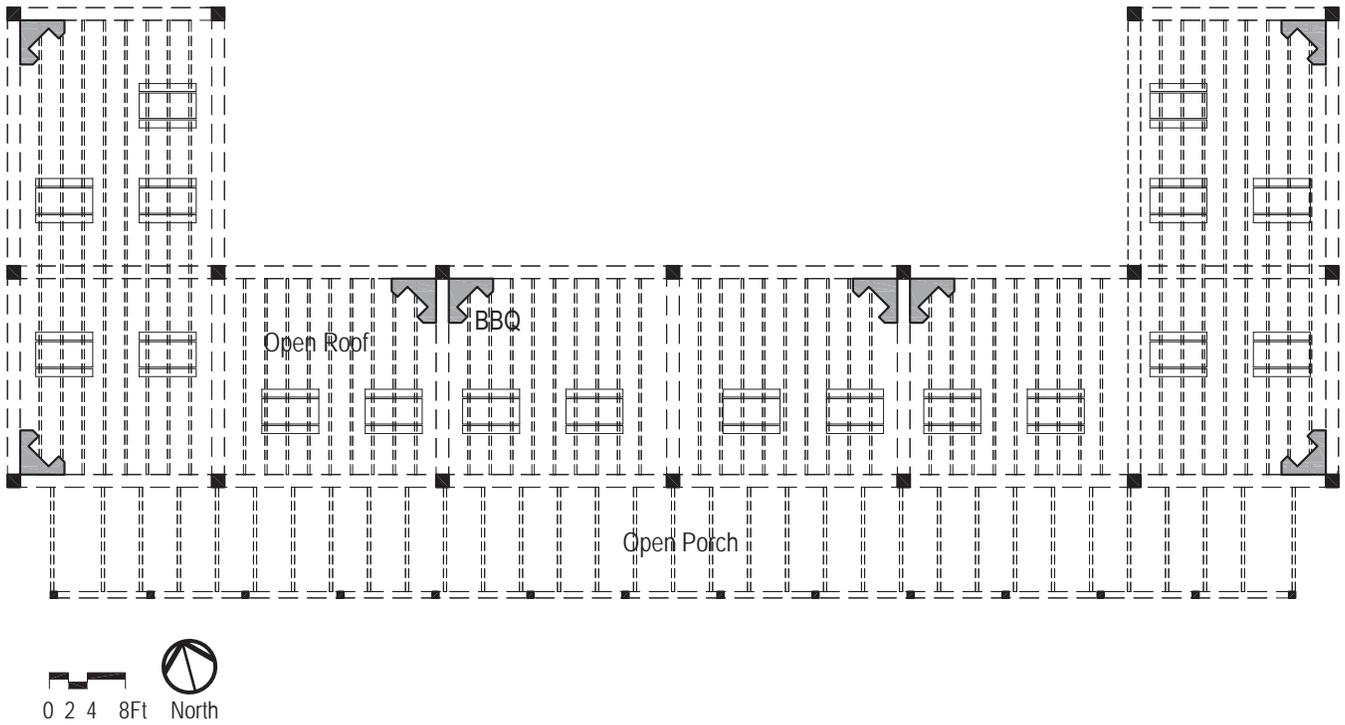


Figure 68: Plan of interpretive ghosting of Cavalry Company Quarters.



Figure 69: Interpretive ghosting of Cavalry Company Quarters (View to Parade Ground facing southeast).

## G. New Building for Restrooms and Storage

*Contemporary building, at the location of a Fort-Era building, to serve as public restrooms and storage.*

Due east of the Infantry Company Quarters there was a Company Kitchen. The Company Kitchen is now completely gone. On its footprint, the Master Plan proposes a new building that will serve as public restrooms and as site and park storage.

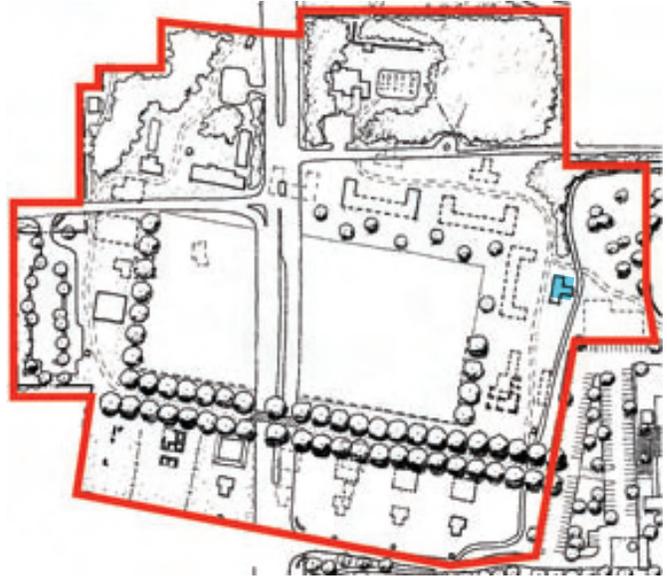


Figure 71: Zone 1 Key Plan.



Figure 70: The new restroom building (foreground) at historic San Pedro Chapel was constructed with stabilized adobe blocks. Stabilized adobe is one material that could be used to construct contemporary buildings at Fort Lowell Park.

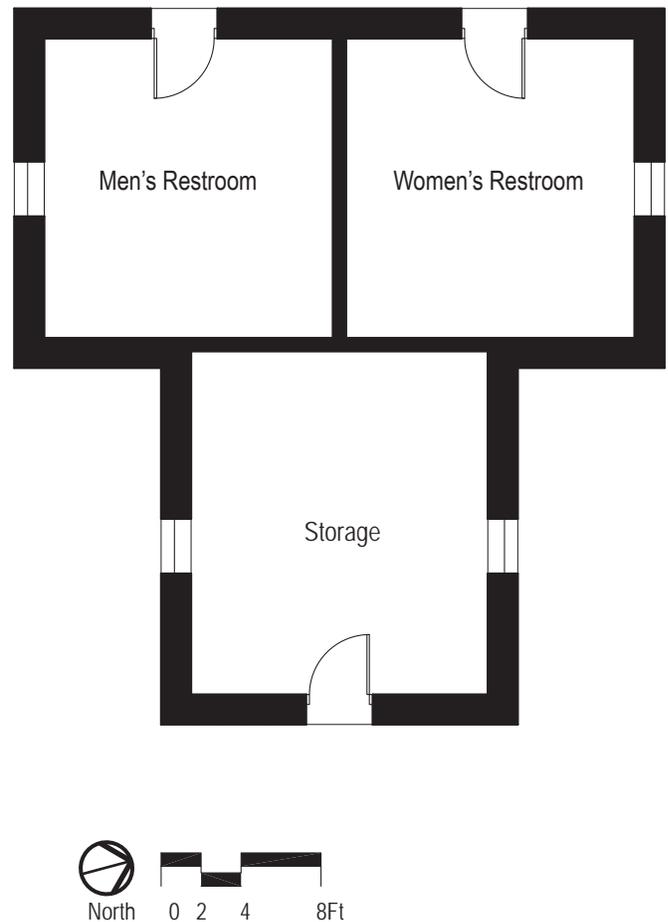
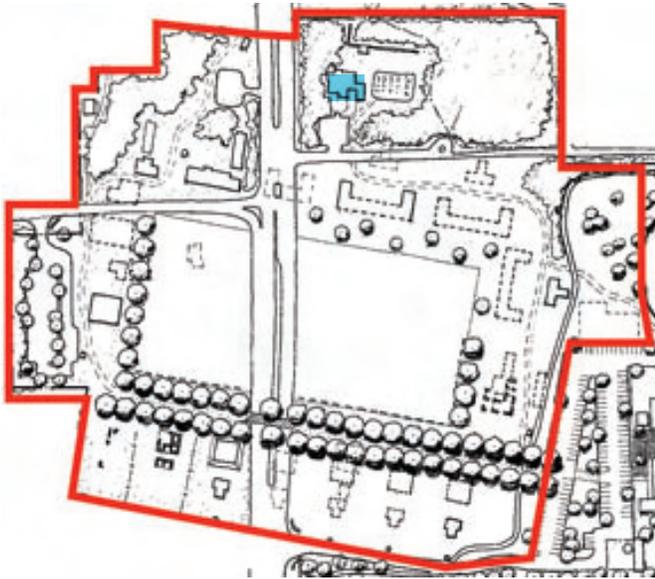


Figure 72: Proposed floor plan for new storage and restrooms.

# I. Donaldson House



*Re-use Hardy - Donaldson House for community use and meeting space. Use adobe cottage as support space for the Community Garden.*

The Donaldson House is a residential structure that dates to the late 1940s with additions built in subsequent decades. It is served by a very small parking lot with limited eastbound access from Craycroft. The total structure is approximately 2500 square feet. The Master Plan proposes preservation of this structure (in addition to the 2009 emergency stabilization) and an interior rehabilitation to be able to use this building as a small-scale community meeting space and perhaps local organization office space. No expansion of the small parking area is proposed.

Figure 73: Zone 1 Key Plan.

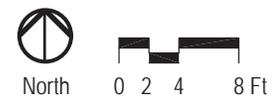
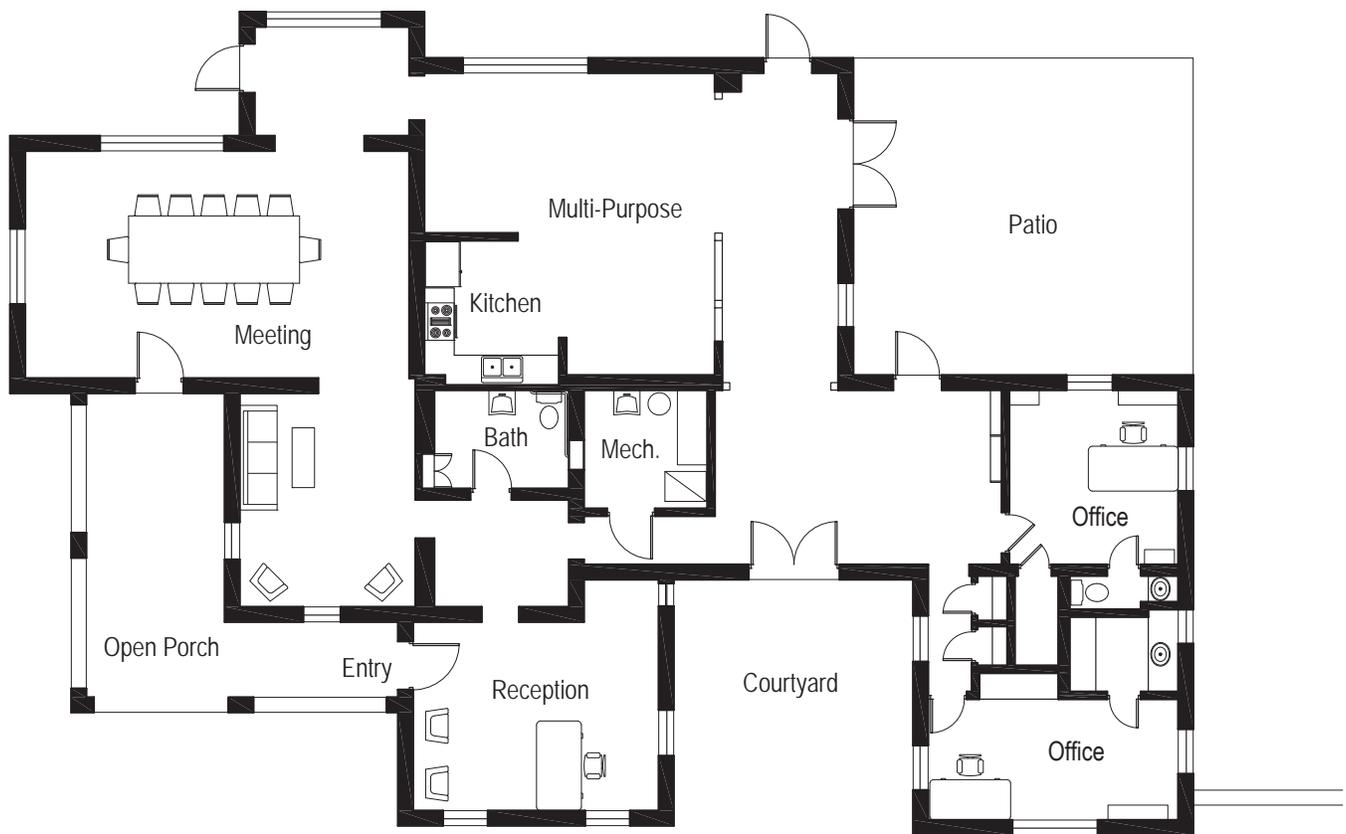


Figure 74: Donaldson House Proposed Floor Plan.

## J. Community Garden

### *Raised-bed Community Garden.*

A raised community garden will be located adjacent to the Hardy-Donaldson House to foster community interest and participation within all areas of Fort Lowell Park. These gardens will offer a wide range of benefits to the community, including the creation of opportunities for recreation, exercise, occupational therapy, social interaction and education as well as encouraging self-reliance and resource conservation. The garden will consist of approximately ten 3' x 9' raised planting beds. More or fewer beds may be installed depending on local desire and/or need. A water line should be provided to the area for irrigation purposes. The raised beds will be approximately 18" high to facilitate easy maintenance and access for gardeners of all ages and abilities.

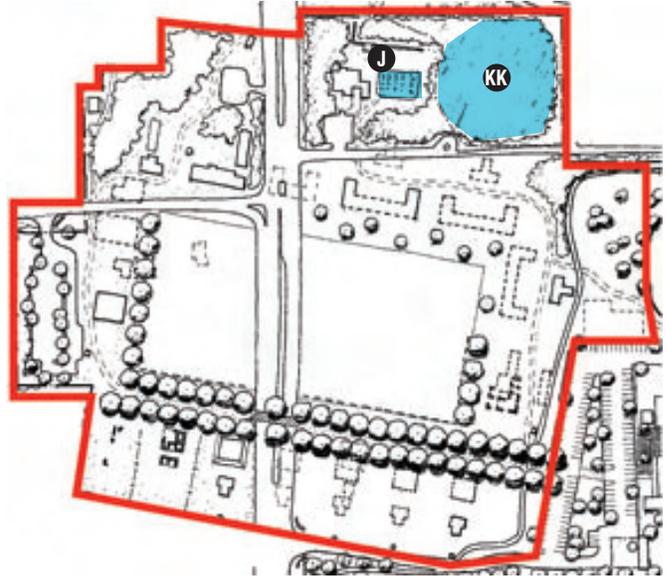


Figure 75: Zone 1 Key Plan.

## KK. Archeological Preserve

*Preserve this area as open space / archaeological preserve.*

The area east of the proposed community garden is rich with archaeology. This area will be retained as undisturbed open space to protect these cultural resources. Limited interpretation will take place in this area.

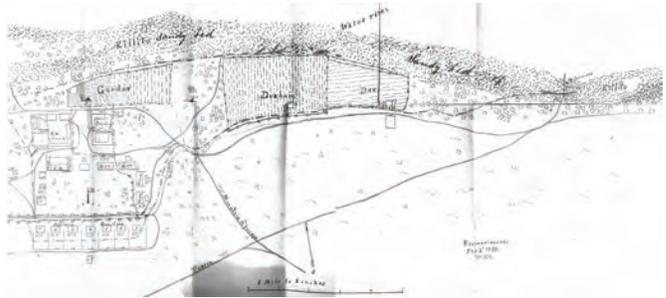


Figure 76: Historic Map of Fort Lowell showing gardens.



Figure 77: Raised beds planters will be used at the Community Garden.

## K. Cavalry Corral Ruins

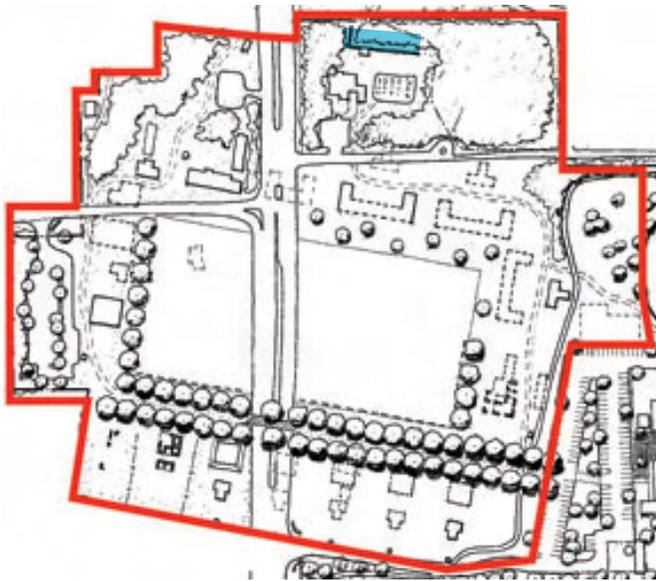


Figure 78: Zone 1 Key Plan.



Figure 79: The existing protective roof covering the adobe walls at the Cavalry Corral should be removed.

Stabilize and preserve Cavalry Corrals ruins. Remove protective roof to mitigate visual impact.

The earlier interventions on the Cavalry Corrals include a protective roof and massive concrete *contraparedes*. The interventions detract considerably from both the site and the setting. The Master Plan proposes that the protective roof and the concrete be removed.

Several options exist for interpreting the stables:

- Outline the footprint of the ruins using stabilized adobes left exposed.
- Backfill and interpret the mound.
- Reconstruct a small section of the Cavalry Corrals, complete with roof, and incorporate that with either of the above.
- The existing adobe casita, built into the ruins, could be used as support space for the proposed Community Garden.
- The protective roof covering should be salvaged and reused. Because it contains bolted connections, it should be possible to disassemble the structure and move it to another location. Some possible re-use options include reusing for park ramadas or to provide shade over new bleachers at the recreational sports zone.

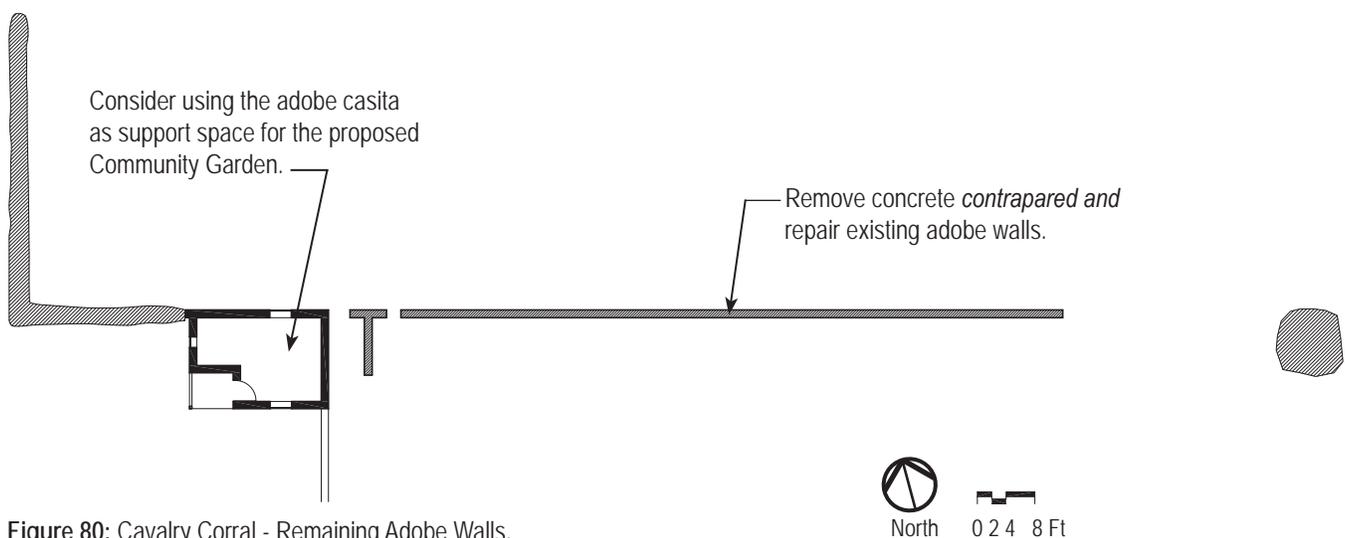


Figure 80: Cavalry Corral - Remaining Adobe Walls.

## L. Commissary Apartments

*Commissary Apartments – Transition (by attrition) from residential uses to more public cultural uses. Uses may include interpretive exhibits, gift shop and limited food service. Existing R-1 zoning allows a maximum of two residential units to remain.*

The Quartermaster and Commissary Storehouses were preserved and rehabilitated by the Charles, Peter and Nan Bolsius in the 1940s. They had lived in New Mexico and chose an interpretive approach introducing some New Mexico adobe architectural elements as they re-built the structure. They re-used some original walls and rebuilt others from the ground up on the existing foundations. Hand-carved doors, lintels, and cupboards decorate the apartments they created within the ruins (Thiel 1997). The City of Tucson acquired the properties in 2002 and has continued to rent the five apartments on site. An examination of the zoning on the site reveals that the HR-1 property only allows two residential units on this site. The current five units are a pre-existing non-conforming use and therefore is not a violation of the Land Use Code, however, the goal of the Master Plan would be to bring the residential use in line with current zoning requirements. In addition, the public currently has no access to these publicly-owned historic structures.

As such, the Master Plan recommends that:

- the number of rented units be reduced, by attrition, from five to two
- the building and site need to have certain repairs done and other recent inappropriate repairs should be reversed
- the site should be improved to make it more amenable to community outdoor events
- use of the vacated spaces should be evaluated for potential locataion of gift shop or other related historical or cultural uses, but not for standard commercial uses.
- parking along Fort Lowell Road will be eliminated and the area re-landscaped. There will be parking available on the Adkins Parcel across Fort Lowell Road. The remaining residents will used existing parking on the road north east of the Commissary, accessed from Craycroft Road.

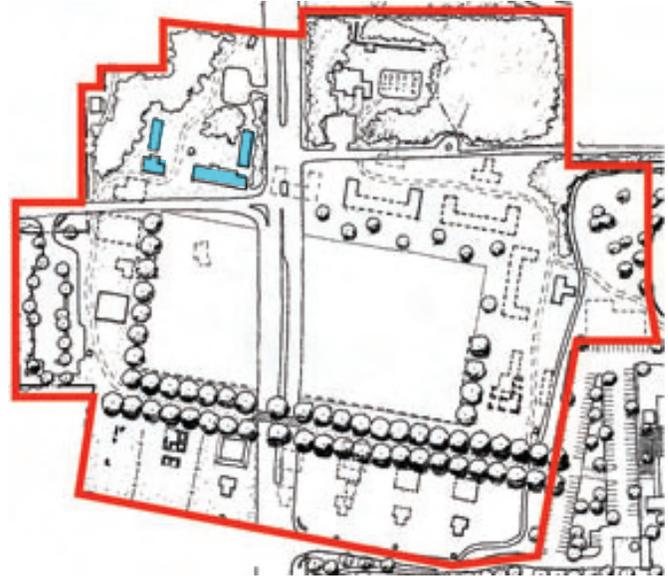


Figure 81: Zone 1 Key Plan.

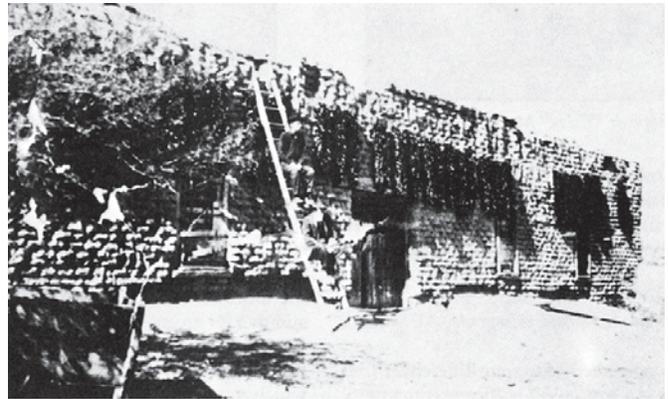


Figure 82: South wall of the Commissary, circa 1910.



Figure 83: Fort Lowell Commissary Apartments today.

# Commissary Apartments

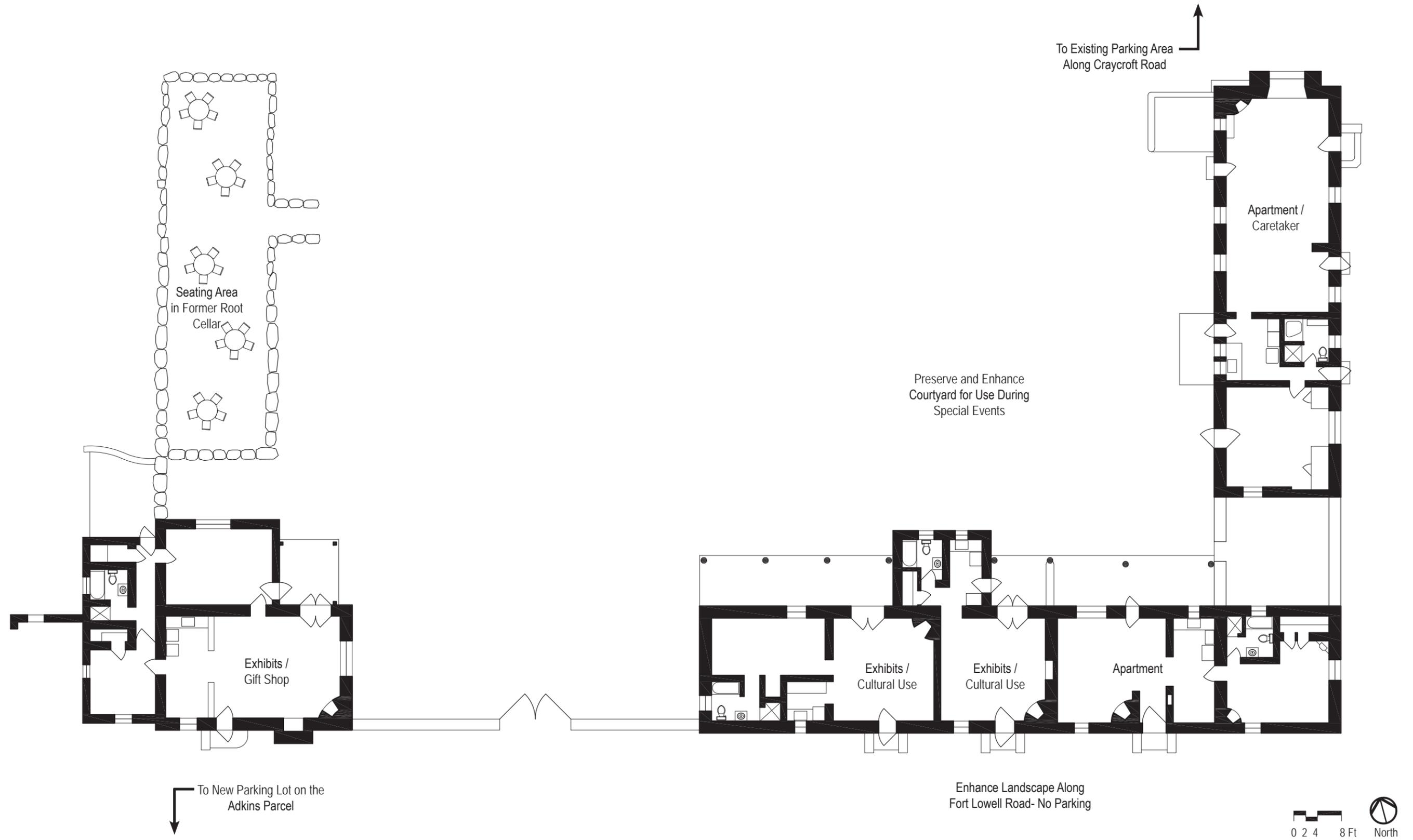


Figure 84: Fort Lowell Commissary Apartments proposed floor plan.

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## M. Orientation Ramada, New Building

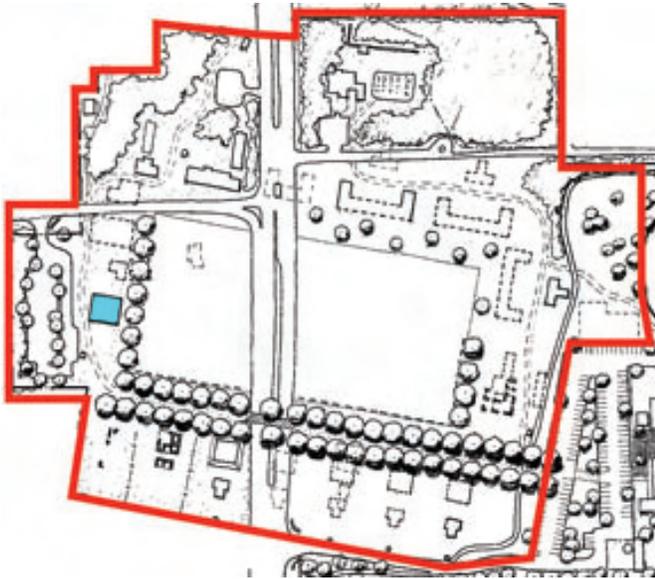


Figure 85: Zone 1 Key Plan.

Contemporary building, at the location of the Fort-Era Adjutant's Office, with new self-guided exhibits, park restrooms, office and storage.

A new 3000 square foot building is proposed on the footprint of the former historic Adjutant's Office. It will be surrounded by a 2600 square foot porch. Historic archaeology will be undertaken to locate the foundation for the old building. New construction will preserve those historic resources and interpret them if possible. The new structure will be part building, part ramada and will function as a gateway orientation entry to the site from the western parking area. The building will be obviously contemporary but will mimic the shape and volume of the historic Adjutant's Office. The building will include office and bathroom spaces, but will be largely open-air with large openings to the west and to the east. Gates will allow the ramada structure to be secured at these two open ends. The building will house an extensive introduction to the site with a focus on the Fort-era interpretation. It will introduce the Native American tenure on the site, tell the story of the Apache Wars from European and Native American perspectives, interpret the history of Fort Lowell, and discuss the evolution of the Fort Lowell site after the closure of the Fort in 1891. Dioramas, models, interactive computer displays, exhibits, etc. will be the general interpretive introduction and orientation for visitors to the site. The building itself will function as a gateway to the site from the west.

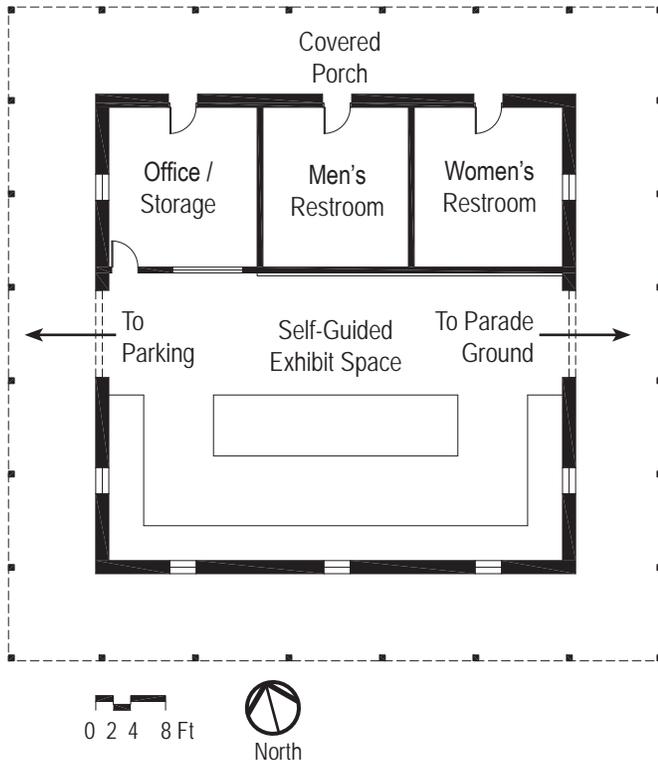


Figure 86: Concept Floor Plan for New Orientation Building.

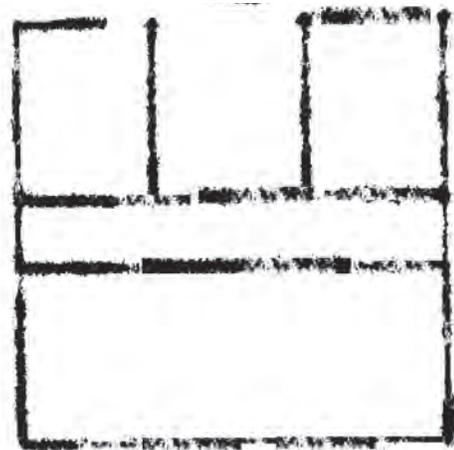


Figure 87: Adjutant's Office from 1876 map of Fort Lowell.

## N. Cottonwood Lane and YY. Parade Grounds

*Transition existing misaligned rows to the correct location with selective removal and replanting. Extend Cottonwood Lane across Craycroft Road and along the east and west edges of the parade ground. Reconstruct picket fence based on documentation.*

During Fort Lowell's active military years, a double row of cottonwood trees called Cottonwood Lane lined Officer's Row to provide much needed shade for the soldiers stationed there. These water-loving trees were irrigated by two parallel ditches that ran down Cottonwood Lane. Cottonwoods were also planted along the west side of the hospital and along a north/south running fence surrounding the Parade Ground. These cottonwood trees were removed once the fort was abandoned at the turn of the century.

The 1960's restoration effort re-introduced Cottonwood Lane; however, the trees were planted approximately 25' north of their original alignment. Over time, this misalignment will be corrected. It appears that the southern row of cottonwoods may correspond to the original (and correct) location of the northern row of cottonwoods. Therefore, it will be possible to reuse the southern row as the northern row in the future. A new southern row will be planted in the historically correct location. New cottonwoods will also be planted on the Adkins Parcel and within the new median on Craycroft Road to correspond to the correct Fort- Period alignment. Historic cottonwoods along the west side of the Parade Ground and along the western edge of the hospital will also be replanted.

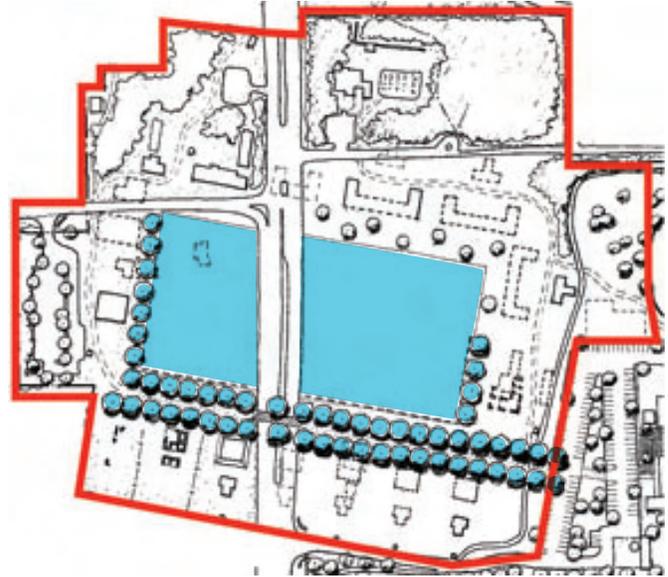


Figure 89: Zone 1 Key Plan.



Figure 90: Cottonwood Lane by the Fort Lowell Museum.



Figure 88: Children on Cottonwood Lane, late 1880s.

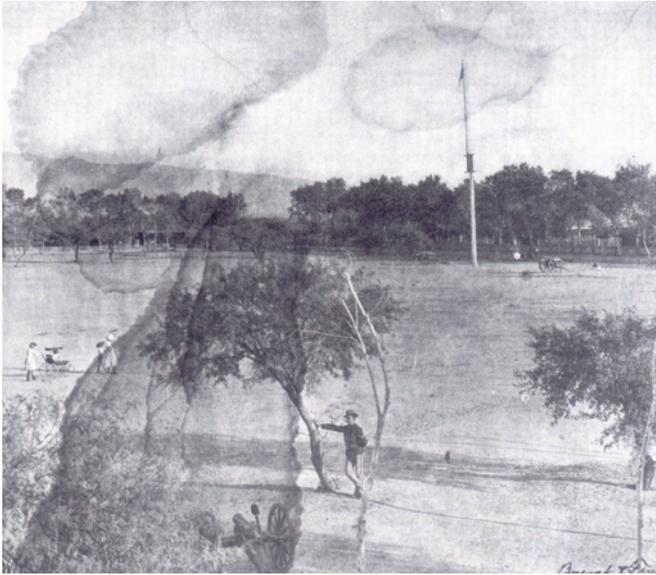


Figure 92: Parade Grounds during the Fort-Era.



Figure 93: Parade Grounds today.



Figure 91: Historic image of Parade Grounds, facing southwest.

The existing cottonwoods are each surrounded by a wide basin and are irrigated with bubblers. Cottonwood trees require a significant amount of water and should be watered deeply on a regular basis. It should be noted that cottonwoods will thrive only if they are able to tap into the water table or into another source of underground water. While the established cottonwoods on-site appear to be thriving, the more recently planted cottonwoods are struggling. This would suggest that any new cottonwood trees will require a long-term watering regimen to adequately provide the trees with enough water to thrive until their roots are able to reach the water table. It is anticipated that the cottonwoods will be watered through the use of a reclaimed water system.

The Parade Ground was a central feature of the Fort and was critical to the organization of the surrounding military structures that once occupied the area. As such, the re-establishment of the Parade Ground in its entirety is key to effectively interpreting the Fort's history and to enabling visitors to fully appreciate the scale of the original Fort Lowell. While the Parade Ground was historically a mix of bare ground, native grasses and scattered mesquites along the perimeter, the eastern portion of the Parade Ground will be turf grass to allow for recreational activities to take place within its footprint. The western portion of the Parade Ground can be treated in a couple of ways dependent on how the area will ultimately be used, keeping in mind that it is intended to focus on the history of the site, and will not be available for organized sports or recreation. The Parade Ground within the Adkins Parcel has the potential to be turf grass to extend the opportunity for non-organized recreation into the western portions of the park. Sports fields and / or structured recreational areas are not recommended on the Adkins Parcel. The Parade Ground in this area could also be comprised of bare ground with a scattering of native grasses to better reflect its historical appearance and retain its archeological assets below ground. The ultimate surfacing decision will be based on maintenance requirements and the desired community uses.

## LL. Bake House

*Interpretive ghosting using 3 dimensional frame of former Bakery.*

In this same area of the Adkins parcel, the former Bakery will be memorialized with a steel-frame “ghosted” structure describing its historic form and volume. Interpretive material will describe the role of the Bakery in Fort Lowell life.

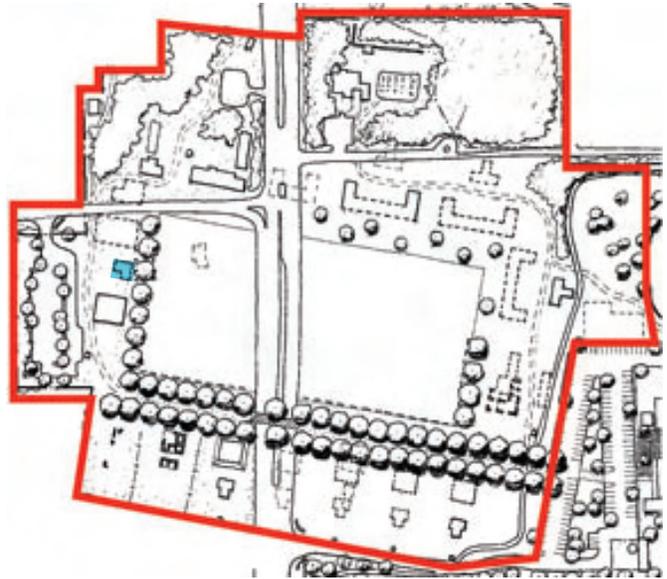


Figure 95: Zone 1 Key Plan.

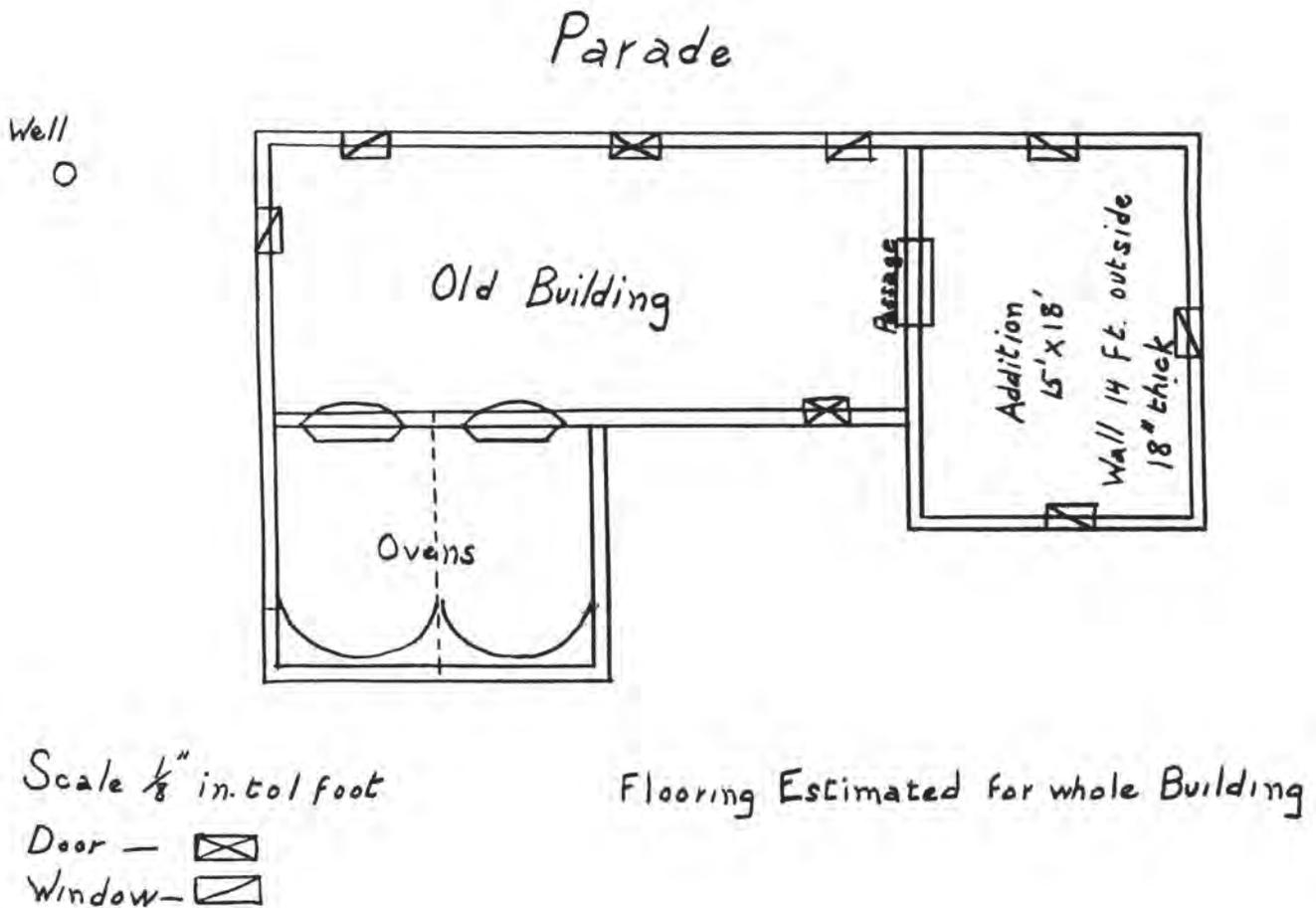


Figure 94: Plan of Fort Lowell Bakery with a proposed addition, 1876.

## MM. Guard House

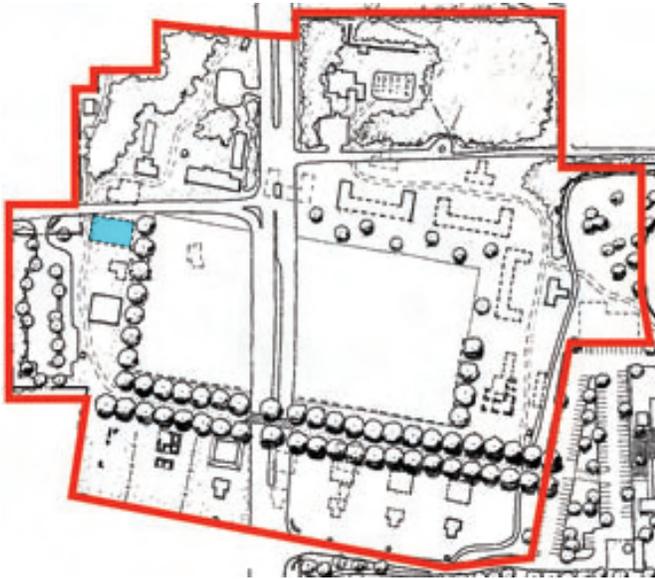


Figure 96: Zone 1 Key Plan.

*Interpretive ghosting using only building footprint and preserved remaining building stones.*

The stone remnants of a guard house at the western entry to the site are still in place. The Master Plan proposes the use of these stones and a “ghosted” structure to recreate the form of the Guard House with interpretive signage.



Figure 97: Remaining stone wall foundations to be preserved and incorporated into new interpretive “ghosting”.

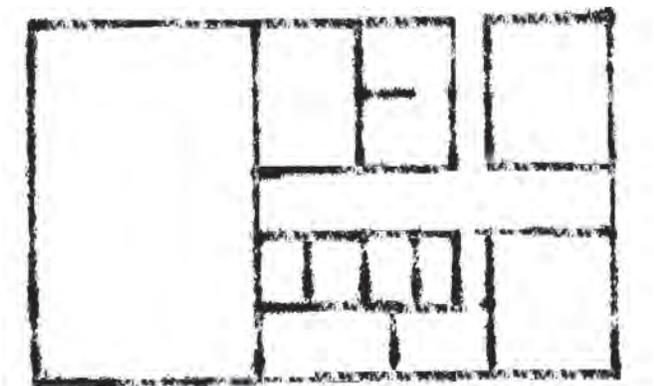


Figure 98: Guardhouse from 1876 map of Fort Lowell.

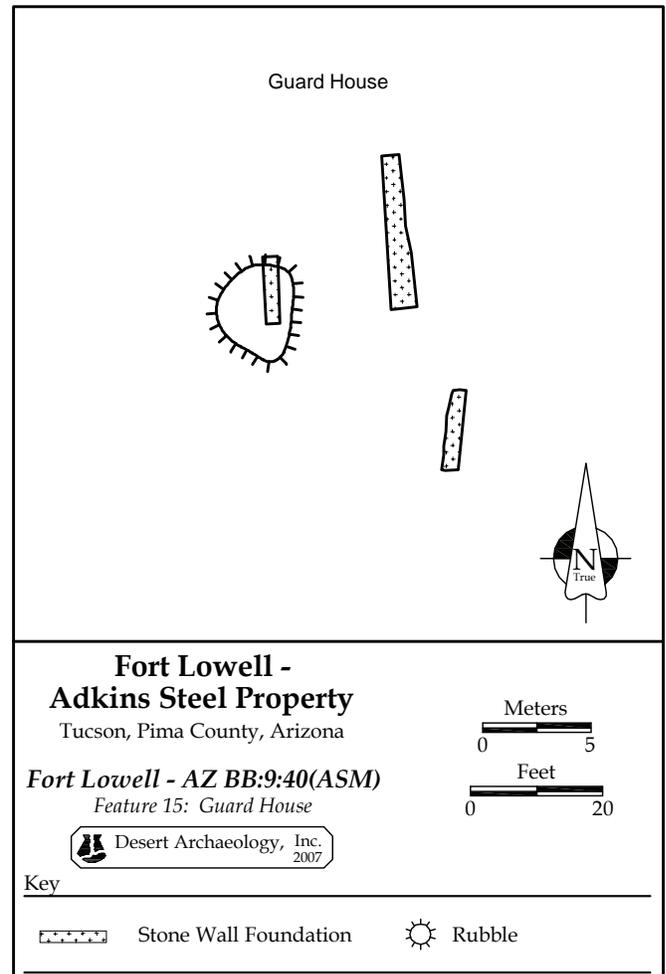


Figure 99: Mapped features from the former Guard House.

## O. Adkins Residence and Adkins-Era Structures

*Adkins Residence to be temporarily stabilized to allow for future determination of retention and / or use once Master Plan is partially implemented.*

Located at the northeast corner of the parcel, the Adkins Residence is a small vernacular bungalow constructed around 1934. It was the main residence for the Adkins Family from the 1934 to 2006. The building consists of an adobe core with a two room concrete block addition, added around 1950. The building features a low-slope red clay tile roof. South of the residence are the Adkin's Era Water Tower and Windmill Base.

Located in the middle of the Parade Ground, the Adkins Residence, will be preserved until more of the Fort-Era buildings and features are reestablished in their historic locations. Several critical deficiencies exist that need to be addressed to prevent additional damage. At the eaves, metal flashing should be installed under the existing roofing tile to prevent water from entering the walls. Moisture entering the wall is responsible for much of the coving that has occurred at the base of walls. The severe deterioration at the west wall should be repaired to prevent the wall from collapsing. All openings in the building should be sealed to prevent vermin and wildlife from entering the building. Once the spatial definition of the Parade ground is reestablished, the Adkins Residence will be reevaluated to determine if its presence is intrusive. Site stewardship should

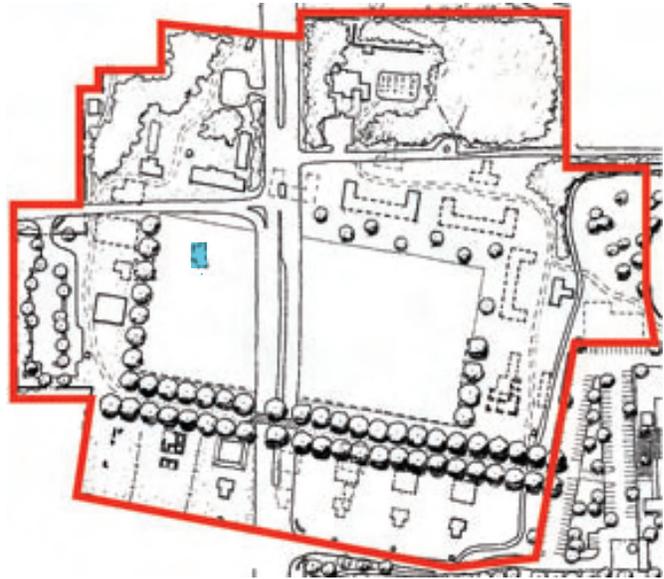


Figure 101: Zone 1 Key Plan.



Figure 102: View from Fort Lowell Road looking southeast towards Adkins residence (left) and Adkins Steel Fabrication Shed, August 2008.



Figure 100: Plan 1940s aerial photo of Adkins Buildings from the Magee Collection held at the Arizona Historic Society. RC Magor residence is located at lower left portion of image. Adkins Residence, prior to circa 1950 addition, is visible in the center of the photograph. Officer's Quarters #1 visible at lower right. The reconstructed commissary buildings are located in the upper left portion of the image.

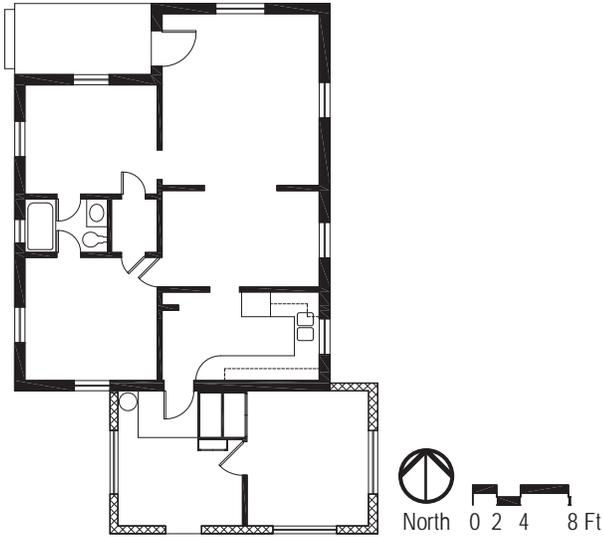


Figure 103: Floor Plan of Adkins Residence (1,086 GSF).



Figure 104: Adkins Residence looking southeast, August 2008.

include periodic assessment of the Adkins Residence to ensure that the condition of the building does not decline any further.

#### Adkins Water Tower

The Adkins Water Tower will be stabilized, in-place, to allow for a future decision following partial implementation of the Master Plan. While no structural analysis has been performed on the Water Tower, it appears to be in good condition. The major deficiencies are a broken support strut at the southwest corner of the base and the peeling away of the roof allowing birds to access the interior. The broken support strut should be braced by attaching a temporary “splint” the full length of the broken strut.

Openings at the top of the Water Tower should be sealed to prevent birds from inhabiting the interior of the Water Tower.

#### Adkins Windmill Base

The Adkins Windmill Base will be documented and removed during environmental remediation of the site. Closure of the well beneath the Windmill Base requires removal of the structure. Furthermore, the Windmill Base is in poor condition with many of the steel pipes rusted through. The Windmill Base should be completely documented, including measured drawings, to allow for accurate interpretation. If the Adkins Residence is re-used and interpreted, the reconstruction of the Windmill Base should be considered.

#### Adkins Steel Fabrication Shed

West of the Adkins Residence is the Adkins Steel Fabrication Shed, constructed about 1950. This structure is an innovative, site-built, rectangular structure measuring 36 feet x 60 feet. In close proximity of the shed are a number of concrete slabs used by the Adkins in the manufacturing of steel water tanks.

The Adkins Steel Fabrication Shed will be documented and removed as part of the implementation of the Master Plan. The shed is in fair condition. The decision to remove the shed was based on the cost to make the building safe for re-use. The building’s structural elements are undersized and inadequately connected to meet current building codes. The location of the Steel Fabrication Shed is in conflict with the Fort-era buildings and landscape that will be interpreted and re-created at the western edge of the Parade Ground. Elements of the Steel Fabrication Shed should be salvaged and considered for re-use in interpretive or other site features. Among the items that would be desirable to salvage are the concrete filled steel columns, lightweight concrete wall panels, and steel roof trusses.

## P. Reconstructed Officer's Quarters (#5) & AA. New Fort Lowell Museum at Phase 3

*Preserve 1963 reconstructed (and mis-aligned) Officer's Quarters and Kitchen. Maintain existing museum use until a future new museum is constructed on the site. May be reused by preservation groups following completion of a new museum.*

The Officer's Quarters #5 now serves as a Fort Lowell Museum operated with limited hours by the Arizona Historical Society. The Officer's Quarters #5 was reconstructed in 1963 by a group of preservation pioneers dedicated to this important step in honoring and preserving the Fort-era history of Fort Lowell. A committee was established in 1960 to plan reconstruction of this structure. 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, Pima County \$28,000, the Sheriff's Posse of Pima County \$1,500, and the Civil War Centennial Committee \$150. Architect William Goldblatt prepared plans for the new buildings, including visiting a home on N. Euclid Avenue that incorporated an original door from an officer's quarters.

The reconstructed officer's quarters and kitchen were built with a concrete block core with unfired adobe brick veneer. Saguaro ribs, oak, and pine logs were obtained from the region. Milled lumber, including redwood, was imported. Fired bricks and wall caps were locally made (Goldblatt 1964).

The structure has been erroneously described as the Commanding Officer's Quarters. Documentary evidence indicates that the Commanding Officer's Quarters was #4, now located under Craycroft Road. For reasons unknown, the reconstructed Officer's Quarters was built approximately 25' north of the location of the historic structure.

The Master Plan recommends that the building remain in its current location to tell the story of these early historic preservation pioneering efforts. The newly re-located Cottonwood allée will be

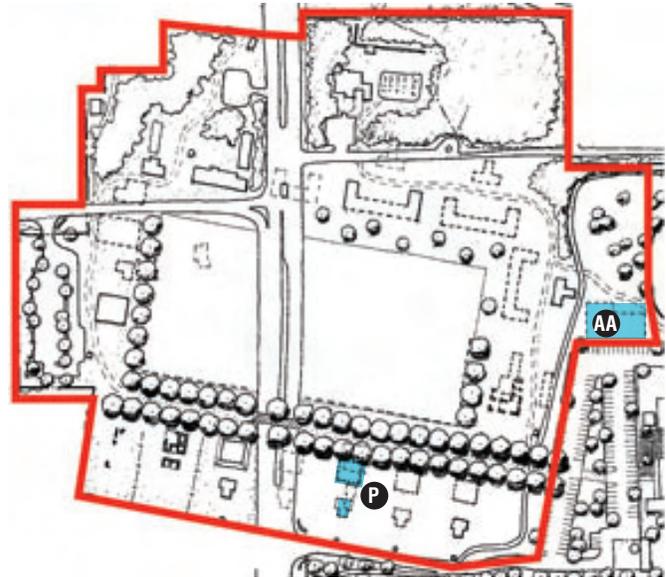


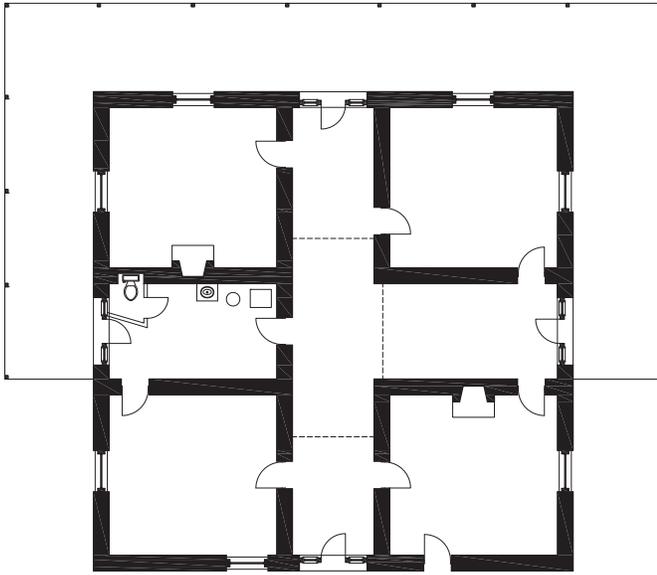
Figure 105: Zone 1 Key Plan.



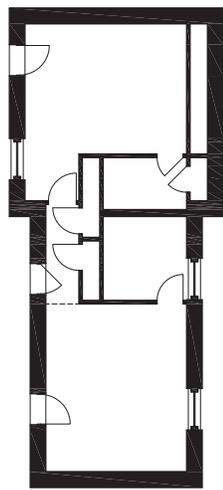
Figure 106: Current Fort Lowell Museum.



Figure 107: Fort Lowell Museum - Kitchen Reconstruction, facing northeast, 2008.



Reconstructed Officer's Quarters



Reconstructed Kitchen



Figure 108: Floor Plans of the Fort Lowell Museum Buildings.

interrupted by the building, which gives additional interpretive opportunities. The building is in need of considerable repair, and maintenance of the exposed raw-adobe structure will require continued maintenance. The building will remain a museum use (with likely continued limited hours due to budget constraints) until such time as a new larger Museum structure is built near the pond. At that time, the Officer's Quarters #5 is recommended as a meeting and exhibit space for use by and honoring those individuals and groups committed to the preservation of Tucson's history.

*New Fort Lowell Museum at Phase 3. A comprehensive site history museum. Building may contain food service and activities for all Park visitors.*

A new museum and visitor's center located adjacent to the historic Fort Lowell buildings near the center of the park will present the most complete story of the history of the prehistoric occupation, Fort Lowell, and later residents of the Fort and the surrounding neighborhood. Multimedia presentations and museum exhibits will draw on the extensive collections of the Arizona Historical Society and the Arizona State Museum to present the multi-cultural history of the area. The new building will replace the existing Fort Lowell Museum located on the reconstructed Officer's Quarters #5. It is recommended elsewhere in this Master Plan that the collection from that museum be transferred to the new museum and that the new museum expand its scope to include a much more in-depth and comprehensive history of the site, from Pre-Historic days to the present. A new Fort Lowell Museum is likely to be the last phase of the Master Plan to be built. This building is proposed to be located north and east of the Hospital, adjacent to the pond. It is programmed at 6,000 square feet and is estimated to cost in the vicinity of \$2.5 million.

## Q. HAWK Pedestrian Crossing at Craycroft

*Crosswalk with pedestrian activated push-button signal at the Cottonwood Lane alignment. Use two cottonwood trees in median refuge.*

The crossing of Craycroft Road is a critical issue to the success of the park and to the safety of the public. The existing asphalt between San Francisco Blvd. and Fort Lowell Road will be stamped and colored to signify to drivers that there is a specialized activity occurring in the area. Two distinct colors might be incorporated to differentiate the parade ground footprint as it crosses the road from the adjacent hardscape. A landscaped median will be included in this area as a traffic calming measure. The median will include two cottonwood trees to provide continuity to Cottonwood Lane and a mixture of low, native grasses. A signalized HAWK (pedestrian-activated) crossing will be located near the Cottonwood Lane alignment to allow for safe pedestrian access to either side of the project. The footprint of the former Officer's Quarters #4 will be imprinted in the roadway in a contrasting color and material.

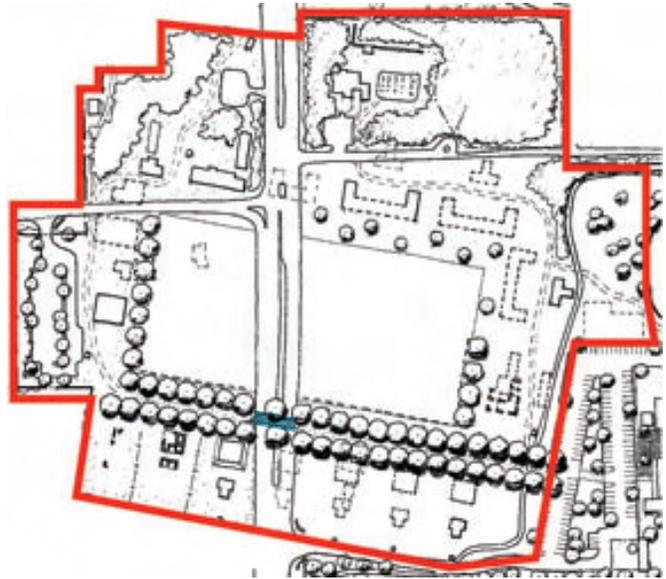


Figure 110: Zone 1 Key Plan.



Figure 111: Example of HAWK Crossing.



Figure 109: HAWK pedestrian crossing at Cottonwood Lane and Craycroft Road (looking north).

## II. Craycroft and Fort Lowell Road Intersection

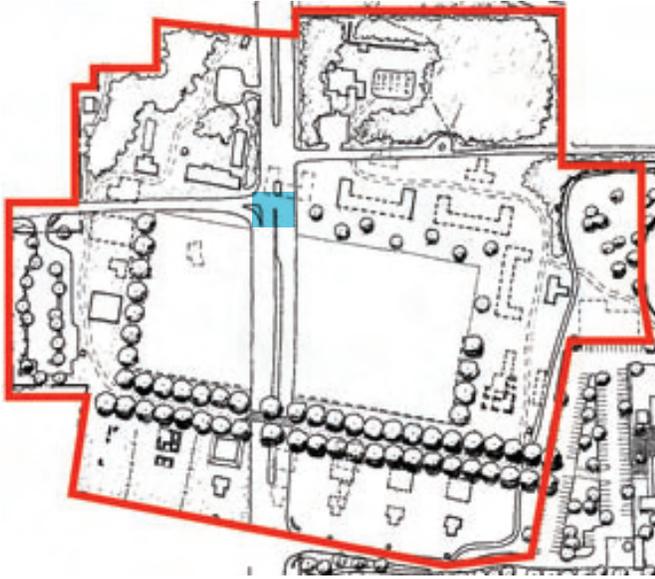


Figure 112: Zone 1 Key Plan.



Figure 113: Fort Lowell Road approaching Craycroft Road. Commissary on left, July 2008.



Figure 114: Approaching Fort Lowell Road from the north.

*Provide north-bound left turn lane from Craycroft to Fort Lowell. Eliminate south-bound merge lane from Fort Lowell Road to Craycroft Road.*

A median island is proposed for Craycroft Road from Glenn north past Fort Lowell Road. This median will serve to signal drivers to slow down. It will also help to define the Parade Grounds (to the extent possible with a large arterial crossing the site) and provide a median refuge for pedestrians crossing Craycroft at the new HAWK crossing. Once this median is installed, it will need to have a left turn bay northbound at Fort Lowell Road, to facilitate turns westbound on to Fort Lowell Road. A traffic study will need to be done prior to the implementation of this recommendation to study the geometry of this intersection and to insure that eastbound wanting to turn left, i.e. northbound, on to Craycroft, can also do so safely. It is recommended that the southbound merge lane for drivers turning right onto Craycroft be eliminated to further slow traffic (and discourage cross-town traffic) in an area that is expected to be pedestrian-oriented.

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## Zone 2 – ORGANIZED SPORTS FIELDS ZONE

This zone consolidates the sports fields now scattered around the site into a single location on the south side of Fort Lowell Park. The proposed design changes in this area are focused on improving the quality, orientation, and lighting of these fields, as well as improving user parking and participant access. Given the limited physical space of Fort Lowell Park and the desire to retain active recreational uses, the proposed landscape design opts for quality over quantity; improving the functional quality of fields in lieu of increasing their numbers. The lighted softball field on the north side of the park and the T-Ball field in the corner of the parade grounds will be eliminated. (There are four new tournament-grade softball fields being constructed in the City of Tucson Lincoln Park.) The road that now bisect the field will be closed and the playground areas will be relocated. Mature landscape elements will be saved where possible. The parking lot at the corner of Craycroft and Glenn will be eliminated.



Figure 115: Zone 2 Key Plan.



Figure 116: Quality, multi-use sports fields.

## R and S. Alternative Chief Trumpeter and Apache Bronze locations

*Potential locations for proposed Apache Bronze Statue and possible future locations of existing Chief Trumpeter Statue. New pedestrian and seating plaza proposed.*

The future location of the Chief Trumpeter and a potential Apache Warrior statue has been a subject of discussion throughout the Master Plan process. The existing bronze statue by Dan Bates sits east of Craycroft Road facing west. The sculptor has proposed a second comparably-sized bronze, the Apache Warrior, and has proposed it to be on the other side of Craycroft, on the Adkins Parcel facing east and counter-posed to the Chief Trumpeter. The Master Plan proposes three alternative site locations for the Chief Trumpeter and the potential Apache Warrior:

- The Chief Trumpeter and the potential Apache Warrior could be placed as is and as proposed by the artist.
- A new pedestrian 45' square Plaza is proposed to be constructed near the intersection of Glenn Street and Craycroft Road. This plaza will feature entry signage, landscaped areas, and decorative, colored concrete. Seat walls may be incorporated into the area depending on neighborhood input. An alternative location for the Chief Trumpeter would be within this new Plaza, facing southwest. This would create a prominent gateway to the Park from the south and honor the statue in a respectful setting. If the Apache Warrior project were to proceed, a similar feature could be created on the west side of Craycroft at the northern edge of the Commissary parcel.
- The statues could be located within the Cottonwood allée, with the chief trumpeter on the east side of Craycroft Road, and the Apache Warrior on the west.

The preferred location for this Master Plan is the Glenn/Craycroft Plaza. The artist strongly objects to any moving of the statue at all. Consultation on the topic of the statues with Native American tribes was led by John Welch, and the initial response

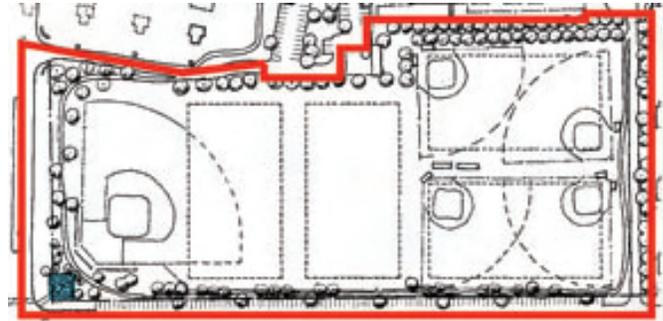


Figure 117: Zone 2 Key Plan.

was largely silent, but with one formal objection to the Apache Warrior concept. Further consultation with the Native American tribes is recommended. Any possible relocation should go through an extensive public art T/PAC-led public process. No final recommendation is made as part of this Master Plan.



Figure 118: Artist's concept of proposed Apache bronze statue.

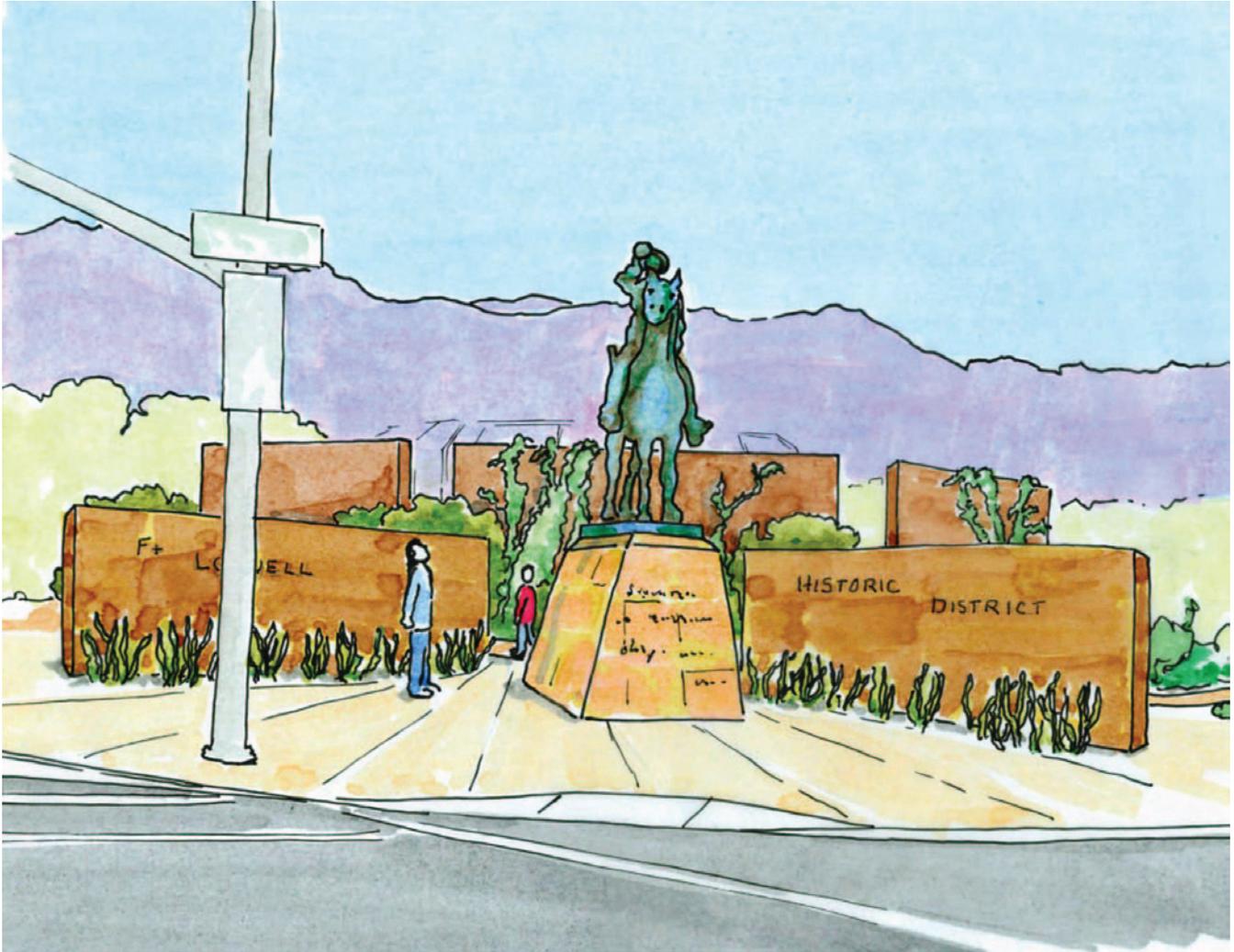


Figure 119: Proposed entry plaza with relocated Chief Trumpeter statue at northeast corner of Glenn and Craycroft Roads.



Figure 120: Existing "Chief Trumpeter" along Craycroft Road.

## CC. Championship baseball diamond and EE. Tee-ball / Little League fields

Relocate adult baseball area with proper orientation and lighting. Four existing Tee-ball / Little League fields to remain. Skinned infields will continue to be over-seeded in October for soccer.

The four existing little league fields will remain in place and will feature improved subsurface drainage and light fixtures that will reduce off-site spill light and protect the beauty of Tucson's night skies. Subsurface drainage improvements may include tilling the soil profile to mitigate the compaction that has taken place over years of use or the installation of subsurface drains if the subgrade is found to be essentially impermeable. The existing, portable outfield fencing will remain in order to allow for seasonal use of the area for soccer play. The existing backstop fencing, dugouts and bleachers will remain in place as well. A fifth baseball field will be created to accommodate championship play at an optimal east-northeast orientation near the Glenn & Craycroft intersection. Permanent bleachers will be created in addition to a year-round skinned infield and new backstop fencing. Portable outfield fencing will be required to accommodate year-round soccer play. New lighting will be provided per electrical engineer. The intersection's northeast corner will be enhanced by a plaza and structure that will effectively shield the bleachers to protect the view corridors at that corner.

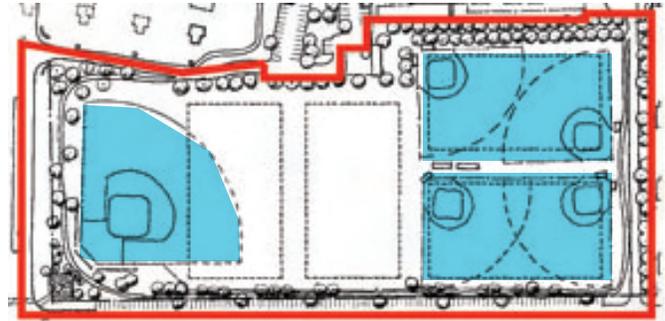


Figure 122: Zone 2 Key Plan.



Figure 123: Proposed New Site Lighting for Baseball and Multi-use Soccer and Football Fields.



Figure 121: Existing ballfields.



Figure 124: New seating would be included with a new field.

## DD. Multi-purpose soccer and football fields

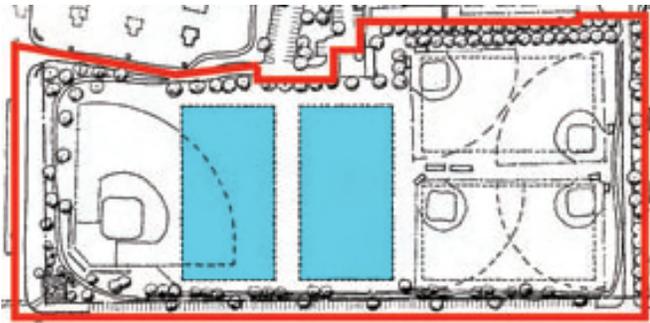


Figure 125: Zone 2 Key Plan.



Figure 126: Quality facilities for elite training and tournament competition.



Figure 128: The Fort Lowell Shootout.



Figure 127: Fort history re-enactments.

*Develop two new all-grass, lighted soccer field with alternative football use.*

Two year round and two seasonal championship-size soccer fields will be created in the southern area of the park. The fields will be approximately 195' x 360' and will consist of turf with improved subsurface drainage as determined by soil tests. Subsurface drainage improvements may include tilling the soil profile to mitigate the compaction that has taken place over years of use or the installation of subsurface drains if the subgrade is found to be essentially impermeable. Football players may also use the year round soccer fields throughout the year, as the spatial requirements are roughly the same. The year round fields are optimally oriented on a north-south axis to minimize excessive glare during use. The seasonal soccer fields are in the same location as the little league baseball fields and will require new applications of turf at the infield only prior to use. New lighting will be provided for all four fields per electrical engineer. Portable goals will be required during football or soccer play.



Figure 129: Fields are reorganized for true multi-purpose use.

## JJ. Multi-Use Recreational Path

*Develop new paved path full-park circuit for use by bikes and pedestrians.*

A mile-long multi-use recreation path will circle the park to provide a well-defined jogging and walking circuit. The multi-use path will be 10' wide, and a combination of stabilized decomposed granite and colored asphalt, with a 5' soft shoulder to accommodate joggers. In choosing the appropriate paving material, top consideration should be taken to provide accessibility, minimize maintenance and blend with the natural environment, particularly in the eastern portions of the park. The path will be widened to 12' in areas that will accommodate bike traffic, such as along Glenn Street. The path will enable users to enjoy a wide range of experiences by

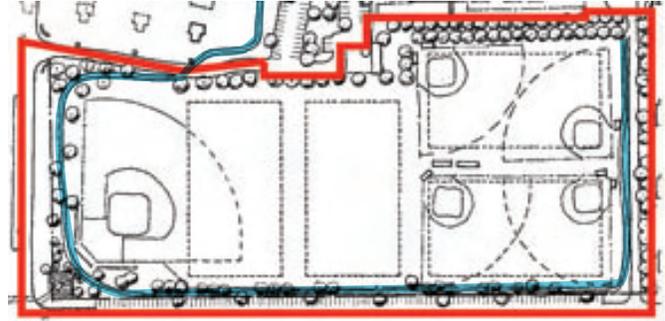


Figure 132: Zone 2 Key Plan.

winding through the historic, recreation, and natural areas of the park. Smaller pathways will branch off from the main recreation path to give users clearly-defined access points to some of the park's primary features.



Figure 130: Length in park = 1 mile with connections to neighborhood trails.



Figure 131: Existing multi-use recreational path at Fort Lowell.



Figure 133: Multi-use recreational path.

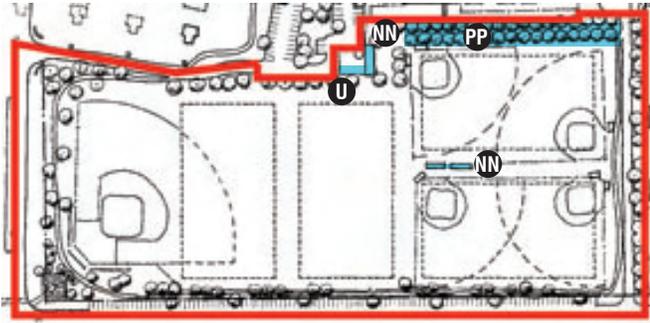


Figure 134: Zone 2 Key Plan.

### PP. New Allée of Trees

*New grove of trees planted between tennis courts and Little League fields for use during special events such as the Fort Lowell Soccer Shootout.*

A new allée of shade trees will be located south of the tennis and pool area to provide a pleasant location for vendor carts during events or a shady place for viewers to watch the adjacent activities. These trees will be native and appropriate to the Old Fort Lowell Neighborhood.



Figure 135: Location of new allée of trees between the sports fields and tennis courts.

### NN. New Storage Building

*New structures for storage for recreational sports uses.*

New storage structures will be constructed to store equipment for recreational sports teams and special events. These new structures will replace the “mobile-mini” units currently located near the existing racquetball courts.



Figure 136: Location of proposed storage and maintenance area.

### U. Maintenance Shed

*Build new building for limited materials storage adjacent to existing reclaimed water site.*

A new smaller building is proposed to house the greatly reduce maintenance needs of the site. This new structure is proposed to be located south and west of the pool complex, near where the reclaimed water area is fenced off.

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### Zone 3 – SWIMMING, TENNIS, AND ACTIVE RECREATION ZONE

This zone houses the more active recreation programs including tennis, pool facilities, a snack bar, restrooms, and shaded bleachers will serve both swimming and tennis. It also provides for improved and increased parking, enhanced landscape, upgraded fitness areas serving a variety of users and age groups, the pond with enhanced trails and vegetation, and a one-mile full circuit multi-use (mostly) asphalt trail around the park.



Figure 137: Zone 3 Key Plan.



Figure 138: Existing pool facility.

## T. Expanded Fort Lowell Park Pool Building

*Build new bathhouse at south end of pool. Include new concession area to serve all park functions. Renovate existing pool building.*

The existing Fort Lowell Park Swimming Pool gets heavy use in summer by park users and in the High School swim season by Salpointe High School and St. Gregory Preparatory School. The pool and the pool support facilities are in need of extensive repairs and additions.

The 1,450 square foot pool building itself is in need of interior repair including painting and tile flooring replacement. The exterior deck needs repair and improvement. New construction of approximate 4,500 square feet is proposed including:

- new bathhouse
- a new snack bar
- and new bathrooms for general park use.

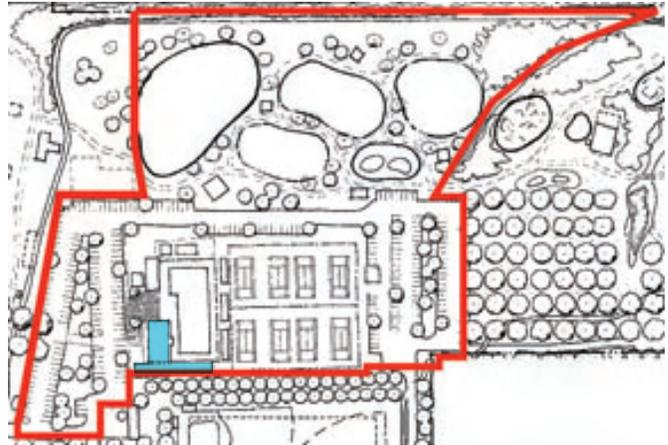


Figure 139: Zone 3 Key Plan.



Figure 140: Location of expanded pool bathhouse.



Figure 141: Existing pool building to be renovated.

## GG. Pool / Tennis Viewing Area & OO. New Pool Entry Plaza

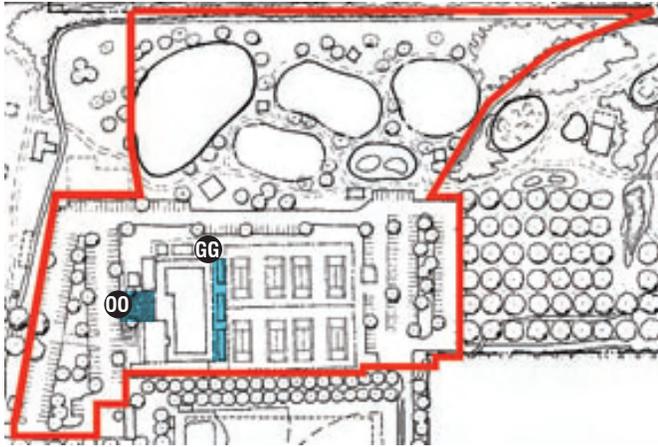


Figure 142: Zone 3 Key Plan.

*Build new gateway entry plaza to improved pool complex. Provide shaded ziggurat bleacher seating for viewing tennis and swimming.*

It is recommended to create a new entry plaza that improves the quality of the building access and the sense of arrival at the facility.

The linear area between the pool and the tennis courts is extremely unattractive and squanders an opportunity for dignified viewing of both sporting events by spectators. The Master Plan proposes a series of concrete bleachers formed by a ziggurat form. This element would rise step-wise from grade on the west, to a peak at the center and then back to grade on the east. It is proposed that at the top step, there would be a series of brightly-colored polyester shade structure or umbrellas that would provide shade for the spectators and provide a focal point for the site.



Figure 143: Area of proposed new viewing area between the existing tennis courts and pool.

## FF. Existing Tennis Courts and Tennis Building

*These features to remain. Adjacent racquetball courts to be removed. Lighting to be improved. Provide shaded bleacher seating for viewing tennis and swimming (see below).*

The existing tennis courts will remain in place and will feature improved fencing and lighting. Ten foot high chain link fencing with shade screening will be provided (60' x 120') around each of the four corner courts. The inner courts will have a 112' x 120' fence around each pair of courts. Three new multi-purpose bleachers will be located to the west of the tennis area to facilitate viewing of both the tennis and pool areas. A new allée of shade trees (approximately 40 Pistache or Ash trees) will be located south of the tennis and pool area to provide a pleasant location for vendor carts during events or a shady place for viewers to watch the adjacent activities.

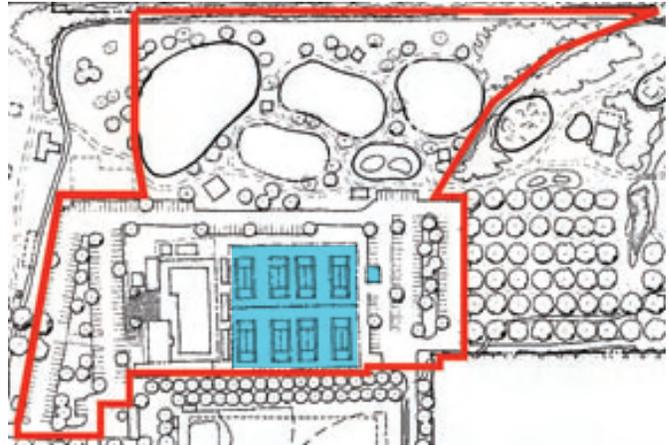


Figure 144: Zone 3 Key Plan.



Figure 145: Fort Lowell Tennis Center.



Figure 146: Existing Fort Lowell tennis courts.

## Y. Play areas

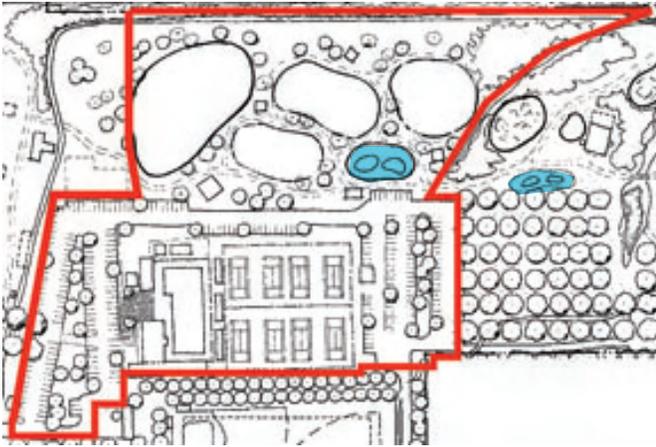


Figure 147: Zone 3 Key Plan.

*Develop a new play area at two locations.*

The primary play area will be built by moving the existing play structure that is currently located near the baseball fields to an area east of the pond. The relocated structure will include safety surfacing and several seating areas for parents with new landscaping. This primary play area and associated features will occupy approximately 4,000 square feet. The secondary play area will be located near the existing Hohokam site and will feature oversized replicas of Hohokam artifacts. Such artifacts might include animal figurines, a bowl, or a ball that would be large enough for children to play on or around them. These artifacts would likely be recreated out of concrete or stone and then painted to reflect the distinctive Hohokam artistry that would have accompanied such objects. The total square footage of this play area will be close to 3,000 square feet. A safety surfacing would be required such as sand or rubber mulch.



Figure 148: Proposed Hohokam inspired playground near existing Pecan Groove.

A tot lot could also be incorporated near the play area to accommodate younger users. The tot lot might be comprised of a simple, pre-fabricated play structure consisting of a slide and a climber. The total tot lot area, including a landscaped seating area for parents, will occupy a total of 1,000 square feet.



Figure 149: Existing playground equipment to be relocated.

## Z. Fitness area and equipment

*Develop three, age-differentiated fitness areas for people of all ages.*

Two new fitness areas will be constructed at Fort Lowell Park and will address the needs of a range of fitness levels and ages of the intended user. The Senior Fitness Circuit will consist of approximately ten outdoor fitness stations that will feature a variety of activities geared towards older, active adults. The stations will provide age-appropriate, upper and lower body exercises to promote strength, flexibility, balance, and overall wellness. Located within an area of approximately 10,000 square feet, the Senior Fitness Circuit will include a 6' wide, 300' long paved, circular walking path that will lead users to each of the stations. Each station will be located on an 11' x 11' concrete pad per manufacturer's recommendations. Seating areas (approximately six benches) and enhanced planting will be featured in the area to promote user comfort and opportunities for resting between exercises. A drinking fountain should also be included in the area to service both the fitness and play activities.

The Adult Fitness Circuit will consist of approximately fifteen outdoor fitness stations that will accommodate beginning to advanced users. Each exercise station will assist in developing strength and endurance, while working different parts of the body with a unique range of skill challenges. The Adult Fitness Circuit will feature a 6' wide, paved 1/8 mile circular path that will lead users to each of the stations. Each station will require an average of 400 square feet and should be installed with a soft surfacing material such as sand or rubber mulch. The entire Adult Fitness Circuit area will cover approximately 40,000 square feet and will include decomposed granite and new landscape and seating opportunities (approximately eight benches).

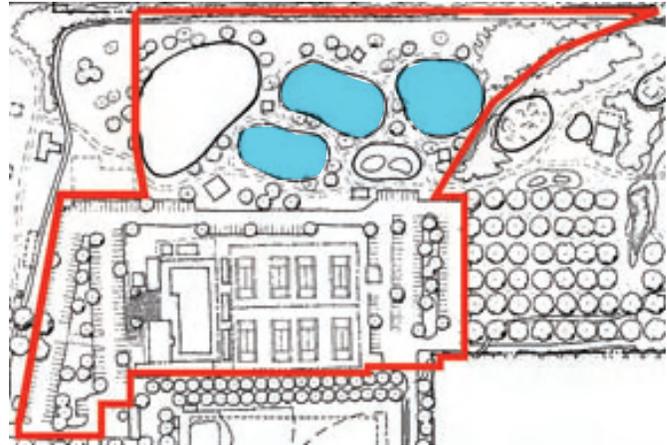


Figure 150: Zone 3 Key Plan.



Figure 151: Existing Fort Lowell Fitness Trail.

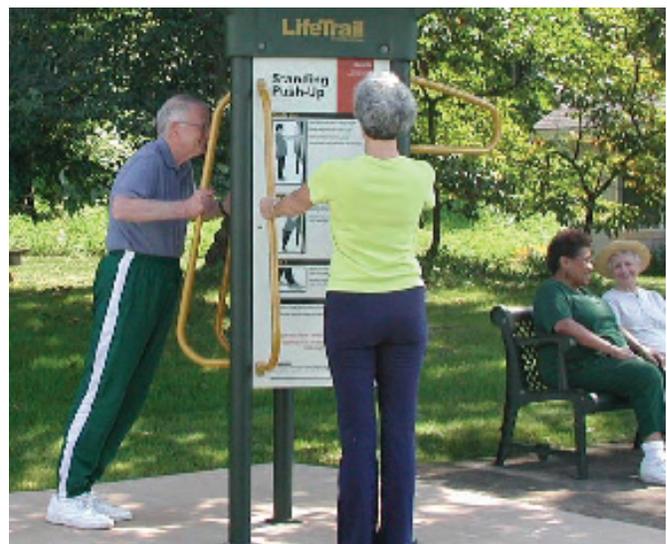


Figure 152: Proposed Senior fitness circuit.

## BB. Existing Pond

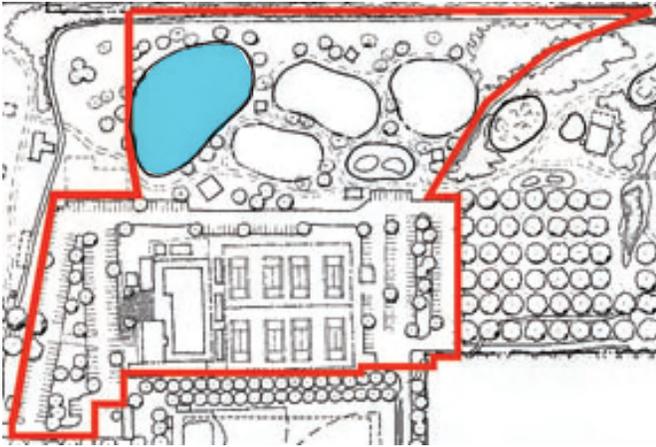


Figure 153: Zone 3 Key Plan.



Figure 154: Pond edge, looking south.

*Maintain pond and refresh with new water conservation features and additional landscape.*

The ½ acre park pond, originally installed to provide an area for the pool backwash, has become a focal point and habitat for wildlife within the park. Ducks, fish, turtles and many avian species use this water source. A fountain in the center aerates the water while benches and large shade trees provide a tranquil resting space along the perimeter. The water is now supplied from an on-site well. Additional riparian landscape material will be located around the pond to create more opportunities for wildlife habitat. The two existing benches will remain and three additional benches will be added to the area to offer greater seating opportunities. Because this area is known to handle much of the incoming drainage from other areas of the park, it is recommended to include a secondary detention area to temporarily hold excess storm water. This detention area could consist of a depressed, lawn area accented with riparian plantings.



Figure 155: Existing pond with enhanced vegetation.

## UU and VV - Parking Areas

The parking areas at Fort Lowell Park will be enhanced through the addition of landscaped islands with canopy trees to provide shade and through the use of alternative paving materials that promote water infiltration and lessen the appearance of asphalt. The new parking area on the Adkins Parcel will be stabilized earth rather than traditional asphalt to remain in character with the historic nature of the site. This treatment will also enable water to infiltrate the surface to avoid excessive run-off or the need for subsurface drainage measures. The existing asphalt parking areas will be expanded to accommodate additional parking and will be surfaced using an aggregate surfacing treatment that eliminates the look of asphalt while allowing for high-intensity traffic. The landscape islands within the parking areas will be depressed to allow for water harvesting and promote the health and sustainability of the new landscape materials. Bioswales will be used where possible to remove silt and pollution from the surface runoff. Water harvesting measures such as microbasins and swales will take place in all areas of the site to conserve the region's scarce resources.

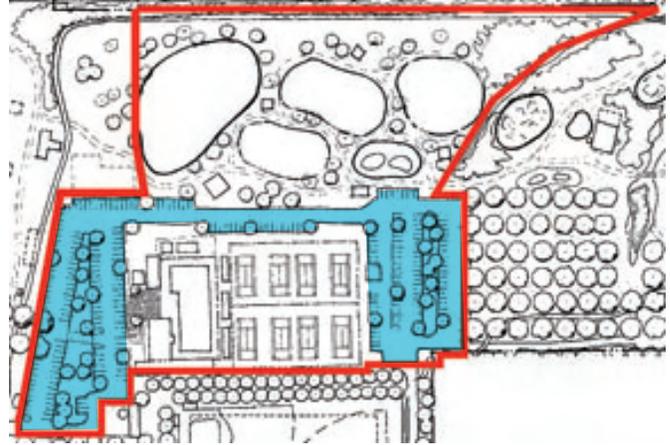


Figure 157: Zone 3 Key Plan.



Figure 158: Water harvesting and pervious surfaces to reduce runoff and irrigate trees and shrubs.



Figure 156: Existing parking lot looking south.



Figure 159: Trees and enhanced landscape to provide shade.

## Zone 4 – PANTANO WASH NATURAL AREA AND NATIVE AMERICAN INTERPRETATION



This zone includes the natural resource areas along the Pantano Wash, which are proposed to be protected and enhanced. Environmental education will be the focus of this zone providing exhibits, enhanced signage, interpretive trails, dedicated classroom space, and programs focusing on sustainability and habitat restoration. The zone calls for improved interpretation of Hohokam life-ways through new signage and exhibits. The pecan grove dating to the 1940s will be restored.

Figure 160: Zone 4 Key Plan.



Figure 161: A focus of activity in Zone 4 will be the re-use of the existing Maintenance Building for an Environmental Education Center and Demonstration Garden.

## V. Existing Maintenance Building

*Re-use existing maintenance building for environmental education center and sustainability demonstration area for conservation groups like Tucson Audubon Society.*

City of Tucson Parks and Recreation operates a fairly extensive maintenance program on site that serves Fort Lowell Park and other parks in the area. It is recommended by this Master Plan that most of these space-consuming fill materials and related activities be relocated to a more spacious location in the Parks and Recreation East District. This will dramatically reduce the maintenance footprint on the site. The existing maintenance building is recommended to become an environmental education center operated by a partner such as the Audubon Society. The building will need some interior and exterior renovation to serve this purpose. The area around the site will be landscaped and will contain demonstration gardens.

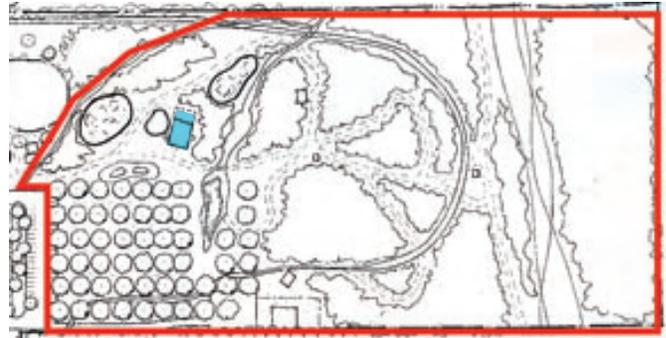


Figure 163: Zone 4 Key Plan.



Figure 164: Existing Maintenance Building.

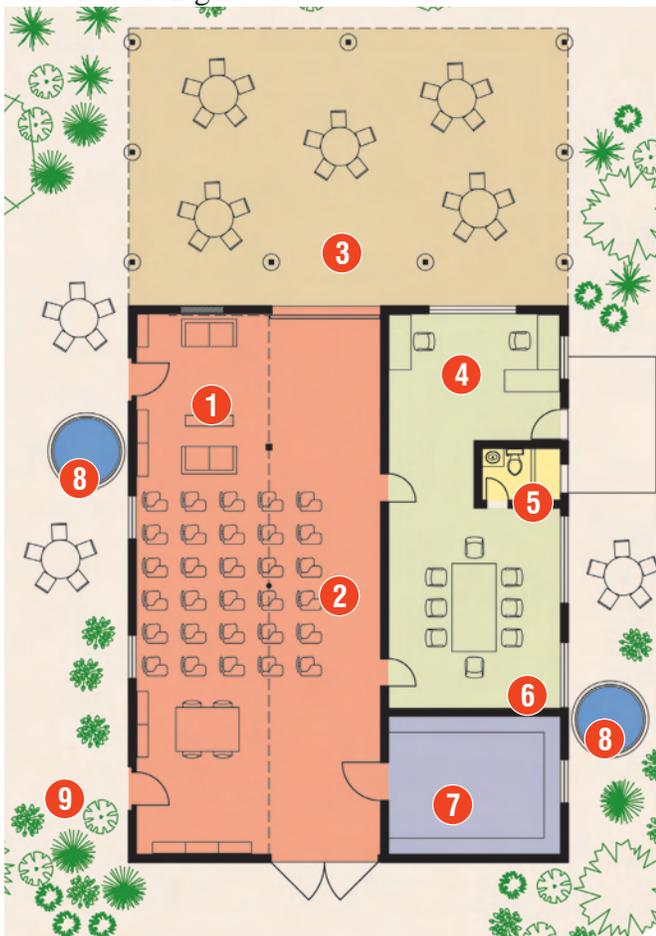


Figure 162: Proposed floor plan for Environmental Ed. Center.

- 1 Sustainability Lounge / Resource Library
- 2 Classroom / Lecture Space
- 3 Outdoor Gathering / Classroom
- 4 Office
- 5 Bathroom
- 6 Meeting Space / Kitchen
- 7 Storage
- 8 Cistern
- 9 Demonstration Garden

## W. Hohokam Pit House Village

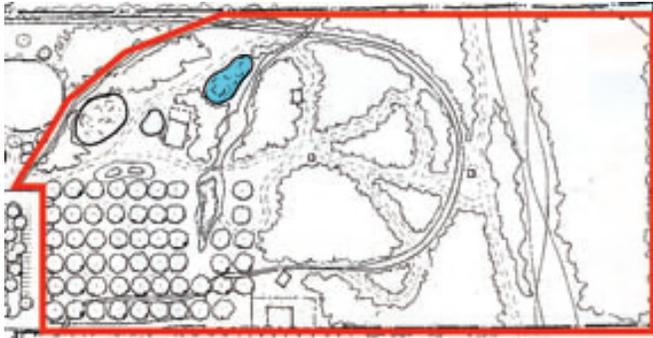


Figure 165: Zone 4 Key Plan.

*Build a new re-creation and Interpretive Area. Consider a “mock-dig” area.*

A reconstruction of a Hohokam Pit House village is proposed to provide visitors with a glimpse into the prehistoric era of the human occupation of Fort Lowell. These residences and associated structures will be constructed as accurately as possible, a factor that will probably allow external viewing only. The village may be accompanied by exhibits on archaeological techniques, including a “mock dig” facility for use by archaeologists or trained educators. The interpretation of prehistoric peoples and their lifestyles will be accompanied by a strong statement about the legal and ethical need for preserving the prehistoric remains (potsherds) found within the park.



Figure 166: Hohokam pit house village re-creation.



Figure 167: Mock Archaeology Dig Area for Children.

## X. Native American and Environmental History “Gateway Portal”

*Refresh existing Hardy site interpretive area with new exhibits that introduce visitors to natural areas along the Pantano wash.*

The Native American interpretive displays, currently immediately west of the maintenance complex will be re-designed and refreshed to make the location and information more attractive to visitors. This location can also be expanded in its role to act as the “gateway orientation center” for park visitors and users who are interested in exploring and understanding the natural areas in the eastern part of Fort Lowell Park.

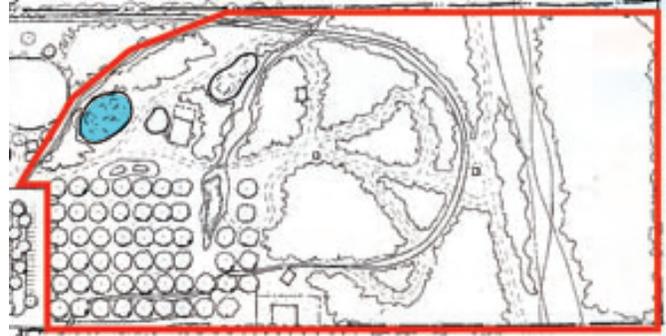


Figure 168: Zone 4 Key Plan.



Figure 169: Hardy Site with Maintenance Shed in Background.



Figure 170: Existing Hohokam Pit House Exhibit.

## HH. Pecan Grove, Canal, and Riparian Woodland Display

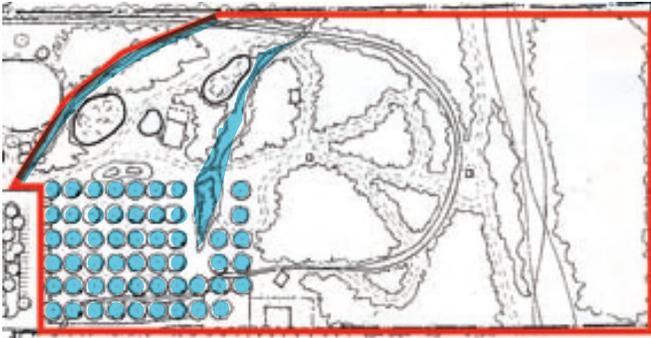


Figure 171: Zone 4 Key Plan.

*Preserve, consolidate and enhance existing pecan grove. Improve and enhance natural riparian area between pecan grove and Pantano Wash.*

The pecan tree grove was originally planted around 1940 in association with a 1950's ranch house that was once located in the vicinity of Ramada #5. Many of the pecan trees may have been replanted



Figure 172: Pecan trees in summer.



Figure 173: Riparian Woodland Display.

during the 1960's restoration efforts and appear to be mostly healthy and in good condition. Eight new pecan trees will be planted to further enhance the grove. The eight existing concrete tables in the area will be relocated to take advantage of the existing shade and views.

Wide watering basins surround each existing pecan tree trunk. The existing bubbler irrigation system used to water the pecans is old, brittle and in disrepair. In some cases the tree trunks have grown around the bubbler infrastructure. A new irrigation system will be installed to more efficiently irrigate the trees. Because the root systems of the established pecans extend at least two times the width of the tree canopy, the new irrigation system will apply water to at least fifty percent of the entire root soil area to stimulate healthy growth. It is anticipated that the pecans will be watered through the use of the existing reclaimed water system.

The existing pecan orchard will further be enhanced by providing a more stabilized surface throughout the area to minimize erosion and weed growth. The pecan trees will continue to be trimmed during late winter to remove dead wood and maintain optimal growth and form. Topping will not be allowed, as it often ruins the appearance of the trees and allows insect and disease entry. Fertilizers should be applied in early spring to allow for proper fruiting.

The existing drainage area that runs generally south to northeast through the central portion of the park will be improved by removing non-native vegetation and adding suitable xero-riparian plantings. This similar treatment will be used in the existing Riparian Woodland Display area that currently exists east of the existing maintenance area. All palms and other exotic species will be removed, and riparian plantings such as cottonwoods, mesquites, willows and hackberries will be incorporated.

## WW. Natural Riparian Area

Fort Lowell Park is fortunate to have a natural xeroriparian area within its limits. Although the area has indications of minor disturbances, the landscape has the potential to provide a Sonoran Desert xeroriparian experience to visitors and provide quality habitat for area wildlife. This natural area along the Pantano Wash will be enhanced through the use of native and locally present seed mixes mixed with container plantings where greater impact is desired. Vegetation from the three native systems (riparian, floodplain and upland) that inhabit the area will be represented in the various seed mixes to ensure compatibility with the surrounding larger ecosystem. Irrigation will not be provided for the landscape plantings in this area to discourage the growth of weedy or exotic plant materials.

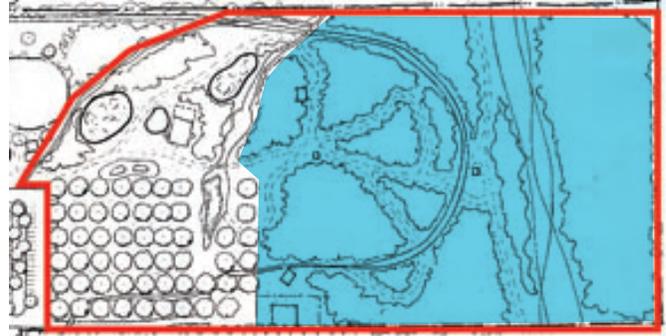


Figure 175: Zone 4 Key Plan.



Figure 176: Xeroriparian Planting Enhancement.



Figure 174: Natural area along the Pantano Wash.

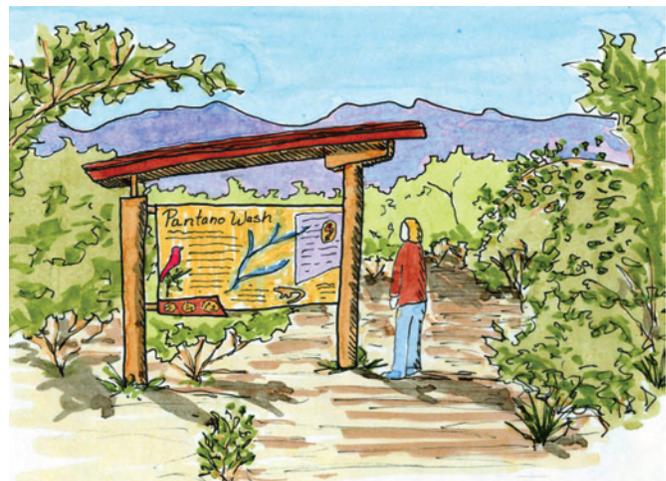


Figure 177: Proposed Information Kiosk at the Pantano Wash.

## ZZ. Existing Ramadas and New Kiosks

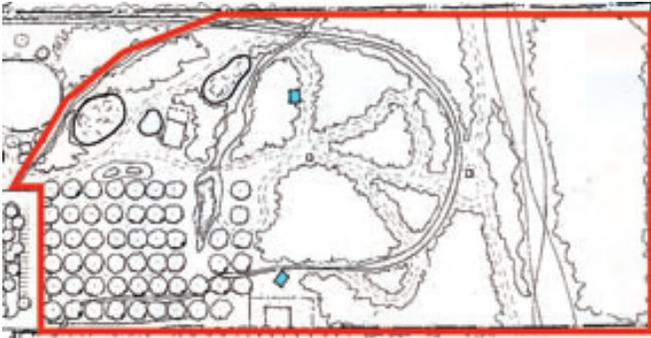


Figure 178: Zone 4 Key Plan.



Figure 179: Ramada #5.



Figure 180: Ramada #7.

The majority of the existing ramadas will be removed to allow for the construction of new picnic ramadas that will be located within the footprint of some of the historic military structures. Of the seven existing ramadas, ramadas #5, #6 and #7 are proposed to be preserved in place.

Ramada #5 is situated on the site of the Hardy residence, a 1950's ranch house. The area is currently barren with no natural shade; nonetheless, the open area does provide opportunity for recreation. The landscaping in the immediate area is minimal and fragmented, with occasional decomposed granite. Both the landscape and the structure will be refurbished to allow for a more comfortable space for visitors to gather. Ramada #6 is located between the pond, tennis courts and pool and has a different character than all other ramadas in the park. Four planters with seat walls anchor the corners and a metal overhead lattice provides shade as well as support for vining plants. Mimosa, ash trees, roses and trailing jasmine provide a garden feel. The ample seating is appropriate for larger gatherings. The structure and plantings are in good condition. Ramada #7 is the most rustic, regionally appropriate structure and is located in the more remote eastern area of the park. This privately set facility can accommodate large groups and has access to the Pantano Wash. Durable construction materials, including mortared river rock, have weathered well and are in good condition.

Five informational kiosks will be located throughout the park to provide a variety of information to the visitors. These kiosks are envisioned as having interpretive panels paired with a covered support system to enable easy reading access and user comfort. A gateway kiosk will be located at the junction of the multi-use recreation path and the future Pantano Wash trail to mark the eastern entrance of Fort Lowell Park. The gateway will welcome Pantano trail users to the Park and will enable them to enjoy the park's amenities.

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# Interpretive Planning

Contributed by Bruce Hilpert  
and  
John Welch, PhD, RPA

Previous Page:

**Figure 181:** (Top) Fort Lowell Hospital Ruins.

**Figure 182:** (Left) 1963 Reconstructed Fort Lowell Museum.

**Figure 183:** (Right) Existing Interpretive Plaque along Cottonwood Lane.

## Interpretative Planning



Figure 184: Reenactment of military maneuvers on the Parade Ground.



Figure 185: Making adobe during a public event near the Fort Lowell Hospital Ruins.



Figure 186: The Hohokam Interpretive Site at Fort Lowell.

Fort Lowell Historic Park is a unique historic, natural and cultural resource that can provide public interpretation of a variety of topics of interest to a broad local and national audience. The historic buildings and adobe ruins of the frontier-era U.S. Army fort on the park site are supplemented by evidence of a prehistoric village, the historic residences of the surrounding neighborhood and a lush Sonoran desert riparian area.

Together, these elements can bring the visitor a greater understanding of the history of Tucson's economic and social development, the rich multi-cultural heritage of the region, the United States' westward expansion, and the complex ecosystem of southern Arizona. Combined with the "world class" historic, ethnographic and photographic resources of the Arizona State Museum and Arizona Historical Society, the Park's resources provide an opportunity for interpretation that is unique not only to the Pima County/City of Tucson park system, but also to Arizona and the Greater Southwest.

The Fort Lowell Historic Park and the surrounding historic neighborhood also present challenges to public interpretation:

- the park's existing historic fort buildings are but a small remnant of the original fort;
- the historic residences in the surrounding neighborhood are not publicly accessible;
- the location of the architectural resources of different eras of the park's history can be confusing and conflicting;
- many of the park's recreational users currently show little interest in the history of the park.

These challenges require that the interpretation of Fort Lowell Historic Park's complex history be carefully crafted to employ thematic approaches and interpretive techniques that will effectively appeal to and attract a broad audience of neighbors, recreational users and destination visitors.

### Potential Audience and Users

It is essential that the future Fort Lowell Historic Park attracts, builds and holds a new audience that exceeds current levels of visitation at the Fort Lowell Museum. To accomplish this goal, the interpretive facilities and programs must meet the specific needs and interests of a broad audience with distinct and varied components.

Potential target audience segments for an expanded Fort Lowell Historic Park include:

- *Recreational users* – Currently, more than 100,000 visitors per year use the park for informal recreational activities (running, dog-walking, picnics), athletics (tennis, swimming) and organized sports leagues. These users rarely visit the historic resources of the park and most are unaware of their existence. Special on-site interpretive techniques should be taken to attract these users.
- *Schools and Youth groups* – The park’s interpretive facilities can serve as an important resource for school classes and youth groups such as the Boy Scouts and Girl Scouts if the interpretation is directed toward the required curriculum goals and specific needs such as activities for merit badges. Facilities such as a “mock-dig” site and classroom space tailored to the needs of these groups will more effectively attract youth groups for interactive educational programming.
- *Local museum visitors* - Combined visitorship for Tucson-area museum totals nearly 1,000,000 visitors. Participation in the local Tucson Association of Museums and promotion at other city heritage sites will increase visitation among this important audience segment.
- *Non-resident Heritage Tourists* – Fort Lowell was one of a network of frontier military posts, many of which are preserved today as state or national parks. Improved preservation and interpretation of the Park’s historic resources, combined with regional promotion, can increase attendance among tourists specifically interested in frontier military history and American Indian peoples.
- *Local special interest groups* – Fort Lowell

Historic Park can serve as a partner with local affinity groups such as the Arizona Archaeological and Historical Society, Tucson Watercolor Guild, and Tucson Audubon Society to increase their use of the facility. In addition, these partners may join in producing educational programming that supports the Park’s mission.

### Special Issues in Interpretation

#### *Interpretive Focus*

Fort Lowell Historic Park’s diversity of resources requires that some historic eras and topics be given priority to present a more coherent and understandable story to the visitor. During the planning process, the following issues and eras were considered for interpretation:

- the Sonoran desert ecosystem, with emphasis on the local riparian area
- prehistoric occupation by Hohokam farmers, ca. A.D. 700-1200
- use of the area by Mexican and Mexican-American ranchers and farmers, ca. 1850-1870
- establishment of Fort Lowell, a U.S. Army post, from 1873-1891
- construction and occupation of residences in and around the abandoned fort buildings by Mexican and Mexican-American farmers, 1891-1940
- use of the fort and associated buildings for adaptive commercial uses, including health sanatorium and the Adkins steel fabrication facility, 1910-1990
- renovation of historic structures for residences, 1930-1980s
- establishment of the Fort Lowell Historic District and historic district zoning, 1973-present

With careful consideration of these competing stories and resources, it is recommended that the *primary focus of Fort Lowell Historic Park interpretation should be the era of the U.S. Army post, from 1873-91*. This approach is recommended for a several reasons:

- *The story of the frontier-era military post has the broadest local, regional and national significance.*

This focus will provide the greatest potential for interpretation to the broadest audience. For local visitors, it will elevate Tucson's local history to a level of national significance; heritage tourists will recognize Tucson's role within the broader context of 19th century America's westward expansion. No other historical era or issue has such broad appeal and significance.

- *The most visible cultural/historic resources within the park are those of the Fort Lowell buildings.* The military focus will most effectively answer the visitors' most compelling questions: "Why is this called Fort Lowell Historic Park? What are the historic structures that I see?"
- *All subsequent uses of the area stemmed at least indirectly from the establishment of the fort.* The military structures and infrastructure served as a stimulus and nucleus for settlement and development of the surrounding area for farms, homes and businesses.
- *Local cultural and historic resources provide the opportunity to produce a "world-class" exhibit on the frontier U.S. military and the "Apache Wars."* The Arizona Historical Society and Arizona State Museum possess probably the most significant collection of artifacts, documents and photographs related to the U.S. Military history of the Southwest and the ethnography of the Western Apache tribes. Combined with the intellectual resources of curators, Apache and O'odham elders, anthropologists, military historians and published histories, new museum exhibits on Fort Lowell could result in the most significant exhibit of its type in the nation.

While the military era will be the primary focus for visitor interpretation, all other topics should be included on a secondary level, with individual stories developed at appropriate sites within the park (e.g. the story of historic renovations can be presented within the historic Commissary building that was reconstructed in the 1940s).

### Fort Lowell – A Multi-cultural Perspective

While the Interpretive Focus of the Fort Lowell Historic Park will center on the military period of use and occupation, it is important that the interpretation include the contributions of the peoples of many different ethnic groups and cultures who have lived at and/or affected the history of the park.

The historic residents of Fort Lowell Park represent a microcosm of southern Arizona's ethnic makeup:

- the prehistoric Hohokam (ancestors of the modern O'odham);
- early Mexican ranchers and farmers;
- American frontier soldiers;
- Apache Scouts from the White Mountain and San Carlos Apache Tribes;
- Chiricahua Apache warriors;
- Mexican-American, Chinese-American, Mormon and Anglo-American farmers and businessmen of the post-fort period;
- current Hispanic descendants of the early neighborhood residents;
- current residents who are attracted by the historic architecture, rural ambience and historic district zoning of the neighborhood.

It is imperative that these peoples be given a voice in the interpretive designs as well as a place in the interpretive exhibits. Consultations with descendants and representatives of these peoples should be included in the assessments conducted in the interpretive design process for Phases II and III. Extensive use of quotations from published historical sources, oral histories and interviews should be included where possible in the exhibits, signage and media presentations to give voice to the many peoples and stories of historic Fort Lowell.

### The Apache Wars – Conflict, Violence and Oppression

Probably no other incident in American history has been portrayed in popular culture more often than the "Apache Wars" of the 1880s. Over the past century, movies, sensational novels, television shows and

history books have largely portrayed the conflict as a two-dimensional fight between good and evil – the noble settlers and soldiers pitting themselves against brutal Apache warriors in a struggle to achieve America’s destiny of occupation of and control over the North American continent.

Over the past three decades, historians and many Americans have come to adopt a much more nuanced view of the conflict. Today, many Americans recognize:

- brutal violence was a practice of soldiers, settlers and Apaches alike;
- American Indian peoples such as the Apaches and O’odham had a history of long-standing enmity, raiding and revenge warfare;
- Apaches from the San Carlos and Ft. Apache reservations served as scouts to assist the U.S. Army in its campaign against the Chiricahua Apaches;
- businessmen in southern Arizona manipulated relations with American Indians and their reservations for personal gain;
- the U.S. Army was but one element in a government campaign to subjugate and acculturate or eradicate any American Indians who resisted their campaign of expansion and imperialism.

The interpretation of the role of Fort Lowell in the campaign against American Indians in Arizona Territory, and specifically the Western Apaches, must be carefully crafted to give a true and balanced treatment of a very complex situation. This will require extensive consultation with historians, ethnologists and most importantly, descendants of the peoples involved in the conflict. The principles and information developed during the research and interpretive design phases of the project must inform every level of interpretation, including static exhibits, multimedia presentations, interpretive signage, guided tours and living history. An extensive review and approval process should be included for all interpretive plans, designs, programs

and materials.

#### Visitor Outcomes

Visitors to Fort Lowell Historic Park will learn that:

- The riparian environment of the Fort Lowell Historic Park area has attracted residents for more than 1000 years.
- Fort Lowell, a frontier military outpost of the late 19th-century, played an important role in the development of Tucson as well as the nation’s westward expansion.
- The conflict between the local Apache peoples and American settlers and soldiers was a complex situation that had many cultural, social and political implications.
- After 1891, the remains of Fort Lowell served as the nucleus for a vital community that valued its historic roots and ambience.

#### Interpretive Themes

When interpreting the history of Fort Lowell Historic Park’s human occupation over fourteen centuries, it is important to develop interpretive themes that will assist the visitor in understanding the common human experiences of the different peoples who have occupied the area. Relevant interpretive themes include:

- The confluence of Rillito and Pantano Creeks was a magnet for settlement by the occupants of the Fort Lowell area throughout history
- People of different cultures and lifestyles have occupied the Fort Lowell area, resulting at various times in cross-cultural coexistence, cooperation and conflict.
- People of different cultures developed distinct responses to the Sonoran desert and had markedly different impacts on the natural environment.
- The history of Fort Lowell Historic Park embodies national trends in U.S. history including westward expansion, “manifest destiny,” cultural imperialism, and relations with American Indians and Mexico.
- People today have much in common with people

- of different cultures and historic eras.
- Peoples have developed and employed a variety of agricultural techniques in the Sonoran desert.
- Recreation is an important part of life for people of all cultures and historical periods.
- Techniques of architectural history and archaeology can tell us much about the past.
- Historic preservation efforts reflect changing values, principles and techniques through time.

### Interpretive Storylines

It is often effective to develop an interpretive narrative, or storyline, that will assist visitors by providing a conceptual framework for them to organize the information and themes of the presentation. Storylines can assist the visitor in gaining new perspectives on a body of information, establish a “point of view,” or perceptual screen, for new information, and bring new life to information and resources at the site.

Potential storylines that might be considered for use at Fort Lowell Historic Park include:

- *Fort Lowell: Where Rivers Meet* - The confluence of the Rillito and Pantano creeks provided a stable water supply that attracted settlers throughout the history of the area. (This could serve as an over-arching storyline or as a storyline for natural history interpretation.)
- *Fort Lowell and the Apache Wars: Cultures in Conflict* – For centuries, southern Arizona was a frontier that witnessed a clash of cultures between O’odham, Apache, Mexican and American peoples.
- *Fort Lowell, A Frontier Outpost: Many Peoples; Many Stories* – Frontier settlers of different ethnic and cultural backgrounds have different perspectives on the frontier experience.
- *Fort Lowell: These walls tell my story* – Architectural features and techniques can tell us much about the economic and social context of the builders and the community. Emphasis on the physical remains of the fort can draw the visitor into the process of learning about the past using

techniques of architectural history, archaeology, archival research and photographic interpretation. (This could serve as an over-arching storyline or as a storyline for the Officers Quarters buildings and other ruins in the park.)

### Interpretive Facilities

- Officer’s Quarters 1, 2, 3 (Phase I) – Preservation of the ruins of OQ 1 and 2 and the restoration of OQ3 to the Fort Lowell period will provide the first opportunity for new interpretation within the expanded park. Programming will likely be limited to interpretive signage and periodic guided tours of the OQ3 building.
- Adjutant’s Office Exhibit Pavilion (Phase II) - Located on the west side of Craycroft Rd. on the location of the original Fort Lowell Adjutant’s building, the open-air facility will provide the primary interpretation of the Officer’s Quarters 1, 2 and 3 and the historical and physical development of Fort Lowell. The facility’s exhibits and multi-media programs will also provide visitors with a brief introduction to the prehistoric occupation of the area and historic preservation issues. It will also serve as the starting point for walking tours among the fort’s ruins.
- Commissary Building (Phase II) – While the ultimate use of the Commissary building has not yet been determined, it is expected that some rooms of the building will be devoted to interpretation of the 1930-40s renovations of the Commissary and Sutler’s store by the Bolsius family, historic preservation issues and the creation of the Fort Lowell Historic District. The excavated “basement” can be used as an effective means of interpreting the original construction of the building.
- Environmental Education Center (Phase II) – The existing maintenance building will be renovated for use as an education center focusing on the natural environment of the park and the surrounding Sonoran desert, as well as human adaptations to this environment. The center will include exhibit panels, facilities for multi-

media programming and adequate classroom space to accommodate educational programming by local groups such as the Tucson Audubon Society, Arizona Archaeological and Historical Society, Girl Scouts and Boy Scouts, and other local groups. The center will serve as the starting points for walking tours in the adjacent natural area.

- Prehistoric Pit House Village (Phase II) – A reconstruction of a Hohokam Pit House village will provide visitors with a glimpse into the prehistoric era of the human occupation of Fort Lowell. It is essential that these residences and associated structures be constructed as accurately as possible, a factor that will probably allow external viewing only. The village may be accompanied by exhibits on archaeological techniques, including a “mock dig” facility for use by archaeologists or trained educators. It is essential that the interpretation of prehistoric peoples and their lifestyles be accompanied by a strong statement about the legal and ethical need for preserving the prehistoric remains (potsherds) found within the park.
- Recreational Area Interpretive Kiosks (Phase II) – To increase awareness of the Park’s historical resources among recreational visitors, interpretive kiosks with exhibit panels on the history of the Fort Lowell Park will be sited near high-traffic recreational facilities including baseball and soccer fields and the swimming pool. Exhibits featuring aspects of recreation and children’s lifestyles during historic eras will be especially relevant to this audience.
- Fort Lowell Museum - Officer’s Quarters 5 (Phase I) – Dependent upon intergovernmental agreements and decisions on staffing and operating funds, the existing museum building and exhibits on the history of Fort Lowell should be maintained for public enjoyment and education until new interpretive facilities are completed. Based on the attendance record over the previous decade, it is recommended that the facility should be free to the public, or with a minimal admission

fee of no more than \$1.00/adult and \$.50/child.

- New Museum and Visitors’ Center (Phase III) - A new museum and visitor’s center located adjacent to the historic Fort Lowell buildings near the center of the park will present the most complete story of the history of the prehistoric occupation, Fort Lowell, and later residents of the Fort and the surrounding neighborhood. Multimedia presentations and museum exhibits will draw on the extensive collections of the Arizona Historical Society and the Arizona State Museum to present the multi-cultural history of the area.

#### Interpretive Techniques

*Museum exhibits* – The Arizona Historical Society and Arizona State Museum have world-class artifactual, archival and photographic collections related to Fort Lowell, the frontier U.S. Army and the Apache peoples of eastern Arizona. Fort Lowell Historic Park requires and deserves a modern museum facility that meets the technical exhibition requirements for conservation and security necessary for these historic and cultural treasures.

The complex story of Fort Lowell and its role in the conquest of the western American frontier will require considerable exhibition space for adequate coverage of these topics. A comprehensive and significant exhibition will establish Fort Lowell as a unique facility within the network of historic military posts and museums in the Southwest.

While the existing Fort Lowell Museum can not meet the potential of a new facility, it should be maintained as a public educational resource during Phase I and II.

*Interpretive Kiosks* – The dispersed locations of the Fort ruins, the natural area, and prehistoric resources present a challenging context for interpretation. Highly visible kiosks will be useful in leading the visitor through the park, focusing visitor attention on themes and information, and identifying and

locating relevant resources. The kiosks can serve as starting points for interpretive trails as well as interpretive landmarks to assist in way-finding throughout the park landscape.

*Living History* – At historic parks throughout the country, “living history” programming has proven to be extremely effective in:

- stimulating visitor interest;
- promoting understanding of the commonality of the human experience across cultures and time periods;
- explaining complex topics of technology and political history;
- attracting visitors to participate in an interactive interpretive process.
- At Fort Lowell, interpreters from the local community might produce programs including:
  - troop drills and weapon demonstrations
  - discussions and demonstrations of daily life in the frontier cavalry
  - mounted and dismounted demonstrations of cavalry procedures and tactics
  - 19th-century military medical practices
  - daily life for military families
  - performances of post band and baseball teams

Living history performances will provide an excellent opportunity to attract visitors from the recreational areas of the park.

*Walking tours/interpretive trails* – Interpreted tours of the park’s historic buildings, ruins, archaeological resources and natural areas will stimulate the visitor to explore the park and its history. Tours should provide information through a variety of media that can meet the needs of visitors with varying visitation styles:

- interpretive signage at each historic resource that will serve the “casual recreational” visitor;
- brochures with sequential tour stops for the “drop-in” visitor;
- downloaded podcasts for the “advance planning” visitor;

- web-based tour info for the “plugged-in” visitor with 3G cell-phone or laptop capability.

*Recreational Area Interpretive Kiosks* – Kiosks, located in prominent areas near baseball and soccer fields and the swimming facilities, will be designed to stimulate interest in recreational park users about the history of the Fort Lowell Historic Park. Exhibits should feature themes of special relevance to recreational users and children (e.g., children’s play in the 1890s; Fort Lowell baseball team, ca. 1890). Artifacts from the various historic periods can be used to stimulate curiosity and questions, leading the visitor to find answers in the historic areas of the park.

*Educational programs* – Educational programming will be the key to developing a local audience that will visit the historic fort on a regular basis. Historic park staff can coordinate and develop educational programs on a broad range of topics including military history lectures by local scholars, period musical performances, displays by American Indian artists, adobe classes for kids, Boy Scout merit badge sessions on archaeology, and birding tours.

Professional park staff has great potential to draw on volunteers and scholars from the surrounding community to produce programming. A regular volunteer corps of docents and demonstrators will be essential to the success of the program, with regular weekend programming the highest priority. Organizational partners, such as the Tucson Audubon Society or the Tucson Watercolor Guild, can be a tremendous asset by locating existing programming at Park facilities.

#### Curation of Fort Lowell Artifacts

Consistent with state law and archaeological permitting requirements, all archaeological artifacts, records and materials collected or produced as part of the Fort Lowell Master Plan project will be curated at the Arizona State Museum, University of Arizona, Tucson, AZ under repository Contract #2007-0361. For information regarding this collection, contact

Arthur Vokes, 626-9109.

Arizona State Museum is the largest repository in the state for archaeological materials and currently curates collections from state, federal, tribal and private lands. It holds archaeological collections from Fort Lowell from all previous professional excavations dating back to the 1960s.

The Arizona Historical Society holds a relatively small number of archaeological materials collected at Fort Lowell by amateur archaeologists in the 1960s or earlier. It also has extensive collections of historical artifacts related to the frontier U.S. military as well as Chiricahua Apaches.

The collections at these two local museums represent a “world class” resource for public interpretation of the history and heritage of Fort Lowell Park. The combined collections of historical documents and military artifacts at the Arizona Historical Society, along with the Arizona State Museum’s collection of fort-era archaeological materials, prehistoric Hohokam artifacts and ethnographic Apache objects, are probably unrivaled in any museum in the country.

## Tribal Consultation ( John Welch, PhD, RPA)

Report on Tribal Consultation Regarding the Fort Lowell Master Plan

Submitted to Poster Frost Associates, Pima County Cultural Resources and Historic Preservation Office, Tucson Department of Urban Planning, and the Fort Lowell Master Plan Advisory Group  
John R Welch, September 25, 2009

### PROJECT INTRODUCTION AND SUMMARY

In a rare instance of local government engagement of potentially interested American Indian tribes in a planning effort, Pima County and the City of Tucson is consulting with 11 federally recognized tribes in the creation of the Fort Lowell Master Plan. The primary consultant, Poster Frost Associates, engaged John R Welch to facilitate the consultations and encourage the participation of tribal representatives in the planning process. Communications began informally in 2008. Consultation was officially initiated with government-to-government letters in February 2009, and will continue indefinitely, dependent on tribal interests. Although tribal representatives have yet to offer substantive recommendations concerning specific aspects of Fort Lowell planning, interpretation, and redevelopment, several useful and important responses have been provided. The initial findings from the tribal consultations include:

- Tribal representatives care about Fort Lowell: Historical and affective associations with Fort Lowell and environs persist among O'odham and Apache individuals and groups.
- Respectful attention to the diversity of people and perspectives relating to Fort Lowell's history should guide all redevelopment efforts.
- O'odham gathered food, farmed, and hunted around Fort Lowell, and redevelopment should include steps to ensure that ancient fields, homes, and human remains are not further disturbed.
- Western Apaches gathered food and hunted around Fort Lowell: Ties to the region should be recognized in the interpretive program.
- Chiricahua history is not just about conflict:

References to Chiricahua heritage should recognize that Fort Lowell affected Native American families, not just warriors.

- All of the tribes consulted should continue to receive information about the Master Plan and invitations to participate in planning processes, particularly in the development of interpretive programming.

### CONSULTATION PROCESSES AND METHODS: WHAT WAS DONE?

The project involved Welch making contacts with tribal and local government representatives to support planning (Step 1) and consulting (Step 2) goals. Table 1 lists the contacts made, and the subsequent section discusses the context and rationale for the methods employed.

#### Step 1. Planning

Beginning in May 2008, Welch participated in goal-setting meetings with city and county representatives as well as Poster-Frost associates. Welch then drafted a government-to-government consultation letter, which was revised and endorsed by city and county staff. Chuck Huckleberry and Mike Hein then co-signed and distributed the letter in late February 2009 to 25 elected and appointed representatives of nine tribes: one in Oklahoma (Ft Sill), one in New Mexico (Mescalero), and seven in Arizona (Tohono O'odham, Gila River, Salt River, Ak-Chin, San Carlos, White Mountain, Camp Verde, Pascua Yaqui). The letter summarizes the Master Plan and tribal consultation goals, stating, "Our purpose in inviting you to consult with us is to enlist your assistance in creating a Fort Lowell Park that respectfully represents diverse perspectives on regional history.... We want to create a place of pride for Southern Arizona and the greater Tucson community, one that honors all those who care about and share in Fort Lowell's history and legacy." The letter goes on to propose terms of engagement and invite comments and guidance. A copy of the letter and its attachments is appended to the end of this report.

## Tribal Consultation

<b>Tribe</b>	<b>Contact Persons</b>	<b>Contact Types and Dates</b>
Ak-Chin Indian Community, AZ	Delia Carlyle, Chair; Caroline Antone, Cultural Resources Director	Letter 2/17/09; Vmail 3/10/09; A Gorski, L Mayro, J Mabry, S Herbert, L Neff meet with four southern Tribes 5/19/09;
Fort Sill Apache Tribe, OK	Jeff Houser, Chair; Michael Darrow, Historian	Letter 2/17/09; Vmail 3/10, 3/24; teleconf & Email additional information for Darrow 3/25; Vmail 4/9; meet on site 4/8; teleconfs 7/08/09, 9/16/09, 9/23/09
Gila River Indian Community, AZ	William Rhodes, Governor; Barnaby Lewis, CRM Program Manager	Letter 2/17/09; Vmail 3/10/09; A Gorski, L Mayro, J Mabry, S Herbert, L Neff meet with four southern Tribes 5/19/09
Mescalero Apache Tribe, NM	Carleton Naiche-Palmer, President; Holly Houghten, Tribal Historic Preservation Officer	Letter 2/17/09; Vmail 3/10/09; Email 3/13; teleconf with Houghten 3/27; Email & Vmail to Houghten 4/8/09
Pascua Yaqui Tribe, AZ	Peter Yucupicio, Chair; Amalia Reyes, Language Development Coordinator	Letter 2/17/09; Vmail 3/10/09; teleconf with Reyes 3/24; Vmail for Yucupicio 3/24
Salt River Pima-Maricopa Indian Community, AZ	Diane Enos, President; Dezbah Hatathli, Acting Cultural Resource Programs Supervisor; Shane Antone, Cultural Resource Prog. Supervisor	Letter 2/17/09; Vmail 3/10 & 3/13/09; A Gorski, L Mayro, J Mabry, S Herbert, L Neff meet with four southern Tribes 5/19/09
San Carlos Apache Tribe, AZ	Wendsler Nosie, Chairman; Vernelda Grant, Historic Pres. and Archaeology Program Director; Seth Pilsk, Forester; Doris Gilbert, Cultural Committee Member	J Welch meet with Western Apache Tribes 5/13/08; Letter 2/17/09; Vmail 3/10/09; Email 3/13/09; teleconf & Email of additional materials 4/9/09; teleconfs with Pilsk 8/27/09, 9/23/09
Tohono O'odham Nation, AZ	Ned Norris, Jr., Chair; Frances Conde, Cultural Committee Chairperson; Joe Joaquin; Peter Steere, Cultural Affairs Program Manager	Letter 2/17/09; Vmail 3/10/09; A Gorski, L Mayro, J Mabry, S Herbert, L Neff meet with four southern Tribes 5/19/09; S Herbert and R Anyon meet 8/19/09; teleconfs or Emails with Steere 3/12, 3/26, 4/2; Vmail & Email 7/2/09
Tonto Apache Tribe, AZ	Ivan Smith, Chair; Vincent Randall, Historian	J Welch meet with Western Apache Tribes 5/13/08; Letter 2/17/09; Vmail 3/10/09; teleconf with Randall 4/9/09; meet with Randall in Tempe 4/17
White Mountain Apache Tribe, AZ	Ronnie Lupe, Chair; Ramon Riley, Cultural Resources Director; Mark Altaha, Tribal Historic Pres. Officer; Levi Dehose, Cultural Committee Member	J Welch meet with Western Apache Tribes 5/13/08; Letter 2/17/09; Vmail 3/10/09; Email from Altaha 3/11/09; meet with Altaha and Riley 5/16/09
Yavapai-Apache Nation, AZ	Jamie Fulmer, Chair; David Quail, Vice-Chair; Chris Coder, Apache Cultural Program	J Welch meet with Western Apache Tribes 5/13/08; Letter 2/17/09; Vmail 3/10/09; meet with Coder in Tempe 4/17/09

Table 1: Summary of communication with tribal representatives.

## Tribal Consultation

Between December 2008 and May 2009, Welch participated in several on-site meetings, tours, and events. Additional planning will continue in response to interests and concerns presented by tribal representatives and other participants in Master Plan processes.

### Step 2. Consulting

Beginning about three weeks after the distribution of the consultation letter, Welch initiated follow-up telephone calls and electronic mail communications to assess tribal interests, obtain comments and guidance, and share information. Table 1 lists relevant communications, providing a record of project consultation efforts, May 2008 through August, 2009.

Early stage consultations with representatives of the Tohono O’odham Nation, Salt River Pima -Maricopa Indian Community, Gila River Indian Community, and Ak-Chin Indian Community culminated in a May 19, 2009 meeting on the Tohono O’odham Reservation. Drew Gorski presented a summary of the Master Plan process and goals. Linda Mayro, Jonathan Mabry, Simon Herbert, and Loy Neff participated in the gathering, and Simon Herbert and Roger Anyon conducted a follow-up briefing for representatives of the Tohono O’Odham Nation at an August 18 meeting focused on Pima County projects.

Although initial plans for Welch’s participation in the All-Apache Summit were thwarted when the Summit was cancelled, consultations with representatives of all six of the Apache tribes proceeded. These culminated in personal communications between Welch and at least one representative of each of the six Apache tribes. Michael Darrow, the Fort Sill Apache Tribe Historian, attended the April 8, 2009 Fort Lowell Resource Advisory Council (RAC) meeting and will respond in writing in the near future to Welch’s notes on statements offered that evening. The San Carlos Apache Tribe’s Elders Cultural Advisory Council will consider at a future

date the connections between Apache and Fort Lowell history, offering statements at that time.

Welch provided an informal interim report on the consultation process at the April 8 RAC meeting and prepared a set of “talking points” for presentation by Drew Gorski to the RAC at the May 13 meeting. The consistent respect and support for the tribal consultation effort by all parties bears mention here as an important foundation for future engagement of tribal representatives in planning and interpretive programming activities.

### CONSULTATION RESULTS

1. Representatives of the White Mountain, Fort Sill, Tonto, Camp Verde, and Tohono O’odham tribes indicated that their lands, food gathering areas, and histories were significantly affected by and through Fort Lowell.
2. Representatives of the Four Southern Tribes all supported protection and preservation of the remains of their ancestors’ homes, fields, and other activity areas.
3. All of the tribal representatives were respectful and reserved in responding to the consultation invitation. None of the representatives has provided momentous feedback or recommendations. None objected to taking better care of Fort Lowell or to seeking new and improved means for telling stories about manifold historical and cultural developments linked to Fort Lowell. The general tone of the responses seems to reflect a perceived distance between Fort Lowell and the representatives’ more urgent and compelling interests and concerns.
4. More specifically, at least six varied and overlapping factors help in understanding the limited feedback from tribal representatives to date, and in planning follow-up contacts:
  - a. Novelty: The consulting tribes are not familiar with a city/county-based consultation process or with some of the individuals and organizations involved.
  - b. Disassociation: Fort Lowell history is

## Tribal Consultation

more clearly linked to the Tucson vicinity than to one particular tribe or American Indian nation. Out of mutual respect, many tribal representatives defer to those having established interests in specific sites or issues.

c. **Prioritization:** Representatives are addressing pressing issues requiring short time frame actions and responses (for example, the Mexican border issues confronting Tohono O’odham and repatriation disputes involving the Western Apache Tribes).

d. **Capacity:** Tribes have limited human and organizational resources available to engage substantively in all invited consultations.

e. **Impact:** At least some tribal representatives indicated their sense that the Fort Lowell Master Plan process was well underway and their input was unlikely to have meaningful influence on the process or its results.

f. **Principle of non-interference:** Some tribal representatives hesitate to assume responsibility for any part of a complex, ongoing effort largely beyond their control. To some, participation in any aspect of another party’s endeavor may be amoral and may oblige them to share in the costs or consequences of the endeavor.

5. All of the tribal representatives we contacted expressed interest in participating in follow-up consultations about the Fort Lowell redevelopment effort. None of the consultants has thus far expressed interest in specific aspects of military history. All appear to be more interested in relationships among changing landscapes, Native and non-Native peoples, and plants and animals than in the themes of conquest and resistance promoted by Hollywood treatments.
6. The “experiment” undertaken in conjunction with the initial consultation invitation letter,

whereby we solicited feedback through the inclusion of a one-page “Fax Back” form, failed to provoke any responses. In fact, none of the tribes consulted responded without follow-up contacts. The most productive means for obtaining consultative feedback was through personal meetings or successive and persistent telephone contacts and conferences.

7. The proposed monumental bronze statue of a Chiricahua warrior has not emerged so far as a “lightening rod.” Neither the Western Apache nor the Four Southern tribes have evinced major interests in the proposal thus far. Fort Sill Apache Tribe representatives are uniquely qualified to offer comments on the proposal, and their views are likely to receive support from the other tribal representatives.

### *DISCUSSION AND RECOMMENDATIONS:*

#### *ENHANCING PARTICIPATION IN CONSULTATIONS*

This is one of the few examples, anywhere, of city and county governments taking it upon themselves to reach out to tribes in the absence of a compelling legal mandate to do so. All parties to the Master Plan process have consistently recognized and encouraged the prospective benefits from seeking and considering the views of American Indians as part of Master Plan. Although funding remains limited, resources are sufficient to provide for additional consultations, including support for travel by tribal representatives to Fort Lowell.

That said, there appears to be no clear path or simple set of steps to be taken to boost the level of interest or engagement. Of the six factors that have constrained consultations thus far, the only one that can be substantially adjusted by the Master Plan team is (e), the sense that the consultation is being undertaken after the fact. This issue can and should be addressed through consistent and constructive follow-up communications and invitations to participate.

## Tribal Consultation

### **Specific Recommendations:**

1. As always, the planning team should remain open to candid communications from tribal representatives, and approach such communications as unique learning opportunities.
2. Follow-up engagement should place particular emphasis on interpretive planning and programming. If possible, this engagement should take place at Fort Lowell.
3. Any plans for participation by senior city and county officials in planning activities should include invitations for parallel participation by tribal officials.
4. Plans and prospects for the Chiricahua warrior statue should be carefully monitored and new information shared with the tribal representatives. It may be useful for Welch to reach out to the sculptor or other parties to share information about the forthcoming response from Fort Sill Apache Tribe representatives

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# Business Plan for Fort Lowell Park Master Plan: Marketing Analysis and Operating Plan

Contributed by ConsultEcon

Previous Page:

**Figure 187:** (Top) Fort Lowell Soccer Shoot-Out Opening Night.

**Figure 188:** (Left) Fort Lowell Museum.

**Figure 189:** (Right) Fort Lowell Pool.

# Business Plan for Fort Lowell Park Master Plan: Marketing Analysis and Operating Plan

The following describes the operating parameters for Fort Lowell Park as envisioned in the Fort Lowell Park Master Plan developed by the consultant team led by Poster Frost Associates and the Advisory Committee. The analysis evaluates the economic potential of various elements of the Fort Lowell Park Master Plan. A detailed budget for the entire park operation is included. Operating assumptions used in the analysis are based on the recent operating experience of the City of Tucson Parks and Recreation Department, the market analysis for the project, the planned project size and master plan

description, and additional research on operating factors that would be associated with various park components.

The purpose of this business plan is to provide information for the planning and development process. As project planning moves forward (including more specific building and interpretive programs) the project timing, operations, and financial plans may need to be refined.

## Overall Master Plan Improvements

The Fort Lowell Park Master Plan includes recommendations for capital improvements to park landscape, structures and buildings. Planned improvements focus largely on reconfiguring and enhancing existing recreational assets and stabilizing and interpreting historic structures and other features to create more identifiable and cohesive heritage interpretation throughout the park. In addition to heritage interpretation and extensive recreational offerings, the Master Plan includes a new community facility in the Donaldson-Hardy House and a proposed environmental education center in the existing maintenance building.

The parcels *west* of Craycroft Road are planned to focus on historic interpretation with preservation and reconstruction of historic fort structures. The Adkins parcel will include a self-guided exhibit space that will orient visitors entering the park from the west. Historic interpretation *east* of Craycroft Road is intended to give one the sense of the historic fort layout by continuing Cottonwood Lane through Craycroft Road and creating interpretive “ghosting” of historic structures (some of which are designed as functional ramadas) in their original location.

The existing Fort Lowell Museum will remain in its current location during initial master plan phases, but will ultimately be relocated into a proposed new building near the swimming complex and the pond. The central portion of the site, east of Craycroft, is primarily for recreational activities. The easternmost

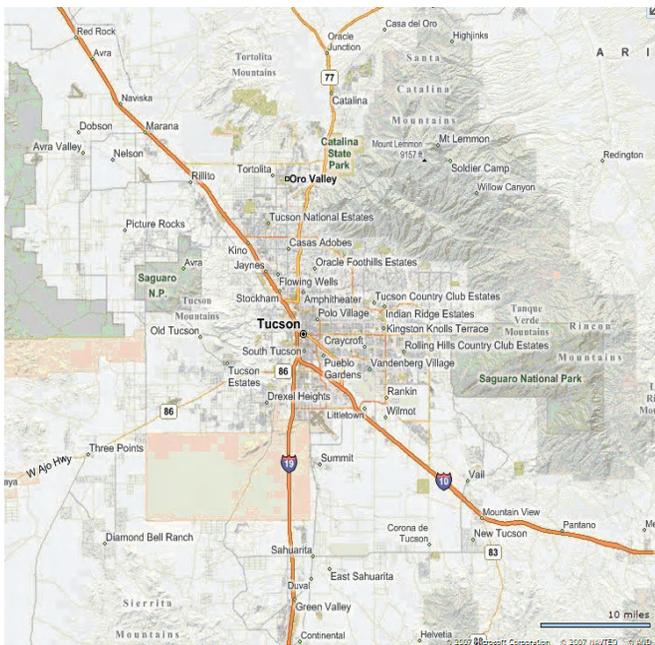


Figure 190: Map of Tucson Metropolitan Area.

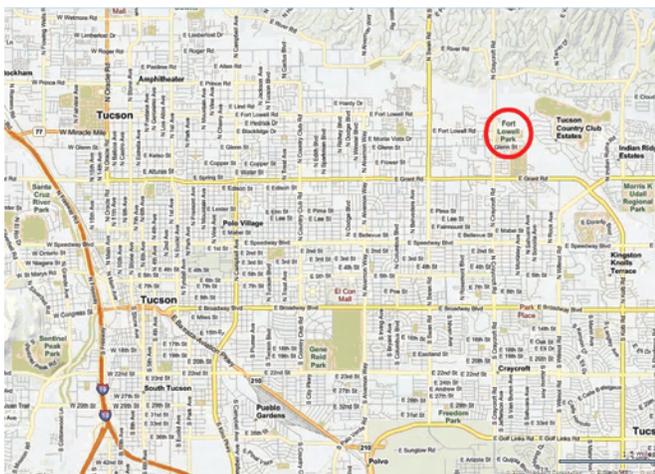


Figure 191: Map of Location of Fort Lowell Park.

# Business Plan for Fort Lowell Park Master Plan: Marketing Analysis and Operating Plan

Table 2

Phase Treatments and Building Area for Fort Lowell Park Master Plan Program Components

Map Location	Program Components	Current Use	Phase Treatment			Building Area (Gross Square Feet)			
			Phase 1	Phase 2	Phase 3	Current	Phase 1	Phase 2	Phase 3
A	Officers Quarters #1	Ruins	Preserve ruins			0	0	0	0
B	Officers Quarters #2	Ruins	Preserve ruins / protective roof			0	0	0	0
C	Officers Quarters #3	Vacant	Restoration to 1880s. No exhibits. Docent tours only			0	2,550	2,550	2,550
D	Fort Lowell Museum (Officer's Quarters #5)	2 buildings	Remains			2,116	2,116	2,116	2,116
D	Officer's Quarters 6 and 7	None		Ramada		0	0	0	0
E	Hospital	Preserved ruins	Preserve ruins			0	0	0	0
G	Restrooms / Storage	None		Reconstruct		0	0	2,300	2,300
I	Donaldson House	Vacant		Community Space		0	0	3,000	3,000
J	Community Garden	None		Construct		0	0	0	0
K	Cavalry Corral	Ruins	Preserve ruins			0	0	0	0
L	Commissary Building	Apartments	Same			5,405	5,405	5,405	5,405
M	Adjutant's Building Exhibit Pavilion	None		Reconstruct for self-guided exhibits		0	0	3,200	3,200
O	Adkins Residence	Vacant		Footprint only		0	0	0	0
P	Adkins Steel Fabrication Shed	Vacant		Columns only		0	0	0	0
V	Maintenance Facility	Park maintenance		Environmental Education Center		3,025	3,025	3,025	3,025
X	Hohokam Site	Existing		Enhance and add new area W		0	0	0	0
Z	Play Area	1 near existing baseball fields		Move existing and add new		0	0	0	0
AA	New Museum near pond	None		New Construction		0	0	0	6,000
FF	Tennis	8 courts, building		None		850	850	850	850
HH	Pecan Orchard	Existing		Enhance / Integrate play area		0	0	0	0
	Cavalry Band	Ruins	Preserve ruins	Historic outline		0	0	0	0
	Infantry Kitchen	Ruins	Preserve ruins	Historic Outline		0	0	0	0
	Infantry Quarters	Ruins	Preserve ruins	Historic Outline		0	0	0	0
	Soccer	5 fields		3 year round. Two seasonal		0	0	0	0
	Football	10 fields		Two year round		0	0	0	0
	Baseball	6 fields		5 fields and space for tee ball		0	0	0	0
	Softball	1 field		Removed		0	0	0	0
	Racquetball	4 courts		Removed		0	0	0	0
	Swimming	1 pool		Add new bathhouse		3,300	3,300	7,000	7,000
	Ramadas	7 ramadas		16		0	0	0	0
	Fitness Trail/Areas	Existing		Expanded		0	0	0	0
	Splash Park/Tot Lot	None		New		0	0	0	0
	Adobe Residence	Ruins	Remove			0	0	0	0
	Pond	Existing		Enhance		0	0	0	0
	Canal (existing drainage area)	Existing		Enhance		0	0	0	0
	New Maintenance Area	None		New		0	0	0	0
	Ak-Chin Prehistoric Farming	None		Part of V and W		0	0	0	0
<b>Grand Total</b>						<b>14,696</b>	<b>17,246</b>	<b>29,446</b>	<b>35,446</b>
<b>Difference from Current</b>							<b>2,550</b>	<b>14,750</b>	<b>20,750</b>
<b>Percent Difference from Current</b>							<b>17%</b>	<b>100%</b>	<b>141%</b>

Source: Poster Frost Associates and ConsultEcon, Inc.

## Business Plan for Fort Lowell Park Master Plan: Marketing Analysis and Operating Plan

side of the park is intended to remain a natural area with cultural heritage interpretation giving way to ecological and environmental themes.

### Project Phasing

Under the Fort Lowell Park master plan, the park would be redeveloped in three phases. Following is a description of project phases, including their estimated timeline for completion.

- **Phase 1** – The first phase of development uses existing funds to stabilize and rehabilitate structures located on the newly acquired Adkins Parcel west of Craycroft Road. The public would be offered limited public access to Officer’s Quarters #3. The estimated cost of this work is \$1.2 million and it would be scheduled for completion in mid-2011.
- **Phase 2** – The second phase of development includes other structural and landscape improvements proposed as a part of the master plan. (It does not include the development of a new museum building by the pond.) The capital budget is contingent upon the amount available in the next bond cycle, but the preliminary estimated amount is \$5 million for work completed by mid-2014.
- **Phase 3** – The third and final phase of the master plan improvements entail the construction of the remaining plan elements, including a new museum building located adjacent to the swimming complex and pond. For the purposes of the budget analysis presented subsequently, this phase is assumed to start construction in mid-2017 and open in mid-2018.

Data in **Table 2** show the detailed components of the preferred master plan and an estimate of gross building areas for various components.

### Organization of Current Operations

Fort Lowell Park is owned and operated by the City of Tucson’s Parks and Recreation Department through its East District Administrative Unit. This unit maintains the park grounds and provides basic

building maintenance. The Parks and Recreation Department has an Aquatics unit that manages all city swimming pools, including the year-round swimming pool located at Fort Lowell Park. The tennis center on-site is operated by a private contractor. The Fort Lowell Museum is operated by the Arizona Historical Society, a state agency with a number of museum units across Arizona.

### Impact of Master Plan on Current and Future Park Management

The improvements proposed as a part of the Master Plan will have a relatively modest impact on the overall park maintenance and operation budget because they focus primarily on enhancing existing facilities, preserving historic resources, and introducing new landscape elements. Data in **Table 3** present an evaluation of master plan components identified in Table 2, including the operational impact, revenue opportunities, lead entity, partners and additional commentary as appropriate.

The City of Tucson Parks and Recreation Department will continue to manage the park grounds and provide building and landscape maintenance services. The park will contain enhanced recreational amenities, which will increase costs associated with ongoing maintenance due to increased levels of park utilization and new facilities such as a swimming bathhouse, ramadas, community building (Donaldson-Hardy), environmental education center, museum and bathroom facilities.

Partners have been and will continue to be an important part of the overall operation of Fort Lowell Park that contributes to its unique cultural and recreational nature. Moreover, partners will help implement various components of the master plan. The Arizona Historical Society will be a lead agency in developing the plan and garnering support for a new museum on site. The Parks and Recreation Department is assumed to have a more active role in offering heritage programming throughout the park and at the new museum. The

## Impact of Master Plan on Current and Future Park Management

Tucson Audubon Society, a new partner, has expressed interest in collaborating with the Parks and Recreation Department to offer programming in environmental education as well as assist with the environmental restoration and conservation of water resources on the site. As proposed in the master plan, these components are in a preliminary stage of planning and the Parks and Recreation Department will need to work with partners to develop plans for both their construction as well as their ongoing operation that are mutually supportive. Detailed building programs and operating plans for the museum, and environmental education center will need to be developed as master plan implementation proceeds.

### Operating Model and Assumptions

The Parks and Recreation Department budget is segmented by functional unit rather than by geography. In other words, each park does not have a separate park budget. The East Side District administration oversees park maintenance and operations for 46 parks, 4 community centers, recreational programs, and KidCo and Teem activity programs. Future Fort Lowell Park budgets will be incorporated into the East Side District's budgeting in the short-term; and could later be incorporated into the budget of a newly created cultural heritage unit of the Parks and Recreation Department. A cultural heritage unit of the Parks and Recreation Department would manage other cultural heritage venues owned and operated by the City of Tucson, such as El Presidio and Tucson Origins Heritage Park under development at Rio Nuevo. A consolidation of cultural heritage venues would enable closer management of sites that require specialized staff to operate, including staff in education, exhibits, visitor services, marketing and development.

The operating revenues and expenses presented in this analysis are aligned with the Parks and Recreation Department budget categories, but exclude expense estimates for Aquatics, Commissary Residences, and Fort Lowell Tennis Center (though earned revenues

from these units are evaluated for comparison with other streams of earned revenue).

### Note about Economic Conditions and City Budgets

Like many City of Tucson departments, the Parks and Recreation Department's budget has declined over the past 2 years due to the City's declining revenues during the economic recession. Between FY2008 and FY2010, the East Side District budget has decreased 10 percent. Budget constraints have directly affected operations at Fort Lowell Park. Operating hours for the swimming pool and the Fort Lowell Museum have been reduced. Budget constraints may continue in the short-term, but the operating analysis presented here assumes a "return to normalcy", which would reflect regular operating hours and sufficient staffing levels to maintain and expand programming onsite, especially for proposed heritage programming warranted by new capital improvements to Fort Lowell Park, the new environmental education center, and proposed new heritage museum.

Data in **Table 4** present operating assumptions based on the Fort Lowell Park Master Plan, recent park operating experience and budgets.

In addition to data presented in Table 4, this analysis is qualified by the following assumptions:

- Year 1 in this analysis is the fiscal year ending June 30, 2012. Phase 2 is assumed to begin in year 3 in the fiscal year ending June 30, 2015. The new museum proposed in Phase 3 would be completed in year 8 of this analysis. Actual construction and completion is dependent upon adequate future funding.
- The size and design of Fort Lowell Park will serve to create a high quality, stimulating attraction with broad-based audience appeal and a distinctive image. Fort Lowell Park will be a unique attraction locally and in the region. The entrances to the site will be highly visible and well signed. Additional land on the site will be

# Impact of Master Plan on Current and Future Park Management

Table 3  
Evaluation of Operating Potential for Fort Lowell Park Master Plan Program Components.

Map Location	Program Components	Current Use	Phase Treatment			Operational Impact	Revenue Opportunities	Lead Entity	Partners	Notes
			Phase 1	Phase 2	Phase 3					
A	Officers Quarters #1	Ruins	Preserve ruins / Add Ghosting			Ongoing preservation and maintenance		Parks and Recreation		
B	Officers Quarters #2	Ruins	Preserve ruins / Add Ghosting			Ongoing preservation and maintenance		Parks and Recreation		Add protective Roof
C	Officers Quarters #3	Vacant	Restoration to 1880s			Ongoing preservation and maintenance. Periodic interior access with docent tours of grounds during special events, weekends.	Possible donations related to tours/events.	Parks and Recreation	Arizona Historical Society, Old Fort Lowell Neighborhood Association	No exhibits. Docent tours only
P	Fort Lowell Museum (Officer's Quarters #5)	2 buildings				Ongoing maintenance. Utilities.	Admission fees	Arizona Historical Society	Parks and Recreation	Use TBD with construction of new Museum.
D	Officer's Quarters 6 and 7	None		Ramada		Ongoing maintenance	User fees	Parks and Recreation	Arizona Historical Society	
L	Commissary Building	Apartments	Apartments	Gift shop / gallery / caretaker		Requires management and leasing of space.	Rents	Parks and Recreation	Private management company	Reduction in number of occupied residences over time. Potential use as gift shop/gallery.
E	Hospital	Preserved ruins	Preserve ruins	Add Ghosting		Ongoing preservation and maintenance		Parks and Recreation		
G	Restrooms / Storage	None		Reconstruct		Ongoing maintenance		Parks and Recreation		
I	Donaldson House	Vacant		Community Space		Ongoing maintenance. Room and space scheduling. Providing building access to users on an irregular basis. Regular and post-event cleaning.	Possible user fees	Parks and Recreation	Old Fort Lowell Neighborhood Association, other community groups	
J	Community Garden	None		Construct		Water provision	Possible user fees	Parks and Recreation	Community Gardens of Tucson, Tucson Organic Gardeners, Sustainable Tucson, Old Fort Lowell Neighborhood Association	
K	Cavalry Corral	Ruins	Preserve ruins			Ongoing preservation and maintenance		Parks and Recreation		Remove protective roof
M	Adjutant's Building Exhibit Pavilion	None		Reconstruct for self-guided exhibits		Ongoing preservation and maintenance		Parks and Recreation	Arizona Historical Society, Old Fort Lowell Neighborhood Association	
O	Adkins Residence	Vacant	Stabilize	Review Plan to Determine long-term feasibility						
	Adkins Steel Fabrication Shed	Vacant	Remove?							
V	Maintenance Facility	Park maintenance		Environmental Education Center		Ongoing maintenance. Utilities.		Parks and Recreation	Tucson Audubon Society	Includes covered area at north end, 2015 SF without covered area
X	Hobokam Site	Existing		Enhance and add new area W		Ongoing preservation and maintenance		Parks and Recreation	Arizona Historical Society	
Y	Play Areas	1 near existing baseball fields		Move existing and add new		Ongoing maintenance		Parks and Recreation		New area near pecan grove. Relocate existing near fitness area
AA	New Museum near pond	None		New Construction		Expanded museum operation with potential for food service and gift shop.	Admission fees, food service	Arizona Historical Society	Parks and Recreation	
FF	Tennis	8 courts, building		Improved fencing, lighting, seating		Ongoing maintenance.	Court fees and lessons	Parks and Recreation	Existing private operator	
HH	Pecan Orchard	Existing		Enhance / Integrate play area		Ongoing maintenance.		Parks and Recreation		
H	Cavalry Company	Ruins	Preserve ruins	Historic outline / Ramada		Ongoing preservation and maintenance		Parks and Recreation		
F	Infantry Quarters and Kitchens	Ruins	Preserve ruins	Historic Outline		Ongoing preservation and maintenance		Parks and Recreation		
DD/EE	Soccer	5 fields		3 year round. Two seasonal		Ongoing maintenance.	User fees	Parks and Recreation		includes parade ground, two multi-use and over-seeding baseball in mid October to create two fields
DD	Football	10 fields		Two year round		Ongoing maintenance.	User fees	Parks and Recreation		new year round multi-use fields
CC/EE	Baseball	6 fields		5 fields and space for tee ball		Ongoing maintenance.	User fees	Parks and Recreation		baseball field at corner of Craycroft and Glenn to be vastly improved.
	Softball	1 field		Removed						
	Racquetball	4 courts		Removed						
	Swimming	1 pool		Add new bathhouse		Ongoing maintenance. Utilities.	User fees	Parks and Recreation		
	Ramadas	7 ramadas		13 ramadas		Ongoing maintenance.	User fees	Parks and Recreation		3 existing to remain, 3 new near fitness, 10 new at ghosted officer's quarters and building H
Z	Fitness Trail/Areas	Existing		Expanded		Ongoing maintenance.		Parks and Recreation		New fitness areas for children, adults, seniors and new 1 mile multi-use loop through park
	Splash Park/Tot Lot	None		New		Ongoing maintenance. Utilities.		Parks and Recreation		combine with children's fitness / play area
	Adobe Residence	Ruins	Remove							
	Pond	Existing		Enhance		Ongoing maintenance.		Parks and Recreation		
	Canal (existing drainage area)	Existing		Enhance		Ongoing maintenance.		Parks and Recreation		
U	New Maintenance Area	None		New		Ongoing maintenance. Utilities.		Parks and Recreation		New maintenance area is combined with the reclaimed water / well site at the Southeast corner of the main parking lot.
	Demonstration Gardens	None		Part of V and W		Part of environmental education center		Parks and Recreation	Tucson Audubon Society, Arizona Historical Society	Showcase local food crops in demonstration garden. Could include Ak-Chin Prehistoric Farming

Source: Poster Frost Associates and ConsultEcon, Inc.

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# Impact of Master Plan on Current and Future Park Management

used in a manner advantageous to the success of the project.

- The facility will be competently and effectively managed. An aggressive promotional campaign will be developed and implemented. This program will be targeted to prime visitor markets. The admission price for the elements of the facility will be consistent with the entertainment and educational value offered, and with current attraction admissions prices for other comparable visitor attractions.
- There will be no physical constraints to impede visitors to Fort Lowell Park, such as major construction activity. Changes in economic conditions such as a major recession or major environmental problems could negatively affect operations and visitation in the future.
- Every reasonable effort has been made in order that the data contained in this study reflect the most accurate and timely information possible and it is believed to be reliable. This study is based on estimates, assumptions and other information developed by ConsultEcon, Inc. from its independent research efforts, general knowledge of the industry, and consultations with the City of Tucson Parks and Recreation Department and Poster Frost Associates. No responsibility is assumed for inaccuracies in reporting by the client, its agents and representatives, or any other data source used in the preparation of this study. No warranty or representation is made that any of the projected values or results contained in this study will actually be achieved. Usually, there will be differences between forecasted or projected results and actual results because events and circumstances usually do not occur as expected. Other factors not considered in the study may influence actual results.
- Possession of this memorandum does not carry with it the right of publication. This memorandum will be presented to third parties in its entirety and no abstracting of the memorandum will be made without first obtaining permission of ConsultEcon, Inc., which consent will not be

	Phase 1	Phase 2	Phase 3
<b>General</b>			
Phase Start Year	2011	2014	2018
Building Area <sup>1/</sup>	11,841	24,041	30,041
Park Acres	70	70	70
Acres of Athletic Turf	12.00	12.00	12.00
Acres of Other Grass/Landscape Requiring Water	13.75	13.75	13.75
Number of Ramadas	7	13	13
Number of Comfort Stations <sup>2/</sup>	5	7	7
Annual Inflation Rate	2.00%		
<b>Fort Lowell Museum</b>			
Museum Attendance	1,500	2,500	10,000
Per Capita Ticket Price <sup>3/</sup>	\$1.00	\$1.00	\$3.60
Net Per Capita Gift Shop			\$1.00
Percent of Gift Shop Outside Sales			10%
<b>Swimming Pool</b>			
Pool Attendance	34,000	40,000	41,000
Per Capita Pool Price <sup>3/</sup>	\$0.20	\$0.20	\$0.20
Number of Year-round Passes	255	300	300
Per Year-round Pass Price <sup>4/</sup>	\$49.89	\$49.89	\$49.89
Number of Summer Passes	567	1,000	1,000
Per Summer Pass Price <sup>4/</sup>	\$23.06	\$23.06	\$23.06
Number of Punch Passes	340	400	400
Per Punch Pass Price <sup>4/</sup>	\$15.03	\$15.03	\$15.03
<b>Snack Bar <sup>5/</sup></b>			
Per Capita Snack Bar Revenue - Pool		\$1.00	\$1.00
Percent of Revenue to Park		20%	20%
Percent of Snack Bar Revenue from Non-Pool Users		25%	25%
<b>Tennis Center <sup>6/</sup></b>			
Estimated Users	13,750	13,750	13,750
Average gross revenue per user	\$5.84	\$5.84	\$5.84
<b>Ramadas</b>			
Number of Ramada Reservations	300	400	400
Per Ramada Price, including beer permits <sup>7/</sup>	\$14.10	\$14.10	\$14.10
<b>Sports Fields <sup>8/</sup></b>			
Number of Fields Reservations	2,100	2,100	2,100
Average Revenue per Reservation	\$3.33	\$3.33	\$3.33

1/ Does not include building area for commissary building, which is assumed to remain residential rental units. Rents are assumed to cover maintenance and operating costs.

2/ Includes restrooms in buildings.

3/ Based on mix of adult, senior/student, and member/free tickets sold. Phase 3 museum will have a higher ticket prices than current museum.

4/ Based on mix of ticket and pass attendance, mix of passes sold, and estimate of average attendance per pass. Ticket categories include Tucson resident and non-resident, adult and youth, and summer and winter. Year-round, summer, and 30-punch passes are available for adults and youth. Year-round and summer passes have a family category.

5/ Snack bar to be included as a part of Phase 2 pool renovations. Snack bar assumed to be accessible to non-pool users.

6/ Based on recent operating experience of tennis center.

7/ Based on mix of whole and half-day reservations to Tucson residents and non-residents. An estimated 25% of reservations include a beer permit.

8/ Based on recent reservations experience of organized sports leagues.

Source: Tucson Parks and Recreation Department, Poster Frost Associates, and ConsultEcon.

**Table 4  
Assumptions for Fort Lowell Park Master Plan (in Current Dollars)**

## Impact of Master Plan on Current and Future Park Management

unreasonably withheld.

- This memorandum may not be used for any purpose other than that for which it was prepared. Neither all nor any part of the contents of this study shall be disseminated to the public through advertising media, news media or any other public means of communication without the prior consent of ConsultEcon, Inc.
- Outputs of computer models used in this memorandum are rounded. These outputs may therefore slightly affect totals and summaries.
- This memorandum was prepared during the period July 2008 through July 2009. It represents

data available at that time.

### Revenue Potential

Fort Lowell Park will derive its revenue for operations from the City of Tucson general fund and from revenues earned onsite through admission and rental fees. Some revenues earned onsite, such as museum admissions, swimming pool and tennis reservations, flow to partners that provide services rather than to the East District of the Parks and Recreation Department. Data in **Table 5** present the earned revenue potential under each Master Plan phase.

<b>Revenue Category</b>	<b>Phase 1</b>	<b>Phase 2</b>	<b>Phase 3</b>
<b>East Side Parks &amp; Recreation Department</b>			
Fort Lowell Museum	\$0	\$0	\$23,500
Net Snack Bar Revenue	\$0	\$10,000	\$10,250
Ramadas	\$4,229	\$5,638	\$5,638
Sports Fields	\$6,993	\$6,993	\$6,993
Commissary Residences <sup>1/</sup>	\$18,763	\$11,418	\$11,418
Other Revenue <sup>2/</sup>	\$561	\$1,132	\$2,319
<b>Total Earned Revenue <sup>3/</sup></b>	<b>\$30,546</b>	<b>\$35,181</b>	<b>\$60,118</b>
<b>Partners</b>			
Fort Lowell Museum	\$1,500	\$2,500	\$23,500
Swimming Pool <sup>4/</sup>	\$37,705	\$52,037	\$52,237
Tennis Center	\$80,300	\$80,300	\$80,300
<b>Total Earned Revenue</b>	<b>\$119,505</b>	<b>\$134,837</b>	<b>\$156,037</b>

1/ Maintain residential occupancy, with natural reduction of occupied apartments to two as designated by site zoning. Net revenue from apartment rentals after management fee and minor repairs. Based on Parks and Recreation Department experience with private management company since 2004.

2/ Estimated at 5% of total revenue from other categories. Includes additional revenue from special events, programs, vendor permits, etc.

3/ East Side Parks & Recreation Department does not include revenue from Museum, Swimming Pool, or Tennis Center because these revenues flow to operating partners. The sole exception is Phase 3 Museum operation, which is assumed to be co-operated by Parks and Recreation staff and Arizona Historical Society and is assumed to have a 50/50 revenue split.

4/ Includes revenue from regular admission and year-round, summer and punch pass programs.

Source: ConsultEcon, Inc.

Table 5  
**Earned Revenue Potential by Master Plan Phase (in Current Dollars)**

# Impact of Master Plan on Current and Future Park Management

## Staff Profiles

Data in **Table 6 to Table 8** show the staff profiles and estimated personnel expenses for the Master Plan Phases. Phases 1 and 2 assume a new heritage program coordinator (half-time in Phase 1) to work with partners, volunteers, coordinate master plan implementation, conduct on-site education programs, plan special events and market the site. In Phase 3, the proposed new museum will require a two full-time program coordinators and additional visitor services and maintenance staff.

## Operating Expenses

Data in **Table 9** present estimated operating expenses for Fort Lowell Park Master Plan Phases 1 to 3 in current dollars. Total estimated operating expenses in Phase 1 are \$328,000. In Phase 2, total operating expenses are an estimated \$513,000. Phase 3 operating expenses are estimated at \$710,000 in current dollars.

## Operating Potential

Fort Lowell Park has the potential to become a successfully repositioned cultural and recreational attraction, with Master Plan improvements and appropriate levels of maintenance and capital and operating funds from the City of Tucson as well as commitment from new and existing partners. Baseline operating expenses are estimated at \$293,000. These are reflective of current actual operations. After estimated current earned revenues of \$31,000, total estimated current annual funding required for Fort Lowell Park is \$262,000.

For Phase 1, total annual funding required increases to \$303,000 in future dollars, a 15 percent increase over the estimated baseline operating expenses. Total annual funding required for Phase 2 is \$518,000 in future dollars, representing a 64 percent increase over Phase 1. Total annual funding required for Phase 3 is \$745,000, representing a 36 percent increase over Phase 2.

<b>Personnel Schedule</b> <sup>1/</sup>	<b>Annual Salaries (FTE)</b>	<b>Number of Full Time Positions</b>	<b>Number of Part Time Positions</b>	<b>Salary Budget</b>
<i>Heritage</i>				
Heritage Program Coordinator	40,321		1	20,160
Heritage Educator/Volunteer Coordinator	40,321			0
Concessions Worker	15,371			0
<i>Maintenance</i>				
Groundskeeper/Custodian	30,802	1	1	46,203
<b>Subtotal Salaries</b>		<b>1</b>	<b>2</b>	<b>\$66,363</b>
<i>Taxes, Insurance and Benefits</i>				
Pension	12.71%	of Salary		\$8,435
FICA	7.65%	of Salary		\$5,077
Industrial Insurance	1.84%	of Salary		\$1,221
Group Insurance	\$7,220	per Employee		\$21,660
Unemployment Insurance	\$25	per Employee		\$75
<b>Subtotal Taxes, Insurance and Benefits</b>				<b>\$36,468</b>
<b>Total Salaries, Taxes, Insurance and Benefits</b>				<b>\$102,831</b>
<b>Total Full-Time Equivalent Employees</b> <sup>3/</sup>		<b>2.00</b>		

NOTE: Does not include costs associates with Aquatics, Tennis Center, Commissary Residences.

<sup>1/</sup> All positions assumed to be civil service employees of City of Tucson. Salaries based on midpoint of salary range for positions in City of Tucson Compensation Plan, available at [http://www.tucsonaz.gov/compensation/comp\\_plan\\_11-02-06.pdf](http://www.tucsonaz.gov/compensation/comp_plan_11-02-06.pdf). Taxes, insurance and benefits from Tucson Parks and Recreation Department.

<sup>2/</sup> Part-time employees at 50% of full-time employees.  
Source: City of Tucson and ConsultEcon, Inc.

**Table 6  
Phase 1 Staff Profile**

## Impact of Master Plan on Current and Future Park Management

Personnel Schedule	Annual Salaries (FTE)	Number of Full Time Positions	Number of Part Time Positions	Salary Budget
<i>Heritage</i>				
Heritage Program Coordinator	40,321	1		40,321
Heritage Educator/Volunteer Coordinator	40,321			0
Concessions Worker	15,371			0
<i>Maintenance</i>				
Groundskeeper/Custodian	30,802	1	2	61,604
<b>Subtotal Salaries</b>		<b>2</b>	<b>2</b>	<b>\$101,925</b>
<i>Taxes, Insurance and Benefits</i>				
Pension	12.71%	of Salary		\$12,955
FICA	7.65%	of Salary		\$7,797
Industrial Insurance	1.84%	of Salary		\$1,875
Group Insurance	\$7,220	per Employee		\$28,880
Unemployment Insurance	\$25	per Employee		\$100
<b>Subtotal Taxes, Insurance and Benefits</b>				<b>\$51,607</b>
<b>Total Salaries, Taxes, Insurance and Benefits</b>				<b>\$153,532</b>
<b>Total Full-Time Equivalent Employees</b>		<b>3.00</b>		

NOTE: Does not include costs associates with Aquatics, Tennis Center, Commissary Residences.

1/ All positions assumed to be civil service employees of City of Tucson. Salaries based on midpoint of salary range for positions in City of Tucson Compensation Plan, available at [http://www.tucsonaz.gov/compensation/comp\\_plan\\_11-02-06.pdf](http://www.tucsonaz.gov/compensation/comp_plan_11-02-06.pdf). Taxes, insurance and benefits from Tucson Parks and Recreation Department.

3/ Part-time employees at 50% of full-time employees.  
Source: City of Tucson and ConsultEcon, Inc.

Table 7  
Phase 2 Staff Profile

Personnel Schedule	Annual Salaries (FTE)	Number of Full Time Positions	Number of Part Time Positions	Salary Budget
<i>Heritage</i>				
Heritage Program Coordinator	40,321	1		40,321
Heritage Educator/Volunteer Coordinator	40,321	1		40,321
Concessions Worker	15,371	1	1	23,057
<i>Maintenance</i>				
Groundskeeper/Custodian	30,802	1	2	61,604
<b>Subtotal Salaries</b>		<b>4</b>	<b>3</b>	<b>\$165,302</b>
<i>Taxes, Insurance and Benefits</i>				
Pension	12.71%	of Salary		\$21,010
FICA	7.65%	of Salary		\$12,646
Industrial Insurance	1.84%	of Salary		\$3,042
Group Insurance	\$7,220	per Employee		\$50,540
Unemployment Insurance	\$25	per Employee		\$175
<b>Subtotal Taxes, Insurance and Benefits</b>				<b>\$87,412</b>
<b>Total Salaries, Taxes, Insurance and Benefits</b>				<b>\$252,714</b>
<b>Total Full-Time Equivalent Employees</b>		<b>5.50</b>		

NOTE: Does not include costs associates with Aquatics, Tennis Center, Commissary Residences.

1/ All positions assumed to be civil service employees of City of Tucson. Salaries based on midpoint of salary range for positions in City of Tucson Compensation Plan, available at [http://www.tucsonaz.gov/compensation/comp\\_plan\\_11-02-06.pdf](http://www.tucsonaz.gov/compensation/comp_plan_11-02-06.pdf). Taxes, insurance and benefits from Tucson Parks and Recreation Department.

3/ Part-time employees at 50% of full-time employees.  
Source: City of Tucson and ConsultEcon, Inc.

Table 8  
Phase 3 Staff Profile

# Impact of Master Plan on Current and Future Park Management

<b>Project Parameters</b>	<b>Phase 1</b>	<b>Phase 2</b>	<b>Phase 3</b>	<b>Notes</b>
Total Building Area (SF)	11,841	24,041	30,041	Based on master plan
Total Park Acres	70	70	70	
Total FTE Personnel	2.0	3.0	5.5	See personnel profile
<b>Budget Category <sup>1/</sup></b>	<b>Amount</b>	<b>Amount</b>	<b>Amount</b>	<b>Expense Factors</b>
<b>Personal Services</b>				
Salaries	\$66,363	\$101,925	\$165,302	See personnel profile
Taxes, Insurance and Benefits	\$36,468	\$51,607	\$87,412	See personnel profile
<b>Subtotal Personal Services</b>	<b>\$102,831</b>	<b>\$153,532</b>	<b>\$252,714</b>	
<b>Services</b>				
Public Liability Insurance	\$644	\$989	\$1,603	@ 0.97% of salaries
Hazardous Waste Insurance	\$53	\$82	\$132	@ 0.08% of salaries
Maintenance - Buildings	\$11,841	\$24,041	\$30,041	@ \$1 per building SF
Maintenance - Ramadas <sup>2/</sup>	\$4,200	\$7,800	\$7,800	@ \$600 per ramada
Maintenance - Comfort Stations <sup>2/</sup>	\$5,500	\$7,700	\$7,700	@ \$1,100 per comfort station
Maintenance - Grounds	\$17,500	\$17,500	\$17,500	@ \$250 per acre
Electricity - Buildings <sup>2/</sup>	\$35,523	\$72,123	\$90,123	@ \$3 per building SF
Electricity - Ramadas <sup>2/</sup>	\$3,850	\$7,150	\$7,150	@ \$550 per ramada
Electricity - Comfort Stations <sup>2/</sup>	\$5,300	\$7,420	\$7,420	@ \$1,060 per comfort station
Water - Comfort Stations <sup>2/</sup>	\$11,550	\$16,170	\$16,170	@ \$2,310 per comfort station
Water - Athletic Turf <sup>2/</sup>	\$46,200	\$46,200	\$46,200	@ \$3,850 per acre of turf
Water - Other Landscape	\$27,500	\$27,500	\$27,500	@ \$2,000 per acre other landscape
Water - Community Garden	\$0	\$2,500	\$2,500	estimated
Sewer	\$7,246	\$7,851	\$7,851	@ 8.5% of water
<b>Subtotal Services</b>	<b>\$176,907</b>	<b>\$245,026</b>	<b>\$269,691</b>	
<b>Supplies</b>				
Uniforms <sup>2/</sup>	\$640	\$960	\$960	@ \$320 per maintenance employee
Safety Clothing <sup>2/</sup>	\$410	\$615	\$615	@ \$205 per maintenance employee
O&M - Buildings	\$11,841	\$24,041	\$30,041	@ \$1 per building SF
O&M - Ramada <sup>2/</sup>	\$3,850	\$7,150	\$7,150	@ \$550 per ramada
O&M - Comfort Station <sup>2/</sup>	\$10,500	\$14,700	\$14,700	@ \$2,100 per comfort station
<b>Subtotal Supplies</b>	<b>\$27,241</b>	<b>\$47,466</b>	<b>\$53,466</b>	
<b>Programs</b>				
Heritage Programs (Museum)	\$5,000	\$15,000	\$50,000	estimated
Environmental Programs	\$0	\$20,000	\$20,000	estimated
Special Events	\$1,000	\$5,000	\$10,000	estimated
Exhibit Reinvestment	\$0	\$5,000	\$20,000	estimated
Administrative and Other	\$5,000	\$7,500	\$13,750	@ \$2,500 per FTE employee
<b>Subtotal Programs</b>	<b>\$11,000</b>	<b>\$52,500</b>	<b>\$113,750</b>	
<b>Grand Subtotal</b>	<b>\$317,979</b>	<b>\$498,524</b>	<b>\$689,621</b>	
Capital Reserve	\$9,539	\$14,956	\$20,689	@ 3% of Subtotal
<b>Total</b>	<b>\$327,519</b>	<b>\$513,479</b>	<b>\$710,310</b>	

NOTE: Does not include costs associates with Aquatics, Tennis Center, Commissary Residences.

1/ Figures not adjusted for inflation.

2/ Per unit costs are standard assumptions used by City of Tucson Parks and Recreation Department.

Source: City of Tucson, Poster Frost Associates and ConsultEcon, Inc.

Table 9  
Preliminary Annual Operating Budget (in Current Dollars) for Fort Lowell Park by Master Plan Phase

## Impact of Master Plan on Current and Future Park Management

### Summary

Based on this plan, Master Plan operations can be successfully implemented within the existing Parks and Recreation Department operating structure. As the project planning and implementation advances, it may be advisable that the Parks and Recreation Department create a cultural heritage management unit for Fort Lowell Park and other City-owned and operated cultural heritage venues in Tucson. The improvements proposed as a part of the Fort Lowell Park Master Plan will create substantial quality of life benefits to residents and visitors alike. The recreational and educational benefits of Fort Lowell Park will enhance the knowledge of and interest in Tucson's heritage and environment and will expand the heritage and natural attractions base in the City. Tucson will be improved as a place to live, work

and play, thus benefitting all aspects of the local economy and community.

Year	Baseline <sup>1/</sup>	1	2	3	4	5	6	7	8
End of Fiscal Year, June 30		2012	2013	2014	2015	2016	2017	2018	2019
Master Plan Phase Opening		Phase 1		Phase 2					Phase 3
<b>Project Parameters</b>									
Total Building Area (SF)	9,291	11,841	11,841	11,841	24,041	24,041	24,041	24,041	30,041
Total Park Acres	65	70	70	70	70	70	70	70	70
Total Personnel	1.5	2.0	2.0	2.0	3.0	3.0	3.0	3.0	5.5
<b>Operating Expenses</b>									
Personal Services		\$104,888	\$106,985	\$109,125	\$166,188	\$169,512	\$172,902	\$176,360	\$290,289
Services		\$180,445	\$184,054	\$187,735	\$265,224	\$270,528	\$275,939	\$281,457	\$309,790
Supplies		\$27,786	\$28,342	\$28,908	\$51,379	\$52,406	\$53,454	\$54,524	\$61,416
Programs		\$11,220	\$11,444	\$11,673	\$56,828	\$57,964	\$59,124	\$60,306	\$130,663
Capital Reserve		\$9,730	\$9,925	\$10,123	\$16,189	\$16,512	\$16,843	\$17,179	\$23,765
<b>Total Operating Expenses</b>	<b>\$293,000</b>	<b>\$334,069</b>	<b>\$340,750</b>	<b>\$347,565</b>	<b>\$555,807</b>	<b>\$566,923</b>	<b>\$578,261</b>	<b>\$589,827</b>	<b>\$815,923</b>
<b>Operating Revenue</b>									
Earned Revenue	\$30,546	\$31,156	\$31,780	\$32,415	\$38,081	\$38,842	\$39,619	\$40,411	\$70,438
Non-Earned Revenue Requirement <sup>2/</sup>	\$262,454	\$302,912	\$308,971	\$315,150	\$517,726	\$528,081	\$538,642	\$549,415	\$745,485
Increase in Required Non-Earned Revenues Above Prior Year		\$40,458	\$6,058	\$6,179	\$202,576	\$10,355	\$10,562	\$10,773	\$196,070
Percent Increase in Required Non-Earned Revenues Above Prior Year		15%	2%	2%	64%	2%	2%	2%	36%

NOTE: Does not include costs associated with Aquatics, Tennis Center, Commissary Residences.

1/ Baseline estimate of current park operating expenses and revenues.

2/ From City of Tucson General Fund during Phases 1 and 2. In Phase 3, new museum may draw on other contributed revenue, such as gifts, grants, corporate memberships, etc.

Source: City of Tucson, Poster Frost Associates and ConsultEcon, Inc.

Table 10  
8-Year Operating Pro Forma for Fort Lowell Park Master Plan



# Fort Lowell Park Master Plan Cost Estimate

Contributed by Compusult

Previous Page:

Figure 192: (Top) Proposed "ghosting" at Officer's Quarters #1.

Figure 193: (Left) Splash pad.

Figure 194: (Right) Exercise equipment.

# Compusult

Construction Cost Consulting  
5923 East Pima Street  
Tucson, Arizona 85712  
520•882•4044 voice  
520•323•0544 fax

**Statement of Probable Costs**

**Fort Lowell Park Master Plan**

**Tucson, Arizona**

**by Compusult, Inc.**

**September 21, 2009**

Compusult applies diligence and judgment in locating and using reliable sources of information. This Statement of Probable Cost is made on Compusult's knowledge of the project and experience. Compusult has no control over the costs of labor, equipment or materials or over the contractor's method of pricing. Compusult makes no warranty expressed or implied as to the accuracy of such opinions as compared to the bid or actual costs.



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Harold H. McGrath III, CPE  
Compusult, Inc.

# Fort Lowell Park Master Plan Cost Estimate

## Demolition Prior to Phase 1

Summary of Project Costs	Building Cost
Environmental Clean-up (See Detail Below)	55,700
<b>A. Building and Site Construction</b>	<b>\$55,700</b>
B. Escalation to January 2010                      0.20%	\$112
<b>C. Total Demolition Prior to Phase I w/ Escalation</b>	<b>\$55,812</b>

## Atkins Parcel Priorities (Phase 1)

Summary of Project Costs	Building Cost
C - Officer's Quarters #3	\$537,200
A - Officer's Quarters #1 Ruins	\$125,900
B - Officer's Quarters #2 Ruins	\$243,100
O - Stabilize Adkins Residence	47,800
XX - Adkins Site Work	59,100
Miscellaneous Site & Electrical Work	70,000
UU - Adkins Parcel Parking Lot	58,000
Interpretive Signage	25,000
<b>A. Building and Site Construction</b>	<b>\$1,166,100</b>
B. Escalation to January 2011                      1.01%	\$11,719
<b>C. Total Atkins Parcel Priorities (Phase 1) w/ Escalation</b>	<b>\$1,177,819</b>

## Non-Pima County Bond Funded Improvements (Phase I)

Summary of Project Costs	Building Cost
HAWK Crossing @ Cottonwood Land	\$91,200
Landscape Median	\$11,400
Colored Concrete Crosswalk	\$38,000
<b>A. Building and Site Construction</b>	<b>\$140,600</b>
B. Escalation to July 2010                              0.67%	\$942
<b>C. Total Non-Pima County Bond Funded Improvements (Phase 1) w/ Escalation</b>	<b>\$141,542</b>

# Fort Lowell Park Master Plan Cost Estimate

## Zone 1 Projects (Phase 2)

Summary of Project Costs	Building Cost
D - Two Officer's Quarters (6 & 7)	\$421,700
E - Hospital Ruins	163,000
F - Interpretive "Ghosting" of Infantry Company Quarters	643,900
G - New Restroom/Storage @ OQ #7	459,500
H - Interpretive "Ghosting" of Calvary Company Quarters	405,600
I - Donaldson House	291,400
J - Community Garden	7,600
K - Cavalry Corral Ruins	45,800
L - Commissary Apartments	76,000
M - Adjutant's Office	726,000
N - Cottonwood Lane	32,800
P - 1963 Reconstructed Museum & Kitchen	106,400
LL - Interpretive Ghosting of Bake House	19,500
MM - Interpretive Ghosting of Guard House	76,800
NN - Adkins Site Work Phase II	106,400
QQ - Quarter Master & Commissary Office	6,700
<b>A. Building and Site Construction</b>	<b>\$3,589,100</b>
B. Escalation to January 2012	1.81% \$64,927
<b>C. Total Zone 1 (Phase 2) w/ Escalation</b>	<b>\$3,654,027</b>

## Zone 2 Projects (Phase 2)

Summary of Project Costs	Building Cost
S - Craycroft/Glenn Plaza	53,200
U - Maintenance	85,900
CC - Baseball Field	634,100
DD - Year Round Soccer Fields	893,800
EE - Four Little League/Two Seasonal Soccer Fields	1,124,800
PP - New Allee of Trees	36,500
<b>A. Building and Site Construction</b>	<b>\$2,828,300</b>
B. Escalation to January 2012	1.81% \$51,164
<b>C. Total Zone 2 (Phase 2) w/ Escalation</b>	<b>\$2,879,464</b>

# Fort Lowell Park Master Plan Cost Estimate

## Zone 3 (Phase 2) Projects

Summary of Project Costs		Building Cost
T - Pool Bathhouse Addition		1,157,100
Y - Play Areas		152,000
Z - Fitness Circuits		381,500
BB - Ft. Lowell Pond		36,300
FF - Tennis Courts		300,600
OO - Entry Plaza at Pool		45,600
<b>A. Building and Site Construction</b>		<b>\$2,073,100</b>
B. Escalation to January 2012	1.81%	\$37,502
<b>C. Total Zone 3 (Phase 2) w/ Escalation</b>		<b>\$2,110,602</b>

## Zone 4 Projects (Phase 2)

Summary of Project Costs		Building Cost
V - Environmental Education Center		66,900
W - Ak-Chin Prehistoric Farming		15,200
X - Hohokam Site		106,400
TT - Canal		48,600
WW - Natural Area @ Pantano Wash		76,000
<b>A. Building and Site Construction</b>		<b>\$313,100</b>
B. Escalation to January 2012	1.81%	\$5,664
<b>C. Total Zone 4 (Phase 2) w/ Escalation</b>		<b>\$318,764</b>

## Multiple Zone Projects (Phase 2)

Summary of Project Costs		Building Cost
GG - Bleachers		54,700
JJ - Multi-use Recreational Path		160,500
VV - Parking Lot & Internal Road Improvements East of Craycroft		839,000
YY - Site Work		449,800
ZZ - Site Electrical		532,000
Interpretive Signage		100,000
Exhibits		100,000
<b>A. Building and Site Construction</b>		<b>\$2,236,000</b>
B. Escalation to January 2012	1.81%	\$40,449
<b>C. Total Multiple Zones (Phase 2) w/ Escalation</b>		<b>\$2,276,449</b>

# Fort Lowell Park Master Plan Cost Estimate

## Right-of-Way Projects (Phase 2)

Summary of Project Costs	Building Cost
RR - Craycroft/Ft. Lowell Road Improvements	374,500
SS - Glenn Road Improvements	139,600
<b>A. Building and Site Construction</b>	<b>\$514,100</b>
B. Escalation to January 2012                      1.81%	\$9,300
<b>C. Total Right-of-Way (Phase 2) w/ Escalation</b>	<b>\$523,400</b>

## New Museum Building (Phase 3)

Summary of Project Costs	Building Cost
AA - New Museum Building	2,416,800
<b>A. Building and Site Construction</b>	<b>2,416,800</b>
B. Escalation to January 2017                      5.83%	\$140,875
<b>C. Total New Museum Building (Phase 3) w/ Escalation</b>	<b>\$2,557,675</b>

**Total Project Cost w/ Escalation** **\$15,695,555**

All Items include the following markups: Estimating Contingency (15%), General Conditions (15%), Contractor Fee (6%), Bonds & Insurance (3%) and Tax (5.27%). Total Markups = 52%

Escalation is based on current Engineering News Record rate of .8% per year.

**Note:** Hazardous Material or Asbestos Abatement is Excluded.

# Fort Lowell Park Master Plan Cost Estimate

Item	Quantity	Unit	Unit \$	Markup	Total
<b>Demolition Prior to Phase 1</b>					
Remove Adkins Steel Fabrication Shed	2,350	Sqft	5.50	6,721	19,646
Remove Adkins-era Slabs	1,100	Sqft	1.15	658	1,923
Remove Adkins-era Trench	265	Cuft	23.50	3,238	9,466
Remove 4" Slab-on-grade	1,669	Sqft	1.15	998	2,917
Remove RC Magor House	1,600	Sqft	6.00	4,992	14,592
Remove Windmill Tower Base	1	Each	2,200.00	1,144	3,344
Remove Concrete Silo	1	Each	2,500.00	1,300	3,800
<b>Total Demolition Prior to Phase 1</b>					<b>55,688</b>
<b>A - Officer's Quarters #1 Ruins</b>					
Mud Cap	200	Lnft	25.00	2,600	7,600
Adobe Repair	1	Each	3,000.00	1,560	4,560
Grade Away From Building	1,000	Sqft	0.50	260	760
Steel Ghosting	1,710	Sqft	25.00	22,230	64,980
Porch Roof	1,580	Sqft	20.00	16,432	48,032
<b>Total Officer's Quarters #1 Ruins</b>					<b>125,932</b>
<b>B - Officer's Quarters #2 and Kitchen Ruins</b>					
Steel Roof Structure	1,710	Sqft	25.00	22,230	64,980
Steel Roof Deck	1,710	Sqft	5.00	4,446	12,996
Linear Skylight	2	Each	850.00	884	2,584
Stabilize Adobe Walls (Crocker)	1	Each	55,053.00	28,628	83,681
Kitchen Roof Structure	590	Sqft	25.00	7,670	22,420
Kitchen Roof Deck	590	Sqft	5.00	1,534	4,484
Porch Roof	1,710	Sqft	20.00	17,784	51,984
<b>Total Officer's Quarters #2 and Kitchen Ruins</b>					<b>243,128</b>
<b>C - Officer's Quarters #3</b>					
Restore Building (Crocker)	1	Each	308,655	160,500	469,155
Security System & Electrical Service	1,750	Sqft	6.50	5,915	17,290
Interior Finishes	1,750	Sqft	10.00	9,100	26,600
Tapered Roof Insulation	1,550	Sqft	2.30	1,854	5,419
Re-roof	1,550	Sqft	2.55	2,055	6,008
Custom Canale & Leader	8	Each	225.00	936	2,736
Plaster Ceiling	800	Sqft	8.25	3,432	10,032
<b>Total Officer's Quarters #3</b>					<b>537,240</b>
<b>D - Two Officer's Quarters (#6 &amp; 7)</b>					
Steel Ramada Structure	3,420	Sqft	25.00	44,460	129,960
Porch Roof	3,160	Sqft	20.00	32,864	96,064
Brick Pavers	6,580	Sqft	8.50	29,084	85,014
Masonry Fireplace/BBQs	6	Each	5,500.00	17,160	50,160
Picnic Table	6	Each	1,200.00	3,744	10,944
Kitchen Roof Structures	1,810	Sqft	18.00	16,942	49,522
<b>Total Two Officer's Quarters (#6 &amp; 7)</b>					<b>421,663</b>

# Fort Lowell Park Master Plan Cost Estimate

Item	Quantity	Unit	Unit \$	Markup	Total
<b>E - Hospital Ruins</b>					
Remove Chain Link	330	Lnft	5.00	858	2,508
Repair/Replace Corrugated Roof	1,936	Sqft	6.50	6,544	19,128
Repair Purlins	1	Each	400.00	208	608
Lateral Bracing at Column	6	Each	1,000.00	3,120	9,120
Paint Structure	1	Each	3,000.00	1,560	4,560
Ghost Porch Roof & Upper Parapet	3,344	Sqft	25.00	43,472	127,072
<b>Total Hospital Ruins</b>					<b>162,996</b>
<b>F - Interpretive "Ghosting" of Infantry Company Quarters</b>					
Company Quarters Structure	10,400	Sqft	25.00	135,200	395,200
Porch Roof	3,000	Sqft	20.00	31,200	91,200
Kitchen Roof Structures	1,710	Sqft	18.00	16,006	46,786
Brick Pavers	4,710	Sqft	8.50	20,818	60,853
Picnic Table	9	Each	1,200.00	5,616	16,416
Masonry Fireplace/BBQs	4	Each	5,500.00	11,440	33,440
<b>Total Interpretive "Ghosting" of Infantry Company Quarters</b>					<b>643,895</b>
<b>G - New Restroom/Storage Building</b>					
New Building	1,810	Sqft	165.00	155,298	453,948
Site Prep	1,810	Sqft	2.00	1,882	5,502
<b>Total Restroom/Storage Building</b>					<b>459,450</b>
<b>H - Interpretive "Ghosting" of Cavalry Company Quarters</b>					
Cavalry Company Quarters Structure	5,200	Sqft	25.00	67,600	197,600
Porch Roof	1,500	Sqft	20.00	15,600	45,600
Brick Pavers	6,700	Sqft	8.50	29,614	86,564
Kitchen "Ghosting" @ Ground	1,710	Sqft	10.00	8,892	25,992
Picnic Table	9	Each	1,200.00	5,616	16,416
Masonry Fireplace/BBQs	4	Each	5,500.00	11,440	33,440
<b>Total Interpretive "Ghosting" of Cavalry Company Quarters</b>					<b>405,612</b>
<b>I - Donaldson House</b>					
TI for Meeting/Office Use	2,000	Sqft	80.00	83,200	243,200
New Roof Framing/Roofing	1,500	Sqft	9.50	7,410	21,660
Furring	60	Lnft	28.00	874	2,554
Repair Steel Casement Window	15	Each	350.00	2,730	7,980
Fire Sprinkler	3,000	Sqft	3.50	5,460	15,960
<b>Total Donaldson House</b>					<b>291,353</b>
<b>J - Community Garden</b>					
Raised Planting Beds	1	Each	5,000.00	2,600	7,600
<b>Total Community Garden</b>					<b>7,600</b>

# Fort Lowell Park Master Plan Cost Estimate

Item	Quantity	Unit	Unit \$	Markup	Total
<b>K - Calvary Corral Ruins</b>					
Remove/Salvage Steel Roof & Columns	4,200	Sqft	2.25	4,914	14,364
Mud Cap	110	Lnft	25.00	1,430	4,180
Remove Contrapared & Stabilize Adobe	1	Each	5,000.00	2,600	7,600
Restore Casita	235	Sqft	55.00	6,721	19,646
<b>Total Calvary Corral Ruins</b>					<b>45,790</b>
<b>L - Commissary Apartments</b>					
Minor TI, Repair Wood Lintel, Adobe and Stu	1	Each	50,000.00	26,000	76,000
<b>Total Commissary Apartments</b>					<b>76,000</b>
<b>M - Adjutant's Office</b>					
New Office Building	3,025	Sqft	145.00	228,085	666,710
New Porch	2,600	Sqft	15.00	20,280	59,280
<b>Total Adjutant's Office</b>					<b>725,990</b>
<b>N - Cottonwood Lane</b>					
Cottonwood Trees	20	Each	600.00	6,240	18,240
4' Picket Fencing	480	Lnft	20.00	4,992	14,592
<b>Total Cottonwood Lane</b>					<b>32,832</b>
<b>O - Stabilize Adkins Residence</b>					
Patch Roof, Flashing & Shoring	1	Each	30,450.00	15,834	46,284
Stabilize Water Tower	1	Each	1,000.00	520	1,520
<b>Total Stabilize Adkins Residence</b>					<b>47,804</b>
<b>P - 1963 Reconstructed Museum and Kitchen</b>					
1963 Reconstructed Museum and Kitchen	1	Each	70,000.00	36,400	106,400
<b>Total 1963 Reconstructed Museum and Kitchen</b>					<b>106,400</b>
<b>S - Craycroft/Glenn Plaza</b>					
New Plaza	1	Each	35,000.00	18,200	53,200
<b>Total Craycroft/Glenn Plaza</b>					<b>53,200</b>
<b>T - Pool Bathhouse Addition</b>					
Pool Bathhouse Addition	3,700	Sqft	165.00	317,460	927,960
Rehab Existing Interior Building	1,450	Sqft	60.00	45,240	132,240
Rehab Existing Exterior	1,950	Sqft	25.00	25,350	74,100
Rehab Pool Decking	1	Each	15,000.00	7,800	22,800
<b>Total Pool Bathhouse Addition</b>					<b>1,157,099</b>

# Fort Lowell Park Master Plan Cost Estimate

Item	Quantity	Unit	Unit \$	Markup	Total
<b>U - Maintenance</b>					
Covered Storage	500	Sqft	18.00	4,680	13,680
Storage Building	700	Sqft	65.00	23,660	69,160
Mobile Minis - By Owner				-	-
Fencing	100	Lnft	20.00	1,040	3,040
<b>Total Maintenance</b>					<b>85,880</b>
<b>V -Environment Education Center</b>					
Replace Window w/ Door	2	Each	2,500.00	2,600	7,600
Interior Finishes	1	Each	35,000.00	18,200	53,200
Rain Water Harvesting Cistern & Gutter	2	Each	2,000.00	2,080	6,080
<b>Total Environmental Education Center</b>					<b>66,880</b>
<b>W - Ak-Chin Prehistoric Farming</b>					
Signage	1	Each	10,000.00	5,200	15,200
<b>Total Ak-Chin Prehistoric Farming</b>					<b>15,200</b>
<b>X - Hohokam Site</b>					
Signage	1	Each	70,000.00	36,400	106,400
<b>Total Hohokam Site</b>					<b>106,400</b>
<b>Y - Play Areas</b>					
Relocate Existing Equipment	1	Each	5,000.00	2,600	7,600
New Play Surface	1	Each	18,000.00	9,360	27,360
Seating	5	Each	3,000.00	7,800	22,800
Hohokam Artifacts	1	Each	15,000.00	7,800	22,800
Play Sand	1	Each	10,000.00	5,200	15,200
Splash Pad	150	Sqft	80.00	6,240	18,240
Tot Lot	1,000	Sqft	25.00	13,000	38,000
<b>Total Play Areas</b>					<b>152,000</b>
<b>Z - Fitness Circuits</b>					
Paved Path	5,760	Sqft	3.50	10,483	30,643
Adult Fitness Station	15	Each	5,600.00	43,680	127,680
Sr. Fitness Station	10	Each	2,500.00	13,000	38,000
Bench	14	Each	950.00	6,916	20,216
Landscaping/DG	1	Each	60,000.00	31,200	91,200
Water Fountain	1	Each	3,500.00	1,820	5,320
Fitness Ramada	3	Each	15,000.00	23,400	68,400
<b>Total Fitness Circuits</b>					<b>381,459</b>
<b>AA - New Museum Building</b>					
New Museum	6,000	Sqft	265.00	826,799	2,416,799
<b>Total New Museum Building</b>					<b>2,416,799</b>

# Fort Lowell Park Master Plan Cost Estimate

Item	Quantity	Unit	Unit \$	Markup	Total
<b>BB - Ft. Lowell Pond</b>					
Landscaping	1	Each	7,000.00	3,640	10,640
Bench	3	Each	950.00	1,482	4,332
Detention Area	1	Each	14,000.00	7,280	21,280
<b>Total Ft. Lowell Pond</b>					<b>36,252</b>
<b>CC - Baseball Field</b>					
Baseball Field	1	Each	215,000.00	111,800	326,800
Baseball Field Lighting	1	Each	175,000.00	91,000	266,000
Bleachers	1	Each	20,000.00	10,400	30,400
10' Fence @ Craycroft	400	Lnft	18.00	3,744	10,944
<b>Total Baseball Field</b>					<b>634,144</b>
<b>DD - Year Round Soccer Fields</b>					
Soccer Field	2	Each	115,000.00	119,600	349,600
Soccer Field Lighting	2	Each	170,000.00	176,800	516,800
Portable Goal	4	Each	4,500.00	9,360	27,360
<b>Total Year Round Soccer Fields</b>					<b>893,760</b>
<b>EE - Four Little League/Two Seasonal Soccer Fields</b>					
Little League Field	4	Each	75,000.00	156,000	456,000
Little League Field Lighting	4	Each	110,000.00	228,800	668,800
<b>Total Four Little League/Two Seasonal Soccer Fields</b>					<b>1,124,799</b>
<b>FF - Tennis Courts</b>					
Fencing	1,536	Lnft	35.00	27,955	81,715
Court Lights	8	Each	18,000.00	74,880	218,880
<b>Total Tennis Courts</b>					<b>300,595</b>
<b>GG - Bleachers</b>					
Multi-Purpose Bleachers	3	Each	12,000.00	18,720	54,720
<b>Total Bleachers</b>					<b>54,720</b>
<b>JJ - Multi-use Recreational Path</b>					
Asphalt Path	26,400	Sqft	3.50	48,048	140,448
DG Path	26,400	Sqft	0.50	6,864	20,064
<b>Total Multi-use Recreational Path</b>					<b>160,512</b>
<b>LL - Interpretive Ghosting of Bake House</b>					
"Ghosting" of Bake House Wall	140	Lnft	20.00	1,456	4,256
"Ghosting" of Bake House @ Ground	1,000	Sqft	10.00	5,200	15,200
<b>Total Interpretive Ghosting of Bake House</b>					<b>19,456</b>

# Fort Lowell Park Master Plan Cost Estimate

Item	Quantity	Unit	Unit \$	Markup	Total
<b>MM - Interpretive Ghosting of Guard House</b>					
"Ghosting" of Guard House Wall	275	Lnft	20.00	2,860	8,360
"Ghosting" of Guard House @ Ground	4,500	Sqft	10.00	23,400	68,400
<b>Total Interpretive Ghosting of Guard House</b>					<b>76,760</b>
<b>NN - Atkins Site Work Phase II</b>					
Turf and Irrigation @ Parade Ground	70,000	Sqft	1.00	36,400	106,400
<b>Total Atkins Site Work Phase II</b>					<b>106,400</b>
<b>OO - Entry Plaza at Pool</b>					
New Plaza	2,500	Sqft	12.00	15,600	45,600
<b>Total Entry Plaza at Pool</b>					<b>45,600</b>
<b>PP - New Allee of Trees</b>					
New Trees	40	Each	600.00	12,480	36,480
<b>Total New Allee of Trees</b>					<b>36,480</b>
<b>QQ - Quarter Master &amp; Commissary Offices</b>					
"Ghosting" Wall @ Ground	220	Lnft	20.00	2,288	6,688
<b>Total Quarter Master &amp; Commissary Offices</b>					<b>6,688</b>
<b>RR - Craycroft/Ft. Lowell Road Improvements</b>					
Demo Merge Lane	1	Each	25,000.00	13,000	38,000
New Craycroft West Curb	650	Lnft	25.00	8,450	24,700
Stabilized Path	7,500	Sqft	0.50	1,950	5,700
Concrete Sidewalk	2,750	Sqft	5.50	7,865	22,990
New Median w/ Left Turn	1	Each	40,000.00	20,800	60,800
Colored Paving	7,500	Sqyd	8.50	33,150	96,900
"Footprint" Building @ Road	1	Each	82,500.00	42,900	125,400
<b>Total Craycroft/Ft. Lowell Road Improvements</b>					<b>374,490</b>
<b>SS - Glenn Road Improvements</b>					
Demolish AC Paving	21,600	Sqft	0.60	6,739	19,699
Demolish Curb	1,200	Lnft	2.50	1,560	4,560
New Paving	2,400	Sqyd	25.00	31,200	91,200
New Curb	1,200	Sqft	12.00	7,488	21,888
HC/Striping	1	Each	1,500.00	780	2,280
<b>Total Glenn Road Improvements</b>					<b>139,627</b>

# Fort Lowell Park Master Plan Cost Estimate

Item	Quantity	Unit	Unit \$	Markup	Total
<b>TT - Canal</b>					
Replace Non-native Vegetation - TBD				-	-
Bridge	1	Each	12,000.00	6,240	18,240
Canal Improvements	1	Each	20,000.00	10,400	30,400
<b>Total Canal</b>					<b>48,640</b>
<b>UU - Adkins Parcel Parking Lot</b>					
Adkins Stabilized Parking	26,000	Sqft	0.65	8,788	25,688
Adkins Parking Lot Landscaping	1	Each	7,000.00	3,640	10,640
Adkins Parking Lighting	1	Each	3,300.00	1,716	5,016
Adkins Striping	1	Each	750.00	390	1,140
Adkins Curb	850	Lnft	12.00	5,304	15,504
<b>Total Adkins Parcel Parking Lot</b>					<b>57,988</b>
<b>VV - Parking Lot &amp; Internal Roadway Improvements East of Craycroft</b>					
Pool/Tennis Court Paving	13,500	Sqyd	25.00	175,500	513,000
Pool/Tennis Parking Trees	40	Each	600.00	12,480	36,480
Pool/Tennis Parking Lighting	1	Each	15,000.00	7,800	22,800
Pool/Tennis Curb	3,000	Lnft	12.00	18,720	54,720
Pool/Tennis Striping	1	Each	2,500.00	1,300	3,800
Pecan Grove Stabilized Parking	21,000	Sqft	0.65	7,098	20,748
Pecan Grove Parking Lighting	1	Each	2,700.00	1,404	4,104
Pecan Grove Striping	1	Each	900.00	468	1,368
Pecan Grove Curb	450	Lnft	12.00	2,808	8,208
East Park Road Paving	1,500	Sqyd	25.00	19,500	57,000
Entrance Road Paving	1,600	Sqyd	25.00	20,800	60,800
Road Lighting	1	Each	7,000.00	3,640	10,640
Road Curb	2,400	Lnft	12.00	14,976	43,776
Road Striping	1	Each	1,000.00	520	1,520
<b>Total Parking Lot &amp; Internal Roadway Improvements East of Craycroft</b>					<b>838,964</b>
<b>WW - Natural Area @ Pantano Wash</b>					
Drainage, Plants, Etc.	1	Each	50,000.00	26,000	76,000
<b>Total Natural Area @ Pantano Wash</b>					<b>76,000</b>
<b>XX - Adkins Site Work</b>					
Adkins 6' CL Site Fencing	1,200	Lnft	10.00	6,240	18,240
Adkins 4' Picket Fencing	250	Lnft	20.00	2,600	7,600
Cottonwood Trees	30	Each	600.00	9,360	27,360
Site Grading	1	Each	2,500.00	1,300	3,800
Irrigate Historic Trees	3	Each	450.00	702	2,052
<b>Total Adkins Site Work</b>					<b>59,052</b>

## Fort Lowell Park Master Plan Cost Estimate

Item	Quantity	Unit	Unit \$	Markup	Total
<b>YY - Site Work</b>					
Demolish Racquetball Courts	1	Each	25,000.00	13,000	38,000
Informational Kiosk	5	Each	10,000.00	26,000	76,000
Site Drinking Fountains	6	Each	3,500.00	10,920	31,920
Site Signage/Wayfinding	1	Each	25,000.00	13,000	38,000
New Turf and Irrigation	530,000	Sqft	0.33	90,948	265,848
<b>Total Site Work</b>					<b>449,768</b>
<b>ZZ - Site Electrical</b>					
Move Transformers - To Be Determined	1	Each	350,000.00	182,000	532,000
<b>Total Site Electrical</b>					<b>532,000</b>

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# Appendix A

## Public Comments

## Fort Lowell Park Master Plan: Visioning Workshop - June 25, 2008

### Goal of the Workshop:

Provide an early opportunity for the Fort Lowell Restoration Advisory Committee and other key project participants/stakeholders to share their expertise and express their opinions, concerns, and vision for the future of Fort Lowell Park.

### Time and Place:

Wednesday June 25, 5:00 – 7:00 PM, San Pedro Chapel, 5230 E. Fort Lowell Road

### Participants: (approximately 50-55)

- Members of the Fort Lowell Restoration Advisory Committee
- Members of the Fort Lowell Historic Zone Advisory Board
- City of Tucson: Parks & Recreation, Environmental Services, Historic Preservation
- Pima County: Cultural Resources and Historic Preservation Office, Parks and Recreation (esp. Steve Anderson), Flood Control staff
- Pima Trails Committee (especially Linda Anderson-McKee), Fort Lowell Soccer Club, Audubon Society (Kendall Kroesen)
- Officers of the Old Fort Lowell Neighborhood Association
- Presidents of the Glenn Heights, Saint Cyril's, Avondale, Vista del Monte and Harlan Heights Neighborhood Associations
- Homeowner Association Presidents: Orchard River, San Miguel Townhouses, Bosque Ranch Estates, La Sonrisa, San Francisco Square, Desert Glenn, Catalina Vistas, Hill Farm, Valley Ranch (Parade Ground, Commissary), Barrio del Oeste, La Toluca
- New Testament Baptist Church representative
- Dave Faust, Arizona Historical Society
- Apache statue group representative, Fred Ronstadt
- Councilmember Rodney Glassman and/or Ward 2 Council Aide
- Supervisor Ray Carroll and/or District 4 Supervisor staff
- Tucson Medical Center representative c/o Julia Strange
- Principal, Whitmore Elementary School; Headmasters, St. Gregory's & Castle Hill
- Key staff and sub-consultants of the Poster Frost Master Planning Team

### Format:

Live notes on computer projected on screen; access to projected maps and information

- Self-introductions of participants (20 min.)
- Brief introduction of project, scope of work, and timeline (20 min.)
- Informal comments/discussion addressing the following: As we begin work on this project, these are the issues we want you to pay particular attention to. Here are our opinions on the most important things for this project to accomplish. (80 min.)

## Fort Lowell Park Master Plan: Visioning Workshop - June 25, 2008 (Live Notes)

- Opportunity for people to make suggestions on a website? Some information currently available on Pima County website. <http://www.pima.gov/cultural/>
- Give your child the “roots” of where they came from. The cultural dynamic of the site and how that story is told from the time during the Fort Lowell Period. Who is the audience- local, county, state, etc. Opportunity to expose people to a story that might not be very popular. Tell all the stories.
- Retired history teacher. Should be alarmed at the lack of understanding by today’s students. Closer history is to home more students can relate to it. Make it kid friendly and tactile. Let the kids touch and learn. Have good volunteers.
- Keep historical values alive but integrate a communal place for people. A place people can use and gather. Sports, youth sports, families, picnics. Not necessarily indoor functions. Should use outdoor space, primarily.
- 15,000-20,000 people on Friday night of Fort Lowell Shootout. Why is it so popular? There is history, but it is not that apparent to visitors. Starting a website to make people more knowledgeable about history of the park. Shootout and Park have history together. Want to keep Shootout at Park.
- La Reunión – How to get people around the park without getting lost in the parking lots, recreational amenities. Need interpretive trail that connects nodes in park and around the park like TMC. Alamo Wash trail. ‘Hawk” Crossing idea might not be appropriate for a historic district. Need wayfinding and overall plan for neighborhood.
- Trails- Vista del Monte – Pro Neighborhoods Grant for McCormick Park. Would be nice to have historic resources that are usable for daily activities to make them alive.
- Interpretive Ranger Staff at Tumacácori is based on Kino History. But there are other ways of interpreting resources, such as architectural interpretation. How to bring that architectural knowledge about Officers Quarters #3 to the visitor. Consider other approaches such as timelines to bring message to different users.
- Natural resources- riparian interpretation at the Pantano. Wildlife viewing requires trails and interpretation. Natural history is a part of the regional and neighborhood context and history.
- River Parks system – Pima County is planning for future trail system along with bank stabilization that could change the riparian values of the park, unless this is staved off.
- Adults need to be considered. Have a great museum and Officers Quarters #3. Commissary could be coffee shop, bookstore, for arts for adults.
- Erosion of spatial order of Fort Lowell Period. It is a stretch to imagine that this was a military site. Need to bring that forward through landscape and other means.
- Of course we’re going to underground Craycroft.
- Would bet that fewer than 5% of the visitors recognize the Museum and pit houses. And now the Adkins Parcel. Need to tie all these different elements together. Can see that these different stories are available. And maintain the character of this area- not Downtown.
- If playing tennis- how know that pithouses and Museum are there. (Multi-purpose wayfinding needed) Lights are an important item. Light is being dispersed to the surrounding neighborhoods. Need lighting that is functional.
- Need a “billboard” for the park to orient visitors. New lighting is available that is more sensitive and focused. But not currently at Fort Lowell Park.
- Unification of landscaping could help create “feel” for the Park. Approaching the park from Craycroft is very different than approaching on Ft. Lowell. On Craycroft, the “shock value” of Cottonwood Lane conveys the feel of the fort. (good shock value currently).

## Fort Lowell Park Master Plan: Visioning Workshop - June 25, 2008 (Live Notes, continued)

- Apache statue- A statue of an Apache Scout is a good idea, but should be at Fort Apache. If put one at the park, should be someplace different in the Park. Should have own focus. An Apache Scout is not appropriate to Ft. Lowell.
- Where did Apache Statue idea come from?
- Will be a Chiricahua Apache “hostile” statue, not a Scout.
- “Hostile” is a relative and extremely offensive term. When Fort Lowell was functioning it was part of one of the most dynamic and destructive struggles in the history of the US - the conquering of an ethnic people as a part of manifest destiny. Trying to destroy one group of people’s history. How can this be interpreted sensitively? It was a very complex situation. Other Native American scouts also present during this time period –Tohono O’odham. There were conflicts between Tohono O’odham and Apaches as well as between Apache groups. The dynamics of the 1860s-1890s are complex and difficult. So many layers to history- incredibly sensitive. Camp Grant Massacre – many believed that eradication of the Apache people was the only answer. Interpreting this story will be a daunting task.
- Will actively solicit input from Native American Communities.
- And other cultural traditions of our community and interact on this site in dynamic ways. How to tell the stories in consultation with the different groups.
- Fort was in existence for less than 20 years, but history of area is much longer. Has been incorporated into the neighborhoods history and the continuation of resources from one period through to the other periods. Can you bring a visitor from Hohokam history to Adkins history on one site?
- Fort Lowell in name, but the longevity of other periods is important and needs to be told.
- “Lakeshore Drive” how include Craycroft in park? Connect adjacent to statues.
- How will park be operated? Could inform the planning- who will operate the different components- Museum, Recreational pieces, Is there admission? Where does the first-time visitor go? Should consider the operational issues early in the process rather than at the end. Planning implications may include parking locations (west of Craycroft?)
- Is there are entrance fee for the Museum?
- Commissary needs on-site manager.
- Is it possible to bring forward restoration plan for Officers Quarter # 3 to show progress and because there is a lag of 8 months after the Master Plan before this would get started.
- Crossing Fort Lowell Road is also a problem. Have discussed closing Fort Lowell Road at Craycroft.
- Commissary – this process will help determine the best use. Not necessarily apartments.
- Type of lighting should be run through the users.
- Safety and security issues – Pedestrian safety will be a big issue.
- Speed humps (pedestrian tables) on Fort Lowell Road are too far into neighborhood- have been scrapped and are no longer visible. At Craycroft desired to break up edge to slow down traffic. Look at how the right-of-way will allow for pedestrians and landscape.
- Do people in Tucson think of Fort Lowell Park only for recreation? Can we change that thinking and how to change the perception to historical / recreational. There is an opportunity to help “redefine” the park through the master plan process. Fort Lowell Recreational and Historical (Cultural) Park.
- Can we learn from other projects around the Country?
- As someone who grew up here I do think of it as a historical park. Statue is an opportunity to bring more educated discussion to the complex issues present on the site.
- Alternative mode considerations should be made. Diversity of plant and wildlife is amazing in this neighborhood. Unique aspect to this neighborhood.

## Fort Lowell Park Master Plan: Visioning Workshop - June 25, 2008 (Live Notes, continued)

- OFLNA- Historic Walking Tour –each year. Many native Tucsonans never realized this part of Tucson and its history existed.
- Would like to see how this historical park is linked to other heritage sites in the area. Through the proposed Santa Cruz Valley National Heritage Area – Theme of “U.S. Military History on the Border”. Should be planned in conjunction with other historical sites in the region.
- Foreign visitors come to Fort Lowell Park to learn about the Fort Lowell history.
- Craycroft Road is the issue that will drive many other decisions. Large museums back east that depict the living conditions of different people at historical sites. Could use Commissary at Fort Lowell for this purpose. Youth don’t appreciate local history. Opportunity to bring students out to learn about Tucson in 1873
- Many layers of history but also has current use and is in the middle of a neighborhood. Don’t lose sight of the fact that this is in the heart of the neighborhood and is used for many (evolving) purposes
- During the war, Chinese farmed areas around the neighborhood.
- “There is no future without the past”

Additional comments received following the workshop from Gary Olson, President Orchard River Garden Park: My personal quick input is that the future plans and development should take into consideration the trail system that OFLNA has promoted and developed thru out the neighborhood. Orchard River is looking at eliminating grass lawn along North side of Glenn and putting in a compacted dirt sidewalk trail to match what the Fort Lowell road has. We want to get a Pro-Neighborhood Grant to make the conversion. This would be a continuation of the Fort Lowell trail and could pass thru the park in various ways then pass over a pedestrian bike bridge to Atkins property. The bridge should line up with the Cottonwood trees. To the east the trail could continue up the Pantano Wash when that trail gets developed similar to what is along the Rillito Wash.

## Fort Lowell Park Master Plan: Public Meeting #1 - September 3, 2008

### Meeting Agenda

1. Introductions
2. Slide Presentation
  - Introduction
  - Why is the Fort Lowell project important
  - Project Team / Images of Previous Projects
  - Advisory Committee
  - Fort Lowell History
    - Natural History
    - Hohokam
    - Early Settlers
    - The Fort
    - El Fuerte
    - Anglo
    - Today
3. Scope of Work / Schedule
4. Fact about the Site / Overview of Background Report
  - Context
    - Location
    - Surrounding Neighborhoods and adjacent community resources
    - Project planning boundaries
    - Transportation and Parking
  - Landscape and Natural Features
  - Recreation
  - Hydrology
  - Environmental Conditions
  - Archaeology
  - Cultural Resources and Buildings
  - Other site features
  - Partners and Potential Interpretive Themes
5. Project Goals
6. Issues and Questions that Need Answers
  - Safe crossing at Craycroft and Fort Lowell Roads
  - Clarity of the spatial relationship of different periods on the site.
  - Wide Range of Interpretive Resources and Gaps in Interpretive Resources
  - Developing appropriate audiences and partnerships
  - Future management and operations of the site
  - The style of interpretation necessary to tell the various stories and engage a multi-faceted audience.
  - Telling stories from multiple viewpoints, including consultation with Apache and other tribal groups
  - Maintaining the Human Capital at the park and in the neighborhood in the future.

## Fort Lowell Park Master Plan: Public Meeting #1 - "Live Notes"

- Consider using the buildings on the Adkins Parcel for adaptive reuse. You could have artist work/live space in the fabrication shed or in the commissary apartments. Artists could display and sell their work.
- Hohokam and Fort-era had gardens. Can we explore community gardens on the site?
- To restore the water tank and wind mill would be nice.
- Wind mill and water tank could be made functional in this age of sustainability.
- History of the pecan grove? Is it from the Fort-era or some other era?
- What's the potential to close Craycroft Road at Glenn? Can we reclaim pavement for recreation or historic uses?
- At Tucson Medical Center to the south, they are thinking of putting an entrance at Silver. This decision could impact traffic near the park.
- Right now, the park is primarily a recreation site for neighborhood residents. Can recreation use be made compatible with the historic site?
- Should connect the park with existing walking paths and other important nodes in the neighborhood. This would encourage more pedestrian connectivity. The TMC plan calls for additional walking paths. Fort Lowell could be a part of a network of trails that brings people from other locations in the neighborhood to introduce them to the resources and history in the park.
- Do neighboring schools currently use the park as a classroom and can this use be increased?
- With respect to cultural vs. recreational uses there are opportunities to meet both needs without conflict. Those portions of Fort Lowell Park that do not have historic resources are already dedicated to recreation- pool, tennis courts, etc. Where there are (actual) physical remains, those areas can be dedicated to historical interpretation. Use interpretive trails to connect these different areas and uses. There could be outdoor exhibitions that explain actual physical remains, with those areas connected by interpretive paths leading to other areas of the park. The park could function as a "cultural laboratory in the landscape": How human beings have shaped the environment is an example of an interpretive theme.
- Increase the educational use of the site. There are opportunities during the planning process to reach-out to the schools, especially the kids, to learn what they would like to see at the park. Consider a presentation to students and teachers to get feedback early in the planning process.
- If you can't close Craycroft, maybe there could be a change in the surface (cobblestone?) to define the historic zone. Use a material different than the rest of the surface on Craycroft.
- If there was a bridge over the road, there could be an exercise path over the bridge to both sides of the park. Parks in Phoenix and Milwaukee have parks with bridges connecting different portions.
- Reid Park David Bell Bike Path is very successful. Consider something similar to create a longer path connecting a variety of neighborhood sites from McCormick Park to the Pantano Wash.
- Could have a connection similar to the Science Center Bridge across Craycroft.

## Fort Lowell Park Master Plan: Public Meeting #1 - September 3, 2008

Questionnaire distributed at Meeting #1:

Thank you for attending this important meeting. We would like to get your feedback on some critical issues for the future planning of Historic Fort Lowell Park. Please take a moment to respond to the following questions:

1. In your view, how should recreation, interpretation and sensitive resources be balanced? And what is the correct balance?
2. What do you feel are the feasible alternatives for safely crossing Craycroft?
3. What preservation treatment(s) would you like to see used for the preservation of buildings: possibilities range from ruins to reconstruction?
4. Which historic periods should be represented on site and how do you think the spatial character of these periods can be clarified?
5. Who do you think are the appropriate audiences and partnerships?
6. What other projects or sites are you familiar with that the Fort Lowell Park project could learn from?
7. Who should manage and operate the site and how should it be funded?
8. How can stories be told from multiple perspectives: Apaches to Anglos?
9. In what ways can an interest in the area's history can be passed to the next generation?
10. What types of interpretive techniques would you recommend?

Other comments and ideas:

(Optional) Name email

Comments may also be submitted on-line at: <http://www.pima.gov/cultural/FtLowell/index.html>

or mail: Poster Frost Associates, 317 North Court Avenue, Tucson, AZ 85701

## Fort Lowell Park Master Plan: Public Meeting #2 - November 19, 2008

### Meeting Agenda

1. Introductions
2. Summary of Responses to Meeting #1 Questionnaire
3. Slide Presentations
  - Introduction: Why is the Fort Lowell Master Plan Important?
  - Project Team
  - Fort Lowell Restoration Advisory Committee
  - Scope of Work and Project Schedule
  - Fort Lowell Site History and Facts
  - Project Goals
  - Project Variables
  - Three Alternative Project Concepts
  - Economic Assessment
4. Comments, Questions and Community Input

### Summary of Responses to Meeting #1 Questionnaire:

*1. In your view, how should recreation, interpretation and sensitive resources be balanced? And what is the correct balance?*

- Primary usage is and should be for recreation. The park is used extensively for children's sports and leagues; by tennis players of all ages; for swimming, and water aerobics; by walkers, joggers, dog walkers, picnickers; and by people who just want to sit and watch the ducks and turtles. All historical sites should be preserved and protected, but the site's current users will not be likely to visit them more than once or twice. They will spend more hours enjoying the expanse of outdoors in the middle of the city for their activity or inactivity of choice.
  - School kids will be the only Tucsonans who will visit the historical sites more than once or twice as a part of their ongoing education.
  - A display and meeting facility to allow a wider knowledge of Fort Lowell's history and culture.
  - Natural resources are why anyone lived there in the first place. Sensitive resources first! Wildlife habitat is disappearing in the Tucson Metro area, particularly riparian resources such as those along the Pantano & Tanque Verde washes. Protect and enhance habitat! Second, stabilize and interpret historical and natural resources. Allow recreation where it is consistent with above priorities. Remember that wildlife watching is a major form of recreation, and one for which resources in the metro area are declining rather than increasing.
  - Both must work together for the park to be successful.
  - Recreation #1 Priority. Different areas – quiet, more natural - e.g. picnic areas with separate recreational facilities (group sports). Some intensive historical sites, events. Interpretive signs, markings throughout.
  - Weighted to interpretation and preservation.
- 2. What do you feel are the feasible alternatives for safely crossing Craycroft?*
- A footbridge of whatever width is financially feasible. The suggestion of a “footprint” of historical buildings is a good one if the bridge is wide enough to accommodate a (scaled down?) version.
  - The footbridge will be necessary only if the Adkins property can be attractively restored and preserved. Otherwise, crossing at Glenn is the only safe alternative.
  - Use a pedestrian stoplight, hand service, at the intersection of Fort Lowell and Craycroft.

## Fort Lowell Park Master Plan: Public Meeting #2 - November 19, 2008

- Bridge or crosswalk with traffic lights. Traffic calming for traffic on Craycroft.
  - Pelican crossing.
  - I do not see this as a problem. Do you really think you will have 400 people a day wanting to access site? More like 15-20 day- use crosswalk.
  - Wide crossing-over-bridge- I like the plant evolution concept. Time wide crossing areas at three locations- Glenn, Fort Lowell & middle- (no cobblestones, noisy!)
  - Put Craycroft underground – unfortunately, it won't happen.
3. *What preservation treatment(s) would you like to see used for the preservation of buildings: possibilities range from ruins to reconstruction?*
- Preservation, stabilization and protection of existing buildings and ruins.
  - At least one of the historic buildings on the Adkins property should be reconstructed. Preserved adobe walls are historically important, but have minimal tourist appeal.
  - Restoration should be made on existing buildings, as original and usable as possible, with reference to military quarters.
  - Stabilization preferable for most resources, but I would welcome reconstruction of some historic buildings for multiple uses that include interpretation and also other uses (San Pedro Chapel)
  - Open to all.
  - Do not reconstruct
  - Again, an evolution may be visually interesting – reconstruction to ruins.
  - Preserve ruins. Mark sites
4. *Which historic periods should be represented on site and how do you think the spatial character of these periods can be clarified?*
- Dioramas depicting all historical usage of sites. A three dimensional view of the fort, of the Hohokam buildings, and any other known features would be cost effective and possible, whereas complete restoration of the buildings would be extremely costly and, in the case of those sites now covered by concrete and blacktop, impossible. A pamphlet for visitors taking an historical tour could show current location of Craycroft Road, entrance roads and parking lots with faint markings overlaid with outlines and designation of previous structures - both those now existing in whole or in part and those long gone.
  - Early Indian and Military Cavalry with display of wagons and coaches. Same as the city has stored at Irvington and S 6th Avenue. It will give children and adults experiences with hands on view.
  - Jeeze, you ask hard questions! Just do a high-tech virtual presentation that shows 3-D reconstructions of different layers of prehistory / history, and how they are superimposed. Virtual reality- perhaps a large scale version for an onsite theatre in the Interp. Center, as well as an interactive version at a kiosk.
  - Continuum of history makes most sense and broadens interest.
  - Soldier period and the evolution of use post period.
  - Pantano natural...Hohokam! Ft....farms...industry ditch?
  - Historic Fort + Hohokam + El Fuerte
5. *Who do you think are the appropriate audiences and partnerships?*
- School children and history buffs. Historical society could partner with teachers to prepare students for a tour through use of books and art work dealing with the periods and people (including children) who inhabited the site. Adults are unlikely to visit more than once and vacationing tourists are more likely to go to the Desert Museum, Old Tucson, San Xavier - or further a field.

## Fort Lowell Park Master Plan: Public Meeting #2 - November 19, 2008

- Work closely with teachers, crafts and trade personnel. Possible to have meeting area, with displays of vintage arts, on a rotating basic.
  - Environmental, historical, recreation agencies & non-profits.
  - Schools, neighborhoods
  - Tucson
  - You have them – AAA? Or some travel group?
  - City, County, Historical Society, Schools, Neighborhood.
6. What other projects or sites are you familiar with that the Fort Lowell Park project could learn from?
- Dioramas at Tumacácori; the audio-visual presentation shown before tours of Sabino Canyon.
  - Hands on projects. Visual tours with a guide could be charged a fee.
  - Unsure. Maybe the Museum of the American Indian in DC for an interpretive center. Tucson Origins Heritage Park for reconstruction. Some NPS Anasazi ruins or stabilization and interpretation.
7. *Who should manage and operate the site and how should it be funded?*
- Indeed, how? The park board seems to have enough on its hands keeping recreational areas in good repair without charging fees so high as to discourage participation. If the Historical Society is in charge, they may fund the gap between reasonable fees and overhead costs a large one. Perhaps an annual fee for membership and a few free passes might work (per the Desert Museum). Would county or city taxes be available?
  - Tucson Parks and Rec. in partnership with non-profit & civic organizations.
  - Partnerships – public and private funding.
8. *How can stories be told from multiple perspectives: Apaches to Anglos?*
- Multiple methods – storytellers to high-tech. Don't forget the perspective of the deer, woodpeckers, cottonwoods and corn.
  - The Museum has good examples.
9. *In what ways can an interest in the area's history can be passed to the next generation?*
- Some rebuilt buildings and living history events such as the event at Tubac Presidio, but more sophisticated like Williamsburg. (4)
  - Exhibits, publications, living history. (8)
10. *What types of interpretive techniques would you recommend?*
- Booklists (especially provided to schools); dioramas; audio-visual presentation; re-enactments staged periodically with the help of volunteers; a tie-in with Native American historians and story tellers.
  - See Museum

### *Other comments and ideas*

- The suggestion of pathways between sites was a good one. The Hohokam site, for instance, is probably seen by more dog walkers and exercisers than others. Many people other than walkers and picnickers are completely unaware of the waterway and pond created on the east side of park beyond the maintenance building.
- Strongly encourage contact with the Tucson Corral of the Westerners. They have several publications about Old Fort Lowell and might sponsor docents or contribute financially to the cost of restoration.
- Give people a sense of ownership or fiduciary (proprietary) to this site.

## Fort Lowell Park Master Plan: Public Meeting #2 - November 19, 2008 (Live Notes)

- Formal archaeology was not presented in the plans. What thoughts have gone into this area? What is the potential to lose important material and how can long-term research be continued on the site?
- Drainage from the park exists at the NW corner of the property and floods my property. All drainage from the park runs through my private road to Craycroft Road. The park's fish pond overflows and there have been piles of dead fish on my road. Can the master plan correct these drainage issues?
- Review what changes are being considered for Craycroft Road and Fort Lowell Roads.
- What happens to existing Fort Lowell Museum in each phase?
- I like that the parking near pecan grove, east side of park, goes away since it impacts Orchard River Town homes, especially at night.
- Ownership of the fence between Orchard River Town Homes and Fort Lowell Park needs to be identified. The fence needs to be repaired. Cost could be shared by City and Orchard River.
- Besides the environmental clean-up grant, are there other grants being pursued now or in the future?
- The planners need to research the rights associated with the private roads north of park.
- Are there standards for appropriate uses for historic buildings that are adaptively reused and reconstructed? What uses are allowed?
- With respect to the contamination of the Adkins Parcel: Since all water flows north, have off-site areas been tested?
- Is there funding available for implementation of the Master Plan?
- Fort Lowell exhibits all the things that make Tucson the city it is today. We can see all the themes and stories at Fort Lowell, including water, people, historic preservation, military, economy, etc. The plan should keep the multiple stories and a larger context and vision. Think about other options for closing Craycroft temporarily and what the current needs are for using the site.
- Scale and size relationship of missing resources is important for interpretation.
- The park has a great relationship with the neighborhood. The fact that you can see remaining adobe walls is unique. Keep the park local and focused on the history.
- The plan should consider the ethics of conservation and sustainability. Consider locating a resource center for sustainable products on site.
- Bring Pima County Library, Dusenberry-River Branch Library to Fort Lowell Park. Library has the potential to connect different age and interest groups. Possibility of locating library with café, museum, etc. should be explored.
- I'm not sure that Glenn Street can take the additional traffic in third scheme.
- Orchard River Town Homes is working with PRO Neighborhoods to re-landscape the area along the north side of Glenn. Could connect existing Fort Lowell Road trail to proposed trail along Glenn and ultimately to the natural area along the Pantano Wash.
- Adaptive-reuse should be strongly considered to extend future uses and not stop the history. No monuments to history but historic continuum.
- Presidio Park has 20,000 visitors, with little advertising. City needs to promote its historical sites with better advertising.
- Much of the park is native and un-manicured vegetation and should be left as such.
- Where are the proposed "HAWK" crossings?
- What are the visual impacts of the pedestrian overpass.
- Where are the community gardens located and what are their sizes in each scheme?
- Are there medians associated with the crosswalks along Craycroft Road?
- Has there been a traffic study completed for the project? What is the existing traffic count along Fort

## Fort Lowell Park Master Plan: Public Meeting #2 - November 19, 2008 (Live Notes)

Lowell Road? How would the traffic counts be impacted by the proposed road closures?

- Craycroft Road is a major artery leading to and from the Foothills. I don't think there is any way to slow traffic down on Craycroft Road.
- Traffic will only become busier on Craycroft Road. Need to study the proposed at-grade crossing since it might be dangerous for children and higher volumes of pedestrian traffic.
- How will the project impact wildlife?

### Additional Comments Received:

- I am a neighbor of the Old Fort Lowell neighborhood area and would like to offer some suggestions for the master planning study. I was notified of the first Public Meeting back in early September, which I was happy to attend. I was also able to retrieve the meeting notes from Pima County's website dated June 25, 2008. As I become familiarized with the project, I would like to suggest a couple of ideas for your consideration:
- I believe that our Old Fort Lowell Park's history & neighborhood should be preserved as much as possible. I believe the idea of giving our children "roots" of the past is memorable. I also believe that not only the past, but the present and future help to shape our experiences as human beings. I would like to suggest a gathering place for children and adults to meet and learn about the past, present and future. I am proposing to relocate the existing Pima County Dusenberry-River branch library (currently located in a strip mall north of River Road, on Craycroft Ave.), to the Old Fort Lowell 50-Acre site. Not only may the library serve as a learning and gathering space for the adjacent neighborhoods and Whitmore Elementary School, it may also provide interactive exhibits explaining the past (our old Fort Lowell history), as well as to provide present and future learning experiences...
- For example, the library building can house a semi-outdoor sustainability/recycle interactive showroom...
  - It will answer questions such as:
  - How is glass recycled?
  - What is the process involved in recycling metals, papers and glass?
  - How long does it take to recycle a plastic soda bottle?
  - Why is it so important to recycle?
- We have to think about how to connect a state-of-the-art facility (such as the Martha Cooper library in midtown, for example) to the current recreational amenities offered at the park AND to also connect interactive exhibits/showroom explaining the importance of preserving our world...because in the end, it's all about preservation...preservation of buildings, ourselves and the world around us...
- Let's consider relocating the Dusenberry-River library to the Old Fort Lowell Park Master Plan. This will allow a bigger community involvement, and it will open doors to the learning experiences of our past, present and future. The library can be designed with many views to the outdoors and the mountains, and can also be attached to the sustainable learning center, gift shop & coffee shop (current ideas suggested for the park).

## Fort Lowell Park Master Plan: Public Meeting #2 - November 19, 2008 (Survey Distributed)

Thank you for attending this important meeting. We would like to get your feedback on some critical issues for the future planning of Historic Fort Lowell Park. We have identified seven critical variables as important to this project. Please select one priority for each of the seven variables outlined below.

1. USES: The balance between recreation uses and history

- Dominant use by contemporary recreation needs
- Dominant use by historical and interpretive elements
- A balance of history and recreation

Comments: \_\_\_\_\_

2. STORIES: The eras of history that will be represented

- All eras are represented, showing the evolution of the site over time
- Representation of the military period of Fort Lowell
- Representation of some other era as the most important

Comments: \_\_\_\_\_

3. PRESERVATION: The preservation approach(es) to be used

- Preservation: protect current historical resources and use interpretation to tell the story
- Adaptive re-use: look for current uses for historical resources
- Restoration: bring the resources to a specific point in time
- Reconstruction: rebuild the Fort using the best documentation available

Comments: \_\_\_\_\_

4. CIRCULATION: The treatment of Craycroft Road

- Provide safe at-grade crossing(s) of Craycroft using HAWK crossings
- Build an east-west pedestrian overpass over Craycroft
- Depress Craycroft Road from north of Fort Lowell to Glenn
- Re-route Craycroft around the historical resources

Comments: \_\_\_\_\_

5. LANDSCAPE: The approach to the landscape

- Develop a cultural landscape corresponding to history
- Develop a recreational landscape in support of recreational activities
- Develop and enhance a natural landscape in tune with the riparian and desert setting

Comments: \_\_\_\_\_

6. MANAGEMENT: Organizational structures and costs

- Managed by government: City of Tucson Parks and Recreation
- Managed by a public partner: for example, Arizona Historical Society

## Fort Lowell Park Master Plan: Public Meeting #2 - November 19, 2008 (Survey Distributed)

- Managed by a non-profit: form a specific 501c3 for the site
- Managed by “friends”: form a consortium of volunteer groups

Comments: \_\_\_\_\_

### 7. CAPITAL INVESTMENT: Capital costs

- Lower-budget: in the range of \$3 - \$5 million
- Mid-budget: in the range of \$5 - \$8 million
- Higher-budget: \$8 - \$25 million

Comments: \_\_\_\_\_

### Alternative Concepts

Please provide comments on the three alternatives as they are currently presented. A preferred concept will be developed based on the feedback received on these three preliminary concepts. Please direct your comments toward specific elements of each plan that you like and don't like rather than selecting your favorite alternative. You may also choose to mark the plans with your suggestions and comments

## Fort Lowell Park Master Plan: Public Meeting #3 - February 18, 2009

### Meeting Agenda

1. Introductions
2. Slide Presentations
  - Scope of Work and Project Schedule
  - Facts About the Site / Background Report
  - Project Goals
  - Detailed Project Guidelines
  - Draft Preferred Concept Plan
  - Summary of Responses to Meeting #1 Questionnaire
3. Comments, Questions and Community Input

### Summary of Responses to Meeting #2 Questionnaire:

#### Fort Lowell Park Master Plan – Planning Variables Survey

Public Meeting #2, Nov. 19, 2008; Pima County Cultural Resources website

Results represent 45 discrete responses to survey distributed at public meeting and through Pima County Cultural website. All responses on each survey were recorded. Some questions received multiple responses and some received no responses, so n-value on each question will vary.

- |  |     |  |     |
|--|-----|--|-----|
| <i>1. USES: The balance between recreation uses and history</i>      |     | <i>5. LANDSCAPE: The approach to the landscape</i> |     |
| a. Contemporary recreation   | 2%  | a. Cultural landscape                              | 37% |
| b. Historical and Interpretive                                       | 14% | b. Recreational landscape                          | 13% |
| c. Balance of history and recreation                                 | 84% | c. Natural landscape                               | 50% |
| <i>2. STORIES: The eras of history that will be represented</i>      |     | <i>6. MANAGEMENT: Organization structures</i>      |     |
| a. All eras  | 74% | a. Government                                      | 45% |
| b. Military period   | 19% | b. Public Partner                                  | 29% |
| c. Other periods (each respondent indicated Military + Hohokam only) | 7%  | c. Non-profit                                      | 21% |
| <i>3. PRESERVATION: The preservation approaches to be used</i>       |     | d. Consortium                                      | 5%  |
| a. Preservation  | 46% | <i>7. CAPITAL INVESTMENT:</i>                      |     |
| b. Adaptive Re-use   | 29% | a. Lower - \$3-5 million                           | 21% |
| c. Restoration   | 16% | b. Mid - \$5-8 million                             | 48% |
| d. Reconstruction  | 9%  | c. High - \$8-25 million                           | 30% |
| <i>4. CIRCULATION: The treatment of Craycroft Rd.</i>                |     |  |     |
| a. Safe at-grade crossings   | 50% |  |     |
| b. East-west pedestrian bridge                                       | 35% |  |     |
| c. Depress Craycroft Rd.   | 6%  |  |     |
| d. Re-route Craycroft Rd.  | 8%  |  |     |

## Fort Lowell Park Master Plan: Public Meeting #3 - February 18, 2009 (Meeting Notes)

### Public Comments (Live Notes)

- Fort Lowell Road East of Craycroft is a private Road. Traffic and circulation from this road is already problematic. The plan does not address the concerns of neighbors living in this area. There is an adult-care facility on this road and a lot of traffic that could be a safety problem. The boundary survey in this area is also incorrect.
- You should mention the on-going adobe repair that has occurred on-site.
- Need to take a look at using Beverly to get down to Glenn if left hand turns are restricted out of Fort Lowell Road heading east. It is a narrow street and cannot handle additional traffic.
- Gary Olson from Orchard River Townhomes- Move proposed maintenance further to the west to be south of the Pecan Grove with access from parking lot. This placement is opposite a parking lot on Orchard River site rather than townhomes. Use electric maintenance vehicles instead of gas powered.
- Likes using statuary for gateway features at north and south entrances to the park.
- Need to study the location of Adkins buildings to determine if they could help define the NW corner of the parade ground. Adkins had a long occupation of the site and their history is important.
- Does the increased possibility of “cruising” exist because of the interconnected parking areas?
- Why are we saving fragments from the Adkins period?
- Do we have revised costs for the clean-up of Adkins based on this proposed master plan?

### Notes from Interactive Workshop Boards:

- Place a coffee shop / lunch place near tennis court and museum.
- Orchard River wants the maintenance facility to move to Adkins or move west towards the tennis courts.
- Enhance landscape at west side of Orchard River.
- Use electric vehicles for maintenance to keep quiet.
- Put Museum in Commissary
- Trade for San Francisco Triangle
- Put as much as possible on the Adkins site.
- A man seemed to be a fort history fan. He initially commented that he thought the plan preserved the character of the fort very well. We then discussed the treatment of several of the buildings, the museum location and the issue of the ghost structures.
- A second gentleman wanted explanations of the concept of "ghosting." We discussed the concept and some of the specific buildings.
- A neighborhood resident who I had met at the Antiques fair said she liked the plan. We then discussed the options for the museum location and the statue controversy.
- One of the current tenants of the Commissary apartments expressed her interest in the history of the Bolsius family and their restoration efforts.
- To turn right and U-turn at Glenn seems to be consistent with the new "no left turn" (Michigan Left) that they plan to implement on Grant Road.
- Why close left turn off of Fort Lowell Road.? Many residents use this to access the library and other areas up north. What would the proposed alternate route be? (Note: Everyone I spoke with about this understood why we were suggesting that this intersection be altered, but they did not think it was enough of a reason to limit their access).
- Paved path around park is great! Make sure to include a soft shoulder for jogging. There was an

## Fort Lowell Park Master Plan: Public Meeting #3 - February 18, 2009 (Meeting Notes)

initial question as to why it didn't go through the historic zone, but when it was explained that we were attempting to take as much paving out of this zone as possible it was understood.

- Consider showing a connection across the Pantano to make use of the natural open space to the east. Informal trails would be great in this location.
- Community garden is a GREAT idea and there are many groups that would help to support it. It is especially relevant given the current economy. Please consider leaving it in the final plan.
- Consider using Mexican Elder in the riparian areas
- Fitness circuits are GREAT!
- Improve lighting and fencing in tennis area.
- Consider the addition of a café near the pond. Perhaps the proposed museum location at the north end of the parking lot could also house a café that looks over the pond.
- Riparian enhancements are great
- Bugler statue really makes a nice entry statement, but most were ok to leave it where it is. Consider the addition of a new statue at the Craycroft/Glenn intersection instead of moving the bugler.
- Move maintenance yard further west
- Parking loop is good, clarifies circulation
- Barry Spicer and I had an in-depth conversation about the natural history of the site. He firmly believes that this story should be told throughout the park and that it should be integrated with the Fort exhibits, Hohokam exhibits, etc. He's excited about the potential to tell the story of how the Rillito influenced the settlement of the area. He also had specific comments about the plant palette that we discussed.
- Many comments about the proposed changes to the Fort Lowell / Craycroft intersection. Most of the people I spoke with thought that restricting left turns to Craycroft was a bad idea. Some felt it would be inconvenient and others felt that it wasn't a big safety issue. Some felt that Beverly couldn't handle the additional traffic and that it just pushed more traffic into a school zone.
- Several people commented that they thought the Adkins buildings and elements should go away. According to some people, the industrial use of the site should not be saved.
- A few comments about keeping the Commissary as residential use.
- The location of the maintenance building against the townhouses is not desirable due to noise and blocking views. We should consider relocating it to against the drive along the south fence, or another location.
- Interpret the geology of the Pantano River over time in the interpretive signs. I think this is a good idea. The soils and how the river has moved over time have a lot to do with the vegetation and thus the habitation.
- Some xeroriparian species we listed on the plant list do not exist in this location according to one neighbor/specialist. He's probably correct, the list was general. We should clarify that re-vegetation will be based on the unique community which exists at this site, to restore the integrity of the ecology. Invasive species should be eliminated (it was suggested that desert broom be planted because it exists on site, but I explained that it's invasive and should not)
- Mesquite trees which are large are likely from the fort era. Mesquite trees can put on 6 – 12" per year in trunk circumference (according to a neighbor/specialist) so we should keep the large mesquites for historic landscape interpretation. (There is some truth to this, but mesquites are opportunists too and can grow erratically, so assumptions can be made, but they are just assumptions.)
- We should not be showing the future trail along the Pantano because the County has not contacted any of the property owners in that area to discuss this trail proposal. (Perhaps we should label it "future

## Fort Lowell Park Master Plan: Public Meeting #3 - February 18, 2009 (Meeting Notes)

proposed trail by Pima County”, so that people are more clear that it is just in the idea stage.)

- Indicate bike use of paths. There is an interest in bike use of the paths.

### Additional Comments Received:

- **Parking:** The new parking on Glenn is great for access to playing fields, but not handy for dog walkers and picnickers. On the plan one can see the road which leads east from the tennis parking area toward the future maintenance building, but it appears the parking area over there would be gone. We have noticed those spaces being used by many dog walkers. The entire park is heavily used by dog owners, but there may be people who like to use the more remote paths and, perhaps, access the wash. A few additional pecan trees don't seem preferable to parking which provides access to walking paths. The water feature and its bridges and many picnic sites.:
- **Playing Fields:** Are there as many ball fields on plan as exist currently? Perhaps the area next to Glenn makes up for the large field north of the tennis courts (proposed fitness and play areas) and the field or fields from Craycroft east to the duck pond. Will that large open area be available for overflow use as playing fields?
- **Picnic areas:** Fort Lowell Park has always been a popular picnic spot. Maybe some of those bright red squares and rectangles are ramadas. Will there continue to be as many tables and grills?
- **Tennis courts:** The tennis program at Fort Lowell is one of the most popular in the city. The doubles scramble format makes it so easy for players to turn up at will without a partner or opponents and be out on the courts for two to three hours of fun and exercise. There are people who come from miles away. It is frequented by many winter visitors. There are clinics, children's lessons, ball machines, private lessons, etc. At times we have had five-person groups on all eight courts. In the foreseeable future (with baby boomers due to raise the number of retirees), additional courts may be a necessity rather than a luxury. My greatest concern in that the plan has left no space for courts to be added
- **Wading pool:** Somewhere someone must know what is wrong with the wading pool. I heard (several years ago) that it needed some sort of repairs. Maybe it wasn't being used much, anyway. In any case, it should probably be removed or repaired.
- I apologize for being so focused on the park's recreational uses. After you have once walked around, looked at the ruins and read the plaques, the park tends to become a part of your lifestyle as dog owner, sports enthusiast, and/or parent or grandparent of active children. There are undoubtedly many others who share this viewpoint. Thank you for your patience in "hearing" me out.

# Fort Lowell Park Master Plan: Youth Focus Groups - January, 2009

Summary Report

Prepared by Bruce Hilpert, Interpretive Consultant

## *Purpose of Study*

Obtain opinions and information from Tucson youth about their preferences for variables in the Fort Lowell Historic Park planning process including:

- Preferences for the functional balance between History, Recreation and Natural Environment
- Relative levels of interest in History, Natural Environment and the three Historical Eras of Fort Lowell
- Preferences for the preservation approach to historic buildings and resources
- Preferences for historical interpretation techniques such as tours, museum exhibits and living history.
- The impact of future costs on the development of the park

## *Methodology*

The project's interpretive consultant and PFA staff decided to use a combination of focus group and survey techniques to obtain information on the opinions and attitudes of representative youth. The focus group technique allowed the staff to capture attitudes expressed through conversation and comments among the group; written survey questions were used at the end of each discussion topic, "forcing" the participants to assess their opinions and make questions.

In addition, several informal surveys questions with a show of hands were asked at various points in the interview to gauge opinion. In some cases these were intended to get a "pre-discussion" opinion or to "force" a choice between two options to help assess relative levels of interest or preference.

With limited resources and time constraints, staff arranged to conduct two focus groups with youth who are representative of future park users.

Dunham Elementary School students – The group consisted of eight 4th- and 5th-graders from Dunham Elementary School, located on the far-east side of Tucson, representing younger kids with little exposure to Fort Lowell. Only three of the students had visited Fort Lowell Park, mostly for soccer games; they had little knowledge of the history of Tucson or the park.

Boy Scout Troop 122 – The group consisted of ten scouts ranging between 13 and 17 years old, representing a potential partnership group. The students were generally aware of the history of the Tucson region and 3-4 had attended a youth archaeology training program. The Scoutmaster had been interviewed earlier in the year about the potential for partnerships between Boy Scouts and the future park. The Scoutmaster is an archaeologist and undoubtedly promotes this interest among his scouts, but it is not a formal focus of the troop.

## *Analysis and Conclusions*

### **Dunham Elementary School Group**

1) *Recreation and Natural Environment were of greater interest than History.*

- Only 12.5% of students identified History as most important of three park components. (See Question 1)

## Fort Lowell Park Master Plan: Youth Focus Groups - January, 2009

- 75% preferred Recreation over History as best use of park in “either/or” vote (See Question 4)
  - 62.5% preferred Natural Environment over History in “either/or” vote (See Question 6)
- 2) *Interest in Natural Environment was much stronger than History (See Question 1, 5, 6)*
- 3) *Regardless, History should be included along with Recreation and Natural Environment as best use of Fort Lowell Park.*
- None thought Recreation alone was the best use of Ft. Lowell (Quest 2)
  - When presented with options to include History along with Recreation and Natural Environment, majorities selected combination (See Question 3, 5)
- 4) *None thought Fort Lowell Park should be solely recreational. (See Question 2)*
- 5) *All Historical Stories should be told at the park (See Question 7)*
- 62.5% thought all eras should be included
  - 25% thought only Fort Lowell era was greatest interest
  - Hohokam seemed to be of significantly less interest than Fort Lowell era
- 6) *Preservation of Ruins was preferred approach for dealing with the treatment of historic buildings and ruins. (See Question 8)*
- 7) *Interpretation of Ruins through audio tours and signage was preferred interpretive approach (See Question 9)*
- 62.5% preferred interpretation of Ruins
  - 25% preferred Rebuilding Fort Lowell with extensive living history programs
- 8) *Cost of interpretive options did not significantly affect their preference (See Question 10)*

### Boy Scout Troop 122

- 1) *Group had a generally high interest in the history of Fort Lowell Park and valued that history as the primary use of the park.*
- 50% thought History was most important of three park components (See Question 1)
  - 80% thought Tucson needs more historic facilities (See Question 2)
  - 50% thought History alone was best use of park; 50% preferred History and Recreation; None preferred recreation alone. (See Question 3)
  - 80% preferred History over Recreation as best use of park in “either/or” vote (See Question 4)
- 2) *Interest in History was greater than in Natural Environment*
- 80% preferred History alone or Both; 20% preferred Natural Environment alone (See Question 5)
  - 70% preferred History over Natural Environment in “either/or” vote (See Question 6)
- 3) *The Fort Lowell era of the park was of greatest interest of the historic eras. (See Question 7)*
- 30% preferred telling the story of Fort Lowell alone

## Fort Lowell Park Master Plan: Youth Focus Groups - January, 2009

- 40% preferred telling the story of the Hohokam and Fort Lowell
  - 30 % preferred telling the story of all Hohokam, Fort Lowell and post-Fort Lowell era
- 4) *There was a strong preference for Restoration or Reconstruction of the fort buildings as the preferred treatment of historic buildings (See Question 8)*
- 50% preferred Restoration of existing buildings alone
  - 30% preferred Reconstruction of entire fort
- 5) *There was a strong preference for Restoration/Reconstruction with Living History as the interpretive approach (See Question 9)*
- 80 % preferred Rebuilt Fort with Living History
  - 20 % preferred interpretation of Ruins
- 6) *Cost of the park construction and admission fees affected choice of interpretation (See Question 10)*
- 50% preferred Reconstruction and Living History when presented with costs
  - 20 % preferred interpretation of Ruins
- 7) *Group was enthusiastic about volunteering for service projects in ruins stabilization and archaeology.*
- 70% interest in stabilization of ruins
  - 80% interest in archaeology

### Dunham Elementary School Results (n = 8)

1. What is your favorite component of Fort Lowell Park? (Pre-discussion vote)

A) History	1	12.5 %
B) Recreation	3	37.5 %
C) Natural Environment	4	50 %

2. What is the best use for Ft. Lowell Park? (Pre-discussion vote)

A) History	1	12.5 %
B) Recreation	0	0 %
C) Both	7	87.5 %

3.\*What is the best use for Ft. Lowell Park? (Post-discussion vote)

A) History	1	12.5 %
B) Recreation	1	12.5 %
C) Both	6	75 %

4. If you could only vote for one, which would you prefer? (Post-discussion, forced vote)

A) History	2	25 %
B) Recreation	6	75 %

5. \*What would you most like to learn about at Ft. Lowell Park? (Post-discussion vote)

## Fort Lowell Park Master Plan: Youth Focus Groups - January, 2009

- |                    |   |        |
|--------------------|---|--------|
| A) History         | 1 | 12.5 % |
| B) Natural Environ | 3 | 37.5 % |
| C) Both            | 4 | 50 %   |

6. If you could only vote for one, which would you prefer? (Post-discussion, forced vote)

- |                    |   |          |
|--------------------|---|----------|
| A) History         | 3 | 37.5 %   |
| B) Natural Environ | 5 | 62.5.5 % |

7. \*What stories do we want to tell at Ft. Lowell Park? (Post-discussion vote)

- |                       |   |        |
|-----------------------|---|--------|
| A) Hohokam            | 0 | 0 %    |
| B) Fort Lowell        | 2 | 25 %   |
| C) After the Soldiers | 1 | 12.5 % |
| D) All                | 5 | 62.5 % |
| E) Hohokam and Fort   | 0 | 0 %    |

8. \*What is the best preservation approach? (Post-discussion vote)

- |                   |   |        |
|-------------------|---|--------|
| A) Preserve Ruins | 6 | 75 %   |
| B) Restoration    | 1 | 12.5 % |
| C) Reconstruction | 1 | 12.5 % |

9. \*Which would you most like to visit to learn about Ft. Lowell history? (Post-discussion vote)

- |                                  |   |        |
|----------------------------------|---|--------|
| A) Preserve the Ruins            | 5 | 62.5 % |
| B) Ruins, Museum & exhibits      | 1 | 12.5 % |
| C) Rebuilt Fort & Living History | 2 | 25 %   |

10. \*Which would you most like to visit if you had to pay? (Post-discussion vote)

- |  |   |      |
|--|---|------|
| A) Preserve the Ruins - Free           | 4 | 50 % |
| B) Ruins, Museum & exhibits - \$1      | 2 | 25 % |
| C) Rebuilt Fort & Living History - \$5 | 2 | 25 % |

### Boy Scout Troop 122 Results (n=10)

1. Is History the most important component of Fort Lowell Park? (Pre-discussion vote)

- |        |   |      |
|--------|---|------|
| A) Yes | 5 | 50 % |
| B) No  | 5 | 50 % |

2. Do you think Tucson needs more historical facilities? (Pre-discussion vote)

- |        |   |      |
|--------|---|------|
| A) Yes | 8 | 80 % |
| B) No  | 2 | 20 % |

3. What is the best use for Ft. Lowell Park? (Post-discussion vote)

- |               |    |      |
|---------------|----|------|
| A) History    | 50 | 50 % |
| B) Recreation | 0  | 0 %  |
| C) Both       | 50 | 50 % |

## Fort Lowell Park Master Plan: Youth Focus Groups - January, 2009

Informant A: The history in Ft. Lowell is unavailable in any other park in Tucson and could become a valuable learning center or tourist attraction. That being said, recreation and open space is important. [Choice C]

Informant B: I think history is needed because there is not much parks with history. [Choice A]

Informant C: I like both (history and recreation) in it like rebuild but have the field. [Choice C]

Informant D: Tucson doesn't have enough history. [Choice A]

Informant F: It seems that because of Ft. Lowell, Tucson was able to survive during thte times that the Apaches were attacking. [Choice A]

Informant G: Recreation and history may attract more people who then return for the other reason (go for a game, stop by the ruins). A dog park would be a nice feature. [Choice C]

4. If you could only vote for one, which would you prefer? (Post-discussion, forced vote)

- |               |   |      |
|---------------|---|------|
| A) History    | 8 | 80 % |
| B) Recreation | 2 | 20 % |

5. What would you most like to learn about at Ft. Lowell Park? (Post-discussion vote)

- |                    |   |      |
|--------------------|---|------|
| A) History         | 3 | 30 % |
| B) Natural Environ | 2 | 20 % |
| C) Both            | 5 | 50 % |

Informant A: Desert environments are available in many other locations around the city, while the history is unique to the area. [Choice A]

Informant C: A little forest would be nice to run around in and trails. [Choice B]

Informant F: I have no idea about Tucson's history and I think it would be cool if a park taught me about it. [Choice A]

Informant G: Focus more on the park's history rather than on the desert in general. [Choice A]

6. If you could only vote for one, which would you prefer? (Post-discussion, forced vote)

- |                        |   |      |
|------------------------|---|------|
| A) History             | 7 | 70 % |
| B) Natural Environment | 3 | 30 % |

7. What stories do we want to tell at Ft. Lowell Park? (Post-discussion vote)

- |                       |   |      |
|-----------------------|---|------|
| A) Hohokam            | 0 | 0 %  |
| B) Fort Lowell        | 3 | 30 % |
| C) After the Soldiers | 0 | 0 %  |

## Fort Lowell Park Master Plan: Youth Focus Groups - January, 2009

- D) All 3 30 %
- E) Hohokam and Fort 4 40 %

Informant C: I like how it tells how Fort Lowell is and was. [Choice D]

Informant D: All are important. [Choice D]

Informant F: Ft. Lowell defended Tucson and let it survive so it could grow. Their stories deserve to be told. [Choice B]

Informant G: The Hohokam and the fort seem more interesting than farmers and settlers. These two should be the main topics. [Choice E]

8. What is the best preservation approach? (Post-discussion vote)

- A) Preserve Ruins 2 20 %
- B) Restoration 5 50 %
- C) Reconstruction 3 30 %

Informant A: Restoration provides a good compromise between authenticity and attraction. [Choice B]

Informant C: See how they were 1,000 years ago [Choice A]

Informant F: We should keep the originals preserved as long as possible with canopies and coating the adobe. Then once the buildings finally do fall apart and crumble, then we should rebuild them as accurately as possible. [Choice A]

Informant G: Restoration with boundaries. Restore to the point where the structure weill last a long time without compromising the originality and remaining authenticity. [Choice B]

9. Which would you most like to visit to learn about Ft. Lowell history? (Post-discussion vote)

- A) Preserve the Ruins 2 20 %
- B) Ruins, Museum & exhibits 0 0 %
- C) Rebuild Fort & Living History 8 80 %

Informant C: See what the day in the life at Ft. Lowell [Choice C]

Informant E: Preserve the ruins and have some living history. [Choice D]

Informant F: I like to see the real thing and imagine what it must have looked like instead of seeing some sort of interpretation of what it could have looked like. [Choice A]

Informant G: In favor of restoring over reconstructing. The authenticity of the structures is what make them so interesting. [Choice C]

## Fort Lowell Park Master Plan: Youth Focus Groups - January, 2009

10. Which would you most like to visit if you had to pay? (Post-discussion vote)

A) Preserve the Ruins - Free	4	40 %
B) Ruins, Museum & exhibits - \$1	1	10 %
C) Rebuilt Fort & Living History - \$5	5	50 %

Informant F: I like the whole preserving thing. I still like the pedestrian walkway going over the road, though. [Choice A: Preserve the Ruins - Free]

Informant G: "Living history" seems worth the money. A more interactive environment would be more entertaining and have more "return" value. Place to give donations as well. [Choice C: Rebuild Fort & Living History - \$5]

11. Would you like to assist in preservation of ruins as a service project?

A) Yes	7	70 %
B) No	3	30 %

12. Would you like to assist in archaeological research?

A) Yes	8	80 %
B) No	2	20 %

13. General Comments:

Informant G

- Prefer overpass over underpass/crosswalk
- Dog park would attract many people
- Place for picnics/Boy Scout events (Camporees)
- Very interesting Project. Thanks for the presentation!

## Fort Lowell Park Master Plan: Advisory Committee - March, 11 2009

Submitted Remarks on Fort Lowell Master Planning:

**Barry Spicer**, resident of Old Fort Lowell neighborhood

Comments regarding future use of Commissary as outlined in the proposed Fort Lowell Master Plan. Thank you for this opportunity to speak to you. As the neighborhood's Advisory Committee develop their thoughts regarding the Fort Lowell Master Plan. I would like to address the future of the Commissary Apartments and the overall approach as proposed in the February version of the Plan.

- The consultants that are preparing the Master Plan have indicated a desire to tell all the historical stories associated with the Fort Lowell site and immediate vicinity
- I would like to suggest two inter-related stories that also provide a unified chronological theme.
- These are first, the story of the environmental history of the area that also provides a framework for the second, which is the story of the cultural history of the area.
- One way this can be described is to compare it to a dramatic production. The stories are as follows:
- The physical environmental story consist of a stage built by geological processes, for example, some 10-2- million years ago, the earth's crust stretched and cracked, forming large blocks. Some blocks settled to form basins, including the Tucson basin, and other blocks that did not settle, or were slightly upraised, were ultimately sculpted by erosion into magnificent mountains like the Catalina and Rincon ranges that border the Tucson basin.
- Sand, gravel and other eroded materials were deposited in the basin forming both the water aquifers we still use and the ground surfaces we build upon. In our area, the ground surface was further molded by the northward migration of an ancestral Rillito. This migration resulted in flood plains that were later abandoned at successfully lower levels. Thus were formed three abandoned floodplains or terraces and finally the existing recently active Rillito Floodplain. You can see these terraces when you look north down Craycroft or Swan or Broadway.
- The Hohokam Village, Fort Lowell, El Fuerte, and Fort Lowell Road are built along a terrace that overlooks the Rillito floodplain. The San Pedro Chapel is built upon the next higher terrace.
- Over time and as climate patterns changed and soils developed different combinations of native plants and wildlife formed distinctive biological communities. These are the stage decorations or sets. Each community contributed elements to later communities.
- While these changing situations are pretty dramatic in themselves, the drama we are most concerned with are the stories of cultural history that play out on the environmental stage surrounded by biological sets.
- The soils of the terraces, the water, including floodwaters, of the Rillito, Tanque Verde, and Pantano, the floodplain grasses, the trunks of the riparian trees, the branches of riparian shrubs, the animals, from mammoths to cottontails, all of these have served as resources for subsistence and building for each culture group from the first arrivals eleven and a half thousand years ago to the present.
- Even though we don't make adobes, hunt ground squirrels and small birds, gather and grind grass seeds or mesquite beans, or even do much cultivation and irrigation of fields, the ground surface, 150 old mesquites, even older creosote bushes, and many other native plants and animals are still here and contributing to the atmosphere and character f the neighborhood.
- These are the stories that have made our neighborhood and these are the relationships that bind the neighborhood together.
- The options suggested are to use the apartments either as a museum or for commercial activities such as shops or a small café.

## Fort Lowell Park Master Plan: Advisory Committee - March, 11 2009

- I would like to suggest a third option and that is to continue its 100 year years of residential use.
- Our neighborhood is a living active community. Its core, past, and present are the individuals, the families, the people that live here.
- The Commissary and its occupants have been and continue to be representative of the ongoing cultural history of the neighborhood.
- During its 136 years, the Commissary has been occupied by people whom as part of the community , have helped to shape the form and character of the neighborhood. For its first 18 years, it was the Quartermaster and his staff that used it in the conduct of their military duties.
- Nearly 100 years ago, the then-abandoned buildings were claimed by the fuerteno families, some of whose descendents still live in the neighborhood. Hey were followed by the Bolsius family, who not only modified the buildings into apartments, but also used them themselves.
- And finally, the apartments have been lived in for the last 60 years or so since the Bolsius's. Many of those who have lived, and now live in the apartments have helped to make this neighborhood what it is today.
- To displace current families or prevent future ones from living in the Commissary would cut short its continuity with earlier ways of life and deprive the Commissary area, and, indeed, the whole neighborhood, of part of its identity.

**John Meaney**, 4840 E. Ft. Lowell Rd., resident of the Old Ft. Lowell Neighborhood.

Mr. Chairman and Committee Members,

Why is there concern about the Master Plan?

One of the major concerns about the plan as it was presented in the third public meeting involves the specific changes proposed for the entrance to the historic neighborhood at the intersection of Craycroft and Fort Lowell Roads. The potential loss of neighborhood people from the Commissary buildings and the elimination of the structures on the Adkins property would I think have a major impact in that they are irreplaceable markers of the historic neighborhood's unique physical and social character. For many years the eastern entrance to the neighborhood has consisted of the Adkins property on the south side and the Commissary buildings on the north side inhabited by neighborhood people. Personally I have enjoyed this entrance to our community for more than 40 years. The proposed plan would alter this entrance forever by changing the landscape of the Adkins property to a more open configuration and transitioning the Commissary buildings to non-residential uses. Each of these alterations would represent significant losses for the environmental and cultural "face" that the eastern entrance has been for this neighborhood for more than 75 years.

Why is there a need for balance in the Master Plan?

I have been actively engaged in the feedback process for the Master Plan by submitting the forms distributed at the meetings or submitting comments online. When the Fort Lowell Master Plan Variables were presented for comment online, I favored a balance of history and recreation. However, I cautioned at the time that I would not prefer this balance if it compromised in any way the need to preserve the Fort Lowell Neighborhood and its own unique sense of time and place. The need for balance in the historical aspects of the plan comes to the fore at the intersection between what were the actual fort grounds and what developed subsequent to its abandonment. I am concerned that the military fort aspects seem to

## Fort Lowell Park Master Plan: Advisory Committee - March, 11 2009

have taken some precedence over the integrity of the historic neighborhood in the current plan. I am not opposed to plans to tell the story of the military history of the fort; after all it was the fort that gave its name to the neighborhood. However, the area already had many unique aspects from farming and other uses and certainly developed a unique character over the many years following the abandonment of the fort. This unique character would be significantly diminished by the destruction of some of the physical and environmental elements that define the eastern entrance to the historic neighborhood and the loss of individuals who through time have always been important contributors to the unique social history of the neighborhood.

Thank you.

**Bob Jones**, 5487 E. Ft. Lowell Rd., resident of the Old Ft. Lowell Neighborhood.

Mr. Chairman and Committee Members, I have a short comment about water as it relates to master planning, then a follow-up on what John and Barry have said.

First, may I acknowledge Patsy Waterfall? ... who is, besides a member of our Advisory Committee, known worldwide for her booklet Rainwater Harvesting. I learned her name ten years ago when the booklet was first published, and I was looking for sources that I could use in the design of my own rainwater harvesting system. Another name that I am thinking of is Rodney Glassman, our City Councilor, who is a strong advocate of rainwater harvesting and other sustainable water practices. With these advantages and friends, it would be hard to imagine that we would not create a park that would employ and demonstrate the best examples of sustainable water and landscape management.

Returning to the current draft of the master plan, John and Barry have spoken of impacts on the Old Ft. Lowell Neighborhood. Again, the critical zone is the interface or boundary zone between the existing park and the neighborhood. The Commissary, of which Barry has spoken, is on the north side of this zone. Here, the five current residential apartments are layered directly on top of army structures. Consequently, there is really no question of restoring army period conditions, except for the portions that were not rebuilt, primarily the root cellar. The Adkins parcel is on the south side of this zone. Here, the Adkins family structures are placed mainly beside military structures. It happened this way, I suppose, for the simple reason that there was open space here, roughly a portion of the former army parade ground, where open space was available to build on. In any case, it is fortunate because both sets of structures can, and ought to be, preserved and interpreted relative to their respective roles in neighborhood cultural history. However, if I read the planning map correctly, this zone would feature a reconstruction of the western portion of the former army parade ground, and to do this the Adkins structures would be largely demolished. Remaining would be some remnants or markers to indicate where these structures had been. Such an outcome would be a very major loss to the cultural history of the neighborhood. A better approach would be the reverse, the preservation and interpretation of the Adkins family structures, and some type of markers to indicate the former parade ground. This seems obvious, but I wouldn't be so bold as to relate neighborhood history to this group. Let me just mention one point, in closing, that connects to the subject of water. The Adkins family steel fabrication business produced welded steel water tanks. These tanks have a reputation in southern Arizona as the highest quality available. Next to the workshop, where these tanks were built, stands the Adkins family water tower and windmill by which well water was pumped and stored. These structures, then, are vivid symbols in the story of water, which story is bound to central to the interpretive

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function of the park.

Our neighborhood is like a complex and fragile ecosystem. It is hard to understand fully, to interpret adequately, and, as we are attempting tonight, to defend convincingly. Let us at least have the humility to know when we do not know, and, when in doubt, leave it as it is.

Thank you.

**Tamiyo**, 5487 E. Ft. Lowell Rd.

I am Tamiyo. I have lived in the Commissary for nine years. I tell friends that I feel very lucky to live in the Commissary because I like the building, I like the location, and I like the neighborhood. For example, today, coming to the meeting at the Chapel, walking along Fort Lowell road, I see the Adkins water tower with their water tank workshop. They are a set. And I see the TMC water tower from Beverly and Fort Lowell, and I reach to the Chapel. These three are icons among the residences of the Old Fort Lowell neighborhood. For me, they give a unique sense of place. Thank you.

## Fort Lowell Historic Zone Advisory Board (FLHZAB)

May 9, 2009

Poster Frost Associates  
c/o Corky Poster and Drew Gorski  
317 N. Court Ave.  
Tucson, AZ 85701

The Fort Lowell Historic Zone Advisory Board (FLHZAB) met on February 24, 2009 with Corky Poster and Drew Gorski of Poster Frost, the Consultants for the Historic Fort Lowell Park Master Plan. We engaged in a presentation and discussion of the preferred concepts for the Plan, and discussed many of the issues and decisions that must be addressed. Because the entire Park is within the Fort Lowell Historic Zone, the Advisory Board was asked to consider the proposals for the Park. The following topics were discussed between the Consultants and the Board Members, with Members asking questions and expressing opinions. The Board advised that it would provide a position paper concerning the project and several controversial issues, as follows:

- Hohokam Interpretation Areas
- Consolidation of Fields
- Donaldson/Hardy House community Garden
- Parade Ground
- History Museum
- Trumpeter Statue
- Craycroft Pedestrian Crossing
- The Commissary Complex
- Adkins Property House, Water Tower, Windmill
- Parking Lots on the Adkins site
- Plants

The FLHZAB met on March 31, and again on May 5, 2009 and formulated the following recommendations for the Historic Fort Lowell Park Master Plan:

General Comments starting at the East side of the Park -- There appears to be good circulation, and the Board very much likes the natural areas adjacent to Pantano Wash. We approve retention of the Pond and the improved individual fitness recreation amenities.

**Hohokam Interpretation Areas** -- The Board feels that the Hohokam theme could be better enhanced, preserved and highlighted in the plan in order to attract people to the east side of the park. Use of signs and way finding devices would encourage exploration and emphasize the importance of this pre-historic site.

## Fort Lowell Historic Zone Advisory Board (FLHZAB)

**Consolidation of Fields** -- The Board approves of the idea to eliminate one softball field and the old softball lights that are wasteful and cause light pollution. Also, unification of the organized recreational areas is well thought out. Tennis and pool enhancements serve to create an "individual fitness" center. The removal of the racquetball building is recommended as its presence actually detracts from other adjacent amenities and recreational facilities.

**Donaldson/Hardy House Community Garden.** -- The Board approves of this concept as long as the gardens are raised so that subsurface archaeological assets are preserved.

**Parade Ground** -- The Board is concerned that there appears to be no major function of the Parade Ground other than visual open spaces on each side of a major thoroughfare. With the intrusion of Craycroft Road it seems impossible to unify the appearance of the original Parade Ground. Extending Cottonwood Lane is good as more shade will encourage more use of the Park. Planting of new trees should begin right away in locations that align with the new plan before removing any old trees. Otherwise the vacant ground will look barren and without shade will have little use at first. The cottonwoods should all be Fremont Cottonwoods. If grass is being planned for the parade ground, what can be done to preserve subservice archeological features?

**History Museum** -- The current museum building's reconstruction in 1963 speaks to community involvement in preservation, and this fact should not be ignored. The reconstructed Officer's Quarters may be misaligned from the others, but it is a visual focal point from Craycroft. Unless there are more compelling reasons to remove the current museum, it should be left in place and continue to be used as a museum until a new building is built. The Board recommends that the new location of a museum should be located close to parking and access. A location near the Pond on the concept plan appears to be an ideal place. Once a new museum is located the Board would recommend keeping the old museum structure as another public site for community use. Because existing ramadas are so highly used, they should remain where they are today until new structures in the proposed locations of former Officers Quarters are constructed.

**Trumpeter Statue** -- The unanimous recommendation is to leave the statue in its present location. The Board supports the northwestern side of Craycroft for installation of a new sculpture or entrance statement, as well as an entrance statement at the corner of Glenn Street and Craycroft.

**Craycroft Pedestrian Crossing** -- Pedestrian islands are very important to introduce early on. They are really needed now to slow traffic for increased safety. There is some opposition about the elimination of the left turn on/off of Fort Lowell Road. The Committee should consider if it needs to be eliminated and how this will affect traffic flow down Fort Lowell Road. There is concern that elimination of the turn may increase traffic on Fort Lowell Road, which is a local street and not an arterial cross town street. A Hawk Crossing should be part of Phase One of the Plan. Safety is of the utmost concern.

**The Commissary Complex** -- The Board does not want to see the use of these buildings as a commercial venture except, perhaps with use by non-profit groups or in small spaces. The public should have access to the facility at some level. We recommend that as apartments become vacant, they become available for use by historic preservation organizations for archives, meeting space, a gift shop, or perhaps a tea room as part of a museum, etc. There could be a residence for a caretaker.

## Fort Lowell Historic Zone Advisory Board (FLHZAB)

The Board recommends that the complex remain residential until a program to change its use is developed and has been accepted by this Board. Stricter control is required for the property's management and preservation to ensure the historic integrity. For example, the facades of the buildings must be kept historic, and parking in front of the buildings should be eliminated. Correct the improper repairs done in 2006 – plaster and lentil.

**Adkins Property: -- House, Water Tower, and Windmill** -- The Board recommends preserving these historic structures by majority vote. We recommend that they be incorporated into a functional aspect of the park. The Board recognizes the sensitivity of this question. It is the mission of the Board to preserve the historic environment of the Fort Lowell Historic Zone as a whole. The Adkins house, water tower, and windmill reflect the history of the neighborhood and how residents adopted uses of the Fort. Interpretive signage could explain their presence, highlight the history of the neighborhood, and reoccupation of the neighborhood after the closure of the Fort. The house could be modified to architecturally blend better by removing the mission tile. The Board recommends removal of the **Steel Manufacturing Building** and concrete pad/slab, without ghosting of the form. Its mass and structure, while interesting and historically significant to the Neighborhood, inhibits views of the Officers Quarters.

**Parking Lots on the Adkins site** -- The parking could be broken up and meander with the landscaping buffers. The Board recommends that the parking should not be intrusive to the historic views, areas or adjacent properties. Consider less of a mass of parking and breaking the parking up into smaller parking pods, not one parking area as presented. The pods with landscaping and a mesquite buffer at the margins and interspersed trees and shrubs would work well. Additional parking could be located off of San Francisco Boulevard with a trail leading back to the park. Parking is disruptive to archeologically sensitive sites such as this. Uses planned for the building M (Adjutants Office) and the affiliated bathrooms might be moved to the Adkins house.

**Plants** – Only plants native to this District should be used.

We thank you for the presentation to the FLHZAB of the current plans and hope that our comments will be helpful to the Committee in arriving at decisions that will benefit the City and County and will ultimately result in a historic gem in Tucson..

Sincerely,  
Carl Ewing  
Co-Chair Fort Lowell Historic Zone Advisory Board

cc: Cultural Resources & Historic Preservation Office Pima County Administration  
c/o Linda Mayro, Simon Herbert, Loy Neff  
Pima County Public Works Center  
201 N. Stone Ave., 7th floor  
Tucson, AZ 85701-1207

## Old Fort Lowell Neighborhood Association, Inc.



## OLD FORT LOWELL NEIGHBORHOOD ASSOCIATION, INC.

Poster Frost Associates  
317 North Court Avenue  
Tucson, AZ 85701

ATTN: Andrew Gorski

Dear Drew.

OFLNA has the following comments concerning the Master Plan for Fort Lowell Park.

1. The traffic island on Craycroft should run from Glenn to the River.
2. The Hawk signal at the new Cottonwood lane is a good idea.
3. Leave the questions of left turns from Fort Lowell and Craycroft to City Traffic Engineering.
4. There should not be any big parking lots on the South West corner of Fort Lowell and Craycroft.
5. Any plans along the Craycroft corridor should conform to the 1984 Old Fort Lowell plan, as amended. This does not allow any commercial from Glenn to the River.
6. No Residents should be made to leave the commissary property at this time, but it has to have a definite plan to be properly maintained and must be preserved in its historic condition. The long range plan should have at least parts of the property available to the public. Nothing should be done that negatively impacts the residential feeling of the Old Fort Lowell Neighborhood. If it continues as rentals it is imperative that a licensed property manager oversees the property.

# Appendix B

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