Memorandum

To: Jonathan Ikan, Cultural Resources Manager, NASA Ames Research Center
CC: Kathy Kwong, AECOM
Subject: Section 106 Consultation on the Building 20 Rehabilitation Project, NASA Ames Research Center, Moffett Field, Santa Clara County, California
From: Trina Meiser, Senior Architectural Historian
       Jennifer Redmond, RPA, Senior Archaeologist
Date: April 19, 2022

1. Introduction

National Aeronautics and Space Administration (NASA) Ames Research Center (ARC) proposes the Building 20 Rehabilitation Project (project or undertaking) at ARC, Moffett Field, Santa Clara County, California (Appendix A, Figure 1). NASA is the lead federal agency responsible for compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (54 United States Code 300101 et seq.), which requires federal agencies to take into account the effects of their activities and programs on historic properties, and its implementing regulations in 36 Code of Federal Regulations (CFR) Part 800. The purpose of this memorandum is to provide necessary information for compliance with Section 106, including a description of the undertaking and the Area of Potential Effects (APE), the methodology used to identify and evaluate historic properties within the APE, a description of the affected historic properties, and an assessment of potential effects resulting from the undertaking.

1.1 Project Location

Building 20 is located along South Akron Road on Shenandoah Plaza and is a contributor to the U.S. Naval Air Station (NAS) Sunnyvale Historic District (also known locally as the Shenandoah Plaza Historic District), which was listed in the National Register of Historic Places (NRHP) in 1994 (NRHP #94000045) (Appendix A, Figure 2). Built in 1933 as the Bachelor Officers Quarters, it recently housed educational programs for Singularity University. It is also located within the NASA Ames Research Park, which is an area of ARC designated as a shared-use research and development and education campus for industry, academia, non-profits, and government. Several public and private entities lease offices and facilities in the research park.

1.2 Project Personnel

This study was conducted by cultural resources professionals who meet the Secretary of the Interior’s Professional Qualifications Standards (48 Federal Register 44738). Trina Meiser, M.A., Senior Architectural Historian, served as the Principal Investigator; Jennifer Redmond, M.A., RPA, addressed archaeological resources; Leah Moradi, Jacqueline Mandler, and Alec Stevenson provided figures; and Kirsten Johnson, M.A., served as the lead verifier of this document.

2. Description of the Undertaking

The project will rehabilitate Building 20, a vacant former dormitory, for use with a mix of dormitory and office space. NASA ARC identified code and electrical and mechanical system deficiencies that require correction and/or upgrades to authorize habitation under a B occupancy (office) and a R-2 occupancy (dormitory) permit. In
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addition, a seismic evaluation performed in 2016 identified structural deficiencies and conceptual retrofits intended to reduce the risk to occupants.

The project will include abatement measures to remove asbestos insulation and tile and lead paint, including lead paint on windows. Alterations to Building 20 to prepare it for occupancy will include primarily interior mechanical, electrical, security, control, and plumbing upgrades; renovated bathrooms; and privacy enhancements between dorm rooms. Limited exterior work will include new or modified utility connections, mechanical and electrical equipment replacement, new Americans with Disabilities Act (ADA)-compliant ramps and entrances, and repair or limited in-kind replacement of windows.

Appendix B includes select project drawings.

Project activities will:

- Remove with appropriate abatement measures all loose and chippable lead-based paint from all windows; repair and repaint windows.
- Remove and replace deteriorated windows on the south wing.
- Remove with appropriate abatement measures lead paint from the interior lobby archway (east wall); repair and repaint.
- Remove all carpet throughout the building to prepare for repairs of underlying floors and installation of new flooring/carpet.
- Remove with appropriate abatement measures 6” x 6” asbestos resilient floor tiles and associated mastic in corridors and Rooms 103 and 104; replace with vinyl composition tiles that will match historic pattern.
- Renovate bathrooms on the first and second floors; remove and replace interior finishes to the framing, including plumbing fixtures, toilet partitions, cabinets, floor and wall finishes, and all wallboard/plaster systems at walls and ceiling.
- Remove sections of plaster ceilings in rooms on the first and second floors to prepare for new gypsum ceiling or acoustic tile drop-ceiling installation to allow for concealed mechanical and electrical conduits.
- Install new fire sprinkler protection systems throughout the building interior.
- Remove existing interior doors between dormitory rooms and infill openings for privacy, leaving existing door frames in place; doors will be carefully stored in case of future re-installation.
- Remove and replace obsolete power distribution panels and conduits in the corridors and basement with new equipment; all new conduit and wiring will be concealed within existing or new walls (where applicable) and above existing or new ceilings (where applicable).
- Modify historic lighting fixtures with light emitting diode (LED) bulbs. Non-historic fluorescent and incandescent lighting fixtures will be replaced with LED-type fixtures.
- Remove with appropriate abatement measures existing steam and condensate piping and radiator insulation that contains asbestos.
- Remove radiators and piping throughout and the window unit air conditioners along the west side of the building.
- Replace the existing boiler located in a mechanical equipment room in the basement with a high-efficiency, condensing-type, gas-fired heating, hydronic hot water boiler with stainless steel heat exchangers due to safety concerns of operating a steam boiler at pressure.
- Install new heating, ventilation, and air conditioning (HVAC) systems on roof; repair and/or replace existing built-up roof with a single-ply Sarnafil roof (NASA current standard) to include new flashing systems as needed at mechanical penetrations. Alternatively, the HVAC may be installed at grade 65’ from the building on a new concrete pad requiring trenching to underground the connection to the building requiring excavation no more than approximately 5’ deep.
- Install new uninsulated copper piping supply and return from heating and cooling source.
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- Install new fire department connection water line from the northwest section of the building to main line under South Akron Road requiring excavation no more than approximately 5’ deep.
- Install a new ADA-compliant ramp at the exterior of the building adjacent to the front terrace.
- Install a new step landing in front of the three sets of arched doors at the main central entrance of the façade to be flush with the existing thresholds (approximately 5” high); install a new ADA-compliant ramp and automated entry lever at the westernmost doors of the central entrance of the façade; and install automated entry mechanism on the interior of the existing westernmost doors of the central main entrance of the façade.
- Install a new ADA-compliant ramp and door at an existing exterior entrance at the rear (south elevation of south wing).
- Re-stripe parking stalls to include one van accessible parking stall in the front and rear parking lots with accessible paths and curb ramps.

3. Area of Potential Effects

The APE is defined to address both direct and indirect impacts on historic properties. The APE is located within the NAS Sunnyvale Historic District on Shenandoah Plaza and accounts for potential indirect effects on the district as a whole but does not include the entire boundary of the district due to the project’s scale. The APE is defined as the limits of staging and construction for the undertaking and encompasses Shenandoah Plaza and the five major contributors surrounding the plaza, as well as Buildings 21 and 22, which are located south and directly behind Building 20 (Appendix A, Figure 3). The majority of the work will occur inside Building 20, and exterior alterations will be limited to the installation of ADA-accessible ramps and entrances at an existing entrance in the primary façade and a secondary, rear entrance. Therefore, it is unlikely that this undertaking will have indirect effects on other significant buildings or resources within direct view of Building 20 but outside of Shenandoah Plaza, which is the core of the historic district’s significance related to its Spanish Colonial Revival architecture. Below-grade activities are limited to the excavation areas for the project with a vertical APE of up to 5’ for installation of the new fire department connection line and potential new HVAC connection.

4. Identification of Historic Properties

The APE has been previously studied for cultural resources, and a comprehensive historic context for ARC, including NAS Sunnyvale/Moffett Field, has been developed (AECOM 2014, 2017). The NAS Sunnyvale Historic District was listed in the NRHP on February 24, 1994 (Appendix C). The district was listed under NRHP Criteria A and C in the areas of Military History, Architecture, and Engineering, uniquely representing the development of U.S. naval aviation prior to World War II as one of two stations built to port lighter-than-air dirigibles in the 1930s. Hangars 1, 2, and 3 particularly represent twentieth-century military planning, engineering, and construction as some of the last extant enormous airship hangars in the United States. The core of the historic station is centered on Shenandoah Plaza and buildings that incorporate Spanish Colonial Revival design. The district includes several contributing buildings and structures that generally date to the 1930s-40s NAS Sunnyvale/Moffett Field period and exhibit the Spanish Colonial Revival style (with some exceptions, including Hangars 1, 2, and 3). The district nomination specifically stated that, because the buildings have been in continuous use since construction and altered to accommodate changes in uses and space requirements, none of the interiors retained architectural integrity or historic significance (NRHP 1994). No significant interior spaces were identified in the nomination.

In 2013, AECOM conducted a study of Moffett Field and areas outside of the historic district to determine the eligibility of airfield resources (AECOM 2013). As a result of that study, NASA determined that the airfield was eligible as an extension of the NAS Sunnyvale Historic District and expanded the boundary of the historic district (see Figure 2). The State Historic Preservation Officer (SHPO) concurred on the expanded district boundary on June 6, 2013, with a revised period of significance of 1942 through 1961 for the airfield (NASA_2013_0417_001).
A comprehensive investigation of previous archaeological studies at ARC was completed in 2017 (AECOM 2017). This investigation involved a desktop survey of archival resources and a gearchaeological assessment of the entire ARC site and included an assessment of archaeological sensitivity and the potential for buried archaeological resources. In a letter dated June 22, 2017, the SHPO found the study results acceptable as a baseline for future investigation and treatment of archaeological resources at ARC and as a reference for professionally qualified staff for future undertakings (NASA_2015_0928_001). The study identified areas of heightened prehistoric and historic-period archaeological sensitivity and also concluded that there is low potential for more deeply buried prehistoric archaeological resources across ARC.

4.1 Archaeological Resources

The land that comprises ARC has changed dramatically since the early twentieth century from predominantly agricultural use to a military airfield installation beginning in 1931 and aeronautical research and development beginning in 1939. Extensive surface disturbance occurred throughout ARC with grading and fill to create the airfield and the campuses with hundreds of buildings and structures to support operations.

A review of the 2017 archaeological baseline investigation indicates that the proposed work is in an area of low archaeological sensitivity (Appendix A, Figure 4) and was not identified as sensitive for either prehistoric or historic-period resources. In addition, there is low potential for more deeply buried prehistoric archaeological resources across ARC. One area of heightened historic-period archaeological sensitivity associated with the late nineteenth- and early twentieth-century Jenkins farm is approximately 500’ to the southeast. A second area of heightened historic-period archaeological sensitivity associated with an unnamed nineteenth-century farm is within 1,000’ to the southwest. It is unlikely that resources associated with either farm will be within the APE. Ground disturbance for the undertaking will be at a maximum depth of 5’, and existing utilities within the APE indicate extensive prior disturbance. Because the amount of prior subsurface disturbance in the project area is high and the APE was not identified as sensitive, the potential for previously unidentified, intact resources is low.

Ground disturbance for the undertaking will include work adjacent to Building 20 to add the ADA-compliant ramps and installation of the new fire department connection line and the potential new HVAC connection. The water line will extend from Building 20 to South Akron Road and will be installed adjacent to the existing walkway. The potential new HVAC connection will extend 65’ from the building to a concrete pad with new equipment to the south and will be installed under an existing parking lot/pavement. Based on previous surface disturbance for construction of the building, landscaping, and installation of the walkway and parking lot/pavement, as well as the low archaeological sensitivity in the APE, no archaeological survey was conducted. The APE does not contain any known archaeological resources and has low potential to contain archaeological historic properties.

4.2 Architectural Resources

The APE has been previously surveyed and evaluated for historic properties. The current study identified the Shenandoah Plaza and its five major contributors in the APE: Building 17 (Administration Building), Building 19 (Bachelor Enlisted Quarters), Building 20 (Bachelor Officers Quarters), Building 23 (Instruction Building/Dispensary), and Building 25 (Administration and Auditorium Building/Theater). Building 21 (Bachelor Officers Garage) and Building 22 (Bachelor Officers Garage) are also in the APE (Appendix A, Figure 4) (Table 1).
Table 1. Architectural Resources in the APE

<table>
<thead>
<tr>
<th>Resource</th>
<th>Date</th>
<th>Eligibility Status</th>
<th>Effects Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building 17 – Administration Building</td>
<td>1933</td>
<td>Listed in the NRHP under Criteria A and C as a contributor to the NAS Sunnyvale Historic District</td>
<td>No adverse effect</td>
</tr>
<tr>
<td>Building 19 – Bachelor Enlisted Quarters</td>
<td>1933</td>
<td>Listed in the NRHP under Criteria A and C as a contributor to the NAS Sunnyvale Historic District</td>
<td>No adverse effect</td>
</tr>
<tr>
<td>Building 20 – Bachelor Officers Quarters</td>
<td>1933</td>
<td>Listed in the NRHP under Criteria A and C as a contributor to the NAS Sunnyvale Historic District</td>
<td>No adverse effect</td>
</tr>
<tr>
<td>Building 21 – Bachelor Officers Garage</td>
<td>1933</td>
<td>Listed in the NRHP under Criteria A and C as a contributor to the NAS Sunnyvale Historic District</td>
<td>No adverse effect</td>
</tr>
<tr>
<td>Building 22 – Bachelor Officers Garage</td>
<td>1933</td>
<td>Listed in the NRHP under Criteria A and C as a contributor to the NAS Sunnyvale Historic District</td>
<td>No adverse effect</td>
</tr>
<tr>
<td>Building 23 – Instruction Buildings/Dispensary</td>
<td>1933</td>
<td>Listed in the NRHP under Criteria A and C as a contributor to the NAS Sunnyvale Historic District</td>
<td>No adverse effect</td>
</tr>
<tr>
<td>Building 25 – Administration and Auditorium Building/Theater</td>
<td>1933</td>
<td>Listed in the NRHP under Criteria A and C as a contributor to the NAS Sunnyvale Historic District</td>
<td>No adverse effect</td>
</tr>
</tbody>
</table>

5. **Affected Historic Properties**

5.1 **NAS Sunnyvale Historic District**

Listed in the NRHP in 1994, the NAS Sunnyvale Historic District is significant under NRHP Criteria A and C, and originally included only the earliest Spanish Colonial Revival-style campus buildings around Shenandoah Plaza and Hangars 1, 2, and 3. The original periods of significance of the district were identified as 1930 through 1935 and 1942 through 1946. The utilitarian style of later buildings was noted in the NRHP nomination; however, at the time of the nomination, several buildings were not yet 50 years old and were not considered contributing under the statement of significance that focused on Spanish Colonial Revival-style architecture and the engineering feat related to the airfield hangars.

In 2013, a historic property survey of Moffett Field was conducted to evaluate the significance of additional resources related to the airfield and concluded that the airfield and related resources are eligible for the NRHP under an expanded context for the NAS Sunnyvale Historic District (AECOM 2013). The district’s statement of significance was also revised to include the World War II and Cold War military missions with an additional period of significance of 1942 through 1961.

No major alterations to the district have occurred since it was listed in 1994, with the exception of removal of the exterior materials of Hangar 1 to remediate hazardous materials. The district retains its integrity and remains eligible for the NRHP.

The APE for this undertaking contains seven contributors to the NAS Sunnyvale Historic District, five of which (Buildings 17, 19, 20, 23, and 25) surround Shenandoah Plaza and are the core of the historic district that is associated with Spanish Colonial Revival-style architecture (**Plate 1**).
5.1.1 Building 17 – Administration Building

Built in 1933, Building 17 is a two-story Spanish Colonial Revival-style building with a symmetrical, cruciform plan, frame construction, stucco siding, and a low-pitched Spanish tile gabled roof (Plate 2). It is located at the head of Shenandoah Plaza and is the most prominent building on the plaza. This building set “the design criteria that is followed through the original campus plan” (NRHP 1994).
5.1.2 Building 19 – Bachelor Enlisted Quarters

Building 19 is a two-story Spanish Colonial Revival-style building with a complex plan and several wings, frame construction, stucco siding, and a low-pitched Spanish tile gabled roof (Plate 3). Located on the north side of Shenandoah Plaza next to Building 25, it is one of the major buildings on Shenandoah Plaza that distinguishes the core of the district. The building is currently used for offices.

Plate 3. Building 19, view facing northwest.

5.1.3 Building 20 – Bachelor Officers Quarters

Building 20, the subject building of this project, is a two-story Spanish Colonial Revival-style building with full attic and partial basement that faces northwest towards Shenandoah Plaza (Plate 4). The building has a T-shape plan featuring a symmetrical façade with a perpendicular wing on each end and a one-story perpendicular wing extending from the center of the rear of the main axis. The cross-gabled Spanish tile roof has shallow eaves and cement plaster clad flues capped with tile and vented by ornamental grille work, and sections of built-up roofing. Exterior details include integrally colored cement plaster wall surfaces and a projecting string course between the first and second floors. Entrances have ornamental limestone surrounds, porches, and terraces at the primary, secondary and rear entrances, and six over six steel-framed windows. The façade features a formal entrance with a wide concrete patio with shallow steps and balustrades leading to three arched openings with ornamental doors and light fixtures (Plate 5). Prior alterations to the building include the enclosure of two terraces on both sides of the south wing (Plate 6) and infill of original window openings; the addition of fire escape stairs at the rear elevations of east and west wings; a roof enclosure in the southeast courtyard; and a single-story walk-in refrigerator addition at the south elevation of the rear wing (ARG 2000).
Plate 4. Building 20, view facing southeast.

Plate 5. Building 20 façade, main central entrance with three arched doors, view facing southwest.
In 2000, Building 20 was documented in the Building 20 Re-Use Guidelines (ARG 2000, Appendix D) that assessed the building’s condition and inventoried its features. Although the 1994 NAS Sunnyvale Historic District NRHP nomination stated that none of the buildings in the district had significant interior spaces (see Appendix C), the 2000 reuse guidelines identified intact and significant spaces within the building. The reuse guidelines categorized features as significant, contributing, tertiary, and non-contributing (ARG 2000). The following list of the character-defining features incorporates the significant features identified in the 2000 reuse guidelines.

**Exterior**
- Roof – tile, rake, gabled form, gutters and roof leaders, collection boxes, and attic window vents.
- Flues and vents at roofline, caps, and grilles.
- Cladding, integral color stucco, banding course, base, and foundation vents.
- Limestone surrounds at windows and entrances.
- Arched entrances and ornamental door surrounds.
- Terrace and porches – steps, scored concrete, urns, cheek walls.
- Windows – six over six double-hung metal sash with projecting sills and second floor window railings.
- Exterior wood doors, transoms, copper alloy hardware.
- Ornamental light fixtures.

**Interior**
- Lobby – arched openings, doors, columns and ceiling beams, fireplace surround, wood partition, ornamental light fixtures.
- Dining room – ceiling and beams and ornamental light fixtures.
- Central corridor axis – volume of space.
- Flooring – terrazzo flooring and base, terrazzo border and base with resilient field tile (checked pattern).
5.1.4 Buildings 21 and 22 – Bachelor Officers Garages

Built in 1933, Buildings 21 and 22 are one-story, concrete, Spanish Colonial Revival-style garages with parallel rectangular plans on concrete slab foundations (Plate 7). The buildings have exterior concrete walls clad in stucco and low-pitched gabled roofs with parapet walls and decorative parapets at the gable ends. The buildings are south of Shenandoah Plaza, directly behind Building 20. They are significant for their representation of Spanish Colonial Revival design and historical association with Building 20, the Bachelor Officers Quarters.

5.1.5 Building 23 – Instruction Building/Dispensary

Built in 1933 and enlarged in 1936, Building 23 is a two-story Spanish Colonial Revival-style building with a T-plan, frame construction, stucco siding, and a low-pitched Spanish tile gabled roof (Plate 8). Located on the south side of Shenandoah Plaza, symmetrically opposite Building 25, it is one of the major buildings on Shenandoah Plaza. It is significant because of its representation, along with Building 25, of the Spanish Colonial Revival design and for its historical location at the original entrance of NAS Sunnyvale (NRHP 1994). The interior of the building was renovated in the 2000s and currently houses educational programs for Carnegie Mellon University.
5.1.6 Building 25 – Administration and Auditorium Building/Theater

Building 25 is a two-story Spanish Colonial Revival-style building with a T-plan, frame construction, stucco siding, and a low-pitched Spanish tile hipped roof with a centered open-front gable (Plate 9). Located on the north side of Shenandoah Plaza, next to Building 19, it is one of the major buildings on Shenandoah Plaza that distinguishes the core of the district. The building is undergoing rehabilitation under a separate undertaking.
6. Assessment of Effects

The Criteria of Adverse Effect pursuant to 36 CFR 800.5(a)(1) are applied to assess effects of the undertaking on historic properties within the APE:

An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the NRHP. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance, or be cumulative.

Several examples of adverse effects are listed in 36 CFR 800.5(a)(2). The following assessment examines the undertaking under each of those examples, including an analysis of compliance with the Standards.

(i) Physical destruction of or damage to all or part of the property

The project will not demolish the building but will include limited demolition of some exterior and interior features of Building 20 (see Appendix B for demolition plans). Exterior demolition will include removal of the walk-in refrigerator addition at the rear of the south wing (Plate 10), which is not a character-defining feature and does not have acquired historic significance. Interior demolition will include removal of interior partition walls and doors in the basement and bathrooms on the first and second floors (Plate 11). Although not identified as significant character-defining features in the 2000 reuse guidelines, the toilet/shower rooms that will be demolished were identified in the 2000 reuse guidelines as contributing features (lesser than significant features) (ARG 2000). All elements of the existing bathrooms, including the remaining original tile flooring, tile wainscot, marble partitions and stalls, and all plumbing fixtures, will be removed and replaced. Because the bathrooms are not considered significant character-defining features, the loss of the original materials will not diminish the historic property's integrity in an adverse manner. Aside from alterations to Building 20, no other contributors to the NAS Sunnyvale Historic District within the APE will be physically impacted by this project.

Plate 10. Walk-in refrigerator addition (right) at south wing (left) to be demolished.
(ii) Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, that is not consistent with the Secretary's standards for the treatment of historic properties (36 CFR part 68) and applicable guidelines

With the SHPO’s agreement, if a property is restored, rehabilitated, repaired, maintained, stabilized, remediated, or otherwise changed in accordance with the Standards, then it will not be considered an adverse effect. The following is an assessment of the undertaking for compliance with the Standards and guidelines (NPS 2017).

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.

   Building 20 was historically used as the Bachelor Officers Quarters for the NAS (see Appendix D for original construction drawings). The intent of this project is to return the building to occupancy as a dormitory and offices to serve NASA Ames Research Park, which is a shared-use research and development and education campus for industry, academia, non-profits, and government. The improvements will minimally change the distinctive materials, features, and configuration of Building 20. The only change to the spatial relationships within the building will be the removal of the interior doors between the former en suite bedrooms and living rooms of the former officers’ living quarters for enhanced privacy between dormitory rooms. The interior partition doors are not significant character-defining features but the existing door frames will remain in place to preserve the relationship between the rooms, and the doors will be stored in case of future reinstallation. The original interior configuration of the lobby, dining room, corridors, and living spaces will remain in place for an appropriate and compatible use.

2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize a property will be avoided.

   The project is designed to maximize the preservation of Building 20's character-defining features and spaces. The improvements will minimally change the distinctive materials, features, and configuration of Building 20. Significant features that will be removed will be replaced in-kind to match the historic materials, design, and appearance as substantiated through existing materials and original drawings. Character-defining features of the building that will be affected are discussed below.
Roof – The character-defining terra-cotta tile portion of the roof will not be altered by the project. The existing built-up flat roof with parapet at the south wing will be repaired or replaced for installation of new HVAC and/or mechanical equipment with a single-ply Sarnafil roof (NASA current standard) to include new flashing systems as needed at mechanical penetrations. The new HVAC equipment will be partially screened by the parapet and will be in a discreet area of the building (see Plate 6). The historic character and appearance of the roof will be preserved.

Terrace and porches – The project will install a new ADA-compliant ramp at the exterior of the building at the edge of the front terrace, a new step landing in front of the three sets of arched doors in the main central entrance, and a new ADA-compliant ramp and automated entry lever at the westernmost door of the main central entrance of the façade on the terrace. The terrace will be minimally modified by the ADA-compliant terrace ramp that will ascend from grade near the west wing north entrance (Plate 12) to the height of the northwest side of the central terrace where no cheek wall exists (Plate 13). Existing bushes and landscaping will be removed. The ramp will extend parallel to the terrace (Plate 14). No portion of the terrace will be removed; the new ramp will be level with, and abutted to, the terrace.

The step landing and ADA-compliant entrance ramp at the main central entrance will be constructed atop the terrace and along the façade in front of the three sets of arched doors (see Plate 5). The step landing will rise to meet the existing thresholds of the doors (approximately 5” high). The ADA-compliant entrance ramp will rise from the existing terrace level to meet the step landing at a perpendicular angle to the threshold of the westernmost door and will include an automated entry lever. The landing step and the narrow ramp will minimally interrupt the existing plane of the terrace and its appearance. The ramps and step landing will have a concrete finish to complement the terrace.

Plate 12. Outside the terrace wall where ramp access will be located at grade (rising to the left).
Plate 13. Proposed location of ramp connection at terrace (to the right of the urn).

Plate 14. Terrace wall with ramp location at left (landscaping to be removed).
Arched entrances and ornamental door surrounds/Exterior doors – As discussed above, the project will install a step landing, a new ADA-compliant ramp, threshold, and automated entry lever at the central entrance (westernmost door) of the façade (Plate 15). The project will install automated entry mechanisms on the interior of the existing doors, so that it will not change the exterior appearance of the doors. Historic hardware will be preserved and repaired. The historic character and appearance of the doors will be preserved.

Plate 15. Entrance door to be modified for ADA-compliant entrance.

Windows – All six over six metal sash windows throughout the building will be repaired and repainted (Plate 16). Lead paint abatement will be conducted by the gentlest removal methods available to meet industry standards. The intent is to preserve or closely equate the historic character, appearance, and pattern of the fenestration overall. Ornamental limestone and stucco at window surrounds will not be altered. These elements may be cleaned in a non-abrasive way with water or mild cleaning agents but otherwise will not be treated.
Plate 16. Typical six over six metal sash window with screen.

Deteriorated and infilled windows in the south wing will be replaced in kind with the historic windows (Plate 17). In addition, non-historic windows in the western (see Plate 17) and eastern (Plate 18) patio enclosures may be removed depending on condition and replaced with modern windows that are more complementary to the historic design, such as double-hung metal sash windows.

Plate 17. Infilled windows at south wing and non-historic windows in western patio enclosure.
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Plate 18. Windows in eastern patio enclosure at the south wing to be replaced.

Ornamental light fixtures – Exterior and interior ornamental light fixtures (Plate 19) will be refitted and rewired for LED bulbs. The historic character and appearance will be preserved.


Lobby/Dining room – In the lobby, the project will repair the interior lobby archway (east side) where paint has failed (Plate 20). Lead paint abatement will be conducted by the gentlest removal methods available to meet industry standards. The repair will not create any aesthetic changes to the arch.

In the lobby and the dining room (Plate 21), the project will remove existing electrical conduits attached to the walls to move them to more discreet locations, where possible. New conduits will be installed as part of the upgrade of electrical and mechanical systems. Additionally, a fire sprinkler system will be introduced along ceiling beams and will be painted a complementary color to reduce the visual intrusion of the new elements. Ornamental light fixtures will be refitted and rewired for LED bulbs but will retain their decorative lamps. The historic character and appearance of both interior rooms will be preserved.
Plate 20. Lobby, archway on east wall.

Plate 21. Dining Room.
**Terrazzo flooring, base, terrazzo border and base with resilient tile** – This flooring is located on the first floor in the lobby, dining room, corridors, and rooms but is currently covered with carpet. Decorative terrazzo elements in good condition will be refurbished, and deteriorated elements will be replaced in-kind. The resilient asbestos tile portion of the floors is in poor condition (Plate 22). Asbestos floor tiles will be replaced with vinyl composition tiles that will match in pattern. The historic character and appearance of these flooring elements will be retained.

![Plate 22. Asbestos resilient floor tiles on first floor in poor condition.](image)

Although the removal of distinctive materials is necessary to repair or upgrade the building for modern use, the materials will be replaced in-kind to match the historic character and appearance of Building 20. Alteration of remaining features, spaces, and spatial relationships that characterize the property are otherwise minimized to retain as much of the historic character as possible. Overall, the historic character of Building 20 will be retained and preserved.

3. **Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.**

No conjectural features will be added to Building 20. The ADA-compliant ramps that will be installed at the north and south elevations will use modern materials that lack ornamentation or stylistic features that would be characterized as conjectural.

4. **Changes to a property that have acquired historic significance in their own right will be retained and preserved.**

No alterations to Building 20 appear to have acquired significance in their own right. None of the non-original features of Building 20, including the south wing patio enclosures and walk-in refrigerator addition, exterior metal stairs and doors, or rear corrugated patio roof shed addition, have acquired significance that would require preservation.

5. **Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.**

The project is designed to preserve and/or restore distinctive materials, features, and finishes, as discussed above under Standard 2. Significant materials and features, such as the asbestos resilient
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floor tiles, will be removed and replaced in-kind to match the materials, texture, color, and overall appearance. These materials are not applied in a distinctive manner in a way that is significant for its workmanship. Interior doors between dormitory rooms (historically between bedrooms and living rooms in the officers’ suites) that will be removed and door openings will be infilled for privacy. The existing door frames will be preserved in place, and the doors carefully stored in case of future reinstallation. Non-distinctive materials, features, and finishes will be removed for occupancy upgrades. Non-distinctive hazardous lead and asbestos materials that represent historic construction techniques require removal for life and health safety requirements.

6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

In all cases where deteriorated historic materials will be removed, they will be replaced in-kind or with compatible replacements that resemble the old in design, color, and texture.

7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

Chemical and physical treatments may be implemented for the purposes of lead and asbestos abatement. To remove asbestos materials, mechanical scraping with negative air pressure and containment measures will be used to completely remove adhered materials that contain any asbestos particles. Where asbestos tiles and mastic will be removed, the concrete subflooring is not a distinctive material and will be covered with refurbished or replacement flooring with a similar appearance (non-asbestos materials). For lead abatement, the gentlest removal methods available to meet industry standards will be used. Historic materials will otherwise be protected from any treatments that might cause physical damage to them.

8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

Based on this study, there are no known archaeological resources within the project footprint. However, in the event of discovery of unknown subsurface archaeological resources, NASA will follow its standing operating procedures for unanticipated discoveries as outlined in the 2014 Draft Integrated Cultural Resources Management Plan (AECOM 2014), which would halt work in the vicinity of the discovery and engage a qualified archaeologist to evaluate the discovery and determine the need for mitigation and consultation with the SHPO.

9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

New additions proposed for Building 20 are the ADA-compliant terrace ramp, ADA-compliant entrance ramp, and step landing on the north side, and the ADA-compliant ramp and entrance on the south side of the building. As described under Standard 2, installation of these new elements will not destroy any historic materials or features that characterize the property.

The proposed ADA-compliant terrace ramp, ADA-compliant entrance ramp, and step landing on the north side will introduce new visual components to the façade, which is characterized by its symmetry with the three arched doors with limestone surrounds at the center and identical gabled wings on the east and west ends. The terrace contributes to the symmetry of the façade, and the introduction of the ADA-compliant terrace ramp, ADA-compliant entrance ramp, and step landing will alter the surface and symmetry of the terrace. However, the placement of the ADA-compliant terrace ramp parallel to the terrace wall (see Plates 12 through 14) will minimally impact the symmetry of the height and appearance of the terrace walls because the ramp will be lower than the terrace wall for its entire length. Likewise, the ADA-compliant entrance ramp will have a gentle rise parallel to the façade that will have a low, minimal profile. The step landing will also have a low profile and will extend symmetrically across the thresholds of all three doors of the central entrance. The historic doors will be minimally altered with the additional automated entry mechanisms on the interior sides that will not be visible from the exterior,
with the exception of the automated entry lever, which will introduce an inconsequential visual feature near the westernmost door. These new features will be compatible with the historic materials but will be differentiated by the new concrete finishes and modern mechanisms.

The proposed ADA-compliant ramp and entrance at the south elevation of the south wing (see Plate 6) will be located at a secondary entrance that does not exhibit significant architectural features.

10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

The addition of the ADA-compliant terrace ramp, ADA-compliant entrance ramp, and step landing on the north side, and the ADA-compliant ramp and entrance on the south side will be permanent changes. The new elements will minimally impact the essential form and integrity of Building 20 because they will not destroy any historic materials for their installation. Installation of new hardware at the main entrance door to accommodate ADA-compliant use while leaving the historic hardware in place will be reversible with minimal repair. The additions and modifications will not impact the essential form or integrity of Building 20.

In summary, the project generally meets the Standards, as it proposes to preserve and repair significant, original historic materials and features, or replace significant historic materials and features in-kind. Where removal or chemical or mechanical treatments are needed for the purposes of hazardous materials abatement, significant features will either not be damaged or will be replaced in-kind. The addition of the two ADA-compliant ramps and entrances will allow for modern occupancy, while minimizing the impact on historic materials and the design of the building overall.

(iii) Removal of the property from its historic location

No historic properties within the APE will be relocated.

(iv) Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance

Building 20 will be used as a dormitory, which is complementary to its historic significance. Building 20’s setting, as well as the setting of all the historic properties within the APE, will remain the same.

(v) Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features

No visual, atmospheric, or audible elements will be introduced by this project that will diminish the integrity of Building 20 or the other historic properties in the APE. Changes to the exterior appearance of Building 20 include the construction of new ADA-compliant ramps and entrances on the north and south elevations, replacement of non-original windows in the south wing enclosures, and removal of the walk-in refrigerator addition at the south wing. None of these alterations will diminish the integrity of Building 20 or the other historic properties in the APE. The only noticeable visual change to the setting of the district and the other contributors in the APE caused by the introduction of the ADA-compliant ramps and entrances would not be of a scale that could diminish the integrity of significant historic features. The future use of Building 20 will be in keeping with the existing functions of the NASA Ames Research Park and is not expected to introduce any additional visual, atmospheric, or audible elements that would impact the integrity of Building 20 or the other historic properties in the APE.

(vi) Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization

Building 20 has been vacant due to the need for the construction activities proposed through this undertaking. The property has been secured during those years to protect against further deterioration.
(vii) Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property’s historic significance

The intent of this undertaking is to prepare Building 20 for eventual lease to a tenant who will use the space appropriately in keeping with the mission of NASA Ames Research Park. NASA currently leases several other historic properties on the campus. It is NASA’s policy under its existing and future leases that tenants must apply for, and acquire approval from, NASA before any alterations may be made to the premises. Any alterations that would constitute an undertaking will be subject to additional Section 106 review.

7. Summary of Findings

The majority of the work will occur inside Building 20, and exterior alterations will be limited to window repair, repainting, or in-kind replacement, and the installation an ADA-compliant terrace ramp, ADA-compliant entrance ramp, and step landing on the north side, and the ADA-compliant ramp and entrance on the south side. The project activities are anticipated to alter character-defining features of Building 20, including the roof, terrace, exterior doors, windows, ornamental light fixtures, lobby, dining room, and flooring. Based on this analysis, the project will conform to the Standards and will not diminish the integrity of Building 20. Aside from alterations to Building 20, no other contributors to the NAS Sunnyvale Historic District within the APE will be physically impacted by this project. The only noticeable visual change to the setting of the district and the other contributors in the APE caused by the introduction of the ADA-compliant ramps and entrances would not be of a scale that could diminish the integrity of significant historic features. No effects on Buildings 17, 19, 21, 22, 23, and 25 or the district as a whole are anticipated.

The Criteria of Adverse Effect were applied to historic properties in the APE and unanticipated archaeological historic properties that may be present in the APE. The proposed undertaking would not alter, directly or indirectly, any of the characteristics of a historic property that qualify it for inclusion in the NRHP. Therefore, a finding of No Adverse Effect per 36 CFR Part 800.5(b) would be appropriate for this undertaking.

8. References


AECOM. 2017. NASA Ames Research Center Archaeological Resources Study. On file at ARC.


Appendices

A. Figures
B. Project Drawings
C. NRHP Nomination for U.S. Naval Air Station Sunnyvale, California (NRHP 1994)
D. Building 20 Re-Use Guidelines (ARG 2000)
Appendix A

Figures

Figure 1 – Project Location
Figure 2 – Project Site
Figure 3 – APE Map
Figure 4 – Archaeological Sensitivity Map
Figure 3
APE Map

Building 20 Rehabilitation Project

Path: /neeacommunity://LIGERenex/11585/8968/Projects/NAS/900-CAG-GIS/map/dlg/20/fig/ape.map, 4/4/2022, Jacqueline Mandler
The following content was redacted from this public posting:

Appendix A, Figure 4: Archaeological Sensitivity Map
Appendix B: Project Drawings
Appendix C

NRHP Nomination for U.S. Naval Air Station
Sunnyvale, California
(NRHP 1994)
United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section number _____  Page _____

SUPPLEMENTARY LISTING RECORD

NRIS Reference Number: 94000045  Date Listed: 2/24/94

US Naval Air Station Sunnyvale, California Historic District
Santa Clara  CA

Property Name
County  State

N/A
Multiple Name

This property is listed in the National Register of Historic Places in accordance with the attached nomination documentation subject to the following exceptions, exclusions, or amendments, notwithstanding the National Park Service certification included in the nomination documentation.

Amended Items in Nomination:

Classification:
The number of previously listed resources is changed to zero (0); Hangar #1 was only determined eligible for listing.

Significance:

Area of Significance:
Architecture is added as an area of significance, defining the district as a good regional example of military design in the Spanish Colonial Revival style.

Significant Person:
The name of Adm. William Adger Moffett is removed from the significant person blank since the district was not nominated under Criterion B.

continued
United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

SUPPLEMENTARY LISTING RECORD

NRIS Reference Number: 94000045  Date Listed: 2/24/94

US Naval Air Station Sunnyvale,
California Historic District

Property Name

Santa Clara  CA

County  State

N/A

Multiple Name

Amended Items in Nomination:

U.T.M.:
The UTM coordinates are corrected to read:

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This information was confirmed with Navy FPO J. Bernard Murphy.

DISTRIBUTION:
National Register property file
Nominating Authority (without nomination attachment)
**United States Department of the Interior**

**National Park Service**

**National Register of Historic Places Registration Form**

This form is for use in nominating or requesting determinations of eligibility for individual properties or districts. See instructions in **Guidelines for Completing National Register Forms** (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, styles, materials, and areas of significance, enter only the categories and subcategories listed in the instructions. For additional space use continuation sheets (Form 10-900a). Type all entries.

1. **Name of Property**
   - **Historic name:** United States Naval Air Station Sunnyvale, California - Historic District
   - **Other names/site number:** U.S. Naval Air Station Moffett Field - Central Historic District

2. **Location**
   - **Street & number:** Central District
   - **City, town:** Naval Air Station Moffett Field
   - **State:** California
   - **Code:** CA
   - **County:** Santa Clara
   - **Code:** CA 085
   - **Zip code:** 94035

3. **Classification**

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Name of related multiple property listing: ____________________________________________

Number of contributing resources previously listed in the National Register: __1__

4. **State/Federal Agency Certification**

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property meets / does not meet the National Register criteria. See continuation sheet.

Signature of certifying official: ____________________________
State/Federal agency and bureau: ____________________________
Date: __Jan 5/94__

In my opinion, the property meets / does not meet the National Register criteria. See continuation sheet.

Signature of commenting or other official: ____________________________
State/Federal agency and bureau: ____________________________
Date: ________________

5. **National Park Service Certification**

I, hereby, certify that this property is:

- [X] entered in the National Register.
- [ ] determined eligible for the National Register.
- [ ] determined not eligible for the National Register.
- [ ] removed from the National Register.
- [ ] other, (explain: ____________) ____________________________

Signature of ____________________________
Date: __2-24-94__
SITE DEFINITION

The site consists of a large number of buildings that were constructed over an approximately 60 year time frame from the early 1930's until today. The buildings are clustered in a formal campus-like layout that is defined by a western-facing gated entrance and a very well tended landscape which includes mature specimen trees, shrubs, and manicured lawns.

The site can be easily divided into its stylistic components that also define the different eras of construction over the base's lifetime.

The oldest and most historically significant buildings, from an architectural and engineering standpoint that form a coherent core, include the formal cluster of buildings dating from 1933 that lead up to, and include, the imposing Hangar #1 (the original dirigible hangar) and WW II Blimp Hangars. This area of the base is bounded by Bushnell Road on the north, the automobile parking spaces behind Sayre Avenue on the east, Westcoat Road on the south; and the entry, Clark Road, on the west. The central area is laid out in an axial plan in a northeasterly direction with the original buildings symmetrically placed along a grand central greensward. In addition to this very defined central space where the earliest major base buildings are located, there is an equally significant adjunct of 9 officers' residences clustered around Berry Drive just to the south of the main gated entrance in another formally laid out plan with grass medians, a grass island at the end of the southern cul-de-sac, and a characteristically suburban curved residential street. In keeping with the symmetry that was so strong to the original plan, another unbuilt residential complex was originally planned for the northern side of the entrance drive.

These earliest buildings, which were designed by the Navy Department Bureau of Yards and Docks, exemplify California's most popular contemporary architectural style of the 1920's and early '30's. They are constructed in a late Spanish Colonial Revival architectural style (a style that was equally as popular in government construction in the eastern sections of the United States during the 1920's and into the early 1940's), as well as aspects that presage the modern designs of the Internationalist styles which would predominate in American architecture for the next thirty-five years (from approximately 1940 to 1975).
In the nation's quest to provide security for the lengthy expanse of its coastlines the opportunity for air reconnaissance was realized by the futuristic Admiral William A. Moffett. Through his efforts, two Naval Air Stations were commissioned in the early 1930's to port the two U.S. Naval Airships (dirigibles) he believed capable of this challenge. The Naval Air Station Sunnyvale was the Pacific Coast location selected, designed and developed to port USS MACON (ZRS 5). The immense structure, Hangar #1, designed to house USS MACON, with its larger counterpart in Akron, Ohio, remain the two largest structures in the United States without internal support. At the onset of WWII, the base was expanded with Hangars #2 and #3 which were designed to accommodate the smaller blimps and balloons used for reconnaissance, until the range of heavier than air aircraft (airplanes) was sufficient to patrol the coast. The significance of the U.S. Naval Air Station Sunnyvale Historic District is attributed to the association with the expanding defense capabilities of the U.S. Navy, the engineering technology found in lighter than air ships, the design of the hangar and system for porting the dirigible and in the plan and architectural style of the station designed to support this defense technology. The significance of Hangar #1, was recognized when it was designated a Naval Historical Monument. It has been designated a California Historic Civil Engineering Landmark, by the San Francisco section, American Society of Civil Engineers, and has been determined eligible for listing in the National Register of Historic Places by the U.S. Navy in consultation with the California State Historic Preservation Officer. The entire historic district is supported for listing in the National Register of Historic Places at the national level of significance under Criterion A for the association with coastal defense and naval technology that has made a significant contribution to the broad patterns of our history; and Criterion C reflecting the distinctive type, period, method of construction and high artistic values that are represented in the 1933 station plan and buildings. In 1942, the station was recommissioned, U.S. Naval Air Station, Moffett Field, in recognition of the significant contribution to naval history by Admiral Moffett, contributions that have gained him the unofficial title, "Father of Naval Aviation."
9. Major Bibliographical References

Payne, Stephen M., Santa Clara County: Harvest of Change, Santa Clara, CA; Windsor Publication 1987

Unpublished:
Historic Civil Engineering Landmarks of San Francisco and Northern California, 125th Annual Conference, American Society of Civil Engineers, San Francisco Section, Sponsor, 1977.
Ifft, Jerry. The Era of Dirigibles at Moffett Field, 1987; California Room, Martin Luther King, Jr. Memorial Library, San Jose, CA

Interviews:
Benjamin Mandweiler, NAS, Moffett Field, Public Works Department
Lt. Col. Robert N. Maupin, USAF. Ret.

Primary location of additional data:
State historic preservation office
Other State agency
Federal agency
Local government
University
Other
Specify repository:

10. Geographical Data

Acreage of property 124 Acres (approximately)

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Verbal Boundary Description

The Naval Air Station Sunnyvale includes all of the 1933 original base plan with the addition of the 22.5 acre detached area containing hangars #2 and #3. The boundary line begins at the Main Gate, including the entrance gate and fence, proceeds along Clark Road to Berry Road where the boundary turns south to encircle the quarters A through H, north behind quarter F to Westcoat Road, east to Sayre Ave., north to Bushnell Road and west to Clark Road. A detached area is included in the historic district to incorporate hangars #2 and #3 with a 25 foot band of land around the pair.

Boundary Justification

The boundary includes the limits of development in the 1933 base plan for the Naval Air Station Sunnyvale, as prepared by the Navy Department, Bureau of Yards and Docks, and the area incorporating hangars #2 and #3 that are associated with lighter than air military aircraft.

11. Form Prepared By

name/title Ronnie Ramburg
go organization Urban Programmers
date November 9, 1991
street & number 1174 Lincoln Avenue
city or town San Jose
telephone 408-971-1421
state California
zip code 95125
This hybrid style forms a unifying element that not only holds the myriad of architectural uses together, but gives the entire complex a very satisfying central theme. The style is highly ornamented in the most significant buildings (such as the Administration and Bachelor Officers' Quarters) and stripped of ornament, but no less supportive of the whole in the smaller out buildings and garages. Interestingly, the building that is the raison d'être of the entire Naval Air Station, Hangar #1, eschews any historicism in its design, but rather reflects the highest Streamline Moderne forms of modern technology at its finest.

Another slightly newer cluster of buildings is also defined by their distinctive architectural style which reflects the most popular designs of their time. These buildings are those structures which were built in the 1940's and early '50's and that are designed in a very plain International style of architecture defined by the simple stripped geometrical forms of the structures. These interesting examples are located at a few scattered sites within the original plat noted above (i.e. the Post Office, #67, for example), as well as being set in a long row along Dailey Road between the original campus plan and the Bayshore Freeway (#152). Other noteworthy buildings include the Control Tower (#158) at the far eastern edge of the site and the original Chapel Building (#86), which is a reinterpreted hybrid style that exhibits aspects of both a stripped Spanish Colonial Revival design and ornament hinting at more of a Mission Revival style. Additionally, two slightly smaller, but no less impressive hangars (Hangar #2 and #3), were constructed across the runways to the east of Hangar #1. These buildings were designed for the smaller blimps that replaced the huge rigid framed dirigibles of the 1930's for which Hangar #1 was designed. They also were designed in a much more prosaic and conventional architectural style than the metal sheathed futuristic Hangar #1.

A building that provides visual compatibility with the 1930's Spanish Colonial Revival buildings is the Chapel. This is due both to its physical location within the historic district, as well as to its architectural design, which is much more compatible with the older buildings on the base rather than the later International styled buildings. Early photos of the building illustrate a structure whose basic form of rather simply pitched cruciform plan appears to be very standard designed archetype military base chapel of the 1940's. But to this basic form, the designers add very site specific detailing which, though not technically a re-creation of the Spanish Colonial Revivals around it, very handsomely picks up hints of the building characteristics of the older structures. These details include, most importantly, the cupola which mimics the tower on the Administration Building, and the projecting curvilinear portico with its stone-like entry frame which takes directly from the Spanish Colonial Revival interpretations surrounding. The end result is an almost textbook example of a successfully designed new structure sensitive to an established architectural campus. Because the chapel was constructed well after the 1933 period it is not a contributing building to the historic district.

Because the International style buildings are less than 50 years old and are not individually exceptional, they will not qualify for listing in the National Register at this time and will not be discussed in any detail. This group consists of buildings 148-156, 158 and building 67.
In addition to these two major stylistic groupings, there are a number of other buildings on the site that have been constructed over the past approximately 50 years that fill up the site, but do not represent very fine examples of architectural design. These buildings are characterized by their utilitarian function, such as the number of Quonset huts (#111, #118 and #119) found throughout the site, as well as the plethora of small wooden and stucco buildings with little discernible styling that comprise much of the barracks, enlisted housing, shopping and warehousing spaces (#E-52, #E-13, #E-29, #347, #223, #245, and #244).

Thus from a specific design standpoint, the site can be divided into the following five main components that comprise its strongest identifying features:

A. Original Spanish Colonial Revival Design
B. Significant Engineering Features (Hangars #1, #2, & #3)
C. Miscellaneous Supportive Design Features
D. Post 1935 buildings designed in the Spanish Colonial Revival Style
E. International Style Buildings from the 40's

Out of these five categories, the proposed historic district from the 1930's will include all those features identified with item "A, B & C" immediately above.

A. ARCHITECTURAL DESCRIPTION OF THE SPANISH COLONIAL REVIVAL-DESIGNED ORIGINAL BASE BUILDINGS.

The original plan of Moffett Field was constructed in an architectural style that had as its antecedent the exuberant and capricious ornamentation applied by the 17th Century architect, Jose Churriguere, and eloquently revived by Bertram Goodhue in the design for the 1915 San Diego Panama Pacific Exposition. The Navy first attempted the style at Chollas Heights Radio Transmission Station in 1916 and followed with Goodhues' Marine Corps Recruit Depot, c. 1920, Naval Air Station North Island, c. 1921, and his sketches for the Naval Training Center in San Diego, a year or so later. This form of Spanish Colonial Revival design reached its zenith at the end of the 1920's and was gradually losing favor to the modern designs of the mid-to-late 1930's. By the 1940's only some very late examples, usually transitional in styling that reflected the rise of both modern schools of architecture (Moderne and Deco styles, as well as the later International or Bauhaus-influenced styles) were being built.

The complex of original buildings that comprise the heart of the Naval Air Station Moffett Field are examples of late Spanish Colonial Revival design reflecting a much more severe example of this style with strong influences of the more modern style precepts, as well as hints of Eastern Colonial designs. The resulting hybrid significantly alters the original architecture of this style.
These buildings are characterized as essentially two-storied white or off-white stucco structures that are capped by very low-pitched Spanish tile roofs, which are punctuated by projecting chimneys, air ducts and, in the case of the true centerpiece building, the Administrative Building (#17), a richly ornamented, roof pavilion where corner columns support a decorated dome. The buildings are all rectangular in plan with either central projecting spaces or corner wings. Wall surfaces are very plain with the major break up of space occurring either in the location of rectangular-shaped windows, slightly projecting stringcourses between the floors, round arched entryways or arcaded ornamentation styled to look like granite around the major entry doors and surrounding significant window spaces.

It is the variation of the above major design elements that define the original base architecture. The two most handsome entrances are the round arched arcades that distinguish both the aforementioned Administration Building and the equally impressive Bachelor Officers’ Quarters (#20). Repeated ornamentation include the flattened urn motif, various cartouches, and quarterfoil windows found along the exterior surfaces of all the major structures. The juxtaposition between the flat surfaces of the exteriors contrasting with the florid ornament around the major doors and windows provide the perfect tension that distinguishes the Spanish Colonial Revival style. A notable somewhat stripped example of this style is the impressive original Aircraft Tower (#18).

Some of the minor out-buildings, although stripped of much ornamentation, exhibit sensitive design features such as the low stepped parapets of buildings #22 and #2, the repeated multilight apertures of #10, and the simple, yet distinctive massing of the original portions of #6, which acts to reinforce the common design theme throughout the historic core. All of these original outbuildings significantly reinforce the common design theme of the historic campus.

The second cluster of original buildings, which forms an equally impressive uniform design statement, is found in the earliest residential units of the detached officers housing. In this extremely pleasant space, made so by its luxuriant landscaping and large unbroken lawns, a very simple house plan is repeated with only slight variations. The structures are designed in a very stripped and somewhat severe Spanish Colonial Revival style with two-storied, rectangular plan residences joined to a garage, either a one or two storied garage, by an arcade. The roof lines are low pitched gables that are sheathed in red Spanish tiles and punctuated by end fireplaces. Apertures are symmetrically placed on the structures with the dominant design characteristically reserved for the front entry. Windows are generally rectangular in shape, double hung and 3 over 2 in design. As with the major buildings on the working base section, here two stringcourses and various door surrounds provide the major contrast to the very simple stucco walls. Additionally, a similarly designed structure forms a prominent security building at the front gateway.
B. DESCRIPTION OF THE ORIGINAL ENGINEERING FEATURES (HANGARS #1, #2, AND #3)

Completely separate in design, but of such striking style and size as to warrant separate discussion are the three buildings that form the raison d'etre of the entire complex. The three hangars are of such proportions that for this reason alone they warrant the title "landmark". Aesthetically, the original hangar, which was constructed to hold USS MACON, a dirigible, is of such a unique design that it stands apart even from its later sister buildings. Hangar #1 is a metal sheathed behemoth whose rounded shape is both the epitome of the aerodynamically influenced Streamline Moderne style as well as a stylistic cousin to the huge airship that originally berthed inside the mammoth hangar.

Above all other buildings found on the Moffett Field site, Hangar #1 is without question the most significant building both architecturally and historically. It is one of the major buildings of Northern California, and has been recognized as an Engineering Landmark by the American Society of Civil Engineers.

Hangars #2 and #3 are significant more for their size than their unique styling or design. They represent more prosaic attempts at constructing very large military hangars. Similarly designed structures are found on Marine Corps Air Station, Tustin, California and at Coos Bay, Oregon. The more common design does not, however, detract from the sheer magnitude of the two huge buildings side by side. Along with Hangar #1, these two buildings help define the south San Francisco Bay Area from all distant directions.

C. DESCRIPTION OF THE OTHER SUPPORTIVE DESIGN ELEMENTS (I.E. LANDSCAPING, GATEWAYS, ARTWORK AND ITEMS OF INTEREST IN THE LANDSCAPE, STREET LIGHTING, AND SIGNAGE)

The third and final group of elements add immeasurably to the quality of design cohesion that characterizes the Naval Air Station Moffett Field site. These elements support the physical layout of the site plan as well as the quality of the original historical architecture. They also help define the campus-like quality of the base as well as unify the disparate building styles and types.

Most prominent of these supportive elements is the landscaping. The ubiquitous mature trees, the huge green spaces, and the careful placement of plants and shrubs which add immeasurably to the mise-en-scene. The luxuriant and well tended landscape is the first feature which one experiences after passing through the entry gate. Early photos of the site show a very desolate natural landscape which was essentially bay lowlands. Blueprint plans from April 29, 1933 illustrate the importance that a unifying and coordinating landscaping plan for the air station had in forming the basis for today's superlative luxuriant landscape. There could be no doubt that the existing grounds could not have been produced without a well conceived original plan.
Of almost equal importance in differentiating the site from its surroundings is the entry wall and gate itself (#30). Although very restrained in design, the gate forms a physical entrance into the unique area from the very bland surrounds. It should be noted that the wall, gateway, and gatehouse all derive from the original base architectural design plan.

Street furniture, interesting items on the landscape, and street lighting also add to the unique quality of the site. The furniture includes a detached community message board, a sundial and an historic anchor, both in front of building #25, as well as within the central greensward. The street lighting still retains its original bases, but the lamps themselves, from a later '50's design, are somewhat inconsistent with the Spanish Colonial Revival buildings of the historic core. Replacement with a more original form should be encouraged.

Signage too helps add to the unifying elements of the site. It is, most prominently in the historic core, understated in blue with gold lettering which is very supportive of original high design standards. Such attention to detail should also be encouraged to continue. For it is in the sum of all of these disparate features that the whole of a unique and memorable built environment results.

**INDIVIDUAL SITE DESCRIPTIONS:**

The following descriptions define the special design characteristics that distinguish the architecturally significant buildings from the 1933 plan (with two notable exceptions being a description of the 1943 designed Hangars #2 and #3).

**HANGAR # 1: BUILDING #1**

The site consists of a very large (1140'x308'x194') single-story, dirigible hangar that is constructed with three hinged steel truss arches and "X" cross bracing that is sheathed in large metal plates and set on a huge rectangular-oriented, elliptical shaped, floor plan and designed in a slightly flattened parabolic form. The structure further exhibits four rows of very large rectangular-shaped and horizontally-oriented window bands along its two dominating eastern and western facing flanks. These apertures appear flush with the immense metallic skin of the building and greatly add to the very futuristic aerodynamic effect of the design.

Of particular engineering note are the hangar doors that run the full height of both the north and south-facing elevations. These doors are retractable and form a halfdome shape when closed.

The building exhibits a very clean, Streamline Moderne design which perfectly mimics the form of the airships themselves. Located perpendicular to the axis of the station plan this dominate structure provides the focus of the 1933 station plan.

The mammoth structure designed to hold fully inflated giant dirigible airships from the 1930's military fleet (such as USS MACON) was actually constructed in 1932 preceding the buildings of the surrounding base which date from 1933. The structure is important due to its unique use (dirigible hangar), beautifully executed Streamline Moderne architectural design, ingenious
engineering construction; and for its very size that still dominates a greatly urbanized Santa Clara County in the 1990's. From all aspects of national landmark status criteria, this building qualifies on its own. When added within the context of the surrounding supporting campus plan, the entire ensemble forms a very unique sense of place within the built environment and continues to exhibit national prominence.

HANGAR #2 AND #3: BUILDINGS #46 AND #47

The site consists of twin hangars that were designed for the blimp fleet during WWII. They are of treated California redwood frame construction, configured on a rectangular plan in a more flattened parabolic form than Hangar #1; and characterized by their immense, moderately pitched porticoes at each of the north and south-facing hangar doors. These dominating entries are supported by very large concrete piers at each of the four corners. The twin buildings are set on a site plan that is directly oriented with the earlier Hangar #1, which is due west. The scale of the structure is exemplified by their dimensions, which at 1,075' x 297' x 171' (180,518 sq. ft.) make them slightly smaller than their predecessor, but still very impressive on the landscape. The use of wood construction instead of a steel truss system was in response to the war effort. Like most west coast military facilities constructed after 1941, metal was used very sparingly to conserve the resource for use in constructing ships and armament.

The design of these two buildings is in a much more conservative architectural style than the futuristic form of Hangar #1. These later hangars are almost domestic in their gabled porticoes. They definitely lack the daring and ingenuity of the other hangar's form and they are much less a unique design to the area. In fact, four other structures of like design were built on the west coast during World War II, to house the blimps used to patrol the Pacific coastal waters of the United States. Two in Coos Bay, Oregon which are no longer owned by the Federal Government and two on what is now Marine Corps Air Station, Tustin in Southern California. All four of these structures have been nominated to the National Register.

Although not of equal architectural or design merit as Hangar #1, these two like-structures are significant from both an historic perspective (as excellent extant examples of WWII blimp hangars) as well as an architectural/engineering perspective (they are after all buildings of incredible size and stature upon the landscape). The twin structures further add to the important design whole of the best of the original 1933 plan and the just slightly less impressive structures from the 1940's which help in-fill much of the site. They were completed in 1943. The combined visual power of Hangars #1, #2, and #3 form a physical presence upon the urbanscape which still dominates the low horizontal design of the Santa Clara Valley.
ADMINISTRATION BUILDING: BUILDING # 17

The site consists of a two-story structure that is constructed on a shallow cruciform rectangular floor plan which is built of wood and sheathed in stucco with red Spanish tile roofing and terra cotta ornamentation, especially notable in the window and door surrounds. The building is the most prominently sited structure within the 1933 campus plan. It is set in the very heart of the open grassy median as a definite center point to the original plan. Its architectural design represents a late example of Spanish Colonial Revival style with some modifications that give it a kinship with Eastern military bases of the same vintage (that were designed in dry formal interpretations of Colonial Revival).

The building is 148’x41’x37’ and contains 18,954 sq. ft. The structure is characterized by the features which define all of the original buildings: the very low pitched, slightly hipped and tiled roofline. Exterior walls are flat and devoid of ornament, save a stringcourse running the entire perimeter of the building and separating the two stories. The eave line is very shallow. Windows are simple, rectangular in plan, vertical in orientation, multi-paned and double hung. Overscaled terra cotta ornamentation define the major front and back entrances, as well as the centered second story window. The main or west-facing entrance projects out from the main structure and exhibits a triple round-arched, recessed entrance.

Ornamental urns, pilasters and floral design (characteristic of Churrigueresque Spanish architecture of the 17th Century) add a much needed ornamental counterpoint to the very simple and severe basic design.

A further feature which distinguishes this structure among all of the others in the original campus plan is the small centered Bell Tower. This small belvedere is capped by a diminutive, red-colored dome and distinguished by very flat arches at each of its four faces. This architectural style is much more characteristic of the colonial designs of the Eastern United States and is a major factor in classifying the overall base design as a modified Spanish Colonial Revival style.

With the nearby Bachelor Officers Quarters and the Married Officers’ Residences, the Administration Building, (which is also historically referred to as the Admirals Quarters) is the most architecturally important building from the original 1933 construction (excluding Hangar #1). This building sets the design criteria that is followed throughout the original campus plan. It acts both as a handsome example of hybrid revivalist architecture which is prominently set at the most important axial juncture of the site and as one of the most lavishly ornamented of Moffett Field’s original structures. As such, the Administration Building is a key to the historic fabric of the site.
BACHELOR OFFICERS QUARTERS: BUILDING #20

The site consists of a large, two-storied structure that was constructed on an irregular rectangular shaped site plan which is actually symmetrical in form. The building exhibits a more ornamented interpretation of a hybrid Spanish Colonial Revival architectural design. It is characterized by the same basic features that distinguish all of the original buildings. The roofline is lowpitched and sheathed in red Spanish tile, the eave is fairly shallow, wall surfaces are unadorned white stucco; and window shapes are paired rectangular forms which are double hung, 3 over 2 in form. Major entrances are distinguished by terra cotta facing that emulates granite. Three large round arches provide the building with a very elegant entryway. Flat unadorned pilasters separate these arches. They are further adorned with flat urn detailing. The characteristic stringcourse separates the two floors. A rear wing projects toward the south.

The structure is sited symmetrically across from the equally prominent, but slightly less architecturally impressive, Bachelor Enlisted Quarters (#19) which has been greatly enlarged with a rather bland International Style addition at both ends. The structure is further enhanced by a well conceived and equally well maintained landscape plan.

Along with the cluster of major buildings that are set along the formal axis of North and South Akron Roads, the BOQ helps define the high quality design character that distinguishes the historic core of Moffett Field. The structure is an extremely fine example of historicist architecture of the 1930's and remains a key element in the cohesion of the base's physical form.

GYMNASIUM: BUILDING #2

The site consists of a very large, single-story, plaster-sheathed, steel framed building that is constructed on a slightly irregular rectangular floor plan with a flat roof that is distinguished by slightly projecting stepped parapets that hint at the utilitarian designs of the original campus plan of 1933. the roof is wood sheathing on steel beams. This structure exhibits a ubiquitous projecting stringcourse encircling the building, as well as the very plain beige plaster walls. The major design feature on this essentially utilitarian structure is in the window placement. Here, the structure is characterized by very tall, horizontally-banded, multi-paned apertures which act to break up the surface of the exterior walls either as centered indentations on large expansions of plaster or as repeated forms which act almost like columns along the major side elevations.

This structure avoids, as do all of the original functional outbuildings, the Spanish Colonial Revival design of the major living areas of the base. Interestingly, it provides a handsome architectural bridge between the very futuristic Streamline Moderne design of Hangar #1 and the more historicist styles of the original campus plan.
The site is significant both historically and architecturally. It was originally constructed to be a balloon hangar which justifies its extremely large interior single story space (19,691 sq. ft., 130'x88'x63'). Additionally, the building sets the reserved design criteria for the outbuildings on the base which handsomely support their more ornamental Spanish Colonial Revival contemporaries. Features which characterize these original outbuildings include flat roofs, shallow parapets which are slightly stepped; and severely unadorned exterior walls. Windows are rectangular in form and provide the dominant design ornamentation.

Although these buildings do not provide the obvious ornamentation, stylistic historicism or landscaped surroundings of the more apparently significant original Spanish Colonial Revival structures, they exemplify an extremely sophisticated design criteria of their own which greatly adds to the overall cohesion of the existing campus. In their own right, the Gymnasium, along with similarly designed original 1933 outbuildings such as the Garage (buildings #21 and #22), are major factors from the original 1933 design which make MAS Moffett Field so architecturally distinguished.

BUILDING #23, INSTRUCTION BUILDING

Fronting on Akron Road, the former dispensary is one of the buildings that defines the original architectural design and is symmetrically placed, opposite building #25, to balance the entrance to the base's formal plan. The two story, above grade, building is basically a "T" form executed with the typical elements of the Spanish Colonial Revival architecture, low pitched tile roof, stucco sheathing and terra-cotta ornamentation. The front facade has a central entrance recessed behind three arched openings that form an arcade. Terra-cotta surrounds decorate the three windows above the entry and the doors at the east and west ends. The building, originally the base dispensary, was enlarged by the U.S. Army's Air Corps in 1936, when extensions were added to the rear and the east end. The building is 105 feet by 96 feet and 10,995 square feet of floor space.

Of the original buildings, #23 and #25 are significant because of their representation of the Spanish Colonial Revival design and for their locations at the entrance of the working station. Opposite each other, across the central lawn mall, these buildings provide symmetry to the original plan.
BUILDING #25 THEATER

The theater, two stories over a basement, is a typical example of the significant supporting buildings that define the original architecture. The "T" form is executed with a low pitched tile roof, stucco sheathing and terra-cotta ornamentation. The typical protected entry is behind an arcade that, in this case, is projected forward. The fenestration, again typical of the dominant style, is symmetrical for all floors except those voids above the entrance. Here the pattern changes to a band of windows divided into three elements that balance the three arches of the arcade. The building is 150 feet by 110 feet in an irregular plan that accommodates 7,745 square feet of floor space.

BUILDINGS #21, #22 AND #24 - GARAGES

This group of detached garages are supportive elements in the historic district. Each is one story and is constructed using typical materials and simple forms of the ancillary buildings. Buildings #21 and #22 retain the original use and design, including corner parapets. The buildings, located behind Building #20, are almost identical, 98 feet by 24 feet with garage door openings facing each other. Building #24, located behind Building #23, was the ambulance garage. It is smaller 45 feet by 30 feet. The large garage door openings have been infilled and the interior space modified for administrative offices.

The garages are significant supportive buildings that compliment the architecture of the larger buildings. Building #24 retains the original mass and form but, the alterations have changed its appearance as a garage.

BUILDING #10 - HEAT PLANT

One of the original buildings, the heat plant is a large industrial building of block massing in an irregular "T" form that is two stories in height. A single story element fits into the south west corner. Typical of power plant design, the dominate feature is the fenestration. This building has window banks that extend to the second story. A coursing separates the massing with smaller rectangular windows above the band. In keeping with the dominant architecture, this utilitarian building is decorated with a simple surrounds at the entrances. Flat arches top the tall window banks. The glazing is rectangular pane divided mullions. Most of the first floor windows have transoms that are operable. While the upper rows are all operable. A second coursing divides the lower portion of walls at about four feet, the basement line. Building #10, is sheathed in stucco with a flat roof. This building is a handsome version of a utilitarian industrial design.

The heat plant is one of the original buildings. It is significant as an example of the dominate architectural design stripped to the essence, entrance surrounds and arched windows, for industrial use.
STRUCTURE #5 - Water Tower:

Supported by a tall steel frame, the water tank is topped with a conical roof. The traditional red and white checkered paint defines this classic industrial design. One of the original structures, the water tower is a functional and visually distinctive feature.

BUILDINGS A THROUGH I AND ANCILLARY GARAGES A-1 THROUGH I-1

REPRESENTATIVE SINGLE FAMILY RESIDENCES (COMMANDING, SENIOR AND JUNIOR MARRIED OFFICERS QUARTERS):

The original 1933 detached residential structures are all designed in a like architectural style of which any single building represents an archetype for the whole. The example used here is site #A1, which is referred to in the 1933 landscape plan as the "Commanding Officers' Quarters".

The site consists of a very simple, two-storied, rectangular-planned single family residence that is constructed of wood frame with a low gabled red Spanish tiled roof over a very plain stuccoed exterior (which is punctuated by a formal placement of both windows and doors). A simple chimney adorns the western facade. An attached single-storied, round-arched breezeway connects the residence with a large, two-storied, rectangular-planned garage set slightly behind the main structure.

Stylistically, the residence reflects all of the specific design criteria which unifies all of the original 1933 Spanish Colonial Revival architecture on the base. Windows are almost flush with the plain exterior walls. They are also essentially rectangular in shape, double hung, multi-paned and symmetrically placed along the facades. A colored, projecting stringcourse separates the two stories. The front entry is the most prominent exterior feature with a slightly recessed almost flat arched entry with projecting surrounds. An ornamental sidelight window is balanced by a large wrought iron projecting lamp on both sides of the main entrance.

Landscaping is characteristically both formal and very well maintained. The very large mature trees add immeasurably in setting apart the residential quarter as an oasis amid the functioning base. The open greenswards that distinguish the street directly tie in with the more formal axial plan of the rest of the base. The curved street pattern illustrates the influence of contemporary suburban design on such residential planning even on a military base.

The original 1933 detached residences form a key architectural component in the significant whole that distinguishes the site plan of the naval air station. Along with the verdant landscaping and extra wide spacing, this enclave of buildings helps define all that is special about the site from a design perspective.
CONTROL TOWER: (AEREOLOGICAL BUILDING FLIGHT CONTROL TOWER) BUILDING #18

The site consists of a moderately-sized (3590 sq. ft.), two-storied building with a centered third story, hexagonal-shaped Control Tower. The structure is designed on a slightly varied rectangular floor plan with a very minimal attempt at exterior ornamentation. It is another of the utilitarian structures from the original plan that exhibits hints of the Spanish Colonial Revival design of the major buildings (in the centered round arch, the overscaled twin wrought iron Spanish styled lamps on both sides of the entry and the ubiquitous terra cotta surrounds ornamenting the front door). Otherwise, this structure is very simple in its design. Its walls are unadorned plaster. Windows are slightly recessed, rectangular in plan, multi-paned, double hung and symmetrically placed along the exterior facade.

The hexagonal tower is, along with the projecting metal tower above, the most distinguishing feature of the structure. It is characterized by its band of vertically oriented windows on each of the eight faces, as well as the iron railing which caps the flat-roofed tower from above.

The building's significance is due both to its history as the original Control Tower for the air station, as well as to its architectural design which once again exemplifies the sophisticated aspects of the original 1933 plan. The structure provides a transition between the more historically refined Spanish Colonial Revival architecture and the simple, yet equally impressive, more modern styles of the utilitarian outbuildings. It is the cohesion provided by the interaction between these two styles that provide the stylistic excellence of the historic core plan.

TWIN SMALL TOWERS (FLOOR WATCHTOWERS): BUILDINGS #32 AND #33

These two twin sites (#32 and #33) consist of very small, two-storied towers that are distinguished by their very unusual design. They are towers that are distinguished by their very unusual design. They are very small structures (578 sq. ft., 14'x14'x25') that appear to be composed of a standard two-story rectangular tower with flat roof joined to a slightly smaller two-storied rounded tower with like flat roof that is capped with metal railing. The buildings are very simple in form. There are really no specific architectural embellishments. They exhibit all of the standard features of the utilitarian structures on the base without any ornament. Recessed, double-hung, multi-paned windows provide the major characteristic design feature which ties them into the surrounding historic core buildings. A prominent projecting stringcourse characteristically separates the two floors.

The significance of these two small utilitarian buildings is primarily in their unique function and form. They are very site specific and add a distinctive counterpoint to all of the rectangular shaped structures on the base. They are architectural curiosities that add immeasurably to the historic and architectural importance of the site.
INTERNIOR SPACES:

Naval Air Station Moffett Field has been in continuous use since it was constructed. During the years the interiors of the buildings were altered to accommodate changes in uses and space requirements. The alterations have redesigned the original interior space plans, removed the original surfaces and changed the spacial feeling of the interiors. Due to the alterations, the interiors do not retain architectural integrity or historic significance.

NON-CONTRIBUTING BUILDINGS

Within the boundary of the historic district the number of non-contributing buildings exceeds the number of significant buildings and structures. This unusual ratio does not diminish the significance or integrity of the district. Most of the non-contributing buildings were constructed after the period of significance and are primarily small utilitarian constructions. The Chapel and heating plant, buildings 86 & 87 were constructed after the period of significance yet are designed in the idiom of the district. Thus, Naval Air Station Moffett Field, despite the imbalance in numbers of contributing and non-contributing buildings, maintains exceptional integrity of the 1933 station plan and architectural design.

The International style buildings were predominately constructed after 1944 and are not 50 years old. Therefore, they are not eligible for listing at this time. The Post Office, building #67, constructed in 1943, one of the finest examples of this style, is not significant as an individual building and should be included with the later International style buildings.
United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

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SIGNIFICANT OBJECTS

| 40 | Flagstaff/Commons   | Flagstaff and Commons |
|    | Memorial Anchor     | Anchor                |
NON-CONTRIBUTING BUILDINGS

1930-1933 - Altered (loss of architectural integrity): Buildings #3, #6, #12, #13, #14, #29, #31, #36, #501.

1940-1944 - Altered (loss of architectural integrity): Buildings #240, #241, #242, #514, #515, #516, #517

Assembly Buildings: #45, #85, #115

Quonsets: #81, #117

Sheds: #34, #44, #83, #347

1940 - 1944 (outside period of Significance) Buildings: #67, #64, #86, #87,

All buildings and structures constructed after 1944, including: #76, #77, #123.

All ancillary buildings and structures, in proximity to Hangars #2 and #3, that are very small, altered or constructed after 1944; #79, #98, #186, #346, #350, #367, #368, #396, #440, #470, #472, #499, #539, #540.
Several factors contributed to the commissioning of the U.S. Naval Air Station Sunnyvale on April 8, 1933. Of foremost importance was the vision for the future of aircraft and influence of Admiral William A. Moffett. Appointed by President Harding on July 25, 1924, to be the first as Chief of the Naval Bureau of Aeronautics, Admiral Moffett had already established himself the proponent for increased Naval aircraft as an integral component of the Navy's ability to control the seas off the coasts of the United States. In the 12 years that Admiral Moffett lead the bureau, the U.S. Navy was catapulted into the lasting interlocking strategy of Naval presence in the air as well as the sea. But he also spoke of the future in commercial aviation. In the 1920's, he appears fascinated with the lighter than air technology of the dirigibles. The success of the zeppelins in WWI contributed to the development of the larger dirigibles. This was however, marred by the disasters resulting from the flammability of the hydrogen used to fill the chambers. Each country involved in the hydrogen filled dirigibles experienced tragedy. A memorial plaque in Shenandoah Plaza at Moffett Field commemorates USS SHENANDOAH that was lost with a crew of 14 on September 3, 1925. The largest of the dirigibles, HINDENBERG, burst into flames over Lakehurst, New Jersey in 1937, culminating a series of tragic losses involving the dirigibles and hydrogen. Helium, produced only in Texas and Kansas, had been known to be a reasonable replacement for hydrogen, but was prevented from export by the 1925 Helium Export Act. Moffett began a lobbying campaign to have the U.S. Navy use helium filled dirigibles to patrol the coasts. In Moffett's plan, these giant rigid frame airships would provide the long range observation for the surface Navy below. He believed the dirigibles could be fashioned to carry small planes and might even be equipped with bombs. The idea was not far-fetched. The technology of the 1920's allowed dirigibles which could stay aloft for 14 days and fly 10,000 miles. The lobbying proved successful with the 1926 congressional authorization for two Naval dirigibles capable of carrying aircraft and a new aircraft base for the west coast. The dirigibles were to be built by the Goodyear-Zeppelin Corporation in Akron, Ohio. The first to be completed was based at Lakehurst, New Jersey. The selection of the site and construction of a base to service the second would be undertaken on the west coast.

The west coast site appeared to be slated for Camp Kerney near San Diego when the northern California politicians realized the opportunities to be created and forced the federal planners to accept applications from the entire west coast. Applications were received from 997 locations. San Francisco mayor, James Rolph, saw the benefit to the Bay Area even though his city did not have a site suitable for the base. The appeal was for 2,000 acres with unobstructed approaches, clean water, rail access and good flying weather was heard by Mrs. Laura Whipple, a recently established real estate broker from the East Bay. Familiar with the Sunnyvale area, she selected the Rancho Unigo, a former Indian Reservation, that seemed to meet all the criteria. Appointing herself "Chairman of the Landholders Commission", she obtained an option for 1,750 acres at the price of nearly $500,000. She wired San Jose congressman, Joseph Free, that a perfect site for the dirigible base had been located and optioned. The proposal from San Diego offered free land; in order for the Sunnyvale site to be selected the same offer would have to be made. Under
the leadership of presidents of the Chambers of Commerce from Mt. View and San Jose, a campaign to raise the funds and solidify the offer went forward. The newspapers, including the San Jose Mercury Herald, were enthusiastically in support of the proposal and offered publicity and public relations material to support the proposal. After three years of study and debate, it was time for a decision. On December 28, 1930, the vote registered by the House Naval Affairs Committee for H.R. 6810, introduced by Congressman Free, selected Sunnyvale by 18 to 1 and Camp Kerney as the auxiliary base. As a member of the West Coast Naval Airship Base Board, Moffett had favored Sunnyvale while the Secretary of the Navy, Charles F. Adams, preferred Camp Kerney.

Once selected, the issue remained to raise the money to purchase the land. Under the leadership of A. M. Mortensen, President of the San Jose Chamber of Commerce, the funds were raised and on August 2, 1931, the Chamber's check for $476,165.90 completed the purchase of 1000 acres of the Rancho Unigo. Also on August 2, 1931, the land was transferred to the U.S. Navy for $1.00. This completed a long and arduous partnership between the cities of the Bay Area to gain the prestige, jobs and economic interests that would follow the base.

The budget for constructing the base was $5,000,000. The U.S. Navy of Yards and Docks would be responsible for the design and coordinate the construction. Lt. Commander Earl Marshall was given the responsibility. Ernest Wolf, an experienced engineer from the Goodrich Zeppelin Corporation, was to be the Associate Engineer. Hangar #1, as it would be called, was the most important building and received the first attention. The design had been refined in Akron by Dr. Hugo Ekener, to form a rounded building that followed the form of the dirigible. Enormous curved doors on each end would slide over the building, rolling on 40 wheels over standard gauge railroad track, and propelled by 150 hp electric motors, thus minimizing the turbulence and problems encountered with past designs. In fact, it was the window patterns that dictated the north-south orientation and siting of Hangar #1; the rest of the base followed. Of the $2,250,000 budgeted for the hangar, $1,116,044 was awarded to the Wallace Bridge and Structural Steel Company of Seattle to fabricate the steel for the structure and doors. Seims-Heimers, Inc. of San Francisco bid $398,937 for the roofing, windows and siding on the airdock that would measure 1,133 feet long, 308 feet wide and 198 feet high. The floor area is just over eight acres. A structural space frame, the design and construction of this hangar remain a feat unparalleled in the engineering of enclosed space.

Railroad tracks ran through the hangar, culminating at the mooring tower. The tower secured the dirigible to the ground by mooring lines. This tower has been removed. The other large structure that was necessary for the dirigible was the helium tank that was located in front of the hangar.

The plan for the base and the design of the buildings was also undertaken by the Naval Bureau of Yards and Docks.
The style for the buildings, Spanish Colonial Revival, is reflective of the popularity of the revival movement and the desire of the local politicians to have the base designed in the "California Style" of white stucco walled buildings with red tile roofs. The plan and building design was very formal, an axial orientation with the bermouth hangar to the east and the base extending west. Following the Spanish influence, a large plaza is the central element with the most ornately decorated building, the Administration Building, at the head of the plaza behind the flag pole and in front of the hangar. On the south side of the plaza were located the dispensary and Bachelor Officers' Quarters. To the north were the recreation building and the barracks. To the southwest on the cul-de-sac were located the nine officers' houses and garages. Extending to the east, and south, behind this formal plaza arrangement were the utilitarian buildings, fire station, garage, laundry boiler plant, locomotive and crane shed, shops, helium storage and water tower. To the north were the commissary, store house, gas station, balloon shed and storage buildings. Directly behind the Administration Building was the cafe (later the Officers' Club), and of course, the Hangar. The base was designed in anticipation of the importance of the automobile. Broad roads, large parking areas and garages were incorporated in the plan.

Landscaping was carefully planned to mature in harmony with the buildings and circulation elements. The area considered the Naval Air Station Sunnyvale Historic District maintain the integrity of the original design and represent one of the finest formal plans for a government facility in California. It was a forward-thinking plan with expansion to occur outside the formal plaza, thus the quality of design has been maintained. The original base is a one-of-a-kind facility in the Santa Clara Valley with great importance in the architectural heritage, facility planning and economic growth of the region.

The primary significance of the historic district is the association with the "lighter than air" dirigible program. The dirigibles, to be the eyes in the sky for the Navy, were in operation for a relatively short time. USS MACON, one of the two dirigibles constructed for the Navy, was christened by Mrs. William Adger Moffett (wife of Admiral Moffett) on March 11, 1933. An article about the landing in Sunnyvale was reported in the October 15, 1933 edition of the San Francisco Chronicle that read, "30,000 Thrilled as the MACON Moors at Home Station." The sister dirigible, AKRON, had been lost on April 13, 1933, making the MACON the last dirigible. For 16 months, USS MACON was a common sight over the Santa Clara Valley as it performed in a number of military maneuvers with the Pacific Fleet. Admiral Moffett had been well aware that the slow moving dirigibles could be of great benefit when assigned as an observatory for the fleet, but were vulnerable if used in maneuvers with the fleet. Shortly after arriving at Sunnyvale, USS MACON was deployed on tactical maneuvers with the Pacific Fleet. Equipped with an internal hangar and steel frame hoist termed a "trapeze", USS MACON carried four small fighter planes. The Sparrowhawks (F9C) were bi-plane fighters developed specifically to be carried in the dirigible by Curtis. Each weighed only 2,500 pounds with a pilot. As an airborne carrier, the dirigible was a hulking target that "failed to demonstrate military usefulness," according to the Commander in Chief of the United States Fleet, Admiral David Sellers. While returning from maneuvers with the fleet on February 12, 1935, USS MACON experienced a structural failure and crashed into the Pacific. Of the 83 crew, only 2 were lost. It was the headline in the San Francisco Chronicle the next day that told the story, "Dirigible Doomed as Defense Factor, Officials Say." The era of dirigibles was over, the only remaining element of the Moffett five year plan was Hangar #1 and the base at Sunnyvale.
During this period, the U.S. Army Air Corps operated a limited number of blimps in conjunction with observation exercises. In September, 1935, seven months after USS MACON went down, the Army assumed control of the base and Hangar #1. The facility was used by the Army for pursuit and observation activities until 1940 when it was converted to the West Coast Air Corps Training Facility. During this period, the dispensary was enlarged and barracks were added.

Shortly after the outbreak of WWII, the base was returned to the U.S. Navy. In April, 1942, the base was recommissioned Naval Air Station Moffett Field.

The return to Naval Command was to provide expanded facilities for small blimps and balloons used for coastal observation. Hangars #2 and #3 were constructed for blimps in 1942. They are included in the historic district because of the use as a lighter than air facility, and for their architectural/engineering importance.

One of the most recognizable landmarks in the San Francisco Bay Area, Hangar #1 and the original base are significant in the history of Naval Aviation, defense and in the development of the Santa Clara Valley. From the original base and because of the facility location and landing field, NASA Ames Research Center is located to the north adjacent to the original plaza boundary and at the north boundary of the historic district. It is far easier to measure the importance of the dirigible in Naval Aviation and defense history than it is to measure the enormous impact upon the growth of the defense and space industry in Northern California because of the original location of this base with the 1000+ acres.

The Naval Air Station Sunnyvale Historic District is recommended for listing in the National Register of Historic Places at the National Level of significance under Criteria A, as the only base designed specifically for the Navy to home port USS MACON, the only dirigible in the fleet, a significant contribution to the broad pattern of our history; and under Criteria C, a facility plan and architectural design that embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.

The landscape plan (Y&D drawing No. 115840) was approved on April 29, 1933. This plan shows the base in its entirety.
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Appendix D

Building 20 Re-Use Guidelines
(ARG 2000)
U.S. Naval Air Station Moffett Field
Building 20 Re-Use Guidelines
Final

Moffett Federal Air Field, California

prepared for
NASA/Ames Research Center
Moffett Federal Air Field, California

prepared by
Architectural Resources Group
Architects, Planners & Conservators, Inc.
San Francisco, California

October 2000
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Introduction

The following *Guidelines for Rehabilitating Buildings on Shenandoah Plaza* have been prepared to assist NASA Ames professional staff, tenants and their consultants in rehabilitating structures on the historic Navy base. The guidelines are intended to be a design aid in determining acceptable alterations, additions, and repairs for preserving the character of existing buildings. They are based upon *The Secretary of the Interior's Standards for Rehabilitation*.

The Rehabilitation Guidelines of this study are particularly concerned with identifying intact historic fabric at each building and establishing parameters for rehabilitation work for building reuse.

I. Executive Summary

Building 20 is one of five buildings around Shenandoah Plaza constructed in the Spanish Colonial Revival Style. The Shenandoah Plaza buildings have seen relatively little change to the overall landscape and configuration among the buildings. It is critical to the rehabilitation of the buildings to view them in the context of the plaza.

Of the five buildings, Building 20 is almost completely intact in its original spatial configuration and its exterior and interior features. It has been well maintained over the 70 years since its construction. With minor code improvements and complete disabled access improvements, the building is very amendable to new uses, while meeting *The Secretary of the Interior’s Standards for Rehabilitation*. Further evaluation of the structural, mechanical, plumbing, and electrical systems will be required as re-use designs are developed.

II. Methodology

The buildings which comprise a portion of the US Naval Air Station Sunnyvale, California Historic District (#17, #20, #21, #22, and #23) were inspected by a team from Architectural Resources Group (ARG) in August 1999 and June 2000, to determine the historically and architecturally significant features of each building. Building #25, also in the District, had only a cursory inspection due to hazardous materials restrictions. Building 19 will not be reviewed at the time. Members of the NASA/Ames staff, as well as the US Navy Public Works Department, attended the tours of the buildings and provided insight as to the evolution and transformation of the buildings over the past 68 years.

In addition to an on-site inspection, the team also photographed the buildings and used the following sources to obtain additional information:
- DMJM - Engineering Documentation Center (Building 17 only)
- DMJM - Facilities Planning Office (Building 17 only)
- NASA – Facilities Planning Office

From these repositories the following documents were utilized as the primary sources of information:
- The 1994 National Register of Historic Places Nomination Form for the US Naval Air Station; Sunnyvale, California- Historic District;
- The Department of the Navy, Bureau of Yards & Docks Record Drawings dated 1934 (reprinted from microfilm);
- Existing Conditions CAD Floor Plans dated August 1999;
- Aerial photographs dating from 1931 through 1944 (as well as a current aerial).
III. Building Summary

Location: Building 20, Shenandoah Plaza, South Akron Road
Area: US Naval Air Station, Sunnyvale, California- Historic District
Date of Construction: 1933 (completed by early 1933)
Historic Structure: Yes
Historic Use: Bachelor’s Officers Quarters
Current Use: Vacant
Hazard Level: Ordinary
Number of Floors: 2 stories with partial basement
1st Floor: 18,700 sq. ft.
2nd Floor: 13,980 sq. ft.
Basement: 2,601 sq. ft.
Total: 35,281 sq. ft.
Exterior Materials: Concrete with integral colored stucco, Terra-cotta tile roof
Construction Frame: Concrete
IV. Site Evaluation

A. Historical Background of Shenandoah Plaza

Sunnyvale Naval Air Station was commissioned on April 12, 1932. The formality and hierarchy of the base and building designs are prime examples of military base design. Critical to the understanding of the buildings individually is to understand them in their larger context as they relate to one another. All of the buildings surrounding Shenandoah Plaza are constructed in the Spanish Colonial Revival Style and are contributing buildings to US Naval Air Station Moffett Field Central Historic District.

The buildings which surround Shenandoah Plaza are arranged in order of prominence around the plaza. Building 17, the Headquarters Building, which is the focal point of the plaza, has the greatest importance. This importance is reflected in the exterior and interior architectural detailing. Although located directly across the plaza from one another, Buildings 19 and 20 have different levels of importance. The original functions of the two buildings were enlisted men’s housing and officer’s quarters respectively. A small loop road connecting the two buildings defines a minor plaza between the two buildings. The original site plans generated by the Navy for construction of the base, indicate future symmetrical additions to the buildings which would have further reinforced this minor plaza. The difference in the two buildings’ level of ornamentation was indicative of the rank of the men housed within. As the Bachelor’s Officers Quarters, Building 20 has a richer level of detailing both inside and out than Building 19.

As with Buildings 19 and 20, Buildings 23 and 25 are located across from each other with similar footprints but with different levels of importance. The front facade of Building 25 and its interior spaces have a greater level of ornamentation, while Building 23 is very simple. The front entry of Building 23 has a similar loggia design to that of Building 19 and 25 but lacks the limestone ornamentation. An element unique to Building 23 is the Ambulance drive-through at the rear of the building.

A series of site plans, drawn by the Navy, reflect the changes in the development of the base as construction progressed. These plans indicate future additions to Building 17, 19, and 20, that were never constructed. The Navy ignored these original plans early in 1935 with a one-story addition to the rear of Building 23 which complimented the original building. Further additions to Building 23, by the Army in 1940 and 1941, mimic the original building with the exception of limestone surround at the entries. Sometime after 1950, the Navy constructed a small one story addition to the rear of the east wing of Building 23. In 1951, the Navy significantly expanded Building 19 in a manner, again, inconsistent with the original site plans.

For the purpose of this report, we agree with the National Register nomination form that the Period of Significance for these structures is 1930-1935 and 1942-1946, which corresponds to the period of Navy occupation.

B. Recommendations

Although Shenandoah Plaza was originally designed with provisions for future additions, proposals for additions to the structures at this time must be very carefully considered with the integrity of the historic district in mind. Additions to the building should be considered comprehensively for the entire district as opposed to being considered on a building by building basis. Additions should be designed in concert with the intent of the original site plan to be symmetrically located relative to each structure and relative to the overall complex. All additions should be compatible with each other as well as compatible with
the original structures.

Additions of ramps and other site features should be sensitive to the context of the historic district. The addition of ramps to accommodate building access should be designed with minimal visual impact, preferably as walkways with minimal slope. Landscape features such as plantings, lawns, walkways and streets should be preserved in the same manner as the buildings.

V. Architectural Evaluation

A. Building Description

Building 20 is organized along a primary symmetrical axis which runs north/south. A cross axis, running east/west, contains the building’s main circulation corridor and terminates in two building wings which again run north/south. A one story structure, which projects to the south along the symmetrical axis, houses the officer’s dining room and kitchen. At the center of the building, at the intersection of the two axes, is a formal entrance lobby and reception space.

Exterior features of the building include integrally colored cement plaster wall surfaces, a projecting string course between the first and second floors; an entry portal with ornamental limestone surrounds, porches and terraces at the primary, secondary and rear entrances, and six over six steel windows. The building is capped by a Spanish tile roof with shallow eaves and gables. Cement plaster clad flues capped with tile and vented by ornamental grille work also contribute to the historic character of the roof.

The exterior remains much as it appeared during the period of significance. There are no visible alterations to the building from the front. The most notable alterations occur on the rear of the building. They include the enclosing of terraces #2 and #3 which resulted in the infill of two windows, adding fire escape stairs at the rear second floor east/west wings, a roof enclosure in court #1, and single story additions at the kitchen and court #1.

The formality of the architectural arrangement and articulation between public and private spaces reflects the respect afforded to enlisted officers—the building’s original occupants. The building is entered on the north/south axis where the most public spaces, the lobby, dining room and kitchen, are located. The lobby is the most highly ornamented space in the building. It features concrete columns, capitals and beams with a faux wood finish. The original flooring material was terrazzo. A fireplace with a limestone surround that matches the exterior surrounds, also contributes to character of the lobby as a focal point of the building.

Along the central axis of the building running east/west, is a double loaded corridor with living quarters on either side. The living quarters occur in various layouts. Generally, all contain a bedroom, living room, closet and vanity. The finishes and features of the living quarters include wood flooring, double-hung steel windows, panel doors, textured wall surface, and vanity. Also located at the junction of the central east/west axes corridor and the wing corridors are the central toilets and showers. Notable remaining historic finishes in the toilet rooms include marble partitions, pedestal lavatories, toilets, nickel-plated-brass hardware, marble thresholds and ceramic tile floors and wainscot.

At each end of the central east/west axis corridor are identically detailed stairways which provide circulation between the first and second floors. These stairwells are within the building envelope and are
decorated with faience tile flooring and ornamental metal guard and hand rails.

Spatially, the building remains almost completely true to its original form. The original progression of space from public to private is unchanged. The public spaces are still understood, as they were intended to be, as the core of the building. Alterations that have occurred have been minor. Most of the original finishes and features described above remain intact although throughout the building the historic flooring has been concealed under carpeting, the historic light fixtures in the central east/west corridor have been replaced, and some of the wall tiles in the kitchen have been damaged.

The corridors have also been affected by minor alterations usually due to attempts at resolving code issues related to exiting requirements. At the rear, southern end of the second floor corridors, the former window assemblies have been removed and replaced with metal exit stairs. However, it should be noted that the size of the window openings has not been altered. When the Navy made the building unisex, visual screen walls where installed in the corridor on the second floor. The stairs have also seen little or no change. In an attempt to resolve exiting issues, the original exterior doors have been re-hung to swing in the direction of travel.

The greatest level of change has occurred to the spaces closest to the entrance lobby. The Reading and Captain’s Rooms to the northwest of the lobby have had a significant level of alteration. Walls have been removed, new walls have been constructed, and finishes have been concealed. The area which has seen the greatest level of change are the three bedrooms to the south east of the lobby. In this area of the building, walls that once separated bedrooms have been removed. A suspended acoustical ceiling and faux-wood flooring have been installed and furring out of the existing walls has occurred.

B. Areas of Historical Significance
The building has been surveyed and evaluated for areas of historical and architectural significance and the features have been categorized into levels of descending importance: significant, contributing, tertiary, and non-contributing.

In considering alterations and rehabilitation efforts for the building reuse, the areas of greatest significance should be dealt with in the most careful manner. The following is a definition of each level of importance and the features of the building included in each category. (See floor plans and list of Character-Defining Features at the end of this report for additional information.)

1. Significant Character-Defining Features: These features are the most important, both architecturally and historically, without which the building would lose its distinctive character. Alteration or removal of these features should be avoided.

The following are significant character-defining features:
- Terra cotta tile roof, cupola, historic flues and vents
- Exterior walls, fenestration, ornamental Limestone
- Interior public spaces - lobby and dining room including the following features: concrete columns and capitals, concrete beams and ceiling joists, fire place, arched openings and stairs, and light fixtures
- First floor central corridor - the portion visible from the lobby up to the double acting doors
- Terrazzo flooring and base, terrazzo border and base with resilient field tile throughout building
Doors and frames - entry doors
Stairs and stair enclosures in each wing

2. Contributing Features: Contributing features are important elements which contribute to the understanding of the original design. Alteration or removal of these features may be necessary for programmatic or building system requirements. However, removal should be minimized and where necessary mitigated.

The following are contributing features:
- Central corridor axes - first floor corridors not visible from the lobby and all of second story corridors
- Doors and frames - first floor interior doors
- Porches and Terraces
- Living quarters - first story
- Toilet/shower rooms - first story
- Concrete and plaster texturing

3. Tertiary Features: Tertiary Features are original elements of the building which are of a lower importance relative to the understanding of the original design. Alteration or removal of these features, if necessary, would have a limited affect on the integrity of the building.

The following are tertiary features:
- Basement level
- Office space - first story
- Bedroom and Living Room partitions
- Toilet/shower rooms - second story

4. Non-Contributing Features: Non-Contributing features are areas of the building which have been remodeled and where additional alteration would not have an effect on the original integrity of the building. In some cases, removal of the non-contributing features may have a positive effect on the building.

The following are non-contributing features:
- Terrace #2 and #3 enclosures
- Single story addition at kitchen
- Alterations made when the lounge adjacent to the lobby was created
- Single story addition at lounge
- Exterior Exit stairs from second story

C. Conservation Responsibilities
The following materials require special care and treatment in their maintenance and rehabilitation:
- Terrazzo flooring, terrazzo border and base with resilient tile
- Removable metal partitions (where they exist)
- Integral color stucco

D. Recommendations/Rehabilitation Guidelines:
Any alterations to the significant character-defining features should be approached carefully and sensitively, following The Secretary of the Interior’s Standards for Rehabilitation. These Standards define
Rehabilitation as “the process of returning a property to a state of utility, through repair or alteration, which makes possible an efficient contemporary use while preserving those portions and features of the property which are significant to its historic, architectural, and cultural values.” Alteration of significant character-defining features will require consultation with the California Office of Historic Preservation.

Spatial relationships on the plaza and within the buildings play a significant role in the historic character of the district. How Building 20 relates to the other structures on the plaza and how it is arranged internally has a significant effect on one’s ability to understand the evolution of the historic district. Maintaining these relationships is important in protecting the Historic District and National Register status of Moffett Field. While the interior has had some limited reconfiguring, the basic form and character of the spaces, as well as most of the finishes, remain intact.

Building 20 is in excellent physical condition. Of the buildings on Shenandoah Plaza, Building 20 retains the most integrity architecturally and spatially. With the exception of limited code compliance issues, and seismic upgrades, the building could be re-occupied with relatively little renovation or repair.

If modifications are made to the building, the following are seen as non-contributing elements which could be removed: the additions at terraces #2 and #3, the small one story additions at the kitchen and court #1, and the porch covering in court #1.

The building’s continued residential use is recommended. Re-use of the building could be accomplished with relatively little alteration except as outlined in Section VI, below. However, if a change to office use is considered, it is recognized that current programming requirements are increasingly moving toward open office plans, which may necessitate some partition removal. Since the corridor partitions contribute to the understanding of the original circulation patterns, their removal should be mitigated; possibly, through some visual acknowledgement of the original axial corridor configuration in the new design, and/or through restoration of the original flooring.

Due to various alterations over the years, it is anticipated that many historic finishes are concealed beneath existing finishes. Removal of the existing finishes is considered “soft demolition,” and a necessary process used to uncover historic fabric. Finishes identified as non-historic should be removed to determine what historic materials can be salvaged. The carpet throughout the building should be removed, as well as acoustical tiles in the dropped ceilings, to determine if the ceiling is an original finish. Applied paint coatings on the walls and the fireplace limestone surround should be analyzed to determine authenticity.

Restoration of the historic exterior color scheme is recommended as part of the scheduled maintenance of the building. Initial observations show that the color scheme of the original structure was somewhat different than what is currently present. As it is not known what the original color scheme was, a complete paint analysis should be performed on the integrally-colored stucco and other exterior components prior to the next coating application.

VI. Fire Rating/Life Safety Summary

A. Description
Building 20, constructed in 1933, is an unsprinklered two story building with a partial basement. The building is 35,000 square feet in area, and consists of a concrete foundation, concrete exterior walls,
and metal framed interior walls with plaster and gypsum wall covering. The building is equipped with a Thorn Autocall smoke detection and alarm system, with fire alarm pullstations located at exit doors. The building was reviewed for general code compliance with the provisions of the 1998 California Building Code (CBC).

B. Requirements

Occupancy
The building is currently classified as R-1 occupancy, Type III N construction. The following review is based on the same occupancy. If a change of occupancy or change in the ratio of mixed occupancy is proposed, a further detailed code analysis will be required, for the new proposed use.

Occupancy Separation: A one hour occupancy separation is required by CBC section 302.5 between the boiler room and R-1 occupancy. Table 3-B of the CBC requires one hour separation between A-3 and R-1 occupancies, CBC section 310.2.2 also requires a one hour separation between storage or laundry rooms and the remainder of the building; between dwelling units; and between floors with more than 3,000 square feet above the first story, in order to qualify as one hour fire-rated construction.

Fire Suppression Sprinklers: Based on CBC Section 904.2.2, a sprinkler system is required when the floor area exceeds 1,500 square feet and there is not at least 20 square feet of opening provided above the adjoining ground level in each 50 linear feet or fraction thereof of the exterior wall in the story or basement on at least one side of the building. Currently, the building is not sprinklered.

CBC section 509.1 requires 42” guardrails at all stairs and porches more than 30” above grade. The existing balconies, and interior stairs do not meet this requirement.

Exiting/Egress

Exterior doors: Based on CBC section 1003.3.1.6, the exit doors do not have compliant landings on the exterior side of the doors. Currently, the existing entry has a 6” step.

Stairs (interior): CBC section 1003.3.3.6a requires handrails on each side at all stairs with two or more risers. Currently the existing enclosed stairs and three steps to the dwelling units from the lobby do not meet this requirement.

Stairs (exterior): CBC section 1003.3.3.6a requires handrails on each side at all stairs with two or more risers. The exterior stairs do not currently have any handrails or guardrails

Egress: Based on CBC section 1004.2.6, the second floor can not have dead-end corridors greater than 20 feet in length from an exit door. If the existing non-contributing emergency escape stairs are removed, the second floor corridors become dead-end corridors greater than 20 feet in length.

Exit Lighting: CBC section 1003.2.9.1 requires emergency exit path illumination to have an intensity of one foot candles at floor level. Currently, the existing fluorescent lighting does not provide exit illumination when main lighting is turned off.

Exit Signage: CBC section 1003.2.8.2 requires exit signs to be located along the path of exit travel and within the exit. CBC section 1003.2.8.4 requires exit signs to have an intensity of five foot candles. Currently, several of the exit signs do not work, and exit signs are missing in some areas.
Corridor and Doors: CBC section 1004.3.4.2 requires the corridor width to be unobstructed. The visual screen currently obstructs the width of the second floor corridor. CBC section 1004.3.4.3.2.1 requires the corridor doors to be rated 20 minute, be self closing, and have smoke draft seals. The existing exit doors are not rated.

Other
Restrooms/Toilet Facilities: There are an insufficient number of facilities for both men and women to comply with current code requirements.

C. Recommendations/Rehabilitation Guidelines:
California’s State Historical Building Code (SHBC) shall be used in conjunction with the CBC. Section 8-102.1 of the SHBC states: “These regulations are applicable for all issues regarding building code compliance for qualified historical buildings or properties. These regulations are to be used in conjunction with the regular code to provide alternatives to the regular code to facilitate the preservation of qualified historical buildings or properties. These regulations shall be used whenever compliance with the regular code is required for qualified historical building or properties.”

Occupancy
Occupancy Separation: Based on table 7-B of the CBC, the existing interior wall construction of “pressed metal studs” with lath and plaster on each side meets the requirement for two hour construction.

Fire Suppression Sprinklers: Provide a code compliant sprinkler system throughout the building.

Guardrails: Provide code compliant guardrails at both balconies, located above porches # 1 and 2.

Exiting/Egress
Exterior Doors: Re-work all of the exterior stair landings to provide a level landing, flush with the interior floor level at the front doors.

Stairs (interior): Provide code compliant handrails in the two stairs that lead to the secondary entrance porches in a manner consistent with approved system developed for Building 19. Provide code compliant handrails which are compatible to the exiting design at the main stairways. Provide code compliant guardrails which are compatible to the existing ornamented metal hand rail. Consideration should be given to seek approval to use new additional stairs as the required code compliant stairways, thereby necessitating only one code-compliant handrail on the wall of the existing stairways.

Stair (exterior): Provide code-compliant handrails at the front terraces and porches.

Egress: The existing fire escape stairs are non-contributing and should be removed. As such, new interior code-compliant stairways should be constructed at the minor axes. See plan for suggested location.

Exiting Lighting: Provide code compliant emergency exit path lighting.

Exit Signage: Provide code-compliant exit signage.
Corridors and Doors: Remove the visual screen from the second floor corridor. The SHBC section 8-402.3 allows for mitigation of one hour corridor construction with the installation of an automatic sprinkler system. Provide smoke seals and closers at all doors required to be rated.

VII. Disabled Accessibility

A. Description

The building was reviewed for general code compliance with the provisions of the 1998 California Building Code (CBC).

Site Access: CBC section 1127B.1 requires the site to provide access to all building entrances and all exterior ground floor exits. CBC section 1129B.1 requires accessible parking be provided. CBC section 1127B.5 requires curb ramps be constructed where ever a pedestrian way crosses a curb. There are currently no code-complying disabled parking spaces for the building. There is a 6” curb from the parking area to the sidewalk.

Building Access: CBC section 1114B.3 requires all building entrances and ground floor exits to be accessible. CBC section 1114B.1.2 requires accessible routes of travel to all portions of a building. There is no accessible entry to the building or path through the building.

If the use of the building remains as lodging, CBC table 11B-3 states that for every 25 rooms, one room must be made accessible.

Door hardware: CBC 1003.3.1.8 requires doors to be “openable from the inside without the use of a key or any special knowledge or effort. The current door hardware is non-compliant throughout.

Toilet Facilities: CBC 1115.7.1 requires all multiple stall facilities to have a clear floor area for a wheelchair turning radius, clear fixture space at the sinks and water closet, and an accessible water closet compartment with an accessible compartment door. Currently, there are no accessible toilet facilities.

Water Fountain: CBC section 117.1.1 requires where water fountains are provided, they shall be accessible. On the first and second floor, the fountains do not meet accessibility requirements. The fountains are currently labeled as having a high level of iron content.

B. Recommendations/ Rehabilitation Guidelines

The California Historic Building Code shall be used in conjunction with the California Building Code as stated in section 8-102.1: “These regulations are applicable for all issues regarding building code compliance for qualified historical buildings or properties. These regulations are to be used in conjunction with the regular code to provide alternatives to the regular code to facilitate the preservation of qualified historical buildings or properties. These regulations shall be used whenever compliance with the regular code is required for qualified historical buildings or properties.”

Site Access: Provide code compliant disabled parking, a curb ramp to the sidewalk, and ramp to a new raised terrace level. See plan for extent. Consider design of the access to the terrace level as a 1:20 walkway rather than a 1:12 ramp eliminating the need for handrails required at a ramp.
Building Access: Provide a code compliant accessible lift to the elevated portion of the first floor. Also provide a code compliant elevator to the elevated portions of the first floor, and to the second floor. See plan for suggested locations.

Door Hardware: Provide code-compliant door hardware throughout the building.

Restroom: The State Historic Building Code section 8-603.4 allows for the construction of a unisex accessible toilet in lieu of modifying the existing toilet rooms. Consideration should be given to preserving the existing toilet rooms in the eventual re-use of the building.

Water Fountain: Provide code-compliant accessible water fountains.

VIII. Energy Conservation

A. Description
The historic structure was designed with some energy-conserving features. Monolithic terrazzo floors throughout the building, thick concrete walls, large well-ventilated attic spaces, and axial orientation to the cardinal points all contribute to the effectiveness of passive climate control for the building. As mentioned previously, the terrazzo floors have been covered.

B. Recommendations/Rehabilitation Guidelines
Existing window Air Conditioners and ventilators should be removed from the exterior of the building to restore the original appearance.

It is recommended that the passive cooling elements be re-established to the greatest extent possible, especially attic ventilation and insulation. New tenants will probably require air conditioning. If modification is desired a building-wide system should be considered, however, if individual units are desired they should be mounted inside and not protruding from the windows.

As a historic building, Building 20 is exempt from the energy code, however, measures to reduce energy consumption and provide for user comfort are recommended. These may include ceiling insulation, attic insulation, and exterior wall insulation where the walls are opened during construction. The existing steel sash windows are historic features and they should be repaired and weather-stripped rather than replaced.

IX. Hazardous Materials

A. Description
Although a hazardous materials report has not yet been completed, signs posted around the building indicate that several types of historic material and finishes are known to contain asbestos and that other hazardous materials exist in the building.

B. Recommendations/Rehabilitation Guidelines
It is recommended that a complete hazardous materials assessment be performed.
X. Mechanical and Electrical Systems

The mechanical and electrical systems were not inspected as part of this report. It is assumed that the rehabilitation and reuse of Building 20 will entail all new mechanical and electrical systems, with the possible exception of plumbing drainage/waste systems.

All new mechanical and electrical systems will need to be designed with care to preserve the character of significant materials and spaces identified in this report.

XI. Structural System

Building 20 is a two-story structure with a full attic and partial basement. Its exterior walls are 10” thick reinforced concrete with stucco-exterior finish coat. The interior structure consists of reinforced concrete columns on a grid supporting concrete floor beams. The first floor, second floor and attic floor are 4-6” thick structural slabs. The roof is hipped constructed of 2x10 wood rafters and straight sheathing resting on the top of the concrete walls and concrete attic floor.

Interior walls are non-structural metal framed with a plaster finish on each side.

The building appears to be in excellent condition. In the course of design for rehabilitation and reuse, it should be analyzed for seismic and gravity load deficiencies and strengthened as necessary. Strengthening provisions should be designed with care to preserve significant materials and spaces.
Shenandoa Plaza Historic District
Building 17 Re-Use Guidelines
Moffett Federal Air Field, California

1. Character Defining Features
### Character-Defining Features

<table>
<thead>
<tr>
<th>Elements</th>
<th>Material</th>
<th>Significance</th>
<th>Condition</th>
<th>Comments/Location</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exterior</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roof</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roof tile</td>
<td>Terra Cotta</td>
<td>S</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Rake at gable roof</td>
<td>Terra Cotta</td>
<td>S</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Gabled form</td>
<td></td>
<td>S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gutters &amp; Roof Leaders</td>
<td>Copper</td>
<td>C</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Collection Boxes</td>
<td>Copper</td>
<td>C</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Antennas</td>
<td>Metal</td>
<td>N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attic window vents</td>
<td>Glass/Stucco</td>
<td>C</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Original Flue &amp; Vents</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cap @ flue</td>
<td>Tile</td>
<td>C</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Cap @ vent</td>
<td>Copper</td>
<td>C</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Stucco- integral color (painted over)</td>
<td></td>
<td>C</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Grille work</td>
<td>Metal</td>
<td>S</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Flashing @ flue</td>
<td>Copper</td>
<td>C</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Cladding</td>
<td></td>
<td>S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stucco- integral color (painted over)</td>
<td></td>
<td>C</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Banding course</td>
<td>Stucco</td>
<td>C</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Base</td>
<td>Conc</td>
<td>C</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Foundation vents</td>
<td></td>
<td>C</td>
<td>G/P</td>
<td></td>
</tr>
<tr>
<td>Windows</td>
<td></td>
<td>S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Double-hung, 6/6, recessed with projecting sill</td>
<td>Metal/Glass</td>
<td>S</td>
<td>G</td>
<td>Integral exterior screen units missing</td>
</tr>
<tr>
<td>Surrounds- second story window openings on North elevation wings</td>
<td>Limestone</td>
<td>S</td>
<td>G</td>
<td>Minor organic staining</td>
</tr>
<tr>
<td>Screens</td>
<td>Wire mesh</td>
<td>N</td>
<td></td>
<td>Non historic</td>
</tr>
<tr>
<td>Grills</td>
<td>Metal</td>
<td>C</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Railings</td>
<td>Metal</td>
<td>S</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Doors &amp; Frames</td>
<td></td>
<td>S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>Wood/Glass</td>
<td>S</td>
<td>G</td>
<td>Re-hung to swing out</td>
</tr>
<tr>
<td>Secondary</td>
<td>Wood/Glass</td>
<td>S</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Transom</td>
<td>Wood/Glass</td>
<td>S</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Rear (South Elevation)</td>
<td>Wood/Glass</td>
<td>S</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Hardware</td>
<td>Copper alloy</td>
<td>S</td>
<td>G</td>
<td>Historically significant invisible hinges are distinguished from applied ornamental hinges</td>
</tr>
<tr>
<td>Door and Transom screens</td>
<td>Wire mesh</td>
<td>C</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Entries</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary entrance is in center of north elevation.</td>
<td>Limestone</td>
<td>S</td>
<td>G</td>
<td>Minor organic staining and efflorescence</td>
</tr>
<tr>
<td>Limestone surround at portal</td>
<td>Limestone</td>
<td>S</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Terrace stair and paving</td>
<td>Stamped Conc.</td>
<td>S</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Terrace w/decoratively scored concrete</td>
<td>Concrete</td>
<td>S</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Urns</td>
<td>Glzd. TerraCotta</td>
<td>C</td>
<td></td>
<td>Original urns were terra cotta, glaze on present</td>
</tr>
<tr>
<td>Cheek Walls</td>
<td>Concrete</td>
<td>C</td>
<td>G</td>
<td>Urns suggest replacement</td>
</tr>
<tr>
<td>Light fixtures</td>
<td>Glass/Metal</td>
<td>C</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Canopy</td>
<td>Canvas</td>
<td>N</td>
<td></td>
<td>The canopy diminishes the presence of the main</td>
</tr>
</tbody>
</table>

**Significance Rating:**
- **S** = Significant
- **C** = Contributing
- **T** = Tertiary
- **N** = Non-contributing

**Condition Rating:**
- **G** = Good
- **F** = Fair
- **P** = Poor
### Character-Defining Features

<table>
<thead>
<tr>
<th>Elements</th>
<th>Material</th>
<th>Significance</th>
<th>Condition</th>
<th>Comments/Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary entrances are on north side of each wing.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ornamental door surrounds</td>
<td>Limestone</td>
<td>S</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Porches w/ decoratively scored concrete</td>
<td>Concrete</td>
<td>C</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Light fixtures</td>
<td>Glass/Metal</td>
<td>C</td>
<td>G</td>
<td></td>
</tr>
</tbody>
</table>

#### Interior

<table>
<thead>
<tr>
<th>First Floor</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lobby</td>
<td>S</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doors to Dining Room</td>
<td>Wood/Plastic</td>
<td>S</td>
<td>G/P</td>
<td>Wd. doors are (G); glazing has been replaced with plastic</td>
</tr>
<tr>
<td>Columns and ceiling beams</td>
<td>Conc./Paint</td>
<td>S</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Fireplace surround</td>
<td>Limestone/tile</td>
<td>S</td>
<td>G/P</td>
<td></td>
</tr>
<tr>
<td>Flooring</td>
<td>Carpet/Terrazzo</td>
<td>N/S</td>
<td>P/G</td>
<td>Stone painted to match columns/beans</td>
</tr>
<tr>
<td>Lighting</td>
<td>Brass/Glass</td>
<td>S</td>
<td>G/P</td>
<td>Shape is contributing - historic integrity of fixture is unknown</td>
</tr>
<tr>
<td>Wood partition</td>
<td>Wood</td>
<td>N</td>
<td>G</td>
<td></td>
</tr>
</tbody>
</table>

| Dining Room                                                             |              |              |           |                                                       |
| Ceiling and beams                                                       | Conc./Paint  | S            | G         |                                                       |
| Flooring                                                                | Carpet/Terrazzo | N/S         | P/G       | Shape is contributing - historic integrity of fixture is unknown |
| Lighting                                                                | Brass/Glass  | S            | G         |                                                       |

| Flooring (1st floor)                                                    |              |              |           |                                                       |
| Terrazzo flooring & base                                               | Terrazzo    | S            | G         |                                                       |
| Terrazzo border and base with resilient tile (checked pattern)         | Terrazzo/tile | S            | G/P       | Resilient tiles have been replaced with VCT and/or covered with carpet |
| Kitchen tiles                                                           | Terra Cotta  | T/N          | F         | Some original tiles remain                            |
| Flooring in rooms                                                       | Wd./Wd. Base | C            | G/P       | Good condition but covered with carpet, 2” douglas fir |
| Carpet                                                                  |              | N            |           |                                                       |

| Walls (1st floor)                                                       |              |              |           |                                                       |
| Plaster                                                                 | T            | G            |           | Except where holes have been introduced               |
| Textured cement plaster: corridor & rooms                               | T            | G            |           |                                                       |
| Hollow tile                                                             | T            | G            |           |                                                       |
| Scored plaster                                                          | T            | P            |           |                                                       |
| Faience tile                                                            | T            | G            |           |                                                       |
| Gypsum wall board                                                       | N            |              |           |                                                       |

| Doors & Frames (1st & 2nd floor)                                        |              |              |           |                                                       |
| Trim & Casing                                                           | Wood         | T            | G         |                                                       |
| Frame                                                                   | Wood         | T            | G         |                                                       |
| Door                                                                    | Wood         | C            | G         |                                                       |
| Door hardware in corridors                                              | Copper alloy | T            | G         | Double acting hinges                                  |
| “Rated Door”                                                            | Sheet Metal & Wire Glass | T | G |                                                        |
| Frame                                                                   | Metal        | T            | G         |                                                       |
| Hardware                                                                | Metal        | T            | G         |                                                       |
| Door screens (rear/south elevation)                                     | Mill/Wire Mesh | T        | G         |                                                       |

**Significance Rating:**
- **S** - Significant
- **C** - Contributing
- **T** - Tertiary
- **N** - Non-contributing

**Condition Rating:**
- **G** - Good
- **F** - Fair
- **P** - Poor
Shenandoah Plaza Historic District
Building 20

### Character-Defining Features

<table>
<thead>
<tr>
<th>Elements</th>
<th>Material</th>
<th>Significance</th>
<th>Condition</th>
<th>Comments/Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thresholds</td>
<td>Copper alloy</td>
<td>T</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Window Features</td>
<td></td>
<td>S</td>
<td></td>
<td>integral exterior screen units missing</td>
</tr>
<tr>
<td>Double-hung units</td>
<td>Metal</td>
<td>S</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Trim &amp; Casing</td>
<td>Wood</td>
<td>C</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Hardware spring-loaded double-hung devices</td>
<td>Brass</td>
<td>C</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Ceilings (1st &amp; 2nd floor)</td>
<td></td>
<td></td>
<td></td>
<td>Painted plywood applied to original plaster</td>
</tr>
<tr>
<td>Applied Acoustic Tile</td>
<td>Tile</td>
<td>T</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Toilet, etc</td>
<td>Plywood</td>
<td>N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rooms, textured cement plaster</td>
<td>Concrete</td>
<td>T</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Toilet &amp; Shower (1st &amp; 2nd floor)</td>
<td></td>
<td>C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tile Flooring</td>
<td>Ceramic</td>
<td>T</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Threshold</td>
<td>Marble</td>
<td>T</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Tile Wainscot</td>
<td>Tile</td>
<td>C</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Partitions with hardware</td>
<td>Marble w/ nickle plated brass</td>
<td>C</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Shower stall</td>
<td>Marble</td>
<td>C</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Lavoritories</td>
<td>Ceramic</td>
<td>T</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Accessories (vanities, towel rails, paper holders)</td>
<td>Metal</td>
<td>T</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Pipe railings and fittings</td>
<td>Metal</td>
<td>T</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Door Closers</td>
<td>Metal</td>
<td>T</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Partitions in rooms</td>
<td>Marble/Oak</td>
<td>C</td>
<td>G</td>
<td>Marble partitions with oak doors</td>
</tr>
<tr>
<td>Ornamental Metal Work</td>
<td></td>
<td>C</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Grilles, Radiators</td>
<td>Metal</td>
<td>C</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Lighting</td>
<td></td>
<td></td>
<td></td>
<td>Not original</td>
</tr>
<tr>
<td>Room Fixtures (sink vanity lights)</td>
<td>Glass/Ceramic</td>
<td>T</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Corridor Lighting</td>
<td>N</td>
<td></td>
<td></td>
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<tr>
<td>Other Features</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volume of Space: interior public spaces</td>
<td>S</td>
<td>G</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volume of Space: corridors visible from Lobby</td>
<td>S</td>
<td>G</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volume of Space: remaining corridors</td>
<td>C</td>
<td>G</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volume of Space: living quarters</td>
<td>T</td>
<td>G</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drinking fountain surrounds</td>
<td>Ceramic Tile</td>
<td>S</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Stair</td>
<td></td>
<td>S</td>
<td></td>
<td>painted</td>
</tr>
<tr>
<td>Ornamental rails, balusters, newel post</td>
<td>Metal</td>
<td>S</td>
<td>G</td>
<td>painted</td>
</tr>
<tr>
<td>Colored Faience Tile (stringer?)</td>
<td>Tile</td>
<td>S</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Treads &amp; Risers</td>
<td>Tile</td>
<td>S</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Flooring</td>
<td>Mosaic/ Faience</td>
<td>S</td>
<td>G</td>
<td></td>
</tr>
</tbody>
</table>

### Second Floor

**Significance Rating:**
- S=Significant
- C=Contributing
- T=Tertiary
- N=Non-contributing

**Condition Rating:**
- G=Good
- F=Fair
- P=Poor
### Character-Defining Features

<table>
<thead>
<tr>
<th>Elements</th>
<th>Material</th>
<th>Significance</th>
<th>Condition</th>
<th>Comments/Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walls</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Textured cement plaster: corridor &amp; rooms</td>
<td></td>
<td>T</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Window Features</td>
<td>S</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Double-hung units</td>
<td>Metal</td>
<td>S</td>
<td>G</td>
<td>integral exterior screen units missing</td>
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<tr>
<td>Trim &amp; Casing</td>
<td>Wood</td>
<td>C</td>
<td>G</td>
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<tr>
<td>Hardware spring-loaded double-hung devices</td>
<td>Brass</td>
<td>C</td>
<td>G</td>
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<tr>
<td>Porch</td>
<td>S</td>
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<tr>
<td>Door</td>
<td>Wood</td>
<td>C</td>
<td>G</td>
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</tr>
<tr>
<td>Screen Door</td>
<td>Wood</td>
<td>C</td>
<td>G</td>
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<tr>
<td>Other</td>
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</tr>
<tr>
<td>Volume of Space: corridors</td>
<td>C</td>
<td></td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Volume of Space: living quarters</td>
<td>T</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Significance Rating:**
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Shenandoa Plaza Historic District
Building 17 Re-Use Guidelines
Moffett Federal Air Field, California

2. Historical Significance Plans
Shenandoa Plaza Historic District
Building 17 Re-Use Guidelines
Moffett Federal Air Field, California

3. Original Construction Documents
Shenandoa Plaza Historic District
Building 17 Re-Use Guidelines
Moffett Federal Air Field, California

North Facade
Building 20
Moffett Field
South Facade
Building 20
Moffett Field
West Wing Viewed From Southwest
Building 20
Moffett Field
Front Entry Doors
Building 20
Moffett Field
Exterior View of Non-contributing Porch Enclosure (west)
Building 20
Moffett Field
Balcony - Second Floor Suite
Building 20
Moffett Field
Typical Collector Box
Building 20
Moffett Field
Exterior View of Non-contributing Porch Enclosure (east)
Building 20
Moffett Field
Bathroom Window - First and Second Floor Suites
Building 20
Moffett Field
Typical Window
Building 20
Moffett Field
Detail of Double Hung Metal Windows
Building 20
Moffett Field
Concrete Beam Ceiling with Faux Wood Painting - First Floor Lobby
Building 20
Moffett Field
Main Lobby
Building 20
Moffett field
Dining Room
Building 20
Moffett Field
Typical Bedroom
Building 20
Moffett Field
West Stair Enclosure
Building 20
Moffett Field
Typical Marble Bathroom Partitions
Building 20
Moffett Field
Typical Vanity
Building 20
Moffett Field
Metal Grille - First Floor Lobby
Building 20
Moffett Field
Typical Corridor Wall Texture
Building 20
Moffett Field
Typical Bedroom and Living Room Door
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Non-contributing Porch Enclosure
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Detail of Concrete Capital - First Floor Lobby
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Moffett Field
First Floor Lobby
Building 20
Moffett Field
Faience Tile - First Floor Enclosure
Building 20
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Metal Fire Door - First Floor Stair Enclosure
Building 20
Moffett Field
Non-contributing Alterations - First Floor East of Lobby
Building 20
Moffett Field
Kitchen
Building 20
Moffett Field
Existing Window Modified for Emergency Exit
Building 20
Moffett Field