

**Final**  
**Environmental Assessment**  
**Consolidated Communications**  
**Squadron Facility**  
**Nellis Air Force Base, NV**



**December 2005**

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**Final  
Environmental Assessment  
Consolidated Communications  
Squadron Facility  
Nellis Air Force Base, NV**

**Prepared For**

**Department of the Air Force  
99 CES/CEV  
4349 Duffer Drive, Suite 1601  
Nellis AFB NV 89191-7001**

**Prepared By**

**U.S. Army Corps of Engineers  
Omaha District  
213 North 17<sup>th</sup> Street  
Omaha, Nebraska 68102-4978**

**Technical Assistance**

**FPM Group, Ltd.  
2430 Paseo Del Prado  
Suite D306/306  
Las Vegas, NV 89102**

**December 2005**

## **FINDING OF NO SIGNIFICANT IMPACT (FONSI)**

### **1.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES**

Current operational readiness at Nellis Air Force Base (NAFB) is degraded due to the risk of failure of the base network control center, which currently provides communication services to over 8,000 users across three wings, as well as the air warfare center. The United States Air Force (USAF) proposes to build a Consolidated Communications Squadron Facility (CCSF) to replace the current facility, which is housed in an aged and unsafe building. The new building will provide a more centrally-located customer service area, and will allow for necessary future network control center expansions. This consolidated building would also allow for demolition of three buildings that are geographically separated and used for the communications operations at NAFB.

The proposed action is construction, operation, and maintenance of an adequately sized and properly configured CCSF to support the various communication and data processing requirements of the flying mission at NAFB. The facility will support critical functions including Command Section, Network Control Center Services, Communications Maintenance Work Centers, Television Production, Photographic Elements, and all other administrative support areas. The CCSF will be located at NAFB on a parcel bounded on the west by March Boulevard, the north by Beale Avenue, the east by Holloman Avenue, and the south by Fitzgerald Boulevard. The facility will be a multistory building providing approximately 81,790 sq. ft. for use as offices, equipment areas, operation areas, conference rooms, and other personnel support areas.

This proposed action also includes the demolition of the three buildings currently used for supporting the communications squadron activities. Building 839 is currently designated for demolition due to unsafe conditions. Buildings 589 and 595 are in such poor condition that renovation is not a cost effective option. These buildings are also to be demolished as part of this project.

In this analysis, a no action alternative (continuance of communication operations at NAFB in the current facilities) was used. It is important to note that the current facilities are rapidly degrading and would require significant repair if communication operations were to remain in place. Water leakage is a serious problem in all three buildings. Further, the current space available is not adequate and would not allow for expansion.

### **2.0 ENVIRONMENTAL CONSEQUENCES**

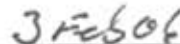
This environmental assessment concludes that some minor impacts are imposed on the environment by the project and are discussed in detail in the EA. All impacts are considered to be negligible and not significant. In fact, the proposed action will actually result in a slight improvement in the environment compared to the no action alternative. This is mostly due to the fact that the CCSF is sorely needed at NAFB, the facility will house environmentally "clean" operations, the facility is being built in an area that has been previously developed, the action will demolish buildings currently considered to be unsafe and containing asbestos containing materials, and the action will definitely improve safety and security of aircraft operations at NAFB.

### 3.0 CONCLUSION

The proposed action does not represent a major federal action with significant impacts to the human or natural environment; therefore, an Environmental Impact Statement (EIS) is not required. A FONSI is thus warranted.



Michael R. Scott  
Colonel, USAF  
Vice Commander



Date

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## EXECUTIVE SUMMARY

The proposed action is construction, operation, and maintenance of an adequately sized and properly configured CCSF to support the various communication and data processing requirements of the flying mission at NAFB. The facility will support critical functions including Command Section, Network Control Center Services, Communications Maintenance Work Centers, Television Production, Photographic Elements, and all other administrative support areas. The CCSF will be located at NAFB on a parcel bounded on the west by March Boulevard, the north by Beale Avenue, the east by Holloman Avenue, and the south by Fitzgerald Boulevard. The facility will be a multistory building providing approximately 81,790 sq. ft. for use as offices, equipment areas, operation areas, conference rooms, and other personnel support areas.

This proposed action also includes the demolition of the three buildings currently used for supporting the communications squadron activities. Building 839 is currently designated for demolition due to unsafe conditions. Buildings 589 and 595 are in such poor condition that renovation is not a cost effective option. These buildings are also to be demolished as part of this project.

In determining the proposed site and action, a preliminary analysis of reasonable options for accomplishing the project was conducted. Some of these options included status quo, renovation of previously constructed buildings, upgrading or removal of currently constructed buildings, and new construction. The analysis indicated that only one option, the proposed action, would meet operational requirements.

In this analysis, a no action alternative (continuance of communication operations at NAFB in the current facilities) was considered. It is important to note that the current facilities are rapidly degrading and would require significant repair if communication operations were to remain in place. Water leakage is a serious problem in all three buildings. Further, the current space available is not adequate and would not allow for expansion.

The findings of this environmental assessment indicate that only minor impacts to various aspects of the environment will be realized. The no action alternative results in more impacts to the environment than the proposed action. Potential impacts for each environmental resource are the following:

- **Geology and Physiography:** The no action alternative will have little or no impacts on geology and physiography. However, under the no action alternative, buildings would be more susceptible to earthquakes than buildings constructed in the proposed action.
- **Soils:** Under the proposed action, considerable disturbance to the soil surface will occur during construction and demolition. This exposes the soils to wind erosion and water erosion and temporarily impacts plant growth on the soil surface.
- **Climate:** No impacts are anticipated for the no action alternative. The proposed action may result in some changes in microclimate due to shading caused by the physical structure of the building.
- **Mineral and Energy Resources:** Because no mineral or energy resources have been discovered on NAFB, no impacts to those resources are anticipated.

- **Visual Resources:** The proposed action will result in some obstruction of views by the new CCSF. However, overall visual aesthetics of the base will be improved by demolition of the old buildings and the replacement of those buildings with new buildings and properly designed, native landscaping.
- **Cultural Resources:** No impacts to cultural resources will be imposed by the no action alternative or the proposed action.
- **Wilderness Areas:** No impacts to wilderness areas, parks, or wildlife management areas will be imposed by either action.
- **Water Resources:** No impacts to floodplains, streams, wetlands, or groundwater will be imposed by the no action alternative or the proposed action.
- **Air Quality:** The proposed action will impose a short-term increase in particulate matter pollution during construction, excavation, and demolition activities. The action will result in a slight, but negligible increase in CO, VOC, and NO<sub>x</sub> emissions. The net emissions of the project were checked against the proposed Title V permit application, and their contribution to the total emissions allowed by the permit was found to be negligible. No other impacts to air quality are anticipated.
- **Noise:** No impacts or changes to the present noise levels at NAFB will be caused by either construction or operation of the proposed action.
- **Land Use:** The proposed action will result in a change in the use of the property proposed for the CCSF. However, this use is minor in that it is a change from a small picnic or meeting area and parking lot to a commercial office building. Proper landscaping around the CCSF will allow for some of the previous land use to continue even after construction.
- **Biological Resources:** The proposed action will result in minor alterations in vegetation and wildlife, but these are considered insignificant, and, in some cases, transient and short-term. All of the areas impacted by the proposed action are currently landscaped, and this can be easily replaced by strategic placement of small areas of green space and proper landscaping with native plants.
- **Air Space:** No impacts to airspace are anticipated for the no action alternative or proposed action.
- **Safety:** The no action alternative will result in some impacts to safety, due to the fact that Buildings 589, 595, and 839 are currently considered structurally unsafe. Continued use of these buildings would result in possible injury to residents or users. The proposed action will remove these buildings and result in a positive move toward safer conditions.
- **Socioeconomics:** The proposed action will provide more employment opportunities for civilian and military personnel, as well as professional and non-professional contractors and subcontractors. The facility will improve efficiency in NAFB and will result in an overall positive impact to socioeconomics of NAFB and surrounding areas.
- **Environmental Justice:** No impacts to environmental justice are anticipated for the no action alternative or the proposed action.

- **Utilities:** No impacts to utilities are anticipated, though the new facility may result in an increase in use of electricity and other utilities, which would be a positive economic impact to the community.
- **Hazardous Materials and Items of Special Concern:** In general, no impacts to these resources are anticipated for the proposed action. However, the no action alternative could result in the release of friable asbestos because of continued degradation of the older buildings. Demolition of the buildings could result in the release of asbestos, but this will be minimized by use of standard asbestos abatement procedures required by the USAF.
- **Cumulative Impacts:** Cumulative impacts due to the no action alternative or proposed action are expected to be negligible.

It is concluded that the proposed action will result in a slight improvement in the environment could be expected. In general, the overall impact of the proposed action would be less than that of the no action alternative. Thus, the conclusion of this environmental assessment is to issue a finding of no significant impact.

## LIST OF ACRONYMS

ACC	Air Combat Command	NAAQS	National Ambient Air Quality Standards
ACM	Asbestos Containing Material	NAFB	Nellis Air Force Base
AFI	Air Force Instruction	NAGPRA	Native American Graves Protection and Repatriation Act
AICUZ	Air Installation Compatible Use Zone	NEPA	National Environmental Policy Act
AIRFA	American Indian Religious Freedom Act	NHPA	National Historic Preservation Act
APZ	Accident Potential Zone	NO <sub>2</sub>	Nitrogen Dioxide
ARPA	Archaeological and Historic Preservation Act	NOAA	National Oceanic and Atmospheric Administration
AST	Aboveground Storage Tank	O <sub>3</sub>	Ozone
BLM	Bureau of Land Management	Pb	Lead
CAA	Clean Air Act	PCi/L	Pico Curies per Liter
CCSF	Consolidated Communications Squadron Facility	PL	Public Law
CEQ	Council on Environmental Quality	PM <sub>10</sub>	Particulate Matter less than 10 microns in diameter
CERCLA	Comprehensive Environmental Response Compensation and Liability Act	RCRA	Resource Conservation and Recovery Act
CFR	Code of Federal Regulations	ROI	Region of Influence
CO	Carbon Monoxide	SDWA	Safe Drinking Water Act
COMM	Communications Squadron	SO <sub>2</sub>	Sulfur Dioxide
CWA	Clean Water Act	TSCA	Toxic Substances Control Act
dB	Decibel	USAF	United States Air Force
DoD	U.S. Department of Defense	USC	United States Code
DOI	U.S. Department of the Interior	U.S.	United States
EA	Environmental Assessment	USDA	U.S. Department of Agriculture
EIS	Environmental Impact Statement	USFWS	U.S. Fish and Wildlife Service
EO	Executive Order	USGS	U.S. Geological Survey
EPA	U.S. Environmental Protection Agency	UST	Underground Storage Tanks
FLPMA	Federal Land Policy and Management Act	°F	Degrees Fahrenheit
FONSI	Finding of No Significant Impact	99 CS	99 <sup>th</sup> Communications Squadron
FWPCA	Federal Water Pollution Control Act		
FY	Fiscal Year		

## **1.0 PURPOSE AND NEED FOR THE PROPOSED ACTION**

NAFB is located in the southeast corner of the state of Nevada north of Las Vegas and east of North Las Vegas in Clark County. NAFB is part of the United States Air Force's Air Combat Command and is home to the largest Advance Air Command Training Center in the world. NAFB provides training for composite strike forces that include every type of aircraft in the USAF inventory. Training is also conducted in conjunction with air and ground units of the Army, Navy, and Marine Corps as well as air forces from other allied nations.

As would be expected for any military operation, a viable, state-of-the art communications system is critical. The current facilities available for communication systems at NAFB are geographically separated in three different buildings that are old and in need of repair. In addition, these buildings have serious problems with water leakage, which can lead to equipment damage and failure. Good, efficient communications are mandatory for the operations and maintenance of a facility as large as NAFB and the Nellis Testing and Training Range. With these facts in mind, it was determined that a new, updated facility capable of future growth should be constructed to house a consolidated communications operation.

### **1.1 PURPOSE OF THE PROPOSED ACTION**

Current operational readiness at NAFB is degraded due to the risk of failure of the base network control center facility, which provides communication services to over 8,000 users across three wings, as well as the Air Warfare Center. A consolidated communications squadron facility (CCSF) is needed because the current facility is located in an aged and unsafe building. The new building would provide a more centrally located communication customer service area and would facilitate necessary and future network control center expansions. Currently, 99 CS occupies three geographically separated, asbestos laden 35 year old buildings, which hamper facility upgrades and expansions. Building 839, constructed in 1955, has already been assigned a Facility Condition Code 3 (forced use) designation and is currently on the base facility demolition list. Building 589, which houses critical network control center operations and support areas, is damaged with a large crack in the roof spanning over 150 ft. and 3 in. wide in some areas. This crack allows water to continually leak on internal ceiling tiles, causing them to collapse and expose asbestos. A leaky roof and moist conditions put network equipment at risk. Damage to network equipment could result in complete loss of network capabilities and could severely impact the following communication services at NAFB: NIPRNET, SIPRNET, all messaging services, e-mail, internet, base paging network, and several other services that are critical to the flying mission. Buildings 589 and 595 have both suffered extensive damage to carpet and furniture due to water leaks. Several offices have been closed temporarily due to damage. Support for flight operations, which includes television production, graphics, and photography customer service areas, are located in two different buildings that are geographically separated. This separation is in violation of AFI 33-117, paragraph 1.8, "Consolidating visual information activities." Current buildings cannot efficiently support the growing communications mission. Thus, the purpose of the proposed action is to provide a new, consolidated building that will properly house and secure the communications systems for NAFB.





**Photograph 1.** Building 589 currently housing the base network control center.



**Photograph 2.** Building 839.



Photograph 3. Building 595.

## 1.2 NEED FOR THE PROPOSED ACTION

Without modernization of the communications facilities, continued forced operations in dispersed, sub-standard facilities places NAFB communications in a position detrimental to command and control, and at risk of failure due to inadequate working environments. The current situation decreases operational readiness and the ability to effectively support the war-fighting mission. It also jeopardizes the overall security of the base. The 99<sup>th</sup> Communications Squadron will continue to expend scarce resources, operating in separate and inadequate buildings. The predicated rapid future growth of NAFB will continue to place a huge operating burden on existing substandard communication facilities. Without question, a new CCSF is needed to efficiently accommodate the current and growing communications mission.

## 1.3 REGULATORY REQUIREMENTS

This Environmental Assessment (EA) is prepared in compliance with the *National Environmental Policy Act* (NEPA)(Public Law [PL] 91-190, 1969, as amended), the Council on Environmental Quality (CEQ) *Regulations for Implementing the Procedural Provisions of NEPA* (40 Code of Federal Regulations [CFR] 1500-1508, 1993), and Air Force Instruction (AFI) 32-7061, the *Environmental Impact Analysis Process*. The NEPA (PL 91-190, 1969) requires federal agencies to consider environmental consequences of all proposed actions in their decision-making process. The intent of NEPA is to protect, restore, or enhance the environment through a well-informed decision-making process. The CEQ was established under the NEPA to implement and oversee federal policy in this process. To this end, the CEQ issued the *Regulations for Implementing the Procedural Provisions of NEPA* (40 CFR 1500-1508, 1993). AFI 32-7061 implements the CEQ regulations within the USAF. The NEPA process is intended to assist the decision makers in understanding the environmental consequences of their actions and in taking appropriate measures that



protect, restore, and enhance the environment. Other federal statutes that may apply to the proposed action are listed in Table 1-1.

**Table 1-1. Other Major Federal Environmental Statutes, Regulations, and Executive Orders Applicable to Federal Projects**

<i>Environmental Resource</i>	<i>Statutes</i>
Air	<i>Clean Air Act (CAA) of 1970 (PL 95-95), as amended in 1977 and 1990 (PL 91-604); U.S. Environmental Protection Agency (EPA), Subchapter C-Air Programs (40 CFR 52-99)</i>
Noise	<i>Noise Control Act of 1972 (PL 92-574) and Amendments of 1978 (PL 95-609); EPA, Subchapter G-Noise Abatement Programs (40 CFT 201-211)</i>
Water	<i>Federal Water Pollution Control Act (FWPCA) of 1972 (PL 92-500) and Amendments; Clean Water Act (CWA) of 1977 (PL 95-217); EPA, Subchapter D-Water Programs (40 CFR 100-149); Water Quality Act of 1987 (PL 100-4); EPA, Subchapter N-Effluent Guidelines and Standards (40 CFR 401-471); Safe Drinking Water Act (SDWA) of 1972 (PL 95-523) and Amendments of 1986 (PL 99-339); EPA, National Drinking Water Regulations and Underground Injection Control Program (40 CFR 141-149)</i>
Land	<i>Federal Land Policy and Management Act (FLPMA) of 1976 (PL 94-579); Military Lands Withdrawal Act (PL 99-606); Land Withdrawal Regulations (43 CFR 2300); Southern Nevada Public Land Management Act of 1988 (PL 105-263)</i>
Biological Resources	<i>Migratory Bird Treaty Act of 1918; Fish and Wildlife Coordination Act of 1958 (PL 85-654); Sikes Act of 1960 (PL 86-97) and Amendments of 1986 (PL 99-561) and 1997 (PL 105-85 Title XXIX); Endangered Species Act of 1973 (PL 93-205) and Amendments of 1988 (PL 100-478); Fish and Wildlife Conservation Act of 1980 (PL 96-366); Lacey Act Amendments of 1981 (PL 97-79)</i>
Wetlands and Floodplains	<i>Section 401 and 404 of the Federal Water Pollution Control Act of 1972 (PL 92-500); EPA, subchapter D-Water Programs 40 CFR 100-149 (105 ref); Floodplain Management -1977 (Executive Order [EO] 11988); Protection of Wetlands-1977 (EO 11990); Emergency Wetlands Resources Act of 1986 (PL 99-645); North American Wetlands Conservation Act of 1989 (PL 101-233)</i>
Cultural Resources	<i>National Historic Preservation Act (NHPA) of 1966 (16 United States Code [USC] 470 et seq.) (PL 89-665) and Amendments of 1980 (PL 96-515) and 1992 (PL 102-575); Protection and Enhancement of the Cultural Environment-1971 (EO 11593); Indian Sacred Sites-1966 (EO 13007); American Indian Religious Freedom Act (AIRFA) of 1978 (PL 95-341); Antiquities Act of 1906; Archaeological Resources Protection Act (ARPA) of 1979 (PL 96-95); Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 (PL 101-601)</i>
Solid/Hazardous Materials and Waste	<i>Resource Conservation and Recovery Act (RCRA) of 1976 (PL 94-5800), as Amended by (PL 100-582); EPA, Subchapter I-Solid Wastes (40 CFR 240-280); Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 (42 USC 9601) (PL 96-510); Toxic Substances Control Act (PL 94-496), EPA, Subchapter R-Toxic Substances Control Act (40 CFR 702-799); Federal Insecticide, Fungicide, and Rodenticide Control Act (40 CFR 162-180); Emergency Planning and Community Right-to-Know Act (40 CFR 300-399)</i>
Environmental Justice	<i>Federal Action to Address Environmental Justice in Minority Populations and Low-Income Populations (EO 12898); Protection of Children from Environmental Health Risks and Safety risks (EO 13045)</i>

**Table 1-2. Permits that will be required for construction of the Communication Squadron Facility and demolition of Buildings 589, 593, and 839.**

<i>Building</i>	<i>Permit Required</i>
New Consolidated Communications Squadron Facility	Dust Control Permit Authority to Construct Permit Stormwater Pollution Prevention Plan
Building 839	Demolition Notification Form NESHAP Notification of Asbestos Abatement Form (ASB01) Dust Control Permit Stormwater Pollution Prevention Plan
Building 595	Demolition Notification Form NESHAP Notification of Asbestos Abatement Form (ASB01) Dust Control Permit Stormwater Pollution Prevention Plan
Building 589	Demolition Notification Form NESHAP Notification of Asbestos Abatement Form (ASB01) Dust Control Permit Stormwater Pollution Prevention Plan



## 2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

### 2.1 LOCATION OF THE PROJECT SITE

The project site is located approximately 5 miles northeast of Las Vegas, just east of North Las Vegas, Nevada. The proposed action will be located on the northeast end of the developed portion of NAFB (Figure 2-1). The location of Building 839, Building 595, Building 589, and the CCSF are shown on a USGS topographic map in Figure 2-2 and on a Base map in Figure 2-3.

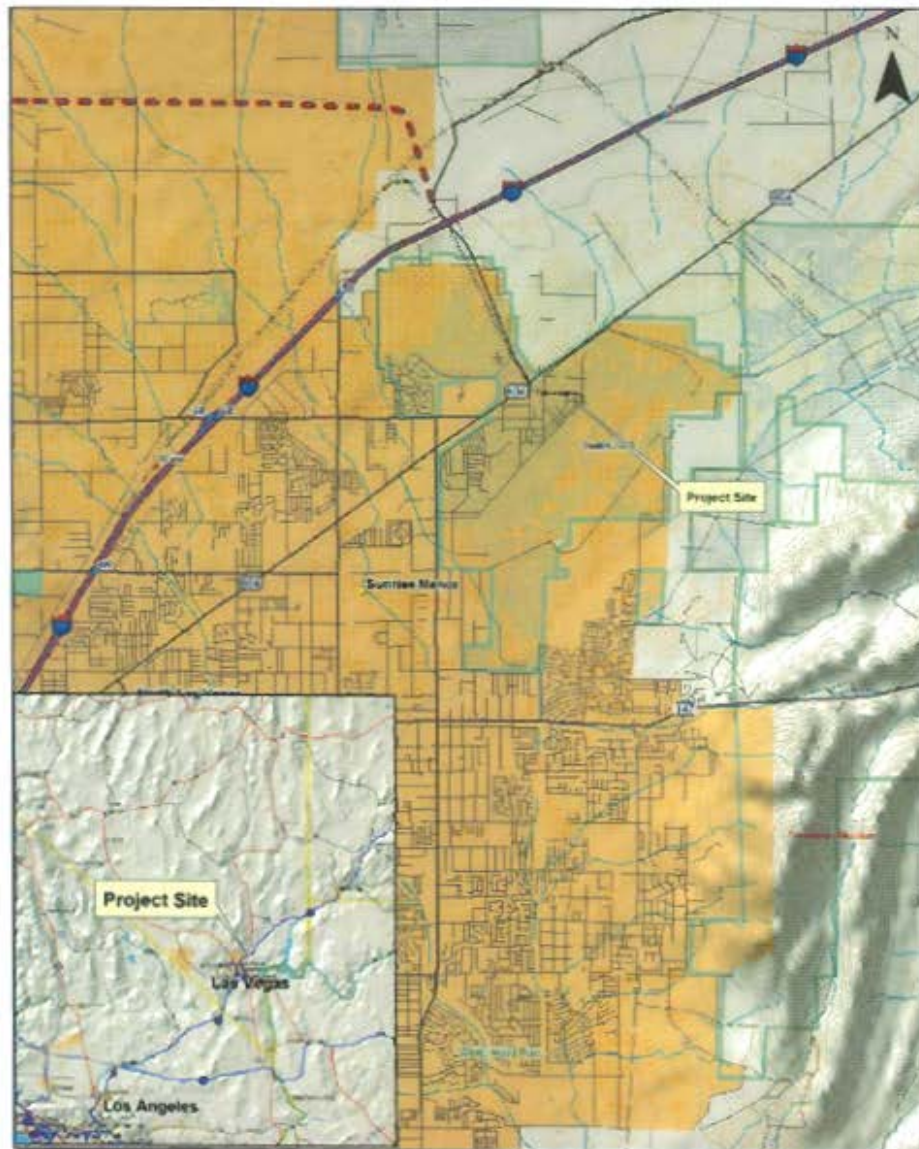


Figure 2-1. Regional map showing the location of the project area.  
Source: DeLorme Topo Maps USA

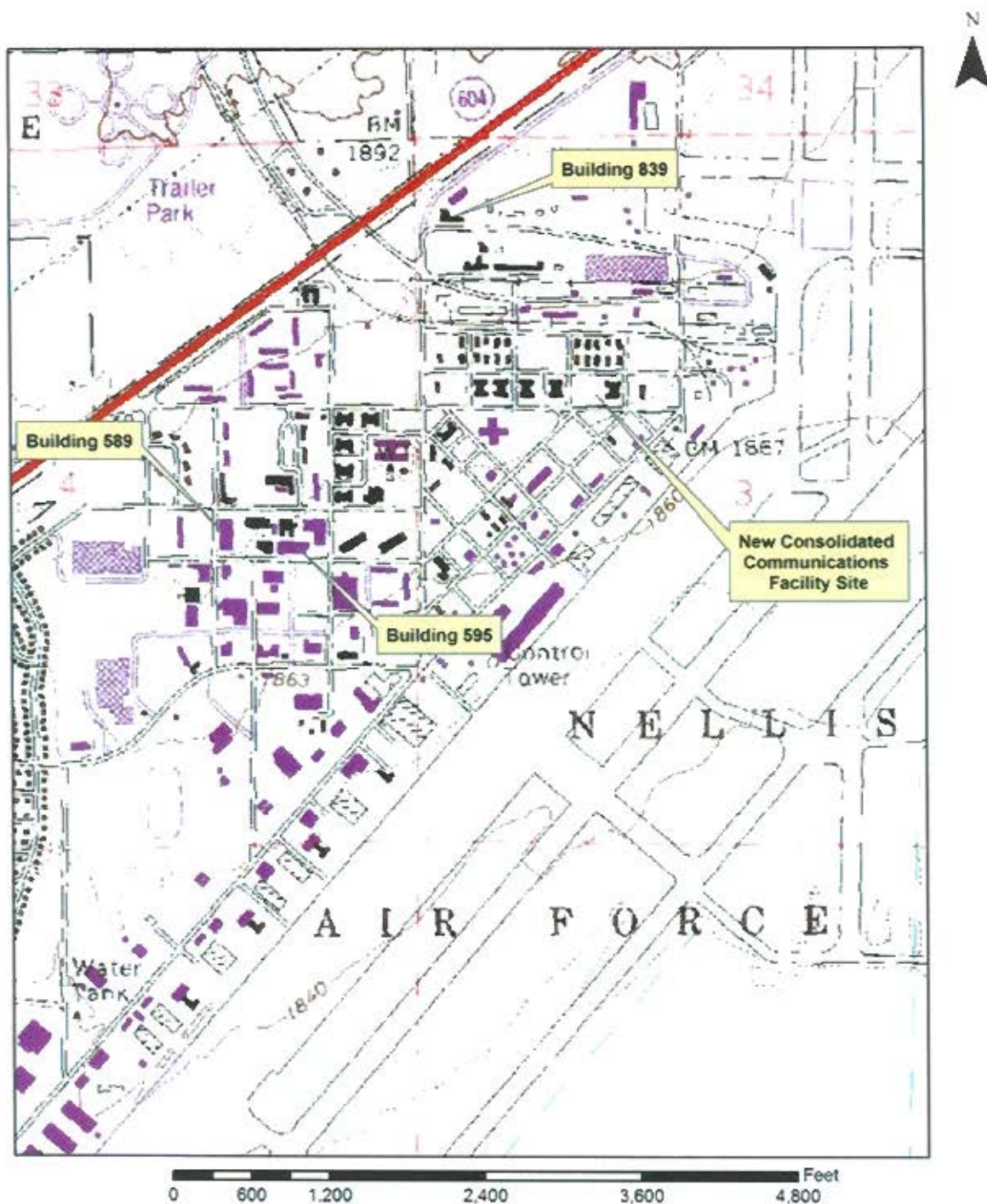


Figure 2-2. USGS 7.5 minute topographic map showing the location of the consolidated Communication facility at NAFB.

Source: USGS 7.5 Minute Topographic Map, North Las Vegas Quad



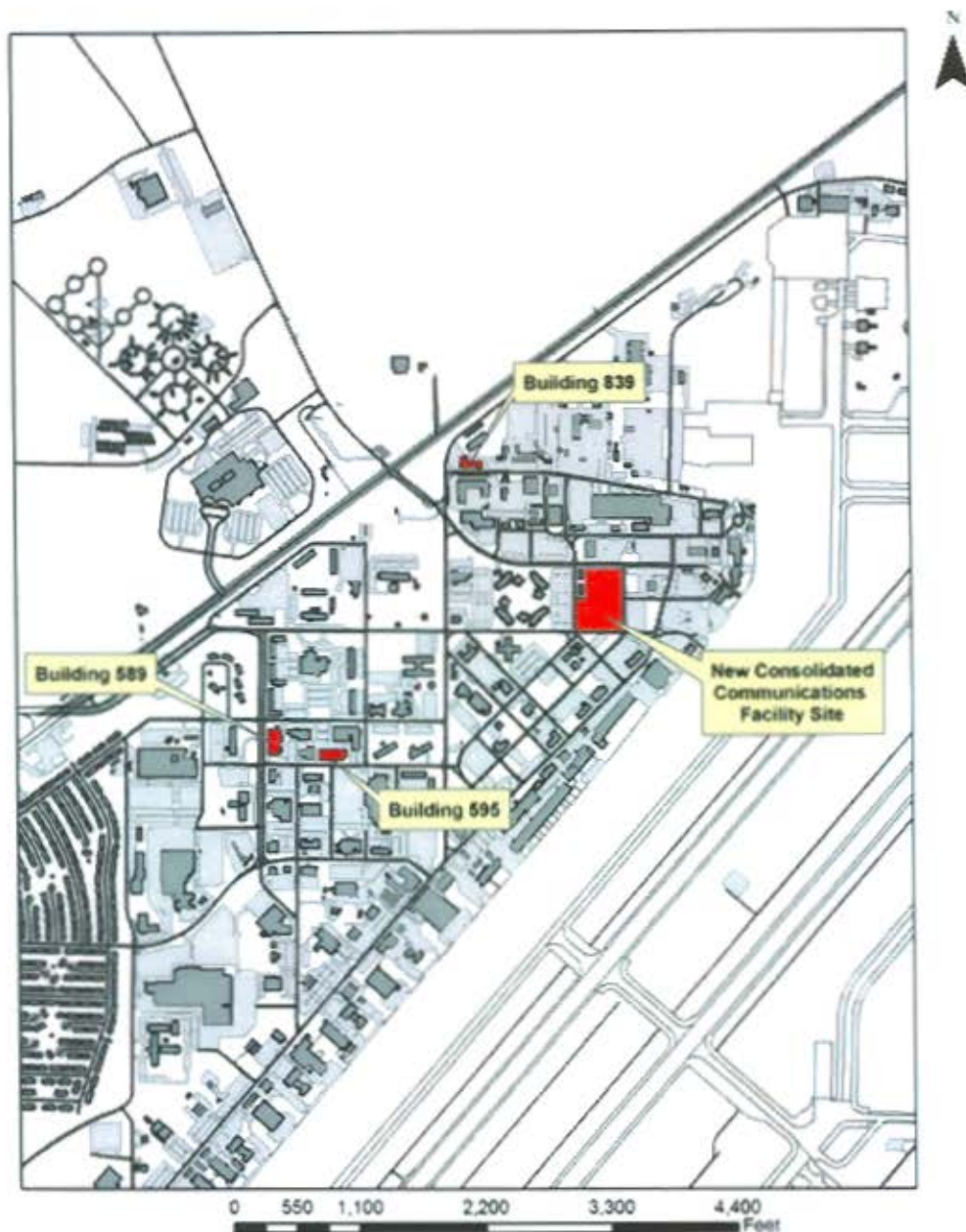


Figure 2-3. Location of the project area on a map of a portion of NAFB.

Source: NAFB Civil Engineering

Current project site facilities include a paved parking lot, two one-story buildings (to be left in place), five small portable storage units, outdoor picnic area, and a through street, Offut Ave., which will be closed by the proposed action.

## 2.2 PROPOSED ACTION

The proposed action is construction, operation, and maintenance of an 81,800 sq. ft. CCSF to support the various communication and data processing requirements of the flying mission at NAFB. The location of the proposed action is shown in Figure 2-4. The CCSF is

to be located at NAFB on a parcel bounded on the west by March Boulevard, the north by Beale Avenue, the east by Holloman Avenue, and the south by Fitzgerald Boulevard. The facility will span across Offut Avenue, blocking it as a through base route at the site. The facility will support critical functions including Command Section, Network Control Center Services, Communications Maintenance Work Centers, Television Production, Photographic Elements, and all other administrative support areas. Approximately 350 persons will be housed in this facility. The facility will provide a "One-Stop Shop" for customer communication requirements. In addition, forced production measures will be designed to comply with DOD standards. The facility will support Indian Springs and NAFB with e-mail, communications, telephone, mail, secure telephone, and classified and unclassified networks.

The building will be a two-story building of conventional construction methods. The site plan and design of the facility have been envisioned to be a campus design with consideration given regarding space planning, architectural considerations, and future facility growth. The proposed action does not include any modifications to perimeter streets and associated curb and gutters with the exception of cut-throughs for new driveways onto the new site.

Site improvements include:

- New sidewalks to connect building entrances to parking areas and street intersections.
- 140 personal parking spaces
- 20 government-owned vehicle spaces
- Loading dock
- New landscape design that complies with the base landscape plan

This proposed action also includes the demolition of the three buildings currently used for supporting the communications squadron activities. Demolition will not proceed until the new CCSF and ITN room have been constructed since no space is available to accommodate these functions if demolition is conducted at the same time as construction. Building 839 is currently designated for demolition due to unsafe conditions. Buildings 589 and 595 are in such poor condition that renovation is not a cost effective option. These buildings are also to be demolished as part of this project.

The proposed site for the CCSF and the buildings to be demolished is illustrated on aerial photographs in Figures 2-4 through 2-6. Copies of AF Form 813 and DD Form 1391c are provided in Appendix A for more detailed information on the project.



**Figure 2-4.** Aerial photograph of the proposed location of the consolidated communications squadron facility and surrounding area at NAFB.  
*Source: Clark County Tax Assessor Office. Aerial Dated Spring 2003.*





Figure 2-5. Aerial photograph of Building 839 and surrounding area at NAFB.  
Source: Clark County Tax Assessor Office. Aerial Dated Spring 2003.



2-6. Aerial photograph of Buildings 589 and 595 and surrounding area at NAFB.  
Source: Clark County Tax Assessor Office. Aerial Dated Spring 2003.



## **2.3 ALTERNATIVES**

In determining the proposed site and action for this project, a preliminary analysis of reasonable options for accomplishing the projects was conducted. Several of the options considered were status quo, renovation of previously constructed buildings, upgrading or removal of currently constructed buildings, and new construction. The analysis indicated that only one option would meet operational requirements, and that option was the proposed action.

## **2.4 NO ACTION ALTERNATIVE**

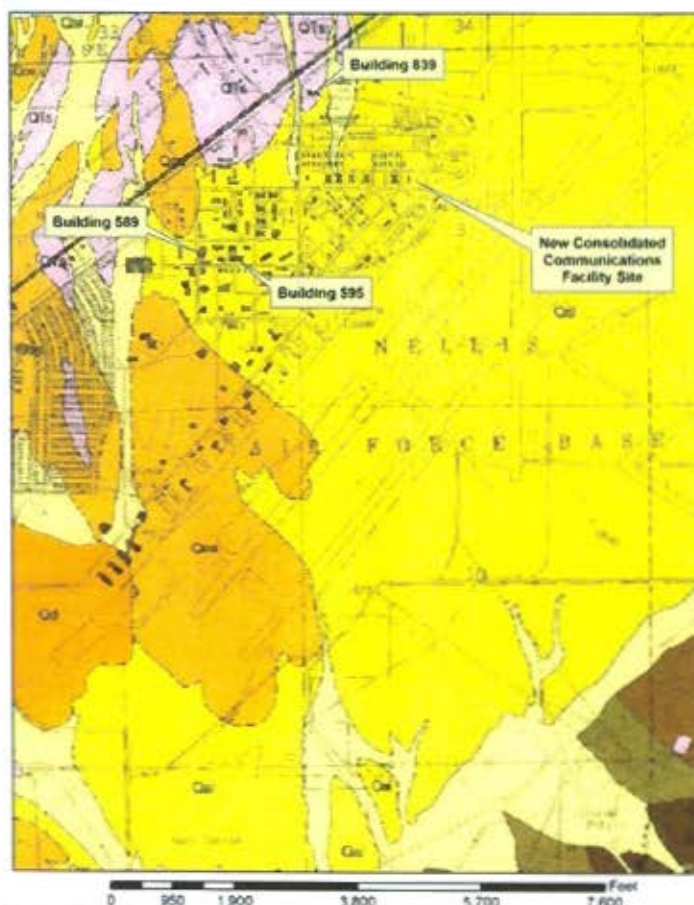
The no action alternative would be to continue communication operations at NAFB in the current facilities. Construction of a new facility would not be implemented. As previously mentioned, these facilities are rapidly degrading and would require significant repair. Water leakage is a serious problem in all three buildings. In addition, the current space available within these buildings is not adequate for the current and growing communications mission. From an operations standpoint, the no action alternative is not a truly viable option, but will be used as such since it is the best alternative available for this EA.

## 3.0 AFFECTED ENVIRONMENT

### 3.1 GEOLOGY/PHYSIOGRAPHY

NAFB is situated within the Las Vegas Valley, which is a basin in the Basin and Range physiographic province of Nevada. The Las Vegas Valley is surrounded by mountains comprised primarily of sedimentary and volcanic bedrock. The project area lies on flat alluvial deposits derived from various kinds of rocks, which eventually formed soils with a high content of lime. The alluvial sediments are generally fine to coarse grained in the project area. It is estimated that the Valley fill deposits range from 2,000 ft. to 5,000 ft. thick beneath NAFB.

Because the site is located on an alluvial plain, topography tends to be relatively flat with slopes generally less than 1 percent. The project site itself is almost completely level with a slight slope toward the south-southeast. No active faults are found in the project area or its vicinity. The site is located in Seismic Zone 2B, which is an area of moderate damage potential. Current design standards for NAFB require that new facilities be built according to Seismic Zone 4 standards. Figure 3-1 is a USGS 7.5 minute topographic map that shows the geologic outcrops found on the project site and vicinity.



**Figure 3-1.** USGS 7.5 minute topographic map showing the geologic outcrops on the project site and vicinity.

Source: Nevada Bureau of Mines and Geology. 1993. *Geologic Maps of Nevada*.

### 3.2 SOILS

The project site is located on the soil mapping unit listed as urban land. This mapping unit has been heavily impacted by excavation and other urban development activities resulting in a loss of identifiable native soil characteristics. However, most of the surrounding area lies over the Las Vegas-Destazo complex, 0 to 2 percent slope. That mapping unit is approximately 60% Las Vegas gravelly fine sandy loam and 25% Destazo fine sandy loam. Within this complex, the soils are arranged in a random pattern on a relic surface and are very difficult to distinguish.

Las Vegas soils are shallow and well drained. These soils were derived in an alluvium dominated by limestone, dolomite, and some lacustrine sediments with a high content of lime. Typically, 25% of the surface is comprised of desert pavement with hardpan fragments and pebbles. An indurated, lime-cemented hardpan is located at about 12 inches deep. Las Vegas soils show moderately slow permeability above the hardpan. Runoff is slow, and the hazard of water erosion is slight due to slope. The hazard of soil blowing is high and the soil is subject to rare periods of flooding during prolonged, high-intensity storms.

The Destazo soil is very deep and well drained. It also was formed in an alluvium derived from limestone, dolomite, and sediments having a high content of lime. Like the Las Vegas soil, about 25% of the surface of this soil is covered with a desert pavement of pebbles and lime nodules. Unlike the Las Vegas soil, the Destazo soil does not have a hardpan. In general, the texture of this soil is a fine sandy loam on the surface 12 inches. Underlying subsoils tend to be very gravelly to extremely gravelly sandy clay loams. At about 62 inches deep, this soil becomes a light brown sandy loam. The Destazo soil is characterized by moderately slow permeability, slow runoff, and a slight hazard of water erosion. Like the Las Vegas soil, the hazard of soil blowing is high.

The main limitation for construction of dwellings on these soils is the hazard of flooding. Dikes and channels with outlets for floodwater can be used to protect buildings from flooding. Frequent irrigation of landscaped areas is often required because of limited available water capacity of the soil. In addition, ornamental plants and grasses that are not sensitive to lime-induced chlorosis should be used for landscaping. Chlorosis can be minimized by annual applications of iron chelates.

On the project site, the entire surface area, with the exception of a small area in the center, is covered by concrete, asphalt parking lots, or gravel. It can be assumed that much of the area under these features is probably comprised of base material overlying native soils. Figure 3-2 shows soil mapping units found on the project site as well as NAFB and surrounding areas.

### 3.3 CLIMATE

Climate in the Las Vegas Valley area is typical of the desert southwest, having hot summers and mild winters. The growing season averages about 223 days. Precipitation averages approximately 4 inches per year. In general, rainfall is distributed evenly across the year with a very slight wet period from April through September. As in most desert climates, average relative humidity is about 20% by mid afternoon. The sun shines 90% of the time in summer and 80% in winter. Prevailing winds are generally from the southwest and are

highest in the spring with an average of 11 mph. Wind velocities can be relatively high, resulting in blowing dust and sand.

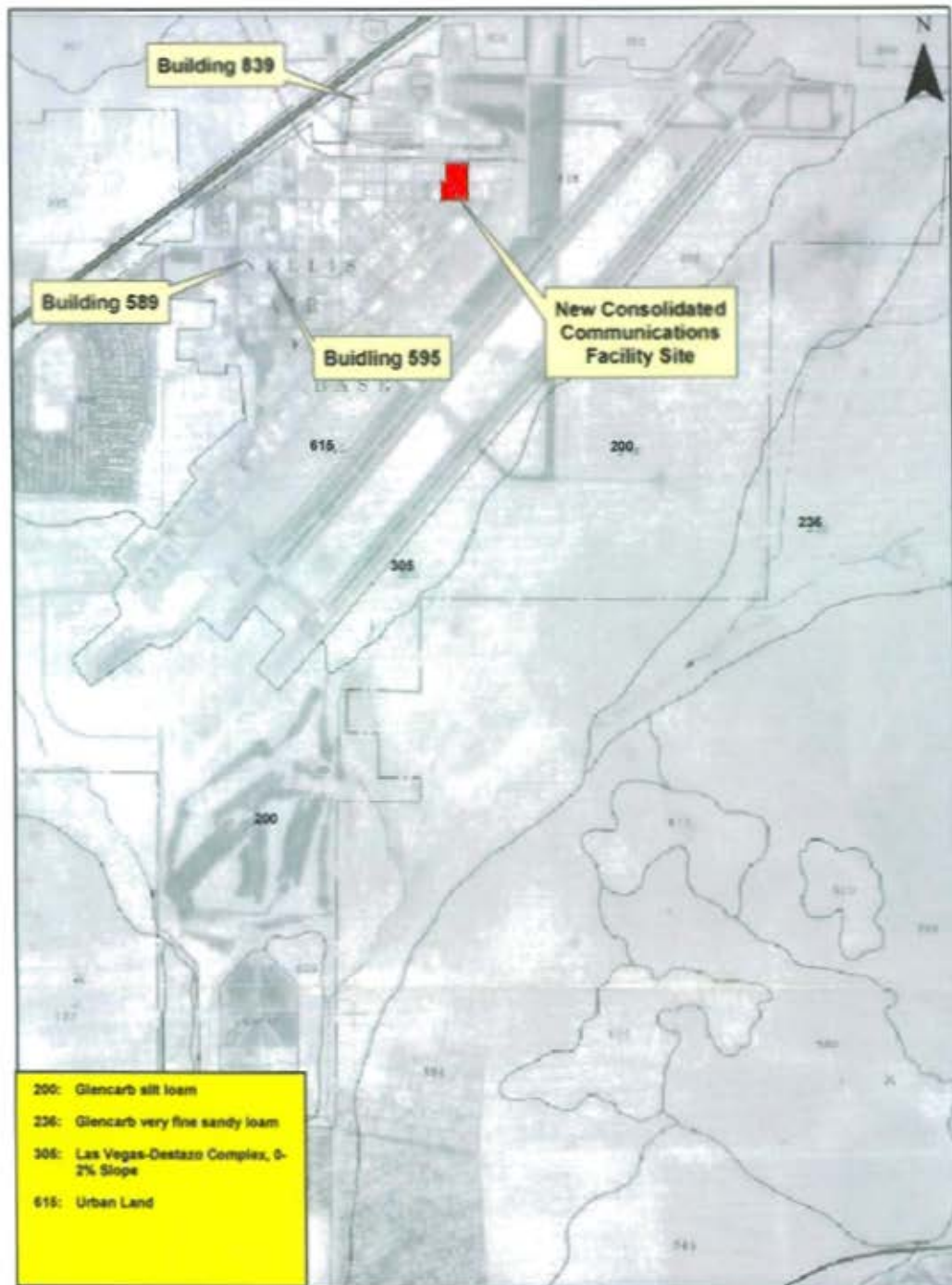


Figure 3-2. Aerial photograph of the project site and vicinity as shown in the soil survey showing soil mapping units.

Source: Speck, R.L. 1985. Soil survey of Las Vegas Area Nevada. Natural Resource Conservation Service.



### **3.4 MINERALS AND ENERGY RESOURCES**

The project site is located in a well-developed portion of NAFB, which lies over alluvial deposits. Potential for minerals and energy resources is very low in this area. Therefore, minerals and energy resources will not be impacted by this project.

### **3.5 VISUAL RESOURCES**

The project site is located in an alluvial valley, which affords picturesque views of distant mountain ranges. At the current time, views of natural features in the area are obstructed by man-made structures at NAFB. In addition, the only historic structure found on NAFB is the Thunderbird hangar, which is located several blocks to the east of the project site and is already obstructed by other buildings and facilities.

### **3.6 CULTURAL RESOURCES**

#### **3.6.1 Historic Properties**

NAFB has been surveyed for historic buildings and structures. No historic properties eligible for nomination to the National Register of Historic Places were identified. In addition, the Nevada State Historic Preservation Officer (SHPO) has concurred that final inventory and evaluation activities on NAFB have been completed. The only property that may be designated as a historic landmark is the Thunderbird hangar located east of the project site. Based on these findings, it is determined that historic properties will not be a concern for this project.

#### **3.6.2 Prehistoric Sites**

NAFB has been surveyed for prehistoric and historic archeological resources. No sites eligible for nomination in the National Register have been identified in or adjacent to the project site.

#### **3.6.3 Traditional Cultural Resources**

NAFB has been actively cooperating with Native American groups to identify traditional cultural resources, sacred areas, and traditional use areas. NAFB has continued to work with these groups to further identify these resources. However, no known traditional cultural resources, sacred areas, or traditional use areas have been identified on NAFB (U.S. Air Force, 1999).

### **3.7 WILDERNESS AREAS**

No wilderness areas, parks, or wildlife management areas have been designated on or near NAFB.

### **3.8 WATER RESOURCES**

No natural water resources are found within the project site. This includes floodplains, streams, wetlands, and groundwater recharge areas. The closest jurisdictional waters are tributaries that flow into a wash located between the aircraft runways and Sunset Mountain,

which eventually flows into Las Vegas Wash. In addition, no wild and scenic rivers are located in the vicinity of the project site.

### **3.9 AIR QUALITY**

The Clean Air Act (CAA), Title 40 CFR Parts 50 and 51, dictates that the National Ambient Air Quality Standards (NAAQS), established by the EPA, must be maintained nationwide. The NAAQS were established to protect the public health and welfare with an adequate margin of safety. The NAAQS include standards for six "criteria" pollutants: ozone (O<sub>3</sub>), nitrogen dioxide (NO<sub>2</sub>), carbon monoxide (CO), "respirable" Particulates (Particulate Matter Less than 10 Microns in Diameter [PM<sub>10</sub>]), sulfur dioxide (SO<sub>2</sub>), and lead (Pb). These standards include short-term standards (1-hour, 8-hour, or 24-hour periods) for pollutants with acute health effects, and long-term standards (annual average) for pollutants with chronic health effects.

Portions of Clark County immediately surrounding Las Vegas and encompassing the project area are designated as a "serious" CO non-attainment area and a "serious" PM<sub>10</sub> non-attainment area. The CO problem was changed from "moderate" to "serious" non-attainment in 1996. The CO problem in Clark County is related primarily to automobile traffic, accentuated by regional topography and weather patterns resulting in strong temperature inversions. Roughly 96 percent of the CO in Clark County originates from cars and trucks. Traffic congestion in and around the city center is considered to be the main cause of the high concentration of CO. More than 19 million vehicle miles are traveled each day in the Las Vegas area. Steady population growth is predicted to raise this by at least 1 million miles per day each year. Wood-burning stoves and fireplaces comprise the second largest source of CO in the county (Clark County, 1998).

Additionally, the USEPA has designated a larger area for the boundary for the Las Vegas 8-hour ozone nonattainment area. However, the boundary includes is nearly the same as CO/PM<sub>10</sub> non-attainment area with respect to NAFB. The remainder of Clark County is designated unclassified/attainment for ozone and includes the adjacent counties. While the nonattainment area is smaller than Clark County, it is still one of the largest nonattainment areas in the country.

Visibility is another issue associated with air quality. NAFB is located in the Las Vegas Valley where visibility is continually hampered by air pollutants, especially dust and vehicle emissions. These materials and gases are often trapped in the valley area and become concentrated to the point where visibility is significantly decreased or the color of the air is significantly changed.

### **3.10 NOISE**

Noise is definitely a problematic issue at NAFB, mostly due to noise originating from incoming and outgoing aircraft. NAFB has supported operations of nearly every type of aircraft in the DOD inventory. It has served as a home station for a variety of attack and fighter aircraft as well as helicopters. The base has also supported a wide range of transient aircraft participating in major exercises in the NTTR. Through its more than 58 years of operation, the mix of based and transient aircraft using NAFB has varied, and the shape and extent of areas affected by noise has varied accordingly.

At NAFB, the main source of noise is arriving and departing aircraft. In general, most noise levels are in the moderate range with the exception of relatively high levels recorded at the airstrip. Beyond the boundaries of NAFB, noise levels are considered quiet to moderate. A detailed discussion of aircraft noise and measurements in the vicinity of NAFB is provided in Air Force, 1999. Because of the level of development around NAFB, noise is more of a problem for humans living in the vicinity of NAFB versus natural resources in the vicinity. Other sources of noise at NAFB include explosions originating from the detonation of unexploded ordnances and quarrying activities in Area II.

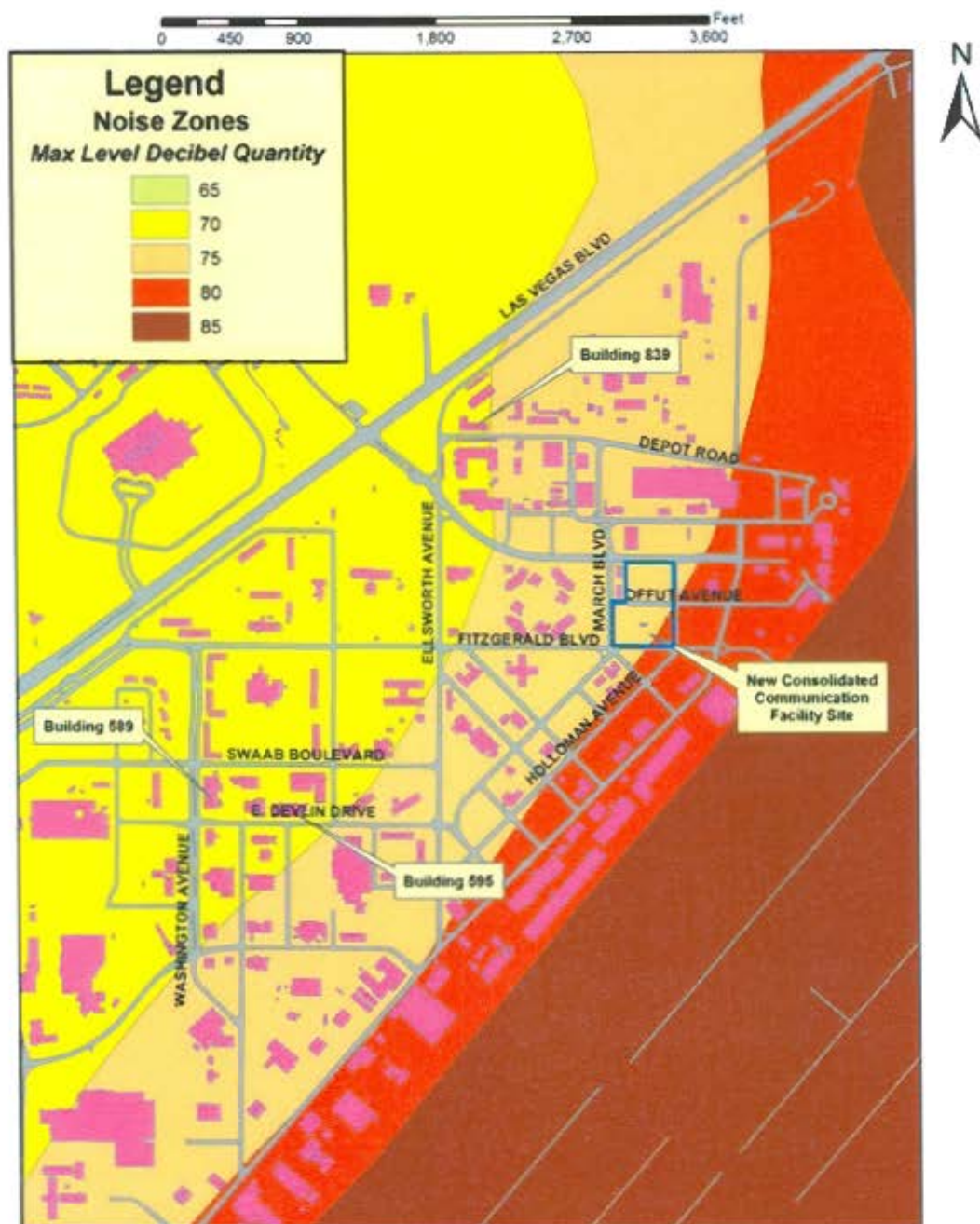
Published studies (Plotkin, et al., 1981, 1992) have characterized the noise conditions for the base and surrounding area in 1981 and 1992. Thus, the highest levels of noise are centered on the flight lines, with noise levels decreasing for sites or receptors located remote from the flight line. The 1981 and 1992 studies modeled 460 and 614 airfield operations, respectively (USAF, 1999). In 1997, a noise study for NAFB was conducted to reflect the aircraft mix and use patterns at that time. The study included 80 airfield operations by based aircraft and 250 airfield operations by transient aircraft to represent an average busy day. Figure 3-3 is an illustration of the noise zones located at the project site and around the buildings to be demolished according to the 1997 study. According to this figure, the CCSF lies in an area that experiences between 75 and 80 maximum level decibel quantity. With the exception of back-up warning signals, most other noise sources relative to construction and operation on this area would not exceed these levels. Buildings 589, 595, and 839 all lie in an area experiencing a maximum level decibel quantity of 70. In general, the CCSF and Buildings 589, 595, and 839 all experience noise levels above those under normal conditions.

### **3.11 LAND USE**

#### **3.11.1 CCSF**

The CCSF will be constructed on a site that is currently being used for parking and picnicking. The only structures located on the site are two picnic shelters located in the central portion of the property. Most of the remainder of the site is either covered in asphalt or gravel. Portions of the site contain gravel landscaping with cactus and other vegetation. Several small shade trees are located along a sidewalk on the south side of the property, and two large trees are located in the central portion of the property. These trees have been planted in an area that is covered in sod grass.

The properties surrounding the CCSF site are all used by the Air Force for various purposes. In most cases, the CCSF property is buffered from other facilities by parking lots, gravel-covered areas, or roads. The only buildings located adjacent to the property are Building 899, 890, 94, and 45. These buildings are either used for dormitories, office buildings, or storage facilities. This is easily observed in Figure 3-4, which is a drawing of the project area and adjacent properties. Photographs 4-8 in Appendix B show different views of the site. Land use on properties adjacent to the project area includes a groundwater treatment facility located east of the project area, a dormitory located northwest of the project area, and a storage area and fueling facility located to the north.



**Figure 3-3.** Noise zones located at the project site as determined by studies conducted for the F/A environmental impact statement in 1999.  
(USAF, 1999)



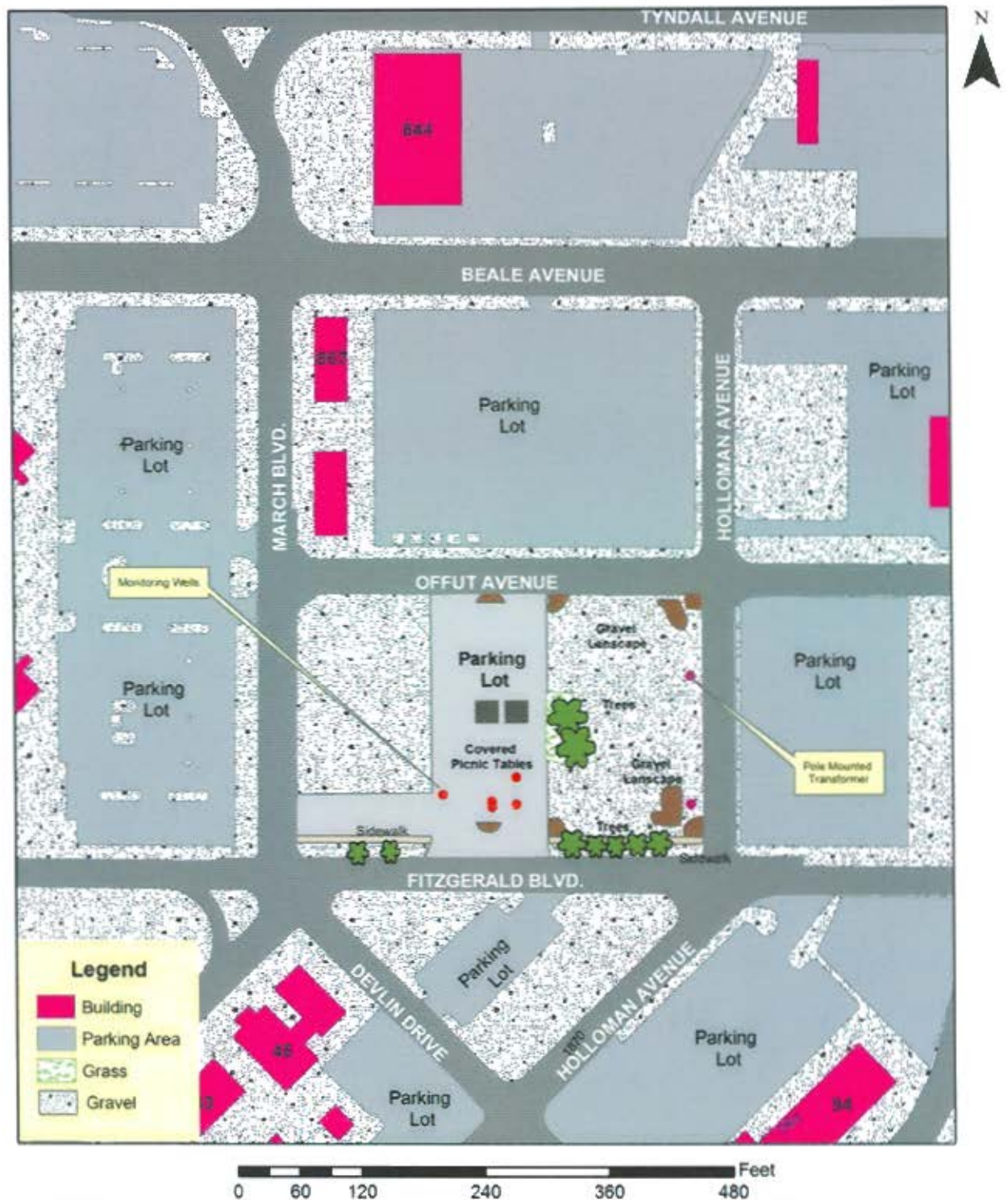


Figure 3-4. Current condition of the project site for the construction of the Consolidated Communications Squadron Facility at NAEB.

### 3.11.2 Building 595 and 589

Buildings 595 and 589 are located in a block bounded by Washington Avenue to the west, Swaab Boulevard to the north, Carswell Avenue to the east, and Devlin Drive to the south (Figure 3-5). Also located on this block are Buildings 588, 586, and 610. Interspersed between the buildings are parking lots and some vegetated areas. Land use on the project sites is restricted to commercial buildings and parking.

All land uses surrounding the project area are related to Air Force activities. Immediately to the east is the Air Warfare Center, which basically houses offices and other facilities. To the northeast are some residential areas, and to the north is the Officers Club, which includes parking lots, tennis courts, and other recreational facilities. Northeast of the project area is the Mount Vernon dining facility with other office buildings located immediately to the east. South of the project area is the Base Exchange, the Enlisted Club, the theatre, bowling center, and Burger King. In general, the site is surrounded by Air Force facilities equivalent to commercial use.



Figure 3-5. Drawing showing the land use around Buildings 595 and 589.

### 3.11.3 Building 839

Building 839 is located at the intersection of Ellsworth Avenue and Depot Road. The facilities are predominantly used for commercial purposes, and include office buildings, parking lots, and an auto hobby shop. Adjacent land uses are also commercial Air Force uses, including a large storage area and the engineering center, which is located south of Building 839, across Depot Road. West of Building 839 is an open field, and northwest is a



standard oil company tank farm. Figure 3-6 is a drawing showing major facilities and land uses in and around Building 839.

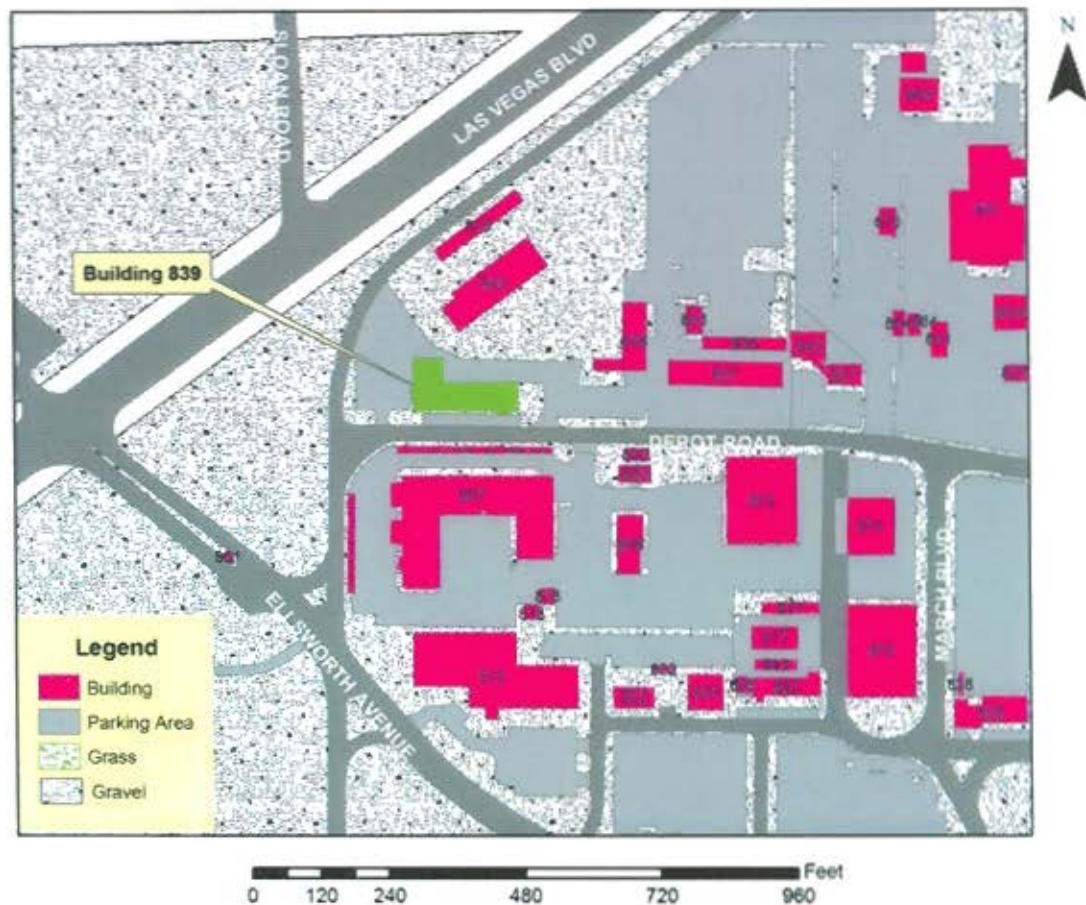


Figure 3-6. Drawing showing land use around Building 839.

## 3.12 BIOLOGICAL RESOURCES

### 3.12.1 Vegetation

Approximately 5% of the parcel selected for the CCSF supports vegetation. Vegetation is restricted to ornamental woody plants and turf grasses, including Kentucky bluegrass (*Poa pratensis*) and creeping red fescue (*Festuca rubra*). The remainder of the site does not support vegetation, with the exception of a few cacti grown in gravel gardens. All of the plants are ornamental species that can either be destroyed or excavated and moved to another site during construction.

Similarly, Building 595 and 589 are located in areas that are mostly covered with asphalt and/or gravel. Some areas immediately adjacent to the buildings support small expanses of turf grass and ornamental plants. Building 839 is surrounded by gravel and asphalt parking lots. A few ornamental woody plants and cacti have been planted immediately adjacent to

the building. Overall, the vegetation at Building 839 restricted to ornamental native species and is established along the outside edge of the building.

### **3.12.2 Wildlife**

All portions of the project area are located in well-developed sections of NAFB. Very little wildlife food or habitat is available in the immediate area of these buildings and lots. Most of the mammals are restricted to small rodents, and possibly incidental occurrences of larger, gregarious mammals traversing the sites. Currently, the area is used by some of the more gregarious species of birds, such as house sparrows, common grackles, and mourning dove.

### **3.12.3 Endangered and Threatened Species**

Because the project area is located in a developed, commercial area, it is highly unlikely that any endangered species have become established on the project area. Field observations confirm this assumption. Although the site lies in the range of the desert tortoise and the Las Vegas bear poppy, habitat capable of supporting these species is not present on any of the sites.

NAFB lies in the low elevation Creosote/White Bursage community, which is characteristic of the Mojave Desert and appears to support several different species of bats (USAF, 1997b). Some species of bats could conceivably inhabit cracks and crevices of the roofs and walls of Buildings 595, 589, and 839. Although no evidence of bats was observed, the buildings should be inspected prior to demolition to ensure that bats are not nesting in the structures at the time of demolition.

### **3.13 AIRSPACE**

The proposed site for the CCSF, as well as the sites where demolition will occur, is located west of air space commonly used by incoming and outgoing aircraft.

### **3.14 SAFETY**

All operations at NAFB are conducted with strict adherence to safety features. The project areas are located away from flight lines and should in no way impact the safety of incoming and outgoing aircraft or any flight line activities.

### **3.15 SOCIOECONOMICS**

Clark County is the most heavily populated area in Nevada and is considered the fastest-growing metropolitan county in the U.S. (U.S. Bureau of Economic Analysis, 1997). As of July, 1996, the population of Clark County was estimated to be 1.12 million (Clark County, 1996). The fast growth of Clark County has resulted in a corresponding increase in a demand for quality housing in the region. In the time from 1970 to 1990, housing increased 241%, while the demand for housing increased only 227%, which indicated a housing surplus (U.S. Bureau of the Census).

According to the 2000 census, the city of North Las Vegas posted a population of 115,488, of which 55.93% was white, 37.61% Hispanic, and 19% African-American (areaConnect, 2004). In contrast, the population of Clark County in the year 2000 was 1.376 million

(Epodunk, 2004). While the average age of inhabitants of North Las Vegas was 28.8, approximately 54.6% of the population of Clark County lies in the age range from 25-64. Also, in Clark County, whites comprise 71.6% of the population, while African-Americans comprise 9.1%, and Hispanics, 22%. By the year 2000, total housing units were 559,799, which showed a considerable increase over the past. Housing costs have been increasing significantly over the past years, resulting in a median price of approximately \$143,900 (U.S. Census Bureau, 2000).

### **3.16 ENVIRONMENTAL JUSTICE**

On February 11, 1994, President Clinton issued EO 12898, *Federal Actions to Address Environmental Justice in Minority and Low-income Populations*. The purpose of the order is to avoid the disproportionate placement of adverse environmental, economic, social, or health impacts from federal actions and policies on minority and low-income populations. The first step in the process is to identify minority and low-income populations that might be affected by implementation of the proposed action or no action alternative. It is the critical step in addressing environmental justice.

The proposed action for this EA is located in the developed portion of NAFB and will not impact any low income or minority populations.

### **3.17 UTILITIES**

Information on the existing utility systems at NAFB was derived from a brief description of those utilities provided in NAFB (2002). The electrical distribution system at NAFB is supplied from a base-owned substation, which is supplied from a single 69-kV Nevada Power Company incoming primary feed (Headquarters Air Combat Command, 2001). Ultimately, all power is drawn from the Hoover Dam power grid. The base substation is located adjacent to the north gate. The power is distributed throughout the base via 545,000 linear feet (LF) of overhead cables, and 441,000 LF of underground cables. According to Headquarters Air Combat Command (1998), NAFB has met the criteria established by the Air Force as being "PCB-free." However, equipment containing PCBs may be present within the installation.

The electrical distribution system for the CCSF currently exists as an overhead cable along the east side of the property. One transformer is located in that area. Additionally, Buildings 839, 589, and 595 all receive their power via overhead cabling. During demolition of the buildings, care should be taken to ensure that any transformers removed from the site do not contain PCBs. More than likely, overhead cabling will be replaced with underground cabling for any new construction and for construction of the CCSF.

NAFB obtains its potable water supply from nine water wells located on the base, as well as from the Southern Nevada Water Authority. A small amount of water is also purchased from the city of North Las Vegas. Water is stored on base in eight water storage tanks and is distributed via transmission lines throughout the base.

Wastewater from NAFB is discharged into the Clark County sanitation district for treatment at their wastewater treatment plant. The wastewater system on base includes 382,000 LF of gravity sewer mains and twelve sewage pumping stations. On the average, the base discharges approximately 1.5 mgd of wastewater. Domestic wastewater accounts for 90-95% of discharge from the base.



NAFB receives its natural gas via the Southwest Gas Company through a high-pressure gas transmission line located along Las Vegas Boulevard North. The gas distribution system on base has approximately 20 miles of gas mains and lateral lines. This distribution system is owned and operated by NAFB.

### **3.18 HAZARDOUS MATERIALS AND ITEMS OF SPECIAL CONCERN**

#### **3.18.1 Hazardous and Petroleum Materials and Wastes**

NAFB Plan 19-1, Facility Response Plan incorporates emergency response requirements of the Clean Water Act, Clean Air Act, and RCRA into a single document. The plan describes emergency response guidance as mandated by the Occupational Safety and Health Administration as well as spill prevention, control, and countermeasures procedures currently implemented at NAFB. None of the facilities involved in this proposed action contain significant quantities of hazardous materials. However, some of the buildings in adjacent properties are used for storage of petroleum products and hazardous materials or wastes.

Procedures for the management of hazardous waste generated at NAFB are fully described in the NAFB Plan 12, Hazardous Waste Management Plan (NAFB, 2000). As part of the plan, hazardous waste is collected at initial accumulation points throughout the base and transferred to a 90-day central accumulation site in Building 853. Within 90 days, a permitted waste contractor determines the appropriate treatment and disposal options for the materials and arranges for a licensed transporter to pick up the waste and transport it to a disposal site.

Petroleum products typically stored at NAFB include motor fuels, solvents, and hydraulic fluid. The project site for the CCSF is currently vacant and is not currently used for storage or use of petroleum products. In addition, Buildings 839, 589, and 595 are currently used for information technology, which typically does not entail use of significant quantities of petroleum products. Minor quantities of solvents and lubricants might be found on these sites.

#### **3.18.2 Storage Tanks**

The new CCSF site, as well as Buildings 839, 589, 595, does not currently contain above-ground or below-ground storage tanks. However, some of the adjacent properties use storage tanks for vehicle fuels. A vehicle fueling station is located northeast of the new CCSF project site. In addition, the groundwater treatment system is located immediately east of the project site.

#### **3.18.3 Pesticides**

The pest management program at NAFB integrates pest surveillance with control methodologies and is documented in the pest management plan for NAFB (NAFB, 2000). At NAFB, pest management is the responsibility of the pest management section personnel. Pesticides are applied according to pesticide label directions. The pest management section maintains and monitors records of buildings, including chemicals issued by the facility's improvement center, which dispenses pest control supplies to residents. Because the new site for CCSF is a vacant lot, pesticide impacts are probably restricted to application of herbicides and fertilizers for the small area of landscaping located on the property.

Similarly, Buildings 839, 589, and 595 probably experience only routine application of pesticides for control of pests common in the area. Because of the nature of the operations conducted in the buildings, it is doubtful that any large quantities of pesticides are stored or used in those areas.

#### **3.18.4 Solid Waste**

None of the sites included in the proposed action store, treat, or dispose of solid waste on site. Solid waste should not be an issue at any of these facilities with respect to the impact of the proposed action.

#### **3.18.5 Asbestos**

Asbestos is not an issue on the new site selected for the CCSF. This is due to the fact that no standing structure is present on the site at this time. However, asbestos-containing materials (ACMs) may be present in Buildings 839, 589, and 595, due to their age. These buildings should be inspected for ACMs prior to demolition.

#### **3.18.6 Polychlorinated Biphenyls**

As previously discussed, NAFB is currently under a PCB-free program. Thus, any new transformers, etc., are probably PCB-free. Some of the older buildings may contain transformers with PCBs. PCBs may also be present in the ballasts of older light fixtures. Any old hydraulic equipment, light ballasts, and/or transformers should be inspected to determine if they contain PCBs. If so, these should be properly disposed of, and the area around the equipment should be sampled for PCBs that may have leaked from the equipment in the past.

#### **3.18.7 Radon**

Radon is a naturally occurring, colorless, and odorless radioactive gas that is produced by the radioactive decay of naturally occurring uranium. Uranium decays to radium and then radon. Radon that is present in soil can enter a building through small spaces and openings and can accumulate in enclosed areas such as basements.

Air Force policy requires implementation of the Air Force radon assessment and mitigation program to determine levels of radon exposure to military personnel and their dependents. This program is restricted to residential structures and schools. Problems with radon have been detected in some residences on NAFB and could occur in some of the buildings. However, this project involves demolition of buildings and construction of new buildings, which will probably not result in radon being an issue.

#### **3.18.8 Lead-Based Paint**

Human exposure to lead has been determined to be an adverse health risk by both OSHA and the U.S. EPA. Common sources of exposure to lead include dust, soils, and paint. The Department of Defense implemented a ban of lead-based paint use in 1978; however, it is possible that facilities constructed prior to or during 1978 may contain lead-based paints. Although lead-based paints are not a problem on the new CCSF site, they are a potential problem for Buildings 839, 589, 595. Because these buildings are to be demolished, the

presence of lead-based paints should not be a problem unless materials are to be recycled and used in other construction projects.



## **4.0 ENVIRONMENTAL CONSEQUENCES**

### **4.1 GEOLOGY AND PHYSIOGRAPHY**

#### **4.1.1 No Action Alternative**

The no action alternative should have no direct impacts to outcrops and geologic formations, geologic faults, or topography. Because the site is located in Seismic Zone 2B, only moderate damage to buildings would be expected. However, Buildings 589, 595, and 839 are old, considered somewhat structurally unstable and were not built to withstand seismic activity. Because this alternative would continue use of these buildings, there is a higher potential for significant damage by an earthquake causing a major impact to base communications.

#### **4.1.2 Proposed Action**

Minor impacts to the upper geologic layer would be expected due to shallow excavation activities and some drilling and placement of piers for building structures. However, the outcrop at the project site is an alluvial deposit, which would be extremely resistant to excavation and drilling. Although the proposed action will involve excavation and drilling, the area will be brought back to near-original contours, and no impact to topography is anticipated. Buildings 589, 595, and 839, which are potentially susceptible to earthquakes, would be demolished by this action, and new buildings structurally designed to withstand earthquakes would be constructed.

### **4.2 SOILS**

#### **4.2.1 No Action Alternative**

With the no action alternative, soils will remain in tact, resulting in no impacts to plant growth and vegetative cover. Soils will remain protected by gravel and vegetation, minimizing the potential for wind erosion. Additionally, no water erosion is expected from this action due the presence of vegetative or gravel cover and the flat topography.

#### **4.2.2 Proposed Action**

Considerable disturbance and removal of the soil surface will occur during construction and demolition. This will remove many of the plants currently growing on the soil surface. Removal of soils will also result in impacts to the re-establishment of vegetation due to the fact that an undisturbed soil profile will no longer be present. The impacts could be positive if the soil has previously been impacted or the soil surface is compacted. Regardless, impacts would be minimized if topsoil is stockpiled separately and returned to the soil surface after construction is completed. During the construction phase of the project, exposure of soils to wind and stormwater runoff can result in some soil loss. This will be minimized by adherence to Best Management Practices (AFI 32-7080 Pollution Prevention Program) required by the USAF and for construction projects in the state of Nevada.

### **4.3 CLIMATE**

#### **4.3.1 No Action Alternative**

No impacts to climate are anticipated.

#### **4.3.2 Proposed Action**

Because of the small size of this project, no impacts to climate are anticipated. However, some changes in microclimates due to shading by the building could result in an improvement in habitat diversity.

### **4.4 MINERAL AND ENERGY RESOURCES**

#### **4.4.1 No Action Alternative**

Because no mineral or energy resources have been discovered on NAFB, no impacts to those resources are anticipated.

#### **4.4.2 Proposed Action**

Because no mineral or energy resources have been discovered on NAFB, no impacts to those resources are anticipated.

### **4.5 VISUAL RESOURCES**

#### **4.5.1 No Action Alternative**

This action results in no new buildings being constructed on the currently vacant parcel to be used for the CCSF. Thus, residents of the dormitory and office buildings will continue to have an unobstructed view of mountains to the east and west of NAFB. Some obstruction of the viewscape is occurring at this time, but the presence of an empty parcel improves viewscales significantly. Viewscales from areas adjacent to Buildings 589, 595, and 839 will continue to be obstructed by those buildings.

The vacant parcel will remain in place with some vegetation, but in general will provide very few visual aesthetics. Buildings 839, 589, and 595 will remain in place in the no action alternative. These buildings are in disrepair and becoming somewhat unattractive causing a negative impact on visual aesthetics for the base.

#### **4.5.2 Proposed Action**

Viewscales from the buildings and dorms adjacent to the site of the proposed action will be obstructed by construction of the new CCSF. In some cases, surrounding mountains and other landscapes will no longer be visible. Viewscales for buildings adjacent to at Buildings 595, 589, and 839 will probably remain unchanged, due to the fact that following demolition, new buildings will be probably be constructed.

The CCSF will be designed in a manner to match the architectural landscape of NAFB. In addition, the current landscape plan for NAFB dictates that new construction must be landscaped with native plants. Both of these changes associated with the proposed action

should result in an improvement in the aesthetics of this site. Additionally, demolition of Buildings 839, 589, and 595 will result in an overall improvement of the visual aesthetics of those areas of the base. Those buildings will probably be replaced by improved landscaping and architectural design.

#### **4.6 CULTURAL RESOURCES**

##### **4.6.1 No Action Alternative**

With the exception of the Thunderbird Hangar, no historic properties have been designated on NAFB, and no impacts are anticipated. Additionally, no prehistoric sites and no known traditional cultural resources, sacred areas, or traditional areas have been identified on NAFB. Therefore, no impacts are anticipated.

##### **4.6.2 Proposed Action**

With the exception of the Thunderbird Hangar, no historic properties have been designated on NAFB, and no impacts are anticipated. Additionally, no prehistoric sites and no known traditional cultural resources, sacred areas, or traditional use areas have been identified on NAFB. Therefore, no impacts are anticipated.

#### **4.7 WILDERNESS AREAS**

##### **4.7.1 No Action Alternative**

No wilderness areas, state or national parks, or wildlife management areas have been designated in or near NAFB, and no impacts are anticipated.

##### **4.7.2 Proposed Action**

No wilderness areas, state or national parks, or wildlife management areas have been designated in or near NAFB, and no impacts are anticipated.

#### **4.8 WATER RESOURCES**

##### **4.8.1 No Action Alternative**

The project sites do not lie in floodplains, and no changes in runoff characteristics should impact floodplains. Additionally, the no action alternative is not expected to impact streams, wetlands, or groundwater.

##### **4.8.2 Proposed Action**

The proposed action does not lie in a 100-year floodplain. In addition, drainage characteristics of the land surface will not be significantly impacted by construction of CCSF or demolition of Buildings 595, 589, and 835, which will result in no changes in the volume of stormwater originating from these areas and eventually flowing into tributaries of the Las Vegas Wash. Wetlands and streams are not located in or near the proposed action are not expected to be impacted directly or indirectly by the action. The site does not lie over a recharge zone and construction does not entail extensive drilling or deep excavation. Therefore impacts to groundwater are not anticipated.

## 4.9 AIR QUALITY

### 4.9.1 No Action Alternative

The no action alternative is not expected to impact the quality of air at NAFB.

### 4.9.2 Proposed Action

Construction and excavation activities on the CCSF site will probably result in short-term elevation of particulate matter in the air in the immediate vicinity of construction. In addition, demolition of Buildings 595, 589, and 839 also has the potential to cause short-term elevation in particulate matter if mitigative measures are not taken. The source of particulate matter will be blowing dust and some carbon originating from diesel engines. The emissions of PM10 were calculated using the Department of Air Quality Management default emission factor of 1.66 lbs/acre-day and a total area of 7.26 acres. This calculation assumes the worst case scenario of all four sites having soils exposed during a year period. The calculation of PM10 for the proposed action is as follows:

$$\begin{aligned} \text{PM}_{10} \text{ (tons/year)} &= \\ (1.66 \text{ lbs/acre-day}) &\times (365 \text{ days/year}) \times (7.26 \text{ acres}) \times (1 \text{ ton}/2000 \text{ lbs}) = \\ 2.2 \text{ tons/year} \end{aligned}$$

Use of construction equipment for demolition of Buildings 595, 589, and 839, as well as construction on the CCSF site may cause localized, minor increases in carbon monoxide on the short term.

The boiler to be used in the CCSF is estimated to be no larger than 1.26 MM BTU. The boiler would require an ATC permit before operation and a Lo-NOx burner on the boiler would be necessary. Table 4-1 shows a comparison of the emissions predicted for the CCSF and demolition of buildings 595, 589, and 839, de minimus quantities, 2004 total emissions of NAFB, and the total allowable emissions being proposed for the new Title V permit for NAFB.

**Table 4-1.** Comparison of the emissions predicted for the CCSF and demolition of buildings 595, 589, and 839, de minimus quantities, 2004 total emissions of NAFB, and the total allowable emissions being proposed for the new Title V permit for NAFB.

Source	NO <sub>x</sub> (tons/yr)	CO (tons/yr)	PM <sub>10</sub> (tons/yr)	VOC (tons/yr)
Demolition/Construction	0	0	2.2	0
Boiler	0.54	0.45	0.04	0.03
<b>Total for Proposed Action</b>	<b>0.54</b>	<b>0.45</b>	<b>2.24</b>	<b>0.03</b>
De minimus	2.0	2.0	1.0	2.0
Max Allowable under Title V	50.0	70.0	70.0	50.0
2004 Total NAFB Emissions	34.0	18.0	36.0	27.0

At NAFB, de minimus quantities would not apply since the activities are occurring on Nellis property, would fall under the Title V permit, and would be a contributor to the cumulative total emissions of the base. As shown in Table 4-1, the emissions released by the Proposed Action are not going to contribute significantly to the cumulative total of emissions for the Base and will



not cause NAFB to exceed Title V permit emission quantities. The Title V permit is currently being submitted to the state and includes the allowable total emissions for the Base. Emissions will also be minimized by strict adherence to AFI 32-7040 (Air Quality Compliance),

#### **4.10 NOISE**

##### **4.10.1 No Action Alternative**

The no action alternative is not expected to impact the noise levels at NAFB.

##### **4.10.2 Proposed Action**

Operation of the new CCSF does not entail noise-producing actions. Therefore, no impacts to noise levels are anticipated. Although the fate of the parcels currently supporting Buildings 595, 589, and 839 is not known at this time, it is doubtful that those actions will be noise-producing. On the short-term, construction and demolition activities are noise-producing actions. However, these actions will rarely produce noise levels higher than the ambient levels currently impacting the site from aircraft and other sources.

#### **4.11 LAND USE**

##### **4.11.1 No Action Alternative**

The no action alternative will not impact land use on the project sites or on properties adjacent to the project sites.

##### **4.11.2 Proposed Action**

Construction of the CCSF will result in a change in the use of the property site from a parking lot and outside gathering area to a commercial office building surrounded by natural landscaping. Within the context of the surrounding areas, this impact is minor, since adjacent properties are in commercial or industrial use. The demolition of Buildings 595, 589, and 839 will probably not result in a change in the land use of those properties, unless they are left as vacant lots. In conclusion the proposed action will not significantly change land uses in the area of the project.

#### **4.12 BIOLOGICAL RESOURCES**

##### **4.12.1 No Action Alternative**

The no action alternative will not have an impact on vegetation, wildlife, or endangered species.

##### **4.12.2 Proposed Action**

Construction and excavation at the CCSF site will result in temporary removal of established vegetation. Most of the vegetation on the site is comprised of landscape ornamental plants and no natural plant populations are present. However, the removed vegetation will probably be replaced by landscaped areas surrounding the CCSF. The current vegetation is landscaped and no change in the type of vegetation is anticipated. The new landscaping will be native plant species in compliance with the landscape management plan for the base. Demolition of Buildings 595, 589, and 839 will result in some removal of vegetation in those areas. However, vegetation is not a significant component of those areas at this time, and impacts would be

considered temporary and minimal. New landscaping may be an improvement compared to the present conditions.

Some temporary displacement of wildlife would be expected due to the construction of the CCSF and the demolition of Buildings 595, 589, and 839. However, most of the wildlife associated with these areas are transient birds and would probably move to adjacent properties until construction was completed. Bats may be nesting in cracks and crevices of Buildings 839, 595, and 589. Buildings should be inspected prior to demolition to ensure that bats are either not present or will be removed if present. In general, impacts to wildlife would be considered minor.

Endangered and threatened species currently do not inhabit any of the project areas, and therefore would not be impacted by this action.

#### **4.13 AIRSPACE**

##### **4.13.1 No Action Alternative**

The no action alternative will not have an impact on airspace.

##### **4.13.2 Proposed Action**

The proposed action does not involve construction of any structures that could infringe on airspace, therefore, not impacts to airspace are anticipated.

#### **4.14 SAFETY**

##### **4.14.1 No Action Alternative**

No impacts to safety are anticipated at the CCSF site. However, Buildings 595, 589, and 839 are currently considered old and unsafe. Continued use of these buildings could result in the establishment of unsafe conditions and possible injury to residents or users.

##### **4.14.2 Proposed Action**

No impacts to safety are anticipated by the proposed action. Construction activities could result in some changes in automobile traffic patterns and impose potential unsafe conditions if proper procedures are not followed. However, under current policies for construction and demolition, safety on-and off-site should not be impacted. Demolition of Buildings 595, 589, and 839 would result in the removal of buildings now presenting unsafe conditions resulting in positive impact on safety.

#### **4.15 SOCIOECONOMICS**

##### **4.15.1 No Action Alternative**

No impacts to long- or short-term socioeconomic conditions in the area are anticipated to be caused by the no action alternative.

#### **4.15.2 Proposed Action**

On the short term, the proposed action would provide job opportunities for both non-professional and professional contractors and subcontractors. Additionally, long-term operation of the CCSF, as well as new facilities that may replace Buildings 595, 589, and 839, could result in additional professional and technical level jobs for civilian and military personnel. Thus, positive impacts on socioeconomics would be anticipated.

#### **4.16 ENVIRONMENTAL JUSTICE**

##### **4.16.1 No Action Alternative**

No impacts concerning environmental justice are anticipated as a result of the no action alternative.

##### **4.16.2 Proposed Action**

No impacts concerning environmental justice are anticipated as a result of the proposed action.

#### **4.17 UTILITIES**

##### **4.17.1 No Action Alternative**

No impacts to electric utilities, water, wastewater or natural gas use is expected as a result of the no action alternative.

##### **4.17.2 Proposed Action**

The new CCSF facility, as well as the buildings constructed at the current location of Buildings 595, 589, and 839, would probably require greater levels of electricity than currently being used due to use of more electronic equipment and temperature control required for maintenance of the equipment. This could be considered a positive impact, due to the additional income to the local community. Natural gas usage may be slightly increased, but this would not be considered significant. Proposed use of the CCSF does not involve significant use of natural gas.

None of the operations currently intended for the CCSF and for Buildings 595, 589, and 839 are anticipated to use significant quantities of water. Therefore, impacts to water usage are considered minimal. Wastewater discharge from NAFB should not be significantly increased by the proposed action because the number of additional people employed at the new facility will not be significant in terms of wastewater production.

#### **4.18 HAZARDOUS WASTE AND ITEMS OF SPECIAL CONCERN**

##### **4.18.1 No Action Alternative**

**Hazardous and Petroleum Materials and Wastes.** The no action alternative should have no impacts to the current production or storage of hazardous materials and wastes.

**Storage Tanks.** No impacts to storage tanks are anticipated.

**Pesticides.** No impacts to pesticide use are anticipated.

**Solid Waste.** No impacts to solid waste production are anticipated.

**Asbestos.** Continued degradation of Buildings 595, 589, and 839 could result in the release of friable asbestos-containing materials, which would present an impact to users of those buildings.

**Polychlorinated Biphenyls.** No impacts or releases of polychlorinated biphenyls are anticipated as a result of the no action alternative.

**Radon.** Buildings 595, 589, and 839 could potentially have significant levels of radon. However, this is usually only considered a problem in residential buildings. Potential exposure of this material to building occupants is possible.

**Lead-based Paints.** No impacts from lead-based paints would be anticipated, due to the fact that these buildings are not currently used for residential or educational purposes. However, because of the age of the buildings, they probably contain some lead-based paint surfaces which can present problems if the use of the building is changed to a use where lead paint exposure is regulated.

#### 4.18.2 Proposed Action

**Hazardous and Petroleum Materials and Wastes.** The proposed use for the CCSF does not involve the production or storage of significant quantities of hazardous or petroleum materials and wastes. All hazardous materials at the new facility will be stored or handled according to the NAFB Hazardous Material Management Plan 12 (AFI- 32-7040 HAZMAT Management) and Facility Emergency Response Plan 19-1 (AFI 32-4002 Hazardous Materials Response).

**Storage Tanks.** The proposed action does not involve construction, demolition or use of above ground or underground storage tanks. Therefore, no impacts are anticipated.

**Pesticides.** The operation of the CCSF is not expected to result in a significant change in the use of pesticides at NAFB. In addition, any pest control used for the building will comply with the NAFB Pest Management Plan and AFI 32-1052 (Pest Management Program). Therefore, no impacts to pest management or pesticide use are anticipated.

**Solid Waste.** A short-term increase in solid waste production would be expected during the demolition phase of Buildings 595, 589, and 839. Some increase in solid waste would also be anticipated during the construction of the CCSF. However, on the long term, no impacts to solid waste production would be anticipated.

**Asbestos.** Demolition of Buildings 595, 589, and 839 may result in exposure of workers to asbestos. However, with proper mitigative actions, this would be minimal and considered no impact. However, by adhering to AFI 32-1052, *Facility Asbestos Management*, exposure would be minimal."

**Polychlorinated Biphenyls.** Although there is potential for equipment containing polychlorinated biphenyls to be present in Buildings 595, 589, and 839, proper handling of that equipment would not result in the release of those materials. Therefore, this would be considered no impact.



**Radon.** Construction of new facilities associated with the proposed action would not be expected to contain significant levels of radon. Thus, this would not be considered an impact.

**Lead-based Paints.** Demolition of Buildings 595, 589, and 839 could result in the release of lead-based paint into soil and dust. This can be reduced by mitigative measures. However, future use of the properties will not involve residential or child-care facilities. Therefore, impacts are not anticipated.

## **5.0 CUMULATIVE EFFECTS AND IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES**

### **5.1 CUMULATIVE IMPACTS**

Cumulative impacts are impacts on the environment that result from incremental impacts that occurred in the past, present or reasonable foreseeable future. Cumulative impacts may also include similar impacts occurring in a location that is relatively close to the project area. An impact may be insignificant or small individually, but may be significant when added to several other similar or related impacts.

The proposed action and no action alternative pose minimal impacts on the environment. Even when these impacts are considered in a cumulative respect, it is doubtful that they would be significant. Thus, it can be concluded that both the proposed action and the no action alternative will not result in significant cumulative impacts to the environment.

### **5.2 UNAVOIDABLE ADVERSE IMPACTS**

No unavoidable adverse impacts are expected from the implementation of the proposed action or the no action alternative.

### **5.3 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES**

An irreversible and irretrievable commitment of resources is those commitments that cannot be reversed over a long period of time or result in the loss of production or use of a renewable resource. The proposed action and the no action alternative will not result in an irreversible or irretrievable commitment of resources.

### **5.4 RELATIONSHIP BETWEEN SHORT-TERM USES OF THE HUMAN ENVIRONMENT AND MAINTENANCE OF LONG-TERM PRODUCTIVITY**

Actions that improve the overall health and conditions of the environment result in an improvement in the long-term productivity of the natural resources. Although some negative impacts will be realized by the environment relative to the proposed action, the overall result on a long-term basis will be positive for the growth and productivity of NAFB, as well as for the maintenance of national security for the United States. These facilities will allow for a more efficient and productive operation for training and testing aircraft for the U.S. military.

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## **7.0 LIST OF PREPARERS**

Jim Campe, NEPA Environmental Manager, 99 CES/CEVN

Lynn M. Kitchen, Ph.D., Senior Environmental Scientist, FPM Group, Ltd.

Mark Porterfield, P.E. Project Manager, FPM Group, Ltd.

Bill Sandeen, 99 CES/CEVN



# **Appendix A**

## REQUEST FOR ENVIRONMENTAL IMPACT ANALYSIS

Report Control Symbol

RCS 03-37

INSTRUCTIONS: Sections I to be completed by Proponent. Sections II and III to be completed by Environmental Planning Function. Continue on separate sheets as necessary. Reference appropriate item numbers.

## SECTION I PROONENT INFORMATION

1. TO (Environmental Planning Function)

2. FROM (Proponent organization and functional address symbol)

3. TELEPHONE NO.

49 CES/CEVN

49 CES/CECP

(702) 652-8451

3. TITLE OF PROPOSED ACTION

## CONSOLIDATED COMMUNICATIONS FACILITY

4. PURPOSE AND NEED FOR ACTION (Identify decision to be made and need for it)

Adequately sized and properly configured consolidated base communications facilities are required to support the various communications and data processing requirements of the flying mission at Nellis AFB.

5. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES (DOPAs) (Provide sufficient details for evaluation of the total action.)

Construct 81,790 SF facility with reinforced concrete slab, structural steel frames, split-face masonry unit walls and sanding seam metal roof, fire protection system, HVAC, and electrical/comm systems. (See attached site map and DD Forms 1391/1391e)

6. PROONENT APPROVAL (Name and Grade)

6a. SIGNATURE

6b. DATE

STANLEY L. FUELLER, GS-12

20030803

## SECTION II - PRELIMINARY ENVIRONMENTAL SURVEY. (Check appropriate box and describe potential environmental effects including cumulative effects: 1 = positive effect, 2 = no effect, 3 = adverse effect, 4 = unknown effect)

7. AIR INSTALLATION COMPATIBLE USE ZONE AND USE (Noise, accident potential, air treatment, etc.)

8. AIR QUALITY (Emissions, attainment status, state implementation plan, etc.)

9. WATER RESOURCES (Quality, quantity, source, etc.)

10. SAFETY AND OCCUPATIONAL HEALTH (Hazardous materials, explosives, safety hazards, distance, bird/wildlife, aircraft hazard, etc.)

11. HAZARDOUS MATERIALS WASTE (Use, storage, generation, solid waste, etc.)

12. BIOLOGICAL RESOURCES (Wetlands, floodplains, threatened or endangered species, etc.)

13. CULTURAL RESOURCES (Native American burial sites, archaeological, historical, etc.)

14. GEOLOGY AND SOILS (Topography, minerals, geothermal, Installation Restoration Program, seismicity, etc.)

15. SOCIOECONOMIC (Employment, population projections, school and local fiscal impacts, etc.)

16. OTHER (Potential impacts not addressed above.)

## SECTION III ENVIRONMENTAL ANALYSIS DETERMINATION

17. PROPOSED ACTION QUALIFIES FOR CATEGORICAL EXCLUSION (CATEX) OR  
PROPOSED ACTION DOES NOT QUALIFY FOR A CATEX; FURTHER ENVIRONMENTAL ANALYSIS IS REQUIRED.

18. REMARKS

19. ENVIRONMENTAL PLANNING FUNCTION CERTIFICATION  
(Name and Grade)

19a. SIGNATURE

19b. DATE

1. COMPONENT AIR FORCE		FY 2006 MILITARY CONSTRUCTION PROJECT DATA (computer generated)		2. DATE	
3. INSTALLATION AND LOCATION NELLIS AIR FORCE BASE, NEVADA			4. PROJECT TITLE CONSOLIDATED COMMUNICATIONS FACILITY		
5. PROGRAM ELEMENT 27596	6. CATEGORY CODE 131-111	7. PROJECT NUMBER R00F061005	8. PROJECT COST (\$000) 18,000		
9. COST ESTIMATES					
ITEM	D/M	QUANTITY	UNIT	COST	
CONSOLIDATED COMMUNICATIONS FACILITY	LS			18,182	
CONSOLIDATED COMMUNICATIONS FAC	SM	7,598	2,369	( 18,002 )	
ANTITERRORISM/FORCE PROTECTION	LS			( 180 )	
SUPPORTING FACILITIES				6,849	
UTILITIES	LS			( 369 )	
PAVEMENTS	LS			( 258 )	
SITE IMPROVEMENTS	LS			( 400 )	
COMMUNICATIONS SUPPORT	LS			( 4,181 )	
DEMOLITION	LS			( 1,641 )	
SUBTOTAL				25,031	
CONTINGENCY ( 5.0 %)				1,252	
TOTAL CONTRACT COST				26,283	
SUPERVISION, INSPECTION AND OVERHEAD ( 5.7 %)				1,498	
TOTAL REQUEST				27,781	
TOTAL REQUEST (ROUNDED)				28,000	
EQUIPMENT FROM OTHER APPROPRIATIONS (NON-ADD)				( 8,465.0 )	
10. Description of Proposed Construction: Reinforced concrete foundation and floor slab, structural steel frames, split-face masonry unit walls, structural sloping metal seam roof, fire detection and protection system, all utilities, pavements, landscaping and necessary support. Includes the following DoD force protection standards: reinforced walls and laminated windows. Air Conditioning: 950 KW.					
11. REQUIREMENT: 7,598 SM      ADEQUATE: 0 SM      SUBSTANDARD: 8,049 SM PROJECT: Construct Consolidated Communications Facility (Current Mission)					
<p><u>REQUIREMENT:</u> Adequately sized and properly configured base communications facilities are required to support the various communications and data processing requirements of the flying mission at Nellis AFB. Critical functions include: command section, all network control center (NCC) services, communications maintenance work centers, television production, photographic elements, and all other admin support areas. A consolidated communications facility is required to maintain an effective communications weapons system and reduce duplication of effort. This facility will provide a one-stop shop for customer communication requirements. Force protection measures will comply with DoD standards.</p> <p><u>CURRENT SITUATION:</u> Current operational readiness is degraded due to the risk of failure of the base network control center facility, which currently provides service to over 8,000 users across 3 wings and the Air Warfare Center. A consolidated facility is desperately needed to relocate from aged and unsafe buildings, centrally locate communication customer service areas, and allow for necessary NCC expansion. Currently,</p>					

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3. INSTALLATION AND LOCATION NELLIS AIR FORCE BASE, NEVADA			4. PROJECT TITLE CONSOLIDATED COMMUNICATIONS FACILITY	
5. PROGRAM ELEMENT 27596	6. CATEGORY CODE 131-111	7. PROJECT NUMBER RKM7C63005	8. PROJECT COST (\$000) 28,000	

99 CS occupies 3 buildings that are geographically separated, over 35 years old, and laden with asbestos which hampers facility upgrades/expansion. Building 889, constructed in 1955, has already been assigned a facility Condition Code 3 (Forced Use) designation and is currently on the Base Facility Demolition list. Building 869, which houses critical NCC operations and support areas, has a large crack in the roof spanning 150 feet and is over 3 inches wide at some points. This crack allows water to leak onto internal ceiling tiles, collapsing them and exposing dangerous asbestos. Maximum damage (complete loss of network capabilities) to network equipment could severely impact the following communication services at Nellis: NIPNET, SIPNET, all messaging services, e-mail, Internet, Base Paging Network, and several other services which are critical to the flying mission. Buildings 889 and 895 have both suffered extensive damage to carpet and furniture due to water leaks; several offices have been closed temporarily due to damages. Support Flight operations, including television production, graphics, and photography customer service areas, are currently geographically separated in two different buildings. This separation is in violation of AFI 33-117, Paragraph 1.8, "Consolidating Visual Information Activities". Current buildings cannot efficiently support the current and growing communications mission.

IMPACT IF NOT PROVIDED: Without modernization of the communication facilities, continued forced operations in dispersed substandard facilities places base communications in a position detrimental to command and control and at risk of failure due to inadequate working environments. The current situation decreases operational readiness and the ability to effectively support the war fighting mission. The 99th Communications Squadron will continue to expend scarce resources operating in separated and inadequate buildings. The predicated rapid future growth of Nellis AFB will continue to place a huge operating burden on existing substandard communications facilities.

ADDITIONAL: This project meets the criteria/scope specified in Air Force Handbook 33-1084, "Facility requirements". A preliminary analysis of reasonable options for accomplishing this project (status quo, renovation, upgrade/removal, new construction) was done. It indicates there is only one option that will meet operational requirements. A certificate of exception has been prepared. Base Civil Engineer: Colonel Keith E. Smith, (702) 652-4833. (Consolidated Communications Facility: 7598 SM = 81,790 SF.)

JOINT USE CERTIFICATION: Mission requirements, operational considerations, and location are incompatible with use by other components.



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3. INSTALLATION AND LOCATION NELLIS AIR FORCE BASE, NEVADA		4. PROJECT TITLE CONSOLIDATED COMMUNICATIONS FACILITY	
5. PROGRAM ELEMENT 27596	6. CATEGORY CODE 131-111	7. PROJECT NUMBER REMF063005	8. PROJECT COST (\$000) 28,000
12. SUPPLEMENTAL DATA.			
a. Estimated Design Data:			
(1) Status:			
(a) Date Design Started			
(b) Parametric Cost Estimates used to develop costs YES			
* (c) Percent Complete as of 01 JAN 2005			
* (d) Date 35% Designed			
(e) Date Design Complete			
(f) Energy Study/Life-Cycle analysis was/will be performed NO			
(2) Basis:			
(a) Standard or Definitive Design - NO			
(b) Where Design Was Most Recently Used -			
(3) Total Cost (c) = (a) + (b) or (d) + (e) (\$000)			
(a) Production of Plans and Specifications 3			
(b) All Other Design Costs 0			
(c) Total 3			
(d) Contract 3			
(e) In-house 0			
(4) Construction Contract Award			
(5) Construction Start			
(6) Construction Completion			
* Indicates completion of Project Definition with Parametric Cost Estimate which is comparable to traditional 35% design to ensure valid scope, cost and executability.			
b. Equipment associated with this project provided from other appropriations:			
EQUIPMENT NOMENCLATURE	PROCURING APPROPRIATION	FISCAL YEAR APPROPRIATED OR REQUESTED	COST (\$000)
FURNISHINGS	3400	2006	1,405
COMMUNICATIONS-ELECT EQUIPMENT	3400	2006	7,080

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<b>Primary Facility Costs: Consolidated Com Fac</b> Reference Size (SM) & Price (AF Cost Handbook): 1950 \$2,012 * No OSD Pricing Guide Line Item Facility Size: 7598 Facility Size/OSD Ref Size (Calculated): 3.8964 SAF (OSD Guide, Table C): 0.92 ACF (OSD Guide, Table B): 1.29 Escalation: 1 Calculated Primary Facility Cost/SM: \$2,369.33 ACF (OSD Guide, Table B): Primary Facility Costs (\$000): 18,002																																																																																																																																																							
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3. INSTALLATION AND LOCATION NELLIS AIR FORCE BASE, NEVADA (ACC)		
4. PROJECT TITLE CONSOLIDATED COMMUNICATIONS FACILITY		7. PROJECT NUMBER RKMF 06-3005
<p align="center"><u>EQUIPMENT FROM OTHER APPROPRIATIONS (NON-ADD)</u></p> <p><u>APPROPRIATION 3400</u></p> <p>FURNISHINGS: \$1,405,000 (FY06) SOURCE: 99 CS/SCX</p> <p>COMMUNICATIONS-ELECTRONIC EQUIPMENT: \$7,060,000 (FY06) SOURCE: 99 CS/SCX</p>		

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**EXISTING FACILITIES/DEFICIENCY DETAIL DATA SHEET**

CATEGORY CODE: 131-111 COMM FCLTY

SCOPE OF THIS REQUEST: 7,598 SM

<u>REQUIREMENTS COMPUTATIONS</u>	<u>REQUIREMENTS/ASSETS</u>	<u>SCOPE (SM)</u>	<u>NO. OF BLDGS</u>
MISSION: Air Warfare Center, 57 <sup>th</sup> Wing, 98 Range Wing, and 99 <sup>th</sup> Air Base Wing	a. Total Requirement	7,598	1
	b. Existing Substandard	5,049	3
	c. Existing Adequate	0	0
	d. Funded, Not in Inventory	0	0
REQUIREMENT: AFH 32-1084 and 99 <sup>th</sup> Communications Squadron Space Survey See Requirements Determination Sheet	e. Adequate Assets (c&d)	0	0
	f. Included in FYxx Prog	0	0
	g. Deficiency (a-e-f)	7,598	1

<u>CAT CODE</u>	<u>NOMENCLATURE BLDG NO</u>	<u>SCOPE USED (SM)</u>	<u>SCOPE TOTAL BLDG (SM)</u>	<u>COND TYPE YR/CD/CONST</u>	<u>REMARKS</u>
b. Existing Substandard - 5,049 SM					
131-111	COMM FCLTY/589	1924	1924	1956/3/Masonry	Demo this request
131-111	COMM FCLTY/595	2140	2140	1968/3/Masonry	Demo this request
131-111	COMM FCLTY/839	985	985	1956/3/ Wood	Demo this request

Total Substandard = 5,049 SM

g. Deficiency - 7,598 SM

131-111	COMM CLTY-NEW	7,598			This FY 2006 MILCON request
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Total Deficiency = 7,598 SM



1. COMPONENT	FY 2006 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
AIR FORCE		
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CONSOLIDATED COMMUNICATIONS FACILITY	RKMF 06-3005	

### REQUIREMENTS DETERMINATION SHEET 1

IAW AFH 32-1084:

Traditional Office (private): 162 sf

Prewired workstations (office areas): 135 sf

<u>FUNCTION</u>	<u>Persons</u>	<u>Required Space (gross sf)</u>
<b>Command Section</b>		
CS Commander	1	200
Deputy Commander	1	162
CS Secretary	1	162
First Sergeant	1	162
Security Manager	1	135
Orderly Room	4	567
Orderly Room Customer service area	0	108
CC Conference Room	0	844
Lounge/break room/kitchen	0	500
Command Section Subtotal	9	2840

#### SCB Office Areas

SCB Flight Commander	1	162
SCB Deputy Flight CC	1	162
SCB Flight Superintendent	1	162
NCC Chief	1	162
Flight Admin	1	162
Records Management	3	405
Records Management shredder room and staging area	0	3100
Information Assurance	4	540
Information Assurance (IAAP training station)	0	90
COMSEC Vault	4	540
3C Functional	1	162
Workgroup Management	2	270

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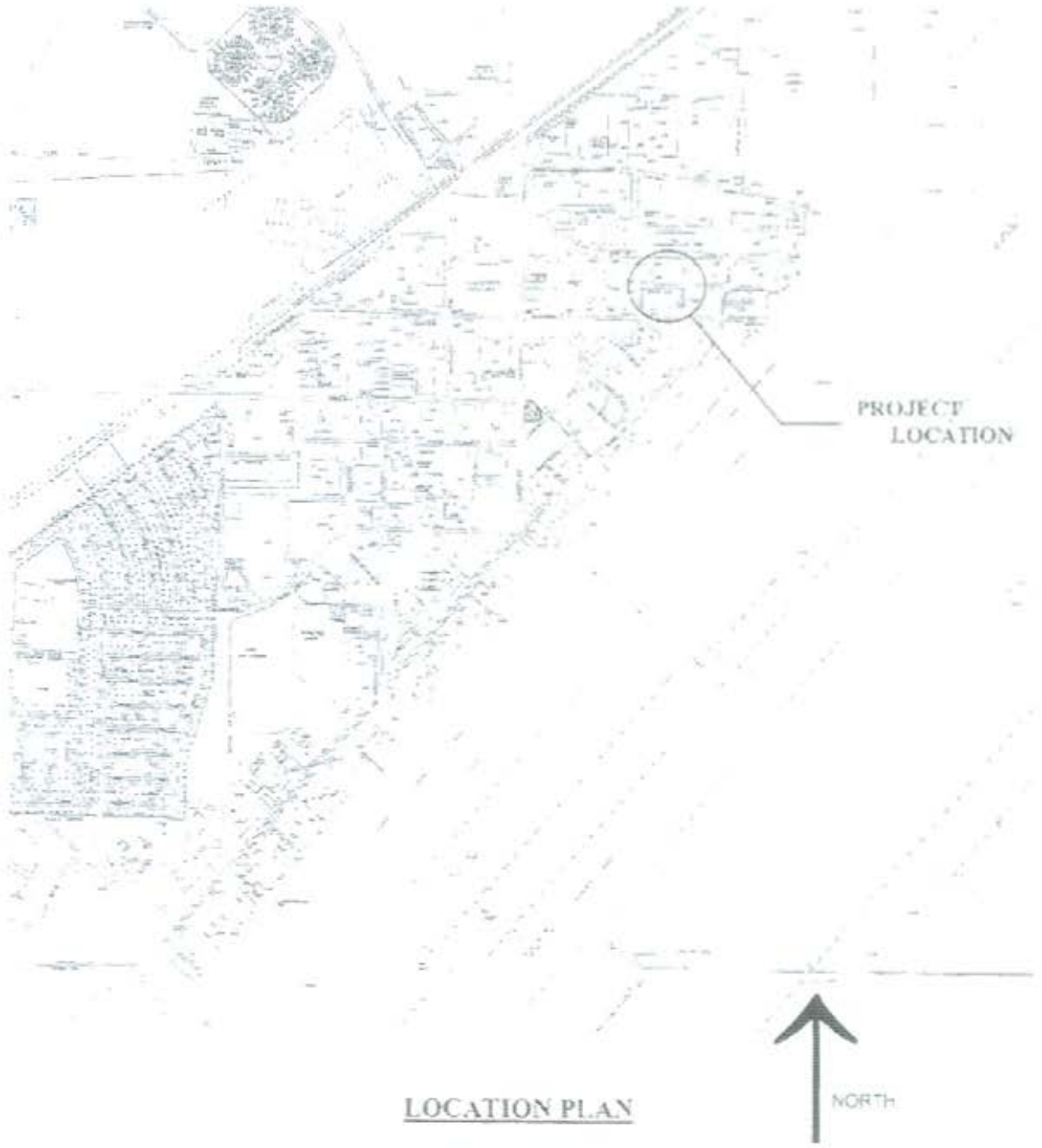
  

REQUIREMENTS DETERMINATION SHEET 4

FUNCTION	Persons	Required Space (gross sq)
Flight Admin	1	162
SCS Flight Conference Room	0	275
VI Support	3	405
Base Visual Info Manager	1	162
Publishing Chief	1	135
Base Vis Info Support/ Video MX Support	17	2296
Customer Service Area (Photo)	0	120
Customer Service Area (Graphics)	0	120
Customer Service Area (AV library)	0	120
Customer Service Area (TV)	0	120
Audiovisual Library (Class C)	0	670
Graphic Arts (Class D)	13	2000
Photo Laboratory (Type A w/ARD and NAF)	13	5500
Television Production Facility (Type B)	22	8000
Production Maintenance	0	1000
SCS Office/Service Areas Subtotal	74	21570
<b>SCM Office Areas</b>		
SCM Flight Commander	1	162
SCM Deputy Flight Commander	1	162
SCM Flight Superintendent	1	162
Flight Admin Area	1	162
SCM Flight Conference Room	0	275
Job/Maintenance Control	7	945
Frequency Management	7	945
Land Mobile Radio	5	675
LMR (receiving room for incoming equipment)	0	360
LMR (trunking and programming console area)	0	240
Secure Comm MX	3	405
Ground Radio MX	29	3915
System Support (SCMY)	8	1080
Telephone Systems (SCMPC and SCMPK)	14	1890
SCM Office Area Subtotal	77	11378



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**SITE PLAN**

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**CERTIFICATE OF COMPLIANCE**

**INSTRUCTIONS:**  
Place one X in the most appropriate response for each topic area to show current status of compliance. When responding to a statement requiring additional data, fill in the blank with appropriate information. If none of the printed statements is appropriate, add or attach an appropriate comment. For MILCON projects, the Civil Engineer Squadron Commander and installation commander must sign the certificate and submit it to the MAJCOM staff where it will be updated, retained, and be readily available if required by HQ USAF.

**1. Environmental Impact Analysis Process (AFI 32-7061)**

☐ Categorical exclusion letter \_\_\_\_\_ applies.  
☒ Environmental Assessment required/under preparation. Expected completion date is 1 Jul 04.  
☐ Finding of No Significant Environmental Impact signed on \_\_\_\_\_.  
☐ Draft Environmental Impact Statement (EIS) under preparation. Expected completion date is \_\_\_\_\_.  
☐ Draft EIS filed on \_\_\_\_\_.  
☐ Final EIS filed on \_\_\_\_\_.  
☐ Record of Decision signed on \_\_\_\_\_.  
☐ Foreign nation or protected global resource exemption number \_\_\_\_\_ applies.  
☐ Environmental study (or review underway) under preparation. Expected completion date is \_\_\_\_\_.  
☐ Environmental study (or review) completed on \_\_\_\_\_.

**2. Wetlands (AFI 32-7064)**

☒ Project is not sited in a wetland.  
☐ Project is sited in a wetland. Requirements of EO 11990 in progress. Estimated completion date is \_\_\_\_\_.  
☐ Project is sited in a wetland. Requirements of EO 11990 completed on \_\_\_\_\_. Finding of "No Practicable Alternative" signed on \_\_\_\_\_.

**3. Flood Plains (AFI 32-7064)**

☒ Project is not sited in a 100-year floodplain.  
☐ Project is sited in a 100-year floodplain. Requirements of EO 11988 in progress. Estimated completion date is \_\_\_\_\_.  
☐ Project is sited in a 100-year floodplain. Requirements of EO 11988 completed on \_\_\_\_\_. Finding of "No Practicable Alternative" signed on \_\_\_\_\_.

**4. Coastal Zone Management (AFI 32-7064)**

☒ Project does not directly affect a state coastal zone.  
☐ Consistency determination being developed. Estimated completion date is \_\_\_\_\_.  
☐ Consistency determination completed on \_\_\_\_\_.



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<p>5. <u>Coastal Barrier Resources (AFI 32-7064)</u></p> <p><input checked="" type="checkbox"/> Project is not sited within the Coastal Barrier Resources System</p> <p><input type="checkbox"/> Project excepted from the Coastal Barrier Resources Act (CBRA).</p> <p><input type="checkbox"/> Consultation with the Regional Director, United States Fish and Wildlife Service (USFWS), in progress. Estimated completion date is _____</p> <p><input type="checkbox"/> Consultation with the Regional Director, USFWS, concluded on _____</p> <p>6. <u>Threatened and Endangered Species (AFI 32-7064)</u></p> <p><input checked="" type="checkbox"/> Project has no potential for affecting threatened or endangered species or critical habitats</p> <p><input type="checkbox"/> Based upon advice from USFWS or host nation liaison on _____, threatened or endangered species in the vicinity of the project will not be affected.</p> <p><input type="checkbox"/> Consultation with USFWS is underway in accordance with the Endangered Species Act.</p> <p><input type="checkbox"/> Formal consultation with the Regional Director, USFWS, completed on _____</p> <p><input type="checkbox"/> Biological Assessment is required. Estimated completion date is _____</p> <p><input type="checkbox"/> Biological opinion issued by USFWS on _____</p> <p>7. <u>Cultural Resource Management (AFI 32-7065)</u></p> <p><input type="checkbox"/> Properties affected by the project are addressed in a Programmatic Agreement that was fully executed with the State Historic Preservation Officer and the ACHIP on _____</p> <p><input type="checkbox"/> Project area has not been surveyed for historic properties. Survey requirements are identified in the A-106 system and the estimated completion date is _____</p> <p><input checked="" type="checkbox"/> Project area has been surveyed and no historic properties were identified, the State Historic Preservation Officer (SHPO) was notified by letter dated <u>9 Feb 93</u></p> <p><input type="checkbox"/> Survey identified historical properties but the project will have no adverse effect on them; SHPO notified by letter dated _____</p> <p><input type="checkbox"/> After consultation, SHPO concurred by letter dated _____ that the project will have no adverse effect on the historic properties. The Advisory Council on Historic Preservation was notified by letter dated _____ and concurred in writing by letter dated _____</p> <p><input type="checkbox"/> Project will have an adverse effect on historic properties</p> <p><input type="checkbox"/> A memorandum of agreement (MOA) mitigating the adverse effect was executed on _____</p> <p><input type="checkbox"/> Estimated date to execute the MOA is _____</p> <p><input type="checkbox"/> No MOA was developed and the formal comments of the Council are being sought.</p> <p><input type="checkbox"/> Project will affect a site or property of interest to Native Americans. Appropriate Native American Tribe or Group contacted on _____</p>			



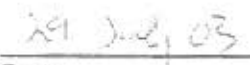

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<p>8. <u>Intergovernmental Coordination for Environmental Planning (AFI 32-7060)</u></p> <p><input checked="" type="checkbox"/> Coordination of proposed project with the state Single Point of Contact or other agencies is not required.</p> <p><input type="checkbox"/> Coordination with the state Single Point of Contact is in progress. Expected date of completion is _____</p> <p><input type="checkbox"/> Proposed project has been coordinated with the state Single Point of Contact or other agencies on _____. (Specify any other agencies.)</p> <p>9. <u>Environmental Permits (AFIs 32-7040, 32-7041, 32-7042, 32-7044)</u></p> <p><input type="checkbox"/> No permits are required.</p> <p><input type="checkbox"/> No permits are required, but regulatory agency notification is required prior to construction (e.g., underground storage tank removal.)</p> <p><input checked="" type="checkbox"/> The following permit is required prior to construction: Clark County Dust Permit</p> <p>10. <u>Potentially Regulated Substances (AFIs 32-1052, 32-7042)</u></p> <p>a. Asbestos</p> <p><input type="checkbox"/> Not present    <input type="checkbox"/> Survey underway (during design)</p> <p><input checked="" type="checkbox"/> Present: scheduled for removal as required by applicable state regulations.</p> <p>b. Lead-Based Paint:</p> <p><input type="checkbox"/> Not present    <input type="checkbox"/> Survey underway (during design)</p> <p><input type="checkbox"/> Present: Mitigation is not necessary, as insufficient quantities exist to require mitigation.</p> <p><input checked="" type="checkbox"/> Present (Describe mitigation, or state why mitigation is not necessary.) LBP will be mitigated during construction in accordance with the contract specifications.</p> <p>c. Ozone Depleting Substance:</p> <p><input checked="" type="checkbox"/> Not present    <input type="checkbox"/> Survey underway (during design)</p> <p><input type="checkbox"/> Present (Describe mitigation, or state why mitigation is not necessary.)</p> <p>d. Polychlorinated Biphenyls (PCBs):</p> <p><input checked="" type="checkbox"/> Not present    <input type="checkbox"/> Survey underway (during design)</p> <p><input type="checkbox"/> Present (Describe mitigation, or state why mitigation is not necessary.)</p> <p>e. Radon:</p> <p><input type="checkbox"/> Not present    <input checked="" type="checkbox"/> Survey underway (during design)</p> <p><input type="checkbox"/> Present (Describe mitigation, or state why mitigation is not necessary.)</p> <p>f. Other known hazardous or toxic substances and pollutants:</p> <p><input checked="" type="checkbox"/> Not present    <input type="checkbox"/> Survey underway (during design)</p> <p><input type="checkbox"/> Present (Describe mitigation, or state why mitigation is not necessary.)</p>		

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<p><b>11. <u>Radon at New Construction Sites</u></b></p> <p> <input type="checkbox"/> Not present     <input checked="" type="checkbox"/> Survey underway (during design)  <input type="checkbox"/> Present (Describe mitigation, or state why mitigation is not necessary.)         </p> <p><b>12. <u>Installation Restoration Program (IRP)</u></b></p> <p> <input checked="" type="checkbox"/> Facility is not sited on or near an IRP site  <input type="checkbox"/> Facility is near an IRP site approximately _____ feet away  <input type="checkbox"/> Facility is on an IRP site.              <input type="checkbox"/> A request for waiver was submitted to MAJCOM on: _____              <input type="checkbox"/> The site is projected to be remediated and/or closed out on _____, prior to commencement of construction activities              <input type="checkbox"/> The nature of the site contamination does not preclude the type of construction activity proposed.              <input type="checkbox"/> A Remedial Investigation Feasibility Study was completed on _____ to accurately delineate the aerial extent of the contamination.         </p> <p><b>13. <u>Air Pollutants (AFI 32-7040)</u></b></p> <p> <input type="checkbox"/> Will not be generated by the operation or construction of this facility.  <input checked="" type="checkbox"/> Will be generated by the operation or construction of this facility. Describe the type and amount of substance expected to be generated, existing control systems, and the need for additional controls. Dust  <input checked="" type="checkbox"/> Conformity determination is not required.  <input type="checkbox"/> Conformity determination is required.         </p> <p><b>14. <u>Solid and Hazardous Wastes (AFIs 32-7042/7080)</u></b></p> <p> <input checked="" type="checkbox"/> Facility will not be used for managing solid or hazardous wastes.  <input type="checkbox"/> Facility will be used for managing solid or hazardous wastes.         </p> <p><b>15. <u>Underground Storage Tanks (AFI 32-7044) (Check all that apply.)</u></b></p> <p> <input checked="" type="checkbox"/> No underground tanks are involved.  <input type="checkbox"/> New underground tanks will be installed.  <input type="checkbox"/> Existing tanks on project site will be removed. Ensure regulatory agency has been notified.              <input type="checkbox"/> Contamination exists.              <input type="checkbox"/> Contamination does not exist.              <input type="checkbox"/> Contamination UNKNOWN.         </p>		

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<p>16. <u>Air Installation Compatible Use Zone (AFI 32-7063)</u></p> <p><input type="checkbox"/> Facility is sited in compliance with the Air Installation Compatible Use Zone (AICUZ) Study. No noise level reduction is required.</p> <p><input checked="" type="checkbox"/> Facility is sited in compliance with the Air Installation Compatible Use Zone (AICUZ) Study. Noise level reduction of 35 db will be provided in design and construction.</p> <p><input type="checkbox"/> Noise waiver request is being processed.</p> <p><input type="checkbox"/> Noise waiver has been granted.</p> <p>17. <u>Base Comprehensive Plan (AFI 32-7062)</u></p> <p><input checked="" type="checkbox"/> Facility is sited in compatible land use category.</p> <p><input type="checkbox"/> Facility is not sited in compatible land use category for the following reason _____</p> <p>18. <u>Airfield Clearance Criteria (AFI 32-1026)</u></p> <p><input checked="" type="checkbox"/> Facility is in compliance with airfield clearance criteria, including clear zones, accident potential zones, and airfield airspace (height obstruction) criteria.</p> <p><input type="checkbox"/> A request for waiver to airfield/airspace clearance criteria is being prepared. Expected completion date is _____.</p> <p><input type="checkbox"/> A temporary waiver for construction activity in the airfield vicinity was approved on _____.</p> <p><input type="checkbox"/> A permanent waiver of airfield/airspace clearance was obtained on _____.</p> <p>19. <u>Air Space Use</u></p> <p><input checked="" type="checkbox"/> Project does not affect air space use and does not require submittal to Regional Administrator, FAA.</p> <p><input type="checkbox"/> Project sent to Regional FAA on _____.</p> <p>20. <u>Explosives Quantity/Distance Siting and Safety Clearance Criteria</u></p> <p>a. Projects involving munitions storage and explosives related facilities.</p> <p><input type="checkbox"/> Project is not affected by Q/D criteria</p> <p><input type="checkbox"/> A request for waiver is under preparation. Expected completion date is _____.</p> <p><input type="checkbox"/> Request to waiver safety criteria sent to MAJCOM on _____.</p> <p><input type="checkbox"/> Explosive siting and safety approval obtained on _____.</p> <p>b. Projects not involving explosives.</p> <p><input checked="" type="checkbox"/> Project is not within the Q/D Clear Zone from any existing or proposed explosive-related facility.</p> <p><input type="checkbox"/> A request for waiver is under preparation. Expected completion date is _____.</p> <p><input type="checkbox"/> Exemption required and granted on _____.</p> <p><input type="checkbox"/> A request for site plan review by _____ is required. Expected date is _____.</p>		



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<p>21. <u>Air Base Survivability, Conventional Hardening, Chemical Protection Levels and Priorities, Camouflage, Concealment and Deception</u></p> <p><input checked="" type="checkbox"/> Project does not affect airbase operability.</p> <p><input type="checkbox"/> Facility is sited or constructed in compliance with criteria contained in WMP-1.</p> <p><input type="checkbox"/> Waiver or exemption required, request submitted to MAJCOM Civil Engineering Readiness Office, in accordance with WMP-1</p> <p>22. <u>Allowance for Physically Handicapped</u></p> <p><input checked="" type="checkbox"/> Project provides all design features for the handicapped</p> <p><input type="checkbox"/> Project provides access and limited features.</p> <p><input type="checkbox"/> Project provides access but no other features.</p> <p><input type="checkbox"/> Design features for handicapped are not required.</p> <p><input type="checkbox"/> Design features will not be provided for the following reason</p> <p>23. <u>Real Estate Requirement (AFI 32-9001)</u></p> <p><input checked="" type="checkbox"/> Project does not require acquisition of real estate interest.</p> <p><input type="checkbox"/> Project requires the acquisition of a real estate interest over \$200 000.</p> <p><input type="checkbox"/> Land interest is to be acquired through minor land authority.</p> <p><input type="checkbox"/> Other, (Explain)</p> <p>24. <u>Facility Security</u></p> <p><input type="checkbox"/> Threat assessment performed by OSI.</p> <p><input checked="" type="checkbox"/> Crime Prevention through Environmental Design methods to be incorporated into design, if warranted. (See local Security Forces.)</p> <p>25. <u>Excess Space</u></p> <p><input checked="" type="checkbox"/> Excess space is not available to satisfy this requirement.</p> <p>26. <u>Temporary Facilities</u></p> <p><input checked="" type="checkbox"/> Temporary facilities are not required for this project.</p> <p><input type="checkbox"/> Temporary facilities are required for this project and will be disposed of upon completion of the project.</p>		

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<p>27. <u>Command, Control, Communications, and Computer (C4) Systems Support</u></p> <p><input type="checkbox"/> The communication requirements have been reviewed and the base C4 systems blueprint has been appropriately updated.</p> <p>28. <u>Energy Conservation</u></p> <p><input checked="" type="checkbox"/> Project complies with the minimum energy conservation performance standards.</p> <p>29. <u>Seismic Considerations</u></p> <p><input checked="" type="checkbox"/> Seismic evaluations performed.</p> <p><input type="checkbox"/> Seismic deficiencies, identified by the seismic evaluation, mitigated</p> <p>STANLEY L. FUELLER, 99 CES/CECP, DSN 682-8451 Base Point of Contact/Office Symbol/Telephone Number</p> <p>I concur with the above statements.</p> <p> KIMBERLEE J. BENART, GS-13 Deputy Base Civil Engineer</p> <p> GERALD E. SAWYER Colonel, USAF Commander, 99th Air Base Wing</p> <p> Date</p> <p> Date</p>		

## **Appendix B**



**Photograph 4.** View of the project site from the south side towards the north side.



**Photograph 5.** View of the project site from the southwest corner towards the northeast corner.





**Photograph 6.** View of the project site from the northwest corner to the southeast corner. Note the Thunderbird hanger in the background.



**Photograph 7.** View of the project site from the east side towards the west.



**Photograph 8.** Picnic area located in the central portion of the project site.



**Photograph 9.** Groundwater treatment facility located east of the project site.



**Photograph 10.** Dormitory area located northwest of the project site.



**Photograph 11.** View of the project side looking east along Offut Avenue.





**Photograph 12.** Building 899 located east of the project site.