

# Hill Air Force Base, Utah

# Final

Environmental Assessment: Proposed Fire Crash Rescue Station, Hill Air Force Base, Utah

October 2, 2008

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#### FINDING OF NO SIGNIFICANT IMPACT

1. NAME OF ACTION: Construct a Fire Crash Rescue Station at Hill Air Force Base (AFB), Utah.

2. **DESCRIPTION OF THE PROPOSED ACTION:** Hill AFB proposes to accommodate current United States Air Force (USAF) missions by constructing a new fire crash

rescue station to support current and future workloads, while complying with the USAF Fire Station Design Guide, National Fire Protection Association (NFPA) standards, and Public Entity Risk Institute guidance.

The proposed fire crash rescue station and associated parking lot would be located to the north of the existing fire crash rescue station (Building 9), comprising between three and four acres. Existing Building 11, approximately 75 percent of Building 9, and a storage shed (Building 16) would be demolished and converted to parking (to replace most of the parking displaced by the new fire crash rescue station - a net loss of 90 parking spaces would occur).

**3. SELECTION CRITERIA:** The following criteria were used to assemble alternatives. The facility that provides fire crash rescue capability on Hill AFB described in this document should:

- comply with the USAF Fire Station Design Guide and NFPA standards;
- comply with the Public Entity Risk Institute's guidance document, *Creating* and Evaluating Standards of Response Coverage (SORC) for Fire Departments;
- have sufficient space to accommodate all fire department needs, including the latest generation of larger fire fighting vehicles;
- be located near existing water, sewer, and storm drains; and
- be protective of facilities, human health, and the environment.

#### 4. ALTERNATIVES CONSIDERED OTHER THAN THE PROPOSED ACTION:

Under the no action alternative, the fire crash rescue station would not be constructed, and compliant facilities would not be provided. Existing deficiencies would continue to exist related to indoor storage of all vehicles and equipment, evacuating vehicle exhaust fumes, isolation requirements for removing blood borne pathogens from personal protective equipment (PPE), size of living quarters, electrical systems, plumbing systems, heating systems, and response capabilities.

Renovating the existing structure was considered and eliminated by the Hill AFB civil engineering office. The existing fire crash rescue station, constructed in 1941, has outlived its useful life for its originally-intended purpose (although approximately 25 percent of it can still be used for offices and classrooms).

Other locations were considered, but eliminated due to spatial conflicts and poor vehicular access.

#### 5. SUMMARY OF ANTICIPATED ENVIRONMENTAL EFFECTS:

Issue     Alternative A       No Action       Air Quality       No effects       Solid and Hazardous Waste		Alternative B         Proposed Action         Construction equipment would create temporary emissions. Fugitive dust emissions would be mitigated.         Air emissions from the emergency generator would be less than 0.1 tons per year (for criteria pollutants, and for hazardous air pollutants).         If contaminated soils are identified, they would be properly handled during the construction process. Solid and liquid wastes containing regulated substances would all be properly contained, stored, transported, disposed, re-used, and/or recycled.         Office activities would generate uncontaminated trash. Domestic sewage (including water from rinsing equipment and reusable PPE) would flow to a sewage treatment plant operated by NDSD.					
					Biological Resources	No effects	No vegetation is present. To discourage bird activity, overhangs, covered ledges, and holes in structures would all be avoided during the design and construction process.
					Water Quality	No effects	During construction and operations, water quality would be protected by implementing stormwater management practices.

FINDING OF NO SIGNIFICANT IMPACT: Based on the above considerations, a 6. Finding of No Significant Impact (FONSI) is appropriate for this assessment.

Date: 20.109

Approved by:

HARRY BRIESMASTER III, Colonel, USAF Commander, 75th Civil Engineer Group

# Final

# Environmental Assessment (EA): Proposed Fire Crash Rescue Station, Hill Air Force Base, Utah

Contract FA 8222-05-D-0001, Delivery Order #0012

Department of the Air Force Air Force Materiel Command Hill Air Force Base, Utah 84056

October 2, 2008

Prepared in accordance with the Department of the Air Force Environmental Impact Analysis Process (EIAP) 32 CFR Part 989, Effective July 6, 1999, which implements the National Environmental Policy Act (NEPA), the President's Council on Environmental Quality (CEQ) regulations.

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#### EXECUTIVE SUMMARY

#### **Purpose and Need**

The purpose of the proposed action is to accommodate current United States Air Force (USAF) missions by constructing a new fire crash rescue station containing offices, living quarters, training facilities, work areas, a food preparation area, vehicle and equipment storage rooms, and an emergency communications center. Existing Building 11, approximately 75 percent of Building 9, and a storage shed (Building 16) would be demolished and converted to parking.

The proposed action is needed to accommodate current and future workloads, while complying with the USAF Fire Station Design Guide, National Fire Protection Association (NFPA) standards, and Public Entity Risk Institute guidance.

#### Scope of Review

During a scoping meeting and subsequent interactions, the following environmental issues were addressed:

- air quality;
- solid and hazardous wastes (including liquid waste streams);
- biological resources;
- geology and surface soils;
- water quality;
- cultural resources;
- occupational safety and health;
- air installation compatible use zone (AICUZ); and
- socioeconomic resources.

As explained in the body of this document, the issues that were identified for detailed consideration are: air quality, solid and hazardous wastes (including liquid waste streams), biological resources, and water quality.

#### **Selection Criteria**

The facility that provides fire crash rescue capability on Hill AFB described in this document should:

- comply with the USAF Fire Station Design Guide and NFPA standards;
- comply with the Public Entity Risk Institute's guidance document, Creating and Evaluating Standards of Response Coverage (SORC) for Fire Departments;
- have sufficient space to accommodate all fire department needs, including the latest generation of larger fire fighting vehicles;
- be located near existing water, sewer, and storm drains; and
- be protective of facilities, human health, and the environment.

#### Alternatives Considered in Detail

<u>Alternative A (No Action Alternative)</u> - The no action alternative would continue the current methods and levels of operation. The fire crash rescue station would not be constructed, and compliant facilities would not be provided. Existing deficiencies would continue to exist related to indoor storage of all vehicles and equipment, evacuating vehicle exhaust fumes, isolation requirements for removing blood borne pathogens from personal protective equipment (PPE), size of living quarters, electrical systems, plumbing systems, heating systems, and response capabilities.

<u>Alternative B (Proposed Action - Construct the Fire Crash Rescue Station</u> - The proposed fire crash rescue station and associated parking lot would be located to the north of the existing fire crash rescue station (Building 9), comprising between three and four acres. Existing Building 11, approximately 75 percent of Building 9, and a storage shed (Building 16) would be demolished and converted to parking (to replace most of the parking displaced by the new fire crash rescue station - a net loss of 90 parking spaces would occur). The components to be provided would include:

- offices, living quarters, and a food preparation area;
- training facilities;
- work areas, including a decontamination area;
- vehicle and equipment storage areas;
- an emergency communications center;
- an emergency generator; and
- parking spaces.

#### **Decisions That Must Be Made**

Hill AFB must decide which alternative to select:

- Do not construct a new fire crash rescue station (no action).
- Construct a new fire crash rescue station.

#### **Results of the Environmental Assessment**

Alternatives A and B were considered in detail. The results of the environmental assessment are summarized in the following table.

# Summary Comparison of Alternatives

Issue Alternative A No Action		Alternative B Proposed Action			
Air Quality	No effects	Construction equipment would create temporary emissions. Fugitive dust emissions would be mitigated. Air emissions from the emergency generator would be less than 0.1 tons per year (for criteria pollutants, and for hazardous air pollutants).			
Solid and No effects Hazardous Waste		If contaminated soils are identified, they would be properly handled during the construction process. Solid and liquid wastes containing regulated substances would all be properly contained, stored, transported, disposed, re-used, and/or recycled. Office activities would generate uncontaminated trash. Domestic sewage (including water from rinsing equipment and reusable PPE) would flow to a sewage treatment plant operated by NDSD.			
Biological Resources	No effects	No vegetation is present. To discourage bird activity, overhangs, covered ledges, and holes in structures would all be avoided during the design and construction process.			
Water Quality	No effects	During construction and operations, water quality would be protected by implementing stormwater management practices.			

# Identification of the Preferred Alternative

Hill AFB prefers Alternative B (the proposed action).

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AFB	Air Force Base
AFOSH	Air Force Occupational Safety and Health
AICUZ	Air Installation Compatible Use Zone
ALC	Air Logistics Center
APE	Area of Potential Effect
bgs	Below the Ground Surface
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CFR	Code of Federal Regulations
СО	Carbon Monoxide
CWA	Clean Water Act
DAQ	Division of Air Quality (Utah)
dBA	Decibel (A-weighted)
DRMO	Defense Reutilization and Marketing Office
EA	Environmental Assessment
EIAP	Environmental Impact Analysis Process
EIS	Environmental Impact Statement
EMS	Emergency Management System
EPA	Environmental Protection Agency (United States)
FONSI	Finding of No Significant Impact
HAP	Hazardous Air Pollutant
MILCON	Military Construction
MS4	Municipal Separate Storm Sewer Systems
NAAQS	National Ambient Air Quality Standards
NDSD	North Davis Sewer District
NEPA	National Environmental Policy Act
NFPA	National Fire Protection Association
NO <sub>x</sub>	Oxides of Nitrogen
NRHP	National Register of Historic Places
O <sub>3</sub>	Ozone
OSHA	Occupational Safety and Health Administration

# LIST OF ACRONYMS AND CHEMICAL TERMS

PCB	Polychlorinated Biphenyl			
PM-10	Particulates Smaller Than 10 Microns in Diameter			
PM-2.5	Particulates Smaller Than 2.5 Microns in Diameter			
PPE	Personal Protective Equipment			
ppm	Parts Per Million			
RCRA	Resource Conservation and Recovery Act			
ROD	Record of Decision			
SHPO	State Historic Preservation Office			
SIP	State Implementation Plan			
SO <sub>2</sub>	Sulfur Dioxide			
SOC	Species of Concern			
SORC	Standards of Response Coverage			
SO <sub>x</sub>	Oxides of Sulfur			
SWPPP	Stormwater Pollution Prevention Plan			
UAC	Utah Administrative Code			
UBC	Uniform Building Code			
UPDES	Utah Pollutant Discharge Elimination System			
USAF	United States Air Force			
USC	United States Code			
VOC	Volatile Organic Compound			
WFRC	Wasatch Front Regional Council			

#### **1** PURPOSE OF AND NEED FOR ACTION

#### 1.1 Introduction

Hill Air Force Base (AFB) is located approximately 25 miles north of downtown Salt Lake City and seven miles south of downtown Ogden, Utah (Figure 1). Hill AFB is surrounded by several communities: Roy and Riverdale to the north; South Weber to the northeast; Layton to the south; and Clearfield, Sunset, and Clinton to the west. The base lies primarily in northern Davis County with a small portion located in southern Weber County.

Hill AFB is an Air Logistics Center (ALC) that maintains aircraft, missiles, and munitions for the United States Air Force (USAF). In support of that mission, Hill AFB: provides worldwide engineering and logistics management for the F-16 Fighting Falcon and A-10 Thunderbolt; accomplishes depot repair, modification, and maintenance of the F-16, A-10 Thunderbolt, and C-130 Hercules aircraft; and overhauls and repairs landing gear, wheels and brakes for military aircraft, rocket motors, air munitions, guided bombs, photonics equipment, training devices, avionics, instruments, hydraulics, software, and other aerospace-related components.

The 775th Civil Engineer Squadron, Fire Protection Flight (775 CES/CEF) provides fire suppression, crash response, and rescue services on Hill AFB. The rescue services are also known as emergency medical services (EMS). One of three existing fire stations on Hill AFB is located in Building 9, to the west of the Hill AFB runway (Figure 1).

#### 1.2 Purpose of the Action

The purpose of the proposed action is to provide a new fire crash rescue station to the west of the Hill AFB runway containing offices, living quarters, training facilities, work areas, a food preparation area, vehicle and equipment storage rooms, and an emergency communications center. Existing Building 11, approximately 75 percent of Building 9, and a storage shed (Building 16) would be demolished and converted to parking (see Figure 1 for the approximate locations).

#### 1.3 Need for the Action

The proposed action is needed to accommodate current and future workloads, while complying with the USAF Fire Station Design Guide and National Fire Protection Association (NFPA) standards. The existing facility was constructed in 1941. In spite of several subsequent renovations, the structure does not meet numerous Air Force guidelines, including: indoor storage of all vehicles and equipment, evacuating vehicle exhaust fumes, isolation requirements for removing blood borne pathogens from personal protective equipment (PPE), size of living quarters, electrical systems, plumbing systems, and heating systems. Response capabilities are adversely affected by inadequate door size to accommodate modern fire fighting vehicles.

There is one other existing fire station on Hill AFB, located north of the west gate. An additional fire station is scheduled to be constructed on the east side of the Hill AFB runway. Neither of these other two, smaller, fire stations is intended to, capable of, or in a location appropriate for providing airfield fire crash rescue services.

1



Figure 1: Location of the Proposed Action on Hill AFB

#### 1.4 Alternative Selection Criteria

Due to the considerations presented in the preceding sections, the following selection criteria were established. The facility that provides fire crash rescue capability on Hill AFB described in this document should:

- comply with the USAF Fire Station Design Guide and NFPA standards;
- comply with the Public Entity Risk Institute's guidance document, Creating and Evaluating Standards of Response Coverage (SORC) for Fire Departments;
- have sufficient space to accommodate all fire department needs, including the latest generation of larger fire fighting vehicles;
- be located near existing water, sewer, and storm drains; and
- be protective of facilities, human health, and the environment.

### 1.5 Relevant Plans, EISs, EAs, Laws, Regulations, and Other Documents

During the scoping process, no relevant plans, environmental impact statements (EISs), or environmental assessments (EAs) were identified.

The following federal, state, and local laws, regulations, and permits would apply to the proposed action:

- The National Environmental Policy Act (NEPA), Title 42 of the United States Code (USC) Section 4321 *et seq*.
- Council on Environmental Quality regulations, Title 40 of the Code of Federal Regulations (CFR) Parts 1500-1508.
- USAF-specific requirements contained in 32 CFR Part 989, Environmental Impact Analysis Process (EIAP).
- Safety guidelines of the Occupational Safety and Health Administration (OSHA).
- Relevant Air Force Occupational Safety and Health (AFOSH) standards.
- Utah's fugitive emissions and fugitive dust rules (Utah Administrative Code [UAC] Section R307-309).
- Utah's State Implementation Plan (UAC Section R307-110), which complies with the General Conformity Rule of the Clean Air Act (CAA), Section 176 (c).
- Determining Conformity of Federal Actions to State or Federal Implementation Plans, 40 CFR Part 93.154.

- The Hill AFB Title V Operating Permit (Permit Number: 1100007001, and subsequent versions).
- Utah Asbestos Rules, UAC, Section R307-801.
- The Resource Conservation and Recovery Act (RCRA), 42 USC Chapter 82, and regulations promulgated thereunder, 40 CFR Part 260 *et seq*.
- Federal facility agreement dated April 10, 1991 under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), 42 USC Section 9601 *et seq.*
- Utah hazardous waste management regulations contained in UAC Section R315, and the Hill AFB *Hazardous Waste Management Plan* dated May, 2001, and subsequent versions.
- The Clean Water Act (CWA), 33 USC Section 1251 et seq.
- Industrial pretreatment permit number 110 issued by the North Davis Sewer District (NDSD), dated November 1, 2007, and subsequent versions.
- General Multi-Sector Permit for Storm Water Discharges Associated with Industrial Activity permit number UTR000444, which expired December 2007 (but will be valid until a new permit is issued, the application for which has been submitted), and subsequent versions.
- Utah Pollutant Discharge Elimination System (UPDES) General Permit for Discharges from Small Municipal Separate Storm Sewer Systems (MS4s), permit number UTR090028, which expired December 2007 (but will be valid until a new permit is issued, the application for which has been submitted), and subsequent versions.
- The Hill AFB Stormwater Management Plan Municipal Stormwater Permit, dated April, 2007, and subsequent versions.
- The Hill AFB Integrated Natural Resources Management Plan, dated 2006, and subsequent versions.
- The Hill AFB Integrated Cultural Resources Management Plan, dated January, 2007, and subsequent versions.
- The National Historic Preservation Act (NHPA), 16 USC Section 470 et seq.

A military construction (MILCON) scope and cost validation document (Hardlines 2006) relevant to the proposed action was reviewed.

Current versions of the USAF Fire Station Design Guide, NFPA standards, and the Public Entity Risk Institute's SORC document would apply to design and construction of the proposed action.

During the scoping process, no other documents were identified as being relevant to the proposed action.

# 1.6 Decisions That Must Be Made

Hill AFB must decide whether to:

- not provide a compliant fire crash rescue station (no action);
- construct a new fire crash rescue station; or
- renovate the existing fire crash rescue station.

If Hill AFB decides to construct a fire crash rescue station or renovate the existing fire crash rescue station, the proponent and environmental managers would then decide what mitigation and/or monitoring measures, if any, should be implemented.

If Hill AFB decides to construct a fire crash rescue station or renovate the existing fire crash rescue station, the base would then decide if the selected alternative would or would not be a major federal action significantly affecting the quality of the human environment. If judged as not significantly affecting the quality of the human environment, then a finding of no significant impact (FONSI) would be prepared and signed, and the project would proceed. If judged as significantly affecting the quality of the human environment, then an EIS and a record of decision (ROD) would have to be prepared and signed before the project could proceed.

# 1.7 Scope of this Environmental Analysis

The scope of the current environmental analysis is to explore environmental issues related to the proposed action (construct a fire crash rescue station) and the reasonable alternatives identified within this document.

1.7.1 History of the Planning and Scoping Process

Scoping discussions were held: to identify potential environmental concerns; to facilitate an efficient environmental analysis process; to identify issues and alternatives that would be considered in detail while devoting less attention and time to less important issues; and to save time in the overall process by helping to ensure that draft documents would adequately address relevant issues, thereby reducing the time required to proceed to a final document.

On June 2, 2008, an initial scoping meeting was conducted in Building 5, Hill AFB. Attendees included proponents of the proposed action, managers of Hill AFB's NEPA program, other environmental program managers, and the authors of this document.

During this meeting and subsequent scoping interaction, the following environmental issues were addressed:

• air quality;

- solid and hazardous wastes (including liquid waste streams);
- biological resources;
- geology and surface soils;
- water quality;
- cultural resources;
- occupational safety and health;
- air installation compatible use zone (AICUZ); and
- socioeconomic resources.

### 1.7.2 Issues Studied in Detail

The issues that have been identified for detailed consideration and are therefore presented in Sections 3 and 4 are:

• Air Quality (attainment status, emissions, Utah's state implementation plan [SIP])

Air emissions would be produced by construction equipment. Asbestos abatement could be required. Operating the proposed action would create air emissions. Air quality effects are discussed in Section 4 of this document.

 Solid and Hazardous Wastes (materials to be used, stored, recycled, or disposed, including liquid waste streams; existing asbestos, lead-based paint, mercury, and polychlorinated biphenyls [PCBs])

During construction, solid wastes would be generated, wastes containing asbestos and lead-based paint could be generated, and other hazardous wastes might be generated that would require proper treatment and/or disposal. Additional hazardous wastes could be generated if a spill of fuel, lubricants, or constructionrelated chemicals were to occur. For the purposes of this document, if the word construction is used by itself, any potential demolition activities are included.

Operating the proposed action would create solid and hazardous wastes (to include solid and liquid wastes). Effects related to solid and hazardous wastes are discussed in Section 4 of this document.

• Biological Resources (threatened, endangered, sensitive species, wetlands, floodplains)

No vegetated areas would be disturbed by the proposed action (all areas are currently occupied by structures or pavement). Improper building design and construction could create roosting or nesting areas for birds (which are a nuisance, as well as being a hazard to aircraft). Effects related to biological resources are discussed in Section 4 of this document.

• Water Quality (surface water, groundwater, water quantity, wellhead protection zones)

Based on the Hill AFB funding request that was prepared for the proposed action, the land area to be disturbed would be between three acres and four acres in size. The proposed action would be subject to stormwater permit requirements both during the construction period and during operations.

Contamination of groundwater is known to exist approximately 160 feet below the ground surface (bgs) in the vicinity of the proposed action. Since the proposed action would not require excavations deeper than 20 feet bgs, groundwater effects were not addressed in detail.

The scoping discussions did not identify any issues related to quantity of water or wellhead protection zones.

Effects related to water quality are discussed in Section 4 of this document.

Liquid waste streams created during construction and from operating the proposed action are included in the discussions related to solid and hazardous wastes (Section 4 of this document).

1.7.3 Issues Eliminated From Further Study

The issues that were not carried forward for detailed consideration in Sections 3 and 4 are:

• **Geology and Surface Soils** (seismicity, topography, minerals, geothermal resources, land disturbance, known pre-existing contamination)

The scoping discussions did not identify any issues related to seismicity, topography, minerals, or geothermal resources.

Excavations would be necessary to install: footings; foundations; and buried utilities consisting of water, electricity, natural gas, steam lines, sanitary sewer, and storm sewer. Discussions related to preventing soil erosion (stormwater pollution prevention) are addressed under water quality effects (Section 4 of this document).

Contamination of shallow soil is not known to exist in the vicinity of the proposed action. Potential discovery of suspicious soils during excavation is addressed under solid and hazardous wastes (Section 4 of this document).

• Cultural Resources (archaeological, architectural, traditional cultural properties)

No significant cultural resources have been identified in the area of potential effect (APE) for the proposed action. Buildings 9, 11, and 16 were previously

determined ineligible for the National Register of Historic Places (NRHP) through consultation with the Utah State Historic Preservation Office (SHPO). Three previous inventories for archaeological resources were conducted on Hill AFB in 1991, 1995, and 2001, compromising 840 acres total. This has resulted in the survey of 12.5 percent of the total area of Hill AFB. Results from these projects included the recordation of one historic refuse dump and two prehistoric isolates, all determined ineligible for listing in the NRHP. None of the previous inventories included the APE of the proposed action. Given the lack of previous findings and the extensive development and disturbance of Hill AFB, the potential for historic properties is extremely low. However, if any are found during construction, ground-disturbing activities in the immediate vicinity will cease, the Hill AFB Cultural Resources Program will be notified, and unanticipated discovery of archaeological deposits procedures will be implemented with direction from the Hill AFB Cultural Resources Program in accordance with Standard Operating Procedure 5 in the Hill AFB Integrated Cultural Resources Management Plan (Hill 2007a). The Utah SHPO concurred with a finding of no adverse effect after reviewing the proposed action (Appendix A). Hill AFB has determined formal consultation with American Indian Tribes is not warranted given the absence of resources that may be reasonably construed as being of interest to them.

• Occupational Safety and Health (physical and chemical hazards, radiation, explosives, bird and wildlife hazards to aircraft)

Throughout the construction phase of the project, Hill AFB contractors would follow OSHA safety guidelines as presented in the CFR. Hazardous materials that could be used during construction are included in the discussions related to solid and hazardous wastes (Section 4 of this document).

Related to Hill AFB military personnel and civilian employees, the Bioenvironmental Engineering Flight (75 AMDS/SGPB) is responsible for implementing AFOSH standards. The AFOSH program addresses (partial list): hazard abatement, hazard communication, training, personal protective equipment and other controls to ensure that occupational exposures to hazardous agents do not adversely affect health and safety, and acquisition of new systems.

The scoping discussions did not identify any issues related to occupational safety and health that would not be routinely addressed by OSHA rules and/or the Bioengineering Flight.

• AICUZ (noise, accident potential, airfield encroachment)

The proposed action lies in the 85 A-weighted decibel (dBA) noise level zone (documented in the current version of the Hill AFB AICUZ report). The primary source is external jet noise from the Hill AFB runway. At this noise level, appropriate noise reduction must be assured, based on the specific activities to be conducted in each work area. The external jet noise would be addressed by

incorporating noise level reduction measures into construction design, in compliance with the Uniform Building Code (UBC) Chapter 35, and the current version of the Hill AFB AICUZ report. Since noise mitigation measures would be provided by design engineers through structural controls, noise effects will not be addressed in a detailed fashion in this document.

Other than discouraging new bird populations near the Hill AFB runway (discussed under biological effects in Section 4 of this document), the scoping discussions did not identify any issues related to aircraft accident potential or airfield encroachment.

• Socioeconomic Resources (local fiscal effects including employment, population projections, and schools)

Opportunities would exist for local construction workers when the proposed action is constructed. The proposed action is not expected to create additional permanent jobs at Hill AFB. The scoping discussions did not identify any issues related to population projections or schools.

#### 1.8 Applicable Permits, Licenses, and Other Coordination Requirements

References to applicable permits and licenses are included in Section 1.5 of this document.

The proponents would coordinate with the Hill AFB hazardous materials program manager (75 CEG/CEVC) to discuss hazardous materials brought on base to construct the proposed action and to be used in the proposed fire crash rescue station.

### 2.0 ALTERNATIVES, INCLUDING THE PROPOSED ACTION

#### 2.1 Introduction

This section discusses the process used to develop the alternatives, describes the alternatives, and compares (in a brief summary fashion) the alternatives and their expected effects. Finally, this section states the Air Force's preferred alternative.

### 2.2 Process Used to Develop the Alternatives

As discussed in Sections 1.3 and 1.4 of this document, Hill AFB intends to provide a new fire crash rescue station. The proposed facility described in this document would comply with all relevant design standards and would have sufficient space to accommodate all fire department needs, including the latest generation of larger fire fighting vehicles.

The Hill AFB fire department investigated renovating the existing facilities (see Section 2.3.3.1), and other potential locations for siting the proposed fire crash rescue station (see Section 2.3.3.2).

### 2.3 Description of Alternatives

### 2.3.1 Alternative A: No Action

Under the no action alternative, the fire crash rescue station would not be constructed, and compliant facilities would not be provided. Existing deficiencies would continue to exist related to indoor storage of all vehicles and equipment, evacuating vehicle exhaust fumes, isolation requirements for removing blood borne pathogens from PPE, size of living quarters, electrical systems, plumbing systems, heating systems, and response capabilities.

2.3.2 Alternative B: Proposed Action - Construct a Fire Crash Rescue Station

The proposed action is to construct a new fire crash rescue station to the west of the Hill AFB runway containing offices, living quarters, training facilities, work areas, a food preparation area, vehicle and equipment storage rooms, and an emergency communications center. The proposed action would be located to the north of the existing fire crash rescue station (Building 9 - Figure 2). Existing Building 11, approximately 75 percent of Building 9, and a storage shed (Building 16) would be demolished and converted to parking (to replace most of the parking displaced by the new fire crash rescue station - a net loss of 90 parking spaces would occur). The proposed action would consist of:

• Constructing a new multi-story 42,000 square foot fire crash rescue station.

The new fire crash rescue station would be a 'T' shaped building with a mix of one and two story sections. The building would have a structural steel bay system with exterior masonry (brick with concrete masonry back-up) infill. The new structure would also include reinforced concrete foundations, concrete slab-ongrade and concrete second floor, gabled standing seam metal roofing, and composite of concrete masonry unit and gypsum wallboard interior partitions.



Figure 2: Layout of the Proposed Fire Crash Rescue Station

The single story transept portion of the building would be for vehicle support apparatus bays, totaling 15,100 gross square feet. The north and south wings would be single story for the communications center, living quarters, training facilities, and recreation/dining area supporting the 24-hour shift staff, totaling 18,155 gross square feet. The entire first floor would have a total gross area of 33,225 square feet. The second story would be for administration, maintenance, repair, and storage, totaling 8,775 gross square feet. The building would have second story egress stairs located at remote locations complemented with a passenger elevator.

 Providing connections to existing buried utilities consisting of water, electricity, natural gas, steam lines, sanitary sewer, and storm sewer.

- Installing an emergency stand-by electrical generator for at least 75 percent of the facility's functional areas.
- Demolishing existing Building 11, approximately 75 percent of Building 9, and Building 16, and converting those areas to parking.

Architectural repairs to the portion of Building 9 not being demolished would consist of renovating the exterior of the facility to provide a uniform aesthetic appearance. The portion of building 9 being retained would be divided into spaces occupied by the Hill AFB 75 Communications Squadron (offices), and the 419 Fighter Wing's firefighters (offices and classrooms).

### 2.3.3 Alternatives Eliminated From Detailed Study

2.3.3.1 Renovation

Renovating the existing structure was considered and eliminated by the Hill AFB civil engineering office. Several renovation projects have been completed in the past attempting to eliminate the noncompliance issues, but the existing facility is also several thousand square feet under present design standards. The existing fire crash rescue station, constructed in 1941, has outlived its useful life for its originally-intended purpose (although approximately 25 percent of it can still be used for offices and classrooms). The Hill AFB civil engineering office determined bringing the existing structure into compliance by renovation is not feasible.

### 2.3.3.2 Other Locations

Only locations that would comply with the Public Entity Risk Institute's guidance document, *Creating and Evaluating Standards of Response Coverage for Fire Departments* were considered. The primary requirement is proximity to the Hill AFB runway.

Three other locations were considered but eliminated for the reasons discussed below.

- An area just west of Building 1-A was eliminated due to spatial conflicts with other airfield uses (the tow-way for aircraft to Hangar 1, the pod shop, and equipment storage areas).
- 2) An area just southwest of Building 1-A was eliminated due to poor vehicular access and conflict with and forced relocation of existing buried utilities (water, sewer, storm sewer, communications, and fiber optics). The relocation of the existing sewer and storm sewer lines may not be possible while maintaining proper slopes for gravity flow to occur.
- 3) An area just south and west of the existing fire crash rescue station was eliminated due to spatial conflicts with Building 25 and the portion of Building 9 to be retained and conflict with and forced relocation of existing buried utilities (communications, fiber optics, steam lines, electric cables).

#### 2.4 Summary Comparison of the Activities, the Predicted Achievement of the Project Objectives and the Predicted Environmental Effects of All Alternatives

#### 2.4.1 Summary Comparison of Project Activities

The no action alternative would be to continue current operations using the existing, noncompliant facilities.

Under Alternative B (proposed action) a fire crash rescue station would be constructed, enabling Hill AFB to accommodate current and future workloads, while complying with the USAF Fire Station Design Guide, NFPA standards, and Public Entity Risk Institute guidance.

#### 2.4.2 Summary Comparison of Predicted Achievement of Project Objectives

Description of the Project Objective	Alternative A (No Action)	Alternative B (Proposed Action)
Comply with the USAF Fire Station Design Guide and NFPA standards	No	Yes
Comply with the Public Entity Risk Institute's guidance document, <i>Creating and</i> <i>Evaluating Standards of Response Coverage</i> <i>for Fire Departments</i>	No	Yes
Have sufficient space to accommodate all fire department needs, including the latest generation of larger fire fighting vehicles	No	Yes
Be located near existing water, sewer, and storm drains	Yes	Yes
Be protective of facilities, human health, and the environment	Yes	Yes

# Table 1: Summary Comparison of Predicted Achievement of Project Objectives

# 2.4.3 Summary Comparison of Predicted Environmental Effects

Issue	Alternative A No Action	Alternative B Proposed Action			
Air Quality	No effects	Construction equipment would create temporary emissions. Fugitive dust emissions would be mitigated. Air emissions from the emergency generator would be less than 0.1 tons per year (for criteria pollutants, and for hazardous air pollutants).			
Solid and Hazardous Waste		If contaminated soils are identified, they would be properly handled during the construction process. Solid and liquid wastes containing regulated substances would all be properly contained, stored, transported, disposed, re-used, and/or recycled. Office activities would generate uncontaminated trash. Domestic sewage (including water from rinsing equipment and reusable PPE) would flow to a sewage treatment plant operated by NDSD.			
Biological Resources	No effects	No vegetation is present. To discourage bird activity, overhangs, covered ledges, and holes in structures would all be avoided during the design and construction process.			
Water Quality	No effects	During construction and operations, water quality would be protected by implementing stormwater management practices.			

# Table 2: Summary Comparison of Predicted Environmental Effects

# 2.5 Identification of the Preferred Alternative

Hill AFB prefers Alternative B (the proposed action).

### 3.0 AFFECTED ENVIRONMENT

#### 3.1 Introduction

Section 3 of this document discusses the existing conditions of the potentially affected environment, establishing a resource baseline against which the effects of the various alternatives can be evaluated. It presents relevant facilities and operations, environmental issues, preexisting environmental factors, and existing cumulative effects due to human activities in the vicinity of the proposed action or the alternative locations.

Issues discussed during scoping meetings, but eliminated from detailed consideration (see Section 1.7.3) include:

- geology and surface soils (seismicity, topography, minerals, geothermal resources, land disturbance, known pre-existing contamination);
- cultural resources (archaeological, architectural, traditional cultural properties);
- occupational safety and health (physical and chemical hazards, radiation, explosives, bird and wildlife hazards to aircraft);
- AICUZ (noise, accident potential, airfield encroachment); and
- socioeconomic resources (local fiscal effects including employment, population projections, and schools).

#### 3.2 Description of Relevant Facilities and Operations

The facilities and operations directly affected by the proposed action were identified in Section 2.3. No other relevant facilities or operations were identified.

# 3.3 Description of Relevant Affected Issues

# 3.3.1 Air Quality

Hill AFB is located in Davis and Weber Counties, Utah. Neither county is in complete attainment status with federal clean air standards (Figure 3). Nonattainment areas fail to meet national ambient air quality standards (NAAQS) for one or more of the criteria pollutants: oxides of nitrogen (NOx), sulfur dioxide (SO<sub>2</sub>), ozone (O<sub>3</sub>), particulates less than 10 microns in diameter (PM-10), particulates less than 2.5 microns in diameter (PM-2.5), carbon monoxide (CO), and lead. Davis County (the county in which the proposed action lies) is currently designated as a maintenance area for ozone. Due to this designation, emission offsets are required for new sources emitting NOx and volatile organic compounds (VOCs), which are precursors to ozone formation.



Figure 3: State of Utah National Ambient Air Quality Standards, Areas of Non-Attainment and Maintenance

The current air quality trend at Hill AFB is one of controlling emissions as Hill AFB managers implement programs to eliminate ozone-depleting substances, limit use of VOCs, switch to lower vapor pressure solvents and aircraft fuel, convert internal combustion engines from gasoline and diesel to natural gas, and improve the capture of particulates during painting and abrasive blasting operations (in compliance with the base's Title V air quality permit).

Published emission estimates are available for criteria air pollutants and hazardous air pollutants (HAPs) for Hill AFB (Hill 2007), and criteria air pollutants for Davis and Weber Counties (Division of Air Quality - DAQ 2006). The estimates, shown below in Table 3 were based on data from calendar year 2006 for Hill AFB, and for calendar year 2002 for Davis and Weber Counties.

Location	VOC	CO	NOx	PM-10	HAP	SOx
Hill AFB	290.47	215.42	225.80	41.61	75.75	6.40
Davis County	18,878.71	78,777.83	11,086.59	3,378.55	not reported	2,441.04
Weber County	16,184.75	62,246.82	6,933.27	2,768.36	not reported	296.89

#### Table 3: Baseline Criteria Pollutants and HAPs (tons/year)

Currently, an emergency generator (powered by diesel fuel) is used approximately 24 hours per year at Building 9. Calculated emissions from this source are presented in Table 4.

Source	VOC	CO	NOx	PM-10	HAP	SOx
Generator	0.005	0.014	0.064	0.005	0.000	0.004

# Table 4: Emissions From the Existing Emergency Generator (tons/year)

### 3.3.2 Solid and Hazardous Wastes

In general, hazardous wastes include substances that, because of their concentration, physical, chemical, or other characteristics, may present substantial danger to public health or welfare or to the environment when released into the environment or otherwise improperly managed. Potentially hazardous and hazardous wastes generated at Hill AFB are managed as specified in the *Hill AFB Hazardous Waste Management Plan* with oversight by personnel from the Environmental Management Division and the Defense Reutilization and Marketing Office (DRMO). Hazardous wastes at Hill AFB are properly stored during characterization, and then manifested and transported off site for treatment and/or disposal.

Wastes created within the existing fire crash rescue station are limited to uncontaminated office trash and domestic sewage (including water from rinsing equipment and reusable PPE). The fire crash rescue station is connected to a sanitary sewer that flows to a sewage treatment plant operated by NDSD.

#### 3.3.3 Biological Resources

No federal or state endangered or threatened species are known to occur on Hill AFB (Hill 2006) and no likely habitat for any such species would be disturbed by the proposed action. Two species on Utah's species of concern (SOC) list have been sighted on Hill AFB, the Long Billed Curlew and the Bobolink. Those sighting were unusual for these species and occurred during the fall migration. There are no wetlands or floodplains in the vicinity of the alternatives discussed in this document. The alternatives discussed in this document are located in or near developed areas on Hill AFB.

No vegetated areas are present within the area occupied by the exiting fire crash rescue station or the area proposed for constructing the new fire crash rescue station. All areas are currently occupied by structures or pavement. Landscaping to the east of the existing fire crash rescue station is outside the boundary of proposed construction.

# 3.3.4 Water Quality

In areas of Hill AFB that are not heavily developed, runoff is allowed to infiltrate into the ground through overland flow or surface ditches, discharging to large unoccupied areas. In developed areas, stormwater is conveyed to 15 retention or detention ponds within Hill AFB boundaries. Stormwater from retention ponds percolates and evaporates, resulting in zero discharge. Detention ponds are checked for presence of an oil sheen prior to discharging stormwater by manually opening the outfall valves.

No surface water bodies are present within the area occupied by the exiting fire crash rescue station or the area proposed for constructing the new fire crash rescue station. All areas are currently occupied by structures or pavement. Based on a review of the Hill AFB *Hill AFB Stormwater Management Plan - Municipal Stormwater Permit* (Stantec 2007), storm drains convey surface runoff from this area of Hill AFB to Pond 3 (a detention pond).

# 3.4 Description of Relevant Pre-Existing Environmental Factors

The Wasatch Front Regional Council (WFRC 2003) assessed earthquake hazards for Davis County, Utah, including the portion of Hill AFB that includes the alternatives discussed in this document. The Davis County liquefaction potential map shows this area of Hill AFB to be in the zone labeled as very low risk. The Davis County earthquake hazard map shows this area of Hill AFB to be outside of known fault zones. The Davis County landslide hazard map shows this area of Hill AFB to be outside of known landslide risk zones.

During scoping discussions and subsequent analysis, no other pre-existing environmental factors (e.g., hurricanes, tornados, floods, droughts) were identified for the proposed action.

# 3.5 Description of Areas Related to Cumulative Effects

For air quality, the area related to cumulative effects would include Hill AFB, Davis County, and Weber County.

For solid and hazardous wastes, the area related to cumulative effects would include Hill AFB.

For biological resources, the area related to cumulative effects would include Hill AFB.

For water quality, the area related to cumulative effects would include Hill AFB and waters downstream from the Hill AFB stormwater retention ponds.

### 4.0 ENVIRONMENTAL CONSEQUENCES

#### 4.1 Introduction

This section begins by presenting, in Section 4.2, the predicted attainment of project objectives for all alternatives.

Section 4.3 discusses effects to the resources that were identified for detailed analysis in Section 1.7.2, and for which existing conditions were presented in Section 3.3. For each of these resources, the following analyses are presented:

- direct, indirect, and cumulative effects of the no action alternative; and
- direct, indirect, and cumulative effects of the proposed action (Alternative B).

# 4.2 Predicted Attainment of Project Objectives of All Alternatives

Table 5 addresses the ability of each alternative to attain project objectives.

Description of the Project Objective	Alternative A (No Action)	Alternative B (Proposed Action)
Comply with the USAF Fire Station Design Guide and NFPA standards	No	Yes
Comply with the Public Entity Risk Institute's guidance document, Creating and Evaluating Standards of Response Coverage for Fire Departments	No	Yes
Have sufficient space to accommodate all fire department needs, including the latest generation of larger fire fighting vehicles	No	Yes
Be located near existing water, sewer, and storm drains	Yes	Yes
Be protective of facilities, human health, and the environment	Yes	Yes

# Table 5: Predicted Attainment of Project Objectives

# 4.3 Predicted Effects to Relevant Affected Resources of All Alternatives

- 4.3.1 Predicted Effects to Air Quality
  - 4.3.1.1 Alternative A: No Action

With respect to air quality, current conditions would continue (see the emissions from the emergency generator in Section 3.3.1. The no action alternative would have no additional direct effects, no indirect effects, and no cumulative effects.

#### 4.3.1.2 Alternative B (Proposed Action): Construct a Fire Crash Rescue Station

#### **Direct Effects Due to Construction**

- **Fugitive Dust**: Fugitive emissions from construction activities would be controlled according to UAC Section R307-205, *Emission Standards: Fugitive Emissions and Fugitive Dust* and the Hill AFB *Fugitive Dust Plan.* Good housekeeping practices would be used to maintain construction opacity at less than 20 percent. Haul roads would be kept wet. Any soil that is deposited on nearby paved roads by construction vehicles would be removed from the roads and either returned to the site or placed in an appropriate disposal facility.
- Heavy Equipment: The internal combustion engines of heavy equipment would generate emissions of VOCs, CO, NOx, PM-10, PM-2.5, HAPs and oxides of sulfur (SOx). Assumptions and estimated emissions for the construction period are listed in Table 6.

		Diesel E	mission F	actor (lbs/h	r)		
Equipment Type	VOC (HC)	CO	NOx	PM10	HAPs	SOx	
Asphalt Paver	0.28	1.24	2.96	0.24	0.05	0.25	
Bobcat Loader	0.14	0.67	1.00	0.10	0.01	0.08	
Cable Plow	0.59	3.75	4.49	0.59	0.08	0.38	
Compressor (boring)	0.25	1.62	1.94	0.25	0.04	0.16	
Concrete Truck	0.80	3.55	8.50	0.69	0.15	0.72	
Crane	2.14	6.96	17.08	2.39	0.33	1.54	
Dump Truck	0.63	2.04	6.98	0.58	0.16	0.65	
Flat Bed Truck	0.48	1.54	5.29	0.44	0.12	0.49	
Fork Lift	0.42	2.47	1.98	0.40	0.05	0.23	
Generator	0.02	0.10	0.12	0.02	0.00	0.01	
Loader/Backhoe	0.87	4.12	6.12	0.64	0.06	0.52	
Motored Grader	0.83	2.01	5.08	0.53	0.06	0.46	
Scraper	0.33	2.31	4.03	0.58	0.13	0.42	
Track Hoe	0.91	6.65	13.75	1.84	0.26	1.19	
Vibratory Compactor	0.38	1.44	4.31	0.36	0.09	0.46	
Water Truck	1.10	3.58	12.28	1.02	0.28	1.14	
Wheeled Dozer	0.46	1.48	5.08	0.35	0.08	0.49	
Source: Industry Horsepower Ratings and EPA							
Note: VOCs = Hydrocarbons and HAPs = Alde Source: Industry Horsepower Ratings and EPA Construct Fire Crash Rescue Station (Inclu EQUIPMENT		vities)		Diesel Em	issions (II	]	Lars K.
Source: Industry Horsepower Ratings and EPA Construct Fire Crash Rescue Station (Inclu EQUIPMENT	des Demolition Activ	vities)	CO	Diesel Em NOx	issions (II PM10	os) HAPs	SOx
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Source: Industry Horsepower Ratings and EPA Construct Fire Crash Rescue Station (Inclu EQUIPMENT TYPE Asphalt Paver	des Demolition Activ HOURS OF OPERATION	VOC		NOx	PM10	HAPs	13.
Source: Industry Horsepower Ratings and EPA Construct Fire Crash Rescue Station (Inclu EQUIPMENT TYPE Asphalt Paver Bobcat Loader	des Demolition Activ HOURS OF OPERATION 54	<b>VOC</b> 15.1	67.0	NOx 159.8	<b>PM10</b> 13.0	HAPs 2.7	<b>SOx</b> 13. 2. 4.
Source: Industry Horsepower Ratings and EPA Construct Fire Crash Rescue Station (Inclu EQUIPMENT TYPE Asphalt Paver Bobcat Loader Cable Plow	des Demolition Activ HOURS OF OPERATION 54 30	<b>VOC</b> 15.1 4.2	67.0 20,1	NOx 159.8 30.0	PM10 13.0 3.0	HAPs 2.7 0.3	13. 2. 4.
Source: Industry Horsepower Ratings and EPA Construct Fire Crash Rescue Station (Inclu EQUIPMENT TYPE Asphalt Paver Bobcat Loader Cable Plow Compressor (boring)	des Demolition Activ HOURS OF OPERATION 54 30 12	<b>VOC</b> 15.1 4.2 7.1	67.0 20.1 45.0	NOx 159.8 30.0 53.9	PM10 13.0 3.0 7.1	HAPs 2.7 0.3 1.0	13. 2. 4. 3.
Source: Industry Horsepower Ratings and EPA Construct Fire Crash Rescue Station (Inclu EQUIPMENT TYPE Asphalt Paver Bobcat Loader Cable Plow Compressor (boring) Concrete Truck	des Demolition Activ HOURS OF OPERATION 54 30 12 24	<b>VOC</b> 15.1 4.2 7.1 6.0	67.0 20.1 45.0 38.9	NOx 159.8 30.0 53.9 46.6	PM10 13.0 3.0 7.1 6.0	HAPs 2.7 0.3 1.0 1.0	13. 2. 4. 3. 23.
Source: Industry Horsepower Ratings and EPA Construct Fire Crash Rescue Station (Inclu EQUIPMENT TYPE Asphalt Paver Bobcat Loader Cable Plow Compressor (boring) Concrete Truck Crane	des Demolition Activ HOURS OF OPERATION 54 30 12 24 32	VOC 15.1 4.2 7.1 6.0 25.6	67.0 20.1 45.0 38.9 113.6	NOx 159.8 30.0 53.9 46.6 272.0	PM10 13.0 3.0 7.1 6.0 22.1	HAPs 2.7 0.3 1.0 1.0 4.8	13. 2.
Source: Industry Horsepower Ratings and EPA Construct Fire Crash Rescue Station (Inclu EQUIPMENT TYPE Asphalt Paver Bobcat Loader Cable Plow Compressor (boring) Concrete Truck Crane Dump Truck	des Demolition Activ HOURS OF OPERATION 54 30 12 24 32 12 12	VOC 15.1 4.2 7.1 6.0 25.6 25.7	67.0 20.1 45.0 38.9 113.6 83.5	NOx 159.8 30.0 53.9 46.6 272.0 205.0	PM10 13.0 3.0 7.1 6.0 22.1 28.7	HAPs 2.7 0.3 1.0 1.0 4.8 4.0	13. 2. 4. 3. 23. 18. 291.
Source: Industry Horsepower Ratings and EPA Construct Fire Crash Rescue Station (Inclu EQUIPMENT TYPE Asphalt Paver Bobcat Loader Cable Plow Compressor (boring) Concrete Truck Crane Dump Truck Flat Bed Truck	des Demolition Activ HOURS OF OPERATION 54 30 12 24 32 12 449 30 9	VOC 15.1 4.2 7.1 6.0 25.6 25.7 282.9	67.0 20.1 45.0 38.9 113.6 83.5 916.0	NOx 159.8 30.0 53.9 46.6 272.0 205.0 3134.0	PM10 13.0 3.0 7.1 6.0 22.1 28.7 260.4	HAPs 2.7 0.3 1.0 1.0 4.8 4.0 71.8	13. 2. 4. 3. 23. 18. 291. 14.
Source: Industry Horsepower Ratings and EPA Construct Fire Crash Rescue Station (Inclu EQUIPMENT TYPE Asphalt Paver Bobcat Loader Cable Plow Compressor (boring) Concrete Truck Crane Dump Truck Flat Bed Truck Fork Lift	des Demolition Activ HOURS OF OPERATION 54 30 12 24 32 12 449 30	VOC 15.1 4.2 7.1 6.0 25.6 25.7 282.9 14.4	67.0 20.1 45.0 38.9 113.6 83.5 916.0 46.2	NOx 159.8 30.0 53.9 46.6 272.0 205.0 3134.0 158.7	PM10 13.0 3.0 7.1 6.0 22.1 28.7 260.4 13.2	HAPs 2.7 0.3 1.0 1.0 4.8 4.0 71.8 3.6	13. 2. 4. 3. 23. 18. 291. 14. 2.
Source: Industry Horsepower Ratings and EPA Construct Fire Crash Rescue Station (Inclu EQUIPMENT TYPE Asphalt Paver Bobcat Loader Cable Plow Compressor (boring) Concrete Truck Crane Dump Truck Flat Bed Truck Fork Lift Generator	des Demolition Activ HOURS OF OPERATION 54 30 12 24 32 12 449 30 9	VOC 15.1 4.2 7.1 6.0 25.6 25.7 282.9 14.4 3.8	67.0 20.1 45.0 38.9 113.6 83.5 916.0 46.2 22.2	NOx 159.8 30.0 53.9 46.6 272.0 205.0 3134.0 158.7 17.8	PM10 13.0 7.1 6.0 22.1 28.7 260.4 13.2 3.6	HAPs 2.7 0.3 1.0 1.0 4.8 4.0 71.8 3.6 0.5	13. 2. 4. 3. 23. 18. 291. 14. 2. 0. 123.
Source: Industry Horsepower Ratings and EPA Construct Fire Crash Rescue Station (Inclu EQUIPMENT TYPE Asphalt Paver Bobcat Loader Cable Plow Compressor (boring) Concrete Truck Crane Dump Truck Flat Bed Truck Flat Bed Truck Fork Lift Generator Loader/Backhoe	des Demolition Activ HOURS OF OPERATION 54 30 12 24 32 12 449 30 9 20	VOC 15.1 4.2 7.1 6.0 25.6 25.7 282.9 14.4 3.8 0.4	67.0 20.1 45.0 38.9 113.6 83.5 916.0 46.2 22.2 2.0	NOx 159.8 30.0 53.9 46.6 272.0 205.0 3134.0 158.7 17.8 2.4	PM10 13.0 7.1 6.0 22.1 28.7 260.4 13.2 3.6 0.4	HAPs 2.7 0.3 1.0 1.0 4.8 4.0 71.8 3.6 0.5 0.0	13. 2. 4. 3. 23. 18. 291. 14. 2. 0. 123.
Source: Industry Horsepower Ratings and EPA Construct Fire Crash Rescue Station (Inclu EQUIPMENT TYPE Asphalt Paver Bobcat Loader Cable Plow Compressor (boring) Concrete Truck Crane Dump Truck Flat Bed Truck Flat Bed Truck Fork Lift Generator Loader/Backhoe Motored Grader	des Demolition Activ HOURS OF OPERATION 54 30 12 24 32 12 449 30 9 20 238	VOC 15.1 4.2 7.1 6.0 25.6 25.7 282.9 14.4 3.8 0.4 207.1	67.0 20.1 45.0 38.9 113.6 83.5 916.0 46.2 22.2 2.0 980.6	NOx 159.8 30.0 53.9 46.6 272.0 205.0 3134.0 158.7 17.8 2.4 1456.6	PM10 13.0 3.0 7.1 6.0 22.1 28.7 260.4 13.2 3.6 0.4 152.3	HAPs 2.7 0.3 1.0 1.0 4.8 4.0 71.8 3.6 0.5 0.0 14.3	13. 2. 4. 3. 23. 18. 291. 14. 2. 0. 123. 36. 30.
Source: Industry Horsepower Ratings and EPA Construct Fire Crash Rescue Station (Inclu EQUIPMENT TYPE Asphalt Paver Bobcat Loader Cable Plow Compressor (boring) Concrete Truck Crane Dump Truck Flat Bed Truck Flat Bed Truck Fork Lift Generator Loader/Backhoe Motored Grader Scraper	des Demolition Activ HOURS OF OPERATION 54 30 12 24 32 12 449 30 9 20 238 80	VOC 15.1 4.2 7.1 6.0 25.6 25.7 282.9 14.4 3.8 0.4 207.1 66.4	67.0 20.1 45.0 38.9 113.6 83.5 916.0 46.2 22.2 2.0 980.6 160.8	NOx 159.8 30.0 53.9 46.6 272.0 205.0 3134.0 158.7 17.8 2.4 1456.6 406.4	PM10 13.0 3.0 7.1 6.0 22.1 28.7 260.4 13.2 3.6 0.4 152.3 42.4	HAPs 2.7 0.3 1.0 1.0 4.8 4.0 71.8 3.6 0.5 0.0 14.3 4.8	13. 2. 4. 3. 23. 18. 291. 14. 2. 0. 123. 36. 30.
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Source: Industry Horsepower Ratings and EPA Construct Fire Crash Rescue Station (Inclu	des Demolition Activ HOURS OF OPERATION 54 30 12 24 32 12 449 30 9 20 238 80 72 394 24 24 24	VOC 15.1 4.2 7.1 6.0 25.6 25.7 282.9 14.4 3.8 0.4 207.1 66.4 23.8 358.5 9.1 26.4	67.0 20,1 45.0 38.9 113.6 83.5 916.0 46.2 22.2 2.0 980.6 160.8 166.3 2620.1 34.6 85.9	NOx 159.8 30.0 53.9 46.6 272.0 205.0 3134.0 158.7 17.8 2.4 1456.6 406.4 290.2 5417.5 103.4 294.7	PM10 13.0 3.0 7.1 6.0 22.1 28.7 260.4 13.2 3.6 0.4 152.3 42.4 41.8 725.0 8.6 24.5	HAPs 2.7 0.3 1.0 1.0 4.8 4.0 71.8 3.6 0.5 0.0 14.3 4.8 9.4 102.4 2.2 6.7	13. 2. 4. 3. 23. 18. 291. 14. 2. 0. 123. 36. 30. 468. 11. 27.

Source of Hours: Steve Weed, Bob Lepper, Yvonne Day, Hill AFB Engineering

#### Table 6: Calculated Heavy Equipment Emissions

• Asbestos: Prior to demolition of any structures, a detailed asbestos survey would be performed by Hill AFB employees and the results incorporated into specifications for the demolition contracts. Each asbestos abatement contractor would be verified by Hill AFB project managers as qualified to perform regulated asbestos abatement projects, and both the company and individual workers would possess all required certifications to perform the assigned tasks. Prior to beginning any asbestos abatement efforts, a notification of at least 10 days would be provided to DAQ. Because all work would be performed in accordance with standards set by the Environmental Protection Agency (EPA) and DAQ, there would be no impacts to air quality associated with asbestos abatement.

#### Direct Effects Due to Operations

Based on information received during the scoping meeting held on June 2, 2008, the only air emissions due to operating the proposed action would be related to the emergency generator. No difference is anticipated in the how the emergency generator would be used compared to current conditions. There would be no net increase or reduction in air emissions.

If required, prior to operating the proposed action, Hill AFB air quality managers would submit notices of intent, seven day notifications, and modification requests to DAQ. Hill AFB would not be allowed to operate the facilities until DAQ concurs that federal and state requirements are being met. Hill AFB ensures conformity with the CAA by complying with EPA regulations and Utah's SIP.

#### Indirect Effects

During scoping and the detailed analysis, no indirect effects related to air quality were identified for the proposed action.

#### Cumulative Effects

- Construction: Construction-related air emissions would be limited to a duration of several months. Comparing the magnitude of predicted construction-related air emissions (Table 6) to existing emissions for Hill AFB, Davis and Weber Counties (Table 3), there would not be significant cumulative effects to air quality associated with constructing the proposed action.
- **Operations**: Hill AFB air quality managers would ensure that long-term operation of the proposed action complies with the Hill AFB Title V Permit, any relevant approval orders, EPA regulations, and the Utah SIP. Any required air quality control devices would be installed and tested prior to allowing newly installed equipment to begin operating. Comparing the magnitude of predicted operational air emissions to existing emissions in Hill AFB, Davis and Weber Counties (Table 3), no cumulative effects to air quality were identified for operating the proposed action.

#### 4.3.2 Predicted Effects to Solid and Hazardous Waste

4.3.2.1 Alternative A: No Action

With respect to solid and hazardous waste, current conditions would continue. Uncontaminated office trash would be generated, and domestic sewage (including water from rinsing equipment and reusable PPE) would flow to a sewage treatment plant operated by NDSD.

With respect to solid and hazardous waste, the no action alternative would have no indirect effects and no cumulative effects.

### 4.3.2.2 Alternative B (Proposed Action): Construct a Fire Crash Rescue Station

#### Direct Effects Due to Construction

- *Waste Generation*: During the proposed construction activities, solid wastes expected to be generated would be construction debris consisting mainly of concrete, metal, and building materials. These items would be treated as uncontaminated trash and recycled when feasible. It is possible that equipment failure or a spill of fuel, lubricants, or construction-related chemicals could generate solid or hazardous wastes. In the event of a spill of regulated materials, Hill AFB environmental managers and their contractors would comply with all federal, state, and local spill reporting and cleanup requirements.
- Demolition Debris: Any friable asbestos detected during the detailed asbestos survey and subsequently removed during an abatement action, would be disposed in accordance with permit requirements at a disposal facility that is approved to accept friable asbestos. Loose flakes of lead-based paint (confirmed to contain lead by on-site inspections using a portable X-ray fluorescence analyzer) would be scraped, collected, and properly disposed at a permitted hazardous waste disposal facility. Dielectric fluid from any transformers or light ballasts suspected of containing PCBs would be tested, and the equipment would be properly disposed as either a regulated waste (PCB content of 50 parts per million [ppm] or more) or as uncontaminated trash (PCB content less than 50 ppm).

The uncontaminated demolition debris, non-friable asbestos, and lead-based paint that is still affixed to surfaces, would all be disposed off base, at a local construction debris (Class VI) landfill. Class VI landfills are allowed to accept construction and demolition waste, including: non-friable asbestos, lead-based paint that is still affixed to surfaces, and a quantity of 10 PCB-containing light ballasts per structure.

Thermostats that contain mercury switches would be collected by electricians from the Hill AFB facilities maintenance flight (75 CES/CEZ) prior to demolition activities. Any thermostats not saved for local reuse would be delivered to DRMO, which has an office on Hill AFB. DRMO would send the thermostats to be recycled, and a waste stream would not be created.

Any asphalt pavements surrounding the structures would be removed, collected, and would either be recycled, or stored and made available for reuse during future Hill AFB construction projects.

Waste Management: Hill AFB personnel have specified procedures for handling construction-related solid and hazardous wastes in their engineering construction specifications. The procedures are stated in Section 01000, General Requirements, Part 1, General, Section 1.24, Environmental Protection. All solid non-hazardous waste is collected and disposed or recycled on a routine basis. Samples from suspect wastes are analyzed for hazardous vs. non-hazardous determination. The suspect waste is safely stored while analytical results are pending. Hazardous wastes are stored at sites operated in accordance with the requirements of 40 CFR 265. The regulations require the
generator to characterize hazardous wastes with analyses or process knowledge. Hazardous wastes are eventually labeled, transported, treated, and disposed in accordance with federal and state regulations.

• *Excavated Soils*: If unusual odors or soil discoloration were to be observed during any excavation or trenching necessary to complete the proposed action, or if any monitoring points are encountered, remedial managers from the Hill AFB Environmental Restoration Branch (75 CEG/CEV) would be notified. Samples from suspect soils on Hill AFB would be analyzed for hazardous vs. non-hazardous determination. The suspect soils would be stored at sites operated in accordance with the requirements of 40 CFR 265 while analytical results are pending. Any soils determined to be hazardous would be eventually labeled, transported, treated, and disposed in accordance with federal and state regulations. Soil from the construction project would not be taken off base without prior 75 CEG/CEV approval.

# Direct Effects Due to Operations

Based on information received during the scoping meeting held on June 2, 2008, three issues related to solid and hazardous waste were identified for operating the proposed action.

- *Containment*: The proposed action would provide proper secondary containment and security controls for chemical storage areas, waste accumulation points, and any areas where fuel or hazardous liquids would be present.
- *Non-Regulated Solid Waste*: Uncontaminated office trash would be generated. Unless recycled, these non-regulated items would be disposed as uncontaminated trash. Recycling opportunities are likely to exist for aluminum, paper, and plastic items.
- **Regulated Liquid Waste:** Domestic sewage (including water from rinsing equipment and reusable PPE) would flow to a sewage treatment plant operated by NDSD.

### Indirect Effects

During scoping and the detailed analysis, no indirect effects related to solid and hazardous waste were identified for the proposed action.

### Cumulative Effects

Proper handling of solid and hazardous waste eliminates releases of contaminants to the environment. There are no cumulative solid or hazardous waste effects associated with the proposed action.

- 4.3.3 Predicted Effects to Biological Resources
  - 4.3.3.1 Alternative A: No Action

With respect to biological resources, the no action alternative would have no direct effects, no indirect effects, and no cumulative effects.

# 4.3.3.2 Alternative B (Proposed Action): Construct a Fire Crash Rescue Station

# Direct Effects Due to Construction

No vegetated areas would be disturbed by the proposed action (all areas are currently occupied by structures or pavement). Improper building design and construction could create roosting or nesting areas for birds (which are a nuisance, as well as being a hazard to aircraft). To discourage bird activity for the applicable bird species (such as European Starlings, Pigeons, and House Finches), overhangs, covered ledges, and holes in structures would all be avoided during the design and construction process.

## Direct Effects Due to Operations

Operating the proposed action would not create any interaction with biological resources, and therefore, no effects to biological resources were identified.

## Indirect Effects

During scoping and the detailed analysis, no indirect effects related to biological resources were identified for the proposed action.

## Cumulative Effects

- *Construction*: Since building design and construction would discourage bird activity, no cumulative effects to biological resources were identified for the proposed action.
- *Operations*: Since no effects to biological resources were identified for operating the proposed action, no cumulative effects would exist.
- 4.3.4 Predicted Effects to Water Quality
  - 4.3.4.1 Alternative A: No Action

With respect to water quality, the no action alternative would have no direct effects, no indirect effects, and no cumulative effects.

# 4.3.4.2 Alternative B (Proposed Action): Construct a Fire Crash Rescue Station

# Direct Effects Due to Construction

Based on the Hill AFB funding request that was prepared for the proposed action, the land area to be disturbed would be between three acres and four acres in size. The proposed action would therefore be covered under Utah's general construction permit rule for stormwater compliance. Prior to initiating any construction activities, this permit must be obtained and erosion and sediment controls must be installed according to a stormwater pollution prevention plan (SWPPP). The SWPPP would specify measures to prevent soil from leaving the construction site on the wheels of construction vehicles, thereby controlling the addition of sediments to the

storm drain system. The proponents would coordinate with the Hill AFB water quality manager (75CEV/CEGOC) prior to submitting an application for a Utah construction stormwater permit.

The SWPPP and Hill AFB construction specifications would require the contractor to restore the land to a non-erosive condition. All areas disturbed by excavation would be backfilled, and then either be covered by pavements, gravel, or re-planted, re-seeded, or sodded to prevent soil erosion.

### Direct Effects Due to Operations

The proposed facility would be subject to Utah's general multi-sector permit rule for stormwater compliance. The *Hill AFB Stormwater Management Plan - Municipal Stormwater Permit* establishes good housekeeping measures and other best management practices to prevent contamination of runoff. Pond 3 serves as a detention pond for this area of the base, and this pond is checked for an oil sheen prior to stormwater being discharged by manually opening the outfall valve. Since the proposed action would be located in an area currently occupied by structures or pavement, no increase to stormwater runoff volume would be expected.

## Indirect Effects

During scoping and the detailed analysis, no indirect effects related to water quality were identified for the proposed action.

## Cumulative Effects

On-base and off-base water quality would be protected during and after construction activities. Hill AFB water quality managers monitor the capacity of the retention and detention ponds relative to projected inflows from the 24-hour, 100-year storm event. Pond 3 would be dredged and/or expanded to provide additional capacity if necessary, or additional stormwater facilities would be constructed. There are no cumulative water quality effects associated with the proposed action.

# 5.0 LIST OF PREPARERS

Streamline Consulting, LLC 1713 N. Sweetwater Lane, Farmington UT 84025 (801) 451-7872 Randal B. Klein, P.E., Project Manager

Environmental Restoration Section, 75 CEG/CEV 7274 Wardleigh Road, Hill AFB UT 84056 Kay Winn, NEPA Manager, (801) 777-0383

Select Engineering Services, Inc. 1544 N. Woodland Park Drive, Suite 310, Layton UT 84041 Rudy Jones, Biologist, (801) 399-1858 Brandon Chard, Restoration Program Comments, (801) 775-6963

EMAssist, Inc. 7274 Wardleigh Road, Hill AFB UT 84056 Mark Kaschmitter, Air Regulatory Analysis, (801) 775-2359

<u>CH2M HILL, Inc.</u> 7274 Wardleigh Road, Hill AFB UT 84056 Michelle York, P.E., Air Quality Engineer, (801) 775-6961

### 6.0 LIST OF PERSONS AND AGENCIES CONSULTED

Environmental Restoration Section, 75 CEG/CEV 7274 Wardleigh Road, Hill AFB UT 84056 Sam Johnson, NEPA/Cultural Resources Program Manager, (801) 775-3653 Kay Winn, NEPA Project Manager, (801) 777-0383 Jaynie Hirschi, Archaeologist, (801) 775-6920 Marcus Blood, Natural Resources Manager, (801) 777-4618 Russ Lawrence, Biological Scientist, (801) 777-6972 Shannon Smith, Environmental Restoration Project Manager, (801) 775-6913 Mike Petersen, Water Quality Manager, (801) 775-6904 Glenn Palmer, Air Quality Manager, (801) 775-6918

<u>Civil Engineering Squadron, 75 CES/CE</u> 7302 Wardleigh Road, Hill AFB UT 84056 Steve Weed, MILCON Project Programmer, (801) 777-2580 Rodney Sanders, Asbestos Program Manager, (801) 777-6782

### 7.0 REFERENCES

**CFR**: *Code of Federal Regulations*, US Government Printing Office, Office of the Federal Register (various sections and dates).

**DAQ 2006**: Division of Air Quality Annual Report for 2005, Utah Division of Air Quality, 2006.

**DAQ 2007**: State of Utah National Ambient Air Quality Standards, Areas of Non-Attainment and Maintenance (Updated July 2006), Utah Division of Air Quality Website, July, 2008.

**Economic 2008**: Utah Labor Force: (Section 5 of the Utah Business & Economic Profile), Economic Development Corporation of Utah, January 31, 2008.

**EPA 1991**: Nonroad Engine and Vehicle Emission Study - Report, Table 2-07a, US Environmental Protection Agency, 1991.

**EPA 1998**: National Air Pollutant Emission Trends, Procedures Document for 1900-1996, US Environmental Protection Agency, Page 4-285, 1996.

Hardlines 2006: Fire Crash Rescue Station (Project KRSM003009), Hill Air Force Base, Utah, MILCON Scope/Cost Validation, Hardlines Design Company, December 15, 2006.

Hill AFB: Construction Specifications, Section 01000, General Requirements, Part 1, General, Section 1.24, Environmental Protection, Hill AFB, UT, current version.

Hill 2006: Integrated Natural Resources Management Plan, Hill AFB, 2006.

Hill 2007a: Integrated Cultural Resources Management Plan, Hill AFB, 2007.

Hill 2007b: 2006 Annual Criteria and Toxic Pollutant Emission Inventory, Hill AFB, April, 2007.

Stantec 2007: Hill AFB Stormwater Management Plan - Municipal Stormwater Permit, Stantec Consulting, April, 2007.

**WFRC 2003**: Natural Hazard Pre-Disaster Mitigation Plan, Utah's Wasatch Front, Wasatch Front Regional Council, December 2003.

### FINDING OF NO SIGNIFICANT IMPACT

1. NAME OF ACTION: Construct a Fire Crash Rescue Station at Hill Air Force Base (AFB), Utah.

2. **DESCRIPTION OF THE PROPOSED ACTION:** Hill AFB proposes to accommodate current United States Air Force (USAF) missions by constructing a new fire crash rescue station to support current and future workloads, while complying with the USAF Fire Station Design Guide, National Fire Protection Association (NFPA) standards, and Public Entity Risk Institute guidance.

The proposed fire crash rescue station and associated parking lot would be located to the north of the existing fire crash rescue station (Building 9), comprising between three and four acres. Existing Building 11, approximately 75 percent of Building 9, and a storage shed (Building 16) would be demolished and converted to parking (to replace most of the parking displaced by the new fire crash rescue station - a net loss of 90 parking spaces would occur).

**3. SELECTION CRITERIA:** The following criteria were used to assemble alternatives. The facility that provides fire crash rescue capability on Hill AFB described in this document should:

- comply with the USAF Fire Station Design Guide and NFPA standards;
- comply with the Public Entity Risk Institute's guidance document, *Creating* and Evaluating Standards of Response Coverage (SORC) for Fire Departments;
- have sufficient space to accommodate all fire department needs, including the latest generation of larger fire fighting vehicles;
- be located near existing water, sewer, and storm drains; and
- be protective of facilities, human health, and the environment.

### 4. ALTERNATIVES CONSIDERED OTHER THAN THE PROPOSED ACTION:

Under the no action alternative, the fire crash rescue station would not be constructed, and compliant facilities would not be provided. Existing deficiencies would continue to exist related to indoor storage of all vehicles and equipment, evacuating vehicle exhaust fumes, isolation requirements for removing blood borne pathogens from personal protective equipment (PPE), size of living quarters, electrical systems, plumbing systems, heating systems, and response capabilities.

Renovating the existing structure was considered and eliminated by the Hill AFB civil engineering office. The existing fire crash rescue station, constructed in 1941, has outlived its useful life for its originally-intended purpose (although approximately 25 percent of it can still be used for offices and classrooms).

Other locations were considered, but eliminated due to spatial conflicts and poor vehicular access.

### 5. SUMMARY OF ANTICIPATED ENVIRONMENTAL EFFECTS:

Issue	Alternative A	Alternative B
	No Action	Proposed Action
Air Quality	No effects	Construction equipment would create temporary emissions. Fugitive dust emissions would be mitigated. Air emissions from the emergency generator would be less than 0.1 tons per year (for criteria pollutants, and for hazardous air pollutants).
Solid and Hazardous Waste	No effects	If contaminated soils are identified, they would be properly handled during the construction process. Solid and liquid wastes containing regulated substances would all be properly contained, stored, transported, disposed, re-used, and/or recycled.
		Office activities would generate uncontaminated trash. Domestic sewage (including water from rinsing equipment and reusable PPE) would flow to a sewage treatment plant operated by NDSD.
Biological Resources	No effects	No vegetation is present. To discourage bird activity, overhangs, covered ledges, and holes in structures would all be avoided during the design and construction process.
Water Quality	No effects	During construction and operations, water quality would be protected by implementing stormwater management practices.

6. FINDING OF NO SIGNIFICANT IMPACT: Based on the above considerations, a Finding of No Significant Impact (FONSI) is appropriate for this assessment.

Approved by:

aponto 2.M-

Date: 20.009

HARRY BRIESMASTER III, Colonel, USAF Commander, 75th Civil Engineer Group APPENDIX A

CULTURAL RESOURCES FINDING OF NO ADVERSE EFFECT



DEPARTMENT OF THE AIR FORCE 75TH CIVIL ENGINEER GROUP (AFMC) HILL AIR FORCE BASE UTAH

9 July 2008

Dr. W. Robert James Chief, Environmental Management Division 75th CEG/CEV 7274 Wardleigh Road Hill Air Force Base, Utah 84056-5137

Mr. Chris Hansen State Historic Preservation Office 300 Rio Grande Salt Lake City, UT 84101

Dear Mr. Hansen

Hill Air Force Base (AFB) is currently proposing to construct a new fire crash rescue station to accommodate current and future workloads while complying with the United States Air Force Fire Station Design Guide and National Fire Protection Association Standards. The Area of Potential Effect (APE) is approximately four acres of property (Attachment 1, Area of Potential Effect for Proposed Fire Crash Rescue Station). The proposed action would include demolition of Buildings 9 (existing fire station), 11 (squadron operations), and 16 (storage shed), all previously determined ineligible for the National Register of Historic Places (NRHP) (Attachment 2, SHPO Case No. 08-0579, Hill AFB Evaluations and Inventories 2008).

Within Hill AFB, three previous inventories have comprised cultural resources survey of 840 acres (U-91-WC-687m, U-95-WC-280p, and U-01-HL-0164m). Results from these projects include the recordation of one historic refuse dump (42Dv51) and two prehistoric isolates, all determined ineligible for listing in the NRHP. Inventory efforts have resulted in the survey of 12.5 percent of the total area of Hill AFB. None of the previous inventories fall within the APE of the current proposed project.

Building construction and associated infrastructure will encompass the entire APE of the current project. Given the lack of previous findings and the extensive development and disturbance of Hill AFB, the potential for archaeological historic properties is extremely low. However, if any archaeological resources are found during construction, ground-disturbing activities in the immediate vicinity will cease, the Hill AFB Cultural Resources Program will be notified, and the unanticipated discovery of archaeological deposits procedures shall be implemented with direction from the Hill AFB Cultural Resources Program and in accordance with the Hill AFB Integrated Cultural Resources Management Plan (Attachment 3, Unanticipated Discovery of Archaeological Deposits).

Hill AFB has determined the proposed project will have no adverse effect to historic properties [36 CFR §800.4(d)(1)]. I request your concurrence in these determinations as specified in 36 CFR §800.

An Environmental Assessment has been prepared for the proposed fire crash rescue station. If you would like a copy of this document to review, or should you or your staff have any questions about the project, please contact our archaeologist, Ms. Jaynie Hirschi, 75th CEG/CEVOR, at (801) 775-6920 or at jaynie.hirschi@hill.af.mil.

Sincerely

W. KOBERT JAMES, Ph.D., P.E. Chief, Environmental Management Division 75th Civil Engineer Group

Attachments:

- 1. Area of Potential Effect for Proposed Fire Crash Rescue Station
- 2. SHPO Case No. 08-0579, Hill AFB Evaluations and Inventories 2008
- 3. Unanticipated Discovery of Archaeological Deposits





### Department of Community and Culture

PALMER DePAULIS Executive Director

State History PHILIP F. NOTARIANNI Division Director

JON M. HUNTSMAN, JR. Governor GARY R. HERBERT Lieutenant Governor

State of Utah

April 9, 2008

Ms Jaynie Hirschi 75 CEG/CEVOR 7274 Wardleigh Road Hill Air Force Base UT 84056-5137

### RE: HAFB Evaluations and Inventories 2008

In Reply Please Refer to Case No. 08-0579

Dear Ms Hirschi:

The Utah State Historic Preservation Office received materials on the above-referenced project on February 28, 2008. The Utah SHPO is comfortable with and concurs with Hill Air Force Base's determinations of eligibility based on the information sent to our office and recommendations of the historic buildings and structures reports regarding the districts in HAFB proper—Ogden Arsenal/Ogden AMA Historic District, Hill Field Historic Housing Historic District, and the Strategic Air Command Historic District; the two HAFB districts outside of HAFB proper—Little Mountain Text Annex Historic District and the Boulder Seismological Research Site Historic District; and individual buildings throughout HAFB (including individual buildings located at the Utah Test and Training Range). We appreciate your efforts in taking into account Utah's historic resources as HAFB plans and moves forward with projects. We will add these reports and forms to our files. We look forward to working with you further in putting all of this data into our Historic Sites Database.

This information is provided to assist with Section 106 responsibilities as per §36CFR800. If you have questions, please contact me at clhansen@utah.gov or (801) 533-3561.

Regards,

Chris Hansen Preservation Planner



UTAH STATE HISTORICAL SOCIETY ANTIQUITIES HISTORIC PRESERVATION RESEARCH CENTER & COLLECTIONS

300 S. RIO GRANDE STREET, SALT LAKE CITY, UT 84101-1182 - TELEPHONE 801 533-3500 - FACSIMILE 801 533-3503 - HISTORY.UTAH.GOV

### Standard Operating Procedure

# UNANTICIPATED DISCOVERY OF ARCHAEOLOGICAL DEPOSITS

#### APPLICABLE LAWS AND REGULATIONS

- National Historic Preservation Act
- National Environmental Policy Act
- Native American Graves Protection and Repatriation Act
- AFI 32–7065 (June 2004), Cultural Resources Management Program

#### **OVERVIEW**

All undertakings that disturb the ground surface have the potential to discover buried and previously unknown archaeological deposits. The accidental discoveries of archaeological deposits during an undertaking can include but are not limited to:

- Undiscovered/undocumented structural and engineering features; and
- Undiscovered/undocumented archaeological resources such as foundation remains, burials, artifacts, or other evidence of human occupation.

#### POLICY

When cultural resources are discovered during the construction of any undertaking or grounddisturbing activities, Hill AFB shall:

- Evaluate such deposits for NRHP eligibility.
- Treat the site as potentially eligible and avoid the site insofar as possible until an NRHP eligibility determination is made.
- Make reasonable efforts to minimize harm to the property until the Section 106 process is completed.
- The BHPO will ensure that the provisions of NAGPRA are implemented first if any unanticipated discovery includes human remains, funerary objects, or American Indian sacred objects (see SOP #6).

#### PROCEDURE

Step 1: Work shall cease in the area of the discovery (Figure 5-5). Work may continue in other areas.

 The property is to be treated as eligible and avoided until an eligibility determination is made. Hill AFB will continue to make reasonable efforts to avoid or minimize harm to

Further construction activities in the vicinity of the site will be suspended until an agreedupon testing strategy has been carried out and sufficient data have been gathered to allow a determination of eligibility. The size of the area in which work should be stopped shall be determined in consultation with the **BHPO**. the property until the Section 106 process is completed.

Step 2: Immediately following the discovery, the **Project Manager** shall notify the installation **BHPO**.

Step 3: The **BHPO** or a professional archaeologist shall make a field evaluation of the context of the deposit and its probable age and significance, record the findings in writing, and document with appropriate photographs and drawings.

- If disturbance of the deposits is minimal and the excavation can be relocated to avoid the site, the BHPO will file appropriate site forms in a routine manner.
- If the excavation cannot be relocated, the BHPO shall notify the office of the SHPO to report the discovery and to initiate an expedited consultation.

#### The Section 106 review process is initiated at this point.

- If the deposits are determined to be ineligible for inclusion in the NRHP, then Hill AFB BHPO will prepare a memorandum for record and the construction may proceed.
- If the existing information is inadequate for an NRHP eligibility determination, Hill AFB BHPO shall develop an emergency testing plan in coordination with the SHPO.

Step 4: Hill AFB shall have qualified personnel conduct test excavations of the deposits to determine NRHP eligibility.

- Hill AFB BHPO, in consultation with the SHPO, will determine appropriate methodology for NRHP eligibility determination.
- If the SHPO and Hill AFB agree that the deposits are ineligible for inclusion in the NRHP, then work on the undertaking may proceed.
- If the deposits appear to be eligible, or Hill AFB and the SHPO cannot agree on the question of eligibility, then Hill AFB shall implement alternative actions, depending on the urgency of the proposed action.
  - · Hill AFB may relocate the project to avoid the adverse effect.
  - · Hill AFB may request the Keeper of the National Register to provide a determination.
  - Hill AFB may proceed with a data recovery plan under a MOA developed in coordination with the SHPO and possibly the ACHP and interested parties.
  - Hill AFB may request comments from the ACHP and may develop and implement actions that take into account the effects of the undertaking on the property to the extent feasible and the comments of the SHPO, ACHP, and interested parties. Interim comments must be provided to Hill AFB within 48 hours; final comments must be provided within 30 days.



### Hirschi, Jaynie Civ USAF AFMC 75 CEG/CEVOR

From: Sent: To: Subject: Attachments: Hirschi, Jaynie Civ USAF AFMC 75 CEG/CEVOR Tuesday, July 15, 2008 2:33 PM 'Christopher Hansen' RE: Hill AFB Fire Station SHPO additional information...docx

Chris,

Attached is a document with a photo and brief information on each building. If necessary, I can also send the site forms. Please let me know.

Thanks, Jaynie

-----Original Message-----From: Christopher Hansen [mailto:clhansen@utah.gov] Sent: Tuesday, July 15, 2008 12:07 PM To: Hirschi, Jaynie Civ USAF AFMC 75 CEG/CEVOR Subject: Re: Hill AFB Fire Station

Hi Jaynie-

Although it appears we have previously concurred w/ the determinations of eligibility, could you send us a photograph of each building and basic info for each, at least for our Section 106 review and records?

Thanks,

Chris

Chris L. Hansen Preservation Planner Utah State Historic Preservation Office 300 Rio Grande Salt Lake City, UT 84101 Phone: 801/533-3561 Fax: 801/533-3503 clhansen@utah.gov

>>> "Hirschi, Jaynie Civ USAF AFMC 75 CEG/CEVOR" <<u>Jaynie.Hirschi@HILL.af.mil</u>> 7/10/2008 9:38 AM >>> Good morning Chris,

Hill AFB is currently proposing to construct a new fire crash rescue station on property in Davis County, Utah to accommodate current and future workloads and to comply with AF standards. An Environmental Assessment is being prepared for this project. The proposed action would include demolition of buildings 9 (existing fire station), 11 (squadron operations), and 16 (storage shed), all previously determined ineligible for the National Register of Historic Places. Attached is the consultation letter, along with a location map of the Area of Potential Effect and the Hill AFB Standard Operating Procedure for Unanticipated Discovery of Archaeological Deposits. In consideration of the activities described in the letter, it is our opinion that the proposed project will have no adverse effect to historic properties, and it is recommended that the proposed project proceed. We request your concurrence in this determination as specified in 36 CFR § 800. If you have any questions, please contact me. Thank you for your help with this matter.

Jaynie

Jaynie Hirschi

Archaeologist

Hill Air Force Base 75th CEG/CEVOR

(801) 775-6920 (office)

(801) 777-4306 (fax)



**Building 9** is a two story "V"-shaped structure built in 1941, to serve as the fire station for the Hill Field area. It is located in close proximity to the flight line in order to expedite intervention with aircraft crashes. The exterior is constructed of brick laid in six-course American bond. Original windows were six-over-six wood double-hung. The 6:12 slope roof, originally covered with slate shingles, has two round dormers on the east and west sides, located over the third and ninth windows (from any direction). The northwest wing fronting the flight line is a modern addition.

When first recorded in 1994 by Hardlines: Design & Delineation, the building was labeled as a contributing element to the proposed Hill Field Historic District. A 2002 reassessment by Geo-Marine, Inc. (GMI) did not reaffirm the district, due in part to the high ratio of non-contributing buildings to contributing buildings, contradictory district boundaries, and the district's failure to convey the original footprint of the airfield. Therefore, some of the buildings previously recommended as eligible as contributing elements to the proposed Hill Field Historic District are now considered ineligible for the National Register of Historic Places (NRHP), including building 9. The GMI reassessment also revealed that the building had been significantly altered. These changes to the historic character impact the building's historic integrity and the building does not meet the level of historic significance to be individually eligible for listing on the NRHP.



**Building 11**, constructed in 1941, is a one story brick building that initially served as the Paint, Oil, and Dope House, storing liquid chemicals used on WWII aircraft. It was later converted into administrative offices. The exterior is constructed of brick laid in six-course American bond and the central portion of the building has a continuous brick frieze, consisting of several rows of running and rowlock coursing. The original security steel sash windows were replaced with modern plate windows.

When first recorded in 1994 by Hardlines: Design & Delineation, the building was labeled as a contributing element to the proposed Hill Field Historic District. A 2002 reassessment by Geo-Marine, Inc. (GMI) did not reaffirm the district, due in part to the high ratio of non-contributing buildings to contributing buildings, contradictory district boundaries, and the district's failure to convey the original footprint of the airfield. Therefore, some of the buildings previously recommended as eligible as contributing elements to the proposed Hill Field Historic District are now considered ineligible for the National Register of Historic Places (NRHP), including building 11. The GMI reassessment also revealed that the building had been significantly altered with many of the original door and window openings completely or partially bricked up. These changes to the historic character impacted the building's historic integrity and the building does not meet the level of historic significance to be individually eligible for listing on the NRHP.



**Building 16** was built in 1943 and is a one story, tawny brick structure. It was originally constructed as a storage facility associated with the adjacent fire station. Alterations have been made to the doorway – the only original opening. Although considered a contributing element to the proposed Hill Field Historic District in a 1994 assessment by Hardlines: Design & Delineation, a 2002 reassessment by Geo-Marine, Inc (GMI) did not reaffirm the district, due in part to the high ratio of non-contributing buildings to contributing buildings, contradictory district boundaries, and the district's failure to convey the original footprint of the airfield. Therefore, some of the buildings previously recommended as eligible as contributing elements to the proposed Hill Field Historic District are now considered ineligible for the National Register of Historic Places (NRHP), including building 16. In addition, due to its lack of integrity, building 16 is not individually eligible for listing in the NRHP.



### State of Utah

JON M. HUNTSMAN, JR. Governor GARY R. HERBERT Lieutenant Governor

July 17, 2008

**Department of Community and Culture** 

PALMER DePAULIS Executive Director

State History PHILIP F. NOTARIANNI Division Director

Ms Jayni Hirschi 75<sup>th</sup> CEG/CEVOR 7274 Wardleigh Road Hill Air Force Base UT 84056-5137

RE: Hill Air Force Base Fire Station

In Reply Please Refer to Case No. 08-1208

Dear Ms Hirschi:

The Utah State Historic Preservation Office received information and your request for our comment on the above-referenced project on 07/10/2008. The buildings have been previously determined ineligible; therefore, we concur with your determination that the proposed undertaking will have No Adverse Effect to any historic properties.

This information is provided to assist with Section 106 responsibilities as per §36CFR800. If you have questions, please contact me at clhansen@utah.gov or (801) 533-3561.

Regards,

Chris Hansen Preservation Planner



UTALL STATE HISTORICAL SOCIETY ANTIQUITIES HISTORIC PRESERVATION RESEARCH CENTER & COLLECTIONS

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