Fort Sam Houston and

Camp Bullis

Draft Historic Properties Component of the

Integrated Cultural Resources

Management Plan

August 1, 2005

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1.0 INTRODUCTION

The Historic Properties Component (HPC) is the portion of the Integrated Cultural Resources Management Plan (ICRMP) that relates to compliance with Section 106 of the National Historic Preservation Act (NHPA). Section 106 of the NHPA requires Federal agencies to take into account the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation (Council) a reasonable opportunity to comment on such undertakings. The Section 106 process seeks to accommodate historic preservation concerns with the requirements of Federal undertakings through consultation between the Army and Section 106 participants. The HPC establishes the procedures Fort Sam Houston (FSH) and its sub-installation Camp Bullis will follow in its management of historic properties. The HPC provides procedures for identification, evaluation, and determining and resolving the effects of undertakings on such properties. The purpose of this HPC is to enable compliance with Section 106 on a programmatic, as opposed to case-by-case, basis through certification to operate under the Army Alternate Procedures (AAP).

Under Section 800.14 of the Council's regulations at 36 CFR Part 800, "Protection of Historic Properties," Federal agencies can adopt, with the Council's approval, alternate procedures that may be used in lieu of the Council's procedures for compliance with Section 106. The Department of the Army has gone through this process and has adopted the AAP to 36 CFR Part 800. The AAP establishes a two-pronged approach to Section 106 compliance that allows

the Installation Commander to select one of two processes to follow in complying with Section 106. At FSH/Camp Bullis, this authority has been delegated to the Garrison Commander. The Garrison Commander may either continue to use the Council's procedures or may elect to comply with the AAP and prepare a HPC. FSH has elected to adopt the AAP, and develop, with the input of consulting parties, this HPC. The AAP is published in the Federal Register at Volume 67, Number 44, pp. 10138. As stated in the Federal Register, "The AAP authorizes Army Installation commanders to develop a Historic Property Component (HPC) to the installation's ICRMP. Once certified by the Council, the HPC serves as the installation's Section 106 compliance agreement for a five (5) year period. The installation's Section 106 compliance responsibilities would be met through internal installation implementation of the HPC rather than case-by-case, formalized, external review of individual undertakings as presently required by 36 CFR Part 800."

The HPC establishes the process that FSH will follow in its management of historic properties and provides procedures for determining and resolving the effects of undertakings on such properties. The HPC is composed of three basic organizational elements: background data, standard operating procedures (SOPs) and appendices.

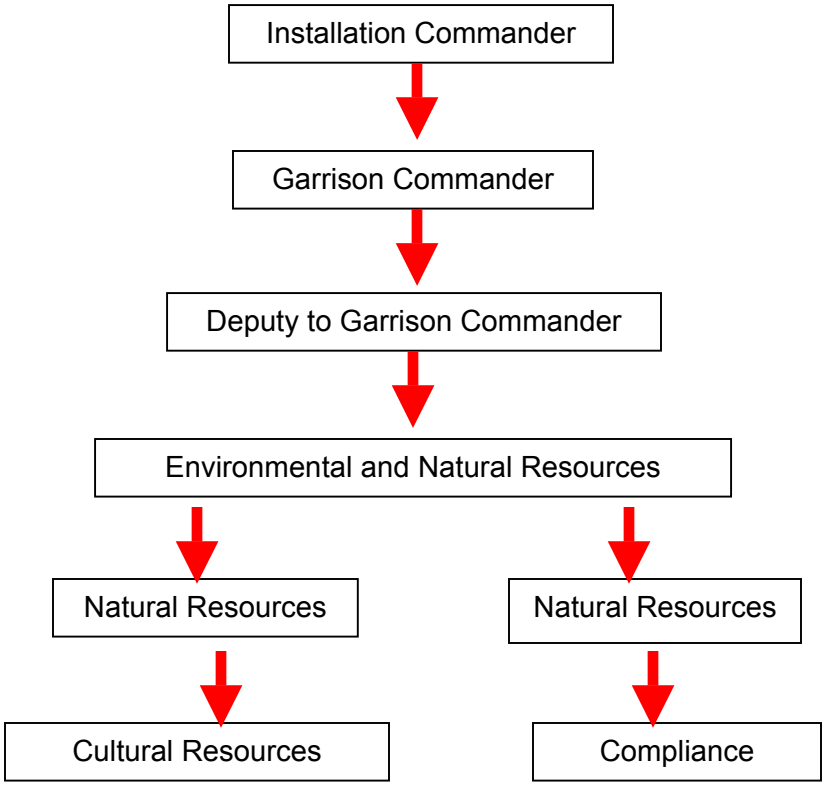
The background data includes: identification of the installation's cultural resources manager (CRM) and the Coordinator of Native American Affairs (if applicable); identification of parties that participated in the consultation for development of the HPC; information on FSH's past and present mission and the types of activities which may have an impact on historic properties; a "planning level survey", which presents what is presently known about the installation's natural and cultural environment and forms the basis for management decisions concerning historic properties; a summary of the categories of undertakings that FSH believes it will conduct over the 5-year period during which the HPC is in effect; a list of categorical exclusions that will not require review under FSH's compliance procedures; and management practices that will be carried out and implemented in FSH's day to day activities.

SOPs are the systematic procedures that FSH will follow to consider the effects of its activities on historic properties and to manage them responsibly. As such, these SOPs have been prepared in consultation with consulting parties and explicitly detail how FSH will carry out its responsibilities.

1.1 Cultural Resources Manager and Coordinator for Native American Affairs Position

The Cultural Resources Management Program is located within the Environmental Division (ED) of the Directorate of Safety, Environment, and Fire (DSEF) (Appendix C). Army policy in AR 200-4 Section 1.9(b), states that each installation have a Cultural Resource Manager (CRM) "to coordinate the installation's cultural resources management program. The Garrison Commander will ensure that the CRM has appropriate knowledge, skills, and professional training and education to carry our installation cultural resources management responsibilities. The Garrison Commander will also ensure that historic properties technical work is conducted by individuals who meet the applicable professional qualifications standards established by the National Park Service (NPS) in 36 CFR 61, Appendix A." FSH will maintain technical expertise for historic properties, specifically a Historic Architect or Architectural Historian and an Archeologist. When it is not possible for FSH to maintain on-site technical expertise, technical expertise will be obtained for all technical work, in accordance with SOP 10. All technical work affecting historic buildings and structures will be carried out or reviewed by or under the supervision of personnel meeting the professional qualifications for Historic Architecture or Architectural History in the Secretary of the Interior's Professional Qualifications Standards. All technical work affecting archeological resources will be carried out or reviewed by or under the supervision of personnel meeting the professional qualification for Archeology in the Secretary of the Interior's Professional Qualification Standards.

The CRM provides day-to-day management for historic properties, helps ensure that all installation activities are in compliance with applicable requirements, serves as coordinator of historic properties management activities with organizational elements and tenant organizations, and oversees implementation of the HPC. Within the DSEF, the CRM is responsible for the management of NHPA compliance associated with historic properties at FSH and reviews all projects for compliance with requirements. In accordance with Army policy, the CRM position is considered a program management position, and may or may not be filled by a technical expert; however, actions relating to historic properties identification, evaluation and treatment must be implemented by a technical expert who is qualified to make determinations on the property-type under consideration. The chain of command is illustrated below:



1.2 Installation Missions and Effects

1.2.1 Missions

FSH maintains many separate but interlinking responsibilities. On one hand it is a major, active military installation that plays a vital role in the defense of the United States. On the other hand, it contains some of the oldest structures on any of the Army's installations. This blend of the old and new gives today's Soldiers a share in the history of this post, which goes back almost a century and a half.

Quadrangle Entrance Gate, Building 16 (1879)

The post was shaped by the roles and missions performed there. Over the years, first one and then another of these missions predominated, but all have been performed from the earliest time up to the present.

- Headquarters: Command and control of a region or units;
- Garrison: Station for troop units;
- Logistical Base: Supplies, services, and support;
- Mobilization and Training: Preparing Soldiers for combat, peacekeeping, and neutralization missions; and
- Medical Facility: Medical operations and training.

Today, FSH continues to carry out its five historic missions. FSH is a U.S. Army Medical Command (MEDCOM) installation, and the home of the U.S. Army Medical Department Center and School (AMEDD C&S). The principal mission activities at FSH support the medical readiness of the U.S. Army. The installation commander and garrison commander operate and administer the use of the resources of FSH, Camp Bullis (a sub-installation of FSH), and the Canyon Lake Recreational Area (CLRA), a sub-installation of FSH) for the accomplishment of all assigned missions and to provide support to assigned, attached, and tenant units. The mission of Camp Bullis is to provide the ranges, field training areas, airspace, facilities, and necessary installation support to U.S. Department of Defense (DoD) authorized federal, state, and local government activities, particularly those associated with the training needs of FSH and its tenant organizations.

These missions are accomplished principally through five tenant organizations and the U.S. Army Garrison, which provides the headquarters function for the installation itself. An integral aspect of mission support is to facilitate compliance with applicable legal requirements in order to maintain the availability of property that is necessary to accomplish mission objectives.

The five organizations have the directive to accomplish the following assignments:

Army Medical Department Center and School (AMEDD C&S) services Army, DoD, and other Federal agency personnel and foreign allies by providing training and education in health care services.

New Brooke Army Medical Center, Building 3600 (1995)

Brooke Army Medical Center (BAMC) is a 1,340,000-square-foot hospital complex that provides a full range of medical and surgical care and medical research.

Medical Command's (MEDCOM) overall mission is to provide health care for Army and Reserve components and the training of military health care personnel. MEDCOM activities at FSH are primarily administrative; subordinate organizations that fall under the responsibility of HQ serve as the actual providers of medical services and training.

MEDCOM Headquarters,
Building 2792 (1939)

Headquarters, U.S. Army North (formerly Fifth U.S. Army) assists, evaluates, and synchronizes all training support activities for Reserve component units west of the Mississippi River. It also plans, coordinates, and executes mobilization operations and coordinates military support to civil authorities.

Headquarters, Fifth Recruiting Brigade is the organization responsible for overall Army recruiting in New Mexico, Oklahoma, and Texas, in addition to being responsible for several specialized programs.

FSH is also the Headquarters for the Southwest Installation Management Region under the Transformation Installation Management (TIM) initiative; home to U.S. Army, South (USARSO); and the U.S. Army Medical Information Systems and Services Agency (USA MISSA). These organizations are mainly administrative in duty, and have not changed the primary mission of FSH. FSH is home to approximately 15,988 military, 5,629 Department of Defense civilians, and 7,593 other civilian personnel.

1.2.2 Mission-related Activities and Effects

This section provides explanations of the types of undertakings and actions that may affect historic properties at FSH. Undertakings are defined in the NHPA of 1966 (16 USC 470-470w) as "any Federal, Federally assisted, or Federally licensed action, activity, or program, new or continuing, that may have an effect on National Register resources and thereby triggers procedural responsibilities." Undertakings that may affect historic properties require a Section 106 review under the NHPA. The standard for evaluation is whether or not the proposed undertaking will affect a eligible or listed historic property such that the character-defining features that make the property eligible will be compromised. Character-defining features for each eligible or listed building at FSH and Camp Bullis are listed in the Maintenance Manual.

The overall mission of FSH includes several discrete activities, including the capacity to function as:

- A major Army command and control operation;
- A center for premier medical training facilities;
- A state-of-the-art medical care center;
- A major mobilization station for the U.S. Army in the event of a national or regional emergency requiring a reserve call-up; and
- An established military complex with the capability to support other unforeseen national contingencies.

The broad categories of activities associated with FSH can be broken down into: administration and support; construction (including demolition); operations and maintenance; light industry; research, development, test and evaluation (RDT&E); medical services; recreation; and training. The installation cantonment areas are comprised of all the facilities and infrastructure that support a functioning military community. The following routine undertakings or actions within cantonment areas may affect historic properties:

- Maintenance of historic buildings, structures and landscapes;
- Administration of family housing, since such housing may be historic, or may be constructed in culturally sensitive areas, including privatization of housing under the Residential Communities Initiative (RCI);
- Accessibility programs that can impact historic properties;
- Energy conservation programs that can result in the demolition or substantial alteration of historic buildings and structures;
- Hazardous materials removal that can damage historic properties;
- Maintenance and repair, or outleasing of utilities that can alter historic buildings, structures, and landscapes, or damage or destroy archeological sites;
- Road maintenance that involves ditching or culvert placement that can disturb or destroy archeological sites;
- Routine grounds maintenance that can damage historic properties;
- Changes in the use of historic properties;

- Master planning and other planning activities, which shape the development of installations and the treatment of historic properties;
- Construction of new facilities, such as buildings, utility corridors, access roads, erosion control structures, golf courses, landing strips, and training ranges or complexes that can impact historic properties
- Deconstruction of historic properties.

The following routine undertakings or actions in the military training areas may affect historic properties:

- Tactical Training
  - Tactical training will comprise several different formats including use of 11 maneuver areas and 22 firing ranges (for a variety of types of small arms, mortars, mini-mortar, light anti-tank weapons, grenade launchers, hand grenades, and claymore mines).
- Field Training
  - Field training includes survival, escape, and evasion training conducted over much of the installation.
- Logistic Support Activities
  - Logistical support for training (engineering support; ITAM support; cultural and natural resources support; Operations and Range Control; and Morale, Welfare, and Recreation).

The maintenance of normal site activities at Camp Bullis will require the following types of actions:

- Demolition of underutilized, inadequate, or dilapidated facilities (as identified by the Facility Reduction Program);
- Reuse of underutilized facilities through traditional and lease programs;
- New construction of facilities including training parks; and
- Maintenance and repair of existing facilities.

Special Projects

- Implementation of corrective measures to manage encroachment (e.g., acquisition of land and relocation of residents), which can affect historic properties;
- Closure of facilities, and/or transfer to non-federal parties.

Vandalism

- Although not a mission related activity, unauthorized excavation and removal of material from historic properties, aside from being a violation of federal law, can irreparably damage the integrity of the site.

2.0 PLANNING LEVEL SURVEY (PLS)

A planning level survey describes the status of completion of the inventory of historic properties within the context of the existing physical and historical environments at the installation.

2.1 Installation Physical Environment

FSH is located within the city limits of San Antonio, Texas, 2.5 miles northeast of downtown (Figure 2-1). Camp Bullis occupies a site about 10 miles long (north to south) and 4 miles wide in Bexar and Comal counties, 18 miles northwest of FSH. The area in which Camp Bullis is located was primarily rural until the mid-1900s, but since then has become increasingly urbanized through residential development and expansion. The Canyon Lake Recreation Area (CLRA) is an outdoor recreation area located 48 miles northeast of FSH in the Jacobs Creek area of the Canyon Lake Reservoir (Figure 2-2). Canyon Lake Reservoir is located north-northwest of the town of New Braunfels, along the Guadalupe River. The CLRA is located on land owned by the U.S. Army Corps of Engineers (USACE), and utilized by FSH personnel through a long-term lease agreement. FSH and its sub-installations consist of approximately 31,000 acres distributed among the FSH Military Reservation (3,150 acres), the Camp Bullis Military Reservation (27,994 acres), and the CLRA (110 acres). The regional physiography is governed primarily by the Balcones Escarpment, a broad area of faulted limestone forming the southern and eastern edge of the Edwards Plateau.

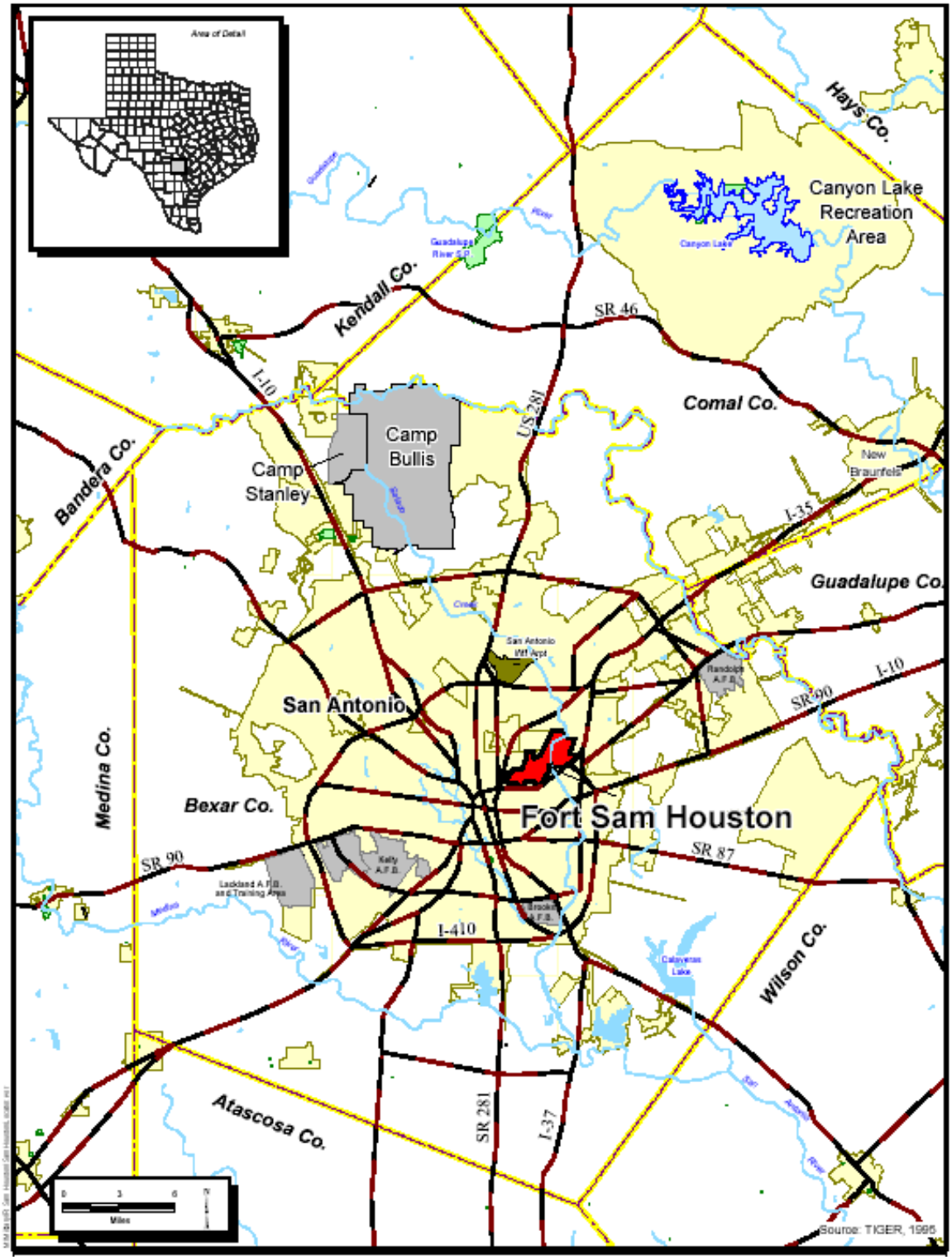


Figure 2-1. Fort Sam Houston Locator Map.

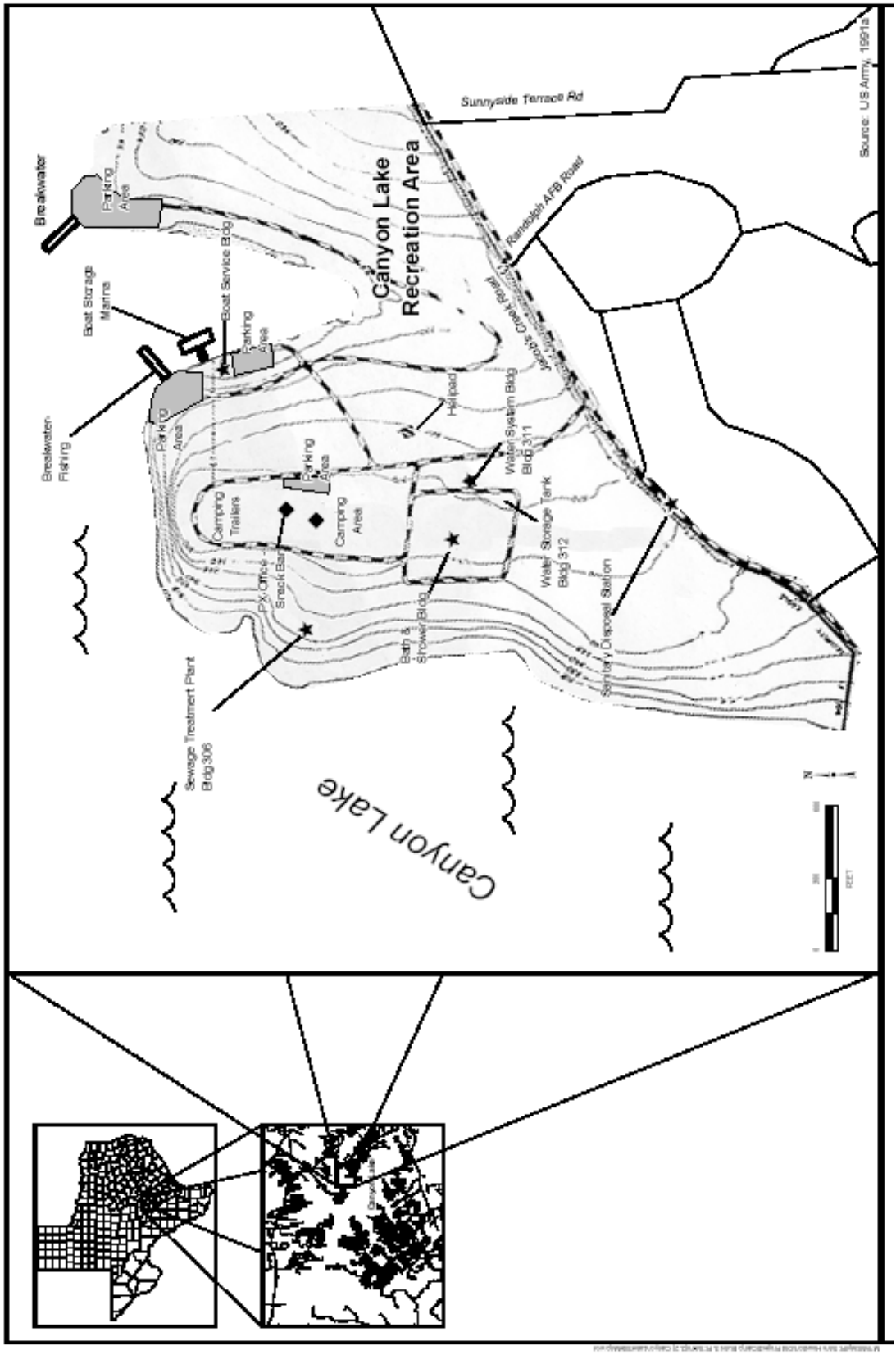


Figure 2-2. Canyon Lake Recreation Area.

This escarpment rises approximately 1,000 feet above the coastal prairie to the south and east, and has a marked influence on the environmental setting. To the northwest of the escarpment lies the Edwards Plateau, a rugged hilly region dissected by many small streams. It is drained by Cibolo and Balcones Creeks and contains the headwaters of Culebra, Leon, and Salado Creeks (Taylor et al. 1966:119). Elevations in the Plateau range from 1,100 to 1,900 feet. The soil resources in the area of FSH have been studied in detail by the Natural Resources Conservation Service (U.S. Department of Agriculture 2002), and they include Houston Black, Tarrant, Frio, Venus, and Lewisville. The western upland portion of the installation consists primarily of the Houston Black series. These soils consist of clayey soils that are deep, dark gray to black, and calcareous. Houston Black soils have variable surface drainage with poor to nonexistent internal drainage. These soils are nearly level to strongly sloping. Runoff can be fairly rapid from the Houston Black soils when they exhibit slopes greater than one percent, and erosion problems can be severe. These soils are fairly productive, and in rural areas they are cultivated for grains and fiber crops. Tarrant soils occur in patches in the western portion of the installation. The soils in the eastern portion of the installation are derived from various stream terrace deposits. The Trinity and Frio soil association occupies the bottomlands and low terraces along Salado Creek. These soils, which form over recently deposited (or Recent) alluvium, are frequently flooded. Venus soils consist of clay loams over older alluvium, and are not subject to stream overflows. Lewisville soils, moderately deep soils formed over the higher terrace deposits, are some of the more productive soils in Bexar County.

Salado Creek flows from north to south through the eastern portion of FSH. The western part of FSH is drained by a small tributary of the San Antonio River (Alamo Ditch) and no flooding problems have been reported on this section. The southern and central portions of the installation are drained by the City's storm drainage system. The location of the reservation areas on the edge of the Gulf Coastal Plains results in a modified subtropical climate. San Antonio is situated between a semi-arid area to the west and the coastal area of heavy precipitation to the southeast. The average annual rainfall of 27.54 inches is sufficient for the normal production of most crops. Precipitation is fairly well distributed throughout the year, with heaviest amounts during May and September.

At Camp Bullis, the cantonment area, where administrative, support and classroom facilities are located, comprises 603 acres; 23 firing ranges comprise 6,013 acres; and maneuver areas, where the bulk of training activities occur, comprise the remaining 21,421 acres.

From a topographic perspective, Camp Bullis falls within the Edwards Plateau area along the Balcones Fault Zone of northern Bexar County. The Balcones Fault Zone, located along the eastern and southern boundary of the Edwards Plateau, is defined by undulating and hilly topography that ranges from about 700 to 1,100 feet. Prominent landforms within Camp Bullis include King Ridge (1,515 ft), Otis Ridge (1,480 ft), and High Hill (1,490 ft). Numerous caves and karst features—located throughout the installation—are the dominant

subterranean features at Camp Bullis. As of this report, 62 caves and 296 karst features have been documented on the installation. Of those features, 29 are recharge areas for the Edwards Aquifer.

Camp Bullis lies completely within the Tarrant-Brackett soil association. This soil association consists of gently sloping to very steep, shallow or very shallow, stony soils that are underlain by Glen Rose and Edwards limestones. These soils developed over hard limestone. Runoff is rapid and erosion is a problem. Most of the association (65 percent) is represented by Tarrant soils that have a surface layer composed of very dark grayish-brown, calcareous clay loams with a maximum thickness of 25.4 cm (10 in). This layer is friable when moist and contains limestone fragments that range from .64 to 51 cm (.25–24 in) in diameter. The subsurface layer, a hard, fractured limestone, is about 20.3 cm (8 in) thick, and clay loam occurs in the cracks and spaces. This layer is underlain by hard limestone bedrock. Brackett soils account for about 20 percent of the association. They consist of a 10.2- to 40.6-cm (4- to 16-in) thick, light-colored, highly calcareous clay loam surface layer over soft marl or limestone interbedded with hard limestone. Stones, gravel, and cobblestones are present in this layer. The Tarrant-Brackett Association is not suitable for agriculture, but it is ideal for range. This association is represented in the project area by the Tarrant Association, rolling (5–15 percent slopes) [TaC], Tarrant Association, hilly (15–30 percent slopes) [TaD]; and the Brackett-Tarrant Association, hilly (8–30 percent slopes) [BtE] soils (Peter and Hunt 1992:3).

Six intermittent streams comprise the natural water resources found within Camp Bullis. Cibolo Creek drainage meanders through the northern-most portion of the installation. It is generally dry. Salado Creek, beginning near the northwestern boundary, flows generally in a south-southeasterly direction across the installation. Lewis Creek drains the central portions of the installation and flows into Salado Creek to the southwest. Meusebach Creek drains the northern portion of the camp and joins with Cibolo Creek approximately two miles northeast of Camp Bullis. Panther Springs Creek, and its unnamed tributary, drain the southeast portion of Camp Bullis and join with the Salado south of the camp. All the streams are intermittent and are fed by precipitation.

2.2 Historic Background

In 1845, the U.S. Army established a post at San Antonio that was used as a base for Army operations against Native Americans, and against Mexico in the Mexican War (1846-1848). The U.S. Army Quartermaster Department established a Quartermaster Depot at San Antonio in 1846. This installation functioned as the main depot for the interior of the new state of Texas, and supplied the U.S. military during the Mexican War. However, none of the storehouses, offices, or depot quarters were permanent or owned by the government; all were rented. The Mexican War ended with the Treaty of Guadalupe Hidalgo in 1848. In 1849, San Antonio became the headquarters of the U.S. Army Eighth Military District. Property offered by the city as the headquarters of the Eighth Military District was returned by the government after it was judged inadequate (Freeman 1993b:5-7).

Residents of San Antonio wanted a permanent military installation in the city. Such an installation was desirable not only for the protection it would afford against Native American and Mexican aggression, but also for the economic benefits it would provide for the city. San Antonio tried six times to give land to the government for a permanent military installation before an offer of land for an arsenal was finally accepted by the U.S. in 1852. Construction began on the installation in 1858, but was interrupted by the Civil War, when Confederated forces occupied San Antonio. In 1866, Federal troops returned to the city. San Antonio resumed efforts to obtain a permanent military installation (Freeman 1993b:5-7).

After a competing bid from New Braunfels and fears that the military would choose to locate permanently in Austin rather than San Antonio, the U.S. government expressed interest in establishing an installation on land east of San Antonio. Between 1870 and 1875, the government accepted three donations of land from the city, 92.79 acres in all. The post's Quartermaster Depot, Headquarters of the Department of Texas, Staff Post, Hospital, pumping plant, mess hall, corrals, and stables would be built on this land (Freeman 1993b:6-8).

2.2.1 Fort Sam Houston Main Cantonment

In 1873, appropriations were made for the construction of a permanent Quartermaster Depot in San Antonio, but project funding was discontinued until 1875. Construction of the depot began in 1876, the same year that Company D

Watchtower in Quadrangle, Building 40 (1878)

of the Tenth Infantry was moved from Austin to San Antonio and a post of the U.S. Army was established at San Antonio. By February 1878, the depot, modeled after the Quartermaster Depot in Jeffersonville, Indiana, was nearly complete. Beginning in 1877, the depot was used to house personnel and supplies, but was not officially "in place" until 1879 (Freeman 1993b:6, 10-15).

The depot accommodated the Quartermaster Department and the Headquarters of the Department of Texas, originally established in 1853 and reestablished after the Civil War in 1865. It quickly became apparent that additional housing was needed at the depot. A building program was initiated that led to the construction of the permanent officers' housing at the present-day Staff Post. Construction of this housing was largely complete by 1881. The building program was notable because it occurred at a time when housing conditions at Army installations in the U.S. were generally poor and funds for new construction not easily obtained (Freeman 1993b:16, 18, 20, 26).

Field officers' quarters, Building 3 (1881)

Beginning in the 1880s, a major change in War Department policy led to further growth of the future FSH, at that time generally referred to as the Post of San Antonio (Handy 1951:50-51). In 1884, Congress gave in to pressure from the War Department for the consolidation of the military installations scattered across the United States. The War Department expected such consolidation to "make it possible for Soldiers to train in large formations, for the Army to maintain fewer, better-constructed buildings, and for military personnel to be available for service wherever needed by taking advantage of a rapidly developing national transportation network" (Freeman 1993b:26). The consolidation took place over more than a decade, lowering the number of garrisoned posts from 117 in 1888 to 96 by 1892. San Antonio, a strategically located city, served by several railroads and with plenty of water and good lines of communication, was chosen as a consolidation point for Army troops (Freeman 1993b:26-28). Expansion of the post as a result of Army consolidation led to economic gains for San Antonio, and reportedly "provided affirmation of the increasing importance of San Antonio as a State-wide trade and transportation center" (Freeman 1993b:48).

Magazine, Building 2157 (1889)

Acquisition of additional land to expand the Post of San Antonio began even before Congressional approval of the consolidation plan. The first new land was acquired in 1882, and additional acreage was obtained

between 1882 and 1883. New personnel moved onto the post before planning and construction of new quarters was accomplished (Freeman 1993b:28-30). Planning and construction of the new post's quarters and associated buildings and structures began around 1883. Construction was completed bit by bit, as funding became available. The majority of buildings and structures associated with this phase of expansion were complete by 1890, the year the post was named Fort Sam Houston (Freeman 1993b:28-43; Handy 1951:50-51). Additional major building projects coincident with the construction of the quarters included the completion of a two-story brick hospital and a brick magazine. One result of this building program was the expansion of quarters onto what was once the firing range, leading to government acquisition of a 310 acre area to the north of FSH for use as a new rifle range (Freeman 1993b:43).

The years between 1895 and 1913 were eventful ones at FSH. Just before the Spanish American War (1898), the Department of Texas, which had been headquartered at FSH, was replaced by the Fifth Military District, a unit of the Department of the Gulf, headquartered in Atlanta. This change in the organization of the Army led to concern in San Antonio that the city would decline in importance as a military center. San Antonio politicians and citizens lobbied successfully for the reestablishment of the Department of Texas after the war, gaining the return of the Headquarters to FSH in 1899 (Freeman 1993b:50-51; Handy 1951:64-65). Troops were trained and equipped at FSH for the Spanish American War. Among the troops equipped by the Quartermaster Depot during

the war were Teddy Roosevelt's Rough Riders, in San Antonio during May 1898 (Handy 1951:63).

Between 1901 and 1903, there was a nationwide move to further troop concentration. San Antonio was chosen again as a concentration center. In response to this choice, another phase of construction was undertaken at FSH. The new construction reflected changes that had taken place in the Army since the last decade of the nineteenth century: building plans had been standardized, new construction methods were being used, civilian contractors were utilized more than previously, and problems with sanitation on Army installations addressed. Sewerage systems were planned and constructed at both Staff Post, Hospital, and Quadrangle by 1901, and new plumbing installed at Infantry Post by 1902 (Freeman 1993b 49, 51-52). Additional land was purchased and buildings planned using standardized (previously used) plans. New construction, which began in 1904 and was completed by 1906, included officers quarters, a parade ground, cavalry barracks, mess halls, kitchens, lavatories, artillery barracks, and a hospital (Freeman 1993b:52-53, 55, 58, 66).

Officers' quarters, Building 115 (1906)

Kitchen-Mess Hall , Building 155 (1908)

The choice of FSH as one of seven brigade-sized posts in the United States led to a further building phase at the fort. Land for expansion was acquired between 1906 and 1908 north and east of the existing fort. Construction of buildings began around 1906 with the completion of a new hospital. By 1910, new buildings and structures, most of red brick rather than the previously used buff-colored brick, included the new hospital, as well as buildings for two infantry regiments, one cavalry regiment, three field batteries and regimental headquarters, and one signal corps company (Freeman 1993b:67-68, 86). More buildings, including a new bakery, were added to the plan as construction proceeded. During construction of the Brigade Post, many troops transferred to FSH, including troops from Forts Brown and Ringgold, who participated in the Mexican border conflict in 1909 (Freeman 1993b:81, 83, 86). In March 1911, 1,200 troops, "the largest peacetime assembly of troops that had ever occurred" (Freeman 1993b:86) took place at the fort as troops arrived for maneuvers on the land acquired in 1908, on land leased to the north of the fort, and on the newly acquired Leon Springs Military Reservation. Among the participants were Douglas McArthur and George C. Marshall (Freeman 1993b:49, 86, 90).

In 1909, San Antonio was chosen as the location of the Army's permanent flight station, and by 1910, the Signal Corp's one airplane was housed in a shed "near present-day North New Braunfels Avenue near the site of the cavalry's new mounted drill ground" (Freeman 1993b:82-83). Between 1910 and 1916, construction continued at FSH. A wireless station, railroad spurs, a laundry, pumping plant, water tanks and a trestle were constructed during this period. By 1914, 600-acre FSH had become the largest Army post in the United States. Between 1913 and 1915 the aviation center at FSH was planned and constructed, and soon the First Aero Squadron moved there from Fort Sill, Oklahoma. In 1916, when Francisco "Pancho" Villa raided a New Mexican town, the First Aero Squadron was dispatched to New Mexico to take part in General Pershing's punitive expedition. Troops assembled and were trained at FSH's Camp Wilson, east of New Braunfels Avenue, in preparation for duty in connection with the Mexican border conflict (Freeman 1993b:90, 92-93). In the area of Camp Wilson the Army also established a motor pool to supply Pershing's Punitive expedition, "the Army's first large-scale use of motor vehicles in transportation" (Freeman 1993b:93).

Camp Wilson was used as a demobilization camp after troops were called back to the United States from Mexico in January 1917. Just a few months later, the United States declared war on Germany, and the Army began construction of cantonments and camps necessary for the conscription and training of an estimated 1.1 million troops. Camp Travis, a National Army Cantonment at FSH,

Nurse's Quarters, Building 189 (1918)

was constructed during this time. It was built between present-day Dodd Field and the Brigade Post. Camp Travis was designed by well-known city planner George E. Kessler, who counted among his achievements the design for the grounds of the 1893 Chicago World's Fair, the city plan of Dallas, park and boulevard plan of Fort Worth, and the boulevard plan for Kansas City. It took approximately 7,000 workers to build the 1,268 standardized buildings constructed before 1917; after 1917, an additional 181 buildings were constructed. Recruits and draftees were processed and organized into units at Camp Travis, and trained at both Camp Travis and Leon Springs Military Reservation. Some permanent construction took place at FSH during World War I, including expansion of the Quartermaster Depot. Additional land was acquired north of Infantry Post, as well (Freeman 1993b:93, 97, 100). In 1918, FSH and Camp Travis functioned as demobilization centers (Freeman 1993b:105).

In order to store the large amounts of supplies returned from the War, the New General Supply Depot was constructed at FSH between 1920 and 1921. It was located west of the Quadrangle and North of Infantry Post, and included railroad tracks, roads, utilities, 38 permanent warehouses, an office building, and a gas station. Quartermaster Depot Headquarters was moved to the New Depot in 1921, the same year that the Southern Department of the Army was replaced by the Eighth Corps Area, which encompassed Texas, Oklahoma, Colorado, New

Mexico, and Arizona. Some of the area of the Quadrangle vacated by the Quartermaster Department after its move to the New General Supply Depot was used as office space for Eighth Corps Area personnel. In 1922, Camp Travis became a part of FSH. Between 1922 and 1926, little permanent construction took place at the fort (Freeman 1993b:106).

Colonel's Housing, Building 1010 (1934)

By the mid-1920s, it was clear that many World War I-era temporary buildings in the U.S. were in poor condition and needed to be replaced. A major building phase occurred at the fort after Congress passed appropriations bills introduced in 1926 to pay for the construction of new Army housing. San Antonio architect Atlee B. Ayers organized a successful local campaign to have the new buildings at FSH built in the Spanish style. An Infantry Regimental Headquarters and an Infantry Battalion Barracks were completed by 1928. Between 1930 and 1931, Field Artillery Barracks were constructed, as were officers' and noncommissioned officers' quarters. In 1932 and 1934 garages associated with the officers' and noncommissioned officers' quarters were completed. All these buildings were constructed in "mission style" (Freeman 1993b:107-108, 111-112, 123).

Old BAMC, Building 1000 (1938)

During the Great Depression in the 1930s, high unemployment rates were experienced in Bexar and El Paso counties; however, workers benefited from three government programs designed to create jobs: the Public Works Administration (P.W.A.); the Civil Works Administration (C.W.A); and the Works Progress Administration (later Works Projects), or W.P.A. (Freeman 1993b:101-104). Military installations in San Antonio also benefited from the monies spent on P.W.A., C.W.A., and W.P.A. projects (Freeman 1993b:104). In 1933, FSH's involvement with public works projects began, when FSH and Camp Bullis became "1 of 73 conditioning camps in the United States that received, examined, enrolled, and organized approximately 250,000 young men into 200-man units" of the Civilian Conservation Corps (C.C.C.). The C.C.C. was established to provide jobs for the unemployed and to undertake a program of conservation in the U.S. Later, FSH would benefit from Federal Emergency Administrator of Public Works allotments, as well as from working with the C.W.A., P.W.A., and W.P.A. (Freeman 1993b:120).

In 1931, Fort Sam Houston Cemetery, on land acquired in 1917, was made a part of San Antonio National Cemetery. Improvements to the cemetery were made using P.W.A. labor (Freeman 1993b:119, 123). Construction continued at the fort during the mid-1930s, utilizing public works funds when possible. A radio tower building, a Quartermaster garage for the motor pool, vehicle sheds, a dispatcher's office, post prison, quartermaster warehouse, ordnance shop, and dispensary were built during these years. Construction of officers' housing as well as a bachelor officers' quarters and mess hall, entertainment facilities, post exchange, and a new electrical system was complete by 1935. Between 1935 and World War II, new medical facilities were completed at the fort (Freeman 1993b:123, 127, 130).

During the interwar period, the Second Division was garrisoned at FSH. This Division, made famous by its extensive battle experience during World War I, trained at FSH and at Camp Bullis. At Camp Bullis during the 1930s, this Division participated in testing a new form of combat organization, known as the Triangular Division, which would become "the basis of all Army combat organization between 1939 and the Korean War" (Freeman 1993b:105). See also *Camp Bullis, A Military Training Facility in the Southern Department and Eight Corps Area, 1906-1946* (Freeman 1993c).

Warehouse, Building 4189 (1941)

World War II brought the necessity for emergency construction at FSH. Over 400 barracks were built in response to the need for troop housing. Other temporary buildings were constructed as well, including fire stations, administrative offices, clinics, shops, theaters, chapels, clubs, induction and processing facilities, and sports facilities. During the War, FSH's mission included receiving new personnel; training infantry divisions; training combat, combat support, and combat service support units smaller than divisions; running service schools; operating a prisoner-of-war camp; participating in a WAAC program; and unit tactics and organization (Freeman 1993b:134-135). During the War, the Depot functioned as a procurement center, increasing in importance as the War progressed. First, the depot was made the center of a United States Procurement Zone. Later, the Fort Worth and San Antonio Quartermaster Procurement districts were made into one district and the district's headquarters established in San Antonio. Wartime medical facilities and programs at FSH also were significant. During the war, Brooke General Hospital operated as an important Army medical center. Medical training of enlisted personnel and basic training of Army nurses also took place at FSH during World War II (Freeman 1993b:134, 141).

After the war, FSH acted as a separation center. The major mission at the fort after World War II was medical. In 1945, the Medical Field Service School moved from Carlisle, Pennsylvania to FSH. The Institute of Surgical Research, which performed research in the fields of trauma surgery and antibiotic medicine, relocated to FSH in 1946. The Institute of Surgical Research eventually would specialize in the research and treatment of burns (Freeman 1993b:141-142).

The significant medical mission at FSH continued through the Korean War and Vietnam. In 1973, the Army Medical Department was reorganized, and the consolidated command headquartered at FSH. In 1971, when the Fourth and Fifth Armies merged to create the new Fifth Army, one of three armies in the continental United States, the Fifth Army moved into the Quadrangle at the fort.

2.2.2 Camp Bullis

The development of FSH into a major garrison post in 1882 increased the need for an area to provide field training and weapons ranges for the troops stationed there. By 1890, the existing range at FSH proved too small, and efforts were made to find a larger, more rural area. In 1908, the U.S. purchased a 17,000-acre site northwest of FSH (U.S. Army, 1990). It was originally named the Leon Springs Military Reservation. Military maneuvers began in June 1908. In 1917, a portion of the Leon Springs Military Reservation was designated as Camp Bullis and was made a sub-installation of FSH. Subsequent land acquisitions and transfers have brought Camp Bullis to its current size of 27,994 acres.

After the end of World War II, FSH began to shift its mission toward a medical operations and training emphasis. At Camp Bullis, the changes in infantry weaponry, with its increased ranges, meant that many of those weapons could not be fired safely at Camp Bullis. With this restriction of training activities at Camp Bullis, and the conversion of barracks space to hospital wards at FSH, the Army sought to provide a different role for the facilities at FSH and Camp Bullis in the post-war era.

Mess Halls and Kitchens, Buildings 5116-5120 (1930-1935)

When the Medical Field Service School (MFSS) at Carlisle Barracks, Pennsylvania was relocated to FSH in 1945 there was little change to the Camp Bullis facilities as the medical organizations became established at FSH. The medical personnel still required the basic field and small arms training, though additional field training sites were created specifically for the practice of field medical skills by the medical personnel.

Motor Pool, Building 6104 (1945)

When North Korea invaded South Korea in June 1950, the training at Camp Bullis and FSH focused on medical personnel from the reactivated Medical Replacement Training Center (MRTC) at FSH, and MFSS at Camp Bullis. Because the use of the firing ranges for artillery fire was eliminated after May 1951, Camp Bullis was able to create an impact area of greatly reduced size and fixed location, opening up the other areas of the camp to other types of training without the dangers of small arms or artillery fire. Medical training continued as the principal activity at Camp Bullis.

With the buildup of U.S. troops in Vietnam from 1964 to 1972, FSH and Camp Bullis increased their training loads significantly. Because of the tremendous training load at the camp, further improvements to the cantonment area were required, including framed tents, classrooms, and administrative and supply buildings. A confidence course, physical training area, and hand-to-hand combat arena were established nearby. Additional firing ranges were created, and a driving course was set up south of the cantonment area for wheeled, tracked, and later, ambulance-type vehicles. In the mid-1960s, the U.S. Air Force (USAF) began to increase its use of Camp Bullis as a training facility for both basic

trainees and security detachments. By 1968, the USAF had its own food service squadron at Camp Bullis to support these activities.

When the Vietnam War came to a close in the early 1970s, activity at Camp Bullis slowed considerably as the U.S. sought to shift a significant portion of its military readiness onto the shoulders of the Reserve Component. Major combat elements were placed in the National Guard, while the combat support and service support forces (with some combat forces) were placed in the Army Reserve. The USAF increased its use of the camp by expanding the Air Base Ground Defense (ABGD) training programs for its Security Police. A School of Applied Aerospace Science was opened by the USAF at Camp Bullis in 1975, and by 1977 the USAF Security Police Training Site was completed in Maneuver Area (MA) 7. The USAF served as the largest user of Camp Bullis until 1987, when the ABGD School was moved to Fort Dix, New Jersey. It returned to Camp Bullis in 1995 and was renamed the Ground Combat School (GCS). In order to accommodate training requirements of Air National Guard (ANG) units, a Combat Assault Landing Strip (CALS) was constructed in the northeast corner of the installation in 1982. Following an environmental impact assessment (EIA) to address local developers' concerns regarding the extent of the operations planned on the new airstrip, the CALS was certified for use in 1986.

From 1990 to the present, Camp Bullis has remained an important installation, providing target ranges and field training areas for the U.S. Army, U.S. Air Force, U.S. Marine Corps, and Reserve Component elements in the San Antonio area, as well as serving as an exercise site for many out-of-region military units. As of 1990, the camp was accommodating more than 650,000 man-days of training, with the Academy of Health Sciences (AHS) and the Reserve Component the most frequent users. The AHS was already planning several new training parks to further the training of its medical personnel and provide support facilities.

Camp Bullis has also experienced increased use by organizations outside the military. The camp is used by various police and law enforcement agencies, including the Federal Bureau of Investigation (FBI) and the U.S. Marshals; the Boy Scouts and Girl Scouts regularly use the area; 21,000 acres are used for hunting during the state-designated hunting seasons; and until 1992, nearly 18,000 acres were under agricultural grazing leases. In addition, it is managed as a habitat for numerous wildlife species including five endangered species (the black-capped vireo and the golden-cheeked warbler, two Rhadine beetle and one meshweaver species).

2.2.3 Canyon Lake Recreation Area

The CLRA lease area is 110 acres and is located approximately 48 miles northeast of FSH, between IH-35 and US-281. Canyon Lake was originally constructed as a flood control and conservation project, but additional

development in the area has provided recreation for both military and civilian area residents. The CLRA is owned and managed by the USACE, and FSH holds a 50-year permit, issued by the USACE in 1965, to use the 110-acre recreational area for the benefit of area military personnel. As a permittee, FSH is responsible for maintaining its facilities and complying with any state or Federal regulations governing water quality or hazardous substances (Povanka,1999). However, the USACE is responsible for the overall management of Canyon Lake Reservoir to include NHPA requirements, and its primary function as a flood control facility.

The majority of development is clustered along a ridgeline in the western portion of the site. The majority of the camping facilities used by both trailer campers and tent campers are located within a circular drive that allows access to the entire ridge area. A picnic area is located in the northeast portion of the ridge. To the east of the picnic area is a small inlet where water-dependent recreation activities and facilities are located, including a landing dock, marina, breakwater, beaches, and swimming area. A sewage treatment plant is located on the west side of the ridge and is accessed by a small circular drive. An area just east of the camping area and northeast of the water plant has been cleared to provide helicopter access to the facility. A water plant is located just below the heliport area. The land surrounding the CLRA is owned by the USACE, and because lakeshore land is controlled by the USACE, only intermittent pockets of recreational and flood management facilities interrupt the natural shoreline. The

property to the south of the CLRA is leased by the Air Force and also provides picnic and camping areas for military personnel. The area beyond the USACE property is mostly rural, undeveloped land.

Higher density vacation communities, both old and new, are interspersed in the undulating landscape of the surrounding Texas “hill country” (U.S. Army 2000a).

The CLRA is used primarily in the summer months, particularly on the weekends and holidays. During these times, trailer occupancy rates have been as high as 95 to 100 percent. The average trailer occupancy rate during the peak summer period ranged from 72 to 79 percent over the last 5 years, while the annual average trailer occupancy rate was between 46 and 48 percent. It should be noted that trailer occupancy represents approximately 27 percent of the total recreation area usage. Rental and private boats represent approximately 14 percent of the CLRA use, recreational vehicles are 8 percent, tents are 3 percent, beach use is 12 percent, picnicking is 33 percent, and information is 3 percent (USACE 1996). The current staff at the CLRA is 14.

2.3 Comprehensive Overview of past installation inventories

As the Army’s ninth oldest installation, FSH has been the subject of much study, including the following inventories of its historic properties.

Archeological Inventories

1974	Hester, T. R. *41BX194: A Terrace Site, Fort Sam Houston, Texas*	Center for Archaeological Research, University of Texas, San Antonio.
1978	Gerstle, A., T. C. Kelley, and C. Assad *The Fort Sam Houston Project: An Archaeological and Historical Assessment.* Archaeological Survey Report Number 40.	Center for Archaeological Research, University of Texas, San Antonio.
1982	Gibson, E. C., C. J. Jones, and D. A. Knepper *Archaeological Investigations of Area Slated for Expansion at Fort Sam Houston National Cemetery, San Antonio, Texas.*	Center for Archaeological Research, University of Texas, San Antonio.
1987	Gilmore, K. K., and L. Allen *Cultural Resource Testing of the Criminal Investigation Center Construction Site, Fort Sam Houston, San Antonio, Texas.*	Institute of Applied Sciences, North Texas State University
1988	Gilmore, K. K., and L. Allen *Cultural Resources Survey in Connection with the Site of the Proposed Brooke Army Medical Center, Fort Sam Houston, Texas.*	Institute of Applied Sciences, North Texas State University
1988	Jackson, J. M., and E. R. Prewitt *A Cultural Resources Assessment of the Proposed Site of New Construction for the Brooke Army Medical Center at Fort Sam Houston, Bexar County, Texas.*	Prewitt and Associated, Inc.
1988	Quigg, J. M. *Cultural Resources Reconnaissance in Secondary Impact Areas Along Salado Creek at Brooke Army Medical Center, Fort Sam Houston and Camp Bullis, Bexar County, Texas.* Technical Reports Number 5.	Prewitt and Associates, Inc.
1990	Boyd, D. K., I. W. Cox, and H. G. Uecker *Archeological and Historic Investigations at Camp Bullis, Bexar and Comal Counties, Texas: The 1989 Season*. Report of Investigations Number 75.	Prewitt and Associates, Inc.
1992	Howard, M. A. *Prehistoric Research Context for Camp Bullis and Fort Sam Houston, Bexar and Comal Counties, Texas*	
1996	Beene, D. L., and J. L. Buysse *Cultural Resources Survey and Reevaluation of Resources Along the Proposed Perimeter Fence Line at Camp Bullis, Bexar and Comal Counties, Texas*.	Geo-Marine, Inc.
1996	Kibler, K. W., and K. M. Gardner *Archeological Survey and National Register Testing at 41BX377, Camp Bullis Military Reservation, Bexar and Comal Counties, Texas*.	Prewitt and Associates, Inc.
1997	Quigg, J. M., and J. T. Abbott *Results of Archeological and Geomorphological Investigations at Pershing Field, Fort Sam Houston, Bexar County, Texas.*	TRC Mariah Associates, Inc.
1998	Maslyk, P., and K. W. Kibler *A Cultural Resources Survey of Camp Bullis, Bexar County, Texas: the 1996 Season.*	Prewitt and Associates, Inc.

1999a	Maslyk, P. *A Cultural Resources Survey of Water Reuse Pipeline Corridor, Fort Sam Houston, Bexar County, Texas.* Letter Report No. 438	Prewitt and Associates, Inc.
1999b	Maslyk, P. *An Archeological Survey of 400 Acres at Camp Bullis Military Reservation, Bexar County, Texas*.	Prewitt and Associates, Inc.
1999a	Scott, A. M. *Archeological Survey of 63 Acres at the 90th ARCOM Rock Crusher Site, Camp Bullis Military Reservation, Bexar County, Texas.*	Prewitt and Associates, Inc.
1999b	*Archeological Survey of 125 Acres at Camp Bullis Military Reservation, Bexar County, Texas.*	Prewitt and Associates, Inc.
1999c	*Cultural Resources Survey of 1,925 Acres at Camp Bullis Military Reservation, Bexar County, Texas.*	Prewitt and Associates, Inc.
2000	Cestaro, G. C., A. M. Scott, and K. W. Kibler *Cultural Resources Survey of 2,302 Acres at Camp Bullis Military Reservation, Bexar County, Texas*. Reports of Investigations Number 125.	Prewitt and Associates, Inc.
2000	Kibler, K. W., and A. Scott *Archaic Hunters and Gatherers of the Balcones Canyonlands: Data Recovery at the Cibolo Crossing Site (41BX377), Camp Bullis Military Reservation, Bexar County, Texas*. Reports of Investigations Number 126.	Prewitt and Associates, Inc.
2000	Scott, A. M. *Cultural Resources Survey of 280 Acres Along Salado Creek, Fort Sam Houston Military Reservation, Bexar County, Texas* [Draft].	Prewitt and Associates, Inc
2001	Cestaro, G. C., M. D. Freeman, M. E. Blake, and A. M. Scott *Cultural Resources Survey of Selected Maneuver Areas at Camp Bullis, Bexar and Comal Counties, Texas: The Archeology and History of 3,255 Acres Along Cibolo Creek*. Reports of Investigations Number 129 (Review draft).	Prewitt and Associates, Inc.

Architectural Inventories

1980	Tompkins, S. *HABS Survey.*	NAER
1986	Mariani & Associates *Study/Survey of Historically Significant Army Family Housing Quarters. Installation Report: Fort Sam Houston, San Antonio, Texas.*	Mariani & Associates Architects
1989	Mariani & Associates *Department of the Army Historic Family Housing Report: Study/Survey of 2,009 Dwelling Units Located at 34 Army Installations.*	Mariani & Associates Architects

1991a	Komatsu/Rangel, Inc. *Existing Conditions Survey from Fort Sam Houston and Camp Bullis Preparation of Cultural Resource Management +B81 Plan and Research Design Outline.*	Komatsu/Rangel, Inc.
1991b	Komatsu/Rangel, Inc. *Existing Conditions Survey: For Fort Sam Houston and Camp Bullis.* KR/I Project Number 9120D. Produced for the U.S. Army Corps of Engineers, Fort Worth District.	Komatsu/Rangel, Inc.
1993	Freeman, M. D. *Fort Sam Houston, An American Depot, Headquarters, and Training Facility, 1876-1976.*	Komatsu/Rangel, Inc.
1996	Austin, S., and D. Peter *Camp Bullis Military Reservation Cultural Resources Management Plan, Appendix I.*	Geo-Marine, Inc.
1997	Austin, S. *Fort Sam Houston Military Reservation Cultural Resources Management Plan, Appendix J.*	Geo-Marine, Inc.

Cultural Resources Management Plans

1996	Austin, S., and D. Peter *Camp Bullis Military Reservation Cultural Resources Management Plan.*	Geo-Marine, Inc.
1997	Austin, S. *Fort Sam Houston Military Reservation Cultural Resources Management Plan.*	Geo-Marine, Inc.
2001a	Peter, D. E., V. G. Clow, and E. G. Salo *Fort Sam Houston Military Reservation Integrated Cultural Resources Management Plan.* Produced for the U.S. Army Corps of Engineers, Fort Worth District.	Geo-Marine, Inc.
2001b	Peter, D. E., V. G. Clow, and E. G. Salo *Camp Bullis Training Site, Integrated Cultural Resources Management Plan.* Produced for the U.S. Army Corps of Engineers, Fort Worth District.	Geo-Marine, Inc.

Landscape Inventories/Studies

1996	Batzali and Siewers *Historic Landscape Inventory Fort Sam Houston, Texas* [Draft].	U.S. Army Corps of Engineers
1996	Austin, S., and D. Peter *Camp Bullis Military Reservation Cultural Resources Management Plan.*	Geo-Marine, Inc.
1998	University of Illinois at Urbana/Champaign, Department of Landscape Architecture *A Historic Landscape Master Plan for Sam Houston, Texas.*	U.S. Army Construction Engineering Research Laboratories
1998	*Non-historic Landscape Master Plan.*	U.S. Army Construction Engineering Research Laboratories
1998	*Camp Bullis Landscape Master Plan.*	U.S. Army Construction Engineering Research Laboratories

Cultural Affiliation Study

2000	Gardner, K., E. Gadus, and K. Kibler *Cultural Affiliation Overview for Fort Sam Houston and Camp BullisTraining Site, Bexar and Comal Counties, Texas.*	Prewitt and Associates, Inc.

2.4 List of All Known Historic Properties in Inventory with Assessment of Current and Desired Future Condition

2.4.1 Fort Sam Houston

FSH exhibits a number of architectural properties that reflect the history of its development from the 1880s to the present. Development of FSH from the 1880s to the 1920s is best represented in the following areas:

- Staff Post,
- Infantry Post, and
- Cavalry and Light Artillery Post.

The New Post area represents the expansion of FSH housing facilities during the 1930s.

The total number of buildings and structures currently listed in the facility's database is 1,377. Of the 1,377 buildings and structures identified, 751 are listed on or considered eligible for inclusion in the National Register of Historic Places (NRHP); the remaining 626 are currently considered not eligible as they have been determined not eligible or do not meet the 50-year criteria for NRHP eligibility (see Appendix A). As these properties approach the threshold for NRHP eligibility, they will be evaluated in accordance with the procedures set

forth in SOP 3. As properties are determined eligible for the NRHP, FSH may formally nominate those properties in accordance with Army policy for NRHP nominations in Army Regulation 200-4. The majority of the eligible properties are located in the National Historic Landmark District (NHLD).

Architectural Properties Listed in the National Register of Historic Places (NRHP)

The NHLD at FSH, as defined in 1975, includes the majority of the buildings that comprise the areas known as Staff Post, Infantry Post, Cavalry and Light Artillery Post and the New Post. One hundred and three buildings are contributing elements of the NHLD. By definition, all of these properties are listed on the NRHP. Five buildings in the NHLD are individually listed on the NRHP:

- Quadrangle (Building 16),
- Clock Tower (Building 40),
- Pershing House (Quarters 6)
- Gift Chapel (Building 2200)
- Old Brooke Army Medical Center (Building 1000)

Architectural Properties Eligible for Listing in the NRHP

There are an additional six hundred and twenty-seven (627) buildings and twenty-one (21) structures that are considered eligible for the NRHP outside of the NHLD.

Historic Landscape Features

The 1996 report *Historic Landscape Inventory at Fort Sam Houston* identified four distinct landscape areas: the Quadrangle and Staff Post, Infantry Post, Cavalry and Light Artillery Post, and New Post which encompasses the former Camps Wilson and Travis. The 1997 CRMP identified a number of additional historic landscapes. Thirteen of the 14 landscapes identified in the 1997 CRMP were considered eligible for inclusion in the NRHP (Table 2-1).

Table 2-1
Historic Landscape Features

Landscape Component	Eligibility	Date Constructed
Quadrangle	Eligible	**1876 - 1946**
Staff Post	Eligible	1881 - 1946
Infantry Post	Not Eligible	1885 - 1946
Cavalry/Artillery Post	Eligible	1906 - 1946
Channel Pastures	Eligible	1875 - 1946
New Post	Eligible	1926 - 1946
Gorgas Circle	Eligible	1930s - 1946
Depot	Eligible	1917 - 1946
NCO Housing	Eligible	1930s - 1946
Golf Course	Eligible	1930s - 1946
National Cemetery	Eligible	1931 - 1946

NCO – noncommissioned officer

Miscellaneous landscape components were also identified in the 1997 CRMP but require further consideration to determine their National Register status:

- New Deal-funded work projects from the 1930s are located throughout the post require further review to determine if they are eligible for listing. The features are representative of public works projects conducted in the 1930s and display outstanding local craftsmanship.

- The small park, located at the southeast corner of Wilson Road and North New Braunfels Avenue, was constructed during World War II and features include decorative tilework, cast concrete benches, a fountain, and concrete light poles textured to look like wood.
- FSH's ornamental and distinctive entrance gates, which occur throughout the post and include limestone pylons, ornate lamps, and arching ironwork spanning between the pylons.

Archeological Resources

The archeological inventory of the undisturbed lands within FSH has resulted in the recording of 12 archeological sites (41BX194, 41BX389, 41BX422, 41BX778, 41BX779, 41BX780, 41BX880, 41BX1209, 41BX1405, 41BX1406, 41BX1407, and 41BX1408). All 12 of the sites have been determined to be not eligible through consultation with the State Historic Preservation Officer.

Archeological Sites Listed in the NRHP

No archeological sites at FSH have been formally nominated for inclusion in the NRHP.

Potential for Additional Prehistoric Archeological Sites

The potential for additional prehistoric archeological sites at FSH is low. However, recent studies (Scott 2000:10-11) indicate that two floodplain areas along Salado Creek appear to be most promising for containing intact Holocene deposits with the potential for buried cultural materials. Although sites 41BX1209 and 41BX1407 are both located within one of these narrow (<100 m) strips along Salado Creek both were determined not eligible for the NRHP; however, there maybe potential for other more deeply buried deposits within the areas defined by Scott (2000:12).

Uninvestigated Localities of Possible Historic Archeological Sites

There is a probability for the presence of historic archeological sites within the reservation boundaries. Documentation indicates numerous military buildings and structures associated with the development of the post have since been removed or demolished. Many of these structures were associated with the early portions of the facility near the Quadrangle and the Staff, Cavalry, and Infantry posts. Documentation also indicates that a number of heretofore unrecorded farmsteads were located in the FSH area prior to the development of the facility.

- Military sites may include any site that is the result of military activities, including but not limited to barracks and encampments for troops, officers' quarters, and specific-use buildings such as stables, bakeries, and latrines.

- Farmsteads are characterized by the presence of occupational refuse (e.g., china, pottery, bottle glass), architectural remains (brick, window glass, nails), and the possible presence of features such as walls, cisterns, and root cellars (often represented by a regularly shaped depression in the ground).
- Also included within the farmstead class of historic sites are various types of outbuildings and some refuse areas. Archeologically, the sites of outbuildings are represented by an artifact scatter that is distinctive from that of the house site. At the former, one finds artifacts related to the specific activity of the outbuilding (for example, machinery parts and harness equipment would be associated with a barn/shop area). Remnants of pens and foundations are often present at such sites. Refuse areas are usually removed from the house site and represent the localized accumulation of objects which may represent the dumping of refuse from several years of occupation or from numerous sources of refuse.

Properties of Traditional Religious and Cultural Importance to Federally-recognized Indian Tribes

No studies on properties of traditional religious and cultural importance to Federally-recognized Indian Tribes have been undertaken FSH. No tribes have indicated that they are aware of any such properties on FSH.

2.4.2 Camp Bullis

Architectural Resources

Architectural inventories of Camp Bullis were initiated in the late 1980s (Komatsu/ Rangel, Inc., 1991). An architectural inventory was summarized in 1996 (Austin and Peter 1996); however, both new construction and demolition have affected the inventory list since then. The total number of buildings and structures currently listed in the facility's database is 364. These resources include buildings, hutments, infrastructure (e.g., wells, roads, culverts, etc.), and structures. Of these resources, 89 buildings or structures and 37 landscape features were built before 1955. The remainder will not have met the 50-year mark used by the National Register until well after 2005. Of the 364 buildings and structures identified, 81 are identified as requiring further consideration to determine if eligible for inclusion in the NRHP; the remainder have been identified as not eligible in the study; these determinations have not been formally made in coordination with the Texas State Historic Preservation Officer (Tx SHPO) (see Appendix B). Most of the eligible properties are located in the cantonment area. As properties are determined eligible for the NRHP, FSH may formally nominate those properties in accordance with Army policy for NRHP nominations in Army Regulation 200-4.

Historic Landscape Features

The development of the historic context for Camp Bullis (Freeman 1993a) and the architectural inventory conducted as a part of the CRMP studies in 1996 resulted in the recognition of 32 landscape features and infrastructure that were integral to the development of the cantonment area and adjacent ranges during the 1930s. It should be noted that none of the historic landscapes has been formally nominated for inclusion in the NRHP.

Archeological Sites

A total of 96.7 percent of the maneuver lands (23,032 ac) within the military reservation boundaries have been inventoried. Archeological studies have resulted in the identification of 287 archeological sites. The total number of sites (prehistoric, historic, or multi-component) currently considered eligible or requiring further consideration for eligibility for the NRHP is 35. Thirty-one sites are of unknown eligibility and the remaining 221 sites are not eligible. As noted in Appendix B, some of the archeological sites are presently being reassessed.

Potential Prehistoric and Historic Archeological Properties

Based on the previous inventories and research at Camp Bullis, it is possible that archeological sites remain to be located or relocated and, if warranted, entered into the state site inventory at the Texas Archeological Research Laboratory (TARL). Once this initial recording is completed, the sites then should be

evaluated for NRHP eligibility. The method of eligibility determination will vary from site location to site location, depending on the general contextual setting of any given site, and will be performed in accordance with SOP 3: Identifying and Evaluating Historic Properties.

Potential for Unmarked Graves and Cemeteries

It is possible that unmarked cemeteries or individual graves may be found in the future. In the event that Native American human remains are encountered during construction or future archeological investigations, NAGPRA and other requirements may all apply.

Properties of Traditional Religious and Cultural Importance to Federally-recognized Indian Tribes

There have been no studies on properties of Traditional religious and cultural importance to Federally-recognized Indian Tribes undertaken at Camp Bullis.

2.4.3 Canyon Lake Recreation Area

Architectural Resources

No sites of NRHP significance are known to exist in the entire Canyon Lake area. However, the area may have been part of one of the small German farms believed to have been in operation in the mid-1850s. Some rock fences left by

the German farmers still stand near Canyon Lake, but they are not in the FSH lease area (USACE 1996).

Prehistoric and Historic Archeological Resources

In 1949, prior to impoundment of Canyon Lake, archeological inventories were performed in the proposed lake area. Twenty sites were examined and three were recommended for further study. Recovered artifacts revealed intermittent occupation attributed to the Archaic Edwards Plateau Aspect and, to a lesser extent, the Central Texas Aspect. No important paleontological assemblages are known to be in the CLRA area (USACE 1996).

A complete list of all historic properties is provided in Appendices A and B.

2.5 Locations Previously Inventoried Where No Historic Properties Have Been Identified

Information on areas that have been inventoried without identification of historic properties is contained in the above sections on the historic properties inventories at FSH and Camp Bullis, and in Appendices A and B. More specific information regarding the location of archeological sites has been excluded from this report for sensitivity reasons. The 1996 CRMP for Camp Bullis contains more detailed maps locating areas which have been inventoried and locations where archeological sites occur.

2.6 Historic Contexts

Historic contexts are defined in *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation* as "the patterns, themes or trends in history by which a specific occurrence, property or site is understood and its meaning (and ultimately its significance) within prehistory or history is made clear." In most instances, if research contexts are well defined, it is possible to identify those sites that have National Register significance at the time of discovery, rather than wait for a formal evaluation to assess significance. The significance of military landscapes must be evaluated in the context of the broader national and military history associated with their development.

Below are the Histories and Historic Contexts associated with FSH.

Histories and Historic Contexts

n.d.	Manguso, J. M. *Historic Dodd Field*	Fort Sam Houston Museum
n.d.	Manguso, J. M. *A Pocket Guide to Historic Fort Sam Houston.*	Fort Sam Houston Museum
n.d.	Manguso, J. M. *Pocket Guide to the Cavalry and Light Artillery Post, Fort Sam Houston*	Fort Sam Houston Museum
n.d.	Manguso, J. M. *Pocket Guide to the Infantry Post, Fort Sam Houston.*	Fort Sam Houston Museum
1936	Orchard *The History of the Development of Fort Sam Houston.* Masters Thesis.	The University of Texas, Austin
1945	Conner, J. E. *The Centennial Record of San Antonio Service Forces Depot, San Antonio, Texas. 1845-1945.*	U.S. Army
1951	Handy, M. O. *History of Fort Sam Houston.*	Naylor Company

1985	Cagle, Jr. E. *Quadrangle: The History of Fort Sam Houston.*	Eakin Press
1989	Peter, D. E., and M. D. Freeman *Methodology and Results of On-Site Archival Research at Fort Sam Houston, Bexar County, Texas.*	Geo-Marine, Inc.
1991a	Manguso, J. M. *Camp Bullis: Admirably Suited to All Purposes of Military Training.* Fort Sam Houston Museum, Fort Sam Houston.	Fort Sam Houston Museum
1991b	Manguso, J. M. Field Guide to the Historic Homes at Fort Sam Houston.	Fort Sam Houston Museum
1991c	Manguso, J. M. A Pocket Guide to the Staff Post, Fort Sam Houston.	Fort Sam Houston Museum
1991d	Manguso, J. M. Camp Travis: The National Army Cantonment at Fort Sam Houston.	Fort Sam Houston Museum
1993	Manguso, J. M Dodd Field: Target Range, Airfield, Remount Station, and more.	Fort Sam Houston Museum
1993a	Freeman, M. D. *Camp Bullis: A Military Training Facility in the Southern Department and Eighth Corps Area, 1906-1946.*	Komatsu/Rangel, Inc.
1993b	Freeman, M. D. *Agriculture in Texas: Ranching and Stock farming on the Eastern Edwards Plateau, 1845-1941.*	Komatsu/Rangel, Inc.
1994	Freeman, M. D. *Fort Sam Houston, An American Depot, Headquarters, and Training Facility, 1876-1976.*	Komatsu/Rangel, Inc.
1994	Manguso, J. M. *A Little More Distinctive: The New Post Fort Sam Houston.*	Fort Sam Houston Museum

In addition to these specific historic contexts on FSH and Camp Bullis, there are a number of Army-wide contexts that apply to the resources at FSH and Camp Bullis. These contexts are available on the U.S. Army Environmental Web Site http://aec.army.mil.

Army Ammunition and Explosives Storage in the United States, 1775-1945

"For Want of a Home..." A Historic Context for Wherry and Capehart Military Family Housing

Historic Context for Department of Defense World War II Permanent Construction

Identification and Evaluation of U.S. Army Cold War Era Military-Industrial Historical Properties

National Historic Context for Department of Defense Installations, 1790 - 1940

2.7 Annual Inventory Schedule

While the majority of building resources have been inventoried at FSH and Camp Bullis, and 96.7 percent of un-impacted (outside of ranges) lands (23,032 ac) within the military reservation boundaries of Camp Bullis have been inventoried, there is a continuing need to update the inventories as properties reach the 50-year mark and when faults are found in earlier inventories. The inventory efforts will address the areas scheduled for undertakings, and may include those properties previously identified as requiring evaluation (Section 3.2). As properties are determined eligible for the NRHP, FSH may formally nominate those properties in accordance with Army policy for NRHP nominations in Army Regulation 200-4.

2.8 Consulting Parties and Members of the Public

These entities have a direct interest in historic properties management at FSH:

- Texas State Historic Preservation Officer
- Advisory Council on Historic Preservation
- National Park Service (for issues relating to NHL District)
- National Trust for Historic Preservation
- Mescalero Apache Tribe

- Wichita and Affiliated Tribes
- Tonkawa Tribe
- Comanche Tribe
- Tap Pilam Coahuiltecan Nation (in compliance with appropriate regulation)
- Society for the Preservation of Historic Fort Sam Houston
- San Antonio Conservation Society
- City of San Antonio

3.0 CATEGORIZED UNDERTAKINGS

3.1 Summary of Undertaking Categories

A summary of the categories of undertakings that FSH anticipates conducting over the five-year planning period of this document is provided below. The categories refer to classes of undertaking activities and not to specific or individual undertakings or projects.

3.1.1 Maintenance and Repair

Activities typically include building cleaning, re-pointing mortar joints, paint removal, re-painting, masonry repairs, structural repairs, roof repair, window repair, and maintenance/repair of HVAC, plumbing and electrical systems. The plans to repair and maintain the facilities on FSH are prioritized and documented in the Directorate of Public Works, *Project Priority List.* Though the list is constantly changing, examples of these types of projects can be found in Section 3.2: Past and Proposed Undertakings. These projects are generally under $500,000 in cost, and are funded through Operations & Maintenance (O&M) funds. On a building-type basis, the FSH and Camp Bullis Maintenance Manuals contain detailed information on general maintenance issues, cyclical maintenance schedules, maintenance and treatment inspection checklists, and maintenance budget projections. These Maintenance Manuals are guiding documents for historic building/structure maintenance activity.

3.1.2 Rehabilitation

Defined as the process of returning a property to a state of utility, through repair or alteration, which makes possible an efficient contemporary use while preserving those portions and features of the property that are significant to its National Register eligibility. Preferred Actions for investment priorities at FSH include maximizing the reuse/rehabilitation of underutilized facilities, especially for general purpose administrative buildings, unaccompanied personnel housing (UPH), and family housing. Rehabilitation priorities are for the 2200 Area of UPH, the Patch-Chafee Housing area, the Graham, Wheaton, Dickman, Gorgas Circle area, the Artillery Post, and the Infantry Post. Rehabilitation may also include security-upgrade measures.

The FSH and Camp Bullis Maintenance Manuals contain listings of the character-defining features significant to each building type that are to be preserved to the maximum extent possible during any repair or alteration activity.

3.1.3 Privatization/Outleasing/Excess Process

Defined as the process of finding new uses for real estate assets that are currently not needed to support FSH's mission. This may include privatization (through Residential Communities Initiative or others), outleasing (long-term lease of properties), or excess (sale). FSH is scheduled to undergo housing privatization through the Residential Communities Initiative in FY 04 for 935

housing units, not all of which are historic properties. More information on the RCI program can be found at http://www.rci.army.mil.

Because the Garrison Commander is ultimately responsible for insuring that FSH and Camp Bullis are in compliance with the NHPA, other public laws, Army Regulations, and Executive Orders, it is important to insure that all privatization and outlease instruments contain adequate provisions for meeting the posts' legal obligations, both long and near term, relative to the oversight of historic properties.

3.1.4 Mothballing/Layaway

Defined as the process of preparing a building not currently needed to support FSH's mission for a scheduled time-period of disuse, with the plan for future use once the mission changes or a new use is found. Guidelines for mothballing buildings can be found in the NPS's Preservation Bulletin 31: Mothballing Historic Buildings.

3.1.5 Deconstruction and Salvage

Defined as the process of removing a building's physical structure that is no longer needed to support the mission at FSH, or has become a hazard. FSH maintains a *Facilities Reduction Program Project List*, which contains the information regarding vacant facilities located on FSH, Camp Bullis, and the

CLRA that are candidates for deconstruction, or reuse. This list presents a "snapshot" view of buildings considered for the facilities reduction program; the list may change based on finding new uses for buildings or for other planning reasons. Buildings considered for the facilities reduction program through FY 06 are described in Section 3.2. Historic fabric from deconstructed buildings may be salvaged for reuse on other historic buildings when appropriate.

3.1.6 Utilities Privatization

This includes a plan to privatize 100 percent of all utilities through the transfer of installation utility infrastructure to a private/public sector organization that takes over the responsibility to own, maintain, repair, and eventually dispose of and replaces the systems to meet current and future requirements. Transfer of natural gas service was transferred 10 September 1999; electrical service was transferred 17 November 2003; waste and potable water is scheduled to be privatized by 30 September 2006.

3.1.7 New Construction

To enhance training facilities and provide quality housing and workspace for Soldiers and civilians, there are plans for new construction to be carried out in accordance with the land use (Figure 3-1) and long-range plans. Major construction projects (over $1 million in value) must be approved at the installation, Installation Management Agency (IMA), and HQ Army level. They

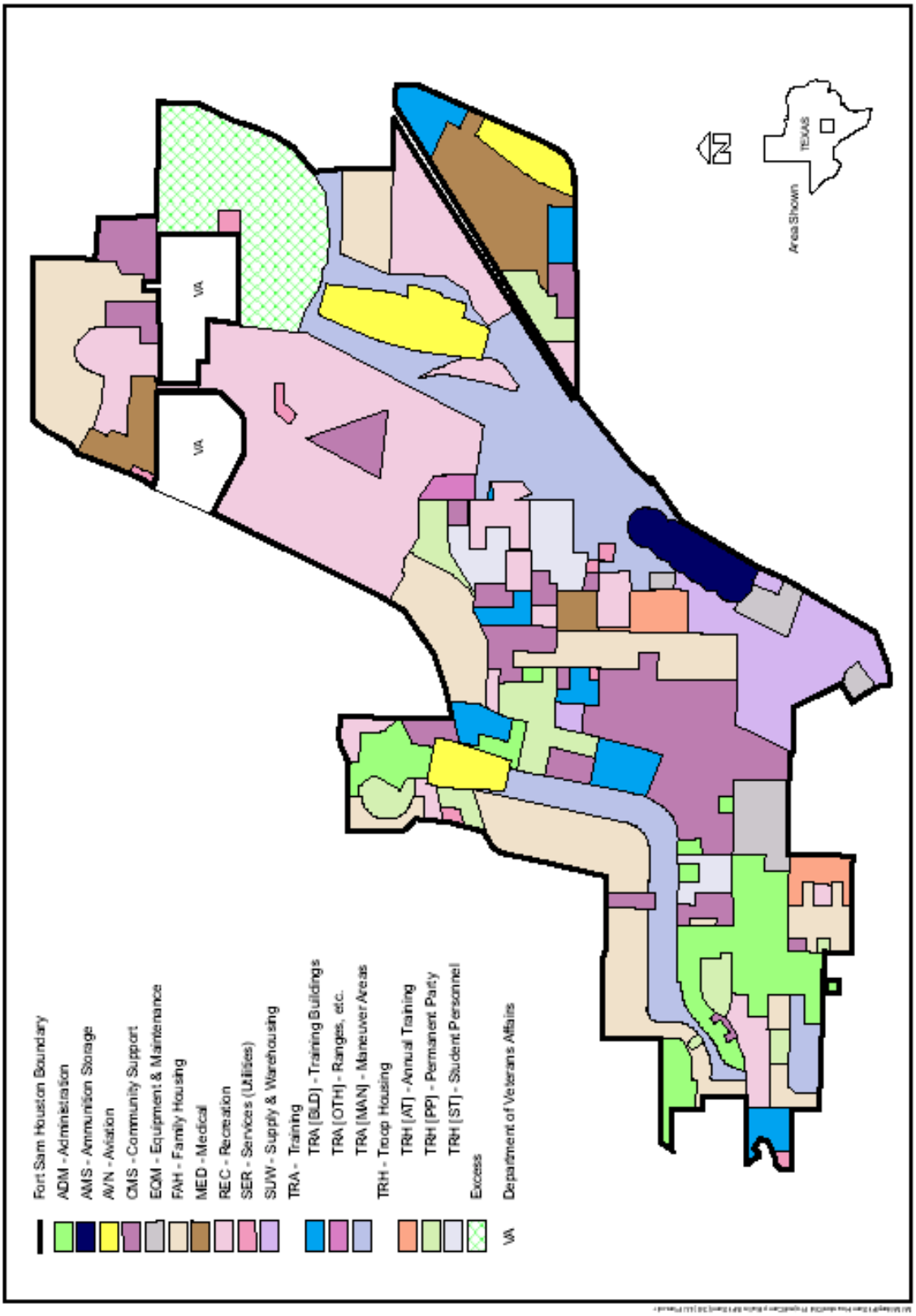


Figure 3-1. Land-use Areas at Fort Sam Houston.

compete for funding with all other proposed Army projects, and funding is through congressional appropriation. A list of proposed construction projects is located in Section 3.2.

3.1.8 Ground-disturbing Activities

Any action that alters the surface or the subsurface of the land is a potential ground-disturbing activity from an archeological perspective. Typical ground-disturbing activities at FSH including new construction, military training activities, lead-based paint soil abatement, and road construction. Examples of proposed ground-disturbing activities at FSH from the Project Priority list include clean-up of the Salado Creek area, repair and upgrade of the water distribution system, a tank trail-stream cross repair, installation of new playground equipment, and replacing housing sewer lines.

3.2 Past and Proposed Undertakings

Below are summaries of proposed undertakings at FSH, Camp Bullis, and Canyon Lake Recreation Area from the past year and over the 5-year period of this HPC. These lists are for planning purposes only, and should not be viewed as projects assured of being funded over the 5-year period. If these projects are funded during the HPC implementation period, historic properties will be addressed through application of the SOPs described in Section 6. FSH is also

slated under the Residential Communities Initiative to privatize 935 primarily housing units, not all of which are eligible properties, beginning in FY2004.

All physical needs that are identified are processed through the Department of Public Works. The need is first validated and screened to see if the need can be met with existing resources. If not, the project begins a programming process that further defines its scope. Projects may consist of repairs, renovations, upgrades, construction, demolition or real estate actions (such as acquisition, lease or easement). Projects are tracked as disposal/removal projects, minor projects (project priority list), or major (Military Construction [MILCON]) projects. When sufficiently defined, the Master Planning Branch allocates a suitable site for the project, in consideration of environmental, operational, and land use compatibility issues. Then the project may be further refined to address specific aspects such as utilities, access, contingent demolition, historic context, safety, landscape and design, and requirement permits. At this stage, all new projects are presented to the Primary Installation Planning Board (PIPB) for siting approval. The PIPB is chaired by the Garrison Commander, and has representatives from operational, engineering, and tenant organizations. Projects on Camp Bullis and CLRA are presented to an equivalent board, the Subinstallation Planning Board (SIPB), where approval comes from the subinstallation commander.

The siting process occurs well in advance of obtaining funding for the actual project. FSH CRM is included in the siting process. At the time when projects are funded, decision-making is started through the National Environmental Policy Act (NEPA) review process as described in the SOPs.

Fort Sam Houston Facilities Reduction Program Projects

Building Number(s)	Category Code	NHLD/Conservation Area Status	Use
		Program FY 2004	
4019	NRE		Administrative
		Program FY 2005	
20	NRE	C-NHLD	Storage
1640	INE		Storage
		Program FY 2006	
184	NRE	C-NHLD	Housing
484	NRE	C-NHLD	Housing

*Temporary Building
Historic District Status:
C-NHLD = Contributing to NHLD
C-CA = Contributing to Conservation Area
Notes: Historic Category definitions are: NRE = National Register Eligible or Listed, INE = Ineligible for the National Register

Camp Bullis Facilities Reduction Program Projects

Building Number	Use	Category Code	Contributing Element of Proposed NRHP District
	FY 2003		
5122	Training	NRE	Yes
5123	Training	NRE	Yes
5902	Administrative	NRE	Yes
5903	Administrative	NRE	Yes
5901	Latrine	INE	No
5906	Administrative	INE	No
5907	Latrine	INE	No
6231	Storage	INE	No
	FY 2004		
6150	Utility	INE	No
6157	Utility	INE	No
6331	Utility	INE	No
6335	Utility	INE	No
6448	Utility	INE	No
6495	Utility	INE	No
6602	Utility	INE	No

		FY 2005	
5108	Administrative	NRE	Yes
5110	Storage	NRE	Yes
		FY 2008	
P6201	Housing	NRE	Yes
6201	Housing	NRE	Yes
6202	Housing	NRE	Yes
6203	Housing	NRE	Yes
6204	Housing	NRE	Yes
B6201	Housing	INE	No

Notes: Historic Category definitions are: NRE= National Register Eligible or Listed, INE = Ineligible for the National Register

Proposed Construction Projects

Project Description	Funding Program	FY
Fort Sam Houston		
AFH - Revit. Patch Caffee - Phase II	AFCH	2004
AFH Harris Heights - Phase I	AFHC	2004
Information System Facility	MCA	2004
AFH Harris Heights - Phase II	AFHC	2005
Applied Instruction Building	DoD Medical	2005
Medical Training Parks	DoD Medical	2005
Stables	AMWRF	2006
Training Aids Center	MCA	2006
Thrift Shop	NAF	2007
Drama - Music Center	MEA	2008
Camp Bullis		
Dining Facility	MCA	2004
Defense Medical Readiness Training Infrastructure Complex	DoD Medical	2005
Outdoor Recreation	AMWRF	2005
Applied Instruction Building	DoD Medical	2008

MCA = Military Construction Army
AMWRF = Army Morale, Welfare, and Recreation Fund
AFHC = Army Family Housing Construction
NAF = Non-appropriated Funds
MEA = Miscellaneous Expense Allowed

Examples of Fort Sam Houston Maintenance and Repair Projects

Priority	Description	Facility Number(s)	Category Code	NHLD Status*
00	Remove asbestos floor tile	1446, 1451	INE	
00	Construction latrine	1379	INE	
00	Correct Risk Assessment Code for bat/bird roost	2840, 2841	INE	
00	Provide parking spaces	2635, 4651		
00	Develop/replace hutment			
00	Repair/remove HVAC	2006, 2064	NRE	C-NHLD
00	Clean up Salado Creek area	3404	INE	
00	Interior painting	141	NRE	C-NHLD
10	Relocate Material branch	6894		
10	Repair/upgrade water distribution system Phase 7	3600	INE	
10	Replace HVAC system	6854		
10	Expand telephone switch node	1384	INE	
10	Tank trail-stream cross repair	2410	INE	NC-CA
10	Exterior paint porches at Artillery Post	168, 169,170,173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183	NRE	C-NHLD
10	Install lights	6254		
20	Upgrade air conditioning			
20	Reno Room 109-Rhoades Dental	2375	INE	NC-CA
20	Demolition front/rear porches	601, 602, 603, 604, 605, 606, 607, 609, 610	NRE	C-NHLD
20	Demolition of various buildings in FY 1999 contract	452, 496, 1030, 1135, 1287, 1461, 2013, 2300, 3393, 3824, 4128, 4224, 6218	multiple	multiple
20	Demolition/repair connecting corridors	2370, 2383	INE	
20	Alter/partial demolition	56	NRE	C-NHLD
20	Alter/demolition porches	2195	NRE	C-NHLD
20	Alter building for MEPS/Navy Recruiting District	2376		
20	Replace back steps/stoops			
20	Replace HVAC system	590, 591	INE	
30	Upgrade parking	3600	INE	
30	Replace air handlers	2840, 2841	INE	
30	Indefinite Quantity paint	HA 1		
30	Replace guest room doors	590, 591	INE	
30	Replace single pane with double pane	2792	NRE	C-CA
30	Paint interior elevator cars	592, 1384	INE	
40	Foundation study	48	NRE	C-NHLD
40	Cost estimate for construction/repair porch			
40	Replace roof	4193	NRE	
50	Replace HVAC system	1222	NRE	C-NHLD
50	Enclose water heaters (21 each)			
50	Repair floor supports			
60	Repair/replace HVAC	2059	NRE	C-NHLD
60	Repair porch	48	NRE	C-NHLD
70	Renovate photo lab	914	INE	
70	Repair porch areas	48, 107	NRE	C-NHLD
80	Renovate bathrooms	592, 1384	INE	
80	Replace HVAC system	2247	NRE	C-NHLD
80	Repair duplex gutters			

Maintenance & Repair Projects (cont'd)

Priority	Description	Facility Number(s)	Category Code	NHLD Status*
80	Concrete fill between driveway			
90	HVAC survey	2630	INE	
90	Replace chillers (CFCs)	2630	INE	
90	Replace transformers	2841	INE	
90	Install electrical outlets	590, 591, 592, 1384	multiple	
90	Revitalization	11	NRE	C-NHLD
100	Renovation for life safety	1002	INE	
100	Relocate compressor to outside	48	NRE	C-NHLD
110	Repair/replace roof walkway	2840, 2841	INE	
110	Air conditioning system	617, 688	NRE	C-NHLD
110	Install playground equipment	4660		
120	Expand parking at Youth Center	4650		
120	Replace boiler			
130	Install fire protection	4015	NRE	
130	Replace water pipes	107	NRE	C-NHLD
130	Replace housing sewer lines			
140	Repair fence along Blanco Road	6830		
140	Improve safety measures			
150	Replace fence-Watkins Terrace	4568		
150	Repair bathroom floor on first floor	9672		
150	Sandblast stairwell and paint			
160	Pave parking lot Building 43	143	NRE	C-NHLD
160	Seal cracked pavement	258	NRE	C-NHLD
160	Replace sidewalk at Building 2791	4652		
160	Repair/resurface parking lot	4640		
160	Repair/replace crosswalk/drive	4651		
160	Restripe/reflectors Binz Engleman	4645		
160	Restripe lot at Building 1002	4650		
160	Correct drainage at Salado Creek	4660		
160	Reconstruction Williams Road			
160	Install photoelectric switches	48, 617, 688	NRE	C-NHLD
160	Install photoelectric switches	4193	NRE	
160	Install photoelectric switches	580, 591, 592, 1384	Multiple	
160	Enlarge parking lot at library	4650		
160	Tear batting cages down; concrete floors for dugouts; pave area	4540		
160	Repair west parking lot	16	NRE	C-NHLD
160	Road paving reconstruction W.W. White	4645		
160	Reconstruction Watkins Terrace Blvd.	4645		
160	Restripe parking areas	4650		
170	Repair boiler	407	NRE	C-CA
170	Upgrade interior	590, 591	INE	
180	Paint	2382	NRE	C-NHLD
180	Paint bathrooms	131	NRE	C-NHLD
180	Treat for mold/mildew	1374, 1375, 1379, 1380	INE	
180	Paint basement	126	NRE	C-NHLD
180	Repair cracks in foundation	2263	NRE	C-NHLD
180	Exterior repair/paint	4203, 4206, 4208	NRE	
180	Exterior paint	4191	NRE	
180	Interior painting IDQ	147	NRE	C-NHLD
180	Paint exterior	1159, 1160, 1161	INE	
180	Paint exterior	1162, 2797	INE	
180	Repair porch deck and columns	123	NRE	C-NHLD
180	Paint exterior	1159	INE	
180	Repaint common areas	44	NRE	

Maintenance & Repair Projects (cont'd)

Priority	Description	Facility Number(s)	Category Code	NHLD Status*
180	Removal of lead-based paint for quarters	121, 167, 415, 420, 448, 451, 477, 487, 524, 541, 551, 753, 756, 776, 826	multiple	
180	Install fire sprinklers	590, 591	INE	
180	Repair and paint	261	NRE	C-NHLD
180	Building Repair for Naval School of Health Sciences relocation	2266		
180	Repair and paint	2250	NRE	C-NHLD
180	Paint exterior	4205, 4209	NRE	
190	Replace roof	261, 905, 1290, 1387, 1395, 2250	multiple	
190	Repair/replace roof	961, 2263, 2610, 5114	multiple	
190	Repair leaking roof	4055		
190	Install dumpster screening			
190	Replace roof and units, Burger King	2540		
200	Construct consolidated maintenance shop			
200	Install additional street lightning	4674		
210	Upgrade parking lot			
210	Abate/preparation lead-based paint interior	4019	NRE	
220	Repair/replace perimeter fence Phases 2, 3, 4, and 5	6830		
220	Resurface and restripe lot			
230	Construction new temporary parking area			
230	Install fire extinguishers			
240	Secure doors or provide berm			
240	Install ceiling fans	590, 591, 592, 617, 688, 1384	multiple	
250	Construction swimming pool			
250	Replace HVAC and controls	44	NRE	
260	Replace/install central air-heat	16	NRE	C-NHLD
270	Install explosion-proof light	4055		
280	Repair HVAC design deficiencies	4194	NRE	
280	Construction berms	2378, 2382, 3520, 4055, 4226		
290	Install ball field lights and sprinklers	4540		
300	Correct air conditioning deficiency Building 462	1462	INE	
300	Connect floor drain to sewer	320		NC-CA
300	Replace four each air handlers	1395	INE	

Historic Category Definitions:

NRE= National Register Eligible or Listed
INE = Ineligible for the National Register

NHLD Status:

C-NHLD=contributing to NHLD
C-CA=contributing to conservation area
NC-CA=noncontributing to conservation area

4.0 ARMY-WIDE EXEMPTIONS AND CATEGORICAL EXCLUSIONS

The AAP contains Army-wide exemptions that apply to installations operating under a certified HPC and include exemptions for undertakings where there is an imminent threat to human health and safety [AAP Section 4.5(a)(3)]. The AAP exemptions include:

- in-place disposal of unexploded ordnance,
- disposal of ordnance in existing open burning/open detonation units;
- emergency response to releases of hazardous substances, pollutants and contaminants; and,
- military activities in existing designated surface danger zones (SDZs). Surface Danger zones mean the area designated on the ground of a training complex (like Camp Bullis), to include associated safety areas, for the vertical and lateral containment of projectiles, fragments, debris and components resulting from the firing or detonation of weapon systems to include exploded and unexploded ordnance. These areas include the dudded impact areas.

Unexploded ordnance and explosive hazards have been found throughout the maneuver areas of Camp Bullis, and are disposed of by the 737th Ordnance Detachment from FSH using the explosive ordnance demolition range in the northern portion of Maneuver Area 9.

The EPA categorizes FSH as a large-quantity hazardous waste generator. The wastes generated include solvents, paint, batteries, antifreeze, and lab packs. Hazardous wastes on FSH and Camp Bullis are accumulated at approximately 16 satellite points on the installation. The wastes are subsequently moved from the installation to a Less-than-90-day Central Hazardous Waste Storage area. An EPA-licensed transporter then move wastes to an approved off-site disposal facility. Petroleum fuels and products as well as waste petroleum, oil, and lubricant (POL) products are stored in various tanks at FSH and Camp Bullis. Materials at Camp Bullis include diesel fuel, gasoline, kerosene, waste oil, and waste antifreeze.

Certain other undertakings have anticipated minimal impacts to historic properties. A list of such undertakings has been developed for this HPC. Criteria under which undertakings qualify for a categorical exclusion may include the following:

- there is no subsurface ground disturbance
- road and trail maintenance and utility repair is limited to the existing right-of-way
- the landscape is not modified
- the character or nature of a historic building, structure or object, or its surroundings are not altered.

The list of undertakings that, under normal circumstances, are categorically excluded from Section 106 review can be found in 6.2.

5.0 MANAGEMENT GOALS AND PRACTICES

The purpose of this section is to establish a goal and practices for historic properties management that are addressed within the context of undertakings requiring NHPA compliance. The management goals and practices do not create any independent requirements over an above those associated with individual undertakings.

5.1 Desired Future Condition of Historic Properties

The desired future condition reflects expected changes in condition that may be realized over the course of the planning period of this document. Considerations for changes in the condition of historic properties include availability of funding over the planning period, possible undertakings that may have an effect on the property, and mission impacts that might occur as a result of changing the condition of the property. The desired future condition for all historic properties managed by FSH is that they be professionally managed according to this HPC in a manner that provides for their efficient, productive use in order to maintain their viability to the military mission and their ensuing public benefit.

Archeological Sites: The desired future conditions for archeological sites are that they will be professionally managed IAW this HPC. Adverse effects to archeological sites will be avoided to the extent possible through the means provided in this HPC. Where avoidance is not possible, treatment measures to address the effect will be applied IAW this HPC.

Historic Buildings and Structures: The desired future conditions for National Register listed or eligible buildings/structures, is that they will be professionally managed IAW this HPC. Adverse effects to such historic properties will be avoided to the extent possible through the means provided in this HPC. Where this is not possible, treatment measures to address the effect will be applied IAW this HPC.

Properties of Traditional Religious and Cultural Importance to Federally-recognized Indian Tribes: Properties of Traditional Religious and Cultural Importance to Federally-recognized Indian Tribes should be identified within project APE, and protected against disturbance or alteration, as specified in consultation with Tribal members. Where protection is not possible, treatment measures to address the effect will be applied IAW this HPC.

5.2 Goal for Preservation and Management of Historic Properties

GOAL: Historic properties will be managed to obtain their most efficient and productive use in support of the military mission and for the public benefit. The goal for productive use is approached in the context of specific undertakings through actions such as: considering uses for underutilized facilities on FSH; Partnering with local communities to enhance productive use of historic properties; reuse of historic buildings where feasible; and maintaining existing corporate data bases of historic properties.

5.3 Management Practices

These management practices apply to historic properties managed by FSH and are applied to the extent possible within the context of specific undertakings. These management practices do not generate requirements that are new or independent of specific undertakings.

5.3.1 Utilize Installation Design Guidelines for the design and siting of future facilities, and for the renovation and maintenance of existing facilities at FSH and its sub-installations where possible.

5.3.2 Use The Secretary of the Interior's Standards for the Treatment of Historic Properties when possible to avoid adverse effects on historic properties.

5.3.3 Avoid known National Register-eligible archeological sites when possible.

5.3.4 Track and record FSH's decisions affecting historic properties IAW the SOPs defined below.

5.3.5 Request technical assistance from Federally-recognized Indian Tribes to help identify properties of traditional religious and cultural importance that may be affected by installation operations.

5.3.6 Identify archeological sites that impede training for treatment following this HPC. Identify archeological sites within their context to facilitate treatment of installation wide categories and classes of sites to obtain an economy of scale and support the military training mission.

6.0 STANDARD OPERATING PROCEDURES FOR INSTALLATION DECISION-MAKING PROCESS

The SOPs that establish the FSH internal decision-making process are those SOPs that lay out how FSH will manage historic properties affected by installation undertakings. These SOPs rely on the goals, management practices and historic preservation standards that were developed in the preceding sections. The underlying goal for management of historic properties is to avoid actions that adversely affect the property and to conduct management activities in a manner that supports the military mission. However, historic properties may be affected during the operations at an installation in the conduct of its military mission. The following eight SOPs define the steps in FSH's decision-making process to take these affects into account:

Identifying undertakings and areas of potential effect (APE);

- Applying Categorical Exclusions and Army-wide Exemptions;

Insuring that historic properties within an APE are located, evaluated for NRHP eligibility, and assessed for effect;

- Assessing adverse effects;

Applying best management practices to avoid adverse effects and meet the installation's preservation goals, to the maximum extent possible;

Reviewing alternatives for undertakings that have an adverse effect on historic properties and where best management practices cannot be applied;

Resolution of adverse effects when alternatives review can not identify a "no adverse effect" alternative; and,

Documenting acceptable loss when treatment is not in the public interest or financially or otherwise feasible.

In order to complete the decision-making process for a project, the FSH - Garrison Commander or the designated project proponent (Garrison or tenant staff that is causing the undertaking to occur) will inform the CRM of the need to initiate these eight steps, in order; proceeding to the next only when necessary and when the former step has been adequately completed. It is the responsibility of the project proponent to inform the CRM of every undertaking and to communicate the requirement and desired end state of the project to the CRM. It is the CRMs responsibility to ensure that, once informed of the project, proper consideration is given to the historic properties in the decision-making process by completing the SOPs and keeping the proponent informed of the process. The project proponent is free to carry-out the project once the CRM has provided documentation that the HPC SOP process has been completed and all requirement of Section 106 of the NHPA have been met. The first eight SOPS define this decision-making process; the additional SOPs apply to special categories of undertakings at FSH, and how requests for a determination of effect are internally reviewed and tracked by the CRM for review by the stakeholders at the semi-annual or annual meetings.

6.1 SOP 1: Identifying Undertakings, Defining and Document Review for APE(s)

Once notified of a project or activity by the project proponent, the FSH CRM will determine whether an installation project or activity qualifies as an undertaking, and if so, whether that undertaking has the potential to affect historic properties. The CRM will also define the area(s) that are likely to be affected by that type of undertaking. The CRM will insure that each project file documents the undertaking determination and APE and the rationale that was used in making these determinations, in accordance with SOP #16, Procedures for Reviewing Requests for Determination of Adverse/No Adverse Effect.

6.1.1 Determine if Undertaking

An "undertaking," as defined under the AAPs, describes

> A project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of the Army, including those carried out by or on behalf of the Army, those carried out in whole or in part with Army funds, and those requiring Army approval.

If a project, activity, or program at FSH or its sub-installations involves the use of Army funds, behalf of the Army, or with Army approval, that project, activity, or program will be considered an undertaking, and the CRM shall then move on to defining the area of potential effect.

If it does not qualify as an undertaking, no further action shall be required under this HPC and all Section 106 are met, and the CRM will provide the project proponent with notice that they may proceed.

6.1.2 Define the APE

The “area of potential effect” (APE) is defined at section 1.5 of the AAP as

> the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking

The size of the APE is determined by the CRM on a case-by-case basis with input from the project proponent, and includes in its calculation the scale and nature of the undertaking, taking into account the possibility that visual and audible impacts may expand the APE outside of the physical project area. The APE should be logically linked to the project in question. Generally, the size of the APE will be commensurate with the size of the project. Definition of the APE includes both direct and indirect effect areas, as well as reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance, or be cumulative.

APEs relative to historic buildings can be thought of as being component, building/structure, or district in scale. APEs relative to archaeological sites and/or properties of traditional religious and cultural significance to tribes would include the area of new facility construction; road maintenance/widening, etc.; and various training activities on previously undeveloped land surfaces.

Determining an APE for a project:

1. The CRM will categorize the undertaking, such as repair and maintenance, ground-disturbing activity, etc. (see Section 3.0 in this document) and determine if it is the type of undertaking that has the potential to have an effect on historic properties. If it is, the CRM will proceed to step 2. If the undertaking is determined to be a type that does not have the potential to have an effect on historic properties, no further review is required under the HPC, and the CRM will insure that the decision-making process is documented in accordance with SOP #16 for review by the stakeholders at the semi-annual meetings, and provided to the project proponent.
2. Using SOP 2, the CRM will determine if the undertaking is one that has been determined to be either exempted or categorically excluded from further review. If it is, SOP 2 will be followed; if it is not, the CRM will continue to step 3.
3. The CRM, using input from the project proponent, will determine whether the effects typically associated with this category of undertaking are the

expected effects for the project. The CRM will determine whether the scope and/or nature of the project might result in additional or other effects, including visual and/or audible impacts, and secondary and cumulative effects.

4. Based on anticipated effect(s) the CRM will determine where those effects might occur in relation to the project. The areas where effects might occur constitute the APE. Reasonably foreseeable effects that are caused by the undertaking that may occur later in time, be farther removed in distance, or be cumulative should also be considered in determining this area.
5. The CRM will complete this process for all alternate project locations provided by the project proponent.
6. The CRM will delineate the APE boundaries on a project map for use in the NEPA documentation for the project, separately delineating the areas of direct and indirect effect on possible historic properties, and will provide this information to the project proponent.

6.1.3 Document Check for APE

The CRM will examine the APE with respect to the anticipated effects to determine whether the undertaking activities are likely to affect historic properties (i.e. ground disturbing activities adjacent to streams are likely to disturb archeological sites, demolition or rehabilitation of building within the NHLD is likely to affect the district). This check will include an examination of FSH's GIS

maps/databases for information on possible historic properties, as well as a map check of known historic properties as kept by the Tx SHPO.

After the APE has been determined and a document check has been performed, the CRM will continue to SOP 3.

6.2 SOP 2: Categorical Exclusions and Army-wide Exceptions

After determining that a project, activity, or program is an undertaking, the CRM shall determine if the undertaking is exempted or excluded from the HPC requirements.

6.2.1 Exempted Undertakings

These undertakings do not require compliance with this HPC due to the imminent threat to human health and safety:

- in-place disposal of unexploded ordnance,
- disposal of ordnance in existing open burning/open detonation units;
- emergency response to releases of hazardous substances, pollutants and contaminants; and,
- military activities in existing designated surface danger zones (SDZs). Surface danger zones at FSH and Camp Bullis are the dudded impact areas.

See Section 4.0 of the HPC for more information on unexploded ordnanceand hazardous waste conditions at FSH and Camp Bullis.

6.2.2 Categorical Exclusions by Categorized Undertaking Excluded from Further Consideration under the HPC

This list of categorical exclusions is based on undertakings that have minimal potential for adverse effects on historic properties at FSH and Camp Bullis.

Maintenance and Repair

1. Repair of existing elements that are not visible or that are not character-defining features of architectural properties (as defined in the FSH/Camp Bullis Maintenance Manuals). The repairs will be limited to those requiring no structural modifications.
2. Refinishing in kind, i.e., painting surfaces with the same, or original, materials, and same, or original, color.
3. Energy conservation measures that are not visible or that do not alter or detract from those qualities that make the property NRHP eligible, i.e.,
   a. Replacement or repair of insulation in roofs, crawl spaces, ceilings, attics, walls, floors and around pipes and ducts. (This exclusion does not include the installation of urea formaldehyde or other materials that induce or introduce moisture into properties, or insulation that does not have a vapor barrier. It also does not include any activity that lowers ceiling height to accommodate duct work.)
   b. Replacement or repair of caulking and weather-stripping, provided that the color of the caulking is consistent with the appearance of the properties.

4. All maintenance work on existing features such as roads, fire lanes, mowed areas, landing strips, drop zones, disposal areas, and ditches. Maintenance work includes only surface work to preserve a suitable, usable condition. More extensive work involving re-grading or a major renovation of the surface will require compliance with the other SOPs.
5. Maintenance to buildings that are less than 50 years old, provided they do not qualify under the criteria consideration for properties achieving significance within the past 50 years (see HPC 6.3: Identifying and Evaluating Historic Properties).
6. Routine grounds maintenance that does not result in ground disturbance of more than the top 6 inches of soil; or ground disturbance in areas that have previously been documented as disturbed, not to include any maintenance on archeologically-significant features or sites, such as trenches, emplacements, stock tanks and building remnants.

Rehabilitation

1. Replacement in-kind, i.e., matching the configuration, material, size, detail, color and construction of the historic fabric when repair is not a reasonable alternative.
2. Energy conservation measures that are not visible or that do not alter or detract from those qualities that make the property NRHP eligible, i.e., modifications to the HVAC control systems, conversions to alternative fuel.

(This does not include any activity that lowers ceiling height to accommodate duct work.)

3. Alterations to the interior of listed or eligible buildings and structures that does not involve any of the character-defining features listed for the individual building in the Maintenance Manual Volumes of this HPC.

Mothballing/Layaway

1. Mothballing of historic properties provided the action is completed in consideration of the procedures established by the NPS in Preservation Brief 31: Mothballing Historic Buildings (http://www2.cr.nps.gov/tps/briefs/brief31.htm)

Deconstruction

1. Deconstruction of World War II temporary buildings in accordance with the 1986 Army-wide Programmatic Agreement (see Appendix K).
2. Deconstruction, and all other undertakings associated with all Capehart-Wherry Era (1949-1962) Army Family Housing, associated structures, and landscape features in accordance with the 2002 Program Comment
3. Deconstruction and all other undertakings occurring to buildings, structures, and landscapes that have been previously evaluated for NRHP eligibility and have been determined to be ineligible for the National Register in coordination with the Tx SHPO, and which will not negatively impact existing historic

properties or result in ground disturbance. Properties that have reached 50-years of age since determination of ineligibility was made will be re-evaluated before demolition.

4. Deconstruction, and all other undertakings that may occur to buildings and structures that are covered through other Nationwide programmatic compliance actions (Nationwide PAs, Program Comments, Exemptions, or other Program Alternatives).

New Construction

1. Construction in areas where the APE of the construction project does not include historic properties and is not in the NHLD, and which does not require ground disturbance (such as storage buildings built on slabs or other non-ground-disturbing foundation, etc.)

Ground-disturbing activities

1. Categorical Exclusions will not apply to currently recorded archeological properties that are eligible for, or require further consideration to determine eligibility for inclusion in the NRHP.
2. Continuing use of existing training facilities on FSH and Camp Bullis lands for training exercises. These training facilities do not include historic properties.
3. Agricultural and grazing leases; including the continued use of agricultural plowing in areas that have been previously plowed to the same depth, using similar methods.

4. Disturbed areas at Camp Bullis as previously determined, and indicated on Figure II-1 of Camp Bullis CRMP (1996).
5. Undertakings or property types that are covered in future Nationwide programmatic compliance actions (Nationwide PAs, Program Comments, Exemptions, or other Program Alternatives).

Other activities

1. Hunting and fishing actions.

The CRM will coordinate the list of exempted undertakings and categorical exclusions with all other installation staff responsible for carrying out any of these activities (project proponents) on FSH and Camp Bullis. The CRM will monitor the use of exempted undertakings and categorical exclusions and maintain a record of their use for semi-annual review with the installation staff. The results of this internal review will be included in the review and monitoring report and may be discussed at the regular review and monitoring meetings held with consulting parties.

6.3 SOP 3: Identifying and Evaluating Historic Properties

All technical identification and evaluation work will be performed by a qualified professional who meets the appropriate discipline guidelines in Secretary of the Interior's Professional Qualification Standards at 36 CFR 61, Appendix A. If the FSH CRM does not have the expertise on staff to meet these requirements, then qualified assistance is obtained in accordance with SOP 10. The CRM will have oversight of technical work associated with identification and evaluation of historic properties.

6.3.1 Identification of Historic Properties

The following provides guidance for identification of historic properties for proposed undertakings. Any significant modifications to the identification process should be developed during the review and monitoring process, as new requirements for the upcoming year are identified and project specifics for the forthcoming year are addressed.

The purpose of identification is to collect information about historic properties within the APE of an undertaking. All identification activities should be designed to achieve the preservation and management goals as defined in the HPC, as well as refine and/or add to the background information included in the PLS. Identification activities are grouped into three sets of procedures: pre-inventory preparation, field procedures and integration of results. Pre-inventory

preparation and results integration are the same for the identification of expected historic property types and are discussed below. Field procedures for the identification of archeological sites, historic buildings and structures, and properties of traditional religious and cultural importance to federally recognized Indian tribes differ and are discussed individually.

Pre-Inventory Preparation:

1. Review background data. The CRM will conduct a background review, commensurate with the size and scale of the project. The review will establish whether the APE has/have been inventoried previously or inspected to identify historic properties and determine what property types are likely to be found in the APE. FSH's GIS data will be consulted when appropriate, along with any PLS information, and other sources of information on historic properties.
    a. If the APE or parts thereof have been investigated previously, the CRM will assess the previous inventory and determine if additional identification efforts are required.
    b. If the area has not been investigated or if it has been investigated but data quality is poor, further identification efforts may be required. Generally, data quality is considered poor if identification was carried out with obsolete methods or by unqualified individuals, or if only certain kinds of properties were considered.

c. If the background data review reveals that the area has significant prior disturbance, no additional identification will be necessary.

2. The CRM will determine the general size of the APE based on the type of project being undertaken, using input from the project proponent, to help determine the appropriate field identification methods.

3. Based on the size of the APE, PLS data, and/or predictive model results, the CRM will determine whether the collective data provides a basis for decision-making without additional identification activities. When the APE is small and high-quality data is available from a similar or adjacent area, or when comprehensive background data is available, it may be possible to extrapolate to or make inferences about the area in question without conducting a field identification inventory.

4. A decision not to proceed with further identification activities will be made by the CRM and documentation of that decision included in the NEPA documentation for the project or activity, along with the basis for this decision. This decision will also be provided to the project proponent.

If an inventory for historic properties is required, the CRM, in consultation (if required) with a qualified professional, will do the following :

1. Determine inventory strategy (reconnaissance, intensive, or a sampling strategy). There is no single inventory technique that will fit every project. The scope and nature of the project, anticipated effects, and the property types predicted to be located within the APE based on the review of background data will help determine the methodology for specific APEs. Generally, field inventory may be characterized by two techniques: reconnaissance and intensive.

    a. Reconnaissance inventory. Reconnaissance inventories are most often used when it is questionable that historic properties exist within an area. Methods may include visual identification of standing historic structures, interviews with local residents, and archeological inspection of sample tracts, coupled with appropriate background research. A reconnaissance inventory may result in the conclusion that historic properties are extremely unlikely, or that intensive inventories may be needed in a portion of the APE. Documentation for reconnaissance inventories shall include:

        i. The kinds of properties looked for;

        ii. The boundaries of the area inventoried;

iii. The method of inventory, including the extent of inventory coverage;

iv. Specific properties that were identified, and the categories of information collected; and

v. Inventoried areas that did not contain historic properties.

b. Intensive inventory. The size and complexity of the land area, whether the area is urban or rural, the types of properties expected, the ease or difficulty with which such property types can be identified, the extent of Federal control over the lands involved, the ease or difficulty with which access can be obtained, and the nature of the projected effects contribute to the decision to conduct an intensive inventory. Intensive inventory methods are used to determine what specific historic properties are located within a defined APE or to collect enough data on a specific historic property to allow for later evaluation. Intensive inventories reveal the actual types and distribution of properties within an APE, their location and condition, and their physical extent. Documentation for intensive inventories shall include:

i. The types of properties the inventory is designed to identify;

ii. The boundaries of the APE;

iii. The method of inventory and the extent of inventory coverage;

iv. The precise location of identified properties;

v. Information regarding the appearance, integrity, and boundaries of each property; and

vi. Whether there are any NHL properties within the APE that require additional coordination through SOP13: National Historic Landmarks.

c. Sampling. Sampling may be used to inventory the historic properties that might be located within the APE of project alternatives. Sampling may be random, stratified, or systematic, and may be approached in stages such that the results of the initial large area inventory are used to structure successively smaller, more intensive inventories. Sample strategies should be selected based on the research goals the inventory is expected to contribute towards, the type of expected properties and the nature of the area to be inventoried. Sampling provides information about the frequencies and types of properties identified within specific areas at various confidence levels. Predictive models are effective tools for the early stages of planning an undertaking, however the accuracy of any model must be confirmed with field testing.

2. Review of Planning Level Survey Data and/or Additional Research. Before the actual field inventory, a more specific review of existing data is generally undertaken. In the absence of a completed PLS, a review of

installation site and map files, previously developed historic contexts for the region, local histories, and any relevant information related to previous identification inventories or evaluations will be completed.

Integrating Results:

The CRM will inform the project proponent of the requirement for additional inventory, and will insure all identification results are integrated into the PLS. If necessary, the historic contexts, definitions of property types, and the management goals will each be adjusted to reflect new data. Any newly identified historic properties will be documented in the project NEPA document.

Field Procedures:

1. Archeological Sites: The field procedures outlined here are general, starting-point procedures that can be further developed as needed for individual surveys when the CRM coordinates the undertaking with the supervising archeologist. Survey strategies will include surface and subsurface testing and be conducted in accordance with the Secretary of the Interiors Standards and Guidelines for Identification. Smithsonian trinomial site numbers will be obtained from TARL, and documented archeological sites will be recorded on the Texas Historical Commission's standard site data (registration) form. Field forms are generally provided and completed by specific contractors.

a. The goal of archeological field inventory is to identify the location, nature, and condition of archeological historic properties either previously identified, or heretofore unknown, within the APE of a proposed undertaking. Archeological historic properties may include both prehistoric and historic archeological sites and artifacts, burials, landscape features, and the remains of buildings and structures. Artifact collection at the identification level of inventory should be limited to diagnostic materials, to be determined by the archeologist conducting the investigation. Surface scatters will be noted, photographed, and used to identify possible follow-up site evaluations. Generally, fire-cracked rock *will not* be collected from prehistoric sites unless specific site circumstances dictate otherwise. Procedures for archeological field inventories include: pre-field briefing, identification of appropriate methodology for specific APE(s), field investigation, and recordation. Laboratory processing, compilation analysis and interpretation of artifacts collected will follow the field inventory. As a matter of safety, explosive ordnance impact areas, as well as all live-fire ranges, will not be inventoried (see SOP 2: Exemptions)

b. Field Personnel. Field supervisors must meet the Secretary of Interior's Professional Qualification Standards at 36 CFR 61 Appendix A for Archaeologists. Field technicians should have completed a

formal archeological field school at a recognized university, and should have experience with both identification and evaluation archeological techniques. Each team member is required to attend a field safety and unexploded ordnance briefing prior to beginning fieldwork. In the field, technicians are required to wear proper field attire and equipment, and an identification badge that designates the wearer as part of an authorized team. Field supervisors must consult the Range Control schedule before entering the field each day to determine site availability. Military training always takes precedence and it is the responsibility of the field supervisor to maintain contact with Range Control to coordinate schedule changes or report emergencies. Protocol between Range Control and field crews shall be established at the outset of each field season.

c. Pre-Field Preparation. The FSH CRM will provide field supervisors with the necessary background data to identify historic properties within the boundaries of the project area. Field supervisors will be informed of relevant previous investigations at FSH and Camp Bullis; expected property types within the APE; and other appropriate environmental data.

d. Field Methodology. Ground-disturbing undertakings are those most likely to have an effect on archeological sites. Ground-disturbing undertakings include but are not limited to certain military training

activities and construction projects. In the APEs for these activities, intensive inventory methodologies that cover the APE to identify specific historic properties may be appropriate. Field identification methods for archeological sites include both shovel probe and surface inventory.

i. Shovel test: Shovel testing is generally conducted when surface visibility is less than 70% and relative geomorphic data indicate that cultural deposits exist near the surface or at depths below the surface within the range attainable by shovel testing. Where appropriate, shovel testing involves the systematic excavation of small shovel test units within the larger context of the inventory area. Shovel tests are generally 30cm x 30cm in size and dug at 20 cm levels. All excavated soil is screened through ¼" mesh hardware cloth, after which the soil is returned to the unit, replacing any sod as well. Shovel tests containing artifacts (positives) are to be bracketed by secondary units at a consistent (not less than 5m) interval in the cardinal (N, S, E, W) directions until the extent of the cultural area is defined. In areas with several positives, two successive "negatives," are required in each cardinal direction to determine the boundaries of the archeological site where the existence of cultural deposits below about one meter beneath the surface is suspected, other subsurface testing methods, such as backhoe trenching, will be needed.

ii. Surface inventory: This method is appropriate for all areas that have high surface visibility (>30%), for steeply sloped areas, for the identification of building and structural remains, and for areas where shovel testing is not feasible. Surface inventory should be undertaken systematically with field personnel observing the ground along parallel transects at 30-meter intervals.

iii. Sampling: Sampling may be appropriate for identifying alternatives with least effects on resources when several project locations are being considered for an undertaking. Sampling methodologies will be reviewed by the consulting parties at the annual review and monitoring meeting.

iv. Previously documented sites: When archival evidence indicates that features (mounds, historic sites) were historically located within an APE, an effort should be made to confirm the presence or absence of the properties and assess their condition.

e. Recordation. If GPS is available, the boundaries of the inventoried area as well as the locations of any positive shovel probes or surface finds should be recorded by GPS receiver as well as documented in field notes. If GPS is not available, the locations of any artifact concentrations or patterns of artifact distribution should be mapped and documented. Mapping should be carried out at all levels of investigation. For artifacts recovered from shovel tests, the stratigraphic position of the artifacts and soil profiles from the site area

should be recorded and the artifacts placed in sealed field bags labeled with the project name, provenience, date and initials of collector. Field notes should also include a description of environmental and topographic features, surface disturbances and military features. The condition of the archeological site should be recorded in detail, including stratigraphic integrity (determined from soil profiles), and surface disturbances, either cultural and/or environmental. Recordation should include photographs of all visible features such as mounds, architectural ruins, etc.

f. Laboratory procedures. Diagnostic materials collected from identification activities will be cleaned, labeled, and catalogued.

g. Data compilation. During this activity, the raw field data shall be analyzed, synthesized and converted into a final report.

2. Buildings and Structures.

Buildings are defined as those constructions designed primarily to provide shelter for human activity. Structures are functional constructions made for purposes other than providing shelter; bridges are the most common example.

a. The goal of field identification inventories for buildings and structures is to determine the location and condition of historic properties within the built environment of an undertaking's APE. Identification of a

building/structure as a historic property must be conducted by an individual meeting the Secretary of Interior's Professional Qualification Standards at 36 CFR 61 for Historical Architect or Architectural Historian.

b. Initial Documentation of Buildings/Structures within an APE. Recommendations that result from the planning stage regarding expected property types and effects, their location, and the relative size of the APE will determine the specific area to be investigated and the field investigation strategy. For those areas determined to need intensive investigation (areas requiring identification of specific historic properties), the first step is the compilation of a list of the buildings and/or structures within those areas. The list may be compiled from map, GIS data, real property records, or from reconnaissance of the area. Because map data are dynamic, lists derived from this source will need to be field checked. The list should include type of property (housing, administration building, training facility, bridge, water tower, etc.), building number, address/location, and construction date if known from real property record.

c. Identification of Building as a Historic Property. Efforts in identification of a building or structure as a historic property should be directed

toward capturing five areas of information. This information should be documented for each of the buildings on the above list:

i. Construction Date. Many buildings have the date of construction prominently displayed. More frequently, however, the construction date will have to be ascertained from documentary sources. Possible sources for dating Army-constructed buildings include FSH Real Property records and deeds. Sources for dating non-Army built buildings or structures include deeds, tax records, building permits, newspaper accounts, plat maps, historic photographs, and anecdotal accounts. Generally, a building must be at least 50 years of age to be considered a historic property. A building less than 50 years of age may be eligible for the National Register if it has exceptional significance and is associated with a significant event, person, or architectural style (National Register Criteria A, B or C).

ii. Identification of original owner and/or other persons or events associated with the building. Ownership information is often available through a deed search or the property records at FSH. Additional resources for conducting historic research on properties at FSH and Camp Bullis include the City of San Antonio, the public library, the Bexar County Historical Commission, the San Antonio Conservation Society, and the Institute of Texan Cultures. The museum at FSH should also be consulted for information on

properties dating to the military occupation period at FSH. Association of a building with an event or individual important in history (local, state, or national) qualifies the property as significant under National Register Criteria A or B, respectively.

iii. Identification of architect. Although it is possible to identify the architect of a building, there is no consistent method or source for such information. Possible sources include building permits (the year building permits came into use varies by city and in general are unlikely prior to 1930s), local newspapers (if date of construction is known), city directories, and the archives of local architectural firms. Association of a building with an important architect may qualify the property as significant under National Register Criteria B and/or C.

iv. Architectural style. Many handbooks and websites are available with which to compare and identify the architectural styles of buildings, e.g. *A Field Guide to American Houses* (McAlester and McAlester 1998) or *World War II and the U.S. Army Mobilization Program: a History of 700 and 800 Series Cantonment Construction* (Wasch et al. 1993). Association of a building/structure with an architectural style characteristic of a class, style, school of architecture, or period of construction, qualifies the property as significant under National Register Criterion C.

v. Identification of builder. See paragraph 3 above, Identification of Architect.

Buildings and structures that are at least 50 years old (or fall under the exception as noted in “Criteria Considerations” in HPC SOP 3) and that meet at least one of the Criteria that qualify it for inclusion in the National Register are considered a historic property. Properties that fall within the FSH NHLD should be identified early in the process, so that the additional coordination required for NHLs may begin in accordance with SOP 13: National Historic Landmarks.

3. Properties of Traditional Religious and Cultural Importance to Federally recognized Indian Tribes.

This class of property depends heavily on tribal member oral testimony for identification. Consequently, consultation with Federally recognized tribes affiliated with FSH lands is a critical aspect of identifying historic properties of traditional, religious, and cultural importance. Procedures for identifying traditional religious and cultural properties are as follows:

a. The CRM will determine from review of PLS and background data, available ethnographies, and consulting parties whether this is an expected or likely property type within the undertaking's APE. Consultation in this regard must include representatives of Federally-recognized Indian Tribes associated with FSH. If any source indicates that this property type is expected, it is incumbent upon the FSH CRM to make a good faith effort to identify such properties.

b. To identify traditional religious and cultural properties, it will be necessary for the CRM to consult directly with knowledgeable members of the Federally-recognized Indian Tribes. For some Tribes, individuals who retain knowledge regarding these properties may not be the contemporary Tribal leaders. The Tribal leaders, however, may be able to identify members of the Tribe who are knowledgeable about traditional matters and who are willing to consult and assist. Consultation with any Tribe is culturally sensitive and should follow protocol acceptable to the Tribe. Identification of specific individuals with whom consultation might take place and methodologies appropriate for collecting traditional and cultural information should be discussed and resolved during the annual review and monitoring meeting.

Areas identified during the consultation process as significant to Federally-recognized Indian Tribes require field inspection and recordation. Field inspection may occur simultaneous with investigations for other property types. Field visits to sites with religious significance must be conducted in appropriate modes of behavior that should be discussed with Tribal consultants before the visit. Extensive recordation is not necessary; confidential, and sensitive information should not be collected and/or recorded and is not necessary to determine significance.

c. Properties of traditional religious and cultural importance must meet National Register criteria to be considered under this HPC.

6.3.2 Evaluation of Historic Properties

Following is a general discussion of the key concepts that provide the framework for the evaluation process. During evaluation, the significance and integrity of a historic property are assessed, resulting in a determination of the property's eligibility for listing in the NRHP, i.e., following evaluation the property is either "eligible" or "not eligible." After the key concepts are introduced, procedures for evaluation of all property types are established. The evaluation procedures involve an assessment of the collected data against National Register criteria set forth in 36 CFR 60. The evaluation process considers National Register Bulletins, including *How to Complete the National Register Registration Form*

(#16A), How to Apply National Register Criteria for Evaluation (15), and *How to Prepare National Historic Landmark Nominations.*

Data necessary to determine eligibility differs somewhat between archeological sites, buildings and structures, and properties of traditional religious and cultural importance. Therefore, procedures for the collection of field data specific to each property type supplement the general evaluation procedures set forth in 6.3.2.1. These procedures can be found at 6.3.2.2 through 6.3.2.4. However, the criteria for consideration of archeological sites and buildings is the same.

Under the National Register criteria for evaluation:

> "The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:
>
> A. That are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> B. That are associated with the lives of significant persons in our past; or
>
> C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. That have yielded or may be likely to yield, information important in history or prehistory.

In addition to these four criteria for evaluation of a property's significance, several "criteria considerations" are also described. The purpose of these considerations is to allow flexibility in the NRHP evaluation and nomination process. Listed below is a description of properties typically not eligible for the NRHP, followed by exceptions to the rule (NPS 1997:25):

> Ordinarily cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:
>
> a. A religious property deriving primary significance from architectural or artistic distinction or historical importance; or
> b. A building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or

c. A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building directly associated with his productive life; or
d. A cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or
e. A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or
f. A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own exceptional significance; or
g. A property achieving significance within the past 50 years if it is of exceptional importance.

In addition to significance, a property must possess "integrity" to be eligible for the NRHP. Integrity is the ability of a property to convey its significance; to reveal to the viewer the reason for its inclusion in the NRHP. Integrity is a somewhat subjective quality, but must be judged based on how the property's physical features relate to its significance. Seven aspects are used to define integrity. Some, if not all, should be present in a property for it to retain its historic integrity: location, design, setting, materials, workmanship, feeling, and association. These concepts are defined as follows:

- Location: the place where the historic property was constructed or the place where the historic event occurred. The relationship between a property and its location is important to conveying the sense of historic events and persons and to understanding why the property was created or why the event occurred. Moved properties are usually not considered eligible; see Criteria Considerations for exceptions.
- Design: the combination of elements that create the form, plan, space, structure, and style of a property. Design is the result of conscious decisions made during the original conception and planning of the property and includes elements such as organization of space, proportion, scale, technology, ornamentation, and materials. For districts, design includes the way buildings, sites or structures are related—for example, spatial relationships between major features; visual patterns of a landscape, etc.
- Setting: the physical environment of a historic property. This quality refers to the character of the property's location. It involves how the property is situated and its relationship to surrounding features and open space. Setting can include such features as topography, vegetation, manmade features, and relationships between buildings and other features or open space. For districts, setting is important not only within the boundaries of the property, but also between the property and its surroundings.

- Materials: the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property. The choice and combination of materials reveal the preferences of the creator(s) and suggest the availability of particular types of materials and technologies. A property must retain the key exterior materials dating from the period of its historic significance. If rehabilitated, those materials must have been preserved. Recreations are not considered eligible for the National Register.
- Workmanship: the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory. Workmanship is the evidence of artisans' labor and skill in constructing or altering a building, structure, object, or site and may apply to the property as a whole or to individual components. This aspect of integrity provides evidence for the technology of a craft, illustrates the aesthetic principles of a historic or prehistoric period, and reveals individual, local, regional, or national applications of both technological practices and aesthetic principles.
- Feeling: a property's expression of the aesthetic or historic sense of a particular period of time. Feeling results from the presence of physical features that, taken together, convey the property's historic character.

- Association: the direct link between an important historic event or person and a historic property. A property retains association if it is the place where the event or activity occurred and is sufficiently intact to convey that relationship to an observer.

Significance, integrity and treatment are reliably determined only when a property is evaluated from the perspective of its "historic context." Historic context provides a framework within which the National Register criteria are applied to specific properties or property types. Contexts are developed around typological themes. Common examples might include the following: building use, ownership, associated ethnicity, a historical event or trend, architect, architectural style, building material, and others. Contexts can also be either national in scope (e.g. *Historic Context for Department of Defense Installations, 1790 to 1940*) or statewide (e.g. development of military installations in Texas). The FSH CRM should make appropriate contacts (NPS, US Army Environmental Center, etc.) to determine whether a nation-wide, DoD –wide or Army-wide historic context has been developed that might apply to the property in question.

6.3.2.1 Evaluation Procedures

Formal procedures for evaluating a historic property of any type (archeological site, building, structure, property of traditional religious and cultural importance) within an undertaking's APE are as follows. All evaluation procedures must be

completed by a qualified professional who meets the Secretary of the Interior's Standards for Professional Qualifications (see SOP 10).

6.3.2.1.1 Categorize the property

The CRM will determine if the historic property is an archeological site, building, object, structure, district or property of traditional religious and cultural importance to a Federally recognized Indian tribe. Based upon this determination, Sections 6.3.2.2 through 6.3.2.4 shall be followed.

6.3.2.1.2 Determine the historic context of the property

- The CRM shall identify the theme(s), geographical limits, and chronological period that provide a perspective from which to evaluate the property's significance.
- The CRM shall determine how the theme(s) within the context is significant to the history of the local area, the state or the nation. A theme is considered significant if scholarly research indicates that it is important in American history at the local, state or national level.
- The CRM shall determine if the property type is important in illustrating the historic context or fills important information gaps. Contexts may be represented by a single property type or by a variety of property types.

- The CRM shall determine how the property illustrates the historic context through specific historic associations, architectural or engineering values, or information potential.
- The CRM shall determine whether the property possesses the physical features necessary to convey the aspect of prehistory or history with which it is associated (integrity).

6.3.2.1.3 Determine whether the property is significant under the National Register Criteria

The CRM shall apply National Register criteria to the historic property. If the property meets one or more of these criteria listed below and retains integrity, the CRM shall proceed to 6.3.2.1.4.

- Criterion A: Event. Under this criterion, a property must be associated with one or more events important in the historic context. To establish significance under this criterion:
  - Determine the nature and origin of the property;
  - Identify the historic context with which it is associated, and
  - Evaluate the property's history to determine whether it is associated with the historic context in any important way.
- Criterion B: Person. This criterion applies to properties associated with individuals whose activities are demonstrably important within a local, state, or national context. The property must illustrate the person's achievement. To determine a property's significance under this criterion:

    - Determine the importance of the individual.
    - Ascertain the length and nature of the person's association with the property and determine if there are other properties associated with the individual.
- Criterion C: Design/Construction. This criterion applies to properties significant for their physical design or construction, including such elements as architecture, landscape architecture, engineering, and artwork. The property, to qualify must:
    - Embody distinctive characteristics of a type, period, or method of construction;
    - Represent the work of a master;
    - Possess high artistic value; or
    - Represent a significant and distinguishable entity whose components may lack individual distinction.
- Criterion D: Information Potential. Properties may be eligible for the National Register if they have yielded, or may be likely to yield, information important to prehistory or history. This criterion commonly applies to archeological sites but can also apply to buildings and structures if they contain important information.

If the property does not meet any of the criteria, the CRM shall determine that the property is not eligible for the National Register and document this determination in the NEPA document for the project and inform the project proponent of the

initial determination. If the Tx SHPO does not object in writing to the finding that properties are not eligible during the 30 day NEPA review period, the properties are considered not eligible and all responsibilities under this HPC and NHPA are complete. The CRM will provide the project proponent with this determination and the proponent may continue with the project. If the Tx SHPO does object in writing during the 30 day NEPA review period to a determination that the property is not eligible, and this objection cannot be resolved, the determination will be forwarded to the Keeper of the National Register for final and binding determination.

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6.3.2.1.4 Determine if the property is significant under the National Historic Landmark Criteria

If the property is eligible under the National Register Criteria, the CRM shall apply National Historic Landmark criteria to the historic property. After applying the NHL criteria, the CRM shall proceed to 6.3.2.1.5. If the historic property meets the NHL criteria, the CRM will also comply with the procedures in SOP 13: National Historic Landmarks.

The quality of national significance is ascribed to districts, sites, buildings, structures, and objects that possess exceptional value or quality in illustrating or interpreting the heritage of the United States in history, architecture, archeology,

engineering, and culture and that possess a high degree of integrity of location, design, setting, materials, workmanship, feeling and association, and:

- Criterion 1: That are associated with events that have made a significant contribution to, and are identified with, or that outstandingly represent, the broad national patterns of United States history and from which an understanding and appreciation of those patterns may be gained; or
- Criterion 2: That are associated importantly with the lives of persons nationally significant in the history of the United States; or
- Criterion 3: That represent some great idea or ideal of the American people; or
- Criterion 4: That embody the distinguishing characteristics of an architectural type specimen exceptionally valuable for the study of a period, style, or method of construction, or that represent a significant, distinctive, and exceptional entity whose components may lack individual distinction; or
- Criterion 5: That are composed of integral parts of the environment not sufficiently significant by reasons of historical association or artistic merit to warrant individual recognition but collectively compose an entity or exceptional historical or artistic significance, or outstandingly commemorate or illustrate a way of life or culture; or
- Criterion 6: That have yielded or may be likely to yield information of major scientific importance by revealing new cultures, or by shedding light upon periods of occupation of large areas of the United States. Such sites

are those which have yielded, or which may yield, data affecting theories, concepts, and ideas to a major degree.

Ordinarily, cemeteries, birthplaces, graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings and properties that have achieved significance within the past 50 years are not eligible for NHL designation. If such properties fall within the following categories they may, nevertheless, be found to qualify:

- Exception 1: A religious property deriving its primary national significance from architectural or artistic distinction or historical importance; or
- Exception 2: A building removed from its original location but which is nationally significant primarily for its architectural merit, or for association with persons or events of transcendent importance in the nation's history and the association consequential; or
- Exception 3: A site of a building or structure no longer standing but the person or event associated with it is of transcendent importance in the nation's history and the association consequential; or
- Exception 4: A birthplace, grave or burial if it is of a historical figures of transcendent national significance and not other appropriate site, building, or structure directly associated with the productive life of that person exists; or

- Exception 5: A cemetery that derives its primary national significance from graves of persons of transcendent importance, or from an exceptionally distinctive design or an exceptionally significant event; or
- Exception 6: A reconstructed building or ensemble of buildings of extraordinary national significance when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other buildings or structures with the same association have survived; or
- Exception 7: A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own national historical significance; or
- Exception 8: A property achieving national significance within the past fifty years if it is of extraordinary national importance.

6.3.2.1.5 Determine if the property represents a type usually excluded from the National Register, and if so, meets any of the Criteria Considerations.

Before examining the Criteria Considerations, the CRM shall determine if the property meets one or more of the four Criteria for Evaluation (6.3.2.1.3) and retains integrity.

- If the property meets one or more of the four Criteria for Evaluation and has integrity, determine if the property is of a type that is usually excluded from the National Register. If it does not meet one of these types, proceed to 6.3.2.3.5.
- If the property is a type cited in the Criteria Considerations, the CRM must determine if the property meets the special requirements stipulated for that type in the Criteria Considerations. If so, the CRM shall proceed to 6.3.2.3.5. If the property does not meet the requirements, the CRM shall determine that the property is not eligible for the National Register, document that determination in the NEPA document for the project, and if the Tx SHPO does not provide a written objection to the determination within the 30-day NEPA review period, all responsibilities under this HPC and NHPA are complete. The CRM will provide the project proponent with this determination and the proponent may continue with the project.

6.3.2.1.6 Determine whether the property retains integrity of location, design, setting, workmanship, materials, feeling and association.

If the CRM determines that a property meets one or more of the four Criteria for Evaluation of National Register eligibility (6.3.2.1.3) or one or more of the six NHL Criteria for Evaluation (6.3.2.1.4), integrity must be evaluated.

Evaluation of integrity can be subjective but must be grounded in an understanding of a property's physical features and how they relate to its significance. The CRM shall access integrity as follows:

- The CRM will define the essential physical features that must be present for a property to represent its significance. Although not all the historic physical features need to be present, those that convey its historic identity are necessary, including those that define why and when the property was significant. Under Criteria A and B, the property must retain those features that made up its character or appearance during the period of its association with the important event, historical pattern, or person(s). Under Criterion C, the property must retain most of the physical features that constitute that style or technique. Under Criterion D, integrity depends on the data requirements defined in the research design. The significant data contained in the property must remain sufficiently intact to yield the expected important information under appropriate methodologies.

- The CRM will determine whether the essential physical features are visible enough to convey their significance. The character-defining features must not be covered by modern construction or otherwise concealed. Archeological sites are an exception to this qualification.
- The CRM will determine whether the property needs to be compared with similar properties. A comparison may help determine what character-defining features are essential to properties of that type.
- The CRM will determine, based on the significance and character-defining features, which aspects of integrity are particularly vital to the property being evaluated and if they are present. For Criterion A and B, the presence of all seven aspects of integrity is the ideal; however, integrity of design and workmanship may not be as important or relevant. Under Criterion C, a property must have integrity of design, workmanship, and materials. Location and setting are important for those properties whose design is a reflection of their immediate environment. For Criterion D, setting and feeling will probably not apply unless the property is of traditional religious and cultural significance to Tribes; location, design, materials, and possibly workmanship should be considered.

Properties that meet NHL criteria, must also retain a high degree of integrity and be exceptionally important compared to similar properties within the theme. The property must retain the essential physical features that enable it to convey its historical significance. The essential physical features are those features that

define both why a property is significant (NHL criteria and themes) and when it was significant (periods of significance). To assess integrity of potential NHLs, the CRM must:

- Define the essential physical features that must be present to a high degree for a property to represent its significance;
- Determine whether the essential physical features are apparent enough to convey the property's significance; and
- Compare the property with similar properties in the nationally significant theme.

A property that is significant for its historical association should retain the character-defining features that made up its character or appearance during the period of its association with the important event, historical pattern, or person(s). If the property is a site where there are no material cultural remains, such as a battlefield, the setting must be intact. If the historic building associated with the event, pattern or person no longer exists, the property has lost its historical integrity.

A property important for illustrating a particular architectural style or construction technique must retain the character-defining features that constitute that style or technique. A property that has lost some historic materials or details can be considered if it retains the majority of the features that illustrate its style in terms of the massing, spatial relationships, proportion, pattern of windows and doors,

textures of materials, and ornamentation. A property should not be considered if it retains some basic features conveying massing but has lost the majority of the features that once characterized its style.

For properties to be considered under Criterion 6, integrity is based upon the property's professionally demonstrated intactness of archeological deposits and features. These are important for identifying whether a site has the potential to yield data that may address nationally significant research questions.

Properties being considered under Criteria 1 through 5 must not only retain the character-defining features, but the features must be visible enough to convey their significance and historic identity. This means that even if a property is physically intact, its integrity is questionable if its significant features are concealed under modern construction. Archeological properties are the exception to this; by nature they may not require visible features to convey their significance.

If, upon evaluation, the CRM determines that the property retains integrity, the property shall be determined eligible for the National Register or as an NHL, and that decision will be documented in the NEPA documentation for the project and the CRM shall continue with SOP 4 and notify the project proponent. If the CRM determines that the property does not retain integrity, the CRM will determine that the property is not eligible for the National Register or as an NHL. This

determination shall be documented in the NEPA documentation, and if the Tx SHPO does not object in writing to the determinations during the 30-day public NEPA review period for the project, the responsibilities under this HPC and NHPA are complete. The CRM will provide the project proponent with this determination and the proponent may continue with the project. If there is an objection regarding eligibility of a property that cannot be resolved between the FSH CRM and the Tx SHPO, that determination will be forwarded to the Keeper of the National Register for a final and binding determination.

6.3.2.2 Significance Testing – Archeological Sites

The goal of archeological significance testing is to establish that a property contains important information. Appropriate techniques to satisfy the goal depend on site location, condition, and the applicable research questions. The magnitude of investigation will depend on the site type, size and complexity. Field excavation of archeological sites for purposes of evaluation will be in accordance with the Secretary of the Interiors Standards and Guidelines for Evaluation. All field supervisors must meet the Secretary of Interior's Professional Qualification Standards for Archeologists.

The following procedures will be used during the evaluation of prehistoric and historic archeological sites.

6.3.2.2.1 Pre-field Preparation

The CRM will provide field supervisors with the necessary background data to evaluate the archeological site(s). Background data shall include but not be limited to: the results of the identification inventory during which the site was identified; the research design developed in coordination with the field supervisors and the CRM for the evaluation project; applicable historic contexts; results of evaluations or determinations of eligibility of similar or nearby sites; and environmental information (soils, geomorphology, known disturbances, topography, vegetation, etc.). If appropriate, field supervisors should be made aware of any utility lines, fiber optic cables and/or gas pipelines that might be present near any area where excavation may take place. The Texas Historical Commission's standard site data form (available at http://www.thc.state.tx.us) will be used for recording archeological sites. The project archeologist or principal investigator will record all information gathered during the investigation in a general log and on such other forms as may be appropriate according to typical or standard practices and the needs of the investigation concerned.

6.3.2.2.2 Field Methodology

No single method of field investigation and documentation is appropriate for all sites and usually a combination of techniques will yield the data necessary for complete evaluation. A method is acceptable if it can provide data on site size, date of the deposits, site structure and integrity. Methods may include the following:

- Mapping: Maps should include topographic and environmental features as well as location of surface finds, positive shovel probes, cultural features and excavation units. Mapping should be carried out at all levels of investigation (see Field Procedures, Archeology Section e.)
- Shovel tests: This technique is appropriate for areas that are obscured by vegetation or where boundary clarification is necessary. It may be used as part of a sampling strategy or to assist in boundary definition.
- Test excavation: Controlled manual (non-mechanical) test excavation units sample the site area for subsurface features and provide assessments of site integrity and information potential. Units are excavated in either natural or arbitrary levels. This technique will be the most likely to result in information related to site date, cultural affiliation, site function, degree of preservation of organic remains, the presence of cultural features and/or activity areas, and disturbances.
- Removal of plow zone: This method will allow for examination of a greater percentage of the site area in less time. The plow zone should be mechanically removed to just above its base and the remainder removed

by skim shovel. Mapping, surface collection and any sampling should occur prior to removal of the plow zone.

- Remote sensing: Methods in this category include aerial photo interpretation (defines site setting, site limits, internal site structure); ground-penetrating radar or resistivity and conductivity.

Test excavations and removal of the plow zone should be commensurate with the scope of the undertaking. The CRM will ensure that the investigators are not proceeding to the level of data recovery, but rather only gathering sufficient information for significance testing, to make a determination of eligibility to the National Register.

6.3.2.2.3 Analysis and Interpretation

All collected materials should be cleaned, labeled, catalogued and analyzed. Analysis includes the following:

- Description of all artifacts by type, including provenience, measurements and quantity
- Description of how dates for the site were obtained
- Description of diagnostic materials that includes type, date and photographs
- Description of features including content, plan views and profiles
- Description of the soil matrix, horizons, disturbances, and site formation processes

- Description and interpretation of the spatial relationships of features and artifact concentrations within the site
- Description of methodology for analysis of any paleo-ecological data collected from the site
- Discussion of how the site information fits into the larger context of regional synthesis
- Analysis and interpretation of artifacts and features found, including physical and cultural contexts

6.3.2.2.4 Reporting

All evaluations will be documented in NEPA documentation prepared for undertakings. In addition, the annual report on HPC implementation will include information on selected recommendations for sites evaluated during the previous year.

6.3.2.3 Data Collection – Buildings and Structures

This portion of the SOP addresses issues that are unique to data collection for buildings and structures. The data collected will facilitate formal procedures for evaluation discussed in 6.3.2.1 above.

6.3.2.3.1 Field Procedures

- Archival Research: The goal of archival research is to collect information that will assist in determining the historic context a property is associated with and whether the property is significant within its historic context with regard to the National Register criteria. This body of data must conclusively associate the building or structure with an event or person under Criteria A or B or with distinctive architectural elements, the work of a master, or high artistic value under Criterion C. Sources that may be consulted include:
  - historic and current maps
  - historic photographs
  - building drawings
  - research files related to the building or to FSH that are archived at the SHPO
  - Fort Sam Houston Museum
  - Real Property records
  - City of San Antonio
  - Public Libraries
  - Bexar County Historical Commission
  - San Antonio Conservation Society
  - Institute of Texan Cultures
  - National Archives (if context is national)

- Field Documentation. The purpose of field documentation is to record the building or structure as it exists today and will provide comparative information for assessment of integrity, its current condition, and setting. Field documentation includes the following activities:
  - Photography. Photographs should capture every façade (front, rear, side elevations). Sensitive buildings (ammunition depots, etc.) will not be photographed. [Researchers should brief the Public Affairs Office and Provost Marshall Office prior to photographing installation resources, and if necessary inform any residents of military housing areas by official letter that summarizes the project, obtains their permission, and coordinates the photographic documentation.] Some structures, because of their simplicity, require only a single photograph to adequately capture it. Rectangular buildings may require a minimum of two, diagonally from opposite corners of the building. Complex buildings may require more. Additional photos may be necessary for architectural detail.
  - Recordation. The following information should be recorded in notes from field observations. A form for standardized collection of field data is desirable.
    - Architectural style
    - Plan/footprint of building
    - Number of stories
    - Roof type(s)

- Roof material(s)
- Foundation material(s)
- Wall material(s)
- Type and location of doors
- Type and location of windows
- Architectural details
- Readily Visible Additions and/or Modifications
- Condition of resource

- Modifications to Building/Structure. Real Property records dates and brief descriptions of government building modifications such as rehabilitations, window replacement, and additions.

6.3.2.4 Data Collection – Properties of Traditional Religious and Cultural Importance to Federally Recognized Indian Tribes

This portion of the SOP addresses procedures that are specific to data collection for properties of traditional religious and cultural importance.

6.3.2.4.1 Identify Property

The CRM will ensure that the entity under consideration is a “historic property”. The National Register does not include the traditional religious or cultural practices themselves, but rather the tangible property. The relationship between

the beliefs and the property must be considered however, because the beliefs or practices may give the property its significance. Although construction by human beings is a necessary attribute of buildings and structures, it is not a requirement for sites, districts or objects. Sites, districts and objects may possess historic, cultural or archeological value and may be classified as properties even though there may be no physical evidence that an event or activity occurred there. When there is no observable evidence of human activity, documentary and/or oral evidence must be carefully assessed.

6.3.2.4.2 Consider Integrity

- The CRM will determine, in consultation with Tribal officials if the property has an integral relationship to traditional, religious and cultural beliefs or practices and/or if the property is important to the transmission of the beliefs or practices.
- The CRM will determine, in consultation with Tribal officials, if the condition of the property conveys the relationship to traditional, religious and cultural beliefs or practices. In addition, it should be considered if any physical alterations have resulted in a loss of integrity. Integrity should be considered from the eyes of the practitioners. It is possible for property modifications to be accommodated into the practices.

6.3.3 Review of Determinations of Eligibility

Determinations of eligibility will be documented in the NEPA documentation for projects and will be provided to the project proponent. These documents, which are available for 30-day public review, will be the mechanism by which consulting parties will, if desired, review determinations of eligibility. The NEPA document will be provided along with a clear indication that eligibility determinations are included for review and comment by the Tx SHPO. If agreement cannot be reached regarding eligibility, the determination will be forwarded to the Keeper of the Register for final determination. In addition, selected determinations made during the previous year may be discussed at the annual review and monitoring meeting. If no agreement or disagreement is received from the Tx SHPO within the 30 day NEPA review period, FSH shall assume that the Tx SHPO agrees with the determinations.

6.3.4 Assessing Effects

If the CRM determines there are no historic properties located with the APE, a determination of “No Historic Properties Affected" will be documented through the NEPA process, and there will be no further requirements under this HPC and the NHPA. The CRM will provide the project proponent with this determination and the proponent may continue with the project. If the CRM determines that eligible historic properties are located within the APE, a determination of the effects of the undertaking on those properties will be made.

The CRM will determine if the undertaking will cause any alteration to the characteristics of the property that make it eligible for the National Register or as an NHLD, using the FSH Maintence Manual to identify those characteristics. If there will be no effects to any of the historic properties, a decision of "No Historic Properties Affected" will be documented, and there will be no further requirements under the HPC. The CRM will provide the project proponent with this determination and the proponent may continue with the project.

In order to maker a no historic properties affected determination , the CRM will document that:

- There are no historic properties within the APE;
- the undertaking's effects do not alter, directly or indirectly, any of the characteristics of a historic property that qualify it for inclusion in the National Register or as an NHLD, in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association; or
- the undertaking is modified (in consultation with the project proponent) or conditions are imposed, such as the subsequent review of plans for rehabilitation by the CRM to ensure consistency with the Secretary of the Interior's *Standards for the Treatment of Historic Properties* (36 CFR 68) and applicable guidelines, to avoid adverse effects. http://www2.cr.nps.gov/tps/secstan1.htm

In all instances, the determination of “no adverse effect” will be logged and tracked, and a project file maintained, in accordance with SOP #15. Once this documentation is complete and received by the project proponent, the project may proceed.

If there are effects, the CRM will notify the project proponent and proceed to SOP 4: Assessing Adverse Effects.

6.4 SOP 4: Assessing Adverse Effects

The CRM is responsible for determining if the effects to the historic properties will alter, directly or indirectly, any of the characteristics of the historic properties that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling or association.

All assessment technical work will be performed by a qualified professional who meets the Secretary of the Interior's Professional Qualification Standards at 36 CFR 61, Appendix A. Assessments relating to historic buildings and structures must be performed by a Historic Architect or an Architectural Historian; assessments relating to archeological resources must be performed by an Archeologist; assessments relating to properties of traditional religious and cultural importance to Federally-recognized Indian tribes must be made in consultation with the tribe. If FSH does not have the expertise on staff to meet these requirements then qualified assistance must be obtained in accordance with SOP 10.

According to Section 1.5 of the AAP, adverse effects on a historic property are:

> Those effects of an undertaking that may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion on the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling or association. The

criteria of adverse effect also requires consideration of all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative.

6.4.1 Determine Adverse Effects

Using the character-defining features that must be present for a property to represent its significance (6.3.2.1.5) based on the FSH Maintenance Manual, the CRM will determine if there is an adverse effect, including those reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative.

6.4.2 Examples of Adverse Effects

In order to make the determination if there is an adverse effect the CRM will use the information previously gathered on the historic property, including its significance, integrity and character-defining features, to consider if there will be:

- Physical destruction of or damage to all or part of the property;
- Alteration of the property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, that is not consistent with the Secretary's

standards for the treatment of historic properties (36 CFR part 68) and applicable guidelines;

- Removal of the property from its historic location;
- Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;
- Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features;
- Neglect of an architectural property which causes its deterioration (except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe) and
- Transfer, lease, or sale of the property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

6.4.3 Finding of No Adverse Effect

If the CRM determines that the undertaking will have no adverse effect on historic properties, that determination will be documented and made available to consulting parties in the NEPA documentation prepared for the project, and there will be no further requirements under the HPC. The CRM will provide the project proponent with this determination as described in SOP 15: Documenting the Internal Review Process, and the proponent may continue with the project. These determinations will also be available for review during the annual review meeting if requested.

If an adverse effect is found, the CRM will notify the project proponent as described in SOP 15: Dccumenting the Interal Review Process, and proceed to SOP 5: Applying Best Management Practices and/or SOP 6: Alternatives Review. When NHL listed buildings are planned to be deconstructed, FSH may hold a scoping meeting to solicit input from the public and interested parties before the preparation of the NEPA documentation. Projects where this additional scoping meeting may be required should be identified to the extent possible during the semi-annual review meeting.

6.5 SOP 5: Applying Best Management Practices

This SOP provides for the consideration and application of historic preservation management practices with emphasis on avoiding adverse effects and meeting HPC preservation goals. When dealing with undertakings affecting historic properties, the CRM, in consultation with the project proponent, will first attempt to avoid adverse effects by following the SOP steps below. In accordance with SOP 13: National Historic Landmarks, NHL properties require that, to the maximum extent possible FSH undertake such planning and actions as may be necessary to minimize harm to such landmark. When NHLs may be adversely affected, FSH will follow SOP 13 and apply the best management practices to the maximum extent possible. When these best management practices cannot be applied, the CRM will proceed to SOP 6: Alternatives Review.

6.5.1. Archeological Sites and Properties of Traditional Religious and Cultural Importance

1. When feasible, projects will be designed with alternate locations so that conflicts with significant archeological sites and properties of traditional religious and cultural importance can be avoided without project delay.
2. When proposed undertakings are determined to have a potential effect on archeological sites, FSH will, to the extent feasible, avoid the adverse effect by modifying the project design or project location so that the site is not impacted. Decisions regarding feasibility of avoiding adverse effects will be made within the project's context and with input from the project

proponent, and may include issues with location, project requirements, funding or cost limitations, significance of the property and mission requirements.

6.5.2. Historic Buildings, Structures, and Objects

1. To the extent feasible, historic building and structure maintenance, repair and rehabilitation will, follow the Secretary of Interior's Standards for Rehabilitation. Decisions regarding the feasibility of using the Secretary of the Interior's Standards will be made within the project's context and with input from the project proponent, and may include issues with project requirements, funding or cost limitations, significance of the property, force protection/anti-terrorism and mission requirements.
2. When financially feasible and in support of the mission, FSH will adapt historic buildings for reuse rather than demolishing or mothballing. Mothballing will be preferred over demolition when adaptive reuse is not feasible. Decisions regarding financial feasibility will include economic analyses among other considerations such as force protection/anti-terrorism and mission requirements.
3. Historic buildings will be inspected for maintenance problems and signs of deterioration, in accordance with the guidance provided within the Maintenance Manual.

4. New construction should follow the existing Installation Design Guidelines (http://www.cs.amedd.army.mil/pwbc/IDG_index.htm) and existing Land Use plan.
5. In cases when an Army undertaking directly and adversely affects an NHL, FSH will consider prudent and feasible alternatives to avoid an adverse effect on the NHL. Where such alternatives appear to require undue cost, conflict with force protection/anti-terrorism and/or mission requirements, or compromise the goals and objectives of the undertaking, FSH will balance the intent of the undertaking with the and NHPA Section 110(f). In doing so, FSH will consider:
   - The magnitude of the undertaking's harm to the historical, archeological and cultural qualities of the NHL;
   - The public interest in the NHL and in the undertaking as proposed; and
   - The effect a mitigation action would have on meeting the goals and objectives of the undertaking.

If the CRM is unable to apply the best management practices to avoid adverse effects, that determination will be documented through the NEPA process as an alternative, the project proponent will be notified and the CRM shall proceed with SOP 6.

6.6 SOP 6: Alternatives Review

When best management practices cannot avoid adversely affecting a historic property, a NEPA review will take place prior to the application of any measure to minimize or mitigate the adverse effects. In accordance with SOP 13: National Historic Landmarks, NHL properties require that, to the maximum extent possible, FSH undertake such planning and actions as may be necessary to minimize harm to such landmark. When NHLs may be adversely affected, FSH will follow SOP 13 and minimize the effects to the maximum extent possible.

6.6.1 Review of Project Alternatives

If the CRM determines that an activity will have an adverse effect (SOP 4) on historic properties, this determination will be documented in the NEPA document, along with a review of project alternatives. When the historic property is a building, and the project involves deconstruction, the evaluation of alternatives will consider the estimated cost of alternatives (see 6.6.2). Alternatives will be discussed with the project proponent and may include the following, or other measures:

1. Avoidance. This project alternative provides for avoidance of adverse impacts altogether. This is accomplished by not proceeding with the project or that part of the project that will have the impact, or by relocating a project or features of a project to avoid impacts to historic properties.

Prioritized alternative locations will be identified through the NEPA process in order to provide options with minimal delays.

2. Minimize the impact by limiting the degree or magnitude of the action and its implementation. This alternative seeks to limit direct impacts, to temporarily protect a property until permanent treatments can be applied, and/or to control the impacts through monitoring and oversight. For properties of NHL significance, FSH will, to the maximum extent possible, undertake such planning and actions as may be necessary to minimize harm to those properties. FSH will follow SOP 13: National Historic Landmarks for NHL properties.
3. Repair, rehabilitate or restore the affected environment: In this alternative, a project that once had the potential to damage a historic property is redesigned so that appropriate rehabilitation standards are applied in a manner so that the effects are not adverse.
4. Adaptive reuse: In this alternative, consider adaptive re-use if a historic building cannot be used for its original purpose.
5. Reduce or eliminate the impact over time by preservation and maintenance operations during the life of the action.
6. Move the property. This is not a favored option and results in the loss of historic property integrity of setting.
7. Transfer the property. If this alternative is pursued, preservation covenants that provide for the property's long-term preservation can be attached to the property, unless shown to be infeasible.

8. Mothballing: In this option, a building is sealed from the elements to temporarily protect it from the weather and secure it from vandalism. Procedures for properly mothballing a building will follow NPS Preservation Brief 31 (Mothballing Historic Buildings), and include the following:
    a. Document the architectural and historical significance of the building, if such documentation has not already been done.
    b. Prepare a condition assessment of the building.
    c. Structurally stabilize the building, based on a professional condition assessment.
    d. Exterminate or control pests, including termites and rodents.
    e. Protect the exterior from moisture penetration.
    f. Secure the building and its component features to reduce vandalism or break-ins.
    g. Provide adequate ventilation to the interior
    h. Secure or modify utilities and mechanical systems.
    i. Develop and implement a maintenance and monitoring plan for protection.
9. Monitoring during the life of the project: Monitoring a project may allow FSH to take appropriate actions to prevent and correct impacts as they occur.

6.6.2 Economic Analysis for Historic Buildings

The economic analysis procedures discussed here are designed to assist FSH personnel in making valid assessments for the above referenced actions.

Elements of a Cost Data Analysis:

1. Cost Considerations
    a. Size. The size of the unit is directly proportional to the maintenance and repair cost necessary to sustain the condition of the unit and prevent deterioration. The larger the unit (more roof area, square feet of walls and floors), the more maintenance and utilities funding required.
    b. Age. Older units, although built to last (brick walls, tile or slate roofs), can also incur additional repair costs due to lead-based paint and asbestos hazards. They may be in the age range where their building components are failing and need replacement (roof systems, water and sanitary lines and electrical wiring).
    c. Building Materials. Building materials used on older structures -can be of higher quality than contemporary materials and thus can cost more per unit of measure. Therefore, the first-time cost of repair or replacement can be higher than on a more modern building. However, the overall life of the original material may be many times more than the life of contemporary building materials. Over the life of the building

component, the more expensive first time repair costs of historic structures may be more cost effective.

d. Cost Per Unit. Often, due to the large size of older units, the average yearly cost to maintain and repair these units can be as much as 2 to 2.5 times the cost for smaller, modern units. These costs do not include infrastructure repair costs (roads, utility lines, etc.). Costs per square foot are about equal for older and newer buildings, but the large size of older units can equate- to greater cost per unit.

e. Costs per Square Foot. When comparing specific unit costs, the tendency of older units to be larger than their contemporary counterparts may account for differing ratios between the costs per unit and the per square foot costs.

f. Utility Costs. Utility costs include electricity, gas, water, and sewer. Older units can cost more than contemporary units based principally on size. If all of the electrical, plumbing and HVAC systems were removed, they should be replaced at 100%. Code would probably also require the installation of a sprinkler system for fire protection, and any new use would require modern communication systems. All interior finishes would also likely be refreshed during renovation.

g. Compliance Costs. There are certain costs associated with using and maintaining historic buildings that are required by law or compliance agreement. While often figured as a variable historic preservation

cost, these costs are required by law for all buildings regardless of historic status:

i. Repairing or replacing building components containing hazardous materials such as lead based paint and asbestos can increase the repair costs significantly. These costs are unavoidable since they are required by Title X of the Residential Lead Based Paint Hazard Reduction Act.

ii. The disposal cost for hazardous materials is higher than that of other building materials. Buildings frequently contain lead-based paint and asbestos, considerations that must be addressed in demolition as well as in continued use of buildings.

2. Cost Data Conclusions. The operation and maintenance cost for a historic building is generally higher than that of a modern unit. Most of this additional cost can be attributed to the larger size of older units. The requirement to abate lead-based paint adds to the cost of any repair work. The use of historically appropriate materials may increase initial costs; however, this may be offset by the longer life of the materials used.

The Layaway Economic Analysis Model, or other appropriate life cycle cost model may be used by FSH to perform the economic analysis.

The Layaway Economic Analysis (LEA) model for Historic Buildings is a computer software program developed to assist the user in determining costs for demolition, layaway, and caretaker maintenance of historic structures. The program is designed to assist Army decision-makers in determining the best course of action for handling excess historic facilities. The LEA provides an estimate of the relative costs of three alternatives: layaway and reactivation if needed in the future; demolition and reconstruction if needed in the future; and continued use with renovation to a satisfactory condition. Cost adjustments include geographical location, climate, inflation, and local cost factors.

The basic LEA report provides the summary costs per square foot of the activities associated with demolishing, laying away, replacing, renovating, and using buildings.

The LEA produces cost estimates from descriptions of the buildings and their conditions. Without an on-site inspection and a detailed design for renovation, only a working estimate of costs is possible. The LEA program provides such estimates for Army facilities using standard cost data from recognized sources, contained within the software program in embedded databases.

6.6.3 Documentation of Alternative Selected

The alternatives considered will be documented through NEPA and will include a summary of alternatives, the one selected as the preferred alternative in

consultation with the project proponent, and will document the decision for choosing that alternative. If the alternative selected will have an adverse affect on historic properties (SOP 4), the CRM will notify the project proponent and proceed to SOP 7: Resolution of Adverse Effects

6.7 SOP 7: Resolution of Adverse Effects

Resolution of adverse effects will normally occur through application of standardized treatments for archeological sites and historic buildings. The standardized treatment measures should satisfy FSH's needs for treatment/mitigation, except perhaps for highly complex projects or NHL properties where specialized measures may be needed. Additional treatment/mitigation measures for these special properties may be identified. The following considerations are presented for the treatment/mitigation of both archeological sites and historic buildings.

All treatment/mitigation measures will be performed by a qualified professional who meets the Secretary of the Interior's Professional Qualification Standards at 36 CFR 61, Appendix A. Treatment/mitigation measures to historic buildings and structures will be planned and/or performed by a Historic Architect or Architectural historian; treatment/mitigation measures for archeological sites will be planned and/or performed by an Archeologist. If FSH does not have the expertise on staff to meet these requirements then qualified assistance must be obtained in accordance with SOP 10.

6.7.1 General Treatment/Mitigation Procedures

The FSH Garrison Commander will determine, based on a comparison of cost and value gained as prepared by the CRM in consultation with the project proponent, if treatment/mitigation is an option, or if it is not in the best public

interest or is not financially or otherwise feasible. This decision to treat/mitigate adverse effects will be documented through the NEPA process for the project for a 30-day public review. The NEPA documentation will provide a range of options considered and alternatives proposed for any project, along with FSH's preferred alternative. The final decision regarding treatment/mitigation options will be made after the comments from the public review period have been received, and will be published in the final Record of Decision or Finding of No Significant Impact. When a NHL is involved, the focus of the analysis of alternatives will be on actions that minimize harm to the NHL, to the maximum extent possible. If treatment/mitigation is chosen, the CRM will follow the guidelines below. If the Garrison Commander decides treatment/mitigation is not feasible, the CRM will proceed to SOP 8: Documenting Acceptable Loss.

In accordance with the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation, if a number of properties representing one aspect of a historic context have been recorded or preserved, treatment of additional members of that property type may receive lower priority than treatment of a property type for which no examples have yet been recorded or preserved. This approach ensures that the focus of recording or preserving all elements of the historic context is retained, rather than limiting activities to preserving properties representing only some aspects of the context.

6.7.2 Treatment/Mitigation Measures for Archeological Sites

When an undertaking will have an adverse effect on an archeological site that is either listed in or eligible for listing in the National Register, and the recovery of significant information is proposed as a treatment/mitigation measure for the effect, the FSH CRM will consider the following issues:

1. The archeological site should be significant and of value chiefly for the information on prehistory or history it is likely to yield through archeological, historical, and scientific methods of information recovery, including archeological excavation.

2. If the site contains or is likely to contain human remains, associated or unassociated funerary objects, sacred objects, or items of cultural patrimony as those terms are defined by the Native American Graves Protection and Repatriation Act (NAGPRA) (25 U.S.C. 3001).

3. If the site has significance as property of traditional religious and cultural importance to a Federally-recognized Indian Tribe.

4. The FSH CRM, in consultation with an archeologist who meets the Secretary of the Interior's Standards for Professional Qualifications, will prepare a data recovery plan that is consistent with the Secretary of the Interior's Standards and Guidelines for Archeology and Historic

Preservation (1983) and the Advisory Council on Historic Preservation's *Treatment of Archeological Properties: A Handbook* (1980). The plan will specify:

a. the results of previous research relevant to the project;
b. research problems or questions to be addressed with an explanation of their relevance and importance;
c. the field and laboratory analysis methods to be used with a justification of their cost-effectiveness and how they apply to this particular property and these research needs;
d. the methods to be used in artifact, data, and other records management;
e. explicit provisions for disseminating the research findings to professional peers in a timely manner; preferred dissemination is through publication in a professional journal;
f. arrangements for presenting what has been found and learned to the public, focusing particularly on the community or communities that may have interests in the results;
g. the curation of recovered materials and records resulting from the data recovery (except in the case of unexpected discoveries that may need to be considered for repatriation pursuant to NAGPRA); and
h. procedures for evaluating and treating unexpected discoveries of historic properties or Native American remains during the course of the project, including necessary consultation with other parties. In the

case of sites found to have NAGPRA cultural items and remains, the consultation procedures under NAGPRA shall take precedence.

5. FSH will ensure that the data recovery plan is developed and will be implemented by or under the direct supervision of a person, or persons, meeting at a minimum, the Secretary of the Interior's Professional Qualifications Standards (48 FR 44738-44739). The SHPO and other consulting parties will be notified of data recovery actions through NEPA documentation where the preferred alternative involves an adverse effect requiring treatment. The SHPO and other consulting parties may observe ongoing data recovery activities.

6. FSH will address issues concerning the recovery of significant information with Federally recognized Indian tribes that may attach religious and cultural significance to the affected property.

6.7.3 Treatment/Mitigation Procedures Historic Buildings and Structures

1. Under Section 106 of the NHPA, federal agencies may be required to mitigate adverse effects to historic properties that are on or eligible for the National Register. The CRM will determine the type of mitigation to be carried out based on the significance and character-defining elements of the property, and provide documentation of the proposed action through the NEPA document for the project for a 30-day public review. When

properties are located within the NHLD, additional parties must be notified of any proposed actions and alternatives, in accordance with SOP 13: National Historic Landmarks. When buildings within the NHLD or individually listed on the NRHP are being adversely affected through deconstruction, FSH may hold a scoping meeting to solicit input from the public and interested parties on the best methods of resolving or treating the adverse effect.

2. FSH will consider a range of possible treatments/mitigations in an effort to treat unavoidable adverse effects of: substantial alteration, which includes alterations not consistent with the Secretary of the Interior's Standards for Rehabilitation, removal of the property from its historic location, change of the character of the property's use or of physical features within the setting that contribute to its historic significance, and introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features; transfer, sale or lease out of federal ownership; and demolition. The options for treatment/mitigation may include but are not limited to the following:
   a. Contributing properties within the existing NHLD and other listed/ eligible historic districts, and those properties that are individually eligible for the National Register may be documented to Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) standards. HABS/HAER documentation will be provided to the NPS.

b. Materials suitable for education purposes may be developed to provide the general public with an understanding of the property's place in the history of FSH, Texas, and the nation. Materials may include such things as booklets and brochures for distribution, heritage trail maps, educational PowerPoint presentation (for use in public presentations or at FSH museum), development of marketing plan for existing materials.

c. If feasible, significant architectural features may be salvaged for reuse in other buildings at FSH.

d. Other National Register-eligible properties may be documented with photographs and a written history of the property.

e. FSH may limit changes within public spaces (entrances, hallways, etc.), and make alterations sympathetic to the existing structure and environment where feasible.

f. When deconstruction of an NHL or National Register-listed building is required, FSH may perform a study on remaining properties of that type and develop a priority plan for management of those properties

g. When deconstruction is required, FSH may designate another historic building or structure on FSH to receive attention for maintenance, rehabilitation and/or planning in lieu of treatment/mitigation measures on the building to be demolished. FSH may also salvage historic fabric from the deconstructed building to reuse in repair of other historic buildings when appropriate.

h. When transferring, selling or leasing historic properties, FSH may either document the property to HABS/HAER standards, or include (or recommend inclusion if FSH is not the federal disposal agent) preservation deed restrictions, covenants, or conditions in documents that provide for the transfer, lease, or sale of historic properties to a non-Federal entity. These provisions will:

- Encumber title to the property with clear and enforceable historic preservation provisions;
- Distinguish and identify those aspects of the property that make it eligible for inclusion in the National Register;
- Assign the rights created by the restrictions, covenants, or conditions to an entity for enforcement, if necessary; and
- Apply to the property in perpetuity.

The property will be disposed in accordance with the Federal Property Management Regulation (FPMR), 41 CFR 101-47. These regulations set forth a preference to transfer property to a public agency, with advance notice provided to the State, County Clerk, Mayor, other appropriate local officials and to any point of contact designated by the State.

i. When transferring, selling or leasing historic properties out of federal-ownership, FSH will encourage the disposal agent to transfer the property to a public agency or to other local organization for educational or public service use, to the extent allowed by the FPMR,

and may notify the new owner of the availability of tax credits for historic preservation.

j. When properties are transferred out of Federal ownership the properties may be listed as a local or city landmark when the transfer occurs.

6.7.4 Documentation of Treatment/Mitigation

When treatment/mitigation is used to address adverse effects, the treatment/mitigation measure be documented through NEPA. Final copies of all treatment/mitigation reports and documents will be provided to the Tx SHPO and other consulting parties on request, and will be maintained at FSH. Any HABS/HAER documentation will be provided to the NPS. Once the treatment/mitigation measure has been completed and documented, FSH has no further requirements under the HPC. The CRM will provide the project proponent with this determination and the proponent may continue with the project.

6.8 SOP 8: Documenting Acceptable Loss

After having considered possible alternatives and measures that would mitigate the adverse effects of the undertaking on a historic property, FSH may make a determination to proceed with an undertaking without implementing alternatives or mitigation measures. This is a Garrison Commander decision that must be documented through the NEPA process and reviewed by the Advisory Council on Historic Preservation through the NEPA process before being executed. This SOP will only be used when implementing alternatives or mitigation measures has been determined to be not in the best public interest or is not financially or otherwise feasible after application of all previous SOPs.

- The FSH Garrison Commander will document the "Acceptable Loss Alternative" as the preferred alternative for the project via the NEPA process, including a rationale for why best management practices, alternatives to the undertaking or mitigation measures were not appropriate or possible. The documentation must also include a description of the undertaking and all historic properties that will be affected. Following NEPA procedures, FSH will provide the NEPA documentation to the Advisory Council on Historic Preservation, and the consulting parties for the 30-day public review period.
- FSH will not implement the undertaking for 30 days after the date that it provides NEPA documentation to the above parties. The parties may provide comments to the installation regarding its decision within that time. The Garrison Commander will consider all comments and will provide to

the Advisory Council on Historic Preservation and the consulting parties written documentation of the decision in the final Record of Decision or Finding of No Significant Impact.

When these measures have been completed, FSH has no further requirements under the HPC and the NHPA for the project. The CRM will provide the project proponent with this determination and the proponent may continue with the project.

6.9 SOP 9: Review and Monitoring

There are three primary purposes of the review and monitoring process.

- FSH and its consulting parties will review undertakings that were accomplished during the previous year at a semi-annual meeting. In order to achieve this goal, FSH provides NEPA documents to the consulting parties during the year, which the consulting parties should review (along with any comments they provided to FSH through that process) prior to the meeting.
- No later than eight weeks before the scheduled review meeting, consulting parties will submit all requests for additional documentation on specific projects and requests for site visits to project sites. The CRM will provide the requested information within four weeks of the request.
- In addition, FSH will identify those programmed undertakings that are planned, or will be planned for the next fiscal year.
- The third task for these meetings is to review any of the SOPs that may need to have changes made to them in order to accomplish the historic preservation goals set out in the HPC. SOPs that do not consistently achieve the desired goals should be changed.
- FSH will document the semi-annual review and these will be distributed to consulting parties after the conclusion of the meeting.

6.9.1 Review and Monitoring Schedule

- A review and monitoring meeting will take place with consulting parties on a semi-annual basis, with the first meeting scheduled for approximately six months from the date of certification of this HPC. The timing of this meeting should be coordinated with FSH's planning schedule, and follow soon after FSH's semi-annual planning meetings. The FSH CRM will be responsible for coordinating meeting times and locations with all consulting parties, and for providing any requested information in advance of the meeting. FSH will contact the designated point of contact for each consulting party by e-mail to determine the best time and location for the meeting and will arrange all meetings unless otherwise arranged. Since it is unlikely that all consulting parties will have the same interest in the varying resources of the installation, FSH may meet at different times with those consulting parties interested in archeological properties and/or properties of traditional religious and cultural importance versus those interested in historic buildings.

Consulting parties to be invited to attend the annual review and monitoring meeting include:

- Texas State Historic Preservation Officer
- National Park Service (for issues relating to NHL District)
- Mescalero Apache Tribe
- Wichita and Affiliated Tribes

- Tonkawa Tribe
- Comanche Tribe
- Society for the Preservation of Historic Fort Sam Houston
- San Antonio Conservation Society
- City of San Antonio
- National Trust for Historic Preservation, SW Region

6.10 SOP 10: Obtaining Technical Assistance

This SOP will ensure that all actions to implement the HPC will be taken by individuals who meet discipline-appropriate professional standards under regulations established by the Secretary of the Interior in accordance with Section 112 (a)(1)(A) of the NHPA. FSH may maintain on-site technical expertise for historic properties; when not possible, technical expertise will be obtained in accordance with the procedures described below. FSH will ensure that discipline-appropriate professional standards, as defined in Section 1.5 of the AAP, are met in the technical conduct of identification, evaluation, and assessment of effects and treatment of historic properties. When the Army requests assistance from Federally-recognized Indian Tribes in the identification, evaluation, assessment of effects and treatment of historic properties of traditional religious and cultural importance, those tribal members need not meet the Secretary of the Interior's Professional Qualification Standards.

6.10.1 Identification, Evaluation, Effects Assessment, Alternatives Preparation, and Treatment of Archeological Properties and Historic Buildings and Structure

1. For work associated with historic buildings and structures, FSH will obtain technical assistance from a professional who meets the Secretary of the Interior's Standards as a Historic Architect or Architectural Historian, and may obtain that expertise through the following or other means:

a. the U.S. Army Corps of Engineers,

b. a qualified cultural resources contractor

c. Cooperative Agreement for Cultural Resources support

2. For work associated with archeological properties, FSH will obtain technical assistance from a professional who meets the Secretary of the Interior's Standards as an Archeologist through the following or other means:

   a. the U.S. Army Corps of Engineers,

   b. a qualified cultural resources contractor,

   c. Cooperative Agreement for Cultural Resources support

3. The FSH CRM may also contact the Tx SHPO for technical assistance with the identification and treatment of archeological properties.

6.10.2 Identification, Evaluation, Effects Assessment, and Treatment of Properties of Traditional Religious and Cultural importance to Federally-recognized Indian Tribes

1. Federally-recognized Indian Tribes are uniquely qualified to identify, evaluate, and treat historic properties to which they attach traditional religious and cultural importance on and off Tribal lands.

2. In order to gain the expertise of Federally-recognized Indian Tribes and the SHPO, FSH may develop a cooperative agreement to obtain required technical assistance.

6.11 SOP 11: Consultation for Inadvertent Discoveries

This SOP provides an expedited consultation process for dealing with inadvertent discoveries that could affect the preservation of historic properties on an installation.

SOP 11: Inadvertent Discoveries

Inadvertent discoveries typically involve archeological remains rather than historic buildings because archeological sites are usually not readily apparent. While archeological investigation methods are designed to identify material evidence of past cultural activities, it is always possible that deeply buried archeological deposits may remain undetected during the inventory process. This may be partially attributed to the fact that all archeological inventory methods rely on small samples, through surface investigation or shovel testing, to identify locations of past cultural activity. It is always a possibility that archeological remains may come to light during construction and other ground disturbing activities, even in those areas that have been previously inventoried for archeological sites. This SOP for inadvertent discoveries will be coordinated with all other installation staff offices responsible for carrying out ground disturbing activities (public works, trainers, etc.).

1. In the event that suspected archeological materials are encountered during any construction, excavation or survey activities, work will cease in the area of the discovery.

a. FSH will take measures to minimize any further damage until an eligibility determination is made. FSH will continue to make reasonable efforts to avoid or minimize harm to the property until requirements under the HPC are completed.
b. The project manager will notify the CRM at the soonest possible time.
c. The CRM will obtain a professional archeologist to 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 site description and drawings. At the request of the associated Tribes, no photographs will be taken of Native American human remains.
d. If disturbance of the deposits is minimal and the excavation can be relocated to avoid the sites, the CRM will file the appropriate site forms in a routine manner.
e. If the excavation cannot be relocated, the CRM will proceed with SOPs 3 through 8.

2. If bone is present within the deposit, the CRM will ensure that a qualified professional (such as a state police crime lab physical anthropologist or coroner personnel) (SOP 10) accompanies him/her to the work site to assist in identification of the materials as modern or historic human remains. If Native American human remains are present, the CRM will proceed with the separate responsibilities under other statutes.

6.12 SOP 12: Force Protection/Anti Terrorism and Emergency Actions

There may be times that FSH must respond to disasters or emergencies that affect the operations and missions of the installation. These emergencies can be either natural or in response to situations that result from human events. This may also include those actions necessary to respond to a threat to national security, including mission essential activities for deployable troops and force protection activities.

Activities and actions undertaken in response to force protection requirements, disasters and emergencies can have an adverse effect on historic properties located on the installation. There may be instances when known historic properties will be affected or when undiscovered properties will be affected by activities taking place in areas of the installation that have not been previously inventoried.

As with inadvertent discoveries, force protection and emergency actions require an expedited process for handling historic properties that may be affected by these actions.

Within 48 hours of the decision to implement force protection actions which require expedited measures (determined by the FSH Garrison Commander), or formal disaster or emergency declaration by the President, Congress, Governor, or FSH Garrison Commander, the CRM will determine the necessary course of

action to minimize damage to potential and known historic properties. If known archeological sites are damaged, the potential for salvage of any archeological data will be determined by an archeologist meeting the Secretary of the Interior's Professional Qualifications Standards.

Data recovery, if necessary, may include, but is not limited to, any of the following scenarios:

1. Acceptable loss – no action

2. Where subsurface disturbance over an un-inventoried area has occurred, either as a result of the disaster or the cleanup effort, archeological inventory will be limited to examination of all exposed surfaces by a qualified archeologist.

3. If known archeological site(s) are damaged, but the damage is minor, protective strategies designed to prevent further site degradation will take place.

4. In the event that the damage to archeological site(s) is severe and the site was or may have been eligible for the National Register, a report will be prepared by a qualified archeologist documenting the damage and the potential for salvage of archeological values that cannot otherwise be

conserved. If the potential for salvage is high, the CRM will prepare a research design in coordination with qualified professionals, and salvage by qualified archeologists will proceed when normalcy is restored. If there is little or no potential for salvage, the damage will be documented in photographs, artifacts at the site will be collected and documented, and no further site investigation will take place. Copies of this information will be provided to consulting parties.

5. If deconstruction of an NHL, National Register-listed or eligible building or structure is necessary due to life safety issues as the result of a disaster or emergency, recordation will be limited to photographs of all exterior surfaces and features. Only those interior features that may be safely accessed may be documented with photographs. Copies of this information will be provided to consulting parties.

6. If an NHL, NRHP-eligible or -listed building or structure is damaged, initial repair will be limited to stabilizing it and protecting it from further damage. Rehabilitation will be undertaken at a later date, IAW this HPC when funds are available and normalcy is restored.

7. If an NHL, NRHP-eligible or -listed building or structure is to be adversely affected by a force protection/anti terrorism action, the CRM will determine the length of time available for mitigation, and proceed with documentation

as possible, including but not limited to, 35 mm photography (preferably black and white) and a brief written description and history of the property. There are three levels of photographic documentation that should be considered: minimum, basic, and expanded. The highest level of documentation possible, taking time constraints and the type of adverse effect into consideration, should be used (see Appendix J).

6.13 SOP 13: National Historic Landmarks

Properties nominated to the National Register may be considered for potential designation as an NHL. To earn an NHL designation, a property must have the quality of *national* significance and possess *exceptional* value or quality in illustrating or interpreting the heritage of the United States in history, architecture, archaeology, engineering, or culture. The property must also possess a high degree of integrity of location, design, setting, materials, workmanship, feeling and association. Generally, the categories of historic properties are defined the same as for National Register listings (i.e., district, site, building, structure, and/or object), historic contexts are similarly identified, and comparative evaluation is carried out on the same principles.

Because of the higher level of significance of NHLs, agencies are required by Section 110(f) of NHPA to "…the maximum extent possible, undertake such planning and actions as may be necessary to minimize harm to such landmark…" To that end, the FSH CRM will:

- Consider the NHL in the initial design stages of an undertaking; and,
- Design undertakings that, to the maximum extent possible, minimize harm to the NHL and those properties designated within the boundary formally designated in the Landmark documentation and also takes into consideration the visual and auditory impacts of the undertaking with respect to the designated boundaries.

FSH will provide the Council, the NPS, in addition to other parties, including the Tx SHPO and the public, an opportunity to review undertakings that may affect the NHL through the NEPA public comment review process. When buildings within the NHLD are considered for deconstruction FSH will hold a NEPA scooping meeting to solicit input from the public and interested parties on the best methods for applying best management practices, developing alternatives, and/or resolving or treating the adverse effect before preparing NEPA "Environmental Assessment" documentation.

The installation will forward NEPA documentation prepared for or associated with any undertaking that may directly or adversely affect the NHL to the appropriate personnel within the NPS, the Council, and other consulting parties.

Recommendations and guidance provided by these agencies will be considered in the design of the undertaking. FSH will respond to the comments of the Council and the NPS in writing prior to proceeding with the undertaking.

6.14 SOP 14: Shared Public Data

Section 106 of the NHPA and NEPA require that FSH make available to consulting parties and the interested public documentation regarding undertakings, their effect on historic properties, and agency decisions with regard to those effects. In addition, the Freedom of Information Act directs government agencies to disclose certain types of records to the public. At the same time, Section 304 of the NHPA and Section 9 of ARPA protect from public disclosure the precise location and nature of historic properties, properties of traditional religious and cultural importance, and sacred sites that are identified pursuant to Executive Order 13007. This SOP identifies the types of data that are available for review by consulting and interested parties and provides for sharing data on historic properties, to the greatest extent practicable, between FSH and its consulting parties and the public.

SOP 14: Sharing Public Data

6.14.1 Categories of Shared Data

Group 1: NEPA Documents and Meeting Information

- Draft Environmental Impact Statement (EIS)
- EIS
- Finding of No Significant Impact (FONSI)
- Environmental Assessment (EA)
- Environmental Baseline Study (EBS)
- Meeting Agenda

Meeting Minutes

Meeting Summaries

Group 2: Historic properties management documents

Archeological Site Reports

Historical Reports

Management Plans

Historic Structures Reports

Building Maintenance Plans

Group 3: Data Documents

Archeological, Historical, and Building Databases

GIS Data

Map Data

6.14.2 Categories of Data Users

The following is a list of individuals or organizations that may have an interest in obtaining data related to FSH historic properties activities:

Data User 1:

Consulting Parties

SHPO

THPO

Native American tribes

Data User 2:

Government and Research organizations:

Other military installations

Local universities

State Historic society

State museums

Installation program managers

City government officials

County museums

Federal agencies (NPS, ACHP, etc.)

Data User 3:

Interested Public

Other ethnically affiliated groups

Interested individuals

Local interest groups

Historical societies

Veterans groups

6.14.3 Protocol for Data Sharing

Data User 1:

- Shall have access to all Group 1 and 2 data records.

- Access shall be by method established during Review and Monitoring meeting (e-mail, mail, library access, etc.)
- No restrictions on site locational data.
- Group 3 data records available for viewing at FSH. Request for viewing data shall be preceded by a two-day e-mail or telephone notice.

Data User 2:

- Shall have access to all Group 1 and 2 data records upon request in writing. Sensitive locational information will be restricted to those with a demonstrable need.
- Data Group 3 records are available on-site only. Requests must be made by appointment.

Data User 3:

- Shall have access to Group 1 data records. No locational data will be provided.
- Group 2 data records will be available at local libraries; no locational data will be provided.
- Group 3 data will be viewable at FSH by special request. No sensitive information will be available. Request must be made by appointment through the FSH Public Affairs Office (PAO).

6.15 SOP 15: Documenting the Internal Review Process

The purpose of this SOP is to establish the proper means of tracking requests for CRM support from other FSH departments or project propopnents (e.g., Public Works, tenant organizations, etc.) and informing the submitting party of the CRM's determinations in order to insure clear communication and to maintain complete sets of records for review by FSH stakeholders. The FSH CRM will not accept any request for review of a proposed project or activity, except in accordance with the provisions of this SOP.

6.15.1 Correct Format for Submissions

All requests by project proponents for reviews, whether Initial, Time Sensitive, or Proprietary, must be made on the Department of Public Works Business Center (PWBC) Letter of Transmittal form. Accompanying the Letter of Transmittal must be two (2) copies of drawings, scopes of work, and/or specifications. No request for review can be made until the two (2) sets of drawings, scopes of work, and/or specifications are received by the CRM, and no review can be made on the basis of plans made available in another department's office.

6.15.2 Correct Procedures for Submission Tracking

All submissions made in the proper format as described in 6.15.1 above will be logged in and entered in to the DSEF database by the CRM clerical staff; clerical staff will then attach a DSEF Project Review Roster form, a sample copy of which

is attached to this SOP, to the drawings, etc., establish a suspense date, and route the package to the historical architect, cultural resources specialist, and/or archeologist for review.

6.15.3 Cultural Resources Review

The FSH historical architect, cultural resources specialist, and/or archeologist will evaluate the submission in accordance with the SOPs 1 through 14 for the purpose of completing compliance under the NHPA . The reviewing parties will then indicate their comments on the Project Review Roster form, adding any general comments in the appropriate section.

6.15.3.1 Instances of Concurrence

For all proposed projects and/or activities submitted for review by project proponents that result in a determination of **no adverse effect** (6.4.3), the reviewing party or parties will indicate such by signing each page of both sets of drawings, SOWs, etc. Further, the signed pages will be stamped in red with the following advisory:

CONCUR

Directorate of Safety, Environment, and Fire

date_____

Concurrence is given to the project as described in this document only. Selections of materials, colors, etc. require further review and approval by this directorate. ANY DEVIATION IN THE PROJECT AS DESCRIBED IN THIS DOCUMENT WILL RENDER THIS CONCURRENCE NULL AND VOID, AND WILL NECESSITATE FURTHER REVIEW.

BY:_____

One set of those drawings, along with copies of the Transmittal Letter and Project Review Roster will then be filed in the DSEF offices and kept until such time as the undertaking has been formally completed, and all parties involved have signed off on it, and until such time as FSH's stakeholders have had an opportunity to review same at one of the bi-annual meetings. The CRM will insure that the concurrence and comments have been logged into the DSEF database, that the drawings and forms are properly filed, and then will request that the Director of Safety, Environment, and Fire sign off on a transmittal letter similar to the sample copy attached to this SOP. Thereafter, that transmittal letter and one set of the signed, stamped drawings, etc., will be sent to the

submitting party. Once this documentation is received by the project proponent, they may proceed with implementation of the project.

In instances in which a determination of **no adverse effect** is made, that determination must be entered into the directorate database; the directorate database is the foundation upon which FSH reports its activities to its commenting stakeholders twice annually.

6.16.3.2 Instances of Non-Concurrence

When the reviewing party determines that a proposed undertaking will result in an **adverse effect** (6.4.3), that party will, to the extent possible, indicate the areas creating the adverse effect on both sets of drawings. The reviewing party will then sign each sheet of both sets of drawings, SOWs, etc. and stamp them in red with the following advisory:

NON-CONCUR

Directorate of Safety, Environment, and Fire

Date_____

This project has been determined to constitute an adverse effect on one or more National Register listed/eligible buildings and/or National Historic

Landmark District, c.f. the National Historic Preservation Act of 1966 (CFR 36 Part 800), AR-200-4, and/or other instances of Public Law, Army Regulations, and/or Executive Orders. Directorate of Safety, Environment and Fire specifically non-concurs with this project as proposed.

BY:_____

The CRM will insure that the non-concurrence and comments have been logged into the DSEF database, that the drawings and forms are properly filed, and then will request that the Director of Safety, Environment, and Fire sign off on a transmittal letter similar to the sample copy attached to this SOP. Thereafter, that transmittal letter and one set of the stamped drawings will be sent to the submitting party. DSEF will retain the other set until such time as the undertaking has been formally completed, and all parties involved have signed off on it, and until such time as FSH's stakeholders have had an opportunity to review same at one of the bi-annual meetings.

In all instances in which a determination of adverse effect is made, a "non-concur" notation must be entered on the Project Review Roster form and stamped on the drawings, SOWs, etc. In no such instance will the form or drawings, etc., be given a concurrence predicated upon changes to be made, no matter how minor those changes may be.

If a non-concurrence is issued by the CRM to the project proponent, the CRM will consult with the project proponent and continue under SOP 5: Applying Best Management Practices and/or SOP 6: Alternative Review.

APPENDIX A:
FORT SAM HOUSTON INVENTORY OF HISTORIC PROPERTIES

(N.B.: Housing units at Fort Sam Houston are subject to an outgrant established by the Residential Housing Initiative, and specifically not a part of this Historic Properties Component. Listed and Eligible housing units at Fort Sam Houston are subject no normal Section 106 consultation processes, notwithstanding the fact they may be shown in this comprehensive listing of Architectural Properties.)

Recorded Archeological Sites at Fort Sam Houston

Site	Easting	Northing	Temporary Field Number	Components	Site Size	Artifact density and content	NRHP Eligibility	Recommendations	Sources Consulted (in addition to TASA and TARL files)	Comments
41BX194	555533	3260051	none	Late Prehistoric, Middle and Late Archaic	unknown	extensive occupation with numerous flakes and burned rock (midden)	not eligible	no further work; site disturbed by construction of golf course	Austin 1997; Gerstle, et al. 1978; Hester 1974	site not recorded as part of a survey
41BX346/ 41BX880	unknown	unknown	no site form	unknown prehistoric and historic	unknown	light scatter of historic debris mixed with prehistoric debitage	not eligible	no further work	Austin 1997; Gibson, et al. 1982	41BX346 was assigned to a different site; the Fort Sam Houston site was then renumbered to 41BX880; site data from report
41BX389	556500	3260430	Fort Sam Houston No. 2	unknown prehistoric	625 m^2	widely scattered core tools, some flakes, some burned rock (red); flakes and one core concentrated in 5x5-m area	not eligible	none	Austin 1997; Gerstle, et al. 1978	none
41BX422	556950	3260790	Fort Sam Houston No. 1	unknown prehistoric	2400 m^2	low density lithic scatter	not eligible	none	Austin 1997; Gerstle, et al. 1978	none
41BX778	555488	3259464	Area D (87035)	historic Herman Eisenhauer farmstead (late 19th-early 20th century) and historic military foxholes of unknown age	400 m^2	historic artifact scatter of moderate density including glass, ceramics, and foundation remains	not eligible	no further work	Austin 1997; Gilmore and Allen 1987; Jackson and Prewitt 1988	none
41BX779	554921	3258336	Area D (87035)	historic dump (early 20th century)	10 acres	historic dump with high concentration of materials; area may have served as dump as early as 1918, with outer deposits dating to 1936-1939	not eligible	no further work	Austin 1997; Gilmore and Allen 1987; Jackson and Prewitt 1988	none
41BX780	555482	3259566	no site form	unknown prehistoric	unknown	low density lithic scatter found in cutbank	not eligible	further evaluation	Austin 1997; Gilmore and Allen 1987; Jackson and Prewitt 1988	no site form at TARL; information obtained from survey report

Recorded Archeological Sites at Fort Sam Houston										
Site	Easting	Northing	Temporary Field Number	Components	Site Size	Artifact density and content	NRHP Eligibility	Recommendations	Sources Consulted (in addition to TASA and TARL files)	Comments
41BX1209	556724	3259859	no site form	unknown prehistoric	6600 m^2	moderate frequencies of lithic debitage and two biface fragments	unknown	avoid; if not possible, then further testing	Quigg and Abbott 1997; Scott 2000	no site form at TARL; information obtained from survey reports
41BX1405	554985	3258790	200024-1	unknown prehistoric	1400 m^2	low density lithic scatter, including one biface fragment	not eligible	no further work	Scott 2000	none
41BX1406	556420	3259890	200024-2	unknown prehistoric	<4 m^2	very small lithic scatter	not eligible	no further work	Scott 2000	none
41BX1407	555820	3259190	200024-3	unknown prehistoric; 19th century historic	1050 m^2	moderate to high density scatter of lithic debitage and two bifaces; light historic component including one blue transfer print sherd, historic glass, earthen ware, and metals	unknown	further evaluation	Scott 2000	none
41BX1408	555480	3258650	200024-4	historic dump (early 20th century)	225 m^2	dump site including ceramic gravy boat, one diagnostic decorated ceramic sherd, glass, ceramics, metals, rubber and plastic objects	not eligible	no further work	Scott 2000	none

Bldg. #	Original Building Name	Date of Const.	Condition	Property Type	NRHP Status
1	Field officers' quarters	1881	Good	Housing	Eligible – Significant A & C
2	Field officers' quarters	1881	Good	Housing	Eligible – Significant A, B & C
3	Field officers' quarters	1881	Good	Housing	Eligible – Significant A & C
4	Field officers' quarters	1881	Good	Housing	Eligible – Significant A, B & C
5	Company officers' quarters	1881	Good	Housing	Eligible – Significant A & C
6	Commanding general's quarters (Pershing House)	1881	Good	Housing	Eligible – Significant A, B & C
7	Company officers' quarters	1881	Good	Housing	Eligible – Significant A & C
8	Field officers' quarters	1881	Good	Housing	Eligible – Significant A, B & C
9	Field officers' quarters	1881	Good	Housing	Eligible – Significant A, B & C
10	Field officers' quarters	1881	Good	Housing	Eligible – Significant A & C
11	Field officers' quarters	1881	Good	Housing	Eligible – Significant A & C
12	Company officers' quarters	1881	Good	Housing	Eligible – Significant A & C
13	Company officers' quarters	1881	Good	Housing	Eligible – Significant A & C
14	Company officers' quarters	1881	Good	Housing	Eligible – Significant A, B & C
15	Company officers' quarters	1881	Good	Housing	Eligible – Significant A & C
1B	Stables	1917	Good	Housing	Eligible – Significant A & C
2B	Stables	1917	Good	Housing	Eligible – Significant A & C
3B	Stables	1917	Good	Housing	Eligible – Significant A & C
4B	Stables	1917	Good	Housing	Eligible – Significant A & C
5B	Stables	1917	Good	Housing	Eligible – Significant A & C
6B	Stables	1917	Good	Housing	Eligible – Significant A & C
7B	Stables	1917	Good	Housing	Eligible – Significant A & C
8B	Stables	1917	Good	Housing	Eligible – Significant A & C
9B	Stables	1917	Good	Housing	Eligible – Significant A & C
10B	Stables	1917	Good	Housing	Eligible – Significant A & C
11B	Stables	1918	Good	Housing	Eligible – Significant A & C
12B	Stables	1918	Good	Housing	Eligible – Significant A & C
13B	Stables	1918	Good	Housing	Eligible – Significant A & C
14B	Stables	1918	Good	Housing	Eligible – Significant A & C
15B	Stables	1918	Good	Housing	Eligible – Significant A & C
16	Quartermaster supply depot, garrison, and headquarters	1878	Good	Administrative, storage	Eligible – Significant A, B, & C

Bldg. #	Original Building Name	Date of Const.	Condition	Property Type	NRHP Status
18	Film storage vault	1940	Good	Storage and supply	Eligible – Significant A
19	Bandstand	1890s; 1940s	Good	Recreation	Eligible – Significant A & C
20	Signal Corps' office	1910	Good	Administrative	Eligible – Significant A & C
23	Servant quarters	1905	Good	Housing	Eligible – Significant A & C
24	Servant quarters	1905	Good	Housing	Eligible – Significant A & C
27	Storage	1945	Good	Storage and supply	Eligible – Significant A
28	Servant quarters	1905	Good	Housing	Eligible – Significant A & C
29	Servant quarters	1905	Good	Housing	Eligible – Significant A & C
30	Servant quarters	1905	Good	Housing	Eligible – Significant A & C
31	Servant quarters	1905	Good	Housing	Eligible – Significant A & C
32	Servant quarters	1905	Good	Housing	Eligible – Significant A & C
33	Servant quarters	1905	Good	Housing	Eligible – Significant A & C
34	Servant quarters	1905	Good	Housing	Eligible – Significant A & C
35	Servant quarters	1905	Good	Housing	Eligible – Significant A & C
36	Servant quarters	1905	Good	Housing	Eligible – Significant A & C
40	Watch tower	1878	Good	Utilities and infrastructure	Eligible – Significant A, B, & C
44	Bank	1928	Good	Service and support	Eligible – Significant C
48	Post hospital	1886	Good	Base operations support	Eligible – Significant A & C
56	Gun shed	1891	Good	Storage and supply	Eligible – Significant A & C
70	Radio room and shops	1886	Good	Utilities and infrastructure	Eligible – Significant A & C
101	Officers' quarters	1906	Good	Housing	Eligible – Significant A & C
102	Officers' quarters	1909	Good	Housing	Eligible – Significant A & C
103	Officers' quarters	1909	Good	Housing	Eligible – Significant A & C
104	Officers' quarters	1911	Good	Housing	Eligible – Significant A & C
105	Officers' quarters	1905	Good	Housing	Eligible – Significant A & C
105B	Detached garage	1929	Good	Housing	Ineligible
106	Officers' quarters	1905	Good	Housing	Eligible – Significant A & C
107	Bachelor officers' quarters	1908	Good	Housing	Eligible – Significant A & C
108	Officers' quarters	1905	Good	Housing	Eligible – Significant A & C
109	Officers' quarters	1905	Good	Housing	Eligible – Significant A & C
110	Officers' quarters	1905	Good	Housing	Eligible – Significant A & C
111	Officers' quarters	1905	Good	Housing	Eligible – Significant A & C

Bldg. #	Original Building Name	Date of Const.	Condition	Property Type	NRHP Status
112	Officers' quarters	1906	Good	Housing	Eligible – Significant A & C
113	Officers' quarters	1906	Good	Housing	Eligible – Significant A & C
114	Officers' quarters	1906	Good	Housing	Eligible – Significant A & C
115	Officers' quarters	1906	Good	Housing	Eligible – Significant A & C
116	Officers' quarters	1906	Good	Housing	Eligible – Significant A & C
117	Officers' quarters	1906	Good	Housing	Eligible – Significant A & C
118	Officers' quarters	1906	Good	Housing	Eligible – Significant A & C
120	Officers' quarters	1906	Good	Housing	Eligible – Significant A & C
121	Multi-family officers' quarters	1911	Good	Housing	Eligible – Significant A & C
122	Artillery barracks	1905	Good	Housing	Eligible – Significant A & C
123	Kitchen-mess hall	1905	Good	Housing	Eligible – Significant A & C
124	Artillery barracks	1905	Good	Housing	Eligible – Significant A & C
125	Detached lavatory	1905	Good	Housing	Eligible – Significant A & C
126	Cavalry barracks	1905	Good	Housing	Eligible – Significant A & C
127	Detached lavatory	1905	Good	Housing	Eligible – Significant A & C
128	Double set mess hall and kitchen for artillery barracks	1905	Good	Housing	Eligible – Significant A & C
129	Cavalry barracks	1905	Good	Housing	Eligible – Significant A & C
130	Detached latrine	1905	Good	Housing	Eligible – Significant A & C
131	Cavalry barracks	1905	Good	Housing	Eligible – Significant A & C
133	Kitchen-mess hall	1905	Good	Housing	Eligible – Significant A & C
134	Barracks	1905	Good	Housing	Eligible – Significant A & C
135	Latrine-mess hall	1905	Good	Housing	Eligible – Significant A & C
140	Latrine-mess hall	1905	Good	Housing	Eligible – Significant A & C
141	Telephone exchange building	1913	Good	Utilities and infrastructure	Eligible – Significant A & C
142	Administrative offices	1911	Good	Administrative	Eligible – Significant A & C
143	Barracks	1905	Good	Housing	Eligible – Significant A & C
144	Barracks	1907	Good	Housing	Eligible – Significant A & C
145	Barracks	1908	Good	Housing	Eligible – Significant A & C
146	Barracks	1908	Good	Housing	Eligible – Significant A & C
147	Barracks	1908	Good	Housing	Eligible – Significant A & C
149	Barracks	1908	Good	Housing	Eligible – Significant A & C
151	Lavatory	1908	Good	Housing	Eligible – Significant A & C

Bldg. #	Original Building Name	Date of Const.	Condition	Property Type	NRHP Status
152	Kitchen-mess hall	1908	Good	Housing	Eligible – Significant A & C
153	Lavatory	1908	Good	Housing	Eligible – Significant A & C
154	Lavatory	1908	Good	Housing	Eligible – Significant A & C
155	Kitchen-mess hall	1908	Good	Housing	Eligible – Significant A & C
156	Latrine	1908	Good	Housing	Eligible – Significant A & C
157	Latrine	1908	Good	Housing	Eligible – Significant A & C
158	Kitchen-mess hall	1909	Good	Housing	Eligible – Significant A & C
159	Latrine	1908	Good	Housing	Eligible – Significant A & C
160	Officers' quarters	1909	Good	Housing	Eligible – Significant A & C
162	Officers' quarters	1909	Good	Housing	Eligible – Significant A & C
164	Officers' quarters	1909	Good	Housing	Eligible – Significant A & C
165	Officers' quarters	1909	Good	Housing	Eligible – Significant A & C
166	Officers' quarters	1909	Good	Housing	Eligible – Significant A & C
167	Colonel's quarters	1909	Good	Housing	Eligible – Significant A & C
168	Officers' quarters	1909	Good	Housing	Eligible – Significant A & C
169	Officers' quarters	1909	Good	Housing	Eligible – Significant A & C
170	Officers' quarters	1909	Good	Housing	Eligible – Significant A & C
172	Officers' quarters	1911	Good	Housing	Eligible – Significant A & C
173	Officers' quarters	1909	Good	Housing	Eligible – Significant A & C
174	Officers' quarters	1909	Good	Housing	Eligible – Significant A & C
175	Officers' quarters	1909	Good	Housing	Eligible – Significant A & C
176	Officers' quarters	1909	Good	Housing	Eligible – Significant A & C
177	Officers' quarters	1909	Good	Housing	Eligible – Significant A & C
178	Officers' quarters	1909	Good	Housing	Eligible – Significant A & C
179	Officers' quarters	1909	Good	Housing	Eligible – Significant A & C
180	Officers' quarters	1909	Good	Housing	Eligible – Significant A & C
181	Officers' quarters	1909	Good	Housing	Eligible – Significant A & C
182	Officers' quarters	1909	Good	Housing	Eligible – Significant A & C
183	Officers' quarters	1909	Good	Housing	Eligible – Significant A & C
184	Officers' quarters	1921	Good	Housing	Eligible – Significant A & C
189	Nurses' quarters	1918	Poor	Housing	Eligible – Significant A & C
197	Barracks	1912	Good	Housing	Eligible – Significant A & C

Bldg. #	Original Building Name	Date of Const.	Condition	Property Type	NRHP Status
198	Band barracks	1912	Good	Housing	Eligible – Significant A & C
199	Mess hall and kitchen	1912	Good	Housing	Eligible – Significant A & C
230	Repair shop	1942	Fair	Shops	Eligible – Significant A
238	Stable guard and shop	1911	Poor	Shops	Eligible – Significant A & C
240	Stable guard and shop	1911	Poor	Shops	Eligible – Significant A & C
252	Branch exchange	1939	Good	Administrative	Eligible – Significant A & C
257	Tether wall	1893	Fair		Eligible – Significant A & C
258	Stables, guardhouse	1893	Good	Base operations support	Eligible – Significant A & C
259	Farrier or blacksmith shop	1893	Fair	Shops	Eligible – Significant A & C
260	Stable and guardhouse	1908	Good	Base operations support	Eligible – Significant A & C
261	Boot shop	1908	Good	Shops	Eligible – Significant A & C
291	Shop	1906	Good	Shops	Eligible – Significant A & C
293	Guardhouse	1910	Good	Base operations support	Eligible – Significant A & C
325	Cold storage plant	1945	Good	Storage and supply	Eligible – Significant A
330	Laundry	1922	Poor	Service and support	Eligible – Significant A & C
366	Retail services	1934	Good	Base operations support	Eligible – Significant A & C
367	Retail services	1934	Good	Base operations support	Eligible – Significant A & C
368	Post office	1937	Good	Base operations support	Eligible – Significant A
369	Post prison	1934	Good	Base operations support	Eligible – Significant A & C
372	Commissary	1934	Good	Service and support	Eligible – Significant A & C
399	Flagpole	1940	Good	Base operations support	Eligible – Significant A
400	Family housing colonel	1932	Good	Housing	Eligible – Significant A & C
401	Family housing colonel	1933	Good	Housing	Eligible – Significant A & C
402	Family housing colonel	1933	Good	Housing	Eligible – Significant A & C
403	Family housing colonel	1933	Good	Housing	Eligible – Significant A & C
404	Family housing colonel	1933	Good	Housing	Eligible – Significant A & C
405	Family housing colonel	1933	Good	Housing	Eligible – Significant A & C
406	Family housing colonel	1933	Good	Housing	Eligible – Significant A & C
402B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
404B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
406B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
407	Officers' club	1935	Good	Service and support	Eligible – Significant A & C

Bldg. #	Original Building Name	Date of Const.	Condition	Property Type	NRHP Status
408	Family housing colonel	1933	Good	Housing	Eligible – Significant A & C
409	Family housing colonel	1933	Good	Housing	Eligible – Significant A & C
410	Family housing colonel	1933	Good	Housing	Eligible – Significant A & C
411	Family housing colonel	1933	Good	Housing	Eligible – Significant A & C
412	Family housing colonel	1933	Good	Housing	Eligible – Significant A & C
413	Family housing colonel	1933	Good	Housing	Eligible – Significant A & C
414	Family housing colonel	1933	Good	Housing	Eligible – Significant A & C
415	Family housing colonel	1933	Good	Housing	Eligible – Significant A & C
409B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
411B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
413B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
415B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
416	Family housing general officer	1933	Good	Housing	Eligible – Significant A & C
418	Family housing colonel	1933	Good	Housing	Eligible – Significant A & C
419	Family housing colonel	1933	Good	Housing	Eligible – Significant A & C
420	Family housing colonel	1933	Good	Housing	Eligible – Significant A & C
421	Family housing colonel	1933	Good	Housing	Eligible – Significant A & C
422	Family housing colonel	1933	Good	Housing	Eligible – Significant A & C
423	Family housing colonel	1933	Good	Housing	Eligible – Significant A & C
424	Family housing colonel	1933	Good	Housing	Eligible – Significant A & C
417B	Detached garage	1934	Good	Housing	Eligible – Significant A & C
420B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
422B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
424B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
425B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
426B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
425	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
426	Family housing lieutenant colonel-major	1932	Good	Housing	Eligible – Significant A & C
428	Family housing lieutenant colonel-major	1932	Good	Housing	Eligible – Significant A & C
429	Family housing lieutenant colonel-major	1933	Good	Housing	Eligible – Significant A & C
430	Officers' quarters	1930	Good	Housing	Eligible – Significant A & C

Bldg. #	Original Building Name	Date of Const.	Condition	Property Type	NRHP Status
430B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
431B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
431	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
432	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
433	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
434	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
435	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
436	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
437	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
438	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
439	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
440	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
441	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
433B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
434B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
437B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
438B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
441B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
442	Family housing lieutenant colonel-major	1931	Good	Housing	Eligible – Significant A & C
443	Family housing lieutenant colonel-major	1931	Good	Housing	Eligible – Significant A & C
444	Family housing lieutenant colonel-major	1931	Good	Housing	Eligible – Significant A & C
445	Family housing lieutenant colonel-major	1931	Good	Housing	Eligible – Significant A & C
446	Family housing lieutenant colonel-major	1931	Good	Housing	Eligible – Significant A & C
447	Family housing lieutenant colonel-major	1931	Good	Housing	Eligible – Significant A & C

Bldg. #	Original Building Name	Date of Const.	Condition	Property Type	NRHP Status
448	Family housing lieutenant colonel-major	1931	Good	Housing	Eligible – Significant A & C
449	Family housing lieutenant colonel-major	1931	Good	Housing	Eligible – Significant A & C
442B	Detached multicar garage	1932	Good	Housing	Eligible – Significant A & C
445B	Detached multicar garage	1932	Good	Housing	Eligible – Significant A & C
446B	Detached multicar garage	1932	Good	Housing	Eligible – Significant A & C
448B	Detached multicar garage	1932	Good	Housing	Eligible – Significant A & C
449B	Detached multicar garage	1932	Good	Housing	Eligible – Significant A & C
450	Family housing colonel	1932	Good	Housing	Eligible – Significant A & C
451	Family housing lieutenant colonel-major	1931	Good	Housing	Eligible – Significant A & C
454	Family housing colonel	1932	Good	Housing	Eligible – Significant A & C
454B	Detached multicar garage	1932	Good	Housing	Eligible – Significant A & C
455	Family housing lieutenant colonel-major	1931	Good	Housing	Eligible – Significant A & C
455B	Detached garage	1932	Good	Housing	Eligible – Significant A & C
456	Family housing lieutenant colonel-major	1932	Good	Housing	Eligible – Significant A & C
457	Family housing lieutenant colonel-major	1931	Good	Housing	Eligible – Significant A & C
458	Family housing lieutenant colonel-major	1932	Good	Housing	Eligible – Significant A & C
459	Family housing lieutenant colonel-major	1932	Good	Housing	Eligible – Significant A & C
460	Family housing lieutenant colonel-major	1932	Good	Housing	Eligible – Significant A & C
461	Family housing lieutenant colonel-major	1932	Good	Housing	Eligible – Significant A & C
462	Family housing lieutenant colonel-major	1932	Good	Housing	Eligible – Significant A & C
463	Family housing lieutenant colonel-major	1932	Good	Housing	Eligible – Significant A & C
464	Family housing lieutenant colonel-major	1932	Good	Housing	Eligible – Significant A & C
465	Family housing lieutenant colonel-major	1932	Good	Housing	Eligible – Significant A & C
459B	Detached multicar garage	1932	Good	Housing	Eligible – Significant A & C
460B	Detached multicar garage	1932	Good	Housing	Eligible – Significant A & C
462B	Detached multicar garage	1932	Good	Housing	Eligible – Significant A & C

Bldg. #	Original Building Name	Date of Const.	Condition	Property Type	NRHP Status
463B	Detached multicar garage	1932	Good	Housing	Eligible – Significant A & C
468	Family housing lieutenant colonel-major	1931	Good	Housing	Eligible – Significant A & C
469	Family housing lieutenant colonel-major	1931	Good	Housing	Eligible – Significant A & C
470	Family housing lieutenant colonel-major	1931	Good	Housing	Eligible – Significant A & C
471	Family housing lieutenant colonel-major	1931	Good	Housing	Eligible – Significant A & C
472	Family housing lieutenant colonel-major	1931	Good	Housing	Eligible – Significant A & C
473	Family housing lieutenant colonel-major	1931	Good	Housing	Eligible – Significant A & C
474	Family housing lieutenant colonel-major	1931	Good	Housing	Eligible – Significant A & C
475	Family housing lieutenant colonel-major	1931	Good	Housing	Eligible – Significant A & C
476	Family housing lieutenant colonel-major	1931	Good	Housing	Eligible – Significant A & C
477	Family housing lieutenant colonel-major	1931	Good	Housing	Eligible – Significant A & C
468B	Detached multicar garage	1932	Good	Housing	Eligible – Significant A & C
469B	Detached multicar garage	1932	Good	Housing	Eligible – Significant A & C
470B	Detached multicar garage	1932	Good	Housing	Eligible – Significant A & C
472B	Detached garage	1932	Good	Housing	Eligible – Significant A & C
474B	Detached garage	1932	Good	Housing	Eligible – Significant A & C
476B	Detached garage	1932	Good	Housing	Eligible – Significant A & C
478	Family housing lieutenant colonel-major	1932	Good	Housing	Eligible – Significant A & C
479	Family housing lieutenant colonel-major	1932	Good	Housing	Eligible – Significant A & C
480	Family housing lieutenant colonel-major	1932	Good	Housing	Eligible – Significant A & C
481	Family housing lieutenant colonel-major	1932	Good	Housing	Eligible – Significant A & C
478B	Detached multicar garage	1932	Good	Housing	Eligible – Significant A & C
480B	Detached multicar garage	1932	Good	Housing	Eligible – Significant A & C
482	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
483	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C

Bldg. #	Original Building Name	Date of Const.	Condition	Property Type	NRHP Status
484	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
485	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
486	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
487	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
488	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
489	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
490	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
491	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
492	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
484B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
485B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
488B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
489B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
492B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
493B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
494	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
500	Family housing colonel	1934	Good	Housing	Eligible – Significant A & C
501B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
513	Officers' quarters	1934	Good	Housing	Eligible – Significant A & C
513B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
515	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
516	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
517	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
518	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
519	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C

Bldg. #	Original Building Name	Date of Const.	Condition	Property Type	NRHP Status
520	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
521	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
522	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
523	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
524	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
525	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
526	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
527	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
516B	Detached garage	1934	Good	Housing	Eligible – Significant A & C
517B	Detached garage	1934	Good	Housing	Eligible – Significant A & C
520B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
521B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
524B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
525B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
527B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
530	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
531	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
532	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
533	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
534	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
535	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
536	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
537	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
538	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C

Bldg. #	Original Building Name	Date of Const.	Condition	Property Type	NRHP Status
539	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
540	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
541	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
542	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
530B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
532B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
533B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
536B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
537B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
541B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
542B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
544	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
545	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
546	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
547	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
548	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
549	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
550	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
551	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
552	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
553	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
554	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
555	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
545B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
546B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C

Bldg. #	Original Building Name	Date of Const.	Condition	Property Type	NRHP Status
549B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
550B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
553B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
554B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
558	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
559	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
560	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
561	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
562	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
563	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
564	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
565	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
566	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
567	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
568	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
569	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
570	Family housing lieutenant colonel-major	1934	Good	Housing	Eligible – Significant A & C
560B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
561B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
562B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
565B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
566B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
569B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
570B	Detached multicar garage	1934	Good	Housing	Eligible – Significant A & C
601	Barracks	1891	Fair/Mothballed	Housing	Eligible – Significant A & C
601A	Kitchen, mess halls	1906	Good	Housing	Eligible – Significant A & C

Bldg. #	Original Building Name	Date of Const.	Condition	Property Type	NRHP Status
601B	Latrines	1906	Fair/Mothballed	Housing	Eligible – Significant A & C
602	Barracks	1891	Fair/Mothballed	Housing	Eligible – Significant A & C
602A	Kitchen, mess halls	1906	Good	Housing	Eligible – Significant A & C
602B	Latrines	1906	Good	Housing	Eligible – Significant A & C
603	Barracks	1885	Fair/Mothballed	Housing	Eligible – Significant A & C
604	Barracks	1885	Fair/Mothballed	Housing	Eligible – Significant A & C
605	Barracks	1885	Fair/Mothballed	Housing	Eligible – Significant A & C
606	Barracks	1885	Fair/Mothballed	Housing	Eligible – Significant A & C
603A	Kitchen, mess halls	1906	Fair/Mothballed	Housing	Eligible – Significant A & C
604A	Kitchen, mess halls	1906	Fair/Mothballed	Housing	Eligible – Significant A & C
603B	Latrines	1906	Fair/Mothballed	Housing	Eligible – Significant A & C
604B	Latrines	1906	Fair/Mothballed	Housing	Eligible – Significant A & C
605A	Latrines	1906	Fair/Mothballed	Housing	Eligible – Significant A & C
606B	Latrines	1906	Fair/Mothballed	Housing	Eligible – Significant A & C
605A	Kitchen, mess halls	1906	Fair/Mothballed	Housing	Eligible – Significant A & C
606A	Kitchen, mess halls	1906	Fair/Mothballed	Housing	Eligible – Significant A & C
607	Barracks	1887	Fair/Mothballed	Housing	Eligible – Significant A & C
607A	Kitchen, mess halls	1906	Good	Housing	Eligible – Significant A & C
607B	Latrine	1906	Good	Housing	Eligible – Significant A & C
608	Barracks	1889	Fair/Mothballed	Housing	Eligible – Significant A & C
608A	Kitchen, mess halls	1906	Fair/Mothballed	Housing	Eligible – Significant A & C
608B	Latrine	1906	Fair/Mothballed	Housing	Eligible – Significant A & C
609	Barracks	1887	Fair/Mothballed	Housing	Eligible – Significant A & C
610	Barracks	1887	Fair/Mothballed	Housing	Eligible – Significant A & C
609A	Kitchen, mess halls	1906	Fair/Mothballed	Housing	Eligible – Significant A & C
610A	Kitchen, mess halls	1906	Fair/Mothballed	Housing	Eligible – Significant A & C
609B	Latrine	1906	Fair/Mothballed	Housing	Eligible – Significant A & C
610B	Latrine	1906	Fair/Mothballed	Housing	Eligible – Significant A & C
611A	Kitchen, mess halls	1906	Fair/Mothballed	Housing	Eligible – Significant A & C
611B	Latrine	1906	Good	Housing	Eligible – Significant A & C
612A	Kitchen, mess halls	1906	Good	Housing	Eligible – Significant A & C
612B	Latrine	1906	Good	Housing	Eligible – Significant A & C

Bldg. #	Original Building Name	Date of Const.	Condition	Property Type	NRHP Status
613	Barracks	1887	Fair/Mothballed	Housing	Eligible – Significant A & C
615	Consolidated mess, post exchange, and gymnasium	1891	Good	Base operations support	Eligible – Significant A & C
616	Post headquarters	1886	Good	Administrative	Eligible – Significant A & C
617	Married officers' quarters and mess	1894	Good	Housing	Eligible – Significant A & C
618	Officers' quarters	1886	Good	Housing	Eligible – Significant A & C
618B	Garage, servants' quarters	1934	Good	Housing	Eligible – Significant A & C
619	Officers' quarters	1889	Good	Housing	Eligible – Significant A & C
619B	Garage, servants' quarters	1934	Good	Housing	Eligible – Significant A & C
620	Officers' quarters	1886	Good	Housing	Eligible – Significant A & C
620B	Garage, servants' quarters	1935	Good	Housing	Eligible – Significant A & C
621	Officers' quarters	1889	Good	Housing	Eligible – Significant A & C
621B	Garage, servants' quarters	1934	Good	Housing	Eligible – Significant A & C
622	Officers' quarters	1886	Good	Housing	Eligible – Significant A & C
622B	Garage, servants' quarters	1935	Good	Housing	Eligible – Significant A & C
623	Officers' quarters	1889	Good	Housing	Eligible – Significant A & C
623B	Garage, servants' quarters	1934	Good	Housing	Eligible – Significant A & C
625	Officers' quarters	1891	Good	Housing	Eligible – Significant A & C
625B	Garage, servants' quarters	1934	Good	Housing	Eligible – Significant A & C
626	Officers' quarters	1888	Good	Housing	Eligible – Significant A & C
626B	Garage, servants' quarters	1935	Good	Housing	Eligible – Significant A & C
627	Officers' quarters	1889	Good	Housing	Eligible – Significant A & C
627B	Garage, servants' quarters	1934	Good	Housing	Eligible – Significant A & C
628	Officers' quarters	1886	Good	Housing	Eligible – Significant A & C
628B	Garage, servants' quarters	1935	Good	Housing	Eligible – Significant A & C
629	Officers' quarters	1889	Good	Housing	Eligible – Significant A & C
629B	Garage, servants' quarters	1934	Good	Housing	Eligible – Significant A & C
630	Officers' quarters	1887	Good	Housing	Eligible – Significant A & C
630B	Garage, servants' quarters	1935	Good	Housing	Eligible – Significant A & C
631	Officers' quarters	1889	Good	Housing	Eligible – Significant A & C
631B	Garage, servants' quarters	1934	Good	Housing	Eligible – Significant A & C
632	Officers' quarters	1887	Good	Housing	Eligible – Significant A & C
632B	Garage, servants' quarters	1935	Good	Housing	Eligible – Significant A & C

Bldg. #	Original Building Name	Date of Const.	Condition	Property Type	NRHP Status
633	Officers' quarters	1889	Good	Housing	Eligible – Significant A & C
633B	Garage, servants' quarters	1934	Good	Housing	Eligible – Significant A & C
634	Officers' quarters	1889	Good	Housing	Eligible – Significant A & C
634B	Garage, servants' quarters	1935	Good	Housing	Eligible – Significant A & C
635B	Garage, servants' quarters	1934	Good	Housing	Eligible – Significant A & C
636	Officers' quarters	1887	Good	Housing	Eligible – Significant A & C
636B	Garage, servants' quarters	1935	Good	Housing	Eligible – Significant A & C
637	Officers' quarters	1889	Good	Housing	Eligible – Significant A & C
637B	Garage, servants' quarters	1934	Good	Housing	Eligible – Significant A & C
638	Officers' quarters	1888	Good	Housing	Eligible – Significant A & C
638B	Garage, servants' quarters	1935	Good	Housing	Eligible – Significant A & C
640	Officers' quarters	1889	Good	Housing	Eligible – Significant A & C
640B	Garage, servants' quarters	1934	Good	Housing	Eligible – Significant A & C
642	Officers' quarters	1888	Good	Housing	Eligible – Significant A & C
642B	Garage, servants' quarters	1934	Good	Housing	Eligible – Significant A & C
646	Band barracks	1893	Good	Housing	Eligible – Significant A & C
647	Mess hall	1907	Fair	Housing	Eligible – Significant A & C
648	Latrine	1906	Fair	Housing	Eligible – Significant A & C
688	Officers' quarters	1906	Good	Housing	Eligible – Significant A & C
700	NCO family housing	1931	Good	Housing	Eligible – Significant A & C
701	NCO family housing	1931	Good	Housing	Eligible – Significant A & C
702	NCO family housing	1931	Good	Housing	Eligible – Significant A & C
703	NCO family housing	1931	Good	Housing	Eligible – Significant A & C
704	NCO family housing	1931	Good	Housing	Eligible – Significant A & C
705	NCO family housing	1931	Good	Housing	Eligible – Significant A & C
706	NCO family housing	1931	Good	Housing	Eligible – Significant A & C
707	NCO family housing	1931	Good	Housing	Eligible – Significant A & C
708	NCO family housing	1931	Good	Housing	Eligible – Significant A & C
709	NCO family housing	1931	Good	Housing	Eligible – Significant A & C
710	NCO family housing	1931	Good	Housing	Eligible – Significant A & C
711	NCO family housing	1931	Good	Housing	Eligible – Significant A & C
712	NCO family housing	1931	Good	Housing	Eligible – Significant A & C

Bldg. #	Original Building Name	Date of Const.	Condition	Property Type	NRHP Status
713	NCO family housing	1931	Good	Housing	Eligible – Significant A & C
714	NCO family housing	1931	Good	Housing	Eligible – Significant A & C
715	NCO family housing	1931	Good	Housing	Eligible – Significant A & C
716	NCO family housing	1931	Good	Housing	Eligible – Significant A & C
717	NCO family housing	1931	Good	Housing	Eligible – Significant A & C
718	NCO family housing	1931	Good	Housing	Eligible – Significant A & C
719	NCO family housing	1931	Good	Housing	Eligible – Significant A & C
720	NCO family housing	1931	Good	Housing	Eligible – Significant A & C
721	NCO family housing	1931	Good	Housing	Eligible – Significant A & C
722	NCO family housing	1931	Good	Housing	Eligible – Significant A & C
723	NCO family housing	1931	Good	Housing	Eligible – Significant A & C
724	NCO family housing	1931	Good	Housing	Eligible – Significant A & C
725	NCO family housing	1931	Good	Housing	Eligible – Significant A & C
726	NCO family housing	1931	Good	Housing	Eligible – Significant A & C
727	NCO family housing	1931	Good	Housing	Eligible – Significant A & C
728	NCO family housing	1933	Good	Housing	Eligible – Significant A & C
729	NCO family housing	1933	Good	Housing	Eligible – Significant A & C
730	NCO family housing	1933	Good	Housing	Eligible – Significant A & C
731	NCO family housing	1933	Good	Housing	Eligible – Significant A & C
732	NCO family housing	1933	Good	Housing	Eligible – Significant A & C
733	NCO family housing	1933	Good	Housing	Eligible – Significant A & C
734	NCO family housing	1933	Good	Housing	Eligible – Significant A & C
735	NCO family housing	1933	Good	Housing	Eligible – Significant A & C
750	NCO family housing	1934	Good	Housing	Eligible – Significant A & C
751	NCO family housing	1934	Good	Housing	Eligible – Significant A & C
752	NCO family housing	1934	Good	Housing	Eligible – Significant A & C
753	NCO family housing	1934	Good	Housing	Eligible – Significant A & C
754	NCO family housing	1934	Good	Housing	Eligible – Significant A & C
755	NCO family housing	1934	Good	Housing	Eligible – Significant A & C
756	NCO family hosing	1934	Good	Housing	Eligible – Significant A & C
757	NCO family housing	1934	Good	Housing	Eligible – Significant A & C
758	NCO family housing	1934	Good	Housing	Eligible – Significant A & C

Bldg. #	Original Building Name	Date of Const.	Condition	Property Type	NRHP Status
759	NCO family housing	1934	Good	Housing	Eligible – Significant A & C
760	NCO family housing	1934	Good	Housing	Eligible – Significant A & C
761	NCO family housing	1934	Good	Housing	Eligible – Significant A & C
762	NCO family housing	1934	Good	Housing	Eligible – Significant A & C
763	NCO family housing	1934	Good	Housing	Eligible – Significant A & C
764	NCO family housing	1934	Good	Housing	Eligible – Significant A & C
765	NCO family housing	1934	Good	Housing	Eligible – Significant A & C
766	NCO family housing	1934	Good	Housing	Eligible – Significant A & C
767	NCO family housing	1934	Good	Housing	Eligible – Significant A & C
768	NCO family housing	1934	Good	Housing	Eligible – Significant A & C
769	NCO family housing	1934	Good	Housing	Eligible – Significant A & C
770	NCO family housing	1934	Good	Housing	Eligible – Significant A & C
771	NCO family housing	1934	Good	Housing	Eligible – Significant A & C
772	NCO family housing	1934	Good	Housing	Eligible – Significant A & C
773	NCO family housing	1934	Good	Housing	Eligible – Significant A & C
774	NCO family housing	1934	Good	Housing	Eligible – Significant A & C
775	NCO family housing	1934	Good	Housing	Eligible – Significant A & C
776	NCO family housing	1934	Good	Housing	Eligible – Significant A & C
777	NCO family housing	1934	Good	Housing	Eligible – Significant A & C
778	NCO family housing	1934	Good	Housing	Eligible – Significant A & C
779	NCO family housing	1934	Good	Housing	Eligible – Significant A & C
780	NCO family housing	1934	Good	Housing	Eligible – Significant A & C
781	NCO family housing	1934	Good	Housing	Eligible – Significant A & C
782	NCO family housing	1934	Good	Housing	Eligible – Significant A & C
783	NCO family housing	1934	Good	Housing	Eligible – Significant A & C
784	NCO family housing	1934	Good	Housing	Eligible – Significant A & C
785	NCO family housing	1934	Good	Housing	Eligible – Significant A & C
751B	Detached 2-car garage	1935	Good	Housing	Eligible – Significant A & C
755B	Detached 2-car garage	1935	Good	Housing	Eligible – Significant A & C
759B	Detached 2-car garage	1935	Good	Housing	Eligible – Significant A & C
763B	Detached 2-car garage	1935	Good	Housing	Eligible – Significant A & C
767B	Detached 2-car garage	1935	Good	Housing	Eligible – Significant A & C

Bldg. #	Original Building Name	Date of Const.	Condition	Property Type	NRHP Status
773B	Detached 2-car garage	1935	Good	Housing	Eligible – Significant A & C
775B	Detached 2-car garage	1935	Good	Housing	Eligible – Significant A & C
779B	Detached 2-car garage	1935	Good	Housing	Eligible – Significant A & C
783B	Detached 2-car garage	1935	Good	Housing	Eligible – Significant A & C
808	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
809	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
810	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
811	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
812	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
813	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
814	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
815	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
816	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
817	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
818	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
819	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
820	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
821	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
822	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
823	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
824	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
825	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
826	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
827	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
828	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
829	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
830	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
831	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
832	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
833	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
834	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
837	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C

Bldg. #	Original Building Name	Date of Const.	Condition	Property Type	NRHP Status
838	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
839	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
840	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
841	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
842	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
843	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
844	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
845	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
846	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
847	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
848	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
849	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
850	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
851	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
852	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
853	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
854	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
855	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
856	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
857	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
858	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
859	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
860	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
861	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
862	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
863	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
864	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
865	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
866	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
867	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
868	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
869	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C

Bldg. #	Original Building Name	Date of Const.	Condition	Property Type	NRHP Status
870	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
871	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
872	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
873	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
837B	Detached 2-car garage	1935	Good	Housing	Eligible – Significant A & C
841B	Detached 2-car garage	1935	Good	Housing	Eligible – Significant A & C
843B	Detached 1-car garage	1935	Good	Housing	Eligible – Significant A & C
847B	Detached 2-car garage	1935	Good	Housing	Eligible – Significant A & C
851B	Detached garage	1935	Good	Housing	Eligible – Significant A & C
855B	Detached 1-car garage	1935	Good	Housing	Eligible – Significant A & C
857B	Detached 2-car garage	1935	Good	Housing	Eligible – Significant A & C
861B	Detached 2-car garage	1935	Good	Housing	Eligible – Significant A & C
865B	Detached 2-car garage	1935	Good	Housing	Eligible – Significant A & C
869B	Detached 2-car garage	1935	Good	Housing	Eligible – Significant A & C
875	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
877	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
879	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
881	Family housing NCO	1934	Good	Housing	Eligible – Significant A & C
1000	Brooks Army Medical Center	1937	Good	Hospital	Eligible – Significant A & C
1001	Medical library	1936	Good	Base operations support	Eligible – Significant A & C
1003	Family housing colonel	1934	Good	Housing	Eligible – Significant A & C
1004	Family housing colonel	1934	Good	Housing	Eligible – Significant A & C
1005	Family housing colonel	1934	Good	Housing	Eligible – Significant A & C
1006	Family housing colonel	1934	Good	Housing	Eligible – Significant A & C
1007	Family housing colonel	1934	Good	Housing	Eligible – Significant A & C
1008	Family housing colonel	1934	Good	Housing	Eligible – Significant A & C
1009	Family housing colonel	1934	Good	Housing	Eligible – Significant A & C
1010	Family housing colonel	1934	Good	Housing	Eligible – Significant A & C
1011	Family housing colonel	1934	Good	Housing	Eligible – Significant A & C
1012	Family housing colonel	1934	Good	Housing	Eligible – Significant A & C
1013	Family housing colonel	1934	Good	Housing	Eligible – Significant A & C
1014	Family housing colonel	1934	Good	Housing	Eligible – Significant A & C

Bldg. #	Original Building Name	Date of Const.	Condition	Property Type	NRHP Status
1015	Family housing colonel	1934	Good	Housing	Eligible – Significant A & C
1016	Family housing colonel	1934	Good	Housing	Eligible – Significant A & C
1017	Family housing colonel	1934	Good	Housing	Eligible – Significant A & C
1004B	Detached 2-car garage	1934	Good	Housing	Eligible – Significant A & C
1006B	Detached 2-car garage	1934	Good	Housing	Eligible – Significant A & C
1007B	Detached 2-car garage	1934	Good	Housing	Eligible – Significant A & C
1009B	Detached 2-car garage	1934	Good	Housing	Eligible – Significant A & C
1010B	Detached 2-car garage	1934	Good	Housing	Eligible – Significant A & C
1012B	Detached garage	1934	Good	Housing	Eligible – Significant A & C
1013B	Detached garage	1934	Good	Housing	Eligible – Significant A & C
1014B	Detached garage	1934	Good	Housing	Eligible – Significant A & C
1017B	Detached garage	1934	Good	Housing	Eligible – Significant A & C
1026	Hospital service building	1944	Good	Base operations support	Eligible – Significant A & C
1029	Medical building	1936	Good	Administrative	Eligible – Significant A & C
1099	Flagpole	1943	Good	Base operations support	Eligible – Significant A
1222	Bowling alley	1945	Good	Recreation	Eligible – Significant A & C
1281	Gym	1945	Good	Base operations support; recreation	Eligible – Significant A
1560	Pumphouse	1914	Poor	Utilities and infrastructure	Eligible – Significant A
2000	World War I hospital	1909	Fair/Mothballed	Base operations support	Eligible – Significant A & C
2001	Hospital annex	1917	Fair/Mothballed	Base operations support	Eligible – Significant A & C
2002	Morgue	1916	Good	Base operations support	Eligible – Significant A & C
2003	Mental institution	1942	Good	Base operations support	Eligible – Significant A & C
2005	Hospital ward	1923	Good	Base operations support	Eligible – Significant A
2006	Hospital NCO barracks	1912	Good	Administrative	Eligible – Significant A & C
2007	Hospital ward	1917	Good	Administrative	Eligible – Significant A & C
2008	Barber shop	1908	Fair/Mothballed	Base operations support	Eligible – Significant A & C
2010	Central heating plant	1919/ 1929	Good	Utilities and infrastructure	Eligible – Significant A & C
2018	Hospital steward quarters	1910	Good	Housing	Eligible – Significant A & C
2019	Hospital steward quarters	1910	Good	Housing	Eligible – Significant A & C
2059	Laboratory	1944	Good	Base operations support	Eligible – Significant A
2061	Laboratory annex	1917	Good	Base operations support	Eligible – Significant A
2064	Laboratory	1917	Good	Base operations support	Eligible – Significant A & C

Bldg. #	Original Building Name	Date of Const.	Condition	Property Type	NRHP Status
2157	Magazine or guardhouse	1889	Poor	Base operations support	Eligible – Significant A & C
2186	Veterinary hospital and stable	1908	Good	Base operations support	Eligible – Significant A
2187	Veterinary hospital	1918	Good	Base operations support	Eligible – Significant A
2194	Pumping plant	1911	Good	Utilities and infrastructure	Eligible – Significant A & C
2195	Barracks	1911	Good	Housing	Eligible – Significant A & C
2200	Gift Chapel	1909	Good	Base operations support	Eligible – Significant A, B, & C
2225	Telephone exchange building	1930	Good	Utilities and infrastructure	Eligible – Significant A & C
2244	Bakery	1908	Good	Base operations support	Eligible – Significant A, B, & C
2247	Guardhouse, stockade	1911	Good	Base operations support	Eligible – Significant A & C
2248	Barracks	1908	Good	Housing	Eligible – Significant A & C
2250	Barracks	1908	Good	Housing	Eligible – Significant A & C
2256	Latrine	1908	Good	Base operations support	Eligible – Significant A & C
2263	Barracks	1928	Good	Housing	Eligible – Significant A & C
2264	Barracks	1928	Good	Housing	Eligible – Significant A & C
2265	Barracks	1929	Good	Housing	Eligible – Significant A & C
2266	Barracks	1928	Good	Housing	Eligible – Significant A & C
2267	Kitchen, mess hall	1909	Good	Housing	Eligible – Significant A & C
2268	Clinic	1934	Good	Base operations support	Eligible – Significant A & C
2269	Latrine	1908	Good	Housing	Eligible – Significant A & C
2270	Theater	1935	Fair/Poor	Recreation	Eligible – Significant A & C
2271	Pigeon loft	1911	Good	Base operations support	Eligible – Significant A & C
2272	5th Army Headquarters Command offices	1909	Good	Administrative	Eligible – Significant A & C
2273	Latrine, mess hall	1909	Good	Housing and base operations support	Eligible – Significant A & C
2278	Warrant officers' quarters	1908	Good	Housing	Eligible – Significant A & C
2279	Warrant officers' quarters	1908	Good	Housing	Eligible – Significant A & C
2280	Warrant officers' quarters	1908	Good	Housing	Eligible – Significant A & C
2281	Warrant officers' quarters	1908	Good	Housing	Eligible – Significant A & C
2282	Warrant officers' quarters	1908	Good	Housing	Eligible – Significant A & C
2283	Warrant officers' quarters	1908	Good	Housing	Eligible – Significant A & C
2284	Warrant officers' quarters	1908	Good	Housing	Eligible – Significant A & C
2376	Morgue	1931	Good	Base operations support	Eligible – Significant A & C
2378	Vehicle shed	1934	Good	Shops	Eligible – Significant A

Bldg. #	Original Building Name	Date of Const.	Condition	Property Type	NRHP Status
2379	Vehicle shed	1934	Good	Shops	Eligible – Significant A
2380	Repair shops, motor vehicle facilities	1934	Good	Shops	Eligible – Significant A
2381	Repair shops, motor vehicle facilities	1934	Good	Shops	Eligible – Significant A
2382	Repair shops, motor vehicle facilities	1934	Good	Shops	Eligible – Significant A
2600	Water tank	1941		Utilities and infrastructure	Eligible – Significant A
2653	Institute of surgical research	1945	Good	Base operations support	Eligible – Significant A
2791	Barracks	1939	Good	Housing	Eligible – Significant A & C
2792	Barracks	1939	Good	Housing	Eligible – Significant A & C
3550	Riding stables	1941	Good	Base operations support, recreation	Eligible – Significant A
3551	Riding stables	1941	Good	Base operations support, recreation	Eligible – Significant A
3552	Riding stables	1941	Good	Base operations support, recreation	Eligible – Significant A
3553	Riding stables	1941	Good	Base operations support, recreation	Eligible – Significant A
3557	Riding stable	1995	Good	Base operations support, recreation	Eligible – Significant A
4015	Supply Service	1922	Good	Administrative	Eligible – Significant A
4019	Klaus grocery	1910	Good	Commercial	Eligible – Significant A
4112	Igloo storage	1942		Storage and supply	Eligible – Significant A
4113	Igloo storage	1942		Storage and supply	Eligible – Significant A
4114	Igloo storage	1942		Storage and supply	Eligible – Significant A
4115	Igloo storage	1942		Storage and supply	Eligible – Significant A
4125	Igloo storage	1942		Storage and supply	Eligible – Significant A
4128	Loading and unloading docks	1942		Shops	Eligible – Significant A
4168	Maintenance shop	1934		Shops	Eligible – Significant A and C
4188	Warehouse	1941	Good	Storage and supply	Eligible – Significant A
4189	Warehouse	1941	Good	Storage and supply	Eligible – Significant A
4190	Warehouse	1941	Good	Storage and supply	Eligible – Significant A
4191	Warehouse	1941	Good	Storage and supply	Eligible – Significant A
4192	Warehouse	1941	Good	Storage and supply	Eligible – Significant A
4193	Warehouse	1941	Good	Storage and supply	Eligible – Significant A
4194	Warehouse	1941	Good	Storage and supply	Eligible – Significant A
4195	Warehouse	1941	Good	Storage and supply	Eligible – Significant A
4196	Maintenance shop	1941	Good	Shops	Eligible – Significant A
4197	Maintenance shop	1941	Good	Shops	Eligible – Significant A

Bldg. #	Original Building Name	Date of Const.	Condition	Property Type	NRHP Status
4203	Vehicle storage and maintenance	1942	Good	Storage and supply, shops	Eligible – Significant A
4204	Vehicle storage and maintenance	1942	Good	Storage and supply, shops	Eligible – Significant A
4205	Vehicle storage and maintenance	1942	Good	Storage and supply, shops	Eligible – Significant A
4206	Vehicle storage and maintenance	1942	Good	Storage and supply, shops	Eligible – Significant A
4207	Vehicle storage and maintenance	1942	Good	Storage and supply, shops	Eligible – Significant A
4208	Vehicle storage and maintenance	1942	Good	Storage and supply, shops	Eligible – Significant A
4209	Vehicle storage and maintenance	1942	Good	Storage and supply, shops	Eligible – Significant A
4216	Dispatch building	1942		Base operations support	Eligible – Significant A
4224	Storehouse	1942		Storage and supply	Eligible – Significant A

APPENDIX B:
CAMP BULLIS INVENTORY OF HISTORIC PROPERTIES

APPENDIX C:
LIST OF FORT SAM HOUSTON CULTURAL RESOURCES CONTACTS

LIST OF FORT SAM HOUSTON CULTURAL RESOURCES CONTACTS

Jackie Schlatter, Cultural Resources Manager
Jackie.Schlatter@samhouston.army.mil
210.221.5093

Michael Pumphrey, Preservation Architect
Michael.pumphrey@samhouston.army.mil
210.221.5063

Peter Pagoulatos, Archaeologist
peter.pagoulatos@samhouston.army.mil
210.295.7875

APPENDIX D:
LIST OF ACRONYMS

AAP	Army Alternate Procedures
ACSIM	Assistant Chief of Staff for Installation Management
AFHC	Army Family Housing Construction
AMWRF	Army Morale, Welfare and Recreation Fund
AR 200-2	Army Regulation 200-2: Environmental Effects of Army Actions
AR 200-4	Army Regulation 200-4: Cultural Resources Management
APE	Area of Potential Effects
ARPA	Archeological Resources Protection Act
CA	Cooperative Agreement
CLRA	Canyon Lake Recreation Area
CRM	Cultural Resources Manager
DA PAM 200-4	Department of the Army Pamphlet 200-4: Cultural Resources Management
DEP	Director of Environmental Programs
EA	Environmental Assessment
EIS	Environmental Impact Statement
FPO	Federal Preservation Officer
FSH	Fort Sam Houston
HPC	Historic Properties Component (the section 106 portion of an ICRMP)
HQDA	Headquarters, Department of the Army
IAW	In accordance with
ICRMP	Integrated Cultural Resources Management Plan

IMA	Installation Management Authority
ITAM	Integrated Training Area Management
MACOM	Major Command
MCA	Military Construction Army
MEA	Miscellaneous Expense Allowed
MOA	Memorandum of Agreement
NAF	Non-appropriated Funds
NAGPRA	The Native American Graves Protection and Repatriation Act
NEPA	The National Environmental Policy Act
NHL	National Historic Landmark
NHLD	National Historic Landmark District
NHPA	The National Historic Preservation Act
NRE	National Register-eligible
PA	Programmatic Agreement
PLS	Planning Level Survey
PWBC	Public Works Business Center
RCI	Residential Communities Initiative
RDT&E	Research, Design, Testing and Evaluation
SHPO	State Historic Preservation Officer
SOP	Standard Operating Procedure
SWRO	Southwest Region Office
THPO	Tribal Historic Preservation Officer

APPENDIX E:
NATIONAL REGISTER BULLETINS

The following bulletins are available through the National Register of Historic Places. These are available online at: http://www.nps.gov/nr/bulletins/bulletins.html

They may also be ordered from the National Register of Historic Places, National Park Service, U.S. Department of the Interior, P.O. Box 37127, Washington, DC 20013-7127.

Bulletin 15: How to Apply the National Register Criteria for Evaluation

Bulletin 16A: How to Complete the National Register Registration Form

Bulletin 16B: How to Complete the National Register Multiple Property Documentation Form

Bulletin 18: How to Evaluate and Nominate Designed Historic Landscapes

Bulletin 20: Nominating Historic Vessels and Shipwrecks to the National Register of Historic Places

Bulletin 21: How to Establish Boundaries for National Register Properties

Bulletin 22: Guidelines for Evaluating and Nominating Properties That Have Achieved Significance Within the Last Fifty Years

Bulletin 23: How to Improve the Quality of Photos for National Register Nominations

Bulletin 25: Bibliography of Technical Information to Assist in Implementing the Secretary of the Interior Standards for Archeology and Historic Preservation

Bulletin 28: Using the UTM Grid System to Record Historic Sites

Bulletin 29: Guidelines for Restricting Information About Historic and Prehistoric Resources

Bulletin 30: Guidelines for Evaluating and Documenting Rural Historic Landscapes

Bulletin 31: Surveying and Evaluating Vernacular Architecture

Bulletin 32: Guidelines for Evaluating and Documenting Properties Associated with Significant Persons

Bulletin 34: Guidelines for Evaluating and Documenting Historic Aids to Navigation

Bulletin 35: National Register Casebook: Examples of Documentation

Bulletin 36: Guidelines for Evaluating and Registering Historical Archeological Sites and Districts

Bulletin 38: Guidelines for Evaluating and Documenting Traditional Cultural Properties

Bulletin 39: Researching a Historic Property

Bulletin 40: Guidelines for Identifying, Evaluating and Registering America's Historic Battlefields

Bulletin 41: Guidelines for Evaluating and Registering Cemeteries and Burial Places

Telling the Stories: Planning Effective Interpretive Programs for Properties Listed in the National Register of Historic Places

How to Prepare National Historic Landmark Nominations

Guidelines for Evaluating and Documenting Historic Aviation Properties

APPENDIX F:
OTHER REFERENCES

Advisory Council on Historic Preservation

Balancing Historic Preservation Needs with the Operation of Highly Technical or Scientific Facilities, February, 1991.

Section 106 Regulations User's Guide. Recommended Approach for Consultation on Recovery of Significant Information from Archeological Sites. http://www.achp.gov/archguideplain.html.

Identification of Historic Properties: A Decision-making Guide for Managers. http://www.achp.gov/idhistpr.html.

Section 106 User's Guide: Section 106 Consultation Involving National Historic Landmarks. http://www.achp.gov/regs-nhl.html.

Department of the Army

AR 200-4 **Cultural Resources Management.** This regulation establishes Army policy for managing cultural resources to meet legal compliance requirements of Federal historic preservation law.

DA PAM 200-4 **Cultural Resources Management.** This pamphlet provides guidance on the implementation of the Army policy prescribed in AR 200-4

For Want of a Home: A Historic Context for Wherry and Capehart Military Family Housing. U.S. Army Corps of Engineers, Construction Engineering Research Laboratory.

Housing an Army: The Wherry Capehart Family Housing. U.S. Army Environmental Center. USACE Technical Information Center.

Army Ammunition and Explosives Storage in the United States: 1775 – 1945. U.S. Army Environmental Center. USACE Technical Information Center.

Neighborhood Design Guidelines for Army Wherry and Capehart Family Housing. U.S. Army Environmental Center. USACE Technical Information Center.

Historic Context for Unaccompanied Personnel Housing During the Cold War (1946 – 1989). U.S. Army Environmental Center. USACE Technical Information Center.

Historic Context for Department of Defense Facilities World War II Permanent Construction. U.S. Army Environmental Center. USACE Technical Information Center.

Thematic Study and Guidelines: Identification and Evaluation of U.S. Army Cold War Era Military-Industrial Historic Properties. U.S. Army Environmental Center. USACE Technical Information Center.

National Historic Context for Department of Defense Installations, 1790 – 1940. Volumes 1-IV. U.S. Army Environmental Center. USACE Technical Information Center.

Report to Congress on Historic Army Quarters. U.S. Army Environmental Center. USACE Technical Information Center.

U.S. Quartermaster General Standardized Plans: 1866 – 1942. U.S. Army Environmental Center. USACE Technical Information Center.

World War II and the U.S. Army Mobilization Program: A History of 700 and 800 Series Cantonment Construction. U.S. Army Environmental Center. USACE Technical Information Center.

NAGPRA Section 5 Inventory Investigation Results and Project Conclusions. U.S. Army Environmental Center. USACE Technical Information Center.

NAGPRA Section 6 Summary Investigations. U.S. Army Environmental Center. USACE Technical Information Center.

Report to the What House on Native American Sacred Sites. U.S. Army Environmental Center. USACE Technical Information Center.

Department of Defense

DODD 4710.1 Archeological and Historic Resources Management, June 24, 1984.

DODI 4715.3 Environmental Conservation Program, May 3, 1996.

American Indian and Alaska Native Policy, October 20, 1998. William S. Cohen, Secretary of Defense

Coming in from the Cold: Military Heritage in the Cold War. Report on the Department of Defense Legacy Cold War Project.

Native American Affairs and the Department of Defense. Prepared by Donald Mitchell and David Rubenson of the National Defense Research Institute.

Department of the Interior

The Secretary of the Interior's Standards and Guidelines for Federal Agency Historic Preservation Programs Pursuant to the National Historic Preservation Act. **Includes standards and guidelines for agency programs under Section 110 of NHPA. Also includes consultation guidelines** (http://www2.cr.nps.gov/pad/sec110.htm)

Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines. Includes standards and guidelines for preservation planning; identification; evaluation; registration; historical documentation; architectural and engineering documentation; archeological documentation; historic preservation projects; and professional qualification standards for history, archeology, architectural history, architecture, and historic architecture. (http://www.achp.gov/secstnd.html)

The Secretary of the Interior's Standards for Rehabilitation & Illustrated Guidelines for Rehabilitating Historic Buildings.

The Secretary of the Interior's Standards for the Treatment of Historic Properties, 1995. Includes Secretary's standards for preservation, rehabilitation, restoration, and reconstruction. (http://www2.cr.nps.gov/tps/secstan2.htm)

The Secretary of the Interior's Standards and Guidelines for Architectural and Engineering Documentation: HABS/HAER Standards.

World War II and the U.S. Army Mobilization Program: A History of 700 and 800 Series Cantonment Construction. U.S Department of the Interior, National Park Service, HABS/HAER. This document, funded by the Legacy Resources Management Program of the Department of Defense, includes the HABS documentation for Camp Edwards, Massachusetts and Fort McCoy, Wisconsin.

APPENDIX G:
HABS/HAER DOCUMENTATION STANDARDS

Additional guidance on how to prepare HABS/HAER documentation is available from the NPS.

Standard I: Content

1. Requirement: Documentation shall adequately explicate and illustrate what is significant or valuable about the historic building, site, structure or object being documented. The drawings, photographs and other materials that comprise documentation should convey the historic significance of the building, site, structure or object identified in the evaluation process. The historical, architectural, engineering or cultural values of the property together with the purpose of the documentation activity determine the level and methods of documentation. Documentation prepared for submission to the Library of Congress must meet the HABS/HAER Guidelines.

2. Criteria: Documentation shall meet one of the following documentation levels to be considered adequate for inclusion in the HABS/HAER collections:

    a. Documentation Level 1:
        1. Drawings: a full set of measured drawings depicting existing or historic conditions.
        2. Photographs: photographs with large-format negatives of exterior and interior views; photocopies with large-format negatives of select existing drawings or historic views where available.
        3. Written data: history and description.

    b. Documentation Level II:
        1. Drawings: select existing drawings, where available, should be photographed with large-format negatives or photographically reproduced on mylar.
        2. Photographs: photographs with large-format negatives of exterior and interior views, or historic views, where available.
        3. Written data: history and description.

    c. Documentation Level III:
        1. Drawings: sketch plan.
        2. Photographs: photographs with large-format negatives of exterior and interior views.
        3. Written data: architectural data form.

    d. Documentation Level IV: HABS/HAER inventory card (a one-page form that includes written data, a sketched site plan and a 35mm contact print dry-mounted on the form. The negative with separate contact sheet and index should be included with the inventory card.

Standard II: Quality

1. Requirement: HABS and HAER documentation shall be prepared accurately from reliable sources with limitations clearly stated to permit independent verification of information. The purpose of documentation is to preserve an accurate record of historic properties that can be used in research and other preservation activities. To serve these purposes, the documentation must include information that permits assessment of its reliability.

2. Criteria: For all levels of documentation, the following quality standards shall be met:

   a. Measured drawings: Measured drawings shall be produced from recorded, accurate measurements. Portions of the building that were not accessible for measurement should not be drawn on the measured drawings but clearly labeled as not accessible or drawn from available construction drawings and other sources and so identified. No part of the measured drawings shall be produced from hypothesis or non-measurement related activities. Documentation Level I measured drawings shall be accompanied by a set of field notebooks in which the measurements were first recorded. Other drawings prepared for Documentation Levels II and III, shall include a statement describing where the original drawings are located.

   b. Large format photographs: Large format photographs shall clearly depict the appearance of the property and areas of significance of the recorded building, site, structure or object. Each view shall be perspective-corrected and fully captioned.

   c. Written history: Written history and description for Documentation Levels I and II shall be based on primary sources to the greatest extent possible. For Levels III and IV, secondary sources may provide adequate information; if not, primary research will be necessary. A frank assessment of the reliability and limitations of sources shall be included. Within the written history, statements shall be footnoted as to their sources, where appropriate. The written data shall include a methodology section specifying name of researcher, date of research, sources searched, and limitations of the project.

Standard III: Materials

1. Requirement: HABS and HAER documentation shall be prepared on materials that are readily reproducible for ease of access; durable for long storage; and in standard sizes for ease of handling. The size and quality of documentation materials are important factors in the preservation of

information for future use. Selection of materials should be based on the length of time expected for storage, the anticipated frequency of use and a size convenient for storage.

2. Criteria: For all levels of documentation, the following material standards shall be met:

   a. Measured Drawings:
      Readily reproducible: Ink on translucent material
      Durable: Ink on archivally stable materials.
      Standard Sizes: two sizes: 19 x 24" or 24 x 36"

   b. Large Format Photographs:
      Readily reproducible: Prints shall accompany all negatives
      Durable: Photography must be archivally processed and stored. Negatives are required on safety film only. Resin-coated paper is not accepted. Color photography is not acceptable.
      Standard sizes: Three sizes: 4 x 5", 5 x 7", 8 x 10"

   c. Written History and Description:
      Readily Reproducible: Clean copy for photocopying
      Durable: Archival bond required.
      Standard Sizes: 8 ½ x 11"

   d. Field Records:
      Readily Reproducible: Field notebooks may be photocopied. Photo identification sheet will accompany 35 mm negatives and contact sheets.
      Durable: No requirement
      Standard Sizes: Only requirement is that they can be made to fit into a 9 ½x 12" archival folding file.

Standard IV: Preservation

1. Requirement: HABS and HAER documentation shall be clearly and concisely produced. In order for documentation to be useful for future research, written materials must be legible and understandable, and graphic materials must contain scale information and location references.

2. Criteria: For levels of documentation as indicated below, the following standards for presentation will be used:

   a. Measured Drawings: Level I measured drawings will be lettered mechanically or in a hand printed equivalent style. Adequate dimensions shall be included on all sheets. Level III sketch plans should be neat and orderly.

b. Large format photographs: Level I photographs shall include duplicate photographs that include a scale. Level II and III photographs shall include, at a minimum, at least one photograph with a scale, usually of the principal facade.

c. Written history and description: Data shall be typewritten on bond, following accepted rules of grammar.

Note: More detailed guidance on each of the documentation products can be found in *Recording Historic Structures*, ed. John A. Burns (Washington: American Institute of Architects Press, 1989).

APPENDIX H:
ARMY HISTORIC BUILDING MANAGEMENT STANDARDS

The following army standards (DA PAM 200-4) were developed to assist in the maintenance and rehabilitation of historic buildings at installations and should be used in conjunction with the *Secretary of Interior's Standards for Rehabilitation and Guidelines for Rehabilitating for Rehabilitating Historic Buildings* and the *Secretary of the Interior's Guidelines for the Treatment of Historic Landscapes*. In some instances, the Army standards are more specific and take precedence over the Secretary's Standards. The Army Standards emphasize the importance of repair, replacement, and rehabilitation of National Register eligible or listed buildings, structures, or site elements, yet recognize the need to accommodate current operation and fiscal responsibilities. A least-cost, lifecycle economic analysis of major maintenance and rehabilitation projects should be conducted prior to initiation and include such factors as asbestos and lead paint abatement.

Site and Landscape

a. Preserve the relationship between buildings, historic military landscape elements, and open space. New construction shall be compatible with the architectural character of the Historic Property or District. Maintain grades sloping away from historic buildings.
b. Where historic landscaping has been neglected or where there is no landscaping, the installation may develop a Historic Military Landscape Plan. Guidance for developing such historic landscape plans are included in "Guidelines for Evaluating Military Landscapes: An Integrated Approach" available at www.apgea.army.mil.
c. Retain site elements that are important in defining the overall character of the historic property. Retain and maintain structures, furnishings, and objects that remain from the period of significance.
d. Remove, and replace as required, furnishings and objects such as light fixtures, fences, benches, and trash receptacles that were placed in the landscape after the period of significance and which do not contribute to the overall character of the historic property.
e. Provide fencing enclosures that are appropriate and enhancing, (that is, cast aluminum fencing, stockade fencing, hedges, and brick walls are more appropriate than chain link fencing which should be minimized and appropriately screened with planting.)

f. Accommodate required parking, including access for the physically disabled, without intrusion to the buildings or to historically significant areas and spaces. Screen parking from public view to reduce its impact on historic properties.
g. Acquire landscape furnishings and objects that are similar to those that existed in the landscape during the period of significance. New landscape furnishings and objects should match the original in size, materials, finishes, and placement within the site design.
h. Signage should be consistent with the character of historic properties.

Concrete/Masonry

a. Maintain concrete and masonry elements that are important in defining the overall historic character of each building or structure. Remove concrete that is inconsistent with the original concrete in color, texture and workmanship and replace with concrete to match the original. Remove masonry that is inconsistent with the original stone, brick, mortar, and stucco and replace with masonry to match the original.
b. Analyze existing concrete and mortar so that a compatible mix can be made for repairs. New concrete should match the original in color, texture and workmanship. Replacement mortar should be of the same strength and composition as the original.
c. Masonry surfaces shall be protected and maintained consistent with the original design. When repair is no longer practical, replacement of elements will be done to match the original. Repair chimneys to match original designs.
d. Repaint where spalling has occurred at lintels. Repair or replace stone steps and stoops where damaged by rusting ironwork. Remove exterior carpeting and concrete overlayments from steps and stoops. Infill with masonry to match original and remove non-original materials.
e. Retain the extant texture and color of masonry surfaces. Where masonry has been inappropriately painted, return it, with proper documentation, to its original painted color.

Metals

a. Metal elements that contribute to the architectural character of a building or structure should be retained and preserved. Also, retain and preserve the size, the shape, and the type of finish, its historic color, and accent scheme.
b. Copper and bronze should not be painted or coated. Other metals should be painted to protect them from the elements.
c. Retain, rather than replace, architectural metal elements when repair of the element and limited replacement of deteriorated or missing parts can be accomplished.
d. Reinstall copper or other metal gutters and downspouts to match the original design where an inappropriate replacement material now exists. Reconfigure non-original roof leaders.

e. Clean and paint steel lintels prior to repointing. Rework iron railings with fewer penetrations into stone masonry. Remove rust; repaint and reinstall railings.

Wood

a. Interior and exterior wood elements that contribute to the historic character of the building should be retained and preserved. Original cornices and brackets, architraves, door surrounds, pediments, newels, banisters, railings, moldings, casings, mantels, paneling, cabinetwork, and other wood elements should remain as original fabric with repairs. Replace in-kind only if the original cannot be repaired. Replace functional elements that were once a part of the original fabric and are now missing.
b. Retain historic finishes and color schemes to preserve the historic character of the exterior. Repaint wood only as needed with materials and colors that are appropriate to the historic building or district.
c. Remove paint buildup from woodwork, sand, prime, and repaint; reglaze windows and doors as required. Caulk as required.
d. Avoid vinyl, aluminum, or other artificial sidings.
e. Repairs shall match the original woodwork in design, size and shape.
f. When necessary, replace wooden porch flooring and steps with weather-treated, painted wood.

Doors and Windows

a. Doors and windows and associated trim that contribute to the historic character of the buildings or the district shall be retained and preserved. Remove non-original doors and windows that compromise the integrity of the original and replace with units to match the original or that match adjacent structures. Retain, repair, and maintain historic hardware where it exists. Replacement hardware should match the original in size, shape, and configuration.
b. Maintain the operating condition of the doors and windows. Locate weather-stripping to facilitate operation.
c. Maintain the historic appearances of windows and doors and their frames through retention of designs, materials, finishes, and colors including the configuration of sashes and muntins, depth of reveals, molding profiles, and the reflectivity and color of the glazing.
d. Combination storm and screen doors shall be simple and discreet, of one panel or with glazing or screening divisions that are aligned with the door it protects and without ornamentation.
e. The checkrail of storm windows shall align with the checkrail of the historic window. Glazing divisions shall coincide with the window it protects.
f. Provide protective glazing where the weather demands it. Protective glazing should be as unobtrusive as possible and should be removable without damaging historic fabric. Repair original leaded glass and replace where removed. Replacement elements shall match the original. (If using the same kind of materials is not feasible, then a compatible substitute

material that conveys the visual appearance and design of the surviving parts and is physically compatible may be considered.)

g. When feasible within the existing historic fabric of the house, use an interior door to create a heat-conserving vestibule. Absent this feasibility, provide storm doors.
h. Maintain appropriate existing storm windows and provide storm windows where nonexistent. Equip existing doors and windows with weather-stripping.
i. Maintain integrity of caulking and sealants at doors and windows.

Roofing

a. Retain character-defining roof shapes and roofing materials, rather than introducing incompatible materials and designs, or improper installation techniques. Retain the configuration of existing roofs without the addition of new elements that diminish the historic character.
b. Roofing material shall be appropriate to the style and period of the buildings or neighborhood. Retain original sound historic clay tile and historic slate roofing materials and architectural metal. Return nonconforming roofs to original when replacement is necessary.
c. All repairs shall match the original design and materials.
d. Retain roof ventilation to preserve elements of construction. Provide ventilation if it is nonexistent or adequate in an inconspicuous manner away from public view.

Porches/Entrances

a. Retain historic entrances and porches that are character-defining elements of the building. Significant elements include doors, fanlights, sidelights, pilasters, entablatures, columns, brackets, rails, and stairs.
b. Where a porch has not been enclosed, it shall remain open. Where screening has been provided, paint the wood framing of the non-original porch screening a dark color to reduce visual impact of the framing.
c. Repair rather than replace an entire porch or entrance element when repair of the element and limited replacement of deteriorated or missing parts is appropriate.
d. When repair is no longer practical, replacement elements shall match the original. If using the same kind of material is not feasible, then a compatible substitute material that conveys the visual appearance and design of the surviving parts and is physically compatible may be considered.
e. In exception to the preceding standard, replace column bases with aluminum where deteriorated.
f. Provide barrier-free access where necessary through removable or portable, rather than permanent ramps. Do not remove historic steps, bur rather, ramp above them. Locate barrier-free access to minimize visual intrusion and impact on the structure.

Interiors

a. Retain and preserve interior elements and finishes that are important in defining the overall historic character of the buildings. These elements include but are not limited to columns, cornices, chair rails, baseboards, fireplaces and mantels, brick, stone, tile, light fixtures, paneling, built-in cabinetry, hardware, flooring, plaster and may include plumbing fixtures.
b. Public spaces such as reception halls, entrance spaces, entrance halls, parlors, dining rooms, and libraries are important in defining the overall historic character of the building. Size, configuration, and proportion of these spaces should be maintained. Where alterations have occurred they should be removed to restore the plan to the original design.
c. Maintain character-defining interior spaces by not cutting through floors, lowering ceilings, removing walls, or installing new partitions.
d. Reuse decorative material or elements that were removed during rehabilitation work including wall and baseboard trim, door molding, paneled doors, and wainscoting.
e. Remove excessive paint build-up from character defining elements with due regard to disposition of hazardous materials. Prime and repaint from approved palette of colors.
f. Maintain the finishes or colors of historic woodwork. For example, do not paint a previously varnished wood element, or strip historically painted wood surfaces to bare wood to create a “natural look,” or remove historic plaster to expose brick.
g. New materials that obscure or damage character-defining interior elements shall not be installed. Likewise, paint, plaster, or other finishes on historically finished surfaces shall not be removed in an effort to create a new appearance.
h. Remove, clean, lacquer, and reinstall original hardware. Return original doors to designated openings.
i. Provide bathrooms with vanities, storage and modern plumbing only when necessary due to the deterioration of the original materials or fixtures. When replacement is necessary, bathroom fixtures should resemble the originals.
j. Provide kitchens with adequate cabinets, work surfaces and appliances. Provide closets and storage when necessary. Maintain consistency of design elements throughout. Historic cabinetry should be retained where feasible.
k. Encourage use of original wood floors with carpet as area rugs and stair runners.
l. Sand wooden floors only when it is absolutely necessary, rather than at the change of occupancy.
m. Promote accessibility for the disabled by providing toilet facilities on each floor level.

HVAC

a. Remove all asbestos from heating and water lines.
b. Install mechanical systems and service equipment when required, that causes minimal alteration to the building's floor plan and the principal exterior elevations, and the least damage to historic building materials and volume of principal rooms. Remove intrusive ductwork from principal rooms and provide alternate sources of supply.
c. Install mechanical systems and service equipment so that character-defining structural or interior elements are not radically changed, damaged, or destroyed.
d. Exterior walls shall not be cut for installation of HVAC units. Remove units that have been cut through exterior walls.
e. De-emphasize presence of exterior HVAC units with screening or landscaping.
f. Conceal kitchen and bath exhaust pipes from public view.

Electrical

Ensure proper service and distribution of electric current. Provide underground supply of power, phone and cable provided that such installation does not affect archaeological resources. Rewire buildings to new service entries. Internally wire for cable and phone, removing existing conduits and wiring from exterior. Conceal all exposed conduits and ensure adequacy of outlets. Replace missing character-defining light fixtures with those appropriate to the character of the original exterior and interior. Where possible, replicate existing original fixtures or introduce fixtures appropriate to the period.

Structural

Verify structural loading of all floors to be occupied. Correct any structural deficiencies before rehabilitation or restoration.

Energy Conservation

Energy conservation will be achieved by appropriate insulation or other appropriate methods that do not radically change, damage or destroy character-defining features.

APPENDIX I:
SECRETARY OF THE INTERIOR'S STANDARDS FOR THE TREATMENT OF HISTORIC PROPERTIES

Preservation:

The act or process of applying measures necessary to sustain the existing form, integrity, and materials of a historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. New exterior additions are not within the scope of this treatment; however, the limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project. [See DA PAM 200-4, Appendix D.]

Standards for Preservation:

1. A property shall be used as it was historically, or be given a new use that maximizes the retention of distinctive materials, features, spaces, and spatial relationships. Where a treatment and use have not been identified, a property shall be protected and, if necessary, stabilized until additional work may be undertaken.

2. The historic character of a property shall be retained and preserved. The replacement of intact or repairable historic materials or alteration of features, spaces, and spatial relationships that characterize a property shall be avoided.

3. Each property shall be recognized as a physical record of its time, place, and use. Work needed to stabilize, consolidate, and conserve existing historic materials and features shall be physically and visually compatible, identifiable upon close inspection, and properly documented for future research.

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

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

6. The existing condition of historic features shall be evaluated to determine the appropriate level of intervention needed. Where the severity of deterioration requires repair or limited replacement of a distinctive feature, the new material shall match the old in composition, design, color, and texture.

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

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

Preservation as Treatment:

When the property's distinctive materials, features, and spaces are essentially intact and thus convey the historic significance without extensive repair or replacement; when depiction at a particular period of time is not appropriate; and when a continuing or new use does not require additions or extensive alterations, Preservation may be considered as a treatment. Prior to undertaking work, a documentation plan for Preservation should be developed.

Rehabilitation:

The act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey it historical, cultural, or architectural values.

Standards for Rehabilitation:

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

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

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

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

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

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

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

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

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

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

Rehabilitation as a Treatment:

When repair and replacement of deteriorated features are necessary; when alterations or additions to the property are planned for a new or continued use; and when its depiction at a particular period of time is not appropriate, Rehabilitation may be considered as a treatment. Prior to undertaking work, a documentation plan for Rehabilitation should be developed.

More detailed information on the Secretary's Standards may be obtained at:

http://www2.cr.nps.gov/tps/tax/rhb/

APPENDIX J:
PHOTOGRAPHIC STANDARDS

Minimum Level: At a minimum, two perspective photographs are required to document a building or structure. These include 1) a photograph showing the front and one side of the building and 2) a second photograph showing the rear and the other side of the building. The photographer should ensure that the entire building is visible, including the point where the building meets the ground and the peak of the roof or chimney. The building should occupy about 75 percent of the picture area, leaving the surrounding 25 percent of the frame for visual information about the context of the building. A third photograph showing a detail of materials, craftsmanship, or design is also useful.

Basic Level: The basic level of photographic documentation is taken from the recommendations of the Historic American Buildings Survey and the Historic American Engineering Record (HABS/HAER).

Exterior Views

A. General view at a distant sufficient to show environmental setting, landscaping and adjacent buildings, if appropriate.
B. Elevation of front façade.
C. Perspective view of the front façade and one side.
D. Perspective view of the rear and the other side.
E. Close up view of the main entrance.

Interior Views

A. A view from the main entrance looking to the interior of the building.

B. Views of the major spaces/rooms including important architectural features such as stairways (for large spaces, take diagonal views from opposite corners).

C. Other significant rooms or features as considered relevant.

This basic level can be expanded based on the nature of the building or structure being photographed. For example, two perspective photographs work best on square or rectangular buildings with four outside walls. A building of more complex shape, with more outside walls, such as a C-shaped building, will require more perspectives to ensure that all of the walls are included in at least one photograph.

Expanded Level: In this level of photography, each side of the property is photographed from the overall view, such as elevation, to detailed views.

Environmental

A. Environmental view of the front and right side (looking at property from front)

B. Environmental view of the rear and right side.

Perspective

C. Perspective view of the front and right side.

D. Perspective view of the rear and right side.

Front Side

E. Elevation of front façade.

F. Elevation or perspective of front entrance.

G. Perspective or elevation views of architectural elements such as porches or windows.

H. Details of materials and/or decoration.

Right Side

I. Elevation of right facade

J. Perspective or elevation views of architectural elements such as windows or porches.

K. Details of materials and/or decoration

Rear

L. Elevation of rear.

M. Perspective or elevation views of architectural elements such as porches or windows.

N. Details of materials, hardware, and/or decoration.

Left Side

O. Elevation of left side.

P. Perspective or elevation views of architectural elements such as porches or windows.

Q. Details of materials, hardware, and/or decoration.

Whatever level of photographic documentation is completed, a photo index will be maintained by the photographer, which lists the photographs in the same sequence in which they were taken. This will be attached to the written description and history of the building, as well as being kept with the photographs and negatives. All of this documentation will be kept on file at FSH, and copies will be provided to the Tx SHPO and other consulting parties as requested.

APPENDIX K:
LIST OF FSH PROPERTIES UNDER NATION-WIDE PAS OR PROGRAM COMMENTS

World War II Temporary Buildings

Fort Sam Houston

Building Number	*Use*
2650	Red Cross Building
2651	Garage
0027	Detached Storage Facility
3551	Riding Stable
3552	Riding Stable
3553	Riding Stable
3557	Riding Stable
0230	Thrift Shop

Camp Bullis

Building Number	*Use*
5102	Engineering/Housing Maintenance Shop
5108	Administration - General Purpose
6101	Fuel/POL Building
6104	Vehicle Maintenance Shop
6211	Water Supply/Treatment Building, Potable
6285	Range or Target House

Capehart-Wherry Era Army Family Housing

Fort Sam Houston

Building Number	*Type*
8021	Duplex
8127	Duplex
8130	Duplex
8132	Duplex
8133	Single family
8134	Duplex
8135	Single family
8136	Single family
8139	Duplex
8140	Duplex
8152	Single family
8172	Single family
8173	Duplex
8174	Duplex
8175	Duplex

Building Number	*Type*
8225	Single family
8226	Duplex
8227	Single family
8000	Single family
8001	Duplex
8002	Duplex
8003	Duplex
8004	Duplex
8005	Single family
8006	Single family
8007	Single family
8008	Duplex
8009	Duplex
8010	Single family
8011	Duplex
8012	Duplex
8013	Single family
8014	Duplex
8015	Single family
8016	Duplex
8017	Single family
8018	Duplex
8019	Duplex
8020	Single family
8022	Single family
8023	Duplex
8024	Duplex
8025	Duplex
8026	Single family
8027	Duplex
8028	Single family
8029	Duplex
8030	Duplex
8031	Duplex
8032	Duplex
8033	Duplex
8034	Duplex
8035	Duplex
8036	Duplex
8037	Duplex
8038	Duplex
8039	Duplex

Building Number	*Type*
8040	Duplex
8041	Duplex
8042	Duplex
8043	Duplex
8100	Duplex
8101	Single family
8102	Duplex
8103	Single family
8104	Duplex
8105	Single family
8106	Duplex
8107	Single family
8108	Duplex
8109	Single family
8110	Single family
8111	Single family
8112	Single family
8113	Single family
8114	Single family
8116	Single family
8117	Single family
8118	Single family
8119	Single family
8120	Single family
8121	Single family
8122	Single family
8123	Single family
8124	Single family
8125	Single family
8126	Single family
8137	Single family
8138	Duplex
8141	Single family
8142	Duplex
8143	Single family
8144	Duplex
8145	Duplex
8146	Single family
8147	Duplex
8148	Duplex
8149	Duplex
8150	Single family

Building Number	*Type*
8151	Single family
8153	Single family
8154	Single family
8155	Single family
8157	Single family
8158	Single family
8159	Single family
8160	Single family
8162	Single family
8163	Single family
8164	Single family
8166	Single family
8167	Single family
8168	Single family
8170	Single family
8171	Single family
8201	Single family
8202	Duplex
8204	Duplex
8205	Single family
8206	Duplex
8207	Duplex
8208	Single family
8209	Duplex
8210	Duplex
8211	Duplex
8212	Duplex
8213	Duplex
8214	Duplex
8216	Duplex
8217	Duplex
8218	Single family
8219	Duplex
8220	Duplex
8221	Duplex
8223	Duplex
8228	Single family
8232	Duplex
8233	Duplex
8235	Duplex
8236	Duplex
8237	Duplex

Building Number	*Type*
8241	Duplex
8242	Duplex
8243	Duplex
8244	Duplex
8245	Duplex
8246	Duplex
8247	Duplex
8248	Duplex
8256	Duplex
8257	Duplex
8258	Duplex
8261	Duplex
8262	Duplex
8264	Duplex
8265	Duplex
8266	Duplex
8267	Duplex
8269	Duplex
8270	Duplex
8271	Duplex
B0555	GARAGE FH DET
C8003	GARAGE FH DET
C8009	GARAGE FH DET
C8012	GARAGE FH DET
C8022	GARAGE FH DET
C8023	GARAGE FH DET
C8027	GARAGE FH DET
C8028	GARAGE FH DET
C8035	GARAGE FH DET
C8039	GARAGE FH DET
C8104	GARAGE FH DET
C8106	GARAGE FH DET
C8127	GARAGE FH DET
C8131	GARAGE FH DET
C8139	GARAGE FH DET
C8143	GARAGE FH DET
C8150	GARAGE FH DET
C8174	GARAGE FH DET
C8203	GARAGE FH DET
C8206	GARAGE FH DET
C8211	GARAGE FH DET
C8220	GARAGE FH DET
C8224	GARAGE FH DET
C8231	GARAGE FH DET

Building Number	*Type*
C8236	GARAGE FH DET
C8243	GARAGE FH DET
C8248	GARAGE FH DET
C8256	GARAGE FH DET
C8261	GARAGE FH DET
C8262	GARAGE FH DET
C8271	GARAGE FH DET

Camp Bullis

Building 6615	Garage