

Army Lodging Wellness Recommendation



Fort Sam Houston

August 12, 2003

3D/I

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Section 1 Wellness Recommendation

Introduction

The Army Lodging Wellness Program is conducted under the direction and guidance of Headquarters Army, Lodging Division (CFSC). The goal of the Fort Sam Houston Lodging Wellness Plan is to provide a comprehensive assessment and planning tool to support long term capitalization of Army Lodging facilities. The Demand Analysis determines installation Lodging requirements, and reviews off-post Lodging availability and cost, arriving at the most economical solution for meeting total transient requirements and providing a final determination of the appropriate number and configuration of on-post Lodging rooms. Individual Lodging facility condition (building and building systems) and functional assessments are included with both recommendations and costs. Facility improvement and renovation versus replacement/new construction recommendations are developed based on the individual facility assessments and cost. A Lodging Master Plan for the installation is developed including renovation, replacement/new construction, and proposed new facility siting. A final recommendation defines the method for achieving the final wellness solution for the installation and will assist with project planning.

Methodology

Demand

- Demand for Lodging facilities is analyzed and adjusted for atypical past occurrences and for expected changes in the installation's population, housing or mission. Two primary methods are used to calculate the optimum number of rooms: the number necessary to meet 80% of official demand and the number projected to be the most efficient from an operating cost perspective.
- The off-post private market is assessed for capacity and representative rates. A determination is made if the private market has the capability to handle overflow requirements of official demand.
- Room mix recommendation is based on the segmentation of the Permanent Change of Station (PCS)/Temporary Duty (TDY) mix and the expected lengths of stay. This produces the final determination of the appropriate number and configuration of rooms for the installation.

Assessment

- Existing Lodging facilities are assessed based on building and building system conditions followed by an assessment for conformance with Army Lodging functional standards. Facilities assessed to be in fair to good condition and meeting the majority of functional requirements are considered for renovation. Renovation of Lodging facilities found in poor condition and configured significantly different from current standards will typically exceed 50% of the replacement cost and are recommended for replacement/new construction. This decision is supported by renovation cost comparisons and assessment documentation.
- The age, condition and existing configuration of most of the existing Lodging buildings support a finding of replacement through new construction.
- Force protection construction criteria have a significant impact on new construction. This Wellness recommendation, including building assessment, site analysis and proposed construction, incorporates requirements from the UFC 4-010-01. Consistent with this guidance, force protection mitigation is not considered unless the renovation cost exceeds 50% of the replacement cost for a facility.

Demand Summary

Based on the historic and expected demand pattern at this facility, we recommend that the number of rooms be sized using the “Most Economically Efficient” criterion. Using this criterion, we expect an occupancy rate of 82% which meets 77% of the projected official demand.

Room Count and Mix Recommendation

- 718 rooms
- Proposed room mix:
 - No standard guest rooms
 - 673 extended-stay guest rooms offering a kitchenette
 - 45 extended-stay family suites offering a separate bedroom, sitting/living area, and kitchenette

The demand analysis has determined a need of 718 rooms; however, based on existing and proposed building configurations, the actual

number recommended for the Fort Sam Houston Wellness Plan will be 720 rooms.

Lodging Summary

The following Lodging for Fort Sam Houston is summarized by building, including number of existing rooms and number of proposed rooms determined as part of the installation Wellness recommendation. The table also indicates the number of rooms required for a new Lodging facility based on buildings not proposed for re-use due to poor existing conditions and high renovation costs. The number of rooms for the new proposed Lodging facility reflects the proposed layout and does not match the exact demand numbers, because of building configuration.

Building Number	Existing Rooms					Wellness Recommendation (FY 08)			
	Total Rooms	Std Rms 300 sf	Extend. Stay Rms 300 sf	Family Suites 450 sf	Other Rooms	Total Rooms	Std Rms 300 sf	Extend. Stay Rms 300 sf	Family Suites 450 sf
Wellness Recommendation based on Demand Analysis									
						718	0	673	45
Existing Lodging Facilities									
48	11				11	0			
107	13				13	0			
592	200	200				0			
616	4		4			0			
617	20	7	13			0			
688	10	2	8			0			
1384	300	300				0			
3625	150		120	30		150		120	30
Totals	708	509	145	30	24	150	0	120	30
New Proposed Lodging Facility									
						570		554	16
Total Lodging Rooms									
						720	0	674	46

Summary of Room Count and Mix based on Configuration

- 720 rooms
- Proposed room mix:
 - No standard guest rooms
 - 674 extended-stay guest rooms offering a kitchenette
 - 46 extended-stay family suites offering a separate bedroom, sitting/living area, and kitchenette

Cost Summary

Project Cost

The following table summarizes the Condition Analysis, Renovation, and Replacement Cost by individual Lodging facilities. The Wellness Recommendation indicates cost by building based on recommendation, including the proposed facility cost.

Building Number	Existing Units					Wellness Recommendation (FY 08)			
	Total Rooms	Condition Analysis Cost*	Renovation Cost**	Replacement Cost	% Condition Analysis or Renovation Cost Ratio	Total Rooms	Total Cost	Renovation Cost	New Construction Cost
Existing Lodging Facilities									
48	11	***	\$ 668,190	\$ 1,055,900	63.28%	0			
107	13	***	\$ 1,398,810	\$ 1,742,220	80.29%	0			
592	200	\$ 8,029,325	****	\$ 15,344,855	52.33%	0			
616	4	***	\$ 320,120	\$ 456,880	70.07%	0			
617	20	***	\$ 1,748,010	\$ 2,392,475	73.06%	0			
688	10	***	\$ 950,060	\$ 1,423,350	66.75%	0			
1384	300	\$ 11,455,530	****	\$ 21,845,870	52.44%	0			
3625	150	\$ 952,245	*****	\$ 12,273,175	7.76%	150		\$ 952,245	
Totals	708					150	\$ 952,245	\$ 952,245	\$ -
New Proposed Lodging Facility									
						570	\$ 44,144,260		\$ 44,144,260
Total									
						720	\$ 45,096,505	\$ 952,245	\$ 44,144,260

* The Condition Analysis Cost is for making the building well based on Army Lodging Standards without changing how the building functions.

** The Renovation Cost is for making the building well based on Army Lodging Standards including making functional changes.

*** If the Condition Analysis Cost is under 50% of the Replacement Cost, the Renovation Cost is used.

**** If the Condition Analysis Cost is over 50% of the Replacement Cost, a Renovation Cost is not included.

***** The Renovation Costs have been included in the Condition Assessment cost and are under 50%. No Renovation Cost is used for this building.

Cost per Room Comparison

The Wellness Recommendation includes review of off-post Lodging costs compared to the proposed renovation and new construction costs on-post. The renovation and new construction costs include operating costs, capital assessment costs, and sustainment capital expenditures. The following table summarizes this comparison per room for FY08.

	Renovation	New Building	Total
Cost per Room at Fort Sam Houston	\$ 46.92	\$ 54.84	\$ 53.19
Off Post Cost per Room	\$ 70.88	\$ 70.88	\$ 70.88
Difference between On-Post and Off-Post Lodging per room	\$ 23.96	\$ 16.05	\$ 17.70
% Savings of On-Post to Off-Post Lodging	33.8%	22.6%	25.0%

The Cost Per Room at Fort Sam Houston is based on:

Renovation / New Construction Cost w/ inflation to FY 08

Current Operating Cost w/ inflation to FY 08

Cap Ex Cost

Capital Assessment Cost to FY 08

Off Post Cost is based on current room rate average with inflation to FY 08

Due to this cost difference and the savings of 25.0%, it is our recommendation that the Army construct a new Lodging facility and retain one existing facility at Fort Sam Houston in lieu of using off-post lodging to support the determined demand requirement. Off-post lodging will continue to be used for demand beyond the on-post room requirement.

Recommendations / Conclusions

The Wellness Recommendation for Fort Sam Houston is to continue the use of building 3625 with 150 rooms and to construct a new 570 room main Lodging facility on-post to accommodate both public and back-of-the-house spaces, for a total of 720 rooms on-post, to meet the 718 room requirement. The number of rooms for the new proposed Lodging facility reflects the proposed layout and does not match the exact demand numbers, because of building configuration. Existing Lodging facilities that do not meet condition and functional requirements based on cost shall be removed from the Lodging inventory. A synopsis of recommended building actions follows:

- Construct a new Lodging facility to include 570 rooms. This building will be planned to include public and back-of-the-house Lodging functions for the total on-post Lodging inventory.
- Retain Building 3625 and make condition assessment modifications.
- Remove all other existing on-post Lodging buildings from the Lodging inventory due to the condition of existing building systems and/or the cost to renovate to meet Army functional criteria.

Cost Summary

The cost for this recommendation will be:

Renovation of 3625	\$ 952,245
New Lodging Facility	\$44,144,260
Total	\$45,096,505

Phasing

Recommend the following phasing as funding is identified.

- Minimize investment in infrastructure for buildings 48, 107, 592, 616, 617, 688, and 1384.
- Construct new Lodging facility prior to removing existing Lodging facilities from inventory.
- Make Condition Assessment modifications to building 3625.
- Remove buildings 48, 107, 592, 616, 617, 688, and 1384 from Lodging inventory.

Installation Summary

Section 2 Lodging Master Plan

Fort Sam Houston, located at the eastern edge of San Antonio, Texas, includes a 3,600 acre site bounded on the east and south by IH-35, on the southwest by Mahncke Park and the San Antonio Botanical Gardens, and on the north and northwest by the San Antonio Country Club and the Terrell Hills neighborhood. An additional 28,880 acre reservation (Camp Bullis), located just north of the city, is used as a troop training area.

The primary mission at Fort Sam Houston is medical training and support. The installation is the home of the HQ U.S. 5th Army, U.S. Army 5th Recruiting Brigade, Brooks Army Medical Center, Institute of Surgical Research, U.S. Army Medical Department Center and School, U.S. Army Center Brigade, and U.S. Army Medical Command.

The Fort Sam Houston Installation Design Guide, incorporates specific installation requirements. Land use, future development, and architectural compatibility are integral components of the Guide. Current Lodging room night requirements, Army guidance on Lodging facility design standards, and force protection construction standards required additional analyses and were incorporated into the recommendations of the Lodging Wellness Plan.

With construction dating back to 1845, Fort Sam Houston has a rich historic significance, culturally and architecturally. The predominant architectural influences on the installation are those of Spanish and Mexican heritage. Common architectural elements throughout the installation include long, low building masses, stucco exterior finishes, and decorative parapet walls or sloped tile roofs.

Master Plan Summary

Lodging facilities at Fort Sam Houston were constructed in various phases and are located in several areas of the installation. A thorough condition and functional assessment of the existing buildings noted significant deficiencies in most cases. Additionally, renovation of these buildings to the new Lodging standards and building configuration design is not viable within the 50% threshold. The primary Lodging facility, building 592, is located at the northern end of MacArthur Park.

Replacement of this facility is recommended on a site more centrally located on the installation. This new site would provide close proximity to recreational and community facilities. In addition, the proposed site is close to building 3625, allowing support functions to be consolidated in the new building.

The proposed Fort Sam Houston Lodging Master Plan reflects 720 Lodging rooms with an initial replacement of almost 80% of the existing Lodging buildings into a new Lodging facility. The number of rooms for the new proposed Lodging facility reflects the proposed layout and does not match the exact demand numbers, because of building configuration. This new facility, in conjunction with existing Lodging facility 3625, will combine required rooms, public areas, and service functions into a cohesive Lodging physical plant in support of the installation requirements.

Existing Lodging Facilities



Lodging Building 48

Building 48, the Sam Houston House, was originally constructed in 1886 as the Installation Hospital. It now houses 11 DVQ suites. Although this building has been well preserved, the suites exceed current Army Lodging size requirements. The cost to make improvements and to bring this facility up to Army Lodging standards will exceed the 50% replacement cost.

Our recommendation is to remove building 48 from the Lodging inventory, allowing the installation to determine an alternate use for this facility. This facility will be removed from the Fort Sam Houston Wellness Solution and Lodging Master Plan.



Lodging Building 107

Building 107, the Foulis House, was originally constructed in 1908 as bachelor officer quarters. In 1977 it was re-designated as 13 DVQ suites. Although this building has been well preserved, the suites exceed current Army Lodging size requirements. The cost to make improvements and to bring this facility up to Army Lodging standards will exceed the 50% replacement cost.

Our recommendation is to remove building 107 from the Lodging inventory, allowing the installation to determine an alternate use for this

facility. This facility will be removed from the Fort Sam Houston Wellness Solution and Lodging Master Plan.

Lodging Building 592



Building 592, built in 1974, is currently the main lodging facility for Fort Sam Houston. It contains most of the administrative, check-in, and back-of-house functions for lodging at the installation. Although its 200 standard rooms meet most of the for Army Lodging standards, many of the buildings systems are approaching the end of their useful lives. Although the cost to make condition assessment improvements is just over the 50% replacement cost, it is our recommendation to remove this facility from the lodging inventory due to the age of the building and building systems.

Our recommendation is to remove building 592 from lodging inventory, allowing the installation to determine an alternate use for this facility. This facility will be removed from the Fort Sam Houston Wellness Solution and Lodging Master Plan.

Lodging Buildings 616, 617, 688



These three buildings were constructed at the turn of the 20th century. Building 616 has 4 lodging rooms; building 617 has 20 lodging rooms, and building 688 has 10 lodging rooms. Although these historic buildings have been well preserved, they do not meet current Army Lodging standards. The cost to make improvements and to bring this facility up to Army Lodging standards will exceed the 50% replacement cost.

Our recommendation is to remove buildings 616, 617, and 688 from the Lodging inventory, allowing the installation to determine alternate uses for these facilities. These facilities will be removed from the Fort Sam Houston Wellness Solution and Lodging Master Plan.

Lodging Building 1384



Building 1384, built in 1974, contains 300 standard rooms. Although these rooms meet most of the Army Lodging standards, many of the building's systems are approaching the end of their useful lives. Although the cost to make condition assessment improvements is just over the 50% replacement cost, it is our recommendation to remove this facility from the lodging inventory due to the age of the building and building systems.

Our recommendation is to remove building 1384 from the Lodging inventory, allowing the installation to determine an alternate use for this

facility. This facility will be removed from the Fort Sam Houston Wellness Solution and Lodging Master Plan.

Lodging Building 3625

Building 3625 was built in 1998 and consists of 120 extended stay rooms and 30 family suites. As noted in the Facility Assessment, this building is in excellent condition. The room configurations in this facility come very close to Army Lodging standards. The suites are approximately 468 square feet each, while the single rooms are approximately 315 square feet each.



Our recommendation is to retain building 3625 in the Fort Sam Houston Lodging inventory. This facility will remain in the Fort Sam Houston Wellness Solution and Lodging Master Plan.

New Lodging Building

The proposed new Lodging facility is comprised of 16 family suites and 554 extended stay rooms, for a total of 570 rooms. The number of rooms for the new proposed Lodging facility reflects the proposed layout and does not match the exact demand numbers, because of building configuration. The lobby and back-of-the-house spaces are sized for the 720 total rooms at the installation.

The proposed new construction will be sited at the intersection of Garden Avenue and Schofield Road, in close proximity to existing community and recreational facilities. The lobby will be constructed of glass exterior curtain walls to enhance the approach to the facility, while providing maximum view and circulation. The proposed building construction is steel frame with CMU infill walls, sloped mission tile roof, and an EIFS exterior. The architectural guidance for Fort Sam Houston is specific and is incorporated into the cost of the new facility.

The mass and scale of the proposed building is critical. Based on the number of required rooms and to limit the length of the wings, the recommendation of this plan is to provide varying roof levels to promote interest and character, while providing relief from the scale of the facility. The core area would maintain a 5-story height, including the 4 primary extended stay room wings parallel to Garden Avenue. The 2 wings parallel to Schofield Avenue and supporting the extended stay rooms and family suites functions, respectively, would taper from 5-story to 4-story, providing a pedestrian scale and emphasis for the families.

Areas and Occupancy

The following chart indicates all spaces and size for the proposed new construction based on the program and the proposed conceptual building plan.

ROOM / SPACE	PROGRAMMED FLOOR AREA			PLAN FLOOR AREA
	No. Req'd	Net Area Per Room	Total Net Area	
Total Area including 7.5% Add On Factor (does not include Outside Areas)*			279,127	287,137
Public Areas			69,353	69,397
Exterior Entrance	N/A	N/A		-
Vestibule	1	1	-	-
Lobby (includes vestibule)	1	1,000-1,200	1,000-1,200	1,221
Front Desk	4 stations	300	300	303
Bell Cart Station	6	12	72	65
Breakfast Bar (Seat/Svc) - min.	1	750	750	551
Passenger Elevators	3 elev @ 5 floors	64	960	960
Stairs	10	230	11,500	8,020
Public Corridors	-	-	45,951	46,057
Public Telephone Area	4	6	24	24
Vending - Full Service	3	70	210	1,066
Vending - Ice Only	2	30	60	200
Women - Lobby	1	315	315	256
Men - Lobby	1	315	315	256
Multi-Purpose Room - (250 s.f. min.)	1	250	250	255
Study Rooms (1 per 25 ext stay units)	23	250	5,750	7,080
Guest Laundries (2 sets w/d per 75 units)	8	192	1,536	1,370
Gear Wash Rooms - (170 s.f. min.)	-	170	-	-
Guest Bulk Storage (1 per 4 family suites)	4	25 ea. 40 w/circ.	160	1,713
Guest Rooms			173,400	173,400
Guest Room - Standard	-	300	-	-
Guest Room - Ext. Stay	554	300	166,200	166,200
Guest Room - Family Suites	16	450	7,200	7,200
Back-of-House Areas			16,900	24,425
Manager's Office	1	180	180	180
Assistant Manager Offices	1	120	120	121
Front Office Manager	1	100	100	100
Admin. Offices	7 staff	800-900	800-900	1,007
Cash Room	1	125	125	125
Luggage Storage	1	100	100	100
Admin. Conference Room	1	350	350	351
Housekeeping Office	1	120	120	124
Dirty/Clean Linen Storage	-	200	-	-
In-House Laundry - (500 s.f. minimum)	1	750	750	1,011
Receiving Office	1	75	75	87
Maintenance Area	1	400	400	401
Kitchen Prep Room	1	150	150	167
Break Room	1	350	350	359
Staff Toilet - Men	1	150	150	99
Staff Toilet - Women	1	200	200	97
Access Corridor	-	-	900	859
Receiving -min.	1	150	150	193
Housekeeping Rooms	1 per 15 units	128	4,864	5,532
Service Elevator	1	80	400	84
Data/Commo Room	1	150	150	162
Switch Closets	12	16	192	1,988
Janitor Closet	1	50	50	625
Mechanical Room	-	-	3,420	4,770
General Storage Room - (500 s.f. min.)	1	750	750	2,138
Bulk Storage Room - (500 s.f. min.)	1	750	750	2,363
Electrical Room	8	140	1,120	1,266
Elevator Equipment Room	1	84	84	116
Exterior			400	
Playground (Outdoor)	1	-	-	-
Grounds Maintenance	1	400	400	-

* Add on factor to cover s.f. for partitions and any space not included in numbers above.

Cost Summary

The New Construction Cost \$44,144,260

- The cost is for a building of 570 rooms.
- All costs are adjusted by the Area Cost Factor of 82% for Fort Sam Houston.

Cost Analysis

Summary of Project Replacement Cost (based on 298,137 s.f.)

CSI	Percent	Amount
02 Site Work	2.34%	\$697,371.17
Parking Lots		\$390,746.40
Site Earthwork		\$306,624.77
03 Concrete	24.69%	\$7,362,280.98
Floor Construction		\$5,855,141.48
Slab on Grade		\$227,082.60
Stair Construction		\$144,648.00
Standard Foundations		\$1,135,408.90
04 Masonry	3.36%	\$1,000,722.48
Exterior Walls		\$1,000,722.48
07 Thermal & Moisture Protection	3.94%	\$1,174,198.17
Roof Construction		\$617,487.74
Roof Coverings		\$556,710.42
08 Doors & Windows	8.04%	\$2,396,221.22
Exterior Doors		\$38,631.02
Exterior Windows		\$1,902,400.00
Interior Doors		\$455,190.20
09 Finishes	16.49%	\$4,915,570.74
Ceiling Finishes		\$1,302,065.23
Floor Finishes		\$1,803,371.80
Partitions		\$1,007,961.91
Wall Finishes		\$802,171.80
10 Specialties	0.01%	\$2,779.39
Fittings		\$2,779.39
11 Equipment	5.56%	\$1,657,309.79
Commercial Equipment		\$19,844.00
Other Equipment		\$1,637,465.79
13 Special Construction	4.58%	\$1,367,032.32
Communications & Security		\$615,391.62
Sprinklers		\$751,640.69
14 Conveying Systems	0.59%	\$176,136.00
Elevators and Lifts		\$176,136.00
15 Mechanical	14.30%	\$4,262,940.56
Cooling Generating Svstems		\$1,816,654.24
Domestic Water Dist		\$856,080.00
Plumbing Fixtures		\$1,590,206.32

16 Electrical	6.55%	\$1,954,360.53
Electrical Service & Distribution		\$1,939,961.33
Site Lighting		\$14,399.20
19 FF&E	9.56%	\$2,850,000.00
Interior FF&E allowance		\$2,850,000.00
Total Raw Cost	100.00%	\$29,816,923.35

Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$163,993.08
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$2,981,692.34
Total Additional Hard Cost		\$3,145,685.41

Soft Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Contingency	5.00%	\$1,648,130.44
SIOH Conus	6.50%	\$2,249,698.05
Design	10.00%	\$3,296,260.88
08 Mid Yr Inflation Factor	9.93%	\$3,987,560.12
Total Soft Cost		\$11,181,649.49
Total Project Cost for Replacement		\$44,144,258.25

INSERT PROPOSED CAMPUS AREA ANALYSIS DRAWING HERE

INSERT LODGING MASTER PLAN DRAWING HERE

INSERT PROPOSED LODGING FACILITY (FLRS. 1-5) DRAWINGS HERE

Section 3 Demand Analysis

Fort Sam Houston is home of the Army Medical Department Center and School (AMEDD). AMEDD is the schoolhouse and think tank of the Army Medical Department. Its Academy of Health Sciences is, in student numbers, one of the world's largest health care training institutions. Approximately 31,000 resident students annually take courses lasting two weeks to two years in more than 140 programs. All Army healthcare professionals go through their basic and advanced training at Fort Sam Houston.

The installation has experienced significant population growth over the last five years--more than 18%--and most of the added personnel have been military. This growth has been primarily due to the expansion of its existing activities.

A new unit recently relocated to Fort Sam Houston from Fort Buchanan: headquarters for the US Army South. The primary mission of US Army South is to coordinate military activities with South American countries and train army personnel from South America. Permanent party personnel attached to the US Army South are now at Fort Sam Houston and students/trainees will arrive later in 2003. Training activities are expected to begin in the next six to nine months. Lodging requirements associated with this unit are not yet known and are not reflected in this report.

After the US Army South is fully manned in late 2003, the installation's population will reach 17,905. Thereafter, it is expected that the installation's population will decline by approximately 2% and stabilize at 17,600 personnel for the foreseeable future.

The training mission is the primary driver for the utilization of lodging facilities at this installation. Management estimates over 80% of the demand for lodging on post comes from the students at Brooke Army Medical Center (BAMC). This is supported by the market segmentation data at this installation: 79% Temporary Duty (TDY) demand; 5% Permanent Change of Station (PCS) demand; and 16% unofficial demand. Unofficial demand is not used in the calculation of recommended room inventory.

Most of the training sessions at the installation run longer than 60 days, resulting in a long average length of stay. Based upon Lodging Success

Program (LSP) data, the majority of the demand for lodging off post comes from conference attendees who stay less than 14 days. If a proportional number of the patrons staying at the LSP contract hotels were to stay on post, it is estimated that the percentage of personnel staying 14 days or less would increase to approximately 25%.

Assuming that the number of personnel attending conferences in San Antonio remains constant, it is not expected that there will be a change in the future market segmentation. The table below describes the official demand at this installation.

Fort Sam Houston Official Market Demand Analysis		
	TDY	PCS
Total Demand:	79%	5%
Market Segmentation:		
Individuals	100%	< 10%
Families	0%	> 90%
Average Length of Stay (Days):		
14 days or less	1% (5 days)	13% (5 days)
More than 14 days	99% (94 days)	87% (78 days)

Source: Fort Sam Houston Lodging Administration, compiled by Evans & Chastain, L.L.P.

On-post Inventory

Currently, there are 708 lodging rooms in 8 buildings. Despite the fact that most of lodging's demand is in excess of 14 days, less than 5% of the rooms have either a full kitchen or a kitchenette.

Demand and Utilization

Data Summary

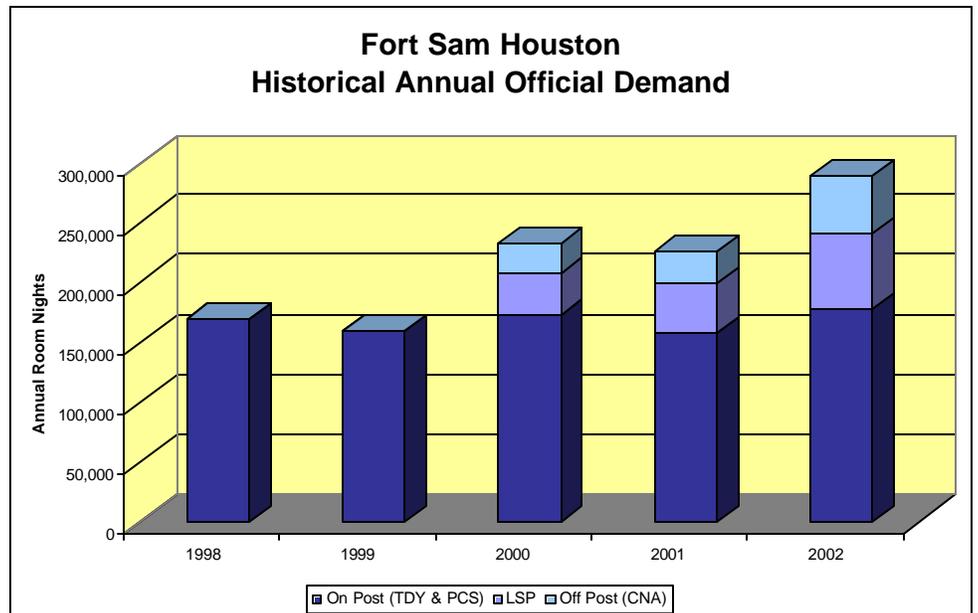
Demand on post is primarily driven by the students training at the Medical Center and augmented by personnel attending conferences in San Antonio. Official demand has ranged from a daily average of 518 room nights in 2001 to 792 room nights in 2002. Official demand is lodged on post, at contract hotels through the LSP and at commercial hotels. The LSP is a major factor in meeting the lodging requirements at Fort Sam Houston.

In the LSP program, hotels are contracted by CFSC to provide lodging services; Army Lodging Central Reservations makes the booking. If space is not available at one of the contract hotels or at Fort Sam Houston, Army Lodging Central Reservations issues a Certificate of Non-Availability (CNA). Analysis of the LSP bookings indicated that over 75% of these bookings are for conferences and generally are for stays of less than 14 days.

The demand for TDY lodging on post has generally been consistent over the last 5 years. This demand is driven by the long-term training classes at BAMC, and accounts for the majority of the on-post room nights.

In 2002, official demand increased to approximately 800 room nights per day. This increase was felt on post, at referral off-post lodging, and at LSP lodging. While some of this increased demand can be attributed to an increase in the post's population and an additional new unit, it is believed that the increase is primarily from an overall increase in the operations tempo that was experienced nationwide in 2002, and that this increase in demand will not be sustained long term.

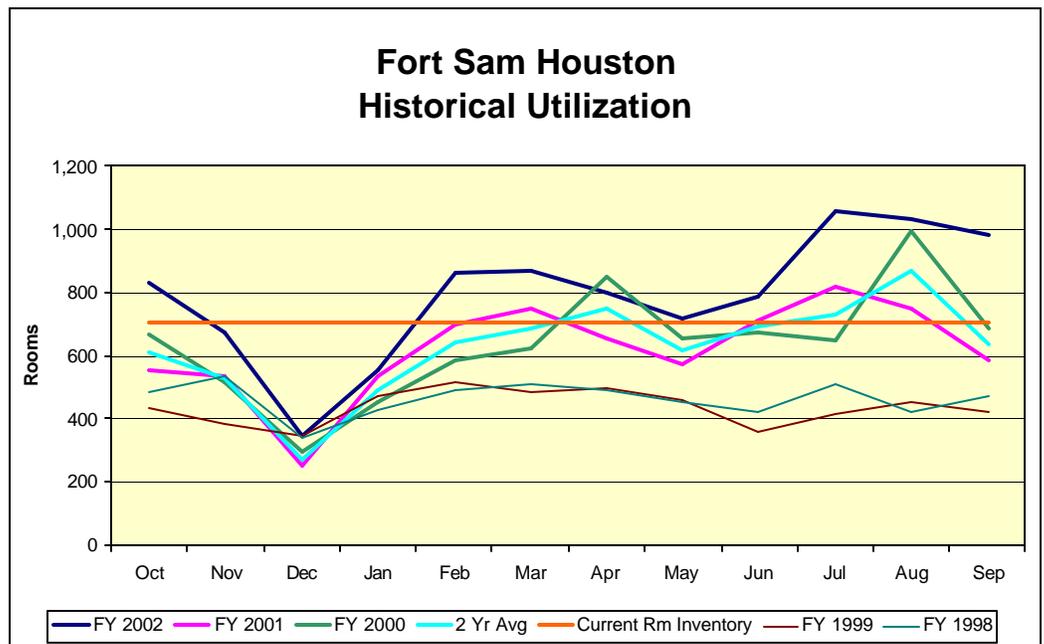
A summary of historical data is presented in the chart below; it identifies the annual official demand both on and off post.



Source: Fort Sam Houston Lodging Administration, compiled by Evans & Chastain, L.L.P. (Note: Data for 1998 and 1999 CNA, PCS, & LSP were not available, but are assumed to approximate those of 2000 & 2001)

The utilization of the post's lodging facilities has been very consistent in the last three years, ranging from 193,000 to 202,000 room nights annually. Occupancy has been less consistent, ranging from 66% to 76%. This variance is primarily due to a declining lodging inventory. In 2000, the reported available room count was an average of 823. The current available room count is 708. Had the available rooms been constant from 2000 through 2002, the occupancy would have ranged from 75% to 78%.

A summary of historical utilization data by month is presented in the following chart.



Source: Fort Sam Houston Lodging Administration, compiled by Evans & Chastain, L.L.P. (Data for 1998 and 1999 CNA & PCS data was not available, but assumed to approximate that from 2000 & 2001)

The Historical Utilization Graph demonstrates a minimal monthly variance between 2000 and 2001. There are greater variances in 2002, but they are discounted as an anomaly due to 2002 operational concerns. The monthly variations charted in 1998/1999 and 2000/2001 are not directly comparable to one another because of the unavailability of data for CNAs, PCS personnel, and LSP demand for the 1998/1999 period. For example, the exclusion of LSP demand from 1998/1999 data gives the appearance of a large increase in demand beginning in 2001, but this is misleading. Correcting for this, it is reasonable to assume a low vacancy risk from monthly variations.

Seasonality

There is a seasonal demand cycle at this installation. Rather than having a peak season, it seems there is more of an off-season from November through January, with a significant drop occurring in December. Demand from February through October is generally 40% to 100% higher than November through December. This seasonality is a function of the lodging demand from military personnel attending conferences in San Antonio, and it mirrors the private market in San Antonio as a whole. It is not expected to impact the ability of the commercial market to accommodate any excess lodging demand generated by TDY or PCS personnel, nor does it require any special consideration when evaluating the need for lodging on the installation.

Factors Influencing Demand

Overall, many components of lodging's core demand are in a state of transition. For example, the type of training has changed for medical personnel. Previously, medical personnel were trained for either hospital duty or field duty but not both. Currently, some personnel are being trained for both types of duty. The impact this new training will have on lodging is unknown. The training is longer, but there may be fewer personnel participating.

Additionally, the true impact of personnel involved in the Army South training is not yet known. Based on the Army Stationing and Installation Plan (ASIP) data, it appears that the changes in the medical training requirements may offset the additional Army South training requirements.

There are 926 family housing units on Fort Sam Houston. The installation is part of the Army Family Housing Master Plan to privatize much of the Army's family housing. This privatization is to be funded in fiscal year 2004 and, as part of that program, 408 additional family housing units will be constructed on the installation. This represents a 44% increase in inventory. The current wait for housing is 9 to 24 months for a three-bedroom unit.

While the inventory increase should reduce the average wait time for on-post housing by several months, it is not expected that the average wait time will decline so significantly that personnel currently finding housing off post will try to wait for on-post housing (the decrease in wait-time can only be estimated at this time; definitive data are not available). It is also reasonable to assume—though, again, definitive data are not available—that lodging demand will increase from PCS personnel who are eligible

for family housing within 30 to 45 days, and that this will absorb the additional inventory.

Private Market Capability

The commercial lodging market within a 30-minute rush hour driving time radius of the installation is huge, approximately 20,000 to 25,000 rooms. It is estimated that more than 80% of these rooms are in major lodging chain properties.

There is a military Lodging operation within 30 minutes of Fort Sam Houston at Randolph AFB. It has an inventory of 534 rooms; 184 are VAQ rooms; 350 are VOQ rooms. The VAQ rooms have shared baths. The VOQs typically achieve a slightly higher occupancy rate than the VAQs. Most of the time, this is not a viable lodging option for Fort Sam Houston personnel, since the occupancy rate from Air Force personnel has historically been 85% or better. In the last 18 months, the occupancy has regularly exceeded 90%.

There are also Lodging facilities at Lackland AFB and Brooks AFB in San Antonio, but both of these installations are more than 30 minutes driving time from Fort Sam Houston during rush hour.

The private sector average daily rate has increased 7.4%, over the last six years; a rate not much more than inflation. During the same six-year period, demand has increased by more than 18% and the number of available rooms increased by more than 20%. As can be seen in the graph below, this has resulted in flat to lower occupancy rates over the last six years.

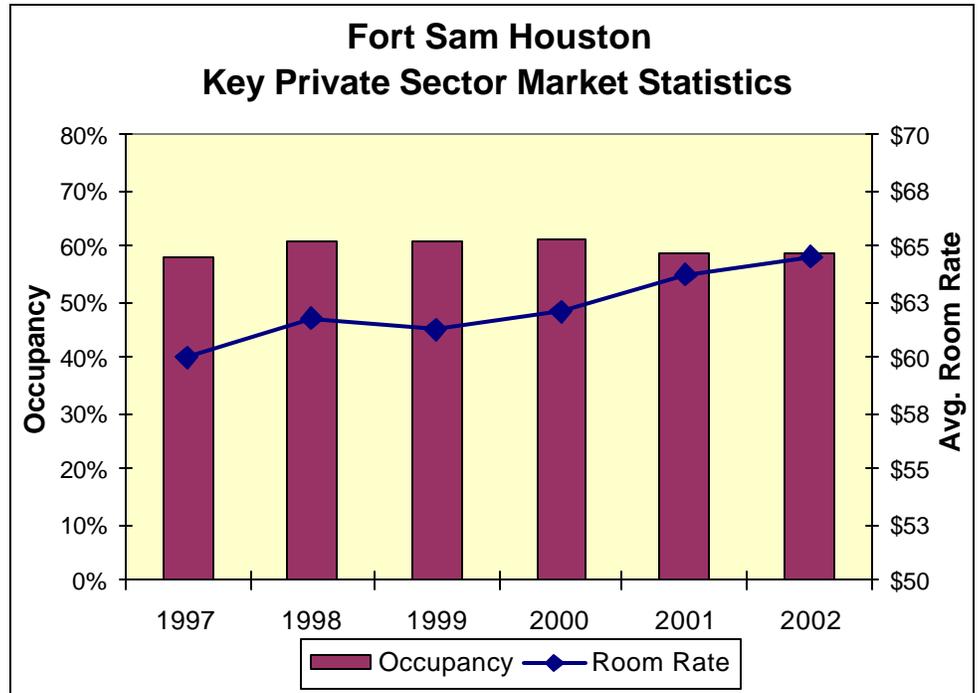
A review of the monthly occupancies of the major hotel chains immediately around Fort Sam Houston does suggest a seasonal increase in demand in March, June, and July. During these months, occupancy averages 70% to 75%. Though these occupancies are higher than in other months, they are not enough to impact the ability of the installation to lodge personnel off post at government rates.

The 2002 average daily rate was \$64.48. In the peak demand months, the ADR was \$68 to \$70. Both the annual and the peak period ADRs are below the current per diem rate of \$91. However, the per diem rate is more typical of the government rates for lodging facilities along the Riverwalk or downtown than limited service hotels near Fort Sam

Houston and may represent the impact of high conference demand from both the public and private sectors. The hotels on the post's Lodging operation's referral list have government rates ranging from \$69 to \$91.

The per diem rate is also higher than the contract rates charged by the four hotels in the Lodging Success Program. The room rates for these contract hotels range from \$70 to \$81 per night.

The chart below describes key private market statistics.



Source: Smith Travel Research, compiled by Evans & Chastain, L.L.P

In summary, it is reasonable to assume from the data that—although some off post facilities are older, of lesser quality, and offer limited amenities—the private market does have sufficient capacity to support the overflow lodging requirements that Fort Sam Houston personnel may encounter.

Demand Requirement Determination

For purposes of this analysis, the average demand for 2000 and 2001 was used as a baseline. The increase in demand in 2002 is believed to be an anomaly and its inclusion would overstate demand. And as stated

previously, demand information from 1998 and 1999 does not include PCS, CNA, or LSP demand and should not be averaged with 2000 and 2001 because that would understate demand. There is, however, some concern regarding PCS demand as it occurred in 2000 and 2001

Demand from PCS personnel appears to have been significantly higher--150% more room nights--in 2000 than in 2001 or 2002. The average of 2000 and 2001 is approximately 70% more than the demand in 2001. PCS demand lodged on post is believed to have been constrained in 2001 and 2002 because of limited availability of rooms during the peak summer PCS period. It is estimated that this limited demand by no more than 500 to 1,500 room nights. As such, there is potential that the 2000/2001 average may overstate PCS demand by as much as 40% to 50%. This is mitigated by the increase in on-post family housing of 44%. An analysis of the PCS demand suggests PCS demand should increase approximately 3,200 room nights or 46% of 2001's PCS demand adjusted for some demand constraint.

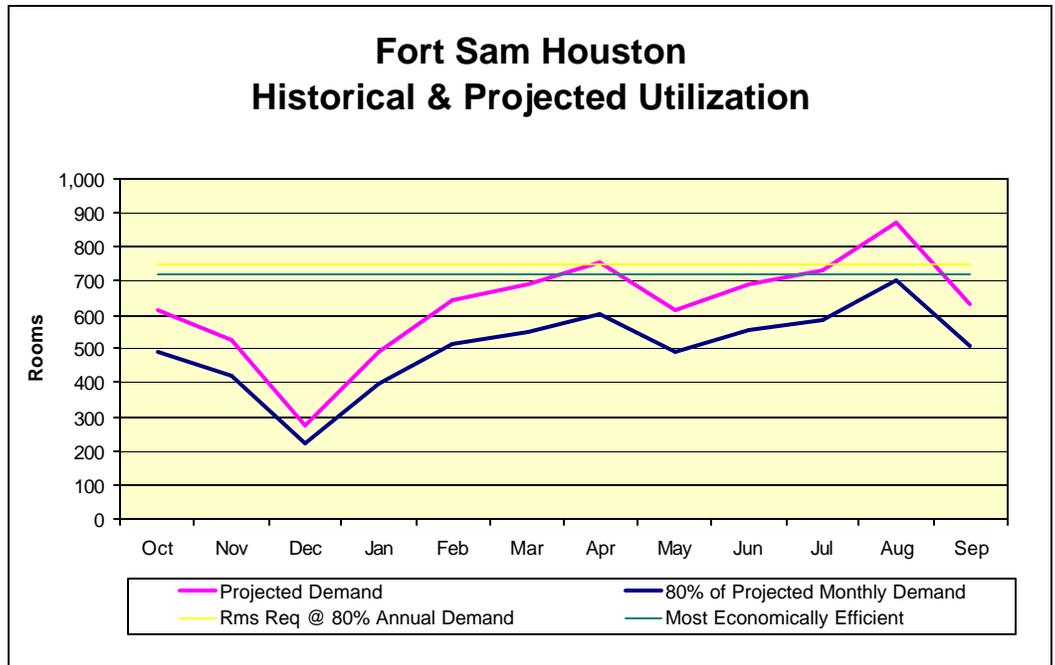
The average demand for 2000 and 2001 was normalized. Because of the variance in monthly demand within years, the average demand for the last three years should also be normalized. Normalization is a process that eliminates the monthly demand peaks or valleys where official demand is 20% greater or 20% less than the three-year average. Variances greater or less than 20% are atypical and not likely to recur. While the normalization process did adjust demand in various months, it neither increased nor decreased demand overall. For Fort Sam Houston, the normalized demand is the same as the average demand for 2000 and 2001.

The Core Lodging Requirement is to provide sufficient lodging to meet 80% of the official demand. Using this criterion, the total number of rooms required on an annualized basis is 748, generating occupancy of 81%. However, this criterion assumes that all of the demand currently staying in the LSP contract hotels would come to the post if additional rooms were available. In years past, the post had additional room capacity and not all of the conference demand stayed on the installation. Further, it is unlikely that enough rooms could or should be built to support all of the conference attendees because of the up-and-down nature of this demand. To build to the "80% of official demand" criterion would overbuild the number of rooms truly needed.

When the costs of these scenarios are at equilibrium, the most cost efficient number of rooms will be provided from an operational cost

perspective. The number of rooms required to achieve this equilibrium for the installation is 718 rooms. With this room inventory, the expected occupancy is 82.0% and 77% of the official demand is met with an expected average daily rate of \$50.50 (in FY 2008 dollars). Please note that the average room rate of \$76 per night currently being charged by the LSP contract hotels was used in lieu of the per diem rate of \$91 per night. The use of the per diem rate would artificially inflate the cost of lodging personnel off post.

The chart below compares the pertinent potential alternatives to room inventory to the projected demand. Please note the number of existing rooms is 708, slightly less than that suggested by the “Most Economically Efficient” criterion.



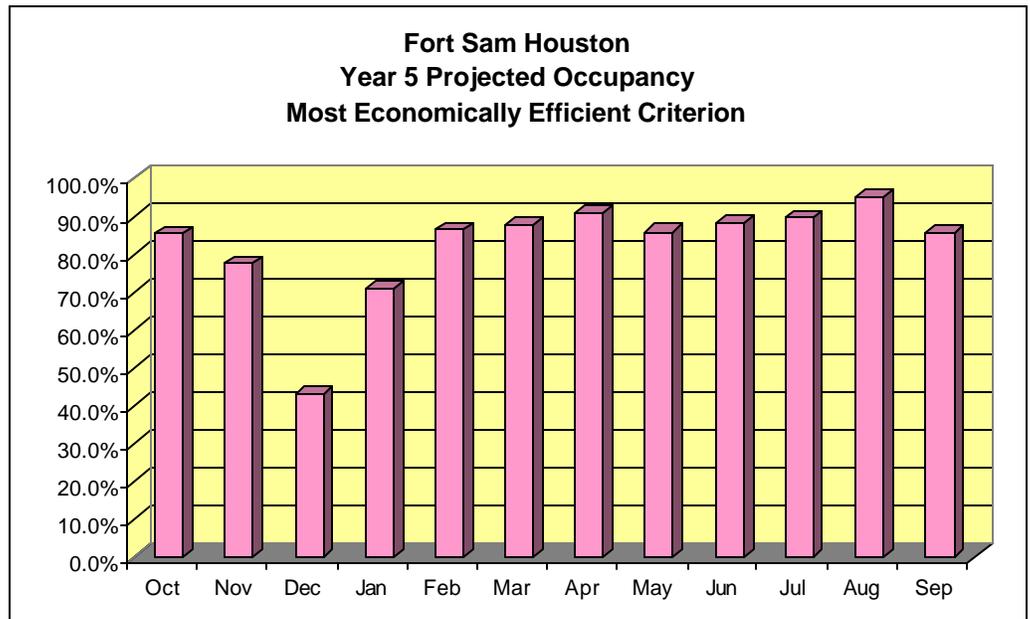
Source: Fort Sam Houston Lodging Administration and Evans & Chastain, L.L.P.

Based on the demand pattern at this facility and the expected future demand growth, we recommend that the number of rooms be sized using the “Most Economically Efficient” criterion. This criterion generally pushes demand on post if the commercial market has high room rates; this is the case at Fort Sam Houston. The cost of lodging personnel on post is a little less than half of that off post at the LSP contract hotels. Assuming the LSP program continues in San Antonio and the rates at the contract hotels approximate what is currently being charged, it is more economical to bring a limited amount of the TDY demand back on post.

A significantly higher room inventory will result in a higher lodging cost on post than off because of the extended number of months of low demand.

Because the number of recommended rooms approximates the current number of rooms on the post, the room mix is based upon the market segmentation for the personnel currently lodged on post. Also with regard to room mix, it is assumed that personnel staying at off-post lodging will remain the same for the reasons stated previously.

The chart below presents the expected occupancy percentage on a monthly basis.



Source: Evans & Chastain, L.L.P.

Using the “Most Economically Efficient” criterion, the average occupancy is 82.0% and 77% of the official demand is met. Although monthly occupancy will range from a low of 43% in December to a high of 95% in August, in most months the occupancy is expected to range from 85% to 90%.

Summary and Recommendation

- The installation's population has grown approximately 18% over the last five years and is expected to grow an additional 2% over the next

five years. Historically, this growth has only minimally impacted lodging demand

- A portion of the future growth is expected to come from students/trainees connected with US Army South. Increases from this unit will likely increase the demand for on-post lodging, but because this is still an unknown, it is not factored into the determination of required rooms
- The private market does have sufficient capacity to support the overflow lodging requirements that Fort Sam Houston personnel may encounter
- The LSP contract room rates and the rates at a number of national chain hotels are below the per diem rate
- Official demand was generally very consistent in 2000 and 2001. The increase in demand in 2002 is not viewed as sustainable
- Currently, approximately 72% of the official demand is lodged on post. Of the official demand not lodged on post, approximately 61% is lodged in LSP contract hotels. Over 70% of the patrons at the LSP contract hotels are attending conferences in the San Antonio area
- Using the “80% of official demand” criterion, a slightly larger number of rooms would be provided. However, this criterion assumes that all of the demand currently staying in the LSP contract hotels would come to the post if additional rooms were available. In years past, this has not been the case
- Providing a room inventory equal to the “Most Economically Efficient” will generate an occupancy rate of 82.0% and meet 77% of the official demand.

Room Count and Mix Recommendation

- 718 rooms
- Proposed room mix:
 - No standard guest rooms
 - 673 extended-stay guest rooms offering a kitchenette
 - 45 extended-stay family suites offering a separate bedroom, sitting/living area, and kitchenette

Section 4 Facility Assessment and Plans

Each Lodging facility on-post is detailed in this section of the report. The outline of the detail is described below:

- **Summary of Existing Lodging Facility**
- **Significant Assumptions**, identifies criteria used for renovation / replacement cost models.
- **Cost Analysis**, summarizes recommendation based on cost.
- **Attributes**, describes number of rooms and configuration.
- **Condition Analysis and Recommendations** for each of the major systems of the building.
- **Major Functional Criteria Deficit**, describes any major Functional inadequacy based on Army standards.
- **Condition Assessment / Renovation / Replacement Analysis**
 - **Condition Assessment**, summarizes building system deficiencies grouped by CSI with additional hard cost and soft cost.
 - **Renovation**, summarizes building system costs plus functional renovation costs grouped by CSI with additional hard cost and soft cost.
 - **Replacement**, summarizes replacement cost grouped by CSI with additional hard cost and soft cost.



*Building 48
48 Staff Post Road*

Building 48

Building 48, located at 48 Staff Post Rd., Ft. Sam Houston, Texas, 78234, was constructed in 1886. The 8,648 square foot facility (including basement) contains 11 lodging units. The units are used for DVQ lodging.

Significant Assumptions

The replacement and renovation cost models are based on 7 standard stay rooms and 4 family suites.

The renovation uses the existing footprint, with the plan reworked to meet current lodging size requirements.

The renovation cost includes all condition assessment costs.

The renovation and replacement cost models include any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule Template included in the Appendix.

All costs are adjusted by the Area Cost Factor of 82% for Ft Sam Houston.

Cost Analysis

Renovation Cost	\$668,190.00
Replacement Cost	\$1,055,900.00
Renovation to Replacement Cost Ratio	63.28%

Because the Renovation to Replacement Cost Ratio is greater than 50%, renovation of Building 48 is not recommended.

Attributes

01.Number of Units Constructed	11
02.Number of Units Used	11
03.Back of House Function	No
04.Single Room w/o FullKitchen	0
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	0
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	11
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	0
11.Operating as Extended Stay	0
12.Operating as Family Suite	11
13.Renovated to Standard	7
14.Renovated to Extended Stay	0
15.Renovated to Family Suite	4
16.Delta renovation	0

Condition Analysis/Recommendation

FF&E

FF&E Allowance

- Analysis: Guest Room: The hard goods consist of head boards, night stands, dresser in each bedroom, desk w/chair, a couch, davenport, table w/chairs, easy chairs, coffee table, end tables and a TV cabinet with drawers. All are in good condition. The soft goods consist of drapes and blinds on the windows, TV and bed. All are in good condition. These furnishings are high end goods installed in 2000, and are consistent with their use for a DVQ.
- Recommendation: No corrective action required. All the FF&E should be replaced if the structure is renovated. If the structure is not renovated, the FF&E should be replaced no later than 2010.

Foundations

Standard Foundations

- Analysis: The foundation consists of concrete spread footings bearing large stone blocks rising to a few feet above grade supporting the structural brick walls. Aside from a number of minor stress fractures consistent with this type of construction, the foundation appears to be in fair condition.
- Recommendation: No corrective action required.

Slab on Grade

- Analysis: The wood framed sub floor and concrete piers are performing as intended. The basement area and walls show no signs of stress. The substructure is in good condition.
- Recommendation: No corrective action required.

Superstructure

Floor Construction

- Analysis: The floor construction consists of a double layer of wood decking subfloor over flooring joists set into structural masonry walls. The floor system appears to be in good condition.
- Recommendation: No corrective action required.

Roof Construction

- Analysis: The roof consists of a plywood deck attached to sloped wooden rafters. The roof construction is in good condition.
- Recommendation: No corrective action required.

Exterior Enclosure

Exterior Walls

- Analysis: The exterior walls are load bearing brick masonry with a face brick exterior finish. The walls are in good condition.
- Recommendation: No corrective action required.

Exterior Windows

- Analysis: The windows are a single glazed, double hung units with a six lite sash. The windows are in good condition.
- Recommendation: No corrective action required.

Exterior Doors

- Analysis: The exterior doors are solid core wood doors with glass lites and electronic locks. The doors are in good condition.
- Recommendation: No corrective action required.

Roofing

Roof Coverings

- Analysis: The roof covering is a standing seam galvalume metal roof replaced in 1997. The roof covering is in good condition.
- Recommendation: No corrective action required.

Interior Construction

Partitions

- Analysis: The interior partitions are plaster and wood lath over wood studs. The partitions are in good condition.
- Recommendation: No corrective action required.

Interior Doors

- Analysis: Interior doors are solid core wood doors in wood frames, in good condition.
- Recommendation: No corrective action required.

Fittings

- Analysis: There are no items from this sub-system located in the building.
- Recommendation: No corrective action required.

Interior Finishes

Wall Finishes

- Analysis: All guest room and common area wall surfaces are covered with a high grade vinyl wall covering. The vinyl is in fair condition and starting to show signs of wear.
- Recommendation: Replace all vinyl wall coverings.

Floor Finishes

- Analysis: Carpet is located in guest rooms and public areas. It is in fair condition. All bathrooms have ceramic tile floors that are in good condition.
- Recommendation: Replace carpet.

Ceiling Finishes

- Analysis: All ceilings in guest rooms and public areas are painted drywall or plaster. The paint is in fair condition.
- Recommendation: Repaint all interior ceilings.

Plumbing

Plumbing Fixtures

- Analysis: Each unit has an individual rest room containing a lavatory and vanity, a water closet and a built in place shower. Ventilation is provided by individual controlled electric exhaust units connected to venting ducts. The plumbing fixtures are in good condition.

- Recommendation: No corrective action required.

Domestic Water Distribution

- Analysis: Hot water is provided by a gas fired boiler and a 200 gallon hot water storage tank. The copper pipe delivery system is old and worn. The entire system is beyond its' useful life.

- Recommendation: Replace the domestic water system.

HVAC

Cooling Generating Systems

- Analysis: Air conditioning to the building is provided by a chilled water circulating system with individual room damper controls. The system is inadequate and in poor condition.

- Recommendation: Replace the air conditioning system with a new multi-zone system with individual room controls.

Fire Protection

Sprinklers

- Analysis: No sprinklers exist in this building.

- Recommendation: Install sprinkler system as required by code.

Electrical

Electrical Service/Distribution

- Analysis: Panelboards, receptacles, and wires are beyond their expected useful life.

- Recommendation: Replace main service and panel to handle increased electrical loads. Replace branch circuits, electrical outlets and lighting.

Communications and Security

- Analysis: The fire alarm system was upgraded within the last 5 years and is in good condition. The fire panel emits a radio signal directly to the fire department.

- Recommendation: No corrective action required.

Equipment

Other Equipment

- Analysis: No back of the house equipment exists on this location.

- Recommendation: No corrective action required.

Site Preparation

Site Earthwork

- Analysis: The site consists of grass covered yard areas and shared parking lots with access to main roads. The site is graded properly to allow for drainage. The site is in good condition.

- Recommendation: No corrective action required.

Major Functional Criteria

- **Major Functional Criteria Analysis**

The following are existing conditions that do not meet the Functional Criteria and are considered major deficits. Listed are the recommendations or solutions for remedying each deficit.

- **Back-of-House Spaces**

Most of the back-of-the-house spaces required are located at the main lodging building on post. Presently these are located in building 592, and are not included in this building.

- **Family Guest Suite**

Room Size and Configuration: The rooms exceed size and configuration requirements.

Recommendation: A Renovation Cost estimate is used to indicate a total renovation of the building into 4 family suites and 7 extended stay rooms. This renovation will cost more than 50% of the building's replacement value.

- **Public Spaces**

Most of the public spaces required are located at the main lodging building on post. Presently these are located in building 592, and are not included in this building.

Condition Assessment/Renovation/Replacement Analysis

Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

Summary of Project Cost

CSI	Percent	Amount
09 Finishes	19.61%	\$33,822.19
Carpet: Beyond Useful Life		\$17,429.16
Interior ceilings: Paint Failing		\$3,846.21
Vinyl Wall Covering: Damaged or Failing		\$12,546.82
13 Special Construction	16.29%	\$28,106.84
Fire Sprinklers: Missing or Inadequate		\$28,106.84
15 Mechanical	27.74%	\$47,855.17
AHU: Beyond expected useful life		\$31,486.06
Domestic water system: Beyond expected useful life		\$16,369.11
16 Electrical	36.36%	\$62,715.68
Branch Circuits: Beyond Expected Useful Life		\$22,248.42
Fixtures, Incandescent: Missing or inadequate		\$29,425.96
Main service: Beyond expected useful life		\$11,041.30
Total Raw Cost	100.00%	\$172,500.00

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$948.75
Force Protection	9.00%	\$17,162.89
General Conditions	10.00%	\$17,250.00
Total Additional Hard Cost		\$35,361.64

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$20,786.16
SIOH Conus	6.50%	\$14,862.11
Design	10.00%	\$20,786.16
08 MYr Inflation Fct	9.93%	\$26,244.60
Total Soft Cost		\$82,679.03
Total Project		\$290,540.67

Renovation

The Renovation Cost is based on making changes to the building to meet the Army Lodging Standard Functional Criteria. Unless otherwise stated, this cost also includes all building deficiencies listed under the Condition Assessment Cost.

Summary of Project Renovation Cost

CSI	Percent	Amount
07 Thermal & Moisture Protection	1.53%	\$6,057.03
Roof Construction		\$6,057.03
08 Doors & Windows	3.00%	\$11,881.80
Interior Doors		\$11,881.80
09 Finishes	26.98%	\$107,030.10
Ceiling Finishes		\$19,542.98
Floor Finishes		\$28,980.51
Partitions		\$22,051.38
Wall Finishes		\$36,455.23
11 Equipment	2.89%	\$11,480.00
Other Equipment		\$11,480.00
13 Special Construction	10.76%	\$42,689.99
Communications & Security		\$19,217.59
Sprinklers		\$23,472.40
15 Mechanical	25.79%	\$102,302.38
Cooling Generating Systems		\$56,730.88
Domestic Water Dist		\$19,188.00
Plumbing Fixtures		\$26,383.50
16 Electrical	15.19%	\$60,276.56
Electrical Service & Distribution		\$60,276.56
19 FF&E	13.86%	\$55,000.00
Interior FF&E allowance		\$55,000.00
Total Raw Cost	100.00%	\$396,717.86

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$2,181.95
Force Protection	9.00%	\$39,471.44
General Conditions	10.00%	\$39,671.79
Total Additional Hard Cost		\$81,325.18

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$47,804.30
SIOH Conus	6.50%	\$34,180.08
Design	10.00%	\$47,804.30
08 MYr Inflation Fct	9.93%	\$60,357.69
Total Soft Cost		\$190,146.38
Total Project Cost for Renovation		\$668,189.42

Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

Summary of Project Replacement Cost

CSI	Percent	Amount
02 Site Work	4.65%	\$33,163.67
Site Earthwork		\$33,163.67
03 Concrete	10.32%	\$73,636.00
Floor Construction		\$24,600.00
Slab on Grade		\$24,518.00
Standard Foundations		\$24,518.00
04 Masonry	6.89%	\$49,141.32
Exterior Walls		\$49,141.32
07 Thermal & Moisture Protection	10.54%	\$75,141.94
Roof Construction		\$14,500.74
Roof Coverings		\$60,641.20
08 Doors & Windows	9.23%	\$65,797.62
Exterior Doors		\$5,055.30
Exterior Windows		\$49,200.00
Interior Doors		\$11,542.32
09 Finishes	12.58%	\$89,703.29
Ceiling Finishes		\$13,544.46
Floor Finishes		\$29,766.37
Partitions		\$26,013.49
Wall Finishes		\$20,378.97
10 Specialties	0.17%	\$1,236.56
Fittings		\$1,236.56
11 Equipment	1.61%	\$11,480.00
Other Equipment		\$11,480.00
13 Special Construction	4.14%	\$29,519.67
Communications & Security		\$13,288.76
Sprinklers		\$16,230.92
15 Mechanical	26.09%	\$186,070.30
Cooling Generating Systems		\$39,228.80
Domestic Water Dist		\$19,188.00
Plumbing Fixtures		\$127,653.50
16 Electrical	6.07%	\$43,308.30
Electrical Service & Distribution		\$43,308.30
19 FF&E	7.71%	\$55,000.00
Interior FF&E allowance		\$55,000.00
Total Raw Cost	100.00%	\$713,198.67

Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$3,922.59
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$71,319.87
Total Additional Hard Cost		\$75,242.46

Soft Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Contingency	5.00%	\$39,422.06
SIOH Conus	6.50%	\$53,811.11
Design	10.00%	\$78,844.11
08 MYr Inflation Fct	9.93%	\$95,379.48
Total Soft Cost		\$267,456.75
Total Project Cost for Replacement		\$1,055,897.88

INSERT BUILDING 48 FLOOR PLANS HERE



Building 107
107 Artillery Post Road

Building 107

Building 107, located at 107 Artillery Post Rd., Ft. Sam Houston, Texas, 78234, was constructed in 1908. The 20,000 square foot (including basement) facility contains 13 lodging units. The units are used for DVQ lodging.

Significant Assumptions

The replacement and renovation cost models are based on 4 standard stay rooms and 14 family suites.

The renovation uses the existing footprint, with the plan reworked to meet current lodging size requirements.

The renovation cost includes all condition assessment costs.

The renovation and replacement cost models include any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule Template included in the Appendix.

All costs are adjusted by the Area Cost Factor of 82% for Ft Sam Houston.

Cost Analysis

Renovation Cost	\$1,398,810.00
Replacement Cost	\$1,742,220.00
Renovation to Replacement Cost Ratio	80.29%

Because the Renovation to Replacement Cost Ratio is greater than 50%, renovation of Building 107 is not recommended.

Attributes

01.Number of Units Constructed	13
02.Number of Units Used	13
03.Back of House Function	No
04.Single Room w/o FullKitchen	0
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	0
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	13
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	0
11.Operating as Extended Stay	0
12.Operating as Family Suite	13
13.Renovated to Standard	4
14.Renovated to Extended Stay	0
15.Renovated to Family Suite	14
16.Delta renovation	5

Condition Analysis/Recommendation

FF&E

FF&E Allowance

- Analysis: Guest Room: The hard goods consist of head boards, night stands, dresser in each bedroom, desk w/chair, a couch, davenport, table w/chairs, easy chairs, coffee table, end tables and a TV cabinet with drawers. All are in like new condition. The soft goods consist of drapes and blinds on the windows, TV and bed. All are in like new condition. These furnishings are high end goods installed in 2000, and are consistent with their use for a DVQ.
- Recommendation: No corrective action required. All the FF&E should be replaced if the structure is renovated. If the structure is not renovated, the FF&E should be replaced no later than 2010.

Foundations

Standard Foundations

- Analysis: The foundation consists of concrete spread footings bearing large stone blocks rising to a few feet above grade supporting the structural brick walls. Aside from a number of minor stress fractures consistent with this type of construction, the foundation appears to be in fair condition.
- Recommendation: No corrective action required.

Slab on Grade

- Analysis: The wood framed sub floor and concrete piers are performing as intended. The basement area and walls show no signs of stress. The substructure is in good condition.
- Recommendation: No corrective action required.

Superstructure

Floor Construction

- Analysis: The floor construction consists of a double layer of wood decking subfloor over flooring joists set into structural masonry walls. The floor system appears to be in good condition.
- Recommendation: No corrective action required.

Roof Construction

- Analysis: The roof consists of a wood plywood deck attached to sloped wooden rafters. The roof construction is in good condition.
- Recommendation: No corrective action required.

Exterior Enclosure

Exterior Walls

- Analysis: The exterior walls are load bearing four wythe brick with a face brick outer course. The walls appear to be in good condition.
- Recommendation: No corrective action required.

Exterior Windows

- Analysis: The windows are wood single glazed double hung units with six lite sash. They are in good condition.
- Recommendation: No corrective action required.

Exterior Doors

- Analysis: Exterior doors consist of solid core wood doors in wood frames, in good condition.
- Recommendation: No corrective action required.

Roofing

Roof Coverings

- Analysis: The roof covering is mission clay tile over plywood sheathing. The roof in good condition.
- Recommendation: No corrective action required.

Interior Construction

Partitions

- Analysis: The partitions are either drywall over wood framing or plaster over wood lath attached to wood framing. The partitions are in good condition.
- Recommendation: No corrective action required.

Interior Doors

- Analysis: Interior doors are solid core wood doors in wood frames, in good condition.
- Recommendation: No corrective action required.

Fittings

- Analysis: There are no items from this sub-system in the building.
- Recommendation: No corrective action required.

Stairs

Stair Construction

- Analysis: Stairs are wood framed with wood handrails and rubber covered risers. There are two sets of stairs all located in the interior of the building. There are no elevators in the structure. The stairs are in good condition.
- Recommendation: No corrective action required.

Interior Finishes

Wall Finishes

- Analysis: Wall finishes are vinyl coverings over drywall are plaster. The vinyl is in fair condition.
- Recommendation: Replace vinyl wall coverings.

Floor Finishes

- Analysis: The floors in the guest rooms and public areas are covered with carpet. The carpet is in fair condition.
- Recommendation: Replace the carpet and carpet base.

Ceiling Finishes

- Analysis: All ceilings are suspended acoustical tile and grid system. The cost of rehabilitating the original historic ceiling finishes are prohibitive, so the acoustic ceiling is also used in the guest rooms. The existing suspended ceiling system is in fair condition.
- Recommendation: Replace the acoustic ceiling tile and grid system.

Plumbing

Plumbing Fixtures

- Analysis: Each unit has an individual bathroom containing a lavatory and vanity, a water closet and a built in place shower or shower tub. Ventilation is provided by individual controlled electric exhaust units connected to venting ducts. The plumbing fixtures are in good condition.
- Recommendation: No corrective action required.

Domestic Water Distribution

- Analysis: Hot water is produced from a gas fired boiler and 200 gallon storage tank located in the basement. The piping is in poor condition. The system is beyond its' expected useful life.
- Recommendation: Replace the domestic water system.

HVAC

Cooling Generating Systems

- Analysis: The cooling system is provided by a recirculating chilled water system. Individual damper controls are located in each room. The system is beyond its' useful life.
- Recommendation: Replace the existing system with a new multi-zone unit with individual room controls.

Fire Protection

Sprinklers

- Analysis: No sprinklers exist in this building.
- Recommendation: Install sprinkler system as required by code.

Electrical

Electrical Service/Distribution

- Analysis: Panelboards, receptacles, and wires are beyond their expected useful life.
- Recommendation: Replace main service and panel to handle increased electrical loads. Replace branch circuits, electrical outlets and lighting.

Communications and Security

- Analysis: The fire alarm system was upgraded within the last 5 years and is in good condition. The fire panel emits a radio signal directly to the fire department.
- Recommendation: No corrective action required.

Equipment

Other Equipment

- Analysis: No back of the house equipment exists on this location.
- Recommendation: No corrective action required.

Site Preparation

Site Earthwork

- Analysis: The site consists of grass covered yard areas and shared parking lots with access to main roads. The site is graded properly to allow for drainage. The site is in good condition.
- Recommendation: No corrective action required.

Major Functional Criteria

Major Functional Criteria Analysis

The following are existing conditions that do not meet the Functional Criteria and are considered major deficits. Listed are the recommendations or solutions for remedying each deficit.

- **Back-of-House Spaces**

Most of the back-of-the-house spaces required are located at the main lodging building on post. Presently these are located in building 592, and are not included in this building.

- **Family Guest Suite**

Room Size and Configuration: The rooms exceed size and configuration requirements.

Recommendation: A Renovation Cost estimate is used to indicate a total renovation of the building into 14 family suites and 4 extended stay rooms. This renovation will cost more than 50% of the building's replacement cost.

- **Public Spaces**

Most of the public spaces required are located at the main lodging building on post. Presently these are located in building 470, and are not included in this building.

Condition Assessment/Renovation/Replacement Analysis

Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

Summary of Project Cost

CSI	Percent	Amount
09 Finishes	19.66%	\$77,190.36
Acoustical Ceiling & Grid: Beyond expt useful life		\$37,590.84
Carpet: Beyond Useful Life		\$28,281.06
Vinyl Wall Covering: Damaged or Failing		\$11,318.46
13 Special Construction	16.55%	\$64,959.18
Fire Sprinklers: Missing or Inadequate		\$64,959.18
15 Mechanical	28.48%	\$111,798.68
AHU: Beyond expected useful life		\$73,942.20
Domestic water system: Beyond expected useful life		\$37,856.48
16 Electrical	35.31%	\$138,637.40
Branch Circuits: Beyond Expected Useful Life		\$51,455.00
Fixtures, Incandescent: Missing or inadequate		\$68,060.00
Main service: Beyond expected useful life		\$19,122.40
Total Raw Cost	100.00%	\$392,586.00

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$2,159.22
Force Protection	9.00%	\$39,060.34
General Conditions	10.00%	\$39,258.60
Total Additional Hard Cost		\$80,478.17

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$47,306.42
SIOH Conus	6.50%	\$33,824.09
Design	10.00%	\$47,306.42
08 MYr Inflation Fct	9.93%	\$59,729.06
Total Soft Cost		\$188,165.98
Total Project		\$661,230.15

Renovation

The Renovation Cost is based on making changes to the building to meet the Army Lodging Standard Functional Criteria. Unless otherwise stated, this cost also includes all building deficiencies listed under the Condition Assessment Cost.

Summary of Project Renovation Cost

CSI	Percent	Amount
03 Concrete	0.73%	\$6,027.00
Stair Construction		\$6,027.00
07 Thermal & Moisture Protection	1.49%	\$12,343.30
Roof Construction		\$12,343.30
08 Doors & Windows	2.45%	\$20,368.80
Interior Doors		\$20,368.80
09 Finishes	24.79%	\$205,848.24
Ceiling Finishes		\$37,582.65
Floor Finishes		\$50,129.44
Partitions		\$44,937.31
Wall Finishes		\$73,198.84
11 Equipment	4.84%	\$40,180.00
Other Equipment		\$40,180.00
13 Special Construction	12.09%	\$100,421.19
Communications & Security		\$45,206.21
Sprinklers		\$55,214.97
15 Mechanical	25.71%	\$213,523.08
Cooling Generating Systems		\$133,450.08
Domestic Water Dist		\$36,900.00
Plumbing Fixtures		\$43,173.00
16 Electrical	17.07%	\$141,790.71
Electrical Service & Distribution		\$141,790.71
19 FF&E	10.84%	\$90,000.00
Interior FF&E allowance		\$90,000.00
Total Raw Cost	100.00%	\$830,502.31

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$4,567.76
Force Protection	9.00%	\$82,630.83
General Conditions	10.00%	\$83,050.23
Total Additional Hard Cost		\$170,248.82

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$100,075.11
SIOH Conus	6.50%	\$71,553.71
Design	10.00%	\$100,075.11
08 MYr Inflation Fct	9.93%	\$126,354.79
Total Soft Cost		\$398,058.72

Total Project Cost for Renovation	\$1,398,809.85
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Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

Summary of Project Replacement Cost

CSI	Percent	Amount
02 Site Work	2.75%	\$32,363.86
Site Earthwork		\$32,363.86
03 Concrete	15.64%	\$184,053.01
Floor Construction		\$106,247.31
Slab on Grade		\$23,927.60
Stair Construction		\$6,027.00
Standard Foundations		\$47,851.10
04 Masonry	6.14%	\$72,285.18
Exterior Walls		\$72,285.18
07 Thermal & Moisture Protection	7.40%	\$87,097.17
Roof Construction		\$27,908.16
Roof Coverings		\$59,189.01
08 Doors & Windows	8.63%	\$101,603.74
Exterior Doors		\$8,056.50
Exterior Windows		\$72,160.00
Interior Doors		\$21,387.24
09 Finishes	14.26%	\$167,831.15
Ceiling Finishes		\$25,996.10
Floor Finishes		\$50,433.47
Partitions		\$49,340.77
Wall Finishes		\$42,060.82
10 Specialties	0.11%	\$1,236.56
Fittings		\$1,236.56
11 Equipment	3.41%	\$40,180.00
Other Equipment		\$40,180.00
13 Special Construction	4.90%	\$57,612.72
Communications & Security		\$25,935.30
Sprinklers		\$31,677.43
15 Mechanical	21.92%	\$257,904.76
Cooling Generating Systems		\$76,561.76
Domestic Water Dist		\$36,900.00
Plumbing Fixtures		\$144,443.00
16 Electrical	7.19%	\$84,602.27
Electrical Service & Distribution		\$84,602.27
19 FF&E	7.65%	\$90,000.00
Interior FF&E allowance		\$90,000.00
Total Raw Cost	100.00%	\$1,176,770.43

Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$6,472.24
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$117,677.04

Total Additional Hard Cost **\$124,149.28**

Soft Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Contingency	5.00%	\$65,045.99
SIOH Conus	6.50%	\$88,787.77
Design	10.00%	\$130,091.97
08 MYr Inflation Fct	9.93%	\$157,375.15
Total Soft Cost		\$441,300.88
Total Project Cost for Replacement		\$1,742,220.59

INSERT BUILDING 107 FLOOR PLANS HERE



*Building 592
592 Dickman Road*

Building 592

Building 592, located at 592 Dickman Rd., Ft. Sam Houston, Texas, 78234, was constructed in 1974. The 105,000 square foot facility contains 200 standard stay lodging rooms and serves as the Posts' main lodging facility. The building also contains all administrative, Back of the House and Front of the House functions.

Significant Assumptions

The replacement and renovation cost models are based on 200 extended stay rooms.

The renovation plan if required, would use the existing footprint with the plan reworked to meet current lodging size requirements.

The replacement cost model includes any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule Template included in the Appendix.

All costs are adjusted by the Area Cost Factor of 82% for Ft Sam Houston.

Cost Analysis

Condition Assessment Cost	\$8,029,325.00
Replacement Cost	\$15,344,855.00
Condition Assessment to Replacement Cost Ratio	50.33%

Because the Condition Assessment to Replacement Cost Ratio is greater than 50%, renovation of Building 592 is not recommended.

Attributes

01.Number of Units Constructed	200
02.Number of Units Used	200
03.Back of House Function	Yes
04.Single Room w/o FullKitchen	200
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	0
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	200
11.Operating as Extended Stay	0
12.Operating as Family Suite	0
13.Renovated to Standard	0
14.Renovated to Extended Stay	200
15.Renovated to Family Suite	0
16.Delta renovation	0

Condition Analysis/Recommendation

FF&E

FF&E Allowance

- Analysis: Guest Rooms: The hard goods consist of a head board, night stand, dresser in each bedroom, a couch, easy chair, coffee table, end table, desk and entertainment shelf unit in the living rooms. All are in fair condition. Soft goods consist of drapes and blinds on the windows, TV, mattress and box springs and bed coverings. All are in fair condition and should be replaced by 2008.
- Recommendation: Replace all hard and soft goods in guest rooms.

Foundations

Standard Foundations

- Analysis: Foundation is composed of perimeter beam and poured piers on compacted soil. No clear failures can be seen from perimeter. Foundation is in good condition.
- Recommendation: No corrective action required.

Slab on Grade

- Analysis: A concrete slab covers the foundation and is in good condition.
- Recommendation: No corrective action required.

Superstructure

Floor Construction

- Analysis: The floors are formed in place concrete covered with carpet and tile. The floor structures are in good condition.
- Recommendation: No corrective action required.

Roof Construction

- Analysis: The roof construction is a poured in place concrete slab bearing on the perimeter wall superstructure and interior concrete columns. The system is in good condition.
- Recommendation: No corrective action required.

Exterior Enclosure

Exterior Walls

- Analysis: The exterior walls are brick veneer over wood stud framing attached to the concrete superstructure. The exterior walls are in good condition.
- Recommendation: No corrective action required.

Exterior Windows

- Analysis: The windows are single glazed aluminum sash and frame units, original to the building. The windows are in poor condition.

- Recommendation: Replace windows with new double glazed, energy efficient window units.

Exterior Doors

- Analysis: Exterior doors are solid wood or steel commercial grade doors with steel frames and electronic locks. The doors are in good condition.
- Recommendation: No corrective action required.

Roofing

Roof Coverings

- Analysis: The roof system is mastic and gravel ballast over concrete and is beyond useful life.
- Recommendation: Replace roof with new modified bitumen roof system.

Interior Construction

Partitions

- Analysis: The interior partitions are drywall over wood studs and are in good condition.
- Recommendation: No corrective action required.

Interior Doors

- Analysis: Interior doors are hollow core metal doors in steel frames. All the interior doors are in good condition.
- Recommendation: No corrective action required.

Fittings

- Analysis: The public area restrooms have metal partitions that are in good condition.
- Recommendation: No corrective action required.

Stairs

Stair Construction

- Analysis: Stairs are concrete and steel in good condition.
- Recommendation: No corrective action required.

Interior Finishes

Wall Finishes

- Analysis: Combination of smooth texture drywall and vinyl wall coverings. Both are in fair condition, but beginning to show wear..
- Recommendation: Install new vinyl wall covering.

Floor Finishes

- Analysis: Carpet is located in guest rooms and public areas. Carpet is in fair condition. All bathrooms have ceramic tile floors that are in poor condition.
- Recommendation: Replace carpet and floor tile.

Ceiling Finishes

- Analysis: Ceiling finishes are suspended tile systems in administrative, BOH, corridors and public areas. The suspended tile is beyond its' useful life. All guest rooms have painted drywall ceilings.
- Recommendation: Replace suspended acoustic tile and grid system. Paint all guest room ceilings.

Conveying

Elevators and Lifts

- Analysis: There are two small elevators in the lobby area. The elevators are inadequate for the building and beyond their useful life.
- Recommendation: Replace both elevators.

Plumbing

Plumbing Fixtures

- Analysis: The bathroom fixtures are inadequate. There are no vanities in the bathroom and the flush valve water closets are wasteful. The domestic water system should be replaced, requiring the removal of wall tiles around the tub.
- Recommendation: Upgrade the bathroom fixtures during the domestic water replacement project.

Domestic Water Distribution

- Analysis: Hot water is produced from a gas fired boiler and 500 gallon storage tank located in the mechanical room. The piping is in poor condition.
- Recommendation: Replace the domestic water system.

HVAC

Cooling Generating Systems

- Analysis: Back of house and common areas are cooled by a recirculating chilled water system. All guest rooms have packaged terminal cooling units (PTACs) with heat. The PTACs were installed in 2000 and are in good condition.
- Recommendation: No corrective action required.

Fire Protection

Sprinklers

- Analysis: The building does not have a sprinkler system.
- Recommendation: Install sprinkler system as required by code.

Electrical

Electrical Service/Distribution

- Analysis: Panelboards, receptacles, and wires are beyond their expected useful life. Recent upgrades to the HVAC system has placed increased demand on the current system.
- Recommendation: Replace main service and panel to handle increased electrical loads. Replace branch circuits, electrical outlets and lighting.

Communications and Security

- Analysis: The fire alarm system consists of strobes and bells located on the exterior of the building and in the stairwell and corridors. This system is in good condition. There are lighted exit signs in the stairwells that are in good condition.
- Recommendation: No corrective action required.

Equipment

Other Equipment

- Analysis:
- Recommendation:

Site Preparation

Site Earthwork

- Analysis: The site consists of grass covered yard areas and shared parking lots with access to main roads. The site is graded properly to allow for drainage. The site is in good condition.
- Recommendation: No corrective action required.

Site Improvements

Parking Lots

- Analysis: The parking lot is adequate for the building. The surfaces are in good condition.
- Recommendation: No corrective action required.

Site Electrical Utilities

Site Lighting

- Analysis: Site lighting is provided by pole mounted HPS lights. These are in good condition.
- Recommendation: No corrective action required.

Major Functional Criteria

- **Major Functional Criteria Analysis**

The following are existing conditions that do not meet the Functional Criteria and are considered major deficits. Listed are the recommendations or solutions for remedying each deficit.

- **Back-of-House Spaces**

Breakfast Prep Area / Kitchen

Does not exist.

Renovation Recommendation: Space included in new Lodging Facility.

General Storage and Bulk Storage

Does not exist.

Renovation Recommendation: Space included in new Lodging Facility.

Housekeeping Laundry and Office

Does not Exist.

Renovation Recommendation: Space included in new Lodging Facility.

- **Public Spaces**

Public Corridors

Corridors are only 5' wide, standard is 6' wide.

Renovation Recommendation: Leave corridor width as is.

It is felt this deficit is not critical to the intent of the standard and is not included in the Condition Assessment or Renovation cost.

Breakfast Bar / Seating Area

Does not exist.

Renovation Recommendation: Space included in new Lodging Facility.

Study Rooms

Does not exist.

Renovation Recommendation: Space included in new Lodging Facility.

- **Standard Guest Room**

Room size and configuration: The rooms meet the majority of the requirements. Kitchenettes do not have burners.

Renovation Recommendation: Do not recommend adding to this building, because of condition assessment cost is already over the 50% of replacement cost.

Condition Assessment/Renovation/Replacement Analysis

Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

Summary of Project Cost

CSI	Percent	Amount
07 Thermal & Moisture Protection	1.24%	\$59,066.74
Roofing: Beyond Useful Life		\$59,066.74
08 Doors & Windows	3.60%	\$171,752.28
Al. Windows - Beyond Useful Life		\$171,752.28
09 Finishes	16.79%	\$800,303.63
Acoustical Ceiling & Grid: Beyond expt useful life		\$131,125.55
Carpet: Beyond Useful Life		\$221,645.04
Drywall Partition: Damaged or Failing		\$107,339.64
Floor Tile: Damaged or Failing		\$63,886.20
Interior ceilings: Paint Failing		\$29,028.00
Vinyl Wall Covering: Damaged or Failing		\$92,127.00
Wall Tile: Damaged or Failing		\$155,152.20
10 Specialties	0.27%	\$12,718.20
BR Accessories: Replace due to remodel		\$12,718.20
11 Equipment	12.04%	\$574,164.00
Unit Kitchen: Beyond Useful Life		\$574,164.00
13 Special Construction	7.16%	\$341,099.50
Fire Sprinklers: Missing or Inadequate		\$341,099.50
14 Conveying Systems	3.80%	\$181,310.20
Elevator: Beyond expected useful life		\$181,310.20
15 Mechanical	20.61%	\$982,503.01
Bath tub: Replace due to remodel		\$259,890.80
Domestic water system: Beyond expected useful life		\$198,239.07
Restroom exhaust: Beyond expected useful life		\$235,142.74
Sink & vanity: Replace due to remodel		\$126,722.80
Water closet: Beyond expected useful life		\$162,507.60
16 Electrical	13.51%	\$644,257.60
Branch Circuits: Beyond Expected Useful Life		\$257,275.00
Fixture: Incandescent fixture beyond expected life		\$204,180.00
Fixtures, fluorescent: Beyond expected useful life		\$182,802.60
19 FF&E	20.98%	\$1,000,000.00
Hard and soft goods: Beyond expected useful life		\$1,000,000.00
Total Raw Cost	100.00%	\$4,767,175.00

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$26,219.46
Force Protection	9.00%	\$474,310.08
General Conditions	10.00%	\$476,717.50

Total Additional Hard Cost **\$977,247.04**

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$574,442.20
SIOH Conus	6.50%	\$410,726.18
Design	10.00%	\$574,442.20
08 MYr Inflation Fct	9.93%	\$725,290.44
Total Soft Cost		\$2,284,901.02
Total Project		\$8,029,323.06

Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

Summary of Project Replacement Cost

CSI	Percent	Amount
02 Site Work	2.30%	\$238,673.59
Parking Lots		\$137,727.20
Site Earthwork		\$100,946.39
03 Concrete	23.84%	\$2,471,115.23
Floor Construction		\$1,926,315.43
Slab on Grade		\$74,730.70
Stair Construction		\$96,432.00
Standard Foundations		\$373,637.10
04 Masonry	3.46%	\$358,635.43
Exterior Walls		\$358,635.43
07 Thermal & Moisture Protection	3.78%	\$391,540.62
Roof Construction		\$207,937.65
Roof Coverings		\$183,602.97
08 Doors & Windows	8.39%	\$869,678.06
Exterior Doors		\$23,062.50
Exterior Windows		\$669,120.00
Interior Doors		\$177,495.56
09 Finishes	12.79%	\$1,326,088.72
Ceiling Finishes		\$203,949.79
Floor Finishes		\$501,573.94
Partitions		\$348,941.24
Wall Finishes		\$271,623.75
10 Specialties	0.03%	\$2,779.39
Fittings		\$2,779.39
11 Equipment	5.54%	\$574,000.00
Other Equipment		\$574,000.00
13 Special Construction	4.34%	\$449,859.07
Communications & Security		\$202,511.31
Sprinklers		\$247,347.76
14 Conveying Systems	1.70%	\$176,136.00
Elevators and Lifts		\$176,136.00
15 Mechanical	17.92%	\$1,857,345.99
Cooling Generating Systems		\$872,816.27
Domestic Water Dist		\$295,200.00
Plumbing Fixtures		\$689,329.72
16 Electrical	6.26%	\$648,721.27
Electrical Service & Distribution		\$643,321.57
Site Lighting		\$5,399.70
19 FF&E	9.65%	\$1,000,000.00
Interior FF&E allowance		\$1,000,000.00
Total Raw Cost	100.00%	\$10,364,573.36

Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$57,005.15
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$1,036,457.34
Total Additional Hard Cost		\$1,093,462.49

Soft Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Contingency	5.00%	\$572,901.79
SIOH Conus	6.50%	\$782,010.95
Design	10.00%	\$1,145,803.59
08 MYr Inflation Fct	9.93%	\$1,386,104.09
Total Soft Cost		\$3,886,820.42
Total Project Cost for Replacement		\$15,344,856.27

INSERT BUILDING 592 FLOOR PLANS HERE



*Building 616
616 Infantry Post Road*

Building 616

Building 616, located at 616 Artillery Post Rd., Ft. Sam Houston, Texas, 78234, was constructed in 1886. The 4,016 square foot facility contains 4 lodging units. The units are used for Extended Stay lodging.

Significant Assumptions

The replacement and renovation cost models are based on 4 family suites.

The renovation uses the existing footprint, with the plan reworked to meet current lodging size requirements.

The renovation cost includes all condition assessment costs.

The renovation and replacement cost models include any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule Template included in the Appendix.

All costs are adjusted by the Area Cost Factor of 82% for Ft Sam Houston.

Cost Analysis

Renovation Cost	\$320,120.00
Replacement Cost	\$456,880.00
Renovation to Replacement Cost Ratio	70.07%

Because the Renovation to Replacement Cost Ratio is greater than 50%, renovation of Building 6827 is not recommended

Attributes

01.Number of Units Constructed	4
02.Number of Units Used	4
03.Back of House Function	No
04.Single Room w/o FullKitchen	0
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	4
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	0
11.Operating as Extended Stay	4
12.Operating as Family Suite	0
13.Renovated to Standard	0
14.Renovated to Extended Stay	0
15.Renovated to Family Suite	4
16.Delta renovation	0

Condition Analysis/Recommendation

FF&E

FF&E Allowance

- Analysis: Guest Room: The hard goods consist of head boards, night stands, dresser in each bedroom, desk w/chair, a couch, davenport, table w/chairs, easy chairs, coffee table, end tables and a TV cabinet with drawers. All are in like new condition. The soft goods consist of drapes and blinds on the windows, TV and bed. All are in like new condition. These furnishings are high end goods installed in 2000, and are consistent with their use for a DVQ.
- Recommendation: No corrective action required. All the FF&E should be replaced if the structure is renovated. If the structure is not renovated, the FF&E should be replaced no later than 2008.

Foundations

Standard Foundations

- Analysis: The foundation consists of concrete spread footings supporting the structural brick walls. Aside from a number of minor stress fractures consistent with this type of construction, the foundation appears to be in fair condition.
- Recommendation: No corrective action required.

Slab on Grade

- Analysis: The wood framed sub floor and concrete piers are performing as intended. The basement area and walls show no signs of stress. The substructure is in good condition.
- Recommendation: No corrective action required.

Superstructure

Floor Construction

- Analysis: The floor construction consists of a double layer of wood decking subfloor over flooring joists set into structural masonry walls. The floor system appears to be in good condition.
- Recommendation: No corrective action required.

Roof Construction

- Analysis: The roof consists of a plywood deck attached to sloped wooden rafters. The roof construction is in good condition.
- Recommendation: No corrective action required.

Exterior Enclosure

Exterior Walls

- Analysis: The exterior walls are 4 wythe structural masonry with a face brick exterior.
- Recommendation: No corrective action required.

Exterior Windows

- Analysis: The exterior windows are a wood single glazed double hung units with a six lite sash. The windows are in good condition.

- Recommendation: No corrective action required.

Exterior Doors

- Analysis: Exterior doors consist of solid core wood doors in wood frames, in good condition.

- Recommendation: No corrective action required.

Roofing

Roof Coverings

- Analysis: The roof covering is a standing seam galvalume metal roof replaced in 1997. The roof covering is in good condition.

- Recommendation: No corrective action required.

Interior Construction

Partitions

- Analysis: The interior partitions are plaster on wood lath over wood stud framing. The walls are in good condition.

- Recommendation: No corrective action required.

Interior Doors

- Analysis: All the interior doors are solid core wood doors in wood frames. All the interior doors are in good condition.

- Recommendation: No corrective action required.

Stairs

Stair Construction

- Analysis: Stairs are wood framed with wood handrails and rubber covered risers. There are two sets of stairs all located in the interior of the building. There are no elevators in the structure. The stairs are in good condition.

- Recommendation: No corrective action required.

Interior Finishes

Wall Finishes

- Analysis: Combination of smooth texture drywall and vinyl wall coverings. Both are in fair condition.

- Recommendation: Install new vinyl wall covering and repaint interior walls.

Floor Finishes

- Analysis: Floors in guest rooms and common areas are covered with carpet. The carpet is in fair condition.

- Recommendation: Replace carpet.

Ceiling Finishes

- Analysis: A suspended acoustic ceiling and grid system is used in the common areas and two of the guest units.

The system is in fair condition.. The other guest rooms have painted plaster ceilings in good condition.

- Recommendation: Replace the suspended ceiling and grid system.

Plumbing

Plumbing Fixtures

- Analysis: Each unit has an individual rest room containing a lavatory and vanity, a water closet and a built in place shower. Ventilation is provided by individual controlled electric exhaust units connected to venting ducts. The plumbing fixtures are in good condition.
- Recommendation: No corrective action required.

Domestic Water Distribution

- Analysis: The domestic hot water is supplied by a gas fired boiler located in the basement. The water is delivered by a copper pipe system. The system is in poor condition.
- Recommendation: Replace the domestic water system.

HVAC

Cooling Generating Systems

- Analysis: Air conditioning to the building is provided by a chilled water circulating system with individual room damper controls. The system is inadequate and in poor condition.
- Recommendation: Replace the air conditioning system with a new multi-zone system with individual room controls.

Fire Protection

Sprinklers

- Analysis: The building does not have a sprinkler system.
- Recommendation: Install sprinkler system as required by code.

Electrical

Electrical Service/Distribution

- Analysis: Electric service is supplied to the building from a pad mounted transformer supplied by DPS. Secondary service is 120/208Y volt 3 phase with a 400 amp main disconnect. The electrical service is in poor condition. Lighting is incandescent and is in poor condition. Outlets in the units are insufficient and in poor condition.
- Recommendation: Replace main service and panel to handle increased electrical loads. Replace branch circuits, electrical outlets and lighting.

Communications and Security

- Analysis: The fire alarm system was upgraded within the last 5 years and is in good condition. The fire panel emits a radio signal directly to the fire department.
- Recommendation: No corrective action required.

Equipment

Other Equipment

- Analysis: There are no back-of-house function at this location and there is no kitchen equipment.
- Recommendation: No corrective action required.

Site Preparation

Site Earthwork

- Analysis: The site consists of grass covered yard areas and curbside parking with access to main roads. The site is graded properly to allow for drainage. The site is in good condition.
- Recommendation: No corrective action required.

Major Functional Criteria

- **Major Functional Criteria Analysis**

The following are existing conditions that do not meet the Functional Criteria and are considered major deficits. Listed are the recommendations or solutions for remedying each deficit.

- **Back-of-House Spaces**

Most of the back-of-the-house spaces required are located at the main lodging building on post. Presently these are located in building 592, and are not included in this building.

- **Family Guest Suite**

Room Size and Configuration: The rooms do not meet size and configuration requirements.

Recommendation: A Renovation Cost estimate is used to indicate a slight reconfiguration to meet the standard. This renovation cost may be less than 50% of the replacement value.

- **Public Spaces**

Most of the public spaces required are located at the main lodging building on post. Presently these are located in building 592, and are not included in this building.

Condition Assessment/Renovation/Replacement Analysis

Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

Summary of Project Cost

CSI	Percent	Amount
09 Finishes	31.64%	\$16,328.30
Acoustical Ceiling & Grid: Beyond expt useful life		\$7,195.99
Carpet: Beyond Useful Life		\$5,415.01
Interior walls: Paint failing		\$251.57
Vinyl Wall Covering: Damaged or Failing		\$3,465.73
13 Special Construction	25.28%	\$13,049.87
Fire Sprinklers: Missing or Inadequate		\$13,049.87
15 Mechanical	43.08%	\$22,234.65
AHU: Beyond expected useful life		\$14,632.28
Domestic water system: Beyond expected useful life		\$7,602.37
Total Raw Cost	100.00%	\$51,613.00

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$283.87
Force Protection	9.00%	\$5,135.24
General Conditions	10.00%	\$5,161.30
Total Additional Hard Cost		\$10,580.41

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$6,219.34
SIOH Conus	6.50%	\$4,446.83
Design	10.00%	\$6,219.34
08 MYr Inflation Fct	9.93%	\$7,852.54
Total Soft Cost		\$24,738.05
Total Project		\$86,931.45

Renovation

The Renovation Cost is based on making changes to the building to meet the Army Lodging Standard Functional Criteria. Unless otherwise stated, this cost also includes all building deficiencies listed under the Condition Assessment Cost.

Summary of Project Renovation Cost

CSI	Percent	Amount
03 Concrete	3.17%	\$6,027.00
Stair Construction		\$6,027.00
07 Thermal & Moisture Protection	1.60%	\$3,032.92
Roof Construction		\$3,032.92
08 Doors & Windows	3.93%	\$7,468.56
Interior Doors		\$7,468.56
09 Finishes	26.01%	\$49,442.93
Ceiling Finishes		\$9,019.84
Floor Finishes		\$11,499.84
Partitions		\$11,041.74
Wall Finishes		\$17,881.51
11 Equipment	6.04%	\$11,480.00
Other Equipment		\$11,480.00
13 Special Construction	10.43%	\$19,824.58
Communications & Security		\$8,924.36
Sprinklers		\$10,900.23
15 Mechanical	23.57%	\$44,794.96
Cooling Generating Systems		\$26,344.96
Domestic Water Dist		\$8,856.00
Plumbing Fixtures		\$9,594.00
16 Electrical	14.73%	\$27,991.52
Electrical Service & Distribution		\$27,991.52
19 FF&E	10.52%	\$20,000.00
Interior FF&E allowance		\$20,000.00
Total Raw Cost	100.00%	\$190,062.48

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$1,045.34
Force Protection	9.00%	\$18,910.27
General Conditions	10.00%	\$19,006.25
Total Additional Hard Cost		\$38,961.86

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$22,902.43
SIOH Conus	6.50%	\$16,375.24
Design	10.00%	\$22,902.43
08 MYr Inflation Fct	9.93%	\$28,916.60
Total Soft Cost		\$91,096.71
Total Project Cost for Renovation		\$320,121.04

Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

Summary of Project Replacement Cost

CSI	Percent	Amount
02 Site Work	2.67%	\$8,247.87
Site Earthwork		\$8,247.87
03 Concrete	16.77%	\$51,744.16
Floor Construction		\$27,529.56
Slab on Grade		\$6,063.90
Stair Construction		\$6,027.00
Standard Foundations		\$12,123.70
04 Masonry	11.22%	\$34,627.63
Exterior Walls		\$34,627.63
07 Thermal & Moisture Protection	7.23%	\$22,311.60
Roof Construction		\$6,868.41
Roof Coverings		\$15,443.19
08 Doors & Windows	13.86%	\$42,783.50
Exterior Doors		\$8,056.50
Exterior Windows		\$26,240.00
Interior Doors		\$8,487.00
09 Finishes	13.32%	\$41,089.76
Ceiling Finishes		\$6,791.94
Floor Finishes		\$12,121.58
Partitions		\$11,763.95
Wall Finishes		\$10,412.29
11 Equipment	3.72%	\$11,480.00
Other Equipment		\$11,480.00
13 Special Construction	4.73%	\$14,596.93
Communications & Security		\$6,571.05
Sprinklers		\$8,025.89
15 Mechanical	12.26%	\$37,847.92
Cooling Generating Systems		\$19,397.92
Domestic Water Dist		\$8,856.00
Plumbing Fixtures		\$9,594.00
16 Electrical	7.73%	\$23,865.69
Electrical Service & Distribution		\$23,865.69
19 FF&E	6.48%	\$20,000.00
Interior FF&E allowance		\$20,000.00
Total Raw Cost	100.00%	\$308,595.06

Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$1,697.27
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$30,859.51
Total Additional Hard Cost		\$32,556.78

Soft Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Contingency	5.00%	\$17,057.59
SIOH Conus	6.50%	\$23,283.61
Design	10.00%	\$34,115.18
08 MYr Inflation Fct	9.93%	\$41,269.90
Total Soft Cost		\$115,726.28
Total Project Cost for Replacement		\$456,878.12

INSERT BUILDING 616 FLOOR PLANS HERE



*Building 617
617 Infantry Post Road*

Building 617

Building 617, located at 617 Infantry Post Rd., Ft. Sam Houston, Texas, 78234, was constructed in 1894. The 22,000 square foot (including basement) facility contains 20 lodging units. Seven of the units are used as standard rooms, while the remaining 13 are used as extended stay rooms.

Significant Assumptions

The replacement and renovation cost models are based on 6 standard stay rooms and 19 family suites.

The renovation uses the existing footprint, with the plan reworked to meet current lodging size requirements.

The renovation cost includes all condition assessment costs.

The renovation and replacement cost models include any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule Template included in the Appendix.

All costs are adjusted by the Area Cost Factor of 82% for Ft Sam Houston.

Cost Analysis

Renovation Cost	\$1,748,010.00
Replacement Cost	\$2,392,475.00
Renovation to Replacement Cost Ratio	73.06%

Because the Renovation to Replacement Cost Ratio is greater than 50%, renovation of Building 617 is not recommended.

Attributes

01.Number of Units Constructed	20
02.Number of Units Used	20
03.Back of House Function	No
04.Single Room w/o FullKitchen	0
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	20
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	7
11.Operating as Extended Stay	13
12.Operating as Family Suite	0
13.Renovated to Standard	6
14.Renovated to Extended Stay	0
15.Renovated to Family Suite	19
16.Delta renovation	5

Condition Analysis/Recommendation

FF&E

FF&E Allowance

- Analysis: Guest Room: The hard goods consist of head boards, night stands, dresser in each bedroom, desk w/chair, a couch, davenport, table w/chairs, easy chairs, coffee table, end tables and a TV cabinet with drawers. All are in like new condition. The soft goods consist of drapes and blinds on the windows, TV and bed. All are in like new condition. These furnishings are high end goods installed in 2000, and are consistent with their use in a DVQ or historic building.
- Recommendation: No corrective action required. All the FF&E should be replaced if the structure is renovated. If the structure is not renovated, the FF&E should be replaced no later than 2008.

Foundations

Standard Foundations

- Analysis: The foundation consists of concrete spread footings bearing large stone blocks rising to a few feet above grade supporting the structural brick walls. Aside from a number of minor stress fractures consistent with this type of construction, the foundation appears to be in fair condition.
- Recommendation: No corrective action required.

Slab on Grade

- Analysis: The wood framed sub floor and concrete piers are performing as intended. The substructure is in fair condition.
- Recommendation: No corrective action required.

Superstructure

Floor Construction

- Analysis: The floor construction consists of a double layer of wood decking subfloor over flooring joists set into structural masonry walls. The floor system appears to be in good condition.
- Recommendation: No corrective action required.

Roof Construction

- Analysis: The roof consists of a plywood deck attached to sloped wooden rafters. The roof construction is in good condition.
- Recommendation: No corrective action required.

Exterior Enclosure

Exterior Walls

- Analysis: The exterior walls are load bearing structural masonry with a face brick exterior. The walls are in good condition.
- Recommendation: No corrective action required.

Exterior Windows

- Analysis: The exterior windows are a wood single glazed double hung unit with a six lite sash. The windows are in good condition.

- Recommendation: No corrective action required.

Exterior Doors

- Analysis: Exterior doors consist of solid core wood doors in wood frames, in good condition.

- Recommendation: No corrective action required.

Roofing

Roof Coverings

- Analysis: The roof covering is a standing seam galvalume metal roof replaced in 1997. The roof covering is in good condition.

- Recommendation: No corrective action required.

Interior Construction

Partitions

- Analysis: The interior partitions are plaster on wood lath over wood stud framing. The walls are in good condition.

- Recommendation: No corrective action required.

Interior Doors

- Analysis: All the interior doors are solid core wood doors in wood frames. All the interior doors are in good condition.

- Recommendation: No corrective action required.

Fittings

- Analysis: This building contains no items related to this sub-system.

- Recommendation: No corrective action required.

Stairs

Stair Construction

- Analysis: Stairs are wood framed with wood handrails and rubber covered risers. There are four sets of stairs all located in the interior of the building. There are no elevators in the structure. The stairs are in good condition.

- Recommendation: No corrective action required.

Interior Finishes

Wall Finishes

- Analysis: The interior wall finishes are paint over plaster or drywall. The paint is in fair condition.

- Recommendation: No corrective action required.

Floor Finishes

- Analysis: Carpet is located in guest rooms and public areas. It is in fair condition. All bathrooms have ceramic tile floors that are in good condition.

- Recommendation: Replace all carpet through out the building.

Ceiling Finishes

- Analysis: Suspended acoustical tile is used in guest rooms, public areas, and some back of house locations. The tile is in fair condition. The painted ceilings are in fair condition.
- Recommendation: Replace the suspended ceiling system. Repaint the ceiling.

Plumbing

Plumbing Fixtures

- Analysis: Each unit has an individual rest room containing a lavatory and vanity, a water closet and a built in place shower. Ventilation is provided by individual controlled electric exhaust units connected to venting ducts. The plumbing fixtures are in good condition.
- Recommendation: No action required.

Domestic Water Distribution

- Analysis: Hot water is produced from a gas fired boiler and 400 gallon storage tank located in the basement. The piping is in poor condition.
- Recommendation: Replace the domestic water system.

HVAC

Cooling Generating Systems

- Analysis: Air conditioning to the building is provided by a chilled water circulating system with individual room damper controls. The system is inadequate and in poor condition.
- Recommendation: Replace the air conditioning system with a new multi-zone system with individual room controls.

Fire Protection

Sprinklers

- Analysis: The building does not have a sprinkler system.
- Recommendation: Install sprinkler system as required by code.

Electrical

Electrical Service/Distribution

- Analysis: Electric service is supplied to the building from a pad mounted transformer supplied by DPW. Secondary service is 120/208Y volt 3 phase with a 400 amp main disconnect. Distribution panels are located in the basement to provide power for lighting and receptacles. The electrical service is in poor condition. Lighting is incandescent and is in poor condition. Outlets in the units are insufficient and in poor condition.
- Recommendation: Replace the electrical system.

Communications and Security

- Analysis: The fire alarm system was upgraded within the last 5 years and is in good condition. The fire panel emits a radio signal directly to the fire department.
- Recommendation: No corrective action required.

Equipment

Other Equipment

- Analysis: Bldg. 617 provides laundry support for 4 other lodging facilities. There are 4 commercial grade extractors and dryers in the building. These units are in like new condition.
- Recommendation: No corrective action required.

Site Preparation

Site Earthwork

- Analysis: The site consists of grass covered yard areas and curbside parking with access to main roads. The site is graded properly to allow for drainage. The site is in good condition.
- Recommendation: No corrective action required.

Major Functional Criteria

Major Functional Criteria Analysis

The following are existing conditions that do not meet the Functional Criteria and are considered major deficits. Listed are the recommendations or solutions for remedying each deficit.

- **Back-of-House Spaces**

Most of the back-of-the-house spaces required are located at the main lodging building on post. Presently these are located in building 592, and are not included in this building.

- **Family Guest Suite**

Room Size and Configuration: The rooms do not meet size and configuration requirements.

Recommendation: A Renovation Cost estimate is used to indicate a total renovation of the building into 19 family suites and 6 extended stay rooms. This renovation will cost more than 50% of the building's replacement cost.

- **Public Spaces**

Most of the public spaces required are located at the main lodging building on post. Presently these are located in building 592, and are not included in this building.

Condition Assessment/Renovation/Replacement Analysis

Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

Summary of Project Cost

CSI	Percent	Amount
09 Finishes	17.49%	\$73,065.19
Acoustical Ceiling & Grid: Beyond expt useful life		\$31,470.13
Carpet: Beyond Useful Life		\$28,938.86
Interior ceilings: Paint Failing		\$1,161.12
Interior walls: Paint failing		\$11,495.08
13 Special Construction	17.15%	\$71,625.47
Fire Sprinklers: Missing or Inadequate		\$71,625.47
15 Mechanical	29.24%	\$122,145.49
AHU: Beyond expected useful life		\$80,412.64
Domestic water system: Beyond expected useful life		\$41,732.85
16 Electrical	36.11%	\$150,844.21
Branch Circuits: Beyond Expected Useful Life		\$56,710.86
Fixtures, Incandescent: Missing or inadequate		\$75,010.95
Main service: Beyond expected useful life		\$19,122.40
Total Raw Cost	100.00%	\$417,680.00

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$2,297.24
Force Protection	9.00%	\$41,557.07
General Conditions	10.00%	\$41,768.00
Total Additional Hard Cost		\$85,622.31

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$50,330.23
SIOH Conus	6.50%	\$35,986.12
Design	10.00%	\$50,330.23
08 MYr Inflation Fct	9.93%	\$63,546.92
Total Soft Cost		\$200,193.50
Total Project		\$703,495.81

Renovation

The Renovation Cost is based on making changes to the building to meet the Army Lodging Standard Functional Criteria. Unless otherwise stated, this cost also includes all building deficiencies listed under the Condition Assessment Cost.

Summary of Project Renovation Cost

CSI	Percent	Amount
03 Concrete	1.16%	\$12,054.00
Stair Construction		\$12,054.00
07 Thermal & Moisture Protection	1.64%	\$16,998.48
Roof Construction		\$16,998.48
08 Doors & Windows	2.62%	\$27,158.40
Interior Doors		\$27,158.40
09 Finishes	27.37%	\$284,055.95
Ceiling Finishes		\$51,864.06
Floor Finishes		\$69,449.29
Partitions		\$61,885.10
Wall Finishes		\$100,857.51
11 Equipment	5.25%	\$54,530.00
Other Equipment		\$54,530.00
13 Special Construction	10.49%	\$108,837.75
Communications & Security		\$48,995.07
Sprinklers		\$59,842.68
15 Mechanical	24.62%	\$255,519.38
Cooling Generating Systems		\$144,634.88
Domestic Water Dist		\$50,922.00
Plumbing Fixtures		\$59,962.50
16 Electrical	14.81%	\$153,674.56
Electrical Service & Distribution		\$153,674.56
19 FF&E	12.04%	\$125,000.00
Interior FF&E allowance		\$125,000.00
Total Raw Cost	100.00%	\$1,037,828.52

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$5,708.06
Force Protection	9.00%	\$103,258.75
General Conditions	10.00%	\$103,782.85
Total Additional Hard Cost		\$212,749.66

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$125,057.82
SIOH Conus	6.50%	\$89,416.34
Design	10.00%	\$125,057.82
08 MYr Inflation Fct	9.93%	\$157,897.94
Total Soft Cost		\$497,429.91

Total Project Cost for Renovation	\$1,748,008.09
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Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

Summary of Project Replacement Cost

CSI	Percent	Amount
02 Site Work	1.92%	\$30,997.64
Site Earthwork		\$30,997.64
03 Concrete	19.84%	\$320,650.24
Floor Construction		\$222,967.74
Slab on Grade		\$22,914.90
Stair Construction		\$6,027.00
Standard Foundations		\$68,740.60
04 Masonry	5.78%	\$93,413.11
Exterior Walls		\$93,413.11
07 Thermal & Moisture Protection	5.92%	\$95,694.36
Roof Construction		\$38,984.49
Roof Coverings		\$56,709.87
08 Doors & Windows	8.48%	\$137,070.38
Exterior Doors		\$11,057.70
Exterior Windows		\$95,120.00
Interior Doors		\$30,892.68
09 Finishes	14.28%	\$230,741.52
Ceiling Finishes		\$37,025.56
Floor Finishes		\$69,434.40
Partitions		\$66,850.27
Wall Finishes		\$57,431.29
10 Specialties	0.08%	\$1,236.56
Fittings		\$1,236.56
11 Equipment	3.37%	\$54,530.00
Other Equipment		\$54,530.00
13 Special Construction	5.12%	\$82,763.68
Communications & Security		\$37,257.41
Sprinklers		\$45,506.28
15 Mechanical	19.93%	\$322,139.46
Cooling Generating Systems		\$109,984.96
Domestic Water Dist		\$50,922.00
Plumbing Fixtures		\$161,232.50
16 Electrical	7.53%	\$121,742.12
Electrical Service & Distribution		\$121,742.12
19 FF&E	7.74%	\$125,000.00
Interior FF&E allowance		\$125,000.00
Total Raw Cost	100.00%	\$1,615,979.08

Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$8,887.88
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$161,597.91

Total Additional Hard Cost **\$170,485.79**

Soft Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Contingency	5.00%	\$89,323.24
SIOH Conus	6.50%	\$121,926.23
Design	10.00%	\$178,646.49
08 MYr Inflation Fct	9.93%	\$216,112.63
Total Soft Cost		\$606,008.59
Total Project Cost for Replacement		\$2,392,473.46

INSERT BUILDING 617 FLOOR PLANS HERE



*Building 688
688 Infantry Post Road*

Building 688

Building 688, located at 688 Infantry Post Rd., Ft. Sam Houston, Texas, 78234, was constructed in 1906. The 12,400 square foot facility (including basement) contains 10 lodging units. Two of the units are used as standard rooms, while the remaining eight operate as extended stay rooms.

Significant Assumptions

The replacement and renovation cost models are based on 12 family suites.

The renovation uses the existing footprint, with the plan reworked to meet current lodging size requirements.

The renovation cost includes all condition assessment costs.

The renovation and replacement cost models include any public or back-of-house spaces as outlined in the Areas and Occupancies Schedule Template included in the Appendix.

All costs are adjusted by the Area Cost Factor of 82% for Ft Sam Houston.

Cost Analysis

Renovation Cost	\$950,060.00
Replacement Cost	\$1,423,350.00
Renovation to Replacement Cost Ratio	66.75%

Because the Renovation to Replacement Cost Ratio is greater than 50%, renovation of Building 688 is not recommended.

Attributes

01.Number of Units Constructed	10
02.Number of Units Used	10
03.Back of House Function	No
04.Single Room w/o FullKitchen	0
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	10
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	2
11.Operating as Extended Stay	8
12.Operating as Family Suite	0
13.Renovated to Standard	0
14.Renovated to Extended Stay	0
15.Renovated to Family Suite	12
16.Delta renovation	2

Condition Analysis/Recommendation

FF&E

FF&E Allowance

- Analysis: Guest Room: The hard goods consist of head boards, night stands, dresser in each bedroom, desk w/chair, a couch, davenport, table w/chairs, easy chairs, coffee table, end tables and a TV cabinet with drawers. All are in like new condition. The soft goods consist of drapes and blinds on the windows, TV and bed. All are in like new condition. These furnishings are high end goods installed in 2000, and are consistent with their use in a DVQ or historic building.
- Recommendation: No corrective action required. All the FF&E should be replaced if the structure is renovated. If the structure is not renovated, the FF&E should be replaced no later than 2008.

Foundations

Standard Foundations

- Analysis: The foundation consists of concrete spread footings bearing large stone blocks rising to a few feet above grade supporting the structural brick walls. Aside from a number of minor stress fractures consistent with this type of construction, the foundation appears to be in fair condition.
- Recommendation: No corrective action required.

Slab on Grade

- Analysis: The wood framed sub floor and concrete piers are performing as intended. The basement area and walls show no signs of stress. The substructure is in good condition.
- Recommendation: No corrective action required.

Superstructure

Floor Construction

- Analysis: The floor construction consists of a double layer of wood decking subfloor over flooring joists set into structural masonry walls. The floor system appears to be in good condition.
- Recommendation: No corrective action required.

Roof Construction

- Analysis: The roof construction is solid wood decking over a timber frame. The roof structure is in good condition.
- Recommendation: No corrective action required.

Exterior Enclosure

Exterior Walls

- Analysis: Exterior walls are 4 wythe structural masonry with a face brick exterior. The walls are in good condition.
- Recommendation: No corrective action required.

Exterior Windows

- Analysis: The exterior windows are a wood single glazed double hung units with a six lite sash. The windows are in good condition.
- Recommendation: No corrective action required.

Exterior Doors

- Analysis: Exterior doors consist of solid core wood doors in wood frames with electronic locks. The doors are in good condition.
- Recommendation: No corrective action required.

Roofing

Roof Coverings

- Analysis: The roof covering is Vermont slate in good condition.
- Recommendation: No action required.

Interior Construction

Partitions

- Analysis: The interior partitions are plaster on wood lath over wood stud framing. The walls are in good condition.
- Recommendation: No corrective action required.

Interior Doors

- Analysis: All the interior doors are solid core wood doors in wood frames. All the interior doors are in good condition.
- Recommendation: No corrective action required.

Fittings

- Analysis: This building contains no items related to this sub-system.
- Recommendation: No corrective action required.

Stairs

Stair Construction

- Analysis: Stairs are wood framed with wood handrails and rubber covered risers. There are four sets of stairs all located in the interior of the building. There are no elevators in the structure. The stairs are in good condition.
- Recommendation: No corrective action required.

Interior Finishes

Wall Finishes

- Analysis: Wall finishes consist of vinyl covered plaster or drywall in the guest rooms and common areas and paint in back of the house spaces. The vinyl and paint is in fair condition.
- Recommendation: Replace vinyl wall coverings. Paint the back of house spaces.

Floor Finishes

- Analysis: Floor finishes are carpet in guest rooms and common areas and ceramic tile in the bathrooms. The carpet is in fair condition. The ceramic tile is in good condition.

- Recommendation: Replace carpet through out the building.

Ceiling Finishes

- Analysis: Ceilings are suspended acoustic tile and grid system. The suspended tile is in fair condition. Some back of house areas have painted plaster. The paint is in fair condition.
- Recommendation: Replace the the acoustic tile system. Paint the ceilings in back of house areas.

Plumbing

Plumbing Fixtures

- Analysis: Each unit has an individual rest room containing a lavatory and vanity, a water closet and a built in place shower. Ventilation is provided by individually controlled electric exhaust units connected to venting ducts. The plumbing fixtures are in good condition.
- Recommendation: No corrective action required.

Domestic Water Distribution

- Analysis: Hot water is produced from a gas fired boiler and 500 gallon storage tank located in the mechanical room. The piping is in poor condition.
- Recommendation: Replace the domestic water system.

HVAC

Cooling Generating Systems

- Analysis: Air conditioning to the building is provided by a chilled water circulating system with individual room damper controls. The system is inadequate and in poor condition.
- Recommendation: Replace the air conditioning system with a new multi-zone system with individual room controls.

Fire Protection

Sprinklers

- Analysis: The building does not have a sprinkler system.
- Recommendation: Install sprinkler system as required by code.

Electrical

Electrical Service/Distribution

- Analysis: Electric service is supplied to the building from an overhead transformer bank. Secondary service is 120/208Y volt 3 phase with a 400 amp main disconnect. Distribution panels are located in the basement to provide power for lighting and receptacles. The electrical service is in poor condition. Lighting is incandescent and is in poor condition. Outlets in the units are insufficient and in poor condition.
- Recommendation: Replace the electrical system.

Communications and Security

- Analysis: The fire alarm system was upgraded within the last 5 years and is in good condition. The fire panel emits a radio signal directly to the fire department.

- Recommendation: The fire alarm system needs to be upgraded to meet current code requirements.

Equipment

Other Equipment

- Analysis: No back of the house equipment exists on this location.
- Recommendation: No corrective action required.

Site Preparation

Site Earthwork

- Analysis: The site consists of grass covered yard areas and shared parking lots with access to main roads. The site is graded properly to allow for drainage. The site is in good condition.
- Recommendation: No corrective action required.

Major Functional Criteria

Major Functional Criteria Analysis

The following are existing conditions that do not meet the Functional Criteria and are considered major deficits. Listed are the recommendations or solutions for remedying each deficit.

- **Back-of-House Spaces**

Most of the back-of-house spaces required are located at the main lodging building on post. Presently these are located in building 592, and are not included in this building.

- **Family Guest Suite**

Room Size and Configuration: The rooms do not meet size and configuration requirements.

Recommendation: A Renovation Cost estimate is used to indicate a total renovation of the building into 12 family suites. This renovation will cost more than 50% of the building's replacement cost.

- **Public Spaces**

Most of the public spaces required are located at the main lodging building on post. Presently these are located in building 592, and are not included in this building.

Condition Assessment/Renovation/Replacement Analysis

Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

Summary of Project Cost

CSI	Percent	Amount
09 Finishes	22.65%	\$50,075.91
Acoustical Ceiling & Grid: Beyond expt useful life		\$20,281.36
Carpet: Beyond Useful Life		\$17,468.54
Interior ceilings: Paint Failing		\$487.67
Interior walls: Paint failing		\$870.84
Vinyl Wall Covering: Damaged or Failing		\$10,967.50
13 Special Construction	15.58%	\$34,446.98
Fire Sprinklers: Missing or Inadequate		\$34,446.98
15 Mechanical	26.60%	\$58,808.20
AHU: Beyond expected useful life		\$38,742.17
Domestic water system: Beyond expected useful life		\$20,066.03
16 Electrical	35.17%	\$77,766.53
Branch Circuits: Beyond Expected Useful Life		\$27,334.34
Fixture: Incandescent fixture beyond expected life		\$36,151.89
Main service: Beyond expected useful life		\$14,280.30
Total Raw Cost	100.00%	\$221,098.00

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$1,216.04
Force Protection	9.00%	\$21,998.15
General Conditions	10.00%	\$22,109.80
Total Additional Hard Cost		\$45,323.98

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$26,642.20
SIOH Conus	6.50%	\$19,049.17
Design	10.00%	\$26,642.20
08 MYr Inflation Fct	9.93%	\$33,638.43
Total Soft Cost		\$105,972.00
Total Project		\$372,393.98

Renovation

The Renovation Cost is based on making changes to the building to meet the Army Lodging Standard Functional Criteria. Unless otherwise stated, this cost also includes all building deficiencies listed under the Condition Assessment Cost.

Summary of Project Renovation Cost

CSI	Percent	Amount
03 Concrete	2.14%	\$12,054.00
Stair Construction		\$12,054.00
07 Thermal & Moisture Protection	1.61%	\$9,098.77
Roof Construction		\$9,098.77
08 Doors & Windows	2.83%	\$15,955.56
Interior Doors		\$15,955.56
09 Finishes	26.28%	\$148,244.03
Ceiling Finishes		\$27,059.51
Floor Finishes		\$34,414.78
Partitions		\$33,125.22
Wall Finishes		\$53,644.53
11 Equipment	6.11%	\$34,440.00
Other Equipment		\$34,440.00
13 Special Construction	10.85%	\$61,196.55
Communications & Security		\$27,548.61
Sprinklers		\$33,647.94
15 Mechanical	24.23%	\$136,674.32
Cooling Generating Systems		\$81,324.32
Domestic Water Dist		\$26,568.00
Plumbing Fixtures		\$28,782.00
16 Electrical	15.32%	\$86,407.09
Electrical Service & Distribution		\$86,407.09
19 FF&E	10.64%	\$60,000.00
Interior FF&E allowance		\$60,000.00
Total Raw Cost	100.00%	\$564,070.33

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$3,102.39
Force Protection	9.00%	\$56,122.18
General Conditions	10.00%	\$56,407.03
Total Additional Hard Cost		\$115,631.60

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$67,970.19
SIOH Conus	6.50%	\$48,598.69
Design	10.00%	\$67,970.19
08 MYr Inflation Fct	9.93%	\$85,819.13
Total Soft Cost		\$270,358.20
Total Project Cost for Renovation		\$950,060.13

Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

Summary of Project Replacement Cost

CSI	Percent	Amount
02 Site Work	1.82%	\$17,529.14
Site Earthwork		\$17,529.14
03 Concrete	19.22%	\$184,793.46
Floor Construction		\$127,016.26
Slab on Grade		\$12,939.60
Stair Construction		\$6,027.00
Standard Foundations		\$38,810.60
04 Masonry	6.84%	\$65,735.15
Exterior Walls		\$65,735.15
07 Thermal & Moisture Protection	5.63%	\$54,115.58
Roof Construction		\$21,830.26
Roof Coverings		\$32,285.32
08 Doors & Windows	8.66%	\$83,227.54
Exterior Doors		\$11,057.70
Exterior Windows		\$52,480.00
Interior Doors		\$19,689.84
09 Finishes	12.90%	\$124,008.13
Ceiling Finishes		\$19,859.78
Floor Finishes		\$35,247.19
Partitions		\$37,087.33
Wall Finishes		\$31,813.84
10 Specialties	0.13%	\$1,236.56
Fittings		\$1,236.56
11 Equipment	3.58%	\$34,440.00
Other Equipment		\$34,440.00
13 Special Construction	4.86%	\$46,727.96
Communications & Security		\$21,035.35
Sprinklers		\$25,692.62
15 Mechanical	22.75%	\$218,716.96
Cooling Generating Systems		\$62,096.96
Domestic Water Dist		\$26,568.00
Plumbing Fixtures		\$130,052.00
16 Electrical	7.37%	\$70,861.12
Electrical Service & Distribution		\$70,861.12
19 FF&E	6.24%	\$60,000.00
Interior FF&E allowance		\$60,000.00
Total Raw Cost	100.00%	\$961,391.61

Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$5,287.65
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$96,139.16

Total Additional Hard Cost **\$101,426.81**

Soft Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Contingency	5.00%	\$53,140.92
SIOH Conus	6.50%	\$72,537.36
Design	10.00%	\$106,281.84
08 MYr Inflation Fct	9.93%	\$128,571.51
Total Soft Cost		\$360,531.63
Total Project Cost for Replacement		\$1,423,350.05

INSERT BUILDING 688 FLOOR PLANS HERE



Building 1384
1384 Hardee Road

Building 1384

Building 1384, located at 1384 Hardee Rd., Ft. Sam Houston, Texas, 78234, was constructed in 1974. The 160,000 square foot facility contains 300 lodging units. 299 units are used as standard stay rooms with one set aside for laundry storage.

Significant Assumptions

The replacement and renovation cost models are based on 300 extended stay rooms.

The renovation cost model, if required, uses the existing footprint, with the plan reworked to meet current lodging size requirements.

The renovation cost includes all condition assessment costs.

The renovation and replacement cost models include any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule Template included in the Appendix.

All costs are adjusted by the Area Cost Factor of 82% for Ft Sam Houston.

Cost Analysis

Condition Assessment Cost	\$11,455,530.00
Replacement Cost	\$21,845,870.00
Condition Assessment to Replacement Cost Ratio	52.44%

Because the Condition Assessment to Replacement Cost Ratio is greater than 50%, renovation of Building 1384 is not recommended.

Attributes

01.Number of Units Constructed	300
02.Number of Units Used	299
03.Back of House Function	No
04.Single Room w/o FullKitchen	300
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	0
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	299
11.Operating as Extended Stay	0
12.Operating as Family Suite	0
13.Renovated to Standard	0
14.Renovated to Extended Stay	300
15.Renovated to Family Suite	0
16.Delta renovation	0

Condition Analysis/Recommendation

FF&E

FF&E Allowance

- Analysis: Guest Rooms: The hard goods consist of a head board, night stand, dresser in each bedroom, a couch, easy chair, coffee table, end table, desk and entertainment shelf unit in the living rooms. All are in fair condition. Soft goods consists of drapes and blinds on the windows, TV, mattress and box springs and bed coverings. All are in fair condition and should be replaced by 2008.
- Recommendation: Replace all hard and soft goods in guest rooms.

Foundations

Standard Foundations

- Analysis: Foundation is composed of perimeter beam and poured piers on compacted soil. No clear failures can be seen from perimeter. Foundation is in good condition.
- Recommendation: No corrective action required.

Slab on Grade

- Analysis: A concrete slab covers the foundation and is in good condition.
- Recommendation: No corrective action required.

Superstructure

Floor Construction

- Analysis: The floors are formed in place concrete covered with carpet and tile. The floor structures are in good condition.
- Recommendation: No corrective action required.

Roof Construction

- Analysis: The roof construction is a poured in place concrete slab bearing on the perimeter wall superstructure and interior concrete columns. The system is in good condition.
- Recommendation: No corrective action required.

Exterior Enclosure

Exterior Walls

- Analysis: The exterior walls are brick veneer over wood stud framing attached to the concrete superstructure. The exterior walls are in good condition.
- Recommendation: No corrective action required.

Exterior Windows

- Analysis: Aluminum single pane window, original to the building. All windows and screens are beyond their expected useful life.

- Recommendation: Replace windows with new double glazed, energy efficient window units.

Exterior Doors

- Analysis: Solid wood or steel commercial grade doors with steel frames and electronic locks. The doors are in good condition.
- Recommendation: No corrective action taken.

Roofing

Roof Coverings

- Analysis: The roof system is mastic and gravel ballast over concrete and is beyond useful life.
- Recommendation: Replace roof with new modified bitumen roof system.

Interior Construction

Partitions

- Analysis: The interior partitions are drywall over wood studs and are in good condition.
- Recommendation: No corrective action required.

Interior Doors

- Analysis: Interior doors are hollow core metal doors in steel frames. All the interior doors are in poor condition.
- Recommendation: Prep, prime and paint interior doors.

Fittings

- Analysis: The public area restrooms have metal partitions that are in good condition.
- Recommendation: No corrective action required.

Stairs

Stair Construction

- Analysis: Stairs are concrete and steel in good condition.
- Recommendation: No corrective action required.

Interior Finishes

Wall Finishes

- Analysis: Combination of smooth texture drywall and vinyl wall coverings. Both are in fair condition, but beginning to show wear..
- Recommendation: Install new vinyl wall covering.

Floor Finishes

- Analysis: The units have carpet, the restrooms ceramic tile and the kitchens vinyl tile. The carpet is in fair condition while the vinyl and ceramic tile is in good condition.
- Recommendation: Replace carpet.

Ceiling Finishes

- Analysis: The ceilings in the rooms are painted drywall with smooth texture. The paint is in poor condition.

Public areas have suspended ceilings and are beyond their useful life.

- Recommendation: Repaint interior ceilings. Replace suspended ceilings with a new suspended acoustical ceiling system.

Conveying

Elevators and Lifts

- Analysis: The building has two side by side elevator units that are original to construction. They are beyond their useful life.
- Recommendation: Replace both elevator units.

Plumbing

Plumbing Fixtures

- Analysis: Each unit has an individual rest room containing a lavatory, a water closet and a built in place shower. Ventilation is a constant volume induced draft system. The plumbing fixtures are in fair condition, but do not meet the standard for low volume water closets and do not have vanities.
- Recommendation: Replace plumbing fixtures when replacing domestic water distribution system.

Domestic Water Distribution

- Analysis: Hot water is produced by a gas fired boiler with a 600 gallon storage tank located in the mechanical room. The piping is in poor condition.
- Recommendation: Replace the domestic water system.

HVAC

Cooling Generating Systems

- Analysis: Back of house and common areas are cooled by a recirculating chilled water system. This system is beyond its' expected useful life. All guest rooms have packaged terminal cooling units (PTACs) with heat. The PTACs were installed in the last 5 years and are in good condition.
- Recommendation: Replace chilled water system for the common areas.

Fire Protection

Sprinklers

- Analysis: The building does not have a sprinkler system.
- Recommendation: Install sprinkler system as required by code.

Electrical

Electrical Service/Distribution

- Analysis: Panelboards, receptacles, and wires are beyond their expected useful life. The recent installation of new room HVAC units has placed an increased demand on the system.
- Recommendation: Replace main service and panel to handle increased electrical loads. Replace branch circuits, electrical outlets and lighting.

Communications and Security

- Analysis: The fire alarm system consists of strobes and bells located on the exterior of the building and in the stairwell and hallway areas. The system is in good condition. There are lighted exit signs in the stairwells that are in good condition.
- Recommendation: No corrective action required.

Equipment

Other Equipment

- Analysis: No back of the house equipment exists on this location.
- Recommendation: No corrective action required.

Site Preparation

Site Earthwork

- Analysis: The site consists of grass covered yard areas and shared parking lots with access to main roads. The site is graded properly to allow for drainage. The site is in good condition.
- Recommendation: No corrective action required.

Site Improvements

Parking Lots

- Analysis: The parking lot has sufficient spaces for the building. The surfaces are in good condition.
- Recommendation: No corrective action required.

Site Electrical Utilities

Site Lighting

- Analysis: Site lighting is provided by pole mounted HPS lights. These are in good condition.
- Recommendation: No corrective action required.

Major Functional Criteria

Major Functional Criteria Analysis

The following are existing conditions that do not meet the Functional Criteria and are considered major deficits. Listed are the recommendations or solutions for remedying each deficit.

- **Back-of-House Spaces**

Most of the back-of-the-house spaces required are located at the main lodging building on post. Presently these are located in building 592, and are not included in this building.

- **Public Spaces**

Most of the public spaces required are located at the main lodging building on post. Presently these are located in building 592, and are not included in this building.

Condition Assessment/Renovation/Replacement Analysis

Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

Summary of Project Cost

CSI	Percent	Amount
07 Thermal & Moisture Protection	1.32%	\$90,006.17
Roofing: Beyond Useful Life		\$90,006.17
08 Doors & Windows	7.20%	\$489,837.66
Al. Windows - Beyond Useful Life		\$254,590.32
Sliding Closet Door: Damaged or Failing		\$235,247.34
09 Finishes	11.65%	\$792,159.32
Acoustical Ceiling & Grid: Beyond expt useful life		\$201,059.18
Carpet: Beyond Useful Life		\$350,335.02
Door and Frame: Paint Failing or Damaged		\$60,491.40
Interior ceilings: Paint Failing		\$39,187.80
Vinyl Wall Covering: Damaged or Failing		\$141,085.92
10 Specialties	0.28%	\$19,077.30
BR Accessories: Replace due to remodel		\$19,077.30
11 Equipment	12.66%	\$861,246.00
Unit Kitchen: Beyond Useful Life		\$861,246.00
13 Special Construction	7.64%	\$519,782.84
Fire Sprinklers: Missing or Inadequate		\$519,782.84
14 Conveying Systems	2.67%	\$181,310.20
Elevator: Beyond expected useful life		\$181,310.20
15 Mechanical	20.26%	\$1,377,681.64
AHU: Beyond expected useful life		\$288,439.19
Domestic water system: Beyond expected useful life		\$302,673.85
Restroom exhaust: Beyond expected useful life		\$352,723.00
Sink & vanity: Replace due to remodel		\$190,084.20
Water closet: Beyond expected useful life		\$243,761.40
16 Electrical	14.27%	\$970,285.05
Branch Circuits: Beyond Expected Useful Life		\$411,384.53
Fixture: Incandescent fixture beyond expected life		\$309,673.00
Fixtures, fluorescent: Beyond expected useful life		\$182,802.60
Main service: Beyond expected useful life		\$66,424.92
19 FF&E	22.05%	\$1,500,000.00
Hard and soft goods: Beyond expected useful life		\$1,500,000.00
Total Raw Cost	100.00%	\$6,801,386.00

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$37,407.62
Force Protection	9.00%	\$676,703.90
General Conditions	10.00%	\$680,138.60

Total Additional Hard Cost **\$1,394,250.12**

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$819,563.61
SIOH Conus	6.50%	\$585,987.98
Design	10.00%	\$819,563.61
08 MYr Inflation Fct	9.93%	\$1,034,780.61
Total Soft Cost		\$3,259,895.81
Total Project		\$11,455,531.94

Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

Summary of Project Replacement Cost

CSI	Percent	Amount
02 Site Work	2.40%	\$354,009.66
Parking Lots		\$205,656.00
Site Earthwork		\$148,353.66
03 Concrete	24.30%	\$3,585,673.17
Floor Construction		\$2,830,174.37
Slab on Grade		\$109,847.20
Stair Construction		\$96,432.00
Standard Foundations		\$549,219.60
04 Masonry	3.43%	\$506,410.51
Exterior Walls		\$506,410.51
07 Thermal & Moisture Protection	3.89%	\$574,073.50
Roof Construction		\$304,475.18
Roof Coverings		\$269,598.31
08 Doors & Windows	8.58%	\$1,265,574.06
Exterior Doors		\$23,062.50
Exterior Windows		\$997,120.00
Interior Doors		\$245,391.56
09 Finishes	13.28%	\$1,959,133.65
Ceiling Finishes		\$303,931.25
Floor Finishes		\$747,150.82
Partitions		\$508,629.18
Wall Finishes		\$399,422.39
10 Specialties	0.02%	\$2,779.39
Fittings		\$2,779.39
11 Equipment	5.84%	\$861,000.00
Other Equipment		\$861,000.00
13 Special Construction	4.48%	\$661,260.40
Communications & Security		\$297,677.02
Sprinklers		\$363,583.38
14 Conveying Systems	1.19%	\$176,136.00
Elevators and Lifts		\$176,136.00
15 Mechanical	16.00%	\$2,360,575.00
Cooling Generating Systems		\$988,595.28
Domestic Water Dist		\$442,800.00
Plumbing Fixtures		\$929,179.72
16 Electrical	6.43%	\$949,011.42
Electrical Service & Distribution		\$941,811.82
Site Lighting		\$7,199.60
19 FF&E	10.17%	\$1,500,000.00
Interior FF&E allowance		\$1,500,000.00
Total Raw Cost	100.00%	\$14,755,636.76

Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$81,156.00
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$1,475,563.68
Total Additional Hard Cost		\$1,556,719.68

Soft Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Contingency	5.00%	\$815,617.82
SIOH Conus	6.50%	\$1,113,318.33
Design	10.00%	\$1,631,235.64
08 MYr Inflation Fct	9.93%	\$1,973,342.05
Total Soft Cost		\$5,533,513.85
Total Project Cost for Replacement		\$21,845,870.29

INSERT BUILDING 1384 FLOOR PLANS HERE



*Building 3625
3625 Binz-Englemann Road*

Building 3625

Building 3625 was constructed in 1998. The 79,000 square foot facility contains 150 lodging units. 120 of the units are used as extended stay rooms while 30 units are functioning as family suites.

Significant Assumptions

The replacement cost model is based on 120 extended stay rooms and 30 family suites.

The renovation plan was not required because existing spaces meet current size requirements and the current building is in good condition to meet lodging requirements.

The replacement cost model includes any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule Template included in the Appendix.

All costs are adjusted by the Area Cost Factor of 82% for Fort Sam Houston.

Cost Analysis

Condition Assessment Cost	\$952,245.00
Replacement Cost	\$12,273,175.00
Condition Assessment to Replacement Cost Ratio	7.76%

Because the Condition Assessment to Replacement Cost Ratio is less than 50%, repair and continued use of Building 3625 is recommended.

Attributes

01.Number of Units Constructed	150
02.Number of Units Used	150
03.Back of House Function	No
04.Single Room w/o FullKitchen	120
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	30
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	120
11.Operating as Extended Stay	0
12.Operating as Family Suite	30
13.Renovated to Standard	0
14.Renovated to Extended Stay	120
15.Renovated to Family Suite	30
16.Delta renovation	0

Condition Analysis/Recommendation

FF&E

FF&E Allowance

- Analysis: Guest Rooms: The hard goods consist of a head board, night stand, dresser in each bedroom, a couch, easy chair, coffee table, end table, desk and entertainment shelf unit in the living rooms. All are in like new condition. Soft goods consist of drapes and blinds on the windows, TV, mattress and box springs and bed coverings. All are in like new condition.
- Recommendation: No corrective action required. All the FF&E should be replaced if the structure is renovated. If the structure is not renovated, the FF&E should be replaced no later than 2008.

Foundations

Standard Foundations

- Analysis: The foundation is composed of perimeter beams and poured piers on compacted soil. No clear failures can be seen from perimeter. The foundation is in good condition.
- Recommendation: No corrective action required.

Slab on Grade

- Analysis: A concrete slab covers the foundation and is in good condition.
- Recommendation: No corrective action required.

Superstructure

Floor Construction

- Analysis: The floors are formed in place concrete covered with carpet and tile. The floor structures are in good condition.
- Recommendation: No corrective action required.

Roof Construction

- Analysis: The roof consists of a plywood deck attached to sloped wooden rafters. The roof construction is in good condition.
- Recommendation: No corrective action required.

Exterior Enclosure

Exterior Walls

- Analysis: The exterior walls are brick veneer over wood or steel stud framing. The exterior walls are in good condition.
- Recommendation: No corrective action required.

Exterior Windows

- Analysis: The windows are vinyl clad double glazed, low E glass, single hung windows. The windows are in good condition.
- Recommendation: No corrective action required.

Exterior Doors

- Analysis: Exterior doors are solid wood or steel commercial grade doors with steel frames and electronic locks. The doors are in good condition.

- Recommendation: No corrective action required.

Roofing

Roof Coverings

- Analysis: The roof covering is a metal panel over plywood sheathing.

- Recommendation: No corrective action required.

Interior Construction

Partitions

- Analysis: The interior partitions are drywall over wood studs and are in good condition.

- Recommendation: No corrective action required.

Interior Doors

- Analysis: Interior doors are solid core wood doors in wood frames, in fair condition.

- Recommendation: No corrective action required.

Fittings

- Analysis: The public area restrooms have metal partitions that are in good condition.

- Recommendation: No corrective action required.

Stairs

Stair Construction

- Analysis: Stairs are concrete and steel in good condition.

- Recommendation: No corrective action required.

Interior Finishes

Wall Finishes

- Analysis: Wall finishes are a combination of vinyl wall covering and painted drywall. They are in fair condition.

- Recommendation: Replace vinyl wall covering. Paint walls.

Floor Finishes

- Analysis: The units have carpet in fair condition. The restrooms ceramic tile in good condition. The kitchens have vinyl tile in good condition.

- Recommendation: Replace carpet and floor tile.

Ceiling Finishes

- Analysis: Ceiling finishes are suspended tile systems in administrative, BOH, corridors and public areas. The suspended tile is beyond its' useful life. All guest rooms have painted drywall ceilings.

- Recommendation: Replace suspended acoustic tile and grid system. Paint all guest room ceilings.

Conveying

Elevators and Lifts

- Analysis: There are two elevators located in the lobby area. They are in good condition.
- Recommendation: No corrective action required.

Plumbing

Plumbing Fixtures

- Analysis: Each unit has an individual rest room containing a lavatory and vanity, a water closet and a built in place shower. Ventilation is provided by individual controlled electric exhaust units connected to venting ducts. The plumbing fixtures are in good condition.
- Recommendation: No action required.

Domestic Water Distribution

- Analysis: Hot water is produced from a gas fired boiler and 500 gallon storage tank located in the mechanical room. The system is in good condition. The piping is in poor condition. Numerous pinhole leaks have occurred causing increased maintenance costs.
- Recommendation: Replace the domestic water system.

HVAC

Cooling Generating Systems

- Analysis: Back-of-house and common areas are cooled by a recirculating chilled water system. All guest rooms have packaged terminal cooling units (PTACs) with heat. The PTACs were installed in the 1998 original construction and are in good condition.
- Recommendation: No corrective action required.

Fire Protection

Sprinklers

- Analysis: There is a forced water sprinkler system installed throughout the structure. Hard wired smoke and heat detectors are installed in each living unit. The fire protection equipment is new condition.
- Recommendation: No corrective action required.

Electrical

Electrical Service/Distribution

- Analysis: Electric service is supplied to the building from a pad mounted transformer bank. Secondary service is 120/208Y volt 3 phase with a 400 amp main disconnect. Distribution panels are located in the mechanical room to provide power for lighting and receptacles. The electrical service is in good condition.
- Recommendation: No corrective action required.

Communications and Security

- Analysis: The fire alarm system consists of strobes and bells located on the exterior of the building and in the stairwell and corridors. This system is in good condition. There are lighted exit signs in the stairwells that are in good condition.

- Recommendation: No corrective action required.

Equipment

Other Equipment

- Analysis: This building has a self contained BOH laundry operation. The extractors and dryers are in good condition.
- Recommendation: No corrective action required.

Site Preparation

Site Earthwork

- Analysis: The site consists of grass covered yard areas and shared parking lots with access to main roads. The site is graded properly to allow for drainage. The site is in good condition.
- Recommendation: No corrective action required.

Site Improvements

Parking Lots

- Analysis: The parking lot is adequate for the building. The surfaces are in good condition.
- Recommendation: No corrective action required.

Site Electrical Utilities

Site Lighting

- Analysis: Site lighting is provided by pole mounted HPS lights. These are in good condition.
- Recommendation: No corrective action required.

Major Functional Criteria

- **Major Functional Criteria Analysis**

The following are existing conditions that do not meet the Functional Criteria and are considered major deficits. Listed are the recommendations or solutions for remedying each deficit.

- **Back-of-House Spaces**

Most of the back-of-the-house spaces required are located at the main lodging building on post. Presently these are located in building 592, and are not included in this building.

Housekeeping Rooms:
Undersized.

Renovation Recommendation:
Change existing in house laundry to housekeeping on first floor.

In-House Laundry:
Exists, but is not required for a secondary facility.

Renovation Recommendation:
Move In-House laundry to new Main Lodging Facility.

Administrative Offices:
Exists, but is not required for a secondary facility.

Renovation Recommendation:
Move Administrative Offices to new Main Lodging Facility.

- **Public Spaces**

Most of the public spaces are required at the main lodging building on post. Presently these are located in building 592, and are not included in this building.

Condition Assessment/Renovation/Replacement Analysis

Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

Summary of Project Cost

CSI	Percent	Amount
09 Finishes	56.03%	\$316,763.82
Acoustical Ceiling & Grid: Beyond expt useful life		\$80,133.80
Carpet: Beyond Useful Life		\$162,232.82
Interior ceilings: Paint Failing		\$25,157.60
Interior walls: Paint failing		\$25,157.60
Vinyl Wall Covering: Damaged or Failing		\$24,082.00
11 Equipment	17.43%	\$98,523.00
Stove: Missing or inadequate		\$98,523.00
15 Mechanical	26.55%	\$150,080.34
Domestic water system: Beyond expected useful life		\$150,080.34
Total Raw Cost	100.00%	\$565,367.00

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$3,109.52
Force Protection	9.00%	\$56,251.19
General Conditions	10.00%	\$56,536.70
Total Additional Hard Cost		\$115,897.41

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$68,126.44
SIOH Conus	6.50%	\$48,710.41
Design	10.00%	\$68,126.44
08 MYr Inflation Fct	9.93%	\$86,016.41
Total Soft Cost		\$270,979.70
Total Project		\$952,244.11

Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

Summary of Project Replacement Cost

CSI	Percent	Amount
02 Site Work	2.27%	\$187,995.21
Parking Lots		\$102,828.00
Site Earthwork		\$85,167.21
03 Concrete	25.04%	\$2,075,359.91
Floor Construction		\$1,624,798.61
Slab on Grade		\$63,041.60
Stair Construction		\$72,324.00
Standard Foundations		\$315,195.70
04 Masonry	3.73%	\$309,377.07
Exterior Walls		\$309,377.07
07 Thermal & Moisture Protection	4.02%	\$333,455.62
Roof Construction		\$178,476.59
Roof Coverings		\$154,979.03
08 Doors & Windows	8.07%	\$669,122.46
Exterior Doors		\$17,060.10
Exterior Windows		\$505,120.00
Interior Doors		\$146,942.36
09 Finishes	13.40%	\$1,110,778.62
Ceiling Finishes		\$171,464.78
Floor Finishes		\$388,446.82
Partitions		\$305,513.54
Wall Finishes		\$245,353.48
10 Specialties	0.03%	\$2,779.39
Fittings		\$2,779.39
11 Equipment	5.19%	\$430,500.00
Other Equipment		\$430,500.00
13 Special Construction	4.58%	\$379,495.62
Communications & Security		\$170,836.07
Sprinklers		\$208,659.55
14 Conveying Systems	2.12%	\$176,136.00
Elevators and Lifts		\$176,136.00
15 Mechanical	15.89%	\$1,317,257.84
Cooling Generating Systems		\$504,313.12
Domestic Water Dist		\$243,540.00
Plumbing Fixtures		\$569,404.72
16 Electrical	6.61%	\$547,570.99
Electrical Service & Distribution		\$543,971.19
Site Lighting		\$3,599.80
19 FF&E	9.05%	\$750,000.00
Interior FF&E allowance		\$750,000.00
Total Raw Cost	100.00%	\$8,289,828.73

Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$45,594.06
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$828,982.87
Total Additional Hard Cost		\$874,576.93

Soft Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Contingency	5.00%	\$458,220.28
SIOH Conus	6.50%	\$625,470.69
Design	10.00%	\$916,440.57
08 MYr Inflation Fct	9.93%	\$1,108,638.54
Total Soft Cost		\$3,108,770.08
Total Project Cost for Replacement		\$12,273,175.74

**INSERT BUILDING 3625 FLOOR PLANS HERE
(5 EXISTING PLANS AND 5 RENOVATION PLANS)**

Army Lodging Wellness Recommendation

Appendix

ROOM / SPACE	1-10 Units	11-49 Units	50-149 Units	150-199 Units	200-299 Units	300-399 Units	400-599 Units	600-799 Units	800+	At Main Facility on Post Only	Note
Public Areas											
Exterior Entrance	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Vestibule	100	100	150	150	200	200	200	200	200		In Main Lodging facilities square footage included in Lobby
Lobby (includes vestibule at Main Lodging facilities)	300-500	300-500	500-800	500-800	800-1000	800-1000	1,000-1,200	1,000-1,200	1,200-1,500	X	Includes square footage of vestibule at Main Lodging facilities
Front Desk	2 station / 100 s.f.	2 station / 100 s.f.	2 station / 100 s.f.	3 station / 150 s.f.	3 station / 150 s.f.	3 station / 250 s.f.	3 station / 250 s.f.	4 station / 300 s.f.	4 station / 300 s.f.	X	
Bell Cart Station	2 carts / 24 s.f.	2 carts / 24 s.f.	3 carts / 36 s.f.	3 carts / 36 s.f.	4 carts / 48 s.f.	4 carts / 48 s.f.	6 carts / 72 s.f.	6 carts / 72 s.f.	8 carts / 96 s.f.		Not required at facilities w/out interior corridors if building is retained.
Breakfast Bar (Seat/Svc)	550	550	550	550	550	550	550	750	1,000	X	Needed at secondary facility, if it is a remote location. CFSC requirement min 550
Passenger Elevators			1 @ 64 s.f. 50-99 rooms 2 @ 64 s.f. 100-149 rooms	2 @ 64 s.f. each	2 @ 64 s.f. 400-499 rooms 3 @ 64 s.f. 500-599 rooms	3 @ 64 s.f. each	3 @ 64 s.f. each	If building is over two stories high			
Stairs	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	
Public Corridors	**	**	**	**	**	**	**	**	**		Minimum 6' wide
Public Telephone Area	2 phones / 12 s.f.	2 phones / 12 s.f.	2 phones / 12 s.f.	2 phones / 12 s.f.	3 phones / 18 s.f.	3 phones / 18 s.f.	4 phones / 24 s.f.	4 phones / 24 s.f.	4 phones / 24 s.f.		House phone in secondary buildings. Pay phones & house phones at Main facility
Vending - Full Service	1 per building / 70 s.f.	1 per building / 70 s.f.	70	70	70-105	105-140	140-210	210-280	280+		1 for every other floor to support up to 200 units / 70 s.f. each
Vending - Ice Only	1 per building / 30 s.f.	1 per building / 30 s.f.	30	30	30-45	45-60	60-90	90-120	120+		1 for every other floor to support up to 200 units / 30 s.f. each
Women - Lobby	100	100	200	200	260	260	315	315	350	X	
Men - Lobby	100	100	200	200	260	260	315	315	350	X	
Multi-Purpose Rm	250	250	250	250	250	250	250	250	250	X	
Study Rooms	See Note	See Note	See Note	See Note	See Note	See Note	See Note	See Note	See Note		1 per 25 extended stay units of 250 s.f. each at posts with schools facilities
Guest Laundries	192	192	192-384	384-576	576-768	768-1152	1152-1536	1536-2112	2112+		CFSC requirement 2w/d for every 75 guest rooms
Gear Wash Rooms	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each		Only at facilities with outdoor training
Guest Bulk Storage	See Note	See Note	See Note	See Note	See Note	See Note	See Note	See Note	See Note		1 unit for every 4 family suites of 25 ea. 40 w/circ.
Guest Rooms											
Guest Room - Standard	300	300	300	300	300	300	300	300	300		
Guest Room - Ext. Stay	300	300	300	300	300	300	300	300	300		
Guest Room - Suites	450	450	450	450	450	450	450	450	450		

ROOM / SPACE	1-10 Units	11-49 Units	50-149 Units	150-199 Units	200-299 Units	300-399 Units	400-599 Units	600-799 Units	800+	At Main Facility on Post Only	Note
Back-of-House Areas											
Manager's Office	180	180	180	180	180	180	180	180	180	X	
Assist. Mgr. Off.	-	-	0 50-99 units 120 100-149 units	120	120	120	120	120	120	X	
Front Office Mgr.	100	100	100	100	100	100	100	100	100	X	
Admin. Offices	2 space / 200-250 s.f.	2 space / 200-250 s.f.	2 spaces / 200-250 s.f.	2 spaces / 200-250 s.f.	5 spaces / 500-600 s.f.	5 spaces / 500-600 s.f.	7 spaces / 800-900 s.f.	7 spaces / 800-900 s.f.	10 spaces / 1,100-1,200 s.f.	X	
Cash Room	50	50	75	75	100	100	125	125	150	X	
Luggage Storage	-	-	75	75	100	100	100	100	100	X	
Admin. Conf. Rm.	250	250	250	250	350	350	350	350	350	X	
Housekeeping Off.	120	120	120	120	120	120	120	120	120	X	
Dirty/Clean Linen Stor.	50	50	50	50	100	100	200	200	400	See Note	At all facilities w/out in-house laundry
In-House Laundry	500	500	500	500	500	500	750	750	900	X	CFSC requirement min 500 s.f.
Receiving Office	75	75	75	75	75	75	75	75	75	X	
Maintenance Area	100	100	175	175	250	250	400	400	600	X	
Kitchen Prep Room	150	150	150	150	150	150	150	150	150	X	facility, if it is a remote location.
Break Room		140	210	210	280	280	350	350	420		
Staff Toilet - Men			200	100	100	100	150	150	200		
Staff Toilet - Women		100	100	100	150	150	200	200	250		
Access Corridor	**	**	**	**	**	**	**	**	**		
Receiving	150	150	150	150	150	150	150	150	200	X	
Housekeep. Rms.	128	128-512	512-1280	1280-1792	1792-2560	2560-3456	3456-5120	5120-6912	6912+		128 s.f. for each 15 guest rooms
Service Elevator	80	80	80	80	80	80	80	80	80		
Data/Commo Rm.	100	100	100	100	150	150	150	150	150		
Switch Closets	16 *	16 *	16-48 *	48-64 *	64-96 *	96-128 *	128-144 *	144-256 *	256+ *		1 closet of 16 s.f. for approximately 50 guest rooms
Janitor Closet	50	50	50	50	50	50	50	50	50	X	Only at first floor of Main Lodging facility.
Mechanical Room	*	*	*	*	*	*	*	*	*		
General Stor. Rm.	500	500	500	500	500	500	500	500	500	X	
Bulk Storage Rm.	500	500	500	500	500	500	500	500	500	X	
Electrical Room	140 *	140 *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *		One electrical room to serve no more than 100 rooms.
Elevator Equip.Rm.	84	84	84	84	84	84	84	84	84		
EXTERIOR											
Playground (Outdoor)										X	Play ground required at facilities with family stays.
Grounds Maintenance	400	400	400	400	400	400	400	400	400	X	

* Mechanical/electrical/equipment Spaces to be determined by contractor based on appropriate code and recommended systems.

** Corridors to be determined based on building layout.