

Army Lodging Wellness Recommendation



Fort Leavenworth - Final Submittal

July 25, 2003

3D/I

Table of Contents

Section 1 – Wellness Recommendation	1-1
Introduction	1-1
Methodology	1-1
Demand Summary	1-2
Lodging Summary	1-3
Cost Summary	1-4
Recommendation / Conclusion	1-5
Section 2 – Lodging Master Plan	2-1
Installation Summary	2-1
Master Plan Summary	2-1
Existing Lodging Summary	2-2
New Lodging Building	2-6
Section 3 – Demand Analysis	3-1
Overview	3-1
On Post Inventory	3-2
Demand and Utilization	3-2
Private Market Capability	3-5
Demand Requirement Determination	3-6
Summary and Recommendations	3-9
Section 4 – Facility Assessment / Plans	4-1
Appendix	A
Areas and Occupancy Chart	A-1

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 Leavenworth 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 “80% of Official Demand Excluding Exodus Months” criterion. Using this criterion, we expect an occupancy rate of 81% which meets 82% of the projected official demand.

Room Count and Mix Recommendation

- 646 rooms
- Proposed room mix:
 - 142 standard guest rooms
 - 486 extended-stay guest rooms offering a kitchenette
 - 18 extended-stay family suites offering a separate bedroom, sitting/living area and kitchenette

The demand analysis has determined a need of 646 rooms; however, based on existing and proposed building configurations, the actual number recommended for the Fort Leavenworth Wellness Plan will be 647 rooms.

Lodging Summary

The following Lodging for Fort Leavenworth 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 Units					Wellness Recommendation (FY 08)			
	Total Units	Std Rms 300 sf	Extend. Stay Rms 300 sf	Family Suites 450 sf	Other Units	Total Units	Std Rms 300 sf	Extend. Stay Rms 300 sf	Family Suites 450 sf
Wellness Recommendation based on Demand Analysis						646	142	486	18
Existing Lodging Facilities									
3	6				6	0			
22	9				9	0			
43	23			23		0			
197	15			15		0			
213	16			8	8	0			
225	44			44		0			
338	16		16			0			
339	19		16	3		0			
427	12				12	0			
695	614				614	614	142	472	
Totals	774	0	32	93	649	614	142	472	0
New Proposed Lodging Addition									
						33		15	18
Total Lodging Units									
						647	142	487	18

Summary of Room Count and Mix based on Configuration

- 647 rooms
- Proposed room mix:
 - 142 standard guest rooms
 - 487 extended-stay guest rooms offering a kitchenette
 - 18 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 Units	Condition Analysis Cost*	Renovation Cost**	Replacement Cost	% Condition Analysis or Renovation Cost Ratio	Total Units	Total Cost	Renovation Cost	New Construction Cost
Existing Lodging Facilities									
3	6	***	\$ 540,280	\$ 752,525	71.80%	0			
22	9	***	\$ 1,325,500	\$ 1,471,155	90.10%	0			
43	23	***	\$ 2,295,015	\$ 3,110,960	73.77%	0			
197	15	***	\$ 1,333,415	\$ 1,642,805	81.17%	0			
213	16	***	\$ 1,517,155	\$ 2,239,285	67.75%	0			
225	44	\$ 2,031,170	****	\$ 3,482,125	58.33%	0			
338	16	\$ 665,365	****	\$ 1,016,275	65.47%	0			
339	19	\$ 682,770	****	\$ 1,016,275	67.18%	0			
427	12	\$ 1,453,685	****	\$ 2,239,285	64.92%	0			
695	614	***	\$ 20,763,120	\$ 56,674,640	36.64%	614		\$ 20,763,120	
Totals	774					614	\$ 20,763,120	\$ 20,763,120	\$ -
New Proposed Lodging Facility									
						33	\$ 4,218,375		\$ 4,218,375
Total									
						647	\$ 24,981,495	\$ 20,763,120	\$ 4,218,375

* 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.

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 Knox	\$ 53.04	\$ 59.86	\$ 58.66
Off Post Cost per Room	\$ 60.46	\$ 60.46	\$ 60.46
Difference between On-Post and Off-Post Lodging per room	\$ 7.43	\$ 0.60	\$ 1.80
% Savings of On-Post to Off-Post Lodging	12.3%	1.0%	3.0%

The Cost Per Room at Fort Knox 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 23.4%, it is our recommendation that the Army construct an addition and retain one existing facility at Fort Leavenworth 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 Leavenworth is to renovate and construct an addition to building 695 to accommodate 142 standard rooms, 487 extended stay rooms, and 18 family suites, for a total of 647 rooms on-post, to meet the 646 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:

- Existing building 695 shall be used to accommodate 142 standard stay rooms and 472 extended stay rooms. The building shall be renovated to meet functional requirements. This building will include all public and back-of-the-house Lodging functions for the total on-post Lodging inventory.
- New building addition to building 695 shall be constructed to include a wing for 18 family suites and 15 extended stay rooms.
- All other existing on-post Lodging buildings to be removed from the Lodging inventory due to condition of existing building systems and/or cost to renovate to meet Army functional criteria.

Cost Summary

The cost for this recommendation will be:

Renovation of building 695	\$20,763,120
New Lodging Facility Addition	\$ 4,218,375
Total	\$24,981,495

Phasing

Recommend the following phasing as funding is identified.

- Minimize investment in infrastructure for buildings 3, 22, 43, 197, 213, 225, 338, 339, and 427.
- Renovate building 695 and construct new building addition.
- Remove buildings 3, 22, 43, 197, 213, 225, 338, 339, and 427 from lodging inventory.

Installation Summary

Section 2 Lodging Master Plan



Fort Leavenworth, established in 1827, is located in northeastern Kansas and was the first Fort established west of the Missouri River. The primary mission of the installation is to serve as the Combined Arms Center (CAC), educating officers in the art of command and staff functions of the combined arms at the tactical level, and to educate officers in the operational art of war. With construction dating back to 1827, this installation is historically significant with respect to facilities and the mission.

The Fort Leavenworth Master Plan, developed in 2003, 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 this Lodging Wellness Plan.

Phase one of the Fort Leavenworth Master Plan includes the recently approved and usage of new barracks. Final inspection is to be completed in 2003. Phase two construction includes new barracks to be completed in 2008. For the Lodging Master planning, the expansion on the south side of Hoge is considered for future expansion.

The character of Fort Leavenworth has been preserved and enhanced through the use of stone, brick, and stucco. Medium to low sloped tile roofs, natural stone and brick, and small window and exterior openings are often shaded by overhangs or balconies. Long, low building masses exemplify the desired architecture of the installation.

Master Plan Summary

Lodging facilities at Fort Leavenworth were constructed in various phases and are located in several areas of the installation. The primary Lodging facility, Building 695, Hoge Barracks, is located on the main artery of Grant Avenue, north of the main gate.

The proposed Fort Leavenworth Lodging Master Plan reflects the 646 Lodging room requirement with a replacement of 5% of the existing Lodging **buildings** into a new Lodging facility addition. The number of rooms for the proposed addition reflects the proposed layout and does not match the exact demand numbers, because of building configuration. A thorough condition and functional assessment of the existing buildings noted significant deficiencies. Additionally, renovation of these buildings to the new Lodging standards and building configuration design is not viable within the 50% threshold. An addition to the Hoge Barracks, Building 695, to meet the lodging room requirements would combine the required rooms, public areas, and service functions into a cohesive lodging facility. This plan recommends retaining building 695 with some renovation which includes making modifications to all existing lodging rooms to comply with the new Lodging Standards, adding additional supporting facilities to the existing structure, and adding a new addition to the facility.

Existing Lodging Facilities



Building 3, Custer House

Building 3, constructed in 1883, is a historical structure and is divided into 6 DVQ rooms. This facility has two stories plus a basement. Each room ranges from 220 to 804 square feet. The building is in good condition but does not comply with Lodging requirements. The cost to make improvements and bring it up to Army Lodging standards will exceed the 50% replacement cost.

Our recommendation is to remove building 3 from the Lodging inventory, allowing the installation to determine an alternate use for this facility. This facility will be removed from the Fort Leavenworth Wellness Solution and Lodging Master Plan.



Building 22, Cooke Hall

Building 22, constructed in 1934, is a historical structure and is divided into 9 DVQ rooms. This facility has two stories plus a basement. Each suite/room ranges from 328 to 504 square feet each. This building was renovated in 1986 and had its roof replaced in 2002. The building is in fair condition but does not comply with Lodging requirements. The cost to make improvements and bring it up to Army Lodging standards will exceed the 50% replacement cost.

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



Building 43, Schofield Hall

Building 43, constructed in 1892, is a historic structure that is divided into 23 suites. This facility has three stories plus a basement. Each suite has 597 square feet, consisting of a living room, bedroom, and full bath. In 1989, the windows were replaced, the electrical system upgraded, and the structure reinforced. The building is in fair condition but does not comply with Lodging standards. The cost to make improvements and bring it up to Army Lodging standards will exceed the 50% replacement cost.

Our recommendation is to remove this building from the Lodging inventory, allowing the installation to determine an alternate use for this facility. This facility will be removed from the Fort Leavenworth Wellness Solution and Lodging master plan.

Building 197, Root Hall



Building 197, constructed in 1901, is a historic structure that has 15 family suites. The facility is a three story building plus basement, with rooms consisting of 504 square feet, each with a living room, bedroom, and full bath. In 1989, the electrical system was upgraded, and the plumbing was renovated throughout the facility. The building is in fair condition but does not comply with Lodging standards. The cost to make improvements and bring it up to Army Lodging standards will exceed the 50% replacement cost.

Our recommendation is to remove this building from the Lodging inventory, allowing the installation to determine an alternate use for this facility. This facility will be removed from the Fort Leavenworth Wellness Solution and Lodging master plan.

Building 213, Otis Hall



Building 213, constructed in 1903, is a historic structure that has 8 family suites at 615 square feet and 8 DVQ rooms at 1,142 square feet. The facility is three stories plus a basement. Each DVQ has a living room, bedroom, kitchen, and full bath. In 1987, a complete renovation was accomplished, with the exception of the addition of central air conditioning. The building is in fair condition but does not comply with

Lodging standards. The cost to make improvements and bring it up to Army Lodging standards will exceed the 50% replacement cost.

Our recommendation is to remove this building from the Lodging inventory, allowing the installation to determine an alternate use for this facility. This facility will be removed from the Fort Leavenworth Wellness Solution and Lodging master plan.

Building 225, Truesdell Hall



Building 225, constructed in 1959, is divided into 44 suites. This facility has two stories plus a basement. Each suite has 544 square feet, consisting of a living room, bedroom, and bath (with shower not tub). The building is in fair condition but does not comply with Lodging standards. **The cost to make condition assessment improvements will exceed the 50% replacement cost.**

Our recommendation is to remove this building from the Lodging inventory, allowing the installation to determine an alternate use for this facility. This facility will be removed from the Fort Leavenworth Wellness Solution and Lodging master plan.

Buildings 338 and 339, Blochberger Terrace



Building 338, constructed in 1963, has 16 single rooms. This facility has two stories plus a basement. Each room has 315 square feet. In 2003 central air conditioning was installed. Building 339, constructed in 1963, has 16 extended stay rooms, and 3 two-room suites in the basement. This facility has two stories plus a basement. Each extended stay room has 340 square feet. In 2003 central air conditioning was installed. These buildings are in good condition but do not comply with Lodging standards. **The cost to make condition assessment improvements will exceed the 50% replacement cost.**

Our recommendation is to remove these buildings from the Lodging inventory, allowing the installation to determine an alternate use for this facility. These facilities will be removed from the Fort Leavenworth Wellness Solution and Lodging master plan.

Building 427, Riverside Apartments



Building 427, constructed in 1921, has 12 multi-room suites. This facility has three stories plus a basement. Each suite has 503 square feet, consisting of a living room, bedroom, kitchen, and full bath. Each guest room has 316 square feet. The building is in poor condition and does not

comply with Lodging standards. **The cost to make condition assessment improvements will exceed the 50% replacement cost.**

Our recommendation is to remove this building from the Lodging inventory, allowing the installation to determine an alternate use for this facility. This facility will be removed from the Fort Leavenworth Wellness Solution and Lodging master plan.

Lodging Building 695, Hoge Barracks

Building 695, constructed in 1987, has 614 rooms. This facility has three stories, with a basement in building “D”. The rooms are approximately 300 square feet each, with two rooms sharing a full kitchen and bath. Building 695 is used as the main Lodging facility and has most of the back-of-the-house and public spaces required. The building is in excellent condition but does not comply with the Lodging standards.



Our recommendation is to renovate this facility to bring it up to current Army Lodging standards, as part of the Fort Leavenworth Wellness Solution and Lodging Master Plan.

Areas and Occupancy

The following chart indicates all spaces and size based on the Army Lodging standard program for the existing building and renovations.

ROOM / SPACE	PROGRAMMED FLOOR AREA			EXISTING PLAN FLOOR AREA	RENOVATION PLAN FLOOR AREA
	No. Req'd	Net Area Per Room	Total Net Area		
Total Area			-	-	
Public Areas					
Exterior Entrance	N/A	N/A	N/A	N/A	N/A
Vestibule	1	1	-	-	*
Lobby (includes vestibule)	1	1000-1200	1000-1200	1,140	1,140
Front Desk	4 stations	300	300	288	288
Bell Cart Station	6	12	72	*	50
Breakfast Bar (Seat/Svc) (550 s.f. min.)	1	750	750	1,750	1,623
Passenger Elevators	3	64	384	*	*
Stairs		230	-	*	*
Public Corridors	-	-	-	*	*
Public Telephone Area	4	6	24	*	*
Vending - Full Service	3	70	210	125	125
Vending - Ice Only	3	30	90	-	-
Women - Lobby	1	315	315	245	245
Men - Lobby	1	315	315	245	245
Multi-Purpose Room - min.	1	250	250	2,880	506
Study Rooms	19	250	4,750	4,245	4,245
Guest Laundries (2 w/d units per 75 rms)	9	192	1,728	1,720	1,720
Gear Wash Rooms - min.	-	170	-	-	-
Guest Bulk Storage (1 per 4 family suites)	-	25 ea. 40 w/circ.	-	-	-
Guest Rooms	614				
Guest Room - Standard	142	300	42,600	42,600	
Guest Room - Ext. Stay	472	300	141,600	141,600	
Guest Room - Suites		450	-	-	

ROOM / SPACE	PROGRAMMED FLOOR AREA			EXISTING PLAN FLOOR AREA	RENOVATION PLAN FLOOR AREA
	No. Req'd	Net Area Per Room	Total Net Area		
Back-of-House Areas					
Manager's Office	1	180	180	180	131
Assistant Manager Offices	1	120	120	120	120
Front Office Manager	1	100	100	156	156
Admin. Offices	7 staff	800-900	800-900	532	1,124
Cash Room	1	100	100	*	49
Luggage Storage	1	100	100	*	46
Admin. Conference Room	1	350	350	-	206
Housekeeping Office	1	120	120	-	124
Dirty/Clean Linen Storage	-	200	-	-	-
In-House Laundry - min.	1	750	750	-	1,080
Receiving Office	1	75	75	-	-
Maintenance Area	1	400	400	-	477
Kitchen Prep Room	1	150	150	864	150
Break Room	1	350	350	36	380
Staff Toilet - Men	1	100	100	-	100
Staff Toilet - Women	1	100	100	-	100
Access Corridor	-	-	*	*	*
Receiving -min.	1	150	150	483	483
Housekeeping Rooms	1 per 15 units	128	3,876	4,220	4,220
Service Elevator	1	80	80	*	*
Data/Commo Room	1	150	150	*	*
Switch Closets	13	16	208	*	*
Janitor Closet	1	50	50	*	*
Mechanical Room	-	-	5,168	*	*
General Storage Room - min.	1	750	750	3,518	3,518
Bulk Storage Room -min.	1	750	750	1,580	1,580
Electrical Room		140	-	*	*
Elevator Equipment Room	1	84	84	*	*
Exterior			400		
Playground (Outdoor)	1	*	*		
Grounds Maintenance	1	400	400		

* Square footage part of infrastructure and not calculated

New Lodging Addition

Lodging Building 695, Hoge Barracks

The proposed building addition is comprised of 33 rooms; 18 family suites and 15 extended stay rooms on the south wing, including the support spaces for rooms. The addition will be a three-story structure.

The proposed new addition to the primary Lodging facility, Building 695, Hoge Barracks, is located on the main artery of Grant Avenue, north of the main gate. The proposed building construction is steel frame with CMU infill walls, sloped roof, and a brick exterior veneer. The architectural guidance for Fort Leavenworth is incorporated into the cost of the new facility.

Modifications will be made to the site and will include rework of the existing parking lot to accommodate the new structure and to meet force protection set-back requirements.

Areas and Occupancy

The following chart indicates all spaces and size for the proposed new addition based on the program and 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 11% Add On Factor (does not include Outside Areas)			21,987	20,970
Public Areas			5,914	4,943
Exterior Entrance	N/A	N/A	-	-
Vestibule	1	1	-	-
Lobby (includes vestibule)	-	300-500	-	-
Front Desk	-	100	-	-
Bell Cart Station	-	12	-	-
Breakfast Bar (Seat/Svc) - min.	-	550	-	-
Passenger Elevators	1	64	192	192
Stairs	2	230	1,380	1,050
Public Corridors	-	-	3,150	3,120
Public Telephone Area	-	4	-	-
Vending - Full Service	-	70	-	-
Vending - Ice Only	-	30	-	-
Women - Lobby	-	100	-	-
Men - Lobby	-	100	-	-
Multi-Purpose Room - min.	-	250	-	-
Study Rooms	-	250	-	-
Guest Laundries (2 w/d sets per 75 rooms)	1	192	192	287
Gear Wash Rooms - min.	-	170	-	-
Guest Bulk Storage	5	25 ea. 40 w/circ.	200	294
Guest Rooms	33		12,600	12,600
Guest Room - Standard	-	300	-	-
Guest Room - Ext. Stay	15	300	4,500	4,500
Guest Room - Suites	18	450	8,100	8,100
Back-of-House Areas			1,294	1,040
Manager's Office	-	180	-	-
Assistant Manager Offices	-	120	-	-
Front Office Manager	-	100	-	-
Admin. Offices	-	200-250	-	-
Cash Room	-	50	-	-
Luggage Storage	-	50	-	-
Admin. Conference Room	-	250	-	-
Housekeeping Office	-	120	-	-
Dirty/Clean Linen Storage	-	50	-	-
In-House Laundry - min.	-	500	-	-
Receiving Office	-	75	-	-
Maintenance Area	-	100	-	-
Kitchen Prep Room	-	150	-	-
Break Room	-	140	-	-
Staff Toilet - Men	-	-	-	-
Staff Toilet - Women	-	-	-	-
Access Corridor	-	-	-	-
Receiving -min.	-	150	-	-
Housekeeping Rooms	2	128	256	372
Service Elevator	-	80	-	-
Data/Commo Room	-	100	-	-
Switch Closets	1	16	16	195
Janitor Closet	-	50	-	-
Mechanical Room	-	-	198	180
General Storage Room - min.	-	500	-	-
Bulk Storage Room -min.	-	500	-	-
Electrical Room	1	140	140	107
Elevator Equipment Room	1	84	84	186
Exterior			400	
Playground (Outdoor)	1			
Grounds Maintenance	1	400	400	

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

Cost Summary

The New Construction Cost

\$ 4,218,375

- The cost is for an addition of 33 rooms.
- All costs are adjusted by the Area Cost Factor of 105% for Fort Leavenworth.

Cost Analysis

Summary of Project Replacement Cost (based on 20,970 s.f.)

CSI	Percent	Amount
02 Site Work	10.98%	\$312,865.61
Parking Lots		\$265,734.00
Site Earthwork		\$47,131.61
03 Concrete	17.33%	\$493,804.19
Floor Construction		\$338,960.69
Slab on Grade		\$34,854.75
Stair Construction		\$15,435.00
Standard Foundations		\$104,553.75
04 Masonry	4.74%	\$135,119.92
Exterior Walls		\$135,119.92
07 Thermal & Moisture Protection	5.09%	\$145,153.88
Roof Construction		\$59,041.87
Roof Coverings		\$86,112.01
08 Doors & Windows	7.57%	\$215,637.45
Exterior Doors		\$14,159.25
Exterior Windows		\$155,400.00
Interior Doors		\$46,078.20
09 Finishes	12.50%	\$356,187.75
Ceiling Finishes		\$56,836.33
Floor Finishes		\$113,560.10
Partitions		\$100,757.02
Wall Finishes		\$85,034.29
10 Specialties	0.06%	\$1,583.40
Fittings		\$1,583.40
11 Equipment	4.26%	\$121,275.00
Other Equipment		\$121,275.00
13 Special Construction	4.42%	\$125,882.72
Communications & Security		\$56,668.13
Sprinklers		\$69,214.58
14 Conveying Systems	3.96%	\$112,770.00
Elevators and Lifts		\$112,770.00
15 Mechanical	16.77%	\$477,692.25
Cooling Generating Systems		\$167,286.00
Domestic Water Dist		\$79,380.00
Plumbing Fixtures		\$231,026.25
16 Electrical	6.54%	\$186,298.88
Electrical Service & Distribution		\$183,994.13
Site Lighting		\$2,304.75

19 FF&E	5.79%	\$165,000.00
Interior FF&E allowance		\$165,000.00
Total Raw Cost	100.00%	\$2,849,271.04
Additional Hard Cost (Template: Army Lodging New Construction)		
Parameter Name	Percent	Amount
Spirit	0.50%	\$15,670.99
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$284,927.10
Total Additional Hard Cost		\$300,598.09
Soft Cost (Template: Army Lodging New Construction)		
Parameter Name	Percent	Amount
Contingency	5.00%	\$157,493.46
SIOH Conus	6.50%	\$214,978.57
Design	10.00%	\$314,986.91
08 MYr Inflation Fct	9.93%	\$381,046.68
Total Soft Cost		\$1,068,505.62
Total Project Cost for Replacement		\$4,218,374.75

INSERT PROPOSED CAMPUS AREA ANALYSIS DRAWING HERE

INSERT LODGING MASTER PLAN DRAWING HERE

INSERT PROPOSED LODGING FACILITY ADDITION (FLRS. 1-3) DRAWINGS HERE

Section 3 Demand Analysis

Fort Leavenworth is home of the Combined Arms Center. The Combined Arms Center's mission is to educate officers in the art of command and staff functions at the tactical level, and to educate officers in the operational art of war. Training is concentrated in the US Army Command and General Staff College (CGSC), in which officers take courses for nine months on military tactics and strategies. The personnel going to CGSC are transferred to Fort Leavenworth on Permanent Change of Station (PCS). The impact the CGSC has on lodging is primarily the temporary lodging of personnel moving to and from the installation.

In addition to the CGSC, there are more than 20 other training classes held throughout the year. Many last more than two weeks, including the Function Area 30 Information Operations ("FA30") and the Combined Armed and Services Staff School ("CAS 3") classes. The CAS 3 class has the longest duration with seven, five-week sessions per year; there are between 325 and 520 students per class. Personnel in these classes are assigned on Temporary Duty (TDY).

Management estimates over 75% of the demand for lodging comes from students/trainees. As result of the duration of the classes, average length of stay exceeds 14 days. Another indicator of reliance on a student-based population is that utilization is very heavily skewed toward personnel on TDY. PCS demand and unofficial travelers only represent 3% and 2%, respectively, of the demand for lodging on the installation. Unofficial demand is not used in the calculation of recommended room inventory.

The table on the following page describes the official demand population at this installation.

Fort Leavenworth Official Market Demand Analysis		
	TDY	PCS
Total Demand:	95%	3%
Market Segmentation:		
Individuals	100%	< 10%
Families	0%	> 90%
Average Length of Stay (Days):		
14 days or less	23% (4 days)	72% (4 days)
More than 14 days	77% (36 days)	28% (28 days)

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

On-post Inventory

Currently, there are 766 lodging rooms in 10 buildings, most of which have either a full kitchen or a kitchenette.

Demand and Utilization

Data Summary

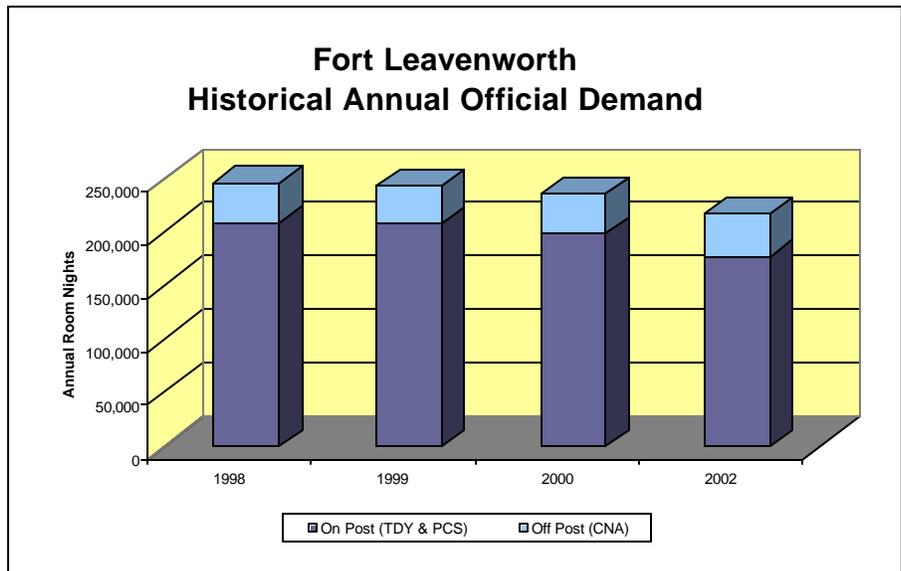
Over the last five years, the number of classes and the class sizes supported by Fort Leavenworth have declined. Correspondingly, demand inclusive of Certificates of Non-Availability (CNAs) has declined from an average of 659 room nights per month to 595 as indicated on the graph below. Permanent party personnel have also declined approximately 10%.

The number of room nights sent off post has increased though the number of room nights housed on post has declined. CNAs issued in 2002 were for an average of 109 room nights compared to 97 room nights sent off post in the previous four years. This increase is not due to a decrease in available rooms on post, but rather to scheduling overlaps between various classes. Management indicated that over time the overlap of classes tends to smooth out, but in any given year, class lodging requirement conflicts do occur and force groups to be sent off post. These conflicts seem to be occurring more frequently resulting in a temporary requirement for off-post lodging.

Additionally, the installation has historically blocked large groups of rooms based on the scheduled enrollment of classes. Initial estimates

have turned out to be significantly higher than actual course attendees resulting in many of the blocked rooms being vacant on a regular basis.

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

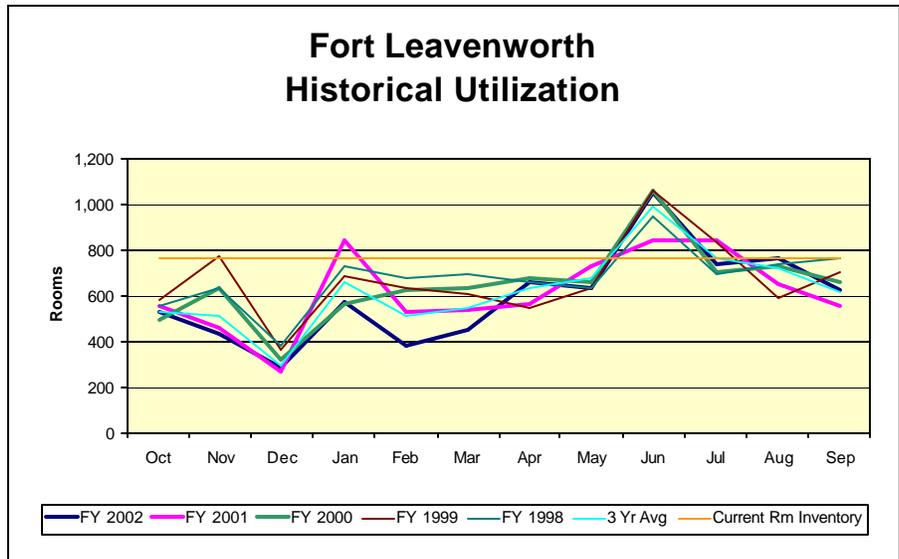


Source: Fort Leavenworth Lodging Administration, compiled by Evans & Chastain, L.L.P.

As a result of declining demand and a constant inventory of rooms, occupancy has steadily declined from 77% in 1998 to 64% in 2002. Available space has not been absorbed by unofficial demand. This sector has also declined by more than one third of its rate since 1998.

While vacancy levels appear excessive, overall official demand suggests that the number of rooms present on the installation may not be that excessive. What exists is the inability of the available rooms to match the demand generated by the installation's training schedule. The frequent holding of multiple classes at the same time creates overlapping demand patterns that force numerous personnel off post. Since Lodging management cannot control this demand--only react to it--it is likely there will be times when the Lodging operation will continue to experience higher than desired vacancy while still sending significant numbers of personnel off post for lodging. There appears to be some risk that Lodging operations will not be able to achieve an 80% occupancy level even though, in aggregate, official demand is significant and CNAs are issued.

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



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

Comparing the same month over several years shows that monthly variances between years have not been significant. Demand trends have shown relatively consistent relationships over time. The exception is February of 2002, when demand fell to 380 room nights per month, substantially below the 614 average of the previous four years. At this time, the duration of the CAS 3 class was reduced from six weeks to five weeks, and enrollment was only 62% of what had been predicted. The impact of February's low occupancy decreased the average number of rooms sold for the year by nine rooms.

Seasonality

The installation's lodging demand cycle shows seasonality exists, but is limited to three or four months. Peak demand occurs during June, July, and August with official demand ranging from 700 to 1,050 rooms per night over the last five years. Low demand month occurs in December, an exodus period when few classes are held. The significant drop in December distorts the average demand throughout the rest of the year, and suggests that December should be excluded when determining the appropriate number of rooms for the installation. Demand throughout the

rest of the year is fairly consistent, ranging from 500 to 650 room nights per month.

Factors Influencing Demand

Within the last six months, lodging has changed its room-booking policy, and is now blocking 85% of the maximum enrollment for the largest classes. Students above this block are sent off post. This has allowed management to utilize more of their rooms. Management believes that this may decrease the number of CNAs as much as 10,000 to 15,000 room nights annually, an estimate that appears reasonable.

Fort Leavenworth is part of the Army Family Housing Master Plan to privatize much of the Army's family housing. Scheduled for 2005, privatization is expected to have a nominal effect on the housing inventory of 1580 family housing units. It will increase inventory by three homes. Combined with an installation population that is not expected to change in the next five years, demand for PCS lodging should not change over the next two to five years.

It appears from projected manpower data, projected class schedules and a steady increase in inquiries about the availability of rooms; the population will stabilize at 2002 rates, and grow minimally for the next five years.

Private Market Capability

The commercial lodging market 30-minute rush-hour driving time radius of the installation approximates 3,750 to 4,250 rooms. It is estimated that more than 75% of these rooms are located in properties represented by major lodging chains.

There are no other military Lodging operations within a 30-minute radius of the installation.

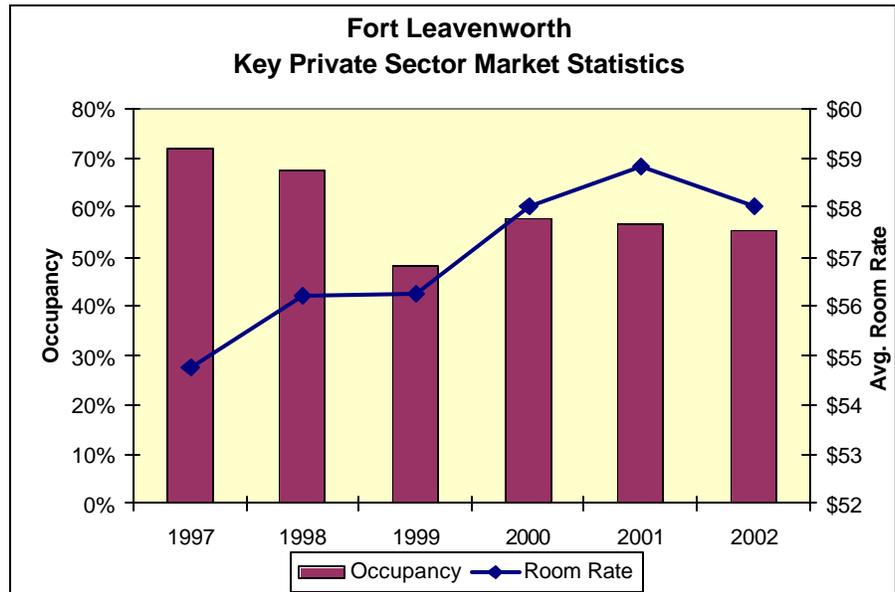
The off-post market currently has an excess supply of rooms. This oversupply has been created in the last several years by construction of additional rooms. The number of rooms available has increased by 25% to 35% since 1997. Most of this growth has resulted from the growth of Kansas City. The lodging properties built along IH 29 and around the International Airport are within 20 miles of Fort Leavenworth.

As can be seen in the graph below, the increased number of lodging rooms has negatively impacted occupancy, decreasing occupancy rates from 72% in 1997 to 53% in 1999 and recently stabilizing at 55% to 56%

in 2001 and 2002. A review of the monthly occupancies of the major hotel chains within 20 miles of the post suggests a seasonal demand spike in the summer.

The increase in rooms in the last several years has enhanced the ability of the installation to lodge personnel off post at government per diem rates. The average daily rate has increased nominally in the last five years. The 2002 ADR of \$58 approximates the lodging per diem rate and the ADR (\$50 to \$55) of the three most frequently used off-post competitors.

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 Leavenworth personnel may encounter.

Demand Requirement Determination

As discussed earlier, official lodging demand has been declining and future population growth is expected to be minimal. This would suggest that significantly fewer rooms would be needed in the future than are currently present on the installation.

Closer analysis of the monthly demand for 2002 indicated that, in addition to February 2002 being significantly below the historical demand levels,

the same was true for January and March. In the other nine months of 2002, the month-to-month demand was similar to that experienced in 2001 and in many cases, higher. If one used the average demand for 2001 and 2000 experienced in January through March instead of that actually incurred, the average demand for 2002 would be 631 rooms compared to 595 in 2002, 614 in 2001, and 646 in 2000.

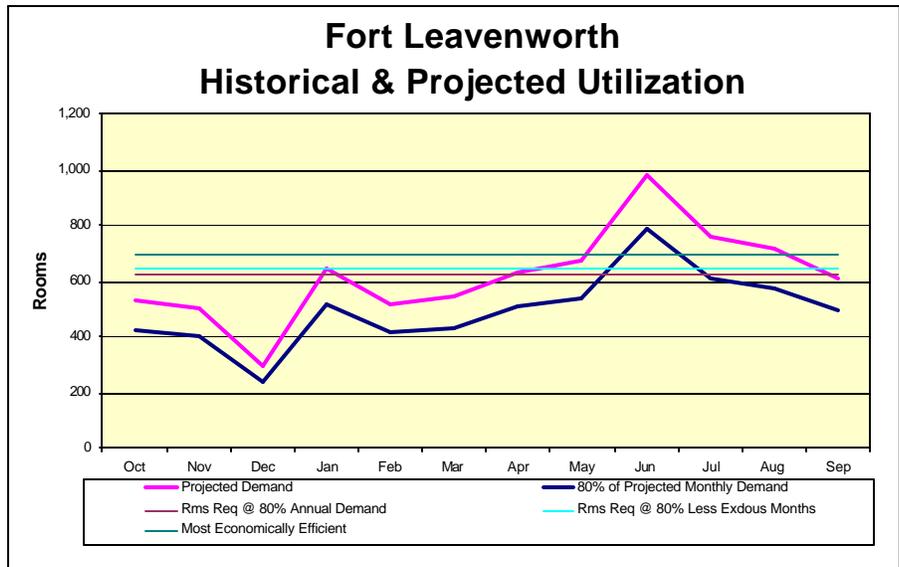
Based on these factors, it was determined that the average demand for the last three years would be the best indicator of future demand after being normalized. Normalization of demand is a process that eliminates the monthly demand peaks or valleys where official demand is 20% greater or 20% less than average demand for 2000 through 2002. Variances greater or less than 20% of a three-year average are atypical and not likely to recur. For Fort Leavenworth, the normalization reduced demand by 1.5 rooms over the three-year period.

The objective of 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 624, generating occupancy of 82%. However, at this room count the installation will fall 75 rooms short of meeting the 80% guideline from April through May. If the predictably lower demand in December is excluded, and the 80% official demand is computed, then 646 rooms are needed.

Another factor in determining the appropriate number of rooms to be provided at the installation is to apply the "Most Economically Efficient" criterion. This measure compares the cost of having a vacant room to the incremental cost of lodging personnel off post. 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 693 rooms, with a theoretical occupancy of 79% and 86% of the official demand being met.

The average daily rate in FY 2008 dollars is predicted to be \$47.00 using FY 08 dollars.

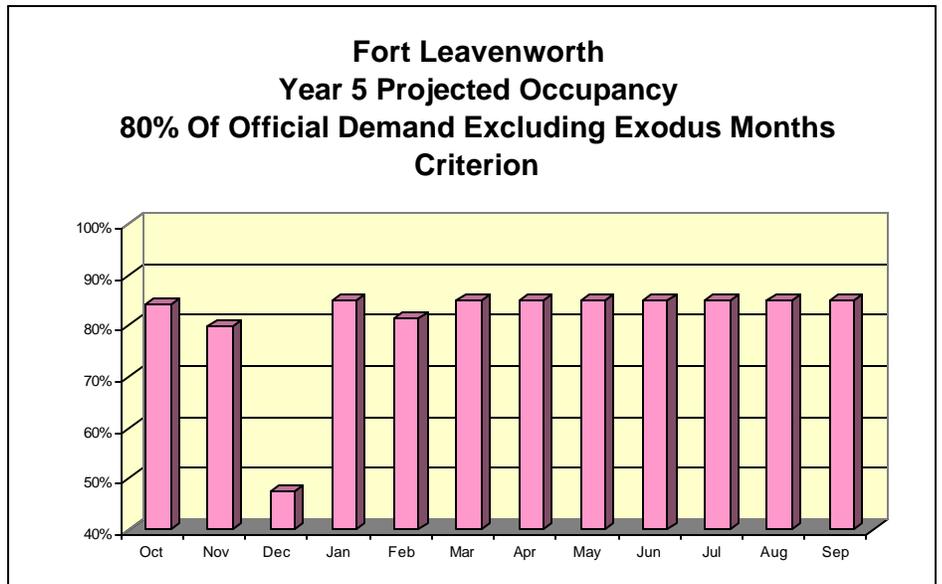
The chart below compares the pertinent potential alternatives to room inventory to the projected demand. Please note the number of existing rooms is 774, significantly more than that suggested by the criterion of 80% of official demand less the exodus month of December.



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

While the “Most Economically Efficient” theoretically yields the most cost effective room count, it assumes the average demand experienced from 1998 through 2002 will be achieved in the future. Given the data, this is unlikely. Additionally, in past government quarter’s costs have been three-fourths to one-half of that experienced in 2002. As such, the “Most Economically Efficient” criterion model potentially overestimates cost savings that will be realized by housing personnel on the installation. As a result of these two considerations, we do not recommend using the “Most Economically Efficient” criterion to determine the appropriate number of rooms.

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



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

Using the “80% of Official Demand Excluding Exodus Months” criterion, the average occupancy is 81% and 82% of the official demand is met. On a monthly basis, occupancy has a variance from a low of 47% in December to 85% from March through September.

Summary and Recommendation

- The installation’s population has declined over the last five years, but is expected to remain constant over the next five years
- Official demand is heavily dependent upon class offerings and enrollment. Enrollment has declined over the past five years, but it is projected to level out and grow nominally over the next five years
- The private market has sufficient capacity to support the overflow lodging requirements that Fort Leavenworth personnel may encounter
- High levels of CNAs have historically been issued, despite declining occupancies. This was due to blocking of 100% of expected class requirements that were subsequently not realized. A change in reservation policy within the last six months to block only 85% of the scheduled class enrollment appears to be reducing both the vacancy rate and the number of CNAs sent off post
- The Lodging operation experiences a high exodus during December. Including December in determining the “80% of Official Demand”

requirement will result in a room count that is insufficient to meet the lodging needs

- Using the “Most Economically Efficient” criterion generates the highest room count. However, this criterion bases its conclusions on potentially overstated demand and cost savings. As such, it is not recommended
- The most appropriate number of rooms supported by the demand analysis at this installation is 646 rooms.
- This inventory allows the installation to meet “80% of Official Demand Less Exodus Months” and generates an expected occupancy rate of 82.2%
- Based on the demand pattern at this facility and the expected future demand growth, we recommend the number of rooms provided be sized using the “80% of Official Demand Less Exodus Months” criterion. Using this criterion, sufficient rooms are provided to allow the installation to lodge the students in its primary classes on post. Any fewer rooms would force many of the students in these primary classes off post on a regular basis
- Because the number of recommended rooms is within 20% of the current number of rooms on the post, the recommended room mix is based upon the market segmentation for the personnel currently lodged on post.

Room Count and Mix Recommendation

- 646 rooms
- Proposed room mix:
 - 142 standard guest rooms
 - 486 extended-stay guest rooms offering a kitchenette
 - 18 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 3
220 Pope
Ft. Leavenworth, KS*

Building 003

Building 3, Custer Hall, is located at 220 Pope, Ft. Leavenworth, KS. The 3-story, 8,247 SF brick building, was constructed in 1883 and is considered a historic building. The building has 6 DVQ rooms without full kitchens which function as extended stay rooms.

Significant Assumptions

The replacement and renovation cost models are based on 6 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 105% for Ft Leavenworth.

Cost Analysis

Renovation Cost	\$540,280.00
Replacement Cost	\$752,525.00
Renovation to Replacement Cost Ratio	71.80%

Because the Renovation to Replacement Cost Ratio is greater than 50%, renovation of Building 3 is not recommended.

Attributes

01.Number of Units Constructed	6
02.Number of Units Used	6
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	6
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	0
11.Operating as Extended Stay	6
12.Operating as Family Suite	0
13.Renovated to Standard	0
14.Renovated to Extended Stay	0
15.Renovated to Family Suite	6
16.Delta renovation	0

Condition Analysis/Recommendation

FF&E

FF&E Allowance

- Analysis: Guest Room: The hard goods consist of head boards, night stands, dressers, a couch, easy chairs, coffee table, end tables, desk and entertainment shelf units. All are in fair condition. The soft goods consist of drapes and blinds on the windows, TV and bed. All are in fair condition.
- Recommendation: Replace FF&E to Army lodging standards.

Foundations

Standard Foundations

- Analysis: The foundation is of limestone 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: The concrete floor in the basement mechanical room appears to be in good condition.
- Recommendation: No corrective action required

Superstructure

Floor Construction

- Analysis: The structure is wood frame construction with wood decking. The floor framing appears to be in good condition.
- Recommendation: No corrective action required.

Roof Construction

- Analysis: The roof consists of wood decking attached to sloped wooden rafters. The roof structure appears to be in good condition.
- Recommendation: No corrective action required.

Exterior Enclosure

Exterior Walls

- Analysis: The exterior brick walls are in good condition.
- Recommendation: No corrective action required.

Exterior Windows

- Analysis: The painted wood double hung windows with aluminum storm windows appear to be in good condition.
- Recommendation: No action recommended.

Exterior Doors

- Analysis: Residential grade wood doors with wood frames with sidelights appear to be in good condition.
- Recommendation: No corrective action required.

Roofing

Roof Coverings

- Analysis: The building has a standing seam metal roof on wood deck. The gutters are exterior to the roof with the downspouts exposed. The roof covering and gutter system was replaced in 1995 and appears to be in good condition.
- Recommendation: No corrective action required.

Interior Construction

Partitions

- Analysis: The interior partitions are in good condition.
- Recommendation: No corrective action required.

Interior Doors

- Analysis: All the interior wood doors, frames and associated hardware are in good condition.
- Recommendation: The interior doors should be re-finished.

Stairs

Stair Construction

- Analysis: The stairs are in good condition and were re-carpeted in 2002
- Recommendation: No corrective action required.

Interior Finishes

Wall Finishes

- Analysis: The painted plaster on lath walls are in fair condition.
- Recommendation: Install vinyl wallcovering.

Floor Finishes

- Analysis: The units have new carpet, installed in 2002. The carpet is in good condition.
- Recommendation: Replace carpet.

Ceiling Finishes

- Analysis: The plaster on the wood lath ceilings are in good condition.
- Recommendation: The ceiling should be painted.

Plumbing

Plumbing Fixtures

- Analysis: The waste system was replaced in 1986. A floor drain is needed in the laundry. The overall plumbing system is in good condition.
- Recommendation: Install new floor drains in the laundry room.

Domestic Water Distribution

- Analysis: This unit has one 80 gallon Bradford White hot water heater installed in 1999. The water distribution system is in good condition.
- Recommendation: No corrective action required.

HVAC

Cooling Generating Systems

- Analysis: A two pipe system four multi-pulse boilers with outside condensing unit was installed in 2002. The cooling system is in good condition.
- Recommendation: No corrective action required.

Fire Protection

Sprinklers

- Analysis: There is no sprinkler system installed.
- Recommendation: No corrective action required.

Electrical

Electrical Service/Distribution

- Analysis: The electrical system is in fair condition. Interior wiring, plugs and receptacles are approaching the end of their life-cycle and the panel is undersized. Site lighting is inadequate.
- Recommendation: The 200 A panel should be upgraded to a 400 A panel. All interior wiring, plugs and receptacles should be replaced. At least one (1) pole and light fixture should be added to improve site lighting.

Communications and Security

- Analysis: There is a fire alarm system installed.
- Recommendation: No corrective action required.

Equipment

Other Equipment

- Analysis: All other equipment is in good condition.
- Recommendation: No corrective action required.

Site Preparation

Site Earthwork

- Analysis: There is evidence of some settlement and erosion around the facility.
- Recommendation: The area should be regraded to achieve proper drainage and the area re-sodded.

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 are required at the main lodging building on post. Presently these are located in building 695, 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 redo of the building into 3 family suites. This renovation will cost more than 50% of the building's replacement cost.

- **Public Spaces**

Most of the public spaces are required at the main lodging building on post. Presently these are located in building 695, 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
02 Site Work	4.70%	\$8,112.18
Grassed area/drainage ditch insufficient flow		\$3,639.18
Parking: AC Pavement Damaged or Failing		\$4,473.00
08 Doors & Windows	19.71%	\$34,016.75
Scratched and marred		\$34,016.75
09 Finishes	35.06%	\$60,510.65
Carpet: Beyond Useful Life		\$15,720.80
Interior ceilings: Paint Failing		\$3,469.20
Vinyl Wall Covering: Beyond expected useful life		\$41,320.65
15 Mechanical	1.18%	\$2,041.83
Drain, Floor: Missing or inadequate		\$2,041.83
16 Electrical	21.96%	\$37,893.66
Branch Circuits: Beyond Expected Useful Life		\$27,167.91
Main service: Missing or inadequate		\$7,208.25
Pole mounted fixture: Missing or inadequate		\$3,517.50
19 FF&E	17.38%	\$30,000.00
Hard and soft goods: Beyond expected useful life		\$30,000.00
Total Raw Cost	100.00%	\$172,575.00

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$949.16
Force Protection	9.00%	\$17,170.35
General Conditions	10.00%	\$17,257.50
Total Additional Hard Cost		\$35,377.01

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$20,795.20
SIOH Conus	6.50%	\$14,868.57
Design	10.00%	\$20,795.20
08 MYr Inflation Fct	9.93%	\$26,256.01
Total Soft Cost		\$82,714.98
Total Project		\$290,666.99

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
02 Site Work	3.63%	\$11,629.80
Site Development		\$11,629.80
03 Concrete	2.41%	\$7,717.50
Stair Construction		\$7,717.50
07 Thermal & Moisture Protection	1.82%	\$5,825.43
Roof Construction		\$5,825.43
08 Doors & Windows	3.79%	\$12,171.60
Interior Doors		\$12,171.60
09 Finishes	29.60%	\$94,938.04
Ceiling Finishes		\$17,324.69
Floor Finishes		\$22,059.56
Partitions		\$21,208.22
Wall Finishes		\$34,345.58
10 Specialties	0.15%	\$488.57
Fittings		\$488.57
11 Equipment	6.87%	\$22,050.00
Other Equipment		\$22,050.00
13 Special Construction	10.84%	\$34,765.50
Communications & Security		\$15,650.25
Sprinklers		\$19,115.25
15 Mechanical	25.45%	\$81,637.50
Cooling Generating Systems		\$46,200.00
Domestic Water Dist		\$17,010.00
Plumbing Fixtures		\$18,427.50
16 Electrical	15.30%	\$49,087.50
Electrical Service & Distribution		\$49,087.50
19 FF&E	0.15%	\$465.30
Interior FF&E allowance		\$465.30
Total Raw Cost	100.00%	\$320,776.74

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$1,764.27
Force Protection	9.00%	\$31,915.68
General Conditions	10.00%	\$32,077.67
Total Additional Hard Cost		\$65,757.63

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$38,653.44
SIOH Conus	6.50%	\$27,637.21
Design	10.00%	\$38,653.44

08 MYr Inflation Fct	9.93%	\$48,803.81
Total Soft Cost		\$153,747.89
Total Project Cost for Renovation		\$540,282.26

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	2.79%	\$14,193.64
Site Earthwork		\$14,193.64
03 Concrete	16.83%	\$85,567.00
Floor Construction		\$46,491.25
Slab on Grade		\$10,452.75
Stair Construction		\$7,717.50
Standard Foundations		\$20,905.50
04 Masonry	9.81%	\$49,882.79
Exterior Walls		\$49,882.79
07 Thermal & Moisture Protection	7.57%	\$38,457.33
Roof Construction		\$12,097.08
Roof Coverings		\$26,360.25
08 Doors & Windows	11.85%	\$60,210.15
Exterior Doors		\$6,473.25
Exterior Windows		\$42,000.00
Interior Doors		\$11,736.90
09 Finishes	14.59%	\$74,161.83
Ceiling Finishes		\$12,167.00
Floor Finishes		\$21,263.67
Partitions		\$21,208.22
Wall Finishes		\$19,522.94
11 Equipment	4.34%	\$22,050.00
Other Equipment		\$22,050.00
13 Special Construction	4.95%	\$25,170.22
Communications & Security		\$11,330.78
Sprinklers		\$13,839.44
15 Mechanical	13.55%	\$68,886.30
Cooling Generating Systems		\$33,448.80
Domestic Water Dist		\$17,010.00
Plumbing Fixtures		\$18,427.50
16 Electrical	7.81%	\$39,707.85
Electrical Service & Distribution		\$39,707.85
19 FF&E	5.90%	\$30,000.00
Interior FF&E allowance		\$30,000.00
Total Raw Cost	100.00%	\$508,287.11

Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$2,795.58
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$50,828.71
Total Additional Hard Cost		\$53,624.29

Soft Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Contingency	5.00%	\$28,095.57
SIOH Conus	6.50%	\$38,350.45
Design	10.00%	\$56,191.14
08 MYr Inflation Fct	9.93%	\$67,975.67
Total Soft Cost		\$190,612.84
Total Project Cost for Replacement		\$752,524.24

INSERT BUILDING 3 FLOOR PLANS HERE



Building 22
327 Pope
Ft. Leavenworth, KS

Building 022

Building 22, Cooke Hall, is located at 327 Pope, Ft. Leavenworth, KS. The 11,675 SF, three story brick building was built in 1934, renovated in 1985, and is designated as a historic building. The building has 9 DVQ rooms without full kitchens which function as standard 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-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 105% for Ft Leavenworth.

Cost Analysis

Renovation Cost	\$1,325,500.00
Replacement Cost	\$1,471,155.00
Renovation to Replacement Cost Ratio	90.10%

Because the Renovation to Replacement Cost Ratio is greater than 50%, renovation of Building 22 is not recommended.

Attributes

01.Number of Units Constructed	9
02.Number of Units Used	9
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	9
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	0
11.Operating as Extended Stay	9
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	3

Condition Analysis/Recommendation

FF&E

FF&E Allowance

- Analysis: Guest Room: The hard goods consist of head boards, night stands, dresser, easy chairs, and entertainment shelf units. All are in fair condition. The soft goods consist of drapes and blinds on the windows, TV and bed. All are in fair condition.
- Recommendation: Replace FF&E to Army lodging standards.

Foundations

Standard Foundations

- Analysis: The foundation is of cast in place concrete. No clear failures can be seen from the perimeter. The foundation is in good condition
- Recommendation: No corrective action required.

Slab on Grade

- Analysis: The concrete floor in the basement appears to be in good condition.
- Recommendation: No corrective action required

Superstructure

Floor Construction

- Analysis: The structure is concrete construction. The floor framing appears to be in good condition.
- Recommendation: No corrective action required.

Roof Construction

- Analysis: The roof consists of wood decking attached to sloped wooden rafters with dormers. The roof structure appears to be in good condition. Gutters and downspouts are in poor condition.
- Recommendation: REplace gutters and downspouts.

Exterior Enclosure

Exterior Walls

- Analysis: The brick walls appear to be in good condition.
- Recommendation: No corrective action required.

Exterior Windows

- Analysis: The windows and frames are aluminum. They are in fair condition.
- Recommendation: Replace aluminum windows and frames.

Exterior Doors

- Analysis: There are four exterior wood doors with wood frames. The doors appear to be in fair condition.
- Recommendation: Refinish doors and frames.

Roofing

Roof Coverings

- Analysis: The roof is constructed of three tab asphalt shingles on a wood deck. The roof was replaced in 2000. The roof covering appears to be in good condition.
- Recommendation: No corrective action required.

Interior Construction

Partitions

- Analysis: The plaster on the wood studs is in good condition.
- Recommendation: No corrective action required.

Interior Doors

- Analysis: The wood doors and frames are in fair condition.
- Recommendation: Refinish the interior doors. Including the basement doors.

Interior Finishes

Wall Finishes

- Analysis: The walls are painted. The walls and paint are in fair condition.
- Recommendation: Install vinyl wall covering.

Floor Finishes

- Analysis: The units have new carpet that was installed in 2001. The carpet is in fair condition.
- Recommendation: Replace all the carpeting.

Ceiling Finishes

- Analysis: The ceilings in guest rooms are painted drywall. The ceiling in the corridors is accoustical tile. Both ceiling systems are in fair condition.
- Recommendation: Repaint the drywall ceiling and replace the accoustical tiles.

Plumbing

Plumbing Fixtures

- Analysis: The plumbing fixtures are in good condition.
- Recommendation: No corrective action required.

Domestic Water Distribution

- Analysis: This unit has a 100 gallon Turbo water heater with storage tank. The water distribution system is in fair condition.
- Recommendation: Replace the entire system.

HVAC

Cooling Generating Systems

- Analysis: The building has a two pipe system, multi-pulse boilers with McQuay condensing unit and chiller bundle that was installed in 2002. The cooling system is in good condition.
- Recommendation: No corrective action required.

Fire Protection

Sprinklers

- Analysis: No fire sprinklers exist.
- Recommendation: No corrective action required.

Electrical

Electrical Service/Distribution

- Analysis: Currently there is a 600 amp Cutler Hammer electrical service that was upgraded during the 1985 renovation. The electrical service is in good condition.
- Recommendation: No corrective action required.

Communications and Security

- Analysis: Fire annunciator is installed.
- Recommendation: No corrective action required.

Equipment

Other Equipment

- Analysis: All other equipment is in good condition.
- Recommendation: No corrective action required.

Site Preparation

Site Earthwork

- Analysis: There is some minor erosion at building perimeter.
- Recommendation: Regrade and reseed the site.

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 are required at the main lodging building on post. Presently these are located in building 695, 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 redo 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 are required at the main lodging building on post. Presently these are located in building 695, 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
02 Site Work	5.91%	\$16,471.98
Grassed area/drainage ditch insufficient flow		\$4,543.98
Parking: AC Pavement Damaged or Failing		\$11,928.00
07 Thermal & Moisture Protection	0.88%	\$2,452.80
Gutters: Damaged or Failing		\$2,452.80
08 Doors & Windows	38.84%	\$108,233.26
Al. Windows - Beyond Useful Life		\$58,649.52
Wood Door - Beyond Useful Life		\$47,277.52
Wood Door - Damaged or Failing		\$2,306.22
09 Finishes	32.00%	\$89,168.15
Acoustical Ceiling Tiles: Damaged or Failing		\$3,619.77
Carpet: Beyond Useful Life		\$21,615.98
Interior ceilings: Paint Failing		\$4,088.70
Vinyl Wall Covering: Beyond expected useful life		\$59,843.70
15 Mechanical	1.18%	\$3,281.25
Water heater: Beyond expected useful life		\$3,281.25
16 Electrical	5.05%	\$14,070.00
Pole mounted fixture: Missing or inadequate		\$14,070.00
19 FF&E	16.15%	\$45,000.00
Hard and soft goods: Beyond expected useful life		\$45,000.00
Total Raw Cost	100.00%	\$278,677.00

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$1,532.72
Force Protection	9.00%	\$27,726.97
General Conditions	10.00%	\$27,867.70
Total Additional Hard Cost		\$57,127.39

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$33,580.44
SIOH Conus	6.50%	\$24,010.01
Design	10.00%	\$33,580.44
08 MYr Inflation Fct	9.93%	\$42,398.65
Total Soft Cost		\$133,569.54
Total Project		\$469,373.93

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
02 Site Work	3.88%	\$30,542.40
Site Development		\$30,542.40
03 Concrete	0.98%	\$7,717.50
Stair Construction		\$7,717.50
07 Thermal & Moisture Protection	1.79%	\$14,103.27
Roof Construction		\$11,650.87
Roof Coverings		\$2,452.40
08 Doors & Windows	11.90%	\$93,669.45
Exterior Doors		\$6,473.25
Exterior Windows		\$67,200.00
Interior Doors		\$19,996.20
09 Finishes	24.12%	\$189,818.97
Ceiling Finishes		\$34,649.37
Floor Finishes		\$44,061.99
Partitions		\$42,416.44
Wall Finishes		\$68,691.17
10 Specialties	0.01%	\$81.43
Fittings		\$81.43
11 Equipment	5.60%	\$44,100.00
Other Equipment		\$44,100.00
13 Special Construction	9.38%	\$73,797.68
Communications & Security		\$33,221.21
Sprinklers		\$40,576.46
15 Mechanical	21.47%	\$168,945.00
Cooling Generating Systems		\$98,070.00
Domestic Water Dist		\$34,020.00
Plumbing Fixtures		\$36,855.00
16 Electrical	13.24%	\$104,199.38
Electrical Service & Distribution		\$104,199.38
19 FF&E	7.62%	\$60,000.00
Interior FF&E allowance		\$60,000.00
Total Raw Cost	100.00%	\$786,975.06

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$4,328.36
Force Protection	9.00%	\$78,300.08
General Conditions	10.00%	\$78,697.51
Total Additional Hard Cost		\$161,325.95

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
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Contingency	10.00%	\$94,830.10
SIOH Conus	6.50%	\$67,803.52
Design	10.00%	\$94,830.10
08 MYr Inflation Fct	9.93%	\$119,732.44
Total Soft Cost		\$377,196.16
Total Project Cost for Renovation		\$1,325,497.18

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	5.69%	\$56,527.28
Site Earthwork		\$56,527.28
03 Concrete	12.64%	\$125,622.00
Floor Construction		\$42,000.00
Slab on Grade		\$41,811.00
Standard Foundations		\$41,811.00
04 Masonry	7.82%	\$77,730.70
Exterior Walls		\$77,730.70
07 Thermal & Moisture Protection	12.82%	\$127,357.72
Roof Construction		\$24,194.17
Roof Coverings		\$103,163.55
08 Doors & Windows	9.34%	\$92,800.05
Exterior Doors		\$6,473.25
Exterior Windows		\$67,200.00
Interior Doors		\$19,126.80
09 Finishes	14.92%	\$148,266.54
Ceiling Finishes		\$24,334.00
Floor Finishes		\$42,470.21
Partitions		\$42,416.44
Wall Finishes		\$39,045.89
11 Equipment	4.44%	\$44,100.00
Other Equipment		\$44,100.00
13 Special Construction	5.07%	\$50,340.44
Communications & Security		\$22,661.56
Sprinklers		\$27,678.88
15 Mechanical	13.86%	\$137,772.60
Cooling Generating Systems		\$66,897.60
Domestic Water Dist		\$34,020.00
Plumbing Fixtures		\$36,855.00
16 Electrical	7.36%	\$73,162.95
Electrical Service & Distribution		\$73,162.95
19 FF&E	6.04%	\$60,000.00
Interior FF&E allowance		\$60,000.00
Total Raw Cost	100.00%	\$993,680.28

Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$5,465.24
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$99,368.03
Total Additional Hard Cost		\$104,833.27

Soft Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Contingency	5.00%	\$54,925.68
SIOH Conus	6.50%	\$74,973.55
Design	10.00%	\$109,851.35
08 MYr Inflation Fct	9.93%	\$132,889.63
Total Soft Cost		\$372,640.21
Total Project Cost for Replacement		\$1,471,153.76

INSERT BUILDING 22 FLOOR PLANS HERE



*Building 43
726-633 McClellan
Ft. Leavenworth, KS*

Building 043

Building 43, Schofield Hall, is located at 726-633 McClellan, Ft. Leavenworth, KS. The 22,290 SF four story, brick building was built in 1892 and is designated as a historic building. The building has 23 multi-room suites without full kitchens, which function as standard stay rooms.

Significant Assumptions

The replacement and renovation cost models are based on 36 standard stay rooms.

The renovation uses the existing foot print, 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 105% for Ft Leavenworth.

Cost Analysis

Renovation Cost	\$2,295,015.00
Replacement Cost	\$3,110,960.00
Renovation to Replacement Cost Ratio	73.77%

Because the Renovation to Replacement Cost Ratio is greater than 50%, renovation of Building 43 is not recommended.

Attributes

01.Number of Units Constructed	23
02.Number of Units Used	23
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	23
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	0
12.Operating as Family Suite	0
13.Renovated to Standard	36
14.Renovated to Extended Stay	0
15.Renovated to Family Suite	0
16.Delta renovation	13

Condition Analysis/Recommendation

FF&E

FF&E Allowance

- Analysis: The living areas have a television, refrigerator, microwave, coffee table, davenport, two chairs, table and two lamps. Each bedroom has a bed, two end tables, a mirror, two end tables, and a dresser. All furniture is in good condition but does not comply with Army lodging standards.
- Recommendation: Replace all FF&E to comply with Army lodging standards.

Foundations

Standard Foundations

- Analysis: The foundation is of limestone on compacted soil. There are no clear failures that can be seen from the perimeter. The foundation is in good condition.
- Recommendation: No corrective action required.

Slab on Grade

- Analysis: The concrete floor in the basement appears to be in good condition.
- Recommendation: No corrective action required

Superstructure

Floor Construction

- Analysis: The structure is wood frame construction with wood decking. The floor framing appears to be in good condition.
- Recommendation: No corrective action required

Roof Construction

- Analysis: The roof consists of wood decking attached to sloped wooden rafters. The roof structure appears to be in good condition.
- Recommendation: No corrective action required.

Exterior Enclosure

Exterior Walls

- Analysis: There is some minor scaling on block lintels. Brick walls appear to be in fair condition
- Recommendation: No corrective action required.

Exterior Windows

- Analysis: The windows were replaced in 1989. The windows appear to be in good condition.
- Recommendation: No corrective action required.

Exterior Doors

- Analysis: The building has wood doors with wood frames. The doors appear to be in good condition.
- Recommendation: Refinish the wood doors.

Roofing

Roof Coverings

- Analysis: The three-tab asphalt and metal roof was replaced in 1995. The roof covering and gutter system appear to be in good condition.
- Recommendation: No corrective action required.

Interior Construction

Partitions

- Analysis: The plaster on the wood studs is in good condition.
- Recommendation: No corrective action required.

Interior Doors

- Analysis: The building has metal clad wood doors in wood frames. All the interior doors appear to be in good condition.
- Recommendation: No corrective action required.

Fittings

- Analysis: Secure the locks in wood doors. All the interior doors and associated hardware are in good condition.
- Recommendation: No corrective action required.

Stairs

Stair Construction

- Analysis: The stairs are carpeted with weave wallcovering and wainscot on the walls. The stairs are in good condition.
- Recommendation: No corrective action required.

Interior Finishes

Wall Finishes

- Analysis: The unit walls are painted and are in fair condition.
- Recommendation: Install vinyl wall covering.

Floor Finishes

- Analysis: The units have new carpet installed in 2001. The carpet is in good.
- Recommendation: Replace carpet.

Ceiling Finishes

- Analysis: The ceiling paint is in fair condition.
- Recommendation: Paint the ceilings.

Plumbing

Plumbing Fixtures

- Analysis: A floor drain is needed in the laundry room. The overall plumbing system is in good condition.
- Recommendation: Install a new floor drain in laundry.

Domestic Water Distribution

- Analysis: This unit has one 80 gallon hot water heater installed in 1999. The waste and distribution system was replaced in 1989. The water distribution system is in good condition.

- Recommendation: No corrective action required.

HVAC

Cooling Generating Systems

- Analysis: The building has a two pipe system, multi-pulse boilers with Trane condensing unit that was installed in 1984. The cooling system is in good condition.
- Recommendation: No corrective action required.

Fire Protection

Sprinklers

- Analysis: No fire sprinklers exist.
- Recommendation: No corrective action required.

Electrical

Electrical Service/Distribution

- Analysis: Electrical service is supplied to the building from the main service. Service is a 600 amp main disconnect. This distribution panel provides power for lighting and receptacles. The electrical service is in good condition.
- Recommendation: No corrective action required.

Communications and Security

- Analysis: A fire annunciator is installed in this building.
- Recommendation: No corrective action required.

Site Preparation

Site Earthwork

- Analysis: The earthwork 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 are required at the main lodging building on post. Presently these are located in building 695, and are not included in this building.

- **Public Spaces**

Most of the public spaces are required at the main lodging building on post. Presently these are located in building 695, and are not included in this building.

- **Standard Guest Room**

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

Recommendation: A Renovation Cost estimate is used to indicate a total redo of the building into 36 standard stay rooms. This renovation will cost more than 50% of the building's 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
08 Doors & Windows	7.57%	\$27,491.44
Exterior Wood Doors: Beyond Useful Life		\$27,491.44
09 Finishes	56.34%	\$204,653.26
Carpet: Beyond Useful Life		\$62,601.88
Interior ceilings: Paint Failing		\$13,814.88
Vinyl Wall Covering: Beyond expected useful life		\$128,236.50
15 Mechanical	0.56%	\$2,041.83
Drain, Floor: Missing or inadequate		\$2,041.83
16 Electrical	3.87%	\$14,070.00
Pole mounted fixture: Missing or inadequate		\$14,070.00
19 FF&E	31.66%	\$115,000.00
Hard and soft goods: Beyond expected useful life		\$115,000.00
Total Raw Cost	100.00%	\$363,257.00

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$1,997.91
Force Protection	9.00%	\$36,142.26
General Conditions	10.00%	\$36,325.70
Total Additional Hard Cost		\$74,465.87

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$43,772.29
SIOH Conus	6.50%	\$31,297.19
Design	10.00%	\$43,772.29
08 MYr Inflation Fct	9.93%	\$55,266.87
Total Soft Cost		\$174,108.63
Total Project		\$611,831.50

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
02 Site Work	1.03%	\$14,070.00
Site Development		\$14,070.00
03 Concrete	1.13%	\$15,435.00
Stair Construction		\$15,435.00
07 Thermal & Moisture Protection	1.46%	\$19,914.85
Roof Construction		\$19,914.85
08 Doors & Windows	3.12%	\$42,553.35
Exterior Doors		\$6,473.25
Interior Doors		\$36,080.10
09 Finishes	27.84%	\$379,324.82
Ceiling Finishes		\$69,298.74
Floor Finishes		\$115,208.81
Partitions		\$72,502.52
Wall Finishes		\$122,314.75
10 Specialties	0.22%	\$2,931.39
Fittings		\$2,931.39
11 Equipment	0.22%	\$2,931.39
Other Equipment		\$2,931.39
13 Special Construction	10.34%	\$140,831.88
Communications & Security		\$63,397.74
Sprinklers		\$77,434.14
15 Mechanical	26.84%	\$365,757.00
Cooling Generating Systems		\$187,152.00
Domestic Water Dist		\$68,040.00
Plumbing Fixtures		\$110,565.00
16 Electrical	14.59%	\$198,849.00
Electrical Service & Distribution		\$198,849.00
19 FF&E	13.21%	\$180,000.00
Interior FF&E allowance		\$180,000.00
Total Raw Cost	100.00%	\$1,362,598.69

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$7,494.29
Force Protection	9.00%	\$135,571.76
General Conditions	10.00%	\$136,259.87
Total Additional Hard Cost		\$279,325.92

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$164,192.46
SIOH Conus	6.50%	\$117,397.61

Design	10.00%	\$164,192.46
08 MYr Inflation Fct	9.93%	\$207,309.32
Total Soft Cost		\$653,091.85
Total Project Cost for Renovation		\$2,295,016.45

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	1.87%	\$39,384.98
Site Earthwork		\$39,384.98
03 Concrete	19.44%	\$408,427.40
Floor Construction		\$284,254.40
Slab on Grade		\$29,116.50
Stair Construction		\$7,717.50
Standard Foundations		\$87,339.00
04 Masonry	5.66%	\$118,875.99
Exterior Walls		\$118,875.99
07 Thermal & Moisture Protection	5.71%	\$120,075.29
Roof Construction		\$48,018.15
Roof Coverings		\$72,057.14
08 Doors & Windows	10.61%	\$223,021.05
Exterior Doors		\$14,159.25
Exterior Windows		\$168,000.00
Interior Doors		\$40,861.80
09 Finishes	14.37%	\$301,999.21
Ceiling Finishes		\$46,740.33
Floor Finishes		\$115,202.77
Partitions		\$79,425.50
Wall Finishes		\$60,630.61
10 Specialties	0.08%	\$1,583.40
Fittings		\$1,583.40
13 Special Construction	5.00%	\$105,156.16
Communications & Security		\$47,337.74
Sprinklers		\$57,818.42
15 Mechanical	21.32%	\$448,022.40
Cooling Generating Systems		\$139,742.40
Domestic Water Dist		\$68,040.00
Plumbing Fixtures		\$240,240.00
16 Electrical	7.36%	\$154,729.05
Electrical Service & Distribution		\$154,729.05
19 FF&E	8.57%	\$180,000.00
Interior FF&E allowance		\$180,000.00
Total Raw Cost	100.00%	\$2,101,274.92

Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$11,557.01
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$210,127.49
Total Additional Hard Cost		\$221,684.50

Soft Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Contingency	5.00%	\$116,147.97
SIOH Conus	6.50%	\$158,541.98
Design	10.00%	\$232,295.94
08 MYr Inflation Fct	9.93%	\$281,013.57
Total Soft Cost		\$787,999.47
Total Project Cost for Replacement		\$3,110,958.89

INSERT BUILDING 43 FLOOR PLANS HERE



*Building 197
626-632 McCellan
Ft. Leavenworth, KS*

Building 197

Building 197, Root Hall, is located at 626-632 McCellan, Ft. Leavenworth, KS. The 21,732 SF, four story brick building was built in 1901, renovated in 1989, and is designated as a historic building. The building has 15 multi-room suites without full kitchens which function as standard stay rooms.

Significant Assumptions

The replacement and renovation cost models are based on 16 standard stay rooms.

The renovation uses the existing foot print, 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 105% for Ft Leavenworth.

Cost Analysis

Renovation Cost	\$1,333,415.00
Replacement Cost	\$1,642,805.00
Renovation to Replacement Cost Ratio	81.17%

Because the Renovation to Replacement Cost Ratio is greater than 50%, renovation of Building 197 is not recommended.

Attributes

01.Number of Units Constructed	15
02.Number of Units Used	15
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	15
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	0
12.Operating as Family Suite	0
13.Renovated to Standard	16
14.Renovated to Extended Stay	0
15.Renovated to Family Suite	0
16.Delta renovation	1

Condition Analysis/Recommendation

FF&E

FF&E Allowance

- Analysis: The living areas have a television, refrigerator, microwave, coffee table, davenport, two chairs, table and two lamps. Each bedroom has a bed, two end tables, a mirror, two end tables, and a dresser. All furniture is in good condition but does not comply with Army lodging standards.
- Recommendation: Replace all FF&E to comply with Army lodging standards.

Foundations

Standard Foundations

- Analysis: The foundation is of limestone 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: The concrete floor in the basement appears to be in good condition.
- Recommendation: No corrective action required

Superstructure

Floor Construction

- Analysis: The structure is wood frame construction with wood decking. The floor framing appears to be in good condition.
- Recommendation: No corrective action required.

Roof Construction

- Analysis: The roof consists of wood decking attached to sloped wooden rafters with dormers. The roof structure appears to be in good condition. The gutters and downspouts are failing.
- Recommendation: Replace the gutters and downspouts.

Exterior Enclosure

Exterior Walls

- Analysis: The brick wall mortar joints show signs of aging. The brick is in good condition.
- Recommendation: Clean and repoint the mortar joints.

Exterior Windows

- Analysis: The windows are painted, wood double glazed units. Paint is in poor condition. The windows appear to be in good condition.
- Recommendation: Repaint windows.

Exterior Doors

- Analysis: The building has wood doors with wood frames. The doors are in fair condition.
- Recommendation: Remove and replace the doors.

Roofing

Roof Coverings

- Analysis: There is a slate roof over the main building with galvanized metal on the porch roof. The entire roof was replaced in 1993. The roof covering appear to be in good condition.
- Recommendation: No corrective action required.

Interior Construction

Partitions

- Analysis: The plaster on the wood studs is in good condition.
- Recommendation: No corrective action required.

Interior Doors

- Analysis: The building has metal clad wood doors in wood frames. All the interior doors and associated hardware are in good condition.
- Recommendation: No corrective action required.

Fittings

- Analysis: The doors have electronic locks.
- Recommendation: No corrective action required.

Stairs

Stair Construction

- Analysis: The stairs are carpeted with weave wallcovering and wainscot on the walls. The stairs are in good condition.
- Recommendation: No corrective action required.

Interior Finishes

Wall Finishes

- Analysis: The walls are painted. The walls and paint are in good condition.
- Recommendation: Install vinyl wallcovering.

Floor Finishes

- Analysis: The units have new non-commercial grade carpet installed in 2000. The condition of the carpet is fair.
- Recommendation: Install new carpet.

Ceiling Finishes

- Analysis: The ceiling paint is in fair condition.
- Recommendation: Repaint the ceiling.

Plumbing

Plumbing Fixtures

- Analysis: The waste and supply system was replaced in 1989. The plumbing system is in good condition.

- Recommendation: No corrective action required.

Domestic Water Distribution

- Analysis: This unit has one 80 gallon hot water heater with holding tank. The water distribution system is in good condition.
- Recommendation: No corrective action required.

HVAC

Cooling Generating Systems

- Analysis: The building has a two pipe system, four multi-plex package boilers with cooling from window AC units. The unit was installed in 1989.
- Recommendation: Remove and replace cooling system with PTAC units.

Fire Protection

Sprinklers

- Analysis: No fire sprinklers exist.
- Recommendation: No corrective action required.

Electrical

Electrical Service/Distribution

- Analysis: Electrical service is supplied to the building from the main service. Service is a Square D 400 amp main disconnect that was renovated in 1989. This distribution panel provides power for lighting and receptacles. The electrical service is in good condition.
- Recommendation: No corrective action required.

Communications and Security

- Analysis: Fire annunciator is installed.
- Recommendation: No corrective action required.

Site Preparation

Site Earthwork

- Analysis: Earthwork 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 are required at the main lodging building on post. Presently these are located in building 695, and are not included in this building.

- **Public Spaces**

Most of the public spaces are required at the main lodging building on post. Presently these are located in building 695, and are not included in this building.

- **Standard Guest Room**

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

Recommendation: A Renovation Cost estimate is used to indicate a total redo of the building into 16 standard stay rooms. This renovation will cost more than 50% of the building's 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
04 Masonry	2.84%	\$11,088.00
Stone Wall Mortar: Damaged or Cracked		\$11,088.00
05 Metals	0.73%	\$2,856.00
Railings - Inadequate or Missing		\$2,856.00
07 Thermal & Moisture Protection	0.82%	\$3,219.30
Gutters: Missing or Inadequate		\$3,219.30
08 Doors & Windows	11.45%	\$44,673.59
Ext Wood door with side lite: Beyond Useful Life		\$44,673.59
09 Finishes	47.09%	\$183,773.24
Carpet: Missing or inadequate		\$32,564.00
Interior ceilings: Paint Failing		\$7,186.20
Vinyl Wall Covering: Beyond expected useful life		\$120,542.31
Windows & Frames: Paint Failing		\$23,480.73
15 Mechanical	14.25%	\$55,603.80
PTAC: Missing or inadequate		\$55,603.80
16 Electrical	3.61%	\$14,070.00
Pole mounted fixture: Missing or inadequate		\$14,070.00
19 FF&E	19.22%	\$75,000.00
Hard and soft goods: Beyond expected useful life		\$75,000.00
Total Raw Cost	100.00%	\$390,284.00

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$2,146.56
Force Protection	9.00%	\$38,831.31
General Conditions	10.00%	\$39,028.40
Total Additional Hard Cost		\$80,006.27

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$47,029.03
SIOH Conus	6.50%	\$33,625.75
Design	10.00%	\$47,029.03
08 MYr Inflation Fct	9.93%	\$59,378.83
Total Soft Cost		\$187,062.63
Total Project		\$657,352.90

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
02 Site Work	2.14%	\$16,926.00
Site Development		\$16,926.00
03 Concrete	0.97%	\$7,717.50
Stair Construction		\$7,717.50
04 Masonry	1.40%	\$11,088.00
Exterior Walls		\$11,088.00
07 Thermal & Moisture Protection	1.52%	\$12,070.37
Roof Construction		\$8,851.05
Roof Coverings		\$3,219.32
08 Doors & Windows	3.12%	\$24,730.65
Exterior Doors		\$6,473.25
Interior Doors		\$18,257.40
09 Finishes	21.30%	\$168,618.00
Ceiling Finishes		\$30,799.44
Floor Finishes		\$51,233.11
Partitions		\$32,223.34
Wall Finishes		\$54,362.11
10 Specialties	0.16%	\$1,302.84
Fittings		\$1,302.84
11 Equipment	7.43%	\$58,800.00
Other Equipment		\$58,800.00
13 Special Construction	11.18%	\$88,494.00
Communications & Security		\$39,837.00
Sprinklers		\$48,657.00
15 Mechanical	24.88%	\$196,980.00
Cooling Generating Systems		\$117,600.00
Domestic Water Dist		\$30,240.00
Plumbing Fixtures		\$49,140.00
16 Electrical	15.78%	\$124,950.00
Electrical Service & Distribution		\$124,950.00
19 FF&E	10.11%	\$80,000.00
Interior FF&E allowance		\$80,000.00
Total Raw Cost	100.00%	\$791,677.36

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$4,354.23
Force Protection	9.00%	\$78,767.94
General Conditions	10.00%	\$79,167.74
Total Additional Hard Cost		\$162,289.90

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$95,396.73
SIOH Conus	6.50%	\$68,208.66
Design	10.00%	\$95,396.73
08 MYr Inflation Fct	9.93%	\$120,447.86
Total Soft Cost		\$379,449.97
Total Project Cost for Renovation		\$1,333,417.23

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	1.74%	\$19,291.91
Site Earthwork		\$19,291.91
03 Concrete	18.38%	\$203,912.71
Floor Construction		\$139,274.71
Slab on Grade		\$14,232.75
Stair Construction		\$7,717.50
Standard Foundations		\$42,687.75
04 Masonry	6.99%	\$77,527.82
Exterior Walls		\$77,527.82
07 Thermal & Moisture Protection	5.30%	\$58,788.94
Roof Construction		\$23,170.88
Roof Coverings		\$35,618.06
08 Doors & Windows	10.96%	\$121,633.05
Exterior Doors		\$14,159.25
Exterior Windows		\$84,000.00
Interior Doors		\$23,473.80
09 Finishes	12.55%	\$139,308.74
Ceiling Finishes		\$21,248.42
Floor Finishes		\$52,499.08
Partitions		\$37,733.47
Wall Finishes		\$27,827.77
10 Specialties	0.14%	\$1,583.40
Fittings		\$1,583.40
13 Special Construction	4.63%	\$51,396.05
Communications & Security		\$23,136.76
Sprinklers		\$28,259.29
15 Mechanical	25.00%	\$277,355.40
Cooling Generating Systems		\$68,300.40
Domestic Water Dist		\$30,240.00
Plumbing Fixtures		\$178,815.00
16 Electrical	7.10%	\$78,821.93
Electrical Service & Distribution		\$78,821.93
19 FF&E	7.21%	\$80,000.00
Interior FF&E allowance		\$80,000.00
Total Raw Cost	100.00%	\$1,109,619.95

Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$6,102.91
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$110,962.00
Total Additional Hard Cost		\$117,064.90

Soft Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Contingency	5.00%	\$61,334.24
SIOH Conus	6.50%	\$83,721.24
Design	10.00%	\$122,668.49
08 MYr Inflation Fct	9.93%	\$148,394.80
Total Soft Cost		\$416,118.77
Total Project Cost for Replacement		\$1,642,803.62

INSERT BUILDING 197 FLOOR PLAN HERE



*Building 213
415-21 Kearney
Ft. Leavenworth, KS*

Building 213

Building 213 is located at 415-21 Kearney, Ft. Leavenworth, KS. The 23,866 SF, 4 story, brick building was built in 1903 and is designated as a historic building. The building has 8 multi-room suites without full kitchens and 8 multi-room DVQ suites with full kitchens. All 16 multi-room suites function as standard stay rooms.

Significant Assumptions

The replacement and renovation cost models are based on 16 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 105% for Ft Leavenworth.

Cost Analysis

Renovation Cost	\$1,517,155.00
Replacement Cost	\$2,239,285.00
Renovation to Replacement Cost Ratio	67.75%

Because the Renovation to Replacement Cost Ratio is greater than 50%, renovation of Building 213 is not recommended.

Attributes

01.Number of Units Constructed	16
02.Number of Units Used	16
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	8
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	8
10.Operating as Standard Room	0
11.Operating as Extended Stay	0
12.Operating as Family Suite	0
13.Renovated to Standard	0
14.Renovated to Extended Stay	0
15.Renovated to Family Suite	16
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, desk with chair, davenport, table w/chairs, easy chairs, coffee table, end tables and a TV cabinet with drawers. All are in good condition. Soft goods consists of drapes and blinds on the windows, TV, mattress and box springs and bed coverings. All are in good condition
- Recommendation: Replace all FF&E to comply with Army lodging standards.

Foundations

Standard Foundations

- Analysis: The foundation is of limestone on compacted soil. The foundation is in fair condition. There are old steam line holes in the foundation wall.
- Recommendation: Seal the old steam line holes in limestone.

Slab on Grade

- Analysis: The concrete floor appears to be in good condition.
- Recommendation: No corrective action required

Superstructure

Floor Construction

- Analysis: The structure is wood frame construction with wood decking. The floor framing appears to be in good condition.
- Recommendation: No corrective action required.

Roof Construction

- Analysis: The roof consists of wood decking attached to sloped wooden rafters with dormers. The roof structure appears to be in good condition
- Recommendation: No corrective action required.

Exterior Enclosure

Exterior Walls

- Analysis: The brick walls appear to be in good condition.
- Recommendation: No corrective action required.

Exterior Windows

- Analysis: The windows are painted, wood double hung windows. The windows are in fair condition.
- Recommendation: Replace all windows.

Exterior Doors

- Analysis: The building has wood doors and frames. The doors are in fair condition.

- Recommendation: Replace all doors and frames.

Roofing

Roof Coverings

- Analysis: The slate roof was replaced in 1995. The roof covering and gutter system appear to be in good condition.
- Recommendation: No corrective action required.

Interior Construction

Partitions

- Analysis: The plaster on the wood studs is in good condition.
- Recommendation: No corrective action required.

Interior Doors

- Analysis: The building has wood doors and frames. All the interior doors and associated hardware are in good condition.
- Recommendation: Refinish all wood doors and frames.

Fittings

- Analysis: Electronic locks in wood doors were installed in 1994. All appear to be in good condition.
- Recommendation: No corrective action required.

Stairs

Stair Construction

- Analysis: The stairs are carpeted with weave wallcovering and wainscot on the walls. The stairs are in good condition.
- Recommendation: No corrective action required.

Interior Finishes

Wall Finishes

- Analysis: The walls have vinyl wallcovering. They are in fair condition.
- Recommendation: Remove and replace the vinyl wallcoverings.

Floor Finishes

- Analysis: The carpet is in fair condition.
- Recommendation: Remove and replace the carpeting.

Ceiling Finishes

- Analysis: The ceiling paint is in fair condition.
- Recommendation: Repaint the ceiling.

Plumbing

Plumbing Fixtures

- Analysis: The plumbing system and fixtures are in good condition.
- Recommendation: No corrective action required.

Domestic Water Distribution

- Analysis: This unit has one 80 gallon hot water heater with storage tank. The waste and supply was replaced in 1989. The water distribution system is in good condition.
- Recommendation: No corrective action required.

HVAC

Cooling Generating Systems

- Analysis: The building has a two pipe system with six multi-plus mini boilers that was installed in 1994. AC window units are used to cool the building.
- Recommendation: Remove or abandon the existing system and replace with PTAC units.

Fire Protection

Sprinklers

- Analysis: There are no fire sprinklers. There is not a fire suppression system over the ranges.
- Recommendation: Install fire suppression system at the kitchen ranges.

Electrical

Electrical Service/Distribution

- Analysis: Electrical service is supplied to the building from the main service. Service is a GE 1400 amp main disconnect with a 1300 amp Federal Pacific service. This distribution panel provides power for lighting and receptacles. The electrical service is in good condition.
- Recommendation: Abandon one of the electrical services.

Communications and Security

- Analysis: Fire annunciator is installed.
- Recommendation: No corrective action required.

Equipment

Other Equipment

- Analysis: All other equipment is in good condition.
- Recommendation: No corrective action required.

Site Preparation

Site Earthwork

- Analysis: Earthwork is in good condition. This building has on-street parking.
- 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 are required at the main lodging building on post. Presently these are located in building 695, 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 redo of the building into 16 family suites. This renovation will cost more than 50% of the building's replacement cost.

- **Public Spaces**

Most of the public spaces are required at the main lodging building on post. Presently these are located in building 695, 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
04 Masonry	0.10%	\$604.80
Stone Wall Mortar: Damaged or Cracked		\$604.80
08 Doors & Windows	42.23%	\$253,506.74
Ext Wood Door with side lites: Damaged or Failing		\$68,728.60
Scratched and marred		\$101,473.68
Wood Framed windows: Damaged or failing		\$83,304.46
09 Finishes	25.70%	\$154,260.56
Carpet: Missing or inadequate		\$50,224.46
Interior ceilings: Paint Failing		\$9,996.00
Vinyl Wall Covering: Beyond expected useful life		\$94,040.10
13 Special Construction	0.11%	\$672.00
CO2 System: Missing or Inadequate		\$672.00
15 Mechanical	18.53%	\$111,207.60
PTAC: Missing or inadequate		\$111,207.60
19 FF&E	13.33%	\$80,000.00
Hard and soft goods: Beyond expected useful life		\$80,000.00
Total Raw Cost	100.00%	\$600,252.00

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$3,301.39
Force Protection	9.00%	\$59,722.07
General Conditions	10.00%	\$60,025.20
Total Additional Hard Cost		\$123,048.66

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$72,330.07
SIOH Conus	6.50%	\$51,716.00
Design	10.00%	\$72,330.07
08 MYr Inflation Fct	9.93%	\$91,323.91
Total Soft Cost		\$287,700.03
Total Project		\$1,011,000.69

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	0.86%	\$7,717.50
Stair Construction		\$7,717.50
04 Masonry	0.07%	\$604.80
Exterior Walls		\$604.80
07 Thermal & Moisture Protection	1.72%	\$15,534.49
Roof Construction		\$15,534.49
08 Doors & Windows	12.84%	\$115,685.85
Exterior Doors		\$6,473.25
Exterior Windows		\$84,000.00
Interior Doors		\$25,212.60
09 Finishes	28.10%	\$253,072.92
Ceiling Finishes		\$46,199.16
Floor Finishes		\$58,730.28
Partitions		\$56,555.25
Wall Finishes		\$91,588.22
10 Specialties	0.14%	\$1,302.84
Fittings		\$1,302.84
11 Equipment	0.14%	\$1,302.84
Other Equipment		\$1,302.84
13 Special Construction	9.82%	\$88,494.00
Communications & Security		\$39,837.00
Sprinklers		\$48,657.00
15 Mechanical	23.55%	\$212,100.00
Cooling Generating Systems		\$117,600.00
Domestic Water Dist		\$45,360.00
Plumbing Fixtures		\$49,140.00
16 Electrical	13.87%	\$124,950.00
Electrical Service & Distribution		\$124,950.00
19 FF&E	8.88%	\$80,000.00
Interior FF&E allowance		\$80,000.00
Total Raw Cost	100.00%	\$900,765.23

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$4,954.21
Force Protection	9.00%	\$89,621.64
General Conditions	10.00%	\$90,076.52
Total Additional Hard Cost		\$184,652.37

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$108,541.76

SIOH Conus	6.50%	\$77,607.36
Design	10.00%	\$108,541.76
08 MYr Inflation Fct	9.93%	\$137,044.77
Total Soft Cost		\$431,735.65
Total Project Cost for Renovation		\$1,517,153.26

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	1.91%	\$28,855.31
Site Earthwork		\$28,855.31
03 Concrete	19.88%	\$300,665.63
Floor Construction		\$207,693.38
Slab on Grade		\$21,315.00
Stair Construction		\$7,717.50
Standard Foundations		\$63,939.75
04 Masonry	6.44%	\$97,463.55
Exterior Walls		\$97,463.55
07 Thermal & Moisture Protection	5.90%	\$89,196.62
Roof Construction		\$36,229.93
Roof Coverings		\$52,966.69
08 Doors & Windows	8.50%	\$128,588.25
Exterior Doors		\$14,159.25
Exterior Windows		\$84,000.00
Interior Doors		\$30,429.00
09 Finishes	13.81%	\$208,943.31
Ceiling Finishes		\$33,620.14
Floor Finishes		\$59,399.42
Partitions		\$62,065.38
Wall Finishes		\$53,858.36
10 Specialties	0.10%	\$1,583.40
Fittings		\$1,583.40
11 Equipment	3.89%	\$58,800.00
Other Equipment		\$58,800.00
13 Special Construction	5.09%	\$76,983.46
Communications & Security		\$34,655.34
Sprinklers		\$42,328.11
15 Mechanical	21.59%	\$326,478.60
Cooling Generating Systems		\$102,303.60
Domestic Water Dist		\$45,360.00
Plumbing Fixtures		\$178,815.00
16 Electrical	7.60%	\$114,950.33
Electrical Service & Distribution		\$114,950.33
19 FF&E	5.29%	\$80,000.00
Interior FF&E allowance		\$80,000.00
Total Raw Cost	100.00%	\$1,512,508.45

Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$8,318.80
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$151,250.85

Total Additional Hard Cost **\$159,569.64**

Soft Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Contingency	5.00%	\$83,603.90
SIOH Conus	6.50%	\$114,119.33
Design	10.00%	\$167,207.81
08 MYr Inflation Fct	9.93%	\$202,275.01
Total Soft Cost		\$567,206.05
Total Project Cost for Replacement		\$2,239,284.15

INSERT BUILDING 213 FLOOR PLAN HERE



*Building 225
Grant and Stimson St.
Ft. Leavenworth, KS*

Building 225

Building 225, Trusdall Hall, is located at the intersection of Grant and Stimson Streets, Ft. Leavenworth, KS. The 51,894 SF, brick, 3 story building was built in 1959. the building shares space with several MWR operations. The building has 44 multi-room suites without full kitchens which function as standard stay rooms.

Significant Assumptions

The replacement and renovation cost models are based on 14 extended stay rooms and 18 family suites.

The renovation plan if required, would use the existing foot print 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 105% for Ft Leavenworth.

Cost Analysis

Condition Assessment Cost	\$2,031,170.00
Replacement Cost	\$3,482,125.00
Condition Assessment to Replacement Cost Ratio	58.33%

Because the Condition Assessment Cost to Replacement Cost Ratio is greater than 50%, renovation of Building 225 is not recommended.

Attributes

01.Number of Units Constructed	44
02.Number of Units Used	44
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	44
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	44
11.Operating as Extended Stay	0
12.Operating as Family Suite	0
13.Renovated to Standard	0
14.Renovated to Extended Stay	14
15.Renovated to Family Suite	18
16.Delta renovation	-12

Condition Analysis/Recommendation

FF&E

FF&E Allowance

- Analysis: The living room has a desk with chair, coffee table, davenport, armchair, refrigerator, television with cabinet, microwave and lamp. Each bedroom has a bed, mirror, end table, television with cabinet, and a chest of drawers. All FF&E is in fair condition.
- Recommendation: Replace all FF&E to comply with Army lodging standards.

Foundations

Standard Foundations

- Analysis: The foundation is of cast in place concrete on compacted soil. No clear failures can be seen from the perimeter. The foundation is in good condition.
- Recommendation: No corrective action required.

Slab on Grade

- Analysis: The concrete floor appears to be in fair condition.
- Recommendation: No corrective action required

Superstructure

Floor Construction

- Analysis: The structure is concrete construction. The floor framing appears to be in good condition.
- Recommendation: No corrective action required.

Roof Construction

- Analysis: The roof consists of a concrete flat roofed structure. The roof structure appears to be in good condition. The gutters and downspouts are failing.
- Recommendation: Replace the gutters and downspouts.

Exterior Enclosure

Exterior Walls

- Analysis: The brick wall mortar joints show signs of aging. The brick is in good condition.
- Recommendation: Clean and repoint mortar joints.

Exterior Windows

- Analysis: The windows are aluminum. The windows appear to be in good condition.
- Recommendation: No corrective action required

Exterior Doors

- Analysis: The building has hollow metal doors and frames. The doors appear to be in good condition.
- Recommendation: No corrective action required.

Roofing

Roof Coverings

- Analysis: Rolled roofing on flat decking was installed in 2000. The roof covering appears to be in good condition.
- Recommendation: No corrective action required.

Interior Construction

Partitions

- Analysis: The plaster on the wood studs is in good condition.
- Recommendation: No corrective action required.

Interior Doors

- Analysis: The building has wood doors in wood frames. All the interior doors and associated hardware are in fair condition.
- Recommendation: Refinish the wood doors and frames.

Fittings

- Analysis: There are electronic locks in wood doors. All the fittings are in good condition.
- Recommendation: No corrective action required.

Stairs

Stair Construction

- Analysis: The stairs have rubber treads. The stairs are in good condition.
- Recommendation: No corrective action required.

Interior Finishes

Wall Finishes

- Analysis: The walls and paint are in fair condition.
- Recommendation: Install vinyl wall covering.

Floor Finishes

- Analysis: The units had new carpet installed in 2000. The carpet is in good condition.
- Recommendation: Replace carpet.

Ceiling Finishes

- Analysis: Ceilings are acoustical tile on metal grid. The ceiling is in fair condition.
- Recommendation: Replace ceiling the tiles.

Plumbing

Plumbing Fixtures

- Analysis: There are no bathtubs in the bathrooms. The fixtures are in fair condition.
- Recommendation: Install new bathtubs in the bathrooms.

Domestic Water Distribution

- Analysis: This unit has four package heaters with two holding tanks. The water distribution system is in good condition.
- Recommendation: No corrective action required.

HVAC

Cooling Generating Systems

- Analysis: The building has a two pipe system with multi-pulse boilers and condensing unit/chiller bundle. The heating/cooling system is in good condition.
- Recommendation: Install PTAC units.

Fire Protection

Sprinklers

- Analysis: No fire sprinklers exist.
- Recommendation: No corrective action required.

Electrical

Electrical Service/Distribution

- Analysis: Electrical service is supplied to the building from the main service. Service is a 1600 amp main disconnect with Federal Pacific service. This distribution panel provides power for lighting and receptacles. The electrical service is in fair condition.
- Recommendation: Replace the main disconnect.

Communications and Security

- Analysis: Fire annunciator is installed.
- Recommendation: No corrective action required.

Equipment

Other Equipment

- Analysis: All other equipment is in good condition.
- Recommendation: No corrective action required.

Site Preparation

Site Earthwork

- Analysis: The site consists of grass covered yard areas with sidewalks and parking lots. Some erosion and settlement was noted.
- Recommendation: Regrade/seed specific areas to allow for proper drainage.

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 are required at the main lodging building on post. Presently these are located in building 695, 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 redo of the building into 18 family suites and 14 extended stay rooms. This renovation will cost more than 50% of the building's replacement cost.

- **Public Spaces**

Most of the public spaces are required at the main lodging building on post. Presently these are located in building 695, 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
02 Site Work	2.27%	\$27,343.85
Grassed area/drainage ditch insufficient flow		\$27,343.85
04 Masonry	2.16%	\$26,012.03
Brick Wall: Repoint		\$26,012.03
07 Thermal & Moisture Protection	1.27%	\$15,330.00
Gutters: Damaged or Failing		\$15,330.00
08 Doors & Windows	17.79%	\$214,478.46
Scratched and marred		\$214,478.46
09 Finishes	40.62%	\$489,849.41
Acoustical Ceiling Tile: Beyond expect useful life		\$115,174.50
Carpet: Beyond Useful Life		\$30,879.78
Carpet: Damaged or Failing		\$67,374.23
Vinyl Wall Covering: Beyond expected useful life		\$276,420.90
15 Mechanical	14.86%	\$179,200.14
PTAC: Missing or inadequate		\$111,207.60
Tub: Damaged or failing		\$67,992.54
16 Electrical	2.80%	\$33,732.30
Main service: Beyond expected useful life		\$33,732.30
19 FF&E	18.24%	\$220,000.00
Hard and soft goods: Beyond expected useful life		\$220,000.00
Total Raw Cost	100.00%	\$1,205,946.00

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$6,632.70
Force Protection	9.00%	\$119,985.60
General Conditions	10.00%	\$120,594.60
Total Additional Hard Cost		\$247,212.90

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$145,315.89
SIOH Conus	6.50%	\$103,900.86
Design	10.00%	\$145,315.89
08 MYr Inflation Fct	9.93%	\$183,475.77
Total Soft Cost		\$578,008.41
Total Project		\$2,031,167.31

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
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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	2.88%	\$67,675.91
Site Earthwork		\$67,675.91
03 Concrete	16.16%	\$380,052.39
Floor Construction		\$222,127.14
Slab on Grade		\$50,069.25
Stair Construction		\$7,717.50
Standard Foundations		\$100,138.50
04 Masonry	5.68%	\$133,575.02
Exterior Walls		\$133,575.02
07 Thermal & Moisture Protection	7.67%	\$180,467.18
Roof Construction		\$57,086.49
Roof Coverings		\$123,380.69
08 Doors & Windows	8.62%	\$202,812.75
Exterior Doors		\$10,316.25
Exterior Windows		\$151,200.00
Interior Doors		\$41,296.50
09 Finishes	14.78%	\$347,572.43
Ceiling Finishes		\$55,560.36
Floor Finishes		\$110,197.11
Partitions		\$98,460.49
Wall Finishes		\$83,354.46
10 Specialties	0.07%	\$1,583.40
Fittings		\$1,583.40
11 Equipment	5.00%	\$117,600.00
Other Equipment		\$117,600.00
13 Special Construction	5.13%	\$120,566.75
Communications & Security		\$54,275.07
Sprinklers		\$66,291.69
15 Mechanical	19.80%	\$465,666.60
Cooling Generating Systems		\$160,221.60
Domestic Water Dist		\$77,490.00
Plumbing Fixtures		\$227,955.00
16 Electrical	7.42%	\$174,403.95
Electrical Service & Distribution		\$174,403.95
19 FF&E	6.80%	\$160,000.00
Interior FF&E allowance		\$160,000.00
Total Raw Cost	100.00%	\$2,351,976.39

Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$12,935.87
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$235,197.64

Total Additional Hard Cost **\$248,133.51**

Soft Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Contingency	5.00%	\$130,005.50
SIOH Conus	6.50%	\$177,457.50
Design	10.00%	\$260,010.99
08 MYr Inflation Fct	9.93%	\$314,541.08
Total Soft Cost		\$882,015.07
Total Project Cost for Replacement		\$3,482,124.96

INSERT BUILDING 225 FLOOR PLANS HERE



*Building 338, Blockberger Hall
North Kearny Building
Ft. Leavenworth, KS*

Building 338

Building 338, Blockberger Hall, is located at the North Kearny Building, Ft. Leavenworth, KS. The 9,832 SF, 3 story, brick building was built in 1963. The building has 16 single rooms with full kitchens which function as extended stay rooms.

Significant Assumptions

The replacement and renovation cost models are based on 8 family suites.

The renovation plan if required, would use the existing foot print 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 105% for Ft Leavenworth.

Cost Analysis

Condition Assessment Cost	\$665,365.00
Replacement Cost	\$1,016,275.00
Condition Assessment to Replacement Cost Ratio	65.47%

Because the Condition Assessment Cost to Replacement Cost Ratio is greater than 50%, renovation of Building 338 is not recommended.

Attributes

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

Condition Analysis/Recommendation

FF&E

FF&E Allowance

- Analysis: At the time of the site visit, all FF&E were removed from the facility and could not be assessed. The assumption is that the FF&E was replaced at the same time as that in 339.
- Recommendation: New FF&E should be provided when the facility renovation is complete.

Foundations

Standard Foundations

- Analysis: The foundation is of cast in place concrete 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: The concrete floor in the basement appears to be in good condition.
- Recommendation: No corrective action required

Superstructure

Floor Construction

- Analysis: The structure is wood frame construction with wood decking. The floor framing appears to be in good condition.
- Recommendation: No corrective action required.

Roof Construction

- Analysis: The roof consists of wood decking attached to sloped wooden rafters. The roof structure appears to be in good condition.
- Recommendation: No corrective action required.

Exterior Enclosure

Exterior Walls

- Analysis: The brick walls appear to be in good condition.
- Recommendation: No corrective action required.

Exterior Windows

- Analysis: The windows are single pane aluminum. The windows are in poor condition.
- Recommendation: Remove and replace all the exterior windows.

Exterior Doors

- Analysis: The building has wood doors and frames. The doors appear to be in good condition.
- Recommendation: No corrective action required.

Roofing

Roof Coverings

- Analysis: The roof is covered with three tab asphalt shingles on a wood deck. The roof covering and gutter system appear to be in fair condition.
- Recommendation: Replace the shingle roofing.

Interior Construction

Partitions

- Analysis: The gypsum drywall on the wood studs is in good condition.
- Recommendation: No corrective action required.

Interior Doors

- Analysis: The building has wood doors and frames. All the interior doors and associated hardware are in fair condition.
- Recommendation: Refinish all the interior wood doors and frames.

Stairs

Stair Construction

- Analysis: The stairs have rubber treads and are in good condition.
- Recommendation: No corrective action required.

Interior Finishes

Wall Finishes

- Analysis: The walls are paint on gypsum wall board. The walls and paint are in fair condition.
- Recommendation: Install vinyl wallcovering.

Floor Finishes

- Analysis: The units were carpeted in 1998. The carpet is in fair condition. Bathrooms have VCT in fair condition.
- Recommendation: Replace the carpeting and VCT.

Ceiling Finishes

- Analysis: The ceilings are paint on gypsum wall board. The ceiling paint is in fair condition. The lower level has acoustical ceiling tile that is in fair condition.
- Recommendation: Repaint the gypsum wallboard ceilings and replace acoustical ceiling tile in lower level.

Plumbing

Plumbing Fixtures

- Analysis: The plumbing fixtures are in good condition.
- Recommendation: No corrective action required.

Domestic Water Distribution

- Analysis: The water distribution system is in fair condition. The waste system is in poor condition.

- Recommendation: Remove and replace the distribution and waste system

HVAC

Cooling Generating Systems

- Analysis: The building has a two pipe system, three multi-pulse high efficiency boilers and condensing unit that were installed in 2003. The heating/cooling system is in like new condition.
- Recommendation: No corrective action required.

Fire Protection

Sprinklers

- Analysis: No fire sprinklers exist. There is not a fire suppression system over the ranges.
- Recommendation: Install a fire suppression system.

Electrical

Electrical Service/Distribution

- Analysis: Electrical service is supplied to the building from the main service. Service is a 400 amp Fuenster and 100 amp Siemans main disconnect. This distribution panel provides power for lighting and receptacles. The electrical service is in good condition.
- Recommendation: No corrective action required.

Communications and Security

- Analysis: There are fire annunciators in this facility.
- Recommendation: No corrective action required.

Equipment

Other Equipment

- Analysis: All other equipment is in good condition.
- Recommendation: No corrective action required.

Site Preparation

Site Earthwork

- Analysis: The site consists of grass covered yard areas with sidewalks and parking lots. Some erosion and settlement was noted.
- Recommendation: Regrade/seed specific areas to allow for proper drainage.

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 are required at the main lodging building on post. Presently these are located in building 695, 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 redo of the building into 8 family suites. This renovation will cost more than 50% of the building's replacement cost.

- **Public Spaces**

Most of the public spaces are required at the main lodging building on post. Presently these are located in building 695, 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
02 Site Work	7.66%	\$30,267.71
Parking: AC Pavement Damaged or Failing		\$13,419.00
Poor Drainage: Landscape Areas		\$16,848.71
07 Thermal & Moisture Protection	3.72%	\$14,710.08
Asphalt Shingle Roof: Beyond Useful Life		\$14,710.08
08 Doors & Windows	22.88%	\$90,384.50
Al. Windows - Beyond Useful Life		\$43,106.99
Scratched and marred		\$47,277.51
09 Finishes	36.22%	\$143,065.27
Acoustical Ceiling Tile: Beyond expect useful life		\$1,645.35
Carpet: Beyond Useful Life		\$28,634.15
Interior ceilings: Paint Failing		\$5,761.35
VCT: Beyond Useful Life		\$730.61
Vinyl Wall Covering: Beyond expected useful life		\$106,293.81
13 Special Construction	0.34%	\$1,344.00
CO2 System: Missing or Inadequate		\$1,344.00
15 Mechanical	8.93%	\$35,269.00
Domestic water system: Beyond expected useful life		\$23,832.12
Pipe, sewer or waste: Damaged or failing		\$11,436.88
19 FF&E	20.25%	\$80,000.00
Hard and soft goods: Beyond expected useful life		\$80,000.00
Total Raw Cost	100.00%	\$395,041.00

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$2,172.73
Force Protection	9.00%	\$39,304.60
General Conditions	10.00%	\$39,504.10
Total Additional Hard Cost		\$80,981.43

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$47,602.24
SIOH Conus	6.50%	\$34,035.60
Design	10.00%	\$47,602.24
08 MYr Inflation Fct	9.93%	\$60,102.57
Total Soft Cost		\$189,342.66
Total Project		\$665,365.09

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
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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	2.93%	\$20,086.89
Site Earthwork		\$20,086.89
03 Concrete	17.38%	\$119,280.58
Floor Construction		\$67,106.08
Slab on Grade		\$14,820.75
Stair Construction		\$7,717.50
Standard Foundations		\$29,636.25
04 Masonry	8.64%	\$59,305.09
Exterior Walls		\$59,305.09
07 Thermal & Moisture Protection	7.87%	\$54,053.30
Roof Construction		\$16,996.81
Roof Coverings		\$37,056.50
08 Doors & Windows	11.19%	\$76,800.15
Exterior Doors		\$10,316.25
Exterior Windows		\$50,400.00
Interior Doors		\$16,083.90
09 Finishes	14.95%	\$102,608.67
Ceiling Finishes		\$16,886.93
Floor Finishes		\$29,757.13
Partitions		\$29,510.66
Wall Finishes		\$26,453.95
11 Equipment	4.28%	\$29,400.00
Other Equipment		\$29,400.00
13 Special Construction	5.20%	\$35,682.05
Communications & Security		\$16,062.85
Sprinklers		\$19,619.20
15 Mechanical	13.79%	\$94,668.00
Cooling Generating Systems		\$47,418.00
Domestic Water Dist		\$22,680.00
Plumbing Fixtures		\$24,570.00
16 Electrical	7.95%	\$54,550.13
Electrical Service & Distribution		\$54,550.13
19 FF&E	5.83%	\$40,000.00
Interior FF&E allowance		\$40,000.00
Total Raw Cost	100.00%	\$686,434.86

Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$3,775.39
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$68,643.49
Total Additional Hard Cost		\$72,418.88

Soft Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Contingency	5.00%	\$37,942.69
SIOH Conus	6.50%	\$51,791.77
Design	10.00%	\$75,885.37
08 MYr Inflation Fct	9.93%	\$91,800.22
Total Soft Cost		\$257,420.05
Total Project Cost for Replacement		\$1,016,273.79

INSERT BUILDING 338 FLOOR PLANS HERE



*Building 339, Blockberger Hall
South Kearney Bldg.
Ft. Leavenworth, KS*

Building 339

Building 339, Blockberger Hall, is located at the South Kearney building, Ft. Leavenworth, KS. The 9,832 SF, brick, 3 story building was built in 1963. The building has 16 single rooms with full kitchens and 3 multi-room suites with full kitchens. All 19 of the rooms function as extended stay rooms.

Significant Assumptions

The replacement and renovation cost models are based on 8 family suites.

The renovation plan if required, would use the existing foot print 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 105% for Ft Leavenworth.

Cost Analysis

Condition Assessment Cost	\$682,770.00
Replacement Cost	\$1,016,275.00
Condition Assessment to Replacement Cost Ratio	67.18%

Because the Condition Assessment Cost to Replacement Cost Ratio is greater than 50%, renovation of Building 339 is not recommended.

Attributes

01.Number of Units Constructed	19
02.Number of Units Used	19
03.Back of House Function	No
04.Single Room w/o FullKitchen	0
05.Single Room w/ Full Kitchen	16
06.Multi Room wo/ Full Kitchen	0
07.Multi Room w/ Full Kitchen	3
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	0
11.Operating as Extended Stay	0
12.Operating as Family Suite	0
13.Renovated to Standard	0
14.Renovated to Extended Stay	0
15.Renovated to Family Suite	8
16.Delta renovation	-11

Condition Analysis/Recommendation

FF&E

FF&E Allowance

- Analysis: Each extended stay room has a bed, two end tables, refrigerator, built-in desk, chair, and television with cabinet. Each Family suite has a bed, end table, dresser, full size refrigerator, built-in desk, chair, coffee table, couch built-in sink, microwave, 4 burner gas stove, bathtub, and television with cabinet. All FF&E is in fair condition.
- Recommendation: Replace all FF&E to comply with Army lodging standards.

Foundations

Standard Foundations

- Analysis: The foundation is of cast in place concrete on compacted soil. No clear failures can be seen from the perimeter. The foundation is in good condition.
- Recommendation: No corrective action required.

Slab on Grade

- Analysis: The concrete floor in the basement appears to be in good condition.
- Recommendation: No corrective action required

Superstructure

Floor Construction

- Analysis: The structure is wood frame construction with wood decking. The floor framing appears to be in good condition.
- Recommendation: No corrective action required.

Roof Construction

- Analysis: The roof consists of wood decking attached to sloped wooden rafters. The roof structure appears to be in good condition.
- Recommendation: No corrective action required.

Exterior Enclosure

Exterior Walls

- Analysis: The brick walls appear to be in good condition.
- Recommendation: No corrective action required.

Exterior Windows

- Analysis: The windows are single pane aluminum. The windows are in poor condition.
- Recommendation: Remove and replace all the exterior windows.

Exterior Doors

- Analysis: The building has wood doors and frames. The doors appear to be in good condition.

- Recommendation: No corrective action required.

Roofing

Roof Coverings

- Analysis: The roof is covered with Three tab asphalt shingles on wood deck. The roof covering appears to be in fair condition.
- Recommendation: Replace the asphalt roof.

Interior Construction

Partitions

- Analysis: The gypsum drywall on the wood studs is in good condition.
- Recommendation: No corrective action required.

Interior Doors

- Analysis: The building has wood doors and frames. All the interior doors and associated hardware are in fair condition.
- Recommendation: Refinish all interior the wood doors and frames.

Stairs

Stair Construction

- Analysis: The stairs have rubber tread and are in good condition.
- Recommendation: No corrective action required.

Interior Finishes

Wall Finishes

- Analysis: The walls are paint on gypsum wall board. The walls and paint are in fair condition.
- Recommendation: Install vinyl wallcovering

Floor Finishes

- Analysis: The units were carpeted in 1998. The carpet is in fair condition. Bathrooms have VCT in fair condition.
- Recommendation: Replace the carpeting and VCT.

Ceiling Finishes

- Analysis: The ceilings are paint on gypsum wall board. The ceiling paint is in fair condition. The lower level has acoustical ceiling tile that is in fair condition.
- Recommendation: Repaint gypsum wallboard ceilings and replace acoustical ceiling tile in lower level.

Plumbing

Plumbing Fixtures

- Analysis: Plumbing fixtures are in good condition.
- Recommendation: No corrective action required.

Domestic Water Distribution

- Analysis: The water distribution system is in fair condition. The waste system is in poor condition.
- Recommendation: Remove and replace the distribution and waste system

HVAC

Cooling Generating Systems

- Analysis: The building has a two pipe system, three multi-pulse high efficiency boilers and condensing unit that were installed in 2003. The heating/cooling system is in like new condition.
- Recommendation: No corrective action required.

Fire Protection

Sprinklers

- Analysis: No fire sprinklers exist. There is not a fire suppression system over the ranges.
- Recommendation: Install fire suppression system.

Electrical

Electrical Service/Distribution

- Analysis: Assesor was not able to view due to construction occurring in Building 338. It assumed similarity to Building 338 which was a 400 amp Fuenster and 100 amp Siemans main disconnect. This distribution panel provides power for lighting and receptacles.
- Recommendation: No corrective action required.

Communications and Security

- Analysis: There are fire annunciators in this facility.
- Recommendation: No corrective action required.

Equipment

Other Equipment

- Analysis: All other equipment is in good condition.
- Recommendation: No corrective action required.

Site Preparation

Site Earthwork

- Analysis: The site consists of grass covered yard areas with sidewalks and parking lots. Some erosion and settlement was noted.
- Recommendation: Regrade/seed specific areas to allow for proper drainage.

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 are required at the main lodging building on post. Presently these are located in building 695, 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 redo of the building into 8 family suites. This renovation will cost more than 50% of the building's replacement cost.

- **Public Spaces**

Most of the public spaces are required at the main lodging building on post. Presently these are located in building 695, 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
02 Site Work	7.68%	\$31,139.67
Parking: AC Pavement Damaged or Failing		\$7,455.00
Poor Drainage: Landscape Areas		\$23,684.67
07 Thermal & Moisture Protection	3.63%	\$14,710.08
Asphalt Shingle Roof: Beyond Useful Life		\$14,710.08
08 Doors & Windows	23.59%	\$95,636.19
Al. Windows - Beyond Useful Life		\$40,286.91
Scratched and marred		\$55,349.28
09 Finishes	32.57%	\$132,025.11
Acoustical Ceiling & Grid: Beyond expt useful life		\$1,867.56
Carpet: Beyond Useful Life		\$28,563.99
Interior ceilings: Paint Failing		\$5,761.38
VCT: Beyond Useful Life		\$937.17
Vinyl Wall Covering: Beyond expected useful life		\$94,895.01
13 Special Construction	0.39%	\$1,596.00
CO2 System: Missing or Inadequate		\$1,596.00
15 Mechanical	8.70%	\$35,269.00
Domestic water system: Beyond expected useful life		\$23,832.12
Pipe, sewer or waste: Damaged or failing		\$11,436.88
19 FF&E	23.44%	\$95,000.00
Hard and soft goods: Beyond expected useful life		\$95,000.00
Total Raw Cost	100.00%	\$405,376.00

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$2,229.57
Force Protection	9.00%	\$40,332.89
General Conditions	10.00%	\$40,537.60
Total Additional Hard Cost		\$83,100.05

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$48,847.61
SIOH Conus	6.50%	\$34,926.04
Design	10.00%	\$48,847.61
08 MYr Inflation Fct	9.93%	\$61,674.96
Total Soft Cost		\$194,296.21
Total Project		\$682,772.26

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
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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	2.93%	\$20,086.89
Site Earthwork		\$20,086.89
03 Concrete	17.38%	\$119,280.58
Floor Construction		\$67,106.08
Slab on Grade		\$14,820.75
Stair Construction		\$7,717.50
Standard Foundations		\$29,636.25
04 Masonry	8.64%	\$59,305.09
Exterior Walls		\$59,305.09
07 Thermal & Moisture Protection	7.87%	\$54,053.30
Roof Construction		\$16,996.81
Roof Coverings		\$37,056.50
08 Doors & Windows	11.19%	\$76,800.15
Exterior Doors		\$10,316.25
Exterior Windows		\$50,400.00
Interior Doors		\$16,083.90
09 Finishes	14.95%	\$102,608.67
Ceiling Finishes		\$16,886.93
Floor Finishes		\$29,757.13
Partitions		\$29,510.66
Wall Finishes		\$26,453.95
11 Equipment	4.28%	\$29,400.00
Other Equipment		\$29,400.00
13 Special Construction	5.20%	\$35,682.05
Communications & Security		\$16,062.85
Sprinklers		\$19,619.20
15 Mechanical	13.79%	\$94,668.00
Cooling Generating Systems		\$47,418.00
Domestic Water Dist		\$22,680.00
Plumbing Fixtures		\$24,570.00
16 Electrical	7.95%	\$54,550.13
Electrical Service & Distribution		\$54,550.13
19 FF&E	5.83%	\$40,000.00
Interior FF&E allowance		\$40,000.00
Total Raw Cost	100.00%	\$686,434.86

Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$3,775.39
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$68,643.49
Total Additional Hard Cost		\$72,418.88

Soft Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Contingency	5.00%	\$37,942.69
SIOH Conus	6.50%	\$51,791.77
Design	10.00%	\$75,885.37
08 MYr Inflation Fct	9.93%	\$91,800.22
Total Soft Cost		\$257,420.05
Total Project Cost for Replacement		\$1,016,273.79

INSERT BUILDING 339 FLOOR PLANS HERE



Building 427
770 Scott
Ft. Leavenworth, KS

Building 427

Building 427, Riverside Apartments, is located at 770 Scott, Ft. Leavenworth, KS. The 24,942 SF, 5 story, brick building was built in 1921, and is designated as a historic building. The building has 12 multi-room suites with full kitchens. The rooms all function as family suites.

Significant Assumptions

The replacement and renovation cost models are based on 16 family suites.

The renovation plan if required, would use the existing foot print 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 105% for Ft. Leavenworth.

Cost Analysis

Condition Assessment Cost	\$1,453,685.00
Replacement Cost	\$2,239,285.00
Condition Assessment to Replacement Cost Ratio	64.92%

Because the Condition Assessment Cost to Replacement Cost Ratio is greater than 50%, renovation of Building 427 is not recommended.

Attributes

01.Number of Units Constructed	12
02.Number of Units Used	12
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	12
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	0
11.Operating as Extended Stay	0
12.Operating as Family Suite	12
13.Renovated to Standard	0
14.Renovated to Extended Stay	0
15.Renovated to Family Suite	16
16.Delta renovation	4

Condition Analysis/Recommendation

FF&E

FF&E Allowance

- Analysis: 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. Soft goods consists of drapes and blinds on the windows, TV, mattress and box springs and bed coverings. All are in good condition.
- Recommendation: Replace all the FF&E to meet Army lodging standards

Foundations

Standard Foundations

- Analysis: The foundation is of limestone on compacted soil. The foundation is in fair condition.
- Recommendation: No corrective action required.

Slab on Grade

- Analysis: The concrete floor in the basement appears to be in fair condition.
- Recommendation: No corrective action required

Superstructure

Floor Construction

- Analysis: The structure is concrete construction. The floor framing appears to be in good condition.
- Recommendation: No corrective action required.

Roof Construction

- Analysis: The roof consists of concrete and wood. The roof structure appears to be in good condition.
- Recommendation: No corrective action required.

Exterior Enclosure

Exterior Walls

- Analysis: The brick wall mortar joints show signs of aging along with signs of water penetration in brick walls. The walls are in poor condition.
- Recommendation: Clean and repoint the mortar joints along with sealing brick. Waterproof the building exterior.

Exterior Windows

- Analysis: The windows are painted wood windows. The windows are in poor condition.
- Recommendation: Replace all the exterior windows.

Exterior Doors

- Analysis: The building has residential grade wood doors and frames with sidelights. The doors are in poor condition.
- Recommendation: Replace the exterior wood doors and frames.

Roofing

Roof Coverings

- Analysis: The single-ply flexible membrane ballasted roof was repaired in 1999. The roof covering appears to be in fair condition.
- Recommendation: Replace the existing rubber membrane roof.

Interior Construction

Partitions

- Analysis: The plaster on the wood studs is in good condition
- Recommendation: No corrective action required.

Interior Doors

- Analysis: The building has wood doors and frames. All the interior doors and associated hardware are in fair condition.
- Recommendation: Replace all the interior doors and frames.

Fittings

- Analysis: There are electronic locks in the wood doors. All the fittings are in good condition.
- Recommendation: No corrective action required.

Stairs

Stair Construction

- Analysis: The stairs are in poor condition.
- Recommendation: Replace three flights of stairs.

Interior Finishes

Wall Finishes

- Analysis: The walls and paint are in fair condition.
- Recommendation: Install vinyl wallcovering.

Floor Finishes

- Analysis: The units have carpeting and the bathrooms have tile. Both are in fair condition.
- Recommendation: Replace the carpeting and tile.

Ceiling Finishes

- Analysis: The ceilings are paint on concrete. The ceiling paint is in fair condition.
- Recommendation: Repaint the ceiling.

Plumbing

Plumbing Fixtures

- Analysis: The 4" interior roof drains are in poor condition.
- Recommendation: Remove and replace the interior roof drains.

Domestic Water Distribution

- Analysis: This unit has one 80 gallon hot water heater installed in 2000. The waste and supply lines are in fair condition.
- Recommendation: Replace the waste and supply lines.

HVAC

Cooling Generating Systems

- Analysis: The building has a two pipe system with two mini boilers that are in fair condition. Window air conditioning units are inappropriate for current application.
- Recommendation: Install new PTAC units.

Fire Protection

Sprinklers

- Analysis: No fire sprinklers exist. There is not a fire suppression system over the ranges.
- Recommendation: Install fire suppression system.

Electrical

Electrical Service/Distribution

- Analysis: Electrical service is supplied to the building from the main service. Service is a 600 amp GE main disconnect. This distribution panel provides power for lighting and receptacles. The electrical service is in fair condition. The interior wiring and receptacles are in fair condition.
- Recommendation: Replace with a 800 amp service. Remove and replace the interior wiring and receptacles.

Communications and Security

- Analysis: A fire notifier exists for this unit.
- Recommendation: No corrective action required

Equipment

Other Equipment

- Analysis: All other equipment is in good condition.
- Recommendation: No corrective action required.

Site Preparation

Site Earthwork

- Analysis: The site consists of grass covered yard areas with some erosion and settlement at the building. Minor grading required to allow for proper drainage.
- Recommendation: Regrade/landscape/seed specific areas of the site.

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 are required at the main lodging building on post. Presently these are located in building 695, 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 redo of the building into 16 family suites. This renovation will cost more than 50% of the building's replacement cost.

- **Public Spaces**

Most of the public spaces are required at the main lodging building on post. Presently these are located in building 695, 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
02 Site Work	2.97%	\$25,599.93
Parking: AC Pavement Damaged or Failing		\$11,928.00
Poor Drainage: Landscape Areas		\$13,671.93
04 Masonry	1.95%	\$16,800.00
Brick Wall: Repoint		\$16,800.00
05 Metals	1.93%	\$16,616.25
Interior Stairs: Damaged or Failing		\$16,616.25
07 Thermal & Moisture Protection	1.63%	\$14,080.50
Single Ply Roof: Damaged or Failing		\$14,080.50
08 Doors & Windows	24.31%	\$209,837.24
Exterior Wood Doors: Beyond Useful Life		\$3,436.43
Wood Door - Beyond Useful Life		\$112,562.10
Wood Framed windows: Damaged or failing		\$93,838.71
09 Finishes	24.93%	\$215,200.33
Carpet: Beyond Useful Life		\$70,181.48
Exterior Coating: Damaged or Failing		\$8,900.00
Floor Tile: Damaged or Failing		\$15,192.45
Interior ceilings: Paint Failing		\$15,487.50
Vinyl Wall Covering: Beyond expected useful life		\$105,438.90
13 Special Construction	0.12%	\$1,008.00
CO2 System: Missing or Inadequate		\$1,008.00
15 Mechanical	21.95%	\$189,414.35
Domestic water system: Beyond expected useful life		\$60,456.92
PTAC: Missing or inadequate		\$94,526.46
Roof drain: Damaged or failing		\$5,424.35
Sewage System: Beyond expected useful life		\$29,006.62
16 Electrical	13.27%	\$114,526.13
Branch Circuits: Beyond Expected Useful Life		\$82,170.38
Inadequate exterior Lighting		\$14,070.00
Main service: Missing or inadequate		\$18,285.75
19 FF&E	6.95%	\$60,000.00
Hard and soft goods: Beyond expected useful life		\$60,000.00
Total Raw Cost	100.00%	\$863,083.00

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$4,746.96
Force Protection	9.00%	\$85,872.44

General Conditions	10.00%	\$86,308.30
Total Additional Hard Cost		\$176,927.70

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$104,001.07
SIOH Conus	6.50%	\$74,360.77
Design	10.00%	\$104,001.07
08 MYr Inflation Fct	9.93%	\$131,311.70
Total Soft Cost		\$413,674.60
Total Project		\$1,453,685.30

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
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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	1.91%	\$28,855.31
Site Earthwork		\$28,855.31
03 Concrete	19.88%	\$300,665.63
Floor Construction		\$207,693.38
Slab on Grade		\$21,315.00
Stair Construction		\$7,717.50
Standard Foundations		\$63,939.75
04 Masonry	6.44%	\$97,463.55
Exterior Walls		\$97,463.55
07 Thermal & Moisture Protection	5.90%	\$89,196.62
Roof Construction		\$36,229.93
Roof Coverings		\$52,966.69
08 Doors & Windows	8.50%	\$128,588.25
Exterior Doors		\$14,159.25
Exterior Windows		\$84,000.00
Interior Doors		\$30,429.00
09 Finishes	13.81%	\$208,943.31
Ceiling Finishes		\$33,620.14
Floor Finishes		\$59,399.42
Partitions		\$62,065.38
Wall Finishes		\$53,858.36
10 Specialties	0.10%	\$1,583.40
Fittings		\$1,583.40
11 Equipment	3.89%	\$58,800.00
Other Equipment		\$58,800.00
13 Special Construction	5.09%	\$76,983.46
Communications & Security		\$34,655.34
Sprinklers		\$42,328.11
15 Mechanical	21.59%	\$326,478.60
Cooling Generating Systems		\$102,303.60
Domestic Water Dist		\$45,360.00
Plumbing Fixtures		\$178,815.00
16 Electrical	7.60%	\$114,950.33
Electrical Service & Distribution		\$114,950.33
19 FF&E	5.29%	\$80,000.00
Interior FF&E allowance		\$80,000.00
Total Raw Cost	100.00%	\$1,512,508.45

Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$8,318.80
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$151,250.85

Total Additional Hard Cost **\$159,569.64**

Soft Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Contingency	5.00%	\$83,603.90
SIOH Conus	6.50%	\$114,119.33
Design	10.00%	\$167,207.81
08 MYr Inflation Fct	9.93%	\$202,275.01
Total Soft Cost		\$567,206.05
Total Project Cost for Replacement		\$2,239,284.15

INSERT BUILDING 427 FLOOR PLANS HERE



Building 695
214 Grant St.
Ft. Leavenworth, KS

Building 695

Building 695, Hoge Hall, is located at 214 Grant Street, Ft. Leavenworth, KS. The 289,267 square foot, 3-story, brick building was built in 1987. The building has 614 single rooms for which each 2 rooms share a kitchen and bathroom. All of the rooms function as extended stay rooms.

Significant Assumptions

The replacement and renovation cost models are based on 142 standard stay rooms and 472 extended stay rooms.

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

This building is in good condition for both the Condition Assessment and Function Criteria. In this building the Condition Assessment costs include the wellness items and the Renovation Cost includes functional renovations but not Condition Assessment cost due to the limited nature of the renovation. Therefore in the Cost Analysis the sum of the Condition Assessment and Renovation cost is used for the ratio to the Replacement Cost

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 105% for Ft Leavenworth.

Cost Analysis

Condition Assessment & Renovation Cost	\$20,763,120.00
Replacement Cost	\$56,674,640.00
Condition Assessment Cost to Replacement Cost Ratio	36.64 %

Because the Sum of the Condition Assessment and Renovation Costs to Replacement Cost Ratio is less than 50%, repair, renovation and continued use of Building 695 is recommended.

Attributes

01.Number of Units Constructed	614
02.Number of Units Used	614
03.Back of House Function	No
04.Single Room w/o FullKitchen	614
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	0
11.Operating as Extended Stay	614
12.Operating as Family Suite	0
13.Renovated to Standard	142
14.Renovated to Extended Stay	472
15.Renovated to Family Suite	0
16.Delta renovation	0

Condition Analysis/Recommendation

FF&E

FF&E Allowance

- Analysis: In each shared unit there are two bedrooms with headboards, dresser, desk with chair, end table, recliner chair, sink and mirror. Each shared kitchen has a mini refrigerator, microwave, two burner stove, coffee pot, toaster, table, two chairs, and a wastebasket. Each shared bathroom there is a tub/shower unit, sink in counter, mirror and wastebasket. 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.
- Recommendation: Replace all hard and soft goods.

Foundations

Standard Foundations

- Analysis: The foundation is a concrete spread foot on compacted soil with CMU stem wall, and is in good condition.
- Recommendation: No corrective action required.

Slab on Grade

- Analysis: The concrete slab on grade appears to be in good condition.
- Recommendation: No corrective action required.

Superstructure

Floor Construction

- Analysis: The structure is concrete. The structure and floor framing appear to be in good condition.
- Recommendation: No corrective action required.

Roof Construction

- Analysis: The roof consists of wood trusses with wood deck. The roof appears to be in good condition.
- Recommendation: No corrective action required.

Exterior Enclosure

Exterior Walls

- Analysis: Brick on CMU walls appears to be in good condition. The Hoge Barracks are constructed of load-bearing concrete masonry walls supporting precast concrete hollow-core plank slabs.
- Recommendation: This described system may have questionable redundancy and we would recommend a further structural review of the structure. This should be based upon Department of Defense procedures for verifying their capacity to resist progressive collapse.

Exterior Windows

- Analysis: The windows are aluminum, and appear to be in fair condition.

- Recommendation: Remove and replace windows.

Exterior Doors

- Analysis: Doors are metal and have frames with electronic locks. The doors appear to be in good condition.
- Recommendation: No corrective action required.

Roofing

Roof Coverings

- Analysis: The roof has three tab asphalt shingles, which were replaced in 1995. The roof covering and gutter system appear to be in fair condition.
- Recommendation: Remove and replace roofing.

Interior Construction

Partitions

- Analysis: Interior corridors are five feet wide and do not meet standards.
- Recommendation: Correct corridor width when building is renovated.

Interior Doors

- Analysis: Interior doors are hollow core wood, and frames are hollow metal. All closet doors are metal bifold type doors. All the interior doors and associated hardware are in fair condition.
- Recommendation: Replace metal bifold closet doors. Refinish wood doors.

Fittings

- Analysis: The bathroom fittings are in good condition.
- Recommendation: No corrective action required.

Stairs

Stair Construction

- Analysis: Stairs have rubber treads.
- Recommendation: No corrective action required.

Interior Finishes

Wall Finishes

- Analysis: Walls are paint on gypsum wall board and vinyl wall covering on CMU. The wall finishes are in fair condition.
- Recommendation: Replace vinyl wallcovering.

Floor Finishes

- Analysis: The units have sheet vinyl in the bathrooms and kitchens, and carpeting in bedrooms. Flooring is in fair condition.
- Recommendation: Remove and replace carpet, sheet vinyl and ceramic tile in bathrooms. Remove and replace sheet vinyl in kitchens.

Ceiling Finishes

- Analysis: Ceilings are painted concrete in most spaces, and acoustical ceiling tile in bathrooms. The ceiling paint is in fair condition.
- Recommendation: Paint ceiling and replace acoustical ceiling tile.

Conveying

Elevators and Lifts

- Analysis: Two hydraulic Otis elevators were rebuilt in 2000. The elevators are in good condition.
- Recommendation: No corrective action required.

Plumbing

Plumbing Fixtures

- Analysis: All water closets are flush valve type except for two tank types. The overall plumbing system is in good condition.
- Recommendation: No corrective action required.

Domestic Water Distribution

- Analysis: This unit has three Columbia boilers and a storage tank. The water distribution system is in fair condition but lack isolation valves. There are some concerns with the solder joints throughout the facility.
- Recommendation: Install needed isolation valves and investigate and repair weak solder joints.

HVAC

Cooling Generating Systems

- Analysis: The cooling system is composed of a two pipe system with two Kawneer boilers and cooling tower, a compressor and chiller bundle, and storage tanks. There is a small two pipe system for the lobby administrative area. The heating and cooling system is in good condition.
- Recommendation: No corrective action required.

Fire Protection

Sprinklers

- Analysis: There are no fire sprinklers and there is no fire suppression system.
- Recommendation: Install fire suppression system.

Electrical

Electrical Service/Distribution

- Analysis: Electrical service is supplied to the building from the main service, which is a 2,000 KVA transformer, 3,000 amp disconnect switch gear and panels. This distribution panel provides power for lighting and receptacles. The electrical service is in good condition. GFI outlets are missing in kitchens.
- Recommendation: Install GFCI outlets in kitchen.

Communications and Security

- Analysis: Fire alarm and Internet systems were being replaced at the time of the site visit.
- Recommendation: No corrective action required.

Equipment

Commercial Equipment

- Analysis: There is no commercial equipment installed.
- Recommendation: No corrective action required.

Other Equipment

- Analysis: All other equipment is in good condition.
- Recommendation: No corrective action required.

Site Preparation

Site Earthwork

- Analysis: Earthwork is in good condition.
- Recommendation: No corrective action required.

Site Improvements

Parking Lots

- Analysis: This building has 443 parking stalls. Parking lots are in fair condition.
- Recommendation: Remove and replace asphalt.

Site Electrical Utilities

Site Lighting

- Analysis: There is not adequate site lighting. Existing site lighting is in fair condition.
- Recommendation: Install 20 new poles and lights.

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**

Administration Offices

Undersized. Standard is 800-900 s.f. for the number of units, existing is only 532 s.f.

Renovation Recommendation: Renovate existing post office space adjacent to existing administrative space into additional administrative space. Post office is not part of Army Lodging standards.

Administrative Conference Room

Does not exist.

Renovation Recommendation: Space can be accommodated in renovation of existing post office to administrative space.

In House Laundry and Office

Laundry is currently contracted off post.

Renovation Recommendation: The existing fitness center is oversized for the Army Lodging Multipurpose room function of 250 s.f. Our recommendation is to renovate the existing Fitness Center into the In-House Laundry and other back-of-the-house functions that do not exist.

Staff Toilets and Break Rooms

Do not exist.

Renovation Recommendation: The existing fitness center is oversized for the Army Lodging Multipurpose room function of 250 s.f. Our recommendation is to renovate part of this space for the Break Room and Staff Toilets. Even though this does not completely meet the Adjacency Matrix criteria, it is felt that this addition will adequately serve the need.

Maintenance

Do not exist.

Renovation Recommendation: The existing fitness center is oversized for the Army Lodging Multipurpose room function of 250 s.f. Our recommendation is to renovate part of this space for the Maintenance Room.

- **Extended Stay Guest Room**

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

Room Size and Configuration: Half of the rooms do not meet the configuration requirements as 2 rooms share a kitchen and a bathroom.

Recommendation: A Renovation Cost is an estimate to renovate the common area between each set of rooms to install a rest room and kichenette where needed to create 472 extended stay and 142 standard stay units.

- **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.

Muti Purpose Room

The fitness center which is being used as the Multipurpose room is oversized. Existing spaces is 2,880 s.f. and standard is 250 s.f.

Renovation Recommendation: Renovate space to back-of-the-house spaces not meeting requirements, and build new Multipurpose room as part of renovation of existing

Breakfast Bar.

Breakfast Bar / Seating Area

Existing space is oversized.

Renovation Recommendation: Space is reduced by adding new Multipurpose room as part of area. The existing fitness center which is used as the Multipurpose room is oversized and being reallocated to new back-of-the-house functions.

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
02 Site Work	4.12%	\$357,840.00
Parking: AC Pavement Damaged or Failing		\$357,840.00
07 Thermal & Moisture Protection	4.62%	\$401,184.00
Asphalt Shingle Roof: Damaged or Failing		\$401,184.00
08 Doors & Windows	14.04%	\$1,219,173.39
Al. Windows - Damaged or Failing		\$516,151.65
Interior Steel Door - Damaged or Failing		\$361,189.50
Scratched and marred		\$203,983.08
Wood Door - Damaged or Failing		\$137,849.16
09 Finishes	39.48%	\$3,428,285.01
Acoustical Ceiling Tile: Beyond expect useful life		\$179,635.16
Carpet: Beyond Useful Life		\$585,565.75
Floor Tile: Damaged or Failing		\$308,523.60
Interior ceilings: Paint Failing		\$107,328.39
Sheet Vinyl: Beyond Useful Life		\$269,576.85
Vinyl Wall Covering: Beyond expected useful life		\$1,977,655.26
13 Special Construction	0.30%	\$25,788.00
CO2 System: Missing or Inadequate		\$25,788.00
15 Mechanical	0.22%	\$18,824.73
Pipe, domestic water: Damaged or failing		\$13,705.44
Valve: Missing or inadequate		\$5,119.29
16 Electrical	1.87%	\$162,139.17
Pole mounted fixture: Missing or inadequate		\$70,350.00
Receptacle: Requires GFCI type		\$91,789.17
19 FF&E	35.36%	\$3,070,000.00
Hard and soft goods: Beyond expected useful life		\$3,070,000.00
Total Raw Cost	100.00%	\$8,683,234.00

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$47,757.79
Force Protection	9.00%	\$863,938.37
General Conditions	10.00%	\$868,323.40
Total Additional Hard Cost		\$1,780,019.55

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$1,046,325.36
SIOH Conus	6.50%	\$748,122.63

Design	10.00%	\$1,046,325.36
08 MYr Inflation Fct	9.93%	\$1,321,089.87
Total Soft Cost		\$4,161,863.21
<hr/>		
Total Project		\$14,625,116.76

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	0.42%	\$15,435.00
Stair Construction		\$15,435.00
08 Doors & Windows	3.81%	\$138,669.30
Interior Doors		\$138,669.30
09 Finishes	40.36%	\$1,470,963.92
Ceiling Finishes		\$383,787.15
Floor Finishes		\$897,661.92
Partitions		\$175,825.80
Wall Finishes		\$13,689.06
10 Specialties	0.14%	\$5,142.38
Fittings		\$5,142.38
11 Equipment	1.33%	\$48,572.48
Commercial Equipment		\$44,467.50
Other Equipment		\$4,104.98
12 Furnishings	0.01%	\$288.75
Fixed Furnishings		\$288.75
13 Special Construction	7.45%	\$271,418.70
Communications & Security		\$174,713.70
Sprinklers		\$96,705.00
15 Mechanical	42.94%	\$1,564,826.55
Cooling Generating Systems		\$96,705.00
Domestic Water Dist		\$2,520.00
Plumbing Fixtures		\$1,465,601.55
16 Electrical	3.54%	\$128,940.00
Electrical Service & Distribution		\$128,940.00
Total Raw Cost	100.00%	\$3,644,257.07

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$20,043.41
Force Protection	9.00%	\$362,585.36
General Conditions	10.00%	\$364,425.71
Total Additional Hard Cost		\$747,054.48

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$439,131.15
SIOH Conus	6.50%	\$313,978.78
Design	10.00%	\$439,131.15
08 MYr Inflation Fct	9.93%	\$554,446.78
Total Soft Cost		\$1,746,687.86
Total Project Cost for Renovation		\$6,137,999.41

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	2.47%	\$944,602.31
Parking Lots		\$539,448.00
Site Earthwork		\$405,154.31
03 Concrete	25.46%	\$9,747,187.17
Floor Construction		\$7,730,777.67
Slab on Grade		\$300,053.25
Stair Construction		\$216,090.00
Standard Foundations		\$1,500,266.25
04 Masonry	3.45%	\$1,321,249.61
Exterior Walls		\$1,321,249.61
07 Thermal & Moisture Protection	4.07%	\$1,558,248.00
Roof Construction		\$822,656.17
Roof Coverings		\$735,591.83
08 Doors & Windows	8.60%	\$3,291,247.05
Exterior Doors		\$57,152.55
Exterior Windows		\$2,620,800.00
Interior Doors		\$613,294.50
09 Finishes	17.29%	\$6,618,848.99
Ceiling Finishes		\$1,735,150.91
Floor Finishes		\$2,454,281.53
Partitions		\$1,356,410.56
Wall Finishes		\$1,073,005.98
10 Specialties	0.01%	\$3,558.98
Fittings		\$3,558.98
11 Equipment	4.60%	\$1,762,014.98
Commercial Equipment		\$25,410.00
Other Equipment		\$1,736,604.98
13 Special Construction	4.72%	\$1,806,320.57
Communications & Security		\$813,144.31
Sprinklers		\$993,176.26
14 Conveying Systems	0.59%	\$225,540.00
Elevators and Lifts		\$225,540.00
15 Mechanical	13.97%	\$5,347,960.80
Cooling Generating Systems		\$2,400,426.00
Domestic Water Dist		\$776,160.00
Plumbing Fixtures		\$2,171,374.80
16 Electrical	6.75%	\$2,583,700.88
Electrical Service & Distribution		\$2,562,958.13
Site Lighting		\$20,742.75
19 FF&E	8.02%	\$3,070,000.00
Interior FF&E allowance		\$3,070,000.00
Total Raw Cost	100.00%	\$38,280,479.31

Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$210,542.64
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$3,828,047.93
Total Additional Hard Cost		\$4,038,590.57

Soft Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Contingency	5.00%	\$2,115,953.49
SIOH Conus	6.50%	\$2,888,276.52
Design	10.00%	\$4,231,906.99
08 MYr Inflation Fct	9.93%	\$5,119,432.04
Total Soft Cost		\$14,355,569.05
Total Project Cost for Replacement		\$56,674,638.93

**INSERT BUILDING 695 FLOOR PLANS HERE (BASEMENT AND SECTIONS A-K)
*RENOVATION PLANS WITH SECTIONS C & I**

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										
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. each	2 @ 64 s.f. each	2 @ 64 s.f. each	2 @ 64 s.f. each	3 @ 64 s.f. each	3 @ 64 s.f. each	3 @ 64 s.f. each		If building is over two stories high
Stairs	Number of stairs based on plan @ 230 s.f. each	Number of stairs based on plan @ 230 s.f. each	Number of stairs based on plan @ 230 s.f. each	Number of stairs based on plan @ 230 s.f. each	Number of stairs based on plan @ 230 s.f. each	Number of stairs based on plan @ 230 s.f. each	Number of stairs based on plan @ 230 s.f. each	Number of stairs based on plan @ 230 s.f. each	Number of stairs based on plan @ 230 s.f. each		
Public Corridors	**	**	**	**	**	**	**	**	**		Minimum 6' wide
Public Telephone Area	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		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		Only at facilities with outdoor training								
Guest Bulk Storage	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.	120	120	120	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 sf
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 *		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.