Army Lodging Wellness Recommendation

B. T. Collins - Final Submittal

August 4, 2003

3D/I

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Section 1 Wellness Recommendation

Introduction

The Army Lodging Wellness Program is conducted under the direction and guidance of Headquarters Army, Lodging Division (CFSC). The goal of the B.T. Collins 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 to the 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 than current standards will typically exceed 50% of the replacement costs and are recommended for replacement/new construction. This decision is supported by renovation cost comparisons as well as the assessment documentation.

- The age, condition, and existing configuration of the existing Lodging building support a finding of replacement through new construction in lieu of renovation.
- Force protection construction criteria has a significant impact on new construction. This Wellness recommendation, including building assessment, site analysis, and proposed Lodging construction, incorporates these requirements from the UFC 4-010-01, in our analysis and recommendations. Consistent with this guidance, force protection mitigation is not considered in renovation unless the renovation cost exceeds 50% of the replacement cost for a facility.

Demand Summary

Room Count and Mix Recommendation

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

Lodging Summary

The following Lodging for B.T. Collins 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.

Building Number	Existing Rooms: Total Rooms	Std Rms 300 sf	Extend. Stay Rms 300 sf	Family Suites 450 sf	Other Rooms	Wellness Recommendation (FY 08): Total Rooms	Std Rms 300 sf	Extend. Stay Rms 300 sf	Family Suites 450 sf
Wellness Recommendation based on Demand Analysis									
						58	23	35	
Existing Lodging Facilities									
650	**73**	73				**0**			
New Proposed Lodging Facility									
						58	**23**	**35**	
Total Lodging Rooms									
						58	**23**	**35**	**0**

Summary of Room Count and Mix based on Configuration

- 58 rooms
- Proposed room mix:
  - 23 standard guest rooms
  - 35 extended-stay guest rooms offering a kitchenette
  - No 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 for the Lodging facility. The Wellness Recommendation indicates cost based on recommendation, including the proposed facility cost.

Building Number	Existing Units: Total Rooms	Condition Analysis Cost*	Renovation Cost**	Replacement Cost	% Condition Analysis or Renovation Cost Ratio	Wellness Recommendation (FY 08): Total Rooms	Total Cost	Renovation Cost	New Construction Cost
Existing Lodging Facilities									
650	**73**	***	$ 3,822,650	$ 5,806,530	65.83%	**0**			
Totals	**73**					**0**	**$ -**	**$ -**	**$ -**
New Proposed Lodging Facility									
						58	**$ 8,005,465**		**$ 8,005,465**
Total									
						58	**$ 8,005,465**	**$ -**	**$ 8,005,465**

* 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 Analyis Cost is under 50% of the Replacement Cost, the Renovation Cost is used.

Cost per Room Comparison

The Wellness Recommendation includes review of off-post Lodging costs compared to the proposed new construction costs on-post. The new construction costs include operating costs, capital assessment costs, and

sustainment capital expenditures. The following table summarizes this comparison per room for FY08.

	New Building
Cost per Room at B.T.Collins	$ 54.44
Off Post Cost per Room	$ 75.16
Difference between On-Post and Off-Post Lodging per room	$ 20.72
% Savings of On-Post to Off-Post Lodging	27.6%

The Cost Per Room at B.T. Collins 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, it is our recommendation that the Army construct a new Lodging facility at B.T. Collins 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 B.T. Collins to construct a new main Lodging facility to accommodate the public and back-of-the house spaces and total demand of 58 rooms. The existing Lodging facility does not meet condition and functional requirements based on cost and shall be removed from the Lodging inventory. A synopsis of recommended building actions follows:

- Construct a new Lodging facility to include 58 rooms. This building will be planned to include public and back-of-the-house Lodging functions for the total Lodging inventory.
- Remove existing Lodging building 650 from the Lodging inventory due to condition of existing building systems and cost to renovate to meet Army functional criteria.

Cost Summary
The cost for this recommendation will be:
New Lodging Facility $ 8,005,465

Phasing
Recommend the following phasing as funding is identified.

- Minimize investment in infrastructure for building 650.
- Construct new Lodging facility prior to removing existing Lodging building 650 from inventory.
- Remove buildings 650 from Lodging inventory.

Section 2 Lodging Master Plan

Installation Summary

The B.T. Collins Army Reserve Center, located in Sacramento, California, was previously part of the Sacramento Army Depot, a 1940's era facility that was closed as part of the 1990 Base Realignment and Closure Act (BRAC). The Center, a 10-building campus home to 1200 drilling reservists, is a regional high-tech communications maintenance-training site that is used by military students nationwide. The center is home of the 319th Signal Battalion, the 104th Regiment (Signal Corps), the 921st Field Hospital, and other units of the Army Reserve.

The B.T. Collins Army Reserve Center was dedicated in November 1999. Although a small campus, current planning incorporates specific installation requirements, including land use and architectural compatibility. Current Lodging room night requirements, Army guidance on Lodging facility design standards, and force protection construction standards require additional analyses, and are incorporated into the recommendations of the Lodging Wellness Plan.

The character of B.T. Collins has been enhanced through the use of split face masonry and stucco. Medium to low sloped standing seam metal roofing, light toned split face masonry and stucco, and punched window openings exemplify the desired architecture of the installation.

Master Plan Summary

The Lodging facility at B.T. Collins was constructed in 1957. A thorough condition and functional assessment of the existing building noted significant deficiencies. Additionally, renovation of this building to the new Lodging standards and building configuration design is not viable within the 50% threshold. The primary Lodging area is located in the center of the installation, in close proximity to the community facilities. The site recommended for planning future Lodging construction is within the same campus area.

The proposed B.T. Collins Lodging Master Plan reflects 58 Lodging rooms with replacement of the existing Lodging inventory in a new Lodging facility. This new facility will combine required rooms, public areas and service functions into a cohesive Lodging physical plant in support of the installation requirements.

Existing Lodging Facility

Building 650

Building 650, constructed in 1957, houses 54 existing rooms which function as 73 standard units with some rooms being doubled up. This building is in poor condition and does not meet the current Lodging size requirements or provide appropriate support spaces. The cost to modify this facility to meet Army Lodging standards will exceed 50% of the replacement cost.

Our recommendation is to remove building 650 from the Lodging inventory, allowing the installation to determine an alternate use for this facility. This facility will be removed from the B.T. Collins Wellness Solution and Lodging Master Plan.

New Lodging Building

The proposed replacement/new Lodging facility includes the 58 room demand for B.T. Collins; 23 standard guest rooms, and 35 extended stay rooms. The lobby and back-of-the-house spaces are sized for the 58 total Lodging rooms on the installation.

The proposed new construction will be sited in the same campus area near the perimeter of the installation. The lobby will be constructed of glass exterior curtain walls to enhance the approach to the building, while allowing maximum view and circulation. The proposed building construction is steel frame with CMU infill walls, sloped standing seam metal roof, and a stucco and split face block exterior veneer. The architectural guidance for B.T. Collins is specific and is incorporated into the cost of the new facility.

The mass and scale of the proposed building is critical. Based on the number of required rooms and to limit the length of the wings, the recommendation of this plan is to provide varying roof levels to promote interest and character, while providing relief from the scale of the facility. The building would maintain a 2-story height. The entrance would be further emphasized by a one story height covered drop-off area.

Areas and Occupancy

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

ROOM / SPACE	PROGRAMMED FLOOR AREA			PLAN FLOOR AREA
	No. Req'd	Net Area Per Room	Total Net Area	
Total Area including 7% Add On Factor (does not include Outside Areas)*			**35,849**	**37,091**
Public Areas			**10,608**	**10,561**
Exterior Entrance	N/A	N/A		-
Vestibule	1	1	-	-
Lobby (includes vestibule)	1	500-800	500-800	953
Front Desk	2 stations	100	100	106
Bell Cart Station	3	12	36	65
Breakfast Bar (Seat/Svc) - min.	1	550	550	550
Passenger Elevators	1 elev. @ 1 floor	64	128	128
Stairs	4	230	1,840	1,404
Public Corridors	-	-	5,700	5,626
Public Telephone Area	2	6	12	12
Vending - Full Service	1	70	70	119
Vending - Ice Only	1	30	30	89
Women - Lobby	1	200	200	208
Men - Lobby	1	200	200	208
Multi-Purpose Room - (250 s.f. min.)	1	250	250	276
Study Rooms (1 per 25 ext stay units)	2	250	500	501
Guest Laundries (2 sets w/d per 75 units)	1	192	192	316
Gear Wash Rooms - (170 s.f. min.)	-	170	-	-
Guest Bulk Storage (1 per 4 family suites)	-	25 ea. 40 w/circ.	-	-
Guest Rooms	**58**		**17,400**	**17,400**
Guest Room - Standard	23	300	6,900	6,900
Guest Room - Ext. Stay	35	300	10,500	10,500
Guest Room - Family Suites	-	450	-	-
Back-of-House Areas			**5,496**	**6,573**
Manager's Office	1	180	180	182
Assistant Manager Offices	1	120	120	-
Front Office Manager	1	100	100	100
Admin. Offices	2 staff	200-250	200-250	578
Cash Room	1	75	75	75
Luggage Storage	1	75	75	76
Admin. Conference Room	1	250	250	276
Housekeeping Office	1	120	120	139
Dirty/Clean Linen Storage	-	50	-	-
In-House Laundry - (500 s.f. minimum)	1	500	500	496
Receiving Office	1	75	75	107
Maintenance Area	1	175	175	177
Kitchen Prep Room	1	150	150	149
Break Room	1	210	210	212
Staff Toilet - Men	1	100	100	110
Staff Toilet - Women	1	100	100	110
Access Corridor	-	-	300	437
Receiving -min.	1	150	150	216
Housekeeping Rooms	1 per 15 units	128	512	638
Service Elevator	1	80	160	160
Data/Commo Room	1	100	100	109
Switch Closets	2	16	32	284
Janitor Closet	1	50	50	59
Mechanical Room	-	-	348	472
General Storage Room - (500 s.f. min.)	1	500	500	496
Bulk Storage Room - (500 s.f. min.)	1	500	500	466
Electrical Room	2	140	280	322
Elevator Equipment Room	1	84	84	127
Exterior			**400**	
Playground (Outdoor)	1	-	-	-
Grounds Maintenance	1	400	400	-

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

Cost Summary

The New Construction Cost $8,005,465

- The cost is for a building of 58 rooms.
- All costs are adjusted by the Area Cost Factor of 112% for B.T. Collins.

Cost Analysis

Summary of Project Replacement Cost (based on 37,091 s.f.)

CSI	Percent	Amount
02 Site Work	**3.60%**	**$194,549.46**
Parking Lots		$54,476.80
Site Earthwork		$140,072.66
03 Concrete	**14.74%**	**$797,195.25**
Floor Construction		$461,419.25
Slab on Grade		$103,695.20
Stair Construction		$24,696.00
Standard Foundations		$207,384.80
04 Masonry	**4.60%**	**$248,896.64**
Exterior Walls		$248,896.64
07 Thermal & Moisture Protection	**6.92%**	**$374,229.42**
Roof Construction		$119,470.27
Roof Coverings		$254,759.15
08 Doors & Windows	**7.49%**	**$404,829.60**
Exterior Doors		$15,871.52
Exterior Windows		$304,640.00
Interior Doors		$84,318.08
09 Finishes	**20.60%**	**$1,114,008.93**
Ceiling Finishes		$379,125.17
Floor Finishes		$377,695.96
Partitions		$208,443.37
Wall Finishes		$148,744.42
10 Specialties	**0.07%**	**$3,796.24**
Fittings		$3,796.24
11 Equipment	**2.89%**	**$156,278.64**
Commercial Equipment		$16,940.00
Other Equipment		$139,338.64
13 Special Construction	**4.62%**	**$249,691.30**
Communications & Security		$112,402.56
Sprinklers		$137,288.74
14 Conveying Systems	**4.45%**	**$240,576.00**
Elevators and Lifts		$240,576.00
15 Mechanical	**17.32%**	**$936,700.80**
Cooling Generating Systems		$331,815.68
Domestic Water Dist		$120,960.00
Plumbing Fixtures		$483,925.12

16 Electrical	**6.69%**	**$361,682.16**
Electrical Service & Distribution		$359,223.76
Site Lighting		$2,458.40
19 FF&E	**6.01%**	**$324,800.00**
Interior FF&E allowance		$324,800.00
Total Raw Cost	100.00%	$5,407,234.44

Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	**Percent**	**Amount**
Spirit	0.50%	$29,739.79
Force Protection	0.00%	$0.00
General Cond	10.00%	$540,723.44
Total Additional Hard Cost		**$570,463.23**

Soft Cost (Template: Army Lodging New Construction)

Parameter Name	**Percent**	**Amount**
Contingency	5.00%	$298,884.88
SIOH Conus	6.50%	$407,977.87
Design	10.00%	$597,769.77
08 MYr Inflation Fct	9.93%	$723,135.39
Total Soft Cost		**$2,027,767.90**
Total Project Cost for Replacement		**$8,005,465.57**

INSERT PROPOSED CAMPUS AREA ANALYSIS DRAWING HERE

INSERT LODGING MASTER PLAN DRAWING HERE

INSERT **PROPOSED LODGING FACILITY (FLRS. 1-2)** DRAWINGS HERE

Section 3 Demand Analysis

Overview

BT Collins is a relatively small installation; its primary mission is to provide annual training and weekend drills for regular Army and reservists. The major constituents at BT Collins are the U. S. Army Reserve Command (USARC) and the High Tech Regional Training Center (HTRTSM). An extremely active installation, activity intensified in 2002 and 2003 in support of the deployment of personnel to Iraq.

BT Collins expects a population increase due to increasing USARC and HTRTSM activities. From October through May of FY03, the installation's room night demand increased 16% over the previous three year average. BT Collins projects a 60% lodging demand increase from 2003 to 2004 based on documented new HTRTSM courses.

BT Collins lodging demand was 98% from individuals on Temporary Duty (TDY), 1% from Permanent Change of Station (PCS), and 1% from unofficial travelers. Unofficial demand is not used in the calculation of optimum room inventory. Sixty percent of the TDY stayed more than 14 days with a 49 day average length of stay, which coincided with the installation's average class length. The majority of PCS stayed an average of 5 days. The following table describes the official demand population at this installation.

BT Collins
Official Market Demand Analysis

	TDY	PCS
Total Demand:	98%	1%
Market Segmentation:		
Individuals	100%	< 10%
Families	0%	> 90%
Average Length of Stay (Days):		
14 days or less	40% (3 days)	78% (5 days)
More than 14 days	60% (49 days)	22% (18 days)

Source: BT Collins Lodging Administration, compiled by 3D/I

On-post Inventory

BT Collins lodging inventory consists of one building with 52 rooms and 94 beds. The mix includes 4 suites, 19 rooms which sleep 1-4 guests with a microfridge, and 29 rooms with a central bath.

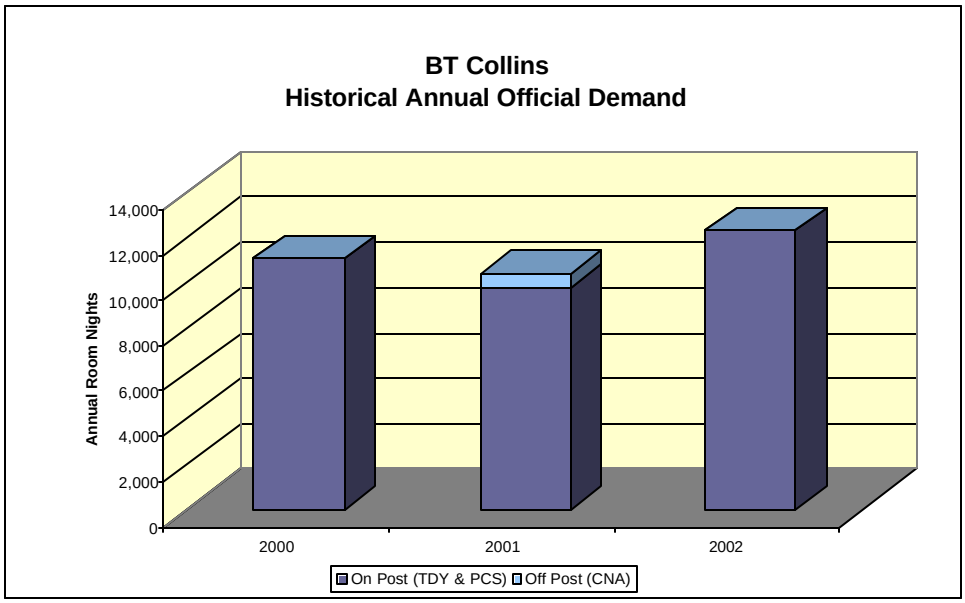
Demand and Utilization

Data Summary

BT Collins' 2002 annual official demand was higher than in 2000 or 2001. Daily demand inclusive of Certificates of Non-Availability (CNAs) averaged from 30 to 41 per day in 2000 and 2002, respectively.

Certificates of Non-Availability (CNAs) were minimal at BT Collins, averaging less than 2% of total official demand. CNAs were reportedly issued in 2000 but not recorded. In 2002, Lodging issued less than ten CNAs. Lodging issued 640 CNAs in 2001, which represented 6% of the official demand.

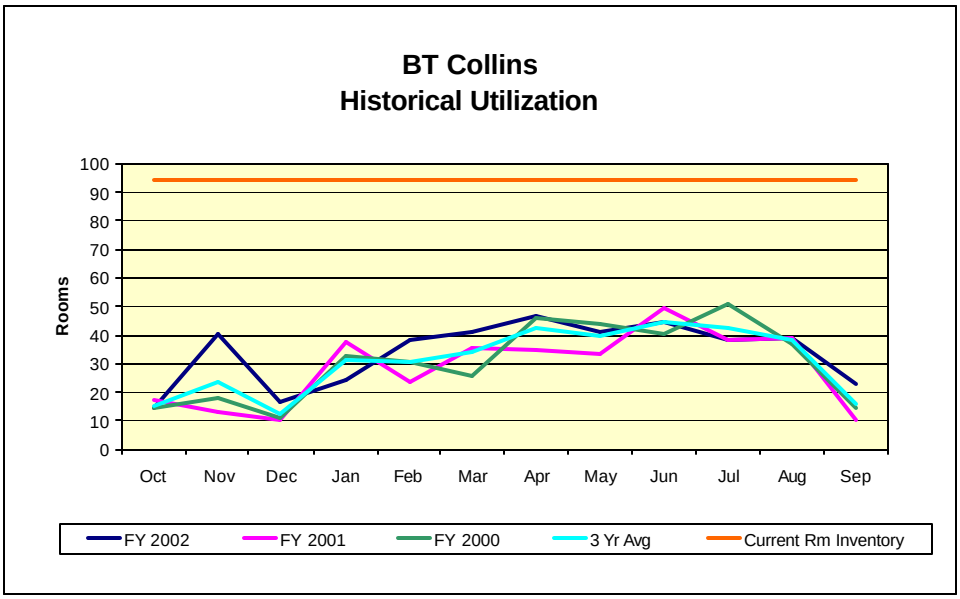
The following chart summarizes BT Collins' historical data; it identifies annual official demand both on and off post.



Source: BT Collins Lodging Administration, compiled by 3D/I

BT Collins' occupancy ranged from 32% to 44% over the historical period. Given the data it appears--on an anualized basis--vacancy is an issue with occupancy remaining well below the 80% level.

The following chart summarizes historical utilization data by month.



Source: BT Collins Lodging Administration, compiled by 3D/I

As evinced by historical data, there was little variance when comparing the same months across years.

Seasonality

As in the surrounding private market, BT Collins lodging demand cycle had seasonality. Lodging demand reduced in December and increased in May through August. The summer months' demand increase was caused by training exercises for reservists and regular troops. From 2001 to 2002, the average daily demand ranged from a low of 10 in December 2000 to a high of 49 in August 2001.

Factors Influencing Demand and Utilization

There was no record of Army-owned family housing units at BT Collins, and no change is anticipated in the next several years. PCS demand is less than two percent of BT Collins' official demand, and the installation does not expect an increase in enlisted personnel or officers for the next five years.

Another factor that will affect the demand at BT Collins is the increase in students attending HTRTSM and USARC courses. It was reported HTRTSM will add courses and increase lodging room demand more than 60%; this increase is documented. The increase is expected before FY04 and will continue for the foreseeable future. Since these plans are definite, we adjusted the demographic +60% in the future demand analysis.

USARC may have HTRTSM start other training which would increase the student load beyond FY04 projections. The possibility the installation will become a Center of Excellence for Communication with a pilot program for building up a reserve center could further increase room night demand. Since this change is likely but not currently funded, it is not part of the data analysis in this report

Approximately 20 to 60 Navy personnel stayed at BT Collins two weekends per month during their training exercises until February 2003; although not currently at the installation, this demand is expected to return.

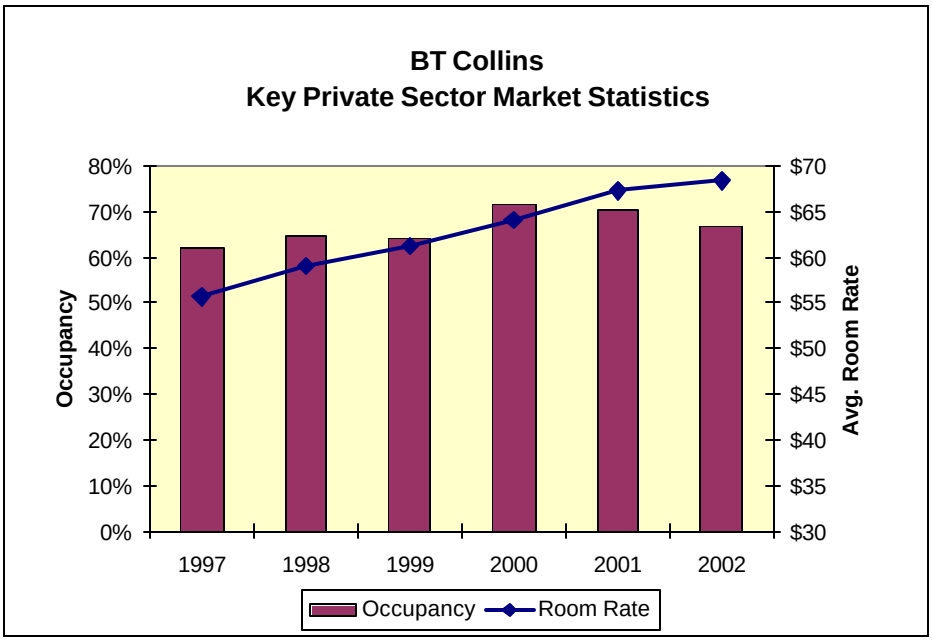
Private Market Capability

The commercial lodging market within a 30-minute rush-hour driving time radius of the installation offers 118 properties with 10,271 rooms; most are affiliated with major lodging chains.

The private market occupancy rate was 72% in 2000, and has since fallen to 67%. A review of historical occupancy by month showed some seasonal variance. During the summer, peak occupancy rates reached 80%. During most of the year, overflow lodging personnel could likely be served off post, but the market may be tight during the summer.

As displayed in the chart below, the market area's Average Daily Rate (ADR) increased steadily from $56 in 1998 to $68 in 2002.The 2002 ADR was $68.37 for 118 properties and $85.00 at the 30 off-post sample properties. The primary hotel for lodging overflow demand was the Red Lion Inn with a government rate of $109. The per diem rate at BT Collins is $79.00. The rate level of $68.00 was used in our analysis due to the fact this is the actual average rate paid by guests in the Private Market, rather than the per diem which is notably higher than the typical average.

The following chart describes key private market statistics.



Source: Smith Travel Research, compiled by 3D/I

In summary, it is reasonable to assume from the data the private market has sufficient capacity to support overflow lodging requirements BT Collins personnel may encounter; however, the market may be tight during the summer.

Demand Requirement Determination

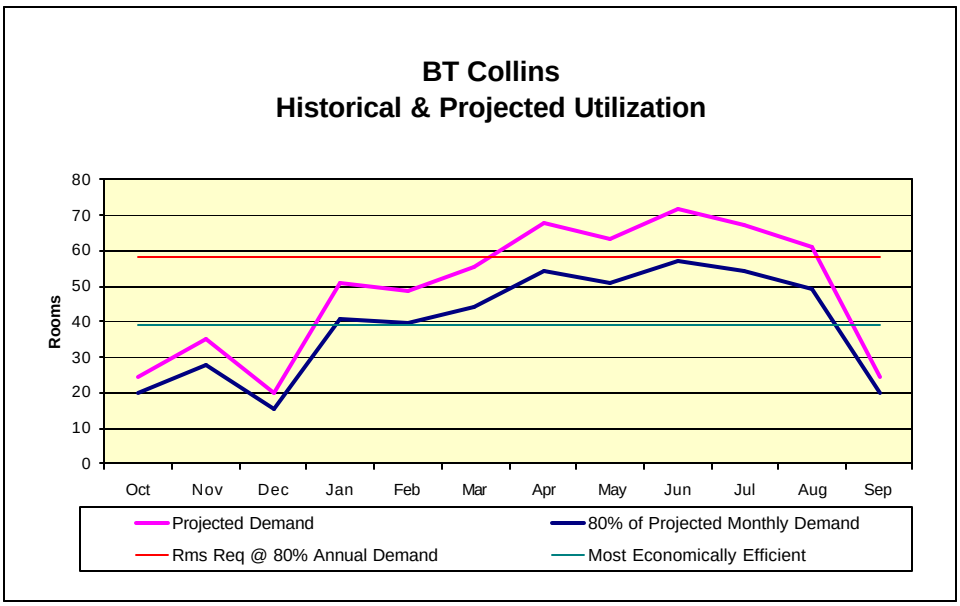
Because data was available for only 2000 through 2002, these years were used as a basis for the demand analysis. New HTRTSM activity translates to a need for 16 additional rooms; this is considered as well.

Because of variance in monthly demand within years, the average demand for the last three years was normalized. The lodging demand normalization process eliminates the monthly demand peaks or valleys where official demand is 20% greater or 20% less than the average. Variances greater or less than 20% are atypical and unlikely to recur. While the normalization process adjusted BT Collins' demand in various months, the net change was minimal.

The Core Lodging Requirement objective 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 58, generating occupancy of 72% which is well above occupancies in 2000 (32%); 2001 (34%); and 2002 (44%).

Another model which can be applied to determine the number of rooms to be provided at the installation is the “Most Economically Efficient” method. This method 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 operating cost perspective. The number of rooms required to achieve this equilibrium at BT Collins is 39 rooms. At this room count, the estimated occupancy would be 79%.

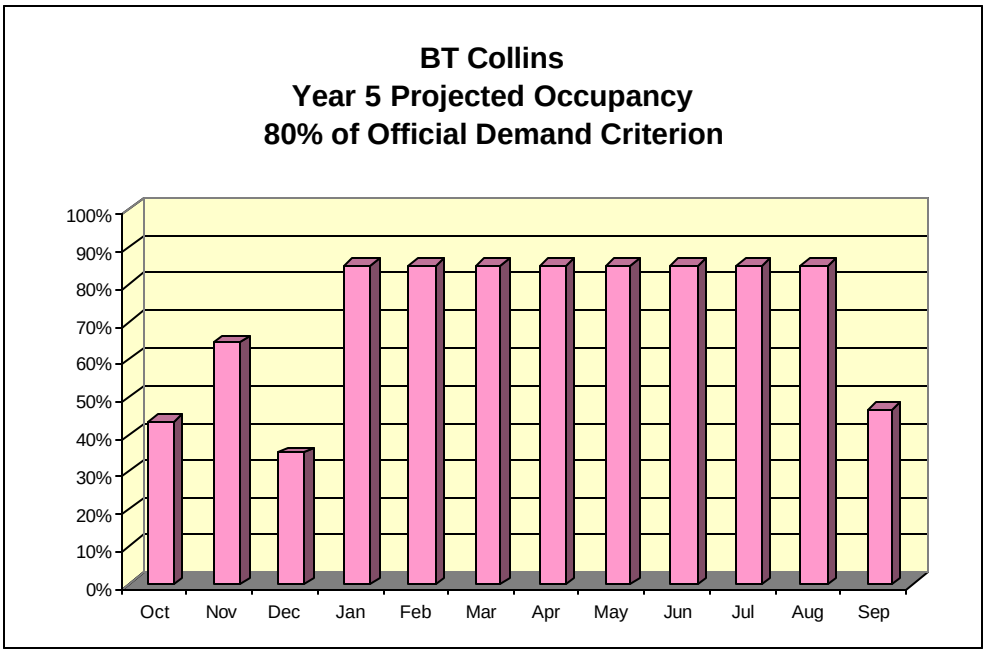
The chart below compares the alternatives to room inventory to projected demand.



Source: BT Collins Lodging Administration and 3D/I

We recommend the results of the “80% of Official Demand” criterion: 58 rooms. This room count would provide enough rooms for official demand for seven out of twelve months during the year, and 80% of typical peak summertime official demand. Another factor in support of the higher number of rooms is the expected HTRTSM activity increase.

The following chart presents expected occupancy percentages on a monthly basis.



Source: 3D/I

Using "80% of Official Demand" criterion, the average occupancy is 72% and 80% of the official demand is met. On a monthly basis, occupancy has a variance from a low of 35% in December to 85% from January to August.

Summary and Recommendation

- BT Collins is a small but active installation with significant activity growth expected in the near-term
- The majority of students required Lodging stays of more than 14 days
- BT Collins had some predictable seasonality
- The private market has sufficient capacity to support the overflow lodging requirements BT Collins personnel may encounter, though the summer market is tight
- Based upon the demand pattern and anticipated growth, we recommend the number of rooms sized using the "80% of Official Demand" criterion
- The room mix stated below was based on a review of the projected demand by market segment. We also considered the minimal level of PCS demand which occurs at this installation.

Room Count and Mix Recommendation

- 58 rooms

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

Section 4 Facility Assessment and Plans

Each Lodging facility 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 650
8300 Santa Cruz Street
Sacramento, California

Building 650

Building 650 was constructed in 1957. The 30,189 square foot facility contains 53 guest rooms. The building is functioning as 73 standard rooms.

Significant Assumptions
The replacement and renovation cost models are based on 50 extended 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 112% for BT Collins.

Cost Analysis

Renovation Cost	$3,822,650.00
Replacement Cost	$5,806,530.00
Renovation to Replacement Cost Ratio	65.83%

Because the Renovation to Replacement Cost Ratio is greater than 50%, renovation of Building 650 is not recommended.

Attributes

01.Number of Units Constructed	53
02.Number of Units Used	73
03.Back of House Function	Yes
04.Single Room w/o FullKitchen	73
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	73
11.Operating as Extended Stay	0
12.Operating as Family Suite	0
13.Renovated to Standard	0
14.Renovated to Extended Stay	50
15.Renovated to Family Suite	0
16.Delta renovation	-23

Condition Analysis/Recommendation

FF&E

FF&E Allowance

- Analysis: The guest Room: The hard goods consist of head boards, night stands, dresser, and a desk w/ chair. The furniture was collected from other posts in 1999 and is in poor condition. The soft goods consist of drapes and blinds on the windows, TV, and bed. They are in poor condition.
- Recommendation: Replace the hard and soft goods.

Foundations

Standard Foundations

- Analysis: The foundation consists of concrete stem walls on spread footers. There are no visible signs of damage. The foundation is in good condition.
- Recommendation: No corrective action required.

Slab on Grade

- Analysis: No signs of failure are present.
- Recommendation: No corrective action required.

Superstructure

Floor Construction

- Analysis: The floors are constructed of concrete and there are no visible signs of damage. The ground floor and suspended floors are in good condition.
- Recommendation: No corrective action required.

Roof Construction

- Analysis: The roof is a 4-ply composition roof that was completely redone in 1989. It is in good condition.
- Recommendation: No corrective action required.

Exterior Enclosure

Exterior Walls

- Analysis: The exterior walls consist of CMU bearing walls and they are in good condition.
- Recommendation: No corrective action required.

Exterior Windows

- Analysis: The exterior windows consist of aluminum frames with single pane glazing. The windows are in fair condition.
- Recommendation: No corrective action required.

Exterior Doors

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

Roofing

Roof Coverings

- Analysis: The roof covering is a built-up system with gravel ballast. The roof is in good condition.
- Recommendation: No corrective action required.

Interior Construction

Partitions

- Analysis: The partitions consist primarily of masonry construction with a painted finish with minor areas of wood partitions with painted drywall finish. The partitions are in good condition.
- Recommendation: No corrective action required.

Interior Doors

- Analysis: The hollow core metal doors are in steel frames. The interior doors are in fair condition.
- Recommendation: No corrective action required.

Fittings

- Analysis: The building has a gang shower/restroom on each floor. The fittings all need to be replaced when converted to a private bathroom configuration.
- Recommendation: Replace the fittings as part of the bathroom remodel.

Stairs

Stair Construction

- Analysis: The stairs are constructed of concrete and there are no visible signs of damage. The tairs are in good condition.
- Recommendation: No corrective action required.

Interior Finishes

Wall Finishes

- Analysis: The wall finishes are painted CMU that is in good condition.
- Recommendation: No corrective action required.

Floor Finishes

- Analysis: The majority of the guest rooms and corridors have 9x9 tile that is in poor condition. The west wing of the building has been upgraded to 12x12 tile and is in good condition in the corridors. The carpet in the guest rooms in the west wing are in fair condition.
- Recommendation: Replace the carpet, tile and vinyl.

Ceiling Finishes

- Analysis: In the majority of guest rooms, the ceiling is painted concrete with exposed conduit and piping. In the rooms with drop ceilings, the ceiling system is in poor condition.
- Recommendation: Replace the acoustical tile and grid system.

Plumbing

Plumbing Fixtures

- Analysis: The building has a gang shower room/restroom on each floor. All of the fixtures need to be replaced when the building is converted to a private bathroom configuration.
- Recommendation: Replace the plumbing fixtures when replacing the domestic water distribution system.

Domestic Water Distribution

- Analysis: The hot water is produced from a gas fired water heater located in the mechanical room The domestic piping system is original and needs to be replaced.
- Recommendation: Replace the domestic water system.

HVAC

Cooling Generating Systems

- Analysis: The heating if provided by a gas-fired boiler in the basement. Each guest room has a radiator and is unable to independently control the temperature. The cooling is supplied by an air cooled chiller that supplies chilled water to fan coil units in each guest room.
- Recommendation: Remove the existing heating and cooling systems and install PTAC units within the living areas. Install a split system to provide heating and cooling for common areas.

Fire Protection

Sprinklers

- Analysis: The building has a wet sprinkler system in guest rooms, common areas and offices.
- Recommendation: No corrective action required.

Electrical

Electrical Service/Distribution

- Analysis: The electrical service is supplied to the building is 120/208 volt 3 phase, 4 wire power. The electrical service is in fair condition. The lighting is a combination of fluorescent and incandescent and is in fair condition. The branch circuits, panelboards, wires and receptacles are original and need to be replaced. The building has emergency and exit lighting.
- Recommendation: Replace the main service and panel to handle increased electrical loads. Replace the branch circuits, electrical outlets and lighting.

Communications and Security

- Analysis: The fire alarm system consists of visible and audio annunciators that are activated by smoke detectors and pull switches. The fire alarm system is in poor condition. The building has 2 separate, addressable fire alarm panels. The fire alarm system needs to be upgraded and wired into a single panel.
- Recommendation: The fire alarm system needs to be upgraded.

Equipment

Commercial Equipment

- Analysis: The commercial laundry facilities are located in the basement and are in good condition.
- Recommendation: No corrective action required.

Other Equipment

- Analysis: The other equipment consists of a complete kitchen with all modern appliances. The guest laundry has a residential washer and dryer. The appliances are in good condition.
- Recommendation: No corrective action required.

Site Preparation

Site Earthwork

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

Site Improvements

Parking Lots

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

Site Electrical Utilities

Site Lighting

- Analysis: The site lighting consists of building-mounted incandescent fixtures at the front of the building and pole-mounted area lighting along the street at the back of the building. The site lighting is in fair 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**
    In House Laundry, General, Bulk Storage, Break Room, Staff Toilets, Breakfast Prep, Maintenance
    Do not exist.
    Administrative Offices, Managers Office, Asst Managers Office.
    Do not exist or do meet size and adjacency requirements.

  - **Public Spaces**

Bell Cart, Public Phones, Guest Laundry, Breakfast Area, Study Rooms, Multipurpose Room
Do not exist
Renovation Recommendation: Will be included as part of renovation to this building.
Public Corridors
Existing corridors are 5' wide.

- **Standard Guest Room**
  Room Size and Configuration: The rooms do not meet size and configuration requirements and employ gang showers.
  Recommendation: A Renovation Cost estimate is used to indicate a total redo of the building into 50 extended 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
09 Finishes	**13.94%**	**$170,570.28**
9 x 9 Tile: Damaged or Failing		$48,749.46
Acoustical Ceiling & Grid: Damaged or Failing		$61,932.73
Carpet: Missing or inadequate		$59,888.09
13 Special Construction	**2.35%**	**$28,739.93**
Fire Alarm System: Beyond Useful Life		$28,739.93
15 Mechanical	**42.26%**	**$516,917.24**
Bath tub: Replace due to remodel		$129,565.07
Domestic water system: Beyond expected useful life		$78,049.06
Heating piping: Beyond expected useful life		$60,328.91
PTAC: Missing or inadequate		$104,782.27
Sink & vanity: Replace due to remodel		$63,175.95
Water closet: Damaged or failing		$81,015.98
16 Electrical	**11.61%**	**$142,061.69**
Branch Circuits: Beyond Expected Useful Life		$106,080.57
Main service: Beyond expected useful life		$35,981.12
19 FF&E	**29.84%**	**$365,000.00**
Hard and soft goods: Beyond expected useful life		$365,000.00
Total Raw Cost	**100.00%**	**$1,223,289.00**

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	$6,728.09
Force Protection	9.00%	$121,711.14
General Conditions	10.00%	$122,328.90
Total Additional Hard Cost		**$250,768.13**

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	$147,405.71
SIOH Conus	6.50%	$105,395.08
Design	10.00%	$147,405.71
08 MYr Inflation Fct	9.93%	$186,114.38
Total Soft Cost		**$586,320.89**
Total Project		**$2,060,378.02**

Renovation

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

Summary of Project Renovation Cost

CSI	Percent	Amount
03 Concrete	**0.73%**	**$16,464.00**
Stair Construction		$16,464.00
07 Thermal & Moisture Protection	**1.64%**	**$37,266.97**
Roof Construction		$37,266.97
08 Doors & Windows	**2.27%**	**$51,468.48**
Interior Doors		$51,468.48
09 Finishes	**27.73%**	**$629,266.59**
Ceiling Finishes		$109,290.70
Floor Finishes		$186,603.13
Partitions		$135,675.06
Wall Finishes		$197,697.70
10 Specialties	**0.20%**	**$4,516.51**
Fittings		$4,516.51
11 Equipment	**9.48%**	**$215,078.64**
Commercial Equipment		$16,940.00
Other Equipment		$198,138.64
13 Special Construction	**8.97%**	**$203,546.31**
Communications & Security		$91,629.65
Sprinklers		$111,916.66
15 Mechanical	**23.99%**	**$544,579.84**
Cooling Generating Systems		$270,493.44
Domestic Water Dist		$104,832.00
Plumbing Fixtures		$169,254.40
16 Electrical	**12.66%**	**$287,399.28**
Electrical Service & Distribution		$287,399.28
19 FF&E	**12.34%**	**$280,000.00**
Interior FF&E allowance		$280,000.00
Total Raw Cost	100.00%	$2,269,586.62

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	$12,482.73
Force Protection	9.00%	$225,812.52
General Conditions	10.00%	$226,958.66
Total Additional Hard Cost		**$465,253.91**

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	$273,484.05
SIOH Conus	6.50%	$195,541.10
Design	10.00%	$273,484.05
08 MYr Inflation Fct	9.93%	$345,300.83

Total Soft Cost	**$1,087,810.03**
Total Project Cost for Renovation	**$3,822,650.57**

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	**3.02%**	**$118,491.52**
Parking Lots		$47,667.20
Site Earthwork		$70,824.32
03 Concrete	**18.57%**	**$728,187.71**
Floor Construction		$510,364.51
Slab on Grade		$52,399.20
Stair Construction		$8,232.00
Standard Foundations		$157,192.00
04 Masonry	**4.78%**	**$187,445.05**
Exterior Walls		$187,445.05
07 Thermal & Moisture Protection	**5.53%**	**$216,739.72**
Roof Construction		$87,596.95
Roof Coverings		$129,142.77
08 Doors & Windows	**8.81%**	**$345,339.68**
Exterior Doors		$19,970.72
Exterior Windows		$268,800.00
Interior Doors		$56,568.96
09 Finishes	**17.78%**	**$697,258.79**
Ceiling Finishes		$195,777.60
Floor Finishes		$248,323.96
Partitions		$147,224.50
Wall Finishes		$105,932.74
10 Specialties	**0.04%**	**$1,688.96**
Fittings		$1,688.96
11 Equipment	**5.48%**	**$215,078.64**
Commercial Equipment		$16,940.00
Other Equipment		$198,138.64
13 Special Construction	**4.83%**	**$189,259.17**
Communications & Security		$85,198.06
Sprinklers		$104,061.10
15 Mechanical	**16.93%**	**$663,913.60**
Cooling Generating Systems		$251,507.20
Domestic Water Dist		$104,832.00
Plumbing Fixtures		$307,574.40
16 Electrical	**7.10%**	**$278,577.60**
Electrical Service & Distribution		$276,119.20
Site Lighting		$2,458.40
19 FF&E	**7.14%**	**$280,000.00**
Interior FF&E allowance		$280,000.00
Total Raw Cost	100.00%	$3,921,980.44

Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount

Spirit	0.50%	$21,570.89
Force Protection	0.00%	$0.00
General Cond	10.00%	$392,198.04
Total Additional Hard Cost		**$413,768.94**

Soft Cost (Template: Army Lodging New Construction)

Parameter Name	**Percent**	**Amount**
Contingency	5.00%	$216,787.47
SIOH Conus	6.50%	$295,914.89
Design	10.00%	$433,574.94
08 MYr Inflation Fct	9.93%	$524,505.25
Total Soft Cost		**$1,470,782.55**
Total Project Cost for Replacement		**$5,806,531.92**

INSERT BUILDING 650 PLANS HERE

Appendix

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

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