

## Appendix K

### Annual Program Operations Costs Analysis

The recurring annual capital costs for the Program Operations are analyzed for staffing, food, healthcare and educational programs, consumable supplies, durable supplies and transportation. These operations costs are calculated as a percentage of the initial capital cost of the facility, which in itself is based on the functions that it will serve.

The supporting funding in order to operate a facility, once it is opened, are noted in Appendices J and K.

The individual Program Operations Costs for Tier I, Tier II and Tier III are extended for each of the fourteen Facility Types, in Appendix L as Unit Costs. The Unit Costs in Appendix L are later used in Appendix N to extend the Facility Operations and Maintenance and Program Operations over the 40 year life of the facility.

### Annual Program Operations Costs Analysis

The facility space is designed to meet a certain functional capacity of the number of individuals who work and are permanently housed in it. This includes the Law Enforcement Officers, Criminal Investigators, Dispatch, Corrections staff, Rehabilitation staff, inmates and Judges and their staff.

The Tier system noted in Appendix G defines the number of occupants for the Tier and the Facility Type.

Costs of Program Operations within a facility, is a function of the physical space and its design to meet the program needs. The new facilities will be designed for 'Direct Supervision' which is less staff-intensive in contrast to the earlier facilities which were primarily designed for 'Linear Supervision.' Fewer 'posts' are needed to operate a direct-supervision facility. The Program Operations cost can be calculated as a percentage of the initial capital cost of a facility.

Based on the functional need that is met by a facility, staffing can be quantified. This includes the number of inmates housed, three shifts of supervisory staff, other support program staff, correction officers, law enforcement officers, Judges and their staff and 'benefit/time-off coefficient.'

On an average the fully loaded cost for a staff member is considered as \$54,000 per year in the year 2011 dollar costs.

For a detention and/or corrections facility, the inmate to staff ratio is considered 8:1 in a direct supervision type of facility. The inmate to staff ratio is considered 3:1 for special management cells.

Thus the Program Operations costs are calculated as follows for each of the tiers beginning on the next page:

Appendix K – Annual Program Operations Cost Analysis for Tier I, Tier II and Tier III facilities
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**Tier I Facility Annual Program Operations Cost as a percentage of initial capital cost**

A typical Tier Ic facility is a 28 bed Detention and Holding Substation Facility with a small law enforcement function.

**1) Corrections Staffing**

At an inmate to staff ratio of 8:1, requires 3.5 corrections officers per shift or a total of 11 corrections officers including shift supervisors.

A benefit/time-off coefficient of 1.15 establishes  $11 \times 1.15 = 13$  FTE officers.

Add 1 Chief Corrections Officer for a total of 14 FTE officers.

14 FTEs at Fully Loaded cost per year of \$54,000/FTE = \$ 756,000.00 per year

**2) Food, Supplies costs (inmates)**

Average Food Costs: Delivered per meal cost \$4.25, escalated 16% for 2011 costs = \$ 4.93 per meal

Monthly Food Cost for 28 inmates = \$4.93 per meal x 3 meals x 30 days x 28 inmates = \$ 12,424.00

Annual Food Costs for 28 inmates:

\$12,424.00 x 12 months = \$ 149,088.00 per year

Disposable Supplies (toothpaste, tooth brush, personal hygiene) Cost: \$ 1.50 per day, per inmate

Monthly Disposables Supplies Cost: \$1.50 x 30 days x 28 inmates = \$ 1260.00 per month

Annual Disposable Supplies Cost, escalated 16% for year 2011:

$((0.16 \times 1260) + \$1260) \times 12 \text{ months} = \$1462.00 \times 12 = \$ 17,544.00$  per year

Other Fixed Operations Supplies (Mattress, blankets, slippers, uniforms) Cost: \$2.00 per day, per inmate.

Monthly Fixed Operations Supplies Cost: \$2.00 x 30 days x 28 inmates = \$ 1680.00 per month

Annual Fixed Operations Supplies Cost, escalated 16% for year 2011:

$((0.16 \times 1680) + \$1680) \times 12 \text{ months} = \$ 1949 \times 12 = \$ 23,388.00$  per year

Total for Food, Disposable Supplies and Fixed Operations Supplies:

$(\$ 149,088.00 + \$ 17,544.00 + \$ 23,388.00) = \$ 190,020.00$  per year

This cost represented as a percentage of Staffing Cost item 1) above is:

$\$190,020.00 / \$ 756,000.00 = 25\%$  of Corrections Staffing Costs

Appendix K – Annual Program Operations Cost Analysis for Tier I, Tier II and Tier III facilities
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## 3) Law Enforcement Staffing

The facility will provide for 3 shifts of 2 Law Enforcement Officers = 2 FTE officers  
 A benefit/time-off coefficient of 1.15 establishes 2 x 1.15 = 2 FTE officers.  
 2 x 3 shifts = 6 FTEs at Fully Loaded cost per year of \$54,000/FTE = \$324,000.00 per year

## 4) Transport Cost to Healthcare Facility, Tier II or Tier III facility

Depreciation, Fuel and Maintenance for Transport Vehicle, Transport Officer Training and per diem costs for officer during transport based on 28 inmates at the facility.  
 \$18.00 per day, per inmate, or 18x28x365 = \$183,960.00 per year

Total Program Operations cost = \$1,453,980 per year

## Facility Operations and Maintenance

Based on Appendix J: Escalated to year 2011 cost \$17.24/SF x 5000 SF x 1.33 scaling factor for small facility

$$\$17.24 \times 5000 \times 1.33 = \$114,646.00 \text{ per year}$$

Total Program Operations and Facility Operations and Maintenance cost = \$1,568,626.00 per year

Appendix L Total Initial Capital Outlay Cost for a 5000 SF Tier Ie facility = \$ 8,879,891.00

Total Annual Operations Cost as a percentage of initial capital cost =

$$\$1,568,626 / \$8,879,891 = 17.67\% \text{ of initial capital cost}$$

Appendix K – Annual Program Operations Cost Analysis for Tier I, Tier II and Tier III facilities
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**Tier II Facility Annual Program Operations Cost as a percentage of initial capital cost**

A typical Tier IIc facility is a combination of Law Enforcement, Criminal Investigators, Dispatch, Corrections/Rehabilitation and a full court with a video court arrangement for tribal court arraignments when functioning as a facility serving multiple tribes. A typical Type IIc facility provides housing for 150 inmates.

**1) Corrections Staffing**

At an inmate to staff ratio of 8:1, requires 19 corrections officers per shift or a total of 57 corrections officers including shift supervisors.

A benefit/time-off coefficient of 1.15 establishes  $57 \times 1.15 = 66$  FTE officers.

Add 1 Chief Corrections Officer and 1 supporting staff for a total of 68 FTE officers.

68 FTEs at Fully Loaded cost per year of \$54,000/FTE = \$ 3,672,000.00 per year

2) Food, Supplies Program costs (inmates) =  $0.25 \times \$ 3,672,000.00 = \$ 918,000.00$  per year

**3) Law Enforcement Staffing**

The facility will provide for 3 shifts of 7 Law Enforcement Officers= 21 FTE officers

A benefit/time-off coefficient of 1.15 establishes  $21 \times 1.15 = 24$  FTE officers.

24 FTEs at Fully Loaded cost per year of \$54,000/FTE = \$1,296,000.00 per year

**4) Rehabilitation Staffing**

Staffing for Healthcare and Education Programs to support rehabilitation of the inmate population.

10% of item 1) above supporting the corrections staffing = 7 FTE officers

7 FTEs at Fully Loaded cost per year of \$54,000/FTE = \$ 376,000.00 per year

Appendix K – Annual Program Operations Cost Analysis for Tier I, Tier II and Tier III facilities
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## 5) Courts Staffing

The facility will provide for 2 judges and 1 supporting staff members= 3 FTE

3 FTEs at Fully Loaded cost per year of \$54,000/FTE = \$162,000.00 per year

Add items 1), 2), 3), 4) and 5) for all Staffing, Food and Supplies = \$ 6,424,000.00 per year

## Facility Operations and Maintenance Cost

Appendix J calculated costs at \$ 17.24 per Sq. Ft for 75,000 SF = \$ 1,293,000.00 per year

Total Program Operations and Facility Operations and Maintenance= \$ 7,717,000.00 per year

## Appendix L calculated costs

for Initial Capital Outlay Cost for a 75,000 SF, Tier IIc facility = \$ 73,999,654.00

Total Annual Operations Cost as a percentage of initial capital cost =

 $\$ 7,717,000 / \$ 73,999,654 = 10.43\%$  of initial capital cost

Of which the Facility Operations and Maintenance cost

= \$ 1,293,000 / \$ 73,999,654

= 1.75%

Subtract from total Annual Operations of 10.43%

= 8.68% is the cost of Program

Operations per year, as a percentage of initial capital cost of the facility.

Thus for Tier II facilities, use Program Operations Cost per year = 8.68% of initial capital cost.

## Appendix K – Annual Program Operations Cost Analysis for Tier I, Tier II and Tier III facilities

**Tier III Facility Annual Program Operations Cost as a percentage of initial capital cost**

A typical Tier IIIc facility is a regional facility that primarily houses 250 inmates. There are no Law Enforcement or Judicial Functions other than a video court arrangement. The facility also serves as a rehabilitation facility with supporting staff to provide healthcare and education programs.

**1) Corrections Staffing for Special Management Cells**

Special Management Cells = 10% of 250 cells or 25 cells

At an inmate to staff ratio of 3:1, these require 8 corrections officers per shift or a total of 24 corrections officers including shift supervisors.

A benefit/time-off coefficient of 1.15 establishes  $24 \times 1.15 = 28$  FTE officers.

Add 1 Deputy Chief Corrections Officer and 1 supporting staff for a total of 30 FTE officers.

30 FTEs at Fully Loaded cost per year of \$54,000/FTE = \$ 1,620,000.00 per year

**2) Corrections Staffing for Regular Management Cells**

Regular Management Cells = Total Cells – Special Management Cells

Regular Management Cells =  $250 - 25 = 225$  cells

At an inmate to staff ratio of 8:1, these require 28 corrections officers per shift or a total of 84 corrections officers including shift supervisors.

A benefit/time-off coefficient of 1.15 establishes  $84 \times 1.15 = 97$  FTE officers.

Add 1 Chief Corrections Officer and 1 supporting staff for a total of 99 FTE officers.

99 FTEs at Fully Loaded cost per year of \$54,000/FTE = \$ 5,346,000.00 per year

**3) Food, Supplies Program costs supporting the inmate population =  $0.25 \times$  (Items 1) and 2)) above**

$0.25 \times (\$ 1,620,000.00 + \$ 5,346,000.00) = 0.25 \times \$ 6,966,000.00$  per year

= \$ 1,741,500.00 per year

Appendix K – Annual Program Operations Cost Analysis for Tier I, Tier II and Tier III facilities
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## 4) Rehabilitation Staffing

Staffing for Healthcare and Education Programs to support rehabilitation of the inmate population.

10% of items 1) and 2) above to supporting the corrections staffing =  $0.1 \times 129 = 13$  FTE officers

13 FTEs at Fully Loaded cost per year of \$54,000/FTE = \$ 702,000.00 per year

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Add items 1), 2), 3) and 4) for all Staffing, Food and Supplies = \$ 9,409,500.00 per year

## Facility Operations and Maintenance Cost

Appendix J calculated costs at \$ 17.24 per Sq. Ft for 75,000 SF = \$ 1,293,000.00 per year

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Total Program Operations and Facility Operations and Maintenance= \$ 10,702,500.00 per year

## Appendix L calculated costs

for Initial Capital Outlay Cost for a 75,000 SF, Tier IIIc facility = \$ 80,110,746.00

Total Annual Operations Cost as a percentage of initial capital cost =

 $\$10,702,500 / \$ 80,110,746 = 13.36\%$  of initial capital cost

Of which the Facility Operations and Maintenance cost

= \$ 1,293,000 / \$ 80,110,746

= 1.61%

Subtract from total Annual Operations of 13.36%

= 11.75% is the cost of Program

Operations per year, as a percentage of initial capital cost of the facility.

Thus for Tier III facilities use Program Operations Cost per year = 11.75% of initial capital cost.

The individual Program Operations Costs as noted in the preceding pages are extended for each of the fourteen Facility Types in Appendix L as Unit Costs. The Unit Costs in Appendix L are later used in Appendix N to extend the Facility Operations and Maintenance and Program Operations over the 40 year life of the facility.