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SEATTLE JAIL CAPACITY NEEDS STUDY

SEATTLE, WASHINGTON

Final Report

FEBRUARY 8, 2007



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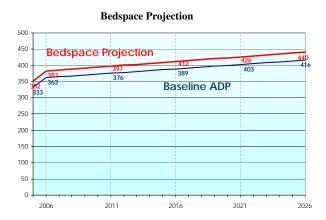
Introduction

Seattle is a member of the consortium of 37 King County cities that was established to collectively address the needs of municipalities in meeting their misdemeanant jail bedspace requirements. Presently, most cities, including Seattle, contract with King and Yakima Counties for bedspace, but those contracts will expire in 2012 and 2010 respectively.

Ricci Greene Associates was hired by the consortium's Jail Administration Group (JAG) to develop a strategic plan, or "roadmap" for best meeting the cities' overall misdemeanant jail bedspace requirements and services once the contracts with King and Yakima Counties expire. The JAG study is focused on the needs of the system as a whole, including the utility of existing jail facilities and the possible development of new ones in meeting future jail population growth projections.

At the same time, the city of Seattle commissioned Ricci Greene to conduct a separate study of its jail system and to assess the impact of Seattle building and operating its own jail independent of the JAG. Though separately funded, the study was conducted simultaneously with the JAG study due to the interrelationship between them. For example, a decision by Seattle to build its own facility may impact subsequent options for the county-wide strategic plan regarding the number and location of facilities required to service the remaining JAG cities. By the same token, the potential for building regional JAG facilities may also impact Seattle's planning processes.

Population Analysis and Bedspace Projections



Inmate population and **jail bedspace projections** were generated as the foundation for facility planning. An analysis of misdemeanant growth trends (ADP) and city population forecasts indicate that Seattle will need 446 jail beds by the year 2026. During the course of the study, officials asked the Consultant to provide information on alternative project delivery methods, namely jail privatization and regionalization. As such, broad research was conducted and a summary of each concept was developed to give Seattle officials an overview understanding of key issues.

At the direction of Seattle officials, the analyses of future needs focused on the development of a potential new facility. Should Seattle decide to construct its own jail, the actual number of beds to build (relative to the 446 bedspace projection) is ultimately a policy decision. Jail capacity scenarios that were explored with city officials included "over-building", e.g. building above the projected bedspace and renting beds to neighboring cities; or "under-building", e.g. building below the projected bedspace need and relying on other facilities to fill the bedspace gap. Neither was deemed acceptable. As such, the consensus was to develop a plan for meeting Seattle's full capacity needs exclusively, as projected for 2026.

A **profile analysis** of Seattle's misdemeanant jail population found the "typical" inmate to be a 37 year old pre-trial male, waiting trial on a non-violent offense, with no additional charges pending elsewhere. For facility planning purposes, this suggests that Seattle's jail population is by and large appropriate for low security housing rather than single cell construction that is typically reserved for higher security level classifications.

New Facility Requirements

In jail facility planning, "operations drive design". While this is not a design project, establishing an operational philosophy for facility planning purposes helped form the basis for generating a new jail facility space program and staffing plan. Key operational objectives include:

- Least Restrictive Setting: reserving single cells only for inmates who are a risk to jail safety and security
- Objective-based Classification: assessing for risk and need, and housing inmates accordingly
- Direct Supervision Design: giving officers a direct, barrier-free view of all inmates in the housing unit
- <u>Decentralized Services</u>: provided at the housing unit level, minimizing inmate movement throughout the facility
- <u>Manageable Unit Size</u>: striking a balance between achieving staffing efficiencies and ensuring good supervision

Should Seattle decide to build a new jail facility, the established operational criteria must guide the design of the new jail, with an emphasis on achieving the program requirements in a staff-efficient manner.

The key to safe and effective jail operations is inmate classification and to support the classification system, the new facility must have the proper number and type of housing units, ranging from open dormitories to single cells for inmates who must be separated from the general population and kept under strict supervision.

The facility housing will be designed for "direct supervision" and a "decentralized" system of program and service delivery. Moreover, the jail should include two arraignment courtrooms as programmed, to minimize inmate transport to municipal court for arraignment hearings. Finally, the site selected for the new jail facility must accommodate not only the physical plant requirements, but also the estimated parking requirements and horizontal expansion in the future.

The facility space program establishes the size of the new facility, and serves as the basis for initial cost estimating based on square footage cost assumptions. A space program was developed detailing the

number, type and size of spaces contained in the proposed facility. The size of a new 446-bed facility is expected to be about 188,000 gross square feet.

In jail facilities, inmate housing generally accounts for half of the building size – and it can be the most expensive construction type if housing is comprised of single cells. The profile analysis revealed that the majority of Seattle's inmates fall within minimum security designations, where dormitory-style housing is appropriate. Single cells are reserved for those inmates who pose a safety or security risk, based on a "classification" assessment that takes presenting behavior and risk factors into account.

Jail staffing costs account for a significant portion of the overall operational budget in any correctional facility, as each full time post typically requires 5 FTE positions. The **staffing plan** developed for the proposed Seattle facility reflects staffing requirements for the number and type of housing units and support functions identified in the facility space program. A total of 152 FTEs are projected for a 446 bed facility.

Cost Estimates

Capital and operating cost estimates were generated for the proposed facility providing sufficient information for decision-makers to better understand the general costs associated with a new facility. Total Capital Project cost estimated for the 446-bed facility is projected to be \$122,750,795 (escalated to year 2010 costs).

Construction cost estimates were developed at a programmatic level on a cost per square foot basis (as opposed to more detailed estimates that can be done once building drawings have been generated and a site has been determined).

The **construction cost estimate** uses cost precedents from other recent jail facilities in Washington and elsewhere, adjusted for inflation and regional cost differences. Industry national averages were also considered. The primary precedent used was the King County Regional Justice Center in Kent (RJC), which would be similar to the Seattle Jail in terms of construction type and quality, direct supervision

design philosophy, and configuration, with the difference that the Seattle facility will be of a lower security designation overall. Final construction costs for the RJC were not available to the consultant. However, two estimates were provided. The estimate developed by Sellen was deemed the most appropriate benchmark for cost projecting.

A cost of \$287 per square foot (2006 dollars) was used, which represents a lower end of the range of precedents based on the anticipated lower level of security required for the misdemeanant population versus other "general population" jails. This cost was escalated to 2010 assuming 6.5% per year. C3MG Management Group assisted Ricci Greene Associates with the estimates.

Construction costs account for both the "bricks and mortar costs" of building a new facility as well as associated "soft costs" which, among others, include additional costs such as professional fees, escalation, construction contingency and other owner cots.

It should be noted that the Seattle region market is now about 20 – 25% higher than it was when cost estimates were generated during the options development phase of the project (Summer 2006), due primarily to a lack of public bidding competition. If this trend holds, escalation used for these estimates may need to be increased substantially. The City should continue to monitor local construction costs before committing to any anticipated construction budget.

Staffing costs were estimated based on the number and type of staff required. Staffing costs were established for FTE (full time equivalent) positions identified in the proposed staffing plan, representing base salary plus benefits. In the absence of a Seattle Jail, King County Correctional Facility salary and benefits for year 2006 were used as the basis for determining personnel costs. Following National Institute of Corrections' guidelines, 70% of the local cost was allocated to staffing expenses. Finally, **operation and maintenance costs** accounted for the remaining 30% of the annual operating budget.

The construction, staffing, operational and maintenance costs were run through a 30-year life-cycle cost analysis to establish annual and per diem cost impacts, as illustrated below:

Summary of Costs	# Required Beds	Staffing & Operations (2006 dollars)	<u>Daily Cost per Bed*</u> (2006 dollars)	Total Construction Cost (2010 dollars)
2026 projection				
	446	\$15,797,099	\$97	\$122,750,795

^{*}This tigure is the cost per bed – not the cost per inmate – so it is not comparable to the daily rates that Seattle currently pays. In other words, Seattle will pay this rate regardless of whether the bed is full or empty.

Introduction

The jail model for meeting Seattle' incarcerated misdemeanant population is a complex system of County and municipal jails, multiple contracts, housing and transportation arrangements and conflicting policies, procedures and practices. For some decades, Seattle has contracted with King County to provide jail services for city misdemeanants. In 2002, King County and its contracting cities negotiated a new contract that reflected King County's desire to substantially reduce cities' use of the King County jail facilities. This contract established a timeline and population caps to remove the cities' misdemeanant population from county facilities by 2012. This same year, 35 cities, including Seattle, agreed to contract with Yakima County, located in Eastern Washington, in order to secure jail beds needed in excess of the King County caps until 2010.

Background Context

Seattle is a member of the consortium of 37 King County cities that was established to collectively address the jail needs of the municipalities. A brief history of the JAG is cited below to provide an overall context for the goals and initiatives of the Seattle Jail Capacity Needs Study.

In 2003, this consortium negotiated an inter-local agreement with each other to coordinate jail services and plan for long-term jail capacity and facilities once the county contracts expire. As a result of this inter-local agreement, the consortium of cities initiated a long-range jail planning process in 2005. In order to oversee contract administration, coordination and the progression of the strategic planning process, the following groups were established:

Jail Operations Group (JOG): Created to advise the Jail Administration Group and the Elected Assembly, the JOG is comprised of a representative from each city that is a party to the Yakima County, King County, and/or Jail Administration Agreements.

Jail Administration Group (JAG): Formed to represent the city consortium and to manage the study progress, this group is comprised of six representatives with 1 from Seattle, 1 from Bellevue and 4 other

contract cities, one of which includes a Suburban JAG Association member that is the largest jail user and is party to both King County and Yakima County inter-local agreements.

Elected Assembly: Created to provide guidance to the JAG and JOG groups, the Assembly is comprised of an Elected Official from each participating city.

Ricci Greene Associates was hired by the JAG in late 2005 to develop a strategic plan for best meeting the cities' overall misdemeanant jail bedspace requirements and services once the contracts with King and Yakima Counties expire. The JAG study is focused on the needs of the system as a whole, including the utility of existing jail facilities and the possible development of new ones in meeting future jail population growth projections. Coinciding with the JAG study, the city of Seattle commissioned Ricci Greene to conduct a separate analysis of its specific jail needs. Though separately funded, the study was conducted simultaneous with the JAG study due to the inter-relationship between them.

Scope of Study and Objectives

The purpose of the Seattle study was to develop misdemeanant bedspace projections, related facility requirements and cost estimates for a new city jail, should officials choose to build for its own needs as an alternative to participating in future JAG initiatives. Several objectives were further addressed in this study:

- 1. Development of misdemeanant bedspace projections reflective of City population forecasts.
- 2. Identification of system policies and practices that impact on city jail bedspace utilization including the use of alternatives to incarceration.
- 3. Creation of facility options to address future jail capacity demand and associated costs.

Project Methodology

Data Sources

An understanding of Seattle's present criminal justice system and future needs required review and analysis of both quantitative and qualitative data obtained from a variety of sources.

Ouantitative Data

Quantitative data included misdemeanant population trends and selected criminal justice activity data. The information pertaining to Seattle was extracted from a system-wide survey distributed to all cities as part of the larger JAG study, including total average daily misdemeanant population (ADP) and 5-year misdemeanor case filings. Seattle's misdemeanant jail population characteristics were analyzed based on a "snapshot survey" that was conducted for the JAG. The snapshot analysis provided information on all misdemeanants in jail custody on a specified date in time.

Qualitative Data

Qualitative data were obtained through on-site meetings and interviews with Seattle officials regarding the local justice system structure and characteristics, and in roundtable discussions with the JOG and other representatives regarding practices impacting system efficiency and jail utilization overall. Finally, dedicated interviews and workshops were held to discuss current use of alternatives to incarceration and identify future goals.

Method of Analysis

Misdemeanant daily population forecasts (ADP) were generated over a twenty-year period in five-year increments. Preliminary projections were presented to City of Seattle representatives and growth rate assumptions were modified based on the collective judgment of the group to arrive at a baseline growth projection.

An inmate average daily population forecast (ADP) was estimated through a study of various demographic and qualitative impacting factors, and generated over a twenty-year period. It is worth noting that among

these factors, a more detailed study about alternatives to incarceration was conducted to analyze the impact of using alternative programs on future jail bedspace requirements.

ADP figures were then converted into actual bedspace requirements by incorporating a "utilization factor" to account for cell maintenance, classification, and population "peaks". The estimated bedspace needs were provided for 5, 10, 15, and 20-year increments disaggregated by gender, legal status (pre-trial, sentenced, and other groups), and inmate classification category (medium, minimum-custody level, segregation, and medical/mental health cases).

Based upon agreed/adjusted bedspace requirements, a space program detailing the required size of the facility was developed for each of the five-year projection horizons. A staffing plan was generated for the proposed facility, responding to the number and type of housing units and support functions to be accommodated in a new jail facility.

Cost estimates of building and operating the new facility were identified to provide sufficient information for decision-makers to better understand the general facility capital and operational costs associated with each option. Accordingly, costs were developed for construction, staffing, operations and maintenance, and they were run through a 30-year life-cycle cost analysis for the 2006 and 2026 projections and reduced to generate a cost per bed per day. The 2006 projection is provided as a frame of reference for current and future need ranges.

Acknowledgements

Consultants

Ricci Greene Associates was the prime consultant and developer of the study, represented by:

Robert Fisch, AICP - Principal

Laura Maiello - Project Director

Brett Firfer, AICP - Associate Planner

Marayca López, PhD – Justice Planner

Sub-consultants:

Kevin Warwick – Alternative Solutions Associates, Inc.

David Poffenberger – C3MG Management Group, Inc.

Client

The following Seattle officials and representatives met with the consultant team and provided input into the development of the study:

Catherine Cornwall – Senior Policy Analyst, Office of Policy & Management

Regina LaBelle – Counsel to Mayor Nickels

Thomas Carr – City Attorney

Peter Harris - Central Staff, Seattle City Council

Amanda Allen – Fiscal & Policy Analyst, Department of Finance

Fred Bonner - Presiding Judge, Municipal Court

Gayle Tajima – Finance and Administrative Services Manager, Seattle Municipal Court

Nick Zajchowski – Strategic Advisor, Seattle Municipal Court

Lorri Cox – Senior Court Specialist, Seattle Municipal Court

Robert White - Chief Clerk, Seattle Municipal Court

Yolande Williams - Court Administrator, Seattle Municipal Court

Brian Kennedy – Jail Population Coordinator, Seattle Police Department

Michael Quinn – Strategic Advisor 2, Seattle Police Department



Methodology

Inmate population profiles provide information on "who" is in jail. Profiles describe key characteristics of those confined relative to program and service needs and the classification of bed types required in order to test program and facility alternatives in subsequent steps. In this regard, the analysis generated a descriptive profile of Seattle inmates in terms of their general characteristics, institutional security requirements, and potential for alternatives to incarceration.

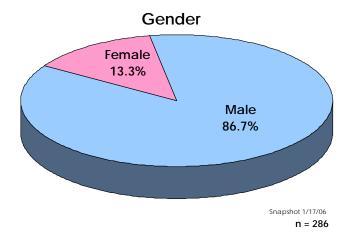
The population profile was developed using a snapshot methodology. The inmate snapshot data was collected for all incarcerated misdemeanants as part of the larger JAG study, and those under Seattle's jurisdiction were extracted from the sample. Data were collected on two specific dates: May 15, 2005 and January 17, 2006. A comparative review of the snapshots revealed no significant differences between the two samples. Therefore, the more recent snapshot (1/17/06) was used to generate the inmate profile which included a total of 286 inmates.

Analysis and Findings

The profile analysis provides a descriptive account of the nature of the city's misdemeanant population comprising the jail system. The overall misdemeanant profile that was generated yielded to some expected and some surprising results when compared to national averages. Key findings are reported below.

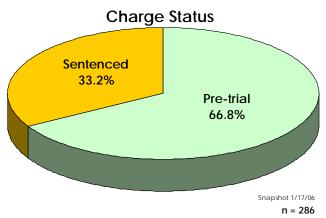
Gender

Concerning the distribution of inmates by gender, the percentage of female inmates at 13.3% showed to be slightly below the national average of 15-20%.



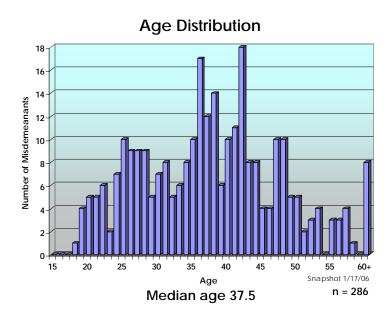
Charge Status

The majority distribution of pre-trial to sentenced offenders proved to agree with the typical distribution of county jails nationally.



Age

Of interest was the median age of the population at 37.5 years old, compared to the 25-29 year national median average. One possible explanation is the specific nature of the population itself – city misdemeanants on low level offenses vs. a felony population which typically fits into a younger "at-risk" age cohort.

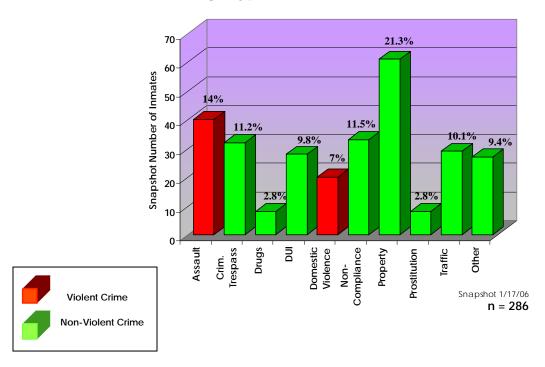


Charge Type

Concerning charge type, the dominant categories were property and assault offenses, followed by Non-Compliance and Criminal Trespass. The chart also indicates that about 79% of the inmate population is incarcerated for non-violent offenses, who, by definition are not committing serious crimes. This

preliminary finding suggests that Seattle city misdemeanants are largely minor offenders, many of whom could represent a potential pool of offenders likely to be eligible for alternatives to incarceration.

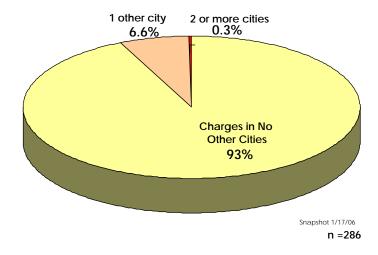
Charge Type and Violent vs. Non-Violent Offenses



Charges Pending

The analysis revealed that less than 7% of the Seattle's misdemeanant population has charges pending in another city. Discussion indicated that the number may in fact be much higher. It may not reflect all people who have pending charges in other jurisdictions due to lack of information when the individual has not been formally booked on the charge during the current incarceration.

Misdemeanor Charges in More than One City



Mental Health / Medical Status

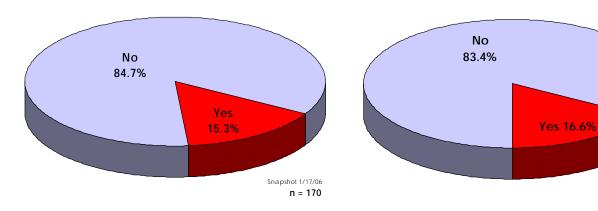
There was much discussion regarding medical and mental health inmates. Due to the small number of entries, the resulting percentages from the data analysis were overall much lower than national averages. To get a better sense of medical and mentally ill inmates it was agreed that percentages should be based on a combination of two variables that will help to draw conclusions about these populations, though at a

lower level of detail. With respect to the medical needs population, a percentage was derived from the information available on medical status and infirmary housing. Similarly, for the mental health population, a percentage was reported based on both psychiatric status and inmates currently housed in acute mental housing.

This combination of variables resulted in a more accurate picture of the medical and mental health needs population, as it can be seen in the following charts, when compared to national averages (10% and 15% respectively).

Medical Status/Housing

Psychiatric Status/Housing



Snapshot 1/17/06

n = 222

Conclusion

As a summary, the data analysis portrayed the following key characteristics of the current City misdemeanant population:

Key Characteristics of Offenders

- 87% of the admissions are male
- 67% are held in pre-trial status
- The average age is 37.5; The median age is 37
- The most frequent charge is a non-violent offense in 79% of the cases
- 93% have no outstanding charge(s) in another city

In aggregate, this is the "typical" profile of the current Seattle's city misdemeanant in jail on any given day. As mentioned earlier, these findings suggest that a significant percentage of the city misdemeanant population could be good candidates for alternatives to incarceration. At any rate, this population is by and large appropriate for minimum security housing level.



Introduction

Jail incarceration must be viewed as one step in a continuum of available sanctions for offenders that includes not only secure incarceration but also non-secure and non-incarcerative alternatives where individuals are assigned to an appropriate level of supervision based on an assessment of risk and need. Accordingly, analysis of future jail capacity needs for the city of Seattle included an assessment of existing and future alternatives to incarceration and the impact of enhanced use of alternatives on the number of beds ultimately required. To achieve that goal, the team reviewed "best practices" from other jurisdictions and made some recommendations to improve the current utilization of alternatives to incarceration in an effort to reduce jail beds going forward and affect cost savings.

National "Best Practices" in Context

A broad variety of programs for sentenced and pre-trial offenders at the local level are included under the expression "alternatives to incarceration". Those programs are grounded in a philosophy of "least restrictive setting" for dealing with offenders. As part of a graduated continuum of services and sanctions, alternatives to incarceration provide jurisdictions with community-based options for dealing with non-violent, low risk offenders without compromising public safety and reserving costly jail beds only for those who require a more secure setting.

Up to date, much research has been conducted on alternative programs providing a body of empirical knowledge about the characteristics and components of the programs that seem to "work" in terms of reducing recidivism rates. Evaluation studies national and internationally have found that the effectiveness of alternatives to incarceration programs is directly linked to certain key program components and the ability of staff to apply and deliver them as intended. Among these key best practice requirements are:

- Providing treatment and supervision for offenders;
- Staffing the program appropriately with qualified staff; and
- Providing programming that addresses job skills and cognitive development addiction is critical to the program design.

Methodology

To analyze the existing alternative programs, two kinds of data sources were considered: inmate profile statistics provided to the consultant and qualitative data derived from interviews with key probation staff, and discussions with Catherine Cornwall, Senior Policy Analyst (Office of Policy & Management); Nate Caldwell, Manager of the Community Corrections Division of the King County Department of Adult and Juvenile Detention, and Seattle's Municipal Court Presiding Judge Fred Bonner.

Analysis and Findings

Current Use and Average Daily Population

Day Reporting Center

A day reporting alternative program was in use in Seattle, but it was already over capacity after only five months of program operation. This program is a day check-in center for pre-trial clients. There were 11 clients in the program at the time of this report (Spring 2006) with a capacity of 20 clients per day. There were presently no on-site services. However, it was mentioned during the interviews with stakeholders that a study was being conducted to determine the costs and types of services that could be utilized for this center.

The Day Reporting Center was currently using a half time position, but it was looking to expand both numbers and services for offenders who are high risk for re-offending¹. This study will be very helpful to review and identify key services needed to ensure the effectiveness of this kind of program in terms of reducing recidivism rates such as housing, chemical dependency treatment, case management services and how much staff is needed to operate the program.

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¹ Since this section of the report was drafted in Spring of 2006, the program has been expanded to two full time staff with a capacity of 60 people; the program has an average enrollment of 45.

Electronic Monitoring Services

There was an average of 90 clients per day in electronic monitoring programs. These programs, operated by a private vendor, were serving both pre-trial and sentenced populations with a daily cost ranging from \$12-\$17 depending on the type of equipment, far less than the \$97.50 per diem cost at the King County facility.

Work Release Program

Seattle was the largest user of work release within King County cities at present and averaged 11 offenders per day at the time of this report. There was a waiting list of 30-40 days for entry into the program. Seattle is presently paying the full per diem rate of \$97.50 per participant in the program.

It was stated that the city was currently looking to expand both pre-trial and sentenced existing options, with the potential to create new jail alternative programs for non-violent misdemeanant offenders.

Impact of Existing Alternative Programs

The use of alternatives to incarceration for pre-trial and sentenced offenders currently affords the city of Seattle with significant bedspace savings. As demonstrated by the following table, at the time of this analysis a total of 112 inmates were being supervised in the community rather than confined in a jail bed. Work release participants are not calculated in the bedspace savings, as this program is a form of non-secure incarceration, albeit more economical. These bedspace savings also do not take into account the effect of net-widening.

Existing Programs - ADP

Day Reporting - 11

Electronic Home Detention - 90

Work Release - 11

Current Bedspace Savings = 101*

(*excludes work release; does not account for net widening)

Program Gaps in the Current System

Although the City of Seattle appeared to have a long history of using alternative programs such as reporting to the jail during the day, electronic monitoring, work release, and community service, the following gaps were identified as limiting the availability and current use of alternative programs:

- There was a general lack of coordination to implement and operate alternatives among different agencies.
- Work release availability for male clients was low due to the City's dependency on bed availability from King County.
- For female offenders' populations, there was difficulty in establishing access to work release programs due to the reliance on contracts between King County and Washington DOC.
- The day reporting program was having a very limited target population due to insufficient staffing and resources making it unavailable to a more diverse typology of offenders and limiting the cost savings of this model. Since this section of the report was first drafted in the Spring of 2006, the day reporting program has expanded to two full time staff and a capacity of 60. On average, 45 people are enrolled in the program.

Recommended Program Expansion and Enhancement

Recommendations were made based on Seattle's philosophy and goals for managing its inmate population, the inmate profile data developed in previous steps, and the specific needs of the City of Seattle.

Work Release

Generally speaking, work release is an important alternative to provide options for DUI and other cases where the offender may not be eligible for day reporting or EHD programs. Seattle could consider the option of establishing a stand-alone facility more for the reason of having beds that are readily available than for costs savings. These programs could be operated and subcontracted to local non-profit providers as well. If the existing King County Work Release program continues to have capacity issues, Seattle should explore options to operate their own work release center. This option could be explored as part of the long term jail planning process.

Day Reporting Center

Seattle is presently operating and has expanded its day reporting center to serve additional offenders since the time of the initial review of alternatives. Seattle may consider further expanding the program to serve additional clients in the coming years.

Electronic Monitoring

Seattle already has a sizeable program for city inmates under electronic monitoring. This program can be expanded. However, the expansion would be limited due to a large number of clients that have already been targeted by the current program. These programs are clearly less than the cost of incarceration and are not as staff intensive as a day reporting center or a work release center.

Conclusion

Overall, the general feeling among justice system officials was that the local system of alternatives to incarceration was functioning well. The analysis showed that there were several providers with expertise in serving the low-risk criminal justice population effectively. Furthermore, there appeared to be several successful models that should be referred to when expanding alternative programs. However, building upon the good foundation that the city has currently in place, the consultant team suggested the need to commit to a collaborative effort between the different local criminal justice agencies to invest in expanding and enhancing programs. The inclusion of a treatment component for mental health or chemically dependent populations was recommended in some of the alternative programs to help break the cycle of recidivism associated with the existing jail population. Referrals for job skills and job placement services would be good options as well. Clearly the City of Seattle has invested greatly in alternatives over the last several years. The use of alternative programs may reduce the number of additional beds needed. However, it does not change the fact that Seattle needs local jail capacity.

For jail capacity planning purposes, the overall goal of the alternatives to incarceration analysis was to develop information to be used in testing the impact of enhanced initiatives on the bedspace projections as reported in Chapter 4 of this report.



Methodology

Inmate population projections form the foundation for establishing overall future jail bedspace requirements. Jail bedspace forecasts were generated based on review and analysis of statistical data and discussions with project participants regarding system factors that shaped past trends and may influence future growth. The impact of other factors affecting jail bed capacity requirements was assessed thorough a series of interviews, workshops, and focus groups. Based on this review, several "best fit" scenarios for projections were identified. The step-by-step analyses were presented in workshop forum with City representatives, and a collective judgment of future growth assumptions emerged that was reflective of both quantitative and qualitative variables.

City misdemeanant Average Daily Population (ADP) forecasts were generated over a twenty-year period as the basis for establishing overall future bedspace requirements. The ADP forecasts were tailored to reflect the unique characteristics of Seattle's criminal justice system and its jail population. Accordingly, a number of factors were considered as potential predictors of the Seattle's future ADP, including county population, historic ADP, and case filings.

The primary data sources for analyzing City population growth trends were data from the U.S. Bureau of the Census (1990-2000) and the State of Washington Office of Financial Management (2001-2005), and survey responses from the City of Seattle. Misdemeanant ADP trends and related system activity statistics were collected via a written survey.

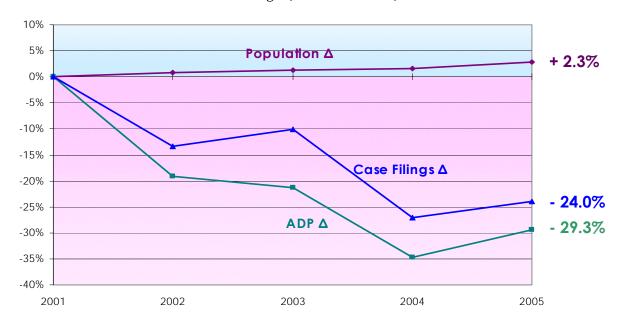
Analysis and Findings

System Trends

Misdemeanant ADP, historic ADP trends, and misdemeanant case filings were simultaneously plotted on the chart below, and an annual percent change (relative to 2001) was established for each. While ADP trends and case filing trends are down since 2001 at -29% and -24%, respectively, both case filings and ADP have experienced a recent upswing from 2004 – 2005, and officials indicate a similar trend this year. City population has increased slightly, at 2.3% overall since year 2001. According to this available data, no predictive correlation between system trends and ADP activity could be established.

ADP, Misdemeanant Case Filings, Seattle Population

Annual Percent Change (Relative to 2001)



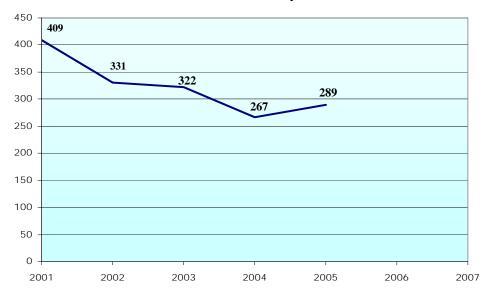
ADP Trends

Because a predictive correlation could not be established between these three variables, historical ADP trends were looked at independently to assess potential growth patterns.

The reported 5-year Historic ADP trends (2001-2005) are based on the results of a survey distributed to the City as part of the larger JAG study. As it can be seen in the following chart, the five year trend is indicative of an overall decline in ADP until a recent upturn in 2004 to present.

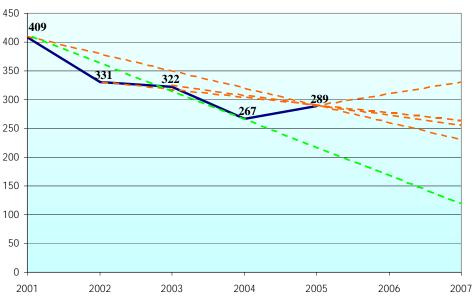
Officials indicated that this upturn is more indicative of the activity that they expect to see in the future, based on factors such as changes in legislation and the nature of cases represented.

Historic Trends in City ADP



As reflected in the following chart, an analysis of ADP activity did not yield any significant ADP trend over the 5-year period, indicating that this variable alone was not a good predictor of future ADP activity. This lack of consistency or correlation in the data required a different approach for projecting future ADP.



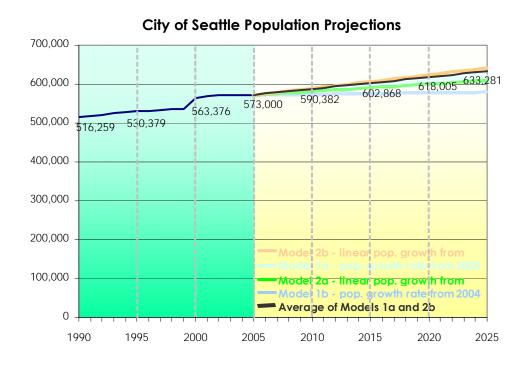


A baseline ADP of 289 was reported by Seattle for year 2005. This figure was increased to 333 to account for 44 Seattle misdemeanants housed in King County but not billed back to the city (and therefore not "visible" in Seattle's ADP accounts). The rationale for this adjustment, based on discussion with Seattle officials, assumes that about half of the city misdemeanants currently housed in KCCF with dual charges would be housed instead in a new city jail under different practices.

City Population Trends

City population trends and projections were studied as the most potentially viable predictors of ADP, due to their relative predictability in relation to other factors. The city population projection is an average of two models, Models 1a and 2b. Model 1a projects a growth rate from the City's 2000-2005 population.

This model considers both very recent growth and the period of recession experienced by the city. Model 2b projects a straight-line growth trend from the city's 1980-2000 historic population, reflective of a faster period of growth typical of King County. The averaging of these two models resulted in an overall 10.5% population growth increase over the next twenty years as illustrated in the following chart.



While city population growth was agreed to be a major consideration in projecting future ADP, several factors were also identified by participants and discussed in workshop setting as impacting ADP growth. These factors included:

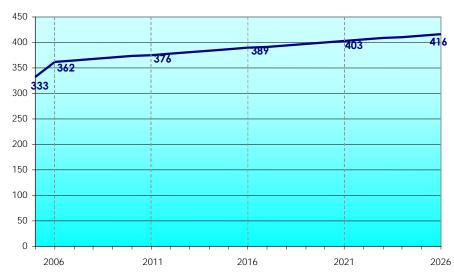
- An upswing in ADP growth from 2005.
- 50% of the 44 Seattle inmates in a King County facility (KCCF and RJC) currently self-billed to King County were attributed back to Seattle (289+44=333).
- An additional increase of 12 inmates account for DWLS changes.
- An additional 15 inmates in 2006 to account for new practices in processing minor drug violation inmates in Seattle, and recent trends in the number of domestic violence, and assault charges.

The discussion of these factors resulted in the decision to use an overall 15% ADP growth rate over the next twenty years for future planning purposes. This growth rate represents a general consensus of Seattle officials and the consultants. Additionally, the impact of DWLS, minor drug violations, domestic violence, and assault charges was factored into the 2006 ADP projection on top of the projected growth.

ADP Projections

Based on this 18% growth rate assumption, overall ADP projections were generated first that resulted in a preliminary ADP forecast growth from a current 333 to 416 in year 2026 as the following chart indicates.

Preliminary ADP Projection

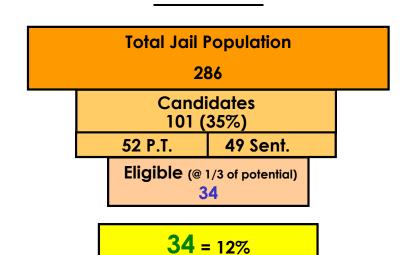


Adjusted ADP Projections – Impact of Alternatives to Incarceration

The projected average daily population (ADP) represents the number of Seattle city misdemeanants expected over the next twenty years in five-year increments. These figures represent a baseline projection, based on the conditions and assumptions identified above. The evaluation of Alternatives to Incarceration discussed in Chapter 3 incorporated an assessment of the impact that expanding/enhancing existing alternative programs could have on jail bedspace use, and subsequently on the baseline projections.

To assess the approximate impact of alternatives to incarceration programs on jail beds use, a pool of potential candidates was identified for both pre-trial and sentenced populations based on applying a series of exclusionary criteria to the 286 inmates contained in the population snapshot conducted on January 17, 2006 as described in Chapter 2. All offenders with felony warrants were first removed from the potential pool. Second, potential candidates with violent offenses were eliminated. Finally, inmates currently assigned to an alternative program were removed from the sample. This resulted in a preliminary pool of 52 pre-trial and 49 sentenced candidates.

Aggregating pre-trial and sentenced candidate pools resulted in a combined candidate pool of 101 inmates. This potential pool was decreased by 2/3 to account for issues not visible in the initial analysis, such as homelessness and potential risk from past criminal offenses. This reduced the final pool to a total of 34 eligible candidates for alternative programs, representing 12% of the total jail population as illustrated in the following funnel.

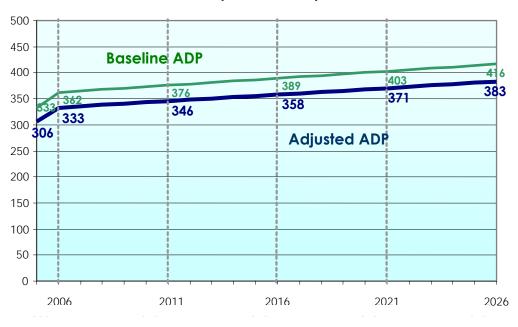


of total Jail Pop.

Potential Impact: Combined Candidate Pool

The potential 12% alternatives impact was ultimately reduced to 8% at the direction of Seattle officials who estimated a more moderate impact on jail use based on current program functioning and success rates; and the provision of housing and treatment to repeat offenders. The 8% impact reduction decreased the baseline ADP by 31 inmates in year 2016 – from 389 to 358; and 33 misdemeanants in twenty years – from 416 to 383 as it can be seen in the chart below, with these figures representing the adjusted number of misdemeanants projected for the Seattle city jail system.

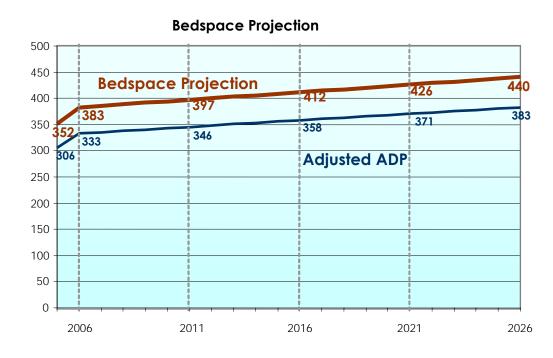
Alternatives Impact on Bedspace



Jail Bedspace Projections

While the adjusted ADP represents the number of *people* anticipated, it does not reflect the actual number of jail *beds* required to accommodate them. For facilities to operate safely and efficiently, the number of beds required should exceed the number of inmates by about 15%. This 15% utilization factor accounts for peaks in the daily population census (as ADP is an *average*), and other considerations such as inmate classification flow requirements, and down time of cells for maintenance. Application of a 15 - 20% utilization factor is standard in jail facility planning.

The 15% utilization factor was applied to the adjusted ADP figures and a bedspace projection trend line was established accordingly. This resulted in an overall projected bedspace need of 412 beds in year 2016, and 440 beds at the twenty-year horizon.



Classification Bedspace Analysis

Finally, the estimated bedspace requirements for 5, 10, 15, and 20-year time horizons were disaggregated by gender, population characteristics and custody levels to reflect the necessary number of new jail beds based on principles of objective jail classification systems. Use of objective jail classification system helps develop reliable data regarding the typical population of a particular jail, and helps determine how much

of each level of custody space to include in a new facility. Following these principles, and as a basic method for proper classification, a distinction was made between those inmates that could be housed and managed together (General Population), from those that appeared to warrant separation and special management (Special Needs Population).

National Jail trends suggest that 65% of a jail population can be held in general housing which constitutes the focal point of a jail design and represents a substantial portion of the costs and square footage involved with a jail. Within the general housing, there can be variations of security risk levels ranging from "minimum" to "medium". Following this planning principle, taking into account data available on offenders' charge type, two custody levels ranging from "minimum" (less serious misdemeanor offenses) to "medium" custody (serious misdemeanor offenses, i.e. cases of assault and domestic violence) were distinguished. Based on the profile information, average percentages of serious (22%) and less serious offenders (43%), disaggregated by gender and legal status (pre-trial/sentenced inmates) were used as a reference. Minimum-custody inmates are generally assumed to be housed in open dormitories, with a dormitory being a large room into which a number of single or bunked beds could be placed around a common dayroom. A special group of inmates, those on work release, was considered within the minimum custody inmate category. This particular jail population was taken into account because the Seattle's data set reflected that out of 286 city inmates, 14 (i.e. 5%) were on work release on the day of the snapshot. Accordingly, 5% of the bedspace for minimum custody inmates was reserved to house work release inmates, also in open dormitories.

The appropriate housing units planned for medium-custody inmates are modified dormitories, which provide separation of smaller living components (8-12 beds) within one housing unit and shared common dayroom and toilet facilities. The advantage of using this type of dorm is the ability to lock the smaller subcomponents within the larger dorm unit if security management requires it.

On the other hand, special housing typically holds about 35% of a jail population according to national standards. Special needs population consists of those inmates with medical, mental health, or

security/supervision concerns warranting their separation from the general population. There was much discussion regarding the accuracy of the mental and medical data available at the day of the snapshot. As a result, national trend percentages were used, at 15% and 10% respectively. The type of housing units planned to house mental and medical inmates were mental and medical infirmary housing units respectively featuring single or double occupancy cells.

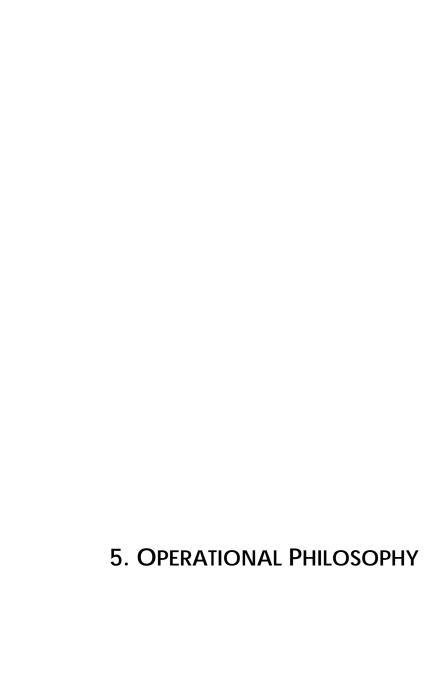
Lack of data to assess special management cases also resulted in the use of national standards and trends, including the American Correctional Association's standard of reserving 10% of the bedspace capacity for single cells for this population type. Special Management Units are typically reserved for housing inmates in single cells under strict supervision.

Housing Unit Configurations

To show the overall distribution of beds required for each inmate classification category, the 20-year forecast was broken down in a summary-table illustrating number and type of jail beds in 5, 10, 15 and 20 year increments disaggregated to reflect the associated profile characteristics of each. The total number of projected beds within each category has been adjusted slightly to account for housing unit layout considerations.

Summary of Proposed Housing Types

Year	20	06	20	11	20	16	20	21	20	26
Total Beds	39	90	40)4	41	18	43	30	4	46
General Housing	254		264		272		278		290	
0011011111 110111511115	M	F	M	F	M	F	M	F	М	F 20
	218	36	228	36	236	36	240	38	252	38
Modified dorm	52	36	56	36	56	36	60	38	60	38
Open dorm	154		160		168		168		180	
Work release	12		12		12		12		12	
dorm										
Special Housing	1	36	14	40	14	46	1:	52	1	56
Psych Housing	6	50	6	0	6	2	6	58	6	58
Medical Infirmary Housing	3	38	4	0	4	2	4	12	4	14
Single cells	3	38	4	0	4	2	4	12	4	14



Methodology

Operational philosophy helps determine which programs and services will be offered; it provides direction for the design of the jail, and helps determine specific management practices regarding facility operations. This is the reason why it is very important to establish the basics of the operational philosophy before the facility space program can be fully developed.

For the purposes of this study, two principles were set as foundation criteria guiding the City's operational philosophy: a) jail facilities are highly operational and b) the functional requirements of the facility directly impact the quantity and nature of spaces that comprise the building. Just as "operations drive design" in jail facility planning, so does "philosophy drive operations". Accordingly, the manner in which a facility addresses security, supervision, programmatic, and space requirements will be directly influenced by its basic operational philosophy. Along these lines, operational concepts were discussed with Seattle officials relative to future jail facility planning. These concepts reflect best practice jail planning, design and operations.

Baseline Criteria and Operational Philosophy

Least Restrictive Setting

This operational philosophy dictates that inmates be placed in the least restrictive setting without compromising institutional safety and security. This is in contrast to facilities that are designed with and house inmates exclusively in single cells. Single cells are the most expensive construction type, and they should be reserved for those individuals who are a risk to institutional safety and security. It is most likely that the target population for a new Seattle city jail (low level misdemeanants) is by and large appropriate for a setting much less restrictive than single cell housing. Initial analysis of Seattle's misdemeanant ADP indicated that approximately 65% of the population was appropriate for dormitory style housing. Central to this concept is the ability to identify and isolate those inmates who must be separated and placed in a more restrictive environment. This is typically determined through an objective-based classification system.

Objective-Based Classification

The key to safe and effective jail operations is inmate classification. In contrast to systems that classify exclusively based on legal status or charge, objective-based classification systems classify inmates according to measurable risk and need factors and observable behavior, and assign different categories of inmates to different housing units accordingly. To support the classification system, the facility must have the proper number and type of housing units, ranging from open dormitories, to modified dormitories, to single cells for inmates who must be separated from the general population and kept under strict supervision. Medical/Mental Health housing is also provided for inmates with these needs. Housing unit types are generally described below.

Open Dormitories: Open dormitories are designated for minimum-custody inmates, which includes institutional workers (trustees), work release inmates, and those classified as posing the very lowest security/supervision risk. Open dormitories are configured with beds around a common dayroom. Privacy between beds is achieved via some separation such as a partial partition that doesn't compromise the officer's visibility. Common toilet and shower facilities are provided.

<u>Modified Dormitories</u>: Modified dormitories are planned for medium security inmates requiring an added element of supervision/management above the minimum classification designation. Modified dormitories provide for separation of smaller living components (8 - 12 beds) within one housing unit, with a shared, common dayroom and toilet facilities. The advantage is the ability to lock the smaller sub-components within the larger dormitory unit if required.

<u>Special Housing Units</u>: Special Needs population was defined as those inmates with security/supervision requirements warranting their separation from the general population, including violent behavior, administrative segregation designation, and disciplinary conditions. Housing units are single cells (with toilets) configured around a dayroom with movement within and out of the unit strictly controlled.

<u>Medical/Mental Health Unit</u>: Infirmary housing for mental health and medical inmates is designed to accommodate single or double occupancy cells.

Direct Supervision Design

The facility housing will be designed for "direct supervision" which, in contrast to linear supervision, stations the officer within the housing unit with an uninterrupted view of the unit and its different parts. Direct supervision design allows the officer to see and interact with the inmate at a more personal level than the traditional tier/catwalk/remote surveillance approach of older, less modern jails. Sociological studies in general have linked de-personalization with victimization, and officer training for direct supervision facilities should include modules on developing interpersonal communication skills.

Decentralized Programs and Services

Modern jails provide a "decentralized" program and service delivery system. In contrast to a design where programs and services are centralized in one location of the facility, most programs and services are decentralized at the housing unit level. There are several advantages to this approach. Because programs and services are offered at the housing unit level, movement of large numbers of inmates throughout the facility is minimized, as is the need for excessive officer escort requirements. The direct proximity of space increases opportunities for utilizing them, as areas do not need to be scheduled for full facility usage. And, inmates of the same classification category are not required to mix with others for basic programming.

A decentralized delivery method can be utilized for the following programs and services:

<u>Medical Services</u>: A centralized medical area for scheduled exams, sick call, consultations, staff and supplies would still be provided. However, a medical triage area in close proximity to the housing units is available for daily sick call screening, medication distribution, routine check-ups, and the like - reducing the number of patients requiring escort to the central medical area.

<u>Dining</u>: A centralized kitchen prepares meals that are delivered to the housing units. Inmates eat in the dayrooms, which has table and chair seating. This eliminates the need for a central "mess hall", and the concomitant challenges of scheduling, and security/supervision associated with large assemblages of inmates.

<u>Visitation</u>: In modern jail facilities, most visitations are non-contact, eliminating the security, supervision and contraband problems inherent in contact visits. In a decentralized visitation scenario, visitors are screened at the lobby level and proceed to the housing unit via dedicated circulation and enter an assigned booth. The inmate enters the booth directly from the housing unit via a secure and distinct circulation route, and is separated from the visitor by a plexiglass panel. Decentralized visitation offers the added benefit of expanded visitation opportunities. Typically, visiting is open throughout the day, with few restrictions on the number of visitors per day. Contact visitation is usually available in a designated area of the facility as required for special circumstances.

<u>Programs</u>: Multi-purpose rooms at each housing unit provide for provision of a variety of programs throughout the day. These rooms supplement some centralized traditional classroom space for shared use throughout the facility. Multi-purpose rooms provide <u>flexible space</u> for a variety of uses, which could include passive recreation, group counseling, arts and crafts, academic and behavioral education, and the like. The dayroom of each housing unit is also flexible in its design, providing table and chair seating for dining, board games, writing, and other activities – as well as grouped seating for quiet reading, television viewing, and the like.

<u>Outdoor Recreation:</u> Each housing unit contains an outdoor recreation area, typically located directly off of the housing unit dayroom. This maximizes outdoor recreational activities, as the space can be operated as an extension of the dayroom and immediately available for inmate use during non-scheduled periods on the housing unit. Outdoor recreation areas typically contain a paved ground and basketball hoop.

Manageable Unit Size

The size of the housing units should be based on striking a balance between achieving high staffing efficiency and ensuring control and safety. Our recommendation is that the facility be designed with housing units no larger than 50 inmates for general population housing. Specialized housing units may be smaller, depending on the nature of the population, and the number of beds required for a particular classification. Moreover, ensuring an appropriate inmate to staff ratio is important for the success of the direct supervision model.

Efficient Layout

Efficiency from a design perspective is defined in several different ways. Space efficiency is achieved through design that minimizes the amount of "unassignable" space, while still maintaining adequate space for lobbies, corridors and mechanical spaces. "Assignable" space is made efficient through layouts that minimize the amount of circulation space required within a functional area, whether its housing, program space or administrative space. The space program provided in this study uses circulation and "building grossing" multipliers that reflect requirements for well-designed modern correctional facilities. These total square footages should be achievable by a well-qualified corrections architect.

Efficiency is also measured in staffing. Since staffing costs far exceed construction costs over a thirty-year life cycle, staffing efficiency must be a key consideration in jail planning and design. The space program provides housing units that reflect efficient staffing in accordance with the particular housing classification needs of your facility. A well designed jail achieves efficiency by minimizing the movement of staff and prisoners. In particular, the design should facilitate movement of prisoners with a minimum of need for prisoner escort by a corrections officer. Sightlines should enable officers to supervise all inmate-occupied spaces, again with a minimum of movement by staff. Functions that have strong functional relationships should be located adjacent to each other, or in close proximity.

Positive Environment

The design tenet, "environment cues behavior", should guide the development of any modern jail. To promote good behavior by inmates, and therefore a safer environment for both inmates and staff, we recommend that the new facility be designed with a "normative" environment, which uses softer materials and furnishings, extensive access to natural light, and an overall less institutional feel than that provided by most of the older correctional facilities. A better environment also promotes greater staff job satisfaction and retention.

Security Through Design

Today there is a heavy reliance on technology to maintain security in correctional facilities. While this technology is an asset, security is maintained by the staff, not the equipment. The facility should be designed from the start to help facilitate easier surveillance and supervision by the staff. This is achieved by ensuring good sightlines to all inmate-occupied areas, and minimizing "blind spots" where people can hide and mischief can occur more easily. Circulation patterns should be simple and straightforward.

Finally, decentralization of services, as described above in this chapter, is a key element in fostering better security and surveillance of inmates by staff.



Space Program Methodology

A space program was developed establishing the space (square footage) requirements for a new jail. This space program reflects the established operational philosophy, the City's correctional goals, and recognized industry space standards for modern jail facilities.

The program summary provides a room by room list with a level of accuracy adequate for planning and budgeting purposes, and quantifies space requirements by area and major general components (Housing, Food Services, etc.). Each component is listed with the total net occupiable square feet (NOSF) in 5-year increments from 2006 to 2026.

The total space need for the facility is summed and multiplied by a grossing factor. The resulting area is the total gross square feet (GSF), which includes all internal and external wall thicknesses, interior circulation (hallways, elevators, lobby, etc.), interior shafts, mechanical spaces, and public toilets.

Space Program Summary

A space program summary is included for each of the five-year bedspace projection horizons. The detailed space program is provided in Appendix A.

Following the Program Summary is the Housing Unit Summary, encapsulating the total bedspace in the facility by housing type. Each housing type is also noted with the number of housing units assumed in the program.

Program Summary

	2006	2011	2016	2021	2026
Component	NOSF	NOSF	NOSF	NOSF	NOSF
1. Entrance Lobby	1,216	1,248	1,281	1,313	1,346
2. Administration / Staff Space	5,844	5,844	5,988	6,132	6,132
3. Control Room / Security	806	832	858	897	923
4. Intake / Processing / Booking	11,948	12,143	12,458	12,848	13,058
5. Housing	87,225	89,685	92,265	94,740	97,275
6. Medical / Mental Health Services	5,721	5,755	5,789	6,078	6,112
7. Recreation / Programming	4,576	4,700	4,823	4,882	5,070
8. Food Services	5,232	5,478	5,724	5,970	6,216
9. Laundry	1,001	1,021	1,040	1,079	1,086
10. Arraignment Court	4,092	4,092	4,092	4,092	4,092
11. Facility Maintenance	3,016	3,107	3,198	3,289	3,380
Total Net Occupiable Square Feet	130,676	133,903	137,515	141,319	144,688
x Building Grossing Factor (30%)	1.30	1.30	1.30	1.30	1.30
Total Gross Feet	169,878	174,074	178,769	183,714	188,094

Housing Unit Summary

		Nur				
Housing Unit Type	2006	2011	2016	2021	2026	
General Housing						
Modified Dorm (Male)	52	56	56	60	60	2 housing units
Modified Dorm (Female)	36	36	36	38	38	
Open Dorm	154	160	168	168	180	4 housing units
Work Release Dorm	12	12	12	12	12	
Special Housing						
Psych Housing	60	60	62	68	68	2 housing units
Medical Infirmary Housing	38	40	42	42	44	
Single Cell	38	40	42	42	44	
Total Beds	390	404	418	430	446	

Staffing Plan Methodology

Based on the established space program, a staffing plan was developed for the projected Seattle Jail facility requirements. This staffing plan responds to the number and type of housing units as well as support functions to be accommodated.

There is currently no city jail in Seattle. Therefore, a "current" baseline was established based on posts and staffing that would be required in a jail of comparable size and function. Existing staffing levels were reviewed to establish the types of staff positions and the amount needed for particular levels for each function. Post requirements were identified for each functional area, including the number of days that the post is operational, and the number of shifts for which coverage is required. The baseline staff requirements were then modified to reflect industry operating practice and the planning considerations established through the previous tasks.

Posts requirements were then translated into Full Time Equivalent (FTE) positions using a "shift relief factor". The shift relief factor is employed to account for the 24 hour nature of certain posts as well as to ensure proper coverage of essential posts during scheduled vacation, time, sick leave, holidays, and the like. Factors vary somewhat across jurisdictions based on various time-off policies. The shift relief factors utilized in the staffing plan are comparable to national trends generally, based on a model developed by the National Institute of Corrections.

A 1.7 shift relief factor is utilized for those posts that operate around the clock for seven days a week. For those posts operating around the clock for five days a week, a SRF of 1.2 is used. Administrative staff and some program and service staff typically work Monday through Friday, days only, and are not replaced when they are absent from work. Accordingly, no shift relief factor is applied to these positions (1.0 SRF).

Staffing Plan Summary

This section provides a summary of the staffing requirements. The detailed staffing plan is provided in Appendix B. The staffing tables provided on the following pages represent shift coverage requirements for every security post and civilian positions to be provided in a new facility. The staffing plan spreadsheets are organized to correspond to the facility functional areas identified in the Facility Space Program for both the 2006 and 2026 bedspace needs.

The following table provides a breakdown of current FTE and projected FTE requirements for the jail, presented in summary fashion, and it reflects the staffing pattern for a 390-bed need in 2006 and a 446-bed need in 2026. The table collapses staffing requirements into major categories. Categories requiring an explanation are described below.

2006 and 2026 Projections

Position	2006 (390 beds)	2026 (446 beds)
Administration	11	11
Sergeant	10.5	10.5
Lieutenant	5.1	5.1
Correctional Officer	89.4	99.6
Medical Staff	13.5	13.5
Program Staff	2	2
Maintenance Worker	3	3
Food Service	5.8	5.8
Records Clerk	1.0	1.0
Total	141.3	151.5

Administration

Superintendent, Assistant Superintendent, Captain, Supervisor of Training, Supervisor of Program Services, Case Managers, Administrative Assistant, Secretary, and Training Officer

Sergeant

Booking, Classification, Laundry

Lieutenant

Control Room Supervisor

Food Service

Cooks, Food Service Manager

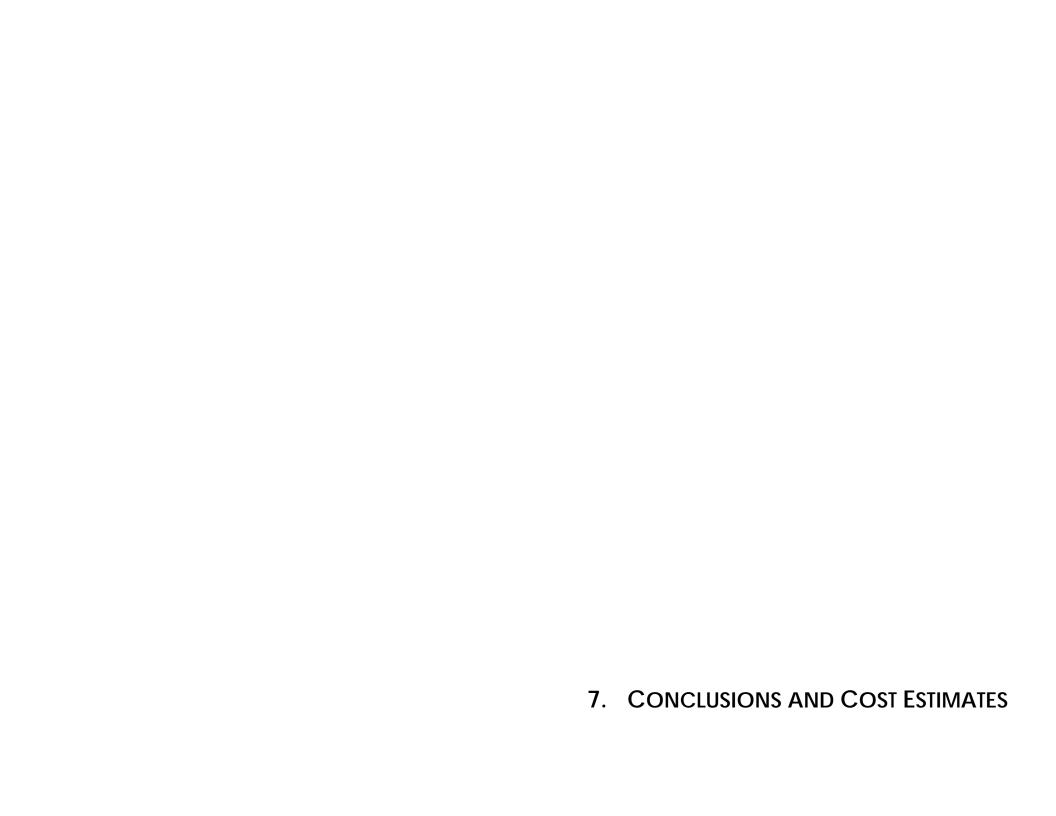
Medical

Nurses, Medical Services Coordinator, Mental Health Coordinator.

The Physician is a contracted position.

Corrections Officer

Lobby/Reception, Central Control, Booking, Housing Units, Training, Programs, Food Services, Medical Supervision, Maintenance, Escort, Program Services, Teacher, Counselor



Introduction

The purpose of the study was to establish the capacity, space, operational and cost parameters for a new city jail should Seattle officials choose to build for its own needs as an alternative to future participation in the JAG. The Needs Assessment revealed that Seattle will require 446 jail beds to house its inmate misdemeanant population by the year 2026.

During the course of the study, officials asked the Consultant to provide information on alternative project delivery methods, namely jail privatization and regionalization. As such, broad research was conducted and a summary of each concept was developed to give Seattle officials an overview understanding of key issues. A comparative analysis was not conducted and the City will need to analyze these options in greater detail relative to their specific objectives before pursuing either as a viable alternative.

Project Delivery Options

Jail Privatization

Evaluations of private facilities have traditionally focused on operational costs and quality of service through a comparison of institutions currently in operation (both private and public), and by using multiple measures of quality performance. It is noted that the majority of the studies have methodological limitations, which is a reason for caution when interpreting results.

Efficiency of cost-saving: On the one hand, cost-effectiveness evaluations have revolved around fully owned and operated private facilities, or what has been termed "private prison management". Since the emergence of privatization in the political and economic context of the 1980s, this alternative option to public incarceration has been presented as an "option that can finance and build correctional facilities faster and cheaper than government agencies" while operating at lower cost. According to the efficiency hypothesis, time savings of 50% and typical costs savings between 15% and 25% could be anticipated. However, up to date, side-by-side studies of private and public prisons have failed to demonstrate the oncepromised 20% cost savings. And, in many of the cases where comparisons between private and public agencies have shown cost savings on the part of the private facility, it has been detected that cost efficiencies were due to the bias of private agencies "creaming" the inmate population, that is to say, taking the easiest to manage and therefore least costly inmates. Furthermore, any cost savings attributable to privatization have proven to be only short-term, with long-term costs being likely to exceed current

levels of spending due to the need to keep a stable or growing inmate population to ensure profits. Other factors that obscure the cost-effectiveness associated to private agencies, therefore adding long-term costs to the contracting governmental agency, are: 1. Private facilities have limited monopoly and can then hold the jurisdiction hostage for additional costs since the jurisdiction becomes dependent on the beds, failing to reabsorb the inmates readily; 2. Private facilities can cost the jurisdiction in oversight and auditing and 3. Contracts between private and public agencies aren't specific enough and the profit making firms usually take advantage of the gaps in terms.

Efficiency of operation: On the other hand, supporters of privatization have seen it as an opportunity to improve the quality of the services provided. Through innovation in prison design and operation, private facilities can be expected to be less overcrowded, more flexible, and safer than public facilities. Similarly to comparisons of operational costs, empirical evidence regarding whether private operators can provide a better level of service than the public sector indicates little difference in terms of quality performance. Those studies mainly based on surveys of correctional staff, inmates, and reviews of institutional records, provide little information about the performance of private facilities. Recent reports about violent incidents behind bars and escapes from private facilities seem to verify to some extent the risks of letting private agencies, which can rely on untrained and fewer correctional officers with less experience, to operate a correctional facility.

Based on what is currently known on privatization, firm conclusions about the effectiveness of privately operated jails cannot be made. To keep this option open requires taking further steps. More research is needed to provide a better understanding of the potential advantages and disadvantages of prison privatization, and the extent to which the findings can be generalized to local jails. From a methodological standpoint, the mixed results among studies suggest that future comparisons should focus on the selection and analysis of similar facilities regarding design and capacity, security levels, and types of inmates. Otherwise, any result derived from comparative analyses of operational costs or quality of service will continue to be inconclusive, unclear, and difficult to validate and generalize.

Regionalization

A regional jail refers to a central facility in which two or more jurisdictions, generally adjacent counties and/or municipalities enter a formal contract or agreement to jointly plan, build and operate a facility that serves the participating jurisdictions by providing prisoner detention or "county jail" services.

Regional jails can exist in a variety of forms and under different types of governance options. They can be as simple as a single jurisdiction providing service to multiple agencies or as complex as multiple jurisdictions cooperatively operating a single facility serving them all. Any final model of regional jail should focus on population and geography as factors influencing types of multi-jurisdictional arrangements that can occur. These cooperative ventures can also be viewed and understood from a fiscal and administrative perspective.

Of the regional jails identified throughout the country, the majority are multiple jurisdiction consortiums with a commission or jail authority that governs the operation. Many such facilities are managed by professional corrections administrators and are operated independently of a law enforcement agency. Sheriffs and police chiefs serve on their governing boards, along with county commissioners, mayors, judges and other appointed or elected officials.

Existing laws in Washington State provide no legal barrier to the creation of regional facilities. The most recent recognition was made in 2002, when the authority of the City and County Jails Act reaffirmed the authority of cities, counties and the state to engage in joint cooperative endeavors with passage of the RCW 70.48.095 where, for the first time, the legislature specifically authorized "regional facilities".

Among the advantages of joining a regional jail system, cost-effectiveness is the core component for regional jails. Regional jails throughout the country have proved reduced costs per prisoner when compared to other jails within their states. For example, it is more cost effective to build and operate one larger jail than three or four smaller stand alone jails. Therefore, from a logical perspective, in terms of its practicality, its economy of scale and operation through the "pooling" of shared resources, regional jails have advantages. Generally, when compared to the jails they have replaced, regional jails offer greater

capacity and house more prisoners, offer better and a wider array of inmate services, provide updated and more secure facilities and provide a safer environment for both staff and inmates.

Concerning operational costs, regional jails reduce operational expenses through consolidation of administrative services, management positions and services. Regarding construction costs, regional jails save construction costs by consolidating the infrastructures of multiple facilities into one facility

On the other hand, barriers of implementing a regional jail include:

- Absence of legal authority to permit the sharing of resources across jurisdictional lines;
- Turf issues and loss of authority and control by sheriffs and county governing bodies;
- Differences in management philosophies;
- Perceived inequities and proportionate sharing of costs;
- Lack of cooperation from judicial authorities;
- Increased transportation costs in geographically remote rural areas and,
- Disagreement in the location of the jail.

Should Seattle decide to participate in a potential regional system, there are some key elements that should be considered to make this regional jail system work efficient and effectively:

- Establish regions that consist of counties (and cities within those counties) which are contiguous and whose geography does not create undue difficulty for transporting prisoners to and from the jail.
- Create a centralized/regional transportation system to serve the regional jail, participating agencies and the courts. Participants negotiate a relative share of the transportation costs under such a system by taking responsibility for the daily transportation needs and relieving local agencies of the requirement that they provide prisoner transportation. Video proceedings can help as well to reduce the need for transportation considerably.
- Develop a standardized record keeping system that can be utilized by all the participating jurisdictions linked by a computer network with the regional jail containing information such as bookings and

releases, changes in legal status and changes in classification status, along with notification of court dates.

- Develop a cost-sharing formula for the sharing of costs among the participating jurisdictions concerning the construction and operation of the facility.
- Ensure regional jails are capable of confining prisoners from all custody levels (segregation, medium, minimum).

New Facility

Should Seattle choose to build its own jail, several capacity options were discussed with City officials relative to the 446-bedspace projection. These centered on "under-build" and "over-build" strategies. An over-build strategy would provide beds in excess of the Seattle's projected need with the aim of generating revenue by renting beds to some of the neighboring JAG cities. Seattle officials rejected the over-build option, expressing no interest in taking on the logistics and potential liability of housing other cities' inmates for a small potential profit.

Conversely, an under-build scenario would require the City to rely on other jurisdictions to fill the bedspace gap through contractual or per diem renting of beds in other facilities such as King County. Seattle rejected the under-build option as well, deciding that if the City does in fact build a new, it is more prudent to maintain full control over *all* of its inmate population rather than to rely on King County or another provider and be subjected to outside decisions, policies, and bedspace availability.

Consequently, only one primary capacity alternative appeared to be feasible: building a new jail to exclusively meet Seattle's projected needs.

Conclusions

Should Seattle choose to build a new facility, the projected requirements are summarized below:

- 446 beds facility
- ■188,094 Gross Square Feet
- ■Total Construction Project Cost: \$122,750,795
- ■152 FTEs
- Annual Staff Cost: \$11,057,969
- ■Annual Operational & Maintenance Costs: \$4,739,130
- ■Total Operation Costs: \$15,797,099

Based on the profile of the city misdemeanant population as described in Chapter 2, it appears that the target population for a new jail is by and large appropriate for a setting much less restrictive than single cell housing. As such, the new jail should be envisioned to house the majority of the inmates in lower security dormitory style, directly supervised, and providing a "decentralized" system of programs and services delivery.

The facility should be designed with housing units no larger than 64 inmates for general population housing. The design of the jail should include two arraignment courtrooms, investigative interview rooms, family visiting areas and attorney/inmate conference rooms, as discussed in Chapter 5, relative to space program requirements. A program validation study should be undertaken, as the current program is based largely on King County's current operations due to the fact that Seattle has not yet delved into extensive discussions on facility planning, operational philosophy, and staffing needs.

An appropriate site should be found that would accommodate the 2026 facility space requirements including parking and other requirements (e.g. buffer zones, area of refuge, etc.). Site and facility should be designed to easily accommodate horizontal expansion in the future. A detailed parking study should be conducted to better estimate the parking requirements. Careful consideration should be given to locating a site that has convenient access to the courts. The current site of the King County Correctional Facility is ideal due to its hard connections to both the County and Municipal courts. It is unlikely that this can be accomplished on another site, so accommodation for bussing prisoners needs to be considered.

Cost Estimates

Cost estimates for both 2006 and 2026 projection scenarios were generated to provide sufficient information for decision-makers about the facility capital and operational costs associated with each construction option. The 2006 figures provide a frame of reference relative to development of a future facility within this range.

Summary cost estimates are provided in the following table, distinguishing construction, staffing, operational and maintenance costs. Subsequent charts provide the detailed cost estimates for each of these major "cost centers". The respective cost estimating methodologies are provided for each table.

PROJECTED TOTAL COSTS -- NEW JAIL FACILITY

OPERATIONAL COSTS		st projection for 90 bed facility	Cost Projection for 446 bed facility	
STAFFING COSTS (2006 dollars)				
Total Beds		390		446
Total Staff (FTE)		141		152
Total Staff Cost / Year	\$	10,341,796	\$	11,057,969
Cost per Staff	\$	73,346	\$	72,750
Cost / Bed / Day		73		68
OPERATIONS/MAINTENANCE COS	TS ((2006 dollars)		
Total Operational Cost / Year Cost / Bed /Day	\$ \$	4,432,198 31	\$ \$	4,739,130 29
TOTAL STAFFING + O&M COSTS	\$	14,773,994	\$	15,797,099
CONSTRUCTION COSTS (2010 dollars)				
Total Project Costs	\$	109,831,586	\$	122,750,795
Total Cost per Bed	\$	281,619	\$	275,226
Cost / Bed / Day	\$	26	\$	25

NOTES:

Above Construction Costs excludes bonding/borrowing costs, and assume a 30-year payout.

Operational/Maintenance Costs are a rough estimate, and will be revised based on final analysis of current King County operational costs.

Construction Cost Methodology

Construction cost estimates were developed at a programmatic level on a cost per square foot basis (as opposed to more detailed estimates that can be done once building drawings have been generated and a site has been determined). The detailed Space Program developed for this study was used to further break down unit costs by space type. This approach results in a more realistic estimate than assigning an overall, or average, per square foot cost: for example, housing space is more costly than office or recreation space.

The programmatic estimate uses cost precedents from other recent jail facilities in Washington and elsewhere, adjusted for inflation and regional cost differences. Industry national averages were also considered. The primary precedent used was the King County Regional Justice Center in Kent (RJC), which would be similar to the Seattle Jail in terms of construction type and quality, direct supervision design philosophy and configuration.

Opened in 1997, it is also located in the same construction market. The significant difference is that as a municipal jail housing only misdemeanant offenders, the Seattle facility will be of a lower security designation overall – resulting in a much higher percentage of dormitory beds dorms to single cells. This impacts cost, as single cells are of higher security construction and each requires plumbing for toilets/sinks.

Final construction costs for the RJC were not available to the consultant. However, two estimates were provided (as referenced in Appendix C). The estimate developed by Sellen Construction was deemed the most appropriate benchmark for cost projecting, as it was more representative of average jail construction costs at the time and was broken down by program area, which is a more comparable methodology for the purpose of developing a program-based cost estimate.

A cost of \$287 per square foot (2006 dollars) was used, which represents a lower end of the range of precedents based on the anticipated lower level of security required for the misdemeanant population versus other "general population" jails. C3MG Management Group assisted Ricci Greene Associates with the estimates.

It should be noted that the Seattle region market is now about 20 – 25% higher than it was when cost estimates were generated during the options development phase of the project (Summer 2006), due primarily to a lack of public bidding competition. If this trend holds, escalation used for these estimates may need to be increased substantially. The City should continue to monitor local construction costs before committing to any anticipated construction budget.

Construction costs account for the "bricks and mortar costs" of building a new facility as well as associated "soft costs" which include additional costs. Together they are referred to as "Total Project Costs".

Total *project costs* include associated "soft cost" such as:

- Professional fees (13% for architects, engineers and construction manager)
- Escalation to the midpoint of construction (assumed to be 6.5% per year to 2010)
- Furniture, fixtures and equipment
- Site acquisition and development allowance (actual costs could vary considerably)
- Construction contingency (15%)
- Staff and visitor parking
- Other owner costs (testing, permitting, commissioning, moving expenses etc.)

These "soft" costs are rough estimates, and may vary considerably based on the site selected, level of technology to be included and other factors that will be decided by the constructing entity. Extra costs were included to account for a "LEEDS" certified sustainable design and 1% for art.

Project costs are presented as total costs, as well as annual costs and per bed per day costs. The annual and per diem costs assume a 30 year payoff of the bonds. However, the cost of bond financing itself is not included in the costs. Support for the basis of costs is provided in Appendix C.

SEATTLE PROJECTED CONSTRUCTION COSTS -- NEW JAIL FACILITY

8-Feb-07

			2006 Projection 390 Beds		2026 Projection 446 Beds
TOTAL BUILDING AREA (Gross Sq. Ft.)			169,878 (441 SF / Bed)		188,094 (422 SF / Bed)
CONSTRUCTION COSTS	UNIT COST		TOTAL COST		TOTAL COST
SHELL INTERIORS IT TECH	\$ 122 / Sq. Ft. \$ 154 / Sq. Ft. \$ 11 / Sq. Ft.	\$ \$ \$	20,725,116 26,161,212 1,868,658	\$ \$ \$	22,947,468 28,966,476 2,069,034
SUB-TOTAL:	\$ 287 / Sq. Ft.	\$	48,754,986	\$	53,982,978
URBAN SITE PREMIUM (@ 15%) ¹	\$	7,313,248	\$	8,097,447
SUB-TOTAL:		\$	56,068,234	\$	62,080,425
PROJECT COSTS					
ESCALATION (@ 6.5% / y FIXTURES, FURNITURE & FEES A/E, CM (@ 13%) CONSTRUCTION CONTII PARKING (structured park SITE AQUIS/DEVEL/UTIL PERMITTING FEES 1% FOR ART LEEDS CERTIFICATION OWNER PM / OTHER CO SUB-TOTAL:	& EQUIP (@ 3%) NGENCY (@ 15%) Ling @\$20,000/space) ² S (allowance)	***	16,035,515 1,682,047 7,288,870 7,313,248 1,950,000 2,000,000 560,682 2,242,729 5,606,823 44,879,915	****	17,755,001 1,862,413 8,070,455 9,312,064 2,230,000 2,000,000 620,804 2,483,217 6,208,042 50,741,997
SALES TAX (@8.8%)		\$	8,883,437	\$	9,928,373
TOTAL COST NEW JAIL:		\$	109,831,586	\$	122,750,795
CONST. COST PER BED PROJECT COST PER BED		\$ \$	143,765 281,619	\$ \$	139,194 275,226

NOTES:

Above costs exclude land acquisition and site utilities.

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¹ Urban site premium is a factor added to the base estimate (for a typical low-rise jail) to accont for additional cost of a mid or high-rise facility with higher quality exterior finishes appropriate for a downtown Seattle site.

² Parking is based on one space per 4 beds. For the 446 bed scenario, this would yield 112 spaces, which provides for an estimated 52 staff on day shift plus 60 visitors.

³ Other costs include legal expenses, testing and inspections, moving costs, commissioning and other owner expenses.

Staffing Cost Methodology

According to the National Institute of Corrections, during the 30-year life span of a jail, typically 90 percent of its local cost is allocated to operating expenses (staffing plus operations and maintenance), while only 10 percent is attributed to the initial construction. Therefore, while the greatest controversy surrounding a new jail facility is generally centered on the cost of building it, a staff-efficient design is far more important in terms of long-term cost impacts.

Staffing costs were estimated based on the number and type of staff required. Staffing costs were established for FTE (full time equivalent) positions identified in the proposed staffing plan, representing base salary plus benefits. In the absence of a Seattle jail, King County Correctional Facility salary and benefits for year 2006 were used as the basis for determining personnel costs. Salary and benefit data for Correctional Officers, Sergeants, Lieutenant and Captain were provided by Pat Presson from King County. Amanda Allen from the City of Seattle Department of Finances provided the costs for all other positions. All costs presented are based on 2006 dollars. Overtime costs are not included here, but rather in Operations and Maintenance costs.

The staffing cost estimates also reflect the following:

- Mental Health Worker salaries were based on that of the Program staff.
- Base salary was used for mid-level positions.
- A 36% benefits package was added to all base salary figures based on present KCCF practice.

Not included are costs for additional human resource personnel or for computer support staff.

Staffing costs are represented as a "cost per bed per day", as shown on the summary table at the end of this chapter.

STAFFING COST ESTIMATES FOR STAFF REQUIRED @ 390 BEDS

Position	Base Salary	With 36% Benefits	# of Staff	Total Costs
Administrator	\$171,424	\$35,673	1	\$207,098
Assistant Administrator	\$145,283	\$31,524	1	\$176,807
Administrative Assistant	\$54,810-	\$17,167	1	\$71,977
Admin Specialist II	\$42,011\$	\$15,136	1	\$57,147
Clerks	\$41,676	\$15,083	2	\$113,518
Supervisor of Training	\$58,130	\$17,694	1	\$75,825
Supervisor of Programs	\$92,060	\$23,078	1	\$115,130
Caseworker	\$61,700	\$18,260	2	\$159.922
Program Staff	\$65,062	\$18,794	2	\$167,712
Nurse (RN)	\$55,917	\$17343	8.5	\$622,710
Food Service Manager	\$46,876	\$15,908	1	\$62,784
Health Services Coor.	\$51,740	\$16,680	1	\$68,420
Mental Health Staff	\$62,619	\$18,406	2	\$162,050
Cooks	\$41,217	\$15,010	4.8	\$269,890
Maintenance Staff	\$43,618	\$15,391	3	\$177,027
Corrections Officer	\$51,572	\$18,641	89.4	\$6,277,108
Captain	\$75,233	\$27,084	1	\$102,317
Sergeant	\$67,244	\$24,208	10.5	\$960,246
Lieutenant	\$71,238	\$25,646	5.1	\$494,108
Totals for 390 beds			141	\$10,341,796

STAFFING COSTS FOR YEAR 2026 BUILD-OUT (446 BEDS)

Position	Base Salary	With 36% Benefits	# of Staff	Total Costs
Corrections Officer*	\$51,572	\$18,641	10.2	\$716,173
Totals for 446 beds			152	\$11,057,969

^{*}Includes an additional 5.1 Corrections Officers in Booking and 5.1 additional Corrections Officers in Housing (additional Modified Dormitory Unit)

7. FACILITY OPTIONS AND COST ESTIMATES

Operations and Maintenance Cost Methodology

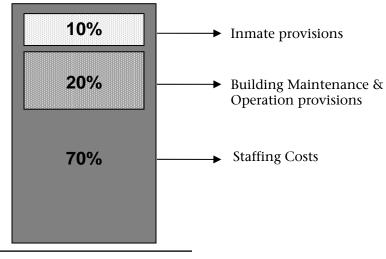
As the National Institute of Corrections reports, salaries and benefits account for as much as 70% of the annual operating budget of most jails. The round-the-clock operation of a jail is also a key factor in its high costs: wear and tear on the building and its mechanical systems is accelerated; maintenance costs are increased; and lighting, heating and air conditioning systems require energy for non-stop operation. These recurring facility operations and maintenance costs are estimated to account for about 20% of total operational costs.

Provisions for inmate needs are generally the smallest component of operational costs. These are estimated to be about 10% of the total costs of operating a facility and include non-custody staff (e.g. contract services) and other items such as food service, commissary supplies, telephone usage, and miscellaneous supplies. Therefore, the total O & M costs adds up to about 30%.

The basic components of operational costs are shown in the following figure in ascending order of their contribution to the total operational costs.

7. FACILITY OPTIONS AND COST ESTIMATES

Components of Operational Costs



100% Total Operational Costs

Source: Corrections Planning Handbooks, State of California.

Youth and Adult Correctional Agency, Board of Corrections.

Assuming then, that approximately 70% is attributable to staffing and 30% to O & M, we are able to calculate the estimated O & M based on the previously estimated staffing costs. Finally, these O & M costs are reduced to a cost per bed per day on the summary page of this chapter.

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Program Summary

Component	2006 NOSF	2011 NOSF	2016 NOSF	2021 NOSF	2026 NOSF
1. Entrance Lobby	1,216	1,248	1,281	1,313	1,346
2. Administration / Staff Space	5,844	5,844	5,988	6,132	6,132
3. Control Room / Security	806	832	858	897	923
4. Intake / Processing / Booking	11,948	12,143	12,458	12,848	13,058
5. Housing	87,225	89,685	92,265	94,740	97,275
6. Medical / Mental Health Services	5,721	5,755	5,789	6,078	6,112
7. Recreation / Programming	4,576	4,700	4,823	4,882	5,070
8. Food Services	5,232	5,478	5,724	5,970	6,216
9. Laundry	1,001	1,021	1,040	1,079	1,086
10. Arraignment Court	4,092	4,092	4,092	4,092	4,092
11. Facility Maintenance	3,016	3,107	3,198	3,289	3,380
Total Net Occupiable Square Feet	130,676	133,903	137,515	141,319	144,688
x Building Grossing Factor (30%)	1.30	1.30	1.30	1.30	1.30
Total Gross Feet	169,878	174,074	178,769	183,714	188,094

Note:

Housing units based on direct supervision model.

Inmate dining, visitation, and some programs and services are de-centralized and included in the housing units.

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Housing Unit Summary

		Nur	nber of B	eds		
Housing Unit Type	2006	2011	2016	2021	2026	
General Housing						
Modified Dorm (Male)	52	56	56	60	60	2 housing units
Modified Dorm (Female)	36	36	36	38	38	
Open Dorm	154	160	168	168	180	4 housing units
Work Release Dorm	12	12	12	12	12	
Special Housing						
Psych Housing	60	60	62	68	68	2 housing units
Medical Infirmary Housing	38	40	42	42	44	
Single Cell	38	40	42	42	44	
Total Beds	390	404	418	430	446	

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1. Entrance Lobby

Space	Unit		2006			2011			2016			2021			2026		
No. Component	SF	Quan.	NSF	Staff	Comments												
Staff Space																	
1.01 Officer Station / Window	80	1	80)	1	80)	1	80		1	80)	1	80)	For cashier and reception
Sub-total			80			80			80	0		80			80		
Support Space - Outside of Secure Perime	ter																
1.02 Entrance Lobby	500	1	420)	1	440)	1	460		1	480)	1	500)	15 seats, magnetometer, x-ray machine
1.03 Public Lockers	120	1	120)	1	120)	1	120		1	120)	1	120)	
1.04 Public Toilet	50	2	100)	2	100)	2	100		2	100)	2	100)	20 lockers
1.05 Vending Area	40	1	40)	1	40)	1	40		1	40)	1	40)	
1.06 Gun Lockers	20	1	20)	1	20)	1	20		1	20)	1	20)	
1.07 Janitor's Closet	25	1	25	j	1	25	5	1	25		1	25		1	25	5	
Sub-total			725	0		745	5 0		765	0		785	0		805	5 0	
Support Space - Inside of Secure Perimete	r																
1.08 Bail Room	150	1	130)	1	135	5	1	140		1	145		1	150)	
Sub-total			130	0		135	5 0		140	0		145	0		150	0	
Total Net Square Feet			935	. 0		960) 0		985	0		1,010	0		1,035	5 0	
x Department Circulation Factor			1.30			1.30)		1.30			1.30			1.30		
Total Net Occupiable Square Feet			1,216			1,248			1,281			1,313			1,346		

Notes:

Staff have a separate entrance from the public.

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2. Administration / Staff Space

Space	Unit		2006			2011			2016			2021			2026		
No. Component	SF	Quan.	NSF	Staff	Comments												
Staff Space - Outside of Secure Perimeter																	
2.01 Facility Commander	200	1	200	1	1	200	1	1	200	1	1	200	1	1	200	1	
2.02 Visiting Director's Office	150	1	150	1	1	150	1	1	150	1	1	150	1	1	150	1	
2.03 Secretary	80	1	80	1	1	80	1	1	80	1	1	80	1	1	80	1	
2.04 Program Coordinator	120	1	120	1	1	120	1	1	120	1	2	240	2	2	240	2	
2.05 Finance / Bookkeeper	120	2	240	2	2	240	2	2	240	2	2	240	2	2	240	2	
2.06 Computer / IT Staff	80	2	160	2	2	160	2	2	160	2	2	160	2	2	160	2	
Sub-total			950	8		950	8		950	8		1,070	9		1,070	9	
Support Space - Outside of Secure Perimet	er																
2.07 Waiting / Reception	150	1	150		1	150		1	150		1	150		1	150		15 sf per seat
2.08 Conference Room	250	1	250		1	250		1	250		1	250		1	250		
2.08 Mail Room	150	1	150		1	150		1	150		1	150		1	150		Sorting tables, mail bins, x-ray machine
2.09 Kitchenette	40	1	40		1	40		1	40		1	40		1	40		
2.10 Staff Toilet	50	2	100		2	100		2	100		2	100		2	100		
2.11 Copy Area	60	1	60		1	60		1	60		1	60		1	60		
2.12 File Storage	300	1	300		1	300		1	300		1	300		1	300		
2.13 IT / Server Room	200	1	200		1	200		1	200		1	200		1	200		Includes workbench, storage
2.14 Coat Closet	10	1	10		1	10		1	10		1	10		1	10		
Sub-total			1,260	0		1,260	0		1,260	0		1,260	0		1,260	0	

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2. Administration / Staff Space

Space	Unit		2006			2011			2016			2021			2026		
No. Component	SF	Quan.	NSF	Staff	Quan.	NSF	Staff	Quan.	NSF :	Staff	Quan.	NSF	Staff	Quan.	NSF	Staff	Comments
Staff Space - Inside of Secure Perimeter																	
2.15 Major's Office	200	1	200	1	1	200	1	1	200	1	1	200	1	1	200	1	
2.16 Captain	180	1	180	3	1	180	3	1	180	3	1	180	3	1	180	3	3 staff share office
2.17 Secretary	80	2	160	2	2	160	2	2	160	2	2	160	2	2	160	2	
2.18 Correctional Program Manager	120	1	120	1	1	120	1	2	240	2	2	240		2	240	2	
2.19 Secretary (Program)	80	1	80	1	1	80	1	1	80	1	1	80	1	1	80	1	
2.20 Teacher	120	1	120	1	1	120	1	1	120	1	1	120	1	1	120	1	
2.21 Pro Se	80	1	80	1	1	80	1	1	80	1	1	80	1	1	80	1	
Sub-total			940	10		940	10		1,060	11		1,060	11		1,060	11	
Support Space - Inside of Secure Perimete. 2.22 Training Room	250	1	250		1	250		1	250		1	250		1	250		Computers, storage
2.23 Muster Room	800	1	800		1	800		1	800		1	800		1	800		Accomodates 40 people
2.24 Conference Room	150	1	150		1	150		1	150		1	150		1	150		Accomodates 40 people
2.25 Shared Computer	25	1	25		1	25		1	25		1	25		1	25		
2.26 Supply Storage	250	1	250		1	250		1	250		1	250		1	250		Program, education, etc.
2.27 Staff Lockers	300	2	600		2	600		2	600		2	600		2	600		50 lockers each
2.28 Staff Mailboxes	60	1	60		1	60		1	60		1	60		1	60		50 lockers each
2.29 Gun Lockers	20	1	20		1	20		1	20		1	20		1	20		
2.30 Copy Area	60	1	60		1	60		1	60		1	60		1	60		
2.31 Files Area	150	1	150		1	150		1	150		1	150		1	150		
2.32 Staff Break Room	250	1	250		1	250		1	250		1	250		1	250		
2.33 Kitchenette	80	1	80		1	80		1	80		1	80		1	80		
2.34 Staff Toilet	120	2	240		2	240		2	240		2	240		2	240		
2.35 Coat Closet	10	1	10		1	10		1	10		1	10		1	10		
Sub-total			1,720	0		1,720	0		1,720	0		1,720	0		1,720		
Total Net Square Feet			4,870	18		4,870	18		4,990	19		5,110	20		5,110	20	
Department Circulation Factor			1.20			1.20			1.20			1.20			1.20		
Total Net Occupiable Square Feet			5,844			5,844			5,988			6,132			6,132		

Notes:

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3. Control Room / Security

Space	Unit		2006			2011			2016			2021			2026		
No. Component	SF	Quan.	NSF	Staff	Comments												
Support Space																	
3.01 Central Control Room	300	1	230) 1	1	245	1	1	260	1	1	285	1	1	300	1	1 work station, control panel
3.02 Housing Control	200	1	180)	1	185		1	190		1	195		1	200		
3.03 Security Electronics / Equipment	100	1	100)	1	100		1	100		1	100		1	100		
3.04 Staff Toilet	50	1	50)	1	50		1	50		1	50		1	50		
3.05 Supply Storage	60	1	60)	1	60		1	60		1	60		1	60		
Sub-total			620) 1		640	1		660	1		690	1		710	1	
Total Net Square Feet			620) 1		640	1		660	1		690	1		710	1	
x Department Circulation Factor			1.30)		1.30			1.30			1.30			1.30		
Total Net Occupiable Square Feet			806)		832			858			897			923		

Notes:

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4. Intake / Processing / Booking

Space	Unit		2006			2011			2016			2021			2026		
No. Component	SF	Quan.	NSF	Staff	Comments												
Support Space - Sallyport																	
4.01 Vehicular Sallyport	2,000	1	2,000		1	2,000		1	2,000		1	2,000		1	2,000		Accommodate 2 full-size buses
4.02 Decontamination Station	60	1	60		1	60		1	60		1	60		1	60		
4.03 Gun Locker	20	1	20		1	20		1	20		1	20		1	20		
Sub-total			2,080	0		2,080	0		2,080	0		2,080	0		2,080	0	
Support Space - Intake																	
4.04 Police Workroom	120	1	120		1	120		1	120		1	120		1	120		Computer, phone, desk
4.05 Breathalyzer Area	80	1	80		1	80		1	80		1	80		1	80		- · · ·
4.06 Search / Dressout (m/f)	80	2	160		2	160		2	160		2	160		2	160		
4.07 Group Holding Cell - Booking (male)	200	1	160		1	170		1	180		1	190		1	200		
4.08 Group Holding Cell - Booking (female)	150	1	130		1	135		1	140		1	145		1	150		
4.08 Group Holding Cell - To/From Court (male)	200	1	160		1	170		1	180		1	190		1	200		
4.09 Group Holding Cell - To/From Court (female)	150	1	130		1	135		1	140		1	145		1	150		
4.09 Group Holding Cell - Transport (male)	120	1	80		1	90		1	100		1	110		1	120		
4.10 Group Holding Cell - Transport (female)	80	1	80		1	80		1	80		1	80		1	80		
4.10 Group Holding Cell - Release (male)	200	1	160		1	170		1	180		1	190		1	200		
4.11 Group Holding Cell - Release (female)	200	1	140		1	150		1	160		1	180		1	200		
4.11 Single Holding Cell	80	7	560		7	560		8	640		8	640		8	640		
4.12 Interview Room	100	1	100		1	100		1	100		1	100		1	100		Medical / Mental Health screening
Sub-total			2,060	0		2,120	0		2,260	0		2,330	0		2,400	0	
Staff Space - Booking / Processing																	
4.13 Booking Sergeant	150	1	150	2	1	150	2	1	150	2	1	150	2	1	150	2	Shared office
4.14 Booking C/O	0	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	
4.15 Booking Records Clerk	80	1	80	1	1	80	1	1	80	1	1	80	1	1	80	1	Workstation
4.16 Booking Officer	0	0	0	3	0	0	3	0	0	3	0	0	3	0	0	3	At Booking Counter
4.17 Property Officer	0	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	At Property Room Counter
4.18 Classification Officer	120	1	120	1	1	120	1	1	120	1	1	120	1	1	120	1	Office
4.19 Commitment Officer	80	1	80	1	1	80	1	1	80	1	1	80	1	1	80	1	Workstation
4.20 Release Officer	0	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	At Release Counter
Sub-total			430	11		430	11		430	11		430	11		430	11	

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February 8, 2006

4. Intake / Processing / Booking

Space	Unit		2006			2011			2016			2021			2026		
No. Component	SF	Quan.	NSF S	Staff	Quan.	NSF	Staff	Quan.	NSF :	Staff	Quan.	NSF	Staff	Quan.	NSF	Staff	Comments
Support Space - Booking / Processing																	
4.21 Waiting Area	400	1	360		1	370		1	380		1	390		1	400		20 seats, telephones
4.22 Inmate Toilet	50	2	100		2	100		2	100		2	100		2	100		
4.23 Booking Counter	400	1	360		1	370		1	380		1	390		1	400		6 stations, including pre-screening
4.24 Photo / Fingerprint Area	80	1	80		1	80		1	80		1	80		1	80		
4.25 Inmate Shower / Changing Area	150	1	150		1	150		1	150		1	150		1	150		
4.26 Property Storage Counter / Storage	500	1	420		1	440		1	460		1	480		1	500		Includes washer / dryer
4.27 Uniform / Linen Storage	400	1	360		1	370		1	380		1	390		1	400		
4.28 Medical / Psych. Screening Office	120	2	240		2	240		2	240		2	240		2	240		
4.29 Contact Interview Room	120	2	240		2	240		2	240		3	360		3	360		
4.30 Non-Contact Interview Booth	80	3	240		3	240		3	240		3	240		3	240		
4.31 Records Room	200	1	180		1	185		1	190		1	195		1	200		
4.32 Video Arraignment Waiting (1)	180	1	160		1	165		1	170		1	175		1	180		12 people
4.33 Video Arraignment Room (1)	200	1	160		1	170		1	180		1	190		1	200		
4.34 Copy Area	80	1	80		1	80		1	80		1	80		1	80		
4.35 Storage Closet	40	1	40		1	40		1	40		1	40		1	40		
4.36 Janitor's Closet	25	1	25		1	25		1	25		1	25		1	25		
4.37 Release Processing Area / Counter	100	1	100		1	100		1	100		1	100		1	100		
4.38 Pedestrian Sallyport	100	1	100		1	100		1	100		1	100		1	100		
Sub-total			3,395	0		3,465	0		3,535	0		3,725	0		3,795	0	
Total Net Square Feet			7,965	11		8,095	11		8,305	11		8,565	11		8,705	11	
x Department Circulation Factor			1.50	• • •		1.50	• • •		1.50	• • •		1.50	• • •		1.50	• • •	
Total Net Occupiable Square Feet			11,948			12,143			12,458			12,848			13,058		

Notes:

 $^{^{\}left(1\right)}$ To be confirmed. There may be a possibility of a full courtroom and robing room.

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February 8, 2006

5. Housing

Space	Unit		2006			2011			2016			2021			2026		
No. Component	SF	Quan.	NSF	Staff	Comments												
Single Cell Housing - Dry Cells																	
Staff Space																	
5.01 Housing Unit Officer	60	1	60	1	1	60	1	1	60	1	1	60	1	1	60) 1	
Sub-total			60	1		60	1		60	1		60	1		60) 1	
Support Space																	
5.02 Single Cell	50	37	1,850		39	1,950		41	2,050		41	2,050		44	2,200)	Dry cell
5.03 Handicapped Single Cell	100	1	100		1	100		1	100		1	100		1	100)	Dry cell
5.04 Day Room	50	38	1,900		40	2,000		42	2,100		42	2,100		44	2,200)	50 sf./inmate
5.05 Toilet	50	4	200		4	200		4	200		4	200		4	200)	1 per 12 inmates
5.06 Shower	40	4	160		4	160		5	200		5	200		5	200)	1 per 8 inmates
5.07 Handicapped Shower	40	1	40		1	40		1	40		1	40		1	40)	
5.08 Kitchenette	40	1	40		1	40		1	40		1	40		1	40)	
5.09 Counseling Room / Contact Visitation	120	1	120		1	120		1	120		1	120		1	120)	
5.10 Multipurpose Room	400	1	400		1	400		1	400		1	400		1	400)	
5.11 Storage Closet	50	1	50		1	50		1	50		1	50		1	50)	
5.12 Linen / Uniform Exchange Room	80	1	80		1	80		1	80		1	80		1	80)	
5.13 Visiting Booth	80	3	240		3	240		3	240		3	240		3	240)	
5.14 Attorney Visiting Booth	80	1	80		1	80		1	80		1	80		1	80)	
5.15 Janitor's Closet	25	1	25		1	25		1	25		1	25		1	25	,	
5.16 Secure Vestibule	80	1	80		1	80		1	80		1	80		1	80)	
Sub-total			5,365	0		5,565	0		5,805	0		5,805	0		6,055	0	

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February 8, 2006

5. Housing

Space	Unit		2006			2011			2016			2021			2026		
No. Component	SF	Quan.	NSF	Staff	Comments												
Dormitory Housing																	
Staff Space																	
5.17 Housing Unit Officer	60	1	60	1	1	60	1	1	60	1	1	60	1	1	60) 1	
Sub-total			60	1		60	1		60	1		60	1		60) 1	
x 4 Units			240	4		240	4		240	4		240	4		240	4	
Support Space																	
5.18 Single Bed	50	38	1,900		40	2,000		42	2,100		42	2,100		45	2,250)	50 sf/inmate
5.19 Day Room	50	38	1,900		40	2,000		42	2,100		42	2,100		45	2,250)	50 sf./inmate
5.20 Toilet	50	4	200		4	200		4	200		4	200		4	200)	1 per 12 inmates
5.21 Shower	40	4	160		4	160		5	200		5	200		5	200)	1 per 8 inmates
5.22 Handicapped Shower	40	1	40		1	40		1	40		1	40		1	40)	
5.23 Kitchenette	40	1	40		1	40		1	40		1	40		1	40)	
5.24 Counseling Room / Contact Visitation	120	1	120		1	120		1	120		1	120		1	120)	
5.25 Multipurpose Room	400	1	400		1	400		1	400		1	400		1	400)	
5.26 Storage Closet	50	1	50		1	50		1	50		1	50		1	50)	
5.27 Linen / Uniform Exchange Room	80	1	80		1	80		1	80		1	80		1	80)	
5.28 Visiting Booth	80	3	240		3	240		3	240		3	240		3	240)	
5.29 Attorney Visiting Booth	80	1	80		1	80		1	80		1	80		1	80)	
5.30 Janitor's Closet	25	1	25		1	25		1	25		1	25		1	25	;	
5.31 Secure Vestibule	80	1	80		1	80		1	80		1	80		1	80)	
Sub-total			5,315	0		5,515	0		5,755	0		5,755	0		6,055	0	
x 4 Units			21,260	0		22,060	0		23,020	0		23,020	0		24,220	0	

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February 8, 2006

5. Housing

Space	Unit		2006			2011			2016			2021			2026		
No. Component	SF	Quan.	NSF	Staff	Quan.	NSF	Staff	Quan.	NSF :	Staff	Quan.	NSF	Staff	Quan.	NSF	Staff	Comments
Modified Dormitory Housing - Male																	
Staff Space																	
5.32 Housing Unit Officer	60	1	60	1	1	60	1	1	60	1	1	60	1	1	60	1	
Sub-total			60	1		60	1		60	1		60	1		60	1	
x 2 Units			120	2		120	2		120	2		120	2		120	2	
Support Space																	
5.33 Single Bed	50	26	1,300		28	1,400		28	1,400		30	1,500		30	1,500		50 sf/inmate
5.34 Day Room	50	26	1,300		28	1,400		28	1,400		30	1,500		30	1,500		50 sf./inmate
5.35 Toilet	50	3	150		3	150		3	150		3	150		3	150		1 per 12 inmates
5.36 Shower	40	2	80		2	80		2	80		3	120		3	120		1 per 8 inmates
5.37 Handicapped Shower	40	1	40		1	40		1	40		1	40		1	40		
5.38 Kitchenette	40	1	40		1	40		1	40		1	40		1	40		
5.39 Counseling Room / Contact Visitation	120	1	120		1	120		1	120		1	120		1	120		
5.40 Multipurpose Room	400	1	400		1	400		1	400		1	400		1	400		
5.41 Storage Closet	50	1	50		1	50		1	50		1	50		1	50		
5.42 Linen / Uniform Exchange Room	80	1	80		1	80		1	80		1	80		1	80		
5.43 Visiting Booth	80	2	160		2	160		2	160		2	160		2	160		
5.44 Attorney Visiting Booth	80	1	80		1	80		1	80		1	80		1	80		
5.45 Janitor's Closet	25	1	25		1	25		1	25		1	25		1	25		
5.46 Secure Vestibule	80	1	80		1	80		1	80		1	80		1	80		
Sub-total			3,905	0		4,105	0		4,105	0		4,345	0		4,345	0	
x 2 Units			7,810	0		8,210	0		8,210	0		8,690	0		8,690	0	

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February 8, 2006

5. Housing

Space	Unit		2006			2011			2016			2021			2026		
No. Component	SF	Quan.	NSF	Staff	Comments												
Modified Dormitory Housing - Female	· · ·																
Staff Space																	
5.47 Housing Unit Officer	60	1	60	1	1	60	1	1	60	1	1	60	1	1	60	1	
Sub-total			60	1		60	1		60	1		60	1		60	1	
Support Space																	
5.48 Single Bed	50	36	1,800		36	1,800		36	1,800		38	1,900		38	1,900		50 sf/inmate
5.49 Day Room	50	36	1,800		36	1,800		36	1,800		38	1,900		38	1,900		50 sf./inmate
5.50 Toilet	50	3	150		3	150		3	150		4	200		4	200		1 per 12 inmates
5.51 Shower	40	3	120		3	120		3	120		4	160		4	160		1 per 8 inmates
5.52 Handicapped Shower	40	1	40		1	40		1	40		1	40		1	40		
5.53 Kitchenette	40	1	40		1	40		1	40		1	40		1	40		
5.54 Counseling Room / Contact Visitation	120	1	120		1	120		1	120		1	120		1	120		
5.55 Multipurpose Room	400	1	400		1	400		1	400		1	400		1	400		
5.56 Storage Closet	50	1	50		1	50		1	50		1	50		1	50		
5.57 Linen / Uniform Exchange Room	80	1	80		1	80		1	80		1	80		1	80		
5.58 Visiting Booth	80	2	160		2	160		2	160		3	240		3	240		
5.59 Attorney Visiting Booth	80	1	80		1	80		1	80		1	80		1	80		
5.60 Janitor's Closet	25	1	25		1	25		1	25		1	25		1	25		
5.61 Secure Vestibule	80	1	80		1	80		1	80		1	80		1	80		
Sub-total			4,945	0		4,945	0		4,945	0		5,315	0		5,315	0	

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5. Housing

Space	Unit		2006			2011			2016			2021			2026		
No. Component	SF	Quan.	NSF	Staff	Comments												
Work Release Dormitory Housing																	
Staff Space																	
5.62 Housing Unit Officer	60	1	60	1	1	60	1	1	60	1	1	60	1	1	60	1	
Sub-total			60	1		60	1		60	1		60	1		60	1	
Support Space																	
5.63 Single Bed	50	12	600		12	600		12	600		12	600		12	600		50 sf/inmate
5.64 Day Room	50	12	600		12	600		12	600		12	600		12	600		50 sf./inmate
5.65 Toilet	50	1	50		1	50		1	50		1	50		1	50		1 per 12 inmates
5.66 Shower	40	1	40		1	40		1	40		1	40		1	40		1 per 8 inmates
5.67 Handicapped Shower	40	1	40		1	40		1	40		1	40		1	40		
5.68 Kitchenette	40	1	40		1	40		1	40		1	40		1	40		
5.69 Counseling Room / Contact Visitation	120	1	120		1	120		1	120		1	120		1	120		
5.70 Multipurpose Room	400	1	400		1	400		1	400		1	400		1	400		
5.71 Storage Closet	50	1	50		1	50		1	50		1	50		1	50		
5.72 Linen / Uniform Exchange Room	80	1	80		1	80		1	80		1	80		1	80		
5.73 Visiting Booth	80	2	160		2	160		2	160		2	160		2	160		
5.74 Attorney Visiting Booth	80	1	80		1	80		1	80		1	80		1	80		
5.75 Janitor's Closet	25	1	25		1	25		1	25		1	25		1	25		
5.76 Secure Vestibule	80	1	80		1	80		1	80		1	80		1	80		
Sub-total			2,365	0		2,365	0		2,365	0		2,365	0		2,365	0	

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5. Housing

pace	Unit		2006			2011			2016			2021			2026		
No. Component	SF	Quan.	NSF	Staff	Quan.	NSF	Staff	Quan.	NSF S	Staff	Quan.	NSF	Staff	Quan.	NSF	Staff	Comments
Medical Housing																	
Staff Space																	
5.77 Housing Unit Officer	60	1	60	1	1	60	1	1	60	1	1	60	1	1	60	1	
Sub-total			60	1		60	1		60	1		60	1		60	1	
Support Space																	
5.78 Single Cell	70	36	2,520)	38	2,660		40	2,800		40	2,800		42	2,940		Wet cell
5.79 Handicapped Single Cell	100	2	200)	2	200		2	200		2	200		2	200		Wet cell
5.80 Day Room	50	38	1,900)	40	2,000		42	2,100		42	2,100		44	2,200		50 sf./inmate
5.81 Shower	40	4	160)	4	160		5	200		5	200		5	200		1 per 8 inmates
5.82 Handicapped Shower	40	1	40)	1	40		1	40		1	40		1	40		
5.83 Counseling Room / Contact Visitation	120	1	120)	1	120		1	120		1	120		1	120		
5.84 Multipurpose Room	400	1	400)	1	400		1	400		1	400		1	400		
5.85 Storage Closet	50	1	50)	1	50		1	50		1	50		1	50		
5.86 Linen / Uniform Exchange Room	80	1	80)	1	80		1	80		1	80		1	80		
5.87 Visiting Booth	80	3	240)	3	240		3	240		3	240		3	240		
5.88 Attorney Visiting Booth	80	1	80)	1	80		1	80		1	80		1	80		
5.89 Janitor's Closet	25	1	25	i	1	25		1	25		1	25		1	25		
5.90 Secure Vestibule	80	1	80)	1	80		1	80		1	80		1	80		
Sub-total			5,895	0		6,135	0		6,415	0		6,415	0		6,655	0	

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5. Housing

Space	Unit		2006			2011			2016			2021			2026		
No. Component	SF	Quan.	NSF	Staff	Comments												
Mental Health Housing Staff Space																	
5.91 Housing Unit Officer	60	1	60	1	1	60	1	1	60	1	1	60	1	1	60	1	
Sub-total			60	1		60	1		60	1		60	1		60	1	
x 2 Units			120	2		120	2		120	2		120	2		120	2	
Support Space																	
5.92 Single Cell	70	28	1,960		28	1,960		29	2,030		32	2,240		32	2,240	1	Wet cell
5.93 Handicapped Single Cell	100	2	200		2	200		2	200		2	200		2	200	1	Wet cell
5.94 Day Room	50	30	1,500		30	1,500		31	1,550		34	1,700		34	1,700)	50 sf./inmate
5.95 Shower	40	3	120		3	120		3	120		4	160		4	160	1	1 per 8 inmates
5.96 Handicapped Shower	40	1	40		1	40		1	40		1	40		1	40	١	
5.97 Counseling Room / Contact Visitation	120	1	120		1	120		1	120		1	120		1	120	1	
5.98 Multipurpose Room	400	1	400		1	400		1	400		1	400		1	400	1	
5.99 Storage Closet	50	1	50		1	50		1	50		1	50		1	50	1	
6.00 Linen / Uniform Exchange Room	80	1	80		1	80		1	80		1	80		1	80)	
6.01 Visiting Booth	80	3	240		3	240		3	240		3	240		3	240	1	
6.02 Attorney Visiting Booth	80	1	80		1	80		1	80		1	80		1	80	1	
6.03 Janitor's Closet	25	1	25		1	25		1	25		1	25		1	25		
6.04 Secure Vestibule	80	1	80		1	80		1	80		1	80		1	80	1	
Sub-total			4,895	0		4,895	0		5,015	0		5,415	0		5,415	0	
x 2 Units			9,790	0		9,790	0		10,030	0		10,830	0		10,830	0	
Total Net Square Feet			58,150	12		59,790	12		61,510	12		63,160	12		64,850	12	
x Department Circulation Factor			1.50			1.50			1.50			1.50			1.50)	
Total Net Occupiable Square Feet			87,225			89,685			92,265			94,740			97,275		

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6. Medical / Mental Health Services

Space	Unit		2006			2011			2016			2026			2026		
No. Component	SF	Quan.	NSF	Staff	Quan.	NSF	Staff	Quan.	NSF	Staff	Quan.	NSF	Staff	Quan.	NSF	Staff	Comments
Staff Space																	
6.01 Doctor	120	1	120	1	1	120	1	1	120	1	1	120	1	1	120	1	
6.02 Medical Administrative Director	120	1	120	1	1	120	1	1	120	1	1	120	1	1	120	1	
6.03 Nurse / Medical Assistant	180	1	180	3	1	180	3	1	180	3	1	180	3	1	180	3	Shared office
6.04 Psychiatrist	120	1	120	1	1	120	1	1	120	1	1	120	1	1	120	1	
6.05 Project Manager / Analyst	80	1	80	1	1	80	1	1	80	1	1	80	1	1	80	1	
6.06 Corrections Officer	80	1	80	1	1	80	1	1	80	1	1	80	1	1	80	1	
Sub-total			700	8		700	8		700	8		700	8		700	8	
Support Space - Medical Exam																	
6.07 Inmate Waiting Area	120	1	100		1	105		1	110		1	115		1	120		0
6.08 Nurse's Counter	150	1	130		1	135		1	140		1	145		1	150		8 seats
								1			Ι Δ			1			
6.09 Medical Exam Room	150	3	450		3	450		3	450		4	600		4	600		
6.10 Large Medical Exam Room	200	1	200		1	200		1	200		1	200		!	200		
6.11 Dental Room	150	1	150		1	150		1	150		1	150		1	150		
6.12 X-Ray Room	120	1	120		1	120		1	120		1	120		1	120		
6.13 Pharmacy	80	1	80		1	80		1	80		1	80		1	80		
6.14 Inmate Toilet	50	2	100		2	100		2	100		2	100		2			male / female
6.15 Staff Toilet	50	2	100		2	100		2	100		2	100		2			male / female
6.16 Supply Storage	120	1	120		1	120		1	120		1	120		1	120		
6.17 Conference Room	180	1	160		1	165		1	170		1	175		1	180		
6.18 Utility Area	180	1	160		1	165		1	170		1	175		1	180		
6.19 Coat Closet	10	1	10		1	10		1	10		1	10		1	10		
6.20 Janitor's Closet	25	1	25		1	25		1	25		1	25		1	25		
Sub-total			1,905	0		1,925	0		1,945	0		2,115	0		2,135	0	

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February 8, 2006

6. Medical / Mental Health Services

Space	Unit		2006			2011			2016			2026			2026		
No. Component	SF	Quan.	NSF	Staff	Comments												
Support Space - Medical Cells / Rooms																	
6.21 Medical Cell	80	2	160)	2	160		2	160		2	160		2	160		Wet cell
6.22 Patient Room	120	2	240)	2	240		2	240		2	240		2	240		
6.23 Negative Air Cell	100	2	200)	2	200		2	200		2	200		2	200		
6.24 Ante Room	80	2	160)	2	160		2	160		2	160		2	160		Adjacent to Negative Air Cell
Sub-total			760	0		760	0		760	0		760	0		760	0	
Total Net Square Feet			3,365	8		3,385	8		3,405	8		3,575	8		3,595	8	
x Department Circulation Factor			1.70)		1.70			1.70			1.70			1.70		
Total Net Occupiable Square Feet			5,721			5,755			5,789			6,078			6,112		

Notes:

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February 8, 2006

7. Recreation / Programming

Space	Unit		2006			2011			2016			2021			2026		
No. Component	SF	Quan.	NSF	Staff	Comments												
Support Space - Education / Couseling																	
7.01 Multi-purpose Room	500	1	400		1	425		1	450		1	475		1	500		30 inmate capacity
7.02 Storage	120	1	100		1	105		1	110		1	115		1	120		
7.03 Classroom / Training	250	1	250		1	250		1	250		1	250		1	250		12 inmate capacity
7.04 Library	250	1	250		1	250		1	250		1	250		1	250		
7.05 Inmate Toilet	50	1	50		1	50		1	50		1	50		1	50		
7.06 Janitor's Closet	25	1	25		1	25		1	25		1	25		1	25		
Sub-tota	ıl		1,075	0		1,105	0		1,135	0		1,165	0		1,195	0	
Support Space - Recreation																	
7.07 Half-Court Court Gym	1,600	1	1,400		1	1,450		1	1,500		1	1,500		1	1,600		
7.08 Multi-Purpose / Exercise	400	1	360		1	370		1	380		1	390		1	400		
7.09 Equipment Storage	180	1	160		1	165		1	170		1	175		1	180		
7.10 Inmate Toilet	50	2	100		2	100		2	100		2	100		2	100		
7.11 Janitor's Closet	25	1	25		1	25		1	25		1	25		1	25		
7.12 Staff Toilet	50	2	100		2	100		2	100		2	100		2	100		
Sub-tota	ıl		2,145	0		2,210	0		2,275	0		2,290	0		2,405	0	
Support Space - Inmate Support																	
7.13 Commissary	300	1	300		1	300		1	300		1	300		1	300		
Sub-tota	ıl		300			300	0		300	0		300	0		300		
Total Net Square Feet			3,520	0		3,615	0		3,710	0		3,755	0		3,900	0	
x Department Circulation Factor			1.30			1.30			1.30			1.30			1.30		
Total Net Occupiable Square Feet			4,576			4,700			4,823			4,882			5,070		

Notes:

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February 8, 2006

8. Food Services

Space	Un	it		2006			2011			2016			2026			2026			
No. Component	SI		Quan.	NSF	Staff		Comments												
Staff Space																			
8.01 Food Service Manager		120	1	120	1	1	120) 1	1	120	1	1	120	1	1	120) 1		
8.02 Staff Counter Stations		20	3	60	3	3	60	3	3	60	3	3	60	3	3	60) 3		
Sub-	total			180	4		180	4		180	4		180	4		180) 4		
Support Space																			
8.03 Kitchen	5,0	000	1	3,700)	1	3,900)	1	4,100		1	4,300		1	4,500)		
8.04 Staff Dining Room	;	375	1	355		1	360)	1	365		1	370		1	375	5	15 staff.	
8.05 Staff Toilet		50	1	50)	1	50)	1	50		1	50		1	50)		
8.06 Inmate Toilet		50	1	50)	1	50)	1	50		1	50		1	50)		
8.07 Janitor's Closet		25	1	25		1	25	,	1	25		1	25		1	25	5		
Sub-	total			4,180	0		4,385	0		4,590	0		4,795	0		5,000	0		
Total Net Square Feet				4,360	4		4,565	4		4,770	4		4,975	4		5,180) 4		
x Department Circulation Factor				1.20)		1.20)		1.20			1.20			1.20)		
Total Net Occupiable Square Feet				5,232			5,478	}		5,724			5,970			6,216	•		

Notes:

Assumes de-centralized dining for inmates (dining in Housing Units)

February 8, 2006

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9. Laundry

Space		Unit		2006			2011			2016			2021			2026		
No. Component		SF	Quan.	NSF	Staff	Quan.	NSF	Staff	Quan.	NSF	Staff	Quan.	NSF	Staff	Quan.	NSF	Staff	Comments
Staff Space 9.01 Laundry Officer	Sub-total	120	1	120 120		1	120 120		1	120 120	1 1	1	120 120		1	120 120		
Support Space																		
9.02 Laundry Area		400	1	400		1	400		1	400		1	425		1	425		Washers, dryers, sink
9.03 Work Table		120	1	100		1	105		1	110		1	115		1	120		
9.04 Supply Storage		50	1	50		1	50		1	50		1	50		1	50	1	
9.05 Uniform / Linen Storage		100	1	100		1	110		1	120		1	120		1	120	1	Additional to Linen Storage in Processing
	Sub-total			650	0		665	0		680	0		710	0		715	0	
Total Net Square Feet x Department Circulation Factor				770 1.30			785 1.30			800 1.30	1		830 1.30			835	1	
Total Net Occupiable Square Fee	:L			1,001			1,021			1,040			1,079			1,086		

Notes:

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February 8, 2006

10. Arraignment Court

Space	Unit		2006			2011			2016			2021			2026		
No. Component	SF	Quan.	NSF	Staff	Comments												
Support Space																	
10.01 Arraignment Courtroom	1,200	2	2,400		2	2,400		2	2,400		2	2,400		2	2,400		
10.02 Attorney / Client Confernce Room	100	2	200		2	200		2	200		2	200		2	200		
10.03 Robing Room	200	2	400		2	400		2	400		2	400		2	400		
10.04 Courtroom Storage	60	2	120		2	120		2	120		2	120		2	120		
10.05 Courtroom Waiting	120	2	240		2	240		2	240		2	240		2	240		
10.06 Staff Toilet	50	1	50		1	50		1	50		1	50		1	50		
Sub-total			3,410	0		3,410	0		3,410	0		3,410	0		3,410	0	
Total Net Square Feet			3,410	0		3,410	0		3,410	0		3,410	0		3,410	0	
x Department Circulation Factor			1.20			1.20			1.20			1.20			1.20		
Total Net Occupiable Square Feet			4,092			4,092			4,092			4,092			4,092		

Notes:

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February 8, 2006

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11. Facility Maintenance

Space	Unit		2006			2011			2016			2021			2026		
No. Component	SF	Quan.	NSF	Staff	Quan.	NSF	Staff	Quan.	NSF	Staff	Quan.	NSF	Staff	Quan.	NSF	Staff	Comments
Staff Space 11.01 Maintenance Office Sub-te	120 ital	1	120 120		1	120 120	1 1	1	120 120		1	120 120		1	120 120		
Support Space																	
11.02 Loading Dock / Receiving	250	1	250)	1	250		1	250		1	250		1	250		
11.03 Trash /Recycling	180	1	160)	1	165		1	170		1	175		1	180		
11.04 Maintenance Shop	500	1	420)	1	440		1	460		1	480		1	500		
11.05 Maintenance Storage	500	1	420)	1	440		1	460		1	480		1	500		
11.06 Bulk Storage	1,000	1	900)	1	925		1	950		1	975		1	1,000		
11.07 Staff Toilet	50	1	50)	1	50		1	50		1	50		1	50		
Sub-to	tal		2,200	0		2,270	0		2,340	0		2,410	0		2,480	0	
Total Net Square Feet			2,320	. 1		2,390	1		2,460	1		2,530	1		2,600	1	
x Department Circulation Factor			1.30			1.30			1.30			1.30			1.30		
Total Net Occupiable Square Feet			3,016			3,107			3,198			3,289			3,380		

Notes:

			200	6 (390	beds)			20	26 (446	beds)	
Staff Position	Days	Day	Eve	Nite	Shift	Total	Day	Eve	Nite	Shift	Total
	Manned	Shift	Shift	Shift	Relief	FTE	Shift	Shift	Shift	Relief	FTE
1 Lobby											
Correctional Officer	5	1	1	0	1.7	3.4	1	1	0	1.7	3.4
2 Executive Administration											
Superintendent	5	1	0	0	1.0	1	1	0	0	1.0	1
Assistant Superintendent	5	1	0	0	1.0	1	1	0	0	1.0	1
Captain	5	1	0	0	1.0	1	1	0	0	1.0	1
Director of Maintenance	5	1	0	0	1.0	1	1	0	0	0.0	0
Supervisor of Training	5	1	0	0	1.0	1	1	0	0	1.0	1
Supervisor of Programs	5	1	0	0	1.0	1	1	0	0	1.0	1
Case Manager	5	2	0	0	1.0	2	2	0	0	1.0	2
Administrative Assistant	5	1	0	0	1.0	1	1	0	0	1.0	1
Secretary	5	1	0	0	1.0	1	1	0	0	1.0	1
Training Officer	5	1	0	0	1.0	1	1	0	0	0.0	0
Subtotal						11					9
3 Control Room Supervisor											
Central Control Officer	7	2	2	1	1.7	8.5	2	2	1	1.7	8.5
Shift Supervisor (Lieutenant)	7	1	1	1	1.7	5.1	1	1	1	1.7	5.1
Subtotal						13.6					13.6
4 Intake Processing Booking											
Booking Sergeant	7	1	1	1	1.7	5.1	1	1	1	1.7	5.1
Correctional Officer (Booking Counte	7	3	3	3	1.7	15.3	4	4	4	1.7	20.4
Records Clerk (shared with Class.)	7	1	0	0	1.0	1	1	0	0	1.0	1
Property/Release Officer	5	1	1	0	1.7	3.4	1	1	0	1.7	3.4
Classification Sergeant	5	1	1	0	1.7	3.4	1	1	0	1.7	3.4
Subtotal						28.2					33.3
		1									

			2000	6 (390 B	Beds)			20	26 (446	Beds)	
Staff Position	Days Manned	Day Shift	Eve Shift	Nite Shift	Shift Relief	Total FTE	Day Shift	Eve Shift	Nite Shift	Shift Relief	Total FTE
5 Housing Units											
Single Cell Housing											
Corrections Officer	7	1	1	1	1.7	5.1	1	1	1	1.7	5.1
Open Dormitory Housing											
Corrections Officer	7	1	1	1	1.7	5.1	1	1	1	1.7	5.1
Modified Dormitory Male											
Corrections Officer	7	1	1	1	1.7	5.1	1	1	1	1.7	5.1
Modified Dormitory Male											
Corrections Officer	7	1	1	1	1.7	5.1	1	1	1	1.7	5.1
Modified Dormitory Male											
Corrections Officer							1	1	1	1.7	5.1
Modified Dormitory Female		_	_	_	l			_			
Corrections Officer	7	1	1	1	1.7	5.1	1	1	1	1.7	5.1
Work Release						_					_
Corrections Officer	7	1	1	1	1	3	1	1	1	1	3
Medical Unit	_	_		_	4 7	5 4		_	_	4 -	- 4
Corrections Officer	7	1	1	1	1.7	5.1	1	1	1	1.7	5.1
Mental Health Housing	_				4 7	5 4		_		4.7	5 4
Corrections Officer	7	1	1	1	1.7	5.1 38.7	1	1	1	1.7	5.1
Subtotal						38.7					43.8
6 Medical Mental Health Services											
Physician (Contractual)											
Medical Services Coordinator	5	1	0	0	1.0	1.0	1	0	0	1.0	1.0
Mental Health Staff	7	1	1	0	1.0	2.0	1	1	0	1.0	2.0
Physician Assistant	5	1	0	0	1.0	1.0	1	0	0	1.0	1.0
Nurse	7	2	2	1	1.7	8.5	2	2	1	1.7	8.5
Health Services Clerk	5	1	0	0	1.0	1	1	0	0	1.0	1
Correction Officer	7	1	1	0	1.7	3.4	1	1	0	1.7	3.4
Subtotal						16.9					16.9
7 Inmate Programs											
Corrections Officer	5	1	1	0	1.7	3.4	1	1	0	1.7	3.4
Teacher	5	1	Ö	ő	1	1.0	l i	Ö	Ö	1	1.0
Counselor	5	1	0	Ö	1	1.0	1	0	Ö	1	1.0
Subtotal						5.4					5.4
8 Food Services											
Food service Manager	5	1	0	0	1	1	1	0	0	1	1
Cook (Civilian)	7	2	2	0	1.2	4.8	2	2	0	1.2	4.8
Subtotal		_	_			5.8	_				5.8

			2006 (390 Beds)					20:	26 (446 E	Beds)	
Staff Position	Days Manned	Day Shift	Eve Shift	Nite Shift	Shift Relief	Total FTE	Day Shift	Eve Shift	Nite Shift	Shift Relief	Total FTE
9 Laundry Laundry Officer (Sgt.)	5	1	1	0	1.0	2.0	1	1	0	1.0	2.0
10 Arraignment Court Correction Officer	5	1	0	0	1.00	1.00	1	0	0	0	0.0
11 Facility Maintenance Maintenance Worker (Civilian) Subtotal	5	2	1	0	1.0	3.0 3.0	2	1	0	1.0	3.0 3.0
12 Escort Officers (float) Inmate Movement (internal) Disturbance Response Supervise Work Crew / Loading Dock / Deliveries	7	3	2	1	1.7	10.2	3	2	1	1.7	10.2

Total FTE'S	141.3	151.5

HISTORICAL CAPITAL COST ANALYSIS - VARIOUS SOURCES

	King County RJC	Sellen RJC	WA State Prison	Merrimack, NH Jail	Marshall & Swift
Total Gross Sq. Ft.	581,500	172,034	333,874	103,000	
Number of Beds	896	113	1088	164	
Date of estimate/const	Dec-97	Jun-91	Oct-05	Nov-01	
Total Const Cost	\$ 116,971,395	\$31,562,500	\$99,469,845	\$23,171,236	
Escalation to 2006	1.29	1.59	1.02	1.21	1.00
Location Factor Adjustment	1.00	1.00	1.07	1.18	1.14
2006 Construction Cost	\$ 150,639,719	\$ 50,121,204	\$ 107,840,827	\$32,866,417.22	
Cost Per bed	\$ 168,125	\$ 443,550	\$ 99,118	\$200,404.98	Range
Cost Per Square Foot	\$259.05	\$291.34	\$323.00	\$319.09	\$263.70 \$250.38
IT Adder	10.93	\$13.47	Incl	\$11.86	
Total Building (only) \$/SF	\$269.99	\$304.82	\$323.00	\$330.95	\$293.03
Average all points of data	\$304.36	*****			

Sellen Best average Cost used in Program calc'c

ESTIMATE DETAIL BASED ON KING COUNTY RJC

SEATTLE PROGRAM	M 2006		Γ	December-91				July-06	
SHELL			Area SF	Unit \$ GC Mar X 10%	kup	ENR Factor	2006 Unit \$	2006 Total	
Shell Building Subtotal			169,880 169,880	\$71.21	\$78.33	1.56	\$122.11	\$20,744,199 \$20,744,199	\$122.11
INTERIORS	NSF	GSF/NSF	GSFT						
Lobby	1,216	1.3	1,581	\$45.00	\$49.50	1.56	\$77.17	\$121,984	
Administration	5,844			\$35.00	\$38.50	1.56	\$60.02	\$455,968	
Control	806			\$30.00	\$33.00	1.56	\$51.44	\$53,903	
Intake	11,948			\$35.00	\$38.50	1.56	\$60.02	\$932,223	
Housing	87,225	1.3	113,393	\$85.29	\$93.82	1.56	\$146.26	\$16,584,242	
Medical	5,721	1.3	7,437	\$55.00	\$60.50	1.56	\$94.31	\$701,441	
Recreation	4,576	1.3	5,949	\$30.00	\$33.00	1.56	\$51.44	\$306,030	
Food	5,232	1.3	6,802	\$75.00	\$82.50	1.56	\$128.61	\$874,753	
Laundry	1,001	1.3	1,301	\$75.00	\$82.50	1.56	\$128.61	\$167,360	
Courts	4,092	1.3	5,320	\$46.78	\$51.46	1.56	\$80.22	\$426,729	
Facility	3,016	1.3	3,921	\$800.00	\$880.00	1.56	\$1,371.84	\$5,378,707	
Subtotal	130,677		169,880					\$26,003,340	\$153.07
TECHNONOLGY									
IT Support			169,880	\$10.00	\$11.00	1.00	\$11.00	\$1,868,681	
Subtotal			169,880				_	\$1,868,681	\$11.00
TOTAL CAPITAL CO	ST, 2006		169,880				=	\$48,616,221	\$286.18

ESTIMATE DETAIL BASED ON KING COUNTY RJC

SEATTLE PROGRAM	M 2026		[December-91					July-06	
SHELL			Area SF	Unit \$	GC Markup X 10%		ENR Factor	2006 Unit \$	2006 Total	
Shell Building Subtotal			188,097 188,097	\$71.21		78.33	1.56	\$122.11 __	\$22,968,680 \$22,968,680	\$122.11
INTERIORS	NSF	GSF/NSF	GSFT							
Lobby	1,346	1.3	1,750	\$45.00	9	49.50	1.56	\$77.17	\$135,025	
Administration	6,132			\$35.00		38.50	1.56	\$60.02	\$478,439	
Control	923	1.3	1,200	\$30.00	9	33.00	1.56	\$51.44	\$61,728	
Intake	13,058	1.3	16,975	\$35.00	9	38.50	1.56	\$60.02	\$1,018,829	
Housing	97,275	1.3	126,458	\$85.29	9	93.82	1.56	\$146.26	\$18,495,066	
Medical	6,112	1.3	7,946	\$55.00	9	60.50	1.56	\$94.31	\$749,381	
Recreation	5,070	1.3	6,591	\$30.00	9	33.00	1.56	\$51.44	\$339,067	
Food	6,216	1.3	8,081	\$75.00	9	82.50	1.56	\$128.61	\$1,039,271	
Laundry	1,086	1.3	1,412	\$75.00	9	82.50	1.56	\$128.61	\$181,571	
Courts	4,092	1.3	5,320	\$46.78	9	51.46	1.56	\$80.22	\$426,729	
Facility	3,380	1.3	4,394	\$800.00	\$8	380.00	1.56	\$1,371.84	\$6,027,861	
Subtotal	144,690	-	188,097					<u>-</u>	\$28,952,967	\$153.93
TECHNONOLGY										
IT Support			188,097	\$10.00	\$	\$11.00	1.00	\$11.00	\$2,069,067	
Subtotal			188,097					_	\$2,069,067	\$11.00
TOTAL CAPITAL CO	ST, 2026		188,097					=	\$53,990,714	\$287.04

LIFE CYCLE COST ANALYSIS

30 YEAR CYCLE

2006-2035

PROJECT: SEATTLE STUDY - 2006 Projection

Prepared by

C3MG

C3 Management Group, Inc.

Discount Rate (i)	2006	2035	6.50%
Escalation Rate for Custody Staffing Costs	2006	2035	3.00%
Escalation Rate for Non-Custody Staff Operation	ns 2006	2035	4.00%
Escalation Rate for Facility Costs	2006	2035	5.00%
S.F. Base 172.034 Inmate Count	390		

ANNUAL REAL CASH FLOWS											
YEAR	FIRST & REPLACE. Capitol Costs	NPV FIRST & REPLACE. COSTS	ANNUAL CUSTODY STAFF COSTS	NPV CUSTODY STAFF OPER.	ANNUAL NON-CUSTODY STAFF OPERATIONS	NPV NON-CUST. STAFF OPER.	FACILITY	NPV INTRAGOV FACILITY COSTS	PRESENT WORTH FACTOR	NPV ANNUAL COSTS	NPV CUM. COSTS
2006		\$	10,341,796		\$4,736,550		\$2,624,310		1.00		
2010	111,047,427	86.319.729	11,639,783	9,047,872	5,541,094	4,307,220	3,189,865	2,479,556	0.78	102,154,377	102,154,377
2011	,0,.2.	00,010,120	11,988,976	8,750,524	5,762,737	4,206,112	3,349,358	2,444,633	0.73	15,401,268	117,555,645
2012			12,348,645	8,462,948	5,993,247	4,107,377	3,516,826	2,410,201	0.69	14,980,526	132,536,170
2013			12,719,105	8,184,823	6,232,977	4,010,959	3,692,668	2,376,255	0.64	14,572,037	147,108,207
2014			13,100,678	7,915,838	6,482,296	3,916,805	3,877,301	2,342,786	0.60	14,175,430	161,283,637
2015			13,493,698	7,655,693	6,741,588	3,824,861	4,071,166	2,309,789	0.57	13,790,344	175,073,980
2016			13,898,509	7,404,098	7,011,251	3,735,076	4,274,724	2,277,257	0.53	13,416,431	188,490,411
2017			14,315,464	7,160,770	7,291,701	3,647,398	4,488,461	2,245,183	0.50	13,053,352	201,543,763
2018			14,744,928	6,925,440	7,583,369	3,561,778	4,712,884	2,213,561	0.47	12,700,779	214,244,542
2019			15,187,276	6,697,843	7,886,704	3,478,169	4,948,528	2,182,384	0.44	12,358,396	226,602,938
2020			15,642,894	6,477,726	8,202,172	3,396,521	5,195,954	2,151,646	0.41	12,025,894	238,628,831
2021			16,112,181	6,264,843	8,530,259	3,316,791	5,455,752	2,121,341	0.39	11,702,975	250,331,807
2022			16,595,547	6,058,957	8,871,469	3,238,932	5,728,540	2,091,463	0.37	11,389,352	261,721,158
2023			17,093,413	5,859,836	9,226,328	3,162,901	6,014,967	2,062,006	0.34	11,084,742	272,805,901
2024			17,606,215	5,667,259	9,595,381	3,088,654	6,315,715	2,032,963	0.32	10,788,877	283,594,778
2025			18,134,402	5,481,011	9,979,196	3,016,151	6,631,501	2,004,330	0.30	10,501,492	294,096,270
2026			18,678,434	5,300,884	10,378,364	2,945,349	6,963,076	1,976,100	0.28	10,222,333	304,318,603
2027			19,238,787	5,126,677	10,793,499	2,876,209	7,311,229	1,948,268	0.27	9,951,154	314,269,757
2028			19,815,951	4,958,194	11,225,239	2,808,693	7,676,791	1,920,827	0.25	9,687,714	323,957,471
2029			20,410,429	4,795,249	11,674,248	2,742,761	8,060,631	1,893,774	0.23	9,431,783	333,389,254
2030			21,022,742	4,637,659	12,141,218	2,678,377	8,463,662	1,867,101	0.22	9,183,136	342,572,390
2031			21,653,424	4,485,247	12,626,867	2,615,504	8,886,845	1,840,803	0.21	8,941,555	351,513,945
2032			22,303,027	4,337,845	13,131,942	2,554,107	9,331,187	1,814,877	0.19	8,706,829	360,220,774
2033			22,972,118	4,195,286	13,657,219	2,494,152	9,797,747	1,789,315	0.18	8,478,753	368,699,527
2034			23,661,281	4,057,413	14,203,508	2,435,604	10,287,634	1,764,113	0.17	8,257,130	376,956,658
2035			24,371,120	3,924,071	14,771,649	2,378,430	10,802,016	1,739,267	0.16	8,041,768	384,998,425
Totals	111,047,427 1st + Repl.	86,319,729	448,749,027 Custody Staff	159,834,007	245,535,523 Non-Custody Staff + Operations	84,544,891	163,045,028 Intragovernmantal Facility Costs	54,299,798		384,998,425 30-Year Life Cycle Cost	

LIFE CYCLE COST ANALYSIS

30 YEAR CYCLE

2006-2035

PROJECT: SEATTLE STUDY - 2026 Projection

Prepared by C3MG

C3 Management Group, Inc.

Cycle Cost

Discount Rate (i)	2006	2035	6.50%
Escalation Rate for Custody Staffing Costs	2006	2035	3.00%
Escalation Rate for Non-Custody Staff Operations	2006	2035	4.00%
Escalation Rate for Facility Costs	2006	2035	5.00%
S.F. Base 188,094 Inmate Count	446		

	ANNUAL REAL CASH FLOWS										
YEAR	FIRST & REPLACE. Capitol Costs	NPV FIRST & REPLACE. COSTS	ANNUAL CUSTODY STAFF COSTS	NPV CUSTODY STAFF OPER.	ANNUAL NON-CUSTODY STAFF OPERATIONS	NPV NON-CUST. STAFF OPER.	ANNUAL INTRAGOV FACILITY COSTS	NPV INTRAGOV FACILITY COSTS	PRESENT WORTH FACTOR	NPV ANNUAL COSTS	NPV CUM. COSTS
2006		;	\$11,057,969		\$5,416,670		\$3,001,134		1.00		
2010	119,492,761	92,884,482	12,445,842	9,674,440	6,336,738	4,925,693	3,647,897	2,835,595	0.78	110,320,210	110,320,210
2011	,,	0=,00 1, 10=	12,819,217	9,356,501	6,590,207	4,810,066	3,830,292	2,795,657	0.73	16,962,223	127,282,433
2012			13,203,793	9,049,010	6,853,816	4,697,154	4,021,807	2,756,281	0.69	16,502,445	143,784,878
2013			13,599,907	8,751,625	7,127,968	4,586,892	4,222,897	2,717,460	0.64	16,055,977	159,840,855
2014			14,007,904	8,464,013	7,413,087	4,479,218	4,434,042	2,679,186	0.60	15,622,417	175,463,272
2015			14,428,141	8,185,853	7,709,610	4,374,072	4,655,744	2,641,451	0.57	15,201,376	190,664,648
2016			14,860,986	7,916,834	8,017,995	4,271,395	4,888,531	2,604,248	0.53	14,792,476	205,457,125
2017			15,306,815	7,656,656	8,338,715	4,171,127	5,132,958	2,567,568	0.50	14,395,352	219,852,476
2018			15,766,020	7,405,029	8,672,263	4,073,213	5,389,605	2,531,405	0.47	14,009,648	233,862,124
2019			16,239,000	7,161,671	9,019,154	3,977,598	5,659,086	2,495,752	0.44	13,635,021	247,497,145
2020			16,726,170	6,926,311	9,379,920	3,884,227	5,942,040	2,460,600	0.41	13,271,139	260,768,284
2021			17,227,955	6,698,686	9,755,117	3,793,048	6,239,142	2,425,944	0.39	12,917,678	273,685,962
2022			17,744,794	6,478,541	10,145,321	3,704,009	6,551,099	2,391,776	0.37	12,574,327	286,260,288
2023			18,277,138	6,265,632	10,551,134	3,617,061	6,878,654	2,358,089	0.34	12,240,781	298,501,070
2024			18,825,452	6,059,719	10,973,180	3,532,153	7,222,587	2,324,876	0.32	11,916,748	310,417,818
2025			19,390,216	5,860,573	11,412,107	3,449,239	7,583,716	2,292,131	0.30	11,601,944	322,019,761
2026			19,971,922	5,667,972	11,868,591	3,368,271	7,962,902	2,259,848	0.28	11,296,091	333,315,852
2027			20,571,080	5,481,701	12,343,335	3,289,203	8,361,047	2,228,019	0.27	10,998,923	344,314,776
2028			21,188,212	5,301,551	12,837,068	3,211,992	8,779,099	2,196,639	0.25	10,710,182	355,024,957
2029			21,823,858	5,127,322	13,350,551	3,136,593	9,218,054	2,165,700	0.23	10,429,615	365,454,572
2030			22,478,574	4,958,818	13,884,573	3,062,964	9,678,957	2,135,197	0.22	10,156,979	375,611,552
2031			23,152,931	4,795,852	14,439,956	2,991,064	10,162,905	2,105,124	0.21	9,892,040	385,503,591
2032			23,847,519	4,638,242	15,017,554	2,920,851	10,671,050	2,075,474	0.19	9,634,567	395,138,159
2033			24,562,945	4,485,812	15,618,256	2,852,286	11,204,603	2,046,242	0.18	9,384,340	404,522,499
2034			25,299,833	4,338,391	16,242,986	2,785,331	11,764,833	2,017,422	0.17	9,141,144	413,663,643
2035			26,058,828	4,195,814	16,892,706	2,719,948	12,353,074	1,989,008	0.16	8,904,770	422,568,413
Totals	119,492,761 1st + Repl.	92,884,482	479,825,054 Custody Staff	170,902,568	280,791,906 Non-Custody	96,684,670	186,456,621 Intragovernmantal	62,096,693		422,568,413 30-Year Life	

Staff + Operations

Facility Costs