



# California Department of Corrections and Rehabilitation:

Building a Condemned Inmate Complex at San Quentin  
May Cost More Than Expected

June 2008 Letter Report 2007-120.1



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June 10, 2008

2007-120.1

The Governor of California  
President pro Tempore of the Senate  
Speaker of the Assembly  
State Capitol  
Sacramento, California 95814

Dear Governor and Legislative Leaders:

This letter report presents the first portion of the analysis conducted by the Bureau of State Audits (bureau) concerning the costs for the California Department of Corrections and Rehabilitation (Corrections) to build a new condemned inmate complex (CIC) at San Quentin State Prison (San Quentin). Understanding that Corrections' capital outlay budget change proposal for the new CIC is being discussed during the budget hearings for fiscal year 2008-09, we are focusing this letter report on the cost to build the CIC at San Quentin. Our second report, scheduled for public release in July 2008, will include cost estimates to build a CIC at alternate locations in California.

The Joint Legislative Audit Committee (audit committee) asked the bureau to review the original plans and costs for the CIC project and compare them with the current plans and projected costs through the end of construction. To address this request, we obtained the services of a consultant specializing in estimating the cost of prison construction and operations—Criminal Justice Institute, Inc.—and conducted the following analyses:

- Reviewed the original project cost plan and compared it to the current project cost plan to determine the cause of the increase.
- Determined whether the estimated costs of the current project are reasonable.
- Determined whether the size of the proposed CIC would meet Corrections' needs 20 years into the future.
- Assessed the financial impact of further delays on the cost of the CIC project.

In 2003 the Legislature approved Corrections' request for \$220 million to build a new CIC at San Quentin. According to Corrections, however, before construction could begin, the cost of the project increased significantly due to increases in the cost of construction materials, design changes, the need to address environmental concerns, and unforeseen costs, such as those to mitigate soil problems. To minimize these increases, Corrections modified its plan several times and eventually reduced the size of the complex from eight housing units to six and from 1,024 cells to 768 cells. Despite the 25 percent reduction in the size of the CIC, Corrections now estimates the cost of the project at \$356 million, an increase of \$136 million, or 62 percent.

Analyses by our consultant suggest that the cost to construct the CIC will exceed Corrections' recent estimate. Although Corrections reasonably estimated construction costs, it was precluded from applying realistic escalation rates, and delays from the anticipated start date will add to project costs. Additionally, Corrections did not include the costs to activate and operate the CIC in its estimated costs. Our consultant estimates that the cost to construct the CIC will exceed Corrections' estimate of \$356 million by \$39.3 million and that the cost to activate the new CIC will reach \$7.3 million. Furthermore, our consultant estimates that the average new staffing costs to operate the new CIC will average \$58.8 million per year, for a total of approximately \$1.2 billion over the next 20 years.

Corrections currently plans to double-cell (placing two inmates in one cell) certain condemned inmates to maximize the CIC's capacity; however, our consultant and other experts we spoke with raised concerns with this proposal. Specifically, the experts stated that capital cases often contain very personal, private, and sensitive materials and that double-celling raises serious concerns about maintaining confidentiality during the preparation to defend a condemned inmate during the appeal process. In addition, our consultant expressed concern that double-celling increases the risk of harm to the inmates who are housed together, particularly for long periods of time. If double-celling condemned inmates occurs as planned, we estimate that the CIC's 1,152-inmate capacity will be reached in 2035; however, if the plan to double-cell inmates is not a feasible approach, the CIC will reach capacity in 2014, less than three years after it is expected to open.

The audit committee also asked us to review the alternative sites considered by Corrections and determine whether the cost/benefit analysis for each site considered all relevant factors. In our report 2003-130, titled *California Department of Corrections: Its Plans to Build a New Condemned-Inmate Complex at San Quentin Are Proceeding, but Its Analysis of Alternative Locations and Costs Was Incomplete*, issued in March 2004, we concluded that Corrections did not consider all feasible locations and relevant costs in making its decision to build the CIC at San Quentin. Our follow-up review found that Corrections has not performed any additional analyses of alternatives since we published the previous report.

We were also asked to address other issues that we intend to include in our second report, scheduled for public release in July 2008. Specifically, the audit committee asked us to identify and analyze alternative sites, including assessing the relative benefits and costs associated with constructing a CIC at San Quentin compared with the benefits and costs of constructing it elsewhere, as well as

evaluating the possibility of using the currently proposed CIC site at San Quentin for other purposes. We were asked to consider factors such as the alternate sites' capital outlay costs; projected expenditures for ongoing maintenance and operations; and access and proximity to state and federal courts, legal counsel, medical care, and condemned inmates' families. Our analysis will also include, for locations where doing so would be feasible, the cost of constructing six two-story buildings to house condemned inmates in a CIC at each location, including San Quentin, versus constructing three four-story "stacked" buildings to house condemned inmates, as currently proposed by Corrections. Finally, we were asked to compare the cost of constructing a CIC in California with other states' costs to construct the same type of facility.

# Introduction

## Background

The California Department of Corrections and Rehabilitation (Corrections) operates California's state prison system, which housed more than 171,000 inmates as of December 2007. Corrections was formed in 2005, when the California Department of Corrections and the California Youth Authority were reorganized under one agency with the goal of managing the State's prison system more efficiently. The newly reorganized agency incarcerates youth and adult offenders.

With an annual budget of about \$9.7 billion, Corrections' mission is to control, care for, and treat men and women convicted of serious crimes or admitted to the State's civil narcotics program. Within Corrections, the Division of Adult Institutions operates 33 correctional institutions (prisons).

Corrections assigns different custody levels to inmates within its prisons, based on its assessment of the inmates' behavior and other factors, and it houses inmates in facilities designed for their respective custody levels. Corrections classifies all inmates who have been sentenced to death as condemned inmates and houses them separately from non-condemned inmates. Male condemned inmates are housed at San Quentin State Prison (San Quentin), and female condemned inmates are housed at the Central California Women's Facility in Chowchilla. As of April 2008 San Quentin housed 635 male condemned inmates, and the Central California Women's Facility housed 15 female condemned inmates.<sup>1</sup>

## Current Housing of Condemned Inmates at San Quentin

Per the California Penal Code, with very few exceptions, men sentenced to death in California are sent to San Quentin to fulfill their sentence.<sup>2</sup> Corrections currently uses three different housing units at San Quentin to house the male condemned inmates in its custody. Every condemned inmate is assigned to a cell by himself.

<sup>1</sup> Although the total male condemned inmate population as of May 1, 2008 was 656, only 635 were housed at San Quentin, according to the San Quentin warden. The other 21 inmates were out of the institution for a variety of reasons, including 14 out for court dates and hearings, three out for medical care, and four serving sentences in other states. Because this report deals only with housing for male condemned inmates, any reference to "condemned inmates" refers to male condemned inmates.

<sup>2</sup> There are two exceptions to this law. As many as 15 condemned inmates who commit certain crimes while in prison may be transferred to California State Prison, Sacramento, although as of May 2008 no condemned inmates were housed at this prison. Additionally, inmates whose medical or mental health needs endanger themselves or others may be housed at the California Medical Facility or another appropriate facility.

Although the U.S. Supreme Court has held that prison officials may house two inmates in one cell in a maximum-security prison, Corrections does not currently double-cell condemned inmates.

### **Corrections' Attempts to Build Condemned Inmate Housing**

In 1992, due to the growth in the condemned inmate population at San Quentin, as well as safety and security concerns inherent in managing condemned inmates in the antiquated housing units at the prison, Corrections began discussing the need for a new condemned inmate complex (CIC). More recently, in 2003, after failing to gain approval from the Legislature to house condemned inmates at other locations, Corrections requested \$220 million to build a new CIC at San Quentin. The Legislature approved this request. However, as the contemplated project moved from conceptual design to one that was more detailed and refined, the anticipated cost increased. As a result, Corrections has requested additional funds on two occasions since 2003, in proposals that reflected the increased cost of the CIC project and at the same time reduced the number of cells from 1,024 to 768. The Legislature did not act upon the first proposal for additional funding, presented as part of Corrections' fiscal year 2007–08 budget plan. In its fiscal year 2008–09 budget, Corrections has again requested additional funding so that it can begin construction of the CIC at San Quentin. This most recent proposal is now before the Legislature. Thus, while Corrections has indicated that it is ready to begin construction of the CIC, as of May 2008, it had not yet begun.

## Audit Results

### **The Cost of Constructing the New Condemned Inmate Complex Has Increased Significantly Since 2003**

The California Department of Corrections and Rehabilitation (Corrections) currently estimates that the cost of constructing a new condemned inmate complex (CIC) at San Quentin State Prison (San Quentin) will be \$356 million, an increase of \$136 million, or 62 percent, since the Legislature initially approved funding for a CIC in fiscal year 2003–04. This increase comes despite the fact that, among other modifications to its original CIC design, Corrections has lowered the number of inmate housing units from eight to six, reducing the total number of cells by 25 percent. According to the director of project management at Corrections, the cost increase is due mainly to delay in construction start, increases in construction costs, and design changes as well as the need to mitigate poor soil conditions at the San Quentin site that were unknown at the time of the original estimate. Because of the significant cost escalations, the project has temporarily been put on hold.

#### ***Corrections Estimated a CIC Would Cost \$220 Million***

In fiscal year 2003–04 Corrections requested and received an appropriation for \$220 million for the construction of a new CIC. A key assumption made by Corrections when developing its cost model, which estimated the costs of various components of the proposed CIC, was that it could estimate the cost to build the housing units at San Quentin based on the cost incurred to build similarly constructed housing units at other Corrections' facilities in California. Corrections planned to build the CIC on approximately 40 acres at the San Quentin site, and inmate housing in the complex was to consist of what are known as 180-degree housing units due to their design, which gives the control booth officer in the center a 180-degree view of all the cells. This prototype design has been used at other typical Level IV (maximum-security) prisons in California.

According to our consultant, while other designs might work as well or even better, Corrections' staff are extremely comfortable with the 180-degree design for housing high-risk inmates, and they feel safe working in it. In addition, because architectural drawings already exist, using the 180-degree design avoids the cost of designing a different type of facility. For these reasons, our consultant has concluded that, overall, it makes sense to use the 180-degree design for the CIC.

To determine how much it would cost to build the CIC's eight housing units, Corrections, together with a consultant specializing in prison construction, developed a cost per gross square foot, using the bids it received when it built a 180-degree housing unit at the California Substance Abuse Treatment Facility, which opened in 1997. At the time that Corrections completed its cost estimate for the CIC in 2002, this facility was the most recently constructed maximum-security prison in California. It was therefore necessary to adjust these costs for inflation and for Bay Area market conditions. However, as we discuss in the following section, even with these adjustments, subsequent cost estimates prepared by Corrections and its consultant project that the CIC will cost much more than originally anticipated.

***Corrections' Most Recent Estimate for a CIC Is \$356 Million, a Significant Increase Over Its Previous Estimate***

Corrections' most recent estimate of the cost to construct the CIC revealed that the project will require significantly more funding than that approved by the Legislature in fiscal year 2003–04. Specifically, the estimate prepared by Corrections in November 2007 showed that the new CIC will cost \$356 million, an increase of 62 percent over its original estimate. Because of these escalating costs, construction of the new CIC was put on hold. In its fiscal year 2008–09 budget, Corrections has again requested additional funding so that it can begin construction of the CIC at San Quentin. Table 1 on the following page shows the change in costs for each component of the proposed CIC.

*According to the condemned inmate complex project director, the significant increase in the project's costs was the result of an unprecedented rise in construction costs. Additionally, various modifications made to the original design of the condemned inmate complex also increased the costs.*

According to the CIC project director, the significant increase in the project's costs was the result of an unprecedented rise in construction costs during the five years between the development of the original cost model and the most recent estimate. The CIC project director noted that various modifications made to the original design of the CIC also increased the costs. The original cost estimate was based on construction bids received for a prior prison construction project and adjusted for inflation, whereas Corrections' most recent cost estimate is based on final construction documents specific to the San Quentin site.

Final construction documents provide a much more accurate representation of the true cost of a project because they contain details regarding variables and contingencies specific to building at a particular site. For instance, the following items included in the final construction documents have contributed to increased costs:

- The original cost model assumed that Corrections would use its standard 180-degree housing unit for the condemned inmate population, which is a two-story building with a total of

**Table 1**  
**Cost Comparison of the Original Budget for the Condemned Inmate Complex to the Proposed Condemned Inmate Complex Budget**

COST COMPONENT	ORIGINAL CONDEMNED INMATE COMPLEX BUDGET*	PROPOSED CONDEMNED INMATE COMPLEX BUDGET†	DIFFERENCE	PERCENTAGE CHANGE
Site demolition and grading‡	\$32,156,544	\$29,050,571	(\$3,105,973)	(9.7%)
Site utilities	9,006,401	34,286,761	25,280,360	280.7
Housing and guard towers	81,749,624	134,758,964	53,009,340	64.8
Secure support buildings	26,909,888	51,301,759	24,391,871	90.6
Correctional treatment center	18,627,961	27,082,592	8,454,631	45.4
Nonsecure support buildings	11,590,189	22,158,089	10,567,900	91.2
Professional fees	28,923,983	39,820,000	10,896,017	37.7
Other	11,035,410	17,815,631	6,780,221	61.4
<b>Totals</b>	<b>\$220,000,000</b>	<b>\$356,274,367</b>	<b>\$136,274,367</b>	<b>61.9%</b>

Source: Bureau of State Audits' analysis of the California Department of Corrections and Rehabilitation's (Corrections) original and revised cost estimates.

\* Corrections prepared this estimate for a two-level 1,024-cell condemned inmate complex (CIC) on November 1, 2002.

† Corrections prepared this estimate for a four-level stacked 768-cell CIC on November 13, 2007.

‡ This component consists of 12 different subcomponents. Although the overall costs declined, due largely to a reduction in costs for demolition and hazardous materials cleanup, other subcomponent costs increased. For example, site grading and soil stabilization costs increased by \$14.1 million.

128 ground-floor and mezzanine cells. According to officials from Corrections' facilities management division, the design of this housing unit provides both a higher level of security and operational flexibility for the condemned inmate population. Due to constraints specific to the San Quentin site, however, Corrections decided to stack the 180-degree housing units on top of one another, resulting in three four-story buildings, each containing two housing units. Although stacked, each housing unit is designed to operate totally independently, for security reasons. This security requirement resulted in the need for elevators, dumbwaiters, and additional access and stairways that were not in the original 180-degree housing design or in the budget.

- Because of the size, configuration, and weight of the stacked structures, the structural engineer of record reported that the concrete could not be precast but would have to be cast in place, resulting in a significant increase in the cost.

- The original cost model assumed that average soil conditions existed on the site. Following completion of a detailed geotechnical investigation, however, it was determined that the soil conditions would require extensive mitigation before construction could begin.
- The soil conditions at the San Quentin site require that the foundations for the housing units be constructed in a much more substantial manner, further adding to the cost. Specifically, Corrections determined that the housing units will require pile foundations instead of a conventional spread footing, due to the weight of the stacked configuration, soil conditions, and seismic requirements.
- Additional site costs that were not in the original budget include the removal of Dairy Hill, a 30- to 40-foot-high sandstone hill located on about one-third of the proposed CIC site. Material from Dairy Hill will be removed, crushed, and reused as general site fill or in excavations where poor soils exist. Soil piers spaced approximately 8 to 10 feet apart must also be installed in selected areas throughout the site to keep sidewalks and roads from settling. Further, the soils in the middle of the asphalt-paved recreation yards will undergo deep dynamic compaction to prevent settling.
- The original cost model budgeted approximately \$18.7 million for a correctional treatment center (treatment center) and central health services totaling 48,993 square feet. However, based on input from the San Quentin medical staff and revised operational requirements, it was determined that many of the medical functions (such as pharmacy and dialysis) that were provided at other on-site facilities would be relocated to the new treatment center. These new functions added approximately 8,400 square feet to the size of the structure, increasing the cost of the building. Corrections also decided not to construct the central health services building, reducing costs by \$5.1 million. However, the increase in the size of the treatment center increased its costs by \$13.5 million, for a net increase of \$8.4 million.
- A warehouse was not included in the original cost model, based on initial planning information received from the San Quentin staff. It was later determined that the existing warehouse space was at capacity and that a new warehouse would be required to store goods and materials to support the new CIC.
- The original budget was based on the standard amount of asphalt paving required for a maximum-security prison. The biggest increase in this category was for additional work and materials

related to paving four recreational yards, which constitute approximately 75 percent of the 14.5 acres of paving to be installed on the project. Because of the poor soil conditions, the geotechnical engineer recommended that from 12 to 16.5 inches of aggregate base topped by up to 3.5 inches of asphalt be placed on all areas to be paved.

Because of these and other factors identified in the Appendix, Corrections now estimates that the new CIC will cost approximately \$356 million.

### ***Several Factors Contributed to the Decision to Stack the Housing Units***

One of the critical decisions leading to the increased costs was the decision to stack the standard 180-degree housing units one on top of the other. This decision resulted in increased area related to vertical movement, increased foundation costs, and a requirement to change from precast modular construction to cast-in-place concrete construction. Additionally, the greater height of the facilities contributed to community concerns during the environmental impact report (EIR) process, resulting in the need to develop a more sensitive approach to the exterior facade, again resulting in increased costs.

According to the CIC project director, because of site constraints and the desire to maintain the existing staff housing adjacent to the CIC site, Corrections decided to stack the housing units on top of one another. Under its original proposal, Corrections would have had to demolish 57 homes to make room for the eight two-story housing units. These are among the 86 homes located on the San Quentin property for prison employees and their families. According to the CIC project director, allowing prison employees to reside on the grounds enables them to respond to emergencies more quickly. Specifically, the project director told us that staff housing is deemed very important to San Quentin because it allows operations and maintenance staff essential to the operation of the prison to be housed on prison grounds should an emergency such as an earthquake occur in the San Francisco Bay Area. The project director further stated that these homes are important because most of San Quentin's staff commute from outside the area due to the high cost of living in Marin County, where San Quentin is located.

Additionally, according to the September 2004 EIR, Corrections' original proposal would have resulted in the demolition of a schoolhouse building. The EIR stated that demolition of the building would be a significant impact, because the schoolhouse could be listed as a historical resource. The project director also

***One of the critical decisions leading to increased costs was the decision to stack the housing units one on top of the other.***

*Corrections did not perform a comparative cost analysis to determine whether moving the houses and schoolhouse to other locations and continuing its plan for a two-story condemned inmate complex would result in lower overall costs.*

noted that public input during the EIR process indicated a strong desire to maintain the aesthetic appearance of the view from Sir Francis Drake Boulevard, a main access road running parallel to the San Quentin site.

Although these appear to be reasonable explanations for Corrections' decision to stack the housing units, Corrections did not perform a comparative cost analysis to determine whether moving the houses and schoolhouse to other locations on the San Quentin site or elsewhere and continuing its plan for a two-story CIC would result in lower overall costs to build the complex.

### **The Cost of the New CIC at San Quentin May Exceed Corrections' Current Estimates**

Analyses performed by our consultant found that, with one exception, Corrections correctly estimated construction cost, was precluded from applying realistic escalation rates, and omitted estimating the cost to activate the CIC. However, our consultant believes that Corrections inappropriately reduced the cost of constructing the CIC because it believed that economies of scale realized in building multiple, similarly, designed buildings would reduce construction costs. Our consultant estimates that the cost to construct the CIC at San Quentin will exceed Corrections' most recent estimate by \$39.3 million. Additionally, Corrections did not estimate all of the costs associated with activating the new CIC until very recently at our request. Our consultant estimates that these costs will total approximately \$7.3 million. Finally, at our request Corrections provided salary information for the staff it anticipated needing to operate the CIC.<sup>3</sup> Our consultant's analysis of Corrections' estimated staffing needs found that San Quentin will spend \$39.5 million more in staffing costs in the first full year after the facility opens than it would spend if the new CIC were not built. Overall, our consultant estimates that San Quentin will incur additional staffing costs of approximately \$1.2 billion during the first 20 years the facility is in operation. Table 2 compares Corrections' estimated costs with those developed by our consultant, including the net new costs to complete anticipated major repairs to the CIC.

<sup>3</sup> We confirmed a sample of salaries used in the computation of staff costs by tracing to the fiscal year 2008–09 Governor's Budget.

**Table 2**  
**Comparison of Estimated Costs to Construct, Activate, and Operate**  
**the 768-Cell Condemned Inmate Complex**

NATURE OF COSTS	CORRECTIONS' ESTIMATED COSTS (NOVEMBER 2007)	BUREAU OF STATE AUDITS' CONSULTANT'S ESTIMATED COSTS (MAY 2008)	VARIANCE
<b>Capital Construction Costs</b>			
Site work	\$63,337,332	\$67,536,412	\$4,199,080
Construction	246,309,035	278,140,663	31,831,628
Equipment	6,808,000	7,944,910	1,136,910
Professional fees	39,820,000	41,926,556	2,106,556
<b>Subtotals</b>	<b>\$356,274,367</b>	<b>\$395,548,541</b>	<b>\$39,274,174</b>
<b>Activation Costs*</b>			
Staff	\$7,403,992	\$6,786,332	(\$617,660)
Escalation	604,166	553,765	(50,401)
<b>Subtotals</b>	<b>\$8,008,158</b>	<b>\$7,340,097</b>	<b>(\$668,061)</b>
<b>20-Year Operating Costs†</b>			
Staff		\$1,176,150,497	
Major repairs/replacements		22,500,000	
<b>Subtotal</b>		<b>\$1,198,650,497</b>	
<b>Total</b>		<b>\$1,601,539,134</b>	

Source: Our consultant's analysis of documented estimates prepared by the California Department of Corrections and Rehabilitation (Corrections).

\* Activation costs are certain types of nonconstruction costs associated with opening any new prison and include recruiting, hiring, and training of new staff and moving inmates from their current location to the new facility. Unlike its construction costs, Corrections estimated these costs in May 2008, at our request.

† These amounts represent costs that are specifically related to the new condemned inmate complex or net new operating costs. Corrections has not estimated these costs as of May 2008.

***Our Consultant's Projected Capital Construction Costs for the San Quentin CIC Are Higher Than Corrections Estimated***

Capital construction (construction) costs for the new CIC at San Quentin may be as much as \$39.3 million higher than Corrections' most recent estimate. As shown in Table 2, Corrections estimates that construction costs for the CIC will total \$356.3 million. However, our consultant estimates that these costs will total \$395.5 million, 11 percent more than Corrections' estimate. Table 3 on the following page shows the factors contributing to the differences between Corrections' estimates of the construction costs and those developed by our consultant.

**Table 3**  
Reasons for the Differences Between Corrections' Estimated Capital Construction Costs and the Bureau of State Audits' Consultant's Estimates

	CORRECTIONS' ESTIMATED COSTS (NOVEMBER 2007)	BUREAU OF STATE AUDITS' CONSULTANT'S ESTIMATED COSTS (MAY 2008)	VARIANCE ATTRIBUTABLE TO		TOTAL VARIANCE
			APPLICATION OF HIGHER ESCALATION RATES AND DELAYS IN STARTING THE PROJECT	ADJUSTMENT TO COST OF ITEMS	
Site work	\$63,337,332	\$67,536,412	\$4,199,080	\$0	\$4,199,080
Construction	246,309,035	278,140,663	26,759,363	5,072,265	31,831,628
Equipment	6,808,000	7,944,910	1,136,910	0	1,136,910
Professional fees	39,820,000	41,926,556	2,106,556	0	2,106,556
<b>Totals</b>	<b>\$356,274,367</b>	<b>\$395,548,541</b>	<b>\$34,201,909</b>	<b>\$5,072,265</b>	<b>\$39,274,174</b>

Source: Our consultant's analysis of documented estimates prepared by the California Department of Corrections and Rehabilitation.

An escalation factor is applied to construction estimates to account for the price of construction materials and services at a future point in time. In California state departments are required to use the projected California Construction Cost Index (cost index), published monthly by the Department of General Services, in their estimates for capital outlay projects, as a way to escalate construction costs. The cost index is an average of the Building Construction Cost Indices for Los Angeles and the Bay Area, as published in the *Engineering News Record*. Departments must apply the most recently published cost index when preparing budget packages, preliminary plans, or working drawings estimates for a given project.

According to our consultant, the cost differential between the two estimates is due primarily to the fact that the escalation factor Corrections was mandated to use was too low and not reflective of market conditions. In August 2007 the Department of Finance (Finance) issued a budget letter stating that to help ensure adequate funding for projects, costs for construction projects are to be escalated on a monthly basis, starting from the date the cost index for the project was last updated to the estimated start and midpoint of construction, at an un compounded annual rate of 5 percent, or 0.42 percent per month. Our consultant determined that this escalation rate does not accurately reflect the current or future rate. Prior to 2008 our consultant believes that the average escalation factor was in excess of 8.7 percent due to factors in both the domestic and international markets. Going forward, our consultant believes that an escalation rate of 8 percent for 2008, slowing to 6 percent in 2009 and beyond, is more reflective of the current market conditions. Consequently, because Corrections' project cost estimates were based on price increases

for purchasing construction materials and paying for services and work at a future point in time using the rate mandated by Finance, its cost estimates were understated. Additionally, our consultant recommends that escalation be compounded annually.

Furthermore, Corrections estimated site preparation work would begin in August 2008, and any delays will increase project costs. Specifically, unaccounted for delays in starting the project extends the project's completion date further into the future, and requires taking into consideration the additional costs associated with paying for goods and services during that unanticipated period of time. Although Corrections estimated site preparation work would begin in August 2008, funding has been delayed pending further analysis of the project and, therefore, escalation costs will increase. Our consultant believes that the earliest feasible start date will be November 2008, assuming the state budget is enacted by August 1, 2008, and the expectation that it could take approximately three months to complete the necessary bidding and contracting process before work on the project will actually begin. In the case of the proposed CIC, our consultant estimates that for every month the start of the project is delayed from when it was expected to begin, the cost of the project will increase by one-half percent per month, based on an annual escalation rate of 6 percent for 2009 and subsequent years. Assuming a currently estimated cost of \$395.5 million for a 24-month project with a start date of November 1, 2008, the cost of the project would increase by approximately \$2 million for every month the project's start date is delayed beyond November 1, 2008.

Finally, Corrections reduced the cost of constructing the three buildings in which inmates would be housed because it believed that the economies of scale realized in building multiple similarly designed buildings would reduce the overall costs of constructing them. However, our consultant believes that the anticipated 4 percent cost reduction is not likely to be realized given the current market conditions. Therefore, he eliminated the discount in his calculation, increasing the cost of building the housing units by \$5 million.

As shown in Table 4 on the following page, because of the higher construction costs estimated by our consultant, as well as Corrections' proposed design modifications, the cost per cell and per bed has risen significantly from Corrections' initial fiscal year 2003-04 estimate. Specifically, as shown in the table, the cost per cell has increased by 140 percent and the cost per bed has increased by 120 percent.

*The cost per cell and per bed has risen significantly from Corrections' initial fiscal year 2003-04 estimate; the cost per cell has increased by 140 percent, and the cost per bed has increased by 120 percent.*

**Table 4**  
**Unit Cost Comparison for Corrections' Condemned Inmate Complex,**  
**Using the Original and Modified Designs and Cost Estimates**

	ORIGINAL DESIGN: \$220 MILLION COST ESTIMATE (FISCAL YEAR 2003-04)	MODIFIED DESIGN: \$395 MILLION COST ESTIMATE* (FISCAL YEAR 2008-09)	DIFFERENCE	PERCENTAGE CHANGE
Housing units	8	6	2	(25%)
Cells	1,024	768	256	(25)
Beds	1,408	1,152	256	(18)
Square footage	609,957	541,061	68,896	(11)
Cost	\$220,000,000	\$395,548,541	\$175,548,541	80
<b>Total Cost Per Cell</b>	<b>\$214,844</b>	<b>\$515,037</b>	<b>\$300,193</b>	<b>140%</b>
<b>Total Cost Per Bed</b>	<b>\$156,250</b>	<b>\$343,358</b>	<b>\$187,108</b>	<b>120%</b>
<b>Total Cost Per Square Foot</b>	<b>\$361</b>	<b>\$731</b>	<b>\$370</b>	<b>102%</b>

Source: Our consultant's analysis of documented estimates prepared by the California Department of Corrections and Rehabilitation.

\* This amount represents the total estimated construction costs as calculated by our consultant.

***Corrections' Current Cost Estimates Do Not Include \$7.3 Million to Open the CIC and Move the Condemned Inmates Into the Complex***

Before opening the new CIC and moving all of the condemned inmates into the complex, Corrections will incur certain start-up costs unrelated to constructing and operating the facility. These one-time costs are referred to as activation costs and generally include costs associated with recruiting and hiring new staff and costs for training and orienting staff to the new facility. Additional activities include testing the CIC's operational plans, procedures, and systems prior to the arrival of condemned inmates and transporting them from their current housing units to the new CIC.

In the capital outlay budget change proposal submitted to Finance for fiscal year 2008-09, Corrections indicated that it would need a total of 505 staff to operate the CIC, consisting of 158 existing San Quentin employees and 347 new staff. According to Corrections' associate director of reception centers, 167 of the new staff would be correctional officers. However, due to an expected increase in population, Corrections expects to hire 11 new correctional officers before the CIC is opened, and therefore the number of new correctional officers that must be hired to operate the new CIC is 156 (167-11=156).<sup>4</sup> After it hires the 11 correctional officers, the total number of existing San Quentin

<sup>4</sup> Corrections would hire any mix of staff they deem appropriate, not just correctional officers. However, for the purpose of estimating costs, it is assumed that Corrections would hire correctional officers only.

staff available for assignment to the CIC will be 169. Therefore, to fully staff the CIC, Corrections will need to hire 336 additional employees (505-169=336).

As shown in Table 5, our consultant, working with Corrections, estimated the total activation costs for the new CIC as approximately \$7.3 million.

**Table 5**  
**Estimated Costs to Activate the Condemned Inmate Complex**

	ESTIMATED COST
Preservice training for 156 new correctional officers	\$4,002,804
San Quentin classroom training for 336 new staff	560,179
Training for 54 health care staff	130,290
Orientation for all 169 condemned inmate complex (CIC) staff	152,614
<b>Total Training and Orientation</b>	<b>\$4,845,887</b>
CIC activation staffing	1,125,000
Moving condemned inmates to the CIC	815,445
<b>Subtotal</b>	<b>\$6,786,332</b>
Two-year estimated increase in salary and benefit costs (4% per year for 2 years, compounded)	553,765
<b>Total</b>	<b>\$7,340,097</b>

Source: Information obtained from the California Department of Corrections and Rehabilitation in memos, emails, and meetings.

Our consultant concluded that recruitment and hiring costs are likely to be substantially absorbed within Corrections' operations budget. The incremental costs associated with recruiting and hiring new staff for the CIC are likely to be minimal compared to Corrections' ongoing expenditures for these activities, as Corrections already hires hundreds of employees each year. Therefore, we have not included any additional costs for recruiting and hiring the 336 new staff.

Training and orienting staff to the new CIC is estimated to cost \$4.9 million. The 156 new correctional officers will attend Corrections' 16-week preservice training program, during which time they will be paid as correctional officer cadets at an estimated cost of \$25,659 per cadet, for a total of \$4 million. In addition, all 336 new employees will receive 40 hours of formal classroom orientation upon arrival at San Quentin. The estimated cost of this training is \$560,179, based on an average of \$41.68 per hour for salary and benefits. Additional institutional-level training will be provided for the estimated 54 new health care staff, including medical, mental health, and dental employees who will be assigned to the CIC. Assuming that such classroom training will be 40 hours

in duration, another \$130,290 in additional costs will be incurred, based on an average rate for all of the health care positions. Follow-up mentoring and orientation by more experienced institution health care staff is anticipated in the week(s) following the formal training as the new employees make the transition into their new jobs.

Further, all 505 staff assigned to the CIC will require an average of 16 hours of orientation and training specific to the new CIC's systems and procedures, prior to the activation of the CIC. However, additional costs are likely to be incurred only for training the existing San Quentin staff, who will have to be relieved from their current assignments to attend the training. Applying an average hourly overtime rate of \$56.44 for 16 hours for these 169 employees produces a cost of \$152,614 for this training.

In addition to training and orientation costs, prior to the arrival of any of the condemned inmates, considerable nonconstruction work is required to ensure that the CIC is in proper working order. According to Corrections, as part of its general protocol, tasks to be accomplished prior to moving condemned inmates into the CIC would include, among other tasks, developing institutional policies and procedures, practicing operational responses, conducting inspections and searches, and securing areas. To accomplish this work, staff will need to be assigned to the CIC on a phased-in schedule well in advance of the arrival of the first condemned inmate. A few experienced staff will begin work at the CIC as much as a year in advance, with more coming on board as the opening approaches. Based on discussions with Corrections, our consultant estimates that 50 staff will be assigned to the CIC in this capacity for an average of three months prior to its opening, at an average monthly rate for salary and benefits of \$7,500, resulting in a cost of \$1.1 million.

Finally, it is neither practical nor desirable to move all of the condemned inmates at one time from the cell blocks in which they are currently housed to the CIC. Thus, a phased-in approach is anticipated, resulting in some additional one-time costs. Assuming that about 125 inmates per week are transferred to the CIC, it will be necessary to operate both the CIC and the old condemned inmate facilities for about six weeks. This transition time will provide CIC staff the opportunity to make sure that the CIC, its systems, and its procedures are working properly prior to moving all of the condemned inmates to the new facility. Based on conversations with Corrections, our consultant estimates that the process of moving the inmates will require some staff to work additional hours on an overtime basis, incurring up to an additional \$815,445 in costs. This estimate is based on filling 43 security posts for an average of eight hours a day for 42 days at \$56.44 per hour.

***Our consultant estimates that the process of moving the inmates will require some staff to work additional hours on an overtime basis, incurring up to an additional \$815,445 in costs.***

***Corrections' Current Cost Estimates Do Not Include Additional Costs to Operate the New CIC***

In addition to the one-time costs for construction and activation, there will be significant additional ongoing costs to operate the new CIC. In order to provide a thorough analysis of the additional cost of the CIC, our consultant estimated the additional (net new) staffing costs over a 20-year period, from fiscal year 2011–12, the first full year the CIC is expected to be operational if construction begins as anticipated, to fiscal year 2030–31. Furthermore, this information is necessary to compare the net new costs of staffing the CIC for 20 years at San Quentin with the net new staffing costs at other potential sites for the CIC. This comparison will be included in our second report scheduled for public release in July.

Based on the analysis prepared by our consultant, we estimate that San Quentin will incur approximately \$39.5 million in net new staffing costs during the first full year of the CIC's operation. Net new staffing costs are estimated to average \$58.8 million per year, for a total of about \$1.2 billion over the 20-year span, with the assumption that the cost of salaries and benefits will increase at 4 percent per year, compounded annually. According to our consultant, these are costs that San Quentin will incur only if the new CIC is built, and they include the cost of paying salaries, benefits, and overtime for 336 new CIC staff. Furthermore, during the first 20 years the CIC is in operation, our consultant estimated that there will be an additional \$22.5 million needed for major building repairs.

The total cost to operate the CIC will also include the cost of the existing 169 employees as well as the cost of nonpersonnel services at the CIC, which include the costs of providing food, clothing, and medical care for inmates, among other things. Our consultant estimated that the nonpersonnel cost would average approximately \$17 million per year during the first 20 years the new CIC is in operation. However, we did not include these in our calculations because they are expenditures that Corrections would incur whether or not the new CIC is in operation. For the same reason, we did not include the cost of adding staff in future years to keep pace with the projected increase in the number of condemned inmates, because those costs would be incurred to operate the existing facilities that house condemned inmates.

***Net new staffing costs are estimated at about \$1.2 billion over the first 20 years the condemned inmate complex is in operation.***

### **Although the Proposed CIC May Provide Adequate Capacity to House Condemned Inmates in Future Years, There are Concerns About Corrections' Plans to Double-Cell Condemned Inmates**

Corrections' current plan for the CIC includes double-celling up to two-thirds of the condemned inmates, meaning that half of the cells would house two inmates.<sup>5</sup> Given a projected growth of 18 inmates per year and 768 cells in the new CIC, Corrections would need to begin double-celling inmates in calendar year 2014, less than three years after the CIC is scheduled to open, and the CIC would reach its inmate bed capacity during calendar year 2035.

Our consultant expressed concerns about staff safety, inmate safety, and the protection of confidential legal papers if condemned inmates are double-celled. The Office of the State Public Defender concurs with our expert regarding the protection of confidential legal documents. Corrections believes it has procedures in place to address these concerns. Nevertheless, representatives from 11 of 12 other states who responded to our request for information indicated that they do not double-cell condemned inmates. Notwithstanding Corrections' position that many condemned inmates can be double-celled, our consultant believes that a more realistic alternative is to add another housing unit to the CIC, which he estimated would cost \$64.1 million if constructed concurrently with the proposed CIC project.

### ***Corrections' Plans Include Double-Celling Inmates to Meet Future Needs***

As currently envisioned, the new CIC would house condemned inmates in three buildings, each containing 256 cells, for a total of 768 cells. Half of the cells would be configured with a second bed to accommodate two inmates per cell. Thus, according to Corrections' plan, the total capacity of the CIC would be 1,152 inmates. Although Corrections' policy is to double-cell inmates, the memorandum outlining the policy states that it will be adhered to for inmates in the general population, administrative segregation and security housing units. However, it does not address whether condemned inmates can be double-celled. Nevertheless, according to the chief deputy secretary of adult institutions (chief deputy), this policy would also apply to condemned inmates confined at the CIC. Corrections' decision to double-cell certain inmates is based on an evaluation of their characteristics and history, which includes assessing the inmates' compatibility and disciplinary history.

<sup>5</sup> Current condemned inmate cells are approximately 42 square feet, whereas under the proposed design the cells would be approximately 80 square feet.

Although it does not currently double-cell any of its condemned inmates, as the condemned inmate population increases, Corrections has indicated it will begin doing so in the new CIC.

If double-celling of the condemned inmates occurs as planned, we estimate that the CIC's 1,152-inmate bed capacity will be reached in 2035. If double-celling does not turn out to be a feasible approach, the CIC will reach its cell capacity in 2014. As of April 2008 Corrections was housing 635 condemned inmates at San Quentin.<sup>6</sup> In designing the new CIC, Corrections estimated that the condemned inmate population would grow by 24 male condemned inmates per year, which would result in the new CIC reaching its inmate bed capacity in 2028. However, our consultant believes that Corrections may have overestimated the population growth, because its estimate did not take into account that in recent years fewer people have been sentenced to death. This change has resulted in an average annual increase of 12 condemned inmates rather than 24. Recognizing that this downturn could be short-lived, but that the annual increase might not soon return to the earlier level, our consultant estimated that the male condemned inmate population will grow by 18 inmates per year. This is the net population growth, accounting for factors such as executions, deaths due to other causes, and inmates that are removed from death row because their sentences are changed. Our consultant's estimated population growth rate of 18 condemned inmates per year results in the facility reaching its full bed capacity in 2035 if Corrections implements its plan to double-cell some condemned inmates.

According to the chief deputy, Corrections intends to double-cell those condemned inmates that it determines pose the least threat to one another and staff. Corrections currently classifies its condemned inmates into two levels, grade A and grade B. As of May 2008, 474 of the condemned inmates were classified as grade A. Corrections views the inmates classified as grade A as having a low propensity for violence or escape. According to Corrections, these inmates have demonstrated good behavior and an ability to cooperate safely and peaceably with other inmates and staff. Conversely, condemned inmates currently classified as grade B have a high potential for escape or violence or are serious disciplinary management cases.

Corrections intends to update and expand this classification system by placing condemned inmates into one of five different grades. Under the new system, the condemned inmates currently classified

***If double-celling does not turn out to be a feasible approach, the condemned inmate complex will reach its cell capacity in 2014.***

<sup>6</sup> Although the total male condemned population as of May 1, 2008 was 656, according to the San Quentin warden only 635 were housed at San Quentin. The other 21 inmates were out of the institution for a variety of reasons, including 14 out for court dates and hearings, three out for medical care, and four serving sentences in other states.

### California Department of Corrections and Rehabilitation's Anticipated New Condemned Inmate Grades

**Grade A:** These inmates have demonstrated a low propensity for violence or escape. These inmates have demonstrated good behavior and an ability to cooperate safely and peaceably with other inmates and staff, and they are provided work assignments and other privileges. According to the California Department of Corrections and Rehabilitation (Corrections), these inmates can be double-celled.

**Grade B:** These inmates have also demonstrated a low propensity for violence. However, they are not provided with work assignments. According to Corrections, most of these inmates can be double-celled.

**Grade C:** These inmates have special needs and are in protective custody due to the nature of their crimes. Their custody requirements are similar to those of grade B inmates. According to Corrections, some of these inmates can be double-celled, but only with other grade C inmates.

**Grade D:** These inmates are management cases who will have no contact with inmates of other grades. According to Corrections, these inmates cannot be double-celled.

**Grade E:** These inmates are serious management cases and/or validated gang members who will have no contact with inmates of other grades. According to Corrections, these inmates cannot be double-celled.

**Sources:** Corrections' chief deputy secretary of adult institutions and the Condemned Inmate Complex Architectural Program Report.

as grade A will be reclassified to grades A through C, and the current grade B inmates will be reclassified to grades D and E. (Refer to the text box for a brief description of these anticipated grades.)

Corrections' architectural program report for the CIC specifies a level of double-celling for inmates classified as grades A, B, or C and states that inmates classified as grades D and E will be single-celled. Additionally, the chief deputy stated that Corrections has not yet implemented the new grading system, and while court approval for the system is not required, he believes Corrections would engage the courts and others before making the change.

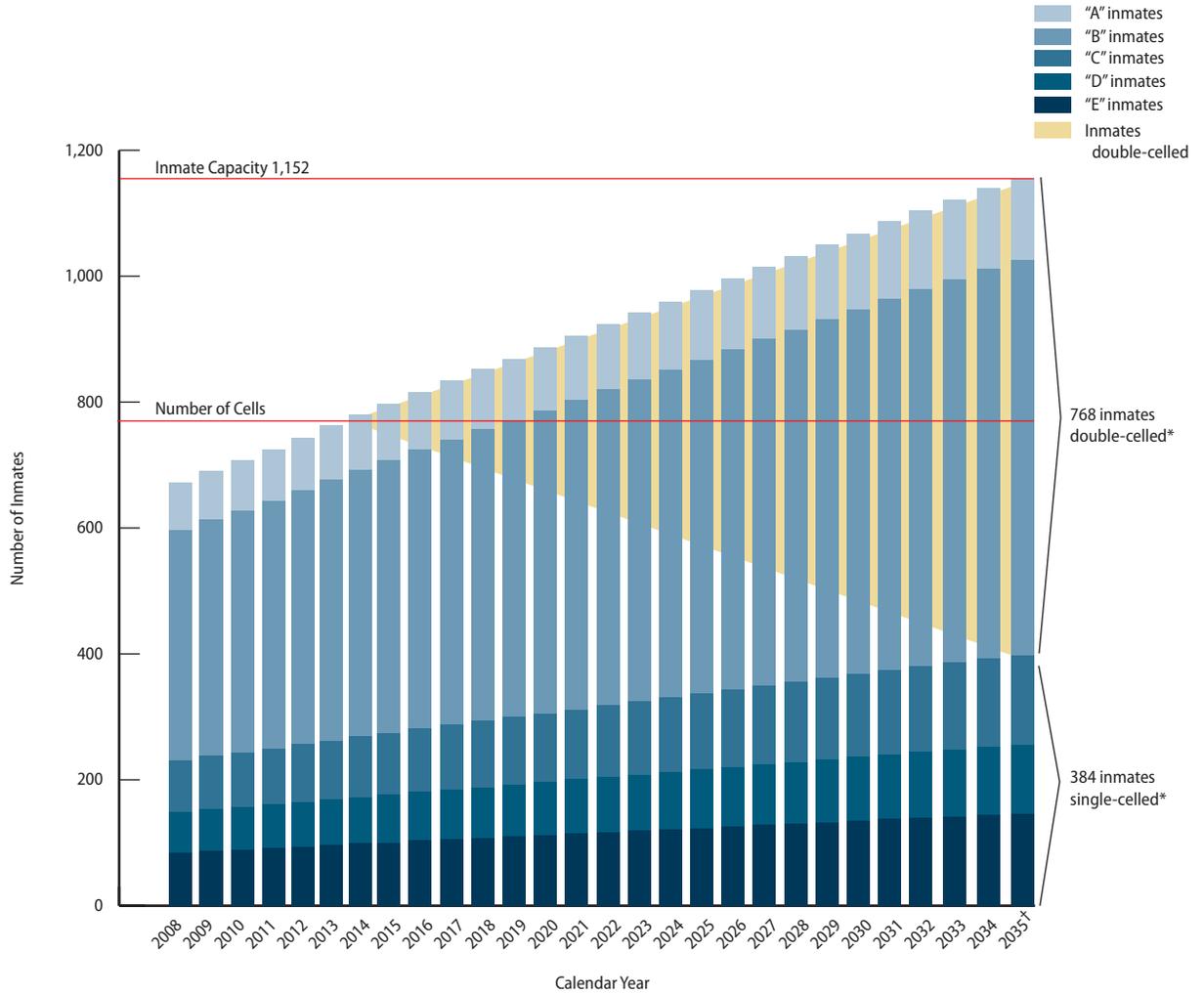
According to the chief deputy, under the new grading system it would be reasonable to assume that Corrections will first evaluate inmates classified as grade A for potential double-celling. Corrections would likely evaluate inmates classified as grade B next, and so on. The chief deputy stated these evaluations would be performed on an individual basis, and therefore it may not be the case that all inmates classified as grade A will be double-celled but would depend on Corrections' evaluation of each individual.

Based on our consultant's projected population growth, placing two condemned inmates in some cells will be necessary beginning in 2014, three years after the CIC is expected to open. As the Figure indicates, in that year the condemned inmate population is expected to exceed the 768 cells available in the CIC. By the end of calendar year 2016, all of the grade A condemned

inmates would be double-celled, assuming that double-celling is appropriate for all of these inmates, and Corrections would need to begin double-celling its grade B condemned inmates. Continuing this process, by 2035, when the CIC has reached its capacity, 1,152 condemned inmates would be housed in the CIC, and two-thirds of these, a total of 768 inmates, would be sharing cells. In this hypothetical scenario, all grade A condemned inmates would be double-celled, all but one of the grade B inmates would be double-celled, and 16 of the grade C inmates would be double-celled.<sup>7</sup>

<sup>7</sup> The condemned inmate population is projected to reach 1,152 during calendar 2035. At this point, there is projected to be an odd number of grade B inmates, requiring one of these inmates to be single-celled since grade B inmates cannot be double-celled with grade C inmates.

**Figure**  
**Projected Growth in Condemned Inmate Population by Grade and Condemned Inmate Complex Capacity**  
**2008 Through 2035**



Source: Bureau of State Audits' consultant's condemned inmate population projections using the California Department of Corrections and Rehabilitation's (Corrections) condemned inmate counts for 1978 through 2007 and its anticipated reclassification of existing condemned inmates. We did not verify inmate counts to source documentation such as inmate files.

\* Estimate based on Corrections' current projections of the number of inmates in each grade level.

† Represents only nine months of 2035, at which point the condemned inmate complex would be at capacity.

*Although the chief assistant state public defender cannot say whether his office would challenge the legality of double-celling, in his professional opinion a legal challenge would certainly be brought by others who have standing to do so.*

### ***Some Experts Have Expressed Concerns About Double-Celling Condemned Inmates***

The United States Supreme Court has ruled that placing two inmates per cell in a relatively modern prison facility does not violate the constitutional prohibition against cruel and unusual punishment. However, some experts we spoke to raised concerns about double-celling condemned inmates. Because condemned inmates typically have appeal matters pending throughout their time on death row, the chief assistant state public defender (chief public defender) stated that inmates often review legal papers related to their cases while in their cells, and housing two inmates in a cell may compromise the confidentiality of an inmate's legal papers. Further, according to the chief public defender and the executive directors of the California Appellate Project and the Habeas Corpus Resource Center, capital cases often contain very personal, private, and sensitive materials. They added that double-celling raises serious concerns about maintaining confidentiality during the preparation to defend a condemned inmate. Additionally, although the chief public defender cannot say at this point whether his office would challenge the legality of double-celling, in his professional opinion, a legal challenge would certainly be brought to such a plan by others who have standing to do so. The executive director of the California Appellate Project agrees, stating that it is likely that double-celling condemned inmates in California would be legally challenged.

In our discussions with Corrections' chief deputy on this point, he stated that there are ways to address concerns regarding confidentiality. Specifically, he stated that storage exists in which condemned inmates are currently permitted to store legal documents outside of their cells. When necessary, a condemned inmate can request legal papers from this storage area, and the correctional officers at San Quentin then retrieve the documents. However, according to the captain who oversees the inmates currently on death row at San Quentin, condemned inmates are allowed to have 1 cubic foot of legal paperwork in their cells. Thus, to address the risk that another inmate will access confidential legal materials in a shared cell, Corrections would need to change its current practices.

Our consultant believes double-celling the new grade A inmates is worth exploring. However, he expressed concern that double-celling any of the other inmates increases the risk of harm to the inmates who are housed together, especially for long periods of time. He added that health and mental issues may preclude double-celling a portion of the condemned inmates. Additionally, he said that condemned inmates are more likely to resist double-celling than other difficult-to-manage inmates.

Consequently, they may do whatever it takes in terms of acting out to remain in a single cell, unless significantly greater privileges are afforded to them when they are assigned to a two-person cell.

The chief deputy stated that it is Corrections' current policy to double-cell inmates whenever it is safe to do so, given space limitations and overcrowding, and that condemned inmates would not be an exception to this policy. He stated that the architectural design for the CIC assumed a certain level of double-celling. According to the chief deputy, the purpose of Corrections' process for evaluating whether inmates would be suitable to share a cell is to minimize the risk of harm to the inmates who are celled together, and part of the evaluation of inmates for double-celling would include consultation with medical and mental health staff. He further noted that the heightened risk of harm is not unique to the condemned inmate population. This concern also applies to inmates serving life without parole and to those that are housed in segregated housing units. Currently, some of these prisoners are double-celled in cells that are similar in size to those planned for the CIC. Additionally, he stated that it is likely that some condemned inmates would not be opposed to sharing a cell and that existing incentives would be sufficient motivation for these inmates.

To provide some context regarding the double-celling of condemned inmates, we surveyed 13 states that had populations of 50 or more condemned inmates as of April 2008. Of the 12 that responded, only one, Oklahoma, stated that it currently double-cells around 80 percent of its condemned inmates. The assistant deputy director of Oklahoma's Department of Corrections stated that inmates are double-celled after the department has determined that they are not an imminent threat to others. The remaining 11 states said that they do not double-cell condemned inmates. Representatives from the corrections departments of the other 11 states cited security as the main reason for not double-celling condemned inmates, stating that they believe condemned inmates would be more prone to violence against correctional officers and fellow inmates if they were double-celled. (See the text box for a listing of the states.)

According to our consultant, California's reasons for pursuing double-celling are not compelling. Our consultant does not believe Corrections can sufficiently mitigate the difficulties and risks inherent in double-celling condemned inmates,

**Most States We Surveyed  
Do Not Double-Cell Condemned Inmates**

Eleven states do not double-cell condemned inmates:

- Alabama
- Arizona
- Florida
- Georgia
- Louisiana
- Mississippi
- Nevada
- Ohio
- Pennsylvania
- South Carolina
- Tennessee

One state double-cells condemned inmates:

- Oklahoma

One state did not respond:

- Texas

Source: Bureau of State Audits' survey of states with 50 or more condemned inmates as of April 2008.

who, more than any other inmate group, have nothing to lose. Although he agrees that some condemned inmates could be double-celled, our consultant believes it would be prudent for Corrections to consider double-celling only the condemned inmates classified as grade A under the new classification system.

***A More Practical Solution for Housing the Growing Number of Condemned Inmates Would Be to Add a 256-Cell Housing Unit***

Our consultant indicated that, rather than double-celling a large proportion of its condemned inmates, Corrections should build a fourth housing unit, which the existing land can accommodate. Based on an estimated increase in the condemned inmate population of 18 inmates per year, adding an additional 256-cell housing unit would allow Corrections to single-cell the condemned inmates until 2028. At that time, if Corrections began double-celling its grade A condemned inmates, total capacity would be reached during 2030. The additional housing unit would increase the total number of cells in the CIC to 1,024, and bed capacity would increase to 1,408.

Adding a housing unit would also be consistent with Corrections' original plan for the CIC, which included eight housing units containing 128 cells each, for a total of 1,024 cells. Its modified plan to construct the stacked housing units, each containing 256 cells, initially would have resulted in the same number of cells. However, due primarily to cost considerations, Corrections reduced the capacity of the proposed CIC by 25 percent, or 256 cells, by eliminating one of the four stacked housing units.

Although our consultant believes that the addition of a fourth stacked housing unit is preferable to double-celling, it would come at a substantial cost. Our consultant estimated that constructing a fourth stacked housing unit would add \$64.1 million to Corrections' currently planned CIC if it were constructed concurrently with the proposed CIC. With the addition of the fourth stacked housing unit, the CIC would have a total of 1,024 cells and 1,408 beds. This would lower the total cost per cell and cost per bed to \$448,876 and \$326,445, respectively. Thus, when compared to the per cell and bed cost shown in Table 4 on page 16, the additional housing unit would decrease the cost per cell and per bed because the fixed cost of the correctional treatment center and other CIC facility support functions are spread over a greater number of cells and beds.

***Although our consultant believes that the addition of a fourth housing unit is preferable to double-celling, it would come at a substantial cost.***

However, if construction of the fourth stacked housing unit was delayed, our consultant estimated that the construction costs would rise significantly. For example, if construction was delayed five years until 2013, our consultant estimates that the construction costs would be \$92.6 million, due to \$19.2 million in costs associated with delaying the project and \$9.3 million in additional costs due to construction inefficiencies created by doing the work after construction of the other structures and while the CIC was in full operation.

We conducted this review under the authority vested in the California State Auditor by Section 8543 et seq. of the California Government Code and according to generally accepted government auditing standards. We limited our review to those areas specified in the audit scope section of the report.

Respectfully submitted,



ELAINE M. HOWLE  
State Auditor

Date: June 10, 2008

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## Appendix

### CALIFORNIA DEPARTMENT OF CORRECTIONS AND REHABILITATION’S EXPLANATION FOR CHANGES IN CONDEMNED INMATE COMPLEX COSTS

Table A shows the material changes in costs for various components of the proposed condemned inmate complex (CIC) at San Quentin State Prison. Specifically, the table shows the material differences between the California Department of Corrections and Rehabilitation’s (Corrections) original \$220 million budget and the current \$356 million proposal. We defined as material any change—increase or decrease—that totaled \$5 million or more. As a result, these numbers do not correspond with the numbers in Table 1 of the report, which identifies all changes. We asked Corrections’ officials to identify the reasons for each of these changes. Their explanations are provided in the following table.

**Table A**  
**Corrections’ Reasons for Material Changes in Cost Estimates to Construct a New Condemned Inmate Complex**

COMPONENT AND ITEM DESCRIPTION	DIFFERENCE IN COST	AGENCY RESPONSE
<b>Site Demolition and Grading</b>		
Site grading and soil stabilization	\$14,123,855	The original cost model assumed that average soil conditions existed on the site, requiring general site grading with soils under building pads overexcavated/recompacted to a depth of about 3 feet below finish grade. Following completion of a detailed geotechnical investigation, it was determined that unclassified soils and bay muds existed under most of the site. Because of the depth of these poor soils below existing grade, the geotechnical consultant recommended that the most economical method to deal with these unstable soils is to remove them and replace them with material excavated from Dairy Hill, a 30- to 40 foot-high sandstone rock hill located on about one-third of the proposed site. Under some building pads, excavations to depths of 15 to 20 feet are planned, with extensive dewatering measures in place to prevent migration of sea water into the excavation.
		Additional site costs that will be incurred but were not in the original budget include removal of Dairy Hill. Material from Dairy Hill will be removed, crushed, and reused as general site fill or in excavations where poor soils existed. Excess Dairy Hill material will be hauled into an abandoned rock quarry located on the San Quentin site. To prevent settlement in the recreation yards and under roadways because of poor soil conditions, soil piers spaced at approximately 8 to 10 feet on center will be installed in selected areas to prevent settlement of sidewalks and roads throughout the site. In the middle of the asphalt paved recreation yards, the soils will undergo deep dynamic compaction to prevent settling.
Utility demolition	(6,451,527)	The estimated cost to demolish existing above- and below-ground utilities was less than budgeted.
Building demolition	(6,482,757)	The estimated cost to demolish the existing buildings and other site improvements was less than budgeted.
Hazardous material cleanup	(8,986,158)	When the original budget was prepared, it was assumed that there would be a substantial amount of hazardous material cleanup due to the existence of an abandoned wastewater treatment plant, very old buildings that would need to be demolished, and a recycling center and several old maintenance buildings. After a thorough hazardous materials investigation, it was found that very little hazardous material existed.

*continued on next page...*

COMPONENT AND ITEM DESCRIPTION	DIFFERENCE IN COST	AGENCY RESPONSE
<b>Site Utilities</b>		
Electrical supply and distribution	\$8,352,378	The electrical system consists of tapping into an existing electrical supply to the prison and extending a 12-kilovolt distribution system to area transformers that service one or more buildings. The original budget was not sufficient to cover the distance from the power supply to the condemned inmate complex (CIC) and assumed that emergency power would be supplied from the existing generation system and that a new generator would not be required. Based on the final building loads and capacity of the existing generation system, Corrections determined that a new standalone electrical generator would be required.
Roads, paving, and parking	5,126,494	The original budget was based on a standard amount of asphalt paving that would be required for a typical Level IV (maximum-security) prison. The biggest increase in this category was for paving of the 4 recreational yards which encompassed approximately 75 percent of the 14.5 acres of asphalt paving that will be installed on this project. The entire recreation yards were paved based on the yard layout, activities that occur in the yards, weather, and cleanliness. Because of the poor soil conditions, the geotechnical engineer recommended from 12 to 16.5 inches of aggregate base topped by up to 3.5 inches of asphalt should be placed on all areas to be paved.
<b>Housing and Guard Towers</b>		
180-degree stacked housing units	48,541,333	The original cost model assumed that Corrections would utilize its standard 180-degree housing unit, which is a two-story building with a total of 128 ground-floor and mezzanine cells. The standard 180-degree housing unit is approximately 52,000 square feet and constructed of precast interior and exterior walls, slab on grade floor with conventional spread footing foundation. Due to site constraints specific to the San Quentin site, Corrections decided to utilize the 180-degree housing design but to stack one housing unit on top of another. Although stacked, each housing unit is designed to operate completely independently for security reasons. This security requirement resulted in the need for elevators, dumbwaiters, and additional access and egress stairways that were not in the original 180-degree housing design or in the budget. Because of the size, configuration, and weight of this structure, the structural engineer of record reported that this housing could not be of precast construction but would have to be poured in place, resulting in a significant increase in the cost of the structure.
		In addition, the soil conditions at San Quentin required that 3 of the 4 housing units be constructed on a pile foundation instead of a conventional spread footing. The structure needed to be completely redesigned because of the stacked configuration, method of construction, weight, soil conditions, and seismic requirements that added substantial cost to the building beyond what was originally budgeted. In addition, the entire building, including individual housing pods and subpods, was heated/ventilated using one large air-handling unit requiring multiple dampers and associated controls for temperature control and smoke/gas evacuation.
		Because of community concerns identified during the environmental impact phase, the exterior of the housing units were redesigned to give the structure a more aesthetically pleasing appearance from both from Sir Frances Drake Blvd. and the Commuter Ferry. Outside the traditional concrete exterior wall, an entirely new facade was designed consisting of fretted glazing, stucco, and metal siding. This new exterior was never included in the original budget.
<b>Secure Support Buildings</b>		
Yard walls, catwalks, and small management yards	9,647,290	Security and operational requirements and procedures for a condemned inmate complex are based on how Corrections and the correctional staff at San Quentin plan to operate the facility. This category increased in cost due to the extensive number of yard gun posts around the recreation yards, elevated catwalk/gun runs for emergency response, and the total number of small management yards. No small management yards (which are high-security wire mesh enclosures with plumbing fixtures) were included in the original budget. Because of Corrections' new classification system for the condemned inmates (grades A through E), it was determined that up to 70 small management yards would be required to provide the mandated daily exercise time for the inmates.

COMPONENT AND ITEM DESCRIPTION	DIFFERENCE IN COST	AGENCY RESPONSE
Program facility support services	\$5,576,255	The original budget for the program facility support services (PFSS) buildings (one in each yard) was based on constructing a total of 32,492 square feet. In the final architectural program and building design, the size of the building increased by approximately 5,200 square feet. The added space included inmate records in one of the PFSS buildings and enlarged health service satellites in both PFSS buildings.
<b>Correctional Treatment Center</b>		
Correctional treatment center	13,117,890	The original cost model budgeted a Correctional Treatment Center (CTC) with 33,373 square feet at a cost of approximately \$12,675,055. Based on requirements from the San Quentin medical staff and revised operational requirements, it was determined that many of the medical functions (pharmacy, dialysis, etc.) that were provided at other on-site facilities would be relocated to the new CTC. This new requirement added approximately 8,400 square feet to the size of the structure, which increased the cost of the building.
Central health services	(5,065,860)	When the original cost model and budget were developed, it was unknown what medical facilities would be required. Following programming, it was determined that a 24-bed CTC would be constructed. The central health services building that was included in the cost model was not required.
<b>Non-secure Support Buildings</b>		
Warehouse	7,888,090	A warehouse was not included in the original cost model, based on initial planning information received from the San Quentin staff. It was later determined that the existing warehouse space was at capacity and that a new warehouse would be required to store goods and materials to support the new CIC.
Inmate programs building	(7,841,450)	Based on the type and classification of condemned inmates, it was determined by Corrections during the programming phase that an inmate programs building was not required.

Source: Bureau of State Audits' review of Corrections' original and revised cost estimates and information provided by Corrections explaining the reasons for the cost increases/decreases.

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(Agency response provided as text only.)

Department of Corrections and Rehabilitation

**Memorandum**

Date: June 2, 2008

To: Elaine M. Howle, State Auditor\*  
Bureau of State Audits  
555 Capitol Mall, Suite 300  
Sacramento, CA 95814

**Subject: RESPONSE TO THE BUREAU OF STATE AUDIT'S DRAFT REPORT ENTITLED CALIFORNIA DEPARTMENT OF CORRECTIONS AND REHABILITATION: BUILDING A CONDEMNED INMATE COMPLEX AT SAN QUENTIN MAY COST MORE THAN EXPECTED**

This memorandum is prepared as the California Department of Corrections and Rehabilitation's (CDCR) response to the Bureau of State Audits' (BSA) draft report entitled *California Department of Corrections and Rehabilitation: Building a Condemned Inmate Complex at San Quentin May Cost More Than Expected*. The report evaluates the project plan and estimated costs associated with the construction and activation of a new condemned inmate housing complex at California State Prison, San Quentin (SQ). CDCR believes the construction cost analysis conducted by the consultant for BSA was thorough and reasonable. CDCR also appreciates the recognition that the cost differential is due in large part to CDCR's adherence to escalation protocols established annually for all State agencies.

Other construction cost-estimate differences from the original design, as the draft report points out, are the result of necessary design modifications to the project and related infrastructure of SQ in order to more accurately reflect the needs of CDCR's inmate population. For instance, the original cost model assumed a correction treatment center (CTC) would be constructed to service SQ's population, including the condemned. At the time the cost model was developed, it was unknown what other medical functions would be required and what additional population would be served. Based on the medical Receiver's construction efforts at SQ, the amount of medical space planned within the CTC has since been reduced. However, the costs remain about a third higher as construction costs have continued to escalate.

In addition to fiscal issues, one programmatic concern raised by BSA is CDCR's decision to double-cell certain condemned inmates and the risks associated to cohabit this population. The condemned inmate complex (CIC) project was programmed to double-cell certain inmates who are deemed "low risk." A segment of the CDCR condemned population, the Grade A inmates, have been co-mingling with other condemned inmates for years on the exercise yards. While incidents of violence between inmates do occur on these exercise yards, these incidents are no different than incidents that occur in facilities housing lower level offenders. In addition, certain condemned inmates have been assigned to assist with janitorial duties and participate in contact-visiting. These inmates have unrestrained contact with staff, inmates, and visitors which presents the same risks as double-celling the population.

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\* California State Auditor's comments begin on page 37.

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- ② BSA correctly points out that CDCR is not the only state to have found that its condemned population may be safely double-celled. BSA's report mentions the Oklahoma Department of Corrections has successfully double-celled their condemned population. CDCR notes while Missouri and Ohio do not double-cell their population, their nonviolent condemned populations are housed in a general population environment, rather than an administrative segregation setting, which means the condemned inmates have routine unrestrained access to staff and inmates. States such as Connecticut, Indiana, Kentucky, Montana, North Carolina, Nebraska, and Washington also allow unrestrained access between staff and nonproblematic
- ① condemned inmates. At least ten states allow the inmates to exercise in groups as does CDCR. While these states may elect not to double-cell, they afford their condemned inmates much of the same access to staff and one another as would CDCR.

- As mentioned, CDCR's housing policies do not prohibit double-celling inmates who have been sentenced to life without possibility of parole (LWOP). These inmates pose many of the same risks as the condemned population, but CDCR has been successful in managing those risks. Additionally, these inmates have court documents in their cells that may be as sensitive as inmates in the condemned population. Yet there is scant evidence in the recent past to suggest any of the CDCR LWOP inmates are more prone to harm their cell mates or have been harmed due to an inmate learning of the circumstances of their crime. CDCR has policies for separating predatory inmates from those who may require protective separation for reasons such as their commitment offense; those same practices are employed with the condemned population.
- ③

CDCR has considerable expertise in corrections and decades of experience in managing the largest condemned population in the United States. Based on this expertise, CDCR knows there is a population of condemned inmates who demonstrate little or no problematic behavior while in custody. These inmates are awaiting their appeal process and are focused on remaining disciplinary free as any incidents of violence would impact their appeal process. In managing this population, CDCR has existing procedures related to the programming restrictions based on inmate behavior, which is the Grade A and Grade B system mentioned in the report. The proposal by CDCR to further define the grading system and permit double-cell housing would further refine that policy.

- CDCR's population management strategies, including overcrowding protocols, are routinely reevaluated for appropriateness, and the State must balance the risks of safety and security against the costs and other impacts associated with those decisions. The construction of this new complex will add much-needed capacity to CDCR's housing capacity at a time when it is facing significant scrutiny by the federal courts. Also, while the BSA review reflects there is a one-time cost of constructing additional beds to single-cell all condemned inmates to mitigate risk, the audit does not account for the ongoing costs for staffing, maintenance, and utilities for additional beds and buildings should CDCR not double-cell the population.
- ④

- Another area of concern noted by BSA was the potential to exceed the capacity of the new complex within a relatively short time frame if CDCR were to single-cell the condemned population. The growth rate used of 18 inmates per year far exceeds actual historical growth figures. Additionally, in the event CDCR determines it cannot either double-cell as many inmates as projected or experiences excessive population growth of condemned inmates, the parcel where the complex is to be built has been sized for future expansion, including providing utility infrastructure capacity for a fourth unit as may be necessary.
- ⑤
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CDCR understands a secondary report in connection with the CIC project is scheduled for release by BSA in July 2008 and will provide supplemental information to this assessment, including another analysis of alternative sites which presumably will be similar to one conducted by BSA in 2004. CDCR would like to point out as it progresses with its construction plans authorized pursuant to Assembly Bill (AB) 900, and as the federal Receiver progresses with planned expansion and renovation of its medical care facilities to include the construction of 10,000 medical care beds at up to 7 existing facilities, the availability of land, and remaining infrastructure capacity, is extremely scarce. Any consideration of alternative sites must be cognizant of these increasing limitations. CDCR also respectfully points out a considerable amount of time and money has been spent designing a facility at the SQ location and any alternative site would require a complete redesign of the facility, with a new environmental study and the delay of several more years to get to the point CDCR is currently at with the proposed SQ CIC project. Construction delays of that magnitude will most certainly result in increased costs associated with the construction of a new condemned complex.

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In anticipation this supplemental report may materially impact the responses to the BSA report, and risk further delays and increased costs to this project, CDCR respectfully requests the right to add additional commentary as it deems appropriate. In the interim, CDCR would like to thank BSA for its continued professionalism and guidance with CDCR's goal of meeting the housing needs for condemned inmates. Should you have any questions or concerns, please contact me at (916) 323-6001.

(Signed by: Matthew L. Cate)

MATTHEW L. CATE  
Secretary

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## Comments

### CALIFORNIA STATE AUDITOR'S COMMENTS ON THE RESPONSE FROM THE CALIFORNIA DEPARTMENT OF CORRECTIONS AND REHABILITATION

To provide clarity and perspective, we are commenting on the response to our audit report from the California Department of Corrections and Rehabilitation (Corrections). The numbers below correspond with the numbers we placed in the margins of Corrections' response.

We believe Corrections' discussion of the interaction among condemned inmates on the exercise yard and between condemned inmates and staff is not a valid representation of the risks involved with double-celling two inmates in a confined space for extended periods of time. As indicated on pages 25 and 26 of the report, our consultant stated that he does not believe that Corrections can sufficiently mitigate the difficulties and risks inherent in double-celling condemned inmates, who, more than any other inmate group, have nothing to lose.

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Corrections is correct that we note in the report that the Oklahoma Department of Corrections double-cells condemned inmates. However, as we state on page 25 of the report, of the 12 state departments of corrections that responded to our survey, 11 stated that they do not double-cell inmates because of concerns that these condemned inmates would be more prone to violence against correctional officers and fellow inmates. Also, while we did not survey these states, we appreciate Corrections pointing out that Missouri, Connecticut, Indiana, Kentucky, Montana, North Carolina, Nebraska, and Washington all chose not to double-cell their condemned inmates.

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As we state on page 24 of the report, the experts we spoke with—the chief assistant state public defender and the executive directors of the California Appellate Project and the Habeas Corpus Resource Center—stated that double-celling condemned inmates raises serious concerns about maintaining confidentiality during the preparations to defend them. As an example, our legal counsel pointed out that a condemned inmate's cellmate may be motivated to read the sensitive court documents of the other condemned inmate in hopes of learning something about the case that he can potentially use in an attempt to improve the conditions of his incarceration.

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While Corrections states that construction of the new condemned inmate complex (CIC) will add much needed housing capacity, much of that capacity will depend on double-celling. As we state

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on page 21 of the report, based on our consultant's projected population growth, placing two condemned inmates in some cells will be necessary beginning in 2014, three years after the CIC is expected to open. Should Corrections' plan to double-cell its condemned inmates fail, we recognize that there will be ongoing staffing, maintenance, and utility costs if an additional housing unit is built. Therefore, if Corrections decides to go forward with building a fourth housing unit, it will need to develop a staffing plan and determine the ongoing costs for operating the additional unit, as this data was not made available for us to review.

- ⑤ We are curious as to why Corrections would criticize the growth rate we used of 18 condemned inmates per year since, as we state on page 21 of the report, Corrections estimated that the condemned inmate population would grow by 24 per year. On this same page, we state that our consultant believes that Corrections may have overestimated the population growth because its estimate did not take into account that in recent years fewer people have been sentenced to death. This change resulted in an average annual increase of 12 condemned inmates per year rather than the 24 estimated by Corrections. However, recognizing that this downturn could be short-lived, but that the annual average increase might not soon return to the earlier level, our consultant estimated that the male condemned inmate population would grow by 18 inmates per year, an amount significantly below Corrections' estimate.
- ⑥ We are pleased that the parcel Corrections has chosen as the site where the new CIC is to be built has been designed for future expansion. However, as we point out on page 27 of the report, the longer Corrections waits to build the fourth housing unit, the more expensive it will become.
- ⑦ We appreciate Corrections pointing out what it believes are the various factors that need to be taken into consideration in our analysis of the cost to build a CIC at alternative locations. Based on conversations with our consultant, each of these factors is being carefully considered in his analysis and cost projections.

cc: Members of the Legislature  
Office of the Lieutenant Governor  
Milton Marks Commission on California State  
Government Organization and Economy  
Department of Finance  
Attorney General  
State Controller  
State Treasurer  
Legislative Analyst  
Senate Office of Research  
California Research Bureau  
Capitol Press