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Feasibility Study and Concept Design for the Maine Correctional Center

Maine Department of Corrections
Windham, Maine

Joint Study Report
Volume 1

Maine Project #14MCC015

February 4, 2014
SMRT Project No. 13133

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ACKNOWLEDGEMENT

Numerous people in the Maine Department of Corrections have provided valuable insight and data to support this study. We have consistently found an exceptional degree of teamwork, cooperation and expertise among the MDOC stakeholders. Their joint effort to assist with this essential project has been marked by professionalism and the mutual desire to serve the long term interests of the Maine correctional system.

EXECUTIVE SUMMARY

Background

In November 2013, the Maine Department of Corrections (MDOC) and Bureau of General Services (BGS) retained SMRT Architects of Portland (SMRT) and Pulitzer/Bogard & Associates, LLC (P/BA) to develop a feasibility study pertaining to a new plan for replacement, expansion and/or renovation of the Maine Correctional Center (MCC) in Windham. The contracts were issued pursuant to Part HH of Public Law Chapter 368, which required the MDOC to retain a consultant to:

> "*prepare an independent feasibility study of the need for correctional facility construction projects in the Town of Windham. The feasibility study must consider and provide financial analysis with respect to a number of components including but not limited to the costs of the existing correctional system and the population growth and costs of a new correctional facility in the Town of Windham*."

In addition to the numerous planning and architectural tasks needed to implement the legislation's requirements, an additional critically important task is the development of a formal economic benefit/cost analysis (BCA). The purpose of a BCA is to determine whether the economic gains resulting from a particular decision exceed the economic costs. In the case of the proposed investment in the Maine Correctional Center, the costs of the project are the capital costs associated with the new replacement facility The benefits to be counted are reductions in the operating costs of a more efficient future MCC, coupled with savings in avoided capital expenditures and lower operating cost resulting from closing or downsizing other facilities.

This current planning effort arises in the context that, as of 2012, the Maine Department of Corrections *average daily cost per offender* was the ninth highest among the 47 states reporting such data. There have been two previous attempts to address the high cost of corrections in Maine. In 1997 a similar study and BCA was undertaken, which led to the replacement of the outdated and cost inefficient penitentiary in Thomaston with a new, far more efficient prison in Warren. And, a 2002 study recommended the replacement of the MCC in Windham, although a bond issue was rejected and no changes were made to the inefficient and outdated MCC.

Purpose

The intent of this Study is to establish the economic feasibility of expanding and replacing the MCC with a new facility that will accomplish the following objectives:

- Lower the actual and per diem costs of operating the correctional system in general and MCC specifically;

- Enhance community safety and significantly expand services to inmates who have mental illnesses, have substance abuse problems, are sex offenders, are medically ill, are elderly, or require special services;

- Assist county jails by providing bed capacity for their inmates who have specialized needs;

- Avoid the necessary and expensive deferred maintenance and extensive capital construction otherwise required at MCC and the Downeast Correctional Facility in Machias; and,

- Create needed medium security beds for male inmates.

It is noteworthy that added prison bed capacity is not an objective of this Feasibility Study. Based on population forecasts, which show a relatively flat inmate population trend through the year 2037, this Study provides for 2,281 general population beds. This compares to a current budgeted bed capacity of 2,176. The additional beds that will be built at MCC are required to support an unmet need for inmates with serious medical and mental health diagnoses and to provide the necessary flexibility to house different inmate classifications[1] and allow for peaking needs.

In a word, the intent is to allow the Maine Department of Corrections to "do more with less." The goal of this Study was to determine whether a far more efficient system could be created in which the above objectives are met and the costs associated with accomplishing them would be offset by actual operating cost reductions.

Baseline Operating Costs

With the focus on saving operating costs to fund a new MCC, the starting point of the analysis was to review and document the current cost of running the MDOC's adult correctional system. Table ES.1 below illustrates those costs in FY14 dollars.

1 Additional prison beds are required as every bed cannot be used due to necessary separations due to sex, security levels, special treatment needs, etc.

Table ES.1: FY14 MDOC Adult Facilities Operating Costs

Facility	BCF	CCF	DCF	MCC	MSP	SMWRC	Total
FY14 Budget[2]	$6,709,697	$5,170,184	$5,971,457	$28,987,966	$34,094,151	$1,867,380	$82,800,835
Prisoner Boarding							$547,613
Grand Total[3]							$83,348,448
Budgeted Capacity	217	200	149	668	874	68	2,176
Staff	61	54.5	58	259.5	295.5	20	748.5
Per Diem Cost	$84.71	$70.82	$109.80	$118.89	$106.87	$75.24	$104.25

The taxpayers are currently funding MDOC at $87.1M for the direct costs associated with the six adult facilities.[4] Excluding the cost of LD1515, the calculated systemwide per diem cost is $104.25.

The Capital Program/ Realignment

In order to accomplish the many efficiency and effectiveness objectives and goals as set forth above, a capital program and facilities realignment is proposed. The highlights of this program are:

- Replace the majority of structures at the MCC with state-of-the-art facilities that will: house 1,094 inmates (874 males and 220 females); provide the range of programmatic and treatment services required; and are substantially more cost efficient to operate;

- Close the Downeast Correctional Facility due to its extremely high per diem operating costs and very limited physical plant that also requires significant maintenance and does not meet correctional standards;

- Downsize the Charleston Correctional Facility and operate it as a satellite to the Mountain View Juvenile Development Center;

2 Totals represent eleven separate cost categories: Administration, Building & Maintenance, Contractual, Energy, Food, Fuel, Healthcare, Insurance, Transportation, Travel, Wages/Salary/Benefits.
3 This does not include the cost of funding LD1515 intensive mental health services.
4 This cost does not include systemwide costs for central office, juvenile detention facilities, and capital improvements.

- Close the Southern Maine Women's Reentry Center and convert the existing Women's Correctional Center at MCC to become the new women's community correctional center.

- Increase the inmate population at Maine State Prison by 118 beds.

- Move up to 80 youthful adult male inmates to the Mountain View Juvenile Development Center.

In addition, to defining the operational, spatial and staffing requirements for the new MCC, an evaluation of the existing facilities was conducted to determine which structures could remain operational. In addition, a site and traffic study was completed to site the new facility in an optimal location to the north of the existing prison.

The total capital project cost associated with the replacement/expansion of the MCC is $173,194,000 in FY14 dollars.[5] It is proposed that bonding of this capital program be financed through the Maine Municipal Bond Bank and the annual payment of a bond is projected to cost $12.74 million per year over 20 years.

Projected Operating Costs

Table ES.2 below illustrates the impact of the creation of both a far more efficient future MCC and more efficient Maine Department of Corrections through the closure and downsizing of other MDOC facilities. The projected systemwide operating costs are based on FY14 dollars.

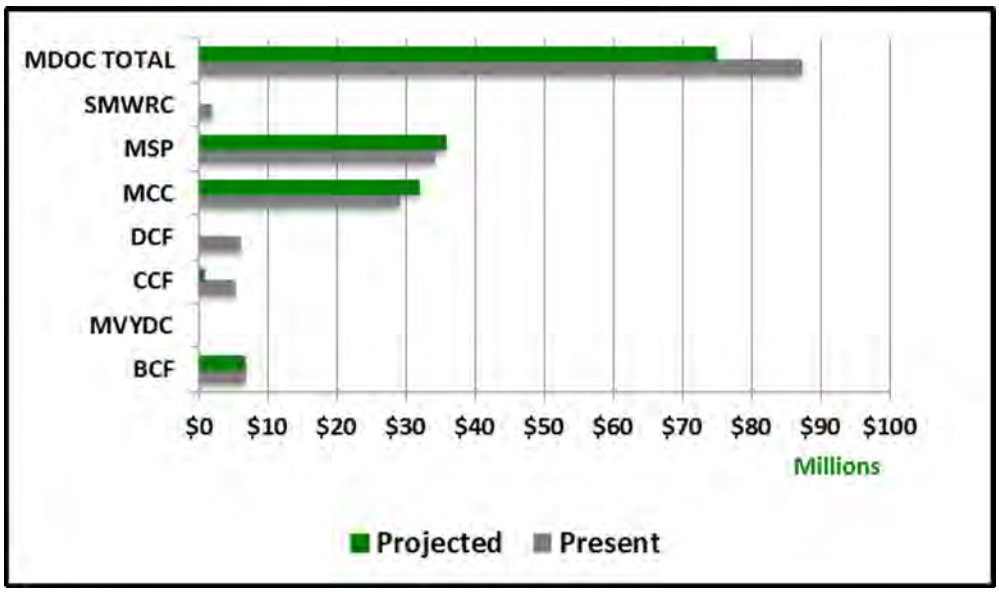
Table 0.2: Projected MDOC Systemwide Operating Costs by Facility

Cost Category	BCF	MVYDC	CCF	DCF	MCC	MSP	SMWRC	Projected MDOC Adult System Costs	Current MDOC Adult FY14 Budget
Projected	$6,615,5	$0	$749,39	$0	$31,845,	$35,687,	$0	$74,897,94	$83,348,44
IMHU								$3,781,689	$3,781,689
Grand Total								$78,679,63	$87,130,13
GP Inmates	220	80	75		914	992		2,281	2,176
Per Diem[6]	$82.39		$27.37		$95.46	$98.56		$89.96	$104.94
Staff	60		10		272.8	291.5		634.3	748.5
Staff: 100	27.3		13.3		29.8	29.4		27.8	34.4

5 Included in these costs is construction plus fees and creation of a River Road turning lane.
6 Per diem cost figures exclude the cost of LD1515.

The realignment of facilities is projected to reduce the systemwide per diem from $104.94 to $89.96 (a 14.3% decrease), reduce the staff:100 inmate ratio from 34.4 to 27.8 (a 19.2% decrease), and reduce the annual systemwide operating costs by $8.5M (FY14 dollars). Figure ES.1 depicts the systemwide operational savings by comparing the FY14 budgets and projected costs by facility.

Figure ES.1. MDOC Systemwide Operating Costs, FY14 and Projected



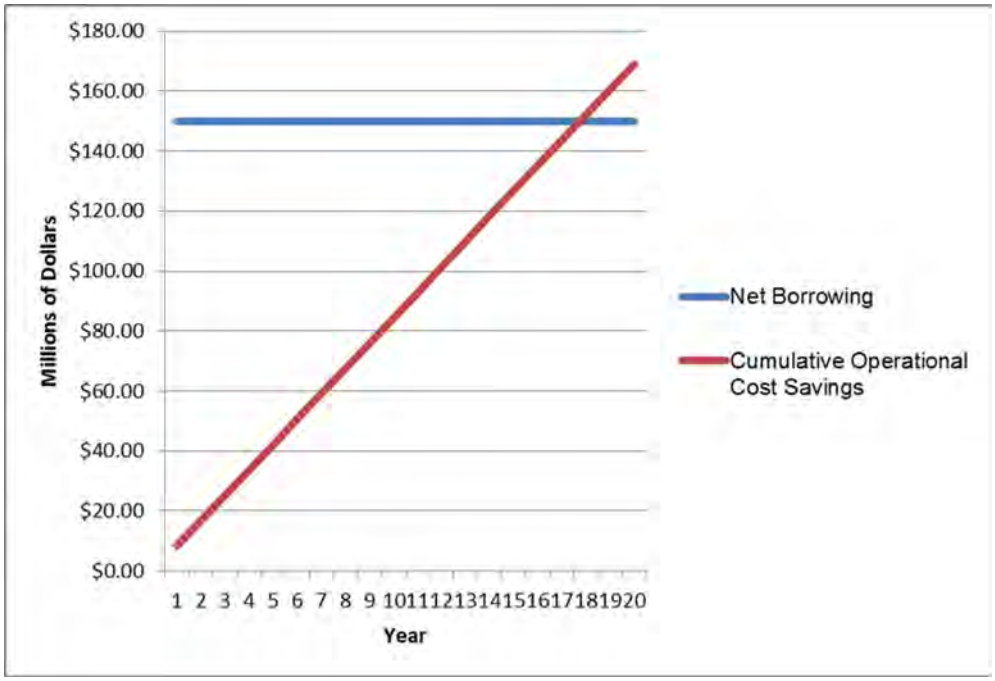
Benefit/Cost Analysis

The BCA was conducted by Dr. Charles Colgan of the Muskie School of Public Service at the University of Southern Maine. The BCA shows that the present value of the economic benefits exceeds the present value of costs by $36.94 million over thirty nears (using a 4% discount rate). The project has a benefit-cost ratio of 1.23, which exceeds the project acceptance ratio of 1.0. The costs are measured as the project outlays for the changes to the MCC and the benefits are defined as reductions in annual operating costs and the avoidance of $71.44 million in needed improvements to facilities if the MCC project is *not* undertaken.

Comparing the annual principal and interest payments of a bond to pay for the project costs (at 4% over 20 years) with the savings, yields a positive cash flow sufficient that the savings will offset the annual payments. On an annual basis, savings exceed bond payments by $0.9 million. Over the twenty years of financing, the avoided capital costs of $71.44 million can be subtracted from the $173.19 to get the “net” borrowing needs

implied by the upgrade project of $105.13 million. A comparison of the principal and interest outlays for this "net" borrowing with cumulative operational cost savings over a twenty-year finance period is shown in Figure ES.2.

Figure 0.2 Net Borrowing vs. Cumulative Operational Cost Savings



The MCC is a significant construction project for the State of Maine, which over two years will employ about 1,100 people directly in Cumberland County and an additional 400 people indirectly in Maine. The project will pay $118 million in wages and salaries over two years.

Conclusion

The replacement of MCC and general realignment of MDOC facilities will serve to provide the State with a far more efficient adult correctional system while also significantly enhancing the effectiveness and treatment capacity of its correctional programs, treatment and re-entry efforts. It will allow the State do "do *a lot* more with far less." In addition, as the Benefit/Cost Analysis concludes, this program can be accomplished at no net cost to the taxpayers from a cash flow basis needed to fund the construction and the overall economic impact on the state is positive. The timing is optimum for the State at this time inasmuch as construction costs are expected to escalate rapidly in the next few years and interest rates have never been lower. Moreover, the cost of running the prison system will

only continue to rise and this plan provides a long term strategy for providing enhanced and necessary services while also containing and reducing operating costs.

INTRODUCTION

The 2013/14 Plan

In November 2013, the MDOC retained SMRT, Inc. and Pulitzer/Bogard & Associates, LLC (P/BA) to develop a feasibility study and concept design for replacement, expansion and/or renovation of the MCC in Windham. The contracts were issued pursuant to Part HH of Public Law Chapter 368, which required the MDOC to retain a consultant to:

> *"prepare an independent feasibility study of the need for correctional facility construction projects in the Town of Windham. The feasibility study must consider and provide financial analysis with respect to a number of components including but not limited to the costs of the existing correctional system and the population growth and costs of a new correctional facility in the Town of Windham."*

The primary tasks to be accomplished under the feasibility study include:

A. The bed capacity of the current correctional system to be included in a new prison and the bed capacity of the new proposed prison in the Town of Windham.

B. Projections of the prison inmate population in the State over the next 5 years and the additional capacity needed in the prison system.

C. The current cost of the corrections system broken down into operating costs of fuel, food, wages and salaries, energy, transportation and maintenance, including the total number of employees and the costs at facilities that will be incorporated into the new proposed Windham facility.

D. The proposed operating costs of the new proposed correctional facility in the Town of Windham broken down into fuel, food, wages and salaries, energy, transportation and maintenance, including the total number of employees.

E. The total principal and debt service costs listed by fiscal year for the proposed new facilities.

F. The impact the new proposed facility in the Town of Windham will have on county jails and their inmate populations.

The primary tasks to be accomplished under the concept design study include:

A. Physical analysis of existing MDOC facilities considered to be candidates for closure or downsizing.
B. Analysis of the existing MCC structures and operations.

C. Development of a cost for continued operations at these facilities.

D. Preparation of a Concept Design for the proposed MCC replacement facility.

E. Preparation of a project development budget for the proposed MCC replacement facility.

An additional task, which is of critical importance, is the development of a formal economic cost/benefit analysis. This analysis will build on all of the tasks and calculations set forth in the legislation, while also providing a full picture of the costs and benefits associated with the proposed project.

This new planning effort arises in the context that, as of 2012, the Maine Department of Corrections *average daily cost per offender* was the ninth highest among the 47 states reporting such data.[7] On the one hand, this is to be expected given the state's very low incarceration rate and low number of total persons incarcerated (the fourth smallest prison population among 50 states).[8]

This is not the first time that the State has employed this process to address the high cost of corrections in Maine.

The 1997 Phase I Master Plan

In January 1997, the Maine Department of Corrections (MDOC) and Bureau of General Services (BGS) contracted with the criminal justice consulting team of Pulitzer/Bogard & Associates, LLC (P/BA), in association with SMRT Architects of Portland, Maine, to develop a Correctional Facilities Capital Plan. This plan was intended to assess the then current adult and juvenile correctional facilities and operations, and to recommend modifications that would create a more cost-effective correctional system. This effort stemmed, at least in part, from a concern on the part of the Governor's Office and Department of Corrections about the high cost of operating Maine's correctional system, particularly when compared to states with similar demographics.

Within the MDOC adult system, the facilities were too numerous, too small, too poorly configured, and too inefficient to allow the system to operate in a cost-effective manner. As a response to these findings, the consultant team proceeded to develop a Correctional Facilities Capital Plan for the State's adult and juvenile facilities. This Plan called for the State to consolidate the adult facilities at two locations, a new 1,072 bed facility at Warren

7 Source: *American Correctional Association 2013 Directory of Adult and Juvenile Correctional Departments, Institutions, Agencies, and Probation and Parole Authorities*, Alexandria, VA, page 32.
8 Id, page 48.

(MSP) and a renovated and expanded 788 bed Maine Correctional Center at Windham (MCC). Included in these figures were 150 beds at the Bolduc unit (at MSP) and 100 beds at MCC for community restitution and pre-release activities.

In the spring of 1998, the Plan was presented to the Legislature, which funded some major components including the replacement of the existing prison in Thomaston with a new facility at Warren, and the construction of a new women's unit at Windham. However, other major pieces of the Plan relating to the expansion and renovation of the Maine Correctional Center were deferred. The scaled-back plan was subjected to a rigorous cost/benefit analysis, which showed that operating cost savings and maintenance cost avoidance would, over a period of 10 years, offset the cost of the new facilities. Future year operating cost savings would accrue to the benefit of the taxpayers.

It was the Legislative resolve at the time that the Department of Corrections would return at a later date with a Phase II request for system improvements to address the unresolved issues from Phase I of the Facilities Plan.

In the three years after Phase I of the Plan was approved by the Legislature and signed by the Governor, there were major developments toward implementation. In 2002, the new MSP facility at Warren opened and the outmoded State Prison in Thomaston was closed and demolished. And, also in 2002, a new specially designed unit for 70 women opened at Windham, providing an environment designed for the delivery of gender specific services to this often neglected correctional population.

The 2001-2002 Phase II Master Plan-MCC and Downeast

In the fall of 2001, the State retained the original consulting team of planners, operations specialists, and architects to develop a Phase II Master Plan. This plan focused on two facilities, the Downeast Correctional Facility and the Maine Correctional Center, and the essential roles they would play in fulfilling the Department's needs for the next ten years. The facility evaluation of DCF found numerous physical plant problems, water treatment concerns, life safety violations and the highest per diem operating cost in the system due to its small size and inefficient layout. The plan for DCF, called for a 152-bed replacement facility to be located in the Town of Machias.

A similar analysis of the Maine Correctional Center indicated many operational, physical plant and security shortcomings. This was coupled with a need to provide medical special treatment beds for prisoners from throughout the system as well as Substance abuse and Sex offender treatment in therapeutic environments. The plan would address those issues as well as serve to modernize most areas of the facility, achieve compliance with national standards/building codes in all renovations and new construction and enhance the security perimeter to safely accommodate all population levels in special beds.

The proposed capital project costs for the DCF and MCC construction programs were $13.8 million for DCF and $ 11.1 million for MCC. Funding for these two projects was part of a bond proposal that went before the voters in 2002. The referendum went down to defeat.[9]

MDOC's Vision

Consistent with the enabling legislative authority for this study, the leadership of the MDOC has articulated a vision for this project that is highly responsive to solving the historical problems inherent in the system (e.g., outmoded and inefficient facilities, a lack of space and staff resources for comprehensive substance abuse, sex offender and education services). [10] Simply put, the vision is to "do more with less" by operating a cost effective, cost efficient correctional system in which services can be maximized.
Key to the realization of this vision is an expansion and/or major renovation of the MCC facility in Windham. The two primary components of the Vision are as follows:

Consolidation of Facilities

- Close the Downeast Correctional Facility,
- Downsizes the Charleston Correctional
- Facility (from 145 to 75, minimum security inmates)
- Relocate SMWRC to MCC
- Expand capacity at MCC to accommodate the inmates from the closed or downsized facilities

Expansion and Renovation of MCC

- Expand MCC's capacity to accommodate the inmates from the facilities to be closed or downsized and any projected growth
- Convert MCC into the State's primary location for inpatient medical, mental health care and therapeutic environments for substance abuse and sex offender treatment programs

9 Source: http://ballotpedia.org/Maine_Machias_Correctional_Facility_Bond,_Question_1_(2002)
10 This vision was articulated in a planning session that occurred on November 21, 2013, which was attended by many members of the MDOC executive team and representatives of the two consulting firms completing the feasibility study and architectural work.

- Renovate MCC to keep portions of the facility that are efficient and add new space that can meet standards and provide safe, secure and efficient operations
- Assist the county jails by providing specialized medical and mental health beds for a number of county jail inmates requiring higher levels of care
- Convert the existing women's unit to a re-entry center and provide new secure beds for female inmates who require that degree of custody
- Cease the practice of boarding state prisoners in county jails
- Create a full service reception center for all inmates, with appropriate security for all new admissions

Standards and Best Practices

Consistent with our firms' practices and the current practice as articulated by the MDOC's leadership, all analysis and planning to be accomplished within this feasibility study will assume that all operations and physical plant recommendations are compliant with standards promulgated by the American Correctional Association. Currently, all MDOC facilities are accredited through the ACA, with the exception of the Downeast Correctional Facility because the physical plant there cannot adequately measure up to national standards.

A second source of standards that is directly relevant and critical to this planning process is the Federal Prison Rape Elimination Act (PREA). Standards have been promulgated in order to implement this law and these became effective in August 2013. While the PREA standards are primarily operational in nature, addressing issues such as screening for vulnerability, investigations of incidents, required treatment, training of staff, and policies and procedures, a number of the standards have direct or indirect physical plant implications relative to sight lines, supervision of inmates, facilities and programs for inmates separated due to vulnerability and use of closed circuit television surveillance.

Feasibility Study & Concept Design Report

These documents present both the Feasibility Study and the Concept Design for the new Maine Correctional Center. This presentation is made to provide MDOC and the Maine Legislature the opportunity to evaluate and understand the proposed project, to confirm its viability, and to confirm that it correlates to the needs of Maine. SMRT encourages MDOC and the Legislature to look carefully at the presented information so that the project may achieve the highest level of success.

ECONOMIC ANALYSES

Benefit- Cost Analysis

The purpose of a benefit-cost analysis is to determine whether the economic gains resulting from a particular decision exceed the economic costs. In the case of the proposed investment in the Maine Correctional Center, the costs of the project are the costs of construction of the new facilities. The benefits to be counted are reductions in the operating costs in the Correctional Center and the reductions in capital and operating costs resulting from closing the Downeast Correctional Center and from significantly reducing the scale of the Charleston Correctional Center.

Costs for the project including construction and "soft costs" are estimated at $173.19 million, and the construction project is expected to take 2 years to complete.

Estimates of changes in operating costs were made by Pulitzer-Bogard Associates and are described elsewhere in this report. The reductions in operating costs into three categories:

- Personnel and other costs. These are estimated at $8.45 million per year.
- Deferred maintenance costs which have not been funded but which must be attended to if the Maine Correctional Center is not upgraded and both Downeast and Charleston facilities continue to operate as currently. These are estimated at $0.1 million per year at the Maine Correctional Center, $.024 million at the Downeast facility and $0.006 million per year at the Charleston facility.

For purposes of this analysis, all cost savings from the changes in the Maine Correctional Center are assumed to begin in year 3 after completion of the construction project. The Downeast center is assumed to close in year 3 and the benefits of reduced costs begin in year 4. The Charleston center downsizing occurs in year 4 and the reduced costs begin to count in year 5.

The alternate to undertaking the proposed upgrades to the Maine Correctional Center is to leave that Center in operation with its current buildings and facilities, while leaving the Downeast Center in operation and continuing to use the older facilities at the Charleston Center. However, continued use of existing facilities will still require significant expenditures to be made in these facilities to allow them to continue to be used.

These alternative capital expenditures are estimated by SMRT at $50.78 million for the Maine Correctional Center, $15.34 million for the Downeast Center, and $5.32million for the Charleston Center, for a total of $71.44 million. The timing of these capital expenditures is uncertain. The condition of the facilities that are being considered for

rehabilitation is generally such that the state would be much better off making the investments in the existing facilities as soon as possible if the decision is made to forego the upgrade and expansion at the Maine Correctional Center. For purposes of this analysis, the assumption is that the highest cost rehabilitation projects are done soonest and that all projects are completed over five years.

A cost benefit analysis must include consideration of the fact that benefits received some decades in the future must be compared against expenditures that are made in the present. This adjustment is made using a process called discounting, which adjusts the value of the flows of costs benefits in the future for the "fact that money received in the future has less value than money received today. This adjustment is made using an interest, or discount rate,, which is assumed to be reflected in an interest rate reflecting the next best use of the dollars used to pay the costs of the project. This discount rate thus adjusts for the "time value of money" and allows a given project to be compared to any other use of the funds that would earn values equivalent to the interest rate. For this purpose, a discount rate of 4% is used.

The analysis was conducted for a thirty-year period, which is the designed life cycle for the facilities.

Figure 1 shows the undiscounted benefit and costs of the project distributed over the project. Table 1 in the Appendix shows the data that lays behind Figure 1.

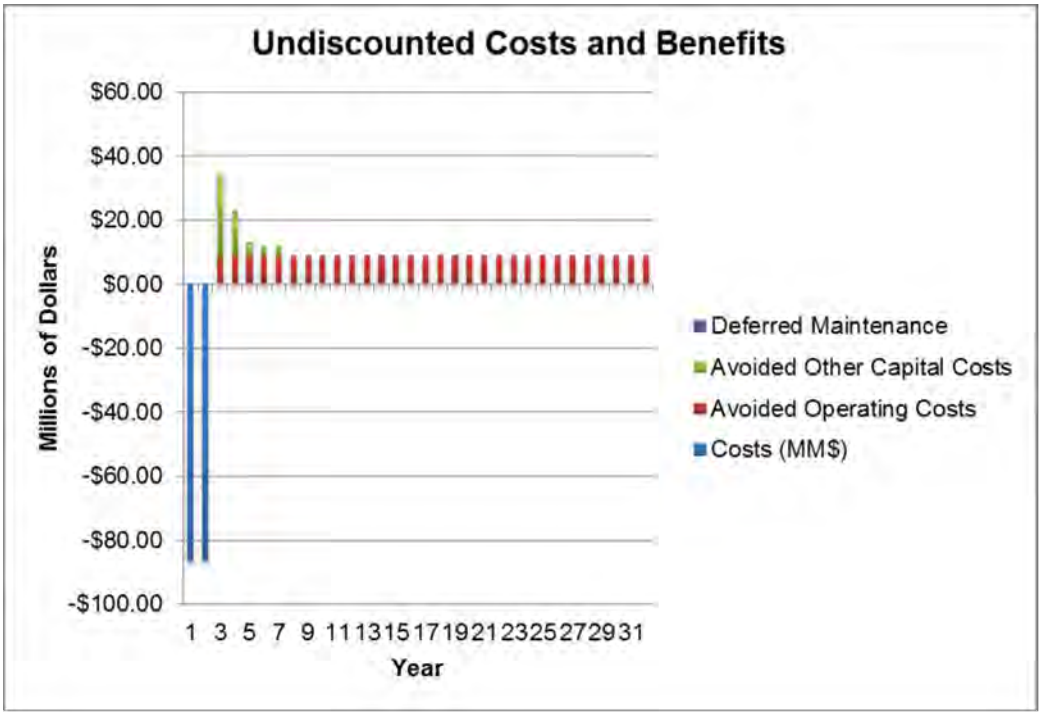


Figure 1

Figure 2 shows discounted benefit and costs. Table 2 in the Appendix contains the data.

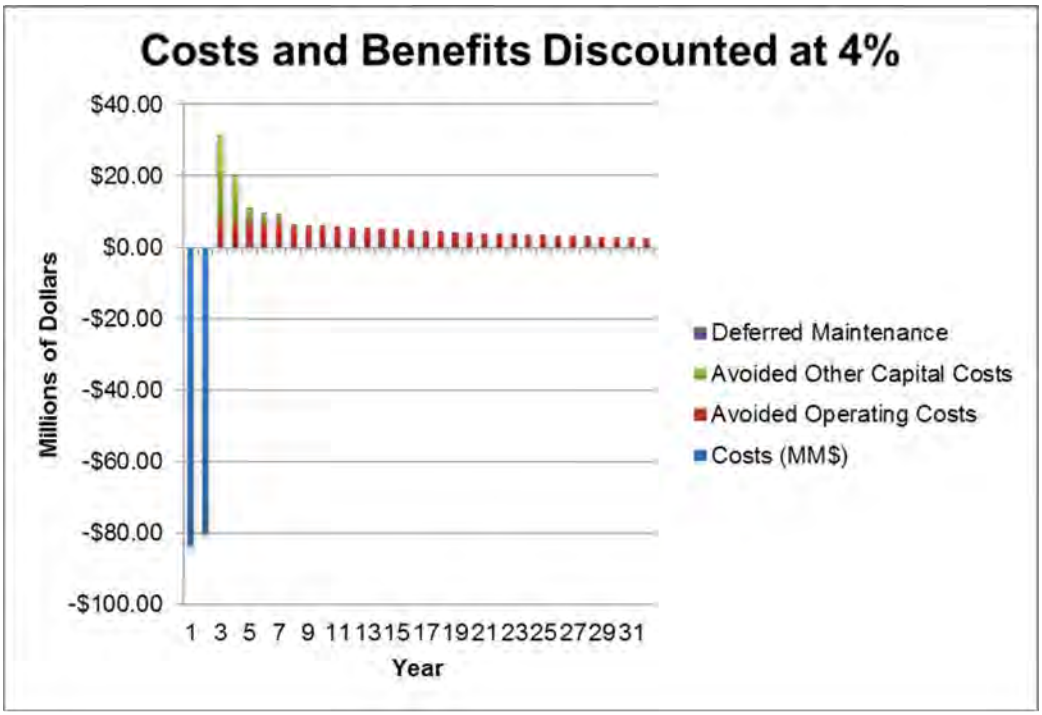


Figure 2

Under the assumptions just described, the present value of the costs is $163.33 million and the present value of benefits is $200.27 million, which means that benefits exceed costs by $36.94 million. The benefit-cost ratio is 1.226, which exceeds the project acceptance threshold level of 1.0.

Cash Flow Analysis

The benefit cost analysis addresses the question: "taking everything into consideration, will Maine get back more from the proposed project than it costs to undertake the project? This is not the same question as "will the costs saved from changing the configuration of facilities be sufficient to offset the costs of paying for the facilities".

The assumption is that the costs of the upgrades and changes to the Maine Correctional Center will be paid by a bond issue. The annual payment of a bond issued for $173.19 million issued for 20 years at 4% interest (about what Maine governments are currently paying for borrowing) is $12.74 million per year. Against this bond payment, the state is saving $8.45 million in outlays on closed and reconfigured existing facilities and in

particular the personnel and other costs to operate the Maine Correctional Center in its current configuration. These are savings on the current E&G budget.

The savings arising from the avoided capital costs at MCC and the other facilities are more difficult to incorporate into a cash flow analysis. For purposes of the cash flow analysis, the assumption is made that a bond equal to the total costs of alternative capital costs is issued in place of the bond issue supporting the proposed project. This bond issue would be valued at $71.44 million. If the bond were issued on the same terms as the project bond (20 years at 4%), the annual payment would be $5.26 million.

Adding the $8.45 million from reduced operating costs to the potential savings of $5.26 million from a bond to pay for the alternative capital costs, there is a potential offset to the project bond payment of $13.71 million, which would exceed the annual bond payments on the MCC upgrade by $0.96 million on a yearly basis.

Over the twenty years of financing, the avoided capital costs of $71.44 million can be subtracted from the $173.19 to get the "net" borrowing needs implied by the upgrade project of $105.13 million. A comparison of the principal and interest outlays for this "net" borrowing with cumulative operational cost savings over a twenty-year finance period is shown in Figure 3:

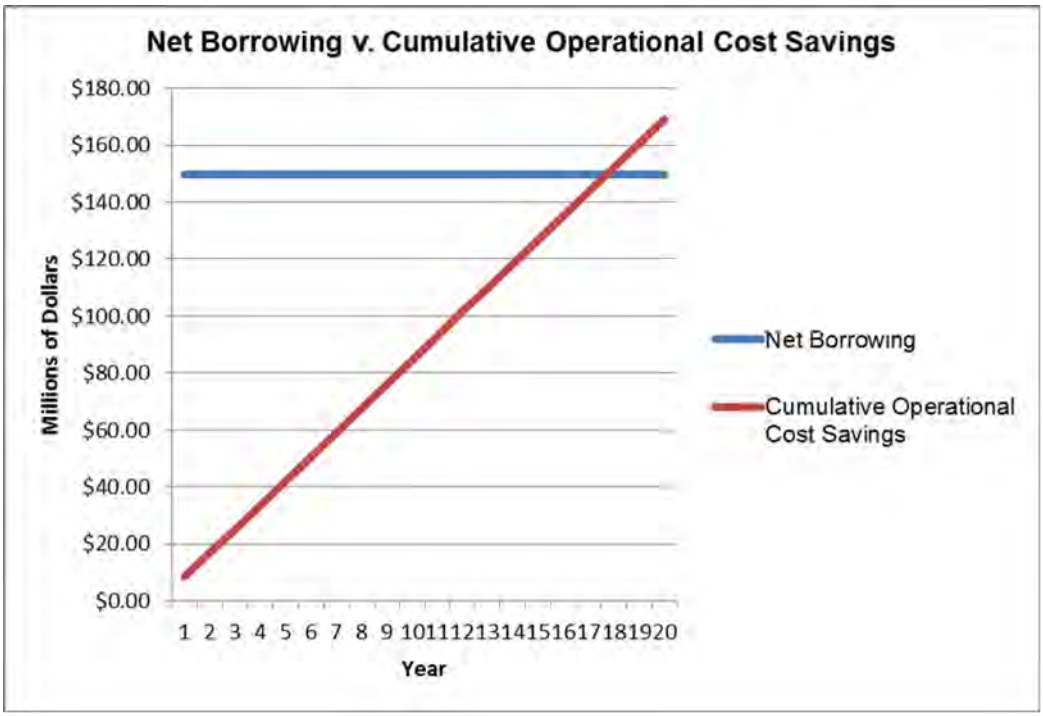


Figure 3

Economic Impact Analysis

The rehabilitation and reconstruction project at the Maine Correctional Center is a significant infrastructure construction project, equal to about 17% of the highway construction budget each year. A construction project totaling $171.6 million over two years, would typically employ about 1,100 people each year directly in Cumberland County.

These direct construction jobs would support about 400 additional jobs in the Maine economy. With short-term construction projects, these "multiplier effect" jobs are rarely new jobs, but the purchase of goods and services for the construction project plus spending by employees directly in the Maine economy supports at least part of these additional jobs. Taken together, the direct and indirect employment should result in wages and salaries paid of about $118 million.

TAB 2

POPULATION FORECASTS

Introduction

Many factors underpin a correctional system's long-term prison population projection. These factors can be separated into two major categories – external and internal. *External* factors reflect the interplay of demographic, socio-economic and crime trends that produce arrests, and offenders' initial entry into the criminal justice process. When populations or reported crimes change over time, one can expect some impact on criminal justice resources.

Internal factors reflect the various decision points within the criminal justice system that cumulatively determine prison admissions and length of stay (LOS). These decisions begin with police and end with correctional officials who, within the context of the court-imposed sentences, have the authority to release, recommit, give and restore a wide array of good time credits, and offer programs that may reduce recidivism. The limited scope of this project has limited the internal factor data available and thus the methodology for producing a forecast of the Maine prison population. The only internal data available are historical population counts. These will be presented in the methodology section. Below is a brief summary of external factors examined for the prison population projections produced.

As shown in the Table 2.1 below, the resident population in Maine has remained static over the past decade. Further, total reported crime has declined by an average of 0.1 percent between 2002 and 2012. Reported violent crime has seen a 1.3 percent average annual increase since 2002.

Table 2.1: Historical Maine Resident Population and Reported Crime per 100,000 Residents[11]

Year	Resident Pop.	Total Crime	Violent Crime	Property Crime
2002	1,294,894	2,655.1	107.8	2,547.3
2003	1,309,205	2,558.8	108.6	2,450.2
2004	1,314,966	2,517.4	103.7	2,413.7
2005	1,318,220	2,531.6	112.5	2,419.1
2006	1,321,574	2,634.2	115.5	2,518.7
2007	1,317,207	2,546.8	118.0	2,428.8
2008	1,319,691	2,576.7	119.1	2,457.6
2009	1,318,301	2,525.0	119.9	2,405.1
2010	1,327,379	2,600.7	122.1	2,478.6

11 Source: FBI.gov; US Census Bureau

Year	Resident Pop.	Total Crime	Violent Crime	Property Crime
2011	1,328,544	2,669.6	123.3	2,546.3
2012	1,329,192	2,632.6	122.7	2,509.9
Avg. % Change	0.3%	-0.1%	1.3%	-0.1%

As shown in the Table 2.2 below, the resident population growth in Maine has changed far less dramatically over the past decade when compared to the US as a whole. Further, reported crime in Maine has declined at a far slower rate than the nation as whole. The decline in the Maine prison population has closely mirrored that of the US as a whole.

Table 2.2: Comparison of US & Maine

	United States	Maine
POPULATION[12]		
Total Population (7/1/12)	313,914,040	1,329,192
Change in Population		
1-year change (7/1/11 – 7/1/12)	0.7%	0.1%
10-year change (7/1/02 – 7/1/12)	9.1%	2.8%
CRIME RATE[13] (Rate per 100,000 inhabitants)		
UCR Part I Reported Crime Rates (2012)		
Total	3,246.1	2,632.6
Violent	386.9	122.7
Property	2,859.2	2,509.9
Change in Total Reported Crime Rate		
1-year change (2011-2012)	-1.5%	-1.4%
10-year change (2002-2012)	-21.3%	-0.8%
PRISON POPULATION[14]		
Total Inmates (State Prisons Only) 2013	1,353,198	2,113
1-year change (2012-2013)	-2.1%	1.9%
5-year change (2009-2013)	-4.0%	-3.8%
Average annual change (2009-2013)	-1.0%	-0.9%
State Incarceration Rate 2012 (per 100,000 inhabitants)[15]	418	145

12 Source: U.S. Census Bureau, Population estimates for July 1, 2012.
13 Source: Uniform Crime Reports, Crime in the United States – 2012, Federal Bureau of Investigation.
14 Source: US data: Prisoners in 2012 – Advance Counts, Bureau of Justice Statistics, July 2013
15 Source: Prisoners in 2012 – Advance Counts, Bureau of Justice Statistics, July 2013; US & ME data for sentenced prisoners only in 2012.

Methodology

Projections were developed using monthly ADP for males and female from January 2009 - October 2013. Separate projections were developed for male and female and results combined to obtain a total bed space need. Each of the 58 data points was put through 4 separate statistical tests to determine trends and predictability. The statistical models attempted were linear regression, moving average, exponential and logarithmic smoothing. For each of the models, past fit absolute error was determined and taken in consideration along with the resulting future trend prediction. The following table summarizes the results of the various forecast scenarios.

Table 2.3: Projections Error

	Male	Female
Linear Regression Historical Fit Error	1.7%	4.1%
Annual Prediction % Change	-1.8%	-2.0%
Monthly Average Change Historical Fit Error	1.0%	3.0%
Annual Prediction % Change	+0.6%	+0.1%
Exponential Historical Fit Error	1.7%	4.2%
Annual Prediction % Change	-1.5%	-1.6%
Logarithmic Smoothing Historical Fit Error	1.8%	4.5%
Annual Prediction % Change	-0.2%	-0.1%

Based on the above results, the monthly average change historical fit model was the only one that produced a positive growth scenario for both the male and female populations. This is a direct result of both populations posting a long-term decrease of the 58 months observed. The historical monthly average change fit model places more emphasis on the last 36 months of observation during which time the male and female population have remained stable. Based on the results and historical flat trends in admissions, a modestly growing forecast is the most reasonable and was chosen.

Statewide Projections

Table 2.4 presents the historical and projected ADP for the Maine Department of Corrections (MDOC) from 2009 to 2037. The MDOC ADP is projected to increase from 2,113 in 2013 to 2,142 in 2023, an increase of 1.4 percent. In 2037, the MDOC ADP is projected to be 2,183, an increase of 3.3 percent from the 2013 ADP.

Table 2.4: MDOC Actual and Projected ADP by Gender: 2009-2037

Year	Male	Female	Total
2009	2,048	149	2,197
2010	2,048	156	2,204
2011	1,971	156	2,127
2012	1,927	146	2,073
2013	1,972	141	2,113
2014	1,974	142	2,116
2015	1,976	143	2,119
2016	1,978	144	2,121
2017	1,980	144	2,124
2018	1,982	145	2,127
2019	1,984	146	2,130
2020	1,986	147	2,133
2021	1,988	148	2,136
2022	1,990	149	2,139
2023	1,992	150	2,142
2024	1,994	151	2,144
2025	1,996	151	2,147
2026	1,998	152	2,150
2027	2,000	153	2,153
2028	2,002	154	2,156
2029	2,004	155	2,159
2030	2,006	156	2,162
2031	2,008	157	2,165
2032	2,010	158	2,168
2033	2,012	159	2,171
2034	2,014	160	2,174
2035	2,016	161	2,177
2036	2,018	162	2,180
2037	2,020	163	2,183

Table 2.5 presents the 5-year average peaking factor for the MDOC ADP. The total average monthly peaking factor from 2009 to 2013 is 2.2 percent.

Table 2.5: MDOC Monthly Historical Peaking Factor as a Percentage Over Annual ADP

	2009	2010	2011	2012	2013	5 Year Average
Male	3.1%	1.8%	1.6%	2.0%	2.0%	2.1%
Female	5.3%	9.8%	4.7%	5.7%	9.9%	7.0%
Total	3.1%	2.4%	1.5%	2.2%	1.9%	2.2%

Table 2.6 presents the projected male ADP with peaking factors added to generate a high scenario forecast.

Table 2.6: MDOC Male Projected Beds with 2.1% Peaking Factor, 3% Utilization Factor and 10% Classification Factor

Year	Male Base	Peaking 2.1%	Classification 10%	Utilization 3%	Total
2014	1,974	41	202	60	2,277
2015	1,976	41	202	61	2,280
2016	1,978	42	202	61	2,282
2017	1,980	42	202	61	2,284
2018	1,982	42	202	61	2,287
2019	1,984	42	203	61	2,289
2020	1,986	42	203	61	2,291
2021	1,988	42	203	61	2,293
2022	1,990	42	203	61	2,296
2023	1,992	42	203	61	2,298
2024	1,994	42	204	61	2,300
2025	1,996	42	204	61	2,303
2026	1,998	42	204	61	2,305
2027	2,000	42	204	61	2,307
2028	2,002	42	204	61	2,310
2029	2,004	42	205	61	2,312
2030	2,006	42	205	61	2,314
2031	2,008	42	205	61	2,316
2032	2,010	42	205	62	2,319
2033	2,012	42	205	62	2,321
2034	2,014	42	206	62	2,323
2035	2,016	42	206	62	2,326
2036	2,018	42	206	62	2,328
2037	2,020	42	206	62	2,330

Table 2.7 presents the projected female ADP with peaking factors added to generate a high scenario forecast.

Table 2.7: MDOC Female Projected Beds with 2.1% Peaking Factor, 3% Utilization Factor and 10% Classification Factor

Year	Female Base	Peaking 7%	Classification 10%	Utilization 3%	Total
2014	142	10	15	5	172
2015	143	10	15	5	173
2016	144	10	15	5	174
2017	144	10	15	5	175
2018	145	10	16	5	176
2019	146	10	16	5	177
2020	147	10	16	5	178
2021	148	10	16	5	179
2022	149	10	16	5	180
2023	150	10	16	5	181
2024	151	11	16	5	182
2025	151	11	16	5	183
2026	152	11	16	5	184
2027	153	11	16	5	185
2028	154	11	17	5	186
2029	155	11	17	5	188
2030	156	11	17	5	189
2031	157	11	17	5	190
2032	158	11	17	5	191
2033	159	11	17	5	192
2034	160	11	17	5	193
2035	161	11	17	5	194
2036	162	11	17	5	196
2037	163	11	17	5	197

Table 2.8 presents the projected total ADP generated from both the male and female high scenario forecast.

Table 2.8: MDOC Projected Number of Beds with 2.1% Peaking Factor, 3% Utilization Factor and 10% Classification Factor

Year	Male	Female	Total
2014	2,277	172	2,449
2015	2,280	173	2,452
2016	2,282	174	2,456
2017	2,284	175	2,459
2018	2,287	176	2,462
2019	2,289	177	2,466
2020	2,291	178	2,469
2021	2,293	179	2,472
2022	2,296	180	2,476
2023	2,298	181	2,479
2024	2,300	182	2,482
2025	2,303	183	2,486
2026	2,305	184	2,489
2027	2,307	185	2,493
2028	2,310	186	2,496
2029	2,312	188	2,499
2030	2,314	189	2,503
2031	2,316	190	2,506
2032	2,319	191	2,510
2033	2,321	192	2,513
2034	2,323	193	2,517
2035	2,326	194	2,520
2036	2,328	196	2,524
2037	2,330	197	2,527

Disaggregation by Custody, Sex and Special Needs

Table 2.9 presents the percentage of male and female security levels by classification level for the MDOC inmate population on 11/13/2013. The majority of both "regular" males and females were housed in medium or minimum custody.

Table 2.9: MDOC Classification Breakdown by Gender on 11/13/2013

	Close	Medium	Minimum	Community	Unclassified
Female –Regular	0.0%	41.5%	47.7%	7.7%	2.3%
Female Mental Health*	0.0%	0.8%	0.0%	0.0%	0.0%
Male -Regular	12.2%	37.7%	20.1%	11.6%	3.1%
Male Ad-Seg.	0.5%	0.3%	0.0%	0.0%	0.0%
Male Assisted Living	0.1%	1.7%	1.5%	0.0%	0.0%
Male RULE	0.2%	3.8%	2.3%	0.0%	0.0%
Male Mental Health	0.4%	0.1%	0.0%	0.0%	0.0%
Male Young Adults	0.0%	3.9%	0.5%	0.0%	0.0%

*Female mental health are the only female special needs beds indicated

Table 2.10 presents the female bed utilization by classification level forecast from 2014 to 2037. All classification levels are projected to have static growth. The majority of what little growth is forecasted is projected to be within minimum and medium custody levels.

Table 2.10: MDOC Female Beds with All Peaking, Classification, Utilization Forecast, 2014-2037

Year	Close	Medium	Medium Mental Health	Minimum	Community	Unclassified	Total
2014	0	71	1	82	13	4	172
2015	0	72	1	82	13	4	173
2016	0	72	1	83	13	4	174
2017	0	73	1	83	13	4	175
2018	0	73	1	84	14	4	176
2019	0	73	1	84	14	4	177
2020	0	74	1	85	14	4	178
2021	0	74	1	85	14	4	179
2022	0	75	1	86	14	4	180
2023	0	75	1	86	14	4	181
2024	0	76	1	87	14	4	182
2025	0	76	1	87	14	4	183
2026	0	77	1	88	14	4	184
2027	0	77	1	88	14	4	185
2028	0	77	1	89	14	4	186
2029	0	78	1	89	14	4	188
2030	0	78	1	90	15	4	189
2031	0	79	1	91	15	4	190
2032	0	79	1	91	15	4	191
2033	0	80	1	92	15	4	192
2034	0	80	1	92	15	4	193
2035	0	81	1	93	15	4	194
2036	0	81	2	93	15	5	196
2037	0	82	2	94	15	5	197

Table 2.11 presents the male bed utilization by classification level forecast from 2014 to 2037. All classification levels are projected to have static growth. What little growth that is forecasted is projected to be evenly distributed among all classification areas.

Table 2.11: MDOC Male Beds with All Peaking, Classification, Utilization Forecast
Regular Classification Levels, 2014-2037

Year	Close	Medium	Minimum	Community	Unclassified	Total
2014	278	858	458	265	70	1,929
2015	278	859	458	265	70	1,931
2016	279	860	459	265	70	1,932
2017	279	861	459	266	70	1,934
2018	279	862	460	266	70	1,936
2019	279	863	460	266	70	1,938
2020	280	863	461	266	70	1,940
2021	280	864	461	267	70	1,942
2022	280	865	462	267	70	1,944
2023	281	866	462	267	70	1,946
2024	281	867	462	268	70	1,948
2025	281	868	463	268	70	1,950
2026	281	869	463	268	70	1,952
2027	282	869	464	268	70	1,954
2028	282	870	464	269	71	1,956
2029	282	871	465	269	71	1,958
2030	283	872	465	269	71	1,960
2031	283	873	466	269	71	1,962
2032	283	874	466	270	71	1,964
2033	283	875	467	270	71	1,966
2034	284	876	467	270	71	1,968
2035	284	876	468	271	71	1,970
2036	284	877	468	271	71	1,972
2037	285	878	469	271	71	1,973

Table 2.12 presents the male special populations forecasts from 2014 to 2037. All special populations are projected to have static growth.

Table 2.12: Male Beds with All Peaking, Classification, Utilization Forecast: Special Population 2014-2037

Year	Ad Seg Close	Ad Seg Med	Asst Living Close	Asst Living Med	Asst Living Min	RULE Close	RULE Med	RULE Min	Mental Health Close	Mental Health Med	Young Adult Med	Young Adult Min	Total
2014	12	6	1	38	35	5	86	53	10	1	90	12	349
2015	12	6	1	38	35	5	86	53	10	1	90	12	349
2016	12	6	1	38	35	5	86	53	10	1	90	12	350
2017	12	6	1	38	35	5	87	53	10	1	90	12	350
2018	12	6	1	39	35	5	87	53	10	1	90	12	350
2019	12	6	1	39	35	5	87	53	10	1	90	12	351
2020	12	6	1	39	35	5	87	53	10	1	90	12	351
2021	12	6	1	39	35	5	87	53	10	1	91	12	351
2022	12	6	1	39	35	5	87	53	10	1	91	12	352
2023	12	6	1	39	35	5	87	53	10	1	91	12	352
2024	12	6	1	39	35	5	87	53	10	1	91	12	352
2025	12	6	1	39	35	5	87	53	10	1	91	12	353
2026	12	6	1	39	35	5	87	53	10	1	91	12	353
2027	12	6	1	39	35	5	87	53	10	1	91	12	353
2028	12	6	1	39	35	5	88	53	10	1	91	12	354
2029	12	6	1	39	35	5	88	54	10	1	91	12	354
2030	12	6	1	39	35	5	88	54	10	1	91	12	354
2031	12	6	1	39	35	5	88	54	10	1	91	12	355
2032	12	6	1	39	35	5	88	54	10	1	92	12	355
2033	12	6	1	39	35	5	88	54	10	1	92	12	355
2034	12	6	1	39	35	5	88	54	10	1	92	12	356
2035	12	6	1	39	35	5	88	54	10	1	92	12	356
2036	12	6	1	39	36	5	88	54	10	1	92	12	357
2037	12	6	1	39	36	5	88	54	10	1	92	12	357

TAB 3

NEW MCC INMATE POPULATIONS AND BED CAPACITY

Explanation/Rationale

Introduction

During meetings with MDOC officials it was established that the goals for the system were to consolidate operations in a new facility in Windham, which would enable the closing and/or downsizing some of the smaller facilities. The mission for the new MCC would be to serve as central reception for all inmates entering the MDOC system, house all female inmates regardless of custody status, improve delivery of treatment and services for special needs populations, and provide housing and services for a segment of male general population inmates. Through consolidation of inmate populations, those requiring specialized services and/or housing considerations would be concentrated at the new MCC. To meet these goals, the planning included the following assumptions:

- Downeast Correctional Facility (DCF) would cease operations and close
- Charleston Correctional Facility (CCF) would be downsized while maintaining valid vocational operations
- Southern Maine Women's Reentry Center (SMWRC) would close and affected female inmates and associated operations would be moved to the new MCC
- Mountain View Youthful Development Center (MVYDC) would house male youthful adult inmates (up to 25 years of age)
- Maine State Prison (MSP) and MCC would be stand-alone facilities with no expectation that inmates would transition between the two facilities on a regular basis
- The mental health unit at the MSP presently funded to provide intensive mental health treatment services as required by LD1515 (with Committee Amendments), which targets county jail inmates, would be moved to the new MCC
- State inmates would no longer be boarded at county jail facilities, with the exception of the Maine Coastal Regional Reentry Center (MCRRC)

The new MCC will be designed to provide the appropriate housing, treatment and services necessary to address the following special needs:

- Medical treatment and care
- Mental health treatment and care
- Intensive Substance abuse treatment (CRA)
- Intensive Sex offender treatment (RULE)
- Long-term Protective custody

Determining MDOC Systemwide Bed Need

The number and type of beds required to meet the current and future inmate populations is dependent upon a number of factors, such as:

- Number of inmates
- Gender
- Length of stay
- Custody status (risk level)
- Individuals requiring specialized services
  a. Medical care
  b. Mental health care
  c. Protective custody
  d. Intensive treatment and programming

The primary consideration in determining the number of beds needed is the growth being experienced by the system and whether there are more or less inmates being admitted and whether their length of stay is increasing or decreasing, and whether there are factors present or anticipated that will impact either of these considerations. As previously noted in this report, the MDOC male population will increase by 2.4%, while the female population will increase by 15.6% through the year 2037. It is forecast that in 2037, the MDOC will require 2,527 beds - 2,330 for males and 197 for females.

Once the number of beds is identified, the next determination to be made is how those beds should be configured. This considers the custody classifications of inmates and any special management considerations that may be present. For example, an inmate may have a custody classification of medium yet require specialized housing due to having a mental illness; requiring safeguarding from other inmates (also known as protective custody); or ongoing violent behavior that requires segregation from the general population (also known as administrative segregation). While an inmate having a custody classification of medium without any special management considerations is normally housed in a general population (GP) bed, having a special management consideration oftentimes requires removal from general population and assignment to a specialized bed (e.g., protective custody). Because some inmates may occupy specialized beds on a long-term basis, e.g., assisted living/geriatric, most inmates occupy specialized beds on a short-term basis, e.g., infirmary, acute mental health, disciplinary segregation, etc. The challenge for corrections officials is to have the necessary bed types available to meet demand. Beds that are expected to be occupied on a long-term basis are categorized as GP beds, and those that are expected to be occupied on a short-term basis are categorized as special needs beds. Accordingly, a classification factor to allow general population beds to remain vacant on a temporary basis as well as to properly house the remaining GP inmates in the correct housing type was included in the bed need analysis. In addition a peaking factor, as described earlier, was included for the male and female inmate populations as well as a utilization factor to account for downtime of cells due to maintenance and other variables.

In collaboration and consultation with MDOC officials, the type and number of beds needed through 2037 to meet the housing and programmatic requirements of inmates committed to the MDOC system are outlined in Table 5.1.

Table 3.1: MDOC Systemwide Bed Need

Bed Type	Male	Female
General Population	2,170	176
GP Close	233	115
GP Medium	616	
GP Minimum/Medium	536	
GP Minimum	393	
Assisted Living/Geriatric	76	
County Jail	20	-
Community	271	61
Protective Custody	25	-
Special Needs	160	21
Reception	51	5
Mental Health	51	10
Special Management[16]	-	2
Administrative Segregation/Disciplinary Detention	40	-
Infirmary	18	4
Total Beds	2,330	197

MDOC System Bed Distribution

Existing MDOC Bed Capacity Distribution

Before the type and number of beds that would be needed at the new MCC could be identified, the type and number of beds required to meet the needs of the MDOC population through 2037, were first assigned to existing beds that will remain operational within the future reconfigured system. In collaboration with MDOC officials, the existing beds within the MDOC were allocated for future populations. Table 5.2 summarizes the type and number of beds required by the MDOC system and the assignment of these beds to existing facilities that will continue to be part of MDOC's future operations. This bed distribution table assumes the closing of the DCF and SMWRC facilities, and the downsizing of CCF. The last column in the table, "MCC Need (Delta)", represents the beds that would be needed at the new MCC. Following Table 3.2 is Table 3.3, which provides

16 Special management inmates include those requiring protective custody, administrative segregation, and/or disciplinary detention

another depiction of the same information contained in Table 3.2 using a different reporting format.

Table 3.2: MDOC - Needed Beds and Planned Beds by Existing Facility, 2037

Classification Category	Need	MSP	BCF	CCF	MVYDC	Total Existing	MCC Need (Delta)
General Population (GP)							
Male							
Minimum	393		117	75		192	-201
Medium, Minimum/Medium (CRA, RULE, County Jail)	1,172	76817			80	848	-324
Close	233	22418				224	-9
Assisted Living	76					0	-76
Protective Custody	25					0	-25
Community	271		103			103	-168
Male GP Total	*2,170*	*992*	*220*	*75*	*80*	*1,367*	*-803*
Female							
Min, Med, Close, Asst. Living, County Jail	115					0	-115
Community	61					0	-61
Female GP Total	*176*	*0*	*0*	*0*	*0*	0	*-176*
General Population Total	2,346	992	220	75	80	1,367	-979
Special Needs							
Male							
Reception	51					0	-51
Medical - Mental Health	69	6				6	-63
Ad Seg/Disc Det	40	50				50	10
Male Special Needs Total	*160*	*56*	*0*	*0*	*0*	*56*	*-104*
Female							
Reception	5					0	-5
Special Management	2					0	-2
Medical - Mental Health	14					0	-14
Female Special Needs Total	*21*	*0*	*0*	*0*	*0*	*0*	*-21*
Special Needs Total	181	56	0	0	0	56	125
Grand Total	2,527	1,048	220	75	80	1,423	-1,104

17 MSP male medium 768 beds = 7 pods of 64 (this includes the A/B pod); 4 pods of 80 beds; up to 50 county jail inmates will be housed in these beds (only 20 county jail inmates are included in bed need)
18 MSP male close 224 beds = 4 pods of 56 beds

Table 3.3: MDOC - Needed Beds and Planned Beds by Existing Facility, 2037
(Alternate Format)

	Close	Med19	Min/ Med	Min	Asst. Lvng	Comm	PC	Total GP	Recep	MH	Ad Seg/ Sp Mgt	Infirm	Total Spec Need	Total
Bed Need 2037 - Male	233	636	536	393	76	271	25	2170	51	51	40	18	160	2330
MSP	224	768						992			50	6	56	1,048
BCF				117		103		220					0	220
CCF				75				75					0	75
MVYDC		80						80					0	80
Total Existing Male Beds	224	848	0	192	0	103	0	1,367	0	0	50	6	56	1,423
MCC Need (Delta) - Male	-9	212	-536	-201	-76	-168	-25	-803	-51	-51	10	-12	-104	-907
Bed Need 2037 - Female	115					61		176	5	10	2	4	21	197
Total Existing Female Beds	0					0	0	0	0	0	0	0	0	0
MCC Need (Delta) - Female	-115					-61	0	-176	-5	-10	-2	-4	-21	-197
Total Beds								1,367					56	1,423
MCC Need (Delta) - Total								-979					-125	-1,104

Note: The 20 county jail beds needed are added in with the medium bed need.

New MCC Bed Capacity Distribution

Once the 2037 bed needs were overlaid on the existing beds, the delta between the number of needed beds and the existing beds were then used to configure the new MCC, which resulted in select beds that exist at the current MCC being slated for reuse and new beds constructed to accommodate the remaining beds. Table 3.4 addresses the calculated bed need delta by describing the number and types of beds being planned for the new MCC. There is not a precise match between the overall number of planned beds and the projected beds required. While the total projected bed need for the new MCC is 1,104, the recommended scenario contains 1,094 beds.

19 Medium beds are defined as secure double-occupancy cells

Table 3.4: New MCC Planned Bed Distribution, 2037

Housing Category20	No. Of Beds Needed	No. Of Beds Per Pod	No. Of Pods	Total Beds	Notes
Males					
Male Housing - General Population (GP)					
Minimum	201	88	2	176	22 Quads (4-person room) per pod; dry cells
Mixed GP *Medium - (212)* *Minimum/Medium - 536* *Close - 9*	333	88	1	88	44 Doubles per pod; wet cells; these cells will be for high medium/close classifications
		88	2	176	22 Quads per pod; dry cells; high minimum/low medium classifications
Assisted Living	76	80	1	80	40 Doubles per pod; wet cells
Protective Custody	25	24	1	24	6 Quads per pod; dry cells
Community	168	80	2	160	40 Doubles per pod; dry rooms; existing MCC Dorms 5 & 6
Total Male GP	803			704	
Male Housing - Special Needs					
Reception	51	56	1	56	56 Singles per pod; wet cells; pending classification
Infirmary	12	18	1	18	18 Singles; wet cells
Mental Health *Subacute - 40* *Acute - 11*	51	50	1	50	50 Singles - number varies per subpod; wet cells; four subpods: 1 Subacute MH subpod = 10 beds; 2 Subacute MH subpods = 15 beds each; and 1 Acute MH subpod = 10 beds
Administrative Segregation/ Disciplinary Detention	(10)	40	1	40	40 Singles per pod; wet cells
Total Male Special Needs	104			164	
Total Male Beds	907			868	
Females					
Female Housing - General Population					
Mixed GP *Close - 0* *Medium - 51* *Minimum - 59* *Assisted Living - 5*	115	88	1	88	22 Quads per pod; dry cells
		48	1	48	24 Doubles per pod; wet cells
Community	61	74	1	74	37 Doubles per pod; dry rooms;

20 When multiple classifications are grouped together, the bed need numbers for each specific classification category are identified to assist the reader in understanding the total number of beds needed for that group

Housing Category20	No. Of Beds Needed	No. Of Beds Per Pod	No. Of Pods	Total Beds	Notes
					existing MCC women's facility
Total Female GP	176			210	
Female Housing - Special Needs					
Specialized Housing *Reception - 5* *Special Management - 2* *MH Subacute - 6* *MH Acute - 4*	17	10	1	10	Two subpods: 1 subpod with 6 Singles per subpod; wet cells 1 subpod with 4 Singles per subpod; wet cells; which population occupies which subpod is dependent upon need
Infirmary	4	6	1	6	6 Singles; wet cells
Total Female Special Needs	21			16	
Total Female Beds	197			226	
TOTAL GP	979			914	
TOTAL Special Needs	125			180	
TOTAL MCC	1,104			1,094	

MDOC Systemwide 2037 Bed Capacity Distribution

Table 3.5 summarizes the beds being planned to meet the projected population for 2037. It outlines by facility, the number and types of beds that will be available. MSP and MCC will serve the higher custody inmates and those that require specialized services and housing. While MCC will serve as the primary facility for many special needs inmates, especially those with medical and mental health concerns, there is a need for similar capacities at both facilities, e.g., administrative segregation and disciplinary detention. Following Table 3.5 is Table 3.6, which provides another depiction of the same information contained in Table 3.5 using a different reporting format.

Table 3.5: MDOC System - Bed Distribution by Facility, Number and Type, 2037

Classification Category	Need	MSP	MCC	BCF	CCF	MVYDC	Total	Bed Delta
General Population (GP)								
Male								
Minimum	393		176	117	75		368	-25
Medium, Minimum/Medium (CRA, RULE, County Jail)	1,172	768	264			80	1,112	-60
Close	233	224					224	-9
Assisted Living	76		80				80	4
Protective Custody	25		24				24	-1
Community	271		160	103			263	-8
Male GP Total	*2,170*	*992*	*704*	*220*	*75*	*80*	*2,071*	*-99*
Female								
Min, Med, Close, Asst. Living, County Jail	115		136				136	21
Community	61		74				74	13
Female GP Total	*176*	*0*	*210*	*0*	*0*	*0*	*210*	*34*
General Population Total	2,346	992	914	220	75	80	2,281	-65
Special Needs Beds								
Male								
Reception	51		56				56	5
Medical - Mental Health	69	6	68				74	5
Ad Seg/Disc Det	40	50	40				90	50
Male Special Needs Total	*160*	*56*	*164*	*0*	*0*	*0*	*220*	*60*
Female								
Reception	5		6				6	1
Special Management	2		4				4	2
Medical - Mental Health	14		6				6	-8
Female Special Needs Total	*21*	*0*	*16*	*0*	*0*	*0*	*16*	*-5*
Special Needs Total	181	56	180	0	0	0	236	55
Grand Total	2,527	1,048	1,094	220	75	80	2,517	-10

Table 3.6: MDOC System - Bed Distribution by Facility, Number and Type, 2037
(Alternate Format)

	Close	Med	Min/ Med	Min	Asst. Lvng	Comm	PC	Total GP	Recep	MH	Ad Seg/ Sp Mgt	Infirm	Total Spec Need	Total
Bed Need 2037 - Male	233	636	536	393	76	271	25	2170	51	51	40	18	160	2330
MSP	224	768						992			50	6	56	1,048
New MCC - Male		88	176	176	80	160	24	704	56	50	40	18	164	868
BCF				117		103		220					0	220
CCF				75				75					0	75
MVYDC (Juvenile Facility)		80						80					0	80
Total Male Beds	224	936	176	368	80	263	24	2,071	56	50	90	24	220	2,291
Bed Delta - Male	-9	300	-360	-25	4	-8	-1	-99	5	-1	-	6	60	-39
Bed Need 2037 - Female	115					61		176	5	10	2	4	21	197
New MCC - Female	136					74		210	6		4	6	16	226
Total Female Beds	136					74	0	210	6	0	4	6	16	226
Bed Delta - Female	21					13	0	34	1	-10	2	2	-5	29
Total Beds								2,281					236	2,517
MCC Need (Delta) - Total								-65					55	-10

Impact on County Jail Beds/Assumptions

With the unification of Maine's correctional system in 2008, came the ability to transfer adult inmates between county jails and the State's correctional facilities.[21] The practice since 2008 is for county jails to board state inmates while charging a marginal cost per diem, while correctional facilities board county jail inmates without charge.

Once the new MCC is operational the MDOC no longer envisions the need to house state inmates in county jails. MDOC will, however, continue to house some county jail inmates in its facilities following strict criteria. The number of county jail inmates presently in state correctional facilities is estimated to be 35 - 40 male inmates.[22] The planning assumption is that up to 50 male county jail inmates may be housed at the MSP and/or they may be housed on a bed-available basis at MCC. While MCC does not presently house female

21 34-A MRSA §1405. Transfer from county jails or correctional facilities
22 Programming Workshop on 12/09/2013. MDOC officials present at the programming workshop estimated that 20+ of the "unclassified" male inmates in the population projections were likely county jail inmates. At a planning workshop on 01/27/2014, MDCO officials present reported that the MDOC system is housing 30-35 county jail inmates at any point in time.

county jail inmates, the planning assumption is that up to 10 female county jail inmates may be housed on a bed-available basis at MCC.

Up to 18 eligible MDOC inmates would continue to be placed at the BOC-funded Maine Coastal Regional Reentry Center, which is operated by the Waldo County Sheriff's Office, at no cost to MDOC. If these beds were no longer needed, they would become available for use by eligible county jail inmates.

Counties currently receive revenue through boarding contracts with the MDOC. It is expected that these contracts will not be necessary in the future, resulting in a loss of revenues for counties with boarding contracts.

While discussed in greater detail in section V.3 of this chapter, the planning assumption pertaining to the provisions of LD1515 §3069-A, which allows transfers of jail adult inmates to DOC's mental health unit to access intensive mental health care and treatment have been incorporated into the bed distribution analysis. The key provisions of LD 1515 are:

Transfers from a jail to a correctional facility an of adult inmate:

- who is eligible for admission to a state health institute under Title 34-B but for whom no suitable bed is available

- whom the court orders to be examined or further evaluated by the State Forensic Services under Title 15 if the State Forensic Service determines that the jail where the inmate is incarcerated cannot provide an appropriate setting for the examination

Transfers from a jail for an adult defendant for a placement in a mental health unit of a correctional facility that provides intensive mental health care and treatment for observation when the court, after a hearing, finds by clear and convincing evidence that the defendant:

- Is a person with mental illness and, as a result of the mental illness, the defendant poses a likelihood of serious harm to others

- There is not sufficient security at the state mental health institute to address the likelihood of serious harm

- There is no less restrictive alternative to placement in a mental health unit of a correctional facility

It must be noted that these provisions exclude persons who have been found not criminally responsible by reason of insanity, and defendants found not competent to stand trial.

Accordingly, an additional five beds to be designated for county jail inmates who have a mental illness and require intensive treatment and care were determined to be necessary. It is assumed that flexibility will be maintained in managing all of the mental health intensive treatment beds to meet the needs of those MDOC inmates and other defendants most in need of this level of care.

Healthcare and Special Needs Populations

The need for a number of specialized medical and mental health beds was determined by current population use, population projections and the growing need of specialized medical and mental health treatment beds in correctional facilities. The following definitions described these populations.

Infirmary Beds:
There are currently 7 infirmary beds for the MDOC system located at MSP; one of these beds was designed for hospice. If a woman needs infirmary level of care, she is currently transferred into the men's facility, which results in numerous difficulties maintaining optimal security and operations within the infirmary setting. Based on current demand, it was determined that there is a need for 24 additional infirmary beds to be located at MCC: 18 male and 6 female. These beds are reserved for those inmates who require 24/7 skilled nursing care and observation for acute, subacute, and medical observation care. Infirmary beds are considered special needs beds.

Assisted Living Housing:
Population projections indicated that there is a need for 80 assisted living housing beds: 76 male and 4 female. These beds are for a flexible combination of short- and long-term care of inmates with chronic medical conditions that require daily rounds from professional medical staff and/or housing that is in close proximity to medical staff. Long-term housing may be for inmates with chronic, yet unstable or fragile conditions such as diabetes, cardiovascular conditions, uncontrolled seizure disorders and other such conditions. Short-term housing may be for inmates who are recovering from surgeries, have short-term subacute illnesses, or for short-term observation. Most inmates with mobility issues will be accommodated with ADA compliant housing; however, those who need more assistance with activities of daily living (ADLs) may be housed in this area. In addition, inmates who are vulnerable due to aging, those with dementia, and those with terminal illnesses will be housed in the appropriate medical setting. Assisted living housing is considered general population housing and inmates will therefore have access to programs and services consistent with their security classification.

Male assisted living beds will be contained within one 80-bed housing pod having 40 double-occupancy cells (wet). These beds will not be bunks to allow for the necessary accommodation and safety for medially impaired inmates.

While there is a projected need for four female assisted living beds, it is anticipated that this need can be met by the ADA-compliant beds located in GP housing and the female infirmary beds based on specific medical need, symptom acuity and fragility.

Mental Health Beds:
Both current populations and demand indicate that there is a need for 50 intensive mental health treatment beds: 40 male and 10 female that will also accommodate those jail inmates as designated by LD1515. Intensive mental health treatment is for those inmates in need of acute and subacute care that includes 24/7 mental health staffing as well as security staffing.[23] Acute beds will be considered short-term since they meet specialized mental health needs that can range in length of stay from a few days to a few months. There will be no designated female intensive mental health treatment beds.[24] There will likely be a need for either or both male and female mental health special needs beds that are general population housing for vulnerable inmates who have mental illnesses and who are unable to be housed in other general population housing. These beds are not necessarily designated beds, but are accommodated as needed by using the classification system to safely house these inmates.

Reentry

Reentry focuses on areas vital to inmates' successful reintegration back into the community, including employment, education, mentoring, and substance abuse and mental health treatment. Reentry programs include all activities and programming conducted to prepare inmates to return safely to the community and to live as law-abiding citizens. Research has demonstrated the best results when reentry services target moderate to high-risk inmates.

MDOC presently has a contract with Spectrum to provide assessment and reentry services, which requires coordinating reentry plans and providing case management support for inmates who are 3-6 months post release.[25] In addition, eligible male inmates with 6-18 months remaining on their sentence may access reentry services at the Maine Coastal Regional Reentry Center located in Belfast, ME.[26]

23 See Fiscal Note attached to LD1515 (with Committee Amendments)
24 MDOC officials have indicated that female inmates requiring intensive mental health treatment will be housed in the specialized housing pod being planned
25 Source: Plummer-Beale, J. (2013). *A Review of Correctional Programming*. Maine DOC
26 The Maine Coastal Regional Reentry Center is a residential placement with a comprehensive reentry program.

Both MCC and MSP have recently hired Correctional Care and Treatment Workers to fill the role of a Reentry Specialist, who will create linkages with community resources to assist offenders leaving those respective institutions.[27]

With the consolidation of correctional facilities, providing reentry services across the broad spectrum of moderate to high-risk inmates becomes more feasible and practical. For those inmates who will eventually be released, reentry services would begin upon admission by the completion of an assessment and the development of an individualized case plan. Individual case plans, adjusted for the anticipated length of incarceration in order to optimize positive outcomes, should include individualized, targeted interventions addressing the inmate's criminogenic risks and plan for reentry in 12 life domains, including but not limited to: housing; economic stability and responsibilities (employment, SSI/SSDI, child support, etc.); physical and mental health; substance abuse; legal; community and natural supports; peer associates and recreational activities; transportation; education and training; safety and crisis support; personality and behavioral treatments; and attitudes/orientations interventions.

Male inmates will be housed in community facilities located at MCC (160 beds) and BCF (103 beds), and females in the community facility located at MCC (74 beds). These community facilities will focus on the reentry services described above.

27 Source: Plummer-Beale, J. MDOC Director of Programs

TAB 4

OPERATING PRINCIPLES AND SPACE PROGRAM

Operating Principles

The operating principles are a series of broad planning assumptions about how the proposed MCC will operate and the space needed to implement the operation. The resulting operating principles are intended to provide general planning guidelines to anticipate site design and cost implications to provide for renovation of select existing MCC facilities and for new construction resulting in a facility complex designed to replace the existing MCC. The operating principles were developed through facilitated discussion with MDOC officials, and are an assessment of the basic issues, options and alternatives including the number of beds to be constructed, required security levels, size of housing pods, programs needed and options for meeting those needs. In the next section is a summary space table that summarizes the gross square feet assumed for each of the components below. The operating principles are organized by functional component as listed below:

1.000 Public Lobby
2.000 Administration
3.000 Staff Support
4.000 Security Operations
5.000 Reception and Discharge
6.000 Housing
7.000 Medical/Mental Health
8.000 Visitation
9.000 Programs and Services
10.000 Industries
11.000 Foodservice
12.000 Laundry
13.000 Commissary
14.000 Warehouse
15.000 Maintenance/Central Plant
16.000 Site

1.000 Public Lobby

1. The public lobby serves as the central reception point for all visitors to the facility. The public lobby will be staffed 12 hours daily, though it will be accessible on a 24-hour/7-day basis.

2. Members of the public, official visitors, inmates' visitors, and staff enter through the public lobby. All persons entering the facility will be subject to security screening.

3. All staff and the public will access the security perimeter through the main

pedestrian sally port located off the public lobby after passing through security screening.

4. A separate transaction window will be open to the lobby from the administration area.

5. Spaces associated with visitation, which will be located in or accessible from the public lobby are addressed in component 8.000. Visitation.

6. The public areas should be non-institutional and welcoming with comfortable seating, property lockers, gun lockers, telephones, restrooms, and water fountains.

2.000 Administration

1. The administration component is where day-to-day administration, records, business, and personnel activities occur. Administration will be located outside the secure perimeter, yet in an area where access by the public is controlled.

2. Offices and/or workspace will be provided for the following positions/functions:

    - Warden
    - Deputy Warden Finance
    - Deputy Warden Support
    - Human resources
    - Fiscal operations (payroll, budgeting, purchasing, offender accounts)
    - Clerical support
    - Future staff

3. To the degree possible, the administrative support functions should be located with convenient centralized access to the secure perimeter entry to improve overall communication between all the staff.

4. Conference and other ancillary spaces will be provided in this component.

5. The mailroom will be located within the administration space for processing incoming/outgoing facility and inmate mail.

6. Office and work space will be provided for information technology staff, which will include a work table for repairing electronics, and a separate but adjacent room housing the computer equipment (e.g., file servers). This computer room should be secure from assault and unauthorized access to protect the computer equipment. Ideally, this space will be in proximity to central control.

3.000 Staff Support

1. The staff support component includes staff lockers, staff roll-call/briefing, training, fitness, and staff dining, and ancillary spaces designed to meet staff needs

2. Staff support will be located outside of the secure perimeter. A separate staff entrance is not planned.

3. Assigned full-height lockers will be provided for all staff assigned to the facility (including security, health care, contract, etc.). The locker rooms will assume 60% of the staff will be males and 40% females. Toilets, sinks and showers will be provided in each locker room.

4. A dedicated fitness room will be provided and sized to accommodate at least 10 personnel. Equipment may include free weights, exer-cycles, treadmills, etc. This room will also have access from the staff locker rooms.

5. Training staff will be located in this component. Offices will be available for training and accreditation staff. Sufficient space must be provided for preparation and storage of training materials and accreditation files.

6. Training will have workspace within this component. Office space is provided for the Training Coordinator. An additional shared office space will accommodate at least three Field Training Officers and a Clerical Specialist. The field training area may also be used for inspections/accreditation purposes. Although accreditation staff may not be assigned on a full-time basis, sufficient space must be provided for file preparation and storage.

7. Two fully equipped training rooms will be provided, one sized larger than the other. The larger of the two training rooms will also serve as the staff briefing room during shift changes.

8. A computer lab is provided for self-learning opportunities via computer-based tutorials, distance learning and predesigned corrections training curricula.

9. Training storage will be sufficient to provide for two separate storage areas: one for training materials and one for mat storage for physical fitness training. Appropriate support space such as restrooms, showers, and copy/fax functions will also be provided.

10. Staff dining is described in component 11.000 Food Service.

4.000 Security Operations

1. The security operations component includes such functions as central control, security administration, incident command, special operations group (SOG), the armory, the K-9 unit, and the Inner Perimeter Security (IPS) team, etc.

2. Central control will be the focal point of daily facility security operations by providing controlled monitoring and access into/out of the secure perimeter, all housing pod exterior sally port doors, and other high security doors and monitoring activities via camera throughout the facility. Central control will be located within its own security zone (interstitial space) of the facility, and access into this area will be via a separate sally port and is strictly limited to authorized personnel. Central control will be capable of assuming control of any subordinate control panel throughout the facility. There will be three redundant workstations.

3. All security operations staff will be managed from a single location located inside the secure perimeter and, ideally, in close proximity to central control. This space will function as the administration space for the security/housing operations component (security administration) and will be set up suite style, with common areas and distinct office and/or workspaces for the following positions/functions:

    - Deputy Warden Operations
    - Shift captains
    - Operations sergeants
    - Inner perimeter security (IPS) team
    - K-9 team
    - Correctional investigators
    - Fire safety
    - Special Operations Group (SOG)

    No unauthorized staff will be permitted in this area except for official business. Provisions will be made for processing and secure storage of evidence.

4. Conference and ancillary spaces will be provided for the security administration suite. An incident command center adjacent to Central Control will be properly equipped providing adequate pin-up space for floor plans of the facility and wall-mounted writing surfaces. Additionally, the room must have multiple phone lines at various locations (to enhance uninterrupted communication), computer terminals with access to security and life safety information, fire alarm enunciator panels and be capable of supporting audio/visual presentation and have adequate counter space for radio chargers.

5. A keywatcher system will be used for the storage of keys not assigned to a continuous post (e.g., 24/7). The keywatcher will be located in the main pedestrian sally port adjacent and within view of central control.

6. An armory will be located outside of the secure perimeter, and both spaces should be secure and prevent unauthorized access. The armory requires special ventilation and humidity control, and should be equipped with smoke and fire detectors, and a weapons discharging station.

7. Provisions will be made to accommodate the SOG program, which will be located outside the secure perimeter and proximal to the armory. The SOG program requires an area with special ventilation that includes a ready room, equipment storage (to include nonlethal weapons and chemicals), SOG lockers, and private changing cubicles (e.g., privacy panels).

8. A separate space in close proximity to the armory and security administration staff, but outside of the perimeter will be provided for emergency response team muster. This "ready room" will include storage for equipment (vests, helmets, SCBAs, etc.), and wall space for facility plans and white boards for briefings.

5.000 Reception and Discharge

1. MCC will serve as the reception (entry) point for all inmate admitted to the MDOC system. The Reception and Discharge component includes the vehicle sally port, transport officer area, inmate identification, booking processing, inmate waiting/ holding, property issue/exchange and inventory, and medical and mental health screening. It is assumed that the reception (admission), release, and transfer of inmates will occur within the same space, oftentimes just in the reverse, though within this space may be distinct areas designated for a specific purpose.

2. A secure covered drive-through vehicle sally port with two lanes and sized (height and width) to accommodate rescue and emergency vehicles/school buses will be located adjacent to the reception/discharge component. Ancillary spaces within the vehicle sally port include a body scanner, gun lockers, an eye wash station, and a paper pass-through transaction window into the reception area. Parking for 3 to 4 vehicles will also be provided adjacent to the drive through lane.

3. There will be a pedestrian sally port connecting the vehicle sally port with the reception/discharge area sized to accommodate up to 10 inmates.

4. The reception/discharge area is expected to process an average of 5 admissions per day, and none to 1 discharge per day, and 10-25 intrasystem transfers once weekly. It is anticipated that the Reception and Discharge component should plan a capacity of 10 inmates undergoing processing at one time.

5. The reception/discharge area will include a series of processing stations where an inmate will be processed (e.g., data entry – demographics, criminal charges, confirm identification). Processing stations will be available for the purpose of:

    a. Identification, which will include administering a means of identifying the inmate throughout their incarceration, and in preparation for the inmate's release. This will be accomplished through biometrics and through a photo identification (e.g., bracelet, card, ID card) that has been entered into the inmate management system

b. Full admissions record including emergency contact information, verifiable enemies, and other basic admissions information. A record and inmate number will be generated at this time

c. AFIS fingerprinting and photographing

d. IRIS scan

e. Medical/Mental health screening – If the inmate comes directly through the court system or the community (but not jail or another DOC facility) an initial screening will be performed to determine if the new arrival needs to be taken to the hospital for treatment for any medical/mental health condition that cannot be treated at MCC. If the inmate is to be admitted a brief medical and mental health screening will be performed that will include any prescribed medications. When an inmate is brought into the facility from a jail or another DOC facility, screening will include review of healthcare transfer paperwork to ensure that the inmate has received a recent PPD, has current acute/chronic medical problems, current medication prescriptions, mental health history and current diagnoses (if any). There will be a brief medical and mental health history and suicide screening. The inmate will receive education about how to access healthcare at MCC. Vital signs will be taken. Reception is also where any inmate who has been in a hospital or who has been off-site for medical consultation or treatment will report to the nurse who will review any paperwork, orders or prescriptions. A small medical examination room with a workstation will be provided for this purpose

6. In addition, offices and/or workspaces will be provided for the following positions/functions:

   - Reception/Discharge Sergeant
   - Classification
   - Caseworkers
   - Health care
   - Inmate records

7. The area will be operated using the open booking concept whereby 90% of the total population in this area will be assumed to be compliant. These inmates will sit in an open waiting area to be called to the station (e.g., reception processing, shower/search, property inventory) that is appropriate for the status of their processing. Open waiting will have two designated sections - one for males and one for females.

8. The remaining 10% are those who are not compliant with the process, are creating disruptions to the remainder of the population or have special needs or vulnerabilities that require separation from others. These inmates would be held in

individual or group holding cells and will be processed as the appropriate staffing permits. Two holding cells sized to accommodate one to four inmates, and one single occupancy observation cell is provided.

9. Once processed, inmates will be escorted to the shower area for search, shower, and clothing issue. Separate search and shower areas are provided for males and females. Inmates will be showered and will receive a uniform. Linens, towels, and hygiene items will be issued in the housing pod. The inmate's property (both valuables and clothing) is inventoried and stored in the property room or arrangements made for disposal. Property storage is required including space for valuables storage, and unclaimed property awaiting disposition. A space saver type property storage system is desired.

10. The arrestee's property (both valuable and clothing) will be inventoried and stored in the property room. Property will be vacuum/heat sealed to prevent infestation and to reduce lost property.

11. Once the admissions process is completed, persons will be staged in a waiting area pending transfer to reception housing. The waiting area will have two distinct sections - one designated for males and one designated for females.

12. The reception/discharge open waiting area will include ancillary spaces such as restrooms, televisions (orientation programming) and a water fountain.

13. Primary inmate records will be entered into the inmate management system (CORIS), although there will be a need to maintain hard copy of certain records. A hard copy of inactive records will be accessible in this area by classification staff for up to three years. Although active records will follow an inmate to his/her assigned facility, upon release all records are returned to MCC for storage.

14. The discharge component includes the release processing area, inmate identification, inmate waiting, and property release functions.

6.000 Housing

1. The MCC will provide housing appropriate for the security and special housing requirements of the population to be served. There are many variations of housing requirements based on the classification plan and projected inmate populations.

2. Direct supervision principles will be applied whenever and wherever possible; some housing pods may be too small in size to warrant a single officer being assigned to one housing pod. Direct supervision relies on the premise that facility staff, not the inmates, must control the housing pods. As such, the architectural design and staffing patterns are built on the rule that officers must continuously and directly supervise inmates in order to prevent negative behavior and model positive

behavior. Wherever possible, housing pods will be operated under direct supervision.

Direct supervision also relies on the premise that one officer is in charge of a housing pod. The number of inmates in that pod is based on both the ability of one person to manage a group of inmates while also performing administrative and operational tasks required in the pod (e.g., conducting searches of the pod, documenting housing pod activities, etc.).

3. Perhaps the most salient guiding concept affecting both the design and operations of the facility is the decision to employ a unit management housing system to enhance inmate control and the overall delivery of correctional services within the institution. The management unit is a combination of self-contained housing pods operating semi-autonomously within the larger facility. The essential components are:

    a. A manageable number of inmates housed in one area, which can be further subdivided into smaller groups (housing pods)

    b. A multidisciplinary team of staff members with offices located near and adjacent to the housing pods and assigned to work with inmates in that unit for a relatively long time period

    c. A unit manager with administrative authority and supervisory responsibility for the unit staff and authority concerning all within-unit aspects of inmate living, programming, and security

    d. The assignment of inmates to a particular management unit and thus to specific housing pods based on security and programmatic needs specific to the management capabilities of the particular unit

4. Each unit will have a management center with office and/or workspace provided for the following positions/functions:

    - Unit Manager
    - Unit Supervisor
    - Counselors/Caseworkers
    - Program Providers (shared office)
    - Service Providers (shared office)
    - Unit Clerical Specialist

    A small conference room and other ancillary spaces will be provided for each management center. The conference room is where the unit management team will meet to establish inmates' treatment and program plans and monitor behavior and

progress toward established goals. This room may also be used for classification-related activities, team meetings, staff meetings, and small training classes.

5. System-wide classification functions will be consolidated at the MCC, which will include the relocation of central office classification staff to the new MCC. MCC will perform all initial diagnostics and assessments and classifications for inmates entering the MDOC system. Unit teams at individual facilities will continue to be responsible for reclassifications.

   Offices and workspace for classification staff will be located adjacent to reception housing, which should be proximal to the reception and discharge component.

Bed Distribution

6. Table 1 depicts the bed distribution for the new facility by management unit (MU). The MCC facility will be divided into four management units as follows:

   a. MU1: Male GP Minimum and GP Medium - 352 total beds

   b. MU2: Male Reception, Protective Custody, Administrative Segregation, Disciplinary Detention, Mental Health (subacute and acute), GP Medium, Assisted Living, and Infirmary; and Female Infirmary - 362 beds

   c. MU3: Female Reception, Special Management, Mental Health (subacute and acute), Assisted Living, and GP (minimum, medium, close) - 146 beds

   d. MU4: Male Community and Female Community - 234 beds

Table 4.1: MCC Bed Distribution by Management Unit

Housing Category	No. Of Beds Per Pod	No. Of Pods	Total Beds	Notes
Management Unit 1: 352 Inmates				
GP Minimum - Males	88	2	176	22 Quads (4-person room) per pod; dry cells
GP Medium - Males	88	3	176	22 Quads per pod; dry cells
Management Unit 2: 362 Inmates				
GP Medium - Males	88	1	88	44 Doubles per pod; wet cells
Reception - Males	56	1	56	56 Singles per pod; wet cells; pending classification
Protective Custody - Males	24	1	24	6 Quads per pod; dry cells
Administrative Segregation/ Disciplinary Detention - Males	40	1	40	40 Singles per pod; wet cells
Mental Health - Males ▪ Subacute ▪ Acute	40 10	1	50	Four subpods: 1 Subacute: 10 Singles per subpod; wet cells 2 Subacute: 15 Singles per subpod; wet cells 1 Acute: 10 Singles per subpod; wet cells
Assisted Living - Males	80	1	80	40 Doubles per pod; wet cells
Infirmary - Males	18	1	18	18 Singles; wet cells
Infirmary - Females	6	1	6	6 Singles; wet cells; adjacent to the male infirmary
Management Unit 3: 146 Inmates				
Specialized Housing - Females ▪ Reception ▪ Special Management ▪ MH Subacute ▪ MH Acute	6 4 6 4	1	10	Two subpods: 1 subpod with 6 Singles per subpod; wet cells 1 subpod with 4 Singles per subpod; wet cells; which population occupies which subpod is dependent upon need
GP - Females ▪ Close	88	1	88	22 Quads per pod; dry cells
▪ Medium ▪ Minimum ▪ Assisted Living ▪ County Jail - Female	48	1	48	24 Doubles per pod; wet cells
Management Unit 4: 234 Inmates				
Community - Males	80	2	160	40 Rooms per pod; dry rooms; existing MCC male dorms 5 & 6

Housing Category	No. Of Beds Per Pod	No. Of Pods	Total Beds	Notes
Community - Females	74	1	74	37 Doubles per pod; dry rooms; existing MCC women's facility
TOTAL MCC BEDS			1,094	

Description of Housing Pods

7. The following operational considerations and practices will be the foundation from which all housing pods will be constructed. Any alteration, variation, or adaptation to this foundation is noted.

8. Technology tools, such as PDA's to control and monitor cell doors, are anticipated to be in place to maximize staff's ability to roam the housing pod/unit to better manage the population.

9. Some of the housing units will have sub-pods. Each sub-pod will be separated from the remainder of the larger pod by a glazed security wall that faces into and is accessible from the dayroom of the pod. This configuration will permit one officer to supervise the entire pod.

10. Special Management housing pods, which include administrative segregation and disciplinary detention, will be accessed via a pedestrian sally port.

11. Minimally, each cell will have a bunk, mirror, desk/writing surface, seat, and clothing and personal property storage, and suicide resistant hooks for clothes and towels. Sufficient toilets and sinks are required in each housing area to meet accreditation standards. Showers can be centralized to the common areas.

12. A dayroom, which is centralized to the cells, is provided. Additional spaces that may be provided within the housing pod include interview rooms, beverage station (i.e., juice, hot/cold water), and multiple seating areas. The seating areas may include television viewing, group rooms or reading rooms or any combination thereof. Up to three kiosks are required in each housing pod for video visitation stations. Other kiosks will be provided to order commissary items and allow access to pertinent inmate management information. Sufficient seating and tables should be provided for all inmates at one time. The moveable seating can be relocated to television or activity areas as necessary.

13. Central to the dayroom will be a multipurpose room sized to accommodate 12-15 people, an interview room, and an office for the caseworker.

14. Inmates may launder their own personal clothing and uniforms or opt to have it cleaned in the central laundry, while blankets, linens, and towels will be laundered

in the central laundry. Washers and dryers will be provided within the housing pods for this purpose.

15. While inmates will access the central gym and outdoor exercise yard on a scheduled basis, opportunities for expanded outdoor exercise and fresh air will be provided adjacent to the housing pod, and inmates will be permitted to freely access these areas during scheduled times. The exterior exercise area will be sized to accommodate a portion of the housing pod population. These areas are not intended to be for active group recreation or exercise such as basketball or volleyball; they are intended for non-contact activities such as handball as well as individual exercise and passive activities such as board games and will be equipped with tables and seating. The outdoor yard area should be partially covered for weather protection and must be designed to facilitate snow removal.

16. Space will be provided in the housing pod to accommodate a fully equipped workstation for the housing officer, which will be located within the dayroom such that it provides optimal visibility into the dayroom and all cells. The workstation will be equipped with a flat screen touch-screen panel for electronic door control and monitoring.

17. Within the housing pod a staff restroom, a supply closet, storage closet for exercise yard equipment, and a janitor's closet (one on each level, if a multilevel design) will be provided.

Decentralized Programs and Activities Center

18. Each management unit will have a decentralized programs and activities center. The decentralized programs and activities centers will serve inmates by providing space for educational and treatment activities decentralized to the housing areas to facilitate inmate participation in programs with minimal movement throughout the facility. The decentralized program space will be located in the circulation areas adjacent to a cluster of up to, generally, four housing pods.

19. Legal research will rely, in large part, on a CD-ROM or web-based computerized legal research system, which will be provided in the decentralized programs and activities center on a scheduled basis.

20. A triage area will be available so that providers may perform medical/mental health services, as well as medication distribution on a decentralized basis.

21. A fully equipped multipurpose room sized to accommodate 20-25 people is provided.

22. An interview room, and other ancillary spaces are provided.

23. Office space for a Unit Manager, Unit Clerk, Unit Sergeant, Conference Room, Mental Health Counselor and ancillary office support space will be provided.

24. For Community male inmates a decentralized programs center attached to Units 5 and 6 will be provided including dining for 75 inmates.

25. For Community female inmates, the existing Women's Correctional Center will be converted for this purpose and no additional program and dining room space is needed.

7.000 Medical/Mental Health/Dental

1. The facility will be equipped for a full range of legally mandated medical, mental health and dental care. The subcomponents described below include the clinic space, housing for medical and mental health and the shared support space required to address the outpatient and direct care necessary for the population. Healthcare should be provided in compliance with HIPAA regulations as well as American Correctional Association and the National Commission on Correctional Health Care standards.

Clinic Services

2. The facility will serve both females and males. Recognizing the need for separation by sight and sound, clinic services will be available to both male and female inmates. This can be accomplished by using a triage room located in the Women's Management Unit for routine examinations (general exam) with all specialty care being offered within the Clinic. Sight and sound separation will be maintained through careful scheduling for female inmates appointments within the clinic.

3. Visibility for both health care and security staff is a critical issue for the clinic.

4. Outpatient medical services will optimize the opportunities for general medical care as well as on-site specialty care in an effort to minimize the need for taking inmates into the community for specialty care. In doing so, the following clinics will be provided on-site in order to meet the growing need for health care services in corrections. This impacts both the number of exam rooms and the holding areas for inmates waiting to be seen. Examples of clinics that will likely expand include:

    - Obstetrics/Gynecology
    - Chronic Care: Cardiovascular including HTN, Respiratory, Endocrine, Infectious Diseases, Pain Management, Seizure Disorders and Other—which may include Cancer, MS, and other less prominent conditions within the correctional population
    - Dental Care including on-site extractions

- Orthopedic and Podiatry Care
- Wound Care

5. Two 2-chair dental operatories (four dental chairs) are provided. The dental suite includes spaces for workstations and diagnostic equipment, a space dedicated for the Panorex x-ray machine, a small dental lab, and instrument sterilization station.

6. In addition to general exam rooms, one with an adjacent lab draw alcove, the general exam rooms can also be used for specialty care. Therefore all should be wired for telemedicine.

7. Triage/medication distribution areas will be available on each Housing Management Unit's Decentralized Program and Activities Center to be used for sick call, triage, and treatments where possible. These areas are included in the decentralized program and activities center component described in the housing components.

8. While the medication storage will be located centrally, medication administration will continue to be decentralized. The central medication storage area within the clinic also receives medication from the Diamond pharmacy and needs space for sorting, storing up to 30 days medication per inmate, a work station for labeling and sending medication orders to Diamond. Space for two refrigerators with a freezer for medication storage, and a double locked area for controlled medications. Medication will be packaged for inmates in the medication storage area within each facility and then the medical staff will transport the medication via secure medication cart to the designated decentralized area where the medication will be dispensed or alternatively within the housing unit depending upon security classifications and special population needs. If possible, inmates should be directed to the triage area to receive medication. Medical staff and a security escort deputy will be present for this function. If the triage area is not used, medical staff will proceed directly to the housing unit where medications will be dispensed.

9. Storage Spaces: Sufficient storage will be provided for storing medical supplies, gurneys, wheel chairs, etc. Storage for medical records, with scanner and workstation, and lab work will also be located in this area.

10. Spaces for clean utility, soiled utility (including temporary storage for biohazard waste) and a janitor's closet will be provided.

Medical Housing (Infirmary, Assisted Living)

11. A 24-bed infirmary will be provided that includes 6 female beds, 18 male beds adjacent to the clinic. There will be one set of isolation rooms between the female and male beds for flexible use by both genders. Sight and sound separation

measures will be provided. All rooms will be single, with hospital beds. Access to fresh air will be provided.

12. Accommodations for female assisted living will be provided in general population. Where required, due to mobility issues or need for durable medical equipment (DME), ADA compliant cells within general population will be assigned. Medically fragile female inmates will be housed either in the infirmary or in general population depending on the acuity and medical risk. Hospice beds will be accommodated either within general population or within the infirmary. Consistent with general population and the infirmary access to fresh air will be provided.

13. There will be 80 male medical housing beds (one pod) proximal to the clinic. These will be double rooms with no bunks; however the rooms can be stacked (first and second floor). These beds will be consistent with those used in nursing homes. These beds will be flexible for short and long term use for those inmates in need of closer proximity to health care and daily rounds by nursing. These beds will also serves geriatric inmates who require more sheltered housing. Those inmates with mobility impairments that cannot be safely housed in general population ADA compliant cells, can be housed on the first floor of medical housing as well as others who are too fragile to climb stairs. Two rooms for hospice use should be included in this housing. Access to fresh air will be provided. The male medical housing pods will open to a dayroom consistent with those provided for general population and as described in the Housing Section.

Healthcare Administration

14. Medical administration will have office spaces for Health Services Administrator, Director of Nursing, Clerical Assistant, Medical Director/Physician, Psychiatrist, shared work space for other providers, a shared office supply and fax/copier alcove, a medium size conference room, and a break room. Both the conference room and the break room will be used by medical, dental and mental health personnel.

Mental Health Outpatient Services

15. Mental health offices will be provided in the acute/sub-acute mental health housing areas. Mental health clinicians will have their outpatient offices in the Housing Management Units' decentralized program and activity center and can also use unassigned interview rooms for therapy. Mental health groups will occur in spaces within mental health housing as well as within multipurpose spaces located in the Housing Management Units' decentralized program and activity centers. Alternately, outpatient mental health individual and group therapy sessions can be held in the Programs and Services area.

Mental Health Housing (Acute, Sub-acute)

16. There will be no intensive mental health treatment unit for women.

17. An Intensive mental health treatment pod will be provided for 50 males that will be operated as an incentive based treatment unit, with the sub-acute subpods using a point driven level system that will encourage the majority of inmates to move on to general population housing. It is recognized that highly symptomatic inmates may remain in the subacute treatment areas for extended periods of time. The pod will be divided into four subpods with no mezzanine. All will be single, wet cells. There will be 10 acute beds, plus one safety cell in one subpod. There will be three sub-acute subpods to maximize flexibility for special mental health populations, one subpod for 10 inmates and two subpods for 15 inmates each. The two 10 bed subpods should have a small dayroom that will allow up to 4 inmates to sit at a table and to view television. These subpod dayrooms will as well as the two larger subpods will open into a larger dayroom that will have tables for eating meals and two small areas for TV viewing. The pod dayroom should also include space for a central nursing station, officer workstation, two interview rooms, one small multipurpose room, triage/medication room and space for four clinician offices, including the Program Director. Access to fresh air will be provided.

8.000 Visitation

1. The visitation component includes visitor reception/registration, contact visitation, non-contact visitation, and video visitation.

2. Personal and professional visitors will register for visits in the public lobby. No prescreening or preregistration is required. Visitors will be subject to security screening and personal search. All visitors will pass through the main pedestrian sally port off the lobby to access the visiting rooms.

3. Contact visitation will be available to eligible inmates. Interviews with representatives of the MDOC indicated that while approximately 90% of male inmates and 100% of female inmates are eligible for visits, only 25% of eligible male inmates and 50% of eligible female inmates actually receive visitors for a contact visit. Inmates may receive two two-hour visits per week.

   There will be one contact visiting area shared by the male and female inmate populations and located in an interstitial space (its own security zone) with access through the main pedestrian sally port from the public lobby. Based upon need, the main visiting area will seat approximately 72 persons assuming 18 inmates and 3 visitors per inmate. In addition, an overflow visiting area with a sliding partition will be provided adjacent to and accessible from the main visiting area. This room will accommodate up to 24 persons.

Male and female inmate visits will be separate based upon schedule. For those periods that may require simultaneous male and female visits, the overflow room may be utilized. The contact visiting area will be staffed 12 hours a day, 7 days per week.

The contact visiting area will support family interaction by providing a child's play area where parents and their children may interact in a positive manner while under the supervision of a parent and facility staff.

4. Two interview rooms will be accessible from within the contact visitation room for attorney, professional, and/or authorized special visits.

5. To maximize visitation opportunities, video visitation will be available, which will replace traditional noncontact visits. High-speed electronic infrastructure must be in place to accommodate video visitation. Inmates would visit from video visitation carrels in the housing pods. The same video visitation system would also allow professionals to have immediate access to the incarcerated inmate population. For example, inmates who are preparing for reentry could visit with off-site probation or social services staff if necessary.

   The video visitation space requirements assume that for both male and female inmates video visitation will be available at the MCC eight hours every day and that each visit will last 30 minutes. Eligible inmates may receive two one-hour video visits per week, with an additional 15 minutes per visit associated with directing visitors into and out of the video visitation areas. It is further assumed that 50% of eligible inmates will receive video visits. A critical assumption is that video visitation will be enabled from home computers utilizing technology that allows for proper identification of visitors and provides other safety precautions. It is assumed that 30% of visitors will visit using a personal or public computer and 70% of visitors will actually come to the facility to visit via video visitation stations located at the MCC.

   It is assumed that the highest demand for visiting times will be during the evening and weekend hours. Thus, a 20% peak demand factor is included in these space requirements.

   Based upon the identified need, it is recommended that video visitation be capable of handling at least 30 simultaneous video visits, with 20 visitor video kiosk booths plus two private video visit rooms for attorneys and other professionals/officials. This is also the minimum number of visiting kiosks that should be available for inmates throughout the housing areas, which may include portable kiosks that can be moved between housing pods.

Video visitation carrels will be located in the public lobby to minimize the public's movement within the facility. The carrels are intended to provide reasonable visual and audio privacy for the visiting groups. The figures provided above are for the anticipated future facility population (year 2037). If future video visitation exceeds the anticipated planned figures, inmate visiting hours may need to be expanded.

6. Visitation space should be centralized to the degree feasible, and proximity to the public lobby should be considered to avoid having non-facility personnel enter too far into the secure perimeter. An inmate staging and strip search space will be provided adjacent to the contact visitation area.

7. Office and workspace is for the visitation supervisor and visitor registration, and other ancillary spaces are provided.

9.000 Programs and Services

1. MDOC's policy is that 75% of all inmates should be involved in treatment or constructive activity. While many programs and services will be offered in inmates' assigned housing support center, it is recognized that there remains demand for centralized programs such as recreation, education, vocational education, religious services, etc. To the degree feasible, these programs and service spaces will be centrally located. However, while some spaces will be shared, the location of programs and services spaces should consider gender separation to the degree possible.

2. Based upon the results of the risk and needs assessment (LSI-R) completed upon admission to the facility and the resultant behavior management plan created, inmates may be assigned to participate in a program offered in the programs component. The results of the LSI-R will determine whether a program is mandatory or optional. Inmates may also make a request to participate in any program or service offered. The inmate's assigned case manager will receive and process these requests and, if approved, coordinate each inmate's participation. The inmate management system must be sufficiently robust to alert staff when inmates, designated as "keep separates," have been scheduled for programs at the same time. If a program/service is at capacity, the inmate will be placed on a waiting list. Waiting lists for work are processed on a first-come first-served basis, and waiting lists for programs are processed based upon whether the program is deemed mandatory or optional, and release dates.

3. The programs area includes the program space and support space for several program functions, which include education and treatment programs and activities. Ideally, these programs/services can be located within a single zone to maximize staff observation.

4. Unless otherwise noted, the office and workspace provided for programs and services positions/functions will be centralized in a single location (suite) and may include:

    - Deputy Warden Programs and Services
    - Education Director
    - Educators
    - Chaplain
    - Caseworkers
    - Substance abuse
    - Reception/Clerical

5. The programs, services and activities area will provide spaces to support:

    - Academic/Vocational instruction
    - Treatment services
    - Library
    - Religious services
    - Recreation/Gym
    - Leisure activities
    - Hair care

Academic/Vocational Instruction

6. It is anticipated at any given time, upwards of 200 inmates will be participating in education, vocational, and computer learning programs. The new MCC will have a strong focus on vocational training as part of an inmate's reentry treatment plan.

7. Six multipurpose rooms/classrooms, each sized for 20 inmates will be designed and furnished similarly to traditional adult education classrooms. One of the classrooms may be configured with individual study carrels to separate inmates and minimize distractions, along with a designated area equipped with a small table and four chairs where tutoring may occur.

8. An additional classroom, designated as the computer education classroom with capacity to serve 15 inmates, will be wired and designed to accommodate inmates working at individual computer terminals within carrels offering some limited acoustical privacy.

9. The vocational education program will build upon MDOC's current vocational offerings, which may include woodworking, upholstery, and graphic arts/printing. The goal is to offer vocational training to match the demand in the marketplace as researched by the Department of Labor.

10. Each vocational education program will have a capacity of 12-15 inmates. By scheduling multiple sessions of each vocational education program, it could be anticipated at any given time, 100-plus inmates will be participating in a vocational education program.

11. Four vocational labs will be provided with each accommodating up to 12-15 students. It is anticipated that labs will turn over twice each day in order to allow up to 96-120 students to access these programs each day.

Treatment Services

12. Treatment services focus on substance abuse, mental health, and risk reduction. In the new facility, services may also target domestic violence, anger management, life skills development, and career planning.

13. Two treatment programs - CRA (substance abuse treatment) and RULE (sex offender treatment) operate as intensive inpatient programs. They will be unit based and operated by private contractors whereby participants are housed together and treatment programs delivered either within the housing pod or designated program space within the housing support center.

14. Within the central programs and services area will be three outpatient classrooms sized to serve 12-15 inmates, and three interview rooms for individual counseling and/or assessments. Treatment services may also be delivered in the multipurpose and interview rooms located within the housing pods and/or housing support centers.

Library

15. A fully stocked and furnished and equipped, centrally-located library will be available, offering inmates a range of reading materials helps to combat idleness and boredom, provides a positive leisure activity, provides information for self-help and re-entry, and eases the stress of incarceration. As an adjunct to education programs, the central library should have adjacency with program space designated for education programs.

16. Reading and research areas will be provided within the library, which will include tables that accommodate up to six seated inmates each, and individual lounge seating. In addition, a computer carrel having four stations is provided. While computers provided in the decentralized programs and activities centers are the primary means by which inmates will conduct legal research (see below), the computers located in the library are also intended to enhance educational programs by providing participating inmates with computer-aided instruction (self-study).

17. Within the library area will be a librarian workstation and a workroom, and other

ancillary spaces. The librarian workstation will be centrally located to enable viewing all areas of the library, but also be adjacent to the workroom so that the workstation can be observed when the staff is in the workroom. The workroom will primarily be used to inventory and store recreation and general library materials received through the inter-library system or donated from the public. A book cart will be stored in the library workroom and will be used to stage updated reading materials (books, periodicals, and magazines) for distribution throughout the housing pods, particularly for those inmates who are not eligible to participate in the central library program.

18. Legal research will rely, in large part, on a CD-ROM or web-based computerized legal research system, which will be provided in the library area. Computer carrels within the central library will provide inmates with ample opportunity to conduct legal research and prepare legal documents. Legal research terminals may be used by inmates, staff, and/or volunteer paralegals providing assistance in the methods of conducting legal research. No legal books are required if this system is utilized.

Religious Services

19. An inter-denominational chapel designed to accommodate the varying needs of the religious denominations that will provide religious programs and services. The chapel will be planned to be contiguous with other components of the programs building in order to allow for internal movement between functions and to take advantage of the proximity of counseling and other treatment/program personnel to chaplains and volunteers involved in religious programming

20. The chapel and related designated spaces will be available for congregate worship/religious services, pastoral counseling, individual counseling, group counseling, and/or religious studies. The chapel, sized for 50 inmates, will be available for congregate worship/religious services and small group counseling/religious studies. Accessible directly from the chapel will be an outside area designated for use by Native Americans to participate in sweat lodge ceremonies.

21. Located adjacent to the chapel are two interview rooms, which will be available for individual or small group religious activities.

22. Storage and other ancillary spaces are provided.

Recreation/Gym

23. Active indoor and outdoor recreation/exercise is important for the physical and mental well-being of inmates and for facility security, and helps reduce the negative effects of confinement. Inmates will be offered both indoor and outdoor exercise

and recreation opportunities on a daily basis. Inmates may choose to participate, amongst other activities, either indoor or outdoor recreation/exercise.

24. The outdoor recreation/exercise yard will be sized to accommodate approximately 100 inmates at one time. The outdoor recreation/exercise yard should be encircled with fencing designed to prevent the transfer of contraband from outside into the recreation/exercise areas. The outdoor exercise yard will also include an athletic field designed for playing softball, and may include a walking/running track and a basketball court.

25. Indoor fitness areas will be available, which include a gym configured and sized for playing group games such as basketball or volleyball. Separate weight and fitness rooms for males and females are required.

Hair care

26. A hair care area will be provided where inmates can receive hair care services during scheduled recreation periods. The hair care area will meet all State health care and sanitary regulations. Licensed barbers or stylists will be prescreened and approved and provide services on a scheduled basis. The hairstylist shop will be co-located with indoor recreation/exercise in an area where it can be easily supervised by facility staff. Bench seating will be located adjacent to the hair care area for inmates who are awaiting hair care services. Within the hair care area will be secure storage for equipment and supplies.

10.000 Industries

1. MDCC will continue to operate its industries programs. However, the nature of those industries may change due to the closure and/or downsizing of other MDOC facilities. Multiple industries will be available, which will include industry opportunities for both males and females. For planning purposes, it is assumed that MCC will operate industries that are not space intensive and considered "clean". These may include the following:

    - Electronics
    - Embroidery
    - Engraving
    - Garments
    - Graphics/Printing
    - Upholstery

2. Within each industry work area will be adequate, appropriate space for the following functions:

    - Material storage

- Preparation of raw materials
- Production area sized to accommodate up to 40 inmates
- Finished product storage and display

3. Additional spaces required include:

    - Secure tool storage
    - Machine and equipment parts storage and repair

4. Within each industry area an office for the industries manager and a security officer workstation, and other ancillary spaces are provided.

5. It is anticipated that up to 100 male and 20 female inmates will be engaged in prison industries

11.000 Foodservice

1. All food will be prepared on-site by a contracted food vendor. Inmates will assist in food preparation, tray assembly and dishwashing. The kitchen will be sized to accommodate a population of 1,094 inmates.

2. Male and female inmates will be served meals delivered to the housing dayroom areas on pre-proportioned split trays staged in separate temperature controlled carts that maintain food temperatures in accordance with Department of Health requirements.

3. Both male and female community inmates will eat in a centralized dining room located within their respective units. It is anticipated that the present dining area in the existing Women's Center unit will be adequate to service the female community inmate population to be housed there in the future. It is expected that a dining room sized to accommodate 60 inmates will need to be added to the existing building(s) (Units 5 and 6) designated for future housing of male community inmates.

4. Sufficient space for food storage, preparation, cooking and tray assembly (via stacked trays) is required. Additional space for washing carts, carriers, pans and trays is also required. Dry, cold and freezer storage should be sufficiently sized for storing up to seven days of meals within the kitchen. All deliveries will be first cleared through the central warehouse (see component 14.000 Warehouse).

5. An inmate dining/break area will be provided within the foodservice component. This space may also be used for vocational culinary arts classroom instruction. It is also anticipated that the existing kitchen in the proposed women's community unit could serve as a culinary arts kitchen.

6. There will not be a central staff dining room. Staff will eat their meals in the central break room or one of the break rooms located throughout the facility. The central break room will be adjacent to foodservice and be sized to accommodate 50 staff members. The break room will be equipped with tables and seating, vending, beverage stations, counter/cabinetry, microwave, refrigerator, sink, etc.

7. Office and workspace for the foodservice manager and security staff, and other ancillary spaces are provided.

12.000 Laundry

1. Inmates may opt to launder their own personal clothing and uniforms or opt to have it laundered in the central laundry, while blankets, linens, and towels will be laundered in the central laundry.

2. The central laundry will have the following spaces:

   - Commercial washers
   - Commercial dryers
   - Residential washer (for items involved in a biohazardous-exposure incident)
   - Residential dryer (for items involved in a biohazardous-exposure incident)
   - Labeling room
   - Clean and soiled laundry storage, including portable cart storage
   - Blanket, linen and towel inventory
   - Chemical storage supply

3. Office and workspace for the laundry manager and security staff, and other ancillary spaces are provided.

13.000 Commissary

1. The existing commissary operation will continue to be provided by a private vendor. The kiosks located in individual housing pods will be the primary method for managing and debiting inmate accounts and for filling out commissary orders electronically. Commissary orders will be submitted electronically to the vendor.

2. The vendor will process and deliver orders on a scheduled basis to the facility's warehouse. Once orders have cleared the warehouse, commissary orders will be delivered to the commissary processing room located adjacent to the loading dock where the vendor will prepare the orders for distribution. The commissary processing room will include sorting tables, shelving, carts, a computer workstation, and other ancillary spaces.

3. On a scheduled basis, the vendor will distribute commissary orders directly to inmates. Prior to leaving, the inmate will verify that the order is complete, and any

discrepancies adequately resolved.

14.000 Warehouse

1. The warehouse facilities, located outside the secure perimeter, will be located within the existing MCC current Industries and Vocational buildings. These buildings will provide an area for the receipt and distribution of all institution goods, supplies, and materials received. The warehouse component includes the centralized facility storage area and the service yard/loading dock. All supplies and goods that enter the secure institution will first be processed through central storage, which is located outside of the secure perimeter.

2. The warehouse area will provide sufficient space for goods to be stored on average for 30 days, and to process items and goods for transfer into the facility's secure perimeter, and should include several separate storage components, each being secured with fencing and alarmed to assure controlled and supervised access. These storage components include:

    a. Biohazard refuse storage
    b. Central storage, for the storage of bulk items (e.g., blankets, linens, uniforms, etc.)
    c. Commissary orders – pre-bagged orders
    d. Food Storage, for up to 30 days (limited to shelf life and contamination constraints) for bulk dry food, and freezer and cooler storage, beverages and other supply and chemical items
    e. Hazardous material chemical storage
    f. Institutional supplies as well as storage of paper products, cleaning and janitorial materials, office paper and supplies, and other supplies necessary for the operation of the institution
    g. Kitchen equipment (e.g., trays, carts, etc.)
    h. Quartermaster
    i. Records archives
    j. Short-term storage, for miscellaneous storage of short-term items
    k. Staging area for large items (e.g., furniture, mattresses, etc.)

3. The various storage areas will be configured and designed to accommodate any climate-controlled storage requirements. Staff uniforms are expected to be fitted and stored in a discrete and secured area within the warehouse.

4. All items coming into the warehouse area will first enter through a receiving/loading dock where the items will be off-loaded, inventoried, and then moved to the designated location.

5. A trash compactor will be located adjacent to the receiving/loading dock. Institutional trash will be collected and transferred to the central warehouse where

it will be deposited in the trash compactor.

6. Within the warehouse an office and workspace for the warehouse superintendent and warehouse worker, and other ancillary spaces are provided.

15.000 Maintenance/Central Plant

1. The maintenance area will be located outside the secure perimeter and should be co-located near the warehouse function. The maintenance area will provide the facility support functions for the upkeep and running of the MCC. The building support area also includes the central mechanical plant. Specialty maintenance functions may be contract supported; however, space will be required for general repairs and preventative maintenance. A secure workshop for immediate repair work and the storage of maintenance carts and toolboxes will be provided.

2. The warehouse will serve as the receiving point for maintenance supplies; however, this space needs to be located in close proximity to the maintenance area, preferably with direct access into the maintenance shop.

3. The maintenance shop area will be subdivided and shall provide sufficient, appropriate space for the following maintenance specialties:

    - Carpentry
    - Electrical
    - HVAC
    - Key Shop
    - Lock Repair
    - Plumbing
    - Security Electronics
    - Welding

4. A storage area adjacent to and accessible from within the maintenance shop will provide shelf and peg board storage for appropriate power and hand tools for routine maintenance activities. Additional storage is provided for maintenance attic stock and supplies.

5. Within the facility will be a designated workroom for use by maintenance staff and for the storage of tools/carts.

6. A garage will be provided for the general maintenance and repair of state and county vehicles. An exterior covered area or shed will be provided for the storage of grounds maintenance equipment (e.g., mowing, etc.). A gas station with a 1,000 gallon above grade tank will service MDOC vehicles and be located adjacent to the garage.

7. A new central plant will be constructed to support the MCC that houses the central heating plant and centralized chillers for the MCC, and the domestic hot water supply and booster pumps. It also includes the main electrical room, fire command center, fire pump room, and the emergency generators. This equipment may be co-located in a single room in the facility, or various components may be in various locations throughout the facility, depending on the facility design. Some components may be located on the exterior of the building or on the roofs of the new structures.

8. Office and work space will be provided for:

    - Facilities Management Manager
    - Trades Workers
    - Service Ticket Clerk

9. A locker room for the storage of a change of clothes will be provided for the tradesmen. Within the locker room will be showers, assigned lockers and adequate space for changing clothes. Lockers will be permanently assigned.

10. Within the maintenance component sufficient storage for owner manuals, blueprints, and other documents needed for the maintenance of equipment and machinery, and other ancillary spaces are provided.

11. The parking area for MCC's fleet vehicles should be located near the warehouse and maintenance function. Facility vehicles at times may include state vehicles awaiting maintenance/repair. The MCC anticipates a future vehicle fleet comprised of 35-40 vehicles.

16.000 Site

Perimeter

1. There will be two main entry points: a vehicle sally port and the main pedestrian sally port (located in the public lobby). A gatehouse will be located at the main vehicle sally port.

2. The perimeter will be double-fenced with coils and a stun fence in between.

3. An officer will patrol the perimeter.

Parking – Public

4. The public parking area should have 85 (est.) spaces to accommodate both official visitors and inmate visitors simultaneously, including handicapped spaces per code. The public parking should be located near the public lobby. Appropriate signage

around the site should indicate the public parking areas. Public access to the site should have its own vehicular entrance and exit ramps from the road, separate from staff access areas, if possible.

Parking – Staff

5. The staff parking area should be located so that inmates do not have a view of the staff parking area.

6. The number of staff parking spaces (150 est.) will be sufficient such that there is parking for two shifts during shift change times, when staff arrives early for their shift to change, shower, or work out. Electrical outlets will be provided that will allow for diesel and/or electric hybrid vehicles to be plugged in during cold weather.

7. The staff parking area should have its own vehicle entrance and exit ramps from the road, if possible. The staff parking area should be provided with pole-mounted CCTV cameras, monitored by central control, to provide adequate supervision of the area.

Space Program Summary

The architectural space program is organized into 16 functional components, as described in the Operating Principles, as follows:

1.000	Public Lobby
2.000	Administration
3.000	Staff Support
4.000	Security Operations
5.000	Reception and Discharge
6.000	Housing
7.000	Medical/Mental Health
8.000	Visitation
9.000	Programs and Services
10.000	Industries
11.000	Foodservice
12.000	Laundry
13.000	Commissary
14.000	Warehouse
15.000	Maintenance/Central Plant
16.000	Site

The architectural space program provides a summary of the anticipated required square footage for each of the major facility components listed above. The space program represents a macro estimate of the square footage requirements for the proposed new 1,094 bed MCC and all the requisite support, programming, and treatment spaces to support that new operation.

Space standards that are the foundation of the space program were derived from applicable American Correctional Association Standards for Adult Correctional Institutions and the project team's professional experience in programming similar prison facilities.

The square footages listed in the space program summary that follows illustrates the total net square footage (NSF) for each functional component. The NSF column in the table represents the Net Square Feet or the useable/occupiable space within the building. Net areas are then multiplied by varying departmental grossing factors, which includes necessary circulation space within functions, mechanical shafts, and other unassigned areas that are part of the functional component, to arrive at the Gross Square Feet (GSF) for that component.

In any facility, additional square footage referred to as the Building Grossing Factor, is applied to the overall gross square footage of the building to account for major vertical circulation including elevators and stairwells, major circulation corridors, large mechanical and electrical rooms that relate to the overall facility rather than individual components, as well as the building structure and exterior "skin." The total square footage of the new MCC was computed by applying the Building Gross Factor to the sum of the 16 individual building component gross square footages.

The Architectural Space Program Summary appears on the following page. The projected square footage for the new construction is 371,220 GSF. Including the spaces to be renovated for a warehouse, the total available square foot area for the new MCC will be 389,720 gross square feet. This translates to an efficient 406 square feet/inmate. Nationally, a prison of this size would be in the range of approximately 420 to 500 square feet/inmate. By comparison, MSP in Warren, Maine is approximately 450 square feet per inmate.

Table 4.2: MCC - Preliminary Macro Space Program

MCC Macro Space Program					
Component Section	Component	Net Square Feet.	Gross Square Feet	Exterior Square Feet	Notes
1.000	PUBLIC LOBBY	1,850	2,600	0	
2.000	ADMINISTRATION	4,600	5,900	0	
3.000	STAFF SUPPORT	6,400	8,650	0	
4.000	SECURITY OPERATIONS	4,300	6,000	0	Reduce SOG by 500 GSF
5.000	RECEPTION & DISCHARGE	5,700	7,400	0	
6.000	HOUSING				
6.100	MU 1 (GP: 352 bed med/min)	35,850	59,150	4,800	
6.200	MU 2 (208 beds for GP Med & Special Needs, excluding Health Care)	28,500	47,100	4,350	
6.300	MU 3 (146 beds female; all classifications)	19,150	31,000	3,150	
6.400	MU 5 (Male Community Support for 160 beds)	4,400	6,000	0	New support area provided only.
6.500	MU 5 (Female Community Support for 74 beds)	0	0	0	No support area needed for women's community unit; no new outdoor yards needed
7.000	HEALTH CARE				
7.100	Clinic & Medical Administration	6,700	10,100	0	
7.200	Infirmary (24 beds; male and female)	4,300	7,100	750	Part of Management Unit 2
7.300	Medical Housing (80 beds)	12,200	20,150	1,200	Part of Management Unit 2
7.400	Mental Health Housing (50 beds)	8,000	12,800	1,200	Part of Management Unit 2
8.000	VISITATION	3,950	5,500	1,000	Shared with Females; provide 500 SF space for overflow days
9.000	PROGRAMS AND SERVICES	22,200	30,000	245,000	Includes 2 baseball fields, basketball courts, loading docks
10.000	INDUSTRIES	29,200	35,000	1,200	No major wood industries; focus on clean industries
11.000	FOOD SERVICE	5,750	7,900	1,000	All dining to take place in the housing units

MCC Macro Space Program					
Component Section	Component	Net Square Feet.	Gross Square Feet	Exterior Square Feet	Notes
12.000	LAUNDRY	2,650	3,700	0	Includes a separate laundry for the female population of 1200 gsf
13.000	COMMISSARY	300	350	0	Shares loading dock w/warehouse
14.000	WAREHOUSE	0	0	2,800	Convert existing Industries and Voc. Building (18,500 GSF) to become the new warehouse)
15.000	MAINTENANCE/CENTRAL PLANT	13,200	16,000	15,300	Includes vehicle maint.,fleet parking and gas island; assume central plant at 6400 GSF
16.000	SITE / PARKING	330	400	72,300	Includes gatehouse and VSP
	SUBTOTAL	225,080	322,800	354,050	
	Gross Factor (15%)		48,420		
	TOTAL		371,220	354,050	

TAB 5

BASELINE OPERATING COSTS

Introduction

In this chapter, the current budget of the MDOC adult facilities is analyzed in order to establish a baseline from which we can analyze the cost efficiency of the current facilities (as illustrated by staffing ratios and operating cost per diems[28]) and identify which facilities should be considered for consolidation within a plan to make the system more cost efficient and cost effective. Moreover, with this information, planning scenarios may be developed and evaluated, and informed decisions may be made regarding the fiscal impact associated with reconfiguration of the adult facilities system, i.e., physical plant and populations to be served by the individual facilities.

Methodology

The project team first sought to understand how operating costs were accounted for and categorized. Detailed data[29] on MDOC adult facilities for FY13[30] and FY14 was requested, including:

- Operating expenditures broken out by cost center (object code)
- Healthcare expenditures
- Budgeted staff
- Budgeted capacity
- Average daily population (ADP)

The data was compiled and organized by each of the seven adult facilities, namely:

- Bolduc Correctional Facility (BCF)
- Central Maine Pre-Release Center (CMPRC)
- Charleston Correctional Facility (CCF)
- Downeast Correctional Facility (DCF)
- Maine Correctional Center (MCC)
- Maine State Prison (MSP)
- Southern Maine Women's Reentry Center (SMWRC)

DAFS and MDOC budget staff provided significant assistance relative to clarification of

28 Per diem is the cost to house a single inmate for one day
29 FY14 budgeted operating costs data provided by Scott Ferguson, Department of Administrative and Financial Services (DAFS); Mitchell Boynton, MDOC; or Kathleen Heath, Corrections Service Center, or derived from the *State of Maine Department of Corrections, Monthly Reporting, October 31, 2013* report
30 The MDOC operates on a July 1 through June 30, fiscal year

cost categories, context and explanations for variances between actual FY13 expenditures and FY14 budgets and planned changes to existing facilities. Detailed analysis was conducted that looked at distinct cost centers, staffing levels, and inmate population classifications and budgeted capacities. The following discussion addresses the results of that analysis.

Operating Costs Budget Categories

The FY14 budget, as approved by the legislature, was used in establishing the current baseline operating costs for the MDOC adult facility system, which was then adjusted as the results of Financial Order 001884 F4.[31] The MDOC is currently operating within this fiscal year and so it represents the best picture of the cost associated with operating the existing facilities.

The analysis looked at the MDOC adult facilities in the aggregate and individually. Only institutional operating budgets and budgets that contribute to institutional operations, i.e., healthcare, were examined. Budgets for central office, juvenile detention facilities, and other budgets such as capital improvements and prisoner boarding were not included in the establishing of the baseline operating costs for each facility.

To better understand the various costs associated with operating the adult facilities, budgeted costs were grouped according to the following categories[32]

1. Administration
2. Building & Maintenance
3. Contractual
4. Energy
5. Food
6. Fuel
7. Healthcare
8. Insurance
9. Transportation
10. Travel
11. Wages/Salary/Benefits[33]

The categories listed above include those identified in the legislation that funded this Feasibility Study, i.e., fuel, food, wages and salaries, energy, transportation and maintenance. In addition, healthcare, while a separate account, was included in light of its

31 Adjusted FY14 budget numbers provided by Scott Ferguson, DAFS
32 The object codes, by which the MDOC budget is organized, were assigned one of the Study's operating cost categories by Scott Ferguson, DAFS.
33 Includes overtime and other pay categories, including all employee benefits

substantial impact on the cost of operating the adult facilities.[34] There is an additional cost category, prisoner boarding, that is discussed later in this chapter; though it is not a direct cost associated with operating any one of the seven facilities.

Table 5.1 outlines the MDOC cost centers (object group number and name) that comprise each of the study categories.

Table 5.1: Study Categories by MDOC Cost Center

MDOC Object Group Number and Number by Study Category	
Administration	
49	General Operations
50	Employee Training
53	Technology
54	Clothing
80	Interest
82	Administrative Charges and Fee
Building & Maintenance	
47	Repairs
55	Equipment
56	Office and Other Supplies
58	Highway Materials
71	Buildings
72	Equipment
76	Asset Construction
Contractual	
40	Prof. Services, Not By State
41	Prof. Services, By State
Energy	
45	Utility Services
Food	
51	Commodities - Food
Fuel	
52	Commodities - Fuel
Healthcare[35]	
N/A	Healthcare
Insurance	
48	Insurance
Transportation	
44	State Vehicles Operation

34 Healthcare has its own appropriation account (28601), Correctional Medical Services Fund
35 Id.

MDOC Object Group Number and Number by Study Category	
46	Rents
Travel	
42	Travel Expenses, In State
43	Travel Expenses, Out of State
Wages/Salary/Benefits	
31	Salaries and Wages
32	Salaries and Wages
34	Salaries and Wages
36	Salaries and Wages
38	Salaries and Wages
39	Fringe Benefits

FY14 Operating Budget

In FY14, $83M has been appropriated for the operation of the seven adult facilities. The budget is predicated on an assumed capacity of 2,176 beds.

In addition, there is $547,613 that has been appropriated for boarding up to 99 additional MDOC inmates in Maine county jails.[36] MDOC currently contracts for 67 beds, on an as-needed basis, with three county jails (Cumberland, Kennebec, and Two Bridges Regional Jail) at a per diem, which represents each county's marginal costs, ranging from $24.71 to $27.58. Eighteen beds are also available for MDOC inmates at the Maine Coastal Regional Reentry Center (MCRRC) on a space available basis. The MCRRC, which is BOC funded, is operated by the Waldo County Sheriff's Office. The MDOC is not charged a per diem for inmates housed at the MCRRC.[37]

Table 5.2 outlines the adult facilities costs by category, and what percentage each category comprises of the MDOC adult facilities budget. Wages/Salary/Benefits, which is the largest expenditure category, represents 68.5% of the budget. Healthcare represents over 16% of the budget and has a per diem cost of $17.54, a figure that is on the low end of the expected range for correctional healthcare costs. It is also worth mentioning that the foodservice cost, which has a calculated per diem of $4.09, is high based on national experience because it excludes labor costs. However, this cost will likely be reduced significantly in the event that MDOC contracts out this function as is planned to occur in FY15.[38]

36 Prisoner boarding has its own appropriation account (Z8601), Prisoner Boarding
37 Source: Mark McCarthy, Manager Correctional Operations, MDOC
38 Source: Commissioner Ponte, November 21, 2013 during Vision Planning session.

Table 5.2: MDOC FY14 Adult Facilities Budgeted Costs by Category

Category	Amount	% of Budget
Administration	$855,375	1.0%
Building & Maintenance	$1,996,829	2.4%
Contractual	$302,767	0.4%
Energy	$3,413,392	4.1%
Food	$3,118,399	3.8%
Fuel	$1,852,422	2.2%
Healthcare	$13,665,850	16.5%
Insurance	$159,587	0.2%
Transportation	$639,843	0.8%
Travel	$64,421	0.1%
Wages/Salary/Benefits	$56,731,950	68.5%
Adult Facilities Total	$82,800,835	100.0%
Prisoner Boarding	$547,613	
Grand Total	$83,348,448	

Figure 5.1 illustrates what percentage each facility comprises of the MDOC adult facilities budget. The MCC and MSP facilities, which serve the largest number of inmates (72.3%) and the system's higher risk populations, comprise 76.2% of the total adult facilities budget.

Figure 5.1: MDOC Adult Facilities by Percentage of FY 14 Adult Facilities Budget

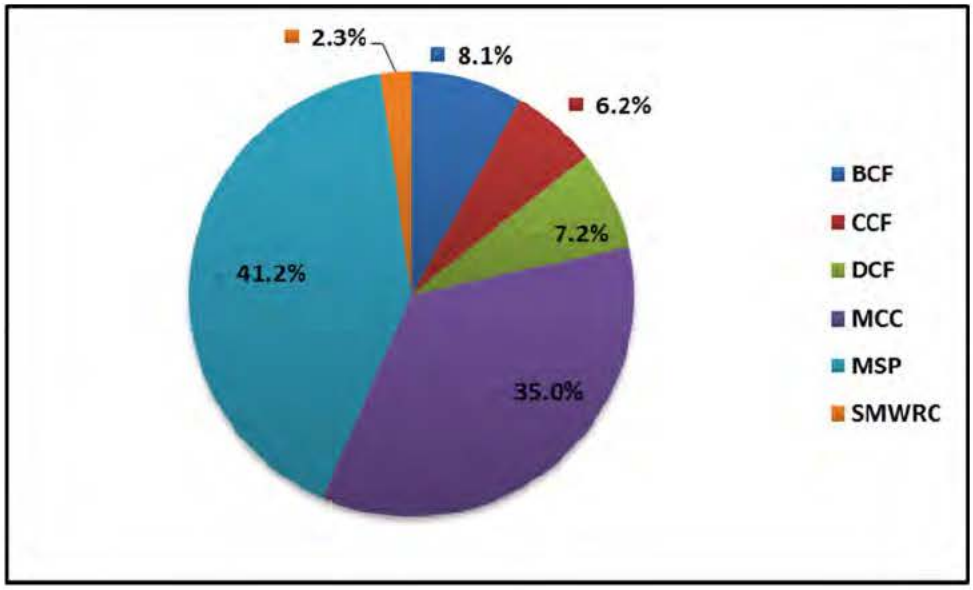


Table 5.3 outlines the FY14 MDOC adult facilities budget by facility and cost category, and includes the costs associated with boarding inmates to derive the total costs for housing adult inmates committed to the MDOC.

Table 5.3: FY14 MDOC Adult Facilities Budget, by Facility and Cost Category

Facility	BCF	CCF	DCF	MCC	MSP	SMWRC	Total
Cost Category							
Administration	$42,500	$31,748	$74,200	$238,540	$418,387	$50,000	$855,375
Building & Maintenance	$185,000	$106,408	$166,847	$632,444	$871,130	$35,000	$1,996,829
Contractual	$13,500	$25,068	$18,337	$49,743	$96,119	$100,000	$302,767
Energy	$240,000	$134,858	$121,177	$699,349	$2,199,808	$18,200	$3,413,392
Food	$360,000	$135,111	$170,113	$949,639	$1,402,796	$100,740	$3,118,399
Fuel	$160,000	$54,690	$161,294	$641,955	$823,483	$11,000	$1,852,422
Healthcare	$782,544	$492,075	$484,196	$6,065,119	$5,605,518	$236,398	$13,665,850
Insurance	$12,000	$14,000	$12,731	$46,938	$72,418	$1,500	$159,587
Transportation	$67,000	$90,000	$47,228	$143,332	$204,783	$87,500	$639,843
Travel	$1,500	$2,051	$3,500	$18,068	$31,802	$7,500	$64,421
Wages/Salary/Benefits	$4,845,653	$4,084,175	$4,711,834	$19,502,839	$22,367,907	$1,219,542	$56,731,950
Facility Total	$6,709,697	$5,170,184	$5,971,457	$28,987,966	$34,094,151	$1,867,380	$82,800,835
Prisoner Boarding							$547,613
Grand Total							$83,348,448

Efficiency of MDOC Adult Facilities

A key component of this Feasibility Study is evaluating the efficiency by which each adult facility operates. Critical to this exercise is recognizing two general rules of thumb relative to correctional facility efficiency:

- Facilities that serve higher risk inmates or those requiring specialized services will typically cost more to operate; and
- There are economies of scale to be obtained with larger facilities, which can serve to lower per person and per diem costs, two measures of efficiency (although at a certain point effectiveness may become compromised).

Table 5.4 outlines for each of the adult facilities, the population classifications[39] it serves and its budgeted capacity.

39 MDOC inmates are classified and assigned to a custody level of close, medium, minimum or community. Source: MDOC Policy - 23.1 Classification System (October 7, 2013)

Table 5.4: MDOC Adult Facilities, Population Classification and Budgeted Capacity

Facility	Population Classifications[40]	FY14 Budgeted Capacity[41]
BCF	Minimum, Community	217
CCF	Minimum, Community	200
DCF	Minimum	156
MCC	Medium, Minimum	668
MSP	Close, Medium, Special Management	874
SMWRC	Community	68

Discussion about the relative efficiency of a correctional facility is often measured by per diem costs[42] and staff to inmate ratios. Based on the FY14 budget, the MDOC adult facilities have a systemwide per diem of $104.25 and a ratio of 34.4 staff:100 inmates.

Table 5.5 compares the systemwide adult per diem and staff:100 inmate ratio with the per diem and staff: 100 inmate ratio calculated for each adult facility.

Table 5.5: FY14 Per Diem and Staff:100 Inmate Ratio, by Adult Facility

Facility	BCF	CCF	DCF	MCC	MSP	SMWRC	Total
Per Diem							
Budgeted Costs	$6,709,697	$5,170,184	$5,971,457	$28,987,966	$34,094,151	$1,867,380	$83,348,448
Budgeted Capacity[43]	217	200[44]	149[45]	668	874	68	2,176
Per Diem[46]	$84.71	$70.82	$109.80	$118.89	$106.87	$75.24	$104.25
Staff:100 Inmates							
Budgeted Staff[47]	61	54.5	58	259.5	295.5	20	748.5
Staff:100 Inmates[48]	28.1	27.3	38.9	38.8	33.8	29.4	34.4

As illustrated by Table 5.5, the two most efficient adult facilities, as measured by operating per diem and staff: 100 inmate ratios, are the BCF (males) and SMWRC (females). Despite their small size and absence of economies of scale, both facilities are operating below the systemwide adult per diem and staff: 100 inmate ratio, which is to be expected given each

40 Source: MDOC website - adult facilities; http://www.maine.gov/corrections/adultfacilities/index.shtml
41 The CMPRC was closed for FY14. Source: Mark McCarthy, Manger Correctional Operations, MDOC
42 Per diem is the cost to house a single inmate for one day
43 Source: MDOC - Capacity and Census Report (11-18-2013), unless otherwise noted
44 Source: Ralph Nichols, MDOC Director of Operations
45 This does not include seven special needs beds, which are not used. Source: Ralph Nichols, MDOC Director of Operations
46 Per diem calculation: Total Budget/Costs ÷ Budgeted Capacity ÷ 365 days
47 Source: Mark McCarthy, Manager Correctional Operations, MDOC
48 Staff: 100 Inmate calculation: Budgeted Staff ÷ (Budgeted Capacity ÷ 100)

facility houses the lowest risk inmates who don't require specialized services (minimum and community custody levels). While BCF does benefit from its close proximity to MSP and can draw resources from the large facilities, it still presents very high efficiency factors relative to other comparable facilities.

Despite its status as the second largest facility in the system after MSP, and one serving lower level medium and minimum custody inmates, MCC presents the highest per diem cost of any facility and the highest staff: 100 inmate ratio (after DCF). This current finding is consistent with findings presented in the 1997 Phase I Master Plan and the 2001-2002 Phase II Master Plan, which also described numerous physical design deficiencies at MCC that contribute directly to higher costs and more staffing.

Also consistent with the 1997 and 2001-2002 Master Plan documents - DCF continues to be inefficient in terms of staffing and relative to per diem costs. The DCF has a per diem cost of $109.80, which is 55% higher than CCF's per diem, and 29.6% higher than BCF - the other male minimum/community custody facility. In fact, the DCF, which houses minimum custody inmates, has a per diem that is higher than MSP's, and a staff: 100 inmate ratio that is 15.1% higher than MSP's, which houses inmates who pose far higher risk and/or who require specialized services (close, medium, and special management custody levels).

Future System Impacts

It is important when forecasting future costs associated with operating the MDOC adult facilities, to consider plans presently being considered by the MDOC that will result in system efficiencies, and reduced or additional operating costs. These plans[49] include:

1. MSP- LD1515 required the establishment of a mental health unit
2. Mountain View (Youthful Adult Offenders) - Mountain View Youth Development Center will house youthful adult male inmates under the age of 25 who are currently housed in adult facilities
3. Potential consolidation of MDOC facilities to realize greater efficiencies
4. SMWRC - relocation to MCC site
5. House County Jail Inmates in MDOC Facilities - continue to house county jail inmates within MDOC facilities

49 Source: Jody Breton, Associate Commissioner Legislative and Program Services, MDOC; Mark McCarthy, Manager Correctional Operations, MDOC; Scott Ferguson, DAFS; Vision outlined in Report introduction

6. Board MDOC Inmates in County Jails - with the exception of MCRRC, no longer house MDOC inmates in county jails

7. Foodservice - move from a department-operated function to a contracted service

PROJECTED STAFFING AND OPERATING COSTS - NEW MCC

Methodology

A key planning objective for the new MCC is to consolidate many of the MDOC inmates who represent unique populations within the system, such as female inmates, inmates who require protective custody, and inmates who require specialized housing due to a medical or mental health condition. Another planning goal was to expand capacity for intensive treatment and programming, particularly for those inmates with histories of substance abuse and also for those who are classified as sex offenders.

As described earlier in this report, in concert with MDOC officials a set of broad planning assumptions were developed about how the proposed MCC would operate and the space needed to implement the operation. The resultant proposal recommends a facility complex designed to replace the existing MCC via a strategic combination of renovation of select existing MCC facilities along with new construction.

In order to examine the implications of the new MCC, both in terms of staffing and operating costs, it was important to compare it against existing staffing levels and operating costs. Because no one facility within the MDOC system mirrors the proposed new MCC, it was decided to take those existing facilities that when combined most closely represent the populations that will be served in the new MCC and use their combined staffing levels and operating costs for comparison purposes. In this instance, two facilities - the present MCC and SMWRC in the aggregate, best reflect the new MCC.

The projected staffing and accompanying operating costs are intended solely to provide officials with a preliminary estimate concerning possible staffing requirements and order of magnitude associated costs. The operating costs are delineated by the following categories:[50]

- Administration
- Building & Maintenance*
- Contractual
- Energy*
- Food*
- Fuel*
- Healthcare
- Insurance
- Transportation*
- Travel
- Wages/Salary/Benefits*

50 Categories with an asterisk were identified in the legislation that funded this Feasibility Study

Projected Staffing

The first critical step in determining the staffing for the new MCC was to understand the inmate population that would be served and the programs and services that would be offered at the new MCC. The configuration and distribution of beds and the populations to be served at the new MCC previously presented in this report formed the basis in understanding the inmate population that would be served.

Notable assumptions regarding programs and services provided at the new MCC included:

- Expansion of the CRA (substance abuse) and RULE (sex offender) programs, intensive programs delivered in a therapeutic community environment
- Provision of intensive mental health treatment (including mental health services required by LD1515)
- Outsourcing (contracted vendor) of the current foodservice operation[51]
- Parity in access to programs for females

Because personnel costs represent the largest single expense associated with operation of a correctional facility, a staffing plan was developed for a new MCC. This plan was based on previous work completed by MDOC officials during the initial exploratory stages of reconfiguring the MDOC adult facility system. However, P/BA completed an independent review of this plan along with examining existing MCC deployment practices, and then modified the plan to reflect present planning assumptions, programmatic discussions, newly projected bed needs and bed distributions, and sound correctional practice.

Deriving the number and type of staff required for the new MCC included the following key staffing assumptions:

- Consistent with current practices, healthcare and commissary will be contracted services and associated personnel are therefore not included in the projected staffing
- Foodservice will be contracted and food service employees will not be included in projected staff
- For positions requiring relief, the MDOC calculated relief factor of 2.4 FTE (based on 12 hours shifts) was used, regardless of the position's job classification

51 While the projected staffing assumes foodservice will be a contracted service, staffing for foodservice will need to be re- evaluated should this service not be outsourced

- While MDOC employees provide program security, actual delivery of CRA and RULE treatment programs is by contract personnel who are not included in the projected staffing

- A single officer may supervise up to 88 minimum or medium inmates in a single housing pod

Direct supervision principles have been applied whenever and wherever possible; some housing pods may be too small in size to warrant a single officer being assigned to one housing pod. Direct supervision relies on the premise that facility staff, not the inmates, must control the housing pods. As such, the staffing patterns are built on the rule that officers must continuously and directly supervise inmates in order to prevent negative behavior and model positive behavior.

An important consideration in any new correctional facility and in implementing direct supervision is the implementation of standards guiding correctional practices as they relate to the Prison Rape Elimination Act (PREA), a Federal law enacted in 2003 that was created to eliminate sexual abuse in confinement. The final PREA standards became effective on June 20, 2012, when they were published by the Department of Justice in the Federal Register.[52] Among many other requirements, PREA Standards necessitate that there be appropriate supervision and monitoring of inmates.[53]

Direct supervision also relies on the premise that one officer is in charge of a housing pod. The number of inmates in that pod is based on both the ability of one person to manage a group of inmates while also performing administrative and operational tasks required in the pod (e.g., conducting searches of the pod, documenting housing pod activities, etc.). Inmate classifications and whether the majority of inmates are present in the housing area or away from it in activities or programs are factors in determining appropriate supervision ratios.

Perhaps the most salient guiding concept affecting the staffing requirements of the facility is the decision to employ a unit management housing system to enhance inmate control and the overall delivery of correctional services within the institution. The management unit is a combination of self-contained housing pods operating semi-autonomously within the larger facility. The essential components are:

- A manageable number of inmates housed in one area, which can be further subdivided into smaller groups (housing pods)

- A multidisciplinary team of staff members with offices located near and adjacent to

52 http://www.prearesourcecenter.org/training-technical-assistance/prea-essentials
53 http://www.prearesourcecenter.org/training-technical-assistance/prea-101/prisons-and-jail-standards

the housing pods and assigned to work with inmates in that unit for a relatively long time period

- A unit manager with administrative authority and supervisory responsibility for the unit staff and authority concerning all within-unit aspects of inmate living, programming, and security

- The assignment of inmates to a particular management unit and thus to specific housing pods based on security and programmatic needs specific to the management capabilities of the particular unit.

Four management units are planned for the new MCC to accommodate the inmate population. The management units (MU) include the following:

- MU1: Male Minimum General Population (GP), Male Medium GP - 352 total beds

- MU2: Male Reception, Male Protective Custody, Male Administrative Segregation/Disciplinary Detention, Male Mental Health, Male Medium GP, Male Assisted Living, Male Infirmary, Female Infirmary - 362 total beds

- MU3: Female Specialized Housing, Female GP - 146 total beds

- MU4: Male Community, Female Community - 234 total beds

Systemwide classification functions will be consolidated at the MCC, which will include the relocation of central office classification staff to the new MCC. MCC classification staff will perform all initial diagnostics and assessments and classifications for inmates entering the MDOC system. The projected staffing does not reflect *central office* classification staff that may relocate to the new MCC.

The industries program will continue at the new MCC, though the nature of those industries may change due to the closure or downsizing of other MDOC facilities. Multiple industries will be available, which will include opportunities for both males and females. The projected staffing for the new MCC supports an industries program having the capacity to serve up to 100 male and 20 female inmates.

A total of 272.8 FTE staff is projected to operate the new MCC with some 914 inmates. The projected staffing levels are expected to be adequate in both numbers and type of staff necessary to provide a safe and secure correctional environment that provides inmates with opportunities for self-improvement. Table 5.6 summarizes by major functional area the number of projected staff for the new MCC.

Table 5.6: New MCC Projected Staffing by Major Functional Area

Functional Area	Total Staff
Administration	13.0
Healthcare Services	2.4
Inmate Programs/Activities	24.8
Reception/Discharge & Classification	7.0
Security Operations	50.8
Support Services	28.0
Unit Management/Housing	146.8
Grand Total	272.8[54]

Table 5.7 compares the projected staff with the current MCC/SMWRC staff. The projected staff, 6.7 fewer FTE than the current staffing complement, will serve a population that is 24.2% larger. With a staff:100 inmate ratio of 29.8, it is 21.6% more efficient than the MCC/SMWRC staff:100 inmate ratio of 38.

Table 5.7: New MCC Projected Staffing

	MCC/SMWRC Current Staff[55]	New MCC Projected Staff
Total Staff	279.5[56]	272.8
GP Inmates	736[57]	914
Staff:100 Inmates	38.0	29.8

Projected Operating Costs

In developing operating costs for the new MCC, a baseline was created based on the FY14 budgets for MCC and SMWRC, which were aggregated and a per diem[58] calculated for each of the 11 required categories, and which are outlined in Table 5.8.

54 Projected staffing calculations were completed in MS Excel using numbers with 2 decimal places. As a result, total may not add due to rounding
55 Source: Scott Ferguson, DAFS
56 The staff number (MCC = 259.5; SMWRC = 20) is the number used for budgeting purposes and may not represent the actual number of staff presently available at each facility
57 The number of inmates (MCC = 668; SMWRC = 68) is the number used for budgeting purposes and may not represent the actual average daily inmate population
58 Per diem is the cost to provide that service for a single inmate for one day

Table 5.8: MCC/SMWRC Baseline FY14 Budget and Per Diem by Cost Center

Cost Center	MCC/SMWRC FY14 Budget[59]	MCC/SMWRC Per Diem[60]
Administration	$288,540	$1.07
Building & Maintenance	$667,444	$2.48
Contractual	$149,743	$0.56
Energy	$717,549	$2.67
Food	$1,050,379	$3.91
Fuel	$652,955	$2.43
Healthcare	$6,301,517	$23.46
Insurance	$48,438	$0.18
Transportation	$230,832	$0.86
Travel	$25,568	$0.10
Wages/Salary/Benefits	$20,722,381	$77.14
TOTAL	$30,855,346	
GP Inmates		736
Per Diem		$114.86

For purposes of calculating the *projected* operating costs, the per diems calculated for the existing MCC/SMWRC were applied to the new MCC with the exception of the following categories:

- Energy
- Food
- Fuel
- Healthcare
- Wages/Salary/Benefits

With respect to food service, this is a function currently provided by MDOC employees. The calculated per diem of $3.91, however, represented only actual food and related costs but excluded the considerable costs associated with foodservice personnel, which are included in the wages/salaries/benefits category. Inasmuch as the MDOC is planning to contract out this function because of the very large projected savings, the projected per diem reflects all related costs *including* both personnel as well as food, paper products, etc. as would be provided by a vendor.[61]

Healthcare services are currently contracted and contractual per diems are reflected in the baseline and projected operating cost figures. An adjustment was made because the program for the new MCC envisions more intensive services than are currently provided at

59 Source: Scott Ferguson, DAFS
60 Per diem calculation: Total Costs ÷ Number of Inmates ÷ 365 days
61 Source: S1 Food Service: national correctional food service consultant estimate based on planned foodservice operation

MCC such as infirmary care, intensive mental health treatment, and assisted living/geriatric care. Because this level of healthcare service is not reflected in the baseline MCC/SMWRC healthcare per diem, the higher MDOC systemwide healthcare per diem, which includes some of these services at MSP, was instead used to calculate projected healthcare costs for the new MCC, as it includes this level of service regardless of what facility the inmate is presently housed.

Energy and fuel costs are highly dependent upon physical plant requirements rather than on the number of inmates. Whether there are 50 or 88 inmates in a housing pod, the housing pod must be heated and those costs remain the same regardless of the number of inmates present. While some energy and fuel costs can be inmate dependent such as some of the water usage (i.e., less showers), these are a small part of the costs and have a negligible impact on the overall energy and fuel costs. In lieu of using a per diem, estimated energy and fuel costs were calculated based on the estimated facility gross square footage for electricity, water and sewer, and natural gas. In addition, a 10% premium was added to the natural gas (fuel) estimate to accommodate for any unaccounted for costs, e.g., oil, LP gas.[62]

The baseline per diem calculated for wages/salary/benefits was based on two combined facilities that have different designs, capacities and don't presently serve a diverse inmate population representing multiple special needs considerations that may require specialized housing and/or services. As such, the future composition (numbers and type) of staff at the new MCC will not necessarily reflect present staffing patterns and per diems. To provide a more accurate reflection of anticipated staffing costs, for each MDOC employee job classification/position in the projected staffing plan, the average compensation costs (wages/salary/benefits) for the respective job classification/position at MCC was applied to the projected staffing plan to derive total overall compensation costs. Contracted personnel costs are reflected in the respective cost center, e.g., foodservice personnel are reflected under food costs.

Table 5.9 outlines the projected operating costs for the new MCC based on the assumptions and calculations outlined above, and compares them against the baseline MCC/SMWRC operating costs. While the projected cost for operating the new MCC is 3.2% higher than the baseline MCC/SMWRC costs, the new facility is designed to accommodate 178 (24.2%) more inmates and requires 6.7 fewer FTE. The new MCC would have a 16.9% lower per diem ($95.46) while serving a population that requires more intensive supervision and services. As previously noted, with a staff:100 inmate ratio of 29.8, it is 21.6% more efficient than MCC/SMWRC's staff:100 inmate ratio.

62 Source: SMRT

Table 5.9: Comparison – Baseline and New MCC Operating Costs

Cost Center	MCC/SMWRC FY14 Budget[63]	MCC/SMWRC Per Diem[64]	New MCC Projected Cost	New MCC Per Diem	Per Diem Delta
Administration	$288,540	$1.07	$358,323	$1.07	$0.00
Building & Maintenance	$667,444	$2.48	$828,864	$2.48	$0.00
Contractual	$149,743	$0.56	$185,958	$0.56	$0.00
Energy	$717,549	$2.67	$1,011,260	$3.03	$0.36
Food	$1,050,379	$3.91	$1,384,482	$4.15	$0.24
Fuel	$652,955	$2.43	$294,030	$0.88	($1.55)
Healthcare	$6,301,517	$23.46	$5,851,519	$17.54	($5.92)
Insurance	$48,438	$0.18	$60,153	$0.18	$0.00
Transportation	$230,832	$0.86	$286,658	$0.86	$0.00
Travel	$25,568	$0.10	$31,752	$0.10	$0.00
Wages/Salary/Benefits	$20,722,381	$77.14	$21,552,736	$64.60	($12.53)
TOTAL	$30,855,346		$31,845,734		
GP Inmates		736		914	
Per Diem		$114.86		$95.46	($19.40)
Total Staff		279.5		272.8	
Staff:100 Inmates		38.0		29.8	

63 Source: Scott Ferguson, DAFS
64 Per diem calculation: Total Costs ÷ Number of Inmates ÷ 365 days

PROJECTED STAFFING AND OPERATING COSTS – SYSTEMWIDE

Methodology

As part of the reconfiguration of the MDOC system, a comparative analysis examined the impact of the proposed system on baseline staffing levels and operating costs. The baseline operating costs outlined in this report form the basis for the staffing and costs comparisons made below.
The reconfiguration of the MDOC system includes the following planning assumptions:

1. MDOC will no longer board MDOC inmates in county jails, - with the exception of the Maine Coastal Regional Reentry Center[65]
2. BCF will increase from its present capacity of 217 to 220 male inmates
3. CCF will downsize from its present capacity of 200 to 75 male inmates, and will be operated exclusively as an annex to the Mountain View Youth Development Center (MVYDC)[66]
4. DCF will be closed
5. SMWRC will be relocated to the new MCC
6. MVYDC will house 80 youthful adult male inmates in specially designated housing within the facility[67]
7. MSP will increase from its present capacity of 874 to 992 male inmates
8. MCC will have a mental health unit that will serve the entire MDOC system, and will include the mental health unit required by LD1515

With these assumptions, the inmate population was redistributed within the existing MDOC facilities and any remaining inmates are to be accommodated at the new MCC. Table 5.10 summarizes the distribution of the MDOC inmate population both in the present system and in the reconfigured system. The redesigned system will accommodate 2,281 inmates, a 4.8% increase over the current system.

Table 5.10: Distribution of MDOC Inmate Population by Facility, Present and Future

	BCF	CCF	DCF	MCC	MSP	SMWRC	MVYDC	Total Beds
Present	217	200	149	668	874	68	0	2,176
Future	220	75	0	914	992	0	80	2,281

65 The terms of this agreement do not require payment by MDOC
66 Only costs associated with staffing (wages/salary/benefits) are included; the marginal costs for housing these inmates at MVYDC are not. Source: Ralph Nichols, MDOC Director of Operations
67 MDOC officials report that the MVYDC has capacity to house these inmates using existing resources and funds. Source: Ralph Nichols, MDOC Director of Operations

While the consultant team established the staffing levels and operating costs associated with operation of the new MCC, the team relied on MDOC officials to confirm planning assumptions regarding staffing levels and operating costs for the existing facilities that will remain under the reconfigured system. These findings of are presented below.

Impact On Systemwide Staffing

Reconfiguration of the MDOC adult facility system will have a positive impact on the number of staff required to operate its facilities. The present system operates on a combined staff:100 inmate ratio of 34.4. The projected ratio is 27.8:100, a 19.2% improvement. While there is a significant decrease in the number of staff required to operate the future adult facility system, there remains adequate staffing levels to support enhancement of existing programs and services by increasing select program capacities, i.e., CRA and RULE, and increasing access to specialized medical and mental health care.

The systemwide staffing includes the following planning assumptions:

1. DCF: With the closure of DCF, the staffing level will decrease from 58 to 0

2. BCF: No change in present staffing level of 61

3. CCF: Based on the downsizing of CCF from 200 to 75 inmates, staffing will decrease from 54.5 to 10

4. MSP: No change in present staffing level of 295.5; no additional staffing is required to accommodate the 13.5% inmate population increase from 874 to 992 inmates[68]

5. SMWRC: With the integration of this facility into the new MCC, the staffing level will decrease from 20 to 0

6. MCC: As set forth previously in this report, the staffing level for the new MCC is calculated to be 272.8

In addition, for the future, it is assumed that the foodservice operation will be outsourced to a contracted vendor at all facilities. As such, a corresponding decrease in future staffing is reflected to accommodate this assumption. For BCF, this accounts for one less FTE, and for MSP, this accounts for four less FTE.

Table 5.11 summarizes the changes in the staffing levels at each facility that are anticipated for the future system. Overall, there is a decrease of 103 FTE or 13.8% in the present staffing levels required to operate the future MDOC adult facility system. Based

68 Source: Ralph Nichols, MDOC Director of Operations

on the staff:100 inmate ratio, the system is 19.2% more efficient.

Table 5.11: Present and Future MDOC Staffing Levels by Facility

Facility	Present Staffing[69]	Future Staffing	Staffing Change
BCF	61.0	60.0	-1.0
CCF	54.5	10.0	-44.5
DCF	58.0	0.0	-58.0
MCC	259.5	272.8	13.3
MSP	295.5	291.5	-4.0
SMWRC	20.0	0.0	-20.0
TOTAL	748.5	634.3	-114.2
Inmates	2,176	2,281	
Staff:100 Inmates	34.4	27.8	

Systemwide Operating Costs Model

The operating cost projections are premised on those costs directly associated with inmates committed into the custody and care of the MDOC, and who are occupying a bed within one of its adult facilities. It does not include costs associated with adult inmates who may be housed in one of the MDOC's juvenile facilities, or who have been conditionally released into the community and who remain under the supervision of the MDOC, such as those inmates who are on probation.

In the newly reconfigured MDOC system, there will be four adult facilities in operation. They are BCF, CCF, MSP, and the new MCC. BCF and CCF will house minimum and/or community custody male inmates. MSP will house medium and close custody male inmates. MCC will have capacity to house male and female inmates having all custody classification types.

The projected systemwide operating costs are based on 2014 dollars.

The FY14 budgets[70] for BCF, CCF and MSP, and the projected operating costs for the new MCC served as the foundation from which the projected systemwide operating costs for the reconfigured MDOC adult facility system were developed. The operating costs are delineated by the following categories:[71]

- Administration
- Building & Maintenance*
- Contractual

69 Source: Scott Ferguson, DAFS
70 Id.
71 Categories with an asterisk were identified in the legislation that funded this Feasibility Study

- Energy*
- Food*
- Fuel*
- Healthcare
- Insurance
- Transportation*
- Travel
- Wages/Salary/Benefits*

In developing the projected operating costs for BCF:

- The FY14 budget figures were used for all costs categories with the exception of food and wages/salary/benefits

- Food was calculated on a per diem basis at the rate of $4.30[72] to reflect a contracted foodservice

- Wages/Salary/Benefits is the FY14 budgeted wages/salary/benefits amount reduced to reflect elimination of one FTE foodservice position, which will become a contracted service. The current overall average BCF compensation costs were used to calculate this reduction[73]

In developing the projected operating costs for CCF:

- Except for wages/salary/benefits, all CCF operating costs were zeroed out and will be subsumed within the MVYDC's budget.[74] CCF will operate as an annex to the MVYDC, which will provide CCF with all necessary administrative, programmatic, and support services

- Wages/Salary/Benefits was calculated based on the expectation that there will be a reduction in the current staff FTE of 54.5 to 10 FTE, who will serve a reduced population of 75 inmates. The current overall average CCF compensation costs were used to calculate this cost[75]

In developing the projected operating costs for MSP:

- The FY14 budget figures were used for all costs categories with the exception of food and wages/salary/benefits

72 Source: Lori Schroeder, S1 Food Service
73 Calculation: $4,845,653 budgeted wages/salary/benefits - $79,437 (average BCF compensation costs) = $4,766,216 = projected wages/salary/benefits for BCF
74 Source: Ralph Nichols, MDOC Director of Operations
75 Calculation: 10 FTE x $74,939 (average CCF compensation costs) = $749,390 projected wages/salary/benefits for CCF

- Food was calculated on a per diem basis at the rate of $4.30[76] to reflect a contracted foodservice

- Wages/Salary/Benefits is the FY14 budgeted wages/salary/benefits amount reduced to reflect elimination of four FTE foodservice personnel, which will become a contracted service. The current overall average MSP compensation costs were used to calculate this reduction[77]

- A marginal cost was applied to accommodate an inmate population that exceeds the budgeted capacity for 874 inmates. MSP's calculated marginal cost of $40.44/day per inmate was applied for each inmate over the budgeted capacity of 874[78]

No projected operating costs for MVYDC were calculated. MVYDC will house up to 80 youthful adult male inmates using existing resources and funds.[79]

The projected operating costs for the new MCC are based on the calculations previously presented in this report.

The intensive mental health unit established by the Maine Legislature (also known as LD1515) was appropriated funding for 19 weeks at $1,381,771. The projected systemwide operating costs assumes continuation of this funding, which is annualized at $3,781,689. While this unit is planned for the new MCC, it is not certain whether funding will be appropriated. Because of funding uncertainty, this cost is carried apart from individual facility operating costs.

While the MDOC currently houses MDOC inmates in select county jails, the projected systemwide operating costs assumes that this practice will be discontinued and, therefore, no funding for prisoner boarding is allocated.

Table 5.12 outlines the projected systemwide operating costs by facility broken out by cost category. The projected system costs, at $78.7M, represents a 9.7% decrease in the current FY14 budget or $8.5M in operating costs savings. The greatest savings realized are in fuel, wages/salary/benefits, and transportation (31%, 13.4%, 12.7%, respectively).

Table 5.12 also summarizes efficiencies in the new system in terms of staffing levels and operating costs. The new system is designed to serve 2,281 inmates, which is 4.8% or

76 Source: Lori Schroeder, S1 Food Service
77 Calculation $22,367,907 budgeted wages/salary/benefits - $302,780 (4 FTE x average MSP compensation costs of $75,695) = $22,065,127 projected wages/salary/benefits for MSP
78 Calculation: $40.44 marginal cost per day per inmate x 365 days x 32 inmates = $1,741,751 annual marginal costs. MSP marginal costs source: Scott Ferguson, DAFS
79 Source: Ralph Nichols, MDOC Director of Operations

105 inmates more than are presently served, and at a lower per diem cost of $89.96. Based on a staff:100 inmate ratio of 27.8, it is also significantly more staff efficient than the current system's ratio of 34.4. The new system requires substantially fewer staff to operate - 634.3 staff compared to the current staffing complement of 748.5. This represents 114 positions or a 15.3% decrease in staffing levels.

Table 5.12: Projected MDOC Systemwide Operating Costs by Facility

Cost Category	BCF	MVYDC	CCF	DCF	MCC	MSP	SMWRC	Projected MDOC Adult System Costs	Current MDOC Adult FY14 Budget[80]
FY14 Budget	$6,709,69	$0	$5,170,18	$5,971,45	$28,987,96	$34,094,15	$1,867,38		
Administration	$42,500				$358,323	$418,387		$819,210	$855,375
Building & Maintenance	$185,000				$828,864	$871,130		$1,884,994	$1,996,829
Contractual	$13,500				$185,958	$96,119		$295,577	$302,767
Energy	$240,000				$1,011,260	$2,199,808		$3,451,068	$3,413,392
Food	$345,290				$1,384,482	$1,556,944		$3,286,716	$3,118,399
Fuel	$160,000				$294,030	$823,483		$1,277,513	$1,852,422
Healthcare	$782,544				$5,851,519	$5,605,518		$12,239,581	$13,665,850
Insurance	$12,000				$60,153	$72,418		$144,571	$159,587
Transportation	$67,000				$286,658	$204,783		$558,441	$639,843
Travel	$1,500				$31,752	$31,802		$65,054	$64,421
Wages/Salary/ Benefits	$4,766,216		$749,390		$21,552,736	$22,065,127		$49,133,469	$56,731,950
Marginal Costs						$1,741,751		$1,741,751	$0
Prisoner								$0	$547,613
Facility Total	$6,615,55	$0	$749,390	$0	$31,845,73	$35,687,27	$0	$74,897,94	$83,348,44
IMHU (LD1515)								$3,781,689	$3,781,689
Grand Total								$78,679,63	$87,130,13
GP Inmates	220	80	75		914	992		2,281	2,176
Per Diem	$82.39		$27.37		$95.46	$98.56		$89.96	$104.94
Staff	60		10		272.8	291 5		634.3	748.5
Staff: 100	27.3		13.3		29.8	29.4		27.8	34.4

80 Source: Scott Ferguson, DAFS

TAB 6

SITE ANALYSIS

Introduction

A preliminary assessment was performed by SMRT on possible sites for a new facility on land currently owned by Maine Department of Corrections (MDOC) in the vicinity of the current facility on Mallison Falls Road in the town of Windham, Maine.

Assessment records from the town of Windham indicate that MDOC owns four major parcels including the site of the existing correctional facility. These are described as follows:

Site #	Parcel ID	Address	Acreage	Zone
1	Map 3, Lot 5*	17 Mallison Falls Road	108.40 acres	Industrial
2	Map 3, Lot 9	10 Mallison Falls Road	20.40 acres	Residential M
3	Map 3, Lot 11	7 High Street	31.90 acres	Residential M
4	Map 3, Lot 25-1	River Road (No Number)	62.60 acres	Farm

* Site of current facility

Figure 1 shows the location of sites 1-4. Preliminary investigations were undertaken on each of the parcels to determine their suitability as sites for a new facility. The site capacity analysis used a concept building footprint developed from an early Architectural program, and an initially assumed inmate population of 1094 with a staffing population of 273. This size would allow future growth of the facility on the selected site.

Existing Site Conditions and Infrastructure Capacity

Zoning

Figure 2 shows the three land use zones in the area of the proposed investigations. The current facility parcel is zoned Industrial (I), the parcels on the north side of Mallison Falls Road are zoned Medium Density Residential (RM) and the parcel on the east side of River Road is zoned Farm (F). Correctional Facility is listed in the zoning ordinance as a Conditional Use in the Industrial Zone. It is not listed as an allowed use in the RM Zone, although Public Building is a permitted use. The definition of Public Building is "(1) Any building used exclusively for public purposes by any branch of government; (2) buildings of an institutional nature and serving a public need, such as schools; libraries; museums;

NORTH

APPROXIMATE LOCATION PORTLAND WATER DISTRICT EASEMENT

SITE 3
MAP 3, LOT 11
31.9 AC

SITE 2
MAP 3, LOT 9
20.4 AC

SITE 1
MAP 3, LOT 5
108.4 AC

SITE 4
MAP 3, LOT 25-1
62.6 AC

7.5 AC

FEASIBILITY STUDY AND CONCEPT DESIGN
FOR THE MAINE CORRECTIONAL CENTER
MAINE DEPARTMENT OF CORRECTIONS
WINDHAM, MAINE

FIGURE 1

REFERENCE: TOWN OF WINDHAM ASSESSMENT DATABASE

0 600' 900' 1800'
1" = 600'

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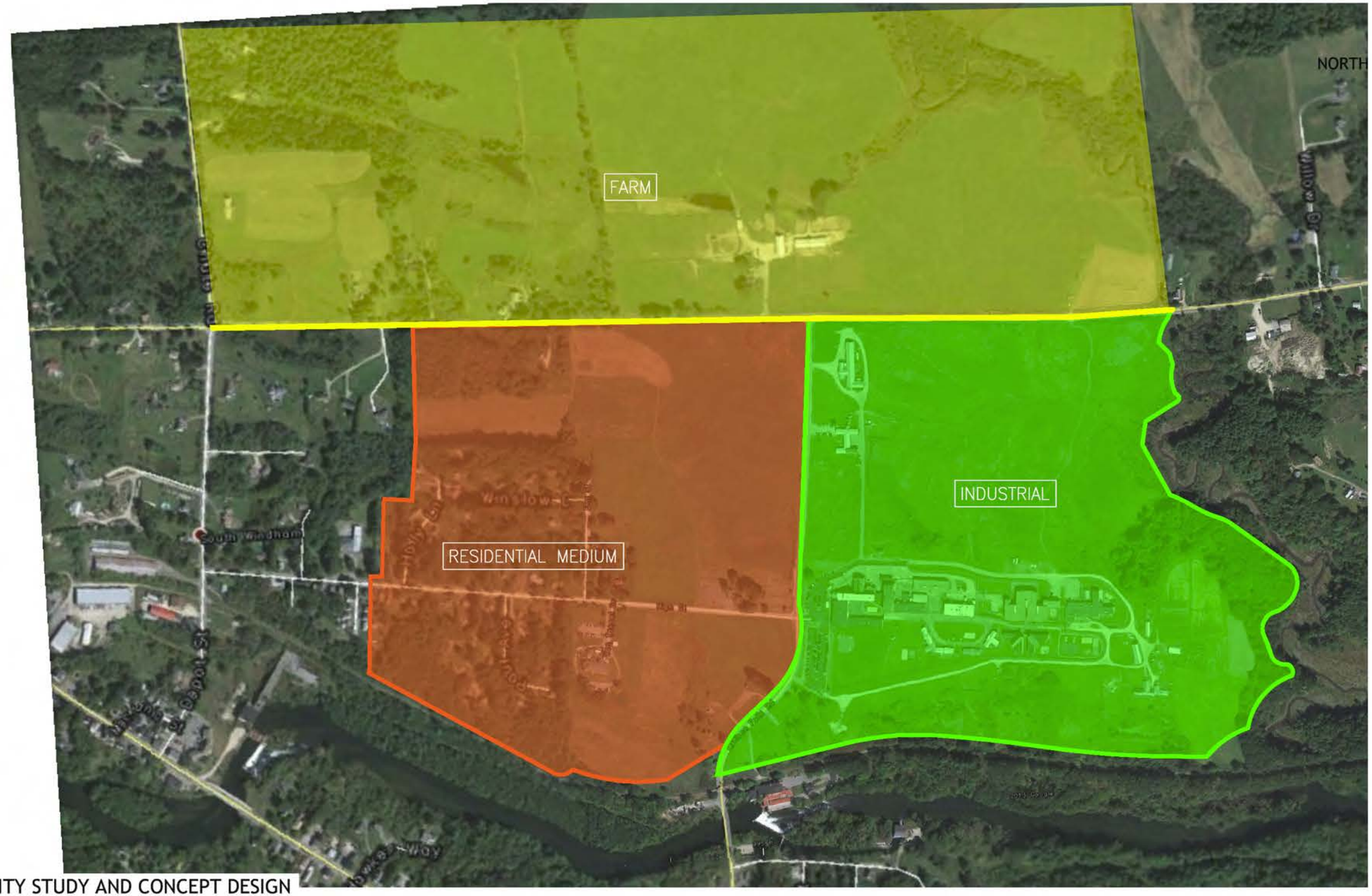


FEASIBILITY STUDY AND CONCEPT DESIGN
FOR THE MAINE CORRECTIONAL CENTER
MAINE DEPARTMENT OF CORRECTIONS
WINDHAM, MAINE

FIGURE 2

REFERENCE: TOWN OF WINDHAM ZONING MAP

0 500' 750' 1500'
1" = 500'

21 JANUARY 2014

SMRT

post offices; public safety, public works, and public utilities and services." This definition would appear to include correctional facilities. However, the town of Windham Code Enforcement Office has determined that correctional facilities are not currently an allowed use in the RM zone. Neither Public Building, nor Correctional Facility is listed as a permitted use in the Farm Zone.

Topography and Soils

The existing Maine Department of Corrections (MDOC) facility is constructed on a ridge that runs in a northwest-southeast direction between the Presumpscot River to the west and River Road to the east. The topography slopes downward away from the ridge in both directions at varying degrees of slope. The elevations at River Road are approximately sixty feet lower than those along the ridge. The land on the northwest side of Mallison Falls Road (Site #2 and #3) is generally higher and less steeply sloped than the land on the southeast side of the street. On Site #1 the land drops away steeply to the north and east from the existing facility into a low area between the developed portion of the property and River Road. Numerous drainageways run through the low-lying areas of Site #1. These drain in northerly and easterly directions to Colley Wright Brook, a major tributary of the Presumpscot River that forms the southeast boundary of this parcel. On the northeast side of River Road (Site #4) the topography continues to slope down gradually to the north and east towards Colley Wright Brook, which bisects the parcel. A copy of the aerial topographic survey for the MDOC land is included in Appendix 1.

Preliminary soils data was obtained from the Natural Resource Conservation Service (NRCS) Web Soil Survey. This data shows that soils on higher portions of the property area generally well drained, Belgrade, Hartland, and Hollis sandy loam soils. On lower portions of the property, finer grained and more poorly drained Buxton and Suffield silt loams dominate. The higher, well drained soils will be more easily workable and more suitable for re-use as common borrow due to their lower susceptibility to frost heaving. Excavation and movement of these drier, more granular soils will result in more efficient earthwork and less material wastage. A copy of the NRCS Web Soil Survey Map is included as Figure 3.

More detailed analysis of subsurface conditions at potential development sites was undertaken by SW Cole Engineering and is described later in this narrative. A copy of the Preliminary Geotechnical Report is included in Appendix 2.

Natural and Historical Resources

Preliminary natural resource mapping was undertaken by SW Cole Engineering, Inc. in order to identify major natural features on the MDOC parcels and to determine the

FEASIBILITY STUDY AND CONCEPT DESIGN
FOR THE MAINE CORRECTIONAL CENTER
MAINE DEPARTMENT OF CORRECTIONS
WINDHAM, MAINE

FIGURE 3

REFERENCE: NATURAL RESOURCE CONSERVATION SERVICE WEB SOIL SURVEY

0 500' 750' 1500'
1" = 500'

21 JANUARY 2014

regulatory implications of future development plans. Preliminary mapping of freshwater wetlands was undertaken in December 2013 and due to the time of year and prevailing weather conditions, it is anticipated that the assessments are conservative in nature. A number of small stream segments were identified on MDOC land, in addition to Colley Wright Brook, which is identified by Maine Department of Inland Fisheries and Wildlife (MDIFW) as a cold water fisheries resource due to the presence of Brook Trout. MDIFW also identifies the possible presence of Small Whorled Pegonia (a USF&W threatened species) and New England Cottontail Rabbit (a candidate species for listing) habitat in the vicinity of the site. Preliminary natural resource mapping in the project area is shown on Figure 4. Copies of preliminary wetland mapping data and review letters from natural resource agencies are included in Appendix 3. A request for determination was sent to Maine Historic Preservation Commission in December 2013. A map showing the location of the possible sites was requested by MHPC on January 16, 1014 and this was forwarded on January 21, 2014. A response is pending.

Flood Plains:

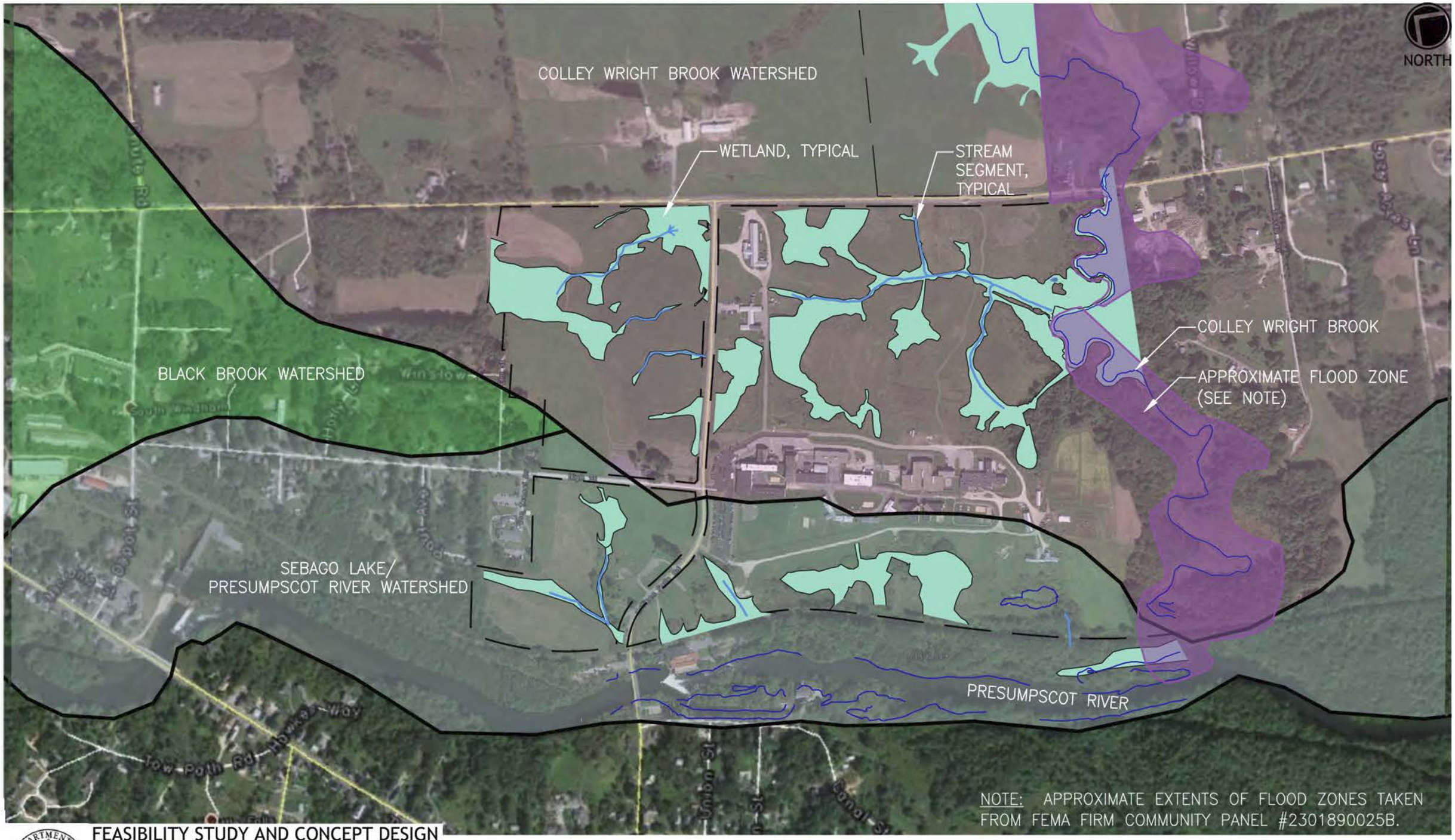
Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Community Panel Number 230 189 0025B shows flood plains associated with Presumpscot River and Colley Wright Brook. No elevations are given (A Zone). No flood plain is shown extending onto MDOC property. However, it is clear from the available topographic information that, if the flood plain extends across River Road as shown on the FIRM, it will also extend into Site#1 and Site #4. The extents of the flood plain shown on the referenced FEMA FIRM are shown on Figure 4. The original FEMA FIRM is included in Appendix 6.

Utilities

The location of existing utility infrastructure in the area of MDOC land is shown on Figure 5.

Water Service

The area around the current MDOC site is served by Portland Water District (PWD). There is a twelve-inch diameter water main that runs along the southwest side of River Road from Windham Center to Mallison Falls Road. The main does not extend further southeast along River Road, but turns up Mallison Falls Road, running along the northeast side of the street through to the Presumpscot River and beyond. The twelve-inch main is reduced to eight-inch diameter at the intersection with High Street, and continues approximately 400



FEASIBILITY STUDY AND CONCEPT DESIGN
FOR THE MAINE CORRECTIONAL CENTER
MAINE DEPARTMENT OF CORRECTIONS
WINDHAM, MAINE

FIGURE 4

REFERENCE: FEMA FIRM, S.W. COLE PRELIMINARY RESOURCE MAPPING, TOWN OF WINDHAM WATERSHED PLANS

0 500' 750' 1500'
1" = 500'

21 JANUARY 2014

NORTH

FEASIBILITY STUDY AND CONCEPT DESIGN
FOR THE MAINE CORRECTIONAL CENTER
MAINE DEPARTMENT OF CORRECTIONS
WINDHAM, MAINE

FIGURE 5

REFERENCE: RECORD SURVEY DATA, DIG–SAFE MARKINGS

0 325' 487.5' 975'
1" = 325'

21 JANUARY 2014

feet towards the river, terminating in a blowoff. A second eight-inch diameter main runs north along High Street from Mallison Falls Road towards Windham Center. Preliminary water demand estimates for a new facility, based on an inmate population of 1094 and a staff count of 273 give an average daily demand of approximately 135,000 gpd. A factor of six (WEF/ASCE) is applied to give a peak hourly flow of 33,750 gph. Portland Water District (PWD) indicates that the current infrastructure is sufficient to serve the scale of projected water demand increase associated with a new facility. A letter indicating capacity to serve the site is included in Appendix 5.

Sewer Service

The current MDOC facility discharges sewage effluent, via a private sewer in Mallison Falls Road that connects to the PWD owned and operated sewer system on the west side of the Presumpscot River. The flow enters the PWD system immediately upstream of the Mallison Street Sewer Pump Station. Mallsion Falls Road becomes Mallison Street on the west side of the Presumpscot River. Projected sewage flow from the new facility is the same as the water demand described in the section above. Portland Water District has expressed significant concern regarding inflow and infiltration from the existing sewer in Mallison Falls Road. Replacement of this line should be included in the project cost. The additional flow from the new facility will require new gravity pipe to be 10" SDR35 PVC. PWD has also expressed concern about the impact of a new facility of the capacity of the Mallison Street pump station. It is likely that at least the pump equipment and odor control measures will need to be upgraded at this station to support the project. Finally, the Town of Windham has a fixed capacity in the PWD wastewater system. Increased flow from the new facility will require the town to purchase an additional 0.2MGD of capacity in the PWD system. A letter indicating capacity to serve the site is included in Appendix 5.

Gas Service

Maine Natural Gas provides service to the existing MDOC facility via a main located on the southeast side of Mallison Falls Road. Approximate usage for a new facility was developed from previous projects of similar size and scope and is estimated at 32,500 dekatherms per year. Maine Natural Gas has indicated that the infrastructure currently in place along Mallison Falls Road is sufficient to serve the projected increase in natural gas demand associated with a new facility at the site.

Electric Service

Central Maine Power Company currently provides electric service to the existing MDOC site and the surrounding area. Three phase power, with sufficient capacity to serve a new facility exists on Mallison Falls Road.

Traffic

A Traffic Impact Study for a potential new facility has been undertaken by The Louis Berger Group, Inc. The report analyzes existing and proposed traffic conditions in the area surrounding the existing MDOC properties to ascertain the effect a new facility may have on the road system, and to determine what off-site improvements may be required to mitigate these. The report determines that the maximum increase in peak hour traffic from a new facility would be 88 trips in the PM Peak Hour. This does not meet the Maine Department of Transportation (MDOT) threshold of 100 or more passenger car equivalents in a peak hour that trips the need for a Traffic Movement Permit. The report identifies the intersection of Mallison Falls Road and River Road as failing under current conditions (Level of Service F), and concludes that a left turn lane from River Road onto Mallison Falls Road is warranted under existing conditions. MDOT has recommended that a northbound left turn pocket from River Road to Mallison Falls Road be considered as part of the facility expansion plans and cost. The turn lane will provide 235ft of queuing, with a 540ft taper to the two-lane road section south of the intersection. A 75ft turn gap is provided at the intersection and a striped, tapered central median is provided on the north side of Mallison Falls Road. The estimated construction cost for this improvement is stated as $290,000. The Traffic Impact Report and a sketch showing the configuration of the left turn pocket are included in Appendix 4.

Site Permitting

Local Permitting

Local permitting for a new facility will depend on the site chosen for the new facility. As mentioned in the previous section, the Town of Windham Code Enforcement Office has determined that correctional facilities are not currently an allowed use in the RM zone. Therefore, to conform to local land use regulations, a zone change would be required to allow the use prior to submitting applications for other permits. This process requires a recommendation from the Planning Board and then approval by the Town Council. Development of the parcel on the south side of Mallison Falls Road (the site of the existing facility) will require a Conditional Use Permit from the Zoning Board of Appeals. Development of the magnitude proposed on any parcel will also need to receive the Site Plan Review approval from the Town Planning Board

State Permitting

A new facility of the size proposed will trigger the requirement for review under the State of Maine Site Location of Development Act (SLODA). This permit application has a statutory review period of 185 days. The project will result in impacts to natural resources that will also trigger the need for review under the State of Maine Natural Resource Protection Act (NRPA). The level of review required will depend on the amount of impact

proposed and the nature and value of the resource. The level of impacts associated with a new facility at any of the available sites will likely trigger a Tier 3, or Individual NRPA permit review. This is required for any project proposing cumulative impacts with an area greater than one acre. The level of impacts will also trigger the requirement for compensatory mitigation. This can be provided by:

- Creation of wetland from upland;
- Restoration of previously degraded wetlands;
- Enhancement of existing wetlands;
- Preservation of existing wetlands and adjacent upland areas;
- Payment of an In-Lieu Fee to a State managed fund

Different ratios are applied to each option and these are adjusted to account for the nature and value of the impacted resource. The form and nature of resource mitigation plans are often the subject of extensive discussion between the applicant and the overseeing regulatory agencies.

Federal Permitting

Impacts to natural resources will require permitting through US Army Corps of Engineers through their Section 404 Maine Programmatic General Permit or Individual Permit. Projects proposing resource impacts of over three acres trigger Individual Permit review. An exact determination on the permit process will depend on the final extent and nature of impacts proposed.

SITE OPTIONS

Evaluation of Sites

Each of the parcels identified in the first section of this narrative have been further analyzed to determine the suitability of the available land to support a program of the type and scale envisioned. The first step of the analysis was to undertake a rough fit of the site and building elements on each of the available parcels. It became immediately clear that Site #4 does not have sufficient developable land to support the level of development required by the program. The total land area of the parcel is listed as 60.40 acres, but the site is bisected by Colley Wright Brook, leaving under 20 acres of developable land adjacent to River Road. The useable area is further reduced by the presence of a Portland Water District easement through the property, and regulatory natural resource setbacks from the stream. In addition to the size limitations, this parcel is further encumbered by poor sight distances on River Road and the distance to available utility connections. There is no water, sewer or natural gas service in this portion of River Road. The presence of Colley Wright Brook and the associated green corridor and wetlands, Site #4 does have potential as a mitigation parcel where land could be preserved, or enhanced to offer mitigation for natural resource impacts elsewhere on MDOC property.
The feasibility of development of the three remaining parcels of land has been investigated in more detail and conceptual site plans have been developed at each location.

Site Option A

Site Plan Option A is located on the parcels to the north of Mallison Falls Road. This layout requires abandonment of High Street in order to maximize use of the high, relatively flat area towards the top of the ridge that spans the two adjacent MDOC owned parcels. The main facility will be located on these parcels, with parking and accessory functions provided on the existing MDOC facility land to the south of the road. Connection between the two locations could be optimized by dropping the elevation of Mallison Falls Road at the crest of the hill and constructing a small access bridge between the two sites. Figure A shows the conceptual site layout described in this section.

Zoning:
The land on the north side of Mallison Falls Road is zoned Medium Density Residential (RM). As explained in the Existing Conditions section of this narrative, the Town of Windham Code Enforcement Department has determined that a Correctional Facility is not a currently allowed use in this zone. Therefore, to conform to local land use regulations, a zone change would be required through the Windham Town Council before design and further permitting could begin.

NORTI

OPTION A

FEASIBILITY STUDY AND CONCEPT DESIGN FOR THE MAINE CORRECTIONAL CENTER

MAINE DEPARTMENT OF CORRECTIONS

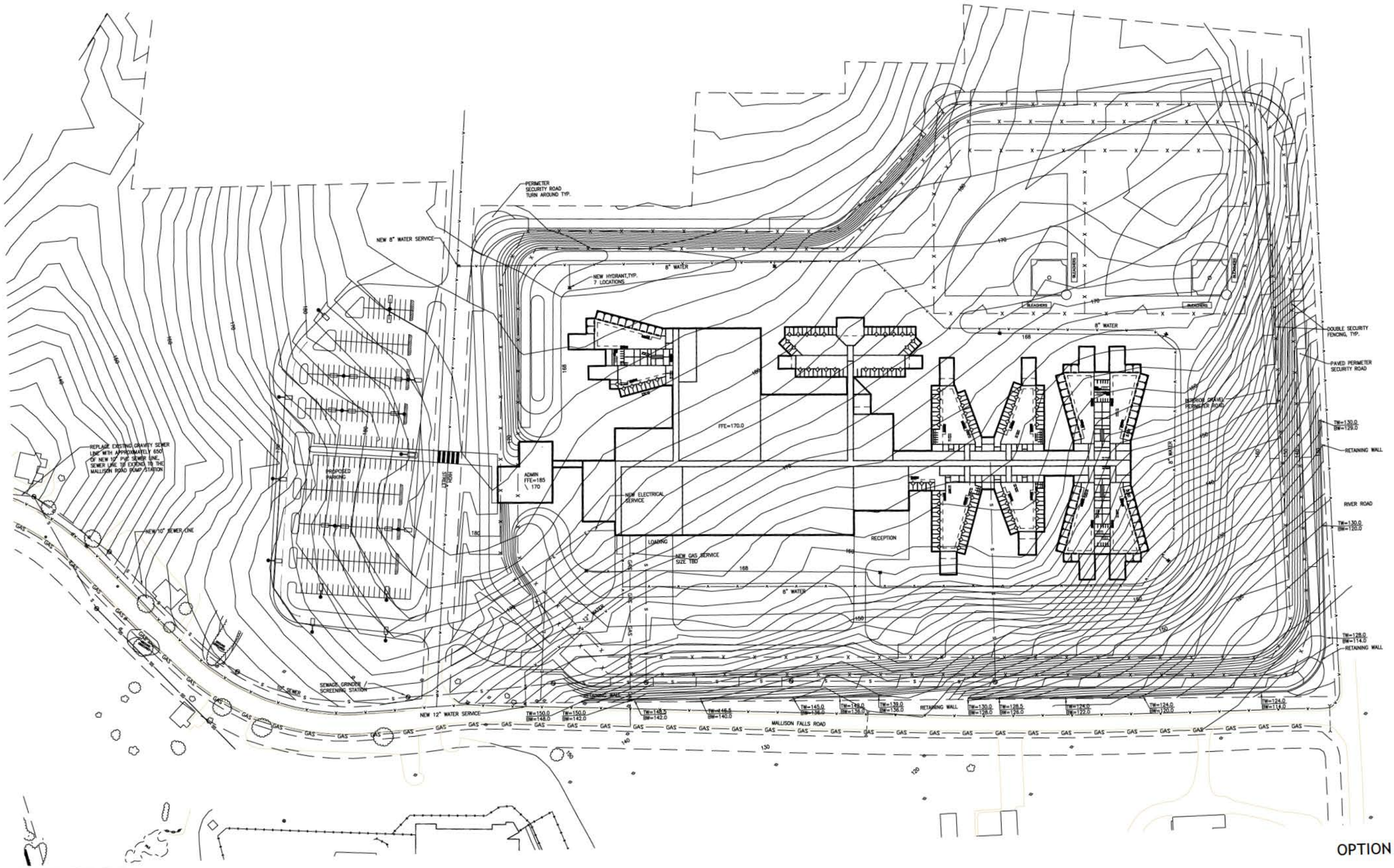
WINDHAM, MAINE

CONCEPT SITE PLAN

0 60 90 180
1" = 60'

31 JANUARY 2014

SMRT



FEASIBILITY STUDY AND CONCEPT DESIGN FOR THE MAINE CORRECTIONAL CENTER

MAINE DEPARTMENT OF CORRECTIONS

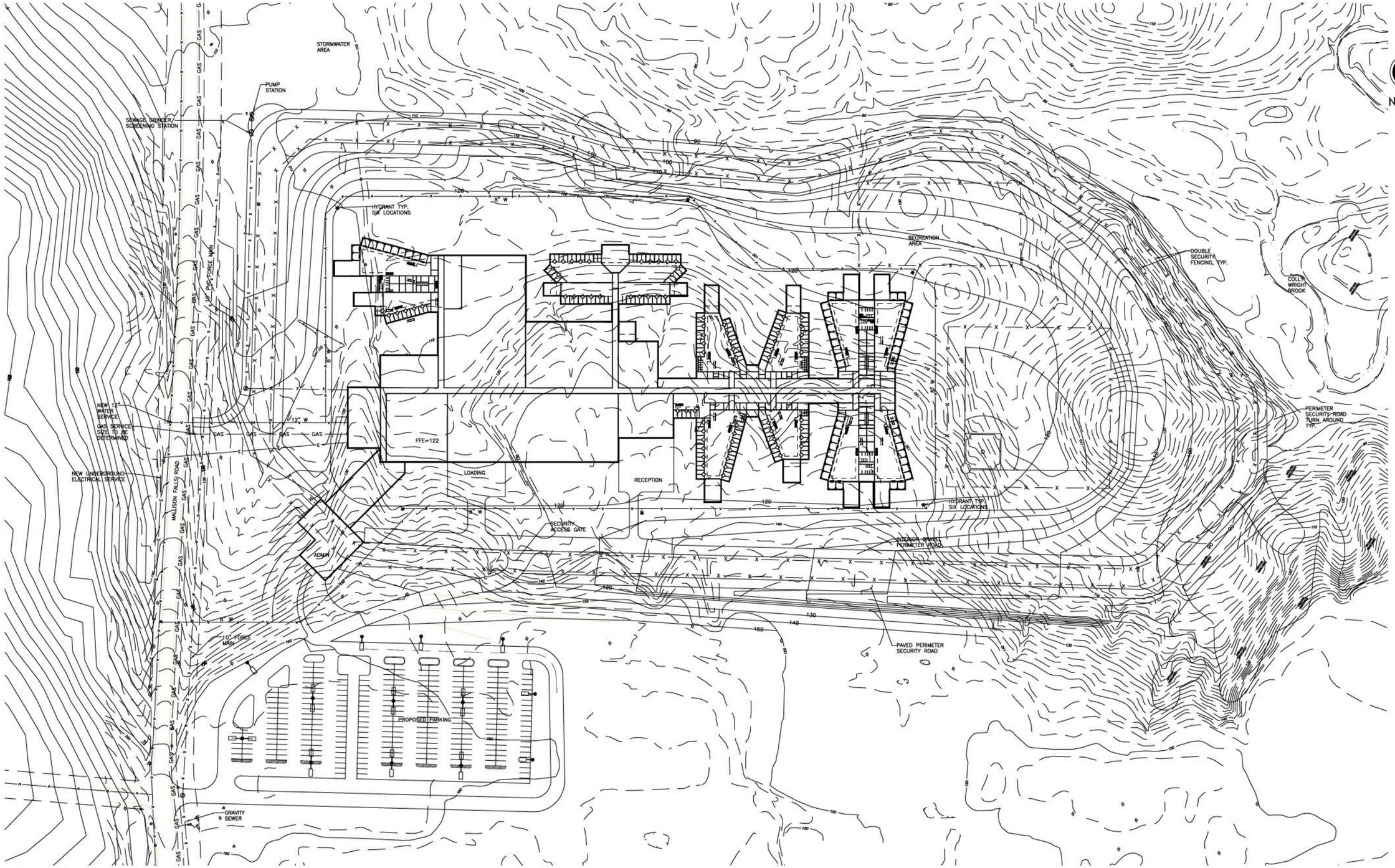
WINDHAM, MAINE

CONCEPT SITE PLAN

1" = 60'

31 JANUARY 2014

SMRT



FEASIBILITY STUDY AND CONCEPT DESIGN FOR THE MAINE CORRECTIONAL CENTER

MAINE DEPARTMENT OF CORRECTIONS

WINDHAM, MAINE

CONCEPT SITE PLAN

OPTION C

0 30 60 90 180

1" = 60'

31 JANUARY 2014

SMRT

Road Re-Configuration:
This plan requires abandonment of the southern end of High Street in order to combine the two parcels on the north side of Mallison Falls Road. It has been reported that the town investigated terminating High Street at this location in the past in order to prevent cut-through traffic. If an alternative outlet is considered essential to facilitate the abandonment of this section of High Street, the best option would appear to be to construct an extension of Elm Street, across MDOC land to outlet onto River Road. The site distances at the proposed outlet location appear favorable from a traffic safety perspective. Abandonment of High Street will also require re-location of utilities that run along the current Right-Of-Way. These include an eight inch water main and overhead power, cable and telephone lines.

Topography"
Option A maximizes the use of the favorable topography towards the top of the ridge that runs through the MDOC land. The site drops off to the north and south from the high point and development of the site requires cuts of up to eleven feet and fills of up to twenty-one feet. Changes in grade across the site are mitigated through steep reinforced embankments between the fence lines. The finished floor elevation used to develop the grading for Option A is 179 feet above plan datum. Further analysis of soil conditions and more refined topographic data will allow the building floor elevation to be optimized for the site during future design. Analysis of the earthwork required to construct Option A indicates that approximately 135,000CY of earth moving will be required to prepare the site for development. A summary of the earthwork analysis conducted for Option A is included in Appendix 7.

Subsurface Conditions:
Preliminary geotechnical investigations were undertaken on the site by SW Cole Engineering, lnc. The study report concluded that the soils in the area of development for Option A consist of a relatively deep topsoil layer over glaciomarine sands, silts and clays, glacial till and bedrock (predominantly close to the highest elevations at High Street). The fine grained soils were found to be stiff to very stiff. The report finds that subsurface conditions are suitable to support a new building on conventional spread footings with soil supported floor slabs. The existing soils are not suitable for use as fill under building areas and imported granular borrow will be required for this. Some blasting should be anticipated to remove shallow bedrock at the highest elevations on the site.

Natural Resources:
Preliminary wetlands mapping data indicates that freshwater wetland impacts associated with Option A will be in the region of 4.5 acres. The development may also impinge on the headwaters of a small stream segment that drains southwesterly towards the Presumpscot River. There are several options available for developments that propose impacts to freshwater wetlands, as described in section 1.1.2, once it has been demonstrated that such impacts cannot be avoided. Current Maine Department of Environmental Protection (MDEP) guidelines give the in-lieu mitigation fee for wetland

impacts as $4.33 per square foot in Cumberland County. This equates to approximately $850,000 for a 4.5 acre impact. It should be noted that the suitability of different methods of mitigation is often the subject of lengthy discussion and negotiation with State and Federal regulatory agencies. As a result, mitigation strategies and costs can vary widely. A figure showing the approximate wetland impacts associated with Option A is included in Appendix 8.

Utilities:
The site on the north side of Mallison Falls Road is well served by existing utilities. Three phase electrical power and natural gas services are available in the street. Portland Water District has indicated that there is sufficient capacity in the existing distribution infrastructure to service the site with water for domestic and fire protection uses. A twelve inch main service line will serve the site from the street. Separate fire and domestic lines will enter the building from this line and an external fire loop main will be constructed around the facility, with six hydrants to facilitate external firefighting. Sewer service for the new facility can be provided for this site via a gravity connection to the existing pump station at Mallison Street. A sewage grinder station with a solids removal auger will be provided on the last manhole before leaving the property. The grinder station will consist of an eight-foot diameter manhole with a channel based grinder (JWC Channel Monster CMD1810, or equal). The grinder will be coupled with a solids removal auger to capture the unwanted material from the flow. This will serve to protect the downstream system from unwanted solids inflow often associated with correctional facilities, and hence reduce maintenance costs at downstream pump stations. Natural gas and three phase electric service for the new facility are provided via service connections to Mallison Falls Road. As part of this scheme the current utilities in High Street will need to be re-located around the perimeter fence. These include the existing eight-inch water main and the overhead power, cable and telephone lines. These are re-located around the west end of the perimeter fence. An easement is provided for access and maintenance.

Stormwater Management:
Construction of the new facility will result in the addition of a significant amount of impervious area to the site. Runoff from new impervious and developed areas will need to be treated in accordance with current State of Maine Chapter 500 Stormwater Rules. It may be possible to incorporate some Low Impact Development (LID) strategies to capture and treat runoff from new impervious areas proximate to the development. These may include filtering roof drip strips, pervious pavement sections and small buffering filter strips. It is anticipated that a central detention and water quality treatment structure will also be required to meet the referenced standards. The best option for providing this is construction of a large wet pond in the area south of the intersection of Mallison Falls Road and River Road. This pond will discharge to the stream segment that flows eastward into Colley Wright Brook. More detailed wetland investigations will be required to determine the exact size and configuration of the structure that can be constructed at this location. A representative area is shown on the site plan.

Traffic:
The site entrance will be from the current location of High Street. Sight distances are good at this location and no major improvements are anticipated. It may be possible to facilitate movement between the facilities on the south and north side of Mallison Falls Road by dropping the elevation of the road at the crest of the hill, and constructing a short span access bridge. The cost of adding a left turn pocket northbound on River Road to Mallison Falls Road should be considered as part of the project to mitigate existing traffic conditions.

Site Option B:

Site Plan Option B is a variation on Option A that uses the parcels to the north of Mallison Falls Road without requiring the abandonment of High Street. The main facility will be located on the larger eastern parcel (Site #3), with the parking located on the adjacent parcel to the west (Site #2). Connection between the two locations is provided via a crosswalk on High Street. Figure B shows the conceptual site layout described in this section.

Zoning:
The land on the north side of Mallison Falls Road is zoned Medium Density Residential (RM). As explained in the Existing Conditions section of this narrative, the Town of Windham Code Enforcement Department has determined that a Correctional Facility is not currently an allowed use in this zone. Therefore, to conform to local land use regulations, a zone change would be required through the Windham Town Council before design and further permitting could begin.

Topography:
Option B uses the favorable topography towards the top of the ridge that runs through the MDOC land to the extent practical, while maintaining the existing location of High Street and the utilities that are within the Right-Of-Way. This compresses the available land and will require some more extensive earthwork at the River Road end of the site to return to existing grade within the property. This option requires cuts of up to twenty-four feet at the west end and fills of up to forty-four feet at the east end of the site. Changes in grade across the site are mitigated through steep reinforced embankments between the fence lines. However, it is anticipated that some perimeter walls will be required to keep the slopes within the fence line to manageable levels. The finished floor elevation used to develop the grading for Option B is 170 feet above plan datum. This achieves an approximate balance of cuts and fills across the site, while limiting the need for potential rock excavation at the high point. More detailed analysis of soil conditions and more refined topographic data will allow the building floor elevation to be optimized for the site during future design. Analysis of the earthwork required to construct Option B indicates that approximately 300,000CY of earth moving will be required to prepare the site for development. A summary of the earthwork analysis conducted for Option B is included in Appendix 7.

Subsurface Conditions:
Preliminary geotechnical investigations were undertaken on the site by SW Cole Engineering, Inc. The study report concluded that the soils in the area of development for Option B consist of a relatively deep topsoil layer over glaciomarine sands, silts and clays, glacial till and bedrock (predominantly close to the highest elevations at High Street). The fine grained soils were found to be stiff to very stiff. The report finds that subsurface conditions are suitable to support a new building on conventional spread footings with soil supported floor slabs. The existing soils are not suitable for use as fill under building areas and imported granular borrow will be required for this. Some blasting should be anticipated to remove shallow bedrock at the highest elevations on the site.
Natural Resources: Preliminary wetlands mapping data indicates that freshwater wetland impacts associated with Option B will be in the region of 6.6 acres. The options for impact mitigation discussed in earlier sections of this narrative can apply equally to Option B. Using the current MDEP guidelines the mitigation fee for this option equates to approximately $1,240,000. It should be noted that the suitability of different methods of mitigation is often the subject of lengthy discussion and negotiation with State and Federal regulatory agencies. As a result, mitigation strategies and costs can vary widely. A figure showing the approximate wetland impacts associated with Option B is included in Appendix 8.

Utilities:
The site on the north side of Mallison Falls Road is well served by existing utilities. Three phase electrical power and natural gas services are available in the street. Portland Water District has indicated that there is sufficient capacity in the existing distribution infrastructure to service the site with water for domestic and fire protection uses. A twelve inch main service line will serve the site from the street. Separate fire and domestic lines will enter the building from this line and an external fire loop main will be constructed around the facility, with seven hydrants to facilitate external firefighting. The new loop main will connect to the existing main in High Street, providing service redundancy by allowing water to feed the site from either direction. Sewer service for the new facility can be provided for this site via a gravity connection to the existing pump station at Mallison Street. A sewage grinder station with a solids removal auger will be provided on the last manhole before leaving the property. This will serve to protect the downstream system from unwanted solids inflow often associated with correctional facilities, and hence reduce maintenance costs at downstream pump stations. Natural gas and three phase electric service for the new facility are provided via service connections to Mallison Falls Road.

Stormwater Management:
A similar approach to stormwater management will be considered for Option B, as was discussed in the previous section for site plan Option A. The location and elevation of the main development shown in this option may pose some significant challenges to providing adequate treatment of runoff before it enters Colley Wright Brook. These may require more expensive approaches to stormwater capture and treatment (e.g. underground

filtration) for impervious areas at the southeast end of the site.

Traffic:
The site entrance to the facility and the parking on the opposite side of the street will be from High Street. Sight distances are good at this location and no major improvements are anticipated. Vehicular access to and from the existing facility site is available along High Street.

Site Option C:

Site Plan Option C is located on the parcel to the south of Mallison Falls Road that houses the existing facility. The new facility will be located at the foot of the hill, between the existing facility and River Road. Figure C shows the conceptual site layout described in this section.

Zoning:
The parcel is zoned Industrial and Correctional Facility is listed in the Windham Zoning Ordinance as a Conditional Use within the zone.

Topography:
Option C utilizes the low lying area to the northeast of the existing correctional facility, which extends along the top of the ridge at the high point of the site. The land drops steeply from the ridge and varies extensively throughout the area available for development. Several small drainage features extend out of the bank, draining to the north, and along the foot of the slope, draining to the east via a substantial stream segment that is tributary to Colley Wright Brook. Site development in this area will require cuts of up to thirty-six feet and fills of up to thirty feet to provide a relatively level surface. The finished floor elevation used to develop the grading for Option C is 122 feet above plan datum. Further analysis of soil conditions and more refined topographic data will allow the building floor elevation to be optimized for the site during future design. Analysis of the earthwork required to construct Option C indicates that approximately 340,000 CY of earth moving will be required to prepare the site for development. Due to the nature of the soils and the presence of extensive drainage features, it should be anticipated that earthwork will be problematic in this area of the property and the percentage of excavated soils that will need to be disposed of off-site and replaced with suitable material may be high. A summary of the earthwork analysis conducted for Option C is included in Appendix 7.

Subsurface Conditions:
Preliminary geotechnical investigations were undertaken on the site by SW Cole Engineering, Inc. The study report concluded that the soils in the area of development for Option C consist of a relatively shallow topsoil layer over glaciomarine silts and clays. The upper layers of brown clay are generally stiff consistency, with underlying material being medium consistency gray silty clay. An area of unconsolidated fill, thought to be remnants

of a former brick factory, were found in the borings closes to the existing facility. The report finds that the clay materials underlying this part of the site are compressible and will settle significantly under loading from new development.
Some of the settlement could be offset by pre-loading the site over an extended period, with wick drains to assist with subsurface de-watering. However, this is not guaranteed to produce conditions suitable for construction using conventional foundations, and soil supported slabs. The use of deep pile foundations, or grouted rammed aggregate piers with a spanning structural floor slab should be assumed for new construction at this location. The area of fill discovered in the boring program contains significant organics and is unsuitable for re-use. This material will need to be removed and disposed of off-site. The soft clays are weak in-situ and susceptible to further strength loss when exposed. This may require ground improvement to stabilize areas exposed during grading activities, or the use of lightweight fill to reduce loading over these materials. The existing soils are not suitable for use as fill under building areas and imported granular borrow will be required for this.

Natural Resources:
Preliminary wetlands mapping data indicates that freshwater wetland impacts associated with Option C will be in the region of 6.5 acres. The development may also impinge on the headwaters of a significant stream segment that drains easterly towards Colley Wright Brook. The options for impact mitigation were discussed in the previous section and these can apply equally to Option C. Using the current MDEP guidelines the mitigation fee for this option equates to approximately $1,230,000. It should be noted that the suitability of different methods of mitigation is often the subject of lengthy discussion and negotiation with State and Federal regulatory agencies. As a result, mitigation strategies and costs can vary widely. A figure showing the approximate wetland impacts associated with Option C is included in Appendix 8.

Utilities:
The site on the south side of Mallison Falls Road is well served by water, natural gas and electricity. Three phase electrical power and natural gas services are available in the street. Portland Water District has indicated that there is sufficient capacity in the existing distribution infrastructure to service the site with water for domestic and fire protection uses. A twelve inch main service line will serve the site from the street. Separate fire and domestic lines will enter the building from this line and an external fire loop main will be constructed around the facility, with seven hydrants to facilitate external firefighting. Due to the location and elevation it will not be possible to serve Option C with a gravity sewer to the existing system in Mallison Falls Road. This will require construction of a pump station at the northern corner of the site. A sewage grinder station with a solids removal auger will be provided on the last gravity manhole before the pump station. This will serve to protect the pump equipment from unwanted solids inflow often associated with correctional facilities, and hence reduce operation and maintenance costs. The pump station will need to have sufficient capacity to meet the average daily projection of 135,000 pgd and a peak flow demand of 33,750 gph. The pump station will have a

separate underground wet well and pump chamber, with a ground level building to house controls, valves and accessory equipment. The wet well should be sized to accommodate approximately 20,000 gallons of storage below the inlet. The station will be equipped with three specialized sewage pumps rated to pump at 700gpm with 92 feet of total design head (TDH). Pump intakes will be able to pass 4" spherical solids. Three pumps will be installed in parallel to allow two pumps to operate with one spare, allowing change out and maintenance to occur with two pumps always available for operation. The pumps will outlet to a single ten-inch diameter force main constructed of pressure rated PVC or HDPE pipe that will run along the south side of Mallison Falls Road and discharge to a gravity manhole at the crest of the hill. A new gravity system will connect to the existing pump station at Mallison Street.

Stormwater Management:
Stormwater management for Option C will take the same approach as described for site plan Option A in the previous section. The relative density of development on the single parcel leaves less space available for stormwater management proximate to the new facility. This may result in a slightly larger wet pond structure in the area to the south of the intersection of Mallison Falls Road and River Road. However, it is not anticipated that this will have a significant impact on overall project cost.

Traffic:
The site entrance will be from the current facility entrance on Mallison Falls Road. Parking will be provided on the existing facility site, with an access road running down the bank between the facilities to access the new site. Sight distances are good at the current facility entrance location and no major improvements are anticipated. The cost of adding a left turn pocket northbound on River Road to Mallison Falls Road should be considered as part of the project to mitigate existing traffic conditions.

Evaluation of Available Sites Summary

Three viable options for siting a new facility on land owned by MDOC have been developed. The table on the following page summarizes the analysis of the options presented.

Site Development Options Matrix

Option	A	B	C
Zoning	Correctional facility is not an allowed use in the RM zone	Correctional facility not an allowed use in the RM zone	Correctional facility is a Conditional use in I Zone
Topography	No significant impediments	Retaining walls required to meet grade at property lines	Extensive earthwork in saturated soil conditions
Subsurface Conditions	No significant impediments	No significant impediments	Soil conditions require pre-loading, or premium foundations. Differential site settlement still likely
Natural Resources	Wetland Impacts estimated at 4.5 acres. Potential minor stream impacts. ILF equivalent=$850,000	Wetland Impacts estimated at 6.6 acres. ILF equivalent=$1.24M	Wetland Impacts estimated at 6.5 acres. Potential minor stream impacts. ILF equivalent=$1.23M
Utility Infrastructure	Requires re-location of existing water main and overhead utilities in High Street. Existing sewer in Mallison Falls Road to be replaced. New facility will require significant upgrade to PWD Mallison Street SPS	Existing sewer in Mallison Falls Road to be replaced. New facility will require significant upgrade to PWD Mallison Street SPS	200,000gpd sewer pump station required to connect to existing system. Existing sewer in Mallison Falls Road to be replaced. New facility will require significant upgrade to PWD Mallison Street SPS
Traffic	No significant impediments. Add left turn lane on River Road	No significant impediments. Add left turn lane on River Road	No significant impediments. Add left turn lane on River Road

TAB 7

ARCHITECTURAL DESIGN

The Concept Design for the Maine Correctional Center (MCC) is the result of a series of intensive workshops with Maine Department of Corrections (MDOC) personnel. Professionals from each department provided valuable information to permit the proposed facility to be sized and for its essential features to be identified. The sessions included discussions of the entire MDOC system, its needs today and in the 23 years into the future for which the facility is being planned.

The design for the Maine Department of Corrections provides a structure which is, first and foremost, a response to functional requirements for the facility. Operational and functional needs have determined the configuration and internal organization of the building areas. The Concept Design for MCC:

- includes all service areas necessary for the new facility to serve as the reception and diagnostic facility for the Maine correctional system,
- provides specialized housing and programmed areas to serve special populations not now easily accommodated within the current systems structures,
- and provides a facility that will serve as the first step in the transition of inmates back into the community.

The project site has shaped the design form as has the program defining the housing units shown. Existing buildings will be retained for continued use where suitable. Housing units vary in program requirements; as a result, there are differences in the design of each.

Because of the security requirements of the facility, and the desire for long term low-maintenance, concrete and masonry is proposed for the building exterior. The public entry side of the facility is proposed to be finished with smooth face pigmented concrete block. The sides and rear of the building, including all of the housing units and support spaces, is proposed to be finished with a combination of smooth face pigmented concrete block and insulated precast panels. Where concrete block is utilized, more than one color will be used to create visual interest. At these locations, the exterior walls will be constructed as traditional masonry cavity walls, with concrete masonry unit back-up and rigid insulation within the drainable cavity. At the locations with insulated precast panels, the panels will be the exterior and interior finish. The concrete panels will be finished with color and texture for visual interest.

Day lighting will be provided where possible through exterior windows, and occasionally through skylights, to introduce natural light wherever possible. A detention facility, due to

its primary mission, is by nature a very enclosed structure and so daylight provision through creative means is necessary and important.

Foundations will be of concrete. Depending upon the placement of the new facility, soil conditions will require that the new facility be founded upon piles and pile caps, or upon spread footings. The site area immediately northeast of the existing buildings will require piles (Site Option C). The site area northwest and across Mallison Falls Road will permit spread footings (Site Options A & B). Refer to site concept options for further discussion of site conditions.

The proposed structure will be designed for economy and durability. Precast concrete components for cells, floors, and wall panels are proposed to permit fabrication of components to begin while site work is underway, and to permit efficient erection and building enclosure once the site and foundations are ready. Where practical and where scheduling is enhanced by bearing precast concrete, the precast concrete components will also serve as structure. Where steel is more efficient and economical, such as in roofs, it will be designed for rapid erection to stage the project for enclosure and temporary heat. Columns will either be jacketed fire resistive steel columns or precast concrete. Limited second floor areas of housing units where precast concrete does not serve well will incorporate cast-in-place concrete floor structures to limit floor height and provide fire resistive construction.

The size and occupancy of the facility will require fire resistive construction. Type IB construction is proposed to permit the facility to be constructed without fire walls, and to permit the future addition of housing units without fire walls. This approach also helps remove fire doors from corridors to maintain views by security personnel/ cameras of inmate activities.

Roofs will be nominally flat, constructed with steel joists and deck sloped for drainage. Where appropriate and where a cost or erection benefit recommends it, precast concrete plank will provide the roof structure. The roofing system will be rigid insulation and fully adhered EPDM or TPO roofing.

Because of the security requirements of the facility, and the desire for long term low-maintenance, masonry is proposed for the building interior partitions within inmate accessible areas. Staff areas will have gypsum systems partitions for economy and future flexibility. Interior finishes will generally be paint, with acrylic paints being used typically to permit easy reapplication by inmate workers. Epoxy paints will be provided where toughness and cleanabilty are important such as in kitchen and shower areas. Flooring will be provided to suit each area, with rubber tile being preferred for noise reduction, ease of maintenance, and long term service under high use. Vinyl flooring will be provided in lower activity areas.

Door and window frames throughout the facility interior will be hollow metal, with detention hollow metal being provided as required for security. Exterior windows and doors will be heavy duty aluminum extrusions where security is not a requirement and detention hollow metal where it is. Where exterior windows are detention hollow metal, window frames will be of stainless steel with a powder coat finish for long term service.

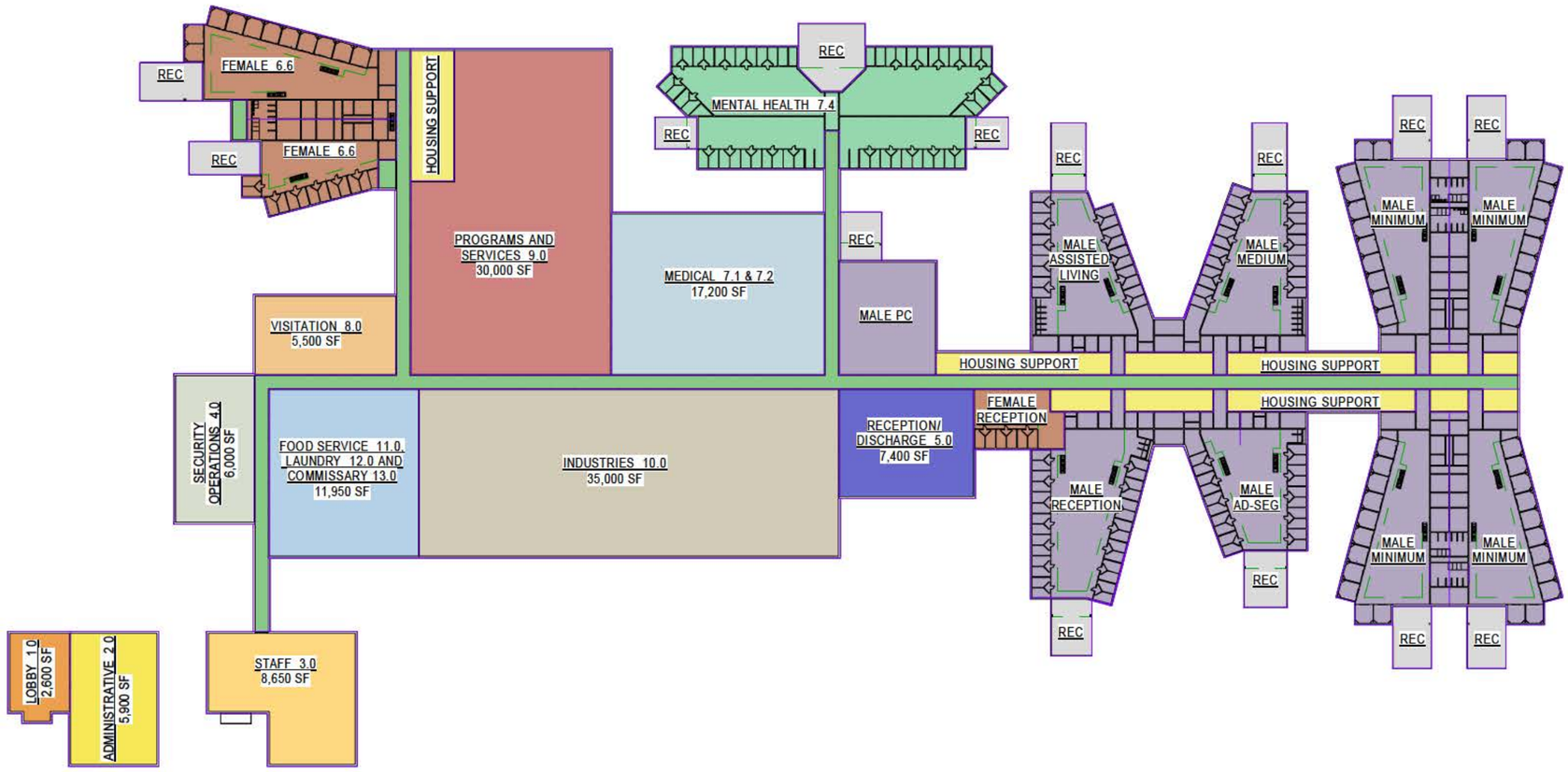
Interior doors will be either hollow metal or wood. Detention hollow metal doors will be provided at security perimeters and segregation cells with 6" or 12" jamb locks. Other doors may be structural core wood doors where detention doors are required or 5-ply solid core wood doors where detention doors are not required. All non-detention door locks will be vandal resistant grade mortise locks with matched keying to mogul cylinders as permitted by MDOC policy.

Staff and public areas will be finished with a durable commercial level of finishes to help provide spaces which are normative and comfortable for visitors and personnel. Finishes within these areas will include wood doors and trim, ceramic tile, and commercial acoustic ceilings.

For an outline of finishes throughout the building, please refer to the Outline Architectural and Site Material Specifications contained in this report.

Program Legend

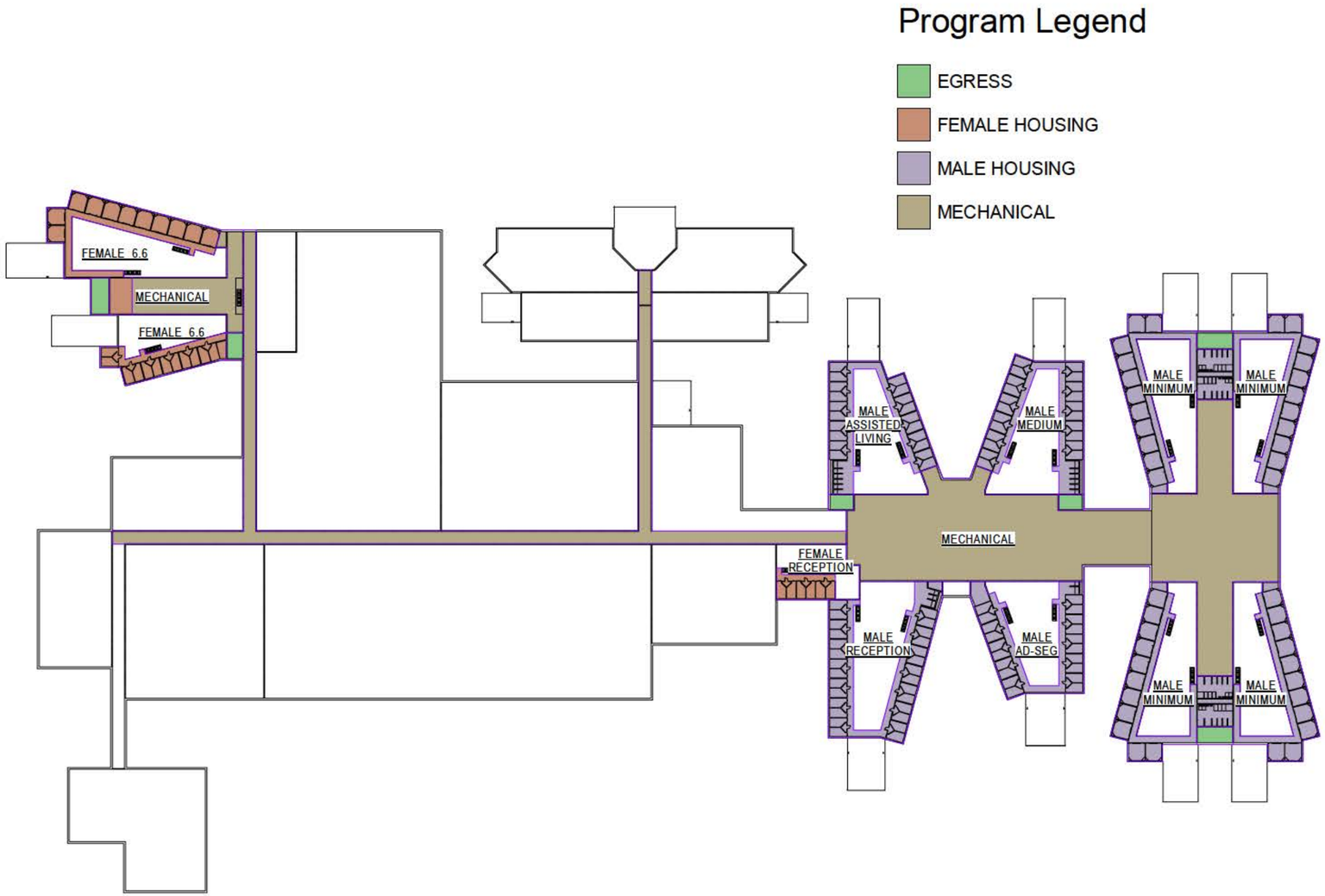
- ADMINISTRATIVE
- EGRESS
- FEMALE HOUSING
- FOOD & LAUNDRY
- HOUSING SUPPORT
- INDUSTRIES
- LOBBY
- MALE HOUSING
- MEDICAL, CLINIC, & INFIRMARY
- MENTAL HEALTH
- PROGRAM & SERVICES
- RECEPTION/DISCHARGE
- RECREATION
- SECURITY & OPERATIONS
- STAFF
- VISITATION



Lower Level & First Floor Plan

Maine Department of Corrections
Feasibility Study and Concept Design for the Maine Correctional Center

1" = 100'-0"
13133
2-3-14



Mezzanine Plan

Maine Department of Corrections
Feasibility Study and Concept Design for the Maine Correctional Center

1" = 100'-0"
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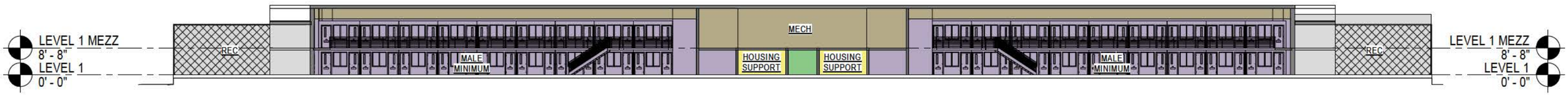

Section

Maine Department of Corrections

Feasibility Study and Concept Design for the Maine Correctional Center

1" = 30'-0"

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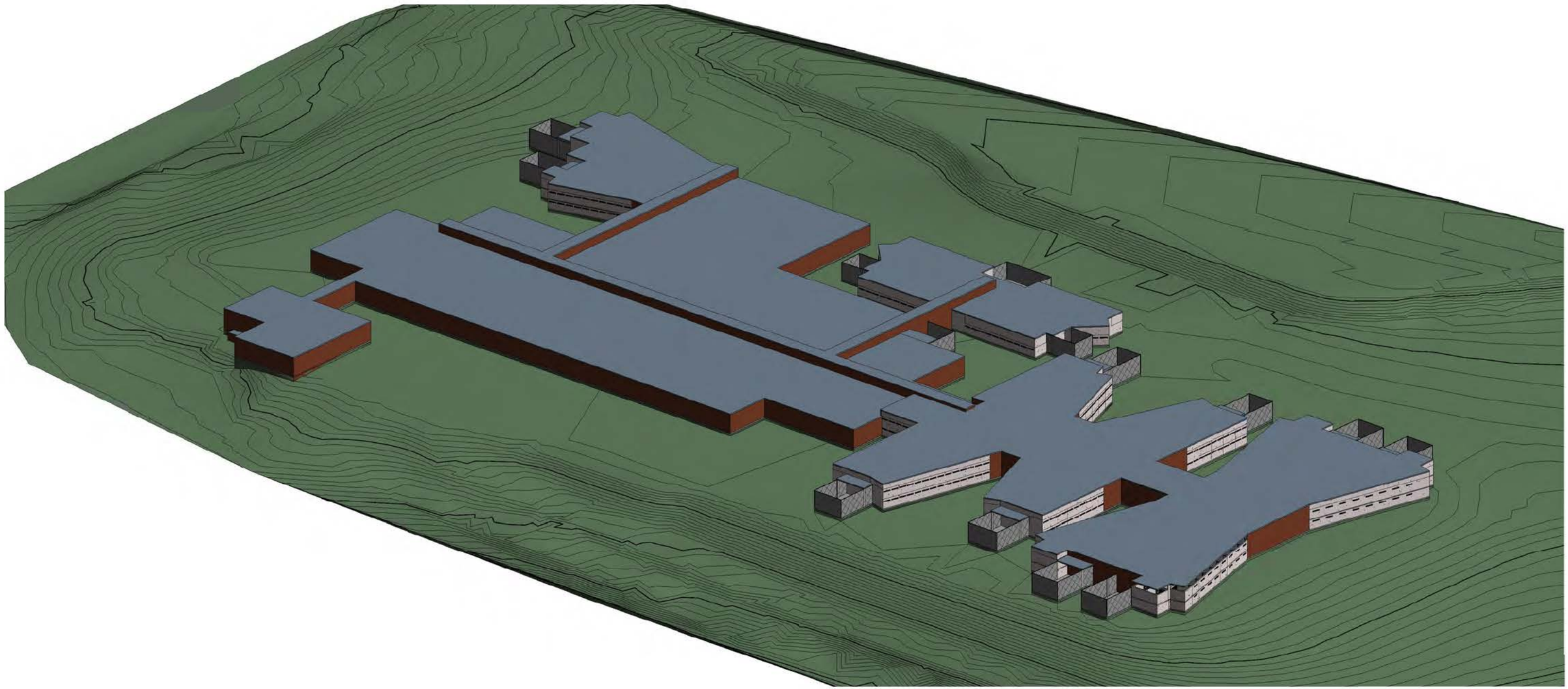

East View

Maine Department of Corrections
Feasibility Study and Concept Design for the Maine Correctional Center

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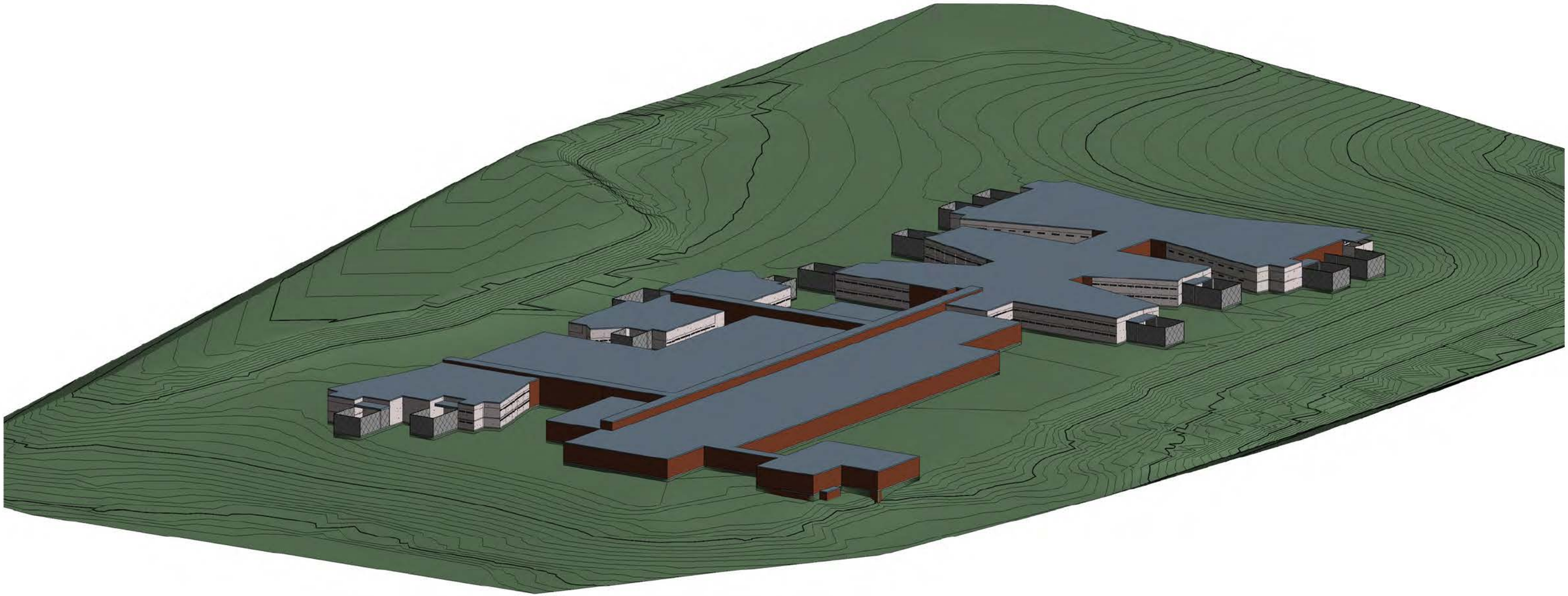

South View

Maine Department of Corrections
Feasibility Study and Concept Design for the Maine Correctional Center

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OUTLINE SITE AND ARCHITECTURAL MATERIAL SPECIFICATIONS

Site

Site Clearing:
Specifications and plans will be drawn to ensure protection of existing trees to remain, clearing of existing trees and vegetation where required, stripping and stockpiling of topsoil, and disposal of unsuitable soils, stumps, trash, demolition materials and debris.

Earthwork:
Proposed trench specifications will require six inches (6") minimum gravel bedding under proposed utility piping or twelve inches (12") where bedrock is present, twelve inches (12") minimum sand backfill over proposed utility pipes and select backfill materials to subgrade. Pavements subgrades proposed are twelve inches (12") gravel and six inches (6") crushed gravel. Patrol roads are proposed to have a compacted gravel surface consisting of (12") gravel and six inches (6") crushed gravel. Earthwork specifications will contain detailed directives with respect to dig-safe notification, compliance with local and federal regulations, excavation stability, dewatering, trench excavation, weather, inspection, subgrade preparation, geotextile fabrics, compaction, moisture conditioning, grading, field quality control, erosion control maintenance and disposal. Stabilization fabric will be Mirafi 700X or approved equivalent, filter fabric will be Mirafi 1100 N or approved equivalent. Proposed pipe outlets, ditches and steep slopes (as defined by project geotechnical reports) will be armored against scour and rill erosion using appropriately sized stone fill underlain with geotextile filter fabric.

Sewer Pipes and Manholes:
Sewer construction will utilize 4' diameter precast manholes with monolithic bases sections, eccentric cones, steps, and brick inverts and eight inch (8") polyvinyl chloride (PVC) in compliance with ASTM D for SDR 35 gravity sewer pipe in compliance with local and state requirements. A sewer grinder and auger will be provided including a cast in place concrete foundation, appropriately sized grinder system, screening system, by-pass channel, float level sensors, manual hoist gantry, and above grade housing building enclosure. A single or two precast concrete grease traps in series will be utilized for the sewer service exiting the kitchen area of the proposed building.

Utility Piping:
Exterior water piping is proposed to consist of six, eight or twelve inch (6", 8",12") cement lined ductile iron pipe (class 52) with mechanically restrained joints and resilient wedge gate valves. Mains serving onsite fire hydrants will be looped around the proposed building to maximize pressure and flow circulation. Proposed drainage system will consist of four foot (4') diameter precast concrete catch basins with monolithic three foot (3') deep sumps, tapered cones, and DOT 'type-B' grates, twelve inch (12") minimum diameter high density polyethylene pipe (HDPP) ADS N-12 (or approved equal) and flared end sections.

Underground Conduits:
Proposed electrical, telephone and cable lines will use a combination of two to four inch (2"-4") direct buried conduits along with AWWA Transition couplings, copper alloy and ferrous dielectric fittings, and appropriate identification and warning devices. Schedule 40 PVC will be used under Lawn areas, schedule 80 PVC under paved areas, and galvanized steel for risers and vault entrances. Sleeves will be employed where individual conduits pass under paved areas.

Paving:
Parking lots are proposed to be constructed of a 1-3/4" binder course and 1-1/4" wearing surface of bituminous asphalt. Crosswalks and the main entrance plaza area and fire lane are proposed to be accentuated using a colored interlocking concrete paver with texture and color to compliment building façade materials. Vertical granite curbing with a six inch (6") reveal is proposed for areas with sidewalks and interior landscaping islands as required.

Guardrail:
W-Beam guardrail in compliance with Maine Department of Transportation specifications is proposed.

Concrete, Masonry, Steel, Wood

Concrete:
Site pedestrian paving will be generally be 4000 psi air entrained concrete slab-on-grade. Foundations will be 3500 psi concrete. Slabs and elevated concrete decks will be normal weight 4000 psi concrete.

Masonry:
Masonry on the project will primarily be normal weight reinforced 8" concrete masonry. Clay brick, if provided, will be limited to use at the most public areas. Partitions and bearing walls will be single wythe concrete masonry with reinforcing and solid grout provided where a secure perimeter is required, or where wall durability is required to be high.

Steel:
Steel elements will include steel tube columns, steel joists and joist-girders, galvanized metal decking, steel tube stringers for stairs, concrete pan treads with perforated metal risers, steel pipe railings and handrails, and painted steel bollards. Galvanized steel lintels may be required at veneer masonry openings. All exterior steel will be hot-dip galvanized for durability unless stainless steel. Exterior steel will include camera mounts, bollards, handrails, canopy structures, etc.

Interior steel will generally be painted. Stainless steel countertops will be provided at high traffic service counters, at paper pass-through locations.

Wood:
Wood construction elements will include plywood panels, and solid wood blocking. Finish carpentry will include solid surfacing (such as "Corian") for public and internal service countertops such as the lobby reception desk, booking counters, medical areas, housing unit officer desks, central control work surfaces, and for public toilet room counters. Plastic laminated particleboard tops with solid surfacing edges will be provided for other work surface counters. Cabinetry will be custom fabricated plastic laminate.

Building Enclosure and Protection

Sprayed Fire Proofing:
Structural steel will be fire protected to a 2 hour rating as required by codes where the steel structure supports floors and roofs. Roof construction and secondary roof members will be protected with 1 hour construction or unrated where more than 20' above a floor. Fire proofing will be cementitious material.

Through Penetration Firestop Systems:
All penetrations through floors and fire separation walls will be firestopped. Penetrations through other walls and partitions may be firestopped or caulked with acoustic sealant.

Insulation:
Insulation within exterior precast and masonry walls will be 3" rigid extruded polystyrene. Sound batt insulation will be provided within walls of public restrooms, individual offices and conference rooms within the Department of Corrections Administration areas.

Roofing:
The primary structure roofing system will be 5" mechanically fastened polyisocyanurate or polystyrene with a 1/2" cover board of Dens-Glass with fully adhered 60 mil EPDM or TPO roofing. Flashings associated with roofing will be copper where hidden from view, and aluminum with a Kynar fluoropolymer finish where exposed.

Skylights:
Skylights will be provided at day rooms, the public lobbies and other large areas of activity. Skylights will be curb mounted polycarbonate insulating dome skylights with aluminum frames and security bars, sized to fit between roof joists without interrupting framing.

Doors and Windows:
Public entrances will be a thermally broken aluminum entrance system with wide stile full glass doors. Other exterior doors will be painted galvanized hollow metal in hollow metal

frames. Interior security doors will be 2" structural core wood or 2" security hollow metal. Administrative suite interior doors will be commercial grade wood veneer solid core doors in hollow metal frames. Refer to the Security Summary for additional information.

Windows will be fixed aluminum framing equal to the Kawneer 451T system for glazing in non-security walls, and stainless steel security hollow metal elsewhere in security walls. Aluminum framing and doors will be finished with a Kynar fluoropolymer coating.

Curtainwall:
The public lobby exterior wall will be constructed with aluminum curtain-wall with a Kynar fluoropolymer finish capable of spanning the full height to the ceiling, nominally 2.5" x 6".

Overhead Doors:
Overhead vehicular service doors at the Vehicle Sallyport will be insulated rolling doors with motorized operators. Facings on the exterior will be a minimum of 18 gage. Overhead counter doors will be coiling aluminum manual shutters with a stainless steel counter at the sill.

Joint Sealers:
Joint sealers will generally be pick-resistant security grade sealer in inmate occupied areas. Shore A hardness urethane sealants will be used where within inmate reach for movement joints. Epoxy paste sealants will be used within inmate cells, day rooms, and inmate toilet rooms to close gaps between fixtures and equipment to eliminate locations for concealing contraband. Urethane sealants will be used for most active joints less than 1" wide.

Interiors

Interior Finishes:
Walls will generally be painted gypsum board or painted concrete masonry units. Acrylic paints will be used typically for concrete masonry and gypsum board except within cells, toilet rooms, and other wet areas. Walls in the kitchen and within inmate showers will be fiberglass-reinforced epoxy for durability and code compliance. Refer to the following Security Summary for ceiling materials.

In addition to the above, finishes throughout the facility include the following:

- Staff and public restrooms will be provided with a 2 x 2 ceramic mosaic floor with cove base and ceramic mosaic tile wainscot to 4 ft. above the floor, with epoxy painted walls above.

- Inmate restrooms will be provided with a 2 x 2 ceramic mosaic floor with cove base with epoxy painted walls.

- Inmate shower rooms will have solid surfacing walls and seamless epoxy floors, with epoxy painted upper walls and ceiling.

- Inmate cells, holding cells and crisis holding cells will have sealed concrete floors and acrylic painted walls. The same finishes will be used in all janitor closets, storage rooms, mechanical and electrical rooms, maintenance areas, and related service spaces.

- Inmate housing dayrooms will have rubber tile floors for durability and acoustical benefits.

- Other inmate occupied spaces, including visiting, program spaces, classrooms, multi-purpose and interview rooms will have VCT floors.

- Floors in the intake and medical areas will be VCT. Medical isolation cells will also have VCT floors.

- The primary circulation corridor within the secure perimeter will have rubber floors.

- The kitchen and laundry floor will have an integrally colored topping of polished and sealed concrete. Aggregate will be selected for coordinated color with the integrally colored cement.

- Central Control will have carpet or rubber tile flooring for acoustic benefits.

- The locker rooms will be ceramic mosaic tile throughout.

- The Department of Corrections offices inside the secure perimeter will have VCT floors. The Department of Corrections office area outside the secure perimeter will have rubber tile in the hallways and carpet in the offices.

- The wall base throughout public and staff areas outside the secure perimeter will be rubber typically, with ceramic tile in restrooms and porcelain tile in the public lobby.

- No wall base will be provided within the secure perimeter where CMU walls are provided and finished to the floor.

Toilet Partitions:
Toilet partitions will be flat phenolic panels.

Visual Display Boards:
Visual Display Boards will be white with aluminum extrusion trim.

Signs:
Signs will be fabricated from back-painted plastic panels with chemically welded letters and engraved Braille. Signs will be provided for restrooms, program spaces, offices, etc. which are not within housing units. Other signs will be provided as required by life-safety requirements.

Lockers:
Wardrobe lockers will be 18" square x 36" height, double stacked, painted metal with bolted construction, with sloped tops, hat shelves, and padlock loop catches. Lobby refundable coin deposit lockers will be 12" square x 6' height for four lockers high. Pistol lockers within the vehicle sally port will be fabricated of welded plate steel and provided with exchange key locks.

Locker Room Benches:
Locker benches will be steel post-supported polyethylene panels.

Toilet Accessories:
Toilet accessories in staff and public restrooms will be stainless steel and will include ADA grab bars, toilet tissue dispensers, napkin dispensers, and framed mirrors. Public toilets will be equipped similarly to staff toilets, but also with waste receptacles. Toilet accessories in inmate restrooms will be stainless steel and will include ADA grab bars, recessed soap dishes, recessed tissue dispensers, and detention mirrors. Towel dispensers and soap dispensers will be vendor furnished plastic units compatible with their products.

Fire Extinguishers:
Fire extinguishers will be wall mounted within staff toilet rooms and staff control rooms, and will be in detention grade recessed cabinets in inmate corridors within the perimeter and will be keyed alike. Outside of the perimeter, cabinets will be trimless stainless steel and will be keyed alike.

Operable Panel Partition:
Operable panel partitions will be ceiling track suspended metal framed panels with vinyl facing, STC 50. (similar to Modernfold Acousti-Seal series)

Equipment, Furnishings

Equipment:
An elevator will be provided to provide ADA accessibility between floors. Equipment will be a 3500 lb. capacity unit at 100 fpm, with either a hydraulic lift or a cab mounted direct drive electric motor system, selected for best value. Elevator finishes will be standard.

The property storage room will include a motorized laundry storage carousel with hanging bags storage for inmate property and will have sufficient capacity to accommodate the bed capacity of the facility.

Loading dock equipment will include dock bumpers. The dock will be 4' height with or without out a leveler.

Appliances:
Kitchen and central laundry equipment will be shown on drawings and installed as a part of the construction project. Kitchen equipment will provide a full kitchen suited to the menu to be provided.

Individual washers and and dryers in the housing units, refrigerators, coffee makers, and microwave ovens for staff or inmate use within the facility are not included in the construction budget and will be purchased with FF&E funds.

Window Coverings:
1" Horizontal louver blinds will be provided within staff offices only.

Entry mats:
Recessed frame walk-off grated type aluminum or stainless steel mats will be provided at the public lobby and staff entrances.

SECURITY SUMMARY

Perimeters

This section describes the enclosing wall and roof construction assemblies that contain inmates within the interior of the facility.

Facility Perimeter

The facility perimeter describes the primary secured zone of the facility.

Fence:
The perimeter fence will be a double chain link fence with security coils in compliance with Federal Bureau of Prisons specification. Between fences will be crushed rock 24" average size, and a non-lethal electric fence.

Sally Port:
The fence will fully extend above and over a vehicle sally port roofed enclosure. Motorized chain link security gates will provide access. A crash gate will provide protection in front of the exterior sliding gate.

Utility Crossings:
All utilities will be split and reduced in size to no less than 8" diameter under the fenced primary facility perimeter.

Building Perimeter

The building perimeter describes the secondary secured zone of the facility.

Walls:
Concrete masonry units with solid grout. Security reinforcing will be #4 bars at 8" on center vertically and as required for structural reinforcing horizontally.

Windows/ Glazing:
1 inch insulating glass in solid grouted 14 gauge detention hollow metal frames with security bar dividers to limit glazed opening to 5". Glass will have 1/2 in. glass clad polycarbonate at the inside lite, 1/4 in. airspace and 1/4 in. tempered glass on the outside lite. (See below for cell and dormitory windows.)

Outdoor Exercise:
Fenced Enclosures

Doors:

14 gauge security hollow metal doors with glazed openings limited to 5" and set in 12 gauge solid grouted hollow metal detention frames. Door glazing will be 1 in. insulated glass units; glass will have 1/2 in. glass clad polycarbonate at the inside lite, ¼ in. airspace and ¼ in. tempered glass on the outside lite. Locks will be mogul cylinder 6" (series 120) motorized jamb locks, except where temperatures are not controlled, solenoid locks will be employed. All facility perimeter doors will be controlled by Central Control.

Vehicle Sally Port:
Sally port doors will be insulated coiling metal doors with motor operators controlled by Central Control. A vehicle crash gate will provide protection at the exterior approach.

Pedestrian Sally Port:
Sally port doors will be controlled motorized sliding or swing doors of 12 gauge detention hollow metal with 12 gauge grouted detention hollow metal frames. Door and sidelight glazing will be 15/16 in. glass clad polycarbonate (1/8 in. tempered glass, 3 layers of 3/8 in polycarbonate and 1/8 in. tempered glass).

Louvers:
Louvers through exterior perimeter walls will be protected by 1/2" non-hardened welded steel bars set at 8" on center each way, with a perimeter angle flange bolted into the walls.

Roof:
Roofs will generally be 20 gauge corrugated steel deck on joists. Roofs within housing units will generally be out of reach by height or will be protected from inmate access by a security ceiling. Security ceilings will similarly prevent prisoner access to above-ceiling spaces and roofs in inmate activity areas such as day-room mezzanine balconies, visitation, kitchen and laundry. No ceiling protection other than height will be provided elsewhere, such as in high-ceiling dayroom areas, medical, intake/booking, and program areas.

Roof Penetrations:
Perimeter roof penetrations will be protected by 1/2" non-hardened welded bars set at 8" on center each way with a perimeter angle flange welded or bolted to the roof deck.

Skylights:
Skylights will be installed no less than 12' above the floor in administration areas and 16’ above the floor in day-rooms and will be glazed with polycarbonate, and protected by non-hardened welded steel bars at 8" on center each way.

Central Control:
Central Control will be designed with its own security perimeter. Security glazing will be a minimum of 1 ¼ in. glass clad polycarbonate, mirrored on the lobby and corridor sides.

Interior Security Perimeter

Interior Security Perimeters will be provided around each housing unit. (Note that full height walls will also be provided around healthcare, kitchen, laundry, intake/booking, medical and visiting areas but without solid grout, bars in ducts, security glazing, etc.)

Walls:
Concrete masonry units with solid grout. Vertical reinforcing will be #4 bars at 16" on center. Horizontal reinforcing will be determined by structural design requirements.

Glazed Openings:
Security glazing will be 1/4 in. wire glass each side of a 3/8 in. polycarbonate core where fire rated walls are required in corridors, set in solid grouted 14 gauge security hollow metal frames.

Doors:
14 gauge detention hollow metal doors with glazed openings as large as possible for viewing, set in 12 gauge solid grouted detention hollow metal frames. Glazing will be as noted above for glazed openings. Locks will be mogul cylinder 6" (series 120) motorized jamb locks. All corridor doors are controlled by Central Control. Inner sally port doors at Dayrooms will be controlled by the day room officer.

Ducts:
Ducts through interior perimeter walls will be protected by 1/2" non-hardened welded bars set at 8" on center each way, with a perimeter angle flange bolted into the walls.

Cell and Dormitory Perimeters

Walls:
Concrete masonry units with solid grout and #4 bar reinforcing at 16" on center vertically and horizontally as required by structural requirements.

Exterior Glazing:
1 inch insulating glass in solid grouted 14 gauge detention hollow metal frames with security bar dividers to limit glazed opening to 5". Glass will have ½ in. glass clad polycarbonate at the inside lite, ¼ in. airspace and 1/4 in. tempered glass on the outside lite.

Interior Glazing:
1/2 in. glass clad polycarbonate with solid grouted 14 ga. detention hollow metal frames for the following area special management unit, intake holding cells, medical, mental health, and crisis holding cells. ¼ in. tempered glass with solid grouted, 14 gauge detention hollow metal frames will be used in the general population housing areas.

Typical Doors:

14 gauge detention hollow metal doors or 2 in. detention wood doors with glazed openings as required set in 14 gauge solid grouted detention hollow metal frames. Locks will be narrow jamb 2" motorized locks with remote operation, with builder's hardware cylinders.

Special Management Doors:
12 gauge detention hollow metal doors with 12 gauge solid grouted detention hollow metal frames. Locks will be 6” mogul cylinder jamb mounted locks with remote operation. Doors will also have food passes. These doors will be provided in the special management housing units, medical isolation, and mental health cells. Medical isolation and mental health cells doors will be fully glazed with 3/8 in glass clad polycarbonate.

Chase Doors:
14 gauge detention hollow metal doors with 14 gauge solid grouted detention hollow metal frames. Locks will be manual detention locks. All chase doors to be 2’-0” wide by 7’-0” high.

Security Diffusers:
Diffusers in inmate cells will be detention grade perforated metal plate diffusers. Others will be detention grade diffusers with overlay mesh.

Security Ceilings:
Security ceilings will be cast-in-place concrete or steel.

Food Passes:
Provided with mogul cylinder locks for special management units. Snap locks without cylinders will be provided at holding cells.

Plumbing Fixtures:
All inmate toilets within cells will be stainless steel. Shared toilet rooms will be equipped with or penal grade china fixtures.

Light Fixtures:
Light fixtures within cells will typically be medium detention grade with polycarbonate lenses and night lights. Special management unit cells will have maximum custody grade light fixtures. Group switching of lights and night lights will be provided.

Sprinkler Heads:
Sprinkler heads will be detention grade and be will be typically located on wall of the plumbing chase.

Locks

Remote Lock Operation

For some doors which are not in a secure perimeter, remote control will be provided to facilitate operational control. Other doors may be provided with card readers where opening of the door does not unduly remove control from Central Control or Day Room Control. Doors which will have remote operation include: armory, exercise yards, main corridor doors to suites and group use rooms. Other door will have detention grade locks and door monitor switches, such as pharmacy, electrical closets, and mechanical rooms.

Keying

Generally in a corrections environment, the number of keying levels should limit the number of keys necessary for day-to-day operations. Typically, mogul cylinders are used for perimeter doors, security hollow metal doors on cells, and for food passes; builder's cylinders for wood doors on cells, chases, multipurpose rooms within dayrooms, toilet rooms, and offices. Keyways for cylinders will be common for all cylinder types, and will be restricted proprietary or licensed keyways. Card access control systems will also be used to facilitate staff access where designated.

Security Electronics

System Components

Security control systems will be a PLC based system integrating:

1. Door controls, with control of lock-unlock, sally port interlocks, emergency override, door status – lock status reporting. Any door violation will cause notification or an alarm to central control.

2. Digital color security cameras with programmed call-up upon intercom call or upon alarm, digital recording 24/7 of all cameras, pan-tilt for exterior cameras and some other key cameras such as dayrooms. Cameras will be equipped with analytics for optional alarm upon detection of movement or other selected options.

3. Intercom system throughout for notification of control as to access needs. Call buttons only in cells, which can be silenced by the control station.

4. Watch-tour through the use of card readers. Door access into dayrooms will be generally by card reader access. These control points will also act as input log points for guard tour, with the addition of other card readers.

5. Card reader systems with logging for all events. Override by Central Control.

6. Utility control for water, televisions, fire water, showers.

7. Three control stations at Central Control, one at each housing unit, and at intake and medical. Control stations will consist of work stations with duplex 20" flat screen touch screen monitors, with mouse control as a backup. One monitor will provide floor plan layouts of the facility showing controlled locks and devices, alarms, intercoms, etc., and indicate any sensors. The second monitor will provide camera views controlled by the integrated control system and by call. Alarm or officer touch will expand the camera view. Additional flat screen monitors will be provided in Central Control and will be wall mounted above the control workstations to provide additional multi-plex image display. The complete CCTV system will have digital recording back-up and will be activated by motion in the camera field, on an as-designated basis.

   The use of personal data assistants or PDAs to supplement the control stations in the housing units will be evaluated during design.

8. The system will log all events and interactions sensed by the security and electronics controls system. Email notification of supervisory staff will be initiated when an officer overrides a controlled function.

9. A note system ("sticky note") will permit officers to tag any locked down cell, or locked out intercom, etc. with a note for subsequent shifts as to the situation which had caused such actions to have been enforced.

10. The control system shall be fully capable of integrating with any manufacturer's inmate management system.

11. A man-down system will either be an integrated system with localized detectors, or will be integral with corrections staff radios.

Outdoor Perimeter Sensors

A motion detection system will not be provided on the perimeter fence, however a non-lethal electric shock fence will be placed mid-point between two perimeter fences.

CONSTRUCTION DURABILITY SUMMARY

This section describes the durability of finish materials and building components within functional areas of the facility independent of the requirements of the enclosing security perimeter construction requirements.

Detention Construction

Detention construction will be provided in all spaces where inmates are housed in their living units and may not have constant supervision. This includes interiors of housing units, visiting, intake/booking, and inmate toilet and shower rooms.

Walls:
Concrete or concrete masonry with solid grout and reinforcing as required by structural requirements.

Interior Glazing:
3/8 in. glass clad polycarbonate with solid grouted 14 ga. detention hollow metal frames for the following areas: special management unit, intake holding, medical, mental health, and crisis holding. 3/8 in. tempered glass with solid grouted, 14 gauge detention hollow metal frames will be used in the general population housing areas.

Doors:
14 gauge security hollow metal doors or wood doors with glazed openings as needed set in 14 gauge solid grouted hollow metal frames. Locks will be narrow jamb 2" motorized locks with builder's hardware cylinders with removable cores, and commercial grade mortise locks with builder's hardware cylinders elsewhere. Refer to Interior glazing requirements for door glazing.

Chase Doors:
Commercial quality 14 gauge detention hollow metal doors with solid grouted 14 gauge detention hollow metal frames, with detention grade deadbolts and flush pulls.

Ducts:
Ducts through interior partitions within security areas will not be protected with security bars.

Security Ceilings:
Security ceilings will be constructed of one layer of vandal resistant gypsum board with 5/8” plywood backing, or will be constructed of detention acoustical perforated metal ceiling systems. Light fixtures and diffusers in security ceilings will be detention grade.

Non-secure Ceilings:
Commercial construction where greater than 12' above finished floors. Light fixtures and diffusers in non-secure ceilings will be vandal resistant.

Sprinkler Heads:
Sprinkler heads will be detention grade where below 12' height, and fully recessed commercial quality elsewhere.

Durable Construction

Durable construction will be provided in areas where prisoners are escorted or supervised at all times. This includes interior spaces such as program offices, staff offices within the secure perimeter, classrooms, library, and the public lobby.

Walls:
Concrete or concrete masonry with grout as required for structural requirements. Reinforcing as required by structural requirements.

Interior:
3/8" tempered glass or 3/8" polycarbonate set in 14 gauge solid grouted hollow detention metal frames. All glazing stops will be detention type.

Doors:
14 gauge commercial hollow metal doors or solid core wood doors with glazed openings as needed set in 14 gauge solid grouted hollow metal frames. Locks will be commercial grade builder's hardware mortise locks except where inmates may congregate, and will be detention grade mortise locks where inmates may congregate.

Ducts:
Ducts through interior partitions will not be protected with security bars.

Non-Secure Ceiling: All ceilings will be commercial construction grade and set no less than 10' above finished floors. Light fixtures and diffusers in non-secure ceilings will be vandal resistant.

Sprinkler Heads:
Sprinkler heads will be fully recessed commercial quality.

Commercial Construction

Commercial construction will be provided in offices and in all spaces outside of the secure perimeter.

Walls:
Masonry or gypsum wallboard systems.

Ceilings:
Commercial grade acoustic lay-in ceilings with commercial grade light fixtures and diffusers.

Interior Glazing:
16 gauge commercial hollow metal or aluminum with 1/4" tempered glass.

Exterior Windows:
1 inch insulating tinted glass units set in commercial hollow metal or aluminum frames.

Interior Doors:
16 gauge interior commercial hollow metal or solid core commercial wood doors with commercial mortise locks, set in 16 gauge interior hollow metal frames.

Exterior Doors:
16 gauge galvanized, insulated commercial hollow metal doors in 16 gauge hollow metal frames.

Sprinkler Heads:
Sprinkler heads will be recessed commercial grade.

TAB 8

STRUCTURAL DESIGN NARRATIVE

The prison will be primarily a single story structure with additional floors or mezzanine levels in some of the housing areas, plus mechanical equipment rooms. The entry lobby may require a floor change to suit site grade changes and access. Housing units will each include a second floor for mechanical equipment. Other areas will include rooftop penthouses for mechanical equipment.

Foundations and Ground Floor Slabs:

The foundations are planned to be of conventional, spread footing construction (Site Option A or B). Perimeter walls will be supported on continuous footings and frost walls below finish grade. Isolated spread footings will be provided for interior columns. The concrete used for foundation walls and footings will have a minimum 28-day compressive strength of 3500 psi. Slabs will be 4000 psi concrete, minimum. Concrete exposed to freeze-thaw cycles will be air-entrained.

A heavy duty vapor retarder beneath interior floor slabs and a perimeter foundation drainage system will be provided. All underground utilities will be routed beneath the vapor retarder including conduits.

Vertical Structure:

Vertical structure will consist of either fire-rated jacketed steel columns, precast concrete columns, or bearing masonry. Precast concrete cell modules and cell-top plenum units will support day room roofs and provide a routing path for day room and cell ductwork.

Roof framing will consist of a 20 gage galvanized steel roof deck, steel bar joists, joist girders, and steel beams supported on load-bearing concrete masonry walls and steel columns. This system may be replaced with precast concrete hollow-core plank and inverted tee beams where economy and speed of erection benefit from this system's use. In most locations, roof framing will be sloped to provide roof drainage to roof drains. Where framing cannot be reasonably sloped, tapered insulation will provide slopes required for roofing drainage.

Superstructure:

Second floor slabs will be constructed of precast concrete plank or cast-in-place concrete. Where the bottom of cast-in-place slabs will be concealed by ceilings, or where it is otherwise acceptable, the slabs will be formed with steel deck. At exposed/ finished

locations, cast-in-place slabs will be cast on removable formwork with shores. Second floor slabs will be supported on masonry bearing walls, and precast concrete columns and beams.

Exterior Walls:

Exterior building walls will generally be non-bearing precast insulated concrete panels. The wall panel system will be designed to be sill bearing and laterally supported by the building frame. Wall panel height will be limited and joints between panels provided to reduce panel deflections due to thermal environmental changes.

MECHANICAL DESIGN NARRATIVE

Design Criteria

Inside Temp.
Winter: 72 degrees F db.
Summer (mechanically cooled areas only): 75 degrees F db.

Outside Temp.
Winter: -20 degrees F db
Summer: 86.7 degrees F db, 71 degrees F wb. (ASHRAE 0.4%).
Dehumidification: 78.8 degrees F db, 73.2 degrees F wb,
71 degrees F DP

Codes
The International Building Code, with Maine Amendments
The Uniform Plumbing Code 2009, with Maine Amendments
The International Mechanical Code 2009.
The International Fire Code 2009
The International Energy Conservation Code 2009, with Maine Amendments

Standards
Sheet Metal and Air Conditioning Contractors' National Association, Inc (SMACNA) HVAC Duct Construction Standards
Guidelines for Design and Construction of Hospital and Health Care Facilities 2006 Edition.
UL – Underwriters' Laboratories
ASME – American Society of Mechanical Engineers
NFPA – National Fire Protection Association
ANSI – American National Standards Institute
ASHRAE – American Society of Heating, Refrigerating, and Air Conditioning Engineers
ARI – American Refrigeration Institute
ASTM – American Society of Testing and Materials
NEMA – National Electrical Manufacturers' Association
NEC – National Electrical Code
FM – Factory Mutual
ASTM – American Society for Testing and Materials
OSHA – Occupational Safety and Health Act
NEMA National Electrical Manufacturer's Association
AABC – Associated Air Balance Council
AMCA – Air Movement and Control Association
NEBB – National Environmental Balancing Bureau

Ventilation
Ventilation will be provided mechanically via the HV/HVAC systems. Ventilation rates will meet the most stringent requirement of all

applicable codes and will provide all make-up air necessary for building exhaust systems. All air handling systems will allow for economizer cooling. Automatic control sequences will maintain minimum ventilation quantities except when outside air can be utilized for economizer cooling.

Occupancy and Outdoor Air:

Cells:	25 people/1000 sf at 10 cfm/person
Dayrooms	30 people/1000 sf at 7 cfm/person
Guard Stations:	15 people/1000 sf at 10 cfm/person
Booking/Waiting	50 people/1000 sf at 10 cfm/person
Offices:	7 people/1000 sf at 20 cfm/person
Conference rooms:	50 people/1000 sf at 20 cfm/person
Reception:	60 people/1000 sf at 20 cfm/person
Cafeteria areas:	100 people/1000 sf at 15 cfm/person
Assembly rooms:	120 people/1000 sf at 15 cfm/person
Classrooms:	50 people/1000 sf at 15 cfm/person
Gymnasium Areas:	30 people/1000 sf at 20 cfm/person
Locker rooms:	0.5 cfm/sf
Corridors:	0.1 cfm/sf

Mechanical Systems

Seismic Requirements

Seismic bracing will be provided in accordance with the requirements of the International Building Code, 2009. Supports, hangers and bracing for required piping and equipment shall be designed by a professional engineer.

Central Plant

The initial approach for providing a central mechanical plant for the new Department of Corrections is to provide a traditional heating and cooling plant for this facility alone. Please refer to the following section titled “Alternative Energy System Evaluation” for discussion on alternative energy sources, including the potential for a central plant to serve the Department of Corrections, as well as the existing buildings that are to remain.

Central Heating System

Option 1 (Basis System of Study):
Three (3) 7.500 mbh hot water boilers will be provided and located in the central boiler room. Boilers will be high efficiency condensing type, and fully modulating natural gas fired. The boilers will be sized for 50/50/50% of the design heating load of all HVAC

requirements. Space will be reserved for a potential future boiler should the State decide to add another housing unit at some time in the future.

Option 2:
Three (3) 10,000 mbh hot water boilers will be provided and located in the central boiler room. Boilers will be high efficiency cast iron sectional type, and fully modulating Carlin #2 oil fired. The boilers will be sized for 50/50/50% of the design heating load of all HVAC and domestic hot water heating equipment. Space will be reserved for a potential future boiler should the State decide to add another housing unit at some time in the future.

Option 3:
Three (3) 7.500 mbh hot water boilers will be provided and located in the central boiler room. Boilers will be high efficiency cast iron sectional type, and be dual fuel capable of either operating on #2 oil or natural gas fired. The boilers will be sized for 50/50/50% of the design heating load of all HVAC and domestic hot water heating equipment. Space will be reserved for a potential future boiler should the State decide to add another housing unit at some time in the future.

The heating boiler system shall include pumps, DDC controls, air separator, expansion tank, valving, piping, insulation, fittings, drains vents, expansion provisions, chemical treatment and make-up water. All motors shall be premium efficiency with VFD's as applicable.

The system will utilize primary/secondary / tertiary pumping. The primary pumps, one per boiler, will maintain minimum flow through the boilers and provide thermal shock protection via a three-way valve. The controls and isolation valves will allow boilers being taken off line during low demand periods to reduce stand-by boiler losses. The secondary system pumps will be configures to have a stand-by pump piped in parallel for lead/lag control and will be sequenced for equal run time. The secondary pumps will have variable speed drives for distribution between buildings. A tertiary pump with a VFD shall be provided for each building distribution system that will use two-way valves to allow for variable flow. A dedicated plant controller shall be provided for the boiler plant operation and control. The plant controller shall interface with the building management system in a read-only configuration.

Boiler room combustion and ventilation air will be supplied by a dedicated modular air handling unit configured with 30% filters, hot water heating coil, and supply fan. The combustion air, air handling unit shall be located in the Central Plant. Fan speed, outdoor air damper, gravity relief damper, and heating coil, are to be controlled to provide ventilation in accordance with code and boiler manufacturer's requirements, and to maintain minimum supply air temperature of 50 deg. F. The combustion air, air handler shall be controlled by the boiler plant controller. Note: Gas fired condensing boilers shall be provided with direct connections to the exterior for flue and combustion air.

Isolation valves will be provided at all components that require servicing. In addition, shutoff valves will be strategically located to allow isolating portions of the system piping. Balancing valves will be provided at all major branches and at terminal units.

For oil fired boilers, a 15,000 gallon double walled, underground composite fiberglass/steel oil storage tank will be installed for the central plant. Underground tank and piping shall have fully monitored leak detection system with a Veeder Root system or equal. Oil will flow to the combustion equipment through a constantly flowing pumped loop. Oil pumps will be configured with 100% redundancy.

A gas-fired steam boiler, located in the Central Plant, shall serve the steam kettles located in the Central Kitchen. Natural gas will also be provided for gas cooking and clothes drying as well as condensing boilers.

Central Chilled Water System

Option 1 (Basis System of Study):
Two water cooled chilled water system including, but not limited to: chillers, cooling towers, refrigerant detection and purge system, pumps, DDC controls, air separator, expansion tank, valving, piping, insulation, fittings, drains vents, expansion provisions, chemical treatment and make-up water. All motors shall be premium efficiency. Each chiller shall be electric centrifugal type with integral VFD (with harmonic filters) set to Provide two 750-ton chillers. Each chiller is sized at 50% of the peak load providing 50% redundancy in the event of a chiller failure.

Condenser water will be produced by (2) 750 ton cooling towers located on the roof set to supply 85^0F condenser water with a flow rate of 3.0 gpm/ton. Towers will be headered together with equalization lines and drains. Towers will each have a VFD for speed control and basin heaters for freeze protection. Provide a minimum temperature bypass valve. Provide three condenser water pumps each sized for the flow of a chiller. A maximum of two pumps will be running at any one time, (1) pump as a standby, to provide redundancy in the event of a pump failure.

Provide a 150 ton “free cooling” plate in frame type heat exchanger. This will allow production of chilled water without using the chillers when the outdoor temperatures are cool enough. Pipe a chiller bypass through the “free cooling” heat exchanger. Provide two pumps, each with a flow of 360 gpm. One pump is for the condenser water and one for the chilled water. No spare will be provided as the chillers can back-up the system. Provide a second tower bypass valve and automatic tower isolation valves (both supply and return) for each tower cell.

Option 2:
Two (2) 750 ton air-cooled chillers will be provided. Each chiller will be sized for 50% of the design cooling load of all newly installed HVAC equipment. The system will utilize

variable primary flow pumping. Space will be reserved for an additional chiller for a possible future expansion. If this option is implemented, a 35% propylene glycol and water mixture will be provided in the chilled water system to protect the chilled water components from freeze/bursting and to minimize annual service requirements. A glycol feed system, including a 50-gallon tank, pump, and controls, will be installed.

The water or air cooled chillers will be piped in parallel. The chilled water supply temperature will be 42 degrees F and the return will be 56 degrees F, reset according to either ambient temperature or return evaporator temperature. Chillers will be staged to meet the load requirements and will be capable of capacity reduction to meet the variability of the building load.

The two variable primary flow pumping rated at 1,500 gpm each one of which will be a stand-by pump piped in parallel for lead/lag control and will be sequenced for equal run time. The pumps will have variable speed drives and building distribution system will use two-way valves to allow for variable flow. Chilled water will be distributed to all cooling coils in air handlers and energy recovery units. A dedicated plant controller shall be provided for the chiller plant operation and control. The plant controller shall interface with the building management system in a read only configuration.

Isolation valves will be provided at all components that require servicing. Chiller by-pass piping and balancing valves will be installed to allow for isolation of either chiller for servicing while keeping the remaining chiller in operation.

Hot Water and Chilled Water Distribution Systems

The heating hot and chilled water distribution systems shall be sized for the future building additions, with valves and capped connections in place to accommodate future tie-ins.

Piping systems 2-1/2" and larger shall be schedule 40 steel pipe with welded fittings. Type L copper pipe and wrought sweat fitting shall be utilized for piping sizes 2" and smaller. All piping shall be insulated with fiberglass insulation (thickness per code) with all service jacket and PVC fitting covers. Piping insulated located in mechanical rooms or exposed to the outside shall be protected with PVC or Aluminum jackets. Piping 2-1/2" and larger shall be supported with clevis hangers while piping 2" and smaller shall be supported with band hangers.

Shut-off valves shall be provided at all components that require servicing. In addition, shutoff valves shall be strategically located to allow isolating portions of the system piping. Balancing valves shall be provided at all major branches and terminal units.

Freeze-protection pumps will provide constant hot water circulation through air handler heating coils when the outside temperature is below 40 degrees F.

Alternative Energy Systems

Many new public and institutional projects throughout Maine and New England have been built, or are in the planning and construction process, that utilize alternative energy sources. An initial investigation of alternatives has included wood chip boiler plants for heating, a wood chip plant for heating designed with co-generation capability, and geothermal plants providing both heating and cooling. This facility provides a great opportunity to anticipate upward cost pressure upon traditional sources of energy by the provision of systems which either incorporate alternative sources, or which are adaptable.

The new Maine House of Corrections is a large building at over 400,000 sq. ft. By its mission and function, the building must be designed for 24 hour operation year round. The energy requirements and operating expenses for this facility will be higher than other building types due to this fact; expenses which extend for the life of the building.

From the necessity to always remain in operation, a correctional facility's building systems must have redundancy. The need for dual capacity should be factored into the engineering analysis that supports the fuel source choice(s) selected. Dual fuel, whether gas, oil or wood chip systems, provide an operational benefit to the facility.

Once the project is funded, as the design effort begins, further analysis of options is recommended. Based upon the results of that analysis, a separate expenditure may be indicated if, as expected, energy savings will result in a net savings in less than 10 years. Systems which should be considered include solar energy collection, wood chip boilers (biofuels), and possibly a geothermal energy storage system. (A geothermal/ heat pump system would provide the State with the capacity to utilize new energy sources coming onto the marketplace and transmitted to energy users through the electrical grid.)

The analysis of the alternative energy systems should include detailed discussions with the appropriate suppliers, evaluation of the suitability of the system for the application, life cycle cost analysis to address system payback savings, projection of the energy budget for the alternatives and general descriptions of the systems being considered. Involvement from the State will be necessary throughout the evaluation process.

Air Handling Systems

General Description

Air handling units will generally be located within indoor mechanical rooms. The design will allow for convenient access and manufacturers' recommended service clearances.

Air Handling Units will be commercial, modular configuration, with double walled construction, including return plenums, mixing box/economizer, MERV 8 pre-filter sections, MERV 11 final filters, hot water coils, access sections as required, supply fans, and return/exhaust fans as required. All units will be capable of economizer cooling. All units (except as indicated below) will have mechanical cooling including chilled water cooling coils, and double-sloped stainless steel drain pans. Variable volume systems will utilize variable speed drives on supply and return fans and outside airflow measuring stations.

Dedicated units will be provided for each of the areas listed below. Systems will provide heating, ventilation, and air conditioning (HVAC) with hot water reheat for individual zone temperature control.

- Maintenance Shop / Storage / Laundry
- Kitchen (including adjacent large storage rooms) and Dining
- Kitchen Make-up Air Unit.
    - A separate dedicated constant volume heating only make-up air unit will be ducted to supply grilles in the face of the hood and will be interlocked with the hood operation. The unit will provide a portion of the air (approximately 60%) required for cooking hood exhaust make-up. The system will be designed so as not to create cold downdrafts or condensation problems. Operation will be interlocked with hood make-up.

- Program Areas (Multipurpose Room, Library, etc.)
- Health Care
    - Unit will have MERV 14 final filter section.

- Intake/Release
    - Wet cells will be 100% exhausted.
    - Where beds are provided, smoke control will be provided.

- Housing
    - Each housing unit is anticipated will have a dedicated air handler.
    - All air from wet cells will be exhausted.
    - Housing units will have smoke control.

- Public Lobby and adjacent support areas, Visiting Areas
- Central Control
    - Central control will have redundant air conditioning within the electronics equipment room.

- Administration and Staff Support Areas

Air Handling Systems with Energy Recovery

Air Handler/Energy Recovery Units will be located within indoor mechanical rooms. Design will allow for convenient access and manufacturers' recommended service clearances.

An Energy Recovery function will be contained within the air handler unit. Units will be modular configuration with double walled construction, including a desiccant type energy recovery wheel with certified performance for both sensible and latent energy recovery, supply and exhaust fans, MERV 8 filters for outdoor air and exhaust air, hoods and dampers, and an electrical package with single point connection. MERV 11 final filters will be provided for the supply air stream. Units will have hot water heating coils sized for full design heating load in the event of wheel failure. All units will have mechanical cooling including chilled water-cooling coils, and double-sloped stainless steel drain pans. Cooling coil capacity will be based on reduced load resulting from energy recovery.

All air from cells, showers, and toilet rooms will be exhausted and will flow through the heat recovery wheel.

Hot water reheat coils will be provided for individual zone control. Housing units will be configured for heat loss, and provided with independent perimeter zones configured according to exterior wall orientation and a dedicated dayroom zone.

Exhaust Systems

Provide dedicated exhaust systems include the following:

- Toilet, Janitor, Shower Rooms: General exhaust to the exterior. Multiple systems will be designed to group areas of the facility.

- Maintenance Shop: General exhaust to the exterior. System to include intake louver and motorized damper interlocked with exhaust fan, no-hold timer switch.

- Vehicle Sally Port: CO monitoring according to code and associated exhaust control and provisions for un-tempered make-up air.

- Kitchen Hood: The kitchen exhaust system will be designed, furnished, and installed in accordance with NFPA-96. The cooking exhaust will utilize an energy saving compensating hood (provided under Div. 11 kitchen equipment). Black iron, welded kitchen exhaust ductwork will be wrapped with rated zero clearance insulation to the roof to an exhaust fan UL listed for cooking exhaust.

- Dishwasher: Exhaust to the exterior. Dishwasher hood may be integral with dishwasher (provided under Div. 11 kitchen equipment). Dishwasher exhaust ductwork will be stainless steel routed to a roof mounted exhaust fan.

- Medical Isolation Cells: Cells shall be designed and controlled according to the latest *American Institute of Architects Guidelines for Design and Construction of Hospitals and Healthcare Facilities,* including microprocessor control of room pressure.

- Dust Collection Systems: The shops area shall be provided with a dust collector and associated high velocity ductwork exhaust ductwork to covey the particles to the equipment.

Smoke Control

Smoke control systems will be provided in each Occupancy smoke compartment, which includes each housing unit and the holding area of Intake/Release. The systems will be in accordance with the *International Building Code 2009*. Dedicated exhaust fans and ductwork distribution systems shall be provided for all inmate areas that are required to be provided by code to have smoke control systems. The exhaust fans shall be interlocked with the economizer operation of the associated air handler or energy recovery unit for make-up air. The fire zone shall operate at a lower pressure and the adjacent spaces shall be held at a higher pressure to manage the migration of smoke among the areas.

Miscellaneous Mechanical Systems

Ductless Split System Air Conditioners

Provide dedicated cooling split system DX unit and controls for the following spaces:
- Security electronics room. Duplex systems will be provided to provide 100% back-up.
- Owner designated computer server room.
- Elevator
- Wherever electronic equipment requires additional cooling.

Elevator (Additional requirements): Maintain minimum 2' clear of all elevator equipment. All duct penetrations shall have fire dampers. Provide elevator shaft vent with normally closed (fail open) damper. Damper shall open on fire alarm signal or power failure.

Hot Water Cabinet Unit Heaters (CUH) / Unit Heaters (UH)

Provided for the following spaces:

- Central Plant (UH)
- Vehicle Sally Port (UH) or radiant floor heating.
- Vestibules and Sally Ports with doors to the exterior. (CUH)
- Loading Dock (UH)

Perimeter Hot Water Baseboard Heat

Baseboard heat will be provided wherever exterior wall losses are not adequately handled by the central air systems. All baseboard located in inmate accessible areas will be in heavy gauge security enclosures. Baseboard heat will be installed in all Housing Pod dayrooms below glass windows facing Recreation Yards. Baseboard heat will be included in the administration areas on the exterior walls. As an alternative, radiant floor heating will be evaluated for use.

Underslab Radiant Heating

Where applicable, the heating will be provided by PEX tubing installed between 9" and 12" on center under the concrete slab. The system shall be provided with stainless steel manifolds with control valves and balancing valves to distribute the boiler water to each zone. An inline circulator and inline pump shall be provided to mix boiler supply water with return water to maintain the proper discharge water temperature to each zone. All manifolds, pumps and controls shall be centrally located. The design of the radiant heating system shall be coordinated with the concrete slab for insulation and reinforcement requirements.

HVAC General

Ductwork distribution systems shall be constructed from G-90 galvanized steel and furnished and installed in accordance with 2005 SMACNA HVAC Duct Construction Standards. Ductwork for Variable Air Volume systems from the AHU discharge to the terminal box inlet shall be constructed to 4" water gauge. All other supply, return and exhaust air ductwork shall be constructed to 2" and 3" water gauge. Reinforcement shall be in accordance with Round elbows shall be full radius. Square elbows shall be fabricated with turning vanes. Round ductwork shall be fabricated with spiral seams. Take offs shall be bell-mouth, conical or 45° fittings.

In general ductwork shall be insulated with 1-1/2" fiberglass insulation with foil faced insulation. Ductwork in mechanical rooms and in exterior applications shall be insulated with rigid fiberglass board. Any rigid board insulation in exterior applications shall be weatherproofed with EDPM covering. Where sound attenuation must be provided and typically within 20' of air handling equipment, ductwork shall be insulated with 1" acoustical duct liner. Sound attenuators shall be utilized where duct distances do not permit 20' of duct liner for attenuation.

All diffusers within the reach of inmates in secure areas and in cells will be suicide resistant, heavy-duty security type equal to Anemostat Model ASSG. Refer to security summary.

Security bars will be installed in all ductwork penetrating a interior secure perimeter and at all exterior secure perimeter walls. Security bars will be 7/8" diameter steel, on maximum 4-7/8" centers vertically and horizontally.

Smoke and fire combination dampers will be installed in accordance with code as required.

Clothes dryers in the main Laundry Area will be located in a dedicated make-up air chase. Dryer exhaust will be ducted to a lint separator (provided under laundry equipment contract) located in the Dry Area Chase and ducted through the exterior wall or roof. Dryer make-up air will be outdoor air from a roof mounted intake hood with motorized damper interlocked with dryer operation. Make-up air will be tempered through unit heaters if required by dryer manufacturer.

Dishwasher exhaust, and exhaust branches serving showers and other moist areas will be stainless steel or aluminum with aluminum grilles and dampers. Dryer exhaust will be stainless steel.

Mechanical ventilation will be provided in the Central Plant, Main Electrical Room, and any other mechanical or electrical rooms as needed to maintain a maximum space temperature of ambient plus 10 degrees F.

Direct Digital Control (DDC)

A complete programmable microprocessor base electronic DDC system will be provided for all new systems and equipment. System will include a complete operating station, web-server, programming and graphics. Location of operator microcomputer workstation and printer will be coordinated with the owner. DDC field panels and interlocking wiring shall be provided to integrate all system components. All panels will be stand-alone and fully programmable with adjustable high / low alarms for all sensors. The DDC system will programmed for a special operational function to permit the economizer cycle to be run when smoke or teargas is to be cleared. The system shall be fully commissioned to verify that all points and sequences operate per design requirements.

The Building Automation System shall include Building Control Network Units, Custom Application Controllers, Specific Application Control Units, special control units (ex: smoke exhaust and control) thermostats, sensors, and control damper & valve actuators to provide full control of boilers, chillers, cooling towers, pumps, air handlers, energy recovery units, fans, variable air volume boxes, fan coil units cabinet and unit heaters, fin tube radiation, radiant slab heating and all other Heating, Ventilating and Air Conditioning equipment.

The BAS shall fully incorporate the following integrated features, functions and services:

- Control operation of all systems.
- Alarm notification and management
- Monitoring, trending, reports, graphics
- System diagnosis and troubleshooting assistance
- Offsite monitoring and management access
- Energy and utility management
- Occupancy scheduling and setpoint adjustments
- Indoor air quality control and monitoring

PLUMBING DESIGN NARRATIVE

Plumbing Systems

General

The following new systems will be installed:

- Domestic cold, hot, re-circulated hot, and (emergency) tempered water.
- Sanitary waste, vent and indirect waste
- Dedicated kitchen waste, (to an exterior grease interceptor)
- Dedicated vehicle sally port and evidence garage waste, (to a gas /oil interceptor).
- Storm water drainage
- Natural gas distribution systems
- Compressed air systems

Codes

- The International Building Code, with Maine Amendments
- The Uniform Plumbing Code 2009, with Maine Amendments
- The International Gas Code 2009
- The International Fire Code 2009
- The International Energy Conservation Code 2009, with Maine Amendments

Seismic Requirements

Seismic bracing will be provided in accordance with the requirements of the International Building Code, 2009. Supports, hangers and bracing for required piping and equipment shall be designed by a professional engineer.

Domestic Water Systems

Domestic water supply will be supplied to the project by the Local Utility. The municipal water entrance will be located within the Central Plant. Duplex meters and duplex reduced pressure zone backflow preventers will be installed in parallel at the main entrance.

Domestic hot water will be generated via three (3) 1,500,000 btuh copper tube boilers, each sized for 50 % of the facility load of the new areas with three (3) 600 gallons storage tanks. The water heaters will be located in the Central Plant. The stored water temperature will be 145^{o}F. The supply from the three units will be piped to a common manifold header.

- Hot water for general use will be distributed and circulated at 120°F by central mixing valve assembly. Local mixing valves will be installed for showers to reduce the temperature further.

- Hot water for the kitchen and central laundry use will be distributed and circulated at 145°F.

- A booster heater will be provided by the Kitchen Equipment Vendor to supply 180°F water to the commercial dish machine.

- Hot water recirculation will be designed to maintain the temperature of hot water within 50 feet of any fixture. Separate recirculation systems will be provided for the 145°F and 120°F systems.

Refer to the discussion under Mechanical Systems for alternative energy options.

The domestic water distribution system will be designed to provide 35 psig at the upper most plumbing fixture. Final evaluation regarding a water pressure booster system will occur during the Design Development Phase, subsequent to a hydrant flow test on-site. If provided, the water pressure booster assembly shall be a triplex system with a VFD for each pump. The domestic water system will be designed for a maximum velocity of 8 fps design flow. Water distribution and horizontal storm drainage systems will be insulated with fiberglass and will include PVC fitting covers and an all-service jacket.

Motor operated valves will be installed for remote shut-off of the domestic water to each of the housing areas, and to showers.

Freeze-proof, wall hydrants will be installed which shall be spaced at 100 foot intervals around the building perimeter. Interior hose bibs will be installed for interior areas that require water for cleaning and maintenance.

An approved reduced pressure backflow preventer shall be provided on the make-up water supply to the HVAC equipment.

Sanitary Waste & Vent Systems

A complete sanitary waste and vent system serving all plumbing fixtures, kitchen equipment, and floor drains will be provided. An 8 inch sanitary sewer will exit the building by gravity and will extend to a point 10' – 0" outside the foundation wall. Continuation of the sanitary sewer will be by site utilities. Pipe and fittings below ground shall be service weight cast iron hub and spigot pipe with resilient gaskets. Pipe and fittings aboveground shall be cast iron hubless pipe with stainless steel couplings, service weight cast iron hub and spigot with resilient gaskets or DWV copper pipe with soldered joints.

A waste water sewage grinder and auger will be installed to prevent obstructions from entering the sanitary waste system.

Floor drains will be installed in the following areas: showers and changing areas, toilet rooms, housing dayrooms, kitchen, laundry, outside exercise areas, mechanical rooms, and trash holding rooms. In housing areas, a floor drain will also be installed just inside cell chases, spaced at one drain per every other cell.

- Floor drains will include trap seal primers.
- Kitchen area drains will be epoxy coated sanitary type floor sinks.
- An interior floor mounted grease interceptor shall be provided to serve the kitchen. Pot sinks, scullery sinks, floor drains and floor sinks shall be piped through the grease interceptor. The interceptor shall be constructed of steel with an acid resistant coating and have an automatic draw-off. The grease interceptor shall be complete with draw-off valve, line shut-off valve and flow control fitting.
- An exterior grease interceptor shall be located on the external side of the building. The interceptor shall be fed from a dedicated kitchen waste line and shall discharge to the sanitary sewer on site. The interceptor shall be of concrete or fiberglass construction and sized in accordance with the Uniform Plumbing Code, and the A chamber vent shall be provided and piped back into the building.

The Vehicle Sally Port and other interior vehicle storage areas will be provided with trench drains, directed to gas and oil interceptors.

Storm Drainage Systems

The roofs will be drained by means of roof drains and internal rainwater leaders. The leaders will collect below the basement slab and discharge by gravity to the side of the building to a point 10’ – 0” outside the foundation wall. Continuation of the roof drainage will be by site utilities.

Pipe and fittings below ground shall be service weight hub and spigot pipe with resilient gaskets. Pipe and fittings above ground shall be cast iron hubless pipe with stainless steel couplings or service weight hub and spigot pipe with resilient gaskets.

Emergency Showers / Eyewashes

A tempered water loop at 85°F shall be provided for emergency showers and eyewashes as located by the owner. These appliances shall be installed in medical areas, mechanical rooms, kitchen areas and other spaces where chemicals are located or stored.

Plumbing Fixtures

Fixtures accessible to staff and the public will be commercial grade vitreous china with chrome plated brass faucets/flush valves. ADA compliant, dual height drinking fountains will be provided. Fixtures accessible to inmates will be institutional grade stainless steel with concealed brass faucets/flush valves. Faucet, flush, and shower valve operation will be pneumatic push button style.

- Holding cells and cells in the housing areas will be equipped with stainless combination type fixtures. Each group of fixtures will have isolation valves.
- All inmate toilets will be equipped with overflow protection. Toilets in the segregation housing areas within the main facility will have programmed frequency flush control.
- One intake area cell will include have flushing type floor drains.
- Showers accessible to inmates will be security type. Deluge showers shall be provided in the medical area and inmate processing areas.
- Mop sinks will be located in all janitor rooms.

Natural Gas Piping Distribution Systems

Natural gas will be provided for heating boilers, generating domestic hot water, kitchen equipment. Gas will be low pressure, will be fed from an existing utility distribution system in the Street and will be brought to the building by the Gas Utility Company. High pressure gas will be utilized if available by the utility. Gas pressure regulators will then be provided at all fire fired appliances. Regulators shall be vented through the roof as required.

Natural gas piping up to 2 ½ inches shall be Schedule 40 black steel with malleable iron threaded fittings. Piping 3 inches and larger shall be Schedule 40 black steel with welded joints.

For pipe sizes 2 inches and smaller, valves shall be a ball valve with screwed end, T-Handle. For pipe sizes 2 ½ inches and larger, valve shall be iron body lubricated plug valve with flanged ends.

Insulation

Insulation will be provided on all hot and cold water piping, tempered water, horizontal roof drainage, roof drain bodies and all piping at handicapped accessible fixtures.

Insulation shall be four pound density fiberglass with factory applied white fire retardant, reinforced vapor barrier jacket. Insulation shall be thickness shall be in accordance with applicable codes and be continuous through sleeves. Pipe fittings and valves shall be provided with pre-molded PVC covers with fiberglass inserts.

Compressed Air Systems

A centrifugal air compressor with refrigerated air dryer and oil filers shall be provided for the laundry. The compressed air piping system shall be type L copper with ball valves for isolation and quick connect devices for equipment.

FIRE PROTECTION DESIGN NARRATIVE

System Design

Provided full hydraulically designed systems, including drawings and calculations per the requirements of NFPA 13 and the authorities having jurisdiction. Designs are required to bear the original wet stamp and signature of a Registered Professional Fire Protection Engineer.

Design Criteria

- Local and state building codes and health department codes:
- Building Code: International Building Code 2009.
- Fire Safety Code:
- Main State Elevator Code:
- Design Standards
- National Fire Protection Association [NFPA] standards 13, 14 and 20 as adopted by the state building codes.
- Site water piping: NFPA-24.
- Combined Standpipes – Design Pressure: 100 psig at top of standpipe at the design flow (500 gpm at top outlet of most remote riser and 250 gpm at the top outlet of each additional riser up to a maximum 1000 gpm for sprinklered buildings). Note: Design pressure is achieved manually through the fire department connection and shall be reflected in the hydraulic calculations. Inlet pressure shall be in accordance with local fire department standards.

Seismic Requirements

Seismic bracing will be provided in accordance with the requirements of the International Building Code, 2009 and NFPA 13.

Supports, hangers and bracing for required piping and equipment shall be designed by a professional engineer. Submittals shall include shop drawings calculations and cut sheets for all seismic restraints.

Water Service

New water service will be provided. The water entrance will be located at the Main Mechanical Room. The water service shall be provided with backflow preventer, wet or dry pipe alarm valve, strainers, retard chamber, pressure switches, pressure gauges, check valve assemblies, water motor / electric alarm, main drain valve, alarm test shut off, main

drain piping, underground supply piping and fire department connection piping.

Fire Pump

Refer to the Site Design Narrative. Further analysis is required to determine if fire pump for the building may be required. A fire pump may not be needed if there is sufficient pressure available (dependent upon hydrant flow test results) and the distribution system is properly designed. A hydrant flow test shall be performed prior to the design development drawings to confirm the available system pressure (static and residual) as well as the available water flow in GPM.

Sprinkler Systems

Provided complete wet-pipe sprinkler coverage throughout the facility. Sprinkler systems to be zoned by floor and program area using flow control valve assemblies, (FCVA). Systems to be hydraulically designed for Light and Ordinary Hazard densities, per NFPA 13 requirements. A maximum of 52,000 square feet shall be allowed for a single zone.

1. The main sprinkler service header shall service wet, dry and preaction alarm valves. In addition a dedicated service shall be routed to deluge valves.

2. The wet alarm valves serve the automatic sprinkler and standpipe systems for the common, residential, office, labs, cell areas and storage areas of the building. In addition, the basement, intermediate and penthouse mechanical spaces are designed on wet pipe systems.

3. The dry alarm valves will serve sprinklers in the loading dock, parking garage, unheated concealed spaces and unheated attics.

4. Clean agent fire extinguishing systems shall provide initial coverage for computer rooms, electrical service vaults, security rooms, control rooms, vault storage, records rooms, escalator openings and , flammable storage areas.

5. Pre-action Suppression Systems will provide supplemental coverage to, computer rooms, electrical service vaults, security rooms, control rooms, vault storage, records rooms escalator openings and , flammable storage areas.

High Pile and Rack Storage

Sprinkler systems will be required in storage areas which shall be designed and installed in accordance to NFPA 13 Chapters 8 & 12. Verify the types and categories of storage items and pallets utilized with owner to determine sprinkler requirements.

Fire Sprinkler Piping Systems

Piping 2-1/2" and larger shall be schedule 10 steel pipe with grooved type fittings. Schedule 10 pipe with threaded fitting shall be utilized for piping sizes 2" and smaller. Piping 2-1/2" and larger shall be supported with clevis hangers while piping 2" and smaller shall be supported with band hangers. Dry sprinkler piping shall be galvanized steel. Coordinate with the local fire department for either 4" Storz or 2-1/2" Siamese connection. Provide post indicating valves as required as conditions require.

Clean-Agent Fire-Extinguishing Systems

Clean-Agent systems shall be an engineered system in accordance with NFPA 2001 for total flooding of the hazard area including the room cavity above the ceiling, below the ceiling, and below the raised floor. System includes separate zones above and below the ceiling and beneath any raised floors. If smoke is detected below the raised floor, extinguishing agent shall be discharged in the underfloor zone only. If smoke is detected below the ceiling, extinguishing agent shall be discharged in zones above and below the ceiling and below the floor. If smoke is detected above the ceiling, extinguishing agent shall be discharged in the zone above the ceiling only. Systems shall be Sapphire, Inergen or FM 200. The clean-agent system shall be installed with a Pre-Action fire protection system for redundancy. Clean-Agent Systems and Pre-Action systems shall be installed for all computer server and security control rooms. All systems shall utilize two stages of detection.

Occupancies and Hazard Classifications

A. Common and general space [All Buildings]
    1. Sprinklers: Shell Space, administration, office, cafeteria areas, conference rooms, assembly areas, lobbies, classrooms, meeting rooms, toilet cores, and common areas
        a. Classification: Light Hazard
            1) Design Pressure: To meet end head requirements
            2) Design Density: 0.1 gpm per square foot
            3) Area of Operation: 1500 square feet
            4) Hose allowance: 100 gpm
            5) Head spacing: 120 square feet per head normal up to 225 sf
            6) Heads: concealed or recessed various temperature rated at 155-165°F.
    2. Inmate Areas:
        a. Classification: Light Hazard
            1) Design Pressure: To meet end head requirements
            2) Design Density: .1 gpm per square foot or room design method
            3) Area of Operation: 1500 square feet or room design method

4) Hose allowance: 100 gpm
5) Head spacing: 130 square feet per head maximum
6) Heads: Quick response institutional sprinkler heads shall be installed in all cells, corridor and inmate spaces.
7) A complete automatic wet pipe sprinkler protection throughout each floor including dwelling units, public restrooms, closets electrical rooms.
8) The L areas shall be zoned by floor and by wing.
9) Sprinklers for room with ceiling obstructions such as protruding light fixtures or soffits shall be fitted with extra sprinkler heads to accommodate obstructions.

3. Sprinklers: Mechanical Spaces, concealed spaces, and small storage rooms, kitchens, loading dock and similar spaces:
   a. Classification: Ordinary Hazard Group 1
      1) Design Pressure: To meet end head requirements
      2) Design Density: .20 gpm per square foot
      3) Area of Operation: 1500 square feet [Dry System Area 1950 square feet]
      4) Hose allowance: 250 gpm
      5) Head spacing: 130 square feet per head maximum
      6) Heads: upright brass, 212°F with head guards
4. Sprinklers: In Rack Storage Areas:
   a. Classification: Ordinary Hazard Group 1
      1) Design Pressure: To meet end head requirements
      2) Design Density: .20 gpm per square foot
      3) Area of Operation: 3000 square feet
      4) Hose allowance: 100gpm
      5) Head spacing: per system requirements
      6) Heads: upright brass, 212°F with head guards
      7) Verify storage and pallet material with owner, design sprinkler system to meet system requirements.

Sprinkler Heads

Provide quick response institutional style heads in secure spaces and secure ceilings. Fully concealed heads will be provided in commercial ceilings within the facility secure perimeter. Provide quick response commercial upright, recessed and concealed heads in non-secure spaces.

Sprinkler Head Summary				
Area	Finish	Type	Link	Orientation
Administration, Office, General	White	Quick Response	Fusible Link	Fully Concealed Pendent
Mechanical Room	Brass	Quick Response	Fusible Link	Upright
Loading Dock	Brass	Quick Response	Fusible Link with Head Guard	Pendant or sidewall
Cafeteria Area	White	Quick Response	Fusible Link	Concealed Pendent
Detention Area	Chrome	Quick Response	Institutional	Pendent or sidewall
Kitchen	White	Quick Response	Fusible Link	Fully Concealed Pendent
Storage	Brass	Quick Response	Fusible Link with head guards	Pendent Or Upright
Classrooms	White	Quick Response	Fusible Link	Fully Concealed Pendent
Conference Rooms	White	Quick Response	Fusible Link	Fully Concealed Pendent
Rack Storage Areas	Brass	Quick Response	Fusible with Head Guard	Pendent Or Upright

ELECTRICAL DESIGN NARRATIVE

Power

Three phase electrical will be extended by CMP from a new utility riser pole to the proposed facility location. The adequacy of that line will be reviewed with Central Maine Power as facility loads are developed. The overhead circuit will be brought to a riser pole, then continue underground in a concrete encased duct bank to an outdoor pad mounted transformer located near the main electrical room. This transformer will reduce the distribution voltage to a utilization voltage of 480/277 volts, 3 phase and feed a main distribution switchboard in the main electrical room within the facility. CMP metering equipment will be located at or in the vicinity of the pad-mounted transformer.

The main electrical room will house the service entrance rated main distribution switchboard, lighting panelboards, dry type transformers and receptacle panelboards to serve the adjacent areas. The main distribution switchboard will be 480/277V, 4000 amp, three phase, four wire switchboard with a 100% rated insulated case main circuit breaker. The main distribution switchboard will feed transfer switches, large HVAC equipment and distribution panelboards in remote electrical rooms throughout the facility. The distribution panelboards will feed HVAC equipment, lighting and receptacle panelboards to serve local lighting, receptacle and equipment loads.

Two new diesel generators will be provided to provide backup to the entire facility electrical distribution system with the exception of air conditioning loads. These units will be located outdoors in a freestanding, heated and sound attenuated enclosure. The generators will have an underground fuel storage tank, which will be sized for 96-hour operation between refueling. Inside the generator enclosure will be day tanks for each generator. The generators will feed into a paralleling switchgear line up located in the main emergency electrical room within the facility. The paralleling switchgear will feed multiple automatic transfer switches and distribution panels to allow life safety circuits to be independent of non-life safety & security related circuits as required by code. Preliminary size of generators is estimated to be 1500 KW. Each generator will is sized for 60% of the facility load so that in the event of a single generator failure the facility could still operate by shedding of some unnecessary loads.

A central Uninterrupted Power System (UPS) will be provided to feed security electronics equipment, telecommunications systems and other sensitive electronic equipment that require an uninterrupted power source during the transition from normal to emergency power sources. The UPS will be sized to have a battery run time of 20 minutes and will be fed from the standby generator. The preliminary UPS size will be between 75 and 100 KVA.

All wiring within the secure perimeter will be in EMT or Rigid Steel conduit. All conduits in inmate areas will be concealed at all locations that concealment is possible. Type MC cable will be allowed in the administration areas only when installed within wall cavities and above ceilings. Conduits installed under (not in) the slab will be in PVC conduit. All wiring shall be 600 volt copper with THHN/THWN insulation for feeders and branch circuits and type XHHW insulation will be provided for service entrance wiring.

Device plates in areas that inmates will have limited supervision will be detention grade type with tamper resistant screws. Areas that inmates have access to, but have higher levels of supervision will be thermoplastic with tamper resistant screws.

Lighting

Interior lighting will primarily be provided by fluorescent lamps. Fixture types will be selected to be compatible with the area of use. Security fixtures will be installed in inmate accessible areas. Lighting in inmate cells will be provided with low wattage LED night-lights that will be left on during normal operation. Lighting levels will be provided in accordance with Illuminating Engineering Society published recommendations.

Site lighting will be provided by LED and metal halide fixtures, which may be building, or pole mounted. Building mounted fixtures will be wall wash type. Site lighting fixtures will be provided with full cutoff distribution to reduce the effects of light pollution Quartz halogen lamps will be used to provide illumination during restrike time of any metal halide lamps used. Site lighting shall be automatically controlled via time clock and photocells.

A combination of local manual controls, automatic occupancy controls and control through the security system officer station control interfaces will provided to control the building lighting.

Fire Alarm

A complete analog addressable fire alarm system will be designed for this facility. A master fire alarm control panel will be located in Central Control. Fire alarm initiation and notification devices will be located throughout the facility where required by NFPA and ADA. Duct smoke detection and automatic HVAC equipment shutoff will be provided. Photoelectric smoke detectors will be provided in all dayrooms to initiate the smoke evacuation sequence when smoke is detected. Duct smoke detectors, located in cell chase areas, will be installed in inmate cell exhaust to provide supervisory signals to central control. Integration with the sprinkler system, smoke dampers, fire dampers, door holders, etc., will be coordinated through the Fire Alarm control panel. Additional annunciator equipment and other devices will be located as required by local authority having jurisdiction (AHJ). Fire alarm system will have the ability to send alarm signals to

the security electronics to allow reporting of alarm conditions to the security system. Reporting of alarms to security system will be in addition to occupant notification required by NFPA.

Telephone and Data

The telephone service will enter the facility in an underground duct bank originating from a riser pole, in a similar fashion to the electrical service to a main telecommunications room. Remote intermediate distribution frames will be located in closets where needed to comply with the distance limitations of voice/data horizontal. Telecommunications backbone shall consist of a 200 pair copper for telephone and a 24 strand single mode fiber to the main telecommunications room main distribution frame (MDF). From the MDF to the remote telecommunications rooms the back bone shall consist of a 12 strand single mode fiber optic cable and a 100 pair copper cable. All horizontal cabling from the distribution closets to outlets will be plenum rated category six wiring installed in conduit or cable tray.

Cable TV

Cable TV service will enter the facility in an underground duct bank originating from a riser pole, in a similar fashion to the electrical service to the main telecommunications room. CATV jacks and associated conduits will be provided where dictated by program of the facility. CATV wiring will be RG-59 cable installed in conduit or cable tray

DESIGN FOR ENERGY AND ENVIRONMENT

The State of Maine is encouraged to consider the benefits of constructing this facility to a high standard for energy efficiency and for low environmental impact. SMRT has the expertise to guide MDOC in the selection and design/engineering of sustainable design features which will provide long term benefits to those who use the new prison, to the operating budget of the facility due to energy savings, and to the environment.

Whether MDOC decides to follow the Green Building Council's LEED program, another program, or to simply select those sustainable design features which provide a specific benefit, SMRT has the professionals to help. SMRT practices to provide designs that are "Green for a Reason", saving environmental resources and money.

TAB 9

CONSTRUCTION PROJECT COSTS

Following is a cost estimate for the construction cost of the project based upon the start of design in mid - 2014, the start of construction in mid – 2015, and a two year construction period. The total construction cost includes an estimated inflation rate based upon current trends in the region, calculated to the mid-point of construction. Thus, the total shown identifies the sum required to construct the project with a project start date of mid – 2014.

The estimate assumes a construction manager-at-risk approach to procurement. Thus, it includes a 2.5% CM fee and a 2% CM contingency. Typically, a CM at risk will price the project but include a contingency for disputes and scope refinement as the project proceeds. This fee may be greater if the state requires that a GMP (guaranteed maximum price) be provided before design is completed. Also, depending upon the contract negotiated, this balance of this fee will either be returned to the state, or a portion of it will be returned to the state, presumably to allow the inclusion of important facility features postponed to assure compliance with the project budget.

Total Project Cost

The total project cost must also include expenses to be paid by the state to others but the construction manager. Services required not paid by the CM include design professionals, testing agents, commissioning agents, etc. Fees paid will include permitting fees, utility connection fees (in some cases), legal expenses, printing costs, etc. An owner's contingency of 5% is also required to cover the cost of hidden site conditions which may add cost to the construction, changes required as the project needs are refined, etc. A total of 17% of the construction cost is recommended as the budget for these expenses. This expense is typically referred to as "soft costs", as compared to constructed improvements to property.

Thus, the following budget is recommended for this project based upon the current program and site option A:

New Construction	$146,391,000
Renovations to Convert Existing to Warehouse	1,390,000
Soft Costs	25,123,000
River Road Turning Lane	290,000
TOTAL RECOMMENDED PROJECT BUDGET	$173,194,000

Other anticipated costs include hazardous materials removal, wetland mitigation fees (should fees be chosen as the mitigation method). These have been assumed to be covered by contingencies in this budget recommendation.

Feasibility Study and Concept Design for the Maine Correctional Center

Maine Department of Corrections,
Windham, Maine

Budget Cost Estimate

Prepared for:-
SMRT
Portland, ME

Prepared by:-
D G Jones International, Inc.
3 Baldwin Green Common, Suite 202,
Woburn, MA 01801-1868
email : boston@dgjonesboston.com
Tel: 781-932-3131
Fax: 781-932-3199

January 31, 2014

Grand Summary - Site Option 1

Cost Locations	GFA	*Construction Cost* Cost ($)	$/sf	*Construction Cost Incl. Contingences* Cost ($)	$/sf
PUBLIC LOBBY	2,780	$806,030	$289.95	$1,091,735	$392.72
ADMINISTRATION	6,308	$1,544,300	$244.81	$2,091,692	$331.58
STAFF SUPPORT	9,249	$2,400,118	$259.51	$3,250,864	$351.50
SECURITY OPERATIONS	6,415	$1,707,508	$266.17	$2,312,751	$360.51
RECEPTION & DISCHARGE	7,912	$1,937,030	$244.82	$2,623,630	$331.60
HOUSING	153,163	$39,116,583	$255.39	$52,981,839	$345.92
HEALTH CARE	53,620	$16,544,368	$308.55	$22,408,681	$417.91
VISITATION	5,881	$1,739,413	$295.79	$2,355,964	$400.63
PROGRAMS AND SERVICES	32,076	$9,115,177	$284.17	$12,346,141	$384.90
INDUSTRIES	37,422	$6,757,300	$180.57	$9,152,491	$244.58
FOOD SERVICE & LAUNDRY	12,403	$4,066,807	$327.90	$5,508,326	$444.12
COMMISSARY	374	$71,793	$191.85	$97,242	$259.85
RENOVATE EXISTING TO BE WAREHOUSE		Excluded		Excluded	
MAINTENANCE/CENTRAL PLANT	17,107	$7,079,774	$413.85	$9,589,268	$560.54
SITE / PARKING	428	$7,561,366		$10,491,566	
CORRDOR CONNECTOR	26,082	$7,448,643	$285.59	$10,088,886	$386.81
Sub-Total Construction	**371,220**	**$107,896,212**	**$290.65**	**$146,391,075**	**$394.35**
General Requirements/General Conditions		**$10,078,362**	**$27.15**	**Included above**	
CM Payment & Performance Bond		**$1,212,250**	**$3.27**	**Included above**	
Builders Risk Insurance		**By Owner**		**By Owner**	
CM Gen'l & Excess liability Insurance		**$1,515,313**	**$4.08**	**Included above**	
CM Fee	2.50%	**$3,017,553**	**$8.13**	**Included above**	
Permit Fee	1.00%	**$1,237,197**	**$3.33**	**Included above**	
Escalation to mid-point of construction from 1Q2014 to 1Q2015	4.00%	**$4,998,274**	**$13.46**	**Included above**	
Construction Cost		**$129,955,160**	**$350.08**	**$146,391,075**	**$394.35**
Escalation to mid-point of construction from 1Q2015 to 1Q2016	5.00%	**$6,497,757**	**$17.50**	**Included above**	
Estimating Contingency	5.00%	**$6,822,646**	**$18.38**	**Included above**	
Construction Contingency (for CM)	2.00%	**$2,865,512**	**$7.72**	**Included above**	
Campus Infrastructure Upgrade "Sewer"		**$250,000**	**$0.67**	**Included above**	
Construction Contingency (Owners)		**By Owner**		**By Owner**	
Total Construction Cost		**$146,391,075**	**$394.35**	**$146,391,075**	**$394.35**

Grand Summary - Site Option 2

Cost Locations	GFA	*Construction Cost* Cost ($)	$/sf	*Construction Cost Incl. Contingences* Cost ($)	$/sf
PUBLIC LOBBY	2,780	$806,030	$289.95	$1,091,648	$392.69
ADMINISTRATION	6,308	$1,544,300	$244.81	$2,091,527	$331.55
STAFF SUPPORT	9,249	$2,400,118	$259.51	$3,250,605	$351.47
SECURITY OPERATIONS	6,415	$1,707,508	$266.17	$2,312,566	$360.48
RECEPTION & DISCHARGE	7,912	$1,937,030	$244.82	$2,623,420	$331.57
HOUSING	153,163	$39,116,583	$255.39	$52,977,622	$345.89
HEALTH CARE	53,620	$16,544,368	$308.55	$22,406,899	$417.88
VISITATION	5,881	$1,739,413	$295.79	$2,355,778	$400.60
PROGRAMS AND SERVICES	32,076	$9,115,177	$284.17	$12,345,159	$384.87
INDUSTRIES	37,422	$6,757,300	$180.57	$9,151,763	$244.56
FOOD SERVICE & LAUNDRY	12,403	$4,066,807	$327.90	$5,507,889	$444.09
COMMISSARY	374	$71,793	$191.85	$97,233	$259.83
RENOVATE EXISTING TO BE WAREHOUSE		Excluded		Excluded	
MAINTENANCE/CENTRAL PLANT	17,107	$7,079,774	$413.85	$9,588,506	$560.50
SITE / PARKING	428	$10,599,455		$14,605,392	
CORRDOR CONNECTOR	26,082	$7,448,643	$285.59	$10,088,085	$386.78
Sub-Total Construction	**371,220**	**$110,934,301**	**$298.84**	**$150,494,091**	**$405.40**
General Requirements/General Conditions		**$10,354,372**	**$27.89**	**Included above**	
CM Payment & Performance Bond		**$1,245,449**	**$3 36**	**Included above**	
Builders Risk Insurance		**By Owner**		**By Owner**	
CM Gen'l & Excess liability Insurance		**$1,556,811**	**$4.19**	**Included above**	
CM Fee	2 50%	**$3,102,273**	**$8 36**	**Included above**	
Permit Fee	1 00%	**$1,271,932**	**$3.43**	**Included above**	
Escalation to mid-point of construction from 1Q2014 to 1Q2015	4 00%	**$5,138,606**	**$13.84**	**Included above**	
Construction Cost		**$133,603,744**	**$359.90**	**$150,494,091**	**$405.40**
Escalation to mid-point of construction from 1Q2015 to 1Q2016	5 00%	**$6,680,187**	**$18.00**	**Included above**	
Estimating Contingency	5 00%	**$7,014,197**	**$18.89**	**Included above**	
Construction Contingency (for CM)	2 00%	**$2,945,963**	**$7 94**	**Included above**	
Campus Infrastructure Upgrade "Sewer"		**$250,000**	**$0.67**	**Included above**	
Construction Contingency (Owners)		**By Owner**		**By Owner**	
Total Construction Cost		**$150,494,091**	**$405.40**	**$150,494,091**	**$405.40**

Grand Summary - Site Option 3

Cost Locations	GFA	*Construction Cost* Cost ($)	$/sf	*Construction Cost Incl. Contingences* Cost ($)	$/sf
PUBLIC LOBBY	2,780	$833,829	$299.95	$1,128,934	$406.10
ADMINISTRATION	6,308	$1,607,383	$254.81	$2,176,260	$344.98
STAFF SUPPORT	9,249	$2,492,604	$269.51	$3,374,776	$364.90
SECURITY OPERATIONS	6,415	$1,771,660	$276.17	$2,398,678	$373.91
RECEPTION & DISCHARGE	7,912	$2,016,151	$254.82	$2,729,697	$345.00
HOUSING	153,163	$40,035,560	$261.39	$54,204,766	$353.90
HEALTH CARE	53,620	$17,029,746	$317.60	$23,056,836	$430.00
VISITATION	5,881	$1,798,219	$305.79	$2,434,637	$414.01
PROGRAMS AND SERVICES	32,076	$9,435,937	$294.17	$12,775,462	$398.29
INDUSTRIES	37,422	$7,131,520	$190.57	$9,655,476	$258.02
FOOD SERVICE & LAUNDRY	12,403	$4,190,835	$337.90	$5,674,036	$457.48
COMMISSARY	374	$75,535	$201.85	$102,268	$273.28
RENOVATE EXISTING TO BE WAREHOUSE		Excluded		Excluded	
MAINTENANCE/CENTRAL PLANT	17,107	$7,250,846	$423.85	$9,817,032	$573.85
SITE / PARKING	428	$11,723,151		$16,122,156	
CORRDOR CONNECTOR	26,082	$7,579,053	$290.59	$10,261,397	$393.43
Sub-Total Construction	**371,220**	**$114,972,030**	**$309.71**	**$155,912,409**	**$420.00**
General Requirements/General Conditions		**$10,698,623**	**$28.82**	**Included above**	
CM Payment & Performance Bond		**$1,286,857**	**$3.47**	**Included above**	
Builders Risk Insurance		**By Owner**		**By Owner**	
CM Gen'l & Excess liability Insurance		**$1,608,571**	**$4.33**	**Included above**	
CM Fee	2 50%	**$3,214,152**	**$8.66**	**Included above**	
Permit Fee	1 00%	**$1,317,802**	**$3 55**	**Included above**	
Escalation to mid-point of construction from 1Q2014 to 1Q2015	4 00%	**$5,323,921**	**$14.34**	**Included above**	
Construction Cost		**$138,421,955**	**$372.88**	**$155,912,409**	**$420.00**
Escalation to mid-point of construction from 1Q2015 to 1Q2016	5 00%	**$6,921,097**	**$18.64**	**Included above**	
Estimating Contingency	5 00%	**$7,267,152**	**$19.58**	**Included above**	
Construction Contingency (for CM)	2 00%	**$3,052,205**	**$8 22**	**Included above**	
Campus Infrastructure Upgrade "Sewer"		**$250,000**	**$0.67**	**Included above**	
Construction Contingency (Owners)		**By Owner**		**By Owner**	
Total Construction Cost		**$155,912,409**	**$420.00**	**$155,912,409**	**$420.00**

SUMMARY - SITE OPTION 1

GROSS FLOOR AREA (in square feet) =	CONSOLIDATED 371 220			PUBLIC LOBBY 2 780		ADMINISTRATION 6 308		STAFF SUPPORT 9 249		SECURITY OPERATIONS 6 415		RECEPTION & DISCHARGE 7 912		HOUSING 153 163		HEALTH CARE 53 620		VISITATION 5 881		PROGRAMS AND SERVICES 32 076		INDUSTRIES 37 422		FOOD SERVICE & LAUNDRY 12 403		COMMISSARY 374		MAINTENANCE CEN'I RAL PLANT 17 107		CORRIDOR CONNECTOR 26 082		SITE / PARKING 428
Element Name				Cost $	$/sf	Cost $	$/sf	Cost $	$/sf	Cost $	$/sf	Cost $	$/sf	Cost $	$/sf	Cost $	$/sf	Cost $	$/sf	Cost $	$/sf	Cost $	$/sf	Cost $	$/sf	Cost $	$/sf	Cost $	$/sf	Cost $	$/sf	Cost $
A Substructure	6 997 898	18.85	6.49%	60 035	21.60	166 437	26.38	247 211	26.73	151 500	23.62	184 357	23.30	2 291 717	14.96	1 211 504	22.59	155 631	26.47	677 017	21.11	722 392	19.30	299 015	24.11	2 994	8.00	393 558	23.01	434 529	16.66	0
Foundations	6 997 898	18.85	6. 9%	60 035	21.60	166 37	26.38	2 7 211	26.73	151 500	23.62	18 357	23.30	2 291 717	1 .96	1 211 50	22.59	155 631	26. 7	677 017	21.11	722 392	19.30	299 015	2 .11	2 99	8.00	393 558	23.01	3 529	16.66	0
Basement Construction	0	0.00	0.00%	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
B Shell	23 844 317	64.23	22.10%	197 390	71.01	561 223	88.97	850 746	91.99	457 275	71.28	523 766	66.20	9 994 353	65.25	3 779 493	70.49	487 234	82.85	1 696 069	52.88	2 097 832	56.06	898 233	72.42	16 728	44.70	178 921	10.46	2 105 054	80.71	0
Superstructure	12 38 12	33.36	11. 8%	87 230	31.38	198 65	31. 9	291 032	31. 7	198 178	30.89	2 3 331	30.75	5 918 555	38.6	1 7 5 11	32.55	18 030	31.29	963 132	30.03	1 125 337	30.07	381 96	30.76	11 237	30.03	79 880	.67	956 622	36.68	0
Exterior Enclosure	6 998 1 2	18.85	6. 9%	6 121	23.07	258 083	0.91	07 238	.03	158 102	2 .6	158 102	19.98	2 99 528	16.32	1 207 27	22.52	208 0 7	35.38	262 239	8.18	20 28	11.23	32 555	26.17	0	0.00	99 0 0	5.79	931 527	35.72	0
Roofing	62 050	12.02	.1 %	6 039	16.56	10 86	16.56	152 76	16. 9	100 995	15.7	122 333	15. 6	1 576 270	10.29	826 807	15. 2	95 158	16.18	70 698	1 .67	552 210	1 .76	192 182	15.50	5 91	1 .67	0	0.00	216 905	8.32	0
C Interiors	15 511 426	41.79	14.38%	171 283	61.61	344 385	54.59	513 500	55.52	417 929	65.15	573 844	72.53	5 448 979	35.58	2 027 039	37.80	564 033	95.91	2 264 595	70.60	1 374 577	36.73	676 488	54.54	25 099	67.07	230 911	13.50	878 764	33.69	0
Interior Construction	8 369 37	22.55	7.76%	95 27	3 .27	191 2	30.35	301 689	32.62	26 3 0	1.21	321 31	0.63	3 181 317	20.77	1 07 736	20.0	302 895	51.51	1 05 763	32.88	719 698	19.23	310 97	25.03	11 690	31.2	12 318	7.27	15 28	15.92	0
Stairs	210 586	0.57	0.20%	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	19 005	1.27	16 582	0.31	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Interior Finishes	6 931 65	18.67	6. 2%	76 009	27.3	152 9 3	2 .2	211 811	22.90	153 589	23.9	252 1	31.90	2 073 656	13.5	935 721	17. 5	261 138	. 1	1 209 832	37.72	65 879	17.50	365 991	29.51	13 09	35.83	106 592	6.23	63 80	17.77	0
D Services	39 110 130	105.36	36.25%	375 019	134.90	455 483	72.20	750 350	81.13	571 409	89.07	643 359	81.31	13 802 509	90.12	6 519 880	121.59	510 971	86.89	2 492 779	77.71	2 546 950	68.06	1 026 914	82.80	26 789	71.59	5 357 420	313.17	4 030 296	154.52	0
Conveying Systems	0	0.00	0.00%	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Plumbing	7 713 903	20.78	7.15%	96 618	3 .76	99 78	15.77	216 013	23.36	1 3 107	22.31	106 1 0	13. 1	2 706 1	17.67	2 6 0 0 6	9.2	98 526	16.75	281 506	8.78	225 866	6.0	213 10	17.18	2 135	5.70	127 992	7. 8	757 228	29.03	0
Heating, Ventilating and Air Conditioning (HVA(	16 121 777	3. 3	1 .9 %	86 55	31.1	175 793	27.87	263 732	28.52	221 88	3 .53	272 5 7	3 . 5	5 200 363	33.95	1 822 382	33.99	20 189	3 .72	1 093 735	3 .10	1 15 200	30.8	2 222	3 .20	12 760	3 .10	3 501 78	20 .68	1 688 333	6 .73	0
Fire Protection Systems	1 578 3 2	.25	1. 6%	11 907	.28	2 177	3.83	35 5	3.83	2 586	3.83	33 891	.28	656 057	.28	229 678	.28	25 189	.28	137 39	.28	160 293	.28	53 126	.28	1 603	.28	73 277	.28	111 720	.28	0
Electrical Systems	13 696 108	36.89	12.69%	179 9 1	6 .73	156 036	2 .7	235 160	25. 3	182 229	28. 1	230 782	29.17	5 239 9 5	3 .21	1 827 77	3 .09	183 066	31.13	980 1	30.56	1 006 591	26.90	336 61	27.13	10 292	27.50	1 65 673	96.72	1 73 015	56. 8	0
E Equipment and Furnishings	1 429 087	3.85	1.32%	2 302	0.83	16 772	2.66	38 312	4.14	109 395	17.05	11 704	1.48	4 233	0.03	53 004	0.99	13 507	2.30	15 651	0.49	5 905	0.16	1 158 120	93.38	183	0.49	0	0.00	0	0.00	0
Equipment	1 363 883	3.67	1.26%	0	0.00	5 905	0.9	21 305	2.30	103 596	16.15	5 905	0.75	0	0.00	51 268	0.96	5 905	1.00	5 905	0.18	5 905	0.16	1 158 120	93.38	69	0.18	0	0.00	0	0.00	0
Furnishings	65 20	0.18	0.06%	2 302	0.83	10 867	1.72	17 007	1.8	5 799	0.90	5 799	0.73	233	0.03	1 736	0.03	7 602	1.29	9 7 6	0.30	0	0.00	0	0.00	11	0.30	0	0.00	0	0.00	0
F Special Construction and Demolition	10 866 424	29.27	10.07%	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	7 227 557	47.19	2 841 177	52.99	1 692	0.29	0	0.00	0	0.00	0	0.00	0	0.00	795 998	46.53	0	0.00	0
Special Construction	10 86 732	29.27	10.07%	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	7 227 557	7.19	2 8 1 177	52.99	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	795 998	6.53	0	0.00	0
Selective Demolition	1 692	0.00	0.00%	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1 692	0.29	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
G Building Sitework	10 136 930	27.31	9.40%	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	347 236	2.27	112 271	2.09	6 345	1.08	1 969 065	61.39	9 644	0.26	8 037	0.65	0	0.00	122 966	7.19	0	0.00	7 561 366
Site Preparation	3 977 623	10.72	3.69%	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	20 812	0.1	5 330	0.10	0	0.00	1 5 0	12.92	2 030	0.05	1 692	0.1	0	0.00	25 888	1.51	0	0.00	3 507 332
Site Improvements	3 116 053	8.39	2.89%	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	326 2	2.13	106 9 1	1.99	6 3 5	1.08	1 55 525	8. 6	7 61	0.20	6 3 5	0.51	0	0.00	97 079	5.67	0	0.00	1 010 780
Site Civil/Mechanical Utilities	1 176 536	3.17	1.09%	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1 176 536
Site Electrical Utilities	1 776 26	.78	1.65%	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1 776 26
Other Site Construction	90 5	0.2	0.08%	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	90 5
Sub-Total Construction	107 896 212	290.65	100.00 %	806 030	289.95	1 544 300	244.81	2 400 118	259.51	1 707 508	266.17	1 937 030	244.82	39 116 583	255.39	16 544 368	308.55	1 739 413	295.79	9 115 177	284.17	6 757 300	180.57	4 066 807	327.90	71 793	191.85	7 079 774	413.85	7 448 643	285.59	7 561 366
General Requirements/General Conditions	10 078 362	27.15		75 290	27.08	1 250	22.87	22 190	2 .2	159 95	2 .86	180 93	22.87	3 653 799	23.86	1 5 5 375	28.82	162 75	27.63	851 30	26.5	631 185	16.87	379 872	30.63	6 706	17.92	661 307	38.66	695 762	26.68	706 292
CM Payment & Performance Bond	1 212 250	3.27		9 056	3.26	17 351	2.75	26 966	2.92	19 18	2.99	21 763	2.75	39 88	2.87	185 882	3. 7	19 5 3	3.32	102 12	3.19	75 921	2.03	5 692	3.68	807	2.16	79 5	.65	83 688	3.21	8 95
Builders Risk Insurance	By Owner			By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner
CM Gen'l & Excess liability Insurance	1 515 313	.08		11 320	.07	21 688	3.	33 708	3.6	23 981	3.7	27 20	3.	5 9 360	3.59	232 352	.33	2 29	.15	128 015	3.99	9 901	2.5	57 115	.61	1 008	2.69	99 30	5.81	10 610	.01	106 193
CM Fee 2.50%	3 017 553	8.13		22 5 2	8.11	3 190	6.85	67 125	7.26	7 75	7.	5 173	6.85	1 093 981	7.1	62 699	8.63	8 6 6	8.27	25 926	7.95	188 983	5.05	113 737	9.17	2 008	5.37	198 001	11.57	208 318	7.99	211 70
Permit Fee 1.00%	1 237 197	3.33		9 2 2	3.32	17 708	2.81	27 521	2.98	19 579	3.05	22 211	2.81	8 532	2.93	189 707	3.5	19 9 5	3.39	10 520	3.26	77 83	2.07	6 632	3.76	823	2.20	81 181	.75	85 10	3.27	86 703
Escalation to mid-point of construction from .00%	9 98 27	13. 6		37 339	13. 3	71 539	11.3	111 185	12.02	79 100	12.33	89 733	11.3	1 812 070	11.83	766 15	1 .29	80 578	13.70	22 259	13.16	313 031	8.36	188 39	15.19	3 326	8.89	327 969	19.17	3 5 057	13.23	350 279
Construction Cost	129 955 160	350 .08		970 819	349 .23	1 860 026	294.85	2 890 813	312.57	2 056 601	320.58	2 333 049	294 .87	47 113 813	307.61	19 926 798	371.63	2 095 029	356.26	10 978 739	342.27	8 138 803	217.49	4 898 250	394.93	86 471	231.07	8 527 205	498.46	8 971 488	343.97	9 107 257
Escalation to mid-point of construction from 5.00%	6 97 757	17.50		8 5 1	17. 6	93 001	1 .7	1 5 1	15.63	102 830	16.03	116 652	1 .7	2 355 691	15.38	996 3 0	18.58	10 751	17.81	5 8 937	17.11	06 9 0	10.87	2 912	19.75	32	11.55	26 360	2 .92	8 57	17.20	55 363
Estimating Contingency 5.00%	6 822 6 6	18.38		50 968	18.33	97 651	15. 8	151 768	16. 1	107 972	16.83	122 85	15. 8	2 73 75	16.15	1 0 6 157	19.51	109 989	18.70	576 38	17.97	27 287	11. 2	257 158	20.73	5 0	12.13	7 678	26.17	71 003	18.06	78 131
Construction Contingency (for CM) 2.00%	2 865 512	7.72		21 07	7.70	1 01	6.50	63 7 2	6.89	5 3 8	7.07	51	6.50	1 038 860	6.78	39 386	8.19	6 195	7.86	2 2 081	7.55	179 61	.80	108 006	8.71	1 907	5.10	188 025	10.99	197 821	7.58	200 815
Campus Infrastructure Upgrade "Sewer"	250 000	0.67																														250 000
Construction Contingency (Owners)	By Owner			By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner
Total Construction Cost	146 391 075	394 .35		1 091 735	392.72	2 091 692	331.58	3 250 864	351.50	2 312 751	360.51	2 623 630	331.60	52 981 839	345.92	22 408 681	417.91	2 355 964	400.63	12 346 141	384.90	9 152 491	244.58	5 508 326	444.12	97 242	259.85	9 589 268	560.54	10 088 886	386.81	10 491 566

SUMMARY - SITE OPTION 2

GROSS FLOOR AREA (in square feet) =		CONSOLIDATED 371 220			PUBLIC LOBBY 2 780		ADMINISTRATION 6 308		STAFF SUPPORT 9 249		SECURITY OPERATIONS 6 415		RECEPTION & DISCHARGE 7 912		HOUSING 153 163	
Element Name					Cost $	$/sf	Cost $	$/sf	Cost $	$/sf	Cost $	$/sf	Cost $	$/sf	Cost $	$/sf
A Substructure		**6 997 898**	**18.85**	**6.31%**	**60 035**	**21.60**	**166 437**	**26.38**	**247 211**	**26.73**	**151 500**	**23.62**	**184 357**	**23.30**	**2 291 717**	**14.96**
Foundations		6 997 898	18.85	6.31%	60 035	21.60	166 37	26.38	2 7 211	26.73	151 500	23.62	18 357	23.30	2 291 717	1 .96
Basement Construction		0	0.00	0.00%	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
B Shell		**23 844 317**	**64.23**	**21.49%**	**197 390**	**71.01**	**561 223**	**88.97**	**850 746**	**91.99**	**457 275**	**71.28**	**523 766**	**66.20**	**9 994 353**	**65.25**
Superstructure		12 38 12	33.36	11.16%	87 230	31.38	198 65	31. 9	291 032	31. 7	198 178	30.89	2 3 331	30.75	5 918 555	38.6
Exterior Enclosure		6 998 1 2	18.85	6.31%	6 121	23.07	258 083	0.91	07 238	.03	158 102	2 .6	158 102	19.98	2 99 528	16.32
Roofing		62 050	12.02	.02%	6 039	16.56	10 86	16.56	152 76	16. 9	100 995	15.7	122 333	15. 6	1 576 270	10.29
C Interiors		**15 511 426**	**41.79**	**13.98%**	**171 283**	**61.61**	**344 385**	**54.59**	**513 500**	**55.52**	**417 929**	**65.15**	**573 844**	**72.53**	**5 448 979**	**35.58**
Interior Construction		8 369 37	22.55	7.5 %	95 27	3 .27	191 2	30.35	301 689	32.62	26 3 0	1.21	321 31	0.63	3 181 317	20.77
Stairs		210 586	0.57	0.19%	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	19 005	1.27
Interior Finishes		6 931 65	18.67	6.25%	76 009	27.3	152 9 3	2 .2	211 811	22.90	153 589	23.9	252 1	31.90	2 073 656	13.5
D Services		**39 110 130**	**105.36**	**35.26%**	**375 019**	**134.90**	**455 483**	**72.20**	**750 350**	**81.13**	**571 409**	**89.07**	**643 359**	**81.31**	**13 802 509**	**90.12**
Conveying Systems		0	0.00	0.00%	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Plumbing		7 713 903	20.78	6.95%	96 618	3 .76	99 78	15.77	216 013	23.36	1 3 107	22.31	106 1 0	13. 1	2 706 1	17.67
Heating, Ventilating and Air Conditioning (HVA(		16 121 777	3. 3	1 .53%	86 55	31.1	175 793	27.87	263 732	28.52	221 88	3 .53	272 5 7	3 . 5	5 200 363	33.95
Fire Protection Systems		1 578 3 2	.25	1. 2%	11 907	.28	2 177	3.83	35 5	3.83	2 586	3.83	33 891	.28	656 057	.28
Electrical Systems		13 696 108	36.89	12.35%	179 9 1	6 .73	156 036	2 .7	235 160	25. 3	182 229	28. 1	230 782	29.17	5 239 9 5	3 .21
E Equipment and Furnishings		**1 429 087**	**3.85**	**1.29%**	**2 302**	**0.83**	**16 772**	**2.66**	**38 312**	**4.14**	**109 395**	**17.05**	**11 704**	**1.48**	**4 233**	**0.03**
Equipment		1 363 883	3.67	1.23%	0	0.00	5 905	0.9	21 305	2.30	103 596	16.15	5 905	0.75	0	0.00
Furnishings		65 20	0.18	0.06%	2 302	0.83	10 867	1.72	17 007	1.8	5 799	0.90	5 799	0.73	233	0.03
F Special Construction and Demolition		**10 866 424**	**29.27**	**9.80%**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**7 227 557**	**47.19**
Special Construction		10 86 732	29.27	9.79%	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	7 227 557	7.19
Selective Demolition		1 692	0.00	0.00%	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
G Building Sitework		**13 175 019**	**35.49**	**11.88%**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**347 236**	**2.27**
Site Preparation		6 97 537	17.50	5.86%	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	20 812	0.1
Site Improvements		3 693 8	9.95	3.33%	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	326 2	2.13
Site Civil/Mechanical Utilities		1 117 316	3.01	1.01%	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Site Electrical Utilities		1 776 26	.78	1.60%	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Other Site Construction		90 5	0.2	0.08%	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Sub-Total Construction		**110 934 301**	**298.84**	**100.00%**	**806 030**	**289.95**	**1 544 300**	**244.81**	**2 400 118**	**259.51**	**1 707 508**	**266.17**	**1 937 030**	**244.82**	**39 116 583**	**255.39**
General Requirements/General Conditions		10 35 372	27.89		75 233	27.06	1 1 2	22.85	22 022	2 .22	159 375	2 .8	180 798	22.85	3 651 059	23.8
CM Payment & Performance Bond		1 2 5 9	3.36		9 0 9	3.26	17 338	2.75	26 9 6	2.91	19 170	2.99	21 7 7	2.75	39 158	2.87
Builders Risk Insurance		By Owner			By Owner		By Owner		By Owner		By Owner		By Owner		By Owner	
CM Gen'l & Excess liability Insurance		1 556 811	.19		11 312	.07	21 672	3.	33 682	3.6	23 963	3.7	27 18	3.	5 8 9 8	3.58
CM Fee	2.50%	3 102 273	8.36		22 5 1	8.11	3 186	6.85	67 119	7.26	7 750	7.	5 169	6.85	1 093 89	7.1
Permit Fee	1.00%	1 271 932	3. 3		9 2 2	3.32	17 706	2.81	27 519	2.98	19 578	3.05	22 209	2.81	8 96	2.93
Escalation to mid-point of construction fron	.00%	5 138 606	13.8		37 336	13. 3	71 53	11.3	111 176	12.02	79 09	12.33	89 725	11.3	1 811 926	11.83
Construction Cost		**133 603 744**	**359.90**		**970 742**	**349.20**	**1 859 879**	**294.83**	**2 890 583**	**312.54**	**2 056 437**	**320.56**	**2 332 862**	**294.85**	**47 110 064**	**307.58**
Escalation to mid-point of construction fron	5.00%	6 680 187	18.00		8 537	17. 6	92 99	1 .7	1 529	15.63	102 822	16.03	116 6 3	1 .7	2 355 503	15.38
Estimating Contingency	5.00%	7 01 197	18.89		50 96	18.33	97 6	15. 8	151 756	16. 1	107 963	16.83	122 75	15. 8	2 73 278	16.15
Construction Contingency (for CM)	2.00%	2 9 5 963	7.9		21 05	7.70	1 010	6.50	63 737	6.89	5 3	7.07	51 0	6.50	1 038 777	6.78
Campus Infrastructure Upgrade "Sewer"		250 000	0.67													
Construction Contingency (Owners)		By Owner			By Owner		By Owner		By Owner		By Owner		By Owner		By Owner	
Total Construction Cost		**150 494 091**	**405.40**		**1 091 648**	**392.69**	**2 091 527**	**331.55**	**3 250 605**	**351.47**	**2 312 566**	**360.48**	**2 623 420**	**331.57**	**52 977 622**	**345.89**

GROSS FLOOR AREA (in square feet)	HEALTH CARE 53 620		VISITATION 5 881		PROGRAMS AND SERVICES 32 076		INDUSTRIES 37 422		FOOD SERVICE & LAUNDRY 12 403		COMMISSARY 374		MAINTENANCE CENTRAL PLANT 17 107		CORRDOR CONNECTOR 26 082		SITE / PARKING 428
Element Name	Cost $	$/sf	Cost $	$/sf	Cost $	$/sf	Cost $	$/sf	Cost $	$/sf	Cost $	$/sf	Cost $	$/sf	Cost $	$/sf	Cost $
A Substructure	**1 211 504**	**22.59**	**155 631**	**26.47**	**677 017**	**21.11**	**722 392**	**19.30**	**299 015**	**24.11**	**2 994**	**8.00**	**393 558**	**23.01**	**434 529**	**16.66**	**0**
Foundations	1 211 50	22.59	155 631	26. 7	677 017	21.11	722 392	19.30	299 015	2 .11	2 99	8.00	393 558	23.01	3 529	16.66	0
Basement Construction	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
B Shell	**3 779 493**	**70.49**	**487 234**	**82.85**	**1 696 069**	**52.88**	**2 097 832**	**56.06**	**898 233**	**72.42**	**16 728**	**44.70**	**178 921**	**10.46**	**2 105 054**	**80.71**	**0**
Superstructure	1 7 5 11	32.55	18 030	31.29	963 132	30.03	1 125 337	30.07	381 96	30.76	11 237	30.03	79 880	.67	956 622	36.68	0
Exterior Enclosure	1 207 27	22.52	208 0 7	35.38	262 239	8.18	20 28	11.23	32 555	26.17	0	0.00	99 0 0	5.79	931 527	35.72	0
Roofing	826 807	15. 2	95 158	16.18	70 698	1 .67	552 210	1 .76	192 182	15.50	5 91	1 .67	0	0.00	216 905	8.32	0
C Interiors	**2 027 039**	**37.80**	**564 033**	**95.91**	**2 264 595**	**70.60**	**1 374 577**	**36.73**	**676 488**	**54.54**	**25 099**	**67.07**	**230 911**	**13.50**	**878 764**	**33.69**	**0**
Interior Construction	1 07 736	20.0	302 895	51.51	1 05 763	32.88	719 698	19.23	310 97	25.03	11 690	31.2	12 318	7.27	15 28	15.92	0
Stairs	16 582	0.31	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Interior Finishes	935 721	17. 5	261 138	. 1	1 209 832	37.72	65 879	17.50	365 991	29.51	13 09	35.83	106 592	6.23	63 80	17.77	0
D Services	**6 519 880**	**121.59**	**510 971**	**86.89**	**2 492 779**	**77.71**	**2 546 950**	**68.06**	**1 026 914**	**82.80**	**26 789**	**71.59**	**5 357 420**	**313.17**	**4 030 296**	**154.52**	**0**
Conveying Systems	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Plumbing	2 6 0 0 6	9.2	98 526	16.75	281 506	8.78	225 866	6.0	213 10	17.18	2 135	5.70	127 992	7. 8	757 228	29.03	0
Heating, Ventilating and Air Conditioning (HVA(	1 822 382	33.99	20 189	3 .72	1 093 735	3 .10	1 15 200	30.8	2 222	3 .20	12 760	3 .10	3 501 78	20 .68	1 688 333	6 .73	0
Fire Protection Systems	229 678	.28	25 189	.28	137 39	.28	160 293	.28	53 126	.28	1 603	.28	73 277	.28	111 720	.28	0
Electrical Systems	1 827 77	3 .09	183 066	31.13	980 1	30.56	1 006 591	26.90	336 61	27.13	10 292	27.50	1 65 673	96.72	1 73 015	56. 8	0
E Equipment and Furnishings	**53 004**	**0.99**	**13 507**	**2.30**	**15 651**	**0.49**	**5 905**	**0.16**	**1 158 120**	**93.38**	**183**	**0.49**	**0**	**0.00**	**0**	**0.00**	**0**
Equipment	51 268	0.96	5 905	1.00	5 905	0.18	5 905	0.16	1 158 120	93.38	69	0.18	0	0.00	0	0.00	0
Furnishings	1 736	0.03	7 602	1.29	9 7 6	0.30	0	0.00	0	0.00	11	0.30	0	0.00	0	0.00	0
F Special Construction and Demolition	**2 841 177**	**52.99**	**1 692**	**0.29**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**795 998**	**46.53**	**0**	**0.00**	**0**
Special Construction	2 8 1 177	52.99	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	795 998	6.53	0	0.00	0
Selective Demolition	0	0.00	1 692	0.29	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
G Building Sitework	**112 271**	**2.09**	**6 345**	**1.08**	**1 969 065**	**61.39**	**9 644**	**0.26**	**8 037**	**0.65**	**0**	**0.00**	**122 966**	**7.19**	**0**	**0.00**	**10 599 455**
Site Preparation	5 330	0.10	0	0.00	1 5 0	12.92	2 030	0.05	1 692	0.1	0	0.00	25 888	1.51	0	0.00	6 027 2 6
Site Improvements	106 9 1	1.99	6 3 5	1.08	1 55 525	8. 6	7 61	0.20	6 3 5	0.51	0	0.00	97 079	5.67	0	0.00	1 588 175
Site Civil/Mechanical Utilities	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1 117 316
Site Electrical Utilities	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1 776 26
Other Site Construction	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	90 5
Sub-Total Construction	**16 544 368**	**308.55**	**1 739 413**	**295.79**	**9 115 177**	**284.17**	**6 757 300**	**180.57**	**4 066 807**	**327.90**	**71 793**	**191.85**	**7 079 774**	**413.85**	**7 448 643**	**285.59**	**10 599 455**
General Requirements/General Conditions	1 5 216	28.80	162 353	27.61	850 791	26.52	630 712	16.85	379 587	30.61	6 701	17.91	660 811	38.63	695 2 0	26.66	989 331
CM Payment & Performance Bond	185 7 2	3. 6	19 528	3.32	102 335	3.19	75 86	2.03	5 658	3.68	806	2.15	79 8	.65	83 625	3.21	118 999
Builders Risk Insurance	By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner
CM Gen'l & Excess liability Insurance	232 178	.33	2 10	.15	127 919	3.99	9 829	2.53	57 072	.60	1 008	2.69	99 355	5.81	10 532	.01	1 8 7 9
CM Fee	62 663	8.63	8 6 3	8.27	25 906	7.95	188 968	5.05	113 728	9.17	2 008	5.37	197 986	11.57	208 301	7.99	296 13
Permit Fee	189 692	3.5	19 9 3	3.39	10 511	3.26	77 77	2.07	6 629	3.76	823	2.20	81 17	.75	85 03	3.27	121 529
Escalation to mid-point of construction fron	766 35	1 .29	80 572	13.70	22 226	13.16	313 006	8.36	188 379	15.19	3 326	8.89	327 9 3	19.17	3 5 030	13.23	90 979
Construction Cost	**19 925 213**	**371.60**	**2 094 863**	**356.23**	**10 977 866**	**342.25**	**8 138 156**	**217.47**	**4 897 860**	**394.90**	**86 464**	**231.05**	**8 526 527**	**498.42**	**8 970 774**	**343.95**	**12 765 455**
Escalation to mid-point of construction fron	996 261	18.58	10 7 3	17.81	5 8 893	17.11	06 908	10.87	2 893	19.75	323	11.55	26 326	2 .92	8 539	17.20	638 273
Estimating Contingency	1 0 6 07	19.51	109 980	18.70	576 338	17.97	27 253	11. 2	257 138	20.73	539	12.13	7 6 3	26.17	70 966	18.06	670 186
Construction Contingency (for CM)	39 351	8.19	6 192	7.85	2 2 062	7.55	179 6	.80	107 998	8.71	1 907	5.10	188 010	10.99	197 806	7.58	281 78
Campus Infrastructure Upgrade "Sewer"																	250 000
Construction Contingency (Owners)	By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner
Total Construction Cost	**22 406 899**	**417.88**	**2 355 778**	**400.60**	**12 345 159**	**384.87**	**9 151 763**	**244.56**	**5 507 889**	**444.09**	**97 233**	**259.83**	**9 588 506**	**560.50**	**10 088 085**	**386.78**	**14 605 392**

SUMMARY - SITE OPTION 3

GROSS FLOOR AREA (in square feet) =	CONSOLIDATED 371 220			PUBLIC LOBBY 2 780		ADMINISTRATION 6 308		STAFF SUPPORT 9 249		SECURITY OPERATIONS 6 415		RECEPTION & DISCHARGE 7 912		HOUSING 153 163		HEALTH CARE 53 620		VISITATION 5 881		PROGRAMS AND SERVICES 32 076		INDUSTRIES 37 422		FOOD SERVICE & LAUNDRY 12 403		COMMISSARY 374		MAINTENANCE CEN'I RAL PLANT 17 107		CORRIDOR CONNECTOR 26 082		SITE / PARKING 428
Element Name				Cost $	$/sf	Cost $	$/sf	Cost $	$/sf	Cost $	$/sf	Cost $	$/sf	Cost $	$/sf	Cost $	$/sf	Cost $	$/sf	Cost $	$/sf	Cost $	$/sf	Cost $	$/sf	Cost $	$/sf	Cost $	$/sf	Cost $	$/sf	Cost $	$/sf	Cost $
A Substructure	9 911 931	26.70	8.62%	87 834	31.60	229 520	36.38	339 697	36.73	215 652	33.62	263 478	33.30	3 210 695	20.96	1 696 882	31.65	214 437	36.47	997 777	31.11	1 096 612	29.30	423 042	34.11	6 736	18.00	564 630	33.01	564 939	21.66	0
Foundations	9 911 931	26.70	8.62%	87 83	31.60	229 520	36.38	339 697	36.73	215 652	33.62	263 78	33.30	3 210 695	20.96	1 696 882	31.65	21 37	36. 7	997 777	31.11	1 096 612	29.30	23 0 2	3 .11	6 736	18.00	56 630	33.01	56 939	21.66	0
Basement Construction	0	0.00	0.00%	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
B Shell	23 844 317	64.23	20.74%	197 390	71.01	561 223	88.97	850 746	91.99	457 275	71.28	523 766	66.20	9 994 353	65.25	3 779 493	70.49	487 234	82.85	1 696 069	52.88	2 097 832	56.06	898 233	72.42	16 728	44.70	178 921	10.46	2 105 054	80.71	0
Superstructure	12 38 12	33.36	10.77%	87 230	31.38	198 65	31. 9	291 032	31. 7	198 178	30.89	2 3 331	30.75	5 918 555	38.6	1 7 5 11	32.55	18 030	31.29	963 132	30.03	1 125 337	30.07	381 96	30.76	11 237	30.03	79 880	.67	956 622	36.68	0
Exterior Enclosure	6 998 1 2	18.85	6.09%	6 121	23.07	258 083	0.91	07 238	.03	158 102	2 .6	158 102	19.98	2 99 528	16.32	1 207 27	22.52	208 0 7	35.38	262 239	8.18	20 28	11.23	32 555	26.17	0	0.00	99 0 0	5.79	931 527	35.72	0
Roofing	62 050	12.02	3.88%	6 039	16.56	10 86	16.56	152 76	16. 9	100 995	15.7	122 333	15. 6	1 576 270	10.29	826 807	15. 2	95 158	16.18	70 698	1 .67	552 210	1 .76	192 182	15.50	5 91	1 .67	0	0.00	216 905	8.32	0
C Interiors	15 511 426	41.79	13.49%	171 283	61.61	344 385	54.59	513 500	55.52	417 929	65.15	573 844	72.53	5 448 979	35.58	2 027 039	37.80	564 033	95.91	2 264 595	70.60	1 374 577	36.73	676 488	54.54	25 099	67.07	230 911	13.50	878 764	33.69	0
Interior Construction	8 369 37	22.55	7.28%	95 27	3 .27	191 2	30.35	301 689	32.62	26 3 0	1.21	321 31	0.63	3 181 317	20.77	1 07 736	20.0	302 895	51.51	1 05 763	32.88	719 698	19.23	310 97	25.03	11 690	31.2	12 318	7.27	15 28	15.92	0
Stairs	210 586	0.57	0.18%	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	19 005	1.27	16 582	0.31	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Interior Finishes	6 931 65	18.67	6.03%	76 009	27.3	152 9 3	2 .2	211 811	22.90	153 589	23.9	252 1	31.90	2 073 656	13.5	935 721	17. 5	261 138	. 1	1 209 832	37.72	65 879	17.50	365 991	29.51	13 09	35.83	106 592	6.23	63 80	17.77	0
D Services	39 110 130	105.36	34.02%	375 019	134.90	455 483	72.20	750 350	81.13	571 409	89.07	643 359	81.31	13 802 509	90.12	6 519 880	121.59	510 971	86.89	2 492 779	77.71	2 546 950	68.06	1 026 914	82.80	26 789	71.59	5 357 420	313.17	4 030 296	154.52	0
Conveying Systems	0	0.00	0.00%	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Plumbing	7 713 903	20.78	6.7 1%	96 618	3 .76	99 78	15.77	216 013	23.36	1 3 107	22.31	106 1 0	13. 1	2 706 1	17.67	2 6 0 0 6	9.2	98 526	16.75	281 506	8.78	225 866	6.0	213 10	17.18	2 135	5.70	127 992	7. 8	757 228	29.03	0
Heating, Ventilating and Air Conditioning (HVA(	16 121 777	3. 3	1 .02%	86 55	31.1	175 793	27.87	263 732	28.52	221 88	3 .53	272 5 7	3 . 5	5 200 363	33.95	1 822 382	33.99	20 189	3 .72	1 093 735	3 .10	1 15 200	30.8	2 222	3 .20	12 760	3 .10	3 501 78	20 .68	1 688 333	6 .73	0
Fire Protection Systems	1 578 3 2	.25	1.37%	11 907	.28	2 177	3.83	35 5	3.83	2 586	3.83	33 891	.28	656 057	.28	229 678	.28	25 189	.28	137 39	.28	160 293	.28	53 126	.28	1 603	.28	73 277	.28	111 720	.28	0
Electrical Systems	13 696 108	36.89	11.91%	179 9 1	6 .73	156 036	2 .7	235 160	25. 3	182 229	28. 1	230 782	29.17	5 239 9 5	3 .21	1 827 77	3 .09	183 066	31.13	980 1	30.56	1 006 591	26.90	336 61	27.13	10 292	27.50	1 65 673	96.72	1 73 015	56. 8	0
E Equipment and Furnishings	1 429 087	3.85	1.24%	2 302	0.83	16 772	2.66	38 312	4.14	109 395	17.05	11 704	1.48	4 233	0.03	53 004	0.99	13 507	2.30	15 651	0.49	5 905	0.16	1 158 120	93.38	183	0.49	0	0.00	0	0.00	0
Equipment	1 363 883	3.67	1.19%	0	0.00	5 905	0.9	21 305	2.30	103 596	16.15	5 905	0.75	0	0.00	51 268	0.96	5 905	1.00	5 905	0.18	5 905	0.16	1 158 120	93.38	69	0.18	0	0.00	0	0.00	0
Furnishings	65 20	0.18	0.06%	2 302	0.83	10 867	1.72	17 007	1.8	5 799	0.90	5 799	0.73	233	0.03	1 736	0.03	7 602	1.29	9 7 6	0.30	0	0.00	0	0.00	11	0.30	0	0.00	0	0.00	0
F Special Construction and Demolition	10 866 424	29.27	9.45%	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	7 227 557	47.19	2 841 177	52.99	1 692	0.29	0	0.00	0	0.00	0	0.00	0	0.00	795 998	46.53	0	0.00	0
Special Construction	10 86 732	29.27	9. 5%	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	7 227 557	7.19	2 8 1 177	52.99	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	795 998	6.53	0	0.00	0
Selective Demolition	1 692	0.00	0.00%	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1 692	0.29	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
G Building Sitework	14 298 715	38.52	12.44%	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	347 236	2.27	112 271	2.09	6 345	1.08	1 969 065	61.39	9 644	0.26	8 037	0.65	0	0.00	122 966	7.19	0	0.00	11 723 151
Site Preparation	8 11 028	21.86	7.06%	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	20 812	0.1	5 330	0.10	0	0.00	1 5 0	12.92	2 030	0.05	1 692	0.1	0	0.00	25 888	1.51	0	0.00	7 6 3 737
Site Improvements	3 116 053	8.39	2.71%	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	326 2	2.13	106 9 1	1.99	6 3 5	1.08	1 55 525	8. 6	7 61	0.20	6 3 5	0.51	0	0.00	97 079	5.67	0	0.00	1 010 780
Site Civil/Mechanical Utilities	1 201 916	3.2	1.05%	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1 201 916
Site Electrical Utilities	1 776 26	.78	1.5 %	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1 776 26
Other Site Construction	90 5	0.2	0.08%	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	90 5
Sub-Total Construction	114 972 030	309.71	100.00 %	833 829	299.95	1 607 383	254.81	2 492 604	269.51	1 771 660	276.17	2 016 151	254.82	40 035 560	261.39	17 029 746	317.60	1 798 219	305.79	9 435 937	294.17	7 131 520	190.57	4 190 835	337.90	75 535	201.85	7 250 846	423.85	7 579 053	290.59	11 723 151
General Requirements/General Conditions	10 698 623	28.82		77 591	27.91	1 9 57	23.71	231 9 7	25.08	16 860	25.70	187 611	23.71	3 725 75	2 .32	1 58 688	29.55	167 332	28. 5	878 053	27.37	663 617	17.73	389 97	31.	7 029	18.78	67 721	39.	705 262	27.0	1 090 888
CM Payment & Performance Bond	1 286 857	3. 7		9 333	3.36	17 991	2.85	27 899	3.02	19 830	3.09	22 566	2.85	8 109	2.93	190 610	3.55	20 127	3. 2	105 61	3.29	79 822	2.13	6 907	3.78	8 5	2.26	81 157	.7	8 831	3.25	131 215
Builders Risk Insurance	By Owner			By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner	
CM Gen'l & Excess liability Insurance	1 608 571	.33		11 666	.20	22 89	3.56	3 87	3.77	2 787	3.86	28 208	3.57	560 136	3.66	238 263	.	25 159	.28	132 018	.12	99 777	2.67	58 63	.73	1 057	2.82	101 6	5.93	106 038	.07	16 018
CM Fee 2.50%	3 21 152	8.66		23 310	8.39	936	7.12	69 683	7.53	9 528	7.72	56 363	7.12	1 119 232	7.31	76 083	8.88	50 271	8.55	263 791	8.22	199 368	5.33	117 159	9. 5	2 112	5.6	202 70	11.85	211 880	8.12	327 732
Permit Fee 1.00%	1 317 802	3.55		9 557	3.	18 2	2.92	28 570	3.09	20 307	3.17	23 109	2.92	58 885	3.00	195 19	3.6	20 611	3.50	108 15	3.37	81 7 1	2.18	8 035	3.87	866	2.31	83 109	.86	86 871	3.33	13 370
Escalation to mid-point of construction from .00%	5 323 921	1 .3		38 611	13.89	7 32	11.80	115 23	12. 8	82 039	12.79	93 360	11.80	1 853 896	12.10	788 583	1 .71	83 269	1 .16	36 9 3	13.62	330 23	8.82	19 062	15.65	3 98	9.35	335 759	19.63	350 957	13. 6	5 2 855
Construction Cost	138 421 955	372.88		1 003 898	361.12	1 935 228	306.78	3 001 001	324.48	2 133 011	332.49	2 427 369	306.79	48 201 294	314.71	20 503 167	382.38	2 164 988	368.16	11 360 510	354.17	8 586 080	229.44	5 045 606	406.81	90 942	243.02	8 729 743	510.30	9 124 891	349.85	14 114 229
Escalation to mid-point of construction from 5.00%	6 921 097	18.6		50 195	18.06	96 761	15.3	150 050	16.22	106 651	16.62	121 368	15.3	2 10 065	15.7	1 025 158	19.12	108 2 9	18. 1	568 026	17.71	29 30	11. 7	252 280	20.3	5 7	12.15	36 87	25.51	56 2 5	17. 9	705 711
Estimating Contingency 5.00%	7 267 152	19.58		52 705	18.96	101 599	16.11	157 553	17.0	111 983	17. 6	127 37	16.11	2 530 568	16.52	1 076 16	20.07	113 662	19.33	596 27	18.59	50 769	12.05	26 89	21.36	77	12.76	58 311	26.79	79 057	18.37	7 0 997
Construction Contingency (for CM) 2.00%	3 052 205	8.22		22 136	7.96	2 672	6.76	66 172	7.15	7 033	7.33	53 523	6.76	1 062 839	6.9	52 095	8. 3	7 738	8.12	250 99	7.81	189 323	5.06	111 256	8.97	2 005	5.36	192 91	11.25	201 20	7.71	311 219
Campus Infrastructure Upgrade "Sewer"	250 000	0.67																														250 000
Construction Contingency (Owners)	By Owner			By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner		By Owner	
Total Construction Cost	155 912 409	420.00		1 128 934	406.10	2 176 260	344.98	3 374 776	364.90	2 398 678	373.91	2 729 697	345.00	54 204 766	353.90	23 056 836	430.00	2 434 637	414.01	12 775 462	398.29	9 655 476	258.02	5 674 036	457.48	102 268	273.28	9 817 032	573.85	10 261 397	393.43	16 122 156

Notes

1. Brief project description:-
   - New Correctional Facility complete with MEP and Sitework/Site Utilities

2. The estimate is based on the following:-
   - Competitive bid.
   - Building to be occupied.
   - CM type project.
   - Receipt of 5# bona fide bids for each sub contract.
   - Phased.
   - ***Priced in today's Dollars***
   - Estimate based on - ***Construction Start Date 1Q2015***
   - Construction period.
     24 months

3. The gross floor area is based on the following:-
   - Measurement is taken to the outside face of the exterior wall, measured through all stair wells, elevator shafts and ducts.

4. Story heights:-
   - Varies

5. General Requirements for this project are listed and priced later in this Document.

6. Special Conditions for this project are not applicable.

7. Escalation to the mid-point of construction taken at: -
   - 4% for the first Year.
   - 5% for the Second Year.

8. Estimating contingency is an allowance for future design modifications/additions, which alter the cost of the building as the design progresses, this percentage reduces as the design develops. It is based on a percentage of the sum of Sub-Total Construction, General Requirements and Escalation. For this level of estimate the following has been included:-
   - 5.00%

9. Owners contingency is an allowance for scope/design modifications made by the owner during construction and also for any unforeseen circumstances. It is based on a percentage of the sum of Sub-Total Construction, General Requirements, Escalation and Estimating Contingency. The following has been included:-
   - By Owner

Notes (Cont'd)

10. This estimate has been prepared from the following design information:-
    - Updated Building Plan and project scope received 01/15/2014.
    - Site Narrative received 01/15/2014.
    - ***"Email received 01/24/2014 regarding area reductions from SMRT".***
    - ***"Email received 01/28/2014 regarding area reductions from SMRT".***
    - Phone Calls, meetings and E-mails with SMRT

11. The estimate includes the following:-
    - See Estimate.

12. The estimate excludes the following:-
    - Utility company backcharges.
    - Renovation work st Male Community Support Building (Existing building to remain - 160 beds).
    - Renovation work st Female Community Support Building (Existing building to remain - 74 beds).
    - Potential minor stream impact cost -
      Option A ($850,000)
      Option B ($1.24M)
      Option C ($1.23M)
    - Traffic Alterations at River Road
    - Sales tax.
    - Hazardous Material Removal.
    - Design consultant's fees.
    - Medical equipment.
    - Loose furniture, fittings and equipment.
    - Telephones.
    - Complete audiovisual.
    - Installation of medical equipment.
    - Vending machines.

13. Allowances:-
    - See Estimate.

14. Assumptions:-
    - See Estimate.

15. Estimates by other firms:-
    - See Estimate.

Notes (Cont'd)

16. Common abbreviations included in this estimate:-
    - cd = construction documents.
    - cf = cubic foot.
    - cy = cubic yard.
    - dd = design development.
    - ea = each.
    - EO = extra over.
    - flr = floor.
    - lb = pound.
    - lf = linear foot.
    - ls = lump sum.
    - ly = linear yard.
    - mg = make good.
    - opg = opening.
    - rsr = riser.
    - sd = schematic design.
    - sf = square foot.
    - sy = square yard.
    - tn = ton.
    - vb = vapor barrier.

17. Builders work in connection (BWIC) with conveying, mechanical and electrical systems includes the following:-
    - Drilling and coring.
    - Chasing.
    - Cutting and patching.

Summary of Gross Floor Areas

Locations	Net Square Feet (sf)	Gross Floor area (sf)	Exterior Square Feet
PUBLIC LOBBY	1,850	2,780	
ADMINISTRATION	4,600	6,308	
STAFF SUPPORT	6,400	9,249	
SECURITY OPERATIONS	4,300	6,415	
RECEPTION & DISCHARGE	5,700	7,912	
HOUSING			
MU 1 (GP: 352 beds med/min)	35,850	63,243	4,800
MU 2 (GP Med & Special Needs 208 beds)	28,500	50,359	4,350
MU3: (Female - 146 beds)	19,150	33,145	3,150
MU4: (Support addition to Male Community Support)	4,400	6,415	
MU4: (Male Community Support - 160 beds)	Existing Building to Remain		
MU4: (Female Community Support - 74 beds)	Existing Building to Remain		
HEALTH CARE			
Clinic & Medical Administration	6,700	10,799	
Infirmary (Male and Female: 24 beds)	4,300	7,591	750
Medical Housing (80 beds)	12,200	21,544	1,200
Mental Health Housing (50 beds)	8,000	13,686	1,200
VISITATION			
Male Visitation	1,975	2,940	500
Female Visitation	1,975	2,940	500
PROGRAMS AND SERVICES	27,750	32,076	245,000
INDUSTRIES	50,000	37,422	1,200
FOOD SERVICE & LAUNDRY	16,850	12,403	1,000
COMMISSARY	300	374	
RENOVATE EXISTING TO BE WAREHOUSE			
MAINTENANCE/CENTRAL PLANT	14,500	17,107	15,300
SITE / PARKING	330	428	75,100
CORRDOR CONNECTOR		26,082	
Total Project area	***255,630***	***371,220***	***354,050***

TAB 10

EXISTING FACILITIES EVALUATION REPORT

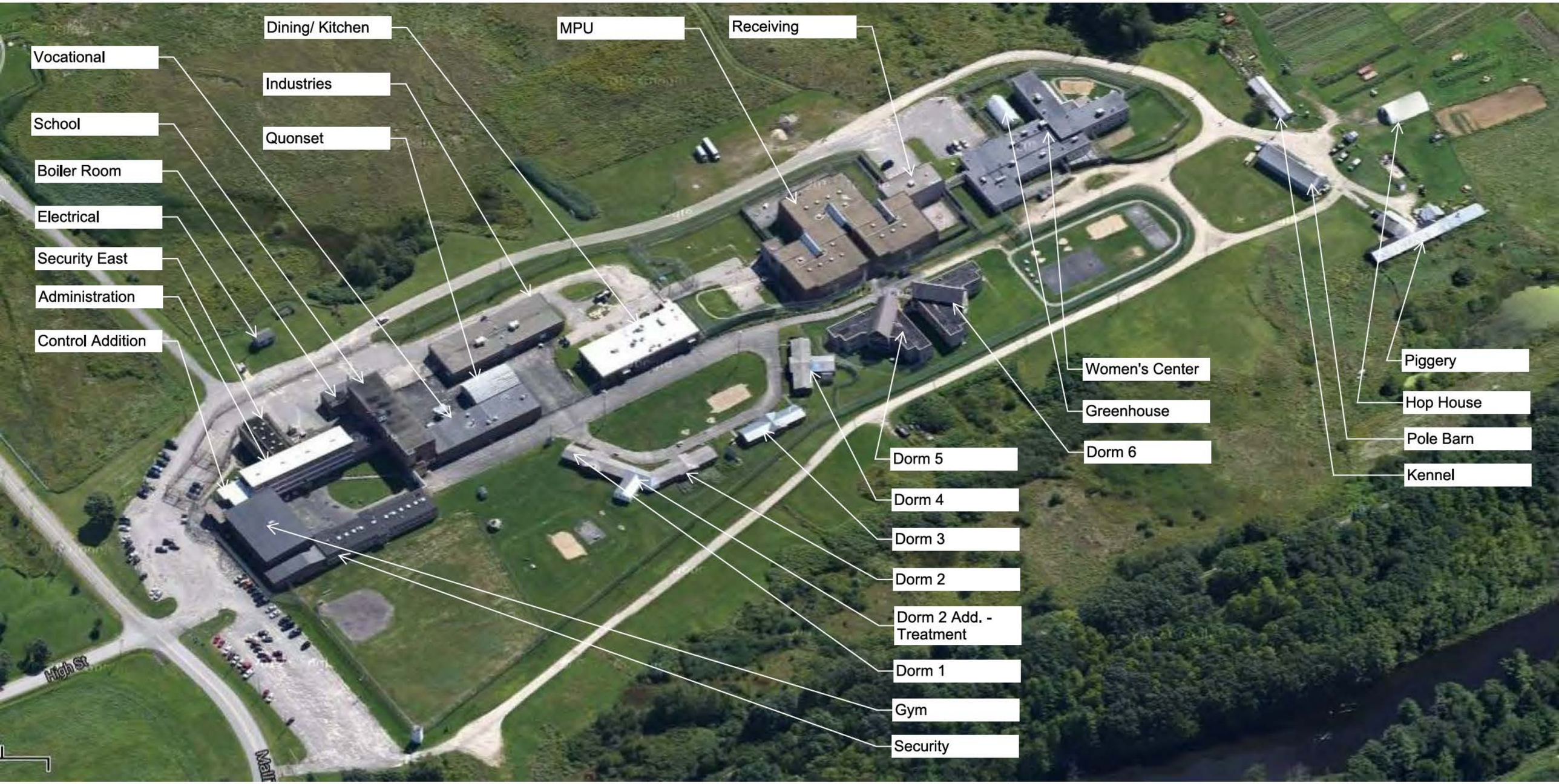
This evaluation of the existing Maine Department of Corrections adult facilities at Machiasport, Charleston, and Windham was undertaken for the purpose of identifying the condition of those facilities and their operational viability through the year 2037. Additionally, the cost of maintaining, repairing, and operating the facilities has been evaluated. The results of this evaluation have been utilized in the feasibility portion of this study report for a new facility at Maine Correctional Center.

EXISTING FACILITIES DATA

1. Maine Correctional Center (MCC), Windham, Maine

A. Campus

a. Circa: 1923
b. General: This site has served as the Maine Correctional Center since originally developed with incremental changes and additions being made to the campus as MDOC needs have changed over the years. Most additions were representative of their time, meeting the technical requirements for security, structure, and energy performance. Some were constructed quite economically as temporary structures, but have endured and been modified to meet new needs. Major renovations have been few. Most recently, the Women's Center was added to the site.
c. Site Improvements: Parking areas were paved recently, and the perimeter road was paved in 2001. Fences are minimal with a single fence and no grade barrier, and have no detection system.
d. Mechanical: Central gas powered steam plant with two boilers.
e. Plumbing: Solids separator (auger), grinder on 8" main. Sewers are constructed of clay tile in places. The facility was originally equipped with a septic system. 120 psi water service measured at the entrance. An 8" cast iron


Dining/ Kitchen
MPU
Receiving
Vocational
Industries
School
Quonset
Boiler Room
Electrical
Security East
Administration
Control Addition
Women's Center
Greenhouse
Dorm 6
Piggery
Hop House
Pole Barn
Kennel
Dorm 5
Dorm 4
Dorm 3
Dorm 2
Dorm 2 Add. - Treatment
Dorm 1
Gym
Security
High St

perimeter fire line provides water service to all of the buildings, however, the loop was interrupted by the Women's Center and now dead-ends.

f. Electrical: Overhead medium voltage service from utility up the facility entrance drive and then underground to a 5 KV pad mounted switchgear lineup. This switchgear has two feeders from it with the older feeder feeding the Boiler Room via (3) 25kVA, 4,160V - 208Y/120V single phase pole mounted transformers; the Old Industries Building via a 150kVA, 4160V - 208Y/120V pad mount transformer; the Vocational Building via (3) 25kVA, 4,160V - 208Y/120V single phase pole mounted transformers; the New Industries Building via (3) 50kVA, 4,160V - 208Y/120V single phase pole mounted transformers; the Kitchen via a 150kVA, 4160V - 208Y/120V pad mount transformer; the Gymnasium and Admin Building via a 150kVA, 4160V - 208Y/120V pad mount transformer; the Pre-Release Unit via (3) 15kVA, 4,160V - 208Y/120V single phase pole mounted transformers; the farm via (3) 15kVA, 4,160V - 208Y/120V single phase pole mounted transformers and (1) 15kVA, 4,160V - 240/120Vsingle phase pole mounted transformer; and a 15kVA, 4,160V - 240/120Vsingle phase pole mounted transformer for pole mounted lights. The newer of the two feeders feeds the Multipurpose Housing Unit via a 500kVA, 4,160V - 480Y/277V pad mounted transformer; the new Female Unit under construction; and Minimum Security Units A and B via a 225kVA, 4,160V - 208Y/120V pad mounted transformer There are pole transformers which serve the farm the tower (security), and perimeter lights. There have been faults in the underground medium voltage feeders and the existing distribution manholes are typically full of water. The existing medium voltage switchgear and the underground electrical distribution lines should be replaced within the next ten years.

g. Emergency Power: There are two 500 kW/625 kVA, 4,160 volt generators to provide back-up power when utility power is interrupted to the facility. The existing switchgear contains a manually operated, normally open, tie breaker which provides the capability for one generator to power the facility in the event one generator fails or is being serviced. The emergency power distribution system is not segregated into emergency and non-emergency, (optional standby), systems. Therefore it is possible that one building could lose power due to a transformer or panelboard failure and the generator would not come on line to supply power for egress lighting, alarms and other emergency type loads. The current campus demand is around 360 KW so one generator is more than sufficient to carry the campus load. The generators are both over 25 years old and should be replaced within the next ten years. New emergency distribution switchgear should be provided to allow separation of emergency and non-emergency loads.

h. Perimeter Lighting: Site light fixtures are primarily 450 and 1000 watt high pressure sodium with some mercury vapor fixtures still around. Site lighting

should be replaced with new energy efficient LED fixture supplemented with some metal halide flood lights.

i. Fire alarm systems are being replaced now with a new addressable system. Fire alarm panels now exist in each building with notification (City Call) annunciating at Central Control.

B. Buildings

a. School Building

i. Circa: 1923, renovated in 1954.
ii. Area: 28,000
iii. Construction: Spread footings, brick masonry and concrete floors and roof. BUR, but in process to receive new roof. Steel windows (original). Commercial wood and hollow metal doors. Was originally constructed as four dormitories on levels 2 & 3.
iv. Floors: 3 plus occupied basement
v. Use: Laundry, staff offices, mental health housing, chapel, print shop, program classrooms.
vi. Mechanical: Central plant steam. fin tube radiation. At mental health unit, a steam AHU provides heat, ventilation and cooling.
vii. Plumbing: Copper water piping, cast iron drains, china fixtures.
viii. Electrical: Most of the electrical distribution switchgear was upgraded in 1988 and is in good condition. The service for the building is 800 amp at 208/120 volt. The distribution switchgear should be good for another 15-20 years.

ix. Lighting: The lighting in the building is primarily fluorescent fixtures with electronic ballasts and T8 lamps.
x. Fire Alarm: The building fire alarm system has an insufficient quantity of notification and initiating devices for an unsprinklered building. The fire alarm system should be completely replaced soon and new devices laid-out in accordance with the current NFPA and ADA requirements.
xi. Fire Protection: No.

b. Boiler Room

i. Circa: ?
ii. Area: 1,800
iii. Construction: Brick. No insulation. Concrete roof deck. HM doors. Glass block glazed openings.
iv. Floors: 1
v. Use: Mechanical equipment room, electrical generator room, maintenance offices and shops.
vi. Mechanical: 2 each 400 hp gas steam boilers, originally installed as oil boilers but now dual fuel. One boiler is 1961 and being nursed to perform. One boiler installed in 1989 to service MPU additional load. Steam from central plant serves 75% of facility (excludes dorms 1 – 4, maintenance, warehouse, training.) Domestic water heating via steam heat exchanger.
vii. Plumbing: No.

viii. Electrical: Most of the electrical distribution switchgear was upgraded in the late eighties and is in good condition. The service for the building is 200 amp at 208/120 volt. The distribution switchgear should remain in service for another 15-20 years.
ix. Lighting: The lighting in the building is primarily fluorescent fixtures with electronic ballasts and T8 lamps.
x. Fire Alarm: The building fire alarm system has an insufficient quantity of notification and initiating devices for an unsprinklered building. The fire alarm system should be completely replaced soon and new devices installed in accordance with the current NFPA and ADA requirements.
xi. Fire Protection: No

c. <u>Oakhaven – Training Center</u>

i. Circa: 1923
ii. Area: 4,160 + 1,165
iii. Construction: Wood frame, shingle roofing, vinyl windows, residential doors, vinyl siding (2010)/
iv. Floors: 2 + 1
v. Use: Offices, conference. House is not generally useful. House was superintendent's residence when constructed.
vi. Mechanical: Hot water boiler with mono-flow hot water fin tube heat in house. Gas hot air furnace in training center with DX cooling.
vii. Plumbing: Septic system, copper water piping.

viii. Electrical: Original electrical distribution equipment that should be replaced within the next ten years.
ix. Lighting: The lighting in the building is primarily fluorescent and is in fair condition.
x. Fire Alarm: The building has no fire alarm system.
xi. Fire Protection: No

d. Storeroom

i. Circa: 1954
ii. Area: 13,170
iii. Construction: Spread footings, single wythe CMU bearing walls, wood truss roof, metal roofing (10 years), attic insulation, glass block glazing. HM commercial grade doors. Originally constructed as a cow barn.
iv. Floors: 1
v. Use: Warehouse, includes 2 freezers.
vi. Mechanical: Low pressure gas steam unit heaters. No ventilation.
vii. Plumbing: One toilet room.
viii. Electrical: Original electrical distribution equipment including a 60 amp, single phase panelboard that should be replaced within the next ten years.
ix. Lighting: The lighting in the building is primarily fluorescent fixtures with electronic ballasts and T8 lamps
x. Fire Alarm: The building fire alarm system has an insufficient quantity of notification and initiating devices for an unsprinklered building. The fire alarm system should be completely replaced soon and new devices installed out in accordance with the current NFPA and ADA requirements.

xi. Fire Protection: No.

e. Security Building

i. Circa: 1958
ii. Area: 15,120
iii. Construction: Concrete masonry, now finished with EIFS exterior. Security control room for unit, 6" and 12" solenoid jamb locks in hollow metal detention doors. EPDM roofing. Recent replacement projects were performed including new interior finishes installed by inmates with a total project cost of $1.2M, or $79.40/sf. Work still remaining to be done includes new doors/locks and full fire protection installation.
iv. Floors: 2
v. Use: Men's dormitory
vi. Mechanical: Central plant steam AHU with ventilation (newly renovated).
vii. Plumbing: Newly renovated combination units in cells.
viii. Electrical: Newly renovated within the past five years.
ix. Lighting: The lighting in the building is primarily fluorescent fixtures with electronic ballasts and T8 lamps
x. Fire Alarm: The building fire alarm system has an insufficient quantity of notification and initiating devices for an unsprinklered building. The fire alarm system should be completely replaced soon and new devices installed in accordance with the current NFPA and ADA requirements.
xi. Fire Protection: Corridors only.

f. Quonset Hut

i. Circa: 1958
ii. Area: 2,800
iii. Construction: Corrugated metal. Insulated with batt above ceiling, EIFS on exterior. Steel windows with bars and operable sash. Hollow metal doors – commercial grade. Re-roofed with sheathing and roll roofing.
iv. Floors: 1
v. Use: Storage, maintenance office.
vi. Mechanical: Central plant steam with fin-tube radiation. No ventilation.
vii. Plumbing: Copper water piping, china fixtures, one toilet room.
viii. Electrical: Original electrical distribution fed from the vocational building that is over fifty years old and should be replaced.
ix. Lighting: The lighting in the building is primarily fluorescent fixtures with electronic ballasts and T8 lamps.
x. Fire Alarm: Building has no fire alarm system.
xi. Fire Protection: No.

g. Piggery - not toured
i. Circa: 1958
ii. Area: 7,150
iii. Construction: not reported
iv. Floors: 1
v. Use: Storage

h. Kennel - not toured
   i. Circa: 1958
   ii. Area: 1,600
   iii. Construction: not reported
   iv. Floors: 1
   v. Use: Kennel

i. Pole Barn - not toured
   i. Circa: 1958
   ii. Area: 1,500
   iii. Construction: Wood
   iv. Floors: 1
   v. Use: Storage

j. Maintenance

   i. Circa: 1962
   ii. Area: 8,490 including service garage.
   iii. Construction: CMU walls and wood framed roof. Metal roofing. Operable wood windows and commercial doors. Last renovation for new use circa 1988. May be used as pre-release in future.
   iv. Floors: 1
   v. Use: Maintenance offices, workshop and storage. Was constructed as a dormitory. Vehicle service garage maintains DOC vehicles only.
   vi. Mechanical: Hot water gas boiler with fin tube heat. No ventilation.

vii. Plumbing:
viii. Electrical: Original electrical distribution equipment that is over forty years old.
ix. Lighting: The lighting in the building is primarily fluorescent fixtures with electronic ballasts and T8 lamps.
x. Fire Alarm: The building has no fire alarm system.
xi. Fire Protection: No

k. Security East

i. Circa: 1963
ii. Area: 11,320

iii. Construction: Concrete masonry and brick,
iv. Floors: 2 plus occupied basement.
v. Use: Treatment center for substance abuse, medium custody level, and medical dorm. Includes an administrative offices floor and visitation area. Was constructed as a movie theater/ chapel and medical dorm. Offices now located in original theater area. BUR with water ballast. Steel windows, case hardened. with Plexiglas added. Some asbestos in ceiling plaster reported. Detention hollow metal doors with cement core, paracentric locks and gang release mechanism. No controlled doors – all mechanical locks. Operable steel sash with some being newer sliders.
vi. Mechanical: Central plant steam air handling units. Some steam fin-tube heating.
vii. Plumbing: SS fixtures in cells only. Cells equipped with original combination units. Copper water piping, cast iron and galvanized drains/vents.
viii. Electrical: Original electrical distribution equipment that should be replaced within the next ten years. Existing panelboards have little or no space to feed additional loads.
ix. Lighting: The lighting in the building is primarily fluorescent fixtures with electronic ballasts and T8 lamps.
x. Fire Alarm: The building fire alarm system has an insufficient quantity of notification and initiating devices for an unsprinklered building. The fire alarm system should be completely replaced soon and new devices installed in accordance with the current NFPA and ADA requirements.
xi. Fire Protection: No.

I. Vocational Building

i. Circa: 1969
ii. Area: 8,500
iii. Construction: Spread footings, CMU and brick veneer. Steel joist flat roof with EPDM roofing (2008). Not likely insulated walls. Fixed hollow metal windows. Hollow metal doors. Sectional overhead doors.
iv. Floors: 1
v. Use: Computer lab, wood working shop. Was previously a welding school. Last use conversion 2008; some modifications and improvements made then.
vi. Mechanical: Central plant steam fan unit heaters suspended from roof. No mechanical ventilation.
vii. Plumbing: Copper water piping, china fixtures.
viii. Electrical: Original electrical distribution equipment that should be replaced within the next ten years. Existing panelboards have little or no space to feed additional loads.
ix. Lighting: The lighting in the building is primarily fluorescent fixtures with electronic ballasts and T8 lamps.

x. Fire Alarm: The building fire alarm system has an insufficient quantity of notification and initiating devices to meet current NFPA requirements. The fire alarm system should be completely replaced soon and new devices installed in accordance with the current NFPA and ADA requirements.
xi. Fire Protection: Fire water tank with compressor and sprinklers.

m. Kitchen/Dining

i. Circa: 1974.
ii. Area: 9,480
iii. Construction: Steel frame and steel trussed roof. Concrete masonry, insulated cavity wall with brick veneer. PVC roof and insulation late 1990's.
iv. Floors: 1
v. Use: Dining room and supporting food service facilities.
vi. Mechanical: Central plant steam, steam coils in AHUs, radiant baseboard. No cooling. Steam kettles and gas stoves. Recently replaced water heater. Aluminum operable windows. Hollow metal doors.
vii. Plumbing: Commercial plumbing, cast iron sewers with damaged piping due to cleaners.
viii. Electrical: Original electrical distribution equipment that is in poor condition. Existing panelboards in kitchen have been sprayed down with water and are in need of replacement immediately.
ix. Lighting: The lighting in the building is primarily fluorescent fixtures with electronic ballasts and T8 lamps

x. Fire Alarm: The building fire alarm system has an insufficient quantity of notification and initiating devices for an unsprinklered building. The fire alarm system should be completely replaced soon and new devices installed in accordance with the current NFPA and ADA requirements
xi. Fire Protection:

n. Dorm 1

i. Circa: 1975 Reported to have been constructed as temporary structures.
ii. Area: 2628 sf
iii. Construction: CMU, with wood frame roofs, spread footings. Slab on grade. Metal roofing (2007) above original BUR. Commercial aluminum window. Detention grade wood doors.
iv. Floors: 1
v. Use: Housing
vi. Mechanical: Dedicated gas boilers, hot water baseboard, no cooling or mechanical ventilation (operable sash) except bath fans. (Originally electric heat.)
vii. Plumbing: Copper and PEX water service. Water piping routed through attic with heat tape. China fixtures.
viii. Electrical: Original electrical distribution equipment that is in fair condition. Has a 200 amp, 208/120V load center..
ix. Lighting: The lighting in the building is primarily fluorescent fixtures with electronic ballasts and T8 lamps

x. Fire Alarm: The building fire alarm system has an insufficient quantity of notification and initiating devices to comply with current NFPA and ADA requirements.
xi. Fire Protection: Yes.

o. Dorm 2

i. Circa: 1975 Reported to have been constructed as temporary structures.
ii. Area: 2628 sf
iii. Construction: CMU, with wood frame roofs, spread footings. Slab on grade. Metal roofing (2007) above original BUR. Commercial aluminum window. Detention grade wood doors.
iv. Floors: 1
v. Use: Housing
vi. Mechanical: 2 dedicated 135,000 btu gas boilers serve Dorms 2 &3 with 75% redundancy, hot water baseboard, no cooling or mechanical ventilation (operable sash) except bath fans. (Originally electric heat.)
vii. Plumbing: Copper and PEX water service. Water piping routed through attic with heat tape. China fixtures.
viii. Electrical: Original electrical distribution equipment that is in fair condition. Has a 200 amp, 208/120V load center.
ix. Lighting: The lighting in the building is primarily fluorescent fixtures with electronic ballasts and T8 lamps

x. Fire Alarm: The building fire alarm system has an insufficient quantity of notification and initiating devices to comply with current NFPA and ADA requirements.
xi. Fire Protection: Yes.

p. Dorm 3

i. Circa: 1975 Reported to have been constructed as temporary structures.
ii. Area: 2628 sf
iii. Construction: CMU, with wood frame roofs, spread footings. Slab on grade. Metal roofing (2007) above original BUR. Commercial aluminum window. Detention grade wood doors.
iv. Floors: 1
v. Use: Men's dormitory housing.
vi. Mechanical: Dedicated gas boilers, hot water baseboard, no cooling or mechanical ventilation (operable sash) except bath fans. (Originally electric heat.)
vii. Plumbing: Copper and PEX water service. Water piping routed through attic with heat tape. China fixtures.
viii. Electrical: Original electrical distribution equipment that is in fair condition. Has a 200 amp, 208/120V load center..
ix. Lighting: The lighting in the building is primarily fluorescent fixtures with electronic ballasts and T8 lamps
x. Fire Alarm: The building fire alarm system has an insufficient quantity of notification and initiating devices to comply with current NFPA and ADA requirements.
xi. Fire Protection: No.

q. Dorm 4

i. Circa: 1975 Constructed as temporary structures. Dorm 4 was recently renovated for use as medical facility. An addition was added to Dorm 4 to serve as Women's segregation unit when the dorm was a women's unit.
ii. Area: 2628 sf
iii. Construction: CMU, with wood frame roofs, spread footings. Slab on grade. Metal roofing (2007) above original BUR. Commercial aluminum window. Detention grade wood doors.
iv. Floors: 1
v. Use: Medical offices and outpatient treatment.
vi. Mechanical: Dedicated gas boilers, hot water baseboard, no cooling or mechanical ventilation (operable sash) except bath fans. (Originally electric heat.)
vii. Plumbing: Copper and PEX water service. Water piping routed through attic with heat tape. China fixtures.
viii. Electrical: Original electrical distribution equipment that is in fair condition. Has a 200 amp, 208/120V load center.
ix. Lighting: The lighting in the building is primarily fluorescent fixtures with electronic ballasts and T8 lamps
x. Fire Alarm: The building fire alarm system has an insufficient quantity of notification and initiating devices to comply with current NFPA and ADA requirements.
xi. Fire Protection: No.

r. Gym

i. Circa: 1977 No major renovations since construction.
ii. Area: 12,100 sf
iii. Construction: Steel frame and steel trussed roof. Concrete masonry, insulated cavity wall with brick veneer. EPDM roofing 2005. Detention hollow metal doors. No windows. Locker rooms due for renovation.
iv. Floors: 1
v. Use: Gymnasium activity space, lockers, some office areas.
vi. Mechanical: Central plant steam, steam coil HVAC, no ventilation other than an exhaust fan.
vii. Plumbing: Copper water piping. Original fixtures.
viii. Electrical: Original electrical distribution equipment that is in fair condition.
ix. Lighting: The gym lighting currently metal halide and should be changed to high output fluorescent fixtures. Gym support space lighting is fluorescent fixtures with T8 lamps and electronic ballasts.
x. Fire Alarm: The building fire alarm system has an insufficient quantity of notification and initiating devices to comply with current NFPA and ADA requirements. The fire alarm system should be completely replaced soon and new devices installed in accordance with the current NFPA and ADA requirements.
xi. Fire Protection: No.

s. Administration/ Control Addition

i. Circa: 1923, 1978 Addition. No major renovations since construction.
ii. Area: 24,500 + 550
iii. Construction: Concrete frame and brick masonry. PVC roofing 1999. Roof reframed with wood trusses above concrete deck. Steel windows with bars (third floor) and 50% replacement vinyl windows. Hollow core doors.
iv. Floors: 3
v. Use: Lobby, administrative offices.
vi. Mechanical: Central plant steam.
vii. Plumbing: Galvanized and cast iron.
viii. Electrical: Original electrical distribution equipment that should be replaced within the next fiveyears. Existing panelboards have little or no space to feed additional loads. Building currently has cloth covered wiring and romex.
ix. Lighting: The lighting in the building is primarily fluorescent fixtures with electronic ballasts and T8 lamps.
x. Fire Alarm: The building fire alarm system has an insufficient quantity of notification and initiating devices for an unsprinklered building. The fire alarm system should be completely replaced soon and new devices installed in accordance with the current NFPA and ADA requirements.
xi. Fire Protection:

t. Industries Building

i. Circa: 1987. No major renovations since construction.
ii. Area: 10,800 sf
iii. Construction: Steel frame, concrete masonry single wythe without insulation, ballasted EPDM roofing, commercial quality hollow metal doors.
iv. Floors: 1
v. Use: Sewing and upholstery shops.
vi. Mechanical: Central plant steam heat exchangers and water fan coil unit heating. No cooling.
vii. Plumbing: Yes. China fixtures. Copper water piping. Cast iron sewers assumed.
viii. Electrical: Original electrical distribution system that is in fair condition.
ix. Lighting: Lighting is fluorescent fixtures with T8 lamps and electronic ballasts.
x. Fire Alarm System: The building fire alarm system does not have sufficient notification devices to meet current NFPA and ADA requirements.
xi. Fire Protection: Yes, commercial grade heads.

u. MPU/Receiving

i. Circa: 1988 No major renovations since construction.
ii. Area: 40,450
iii. Construction: Pile foundation system. Soils beneath the building are clays which do not drain, forcing the water table to sometimes rise very high. (Conduits from under the slab were observed to be flooded.) Steel frame and concrete masonry, Ballasted EPDM roofing, detention hollow metal doors and windows. Original detention locks.
iv. Floors: 2
v. Use: Men and women housing, intake/release for facility and system.
vi. Mechanical: Central plant steam heat exchanger, hot water AHU and radiant heat, DX cooling in control rooms. Original DDC.
vii. Plumbing: Wet cells. Cast iron sewers, copper water piping. SS fixtures in cells only.
viii. Electrical: Original electrical distribution system that is in fair condition.
ix. Lighting: Lighting is fluorescent fixtures with T8 lamps and electronic ballasts.
x. Fire Alarm System: The building fire alarm system does not have sufficient notification devices to meet current NFPA and ADA requirements.Fire Protection: Yes.

v. Old Pump House
i. Circa: 1988
ii. Area: 150 sf
iii. Construction: Available for demolition.
iv. Floors: 1
v. Use: Storage

w. Treatment Plant
   i. Circa: 1988
   ii. Area: 5000
   iii. Construction: Wood frame.
   iv. Floors: 1
   v. Use: Sewage no longer treated at this facility since connection to sewer district. Facility is used for pretreatment (screening, solids separation, grease trap) and pump station for force main. Building old, and ready for replacement.

x. Dorms 5 & 6

   i. Circa: 1989
   ii. Area: 20,200
   iii. Construction: Concrete masonry with CMU veneer and 2" insulation. EPDM roofing and asphalt shingles on sloped roofs (original). Wood doors inside, hollow metal exterior and security. HM windows recently replaced with operable sash and screens.
   iv. Floors: 2
   v. Use: Men's dorm
   vi. Mechanical: Central plant steam heat exchangers and hot water fin tube radiation.
   vii. Plumbing: Copper water piping.
   viii. Electrical: Existing electrical distribution system is in good condition.

ix. Lighting: Lighting is fluorescent fixtures with T8 lamps and electronic ballasts.
x. Fire Alarm System: The building fire alarm system is in good condition
xi. Fire Protection: Yes.

y. Women's Center

i. Circa: 2002 No major renovations since construction.
ii. Area: 21,820 sf
iii. Construction: Spread footings on approximately 7' of fill. Steel frame and concrete masonry on spread footings, aluminum windows and hollow metal windows, detention hollow metal and commercial hollow metal doors.
iv. Floors: 1 and 2 at sleeping rooms.
v. Use: Women's housing unit.
vi. Mechanical: Central plant steam heat exchanger, hot water radiant heat, DX cooling except in cells/sleeping rooms,
vii. Plumbing: Wet cells in SMU. 10" plastic sewer, copper water piping.
viii. Electrical: Existing electrical distribution system is in good condition. Pad mount transformer that feeds the building is at maximum capacity.
ix. Lighting: Lighting is fluorescent fixtures with T8 lamps and electronic ballasts.
x. Fire Alarm System: The building fire alarm system is in good condition.
xi. Fire Protection: Yes.

z. Dorm 2 Addition. No major renovations since construction.

i. Circa: 2005
ii. Area: 1580 sf
iii. Construction: Wood frame on spread footings, wood windows, metal and wood light commercial/residential doors.
iv. Floors: 1
v. Use: Inmate programs offices.
vi. Mechanical: Gas fired hot air furnace.
vii. Plumbing: Yes.
viii. Electrical: Power is provided from adjacent building service.
ix. Fire Protection: Yes.

aa. Greenhouse
i. Circa: Since 2002.
ii. Construction: Metal frame and plastic.
iii. Floors: 1
iv. Use: Greenhouse for women.

bb. Hoop House
i. Construction: Tent Structure
ii. Floors: 1
iii. Use: Storage building for farm equipment.

2. Down East Correctional Facility (DCF), Machiasport, Maine

A. Campus

a. Circa: 1955
b. General: This facility was converted from its original use as a military radar installation, Bucks Harbor Air Force Station. Most of the buildings are original, with each building being minimally renovated to suit its new function in 1985. No major building additions or renovations have been undertaken at the facility since being converted to a correctional facility, except the construction of a manufacturer engineered metal building to serve as an inmate industries facility.
c. Mechanical: Buildings have shared or dedicated building services.
d. Plumbing: Water and sewage treatment are original on-site resources. The sewage system has no grinder.
e. Electrical: Overhead service. Electrical generators are distributed providing power for all but the Motor Pool, Training, Administration, Maintenance, and Store buildings.


300 Building
Segregation
Recreation
Dorm 3
Kitchen/ Laundry/ Dining
Dorms 1 & 2
Main Control
Administrative
Training
Garments
Store
Maintenance
Motor Pool
Base Rd
Utility Rd

B. Buildings

a. Main Control

i. Circa: 1955
ii. Area: 2,340
iii. Construction: CMU/ Steel frame roof, EIFS exterior insulation.
iv. Floors: 1
v. Use: Intake, visitation, security offices, medical treatment
vi. Mechanical: Oil hot water boiler and fin tube radiation.
vii. Plumbing: Copper water piping and cast iron drains assumed, china fixtures.
viii. Electrical: Original. Fire alarm system.
ix. Fire Protection: No

b. Administrative
i. Circa: 1989
ii. Area: 1,456
iii. Construction: Wood construction "double wide" manufactured building. Vinyl siding. Commercial/residential doors and windows
iv. Floors: 1
v. Use: Offices
vi. Mechanical: Oil fired hot air furnace, no cooling.
vii. Plumbing: Commercial, original.
viii. Electrical: original.

ix. Fire Protection: No

c. Training

i. Circa: 1955
ii. Area: 5,620
iii. Construction: Metal manufactured building.
iv. Floors: 1
v. Use: Offices, classrooms.
vi. Mechanical: Oil fired hot water boiler, baseboard radiation.
vii. Plumbing: Copper water piping, cast iron drains assumed.
viii. Electrical: original
ix. Fire Protection: No

d. Garments

i. Circa: 2000
ii. Area: 2,400
iii. Construction: Metal manufactured building.
iv. Floors: 1
v. Use: Garment training factory
vi. Mechanical: Oil fired hot air furnace.
vii. Plumbing: original
viii. Electrical: original
ix. Fire Protection: No

e. Store
i. Circa: 1955
ii. Area: 1,920
iii. Construction: Metal Quonset hut construction, insulated with cellulose spray.
iv. Floors: 1
v. Use: Supply storage.
vi. Mechanical: Oil fired hot air furnace.
vii. Plumbing: Copper water piping and cast iron drains assumed, china fixtures.
viii. Electrical: original
ix. Fire Protection: No

f. Maintenance
   i. Circa: 1955
   ii. Area: 960
   iii. Construction: Metal Quonset hut construction, insulated with cellulose spray.
   iv. Floors: 1
   v. Use: Maintenance shops.
   vi. Mechanical: Oil fired hot air furnace.
   vii. Plumbing: Copper water piping and cast iron drains assumed, china fixtures.
   viii. Electrical: original
   ix. Fire Protection: No

g. Motor Pool
   i. Circa: 1955
   ii. Area: 3,320
   iii. Construction: Metal manufactured building
   iv. Floors: 1
   v. Use: Vehicle service building
   vi. Mechanical: Oil fired boiler, steam unit heaters. No mechanical ventilation
   vii. Plumbing: Copper water piping/ cast iron drains assumed, china fixtures.
   viii. Electrical: No fire alarm.
   ix. Fire Protection: No

h. 300 Building
   i. Circa: 1955
   ii. Area: 1,900
   iii. Construction: CMU and steel framed roof structure. Insulation in progress. Flat roof structured over with trusses and sloped roof.
   iv. Floors: 1
   v. Use: Wood work training factory.
   vi. Mechanical: Oil fired hot air furnace.
   vii. Plumbing: ?
   viii. Electrical: ?
   ix. Fire Protection: No

i. Segregation/ Recreation

i. Circa: 1955
ii. Area: 7,464

iii. Construction: CMU/ steel framed roof structure. Flat roof structured over with trusses and sloped roof. EIFS applied to exterior masonry for insulation. Wood doors.
iv. Floors: 1
v. Use: Housing
vi. Mechanical: Oil fire hot water boiler with fin tube radiation heaters. Air handling unit to serve segregation with heating and air conditioning.
vii. Plumbing: Copper water piping and cast iron drains assumed, china fixtures in Recreation, SS fixtures in Segregation.
viii. Electrical: original electrical. Generator shared with Dorm 3. Fire alarm system.
ix. Fire Protection: No

j. Dorm 3

i. Circa: 1955
ii. Area: 3,604
iii. Construction: CMU/ steel framed roof structure. Flat roof with ballasted roofing. EIFS applied to exterior masonry for insulation. Wood doors.
iv. Floors: 1

v. Use: Men's dormitory.
vi. Mechanical: Hot water from boiler in Segregation/Recreation, fin tube radiation.
vii. Plumbing: Copper water piping/ cast iron drains assumed, china fixtures.
viii. Electrical: original. Generator shared with Recreation/Segregation. Fire alarm system.
ix. Fire Protection: No

k. Kitchen/ Laundry/ Dining

i. Circa: 1960, Laundry addition 1985, Dock addition unknown date.
ii. Area: 4,704
iii. Construction: CMU/ Steel roof framing, flat roof with ballasted roofing system.
iv. Floors: 1
v. Use: Dining hall.
vi. Mechanical: Oil fired hot water boiler providing service to Dorm 1 & 2 as well.
vii. Plumbing: Copper water piping/ cast iron drains assumed, china fixtures.
viii. Electrical: Original electrical. Fire alarm system.
ix. Fire Protection: No

l. Dorm 1 & 2

i. Circa: 1955
ii. Area: 11,330
iii. Construction: CMU, concrete floor, steel framed roof structure. Flat roof structured over with trusses and sloped roof. EIFS applied to exterior masonry for insulation. Wood doors. EPDM roofing.
iv. Floors: 1
v. Use: Men's dormitory.
vi. Mechanical: Hot water from boiler in Kitchen/ Laundry/ Dining, fin tube radiation.
vii. Plumbing: Copper water piping and cast iron drains assumed, china fixtures with SS lavatories.
viii. Electrical: Original. Fire alarm system.
ix. Fire Protection: No

m. Sewage Treatment – not toured
i. Circa: 1955
ii. Area: 143 sf original + 336 sf 1987 addition
iii. Construction: CMU original, wood frame addition
iv. Floors: 1
v. Use: Sewage treatment plant
vi. Mechanical: No.

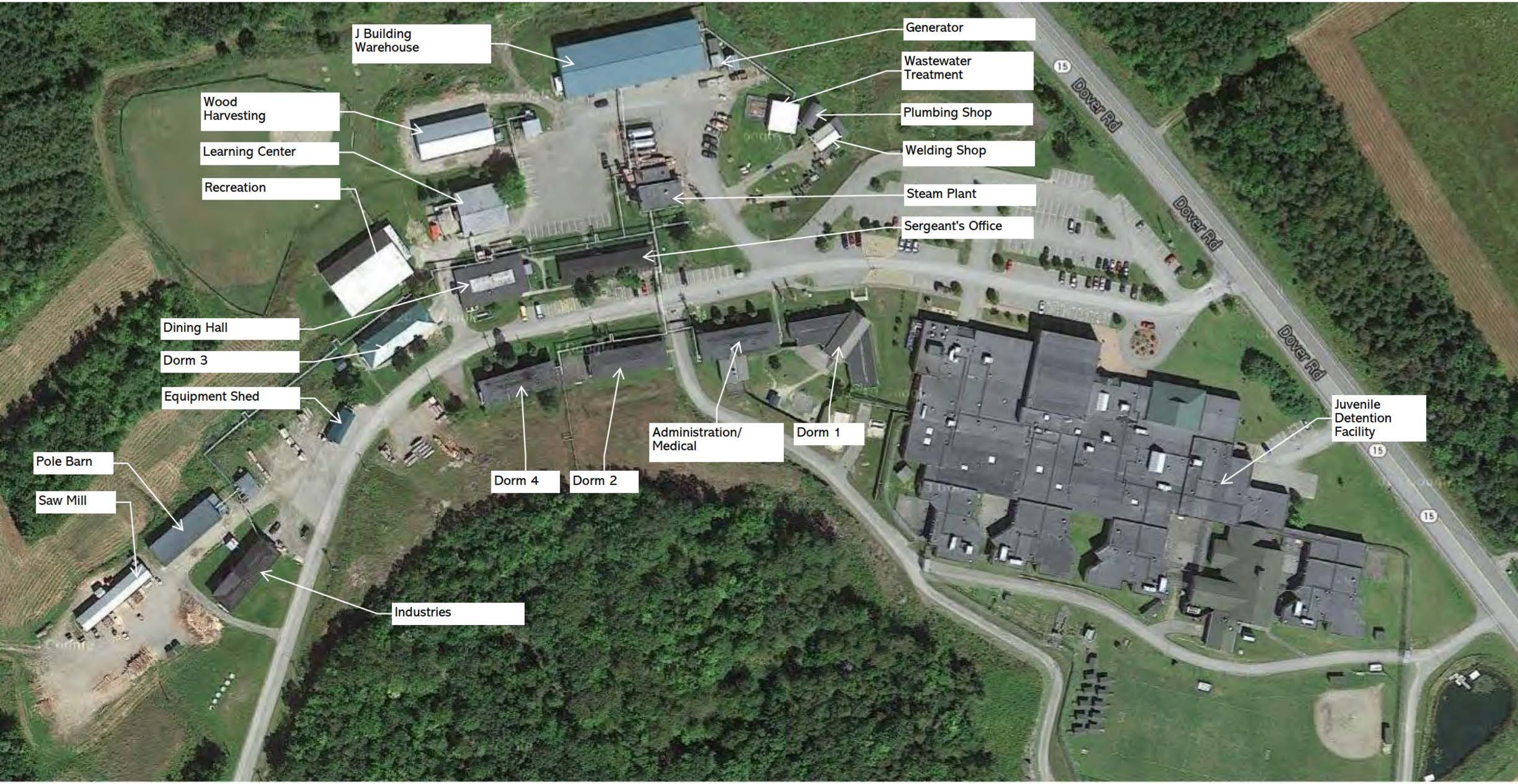
vii. Plumbing: No
viii. Electrical:
ix. Fire Protection: No

n. Pump House – Building 103 – not toured
   i. Circa: not known
   ii. Area: 693 sf
   iii. Construction: Cast concrete.
   iv. Floors: 1
   v. Use: Chemical treatment.
   vi. Mechanical: Electric heat.
   vii. Plumbing: No
   viii. Electrical:
   ix. Fire Protection: No

3. Charleston Correctional Facility (CCF), Charleston, Maine

   A. Campus

   a. Circa: 1955
   b. General: The Charleston Correctional Facility was originally constructed as the Charleston Air Force Station in 1955. It was converted to use by MDOC in 1980 with an initial population of 30 prisoners. Additional dormitories were added in the first half of the 1980's to increase the population. A new dormitory was also constructed in 1990 brining the facility capacity to 143. The campus now also includes the Mountain View Youth Development Center (nearest the road), which is operated separately on the same site except for maintenance and some utilities.
   c. Mechanical: Buildings have a central steam plant which has oil boilers and a wood burning boiler. Inmates harvest and process logs for the plant.
   d. Plumbing: Water and sewage treatment are original on-site resources. The sewage system has no grinder.
   e. Electrical: Overhead service.


J Building
Warehouse
Generator
Wastewater
Treatment
Wood
Harvesting
Plumbing Shop
Learning Center
Welding Shop
Recreation
Steam Plant
Sergeant's Office
Dover Rd
Dover Rd
Dover Rd
15
Dining Hall
Dorm 3
Equipment Shed
Administration/
Medical
Dorm 1
Juvenile
Detention
Facility
Pole Barn
Dorm 4
Dorm 2
Saw Mill
Industries
15
15


Water Plant
Salvage Storage
Chemical Storage
Tree Storage
all other remaining buildings abandoned
Storage Bldg

B. Buildings

a. Dorm #2 Building 105

i. Circa: 1955
ii. Area: +/- 1500sf/floor
iii. Construction: Wood frame construction with sloped metal roofing system. 1st floor framing should be inspected for structural integrity.
iv. Floors: 2
v. Use: Future Dormitory (currently under renovation)
vi. Mechanical: Baseboard steam renovation with protective metal guards is existing to the original building construction in 1955.
vii. Plumbing: Common bathroom on each floor with water closets, urinals, lavatory sinks and showers.
viii. Electrical: The building has an overhead 120/240v, single phase electrical service that feeds a 200 amp panelboard on the first floor. This panelboard feeds all lighting and receptacles throughout the building. The wiring is a mix of conduit, Romex and some original cloth covered wiring. The electrical distribution panel is over sixty years old and should be removed and replaced along with all associated branch circuit wiring. There is currently nothing in this building fed from the campus emergency generator.
ix. Lighting: The building lighting is original fixtures with T12 lamps and magnetic ballasts and exit signs are incandescent type. All lighting and exit signs are in poor condition and should be replaced. Emergency lighting is provided by self-contained battery powered emergency lighting units. There

is insufficient number of emergency lighting units to provide illumination levels required by NFPA 101 Life Safety Code.

x. Fire Alarm System: The building has a conventional hardwired four zone simplex fire alarm system that is in fair condition. There are an insufficient number of notification devices to meet current NFPA requirements and there are no visual notification appliances. There are no smoke detectors in sleeping rooms as are required for this type of occupancy. The existing fire alarm system should be replaced with an addressable fire alarm system and new notification and initiating devices should be installed to meet current NFPA requirements.

xi. Fire Protection: Fully sprinkled in accordance with NFPA 13R

Notes:

- Currently under renovation by inmates.
- First floor and roof are uninsulated.
- Walls are recently insulated with blown-in insulation.
- Sprinkler system was added this year. Pipe mains installed in corridor with sidewall heads extending into perimeter rooms.
- Metal roofing system was installed this year. (Not visible due to snow accumulation)
- Crawl space below first floor is uninsulated and takes on water.
- Floor finish will be Vinyl Composite Tile, when complete.
- All surfaces being painted.
- Toilet rooms renovated to be accessible.
- Exterior doors and hardware must be replaced.
- Existing windows not being replaced.
- Stair handrails not fully code compliant.
- Steam radiation is provided from the central steam plant to a single control valve located in the mechanical room. The entire building is controlled by a single wall mounted thermostat located in the hallway. The individual perimeter rooms do not have individual temperature control.
- There are not any central ventilation systems in the building. The majority of the windows are operable for ventilation.
- A condensate return pump which discharges condensed steam back to the boiler plant is installed in the basement crawl space.
- The existing steam supply and condensate return piping, installed in the crawl space below the first floor, is original to the building construction. The majority of the steam supply piping is insulated with fiberglass insulation however the condensate return piping is uninsulated.

- A steam fired indirect water heater original to the building construction, is installed in the first floor mechanical room.
- The domestic water mains are copper with lead solder. The only new domestic water distribution piping is provided to the replacement accessible plumbing fixtures.
- The building sanitary waste and vent is primarily cast iron that is original to the building construction. New PVC sanitary waste and vent pipe and fittings have been provided to the replacement accessible plumbing fixtures.
- The dates of the installation of the existing plumbing fixtures are unknown although the accessible fixtures have been recently installed.

b. Dorm #3 Building 112

i. Circa: 1955
ii. Area: +/- 1500sf/floor
iii. Construction: Wood frame construction with sloped roofing system.
iv. Floors: 2
v. Use: Dormitory
i. Mechanical: Baseboard steam renovation with protective metal guards is existing to the original building construction in 1955.

ii. Plumbing: Common bathroom on each floor with water closets, urinals, lavatory sinks and showers.
iii. Electrical: The building has an overhead 120/240v, single phase electrical service that feeds a 100 amp panelboard on the first floor. This panelboard feeds all lighting and receptacles throughout the building. The wiring is a mix of conduit, Romex and some original cloth covered wiring. The electrical distribution panel is over sixty years old and should be removed and replaced along with all associated branch circuit wiring. There is a second panelboard fed from the campus generator that feeds limited lighting and fire alarm system.
iv. Lighting: The building lighting is original fixtures with T12 lamps and magnetic ballasts and exit signs are incandescent type. All lighting and exit signs are in poor condition and should be replaced. Emergency lighting is provided by self-contained battery powered emergency lighting units. There is insufficient number of emergency lighting units to provide illumination levels required by NFPA 101 Life Safety Code.
v. Fire Alarm System: The building has a conventional hardwired four zone simplex fire alarm system that is in fair condition. There are an insufficient number of notification devices to meet current NFPA requirements and there are no visual notification appliances. There are no smoke detectors in sleeping rooms as are required for this type of occupancy. The existing fire alarm system should be replaced with an addressable fire alarm system and new notification and initiating devices should be installed to meet current NFPA requirements.
vi. Fire Protection: Fully sprinkled in accordance with NFPA 13R

Notes:

- Occupied dorm.
- Sprinkler system was installed this year.
- Roofing not visible due to snow accumulation.
- Floor finish is primarily Vinyl Composite Tile.
- Steam radiation is provided from the central steam plant to a single control valve located in the mechanical room. The entire building is controlled by a single wall mounted thermostat located in the hallway. The individual perimeter rooms do not have individual temperature control.
- There are not any central ventilation systems in the building. The majority of the windows are operable for ventilation.
- A condensate return pump which discharges condensed steam back to the boiler plant is installed in the basement crawl space.
- The existing steam supply and condensate return piping, installed in the crawl space below the first floor, is original to the building construction. The

majority of the steam supply piping is insulated with fiberglass insulation however the condensate return piping is uninsulated.

- A steam fired indirect water heater original to the building construction, is installed in the first floor mechanical room.
- The domestic water mains are copper with lead solder. The only new domestic water distribution piping is provided to the replacement accessible plumbing fixtures.
- The building sanitary waste and vent is primarily cast iron that is original to the building construction. New PVC sanitary waste and vent pipe and fittings have been provided to the replacement accessible plumbing fixtures.
- The dates of the installation of the existing plumbing fixtures are unknown although the accessible fixtures have been recently installed.

c. Dorm #4

i. Circa: 1955
ii. Area: +/- 1500sf/floor
iii. Construction: Wood frame construction with sloped shingle roofing system. 1st floor framing and roof rafters should be inspected for structural integrity.
iv. Floors: 2

v. Use: Dormitory (currently unoccupied)
vi. Mechanical: Baseboard steam renovation with protective metal guards is existing to the original building construction in 1955.
vii. Plumbing: Common bathroom on each floor with water closets, urinals, lavatory sinks and showers.
vi. Electrical: The building has an overhead 120/240v, single phase electrical service that feeds a 150 amp panelboard on the first floor. This panelboard feeds all lighting and receptacles throughout the building. The wiring is a mix of conduit, Romex and some original cloth covered wiring. The electrical distribution panel is over sixty years old and should be removed and replaced along with all associated branch circuit wiring. There is currently nothing in this building fed from the campus emergency generator.
viii. Lighting: The building lighting is original fixtures with T12 lamps and magnetic ballasts and exit signs are incandescent type. All lighting and exit signs are in poor condition and should be replaced. Emergency lighting is provided by self-contained battery powered emergency lighting units. There is insufficient number of emergency lighting units to provide illumination levels required by NFPA 101 Life Safety Code.
ix. Fire Alarm System: The building has a conventional hardwired four zone simplex fire alarm system that is in fair condition. There are insufficient number of notification devices to meet current NFPA requirements and there are no visual notification appliances. There are no smoke detectors in sleeping rooms as are required for this type of occupancy. The existing fire alarm system should be replaced with an addressable fire alarm system and new notification and initiating devices should be installed to meet current NFPA requirements.
x. Fire Protection: Not sprinkled.

Notes:

- Building has been vacant for 10+ years.
- Entire building (walls, floors, roof) are uninsulated.
- Roofing is beyond useful life expectancy and replacement is required.
- Visible interior water damage.
- Floor finishes have delaminated in many locations.
- Not handicap accessible.
- Steam radiation is provided from the central steam plant to a single control valve located in the mechanical room. The entire building is controlled by a single wall mounted thermostat located in the hallway. The building is maintained at a minimal temperature to prevent the pipes from freezing.
- There are not any central ventilation systems in the building. The majority of the windows can be operable for ventilation.

- A condensate return pump which discharges condensed steam back to the boiler plant is installed in the basement crawl space.
- The existing steam supply and condensate return piping, installed in the crawl space below the first floor, is original to the building construction..
- The domestic water mains are copper with lead solder. The building sanitary waste and vent is primarily cast iron that is original to the building construction.

d. Dining Hall Building 110

i. Circa: 1955
ii. Area: +/- 2500 sf
iii. Construction: Wood frame construction with sloped 3-tab shingle roofing system.
iv. Floors: 1
v. Use: Kitchen, servery, & dining.
vi. Mechanical: Two grease hoods with roof mounted exhaust fans serve the kitchen area. It could not be determined if the ductwork was properly insulated. An exhaust fan is installed to ventilate the dishwasher hood. Baseboard steam renovation with protective metal guards is installed in the dining room. Steam unit heaters were installed in the storage and receiving areas.
vii. Plumbing: The kitchen is furnished with a triple bowl sink with grease trap, janitor's sink, dishwasher assembly, hand sink and scullery sink. Hot water is provided by a propane gas fired water heater. The building is provided with a single restroom.
viii. Electrical: The building has an overhead 208/120V, three phase electrical service that feeds a 400 amp main distribution panelboard on the first floor

loading dock area. This panelboard feeds kitchen equipment, HVAC equipment and additional lighting, small appliance and receptacle panelboards. The wiring is a mix of conduit and some metal clad cabling. The electrical distribution panel and sub panels are over sixty years old and should be removed and replaced. Existing branch circuit wiring should be evaluated and replaced as required. There some loads in this building fed from a panelboard that is fed from the campus emergency generator.

ix. Lighting: The building lighting is original fixtures with T12 lamps and magnetic ballasts and exit signs are incandescent type. All lighting and exit signs are in poor condition and should be replaced. Emergency lighting is provided by self-contained battery powered emergency lighting units. There is insufficient number of emergency lighting units to provide illumination levels required by NFPA 101 Life Safety Code.

x. Fire Alarm System: The building has a conventional hardwired four zone simplex fire alarm system that is in fair condition. There are an insufficient number of notification devices to meet current NFPA requirements. There are no smoke detectors in sleeping rooms as are required for this type of occupancy. The existing fire alarm system should be replaced with an addressable fire alarm system and new notification and initiating devices should be installed to meet current NFPA requirements.

xi. Fire Protection: Not sprinkled.

Notes:

- New roofing system installed with cont. ice & water shield. (not visible due to snow accumulation)
- Floor finish is VCT in dining area, quarry tile in kitchen and servery.
- Exterior doors and hardware should be replaced with emergency egress hardware.
- Dining area set up with 80 seats. (1200 sf)
- Steam radiation is provided from the central steam plant to a single control valve located in the mechanical room. The entire building is controlled by a single wall mounted thermostat located in the hallway.
- There are not any central ventilation systems in the building or make up air for the kitchen exhaust hoods. The majority of the windows are operable for ventilation.
- A condensate return pump which discharges condensed steam back to the boiler plant is installed in the mechanical room.
- The existing steam supply and condensate return piping is original to the building construction. The majority of the steam supply piping is insulated with fiberglass insulation however the condensate return piping is uninsulated.

- The domestic water mains are copper with lead solder.
- The building sanitary waste and vent is primarily cast iron that is original to the building construction.
-

e. Welding Shop Building 113

i. Circa: unknown
ii. Area: +/- 800 sf
iii. Construction: Metal building with sloped metal roofing system.
iv. Floors: 1 w/ inaccessible mezzanine
v. Use: Welding & fabrication workshop
vi. Mechanical: Two steam fired unit heaters that utilize steam from the adjacent treatment plant.
vii. Electrical: The building has an underground 208/120V, three phase electrical service that feeds a 400 amp main distribution panelboard. This panelboard feeds welding equipment, lighting and receptacles. The wiring is a mix of conduit and some metal clad cabling. The electrical distribution panel is over sixty years old and should be removed and replaced. Existing branch circuit wiring should be evaluated and replaced as required. There

some are no loads in this building fed from the campus emergency generator.

viii. Lighting: The building lighting is original fixtures with T12 lamps and magnetic ballasts and exit signs placard type. All lighting and exit signs are in poor condition and should be replaced. There is no emergency lighting in the welding shop. New battery powered emergency lighting units should be insytalled to provide illumination levels required by NFPA 101 Life Safety Code.

ix. Fire Alarm System: The building has no fire alarm system.

x. Fire Protection: Not sprinkled.

Notes:

- Space houses functioning 2-ton bridge crane.

f. Heating Plant Building 106

i. Circa: 1955

ii. Area: +/- 800 sf

iii. Construction: Masonry building with a shallow sloped membrane covered roof.

iv. Floors: 1

v. Use: Heating plant

vi. Mechanical: Central plant

vii. Electrical:
viii. Lighting:
ix. Fire Alarm System:
x. Fire Protection: Not sprinkled.

g. Other Buildings
   i. Other buildings are not a part of this Study, and will continue to be used or to remain as-is. They will not be impacted by the result of this Study.

EXISTING FACILITIES NARRATIVE

General

The existing Maine Department of Corrections facilities studied for this report are all generally old and in need of significant investment/ improvement if they are to continue to serve the State of Maine until the year 2037 and beyond. The majority of the buildings are in excess of 50 years of age and have had little capital invested in them in recent years. Of the older buildings, only the Security Building at Windham has been recently renovated. Some inmate constructed improvements have also been undertaken at Charleston within Dorm 4. Newer buildings added to each of the campuses more recently, with the exception of the Women's Center at Windham, have been constructed economically, sometimes even as temporary structures.

The usual life expectancy of a well-constructed building can exceed 50 years provided it is maintained well. Metal buildings are constructed of materials which inherently do not provide service for great duration, and so metal buildings can be expected to provide a life expectancy of 30 years with good maintenance. Though each of these building types can be renovated, maintained, and improved to permit each to continue well beyond these years of service, the investment is critical to this achievement.

What our society expects from a building has changed dramatically in recent years. Building codes record the changes expected by society by their higher performance requirements. Though building codes do not always require existing buildings to be renovated to meet current code requirements, the expectations of our society may lead to liabilities if life safety features are not upgraded, and may result in significant avoidable cost if energy performance features are not upgraded. All buildings are required to comply with the Americans with Disabilities Act, with enforcement being provided by legal action by those not able to use a facility. Public buildings are especially important in this regard, although correctional population management can achieve some success without physical improvements to all facilities.

Current Maintenance Costs

Maine Correctional Center (MCC), Windham, Maine

MCC reports that current expenditure on regular maintenance apart from labor is approximately $65,000 per year. Capital improvements are highly variable in value, and are often funded as emergency projects when a specific system fails. Capital

improvements this fiscal year include $2,000,000 of projects with one project to upgrade the existing security electronics system valued at approximately half of this sum.

MCC reports that maintenance personnel salaries and benefits total $695,000.

MCC existing conditioned buildings total 247,300 square feet.

Current costs/sf this year:

A.	Maintenance	
	a. Maintenance	$0.26/sf material
	b. Maintenance	$2.23/sf labor
	Total	$2.49/sf
B.	Capital Improvements (2013)	$8.09/sf

Downeast Correctional Facility (DCF), Machiasport, Maine

DCF reports that current expenditure on regular maintenance apart from labor is approximately $48,000. Capital improvements this fiscal year include $240,000 of projects.

DCF data for salaries and benefits for maintenance personnel total $362,000

DCF existing heated buildings total 47,000 square feet.

Current costs/sf this year:

A.	Maintenance	
	a. Maintenance	$1.02/sf material/contracts
	b. Maintenance	$7.70/sf labor
	Total	$8.72/s
B.	Capital Improvements (2013)	$5.10/sf

Charleston Correctional Center (CCC), Charleston, Maine

CCC reports that current expenditure on regular maintenance apart from labor is approximately $24,000. Capital improvements this fiscal year include renovation of Dorm 2 and roof repair for a total of $271,000.

Data for salaries and benefits for maintenance personnel total $153,000. It was reported, however, that there is sharing of work between the adult and juvenile facilities on the campus. Data of the value of this shared labor cost was not available.

CCC building area totals were not available. Aerial survey measurements show that the buildings on the campus utilized for male adults total approximately 62,000 gross square feet.

Current costs/sf this year:

A.	Maintenance		
	a. Maintenance		$0.39/sf material/contracts
	b. Maintenance		$2.47/sf labor
		Total	$2.86/sf
B.	Capital Improvements (2013)		$4.17/sf

Benchmarks

The International Facility Management Association (IFMA) conducts surveys of members to report data on operation costs for various facilities. In their most recent "Research Report #32 – Operations and Maintenance Benchmarks", 2009, they reported data collected primarily based upon 2007 costs. The Bureau of Labor Statistics provides guidance on inflation over time, and identifies that in 2013, cost from 2007 are 12% greater based upon their Consumer Price Index. Values reported here include this inflation value. Note that the survey included only 7 correctional facilities out of over 1,400 facilities surveyed.

Maintenance costs including material and labor for facilities surveyed were reported to be $2.22/rentable square foot mean for all occupancies, and $2.11/RSF for correctional facilities. For facilities located in New England, $2.62/RSF was reported. With inflation, values in 2013 equal:

- All facilities = $2.49/sf
- Correctional facilities = $2.36/sf
- New England facilities = $2.93/sf

BOMA International revised the ANSI Z65.1 – 1996 standard for floor area measurement in 2010, providing two methods of calculation, one of which is the "legacy method", which mimics what was the basis of the measurements reported in 2008. In this method, for a fully owned facility, the difference between gross building area and rentable area equals

the exterior walls and any shafts. For the sake of this report, these differences are assumed to be less than the precision of the values, and so are not taken into account.

Maintenance Narrative

The IFMA report did not report capital improvements as a separate item. Operating facilities in Maine generally reported as capital improvements projects which are often major maintenance projects. Thus, the projects referred to as capital improvements are often necessary for the continued operation of the existing facility, and perhaps very often are deferred maintenance projects. Other facility managers may view major maintenance projects similarly in spite of the criteria set forth in the IFMA survey given the close data on costs incurred nationally compared with MDOC.

The subject properties within the IFMA report include 58% which are greater than 30 years in service, and 28% which are greater than 50 years in service. Nothing reported within the IFMA report permits greater analysis of the improvement projects which owners of older facilities undertake or their costs.

By the data available, Maine's expenditure on the MDOC facilities studied is not exceptional in comparison to the national data. For this evaluation, labor has been accounted for within the P/BA analysis. SMRT has provided a value of $0.50/sf per year for maintenance supplies and subcontracted maintenance services as representative of what should be budgeted. This is 30% greater than the mean budget for this item across the facilities studied, but consistent with the recommendation of staff and with IFMA.

Capital Investment Narrative

Capital investment in operating facilities ideally aims to maintain a facility perpetually. Common practice is otherwise, particularly in an environment of limited funds. Facilities are often let to depreciate in value and in their capacity to provide continuing service, subsequently requiring regular major capital improvement investment either as emergency projects or as a necessity to re-purpose a facility. The majority of the building surveyed are due for either replacement or major investment.

General

This study considers the option to continue to operate the existing adult men's and women's correctional facilities as they are now without expansion at Windham, Charleston, and Machiasport. The duration of the evaluation is to 2037.

The structures on the three campuses are dominantly older structures in poor condition. Thus, it is assumed that within the duration of the study period, replacement or a significant renovation of nearly all of the buildings would be needed. This approach provides a consistency in the benefit analysis between existing facilities and what will be a completely new facility at Windham should the project proceed. This evaluation does not include any consideration for programmatic improvements that would result from the construction of a new facility.

Structures Evaluated for Decommissioning

MCC: All buildings excluding the Women's Center/Greenhouse, Dorms 5 & 6, Industries Vocational, Maintenance, and farm buildings (Piggery, Hoop House, Pole Barn, Kennel).

- Note that the Women's Center and Dorms 5/6 are a part of the housing units within the program for a new MCC, and that the Industries and Vocational buildings are to be renovated to serve as warehouse space for a new MCC. A building addition is included within the program to adapt the housing buildings to the new use, and a renovation cost is included in the feasibility study to adapt the industries/vocational buildings to the new use.

DCF: All buildings.

CCF: Dining Hall, Dorm 2, Dorm 3, Dorm 4, Welding Shop, and all buildings at the Water Plant

Costs Attributed to Each Building:
Costs were attributed to each facility based upon either the percentage cost of the existing facility that needed to be renovated against the square foot cost values calculated in the new facility estimate performed as a part of the Feasibility Study and Concept Design. See below.

Other Costs:
As a part of this evaluation, a records search was performed to identify hazardous materials that might be found on the MCC site, which will need to be removed prior to or during any demolition effort. The value of this potential work has been attributed to contingencies carried within the cost of construction for a new project given their limited extent and the highly variable potential for these expenditures.

Projected Existing Building Costs from End of Construction through 2037

Buildings Evaluated	Building Area SF	Total SF/Site	Building Condition	Annual Parts/Contracts Maintenance	20 Year Maintenance Cost Total	Total/ Site	Capital Project Cost/ SF	20 Year Capital Projects Total	Total/Site	Remarks
MCC - School	28,000		C	$ 0.50	$ 280,000		$ 359.00	$ 10,052,000		MCC maintenance includes open positions and recommended repair budget.
MCC - Boiler Room	1,800		B	$ 0.50	$ 18,000		$ 688.00	$ 1,238,400		
MCC - Storeroom	13,170		C	$ 0.50	$ 131,700		$ 235.00	$ 3,094,950		C buildings replaced within study period
MCC - Security Building	15,120		B	$ 0.50	$ 151,200		$ 180.00	$ 2,721,600		
MCC - Quonset Hut	2,800		C	$ 0.50	$ 28,000		$ 235.00	$ 658,000		
MCC - Maintenance	8,490		C	$ 0.50	$ 84,900		$ 235.00	$ 1,995,150		
MCC - Security East	11,320		C	$ 0.50	$ 113,200		$ 359.00	$ 4,063,880		
MCC - Vocational	8,500		B	$ 0.50	$ 85,000		$ 144.00	$ 1,224,000		
MCC - Kitchen/ Dining	9,480		B	$ 0.50	$ 94,800		$ 144.00	$ 1,365,120		
MCC - Dorm 1	2,628		C	$ 0.50	$ 26,280		$ 359.00	$ 943,452		
MCC - Dorm 2	2,628		C	$ 0.50	$ 26,280		$ 359.00	$ 943,452		
MCC - Dorm 3	2,628		C	$ 0.50	$ 26,280		$ 359.00	$ 943,452		
MCC - Dorm 4	2,628		C	$ 0.50	$ 26,280		$ 359.00	$ 943,452		
MCC - Gym	12,100		B	$ 0.50	$ 121,000		$ 200.00	$ 2,420,000		
MCC - Admin./ Control	25,050		C	$ 0.50	$ 250,500		$ 337.00	$ 8,441,850		
MCC - Industries	10,800		B	$ 0.50	$ 108,000		$ 144.00	$ 1,555,200		
MCC - MPU/ Receiving	40,450		B	$ 0.50	$ 404,500		$ 188.00	$ 7,604,600		
MCC - Dorm 2 Addition	1,580	199,172	C	$ 0.50	$ 15,800	$ 1,991,720	$ 359.00	$ 567,220	$ 50,775,778	
DCF - Main Control	2,340		C	$ 0.50	$ 23,400		$ 357.00	$ 835,380		
DCF - Administration	1,456		C	$ 0.50	$ 14,560		$ 337.00	$ 490,672		
DCF - Training	5,620		C	$ 0.50	$ 56,200		$ 337.00	$ 1,893,940		
DCF - Garments	2,400		B	$ 0.50	$ 24,000		$ 144.00	$ 345,600		
DCF - Store	1,920		C	$ 0.50	$ 19,200		$ 235.00	$ 451,200		
DCF - Maintenance	960		C	$ 0.50	$ 9,600		$ 235.00	$ 225,600		
DCF - Motor Pool	3,320		C	$ 0.50	$ 33,200		$ 235.00	$ 780,200		
DCF - 300 Building	1,900		C	$ 0.50	$ 19,000		$ 235.00	$ 446,500		
DCF - Seg./ Recreation	7,464		C	$ 0.50	$ 74,640		$ 359.00	$ 2,679,576		
DCF - Dorm 3	3,604		C	$ 0.50	$ 36,040		$ 359.00	$ 1,293,836		
DCF - Kit/ Laun/ Dining	4,704		C	$ 0.50	$ 47,040		$ 390.00	$ 1,834,560		
DCF - Dorm 1/2	11,330		C	$ 0.50	$ 113,300		$ 359.00	$ 4,067,470		
DCF - Sewage Treat					$ -			$ -		
DCF - Pump House		47,018			$ -	$ 470,180		$ -	$ 15,344,534	
CCF - Dining Hall	4,320		C	$ 0.50	$ 43,200		$ 357.00	$ 1,542,240		Wood boilers reduce fuels purchased.
CCF - Dorm 2	5,000		C	$ 0.50	$ 50,000		$ 359.00	$ 1,795,000		
CCF - Dorm 3	5,000		C	$ 0.50	$ 50,000		$ 359.00	$ 1,795,000		
CCF - Dorm 4	5,000		C	$ 0.50	$ 50,000		$ -	$ -		Continued vacancy of Dorm 4 is assumed.
CCF - Welding Shop	800	20,120	C	$ 0.50	$ 8,000	$ 201,200	$ 235.00	$ 188,000	$ 5,320,240	
Total 20 years	266,310				$ 2,663,100			$ 71,440,552		

Building Condition: A = Recently new or renovated. B = Service life of major components expires within evaluation period. C = Due for major renovation or replacement today.

MCC EFFICIENCY EVALUATION

Introduction

This section of the Maine Correctional Center (MCC) feasibility study is an evaluation of the efficiency and effectiveness of existing MCC operations as it relates to the impact the physical plant has on supporting or hindering current operations. MCC operations were observed and examined in the context of the present configuration of spaces within the facility complex. Considerations included the impact on staffing efficiencies and the ability to achieve desired outcomes. The results are described below. The evaluation was informed by the following professional correctional standards:

- American Correctional Association (ACA), *Standards for Adult Correctional Institutions, 4th Ed*.
- American Correctional Association, *2012 Standards Supplement*
- National Commission on Correctional Health Care (NCCHC) (2008), *Standards for Health Services in Prisons*
- Department of Justice (2012), *PREA - Prisons and Jail Standards*[1]

This discussion is intended to highlight those areas that impact the efficient and effective delivery of correctional services at the MCC. This information is expected to inform the decisions made regarding the future of MCC.

Efficiency Evaluation - Operations

Housing

MCC is the principal intake facility for adult inmates committed to the MDOC, and has a capacity of 668.[2] The MDOC reports the following breakdown of available beds by bed classification and gender at MCC:

[1] http://www.prearesourcecenter.org/training-technical-assistance/prea-101/prisons-and-jail-standards
[2] Source: MDOC - Capacity and Census Report (11-18-2013)

Table 0.1: MCC Bed Distribution by Classification and Gender[3]

MCC	General Population	Special Management	Total
Males	538	46	584
Females	78	6	84
Grand Total	616	52	668

ACA standards require that an institution encourage positive staff/inmate interactions and effective communication, and that Correctional Officer posts be located in or immediately adjacent to inmate living areas to permit officers to hear and respond promptly to emergency situations.[4] Many of the housing pods are staffed with an officer located directly within the pod. This aids in increasing staff and inmate interactions, which is key to maintaining order. However, the staff: inmate ratio is inefficient in a number of housing pods.

The capacities of the Security East, South and North, and Dorms 1, 2, and 3 housing pods, which are operated as direct supervision pods with an officer located directly in the pod, are so undersized as to be inefficient staffing wise with pods housing as few as 24 inmates. Generally speaking, it takes five officers to staff a single post on a 24-hour/7-day (24/7) basis.

Dorms 5 and 6 each operate as direct supervision pods and have a housing pod capacity of 85, which makes them very staff efficient. However, the design configuration and sightlines within these housing pods hinder the effectiveness of a single officer in adequately supervising the inmates and activities occurring within the housing pod. For example, 1) in conducting well-being checks, the officer loses sight of three-fourths of the unit, which includes the two wings on the upper floor; or 2) the showers are positioned such that they are not readily observed by the officer stationed within the common area thereby creating a blind spot whereby an inmate could be isolated and subject to assault (physical, sexual, etc.) without staffs' knowledge.

The housing pods are located in isolated groupings that are not proximal to each other, which limits the ability for staff to respond to emergencies in a timely manner due to distance and/or the necessity of gaining access through multiple secure doors.

Also of note, access to select recreation yards that serve the MPU are through a single housing pod, as there is no common access. This requires inmates from one housing pod to go through another housing pod to access the recreation yard. This requires inmates to

[3] Id.
[4] ACA 4-4126R, -4127, and 4-4177

be under staff escort when inmates should be able to access the recreation yard directly without staff escort. This practice is also disruptive to the housing pod, and increases the risk of an altercation between inmates of different housing pods coming into contact with each other.

Control Rooms

The facility does not have a central control room, a critical function in a correctional facility. A central control room serves as the focal point of daily facility security operations by providing controlled monitoring and access into/out of the secure perimeter, all housing pod exterior sally port doors, and other high security doors and monitoring activities via cameras located throughout the facility. A central control room has the capacity to assume control of any subordinate control panels throughout the facility. MCC's "central control room" serves more as a reception center and not as a central control room, as it is not secure (no sally port) and controls few functions within the facility. Without a central control room, additional staff must be posted throughout the facility to operate security doors, and safety and security electronics.

There are four control rooms ("towers") that serve five housing pods - one tower serves Security South and North housing pods, and there is one tower each for MPU-A, -B, and -C housing pods. These multiple towers overseeing housing areas compounds the staff inefficiency that comes from having very small, sub-optimal sized housing pods.[5]

The use of towers is also an inefficient use of staff as the officer is unable to physically respond or assist other officers. Using the MPU on the nightshift as an example, should an altercation or emergency occur and an officer needs assistance, an officer from another housing pod will respond as backup or assist, which means his/her assigned housing pod is left unsupervised. This increases the likelihood that other disruptive behavior will occur in the unsupervised housing pods, e.g., sexual assault.

There is a control post in the programs building that controls entry/exit into the building, a function typically controlled by a central control room, which requires an officer to be posted whose responsibilities are limited to opening/closing doors within the building.

MCC also currently lacks contemporary corrections security electronics, which would otherwise serve to reduce the number of staff required to monitor/control access to secure areas while maintaining a high level of security. For example, today's technology tools, such as PDA's and security cards/badges, are used to control and monitor cell doors or provide staff direct access through security doors without the reliance on a control room

[5] MCC is presently planning to consolidate operations of the three control rooms that serve the MPU into a single control room. This will eliminate the need to staff two of the current control rooms

operator. These types of technology serve to reduce the number of staff required to operate security control panels. In addition, it maximizes staff's ability to move freely throughout the facility thereby increasing productivity and/or response time since staff does not have to rely on a control room operator to open security doors within the secure perimeter.

Healthcare

MDOC's healthcare is contracted from Correct Care Solutions (CCS), a correctional healthcare vendor located in Nashville, Tennessee. This includes medical, nursing, dental and mental health care. In addition, counselors who provide substance abuse and sex offender treatment programs are also contracted and included under the single health authority of CCS.

A. Movement to Access Healthcare Services
   Some inmates are allowed to move unescorted to medication administration lines and healthcare scheduled appointments. Other inmates such as those on close custody, unclassified and therapeutic community participants (CRA, RULE) require escort to scheduled appointments. A decentralized model of service delivery would decrease the need for officer escorts and increase the access to healthcare services. However, the current configuration of the MCC provides very limited capacity within to decentralize healthcare services. This impacts security staffing by requiring a minimum of two security officers to provide support to healthcare clinics.

B. Clinic
   Healthcare administration and the primary clinic are located in Dorm 4, which was originally designed as a minimum security dorm. One officer is assigned to the Dorm 4 clinic during routine operating hours for medical, dental and mental health sick call.

   The Dorm 4 clinic is limited to two small general exam rooms, and an optometry exam room that cannot be used for general exam purposes thus decreasing the efficient workflow in providing primary healthcare services. This limited access to care has been addressed by opening a secondary clinic space in B pod center. While this potentially increases access to care, it also impacts staffing by requiring an additional officer to support healthcare. When a second officer is not available, the workflow in the B center clinic stops while medical and mental health providers wait for security to be available.

   Healthcare provided in the MCC clinics is limited to primary care. Most all specialty care is provided in the community. These appointments impact staffing as they require officer transport and escort.

C. Medication Administration
Medication administration is decentralized to a number of locations across the facility campus. Medication is distribution via windows, through cuff ports and at cell side. With 73%[6] of the inmate population prescribed medications, medication administration can take two hours for each medication pass (three per day plus two diabetic passes) all of which require an officer to be present. While the use of a decentralized medication administration model is usually an efficient way to distribute medications, doing so at MCC is hampered by the somewhat unplanned manner in which buildings have been added and the need to keep older facilities in use. Nursing time is spent moving medications carts across the campus several times per day in all types of weather impacting the use of nursing time.

D. Designated Medical Housing
There are no designated medical observation, skilled nursing care or infirmary beds. If an inmate requires infirmary level of care they are transferred to MSP where there are six infirmary beds used by the entire MDOC system and are therefore usually in use. With limited infirmary beds for the system, there are frequent hospitalizations that may require longer lengths of stay. If a transfer to either MSP or to a hospital is scheduled, it requires transport by two officers. When an inmate is hospitalized security staffing is impacted, since inmate must be guarded.

There is also no provision for medical or geriatric housing. There are few ADA accommodations. If an inmate has a short term illness that does not require infirmary care, they are placed on bed rest with medication and meals delivered to them. Depending on the illness, this practice potentially exposes other inmates to the illness[7]. If an inmate requires frequent observation, the inability to provide medical observation compromises staff efficiency requiring a nurse to go to the housing unit every one to two hours to check on the inmate.

E. Dental Care
There is a one dental chair in the dental care area located in the primary clinic. Having only one dental chair slows the provision of dental care to one inmate at a time thus requiring more dentist, dental hygienist and dental assistant time to complete dental care. These additional staff hours must be compensated by the State through the contract with CCS.

Movement

[6] 11/25/13 snapshot from Diamond Pharmacy database. Provided by D.O.N., Jo Howard.
[7] P-B-01, NCCHC; ACI 4-4354, ACA

The design of the facility complex is fragmented and without well-defined sightlines. With the exception of the women's center, housing pods exit directly to the outdoors. There are three primary inmate movement areas, each out-of-doors:

- An enclosed courtyard that serves the Security South and North housing, Security East housing, the gym, the administration and recreation building, and the programs building
- A "sally port" that serves the programs building (rear entrance), the woodshop and industries buildings
- A "runway" that serves the dining hall, recreational fields, dorms, MPU, and the women's center, and is the connector to the courtyard and the "sally port".

This design requires a higher number of staff to adequately monitor, observe and detect out-of-place inmates, transfer of contraband, inmate-on-inmate assaults, etc., than a design that limits the access/movement points.

Programs

Programs, such as education, library, religious, and vocational are delivered in the programs building, which is a three-story structure. The building is a mixture of distinct spaces that do not lend themselves for easy observation by staff, e.g., staff must physically enter the space in order to observe what is happening - there is no glazing on the walls to allow direct observation of the space - which can be disruptive and counterproductive to the activity that is occurring. Because of the large number of inmates present at any given time on any given floor, and the lack of observation capabilities, additional staff is required than would otherwise be required in a well-designed space.

Visitation

Male visitation occurs in the visitation room located in the basement of and accessed via the administration and recreation building. Visitors proceed unescorted through the secure perimeter (outside) to the visitation room without first undergoing security screening. This increases the opportunity to transfer contraband, which may be picked up by inmates at another time. Visitors are security screened in the visitation room prior to visiting. The visiting room has good visibility of all visiting areas. However, the room's remote location makes a timely, effective response to an altercation or an emergency unlikely due to distance and/or the necessity of gaining access through multiple secure doors.

Foodservice

Male dining is centralized in a cafeteria-style dining room. Meals are served using a blind-feed serving line. The dining area is open and easily supervised. The food preparation and storage areas are comprised of several distinct areas, each offering its own set of issues concerning sightlines and, in particular, the ability to easily isolate a staff member or another inmate. The Foodservice Director's office is located near the loading dock, which is removed from the primary foodservice operation. Additional staff is required to provide adequate active supervision of inmate workers.

Laundry

In the laundry area, there is a work/storage area that is not visible from the officer workstation or the laundry proper. This means the officer loses visibility of all laundry operations when his/her work requires them to be in this area either performing tasks or supervising inmate workers. This reduces the officer's ability to effectively provide active supervision of inmate workers in the laundry proper, and presents increased opportunities for inmates to isolate another inmate for untoward purposes.

INTERESTED PARTIES INPUT

Methodology

It is recognized that an essential element of any large-scale, complex and/or controversial undertaking includes public outreach, information and participation. Therefore to address the unique challenges faced in undertaking this feasibility study P/BA undertook informing and otherwise involving the user groups, elected officials, key regulatory agencies, and the public-at-large in the planning and decision-making process. This is an important step because involving key community leaders in the planning process can facilitate the decision-making and approval process while avoiding or reducing conflicts and maintaining focus on critical issues affecting the proposed project. These entities need to be heard during this planning process. Dialogue with them can frequently contribute valuable input and perspectives that can enhance the viability of the project and improve its success.

Three meetings were organized to solicit input from interested parties; they included:

Board of Corrections Chairman and Key MDOC Staff; 12/02/13:

Invitee: Mark Westrum

Attendees: David Lay, Art Thompson, Dennis Morin, SMRT; Curtiss Pulitzer, P/BA; Mark Westrum, BOC Chair; and from MDOC: Joe Fitzpatrick, Jody Breton, Scott Landry, Ralph Nichols, Judy P Beale, Cynthia Brann

Maine Legislature's Criminal Justice Committee; 12/11/13:

Invitees: Senator Stan Gerzofsky, Senator David Dutremble, Senator Gary Plummer; Representative Mark Dion, Representative Michel Lajoie, Representative Bryan Kaenrath, Representative Alan Casavant, Representative Tim Marks, Representative Joshua Plante, Representative Ricky Long, Representative Tom Tyler, Representative Jethro Pease, Representative Corey Wilson

Attendees: Senator Gary Plummer; Art Thompson, SMRT; Curtiss Pulitzer, Cheryl Gallant, Judith Regina-Whiteley, P/BA; and from MDOC: Commissioner Joseph Ponte, Jody Breton, Joe Fitzpatrick, Cynthia Brann, Amanda Woolford

Interested Parties; 12/11/13:

Invitees: Jenna Mehnert, NAMI; William M. Barter, Maine Council of Churches; Judi Garvin, Jim Bergin, Maine Prisoner Coalition; Rachel Talbott Ross, NAACP.

Attendees: ACLU-ME: Oami Amarasingham, Grainne Dunne; Senator Gary Plummer; Art Thompson, SMRT; P/BA: Curtiss Pulitzer, Cheryl Gallant, Judith Regina-Whiteley; MDOC: Joseph Ponte, Jody Breton, Joe Fitzpatrick, Cynthia Brann, Amanda Woolford

A general overview of the MCC Feasibility study and project were discussed at all meetings. The feasibility study includes reviewing the total costs of operating the MDOC facilities, and will consider the cost savings from consolidating housing and services, particularly treatment (substance abuse and sex offenders), vocational training, intensive mental health care, and expanding medical care at MCC. There will be particular emphasis placed on the feasibility of reducing operating costs by maximizing efficient correctional services delivery. In addition, the Community beds for both men and women will be expanded and will be located outside the perimeter on the new MCC grounds.

Salient Input Received

Meeting with the Board of Corrections (BOC) Chairman

Discussion related to Certificate of Need (CON):

One task of the process will possibly include developing a Certificate of Need (CON) for the Board of Corrections.

One of the challenges is that the rules and regulations governing the CON process and required content have never been formalized and the administrative review period sequences once the CON process is defined would likely be as long as 90 days. The timing accordingly would not be in sync with the legislative session that ends in mid-April 2014. The Board of Corrections was to meet on December 17, 2013 and discuss the future of any CON process. The BOC has seen one presentation about this project that is the subject of the feasibility study, and that was during the summer (2013). At the very least, a future presentation of the Feasibility Study will be planned. The Feasibility Study will likely include many of the elements required in a potential CON process including the impact on the counties, impact on the system, and the cost-benefit analysis.

MDOC's Ralph Nichols will seek an opinion from the Attorney General's Office (Andrew Blackman) on the legislative language that stipulates the BOC's role in approving construction of correctional facilities.

A meeting will be scheduled with BOC Chairman Mark Westrum, Commissioner Ponte, Attorney General representatives Andrew Blackman and Dianne Sleek to discuss and identify the legal stages that will be needed for the CON. The possibility of the Feasibility Study meeting the requirement of a CON should be considered.

Discussion Related to Impact on Jails:

The discussions focused on how the new facility will help the counties. It is proposed that capacity will be provided to help the counties with respect to their mental health population and other special needs populations. Data was requested to determine what that need might be. The latest jail population numbers are very dated from 2009. While a 2011 "snapshot" study of the county jail populations was developed, the BOC Chair expressed doubt that it would provide empirical data to define the needs of jail inmates who have mental illnesses. In addition to inmates with a serious mental illness, the new facility will be able to accept county inmates who are too ill to be held in the county jail system.

MCC is currently housing 35 to 40 county inmates due to overpopulation in some county facilities; many are from Aroostook County. The state receives no compensation for housing county inmates. Some MDOC inmates are being boarded out as well with about 55 beds reserved for state inmates in the county facilities: 25 at Two Bridges Regional Jail (TBRJ) and 35 at the Cumberland County Jail. Somerset County Jail has about 40 federal inmates. When the new facility is completed, state prisoners will no longer be housed in the county jails.

Meeting with Criminal Justice Committee Members and Interested Parties

Two meetings, the first one scheduled with the Criminal Justice Committee members and the second one scheduled with Interested Parties, were combined since attendees of both meetings were present together. The purpose of these meetings was to provide an opportunity for interested parties to ask questions and provide input into the process. Senator Gary Plummer who serves on the Criminal Justice Committee and two staffers from the ACLU of Maine were present.

Discussion Related to Current MDOC System:

Commissioner Ponte explained that many of the buildings at MCC, as well as at Downeast and Charleston, were old military facilities that were never intended to be used for correctional purposes. They are outdated and very expensive to operate. The costs of operating will continue to grow at an accelerated rate as the buildings continue to age and deteriorate. It is anticipated that if newer facilities are built at MCC consistent with modern correctional practices that meet treatment and healthcare needs of the inmate population, over time the costs of operating Maine's correctional system will decrease. It is important to understand that there are presently no capital improvement dollars allocated for corrections nor will any proposed capital requests divert funds that could be utilized for other purposes within the state. Any capital monies for a new MCC facility will need to be paid back through cost savings achieved in developing a more cost effective and efficient

correctional system. In addition, the monies that could potentially be saved through the proposed improvements to the MDOC system could in the long run fund other state expenditures outside of corrections.

The system is currently at capacity, and although the projected population growth is low, appropriate types of beds are not available for the aging population and inmates with medical and mental health care needs. Furthermore, the expanded treatment needs of the inmate population are being hampered due to limited space available for those services to be offered. To demonstrate the need for expanded female beds, the Commissioner explained that on the day of the meeting there were only five unfilled female beds allowing little flexibility for assigning appropriate housing. The female population is expanding as well as receiving longer sentences. MDOC is holding 42-45 county inmates, and there are presently 35 state inmates in the county jail system.

Discussion Related to Strategies to Move Forward:

Senator Plummer was clear that he has not yet made a decision whether to support this project. He emphasized the need for any new facility to be clearly proven as cost effective and that it be paid for with existing funds recognizing that many constituents would rather see this money spent for other purposes such as schools or daycare. He also emphasized the need to clearly document that current operational costs will increase every year if they operate at status quo. He suggested that discussions be held with union representatives since they are already concerned about the impact that any change will have on the correctional officers and on staffing. In addition, in the current bipartisan climate it will be necessary for any report to clearly describe "What the facility could be and for what cost?" Efficiency and cost savings will be the compelling factors related to whether or not the Criminal Justice Committee members will be supportive. It will also be necessary to emphasize that the funds to build a new facility do not presently exist nor is it diverting funds for potential other uses.

ACLU staffers inquired about how additional mental health beds would impact the issues at Riverview Psychiatric Hospital (Riverview). Dr. Joseph Fitzpatrick, MDOC Associate Commissioner for Juvenile Services and Director of Behavior Health, explained that the MCC beds would not resolve the issues at Riverview; however, more inmates who have serious mental illnesses will be able to be served within the correctional system.

There was further discussion about using the same financial analysis for MCC as was applied to MSP, when it replaced the old prison at Thomaston and also, the fact that MDOC paid off the bond for Warren in 10 years with the savings from decreased operating costs. It was stated that the same approach was being followed in this feasibility study.

Additional Discussion Related to Impact of the Project:

Site development possibilities for the new MCC were briefly described. The new facility will be located either East or North of the current MCC facility site. Further site studies will be completed before a decision is made. There will be no encroachment on the Maine Society to Prevent Cruelty to Animals (MSPCA) property lines.

The need to meet with community members and interested parties in Windham was also discussed. Suggestions were to include the MSPCA, community residents and other interested parties. It will be important to discuss the intent of the new facilities and whether it will impact current roads and traffic.

Financing options were briefly discussed, especially the need to help interested parties (and non-supporters) to better understand the issues of cost avoidance and again, the parallels with the financial analysis performed for MSP.