CORRECTIONAL FACILITY FEASIBILITY STUDY FOR THE STATE OF VERMONT

MAY 03, 2021

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Foreword

Part I of this report assesses Vermont's existing detention infrastructure. Part I is structured to introduce each site and provide key performance for a global view of the existing infrastructure. This is followed by an in-depth evaluation of the current and projected inmate population and a detailed operational assessment. This section is concluded with an operational summary.
See part II for proposed solutions and how they may be applied.

Given the direct relationship, sections are keyed to the Request for Proposal items for reference.

Part I - Table of Contents

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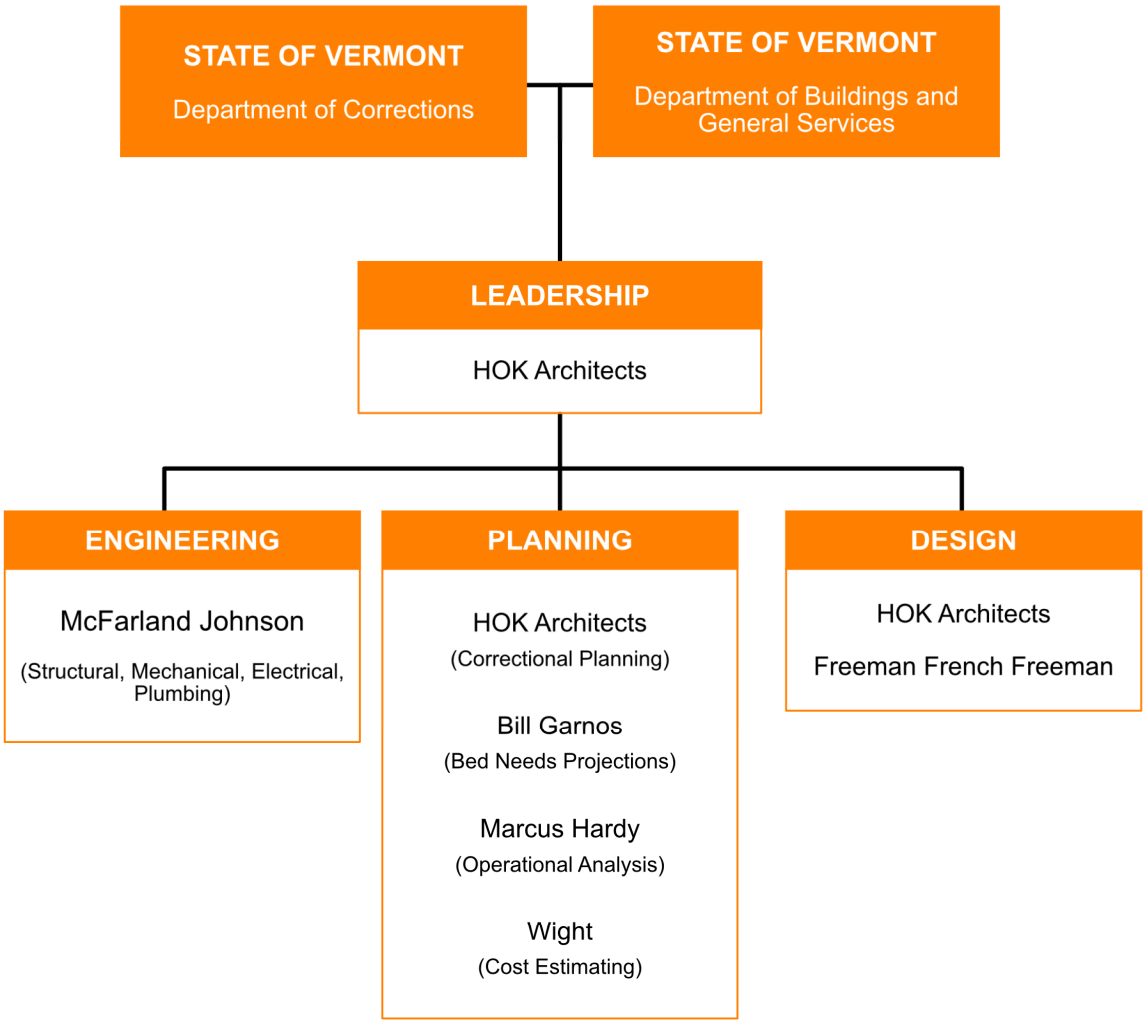
Project Team



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Introduction

HOK is pleased to submit this two-part study for the Vermont Department of Corrections (DOC), as commissioned by Vermont Buildings and General Services (BGS). Part I of the study includes an in-depth look at the existing facilities and reports on their current conditions, while considering the suitability for expansion and modernization. Part 2 of the study focuses on determining what the future setting for the DOC might look like in the future. The various scenarios contemplate all new centralized facilities and iterations that include utilizing existing facilities.

In addressing this study, HOK has assembled a diverse and experienced team to conduct this study, including our own personnel with experience in state and large county master plans and facility design. HOK has partnered with Freemen French Freeman as the local architect with great local knowledge; McFarland-Johnson, for engineering support; Marcus Hardy, recently a deputy director for the Illinois Department of Corrections; and Bill Garnos, a long-time veteran in the discipline of projecting future bed needs for systems.

The Vermont detention system stands at a crossroads. On one hand, the current system has served the community to date with progressive and effective programs. However, Vermont's detention facilities are aging and rely on a series of unique solutions resulting in a patchwork of service. This patchwork makes it difficult to achieve standardized models, resulting in expensive renovations, partial solutions, non-compliance with national standards and inequity in programs. Using Chittenden Regional Correctional Facility as an example, these conditions have created a condition where both inmates and staff are not properly served, resulting in a culture of ineffectiveness and less than optimal results.

When combined with Vermont's desire to bring inmates home, the nation's highest staff to inmate ratio, and the system's high deferred maintenance costs, this leaves little room for the system's ability to respond to new detention standards and enact cost saving measures including applying for funds associated with housing federal inmates. We understand the state also desires to introduce new programs to enhance inmate outcome and decrease recidivism. It is clear structural change is needed to change the path of this institution.

In response we have proposed a series of options for restructuring corrections in Vermont. These options consider existing and future needs. They also have been organized from models that can achieve the highest level of long term operational efficiency to approximating the existing system to models propose only a targeted intervention. Some of the organizing project goals are as follows. Some options achieve these goals better than others. See Pros/Cons and project matrix for performance:

- Goal to house all Vermont inmates within Vermont facilities and addressing growing offender populations
- Goal to restructure the system to bring Vermont's criminal justice system in line with national standards
- Goal to restructure the system in promotion of reducing prison populations and recidivism
- Goal to introduce re-entry facility and improve offender outcomes
- Additional goals and drivers listed in the conclusion of the facilities and operations report.

Further, as we conducted the study and worked closely with the BGS and DOC stakeholders, we further refined our recommendations to include the following criteria as benchmark goals:

- Consider the condition and opportunities for expandability of existing facilities
- Evaluate operational costs, with a focus on staff to inmate ratios
- Consider the size, feasibility, sequencing and overall cost impacts of any plan
- Create a new, unique facility for women
- Create re-entry facilities for men and women
- Support current and future programs for DOC
- Consider operations with county partners and medical needs for inmates, along with overall transportation issues

Again, this team is pleased to the serve the State of Vermont in evaluating and recommending a path forward for this vitally important social system

Existing Document Review

HOK Architects (HOK), McFarland Johnson (MJ) and Freeman French Freeman (FFF) conducted meetings with the Department of Buildings and General Services (BGS) staff and District Facility Managers to review the current conditions of all the correctional facilities. The 2014 facility condition assessments completed by EMG were referenced heavily during these meetings. The intent of the meetings was to review the Facility Condition Index (FCI) and specific items within the 2014 document identified as deferred maintenance compared to the current condition of the facility. The Facility Condition Index (FCI) gives an indication of a building's overall state of condition. The values are based on a 0-100% scale and are derived by dividing the repair costs for a facility by a theoretical replacement value. The replacement value is calculated by multiplying the existing building square footage by the cost per square foot to construct a new, similar facility. The 2014 Facility Condition Assessments identified an element or systems Remaining Useful Life (RUL), along with referencing Expected Useful Life (EUL) tables from various industry sources. The RUL of a component or system equals the EUL less its effective age. Within the report, EMG opines as to when a system or component will most probably necessitate replacement, generating estimated maintenance costs and deferred maintenance. Through these meetings, the tabulations by EMG were updated to calculate the estimated deferred maintenance costs from 2014-2020, and projected future capital costs into 2032.

Due to travel restrictions resulting from COVID-19, HOK, MJ and FFF were not able to visit the sites and relied on documents provided by BGS, Department of Corrections (DOC) and the input from the BGS District Facility Managers.

In 2019 the Department of Justice completed an ADA audit of all Vermont's correctional facilities. BGS and DOC are awaiting the release of the report.

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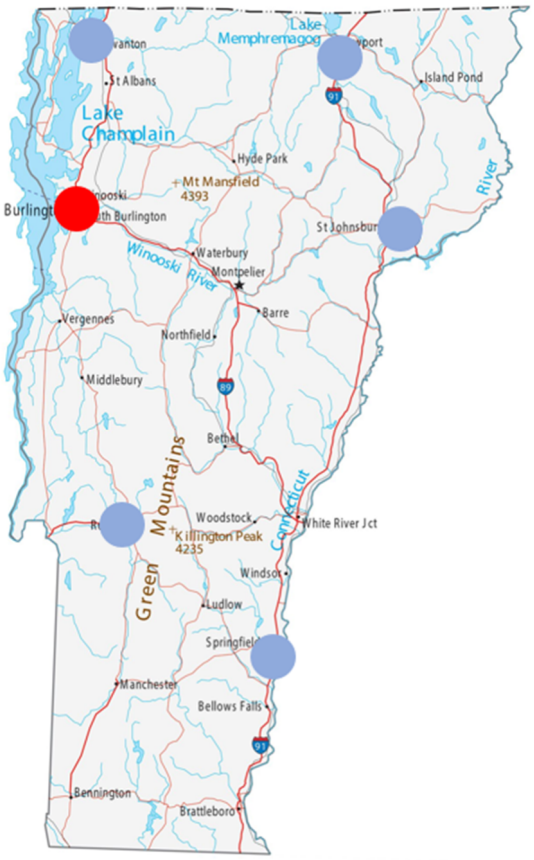
Chittenden Regional Correctional Facility (CRCF)



FACILITY OVERVIEW

Chittenden Regional Correctional Facility (CRCF) is located in the northwest region of the state, housing a maximum of 177 female inmates. The facility was constructed in 1974 with an addition to the physical plant, living units and office space in 1983. With an approximate area of 51,211 GSF on 6.02 acres, the 2-story facility is in the city of South Burlington, Vermont.

The facility faces several challenges, with failing infrastructure, growing deferred maintenance and limited area for expansion. At the time of the 2014 assessment, the Facility Condition Index (FCI) was given a score of 16.47%, classifying the facility in “Poor” condition. At the time of the 2014 assessment there was an immediate capital need of $3,188,744 with an added $3,109,503 needed from 2014-2024.

SUBSTRUCTURE SYSTEMS

No issues regarding foundation settlement or slab-on-grade cracking were brought to our attention.

SHELL SYSTEMS

The exterior of the building is primarily composed of brick veneer with standing seam metal roofing fascia. At the time of the assessment the perimeter metal fascia needed repair. There are several areas where masonry walls built of both brick

veneer and structural concrete masonry units (CMU) have cracked joints, missing mortar and broken blocks. There is no evidence that there have been any major capital improvements to the exterior beyond routine maintenance and likely remains in a similar or worse condition than the assessment indicated.

No issues regarding rusting steel framing, even around roof leak locations, were brought to our attention.

INTERIOR SYSTEMS

Interior finish systems are overall in "poor" condition. The most common issue is the detention doors and hardware, which are failing and cannot be serviced. If a repair part is required, it takes up to 4 months to receive the part.

Routine maintenance includes painting of the floors and walls within the secure areas. Inmate bathrooms are typically ceramic tile that often have tiles separating from the mortar bed. At the time of the assessment a large portion of the acoustic ceiling tiles were deteriorated and sagging, and there is no documentation that any repairs have been completed.

SERVICE SYSTEMS

The existing electrical distribution system at CRCF has not experienced any noteworthy failures. However, as additional loads and branch circuits were added to the facility, the limited number of available circuit spaces in the existing panelboards has become an issue. An arc flash study to determine the available incident energy and work boundaries at each location in the electrical distribution system has not been performed at this facility so the level of personal protective equipment (PPE) required to work on live circuits would be unknown. Adding sub-feed panelboards to the existing switchgear would have to be an orchestrated effort requiring an electrical shutdown, which may be difficult due to the nature of a correctional facility.

The existing fire alarm system is dated and has reached its end-of-life. It was noted by BGS that sourcing new parts has become difficult. The main fire alarm control panel was replaced in February 2021.

The existing 375 kW diesel generator serving the building is exercised with full load every month. It is currently oversized for the 1200A service so an increase in electrical demand of the building may not prompt reconfiguration of the emergency system. This would be dependent on the additional load and the existing peak electrical demand.

The heating, ventilation, and air conditioning (HVAC) system has reached the end of its useful life. The air distribution ductwork has been modified and can no longer supply the correct amount of air to each space. Building automation controls have also been modified through the years and the system consists of multiple generations from multiple control vendors. The general evaluation for the HVAC system is that it will need to be replaced in its entirety if the facility is going to continue to operate.

The plumbing systems throughout the facility are aging. System components such as the piping, hot water storage tanks and fixtures on the secure side of the facility are starting to fail. A complete overhaul of the plumbing system should be considered if the facility is going to continue to operate.

BUILDING SITEWORK SYSTEMS

Portions of the paved sidewalks have been settling, making for uneven walking surfaces, and sidewalk curbing is starting to erode, especially in areas where snowmelt salt is used. The perimeter sidewalk is located at a distance away from the building such that falling snow from the roof covers the sidewalk.

HOSPITAL AFFILIATES

Inmates in need of medical care are transferred to UVM Medical Center, 3.5 miles away in Burlington.

COMMUNITY

South Burlington has a population of 19,162 people according to the 2019 United States Census. The median age for South Burlington residents is 41.7 years, with a median income of $73,065.

Chittenden County has a population of 162,646, the largest county in the State of Vermont according to the 2019 United States Census. The median age in Chittenden County is 36.5 years with a median income of $73,647. 5.8% of Chittenden County families live in poverty.

EXPANSION

The centralized complex has limited space in the site for expansion and is not recommended. The Potash Brook is located directly to the north of the facility.

DEFERRED MAINTENANCE

Based on the 2014 facility condition assessment and interviews with the District Facility Managers, it is estimated that the current deferred maintenance costs are estimated around $4,822,294 for the facility with an estimated $4,966,380 in capital improvements needed within the next 11 years.

Description	Deferred Maintenance	Scheduled (2021-2032)
Shell	$378,367	$778,551
Interior	$3,302,092	$3,053,307
Services	$520,482	$900,915
Equipment and Furnishings	$176,112	$167,190
Sitework	$445,241	$65,417

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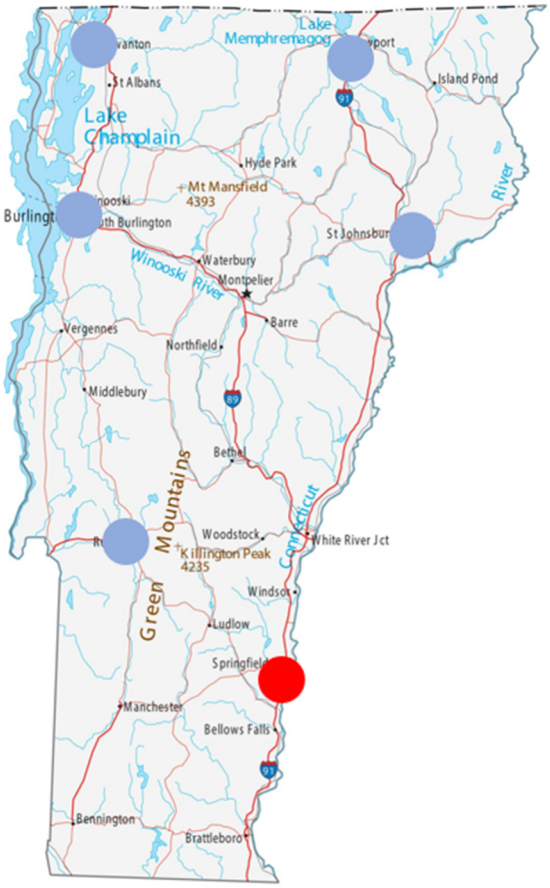
Southern State Correctional Facility (SSCF)



FACILITY OVERVIEW

Southern State Correctional Facility (SSCF) is located in the southeast region of the state, housing a maximum of 377 male inmates. Constructed in 2004, it is the newest correctional facility in the state. With an approximate area of 145,805 GSF on 27 acres, the campus style complex includes six buildings found in the town of Springfield, Vermont.

Despite being the newest facility, there have been ongoing maintenance issues, including plumbing degradation, detention door and hardware issues and perimeter fence concerns. At the time of the 2014 assessment, the average Facility Condition Index (FCI) was given a score of 0.009%, classifying the facility in “excellent” condition. At the time of the 2014 assessment there was an immediate capital need of $10,000 with an added $3,706,542 of capital improvements needed from 2014-2024.

SUBSTRUCTURE SYSTEMS

No issues regarding foundation settlement or slab-on-grade cracking were brought to our attention.

SHELL SYSTEMS

The exterior enclosure of the building does not appear to need any major capital improvements aside from routine caulking of expansion joints. The most prevalent issue is the ongoing roof leaks throughout the facility. The District Facility Manager noted active leaks in the F and E housing units, with a full roof replacement including EPDM membrane and insulation needed before 2024. EPDM roofing system on DEF unit requires replacement before 2022. No issues regarding rusting steel framing, even around roof leak locations, were brought to our attention.

The detention windows within the secure perimeter were noted to be in fair condition. There are bent screens throughout, as a result of inmate abuse. The windows, by CM security, have been discontinued and availability of parts has been an ongoing issue. A full assessment of the windows and their thermal performance is recommended.

INTERIOR SYSTEMS

Interior finish systems are overall in "fair" condition, with several capital improvement programs either completed or scheduled to be completed in the next 5-10 years. These include renovations to the public entry which consist of new flooring, interior storefront, hardware and concrete sitework. A project is currently in design development to replace 48 detention door leafs in F unit and is expected to be out for bid in the coming months. A work order request for a safe cell within restrictive housing has been submitted to BGS and will completed by 2022.

SERVICE SYSTEMS

The existing electrical distribution system is in good condition; there are no issues regarding building load or the transformers. Each building on the campus is served by its own step-down transformer from a 12.47kV circuit and a common life safety service. This campus electrical configuration facilitates the addition of multiple buildings to the campus as the primary circuit can be extended without interrupting service to other buildings on the campus. Due to the age of the buildings (constructed in 2004), circuit breakers and parts for the panelboards are readily available. However, like the older facilities, the limited number of available circuit spaces is becoming an issue.

The fire alarm system is original to the buildings and is reaching its end-of-life. As products near their end-of-life, sourcing replacement parts becomes a more difficult task. Any future building additions to the campus will require all existing head-end fire alarm control panels to be replaced using a retrofit kit. This type of replacement has been provided in other facilities.

The HVAC system consists of a central, propane fired, steam boiler plant. The steam is delivered to each building through an underground piping distribution system. Most underground piping was replaced within the past 5 years. The boilers are aging and continuously failing despite ongoing maintenance and should be replaced. Each building is served by air handling units (AHU's). The units are functioning as they should. The building automation system is scheduled to be re-commissioned within the next year. The underground steam piping system was sized to handle a future building.

Plumbing systems are functioning as they should, and the supply, return and re-circulation piping was replaced within the past 5-6 years.

BUILDING SITEWORK SYSTEMS

The front concrete sidewalk has been deteriorating due to the use of snowmelt salt. This is being replaced as part of a current maintenance project.

HOSPITAL AFFILIATES

Inmates in need of medical care are transferred to Springfield Hospital, 4.7 miles away in Springfield.

COMMUNITY

Springfield has a population of 8,908 people according to the 2019 United States Census. The median age for Springfield residents is 47.1 years, with a median income of $48,134. 11.7% of Springfield families live in poverty.

Windsor County has a population of 56,658, the fourth largest county in the State of Vermont according to the 2019 United States Census. The median age in Windsor County is 47.7 years with a median income of $58,303. 10% of Windsor County families live in poverty.

EXPANSION

Included in the ACT 250 permit, the facility is permitted an expansion to increase the capacity to 500 beds along with a stand-alone Future Industry Building and the infrastructure is in place to accommodate these new buildings. The additional housing unit would allow for a maximum of 123 inmates, provided a study supporting the increased capacity is submitted to the State. According to floor plans provided by BGS, the proposed Future Industry Building is approximately 21,157 gross square feet located to the East of the core facility. The Future Industry Building was not designed for a specific prison industry. As outlined in ACT 250, upon the selection of a prison industry type the District Coordinator will need to be notified to amend the Land Use Permit. According to the District Facility Manager, all necessary infrastructure is in place for this expansion, and the kitchen and support spaces are sized to accommodate the added capacity.

DEFERRED MAINTENANCE

Based on the 2014 facility condition assessment and interviews with the District Facility Managers, it is estimated that the current deferred maintenance costs are estimated around $547,113 for the facility with an estimated $6,798,297 in capital improvements needed within the next 11 years.

Description	Deferred Maintenance	Scheduled (2021-2032)
Shell	$0	$418,660
Interior	$100,187	$1,331,751
Services	$183,684	$4,413,898
Equipment and Furnishings	$263,242	$155,082
Sitework	$0	$478,905

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Marble Valley Regional Correctional Facility (MVRCF)

FACILITY OVERVIEW

Marble Valley Regional Correctional Facility (MVRCF) is in the southwest region of the state, housing a maximum of 118 male inmates. Constructed in 1979 on the site of the Rutland House of Corrections, the marble and brick wall anchoring the facility is the last ruminant of its past life. With an approximate area of 34,308 GSF on 5 acres, the Rutland facility is composed of the Main Building, Education Building and Storage Building.

Like CRCF, the aging facility faces several maintenance issues, including ongoing door, window and hardware issues. At the time of the 2014 assessment, the average Facility Condition Index (FCI) was given a score of 1.00%, classifying the facility in "excellent" condition. At the time of the 2014 assessment there was an immediate capital need of $147,733 with an additional $1,237,199 of capital improvements needed from 2014-2024.

SITE

The site appears to be properly graded, specifically at the north and west sides of the education building due to a previous gardening program. Local areas are elevated 6'8" on the interior of the perimeter fence, burying the fence fabric. There are no areas on the site of that experience standing water. Recent capital improvements include repaving the basketball courts

at the recreation yard and an expansion of 8 parking spaces to the east parking lot in 2013. The District Facility Manager indicated the current truck trap is too narrow and should be widened to allow easier maneuvering. Improvements to the perimeter security fence are planned, and grading issues at the fence line will be addressed during that improvement.

SUBSTRUCTURE SYSTEMS

A sinkhole along the barrier wall, which is not attached to the building structure, was recently remediated. The sinkhole is likely attributed to improper soil compaction during the rebuilding of the historic barrier wall. No other issues regarding foundation settlement or slab-on-grade cracking were brought to our attention.

SHELL SYSTEMS

The exterior of the facility is primarily a brick/stone veneer system and is in overall good condition. Routine maintenance is required to remove organic material as well as routine pointing and caulking of expansion joints. The primary issue with the facility is the failing windows. Most of the windows, detention and architectural, are failing and parts are not readily available. Additionally, the exterior doors are deteriorating and need to be replaced. The roofing system on the main facility requires a full tear off, however the corrugated metal roofing system on the education building is in good condition.

INTERIOR SYSTEMS

The overall interior condition is in “good” condition. Major capital improvements include new carpet in the administration area and vinyl tile in the medical area. Detention doors, hardware and door control system are planned for replacement in the next 3 years.

Routine maintenance includes painting of the floors and walls within the secure areas. Inmate bathrooms are typically ceramic tile that routinely separate from the mortar bed. At the time of the assessment all ceilings were in overall “good’ condition.

SERVICE SYSTEMS

The electrical distribution system is original to the building. The limited number of available circuit spaces in the existing panelboards as new loads are added has become an issue. If an expansion were to occur, additional electrical panelboards would have to be added. No known arc flash study has been performed so adding sub-feed panelboards to the existing system would have to be a coordinated effort due to electrical shutdowns.

The fire alarm system has been retrofit with new fire alarm control panels. The existing 275kW emergency diesel generator and its associated transfer switches have also been replaced within the last four years.

The building boilers were installed in 1990 and upgraded in 2010, and they appear to have adequate capacity. The HVAC pumps and piping systems are operating as they should. Building controls are operating but software is no longer supported. A BGS project to replace the building controls has been funded with major maintenance funds and is expected to be completed by 2022.

The plumbing system is approximately 40 years old and the piping is starting to show signs of failure, including roof drains and leaders starting to rust out. It was noted that there is significant build up in the main drain.

Piping systems should be evaluated and repaired if the facility is going to continue to operate

HOSPITAL AFFILIATES

Inmates in need of medical care are transferred to Rutland Regional Hospital, 3.6 miles away in Rutland.

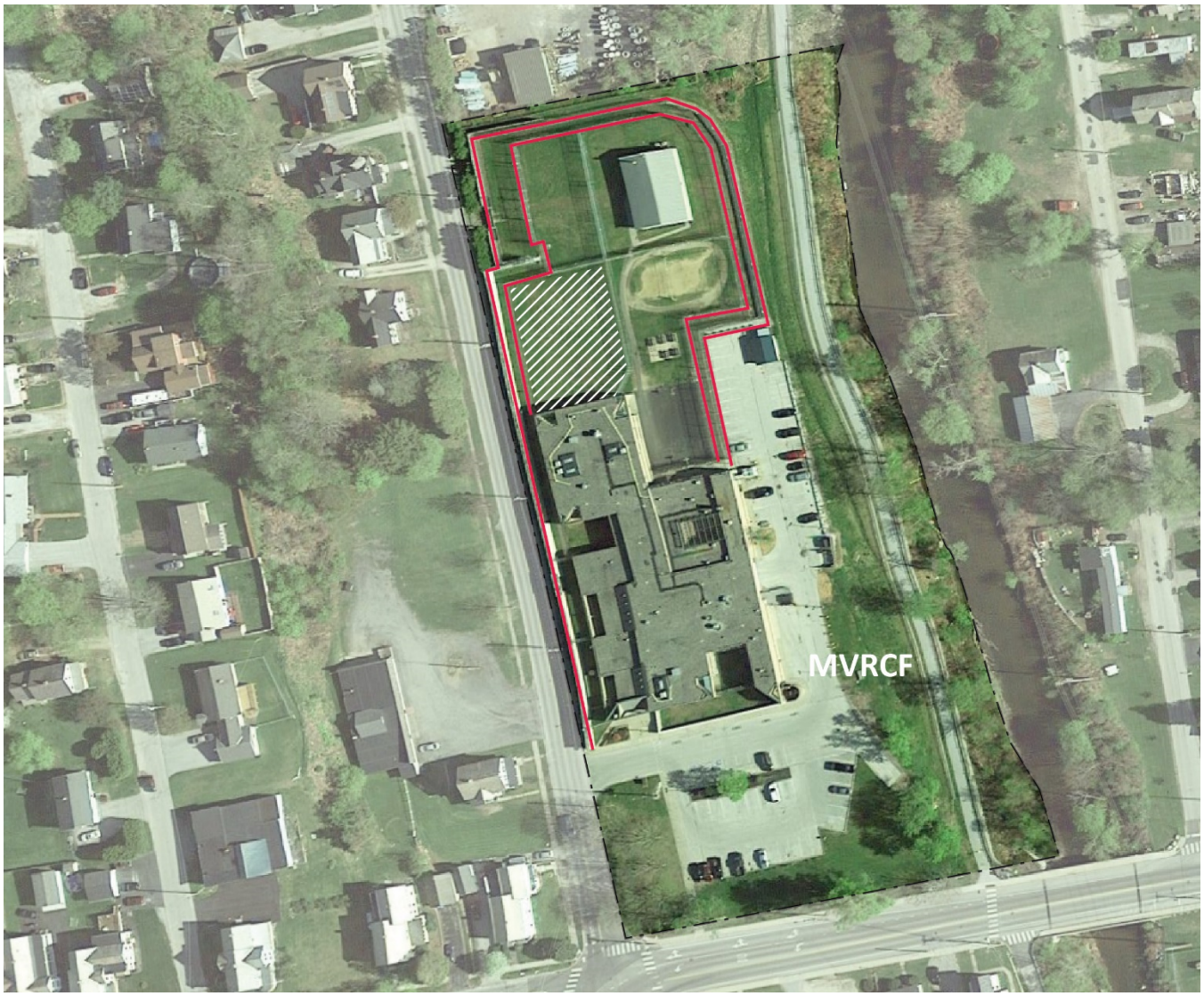
COMMUNITY

Rutland has a population of 15,398 people according to the 2019 United States Census. The median age for Rutland residents is 45.5 years, with a median income of $48,212. 10.8% of Rutland families live in poverty.

Rutland County has a population of 58,892, the second largest county in the State of Vermont according to the 2019 United States Census. The median age in Rutland County is 46.5 years with a median income of $56,139. 6.5% of Rutland County families live in poverty.

EXPANSION

The facility is primarily designed as a centralized facility, with a single accessory program building on the northeast corner of the site. There is space within the existing perimeter for a stand-alone expansion to the north, however, the existing infrastructure is at capacity.



DEFERRED MAINTENANCE

Based on the 2014 facility condition assessment and interviews with the District Facility Managers, it is estimated that the current deferred maintenance costs are estimated around $1,200,737 for the facility with an estimated $1,297,597 in capital improvements needed within the next 11 years.

Description	Deferred Maintenance	Scheduled (2021-2032)
Shell	$312,606	$68,455
Interior	$94,962	$250,253
Services	$205,360	$377,634
Equipment and Furnishings	$21,917	$25,620
Sitework	$565,893	$575,636

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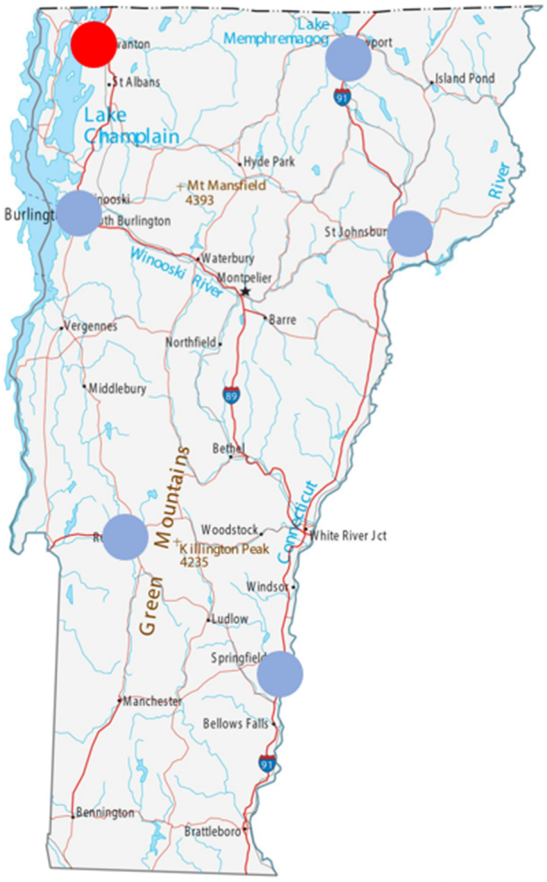
Northwest State Correctional Facility (NWSCF)



FACILITY OVERVIEW

Northwest State Correctional Facility (NWSCF) is in the northwest region of the state, housing a maximum of 255 male inmates. The Main Corrections Building was constructed in 1969 with the newest building, the Satellite Housing Unit, built in 1996. With an approximate area of 114,082 GSF on 85 acres, the campus includes eleven buildings found in the town of St. Albans, Vermont.

There have been ongoing maintenance issues, including plumbing degradation, detention door and hardware issues and perimeter fence concerns. At the time of the 2014 assessment, the average Facility Condition Index (FCI) was given a score of 38.48%, classifying the overall facility in “Poor” condition. The FCI was decreased due to the condition of the Historic Homestead and Barn, which has been excluded in the estimated deferred maintenance costs. The Main Correctional Building and Satellite Housing Unit were in “fair” condition. At the time of the 2014 assessment there was an immediate capital need of $6,189,055 throughout the facility with an additional $7,704,944 of capital improvements needed from 2014-2024.

SITE

The facility is surrounded by wetlands and suffers from standing water on the east side of the site, primarily by the recreation fields. The gravel perimeter security road experiences ponding water adjacent to the roadway during heavy rains. The entrance road and parking lot were recently repaved and in good condition.

SUBSTRUCTURE SYSTEMS

The kitchen loading dock is experiencing concrete deterioration issues and per the District Facility Manager, it has a remaining life expectancy of less than 20 years. No issues regarding foundation settlement or slab-on-grade cracking were brought to our attention.

SHELL SYSTEMS

The age of the roofs varies at each facility, with the roof over A, B, and C unit replaced recently. A work order has been issued for a roof replacement over the dining hall on the main facility. No issues of rusting steel framing due to roof leaks were brought to our attention.

The brick masonry veneer on the Main Corrections Building is in poor condition with several areas of cracked joints and missing mortar. Some sections of brick have fully delaminated from the wall.

The detention window systems have been replaced as part of a renovation to the Satellite Housing Unit building. The stainless-steel framed windows have a polycarbonate glazing and have over 20 years of remaining useful life.

INTERIOR SYSTEMS

Interior detention doors are at varying levels of repair. A detention door replacement project was completed in B and C units within the last 10 years. I and J units contain wood doors that have deteriorated and need to be replaced with traditional detention doors and hardware. Detention doors, hardware and door control system are planned for replacement in the future. Exterior doors throughout the facility need to be reviewed for structural integrity, with doors within the kitchen noted as needing to be replaced immediately.

SERVICE SYSTEMS

Like the other facilities, there are no consistent failures in the electrical system at Northwest State Correctional Facility. The existing pole-mounted utility transformers have recently been replaced. Like other facilities, existing circuit spaces in panelboards are being used up as additional circuits are added throughout the facility. If an expansion were to occur, additional electrical panelboards would have to be added. No known arc flash study has been performed so the level of personal protective equipment (PPE) required to work on live circuits is unknown. Adding sub-feed panelboards to the existing system would have to be a coordinated effort due to electrical shutdowns and the nature of a correctional facility.

The entire fire alarm system has been retrofitted with new fire alarm control panels in the fall of 2020. Each building has its own control panel, and all control panels are interconnected in a campus-wide system.

The HVAC system in the building consists of 3 aging boilers and should be considered for replacement. Building controls are new and operating as expected. The systems in the maintenance, print shop, I/J units, and the auto shop are functioning as they should.

The plumbing was noted to be in good condition. The capacity of the wastewater treatment plant will need to be evaluated if facility expansion is going to be considered.

BUILDING SITEWORK SYSTEMS

Concrete at the front entrance was recently replaced with asphalt pavement due to deterioration issues from the use of snowmelt salt. A portion of the east recreation field regularly has surface water.

HOSPITAL AFFILIATES

Inmates in need of medical care are transferred to Northwest Medical Center, 5 miles away in the city of St. Albans.

COMMUNITY

St. Albans has a population of 6,801 people according to the 2019 United States Census. The median age for Swanton residents is 36.1 years, with a median income of $54,537. 10.7% of St. Albans families live in poverty.

Franklin County has a population of 49,116, the fifth largest county in the State of Vermont according to the 2019 United States Census. The median age in Franklin County is 40.4 years with a median income of $65,485. 5.5% of Franklin County families live in poverty.

EXPANSION

There is ample space within the secure perimeter for future construction. The kitchen is currently sized to accommodate an additional 100 beds. Additional infrastructure would be required to accommodate any expansion or stand-alone facility. The current administration area within the Main Corrections Building is undersized and needs to be expanded. There is space on the existing parcel for a stand-alone re-entry building.

DEFERRED MAINTENANCE

Based on the 2014 facility condition assessment and interviews with the District Facility Managers, it is estimated that the current deferred maintenance costs are estimated around $4,769,516 for the facility with an estimated $3,759,975 in capital improvements needed within the next 11 years.

Description	Deferred Maintenance	Scheduled (2021-2032)
Substructure	$22,903	$0
Shell	$1,952,262	$941,724
Interior	$1,931,159	$1,687,167
Services	$410,812	$772,094
Equipment and Furnishings	$90.297	$337,320
Sitework	$362,082	$21,659

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Northern State Correctional Facility (NSCF)

FACILITY OVERVIEW

Northern State Correctional Facility (NSCF) is in the northeast region of the state, housing a maximum of 433 male inmates. Much of the facility was constructed in 1992 with the remaining facilities constructed in 1997. With an approximate area of 148,093 GSF on 41 acres, the campus style complex includes eight buildings found in the city of Newport, Vermont.

At the time of the 2014 assessment, the average Facility Condition Index (FCI) was given a score of 4.36%, classifying the facility in “excellent” condition. At the time of the 2014 assessment there was an immediate capital need of $1,698,150 with an added $6,389,657 of capital improvements needed from 2014-2024.

SUBSTRUCTURE SYSTEMS

The exterior concrete landing at the top of the staircase in front of main control is heaved and cracked. The concrete at the Admin Building loading dock has heaved. Both items are currently in design and to be corrected within the next year.

The tunnel system has constant groundwater and sewage leaks. A leak in the B wing tunnel floor looks to be allowing in groundwater. It is unknown if there are concrete deterioration issues or subsurface soil consolidation issues due to these leaks. A waterproofing project was completed in 2013 for the top of the tunnel. The kitchen grease trap is past its remaining useful life and a project to replace it is currently in design.

SHELL SYSTEMS

The most notable issue is regarding the window system at the facility. The steel windows in concrete construction are not well insulated and some do not close properly. Similarly, the standard windows are nearing the end of their useful life and should be upgraded with a higher performing window system. The building, including the cells, are very drafty and numerous complaints are received during the winter months.

Exterior CMU walls and piers at the top of the staircase in front of main control are cracked and broken. This may pose a structural concern to the roof it supports. A project is currently in design to rectify these issues.

INTERIOR SYSTEMS

A major capital improvement to replace detention doors, frames, hardware, door controls and camera systems is ongoing throughout the facility. All inmate showers have been renovated to a full epoxy system.

No issues regarding rusting steel framing were brought to our attention as a result from water infiltration.

Accessible housing is provided in housing unit E.

SERVICE SYSTEMS

Each building at the Northern State Correctional Facility is served by its own step-down transformer. One of the transformers in the campus is slated to be replaced due to the transformer failing. All feeds in the campus originate from the 277/480V service in the Admin/Seg/Dining, Garage, and Grinder Building. This campus electrical configuration differs from SSCF in that the addition of multiple buildings to the campus requires a service interruption in the Admin/Seg/Dining, Garage, and Grinder Building.

Like the other facilities, the limited number of available circuit spaces in the existing panelboards is becoming an issue.

The entire fire alarm system has been replaced during the second half of 2020.

The existing 900kVA diesel generator serves the entire campus and is exercised with load every week. An increase in electrical demand in the campus may prompt a reconfiguration of the emergency system depending on existing demand and extent of additional load.

Building A1, A2, B, C, D, and E, are served by 2 wood boiler and 2 sectional boilers. One of the sectional boilers is no longer reliable and there is not enough capacity even with all 4 boilers operating in extreme cold weather. The plant should be upgraded. Building VCI-1 and 2 each have their own boilers and they appear to operate as they should. Piping between building A2, B, C, D and E is installed in a tunnel system and is in good shape. VCI 1, VCI 2, A1 and the booking garage are not connected to the tunnel system. Building controls are scheduled for replacement in 2021.

The plumbing system is at capacity, with buildings A1, A2, B, C, D, and E, being served by 2 domestic boilers. Building VCI 1 and 2 each have their own domestic hot water heater. The sewage ejector pump is serviced about 3 times a year. The grinder and its controls show signs of wear and are in the process of being replaced.

HOSPITAL AFFILIATES

Inmates in need of medical care are transferred to North Country Hospital, 4.6 miles away in Newport.

COMMUNITY

Newport has a population of 4,305 people according to the 2019 United States Census. The median age for Newport residents is 53.4 years, with a median income of $64,063. 9.3% of Newport families live in poverty.

Orleans County has a population of 27,037, the eleventh largest county in the State of Vermont according to the 2019 United States Census. The median age in Orleans County is 45.8 years with a median income of $47,915. 10.2% of Orleans County families live in poverty.

The DOC issues an annual per-bed payment to the City of Newport.

EXPANSION

Located to the west of the facility is a class II wetland. There is space on the existing parcel to construct a stand-alone re-entry facility to the west of NSCF, however any proposed additions outside the secure perimeter would need further review of site constraints, including grades and soil conditions. There is limited space within the secure perimeter for expansion to any of the existing buildings, however there is an opportunity to consolidate vocational training and repurpose VCI 2.

DEFERRED MAINTENANCE

Based on the 2014 facility condition assessment and interviews with the District Facility Managers, it is estimated that the current deferred maintenance costs are estimated around $6,588,469 for the facility with an estimated $5,536,919 in capital improvements needed within the next 11 years.

Description	Deferred Maintenance	Scheduled (2021-2032)
Shell	$2,972,234	$1,063,228
Interior	$517,137	$972,804
Services	$3,039,798	$1,631,681
Equipment and Furnishings	$59,300	$1,869,207

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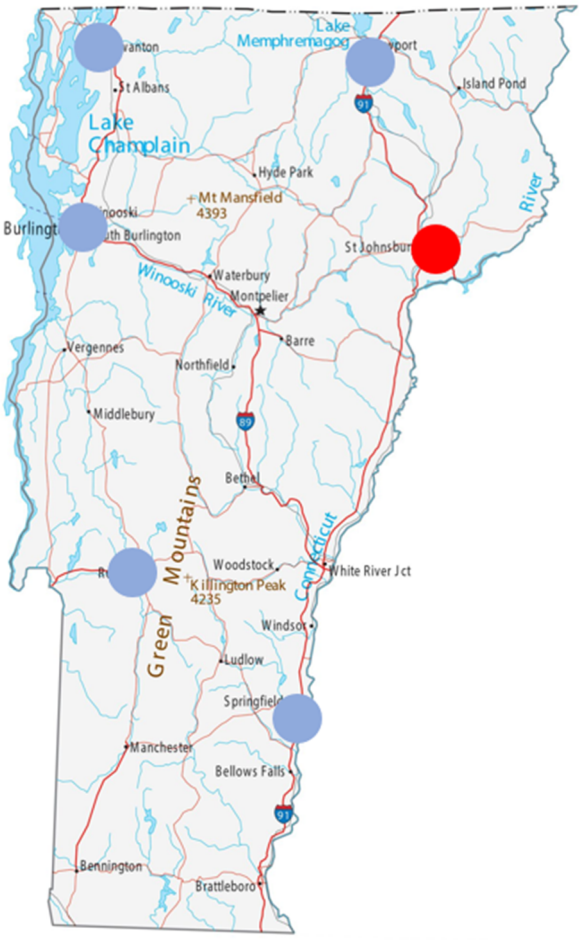
Northeast Regional Correctional Complex (NERCF & CWCC)



FACILITY OVERVIEW

Northeast Regional Correctional Complex consists of two facilities, Northeast Regional Correctional Facility (NERCF) and Caledonia Community Work Camp (CCWC) are in the northeast region of the state, housing a maximum of 219 male inmates.

Much of the NERCF facility was constructed in 1982 with auxiliary buildings constructed in 1990 and woodsheds completed in 2000. With an approximate area of 39,819 GSF on 47 acres, the campus style complex includes nine buildings found in the town of St. Johnsbury, Vermont.

Located on the same parcel, CCWC is located to the southwest of NERCF. The Administration, Dormitory and Maintenance Buildings were constructed in 1995 with three woodsheds built between 2000 and 2004. In total, CCWC totals 26,760 GSF.

At the time of the 2014 assessment, the average Facility Condition Index (FCI) was given a score of .33%, classifying the facility in “excellent” condition. At the time of the 2014 assessment there was an immediate capital need of $147,073 with an added $1,119,053 of capital improvements needed from 2014-2024.

SITE

A current project to analyze the site grading at both NERCF and CCWC. Drainage swales at CCWC are filled in and cause seasonal ponding water throughout the site. NERCF experiences water infiltration in B and E units during heavy rain and snowmelt.

The existing hardscape is experiencing heaved concrete throughout the facility, likely caused by salt deterioration and poor subsurface conditions.

Parking at NERCF is accommodated with one parking lot to the northeast and another at the entrance road. In total there are 41 standard and 5 ADA parking spaces. Parking at CCWC is accommodated with a gravel parking lot to the southeast and a parking lot to the south. According to record drawings the combined parking lot capacity is 49 parking spaces. An additional gravel lot between both CCWC and NERCF also appears to be used as overflow parking. This overflow parking area was previously a fire pond and the original drainage swales have been filled with gravel, contributing to the ponding of stormwater at the facility. A capital improvement project to redo the 40 parking spaces off the entry drive is pending approval. The District Facility Manager noted the parking capacity is not adequate for the facility.

SUBSTRUCTURE SYSTEMS

The tunnel system has constant water and sewage leaks. Exposed steel in the tunnel below D unit is significantly rusted. It is unknown if there are concrete deterioration issues or subsurface soil consolidation issues due to these leaks.

SHELL SYSTEMS

The most notable issues at the facility are the number roof leaks at NERCF and CCWC. There have been several leaks in Building A at CCWC and approximately 5 in the Main Building at NERCF. All roofing has been temporarily patched, and the full ballasted EPDM roofing on the Main Building of NERCF and the fully adhered EPDM membrane on the Administration Building at CCWC should be replaced.

The window systems are past their remaining useful life. The District Facility Managers commented they are very drafty, lack visibility and operability. This is consistent for both detention and non-detention windows. A capital improvement project to replace the windows in the A unit is scheduled to take place in the Spring of 2021. The detention windows in E and F unit have been replaced.

Detention doors are in fair overall condition, with many of the doors, frames and hardware original to the facility. Replacement of hardware and door leaves is completed as required, with the reuse of the existing frames. An overall door control system replacement has not occurred at either NERCF or CCWC.

There are locations noted as having deteriorating brick veneer around B and C units at NERCF. Bricks were said to be “falling off” B Unit.

INTERIOR SYSTEMS

There were no issues regarding rusting steel framing, besides in the tunnel, brought to our attention due to water infiltration.

The A unit is scheduled to receive a shower renovation which will include removing the existing floor and wall tile and applying a seamless epoxy coated system. The desire is to complete this type of renovation to all showers in the facility.

The facility is not ADA compliant and does not have the infrastructure to house inmates with disabilities.

SERVICE SYSTEMS

Like the other facilities, the limited number of available circuit spaces in the existing panelboards has become an issue at Northeast Regional Correctional Facility. If an expansion were to occur, additional electrical panelboards would have to be added. No known arc flash study has been performed so adding sub-feed panelboards to the existing system would have to be a coordinated effort due to electrical shutdowns.

The existing fire alarm system is dated and has reached its end-of-life. It was noted by BGS that sourcing new parts has become difficult. A fire alarm system upgrade for the facility is currently on hold due to facility access restrictions stemming from COVID. This fire alarm upgrade is slated to be completed as part of the door control system replacement if it is not able to be completed prior to the door control project beginning.

An existing 310kW emergency diesel generator serves NERCF and a 67kW diesel generator serves CCWC. The generator at NERCF is exercised each week under no load. Since exercising a lightly loaded diesel generator leads to wet stacking, a project to add a load bank has been requested by DOC. The automatic transfer switch for the generator at NERCF has reached its end-of-life and should be replaced. A project to replace the generator, fuel tanks, and transfer switch is funded and currently under design.

The heating is provided by cast iron sectional oil fire boilers in the main prison. They are approximately 15 years old. The work camp is served by boilers that were installed about 12 years ago and a wood boiler installed about 5 years ago. All boiler plants are operating reliably and have adequate capacity. Controls within the facility are operating as they should.

The domestic water heating system tanks in the main prison were replaced 5 years ago. The work camp tanks were replaced 10-12 years ago. There are noted problems with the sanitary piping in the tunnels.

BUILDING SITEWORK SYSTEMS

Sidewalks throughout the campus are heaved and cracked.

HOSPITAL AFFILIATES

Inmates in need of medical care are transferred to Northeastern Vermont Regional Hospital, 6.1 miles away in St. Johnsbury.

COMMUNITY

St. Johnsbury has a population of 7,157 people according to the 2019 United States Census. The median age for St. Johnsbury residents is 45.5 years, with a median income of $38,371. 14.3% of St. Johnsbury families live in poverty.

Caledonia County has a population of 29,993, the ninth largest county in the State of Vermont according to the 2019 United States Census. The median age in Caledonia County is 44.7 years with a median income of $50,563. 8.6% of Caledonia County families live in poverty.

EXPANSION

There is available land to expand both NERCF and CCWC or to construct a new stand-alone facility.

DEFERRED MAINTENANCE

Based on the 2014 facility condition assessment and interviews with the District Facility Managers, it is estimated that the current deferred maintenance costs for NERCF are estimated around $1,131,416 for the facility with an estimated $1,442,083 in capital improvements needed within the next 11 years.

Description	Deferred Maintenance	Scheduled (2021-2032)
Shell	$321,874	$185,124
Interior	$93,944	$230,241
Services	$280,646	$168,938
Equipment and Furnishings	$83,603	$164,767
Sitework	$351,348	$693,013

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Evaluation of Inmate Population and Development Projections

This Section Addresses 2.2.3 of the RFP

EXECUTIVE SUMMARY

In 2020, the State of Vermont issued a Request for Proposals (RFP) for Architectural Services for a Correctional Facility Feasibility and Conceptual Design Study for the Vermont Department of Corrections. RFP 2.2.3. requested that the Feasibility Study *"Evaluate the current inmate population and develop projections of the inmate population and associated bed capacity required for the DOC for the next 10 (ten) years. Compare the numbers to DOC's current and projected inmate population."*

The purpose of this document is to provide a detailed review of Vermont's inmate population trends over the past five years, and to provide bed needs projections for facility planning purposes.

It is understood that these trends and projections will be used to assist and support the architectural and engineering team's development and assessment of different facility options for the Vermont DOC.

REPORT ORGANIZATION

1. Executive Summary — This section provides an overview of how the report is organized, and the key findings in this report.

2. Current Inmate Population Trends —This section provides a review of Vermont's inmate population trends over the past five years. Detailed graphs and data tables are provided to document and illustrate trends, and to provide a baseline for future planning.

Breakdowns are provided showing the system-wide Average Daily Population (ADP) of inmates held in Vermont's DOC facilities and out-of-state (in Mississippi) under contract. Breakdowns are provided showing the ADP each month by *gender* (male / female), by *location* (in-state / out-of-state), and by *booking status* (detainee / sentenced). A separate breakdown is provided showing the ADP of Federal inmates, as well as the system's high and low inmate population range for each month.

3. Forecast of Capacity Requirements — Section 3 provides a review of Vermont's statewide population projections, inmate population projections and a forecast of Vermont's correctional capacity requirements for the next ten years. Detailed graphs and data tables are provided to document and illustrate the relevant trends and projections, for facility planning purposes.

This analysis of inmate trends and projections is intended to support the architectural and engineering team's assessment of Vermont's current correctional facilities, and their assessment of different facility options. This study was conducted in a relatively short time frame, using available data and resources. It is, by necessity, the proverbial "30,000-foot view" of the State's inmate population trends. However, it is hoped that the information presented in this study will help to facilitate the development of more "data-driven" solutions to address and resolve the State's current and long-term need for incarceration facilities.

The extensive data, trends, and issues included in this study also present several opportunities for the State's further analysis — in terms of the State's on-going facility needs, for addressing the underlying factors driving those needs, and for identifying other emerging issues in the criminal justice system which could ultimately impact the State's future need for these facilities.

The criminal justice "system" is complex by its very nature and its competing internal goals. Any detailed analysis of the factors driving the State's need for more incarceration capacity is, inherently, also complex. This report does not attempt to answer the question "Why?" Why did these numbers go down? Why did they go up? What caused this spike in the

numbers in that month? The reasons and factors behind these trends are difficult (or impossible) to identify or quantify, are often inter-connected, and beyond the constraints of this limited study — but, again, may provide opportunities for the State's further analysis.

The graphs, data, trend analysis, and other information in this report will aid the State in its efforts to make good decisions regarding Vermont's current and future facility needs.

KEY FINDINGS:

Average Daily Population (ADP) — All Inmates

- Pre-Pandemic — From 2016 through February 2020, Vermont had a total ADP of 1,747 inmates system-wide (including inmates held in-state and out-of-state). During this period, the highest monthly ADP was 1,802 inmates.
- Past Ten Months — From March – December 2020, the total number of inmates decreased by 19 percent, to an ADP of 1,411 inmates system-wide. The monthly ADP hit a five-year record low of 1,338 total inmates in December 2020.
- The graph (figure 1.1) and table (figure 1.2) show the ADP for all inmates.

ADP — Female Inmates

- Pre-Pandemic — From 2016 through February 2020, Vermont had an ADP of 146 female inmates system-wide. During this period, the highest monthly ADP was 157 female inmates.
- Past Ten Months — From March – December 2020, the number of female inmates decreased by 38 percent, to an ADP of 90 female inmates system-wide. The monthly ADP hit a five-year record low of 77 female inmates in May 2020.
- The graph (figure 3.1) and table (figure 3.2) show the ADP for female inmates.

ADP — Out-of-State Inmates

- Pre-Pandemic — From 2016 through February 2020, Vermont held an ADP of 251 inmates out-of-state under contract. During this period, the highest monthly ADP was 283 inmates held out-of-state.
- Past Ten Months — From March – December 2020, the number of inmates held out-of-state decreased by 11 percent, to an ADP of 224 inmates held out-of-state.
- The number of inmates held out-of-state has declined significantly and steadily over the past 17 months, from an ADP of 280 inmates held out-of-state in August 2019, to a five-year record low ADP of 195 inmates out-of-state in December 2020.
- The graph (figure 5.1) and table (figure 5.2) show the ADP for inmates held out-of-state.

High / Low Inmate Population Range

- Pre-Pandemic — From 2016 through February 2020, Vermont's daily inmate population ranged between 1,652 – 1,827 total inmates. The system's highest population over the past five years was 1,827 total inmates.
- Past Ten Months — From March – December 2020, Vermont's daily inmate population ranged between 1,290 – 1,656 total inmates. The system hit a five-year record low of 1,290 total inmates in December 2020.
- Peaking Factor — Over the past five years, the highest (peak) population each month exceeded the ADP for that month by an average of 1.5 percent.
- The graph (figure 10.1) and table (figure 10.2) show the highest and lowest inmate population for each month over the past five years.

State Population Projections

- *2019 Projections* — The most recent set of statewide population projections were provided by the Vermont Department of Labor. The 2019 projections estimated that Vermont's total population will remain stable, with 625,741 people in the 2010 Census, an estimated 628,688 people in 2020; and 620,480 people in 2030.

Inmate Population Projections

Five different forecasting models were applied to Vermont's inmate population trends over the past five years. Projections were developed using models based on Vermont's (1) ADP of total inmates; and (2) Rate of Incarceration (ROI), or the number of inmates per 1,000 state population.

- *Pandemic Impact Assumptions* — For facility planning purposes, it was assumed that Vermont's state-wide total inmate population will:
    - Remain at its current pandemic level of approximately 1,411 total inmates for the next six to 12 months; and
    - Then rebound and build back up to its pre-pandemic level of approximately 1,747 total inmates, over the following six to 12 months.
- The results of Model 1 (the Average ADP Projections) are recommended as the baseline inmate population projections, for facility planning purposes. This model sets a benchmark of **1,747 inmates**, based on the ADP over the 50-month period preceding the current pandemic.
- *The graph (figure 11.1) and table (figure 11.2) show Vermont's total inmate population over the past five years, and the results from all five projection models for the next ten years.*

Forecast of Capacity Requirements

- To estimate the total number of beds needed, two factors must be considered:
    - A peaking factor, to accommodate routine peaks in the inmate population; and
    - A classification factor (or "management" factor), to provide sufficient capacity to separate and segregate different types of inmates. Additional capacity is needed to provide enough beds to allow for the separation of males and females, to separate inmates by custody classification, and to allow for further segregation for administrative and disciplinary purposes.
- Total Beds Needed — For facility planning purposes, it is suggested that Vermont will need a total of approximately 2,055 – 2,184 beds system-wide, to support its inmate population over the next ten years. These estimates are based on the projected ADP representing 80 – 85 percent of the total beds needed, to accommodate routine peaks in the inmate population, and to provide sufficient capacity to separate different types of inmates.

Current System Capacity

The six in-state correctional facilities currently have a combined capacity of **1,579 beds**.

The out-of-state contract for housing inmates in Mississippi has a "contract capacity" for **350 beds** — although the DOC does not have the "budget capacity" to support that level of utilization. Combined, the Vermont correctional system currently (technically) has the capacity of **1,929 beds**.

Comparison of ADP, Existing Capacity, and Projected Bed Needs

Average Daily Population	Current Capacity	Projected Bed Needs
ADP for Past 10 Months *March – December 2020* 1,321 Male Inmates + 90 Female Inmates **1,411 Total Inmates** ***Pre-Pandemic ADP*** *Jan. 2016 – Feb. 2020* 1,601 Male Inmates + 146 Female Inmates **1,747 Total Inmates**	177 CRCF 118 MVRCF 219 NERCC (NERCF + CWCC) 433 NSCF 255 NWSCF + 377 SSCF **1,579 In-State Facilities** + 350 Out-of-State Contract **1,929 Total Beds**	"80% Rule" = 2,184 Beds "85% Rule" = 2,055 Beds **2,055 – 2,184 Total Beds** Pre-Pandemic ADP = 80 to 85% of total beds needed, to accommodate routine peaks in the population; and to provide sufficient capacity to separate genders, to separate inmates with different security requirements, and to allow for disciplinary or administrative segregation.

Figure 1.1

2. CURRENT INMATE POPULATION TRENDS

This section provides a review of Vermont's inmate population trends over the past five years. Detailed graphs and data tables are provided to document and illustrate trends, and to provide a baseline for future planning.

Breakdowns are provided showing the system-wide Average Daily Population (ADP) of inmates held in DOC facilities and held out-of-state (in Mississippi) under contract. Breakdowns are provided showing the ADP each month by *gender*, by *location*, and by *booking status*. A separate breakdown is provided showing the ADP of Federal inmates, as well as the system's high and low inmate population range for each month.

A. Average Daily Population (ADP)

The Average Daily Population (ADP) is the single most important indicator in assessing the need for incarceration beds. The ADP is a statistical calculation used to establish the average inmate population at any given point in time, since the inmate population is constantly in a state of flux, with admissions and releases occurring daily.

For example, during the last month of this study (December 2020), Vermont's total inmate population ranged from a *high* of 1,374 inmates, to a *low* of 1,290 inmates — with an *average* daily population of 1,338 inmates system-wide.

The following pages provide important planning information on Vermont's inmate population trends over the past five years (2016 – 2020). The data is broken down by:

- *Gender (male / female) on pages 47 - 49*
- *Location (in-state / out-of-state) on pages 50 - 52*
- *Booking status (detainee / sentenced) on pages 53 - 56*
- *All inmates on pages 57 - 58*

ADP by Gender

Male Inmates

Pre-Pandemic — From January 2016 through February 2020, Vermont had an ADP of 1,601 male inmates system-wide (including inmates held in-state and out-of-state). During this period, the highest monthly ADP was 1,655 male inmates (in February 2017).

Past Ten Months — From March through December 2020, the number of male inmates decreased by approximately 18 percent, to an ADP of 1,321 male inmates system-wide.

The ADP hit a five-year record low of 1,253 male inmates in December 2020.

Female Inmates

Pre-Pandemic — From January 2016 through February 2020, Vermont had an ADP of 146 female inmates system-wide. During this period, the highest monthly ADP was 157 female inmates (in March and June 2018).

Past Ten Months — From March through December 2020, the number of female inmates decreased by approximately 38 percent, to an ADP of 90 female inmates system-wide.

The ADP hit a five-year record low of 77 female inmates in May 2020.

The graph and table in figure 2.1 and 2.2 show the ADP for male inmates for each month from 2016 through 2020. The graph and table in figure 3.1 and 3.2 show the ADP for female inmates for each month from 2016 through 2020.

Average Daily Population (ADP) — Male Inmates (2016 – 2020)

Includes male inmates at all facilities, in-state and out-of-state.

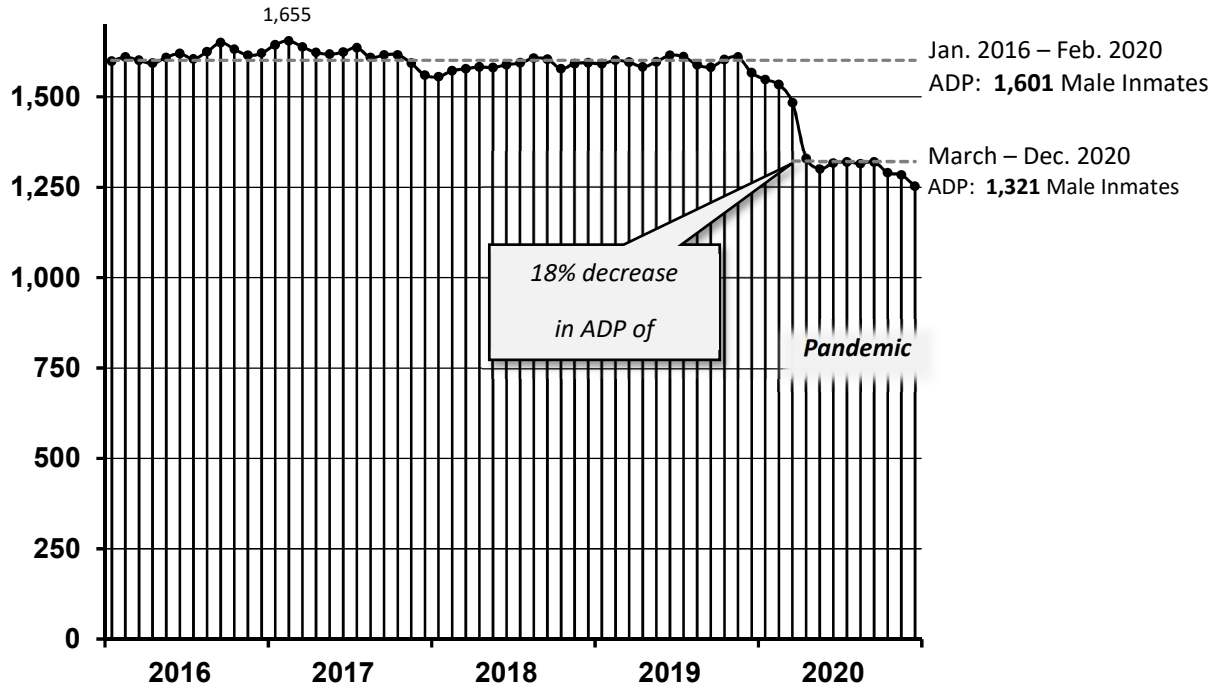


Figure 2.1

Month	2016	2017	2018	2019	2020
January	1,599	1,644	1,556	1,592	1,548
February	1,610	1,655	1,572	1,601	1,534
March	1,601	1,638	1,578	1,596	1,484
April	1,593	1,623	1,583	1,583	1,328
May	1,609	1,618	1,581	1,597	1,300
June	1,620	1,624	1,589	1,615	1,317
July	1,605	1,636	1,594	1,611	1,320
August	1,625	1,609	1,607	1,589	1,315
September	1,650	1,616	1,604	1,582	1,320
October	1,632	1,616	1,578	1,603	1,290
November	1,615	1,593	1,592	1,610	1,284
December	1,621	1,560	1,594	1,567	1,253
Annual ADP	**1,615**	**1,619**	**1,586**	**1,595**	**1,356**

Figure 2.2

Average Daily Population (ADP) — Female Inmates (2016 – 2020)

Includes female inmates at all facilities.

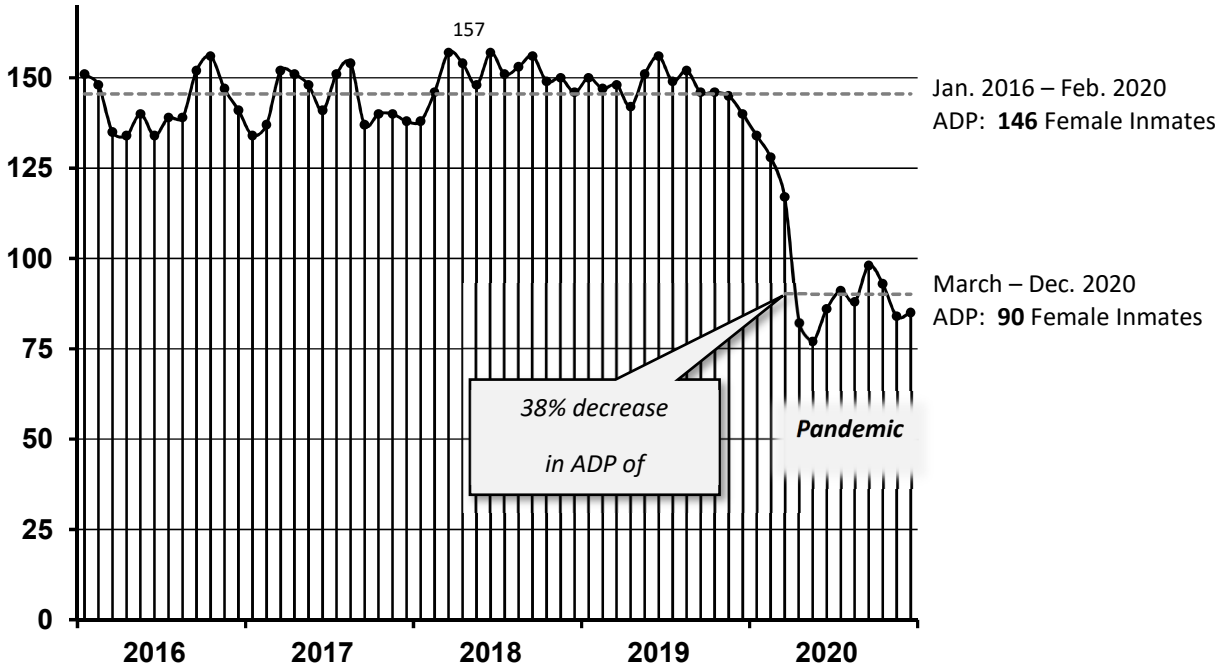


Figure 3.1

Month	2016	2017	2018	2019	2020
January	151	134	138	150	134
February	148	137	146	147	128
March	135	152	157	148	117
April	134	151	154	142	82
May	140	148	148	151	77
June	134	141	157	156	86
July	139	151	151	149	91
August	139	154	153	152	88
September	152	137	156	146	98
October	156	140	149	146	93
November	147	140	150	145	84
December	141	138	146	140	85
Annual ADP	**143**	**144**	**150**	**148**	**97**

Figure 3.2

In association with

ADP by Location

In-State Inmates

Pre-Pandemic — From January 2016 through February 2020, Vermont held an ADP of 1,496 inmates at its in-state DOC facilities. During this period, the highest monthly ADP was 1,552 inmates held in-state (in September 2016 and August 2018).

Past Ten Months — From March through December 2020, the number of inmates held in-state decreased by approximately 21 percent, to an ADP of 1,187 inmates held in-state.

The ADP hit a five-year record low of 1,132 inmates held in-state in May 2020.

Out-of-State Inmates

Pre-Pandemic — From January 2016 through February 2020, Vermont held an ADP of 251 inmates out-of-state under contract. During this period, the highest monthly ADP was 283 inmates held out-of-state (in October 2017).

Past Ten Months — From March through December 2020, the number of inmates held out-of-state decreased by approximately 11 percent, to an ADP of 224 inmates held out-of-state.

It should be noted that the ADP of inmates held out-of-state has declined significantly and steadily over the past 17 months, from an ADP of 280 inmates held out-of-state in August 2019, to a five-year record low of 195 inmates out-of-state in December 2020.

The graph and table in figure 4.1 and 4.2 show the ADP for inmates held in-state for each month from 2016 through 2020. The graph and table in figure 5.1 and 5.2 show the ADP for inmates held out-of-state for each month from 2016 through 2020.

Average Daily Population (ADP) — In-State Inmates (2016 – 2020)

Includes all inmates at all in-state facilities.

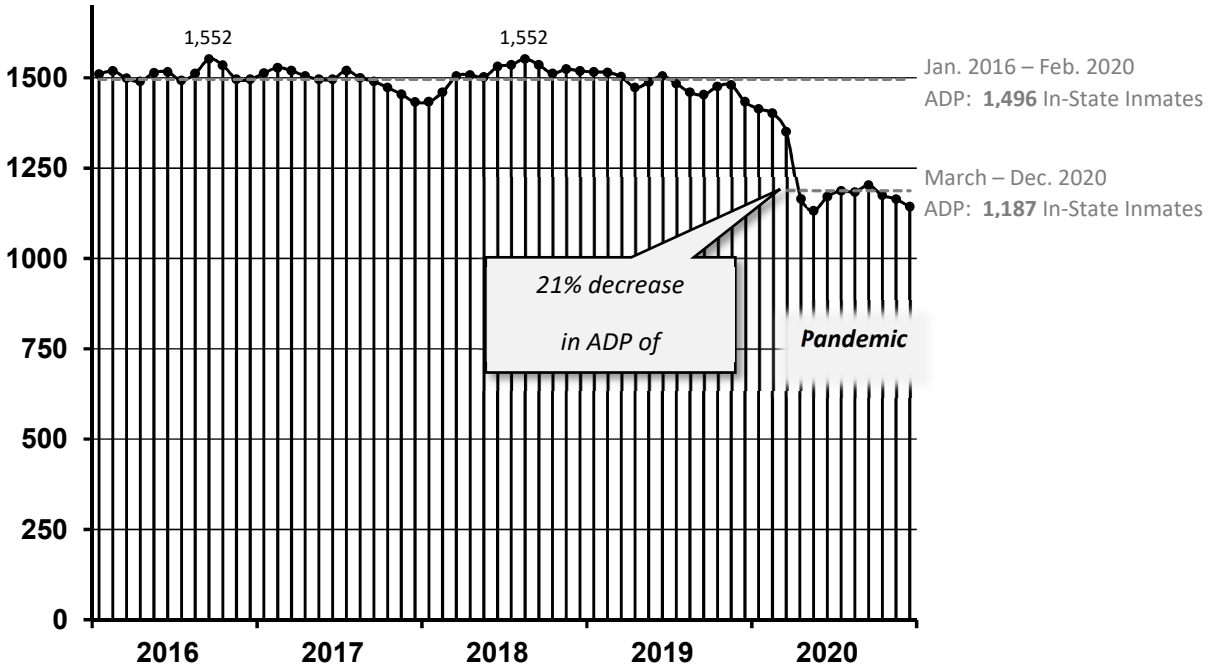


Figure 4.1

Month	2016	2017	2018	2019	2020
January	1,510	1,513	1,434	1,516	1,414
February	1,519	1,528	1,460	1,515	1,402
March	1,499	1,520	1,505	1,503	1,351
April	1,490	1,505	1,508	1,473	1,164
May	1,514	1,496	1,502	1,488	1,132
June	1,516	1,496	1,531	1,505	1,171
July	1,493	1,520	1,536	1,484	1,187
August	1,512	1,500	1,552	1,460	1,184
September	1,552	1,490	1,536	1,453	1,203
October	1,535	1,473	1,512	1,476	1,175
November	1,496	1,454	1,524	1,480	1,164
December	1,496	1,433	1,519	1,434	1,143
Annual ADP	**1,511**	**1,494**	**1,510**	**1,482**	**1,223**

Figure 4.2

Average Daily Population (ADP) — Out-of-State Inmates (2016 – 2020)

Includes all inmates held in Mississippi.

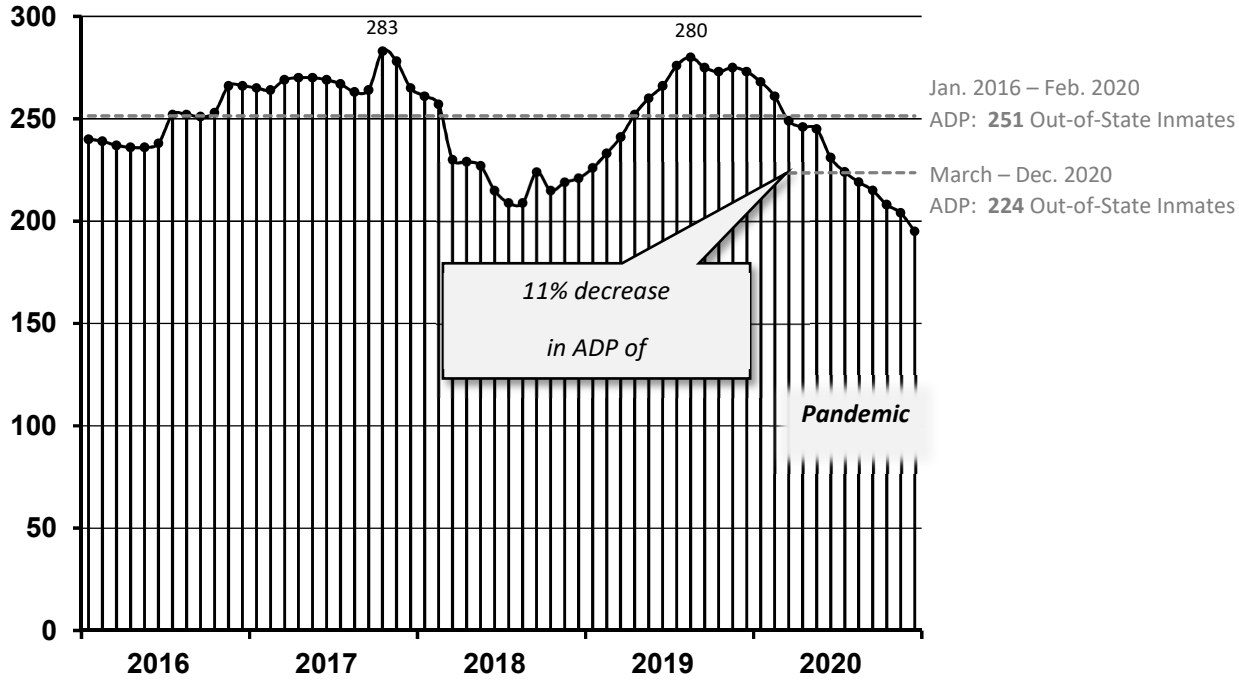


Figure 5.1

Month	2016	2017	2018	2019	2020
January	240	265	261	226	268
February	239	264	257	233	261
March	237	269	230	241	249
April	236	270	229	252	246
May	236	270	227	260	245
June	238	269	215	266	231
July	252	267	209	276	224
August	252	263	209	280	219
September	251	264	224	275	215
October	253	283	215	273	208
November	266	278	219	275	204
December	266	265	221	273	195
Annual ADP	**247**	**269**	**226**	**261**	**230**

Figure 5.2

ADP by Booking Status

Sentenced Inmates

Pre-Pandemic — From January 2016 through February 2020, Vermont had an ADP of 1,313 sentenced inmates system-wide (including inmates held in-state and out-of-state). During this period, the highest monthly ADP was 1,358 sentenced inmates (in February 2016).

Past Ten Months — From March through December 2020, the number of sentenced inmates decreased by approximately 20 percent, to an ADP of 1,052 sentenced inmates system-wide. The ADP of sentenced inmates has declined significantly and steadily over the past 14 months, from an ADP of 1,316 sentenced inmates in November 2019, to a five-year record low of 960 sentenced inmates in December 2020.

Detainees

Pre-Pandemic — From January 2016 through February 2020, Vermont had an ADP of 434 detainees (unsentenced inmates) system-wide. This includes both State detainees (inmates held on State charges) and Federal inmates. During this period, the highest monthly ADP was 465 detainees (in September 2018).

Past Ten Months — From March through December 2020, the number of detainees decreased by approximately 17 percent, to an ADP of 359 detainees system-wide. The ADP hit a five-year record low of 311 detainees in May 2020.

Federal Inmates

Pre-Pandemic — From January 2018 through February 2020, Vermont held an ADP of 56 Federal inmates in its corrections system. During this period, the highest monthly ADP was 65 Federal inmates (in November 2019).

Past Ten Months — From March through December 2020, the ADP of Federal inmates decreased to a three-year record low of 38 Federal inmates in May 2020 and has then increased steadily each month through the end of the year, back to its pre-pandemic level.

The graph and table in figure 6.1 and 6.2 show the ADP for sentenced inmates for each month from 2016 through 2020. The graph and table in figure 7.1 and 7.2 show the ADP for detainees, followed by a graph and table in figure 8.1 and 8.2 showing the ADP of Federal inmates.

Average Daily Population (ADP) — Sentenced Inmates (2016 – 2020)

Includes all inmates at all facilities, in-state and out-of-state.

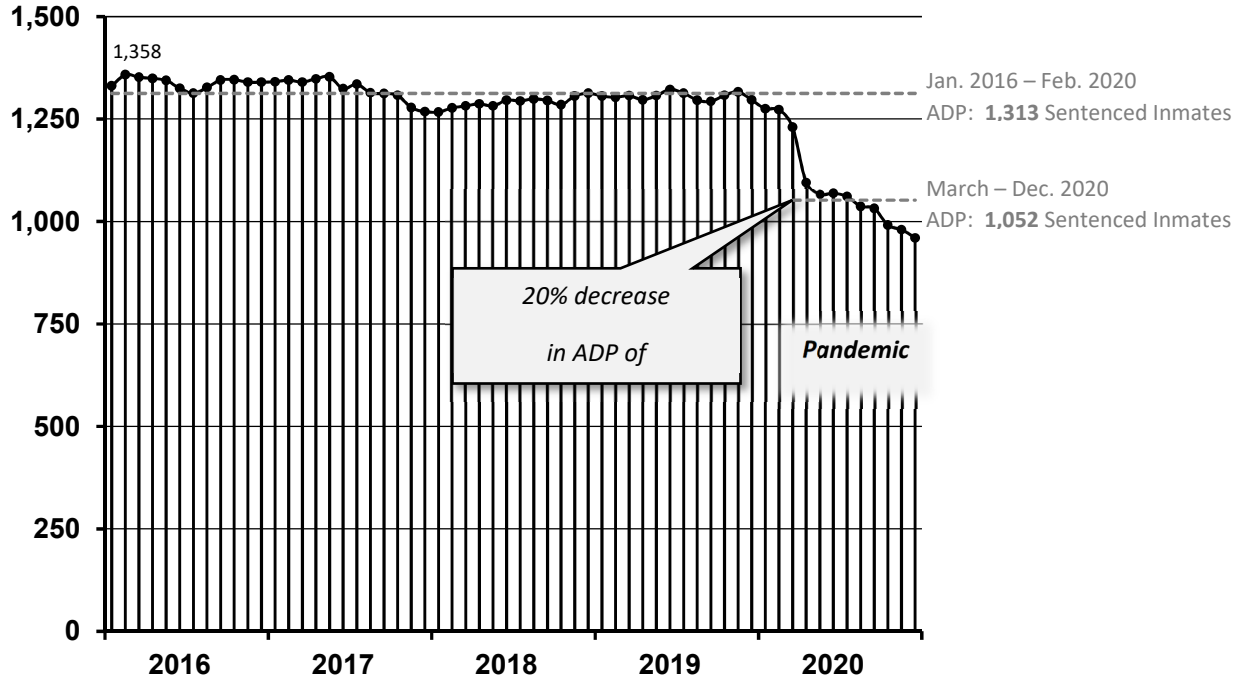


Figure 6.1

Month	2016	2017	2018	2019	2020
January	1,331	1,341	1,267	1,306	1,275
February	1,358	1,345	1,277	1,303	1,273
March	1,352	1,340	1,282	1,307	1,230
April	1,349	1,348	1,287	1,297	1,095
May	1,344	1,353	1,282	1,307	1,066
June	1,325	1,324	1,296	1,322	1,069
July	1,313	1,335	1,294	1,313	1,061
August	1,327	1,314	1,299	1,296	1,037
September	1,345	1,312	1,295	1,293	1,032
October	1,346	1,308	1,285	1,308	991
November	1,340	1,278	1,306	1,316	980
December	1,340	1,268	1,313	1,297	960
Annual ADP	**1,339**	**1,322**	**1,290**	**1,305**	**1,088**

Figure 6.2

Average Daily Population (ADP) — Detainees (2016 – 2020)

Includes all detainees at all facilities, including State detainees and Federal inmates.

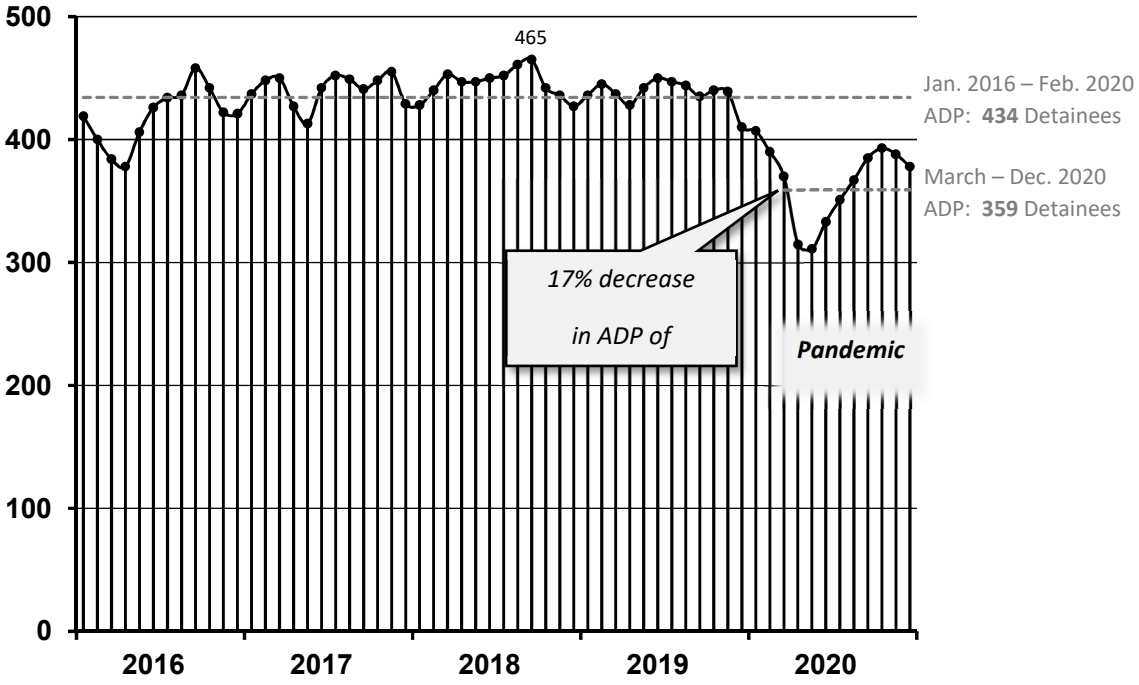


Figure 7.1

Month	2016	2017	2018	2019	2020
January	419	437	428	436	407
February	400	448	440	445	390
March	384	450	453	437	370
April	378	427	447	428	315
May	406	413	447	442	311
June	426	442	450	450	333
July	434	452	452	447	351
August	436	449	461	444	367
September	458	441	465	435	385
October	442	448	442	440	393
November	422	455	436	439	388
December	421	429	427	410	378
Annual ADP	**419**	**441**	**446**	**438**	**365**

Figure 7.2

In association with

Average Daily Population (ADP) — Federal Inmates (2018 – 2020)

Includes all federal inmates at all facilities.

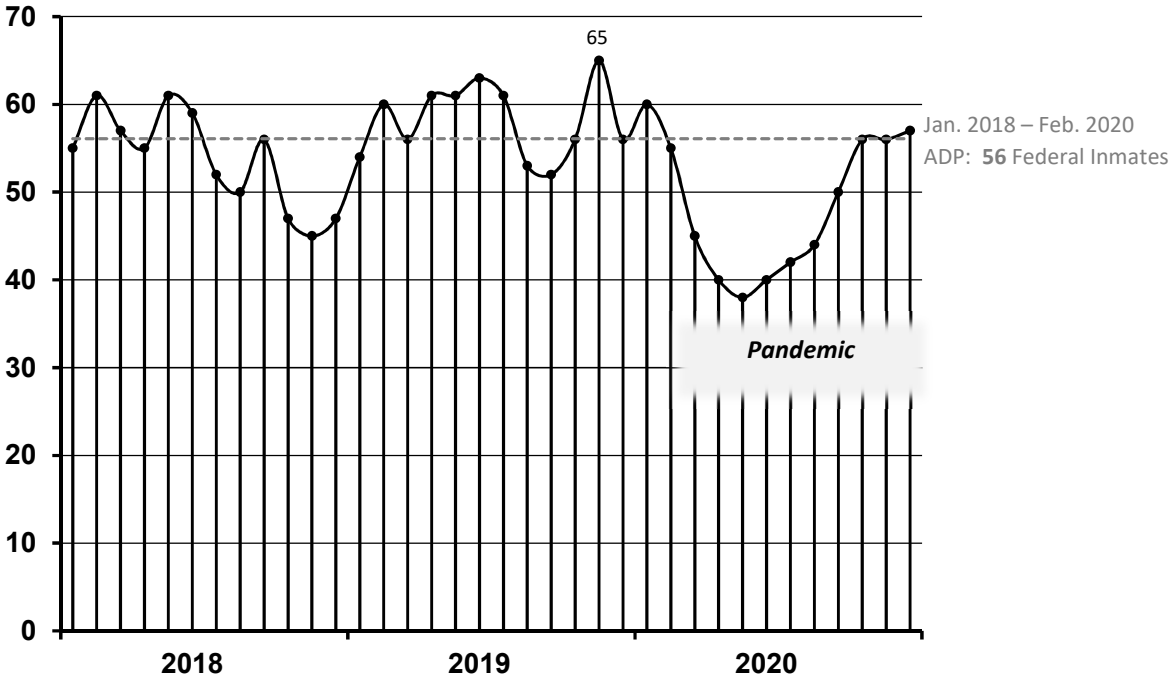


Figure 8.1

Month	2018	2019	2020
January	55	54	60
February	61	60	55
March	57	56	45
April	55	61	40
May	61	61	38
June	59	63	40
July	52	61	42
August	50	53	44
September	56	52	50
October	47	56	56
November	45	65	56
December	47	56	57
Annual ADP	**54**	**58**	**48**

Figure 8.2

ADP for All Inmates

Pre-Pandemic — From January 2016 through February 2020, Vermont had a total ADP of 1,747 inmates system-wide (including inmates held in-state and out-of-state). During this period, the highest monthly ADP was 1,802 inmates (in September 2016).

Past Ten Months — From March through December 2020, the total number of inmates decreased by approximately 19 percent, to an ADP of 1,411 inmates system-wide.

The ADP hit a five-year record low of 1,338 total inmates in December 2020.

The graph and table figure 9.1 and 9.2 show the ADP for all inmates for each month from 2016 through 2020.

Average Daily Population (ADP) — All Inmates (2016 – 2020)

Includes all inmates at all facilities, in-state and out-of-state.

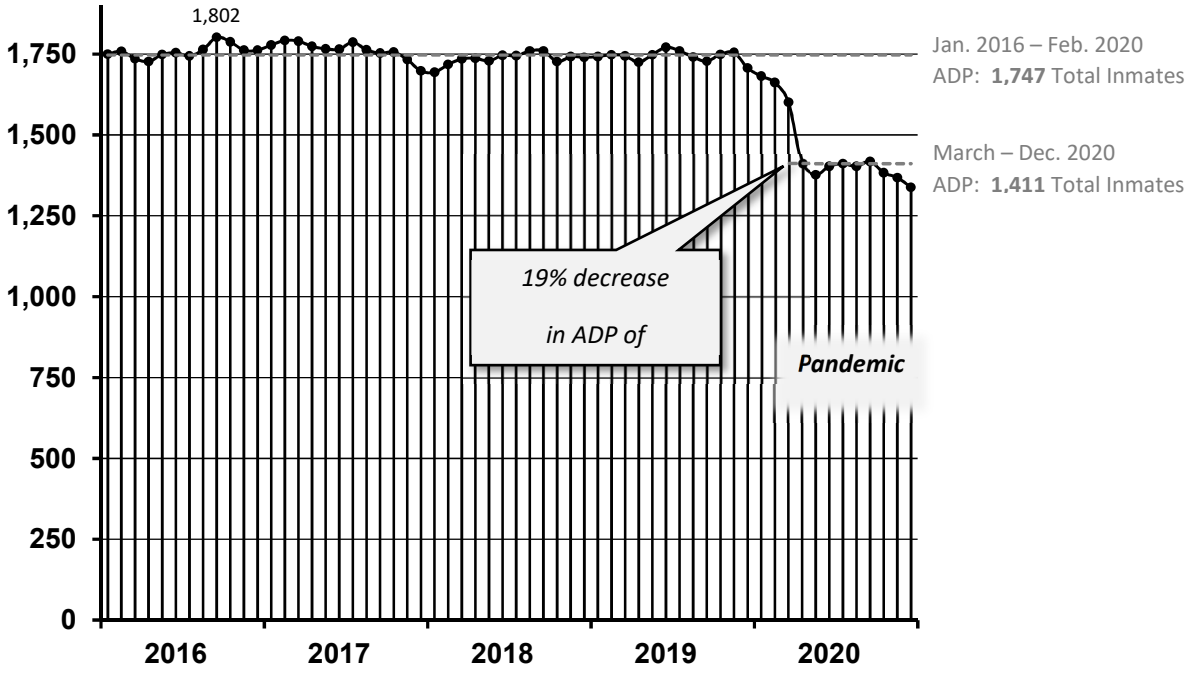


Figure 9.1

Month	2016	2017	2018	2019	2020
January	1,750	1,778	1,694	1,742	1,682
February	1,758	1,792	1,718	1,748	1,662
March	1,736	1,790	1,735	1,744	1,601
April	1,727	1,774	1,737	1,725	1,410
May	1,749	1,766	1,729	1,748	1,377
June	1,754	1,765	1,746	1,771	1,403
July	1,744	1,787	1,745	1,760	1,411
August	1,764	1,763	1,760	1,741	1,403
September	1,802	1,753	1,760	1,728	1,418
October	1,788	1,756	1,727	1,749	1,383
November	1,762	1,733	1,742	1,755	1,368
December	1,762	1,698	1,740	1,707	1,338
Annual ADP	**1,758**	**1,763**	**1,736**	**1,743**	**1,453**

Figure 9.2

B. High / Low Inmate Population Range

While the ADP is used for measuring inmate population growth over time, it is important to recognize that, in reality, the State's actual inmate population fluctuates up and down — above and below the *average* — based on the number of inmate admissions and releases, which occur on a daily basis. Therefore, data was also examined on the range between the highest (peak) and lowest inmate population each month.

Over the past five years, the total number of inmates in Vermont's corrections system (including inmates held in-state and out-of-state) ranged from:

1,704 to 1,827 inmates in 2016

1,675 to 1,823 inmates in 2017

1,680 to 1,779 inmates in 2018

1,661 to 1,778 inmates in 2019

1,290 to 1,698 inmates in 2020

Pre-Pandemic — From January 2016 through February 2020, Vermont's daily inmate population ranged between 1,652 and 1,827 total inmates. The system's highest population during this period (1,827 total inmates) occurred in September 2016.

Past Ten Months — From March through December 2020, Vermont's daily inmate population ranged between 1,290 and 1,656 total inmates. The system hit a five-year record low of 1,290 total inmates in December 2020.

Peaking Factor — Over the past five years, the highest (peak) population each month exceeded the ADP for that month by an average of 1.5 percent.

For facility planning purposes, it is important to remember that correctional facilities need sufficient capacity (beds) to accommodate these routine monthly peaks in the inmate population.

The following graph and table in figure 10.1 and 10.2 show the highest and lowest inmate population for each month from 2016 through 2020.

High / Low Inmate Population Range (2016 – 2020)

Includes all inmates at all facilities, in-state and out-of-state.

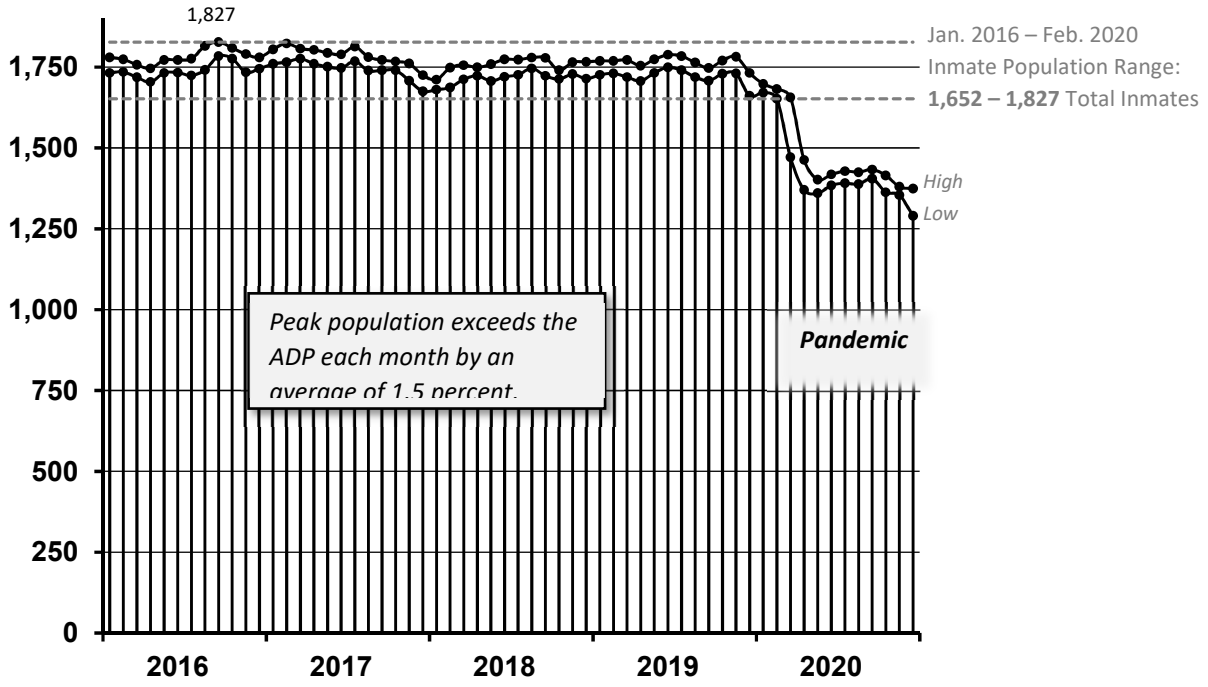


Figure 10.1

Month	2016	2017	2018	2019	2020
January	1,732 – 1,780	1,760 – 1,805	1,680 – 1,711	1,726 – 1,769	1,671 – 1,698
February	1,735 – 1,774	1,765 – 1,823	1,687 – 1,748	1,730 – 1,769	1,652 – 1,682
March	1,718 – 1,757	1,776 – 1,807	1,712 – 1,756	1,719 – 1,772	1,471 – 1,656
April	1,704 – 1,746	1,760 – 1,803	1,723 – 1,749	1,707 – 1,754	1,370 – 1,463
May	1,732 – 1,772	1,751 – 1,794	1,707 – 1,759	1,732 – 1,774	1,360 – 1,402
June	1,733 – 1,772	1,747 – 1,789	1,720 – 1,774	1,749 – 1,788	1,384 – 1,418
July	1,724 – 1,776	1,768 – 1,813	1,726 – 1,773	1,740 – 1,784	1,391 – 1,428
August	1,741 – 1,815	1,739 – 1,781	1,746 – 1,779	1,719 – 1,764	1,388 – 1,425
September	1,784 – 1,827	1,740 – 1,772	1,723 – 1,778	1,708 – 1,747	1,405 – 1,433
October	1,776 – 1,809	1,740 – 1,767	1,713 – 1,740	1,729 – 1,770	1,363 – 1,415
November	1,734 – 1,790	1,708 – 1,761	1,728 – 1,765	1,730 – 1,782	1,354 – 1,380
December	1,745 – 1,780	1,675 – 1,725	1,714 – 1,766	1,661 – 1,732	1,290 – 1,374
Annual ADP	**1,704 – 1,827**	**1,675 – 1,823**	**1,680 – 1,779**	**1,661 – 1,788**	**1,290 – 1,698**

Figure 10.2

3. FORECAST OF CAPACITY REQUIREMENT

This section provides a review of Vermont's statewide population projections and provides inmate population projections and a forecast of Vermont's correctional capacity requirements for the next ten years. Detailed graphs and data tables are provided to document and illustrate the relevant trends and projections, for facility planning purposes.

A. State Population Projections

For the purposes of this study, two sets of state population projections were reviewed — one set developed in 2013, and a second set developed in 2019.

2013 Projections

In 2013, population projections for the State of Vermont were developed by Ken Jones, Ph.D., Economic Research Analyst, Vermont Agency of Commerce and Community Development, and Lilly Schwarz, Community Based Learning Intern, Montpelier High School. These projections were developed with the assistance and oversight of a committee of state agency representatives, who reviewed the methodology and results.

Total Statewide Population — The 2013 projections estimated that Vermont's total population will increase from:

- 625,741 people in the 2010 Census; to
- 653,575 people in 2020; to
- 670,073 people in 2030.

This represents a statewide population increase of 7 percent from 2010 to 2030.

20 to 54 Year Olds — The 2013 projections estimated that the number of 20-to-54-year olds in Vermont (the primary correctional age-at-risk population) will decrease from:

- 294,435 people in that age category in the 2010 Census; to
- 270,551 people in that age category in 2020; to
- 261,499 people in that age category in 2030.

This represents a statewide population decrease of 11 percent in Vermont's primary age-at-risk population from 2010 to 2030.

2019 Projections

The most recent set of statewide population projections were provided in the Vermont Economic Demographic Profile Series in 2019, by the Vermont Department of Labor, Economic and Labor Market Information Division.

With regard to Vermont's population, the report stated as follows:

The 2010 United States Census confirmed a slow rate of growth in the population of Vermont. Since 2000, Vermont's population grew by 2.8% over the ten-year period between censuses, an annual growth rate of less than 0.3%. Comparatively, the United States grew by 9.7% in nominal terms over the same ten-year period.

Vermont's population continues to show a lower rate of growth than the nation, declining slightly in the most recent reported years. According to the Vermont Department of Health, Vermont's population was 623,657 in 2017, a decline of 937 people over the year and 2084 since the 2010 decennial census.

The stagnant population growth can be seen in more detail at the county level. From 2016 to 2017 six Vermont counties experienced population gains while 8 experienced losses. Population gains were primarily concentrated in the northwest corner of the state: Chittenden (+841), Franklin (+110), Lamoille (+4) and Grand Isle (+79). Essex (+54) and Orange (+55) also

experienced minor gains. The largest population losses were concentrated in the southern-most counties: Bennington (-597), Windsor (-396) and Windham (-276) and Rutland (-223). Other counties experiencing losses included Washington (-214), Addison (-183) Caledonia (-169), and Orleans (-22). As a percentage of population, the largest increase between 2016 and 2017 was in Grand Isle where the population increased 1.1%. The largest decline was in Bennington, down 1.6%. ... Burlington is the state's largest city with a 2017 population estimate of 42,239. Burlington is also the center of the state's only Metropolitan Statistical area, the Burlington-South Burlington Metropolitan Statistical Area (MSA).

The next three largest communities are also part of the Burlington – South Burlington MSA. Essex's population of 21,519 makes it the second largest town, followed by South Burlington (19,141) and Colchester (17,282). Rutland city's population of 15,440 makes it the largest town outside of the MSA and outside of Chittenden County. It is followed by Bennington (15,003) and Brattleboro (11,487).

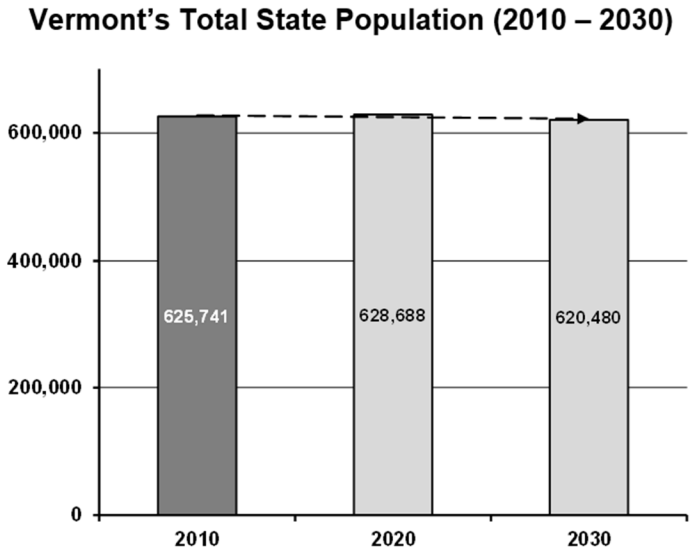
The most striking population statistics involve the aging of Vermont. The state has one of the oldest populations in the nation. Between 2010 and 2017, the age cohort with the largest increase was individuals 65+. This cohort increased by an average of 3,684 people or 3.6% per year. The only other cohorts that grew during the same period were the 55–64-year olds, 1.1% annually and 20–34-year olds, 0.7% annually.

The Northwest part of the state has a smaller percentage of older adults. Chittenden County has the lowest proportion of residents 65 years of age or older (14.5%). Franklin has the second lowest at (15.6%), followed by Lamoille (16.7%), Washington (19.0%) and Addison (19.1%). The highest concentration of residents over 65 is in Essex County (25.3%) followed by Windsor (22.6%).

Twenty-two percent of the populations in Orleans and Windham counties are 65+ years of age.[1]

The 2019 projections estimated that Vermont's total population will remain stable, with:

- 625,741 people in the 2010 Census
- 628,688 people in 2020
- 620,480 people in 2030



[1] Vermont Economic and Demographic Profile Series 2019, by the Vermont Department of Labor, Economic and Labor Market Information Division, page 2.

A. Inmate Population Projections

As part of this study, a number of different commonly used forecasting methodologies were applied to Vermont's inmate population trends in order to estimate the State's future incarcerated population.

A total of five different forecasting models were applied to Vermont's historical inmate population trends over the past five years. Projections were developed using models based on:

- *Average Daily Population (ADP) Trends* — Projections based on linear trendlines through Vermont's ADP of total inmates; and
- *Rate of Incarceration (ROI)* — Projections based on the correlation between the number of inmates and the State's population, applied to the State's population projections.

Other models were also considered, including those based on the Average Length of Stay (ALOS), but were rejected for use here. Since Vermont is a combined correctional system, it includes both detainees (with relatively short lengths of stay), and sentenced inmates (who often have long lengths of stay). In addition, with federal inmates included (who also typically have long lengths of stay), the combined system wide ALOS is of little predictive value for making inmate population projections. ALOS models also rely on trends and projections on the number of bookings and admissions for each inmate group. Ideally, ALOS estimates could be developed for each group (detainees, sentenced, and federal), which could then be combined for system-wide projections. However, these estimates would not necessarily be more reliable, and would require significant data analysis that goes beyond the purposes of this study.

The following is a list and general description of the models that were adapted, tested, and applied to Vermont's inmate population trends in order to estimate the State's future inmate population, and the assumptions on which they are based.

Pandemic Impact Assumptions — For facility planning purposes, it was assumed that Vermont's state-wide total inmate population will:

- Remain at its current pandemic level of approximately 1,411 total inmates for the next six to 12 months; and
- Then rebound and build back up to its pre-pandemic level of approximately 1,747 total inmates, over the following six to 12 months.

Linear ADP Projections

- ***Model 1. Average ADP Projections*** — Projections based on the pre-pandemic ADP of all inmates from January 2016 through February 2020. The model assumes that Vermont's inmate population will return to its pre-pandemic level within two years (by 2023). <u>The results of this model are recommended for facility planning purposes.</u>
- ***Model 2. ADP Trend Projections*** — Projections based on the pre-pandemic ADP <u>trend</u> from January 2016 through February 2020. During this period, the monthly ADP trend was declining slightly. The model assumes that Vermont's inmate population will return to the pre-pandemic trend level within two years (by 2023), and then continue to decline slightly.

Rate of Incarceration (ROI) Projections

- ***Model 3. ROI Projections —*** Projections based on the average annual ROI (inmates per 1,000 State population) in Vermont from 2016 through 2019, applied to the <u>2013</u> population projections. The model assumes that Vermont's ROI will remain stable, at the average ROI of 2.7 inmates per 1,000 State population.

- ***Model 4. Age-at-Risk ROI Projections —*** Projections based on the average annual ROI from 2016 through 2019 for Vermont's primary correctional age-at-risk population (20-to-54-year olds), applied to the 2013 population projections for that age group. The model assumes that Vermont's ROI will remain stable, at the average ROI of 6.3 inmates per 1,000 State population in that age group.

- ***Model 5. ROI Projections —*** Projections based on the average annual ROI (inmates per 1,000 State population) in Vermont from 2016 through 2019, applied to the State's 2019 population projections, developed by the Vermont Department of Labor. The model assumes that Vermont's ROI will remain stable, at the average ROI of 2.8 inmates per 1,000 State population.

The results of Model 1 (the Average ADP Projections) are recommended as the baseline inmate population projections, for facility planning purposes. This model sets a benchmark of **1,747 inmates**, based on the ADP over the 50-month period preceding the current pandemic.

Reasons for selecting the results of Model 1 to use as the baseline for facility planning include the following:

- Before the pandemic, over the preceding 50 months of data, the total ADP has been flat, showing no discernable trending up or down.
- The benchmark set by Model 1 represents the approximate midpoint in the range of results from the other forecasting models.
- The ROI model using the State's 2019 projections (Model 5) reached results that were almost identical to the benchmark established by Model 1.
- Two of the ROI models that were based on the 2013 projections (Models 3 and 4) reached results that evenly bracketed those of Model 1 and provided upper and lower parameters that support the use of Model 1 for facility planning purposes.
- Using the results of Model 1 as a benchmark is based simply on the continuation of Vermont's own pre-pandemic inmate population volume, without attempting to justify a significant increase — or decrease — in the State's inmate population.

In developing and analyzing the results from the different forecasting models, it was also noted that the annual Rate of Incarceration (ROI) in Vermont remained very stable over the four years preceding the pandemic in 2020.

The following graph and table in figure 11.1 and 11.2 show Vermont's total inmate population from 2016 through 2020, and the results from all five projection models for the next ten years.

Results of Inmate Population Projection Models

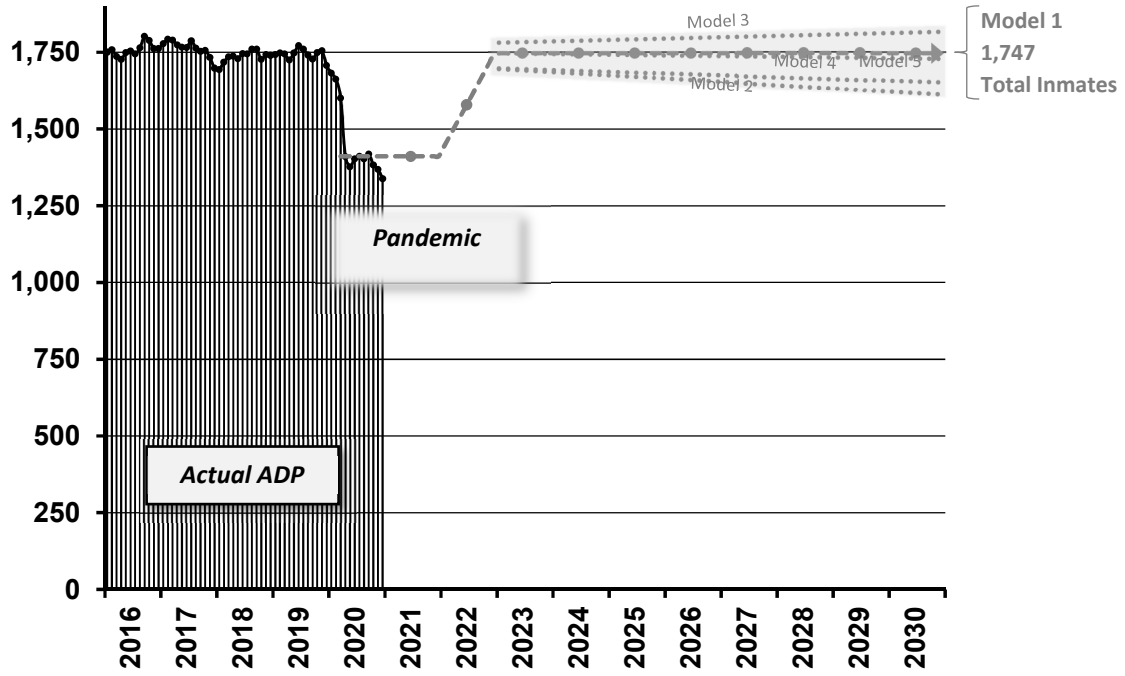


Figure 11.1

Forecast Year	Year	Model 1 *Average ADP Projections*	Model 2 *ADP Trend Projections*	Model 3 *ROI Projections* (2013 Projections)	Model 4 *Age-at-Risk ROI Projections* (2013 Projections)	Model 5 *ROI Projections* (2019 DOL Projections)
1	2021	1,411	1,411	1,411	1,411	1,411
2	2022	1,579	1,579	1,579	1,579	1,579
3	2023	1,747	1,691	1,782	1,695	1,745
4	2024	1,747	1,680	1,787	1,689	1,743
5	**2025**	**1,747**	**1,670**	**1,791**	**1,684**	**1,741**
6	2026	1,747	1,660	1,796	1,678	1,738
7	2027	1,747	1,649	1,800	1,672	1,736
8	2028	1,747	1,639	1,805	1,666	1,734
9	2029	1,747	1,628	1,809	1,661	1,731
10	**2030**	**1,747**	**1,618**	**1,814**	**1,655**	**1,729**

Baseline ADP

Figure 11.2

In association with

Notes Regarding Inmate Population Projections

A number of important points must be kept in mind regarding these projections.

First, inmate population projections are not the same as capacity requirements. As discussed in the following section, the facility needs more capacity (beds) than the average projected inmate population in order to accommodate routine fluctuations (peaks) in the facility's population, and for inmate classification and management purposes (to separate and segregate different types of inmates).

Second, the State's actual inmate population constantly fluctuates (zigzags) above and below the trendlines. For facility planning purposes, the State should use the inmate population projections to look at where the current trends are leading in five to ten years (instead of in the next year or two).

In the development of inmate population projections, analogies can be drawn with the "spaghetti" models used to graphically show the projected path of a hurricane on a weather map. Several different models are used. Each is a legitimate, tested forecasting model, but each model is driven by different key factors, and their own assumptions regarding the impact of those factors on the projected path of the hurricane. Typically, several models all point in the same general direction, so their results are combined to estimate the hurricane's most likely path. These spaghetti models also typically show the projected path along a "cone of uncertainty" which gets broader the further out in the future.

Third, a note of caution must be made when using historical data to predict the future. Many states have underestimated their true facility needs by relying on past inmate population trends. Arrest decisions, prosecution policies, and sentencing practices all have an impact on the size of Vermont's inmate population. As new and additional beds become available, these policies and practices can change, resulting in even greater demands for incarceration capacity.

Finally, it is important to view inmate population projections within an appropriate context. The projections are based on the State's actual inmate population trends since 2016. At any given time during this period, Vermont's actual inmate population has been the result of a unique combination of factors within the criminal justice system that affect (1) admissions, (2) releases, and (3) the length of stay — all of which have been impacted, to some extent, by the combined efforts of law enforcement, prosecution, and the courts.

The inmate population projection trendlines in the preceding graph should not be viewed as hard, straight, and unwavering lines. They are simply a graphic illustration of where the inmate population is heading, given the State's current trends, for facility planning purposes. There are a variety of forces that are pushing the line up (or pushing up the rate of growth), and at the same time, there are forces pushing down on the line (or holding down the rate of growth). Any significant change in this balance will have an impact on the State's future incarceration facility needs.

Obviously, inmate population projections are not an exact science. There are a multitude of ever-changing variables, both tangible and intangible, that can directly impact the size of the State's incarcerated population. Vermont's changing population, public attitudes toward crime, changes in criminal penalties, law enforcement practices, sentencing policies, and crime rates will all have a direct impact on the State's future inmate population and the State's need for additional facility capacity. Nonetheless, it is believed that the inmate population projections presented here provide reasonable parameters for facility planning purposes.

B. Bed Needs Projections

The next step in the facility planning process involves estimating the total amount of incarceration capacity (beds) needed to support the projected inmate population. The average daily population (ADP) is just that — an average. In reality, the system's actual inmate population fluctuates above and below that average. Therefore, to estimate the total number of beds needed, two factors must be considered — a peaking factor, and a classification factor (or "management" factor).

Peaking Factor — All correctional populations fluctuate to a certain extent. Inmate populations go up and down every day, based on the number of inmate admissions and releases.

Classification Factor — There must be sufficient capacity for inmate classification and management purposes to separate and segregate different types of inmates. Additional capacity is needed to provide enough beds to allow for the separation of males and females, to separate inmates by custody classification (minimum, medium, or close custody), and to allow further segregation for administrative and disciplinary purposes. Additional capacity may also be needed for special management purposes, such as an infirmary, suicide-prevention cells, etc.

Peaking Factor

As noted in the preceding section, over the past five years, the highest (peak) population each month exceeded the ADP for that month by an average of 1.5 percent. This is a very low peaking factor, created in part because of Vermont's combined correctional system (instead of the typical county jails and state prisons).

In the four years that preceded the pandemic (2016 – 2019), the system-wide ADP in Vermont varied each month within a tight range from 1,694 to 1,802 total inmates. Even the daily high/low inmate population fluctuations ranged between 1,661 and 1,827 inmates during this period.

Therefore, for the purpose of estimating the system-wide bed needs, no special adjustments (increases) are needed beyond those necessary for accommodating routine population peaks.

The "80/85 Percent Rule"

While it is clear that a correctional facility and correctional system need more beds than its ADP (in order to accommodate routine peaks and to allow for inmate classification and separation), there is no commonly accepted methodology for estimating the total amount of incarceration capacity (beds) that will be needed to support the inmate population projections.

For facility planning purposes, many consultants and Departments of Corrections across the country recommend using the "the 80 percent rule" or the "85 percent rule" to estimate the amount of capacity (beds) needed to routinely accommodate its inmate population. That is, a correctional facility should be considered "full" when 80 – 85 percent of its beds are occupied. This formula typically allows for sufficient additional capacity to accommodate routine peaks in the inmate population, and to provide for the separation of males and females, and to further separate inmates with different security or programmatic requirements. When the occupancy level exceeds 80 to 85 percent of capacity, it becomes progressively more difficult to accommodate the routine peaks in the inmate population, and to properly place inmates into an appropriate housing area consistent with their classification and behavior.

Although frequently used by planners and architects, the "80 percent rule" and the "85 percent rule" are not really "industry standards." They would perhaps be better described as a "general guideline" for facility planning purposes.

Although the concept is sound, there is no real empirical science behind the 80 or 85 percent figure. While the average peaking factor can be calculated, there is no valid way to quantify the amount of additional capacity needed for classification and management purposes. (Various factors may influence whether a correctional facility needs more additional capacity for inmate classification and management, or less additional capacity, but it is difficult to quantify.) Therefore, this general guideline is useful for facility planning purposes.

Total Beds Needed

Applying the "85 percent rule" to the benchmark ADP of 1,747 total inmates, it is estimated that Vermont will need an incarceration capacity of 2,055 beds. Applying the "80 percent rule," it is estimated that Vermont will need an

incarceration capacity of 2,184 beds. Therefore, for facility planning purposes, it is suggested that Vermont will need a total of approximately 2,055 to 2,184 beds system-wide, to support its inmate population over the next ten years.

Current System Capacity

The six in-state correctional facilities currently have a combined capacity of 1,579 beds. The out-of-state contract for housing inmates in Mississippi has a "contract capacity" for 350 beds — although the DOC does not have the "budget capacity" to support that level of utilization. Combined, the Vermont correctional system currently (technically) has the capacity of 1,929 beds.

The table in figure 12.1 shows the breakdown of the existing in-state facilities' capacity and out-of-state contract capacity.

Vermont DOC Facility Capacities

Facility	Abbrev.	Location	Capacity
In-State Correctional Facilities			
Chittenden Regional Correctional Facility	CRCF	South Burlington	177
Marble Valley Regional Correctional Facility	MVRCF	Rutland	118
Northeast Regional Correctional Complex (NERCF + CWCC)	NERCC	St. Johnsbury	219
Northern State Correctional Facility	NSCF	Newport	433
Northwest State Correctional Facility	NWSCF	St. Albans	255
Southern State Correctional Facility	SSCF	Springfield	377
Total In-State			**1,579**
Out-of-State Contract Capacity			
Tallahatchie County Correctional Facility	TCCF	Tallahatchie, MS	**350**
Total Capacity (In-State + Out-of-State)			**1,929**

Figure 12.1

Inmate Population, Existing Capacity, and Projected Bed Needs

The graph and table in figure 13.1 and 13.2 provide a side-by-side comparison of:

- *The system-wide ADP before and since the pandemic.*
- *The current correctional system's capacity*
- *The bed needs projections*

Comparison of ADP, Existing Capacity, and Projected Bed Needs

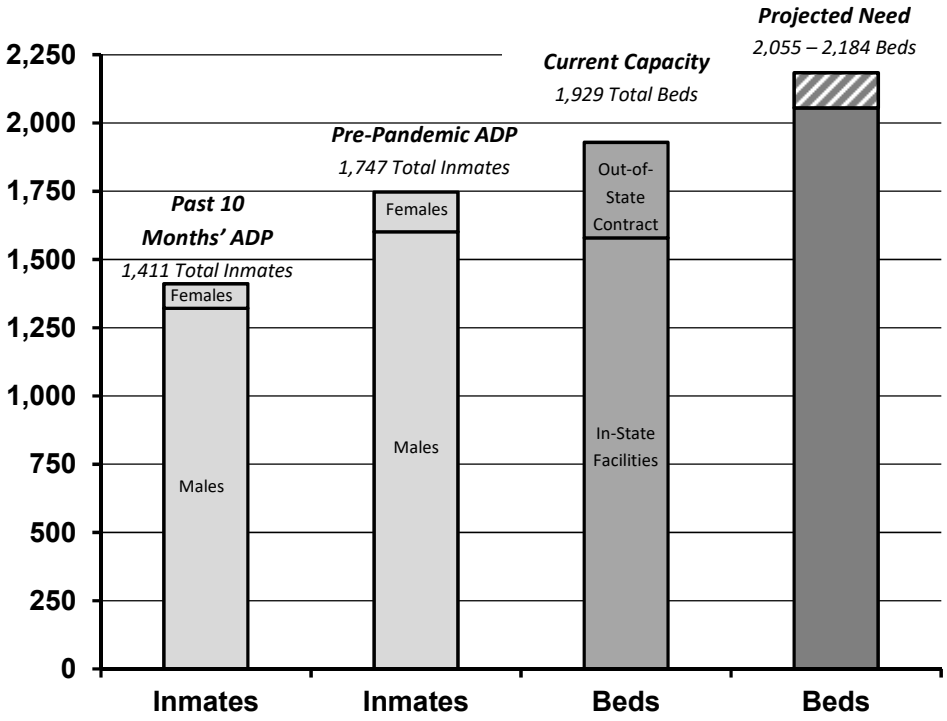


Figure 13.1

Average Daily Population	Current Capacity	Projected Bed Needs
ADP for Past 10 Months *March – December 2020* 1,321 Male Inmates + 90 Female Inmates **1,411 Total Inmates** ***Pre-Pandemic ADP*** *Jan. 2016 – Feb. 2020* 1,601 Male Inmates + 146 Female Inmates **1,747 Total Inmates**	177 CRCF 118 MVRCF 219 NERCC (NERCF+CWCC) 433 NSCF 255 NWSCF + 377 SSCF **1,579 In-State Facilities** + 350 Out-of-State Contract **1,929 Total Beds**	"80% Rule" = 2,184 Beds "85% Rule" = 2,055 Beds **2,055 – 2,184 Total Beds** *Pre-Pandemic ADP = 80 to 85% of total beds needed, to (1) accommodate routine peaks in the population; and (2) provide sufficient capacity to separate genders, to separate inmates with different security requirements, and to allow for disciplinary or administrative segregation.*

Figure 13.2

Operational Assessment

THIS SECTION ADDRESSES 2.2.4; 2.2.5; 2.2.6; 2.2.7 OF THE RFP

OPERATIONAL ASSESSMENT

An operational assessment examines the overall operations of a corrections system to assess its current efficiency and help make decisions regarding future needs. More specifically, this portion of the report consists of a review of the DOC adult facilities' current operating costs broken down into cost codes including food, employee wages and salaries, transportation, maintenance for the building and other costs. The report provides a compilation of narrative and graphic illustrations that capture the review and provide the DOC with a clear operational analysis of its current system. This review will be useful in helping to make decisions based on operational needs.

ADULT FACILITIES OVERVIEW

The DOC is comprised of six adult facilities. There are five adult male facilities and one adult female facility. They are spread geographically throughout the state of Vermont among its 9,249 square miles (land). The adult system houses both pretrial (detainees) as well as those convicted (offenders). DOC also currently contracts with a private corrections facility to house up to 350 offenders out-of-state. The below table represents an overview of the DOC adult facilities by name, location, capacity, and primary gender housed within each facility.

Table 1 – Vermont Department of Corrections Adult Facilities by Location and Capacity

Name	Location	Capacity	Gender
Northern State Correctional Facility (NSCF)	Newport	433	Male
Chittenden Regional Correctional Facility (CRCF)	South Burlington	177	Female
Marble Valley Regional Correctional Facility (MVRCF)	Rutland	118	Male
Northeast Regional Correctional Complex (NERCC) (NERCF & CCWC)	St. Johnsbury	219	Male
Northwest State Correctional Facility (NWSCF)	St. Albans	255	Male
Southern State Correctional Facility (SSCF)	Springfield	377	Male

The DOC total offender in-state capacity is 1,579. Core Civic is currently contracted by DOC to house up to an additional 350 offenders out of state at the Tallahatchie County Correctional Facility (TCCF) in Tallahatchie, Mississippi. Therefore, the total DOC adult system capacity is 1,929. Each facility has its own independent operating budget as part of a larger overall facility and agency budget.

OPERATING BUDGET ANALYSIS

The FY21 approved budget for the DOC is $168,404,048[1]. The FY21 operating budget for the adult facilities is $76,542,751[2]. Included in the DOC agency budget is $5,640,604 appropriated for offender out-of-state housing (206 beds). Total FY21 DOC budget allocated to house adult offenders is $82,183,355. It should be noted that additional costs such as healthcare and other costs are not factored into this baseline analysis.

BASELINE OPERATING COSTS

A review of the FY21 operating budgets for each of the adult facilities was conducted. By reviewing these budgets, an initial comparison can be made between facilities to determine a baseline ranking of operational efficiency. It should be noted that an assumption was made that each facility would utilize its full FY21 operating budget to account for allocated head count for staff and capacity for offenders. This was done to simplify the comparison and create a baseline for further examination in this report.

The FY21 budget was used to determine the baseline operating costs for the DOC adult system. DOC is currently operating within its current fiscal year and therefore represents the best picture of the costs associated with operating its existing facilities. However, operational costs may be impacted given the current covid-19 pandemic situation.

The analysis looked at the DOC adult facilities in aggregate and individually. Only institutional operating budgets and budgets that contribute to institutional operations were examined. Budgets for central office and other budgets such as capital improvements and out-of-state housing 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 into categories.

Table 2 represents the FY21 operating budgets for all DOC adult facilities. The table consists of each facility name and total operating budget. For purposes of this operational analysis, all costs not directly affiliated with the operations of DOC adult facilities have been excluded. Maximum facility offender capacities are also included in calculating FY21 per capita[3] and per diem costs[4].

Table 2 – DOC Adult Facility Operating Budgets

Facility	CRCF	MVRCF	NECC	NWSCF	NSCF	SSCF	Total
FY21 Budget	$11,135,791	$8,324,127	$11,724,273	$13,878,992	$14,490,097	$16,989,471	$76,542,751
Out-of-State Housing							$5,640,604
Total							$82,183,355
Capacity	177	118	219	255	433	377	1,579
Per Diem	$172	$193	$147	$149	$92	$123	$133
FY21 Per Capita (Est)	$62,914	$70,543	$53,535	$54,427	$33,464	$45,065	$48,475

BUDGET GROUP CATEGORIES

The following chart represents the budget group categories for the DOC FY21 operating budget. These are the group costs associated with each facility operating budget.

Chart 1 – DOC FY21 Adult Facility Budget Group Categories[5]

Personal Services – Staffing wages and Benefits
Equipment
IT/Telecom
Other Operating Expenses (Including water and sewer)
Property and Management
Rental Other Totals (Includes Feet For Spaces (FFS))
Rental Property Totals
Food
Other Supplies (Including other utilities)
Travel

The categories listed above include those identified by the DOC as the operating costs of its facilities, i.e., food, wages and salaries, travel and maintenance. There is an additional cost category, offender out-of-state housing, that is discussed later in this section; though it is not a direct cost associated with operating any one of the facilities.

Table 3 – DOC Operating Budget with Group Categories

Facility	CRCF	MVRCF	NECC	NSCF	NWSCF	SSCF	Total
Wages/Salaries/Benefits	$9,762,983.00	$7,245,437.00	$9,721,655.00	$11,755,847.00	$11,983,156.00	$14,122,653.00	$64,591,731.00
Property and Maintenance	$102,000.00	$93,100.00	$110,700.00	$267,605.00	$344,401.00	$389,035.00	$1,306,841.00
Travel	$21,500.00	$13,000.00	$5,200.00	$5,500.00	$24,057.00	$21,294.00	$90,551.00
Food	$280,000.00	$235,000.00	$390,000.00	$535,000.00	$326,657.00	$500,000.00	$2,266,657.00
Equipment	$11,000.00	$24,000.00	$20,500.00	$24,000.00	$35,121.00	$51,700.00	$166,321.00
Supplies	$439,967.00	$305,250.00	$466,750.00	$823,500.00	$477,379.00	$787,355.00	$3,300,201.00
IT/Telecom	$26,000.00	$15,500.00	$26,900.00	$27,100.00	$18,485.00	$70,270.00	$184,255.00
Other Operating Expenses	$112,300.00	$36,500.00	$44,800.00	$194,101.00	$125,410.00	$195,324.00	$708,435.00
Other Purchased Services	$12,600.00	$11,900.00	$16,550.00	$22,905.00	$19,028.00	$21,574.00	$104,557.00
Rental Property Total	$320,941.00	$320,390.00	$838,918.00	$783,839.00	$467,237.00	$741,461.00	$3,472,786.00
Rental Other Total	$46,500.00	$24,050.00	$82,300.00	$50,700.00	$58,061.00	$88,805.00	$350,416.00
Facility Total	$11,135,791.00	$8,324,127.00	$11,724,273.00	$14,490,097.00	$13,878,992.00	$16,989,471.00	**$76,542,751.00**
CoreCivic (out-of-state housing)							$5,640,604.00
Total							**$82,183,355.00**

In FY21 $76,542,751 has been appropriated for the operation of the six adult facilities. The budget is predicated on an assumed capacity of 1,579 beds. In addition, there is $5,640,604 that has been appropriated for housing up to 350 additional DOC offenders in Tallahatchie, MS.

OPERATIONAL EFFICIENCY

Once each facility operating budget was identified, an initial ranking of cost-effectiveness could be made solely based on facility operational costs. Keeping all budget groups constant at FY21 budgeted dollar amounts helps to rank the facilities for cost-effectiveness from the most expensive to the least expensive to operate. A scale of 1-6 was used where 1 represents the most expensive operation and 6 represents the least expensive operation. In this comparative analysis, both the Southern State Correctional Facility (SSCF) and the Northern State Correctional Facility (NSCF) represent the highest facility operational costs within the DOC; respectively. The Marble Valley Regional Correctional Facility (MVRCF) represents the lowest facility operational costs within the DOC.

Table 4 – DOC Facility Operating Cost

Facility	MVRCF	CRCF	NECC	NWSCF	NSCF	SSCF	Total
FY21 Budget	$8,324,127	$11,135,791	$11,724,273	$13,878,992	$14,490,097	$16,989,471	$76,542,751
Operational Cost Rank	6	5	4	3	2	1	

When conducting an operational analysis, one must also evaluate the per diem and per capita costs of each facility; as well as the entire system. These figures capture, in aggregate and individually, what it costs to house an offender each day and each year. Assuming the entire FY21 allocated operational budget is used to accommodate maximum system and facility capacities, another ranking was provided. This ranking was done in the same manner as ranking the operational costs where a scale of 1-6 was used. 1 represents the most expensive per diem and per capita whereas 6 represents the least expensive per diem and per capita. In this comparative analysis, both the Marble Valley Regional Correctional Facility (MVRCF) and the Chittenden Regional Correctional Facility (CRCF) represent the highest per diem and per capita; respectively. The Northern State Correctional Facility (NSCF) represents the lowest per diem and per capita.

Table 5 – DOC Facility Per Diem and Per Capita Cost

Facility	NSCF	SSCF	NECC	NWSCF	CRCF	MVRCF
FY21 Budget	$14,490,097	$16,989,471	$11,724,273	$13,878,992	$11,135,791	$8,324,127
Per Diem/Per Capita Rank	6	5	4	3	2	1
Capacity	433	377	219	255	177	118
Per Diem	$92	$123	$147	$149	$172	$193
FY21 Per Capita (Est)	$33,464	$45,065	$53,535	$54,427	$62,914	$70,543

STAFFING ANALYSIS

A review of adult facility staffing allocations was completed to determine staffing efficiency. In this comparative analysis, FY20 average daily population (ADP) is compared to allocated security staffing levels across the DOC system for adult facilities. The DOC has a current staff allocation of 734 employees across its six facilities. Staffing accounts for roughly 84% of the DOC facility operating budgets. Of these employees, there are 536 security staff. This represents approximately 73% of the entire staffing allocation.

Security staff have direct responsibility for offender supervision. As such, the facility security staff-to-offender ratios were examined for each facility and included a range of ratios from 1:1.56 (one security staff per 1.56 offenders) to 1:3.86 (one security staff per 3.86 offenders). The women's facility, CRCF, had the highest 1:1.56 ratio. Each facility staff-to-offender ratio was given a rank of 1-6. A ranking of "1" indicates a high staff-to offender ratio. Conversely, a ranking of "6" indicates

a low staff-to-offender ratio. The higher the ratio, the more staff-intensive it is to operate the facility. The more staff intensive a facility is, the higher the overall operating costs of that facility. It should be noted that security staff-to-offender ratios can be influenced by facility layout, style of management (e.g. Unit Management), staff vacancies or the types of programs and services provided.

The data table below reflects the numerical comparisons of each facility to include total staff, security staff, security staff-to-offender ratio and the FY20 ADP. The CRCF and the NWSCF have the highest and second highest staff-to-offender ratios, respectively.

Table 6 – DOC Facility Staff-to-Offender Ratio[6]

Facility	NSCF	SSCF	MVRCF	NECC	NWSCF	CRCF
Staff Efficiency Rank	6	5	4	3	2	1
Total Security Staff	104	118	55	76	98	85
Total Staff	137	154	78	107	138	120
Security Staff/Offender Ratio	1/3.86	1/3.01	1/2.35	1/2.26	1/2.15	1/1.56
FY20 ADP	401	355	129	164	211	133

The Bureau of Justice Statistics conducts surveys on staff-to-offender ratios in a publication titled, "Census of State and Federal Correctional Facilities"[7]. The latest reports indicate movement from a security staff-to-offender ratio of 1:3.9 in 1990 to 1:4.9 in 2005. In common terms, this means state correctional facilities are employing less security to supervise more offenders in custody. This is in precise alignment with the concept of direct supervision. Direct supervision unites facility design and offender management in a way that ultimately allows for staff and offender safety, frequent interaction and early intervention in problematic situations. None of the DOC facilities meet the national average as it relates to security staff-to-offender rations; thus, making the facilities more expensive to operate. This same report indicates that the DOC has the highest security staff-to-offender ratio in the country at 1:2.7.

DOC FISCAL YEAR COMPARATIVE ANALYSIS

In order to get a complete picture of the operational analysis, the projected FY21 numbers were cross referenced with the actual FY20 numbers. When comparing facility per diem and per capita for these two years, the data seems to indicate there is no real change in the rank of per diem and per capita costs among four of the six DOC facilities: CRCF, NWSCF, SSCF and NSCF. A closer look at FY20 bed utilization for CRCF, MVRCF and NERCC provides potential reasoning for the disparity in rankings. In FY20, both CRCF and NERCC beds were underutilized (below capacity) by approximately 25%. At the same time, MVRCF beds were overutilized (above capacity) by approximately 9%. Combined with fixed staffing and other costs, this can directly impact per diem and per capita costs for past, present and future data projections. Although the goal of any corrections system is maximum efficiency, it is not always easy to do so. A look at both projections (current FY numbers) and actuals (most recently completed FY data) gives the best look into future needs of a corrections system.

Table 7 – DOC FY21 to FY20 Comparison[8]

Facility	CRCF	MVRCF	NERCC	NSCF	NWSCF	SSCF	Total
FY20 Operational Costs	$9,436,019	$7,780,642	$11,453,700	$14,045,051	$13,211,003	$16,503,585	$72,430,000
FY20 Healthcare Costs	$2,376,939	$2,305,452	$2,930,962	$7,148,688	$3,770,933	$6,344,461	$24,877,435
FY20 Other Costs	$1,413,759	$1,371,240	$1,743,282	$4,262,538	$2,242,882	$3,773,569	$14,807,270
FY20 Total	$13,226,717	$11,457,334	$16,127,944	$25,456,277	$19,224,818	$26,621,615	$112,114,705
FY20 Per Capita	$99,449.00	$88,816.54	$98,341.12	$63,481.99	$91,112.88	$74,990.46	$80,484.35
FY20 Per Diem	$272.46	$243.33	$269.43	$173.92	$249.62	$205.45	$220.51
FY20 Bed Capacity	177	118	219	433	255	377	1,579
FY20 ADP	133	129	164	401	211	355	1,393
FY20 Bed Utilization	-44	11	-55	-32	-44	-22	-186
FY20 % Beds Utilized (+/-)	-24.86%	9.32%	-25.11%	-7.39%	-17.25%	-5.84%	-11.78%
FY20 Rank	1	4	2	6	3	5	
FY21 Rank Est.	2	1	4	6	3	5	

Offender Program Evaluation and Comparison

This program summary is compiled to evaluate and compare DOC's offender programs and their program needs. The DOC is created within the Agency of Human Services as the successor to and the continuation of the Department of Corrections[2]. In order to tailor programmatic needs the offenders, a validated risk and needs assessment must be conducted upon intake. This assessment will assist in identifying programmatic needs for each offender. The process of accurate assessment and targeted programming are vital as they directly correspond to both rehabilitation and successful reentry of the offender.

OHIO RISK ASSESSMENT SYSTEM

The DOC utilizes the Ohio Risk Assessment System (ORAS) to determine an offender's risk to reoffend or commit another crime. This measure is used for individuals being housed in correctional facilities and those under community supervision. The department uses the following ORAS instruments:

Prison Intake Tool (PIT): Provided to all incarcerated individuals sentenced to a year or longer in a correctional facility. Informs risk reduction programming (RRP) eligibility.

Community Supervision Tool (CST): Administered to offenders under community supervision: within 2 weeks of intake, 3 months after release from incarceration to community supervision, and/or annually and/or upon significant changes in community status. 4 levels of risk, with scores varying by gender: Low, Moderate, High and Very High.

Reentry Tools: Administered to incarcerated individuals sentenced to a year or longer. Provided within 6-8 weeks before being released to the community. 3 levels of risk, with scores varying by gender: Low, Moderate and High.

DOC PROGRAM INTERVENTIONS

The following information represents an inventory of the DOC program interventions. Several programs are utilized across the system. However, there are some programs designed specifically for the female population.

RISK INTERVENTION SERVICES

DOC's Risk Intervention Services (RIS) are structured activities which have been integrated to support sentenced offenders who are at a moderate to high risk of reoffending by presenting them with the skills to be successful in Vermont communities. Services can include group and individual clinical services, education and workforce readiness classes provided by Community High School of Vermont (CHSVT), work related opportunities provided by the Vermont Correctional Industries (VCI), and other evidence-based activities which address the thoughts and behaviors leading people to commit crime. Services are provided in facility and community-based settings.

Risk Intervention Services promotes the safety and wellbeing of Vermont communities by providing offenders with targeted intervention. Risk assessment tools are utilized to identify need areas for each offender to focus on while participating in Services. Valid and reliable risk assessments could include evaluation of risk potential for committing future crime and further potential toward domestic violence, substance use, and sexual abuse. Utilizing this information, RIS creates individualized plans for all required participants to address offender need areas while also considering their diverse strengths and barriers.

[2] https://legislature.vermont.gov/statutes/section/03/053/03081

RISK INTERVENTION CLINICAL SERVICES

DOC's Risk Intervention Clinical Services employs Evidenced Based Principles for working effectively with offenders. Clinical Services are provided in a group setting, with some opportunity for individual intervention.

Clinical Services utilizes evidence-based curricula including interventions within cognitive-behavioral, acceptance and commitment, and motivational interviewing frameworks. Clinical Services are designed to target criminogenic need areas with consideration of responsivity factors to improve effectiveness and offender engagement. Targeted interventions include those that focus on coping skills, substance abuse, offense specific situations, anger and aggression, and healthy relationship skill development. The overall goal of the program is for individuals to learn new skills and apply those skills to their everyday lives.

Community High School of Vermont (CHSVT) – CHSVT provides a continuum of education services supporting literacy and numeracy, the attainment of high school diploma and workforce readiness and several national technical certifications/courses including: First Aid and CPR w/ AED, OSHA – 10-hour General Industry, OSHA – 10-hour Construction, Restaurant Management, Construction Education and Research, and Master Gardener. All facilities provide these services.

Vermont Correctional Industries (VCI) – VCI provides education, training and workforce readiness in four different vocational industries. NWSCF employs offenders for license plate production. NSCF employs offenders for the sign, print and furniture shops. Up to 120 offenders are employed at any given time. All positions now use Standard Occupational Codes with job descriptions.

Prevent Child Abuse – This program is coordinated by the Department of Children and Families and provides Nurturing Father curriculum and/or Circles support for parenting. The program rotates throughout facilities.

Women Specific Programs

Lund Center- Kids Apart – This program provides support to children of incarcerated women through supervised visiting, parenting education and coaching and case management support with family and/or child protection plans.

Vermont Network Against Domestic and Sexual Violence (VNADSV) – Discussing Inmate Violence and Accessing Support (DIVAS) – This program provides individual and group support around experiences of domestic and sexual violence and advocacy/referral to ongoing support and resources in the community.

Vermont Works for Women – This program provides career readiness and support particularly at reentry (in house engagement and bridging to resources in the community including on job support and training).

Phoenix House of New England – This program provides clinical substance abuse treatment including assessment, brief intervention and individual and group treatment services.

Mercy Connections – This program provides mentor and mentee matching, orientation, and ongoing support.

Supplemental curriculum for various program interventions includes Texas Christian University – Motivational Interviewing, Charting a New Course, Thinking for a Change, Criminal Conduct and Substance Abuse, Cognitive Behavioral Intervention (CBI) – Substance Abuse, Aggression Interruption, Cognitive Behavioral Intervention – Sexual Offending (pilot), Achieving Change through Value-Based Behavior (ACTV) – Domestic Violence and Beyond Violence – Female.

Table 8 – DOC Program Inventory

Program	EBP	Gen. Based	Cognitive	Housing	Educational	Employ.	Family	MH/Med/SA
Thinking for a Change	X	X	X					
TCU Motivational Interviewing	X	X	X					
Criminal Conduct and Sub. Abuse		X	X					X
Charting a New Course		X	X					
Aggression Interruption		X	X					
Cognitive Behavioral Intervention-SA	X	X	X					X
Cognitive Behavioral Intervention-SO	X	X	X					
ACTV-Domestic Violence/Beyond DV	X	X	X				X	
Community High School of Vermont		X			X	X		
Vermont Correctional Industries		X				X		
Prevent Child Abuse		M					X	
Kids Apart		W					X	
DIVAS		W					X	X
Vermont Works for Women		W				X		
Phoenix House of New England	X	W	X					X
Mercy Connections		W					X	

Table 8 – Legend

EBP – Evidence Based Practice
MH – Mental Health Support
Med – Medical Support
SA – Substance Abuse Treatment or Education
M = Men
W = Women

OVERVIEW DOC PROGRAM INVENTORY

A review of DOC offender programs indicate a variety of interventions covering the rehabilitative needs of the offender population. A large majority of the programs are either evidence-based and/or cognitive in nature. Additionally, programming is available to both male and female offenders fairly equally. By having numerous curricula devoted to Cognitive Behavioral Therapy (CBT)/(CBI), there is great opportunity to focus on thought-patterns and behavioral change of the offender. These focal points are key to successful rehabilitation and reintegration.

At the same time, there are several notable deficits in DOC programming. There appears to be very little programming focused on housing and post-secondary education (college). And while not listed in the table, there appears to be very

little, if any, programming on life skills. A close look at services designed to assist offenders with medical and mental health deficits reveal a lack of programs here as well.

NATIONAL OFFENDER PROGRAM STANDARDS

National research indicates that for offenders to reintegrate successfully into society, programming must address the following needs: cognitive thinking, housing, education, employment, family support and support services. In this instance, support services are defined as the support for those needing assistance with substance abuse, medical or mental health issues. However, dosage of services is key to understanding what drives effective programming and successful reentry.

An extensive body of work produced by the Congressional Research Service has found credible information that is useful for understanding the effectiveness of offender programs. "Offender Reentry: Correctional Statistics, Reintegration into the Community, and Recidivism" (https://fas.org/sgp/crs/misc/RL34287.pdf); by Nathan James, Analyst in Crime Policy looks at the effectiveness of programming as it relates to offender recidivism through a concept called "What Works". Originally created by the University of Maryland, and later adapted for corrections by the University of St. Louis, this research process evaluates the efficiency of offender programs and services in the five key areas of employment, substance abuse, education, mental health, and housing. The research findings below are taken directly from this report.

- Employment
  - *Research on the relationship between participation in employment programs and recidivism has yielded mixed results.*
  - *Research on the effect of work release programs was mixed.*
  - *A majority of the research found that prisoners who participated in prison industries had lower levels of recidivism.*

- Substance Abuse Treatment
  - *Substance abuse treatment can help reduce recidivism and substance abuse amongst program participants, especially if the substance abuse treatment is provided in a therapeutic community (TC) setting.*
  - *A majority of studies that evaluated non-TC substance abuse programs found strong to moderate evidence that the programs reduced recidivism.*

- Education
  - *Post-secondary education had a strong effect on reducing recidivism, while there was a more modest effect for ABE programs.*
  - *Studies of GED programs show that participants were no less likely to recidivate than non-participants.*
  - *There was more research on vocational education programs, but the findings from these studies were mixed. The research on vocational education programs suggests that the quality of the program may be an important factor in achieving reductions in recidivism.*

- Mental Health
  - *Four studies that evaluated programs that offered a continuity of care approach found significant reductions in recidivism amongst participants.*
  - *Other programs that focus on cognition and mental well-being, but which are not focused on prisoners with a diagnosed mental illness, suggest that these "curriculum-based" treatment programs can help reduce recidivism.*

- Housing
    - *Like many other reentry programs, the research on the effect of halfway houses on recidivism is mixed.*
    - *The effect of halfway housing programs on recidivism appears to be largely determined by a participant's level of risk to recidivate (participants that are at a higher level of risk to recidivate are more likely to benefit) and by the quality of the program.*

PROGRAMS SUMMARY

Based on this body of work that cites multiple credible sources, several conclusions can be drawn. The DOC appears to be providing effective programming in the areas of cognitive behavioral therapy (CBT)/cognitive behavioral intervention (CBI), correctional industries, substance abuse treatment and quality vocational programs. The programming in these areas should continue to be constantly monitored to ensure relativity and dosage. These actions could result in a decline of the recidivism rate over time.

There are also several areas of programming DOC is currently providing that may be less effective in rehabilitation as research shows no effect on the recidivism rate. These services include general educational development (GED), general work release and general vocational programs. These programs should be evaluated and reviewed. There could be opportunities for enhancements to increase effectiveness that could result in a decline of the recidivism rate over time.

There is one clear deficit that could have a dramatic impact on the efficiency of programming. This report indicates post-secondary education (college) has a strong effect on reducing recidivism. However, it does not appear that DOC is currently offering college coursework to its offender population. Along with improving the quantity and dosage of CBT/CBI, substance abuse treatment, work release, targeted industries and targeted vocational training, the addition of college coursework are all components that could lead to a positive impact on rehabilitation.

Finally, as the DOC population ages, there will be more need for both medical and mental health support services both during and after incarceration. In addition, basic life skills could be added to assist with the reentry efforts. Skills such as money management, resume writing, interviewing, job training and self-care could be a central part of the life skills curriculum for foundational reentry programming.

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Operational Summary

Chittenden Regional Correctional Facility (CRCF) – The two-story facility was built in 1973 with the most recent addition in 1983; and currently houses a maximum of 177 women of close, medium, and minimum-security custody levels. This puts CRCF at almost 47 years old. In a 204 BGS assessment, the facility was given a rating of "poor". In a subsequent 2014 assessment, the facility was determined to be in immediate need of $3,188,744 in capital improvement. This same assessment indicated a future capital need of $3,109,503 from 2014-2024; thus totaling $6,298,247 in needed improvements. It is estimated the current deferred maintenance capital costs are $4,882,294. Future capital costs are estimated at $4,966,380 from 2020-2032; thus totaling $9,788,673. CRCF has limited capacity for expansion in its current location.

An examination of facility operations reveals CRCF has DOC's second lowest operational costs. The total FY21 budgeted operating costs of CRCF are $11,135,791. This includes $9,762,983 in costs directly related to staffing at the facility and represents 87.7% of CRCF's total operating costs. This percentage is higher than any other DOC facility staffing cost and higher than then the DOC average staffing cost (84.4% of operating costs). While the operating costs of women's facilities are typically higher than men's facilities, the security staff-to-offender ratio had to be factored in understanding why. Currently, CRCF has a security staff-to-offender ratio of 1:1.56; or 10 staff for every 15-16 offenders. This ratio is higher than any other facility in the DOC. Additionally, the per diem of $172 and per capita of $62,914 are second highest than any other facility per diem and per capita in the DOC.

Notable deficits of CRCF include healthcare beds, crisis beds and reentry resources. CRCF currently has 3 infirmary beds and 0 mental health crisis beds. With national studies indicating the prevalence of trauma, mental illness and substance abuse rates for women typically higher than men, CRCF appears to be appropriately resourced in these areas; except mental health. There is no established stepdown or reentry unit for female offenders to cohort as they prepare to reenter society. There is a lack of programming in the areas of post-secondary education, life skills, mental health/medical support, family reunification and work force development. DOC's current recidivism rate of 43.8%[9] has been relatively constant over an eight-year period and validates these deficiencies.

Southern State Correctional Facility (SSCF) - The facility was built in 2003 (the newest) and currently houses a maximum of 377 men. This puts SSCF at 16 years old. In a 2004 BGS assessment, the facility was given a rating of "excellent". In a subsequent 2014 assessment, the facility was determined to be in immediate need of $10,000 in capital improvement. This same assessment indicated a future capital need of $3,706,542 from 2014-2024; thus totaling $3,716,542 in needed improvements. It is estimated the current deferred maintenance capital costs are $547,113. Future capital costs are estimated at $6,798,297 from 2020-2032; thus totaling $7,245,409. SSCF has the capacity for expansion of an additional pod of 150 beds. There are also additional spaces defined for future use.

An examination of facility operations reveals SSCF has DOC's highest operational costs. The total FY21 budgeted operating costs of SSCF are $16,989,471. This includes $14,122,653 in costs directly related to staffing at the facility and represents 83.1% of SSCF's total operating costs. This percentage is the third lowest of all DOC facility staffing costs and lower than the DOC average staffing cost (84.4% of operating costs). The security staff-to-offender ratio had to be factored in to understand why. Currently, SSCF has a security staff-to-offender ratio of 1:3.01; or 10 staff for every 30 offenders. This ratio is second best compared to any other facility in the DOC. Additionally, the per diem of $123 and per capita of $45,065 are second best compared to any other facility per diem and per capita in the DOC.

There are not many notable deficits. SSCF appears to be a facility with multiple centralized functions. The facility currently provides dialysis, 9 infirmary beds, 10 crisis beds, 28 geriatric beds and 24 mental health stepdown beds. Additionally, SSCF appears to serve as a transportation hub accounting for over half of the DOC's $1.1[10] million in transport costs. Additional spaces have been defined for expansion and future use. There is no established stepdown or reentry unit for

male offenders to cohort as they prepare to reenter society. There is a lack of programming in the areas of post-secondary education, life skills and family reunification. DOC's current recidivism rate of 43.8% has been relatively constant over an eight-year period and validates these needs.

Marble Valley Regional Correctional Facility (MVRCF) - The facility was built in 1979 and currently houses a maximum of 118 men. This puts MVRCF at 42 years old. In a 2004 BGS assessment, the facility was given a rating of "excellent". In a subsequent 2014 assessment, the facility was determined to be in immediate need of $147,733 in capital improvements. This same assessment indicated a future capital need of $1,237,199 from 2014-2024; thus totaling $1,384,932 in needed improvements. It is estimated the current deferred maintenance capital cost is $1,200,737. Future capital costs are estimated at $1,297,597 from 2020-2032; thus totaling $2,498,334. MVRCF is a small facility that has the capacity for marginal expansion. However, the existing infrastructure is not sized for expansion.

An examination of facility operations reveals MVRCF has DOC's lowest overall operational costs. The total FY21 budgeted operating costs of MVRCF are $8,324,127. This includes $7,245,437 in costs directly related to staffing at the facility and represents 87% of total operating costs. This percentage is the second highest of all DOC facility staffing costs and higher than the DOC average staffing cost (84.4% of operating costs). The security staff-to-offender ratio had to be factored in to understand why. Currently, MVRCF has a security staff-to-offender ratio of 1:2.35; or 10 staff for every 23-24 offenders. This ratio is third best compared to any other facility in the DOC. Additionally, the per diem of $193 and per capita of $70,543 are the highest of any other facility per diem and per capita in the DOC.

Noticeable deficits include healthcare beds and mental health crisis beds. With national studies indicating the prevalence of mental illness and substance abuse, MVRCF appears to be under-resourced in these areas. MVRCF is also one of two facilities that provide reentry resources for male offenders as they prepare to reenter society. There is a lack of programming in the areas of post-secondary education, life skills and family reunification. DOC's current recidivism rate of 43.8% has been relatively constant over an eight-year period and validates these needs.

Northwest State Correctional Facility (NWSCF) - The facility was built in 1969 and currently houses a maximum of 255 men. This puts NWSCF at 51 years old. In a 2004 BGS assessment, the facility was given a rating of "poor". In a subsequent 2014 assessment, the facility was determined to be in immediate need of $6,189,055 in capital improvements. This same assessment indicated a future capital need of $7,704,944 from 2014-2024; thus totaling $13,893,999 in improvements needed. It is estimated the current deferred maintenance capital cost is $4,769,516. Future capital costs are estimated at $3,759,975 from 2020-2032; thus totaling $8,529,490. NWSCF is a large facility that has the capacity for expansion. However, the existing kitchen infrastructure is only sized for an additional 100 beds.

An examination of facility operations reveals DOC's third highest overall operational costs. The total FY21 budgeted operating costs of NWSCF are $13,878,992. This includes $11,983,156 in costs directly related to staffing at the facility and represents 86.3% of total operating costs. This percentage is the third highest of all DOC facility staffing costs and higher than the DOC average staffing cost (84.4% of operating costs). The security staff-to-offender ratio had to be factored in to understand why. Currently, NWSCF has a security staff-to-offender ratio of 1:2.15; or 10 staff for every 21-22 offenders. This ratio is the second highest compared to any other adult male facility in the DOC. Additionally, the per diem of $149 and per capita of $54,427 are the third highest of any other facility per diem and per capita in the DOC.

Noticeable deficits include healthcare beds, mental health crisis beds and reentry resources. With national studies indicating the prevalence of mental illness and substance abuse, NWSCF appears to be under-resourced in these areas. NWSCF also houses Vermont Correctional Industries (VCI) and the production of license plates. Sex offender programming is offered here as well. However, there is no established stepdown or reentry unit for male offenders to cohort as they prepare to reenter society. There is a lack of programming in the areas of post-secondary education, life skills and family reunification. DOC's current recidivism rate of 43.8% has been relatively constant over an eight-year period and validates these needs.

Northern State Correctional Facility (NSCF) - The facility was built in 1994 and currently houses a maximum of 433 men. This puts NSCF at 29 years old. In a 2004 BGS assessment, the facility was given a rating of "excellent". In a subsequent 2014 assessment, the facility was determined to be in immediate need of $1,698,150 in capital improvement. This same assessment indicated a future capital need of $6,389,657 from 2014-2024; thus totaling $8,087,807 in improvements needed. It is estimated the current deferred maintenance capital cost is $6,588,469. Future capital costs are estimated at $5,536,919 from 2020-2032; thus totaling $12,125,389. NSCF is a large facility that does not have the capacity for expansion.

An examination of facility operations reveals NSCF has DOC's second highest overall operational costs. The total FY21 budgeted operating costs of NSCF are $14,490,097. This includes $11,755,847 in costs directly related to staffing at the facility and represents 81.1% of total operating costs. This percentage is the lowest of all DOC facility staffing costs and lower than the DOC average staffing cost (84.4% of operating costs). The security staff-to-offender ratio had to be factored in to understand why. Currently, NSCF has a security staff-to-offender ratio of 1:3.86; or 10 staff for every 38-39 offenders. This ratio is lowest compared to any other facility in the DOC. Additionally, the per diem of $92 and per capita of $33,464 are the lowest of any other facility per diem and per capita in the DOC.

Noticeable deficits include healthcare beds (currently 3), mental health crisis beds and reentry resources. With national studies indicating the prevalence of mental illness and substance abuse, NSCF appears to be under-resourced in these areas. NSCF is also home to Vermont Correctional Industries (VCI) producing signs, printed items and furniture. There is no established stepdown or reentry unit for male offenders to cohort as they prepare to reenter society. There is a lack of programming in the areas of post-secondary education, life skills and family reunification. DOC's current recidivism rate of 43.8% has been relatively constant over an eight-year period and validates these needs.

Northeast Regional Correctional Complex (Northeast Regional Correctional Facility - NERCF and Caledonia County Work Camp -CCWC) – The facility was primarily built in 1981 (NERCF) and 1994 (CCWC) and currently houses a maximum of 219 men. This puts NERCC at 39 years old. In a 2004 BGS assessment, the facility was given a rating of "excellent". In a subsequent 2014 assessment, the facility was determined to be in immediate need of $1,698,150 in capital improvement. This same assessment indicated a future capital need of $6,389,657 from 2014-2024; thus totaling $8,087,807 in improvements needed. It is estimated the current deferred maintenance capital cost is $1,131,416. Future capital costs are estimated at $1,442,083 from 2020-2032; thus totaling $2,573,499. NERCC is a large facility complex that does not have the capacity for expansion.

An examination of facility operations reveals NERCC has DOC's third lowest overall operational costs. The total FY21 budgeted operating costs of NERCC are $11,724,273. This includes $9,721,655 in costs directly related to staffing at the facility and represents 82.9% of total operating costs. This percentage is the second lowest of all DOC facility staffing costs and lower than the DOC average staffing cost (84.4% of operating costs). The security staff-to-offender ratio had to be factored in to understand why. Currently, NERCC has a security staff-to-offender ratio of 1:2.26; or 10 staff for every 22-23 offenders. This ratio is third highest compared to any other facility in the DOC. Additionally, the per diem of $147 and per capita of $53,535 are the third lowest of any other facility per diem and per capita in the DOC.

Noticeable deficits include healthcare beds and mental health crisis beds. With national studies indicating the prevalence of mental illness and substance abuse, NERCC appears to be under-resourced in these areas. NERCF is home to one of two facilities providing reentry resources for male offenders as they prepare to reenter society. CCWC is home to the agency's lone adult male work camp. This is a great model for transitional reentry when combined with other support services. There is a lack of programming in the areas of post-secondary education, life skills and family reunification. DOC's current recidivism rate of 43.8% has been relatively constant over an eight-year period and validates these needs.

[1] DOC budget information provided by Matthew D'Agostino, Financial Director, DOC.
[2] Facility operating budgets provided by Matthew D'Agostino, Financial Director, DOC
[3] Per diem is the cost to house an offender for one day.
[4] Per capita is the cost to house and offender for one year.
[5] Budget categories provided by Matthew D'Agostino, Financial Director, DOC
[6] Table – 6 Data provided by Matthew D'Agostino, Financial Director, DOC.
[7] "Census of State and Federal Correctional Facilities", https://www.bjs.gov/index.cfm?ty=pbse&sid=3.
[8] FY20 Expenses, ADP, per diem and per capita provided by Matthew D'Agostino, Financial Director, DOC
[9] DOC Recidivism information provided by Cullen Bullard, Director of Classification & Facility Designation, DOC
[10] Transport costs provided by Matthew D'Agostino, Financial Director, DOC

End of part I