
Minnesota Department
of Administration

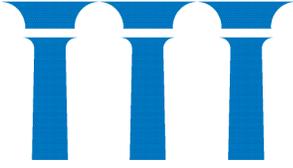
PREDESIGN FOR
PROGRAMMING /
EDUCATION SPACE
Rush City, Minnesota

Project No. 78RC0036

May 31, 2023

FINAL REPORT



KLEIN
McCARTHY

ARCHITECTS

PREDESIGN SUBMITTAL FOR:

Minnesota Department of Administration

Programming / Education Space at MCF Rush City
RECS Project #78RC0036

Rush City, Minnesota

May 31, 2023

I hereby certify that this report was prepared by me or under my direct supervision, and that

I am a duly registered ARCHITECT under the laws of the state of Minnesota.

Scott Fettig



Date: May 31, 2023

Registration Number 22914

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I am a duly registered ENGINEER under the laws of the state of Minnesota.

James Art, PE



Date: May 31, 2023 Registration Number 13357

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Todd Peterson, PE



Date: May 31, 2023 Registration Number 23427

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As the Rush City facility was first constructed, the inmate services were provided based on single bunking of housing cells, so when the facility double bunked every allowable cell, the inmate's services spaces were immediately at their capacity. As the facility increased its total bed capacity, they experienced a shortage of available service space. This shortage of space has led to limited programs provided and using spaces such as the Visiting Area being used for inmate programs for which they are not equipped. Program and education staff are scattered around the campus and not centrally located with their programs, and the high volumes of inmates using areas too small for them has created inefficiencies and restrictions to programming times and the volume of inmates served. It has also resulted in bottlenecks for inmate movement resulting in additional staffing required for supervision.

This project will include the expansion of inmate services including education, behavioral health, religious, medical, and professional visit / hearing rooms. Also include expansions for staff support spaces and physical plant services.

The building expansion includes 28,340 gsf of new space and 16,326 gsf of remodeling, for a total of 44,666 gsf, to provide the necessary inmates services for the current inmate capacity of the facility. This expansion, based on the spatial program included in the report, will provide for the facility's needs and to meet current inmate programming, Americans with Disabilities Act (ADA), American Correctional Association (ACA) standards, Prison Rape Elimination Act (PREA) standards. and technology advancements. This expansion is not intended to provide the services needed if the two additional housing units are added in the future as part of the overall masterplan.

This predesign document has been prepared for the following purposes:

- Identifying all project needs and costs to serve as the basis for funding requests.
- To be the source for future decision making during the development of the project by serving as the road map for future development.
- Provide agency management with the information they need to effectively communicate project details to legislators and stakeholders.
- Communicate essential project objectives with factual data before the actual design process commences or other decisions are made.
- Explore alternatives that had not been previously considered.
- Identify potential cost savings.
- Identify and minimize risks associated with the project.
- Analysis of the best construction delivery method.
- Analysis of funding alternatives best suited for the project.
- Provide a basis for a Request for Proposal (RFP) for design services and in negotiating the future design contract.
- Provides instructions to the future architectural and engineering design firms and provides them the foundation on which to base their design.

SECTION 1.A – Project (Executive) Summary Statement

PROJECT TITLE: Predesign for Programming/Education Space at MCF Rush City
Location: Rush City, Minnesota

SCOPE

This project will include the expansion of inmate services including education, behavioral health, religious, medical, and professional visit / hearing rooms. Also include expansions for staff support spaces and physical plant services.

The building expansion includes 28,340 gsf of new space and 16,326 gsf of remodeling, for a total of 44,666 gsf, to provide the necessary inmates services for the current inmate capacity of the facility. This expansion, based on the spatial program included in the report, will provide for the facility's needs and to meet current inmate programming, Americans with Disabilities Act (ADA), American Correctional Association (ACA) standards, Prison Rape Elimination Act (PREA) standards. and technology advancements. This expansion is not intended to provide the services needed if the two additional housing units are added in the future as part of the overall masterplan.

COSTS

New Space:	28,340 gsf
Construction Cost:	\$24,350 million
Remodeled Space:	16,326 gsf
Construction Cost:	\$7,871 million
Total Construction Cost:	\$32,221 million
Total Project Cost:	\$47,881 million

FUNDING SOURCE(S)

State Funding Request: \$47,881 million
Sources for Remainder of Funding: None

OPERATING COSTS

The staffing quantities remain the same as they currently are for the existing building. No cost decrease or increase is expected.

The facility currently has enough redundancy built into the heating and cooling systems that they will handle the additional added expansion. By removing the portable building and being able to separate the new areas, the increase in the utility bills will be negligible.

SCHEDULE

Site Acquisition:	None required.
Project Funding:	July 2024
Bidding:	June 2025
Award Negotiation:	July 2025
Construction:	August 2025 – October 2028
Mid-point of Construction:	March 2027
Close-Out:	October 2028
Occupancy:	October 2028

SECTION 1.B – Project Data Sheet – New Building (or New Work)

Name of Project: Predesign for Programming/Education Space at MCF Rush City

Agency/Organization: State of Minnesota, Department of Administration

Project/Building Location: 7600 525th St, Rush City, MN 55069

Building Occupancy Type: I-3 Institutional (prison)

Primary Space Types: Housing, Programs and Support

Type of Construction: I-B (under current IBC)

Building Size

Number of Stories:	1 story, no basement (Support Building expansion)
Addition Square Feet per Floor:	First Floor: 28,340 gsf
Total Addition Square Feet:	28,340 gsf
Space Efficiency:	64% Usable v. Circulation/Mechanical, etc.
Total Addition:	27.5 gsf/resident
Existing Support Building per Floor:	First Floor: 168,207 gsf
Existing Support Building Efficiency:	64% Usable v. Circulation/Mechanical, etc.
Total Existing Support Building:	163 gsf/resident

Site Size: Number of Acres: Approximately 315.6 acres (property limits)

Parking Type: Bituminous surface parking (existing)

Area of Parking: 78,950 SF (existing)

Number of Parking Stalls: 337 total (46 public/291 staff)

Roofing Type: Single-ply TPO membrane at low slope housing conditions. Four-ply asphalt membrane with aggregate surfacing at flat roof housing and support building conditions.

1. Predesign Summary

Exterior Wall Type:	Precast concrete insulated wall panels. Split-framed, thermally broken detention windows with steel interior and aluminum exterior.
Interior Wall Type:	Steel reinforced and grouted concrete masonry, grouted concrete masonry, and concrete masonry as required based on location and security conditions.
Structural System Type:	Cast-in-place concrete foundations and slabs on grade, precast concrete columns, beams and spandrels, steel beams, precast floor planks with concrete topping, precast roof planks, and open web steel joists with metal roof decking.
Hazardous Materials:	Site preparation for the original facility began in 1996, with substantial completion and occupancy of the facility in 1999. There is no indication that contaminated soils were encountered during the original construction.
Mechanical System Type:	<p>An existing hot water boiler plant generates hot water for heating purposes to satisfy the building heating and ventilation demand. In addition, a chilled water plant provides chilled water to various terminal units for building cooling purposes. It has been determined that both the heating plant and the cooling plant has sufficient capacity to meet the building demands for the proposed additions and renovations.</p> <p>Due to the size of the facility and function within, there are various systems related to HVAC that provide thermal comfort and ventilation based upon space usage. These range from constant volume air handlers to variable volume air handlers to heat pumps. In general, the constant volume air handling units serving the housing units; the variable air volume units serve the administration spaces, and the heat pumps serve equipment rooms. The proposed new work would include additional air handlers and associated terminal devices for final space temperature control.</p> <p>Domestic hot water is generated with multiple water heaters distributed throughout the facility. For example, each housing unit has a dedicated water heater. The proposed new work would include the expansion of the existing domestic cold-water system to new water heaters serving the new spaces.</p> <p>The building HVAC is currently controlled with a direct digital control (DDC) building automation system. The new proposed work will expand from this system to monitor and control all HVAC functions.</p> <p>The building utilities (sewer and water) are readily available to support the expansion. Extensions from these services into the new additions will be required.</p>
Fire Protection Description:	The entire facility is protected with an automatic sprinkler system with wet-type and dry-type heads. Offender areas shall be equipped with tamper resistant institutional sprinkler heads.

Extensions from the existing system will be required for the renovation spaces, however it is anticipated that a new fire assemble will be required to serve the

north expansion addition. The water supply to serve that assembly will be from the water service mains that surround the facility.

Electrical System Type: Two existing utility 12.47KV, 3-phase primary electrical feeds to main electrical switchgear located in the Main Electrical Room #12-318 at the southwest corner of facility will be used to serve the current and expansion needs of this project. The facility has full electrical back-up of the facility via (2) existing campus electrical motor generators.

The existing electrical switchgear in the Main Electrical Room will be utilized to feed 12.47KV distribution to new electrical substations that will be in the new free-standing buildings. The new fire alarm devices added as a result of this project will be connected to the existing, and recently upgraded campus fire alarm system.

Technology Systems: Communications Cabling/Infrastructure: Fiber optic and copper back-bone cabling will be provided from MDF to IDF locations via secured cable tray or dedicated raceway. Horizontal cabling shall be CAT6 or CAT6A. Television and overhead paging will be expanded to serve the remodeled and new areas of the facility.

Security Electronics Systems: Control Consoles: Touchscreen terminals at major control locations; push button control panels at locations with limited control functions.

Door Control and Monitoring: Door control and monitoring shall be performed by extending the existing PLC-based control system.

IP Video System: New IP cameras shall be integrated into the existing Genetec IP video management system.

Card Access System: New card readers shall be integrated into the facility's Genetec-based access control software.

Intercom and Paging System: A new digital intercom system shall control the facility intercom and paging functions.

Personal Alarm System: Duress alarm monitoring shall be performed by the expansion of the PLC-based control system.

Data Logging System: A new event logging system that shall record the control and alarm activities from the security system.

Television Signal Distribution System: The existing television signal distribution system shall be expanded to the new construction.

Uninterruptible Power System (UPS): UPS units shall provide uninterruptible power to the security systems in the event of a power failure.

1. Predesign Summary

Video Visitation System: Raceways shall be provided to extend the facility's existing system.

Perimeter Security System: The existing taut-wire and fence-mounted acoustic cable detection systems will not be affected.

Life Expectancy of New Work: 25 - 50 years if properly maintained.

Costs:

Total Project Cost: \$47,880,899	Furniture, Fixtures, Equipment, Signage: \$1,019,599
Predesign Cost: \$46,250	Relocation Cost: N/A
Design Cost (including B-3): \$3,222,087	Phasing Cost: Included in Bldg. Cost
Site Acquisition Cost: N/A	SAC/WAC/Permits/Survey: Included in Owner Contingency
Site Improvements Cost: \$1,085,916	Building Permit/Plan Review: Included in Building Cost
Parking Structure Cost: N/A	Insurance/Bonds: Included in Building Cost
Building Cost: \$31,134,951	Technology Cost: Included in Building Cost
General Condition's: Included in Bldg. Cost	Commissioning: \$158,521
Surface Parking Cost: N/A	Inflation Cost: \$5,534,648
Construction Contingency: \$1,611,043	B-3 Construction costs: Included in Building Cost
Owner Contingency: \$3,222,087	Hazardous Materials Abatement Cost: \$0
Non- State Project Management Cost: Included in CMAR fee	CM Preconstruction Fees: \$16,110
State Project Mgmt. Cost: \$24,165	Construction Management Fees: \$805,522
State Funding Amount: \$47,880,899	
Other Funding Source(s) Amount(s): N/A	

NOTE: Cost Estimates are based upon the information above.

2. Basis for Need – Project Background Narrative

NEED SUMMARY

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MISSION

Transforming Lives for a safer Minnesota.

VISION

Achieving justice through promotion of racial equity, restoration from harm, and community connectedness.

VALUES

Safety, Dignity, Honesty, Equity, Respect, Fairness, Service

STRATEGIC PLAN

In order to meet their mission, the DOC has identified five strategic goals which focus their priorities, decision-making and practices.

- Provide effective correctional services.
- Hold offenders accountable.

2. Basis for Need – Project Background Narrative

- Change offender behavior.
- Provide restorative services for victims.
- Engage staff and promote workplace safety.

Providing effective correctional services is an important goal to ensure that secure and humane correctional facilities are safe for both staff and offenders. In addition, the department is committed to providing effective research-based supervision for offenders in the community.

The department prioritizes offender accountability in the completion of court-ordered sentences, as well as compliance with release plans and payment of financial obligations.

Changing offender behavior is a key indicator for the department. Participation by offenders in evidence-based programming as well as engagement in planning for release and discharge is crucial.

The department provides restorative services to individual crime victims as well as to the overall community. It is important that individual and community victims of crime are represented and supported.

The department recognizes that staff is critical to maintaining core operations and delivering services to offenders. Maintaining a safe work environment and healthy work culture, in collaboration with labor unions, is essential to sound business practices and operations.

OPERATIONAL PLAN

The Department of Corrections has a statute responsibility to accept persons committed by the courts of this State for care, custody and rehabilitation in licensed correctional facilities meeting standards for facility management, operation, and physical condition, and for the security, safety, health, treatment, and discipline of persons so committed.

The Minnesota Correctional Facility –Rush City is a level four (close custody) detention facility within the DOC system. Opening in 1999, the facility is in very good condition, and has existing mechanical and electrical infrastructure capacity to serve additional inmate support areas.

STATUTORY REQUIREMENTS

Meet State statutory requirements, Department of Corrections (DOC) policy and procedures, and American Correctional Association (ACA) operational and physical plant standards for offender support functions.

Minnesota Statutes

241.01, Subd. 3a. Powers and Duties

Gives the Commissioner of Corrections the power and duty to accept persons committed to the Commissioner by the courts of this State for care, custody, and rehabilitation.

2. Basis for Need – Project Background Narrative

241.021, Subd. 1a. Correctional facilities inspection; licensing

Requires the Commissioner of Corrections to inspect and license all correctional facilities, and to promulgate rules establishing the minimum standards for these facilities management, operation, physical condition, and the security, safety, health, treatment, and discipline of persons detained or confined therein.

43.94 Minnesota Correctional Facility – 243.94

Establishes MCF –Rush City for the placement of persons committed to the Commissioner of Corrections by the courts of this state who, in the opinion of the Commissioner may benefit from the programs available in the facility. The general control and management of the facility shall be under the Commissioner of Corrections.

ACA Standards

American Correctional Association “Standards for Adult Correctional Institutions – 4th Edition” and the “2014 Standards Supplement”

ALTERNATIVE ANALYSIS

Alternative options were explored to identify various methods for dealing with the existing building from renovation and expansion to building programs and education as a completely new building.

FACILITY CONDITION ASSESSMENT (FCA)

The Minnesota Correctional Facility – Rush City (MCF-RC) is a level four, close-custody detention facility constructed on a rural site, which was opened in 1999.

The facility is comprised of a two-story Administration building located outside a secure perimeter, and a one-story central Support building, flanked by four freestanding two-story inmate housing buildings, all within the secure perimeter. Also located within the secure perimeter are supporting recreational fields and courts, two greenhouses, and a modular building accommodating some Behavioral group rooms and counseling spaces. The secure perimeter consists of fencing and patrol road systems, with a single vehicular sally port permitting passage. The Administration building is connected through the secure perimeter to the Support building via a long, narrow link containing three separate but parallel corridors for, public access to the visiting area, staff only and offender escorted access, and material deliveries into the Support building. The physical plant is located within the Support building and serves the entire campus.

The facility was originally planned and designed for six housing units and associated support programs. But reductions to budget and scope, enacted during the legislative bonding process, reduced the design and construction to the current four housing units and associated support program areas, while maintaining physical plant capacity for future expansion. While all existing housing units and support spaces are presently operating at their capacities in housing the current maximum population of 1032 inmates with the facility currently operating near that maximum capacity. The infrastructure capacity does exist for proposed future housing and current support building expansions. The physical condition of existing buildings is very good, making the facility well suited for expansion.

2. Basis for Need – Project Background Narrative

Inmate Services:

Education Services

Education program spaces are spread across the Support building in three separate locations. Six conventional classrooms and associated staff support spaces are well located in the northeast corner of the Support building, having close proximity to inmate housing units off the main inmate travel corridor. Similarly, two vocational classrooms are also well located, having close proximity to inmate housing as well as being adjacent to Industry areas with secure supply corridor access. Transition and employability instruction is occurring in converted Canteen space adjacent to the main corridor further south in the Support building. This is poorly located since it is remote from the other educational areas. All three education areas are operating at or beyond capacity in serving the needs of the current inmate population and will require expansion of program area for the proposed increase.

Behavioral Services

Behavioral services are well located in the northeast corner of the Support building, having close proximity to inmate housing units off the main inmate travel corridor. However, program area is severely deficient. 18 Mental Health (MH), and Sexual Offender Treatment Program (SOTP), staff currently share 10 offices in this location. Additional assessment and counseling space is provided in pre-manufactured modular units outside the Support building adjacent to Complex 2, which houses Supportive Living Services (SLS), and SOTP programs. Concerns about privacy and inmate disruption suggest that assessment and counseling functions should not occur in the remote pre-manufactured units. Additional office, assessment, and group counseling space is required, both for existing programs, as well as for newer Chemical Dependency (CD), and Release Violator (RV), programs. In general, the Behavioral Services Unit suffers from a severe lack of space required to perform the services required to support the current offender population, compromising efficiency, safety, and security, as well as compliance with HIPPA rules for patient privacy.

Religious Services

Religious Services are well located in the northeast corner of the Support building, having close proximity to inmate housing units, with direct access off the main inmate travel corridor. The current inmate participation rate in religious services is 33.7% which translates to 350 inmates. The existing chapel, accommodating 55 inmates, is operating at capacity in serving the maximum inmate population of 1032, and will require expansion of program areas to allow larger group services in lieu of splitting services straining the programming staff.

Medical Services

Medical Services are well located in the northwest quadrant of the Support building, having close proximity to inmate housing units, and with direct access off the main inmate travel corridor. The health services component is operating beyond its capacity in serving the maximum inmate population of 1032, and will require expansion of exam rooms, storage, and a better flow for pill dispensing. The dental services component will not require expansion.

Facility Support Services

2. Basis for Need – Project Background Narrative

Staff Conference/Training Room

The staff require a Conference/Training Room that will support 16 occupants in a classroom and conference room setting.

Professional Visit / Hearing Rooms

Visitation spaces are well located in the south end of the Support building inside the secure perimeter. While no changes to existing visitation are required, review of existing conditions with MCF-Rush City staff have identified a requirement to provide additional separate Professional Visit/Hearing Rooms to accommodate virtual courtroom, tele-psych, tele-med, and inmate interviews or meetings conducted by outside DOC staff, attorneys, and media. During the COVID-19 pandemic, and continuing since, the facility has had a dramatic increase in the usage of remote court hearings for the population.

Maintenance

Maintenance shop space and facilities staff offices are well located adjacent to and south of the physical plant in the south end of the Support building inside the secure perimeter. Additional offices are required along with Garage Storage to allow removing the snow blowers, maintenance vehicles and gasoline from the shop area and locate separately.

COMPREHENSIVE/MASTER PLAN

The facility believes the siting and construction character of this proposed building expansion supports the overall vision and intent of the MCF Rush City comprehensive master plan.

The MCF-Rush City facility was originally planned and designed for six housing units and associated support programs. However, reductions to budget and resulting scope reduced the design and construction to the current four housing units and associated support program areas, while maintaining physical plant capacity for future expansion. Civil, mechanical, and electrical infrastructure capacity exists to serve the proposed support building expansions, and these services are routed around, extended to, and capped in the vicinity of the two future housing units.

SITE SELECTION

Site selection is not required. The project calls for the expansion of an existing support building, located on the existing MCF-Rush City campus.

TECHNOLOGY PLAN

Technology:

An existing Technology Plan has been established for MCF-Rush City and the State of Minnesota Information Technology Services (MNIT) has reviewed the Pre-Design material. An approval letter from MNIT noting that the Pre-Design criteria have been met is included in this report.

Telecommuting:

MCF-Rush City is a level four, close custody detention facility operating 24 hours per day, 7 days per week. Telecommuting is not a viable option since security staff, inmate services support staff, and facilities services support staff all are required to be present to perform their duties.

HISTORIC DOCUMENTATION

The project is not located in a historic district and does not involve disposal of buildings on the National Register of Historic Places.

DISPOSAL OF STATE-OWNED BUILDINGS

The project involves the disposal of the following State-owned buildings for the Education expansion.

- Greenhouse #1: P781140010
- Greenhouse #2: P781140011
- Programing (temporary education building): P781140020

STAKEHOLDERS

- The General Public
- Minnesota Department of Administration, Real Estate and Construction Services (RECS)
- The Commissioner of Corrections
- Minnesota Department of Corrections – Facilities Division
- MCF-RC Administration, Operations, Security, Health Services, and Maintenance Staff
- Minnesota County Law Enforcement
- Offenders

IMPACTS

OPERATIONS

Expanding virtually all existing inmate support programs within the central Support building certainly presents challenges, but the operational “routine” is intended to remain largely intact. Since every inmate program cannot expand in place, some relocation of programs is necessary. Each inmate program was reviewed with security and program staff to confirm the suitability of its current location in the daily operation of the facility, and to identify opportunities for relocations which might improve operation of the facility while increasing security and safety of inmates and staff. The much-needed expansion of Behavioral Services eliminates the remote modular building while consolidating the program and introducing acoustic privacy for individual counseling and group therapy sessions, all of which improve staff efficiency, and minimize disruption, increasing security and safety of inmates and staff.

To accomplish the space needs proposed several logistical conditions exist relative to Support building expansion and remodeling as follows:

- Relocation of existing greenhouses and modular trailers provides space for Support building expansion and construction staging.
- Following Support building expansion, and consolidation of Education Services, Behavioral Health Services programs allows for the existing staff to be better utilized and the necessary expansion and remodeling for medical and religious programing.

OPERATIONAL BUDGET

The staffing quantities remain the same as they currently are for the existing building. No cost decrease or increase is expected.

The facility currently has enough redundancy built into the heating and cooling systems that they will handle the additional added expansion. By removing the portable building and being able to separate the new areas, the increase in the utility bills will be negligible.

FUNCTIONAL IMPACTS

With relocating same services and programs in the same area rather than having them scattered throughout the facility, staff will be better utilized and will be able to accommodate incarcerated persons needs more effectively without adding staff.

SECTION 4.A – ARCHITECTURAL/ENGINEERING (A/E) PROGRAM

PROGRAM

NO.	SPACE DESCRIPTION	EXISTING	REMODELED	NEW	TOTAL SPACE	NOTES
500 PRISON						
501	EDUCATION SERVICES	18,581	5,750	11,584	17,334	
502	BEHAVIORAL HEALTH SERVICES	3,853	0	7,844	7,844	
503	RELIGIOUS SERVICES	1,402	3,575	0	3,575	
504	MEDICAL SERVICES	4,678	2,525	2,304	4,829	
505	PROFESSIONAL VISIT / HEARING ROOMS	0	858	0	858	
506	STAFF SUPPORT SERVICES	486	2,420	546	2,966	
507	PHYSICAL PLANT SERVICES	2,364	1,199	4,831	6,030	
508	CORRIDOR EXTENSIONS	0	0	1,230	1,230	
	Prison Services Subtotal	31,365	16,326	28,340	44,666	
	Mechanical / Electrical Grossing Factor	0.00	0.00	0.00	0.00	Mechanical and Electrical areas provided under 507
	Subtotal	0	0	0	0	
	PRISON TOTAL GROSS BUILDING AREA (GSF)	31,365	16,326	28,340	44,666	

4. Project Description

NO.	SPACE DESCRIPTION	EXISTING			REMODELED			NEW			REMARKS
		QTY	NET EACH	TOTAL NET	QTY	NET EACH	TOTAL NET	QTY	NET EACH	TOTAL NET	
501 EDUCATION SERVICES											
501.01 North Education Area											
501.02	Classroom	6	386	2,316	3	851	2,554	5	880	4,400	Capacity 20 offenders. 6 existing remodeled to 3 larger classrooms and add 5 new classrooms (3 replacement and 2 new)
501.03	Office	1	128	128	1	106	106	0	0	0	
501.04	Open Office	1	750	750	1	600	600	0	0	0	Lost Sq ft combined with open office from Heavy Equipment space
501.05	Meeting Room				1	174	174			0	
501.06	Staff Toilet	2	51	102	0	51	0	1	64	64	
501.07	General Storage	1	434	434	0	434	0	1	200	200	Additional Storage and shared with Heavy Equipment Vocational Section
501.08	Work Room	1	167	167	0	167	0	0	0	0	
501.09	Interview Room	2	90	180			0	1	96	96	
501.10	Inmate Toilet	3	46	139	0	46	0	2	64	128	
501.11	Janitor Closet	1	72	72	0	72	0	0	0	0	
501.12	Officer Station	0	0	0	0	0	0	1	100	100	
501.13	Secure Vestibules	0	0	0				2	80	160	
501.14	Corridor	1	1,614	1,614	0	1,614	0	1	1,472	1,472	
501.15 Library											
501.16	Library	1	2,455	2,455			0			0	
501.17	Librarian Office	1	113	113			0			0	
501.18	Book Storage	1	341	341			0			0	
501.19 Painting & Decorating Vocational Area											
501.20	Classroom	1	1,193	1,193			0	1	1,000	1,000	
501.21	Classroom	1	1,061	1,061			0	1	1,000	1,000	
501.22	Corridor	1	353	353			0			0	
501.23 Heavy Equipment Vocational Area (South Education)											
501.24	Open Office	1	137	137	1	414	414			0	
501.25	Office	1	91	91	1	105	105			0	
501.26	Office	1	178	178	1	110	110			0	
501.27	Storage	1	104	104	0	200	0	1	200	200	
501.28	Classroom	1	423	423	1	400	400			0	
501.29	Simulator room	1	705	705	1	700	700			0	
501.30	Storage	1	80	80	0	0	0			0	
501.31	Inmate Toilet	1	49	49	1	64	64			0	
501.32	Staff Toilet	1	56	56	0	0	0			0	
501.33	Corridor	1	243	243	0	0	0			0	
501.34 Green House											
501.35	Green House	2	1,000	2,000	0	0	0	1	1,000	1,000	

Total Services Net Square Footage		15,484		5,227		9,820
Component Gross Up Factor	0.10	1,548		523		882
Total Component Gross Square Footage	0.10	1,548		0		882
TOTAL GROSS SQUARE FOOTAGE (GSF)		18,581		5,750		11,584

4. Project Description

NO.	SPACE DESCRIPTION	EXISTING			REMODELED			NEW			REMARKS
		QTY	NET EACH	TOTAL NET	QTY	NET EACH	TOTAL NET	QTY	NET EACH	TOTAL NET	
502 BEHAVIORAL HEALTH SERVICES											
502.01	Multi-Purpose Room			0			0	2	900	1,800	35 offenders @ 25sf each
502.02	Office	3	107	321			0	12	120	1,440	
502.03	Meeting Room	1	174	174			0	1	210	210	
502.04	Storage	1	9	9			0	1	250	250	
502.05	Receptionist / Secretary	1	178	178			0	1	125	125	
502.06	Corridor	1	103	103			0	1	1,365	1,365	
502.07	Work Area / Break Room (Shared)	1	127	127			0	1	430	430	Was Shared with Chaplain. Now Shared with Medical / Sick Call
502.08	Officer Station			0			0	1	125	125	
502.09	Consult Rooms			0			0	4	120	520	80% efficiency factor, 250 operating days per year x 8 hours of operation per day / 40 minutes per encounter x 60 minutes = 2400 Annual Clinic encounters x 30% = one room = 720 encounters. Total encounters to see each inmate for 40 minutes a week =6500
502.10	Secure Vestibule			0			0	1	80	80	
502.11	Inmate Toilet			0			0	2	64	128	
502.12	Staff Toilet			0			0	1	64	64	
502.13	OASIS Temp Building	1	2,300	2,300			0			0	
502.14				0			0			0	
502.15				0			0			0	
502.16				0			0			0	
502.17				0			0			0	
502.18				0			0			0	
502.19				0			0			0	
502.20				0			0			0	
502.21				0			0			0	
502.22				0			0			0	
502.23				0			0			0	
502.24				0			0			0	
502.25				0			0			0	

Total Services Net Square Footage		3,211		0		6,537
Component Gross Up Factor	0.10	321	0.10	0	0.10	654
Total Component Gross Square Footage	0.10	321	0.10	0	0.10	654
TOTAL GROSS SQUARE FOOTAGE (GSF)		3,853		0		7,844

4. Project Description

NO.	SPACE DESCRIPTION	EXISTING			REMODELED			NEW			REMARKS
		QTY	NET EACH	TOTAL NET	QTY	NET EACH	TOTAL NET	QTY	NET EACH	TOTAL NET	
503 RELIGIOUS SERVICES											
503.01	Chapel	1	842	842	1	2,400	2,400			0	Existing capacity of 57 occupants. New capacity of 120 occupants @ 20sf/occupant.
503.02	Chapel Counter	1	5	5	0	15	0			0	
503.03	Storage	1	106	106	1	370	370			0	
503.04	Office	1	112	112	1	140	140			0	
503.05	Meeting / Observation	1	104	104	1	140	140			0	
503.06	Corridor			0	1	200	200			0	
503.07				0			0			0	
503.08				0			0			0	
503.09				0			0			0	
503.10				0			0			0	
503.11				0			0			0	
503.12				0			0			0	
503.13				0			0			0	
503.14				0			0			0	
503.15				0			0			0	
503.16				0			0			0	
503.17				0			0			0	
503.18				0			0			0	
503.19				0			0			0	
503.20				0			0			0	
503.21				0			0			0	
503.22				0			0			0	
503.23				0			0			0	
503.24				0			0			0	
503.25				0			0			0	

Total Services Net Square Footage		1,169		3,250		0
Component Gross Up Factor	0.10	117		325	0.10	0
Total Component Gross Square Footage	0.10	117		0	0.10	0
TOTAL GROSS SQUARE FOOTAGE (GSF)		1,402		3,575		0

4. Project Description

NO.	SPACE DESCRIPTION	EXISTING			REMODELED			NEW			REMARKS
		QTY	NET EACH	TOTAL NET	QTY	NET EACH	TOTAL NET	QTY	NET EACH	TOTAL NET	
504 MEDICAL SERVICES											
504.01	Lobby	1	310	310	1	396	396			0	
504.02	Lobby Pill pickup			0	1	370	370			0	
504.03	Exam	2	120	240	0	120	0	3	127	380	
504.04	Office - Health Services Director	1	110	110			0	1	130	130	
504.05	Office - Health Services Provider			0		110	0	2	130	260	
504.06	Equipment Storage	1	139	139			0	1	240	240	
504.07	Exam / Procedure	1	173	173		180	0			0	
504.08	Instrument Processing	1	119	119		126	0			0	
504.09	Dictation / Consult	1	83	83			0			0	
504.10	Files	1	109	109	1	109	109			0	
504.11	Nurse Station	1	366	366	1	399	399			0	
504.12	Pharmacy	1	250	250	1	250	250			0	
504.13	Officer Station	1	78	78		78	0			0	
504.14	Lab	1	125	125	1	125	125			0	
504.15	Blood Draw	1	133	133			0	1	130	130	
504.16	Inmate Toilet	1	42	42	1	64	64			0	With pass to lab, Renovate to comply with current Minnesota Accessibility Codes
504.17	Multipurpose Exam	1	291	291	1	294	294			0	
504.18	Clean Supply	1	90	90			0	1	100	100	Existing relabeled as Storage
504.19	Soiled Holding	1	33	33			0	1	100	100	Existing remains new room located closer to new exams
504.20	Staff Toilet	1	59	59		59	0			0	
504.21	Inmate Toilet	0	47	0			0			0	
504.22	Dental Suite	1	372	372		372	0			0	
504.23	Work Area		182	0		182	0			0	
504.24	Corridors	1	741	741	1	188	188	1	520	520	
504.25	Janitors	1	36	36			0	1	60	60	
504.26	Storage			0	1	100	100			0	Was Clean Supply

Total Services Net Square Footage		<u>3,898</u>		<u>2,295</u>		<u>1,920</u>
Component Gross Up Factor	0.10	390	0.10	230	0.10	192
Total Component Gross Square Footage	0.10	<u>390</u>	0.00	<u>0</u>	0.10	<u>192</u>
TOTAL GROSS SQUARE FOOTAGE (GSF)		4,678		2,525		2,304

4. Project Description

NO.	SPACE DESCRIPTION	EXISTING			REMODELED			NEW			REMARKS
		QTY	NET EACH	TOTAL NET	QTY	NET EACH	TOTAL NET	QTY	NET EACH	TOTAL NET	
505 PROFESSIONAL VISIT / HEARING ROOMS											
505.01	Professional Visitation			0	1	500	500			0	Provide 10 booths; 2 ADA @ 30sf each and 8 @ 20sf each. Used for virtual courtroom, tele-psych and tele-med.
505.02	Officer Station			0	1	80	80			0	
505.03	Storage			0	1	30	30			0	
505.04	Circulation			0	1	170	170			0	
505.05				0			0			0	
505.06				0			0			0	
505.07				0			0			0	
505.08				0			0			0	
505.09				0			0			0	
505.10				0			0			0	
505.11				0			0			0	
505.12				0			0			0	
505.13				0			0			0	
505.14				0			0			0	
505.15				0			0			0	
505.16				0			0			0	
505.17				0			0			0	
505.18				0			0			0	
505.19				0			0			0	
505.20				0			0			0	
505.21				0			0			0	
505.22				0			0			0	
505.23				0			0			0	
505.24				0			0			0	
505.25				0			0			0	

Total Services Net Square Footage		0		780		0
Component Gross Up Factor	0.10	0	0.10	78	0.10	0
Total Component Gross Square Footage	0.10	0	0.00	0	0.10	0
TOTAL GROSS SQUARE FOOTAGE (GSF)		0		858		0

4. Project Description

NO.	SPACE DESCRIPTION	EXISTING			REMODELED			NEW			REMARKS
		QTY	NET EACH	TOTAL NET	QTY	NET EACH	TOTAL NET	QTY	NET EACH	TOTAL NET	
506 STAFF SUPPORT SERVICES											
506.01	Conference / Training			0		0	1	455	455	16 occupants @ 25sf each. Access from Main Corridor.	
506.02	A-Team	1	325	325		0			0		
506.03	Staff Multi-purpose / Briefing			0	1	2,200	2,200		0	Renovate South Education Area including Janitor Closet, Connect to Staff Dining	
506.04	Storage	1	80	80		0			0		
506.05				0		0			0		
506.06				0		0			0		
506.07				0		0			0		
506.08				0		0			0		
506.09				0		0			0		
506.10				0		0			0		
506.11				0		0			0		
506.12				0		0			0		
506.13				0		0			0		
506.14				0		0			0		
506.15				0		0			0		
506.16				0		0			0		
506.17				0		0			0		
506.18				0		0			0		
506.19				0		0			0		
506.20				0		0			0		
506.21				0		0			0		
506.22				0		0			0		
506.23				0		0			0		
506.24				0		0			0		
506.25				0		0			0		

Total Services Net Square Footage		405		2,200		455
Component Gross Up Factor	0.10	41	0.10	220	0.10	46
Total Component Gross Square Footage	0.10	41	0.00	0	0.10	46
TOTAL GROSS SQUARE FOOTAGE (GSF)		486		2,420		546

4. Project Description

NO.	SPACE DESCRIPTION	EXISTING			REMODELED			NEW			REMARKS
		QTY	NET EACH	TOTAL NET	QTY	NET EACH	TOTAL NET	QTY	NET EACH	TOTAL NET	
507 PHYSICAL PLANT SERVICES											
507.01	Garage Storage			0			0	1	1,350	1,350	Storage of 2 vehicles with snow plows, gasoline, snow blowers, etc. to remove from Maintenance Shop. Provide 3 bays at 15'x30' each. Tempered heating.
507.02	Office			0	1	120	120	0	120	0	
507.03	Secretary	1	150	150	1	276	276			0	
507.04	Elec Maint Supervisor office	1	122	122	1	122	122	0		0	
507.05	Bldg Maint. Supervisor office	1	122	122			0	1	120	120	
507.06	Safety Officer	1	154	154	1	154	154			0	
507.07	Physical Plant Director	1	192	192	1	74	74	1	106	106	
507.08	Physical Plant Svcs - Yard Storage	1	528	528			0	1	550	550	Located at new Greenhouse
507.09	Janitor	1	115	115	1	60	60			0	Replacement Janitor Closet over by new Staff Multipurpose / Briefing
507.10	Mechanical Room			0			0	2	900	1,800	Penthouse for New AHUs
507.11	Electrical Room			0			0	1	100	100	
507.12	IDF	1	70	70	1	100	100			0	
507.13	Storage			0	1	184	184			0	
507.14	Physical Plant Svcs - Tool Storage	1	517	517			0			0	Remains As is
507.15				0			0			0	
507.16				0			0			0	
507.17				0			0			0	
507.18				0			0			0	
507.19				0			0			0	
507.20				0			0			0	
507.21				0			0			0	
507.22				0			0			0	
507.23				0			0			0	
507.24				0			0			0	
507.25				0			0			0	

Total Services Net Square Footage			<u>1,970</u>			<u>1,090</u>			<u>4,026</u>
Component Gross Up Factor	0.10		197	0.10		109	0.10		403
Total Component Gross Square Footage	0.10		<u>197</u>	0.00		<u>0</u>	0.10		<u>403</u>
TOTAL GROSS SQUARE FOOTAGE (GSF)			2,364			1,199			4,831

4. Project Description

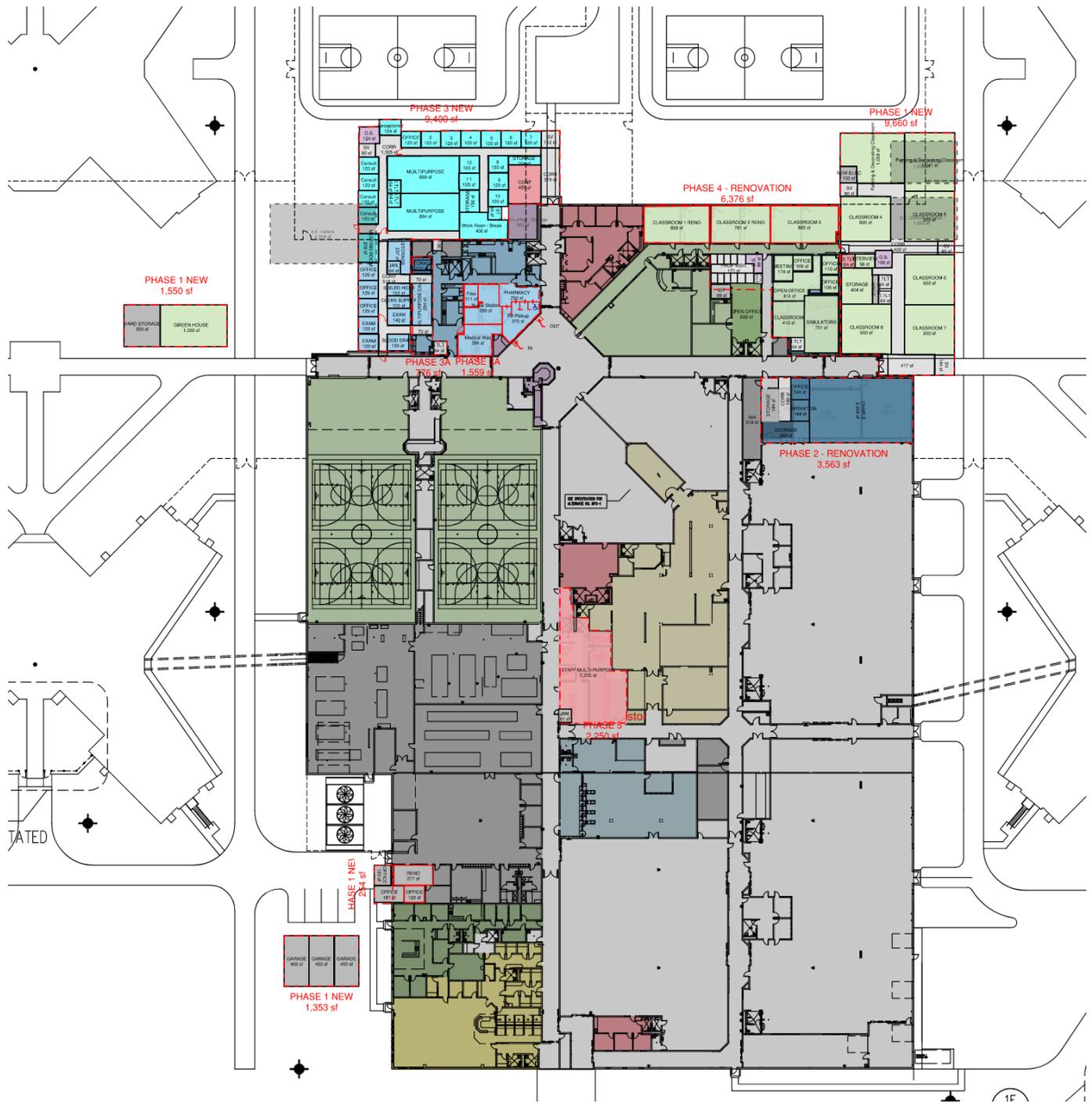
NO.	SPACE DESCRIPTION	EXISTING			REMODELED			NEW			REMARKS
		QTY	NET EACH	TOTAL NET	QTY	NET EACH	TOTAL NET	QTY	NET EACH	TOTAL NET	
508 CORRIDOR EXTENSIONS											
508.01	North Exention			0			0	1	352	352	
508.02	Secure Vestibule			0			0	2	128	256	
508.03	East Exention			0			0	1	417	417	
508.04				0			0			0	
508.05				0			0			0	
508.06				0			0			0	
508.07				0			0			0	
508.08				0			0			0	
508.09				0			0			0	
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508.20				0			0			0	
508.21				0			0			0	
508.22				0			0			0	
508.23				0			0			0	
508.24				0			0			0	
508.25				0			0			0	

Total Services Net Square Footage		0		0	1,025
Component Gross Up Factor	0.10	0	0.10	0	103
Total Component Gross Square Footage	0.10	0	0.10	0	103
TOTAL GROSS SQUARE FOOTAGE (GSF)		0		0	1,230

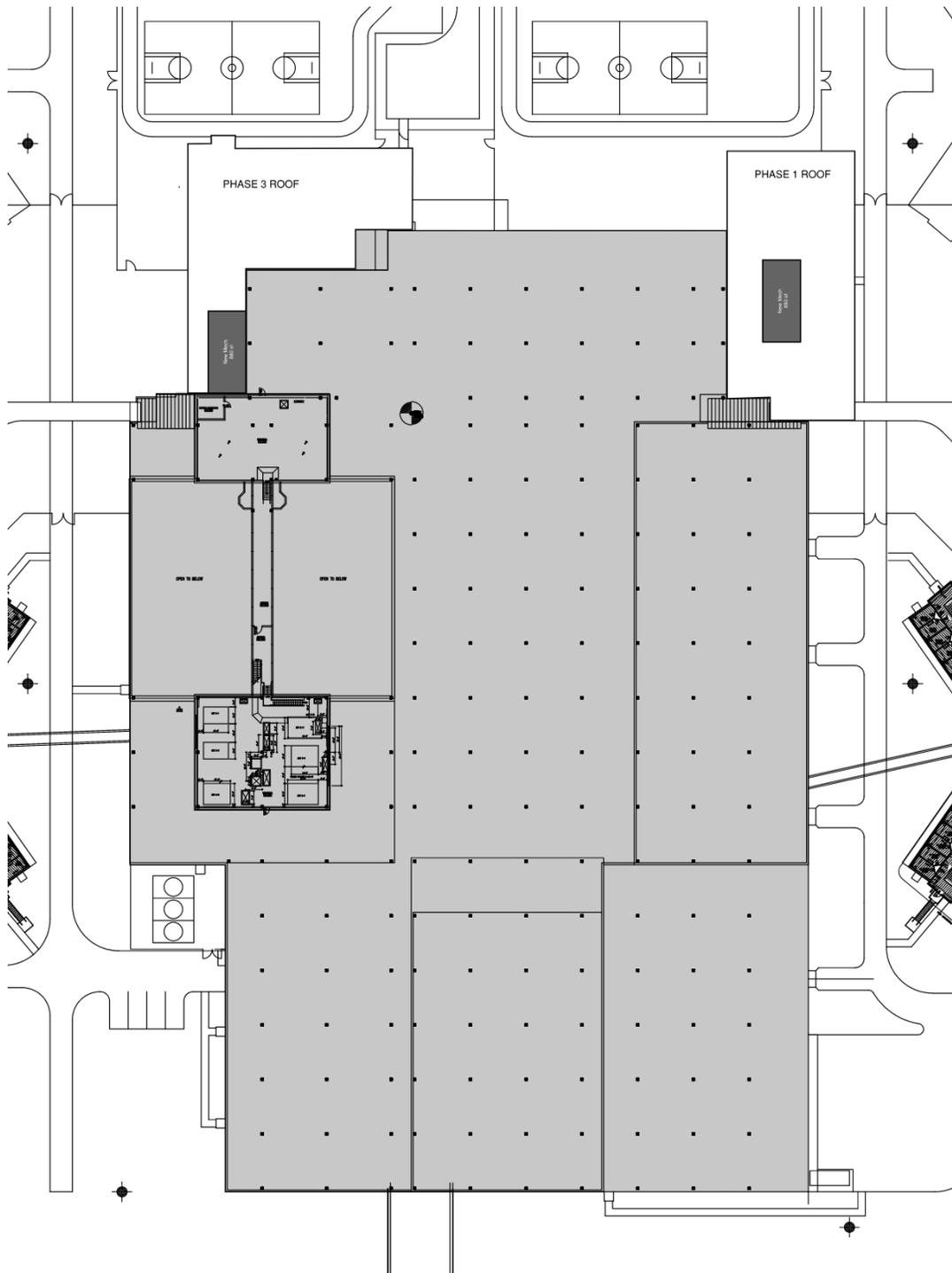
4. Project Description

This project will include the expansion of inmate services including education, behavioral health, religious, medical, and professional visit / hearing rooms. Also include expansions for staff support spaces and physical plant services.

The building expansion includes 28,340 gsf of new space and 16,326 gsf of remodeling, for a total of 44,666 gsf, to provide the necessary inmates services for the current inmate capacity of the facility. This expansion, based on the spatial program included in the report, will provide for the facility's needs and to meet current inmate programming, Americans with Disabilities Act (ADA), American Correctional Association (ACA) standards, Prison Rape Elimination Act (PREA) standards. and technology advancements. This expansion is not intended to provide the services needed if the two additional housing units are added in the future as part of the overall masterplan.



Support Building First Floor Concept Plan



Support Building Roof Concept Plan

SECTION 4.B – PRECEDENT STUDIES

Klein McCarthy Architects was provided the information developed in two previous Predesign Reports, Predesign For MCF-Rush City Housing Expansion RECS Project No. 78RC0015 issued July 2015 and MCF-Rush City Behavioral Expansion RECS Project No. 78796RCX issued March 2010. This Predesign report provides right sizes and consolidates several inmate programming areas to minimize future staffing requirements. The MCF-Rush City Behavioral Expansion proposed to add a two story 27,745 Gross Square Feet addition for a total of \$11,879,000 in October 2013 dollars. The MCF-Rush City Housing Expansion Predesign proposed to add the planned two additional housing units and expand the support building to support the 500 bed expansion for a total of \$141,416,000 back in 2015 dollars.

SECTION 4.C – TECHNOLOGY PLAN AND TELECOMMUTING PLAN

Pending receipt of letter from MNIT.

SECTION 4.C.1 – TELECOMMUTING PLAN

The facility does not anticipate that telecommuting will be relevant to the staffing of this facility.

SECTION 4.D – SUSTAINABILITY, ENERGY CONSERVATION, AND CARBON EMISSIONS

SUSTAINABILITY AND ENERGY EFFICIENCY

SUSTAINABILITY AND HIGH PERFORMANCE

Minnesota Statute §16B.325 requires that the State’s Sustainable Building Guidelines be applied.

- Meet MN SB 2030 (2020-2025) Energy Standard
- Meet all relevant performance criteria guidelines noted in the B3 Guidelines: Version 3.2r01
- Focus on achieving the lowest possible lifetime costs
- Include air quality and lighting standards
- Create and maintain healthy environment

May qualify for B-3 Small Buildings

Summary: B-3 applies to addition as it is larger than 10,000 GSF. This Predesign renovates 8% of the existing building, and by itself is not large enough to trigger meeting B-3 Requirements as they do not include replacement of the mechanical, ventilation, or cooling systems. This project may be near the gross square footage where the project could use the B-3 Guidelines Small Buildings.

The Previous MCF-Rush City Housing Expansion Predesign Report went through the reasons and rate of return calculation to add Alternative Energy Sources for that major expansion and found that all them would take more than 30 years for Solar PV, Wind, Geothermal, and Solar Thermal Heating to make a return on the investment because there is already enough capacity in the existing central plant to support these additions and renovation. At a minimum this project will add pathways to new roofs to make the facility solar ready, but major electrical gear to support solar ready will need to be added when the solar installation happens or when the existing electrical gear reaches end of life and it need to be replaced.

ALTERNATIVE AND RENEWABLE ENERGY

The following are state statutes having requirements for providing alternative and renewable energy sources.

- §16B.32 ENERGY USE
Subdivision 1: Alternative Energy Sources
New construction or a renovation of 50 percent or more of an existing building or its energy systems must include designs which use active and passive solar energy systems, earth sheltered construction, and other alternative energy sources where feasible.

Summary: The project does not renovate more than 50 percent of an existing building and the additions will be provided with pathways to allow solar PV to be installed on the roof at a later date. The facility

4. Project Description

is concerned about PV panels mounted on the roof will provide a lot of different contrast areas where a cameras will not be able to pick up someone hiding below the panels. So, roof mounted panels would need to provide no more than 6" of space between the panels and roof membrane. The facility would prefer to have a ground mounted PV system outside of the secure perimeter. The new and renovated spaces will be provided with LED lighting which will provide electricity savings vs the mainly fluorescent fixtures found throughout the facility today. New Mechanical pumps and air handlers will be provided with variable frequency drives helping to reduce energy use.

Subdivision 2: A state agency that prepares a predesign for a new building must consider meeting at least two percent of the energy needs of the building from renewable sources located on the building site defined as solar power or wind power. This two percent will be based on the energy needs for the newly constructed addition as the rest of the building will remain largely untouched.

- §16B.323 SOLAR ENERGY IN STATE BUILDINGS

Solar-thermal:

One of the solar power options is solar water heating. This type of system has solar panels installed and there is a loop of fluid that runs through these solar panels and is heated by the sun. The heat from this fluid is then transferred in a heat exchanger where domestic water is heated for use as a part of the building's plumbing system. This system would have hot water storage and water-to-water heat exchanger as a supplement heat source when sunlight is unavailable.

Summary: The MCF Rush City facility generates domestic hot water at the central boiler plant utilizing a series of boilers to generate 1700 BHP. The central plant is within the support building that is being added onto and only new mains would need to be extended to the new air handlers and there is more than enough capacity to serve this project. Adding solar thermal water heating to this building to achieve 2% of the building annual energy usage is not feasible without significant system upgrades.

Appendix E-2a: Levelized Cost of Energy Calculator, Pre-design Phase - SHW

B3 Guidelines - Version 3.0

KEY:

	Blue highlighted areas show constants or outputs calculated by the spreadsheet
	Yellow highlighted areas show required inputs

Backup/Auxiliary System Energy Cost

Enter energy cost for auxiliary water heating system (costs should be the yearly average price from utility)	\$1.37	natural gas (\$/therm)
		propane (\$/gallon)
(costs should include all surcharges, delivery charges, etc)	\$0.17	electric (\$/kWh)

Renewable Energy Cost

Service Life of Equipment (Years)	20	Default 20 years
Required Yearly Heat (MMBtu)	109.0	(should be >= 2% of total building energy use)
Lifetime Heat Requirement (MMBtu)	2,180	MMBtu (calculated)
Total Installation Cost	\$74,120	Include design, equipment and installation cost
Installation Cost per MMBtu (over lifetime)	\$34.00	Calculated
Financing Costs per MMBtu (over lifetime)	\$0	Usually \$0 for state bonded projects
Fuel Costs per MMBtu (over lifetime)	\$3.38	Calculated assuming pump energy use equal to 7% of collected energy
Maintenance Costs per MMBtu (over lifetime)	\$12.30	Default value \$12.30 from EIA Annual Energy Outlook 2015
Total Cost/kBtu	\$0.050	

Utility-delivered Energy Cost

Water heater combustion efficiency	100%	80% = standard efficiency, 90% = high efficiency (condensing), 100% = electric resistance
Cost per MMBtu of Heat Produced	\$13.70	Calculated from C8, C9, or C10
Cost of Carbon per MMBtu of Heat Produced	\$1.98	Based on carbon pricing of \$37/metric ton of carbon
Total Cost/kBtu	\$0.0157	

Results

Technology is likely cost effective (yes or no)	No	B3 requirement is to install renewable energy, if cost effective
-------------------------------------------------	----	------------------------------------------------------------------

Wind:

Wind energy is a form of renewable energy. Wind energy (or wind power) describes the process by which wind is used to generate electricity. Wind turbines convert the kinetic energy in the wind into mechanical power. A generator can convert mechanical power into electricity. The relatively small build out area makes wind tower units much larger than needed for 2% savings and much too costly for the project budget. With the Rush City Airport directly south of the facility placing a wind turbine the project will need to consult with the FAA & Minnesota Department of Transportation which will cause significant delays to the starting construction.

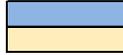
Summary: Current equipment costs and utility rates put a simple payback for wind turbine electrical generation for 2% of the building annual energy usage at greater than 90 years. This option is therefore not feasible for this project.

Appendix E-2a: Levelized Cost of Energy Calculator, Pre-design Phase - Wind

B3 Guidelines - Version 3.0

note - this calculator limited to to turbines with peak power </= 100kW

KEY:



Blue highlighted areas show constants or outputs calculated by the spreadsheet
Yellow highlighted areas show required inputs

Renewable Energy Cost

Service Life of Equipment (Years)	20	Default 20 years
Required Yearly Energy Production (kWh)	188	(should be >/= 2% of total building energy use)
Lifetime Production (MWh)	4	Calculated
Average wind speed (m/s)	5.5 m/s	Use MN wind speed map (30m) and site guidelines
Number of turbines (default at 1)	1	(1 turbine will yield lowest costs)
Required Turbine Peak Power per Turbine (kW)	1.5	Calculated
Total Installation Cost	\$12,395	Calculated
Installation Cost per MWh (over lifetime)	\$3,305	Calculated
Financing Costs per MWh (over lifetime)	\$0	Usually \$0 for state bonded projects
Fuel Costs per MWh (over lifetime)	\$0	\$0 for wind energy project
Maintenance Costs per MWh (over lifetime)	\$41.10	Calculated result based on 8/2014 Market Report, PNNL
Total Cost/kWh	\$3.346	

Utility-delivered Energy Cost

Cost of kWh	\$0.056	Yearly average price from the utility
Fees, Demand Charges and Surcharges/kWh	\$0.109	
Cost of Carbon/kWh	\$0.024	Based on carbon pricing of \$37/metric ton of carbon
Total Cost/kWh	\$0.189	

Results

Technology is likely cost effective (yes or no) **No** B3 requirement is to install renewable energy, if cost effective

Photovoltaic:

The other option for solar is a photovoltaic system (solar electrical). This system can be installed on the roof of the existing building and be used to provide electricity that is fed into the buildings electrical system reducing the need for electricity purchased from the electric utility. Two places are feasible to locate a Photovoltaic array, mounted on the roof the support building and one owned land outside of the security fence and outside the future masterplan areas where the fence will be moved once the additional housing units are built.

Summary: The B-3 Predesign Calculator indicates that Photovoltaic array may be cost effective to include in the project.

Appendix E-2a: Levelized Cost of Energy Calculator, Pre-design Phase - PV

B3 Guidelines - Version 3.0

KEY: Blue highlighted areas show constants or outputs calculated by the spreadsheet
 Yellow highlighted areas show required inputs

Renewable Energy Cost

Service Life of Equipment (Years)	25	Default 25 years
Required Yearly Energy Production (kWh)	188	(should be >= 2% of total building energy use)
Lifetime Production (MWh)	5	Calculated
Total Installation Cost	\$563	Calculated
Installation Cost per MWh (over lifetime)	\$120	Default value = \$120
Financing Costs per MWh (over lifetime)	\$0	Usually \$0 for state bonded projects
Fuel Costs per MWh (over lifetime)	\$0	Usually \$0 for renewable project
Maintenance Costs per MWh (over lifetime)	\$11.40	Default value \$11.40 from EIA Annual Energy Outlook 2015
Total Cost/kWh	\$0.131	

Utility-delivered Energy Cost

Cost of kWh	\$0.056	Yearly average price from the utility
Fees, Demand Charges and Surcharges/kWh	\$0.109	
Cost of Carbon/kWh	\$0.024	Based on carbon pricing of \$37/metric ton of carbon
Total Cost/kWh	\$0.189	

Results

Technology is likely cost effective (yes or no) Yes B3 requirement is to install renewable energy, if cost effective

- §16B.326 HEATING AND COOLING SYSTEMS; STATE-FUNDED BUILDINGS

The project proposer must include a study for geothermal and solar thermal applications as possible uses for heating or cooling for all building projects subject to a predesign review that receive any state funding for replacement of heating or cooling systems.

Summary: The existing building is heated via hot water from the main high-pressure natural gas boilers located in the central plant in support building. Rather than providing new mains from the central plant or tying into the existing mains, the systems for the new addition could be replaced with the ground source heat pump system. a ground heat exchanger (well field) which consists of a collection of 200-foot-deep wells, spaced 20 feet apart. They could work in conjunction with centralized indoor air-to-water heat pumps, one per building addition, each located in a mechanical room in or on top of that addition.

For the Phase 1 addition (13,800 SF), estimated 40 wells will be needed. The water-to-air heat pump would be sized to supply up to 14,000 CFM to rooms through VAV boxes and hot water booster heating coils.

For the Phase 3 addition (10,300 SF), estimated 27 well will be needed. The water-to-air heat pump would be sized to supply up to 11,000 CFM to rooms through VAV boxes and hot water booster heating coils.

4. Project Description

Using these figures, a ground heat exchanger with 67 wells would be approximately 21,000 square feet (about a half-acre of land).

This type of HVAC system would replace the extension of chilled water and heating water piping from the existing mains. Instead, the wells would be connected to a grid of underground horizontal piping. There would still be water pumps, and the heat pump compressors would need to be powered. The Ground-source heat pump system will save on an increase in natural gas consumption but will have a significant increase of the electrical usage for the addition pumping geothermal fluid around. Ground-source heat pump system will add about one million dollars to the construction project. With the standard practice that a ground-source heat pump system will be designed to handle the least of either the cooling or the heating load as it is critical to the health of the system to keep the well field balanced, only taking out what can be put back in. For this facility the heating load will be larger than the cooling load. Therefore, on really cold days that we do experience in the winter, the well field will not be able to handle that load and it will need to be supplemented from the hot water from the central plant negating any savings from the use of addition natural gas. Being there is ample capacity from the currently operating central plant; the rate of savings of just natural gas and the additional increase of electricity consumption may not pay for the ground-source heat pump system in a timely manner.

SECTION 4.E – OPERATIONS AND MAINTENANCE REQUIREMENTS

The staffing quantities remain the same as they currently are for the existing building. No cost decrease or increase is expected.

The utility costs are expected to be slightly higher than the existing building. This is due to the addition square footage.

SECTION 4.F – STATUTE REQUIREMENTS

See Appendix 4b at the end of Section 4 for a table of statute requirements for capital projects that receive state funding and that are applicable to this Project.

SECTION 4.G – SPECIALTY REQUIREMENTS

The following criteria include requirements for the facility space build out.

ARCHITECTURAL

SOIL CONDITIONS

Soil conditions are assumed to be conducive to a continuous perimeter footing approach. If the project moves forward, the State is advised to retain a geotechnical firm to investigate and confirm the assumption.

FOUNDATIONS

The building foundation system will be enhanced for improved thermal and drainage capabilities. Cold-fluid waterproofing will be applied directly to the cast-in-place concrete walls at below grade occupied and/or mechanical/electrical areas. Water will be removed by a drainage composite installed over the waterproofing. Water from the drainage composite will enter a perimeter drain tile system tied to existing perimeter drainage systems. Three inches of extruded polystyrene, extending from the top of the footing to three inches below grade, will provide thermal insulation.

SLAB-ON-GRADE

Building floor slabs shall be 4 inch poured concrete slabs-on-grade reinforced with 6" square steel W1.4xW1.4 welded wire fabric or fiber mesh.

EXTERIOR WALLS

The exterior walls are to be architectural insulated precast concrete wall panels, that are to be comprised of a 3" thick concrete face, 3" extruded insulation continuous to all panel edges, and 6" thick structural concrete. Panels are to be all one color and aggregate mix with two different finish textures and decorative reveals. The penthouse walls will be galvalume metal siding over 5/8" exterior gypsum sheathing, building wrap, 3" of extruded polystyrene insulation with thermally improved 'Z' furring, building membrane, 5/8" gypsum sheathing, and 6" steel stud backup.

INTERIOR WALLS

The majority of interior partitions will utilize concrete masonry units (CMU), with special reinforcement and grouting at security walls. Some staff only areas will have interior metal stud and gypsum board walls to sub-divide spaces.

All security partitions and fire-rated partitions will extend to structure above. Acoustical insulation will be provided where needed in interior partitions between offices, staff areas, interview rooms, and toilet rooms, with acoustical sealant at electrical and mechanical penetrations.

Typical wall finishes will be paint, with epoxy coatings on cementitious backer used at offender wet areas and ceramic tile on cementitious backer at staff toilets.

BUILDING ENVELOPE

Exterior walls

Architectural Insulated Precast Concrete Panels

- 3" thick concrete face
- 3" extruded insulation continuous
- 6" thick structural concrete

Roof Assemblies

The flat roof areas of the building will have a built-up roofing system. The roof insulation will be extruded polyisocyanurate foam, tapered as required to provide pitched drainage to the roof drain plumbing system. All roof flashing, fascia, and trim will be prefinished metal. Roof hatch access doors will be 2'-6" x 8'-0" in size with integral safety guardrails.

Exterior Fenestration

Exterior windows at secure areas will be sized with a maximum opening width of 5" in one dimension to prevent escape. Windows in secure areas required to be wider than 5" maximum will consist of thermally broken detention windows with a stainless-steel interior and aluminum exterior and an integral tooled steel bar security frame. Additional tooled steel bars will be included in the assembly to limit the maximum width of openings within the frame to 5".

Interior glazing will be tempered glass in non-secure areas and laminated safety glass in opening widths of less than 5" in secure areas. 30-minute or 60-minute attack resistant glass clad polycarbonate will be utilized in secure area windows wider than 5". Fire rated glazing and fire rated attack resistant glass clad polycarbonate will be utilized as required by fire rating requirements.

Interior Openings

Non-secure door frames in staff only areas will be 14-gauge steel. Corners will be completely back welded, with face corners mitered and ground smooth. Non-secure doors will be hollow metal steel, with 16-gauge faces and vertical steel internal reinforcing and braced as required for stability. Hardware at non-secure areas will be heavy duty mortise builder's hardware, with card access capabilities at select locations.

Security doors and frames at offender areas will utilize special construction designed for detention use, consisting of 12-gauge steel door frames and doors. Door hardware will consist of detention grade manual and electromechanical locks as appropriate for the application. Remote operated detention sliding doors with electromechanical locks will be used at main secure perimeter sally ports.

4. Project Description

Secure service transaction windows will be utilized for pill distribution in the Health Services component.

Flooring

Exposed sealed concrete floors will be utilized in most offender areas and in classrooms, exam, consultant rooms, shop, storage, mechanical, and janitor rooms, and all other rooms not scheduled for carpet, resilient flooring, or special coatings.

Offender toilet rooms, and wet areas will utilize seamless heavy-duty quartz-epoxy flooring.

Vinyl composition tile (resilient flooring) will be used at high traffic areas and offender areas requiring cleanable, finished floors. Wall base will be resilient vinyl or rubber. Seamless sheet vinyl will be used in rooms with special hygienic requirements such as the Procedure Room.

Carpet with vinyl or rubber base will be used in office areas.

Carpet and resilient flooring may be procured directly by the Owner, but all costs associated with procurement and installation included in the construction budget.

Ceilings

Painted, exposed structure will be used at most offender areas, storage, and services areas. Impact resistant gypsum board will be used at offender areas requiring ceilings with ceiling heights below 10'-0"

Suspended acoustical ceilings will be used in offender areas requiring acoustic control at heights above 10'-0" only, and in staff and office areas. Suspension system will be T-grid, with conventional acoustical lay-in panels. Gypsum board ceilings will be utilized at staff toilet rooms and entry vestibules. Miscellaneous gypsum board soffits will be used at select areas.

Painting

Interior surfaces will be painted with low-odor, low-VOC or no-VOC paints. Exterior steel surfaces to receive paint will have exterior grade semi-gloss paint. Exposed exterior steel stairways and railings will be hot dip galvanized.

Special Equipment and Furnishings

Several specialty items will be required for the project. These include, but are not limited to the following:

- Fire extinguishers will be 10-pound, dry chemical. Cabinets will be semi-recessed at gypsum board construction and surface mounted at CMU construction, with curved edges. Cabinet doors will be solid metal detention grade doors with dead bolt locks.
- The primary material for toilet accessories will be stainless steel. Accessories will include paper towel dispensers, toilet paper dispensers, grab bars, mirrors, and robe hooks. Mop strips will be provided in janitor's closets. Special security accessories will be provided in offender toilet rooms. All fixed-in-place furnishings and casework in offender areas will be detention grade painted steel or stainless steel.
- All exposed fasteners to be security-type fasteners in offender areas.

MINNCOR Provided Items

The Contractor will be required to utilize MINNCOR as an assigned subcontractor and to purchase all casework and selected detention furnishings from MINNCOR. All costs associated with procurement and installation are included in construction budgeting. MINNCOR products will be delivered to MCF-Rush City by MINNCOR and

installed by the project contractor.

MINNCOR Industries items to include:

- Bolt down stools
- Bolt down tables

FFE Requirements

Furniture, fixtures and equipment not permanently connected to the building(s), are not typically provided by the General Contractor, and are not included in construction costs. These items, to be provided by the Owner, include but are not limited to:

Office Furnishings and Equipment

- Modular furniture, desks, filing cabinets, conference tables
- Task chairs, side chairs
- Computers, printers, copiers

Classroom Furnishings and Equipment

- Desks, tables, storage cabinets
- Task chairs, classroom chairs
- Smartboards

Hearing Room Furnishings and Equipment

- Conference tables, chairs
- Computers, monitors

Break Room Furnishings and Equipment

- Tables, chairs
- Refrigerators, microwaves

Fireproofing

The precast concrete primary structural system will be designed to provide the appropriate fire resistance ratings without the use of additional fireproofing. Miscellaneous exposed structural steel that requires fireproofing will receive sprayed-on fireproofing in unexposed areas and an intumescent coating at exposed areas. Penthouse structural steel will not require fireproofing.

Metal Fabrications

Stairs and railings will be welded steel with concrete filled pans. Metal fabrications include steel railings and handrails, roof access stairs, lintels, bollards and other miscellaneous metal fabrications.

Wood Fabrications

Preservative-treated blocking will be used where in contact with concrete or masonry. Other blocking will be fire retardant treated. Typical casework will be plastic laminate clad, with solid surface material countertops. Accessories will include plastic wire grommets and locks for doors and drawers. All plastic laminate casework is to be provided by MINNCOR.

Joint Sealers

Two types of vandalism-resistant security joint sealants will be used in secure offender areas. A hard epoxy sealant will be used at all non-moving joints up to ten feet above the finished floor. A medium-hard sealant will be used at joints requiring movement less than ten feet above the finish floor and at all joints above ten feet. Joint sealants in non-secure areas will be conventional polyurethane, except that mildew-resistant silicone will be used in bathrooms. Intumescent joint sealants and fillers will be used where required by fire-resistive rating.

STRUCTURAL NARRATIVE

General Information & Structural Systems

The project consists of three single level lateral expansions (two @ ~ 9500 sf, third @ 250 sf) to the existing facility, & two small freestanding buildings (garage & greenhouse, each ~ 1500 sf).

The larger expansions will be constructed using precast concrete exterior bearing walls with precast concrete columns at the interior.

Along the existing building, where possible, columns will be located 3-5 feet from the existing building wall to minimize foundation interferences. Where not possible expect that the existing foundations will need to be underpinned for new foundations.

The roof will consist primarily of hollow-core precast plank supported on interior precast beams & exterior load-bearing precast wall panels. There may be limited exceptions where metal deck on steel joists & beams are utilized if allowed by the final program. Should this occur steel columns & masonry walls would be used as well.

Foundation systems are assumed to be conventional spread footings. Shortly after the project moves forward soil borings should be drilled to confirm the allowable soil bearing pressure which can be used for design. The structural engineer should be consulted in determining the number & approximate location for the new borings.

No building expansion joints are anticipated.

The smaller expansions will be constructed with precast concrete walls supporting structural steel roof members with metal roof deck.

Concrete Slab on Grade

4" minimum thickness, reinforced with 6x6 – W1.4 x W1.4 or synthetic fibers at a rate of 1.5 pounds per cubic yard of concrete; assume vapor barrier below.

5" slab may be considered for any mechanical spaces with heavy equipment.

Lateral System

Precast concrete walls & moment-connected precast beam-column frames will resist lateral loads for the larger building additions.

Structural Design Criteria

Codes/Standards

2020 Minnesota Building Code with Amendments.

2018 International Building Code (IBC) and referenced design codes.

Material Specifications

Structural Steel:

Wide Flange steel shapes shall be ASTM A992 ($F_y=50$ ksi).

Square HSS shapes shall be ASTM A500 Grade B ($F_y=46$ ksi).

Round HSS shapes shall be ASTM A500 Grade B ($F_y=42$ ksi).

All other steel material (plates, bars, angles, channels, etc.) shall be ASTM A36 ($F_y=36$ ksi).

Cast in Place Concrete:

Footings ($F'_c = 4,000$ psi).

Slab on Grade ($F'_c = 4,000$ psi).

Concrete Block ($F'_m = 3,000$ psi).

Reinforcing Steel

Typical: ASTM A615, Grade 60 ($F_y = 60$ ksi).

Weldable: ASTM A706, Grade 60 ($F_y = 60$ ksi).

Light Gage Steel Joist/Studs

16 Gage and heavier, including all studs to be welded – ASTM A570 ($F_y = 50$ ksi).

18 Gage and lighter – ASTM A611 ($F_y = 33$ ksi).

Design Live Loads

Roofs

Flat roofs – 35 psf roof snow load (based on 50 psf ground snow load) with snow drift per code.

Mechanical Room Roofs/Ceilings to be designed for 20 psf in addition to typical loads.

Floors

Typical slab on grade – 100 psf.

Lateral

Seismic:None, per MN Building Code.

Wind: Risk Category IV

Exposure Category C

Ultimate Wind Speed (Vult-3 second gust) 122 mph

Basic Wind Speed (Vasd-3 second gust) 95 mph

Serviceability Criteria

Deflection-

L/360 live load, L/240 total load.

LANDSCAPE

The landscaping requirements for this project are limited to turf establishment as required around perimeter of building expansions.

CIVIL

DEMOLITION AND REMOVALS

The scope of selective site demolition will be generally the removal of existing vegetation and pavements that currently exist near the footprint of the building additions or due to utility service extensions to the building. All debris are to be hauled offsite for disposal or sorted and recycled. All voids are to be backfilled and compacted and sloped to drain away from the building. Existing security fencing will need to be removed to accommodate the

4. Project Description

building additions. Temporary fencing, or fencing replacement, will need to be coordinated with correctional facility staff. The existing trailers will be removed from the site and craned over the security fences. The new existing greenhouses will be demolished to make way for the phase 1 building addition

EARTHWORK, EXCAVATION AND GRADING

Erosion control silt fence and sediment control devices are to be installed around the perimeter of the proposed scope of work to limit sediment from leaving the construction site and to fulfill NPDES permit requirements. Existing topsoil within the grading limits encompassing the building and any service drives, sidewalks, and utility installations shall be removed and stockpiled for later use. Exterior finished grading will be required around the new building area and paved areas. Excavations will be required for footings and foundations, and any direct-bury utilities needed for the building addition. All fill areas will require either imported granular borrow or soil salvaged from site grading activities if approved for reuse by the soils engineer. The stockpiled topsoil may be utilized for finish grading. Disturbed areas are to have 6" of topsoil placed prior to turf establishment.

CONCRETE AND BITUMINOUS PAVING

Concrete pavement that will be placed will have a pavement section of 8" of reinforced concrete over 6" of Class 5 aggregate base. Concrete sidewalks connecting the proposed entrances and exits are to be 5" of reinforced concrete over 4-inches of Class 5 aggregate base.

Driveways and the restoration of disturbed bituminous paved roadways, likely due to utility trenching, will be paved with a pavement section generally consisting of two courses of 2" thick bituminous pavement over 12" of Class 5 aggregate base. Driveways and access roads may have B612 concrete curb added to support the edge of roadway and for drainage purposes.

If the subgrade soils are clays, a 12-inch thick MnDOT 3149.2.B Select Granular Borrow will be added to the pavement sections indicated above. The select granular borrow layer will require drain tile outlets at the low point catch basins for drainage. This added sand layer will help to reduce frost heave in the pavements.

SITE UTILITIES

Areas within the proposed building addition areas will need an investigation to discover potential utility conflicts with natural gas, sewers, domestic water, electrical, low voltage telephone/data, and security lines. Removal and relocation of such existing utilities will require careful consideration of how services are maintained to surrounding buildings during construction, and how to provide new permanent infrastructure connections to the new and existing buildings. New utilities will be directly buried. Site utility designs shall include existing utilities and be submitted to the Department of Labor and Industry to review for compliance with the Minnesota Plumbing Code prior to construction.

New sanitary sewer and storm sewer will need to be extended from existing utility systems in the campus perimeter for the new building additions. The remodeled areas of the project will likely have sewer services extended from within the existing building footprint, negating the need for exterior utility service extensions. Manhole castings shall be welded on for security purposes.

New exterior domestic water and fire suppression water services are not believed to be required for this project. Water pipes within the existing building footprint will be extended to service the new building additions and remodeled areas.

STORMWATER

The project will need to comply with MN B3 requirements to receive state funding. Depending on the hydrologic soil group of the existing on-site soils, the site will need to manage 85-percent to 100-percent of Rush City's average annual rainfall of 29.8-inches through infiltration, evapotranspiration, and on-site stormwater reuse. Additional infiltration requirements apply if the on-site soils are in the hydrologic soil groups A or B, determined through the geotechnical report for the project. MN B3 also requires rate control to not exceed pre-settlement runoff rates for native soil and vegetation conditions. These sustainable stormwater requirements will likely be challenging within the secure area of the facility. The engineer will need to work with the correctional facility staff to develop a viable stormwater management plan.

MECHANICAL

General

Construction will take place in Phases, according to the sequence described in this report.

At this time, it is assumed that Minnesota B3/SB2030 sustainable design guidelines apply to the areas of this Predesign (expansion and major remodeling).

Existing Mechanical Systems

MCF Rush City buildings are heated and cooled by equipment in a central plant in the west-center area of the Support Building. Boilers generate hot water, which is pumped to heating coils in air handling units and to other heating terminals throughout the Facility. Chillers generate chilled water, which is pumped to cooling/dehumidification coils in air handling units.

Many centralized air handling units circulate air, including outdoor air, to various groups of rooms. In the Support building, many of these are installed in two 2nd level fan rooms. This includes units 21- (Recreation West), 2-2 (Recreation East), 2-13 (Visitation), 2-4 (Laundry), 2-5 (Circulation North), and 2-11 (Boiler Room) in the south mechanical room. It includes units 2-8 (Clinic), 2-9 (Dining), and 2-10 (Education/Religion) in the north mechanical room. Units 2-13 (Chiller Room), 2-13A & 2-13B (Electrical Room), 2-14 (Industry Electrical Room), and 2-15 (Industry) are local to the areas they serve. Some units supply air at a constant rate of flow. But most are variable volume units which deliver air to many zones through variable air volume boxes with hot water booster heating coils. Numerous rooftop exhaust fans provide exhaust ventilation for restrooms and other rooms.

The Support Building is protected with a wet-pipe fire sprinkler system. A 10" water service runs to a fire pump room on the west side of the building. Here, a booster fire pump system delivers water to fire sprinkler heads and standpipes. The Support Building is separated into several fire sprinkler zones, each with a dedicated fire main, originating in the pump room.

Packaged gas-fired water heaters in the Boiler Room generate domestic hot water. Hot, cold, and recirculating hot water lines are connected to plumbing fixtures throughout the Support Building. Sanitary drains from plumbing fixtures run below the slab-on-grade to sanitary sewers on the site. Roof drains are piped internally to storm sewers on the site.

New Mechanical Systems for the Remodel and Expansion Spaces

As each phase of construction takes place, the existing wet-pipe fire sprinkler system will be extended and reconfigured to suit the new programs. For the expansion and future expansion areas, new fire sprinkler cross mains will be extended to the nearest suitably sized existing mains. The design will take the differing levels of fire hazard into account.

As each phase of construction takes place, the existing domestic water distribution piping system will be extended to serve new and relocated plumbing fixtures. Refer to other sections of this report for the types and locations of plumbing fixtures. In areas to be remodeled, sanitary drains and vents will be connected to existing underfloor sanitary drains and to above-ceiling plumbing vents. Where necessary because of changes to walls, vertical storm drainpipes will be rerouted in remodeled areas. In areas of building expansion, new roof drains will be installed, along with provisions for emergency overflow. The new storm drains will be extended underground to existing storm sewers. In building expansion areas, it is presumed that sanitary drains for plumbing fixtures will need to be piped to new building drains, which connect to sanitary sewers on the site.

In general, new HVAC systems will be provided for building expansions, and existing HVAC systems will undergo reconfiguration and rebalancing of air ductwork to serve remodel areas. New air handling units will be installed indoors in fan rooms within the expansion spaces. A new air handling unit will be provided for each of the following expansions: Phase 1 expansion; Phase 3 expansion; each "future expansion" area next to the existing building. New air handling systems will be packaged units and will include supply fans, hot water heating coils, chilled water-cooling coils, air filters, and automatic mixed air control dampers. Fan motors will be powered through adjustable speed drives for variable volume air flow control according to demand for HVAC. Provisions (wall louvers or roof hoods) will be made to introduce fresh outdoor air and to relieve excess air from the building. Air will be delivered to rooms through VAV boxes with hot water booster heating coils for zone temperature control. Generally, groups of smaller rooms with similar functions and weather exposure will share temperature sensors. Larger rooms such as classrooms and multi-purpose rooms, will each be a separate temperature zone. Exhaust fans will be installed for paint rooms, restrooms, janitor closets, and similar spaces requiring exhaust ventilation.

As expansion and remodeling occurs in phases, the existing Schneider Electric building automation system will be extended to monitor and control new HVAC systems. The existing system front-end will be programmed (and reprogrammed), as needed. New direct digital controls and local controllers, compatible with the existing system, will be installed for control of automatic dampers, valves, motor drives, and VAV boxes.

ELECTRICAL

Power Distribution

The existing facility electrical service is in good condition. The service has adequate capacity for current and planned loads. New additional will require some additional panelboards, both 120/208 volts, 3 phase 4 wire and 277/480 volts, 3 phase, 4 wire. Panelboards and step-down transformers will be installed in electrical closets. Existing building panelboards are in good condition and will remain, in remodeled areas, existing branch circuits will be reused and modified as needed for the revised electrical loads.

4. Project Description

The new additions will have receptacles installed throughout the addition and be connected to the new panelboards.

Emergency Power

The existing emergency generator provides code required emergency power to the facility and can also backup the entire campus. This system is in good condition and will remain. Existing ATS and emergency panelboards in the facility will remain. New emergency circuits will be installed in the new addition to power emergency lights.

Lighting

Lighting in the existing building is fluorescent and in good condition. New LED lighting will be provided in the new addition and remodeled spaces with light levels per current IESNA guidelines. New lighting controls in compliance with current Minnesota Energy Code and facility security requirements will be provided.

Fire Alarm System

The existing Siemens fire alarm panels recently replaced and upgraded will remain and new detectors and notification devices will be provided per code in the new additions and remodeled spaces. Additional fire alarm panels are not anticipated, some additional power supplies may be needed for the additions.

Voice/Data

Existing building has copper and fiber optic cable infrastructure. Infrastructure is adequate for the needs of this building and the additions. New category 6 cable will be installed to voice and data outlet location in the new addition.

The following systems are proposed to be extended into the new building:

- Staff administrative data network
- Inmate network
- Staff phone system
- Facility paging system
- Facility clock system
- Facility ITV and Satellite TV system

Security

The existing building camera system and Genetec recording system will remain. New cameras will be provided throughout the new addition. Cameras in the inmate exercise area will be relocated to allow for new insulation. The recently installed existing Stanley integrated security system is in good condition and will be extended into the new additions. Control of selected doors from existing touch screen stations as well as some card reader-controlled doors will be provided. All touch screen-controlled doors will have an intercom and camera on both sides of the door.

FURNITURE, FIXTURES, AND EQUIPMENT (FF&E)

The program furnishings, office furniture, workstations, tables, chairs, file cabinets and other office furnishings will be directly purchased by the Facility through MINNCOR but funded within the project.

FF&E Budget by MINNCOR	\$705,000
Design Contingency at 15%	<u>\$105,750</u>
Subtotal	\$810,750
Midpoint of Construction Inflation at 25.76%	<u>\$208,849</u>
Total FF&E	\$1,019,599

SECTION 4.H – PROJECT PROCUREMENT AND DELIVERY

The method used for delivering the project will be the Construction Manager at Risk (CMAR) and the CMAR to be on site to manage the project.

All product specifications will be written to allow multiple manufacturers and suppliers to competitively bid the products. No single product or single source will be specified unless formal prior justification and approval was received. The following are potential single sourced products that facility may consider asking for justification as they are recent implementations, Schneider Electric Building Automation Systems, Siemens Fire Alarm panels, Stanley Integrated security Systems, and Genetec Recording System.

SECTION 4.I – PROJECT DESIGN SERVICES AND ADDITIONAL OWNER COSTS

See Appendix 6 for a comprehensive list of possible design and soft costs that are included for the proposed project.

SECTION 4.J – QUALITY CONTROL PLAN

Along with the code required testing, the Project included the following quality control measures that were incorporated into the project delivery process for the project:

- Specified submittals of quality control plans by the contractors and subcontractors.
- Building Information Modeling (BIM) for clash detection.
- BIM interface with Archibus.

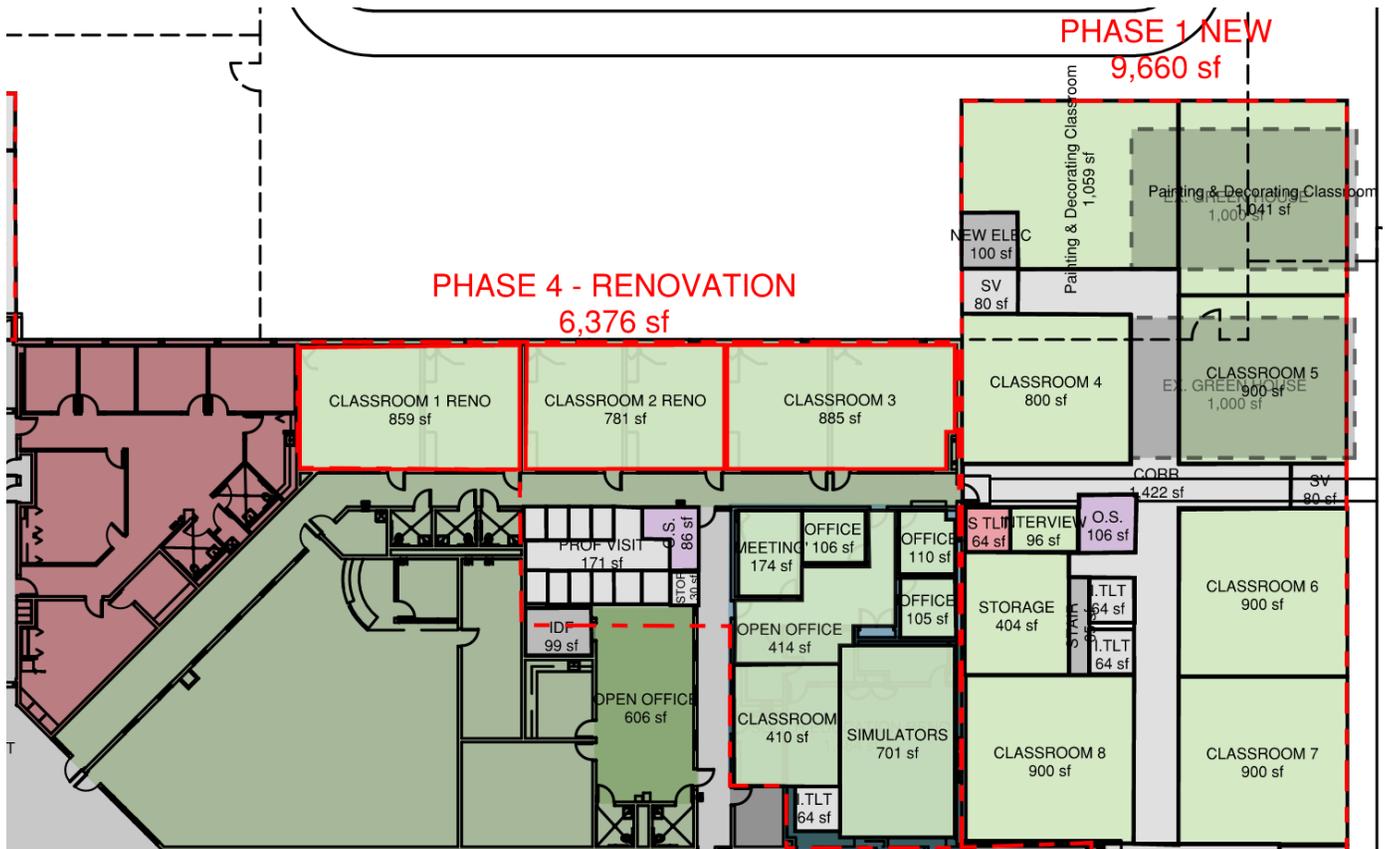
Section 4 APPENDICES FOLLOW THIS SECTION

APPENDIX 4a – Space Needs Inventory Forms

APPENDIX 4b – Applicable Statutes for State Funded Projects

APPENDIX 4a – SPACE NEEDS INVENTORY

501 – EDUCATION SERVICES



Room/ Space Name: Officer's Station

Number of Spaces in program: 1

Square Foot Area: 80 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 0-4

Function: Enclosed station for direct supervision – visibility to offender corridor.

Adjacencies: Located along offender Corridors.

Furniture, Fixtures, & Equipment: Office systems furniture

Architectural Finishes

Flooring: Resilient Flooring

Wall Material: CMU

Ceiling: Standard lay-in tile ceiling

Lighting: Standard lay-in LED

Wall Base: Resilient Base

Wall Finish: Paint

Ceiling Height: 9'-0" minimum

Special Criteria: None

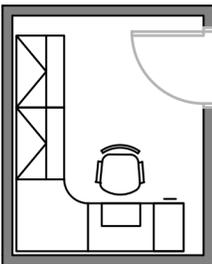
Mechanical/ HVAC/ Piping Requirements: Standard grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Convenience outlets, power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: Telephone and data outlets. See Electrical narrative for additional information.

Security Requirements: Detention door and hardware.

Room Layout Diagram: Typical layout not specific to this project. 1/8" = 1'-0"



Adjacency Layout Diagram: See design diagram 501 Education Services for building department block plans indicating adjacencies.

Room/ Space Name: Office
Number of Spaces in program: 1
Square Foot Area: 110 SF
Space Standard: N/A
Space Standard Area: N/A

Number of Occupants: 2 to 3 intermittently

Function: Office for Education Staff to develop programming.

Adjacencies: Located next to Open Office & Classrooms

Furniture, Fixtures, & Equipment: Detention grade furniture

Architectural Finishes

Flooring: Carpet
Wall Material: CMU
Ceiling: Standard lay-in tile ceiling
Lighting: Standard lay-in LED
Wall Base: Resilient Base
Wall Finish: Paint
Ceiling Height: 9' minimum
Special Criteria: None

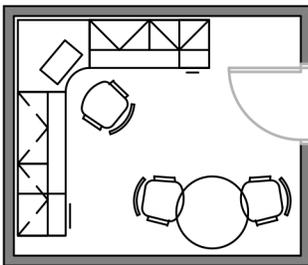
Mechanical/ HVAC/ Piping Requirements: Detention grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: Telephone and data outlets. See Electrical narrative for additional information.

Security Requirements: Detention door and hardware, CCTV camera monitoring.

Room Layout Diagram: Typical layout not specific to this project. 1/8" = 1'-0"



Adjacency Layout Diagram: See design diagram 501 Education Services for building department block plans indicating adjacencies.

Room/ Space Name: Open Office

Number of Spaces in program: 1

Square Foot Area: 1,000 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 16 to 20 intermittently

Function: Office for multiple individuals

Adjacencies: Located next to General Storage, Staff Break, Computer Tech Room, Office, Male S.T.

Furniture, Fixtures, & Equipment: Office Chairs, Plastic Laminate Desk Surfaces, Computers, Etc.

Architectural Finishes

Flooring: Carpet

Wall Material: CMU

Ceiling: Standard lay-in tile ceiling

Lighting: Standard lay-in LED

Wall Base: Painted Base

Wall Finish: Paint

Ceiling Height: 9' minimum

Special Criteria: None

Mechanical/ HVAC/ Piping Requirements: Detention grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: Telephone and data outlets. See Electrical narrative for additional information.

Security Requirements: Detention door and hardware, CCTV camera monitoring.

Room Layout Diagram: Not completed for this report.

Adjacency Layout Diagram: See design diagram 501 Education Services for building department block plans indicating adjacencies.

Room/ Space Name: General Classroom
Number of Spaces in program: 9
Square Foot Area: 800 SF – 900 SF, one at 400 SF
Space Standard: N/A
Space Standard Area: N/A

Number of Occupants: 20 to 30 intermittently

Function: Room for educational learning

Adjacencies: Located next to Corridor, Other General Classroom

Furniture, Fixtures, & Equipment: Detention grade tables & Chairs, smart board

Architectural Finishes

Flooring: Sealed Concrete
Wall Material: CMU
Ceiling: Detention-grade lay-in ceiling tile
Lighting: Detention grade LED
Wall Base: Painted Base
Wall Finish: Paint
Ceiling Height: 12' minimum
Special Criteria: None

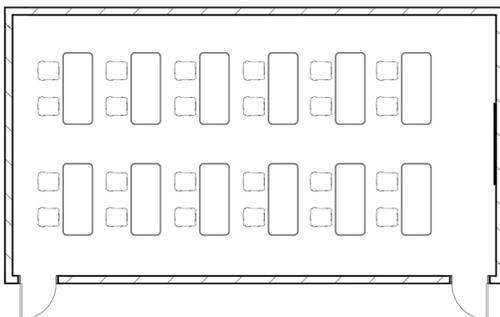
Mechanical/ HVAC/ Piping Requirements: Detention grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: Telephone and data outlets. See Electrical narrative for additional information.

Security Requirements: Detention door and hardware, CCTV camera monitoring.

Room Layout Diagram: Typical layout not specific to this project. 1/16" = 1'-0"



Adjacency Layout Diagram: See design diagram 501 Education Services for building department block plans indicating adjacencies.

Room/ Space Name: Simulator Classroom

Number of Spaces in program: 1

Square Foot Area: 700 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 20 to 30 intermittently

Function: Room for educational learning the operation of heavy equipment

Adjacencies: Located next to Corridor, Other General Classroom, 400 SF Classroom

Furniture, Fixtures, & Equipment: Detention grade tables & Chairs, heavy equipment simulators, smart board.

Architectural Finishes

Flooring: Sealed Concrete

Wall Material: CMU

Ceiling: Detention-grade lay-in ceiling tile

Lighting: Detention grade LED

Wall Base: Painted Base

Wall Finish: Paint

Ceiling Height: 12' minimum

Special Criteria: None

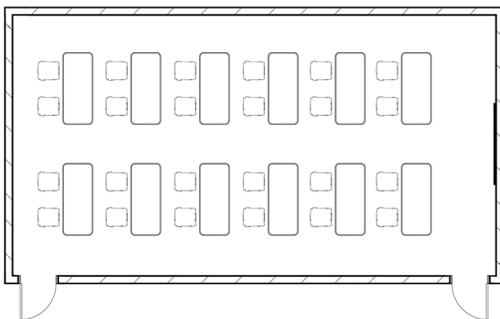
Mechanical/ HVAC/ Piping Requirements: Detention grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: Telephone and data outlets. See Electrical narrative for additional information.

Security Requirements: Detention door and hardware, CCTV camera monitoring.

Room Layout Diagram: Typical layout not specific to this project. 1/16" = 1'-0"



Adjacency Layout Diagram: See design diagram 501 Education Services for building department block plans indicating adjacencies.

Room/ Space Name: General Storage

Number of Spaces in program: 1

Square Foot Area: 400 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 1 to 2

Function: Room for general storage, equipment, parts, cables

Adjacencies: Located next to Corridor, Other General Classrooms

Furniture, Fixtures, & Equipment: Detention grade shelves

Architectural Finishes

Flooring: Sealed Concrete

Wall Material: CMU

Ceiling: Standard lay-in LED

Lighting: Detention grade LED

Wall Base: Painted Base

Wall Finish: Paint

Ceiling Height: 10' minimum

Special Criteria: None

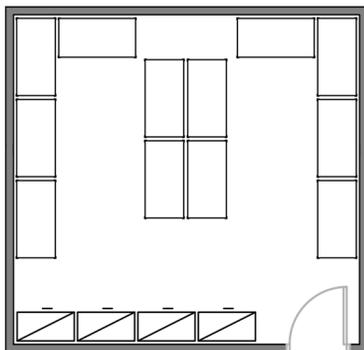
Mechanical/ HVAC/ Piping Requirements: Detention grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: None. See Electrical narrative for additional information.

Security Requirements: Detention door and hardware, CCTV camera monitoring.

Room Layout Diagram: Typical layout not specific to this project. 1/8" = 1'-0"



Adjacency Layout Diagram: See design diagram 501 Education Services for building department block plans indicating adjacencies.

Room/ Space Name: Interview/Testing Room

Number of Spaces in program: 1

Square Foot Area: 80 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 1 to 2 Intermittently

Function: Individual interviews and testing sessions with offenders educational staff.

Adjacencies: Located as convenient to classrooms

Furniture, Fixtures, & Equipment: Tables Chairs

Architectural Finishes

Flooring: Sealed Concrete

Wall Material: Precast concrete/CMU

Ceiling: Gypsum board ceiling

Lighting: Standard LED

Wall Base: Vinyl

Wall Finish: Paint

Ceiling Height: 9'-0" minimum

Special Criteria: Wall protection behind sink

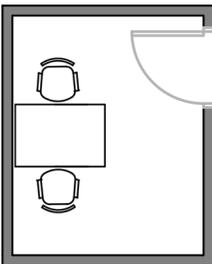
Mechanical/ HVAC/ Piping Requirements: Detention grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Convenience outlets, power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: None.

Security Requirements: Detention door and hardware.

Room Layout Diagram: Typical layout not specific to this project. 1/8" = 1'-0"



Adjacency Layout Diagram: See design diagram 501 Education Services for building department block plans indicating adjacencies.

Room/ Space Name: Offender Toilet

Number of Spaces in program: 1

Square Foot Area: 50 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 1

Function: Unisex offender toilet.

Adjacencies: Classrooms.

Furniture, Fixtures, & Equipment: ADA Detention Toilet and lavatory, Detention Toilet Accessories.

Architectural Finishes

Flooring: Quartz-Epoxy Resinous

Wall Material: Precast concrete /CMU

Ceiling: Security Gypsum Board ceiling

Lighting: Detention-grade LED

Wall Base: Quartz-Epoxy Resinous Cove Base

Wall Finish: Paint Epoxy

Ceiling Height: 9'-0"

Special Criteria: None

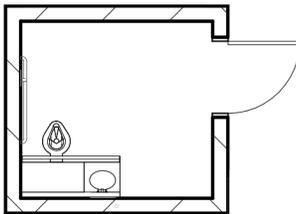
Mechanical/ HVAC/ Piping Requirements: Piping to toilet, lavatory. See mechanical narrative for additional information.

Electrical Requirements: Convenience outlets, power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: See Electrical narrative for additional information.

Security Requirements: None

Room Layout Diagram: Typical layout not specific to this project. 1/8" = 1'-0"



Adjacency Layout Diagram: See design diagram 501 Education Services for building department block plans indicating adjacencies.

Room/ Space Name: Staff Toilet

Number of Spaces in program: 1

Square Foot Area: 60 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 1 individual

Function: Toilet for Staff use.

Adjacencies: Open Office, Classrooms

Furniture, Fixtures, & Equipment: ADA Plumbing Fixtures, and Toilet Accessories.

Architectural Finishes

Flooring: Quartz-Epoxy Resinous

Wall Material: Precast concrete /CMU

Ceiling: Gypsum Board ceiling

Lighting: LED

Wall Base: Quartz-Epoxy Resinous Cove Base

Wall Finish: Paint Epoxy

Ceiling Height: 9'-0"

Special Criteria: None

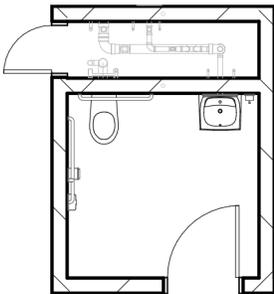
Mechanical/ HVAC/ Piping Requirements: Detention grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: None. See Electrical narrative for additional information.

Security Requirements: Detention door and hardware, CCTV camera monitoring.

Room Layout Diagram: Typical layout not specific to this project. 1/8" = 1'-0"



Adjacency Layout Diagram: See design diagram 501 Education Services for building department block plans indicating adjacencies.

Room/ Space Name: Janitor Closet

Number of Spaces in program: 1

Square Foot Area: 80 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 0

Function: Storage of janitorial cleaning supplies.

Adjacencies: Located as convenient to work areas in each department

Furniture, Fixtures, & Equipment: Shelving, mop strip, floor sink

Architectural Finishes

Flooring: Sealed concrete

Wall Material: Precast concrete / CMU

Ceiling: Security Gypsum Board ceiling

Lighting: Detention LED

Wall Base: Paint

Wall Finish: Paint

Ceiling Height: 8'-0" minimum

Special Criteria: Wall protection behind sink

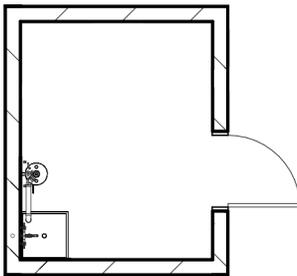
Mechanical/ HVAC/ Piping Requirements: Floor drain and floor-mounted mop sink. Standard grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Convenience outlets, power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: None.

Security Requirements: Standard door and hardware.

Room Layout Diagram: Typical layout not specific to this project. 1/8" = 1'-0"



Adjacency Layout Diagram: See design diagram 501 Education Services for building department block plans indicating adjacencies.

Room/ Space Name: Painting & Decorating Classroom

Number of Spaces in program: 2

Square Foot Area: 1,000 – 1,200 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 20 intermittently

Function: Room for educational learning for painting and decorating trades

Adjacencies: Located next to Corridor, Other General Classrooms

Furniture, Fixtures, & Equipment: Detention grade tables & Chairs, Paint Booth, smart board

Architectural Finishes

Flooring: Sealed concrete

Wall Material: CMU / Precast

Ceiling: Exposed

Lighting: Detention grade ceiling LED

Wall Base: Painted base

Wall Finish: Paint

Ceiling Height: 12' minimum

Special Criteria: None

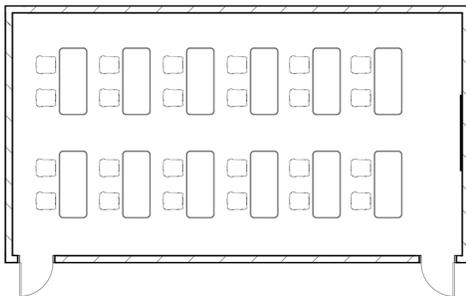
Mechanical/ HVAC/ Piping Requirements: Detention grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: None. See Electrical narrative for additional information.

Security Requirements: Detention door and hardware, CCTV camera monitoring.

Room Layout Diagram: Not completed for this report.



Adjacency Layout Diagram: See design diagram 501 Education Services for building department block plans indicating adjacencies.

Room/ Space Name: Green House

Number of Spaces in program: 1

Square Foot Area: 1,000 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 4 to 6 intermittently

Function: Room for educational learning of landscaping and plants

Adjacencies: Located next to the Facility Yard Storage.

Furniture, Fixtures, & Equipment: Raised planters

Architectural Finishes

Flooring: concrete

Wall Material: Glass

Ceiling: None

Lighting: Detention grade ceiling LED

Wall Base: None

Wall Finish: None

Ceiling Height: Varies, sloped roof

Special Criteria: None

Mechanical/ HVAC/ Piping Requirements: Hose Bid. See mechanical narrative for additional information.

Electrical Requirements: Power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: None. See Electrical narrative for additional information.

Security Requirements: Detention door and hardware, CCTV camera monitoring.

Room Layout Diagram: Not completed for this report.

Adjacency Layout Diagram: See design diagram 501 Education Services for building department block plans indicating adjacencies.

Room/ Space Name: IDF

Number of Spaces in program: 1

Square Foot Area: 110 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 0-2

Function: Telecommunication closet

Adjacencies:

Furniture, Fixtures, & Equipment: Telecommunication Racks, Patch Panels, Switches, 110 blocks

Architectural Finishes

Flooring: Sealed Concrete

Wall Material: Precast concrete / CMU

Ceiling: None, exposed to structure above

Lighting: Standard LED fixtures

Wall Base: Paint

Wall Finish: Paint

Ceiling Height: 12'-0"

Special Criteria: None

Mechanical/ HVAC/ Piping Requirements: See mechanical narrative for additional information.

Electrical Requirements: Convenience outlets, power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: None. See Electrical narrative for additional information.

Security Requirements: Door control through security system.

Room Layout Diagram: Not completed for this report.

Adjacency Layout Diagram: See design diagram 501 Education Services for building department block plans indicating adjacencies.

Room/ Space Name: Electrical Room

Number of Spaces in program: 1

Square Foot Area: 100 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 0-1

Function: Mechanical and electrical equipment.

Adjacencies: Convenient in building and site utility connections.

Furniture, Fixtures, & Equipment: Electrical equipment and panels as required.

Architectural Finishes

Flooring: Sealed concrete

Wall Material: CMU

Ceiling: None, painted structure above

Lighting: Standard hanging LED

Wall Base: Paint

Wall Finish: Paint

Ceiling Height: 10'-12' minimum

Special Criteria: None

Mechanical/ HVAC/ Piping Requirements: Exposed standard grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Convenience outlets, outlets for tool charging, hanging power drops for equipment, power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: Telephone and data outlets as needed. See Electrical narrative for additional information.

Security Requirements: Standard door and hardware, possible CCTV camera surveillance for offender workers reporting to Maintenance Security Office.

Room Layout Diagram: Not completed for this report.

Adjacency Layout Diagram: See design diagram 501 Education Services for building department block plans indicating adjacencies.

Room/ Space Name: Officer's Station

Number of Spaces in program: 1

Square Foot Area: 80 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 1

Function: Enclosed station for direct supervision – visibility to waiting area, and offender corridor.

Adjacencies: Located in Offenders Corridors, Wait Area.

Furniture, Fixtures, & Equipment: Office systems furniture

Architectural Finishes

Flooring: Resilient Flooring

Wall Material: CMU / Precast

Ceiling: Standard lay-in tile ceiling

Lighting: Standard lay-in LED

Wall Base: Resilient Base

Wall Finish: Paint

Ceiling Height: 9'-0" minimum

Special Criteria: None

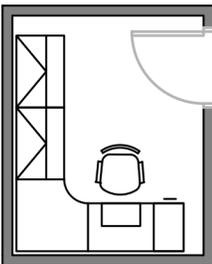
Mechanical/ HVAC/ Piping Requirements: Standard grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Convenience outlets, power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: Telephone and data outlets. See Electrical narrative for additional information.

Security Requirements: Detention door and hardware.

Room Layout Diagram: Typical layout not specific to this project. 1/8" = 1'-0"



Adjacency Layout Diagram: See design diagram 502 Behavioral Health for building department block plans indicating adjacencies.

Room/ Space Name: Reception

Number of Spaces in program: 1

Square Foot Area: 120 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 1-2 intermittently

Function: Workstation for clerical work

Adjacencies: Offices, Offender Wait

Furniture, Fixtures, & Equipment:

Architectural Finishes

Flooring: Carpet

Wall Material: CMU / Precast

Ceiling: Standard lay-in tile ceiling

Lighting: Standard lay-in LED

Wall Base: Resilient Base

Wall Finish: Paint

Ceiling Height: 9' minimum

Special Criteria: None

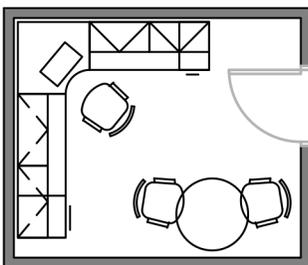
Mechanical/ HVAC/ Piping Requirements: Detention grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: Telephone and data outlets. See Electrical narrative for additional information.

Security Requirements: Detention door and hardware, CCTV camera monitoring.

Room Layout Diagram: Typical layout not specific to this project. 1/8" = 1'-0"



Adjacency Layout Diagram: See design diagram 502 Behavioral Health for building department block plans indicating adjacencies.

Room/ Space Name: Multi-Purpose

Number of Spaces in program: 2

Square Foot Area: 900 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 30

Function: Room for group psychiatric treatment.

Adjacencies: Located next to Corridor, Consult Rooms

Furniture, Fixtures, & Equipment: Detention grade tables & Chairs, Smart board.

Architectural Finishes

Flooring: Sealed concrete

Wall Material: CMU

Ceiling: Detention-grade lay-in ceiling tile

Lighting: Detention grade LED

Wall Base: Painted Base

Wall Finish: Paint

Ceiling Height: 12' minimum

Special Criteria: Movable Partition, High STC rated between the two rooms.

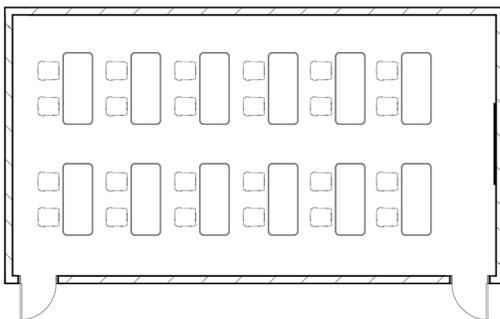
Mechanical/ HVAC/ Piping Requirements: Detention grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: Telephone and data outlets. See Electrical narrative for additional information.

Security Requirements: Detention door and hardware, CCTV camera monitoring

Room Layout Diagram: Typical layout not specific to this project. 1/16" = 1'-0"



Adjacency Layout Diagram: See design diagram 502 Behavioral Health for the building department block plans indicating adjacencies.

Room/ Space Name: Multipurpose Storage

Number of Spaces in program: 1

Square Foot Area: 150 sq. ft.

Function: Storage for chairs and tables

Adjacencies: Multipurpose Room

Furniture, Fixtures, & Equipment:

Architectural Finishes

Flooring: Sealed Concrete

Wall Material: Masonry

Ceiling: Standard lay-in tile ceiling

Lighting: Standard lay-in LED

Wall Base: Resilient Base

Wall Finish: Paint

Ceiling Height: 12'-0"

Special Criteria: N/A

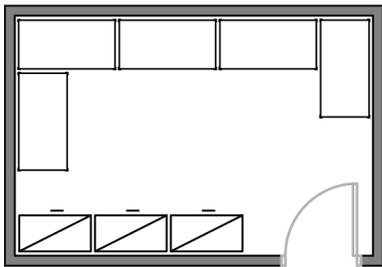
Mechanical/ HVAC/ Piping Requirements: Detention grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: None. See Electrical narrative for additional information.

Security Requirements: Detention door and hardware, CCTV camera monitoring

Room Layout Diagram: Typical layout not specific to this project. 1/8" = 1'-0"



Adjacency Layout Diagram: See design diagram 502 Behavioral Health for the building department block plans indicating adjacencies.

Room/ Space Name: Inmate WC

Number of Spaces in program: 2

Square Foot Area: 60 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 2 to 4 intermittently

Function: Water closet for inmates to use department.

Adjacencies: Multipurpose, Consult Rooms

Furniture, Fixtures, & Equipment: ADA Detention Toilet and lavatory, Detention Toilet Accessories.

Architectural Finishes

Flooring: Quartz-Epoxy Resinous

Wall Material: Precast concrete /CMU

Ceiling: Security Gypsum Board ceiling

Lighting: Detention-grade LED

Wall Base: Quartz-Epoxy Resinous Cove Base

Wall Finish: Paint Epoxy

Ceiling Height: 9'-0"

Special Criteria: None

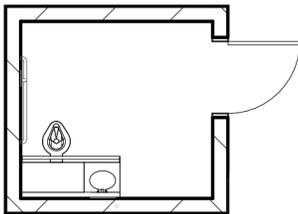
Mechanical/ HVAC/ Piping Requirements: Detention grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: None. See Electrical narrative for additional information.

Security Requirements: Detention door and hardware, CCTV camera monitoring

Room Layout Diagram: Typical layout not specific to this project. 1/8" = 1'-0"



Adjacency Layout Diagram: See design diagram for 502 Behavioral Health department block plans indicating adjacencies.

Room/ Space Name: Consult Room

Number of Spaces in program: 1

Square Foot Area: 120 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 1 to 2 intermittently

Function: Individual counseling sessions with offenders.

Adjacencies: Multipurpose, and the Department Reception

Furniture, Fixtures, & Equipment: Detention Chairs

Architectural Finishes

Flooring: Sealed concrete

Wall Material: Precast concrete

Ceiling: Security Gypsum Board ceiling

Lighting: Detention-grade lay-in ceiling tile

Wall Base: Vinyl

Wall Finish: Paint

Ceiling Height: 9'-0" minimum

Special Criteria: None

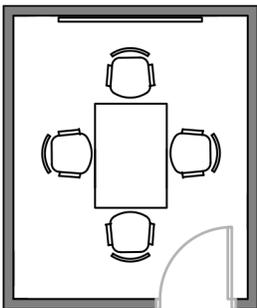
Mechanical/ HVAC/ Piping Requirements: Floor drain and floor-mounted mop sink. Standard grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Convenience outlets, power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: Telephone and data outlets. See Electrical narrative for additional information.

Security Requirements: Detention door and hardware, CCTV camera monitoring.

Room Layout Diagram: Typical layout not specific to this project. 1/8" = 1'-0"



Adjacency Layout Diagram: See design diagram 502 Behavioral Health for the building department block plans indicating adjacencies.

Room/ Space Name: Single Staff Office

Number of Spaces in program: 12

Square Foot Area: 120 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 1 to 2 intermittently

Function: Office space to single staff office

Adjacencies: Reception

Furniture, Fixtures, & Equipment:

Architectural Finishes

Flooring: Carpet

Wall Material: CMU / Precast

Ceiling: Standard lay-in tile ceiling

Lighting: Standard lay-in LED

Wall Base: Resilient Base

Wall Finish: Paint

Ceiling Height: 9' minimum

Special Criteria: None

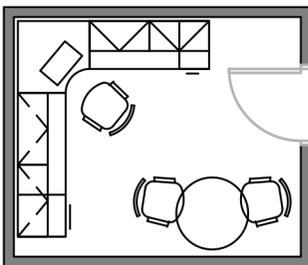
Mechanical/ HVAC/ Piping Requirements: Detention grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: Telephone and data outlets. See Electrical narrative for additional information.

Security Requirements: Standard door and hardware, CCTV camera monitoring.

Room Layout Diagram: Typical layout not specific to this project. 1/8" = 1'-0"



Adjacency Layout Diagram: See design diagram 502 Behavioral Health for building department block plans indicating adjacencies.

Room/ Space Name: Staff WC

Number of Spaces in program: 1

Square Foot Area: 60 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 1 individual

Function: Toilet for Staff use.

Adjacencies: Breakroom, Staff Area

Furniture, Fixtures, & Equipment: ADA Plumbing Fixtures, and Toilet Accessories.

Architectural Finishes

Flooring: Quartz-Epoxy Resinous

Wall Material: Precast concrete /CMU

Ceiling: Gypsum Board ceiling

Lighting: LED

Wall Base: Quartz-Epoxy Resinous Cove Base

Wall Finish: Paint Epoxy

Ceiling Height: 9'-0"

Special Criteria: None

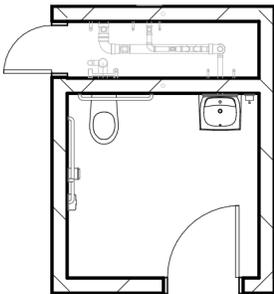
Mechanical/ HVAC/ Piping Requirements: Detention grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: None. See Electrical narrative for additional information.

Security Requirements: Standard door and hardware, CCTV camera monitoring.

Room Layout Diagram: Typical layout not specific to this project. 1/8" = 1'-0"



Adjacency Layout Diagram: See design diagram 502 Behavioral Health for building department block plans indicating adjacencies.

Room/ Space Name: Work Room / Staff Break

Number of Spaces in program: 1

Square Foot Area: 430 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 12 intermittently

Function: Space for Work Room and Staff Break Room including seating for twelve (12).

Adjacencies: Shared with Medical Services staff

Furniture, Fixtures, & Equipment: Seating for twelve (12), tables, chairs, refrigerator, sink, paper towel dispenser, soap dispenser, Multifunction copier, Supply Storage

Architectural Finishes

Flooring: Resilient Flooring

Wall Material: CMU

Ceiling: Security Gypsum Board ceiling

Lighting: Detention grade LED

Wall Base: Resilient Base

Wall Finish: Paint

Ceiling Height: 10'-0"

Special Criteria: None

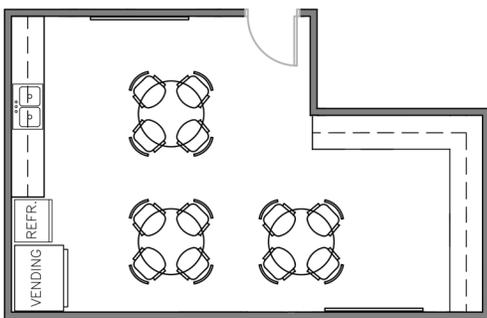
Mechanical/ HVAC/ Piping Requirements: See mechanical narrative for additional information.

Electrical Requirements: Power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: Telephone and data outlets. See Electrical narrative for additional information.

Security Requirements: None

Room Layout Diagram: Typical layout not specific to this project. 3/32" = 1'-0"



Adjacency Layout Diagram: See design diagram 502 Behavioral Health for building department block plans indicating adjacencies.

Room/ Space Name: Storage Room

Number of Spaces in program: 1

Square Foot Area: 100 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 1 to 2 intermittently

Function: Storage space for inventory

Adjacencies: Offices

Furniture, Fixtures, & Equipment: Shelving.

Architectural Finishes

Flooring: Sealed concrete

Wall Material: CMU

Ceiling: Standard lay-in tile ceiling

Lighting: Standard lay-in LED

Wall Base: Painted base

Wall Finish: Paint

Ceiling Height: 9' minimum

Special Criteria: None

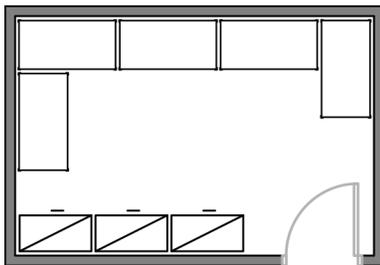
Mechanical/ HVAC/ Piping Requirements: Detention grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: None. See Electrical narrative for additional information.

Security Requirements: Standard door and hardware, CCTV camera monitoring.

Room Layout Diagram: Typical layout not specific to this project. 1/8" = 1'-0"



Adjacency Layout Diagram: See design diagram 502 Behavioral Health for building department block plans indicating adjacencies.

Room/ Space Name: Electrical Room

Number of Spaces in program: 1

Square Foot Area: 110 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 0-1

Function: Mechanical and electrical equipment.

Adjacencies: Convenient in building and site utility connections.

Furniture, Fixtures, & Equipment: Mechanical and electrical equipment as required.

Architectural Finishes

Flooring: Sealed concrete

Wall Material: CMU

Ceiling: None, painted structure above

Lighting: Standard hanging LED

Wall Base: Vinyl

Wall Finish: Paint

Ceiling Height: 10' – 12' minimum

Special Criteria: None

Mechanical/ HVAC/ Piping Requirements: Exposed standard grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Convenience outlets, outlets for tool charging, hanging power drops for equipment, power lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: Telephone and data outlets as needed. See Electrical narrative for additional information.

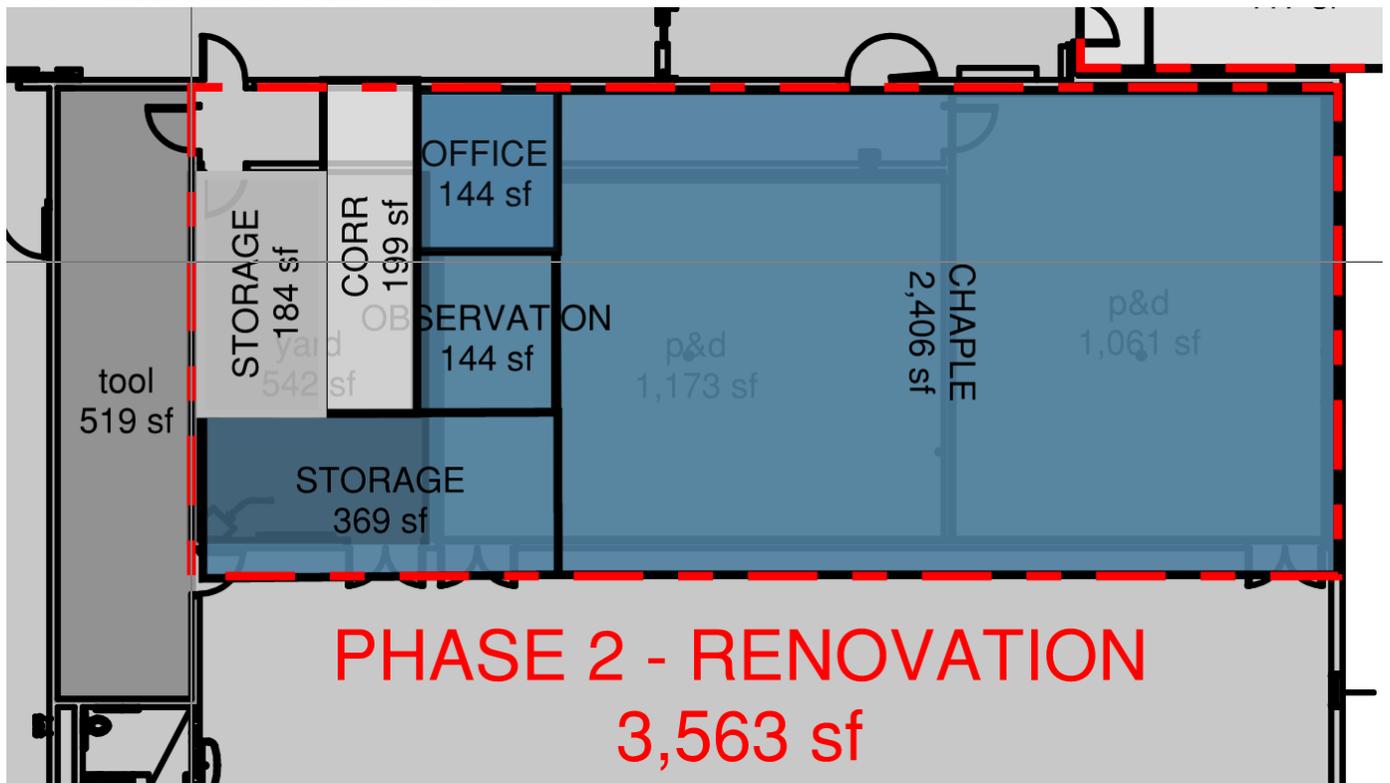
Security Requirements: Standard door and hardware, possible CCTV camera surveillance for offender workers reporting to Maintenance Security Office.

Room Layout Diagram: Not completed for this report.

Adjacency Layout Diagram: See design diagram 502 Behavioral Health for building department block plans indicating adjacencies.

APPENDIX 4a – SPACE NEEDS INVENTORY

503 – RELIGIOUS SERVICES



Religious Services Concept Plan

Room/ Space Name: Chapel

Number of Spaces in program: 1

Square Foot Area: 2,400 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 2 to 4 intermittently

Function: Open space for spiritual reflection and religious affiliation.

Adjacencies: Main Inmate Corridor

Furniture, Fixtures, & Equipment: Wood Chairs and Wood Alter

Architectural Finishes

Flooring: Carpet

Wall Material: CMU

Ceiling: Standard lay-in tile ceiling

Lighting: Standard lay-in LED

Wall Base: Resilient Base

Wall Finish: Paint

Ceiling Height: 12' minimum

Special Criteria: None

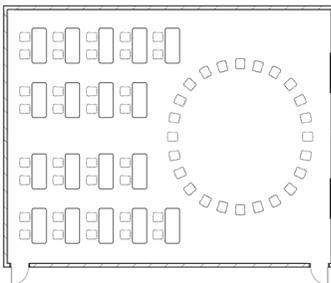
Mechanical/ HVAC/ Piping Requirements: Detention grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: Telephone and data outlets. See Electrical narrative for additional information.

Security Requirements: Detention door and hardware, CCTV camera monitoring.

Room Layout Diagram: Typical layout not specific to this project. 1/32" = 1'-0"



Adjacency Layout Diagram: See design diagram for 503 religious services building department block plans indicating adjacencies.

Room/ Space Name: Observation & Meeting Room

Number of Spaces in program: 1

Square Foot Area: 120 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 2 to 4 intermittently

Function: Meeting space for religious personal and associated inmates

Adjacencies: Chaplain's Office

Furniture, Fixtures, & Equipment: Bench

Architectural Finishes

Flooring: Sealed concrete

Wall Material: CMU

Ceiling: Security Gypsum Board ceiling

Lighting: Detention grader LED

Wall Base: Painted base

Wall Finish: Paint

Ceiling Height: 10' minimum

Special Criteria: None

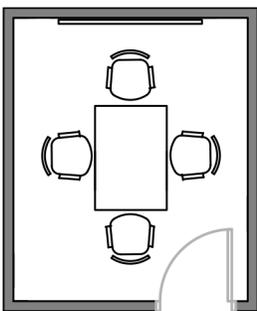
Mechanical/ HVAC/ Piping Requirements: Detention grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: Telephone and data outlets. See Electrical narrative for additional information.

Security Requirements: Detention door and hardware, CCTV camera monitoring.

Room Layout Diagram: Typical layout not specific to this project. 1/8" = 1'-0"



Adjacency Layout Diagram: See design diagram for 503 religious services building department block plans indicating adjacencies.

Room/ Space Name: Chaplain's Office

Number of Spaces in program: 1

Square Foot Area: 120 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 2 to 4 intermittently

Function: Chaplain's office for work

Adjacencies: Unknown

Furniture, Fixtures, & Equipment:

Architectural Finishes

Flooring: Carpet

Wall Material: CMU

Ceiling: Security Gypsum Board ceiling

Lighting: Detention grade LED

Wall Base: Resilient Base

Wall Finish: Paint

Ceiling Height: 9' minimum

Special Criteria: None

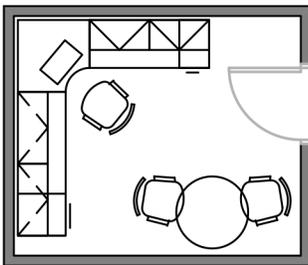
Mechanical/ HVAC/ Piping Requirements: Detention grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: Telephone and data outlets. See Electrical narrative for additional information.

Security Requirements: Detention door and hardware, CCTV camera monitoring.

Room Layout Diagram: Typical layout not specific to this project. 1/8" = 1'-0"



Adjacency Layout Diagram: See design diagram for 503 religious services building department block plans indicating adjacencies.

Room/ Space Name: Storage

Number of Spaces in program: 1

Square Foot Area: 340 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 2 to 4 intermittently

Function: Religious services storage space for furniture

Adjacencies: Chapel

Furniture, Fixtures, & Equipment:

Architectural Finishes

Flooring: Sealed concrete

Wall Material: CMU

Ceiling: Security Gypsum Board ceiling

Lighting: Detention grade LED

Wall Base: Painted base

Wall Finish: Paint

Ceiling Height: 10' minimum

Special Criteria: None

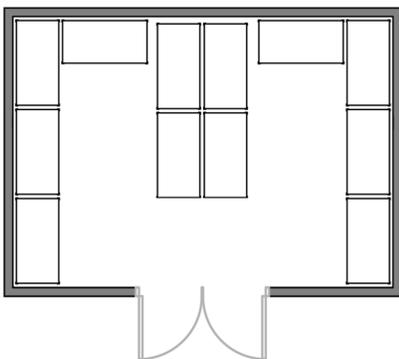
Mechanical/ HVAC/ Piping Requirements: Detention grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: None. See Electrical narrative for additional information.

Security Requirements: Detention door and hardware, CCTV camera monitoring.

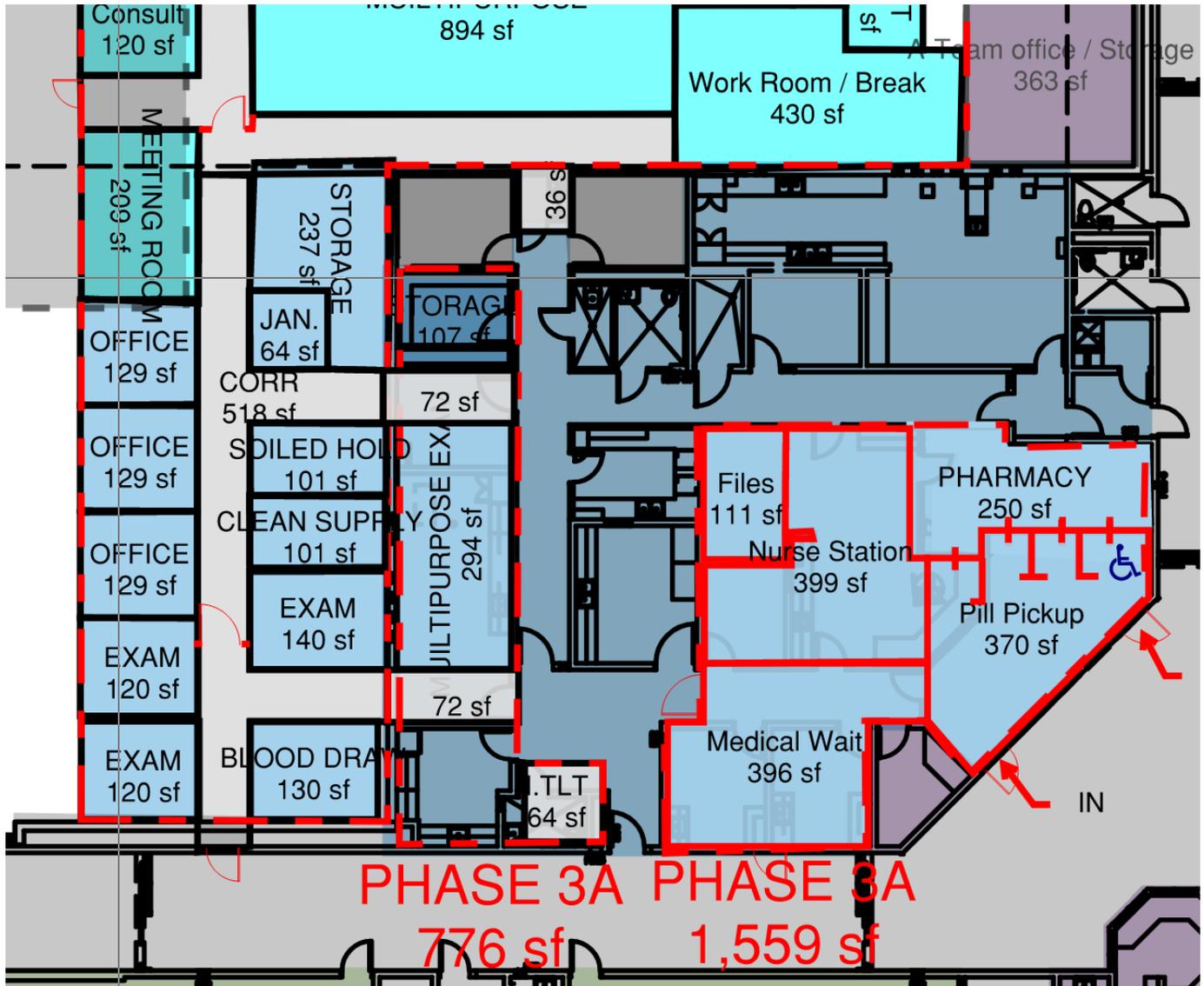
Room Layout Diagram: Typical layout not specific to this project. 1/8" = 1'-0"



Adjacency Layout Diagram: See design diagram for 503 religious services building department block plans indicating adjacencies.

APPENDIX 4a – SPACE NEEDS INVENTORY

504 – MEDICAL SERVICES



Medical Sick Call Services Concept Plan.

Room/ Space Name: Waiting – Pill Pickup

Number of Spaces in program: 1

Square Foot Area: 370 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 40

Function: Waiting area with separate areas for medical and dental.

Adjacencies: Nurse station and Security Officer's Station

Furniture, Fixtures, & Equipment: Detention Paper Cup Dispensers, Detention Drinking Fountain, Detention Shelf

Architectural Finishes

Flooring: Resilient Flooring

Wall Material: CMU

Ceiling: Secured lay-in ceiling

Lighting: Detention-grade lay-in LED

Wall Base: Resilient Base

Wall Finish: Paint

Ceiling Height: 10'

Special Criteria: None

Mechanical/ HVAC/ Piping Requirements: See mechanical narrative for additional information.

Electrical Requirements: Convenience outlets, power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: None. See Electrical narrative for additional information.

Security Requirements: CCTV camera monitoring, intercom, and door control through security system.

Room Layout Diagram: Not completed for this report.

Adjacency Layout Diagram: See design diagram for 504 Medical services department block plans indicating adjacencies.

Room/ Space Name: Pharmacy

Number of Spaces in program: 1

Square Foot Area: 250 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 8

Function: Area for pharmacists to distribute medication

Adjacencies: Waiting- Pill Pickup

Furniture, Fixtures, & Equipment: Sharps containers with secure pipe to offender side.

Architectural Finishes

Flooring: Resilient Flooring

Wall Material: CMU

Ceiling: Standard lay-in tile ceiling

Lighting: Standard lay-in LED

Wall Base: Resilient Base

Wall Finish: Paint

Ceiling Height: 10'

Special Criteria: Secure Transaction Windows

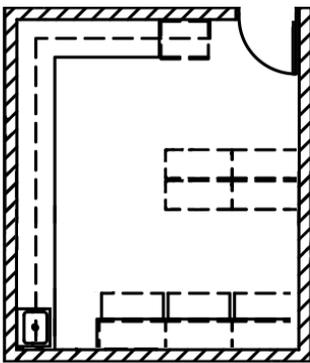
Mechanical/ HVAC/ Piping Requirements: See mechanical narrative for additional information.

Electrical Requirements: Convenience outlets, power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: Telephone and data outlets. See Electrical narrative for additional information.

Security Requirements: CCTV camera monitoring, intercom, and door control through security system.

Room Layout Diagram: Typical layout not specific to this project. 1/8" = 1'-0"



Adjacency Layout Diagram: See design diagram for 504 Medical services department block plans indicating adjacencies.

Room/ Space Name: Nurse's Station

Number of Spaces in program: 1

Square Foot Area: 400 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 2-4

Function: Enclosed, secured station.

Adjacencies: Waiting room, exam rooms, Files, Pharmacy

Furniture, Fixtures, & Equipment: Workstation, solid surface countertop, printer/fax/copier

Architectural Finishes

Flooring: Resilient Flooring

Wall Material: CMU

Ceiling: Standard lay-in tile ceiling

Lighting: Standard lay-in LED

Wall Base: Resilient Base

Wall Finish: Paint

Ceiling Height: 16' – 18'

Special Criteria: None

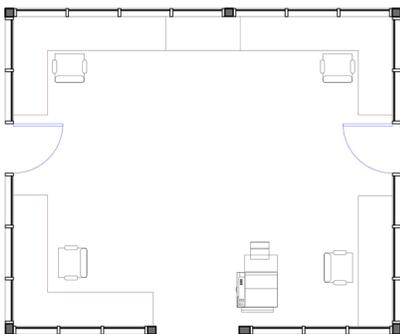
Mechanical/ HVAC/ Piping Requirements: See mechanical narrative for additional information.

Electrical Requirements: Convenience outlets, power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: Data wiring. See Electrical narrative for additional information.

Security Requirements: None.

Room Layout Diagram: Typical layout not specific to this project. 1/16" = 1'-0"



Adjacency Layout Diagram: See design diagram for 504 Medical services department block plans indicating adjacencies.

Room/ Space Name: Files
Number of Spaces in program: 1
Square Foot Area: 110 SF
Space Standard: N/A
Space Standard Area: N/A

Number of Occupants: 0-4

Function: Storage area for patient medical records accessible through cabinets.

Adjacencies:

Furniture, Fixtures, & Equipment: File Carousel

Architectural Finishes

Flooring: Resilient Flooring
Wall Material: CMU
Ceiling: Standard lay-in tile ceiling
Lighting: Standard lay-in LED
Wall Base: Resilient Base
Wall Finish: Paint
Ceiling Height: 9' – 0" minimum
Special Criteria: None

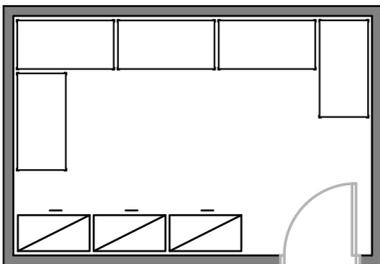
Mechanical/ HVAC/ Piping Requirements: Standard grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Convenience outlets, power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: Telephone and data outlets. See Electrical narrative for additional information.

Security Requirements: Detention door and hardware.

Room Layout Diagram: Typical layout not specific to this project. 1/8" = 1'-0"



Adjacency Layout Diagram: See design diagram for 504 Medical services department block plans indicating adjacencies.

Room/ Space Name: Officer's Station

Number of Spaces in program: 1

Square Foot Area: 80SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 1

Function: Open station for direct supervision – visibility to waiting area, pill distribution, offender corridor.

Adjacencies: Located in staff areas as convenient within department.

Furniture, Fixtures, & Equipment: Office systems furniture

Architectural Finishes

Flooring: Resilient Flooring

Wall Material: CMU

Ceiling: Standard lay-in tile ceiling

Lighting: Standard lay-in LED

Wall Base: Resilient Base

Wall Finish: Paint

Ceiling Height: 8' – 0" minimum

Special Criteria: None

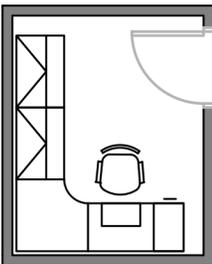
Mechanical/ HVAC/ Piping Requirements: Standard grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Convenience outlets, power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: Telephone and data outlets. See Electrical narrative for additional information.

Security Requirements: Detention door and hardware.

Room Layout Diagram: Typical layout not specific to this project. 1/8" = 1'-0"



Adjacency Layout Diagram: See design diagram for 504 Medical services department block plans indicating adjacencies.

Room/ Space Name: Vitals Alcove

Number of Spaces in program: 1

Square Foot Area: 40 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 1-2

Function: Vital check station area

Adjacencies: Located in controlled corridor between nurse station and exam rooms.

Furniture, Fixtures, & Equipment: Weight Scale, Stadiometer, Sphygmomanometer, Co-Oximeter, Thermometer

Architectural Finishes

Flooring: Sealed Concrete

Wall Material: CMU

Ceiling: Secured lay-in ceiling

Lighting: Detention-grade lay-in LED

Wall Base: Resilient Base

Wall Finish: Paint

Ceiling Height: 10'-0" minimum

Special Criteria: None

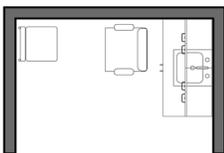
Mechanical/ HVAC/ Piping Requirements: Standard grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Convenience outlets, power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: Telephone and data outlets. See Electrical narrative for additional information.

Security Requirements: None.

Room Layout Diagram: Typical layout not specific to this project. 1/8" = 1'-0"



Adjacency Layout Diagram: See design diagram for 504 Medical services department block plans indicating adjacencies.

Room/ Space Name: Inmate WC

Number of Spaces in program: 1

Square Foot Area: 60SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 1

Function: Individual toilet room to be used by offenders only

Adjacencies: Located next to lab

Furniture, Fixtures, & Equipment: Detention toilet accessories: mirror, hand dryer, toilet paper holder, soap dispenser, trash receptacle, and detention accessible (ADA) grab bars, specimen passthrough.

Architectural Finishes

Flooring: Quartz-Epoxy Resinous

Wall Material: Precast concrete /CMU

Ceiling: Security Gypsum Board ceiling

Lighting: Detention-grade LED

Wall Base: Quartz-Epoxy Resinous Cove Base

Wall Finish: Paint Epoxy

Ceiling Height: 9'-0"

Special Criteria: None

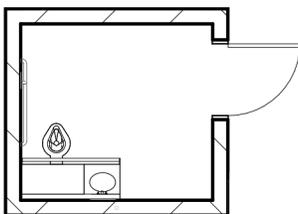
Mechanical/ HVAC/ Piping Requirements: Stainless steel detention-grade toilet and sink, floor drain, detention grilles and vents. See mechanical narrative and additional information.

Electrical Requirements: Convenience power outlets, power for lighting and mechanical services. See Electrical narrative for additional information.

Technology Requirements: None.

Security Requirements: Detention door and hardware.

Room Layout Diagram: Typical layout not specific to this project. 1/8" = 1'-0"



Adjacency Layout Diagram: See design diagram for 504 Medical services department block plans indicating adjacencies.

Room/ Space Name: Procedure Room

Number of Spaces in program: 1

Square Foot Area: 180 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 2-6

Function: Procedures and minor surgery, injections, and colonoscopies. No general anesthesia.

Adjacencies: Nurse's station

Furniture, Fixtures, & Equipment: Procedure table, hand wash sink, soap dispenser, paper towel dispenser, hand sanitizer dispenser, waste receptacle, supply storage, articulating exam light, charting station, portable desk with stool, computer for EHR, glove dispenser, detention side chair, patient lift, otoscope/ophthalmoscope, Sphygmomanometer, Co-Oximeter, Thermometer

Architectural Finishes

Flooring: Seamless Resilient Flooring

Wall Material: Precast concrete / CMU

Ceiling: Security Gypsum Board ceiling

Lighting: Detention-grade lay-in ceiling tile, & Articulating exam light

Wall Base: Seamless Resilient Cove Base

Wall Finish: Paint

Ceiling Height: 10' – 0"

Special Criteria:

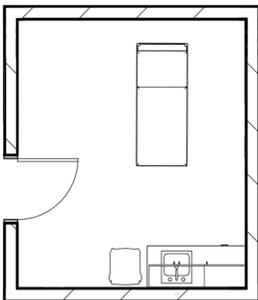
Mechanical/ HVAC/ Piping Requirements: Piping to sink. Oxygen and Vacuum outlets. See mechanical narrative for additional information.

Electrical Requirements: Articulating exam light,. Convenience outlets, Data outlets, power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: Telephone and data outlets. See Electrical narrative for additional information.

Security Requirements: None.

Room Layout Diagram: Typical layout not specific to this project. 1/8" = 1'-0"



Adjacency Layout Diagram: See design diagram for 504 Medical services department block plans indicating adjacencies.

Room/ Space Name: Instrument Processing

Number of Spaces in program: 1

Square Foot Area: 120 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 1-2

Function: Area to clean medical instruments.

Adjacencies: Procedure rooms, patient care areas.

Furniture, Fixtures, & Equipment: (2) sinks, casework, stainless steel countertop, handwash sink, glove dispenser, sharps disposals, eye wash station, soap dispenser, waste receptable, paper towel dispenser, Pass Through

Architectural Finishes

Flooring: Seamless Resilient Flooring

Wall Material: Precast concrete / CMU

Ceiling: Gypsum board

Lighting: Standard LED fixtures

Wall Base: Seamless Resilient Cove Base

Wall Finish: Paint

Ceiling Height: 10' – 0"

Special Criteria:

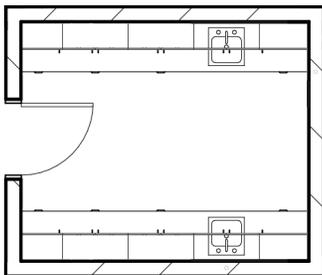
Mechanical/ HVAC/ Piping Requirements: See mechanical narrative for additional information.

Electrical Requirements: Convenience outlets, power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: Telephone and data outlets. See Electrical narrative for additional information.

Security Requirements: Door control through security system.

Room Layout Diagram: Not completed for this report.



Adjacency Layout Diagram: See design diagram for 504 Medical services department block plans indicating adjacencies.

Room/ Space Name: Physical Therapy/Optical/ Multipurpose Exam

Number of Spaces in program: 1

Square Foot Area: 240 Sf

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 2-3

Function: Room for single-patient physical therapy and a closet for storage of supplies.

Adjacencies: Nurse's station

Furniture, Fixtures, & Equipment: PT table, pulleys, ultrasound machine, electronic pads, hand wash sink, soap dispenser, paper towel dispenser, hand sanitizer dispenser, waste receptacle, supply storage, articulating exam light, charting station, portable desk with stool, computer for EHR, glove dispenser, detention side chair, patient lift, otoscope/ophthalmoscope, Sphygmomanometer, Co-Oximeter, Thermometer

Architectural Finishes

Flooring: Resilient Flooring

Wall Material: Precast concrete / CMU

Ceiling: Detention-grade lay-in ceiling tile

Lighting: Detention-grade lay-in LED

Wall Base: Resilient Base

Wall Finish: Paint

Ceiling Height: 10'-0"

Special Criteria: None

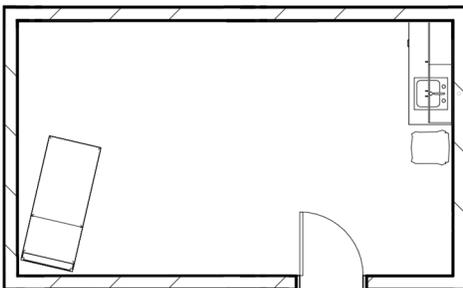
Mechanical/ HVAC/ Piping Requirements: See mechanical narrative for additional information.

Electrical Requirements: As required for medical equipment and charting station; oxygen and vacuum supply. Convenience outlets, power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: Telephone and data outlets. See Electrical narrative for additional information.

Security Requirements: None.

Room Layout Diagram: Typical layout not specific to this project. 1/8" = 1'-0"



Adjacency Layout Diagram: See design diagram for 504 Medical services department block plans indicating adjacencies.

Room/ Space Name: Exam Room

Number of Spaces in program: 3

Square Foot Area: 120SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 1-3

Function: Two (2) sick-call rooms, four (4) doctor-call rooms including a specialist.

Adjacencies: Nurse's station

Furniture, Fixtures, & Equipment: Exam table, hand wash sink, soap dispenser, paper towel dispenser, hand sanitizer dispenser, waste receptacle, supply storage, articulating exam light, charting station, portable desk with stool, computer for EHR, glove dispenser, detention side chair, patient lift, otoscope/ophthalmoscope, Sphygmomanometer, Co-Oximeter, Thermometer

Architectural Finishes

Flooring: Seamless Resilient Flooring

Wall Material: Precast concrete / CMU

Ceiling: Security Gypsum Board ceiling

Lighting: Detention-grade lay-in ceiling tile, & Articulating exam light

Wall Base: Seamless Resilient Cove Base

Wall Finish: Paint

Ceiling Height: 10' – 0"

Special Criteria:

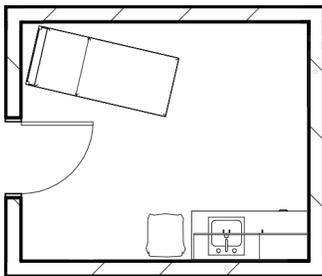
Mechanical/ HVAC/ Piping Requirements: Piping to sink. See mechanical narrative for additional information.

Electrical Requirements: As required for medical equipment. Convenience outlets, power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: Telephone and data outlets. See Electrical narrative for additional information.

Security Requirements: None.

Room Layout Diagram: Typical layout not specific to this project. 1/8" = 1'-0"



Adjacency Layout Diagram: See design diagram for 504 Medical services department block plans indicating adjacencies.

Room/ Space Name: Office
Number of Spaces in program: 4
Square Foot Area: 120 SF
Space Standard: N/A
Space Standard Area: N/A

Number of Occupants: 1-2

Function: Offices for the private physician, physician's assistant (PA), and visiting specialist.

Adjacencies: Located in staff areas as convenient within department.

Furniture, Fixtures, & Equipment: Office systems furniture

Architectural Finishes

Flooring: Carpet
Wall Material: Gypsum Board
Ceiling: Standard lay-in tile ceiling
Lighting: Standard lay-in LED
Wall Base: Resilient Base
Wall Finish: Paint
Ceiling Height: 9'-0" minimum
Special Criteria: None

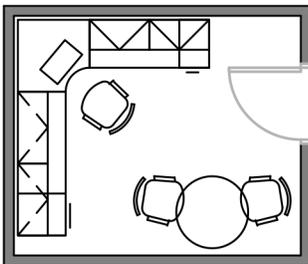
Mechanical/ HVAC/ Piping Requirements: Standard grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Convenience outlets, power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: Telephone and data outlets. See Electrical narrative for additional information.

Security Requirements: Standard door and hardware.

Room Layout Diagram: Typical layout not specific to this project. 1/8" = 1'-0"



Adjacency Layout Diagram: See design diagram for 504 Medical services department block plans indicating adjacencies.

Room/ Space Name: Storage

Number of Spaces in program: 1

Square Foot Area: 240 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 0-2

Function: Storage of walkers, toilet seats, crutches. EKG machine. Etc.

Adjacencies:

Furniture, Fixtures, & Equipment: Shelving

Architectural Finishes

Flooring: Resilient Flooring

Wall Material: Precast concrete

Ceiling: Standard lay-in tile ceiling

Lighting: Standard LED fixtures

Wall Base: Resilient Base

Wall Finish: Paint

Ceiling Height: 12'-0"

Special Criteria: None

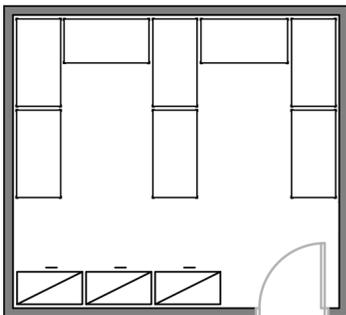
Mechanical/ HVAC/ Piping Requirements: See mechanical narrative for additional information.

Electrical Requirements: Convenience outlets, power for lighting and mechanical services. See Electrical narrative for additional information.

Technology Requirements: None. See Electrical narrative for additional information.

Security Requirements: Door control through security system.

Room Layout Diagram: Typical layout not specific to this project. 1/8" = 1'-0"



Adjacency Layout Diagram: See design diagram for 504 Medical services department block plans indicating adjacencies.

Room/ Space Name: Clean Supply

Number of Spaces in program: 1

Square Foot Area: 80 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 0-1

Function: Storage of clean supply materials.

Adjacencies:

Furniture, Fixtures, & Equipment: Shelving.

Architectural Finishes

Flooring: Seamless Resilient Flooring

Wall Material: Precast concrete / CMU

Ceiling: Gypsum board

Lighting: Standard LED fixtures

Wall Base: Seamless Resilient Cove Base

Wall Finish: Paint

Ceiling Height: 10' – 0"

Special Criteria:

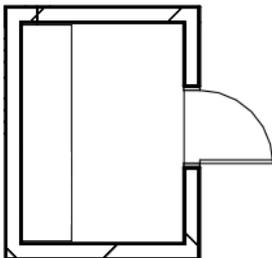
Mechanical/ HVAC/ Piping Requirements: See mechanical narrative for additional information.

Electrical Requirements: Convenience outlets, power for lighting and mechanical services. See Electrical narrative for additional information.

Technology Requirements: None. See Electrical narrative for additional information.

Security Requirements: Door control through security system.

Room Layout Diagram: Typical layout not specific to this project. 1/8" = 1'-0"



Adjacency Layout Diagram: See design diagram for 504 Medical services department block plans indicating adjacencies.

Room/ Space Name: Soiled Holding

Number of Spaces in program: 1

Square Foot Area: 35 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 0-1

Function: Storage of trash containers, linen hamper

Adjacencies: Patient care areas

Furniture, Fixtures, & Equipment: Shelving, linen carts, Trash carts, Bio-hazard bags.

Architectural Finishes

Flooring: Seamless Resilient Flooring

Wall Material: Precast concrete / CMU

Ceiling: Gypsum board

Lighting: Standard LED fixtures

Wall Base: Seamless Resilient Cove Base

Wall Finish: Paint

Ceiling Height: 10' – 0"

Special Criteria:

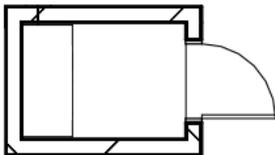
Mechanical/ HVAC/ Piping Requirements: See mechanical narrative for additional information.

Electrical Requirements: Convenience outlets, power for lighting and mechanical services. See Electrical narrative for additional information.

Technology Requirements: None. See Electrical narrative for additional information.

Security Requirements: None.

Room Layout Diagram: Typical layout not specific to this project. 1/8" = 1'-0"



Adjacency Layout Diagram: See design diagram for 504 Medical services department block plans indicating adjacencies.

Room/ Space Name: Janitor Closet

Number of Spaces in program: 1

Square Foot Area: 60 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 0-1

Function: Storage of janitorial cleaning supplies.

Adjacencies: Located as convenient to work areas in department.

Furniture, Fixtures, & Equipment: Shelving, mop strip, floor sink

Architectural Finishes

Flooring: Sealed concrete

Wall Material: CMU

Ceiling: Standard lay-in tile ceiling

Lighting: Standard lay-in LED

Wall Base: Painted

Wall Finish: Paint

Ceiling Height: 8'-0" minimum

Special Criteria: Wall protection behind sink

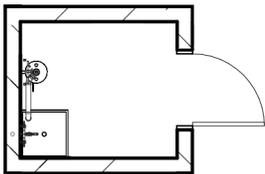
Mechanical/ HVAC/ Piping Requirements: Floor drain and floor-mounted mop sink. Standard grilles and vents. See electrical narrative for additional information.

Electrical Requirements: Convenience outlets, power for lighting and mechanical services. See Electrical narrative for additional information.

Technology Requirements: None.

Security Requirements: Standard door and hardware.

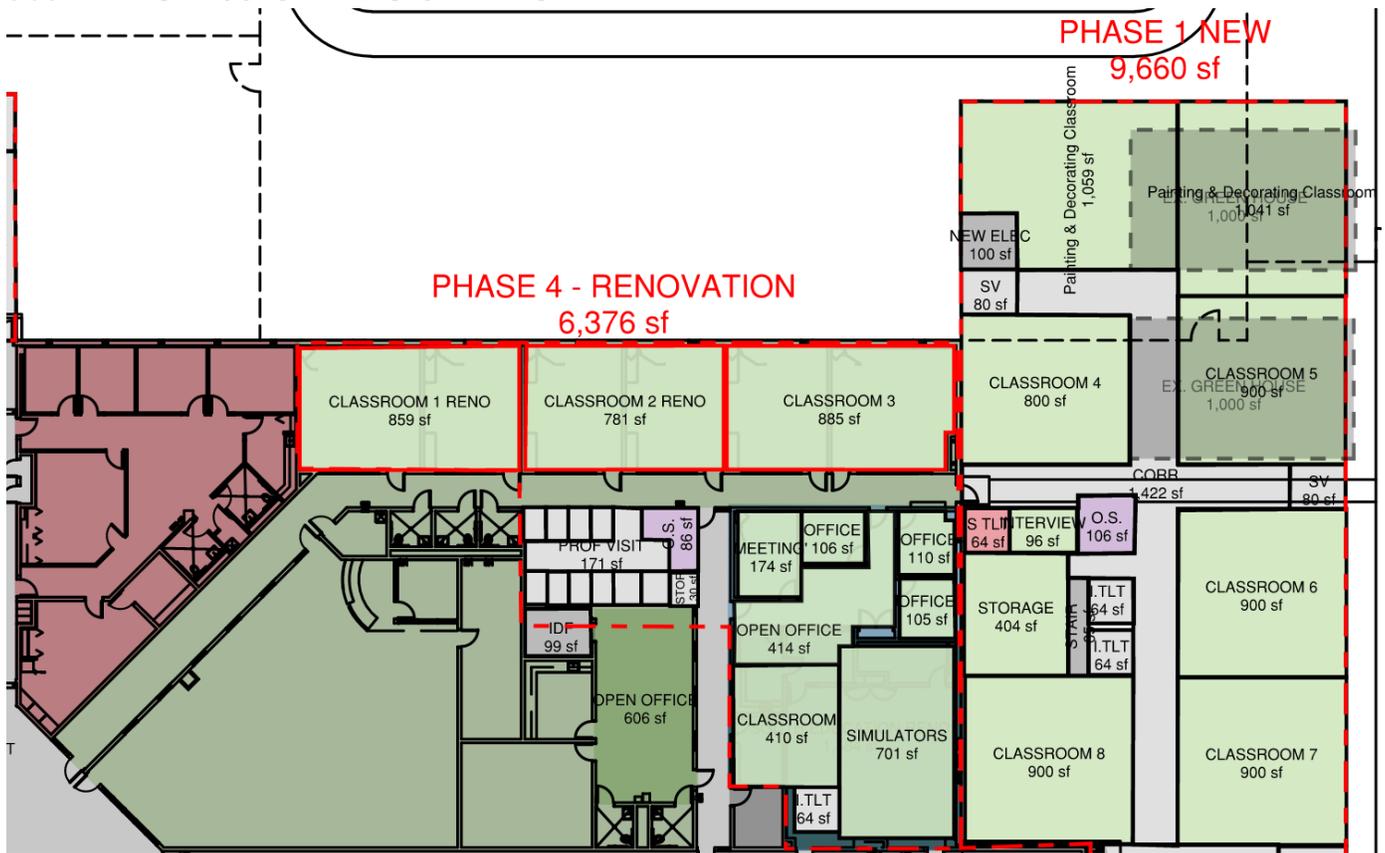
Room Layout Diagram: Typical layout not specific to this project. 1/8" = 1'-0"



Adjacency Layout Diagram: See design diagram for 504 Medical services department block plans indicating adjacencies.

APPENDIX 4a – SPACE NEEDS INVENTORY

505 – PROFESSIONAL VISITATION



Professional Visitation Service Concept Plan

Room/ Space Name: Professional Visitation

Number of Spaces in program: 1

Square Foot Area: 500 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 5 to 10 intermittently

Function: Room for professional visitation

Adjacencies: Located next to the Corridor, Other General Classrooms

Furniture, Fixtures, & Equipment: (8) 20 square foot phone booths, (2) accessible 30 square foot phone booths

Architectural Finishes

Flooring: Sealed concrete

Wall Material: CMU

Ceiling: Security Gypsum Board ceiling

Lighting: Detention grade LED

Wall Base: Painted base

Wall Finish: Paint

Ceiling Height: 10' minimum

Special Criteria: None

Mechanical/ HVAC/ Piping Requirements: Detention grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Power for lighting and mechanical services. See Electrical narrative for additional information.

Technology Requirements: Data outlets for computers. See Electrical narrative for additional information.

Security Requirements: Detention door and hardware, CTV camera monitoring.

Room Layout Diagram: Not completed for this report.

Adjacency Layout Diagram: See design diagram for 505 Professional Visitation department block plans indicating adjacencies.

Room/ Space Name: Officer's Station - Professional Visitation

Number of Spaces in program: 1

Square Foot Area: 80 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 0-4

Function: Enclosed station for direct supervision – visibility to waiting area, Phone Booths, pill distribution, offender corridor.

Adjacencies: Located in staff areas as convenient within department

Furniture, Fixtures, & Equipment: Office systems furniture

Architectural Finishes

Flooring: Resilient Flooring

Wall Material: CMU

Ceiling: Standard lay-in tile ceiling

Lighting: Standard lay-in LED

Wall Base: Resilient Base

Wall Finish: Paint

Ceiling Height: 9'-0" minimum

Special Criteria: None

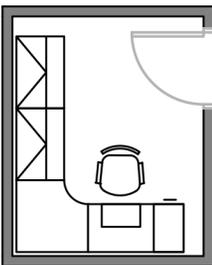
Mechanical/ HVAC/ Piping Requirements: Standard grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Convenience outlets, power for lighting and mechanical services. See Electrical narrative for additional information.

Technology Requirements: Telephone and data outlets. See Electrical narrative for additional information.

Security Requirements: Detention door and hardware.

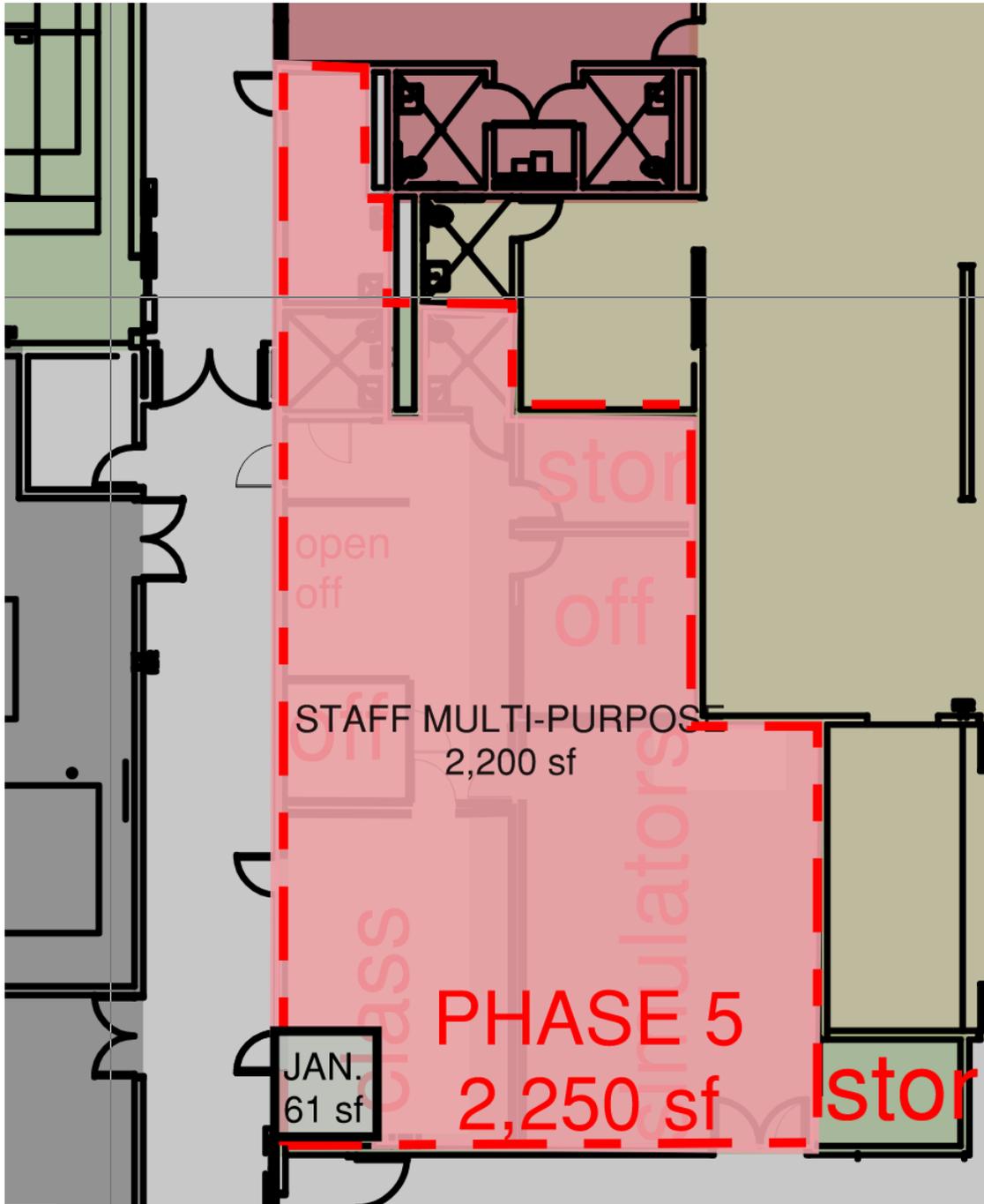
Room Layout Diagram: Typical layout not specific to this project. 1/8" = 1'-0"



Adjacency Layout Diagram: See design diagram for 505 Professional Visitation department block plans indicating adjacencies.

APPENDIX 4a – SPACE NEEDS INVENTORY

506 – STAFF SUPPORT SERVICES



Staff Support Services Concept Plan

Room/ Space Name: Conference Room

Number of Spaces in program: 1

Square Foot Area: 450 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 16 intermittently

Function: Meeting and training space for Staff.

Adjacencies: Located in staff corridor.

Furniture, Fixtures, & Equipment: Table and Chairs, smart board, TV

Architectural Finishes

Flooring: Carpet

Wall Material: CMU

Ceiling: Standard lay-in tile ceiling

Lighting: Standard lay-in LED

Wall Base: Resilient Base

Wall Finish: Paint

Ceiling Height: 9'-0" minimum

Special Criteria: None

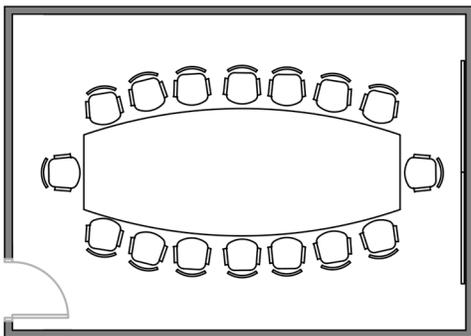
Mechanical/ HVAC/ Piping Requirements: Standard grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Convenience outlets, power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: Telephone and data outlets. See Electrical narrative for additional information.

Security Requirements: Detention door and hardware.

Room Layout Diagram: Typical layout not specific to this project. 1/8" = 1'-0"



Adjacency Layout Diagram: See design diagram 506 Staff Support Services for building department block plans indicating adjacencies.

Room/ Space Name: Staff Multi-purpose / Briefing

Number of Spaces in program: 1

Square Foot Area: 2,200 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 60 intermittently

Function: Briefing room for Staff at shift change.

Adjacencies: Located next to Staff Dining Room

Furniture, Fixtures, & Equipment: Table and Chairs, smart board, TVs.

Architectural Finishes

Flooring: Carpet

Wall Material: CMU

Ceiling: Standard lay-in tile ceiling

Lighting: Standard lay-in LED

Wall Base: Resilient Base

Wall Finish: Paint

Ceiling Height: 12'-0" minimum

Special Criteria: None

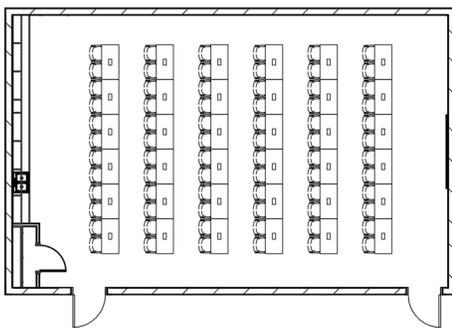
Mechanical/ HVAC/ Piping Requirements: Detention grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: Telephone and data outlets. See Electrical narrative for additional information.

Security Requirements: Detention door and hardware, CCTV camera monitoring.

Room Layout Diagram: Typical layout not specific to this project. 1/16" = 1'-0"

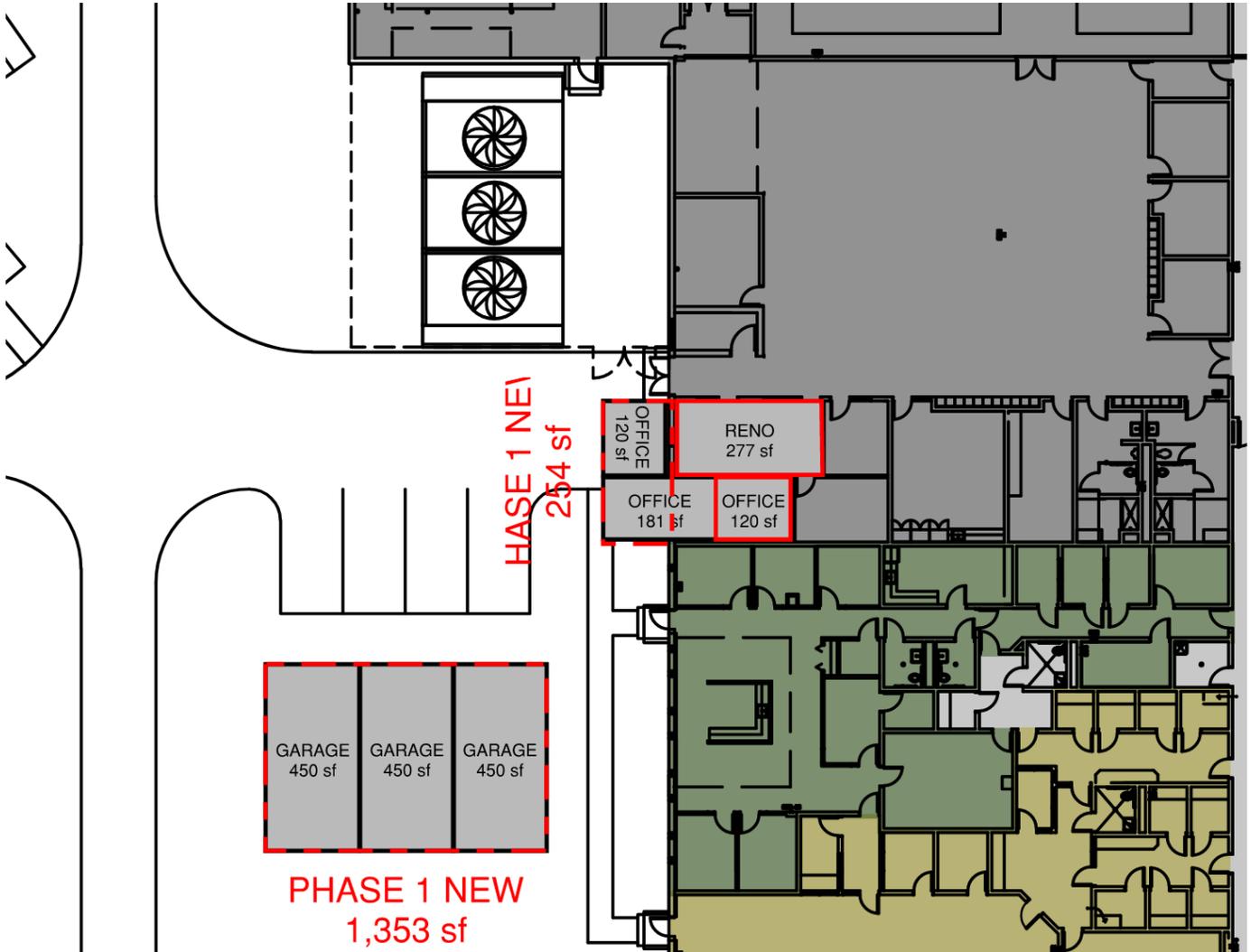


Adjacency Layout Diagram: See design diagram 506 Staff Support Services for building department block plans indicating adjacencies.

APPENDIX 4a – SPACE NEEDS INVENTORY

507 - PHYSICAL PLANT SERVICES

Ph



Physical Plan Services Garage and Office Space Concept Plan

Room/ Space Name: Garage Storage

Number of Spaces in program: 1

Square Foot Area: 1,350 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 0-4

Function: Storage of 2 vehicles, gasoline, snow blowers, etc. to remove from the Core Building Maintenance Shop.

Adjacencies: Located outside of the support building next to the physical plant area.

Furniture, Fixtures, & Equipment: Garage door openers, hazardous storage cabinets

Architectural Finishes

Flooring: Concrete

Wall Material: Precast

Ceiling: None

Lighting: Standard hanging LED

Wall Base: None

Wall Finish: Paint

Ceiling Height: 8'-0" minimum

Special Criteria: None

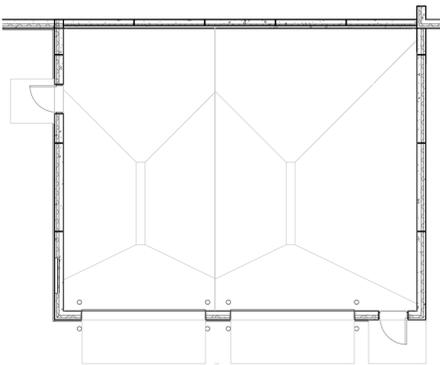
Mechanical/ HVAC/ Piping Requirements: Standard grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Convenience outlets, power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: Telephone and data outlets. See Electrical narrative for additional information.

Security Requirements: Detention door and hardware.

Room Layout Diagram: Typical layout not specific to this project. 1/16" = 1'-0"



Adjacency Layout Diagram: See design diagram 507 Physical Plant Services for building department block plans indicating adjacencies.

Room/ Space Name: Office
Number of Spaces in program: 2
Square Foot Area: 120 - 180 SF
Space Standard: N/A
Space Standard Area: N/A

Number of Occupants: 2 to 3 intermittently

Function: Offices for staff.

Adjacencies: Located next to Reception

Furniture, Fixtures, & Equipment: Desk, Chair, & Computer

Architectural Finishes

Flooring: Carpet
Wall Material: Gypsum Board
Ceiling: Standard lay-in tile ceiling
Lighting: Standard lay-in LED
Wall Base: Vinyl
Wall Finish: Paint
Ceiling Height: 8'-0" minimum
Special Criteria: None

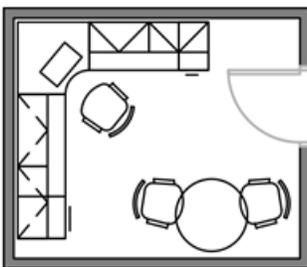
Mechanical/ HVAC/ Piping Requirements: Detention grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: Telephone and data outlets. See Electrical narrative for additional information.

Security Requirements: Standard door and hardware.

Room Layout Diagram: Typical layout not specific to this project. 1/8" = 1'-0"



Adjacency Layout Diagram: See design diagram 507 Physical Plant Services for building department block plans indicating adjacencies.

Room/ Space Name: Yard Storage

Number of Spaces in program: 1

Square Foot Area: 550 SF

Space Standard: N/A

Space Standard Area: N/A

Number of Occupants: 2 to 3 intermittently

Function: Exterior Storage of lawn mowers, gasoline, .

Adjacencies: Located next to Greenhouse

Furniture, Fixtures, & Equipment: Garage Door Opener

Architectural Finishes

Flooring: Concrete

Wall Material: Precast

Ceiling: None

Lighting: Standard hanging LED

Wall Base: None

Wall Finish: Paint

Ceiling Height: 8'-0" minimum

Special Criteria: None

Mechanical/ HVAC/ Piping Requirements: Detention grilles and vents. See mechanical narrative for additional information.

Electrical Requirements: Power for lighting and mechanical services. See electrical narrative for additional information.

Technology Requirements: Telephone and data outlets. See Electrical narrative for additional information.

Security Requirements: Detention door and hardware, CCTV camera monitoring.

Room Layout Diagram: Not completed for this report.

Adjacency Layout Diagram: See design diagram 507 Physical Plant Services for building department block plans indicating adjacencies.

SECTION 4 - APPENDIX 4b

APPLICABILITY OF STATUTES FOR PROJECTS RECEIVING STATE BOND FUNDING*

STATUTE	RECIPIENT		
	State Agency	Higher Ed	Political Subdivisions
1. §16B.241 Coordinated Facility Planning	YES (required)	NO (not required)	NO (not required)
2. §16B.32, Subd 1 Alternative Energy Sources as needed to meet Sustainable Building 2030 energy performance standards	YES	NO	NO
3. §16B.32, Subd 1a Renewable Energy Sources – may not exceed 120 percent of the average annual electrical energy consumption	YES	Required by B3 Guidelines	Required by B3 Guidelines
4. §16B.32, Subd 2 Energy Conservation Goals	YES	YES	NO
5. §16B.325: §16B.325: Apply Sustainable Guidelines (B3-MSBG) (http://www.b3mn.org/guidelines/index.html) §216B.241 Sustainable Building 2030 requirements Contact/support: http://www.b3mn.org/guidelines/index.html	YES New Bldgs, Addns & Major Renovations	YES New Bldgs, Addns & Major Renovations	YES
6. §16B.327 Recycle 50% of Construction & Demolition Waste (B3-MSBG requires 75%)	YES- comply with B3 75%	YES- comply with B3 75%	NO- comply with B3 75%
7. §16B.33 State Designer Selection Board	YES	YES	NO
8. §16B.335, Subd 1, Notification to House & Senate Committees	YES	YES	YES
9. §16B.335, Subd 3 Predesign Submittal See Statute for exempted projects	YES	YES	YES
10. §16B.335, Subd 4 Energy Conservation Standards (Energy Code - MN Rules 1322/1323 http://www.doli.state.mn.us/CCLD/Codes.asp)	YES	YES	YES
11. §16B.335, Subd 5 & 6 Review & letter by MN.IT	YES	NO	NO
12. §16B.335, Subd. 3c. Consider the use of MINNCOR products www.minncor.com	YES	YES	YES
13. §16B.35 % for Art When considered in original legislative request; & when constn is \$500K or greater	YES	YES	YES
14. §177.42-44 Prevailing Wage Rates- Contractor must pay prevailing wages https://www.revisor.mn.gov/statutes/?id=177	YES	YES	YES
15. §363A.44 Equal Pay Certificate required on contracts over \$500K (prime and subs)agency of the state, the Metropolitan Council, or an agency subject to section 473.143, subdivision 1 ; \$1M for political subdivisions	YES	YES	YES
16. §16C.285 Responsible Contractor	YES	YES	YES
179. §16C.16, Subd. 13 – Targeted Group Purchasing	YES	NO	YES
18. §16A.695 Use / Grant Agreement	NO	NO	YES
19. Appropriation Language	See appropriation	See appropriation	See appropriation

*Other statutory requirements may apply to each individual organization

CRITERIA FOR LOCATING STATE OFFICE AND BUILDINGS

The MCF-Rush City Programming / Education Expansion involves expansion of existing functions on the existing MCF –Rush City campus. The facility, which opened in 1999, was designed and constructed based on a strong master plan of housing units arrayed around a central Support building, all located within a secure perimeter. This layout places inmate support programs in the Northern end of the Support Building in close proximity to inmate housing. Mechanical, electrical, and civil infrastructure capacity exists.

Additional Education, Programs and Support capacity requires expansion and partial remodeling of the existing Support building to accommodate the associated needed increases to inmate support programs and facility support functions. To the extent possible, these programs and facility functions will be expanded in place, but since most require additional space, some relocation is necessary. The current location and expansion requirements for each program and function were reviewed and options considered before arriving at the proposed Support building revisions.

Issues and conclusions associated with site selection are included in Sections 2 and 3 of this Predesign Report.

ACCESS & PUBLIC TRANSPORTATION

MCF-Rush City is a level four, close custody detention facility located on a rural site with no public transportation available. Staff and visitor parking is located adjacent to the Administration building outside the secure perimeter of the facility.

ENVIRONMENTAL IMPACT & SUSTAINABILITY

MCF-Rush City, constructed in the late 1990's and opening in 1999, has no known hazardous abatement requirements.

PARKING REQUIREMENTS

No additional parking will be required for the project.

PHASING & SITE DEVELOPMENT COSTS

The project is broken into five phases with minimal impacts. However, expansion and remodeling of the Support building while inmate support programs remain in operation will require provision of temporary barriers and offender movement. These costs are included in the estimated project costs Phasing is described in Section 1.2. Costs are adjusted for escalation using the MMB - Building Projects Inflation Schedule (Projected Rates for FY 2024 - 2025, based on an estimated March 2027 "midpoint of construction").

SITE RESTRICTIONS

The MCF –Rush City facility is located on approximately 315.6 acres of State property with no known zoning, setback, or right-of-way issues.

UTILITIES

The existing facility, opened in 1999, was originally planned and constructed with boiler and chiller capacity for two future housing units and Support building expansion included in this project. Refer to Section 4.1.F for narrative on civil scope of work for the project. Refer to Section 4.1.I for narrative on mechanical scope of work for the project. Refer to Section 4.1.J for narrative on electrical scope of work for the project.

SITE AMENITIES & SIGNAGE

No changes to existing site amenities or signage are required for the project.

SECURITY

As a level four, close custody detention facility all security systems are in place at the MCF Rush City campus and Support building expansions will be served by extensions of these existing systems. Refer to Section 4.1.D for narrative on scope of work for security and access control for the project.

CAPITAL EXPENDITURES

The total project cost shown in the *Agency Capital Budget Request*, includes all direct and associated costs for all activities and phases, including design, surveys, testing, construction, loose equipment, furniture and fixtures, commissioning, move-in, temporary relocations, environmental site analysis, and contingencies. The cost estimate was prepared by Professional Project Management (PPM) a professional cost estimating consultant.

In accordance with the scope of this predesign, the preliminary space allocation program, concept design, and preliminary project schedule information were used to develop a construction cost estimate for the addition and remodeling work based on knowledge of the facility and experience in the construction industry. Judgements and assumptions were made through conversations and concept narratives of the work required in the concept design. Budgets for contingencies, design fees, and other project “soft costs” were estimated based on past project experience. An inflation multiplier and resulting inflation cost have been added to the budget based on the proposed schedule and the predicted midpoint of construction.

Project costs were based on the use of a Construction Manager at Risk project delivery method. Other special issues, such as additional cost associated with working inside the secure perimeter of an operating correctional facility and costs associated with specialized detention grade equipment were also factored into the cost plan.

Refer to the *Project Costs Form* in Appendix 6a and the *Construction Cost Form* in Appendix 6b.

ONGOING OPERATING EXPENDITURES

The staffing quantities remain the same as they currently are for the existing building. No cost decrease or increase is expected.

The facility currently has enough redundancy built into the heating and cooling systems that they will handle the additional added expansion. By removing the portable building and being able to separate the new areas, the increase in the utility bills will be negligible.

LIFE EXPECTANCY

The proposed Support building expansion, and associated remodeling and relocations to accommodate expansions to inmate and facility support programs, are considered to have a life expectancy exceeding 60 years. Materials and systems considered in the cost plan match existing, which were selected to maintain the high level of security required for a correctional facility as well as durability and low ongoing long-term maintenance costs. Other considerations focused on materials and systems that could be erected and installed efficiently to mitigate disruptions to facility operation, and appropriate up-front costs.

Walls:

Exterior walls will be precast concrete insulated wall panels matching existing.

Interior Walls will be steel reinforced and grouted concrete masonry, grouted concrete masonry, and concrete masonry matching existing as required based on location and security conditions.

Foundation:

Cast-in-place concrete foundations and slabs on grade matching existing.

Structural System:

Precast concrete columns, beams and spandrels, steel beams, precast floor planks with concrete topping, precast roof planks, and open web steel joists with metal roof decking.

Mechanical System:

An existing hot water boiler generates hot water for heating purposes to satisfy the building heating and ventilation demand. A chilled water plant provides chilled water to various terminal units for building cooling purposes. Both the heating and the cooling plant have sufficient capacity to meet the building demands for the proposed additions and renovations.

Electrical System:

Two existing utility 12.47KV, 3-phase primary electrical feeds to main electrical switchgear located in the Main Electrical Room #12-318 at the southwest corner of facility serve the current facility, and have capacity to serve the Support building expansions, and upgrades to existing inmate and facility support programs. The facility has full electrical back-up of the facility via (2) existing campus electrical motor generators.

COMPARATIVE FINANCIAL ANALYSIS

This project utilizes existing mechanical and electrical infrastructure capacity to expand associated support services capacity within the secure perimeter of an existing level 4 detention facility operated by the Minnesota Department of Corrections. Leasing or leasing to own are not considered to be viable options.

RISK MITIGATION

This project involves new construction, addition, and renovations, and will include the following project quality control plan included in the project budget:

- Building Envelope Commissioning (Design reviews and construction commissioning and inspections during construction).
- HVAC and Electrical Systems Commissioning (Design reviews and construction commissioning and inspections during construction).
- MN Sustainable Building Guidelines (B3)
- Building Information Modeling (BIM) with interface of equipment with Archibus.

APPENDIX 6 – WORKSHEET FOR DESIGN AND OWNER COSTS

Item	Scope of Work	Fee/Cost
X	Basic Services -Architectural	\$3,222,087
X	Civil	Included in basic fee
	Landscape	N/A
X	Structural	Included in basic fee
X	MEP (Mechanical, Electrical, Plumbing)	Included in basic fee
	Hazardous Material survey, design, air monitoring, abatement	N/A
X	Additional Services (See Section 4.J Quality Control Plan)	Included in basic fee
	1. Specialty Design: Security Design; Technology; Fire Protection	Included in basic fee
X	2. Interior & Furniture, Fixtures & Equipment (FF&E) bid package(s)	\$1,019,599
X	3. Minnesota Sustainable Building Guidelines & SB2030	Included in basic fee
X	4. Building Information Modeling (BIM)	Included in basic fee
	5. Move/Occupancy Consultant & Moving company	N/A
	6. Environmental Assessment Worksheet-Impact of selected site	N/A
X	7. Presentation model of building	Included in basic fee
X	8. Presentation Sketches of building	Included in basic fee
	9. Presentations to Legislature, Agency Management, others	N/A
	10. Exterior utility costs	N/A
OWNER COSTS (See Section 4.J Quality Control Plan)		
X	1. Owner's Project Representative (1 – 2% of construction)	Included in CMAR fee
X	2. CM at Risk Fees – Preconstruction and Project Fee	\$16,110
X	3. Other State Project Management Costs (0.75% of construction)	\$24,165
X	4. Construction costs auditor – (for CM-Risk & Design Build)	Included in CMAR fee
	5. Building Abatement Design and Removal (Renovation & Demo)	N/A
X	6. Topographic (ALTA) Survey of selected site	Included in Owner Contingency
X	7. Geotechnical Investigation of selected site	Included in Owner Contingency
	8. Phase I and II Environmental Site Assessment (for contaminants)	N/A
	9. Environmental Assessment Worksheet-Impact Statement (if required)	N/A
X	10. HVAC and Electrical Systems Commissioning (B3 Requirement)	\$128,561
X	11. Building Envelope Commissioning	\$30,000
X	12. Construction Testing and curtainwall testing services	Included in Construction Cost
X	13. Permit Costs	Included in Construction
X	14. Sewer Access Cost (SAC) and Water Access Cost (WAC)	Included in Construction Cost
	15. Wetlands Delineation and (Design & Mitigation)	N/A
	16. Utility Service Upgrades (Water, sewer, gas, electric) & Const'n	N/A
	17. Traffic Studies	N/A
	18. Historic Structures Report (Historic Preservation Consultant fee)	N/A

APPENDIX 6a: Project Cost Form

APPENDIX 6a

PROJECT COST FORM

Fiscal Years 2024-2029

Dollars in Thousands (\$137,500 = \$138 thousand)

TOTAL PROJECT COSTS All Years and All Funding Sources	All Prior Years	Project Costs FY 2024-25	Project Costs FY 2026-27	Project Costs FY 2028-29	Project Costs All Years	Project Start (Month/Year)	Project Finish (Month/Year)
1. Property Acquisition							
Land, Land & Easements, Options	0	0	0	0	0		
Buildings and Land	0	0	0	0	0		
Other Costs	0	0	0	0	0		
SUBTOTAL	0	0	0	0	0		
2. Predesign	46	0	0	0	46	04/23	06/23
SUBTOTAL							
3. Design Fees							
Schematic	0	644	0	0	644	11/24	12/24
Design Development	0	644	0	0	644	01/25	2/25
Contract Documents	0	806	0	0	806	3/25	05/25
Construction Administration	0	1,128	0	0	1,128	06/25	10/28
Other: B-3 Services	0	0	0	0	0	10/28	10/28
SUBTOTAL	0	3,222	0	0	3,222	11/24	10/28
4. Project Management							
State Staff Project Management	0	24	0	0	24	07/24	10/28
Non-State Project Management	0	0	0	0	0		
Other Costs	0	0	0	0	0		
SUBTOTAL	0	24	0	0	24	07/24	10/28
5. Construction Costs							
Site & Building Preparation	0	941	0	0	941	08/25	10/28
Demolition/Decommissioning	0	32	0	0	32	08/25	05/28
Construction	0	31,135	0	0	31,135	08/25	10/28
Infrastructure/Roads/Utilities	0	112	0	0	112	08/25	09/26
Hazardous Material Abatement	0	0	0	0	0		
Construction Contingency	0	1,611	0	0	1,611	08/25	10/28
Other Costs: SAC, WAC, Permits	0	0	0	0	0		
CM Fee	0	822	0	0	822		
SUBTOTAL	0	34,653	0	0	34,653	08/25	10/28
6. Art	0	0	0	0	0		
SUBTOTAL							
7. Occupancy							
Furniture, Fixtures and Equipment	0	1,020	0	0	1,020	04/28	10/28
Telecommunications (voice & data)	0	0	0	0	0		
Security Equipment	0	0	0	0	0		
Commissioning	0	159	0	0	159	10/28	10/28
Other Costs (i.e. relocation)	0	0	0	0	0		
SUBTOTAL	0	1,179	0	0	1,179		
8. Inflation							
Midpoint of Construction	0	5,535	0	0	5,535	Midpoint Date: 03/27	
Inflation Multiplier	0	25.76	0	0	25.76		
Inflation Cost	0	5,535	0	0	5,535		
SUBTOTAL							
9. Owner Contingency		3,222			3,222		
SUBTOTAL							
GRAND TOTAL	46	47,835	0	0	47,881		

starts 07/23 starts 07/25 starts 07/27 starts 07/29



APPENDIX 6c: Operating Cost Form

CAPITAL BUDGET REQUEST

OPERATING COSTS FORM

CHANGES IN STATE OPERATING COSTS	Current Cost	Projected Cost (Without Inflation)			
	F. Y. 2023	F.Y. 2024-25	F.Y. 2025-26	F.Y. 2027-28	F.Y. 2028-29
Compensation (Program and Building Operation)	\$ 29,135,000	\$ 29,135,000	\$ 29,717,000		
Other Program Related Expenses - Food Service					
Building Operating Expenses	\$ 572,000	\$ 686,000	\$ 823,000		
State-Owned Lease Expenses					
Nonstate-Owned Lease Expenses					
Other Expenses: Insurance Initial Furnishings					
Revenue Offsets					
TOTAL	\$ 29,707,000	\$ 29,821,000	\$ 30,540,000	\$ -	\$ -
No. of FTE* Personnel	252	252	252	252	252

*FTE = Full Time Equivalent - No additional staff is added
 No additional operating costs are increased over current costs

SCHEDULE

Site Acquisition:	None required
Project Funding:	July 2024
Bidding:	June 2025
Award Negotiation:	July 2025
Construction:	August 2025 – October 2028
Mid-point of Construction:	March 2027
Close-Out:	October 2028
Occupancy:	October 2028

PREDESIGN CHECKLIST

1. Minnesota Statute §16B.335 Subdivision 3 requires submittal of a Predesign Document to the Commissioner of Administration on proposed projects that have a construction cost of \$750,000 or greater (\$1,500,000 for a local government project) when State money (of any amount) is used on the project.
2. When an appropriation is made for a major construction project, Minnesota Statute §16B.335 Subdivision 1 further requires that you not prepare final plans (construction documents) until you present the program plan and cost estimates for all elements necessary to complete the project to the Chair of the Senate Finance Committee and the Chair of the House Ways and Means Committee, and they have made their recommendations and the Chair of the House Capital Investment Committee is notified.

CHECKLIST ATTACHED WITH THIS SECTION.

PREDESIGN CHECKLIST - continued

Complete N/A

- 1. Review the Contents of a *Predesign Submittal* in the State's *Predesign Manual*.
weblink: <http://mn.gov/admin/government/construction-projects/manuals-guidelines-forms/index.jsp>

- 2. Structure the format of your *Predesign submittal* to contain the Components of *Predesign*. Include component tabs to readily identify and access each component. The components are:
 - a. *Predesign Summary Statement*
 - b. *Basis for Need – Project Background*
 - c. *Agency/Organization Planning*
 - d. *Project Description*
 - 1. *Architectural/Engineering Program*
 - 2. *Precedent Studies*
 - 3. *Technology Plan*
 - 4. *Sustainability, Energy Conservation, and Carbon Emissions*
 - 5. *Operations and Maintenance Requirements*
 - 6. *Statute Requirements*
 - 7. *Specialty Requirements*
 - 8. *Project Procurement and Delivery*
 - 9. *Quality Control Plan*
 - e. *Site Analysis and Selection*
 - f. *Financial Information*
 - g. *Schedule Information*

- 3. *Section 1 – Predesign Summary Statement*. Work with the user agency to develop the executive summary. Be brief, with a two or three paragraph scope description of the project. Below the description include costs, funding sources and schedule.

- 4. *Section 1 Predesign Summary Statement*: Complete the "*Building/Project Data Sheet*" to tabulate the pertinent data upon which the cost estimates are based. Include this sheet as a second page to the *Section 1 – Predesign Summary Statement*.

- 5. *Section 1 Predesign Summary Statement*: If the project involves remodeling of an existing building, use the "*Building Audit Sheet*" to perform an audit/survey of the building's major components, systems and their conditions. Use and amend the "*Building/Project Data Sheet*" to indicate the scope of work for the proposed project. Insert behind the *Summary Statement*.

- 6. *Section 2 Basis For Need-Project Background*: Gather the *Section 3* planning information from the *Agency/Organization* and synthesize it into the format shown in the example. Detailing the *Mission, Strategic Plan, Operational Plan* and *Basis for Need* for the project. At the back of this include any additional background information on the project from your work with the agency.

- 7. *Section 2 Basis For Need-Project Background*: **Verify that the scope of the predesign complies with the language of the appropriation.** (For projects that have already received a legislative appropriation.)

PREDESIGN CHECKLIST - continued

Complete N/A

-
- 8. Section 3 Agency/Organization Planning:** This Section supports the *Basis for Need-Project Background*. Obtain the following from the user agency/organization:
- a. Planning documents such as org charts, mission statement,
 - b. Strategic plan, and
 - c. Operational plan for the project.
- This information would include any supporting data, analysis or studies which support the proposed project and demonstrates the need for the project by linking it to the agency's mission, strategic and operational plans; which, in turn were used to prepare Section 2.
- 9. Section 3 Agency/Organization Planning:** Included a list and narrative regarding the stakeholders involved and affected by the project (i.e. other agencies, organizations, and entities). Also include issues that remain to be resolved among stakeholders along with budget and schedule impacts upon the project.
- 10. Section 3 Agency/Organization Planning:** Impacts on Operations, Budget and Facility Staff are detailed.
- 11. Section 4.A Architectural /Engineering Program:** (For State Agency projects) Obtain and coordinate space planning standards with the Department of Administration. Then, include a review sign-off from The Department of Administration's Real Estate and Construction Services Division. Focus on job related functional needs and the State's *Space Guidelines* when developing the square foot areas of spaces. (*Space Guidelines* are located at <http://mn.gov/admin/government/construction-projects/>).
- 12. Section 4.A Architectural/Engineering Program.** Work with the user/owner to develop the space program. Employ a participatory programming methodology similar to the example) to analyze operations and activities.
- a. Your methodology should consider Post-Occupancy Evaluation (POE).
- 13. Section 4.A Architectural/Engineering Program.:** Complete the *Space Needs Inventory* sheet for each room of the project. Include these sheets in the predesign document. The *Space Needs* sheet should also identify special Mechanical or Electrical needs or upgrades for the space. For instance, you would state the need for special humidification for wood instrument storage in a music classroom.
- 14. Section 4.A Architectural/Engineering Program.:** Prepare and include a detailed architectural space program with a Table of Spaces and their respective areas (square footages) with a total of assignable and gross square feet.
- 15. Section 4.A Architectural/Engineering Program.:** Provide adjacency diagrams of all spaces and a diagrammatic/conceptual layout of spaces. Superimpose these diagrams onto the Site Plan to show building/site fit and site relationships.

PREDESIGN CHECKLIST - continued

Complete N/A

-
- 16. Section 4.A Architectural/Engineering Program.:** On state agency projects, identify potential MINNCOR Industries www.minncor.com and Minnesota State Industries products <http://stateindustries.org> for the project.
 - 17. Section 4.A Architectural/Engineering Program.** (for State Agency Projects): If applicable to the agency, work with the user agency to incorporate a *Telecommuting Plan* for this project. Include the *Telecommuting Plan* with the Predesign submittal document. Obtain review & response letter from MN.IT.
 - 18. Section 4.A Architectural/Engineering Program.** Develop the Furniture, Fixtures and Equipment (FF&E) needs and include the associated costs as a line item in the project cost estimate. Consider Interior/Exterior Signage Exterior landscaping and fixtures, Telecommunication devices, Security Camera System, Lockers, Trash compactor, Window washing equipment, Phasing costs, and Moving costs. (Note: moving costs are not bondable.)
 - 19. Section 4.B Precedent Studies:** Research the project. Visit similar building types and include *precedent* projects into the predesign document and how the precedent affects the proposed project. Include information on the facilities (name, location, size, design features). Then indicate any features that will be incorporated into the proposed project. Special attention should be paid to design features that result in efficiency of program operations and ability to reduce long term operating costs.
 - 20. Section 4.C Technology Program** (for State Agency Projects): Identify and document the technology needs for the project. Develop a Technology Plan for the project using the State's Technology agency (MN.IT) guidelines ("*Building Infrastructure Guidelines for State Owned Buildings*") located at: <http://mn.gov/admin/government/construction-projects/>. Technology plan is to be reviewed by MN.IT.
 - 21. Section 4.C Technology Plan** (for State Agency Projects): Forward the Technology Plan to MN.IT (The State's Information Technology Agency) for review; and obtain a written letter from MN.IT. Incorporate any changes requested by MN.IT.
 - 22. Section 4.D Sustainability, Energy Conservation and Carbon Emissions:** In accordance with Minnesota Statute §16B.235 identify Sustainable and High Performance goals for the project using "*The State of Minnesota Sustainable Building Guidelines*" at <http://www.b3mn.org/guidelines/index.html>. Include a summary table of goals & strategies. Also include the B3-MSBG project submittal report for the Predesign Phase that is generated by use of the B3-MSBG Tracking Tool at <http://www.b3mn.org/guidelines/index.html>.

This requirement applies when the project is new building, addition, or major renovation. See the Applicability rules at the B3-MSBG website.
 - 23. Section 4.D Sustainability, Energy Conservation and Carbon Emissions:** Include a table of strategies to comply with Sustainable Building (SB) 2030 requirements. For SB2030 requirements, see: <http://www.mn2030.umn.edu>

PREDESIGN CHECKLIST - continued

Complete N/A

- 24.** For the *Section 4.D Sustainability, Energy Conservation and Carbon Emissions*: In accordance with MN Statute § 16B.32, identify alternative energy uses and associated systems. This applies to a new building or for a renovation of 50 percent or more of an existing *building* or its energy systems. Anticipate future designs which use active and passive solar energy systems, earth sheltered construction, and other alternative energy sources where feasible.
- 25.** *Section 4.D Sustainability, Energy Conservation and Carbon Emissions*: When the project is for a State Agency, provide a cost-benefit analysis for:
 - a. including alternative energy (wind and/or solar) sources to provide 2% of the proposed building's energy consumption. An example of an analysis is located at: <http://mn.gov/admin/business/vendor-info/construction-projects/Guidelines/predesign.jsp>
 - b. a 40 Kw "Made in Minnesota" photovoltaic solar system.
- 26.** *Section 4.D Sustainability, Energy Conservation and Carbon Emissions*: For compliance with MN Statute 16B.326, provide a written plan in the predesign to consider providing Geothermal and Solar Energy Heating & Cooling Systems on new or replacement HVAC systems. An example of an analysis is located at the weblink above.
- 27.** *Section 4.D Sustainability, Energy Conservation and Carbon Emissions*: Include a narrative in the predesign that the project specifications are to include requirements for the contractor to submit a "Waste Management and Recycling Program Plan" for both demolition and construction.
- 28.** *Section 4.D Sustainability, Energy Conservation and Carbon Emissions*: Estimated yearly energy consumption and associated costs are included.
- 29.** *Section 4.E Operations and Maintenance Requirements*: Conduct information gathering and program meetings with operations and maintenance staff. Document and include these needs into the predesign.
- 30.** *Section 4.E Operations and Maintenance Requirements*: For Projects located on the Capitol Complex, obtain "Plant Management Preferred Equipment List", "Capitol Complex Guidelines", and "Signage Guidelines". (available at <http://mn.gov/admin/government/construction-projects/manuals-guidelines-forms/index.jsp>). Include these documents in the Predesign document as instructions for the future design team.
- 31.** *Section 4.F Statute Requirements*: See Appendix 4c for statute requirements related to all projects receiving any amount of *state* funding. Enter information on how the project will comply with each statute and include in the final predesign document.
- 32.** *Section 4.F Statute Requirements*: Review the table of statutes contained in this manual. Identify the statutory requirements for the project. These are to be included in the final Predesign Document.

PREDESIGN CHECKLIST - continued

Complete N/A

- 33. Section 4.F Statute Requirements:** Include any design requirements or other mandated requirements.
 - a. The statute that gives authority for the operational program.
 - b. Licensing requirements. (i.e. Department of Health or other authority)
 - c. Design requirements (i.e. American Correctional Association standards)
 - d. Operating Standards (required State, Federal, & Industry standards)
 - e. Federal Statutes/Laws/Requirements
 - f. Significant Building Code or land use/ zoning requirements

- 34. Section 4.G Specialty Requirements:** Review the need to conduct a security and/or vulnerability assessment for the project. Include the study in the predesign document along with associated costs.

- 35. Section 4.G Specialty Requirements:** Include any unique requirements that are applicable to the specific project. i.e. performance requirements, unique testing requirements, environmental reports, assessments, impact statements, facility condition audits that may have been done, hazardous materials surveys, unique construction, restrictions.

- 36. Section 4.G Specialty Requirements:** For renovations and demolitions, verify if the building or structure or amenity is on the register of historic places and/or within a historic district. Meet with the State Historic Preservation Office (SHPO) to determine requirements. Include all SHPO requirements in the predesign as well as all specialty consultants (historic preservationist, archeologist) required for the future design team.

- 37. Section 4.H Project Procurement and Delivery:** Provide a written statement and recommendation of the proposed construction delivery method to be used on the project. Include the reasons for this selection. Options include: Design-Bid-Build, Best Value, Construction Manager at Risk, Design-Build.

- 38. Section 4.I Project Design Services and other Owner Costs:** Provide a listing of all costs that will be incurred in order to build the project.

- 39. Section 4.J Quality Control Plan:** Provide a listing of all quality control services and costs that are needed and will be incurred in order to building the project.

- 40. Section 5 Site Analysis and Selection:** Provide a narrative on why the preferred site was selected for the project based on the locations that best meet pre-identified site criteria. For State-owned buildings/State Agency projects, coordinate this effort with the Department of Administration, Real Estate and Construction Services.

- 41. Section 5 Site Analysis and Selection:** When locating or relocating or when proposing a new building or renovation, the Predesign Document must include an analysis of the agency's location(s) using "Criteria for Locating State Offices and Agencies" located at: <http://mn.gov/admin/government/construction-projects/>

PREDESIGN CHECKLIST - continued

Complete N/A

-
- 42. Section 5 Site Analysis and Selection:** If the proposed project is a new building that will be in a campus setting (i.e. school, university, prison, extended care); review location options on the campus in regards to efficient operation and programs provided on the campus. (i.e. Agency masterplanning of a campus should occur in order to give direction as to future growth and organization - Note: Masterplanning is not a bondable activity.)
- 43. Section 5 Site Analysis and Selection:** Verify if the project will be required to undergo a State Environmental Review. To determine this, go to: <http://www.eqb.state.mn.us/EnvRevGuidanceDocuments.htm>. If required the predesign will need to include all applicable information and direction to the future design team to provide assistance to the owner and responsible government unit in conducting an environmental assessment (EAW) and environmental impact statement (EIS).
- Note: If the project includes federal dollars, determine the need to complete an Environmental Assessment in accordance with the National Environmental Protection Act (NEPA).
- Include all applicable guidelines for EAWs and EISs into the predesign submittal document if available; if not include costs for these in the project budget. Identify required timelines in the project schedule.
- 44. Section 6 Financial Information:** Compile the project costs using the Department of Minnesota Management and Budget's *Capital Budget Request* spreadsheet form (this form is included in this manual). Complete this form and include it in the submitted Predesign document.
- 45. Section 6 Financial Information:** Compile the projected operating costs using the *State Operating Costs* form (this form is included in this manual). Other formats/forms are also acceptable.
- 46. Section 6 Financial Information,** review the Project Delivery Method (single prime, multiple prime, design/build) for impact on the *Cost Plan* for the project.
- 47. Section 6 Financial Information,** include design fees for special consultants in the project costs (i.e. food service, acoustical, security, etc.).
- 48. Section 6 Financial Information,** verify existing utility infrastructures for adequate capacity needed to support the proposed building/facility or renovation. Incorporate costs for upgrades into the budget.
- 49. Section 6 Financial Information:** If applicable and/or desired, include percent for Art in the project cost. Statute 16B.35 Subdivision 1 applies [up to 1% of the appropriation can be allocated to art in public buildings – Detention facilities and non-public buildings are exempt.]

PREDESIGN CHECKLIST - continued

Complete N/A

- 50. Section 6 Financial Information:** Assist the user agency in identifying and incorporating contingency phasing and funding plans into the predesign to anticipate questions during legislative hearings.
- 51. Section 6 Financial Information:** When the proposed project is for an existing correctional facility, obtain the contractor security requirements for the facility and include appropriate cost and schedule adjustments. (Working in a secure facility will add approximately 15-20% cost to the project.)
- 52. Section 6 Financial Information:** On major building projects, use the predesign to develop an option-based strategy for the agency to use in approaching the governor and legislature when requesting funding. The predesign should anticipate possible questions by presenting options for varying scopes and costs. Examples are:
 - a. It may make sense to break out options (and costs) to spread the funding over several capital bonding sessions.
 - b. Phasing of the project.
- 53. Section 6 Financial Information:** For renovations, a Facility Condition Assessment has been conducted on the existing building and associated upgrade costs are included in the estimate.
- 54. Section 6 Financial Information:** Conduct an industrial hygiene investigation to determine if there are any hazardous material/asbestos abatement clean-up costs, fuel tank removal and/or contaminated soils clean-up costs for the proposed project or site.
- 55. Section 6 Financial Information:** Provide the Life Expectancy of the major building components and building as a whole and included in the predesign document. Show comparison costs of varying construction systems/components and their life span. Indicate the selected system that was used to prepare the cost estimates.
- 56. Section 6 Financial Information (For State Agency projects):** State's Design Guidelines were reviewed and associated costs accounted for.
- 57. Section 7 Schedule Information:** Include a schedule narrative and bar chart in the submittal document. Include time for hazardous material abatement, site clean-up, fuel tank removal and soils replacement costs, project schedule phasing time, relocation/move time, and any potential long-lead material deliveries.
- 58. Section 7 Schedule Information:** Include a quality control/coordination review of the construction documents by a third party. Include the cost of this in the design budget. Indicate a minimum of 2 months in the schedule for this review.
- 59. For State Agency projects:** Complete the Technology Checklist. Insert the MN.IT letter indicating they have reviewed and approved the Technology and Telecommuting Plans.

PREDESIGN CHECKLIST - continued

Complete N/A

- 60.** This predesign document contains all the necessary requirements and costs for:
 - a. The owner to confidently pursue funding based on the cost estimates contained.
 - b. The owner to advertise for design services and structure their contract with a design firm as to the design scope of work and fee; and,
 - c. The future design team for all project requirements in order to carry out the proposed design.
 - d. All owner costs required to deliver the proposed project.

- 61.** Include the SIGNATURE sheet, with signature of the ARCHITECT (see page 1).

PREDESIGN CHECKLIST – continued
TECHNOLOGY & TELECOMMUNICATIONS

Complete N/A

- 1. Obtain a copy of MN.IT's "Building Infrastructure Guidelines For State-Owned Buildings" and review the requirements for costs to be included in the project. For future design use, should the project be funded, include the Technology Plan and guidelines in the predesign submittal.
- 2. In coordination with MN.IT, determine the need for and develop a Technology & Telecommunications Plan for the project. Form and convene a Predesign meeting to determine the agency's technology needs, goals, timelines and objectives. The Predesign Team will consist of, but will not be limited to:
 - Agency/customer
 - Real Estate and Construction Services' (RECS) Project Manager
 - Telecommunications Analyst (S)/Designer (if required for predesign)

Note: The State's (RECS) Project Manager will provide the MN.IT contact name.
- 3. For remodeling projects, verify existing technology infrastructures for adequate capacity. Include upgrade costs in the Cost Estimate.
- 4. Identify the user agency's short and long range plans for technology needs.
- 5. Identify if the project is or will be a single building or campus configuration.
- 6. Identify existing distribution rooms and their capacity.
- 7. Identify requirements for new distribution rooms.
- 8. Identify Fiber Optic requirements, existing locations, new fiber lines.
- 9. Identify copper-wiring requirements, existing and new.
- 10. If information technology work is to be within an existing building, identify existing conditions; i.e. floor & ceiling heights & conditions, piping and duct conditions, water problems, feeder cable limitations, equipment room limitations.
- 11. Identify existing telecommunications infrastructure service to the building.
- 12. Identify types of existing cable trays and requirements for new cable trays.
- 13. For projects in existing buildings, identify available communications "pairs" coming into the building.
- 14. Identify MPOP (Main Point of Presence), APOP (Alternate Point of Presence), Internet Point of Presence locations and needs.
- 15. Forward a copy of the project Technology Plan and Telecommuting Plan to MN.IT.

PREDESIGN CHECKLIST – continued
TECHNOLOGY & TELECOMMUNICATIONS

Complete N/A

- 16.** Obtain a written letter from MN.IT indicating acceptance of the Technology Plan and Telecommuting Plan for the project. Incorporate MN.IT’s letter into the Predesign Document.
- 17.** Incorporate any changes into the Technology Plan as requested by MN.IT (resulting from review of agency’s technology plan for the project).
- 18.** Verify existing utility infrastructures for adequate capacity and cost upgrades needed to support the proposed building/facility or renovation.

PREDESIGN CHECKLIST

Check off the above items as they are completed and include this checklist with your final submittal document. Completion of this checklist is **MANDATORY**.

CONSULTANT SIGNATURE:



Signature:

Printed Name: Scott W. Fettig, AIA

Title: President

Company: Klein McCarthy & Co., Ltd.

Name of Project: Predesign for the Programming/Education Space at MCF Rush City

Agency: Minnesota Department of Administration

Facility: MCF Rush City

State Project No.: 78RC0036

LETTERHEAD

May 31, 2023

Commissioner _____ [insert name of Commissioner of Administration]

c/o Paul Hunt

Real Estate and Construction Services

309 Administration Building

50 Sherburne Avenue

St. Paul, MN 55155

Dear Commissioner _____,

RE: Predesign Submittal for the Programming/Education Space at MCF Rush City

In accordance with Minnesota Statutes §16B.335, Subdivision 3, enclosed you will find the Predesign submittal document for the Programming/Education Space at MCF Rush City in Rush City, MN. This predesign outlines the Department of Corrections' capital budget request for the 2024 state legislative session.

The project expansion includes 28,340 gsf of new space and 16,326 gsf of remodeling, for a total of 44,666 gsf, to provide the necessary inmates services for the current inmate capacity of the facility and is based on the spatial program included in the report. This will provide for the facility's needs and to meet current inmate programming, Americans with Disabilities Act (ADA), American Correctional Association (ACA) standards and technology advancements.

The total project cost is estimated to be \$32,221million. This proposal seeks full funding in the amount of \$32,221million.

Sincerely,

[insert Commissioner/Authority Name]

[or head of political subdivision or other approving authority]

Enclosure

cc:

The MCF Rush City Programming/Education Space budget was prepared by Professional Cost Management (PPM), a professional cost estimating consultant, and is included on the following pages.



Project Name:

MCF Rush City Pre-Design for Programming / Education Space - SUMMARY

Location:

Rush City, MN

Construction Budget Cost Estimate:

A/ E: Klein McCarthy Architects

A/E Contact: Scott Fetting

A/E Commission No.: 78RC0036

A/E Client: MN Department of Administration

Summary of Contents:

Documents Provided

Assumptions & Qualifications

Proposed Construction Schedule

CSI Division Cost Summary

Gross Area Summary

Take-Off Breakdown

Project Phase:

Program Design Phase Budget Estimate

Date Prepared:

Wed, 06/07/23

Number of Pages:

Pages 1 - 3

Prepared By:

Douglas L. Holmberg, PE/CPE

President, PPM, Inc.

Cole A. Holmberg, EIT

Vice President, Director of Cost Estimating

PPM Project No.:

2318.005.ch.6.7.23

Professional Project Management, Inc.
1858 East Shore Drive
St. Paul, MN 55109
(612) 919-4000 fax: (651) 774-0935
douppm@gmail.com

Program Design Phase Budget Estimate

Prepared by:

Project Name: MCF Rush City Pre-Design for Programming / Education Space - SUMMARY

Professional Project Management, Inc.

Project Location: Rush City, MN

Doug Holmberg, PE/CPE (612) 919-4000

Date: Wed, 06/07/23

Architect: Klein McCarth

Arch. Commission No.: 78RC0036

PPM Project No.: 2318.005.ch.6.7.23

CSI DIVISION	DESCRIPTION	REMARKS	QUANTITY	UNIT	UNIT COST	UNIT COST				
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Assumptions/Qualifications:

1. This Budget Estimate is based on the following:

Pre-Design Document Dated 5/26/23 Fri, May 26, 2023

2. Proposed Construction Schedule:

Date of this Budget Estimate: Wednesday, June 7, 23
 Bid Opening: Mon, 2 Jun 2025
 Award Contar: Tue, 1 Jul 2025
 Start Construction: Fri, 1 Aug 2025
 Construction Duration (months): 39
 Complete Construction: Sat, 14 Oct 2028
 Construction Midpoint: Tue, 9 Mar 2027
 Duration from Budget Estimate date to Construction Midpoint (mn): 45.7
 Construction Cost Escalation Rate per month = 0.00%
 Construction Cost Escalation Rate per 12 month period = 0.0%

Info:
 A/E Contact: **Scott Fettig**
 A/E Contact Phone No.:

NTP issued by: **Scott Fettig**
 Date NTP issued: **Thu, 03/09/23**

Construction Cost Escalation:

from Budget Estimate date to Construction Midpoint = **25.76%** Updated per state inflation rates 2021-2028 provided - % used for 46 months to estimated Mid-Point of Construction

3. Notes:

NOTE: All up-dated cells are color Coded

2318.001.ch.5.31.23	Wed, May 31, 2023
2318.002.ch.5.31.23	Wed, May 31, 2023
2318.002.ch.5.31.23	Wed, May 31, 2023
2318.005.ch.6.7.23	Wed, Jun 7, 2023

		Renovation Area Totals	New Construction Area Totals
		Average Cost	Average Cost
		Total	Total
Construction Budget Summary: Program Design Phase Budget Estimate			
	Lower \$/s.f. Upper \$/s.f.		
00000	0 - SITE DEVELOPMENT: Site Demo / Paving		\$144,915.56
00000	0 - SITE DEVELOPMENT: PV Solar System		\$941,000.00
00001	Phase-1 New Construction	13,800 \$458.12	\$6,322,000.00
00002	Phase-1 Renovation	277 \$270.00	\$74,790.00
00003	Phase-2 Renovation	3,570 \$270.00	\$963,900.00
00004	Phase-3 New Construction	10,300 \$456.38	\$4,700,750.00
00005	Phase-3 Renovation	2,000 \$270.00	\$540,000.00
00006	Phase-4 Renovation	6,400 \$270.00	\$1,728,000.00
00007	Phase-5 Renovation	2,250 \$270.00	\$607,500.00
Sub-Total =		\$3,914,190.00	\$12,108,665.56
Direct Cost \$/S.F. =		\$270.00	\$502.43
General Conditions = 15% Included w/ Costs Above		\$587,128.50	\$1,816,299.83
Subtotal		\$4,501,318.50	\$13,924,965.39
OH & Profit = 6% Included w/ Costs Above		\$270,079.11	\$835,497.92
Subtotal (W/Out Contingencies)		\$4,771,397.61	\$14,760,463.31
Gross Square Foot Area (SF) =		14,497	24,100
Cost Per Square Foot (Without Contingency)			
Design Contingency = 10%		\$477,139.76	\$1,476,046.33
		\$5,248,537.37	\$16,236,509.64
Average Construction Budget (Before Cost Escalation) =		\$5,248,537.37	\$16,236,509.64
Average \$/s.f. (Before Cost Escalation) =		\$362.04	\$673.71
Construction Cost Escalation: 25.76%		\$1,352,023.23	\$4,182,524.88
Subtotal		\$6,600,560.60	\$20,419,034.53
Total Cost Escalation =		\$5,534,548.11	
Occupied & Secure Facility Factor / Phasing - Contingency = 19% Included w/ Costs Above		\$1,270,607.92	\$3,930,664.15
Subtotal		\$7,871,168.51	\$24,349,698.67
TOTAL CONSTRUCTION BUDGET RANGE =		\$7,871,169	\$24,349,699
Cost Per SF as of Bid Day on		\$542.95	\$1,010.36
as of Bid Day on: Monday, June 2, 25			
Monday, June 2, 25			
Total Average Cost =		Average Total Construction Cost	
Total Average Cost per SF =		\$32,220,867.19	
		\$834.80	

CSI DIVISION	DESCRIPTION	REMARKS	QUANTITY	UNIT	UNIT COST	UNIT COST				
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ITEMS NOT INCLUDED IN BUDGET ESTIMATE:

1. Items specifically not listed above but not limited to the following:
3. Construction Contingency to be determined by Architect & Owner
4. Design Fees
5. Consultant Reimbursables
6. Owner Provided Items
7. Owner Soft Costs

NOTE:

Professional Project Management, Inc. cannot and does not warrant or represent the accuracy of this budget estimate.

The above materials including budget estimate format and budget cost information have been developed by Professional Project Management, Inc. All rights are reserved and no part of this document may be reproduced and/or distributed without the express permission in writing of Professional Project Management, Inc.



Project Name:
MCF Rush City Pre-Design for Programming / Education Space - DETAIL

Location:
Rush City, MN

Construction Budget Cost

A/E: Klein McCarthy Architects
A/E Contact: Scott Fellig
A/E Commission No.: 78RC0036
A/E Client: MN Department of Administration

Summary of Contents:

- Documents Provided
- Assumptions & Qualifications
- Proposed Construction Schedule
- CSI Division Cost Summary
- Gross Area Summary
- Take-Off Breakdown

Project Phase:

Program Design Phase Budget Estimate

Date Prepared: **Number of Pages:**

Fri, 06/09/23 Pages 1 - 5

Prepared By: **PPM Project No.:**

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Program Design Phase Budget Estimate Project Name: MCF Rush City Pre-Design for Programming/Education Space - DETAIL Project Location: Rush City, MN Date: Fri, 06/09/23 Architect: Klein McCa Arch. Commission No.: 78RC0036 PPM Project No.: 2318.006.ch.6.9.23							Prepared by: Professional Project Management, Inc. Doug Holmberg, PE/CPE (612) 919-4000																																																																										
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<p>Assumptions/Qualifications:</p> <p>1. This Budget Estimate is based on the following: Pre-Design Document Dated 5/20/23 Fri, May 26, 2023</p> <p>2. Proposed Construction Schedule:</p> <p style="margin-left: 40px;">Date of this Budget Estimate: Friday, June 9, 2023 Bid Opening: Mon, 2 Jun 2025 Award Contact: Tue, 1 Jul 2025 Start Construction: Fri, 1 Aug 2025 Construction Duration (months): 39 Complete Construction: Sat, 14 Oct 2028 Construction Midpoint: Tue, 9 Mar 2027 from Budget Estimate date to Construction Midpoint (m): 45.6 Construction Cost Escalation Rate per month = 0.00% Construction Cost Escalation Rate per 12 month period = 0.0%</p> <p style="margin-left: 40px;">Construction Cost Escalation: from Budget Estimate date to Construction Midpoint = 25.76%</p> <p style="margin-left: 40px;">Updated per state inflation rates 2021-2028 provided - % used for 46 months to estimated Mid-Point of Construction</p> <p>3. NOTE: All up-dated cells are color Coded 2318.001.ch.5.31.23 Wed, May 31, 2023 2318.002.ch.5.31.23 Wed, May 31, 2023 2318.002.ch.5.31.23 Wed, May 31, 2023 2318.005.ch.6.7.23 Wed, Jun 7, 2023</p>																																																																																	
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DIVISION	DESCRIPTION	REMARKS	QUANTITY	UNIT	UNIT COST	UNIT COST				
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TOTAL DIRECT COST SUMMARY:
(Quantity Take-Off)

PPM
Fri. 6/9/23

Proposed Building Areas
(Square Feet)

Room #		Rooms (Qty)	Space Area (SF)						Total Gross Building Area (SF)
Phase-1 New Construction									
1	Phase-1 New Construction	1	13,800						13,800
	<i>Sub-Total =</i>								13,800
Phase-1 Renovation									
1	Phase-1 Renovation	1	277						277
	<i>Sub-Total =</i>								277
Phase-2 Renovation									
1	Phase-2 Renovation	1	3,570						3,570
	<i>Sub-Total =</i>								3,570
Phase-3 New Construction									
1	Phase-3 New Construction	1	10,300						10,300
	<i>Sub-Total =</i>								10,300
Phase-3 Renovation									
1	Phase-3 Renovation	1	2,000						2,000
	<i>Sub-Total =</i>								2,000
Phase-4 Renovation									
1	Phase-4 Renovation	1	6,400						6,400
	<i>Sub-Total =</i>								6,400
Phase-5 Renovation									
1	Phase-5 Renovation	1	2,250						2,250
	<i>Sub-Total =</i>								2,250
		<u>Total Building "Renovation" Area =</u>		14,497	<u>Total Building "New Construction" Area =</u>		24,100		

Program Construction Cost Summary

Renovation Average Cost New Construction Average Cost

00000 0 - SITE DEVELOPMENT: Site Demo / Paving

DIVISION	DESCRIPTION	REMARKS	QUANTITY	UNIT	UNIT COST	UNIT COST				
	NOTE: The Following Costs ARE NOT Included									
	<u>1. Contaminated Soil Abatement / Remediation</u>		Will Need to Verify This Item - May be needed							
	<u>2. Hazardous Material Abatement / Remediation</u>									
	<u>3. Soils Correction</u>		Will Need to Verify This Item - May be needed							
	<u>4. Storm Water Prevention</u>									
	<u>5. Site Furnishings</u>									
	SITE DEVELOPMENT Assumed included with Building Construction Costs Below									
	Site Demolition									
	Demo Existing Green House Buildings	2 at 1,000 s.f. each	2,000	sf		\$14,000.00				
	Remove existing trailer complex	3 trailers	2,300	sf		\$6,900.00				
	Demo existing paving	3,300 s.f.	367	sy		\$3,667.00				
	Demo Concrete walks		1,150	sf		\$2,300.00				
	Site Drainage & Utilities									
	HDPR Underground Stormwater Tank	18,000 gal	1	LS		\$55,000.00				
	Site Lighting	Allowance	1	allow		\$15,000.00				
	Pavements - Asphalt, Concrete, Gravel									
	New Asphalt Paving	2,300 s.f.	256	sy		\$5,877.78				
	New Base		71	cy		\$2,121.11				
	New Concrete Walks		2,700	sf		\$17,550.00				
	Fencing NIC									
	Landscaping									
	Allowance	Allowance	1	Allow		\$22,500.00				
	Subtotal =						Renovation	\$0.00	New Construction	\$144,915.89
00000	0 - SITE DEVELOPMENT: PV Solar System									
	NOTE: The Following Costs ARE NOT Included									
	<u>1. Contaminated Soil Abatement / Remediation</u>									
	<u>2. Hazardous Material Abatement / Remediation</u>									
	<u>3. Soils Correction</u>									
	<u>4. Storm Water Prevention</u>									
	<u>5. Site Furnishings</u>									
	SITE DEVELOPMENT Assumed included with Building Construction Costs Below									
	PV / Solar System									
	New 188 KW Solar System	Ground Mount System	1	LS		\$846,000.00				
		Power / Trenching to building	3,800	LF		\$95,000.00				
	Subtotal =						Renovation	\$0.00	New Construction	\$941,000.00
00001	Phase-1 New Construction									
	Phase-1 New Construction									
				Gross Building Area (SF)						
1	Phase-1 New Construction		13,800	sf		\$6,072,000.00				
	Geo-Thermal Well System		40	well		\$250,000.00				
	Sub-Total Gross Area =			13,800	sf					
	Subtotal =						Renovation	\$0.00	New Construction	\$6,322,000
00002	Phase-1 Renovation									
	Phase-1 Renovation									
				Gross Building Area (SF)						
1	Phase-1 Renovation		277	sf		\$74,790.00				

