



Bureau of Organizational Services

**Five-Year Capital Outlay Plan
FY2022 - FY2026**

October 30, 2020

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MICHIGAN DEPARTMENT OF HEALTH AND HUMAN SERVICES

2022 Five-Year Capital Outlay Plan

Mission Statement

The Michigan Department of Health and Human Services (MDHHS) provides opportunities, services, and programs that promote a healthy, safe and stable environment for residents to be self-sufficient.

Department History

In April 2015, the Department of Human Services (DHS) was merged with the Department of Community Health (DCH) to create MDHHS.

Department of Human Services

The Department of Human Services was created in 1965 as a principal department with the name of "Department of Social Services." Renamed in 1995 to "Family Independence Agency," the department was once again renamed in 2004 to indicate its status as a principal department as the "Department of Human Services."

Department of Community Health

The Department of Community Health was created in 1996 through an executive order merging Department of Public Health (as Community Public Health Agency), Department of Mental Health, Medical Services Administration from the Department of Social Services, responsibility for Liquor Control Commission, Licensing, Monitoring and Accreditation and Division of Occupational Health from Department of Commerce, Food Service Sanitation from the Department of Agriculture and many functions of Department of Social Services.

Merger

The merger of DHS and DCH was enacted by Governor Rick Snyder's Executive Order No 2015-4.

Department Overview

MDHHS administers a variety of programs that are largely managed by the department's core resource areas – Children, Adults, Family Support, Health Services, Population Health and Workforce. There are also several administrative divisions (for example, Finance and Operations, Policy, Planning and Legislative Services, Legal Affairs, Business Integration, and External Affairs and Communications) that provide vital services in support of the department's program operations.

Well maintained and functional facilities are needed to support programs such as juvenile justice facilities, psychiatric hospitals and centers, laboratories, vocational and technical institutions and customer service offices.

Ongoing maintenance and repairs are needed to preserve the longevity and ensure that the infrastructure remains operable, providing continued support for the programs and overall mission of the department. Proactive repair and replacement of critical infrastructure that is rapidly aging and deteriorating has become increasingly difficult. As maintenance is deferred and needed repairs and improvements continue to go unaddressed due to the lack of available funding, the risk of infrastructure failure increases. As infrastructure failures occur, funding that is available must be directed toward emergency repairs, often at a much greater expense.

Where there is flexibility regarding the allocation of available funding, MDHHS looks to establish priorities for capital outlay planning. These priorities are established focusing on the following factors:

- **Operational need:** The critical nature of the department's mission and responsibility to Michigan citizens and taxpayer's mandates that the department's facilities be sufficient to meet their service functions. Full utilization of the department's varied resources is dependent upon sufficient and functional facilities.
- **Preventative Maintenance:** The department must preserve its existing capital investments so that it may continue to fulfill its mission and provide services to Michigan residents. Effective preventative maintenance practices minimize costs over the long term, prevent health and safety hazards and allow for minimal interruptions of service.
- **Accessibility:** The department must strive to ensure that its facilities, programs and projects are barrier-free and accessible to all users.
- **Energy-efficient facilities:** The department seeks to promote energy-efficient facilities and reduce facility energy consumption. Opportunities include installing energy-efficient lights, water heaters, heating and ventilation systems and low-flow plumbing fixtures. Proper maintenance of roofs, installation of building insulation and the reduction of exterior air infiltration lead to further energy efficiencies.
- **Partnering/consolidation:** Where possible, the department shares facilities with other agencies to promote efficiencies and maximize the use of available funding. The department works with local government agencies and other entities to develop opportunities for Michigan residents.

The strategy for capital outlay planning interconnects with overarching priorities of the department. It focuses on:

- Serving people who have specialty services or support needs related to mental illness, developmental disability, substance use disorders and children with serious emotional disturbance.
- Being a leader in prevention and treatment for juvenile delinquency, building safe and healthy communities through our balanced approach, professionalism, and shared commitment to innovation and effective partnerships.
- Promoting and protecting the health of the population through surveillance and response to health issues, prevention of illness and injury and improvements in access to care.
- Providing emergency aid, food, child care and other services to eligible Michigan residents.
- Coordinating services for Michigan's aging and adult population.

Five-Year Capital Outlay Plan Components

I. Mission Statement

The Juvenile Justice Program will be a national leader in prevention and treatment for juvenile delinquency, building safe and healthy communities through our balanced approach, professionalism and shared commitment to innovation and effective partnerships.

II. Programming Changes

Bay Pines Center is a 40-bed secure treatment facility for either gender who have been adjudicated for one or more felony counts. Bay Pines Center (BPC) has 14 female treatment beds and 22 male treatment beds. BPC also has 4 detention beds for youth who are awaiting a court decision (2 female/2 male). Bay Pines Center is licensed to accept up to 40 youth, age 11 to 21. BPC is a state operated residential facility.

BPC is in the beginning stages of becoming specialized in Mental Health and Behavior Stabilization while utilizing a trauma informed treatment milieu.

III. Facility Assessment

BPC was built in 1994 and is located on 24 acres in Escanaba and is composed of multiple buildings consisting of a total square footage of 38,760.

a. Building utilization rates compared to industry standards:

Utilization is a measure of facility efficiency. The ratios of program (beds) and support space is used as the basis of measure. Bay Pines Center has a ratio of 773 sf./bed which yields a 93 percent efficiency.

b. Mandated facility standards for program implementation, where applicable (for example, federal/industry standards for laboratory facilities, hospitals, compliance with consent decrees, etc.):

The Bay Pines Center maintains compliance with Michigan Child Welfare Licensing standards as well as Department of Justice Prison Rape Elimination Act (PREA) standards.

c. Functionality of existing structures and space allocation to program areas served:

Bay Pines Center - 33,000 sq. ft. (Residential Center)
Frens Building - 1,920 sq. ft. (Storage)
McKeage Building - 1440 sq. ft. (Storage)

**ATTACHMENT E -
BAY PINES CENTER**

Pavilion - 720 sq. ft.
Pierce Building - 1680 sq. ft. (Storage)

- d. Replacement value of existing facilities (insured value of structure to the extent available):

Unknown.

- e. Utility system condition (such as heating, ventilation, and air conditioning (HVAC), water and sewage, electrical, etc.):

The current domestic hot water heating system has been replaced. Project was completed in 2017/2018.

The Air Handle and Air Conditioning Unit have been both replaced, project was completed in 2018/2019.

The Muffin Monster (sewage grinder) and Sewer Pumps have both been replaced in 2018.

- f. Facility infrastructure condition (such as roads, bridges, parking structures, lots, etc.):

The replacement of the security camera system project was completed 2018/2019.

Currently when the fire alarm goes off all the doors to the outside yard automatically unlock allowing youth to exit in the event of a fire. Due to the security risk this poses, additional fencing in backyard around emergency exit doors are needed. Project completed in 2019 thus eliminating this risk.

Flooring needs to be replaced in the gym/hallway/recreational pods/youth rooms. This area of the flooring is original to Bay Pines Center therefore approximately 24 years old. The flooring is composed of a rubberlike material. Currently the flooring is disintegrating very slowly causing a dust like material to cover the floors. Project completed in 2019 thus eliminating this risk.

Replacement of all interior/exterior locks to keyless pads will eliminate the cost of repairing/replacing keyed locks and eliminates security concerns regarding lost/stolen keys. Keyless pads would provide better controlled access keeping youth, staff, and buildings safe and secure. Project is in the end stages of completion however due to COVID 19 is on hold.

Replace/repair all doors within the secure area of the facility. The building is 25 years old and the doors are extremely heavy therefore over the years they have

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worn out the hinges causing them to not shut properly. Some doors are damaged due to use/abuse over the years, some are warped causing them not to close properly. In addition to the above, the youth barricade themselves in the rooms by placing their mattress between the door and the toilet or propping themselves in the same area and using their legs to prevent staff from entering their rooms. In these situations, staff have to use a device that forces the door open which does cause damage. This has to occur when youth block their windows and staff can't maintain line of sight supervision over the youth. This is a security concern. Estimating approximately 100 doors at 3,000.00/per door. Currently Bay Pines Center has numerous windows broken due to the kids throwing rocks at them which causes them to break or the youth are able to get on their beds and kick/hit the windows within their rooms which causes them to break. The windows do not shatter however the youth are able to pick small pieces of the glass out of the window once broken and use it as a weapon to hurt themselves or someone else. We are replacing broken windows with a product that can't be broken. Each window is 300.00 to replace (window plus installation). Approximately 70 windows total need to be replaced in order for all youth room windows to be replaced as well as any window that they can throw rocks at while in the outside recreational area. This is a health and safety concern.

Youth are breaking the current light fixtures in their rooms. We are constantly having to have them replaced. We would like to be able to have them replaced with a non-breakable/correctional grade setting material. This is a safety concern as they are breaking the bulbs, plastic, and ripping them out of the ceiling thus exposing wires and utilizing the material as weapons to harm themselves or others.

Currently Bay Pines Center has numerous windows broken due to the kids throwing rocks at them which causes them to break or the youth are able to get on their beds and kick/hit the windows within their rooms which causes them to break. The windows do not shatter however the youth are able to pick small pieces of the glass out of the window once broken and use it as a weapon to hurt themselves or someone else. We are replacing broken windows with a product that can't be broken. Each window is 300.00 to replace (window plus installation). Approximately 70 windows total need to be replaced in order for all youth room windows to be replaced as well as any window that they can throw rocks at while in the outside recreational area. This is a health and safety concern.

The current Polycom system was inherited by Bay Pines Center from Adrian Training School. This system is highly outdated therefore is becoming unpredictable and noncompatible with updated court systems. The Polycom system allows for Bay Pines Center staff not to have to transport a youth to and from court hearings. This system is a large cost savings for Bay Pines Center as two staff members are required to transport youth to and from all court hearings. Over 65 percent of the population at Bay Pines Center is from lower

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Michigan.

Bay Pines Center continues to clean the walls and painted surfaces however paint is peeling off the walls and is discolored. Bay Pines Center has not had the interior of the building painted in over 10 years. This needs to be completed by a professional in order to ensure the surface area is properly prepared so the paint does not peel/scratch off the walls.

Parking lot needs repair/seal coat and cracks need to be filled to prevent further breakdown of asphalt. Pave the area between the facility and the McKeage out building to the large fenced in area. Currently there is dirt/grass in this area however lots of traffic drives on this area in order to provide maintenance to the building as well as snow removal.

The drop ceiling within the secure residential area is very dirty, water stained and is sagging in multiple areas throughout the building. In addition to the above, the duct work located above the drop ceiling is very loud and is causing sound problems with the camera system. It is recommended that this be replaced with a better quality/sounds resistant product. The lack of ability to clearly hear when reviewing video footage is a safety and security risk.

Current medical and dental offices have the original equipment in them when the facility was built in 1994. The equipment has already exceeded the recommended use expectancy due to the contractors only coming into the facility on a limited weekly basis. The equipment is starting to have to be repaired and the cost of replacing it is cheaper than repairing it.

The secure fenced in area the youth use to get outside doesn't have a shaded area for the youth to sit under to help protect them from the UV rays. This area could also be used when the youth have family visits, keeping everyone in a secure area.

The shower rooms on each of the five living pods and gym need to be refinished as the tile, plumbing and sufficient ventilation has been deemed a health and safety violation by the Delta County Health Department. This project is near completion however delayed due to COVID 19.

- g. Adequacy of existing utilities and infrastructure systems to current and five-year projected programmatic needs:

Current utilities and infrastructure systems are adequate to meet the programmatic needs of the facility five years into the future with the above noted infrastructure and utility improvements.

- h. Date of most recently completed energy audit, and, if an energy audit has yet to

be completed, what is the plan/schedule for doing so?

Last energy audit is unknown.

- i. Land owned by the agency, including a determination of whether capacity exists for future development, additional acquisitions are needed to meet future demands, or surplus land can be conveyed for a different purpose:

The Bay Pines site is currently located on 24 acres, which appears to be very adequate for present day needs and should be fully capable of providing additional space for any program development which may occur during the next five years.

IV. Implementation Plan

- a. Itemized listing of major capital projects by priority, including brief description and estimated cost. (*Adjust previously developed or prior year's figures utilizing industry standard CPI indexes where appropriate*):

See Bay Pines Center (BPC) Capital Outlay Five-Year Plan spreadsheet in this document.

- b. Define the impact of addressing deferred maintenance and structural repairs, including programmatic impacts, immediately versus over the next five years:

Failure to provide special maintenance or capital outlay funding to maintain the facility creates increased facility repair costs and unnecessary demands on facility maintenance staff and creates potential health and safety problems for staff and visitors. The BPC is a 24-hour juvenile secure residential facility and must maintain a secure, safe and functioning facility to maintain staff, patient and public safety.

- c. Identify, to the extent possible, a rate of return on planned expenditures. This could be expressed as operational savings that a planned capital expenditure would yield in future years.

Delaying needed repairs until they become critical generally results in costlier future special maintenance project costs and longer disruption in the BPC mission of providing residential treatment to youth.

BAY PINES CENTER (BPC)
Capital Outlay Five-Year Plan (Attachment E - IV. a.)

Building	Project	Brief Project Description	Facility Priority	Cost Estimate	Status	Funding Source
BPC (Residential Center)	Replace Doors/door handles in secure area of residential center	Replace/repair all doors within the secure area of the facility. The building is 25 years old and the doors are extremely heavy therefore over the years they have worn out the hinges causing them to not shut properly. Some doors are damaged due to use/abuse over the years, some are warped causing them not to close properly. In addition to the above, the youth barricade themselves in the rooms by placing their mattress between the door and the toilet or propping themselves in the same area and using their legs to prevent staff from entering their rooms. In these situations, staff have to use a device that forces the door open which does cause damage. This has to occur when youth block their windows and staff can't maintain line of sight supervision over the youth. This is a security concern. Estimating approximately 100 doors at 3,000.00/per door.	1	\$375,000		
BPC (Residential Center)	Replace light fixtures in youth rooms	Youth are breaking the current light fixtures in their rooms. We are constantly having to have them replaced. We would like to be able to have them replaced with a non-breakable/correctional grade setting material. This is a safety concern as they are breaking the bulbs, plastic, and ripping them out of the ceiling thus exposing wires and utilizing the material as weapons to harm themselves or others.	2	\$100,000		
BPC (Residential Center)	Replace all windows within the secure area of the facility with non-breakable glass/product.	Currently Bay Pines Center has numerous windows broken due to the kids throwing rocks at them which causes them to break or the youth are able to get on their beds and kick/hit the windows within their rooms which causes them to break. The windows do not shatter however the youth are able to pick small pieces of the glass out of the window once broken and use it as a weapon to hurt themselves or someone else. We are replacing broken windows with a product that can't be broken. Each window is 300.00 to replace (window plus installation). Approximately 70 windows total need to be replaced in order for all youth room windows to be replaced as well as any window that they can throw rocks at while in the outside recreational area. This is a health and safety concern.	3	\$35,000		
BPC (Residential Center)	Polycom	The current Polycom system was inherited by Bay Pines Center from Adrian Training School. This system is highly outdated therefore is becoming unpredictable and noncompatible with updated court systems. The Polycom system allows for Bay Pines Center staff not to have to transport a youth to and from court hearings. This system is a large cost savings for Bay Pines Center as two staff members are required to transport youth to and from all court hearings. Over 65% of the population at Bay Pines Center is from lower Michigan	4	\$40,000		
BPC (Residential Center)	Interior painting	Bay Pines Center continues to clean the walls and painted surfaces however paint is peeling off the walls and is discolored. Bay Pines Center has not had the interior of the building painted in over 10 years. This needs to be completed by a professional in order to ensure the surface area is properly prepared so the paint doesn't peel/scratch off the walls.	5	\$200,000		
B+A22-E22PC (Residential Center)	Parking lot sealant/fix cracks and pave area between facility and the McKeage building back to the large fenced in area.	Preventative maintenance to avoid further breakdown in parking lot asphalt. Filling of current cracks and application of sealant. Pave the area between the facility and the McKeage out building to the large fenced in area. Currently there is dirt/grass in this area however lots of traffic drives on this area in order to provide maintenance to the building as well as snow removal.	6	\$150,000		
BPC (Residential Center)	Replace drop ceiling through out BPC secure area	The drop ceiling is very dirty, water stained and is sagging in multiple areas throughout the building. In addition to the above, the duct work located above the drop ceiling is very loud and is causing sound problems with the camera system. It is recommended that this be replaced with a better quality/sounds resistant product.	7	\$225,000		
BPC (Residential Center)	Replace Medical/Dental Office	The medical/dental equipment that is used when examining the youth is 25+ years old. It was installed when the facility was built in 1994 and has outlasted the recommended use expectancy. It is recommended that this be replaced with current/updated equipment	9	\$100,000		
BPC (Residential Center)	Pavilion in Secure Youth Area	Install a pavilion with a cement pad to provide the youth a place to stand under when they are outside in the secured fence area that provides shade. This is a health concern. This would also provide a place for family visits to take place.	10	\$75,000		
BPC (Residential Center)	Replace Sewer Pumps/Muffin Monster	The Muffin Monster (sewage grinder) and Sewer Pumps are currently minimally functioning and ongoing emergency maintenance is to avoid sewage back-up. Replacement is recommended to avoid potential complete failure and/or health and safety concerns due to sewage back-up.		\$30,000	Completed	

BAY PINES CENTER (BPC)

Capital Outlay Five-Year Plan (Attachment E - IV. a.)

Building	Project	Brief Project Description	Facility Priority	Cost Estimate	Status	Funding Source
BPC (Residential Center)	Replace Camera System	Existing system not working properly and is in progress of being replaced due to the safety and security risk this poses to the youth and staff.		\$545,000	Completed	2016 Agy Operating \$ Project #: 431/16424.RMP
BPC (Residential Center)	Replacement of Boiler/Evaporator System.	Current system is failing and unable to meet facility demands. Complete failure of the system will result in no hot water within the facility. A lack of hot water will be safety risk for staff and residents and cause the facility to be out of licensing standards.		\$573,600	Completed	2015 Agy Operating \$ Project #: 431/15289.RAA
BPC (Residential Center)	Fence in backyard around emergency exit doors preventing escape.	Security/Safety- currently when the fire alarm goes off all the doors to the outside yard automatically unlock allowing youth to exit in the event of a fire. This feature also allows youth to escape from the facility easily by pulling the fire alarm and running out of the building through the doors that open up to a non-fenced in area. Multiple youth could exit at the same time and run multiple different directions. Bay Pines Center's groomed area of the backyard leads to a densely wooded and swamp like terrain which poses a safety risk to both youth and staff if they ran that direction. The fence would eliminate this risk.		\$200,000	Completed	2017 Agy Operating \$ Project #: 431/17358.RAA
BPC (Residential Center)	Flooring - replace gym/hallway/recreational pods/youth rooms.	This area of the flooring is original to Bay Pines Center therefore approximately 22 years old. The flooring is composed of a rubber like material. Currently the flooring is disintegrating very slowly causing a dust like material to cover the floors. This results in staff/youth having to clean the floor often to avoid the safety risk of slippery floors. Youth often slip around in the gym when trying to play recreationally which causes concerns for youth injury.		\$50,000	Completed	2017 Agy Operating \$ File #: 431/17358.RAA
BPC (Residential Center)	Replace Air Handler Units/Air Conditioning Unit	Units are outdated and in need of replacement. Repairs are costly and parts are becoming obsolete. If not addressed this project could become a health and safety concern for staff and visitors; cause facility climate related damage; and damage to the existing functioning units.		\$150,000	Completed	2017 Agy Operating \$ File #: 431/17358.RAA
BPC (Residential Center)	Parking lot sealant/fix cracks	Preventative maintenance to avoid further breakdown in parking lot asphalt. Filling of current cracks and application of sealant.		\$20,000	wasn't enough money - taken off project	2017 Agy Operating \$ Project #: 431/17358.RAA
BPC (Residential Center)	Keyless Pads	Replace all interior/exterior locks with keyless pads/update software and computer.		\$500,000	In Progress	LSSM- 491/18057
BPC (Residential Center)	Maunal Override System to Keyless Access			\$410,000	In Progress	2017 Agy Operating \$ Project #: 431/17358.RAA
BPC (Residential Center)	Refinish shower rooms located on each living pod.	Phase I: Replace the tile and plumbing fixtures. The ventilation within showers isn't sufficient therefore resulting in mold and needs to be repaired or replaced. This has resulted in citation by the Delta County Health Department.		\$224,000	In Progress	\$50,000, Agy Operating; \$124,000 added from 18390, 16424, and BPC. \$50,000 added from BJJ admin

Five-Year Capital Outlay Plan Components

I. Mission Statement

The Juvenile Justice Program will be a national leader in prevention and treatment for juvenile delinquency, building safe and healthy communities through our balanced approach, professionalism and shared commitment to innovation and effective partnerships.

II. Programming Changes

Shawono Center is a secure treatment facility for male juveniles between the ages of 12 and 21 years who have been adjudicated for one or more felony counts. The center offers three specialized treatment programs. The Sex Offenders program has 20 beds and limits the contact with the other treatment groups. The Addictions/Substance Abuse Treatment group and the General Delinquents Treatment group, with mild to medium mental health issues, each have 10 treatment beds. Shawono Center also has up to two detention beds available for youth through 20 years of age.

There are currently no planned programming changes.

III. Facility Assessment

Shawono Center is located on a 10-acre parcel that is heavily wooded and contains a small lake in a secluded area, a few miles from the city of Grayling. The U.S. Military Affairs own the parcel of land.

a. Building utilization rates compared to industry standards:

Utilization is a measure of facility efficiency. The ratios of program (beds) and support space is used as the basis of measure. Shawono Center has a ratio of 1,322 sf/bed, which yields a 54 percent efficiency rating.

b. Mandated facility standards for program implementation, where applicable (such as federal/industry standards for laboratory facilities, hospitals, compliance with consent decrees, etc.):

The Shawono Center maintains compliance with Michigan Child Welfare Licensing standards as well as Department of Justice Prison Rape Elimination Act (PREA) standards.

c. Functionality of existing structures and space allocation to program areas served:

**ATTACHMENT E –
SHAWONO CENTER**

Main Building (1994) - 48,018 sq. ft. (Residential Center)
Department of Natural Resources Building (1974) - 5,500 sq. ft. (Storage)
Gas Storage Shed (1974) - 120 sq. ft.
Generator Housing (1979) - 100 sq. ft.

- d. Replacement value of existing facilities (insured value of structure to the extent available):

Unknown.

- e. Utility system condition (for example, heating, ventilation, and air conditioning (HVAC), water and sewage, electrical, etc.):

The current AC systems in the northeast classroom area, northeast Dorms, and medical corridor are over 20 years old. Those three units are requiring more frequent service calls. Newer systems would create more energy efficiency and reliability. (This should be completed this fiscal year.)

The emergency electrical system was upgraded within the last several years to include the kitchen area and coolers.

The plumbing in the building is aging. Plumbing for the rooms on South Pod, West Pod, and the isolation room need upgrading as parts are starting to fail. Replacement parts, when available, are being utilized but all rooms need upgrading. The bathrooms in the administrative section of the building are failing and pipes need to be replaced and a drain field added. (The administrative bathroom upgrade project is underway.)

The control panels for the dorm areas are over 20 years old. Parts are no longer available for the system. This system is integrated with the door locks and intercom systems in the living areas within the building. The original mechanical locks in the Main Building are beginning to wear out and need to be replaced soon. A Miscellaneous Operating Project (MOP) was created last year to address the control panels and locks in the building because they are an integrated issue. This project is mostly completed. There are four doors left to be complete due to Covid-19 and restriction on entry.

In evaluating electrical efficiency in the building, converting the lighting to LED would create a cost savings. The outside lighting is beginning to fail, replacing the outside lights will create efficiency while also increasing safety to Shawono residents, staff and visitors.

The CCTV system was brought over when the Adrian Training Center closed. The software system and cameras are out of date. The system goes down regularly and must be reactivated manually leading to time lapses in recording events at Shawono. We need an additional 20 cameras for areas in the building

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SHAWONO CENTER**

that are currently not covered. This a safety issue and would help to monitor the building, youth and staff.

The kitchen equipment is over 20 years old. Some of the equipment is starting to have to be repaired more frequently. It is not as energy efficient as newer equipment, and some equipment is not performing optimally. A MOP was created last year, the project is moving forward and should be completed within this fiscal year.

The youth bathrooms and showers in the facility need maintenance and upgrading as they are showing signs of aging.

The boiler is over 20 years old and will need to be replaced at some point in the future.

- f. Facility infrastructure condition (such as roads, bridges, parking structures, lots, etc.):

Shawono Center did major improvements to the exterior of the building several years ago. The overall building is in good shape except for major maintenance and roof repairs to the main building. There are several areas that leak when it rains. This was recently added to the list to be worked on this year. We are in the process of utilizing existing funds to repair the worst areas of the roof. We will need additional funds to finish the roof.

The parking lot was last re-sealed in 2012. The administrative parking area needs to be expanded to meet the additional usage that occurred in 2017 as five MDHHS auditors were assigned to work at Shawono. The existing blacktop needs to be re-sealed. The expansion of the parking lot is scheduled to be done this fiscal year, funding has been allocated.

- g. Adequacy of existing utilities and infrastructure systems to current and five-year projected programmatic needs:

Current utilities and infrastructure systems are adequate to meet the programmatic needs of the facility five years into the future with the exception of the administrative bathrooms.. A repair of this drain system is of the highest priority. The following recommendations are being made to replace/upgrade as soon as possible. This project is currently underway.

The Gym floor is beginning to show it's age and will need to be addressed at some point in the future.

Site/Architectural Items:

Re-Sealing Driveway and Parking Area Expansion

**ATTACHMENT E –
SHAWONO CENTER**

Repairing Roof (Project approved and in initial assessment phase, approved for phase one of the project.)

Replacing Interior and Exterior Locks (Almost Complete)

Mechanical Items:

Replacement of three AC Units (This is being scheduled.)

Plumbing for Dorm Rooms and Isolation Rooms

Boiler

Kitchen Equipment (Upgrades approved and should be completed this fiscal year.)

Electrical Items:

Lighting Systems

Control Panels for Keyless Entry for Doors (Completed)

- h. Date of most recently completed energy audit, and, if an energy audit has yet to be completed, what is the plan/schedule for doing so?

Business Energy Survey completed in 2013 by Great Lakes Energy.

- i. Land owned by the agency, including a determination of whether capacity exists for future development, additional acquisitions are needed to meet future demands, or surplus land can be conveyed for a different purpose:

Shawono Center is situated on a 10-acre site with a small lake which is well suited to meet the facility's current program needs. There is ample room for future building expansion should there be a need to expand the Treatment/Detention Program or accommodate other specific building space needs. U.S. Military Affairs own the land.

IV. Implementation Plan

- a. Itemized listing of major capital projects by priority, including brief description and estimated cost. (*Adjust previously developed or prior year's figures utilizing industry standard CPI indexes where appropriate*):

See Shawono Center Capital Outlay Five-Year Plan spreadsheet in this document.

- b. Define the impact of addressing deferred maintenance and structural repairs, including programmatic impacts, immediately versus over the next five years:

Failure to provide special maintenance or capital outlay funding to maintain the facility creates increased facility repair costs and unnecessary demands on facility maintenance staff and creates potential health and safety problems for staff and visitors. The Shawono is a 24-hour juvenile secure residential facility

**ATTACHMENT E –
SHAWONO CENTER**

and must maintain a secure, safe, and functioning facility to maintain staff, patient, and public safety.

- c. Identify, to the extent possible, a rate of return on planned expenditures. This could be expressed as operational savings that a planned capital expenditure would yield in future years.

Delaying needed repairs until they become critical generally results in costlier future special maintenance project costs and longer disruption in the Shawono Center mission of providing residential treatment to youth.

SHAWONO CENTER
Capital Outlay Five-Year Plan (Attachment E - IV. a.)

Building	Project	Brief Project Description	Facility Priority	Cost Estimate	Status	Funding Source
Shawono Center	Upgrade youth Showers/Bathrooms	Showers and Bathrooms need repair and updating.	1	\$200,000		
Shawono Center	Replace CCTV System	Most system components are from Adrian Training School, which closed in 2008. The system is out of date and the software crashes often.	2	\$275,000 - \$300,000		
Shawono Center	Convert All Lighting to LED	It would make us cheaper and greener if we could do it.	3	\$150,000		
Shawono Center	Boilers	Replace the Boilers. They are over 25 years old	4	\$65,000		
Shawono Center	Roof Repair	Finish replacing what is not completed this year	5	\$200,000		
Shawono Center	Replace Gym Floor	Replace Gym Floor	6	\$250,000		
Shawono Center	Fire Alarm System	Modernize fire detection system.		\$26,000	Completed	Agency Funds PO #: 431N7700690
Shawono Center	Security Control	Safety & Security concern: Replacement of walk-through metal detectors.		\$5,000	Completed	Agency Funds PO #: 431N7700671
Shawono Center	Security Control	Safety & Security concern: Replacement of 2-way radios for staff use.		\$29,500	Completed	Agency Funds PO #: 431N7700651
Shawono Center	Keyless pads	Replace all interior/exterior locks with keyless pad.		\$500,000	In Progress	LSSM: 431/18064
Shawono Center	Building Improvements: FY15	1) Repair/Paint Exterior; 2) Attic Insulation; 3) Ropes Course; 4) Connect Kitchen Cold Storage to Generator		\$390,854	Completed	MOP
Shawono Center	LP Gas Vaporizer: FY16	Replace and upgrade		\$17,944.00	Completed	Hospital funds
Shawono Center	Individual Room Plumbing Upgrade	The plumbing fixtures and pipes in the residents' room (south unit, west unit, and isolation unit) are failing and causing regular leaks. The plumbing in the rooms is essential to resident safety and meeting Child Welfare Licensing Standards. The parts are outdated and replacement parts are extremely difficult to locate.		\$27,000	Added to MOP 431/17357.TYC	Agency Funds MOP #: 431/17357.TYC
Shawono Center	Administration Area Bathrooms	The bathrooms are backing up. The plumbing pipes need to be replaced, and a septic field installed for the administrative area.		\$42,500	Added to MOP 431/17357.TYC	Agency Funds MOP #: 431/17357.TYC
Shawono Center	Roof Repair	Shawono's metal roof is leaking in numerous places.		\$50,000	Added to MOP 431/17357.TYC	Agency Funds MOP #: 431/17357.TYC
Shawono Center	Upgrade AC Units	Current units are aging, service calls on them are accelerating.		\$30,000	Added to MOP 431/17357.TYC	Agency Funds MOP #: 431/17357.TYC
Shawono Center	Kitchen Equipment	Some of the equipment in the kitchen is over 20 years old and need replacing.		\$100,000	Added to MOP 431/17357.TYC	Agency Funds MOP #: 431/17357.TYC
Shawono Center	Parking Lot	The Administration parking lot needs expansion. The blacktop needs to be re-sealed and painted.		\$38,000		Agency Funds MOP #: 491/18391.TYC

Five - Year Capital Outlay Plan Components**I. Mission Statement**

The mission of Caro Center is to provide an appropriate range of active inpatient psychiatric treatment services to best meet the needs of adults with severe mental illness in collaboration with community health agencies and authorities. Divisions of specialized care are identified to meet ongoing treatment needs that reflect multiple medical and psychiatric diagnoses. Consistent with Centers for Medicare and Medicaid (CMS), Joint Commission Standards and other applicable public acts, the environmental needs require ongoing assessment and maintenance to ensure safety and clinical functionality until a new hospital is constructed. The prevalence of clinical behaviors and medical disorders that demonstrate self-injurious acts, increased violence and medical needs have created the need for more intensive treatment and physical plant modifications to ensure safety and security measures are maintained in order to provide therapeutic activities for the patients.

II. Programming Changes

Therapeutic programmatic changes have involved the modification and the expansion of the Psychosocial Rehabilitation Program (PSR) that provide treatment for adults with severe chronic mental illness. The programs have an interdisciplinary approach that provide treatment focused on improving the biopsychosocial aspects for the individual patient as well as safety enhancements. The programs provide opportunities to participate in normalized roles and positive therapeutic relationships in an effort to prepare patients for community reintegration. Patient education, individual and group therapies involving recovery and recreational, occupational, music and activity therapies are planned in accordance with the person-centered plan of service. The wide range of therapeutic PSR activities are delivered in the residential treatment areas. The annex at Building 27 North is currently used for the Adult Enrichment PSR program catering to patients from Building 27 North. Since the COVID-19 pandemic, more treatment modalities are provided in the residential treatment areas. For the past year and a half, virtual/telehealth visits with clinicians and families/guardians have been implemented.

Programmatic revisions in the therapeutic delivery system for patients with neuropsychiatric disorders are anticipated in the next five years in accordance with clinical symptomatology and staffing resources. Because this population has demonstrated increased multiple neurological, physical and mental impairments, the environment requires specialized physical modifications in order to maximize independence and ensure safety, particularly for the elderly who are often physically frail and fragile. Currently, Building 27 North provides residential accommodations for 24 patients who require this type of specialized service.

III. Facility Assessment

Caro Center consists of 14 buildings with a total square footage of 227,038 sq. ft. All houses on Private Drive and Murray Hall were demolished in December 2018. House 108 was permanently closed in April 2016 The Recreation Center (Building 55) was permanently closed in May 2016. Buildings 1 and 106 are scheduled to be demolished

by the end of October 2020. The oldest building was constructed in the early 1900's, while the newest non-residential building was constructed in the 1950's. Some residential buildings were remodeled in the 1970's to meet then existing regulatory standards for the population served. There has been no major remodeling since 1979. Several buildings on the premises of Caro Center are over sixty years old and require maintenance on an ongoing basis. Cosmetic improvements are needed more frequently to create an aesthetic environment compatible for treatment and operational support. All buildings need exterior improvements to facilitate an appropriate and safe presentation for patients, staff and visitors. The general physical condition is considered adequate. However, ongoing replacements are needed to the exterior of all buildings including windows, doors, improved parking lots, and standard cosmetic enhancements to building interiors. Some buildings need roof replacements and improved space utilization for visitor and office space are needed to improve interior conditions.

A. Building utilization rates compared to industry standards

Caro Center is one of three public hospitals that provides adult inpatient psychiatric services to residents of the state. The current average census for mentally ill patients is 100.

B. Mandated Facility Standard for Program Implementation

The buildings in use are currently in compliance with Joint Commission and the Center for Medicaid and Medicare Services (CMS) standards but recommendations have been made to upgrade facilities and create a more home-like and safer environment for patients and staff consistent with accrediting/certifying regulatory agencies. All buildings should be upgraded to become A.D.A. compliant to facilitate functionality, particularly for individuals with physical disabilities.

C. Functionality of Existing Structures and Space Allocation to Program Areas Served

Buildings currently used meet the minimal necessary requirements for existing and projected space for program areas. Increased safety/security and anti-ligature risk concerns for patient therapeutic activities and specialized clinical needs require ongoing maintenance to address safety and active treatment needs. Minor renovations and cosmetic enhancements are made by hospital maintenance staff only if resources are available.

The physical plant in its current status continues to require repairs to improve orientation and therapeutic measures for the patients, particularly those with neurological impairments. Flooring in multiple buildings requires replacement due to ongoing deterioration and crumbling which may pose a health hazard due to asbestos containing materials. Sleeping areas require sufficient storage and floor space to accommodate prosthetic devices such as wheelchairs, walkers and crutches for safe and independent mobility. Bathing, showering and toileting accommodations with prosthetic grab bars and devices are needed in each sleeping area for convenience and privacy, as well as facilitating and maintaining adult daily living skills and independence. Visiting room space is

sparse hindering social gatherings for patients and visitors. Plans are underway to improve the safety measures to facilitate compliance relating to ligature risk.

Shared living areas, such as dining rooms and social areas, require a more home-like atmosphere that reflects appropriate size.

D. Replacement Value of Existing Facilities

Unknown

E. Utility System Condition

In 1989, an Energy Audit Report recommended decentralization of the Center's heating system by installing individual boilers in each occupied building. The recommendation was made because the Center's heating plant, distribution and condensate system are deteriorating. This project has been completed for several buildings on the southern part of the 650-acre campus. The water system consists of two (2) deep wells and distribution systems that currently meet Department of Environmental standards. Several improvements are being recommended by the DEQ including water main improvements. The Center is connected to the Caro municipality waste water system. The existing underground primary wire system is over the 25-year life expectancy with several failures noted in recent years. All utilized buildings should have the electrical capabilities increased to meet current demands for power particularly due to increased technology use. The central air conditioning systems at Cottage 13 and Cottage 14 need to be replaced as there is no air conditioning in these buildings. Air conditioning in these buildings is provided by using window units and portable air conditioners. The remaining patient occupied buildings have partial air conditioning provided by several window units which need to be replaced by a more energy efficient central air conditioning system.

F. Infrastructure Condition

In 2004, Campus Drive and several service driveways were repaved. Most of the Center's roadways were capped with an asphalt surface several years ago. All parking lots require repair or expansion for the safety of patients, visitors and employees. Intermittent patching of these areas is inadequate thereby, creating safety hazards and potential hazards to vehicles.

G. Adequacy of Existing Utilities and Infrastructure Systems

The existing infrastructure and utilities will meet current and future projected needs once current projects are implemented. Failure to make these improvements would jeopardize continued operations and safety.

H. Energy Audit

The most recent energy audit was completed in 1989.

I. Land Capacity

Currently, all land on the main campus is utilized by the Caro Center. Local non-profit units of government and private entities have expressed interest in parcels of land that are extended from the main campus; however, these buildings continue to deteriorate with each passing year. All utilities to these buildings have been disconnected. Several breaking and entering incidents have occurred causing damage. These incidents increase the potential of liability to the Caro Center

IV. Implementation Plan

- A.** Funding of 115 million was appropriated in the fall of 2017 to construct a new hospital consisting of 200 replacement beds. Plans for the structure are being developed on a 20-acre parcel on the south east part of the premises. The existing plans were modified in February 2019 to construct a new hospital consisting of 100 beds. Funding for the 100 bed hospital is approximately 90 million. The projected completion date for the new hospital is January 2023.
- B.** Emergency repair improvements are being requested consisting of the following:
 - Door repair/replacement - 13, 14, 15, 16, 27
 - Exterior Cedar Siding Repair/Replacement – 27
 - Steam Tunnel Repair - C-1 to Building 51
 - Air Conditioning – 13, 14, 15, 16, 27
 - Replace Flooring – 14, 15 & 27
- C.** Delaying needed repairs until they become critical usually results in costlier special maintenance project costs and disruption in the hospital's mission of providing safe patient care, risk reduction and treatment.

Revised: June 2019

Caro Center
Capital Outlay Five-Year Plan (Attachment E - IV.a.)

Building	Project	Brief Project Description	Facility Priority	Cost Estimate	Status	Funding Source
Caro Center-Buildings 13, 14, 15, 16, 27, 51, 66, 67 & 68	Primary & Secondary Electrical Distribution	Upgrade all electrical wiring to current code and increase electrical capability to meet current demands due to increased technology systems and future air conditioning systems which is being requested to eliminate inefficient window units.	1	\$2,000,000		
Caro Center-Buildings 13, 14, 15, 27, 51 & 66	Remove and replace all flooring surfaces (tile, linoleum, etc.). The flooring in these building contain asbestos in varying amounts.	The current status of the floors in 15 & 27 is deteriorating and crumbling on a daily basis which poses a health hazard due to asbestos containing material. This project will enhance the safety of patients, staff and visitors as well as enhance the overall appearance of the buildings.	2	\$3,200,000		
Caro Center-Buildings 13, 14, 15, 16 & 27	Air Conditioning	This project will enhance the living environment for patients.	3	\$2,110,000		
Caro Center-Buildings 13, 14, 15, 16, 27, 51, 63, 66 & 68	Replace exterior doors including frames and hardware on buildings.	This project will enhance the physical infrastructure of the buildings. Most of the exterior doors on the denoted buildings are 20 years old and are approaching or have exceeded their useful life. Holes in the doors invite rodents which is a health hazard.	4	\$1,000,000		
Caro Center-Building 27	Update toilet facilities with shower accommodations in each of the sleeping areas. Remodeling must meet ADA, Department of Consumer Industry Services, fire codes and all other applicable standards.	This project will enhance the safety of patients, staff and visitors as well as enhance the overall appearance of the building.	5	\$2,500,000		

Caro Center
Capital Outlay Five-Year Plan (Attachment E - IV.a.)

Building	Project	Brief Project Description	Facility Priority	Cost Estimate	Status	Funding Source
Caro Center	<p>Remove and replace a significant portion of the existing roadways and parking lots on the Caro Center campus.</p> <p>Note 1: The Caro Center received funding in AY13 for an engineering firm to survey the existing roads and parking lots and provide a cost estimate for replacement. This has not yet been completed.</p>	<p>This project will enhance the safety of patients, staff and visitors. This project should also reduce damage to vehicles.</p>	6	See Note		
Caro Center- Buildings 5, 10, 11, 12, 17, 18, 26, 55, 69, 108, 114 & 122	<p>Demolish Buildings</p> <p>Note 2: Buildings 3, 7 & 9 have been transferred to the Michigan Land Bank.</p> <p>Note 3: Buildings 1 & 106 are to be demolished by the end of September 2020</p>	<p>This project will enhance the safety of patients and staff as well as enhance the overall appearance of the Caro Center. These buildings have been vacant and unmaintained up to 20 years. They are becoming increasingly hazardous each year they are left standing.</p>	7	\$3,800,000		

Five-Year Capital Outlay Plan Components

I. Mission Statement

The Center for Forensic Psychiatry's (CFP) mission is to provide quality forensic mental health services to individuals and the Michigan court system.

II. Programming Changes

Programming has been increased to evenings and weekends.

III. Facility Assessment

The CFP is a 357,000 square foot facility consisting of four buildings. The main buildings opened in 2005. The main building comprising 347,554 sq. ft. is a two-story structure constructed of masonry, brick, concrete, and steel. The physical exterior of the building is in very good condition.

CFP is requesting funding to build an on grounds kitchen and dining room to serve the patients. Currently, we are contracting with a vendor that is preparing the patient meals at Walter Reuther Hospital and transporting the meals to the center.

a. Building utilization rates compared to industry standards:

The CFP, which is Michigan's sole certified forensic facility, conducts evaluations for all the district and circuit criminal courts in the state's 83 counties pursuant to state statutory requirements. The center's capacity is a 272-bed psychiatric facility that provides both diagnostic services to the criminal justice system and psychiatric treatment for criminal defendants adjudicated as incompetent to stand trial and/or acquitted due to insanity.

b. Mandated facility standards for program implementation, where applicable (such as federal/industry standards for laboratory facilities, hospitals, compliance with consent decrees, etc.):

The CFP maintains its accreditation by the Joint Commission and its certification by the Centers for Medicare and Medicaid Services (CMS).

c. Functionality of existing structures and space allocation to program areas served:

The facility is adequate to meet the current and projected needs of the program.

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Main Building - 347,554 sq. ft. (Main Hospital)
Storage Building - 4,000 sq. ft.
Bar Screen Building - 1,440 sq. ft
Warehouse – 4,006 sq. ft.

- d. Replacement value of existing facilities (insured value of structure to the extent available):

Unknown.

- e. Utility system condition (for example, heating, ventilation, and air conditioning (HVAC), water and sewage, electrical, etc.):

The electrical system at CFP is powered from two primary distribution systems provided by Detroit Edison. The system is in very good condition. The emergency power is provided from two 1000KV generators that supply all life safety, critical power and equipment branch power. The facility's emergency power load is approximately 600KV. The system is in very good condition.

The heating and ventilation system is in fair condition. Existing heating valves are failing. The facility staff has been replacing them, about 35 to date, but the frequency of failures is increasing as there are over 600 installed in the building. Also, all the heating piping though out the Power Plant and the facility has started to leak at the Victaulic fittings. We have started to replace them and to date, we have spent about \$80,000. The increased frequency of leaks could potentially become an infection control concern (mold). The main building cooling chillers are approaching their end of life cycle within the next five years.

CFP has a lift station/ bar screen building that handles all the sewage from the facility. The solution for addressing the handling of the bio waste by CFP staff is not adequate.

- f. Facility infrastructure condition (for example, roads, bridges, parking structures, lots, etc.):

The entire parking lot and all driveways were repaired and sealed in the summer of 2015. We are crack sealing and seal coating all the asphalt this summer 2018. The cracks should be sealed ever year but because of the cost it only has been done every three years which shortens the life expectancy. The asphalt in the handicap parking lot needs to be removed and replaced. A paved fire road needs to be installed inside the secured fence to ensure that fire trucks can access all the facilities fire hydrants in the event of an emergency.

The facility has four elevators that are in good working condition.

- g. Adequacy of existing utilities and infrastructure systems to current and five-year projected programmatic needs:

The utilities systems are currently adequate.

- h. Date of most recently completed energy audit, and, if an energy audit has yet to be completed, what is the plan/schedule for doing so?

Last energy audit was in 2006.

- i. Land owned by the agency, including a determination of whether capacity exists for future development, additional acquisitions are needed to meet future demands, or surplus land can be conveyed for a different purpose:

The CFP is located on approximately 54 acres in Saline. If there were a need to expand, there is space to do so. Space or open ground around the facility is needed to maintain the privacy and safety of the patients.

IV. Implementation Plan

- a. Itemized listing of major capital projects by priority, including brief description and estimated cost. *(Adjust previously developed or prior year's figures utilizing industry standard CPI indexes where appropriate):*

1. **Build a Facility Kitchen (\$8,000,000)** - To ensure the safety of the meals the patients are being served. Currently, we are contracting with a vendor that is preparing the patient meals at Walter Reuther Hospital and then transporting the meals to The Forensic Center.

- 1 **Anti-Ligature (\$4,000,000)** – Due to recent surveys by both, JC & CMS, it has been identified that we are not meeting the standards of ligating the ligature risks in patient care areas and evaluation unit, including furniture, window dressings, computers and TV enclosures. The ligature risks identified needs to be addressed by June 2021(received an extension until June 2021). We are required to report to JC monthly on our progress in addressing these ligature risks.

2. **Replace flooring in Patients Areas (\$500,000)** – Existing flooring has become an infection control problem due to aging.

3. **Upgrade Fire Alarm System (\$100,000)** – The system has not been upgraded since 2003. The computer is operating on “Windows 98” and needs to be replaced by the vendor.

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CENTER FOR FORENSIC PSYCHIATRY**

Install Fire Roadway Inside Secured Fence (\$500,000) – Install paved road to ensure fire trucks can access all the facility's fire hydrants in the event of an emergency.

4. **Replace Heating Control Valves and heating system Victaulic fitting. (\$950,000)** --Existing valves and Victaulic fitting are failing. The increased frequency of leaks could potentially become an infection control concern (mold).
5. **Replace all Countertops and Cabinets (\$250,000)**– The laminate countertops and cabinets located in all the patient care areas are breaking which is creating an infection control problem that we have been cited for by JC and CMS.
6. **Replace and/or repair cement in the front entrance area (heated concrete) of the building, including patient yards and other areas. (\$350,000)** – The cement is crumbling, which, creates a safety hazard (trips and falls) for patients, staff, and visits.
7. **Modify Bar Screen Building to Minimize the Handling of Hazardous Waste, (\$475,000)** -Modify the existing lift station/bar screen building to minimize the handling of hazardous waste by staff, including modifying the roof to prevent heavy snow and ice from sliding off and onto someone entering building. This is a health and safety hazard.
8. **Parking Lot Maintenance (\$25,000 annually; \$50,000 bi-annual)** - Perform maintenance on the parking areas to ensure the safety of visitors and staff. This needs to be done annually. Crack sealing annually. Seal coating biannually. If not done it shortens the life expectancy.
9. **Replace the Building Security System (PLC) (\$400,000)** – The Allen Bradley PLC are at the end of life for support and replacement.
10. **Replace Main Building Cooling Chillers (\$900,000)** – Units are approaching their end of life cycle. In need of replacement to eliminate future high maintenance costs and reliability.
11. **Exercise Equipment for Patients (\$300,000)** – Replace old patient equipment, add electrical to all the fitness rooms and check room design to ensure that they meet all codes and JC requirements.
12. **Medical Equipment (\$300,000)** – Replace old outdated medical equipment.

**ATTACHMENT E –
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13. **Replace Chilled Water Ice Tanks (\$2,100,000)** – Units are approaching their end of life cycle. In need of replacement to eliminate future high maintenance costs and reliability.
 14. **Repair Terrazzo Flooring (\$300,000)** – Due to cracking and missing pieces, the terrazzo flooring needs repairs to prevent trips and falls in our main street area (patient activities area) and tweener area leading to the units.
 15. **Replace Audio Visual Systems (\$500,000)** – The AV systems in the Auditorium, Bureau and Conference Rooms are outdated. It's hard to hold conferences and seminars as the system equipment is not compatible to the current software and operating systems.
 16. **Replace Handicap Parking Lot (\$700,000)** – All asphalt needs to be removed and replaced due to ongoing cracking and heaving, which, creates a safety risk and the potential of not meeting ADA requirements.

Repave Service Area (\$500,000) – Replace the asphalt and redesign docking area based on usage and the increased traffic in the area.
 17. **Replace Carpet and Furniture in Non-Patient Areas (\$700,000)** – Carpet and furniture in non-patient areas is becoming worn, discolored and frayed.
 18. **Replace all Parking Lot and outside building lighting with LED lights. (\$250,000)** - LED lighting is more efficient. The saving on the energy cost and maintenance upkeep will pay for the cost.
 19. **Convert Fire Suppression System in the Patient Dining Rooms and Main Street Hallways (\$300,000)** – Convert existing wet fire suppression system to a dry system. The fire suppression system froze and burst in the winter of 2019, above the ceilings in the patient dining rooms and on main street.
 20. **Replace Heating Boilers (\$450,000)** – Boilers are approaching their end of life cycle. In need of replacement to eliminate future high maintenance costs and reliability.
 21. **Building landscaping renovation (\$100,000)** - The existing landscaping is unsightly and unappealing. If replaced with a lower annual maintenance requirement type, it would give the facility a new look and feel that could be enjoyed by the visitors, employees and the community.
- b. Define the impact of addressing deferred maintenance and structural repairs, including programmatic impacts, immediately versus over the next five years:

Failure to provide special maintenance or capital outlay funding to maintain the facility creates increased facility repair costs, unnecessary demands on facility

**ATTACHMENT E –
CENTER FOR FORENSIC PSYCHIATRY**

maintenance staff, and potential health and safety problems for staff, patients, and visitors. The CFP is a 24-hour psychiatric hospital and must maintain a secure, safe, and functioning facility for patients, staff, and visitors.

- c. Identify, to the extent possible, a rate of return on planned expenditures. This could be expressed as operational savings that a planned capital expenditure would yield in future years.

Delaying needed repairs until they become critical generally jeopardize the health and safety of the patients, staff, and visitors; results in costly special maintenance and/or capital outlay project funding; disrupts the CFP mission of providing psychiatric treatment to patients.

CENTER FOR FORENSIC PSYCHIATRY (CFP)

Capital Outlay Five-Year Plan (Attachment E - IV.a.)

Building	Project	Brief Project Description	Facility Priority	Cost Estimate	Status	Funding Source
CFP	Build a Facility Kitchen	To ensure the safety of the meals the patient are being served. Currently, we are contracting with a vendor that is preparing the patients meals at Walter Reuther Hospital and then transporting the meals to The Forensic Center.	1	\$8,000,000		
CFP	Anti-Ligature	Do to recent surveys by both, JC & CMS, it has been identified that we are not meeting the standards of ligating the ligature risks in the patient care areas and evaluation unit, including furniture, window dressings, computer and TV enclosures. The ligature risks identified needs to be addressed by June 2021 (received an extension to be completed by June 2021). We are required to report to JC monthly on our progress in addressing	1	\$4,000,000		
CFP	Replace flooring in patient areas	The existing flooring has become an infection problem due to age.	2	\$500,000		
CFP	Install Fire Roadway Inside Secured Fence & Upgrade Fire Alarm System	Install paved road to ensure fire trucks can access all of the facility fire hydrants in the event of an emergency. The system has not been upgraded since 2003. The computer is operating on "Windows 98" and needs to be replaced by the vendor.	3	\$600,000		
CFP	Replace Heating Control Valves & heating system Victaulic fittings.	Existing valves and Victaulic fitting are failing. The increased frequency of leaks could potentially become an infection control concern (mold).	4	\$950,000		
CFP	Replace all Counters & Cabinets on Patients Units	The laminate countertops & cabinets located in all the patient care areas are breaking which is creating and infection control problem that we have been cited for by JC and CMS.	5	\$250,000		
CFP	Replace and/or repair cement in the front entrance area (heated concrete) of the building, including patient yards and other areas	Replace and/or repair crumbling cement in the entrance area of the building, including patient yards and other areas. Failure to replace and/or repair creates a safety hazard (trips and falls) for Patients, staff and visits.	6	\$350,000		
CFP	Modify Bar Screen Building to Minimize the Handling of Hazardous Waste	Modify the existing lift station/bar screen building to minimize the handling of hazardous waste by staff, including modifying the roof to prevent heavy snow and ice from sliding off and onto someone entering the building. This is a health and safety hazard.	7	\$475,000		
CFP	Parking Lot Maintenance	Perform maintenance on the parking areas to ensure the safety of visitors and staff. This needs to be done annually. Crack sealing annually. Seal coating biannually. If not done it shortens the life expectancy.	8	\$25,000 annually \$50,000 biannual		
CFP	Replace the Building Security System PLC's	The Allen Bradley PLC are at the end of life for support and replacement.	9	\$400,000		
CFP	Replace Main Building Cooling Chillers	Units are approaching their end of life cycle. In need of replacement to eliminate future high maintenance costs and reliability.	10	\$900,000		
CFP	Exercise Equipment	Replace old patient equipment, add electrical to all of fitness rooms and check room design to ensure that they meet all codes and JC requirements.	11	\$300,000		
CFP	Medical Equipment	Replace old outdated medical equipment.	12	\$300,000		

CENTER FOR FORENSIC PSYCHIATRY (CFP)

Capital Outlay Five-Year Plan (Attachment E - IV.a.)

Building	Project	Brief Project Description	Facility Priority	Cost Estimate	Status	Funding Source
CFP	Replace Chilled Water Ice Tanks	Units are approaching their end of life cycle. In need of replacement to eliminate future high maintenance costs and reliability.	13	\$2,100,000		
CFP	Repair Terrazzo Flooring	Due to cracking and missing pieces, the terrazzo flooring needs repairs to prevent trips and falls in our main street area (patient activities area) and tweener area leading to the units.	14	\$300,000		
CFP	Audio Visual Systems	The AV systems in the Auditorium, Bureau and Conference Room are outdated. It's really hard to hold conferences and seminars as the system equipment is not compatible the current software and operating systems.	15	\$500,000		
CFP	Replace Handicap Parking Lot Service Area	All asphalt needs to be removed and replaced due to ongoing cracking and heaving, which, creates a safety risk and the potential of not meeting ADA requirements. Replace the asphalt and redesign docking area based on usage and the increased traffic in the area.	16	\$1,200,000		
CFP	Replace Carpeting and furniture in Non-Patient Areas.	Carpet and furniture in non-patient are is becoming worn, discolored and frayed.	17	\$700,000		
CFP	Replace all Parking Lot and outside building lighting with LED lights.	LED lighting is more efficient. The saving on the energy cost and maintenance upkeep will pay for the cost.	18	\$250,000		
CFP	Convert fire suppression system in the patient dining rooms and main street hallways	Convert existing wet fire suppression system to a dry system. The fire suppression system froze and burst this past winter above the ceilings in the patient dining rooms and on main street.	19	\$300,000		
CFP	Replace Heating Boilers	Boilers are approaching their end of life cycle. In need of replacement to eliminate future high maintenance costs and reliability.	20	\$450,000		
CFP	Building landscaping renovation	The existing landscaping is unsightly and unappealing. If replaced with a lower annual maintenance requirement type, it would give the facility a new look and feel that could be enjoyed by the visitors, employees and the community.	21	\$100,000		
				\$23,000,000		
CFP	Food Carts & Anti-Ligature	Replace Aging Food Carts/Chiller System & Anti-Ligature		\$1,446,000	In Progress	Split 50/50: 2016 LSSM Allocation & 2016 Agy Operating Funds 391/16265.APL
CFP	Domestic Hot Water System	The CFP building was designed without hot water return piping from the patients units. To ensure proper and safe water temperature at all times, a hot water return piping system needs to be installed.		\$200,000	In Progress	2017 LSSM Allocation 391/17164.APL
CFP	Various	See projects listed below: (\$2,170,000 plus DTMB fees)		\$2,554,090		2016 Agy Operating Funds Proj #: 391/16443.APL
CFP	Anti-Ligature	Anti-Ligature in bathrooms and showers.		\$355,000	In Progress	391/16443.APL
CFP	Anti-Ligature: Replace Patient Furniture	Replace worn out patient beds and chairs which is now an infection control and safety problem for the patients at CFP.		\$445,000	In Progress	391/16443.APL
CFP	Upgrade Emergency Energy Source	Replace Propane Emergency alternative energy source to ensure reliability.		\$200,000	In Progress	391/16443.APL
CFP	Reglazing Building Envelope	Replace all deteriorated glazing and caulking to ensure the thermal efficiency and water integrity is maintained on the building exterior.		\$75,000	In Progress	391/16443.APL

CENTER FOR FORENSIC PSYCHIATRY (CFP)
 Capital Outlay Five-Year Plan (Attachment E - IV.a.)

Building	Project	Brief Project Description	Facility Priority	Cost Estimate	Status	Funding Source
CFP	Replace Bathroom Exhaust Diffusers, Clean and Balance the Exhaust System Serving the Patient Units.	Replace the steel ceiling diffusers with stainless steel, clean and balance the exhaust system that serves the patient units at CFP ensure its maintaining system efficiency.		\$150,000	In Progress	391/16443.APL
CFP	Replace Chilled Water Filter System	In need of replacement to eliminate future high maintenance problem and costs.		\$85,000	In Progress	391/16443.APL
CFP	Parking Lot Maintenance	Perform maintenance on the parking areas to ensure the safety of visitors and staff.		\$50,000	In Progress	391/16443.APL
CFP	Repair/Replacement of Cooling System #7 Ice Tank	The CFP facility has a Thermal Energy Storage System that has seven ice tanks that match building cooling load. Part of tank #7 needs repair to maintain the cooling capacity of the system.		\$200,000	In Progress	391/16443.APL
CFP	Add Cooling Chillers to the Building Emergency Generator Power.	The CFP building has a limited number of outside windows. In a long term power outage during the summer months, the building will not be able to maintain the proper air quality standards unless the cooling chillers are added to the building emergency generator power.		\$250,000	In Progress	391/16443.APL
CFP	Various	Cement Repairs		\$300,000	In Progress	391/16443.APL
CFP	Various	Window/Tempered Glass		\$60,000	In Progress	391/16443.APL

I. MISSION STATEMENT AND PROGRAM DESCRIPTION

The mission of Hawthorn Center is to provide children and adolescents with evidence based/supported and trauma-informed inpatient mental health services that meet the highest standards of quality in the context of an integrated, patient centered, wellness oriented, pro-active safety culture.

Hawthorn Center is the only state hospital that offers inpatient psychiatric care to emotionally impaired and mentally ill children and adolescents who are residents of the State of Michigan.

Hawthorn Center treats children and adolescents who have a severe mental illness and serious emotional disturbances. Most of the patients have longstanding histories of trauma, extreme difficulties in functioning at home, in school, and in the community. Almost all have had previous mental health interventions, including multiple inpatient treatment episodes, and many have a variety of medical complications.

An interdisciplinary team provides treatment, with the goal to provide a client centered and trauma informed/integrated treatment approach that includes individual psychotherapy, psychoeducation, milieu and activity therapy (both in hospital and outside community), individualized special education experience, psychopharmacology treatment and family treatment. Behavior treatment plans are developed when therapeutically indicated.

Currently, there are four active patient units with a capacity of 14 patients per unit, or 56 patients for the hospital. The physical plant does have two additional units that are in the administrative (Main) portion of the hospital that are not being fully utilized due to their physical condition. Each one of these areas have the capacity to house an additional 14 patients per unit but would require extensive overhaul including modernizing and creating barrier free bathrooms, and showers, improving site lines for patient safety, removing potential ligature risks, and updating bedroom and common room furniture. During the Fiscal Year minor improvements in terms of functionality and safety were made to these units to house patients on quarantine or isolation status to closely monitor for possible COVID-19 infection.

The hospital's current spending plan, condition of the physical plant, and behavioral exigencies permit up to 56 patients in four units.

The Hawthorn Center has a certified school on site to meet the special education needs of the children and adolescents.

Hawthorn Center's mission statement also makes clear the facility's commitment to integrated patient safety systems. An integrated patient safety system is a health care organizational safety infrastructure that supports the following:

- A learning organization culture
- A fair and just safety culture
- A robust quality improvement system that collects data, analyzes data, uses data to inform decisions, and report findings
- Validated methods to improve processes and systems
- A proactive approach to risk reduction
- Standardized ways for interdisciplinary teams to communicate and collaborate.

- Safely integrated technologies
- A patient centered approach that encourages patient and family activation in the safety process

II. PROGRAMMING CHANGES

Hawthorn Center mission statement indicates a commitment to respond to the changing needs of the service community. All admissions, other than Incompetent to Standard Trial admissions, require Community Mental Health Authority approval and involvement during patient stay and discharge planning bearing the responsibility for post discharge treatment. Hawthorn Center accepts both long-term patients and short-term patients.

In recent years, patient presentations have become much more complex – increased symptoms of severe mental illness, extreme behaviors, co-morbid developmental conditions, profound deficits in functional communication skills, and medical conditions are noteworthy. Several patients have minimal or no family supports and have become the responsibility of the Michigan Department of Health and Human Services. An increasing number are involved with the juvenile/family court system. Some have court ordered treatment for restoration due to incompetence to stand trial (IST) and not guilty for reasons of insanity (NGRI) determinations. As a result of these changes in the nature of our patient population, the average length of stay has drastically increased from 89.9 days in FY 15-16 to about 128.66 days current fiscal year. Additionally, the current COVID crisis has resulted in drastically reduced availability of placement options and treatment services within the community. Consequently, patient movement out of the hospital into community-based services has diminished causing longer lengths of stay during a time when the need for hospitalization has increased.

In order to better meet the needs of our population, we have a Transitional Unit for youth who still need hospital level care but who are awaiting return home while sophisticated after care plans are developed. Without such sophisticated aftercare plans, youth are prone to psychiatric hospitalization re-admission. Children's Transition Supports Team (CTST) helps to develop these sophisticated plans and technically assists the community in maintaining them. The CTST is housed at Hawthorn Center and supervised by Hawthorn Center Medical Staff.

Hawthorn Center has developed a Developmental Behavioral Unit for children that have been diagnosed with severe developmental/behavioral problems (Autism Spectrum Disorder and Intellectual and Developmental Disability). This unit specializes in the use of applied behavior analysis for the care and treatment of this very challenging population. This requires a very structured and staff intensive treatment environment as well as specialized educational programming.

III. FACILITY ASSESSMENT

Subjective Narrative:

Hawthorn Center is comprised of Main Building (North Wing) which houses two patient living areas that are currently unoccupied, and the South Wing which houses four patient living units that are currently occupied. The facility is about 250,000 square feet on about 45

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HAWTHORN CENTER**

acres.

The Main Building was built in 1955 and is a two-story structure constructed of masonry, brick, concrete, and steel. This includes A, B, C, and D sections. E, F and G sections were added to the Main Building in 1962, 1964, and 1967. This building houses two closed patient living areas, clinical, business, and administrative offices, Office of Recipient Right offices, support service areas such as the Main Kitchen and a Maintenance Shop, recreational facilities such as a gym, movie theater, and swimming pool, classrooms for the Special Education services and storage space. All but two livings which need extensive renovations are fully used.

The South Wing was built in 1975 and is a two-story structure constructed of masonry, brick, concrete and steel and is attached to the Main Building. The South Wing includes H, J, K, L, and M sections. The building houses four patient living areas, reception and visiting area, classrooms for Special Education services, clinical office space, kitchen, swimming pool and gym. It is in somewhat better condition than the Main portion. A project to install a new roof on South Wing was completed in 2009.

Both structures are settling resulting in regular and serious foundation and plumbing problems. Asbestos abatement is necessary in both structures in order to make even surface improvements. Heating, ventilation, and cooling systems are manually operated making it very difficult to manage comfort. As a whole, due to adjacency issues, the facility is not conducive to current medical community expectations for behavioral care, treatment, and services.

Funding was approved for the following projects that are in progress, approved or near completion:

- Risk Mitigation Building Project: A proactive risk analysis had identified areas as presenting potential ligature/safety risks to the population being served. Areas that were addressed in this project included: Seclusion Room bathrooms, Sick Bay bathrooms, Common Area ligature management (door knobs), Locker Rooms, School bathrooms, Lobby bathrooms.
- Hospital Safety: The steps and sidewalk leading from the school courtyard to the parking lot are in disrepair causing a tripping/safety hazard for both patients and staff and are being replaced.
- Galvanized plumbing in the main building to be replaced with copper
- Entrance doors in south wing school and courtyard
- Furniture replacement in the lobby and visitor rooms
- Abatement of floor tiles in Main Building hallways and offices, and installing carpet
- Ligature risks not addressed in Main building patient activity areas
- Replacing locksets throughout hospital
- Proximity card access at specific locations

Specific Narrative:

- a. Building utilization rates compared to industry standards - Hawthorn Center is the only state hospital that offers inpatient psychiatric care to children and adolescents (ages 4 through 17) who have a serious emotional disturbance or severe mental illness who are

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residents of the State of Michigan.

- b. Mandated facility standards for program implementation - Hawthorn Center maintains its accreditation with Joint Commission for Accreditation of Healthcare Organizations. Further, it is monitored by the state Medicaid Office for compliance with the Centers for Medicare and Medicaid Services (CMS) guidelines.
- c. Functionality of existing structures and space allocation to program areas served -There are two gyms, two swimming pools, two occupational therapy rooms, a music therapy room, an art room, and dance therapy. In addition, there are patient care areas, a school, and dining space. These are all separate, presenting significant line of sight and adjacency issues which make safe and modern behavioral programming challenging.
- d. Replacement value of existing facilities - \$85 million
- e. Utility system condition - Electrical service to the Main Building was designed and installed 60 years ago. During FY2003, a 500 KVA transformer replaced an undersized 225 KVA transformer.

As a result of the Separation of Utility Services Project at Hawthorn Center in 2006, heat in the Main Building and South Wing is provided from gas fired boilers that produce hot water that is used for radiant heat and domestic use. The HVAC system in the South Wing is 44 years old. The HVAC systems in both buildings are manual/pneumatic making it near impossible to maintain consistent comfort. Hawthorn Center has received several Recipient Rights complaints specifically related to significant temperature fluctuations in the building especially during weather/temperature transitions. Energy efficiency and pneumatic controls still need to be upgraded.

The Main Building had completed an overhaul of the HVAC system on the second floor in FY2002. The overhaul of the first floor HVAC started with the replacement of windows in FY2003. Funding is needed to complete the first floor HVAC project.

A full building inspection of sewage waste lines is necessary due to the building subsidence mentioned earlier. Two fractured lines have been repaired in FY16.

- f. Facility infrastructure condition – the Main building roof has passed its' useful life and is currently ponding and leaking into the building. This creates potential health and safety hazards.
- g. Adequacy of existing utilities and infrastructure systems to current and five-year projected programmatic needs – The utilities and infrastructure systems in this post-World War II structure are failing. As noted earlier, the manually controlled pneumatic HVAC system cannot provide consistent comfort for staff and patients. Further, the structure is subsiding resulting in damage to foundation and plumbing. Finally, adjacency issues make safe provision of behavioral treatment, care and services a challenge. Foundations are failing. Transformer(s) are aging, storm drain, and sewer system is old and needs examination/repair. As noted previously, Hawthorn Center's Main building was built over 60 years ago. Plumbing consists of galvanized pipe.

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Decades of exposure to water have caused galvanized pipes to corrode and rust on the inside seriously reducing water flow and quality. Some of the galvanized plumbing has rusted through causing leaks. The galvanized plumbing in the hospital's Main building should be replaced eliminating potential exposure from leaching pipes. In a new study, researchers clearly show that lead present in the zinc coating of galvanized steel pipes can be a very significant long-term source of lead in water. Special Enterprise Maintenance fund project has been approved for this and is at the initial stage.

- h. Date of most recently completed energy audit - February, 2009
- i. Land owned by the agency - Hawthorn Center is located on approximately 45 acres. If there were a need to expand, there is space to do so, particularly after the cottages were demolished. A storage Pole Building was built recently. Space or open ground around the facility is needed to maintain the privacy and safety of the patients.
- j. Conclusion: Given the exigencies noted above, consideration needs to be given regarding viability of the structure where behavioral treatment, care and services are rendered.

IV. IMPLEMENTATION PLAN

Priority 1

Project Title: Roof Replacement A, B, C, D, E and F Sections

Estimated Costs: \$1,250,000

Project Description: Roof replacement - Roof is currently in disrepair requiring monitoring and patching. Water is ponding on roof. Delaying project increases risk of mold and facility damage.

Priority 2

Project Title: Replace Loading Docks

Estimated Costs: \$100,000

Project Description: Safety Risk: Loading docks are in disrepair, one has been closed as it is unsafe for staff.

Priority 3

Project Title: South Wing Kitchen Equipment

Estimated Costs: \$100,000

Project Description: Replace 40 plus year old range, dishwasher, and refrigeration unit;

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replace plumbing for grease trap and fixtures.

Priority 4

Project Title: Air Conditioning- Main Building

Estimated Costs: \$2,500,000

Project Description: Air Conditioning –Main Building, First and Second Floor- Administrative Offices, intern and resident offices, training area, cafeteria, other patient activity areas. Current air conditioning is provided in minimal locations by window units which is highly ineffective and costly electric bills.

Priority 5

Project Title: Window Privacy film – South Wing living areas

Estimated Costs: \$50,000

Project Description: Patient Safety/Privacy; patient bedrooms and living area common areas: install privacy film and glass guard on second floor windows in M, K, L, and classroom wings.

Priority 6

Project Title: Parking Lot Lights

Estimated Costs: \$85,000

Project Description: Replace all existing 50+ year old sodium haloid street lamps with new 20' posts and LED lamps. Install new wiring in conduit for future repairs to address several patches that are direct bury. Add several additional lights to the islands. All to increase safety and security of staff and patients and increase the cost effectiveness of the current lighting. Lighting has failed in several locations.

Priority 7

Project Title: *Laundry Equipment*

Estimated Costs: \$60,000

Project Description: Replace industrial washers and dryers due to age and heavy usage

Priority 8

Project Title: Upgrade HVAC System

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Estimated Costs: \$10,000,000

Project Description: Install energy management system. Replace pneumatic system with direct digital control, replace air handlers and dampers, remove cellulose fibers from ductwork.

Priority 9

Project Title: Main Building Renovations

Estimated Costs: \$5,225,000

Project Description: Living area renovations of two unoccupied living areas to make those areas suitable for patient care; Outside Perimeter fencing for safety and security; Electrical upgrade; Anti-ligature risks not addressed in FY17-18 MOP; Elevator in Main Building; Update A section classrooms including removal of asbestos tiles, new windows and air conditioning; Renovate Main Building Lobby.

Priority 10

Project Title: Boiler Replacement

Estimated Costs: \$400,000

Project Description: Boiler replacement in G and D sections including backup boilers as required. Provide South Wing with backup. Current system has exceeded the life expectancy

Priority 11

Project Title: Asbestos Flooring Abatement

Estimated Costs: \$1,000,000

Project Description: Continue flooring abatement and replacement of carpeting A, B, C, D, E, and G sections for infection control per joint commission recommendation.

Priority 12

Project Title: Ceiling Tiles-Main Building

Estimated Costs: \$500,000

Project Description: Replace metal pan ceiling with lay-in ceiling tile in Main Building that is deteriorated and falling.

Priority 13

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Project Title: Office Furniture

Estimated Costs: \$500,000

Project Description: Replace 40 to 60 years old office furniture throughout the hospital.

Priority 14

Project Title: Replace Living area Observation Chairs

Estimated Costs: \$60,000

Project Description: Current upholstery on office chairs cannot be sanitized-need chairs with nonpermeable covering.

Priority 15

Project Title: Sewer Lines Repair

Estimated Costs: \$50,000

Project Description: Repair of collapsed sewer lines and drains identified camera inspections.

Building	Project	Brief Project Description	Facility Priority	Cost Estimate	Status	Funding Source
Hawthorn Center	Roof Replacement A, B, C, D, E, and F sections	Roof Replacement - Roof is currently in disrepair requiring monitoring and patching. Water is ponding on roof. Delaying project increases risk of mold.	1	\$1,250,000	Pending Approval	Legislative Appropriation
Hawthorn Center	Replace loading docks	Loading docks are in disrepair, one has been closed as it is unsafe for staff. Safety Risk	2	\$100,000	Pending Approval	Agency Funds
Hawthorn Center	South Wing Kitchen	Replace 40 plus year old commercial equipment ie range, dishwasher, refrigeration unit, and upgrade plumbing for grease trap	3	\$100,000	Pending Approval	Legislative Appropriation
Hawthorn Center	Air Conditioning - Main Building	Air condition north wing, first floor – administrative offices, intern and resident offices, training area. Current air conditioning provided by window units.	4	\$2,500,000	Pending Approval	Legislative Appropriation
Hawthorn Center	Window Privacy film – South Wing living areas	Patient bedrooms and living area common areas: install privacy film and glassguard on second floor windows in M, K, L, and classroom wings.	5	\$50,000	Pending Approval	Agency Funds
Hawthorn Center	Parking lot lighting	Replace all existing 50+ year old sodium haloid street lamps with new 20' posts and LED lamps. Install new wiring in conduit for future repairs to address several patches that are direct bury. Add several additional lights to the islands. All to increase safety and security of staff and patients and increase the cost effectiveness of the current lighting. Lighting has failed in several locations.	6	\$85,000	Pending Approval	Agency Funds
Hawthorn Center	Laundry	Replace commercial washers and dryers due to age and heavy use	7	\$60,000	Pending Approval	Agency Funds
Hawthorn Center	Upgrade HVAC System throughout the Hospital	Install energy management system; replace pneumatic system with Direct Digital Control system, replace air-handlers, remove cellulose fibers from ductwork in Southwing	8	\$10,000,000	Pending Approval	Legislative Appropriation
Hawthorn Center	Main Building Renovations- Listed below:		9	\$5,225,000	Pending Approval	Legislative Appropriation
	Living Area Renovations	Hawthorn Center currently has two unoccupied living areas that are located in the Main Building. The following would be needed in order to make these areas suitable for patient care: new bedroom suites, new TV room furniture, new office furniture, bathroom/shower renovations, remove carpet and replace with vinyl flooring, install video surveillance, upgrade electric system, upgrade plumbing, paint rooms/hallways, demolish and move staff office to improve sight lines		\$2,000,000		
	Safety and Security - Outside Perimeter	Install tip-ins to current fenced play area; fence Central Playground with security fencing and add playscape		\$500,000		
	Electrical Upgrade	Living Areas - St. Clair and Superior, also A and G sections.		\$175,000		
	Anti-ligature	Secondary ligature risks not addressed in FY17-18 MOP		\$250,000		
	Install Elevator/Main Building	Install elevator in Main Bldg. to serve clients housed on 2nd floor (if Main Bldg renovations are approved)		\$2,000,000		
	A Section Classrooms	Update A section classrooms, includes removal of asbestos tiles (replacement with vinyl), upgrade electrical, install new lighting (LED), install new windows, install air conditioning, paint walls and ceiling		\$200,000		
	Renovate Main Building Lobby	Install reception desk, replace furniture, remove display cabinets, install new lighting, security cameras, and new ceiling		\$100,000		
Hawthorn Center	Boiler Replacement	Boiler replacement "G" and "D" Sections and South wing. The current system has exceeded the life expectancy. There is no back up. The system has failed several times in the past and required expensive maintenance. Seals are leaking and potential carbon monoxide may be released. Joint Commission requires that a suitable back-up system be installed. Engineering study has been conducted by Century A & E	10	\$400,000	Pending Approval	Legislative Appropriation

Building	Project	Brief Project Description	Facility Priority	Cost Estimate	Status	Funding Source
Hawthorn Center	Asbestos flooring abatement	Continue flooring abatement and replacement of carpeting in A,B,C,D,E and G sections to help with infections control and clean environment.	11	\$1,000,000	Pending Approval	Legislative Appropriation
Hawthorn Center	Ceiling Tiles - Main Bldg.	Replace metal pan ceiling in Main Bldg that is deteriorated & unsightly	12	\$500,000	Pending Approval	Agency Funds
Hawthorn Center	Office Furniture - Sets	Replace 40 to 60 year old office furniture throughout hospital	13	\$500,000	Pending Approval	Agency Funds
Hawthorn Center	Replace Living Area Observation Chairs	Upholstery on office chairs cannot be sanitized - need nonpermeable covering.	14	\$60,000	Pending Approval	Agency Funds
Hawthorn Center	Sewer Lines	Repair of collapsed sewer lines and drains, identified through camera inspection of previous MOP	15	\$50,000	Pending Approval	Agency Funds
Hawthorn Center	Various Projects Completed /In Progress	See Below :		\$2,848,340		MOP 391/16444.APL
Hawthorn Center	Ceiling Tiles - Main Bldg.	Anti-ligature and Safety Risk Mitigation and partially renovate locker rooms and showers located in the South wing and gym.			Completed	2016 Agency Funds & MOP 391/16444.APL
Hawthorn Center	Boiler Replacement	Boiler replacement "C": The primary boiler has failed and is no longer on-line. Heat is being provided to three main sections (A, B, and C) of the hospital with a back-up boiler system which does not sufficiently heat these sections. If this back-up system fails, these sections of the hospital would no longer be heated. Century A&E has already done an engineering study for the replacement of the boiler.			Completed	
Hawthorn Center	Paving	Utility Access Road in back of Hospital - Need accessible roadway to generator, tractors			Completed	MOP 391/16444.APL
Hawthorn Center	Storage	Construct new barn for storage needs.			Completed	MOP 391/16444.APL
Hawthorn Center	Flooring	Replaced carpet with vinyl flooring in hallways.			In progress	MOP 391/16444.APL
Hawthorn Center	Flooring	Cafeteria tile replacement			In progress	Agency Funds
Hawthorn Center	Sewer Lines	Feasibility study of sewer line			Completed	MOP 391/16444.APL
Hawthorn Center	Replace 60 year old mortise locksets and keys that are used throughout the hospital.	The mortise locksets and cylinders that are currently used throughout the hospital are over 60 years old and replacement parts are no longer manufactured. This is beginning to create both a safety and security risk to building occupants as keys or locksets fail. Replace mortise locksets throughout the entire hospital.		\$750,000	In progress	MOP 391/16444
Hawthorn Center	Keyless entry. Proximity card access to key hospital access points.	Expand keyless entry/computerized system that uses proximity cards to allow access to secure locations throughout the hospital. Approximately 60 doors would have this system installed. Networked through hospital camera security system to add/remove access rights.		\$250,000	Completed	MOP 391/16444
Hawthorn Center	Safety Risk. Replace galvanized plumbing - Main Building	Hawthorn Center's Main Building was built over 60 years ago. Plumbing consists of galvanized pipe. Decades of exposure to water have caused galvanized pipes to corrode and rust on the inside seriously reducing water flow and quality. Some of the galvanized plumbing has rusted through causing leaks. Replace galvanized plumbing in hospital Main Building eliminating potential exposure from leaching pipes. In a new study researchers clearly show that lead present in the zinc coating of galvanized steel pipes can be a very significant long-term source of lead in water.		\$750,000	In progress	FY19 Enterprise-wide Special Maintenance - 491/19037.SDW

Five-Year Capital Outlay Plan – Kalamazoo Psychiatric Hospital

I. Mission Statement

The Kalamazoo Psychiatric Hospital will provide trauma informed person-centered inpatient psychiatric service and support, respecting the needs, dignity, individuality and cultural diversity of its patients, employees, volunteers and the communities it serves.

II. Programming Changes

None – Continue to work with nursing department to provide necessary physical improvements to the environment.

III. Facility Assessment

The Kalamazoo Psychiatric Hospital (KPH) provides inpatient adult psychiatric services through a lease agreement with Western Michigan University (WMU) for utilization of specific buildings. KPH operates its hospital service programs from a quadrangle complex of six buildings, with some of its support operations housed in the separate buildings. An assessment of the physical condition of the buildings, leased by KPH, is reflected below by specific hospital service system.

Quad Building Structure (Good Condition)

The hospital structure is in good condition.

The minor concerns are:

- 1) Plaster conditions - A great deal of plaster repair is required due to the age of the facility. Maintenance continues to find and repair these issues as quickly as possible.
- 2) Trees – The property has several dead or dying trees on the property. KPH has started working with a vendor to remove them; however, it will take some time to accomplish the task. Trees that are a safety issue will be dealt with first followed by trees that could affect the structural integrity of the hospital buildings.
- 3) Cooler/freezers – We have at least 3 cooler/freezers that need to be replaced due age a condition in the kitchen prep area. They need to be replaced with up to date and more energy efficient equipment.

The major concerns are:

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- 1) Anti-ligature project. The scope of this project is to address ligature concerns expressed by Joint Commission during their 2019 inspection. Includes, but not limited to, the replacement or modification of toilet dispensers, sinks and faucets, shower control panels, bathroom dividers, curtains, beds, door knobs, door closers, grab bars (complete), towel dispensers, hinges, garment hooks, heater grates, interior drain covers, light fixtures, wardrobes, electrical raceways and fixtures, plumbing fixtures and pipes, patient phones, and more.
- 2) Phone system – The phone system is antiquated at best. We continuously see issues with phone connectivity and programming. Obtaining business set replacement phones are very difficult. All phone sets are refurbished. This is a safety issue for both staff and patients. The phone system will become completely obsolete by 2025. AT&T will not be able to support KPH phone systems. We need to update to voice over IP system.
- 3) Roadway and Parking areas – The roadways around KPH need to be repaved in some area and resealed in other instances. Resealing would go a long way in extending the life of the areas of black top that are in good shape now beginning to show signs of weathering or in the early stages of failure. Any repaving or sealing would also then need to be restriped.
- 4) Sewer Lines – The drainage and sewer lines are very old and have been subjected to years of chemical cleaning that has weakened or destroyed them. Piping is replaced as necessary, however great lengths of it are buried within the facility floors/walls. Our greatest risk is the pipe from the kitchen to the sewer system. Nearly 100 feet of that has been replaced by our licensed plumber, however hundreds more feet need to be addressed. The last section of pipe replaced in July 2017 had sections of piping that had eroded more than 50 percent away. We expect the piping to improve the further we get away from the kitchen area, the point of entry for the harsh cleaning chemicals that were formerly used, however we know that there is more pipe damage down slope from what we have already replaced.

Building Roof (Excellent to Fair Condition)

The main quad building roof has continued to age and shows additional end of life failures such as seam failures. KPH coated the roof to Building 1 in 2018 and Buildings 2, 3, 4 and 7 in 2019. Approximately 75% of the main quad roof was done with a White Restoration Coating while 20% was done with a Black Rubber Coating. 5% had no re-surfacing done. All of Building 7 was done in 2019 with the White Restoration Coating. The Gate Cottage roof was re-done in 2020. The Chapel is in need of a new roof.

a. Building utilization rates compared to industry standards

KPH is one of three public hospitals that provide adult inpatient psychiatric services to residents of the state. Hospital overall bed capacity is 205 beds.

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The current average census is 158.

- b. Mandated facility standards for program implementation, where applicable (for example, federal/industry standards for laboratory facilities, hospitals, compliance with consent decrees, etc.):

KPH follows Joint Commission and Life Safety Code standards; however, our departments are continually looking at methods of further improving our compliance.

- c. Functionality of existing structures and space allocation to program areas served.

The programming areas within the Kalamazoo Psychiatric Hospital have been made as functional and aesthetically pleasing as possible, given the structural limitations of the buildings. The facility is adequate to meet the current and projected needs of the program.

Projects aimed at improving the programming areas available within the hospital include:

- 1) Installation or replacement of air conditioning in various areas.
- 2) Renovation of a former office wing into a unit to expand the availability of patient beds and streamline patient therapeutic and learning opportunities.
- 3) The addition of a CMMS (computerized maintenance management software) to streamline maintenance efforts, improve communication, and improve repair part stocks not adequately provided by SIGMA.

BUILDING	BUILDING PURPOSE	STATUS	SQ. FT.
Administration (1)	Office Building	Active	58,765
Acute Medical (3)	Hospital	Active	35,147
Booster Pump (72)	Utility Storage	Inactive	N/A
Children's Unit/Pheasant Ridge (7)	Maintenance	Active	37,176
Female Infirmary (4)	Hospital	Active	44,134
Female Receiving (1A)	Hospital	Active	58,909
Gate Cottage (42)	Museum	Active	2,199
Interfaith Chapel (14)	Chapel	Active	6,323
Male Infirmary (2)	Hospital	Active	35,399
Male Receiving (1B)	Hospital	Active	37,016
Shed	Warehouse/Storage	Active	N/A
Shed	Warehouse/Storage	Active	N/A
Shed	Warehouse/Storage	Active	N/A
Water Tower (49)	Utility Storage	Active	0
Grounds Building (8)	Maintenance	Active	1500

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- d. Replacement value of existing facilities (insured value of structure to the extent available):

Not known.

- e. Utility system condition (for example, heating, ventilation, and air conditioning (HVAC), water and sewage, electrical, etc.):

Electrical System (Good Condition)

Under the lease agreement with Western Michigan University (WMU), primary electrical service is the responsibility of the WMU Power Plant.

Power requirements in some areas have outdistanced available panel boards and secondary electrical rewiring is needed in some areas. KPH Maintenance staff has undertaken the installation of additional panel boards and the upgrading of electrical wiring when possible. Usage of some current raceways are maxed out based on electrical code. New raceways are needed in some instances. Old incandescent and fluorescent lighting is being replaced with LED lamps and fixtures with the overriding goal to convert all lighting to LED over the one to two years.

Water System (Good Condition)

Cold water is provided by the City of Kalamazoo. Cold water lines are operationally solid. Secondary lines are good, but they are very old and need occasional repair.

Hot water is provided under terms our of lease by the WMU power plant. The hot water lines are in fair condition. The installed hot water recirculating system continues to supply hot water on demand to our patient areas but is undersized to provide our own supply of hot water should the power plant fail.

Drain System (Fair Condition)

The drainage/sewer lines are very old and have been subjected to years of chemical clean-out practices that have weakened them. While drainage and sewer piping is replaced as necessary, great lengths of it are buried within the facility floors/walls. Most of the internal piping is in adequate condition, KPH is at risk with the piping coming out of the kitchen preparation area as previously mentioned.

Steam System (Fair to Good Condition)

The steam lines are in fair to good condition. The insulation of the steam piping is problematic from an economic and safety perspective. Because of the insulation's poor condition, large amounts of heat are lost to the atmosphere, increasing utility costs. Also, the much of the pipe insulation is an asbestos containing material which is abated as necessary by an

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independent contractor. Under the lease agreement with WMU, primary steam service is the responsibility of the WMU power plant.

The steam and condensate piping should be considered for replacement pending verification of condition once individual services can be isolated to accomplish the infrastructure repairs. It is suspected that the condensate pipe is in the worst condition, but the steam line has likely been in service since the 1920's and may well require replacement. It is suggested that a renewal program include an allowance for replacement to assure the long-term reliability of these services. A consequence of not performing this work would be the loss of steam to the facility. If it would be in the wintertime, both the high-pressure steam to the kitchen and the facility heat source for the air handlers would be lost.

In the Fall of 2018 we developed a steam leak from the main hospital to the Chapel. While this is a unique system as it is subject to road vibrations, it did indicate to us the potential wear of both the supply and condensate pipes.

Ventilation System (Good Condition)

The ventilation system is operationally sound.

Compressed Air System (Excellent Condition)

The WMU Power Plant reliably supplies quality compressed air (dried) for use with the hospital's refrigeration and ventilation equipment. KPH has an air compressor with an air dryer that is capable of supplying quality compressed air to equipment in the case of a WMU Power Plant failure.

- f. Facility infrastructure condition (for example, roads, bridges, parking structures, lots, etc.):

Roadway Systems/Parking (Fair Condition)

The roadway system and parking lots which service our hospital is in fair condition. Certain areas suffer from significant pot holes and cracking and patches are failing. Repaving of these areas is needed. Some roads are subject to heavy truck traffic with the majority of it being trucks associated with WMU.

- g. Adequacy of existing utilities and infrastructure systems to current and five-year projected programmatic needs:

The utilities and infrastructure systems are adequate for current and five-year projected programmatic needs.

- h. Date of most recently completed energy audit, and, if an energy audit has yet to be completed, what is the plan/schedule for doing so?

2006.

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- i. Land owned by the agency, including a determination of whether capacity exists for future development, additional acquisitions are needed to meet future demands, or surplus land can be conveyed for a different purpose:

The Kalamazoo Psychiatric Hospital leases buildings and surrounding areas from Western Michigan University. The hospital buildings and grounds occupy approximately 35 acres, which is maintained by the hospital maintenance staff.

IV. Implementation Plan

- a. Itemized listing of major capital projects by priority, including brief description and estimated cost. (*Adjust previously developed or prior year's figures utilizing industry standard CPI indexes where appropriate*):

See Kalamazoo Psychiatric Hospital (KPH) Capital Outlay Five-Year Plan spreadsheet in this document.

- b. Define the impact of addressing deferred maintenance and structural repairs, including programmatic impacts, immediately versus over the next five years:

This facility has several projects listed on the Capital Outlay Special Maintenance Request. Of those KPH has started on the anti-ligature, fire suppression, and fire door replacements, KPH must show continual progress of this anti-ligature project to satisfy the Joint Commission. All other special maintenance requests will be performed in order of priority, once funding is secured.

- c. Identify, to the extent possible, a rate of return on planned expenditures. This could be expressed as operational savings that a planned capital expenditure would yield in future years.

Delaying needed repairs until they become critical usually results in costlier special maintenance project costs and disruption in the hospital's mission of providing safe patient care and treatment.

KALAMAZOO PSYCHIATRIC HOSPITAL (KPH)
Capital Outlay Five-Year Plan (Attachment E - IV. a.)

Building	Project	Brief Project Description	Facility Priority	Cost Estimate	Status	Funding Source
KPH	Anti-ligature	Continues to be a need to address ligature concerns throughout the hospital. Joint Commission requires that this continue to be an ongoing priority.	1	\$500,000	\$120,000 remaining on current Anti Lig MOP. KPH continues Anti Lig coverage.	
KPH - All areas	Phone replacement	Replace the phone system. It is antiquated and continued use puts the hospital at risk of not being able to communicate internally or externally with patient guardians, first responders, etc.	2	\$600,000	Phone system is nearing obsolete status. Is this a DTMB statewide project?	
KPH - Kent St. & Kent Circle	Replace Existing Roadway	The roadway has numerous pot holes that have been patched over the years and is in need of significant patching or replacement.	3	\$300,000		
KPH	Storm Drain Repairs	A minimum of 5 storm drains are not working properly, causing water to back up or not otherwise being taken away properly. This is potentially placing the hospital at an environmental risk by having rain run off going to the earth and creating the potential of erosion damage.	4	\$500,000		
KPH	Repair/Replace Doors	To be compliant with the Joint Commission and the 2012 Life Safety Code (NFPA 101), we will need to replace many fire doors. Most doors are original or near original and with modifications over the years when there were less stringent fire codes have rendered these doors non-compliant. Failure to replace them places patients at risk and will create citations from TJC and Fire Marshal.	5	\$200,000	Original funding approved for \$200,000.	
KPH	Repair/Replace Doors	Phase II for additional funding. To be compliant with the Joint Commission and the 2012 Life Safety Code (NFPA 101), we will need to replace many fire doors. Most doors are original or near original and with modifications over the years when there were less stringent fire codes have rendered these doors non-compliant. Failure to replace them places patients at risk and will create citations from TJC and Fire Marshal.	6	\$100,000	Estimate to replace doors is closer to \$300,000.	
KPH	Install Sprinklers	Phase II- KPH need to be 100% sprinklered per the 2012 NFPA 101 and therefore the Joint Commission as well as for the overall safety of patients and staff. Approximately 1/3 of the hospital is sprinklered already so much of the infrastructure exists. Phase I was funded with FY 19 Enterprisewide Special Maintenance funds. All patient areas must be done with ligature concerns in mind which dramatically increases the cost. It is recommended to break this project up into smaller chunks over the next several years to make to manageable.	7	\$5,200,000	Phase I started. Phase II funding approved, contracts not issued as of 8/3/2020.	
KPH, Bldg 1	Interior drain lines replacement	Replace the drain lines in building 1 from the Serveteeen to the sewer system. We have drain lines stemming from the kitchen that have been eaten way through many years of harsh chemical cleaning. Potentially, we are putting kitchen waste down into the earth below causing contamination and erosion. Additionally, the lines can back up into the kitchen's food prep area placing food operations and therefore the patients at risk.	8	\$200,000		

KALAMAZOO PSYCHIATRIC HOSPITAL (KPH)
Capital Outlay Five-Year Plan (Attachment E - IV. a.)

Building	Project	Brief Project Description	Facility Priority	Cost Estimate	Status	Funding Source
KPH - Life Safety Drawings	Create Life Safety Drawings	The hospital does not have good life safety drawings. The ones it has are hand drawn and lack certain critical information due to a lack of CAD capability. LSD are critical to providing answers for questions and requirements the Joint Commission, Fire Marshal, and other inspecting agencies will look for.		\$50,000	Complete	Paid from Hospital Funds. Money originally designated for this had to be moved to the handrail project.
KPH - Tunnel area between Bidg 4 and power plant	Repair of tunnel structure	The tunnel that carries the steam and condensate piping between the WMU power plant and KPH has been structurally compromised over the years of service, most likely the 1920's. The tunnel could collapse removing steam heat from KPH, the hospital's primary heating and cooking source.		\$3,500,000	Closed - WMU sured up tunnel	N/A
KPH - All patient areas	Security Screens	Installation of security screens. With an increasing number of patients being admitted the risk of attempted patient escape has risen. Proposal is to install screens in the unsupervised patient occupied areas keeping the screens compatible with the ones previously installed with the new window project in 2014.		\$300,000	Complete	16442.CAK
KPH - All patient areas	Anti-Ligature	Replace all objects in patient areas with like anti ligature object, per Joint Commission request. Includes items such as beds, door knobs, grab bars, light fixtures, shower control panels, sinks & faucets, and many others. We intend to focus this money on patient safety projects and fixtures.		\$600,000	In Progress - \$435,000 remains	16442.CAK
KPH - All roof areas	Repair/replace roof	Roof shows signs of being past its life expectancy and needs to be repaired or replaced to prevent further damage within the hospital. Scheduled to be completed in FY2018.		\$832,000	Substantially Complete	16442.CAK
KPH - Handrails	Repair several handrails and entrance concrete	We have several areas that are significantly compromised either by bad concrete, bad handrails, or both. This has created significant safety issues with patients and visitors.		\$163,263	Substantially Complete	2017 Enterprise wide Special Maintenance Allocation.
KPH - Exterior Sewer	Repair broken sewer line	Deteriorated sewer lines outside of building 3 was located a few years ago. This needs to be repaired/replaced. We expect to complete this repair in late FY2017 or early 2018 and is currently in progress.		\$75,000	Substantially Complete	2017 Enterprise wide Special Maintenance Allocation.
KPH - All patient areas	Anti-Ligature	Replace all objects in patient areas with like anti ligature object, per Joint Commission request. Includes items such as beds, door knobs, grab bars, light fixtures, shower control panels, sinks & faucets, and many others.		\$800,000	In progress - \$798160 remains	18055.CAK
KPH	Install Sprinklers	KPH need to be 100% sprinklered per the 2012 NFPA 101 and therefore the Joint Commission as well as for the overall safety of patients and staff. Approximately 1/3 of the hospital is sprinklered already so much of the infrastructure exists. All patient areas must be done with ligature concerns in mind which dramatically increases the cost. It is recommended to break this project up into smaller chunks over the next several years to make to manageable.		\$4,200,000	Phase I	FY19 Enterprise wide Special Maintenance

KALAMAZOO PSYCHIATRIC HOSPITAL (KPH)
Capital Outlay Five-Year Plan (Attachment E - IV. a.)

Building	Project	Brief Project Description	Facility Priority	Cost Estimate	Status	Funding Source
KPH, Bldg 1	Interior drain lines replacement	Replace the drain/sewer lines in building 1 from the last repair to the exterior sewer system. We have sewer lines stemming from the kitchen that have been eaten way through many years of harsh chemical cleaning. Potentially, we are putting kitchen waste down into the earth below the drain pipes causing contamination and erosion. We also can back up into the kitchen's food prep area placing food operations at risk.		\$98,200		391/17163.C DP- LSSM
KPH	Security Upgrade	Add interior security checkpoints and add exterior camera coverage. KPH needs to control visitors better. There are currently no physical barriers, as in other State facilities, to keep visitors from gaining access to the heart of the hospital. Further, better camera coverage on the exterior of the building is needed to protect staff and visitors. We currently do not have camera coverage on all parking lots and in some areas we cannot get a good enough picture due to the camera technology at the time of installation, that leaves our staff and visitors at risk from bad actors. Further, we need to upgrade our camera software. We are several generations behind and this places patients and staff at serious risk.		\$250,000	KPH not ready to pursue this project at this time.	
KPH - Bldgs 2, 3, 4, 7, Gate Cottage, Chapel	Repair/replace roof	Roof shows signs of being past its life expectancy (over 20 years old) and needs to be repaired or replaced to prevent further damage within the hospital. We recommend the application of the same product as we did building 1, 1A, and 1B in to reduce costs significantly over a complete reroof. The applied membrane material generates a 12 year warranty at approximately 1/2 the cost. This request also includes addressing, at a minimum the cap stone and fascia needs.		\$1,500,000	Project complete. KPH creating punchlist of areas that need to be looked at by the vendor.	
KPH	Brick Tuckpoint	The penthouses are in dire need of tuckpointing. Failure to address this issue will cause damage to the roof system and within the hospital itself. Further, there are multiple points around the hospital that need to be addressed. Unlike the penthouses, these are intermittent and not nearly as widespread, but a couple of areas are potentially dangerous and will worsen over time and winters. We also have at least 1 large piece of limestone that is in the wall that has been pushed out slight.		\$250,000	Project complete. Cost was significantly lower than original estimate.	
Gate Cottage	Historic Repairs	Repairs are needed for the roof, chimney, and interior walls. This is a historic building that the SOM is currently responsible for. We are looking to possibly turn this over to WMU, however until that is completed, KPH and the SOM are responsible.		\$50,000	Near completion 8/3/2020.	
KPH - Kitchen	Install AC	Install AC in the kitchen cooking area. With ovens, stoves, steamers, dish machines, temperatures in the kitchen get quite warm. In order to properly size any AC, air studies need to be completed.		\$100,000	KPH not ready to pursue this project at this time.	

Five - Year Capital Outlay Plan Components

I. Mission Statement

The mission of Walter P. Reuther Psychiatric Hospital is to provide an appropriate range of active inpatient psychiatric treatment services to best meet the needs of adults with severe mental illness in collaboration with community mental health agencies and authorities.

II. Programming Changes

Walter P. Reuther Psychiatric Hospital's (WRPH) programming accepts adult patients from 18 years of age and up. The top Capital Outlay priorities are to replace update antiquated operational environmental equipment to ensure a Healthy, Secure and Safe environment throughout the facility and campus. WRPH has no planned program eliminations or facility closures.

III. Facility Assessment

The WRPH is a 273,844 sq. ft. facility consisting of three buildings that was originally constructed in 1973. The main building comprising 256,982 sq. ft houses patients. The main building requires multiple updates and repairs as requested below.

a. Building utilization rates compared to industry standards.

WRPH is one of five public hospitals that provide inpatient psychiatric services to residents of the state. The hospital's authorized census is for 180 patients. For the year 2020, this census has been temporarily lowered due to the COVID-19 pandemic.

b. Mandated facility standards for program implementation, where applicable (i.e. federal/industry standards for laboratory facilities, hospitals, compliance with consent decrees, etc.).

The Joint Commission (JC) and Center for Medicaid/Medicare Services (CMS) visited in 2017 and again in 2018 resulting in WRPH cited for several deficiencies. In 2017 the following repairs were completed: replaced exam tables, installed ligature resistant hand rails in shower room toilet areas on R1 through R6.

In 2018 through 2019 projects addressing deficiencies included: Installation of ligature resistant door knobs/hinges on all patient rooms, installation of ligature resistant faucets in all patient bathrooms, replacement of all non-ligature resistant patient beds, replacement of all patient wardrobes with ligature resistant lockers, replacement of window sills, replacement of all non-ligature resistant hallway and stairwell handrails throughout main Hospital and patient areas, installation of fire suppression system and smoke detectors throughout Hospital.

The Kitchen area located in the basement will require renovation

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according to CMS physical plant findings of 2017. Kitchen floor does not slope to remove water in dish tank and pot and pan tank areas. Condensation removal from dishwashing unit requires upgrading to exhaust directly out of kitchen to outside. Currently, fan system to exhaust up through seventh floor from the basement results in continued leaks and ceiling tile damage. Stagnant water on floors, dented equipment, and non-working equipment requires updating and replacement of area.

In 2014 Joint Commission minor deficiencies were cited and the repairs completed. These items included: developed Annex egress sidewalk, mechanical shaft steel platforms, emergency egress lighting/wiring, and duct cleaning. Recent repairs completed include: Installation of new boiler controls, replace fill in cooling towers, replace concrete structures, and installed new fire suppression system on seventh floor.

Office of Attorney General Audit finding of front and back hospital entry/exit points not secure and in constant need of repair. This finding was completed and cited deficiencies in 2018. Audit finding for WRPB key control and accountability no upgrade for key locking has been done since 1993. Installation of Card access for all facility entry points and on each floor unit entry was completed in 2019. Install new Best Core locks throughout hospital 2019. Current project to install and upgrade area/floor entry/exit doors adding card swipe entry system is to continue through FY20.

In 2020 the update of the surveillance cameras on perimeter and grounds area for patient safety and security of state buildings and land began. Upgrade security system throughout interior and exterior hospital, current system is not adequate, and parts are not available. CMS requirement of additional activities/programs included throughout the interior of the hospital as well as exterior grounds leading out to multiple roadways. Security system including but not limited to cameras is required to ensure patient security and safety throughout the property.

Window sills require replacement along with the outside window sealants throughout the hospital as cited by Joint Commission and CMS in 2017/2018 audit.

Replacement and installation of fencing around the grounds area and north parking lot for patient security and safety to conduct required outside activities and programs as required by CMS, as well as, to prevent theft and damage to staff/visitor vehicles.

Repair and resurface south parking and side road for safety. Parking areas have broken concrete, crushed stone, and pot holes creating safety concerns for staff, visitors. Increased cost to maintain snow equipment broken from servicing this area. Area is needed to accommodate the number of staff working at the hospital.

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Construct equipment storage building on site to secure multiple lawn care and snow removal equipment, storage of salt, dirt and gravel used throughout the complex annually. Currently, all equipment is stored outside exposed to inclement weather year - round decreasing useful life cycle, increasing cost of repairs and preventive maintenance.

c. Functionality of existing structures and space allocation to program areas served with additional activity therapy building.

In 2016 WRPB increased its census to approximately 180 patients. In 2020 this was temporarily adjusted to 157 to address the COVID-19 pandemic.

WRPB completed the construction build of an 18,000 square foot A.T. Building which is connected to the eastside of the hospital. The A.T. Building provides the purpose of addressing the space needs for physical activities and scheduled programs required for our patients.

With both the main hospital building and the A.T. Building, patients are provided with easy access to full-spectrum of mental health services and programs.

Reuther Hospital - 256,982 sq. ft.
Reuther Administrative Wing - 13,862 sq. ft.
Power Plant - 3000 sq. ft.

d. Replacement value of existing facilities (insured value of structure to the extent available).

Facility Condition Assessment by FTC&H Architects and Engineering completed January 2015; assessment provided a comprehensive facility review of the infrastructure of WRPB. A Capital Cost Model was prepared for Walter P. Reuther Psychiatric Hospital Facility Condition Assessment to generate cost estimates to summarize and compare potential investments over the planning horizon.

e. Utility system condition (i.e. heating, ventilation, and air conditioning (HVAC), water and sewage, electrical, etc.).

All utility systems at WRPB are beyond their useful life currently at 48+ years. The HVAC chillers and cooling tower are also beyond their life expectancy. A new HVAC computer system upgrade has been completed FY18.

The hospital chiller is broken and beyond repair. In 2019, the hospital was cited by CMS for excessive heat in the building that placed the health of our patient's in jeopardy. For the past two years, WRPB has had to use a rented, temporary chiller at significant cost.

However, replacement of: Absorption Chillers, controls, Air handlers,

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dampers, actuators, and dual duct boxes are required to complete the upgrading of this system. Replace and upgrade two absorption chillers and cooling tower. Current system is 7 years old one steam absorption chiller has several interior tubes ruptured and second unit is currently functioning at 47 years old. Cooling tower is 47 years old and is inefficient capacity and structurally collapsing.

An additional Cooling Tower is required to balance operations of the overall system it was estimated that one of the two original cooling towers was previously removed and not replaced in prior years. Upgrading these systems will increase hospital's cooling capacity and greatly reduce energy consumption and will meet life safety requirements.

Replacement of high voltage electrical panels and electrical switchgears which includes the Main Distribution Panel to the Hospital and the Main Transformer. The electrical panels require replacement due to excessive water damage and past useful life 48+ years to meet Life Safety Code.

Plumbing systems are of original construction (48+ years) and develop frequent leaks causing disruption to patient care need to update Domestic Hot Water System. The system requires updating Heat exchanger and Hot water pumps. One pump is working the back up pump is not workable, past its useful life and parts are not replaceable. If system goes down there is no hot water throughout hospital.

- f. Facility infrastructure condition (i.e. roads, bridges, parking structures, lots, etc.).

The main hospital's south parking lot and main roadway was listed in the Facility Condition Assessment by FTC&H Architects and Engineering completed January 2015 and Capital Outlay report. The parking lot and roadway continue to deteriorate rapidly. This replacement of parking and roadway was removed from original project included in the AT building construction do to funding.

- g. Adequacy of existing utilities and infrastructure systems to current and five-year projected programmatic needs.

Infrastructure systems are not adequate and require current and five-year projected programmatic needs with a plan for replacement, update and repair of items listed in Capital Outlay request

- h. Date of most recently completed energy audit, and, if an energy audit has yet to be completed, what is the plan/schedule for doing so:

Last energy audit is unknown. WRPB will reach out to utility companies to see if one has been completed and/or if one can be completed in the future.

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- i. Land owned by the agency, including a determination of whether capacity exists for future development, additional acquisitions are needed to meet future demands, or surplus land can be conveyed for a different purpose:

The WRPB is located on approximately 14.33 acres in Westland. There is a need to expand and there is space to do so. Space or open ground around the facility is needed to maintain the privacy and safety of the patients.

IV. Implementation Plan

This facility is currently requesting major capital projects and has been submitted in priority order listing total of 16 items.

- a. Itemized listing of major capital projects by priority, including brief description and estimated cost. (Adjust previously developed or prior year's figures utilizing industry standard CPI indexes where appropriate):

See Attached Spreadsheet.

- b. Define the impact of addressing deferred maintenance and structural repairs, including programmatic impacts, immediately versus over the next five years:

Failure to provide special maintenance funding and or Work Order approved funds to maintain the facility consistent with industry standards and National Patient Safety Goals creates increased facility repair costs and unnecessary demands on facility maintenance staff; creates potential health and safety problems for patients and staff; results in WRPB non-compliance with Joint Commission and Centers for Medicare and Medicaid Service and typically results in taking programming areas out of service while critical projects are being performed. Failure to address structural operational issues can result in shut down of basic functions of heat, water and cooling.

- c. Identify, to the extent possible, a rate of return on planned expenditures. This could be expressed as operational "savings" that a planned capital expenditure would yield in future years.

Delaying needed repairs until they become critical will result in higher cost, increased special maintenance project costs and disruption in the hospital's mission of providing safe patient care and treatment. Delays in operational equipment replacements i.e. Chillers, Electrical panels etc. can result in implementation of an emergency plan to ensure safety and security of patients. Delaying repairs can result in non-compliance with Joint Commission and Center for Medicare and Medicaid accreditation.

WRPH Capital Outlay FY 2022

Building	Project Description	Reason Description	Facility Priority	Cost Estimate	Status	Funding Source
WRPH Facility	Replace Absorption Chillers, Controls, and Cooling Tower	Current are past useful life 40+ years. Cooling tower is of inadequate capacity and 30 years past average serviceable life. Life Safety need for patients and staff. Environment and temperature controls are Joint Commission and CMS requirements. Significant energy cost savings. Additional funding will be necessary.	*1	\$2,200,000	In Process - additional funding will be necessary.	
WRPH Facility	Replace South Parking Lot and Roadway.	The South parking lot and roadway are over 40 years old. aintenance and repair of potholes and crumbled asphalt is ineffective. Replacement is needed to prevent future accidents to staff and visitors, and property damage claims. Will need to include lighting upgrade as well.	2	\$1,000,000		
WRPH Facility	Replace exterior joint sealants (windows/doors)	Replacement of all exterior joint sealants. CMS recommendation. Energy savings.	3	\$250,000		
WRPH Facility	Kitchen Renovation and Upgrade	CMS audit for FY17 identified physical plant issues in Kitchen areas; stagnant water on floors, improper drainage, inadequate storage and work space.	4	\$3,250,000	Partial funding had been approved and then revoked	
WRPH Facility	Replace Fencing Around Outside Patient Access Areas and Add Around North Parking Lot	Secure outside area for patient movement, activity, and programs. Joint Commission, CMS, and ORR requirements. Theft and property damage to staff/visitor vehicles leading to property damage claims.	5	\$300,000		

WRPH Capital Outlay FY 2022

WRPH Facility	Automated Medication Dispensing System	Dispensing system for accuracy Patient Pharmaceutical distribution and equipment storage areas	6	\$200,000	In Process	Agency reviewing contract for all Hospitals to upgrade.
WRPH Facility	Replace Energy Recovery Unit, Dampers, and Actuators	Replace unit, dampers and actuators - 47 years old past serviceable life. Life safety issue. Joint Commission and Energy Savings.	7	\$412,500		
WRPH Facility	Air Handler Upgrade	Install variable motor fans, update air handlers/return fans to balance air flow and ventilation. Cost Efficiencies Quality of Life	8	\$750,000		
WRPH Facility	Replace Main Distribution Panel and Electrical Panels	Replace panels for facility power distribution located in basement. Electrical panels need to be replaced due to water damage and age. Life Safety Code concern with Joint Commission.	9	\$600,000		
WRPH Facility	Replace Dual Duct Boxes	Replace all dual duct boxes to update and include DDC controls - current system is 47 years old and significantly past useful life. Convert Pneumatic to Electronic	10	\$1,200,000		
WRPH Facility	Replace Main Transformer	The main transformer for hospital is 40+ years old, past useful life, and needs to be replaced. Failure would result in complete power loss presenting significant Life Safety concerns.	11	\$682,500		

WRPH Capital Outlay FY 2022

WRPH Facility	Add Card Reader Entry to All Restrooms, Conference Rooms, and Other Multi-Use Areas	Per FY18 OAG Audit - To reduce the number of keys distributed to 400+ staff to open secured areas of the facility.	12	\$150,000		
WRPH Facility	Upgrade Cubicle and Shared Use Areas	Reconfigure cubicles, update materials and equipment to meet the demand and changes of the department and staffing. Current configurations and equipment exceed 30+ years.	13	\$150,000		
WRPH Facility	Equipment Storage Building	Protect and secure facility maintenance trucks, lawn care and snow removal equipment, store bulk salt, dirt, gravel. Will decrease need for frequent replacement/repair of these items.	14	\$500,000		
WRPH Facility	Replace Granite Window Sills	Replace broken/loose granite sills. These can become weapons or articles of self-abuse. CMS and Joint Commission Life Safety standards	15	\$125,000		
WRPH Facility	Anti-ligature Furniture	Replace furniture in patient Common Room areas with anti-ligature furniture. Joint Commission Life Safety standards.	16	\$175,000		
WRPH Facility	Domestic Hot Water System	Heat exchanger and hot water pumps have reached end of useful life at approximately 40+ years. Provision of hot water is necessary for Life Safety and is a standard of the Joint Commission and CMS.		150300	In Process	

WRPH Capital Outlay FY 2022

WRPH Facility	Site Security Upgrade	Upgrade existing security camera system to meet increased camera installations for fencing and observation areas within/outside the hospital	450000	In Process	Agency MOP?
WRPH Facility	Physical plant and overall hospital environment must be developed and maintained for the safety and wellbeing of patients	Joint Commission multiple ligature points throughout facility in patient rooms door knobs, door handles, hinges, faucets parts of beds.	\$675,000	Completed	Agency MOP 391/16266.MN B, 391/16441.MN B
WRPH Facility	Replace Bathroom Doors on Five Units R2-R6	Remove and Replace 100 bathroom doors existing doors are past useful life and cause safety hazard.	\$307,000	Completed	Agency MOP 391/16266
WRPH Facility	Install new smoke detectors in patient rooms, add fire suppression system throughout patient units, patient activity and education rooms. Add monitoring points to current fire alarm system.	Patient, staff, visitor, and facility safety. Meet fire code, CMS, and Joint Commission Life Safety Code standards.	\$1,141,622	Completed	Agency MOP. 391/14072.MN B, 391/14076.MN B

WRPH Capital Outlay FY 2022

WRPH Facility	Built in Furniture - Patient wardrobes.	This will decrease the number of ligature points in patient rooms throughout the facility. Joint Commission Life Safety standards.		\$600,000	Completed	Work Order - 491/18067.MN B Legislative Appropriation
WRPH Facility	Replace Entry Doors	Replace front entry lobby doors and rear of building entry doors per OAG audit FY17.		\$125,000	Completed	Agency - Facility Appropriation Funds
WRPH Facility	Install card access	Security access entry for hospital entry doors in the lobby, rear of building entrance, entry to unit doors. Install card access for limited entrance/exit doors and entry. Joint Commission Security standards.		\$106,000	Completed	Agency - Facility Appropriation Funds
WRPH Facility	Roof Replacement	Roof leaks and is seperating form parapit. Existing is 40+ years old. Life safety, health and sanitation.		\$985,000	Completed	Work Order - 491/18056.MN B Legislative Appropriation

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