

## Fiscal Year 2016 Capital Outlay Plan and Request

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**DEPARTMENT OF TECHNOLOGY,  
MANAGEMENT AND BUDGET  
CAPITAL OUTLAY PLAN  
Fiscal Year 2016**

**1. MISSION**

Facilities & Business Services Administration (FBSA) is responsible for building operations, Building Occupancy Agreements within DTMB-owned buildings, leased space and capital outlay project management in the executive branch of state government. This office is responsible for operating, managing and maintaining 7.2 million rentable (9.8 million gross) square feet of space in 41 state-owned or managed buildings, 906 acres of land and nearly 14,000 parking spaces in 14 parking ramps and 38 parking lots. DTMB has four major areas of responsibility related to capital outlay:

- Provide for remodeling and renovations as well as improve building infrastructure and systems to enhance energy, security and space efficiencies. This includes necessary planned improvements and addressing deficiencies as they become known. It also includes the planning and prioritization of future state space and building needs and to contract capital improvements and service contracts to meet the operational needs of tenants in DTMB-owned and managed facilities.
- Manage the engineering study, design, construction and remediation services contracts, perform on-site field inspections throughout the duration of authorized projects for all state departments and the Judiciary, as well as provide oversight for community college and university capital outlay projects.
- Procure and manage approximately 495 leases and rental agreements and 5.6 million square feet of leased space for all state agencies; developing and implementing statewide strategic real estate planning for leased and DTMB managed facilities; maximize the occupancy of state owned space; implement space standards and executive directives on lease reductions and space consolidations; provide for systems furniture installation and minor maintenance services; dispose of state surplus real property; and provide other services related to land management including jurisdictional transfers, easements, licenses and permits.
- The Office of Infrastructure Protection (OIP) is responsible for security measures and emergency response efforts in all DTMB-managed facilities. OIP coordinates all programs and activities associated with Homeland Security and emergency management activities for DTMB offices and State facilities. OIP administers the employee parking program. OIP's main focuses in relation to capital outlay are campus and building security systems, building fire and emergency notification systems, emergency dispatch and monitoring systems and surveillance camera systems.

DTMB's mission here is to manage and maintain state space for tenant agencies, freeing them to focus on their core functions.

## **2. PROGRAMMING CHANGES**

### **2.1 Space Optimization**

DTMB has a need to systematically review leased and state space utilization, as well as cancellation, co-location and relocation opportunities that would result in cost savings and efficiencies created through operational adjacencies. Operationally, it is most efficient to host employees in state-owned space. Fiscal savings can be achieved through the elimination of leased space. Additional savings may be achieved through utility use reductions.

Operational changes and the deployment of new technology have resulted in a leaner, changing workforce resulting in excess usable space. Funding is required to capitalize on under-utilized space. Substantial restacking and space utilization efforts have begun as is evident by the sizable investments in Constitution Hall and the Stevens T. Mason Building. These efforts should produce significant lease savings, dependent on final tenants. It may be necessary to seek additional appropriations in future years as additional underutilized state-owned buildings are targeted.

There is a growing demand for up to date vacancy information for the state's leased and owned offices, which is constantly changing. Currently, DTMB must rely on occasional occupancy studies or agency-reported data to determine vacancy rates. Future information technology and personnel funding may be necessary to keep this data up to date. Doing so could identify substantial space saving opportunities.

### **2.2 Direct Current Ceiling Grid**

DTMB Building Operations Division is exploring a new technology utilizing direct-current (DC) for certain areas of larger buildings. This technology allows for flexibility in renovation or transitioning of space for new programs or changes in the utilization of space. Essentially, the technology allows for easy movement of lighting utilities located in the ceiling grid without re-wiring. It has been installed in the Flint State Office Building with a solar panel array that provides an opportunity to use DC power generated locally to light the building.

### **2.3 Energy Audits**

DTMB Building Energy Assessment Team (BEAT) is staffed with members from the various zones in the Building Operations Division. Their mission is to tour and assess each DTMB owned building to identify energy savings opportunities and produce a Facility Energy Audit. By utilizing details highlighted in the audit, BOD plans to pursue US EPA Energy Star ratings for qualifying facilities. Assessments are completed for 23 facilities to date. A major finding throughout is the opportunity to convert incandescent and fluorescent lighting to solid-state LED lighting for a 30% operational savings.

### **2.4 Statewide Energy Benchmarking**

The statewide benchmarking program is an initiative driven from the Governor's Office, to have all state facilities benchmarked for energy consumption. The

Environmental Protection Agency ENERGY STAR Portfolio Manager assessment and rating program is the data base tool that has been selected to measure and benchmark energy performance in state buildings. This project targets state owned buildings that are more than 20,000 sq. ft. in size and are currently occupied by 100 or more full-time employees. There are currently 1030 facilities benchmarked. Additionally, MI Energy Star is a web-based, mobile scorecard, that provides snapshot benchmarked information of State of Michigan facilities.

### **3. FACILITY ASSESSMENTS NARRATIVE**

Building Operations Division (BOD) staff conduct annual assessments of all DTMB buildings and facilities using standardized assessment processes. Staff from all facility-related areas of expertise participate in the facility assessments to assure that they are reviewed by applicable trades and disciplines. The results provide a good overview of each facility's general condition and are used to define issues with various building components and systems.

BOD Maintenance Engineering staff review the design life of assets along with condition index and remaining service life. Warranty expirations and projected useful life are evaluated and comparisons are made asset to asset and building to building.

Space utilization studies for DTMB-managed and state leased facilities are evaluated to determine if funding is needed for agency consolidations to improve building occupancy agreement (BOA) space efficiencies and to reduce space costs. This evaluation is conducted by Real Estate and Design & Construction personnel.

Projects estimated at \$50,000 or less that would not require professional services are typically funded by Miscellaneous Operating Projects (MOPS) or operating funds and removed from further consideration as capital outlay projects. Where logical to do so and to take advantage of potential economies of scale, smaller projects may be incorporated into larger projects, designs or studies and further considered for capital outlay funding.

A team of Facilities and Business Services Administration (FBSA) staff ranks the new projects against standardized weighted criteria to prioritize them. A list of all unfunded projects, ranked in order of priority from highest to lowest is included in the tab "Appendix-Project Backlog". Projects are scheduled based on their priority ranking while considering any job sequencing requirements; the need to perform one project before another can begin. As an example, when large equipment must be removed or installed through the roof of a building, it is always better to do this prior to a major roofing project, resulting in a better roof installation and valid roof warranty. Background and descriptions for projects identified for the upcoming fiscal year are written as part of the annual Capital Outlay Request.

Detailed facility assessments for each building are in the appendix.

## **4. IMPLEMENTATION PLAN**

This section contains DTMB's deferred maintenance and capital renewal requests for fiscal year 2016. These projects support DTMB's mission, goals and priorities to provide a safe, healthy, efficient environment for building tenants and visitors. They are all included in the DTMB FY2016-FY2020 Five Year Plan.

### **4.1 Jackson State Office Building Renovation \$16,680,000**

- a. The Jackson State Office building was originally built in 1982. This project is intended to renovate most of the building, thereby bringing it up to current codes and standards. Upgrades will include replacement of cooling tower, chiller and air handling units with associated pumps and piping. Floor-by-floor renovation and restrooms to ADA compliance along with necessary infrastructure replacement, life safety system and building lighting is also included.
- b. There comes a time in the life of all mechanical devices and systems when failure is imminent. This project is requested for 2016 when the building and systems will be 34 years old. It is very likely that major mechanical failure will occur in the Jackson State Office building if this project is not underway by the requested date. It is not likely that the work can be deferred an additional 5 years without a mechanical emergency and loss.
- c. Increasing utilization of 1<sup>st</sup> floor space available will yield \$64,880 additional revenue to DTMB while potentially eliminating a \$93,500 private lease. Restacking to the new space standards could reduce private lease needs in the area even more. The new lighting system will generate a 25% operating cost reduction while the new chiller system will cost 30% less to operate. There is also an element of cost avoidance with this project that is impossible to accurately predict.

### **4.2 Secretary of State Office Building Renovation \$26,060,000**

- a. Recent engineering studies agree that this building requires major building envelope restoration if it is to remain suitable for use. There are a number of projects identified for this site. Exterior walls are an aggregate stucco panelized system with an original design life of 35 years. Now 44 years old, the panels are failing. Wind and water infiltration, cracks and holes in the exterior are existing problems with deterioration escalating. Windows are inefficient, leaking and need to be replaced. Rooftop air handling equipment is prone to leaking into the building and must be replaced. Heat exchangers, roof-top piping, roofing, lighting, ceilings, fire system, floor tile, carpet, paint and hazardous material abatement are all included in this project.
- b. To defer this project 5 more years would likely result in maintenance patching of walls and roofing that would look terrible. Little, if anything can be done about corrosion occurring inside structural systems. Corrosion can get to a point where structural replacement becomes necessary resulting in potentially 3-fold increases in cost. Significant emergency repair or replacement of equipment and systems would be likely.
- c. The rate of return for this investment includes cost avoidance of emergency response activities to deal with system and equipment failures and mitigates the need to apply "band-aid" fixes to maintain occupancy. It empowers project engineers to design optimum efficiency and utilization into all the systems in the scope of work. While difficult to quantify, the cost of these activities would not

approach the cost of this project within many years but the investment restores the facility to a condition worthy of being a Michigan government asset fit for service.

#### **4.3 Joint Laboratory Optimization**

**\$10,945,000**

- a. This building presently consumes more energy per square foot than any other building in the portfolio. The project delivers an updated and more efficient heating system to compliment controls installed in 2013. The engineering study for this project was funded in 2013 and completed in 2014. It cites the main reason for chiller and boiler replacement is to avoid possible near-term equipment failure. By properly sizing utilities for maximum efficiencies, this project has an energy reduction goal of 40 percent. This project does not address concerns raised by DCH regarding insufficient space in the building.
- b. The possibility of near-term equipment failure has been predicted by a third-party engineering firm. In addition, problems exist with laboratory ventilation capabilities that need to be resolved in this project.
- c. The rate of return for this investment includes cost avoidance of emergency response activities to deal with system and equipment failures and mitigates the need to apply “band-aid” fixes to maintain occupancy. It empowers project engineers to design optimum efficiency and utilization into all the systems in the scope of work. While difficult to quantify, the cost of these activities would not approach the cost of this project within many years but the investment restores the facility to a condition worthy of being a Michigan government asset fit for service. This facility is vital to the health of many Michigan residents.

Building Operations Division works with the Design and Construction Division in the implementation of special maintenance and major projects on a daily basis. A major emphasis continues to be on best design practices for energy efficiency and asset longevity. A standardized and documented approach to project management is used.

The most effective method of facilities maintenance is a balance between a solid proactive maintenance program and capital renewal funding. DTMB is seeking approval of the projects listed in this plan.

**DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET  
2016 - 2020 CAPITAL OUTLAY PLAN SUMMARY**

LOCATION/PROJECT DESCRIPTION	PRELIMINARY PROJECT ESTIMATE				
	2016	2017	2018	2019	2020
<b>DTMB OWNED FACILITIES REQUESTS</b>					
<b>ALLEGAN RAMP</b> Renovate old MSP Post in the Upper Level  Design and install new control panel to operate sump pumps in ramp				\$300,000  \$100,000	
<b>AUSTIN BUILDING</b> Pressurize east, west and center stairway; install fire suppression in the penthouse, and redesign and install lobby entrance heating				\$700,000	
<b>CADILLAC PLACE</b> Upgrade controls and equipment on east and west freight elevators  Install lobby security (req from Office of Infrastructure Protection)  Convert showroom into rentable office space  Repair stone façade (study in progress)  Replace 95-year old piping in building (Phase I)  Replace fire system (requested by Office of Infrastructure Protection)		\$1,800,000	\$1,500,000	\$2,000,000  \$1,200,000	\$1,200,000  \$2,000,000
<b>CONSTITUTION HALL</b> Replace fire system (requested by Office of Infrastructure Protection)					\$750,000
<b>DTMB OWNED BUILDINGS</b> Install dashboard/automated billing/smart metering/green practices. \$1m was identified in the BOD Strategic Plan. The 1st \$500,000 is being funded in 2015.  Energy improvements based on Energy Team findings (to follow dashboard project)	\$521,000	\$500,000	\$500,000	\$500,000	
<b>ENERGY CENTER</b> Replace fire suppression system  Replace boiler #1  Waterproof exterior  Replace roof over office and procurement areas		\$300,000	\$1,700,000	\$500,000	\$200,000

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2016 - 2020 CAPITAL OUTLAY PLAN SUMMARY**

LOCATION/PROJECT DESCRIPTION	PRELIMINARY PROJECT ESTIMATE				
	2016	2017	2018	2019	2020
<b>ESCANABA STATE OFFICE BUILDING</b> Repair/resurface parking lot  Waterproof building exterior  Replace hot water piping  Upgrade elevator controls and equipment to meet current ADA standards  Replace switchgear				\$200,000 \$300,000 \$60,000 \$200,000	\$500,000
<b>FLINT STATE OFFICE BUILDING</b> Parking Ramp - Upgrade elevator controls and equipment to meet current ADA standards (cost will be shared with UM-Flint)  Parking Ramp - Replace fire system controls and equipment (requested by Office of Infrastructure Protection; cost will be shared with UM-Flint)	\$625,000				\$190,000
<b>GENERAL OFFICE BUILDING</b> Upgrade elevator controls and equipment to meet current ADA standards  Renovate restrooms to current ADA standards; scope and replace piping as needed (design is funded)  Waterproof/tuckpoint building exterior		\$2,000,000		\$1,100,000 \$100,000	
<b>GENERAL SERVICES BUILDING</b> Repair/replace drainage system and replace ACU #9 & #10; design funded  Replace portion of roof (one section of warehouse completed several years ago)  Replace reheat coils in AHU 5,6,7,8		\$650,000 \$1,500,000			\$200,000
<b>GRAND RAPIDS STATE OFFICE BUILDING</b> Replace generator transfer switch and fuel source  Replace escalator, ceiling and overhead lighting  Replace transformers  Replace ceiling and lighting on the Court side, Judges level		\$350,000		\$1,000,000 \$200,000 \$200,000	



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LOCATION/PROJECT DESCRIPTION	PRELIMINARY PROJECT ESTIMATE				
	2016	2017	2018	2019	2020
<b>GROUND MAINTENANCE CENTER</b> Repipe leaking steam line from Energy Center		\$150,000			
<b>HALL OF JUSTICE</b> Reconstruct the paver system at east entry and courtyard areas  Replace parking ramp fire suppression system in the east and west parking ramps (requested by Office of Infrastructure Protection)  Install automatic transfer station to the main electrical vault in the Distribution Center		\$2,200,000	\$900,000	\$125,000	
<b>HANNAH BUILDING</b> Renovate restrooms to current ADA standards; scope and upgrade piping as needed; replace storm drains  Replace/refurbish switchgear  Replace motor circuit control panels  Upgrade HVAC System	\$2,606,000			\$1,750,000 \$200,000	\$3,400,000
<b>JACKSON STATE OFFICE BUILDING - LINE ITEM REQUEST</b> Upgrade the building exterior to ensure a water/air tight seal, replace the roof, upgrade life safety systems and improve tenant environment including lighting, heating, ventilation, air conditioning, ceilings, hazardous abatement, fire system, including upgrades to the reporting systems in Central Control, furniture, carpeting, painting, and blinds. Request includes estimated swing space costs for tenants during construction.	\$16,680,000				
<b>JOINT LAB - NORTH COMPLEX - LINE ITEM REQUEST</b> This building presently consumes more energy per square foot than any other building in the portfolio. This project is Phase II of an overall HVAC Renovation project. By properly sizing utilities for maximum efficiencies, this project has an energy reduction goal of 40 percent. Need is URGENT equipment has completed life expectancy and functional use. Major repairs have been made to Chiller CH-2 because of a catastrophic failure of electrical components & controls. Includes replacement of AHU's, HVAC controls, damaged fume hoods, installation of Lab Grade 2 air compressors to replace units that are undersized; and the installation of a heating plant platform.	\$10,945,000				

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LOCATION/PROJECT DESCRIPTION	PRELIMINARY PROJECT ESTIMATE				
	2016	2017	2018	2019	2020
<b>JOINT OPERATIONS CENTER</b> Waterproof exterior					\$200,000
<b>LEWIS CASS BUILDING</b> Resurface Cass D parking lot				\$880,000	
<b>LOTTERY BUILDING</b> Upgrade HVAC system and controls  Renovate restrooms to current ADA standards; scope and upgrade piping as needed  Replace generator and automatic transfer switch that failed on 1/5/12  Waterproof exterior		\$2,500,000			\$1,000,000  \$300,000  \$800,000
<b>MDOT CONSTRUCTION AND TECHNOLOGY BUILDING</b> Upgrade life safety systems and improve tenant environment including lighting, heating, ventilation, air conditioning, ceilings, hazardous abatement, fire system, including upgrades to the reporting systems in Central Control, furniture, carpeting, and painting. This project also includes exterior repairs/renovations to ensure a tightly sealed building.			\$13,300,000		
<b>MDOT WAREHOUSE</b> Waterproof exterior					\$800,000
<b>MICHIGAN LIBRARY AND HISTORICAL CENTER</b> Upgrade elevator controls and equipment to meet current ADA standards. Replace elevator monitoring system.  Waterproof building envelope and repair fountain area  Replace 16 AHUs	\$3,650,000	\$2,500,000			\$3,500,000
<b>OPERATIONS BUILDING</b> Resurface parking lot  Repair exterior including tuckpointing and waterproofing  Replace roof	\$3,127,000	\$450,000			\$2,500,000

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2016 - 2020 CAPITAL OUTLAY PLAN SUMMARY**

LOCATION/PROJECT DESCRIPTION	PRELIMINARY PROJECT ESTIMATE				
	2016	2017	2018	2019	2020
<b>OTTAWA BUILDING</b>					
Renovate restrooms to current ADA standards; scope and upgrade piping as needed; replace storm drains	\$2,606,000				
Replace carpet on 3rd floor				\$230,000	
Replace/refurbish switchgear				\$1,750,000	
Replace motor circuit control panels				\$200,000	
Upgrade HVAC system					\$3,400,000
<b>OTTAWA PARKING RAMP</b>					
Remodel UL hallway including lighting, carpeting, HVAC and ceiling		\$300,000			
Renovate/update UL conference rooms 1-5				\$200,000	
Replace motor circuit control panels				\$200,000	
Construct a secure/dedicated loading dock area (requested by Office of Infrastructure Protection)				\$320,000	
Replace exhaust fan rooms to the outside storm drains					\$100,000
<b>RECORDS BUILDING AND GARAGE</b>					
Replace parking lot and drainage system that have deteriorated beyond repair			\$1,750,000		
Replace single pane glass and aluminum frame windows to reduce energy consumption				\$75,000	
<b>ROMNEY BUILDING</b>					
Install primary electrical switches to prevent power shutdown	\$208,000				
Upgrade elevator controls and equipment to meet current ADA standards	\$2,606,000				
Relace/repair and seal sidewalk wall and pillar bases along the north and west entrances	\$417,000				
<b>SAGINAW</b>					
Replace obsolete switchgear that failed in 2012				\$650,000	
Replace chiller #1				\$500,000	
Replace boiler					\$1,000,000
<b>SECONDARY COMPLEX</b>					

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2016 - 2020 CAPITAL OUTLAY PLAN SUMMARY**

LOCATION/PROJECT DESCRIPTION	PRELIMINARY PROJECT ESTIMATE				
	2016	2017	2018	2019	2020
PH 4 & 5 repair remaining steam tunnel pipe stanchions and replace piping (high priorities completed)		\$6,000,000			

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2016 - 2020 CAPITAL OUTLAY PLAN SUMMARY**

LOCATION/PROJECT DESCRIPTION	PRELIMINARY PROJECT ESTIMATE				
	2016	2017	2018	2019	2020
<b>SECRETARY OF STATE BUILDING - LINE ITEM REQUEST</b> Upgrade building envelope including walls, windows, roof-top equipment and removal of roof-top piping, roof replacement, life safety systems and improve tenant environment including lighting, heating, ventilation, air conditioning, ceilings, hazardous abatement, fire system, restrooms, floor tile removal, carpeting and painting.	\$26,060,000				
<b>STATE POLICE TRAINING ACADEMY</b> Pressurize high rise stairwell  Replace hot water heater and demo the water tank  Upgrade elevator controls and equipment to meet current ADA standards  Replace air handling units  Replace generator  Renovate restrooms to meet current ADA standards		\$750,000  \$1,000,000  \$900,000	   \$5,500,000		    \$200,000  \$1,100,000
<b>TRAVERSE CITY</b> Repair/replace hydronic heating system gaskets and/or pipes  Renovate antiquated restrooms on floors 1-4 to meet current ADA standards  Add a parking lot, sidewalk, parking lot and site improvements  Exterior repairs including waterproofing and tuckpointing as needed				\$100,000  \$375,000  \$500,000  \$800,000	
<b>VAN WAGONER BUILDING</b> Upgrade life safety systems and improve tenant environment including lighting, heating (including lobby entrance), ventilation, air conditioning, ceilings, hazardous abatement, fire system, carpeting, and painting. Estimate includes moving and swing space costs.					\$42,100,000
<b>VEHICLE AND TRAVEL SERVICES</b> Replace parking lot and upgrade lighting as needed  Replace transformers			\$1,800,000	  \$200,000	

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2016 - 2020 CAPITAL OUTLAY PLAN SUMMARY**

LOCATION/PROJECT DESCRIPTION	PRELIMINARY PROJECT ESTIMATE				
	2016	2017	2018	2019	2020
<b>WAREHOUSE COMPLEX</b>					
Building 100 - Exterior renovations and Interior renovations to north half of the building		\$1,650,000			
Repair/replace parking lots and truck loading area				\$1,375,000	
Building 600 - Replace fire system equipment and controls				\$150,000	
Building 600 - Replace roof and insulation				\$1,300,000	
Building 400 - Interior and exterior renovations				\$675,000	
<b>WILLIAMS BUILDING</b>					
Upgrade stairwells (abate, retile and refinish wood handrails)		\$300,000			
Replace fin tube perimeter heating system and insulate the columns to reduce thermal heat loss and reduce risk of freezing pipes; redesign and install lobby entrance heating					\$900,000
<b>TOTAL LUMP SUM REQUEST 2016-2020</b>	<b>\$16,366,000</b>	<b>\$25,800,000</b>	<b>\$26,950,000</b>	<b>\$21,215,000</b>	<b>\$24,240,000</b>
<b>TOTAL LINE ITEMS 2016-2020 (Jackson/Joint Lab/SOS/VanWagoner)</b>	<b>\$53,685,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$42,100,000</b>
<b>TOTAL REQUEST</b>	<b>\$70,051,000</b>	<b>\$25,800,000</b>	<b>\$26,950,000</b>	<b>\$21,215,000</b>	<b>\$66,340,000</b>
Remainder of backlog not included in 5-year plan					\$37,059,000