

**FISCAL YEAR 2016  
CAPITAL OUTLAY PROJECT REQUEST**

**Institution Name:** .....Lake Michigan College  
**Project Title:**.....Napier Academic Building Renovation and Upgrade  
**Project Focus:**.....Academic & Plant Renewal  
**Type of Project:**.....Renovation  
**Program Focus of Occupants:** .....Academics and Student Success  
**Approximate Square Footage:**.....307,997 square feet  
**Total Estimated Cost:** .....\$16,954,646  
**Estimated Start/Completion Dates:** .....October 2015 – August 2018

Estimated project duration is 34 months

**Is the Five –Year Plan posted on the institution’s public internet site?** ..... Yes  No  
**Is the requested project the top priority in the Five-Year Capital Outlay Plan?** ..... Yes  No  
**Is the requested project focused on a single, stand-alone facility** ..... Yes  No

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**Please provide detailed, yet appropriately concise responses to the following questions that will enhance our understanding of the requested project:**

**Project Overview:** Lake Michigan College is applying for Capital Outlay funding to renovate and upgrade the Napier Avenue Campus Academic Facility. This project is identified as our #1 FY’16 Capital Outlay Request. An investment in a 45+ year existing facilities and infrastructure (*scoring criteria a*), the project includes a sustainable design (*scoring criteria d*) which will save approximately \$290,000 in energy costs annually (*scoring criteria d and g*). This project will address current safety deficiencies caused by regular HVAC system breakdowns (*scoring criteria b*). The Napier Avenue Campus Academic Facility is operating at capacity, making temporary space rental necessary at our WMU-SW partner’s facility on our campus and use of off-campus rental space (*scoring criteria c*). We are also restricted currently from adding additional programs and services, including a planned Student Success Center and Faculty Service Center. The estimated cost for this project is \$16,954,646 (*scoring criteria e*), of which the College can assume 50% of the cost (*scoring criteria f*). Operating costs would decrease with the efficiencies achieved through this renovation, both in energy and rental expenses (*scoring criteria g*). We do not anticipate any increase in tuition due to this project (*scoring criteria h*). In addition to the immediate positive job impact due to construction, we anticipate growth in energy production and distribution and regional job growth supported by the new

HVAC system serving as a learning laboratory and employment support due to the creation of a Student Success Center (*scoring criteria i*). Lake Michigan College has not received any State of Michigan capital funding for 11 years (*scoring criteria j*).

**Describe the project purpose:** The proposed project is grounded in two fundamental needs. The first priority for Lake Michigan College is to advance its teaching, learning and student success. LMC classroom and support space design currently is traditional in nature and does not support flexible, interactive and collaborative learning. Additionally, the heating and cooling infrastructure is 45+ years old and while well maintained, has reached the end of its operational life. Replacement will address infrastructure issues and achieve over \$290,000 in energy savings annually. This project is unique in that it marries infrastructure improvement with the ability to provide detailed energy savings data to the classrooms for instructors' use in curriculum development and delivery.

**Describe the scope of the project:** Lake Michigan College proposes modernizing its teaching spaces in its 45+ year old classroom facility along with several areas for student success support and learning including revitalizing space for learning resources, instruction, and expansion of student achievement services. This project will complement a recent \$7.3M College funded renovation of its science laboratories in support of our Science, Technology, Engineering and Math (STEM) initiative. In the classrooms, lecture halls, and student success spaces the College proposes using advanced technologies including, but not limited to, flexible learning spaces, acoustics, ventilation and air quality, and digital technologies to bring multiple forms of media into the learning environment. Energy upgrades of mechanical infrastructure and support systems will include heating, cooling, air distribution and building control systems with new sustainable energy-efficient systems.

Specific project components include:

- Renovate 50 classrooms and 3 lecture halls to improve the classroom environment and incorporate new teaching technologies to enhance student success and better prepare students for the use of "real-world" technologies at work or in advanced studies.
- Create a new service center to assist faculty with redesigning curricula, identifying and learning new technologies, expanding on line learning and incorporating those technologies into the classroom.
- Create new collaborative learning and engagement spaces on the Napier Avenue Campus that will provide students with group study and classroom project preparation areas.
- Replace original heating and cooling plant and air handling units. This equipment is over 45 years old and well past its design lifetime. Annual energy savings is estimated at \$289,941.
- Connect the STEM initiative and the physical plant replacements by bringing the energy data into the classroom, using the building as a real life learning lab.

- Bring building facilities to current ADA standards.
- Provide a Student Success Center to support student retention and successful transition into the workforce.

**1. How does the project enhance Michigan’s job creation, talent enhancement and economic growth initiatives on a local, regional and/or statewide basis?**

This project is squarely aimed at enhancing Michigan’s position as an emerging national center of entrepreneurship and high-technology job growth. The Detroit News reports that the tech industry is growing so fast that there are not enough people to fill job openings. Governor Snyder said, “...on MiTalent.org we have over 60,000 open jobs, good jobs. If we filled those 60,000-plus jobs, we’d drop our unemployment rate by about one and a half percentage points. That’s a lot. So we need to do something different.” **LMC’s project is different.** By incorporating the facility and its infrastructure into the learning process, infusing the latest technologies into the classroom, and expanding collaborative learning and engagement spaces, Lake Michigan College will have new tools and learning environments to better prepare graduates with the technological and soft skills demanded by employers. “The global equation is powerful. A new and diverse consumer base generates more revenue and more revenue equates to business growth for Michigan,” said Michael Finney, president and CEO of MEDC. Based on one-on-one interviews with area business leaders, LMC will support **the introduction of 260 jobs to this region in three years** with this project. Additionally, the creation of a Student Success Center will help students navigate from college into the job market.

**2. How does the project enhance the core academic and/or research mission of the institution?**

Lake Michigan College is committed to providing programs and services of the highest quality. Excellence is one of the College’s five core values. This request will close the four decade gap between the current state of classrooms and the type of spaces needed to deliver classroom content in a fast-paced, technology-driven and collaborative environment. Learning spaces and support furnishings will be **flexible, adapting easily to different student learning styles and teaching methods.** Given the age of the facility and the heating and cooling infrastructure, we are not able to deliver curriculum consistently using updated technologies, nor are we able to provide a comfortable environment conducive to learning and student success. This project will create learning spaces that give students the tools, comfort, and engagement opportunities that will allow them to thrive academically.

While the College updates two-to-three classrooms per year from its operations and capital budgets, the pace of progress is not sufficient. A large-scale refurbishing will promote more collaborative learning, group projects, and team activities across all academic areas. Re-wiring of classrooms to accommodate new technology, particularly in the area of individual computing, and improved lighting is essential to preserving the quality of instruction at Lake Michigan College.

**Classroom design impacts student success.** Two LMC programs provide evidence of this: the science and dental assisting programs.

At the conclusion of a recent Title III grant program, 11 science labs at the Napier Avenue Campus were upgraded with new student stations, manipulatives, and technology aides. The successful course completion rate in introductory science courses increased 5%; retention of first-time, full-time students increased 8%; and the three-year graduation rate for science majors increased by 6%. In addition, LMC has experienced a 50% increase in the number of science majors since the renovations.

As part of the same Title III project, the Dental Assisting lab was relocated and updated. Since completion of the renovation, program enrollments are now at capacity (65), program retention on the Napier Campus has increased 22%, and the pass rate on State Board exams is nearly 100%.

It is important to note that sponsored funding made the renovation of the science and dental assisting labs possible. Without additional capital funding for the College's remaining classrooms, however, the quality of learning environments and the accompanying increases in student success will continue to lag behind those found in area high schools and other institutions of higher learning within our region.

**3. *How does the project support investment in or adaptive re-purposing of existing facilities and infrastructure?***

Rather than construct new facilities, Lake Michigan College is proposing an investment in a 45+ year existing facility and infrastructure. The structure, while dated, is sound and at least in one case, is ahead of its time with a 45+ year green roof. The **interior design is adaptable to re-purposing**. Examples of planned repurposing include the development of a Business Education Center, including business classroom centralization, in space formerly used as a student union and wellness area. The configuration of the College's learning resources allows for efficiencies, capturing space to support a Faculty Services Center. Repositioning and reducing the size of current lecture halls provides space for the Student Success Center. Infrastructure improvements to meet ADA standards and increase technology capabilities can be made as we upgrade the building's HVAC.

**4. Does the project address or mitigate any current health/safety deficiencies relative to existing facilities? If yes, please explain.**

Lake Michigan College has a 20+ year history of using facility assessments to direct annual maintenance and repair efforts. The priority funding category is always health/safety deficiencies. We have been unable, however, to address concerns such as air quality and humidification without replacing the HVAC system and ceiling infrastructure. This project addresses these concerns, along with bringing the facility into full ADA compliance. Also, due to the advanced age of the heating and cooling plant we experience frequent equipment failures that interrupt services.

**5. How does the institution measure utilization of its existing facilities, and how does it compare relative to established benchmarks for educational facilities? How does the project help to improve the utilization of existing space and infrastructure, or conversely how does current utilization support the need for additional space and infrastructure?**

Generally accepted benchmarks for community college room utilization are 30 hours per week per classroom (18-22 hours per week for labs depending on discipline) with 67% seat occupancy. A recent analysis of our Napier Academic Building shows that on average our classrooms are scheduled 24.2 hours per week with 75% of seats occupied. Neither of these figures includes any non-credit coursework (e.g., workforce training) or professional development. Also both figures are reduced by the use of the lecture halls which are being used on average only 10.7 hours per week with 50% or less of seats occupied. Re-configuring our lecture halls to a more suitable size and equipping them with new technology will increase their usage, and provide space efficiencies for additional programs and services within the current building envelope including the addition of a Student Success Center. Finally, incorporation of new technology in all classrooms will increase the functionality of the classrooms for multiple delivery methods and curricula.

**6. How does the institution intend to integrate sustainable design principles to enhance the efficiency and operations of the facility?**

The primary heating and cooling plant will be replaced with energy-efficient technologies coupled with digital building and lighting control systems. We intend to continue using heat recovery units, along with product lines manufactured by sustainable firms. A uniquely sustainable concept to this project is bringing energy data back into the classroom for use by instructors in curriculum delivery. **System payback is estimated at 15 years.** The project also includes replacement of the facility lighting system and digital building controls, both of which will increase the energy savings beyond the HVAC system payback.

- 7. Are match resources current available for the project? If yes, what is the source of the match resources? If no, identify the intended source and the estimated timeline for securing said resources?**

Yes, the College has assessed its debt capacity up to \$9.3M. The College will fund its match with operating funds and bond financing.

- 8. If authorized for construction, the state typically provides a maximum of 75% of the total costs for university projects and 50% of the total cost for community college projects. Does the institution intend to commit additional resources that would reduce the state share from the amounts indicated? If so, by what amount?**

Lake Michigan College has not received a State Capital Outlay Grant in over **11 years**. Since that time the College has invested over \$25M in physical plant, academic and information technology upgrades. We will not have additional capacity to match beyond the 50% level.

- 9. Will the completed project increase operating costs to the institution? If yes, please provide an estimated cost (annually, and over a five-year period) and indicate whether the institution has identified available funds to support the additional cost.**

The project will **not** increase operating costs. In fact we expect the project to **reduce** operating costs through projected annual energy savings of \$289,941 and reduced maintenance expenditures required to keep an aging heating/cooling plant in operating condition. We also expect to reduce staff costs through reduced emergency response to equipment failures giving us the opportunity to bring additional focus to preventive maintenance activities. Finally, we will be able to curtail rental of additional classroom and office space due to repurposing space within the Napier Academic Facility.

- 10. What impact, if any, will the project have on tuition costs?**

With a projected energy savings of nearly \$290,000 annually we expect this project to assist us with **helping to maintain tuition costs at the lowest level possible.**

- 11. If this project is not authorized, what are the impacts to the institution and its students?**

In terms of priority, lack of funding will result in less instructional flexibility to support student success and bring new/revised programs forward **which will support regional job creation.** In terms of urgency, lack of funding and our aging primary heating and cooling plant will result in increased levels of maintenance and repair expenditures and continued higher energy costs. Additionally, we will not be able to provide consistent climate controls in our classrooms.

***12. What alternatives to this project were considered? Why is the requested project preferable to those alternatives?***

The Napier Academic Building is the primary instructional facility for Lake Michigan College. We have reviewed a variety of new construction and lease options; however, with a strong building envelope and a current replacement value of \$86,180,900 (not including equipment and furnishings), proposed renovation and upgrade secure this key College asset. The objectives proposed through the FY '16 Capital Outlay Project Request are core infrastructure, service and program support and cannot be addressed through alternatives.