Northern Michigan University

Five-Year Facilities Master Plan
November 2015

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Section I
Mission

Mission Statement

Northern Michigan University challenges its students and employees to think independently and critically, develop lifelong learning habits, acquire career skills, embrace diversity and become productive citizens in the regional and global community.

September 2008

Vision Statement

Northern Michigan University will become the university of choice in the Midwest for students seeking a quality academic program with individualized attention in a high-tech learning environment.

CORE VALUES

COMMUNITY

Northern has a distinctive sense of place – some refer to it as the upper hand. We are a warm, friendly, caring and helpful university. We are collaborative, on campus and off, valuing partnerships and service to each other, the community and the region. Our focus is always on students.

OPPORTUNITY
Like Lake Superior's vastness, there is depth and breadth to Northern's wide range of academic, research and scholarship, international travel and student service programs. We are affordable and accessible. We use our many resources to achieve deep personal and professional growth in ourselves and provide it for others.

RIGOR
A Northern education is like the black rocks that protect *Gichigami's* shores – a solid foundation that will endure the waves of time and change. We achieve academic excellence through top-caliber teaching, learning, research and service. Our work ethic and integrity are powered by discipline, courage, pride, sisu (determination), perseverance and the desire to help others succeed, in and out of the classroom.

ENVIRONMENT
The unparalleled rugged beauty of the physical environment at Northern's campus doorstep is something we admire, study, learn from, strive to protect and enjoy year-round. And like the Anishinaabe, we see a responsibility to plan for sustainability seven generations into the future.

INCLUSION
Northern is a safe and welcoming place. We aspire to learn from and encourage each other as global citizens, neighbors, colleagues and family. We desire to be a role model in embracing all types of diversity and diverse points of view, engaging in civil society and governance, protecting human rights and promoting social justice.

CONNECTIONS
At Northern, we make connections in dynamic ways, creatively using resources and technology to link people, ideas and projects. We nurture strong ties to the environment, community, disciplines, and our rich history and traditions. Like the Northern Lights (*Aurora Borealis*), these connections are often luminous and inspiring.

INNOVATION
Michigan's Upper Peninsula has always been home to bold, creative risk-takers and problem-solvers. Here, we excel at being inquisitive in looking beyond what is to what could be. We believe exploration unleashes and builds strength of mind and character. We endeavor to be entrepreneurs, discoverers and the best within our chosen fields.

Section II

Instructional Programming

Strategic Directions: Road Map to 2015

NMU's success has enabled us to understand more fully the strengths and distinctive features that will define NMU's future. The heritage of being a high-touch, high-tech, high-quality campus that is both affordable and accessible must remain an important part of our value system. In order to sustain our uniqueness and differentiate NMU from other universities, we must be clear about our priorities and direction. Three unique themes will frame our Road Map to 2015 and beyond.

Information technologies are the critical signature of an NMU degree. The laptop culture, enhanced by new wireless technologies and portable devices, places NMU far ahead of and distinct from our competitors. Our capability to blend this expertise with digital television and public broadcasting increases both the capacity and the quality of NMU. Our instructional and technical reach becomes planetary rather than regional.

International opportunities also will become a critical feature for NMU. Students demand it, employers seek it, and a relevant education cannot exclude it. Beyond study abroad, our curriculum, our faculty, our student body, and our thinking must reflect the realities of an interconnected, world community. We are in a unique position to distinguish all NMU majors with significant and meaningful international experiences.

NMU's location in the Upper Peninsula is a unique asset and, as one, must become a prominent feature of our portfolio of academic programs and our research agenda. Lake Superior and the neighboring landscapes offer resources that attract students, faculty, and staff and enhance a high-quality university experience. How we choose to brand and distinguish our degrees will depend, in large part, upon our creative use of this most prominent resource.

Against these three distinctive brushstrokes lie specific strategies that are the foundation of the Road Map to 2015 and Beyond. The Road Map is comprised of four broad elements that each have specific goals and priorities. Each is relevant to faculty, staff, and students' sense of engagement with the campus; with who we are and where we're going. More importantly, the Road Map will capture how we're going to get there.

Strategic Directions: Road Map to 2015

The Four Strategic Elements are:

Innovation:
The university experience is predicated on a blend of a number of intellectual and organizational enterprises. Northern must reinvigorate the standards and processes that will sustain successful programs, create new ones, eliminate programs with declining enrollment, and reflect the creativity of campus talents. The curriculum must remain relevant and meaningful, and our teaching must be contemporary and effective.

- An academic curriculum that balances successful programs with new offerings at the undergraduate and graduate level to meet the needs of students, as well as improve student career opportunities after graduation
- A new professional development program for faculty and staff that rewards innovative practices and encourages interdisciplinary and interdepartmental collaboration
- A growing portfolio of corporate collaborations that exploit NMU's technical expertise, enhance academic programs, and facilitate global engagement for students and faculty ,both on campus and abroad
- Develop the financial resources to support innovation and student success

Strategic Directions: Road Map to 2015

Meaningful Lives:

The personal, social, and intellectual maturity of NMU students is the ultimate benchmark of the achievement of the University's mission. A high-quality university education creates lifelong learners, contributing citizens, and thoughtful neighbors. NMU will develop those programs and employ those practices that maximize the opportunity for all students to succeed in their university experience and to lead a productive, meaningful life.

- A Liberal Studies Program that provides students with the abilities and knowledge necessary for lifelong learning and effective citizenship in a challenging and rapidly changing world
- Develop a new academic advising system that integrates the advising assets of academic departments and student services to contribute to a new, effective retention management network – similar to our enrollment management network
- Integrate the highest possible level of information technology skills and competencies throughout the University

Strategic Directions: Road Map to 2015

Campus Attributes:

The attractiveness of the NMU campus in the beautiful natural environment of the Upper Peninsula of Michigan is a unique asset that should play a prominent role in our portfolio of academic programs, our research agenda, and the efficiency with which the campus operates. While the campus itself represents NMU's physical assets, academic programs and other campus operations represent the human capital of the University community. Both are instrumental in sustaining the university's collective efforts to maintain a standard of excellent practice, manage costs, and achieve the institutional mission.

- Utilize the Campus Master Plan and related initiatives to continue to build and develop a greener and more learner-centered campus
- Enhance processes throughout campus operations to guide the use of resources and inform resource allocation
- Enhance the portfolio of academic programs, research, and other activities that leverage the University's location in the Upper Peninsula of Michigan
- Be a model community for sustainable education and practices

Strategic Directions: Road Map to 2015

Community Engagement:

Acknowledgement and use of the rich learning environment outside the campus energizes the faculty-student relationship and creates an essential bridge from theory to practice. According to the Carnegie Foundation for the Advancement of Teaching, a community-engaged campus collaborates with its larger communities (local, state, regional, national, and global) for the mutually beneficial exchange of knowledge and resources in a context of partnership and reciprocity. Students who attend a community-engaged institution learn the broad context in which they live, work, play, and grow.

- Include all units of the campus in the process of community engagement; that is, collaborations between the University and its larger communities (local, state, regional, national, global) for the mutually beneficial exchange of knowledge and resources in a context of partnership and reciprocity
- Increase faculty, staff, and student involvement in the Superior Edge program, academic service learning, and other community engagement and leadership development initiatives
- Put into action a commitment to be an inclusive community where differences are recognized as assets of the institution, respected attributes of the person, and a valuable part of the university experience
- Increase collaboration with local communities, schools, governments, development groups, and other partners to enhance community and economic development in the Upper Peninsula

Academic Programs

Baccalaureate Degree Programs

Major

Accounting
Accounting/Corporate Finance
Accounting/Information Systems
Art and Design
- *Concentrations*
- Ceramics
- Computer Art
- Digital Cinema
- Drawing/Painting
- Furniture Design
- Graphic Communications
- Human-Centered Design
- Illustration
- Metal Crafts
- Photography
- Printmaking
- Sculpture
- Woodworking

Art and Design/Secondary Education
- *Concentrations*
- Ceramics
- Digital Cinema
- Drawing/Painting
- Electronic Imaging
- Environmental Design
- Furniture Design
- Graphic Communications
- Illustration
- Metal Crafts
- Photography
- Printmaking
- Product Design
- Sculpture
- Woodworking

Art History
Athletic Training
Biochemistry
Biology
- *Concentrations*
- Botany
- Ecology
- General Biology
- Microbiology
- Physiology
- Zoology

Biology/Secondary Education
Chemistry (ACS Certified)
Chemistry/Secondary Education
Clinical Health Science
- *Concentrations*
- Radiography
- Respiratory Therapy
- Surgical Technology

Clinical Laboratory Science
- *Concentrations*
- Anatomical Pathology
- Clinical Systems Analysts
- Diagnostic Genetics
- Laboratory Medicine
- Microbiology
- Science Technologist

Cognitive Impairment/Elementary Education
Cognitive Impairment/Secondary Education
Communication Studies
Community Health Education
Computer Science
Construction Management
Criminal Justice

Academic Programs

Baccalaureate Degree Programs
(*continued*)

Major

Earth Science
Earth Science/Secondary Education
Economics
Electronics Engineering Technology
Elementary Education (2 minors)
Emotional Impairment/Elementary Education
Emotional Impairment/Secondary Education
English
English/Graduate Bound
English/Secondary Education
English/Writing
Entrepreneurship
Environmental Science
- *Concentrations*
  - Natural Resources
  - Pollution Control and Remediation
  - Renewable Energy Technologies
  - Water Resources

Environmental Studies and Sustainability
Finance and Risk Management
- *Concentrations*
  - Corporate Finance and Investment
  - Risk Management and Insurance

Fisheries and Wildlife Management
- *Concentrations*
  - Fisheries
  - Wildlife

Forensic Biochemistry
French
French Education
General Psychology
Geography/Secondary Education
Geomatics
German Studies
History
History/Secondary Education
Hospitality and Tourism Management
Individualized Studies
Industrial Technology
Industrial Technologies/Secondary Education
Information Assurance/Cyber Defense
Information Systems
Integrated Science/Elementary Education
Integrated Science/Secondary Education
International Studies
- *Concentrations*
  - Africa
  - Asian
  - Europe
  - Global
  - Latin America
  - Middle East

Language Arts/Elementary Education
Liberal Arts and Sciences
Loss Prevention Management
Management
Management of Health and Fitness
Marketing
Mathematics
- *Concentrations*
  - Actuarial Sciences
  - General Mathematics

Mathematics/Elementary Education
Mathematics/Secondary Education

Academic Programs

Baccalaureate Degree Programs (*continued*)

Major

Mechanical Engineering Technology
- *Concentrations*
  - Alternative Energies
  - Computer Numerical Control Technology
  - Manufacturing Engineering Technology
  - Mechanical Engineering Design
  - Mechatronics

Media Production and New Technology
Mobile and Web Application Development
Multi-media Journalism
Music
- *Concentrations*
  - Choral
  - Instrumental

Music/Secondary Education
- *Concentrations*
  - Choral
  - Instrumental

Neuroscience/Behavioral and Cognitive
Neuroscience/Cell and Molecular
Nursing
Outdoor Recreation Leadership and Management
Paralegal
Philosophy
Physical Education/Secondary Education
Physical Education Coaching
Physics
Physics/Secondary Education
Political Science
- *Concentrations*
  - General Political Science
  - International
  - Pre-law

Political Science/Secondary Education
Pre-Architecture
Pre-Chiropractic
Pre-Dental
Pre-Engineering
Pre-Law
Pre-Medicine
Pre-Optometry
Pre-Pharmacy
Pre-Physical Therapy
Pre-Physician Assistant
Pre-Veterinary
Psychology/Behavior Analysis
Psychology/Graduate School Preparation
Public Administration
Public Relations
Ski Area Business Management
Social Studies/Elementary Education
Social Studies/Secondary Education
Social Work
Sociology
Sociology in Liberal Arts
Spanish
Spanish Education
Speech, Language and Hearing Sciences
Sports Science
Theatre and Entertainment Arts
- *Concentrations*
  - Design and Technology
  - Performance

Academic Programs

Associate Degree Programs

Major

Art and Design
Automotive Service Technology
Aviation Maintenance Technology
Building Technology
Climate Control Technology
Clinical Laboratory Technology
- Clinical Laboratory Technician
- Science Technician

Computer Numerical Control Technology
Criminal Justice
Electrical Technology
- Electrical Power Technician
- General Electronics Technology
- Industrial Electrical Technology

Engineering Design
General Business
General University Studies
- *Concentrations*
- Alternative Energies
- Anthropology
- Applied Ethics
- Art and Design
- Art History
- Automotive Service Technology
- Biology
- Chemistry
- Clinical Laboratory Techniques
- Communication Studies
- Computer Science
- Construction Systems
- Contracted
- Criminal Justice
- Dance
- Earth Science
- Economics

Electronic Journalism
Electronics
Emergency Medical Services
Engineering Design
English
English/Writing
Environmental Studies
Film Studies
Gender Studies
General Psychology
Geomatics
Health and Nutrition
History
Hospitality Service Management
Human Biology
HVACR
Industrial Electrical Technology
Industrial Maintenance
International Studies
Journalism
Mathematics
Media Production and New Technology
Media Studies
Music
Native American Studies
Office Services
Outdoor Recreation/Coaching
Philosophy
Physical Education/Coaching
Physics
Political Science
Public Administration
Public Relations
Religious Studies
Social Service

Academic Programs

Associate Degree Programs

Major

- Sociology
- Speech, Language & Hearing Science
- Sustainability
- Theatre and Entertainment Arts
- Welding
- Wildland Firefighting

Health Information Processing
- *Concentrations*
  - Coding/Insurance
  - General
  - Medical Transcription

Industrial Maintenance
Information Systems
- *Concentrations*
  - Computer Retail
  - Networking/Microsoft NT
  - Networking/Novell
  - Networking/Unix

Law Enforcement
Liberal Arts/Sciences
Office Information Assistant
Radiography
Surgical Technology

Certificate Programs

Automotive Service Technology
Aviation Maintenance Technology
Clinical Assistant
Computer Numerical Control Technician
Cosmetology
Geographic Information Systems
Heating, Air Conditioning/Refrigeration
Industrial Maintenance
Office Services
Practical Nursing
Special Studies
Welding
Wildland Firefighting

Diploma Programs

Advanced Law Enforcement
Cosmetology Instructor
Electrical Line Technician
Local Corrections
Manufacturing Production Technician

Certifications

English as a Second Language
Police Academy

Academic Programs

Graduate Programs

Certificates

- Facilitating Training
- Performance Improvement
- Teaching English to Speakers of Other Languages

Doctorate

- Family Nurse Practitioner

Education Specialist

- Educational Administration/Supervision

Education Certification (Non-degree)

- Professional Certificate – Elementary Education
- Professional Certificate – Secondary Education
- Professional/Personal Development Education Administration

Post-Baccalaureate (Non-degree) Education Certification

- Elementary Provisional Certificate
- Paralegal
- Secondary Provisional Certificate

Masters

- Applied Behavior Analysis
- Arts and Sciences
- Biochemistry/Biology
- Biology
- Business
- Clinical Molecular Genetics
- Creative Writing
- Educational Administration/Supervision
  - American Indian Education
- English
  - English/Literature
  - English/Pedagogy
  - English/Writing
  - Theatre and Entertainment Arts
- Exercise Science
- Family Nurse Practitioner
- General Psychology
- Higher Education in Student Affairs
- Individualized Studies
- Instruction
- Instructional Leadership
- Learning Disabilities
- Post-Secondary Biology Education
- Public Administration
  - Criminal Justice Administration
  - Human Resource Administration
  - Public Management
  - State and Local Government
- Reading (BT)
- Reading Specialist (BR)
- Training and Performance Improvement

Academic Programs

Elementary Education Minors

French
German
Integrated Science
Language Arts
Mathematics
Reading
Spanish

Secondary Education Minors

Biology
Chemistry
Earth Science
Economics
English
French
Geography
German
Health Education
History
Journalism
Mathematics
Physical Education
Physics
Political Science
Spanish

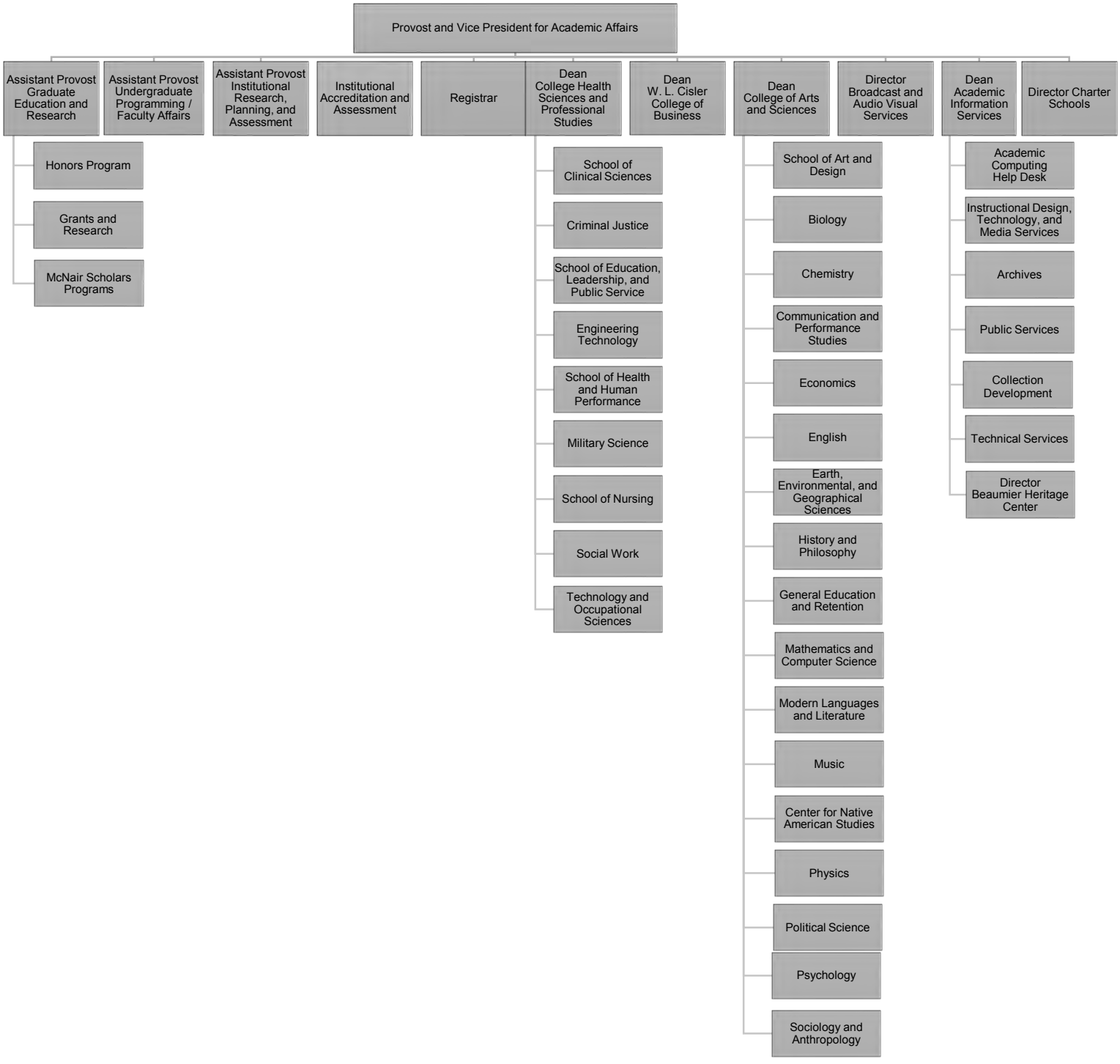
Non-Education Minors

Accounting
Actuarial Sciences
Alternative Energies
Anthropology
Applied Ethics
Art and Design
Art History
Automotive Service Technology
Biology
Business Administration
Chemistry
Child Care Services
Clinical Laboratory Techniques
CNC Technology
Communication Studies
Computer Science
Construction Systems
Contracted Minor (Engineering Technology)
Criminal Justice
Dance
Earth Science
Earth, Environmental, and Geographical Sciences Cluster
Economics
Electronic Journalism
Electronics
Emergency Medical Services
Engineering Design
English
Entrepreneurship
Environmental Studies
Film Studies
Finance
French
Gender and Sexuality Studies

Academic Programs

Non-Education Minors (*continued*)

Geomatics
German
Gerontology
Group Science
Health and Nutrition
Health Education Cluster
Heating, Ventilation, Air Conditioning, and Refrigeration
History
Hospitality Service Management
Human Behavior Cluster
Human Biology
Human Services
Industrial Electrical Technology
Industrial Maintenance
Information Assurance/Cyber Defense
Information Systems
Integrated Science
International Studies
Interpretation and Outdoor Education
Journalism
Latin American Studies
Loss Prevention Management
Management
Marketing
Mathematical Statistics
Mathematics
Media Production and New Technology
Media Studies
Military Science
Music
Native American Studies
Office Services
Outdoor Leadership
Outdoor Recreation
Outdoor Recreation Leadership Management Cluster
Philosophy
Physical Education/Coaching
Physics
Political Science
Pre-Law
Pre-Professional Science
Psychology
Public Administration
Public History
Public Relations
Religious Studies
Research Analyst
Social Services
Sociology
Spanish
Speech, Language, and Hearing Sciences
Sports Science Cluster
Sustainability
Teaching English to Speakers of Other Languages (TESOL)
Theatre and Entertainment Arts
Welding
Wildland Firefighting
Wildlife Conservation Law and Policing
Writing


Provost and Vice President for Academic Affairs
Assistant Provost Graduate Education and Research
Assistant Provost Undergraduate Programming / Faculty Affairs
Assistant Provost Institutional Research, Planning, and Assessment
Institutional Accreditation and Assessment
Registrar
Dean College Health Sciences and Professional Studies
Dean W. L. Cisler College of Business
Dean College of Arts and Sciences
Director Broadcast and Audio Visual Services
Dean Academic Information Services
Director Charter Schools
Honors Program
Grants and Research
McNair Scholars Programs
School of Clinical Sciences
Criminal Justice
School of Education, Leadership, and Public Service
Engineering Technology
School of Health and Human Performance
Military Science
School of Nursing
Social Work
Technology and Occupational Sciences
School of Art and Design
Biology
Chemistry
Communication and Performance Studies
Economics
English
Earth, Environmental, and Geographical Sciences
History and Philosophy
General Education and Retention
Mathematics and Computer Science
Modern Languages and Literature
Music
Center for Native American Studies
Physics
Political Science
Psychology
Sociology and Anthropology
Academic Computing Help Desk
Instructional Design, Technology, and Media Services
Archives
Public Services
Collection Development
Technical Services
Director Beaumier Heritage Center

Instructional Programming

Existing Academic Programs and Projected Programming Changes

Northern Michigan University (NMU) continually strives to be the comprehensive university of choice in the Midwest where students receive individualized attention in a high tech learning environment. NMU competes by pursuing programs and initiatives aimed at continuous quality improvement. We focus on integrating student learning outcomes into curricular processes, including co-curricular development, general education review, academic program review, and the student learning outcomes assessment. New within the last two years is the Center for Teaching and Learning (CTL) that was established to provide classroom and instructional support with educator-scholar expertise. The Center reaches out to serve the institution with advanced technology in extensive and convenient hours. The university's General Education Council, a standing Academic Senate committee comprised of elected faculty representatives and administrators, has been leading and inspiring campus-wide involvement to re-innovate our general education programs.

Academic programs, student achievement and learning outcomes assessment have been the University's top priority. Evidence-based decision making guides our planning activities for ultimate student success. Three years ago, outcomes assessment became part of the contractual agreement with our largest faculty union, the AAUP. This milestone underscores the commitment of our faculty to continue to excel at teaching and learning. Additionally, as part of the university's accreditation process, primarily the Academic Quality Improvement Program (AQIP), an Action Project on distance education and learning was completed and has produced effective training programs for instructors who teach online courses and for students who take online classes. We are currently launching new online training and certification for both our students and faculty, to ensure continued top-quality instruction and student readiness for online learning.

We have successfully built an Academic Affairs dashboard, which highlights our core values in alignment with Upper Peninsula and Michigan state priorities, program sustainability and vitality, student success and outcomes, and financial effectiveness. We are actively involved in national initiatives for student learning and outcomes assessment, Liberal Education and America's Promise (LEAP), Voluntary System of Accountability, and the Student Achievement Measure (SAM) which is the collaborative efforts of six leading higher education associations to enhance transparency on student progress and completions. We continue to find success in our retention initiatives, such as the requirement of all students to participate in our first year experience program, and have transitioned to centralized advising for all new students effective Fall 2015.

Instructional Programming

Existing Academic Programs and Projected Programming Changes ***(continued)***

Our seven new programs started in 2014 have seen great success, as have our new Doctorate in Nursing Practice students, international students and minority/underrepresented students. The continued declining size of the K-12 population in the Upper Peninsula continues to be a significant challenge to the institution. We are working closely with our faculty, through new mutually agreed upon collective bargaining language that facilitates the creation of strategies and programs that will spur enrollment, while maintaining high-quality, affordable instruction.

The university experience is predicated on a blend of a number of intellectual and organizational enterprises. Northern must reinvigorate the standards and processes that will sustain successful programs, create new ones, eliminate programs with declining enrollment, and reflect the creativity of campus talents. The curriculum must remain relevant and meaningful, and our teaching must be contemporary and effective.

Focus Areas:*

Enrollment Growth

- Integrate global engagement and diversity learning experiences throughout the academic curriculum.
- Continue implementation of the faculty-mix model and faculty enhancement positions in growth programs.
- Continue to explore and act upon opportunities to expand programs in nursing and clinical sciences to meet the growing demand for professionals in health care and related fields.
- The implementation of seven new programs in 2014 has resulted in each having immediate enrollment increases and steady growth.
- Continue to explore and act upon graduate programming (certificate, master's, doctoral) in areas of recognized strengths, needs and opportunities.
- Develop new applied programs in computing and IT-related majors.
- Continue to develop new Career and Technical Education (CTE) programs, such as the new Manufacturing Production Technician diploma.

*Focus areas are tentative

Instructional Programming

Existing Academic Programs and Projected Programming Changes ***(continued)***

Student Success and Academic Excellence

The personal, social and intellectual maturity of NMU students is the ultimate benchmark of the achievement of the university's mission. A high-quality university education creates lifelong learners, contributing citizens and thoughtful neighbors. NMU will continue to develop those programs and employ those practices that maximize the opportunity for all students to succeed in their university experience and to lead a productive, meaningful life.

Acknowledgement and use of the rich learning environment outside the campus energizes the faculty-student relationship and creates an essential bridge from theory to practice. According to the Carnegie Foundation for the Advancement of Teaching, a community-engaged campus collaborates with its larger communities (local, state, regional, national and global) for the mutually beneficial exchange of knowledge and resources in a context of partnership and reciprocity. Students who attend a community-engaged institution learn the broad context in which they live, work, play and grow.

- Utilize corporate partners to promote additional international opportunities.
- Work with strategic technology and telecommunication partners to enhance the teaching, learning and working environment.
- Utilize corporate partners to increase internship opportunities for students.
- Utilize alternative energy plans to seed academic and research programs in energy and energy management.
- Continue to invest in the Superior Edge and academic service learning programs.
- Significantly increase the number of NMU students who participate in the Superior Edge, academic service learning and other leadership development opportunities
- Improve the alignment of the curriculum with the Superior Edge and academic service learning initiatives
- Implement strategies to assist students to more effectively communicate the skills and competencies developed through their achievements in community engagement

Instructional Programming

Existing Academic Programs and Projected Programming Changes ***(continued)***

Investment and Innovation

Enhance the portfolio of academic programs, research and other activities that leverage the university's location in the Upper Peninsula of Michigan.

The attractiveness of the NMU campus in the beautiful natural environment of the Upper Peninsula of Michigan is a unique asset that should play a prominent role in our portfolio of academic programs, our research agenda and the efficiency with which the campus operates. While the campus itself represents NMU's physical assets, academic programs and other campus operations represent the human capital of the university community. Both are instrumental in sustaining the university's collective efforts to maintain a standard of excellent practice, manage costs and achieve the institutional mission.

- Continue creating an enhanced infrastructure that will continually expand the availability and variety of new technological tools and services for NMU students, faculty and staff
- Develop and refine our "virtual" campus that provides reliable, convenient access to online courses and other essential student services
- Use the new Jamrich academic building as a model to examine existing classrooms and other learning spaces to create the highest quality learning environments, and to advance the application of new pedagogies and technologies
- Plan a state-of-the art library that provides facilities, collections, technology, and personnel to meet current and emerging instructional and research needs, emphasizing collaboration, creative and critical thinking, experiential learning, and flexibility for the future

Instructional Programming

Outreach and Engagement

Increase collaboration with local communities, schools, governments, development groups and other partners to enhance community and economic development in the Upper Peninsula.

- Continue to increase and promote a culture of openness and access through regularly scheduled community/campus forums, high-quality publications and the effective use of communication technologies
- Through the Center for Rural Community and Economic Development, assist community members so they may more easily build initiatives for economic development and community outreach; enhance awareness of university and community resources that are available for collective use; and support study and enhance living in Michigan's Upper Peninsula
- Explore the feasibility of collaborating with existing community development organizations, units of government and the private sector to establish a high-tech economic development center on the NMU campus
- Explore the feasibility of collaborating with the state, U.P. universities and private alternative energy companies to make the Upper Peninsula a nationally recognized alternative energy and technology corridor
    - Continue to be an integral part of the Climate Adaptation Task Force (CATF), a local group consisting of government and community leaders who act as a resource to public entities faced with climate change challenges

Initiatives / Academic Program Needs with Impact on Facilities

Instructional Programming:

A major part of NMU's success is its high-tech learning environment. The campus is a connected learning community with over 8300 notebook computers distributed to students as part of the students' tuition and fees (the second most affordable tuition and fees in the state, including the notebook computer). These notebook computers have built-in wired and wireless, WLAN (WiFi) and WWAN (WiMax - LTE) networking capabilities. Wireless WiFi technology throughout campus provides improved student access in and out of the classroom for coursework, research, and provides greater efficiency in delivery of instruction and student services via the internet. Since 2008 the University has expanded the wireless networking to provide community-wide access using WiMAX technology that has provided wireless access from campus directly to more than 5,500 students that live off campus in the Marquette area and surrounding cities. Starting this fall 2015 semester the existing off-campus WiMAX network will be replaced by a new faster LTE technology based network. The completion of the LTE network installation is scheduled for early 2016. During and after installation of the new LTE network both the WiMAX and LTE networks will be operational to support the mix of distributed notebooks. The WiMAX network will be taken out of service with the start of the fall 2017 semester when all distributed notebooks are LTE enabled.

Northern is a leader in the development and utilization of web-based or web-enhanced courses. The University has more than 1,237 course sections developed utilizing Web-based software, and more than 94.12 percent of our students are enrolled in at least one or more web-based or web-enhanced courses. NMU is a recognized leader (as noted by *Computerworld Magazine*) in using technology in higher education, and our graduates enhance the economy of Michigan by being part of a work force that is among the nation's most technologically advanced and leadership oriented.

The University continues to focus on renovation and transformation of existing facilities to a state-of-the-art environmentally efficient campus. A connected learning environment requires that we continue to improve our support systems, technology infrastructure, and facilities.

Initiatives / Academic Program Needs with Impact on Facilities

Instructional Programming: ***(continued)***

The University's public radio and television stations will continue their transition to digital broadcasting. The television station has completed three phases of its digital conversion; upgrading its technical core, master control, transmission and studio control room systems that allows the station to produce, program, and switch multiple digital program streams, all in the high-definition (HD) format. All of the digital conversion initiatives directly impact the station's ability to offer instructional course content to area residents and K-12 schools. Specifically, WNMU-TV uses its new digital television production capacity to program two standard definition and one high definition channels. These channels allow more specialized programming to be aired at various times throughout the day. In addition, WNMU is continuing with development of a partnership with Superior Healthcare Partners to offer health-related programs designed to enhance patient education for both in-hospital and at-home care.

The initiatives noted above, and the projected programming changes identified in NMU's Roadmap to 2015 Elements, Goals, and Priorities, will have an impact on our facilities as they are implemented. We will continue to evaluate and plan for necessary changes in our capital infrastructure to meet the needs of proposed curriculum changes.

In 2014, NMU successfully completed the implementation of a National Science Foundation grant to enhance and expand active learning with science, technology, engineering, and mathematics (STEM) disciplines. Specifically, this grant enabled the renovation of an existing classroom into a technology-rich active learning environment. Using this classroom as a model, NMU constructed similar active learning classrooms in its new John X Jamrich hall and continues to extend this design concept to current classroom renovations now underway in the University's Learning Resources Center. These active learning spaces feature collaborative wireless video and audio display technology as well as moveable furniture that facilitates small group interactions and active learning.

Community Presence Activities

Intercollegiate Athletics and Recreational Sports Facilities

NMU athletic and recreational facilities serve as a regional events center for the entire Upper Peninsula. A number of recreational and leisure programs are offered within the facilities for the community and include ongoing walking programs, recreational programming for children, adults, and youth sports camps. Youth programs in hockey, basketball, volleyball, swimming/diving, soccer track and field, and others meet in our facilities throughout the year. Exercise and aquatic programs for senior citizens are held as well. These facilities have also become a major tourist destination for visitors in our area. Approximately 280,000 people pass through the Superior Dome turnstiles on an annual basis. The Superior Dome is home to Northern Michigan University football and track and field and hosts high school football regular season games, as well as many MHSAA football playoff games. The USOTS weightlifting and Greco-Roman wrestling programs operate from the Superior Dome. Marquette County Youth Football Dome Day, high school track and field meets, NMU and youth soccer tournaments, lacrosse, local non-profit fundraising events, Michigan Special Olympics, and K-8 school field day programs are several examples of other activities taking place in the Superior Dome. The Superior Dome also serves the needs of regional business and industry by providing a venue for various trade shows and conferences. The Michigan Municipal League, Michigan Association of Counties, Boat, Sport and Recreational Vehicle Show, and the U.P. Builders Show are all examples of trade shows and conferences hosted in the Superior Dome. NMU Commencement activities are held in the Superior Dome each December and May.

The Berry Events Center is home to Northern Michigan University hockey, and men's and women's basketball. Nearly 115,000 fans and spectators pass through its doors annually. The facility hosts many junior hockey tournaments, NMU men's and women's club hockey games, as well as figure skating programs. The Berry Events Center also plays host to concerts, lectures, and conferences. NMU faculty and students use the facility's academic classrooms for instruction and coursework.

The Physical Education Instructional Facility (PEIF Building) is home to Northern Michigan University volleyball and swimming teams. Men's and women's basketball team practices are held in the PEIF. The facility hosts numerous community events, youth sports tournaments, youth sports camps, Native American Pow Wows, concerts, and lectures. NMU students, faculty, staff, and Marquette area community members utilize recreation venues in the PEIF through recreation memberships year-round. The PEIF is a comprehensive, indoor recreation facility that contains instructional activity venues and classrooms for NMU students.

Community Presence Activities

Intercollegiate Athletics

Northern Michigan University offers fifteen (15) intercollegiate men's and women's sports. Approximately 350 student-athletes compete in NCAA events annually, with an average of 90 contests held in Marquette County. An average of 110 visiting athletic teams visit the Marquette area annually to compete in events held at NMU. Events held at NMU regularly attract fans from throughout the Upper Peninsula, as well as Northern Wisconsin and Lower Michigan. Fans representing opposing teams from Ohio, Wisconsin, Illinois, Minnesota, Indiana, Alaska, and Canada annually attend events at NMU. Virtually all groups spend multiple days on each visit to Marquette.

Northern Michigan University Olympic Training Site

NMU is home to an Olympic Training Site. The Site provides Olympic-aspiring athletes the opportunity to continue their education while training to represent the USA at the Olympic Games and other international events. Since 1985, more than 22,000 athletes from 43 countries have trained at the Site. More than 400 of these athletes have made Olympic teams earning 57 Olympic medals, along with college degrees. Currently, there are over 70 Greco-Roman wrestling and weightlifting athletes training at the Site that are also full-time students at NMU.

U.S. OLYMPIC TRAINING SITE
NORTHERN MICHIGAN UNIVERSITY

Community Presence Activities

Northern Initiatives

NMU invests annually in Northern Initiatives (NI), a non-profit Community Development Financial Institution, created by NMU in 1992 and housed on the NMU campus at the Jacobetti Complex. NI serves 51 rural counties; originally the fifteen counties of the Upper Peninsula and beginning in 2008, 31 additional Northern Michigan counties and the 5 border counties of Wisconsin. NI supports the launching and growing of small businesses primarily through filling capital gaps in the market. It does this work by making available capital in the form of loans and complimenting those loans with knowledge building services to start up and growing businesses. Since 1994, NI has loaned nearly $50,000,000 to 850 businesses. Roughly one third have been start ups and 40% have been women owned businesses. In total NI borrowers have created over 1500 jobs and retained 2,000. Loan borrowers take advantage of NI's Business Advancement Center services where Northern Michigan University students are employed to assist business coaches and NI customers through performing market research, credit analysis and e-commerce solutions. NI is also an affiliate of the Michigan Manufacturing Technology Center and provides bottom line services (lean, quality, process improvement) to strengthen the performance of UP manufacturers.

Community College and Meeting Needs of Business and Industry

NMU serves the community college role for the citizens of Marquette and Alger Counties. NMU's community college programs offer students an array of associate degrees, certificate programs, diploma programs, and certifications in 50 areas of study.

Northern maintains extensive partnerships with K-12 schools through outreach activities, student teaching positions, and professional development for teachers and administrators. NMU serves this role as the fiscal agent and leader for the Upper Peninsula Center for Educational Development, a collaborative of all seven Intermediate School Districts, three public universities and three community colleges in the Upper Peninsula. Nearly every school district in the Upper Peninsula has recently hosted NMU student teachers. These partnerships with schools provide experience with all class-levels in public, private, and charter educational settings. To further the value of these experiences, NMU has extended its wireless signal to student teachers in K–12 schools.

Community Presence Activities

Community College and Meeting Needs of Business and Industry ***(continued)***

NMU's Centers for Educational Development and Economic Education and the Seaborg Center for Math and Science Education provide a wide variety of professional development opportunities for teachers and administrators across the Upper Peninsula. NMU also works with a number of schools in Michigan's Lower Peninsula, Northern Wisconsin, and Chicago. Additionally, NMU works with seven public school academies (charter schools) in Michigan.

Distance Education and Instructional Support

In order to provide greater access to higher education for the citizens of the Upper Peninsula, NMU has created numerous opportunities for people who cannot travel to campus to learn. This means offering educational experiences off-campus as well as via online and other electronic formats. NMU's off-campus initiatives include the newly created Northern Promise, which contains a program for high school students to complete NMU coursework in their own high schools, delivered by familiar high school faculty. The coursework is offered at no cost to students and partner high schools receive a substantial discount on the cost of tuition. In addition, NMU is finalizing plans to offer coursework off-site in Escanaba and Menominee. With regard to online education, NMU is making plans to expand its online course and academic program offerings to be able to provide educational experiences that UP residents want in a format that provides them maximum access. To that end, the Academic Accelerator will be launched to promote the development of ideas and the rapid design and implementation of academic programs that meet specific needs of the region.

To provide greater access to education for the citizens of the region, NMU continues its use of instructional, career pathway and "virtual field trip" experiences to K-12 schools in response to new high school graduation requirements and shrinking school budgets. Programs are conducted using internet-based interactive TV (ITV) technology along with streaming media. Content experts from within the University and surrounding areas and are used as expert resources in providing students with career pathway information. In addition, NMU offers continuing education for teacher re-certification and enrichment using interactive TV and works with local Regional Educational Services Agencies (RESA) to support the technology needs of area schools. A key component of the University's technology portfolio has been the deployment of a carrier-grade WiMAX wireless network that now encompasses a seven-city area surrounding NMU. Serving the communities of Marquette, Marquette Township, Harvey, Sawyer, Gwinn, Ishpeming, Big Bay, and Negaunee, more than 6,300 students use the WiMAX network to manage course related activities and research, including bandwidth intensive applications such as streaming media, video conferencing ,and large data file transfers. Through its use of web-based network services and WiMAX, NMU has enabled easier access to K-12 course content and student services, reduced travel costs for administrators and school board members engaging in professional training activities, and provided new methods for remotely monitoring student teachers assigned to area schools and now provides contracted IT support services for the Marquette Area Public Schools, Powell Township schools and Republic – Michigamme schools. These services, enabled by NMU's extensive fiber optic network provide districts with improved educational services at a significantly lower cost.

Community Presence Activities

Public Broadcasting

NMU's public radio and television stations continue with their transition to digital broadcasting. WNMU-FM remains the only 100,000 watt radio station in Upper Michigan to offer digital broadcasting and recently upgraded its production facilities to full digital. Digital production capabilities will enhance program audio quality, provide greater flexibility for maintaining program archives and allow NMU students involved with internships and directed studies to learn skills that make them more valuable upon graduation.

In 2015, WNMU-TV will complete its conversion of the station's main channel to HD broadcasting and replace all studio-to-transmitter links with new microwave services that use IP technology. New digital equipment will include enhanced program encoders, storage systems and automation systems that provide These changes, when complete will offer higher quality programming to viewers, improve station reliability and enable enhanced capabilities to the University's information technology (IT) systems.

NMU intends to use digital television and radio transmissions to offer Michigan's Upper Peninsula residents high-definition broadcasts, plus additional standard-definition program streams that contain classroom and course content especially designed for higher education and K-12 instruction. Digital television and radio broadcasts will also have the capability to support broadband data that will benefit instruction and public safety services alike. WNMU has been designated as the primary emergency alert facility for the Central Upper Peninsula Region and provides emergency messaging services to area broadcasters as needed. Both stations continue to provide service learning opportunities for NMU students with hands-on production, graphics, and electronic engineering opportunities. Over the last several years, WNMU has joined Northern Michigan University in retooling its experiential learning opportunities to give students stronger skill sets that make them more valuable to employers following graduation. Along with its new DTV production capabilities, WNMU-TV and FM will continue to provide students with hands-on learning opportunities that allows participants to gain industry standard credentials on selected production systems that can be used to help secure employment upon graduation.

Economic Impact / Partnerships With Business and Industry

Economic Impact

NMU plays a major role in the region's economy. Economic data from a new report by the Anderson Economic Group commissioned by the President's Council, State Universities of Michigan indicates that NMU accounts for $227 million in spending (2012), the bulk of which ($123 million) comes from students. NMU recorded earnings of $81 million and supplies approximately 1,300 jobs. (www.pcsum.org)

Invent@NMU

Another way in which the university adds to the local economy is through Invent@NMU. Invent@NMU is an innovation and entrepreneurial program designed to engage undergraduate and graduate students at NMU in the hands-on development of physical products from concept to market with the guidance of expert mentors as a service for innovators, start-ups and existing companies. While the focus of Invent@NMU is on student experiences, there is also an opportunity to positively impact the regional economy in a meaningful way.

Students participate in both paid positions assisting entrepreneurs or as entrepreneurial clients. Student participation parallels their academic pursuits in design, engineering, business and manufacturing, offering key knowledge of the product development process that can be leveraged upon graduation. They will work closely with faculty and industry mentors, collaborating with innovators and entrepreneurs whose products and ideas will benefit from such support.

The program provides a wide range of experiential opportunities for students and augments their educational concentrations with real world experiences. Student hiring is aligned with their educational pursuits and they work with mentors, both faculty and industry experts, to gain additional insight and experiences complimenting their academic experiences.

Invent@NMU focus' on low investment and quick to market, practical, smartly designed, manufactured products. The program assists the inventor/entrepreneur control the organizational expenses which in many cases pose a difficult barrier and may prevent the inventor from getting a product to market. By partnering with the university, innovators inexperienced in the process of market validation, commercialization, production and marketing can overcome those seemingly insurmountable odds to reach a successful product launch.

Economic Impact / Partnerships With Business and Industry

Center for Innovation and Industrial Technologies

Partnerships with Business and Industry

Northern has a variety of partnerships to meet the needs of existing businesses, emerging industries, the public schools, and working adults. Among our current corporate partners with on-site or specially designed education programs are Cliffs Natural Resources, Inc., Lundin Eagle Mine, Potlatch, Graymont, RTI Surgical, and WE Energies.

Internships for NMU students with business, industry, and service providers are critical to quality employment preparations. Among NMU's most well-known internship sponsors are American Express Financial Advisors, General Motors, Hudson's Corporation, Dendreon, Mayo Clinic, UP Health Systems, Marshfield Clinic, Michigan State Police, Michigan DNR, Northwestern Mutual Life, Disney Professional Internships, Six Flags Great America, State Farm Insurance, the U.S. Marshall Service, and Wal-Mart. Additionally, internships are also sponsored by major construction firms across the nation such as Whiting-Turner, Mortenson, Michels Corporation, Envoy Airways and Power Construction.

Partnership with UP Health System – Marquette

The School of Clinical Sciences collaborates with UP Health System – Marquette for specialized training of our students in the clinical science programs. NMU offers majors in Radiography, Respiratory Therapy, Surgical Technology, Laboratory Sciences, and Speech, Language and Hearing Sciences. Students are selected and placed in the clinical portion of their degree programs with approximately 50 students in training at UP Health System – Marquette throughout the year.

The School of Nursing will place approximately 200 student nurses in the BSN program and 40 students in the practical nursing program in a variety of clinical settings during the school year, most of whom are placed at UP Health System – Marquette, for at least a portion of their training.

NMU's partnership with UP Health System – Marquette helps to meet the need for certified and licensed health professionals in the region and nationally. The U.S. Bureau of Labor Statistics anticipates an increased need for graduates of each of these programs through 2025 due to our aging population.

Economic Impact / Partnerships With Business and Industry

Center for Innovation and Industrial Technologies

Cliffs Natural Resources, Inc.

Departments within the Center for Innovation and Industrial Technologies work closely with Cliffs Natural Resources, Inc. (Cliffs) to prepare entry level technical employees for both the Tilden and Empire mining/processing operations. Associate degree programs in Electrical Technology and Industrial Maintenance, along with baccalaureate degree programs in Mechanical Engineering Technology, Industrial Technology, and Electronics Engineering Technology prepare graduates for employment with this local company. Management at Cliffs views the technical programs at NMU as virtually a sole source provider of entry level technical talent to their mining/ processing operations.

Cliffs is committed to continuing their partnership with Northern Michigan University by leasing additional space within the Jacobetti Complex in order to provide state-of-the-art training for their employees. NMU Continuing Education and Workforce Development facilitates these training events by coordinating the training agenda and providing incumbent worker training, often securing external training expertise. Additionally, NMU delivers Cliffs new miner training for all new employees at the Michigan Operations Tilden and Empire Mines.

Cliffs further relies on NMU to provide on-going factor testing and skill upgrade training for existing workers. This testing and training requires working labs equipped with the industry's highest technology manufacturing and processing components. The company partners closely to assist NMU in acquiring much of the needed lab equipment. This level of cooperation is dependent on, and evidence of, a close working relationship between academics and industry.

Lundin Eagle Mine

Prior to beginning their mining operations last year, NMU Continuing Education and Workforce Development has delivered over 350 hours of training to Eagle's new millwrights, soft skills training to Lundin office staff and MSHA new miner training to international Eagle has donated equipment vendors. Continuing Education and Workforce Development continues to deliver training to Eagle personnel on a variety of topics including defensive driving, excel and welding. t specific to their operations that will not only enhance training for their personnel but will add to the student experiences for baccalaureate and associate degree programs in NMU's Industrial Maintenance and Industrial Technology programs.

Envoy Airlines (formerly American Eagle Airlines)

An excellent working relationship exists between the NMU Technology and Occupational Sciences Department and the Envoy Airlines Sawyer Maintenance facility. The long-term partnership has resulted in 10-20% of the students graduating in the NMU Aviation Maintenance program being hired by the local facility.

Economic Impact / Partnerships With Business and Industry

Enstrom Helicopter Corporation
A strong working relationship has been established over the years with Enstrom Helicopter Corporation based in Menominee-Marinette Twin County Airport in Michigan. This corporation commonly hires 20% of NMU's graduates from the Aviation Technology program.

Regional Organized Labor Unions
Apprentice training for five area trade unions is located in the Jacobetti Complex at NMU. The Local 7 Sheet Metal Workers, Local 8 Iron Workers, Local 1070 Electrical Workers in addition to the Local 506 Plumbers and Pipefitters, have all located their regional training base to the Jacobetti Complex.

The Operating Engineers Local 324, located in Howell, Michigan, has chosen NMU as its regional training center for their annual January session. Thirteen different units of instruction are offered, ranging from asbestos and hazardous material awareness to welding certifications.

Food Service Industry
In response to changes in Michigan's food safety laws, NMU conducts mandatory food safety certification courses. All food service industry businesses, including those closely linked with the critical regional tourism industry, are able to have local access to regulatory training.

TeamTech Motor Sports
TeamTech was founded by Engineering Technology graduate Curt Tucker. He is a leading supporter of the SAE Baja racing team housed in the department, has been instrumental in several intern and job placements for graduates and partnered us with NASA to do some support research for their restraint systems just as a few examples.

RTI Surgical
Engineering Technology has had a strong partnership with RTI Surgical for over 10 years. RTI's support originated in its support of a one year certificate program for CNC machine operators. RTI provides equipment and instructors in support of the program and hires many of the graduates for their manufacturing floor. However the partnership has grown over the years with RTI now employing several current Mechanical Engineering Technology students as interns and hiring many of the program graduates. RTI supports Engineering Technology with technical expertise, materials and various other support while we provide them with engineering support, interns and permanent employees.

Electrical Line Partnership
A joint venture between Northern Michigan University, The Lake Superior Community Partnership, and numerous electrical companies (both utilities and contractors) developed the Electrical Line Technician Program to help fill an employment void within the Electrical Power Distribution industry. The curriculum received all equipment through donations and is located at Sawyer.

Economic Impact / Partnerships With Business and Industry

Argonics Engineered Polyurethane
Argonics has been associated on various levels with the Engineering Technology Department since its founding in 1993. From consultation on multiple projects, internships and permanent employees, the interaction has been beneficial for both parties.

Northern Initiatives (NI) and Marquette Food Co-Op
NI and Marquette Food Co-Op collaborated with NMU to build a demonstration hoop house. The project involves the production of fruits and vegetables in a controlled environmentally green structure. This project provides local families and growers a sophisticated demonstration site that will assist local farmers in expanding and refining crop selection and methods associated with agriculture in the U.P.

Continuing Education and Workforce Development
Continuing Education and Workforce Development continues to develop and improve upon various local, state and national relationships that provide business professionals, general industry and the public with quality education and training.

Workforce Training
The University provides a variety of non-credit training opportunities and customized training for business and industry. While Cliffs Natural Resources, Michigan Operations has historically been our primary customer, the University has increasingly concentrated on developing new industry relationships. Continuing Education and Workforce Development works with other regional companies such as Envoy Airlines, WE Energy, Potlatch, and Lundin Eagle Mine to assist with their training needs.

Natural Resources
In 2012, to meet the expected future demand in the U.P. Mining Industry, NMU became certified to deliver Mine Safety and Health Administration (MSHA) training for surface mine operations. NMU provides MSHA new miner training to Cliffs Natural Resource employees as well as a number of international companies associated with Lundin Eagle Mine. NMU also offers MSHA monthly during key time periods when individuals and companies are in need of refresher training for their employees.

Departments within the Center for Innovation and Industrial Technology are working with community leaders, regional economic developers and business leaders in the forestry and transportation industries in hopes of addressing some of the immediate and long-term personnel shortages facing the UP such as truck drivers and loggers.

Economic Impact / Partnerships With Business and Industry

Professional Education

The University is committed to the provision of high quality professional development programs in its service region through both the creation of such activities within its academic departments and through collaboration with outside providers who meet University approval standards. Recognizing the need for, and value of continuing, professional development in order to keep abreast of constantly changing demands and possibilities in the workplace, and in order to encourage practicing professionals to participate in various activities directly related to their job, NMU Continuing Education provides the following:

Educators – The 900-level program offers for-credit educational opportunities to over 400 teachers each year. Teachers use these courses towards their teacher licensure recertification or upgrade. In addition, NMU CE also offers non-credit State Continuing Educational Clock Hours that teachers use towards these same purposes. Many teachers use a combination of both 900-level courses and SCECHs during their teacher recertification.

Social Workers – NMU CE is a course sponsor for the National Association of Social Workers and partners with numerous local entities to provide social workers with educational opportunities. These opportunities are used by social workers to maintain their Social Work State License.

Bus Drivers – Northern Michigan University is the state-approved Pupil Transportation Bus Driver Training Agency for the central and western Upper Peninsula. The purpose of school bus safety instruction is to promote safe, efficient pupil transportation programs using Michigan Department of Education approved curriculum.

Real Estate Appraisal Education – Northern Michigan University offers a full range of residential and non-residential continuing education appraisal courses to thousands of appraisers each year at sites located throughout Michigan and via webinar. These courses are used by appraisers to retain their individual appraiser licenses.

Off-campus, individualized programs, seminars, and training – NMU CE recognizes that adult students require programs that deliver results specific to their professional needs with course schedules and delivery methods that allow participation outside the traditional semester format. Continuing Education's goal is to provide these vitally important lifelong learning opportunities to individuals and groups in the Upper Peninsula and beyond.

Economic Impact / Partnerships With Business and Industry

Personal Enrichment

Northern Center for Lifelong Learning (NCLL) is an organization that plans and offers informal educational programs and activities to enrich the daily lives of its members through mini courses, regular programs, outdoor activities, and social events. Member-directed, self-supporting, and nonprofit, it is affiliated with Northern Michigan University and the Elderhostel Institute Network. With the Elderhostel Institute Network (Road Scholar), NMU provides one of the more than 8,000 learning adventures in all 50 states and more than 90 countries abroad. Road Scholar offers in-depth and behind-the-scenes learning experiences for almost every interest and ability: history, culture, nature, music, outdoor activities such as walking and biking, individual skills, crafts, study cruises. The NMU Road Scholar program is being redesigned and will focus on photographing the stunning landscapes and special treasures hidden in the Upper Peninsula of Michigan. The history and work of George Shiras III, one of first wildlife photographers, will be highlighted.

Motorcycle Safety Training

Northern Michigan University is one of 14 state sponsored regional training agencies providing motorcycle safety training funded through a grant from the Michigan Department of State. Both experienced riders , as well as those with little or no experience, seeking a license endorsement enroll in these courses. If successful, new riders receive a completion waiver that is good for one year for the riding skills portion of the state motorcycle endorsement test.

Center for Rural Community and Economic Development

The University's portal, where community, industry, or government can go to connect with a question or need that would benefit from expertise or assistance from within the university.

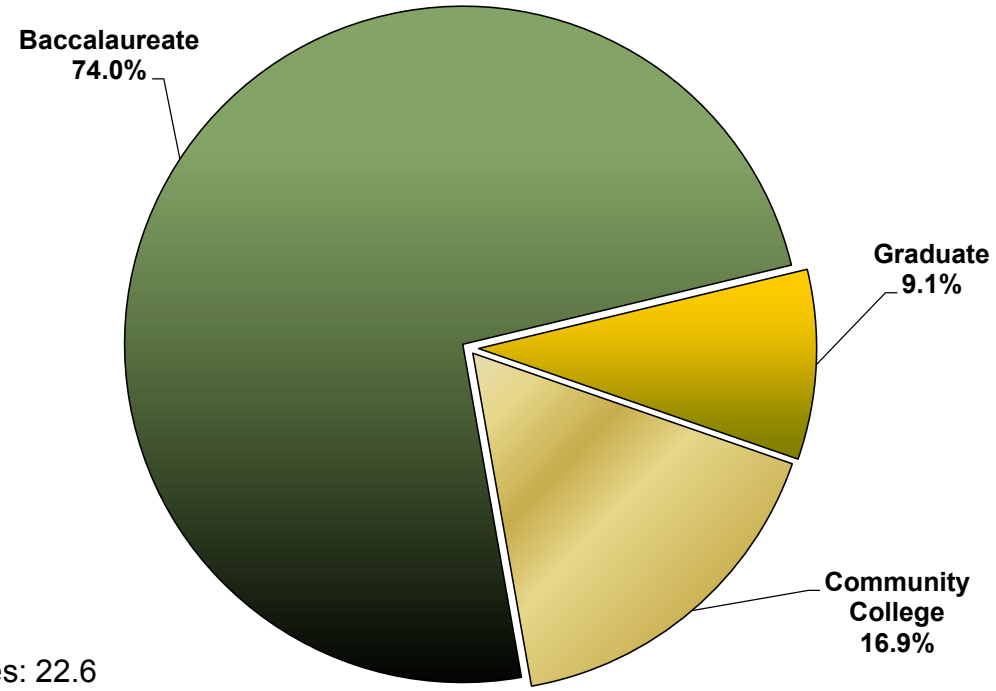
The Center for Rural Community and Economic Development at Northern Michigan University combines research, public service, education and training to enhance economic development and improve the quality of life in the Upper Peninsula and surrounding region.

Section III

Enrollment and Staffing

Enrollment

Headcount
Fall 2015 (n = 8,169 – 10th Day of Class)



Average age

- Undergraduates: 22.6
- Graduates: 38.0
- Overall: 24.0

Other student statistics

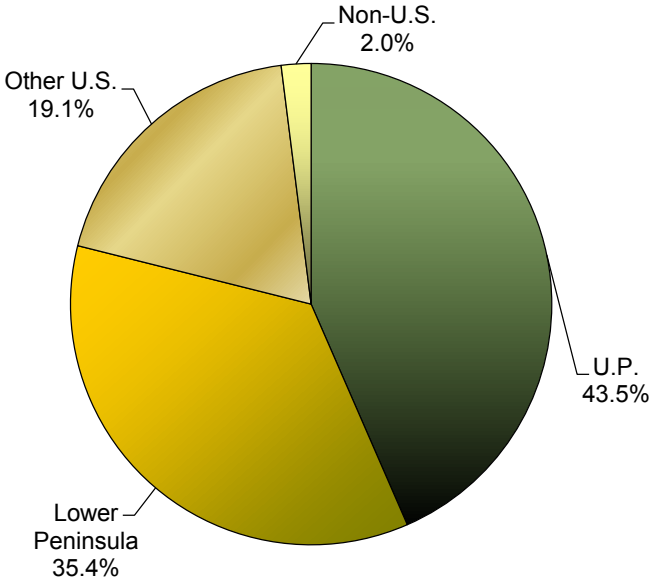
- At least one student from:
  - 83 of 83 Michigan counties
  - 47 different states
  - 45 different countries

Enrollment

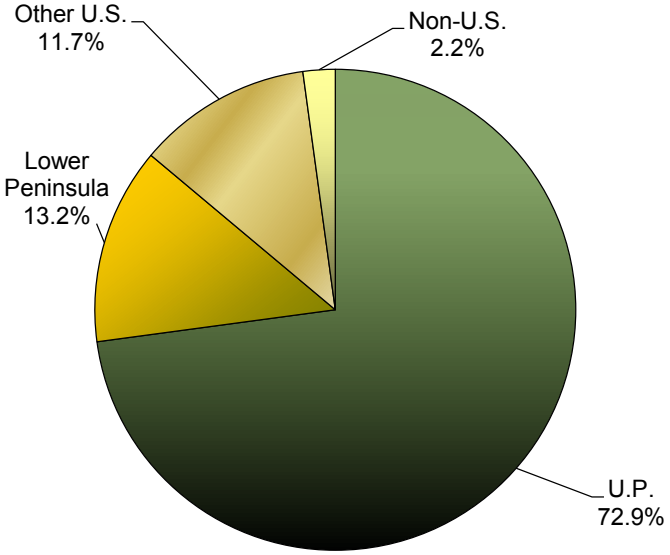
Recruiting Region

Fall 2015 (n = 8,169 – 10th Day of Class)

Undergraduate
(n = 7,428)

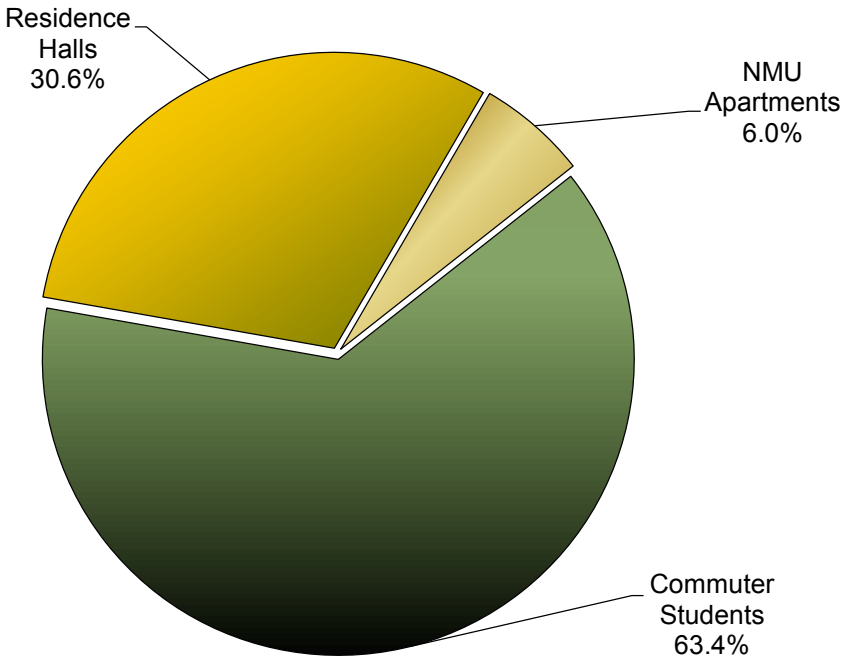


Graduate
(n = 741)



Enrollment

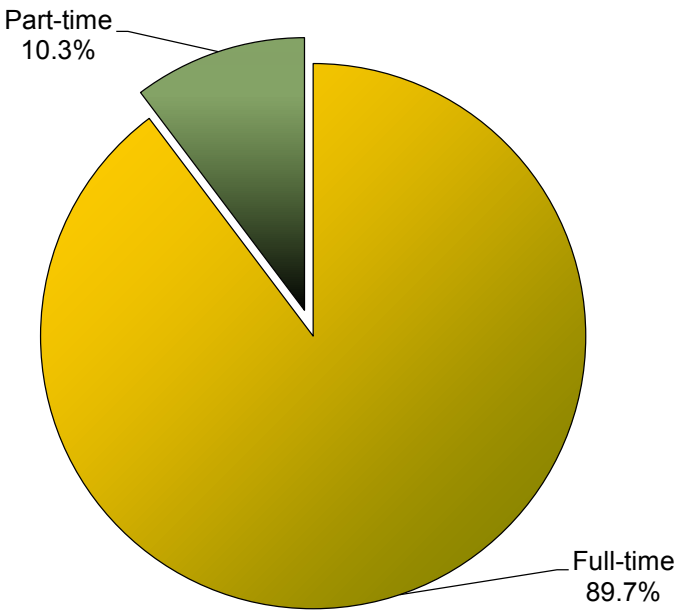
Where NMU Students Live
Fall 2015 (n = 8,169 – 10th Day of Class)



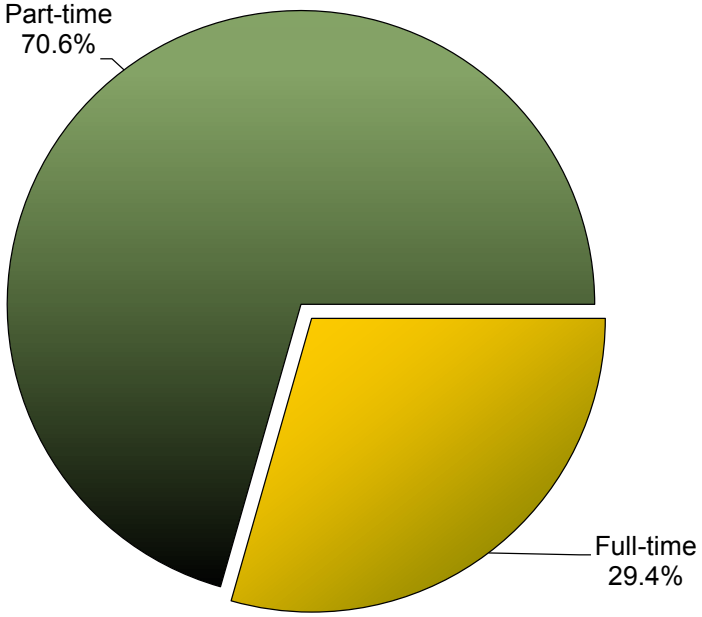
Enrollment

Full-time/Part-time Status
Fall 2015 (n = 8,169 – 10th Day of Class)

Undergraduate
(n = 7,428)

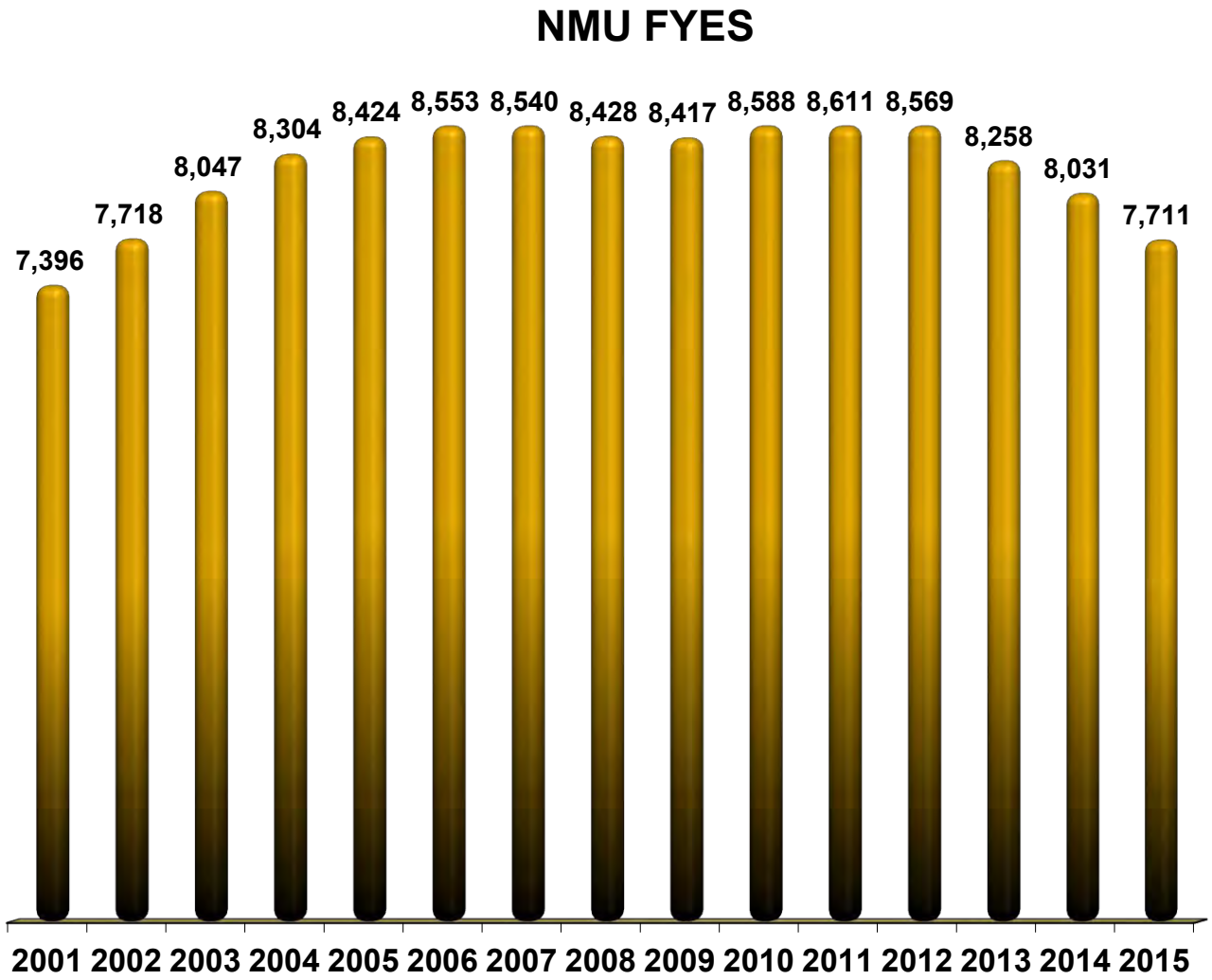


Graduate
(n = 741)



Enrollment

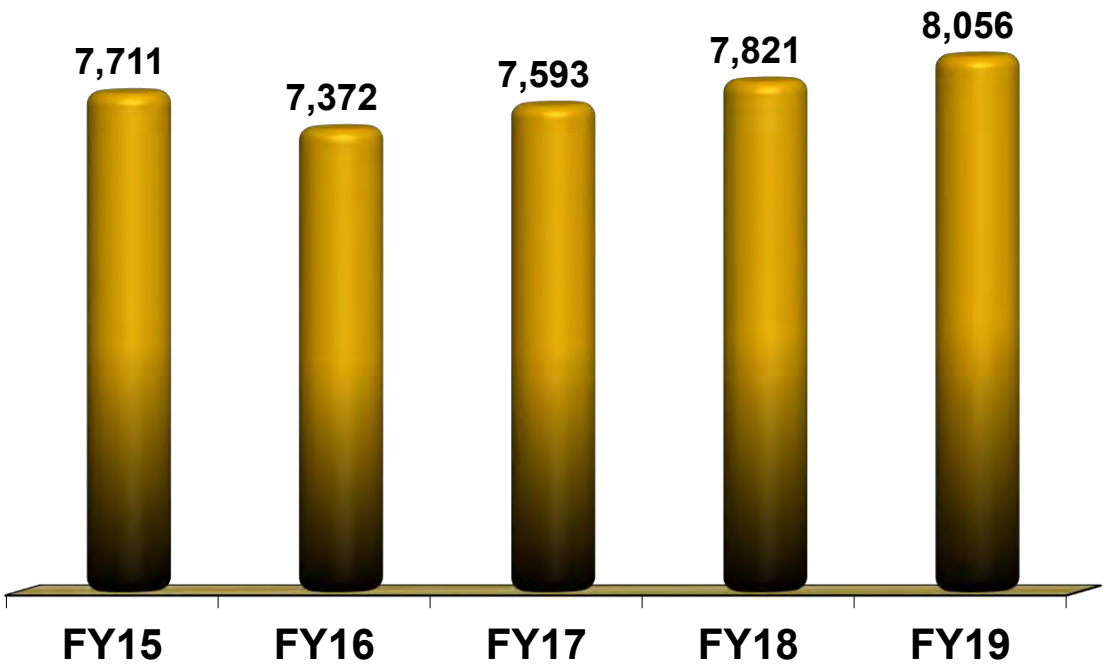
Full Year Equated Student Change



Enrollment

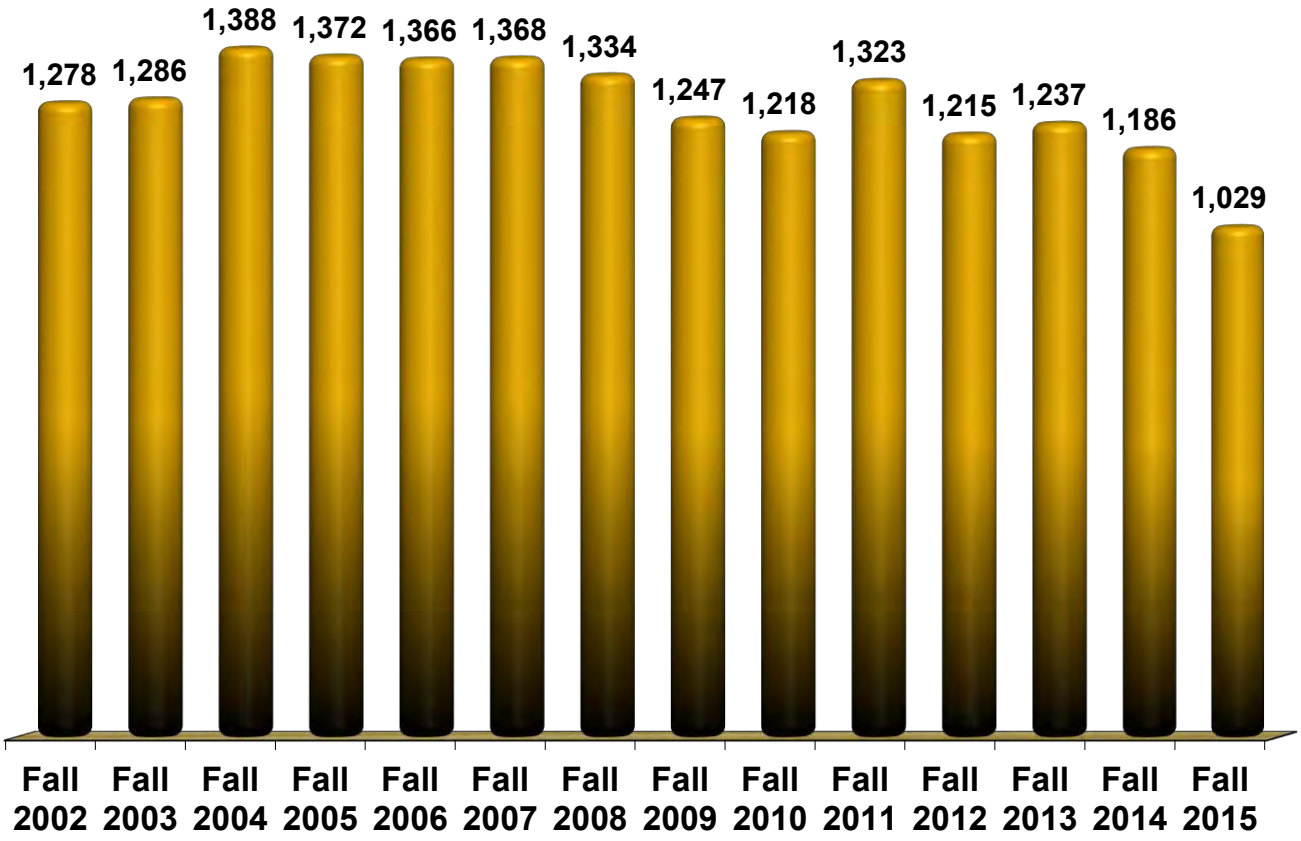
Full Year Equated Student Change (FYES)

5 Year Projection



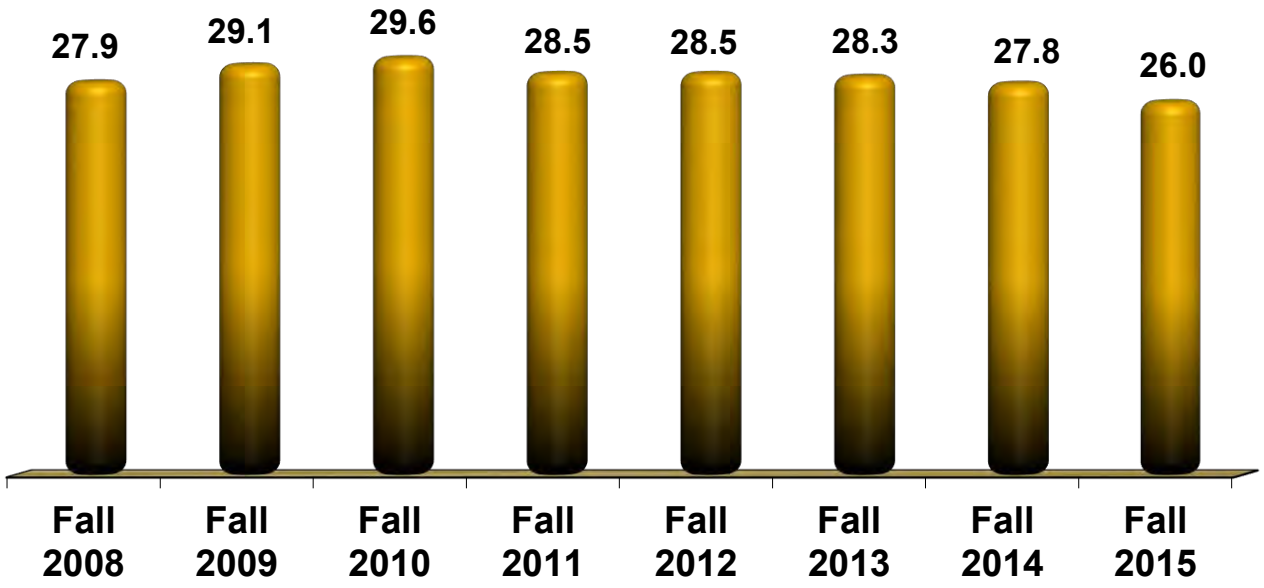
Enrollment

Baccalaureate First-Time, Full-Time New Freshmen



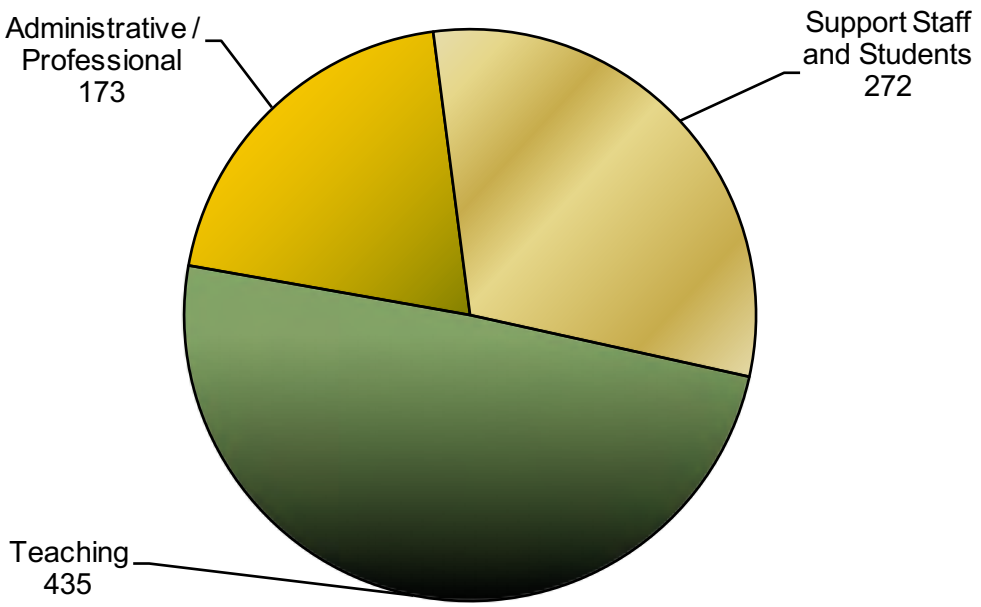
Enrollment

Average Lecture Class Size and Projected Average Class Size



Staffing

2014-2015 Full-Time Equivalent By Employee Category



Staff FTE

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Instructional Staff	416	417	423	428	438	433	435	420	420	427	433
Administrative/Professional Staff	167	172	170	172	166	177	173	171	169	172	177
Service Staff and Students	271	267	262	258	262	268	272	267	265	267	268

Student (FYES) - to - Staff Ratios

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Instructional Staff	20.25	20.58	20.35	20.02	18.85	18.55	17.73	17.55	18.08	18.32	18.61
Administrative/Professional Staff	50.37	49.98	50.62	49.81	49.75	45.37	44.57	43.11	44.93	45.47	45.51
Service Staff and Students	31.10	32.20	32.85	33.21	31.52	29.97	28.35	27.61	28.65	29.29	30.06

Section IV

Facility Assessment

Introduction

In 2001, the University contracted to develop a comprehensive Facility Condition Analysis, or benchmark, for the existing condition of all campus buildings and hardscape. These reports identified maintenance needs and associated costs and divided them into categories based on priority, system type, and facility type. Each year, the Facilities Department staff updates these reports to ensure current maintenance needs are identified and projected costs are kept current.

The Facility Condition Analysis reports are used to prioritize, budget, and plan yearly maintenance projects to be completed by both internal departments and external contractors.

NMU and Sustainability

Northern Michigan University has embraced sustainability efforts to help reduce its environmental impact on the planet by reducing the use of fossil fuels, conserving resources, and reducing waste – a philosophy NMU has followed for over 30 years. Expanding efforts include: using green energy, continually improving facility management systems, following LEED® design and building practices to achieve Green Building certification and changing operational and product selection policies to improve recycling and conservation efforts. By following these philosophies, NMU has been able to achieve substantial cost reductions.

Energy

Sustainability and conservation efforts are goals of the University. To improve these efforts, the Facilities Department has produced a Sustainability website displaying recent energy and utility consumption in an effort to keep the campus community informed of utility consumption, as well as provide tips on how everyone can assist with the University's energy saving commitment.

To better understand utility usage, the University is in the process of enhancing its utility meters to provide reliable data to improve budget development, billing accuracy, and energy saving analysis. In the spring of 2009, an energy consultant was contracted to broadly survey each stateside building. This report provided estimates on construction cost with resultant projected savings and return on investment. Several projects have been implemented, such as the installation of variable frequency drives on fans and feed water pumps at the Ripley Heating Plant, campus-wide steam trap replacement, and WiMAX power reduction in residence halls, along with multiple boiler replacements in campus apartments. The University has applied for energy incentive rebates on several of these projects.

In the spring of 2010, an energy services company was contracted with to conduct an energy audit and conditions assessment of the Jacobetti Complex and the University Center buildings. The two facilities presented a significant opportunity for savings through HVAC and lighting upgrades, water conservation improvements, and installation of a new facility management systems to provide optimal control during occupied and unoccupied times. Phase improvements were completed in fall 2010, and significant energy reduction has been observed. The consultant has been retained to measure and very the savings each year since completion.

Phase II of this project focused on the highest utility consuming buildings on campus. The energy services company again performed comprehensive energy conservation audits, determined the energy consumption and operational characteristics of the facilities and identified the facility improvement measures (FMIs), procedures, and other services that could be implemented in order to reduce NMU's energy and other operating costs for the facilities. Construction began in the

NMU and Sustainability

spring of 2011 and was completed in August 2012. The energy savings, operational savings, and cost avoidance achieved from the improvement measures in both phases are approximately $600,000 for a return on investment over a period of 12 years or less, using a 5% interest rate. The performance of the FIMs, services, and reduced energy consumption will be guaranteed by the energy services company.

The University has evaluated Phase III and moved forward with replacing the facility management system in the Superior Dome in 2014. The replacement of the facility management system in the Fine Arts Complex is planned for 2016 to capture additional energy savings.

A new biomass fueled cogeneration combined heat and power (CHP) plant was completed in 2013 as part of a campus energy optimization project. The new plant has provided the opportunity for fuel diversity with the new plant burning wood chips with natural gas as a backup fuel. The new plant is capable of meeting 87% of the thermal needs on campus as well as producing approximately 16% of the university's electrical load through the use of a steam turbine generator. Other optimization improvements include the interconnection of the New Science Facility chiller to the Learning Resource Center chilled water system and the replacement of the existing absorption chillers in Cohodas Hall and the Jacobetti Complex with right sized ones that closer meet the load requirements of each building.

Facility Efficiency

The university has classified and quantified all of its existing space and compared its spatial distribution with similar institutions based on the Society of University and College Planning (SCUP) Facilities Inventory report. This effort allowed the university to benchmark its space inventory against national averages by comparing total square footage by type (classroom, laboratory, office, etc.) against total enrollment. In addition a formal evaluation of facility use (space utilization) was conducted in 2011. Data compiled from the university scheduling/utilization reports was evaluated both internally and by an outside consultant. The evaluation illustrated NMU's utilization between 8:00 am and 5:00 pm averaged 22 hours per week which was low compared to the national average of 28-32 hours/week. This lower than average utilization rate and the space inventory data from 2008 are now used to evaluate new space requests and identify opportunities to re-purpose underutilized space in lieu of building new.

NMU and Sustainability

Building Design
LEED® Green Building certification is being sought on capital projects through the specification of "green" building materials, wise management of materials during construction through reduction, reuse and recycling of construction and packaging materials, and design of efficient systems that require less energy and use of natural resources. The overall goal is to reduce operating costs, provide a healthier environment for building occupants, and conserve energy. The university has achieved LEED Green Building certification for the renovations of Meyland Hall, Magers-Meyland Lobby, and the Hunt-Van Antwerp Lobby, along with LEED Green Building Silver certification on Van Antwerp Hall and Hunt Hall renovations. These coveted awards were among the first in the Midwest under the LEED certification system and speak to the university's continued commitment to sustainability. As further commitment, two NMU staff members have attained the status of LEED Accredited Professional to help guide building design efforts. The new Jamrich Hall has achieved a LEED Certified endorsement.

Recycling
Since 1992, the university has diverted more than 12,000 tons of material from the landfill through its recycling program. In 2007, this effort was expanded to include used batteries, along with a "single sort" program, to make first-line recycling efforts easier for students, faculty, and staff. Fluorescent lamps, computer components, waste oil, and antifreeze are products that are also recycled by the university. The university's housing operations have instituted an extensive sustainability and recycling program within its residence halls that has been well embraced by students. The battery recycling program has expanded through an agreement with the county landfill that utilizes a hammer-mill to pulverize the household batteries and recycle the material as it is separated.

All building renovation and construction projects require participants to record tonnage of recycled metal, cardboard, and organic building materials. This information is essential to the LEED certification process.

A new trash and recycling process has been phased in for four campus buildings with more to follow in Fall 2015 and Spring 2016. This process has trash/recycling "pods" placed in strategic locations throughout the building where occupants can empty their recycled materials. The intent of this is to make occupants more conscious of what is being recycled.

NMU and Sustainability

Product Selection/Operational Policies
NMU is examining the products it purchases as part of its sustainability effort. The use of biodegradable "spudware," cutlery manufactured from 80% potato starch and 20% soy oil, drink containers made from corn starch that biodegrade 60 days after use, and recycled paper napkins, plates, and cups have all been implemented in the university's dining halls. Also, a food pulper was installed in one of the dining halls to reduce food waste volume. This waste product can be composted and the University has been in discussion with the Marquette County Landfill, which has built a certified composting site to accept the waste product. Dining Services has changed operational policies to going trayless within campus dining halls to help reduce waste. The university also utilizes green cleaning products for most of its applications. In 2010, the NMU Golf Course began using soy biobased products for its operation which include multi-purpose grease, lubricants, coolants and penetrating oils. They tested RePLAY, a soy-based asphalt preservation agent on cart paths.

Community Awareness
Sustainability and conservation efforts are a university goal and to improve community awareness, the Facilities Department has produced a Sustainability website displaying recent energy and utility consumption, along with tips to help conserve energy. Additionally, the university has a representative that serves on the City of Marquette's "Sustainable Communities Committee."

Facilities Assessment

- **NMU Physical Plant Overview**

  - 61 Buildings
    - 3.4 million square feet
  - 725 acres
    - 359 acres on main campus
    - 160 acres - Longyear Forest
    - 206 acres – South Marquette
  - 3.6 miles of roadway
  - 13.95 miles of sidewalk

Facilities Condition Cost Analysis by Priority Class For all State Buildings

Building	Immediate	Year One	Year Two to Five	Year Six to Ten	Total
ADA B. VIELMETTI HEALTH CENTER		$ 9,210	$ 66,647	$ 94,411	$ 170,269
ART AND DESIGN NORTH		$ 136,206	$ 6,615	$ 942,265	$ 1,085,086
BERRY CENTER LINK		$ 1,775	$ 3,431	$ 46,092	$ 51,298
BUS GARAGE		$ 407	$ 20,546	$ 3,950	$ 24,903
BUTLER BUILDING		$ 23,723	$ 45,480		$ 69,203
DOME / PEIF LINK			$ 271	$ 21,229	$ 21,500
EVENTS CENTER	$ 233,200	$ -	$ 18,223	$ 558,288	$ 809,711
FOREST ROBERTS THEATRE		$ 833,303	$ 796,844	$ 629,147	$ 2,259,294
GLENN T. SEABORG SCIENCE COMPLEX	$ 3,439	$ 61,872	$ 95,606	$ 2,335,902	$ 2,496,819
HARRY D. LEE HALL	$ 146,145	$ 353,903	$ 4,839,561	$ 217,614	$ 5,557,222
HEDGCOCK FIELD HOUSE	$ 86,301	$ 366,659	$ 2,306,561	$ 746,318	$ 3,505,840
JACOBETTI CENTER		$ 758,403	$ 1,533,407	$ 4,254,682	$ 6,546,491
JACOBETTI CENTER STORAGE		$ 23,725	$ 4,734	$ 62,707	$ 91,166
KAYE HOUSE (PRESIDENT`S HOUSE)	$ 29,306		$ 60,022	$ 14,681	$ 104,009
LEARNING RESOURCE CENTER	$ 103,313	$ 1,017,557	$ 12,411,158	$ 3,046,090	$ 16,578,118
LRC/WS LINK		$ 15,787	$ 8,690	$ 23,651	$ 48,127
McCLINTOCK BUILDING		$ 393,493	$ 622,014	$ 906,838	$ 1,922,345
PHYSICAL EDUCATION INSTRUCTION FACILITY	$ 91,985	$ 1,843,728	$ 2,358,280	$ 1,697,810	$ 5,991,802
RIPLEY HEATING PLANT		$ 5,755	$ 209,450	$ 53,678	$ 268,883
SAM M. COHODAS ADMINISTRATIVE CENTER	$ 11,785	$ 57,969	$ 3,260,532	$ 4,615,694	$ 7,945,980
SERVICES BUILDING			$ 132,682	$ 278,064	$ 410,747
SUPERIOR DOME		$ 3,700,356	$ 1,731,510	$ 1,780,999	$ 7,212,865
THOMAS FINE ARTS		$ 623,788	$ 589,464	$ 1,221,160	$ 2,434,412
UC/GRIES LINK		$ 46,723		$ 87,610	$ 134,333
WALTER F. GRIES RESIDENCE HALL		$ 628,701	$ 2,145,286	$ 1,867,264	$ 4,641,251
CAMPUS SECURITY			$ 502,435		$ 502,435
HARDSCAPE	$ 10,088	$ 17,910	$ 181,656	$ 1,160,106	$ 1,369,760
UTILITY INFRASTRUCTURE	$ 220,977	$ 116,144	$ 26,875,541	$ 413,978	$ 27,626,640
Total	**$ 936,538**	**$11,037,096**	**$ 60,826,643**	**$ 25,811,321**	**$99,880,508**

Facilities Condition Cost Analysis by Priority Class
For all Auxiliary Buildings

Building	Immediate	Year One	Year Two to Five	Year Six to Ten	Total
CENTER STREET APARTMENTS	$64,376	$515,359	$5,525,009	$719,390	$6,824,135
CHARLES C. SPOONER RESIDENCE HALL	$100,466	$59,362	$6,287,933	$415,731	$6,863,492
DON H. BOTTUM UNIVERSITY CENTER	$159,660	$104,565	$15,307,188	$2,569,315	$18,140,728
GANT HALL	$67,960	$87,017	$5,806,686	$1,696,871	$7,658,534
GUNTHER C. MEYLAND RESIDENCE HALL	$48,602	$73,777	$1,777,822	$163,165	$2,063,366
HALVERSON HALL	$189,989	$22,119	$5,309,701	$1,702,060	$7,223,869
LINCOLN STREET APARTMENTS	$133,250	$474,337	$5,419,770	$1,381,915	$7,409,273
LUCIAN F. HUNT RESIDENCE HALL	$21,882	$75,926	$1,453,981	$76,988	$1,628,777
MAGERS HALL	$213,299	$100,261	$178,650	$409,937	$902,147
MAUDE L. VAN ANTWERP RESIDENCE HALL	$25,194	$63,208	$1,364,558	$322,044	$1,775,004
NORWOOD STREET APARTMENTS	$58,309	$929,656	$4,060,309	$139,199	$5,187,474
PAYNE HALL	$197,707	$166,281	$5,311,850	$1,672,496	$7,348,334
QUAD 1	$17,438	$193,999	$2,270,498	$324,313	$2,806,248
QUAD 2	$92,472	$889,067	$3,906,146	$620,427	$5,508,113
SPALDING HALL	$125,152	$440,655	$5,495,635	$1,668,957	$7,730,399
SUMMIT STREET APTS			$9,012,811		$9,012,811
WILBUR D. WEST RESIDENCE HALL	$70,414	$148,574	$7,609,159	$516,534	$8,344,681
WILKINSON HOUSE			$283,272		$283,272
Total	$1,586,170	$4,344,163	$86,380,978	$14,399,342	$106,710,657

Facility Assessment Summary

Building Number	Building	Service Area	2015-2016 Replacement Cost	Year Constructed	Construction Type	Gross Square Footage	Net Square Footage	Use Code	Standards	Accessibility	Electrical	Exterior	Fire	Health	HVAC	Interior	Plumbing	Security	Site	Maintenance Project Total
2	Sam M. Cohodas Hall	Academic/Admin	$ 27,296,491	1975	FR	105,009	92,376	AD	1	$353,290	$339,125	$1,781,375	$475,443		$4,085,132	$896,340			$16,276	$7,945,981
6	Storage Building	Academic/Admin	$ 48,949	1998	ST	3,760	3,760	ST	1											
7	Harry D. Lee Hall	Academic/Admin	$ 11,049,453	1949	M	42,507	36,395	AD	1	$991,522	$704,141	$481,435	$422,672		$1,234,058	$978,771	$728,182		$16,440	$5,557,221
9	C.B. Hedgcock	Academic/Admin	$ 30,347,198	1958	M	116,745	99,210	AD	1	$161,488	$458,434	$238,091	$451,862	$187,601	$877,450	$684,334	$446,579			$3,505,839
10	Forest A. Roberts Theatre	Academic/Admin	$ 7,981,329	1964	FR	30,704	22,510	TH	1	$97,059	$480,393	$411,304	$332,199		$762,633	$114,982	$44,401		$16,323	$2,259,294
11	R. Thomas Fine Arts Building	Academic/Admin	$ 23,417,602	1964	FR	90,087	64,217	CH	1	$48,681	$362,228	$631,877	$372,896		$485,437	$511,966	$28,323		$3,014	$2,434,412
12	W. B. McClintock Industrial Arts Building	Academic/Admin	$ 8,727,630	1964	M	33,575	32,382	CH	1	$49,104	$100,752	$475,398	$287,461		$577,958	$362,892	$46,893		$21,886	$1,922,344
13	L.S. West Science Building	Academic/Admin	$ 51,095,277	1966	FR	159,319	138,241	CL	1,4						$26,659	$1,171,889	$70,362			$1,268,910
14	E.L. Harden Learning Resource Center	Academic/Admin	$ 51,671,988	1969	FR	198,781	175,246	CL,LB,SU	1	$124,078	$2,265,123	$1,178,832	$1,484,410		$5,220,628	$2,718,592	$3,579,338		$7,116	$16,578,117
15	John X. Jamrich Hall	Academic/Admin	$ 30,751,380	2014	FR	133,000	117,575	CH	1											
17	Vielmetti Health Center	Academic/Admin	Include with Gries	1961		7,838	7,038	AD		$59,417	$555		$15,142			$90,230	$1,310		$3,616	$170,270
18	Phys. Ed. Instruction Facility	Intercollegiate Athletics/Rec.	$ 46,693,015	1976	FR	179,627	161,298	CG	1	$89,387	$1,057,586	$853,127		$11,110	$410,500	$1,379,517	$2,210,576			$5,991,803
19	D. J. Jacobetti Vocational Skill Center	Academic/Admin	$ 54,374,889	1980	FR	209,179	193,817	CL	1	$544,992	$94,685	$1,905,085	$613,708		$1,894,990	$1,109,375	$238,477		$145,180	$6,546,493
20	Berry Events Center	Intercollegiate Athletics/Rec.	$ 34,588,189	1999	FR	133,060	75,740	CG	1		$136	$18,223	$685		$485,736	$304,932				$809,712
21	Superior Dome	Intercollegiate Athletics/Rec.		1991	F	251,436	213,296	CG	1	$35,628	$1,590,483	$3,932,526			$135,787	$1,413,542	$100,943		$3,956	$7,212,865
22	New Science Facility	Academic/Admin	$ 39,960,528	2000	FR	124,600	109,538	CL,CH	1,3	$2,305	$706	$89,357	$49,746			$1,064,687			$21,107	$1,227,908
23	Jacobetti Storage	Academic/Admin	$ 1,579,162	1988	ST	6,075	5,820	ST	1	$997		$12,855	$23,725			$27,069			$26,520	$91,166
25	M.K. Magers Residence Hall	Housing	$ 14,084,030	1966	FR	62,579	50,794	AD	1	$110,014	$340,485	$55,370	$48,663		$18,065	$312,295	$7,513		$9,743	$902,148
31	1020 Wright Street - Industrial Piping	Academic/Admin	$ 390,029			3,466	5,341	AD	1											
32	1020 Wright Sreet - Fab Shop	Academic/Admin	$ 450,120			4,000	4,000	ST	1											
33	1020 Wright Street - Storage	Academic/Admin	$ 360,096			3,200	3,200	ST	1											
34	1020 Wright Street - Storage	Academic/Admin	$ 360,096			3,200	2,900	ST	1											
35	1020 Wright Street - Storage	Academic/Admin	$ 162,268			1,442	1,707	ST	1											
40	Art & Design North	Academic/Admin	$ 26,365,631	1996	FR	101,428	83,550	CL	1	$26,124	$71,043	$444,152	$63,095		$143,721	$307,076	$15,285		$14,590	$1,085,086
41	Dow Storage	Intercollegiate Athletics/Rec.		2002		1,728	1,728	ST	1											
42	Ripley Heating Plant	Academic/Admin	$ 31,244,656	1965 / 2013	FR	35,190	27,634	PP	1		$9,344	$156,258	$42,740		$24,679	$19,631	$16,231			$268,883
43	Butler Building	Academic/Admin	$ 717,941	1950	FR	6,380	6,411	ST	1		$10,059	$1,975	$57,169							$69,203
46	Services Building	Academic/Admin	$ 24,442,043	1996	M	94,028	91,225	PP	1		$43,402	$31,348				$326,416	$8,735		$846	$410,747
47	Bus Garage - 1901 Enterprise	Academic/Admin	$ 279,074		ST	2,480	2,437	ST	1			$3,950	$1,181		$13,580	$4,732	$1,459			$24,902
48	Whitman Hall	Academic/Admin	$ 9,332,000			35,900	31,000	CH,AD	1											
51	C.C. Spooner Hall	Housing	$ 12,408,908	1957	FR	55,136	38,637	RS	1	$1,764,945	$882,464	$156,595	$192,287		$1,598,724	$522,186	$1,673,889	$26,214	$46,189	$6,863,493
52	Kaye House-Official Residence	Academic/Admin	$ 2,299,269	1980	FR	8,173	6,599	RS	1	$16,608	$10,124	$30,443			$8,339	$37,928	$567			$104,009
58	Hedgcock/TFA Link	Academic/Admin	$ 817,525	2004		3,145	2,977	BC	1											
62	W.D. West Residence Hall	Housing	$ 13,094,283	1960	FR	58,048	49,594	RS	1	$1,993,361	$990,884	$383,112	$199,844		$1,686,931	$1,046,662	$1,956,505	$33,247	$54,135	$8,344,681
63	Don H. Bottum University Center	Univeristy Center	$ 38,650,079	1996	NC	148,686	133,362	AD,SU,FS	1	$513,335	$2,384,925	$3,041,241	$253,637	$465,425	$4,752,040	$3,968,533	$2,743,270		$18,320	$18,140,726
64	W.F. Gries Hall	Academic/Admin	$ 15,135,517	1961	FR	58,226	48,564	AD	1,2	$1,204,648	$1,001,127	$260,532	$298,061		$356,863	$651,450	$706,532		$11,338	$4,490,551
65	L.O. Gant Residence Hall	Housing	$ 12,587,381	1964	FR	55,929	48,078	RS	1	$2,052,235	$973,194	$305,707	$150,145		$1,549,935	$877,145	$1,677,212	$37,723	$35,238	$7,658,534
66	G.A. Spalding Residence Hall	Housing	$ 12,591,882	1964	FR	55,949	48,204	RS	1	$1,639,743	$973,514	$486,882	$475,138		$1,550,513	$854,093	$1,677,555	$35,238	$37,723	$7,730,399
67	Quad I Common Area	Housing	$ 19,424,858	1964	FR	74,727	72,473	FS	1	$151,626	$535,019	$196,428	$199,951	$87,705	$741,098	$452,201	$430,415		$11,805	$2,806,248
68	L. Payne Residence Hall	Housing	$ 12,587,381	1965	FR	55,929	48,161	RS	1	$1,639,743	$973,194	$310,434	$326,519		$1,549,935	$800,892	$1,677,212	$35,165	$35,238	$7,348,332
69	L.H. Halverson Residence Hall	Housing	$ 12,591,882	1965	FR	55,949	48,049	RS	1	$1,591,155	$973,514	$315,742	$255,523		$1,550,513	$786,906	$1,677,555	$35,238	$37,723	$7,223,869
70	G.C. Meyland Residence Hall	Housing	$ 14,335,647	1966	FR	63,697	58,849	RS	1	$496,106	$183,639	$126,845	$167,354		$562,992	$276,705	$230,536	$10,630	$8,560	$2,063,367
72	Quad II Common Area	Housing	$ 21,041,712	1966	FR	80,947	70,156	RS	1	$153,485	$767,011	$359,913	$489,323		$2,820,239	$864,826	$47,854		$5,461	$5,508,112
73	L.F. Hunt Residence Hall	Housing	$ 14,303,688	1967 / 2008	FR	63,555	50,349	RS	1	$386,132	$143,357	$105,503	$124,886		$437,998	$243,406	$172,354	$8,450	$6,691	$1,628,777
74	M.L. Vanantwerp Residence Hall	Housing	$ 14,320,118	1967 / 2007	FR	63,628	53,481	RS	1	$436,179	$159,998	$103,904	$127,284		$488,220	$250,180	$192,345	$7,466	$9,429	$1,775,005
75	Center Street Apartments	Housing	$ 12,705,537	1967	M	39,194	30,488	RS	1	$770,704	$1,272,422	$685,105	$544,809		$1,007,099	$1,043,127	$1,430,249	$46,035	$24,586	$6,824,136
77	Norwood Street Apartments	Housing	$ 7,907,258	1967	M	35,134	33,324	RS	1	$685,260	$977,285	$359,058	$425,932		$858,584	$708,397	$1,126,922	$46,035		$5,187,473
90	Woodland Park Apartments	Academic/Admin	$ 23,631,300	2006		105,000	94,757	RS	1											
90	Microwave Link (Sll) Morgan Mead		$ 168,795	1972	FR	1,000	1,000	PP	1											
91	Microwave Link (Sll)-Palmer				M	-		PP	1											
92	Transmitter Site-Ely Township		$ 337,084	1972	FR	1,997		PP	1											
93	1500 Wilkinson Avenue	Housing	$ 945,252	1952	F	4,623	2,742	RS	1	$114,934	$61,634	$33,757			$2,147	$24,073	$8,683		$38,044	$283,272
201	PEIF/Berry Events Center Link	Intercollegiate Athletics/Rec.	$ 2,623,358	1999	NC	10,092	8,936	BC	1	$3,431	$1,775					$46,092				$51,298
	Summit Street Apartments	Housing	$ 12,459,997	1958	M	55,363	41,452	RS	1		$719,256	$125,478			$1,063,228	$3,608,571	$2,943,826	$552,451		$9,012,811
82A	Lincoln Street Apartments	Housing	$ 18,980,660	1980	F	84,336	65,122	RS	1	$2,126,803	$1,290,845	$265,287	$566,261		$428,406	$954,697	$1,622,729	$13,872	$140,373	$7,409,273
	LRC/West Science Link	Academic/Admin	$ 1,763,462	1996	NC	6,784	5,376	BC	1	$9,825			$15,787			$22,516				$48,128
	1716 Presque Isle Building	Univeristy Center	$ 1,288,980	1960	FR	6,300	6,300	RS	1											
	1422 Presque Isle	Univeristy Center	$ 1,227,600	1972		6,000	4,256	RS	1											
	Salt Barn	Academic/Admin	$ 501,434	1996	F	4,456	4,115	ST	1											$0
	UC/Gries Link	Academic/Admin	$ 792,570	1995	NC	3,049	2,740	BC	1	$33,036		$23,020	$46,723			$31,554				$134,333
	Dome storage	Intercollegiate Athletics/Rec.	$ 291,678	1998		2,800	2,592	ST	1											
	Dome/PEIF Link	Intercollegiate Athletics/Rec.	$ 715,342	1991	NC	2,760	2,466	BC	1	$271	$12,557	$2,689			$5,983					$21,500
	1804 Tracy Avenue	Univeristy Center	$ 113,487	1954	FR	2,230	2,230	RS	1											
	300 Waldo	Univeristy Center	$ 337,181	1909 / 2003	FR	1,648	1,648	RS	1											
	Hardscape									$15,345			$10,088				$46,337		$1,297,991	$1,369,761
	Campus Security																	$502,435		$502,435
	Utility Infastructure										$ 1,432,368	$ 306,020		$ 286,233		$ 25,602,019				$27,626,640
										$20,472,996	$24,638,786	$20,686,233	$9,612,349	$751,841	$39,703,033	$31,870,398	$55,189,173	$1,390,199	$2,125,457	$206,440,467

Deferred Maintenance has been adjusted by 2.1% for inflation.

Use Code:
AD Administrative
AT Athletics
BC Building Connector
CG Classroom/Gym
CH Classroom/Lecture
CL Classroom Laboratory
FS Food Service
LB Library
PP Physical Plant
RS Residential
ST Storage
SU Student Union
TH Theater
UI Utility Infrastructure
HS Hardscape
CS Campus Security

Required Standards:

1. Typical Building/ Construction Codes

2. Animal Welfare Act

3. Nuclear Regulatory Commission

4. Accreditation Standards
American Speech, Language, Hearing Association

196494820
$8,676,737

Facility Assessment

Long-Term Maintenance

Since September 2014, Northern has completed $4.23 million of long-term maintenance for state buildings, auxiliary buildings, utility infrastructure, security, and hardscape. Examples of some of this past year's projects include, but are not limited to, the following:

- *Izzo-Mariucci Center Media Room*
- *Steam Line Replacement Old Jamrich Hall*
- *Fire Alarm System Replacement in Multiple Buildings*
- *Jacobetti Complex Cooling Tower Replacement*
- *Jamrich Hall Demolition*
- *Jacobetti Complex Emergency Generator Replacement*
- *New Science Chiller Rebuild*
- *Jacobetti Complex Circle Drive & Parking Lot Replacement*
- *Learning Resource Center Classroom Renovations*
- *Learning Resource Center Condensate Receiver Replacement*
- *Jacobetti Complex Restroom Upgrades*
- *Superior Dome Water Heater Replacement*
- *Superior Dome Weight Room Expansion*
- *Security System Cameras*
- *Center St. & Norwood St. Apartments Roof Replacement*

When buildings are renovated, long term maintenance projects are incorporated whenever possible. This fiscal year, general fund monies totaling $2,509,500 have been allocated to address long term maintenance items.

Space Utilization Initiatives

NMU's room scheduling/utilization software has been utilized since the fall 2007 semester for majority of all class scheduling. This tool allows the university to optimize course scheduling and evaluate/improve both room and building utilization.

To help direct the utilization of space on campus, the university has established a Space Utilization Committee. This committee helps identify space deficiencies, provide the administration with space utilization information, and develop recommendations to effectively manage campus facilities. During the fall of 2009, the committee recommended the adoption of priority and consolidation scheduling.

Facility Assessment

Space Utilization Initiatives ***(continued)***

This effort requires close coordination between the Registrar's office and the Facilities Department to concentrate evening and weekend courses to select buildings or select areas within buildings allowing heating, cooling, and lighting systems to be turned off or down reducing energy/operational costs. NMU successfully implemented this scheduling practice during the Winter 2010 semester and each subsequent semester with positive results.

As part of the Jamrich Hall Replacement Project, NMU conducted a comprehensive review of campus classroom and administrative space. The results revealed an average classroom utilization rate of 22 weekly room hours (WRH's), well below the national standard of 28.5 to 31.5 WRH's. The review also indicated that approximately 77% of course offerings had an enrollment of 40 or less; while only 28% of the classroom stock had a matching capacity. This indicated that room capacity was not being maximized. As a result of the evaluation, the new Jamrich Hall was constructed with fewer large lecture halls, more 30 and 40 seat classrooms better aligning the classroom inventory with current course demand, and fostered the development and implementation of standard scheduling patterns to maximize classroom utilization.

Facility Assessment

Space Report

Space Utilization reports for general use facilities have been developed; however, these reports reflect formally scheduled classes only. Events such as open lab hours are not reflected in the current reports, reducing the reported classroom utilization rates. To improve the University's reporting capability and better manage it's space, the University is currently implementing a new schedule software system that will enable all campus uses to be tracked for all academic and conference spaces across campus.

Below is a summary of *General Use Classroom Utilization* by building for fall 2015 (Monday/Friday - 10:00am – 3:00pm)

Building	# of Classrooms	Average Room Utilization %	Average Seat Utilization %
Edgar L. Harden Learning Resources	3	83%	62%
John X. Jamrich Hall	24	86%	71%
Luther S. West Science Building	16	80%	51%
New Science Facility	4	62%	58%
Russell Thomas Fine Arts	6	62%	61%
Wayne B. McClintock Building	7	66%	47%
Whitman Hall	2	96%	46%

Utilization rates represent only credit classes formally scheduled by the Registrars Office. It does not reflect events or activities scheduled by other departments or student organizations.

Space Distribution

To help develop many of the building initiatives outlined in the Campus Master Plan, the University classified all of its existing space and then compared the spatial distributions with similar institutions to identify opportunities for expansion or the repurposing of existing space to improve space utilization. This benchmarking of existing space, and comparing it with peer institutions, identified space deficiencies: study/library space and general use/student union space. This data supports the need voiced by students and staff, and reaffirms many of the future building opportunities identified in the Campus Master Plan and those identified in Section V of this plan.

Assessment of Campus Utilities System

Water

NMU has 79,247 linear feet of water lines on campus and tries to update aging water mains during new construction, as permitted. Since 1996, 4,718 feet of water main has been replaced or installed in conjunction with various projects. Also, NMU, in cooperation with the City of Marquette, installed seven master water meters around the university to simplify and ease the reading required for university usage. In addition to these meters, the university calibrates and maintains all building meters and compares the readings to the master meters to verify the City's billing statements and help detect water loss. During the summer of 2012, 800' of new 10" water main was installed to serve both the Jamrich Hall Replacement Project and the Learning Resource Center. During the summer of 2014, 335 feet of new water main was installed around the McClintock building to replace an old municipal main that ran under the buildings foundations.

Steam

In 1996, NMU completed a major update to its aging main steam distribution system. A total of 27,078 linear feet of un-insulated line was replaced with 13,236 feet of new insulated steam and condensate lines, servicing all major academic buildings on campus. In addition, during the 2000 fiscal year, approximately 500 feet of new line was installed to service the campus apartments on the east portion of campus. NMU installed 875 feet of new steam line servicing the Quad I and 175 feet servicing West Hall during the 2002-2003 fiscal year.

Recent upgrades to the Ripley Heating Plant include the replacement of one 30,000 lbs/hr and one 70,000 lbs/hr boiler with two new 70,000 lbs/hr units. These boilers were operational fall of 2006.

On August 1, 2013, a new combined heat and power plant was completed and fully operational. The wood fired boiler produces steam to supply existing campus heating, cooling, and domestic hot water loads and to produce electricity via a new steam turbine generator. Also, approximately 240 feet of new steam and condensate lines were installed to serve the new Jamrich Hall.

Assessment of Campus Utilities System

Electric

During 2003, the university installed approximately 61,000 feet of high voltage cable to update the primary conductors, replaced three oil-filled loop switches, and all existing 15KV switchgear had new fault indicators and fuses installed.

In 2006, the university replaced the original 40 year old electric switchgear in the Ripley Heating Plant that serves the majority of buildings on campus. The change has increased system reliability, provided capacity to split the campus electrical distribution loops to meet future expansions, and provided better coordination with utility protection.

In 2014, the underground high voltage cables were removed feeding the former Jamrich Hall and new cables were run to the new Jamrich Hall.

In 2015, thirty exterior 400 watt metal halide street poles and light fixtures along the Jacobetti Complex roadway were replaced with new LED fixtures.

Gas

All gas mains on campus are owned by the SEMCO gas company. NMU is responsible for all laterals. There is a total of 48,943 linear feet of gas line on campus.

Phone

Existing campus phone lines (19,629 feet) were installed in 1985 by ATT Technologies. The buried lines are fiber optic and 24 gauge copper twisted pair. The current plant system is considered to be in very good condition with existing infrastructure for a fiber optic ring to provide a redundant path between the main server rooms on campus.

Storm

On campus, there is approximately 55,300 linear feet of storm sewer, with the majority of the university's storm run-off being directed to the city's system. A portion of the city's storm water is directed through university storm pipes entering campus from the southwest and exiting to the northeast. Design for all new construction tries to address storm water run-off with the use of retention ponds and ground infiltration.

In 2008, as part of the Hunt Hall renovation project, as with the 2007 Van Antwerp project, the university reduced the amount of the rain water run-off entering the City storm water system by adding hipped roofs to the facility and shedding rain water onto a grassed, landscaped area. This reduced the water entering the city storm system by approximately 400,000 gallons annually.

Assessment of Campus Utilities System

Sanitary

There are 43,332 feet of sanitary sewer lines on campus. Aging sanitary sewer lines are updated with new construction, as permitted. During the 2004 construction season, a section of aging sewer pipe and three new sanitary manholes serving the new Student Services Center, the newly renovated Thomas Fine Arts building, and the new Art and Design addition were replaced/installed to help alleviate an existing maintenance problem of an aging line, and to allow access to an inaccessible section of pipe. During the summer of 2015, approximately 210 feet of original sanitary sewer piping was replaced serving the Forest Roberts Theatre.

Utility System	*Need Year*	*Estimated Cost*	
Water System	4	$	192,275
Steam Distribution	3	$	2,562,465
Storm Drain Mains	5	$	73,900
Sanitary Sewer Mains	2	$	192,275
Utility System Total		$	3,020,914

Assessment of Campus Infrastructure

Roadways (3.6 miles)

Improvements:
During the summer of 2015, approximately 3,200 feet of roadway around the Jacobetti Complex was reconstructed. This reconstruction was funded, in part, by the Michigan Institutional Roadway (MIR) program administered through the Michigan Department of Transportation. During the fall of 2015 a new 200' access drive was constructed to the Sports and Recreation Complex to improve vehicle ingress and egress to the site.

Conditions:
Because of the northern proximity of NMU and the harsh winter climate, the campus roadway structures endure severe exposure and subsequent deterioration and damage as a result of the operation of snow clearing equipment. It can be anticipated that significant amounts of asphalt resurfacing will be required in order to maintain the roadways.

Areas Requiring Maintenance:
It is expected that additional sections of the campus' asphalt road network will have to be replaced as a result of normal wear and the harsh winter environment. At least one-half of all campus roadways will need to be repaired and resurfaced within the next ten years. Along with the replacement of the road surface, a significant amount of roadside concrete curb and gutter will also have to be replaced and/or repaired. In 2011, the university maintenance staff evaluated all campus roadways using the State of Michigan Phaser system to prioritize all roadway repairs. Based on this survey, a long term repair schedule with cost estimates as been developed for roadway rehabilitation.

Assessment of Campus Infrastructure

Parking (6,875+ spaces total)

Improvements:
Current parking lot conditions vary on campus and construction type range from paved parking with curb and gutter to unimproved gravel lots. During the 2004 construction season, Lots 28 and 62 were re-constructed to serve the newly renovated Hedgcock Building, Learning Resources Center, and the Fine Arts complex. These two parking lots have been dedicated to faculty and staff to reduce vehicle turnover and help eliminate vehicular and pedestrian conflicts in the core of campus. During the summer of 2012, parking Lot 52 was milled and resurfaced with a new 1 ½" wear course. Asphalt repairs were also made in Lot 8, 12 and 50 and, as a preventive measure, crack sealing was performed in Lot 8, 13, 17, 22 and 58.

During the fall of 2012, parking lot 29 was constructed in association with the Jamrich Hall Replacement project to replace the space displaced with the new building.

During the summer of 2014, Lot 28 was completely reconstructed as part of the Jamrich Hall replacement project.

During the summer of 2015, one hundred 90-degree and fifty eight on-street parking stalls were resurfaced in Lot 37 at the Jacobetti Complex.

Conditions:
Because of the northern proximity of the university, significant amounts of snowfall occur on campus each year. As a result of the harsh winter climate, the campus hardscape structures endure more severe exposure and subsequent deterioration and damage as a result of the operation of snow clearing equipment. The streets and sidewalks are cleared of snow and ice before classes begin each morning. With the average annual snowfall generally being above 150 inches, the clearing of snow from sidewalks and streets are a top priority of the campus operations staff. In 2011, the university maintenance staff evaluated all campus parking lots using the State of Michigan Phaser system to prioritize parking lot repairs. Based on this survey, a long term repair schedule with cost estimates as been developed for parking lot rehabilitation.

Lot #12 (Cohodas) is in the worst condition, followed by Lot #14 (Tracy Avenue).

Assessment of Campus Infrastructure

Sidewalk

There is 13.95 miles of sidewalk on campus. All new sidewalks are reinforced concrete, and designed 10 feet wide to accommodate service vehicles and snow removal traffic. In 2010, 1,370' of 10-foot wide sidewalk between Lot 11 and 36 and between West Hall and the University Center was replaced. There are still a number of walks that do not meet the existing campus standard or are badly deteriorated and in need of replacement. Some sidewalks on campus do not meet current ADA or MBFD guidelines. There are also several areas that currently are not paved, which require a finished surface in order for the maintenance crews to be able to keep those walks clear of snow in the winter.

Several sections of the concrete sidewalk around the campus have cracked, resulting in heaving or sunken sidewalk sections, causing uneven settlement at the joints or crack lines. These areas are beginning to become minor trip hazards and are showing signs of deterioration associated with snow plowing, freeze/thaw cycling, and water infiltration.

The campus standard for sidewalks is a 10-foot wide concrete walk. The concrete surface is preferred over asphalt for the durability when scraping snow and ice in the winter months. Within the next two to five years, existing asphalt sidewalks on campus will need to be reconstructed with the campus-standard width geometry and materials so the snow plows can access these walks for clearing and maintaining. The existing walk from Lee Hall east to Waldo Street for accessing the Berry Events Center/Physical Education Instructional Facility/Superior Dome area is planned for replacement with concrete. During the summer of 2013, approximately 600 square feet of sidewalk was replaced near Lee Hall.

Assessment of Campus Infrastructure

Over the next six to ten years it is expected that additional sections of the campus' concrete sidewalk network will have cracked, resulting in heaving or sunken sidewalk sections causing uneven settlement at the joints. These areas will become trip hazards as a result of the deterioration associated with snow plowing, freeze/thaw cycling, and water infiltration. It is expected that at least one-half of all sidewalks on campus will need to be replaced over the next decade.

Network

Over the next six to ten years, as new buildings are added, existing buildings are remodeled, or if there is a need for increased networking performance, data, fiber strands, wiring cable, and wireless access points will be replaced. The majority of the campus currently has 4 single-mode fiber strands and 12-60 multi-mode fiber strands connecting each building, depending on its data requirements. In turn, each individual building is wired internally with Cat 5, Cat 5e, or Cat 6 cable, depending on when the cable was installed; and each individual building also has 802.11 abgn or 802.11ac wireless access points installed.

For all new construction, remodeling, or networking redesign, data, fiber, wiring cable, and wireless access points will be installed as follows: Buildings will be connected with an increased number of strands of single-mode fiber to facilitate 10 Gigabit Ethernet, data wiring cable will be Cat 6 or better quality, and wireless access points will be 802.11ac.

In addition to the 802.11ac wireless access points, LTE access points will replace existing 802.16e Mobile WiMAX base stations, or be added as needed, to ensure adequate outdoor and mobile access to the NMU network throughout the campus, the surrounding City of Marquette, and cities surrounding Marquette where students, faculty, and staff live. LTE network coverage will also be expanded to meet the needs of the university community that live outside the City of Marquette within the NMU WiMAX GSA (Geographic Service Areas), a 35 mile radius of the city.

Building Bonds

All bonds issued by the University are General Revenue Bonds. The interest on Revenue Bonds are primarily payable from General University Revenue. Total General Revenue Bonds payable are summarized as follows:

Fiscal Year	Principal	Interest	Total
2016	$4,600,000	$4,389,556	$8,989,556
2017	4,830,000	4,172,706	9,002,706
2018	4,440,000	3,928,956	8,368,956
2019	4,740,000	3,700,206	8,440,206
2020	5,120,000	3,458,381	8,578,381
Total Five Years	23,730,000	19,649,806	43,379,806
Thereafter			
2021-2025	24,850,000	13,871,069	38,721,069
2026-2030	24,250,000	8,325,619	32,575,619
2031-2035	17,115,000	3,060,544	20,175,544
2036-2039	4,665,000	291,228	4,956,228
Total	94,610,000	$45,198,266	$139,808,266
Deferred charge on refunding, net	(3,286,135)		
Deferred re-offering premium	2,259,316		
Total	$93,583,181		

Buildings currently obligated to the State Building Authority and lease terms are as follows:

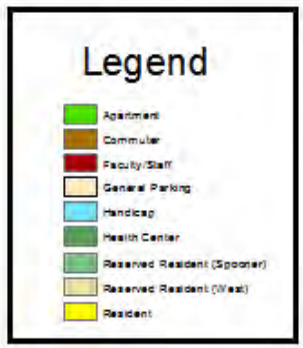
Glen T. Seaborg Science Complex Renovation and Addition
Phase 1 100% obligated Expires 35 years from March 1, 2001 unless earlier terminated
Phase 2 100% obligated Expires 35 years from November 1, 2001 unless earlier terminated

Heating Plant Addition/Services Building
100% obligated Expires 35 years from February 1, 1997 unless earlier terminated

Fine and Practical Arts Project – Art and Design North and Russell Thomas Fine Arts
100% Obligated Expires 35 years from November 1, 2005 unless earlier terminated

Student Services Building Project
100% Obligated Expires 35 years from November 1, 2005 unless earlier terminated

Northern Michigan University
2015/2016
Road and Parking Statistics



Summary of NMU Parking Lots		
Primary Type	# of Lots	Total of Spaces
Apartment	8	609
Commuter	4	940
Faculty/Staff	11	1082
Freshman/Resident	1	180
General Parking	17	2757
Handicap	2	13
Health Center	1	9
Heating Plant	1	5
Norway Street Faculty Parking	1	45
Reserved Resident (Spooner)	1	123
Reserved Resident (West)	1	106
Resident	5	915
Service Entry	1	12
Street Parking - Faculty Only	2	46
Street Parking - General	1	35

Engineering and Planning
Northern Michigan University
Updated 09/24/15

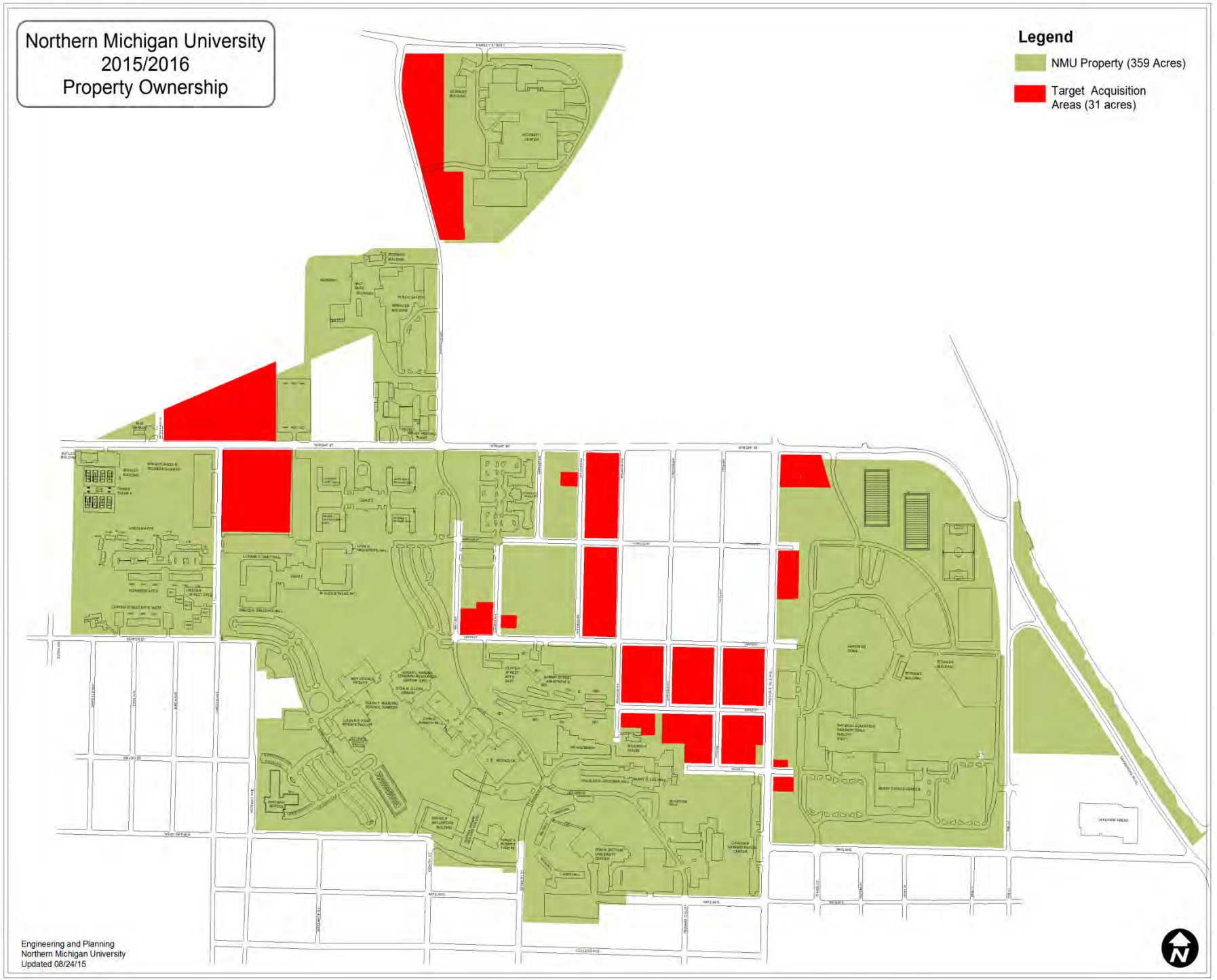
Northern Michigan University

ASSESSMENT OF UNIVERSITY LAND

Five-Year Capital Outlay Plan

University Land

The University owns 725 acres comprised of 359 acres on the main campus, 160 acres known as the Longyear Forest in Marquette Township, and 206 acres near Mount Marquette in south Marquette. The accompanying map illustrates the property owned (main campus) by NMU, as well as property within the NMU boundaries that the university will need to acquire to fulfill future expansion plans. These properties are currently under private ownership as either commercial or residential use.


Northern Michigan University
2015/2016
Property Ownership
Legend
NMU Property (359 Acres)
Target Acquisition Areas (31 acres)
Engineering and Planning
Northern Michigan University
Updated 08/24/15

Section V

Facilities Implementation Plan

Introduction

Northern Michigan University (NMU) is one of the oldest public universities in the State of Michigan, having celebrated our 115th birthday on September 19, 2014. Reaching this milestone is an indication of our past success. Our physical plant was primarily built in the 1960s and 1970s to meet the needs of our students of the past. While great strides have been accomplished in modernizing several of NMU's core campus facilities, the effort of transforming the remaining buildings must continue to accommodate the programmatic needs of today through the development of a state-of-the-art learning environment. Other criteria that determines the capital project priority ranking are the condition of building and grounds operational systems; the appearance of the physical plant as it affects recruitment; compliance with safety, building, and accessibility codes; opportunities for energy savings; comfort of building occupants; and opportunities provided through donors, government funding, grants, and joint ventures with other nonprofits or private sector entities.

Fiscal Year Capital Outlay Project Priorities

Learning Resource Center (LRC) Renovation

The Learning Resource Center renovation project focuses on transforming a 198,000 square foot "library" built in 1966 into a state-of-the-art high tech instructional support hub and learning resource center – a learning commons. The transformation would create a facility that enables us to provide:

- Incredible support to our students and faculty by enhancing our teaching and learning support and resources,
- Enable us to leverage those resources to assist the university in continuing to be an economic driver for the region in providing access to a technology infrastructure and digital resources to allow businesses and K-12 schools to thrive and grow, and
- Allow us to co-locate several academic (broadcast program) and student programs for greater sharing of space, resources, and technical expertise creating operational savings.
- All are critical needs for our students, faculty, and surrounding communities

The renovation will allow for flexible, interactive spaces that support creativity, critical thinking, experiential learning, and collaboration. It is also needed so that the NMU Olson Library, housed in the building, can update its services to promote learning in a digital age. Additionally, this renovation will update core systems and technologies used to support WNMU-TV, WNMU-FM and the university's Audio-Visual Services public service and campus support units. The LRC will be brought up to ADA code for barrier-free access and life safety.

Academic Teaching and Business Innovation Center

The new Academic Teaching and Business Innovation Center will correct the building's deficiencies and transform the facility into a state-of-the-art teaching and business innovation facility. The project will include an addition for the College of Business enabling the University to relocate the department to the core of campus. The opportunity to combine faculty offices in close proximity to classrooms greatly increases faculty/student interaction and enhances the opportunities for collaborative learning.

Sam M. Cohodas Hall Renovation

The goal of this project is to create a high quality environment for providing resources and services that support the Northern Michigan University student. Further, new program functions will be introduced while efficiently utilizing the existing building structure. Programs include general-purpose and designated classrooms that will place students in closer proximity to faculty offices. Programs will be enhanced by increased interaction and improved availability of programs. Renovation should reflect an easily accessible environment for the student, faculty, administrators, and public users.

Summary

Fiscal Year 2017 Capital Outlay Project Priorities

1	Learning Resources Center Renovation	$40,000
2	Academic Teaching and Business Innovation Center	$10,500
3	Sam M. Cohodas Hall Renovation	$21,500

FISCAL YEAR 2017
CAPITAL OUTLAY PROJECT REQUEST

Institution Name:	Northern Michigan University
Project Title:	Learning Resources Center Renovation
Project Focus:	☒Academic ☐Research ☒Administrative/Support
Type of Project:	☒Renovation ☒Addition ☐New Construction
Program Focus of Occupants:	Library, Public Broadcasting, Classrooms, Instructional and Student Support
Approximate Square Footage:	200,000
Total Estimated Cost:	$40,000,000
Estimated Start/Completion Dates:	May 2017/August 2019

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 ☐

Describe the project purpose:

The Learning Resources Center renovation project focuses on transforming a 198,000 square foot "library" built in 1966 into a high-tech instructional support hub and learning resource center that will have a long-term ripple effect across campus and the region. The renovated facility will provide incredible support to our students and faculty by enhancing our teaching and learning support and resources. These resources will be leveraged to assist the university in continuing to be an economic driver for the region by providing the technology infrastructure and digital resources to allow businesses and K-12 schools to thrive and grow. The renovation will realign several academic and student programs for greater sharing of space, resources, and technical expertise creating operational savings.

This state-of-the-art facility will encourage students, faculty and the community at large to learn outside the classroom. As the anchor of the LRC, the Olson Library provides facilities, collections, technology, and personnel to meet current and emerging instructional and research needs, emphasizing collaboration, creative and critical thinking, experiential learning, and flexibility for the future. Additionally, this renovation will update core systems and technologies used to support

FISCAL YEAR 2017
CAPITAL OUTLAY PROJECT REQUEST

Learning Resources Center Renovation *(continued)*

WNMU-TV, WNMU-FM, and the university's Audio-Visual Services public service and campus support units. The Olson Library and Learning Resources Division work in concert to deliver information services and technologies used by members of the general public, as well as those involved with teaching and learning on campus.

The transformation of the Learning Resources Center takes into account recent advances in technology (including digitization of library resources) and synergies that occurred through other campus projects including a physical connection to our new academic instructional facility (Jamrich Hall).

This renovation is meant to refocus our technological and pedagogical infrastructure support regarding academic, professional development, community outreach, and economic development.

Describe the scope of the project:

From the academic and career development perspective, the transformation of the Learning Resources Center will include facility enhancements for the Olson Library, the Central Upper Peninsula and NMU Archives, public broadcasting stations (WNMU-TV, WNMU-FM), Audio-Visual Services, and instructional and student support areas critical to the university's mission. Specific project goals include:

- New technology-enhanced group study areas that allow students to collaborate on assignments, service learning projects, and other activities.
- Small high-tech studios will be available for individual student course work presentations, small group study, and expanded virtual interaction, the latter for both learning and career development purposes. This would include the opportunity for the studios to be used for virtual job interviews below the bridge, across the country, or halfway around the globe.
- To expand the Center for Teaching and Learning for additional support of faculty development, the scholarship of teaching and learning, and best practices in assessment, evaluation, and instructional design in face-to-face and online instruction.
- A new state of the art digital media center providing students with the facility and tools to create digital media (audio, video, and other) in support of their academic course work and for developing professional skills.

FISCAL YEAR 2017
CAPITAL OUTLAY PROJECT REQUEST

Learning Resources Center Renovation *(continued)*

- Facility improvements for the Central Upper Peninsula and NMU Archives, which is open to the public and houses an extensive collection documenting both the history of Northern Michigan University and the Upper Peninsula. The Archives is important to preserving the history of the region, but is critical for student and faculty research and for teaching and learning research methods.

- State-of-the-art technology spaces for students engaged in the study of broadcast media and advanced teaching and learning techniques with media.

Transforming the Learning Resources Center includes modifications that vary from technology upgrades to relocation and expansion necessary to accommodate projected student enrollments. Upgrades of the latest technologies not currently existing within the fabric of the structure will support current and new programs. The facility has been maintained well and its basic structure and building facade remain in good condition. However, the existing exterior windows and building support systems are outdated and in poor condition. With this renovation, the opportunity will allow the HVAC, plumbing, electrical, and information technology systems to be upgraded to today's codes and standards.

Sustainability and energy efficiency will be primary concerns. LEED® Green Building certification will be sought through the specification of "green" building materials, efficient material management during construction through reduction, reuse, and recycling of construction and packaging materials, and design of efficient systems that require less energy and use of natural resources. The overall goal will be to reduce operating costs, provide a healthier environment for building occupants, and conserve energy.

The design will address barrier-free regulations and the Americans with Disabilities Act by including renovations in the areas of accessibility and support facilities. Vertical circulation components, including stairways and elevators, will be updated. Door hardware, access ways, signage, etc. also do not meet the current program requirements.

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

   Over the approximate two-year construction period, the project is estimated to employ a total of 550 to 600 trades people and result in over 195,000 labor hours for local trades workers.

FISCAL YEAR 2017
CAPITAL OUTLAY PROJECT REQUEST

Learning Resources Center Renovation *(continued)*

From a broader perspective, business and education leaders include critical thinking, collaboration, creativity, media literacy, and media creation as required skills to succeed in 21st Century readiness. Transforming the Learning Resources Center into a digital center for teaching and learning will provide the space and resources necessary for the development of these skills. Upgraded technology and redesigned space will facilitate business development and operations from one end of the Upper Peninsula to the other with enhanced and expanded technology such as HD video conferencing video bridges. NMU is the technology catalyst for many U.P. business and organizations that need assistance with computer systems and telecommunications. In addition to the economic benefits from a business and economic perspective, NMU student interns who assist these local organizations with technology systems uses frequently are employed by those businesses and organizations following graduation.

The Learning Resources Center renovation project will also allow for new technologically advanced studios and conference areas to make available long-distance communication – downstate, out-of-state, and around the world. Due to the travel challenges related to the U.P.'s geographical location and weather conditions, having more space that allows U.P. residents to "travel" remotely to do business, professional training, job interviews, and make economic development connections is highly desirable and greatly in demand. These studios and equipment will allow NMU to strategically use the two available digital TV channels for educational, business, and economic development uses.

The Olson Library and Learning Resources Division (WNMU-TV/FM) are heavily engaged in providing a variety of information services to residents throughout Upper Michigan. The Olson Library, for example, provides a federal and Michigan government depository that is open to the public more than 90 hours each week. This facility renovation will harden WNMU's Emergency Alert Services, provide increased availability of the National Weather Service (NOAA) weather broadcasts through secondary audio programs available on WNMU-TV, preserve the availability of national PBS and NPR program schedules for area residents, and increase general access to library resources and information. These life-safety services coupled with the job skills training that students receive in the field of broadcasting and multi-media help provide a robust base for economic development throughout the region.

Academic Information Services employs about 100 student workers each year. Each of them gets significant professional experience, often leading to success in related jobs such as an instructional technology consultant, archivists, and public librarians. The project significantly changes career and job exploration opportunities. It also includes placing student groups and

FISCAL YEAR 2017
CAPITAL OUTLAY PROJECT REQUEST

Learning Resources Center Renovation *(continued)*

nationally recognized leadership programs within the academic core of campus and more importantly will put NMU's commitment to leadership development in the heart of the campus encouraging and supporting highly driven students.

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

This project will provide the technology, space, and flexibility required for NMU's students, faculty, and community to succeed in the 21st Century. The Learning Resources Center is the only dedicated college video production training facility in the entire Upper Peninsula. Local and regional broadcast stations rely on this ability to deliver trained students to support their businesses. Updated high-definition (HD) production studios will provide unique learning opportunities for students in the academic program, Communications and Performance Studies, to learn from and work with NMU's professional public TV and radio staff in a real world environment. Graduates with media production skills, regardless of their major, are not only capable of filling positions in radio and television, but are also well qualified to create digital media content used in K-12 education, business and industry, and a variety of non-profit agencies across the nation.

The new digital Center for Teaching and Learning will provide technical support to faculty in the development of new pedagogical skills and online content, incorporation of technology in the classroom, and delivery of new educational resources and materials to our students. The project includes individual and small group digital video production presentation studios and access to new technology capabilities including high-density wireless video technologies.

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

This project will transform the existing facility; the existing space is being modernized with new technologies, fixtures, and finishes. More importantly, the transformation will give the facility new focus and greater synergy with campus and community resources. Functions are being relocated and new uses are being incorporated to better align with complimentary spaces that will create greater collaboration and more interactive and modern learning. For example, classrooms for the Communications and Performance Studies will be constructed adjacent to WNMU-TV studios. Students will have access to the control room and studio for hands-on learning experience and mentoring from full-time production staff. This new adjacency will also allow the shared use of the most current technology in the industry saving on duplication of maintenance and upgrade costs.

FISCAL YEAR 2017
CAPITAL OUTLAY PROJECT REQUEST

Learning Resources Center Renovation *(continued)*

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

   Yes, a primary focus of this capital outlay project is to address over $1.7 million of life/safety issues identified in the current facility assessment including improved fire suppression, exit and emergency lighting, etc. The project will address over $16 million of deferred maintenance.

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 the current utilization support the need for additional space and infrastructure?*

   A. Utilization Measurement:
   Northern Michigan University maintains a comprehensive space inventory and utilizes room scheduling/utilization software for class and conference room scheduling. Utilization reporting is conducted for both fall and winter semesters. These reports identify opportunities for scheduling improvement by academic departments and are provided and reviewed by all academic dean and department heads. These tools allow the university to optimize space efficiency and evaluate/improve both room and building utilization.

   The Olson Library uses the Association of College & Research Libraries “Standards for Libraries in Higher Education” to develop benchmarking and peer comparison indicators. It has also developed internal systems for tracking space demands, including an online room reservation system that provides data about Library room use and unmet demand. These measures indicate, for example, the need for additional small group study rooms that students can reserve for collaboration. The Library, Computing HelpDesk, Instructional Design and Technology office, and other units in the Learning Resources also track usage trends that are used to evaluate space needs.

   WNMU-TV and WNMU-FM use a variety of audience evaluation services to determine station programming and viewer interest. In addition, the need for technical services is determined through service order processing and tracking software to make sure that campus and community constituents have the right equipment and professional services needed to support various projects that require media related technology.

FISCAL YEAR 2017
CAPITAL OUTLAY PROJECT REQUEST

Learning Resources Center Renovation *(continued)*

B. Comparative Utilization Data:
In 2008, as part of the Campus Master Plan update, the university classified all of its existing space and then compared its spatial distribution with similar institutions based on the Society of University and College Planning (SCUP) Facilities Inventory report. This effort allowed the university to benchmark its space inventory against national averages by comparing total square footage by type (classroom, laboratory, office, etc.) against total enrollment. As a continuation of the benchmarking effort noted above, a formal evaluation of facility use (space utilization) was conducted in 2011. Data compiled from the university scheduling/utilization reports was evaluated both internally and by an outside consultant. The evaluation illustrated NMU's utilization between 8:00 a.m. and 5:00 p.m. averaged 22 hours per week, which was low compared to the national average of 28-32 hours/week. This lower than average utilization rate and the space inventory data from 2008 are now repeatedly used to evaluate the need for new space requests and identify opportunities to re-purpose underutilized space in lieu of building new.

C. Project Improvement on Space/Infrastructure Utilization:
The renovation of the Learning Resources Center provides direct improvements to the service delivery of the departments located within it. The renovation of the existing space and enhancements to the building's technology infrastructure, improving temperature control, air delivery, and lighting systems, will support both current instruction and service delivery needs.

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

Sustainability and conservation efforts are goals of the University. LEED® Green Building certification will be sought through the specification of "green" building materials, thoughtful management of materials during construction through reduction, reuse, and recycling of construction and packaging materials, and design of efficient systems that require less energy and use of natural resources. The overall goal will be to reduce operating costs, provide a healthier environment for building occupants, and conserve energy.

7. *Are matching resources currently 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, NMU Foundation, Industry Contributions, and Capital Bonding.

FISCAL YEAR 2017
CAPITAL OUTLAY PROJECT REQUEST

Learning Resources Center Renovation *(continued)*

8. *If authorized for construction, the state typically provides a maximum of 75% of the total cost 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?*

   Yes, if necessary.

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

   No, the completed project will reduce operating costs for the university. The facility improvement measures will decrease electricity, gas, and water consumption and help to better control utility costs. Maintenance costs will also be reduced with the installation of new, more serviceable equipment and systems.

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

    The project will have no impact on tuition.

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

    If State funding is not authorized for this project, a phased approach will need to be utilized to address the current maintenance issues in this building over a period of ten years or more with a greater amount of the project cost being bore by students in their tuition. Utility and maintenance cost savings will not be captured as quickly. A phased approach will significantly delay providing the space and resources that support the creativity, critical thinking, and collaboration needed for our students and community to compete in a global economy.

    Additionally, this project impacts the entire Upper Peninsula region by making available library and broadcasting resources to thousands of U.P. residents. The facility provides services such as course delivery through advanced HD video conferencing to high schools for college credits in career and technical fields, virtual field trips to K-12 teachers and students across the state, and broadcasting to an audience of over 225,000 viewers and listeners of the University's Public TV and radio stations. WNMU is the primary Emergency Alert Facility for

FISCAL YEAR 2017
CAPITAL OUTLAY PROJECT REQUEST

Learning Resources Center Renovations *(continued)*

the Central Upper Peninsula and provides emergency messaging capabilities to other broadcasters in the region. Failure to properly maintain these and other essential services negatively impacts businesses and individuals if they become unavailable. Providing these services through other means would likely prove cost prohibitive.

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

    The construction of a new facility was considered; however, the cost/benefit analysis illustrated a renovation project was more favorable. University officials also explored public/private partnerships with commercial broadcasters, but found the combining of these facilities to be unworkable due to federal commercial/non-commercial rules and regulations.

    Structurally, the building footprint provides exceptional multi-media studio spaces and is constructed in such a way that makes renovation affordable. Studio spaces already have the required ceiling height (two stories) and provide for convenient cable routing and wire tray access. In addition, WNMU-TV migrated its broadcasting hardware to digital in 2011 and could continue essential operations as other portions of the building are renovated. The existing facility is structurally sound and built to accommodate high density storage and large open areas; to reconstruct these features in a new facility would be very costly. As such, the State of Michigan benefits through the renovation and reuse of this existing facility; optimizing current campus facilities in lieu of the extensive cost for constructing new comparable facilities.

FISCAL YEAR 2017
CAPITAL OUTLAY PROJECT REQUEST

Institution Name:	Northern Michigan University
Project Title:	*Academic Teaching and Business Innovation Center*
Project Focus:	☒Academic ☐Research ☒Administrative/Support
Type of Project:	☒Renovation ☒Addition ☐New Construction
Program Focus of Occupants:	*General Classrooms, Laboratories and Academic Office Suites*
Approximate Square Footage:	54,000
Total Estimated Cost:	*$10,500,000*
Estimated Start/Completion Dates:	May 2017/August 2018

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 ☐

Describe the project purpose:

The Wayne B. McClintock Building was open for class in 1963 as an Industrial Arts Facility. Following the relocation of these programs in 1980, the building has been occupied by various academic departments. Currently, the building is used as a general use classroom facility and, although room utilization meets the university's standard, the classrooms lack the ability to support collaborative learning and do not encourage faculty/student interaction outside of the classrooms.

The new Academic Teaching and Business Innovation Center will correct the building's deficiencies and transform the facility into a state-of-the-art teaching and business innovation facility. The project will include an addition for the College of Business enabling the University to relocate the department to the core of campus. The opportunity to combine faculty offices in close proximity to classrooms greatly increases faculty/student interaction and enhances the opportunities for collaborative learning. Relocating the College of Business in close proximity to other academic departments also increases opportunities for multi-disciplinary collaboration that will strengthen programs and student learning. Placing high-tech programs such as Cyber Security (College of Business) in close proximity to the Computer Science and Criminal Justice programs will enhance the opportunity for students and faculty to learn and benefit from the strengths of the other. Finally, the vision for the Business Innovation Center is to create a facility that will provide space to encourage local business leaders to collaborate with faculty and students and utilize their expertise and research in business administration, entrepreneurship , and marketing.

FISCAL YEAR 2017
CAPITAL OUTLAY PROJECT REQUEST

Academic Teaching and Business Innovation Center (continued)

Describe the scope of the project:
The transformation of the Wayne B. McClintock Building will include renovations to the existing classrooms, laboratories, and construction of an addition enabling the College of Business to relocate to the core of campus. Specific project goals include:

- Adaption of existing lecture style teaching spaces to high-tech collaborative classrooms.
- New state-of-the-art “idea” or “maker” spaces providing students with tools to create digital media (audio, video, and other) in support of their academic course work.
- New technology-enhanced study areas that allow students to collaborate on assignments, service learning projects, and interact with faculty and community business leaders.
- New high tech laboratories to support Cyber Security preparing students to detect, prevent, and mitigate cyber-attacks in a real-world setting, a “Trading Laboratory” providing students with the ability to buy and sell stocks and commodities on the open market, and other laboratory type spaces supporting department specific programs.
- New administrative office space for the College of Business.

FISCAL YEAR 2017
CAPITAL OUTLAY PROJECT REQUEST

Academic Teaching and Business Innovation Center *(continued)*

Transforming the Academic Teaching and Business Innovation Center includes modifications that vary from technology upgrades to relocation and expansion necessary to accommodate the College of Business. The facility has been maintained well and its basic structure and building facade remain in good condition. However, the existing building support systems are outdated and in poor condition. With this renovation, the opportunity will allow the HVAC, plumbing, electrical, and information technology systems to be upgraded to today's codes and standards.

Sustainability and energy efficiency will be primary concerns. LEED® Green Building certification will be sought through the specification of "green" building materials, efficient material management during construction through reduction, reuse, and recycling of construction and packaging materials, and design of efficient systems that require less energy and use of natural resources. The overall goal will be to reduce operating costs, provide a healthier environment for building occupants, and conserve energy.

The design will address barrier-free regulations and the Americans with Disabilities Act by including renovations in the areas of accessibility and support facilities. Door hardware, access ways, signage, etc. also do not meet the current program requirements.

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

   The proposed capital outlay project will enhance Michigan's three initiatives by providing state residents and local businesses with access to advanced educational opportunities in an improved learning environment. Graduates will be better prepared to make effective use of technology to enhance employability and energize the economy of the state and nation.

   Over the approximate two-year construction period, the project is estimated to employ a total of 130 to 160 trades people and result in over 51,000 labor hours for local trades workers.

FISCAL YEAR 2017
CAPITAL OUTLAY PROJECT REQUEST

Academic Teaching and Business Innovation Center *(continued)*

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

   The adaptive reuse and addition for the new Academic Teaching and Business Innovation Center provides direct improvements to academic delivery for all NMU students and those in the College of Business programs. The modernizations of existing classrooms, new laboratories, improvements to the building's technology infrastructure, as well as enhancements to the temperature control, air delivery and lighting system will support both current instruction needs as well as providing an adaptable platform for changing pedagogies.

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

   This project will transform the existing facility. The existing space is being modernized with new technologies, fixtures, and finishes. More importantly, the transformation will give the facility new focus and greater synergy with campus and the local business community. Functions are being relocated and new uses are being incorporated to better align with complimentary spaces that will create greater collaboration, greater interaction with business leaders, and modern learning.

FISCAL YEAR 2017
CAPITAL OUTLAY PROJECT REQUEST

Academic Teaching and Business Innovation Center *(continued)*

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

   Yes, a primary focus of this capital outlay project is to address all life/safety issues identified in the current facility assessment including improved fire suppression, exit and emergency lighting etc. The project will address over $1.9 million of deferred maintenance.

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 the current utilization support the need for additional space and infrastructure?*

   A. Utilization Measurement:
   Northern Michigan University maintains a comprehensive space inventory and utilizes room scheduling/utilization software for class and conference room scheduling. Utilization reporting is conducted for both fall and winter semesters. These reports identify opportunities for scheduling improvement by academic departments and are provided and reviewed by all academic dean and department heads. These tools allow the university to optimize space efficiency and evaluate/improve both room and building utilization.

FISCAL YEAR 2017
CAPITAL OUTLAY PROJECT REQUEST

Academic Teaching and Business Innovation Center *(continued)*

B. Comparative Utilization Data:
In 2008, as part of the Campus Master Plan update, the university classified all of its existing space and then compared its spatial distribution with similar institutions based on the Society of University and College Planning (SCUP) Facilities Inventory report. This effort allowed the university to benchmark its space inventory against national averages by comparing total square footage by type (classroom, laboratory, office, etc.) against total enrollment. As a continuation of the benchmarking effort noted above, a formal evaluation of facility use (space utilization) was conducted in 2011. Data compiled from the university scheduling/utilization reports was evaluated both internally and by an outside consultant. The evaluation illustrated NMU's utilization between 8:00 a.m. and 5:00 p.m. averaged 22 hours per week, which was low compared to the national average of 28-32 hours/week. This lower than average utilization rate and the space inventory data from 2008 are now repeatedly used to evaluate the need for new space requests and identify opportunities to re-purpose underutilized space in lieu of building new.

C. Project Improvement on Space/Infrastructure Utilization:
The modernization of the Wayne B. McClintock Building provides direct modernization for existing instructional delivery for faculty and students occupying this facility, and compliment the new John X. Jamrich Hall. The renovation of the existing space and enhancements to the building's technology infrastructure, improving temperature control, air delivery, and lighting systems, will support both current instruction and service delivery needs.

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

Sustainability and conservation efforts are goals of the University. LEED® Green Building certification will be sought through the specification of "green" building materials, thoughtful management of materials during construction through reduction, reuse, and recycling of construction and packaging materials, and design of efficient systems that require less energy and use of natural resources. The overall goal will be to reduce operating costs, provide a healthier environment for building occupants, and conserve energy.

7. *Are matching resources currently 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, NMU Foundation, Industry Contributions, and Capital Bonding.

FISCAL YEAR 2017
CAPITAL OUTLAY PROJECT REQUEST

Academic Teaching and Business Innovation Center *(continued)*

8. *If authorized for construction, the state typically provides a maximum of 75% of the total cost 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?*

   Yes, if necessary.

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

   No, the completed project will reduce operating costs for the university. The facility improvement measures will decrease electricity, gas, and water consumption and help to better control utility costs. Maintenance costs will also be reduced with the installation of new, more serviceable equipment and systems.

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

    The project will have no impact on tuition.

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

    If State funding is not authorized for this project, a phased approach will need to be utilized to address the current maintenance issues in this building over a period of ten years or more with a greater amount of the project cost being bore by students in their tuition. Utility and maintenance cost savings will not be captured as quickly. A phased approach will significantly delay providing the space and resources that support the creativity, critical thinking, and collaboration needed for our students and community to compete in a global economy.

FISCAL YEAR 2017
CAPITAL OUTLAY PROJECT REQUEST

Academic Teaching and Business Innovation Center (continued)

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

    The construction of a new facility was considered; however, cost/benefit analysis illustrated the adaption of the existing space with an addition would be a more prudent use of resources. As such, the State of Michigan will benefit through the renovation and reuse of this existing facility optimizing current campus facilities in lieu of the extensive cost for constructing completely new comparable facilities.

FISCAL YEAR 2017
CAPITAL OUTLAY PROJECT REQUEST

Institution Name:	Northern Michigan University
Project Title:	Renovations to the Sam M. Cohodas Hall
Project Focus:	☒Academic ☐Research ☒Administrative/Support
Type of Project:	☒Renovation ☐Addition ☐New Construction
Program Focus of Occupants:	Instruction, Faculty and Student Support Services
Approximate Square Footage:	104,000
Total Estimated Cost:	$21,500,000
Estimated Start/Completion Dates:	May 2017/August 2018

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 ☐

Describe the project purpose:

The renovation to the Sam M. Cohodas Hall will enhance the quality of services that support the students of Northern Michigan University by changing the use of the first four floors from academic support space and faculty offices to academic classrooms and faculty offices. Located on the site of the original campus buildings, construction on the six-story Cohodas Building was completed in July 1975. The building contained most of the administrative offices, as well as student related support services departments. This change in use will have a positive effect on the operation and availability of programs to the general student population with classrooms in close proximity to faculty and department offices.

Describe the scope of the project:

Two floors of the current six-story structure will be renovated to accommodate classrooms ranging from 690 to 1,150 square feet. One of these classrooms will be a twenty-eight station computer lab specifically used by the Real Time Trading classes. This is a unique program and teaching opportunity where students learn about the financial markets through the use of special software. Students are online with the markets purchasing and selling stocks, bonds, etc. without actually spending real money.

FISCAL YEAR 2017
CAPITAL OUTLAY PROJECT REQUEST

Renovations to the Sam M. Cohodas Hall *(continued)*

Minor renovations will occur in departmental offices as a result of the program changes and efficiency due to incorporating classrooms and faculty offices. Modifications within administrative areas vary from technology upgrades supporting new programs, to relocation and expansion necessary to accommodate the projected student enrollments. Upgrades and new programs will be supported by the latest technologies not currently existing within the fabric of the structure. The facility has been maintained well and its basic structure and building envelope remain in good condition. However, the existing building support systems are outdated and in poor condition. With the change in use, the opportunity will allow the mechanical, electrical, and information technology systems be upgraded to today's standards.

Sustainability and energy efficiency will be primary concerns. LEED® Green Building certification will be sought through the specification of "green" building materials, thoughtful management of materials during construction through reduction, reuse, and recycling of construction and packaging materials, and design of efficient systems that require less energy and use of natural resources. The overall goal will be to reduce operating costs, provide a healthier environment for building occupants, and conserve energy.

The design will address barrier-free regulations and the Americans with Disabilities Act by including renovations in the areas of accessibility and support facilities. Vertical circulation components, including stairways and elevators, do not meet today's standards and codes. Door hardware, access ways, signage, etc. also do not meet the current program requirements. Site improvements include the expansion of Lot 12 to meet the demands of the renovated facility, grade changes for improved storm water run-off, new sidewalks and site lighting.

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

   The proposed capital outlay project will enhance Michigan's three initiatives by providing state residents with access to advanced educational opportunities in an improved learning environment. Graduates will be better prepared to make effective use of technology to enhance employability and energize the economy of the State and Nation.

FISCAL YEAR 2017
CAPITAL OUTLAY PROJECT REQUEST

Renovations to the Sam M. Cohodas Hall *(continued)*

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

   The renovation to the Sam M. Cohodas Hall provides direct improvements to academic delivery for the departments located within Sam M. Cohodas Hall. The addition of new classrooms, a laboratory, improvements to the building's technology infrastructure, as well as enhancements to the temperature control, air delivery and lighting system will support both current instruction needs as well as providing an adaptable platform for changing pedagogies.

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

   This project focuses on adaptive re-purposing of the existing facility; the existing space is being modernized with new technologies, fixtures, and finishes. Functions are being relocated and new uses are being incorporated to better align with complimentary spaces that will create greater synergy for collaboration and learning. For example, general purpose classrooms will be constructed with closer proximity to faculty offices.

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

   Yes, a primary focus of this capital outlay project is to address over $510,000 of life/safety issues identified in the current facility assessment including improved fire suppression, exit and emergency lighting, etc.

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 the current utilization support the need for additional space and infrastructure?*

   A. Utilization Measurement:
   Northern Michigan University maintains a comprehensive space inventory and utilizes room scheduling/utilization software for class and conference room scheduling. Utilization reporting is conducted for both fall and winter semesters. These reports identify opportunities for scheduling improvement by academic departments and are provided and reviewed by all academic dean and department heads. These tools allow the university to optimize space efficiency and evaluate/improve both room and building utilization.

FISCAL YEAR 2017
CAPITAL OUTLAY PROJECT REQUEST

Renovations to the Sam M. Cohodas Hall *(continued)*

B. Comparative Utilization Data:
In 2008, as part of the Campus Master Plan update, the university classified all of its existing space and then compared its spatial distribution with similar institutions based on the Society of University and College Planning (SCUP) Facilities Inventory report. This effort allowed the university to benchmark its space inventory against national averages by comparing total square footage by type (classroom, laboratory, office, etc.) against total enrollment. As a continuation of the benchmarking effort noted above, a formal evaluation of facility use (space utilization) was conducted in 2011. Data compiled from the university scheduling/utilization reports was evaluated both internally and by an outside consultant. The evaluation illustrated NMU's utilization between 8:00 a.m. and 5:00 p.m. averaged 22 hours per week which was low compared to the national average of 28-32 hours/week. This lower than average utilization rate and the space inventory data from 2008 are now repeatedly used to evaluate the need for new space requests and identify opportunities to re-purpose underutilized space in lieu of building new.

C. Project Improvement on Space/Infrastructure Utilization:
The renovation of Sam M. Cohodas Hall provides direct improvements to the academic delivery of the departments located within it. The repurposing the existing space to include new classrooms and a laboratory, while completing enhancements to the building's technology infrastructure, improving temperature control, air delivery, and lighting systems, will support both current instructional needs, as well as providing an adaptable platform for changing pedagogies.

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

Sustainability and conservation efforts are goals of the University. LEED® Green Building certification will be sought through the specification of "green" building materials, thoughtful management of materials during construction through reduction, reuse, and recycling of construction and packaging materials, and design of efficient systems that require less energy and use of natural resources. The overall goal will be to reduce operating costs, provide a healthier environment for building occupants, and conserve energy.

7. *Are matching resources currently 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, NMU Foundation, Industry Contributions, and Capital Bonding.

FISCAL YEAR 2017
CAPITAL OUTLAY PROJECT REQUEST

Renovations to the Sam M. Cohodas Hall *(continued)*

8. *If authorized for construction, the state typically provides a maximum of 75% of the total cost 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?*

   Yes, if necessary.

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

   No, the completed project will reduce operating costs for the university. The facility improvement measures will decrease electricity, gas, and water consumption and help to better control utility costs. Maintenance costs will also be reduced with the installation of new, more serviceable equipment and systems.

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

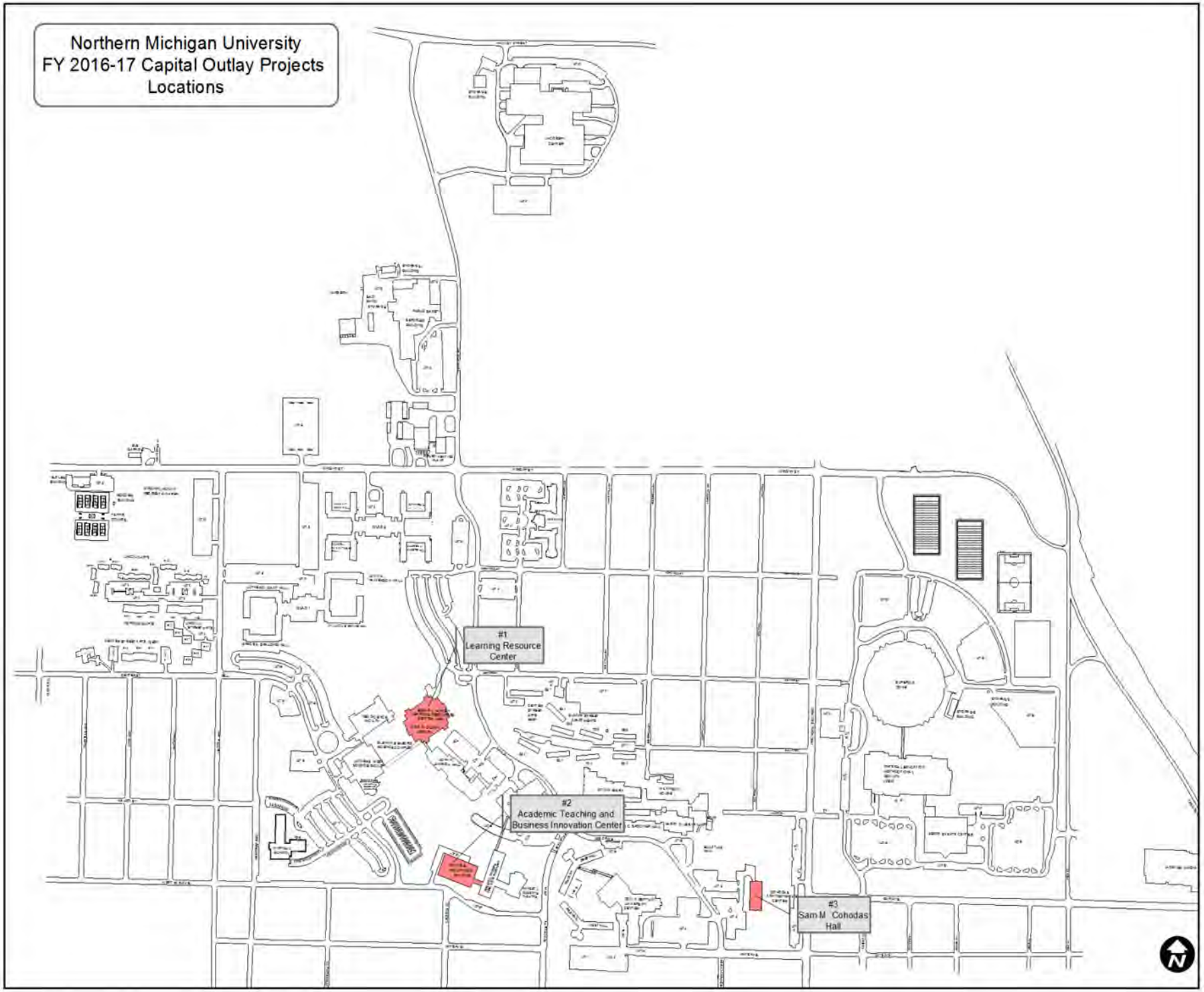
    The project will have no impact on tuition.

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

    If State funding is not authorized for this project, a phased approach will need to be utilized to address the current maintenance issues in this building over a period of ten years or more with a greater amount of the project cost being bore by students in their tuition. Utility and maintenance cost savings will not be captured as quickly.

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

    The construction of a new facility was considered; however, the cost/benefit analysis illustrated a renovation project was more favorable. The existing facility is structurally sound but fails to meet the special needs of the academic programs taught within this building. The State of Michigan benefits through the renovation and reuse of this existing facility; optimizing current campus facilities in lieu of the extensive cost for constructing new comparable facilities.


Northern Michigan University
FY 2016-17 Capital Outlay Projects
Locations
#1
Learning Resource
Center
#2
Academic Teaching and
Business Innovation Center
#3
Sam M Cohodas
Hall

Status of "In-Progress" State Building Authority Projects

John X. Jamrich Hall Replacement

- **Project Total Cost: $33.4 million**
- **Public Act 192 of 2012 Construction Authorization Approval**
- **Building was substantially complete on July 28, 2014; building has been in operation for one year.**
- **Project is in Close Out phase.**

A modern, high-tech classroom facility that improves academic delivery, maximizes building use, and reduces operational and maintenance costs has been constructed to replace the aged Jamrich Hall. As part of a university funded project, the existing facility was demolished last summer and green space was constructed in its place enhancing the academic mall.

The new facility has the proper mix of classrooms that are highly flexible and adaptable to changing innovations in teaching pedagogies. The latest wireless technologies provides highly collaborative instructional space for students and faculty. Informal learning spaces are distributed throughout the facility for improved opportunities for students and faculty to interact outside the classroom. A new enclosed pedestrian link connects the new facility to another instructional complex, the Learning Resources Center, allowing for improved barrier free accessibility, and direct access to technology support services.

The new Jamrich Hall has received rave reviews by faculty, staff, and students.

University Projects
Completed – November 1, 2014 to November 1, 2015
With a Total Cost between $500,000 – $1,000,000

West Hall Improvements

Project replaced major equipment on the mechanical and plumbing systems to improve reliability; systems are original to the 55 year old building. Select window lintels were replaced and tuckpointing was completed on the masonry exterior façade. Construction was completed in September, 2015 for a project budget of $960,000 that was funded by Housing and Residence Life reserves.

Learning Resources Center and West Science Classroom Renovation

In the Learning Resource Center, two new classrooms will be constructed in the first floor lounge to accommodate for the classrooms that will be lost due to the Gries Hall renovations. Classrooms will be equipped with technology for enhanced active and distance learning. The Bresnan Room and Mead Auditorium in West Science Building will also be retrofitted to serve as general use classrooms. Construction was completed in October, 2015 for a project budget of $560,000 that was funded by capital reserves.

University Projects
Projects Planned November 1, 2015 to November 1, 2016
With a Total Cost Over $1,000,000

Beaumier Alumni Welcome and U.P. Heritage Center

The new center is planned for the First Floor of Gries Hall. A new façade and inviting entrance will create an easily identifiable and central location to greet alumni and visitors to campus. The entrance will serve as a reception area for the U.P. Heritage Center which will be relocated from Cohodas Hall. The Heritage Center will include display, prep, and storage areas. The Alumni Department offices will also be relocated to Gries Hall. The project budget is $1.097 million. Project will be funded by a private donation and operating reserves.

Future renovations would include system upgrades to fire protection, fire alarm, energy management system, exterior sign, and sidewalk.

Performance Contracting Phase III

To continue the effort to further reduce energy/operational costs, Phase III of this project focuses on housing facilities, fine arts complex, and Superior Dome. The energy services company has performed comprehensive energy conservation audits, determined the energy consumption and operational characteristics of the facilities, and identified the facility improvement measures (FIMs), procedures, and other services that could be implemented in order to reduce NMU's energy and other operating costs for the facilities. The energy savings, operational savings, and cost avoidance achieved from the selected improvement measures for this phase will fund this project based on a period of 12 years or less, assuming a 5% interest rate. The performance of the FIMs, services, and reduced energy consumption will be guaranteed by the energy services company. The cost of the selected facility improvement measures have yet to be determined.

Maintenance Projects
2017 to 2021
With a Total Cost Over $1,000,000

As a result of the Facility Condition Analysis, the following projects have been identified:

	2017	2018	2019	2020	2021	Total
Fire Alarm Mass Notification - Housing	$ 1,058,000					$ 1,058,000
Total	$ 1,058,000					$ 1,058,000

Maintenance Projects
2017 to 2021
With a Total Cost Over $1,000,000

Project Descriptions

Security, Door Access, Fire Alarm, Mass Notification, and Energy Management System Replacement. The existing Honeywell fire alarm, door access, security, and energy management system installed in nineteen buildings on campus has reached the end of its useful life. The system is no longer supported by the manufacturer and replacement parts are difficult to acquire. Through three separate projects, the existing system will be separated into three independent systems that have the latest technology and problems on one system would not affect another.

1) Security/Door Access: The CBORD security/card access system has been completed throughout the academic, administrative, and auxiliary buildings on campus. Building exterior doors were installed on the new system to allow Public Safety to perform an all-building lockdown in the event that there is an active shooter on campus as well as lock/unlock doors with building schedules. In addition, the project results have increased reliability; simplified operational, maintenance, and personnel training needs by standardizing to one system for all campus facilities; and improved cross departmental support

2) Fire Alarm/Mass Notification: The existing Honeywell FS90 system has been replaced with a new fire alarm system in the thirteen Stateside and Auxiliary buildings. The new system incorporates the NFPA Part 12 recommendations for mass notification within campus facilities. The existing Simplex fire alarm systems are currently being replaced in four Stateside buildings to incorporate mass notification The project was on the 2015 Long Term Maintenance List for $850,000. The remaining Simplex systems installed in several Housing units on campus are planned to be replaced in 2017; they will also will incorporate mass notification. This replacement project will consist of the following Housing units: Quad II residence halls, Spooner Hall, and Woodland Park apartments at $1.058 million. The existing systems will be replaced in the Quad I residence halls when each hall is renovated.

Maintenance Projects
2017 to 2021
With a Total Cost Over $1,000,000

3) Energy Management: The existing energy management system is planned to be replaced in nineteen Stateside and Auxiliary buildings. The new system will increase reliability; improve the controllability of mechanical and electrical systems to generate energy savings; simplify operational, maintenance, and personnel training needs by standardizing to one system for all campus facilities; and allow system access through the Internet so that problems could be diagnosed remotely by university staff and the energy management company. Some of this work has been incorporated on a building-by-building basis as part of the Performance Contracting project. In 2010, the energy management systems in Jacobetti and University Center were converted and expanded with the new energy management system. In 2012 as part of the Phase II performance contract, the systems have been replaced in Art & Design, Cohodas, Learning Resources Center, West Science, PEIF, and Services Building. The existing energy management systems were expanded in the Berry Event Center, Hedgcock, New Science, and Whitman. The existing energy management system was replaced in 2014 in the Superior Dome and in 2015 in West Hall. The system will be replaced in the Fine Arts Complex in 2016. The existing system will need to be replaced in the remaining residence halls in the future.

Long-Term Maintenance Projects
2016
With a Total Cost Less than $1,000,000

As a result of the Facility Condition Analysis, the following projects have been identified:

Long-Term Maintenance for 2016

Each year the university provides base budget and auxiliary funds to address long-term maintenance projects. These specific projects are selected based on the condition of building and grounds operational systems; the appearance of the physical plant as it affects recruitment; compliance with safety, building, and accessibility codes; opportunities for energy savings; comfort of building occupants; and opportunities provided through donors, government funding, grants, and joint ventures with other nonprofits or private sector entities. The projects for 2016 are indicated on the following page.

Long-Term Maintenance Projects – 2016
With a Total Cost Less than $1,000,000

2016 Long Term Maintenance List	General Fund Budget	Auxiliary Fund Budget	Total Project Budget
Long-Term Maintenance Planning Software/Plan (Phase I)	$200,000		
Cohodas: Office Renovations	$50,000		
Forest Roberts Theatre:			
Lighting and controls upgrades	$155,000		
Interior finish upgrades	$105,000		
Roof and smoke damper replacement	$175,000		
Gries Hall:			
Chiller condensing unit	$40,000		
Energy management system replacement	$174,000		
Jacobetti Complex: Cosmetology Renovations	$80,000		
Academic Department Upgrades	$800,000		
PEIF: Emergency Generator 70 kW	$110,500		
Services Building:			
Upgrade HVAC and fire protection systems in Archives Storage.	$150,000		
Replace chiller	$120,000		
Interior Finishes (Paint; Carpet; Ceiling, Wall, and Floor Tile; Stair Treads; Door Hardware; Blinds, etc.)	$75,000		
Hardscape Infrastructure (Concrete, Asphalt, Irrigation, Landscaping, etc.)	$75,000		
Utility Infrastructure (Water, Sanitary, Storm, Steam Electric, Gas, Telecom, etc.)	$50,000		
Building Envelope (Tuckpointing, Sealing Brick, Painting Exterior Doors, Repair EIFS, etc.)	$75,000		
Mechanical/Electrical/Plumbing Infrastructure (Equipment, meters, and control system repairs)	$75,000		
Total General Fund Projects	**$2,509,500**		**$2,509,500**
University Center			
Interior Upgrades (Doors, floor covering, wall treatment, folding partitions, sanitary line upgrades)		$85,000	
Furnishings/Equipment Replacement		$35,000	
Cooling Tower Replacement		$285,000	
Dining Services (Wildcat Den, Marketplace, Fieras, Melted and Temaki & Tea)			
Interior Upgrades (New dish machine, servery and dish room upgrades, flooring, casework)		$1,495,000	
Equipment replacement		$260,000	
Sanitary line relocation from Marketplace Grease Trap		$200,000	
Total University and Dining Services Projects		**$2,360,000**	**$2,360,000**
Spooner Hall Partial Roof Replacement		$30,000	
Total Housing Projects		**$30,000**	**$30,000**
Total Budget	**$2,509,500**	**$2,390,000**	**$4,899,500**

Future University Projects

The 2008 Campus Master Plan for Northern Michigan University (NMU) identifies growth opportunities, spatial efficiencies, land utilization, and community/business partnerships. Below is a brief description of various initiatives that are either included in the plan specifically or support the theme of the plan.

Future Student Housing Projects
With the completion of the four residence halls connected to Quad II, the University is reviewing the other housing complexes, both residence halls and apartments, to determine how best to meet the future needs of students. The possibilities being discussed are renovating or replacing some or all of the remaining six residence halls and the aging apartment complexes.

Dining Services Marketplace Renovation Phase V
The project will review various options for the future location of the main food service venue for the residence halls, the Marketplace. As noted above, the university is determining the future housing infrastructure upgrades. The results of this study will determine the most effective location of the Marketplace; either its current location in Quad I or potential relocation to Quad II. The Quad II alternative would provide the opportunity to include new venues that enhance student life such as a convenience store, student lounge, programming rooms, meeting and study space, and satellite student recreation center.

Dining Services First Floor LRC Renovation
Starbucks Coffee, located on the First Floor of the LRC, was relocated to the new Jamrich Hall in August, 2014. The relocation has provided Dining Services with an opportunity to repurpose the vacated space to accommodate the retail/dining needs of the campus community. The project will include casework, flooring, wall construction, utility modifications, security gate upgrades, lighting, and equipment purchases. The estimated budget for this renovation is $100,000. As part of the LRC Capital Outlay project, a more extensive Dining Services renovation is planned for this area that would provide more meal options to the students. The projected cost is $900,000 paid for by the University; this work would not eligible for State Building Authority funding.

Student Union
A need expressed by students and staff during the 2008 Campus Master Plan update was a centrally located student union. This need was also noted as a space deficiency when the university's net assignable square footage was compared with peer institutions. Possibilities regarding location and potential services/occupants for this facility are being discussed with student organizations and staff.

Future University Projects

University Center Conference Center Upgrades

Prior studies have shown existing conference space in the University Center is in need of modernization including technology and sound system upgrades, improved lighting, higher ceilings, and an enhanced floor plan. This potential project would include renovations associated with existing conference, office, and public space. This renovation will provide opportunities to improve and expand the current level of service provided to conference customers and facility users.

Bookstore Study

Develop a bookstore renovation plan to create an attractive vibrant atmosphere that will enable its services to be adapted to the changing needs of students, alumni, and campus visitors. The layout will be flexible and enable the space to be right sized to align with the campus growth pattern.

Academic Departments Relocation

Several academic departments reside within Cohodas Hall. This project explores the opportunities to relocate these departments closer to the academic mall. As per the Campus Master Plan, the goal is to concentrate academic functions to promote a compact, walkable academic core that also results in greater synergy between faculty and students. With the relocation of the academic departments out of Cohodas Hall, the vacated space can be repurposed for possibly the Health and Counseling Center and Human Resources.

Future University Projects

Recreation Complex Locker Rooms
The university is evaluating the feasibility of concentrating all athletic department offices and the construction of new locker rooms for Track, Cross Country Running, and Cross Country Skiing in the Superior Dome. Also locker rooms need to be provided for the new sports; women's lacrosse, men's swimming and soccer. This construction will allow all athletic offices to be consolidated into one location and provide dedicated locker room space for each of the teams mentioned above.

Physical Educational Instructional Facility Pool
The university is developing conceptual designs for a Natatorium addition to the PEIF for swimming, diving, and related amenities. The building should reinforce the architecture and character, create visibility from Presque Isle Avenue, and embrace future adjacent mixed-use elements. This addition will also address increased maintenance issues with the existing pool, meet current state and federal regulations, and NCAA requirements. To keep the current pool functional, the existing below slab piping will need to be replaced in the next few years. This interim maintenance project cost approximately $100,000.

NMU Golf Course Clubhouse
In conjunction with the NMU Construction Management Program, programming and facility needs assessment have produced preliminary plans for construction of a clubhouse. The facility would be LEED Certified and be a working laboratory for students in the C/M program during the remaining phases of design and construction. The NMU Foundation is exploring opportunities for funding this $850,000 project.

Future University Projects

Forest Roberts Theatre Upgrades

To upgrade the building systems and enhance the aesthetics, the first phase of renovations will include the replacement of exterior and house lighting, air handling unit, theatrical lighting controls, roof, and interior finishes. The fixed seating will be replaced in the second phase along with providing a fresh coat of paint on the floor and ceiling. With the new seats, accessible seating will be provided in several viewing locations for patrons.

Gries Hall Department Relocations

With the completion of the new Jamrich Hall, renovations in other campus buildings are being considered for the three remaining departments in Gries Hall that were not included in Jamrich Hall. Military Science will relocate to the second floor of Gries Hall or Hedgcock, the Health Center will relocate to the University Center or Cohodas Hall, and Psychology to the New Science Facility previously occupied by Math and Computer Science. These moves will allow one wing of Gries Hall to be demolished.

Jacobetti Complex

The Jacobetti Complex serves as the community college branch of the university as well as a training center for local businesses and trade organizations. Over the next year, the academic programs within the facility will be reviewed as to their programmatic and equipment needs. These changes along with building and infrastructure needs will be realized to develop a capital outlay program statement for submittal to the State in the next cycle.

Military Science Department Relocation

Project provides the opportunity to relocate the departmental office for Military Science. The program's functions are conducted in various buildings across campus. The project would allow the department's offices, classroom, and storage space to be consolidated in one building. The estimated project budget is $412,000.

Future University Projects

Wayfinding

One of the initiatives identified in the 2008 Campus Master Plan is to develop and implement a comprehensive wayfinding and signage system. This project is intended to provide a design for a comprehensive wayfinding system that clearly identifies existing campus entries and orients/directs both vehicular traffic and pedestrians (students, faculty/staff, and visitors) to facilities and amenities at Northern Michigan University. These amenities include campus entries, circulation routes, academic facilities, student support facilities, parking areas, recreational facilities, conference facilities, museum space, and theater space. The first phase of the campus wayfinding project has been completed which included the installation of a new campus entry sign at Seventh Street, trailblazers marking the routes from city streets to the university, a new golf course sign, and a new C.B. Hedgcock Building sign to make the facility more recognizable for prospective students and campus visitors. Phase II included campus entry signs at Wright Street/Tracy Avenue and Third Street/Fair Avenue entrance. Boundary markers were installed at the corner of Kaye and Presque Isle Avenue and the Wright Street entrance to the Superior Dome. New directional and building signs were installed with the new Jamrich Hall project in 2014. Two new exterior digital informational signs will be installed at the corner of Tracy Avenue and 7th Street and along Presque Isle Avenue adjacent to the Superior Dome during fall 2015 for an estimated cost of $190,000.

Future University Projects

Bike Paths

As part of the Campus Master Plan update, a comprehensive review of many existing studies related to campus planning were reviewed, including the Bicycle Feasibility Study conducted in 2001. The 2008 Campus Master Plan illustrates a number of potential paths and identifies key design principles for pedestrian networks.

MIR Roadway Improvements

NMU has been working with the Michigan Department of Transportation (MDOT) on a possible Michigan Institutional Roadway (MIR) request: the inner-most ring road north of the Superior Dome. Not all of the costs for this project would be covered by MIR funds; however, by participating in these programs, the University can leverage state funds to help improve its infrastructure. The MDOT is providing both design and construction estimates at no cost to the University for each potential project. Below is a brief description of the project:

1) The ring road directly north of the Superior Dome was constructed in 1990 and is in fair condition; however, the original plans called for curb the entire length of this roadway. This was eliminated as a cost savings measure during construction. The elimination of this curb has created a number of drainage issues that have been exemplified since parking has been expanded and the access road to Wright Street constructed. This project would provide and install approximately 1,200 feet of new curb and resurface 1,200 feet of roadway. The only portion of this project that does not qualify for MIR funding is the loading dock area. Estimated cost to resurface the roadway and loading dock area: **$255,000 (MDOT $225,000; NMU $30,000)**.

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