

**Five-Year Master Plan
University of Michigan-Ann Arbor**



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Facilities and Operations

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**FIVE-YEAR MASTER PLAN
UNIVERSITY OF MICHIGAN-ANN ARBOR
FY2016**

TABLE OF CONTENTS

- I. Mission Statement
- II. Instructional Programming
- III. Staffing and Enrollment
- IV. Facility Assessment
- V. Implementation Plan
- VI. Capital Outlay Project Request FY16

Section I

Mission Statement

MISSION STATEMENT

The mission of the University of Michigan is to serve the people of Michigan and the world through preeminence in creating, communicating, preserving and applying knowledge, art, and academic values, and in developing leaders and citizens who will challenge the present and enrich the future.

VISION STATEMENT

As the University of Michigan prepares to embark on its third century, we fully embrace the legacy bestowed upon us by President James B. Angell in our first century. We are proud to offer “an uncommon education for the common man.”

We are a community of learners. We serve our multiple constituents by providing access to and participation in scholarly and creative endeavors on a vast scale. Our academic research enterprise affects the world. The university is defined by a culture of interdisciplinary teaching and research, coupled with academic rigor. We encourage our students, faculty, and staff to transcend disciplinary boundaries by tackling complex and vexing problems facing modern societies at local, national, and global levels.

We endorse and promote creativity in its many facets. We recognize the arts as a human essential and a foundation that helps to define our future. We create new knowledge and share the joy of discovery, and we see information technology as a powerful means for broadening access to knowledge and exchanging ideas.

We draw from study and experience to prepare our students for leadership in a wide range of social endeavors, including government, law, education, medicine and business, reflecting the university’s many roles in contributing to good design and decision making within major domestic and international institutions.

We celebrate and promote diversity in all its forms, seeking the understanding and perspective that distinct life experiences bring. We proclaim ourselves a scholarly community in which ideas may be freely expressed and challenged, and all people are welcomed, respected, and nurtured in their academic and social development.

We are committed to providing for our students and faculty international learning and teaching experiences that will prepare them for a rapidly changing global community. The university encourages intellectual and cultural exchange in other countries, and programs that deeply engage scholars from disparate areas of the globe. We support and promote student, faculty, and staff immersion in local and national communities via service, learning, and leadership endeavors. We nurture lifelong relationships with alumni who span the globe.

We advance health care through discovery and practice. We deliver clinical services to people within our state and the world, educate future generations of health care professionals, conduct basic research in fundamental processes of life, and vigorously advance research on the mechanisms, detection and treatment of a spectrum of human diseases. The university champions fitness, disease prevention, and policy research to advance health, quality of life, and longevity of our own community, the nation, and the globe.

We stimulate economic growth and development in Michigan and beyond. The university engages in productive partnerships among academe, industry, and government to sustain and grow a vigorous and dynamic economy. University students, faculty, and staff embody and advance innovative attitudes and entrepreneurial spirit.

We strive to be an exemplary employer and a positive influence in our community. We provide an environment where all employees have opportunities to develop their potential, and where there is a shared passion for excellence and a commitment to respect for one another.

We dedicate ourselves to ethical and responsible stewardship of financial, physical and environmental resources. We look for tools and strategies to create and enhance sustainable practices in all facets of operations and seek to lead in the global quest for a sustainable future.

We gladly accept the challenges and opportunities confronting us and understand that the University of Michigan must change, adapt and grow to meet the needs of a rapidly evolving society. We will always focus on the horizon.

Section II

Instructional Programming

INSTRUCTIONAL PROGRAMMING

The University of Michigan, founded in 1817, has a history of nearly 200 years of leadership in education, innovative research, stewardship and service to the State of Michigan. The university consistently ranks in the top ten of public universities in the U.S., according to the U.S. News and World Report, and receives high marks for retention and graduation rates and for the reputation and excellence of many of the undergraduate, graduate, and professional degree programs offered by the university's 19 schools and colleges.

As a public institution, the university strives to achieve its mission through teaching, research, and service, set within the framework of various schools, colleges, institutes and centers and through strategic partnerships with public and private institutions in Michigan and beyond.

The following information describes various programs that support the core mission of the university and activities that will impact facility needs in the next five years.

A. Alfred Taubman College of Architecture and Urban Planning

The University of Michigan offered its first courses in architecture in 1876. The program became a department in 1913, and by 1931, the College of Architecture was established as a separate entity. Today, the college offers bachelor's, master's, and doctoral degrees in various fields, including architecture, urban planning, and urban design. In 1999, the college was renamed in honor of A. Alfred Taubman, a longtime donor and adviser to the college. In 2014, A. Alfred Taubman continued his generosity to the college with a gift to support a partial renovation and expansion of the Art and Architecture Building, where the Taubman College is located. Preliminary design is underway, with goals to transform classrooms, expand student studio spaces, provide more student and faculty interaction and critiquing spaces, and improve administrative and faculty spaces.

Penny W. Stamps School of Art & Design

Education in the arts was first offered as part of architecture and engineering studies at the university. As art evolved as a discipline, the programs were moved out of these colleges and the School of Art & Design became an autonomous school in 1974. The school was renamed the Penny W. Stamps School of Art & Design in 2012 after receiving a significant donation from Penny and E. Roe Stamps. The school shares the Art and Architecture Building with the A. Alfred Taubman College of Architecture and Urban Planning, where it provides a comprehensive range of baccalaureate and graduate degree programs in art, design, and interarts performance. In 2011, in response to a pressing programmatic need for graduate student and faculty art studios and limited space within their shared building, the university renovated and repurposed an existing university warehouse building for this purpose. While this provided immediate relief from the space constraints it faced at the time, having these studios two miles away from the school's primary location is not ideal. The school recently completed a study of its long-term facilities needs and identified the need for a major renovation and expansion of their space in the Art and Architecture Building.

Stephen M. Ross School of Business

Building on faculty and course offerings that began in the latter part of the nineteenth century, the School of Business Administration was formally established in 1924. Today, at all levels of instruction — bachelor's, master's, doctoral, and executive education — its programs consistently rank high nationally and internationally. In 2004, Stephen M. Ross made a historic gift to the school, and it was renamed in his honor. The gift supported the construction of a new Ross School of Business academic building, which opened in 2009, and provided state-of-the-art instructional and research space to support the school's core mission. Stephen M. Ross continued his generous support of the school with another historic gift in 2013. The gift, along with other donor gifts, supports the renovation of the Kresge Business Administration Library and construction of a new academic building, all connected to the main Ross School of Business academic building. Construction is currently underway and is expected to be complete for the Fall 2016 term. When reopened, the new and renovated facilities will house innovative classroom, study, and student and career services spaces, which will enable the school to continue its long-standing history of excellence in business education.

School of Dentistry

Established in 1875, the School of Dentistry is one of only two schools of dentistry in the State of Michigan and continues to be a top-rank program nationally. It offers bachelor's, master's, and doctoral degrees, as well as certification and continuing education, in a variety of dental fields including dental hygiene, pediatric dentistry, orthodontics, periodontics, oral and maxillofacial pathology, and surgery. The school's dedication to health and wellness extends well beyond the research lab and classroom. The school provides clinical services to patients on campus and around the State of Michigan and is particularly dedicated to providing care to underserved, at-risk, and special needs patients. Through its community-based dental education program, the school's faculty, students, and staff are serving these patients at over thirty sites throughout the state in federally qualified health centers, community clinics, and in private offices. The school occupies two adjoined buildings, 74 and 45 years-old, that are in serious need of attention and prevent the school from achieving its core mission. Addressing this need is a high priority for the university, and as a result the university submitted the School of Dentistry project to the state for fiscal year 2015 capital outlay funding consideration. The university is resubmitting this project for consideration for fiscal year 2016 capital outlay funding.

School of Education

The School of Education was formally founded in 1921; however, teacher diplomas were first offered at the university in 1874 with master's and doctoral degrees added in the decades following. The school prepares students for professional careers in teaching and administration and offers advanced training and certification for researchers and practitioners at all levels of education. The school is housed in a 90-year old building (a former elementary and high school) and modest renovations have occurred over the past several years, including remodeling a large auditorium and the construction of the Brandon Professional Resource Center and Archive, completed in 2011. Made possible by a generous gift from Jan and David Brandon, this

space houses digital records of professional practice and other important resources for professional study and use and offers student-focused study and collaboration areas. In 2014, the university started a renovation project to primarily address the building's aging infrastructure and make modest improvements to the teaching and learning environment. This renovation addresses only some of the school's needs. The school continues to be challenged by its facilities, and has identified needs for a future addition and renovation to fully support its academic and research mission.

College of Engineering

Instruction in engineering first began at U-M with a class in civil engineering in 1854. The College of Engineering was established four decades later, in 1895, and has been a historical leader in emerging fields including metallurgy, naval architecture and marine engineering, chemical engineering, aeronautical engineering, nuclear engineering, electrical engineering, computer science and engineering, and biomedical engineering. Today, the College of Engineering is a national and international leader in delivering high-quality engineering education and research with alumni practicing across the globe. The college's departments and centers are housed in a number of buildings on the university's North Campus, and the college is continually making improvements to these spaces and identifying areas of opportunity to keep up with the ever-changing fields of study and research. Recently completed is a 62,500 square foot addition to the G. G. Brown Memorial Laboratories, which houses the Center for Excellence in Nano Mechanical Science and Engineering. The existing G. G. Brown building is also receiving a complete renovation to accommodate the growing needs of the Departments of Mechanical Engineering and Civil and Environmental Engineering, as a result of the State Legislature's action in response to the Capital Outlay request for FY11 (HB-5858). This project will renovate the entire building, creating state-of-the-art academic and instructional spaces and upgrading much of the building's mechanical and life safety systems. The college has recently identified the need for additional space to better support its programs and research in robotics and autonomous systems, and they are currently studying ways to allow for more collaboration and innovation in these closely related programs. The college has also identified the need to upgrade and expand its facilities for chemical engineering, materials science and engineering, and naval architecture and marine engineering. It has also identified the need to provide higher quality active-learning teaching, student services, and student innovation spaces on North Campus, in partnership with the Taubman College of Architecture & Urban Planning, the Stamps School of Art & Design, and the School of Music, Theatre & Dance. Lastly, in response to the governor's announcement that funds would be available in the coming years to support engineering education programs, the college expects to submit a proposal to the state for consideration, when further details are provided on the program.

School of Information

A formal program in library and information studies began in 1926 when the Department of Library Science was created within the College of Literature, Science, and the Arts, and the department became a fully independent school in 1969. In response to rapid changes brought on by technology, the school broadened its teaching and research significantly in the 1990s and was renamed the School of Information. The school now pursues a highly interdisciplinary

approach to educate professionals who will serve as leaders in the information professions. An example of this approach is a joint master's program in health informatics with the School of Public Health, started in 2012. The degree focuses on a human-centered approach to the development and deployment of health information technologies. In 2014, the school began educating undergraduates in a formal program for the first time with its new Bachelor of Science in Information degree. The School of Information is currently housed in the North Quadrangle Residential and Academic Complex, and with its significant growth in programs and enrollment, the school is pressed for space to meet its needs. The school is currently leasing space in two off-campus locations as a short-term solution and is beginning to explore its long-term facility needs.

School of Kinesiology

Kinesiology has been part of the University of Michigan curriculum since the turn of the twentieth century. In 1984, a Division of Kinesiology was created and was later designated as the School of Kinesiology in 2008. The school's programs in movement science, sports management and communication, physical education, and athletic training prepare students for careers in physical therapy, cardiac rehabilitation, athletic administration, sports law, and more. Master's and doctoral students often continue their careers in higher education or research. In 2008, a State of Michigan Capital Outlay project for the renovation and upgrade of Observatory Lodge, now the called Kinesiology Building, was completed which provided classrooms, office, and research space for the school. The project also addressed deferred maintenance, code and accessibility requirements for the building. The school has since experienced tremendous growth and now has programs distributed across three buildings, which makes it very challenging to foster collaboration and community. The school is exploring its long-term facility needs in response to the significant growth in enrollment, faculty hires, and research.

Law School

Since its founding in 1859, the Law School has been a national and international leader in the field of law and educational access --- in 1870, the school was the nation's second university to award a law degree to an African American and, in 1871, the first in the nation to award a law degree to a woman. The school's graduates work in every state and all over the world in business, as practitioners and professors, as legislators and members of Congress, and as distinguished civil servants and members of the judiciary. In recent years, the Law School was able to significantly improve and expand its historic and iconic facilities through a series of renovations and construction projects. The school now houses state-of-the-art student interaction and study spaces, improved classrooms, multi-purpose and clinical spaces, and offices for faculty and administrators in a renovated Hutchins Hall and newly constructed Aikens Commons and South Hall. In 2013, the university reopened the newly renovated Charles T. Munger Residences in the Lawyers' Club building, a residence hall adjacent to the Law School. This significant renovation to the historic 1923 building was made possible in large part by a donation from Charles T. Munger.

University Library System

The University Library system can trace its history to 1838, one year after the university's relocation to Ann Arbor, with the purchase of John James Audubon's *Birds of America* books that are still on display in the historic Harlan Hatcher Graduate Library. Much has changed since the library's founding, but its central role in advancing the university's research and teaching missions continues. Today, the University Library is one of the largest university library systems in the United States, with 8.5 million volumes stored in various buildings around the Ann Arbor campus. The library is also leading the university's efforts in materials digitization, online, distance, and digital education, looking at ways to enhance the effectiveness and efficiency of on-campus teaching and educational technology and at ways to expand the university's outreach to new audiences. Such technological advancements and a general shift in how students and the community interact with collection materials have significantly changed the responsibilities and operations of the library, and in recent years, the library has begun to transform the way its buildings are used to provide new ways for the university community to interact with its materials. In 2008, a donation from alumnus Bert Askwith enabled the University Library to renovate a portion of the Shapiro Undergraduate Library Building into high-quality study and collaboration areas with a small food service operation to meet student needs. The building now operates 24-hours-a-day to accommodate the demand on its spaces and collections. Although the university continues to invest in library facilities to address their infrastructure needs and to accommodate changes in use, the library still struggles to meet campus needs in its historic, yet aging, buildings.

College of Literature, Science, and the Arts

The College of Literature, Science, and the Arts (LSA), founded in 1841, was the first duly constituted college of the university. Distinguished in the humanities since its earliest years, the college became preeminent in the natural sciences during the early twentieth century and went on to become a leader in social science research. As the largest college on campus serving the greatest number of undergraduates, the college's departments and centers are housed in several buildings on Central Campus. The university is continually making improvements to these spaces to keep up with its ever-changing fields of study and research. LSA's most urgent need is to provide improved research, teaching, administrative, and exhibit space for its programs in Ecology and Evolutionary Biology, Molecular, Cellular and Developmental Biology, and the Museums of Anthropology, Natural History, Paleontology, and Zoology. The university has embarked upon a project to house these units in an approximately 300,000 gross square foot new building, currently called the Biological Science Building. This building will be connected to the Life Sciences Institute in order to share core research facilities. Related to this project, the university has begun renovating an off-campus warehouse building in Ann Arbor to create a state-of-the-art storage and research facility for the collections of the programs and departments noted above. Plans are also underway to renovate the aging Dennison Building. This project, currently in design, will transform the 1963 facility comprised mainly of outdated classrooms into an academic center for programs and institutes with international and interdisciplinary themes. The co-location of these programs, currently housed in numerous buildings across campus, will provide students, faculty, and staff a single location for these academic centers and services and will also enhance programmatic synergies and overall

operational efficiencies for the college. LSA recently identified the need to replace the aging Modern Languages Building, which houses their language programs, several large auditoriums, and many small, outdated classrooms. The college is constrained to meet the teaching and academic needs of today in the building, which cannot be reconfigured easily and is nearing the end of its useful life.

Medical School

Since opening its doors in 1850, the Medical School has been a leader in medical education, biomedical research, and patient care. In addition to its professional Doctor of Medicine program, the school offers master's and doctoral degrees in the basic medical sciences. The school is renowned for its many firsts in medicine, including establishing the nation's first university-owned and operated teaching hospital and creating the first departments of pharmacology and human genetics in the United States. The Medical School was also among the first major American medical schools to admit and graduate women and minorities. In an effort to maintain its excellence in all areas of its mission, the Medical School continues to renovate and modernize its instructional and research facilities as priorities dictate and funds allow. The school's ongoing activation of the North Campus Research Complex (a pharmaceutical company's former headquarters and research and development campus that the university purchased in 2009) has provided faculty and staff immediate opportunities to expand interdisciplinary research and programs and translational research programs, such as emergency medicine. The school recently began an extensive renovation to the A. Alfred Taubman Health Sciences Library building — home to many of the school's medical student education programs. When the facility reopens in mid-2015, it will be a home for higher-quality, contemporary teaching, clinical simulation, student services, and study space to better meet the needs of the school's academic programs.

School of Music, Theatre & Dance

As one of the oldest and largest schools of music in the United States, the School of Music, Theatre & Dance ranks among the top conservatories and schools of music in the country. Degrees are offered at the bachelor's, master's, and doctoral levels in nearly all fields of music, dance, and theater. The school's academic programs are distributed across five buildings on North and Central Campuses. In 2014, the university began renovation of the Power Center for the Performing Arts, one of its signature performance venues, to update life safety and other building infrastructure. The renovation will occur in phases through 2015. This year, the school also began a significant facilities project to renovate and expand the school's principal building, the Earl V. Moore Building, made possible by a generous donation from William K. and Delores S. Brehm. The project includes a new rehearsal hall, renovations to existing halls, new state-of-the-art classrooms and technology suite, more student practice rooms, and improved faculty space. Having programs and operations distributed across five buildings on both North Campus and Central Campus continues to be a challenge, however. The school has identified additional needs to bring its Central Campus programs to North Campus, to expand its pool of student practice rooms, and to improve its administrative service space to better support its students, faculty and staff.

School of Natural Resources and Environment

The first program of its kind in the nation, the School of Natural Resources and Environment was founded in the late 1880s. Since its founding, the school has been a pioneer in developing a scientific understanding of ecosystems, including their conservation, management, and restoration; and trains leaders, assists in policy-making, and teaches the skills necessary to manage and conserve the earth's resources. The school offers degrees at the master's and doctoral levels, as well as certification in fields like conservation ecology, environmental informatics, GIS and modeling, environmental policy and planning, and sustainable systems. The school's home is the historic Samuel Trask Dana Building, which underwent a series of renovations in the late 1990s and early 2000s, and achieved the LEED gold level of certification. With continued growth in faculty and enrollment, the school is beginning to look at their future space needs.

School of Nursing

The School of Nursing has maintained a reputation of excellence for more than 100 years and has been a national leader in the advancement of nursing knowledge and the promotion of trends in health care since its founding. The school's baccalaureate programs include a four-year Bachelor's of Science in Nursing (BSN), a Second Career BSN program, and an RN to BSN completion program. At the master's level, the school offers advanced study and training for numerous fields, including midwifery, pediatric nurse practitioner, gerontology nurse practitioner, and leadership and management. The school's Ph.D. and postdoctoral programs prepare nurse scientists to develop the knowledge necessary to support and advance nursing practice and to teach the next generations of BSNs. The school is currently constructing a new 78,000 gross square foot building adjacent to their current building. The new building will provide active-learning classrooms, a technologically rich clinical learning center with simulation and skills labs and simulated patient suites, and offices for student services and a few faculty offices. When this new building is complete in Fall 2015, the school will have programs and operations distributed across two buildings. The existing building, which is approximately 100 years old, will eventually need attention or to be replaced.

College of Pharmacy

Established first as a department in 1868, Pharmacy became an independent college in 1876, the first at any university in the United States. Today, the college offers a number of bachelor's, master's, and doctoral degrees in fields such as pharmaceutical sciences, pharmaceutical engineering, medicinal chemistry, and social and administrative service. The college is also actively involved with other health science schools and colleges on campus in developing interprofessional health science curriculum to meet recent accreditation requirements. The goal of this effort is to provide a more holistic, real-world approach to health care education that brings together students from multiple health science programs (pharmacy, social work, dentistry, public health, etc.) and focuses on patient-centered care. This unique approach to educate students across fields and in larger numbers has led to a need for more modern, larger active-learning classroom facilities. The college is currently exploring ways to reconfigure existing spaces to allow for this. The university completed a modest renovation in 2013 to reconfigure spaces on the first and second floor of the College of Pharmacy Building to improve

student, faculty, and administrative spaces and to upgrade mechanical and electrical infrastructure in its aging building. However, the college continues to be challenged to meet its research and teaching needs in the existing building.

School of Public Health

Though formally established in 1941, the School of Public Health can trace its beginning to 1887 when the first professor of hygiene was appointed, and to 1897 when the university awarded its first degree in that field. Today, the school offers master's and doctoral degrees in fields such as biostatistics, environmental health sciences, epidemiology, health behavior and health education, and health management and policy. Most recently, the school began a joint master's program in health informatics with the School of Information that focuses on a human-centered approach to the development and deployment of health information technologies. Starting in 2006, the university made a series of renovations and an expansion to the school's existing buildings to provide higher quality research, classroom, and administrative space, as well as to make significant infrastructure improvements to its research-heavy facilities.

Gerald R. Ford School of Public Policy

The Gerald R. Ford School of Public Policy traces its history to the founding of the Institute of Public Administration in 1914, the first university program in the United States to provide a systematic course of study in municipal administration. Today, named in honor of Gerald R. Ford, the 38th President of the United States and an alumnus of the University of Michigan, the school prepares graduates for distinguished careers in policy analysis and management and promotes improved public policy through research. Its graduates work in government and in the private and nonprofit sectors all over Michigan, the United States, and throughout the world. Traditionally a graduate and professional school, the school launched a highly successful undergraduate degree program in 2007. Thanks to a generous gift from Joan and Sanford Weill, the school was able to consolidate into a single building, named Weill Hall, in 2006. The school is beginning to look at how to use their existing facility in new ways to accommodate changes to their research and pedagogy.

Horace H. Rackham School of Graduate Studies

The Horace H. Rackham School of Graduate Studies oversees and coordinates graduate education, bringing together graduate students and faculty from across the institution to experience and take full advantage of the university as a scholarly community. In 2003, a major renovation of the historic Horace H. Rackham Building, originally constructed in 1938, was completed. Additional infrastructure improvements to the facility are currently underway with expected completion in 2015.

School of Social Work

The program in Social Work began in 1921 and was granted the status of a school in 1951. The School of Social Work consistently ranks as one of the top programs in the nation and offers master's and doctoral level degrees and continuing education that prepare practitioners, researchers, and academics in the fields of interpersonal therapy, community organization, management of human services, and social policy and evaluation. Its graduates work

throughout Michigan, the U.S., and the globe, with individuals, children and their families, organizations, and communities in such fields as substance abuse, aging, mental health, education, child and public welfare, and public policy. In 2011, the school completed a renovation of the lower level of its building, which repurposed space previously housing a small library into areas that enable students to practice and observe clinical approaches, accommodate expanded continuing education programs, and provide much needed student collaboration and study space. The school recently identified the need for additional space for a variety of administrative and instructional functions and has begun studying options to address this need.

Other Initiatives Impacting Facilities and the Economic Development Impact of Current/Future Programs

As one of the top-ranked public and research institutions in the world, the University of Michigan is fully committed to its role of stewardship and contributing to the state's economy. The university supports students and faculty well beyond the traditional walls of studies and research by creating an environment that fosters innovation, robust collaborations and partnerships, and by providing resources to transfer education and research into real world applications. Several endeavors are underway that not only impact current and future facilities usage, but also spur economic development in Michigan and beyond.

Leadership in Transportation, Automotive and Autonomous Systems Research

The University of Michigan has historically held a leadership role in automotive and transportation research and continues to view its strong partnerships with the State government, Federal government, and the private sector, particularly automakers, as essential to the application of the university's research and to the state economy.

- The university recently established the Michigan Mobility Transformation Center (MTC), a government-industry partnership formed at U-M to transform global mobility by dramatically improving transportation safety, sustainability, and accessibility. Construction on the Mobility Transformation Facility, a 32-acre cityscape designed expressly for testing connected and automated vehicle systems, is currently underway in Ann Arbor and progressing toward scheduled completion in the spring of 2015. The MTC draws on U-M's broad strengths in engineering, urban planning, energy technology, and information technology to accelerate progress in diverse areas such as connected-vehicle systems, driverless or autonomous vehicles, shared vehicles, and advanced propulsion systems. The focus of the MTC is a model deployment that will enable researchers to test emerging concepts in connected and automated vehicles in both off-road and on-road settings. Through interdisciplinary cooperation, MTC will also address the many social, political, regulatory, and economic issues inherent in the transition to new mobility technologies and systems. Most recently, the MTC announced that select group of companies will be joining the U-M, state, and federal government as founding partners. These partners include major auto manufacturers and suppliers, insurance, telecommunications, data management, and

mobility services companies. These fourteen companies are each committing a total of \$1 million over three years to support the MTC and its programs.

- The University of Michigan Transportation Research Institute (UMTRI) is a research institute that collaborates with other university units and with public and private sector institutions and automakers. Its mission is to achieve safe and sustainable transportation, increase driving safety, and further transportation systems knowledge through interdisciplinary research. UMTRI's portfolio is vast and its research covers areas such as vehicle safety and injury biomechanics; connected-vehicle research and testing; sustainable mobility systems; transportation data fusion and analysis; and the efficient movement of heavy freight.
- The College of Engineering is also dedicated to automotive and transportation research and works closely with UMTRI and national and local institutions and business in finding solutions to real world problems. Its research and outreach activities on these topics take place in its Mechanical Engineering department and in a variety of centers within the college, such as the Automotive Research Center, a partnership with the U.S. Army; the National Science Foundation (NSF) Engineering Research Center for Reconfigurable Manufacturing Systems; the General Motors/U-M Institute of Automotive Research and Education; the Advanced Battery Coalition for Drivetrains; the Ground Robotics Research Center for research on mobile robots and autonomous vehicles; and the NSF Emerging Frontiers in Research and Innovation Program for research on electric power grid infrastructures and plug-in hybrid electric vehicles.

Research on Labor, Employment, and the Economy

U-M's Institute for Research on Labor, Employment, and the Economy (IRLEE) has programs aimed at assessing, understanding, and encouraging economic development. Its Center for Business Acceleration and Incubation Studies carries out market feasibility studies for proposed new business incubators in the region to help lay the foundation for success. The Technology Commercialization and Assistance program proactively identifies the capabilities and initiatives of emerging or established companies and matches them with technology available at Michigan universities.

IRLEE also created and manages the National Excess Manufacturing Capacity Catalog (NEXCAP), which promotes business expansion and innovation, regional economic development, and job growth by matching companies looking to relocate, expand, or diversify with the vacant manufacturing sites and facilities. With funding from the Economic Development Administration of the U.S. Department of Commerce, NEXCAP is uniquely and comprehensively cataloging these vacant manufacturing facilities, their assets, nearby workforce skills, and those of the surrounding community. The Michigan Economic Development Corporation routinely uses this resource to assist in attracting new business and industry to the state.

North Campus Research Complex

The purchase in 2009 and ongoing activation of the North Campus Research Complex (NCRC) is another example of the university's commitment to contributing to the regional economy as it brings together researchers and partners from different disciplines and industries. In addition to world-class research facilities, the NCRC houses the university's Office of Technology

Transfer and the Business Engagement Center, which act as a front door to the university's vast resources in technology, research, and faculty expertise, and student talent—all tools that support both new and established businesses. In 2011, the university opened the Venture Accelerator at NCRC to provide space and resources for up to three years for start-up companies emerging from new ventures at the Office of Technology Transfer.

- The Office of Technology Transfer is the organization responsible for the transfer of university technology to the marketplace and oversees such programs as the Michigan Investment in New Technology Startups (MINTS); the Michigan Venture Center, which opens the university to entrepreneurs and venture partners interested in start-up opportunities; and the Venture Accelerator. In addition to these programs, the Office of Technology Transfer provides patenting, licensing, legal, and general decision-making and business advice to the U-M community. With this type of assistance, university researchers launched 14 new startups, submitted a record number of new inventions (439), signed 148 agreements to commercialize technologies, and secured 132 patents, resulting in \$18.5 million in royalties and equity sales in fiscal year 2014 alone. Since 2001, there have been 140 startups, 4,308 discoveries, 1,309 license/option agreements, and 1,881 patent applications, resulting in \$229.4 million in royalties and sales.
- The Business Engagement Center (BEC), which is co-located with the Office of Technology Transfer, has a mission to strengthen the university's ties to business and community partners and to help revitalize and diversify Michigan's economy. Acting as a gateway to the university, the BEC assists business and community partners in maximizing their growth potential by identifying and accessing the university's vast resources, including research discoveries, new technology, high-tech facilities, student and alumni talent, continuing education programs, and strategic giving opportunities.

Sustainability and Great Lakes Research

The University of Michigan has long been engaged in many aspects of sustainability, and in recent years has begun focusing resources to spur progress in this critical arena. Through a number of research centers and initiatives, the university is finding realistic solutions to many major sustainability problems --- whether related to energy, water conservation, air pollution, or transportation.

- The Great Lakes Integrated Sciences and Assessments Center (GLISA) is a collaboration of the University of Michigan, Michigan State University, Ohio State University, and the Michigan Sea Grant. GLISA's focus is mainly the watersheds of Lake Huron and Lake Erie in Michigan, Ohio, and Ontario, but also encompasses the broader Great Lakes basin. Its research and outreach spotlight critical sectors in the region --- agriculture, watershed management, urban management, water quality, and natural resources-based tourism.
- The University of Michigan Water Center, part of the university's Graham Environmental Sustainability Institute, was established in October 2012 to bolster freshwater ecosystem restoration and protection efforts. The center engages researchers, practitioners, policymakers, and nonprofit groups, and its initial efforts are focused on the Great Lakes with an emphasis working closely with academic colleagues and practitioners in the region

to improve restoration outcomes. Less than two years after it was launched, the U-M Water Center is extending its reach beyond the Upper Midwest with a recently awarded a five-year, \$20 million cooperative-agreement contract to join the National Oceanic and Atmospheric Administration. The center will now oversee research at a nationwide network of 28 coastal reserves and help coordinate the National Estuarine Research Reserve System's collaborative science program. This program supports water quality monitoring and long-term research on the impacts of land-use change, pollution and habitat degradation in the context of climate change trends. The overarching goal is improved stewardship of these economically significant estuaries.

Academic and Practical Training Programs in Entrepreneurship

The university is committed to fostering and nurturing the entrepreneurial spirit across campus, not only with its faculty, but also with students through academic programs and incubator-like centers across campus:

- The Zell Lurie Institute, part of the Ross School of Business, is a globally recognized academic program in entrepreneurial studies. The program provides curriculum, program initiatives, community involvement, and alumni outreach activities that deliver exclusive resources for future entrepreneurs at the university. The institute's innovative real-world approach and the Ross School of Business's traditional management excellence encourages, nurtures, and prepares students for entrepreneurial careers and to be leaders for new venture creation and growth.
- The Center for Entrepreneurship, part of the College of Engineering, connects current students with Michigan alumni in the start-up community; provides grants for students to pursue their own ideas for companies and products; supports, simplifies and clarifies intellectual property transfer processes for students and the broader community; and develops entrepreneurship-focused programming on campus. The Center for Entrepreneurship is responsible for launching brand new courses and formal academic programs focused on entrepreneurship and for co-managing the TechArb student startup accelerator, described below.
- TechArb, supported by the Center for Entrepreneurship, the Zell Lurie Institute, and the Office of the Vice President for Research is a student venture accelerator program at the university. TechArb provides community space in Ann Arbor for students to interact with each other and with mentors, who include experienced entrepreneurs, investors, venture capitalists, accountants, and lawyers --- often University of Michigan alumni. Mentors and TechArb staff hold regular office hours with students to help them work through their ideas with the goal of building and growing actual companies. TechArb also provides students with summer grants so they can work full time on their venture. Numerous companies have already been founded by students and cover a wide range of areas from the development of software applications for mobile devices to a clothing manufacturing company that uses recycled and eco-friendly materials.

Energy Institute

Established in 2006 and building on the legacy of the Michigan Memorial Phoenix Project, which began in 1948, the Energy Institute builds on a strong energy research heritage at the heart of the nation's automotive and manufacturing industries to develop and integrate science, technology and policy solutions for the world's pressing energy challenges, in order to address the demand for economically and environmentally sound energy solutions that is urgent and global. In 2013, an addition to and renovation of the Michigan Memorial Phoenix Laboratory was completed for the Energy Institute. This project replaced building systems and created state-of-the-art laboratory spaces for energy-related research.

University Research Corridor

One example of the university's commitment to the state's economy is its role in the University Research Corridor (URC), a collaboration between the University of Michigan, Michigan State University and Wayne State University that focuses on stimulating economic development in the state and region by leveraging the collective research assets of the three institutions. The URC is an umbrella organization that disseminates information to key stakeholders, including the business community, researchers and students, policymakers, and other investors. In doing so, the URC enhances outreach and collaborative efforts, speeds up technology transfer and development, and communicates the advantages of doing business in Michigan. In its 2013 annual report, the URC was ranked second in the Innovation Power Ranking when compared to seven other major university research clusters, including well-known hubs such as North Carolina's Research Triangle Park, California's Innovation Hubs and Massachusetts's Route 128 Corridor. The report also credited the URC for contributing \$16.6 billion in state economic activity and boosting state tax revenue by \$449 million in 2012.

Michigan Investment in New Technology Startups

The Michigan Investment in New Technology Startups (MINTS) initiative is a program that enables the university to invest up to \$25 million during the next decade in select venture-funded university startups --- new companies built around university inventions. Eligible startups primarily are those that have licensed technologies that originated in faculty labs. Under MINTS, the university reaps the benefits of its initial investment when a company either is acquired or goes public. Through this program, the university is diversifying its existing assets --- money that is continually invested --- and investing directly in technologies and ideas developed by the university's researchers.

Third Century Initiative and M-Cubed Research Funding Model

In anticipation of the university's 200-year anniversary, the university has launched the Third Century Initiative. This goal of this initiative is to develop innovative, multidisciplinary teaching and scholarship approaches to such topics as climate change, poverty and malnutrition, energy storage, and health care. The initiative encompasses teaching, research, and service efforts with the goal of engaging students and faculty in developing programs that will intensify students' immersive experiences in and beyond the classroom. Emphasis is on international experiences, undergraduate research, service learning, and entrepreneurial activities.

Part of the Third Century Initiative is the M-Cubed project, a first-of-its-kind, real-time research funding initiative at the university that puts funds into the hands of researchers to jumpstart new projects. To qualify, three University of Michigan researchers from different disciplines must come up with an idea and agree to work together. A modern alternative to the traditional government grant review process, the new M-Cubed program puts university faculty in charge of divvying research dollars in a pure form of peer review. M-Cubed is designed to encourage bold and grassroots research at the interfaces of academic fields where big breakthroughs tend to happen.

Section III

Staffing and Enrollment

STAFFING AND ENROLLMENT

Enrollment at the University of Michigan – Ann Arbor (U-M) has been slowly increasing, from 33,600 in 1969 to just over 43,600 today. In general, it is the intention to maintain enrollments at this level over the next five years. The U-M believes that this represents a level appropriate for the size of the university's faculty, facilities, and funding. While no major overall growth in enrollment is expected, increased enrollment in key programs is expected. For example, the University of Michigan is called upon to meet an increasing demand for instruction in fields such as nursing; a variety of engineering disciplines; public policy; information sciences; and biological, biomedical and life sciences. Education in these fields is an important part of the university's mission, and it meets a very real need in the state and the nation, both of which face a shortage of qualified graduates in these areas. (Detailed enrollment data by school/college follows this page.)

Average class size varies by discipline. In the fall of 2013, 43% of the sections taught to undergraduate students contained fewer than 20 students. Some sections are taught to large groups where appropriate; sections with 50 or more students represented about 11% of the undergraduate sections taught in the fall of 2013.

Total headcount enrollment has grown by just under 12% since the fall of 2003, and the volume of research has increased 77%. The number of General Fund FTEs has grown by about 8.2% overall from the fall of 2003 through fall of 2013, as we strive to contain costs and do more with less. Non-academic staff General Fund FTEs grew by about 7.4%, while the university has deliberately grown the General Fund academic staff ranks, which are up 9.6% since fall of 2003. Furthermore, in the past several years the university has launched initiatives to hire 150 new faculty members in a concerted effort to improve student-faculty ratio. Health System staffing levels have grown at a compound annual growth rate of 4.1% from FY2003 due to increases in patient care and research activity. At this time it is anticipated that the growth rate in health system staffing levels for the administrative positions to slow down, while patient care/research positions will continue to grow relative to their respective activities.

Impact of Distance Learning

At the University of Michigan, distance learning has been primarily used to combine technological advances with current methods of instruction for on-campus students. Some academic units, such as the College of Engineering, the College of Literature, Science, and the Arts, the School of Nursing, the School of Public Health, and the Stephen M. Ross School of Business, use distance learning to supplement their Ann Arbor offerings. This approach enhances the quality of the education provided to our students by ensuring that we maintain our competitive edge. Although this area is expected to grow, the university does not anticipate replacing on-campus programs with distance education, nor does the university expect the number of off-campus students to affect the overall enrollment.

Section III

Staffing and Enrollment

Detailed Enrollment Data by School and College

University of Michigan-Ann Arbor

Fall Term Headcount Enrollment by Level

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate	26,208	27,027	27,407	27,979
Graduate	11,299	12,188	12,556	12,714
Professional	2,659	2,709	2,753	2,733
Total	40,166	41,924	42,716	43,426

Source: Registrar Report 102 (excludes Extension, Visiting Scholars and Postgraduate Medicine).

Fiscal Year Equated Students

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Undergraduate	25,790	26,062	26,923	27,264
Graduate	11,830	12,227	13,153	13,413
Professional	2,793	2,798	2,872	2,948
Total	40,413	41,087	42,948	43,625

Source: Enrollment and Degree Tables, Table 5 (excludes Officer Education Program).

FTE Faculty and Staff Counts (Includes Hospital)

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	4,267.85	4,396.74	4,459.26	4,592.24
Primary Faculty	851.46	893.48	916.76	925.87
GSI/Post Docs/Res. Fellows	3,597.38	3,813.44	3,903.69	3,968.72
Non-Academic Staff	24,598.83	24,948.94	25,502.25	26,071.75
Total	33,315.52	34,052.60	34,781.96	35,558.58

Source: Faculty and Staff Tables, Table 5.

Research Grants and Contracts

(\$000)

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
	910,116	997,475	1,082,543	1,055,163

Source: Financial Activities Tables, Table 2.2. Total is for Ann Arbor Campus.

Fall Term Student to Faculty Ratio

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
	15:1	15:1	16:1	16:1

Source: Common Data Set I2.

A. Alfred Taubman College of Architecture and Urban Planning

Fall Term Headcount Enrollment by Level

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate	219	214	211	179
Graduate	411	423	421	427
Professional	--	--	--	--
Total	630	637	632	606

Source: Registrar Report 102.

Fiscal Year Equated Students

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Undergraduate	276	260	255	259
Graduate	445	484	506	529
Professional	--	--	--	--
Total	721	744	760	787

Source: Enrollment and Degree Tables, Table 5.

FTE Faculty and Staff Counts

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	62.84	70.37	79.69	82.09
Primary Faculty	0.00	0.00	0.00	0.00
GSI/Post Docs/Res. Fellows	16.86	17.04	17.21	17.56
Non-Academic Staff	30.70	32.25	36.75	36.75
Total	110.40	119.66	133.65	136.40

Source: Faculty and Staff Tables, Table 5.

Research Grants and Contracts

(\$000)

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
	916	227	408	368

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
	20	18	16	16

Source: Enrollment and Degree Tables, Table 8.

Penny W. Stamps School of Art and Design

Fall Term Headcount Enrollment by Level

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate	511	515	553	572
Undergraduate Joint Program	--	--	--	10
Graduate	28	24	25	25
Professional	--	--	--	--
Total	539	539	578	607

Source: Registrar Report 102.

Note: Joint Programs are shown in both Schools/Colleges, but only once in the Summary.

Fiscal Year Equated Students

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Undergraduate	393	417	416	444
Graduate	24	26	23	24
Professional	--	--	--	--
Total	417	443	440	468

Source: Enrollment and Degree Tables, Table 5.

Note: Joint Programs are shown in both Schools/Colleges, but only once in the Summary.

FTE Faculty and Staff Counts

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	46.23	47.45	43.64	46.97
Primary Faculty	0.00	0.00	0.00	0.00
GSI/Post Docs/Res. Fellows	4.96	6.21	5.62	6.31
Non-Academic Staff	37.15	36.40	35.90	35.65
Total	88.34	90.06	85.16	88.93

Source: Faculty and Staff Tables, Table 5.

Research Grants and Contracts

(\$000)

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
	5	4	0	0

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
	13	12	12	13

Source: Enrollment and Degree Tables, Table 8.

Stephen M. Ross School of Business

Fall Term Headcount Enrollment by Level

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate	1,082	1,138	1,213	1,333
Graduate	1,855	1,914	1,933	1,917
Graduate Joint Program	--	--	--	17
Professional	--	--	--	--
Total	2,937	3,052	3,146	3,267

Source: Registrar Report 102.

Note: Joint Programs are shown in both Schools/Colleges, but only once in the Summary

Fiscal Year Equated Students

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Undergraduate	782	805	845	913
Graduate	2,087	2,112	2,181	2,197
Professional	--	--	--	--
Total	2,869	2,917	3,026	3,110

Source: Enrollment and Degree Tables, Table 5.

FTE Faculty and Staff Counts

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	150.05	152.75	152.59	148.31
Primary Faculty	8.25	8.00	8.00	8.00
GSI/Post Docs/Res. Fellows	26.26	31.91	30.49	27.74
Non-Academic Staff	267.40	268.65	251.35	252.16
Total	451.96	461.31	442.43	436.21

Source: Faculty and Staff Tables, Table 5.

Research Grants and Contracts

(\$000)

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
	2,272	1,831	1,304	782

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
	46	46	48	51

Source: Enrollment and Degree Tables, Table 8.

School of Dentistry

Fall Term Headcount Enrollment by Level

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate	112	109	109	96
Graduate	96	90	89	103
Professional	436	439	440	427
Total	644	638	638	626

Source: Registrar Report 102.

Fiscal Year Equated Students

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Undergraduate	75	79	78	77
Graduate	69	72	72	74
Professional	586	578	607	631
Total	730	728	756	781

Source: Enrollment and Degree Tables, Table 5.

FTE Faculty and Staff Counts

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	131.11	134.69	130.94	140.48
Primary Faculty	12.00	14.29	16.95	18.03
GSI/Post Docs/Res. Fellows	49.00	46.59	39.83	36.48
Non-Academic Staff	325.88	329.67	320.45	330.23
Total	517.99	525.24	508.17	525.22

Source: Faculty and Staff Tables, Table 5.

Research Grants and Contracts

(\$000)

<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
16,915	18,567	18,880	18,352

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
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Not Available

School of Education

Fall Term Headcount Enrollment by Level

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate	214	211	177	182
Graduate	343	388	322	385
Professional	--	--	--	--
Total	557	599	499	567

Source: Registrar Report 102.

Fiscal Year Equated Students

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Undergraduate	251	256	280	269
Graduate	373	396	476	403
Professional	--	--	--	--
Total	624	652	756	672

Source: Enrollment and Degree Tables, Table 5.

FTE Faculty and Staff Counts

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	64.17	65.07	69.43	62.99
Primary Faculty	7.16	10.22	8.57	7.07
GSI/Post Docs/Res. Fellow	69.29	60.60	61.41	62.88
Non-Academic Staff	96.27	93.42	98.46	108.83
Total	236.89	229.31	237.87	241.77

Source: Faculty and Staff Tables, Table 5.

Research Grants and Contracts

(\$000)

<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
13,973	14,081	12,658	12,579

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
13	16	17	16

Source: Enrollment and Degree Tables, Table 8.

College of Engineering

Fall Term Headcount Enrollment by Level

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate	5,459	5,570	5,603	5,757
Graduate	2,646	2,952	3,220	3,157
Graduate Joint Program	--	--	--	17
Professional	--	--	--	--
Total	8,105	8,522	8,823	8,931

Source: Registrar Report 102.

Note: Joint Programs are shown in both Schools/Colleges, but only once in the Summary

Fiscal Year Equated Students

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Undergraduate	3,173	3,339	3,557	3,686
Graduate	2,090	2,222	2,486	2,643
Professional	--	--	--	--
Total	5,263	5,561	6,044	6,329

Source: Enrollment and Degree Tables, Table 5.

FTE Faculty and Staff Counts

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	345.50	358.93	371.26	379.89
Primary Faculty	82.68	90.23	100.02	110.6
GSI/Post Docs/Res. Fellows	614.97	678.19	720.9	750.87
Non-Academic Staff	504.49	537.12	548.57	555.3
Total	1,547.64	1,664.47	1,740.75	1,796.66

Source: Faculty and Staff Tables, Table 5.

Research Grants and Contracts

(\$000)

<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
131,989	152,781	159,553	165,596

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
34	35	35	35

Source: Enrollment and Degree Tables, Table 8.

School of Information

Fall Term Headcount Enrollment by Level

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate	--	--	--	--
Graduate	416	429	425	432
Graduate Joint Program	--	--	--	21
Professional	--	--	--	--
Total	416	429	425	453

Source: Registrar Report 102.

Note: Joint Programs are shown in both Schools/Colleges, but only once in the Summary

Fiscal Year Equated Students

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Undergraduate	32	45	67	78
Graduate	377	379	397	393
Professional	--	--	--	--
Total	409	425	464	470

Source: Enrollment and Degree Tables, Table 5.

FTE Faculty and Staff Counts

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	29.61	30.27	28.33	29.93
Primary Faculty	4.88	1.79	1.27	1.77
GSI/Post Docs/Res. Fellows	26.30	27.20	27.10	29.74
Non-Academic Staff	45.15	41.31	42.22	41.58
Total	105.94	100.57	98.92	103.02

Source: Faculty and Staff Tables, Table 5.

Research Grants and Contracts

(\$000)

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
	3,957	4,070	4,594	4,235

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
	26	26	32	32

Source: Enrollment and Degree Tables, Table 8.

School of Kinesiology

Fall Term Headcount Enrollment by Level

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate	811	852	877	883
Graduate	55	61	66	69
Professional	--	--	--	--
Total	866	913	943	952

Source: Registrar Report 102.

Fiscal Year Equated Students

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Undergraduate	421	458	474	512
Graduate	40	41	56	55
Professional	--	--	--	--
Total	461	498	530	567

Source: Enrollment and Degree Tables, Table 5.

FTE Faculty and Staff Counts

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	32.44	31.58	33.87	39.02
Primary Faculty	1.00	2.25	3.34	2.25
GSI/Post Docs/Res. Fellows	18.94	12.60	12.69	12.46
Non-Academic Staff	65.76	63.07	66.41	68.03
Total	118.14	109.50	116.31	121.76

Source: Faculty and Staff Tables, Table 5.

Research Grants and Contracts

(\$000)

<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
6,413	6,478	6,848	7,900

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
20	19	20	21

Source: Enrollment and Degree Tables, Table 8.

Law School

Fall Term Headcount Enrollment by Level

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate	--	--	--	--
Graduate	--	--	--	--
Professional	1,165	1,182	1,195	1,165
Total	1,165	1,182	1,195	1,165

Source: Registrar Report 102.

Fiscal Year Equated Students

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Undergraduate	0	0	0	0
Graduate	7	5	3	6
Professional	1,185	1,161	1,182	1,195
Total	1,192	1,166	1,185	1,200

Source: Enrollment and Degree Tables, Table 5.

FTE Faculty and Staff Counts

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	77.96	81.27	82.00	84.87
Primary Faculty	10.60	10.60	8.35	9.35
GSI/Post Docs/Res. Fellows	0.52	0.87	2.50	3.50
Non-Academic Staff	165.13	177.11	172.23	176.61
Total	254.21	269.85	265.08	274.33

Source: Faculty and Staff Tables, Table 5.

Research Grants and Contracts

(\$000)

<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
493	1,508	1,584	1,472

Source: Financial Activities Tables, Table 2.2.

Weighted Average Class Size

<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
32	30	28	29

Source: Enrollment and Degree Tables, Table 8.

College of Literature, Science, and the Arts

Fall Term Headcount Enrollment by Level

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate	16,223	16,873	17,082	17,399
Graduate	2,021	2,331	2,323	2,356
Professional	--	--	--	--
Total	18,244	19,204	19,405	19,755

Source: Registrar Report 102.

Fiscal Year Equated Students

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Undergraduate	18,732	18,629	19,105	19,148
Graduate	2,845	2,902	3,162	3,110
Professional	--	--	--	--
Total	21,577	21,531	22,267	22,258

Source: Enrollment and Degree Tables, Table 5.

FTE Faculty and Staff Counts

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	1,198.34	1,221.06	1,210.46	1,222.54
Primary Faculty	84.21	71.04	62.52	57.03
GSI/Post Docs/Res. Fellows	880.60	926.25	917.28	921.13
Non-Academic Staff	894.26	955.54	926.22	866.99
Total	3,057.41	3,173.89	3,116.48	3,067.69

Source: Faculty and Staff Tables, Table 5.

Research Grants and Contracts

(\$000)

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
	71,177	74,531	82,160	80,028

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
	28	27	29	29

Source: Enrollment and Degree Tables, Table 8.

Medical School

Fall Term Headcount Enrollment by Level

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate	--	--	--	--
Graduate	393	365	394	412
Professional	797	802	825	817
Total	1,190	1,167	1,219	1,229

Source: Registrar Report 102.

Fiscal Year Equated Students

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Undergraduate	243	296	324	319
Graduate	607	595	629	664
Professional	727	756	757	769
Total	1,577	1,647	1,710	1,752

Source: Enrollment and Degree Tables, Table 5.

FTE Faculty and Staff Counts

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	1,600.17	1,657.53	1,713.22	1,781.91
Primary Faculty	304.90	325.30	319.38	338.30
GSI/Post Docs/Res. Fellows	556.57	626.24	647.25	666.23
Non-Academic Staff	3,237.75	3,312.59	3,178.75	3,335.13
Total	5,699.39	5,921.66	5,858.60	6,121.57

Source: Faculty and Staff Tables, Table 5.

Research Grants and Contracts

(\$000)

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
	382,762	430,101	462,284	439,204

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
--	----------------	----------------	----------------	----------------

Not Available

School of Music, Theatre and Dance

Fall Term Headcount Enrollment by Level

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate	781	763	787	782
Undergraduate Joint Program	--	--	--	10
Graduate	260	286	305	309
Professional	--	--	--	--
Total	1,041	1,049	1,092	1,101

Source: Registrar Report 102.

Note: Joint Programs are shown in both Schools/Colleges, but only once in the Summary.

Fiscal Year Equated Students

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Undergraduate	811	813	807	844
Graduate	319	329	350	368
Professional	--	--	--	--
Total	1,130	1,142	1,156	1,212

Source: Enrollment and Degree Tables, Table 5.

Note: Joint Programs are shown in both Schools/Colleges, but only once in the Summary.

FTE Faculty and Staff Counts

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	138.66	143.31	144.71	147.76
Primary Faculty	0.45	0.45	0.45	-
GSI/Post Docs/Res. Fellows	22.40	22.26	24.63	24.76
Non-Academic Staff	84.73	86.26	86.12	86.14
Total	246.24	252.28	255.91	258.66

Source: Faculty and Staff Tables, Table 5.

Research Grants and Contracts

(\$000)

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
	76	73	53	59

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
	16	16	16	17

Source: Enrollment and Degree Tables, Table 8.

School of Natural Resources and Environment

Fall Term Headcount Enrollment by Level

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate	--	--	1	1
Graduate	293	356	346	366
Professional	--	--	--	--
Total	293	356	347	367

Source: Registrar Report 102.

Fiscal Year Equated Students

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Undergraduate	2	3	2	1
Graduate	249	281	312	296
Professional	--	--	--	--
Total	251	284	314	297

Source: Enrollment and Degree Tables, Table 5.

FTE Faculty and Staff Counts

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	26.89	28.40	29.68	32.07
Primary Faculty	12.32	9.10	10.35	9.30
GSI/Post Docs/Res. Fellows	29.40	30.07	33.59	35.95
Non-Academic Staff	65.65	63.78	73.01	78.70
Total	134.26	131.35	146.63	156.02

Source: Faculty and Staff Tables, Table 5.

Research Grants and Contracts

(\$000)

<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
11,041	10,470	13,180	15,571

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
17	18	19	17

Source: Enrollment and Degree Tables, Table 8.

School of Nursing

Fall Term Headcount Enrollment by Level

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate	637	624	640	641
Graduate	287	298	335	336
Professional	--	--	5	12
Total	924	922	980	989

Source: Registrar Report 102.

Fiscal Year Equated Students

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Undergraduate	521	551	573	573
Graduate	156	182	216	228
Professional	--	--	--	7
Total	677	734	789	808

Source: Enrollment and Degree Tables, Table 5.

FTE Faculty and Staff Counts

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	83.38	81.52	81.15	77.54
Primary Faculty	2.85	1.40	0.58	0.94
GSI/Post Docs/Res. Fellows	13.80	12.30	9.85	8.63
Non-Academic Staff	68.19	73.12	75.84	74.47
Total	168.22	168.34	167.42	161.58

Source: Faculty and Staff Tables, Table 5.

Research Grants and Contracts

(\$000)

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
	5,748	5,413	5,869	6,354

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
	12	12	12	11

Source: Enrollment and Degree Tables, Table 8.

College of Pharmacy

Fall Term Headcount Enrollment by Level

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate	44	41	40	23
Graduate	93	86	95	94
Professional	261	286	288	312
Total	398	413	423	429

Source: Registrar Report 102.

Note: Almost all of the undergraduate students are in the Pharm.D. program and are show undergraduates because they did not have an undergraduate degree on entry to the program.

Fiscal Year Equated Students

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Undergraduate	4	4	2	1
Graduate	86	92	83	98
Professional	295	304	326	348
Total	385	400	412	446

Source: Enrollment and Degree Tables, Table 5.

Note: All students in the Pharm.D. program are included in the College of Pharmacy grad

FTE Faculty and Staff Counts

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	37.23	38.74	35.39	35.30
Primary Faculty	21.99	22.22	20.54	20.01
GSI/Post Docs/Res. Fellows	24.94	24.39	33.89	31.31
Non-Academic Staff	39.71	44.00	45.69	49.93
Total	123.87	129.35	135.51	136.55

Source: Faculty and Staff Tables, Table 5.

Research Grants and Contracts

(\$000)

<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
6,169	8,199	7,902	7,612

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
50	37	41	35

Source: Enrollment and Degree Tables, Table 8.

School of Public Health

Fall Term Headcount Enrollment by Level

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate	--	--	--	--
Graduate	904	944	975	991
Graduate Joint Program	--	--	--	21
Professional	--	--	--	--
Total	904	944	975	1,012

Source: Registrar Report 102.

Note: Joint Programs are shown in both Schools/Colleges, but only once in the Summary.

Fiscal Year Equated Students

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Undergraduate	8	28	50	50
Graduate	1,018	1,030	1,077	1,137
Professional	--	--	--	--
Total	1,026	1,058	1,128	1,187

Source: Enrollment and Degree Tables, Table 5.

FTE Faculty and Staff Counts

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	103.01	101.45	103.70	112.31
Primary Faculty	24.93	30.21	31.33	30.81
GSI/Post Docs/Res. Fellows	92.84	95.14	111.23	111.77
Non-Academic Staff	271.95	288.21	293.21	306.59
Total	492.73	515.01	539.47	561.48

Source: Faculty and Staff Tables, Table 5.

Research Grants and Contracts

(\$000)

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
	69,825	64,609	90,036	82,195

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
	31	31	33	30

Source: Enrollment and Degree Tables, Table 8.

Gerald R. Ford School of Public Policy

Fall Term Headcount Enrollment by Level

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate	115	117	114	121
Graduate	178	169	189	191
Professional	--	--	--	--
Total	293	286	303	312

Source: Registrar Report 102.

Fiscal Year Equated Students

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Undergraduate	62	73	75	75
Graduate	211	240	236	250
Professional	--	--	--	--
Total	273	313	311	325

Source: Enrollment and Degree Tables, Table 5.

FTE Faculty and Staff Counts

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	24.64	28.08	25.53	27.68
Primary Faculty	1.42	1.80	0.89	1.05
GSI/Post Docs/Res. Fellows	11.96	14.09	17.03	16.44
Non-Academic Staff	36.00	38.04	38.02	36.88
Total	74.02	82.01	81.47	82.05

Source: Faculty and Staff Tables, Table 5.

Research Grants and Contracts

(\$000)

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
	2,293	3,062	3,386	3,335

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
	34	36	35	35

Source: Enrollment and Degree Tables, Table 8.

Horace H. Rackham School of Graduate Studies

Fall Term Headcount Enrollment by Level

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate	--	--	--	--
Graduate	485	515	497	484
Professional	--	--	--	--
Total	485	515	497	484

Source: Registrar Report 102.

Fiscal Year Equated Students

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Undergraduate	0	1	0	0
Graduate	76	90	71	70
Professional	--	--	--	--
Total	76	90	71	70

Source: Enrollment and Degree Tables, Table 5.

FTE Faculty and Staff Counts

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	0.36	0.25	0.33	0.60
Primary Faculty	0.89	0.89	0.63	0.70
GSI/Post Docs/Res. Fellows	19.42	17.65	19.51	14.96
Non-Academic Staff	136.31	137.55	147.12	109.87
Total	156.99	156.34	167.59	126.13

Source: HRIS Annual FTE Reports.

Research Grants and Contracts

(\$000)

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
	3,575	5,237	6,561	2,712

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
	13	19	17	13

Source: Enrollment and Degree Tables, Table 8.

School of Social Work

Fall Term Headcount Enrollment by Level

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate	--	--	--	--
Graduate	535	557	596	622
Professional	--	--	--	--
Total	535	557	596	622

Source: Registrar Report 102.

Fiscal Year Equated Students

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Undergraduate	3	5	13	16
Graduate	751	750	817	869
Professional	--	--	--	--
Total	754	755	830	884

Source: Enrollment and Degree Tables, Table 5.

FTE Faculty and Staff Counts

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	57.74	56.92	57.70	59.72
Primary Faculty	3.10	3.01	3.95	2.16
GSI/Post Docs/Res. Fellows	7.15	10.58	11.80	12.74
Non-Academic Staff	54.07	56.98	63.87	61.81
Total	122.06	127.49	137.32	136.43

Source: Faculty and Staff Tables, Table 5.

Research Grants and Contracts

(\$000)

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
	3,802	4,239	3,708	3,811

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
	21	20	21	21

Source: Enrollment and Degree Tables, Table 8.

Section IV

Facility Assessment

FACILITY ASSESSMENT

University of Michigan Space Management

In recent years, the University of Michigan implemented numerous campus-wide policies, processes, and reporting tools to support a new culture of agile space management, more efficient utilization, and coordinated planning. The policies and tools address all types of space, including instructional, research, office, and food operations, and have shifted the campus culture to one where space is considered more of an institutional resource that is to be shared and managed effectively for the good of the institution.

The most notable change has been the university's efforts to better manage and schedule classes and classrooms. Tools to measure classroom time utilization, seat utilization, class time offerings and distribution have led to more efficient use of classrooms throughout the day and week have helped to better manage demand during peak hours.

The campus better utilizes existing General Fund space overall and emphasizes renovating and repurposing space to meet campus needs first, before considering building expansion.

Examples of creative re-use include:

- Repurposing a vacant university-owned warehouse into a multi-use facility that houses various research labs and collections for the College of Literature, Science, and the Arts.
- Exploring the renovation of an aging and outdated 1960s classroom building to eventually house international programs and student services currently housed in numerous buildings around campus.
- Renovating a number of lesser-used classrooms into a testing center for students with special test-taking needs.

Through these more disciplined practices and this culture change, the university has slowed the growth of new General Fund space to an average compound annual growth rate of 0.35 percent per year in recent years, down from an average compound annual growth rate of 2.02 percent from the previous decade. These accomplishments would not have been possible without the campus-wide policies described above.

Physical Properties

The university owns approximately 3,220 acres of property within the Ann Arbor area and approximately 17,870 acres in out-state areas (most within the State of Michigan). An inventory of the university's physical properties, as well as a detailed listing of each owned facility within and proximate to the Ann Arbor campus, is located at the end of this section. The specific building information is a report generated by utilizing the following attribute data contained in the Space Management System: Building Number, Building Name, Building Type, Gross Square Feet, Acquired Date and/or Construction Date, Original Cost (the initial acquisition or

construction cost of a building), Replacement Cost, and the deferred maintenance backlog for the building.

Facility Condition Assessment (FCA) Program

The University of Michigan's Facility Condition Assessment Program fully evaluates buildings on campus in an effort to identify infrastructure deficiencies and establish a priority for funding renovations and repairs. The objective of the program is to develop and maintain a 5-year model for buildings showing facility related needs (projects) and track the status of each project through completion. The model only considers the highest priority needs and spreads such needs over a 5-year period. Needs addressed in the database include building components and systems: architectural, structural, civil, mechanical, electrical, life safety and fire protection, environmental health, and building accessibility. The database provides a good baseline of the overall condition of General Fund buildings as well as the facilities for Housing, Athletics, Student Affairs, and the Hospitals and Health Centers. Overall, the FCA program provides a platform to implement an ongoing system of identification and prioritization of capital repair projects at the U-M. A more detailed description of the Facility Condition Assessment Program is located later in this section.

Campus Parking Structure Assessment

To complement the information in the FCA Program, the U-M every five years engages a parking restoration consultant to assess the condition of the existing parking structures within the system to develop a system-wide maintenance program that serves as a guide for future repairs and cost estimates (adjusted for inflation). While continually planning for parking on campus, the university also developed strategies for alternative transportation modes. Some examples include expanded bicycle access, ride share programs, and potential for high-capacity transit systems partnered with the City of Ann Arbor.

The existing parking system provides more than 27,900 parking spaces to academic, health system, and operating staff as well as students, visitors, and other university community members. The university has 15 parking structures, plus joint ownership with the city of a 16th structure, providing approximately 13,000 parking spaces.

In February 2012 the university and City of Ann Arbor mutually agreed to suspend work on the Fuller Road Station, an intermodal facility. The city is working to obtain federal funding to pursue building a train station at the same site and calling it the Ann Arbor Station. This decision prompted the university to move forward with the Wall Street East Parking Structure project that had been put on hold when the Fuller Road Station project began. The Wall Street East Parking Structure, which provides 720 parking spaces on the northwest side of the Medical Center Campus, opened July 2014. Opportunities for additional parking development near the Medical Center Campus are also being studied.

The parking structures on campus vary in both type of construction, level of previous repairs and current condition. In the past few decades the university has conducted major renovation projects in most of the older facilities. Upgrades to the Glen Avenue structure, begun in 2014, include elevator and lighting replacement as well as interior painting. Improvements to other structures include deck coating at the Thompson Street structure; fire suppression sprinkler pipe repairs at the Fletcher Street structure; and concrete repairs at the Thayer Street structure. Based on the parking facility condition report of 2005 and a follow-up study in 2010, planning has begun on projects to install deck coating and concrete sealing at levels of the Fletcher Street structure; repairs to the stair tower windows and installation of a canopy at the Simpson Street structure; guardrail replacement at the Church Street structure; and relighting of the Medical Center Drive structure. The parking facility condition report update is currently in the bid process and the update is scheduled to be completed in FY2015.

Improving the sustainability features of the university's parking facilities continues to be a key goal. New programmable fluorescent lighting systems, installed in recent years in the Hill Street, Thayer Street and Thompson Street structures, that reduced energy consumption by an average of 52 percent, are currently planned for the Glen Avenue structure.

The university explored the potential benefit of a public-private partnership (P3) for the university and its employees through a lease of the parking assets to a private parking operator. The P3 analysis established that the financial return from a lease would not justify the inherent risks and loss of flexibility that would come with a 30- to 50-year lease of the university's parking space inventory. The P3 analysis noted the university is managing parking assets efficiently and did reveal the opportunity to implement process and technology initiatives to improve service as well as the opportunity to generate additional cash flow. Subsequently, the university's Parking and Transportation Services (PTS) initiated a study to analyze technology improvements for implementation. PTS also received approval from the Regents of the university in May 2014 to proceed with building a Transportation Facility funded solely from permit revenue cash flow.

University Sustainability Initiatives

Just as the University of Michigan is committed to breadth and depth of research, teaching, and health care, the U-M is also committed to institutionalize campus sustainability. A significant amount of resources are required to support the university's physical plant, justifying the development of a comprehensive strategy to minimize the U-M's environmental impact.

As important as it is for U-M physical operations to reduce its own impact on the environment, the most fundamental contribution that the university will make to world sustainability will come from the research of faculty and education of students that creates a future path for environmental progress. What links both together is the opportunity for the campus to serve as both a model for advanced sustainability practices, and a laboratory for students and faculty to test new ideas and approaches. The living-learning laboratory theme leads the U-M to focus on

strategies that decrease the university's environmental footprint in measurable ways while creating hands-on experiences for students.

For more than 100 years, U-M faculty, staff and students have worked to preserve the natural environment by implementing innovative programs, many of which have received significant national recognition. In October 2009, President Emeritus Mary Sue Coleman continued the commitment toward sustainability by creating the Office of Campus Sustainability and endorsing an effort to set university-wide goals that were developed using an Integrated Assessment (IA) framework. The IA process involved teams of faculty, staff, and students focused on an intense two-year effort that produced a set of guiding principles and campus-wide goals which were presented and endorsed by an Executive Council chaired by President Coleman.

To further U-M excellence in the field of environmental sustainability, the President and Executive Officers have implemented an organizational framework to accomplish the following:

- Inspire students, faculty, and staff to become involved in helping to solve the environmental sustainability issues facing the campus and the world we live in.
- Coordinate, facilitate and advance sustainability efforts in campus operations.
- Coordinate, facilitate and advance sustainability efforts in university academics.
- Connect academic and operations activities to foster collaborative sustainability learning.

At the heart of this organizational structure is collaboration between the Office of Campus Sustainability and the Graham Sustainability Institute. Together these units work to advance sustainability at the university by connecting operational efforts to research and learning opportunities whenever possible and practical.

Utilities Assessment

Utilities master planning assessments are routinely updated to ensure the necessary production and distribution systems for steam, natural gas, water, sanitary and storm sewers, electricity, and chilled water are in place to support the facilities needed to accomplish the university's academic and research missions. Projects are identified and implemented annually from these assessments.

A study to expand the existing Central Power Plant by adding additional combined cycle power generation has completed the first phase, looking at the feasibility and risk assessment of the concept. The second phase of the study will further evaluate environmental aspects and cost components of the proposed project. This project, if determined to be economically and environmentally viable, has the potential for large energy cost savings and substantial reduction in the university's carbon footprint.

The system of steam tunnels are in the midst of being reinforced in select areas to accommodate the weight of fire trucks where needed to access buildings. Future activities include projects on Ingalls Mall in 2015, near the Ruthven Museums Building (2016), in the area of the Medical School (2017), and on South University Avenue near West Hall (2018).

Water, sewer, and storm water master planning efforts have routinely been conducted over the years. Projects that come out of these planning activities are prioritized into a capital plan. Over the next five years the following projects are anticipated to take place: water main on Ingalls Mall, loop service near Stone Road, a water main near Northwood II Apartments, and a water main replacement project on Bonisteel Boulevard. The university is also working with the city to model the storm and sanitary systems on Central Campus with the goal of developing a long-term plan for addressing a number of legacy issues that have existed for some time.

FACILITY CONDITION ASSESSMENT PROGRAM

Overview

The University of Michigan's Facility Condition Assessment (FCA) Program includes a comprehensive database on the physical condition of the building portfolio. The database addresses the condition of most major building components and systems, including architectural, structural, civil, mechanical, electrical, life safety and fire protection, environmental health, and building accessibility. Deficiencies and anticipated needs are listed in the database as independent projects and assigned a priority, budget, and classification. Costs related to the presence of environmental hazards (asbestos and lead-based paint) are not included. While the university has attempted to make the FCA Program as comprehensive as possible, it is a policy-neutral, technical assessment of existing conditions. It does not include costs related to programs and/or the reconfiguration of building spaces.

The FCA building condition and cost data are intended to serve the community by: (1) identifying near-term needs to maintain standards and assure the service integrity of aging systems and building components; and (2) providing an information base to support the institution's process for shaping the future of its campus. The FCA Program, therefore, is not a comprehensive capital plan for building renewal.

Recommended scope of work is aimed at restoring the existing buildings as they presently exist, with some upgrades to meet codes, such as accessibility, and social norms, such as air-conditioning.

Program Benefits

The FCA Program provides the platform that is used to implement an ongoing system of identification and prioritization of capital repair projects within the U-M. The FCA Program has a wide range of benefits to several different departments within the university. The program provides:

- A central location for storing of facility condition data.
- A means of organizing and sorting facility condition data such that reports can be viewed and printed using a wide variety of criteria. Users can sort and print the data that suits their particular need.
- A useful tool for organizing and prioritizing all deficiency corrective measures using standardized criteria.
- A facility condition needs index (FCNI) value, which is simply the cost required to correct all deficiencies in a building divided by the total replacement cost of that building. This indicator is useful in determining which buildings should be considered for major renovations or upgrades.

- A useful tool in the development of a five-year capital renewal model that shows the needs versus available funding and the resultant FCNI.

FCA Priority Classification System

The following system was developed to help clarify priorities and assist with consistency in planning and decision-making:

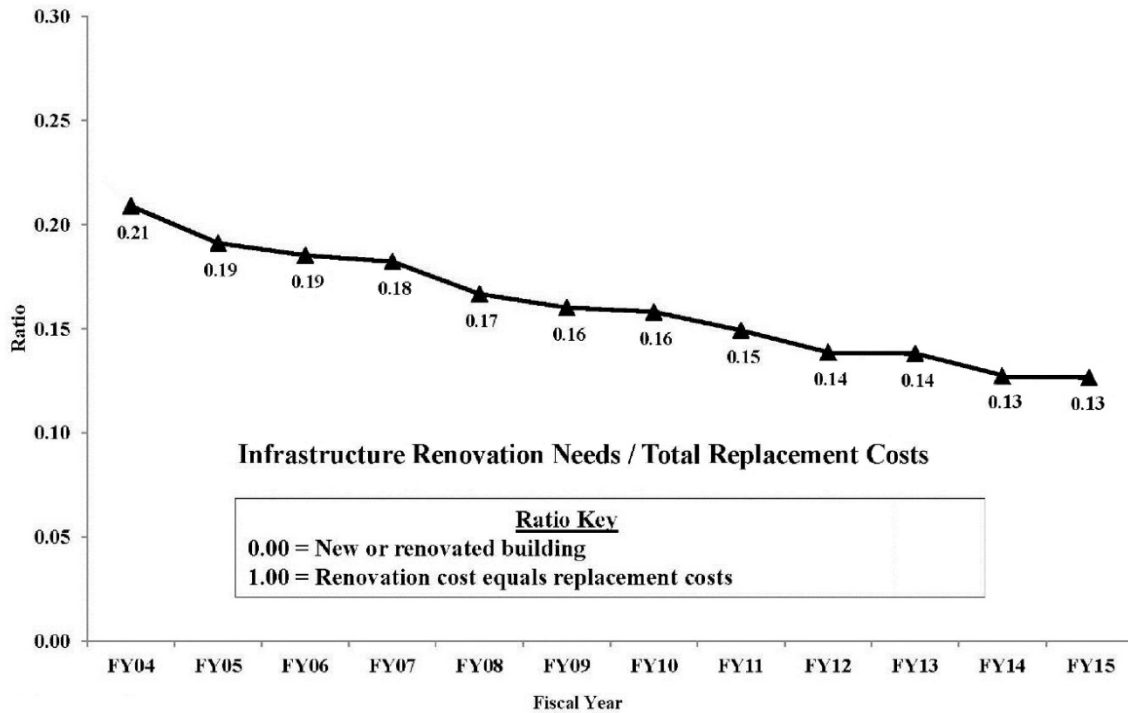
Priority		Definitions
Necessary	Priority #1 Critical	Needed work that requires near-term action to accomplish one or more of the following: (1) restore building occupancy due to natural disaster or catastrophic failure (2) address cited or known life-threatening safety hazard
	Priority #2 High Priority	Needed work that requires near-term action to accomplish one or more of the following: (1) avoid situation from becoming a priority #1 (2) prevent accelerated deterioration of building component or system (3) replace component that has worn out or is no longer in service (4) avoid loss of critical system that would significantly affect services, impact occupancy, or create a safety hazard (5) address existing non-life-threatening safety hazard (6) maintain, restore, or upgrade conditions to minimum acceptable university standards (7) reduce unacceptably high maintenance, energy and/or other operating costs (economically justified via payback) (8) meet program requirements
Deferrable	Priority #3 Necessary	Needed work that is expected to become a priority #1 or #2 within the next 10 years.
	Priority #4 Deferrable until Building Renewal	Needed work that can probably wait more than 10 years. This work will be completed during a building renewal.

Overall FCA Program Impact

The FCNI for campus buildings has been recorded for each fiscal year. The chart below shows FCNI history. This chart shows continued improvement of the General Fund FCNI through the years as infrastructure needs are addressed. Since FY2004, the FCNI has improved by 38%.

Improving Facilities Condition Ratio

(Ann Arbor General Fund Buildings)



Section IV

Facility Assessment

Physical Properties Inventory (Acreage)

UNIVERSITY OF MICHIGAN - PHYSICAL PROPERTIES
Year Ended June 30, 2014

2013-2014

	Acreage	Balance June 30, 2013	Additions	Disposals	Balance June 30, 2014
LAND:					
Ann Arbor Area:					
General:					
Original Campus.....	40.30	\$ 160,000.00			\$ 160,000.00
North Campus.....	676.75	1,388,550.51			1,388,550.51
Ann Street 1121 & 1127	0.40	2,524,448.75			2,524,448.75
Arboretum.....	94.50	11,044.13			11,044.13
Botanical Gardens.....	341.76	487,836.70			487,836.70
Burton Memorial Tower.....	0.20	9,706.22			9,706.22
BSRB Building.....	0.49	62,305.47			62,305.47
Broadway 990.....	0.15	91,600.00			91,600.00
Cornwell Place, 1009 & 1013.....	0.77	492,829.00			492,829.00
Ross School of Business.....	2.13	237,210.11			237,210.11
Dennison, David M.....	1.09	61,865.00			61,865.00
Dental Building and W.K. Kellogg Institute.....	3.40	54,147.86			54,147.86
East Hall.....	1.91	141,301.00			141,301.00
Education, School of.....	3.86	307,083.01			307,083.01
Felch Park.....	2.30	35,000.00			35,000.00
Fleming Administration Building.....	0.30	104,571.99			104,571.99
North Quadrangle.....	2.11	244,000.00			244,000.00
Glen Street 206.....	0.06	425,255.22			425,255.22
Glen Street 202.....	0.07	474,639.36			474,639.36
Glen Street 210.....	0.07	112,600.00			112,600.00
Hill Auditorium.....	1.30	30,250.00			30,250.00
1007 E. Huron St. & 1027 E. Huron St.....	0.81	15,691.78			15,691.78
Inglis Property, Highland Road.....	9.17	26,666.98			26,666.98
Kresge site.....	2.38	115,858.51			115,858.51
Lane Hall.....	0.48	50,000.00			50,000.00
Law Quadrangle.....	7.20	881,607.47			881,607.47
Literature, Science and the Arts Building.....	2.24	264,919.41			264,919.41
Little, Clarence Cook, Science Building.....	3.13	292,237.75			292,237.75
Maiden Lane 1024.....	0.15	70,200.00			70,200.00
Main St./Keech Property.....	3.15	2,518,864.44			2,518,864.44
Molecular & Behavioral Inst.....	0.53	46,920.05			46,920.05
Mitchell Field.....	62.50	36,000.00			36,000.00
Modern Languages Building.....	1.60	415,479.92			415,479.92
Museums Building.....	3.06	223,829.84			223,829.84
NCRC Property Parcel A.....	60.27	1,587,916.00			1,587,916.00
NCRC Property Parcel B.....	30.00	780,015.00			780,015.00
NCRC Property Parcel C.....	54.23	1,468,987.00			1,468,987.00
NCRC Property Parcel D.....	29.02	818,291.00			818,291.00
Newberry Hall.....	0.20	26,400.00			26,400.00
News Service Building.....	0.30	35,111.24			35,111.24
North Hall.....	4.50	17,500.00			17,500.00
North Ingalls Street Property.....	5.13	869,634.05			869,634.05
Palmer Drive Buildings.....	1.62	39,927.30			39,927.30
Oakland Property 726.....	0.20	155,000.00			155,000.00
Oakland Property 712.....	0.20	96,200.00			96,200.00
Oakland Property 716.....	0.14	138,000.00			138,000.00
Observatory, Campus.....	1.99	6,430.00			6,430.00
Perry Building.....	1.25	150,430.00			150,430.00
Pound, Madelon, House.....	0.40	10,000.00			10,000.00
Power Center for the Performing Arts.....	0.79	102,281.63			102,281.63
Public Health Building, School of.....	2.64	188,834.90			188,834.90
Rackham, Horace H., School of Graduate Studies.....	3.60	485,136.65			485,136.65
Recreational Sports.....	22.87	430,468.71			430,468.71
Scattered Lots.....	180.42	7,106,953.31			7,106,953.31
Side Track Right-of-Way.....	8.72	25,983.41			25,983.41
Simpson, Thomas Henry, Memorial Institute.....	2.18	1,330.38			1,330.38
Social Research, Institute for.....	1.20	580,562.06			580,562.06
South Division St 405.....	0.12	255,556.42	-		255,556.42
South Division St 417.....	0.09	240,200.00			240,200.00
South Division St 439.....	0.10	84,556.42	-		84,556.42
South Division 507.....	0.07	409,625.93			409,625.93
South Division 513.....	0.10	480,706.73			480,706.73
South Division 549-551.....	0.18		1,077,235.50		1,077,235.50
South Division 545.....	0.09		426,900.75		426,900.75
South Division 541 & 543.....	0.18		1,492,756.00		1,492,756.00
South Division 535&537 & 401&409Madison.....	0.35		3,173,856.00		3,173,856.00
South State St 2500 & 2550.....	17.00		12,814,168.00		12,814,168.00
Student Activities Building.....	1.21	296,711.52			296,711.52
Vaughan, Victor, House.....	1.03	3,440.12			3,440.12
Wall Street 953	0.20	43,400.00			43,400.00
Wall Street 963	0.12	66,363.05	-		66,363.05
Wall Street 1041	0.26	254,916.44			254,916.44
Wall Street 1025.....	0.07	55,000.00			55,000.00
Wall Street 1059.....	0.19	162,600.00			162,600.00
Wolverine Tower Property.....	13.34	2,893,537.17			2,893,537.17
Total Ann Arbor Area-General	1,716.90	32,782,526.92	18,984,916.25	-	51,767,443.17

UNIVERSITY OF MICHIGAN - PHYSICAL PROPERTIES
Year Ended June 30, 2014

2013-2014

	Acreage	Balance June 30, 2013	Additions	Disposals	Balance June 30, 2014
Auxiliary Activities:					
Student Residences:					
Barbour, Betsy, House.....	1.09	16,398.50			16,398.50
Cook, Martha.....	2.00	60,478.89			60,478.89
Couzens Hall.....	2.40	2,350.00			2,350.00
East Quadrangle.....	3.34	376,216.84			376,216.84
Fletcher Hall.....	0.21	1,500.00			1,500.00
Henderson, Mary Barton, House.....	0.41	6,244.53			6,244.53
Lloyd, Alice C., Hall.....	1.97	5,137.39			5,137.39
Markley, Mary Butler, Hall.....	2.94	2,276.23			2,276.23
Mosher-Jordan Hall.....	1.60	87,053.62			87,053.62
Newberry, Helen, Residence.....	0.25	25,383.56			25,383.56
Oxford Housing.....	4.21	148,664.84			148,664.84
South Quadrangle.....	2.93	311,029.06			311,029.06
Stockwell Hall.....	2.19	80,916.53			80,916.53
West Quadrangle.....	3.87	354,317.40			354,317.40
Subtotal Student Residences	29.41	1,477,967.39	-	-	1,477,967.39
Information Systems and Services.....	0.33	35,000.00			35,000.00
Varsity Drive Building.....	26.59	60,000.00			60,000.00
Health Services.....	0.36	63,277.69			63,277.69
Intercollegiate Athletics.....	226.25	480,385.37			480,385.37
ITD - Arbor Lakes.....	23.47	3,578,235.00			3,578,235.00
Michigan League.....	3.43	332,105.23			332,105.23
Michigan Union.....	2.75	86,251.19			86,251.19
Kinesiology.....	0.26	59,599.50			59,599.50
Parking Facilities.....	26.17	4,239,709.91			4,239,709.91
Plant.....	21.85	224,651.02			224,651.02
Printing and Warehouse.....	26.89	273,545.92			273,545.92
Radrick Farms.....	652.32	1,337,952.18			1,337,952.18
Rental Properties.....	7.17	624,448.60			624,448.60
Student Publications.....	0.50	61,181.81			61,181.81
University Hospitals Group.....	446.40	29,942,729.97			29,942,729.97
Zina Pitcher Place 115.....	0.28	755,776.42			755,776.42
Zina Pitcher Place 103.....	0.04	905,962.54			905,962.54
Total Ann Arbor Area-Auxiliary	1,494.48	44,538,779.74	-	-	44,538,779.74
Total Ann Arbor Area	3,211.39	77,321,306.66	18,984,916.25	-	96,306,222.91
Out-State Area:					
General:					
Base Lake Farms.....	206.07	30,013.13			30,013.13
Biological Station.....	10,198.92	762,782.29			762,782.29
Camp Davis - Wyoming.....	120.00	53,125.00			53,125.00
Camp Knight Douglas Lake Property	45.00	1,806,478.00			1,806,478.00
Dearborn, UM.....	227.72	10,655,616.97			10,655,616.97
Flint, UM.....	47.84	1,006,057.04			1,006,057.04
Fresh Air Camp.....	170.29	12,000.00			12,000.00
George, E. S., Reserve.....	1,356.78	98,782.77			98,782.77
Harper, William A. P., Reserve.....	330.00	3,208.22			3,208.22
Missaukee County.....	440.00	5,500.00			5,500.00
Mud Lake.....	257.91	18,531.16			18,531.16
Observatory and Radio Station - Portage Lake.....	147.40	8,319.74			8,319.74
Osborn Preserve.....	3,187.63	360,568.93			360,568.93
Pell's Island, Douglas Lake.....	3.50	1.00			1.00
Rackham Educational Memorial - Detroit.....	2.68	410,911.18			410,911.18
Ringwood Forest Reserve.....	160.00	2,600.00			2,600.00
St. Pierre Wetlands Preserve.....	129.44	1.00			1.00
Stinchfield Woods.....	664.39	28,782.10			28,782.10
Yankee Springs Twnshp	20.96	290,238.46			290,238.46
Total Out-State Area-General	17,716.53	15,553,516.99	-	-	15,553,516.99
Auxiliary Activities:					
Willow Run Properties.....	156.23	151,301.06			151,301.06
Total Out-State Area.....	17,872.75	15,704,818.05	-	-	15,704,818.05
Total Land.....	21,084.14	\$ 93,026,124.71	\$ 18,984,916.25	\$ -	\$ 112,011,040.96

Section IV

Facility Assessment

**List of University of Michigan – Ann Arbor Buildings
with Type, Year Built/Acquired, Square Footage,
Original Cost, Replacement Cost, and
Deferred Maintenance Backlog**

The university maintains a database of all buildings including deferred maintenance needs and costs, an approximation of building replacement cost, building size and use. This information allows comparisons of buildings and trends over time with respect to overall condition. Information is continually updated and sometimes with detailed needs and specific cost estimates to implement projects. This summary information is not intended to accurately reflect all costs listed.

Bdg #	Building	Square Feet		Year		Costs		
		Gross	Net Assign	Acq	Const	Original	Replacement	Deferred Maintenance Backlog
1005200	1009 CORNWELL PLACE	3,340	2,171	12/2/2005	1/1/1886	\$ 1,058,749	\$ 1,090,511	
1008060	101 SIMPSON ROAD	2,791	1,988	1/1/1988	1/1/1988	\$ 118,856	\$ 203,219	
1008039	1011 CORNWELL PLACE	2,879	1,871	1/1/1986	1/1/1951	tbd	tbd	
1005201	1013 CORNWELL PLACE	1,392	905	12/2/2005	1/1/1900	\$ 441,251	\$ 454,489	
1000327	1018 FULLER BUILDING	8,349	4,738	1/1/1974	1/1/1965	\$ 182,094	\$ 1,271,634	
1000205	1027 EAST HURON BUILDING	6,066	3,929	1/1/1937	1/1/1937	\$ 20,853	\$ 593,464	\$1,280,619
1000816	1032 GREENE BUILDING	5,877	4,889	1/1/1975	1/1/1975	\$ 92,867	\$ 314,699	\$1,301,752
1000829	1322 WILMOT	1,819	1,182	1/1/1966	1/1/1919	tbd	tbd	
1000891	1736 BROADWAY GARAGE	480	312	1/1/1965	1/1/1965	\$ 2,940	\$ 20,837	
1000885	1736 BROADWAY HOUSE	2,970	1,930	1/1/1965	1/1/1965	\$ 15,211	\$ 107,788	
1005179	202 SOUTH THAYER BUILDING	59,825	33,758	6/2/2006	3/30/2005	\$ 17,564,591	\$ 18,091,529	
1000335	300 400 N INGALLS BOILER HSE	9,870	-	1/1/1977	1/1/1955	\$ 127,341	\$ 1,270,955	\$1,048,325
1000332	300 N INGALLS BUILDING	325,677	184,598	1/1/1955	1/1/1955	\$ 4,959,213	\$ 50,923,533	\$36,018,310
1005327	439 S DIVISION STREET	3,210	2,664	12/17/2010	1/1/1900	tbd	tbd	
1008038	511 GLEN AVENUE	1,619	1,052	1/1/1988	1/1/1910	tbd	tbd	
1005287	523 SOUTH DIVISION BUILDING	9,315	5,214	12/3/2010	12/3/2010	tbd	tbd	
1000815	ADMINISTRATIVE SERVICES	91,653	63,661	1/1/1963	1/1/1963	\$ 2,171,851	\$ 13,540,024	\$8,559,452
1000423	AERO ENG LAB PUMPING STATION	2,456	2,254	1/1/1955	1/1/1955	\$ 75,917	\$ 757,706	
1000426	AERO ENG POWER PLANT	697	599	1/1/1955	1/1/1955	\$ 19,658	\$ 196,196	
1000425	AEROSPACE ENGINEERING LAB PLASMA RESEARCH	25,941	11,865	1/1/1961	1/1/1961	\$ 762,044	\$ 1,751,590	
1000422	AEROSPACE ENGINEERING LAB PROPULSION LAB	8,067	7,296	1/1/1955	1/1/1955	\$ 249,868	\$ 2,413,863	\$1,950,746
1000421	AEROSPACE ENGINEERING LAB WIND TUNNEL LAB	14,171	12,499	1/1/1955	1/1/1955	\$ 320,745	\$ 2,944,094	\$3,240,397
1000192	ALUMNI CENTER	34,083	13,577	1/1/1983	1/1/1983	\$ 3,349,765	\$ 6,348,475	\$2,378,672
1005123	ALUMNI FIELD	6,000	6,000	1/1/2008	1/1/2008	\$ 4,876,870	\$ 5,023,176	
1000151	ALUMNI MEMORIAL HALL	99,304	63,572	1/1/1910	1/1/1910	\$ 34,045,746	\$ 46,707,596	\$138,440
1000206	ANGELL HALL AUDITORIUMS	28,756	12,983	1/1/1952	1/1/1952	\$ 484,698	\$ 5,381,791	\$848,572
1000152	ANGELL JAMES B HALL AND TISCH HALL	200,233	102,098	1/1/1924	1/1/1924	\$ 8,862,614	\$ 37,838,525	\$1,934,962
1000168	ANIMAL RESEARCH FACILITY	15,587	9,254	1/1/1963	1/1/1963	\$ 505,113	\$ 3,745,918	\$1,664,822
1005132	ANN STREET PARKING STRUCTURE	189,202	178,072	11/1/2009	11/1/2009	\$ 11,227,428	\$ 11,564,250	
1008079	ARBOR LAKES 1	39,867	30,316	9/30/1997	1/1/1976	\$ 13,000,000	\$ 40,303,900	\$2,200,343
1008080	ARBOR LAKES 2	86,635	62,781	9/30/1997	1/1/1978	tbd	tbd	\$9,547,196
1008081	ARBOR LAKES 3	86,330	57,926	9/30/1997	1/1/1980	tbd	tbd	\$10,869,253
1000831	ARGUS II	69,214	46,911	1/1/1963	1/1/1963	\$ 235,625	\$ 1,740,111	\$5,052,841
1000432	ART ARCHITECTURE BUILDING	225,157	145,311	1/1/1974	1/1/1974	\$ 7,688,129	\$ 27,439,971	\$9,424,718
1000803	ATHLETIC CAMPUS SWITCH STATION	2,467	-	1/1/1973	1/1/1973	\$ 1,187	\$ 4,633	
1005195	ATHLETICS MAINTENANCE BUILDING	1,472	1,421	1/1/1985	1/1/1985	tbd	tbd	
1005168	AUTO LAB FUEL STORAGE BUILDING	423	321	1/1/2005	1/1/2005	\$ 495,000	\$ 509,850	
1002501	AUXILIARY SERVICES BUILDING 1	81,737	69,940	1/1/1983	1/1/1968	\$ 1,721,956	\$ 9,981,267	\$9,612,283
1002502	AUXILIARY SERVICES BUILDING 2	2,893	2,696	1/1/1983	1/1/1983	tbd	tbd	

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Bdg #	Building	Square Feet		Year		Costs		
		Gross	Net Assign	Acq	Const	Original	Replacement	Deferred Maintenance Backlog
1002503	AUXILIARY SERVICES BUILDING 3	6,923	4,838	1/1/1983	1/1/1983	tbd	tbd	
1000395	BAGNOUD FRANCOIS-XAVIER BUILDING	101,812	57,695	1/1/1991	1/1/1991	\$ 14,750,000	\$ 22,940,675	\$6,812,666
1005236	BAHNA WRESTLING CENTER	22,072	16,561	1/1/2009	1/1/2009	tbd	tbd	
1000510	BAITS VERA I EATON HOUSE	36,123	19,026	1/1/1966	1/1/1966	\$ 748,466	\$ 4,995,558	\$51,777,171
1000511	BAITS VERA I LEE HOUSE	33,019	18,643	1/1/1966	1/1/1966	\$ 680,423	\$ 4,541,417	included above
1000512	BAITS VERA I PARKER HOUSE	34,461	20,081	1/1/1966	1/1/1966	\$ 714,444	\$ 4,768,488	included above
1000513	BAITS VERA I SMITH HOUSE	29,215	16,334	1/1/1966	1/1/1966	\$ 578,360	\$ 3,860,204	included above
1000514	BAITS VERA I STANLEY HOUSE	32,625	19,336	1/1/1966	1/1/1966	\$ 680,423	\$ 4,541,417	included above
1000515	BAITS VERA II COMAN HOUSE	52,102	26,757	1/1/1967	1/1/1967	\$ 1,107,615	\$ 7,027,597	\$40,946,870
1000516	BAITS VERA II CONGER HOUSE	26,935	15,552	1/1/1967	1/1/1967	\$ 571,672	\$ 3,627,147	included above
1000517	BAITS VERA II CROSS HOUSE	35,178	18,545	1/1/1967	1/1/1967	\$ 678,861	\$ 4,307,237	included above
1000518	BAITS VERA II THIEME HOUSE	25,476	13,840	1/1/1967	1/1/1967	\$ 535,943	\$ 3,400,450	included above
1000519	BAITS VERA II ZIWET HOUSE	34,865	18,054	1/1/1967	1/1/1967	\$ 678,861	\$ 4,307,237	included above
1000051	BARBOUR BETSY HOUSE	33,884	23,102	1/1/1920	1/1/1920	\$ 278,452	\$ 3,706,469	\$9,930,842
1005290	BAXTER ROAD MONITORING SHED	49	37	11/10/2010	11/10/2010	tbd	tbd	
1000439	BENTLEY ALVIN M & ARVELLA D HISTORICAL LIBRARY	66,532	50,671	1/1/1973	1/1/1973	\$ 6,945,488	\$ 10,422,045	\$3,569,357
1000138	BEYSTER BOB AND BETTY BUILDING	56,180	33,163	1/1/1985	1/1/1985	\$ 4,899,530	\$ 8,730,473	
1000402	BONISTEEL INTERDISCIPLINARY RESEARCH BUILDING	21,993	19,094	1/1/1954	1/1/1954	\$ 488,442	\$1,000,402	\$1,680,767
1000880	BOYER BUILDING	15,473	12,004	1/1/1996	1/1/1969	\$ 1,000,000	\$ 5,572,300	\$1,357,503
1005102	BREHM TOWER	252,234	110,226	12/19/2009	2/20/2007	\$ 91,000,000	\$ 93,730,000	
1008076	BRIARWOOD 1	14,532	12,658	1/1/1993	1/1/1993	tbd	tbd	\$2,151,989
1008130	BRIARWOOD 10	14,986	13,129	10/1/1996	10/12/1995	\$ 1,182,375	\$ 1,619,735	\$206,663
1008030	BRIARWOOD 2	15,924	14,038	1/1/1988	1/1/1988	tbd	tbd	\$409,238
1008065	BRIARWOOD 3	10,611	8,830	1/1/1991	1/1/1991	tbd	tbd	\$290,929
1008042	BRIARWOOD 4	14,063	10,513	5/1/1995	1/1/1991	\$ 9,875,000	\$ 15,358,588	
1008016	BRIARWOOD 5	9,378	8,101	6/1/1995	1/1/1986	tbd	tbd	\$106,098
1008142	BRIARWOOD 9	5,287	4,211	10/7/1998	12/8/1997	\$ 1,101,261	\$ 1,429,216	\$447,782
1000407	BROWN GEORGE GRANGER MEMORIAL LABORATORIES	219,872	140,721	1/1/1957	1/1/1957	\$ 10,593,838	\$ 42,565,885	\$867,397
1000210	BUHL LAWRENCE D RESEARCH CEN FOR HUMAN GENETICS	18,971	11,847	1/1/1964	1/1/1964	\$ 561,864	\$ 4,051,037	\$373,083
1000799	BUHR BUILDING	187,245	152,768	1/1/1977	1/1/1952	\$ 6,557,231	\$ 16,335,735	\$4,256,798
1000010	BURNHAM HOUSE	3,447	2,102	8/24/1995	1/1/1837	\$ 8,000	\$ 1,371,136	\$125,736
1000555	BURSLEY JOSEPH A & MARGUERITE K HALL	341,747	220,866	1/1/1967	1/1/1967	\$ 7,483,351	\$ 47,480,365	\$71,351,662
1000155	BURTON MEMORIAL TOWER	20,103	8,026	1/1/1936	1/1/1936	\$ 169,561	\$ 5,749,407	\$3,174,984
1000139	BUSINESS ADMIN EXECUTIVE DORM	50,129	31,488	1/1/1986	1/1/1985	\$ 5,834,144	\$ 10,395,860	\$2,634,723
1000742	CAMPUS SAFETY SERVICES BUILDING	108,241	80,403	1/1/1992	1/1/1978	\$ 3,300,000	\$ 9,109,320	\$4,788,892
1000301	CANCER CENTER	277,795	132,214	1/1/1993	9/1/1993	\$ 88,636,000	\$ 118,683,604	\$31,670,191
1000718	CANHAM DONALD B NATATORIUM	77,721	55,069	1/1/1988	1/1/1988	\$ 8,086,073	\$ 13,492,422	\$49,758
1005146	CARDIOVASCULAR CENTER PARKING STRUCTURE	168,572	151,937	9/22/2009	9/22/2009	\$ 12,263,517	\$ 12,631,423	
1000258	CATHERINE ST PARKING STRUCTURE	140,168	132,896	1/1/1959	1/1/1959	\$ 569,245	\$ 4,813,707	

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		Gross	Net Assign	Acq	Const	Original	Replacement	Deferred Maintenance Backlog
1005126	CENTRAL CAMPUS AND UM HOSPITAL LOAD CENTER	3,884	-	6/16/2006	6/16/2006	\$ 17,000,000	\$ 17,510,000	
1000226	CENTRAL CAMPUS REC BLD BELL MARGARET POOL	194,265	118,645	1/1/1954	1/1/1954	\$ 6,433,212	\$ 27,280,728	\$15,491,164
1005042	CENTRAL CAMPUS REC BLD STORAGE FACILITY	739	685	10/19/1999	10/19/1999	\$ 172,798	\$ 210,018	
1000260	CENTRAL POWER PLANT	124,114	6,085	1/1/1914	1/1/1914	\$ 6,767,385	\$ 30,429,927	\$62,904,141
1000158	CHEMISTRY & DOW WILLARD H LABORATORY	542,905	267,983	1/1/1909	1/1/1909	\$ 48,105,298	\$ 126,446,331	\$19,307,554
1000443	CHRYSLER CENTER CONTINUING ENGINEERING EDUCATION	45,310	26,315	1/1/1968	1/1/1968	\$ 1,267,610	\$ 7,611,874	\$1,813,310
1000257	CHURCH ST PARKING STRUCTURE	228,214	214,630	1/1/1957	1/1/1957	\$ 1,092,743	\$ 8,969,598	\$3,616,158
1000159	CLEMENTS WILLIAM L LIBRARY	17,248	11,987	1/1/1923	1/1/1923	\$ 200,000	\$ 5,071,720	
1000710	COLISEUM	38,404	29,866	1/1/1926	1/1/1926	\$ 583,906	\$ 12,445,559	\$1,656,855
1000230	COLLEGE OF PHARMACY BUILDING	56,751	29,063	1/1/1960	1/1/1960	\$ 5,635,263	\$ 16,008,575	\$3,025,462
1005092	COMPUTER SCIENCE ENGINEERING BUILDING	104,132	56,184	3/16/2006	3/16/2006	\$ 37,881,000	\$ 39,017,430	
1000109	COOK JOHN P BUILDING	47,506	31,316	1/1/1930	1/1/1930	\$ 550,770	\$ 16,411,786	
1000052	COOK MARTHA BUILDING	63,234	36,667	1/1/1915	1/1/1915	\$ 350,000	\$ 19,928,440	\$18,515,106
1000184	COOK WILLIAM W LEGAL RESEARCH LIBRARY	212,594	129,173	1/1/1931	1/1/1931	\$ 11,829,293	\$ 81,943,637	\$12,990,065
1000403	COOLEY MORTIMER E BUILDING	46,172	21,608	1/1/1953	1/1/1953	\$ 1,098,984	\$ 11,515,465	\$3,468,965
1000053	COUZENS HALL	181,745	102,782	1/1/1925	1/1/1925	\$ 2,386,668	\$ 33,907,383	\$452,407
1000498	CRAM PLACE COMMUNITY CENTER	7,009	4,992	1/1/1958	1/1/1958	\$ 120,714	\$ 1,053,120	
1000700	CRISLER CENTER	201,311	117,088	1/1/1968	1/1/1968	\$ 6,365,606	\$ 38,224,829	\$2,480,151
1000189	DANA SAMUEL TRASK BUILDING	117,148	63,968	1/1/1904	1/1/1904	\$ 160,000	\$ 12,097,968	\$227,270
1000225	DANCE BUILDING	12,036	8,459	1/1/1977	1/1/1977	\$ 498,363	\$ 1,483,477	\$1,216,861
1005289	DAVIDSON WILLIAM PLAYER DEVELOPMENT CENTER	57,000	47,310	8/1/2012	8/1/2012	tbd	tbd	
1000165	DENNISON DAVID M BUILDING	143,115	61,658	1/1/1963	1/1/1963	\$ 6,473,271	\$ 28,119,618	\$16,997,341
1000162	DENTAL BLDG AND W K KELLOGG FOUNDATION INSTITUTE	378,556	208,299	1/1/1940	1/1/1940	\$ 16,829,917	\$ 85,031,644	\$31,565,341
1000198	DETROIT OBSERVATORY	5,370	2,428	1/1/1854	1/1/1854	\$ 55,799	\$ 7,857,135	\$228,962
1000447	DOW HERBERT H BUILDING	154,679	89,420	1/1/1983	1/1/1983	\$ 14,612,455	\$ 27,811,601	\$8,058,759
1000396	DUDERSTADT JAMES AND ANNE CENTER	240,372	143,628	1/31/1996	12/1/1993	\$ 41,850,000	\$ 57,330,315	\$4,813,843
1005038	EAST ANN ARBOR AMBULATORY SURGICAL CENTER	49,906	32,626	4/1/2006	6/1/2005	\$ 24,080,032	\$ 24,802,433	
1000350	EAST ANN ARBOR HEALTH AND GERIATRICS CENTER	97,158	53,793	1/1/1995	1/1/1996	\$ 30,710,000	\$ 42,069,629	\$4,116,790
1000166	EAST HALL	351,241	182,887	1/1/1923	1/1/1923	\$ 2,373,924	\$ 40,902,241	\$5,656,625
1000306	EAST HOSPITAL MECHANICAL BLDG	8,006	-	1/1/1964	1/1/1964	\$ 206,982	\$ 1,492,343	\$6,543,631
1000054	EAST QUADRANGLE	319,574	175,216	1/1/1940	1/1/1940	\$ 3,070,488	\$ 50,877,238	\$1,245,162
1000221	EDUCATION SCHOOL OF	215,403	119,667	1/1/1923	1/1/1923	\$ 1,028,714	\$ 27,809,364	
1008072	EISENHOWER CORPORATE PARK WEST	76,726	67,544	1/1/1994	1/1/1990	\$ 7,650,000	\$ 12,055,635	\$2,516,714
1000728	ELBEL FIELD LOCKER BUILDING	5,922	4,239	1/1/1951	1/1/1951	\$ 66,950	\$ 784,058	\$660,621
1000448	ELECTRICAL ENGINEERING AND COMPUTER SCIENCE BLD	305,021	144,577	1/1/1986	1/1/1986	\$ 70,514,239	\$ 54,436,231	\$10,819,021
1000435	ENGINEERING RESEARCH BUILDING 1	36,033	15,776	1/1/1964	1/1/1964	\$ 1,126,525	\$ 8,122,247	\$5,700,028
1000436	ENGINEERING RESEARCH BUILDING 2	28,332	17,351	1/1/1964	1/1/1964	\$ 1,025,200	\$ 7,391,695	\$3,258,428
1002505	ENGINEERING RESEARCH SUPPORT BLD	1,432	1,313	1/1/1996	3/1/1997	tbd	tbd	
1000414	ENVIRONMENTAL AND WATER RESOURCES ENGINEERING BL	37,125	22,306	1/1/1975	1/1/1975	\$ 2,010,376	\$ 6,812,562	\$3,723,681

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1000269	EQUIPMENT MAINTENANCE SHOP	2,151	1,972	1/1/1948	1/1/1914	\$ 20,100	\$ 716,413	\$12,029
1000800	FACILITIES SERVICES BUILDING A	93,237	79,726	1/1/1956	1/1/1929	\$ 2,569,992	\$ 23,783,795	\$13,914,349
1000801	FACILITIES SERVICES BUILDING B	44,682	36,442	1/1/1956	1/1/1929	\$ 476,729	\$ 11,786,718	\$4,296,007
1000802	FACILITIES SERVICES BUILDING C	37,309	32,416	1/1/1956	1/1/1929	\$ 320,934	\$ 8,184,724	\$2,402,371
1000756	FERRY FIELD LOCKER ROOMS	7,138	4,609	1/1/1996	1/1/1996	\$ 1,675,962	\$ 2,295,900	
1000706	FERRY FIELD PUMP HOUSE	216	-	1/1/1968	1/1/1968	tbd	tbd	
1005358	FIELD HOCKEY STADIUM			9/1/2014	9/1/2014			
1005357	FIELD HOCKEY TEAM CENTER			9/1/2014	9/1/2014			
1005359	FIELD HOCKEY TICKET OFFICE			9/1/2014	9/1/2014			
1000409	FIRE SERV INSTR RES CENTER	21,528	10,402	1/1/1959	1/1/1959	\$ 293,306	\$ 2,480,287	\$1,330,967
1000733	FISHER RAY BASEBALL STADIUM	30,167	18,658	1/1/1950	1/1/1950	\$ 125,975	\$ 1,571,327	
1000149	FLEMING ROBBEN W & ALDYTH ADMINISTRATION BUILDING	78,759	44,495	1/1/1968	1/1/1968	\$ 2,727,881	\$ 16,380,650	\$15,789,523
1000055	FLETCHER HALL	18,014	10,942	1/1/1933	1/1/1923	\$ 130,227	\$ 3,263,472	\$6,780,636
1000254	FLETCHER ST PARKING STRUCTURE	387,236	355,207	1/1/1968	1/1/1968	\$ 2,903,921	\$ 17,437,757	
1000446	FORD GERALD R LIBRARY	47,099	34,202	1/1/1980	1/1/1980	\$ 3,900,673	\$ 9,200,517	\$2,407,837
1000405	FORD NUCLEAR REACTOR	17,923	10,996	1/1/1955	1/1/1955	\$ 849,126	\$ 8,474,869	
1000252	FOREST SWITCHING STATION	6,122	-	1/1/1988	1/1/1988	tbd	tbd	
1000234	FRANCIS THOMAS JR PUBLIC HEALTH	171,437	88,389	1/1/1971	1/1/1971	\$ 7,241,566	\$ 32,893,366	\$7,549,914
1005109	FRANKEL SAMUEL AND JEAN CARDIOVASCULAR CENTER	444,952	229,236	4/1/2007	1/1/2007	\$ 156,868,169	\$ 161,574,214	
1000810	GAS PAD STORAGE BUILDING	1,440	1,297	1/1/1990	1/1/1990	tbd	tbd	
1000437	GERSTACKER CARL A BUILDING	61,692	28,200	1/1/1964	1/1/1964	\$ 10,403,678	\$ 15,422,075	\$3,625,292
1000331	GLEN AVE PARKING STRUCTURE	332,917	310,356	1/1/1987	1/1/1987	\$ 9,926,739	\$ 16,870,494	
1005121	GLICK AL FIELD HOUSE	105,709	94,857	1/1/2009	1/1/2009	tbd	tbd	
1000725	GOLF CLUBHOUSE	22,737	16,037	1/1/1950	1/1/1950	\$ 266,440	\$ 3,323,392	\$1,046,051
1000737	GOLF COURSE CART SHED	793	756	1/1/1966	1/1/1966	\$ 2,524	\$ 16,661	
1000747	GOLF COURSE COMFORT STATION A	533	-	1/1/1994	1/1/1994	tbd	tbd	
1000748	GOLF COURSE COMFORT STATION B	467	-	1/1/1994	1/1/1994	tbd	tbd	
1000741	GOLF COURSE GARAGE	3,585	3,458	1/1/1956	1/1/1956	tbd	tbd	
1005100	GOLF COURSE MAINTENANCE BUILDING	5,555	5,280	1/1/2007	1/1/2007	\$ 789,068	\$ 812,740	
1000749	GOLF COURSE PRACTICE RANGE BLDG	720	544	1/1/1994	1/1/1994	\$ 137,545	\$ 192,673	
1000740	GOLF COURSE PUMP HOUSE I	120	-	1/1/1992	1/1/1992	tbd	tbd	
1000739	GOLF COURSE PUMP HOUSE II	336	-	1/1/1992	1/1/1992	\$ 195,000	\$ 297,258	
1000735	GOLF COURSE SHOPS	2,608	2,384	1/1/1957	1/1/1957	tbd	tbd	
1000424	GORGUZE FAMILY LABORATORY	29,155	20,828	1/1/1972	1/1/1972	\$ 705,715	\$ 2,255,292	\$1,866,994
1000201	HARTWIG MARIE DOROTHY ADMINISTRATION BUILDING	14,550	6,881	1/1/1912	1/1/1912	\$ 375,199	\$ 3,660,574	\$1,146,122
1000185	HATCHER H NORTH GRADUATE LIBRARY	195,748	140,691	1/1/1920	1/1/1920	\$ 1,362,762	\$ 19,539,255	\$6,022,230
1000181	HATCHER HARLAN H SOUTH GRADUATE LIBRARY	147,526	87,515	1/1/1970	1/1/1970	\$ 4,932,431	\$ 24,995,588	\$8,273,377
1000175	HAVEN HALL	123,510	57,868	1/1/1952	1/1/1952	\$ 30,176,609	\$ 45,151,811	
1000897	HEALTH MANAGEMENT RESEARCH	12,792	7,039	1/1/1969	1/1/1969	\$ 30,000	\$ 163,461	\$1,006,788

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1000176	HEALTH SERVICE	79,177	48,394	1/1/1940	1/1/1940	\$ 397,088	\$ 11,652,435	\$7,335,708
1000057	HENDERSON MARY BARTRON HOUSE	9,329	6,810	1/1/1945	1/1/1892	\$ 25,513	\$ 2,589,183	\$3,066,303
1000177	HILL AUDITORIUM	105,813	33,117	1/1/1913	1/1/1913	\$ 270,680	\$ 15,565,425	\$1,865,235
1000253	HILL ST PARKING STRUCTURE	151,160	143,093	1/1/1970	1/1/1970	\$ 1,425,810	\$ 7,225,434	
1000804	HOOVER ANNEX	1,889	1,556	1/1/1956	1/1/1929	\$ 19,430	\$ 495,523	\$93,495
1000805	HOOVER AVE HEATING PLANT	6,990	1,813	1/1/1956	1/1/1929	\$ 454,812	\$ 2,986,079	
1000179	HUTCHINS HALL	104,374	50,985	1/1/1933	1/1/1933	\$ 1,191,074	\$ 44,999,263	\$8,373,341
1000703	INDOOR TRACK BUILDING	69,183	65,479	1/1/1974	1/1/1974	\$ 1,020,469	\$ 3,689,300	\$2,943,203
1000429	INDUSTRIAL AND OPERATIONS ENGINEERING BUILDING	50,260	28,283	1/1/1963	1/1/1963	\$ 1,205,811	\$ 6,146,876	\$2,336,356
1000862	INGLIS CARETAKERS RESIDENCE	2,342	1,400	1/1/1950	1/1/1927	\$ 5,000	\$ 127,514	
1000868	INGLIS GREENHOUSE #2	459	401	1/1/1975	1/1/1975	tbd	tbd	
1000867	INGLIS GREENHOUSE AND GARAGE	1,069	833	1/1/1950	1/1/1950	\$ 2,000	\$ 20,415	
1000861	INGLIS HOUSE	10,622	6,575	1/1/1950	1/1/1927	\$ 54,016	\$ 1,377,552	\$3,210,961
1000863	INGLIS PEACOCK HOUSE	88	73	1/1/1950	1/1/1927	tbd	tbd	
1000866	INGLIS ROOT CELLAR	131	81	1/1/1950	1/1/1927	tbd	tbd	
1000864	INGLIS STORAGE BUILDING	147	127	1/1/1950	1/1/1927	tbd	tbd	
1000865	INGLIS WELL HOUSE	292	-	1/1/1950	1/1/1927	tbd	tbd	
1000145	INSTITUTE FOR SOCIAL RESEARCH	169,400	109,912	1/1/1965	1/1/1965	\$ 8,207,205	\$ 27,426,969	\$11,134,506
1000814	INSTITUTE OF CONTINUING LEGAL ED	12,592	8,784	1/1/1987	1/1/1987	\$ 1,316,460	\$ 2,237,323	\$949,957
1005247	INTERCOLLEGIATE SOCCER STADIUM	17,368	17,368	1/1/2009	1/1/2009	tbd	tbd	
1000719	INTRAMURAL SPORTS BUILDING	106,330	74,580	1/1/1928	1/1/1928	\$ 743,214	\$ 19,642,987	\$19,960,512
1000434	IST GAS STORAGE BUILDING	200	138	1/1/1964	1/1/1964	\$ 5,000	\$ 35,896	
1005160	JUNGE FAMILY CHAMPIONS CENTER	11,743	7,679	12/1/2006	1/1/2006	\$ 4,082,595	\$ 4,205,073	
1000732	KEEN CLIFFORD P ARENA	38,816	20,122	1/1/1956	1/1/1956	\$ 828,072	\$ 7,872,398	\$3,567,572
1000324	KELLOGG W K EYE CENTER	79,249	38,155	1/1/1985	1/1/1985	\$ 4,150,652	\$ 7,396,046	\$5,373,304
1000851	KINESIOLOGY BUILDING	31,331	16,454	1/1/1966	1/1/1966	\$ 366,111	\$ 2,417,175	
1000211	KRAUS EDWARD HENRY BUILDING	182,971	114,898	1/1/1915	1/1/1915	\$ 2,440,994	\$ 28,846,539	\$21,376,530
1000137	KRESGE BUSINESS ADMIN LIBRARY	75,164	50,435	1/1/1985	1/1/1985	\$ 10,119,921	\$ 18,032,688	\$3,874,373
1000183	LANE HALL	39,993	16,700	1/1/1937	1/1/1917	\$ 70,000	\$ 2,894,094	\$850,386
1000419	LAUNDRY	48,521	42,465	1/1/1969	1/1/1969	\$ 1,303,333	\$ 7,262,561	\$3,145,686
1000108	LAWYERS CLUB AND MUNGER CHARLES T RESIDENCES	111,655	67,057	1/1/1924	1/1/1924	\$ 1,430,900	\$ 37,066,749	\$3,626,805
1000400	LAY WALTER E AUTOMOTIVE ENGINEERING LABORATORY	63,295	30,377	1/1/1955	1/1/1955	\$ 2,850,378	\$ 21,189,290	\$7,120,439
1005036	LIFE SCIENCES INSTITUTE BUILDING	295,882	119,029	9/1/2003	12/1/1999	\$ 96,000,000	\$ 110,745,600	\$189,697
1000105	LIPSEY STANFORD STUDENT PUBLICATIONS BUILDING	14,829	7,987	1/1/1932	1/1/1932	\$ 74,725	\$ 2,790,047	
1000150	LITERATURE SCIENCE AND THE ARTS	129,755	67,403	1/1/1948	1/1/1948	\$ 2,234,325	\$ 28,329,677	\$143,147
1000188	LITTLE CLARENCE COOK SCIENCE BLD	187,435	103,945	1/1/1925	1/1/1925	\$ 5,317,635	\$ 29,539,508	\$4,865,088
1000059	LLOYD ALICE CROCKER HALL	176,305	114,776	1/1/1949	1/1/1949	\$ 2,713,694	\$ 33,708,962	\$7,940,934
1000154	LORCH HALL	89,470	41,301	1/1/1928	1/1/1928	\$ 1,158,405	\$ 13,853,229	\$8,761,548
1000214	LSA ADMINISTRATION ANNEX	10,693	6,839	1/1/1936	1/1/1936	\$ 36,060	\$ 1,207,102	\$1,845,127

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1000406	LURIE ANN AND ROBERT H BIOMEDICAL ENGINEERING BLD	65,028	38,383	1/1/1957	1/1/1957	\$ 19,655,206	\$ 3,991,819	\$896,752
1000394	LURIE ANN AND ROBERT H TOWER	11,452	389	1/1/1995	5/1/1995	\$ 5,275,000	\$ 7,226,223	\$1,020,155
1000397	LURIE ROBERT H ENGINEERING CTR	53,877	21,206	1/1/1994	12/1/1993	\$ 16,500,000	\$ 22,603,350	\$1,868,081
1000858	MADISON BUILDING	22,318	12,688	1/1/1970	1/1/1970	\$ 349,480	\$ 1,785,423	\$47,894
1000060	MARKLEY MARY BUTLER HALL	287,033	183,440	1/1/1959	1/1/1959	\$ 5,582,907	\$ 47,210,739	\$54,053,801
1000197	MASON HALL	136,290	66,678	1/1/1952	1/1/1952	\$ 6,670,640	\$ 37,069,411	\$712,050
1000976	MATT BOT GNDS HOUSE	3,650	2,374	1/1/1957	1/1/1957	\$ 19,997	\$ 171,572	\$7,554,761
1000986	MATTHAEI BOT GDNS ENVIRONMENT	2,728	2,148	1/1/1962	1/1/1962	\$ 42,760	\$ 325,920	
1000991	MATTHAEI BOT GDNS EXHIB GRN HSE	18,955	12,068	1/1/1966	1/1/1966	\$ 174,703	\$ 1,167,838	
1000983	MATTHAEI BOT GDNS GREENHOUSE #1	7,732	6,064	1/1/1962	1/1/1962	\$ 103,185	\$ 797,103	
1000984	MATTHAEI BOT GDNS GREENHOUSE #2	7,732	6,064	1/1/1960	1/1/1960	\$ 97,441	\$ 749,722	
1000988	MATTHAEI BOT GDNS GREENHOUSE #3	7,732	6,064	1/1/1960	1/1/1960	\$ 97,441	\$ 749,722	
1000989	MATTHAEI BOT GDNS GREENHOUSE #4	2,462	2,270	1/1/1962	1/1/1962	\$ 35,542	\$ 274,561	
1000990	MATTHAEI BOT GDNS GREENHOUSE #5	2,462	2,270	1/1/1962	1/1/1962	\$ 35,542	\$ 274,561	
1000994	MATTHAEI BOT GDNS INSTR SHELTER	168	131	1/1/1978	1/1/1978	\$ 28,360	\$ 74,487	
1000979	MATTHAEI BOT GDNS NORTH BARN #1	4,241	2,758	1/1/1957	1/1/1880	tbd	tbd	
1000978	MATTHAEI BOT GDNS NORTH BARN #2	1,212	788	1/1/1957	1/1/1870	tbd	tbd	
1000992	MATTHAEI BOT GDNS REPTILE HSE	2,935	2,875	1/1/1969	1/1/1969	\$ 37,675	\$ 145,330	
1000982	MATTHAEI BOT GDNS RESEARCH-ADMIN	22,099	12,758	1/1/1960	1/1/1960	\$ 943,247	\$ 6,872,013	
1000987	MATTHAEI BOT GDNS SCREENHOUSE #1	380	348	1/1/1962	1/1/1962	\$ 3,494	\$ 26,631	
1000980	MATTHAEI BOT GDNS STORAGE BLDG	1,920	1,910	1/1/1975	1/1/1975	tbd	tbd	
1000985	MATTHAEI BOT GDNS SUPT RESIDENCE	2,928	2,567	1/1/1961	1/1/1961	\$ 31,270	\$ 241,560	
1000981	MATTHAEI BOT GDNS UTILITY-BOILER	10,058	7,409	1/1/1960	1/1/1960	\$ 199,688	\$ 1,641,316	
1000300	MED CTR N ENTRANCE PARKING STRUCTURE	340,052	316,091	1/1/1994	1/1/1994	\$ 12,200,000	\$ 17,592,400	
1000323	MEDICAL CAMPUS SWITCH STATION SE	2,746	-	1/1/1983	1/1/1983	\$ 947,858	\$ 1,806,144	
1000315	MEDICAL CENTER DR PARKING STRUCT	683,932	642,517	1/1/1984	1/1/1984	\$ 14,969,277	\$ 25,871,740	
1000319	MEDICAL PROFESSIONAL BUILDING	37,298	21,865	1/1/1977	1/1/1977	\$ 1,573,954	\$ 4,701,402	\$7,059,192
1000190	MEDICAL SCIENCE UNIT I	298,913	162,089	1/1/1958	1/1/1958	\$ 24,720,717	\$ 89,265,463	\$27,581,284
1000200	MEDICAL SCIENCE UNIT II	333,205	173,492	1/1/1969	1/1/1969	\$ 13,060,668	\$ 71,161,283	\$9,807,753
1000223	MEDICAL SCIENCES RESEARCH BLDG I	144,644	80,619	1/1/1985	1/1/1985	\$ 13,225,888	\$ 23,567,209	\$8,716,263
1000213	MEDICAL SCIENCES RESEARCH BLDG II	163,724	86,341	1/1/1989	1/1/1989	\$ 21,642,129	\$ 34,997,486	\$9,231,493
1000229	MEDICAL SCIENCES RESEARCH BLDG III	217,897	120,252	1/1/1994	1/1/1994	\$ 50,187,500	\$ 72,370,375	\$7,909,643
1000308	MED-INN	125,981	73,702	1/1/1952	1/1/1952	\$ 4,073,884	\$ 40,152,257	\$14,570,894
1000191	MICHIGAN LEAGUE	130,395	69,291	1/1/1929	1/1/1929	\$ 3,316,924	\$ 37,605,696	\$19,724,391
1000404	MICHIGAN MEMORIAL PHOENIX PROJECT LABORATORY	34,345	17,094	1/1/1955	1/1/1955	\$ 1,666,351	\$ 16,631,346	\$219,060
1005218	MICHIGAN SOLAR HOUSE	660	660	1/1/2009	1/1/2009	tbd	tbd	
1000711	MICHIGAN STADIUM	153,630	34,375	1/1/1927	1/1/1927	\$ 4,030,087	\$ 28,815,364	
1005242	MICHIGAN STADIUM NORTH PLAZA BUILDING A	9,029	4,059	1/1/2009	1/1/2009	\$ 1,764,463	\$ 1,817,397	
1005243	MICHIGAN STADIUM NORTH PLAZA BUILDING B	9,337	4,126	1/1/2009	1/1/2009	\$ 1,822,537	\$ 1,877,213	

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		Gross	Net Assign	Acq	Const	Original	Replacement	Deferred Maintenance Backlog
1000120	MICHIGAN UNION	316,142	182,393	1/1/1919	1/1/1919	\$ 5,212,212	\$ 83,181,849	\$42,711,662
1002500	MITCHELL FIELD BUILDING	1,449	707	1/1/1981	1/1/1981	\$ 112,622	\$ 238,961	
1000207	MODERN LANGUAGES BUILDING	135,130	67,388	1/1/1972	1/1/1972	\$ 5,283,471	\$ 22,475,358	\$4,874,422
1005125	MODULAR ATHLETICS MAINTENANCE	506	457	9/25/2002	9/25/2002	\$ 16,736	tbd	
1005348	MODULAR MRI BUILDING	824	744	8/21/2012	8/21/2012	\$ 429,570		
1005074	MODULAR NAVAL ARCHITECTURE AND MARINE ENGINEERING	672	612	11/1/2000	11/1/2000	tbd	tbd	
1000100	MOLECULAR & BEHAVIORAL NEUROSCIENCE INSTITUTE	49,955	28,361	1/1/1960	1/1/1960	\$ 1,055,529	\$ 8,621,459	\$7,415,925
1000440	MOORE EARL V BLDG	141,179	72,149	1/1/1964	1/1/1964	\$ 5,045,526	\$ 26,036,170	\$8,042,472
1000061	MOSHER ELIZA M HALL & JORDAN MYRA B HALL	191,152	94,616	1/1/1930	1/1/1930	\$ 21,873,271	\$ 44,723,244	
1005173	MOTT CHILDRENS VON VOIGTLANDER WOMENS HOSPITALS	1,139,406	1,047,903	12/1/2011	12/1/2011	tbd	tbd	
1000194	MUSEUMS ANNEX	14,391	10,176	1/1/1919	1/1/1919	\$ 35,416	\$ 881,341	\$2,902,175
1000220	N C GROUNDS STORAGE BUILDING #1	3,373	3,244	1/1/1953	1/1/1953	\$ 8,126	\$ 86,546	\$204,610
1000415	NAVAL ARCHITECTURE AND MARINE ENGINEERING	28,207	16,493	1/1/1962	1/1/1962	\$ 1,086,947	\$ 5,828,269	\$2,598,026
1002518	NC BEAL-CRAM SWITCH GEAR	1,804	-	1/1/1995	1/1/1995	tbd	tbd	
1005205	NC GROUNDS GARAGE 1	1,692	1,659	6/12/2007	6/12/2007	tbd	tbd	
1005111	NC GROUNDS STORAGE BUILDING # 2	2,007	1,975	1/1/1987	1/1/1987	tbd	tbd	
1005116	NC GROUNDS STORAGE BUILDING # 3	2,007	1,975	1/1/1987	1/1/1987	tbd	tbd	
1005131	NC STORAGE BUILDING #4	4,792	4,725	4/8/2003	4/1/2003	\$ 75,296	tbd	
1000178	NEWBERRY HALL	40,574	24,188	1/1/1921	1/1/1891	\$ 7,000,838	\$ 10,463,332	\$700,728
1000062	NEWBERRY HELEN H RESIDENCE	31,304	20,542	1/1/1915	1/1/1915	\$ 78,129	\$ 4,325,020	\$8,788,225
1000222	NEWS SERVICE BUILDING	7,811	4,933	1/1/1955	1/1/1955	\$ 182,137	\$ 1,464,703	\$1,879,267
1000007	NICHOLS ARBORETUM GAR WORKSHOP	308	240	1/1/1963	1/1/1963	\$ 5,785	\$ 42,725	
1000005	NICHOLS ARBORETUM RESIDENCE	2,170	1,822	1/1/1908	1/1/1908	\$ 6,887	\$ 451,219	\$299,718
1000006	NICHOLS ARBORETUM STORAGE SHED	906	879	1/1/1908	1/1/1908	\$ 765	\$ 50,135	\$52,473
1000399	NORTH CAMPUS ADMINISTRATIVE COMPLEX	133,741	94,946	1/1/1987	1/1/1987	\$ 9,620,000	\$ 16,349,190	\$2,591,036
1005223	NORTH CAMPUS AUXILIARY SUPPORT BUILDING	53,530	19,727	9/1/2008	9/1/2008	\$ 50,900,000	\$ 52,427,000	
1005018	NORTH CAMPUS CHILDREN'S CENTER	13,567	9,390	6/16/2009	1/1/1999	tbd	tbd	\$489,134
1005139	NORTH CAMPUS CHILLER PLANT	15,816	282	5/1/2005	10/1/2004	\$ 14,300,000	\$ 14,729,000	\$112,159
1002506	NORTH CAMPUS FACILITIES SERVICES BUILDING	48,599	41,072	1/1/1996	1/1/1996	\$ 1,900,000	\$ 2,426,680	
1002514	NORTH CAMPUS GROUND SVC FACILITY	28,246	22,173	1/1/1990	1/1/1990	\$ 2,550,071	\$ 3,114,212	\$460,321
1005140	NORTH CAMPUS GROUND SVC FACILITY ANNEX	112	94	11/20/2009	1/1/2003	tbd	tbd	
1005297	NORTH CAMPUS GROUNDS STORAGE SHED	256	233	12/4/2009	12/4/2009	tbd	tbd	
1000449	NORTH CAMPUS HOUSING SERVICE BLD	31,837	30,410	1/1/1978	1/1/1978	\$ 535,140	\$ 1,251,597	\$1,126,049
1002517	NORTH CAMPUS MICROWAVE TOWER	279	-	1/1/1991	1/1/1991	\$ 8,825	\$ 13,726	
1000427	NORTH CAMPUS RECREATION BUILDING	66,876	44,839	1/1/1976	1/1/1976	\$ 2,786,864	\$ 8,668,820	\$5,372,697
1005253	NORTH CAMPUS RESEARCH COMPLEX BUILDING 10	69,752	46,626	7/1/2009	1/1/1959	tbd	tbd	\$8,945,814
1005276	NORTH CAMPUS RESEARCH COMPLEX BUILDING 100	10,492	5,882	7/1/2009	1/1/1964	tbd	tbd	\$1,487,685
1005254	NORTH CAMPUS RESEARCH COMPLEX BUILDING 14	49,808	31,453	7/1/2009	1/1/1987	tbd	tbd	\$6,312,604
1005255	NORTH CAMPUS RESEARCH COMPLEX BUILDING 15	4,623	628	7/1/2009	1/1/1959	tbd	tbd	\$418,478

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1005256	NORTH CAMPUS RESEARCH COMPLEX BUILDING 16	121,870	74,908	7/1/2009	1/1/1991	tbd	tbd	\$5,658,236
1005258	NORTH CAMPUS RESEARCH COMPLEX BUILDING 18	92,899	40,782	7/1/2009	1/1/2000	tbd	tbd	\$2,706,580
1005259	NORTH CAMPUS RESEARCH COMPLEX BUILDING 20	179,497	103,209	7/1/2009	1/1/1959	tbd	tbd	\$30,803,238
1005277	NORTH CAMPUS RESEARCH COMPLEX BUILDING 200	26,389	21,050	7/1/2009	1/1/1964	tbd	tbd	\$2,196,318
1005260	NORTH CAMPUS RESEARCH COMPLEX BUILDING 22	21,289	11,186	7/1/2009	1/1/1999	tbd	tbd	\$2,592,054
1005261	NORTH CAMPUS RESEARCH COMPLEX BUILDING 23	10,508	7,071	7/1/2009	1/1/2002	tbd	tbd	\$105,424
1005262	NORTH CAMPUS RESEARCH COMPLEX BUILDING 25	105,221	58,692	7/1/2009	1/1/1984	tbd	tbd	\$33,290,239
1005263	NORTH CAMPUS RESEARCH COMPLEX BUILDING 26	194,091	100,018	7/1/2009	1/1/2000	tbd	tbd	\$5,721,406
1005264	NORTH CAMPUS RESEARCH COMPLEX BUILDING 28	134,720	75,230	7/1/2009	1/1/1992	tbd	tbd	\$23,481,954
1005265	NORTH CAMPUS RESEARCH COMPLEX BUILDING 30	32,358	23,377	7/1/2009	1/1/1965	tbd	tbd	\$7,680,288
1005278	NORTH CAMPUS RESEARCH COMPLEX BUILDING 300	39,513	25,220	7/1/2009	1/1/1964	tbd	tbd	\$4,664,851
1005266	NORTH CAMPUS RESEARCH COMPLEX BUILDING 35	95,808	58,216	7/1/2009	1/1/1985	tbd	tbd	\$45,983,368
1005267	NORTH CAMPUS RESEARCH COMPLEX BUILDING 36	116,163	76,148	7/1/2009	1/1/2006	tbd	tbd	\$3,677,686
1005268	NORTH CAMPUS RESEARCH COMPLEX BUILDING 40	4,370	3,012	7/1/2009	1/1/1959	tbd	tbd	\$1,270,611
1005279	NORTH CAMPUS RESEARCH COMPLEX BUILDING 400	27,571	21,234	7/1/2009	1/1/1982	tbd	tbd	\$2,347,407
1005269	NORTH CAMPUS RESEARCH COMPLEX BUILDING 50	25,713	20,773	7/1/2009	1/1/1977	tbd	tbd	\$5,536,720
1005280	NORTH CAMPUS RESEARCH COMPLEX BUILDING 500	14,775	-	1/1/2009	1/1/1998	tbd	tbd	
1005281	NORTH CAMPUS RESEARCH COMPLEX BUILDING 520	199,850	125,259	7/1/2009	1/1/1998	tbd	tbd	\$7,658,782
1005282	NORTH CAMPUS RESEARCH COMPLEX BUILDING 550	236,634	90,458	7/1/2009	1/1/1998	tbd	tbd	\$3,627,292
1005270	NORTH CAMPUS RESEARCH COMPLEX BUILDING 60	25,149	15,823	7/1/2009	1/1/1983	tbd	tbd	\$3,945,748
1005271	NORTH CAMPUS RESEARCH COMPLEX BUILDING 70	773	728	7/1/2009	1/1/1959	tbd	tbd	\$43,865
1005272	NORTH CAMPUS RESEARCH COMPLEX BUILDING 73	231,655	224,286	1/1/2009	1/1/1991	tbd	tbd	\$493,926
1005273	NORTH CAMPUS RESEARCH COMPLEX BUILDING 80	52,404	52,404	1/1/2009	1/1/1959	tbd	tbd	\$13,507,703
1005283	NORTH CAMPUS RESEARCH COMPLEX BUILDING 800	20,250	17,320	1/1/2009	1/1/2001	tbd	tbd	\$1,153,779
1005274	NORTH CAMPUS RESEARCH COMPLEX BUILDING 85	5,132	4,630	1/1/2009	1/1/2005	tbd	tbd	\$297,273
1005335	NORTH CAMPUS RESEARCH COMPLEX BUILDING 86	1,040	-	7/1/2009	2/20/2006	tbd	tbd	
1005275	NORTH CAMPUS RESEARCH COMPLEX BUILDING 90	35,000	20,048	7/1/2009	1/1/1999	tbd	tbd	\$1,878,562
1000418	NORTH CAMPUS SERVICE BLDG #1	23,191	20,448	1/1/1965	1/1/1965	\$ 664,510	\$ 3,550,520	\$662,459
1000430	NORTH CAMPUS STORAGE BUILDING	45,750	44,273	1/1/1967	1/1/1967	\$ 364,210	\$ 1,909,317	\$1,114,378
1005334	NORTH CAMPUS SUPPORT FACILITY	2,529	2,339	4/1/2011	4/30/2011	\$ 4,024,748	tbd	
1000408	NORTH CAMPUS SWITCH STATION	10,161	1,370	1/1/1957	1/1/1957	\$ 294,221	\$ 2,651,668	\$78,532
1000196	NORTH HALL	48,121	26,597	1/1/1900	1/1/1900	\$ 80,307	\$ 6,943,155	\$7,936,110
1005177	NORTH QUADRANGLE RESIDENTIAL AND ACADEMIC COMPLEX	388,356	201,144	7/1/2010	7/1/2009	tbd	tbd	
1000600	NORTHWOOD COMMUNITY CENTER	13,784	8,867	1/1/1991	1/1/1991	\$ 2,060,000	\$ 3,203,918	\$873,924
1000451	NORTHWOOD I APTS 451	11,744	10,146	1/1/1955	1/1/1955	\$ 173,374	\$ 1,610,745	\$17,679,391
1000452	NORTHWOOD I APTS 452	5,312	4,308	1/1/1955	1/1/1955	\$ 78,443	\$ 728,778	included above
1000453	NORTHWOOD I APTS 453	14,412	10,057	1/1/1955	1/1/1955	\$ 212,692	\$ 1,976,040	included above
1000454	NORTHWOOD I APTS 454	14,412	10,057	1/1/1955	1/1/1955	\$ 212,692	\$ 1,976,040	included above
1000455	NORTHWOOD I APTS 455	5,312	4,308	1/1/1955	1/1/1955	\$ 78,443	\$ 728,778	included above

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1000456	NORTHWOOD I APTS 456	11,744	10,146	1/1/1955	1/1/1955	\$ 173,374	\$ 1,610,745	included above
1000450	NORTHWOOD I SVC BUILDING 450	3,168	2,368	1/1/1955	1/1/1955	\$ 46,636	\$ 433,278	included above
1000462	NORTHWOOD II APTS 462	4,246	3,744	1/1/1957	1/1/1957	\$ 73,435	\$ 630,064	\$37,926,620
1000464	NORTHWOOD II APTS 464	5,645	4,936	1/1/1957	1/1/1957	\$ 97,700	\$ 838,260	included above
1000465	NORTHWOOD II APTS 465	5,645	4,936	1/1/1957	1/1/1957	\$ 97,700	\$ 838,260	included above
1000466	NORTHWOOD II APTS 466	4,246	3,744	1/1/1957	1/1/1957	\$ 73,435	\$ 630,064	included above
1000467	NORTHWOOD II APTS 467	4,246	3,744	1/1/1957	1/1/1957	\$ 73,435	\$ 630,064	included above
1000468	NORTHWOOD II APTS 468	4,246	3,744	1/1/1957	1/1/1957	\$ 73,435	\$ 630,064	included above
1000469	NORTHWOOD II APTS 469	12,405	9,205	1/1/1957	1/1/1957	\$ 214,238	\$ 1,838,144	included above
1000470	NORTHWOOD II APTS 470	5,645	4,936	1/1/1957	1/1/1957	\$ 97,700	\$ 838,260	included above
1000471	NORTHWOOD II APTS 471	5,645	4,936	1/1/1957	1/1/1957	\$ 97,700	\$ 838,260	included above
1000472	NORTHWOOD II APTS 472	5,645	4,936	1/1/1957	1/1/1957	\$ 97,700	\$ 838,260	included above
1000473	NORTHWOOD II APTS 473	12,405	9,205	1/1/1957	1/1/1957	\$ 214,238	\$ 1,838,144	included above
1000474	NORTHWOOD II APTS 474	3,738	2,992	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000475	NORTHWOOD II APTS 475	3,738	2,992	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000476	NORTHWOOD II APTS 476	3,738	2,992	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000477	NORTHWOOD II APTS 477	3,738	2,992	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000478	NORTHWOOD II APTS 478	3,738	2,992	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000479	NORTHWOOD II APTS 479	5,645	4,936	1/1/1957	1/1/1957	\$ 97,700	\$ 838,260	included above
1000480	NORTHWOOD II APTS 480	5,645	4,936	1/1/1957	1/1/1957	\$ 97,700	\$ 838,260	included above
1000481	NORTHWOOD II APTS 481	5,645	4,936	1/1/1957	1/1/1957	\$ 97,700	\$ 838,260	included above
1000482	NORTHWOOD II APTS 482	3,738	2,992	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000483	NORTHWOOD II APTS 483	3,738	2,992	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000484	NORTHWOOD II APTS 484	3,738	2,992	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000485	NORTHWOOD II APTS 485	3,738	2,992	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000486	NORTHWOOD II APTS 486	3,738	2,992	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000487	NORTHWOOD II APTS 487	3,738	2,992	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000488	NORTHWOOD II APTS 488	3,738	2,992	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000489	NORTHWOOD II APTS 489	3,738	2,992	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000490	NORTHWOOD II APTS 490	3,738	2,992	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000491	NORTHWOOD II APTS 491	3,738	2,992	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000492	NORTHWOOD II APTS 492	3,738	2,992	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000493	NORTHWOOD II APTS 493	3,738	2,992	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000494	NORTHWOOD II APTS 494	3,738	2,992	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000495	NORTHWOOD II APTS 495	3,738	2,992	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000496	NORTHWOOD II APTS 496	3,738	2,992	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000497	NORTHWOOD II APTS 497	3,738	2,992	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000457	NORTHWOOD II SVC BUILDING 457	5,400	1,892	1/1/1957	1/1/1957	\$ 93,230	\$ 799,908	included above
1000458	NORTHWOOD II SVC BUILDING 458	2,760	1,470	1/1/1957	1/1/1957	\$ 50,127	\$ 430,087	included above

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1000459	NORTHWOOD II SVC BUILDING 459	2,879	1,470	1/1/1957	1/1/1957	\$ 50,127	\$ 430,087	included above
1000460	NORTHWOOD II SVC BUILDING 460	5,270	1,548	1/1/1957	1/1/1957	\$ 90,995	\$ 780,732	included above
1000461	NORTHWOOD II SVC BUILDING 461	2,879	1,470	1/1/1957	1/1/1957	\$ 50,127	\$ 430,087	included above
1000501	NORTHWOOD III APTS 501	27,371	23,392	1/1/1958	1/1/1958	\$ 469,734	\$ 3,928,670	\$33,404,775
1000502	NORTHWOOD III APTS 502	17,585	14,880	1/1/1958	1/1/1958	\$ 301,785	\$ 2,524,006	included above
1000503	NORTHWOOD III APTS 503	17,585	14,880	1/1/1958	1/1/1958	\$ 301,785	\$ 2,524,006	included above
1000504	NORTHWOOD III APTS 504	25,068	21,248	1/1/1958	1/1/1958	\$ 430,079	\$ 3,597,013	included above
1000505	NORTHWOOD III APTS 505	17,585	14,880	1/1/1958	1/1/1958	\$ 301,785	\$ 2,524,006	included above
1000506	NORTHWOOD III APTS 506	17,585	14,880	1/1/1958	1/1/1958	\$ 301,785	\$ 2,524,006	included above
1000507	NORTHWOOD III APTS 507	17,585	14,880	1/1/1958	1/1/1958	\$ 301,785	\$ 2,524,006	included above
1000508	NORTHWOOD III APTS 508	17,585	14,880	1/1/1958	1/1/1958	\$ 301,785	\$ 2,524,006	included above
1000499	NORTHWOOD III SVC BUILDING 499	2,471	896	1/1/1958	1/1/1958	\$ 42,279	\$ 368,846	included above
1000500	NORTHWOOD III SVC BUILDING 500	2,471	845	1/1/1958	1/1/1958	\$ 42,279	\$ 368,846	included above
1000601	NORTHWOOD IV APTS 601	8,029	7,141	1/1/1969	1/1/1969	\$ 80,374	\$ 437,936	\$59,434,082
1000602	NORTHWOOD IV APTS 602	4,061	3,603	1/1/1969	1/1/1969	\$ 40,716	\$ 221,849	included above
1000603	NORTHWOOD IV APTS 603	3,066	2,727	1/1/1969	1/1/1969	\$ 30,669	\$ 167,107	included above
1000604	NORTHWOOD IV APTS 604	4,899	4,242	1/1/1969	1/1/1969	\$ 49,176	\$ 267,948	included above
1000605	NORTHWOOD IV APTS 605	10,708	9,470	1/1/1969	1/1/1969	\$ 107,342	\$ 584,875	included above
1000606	NORTHWOOD IV APTS 606	3,117	2,712	1/1/1969	1/1/1969	\$ 31,198	\$ 169,988	included above
1000607	NORTHWOOD IV APTS 607	6,763	5,978	1/1/1969	1/1/1969	\$ 67,684	\$ 368,788	included above
1000608	NORTHWOOD IV APTS 608	5,425	4,813	1/1/1969	1/1/1969	\$ 54,464	\$ 296,759	included above
1000609	NORTHWOOD IV APTS 609	5,425	4,813	1/1/1969	1/1/1969	\$ 54,464	\$ 296,759	included above
1000610	NORTHWOOD IV APTS 610	4,123	3,650	1/1/1969	1/1/1969	\$ 41,245	\$ 224,730	included above
1000611	NORTHWOOD IV APTS 611	7,181	6,283	1/1/1969	1/1/1969	\$ 71,914	\$ 391,837	included above
1000612	NORTHWOOD IV APTS 612	6,726	5,977	1/1/1969	1/1/1969	\$ 67,155	\$ 365,907	included above
1000613	NORTHWOOD IV APTS 613	4,442	3,937	1/1/1969	1/1/1969	\$ 44,417	\$ 242,017	included above
1000614	NORTHWOOD IV APTS 614	5,399	4,722	1/1/1969	1/1/1969	\$ 53,935	\$ 293,878	included above
1000615	NORTHWOOD IV APTS 615	3,159	2,712	1/1/1969	1/1/1969	\$ 31,727	\$ 172,869	included above
1000616	NORTHWOOD IV APTS 616	10,707	9,470	1/1/1969	1/1/1969	\$ 107,342	\$ 584,875	included above
1000617	NORTHWOOD IV APTS 617	7,967	7,095	1/1/1969	1/1/1969	\$ 79,846	\$ 435,055	included above
1000618	NORTHWOOD IV APTS 618	7,082	6,265	1/1/1969	1/1/1969	\$ 70,856	\$ 386,075	included above
1000619	NORTHWOOD IV APTS 619	6,727	5,977	1/1/1969	1/1/1969	\$ 67,155	\$ 365,907	included above
1000620	NORTHWOOD IV APTS 620	6,727	5,978	1/1/1969	1/1/1969	\$ 67,155	\$ 365,907	included above
1000621	NORTHWOOD IV APTS 621	3,117	2,712	1/1/1969	1/1/1969	\$ 31,198	\$ 169,988	included above
1000622	NORTHWOOD IV APTS 622	5,876	5,119	1/1/1969	1/1/1969	\$ 58,694	\$ 319,808	included above
1000623	NORTHWOOD IV APTS 623	8,065	7,141	1/1/1969	1/1/1969	\$ 80,903	\$ 440,817	included above
1000624	NORTHWOOD IV APTS 624	6,727	5,977	1/1/1969	1/1/1969	\$ 67,155	\$ 365,907	included above
1000625	NORTHWOOD IV APTS 625	4,061	3,603	1/1/1969	1/1/1969	\$ 40,716	\$ 221,849	included above
1000626	NORTHWOOD IV APTS 626	5,741	5,101	1/1/1969	1/1/1969	\$ 57,637	\$ 314,046	included above

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Bdg #	Building	Square Feet		Year		Costs		Deferred Maintenance Backlog
		Gross	Net Assign	Acq	Const	Original	Replacement	
1000627	NORTHWOOD IV APTS 627	3,117	2,712	1/1/1969	1/1/1969	\$ 31,198	\$ 169,988	included above
1000628	NORTHWOOD IV APTS 628	5,425	4,813	1/1/1969	1/1/1969	\$ 54,464	\$ 296,759	included above
1000629	NORTHWOOD IV APTS 629	5,425	4,813	1/1/1969	1/1/1969	\$ 54,464	\$ 296,759	included above
1000630	NORTHWOOD IV APTS 630	11,534	10,192	1/1/1969	1/1/1969	\$ 115,274	\$ 628,092	included above
1000631	NORTHWOOD IV APTS 631	4,442	3,890	1/1/1969	1/1/1969	\$ 44,417	\$ 242,017	included above
1000632	NORTHWOOD IV APTS 632	2,821	2,486	1/1/1969	1/1/1969	\$ 28,025	\$ 152,701	included above
1000633	NORTHWOOD IV APTS 633	6,727	5,977	1/1/1969	1/1/1969	\$ 67,155	\$ 365,907	included above
1000634	NORTHWOOD IV APTS 634	4,123	3,650	1/1/1969	1/1/1969	\$ 41,245	\$ 224,730	included above
1000635	NORTHWOOD IV APTS 635	4,123	3,650	1/1/1969	1/1/1969	\$ 41,245	\$ 224,730	included above
1000636	NORTHWOOD IV APTS 636	3,159	2,712	1/1/1969	1/1/1969	\$ 31,727	\$ 172,869	included above
1000637	NORTHWOOD IV APTS 637	7,034	6,264	1/1/1969	1/1/1969	\$ 70,328	\$ 383,194	included above
1000638	NORTHWOOD IV APTS 638	5,775	5,073	1/1/1969	1/1/1969	\$ 57,637	\$ 314,046	included above
1000639	NORTHWOOD IV APTS 639	8,029	7,141	1/1/1969	1/1/1969	\$ 80,374	\$ 437,936	included above
1000640	NORTHWOOD IV APTS 640	5,425	4,813	1/1/1969	1/1/1969	\$ 54,464	\$ 296,759	included above
1000641	NORTHWOOD IV APTS 641	4,478	3,937	1/1/1969	1/1/1969	\$ 44,946	\$ 244,898	included above
1000642	NORTHWOOD IV APTS 642	4,061	3,603	1/1/1969	1/1/1969	\$ 40,716	\$ 221,849	included above
1000643	NORTHWOOD IV APTS 643	5,363	4,722	1/1/1969	1/1/1969	\$ 53,935	\$ 293,878	included above
1000644	NORTHWOOD IV APTS 644	8,348	7,428	1/1/1969	1/1/1969	\$ 83,547	\$ 455,223	included above
1000645	NORTHWOOD IV APTS 645	6,279	5,424	1/1/1969	1/1/1969	\$ 62,925	\$ 342,858	included above
1000646	NORTHWOOD IV APTS 646	5,425	4,813	1/1/1969	1/1/1969	\$ 54,464	\$ 296,759	included above
1000647	NORTHWOOD IV APTS 647	4,123	3,650	1/1/1969	1/1/1969	\$ 41,245	\$ 224,730	included above
1000648	NORTHWOOD IV APTS 648	3,159	2,712	1/1/1969	1/1/1969	\$ 31,727	\$ 172,869	included above
1000649	NORTHWOOD IV APTS 649	4,442	3,890	1/1/1969	1/1/1969	\$ 44,417	\$ 242,017	included above
1000650	NORTHWOOD IV APTS 650	4,123	3,650	1/1/1969	1/1/1969	\$ 41,245	\$ 224,730	included above
1000651	NORTHWOOD IV APTS 651	5,425	4,813	1/1/1969	1/1/1969	\$ 54,464	\$ 296,759	included above
1000652	NORTHWOOD IV APTS 652	6,701	5,931	1/1/1969	1/1/1969	\$ 67,155	\$ 365,907	included above
1000653	NORTHWOOD IV APTS 653	4,442	3,890	1/1/1969	1/1/1969	\$ 44,417	\$ 242,017	included above
1000654	NORTHWOOD IV APTS 654	5,425	4,813	1/1/1969	1/1/1969	\$ 54,464	\$ 296,759	included above
1000655	NORTHWOOD IV APTS 655	11,099	9,808	1/1/1969	1/1/1969	\$ 111,044	\$ 605,043	included above
1000656	NORTHWOOD IV APTS 656	10,080	8,897	1/1/1969	1/1/1969	\$ 100,997	\$ 550,301	included above
1000657	NORTHWOOD IV APTS 657	6,727	5,977	1/1/1969	1/1/1969	\$ 67,155	\$ 365,907	included above
1000658	NORTHWOOD IV APTS 658	8,480	7,446	1/1/1969	1/1/1969	\$ 85,133	\$ 463,866	included above
1000659	NORTHWOOD IV APTS 659	9,269	8,259	1/1/1969	1/1/1969	\$ 93,065	\$ 507,083	included above
1000660	NORTHWOOD IV APTS 660	8,348	7,428	1/1/1969	1/1/1969	\$ 83,547	\$ 455,223	included above
1000661	NORTHWOOD IV APTS 661	5,744	5,100	1/1/1969	1/1/1969	\$ 57,637	\$ 314,046	included above
1000662	NORTHWOOD IV APTS 662	3,159	2,712	1/1/1969	1/1/1969	\$ 31,727	\$ 172,869	included above
1000663	NORTHWOOD IV APTS 663	9,650	8,592	1/1/1969	1/1/1969	\$ 96,766	\$ 527,252	included above
1000664	NORTHWOOD IV APTS 664	8,348	7,428	1/1/1969	1/1/1969	\$ 83,547	\$ 455,223	included above
1000665	NORTHWOOD IV APTS 665	3,159	2,712	1/1/1969	1/1/1969	\$ 31,727	\$ 172,869	included above

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Bdg #	Building	Square Feet		Year		Costs		Deferred Maintenance Backlog
		Gross	Net Assign	Acq	Const	Original	Replacement	
1000666	NORTHWOOD IV APTS 666	4,442	3,937	1/1/1969	1/1/1969	\$ 44,417	\$ 242,017	included above
1000667	NORTHWOOD IV APTS 667	6,665	5,931	1/1/1969	1/1/1969	\$ 66,626	\$ 363,026	included above
1000668	NORTHWOOD IV APTS 668	9,331	8,305	1/1/1969	1/1/1969	\$ 93,594	\$ 509,965	included above
1000669	NORTHWOOD IV APTS 669	8,348	7,428	1/1/1969	1/1/1969	\$ 83,547	\$ 455,223	included above
1000670	NORTHWOOD IV APTS 670	7,095	6,237	1/1/1969	1/1/1969	\$ 70,856	\$ 386,075	included above
1000671	NORTHWOOD IV APTS 671	10,858	9,854	1/1/1969	1/1/1969	\$ 108,928	\$ 593,518	included above
1000672	NORTHWOOD IV APTS 672	5,425	4,813	1/1/1969	1/1/1969	\$ 54,464	\$ 296,759	included above
1000673	NORTHWOOD IV APTS 673	9,779	8,610	1/1/1969	1/1/1969	\$ 97,824	\$ 533,014	included above
1000674	NORTHWOOD IV APTS 674	8,029	7,141	1/1/1969	1/1/1969	\$ 80,374	\$ 437,936	included above
1000675	NORTHWOOD IV APTS 675	10,679	9,423	1/1/1969	1/1/1969	\$ 106,813	\$ 581,994	included above
1000676	NORTHWOOD IV APTS 676	6,727	5,977	1/1/1969	1/1/1969	\$ 67,155	\$ 365,907	included above
1000677	NORTHWOOD IV APTS 677	8,104	7,142	1/1/1969	1/1/1969	\$ 80,903	\$ 440,817	included above
1000678	NORTHWOOD IV APTS 678	7,046	6,264	1/1/1969	1/1/1969	\$ 70,328	\$ 383,194	included above
1000679	NORTHWOOD IV APTS 679	3,159	2,712	1/1/1969	1/1/1969	\$ 31,727	\$ 172,869	included above
1000680	NORTHWOOD IV APTS 680	7,967	7,095	1/1/1969	1/1/1969	\$ 79,846	\$ 435,055	included above
1000681	NORTHWOOD IV APTS 681	8,348	7,428	1/1/1969	1/1/1969	\$ 83,547	\$ 455,223	included above
1000682	NORTHWOOD IV APTS 682	11,045	9,807	1/1/1969	1/1/1969	\$ 110,515	\$ 602,162	included above
1000683	NORTHWOOD IV APTS 683	6,727	5,977	1/1/1969	1/1/1969	\$ 67,155	\$ 365,907	included above
1000684	NORTHWOOD IV APTS 684	1,479	1,338	1/1/1996	1/1/1996	tbd	tbd	included above
1002701	NORTHWOOD V APTS 2701	5,603	4,992	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	\$61,799,623
1002702	NORTHWOOD V APTS 2702	10,695	10,344	1/1/1972	1/1/1972	\$ 114,774	\$ 478,779	included above
1002703	NORTHWOOD V APTS 2703	9,393	8,736	1/1/1972	1/1/1972	\$ 100,551	\$ 419,447	included above
1002704	NORTHWOOD V APTS 2704	5,603	4,992	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002705	NORTHWOOD V APTS 2705	9,393	9,096	1/1/1972	1/1/1972	\$ 100,551	\$ 419,447	included above
1002706	NORTHWOOD V APTS 2706	9,393	9,096	1/1/1972	1/1/1972	\$ 100,551	\$ 419,447	included above
1002707	NORTHWOOD V APTS 2707	5,603	4,992	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002708	NORTHWOOD V APTS 2708	8,091	7,848	1/1/1972	1/1/1972	\$ 86,575	\$ 361,148	included above
1002709	NORTHWOOD V APTS 2709	6,218	5,064	1/1/1972	1/1/1972	\$ 66,168	\$ 276,021	included above
1002710	NORTHWOOD V APTS 2710	9,393	8,736	1/1/1972	1/1/1972	\$ 100,551	\$ 419,447	included above
1002711	NORTHWOOD V APTS 2711	8,091	7,488	1/1/1972	1/1/1972	\$ 86,575	\$ 361,148	included above
1002712	NORTHWOOD V APTS 2712	6,789	6,240	1/1/1972	1/1/1972	\$ 72,352	\$ 301,817	included above
1002713	NORTHWOOD V APTS 2713	5,603	4,992	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002714	NORTHWOOD V APTS 2714	6,789	6,600	1/1/1972	1/1/1972	\$ 72,352	\$ 301,817	included above
1002715	NORTHWOOD V APTS 2715	5,603	4,992	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002716	NORTHWOOD V APTS 2716	8,091	7,488	1/1/1972	1/1/1972	\$ 86,575	\$ 361,148	included above
1002717	NORTHWOOD V APTS 2717	6,218	5,064	1/1/1972	1/1/1972	\$ 66,168	\$ 276,021	included above
1002718	NORTHWOOD V APTS 2718	6,218	5,064	1/1/1972	1/1/1972	\$ 66,168	\$ 276,021	included above
1002719	NORTHWOOD V APTS 2719	5,603	4,992	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002720	NORTHWOOD V APTS 2720	5,603	4,992	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above

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Bdg #	Building	Square Feet		Year		Costs		
		Gross	Net Assign	Acq	Const	Original	Replacement	Deferred Maintenance Backlog
1002721	NORTHWOOD V APTS 2721	5,603	4,992	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002722	NORTHWOOD V APTS 2722	9,393	9,096	1/1/1972	1/1/1972	\$ 100,551	\$ 419,447	included above
1002723	NORTHWOOD V APTS 2723	5,603	4,992	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002724	NORTHWOOD V APTS 2724	6,789	6,240	1/1/1972	1/1/1972	\$ 72,352	\$ 301,817	included above
1002725	NORTHWOOD V APTS 2725	6,789	6,240	1/1/1972	1/1/1972	\$ 72,352	\$ 301,817	included above
1002726	NORTHWOOD V APTS 2726	6,218	5,064	1/1/1972	1/1/1972	\$ 66,168	\$ 276,021	included above
1002727	NORTHWOOD V APTS 2727	6,218	5,064	1/1/1972	1/1/1972	\$ 66,168	\$ 276,021	included above
1002728	NORTHWOOD V APTS 2728	5,603	4,992	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002729	NORTHWOOD V APTS 2729	6,789	6,240	1/1/1972	1/1/1972	\$ 72,352	\$ 301,817	included above
1002730	NORTHWOOD V APTS 2730	5,603	4,992	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002731	NORTHWOOD V APTS 2731	6,789	6,240	1/1/1972	1/1/1972	\$ 72,352	\$ 301,817	included above
1002732	NORTHWOOD V APTS 2732	8,091	7,488	1/1/1972	1/1/1972	\$ 86,575	\$ 361,148	included above
1002733	NORTHWOOD V APTS 2733	9,393	9,096	1/1/1972	1/1/1972	\$ 100,551	\$ 419,447	included above
1002734	NORTHWOOD V APTS 2734	8,091	7,488	1/1/1972	1/1/1972	\$ 86,575	\$ 361,148	included above
1002735	NORTHWOOD V APTS 2735	5,603	4,992	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002736	NORTHWOOD V APTS 2736	5,603	4,992	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002737	NORTHWOOD V APTS 2737	6,218	5,064	1/1/1972	1/1/1972	\$ 66,168	\$ 276,021	included above
1002738	NORTHWOOD V APTS 2738	5,603	4,992	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002739	NORTHWOOD V APTS 2739	6,789	6,240	1/1/1972	1/1/1972	\$ 72,352	\$ 301,817	included above
1002740	NORTHWOOD V APTS 2740	8,091	7,848	1/1/1972	1/1/1972	\$ 86,575	\$ 361,148	included above
1002741	NORTHWOOD V APTS 2741	8,091	7,848	1/1/1972	1/1/1972	\$ 86,575	\$ 361,148	included above
1002742	NORTHWOOD V APTS 2742	9,393	8,736	1/1/1972	1/1/1972	\$ 100,551	\$ 419,447	included above
1002743	NORTHWOOD V APTS 2743	5,603	4,992	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002744	NORTHWOOD V APTS 2744	8,091	7,488	1/1/1972	1/1/1972	\$ 86,575	\$ 361,148	included above
1002745	NORTHWOOD V APTS 2745	9,393	8,736	1/1/1972	1/1/1972	\$ 100,551	\$ 419,447	included above
1002746	NORTHWOOD V APTS 2746	5,603	4,992	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002747	NORTHWOOD V APTS 2747	5,603	4,992	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002748	NORTHWOOD V APTS 2748	5,603	4,992	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002749	NORTHWOOD V APTS 2749	6,789	6,240	1/1/1972	1/1/1972	\$ 72,352	\$ 301,817	included above
1002750	NORTHWOOD V APTS 2750	6,789	6,600	1/1/1972	1/1/1972	\$ 72,352	\$ 301,817	included above
1002751	NORTHWOOD V APTS 2751	5,603	4,992	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002752	NORTHWOOD V APTS 2752	8,091	7,848	1/1/1972	1/1/1972	\$ 86,575	\$ 361,148	included above
1002753	NORTHWOOD V APTS 2753	5,603	4,992	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002754	NORTHWOOD V APTS 2754	6,789	6,240	1/1/1972	1/1/1972	\$ 72,352	\$ 301,817	included above
1002755	NORTHWOOD V APTS 2755	5,603	4,992	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002756	NORTHWOOD V APTS 2756	9,393	9,096	1/1/1972	1/1/1972	\$ 100,551	\$ 419,447	included above
1002757	NORTHWOOD V APTS 2757	5,603	4,992	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002758	NORTHWOOD V APTS 2758	9,393	8,736	1/1/1972	1/1/1972	\$ 100,551	\$ 419,447	included above
1002759	NORTHWOOD V APTS 2759	9,393	8,736	1/1/1972	1/1/1972	\$ 100,551	\$ 419,447	included above

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Bdg #	Building	Square Feet		Year		Costs		
		Gross	Net Assign	Acq	Const	Original	Replacement	Deferred Maintenance Backlog
1002760	NORTHWOOD V APTS 2760	5,603	4,992	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002761	NORTHWOOD V APTS 2761	5,603	4,992	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002762	NORTHWOOD V APTS 2762	9,393	9,096	1/1/1972	1/1/1972	\$ 100,551	\$ 419,447	included above
1002763	NORTHWOOD V APTS 2763	5,603	4,992	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002764	NORTHWOOD V APTS 2764	6,789	6,240	1/1/1972	1/1/1972	\$ 72,352	\$ 301,817	included above
1002765	NORTHWOOD V APTS 2765	6,789	6,240	1/1/1972	1/1/1972	\$ 72,352	\$ 301,817	included above
1002766	NORTHWOOD V APTS 2766	6,218	5,064	1/1/1972	1/1/1972	\$ 66,168	\$ 276,021	included above
1002767	NORTHWOOD V APTS 2767	5,603	4,992	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002768	NORTHWOOD V APTS 2768	6,789	6,600	1/1/1972	1/1/1972	\$ 72,352	\$ 301,817	included above
1002769	NORTHWOOD V APTS 2769	6,789	6,240	1/1/1972	1/1/1972	\$ 72,352	\$ 301,817	included above
1002770	NORTHWOOD V APTS 2770	8,091	7,848	1/1/1972	1/1/1972	\$ 86,575	\$ 361,148	included above
1002771	NORTHWOOD V APTS 2771	6,218	5,064	1/1/1972	1/1/1972	\$ 66,168	\$ 276,021	included above
1002772	NORTHWOOD V APTS 2772	9,279	8,632	1/1/1972	1/1/1972	\$ 99,314	\$ 414,288	included above
1002773	NORTHWOOD V APTS 2773	9,279	8,632	1/1/1972	1/1/1972	\$ 99,314	\$ 414,288	included above
1002774	NORTHWOOD V APTS 2774	9,279	8,632	1/1/1972	1/1/1972	\$ 99,314	\$ 414,288	included above
1002775	NORTHWOOD V APTS 2775	6,218	5,064	1/1/1972	1/1/1972	\$ 66,168	\$ 276,021	included above
1002776	NORTHWOOD V APTS 2776	9,279	8,632	1/1/1972	1/1/1972	\$ 99,314	\$ 414,288	included above
1002777	NORTHWOOD V APTS 2777	6,218	5,064	1/1/1972	1/1/1972	\$ 66,168	\$ 276,021	included above
1002778	NORTHWOOD V APTS 2778	6,218	5,064	1/1/1972	1/1/1972	\$ 66,168	\$ 276,021	included above
1002779	NORTHWOOD V APTS 2779	9,279	8,632	1/1/1972	1/1/1972	\$ 99,314	\$ 414,288	included above
1000042	OH ADELIA CHEEVER RESIDENCE	9,137	5,812	1/1/1964	1/1/1964	\$ 197,685	\$ 1,406,981	\$28,876,722
1000041	OH ARTHUR AND HAZEL VANDENBERG HALL	20,641	13,117	1/1/1964	1/1/1964	\$ 446,188	\$ 3,175,655	included above
1000043	OH GEDDES RESIDENCE	11,367	6,965	1/1/1964	1/1/1964	\$ 350,661	\$ 2,389,430	included above
1000044	OH JULIA ESTHER EMANUEL RESIDENCE	9,137	5,812	1/1/1964	1/1/1964	\$ 197,685	\$ 1,406,981	included above
1000046	OH LAUREL HARPER SEELEY HALL	36,632	25,040	1/1/1964	1/1/1964	\$ 792,009	\$ 5,636,968	included above
1000040	OH MARY ALICE AND LILLIAN GODDARD HALL	20,641	13,096	1/1/1964	1/1/1964	\$ 446,188	\$ 3,175,655	included above
1000045	OH PAMELA NOBLE RESIDENCE	9,137	5,873	1/1/1964	1/1/1964	\$ 197,685	\$ 1,406,981	included above
1000047	OH PLANT SERVICE	3,316	844	1/1/1964	1/1/1964	\$ 65,810	\$ 474,492	included above
1000704	OOSTERBAAN BENNIE FIELD HOUSE	78,402	75,713	1/1/1981	1/1/1981	\$ 1,780,716	\$ 3,775,666	\$686,443
1005047	PALMER COMMONS	106,472	45,704	4/1/2005	4/1/2005	\$ 33,000,000	\$ 33,990,000	\$113,327
1000263	PALMER DRIVE PARKING STRUCTURE	389,120	357,944	1/1/2004	1/1/2004	\$ 27,000,000	\$ 29,478,600	\$4,995
1000890	PERRY BUILDING	123,632	63,647	1/1/1965	1/1/1902	\$ 15,126,021	\$ 39,082,449	
1000807	PHYSICAL PROPERTIES BUILDING	7,183	5,610	1/1/1956	1/1/1920	\$ 72,496	\$ 1,398,580	\$470,518
1000442	PIERPONT WILBUR K COMMONS	90,412	45,521	1/1/1965	1/1/1965	\$ 6,369,128	\$ 18,543,669	\$6,556,703
1000261	PLANT SERVICE BUILDING	15,178	11,663	1/1/1973	1/1/1973	\$ 195,420	\$ 754,426	\$809,881
1008050	PLANT STORAGE BUILDING #1	3,086	2,949	1/1/1987	1/1/1987	\$ 10,200	\$ 17,335	
1008051	PLANT STORAGE BUILDING #2	2,576	2,466	1/1/1987	1/1/1987	\$ 10,200	\$ 17,335	
1008052	PLANT STORAGE BUILDING #3	2,576	2,474	1/1/1987	1/1/1987	\$ 10,200	\$ 17,335	
1000186	POUND MADELON HOUSE	7,571	4,492	1/1/1951	1/1/1951	\$ 43,949	\$ 420,986	\$1,369,228

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Bdg #	Building	Square Feet		Year		Costs		
		Gross	Net Assign	Acq	Const	Original	Replacement	Deferred Maintenance Backlog
1000187	POUND MADELON HOUSE GARAGE	527	444	1/1/1951	1/1/1951	\$ 3,055	\$ 29,266	
1000180	POWER CENTER FOR PERFORMING ARTS	73,087	38,405	1/1/1971	1/1/1971	\$ 5,703,625	\$ 21,086,775	\$3,613,786
1000203	PRESIDENTS RESIDENCE	13,781	11,285	1/1/1840	1/1/1840	\$ 65,882	\$ 3,769,919	\$835,004
1000172	RACKHAM HORACE H SCHOOL OF GRADUATE STUDIES	166,057	76,230	1/1/1938	1/1/1938	\$ 1,655,771	\$ 47,547,788	\$1,734,928
1000417	RADIATION SCIENCES LABORATORY 2	11,717	7,674	1/1/1962	1/1/1962	\$ 406,106	\$ 2,156,749	\$167,643
1000416	RADIATION SCIENCES LABORATORY 1	7,708	5,537	1/1/1962	1/1/1962	\$ 254,411	\$ 1,340,324	\$313,991
1000972	RADRICK FARMS BARN #1	1,344	874	1/1/1962	1/1/1962	tbd	tbd	
1000955	RADRICK FARMS CARETAKERS HOUSE	2,874	1,869	1/1/1962	1/1/1962	\$ 30,610	\$ 236,462	
1000958	RADRICK FARMS CHICKEN HOUSE	200	132	1/1/1962	1/1/1962	tbd	tbd	
1000970	RADRICK FARMS COMFORT STATION	240	-	1/1/1987	1/1/1987	\$ 94,945	\$ 161,359	
1005331	RADRICK FARMS COMFORT STATION #2	-	-			tbd	tbd	
1000959	RADRICK FARMS CORNCRIB #1	105	70	1/1/1962	1/1/1962	tbd	tbd	
1000918	RADRICK FARMS DRIVE RANGE SHELTER	128	118	1/1/1989	1/1/1989	\$ 18,012	\$ 29,127	
1000962	RADRICK FARMS FIRE BARN	792	516	1/1/1962	1/1/1962	\$ 3,848	\$ 29,012	
1000960	RADRICK FARMS FOOD SERVICE BLDG	408	260	1/1/1995	1/1/1995	tbd	tbd	
1000974	RADRICK FARMS GOLF CART BUILDING	2,909	1,891	1/1/1976	1/1/1976	\$ 46,375	\$ 140,433	
1000963	RADRICK FARMS GOLF CLUBHOUSE	10,715	6,644	1/1/1962	1/1/1939	\$ 205,000	\$ 5,677,824	
1000971	RADRICK FARMS GOLF STORAGE BLDG	3,661	3,448	1/1/1966	1/1/1966	\$ 2,564	\$ 17,086	
1000950	RADRICK FARMS POOL HOUSE	704	459	1/1/1962	1/1/1962	\$ 6,488	\$ 50,120	
1000954	RADRICK FARMS PUMP HOUSE	168	-	1/1/1976	1/1/1976	\$ 19,181	\$ 58,084	
1000953	RADRICK FARMS RECREATION FACILITY	2,459	1,730	1/1/1994	1/1/1994	\$ 254,801	\$ 367,423	
1000956	RADRICK FARMS SHED-GARAGE	2,370	1,542	1/1/1962	1/1/1962	\$ 6,860	\$ 52,994	
1005048	RADRICK FARMS STORAGE	4,055	3,561	7/1/2003	4/30/2003	\$ 2,035,510	\$ 2,348,164	
1000957	RADRICK FARMS TACKROOM-BARN	2,855	1,857	1/1/1962	1/1/1962	\$ 10,587	\$ 79,822	
1000208	RANDALL HARRISON M LABORATORY	217,169	116,275	1/1/1924	1/1/1924	\$ 24,206,618	\$ 50,610,139	\$4,002,223
1000813	REVELLI WILLIAM D BAND REHEARSAL HALL	15,620	8,944	1/1/1973	1/1/1973	\$ 1,344,820	\$ 3,174,299	\$2,127,380
1005188	ROSS SCHOOL OF BUSINESS BUILDING	291,883	162,573	1/1/2009	5/1/2006	\$ 144,400,000	\$ 148,732,000	
1005120	ROSS STEPHEN M ACADEMIC CENTER	45,356	19,857	1/6/2006	7/1/2004	\$ 10,923,165	\$ 11,250,860	
1000193	RUTHVEN ALEXANDER G MUSEUMS BLDG	183,694	123,300	1/1/1928	1/1/1928	\$ 1,679,473	\$ 25,803,028	\$20,040,049
1000268	SALT STORAGE BUILDING	2,385	2,099	1/1/1984	1/1/1984	\$ 118,135	\$ 201,870	\$66,699
1000705	SCHEMBECHLER GLENN E HALL	77,187	54,254	1/1/1971	1/1/1971	\$ 12,185,751	\$ 20,343,877	\$1,232,332
1000420	SCHOOL OF INFORMATION NORTH	30,930	18,642	1/1/1971	1/1/1971	\$ 1,885,592	\$ 6,973,413	\$4,282,681
1000333	SCHOOL OF NURSING BUILDING	140,057	79,026	1/1/1977	1/1/1913	\$ 2,138,920	\$ 75,992,750	\$11,749,962
1000219	SCHOOL OF SOCIAL WORK BUILDING	143,469	71,276	9/1/1997	6/1/1995	\$ 25,000,000	\$ 33,475,000	\$4,674,588
1000999	SEISMOGRAPH STATION	576	459	1/1/1963	1/1/1963	\$ 6,729	\$ 49,209	
1000227	SHAPIRO HAROLD T AND VIVIAN B LIBRARY	179,318	119,850	1/1/1957	1/1/1957	\$ 5,899,145	\$ 28,023,029	\$5,433,980
1000944	SHEEP RESEARCH FAC EAST BARN	2,016	1,830	1/1/1983	1/1/1983	\$ 11,819	\$ 22,764	
1000942	SHEEP RESEARCH FAC PORTAL VISTA	3,456	3,388	1/1/1993	1/1/1993	tbd	tbd	
1000943	SHEEP RESEARCH FAC SQUARE DOME	1,280	1,119	1/1/1985	1/1/1985	tbd	tbd	

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Bdg #	Building	Square Feet		Year		Costs		
		Gross	Net Assign	Acq	Const	Original	Replacement	Deferred Maintenance Backlog
1000947	SHEEP RESEARCH FACILITY HAY BARN	2,528	1,643	1/1/1976	1/1/1976	tbd	tbd	
1000973	SHEEP RESEARCH FACILITY OLD BARN	2,304	1,497	1/1/1962	1/1/1962	tbd	tbd	
1000946	SHEEP RESEARCH FACILITY P BARN 1	1,120	728	1/1/1976	1/1/1976	tbd	tbd	
1005349	SHEPHERD DONALD R SOFTBALL CENTER	10,200		3/1/2014	3/1/2014	tbd	tbd	
1005077	SHEPHERD DONALD R WOMENS GYMNASIIC CENTER	22,837	20,522	4/1/2001	4/1/2001	\$ 3,200,000	\$ 3,757,440	
1000320	SIMPSON CIRCLE PARKING STRUCTURE	464,866	431,412	1/1/1968	1/1/1968	\$ 3,577,430	\$ 18,081,332	\$70,595
1000212	SIMPSON THOMAS H MEMORIAL INST MEDICAL RESEARCH	17,769	8,648	1/1/1927	1/1/1927	\$ 213,805	\$ 5,438,472	\$7,811,036
1005235	SOUTH HALL	102,656	86,023	1/1/2012	1/1/2012	tbd	tbd	
1000063	SOUTH QUADRANGLE	387,989	231,162	1/1/1951	1/1/1951	\$ 4,751,356	\$ 55,154,213	\$43,797,733
1000441	SPACE RESEARCH LABORATORY	104,265	61,842	1/1/1965	1/1/1965	\$ 6,636,272	\$ 18,479,301	\$10,123,436
1000714	STADIUM PUMPING STATION	6,728	-	1/1/1927	1/1/1927	tbd	tbd	
1005224	STAMPS AUDITORIUM	13,488	5,488	10/24/2008	10/24/2008	\$ 4,719,016	\$ 4,860,586	
1000445	STEARNS FREDERICK BUILDING	18,261	11,721	1/1/1972	1/1/1955	\$ 205,099	\$ 1,905,494	\$1,558,935
1000064	STOCKWELL MADELON LOUISA HALL	141,961	85,456	1/1/1940	1/1/1940	\$ 953,361	\$ 24,593,153	\$433,474
1000215	STUDENT ACTIVITIES	119,626	70,433	1/1/1957	1/1/1957	\$ 7,805,991	\$ 25,550,697	\$7,163,414
1000216	TAPPAN HALL	36,885	22,026	1/1/1894	1/1/1894	\$ 1,494,415	\$ 7,056,435	\$1,963,803
1005037	TAUBMAN A ALFRED BIOMEDICAL SCIENCE RESEARCH BLDG	593,727	256,887	3/1/2006	3/1/2005	\$ 242,970,000	\$ 250,259,100	\$38,837
1000317	TAUBMAN A ALFRED HEALTH CARE CTR	489,498	213,223	1/1/1986	1/1/1986	\$ 46,987,147	\$ 81,790,527	\$31,352,461
1000209	TAUBMAN A ALFRED HEALTH SCIENCES LIBRARY	137,394	99,645	1/1/1980	1/1/1980	\$ 6,779,403	\$ 15,990,579	\$335,321
1002515	TELECOMMUNICATIONS BLDG I	311	264	1/1/1985	1/1/1985	tbd	tbd	
1005337	TEMPORARY LACROSSE TRAILER	2,000	1,660	8/4/2011		tbd	tbd	
1000259	THAYER ST PARKING STRUCTURE	165,422	152,297	1/1/1962	1/1/1962	\$ 856,295	\$ 6,561,962	
1000255	THOMPSON ST PARKING STRUCTURE	365,996	343,911	1/1/1963	1/1/1963	\$ 999,536	\$ 7,412,561	
1000738	TISCH PRESTON ROBERT TENNIS BLD	88,863	69,906	1/1/1995	1/1/1997	\$ 4,500,000	\$ 5,886,450	
1000313	TOWSLEY CENTER FOR CONTINUING MEDICAL EDUCATION	52,332	27,570	1/1/1969	1/1/1969	\$ 1,890,058	\$ 10,531,973	\$6,314,039
1005240	TOWSLEY CHILDRENS HOUSE	25,429	15,534	6/1/2010	6/1/2010	tbd	tbd	
1000808	TRANSPORTATION SERVICES BUILDING	40,443	38,724	1/1/1969	1/1/1964	\$ 719,377	\$ 2,921,802	\$1,861,496
1000886	TROTTER WILLIAM MONROE HOUSE	13,799	6,636	1/1/1972	1/1/1943	\$ 97,997	\$ 2,182,264	\$409,169
1002519	UM TRANS RES FLAMMABLE STOR BLDG	192	148	1/1/1996	1/1/1996	tbd	tbd	
1000444	U-M TRANSPORTATION RESEARCH INST	77,883	45,269	1/1/1969	1/1/1969	\$ 2,532,617	\$ 14,112,500	\$6,310,659
1005338	UM TRANSPORTATION RESEARCH TESTING BUILDING	3,454	3,249	6/30/2012	6/30/2012	\$ 238,197		
1005051	UMH MODULAR OFFICE A	2,050	1,817	5/1/2000	5/1/2000	\$ 327,896	\$ 401,903	
1005046	UNDERGRADUATE SCIENCE BUILDING	141,517	64,366	11/1/2005	7/1/2003	\$ 59,800,000	\$ 61,594,000	\$75,833
1000390	UNIV HOSPITALS CHILD CARE CENTER	14,850	13,432	1/1/1991	1/1/1991	\$ 2,195,231	\$ 3,414,243	\$420,129
1000316	UNIVERSITY HOSPITALS	1,796,262	622,023	1/1/1986	1/1/1986	\$ 233,699,505	\$ 406,800,728	\$167,077,191
1005012	UNIVERSITY HOSPITALS HELIPAD	5,413	984	3/1/2001	1/1/2000	\$ 7,027,000	\$ 8,540,616	
1000309	UNIVERSITY HOSPITAL SOUTH UNIT 1	67,312	39,602	1/1/1950	1/1/1950	\$ 1,653,719	\$ 19,590,744	\$3,578,448
1000312	UNIVERSITY HOSPITAL SOUTH UNIT 2	273,790	142,740	1/1/1969	1/1/1969	\$ 7,790,974	\$ 43,413,647	\$53,717,594
1000314	UNIVERSITY HOSPITAL SOUTH UNIT 3	20,779	10,398	1/1/1972	1/1/1972	\$ 1,499,044	\$ 6,330,463	\$1,194,632

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Bdg #	Building	Square Feet		Year		Costs		
		Gross	Net Assign	Acq	Const	Original	Replacement	Deferred Maintenance Backlog
1000318	UNIVERSITY HOSPITAL SOUTH UNIT 4	159,343	77,722	1/1/1990	1/1/1990	\$ 5,916,587	\$ 9,323,950	\$7,555,475
1005117	UPJOHN RACHEL BUILDING	117,097	66,971	9/29/2006	8/8/2005	\$ 36,136,030	\$ 37,220,111	
1000812	VARSITY DRIVE BUILDING	158,536	146,908	1/1/1969	1/1/1969	\$ 3,986,220	\$ 16,119,121	\$8,097,362
1000204	VAUGHAN HENRY FRIEZE PUBLIC HEALTH BUILDING	210,906	122,187	1/1/1942	1/1/1942	\$ 47,362,023	\$ 62,251,046	\$751,953
1000065	VAUGHAN VICTOR C HOUSE	51,522	25,786	1/1/1939	1/1/1939	\$ 265,426	\$ 6,067,173	\$4,220,799
1005059	WALGREEN CHARLES R JR DRAMA CENTER	84,149	45,321	1/24/2007	1/24/2007	\$ 29,439,618	\$ 30,322,807	
1008067	WALLACE MIKE AND MARY HOUSE	3,962	2,575	1/1/1992	1/1/1909	\$ 281,756	\$ 17,746,267	
1005193	WALL STREET EAST PARKING STRUCTURE			7/1/2014	7/1/2014	tbd	tbd	
1000731	WEIDENBACH JOHN P HALL	23,223	11,522	1/1/1955	1/1/1955	\$ 882,634	\$ 4,833,733	\$474,418
1005101	WEILL JOAN & SANFORD HALL	97,989	47,331	10/1/2006	12/1/2005	\$ 34,380,535	\$ 35,411,951	\$798,442
1005319	WEISFELD FAMILY GOLF CENTER	11,307	10,313	7/1/2011	7/1/2011	tbd	tbd	
1000167	WEST HALL	163,159	98,354	1/1/1904	1/1/1904	\$ 556,714	\$ 32,728,561	\$3,642,846
1000066	WEST QUADRANGLE	292,319	196,607	1/1/1937	1/1/1937	\$ 1,707,463	\$ 46,193,853	\$1,399,946
1008090	WOLVERINE TOWER	224,966	155,288	1/1/1992	1/1/1973	\$ 9,000,000	\$ 34,947,900	\$28,342,384
1000135	WYLY SAM HALL	82,352	50,324	1/1/1996	1/1/1996	\$ 19,895,579	\$ 24,590,935	
1000709	YOST ICE ARENA	113,972	65,900	1/1/1924	1/1/1924	\$ 489,681	\$ 11,456,391	\$1,942,233

Section V

Implementation Plan

IMPLEMENTATION PLAN

Campus Planning

Over the last several years, the University of Michigan (U-M) has experienced growth in new academic, research and clinical initiatives. The U-M has maintained a strategic focus on an exemplary student experience, resulting in a rigorous building renewal program for the residential halls. The university has also executed a significant renovation and expansion program for athletic facilities to address the aging condition of heritage structures, and to provide new amenities needed to remain competitive with U-M peers. Thus, the trend in recent years has been on new growth, expansion of existing programs and facilities, and reinvestment in existing physical plant to meet the robust needs of the campus community.

With the addition of the North Campus Research Complex (NCRC), further described below, and significant growth pressures for additional clinical space, the University Planner's Office brought major campus units into a comprehensive integrated planning effort. Integrated planning ensures efficient resource allocation and identifies immediate, short-term and longer-term needs and planning opportunities to guide future land use planning and capacity targets, functional use requirements, transportation and pedestrian circulation, open space and recreational resources, and utility support. The comprehensive nature of this process ensures alignment between all units.

The effort to enhance transportation between campuses continues. A second phase for the Arbor North-South Connector Study, which is a joint effort between the City of Ann Arbor, the Downtown Development Authority (DDA), the Ann Arbor Area Transportation Authority (AAATA), and the University of Michigan, is nearing completion. The goal of this phase of the study was to evaluate different technologies that could best meet the future needs of the university's community. The high capacity corridor as studied generally extends from the Ross Athletic Campus to Central Campus, the Medical Center Campus, North Campus and eventually East Medical Campus.

The university continues to focus on ways to improve the quality of campus life and the overall student experience, with emphasis on locations and adjacencies, as well as the selection and organization of programs, services, offices, housing facilities, retail and amenities. In addition, planning for improvements to address facility needs for Recreational Sports and the University Unions is under way.

An additional focus has been the development of the third phase of the Residential Life Initiative (RLI), which is expected to be completed later this year. The university has the sixth largest campus housing system in the United States, with eighteen residence halls that house more than 9,500 students (one-third of the undergraduate student body) in 2.9 million square feet of space. In response to the aging condition of many of the residence halls, the university implemented a Residential Life Initiative (RLI), a comprehensive capital plan to address significant immediate building renewal of existing residence halls as well as new facilities for

housing and dining. This included renovation of several heritage facilities as well as the construction of the first undergraduate residence hall in more than forty years, North Quadrangle.

The second phase of this renewal program (RLI II) is currently being implemented. Renovation of West Quadrangle is underway and will be completed late summer 2015 as part of continued commitment to reinvestment in the university's heritage residence halls. In addition, construction of a new residence for graduate and professional students, the Munger Graduate Residences, is underway and will also be completed late summer 2015. Made possible by a generous donation from philanthropist and alumnus Charles T. Munger, the purpose of this facility is to foster a community where graduate students from multiple disciplines can live and exchange ideas. This new residence hall will also provide meeting, gathering, and project spaces.

Infrastructure planning continues as a critical component of the university's master plan. As the university continues to refine short-term and long-term facility needs, requirements for additional power, chilled water, domestic water, storm water, etc., will evolve. The university also anticipates a continued transformation to a more technology rich campus environment, which will certainly influence ongoing infrastructure requirements. Parking and transit requirements, and safe/efficient pedestrian circulation remain high priority design components with each upcoming project.

Major projects expected to begin within the next five years are detailed below by campus. These projects are in various stages of planning, design or construction. Over the next five years, a wide variety of infrastructure needs or programmatic changes will emerge that will require the development of projects not on the lists. Although the university brings a consistent set of planning principles to all areas of campus, each campus has a unique set of dynamics. A brief description of the planning emphasis of each campus is provided below.

Central Campus and Medical Center Campus

The development of Central Campus remains consistent with U-M planning principles, with a significant number of projects planned over the next several years in response to growth pressures by academic and research initiatives, such as the new Biological Science Building, now in design, which is envisioned as a teaching and research center for the biological science units, as well as the university's research and exhibit museums. These projects also continue to support student life, collaboration and interdisciplinary learning, preservation of knowledge, international studies, and the university's commitment to nourish the arts and cultural activities on campus. One of the priority projects will be the renovation of and addition to the School of Dentistry's facilities in order to meet the needs of the school's academic, research and clinical programs. This is included as the FY16 Capital Outlay Request, further described in Section VI.

During the next several years, Medical Center Campus planning will focus on redevelopment opportunities, as well as transportation and site improvements to support existing facilities. The longer term space needs to grow clinical care may play a significant role in revisiting master

planning assumptions. The Health System’s strategic facilities master planning effort currently underway may have significant impact on planning for the future of the Medical Center Campus core area as well as the Wall Street district and the North Ingalls area.

Current and Planned Major Projects FY15 – FY20 -- Central and Medical Center Campuses

PROJECT NAME	PROJECT TYPE	GROSS SQUARE FEET	ESTIMATED COST (MILLIONS)
School of Nursing new building [under construction]	new construction	78,000	\$50.0
Munger Graduate Residences [under construction]	new construction	380,000	\$185.0
Taubman Health Sciences Library renovation [under construction]	renovation	137,000	\$55.0
West Quadrangle & Michigan Union-Cambridge House renovation [under construction]	renovation	370,000	\$114.5
Clements Library infrastructure improvements and addition [under construction]	addition and renovation	7,500 addition 17,000 renovation	\$16.8
School of Education Building renovation [under construction]	renovation	8,300	\$13.6
Ross School of Business Kresge Library Renovation, Computer & Executive Education Building demolition, New Academic Building, and Exterior Cladding [under construction]	new construction	104,000 addition 75,000 renovation	\$135.0
University Hospital Adult Emergency Department Critical Care Unit [under construction]	renovation	7,800	\$7.0
Mott and Von Voigtlander Hospitals CAPH renovation [in design]	renovation	22,500	\$10.9
North Hall and Museums Annex demolition [in design]	demolition	63,000	included in Biological Science
Biological Science Building [in design]	new construction	300,000	\$261.0
Dennison Building renovation and addition [in design]	renovation	1,500 addition 106,000 renovation	\$49.0
University Hospital Operating Rooms Expansion [in design]	renovation	24,500	\$23.5
Central Power Plant expansion	addition	TBD	TBD
Health System I-275 Corridor Clinic expansion (leasehold improvements)	addition	100,000	\$39.0
Michigan Union renovation	renovation	TBD	TBD
Central Campus Recreation Building renovation and additions	addition and renovation	TBD	TBD
<i>Kraus Building renovation</i>	<i>renovation</i>	<i>TBD</i>	<i>TBD</i>

Trotter Multicultural Center replacement facility	new construction	TBD	TBD
West Ann Arbor Health Center relocation and expansion	new construction	TBD	TBD
<i>Dental Building / Kellogg Institute renovation and addition – FY16 Capital Outlay Request</i>	<i>addition and renovation</i>	<i>50,000 addition 170,000 renovation</i>	<i>\$122.0</i>

North Campus

The development of North Campus has been a priority planning focus. Efforts to strengthen physical and functional connections with other campuses, and strategies to further enliven and enrich student life on North Campus, also remain a primary focus of ongoing planning activities. In addition, the ongoing increase in occupancy of the North Campus Research Complex (NCRC) will continue to play a significant role in future of North Campus. The NCRC provides unprecedented opportunity for the university to fulfill current and future needs for its research activities in health, biomedical sciences and other disciplines, and facilitate interactions, without the enormous expense of building similar facilities. The co-location of the College of Engineering with the NCRC, and the close proximity of the Medical Center Campus, creates a rich and dynamic hub for future interdisciplinary opportunities. As of September 2014, nearly 2,300 occupants are located at NCRC, which approximates 80 percent of the total capacity of the site. At least 17 U-M schools and colleges are represented at NCRC.

Current and Planned Major Projects FY15 – FY20 – North Campus

PROJECT NAME	PROJECT TYPE	GROSS SQUARE FEET	ESTIMATED COST (MILLIONS)
G.G. Brown Memorial Laboratories renovation [under construction]	renovation	220,000	\$47.0
Earl V. Moore Building renovation and addition [under construction]	addition and renovation	34,000 addition 28,000 renovation	\$24.320
Mobility Transformation Facility [under construction]	new construction	N/A	\$6.5
Mitchell Field improvements [under construction]	renovation and new construction	3,200	\$8.0
North Campus Grove [in design]	renovation	N/A	\$6.9
Nuclear Engineering Laboratories renovation [in design]	renovation	20,500	\$11.4
Art and Architecture Building – Taubman Wing addition [in design]	addition	TBD	\$28.0
Transportation Facility [in design]	new construction	114,000	\$38.5
Robotics Laboratory	new construction	TBD	TBD
Baits I complex demolition	demolition	165,000	TBD
North Campus Recreation Building renovation and addition	addition and renovation	TBD	TBD
Naval Architecture and Marine Engineering Towing Tank Building	new construction	TBD	TBD

Chemical Engineering and Materials Science Engineering Building	new construction	TBD	TBD
Michigan Innovation Quad	new construction	TBD	TBD
North Campus Research Complex Building 550 renovation	renovation	TBD	TBD
North Campus Research Complex Buildings 20 and 25 renovation	renovation	TBD	TBD

Ross Athletic Campus

The Ross Athletic Campus is primarily a venue for the Athletics Department, with numerous athletic fields and facilities. Facility program planning by the Athletic Department, and by Student Life – Recreational Sports, has resulted in a number of new priority projects planned over the next five years with the goal of enriching the experience for student athletes and for student recreation. Design has begun for the recently approved Athletics South Competition and Performance Project, which will consolidate in one performance center specialized teams spaces and shared resources for strength and conditioning, athletic medicine, a performance lab, meeting space and locker rooms, for men’s and women’s track and field, cross country, lacrosse, soccer and rowing. The project includes indoor and outdoor track competition venues, and a lacrosse stadium.

Current and Planned Major Projects FY15 – FY20 – Ross Athletic Campus

PROJECT NAME	PROJECT TYPE	GROSS SQUARE FEET	ESTIMATED COST (MILLIONS)
Varsity Drive Building renovation for Museums Dry Collections [under construction – off campus to south]	renovation	71,000	\$27.45
Athletics Operations Center [in design]	new construction	18,000	\$6.0
Athletics South Competition and Performance Project [in design]	new construction	310,000	\$168.0
Postma Family (Golf) Clubhouse [in design]	new construction	26,000	\$12.0
Intramural Sports Building renovation [in design]	renovation	106,000	\$18.7
Yost Ice Arena ice plant replacement	renovation	TBD	TBD

East Medical Campus

East Medical Campus is primarily an outpatient clinical care complex that includes associated research and medical education activities. Opportunities for growth and investment by the University of Michigan Health System over the next fifteen years include new “cluster” development potential for ambulatory care and/or academic activities. Plans for future facilities at this location will fit within the framework of plans for the broader Health System and the university at large. Storm water management, transit and non-motorized transportation strategies, parking, and infrastructure improvements are all campus components that will be considered with any proposals that may come forward in the future. There are no major projects currently in planning or anticipated within the next five years for East Medical Campus.

Infrastructure and Deferred Maintenance

The university is committed to the renewal of its physical plant in order to support the overall academic and research mission. Each year a significant number of infrastructure projects are prioritized through the Facility Condition Assessment program (as described in Section IV). These projects include both repairs and replacement of the various components within the buildings and to the infrastructure supporting the facilities. Projects have addressed a wide variety of needs including mechanical and electrical systems, life safety systems, building control systems, structural concerns, and building enclosure items like windows, masonry, and roof structures.

Many of the above projects involve major renovations to existing buildings. A planning priority is to adapt existing facilities to meet current and future program needs for the campus by updating building infrastructure and re-programming/reconfiguring existing buildings. Re-programming/reconfiguring addresses building density, program and organization adjacencies, open site use, building addition or replacement options, and redistribution of the density to other campus areas.

The Capital Renewal Fund, established by the Office of the Provost, enables General Fund academic and administrative units to apply to have an aging building considered for renovation and reprogramming to address major infrastructure needs and to renew and extend the useful life of the building. The fund is used specifically for major renovations to an existing building and focuses on retaining the existing building footprint and square footage as much as possible. A key consideration during the review and selection process is how the building fits into the overall strategic vision and master plan for the physical campus.

In order to guarantee a healthy and strong campus infrastructure for future generations, the university has established a standard policy on fundraising related to facilities endowments. Specifically, the university's total fundraising goal for any new facility includes an additional amount for endowment, beyond the construction cost. The university will match, dollar for dollar, the portion of any contribution applied to the facility endowment within certain thresholds. All such endowed funds are managed by the Executive Vice President and Chief Financial Officer (CFO). The CFO's office works closely with the users of the building to prioritize the facility needs and the uses of the endowment distributions to support capital maintenance and upkeep of the facility.

Status of State Building Authority Projects (Ann Arbor)

The following project is part of the Capital Outlay Request approved for FY 2011:

- **George Granger Brown Memorial Laboratories Renovation**
Construction is underway.

Status of State Building Authority Projects (Ann Arbor)

Completed Projects	Lease Start Date	Lease Termination Date
C. C. Little Science Building Renovation	February 1997	February 2032
S. T. Dana Building Renovation	November 2003	November 2038
Perry Building Renovation	November 2003	November 2038
West Hall Renovation	January 2005	January 2040
Mason Hall and Haven Hall Renovations and Addition	November 2005	November 2040
Literature, Science and the Arts Building Renovation	August 2007	August 2042
Observatory Lodge Renovation	November 2008	November 2043
Student Activities Renovation	December 2009	December 2044
Michigan Memorial Phoenix Laboratory Renovation	December 2009	December 2044

2025 Sustainability Goals and Strategies

The 2025 goals are based on a 2006 baseline adopted by the Integrated Assessment process for all goals with exception of the Sustainable Food Goal (as no baseline data was available). All goals will be re-evaluated in 2016 and may be adjusted to become more stringent or less stringent. Goal evaluation and adjustment will be based on many variables including but not limited to changes in technology, the State of Michigan energy platform, economics, and competing university priorities.

Goal 1: Decrease campus scope 1 and 2 carbon dioxide emissions by 25 percent.

This goal focuses on U-M’s highly efficient Central Power Plant and the buildings which it heats, cools, and electrifies; purchased power and increasing the percentage of renewable energy in the university’s energy portfolio; increasing efficiency of new construction and renovated facilities; and behavior change in the campus population directly impacting how facilities are used.

Goal 1 successes to date:

- Planet Blue Operations Teams – One way the university is addressing the growth in building energy demands is through the Planet Blue Operations Teams program, which actively engages the university community to conserve utilities thereby saving money and benefiting the environment. At the conclusion of FY2013, 130 general fund buildings had been put through the program resulting in an overall average energy savings of 8.4 percent and an annual utility cost avoidance of nearly \$4M.
- DTE Solar Partnership – the university has entered into an agreement with DTE in a partnership arrangement to install approximately 600kW of ground based solar arrays on North Campus. The arrays have been installed and are operational in two locations. They

provide an opportunity for educational interaction and display public support for sustainable energy projects for the state.

The university's design guidelines and standard practices challenge architects to exceed the minimum baseline energy performance mandated by codes. Typical standard energy savings measures employed include additional insulation in foundation walls, exterior walls, and roof assemblies; energy efficient windows/glazing; occupancy sensors to reduce lighting levels; variable water flow controls; resetting of space temperatures based on occupancy sensors; and exhaust heat recovery. The U-M Design Guidelines for Design and Construction outline the institution's detailed requirements related to energy efficiency as well as sustainable design and environmental stewardship.

Currently under evaluation, the university is exploring the feasibility of expanding the electric generating capacity of the Central Power Plant by 26 MW. The additional power would be provided by two 15 MW gas turbines with waste heat boilers for maximum efficiency. Implementation of this arrangement will reduce university scope two emissions by 160,000 MT of CO₂ yearly and provide capacity for future growth load.

Goal 2: Decrease carbon intensity of passenger trips on U-M transportation options by 30 percent.

The university aims to reduce emissions associated with transportation by modeling and promoting sustainable transportation alternatives, such as public mass transit, car pools and van pools, and bike programs.

Goal 2 successes to date:

- GreenRide is a web-based ride-matching system that helps university commuters find carpool/vanpool partners by searching for other employees who live nearby and have similar schedules. Over 3,000 employees have registered since the program launched in May 2008. The GreenRide program reduces the load on campus parking infrastructure, vehicle maintenance, and vehicle depreciation expenses. It reduces parking and campus traffic congestion and vehicle emissions, and contributes to the improvement of air quality.
- U-M Sponsored Vanpool system has entered its tenth decade of operation, with 600 employees participating in 95 vanpools.
- The university operates the largest alternative fuel fleet in the state with 1,078 total vehicles that includes 15 all electrical, 53 gas-electric hybrid, 612 fueled with E-85 ethanol, 78 B-20 bio-diesel fueled trucks and buses, and 7 diesel-electric hybrid buses.

Goal 3: Reduce waste tonnage diverted to disposal facilities by 40 percent.

Strategies include:

- Reduce the use of disposable paper products.
- Install multi-function recycling receptacles in all dormitories, classrooms, conference rooms, labs, appropriate common spaces, and athletic venues.

- Continue to expand the Sustainable Laboratory Program reducing chemical waste disposal.
- Work with university vendors to reduce packaging materials and minimum volume orders to reduce waste.

Goal 4: Protect Huron River water quality by reducing runoff from impervious surfaces and reducing the volume of land management chemicals used on campus by 40 percent

The campus landscape is a critical part of the university's commitment to responsible environmental stewardship. The U-M has a legacy of landscape planning that is sensitive to water-use and inputs to the regional Huron River Watershed.

Strategies include:

- Apply an integrated landscaping approach that recognizes vegetation, soils, pavement systems, and storm water management as interlinked, and helps to restore the quality and capacity of the regional Huron River watershed.
- Minimize use of potable water for irrigation, increase water retained for beneficial purposes on campus, and improve the quality of water outflow.
- Reduce water use for infrastructure to the maximum extent possible.
- Reduce storm water runoff through on-site mitigation techniques such as rain gardens, storm water retention basins, or green roofs, when appropriate.
- Minimize irrigation through the use of drought resistant plantings and properly selected soils.

Goal 5: Purchase 20 percent of U-M food in accordance with the U-M Sustainable Food Purchasing Guidelines.

The U-M purchases food for dozens of licensed food operations on campus, including athletic event related food operations, campus eateries, Residential Dining Services, University Unions, and the U-M Health System. University food service operations purchase approximately 80 percent of all food items from a prime vendor managed through Purchasing Services.

While not always the case, the sustainability of food generally increases as the distance it travels from the point of harvest to consumption decreases. Minimizing transportation and refrigeration generally reduces fossil fuel consumption and carbon dioxide emissions. Local food also requires fewer preservatives and less packaging. In addition, local production often employs a more diverse crop strategy, which reduces pest susceptibility and the need for pesticide and chemical fertilizer use. Finally, supporting local farmers and growers keeps money circulating within the community longer and directly profits local producers.

Action Item: Community Awareness – The university will pursue stakeholder engagement, education, and evaluation strategies toward a campus-wide ethic of sustainability. The success of achieving the goals in the plan will require the active contribution of every member of the

university community. The U-M cannot delegate responsibilities to a handful of departments, but rather must change behaviors as well as policies and practices.

Section VI

Capital Outlay Project Request FY16

*[Reference Attachment B from the instructions
dated August 15, 2014]*

**FISCAL YEAR 2016
CAPITAL OUTLAY PROJECT REQUEST**

<i>Institution Name:</i>	University of Michigan – Ann Arbor
<i>Project Title:</i>	School of Dentistry Renovation Project
<i>Project Focus:</i>	Academic, research, clinical and administrative support
<i>Type of Project:</i>	Renovation and modest addition to the Dental Building and W.K. Kellogg Foundation Institute (referred to as the “Dental Building”)
<i>Program Focus of Occupants:</i>	Dental and oral health care teaching, research, and clinical patient care
<i>Approximate Square Footage:</i>	Current building is 378,556 gross square feet, 209,363 net assignable square feet. Proposed project renovates over 30% of the existing building and increases the building footprint by ~8%
<i>Total Estimated Cost:</i>	\$122 million
<i>Estimated Start/Completion Dates:</i>	Start: Programming and conceptual design study currently underway Completion: Winter 2019 (to accommodate phased construction)

<i>Is the Five-Year-Plan posted on the institution’s public internet site?</i>	Yes
<i>Is the requested project the top priority in the Five-Year Capital Outlay Plan?</i>	Yes
<i>Is the requested project focused on a single, stand-alone facility?</i>	Yes

Describe the project purpose.

As one of the oldest and highest ranked dental schools in the country, the University of Michigan School of Dentistry has earned a reputation of nearly 140 years of innovation and excellence. Through a combination of education, patient care, research, and community service, our students, faculty and staff are committed to improving the oral health and well-being of people in the State of Michigan, across the nation, and around the world. The school not only provides the educational foundation and clinical experience for highly-skilled dentists, dental hygienists, and graduate students trained in current and emerging areas of oral health care, but also specializes in research and continuing professional education that advances the field of dentistry and impacts oral health care practices at the local, national, and global levels.

The School of Dentistry consistently ranks among the top five dental schools in the country, but is increasingly challenged to fulfill its academic, research, and clinical patient care mission in its current facility. The School of Dentistry occupies a teaching, research and clinical building (referred to as the “Dental Building”) comprising four interconnected sections: the W.K. Kellogg Foundation Institute (1940), the Dental Clinic (1968), the Research Tower (1971), and the Library (1973). The newest section of the building is over 40 years old while other areas are

over 70 years old. Although updates have been made where possible over the years, the building has reached the point where a major renovation is needed to support the school's academic, research, and clinical programs going forward and to extend the life of the building.

In 2011, the School of Dentistry commissioned an external architectural consulting firm specializing in science and higher education facilities (Lord, Aeck & Sargent Architecture) to study its facility and determine its programmatic space needs for the next 10 years. The study indicated that the school's most pressing needs require improvements to teaching clinics and research space. It also indicated that of the 209,363 net assignable square feet (nasf) in the existing facilities, approximately 44% (92,331 nasf) was in serious need of attention and that additional space was needed to meet current and growing programmatic needs.

Teaching Clinics and Patient Care Space Needs

Teaching clinics and patient care are a vital part of the School of Dentistry's core mission. In fiscal year 2014 alone, the school had over 183,000 patient visits. These clinics enable students to receive hands-on experience treating patients before entering the workforce and provide an affordable option for patients in the community and around the State of Michigan to receive oral health care. Teaching clinic services range from exams, x-rays, cleanings, and fillings to orthodontics and cosmetic dentistry to periodontics to oral and maxillofacial pathology and reconstructive surgery.

The primary challenges with the current teaching clinics space include:

- Aging, outdated clinic space - The teaching clinics are over 40 years old and comprise 144 small (78 nasf), crowded cubicles with fixed furniture and infrastructure and limited aisle space that compromise patient privacy and make treating physically disabled patients nearly impossible. (Contemporary treatment cubicles at peer institutions are typically ~120 nasf.) The cubicles limit the faculty and students who can treat a patient at any given time. The tightly confined spaces also present daily challenges in managing basic infection control, instrument usage, and patient flow as well as in providing sufficient space for patients and their caregivers to wait for appointments. The Oral Surgery Clinic also includes areas that date back to the 1940s and has an inadequate quantity and quality of treatment rooms that do not meet contemporary surgical standards.
- Inadequate special needs clinic space – The school is in critical need of dedicated space to train dental students on how to provide care to patients with disabilities or who have complex medical conditions, such as children with autism, seniors and veterans with mobility issues. These patients require specialized treatment areas that are barrier free, provide private operatories, and enable special equipment to meet their unique needs.
- Lack of interprofessional clinic space – A recent accreditation mandate for schools of dentistry and other health profession schools requires providing interprofessional education for students so they can be better prepared for the health care models of the future. This requires having clinic space that can accommodate teams of student and faculty health care professionals (e.g., dentists, pharmacists, social workers, and others)

working together with patients at a given time in a real or simulated setting. The current clinic space is not sized appropriately to accommodate teams of professional students and faculty working with patients.

- Poor patient access – The main clinic entrance, located on the south “street” side of the building, represents a time decades ago when most patients arrived by bus or on foot. Today, most patients arrive by car and enter from the parking structure located on the opposite (north) side of the building. The mismatch between where patients enter the building and where they check in means patients and their caregivers must walk a significant distance through various sections of the building, without clear sightlines or an easy path to follow, before reaching a staff member for assistance. This problem poses a significant challenge for the elderly and those with physical challenges.

The current clinic entrance also prevents the school from offering clinic services during the evenings or weekends because it cannot be secured or separated from academic and research areas of the building during off hours. As a result, the school cannot provide more convenient hours of operation for its patients or emergency care services that would reduce the need for patients to turn to expensive hospital emergency rooms for dental emergencies.

Research Space Needs

With few exceptions, the Dental Building research lab design and infrastructure is the legacy of 1960s planning, which never anticipated current technology, present levels of research involvement, or the collaborative manner in which research and teaching are conducted today.

- Most labs are overcrowded and core service/support areas are dispersed, resulting in operational inefficiencies and redundant support systems and associated infrastructure requirements.
- Many labs are oddly shaped or too inflexible to accommodate modern research equipment, in some instances leading to positioning equipment without sufficient space for door access or egress.
- Lack of space for modern research programs or growth in new programs compromises the school’s ability to maintain its top position among schools of dentistry competing for research funding and top students, faculty and staff.
- Lack of adaptable and flexible space for co-locating research by theme compromises the school’s ability to cluster research groups to enable intellectual synergies and collaborative research.
- Lack of sufficient quality and quantity of space has led the School to place nearly 25% of its research mission (~12,000 nasf) off-site in commercial lease space. This not only results in increased operating expenses, but also compromises opportunities for collaboration with colleagues who are physically located within the school.

Building Infrastructure Needs

In addition to teaching clinic and research lab needs, the building also has a number of facility-wide issues that negatively affect the school's overall mission and compromise sustainability.

- Electrical system – There is no emergency generator for the building. This has severely compromised patient care and research during power outages. Electrical service panels are at capacity, preventing equipment from being added or upgraded.
- Heating, ventilation, and air conditioning (HVAC) – The HVAC system is inefficient and running at maximum capacity, creating environmental problems for building occupants and generating unnecessary utilities costs. Too few fume hoods exist for wet-lab research and no additional fume hoods can be added. Medical air system piping is old, unreliable, and poses safety concerns.
- Waste and suction lines – Lines are corroding and need to be replaced.
- Elevators – The building lacks a service/freight elevator. Chemicals, equipment, instruments, animals and other research materials are transported in standard passenger elevators.
- Life/safety needs – The building requires updates to emergency lighting and signage, as well as improvements to stairwells to better ensure the safety of students, faculty, staff, and visitors.
- Barrier-free code compliance – A large number of restrooms are not wheelchair accessible.

Describe the scope of the project.

The School of Dentistry capital project will address all of the needs described above and provide a modern environment that enables the school to successfully fulfill its core teaching, research, and patient care mission and remain a top-ranked dental program in the U.S.

The school is currently working with Lord, Aeck & Sargent Architecture to complete a program study of its needs and develop conceptual designs as preliminary work needed to support a future capital project (pending approval to proceed from the university's Board of Regents).

Although the Lord, Aeck & Sargent program study is still in development, it focuses on renovating over 30% of the existing building and adding a modest addition (~8%) to accommodate the school's programmatic needs. The priorities and scope of the study specifically address the following needs.

Teaching Clinics and Patient Care Space Improvements

- Co-locates and expands teaching clinics to provide modern patient-centered care, open environments, state-of-the-art equipment, and flexible furniture that can be reconfigured to accommodate needs now and in the future

- Constructs a new special needs/interprofessional care clinic with specialized facilities to treat patients with disabilities and complex medical conditions and is sized to accommodate special equipment and teams of student health care professionals (e.g., dentists, nurses, pharmacists, social workers, and others) working together
- Relocates the clinic entrance and reception areas to improve patient accessibility and building navigation and provides reception and check out areas that accommodate patients and care givers with current standards of privacy and accessibility.

Research Space Improvements

- Renovates and expands aging research labs to create state-of-the-art, open, flexible, and adaptable space to support the school’s world-class research
- Connects the School of Dentistry to nearby campus buildings to leverage existing campus animal housing facilities and facilitate opportunities for future research partnerships with other University of Michigan schools and colleges

Building and Infrastructure Improvements

- Renovates ~120,000 gsf (~30%) of the existing building (in varying degrees)
- Adds approximately 31,000 gsf of new space to address the school’s programmatic needs. This represents a modest ~8% increase to the overall building footprint.
- Replaces the aging infrastructure in all renovated spaces
- Addresses life/safety needs
- Enhances the school’s exterior plaza to make it more usable and inviting and more environmentally sustainable

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 School of Dentistry has a significant impact on the Michigan job market, economy, health and welfare, all of which would be enhanced greatly by this capital project.

Job Creation and Talent Enhancement

As one of only two dental schools in the state, and the only public dental school, University of Michigan dental graduates are found in virtually every community in Michigan and serve as leaders in many aspects of local life. Currently, nearly 60% of the 5,700 dentists licensed in the State of Michigan and over 1,500 dental hygienists are University of Michigan alumni. Of the 108 Doctor of Dental Science (DDS) graduates in 2014, 47 (44%) reported that they planned to remain in the state after graduation. Of these 47, eight were originally out-of-state students when they came to U-M.

The School of Dentistry also offers continuing education programs that provide professional development and lifelong learning opportunities for those in the oral healthcare field seeking to

enhance their knowledge and skills. Approximately 25 courses are offered each year and the majority of participants are dental professionals from throughout the State of Michigan.

Economic Growth Impact

As a top-ranked dental program, the school recruits and employs renowned and respected faculty and scientists and attracts visiting researchers all of whom conduct research in a variety of areas that support the dental and health care industries. They rent or own homes in nearby communities, stay in local hotels, shop in stores, go to restaurants and contribute to all sectors of the local economy.

In fiscal year 2013, research expenditures for the School of Dentistry totaled over \$19 million. This funding was spent on employees, goods, services, and other expenses that support research activities and directly or indirectly benefitted the local, regional, and state economies. Over the past 10 years, School of Dentistry research has also produced 127 disclosures of new inventions, 59 applications to the U.S. Patent Office, and 32 U.S. patents, demonstrating the school's intellectual talent, focus on innovation, and broad contributions to the oral healthcare field.

This capital project will contribute to the state's economic growth by providing a modern teaching, learning, and research environment that enables the School of Dentistry to continue to attract top students and researchers to the institution and to the State of Michigan. It will also provide researchers with a flexible and adaptable research environment that enables them to expand their research portfolios and explore innovative and advanced methods for patient care and treatment, as well as more interdisciplinary research, all of which can lead to opportunities for more technology transfers and spin-off companies for the State economy.

Statewide Outreach and Health Care Impact

Providing oral health care to patients is a vital part of the School of Dentistry's core mission. It not only enables students to receive practical and valuable learning experience, but also enables patients around the state to have affordable access to oral health care. As mentioned previously, the school had over 183,000 patient visits to its teaching clinics in fiscal year 2014. The school's clinics in the Dental Building drew patients from 82 of the 83 counties in the state. Over 20% of these patients were Medicaid recipients, who have limited options for being treated elsewhere or are considered at-risk patients. Of these visits, over 20% were children under the age of 18.

In addition to the oral health care provided at the school, students and faculty of the School of Dentistry provide care throughout the state to underserved and at-risk populations. Through these experiences for our students, they are better positioned to engage in more complex treatment needs, address the statewide burden of access to care, and work with allied health care professionals to provide the best care for our community. The students who staff these clinics develop their didactic, preclinical, and clinical skills in the Dental Building that is being submitted for capital outlay consideration.

- Underserved and at-risk programs – Through the school’s Community-Based Dental Education program at 30 sites throughout the state, at-risk populations are cared for at Federally Qualified Health Centers, Community Clinics and in private offices. From 2005 to 2014, over 133,350 patients received over \$31 million in services encompassing nearly 266,790 procedures. Locally, the school also operates the Community Dental Center in Ann Arbor, providing care to the underserved in Washtenaw County.
- Special needs clinic – This year, the school received a \$2 million gift from the Delta Dental Foundation to create the state’s first interprofessional clinic for patients with special needs. The clinic will improve health care access and convenience for patients with developmental disabilities, cognitive impairments, complex medical problems, significant medical limitations, veterans with post-traumatic stress disorder (PTSD), and the elderly. It will also enable dental students and faculty to partner with other University of Michigan health science schools and colleges to provide care together. The clinic will be built in existing space in the School of Dentistry and is believe to be the only clinic of this type in the state.
- Pediatric programs – Children in the state represent one of the most vulnerable populations. Early intervention in oral health can have a lifelong impact on overall health and quality of life. The School of Dentistry actively participates in the Healthy Kids Dental program, which currently takes place in 80 counties in the state. In addition, the Pediatric Dentistry Department works in collaboration with the Pediatric Dentistry Residency Program at the Hurley Medical Center (Flint) and the Mott Children’s Health Center to provide services to children throughout Genesee County. Some graduates also choose to pursue their Community-Based Dental Education at Bay Mills (Brimley), which is a site that focuses on pediatric patients with special needs.
- Military veterans program – In 2012, a group of School of Dentistry students, in partnership with faculty and alumni, established the Wolverine Patriot Project, an outreach program that provides oral health care to disabled and homeless military veterans in northern lower Michigan. To date, it has provided over \$112,000 in oral health care services to more than 40 underserved veterans in Michigan. For their efforts, the students recently received a major national award from the American Dental Association Foundation that recognizes dental school student programs that demonstrate excellence in assisting underserved groups of individuals in the U.S.

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

A renovation and addition to the Dental Building will have a significant impact on the academic and research mission of the school and the institution. It will enable the school to:

- Continue a tradition of excellence and leadership as a top-ranked program by providing a state-of-the-art teaching and learning environment to students and faculty
- Recruit and retain top students, faculty, scientists, and staff

- Better compete for research funding and expand its research portfolio to include more innovative and interdisciplinary research programs
- Provide more modern, patient-friendly, accessible clinic space
- Expand clinic hours to evenings and weekends to better meet patient scheduling needs
- Provide a dedicated interprofessional special needs clinic space designed specifically for patients with disabilities and complex medical conditions
- Offer interprofessional curricular programs to maintain accreditation as required by the Commission on Dental Accreditation

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

The School of Dentistry project focuses on a major renovation of the existing Dental Building with a modest addition to support needs that cannot be accommodated in the existing building footprint. It renews and extends the life of this aging building for another 50 years, providing a more cost-effective and sustainable solution to meeting the school's needs rather than demolishing the existing building and constructing a brand new facility. The building exterior is in good condition, and requires only modest improvements. The aging mechanical, electrical, and plumbing infrastructure, however, has outlived its useful life and will need to be replaced. Investments in new infrastructure will focus on achieving the highest levels of energy efficiency within the target budget to support the institution's commitment to sustainability and to keep building operating costs to a minimum.

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

The university maintains an on-going list of infrastructure deficiencies within university buildings. The project would address nearly all identified infrastructure deficiencies within the Dental Building. This work would include the following:

- Improvements to create a facility that is barrier-free as defined by the Americans with Disabilities Act (ADA) and the Michigan Building Code
- Repair of unsafe doors and hardware
- Repair and/or replacement of mechanical equipment to ensure adequate ventilation and temperature control (improved exhaust from fume hoods and toilet rooms is a particular concern)
- Replacement of corroded plumbing
- Replacement of unsafe electrical wiring
- Replacement of electrical equipment to ensure reliable power during power outages
- Replacement of antiquated emergency egress lighting

In addition, the project will create more open and accessible clinic spaces that enable emergency response personnel and equipment (e.g., crash carts) to access patients easily in emergency situations.

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?

Since buildings vary so much in size, design, infrastructure and age, the university considers utilization of existing facilities primarily on a case-by-case, project-by-project basis. For the School of Dentistry project, the university is currently working with two external consulting firms that specialize in science and higher education facilities (Lord, Aeck & Sargent Architecture) and dental and health science facilities (Kahler Slater) to study the school's existing facilities and programmatic needs and benchmark against comparable programs elsewhere in the U.S. to determine appropriate utilization.

Although this programmatic study is still in development, preliminary feedback from both consulting firms indicates that some School of Dentistry areas are underutilized while other areas do not offer enough space to meet the school's needs. The firms will provide a final recommendation, along with a conceptual design, in a few months that align the school's programmatic needs with benchmarks, which the university's Architecture, Engineering and Construction team will validate.

This project will improve space utilization by creating more functional and efficient building layouts, open and flexible spaces, and opportunities for sharing than exist today. It will also reconfigure the building infrastructure systems to optimize layouts and improve operating efficiencies.

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

The University of Michigan is fully committed to sustainability in teaching, research and student life, and has a long history of environmental stewardship in its approach to facility design and construction. The university requires projects with a construction budget of \$10 million or greater to exceed American Association of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) Energy Code 90.1-2007 by 30%. The university also requires the incorporation of numerous mandatory energy conservation measures on projects, comprehensive evaluation of additional energy efficiency measures, and comprehensive modeling of energy usage for proposed projects and development of energy impact statements at each phase of design.

All projects (new construction and renovation) with a construction budget of \$5 million or greater are also subject to an environmental review process to help guide the design from a sustainable practices standpoint. At the conclusion of schematic design, the architect is

required to develop a preliminary Leadership in Energy and Environmental Design (LEED) score for the project, using accredited personnel, as a measure of the project's overall sustainability.

The School of Dentistry project would adhere to these requirements and continue the institution's firm commitment to sustainability.

7. Are match 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.

The university has identified matching funds that will be available for the project in July 2015. The funds will come from an internal capital renewal fund that was established in fiscal year 2011 to address the growing need for major renovations to aging General Fund buildings.

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

Although the current state authorization anticipates a maximum state contribution of 75% toward the total cost of a project (with the institution funding at least 25%), we are very open to funding more than 25%, if required, as we did with our most recent State capital project authorization from fiscal year 2011 (HB-5858).

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

Building operating costs are expected to be the same or decrease with energy efficiency improvements.

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

The project will have no impact on future tuition costs.

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

Addressing the School of Dentistry's needs remains a high priority to the University of Michigan. If this project is not authorized, the institution will proceed with the project but will reduce its scope to align with funding that is available. This will enable the institution to address school's most critical needs, but will leave many needs unmet, which will limit the school's ability to attract and retain top students, faculty, and scientists and to deliver quality education, research, and patient care going forward. Patients will continue to be given the highest quality care possible, however, they will continue to experience this care in less than optimal conditions.

The impact of not authorizing the project is great and affects not only the School of Dentistry and the University of Michigan, but also patients across the State of Michigan now and in the future.

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

The primary alternative considered for this project was building a new, stand-alone School of Dentistry Building. Building a new building is too costly to the institution, would require placing the school far from its current location, and would be too disruptive to the school's current activities.