

| Project Title                                     | Agency Priority | Funding Source | Agency Request |          |          | Governor's Rec<br>2014 | Governor's Planning Estimates |      |
|---|-----------------|----------------|----------------|----------|----------|------------------------|-------------------------------|------|
|   |                 |                | 2014           | 2016     | 2018     |                        | 2016                          | 2018 |
| HEAPR   | 1               | GO             | \$100,000      | \$70,000 | \$70,000 |                        |                               |      |
| Tate Science and Teaching Renovation              | 2               | GO             | 56,700         | 0        | 0        |                        |                               |      |
| Microbial Sciences Research Building              | 3               | GO             | 30,000         | 0        | 0        |                        |                               |      |
| Campus Wellness Center                            | 4               | GO             | 10,000         | 0        | 0        |                        |                               |      |
| Research Laboratory Improvement Fund              | 5               | GO             | 12,000         | 0        | 0        |                        |                               |      |
| Chemical Sciences and Advanced Materials Building | 6               | GO             | 24,000         | 0        | 0        |                        |                               |      |

|                                 |           |          |          |  |  |
|---------------------------------|-----------|----------|----------|--|--|
| Project Total                   | \$232,700 | \$70,000 | \$70,000 |  |  |
| General Obligation Bonding (GO) | \$232,700 | \$70,000 | \$70,000 |  |  |

|                         |                               |                                  |                             |
|-------------------------|-------------------------------|----------------------------------|-----------------------------|
| <b>Funding Sources:</b> | GF = General Fund             | THF = Trunk Highway Fund         | OTH = Other Funding Sources |
|                         | GO = General Obligation Bonds | THB = Trunk Highway Fund Bonding | UF = User Financed Bonding  |

| Project Title                                     | 2014<br>Agency<br>Priority<br>Ranking | Agency Project Request for State Funds<br>(\$ by Session) |          |          |           | Governor's<br>Recommendations | Governor's<br>Planning<br>Estimate |      |
|---|---------------------------------------|---|----------|----------|-----------|-------------------------------|------------------------------------|------|
|   |                                       | 2014  | 2016     | 2018     | Total     |                               | 2014                               | 2016 |
| HEAPR   | 1                                     | \$100,000   | \$70,000 | \$70,000 | \$240,000 |                               |                                    |      |
| Tate Science and Teaching Renovation              | 2                                     | 56,700  | 0        | 0        | 56,700    |                               |                                    |      |
| Microbial Sciences Research Building              | 3                                     | 30,000  | 0        | 0        | 30,000    |                               |                                    |      |
| Campus Wellness Center                            | 4                                     | 10,000  | 0        | 0        | 10,000    |                               |                                    |      |
| Research Laboratory Improvement Fund              | 5                                     | 12,000  | 0        | 0        | 12,000    |                               |                                    |      |
| Chemical Sciences and Advanced Materials Building | 6                                     | 24,000  | 0        | 0        | 24,000    |                               |                                    |      |
| Total Project Requests                            |                                       | \$232,700   | \$70,000 | \$70,000 | \$372,700 |                               |                                    |      |

## Mission

The statutory mission of the University of Minnesota is to offer undergraduate, graduate, and professional instruction through the doctoral degree, and be the primary state supported academic agency for research and extension services (Minnesota Statute (M.S.) 135A.052). The University's mission, carried out on multiple campuses and throughout the state, is threefold: research and discovery, teaching and learning, and outreach and public service.

## Statewide Outcome(s)

University of Minnesota supports the following statewide outcome(s)

Minnesotans have the education and skills needed to achieve their goals.

## Context

The University of Minnesota is the state's only land grant and research institution, and operates to better the lives of Minnesotans through education, research, and public engagement. As one of the state's most important economic and intellectual assets - and one of the nation's top research institutions - the university is a venue where human talent, ideas and innovations, and discoveries and services converge to advance Minnesota's economy and quality of life.

The University of Minnesota operates on five campuses (Crookston, Duluth, Morris, Rochester, Twin Cities), with approximately 25,000 faculty and staff employees system-wide, and over 60,000 students enrolled at all levels. Through its programs, the University provides services to students and citizens of the state and beyond to better position them for lifelong learning and success.

The University's fiscal year 2013 \$3.2 billion budget is built on revenue support from a variety of sources: tuition (26 percent), sponsored research grants (19 percent), state appropriation (18 percent), miscellaneous income-sales, fees, etc. (16 percent), restricted gifts/contracts (13 percent), and

auxiliary business operations (eight percent). Institutional priorities include the availability of extraordinary education, breakthrough research; and dynamic public engagement.

<http://supporttheu.umn.edu/assets/pdf/2012-AtAGlance.pdf>

## Strategies

The University of Minnesota's strategic plan, adopted by the Board of Regents in 2005, is organized around four essential strategies:

- **Exceptional Students** - Recruit, educate, challenge, and graduate outstanding students who become highly motivated lifelong learners, leaders, and global citizens.
  - Recruit highly prepared students from diverse populations
  - Challenge, educate and graduate students
  - Develop lifelong learners, leaders, and global citizens
  - Ensure affordable access for students of all backgrounds
- **Exceptional Faculty and Staff** - Recruit, mentor, reward, and retain world-class faculty and staff who are innovative, energetic, and dedicated to the highest standards of excellence.
  - Recruit and place talented and diverse faculty and staff to best meet organizational needs
  - Mentor, develop, and train faculty and staff to optimize performance
  - Recognize and reward outstanding faculty and staff
  - Engage and retain outstanding faculty and staff
- **Exceptional Innovation - Inspire exploration of new ideas and breakthrough discoveries that address the critical problems and needs of the University, state, nation, and the world.**
  - Increase sponsored research support, impact, and reputation
  - Promote peer-leading research and scholarly productivity
  - Accelerate the transfer and utilization of knowledge for the public good

- **Exceptional Organization - Be responsible stewards of resources, focused on service, driven by performance, and known as the best among our peers.**
  - Ensure financial strength
  - Be responsible stewards of resources
  - Promote performance, process improvement, and effective practice
  - Foster peer-leading competitiveness, productivity, and impact
  - Ensure a safe and healthy environment for the university community
  - Focus on quality service

[http://www1.umn.edu/systemwide/strategic\\_positioning/](http://www1.umn.edu/systemwide/strategic_positioning/)

## Results

In 2011, the Minnesota Legislature approved five performance measures (Minnesota Laws 2011, 1st Special Session, Chapter Five) for the University of Minnesota and mandated that one percent of funding for fiscal year 2013 be retained until the Board of Regents demonstrates to the Commissioner of Management and Budget that the University has met at least three of the five performance goals identified in the legislation. The Board of Regents and the Minnesota Office of Higher Education agreed to the specific numerical indicators and definitions for the goals on September 9, 2011.

The five performance goals relate to:

- Institutionally provided financial aid to students
- Degrees awarded
- Twin Cities campus undergraduate graduation rates
- Research and development expenditures
- Sponsored expenditures funded by business and industry

Below is the information assembled on the progress of the University of Minnesota on the specific numerical indicators and definitions developed in consultation with the Minnesota Office of Higher Education, and approved by the Board of Regents (<http://govrelations.umn.edu/assets/pdf/022912-PerformanceMeasuresUpdate.pdf>).

| Performance Measures                            | Previous       | Current         | Trend     |
|---|----------------|-----------------|-----------|
| 1. Amt. of Institutional Financial Aid          | \$151 million  | \$176.6 million | Improving |
| 2. Total Degrees Awarded                        | 13,591         | 14,836          | Improving |
| 3a. Four-year Graduation Rate                   | 45.4%          | 54.0%           | Improving |
| 3b. Six-year Graduation Rate                    | 64.0%          | 70.5%           | Improving |
| 4. National Science Foundation R&D Expenditures | \$595 million  | \$786 million   | Improving |
| 5. Business & Industry Sponsored Exp.           | \$38.4 million | \$42.4 million  | Improving |

### Performance Measures Notes:

For measures 1, 2 and 5, "Previous" = FY 2007 data and "Current" = FY 2011 data (the most recent closed fiscal year)

For measure 3a, "Previous" = students entering fall 2003 and "Current" = students entering fall 2007

For measure 3b, "Previous" = students entering fall 2001 and "Current" = students entering fall 2005

For measure 4, due to the timing of submitted information to NSF, "Previous" = FY 2006 and "Current" = FY 2010

Finally, within the University's charter, 1851 Territorial Laws, Chapter 3, Section 16, it is stated that "...[the regents shall] make a report annually, to the Legislature...exhibiting the state and progress of the university...and such other information as they may deem proper, or may from time to time be required of them." Consequently, the University of Minnesota publishes annually the "University Plan, Performance, and Accountability Report", which provides a performance baseline for the institution around its key strategic goals, progress appraisal, and identification of areas for improvement.

[http://www.academic.umn.edu/accountability/pdf/2011/2011\\_UMN\\_Accountability\\_Report.pdf](http://www.academic.umn.edu/accountability/pdf/2011/2011_UMN_Accountability_Report.pdf)

**At A Glance: Agency Long-Range Strategic Goals**

The statutory mission of the University of Minnesota is to "offer undergraduate, graduate, and professional instruction through the doctoral degree, and be the primary state-supported academic agency for research and extension services" (M.S. 135A.052, subd. 1).

The University of Minnesota, founded in the belief that all people are enriched by understanding, is dedicated to the creation of knowledge and the advancement of learning and artistic activity; to the sharing of this knowledge through education for a diverse community; and to the application of this knowledge to benefit the people of the state, the nation, and the world. The University's mission is three-fold:

*Research and Discovery.* Generate and preserve knowledge, understanding, and creativity by conducting high quality research, scholarship, and artistic activity that benefits students, scholars, and communities across the state, the nation, and the world.

*Teaching and Learning.* Share that knowledge, understanding, and creativity by providing a broad range of educational programs, in a strong and diverse community of learners and teachers, and prepare a graduate, professional, and undergraduate student body for active roles in a multiracial and multicultural world.

*Outreach and Public Service.* Extend, apply, and exchange knowledge between the University and society by applying scholarly expertise to community problems, by assisting organizations and individuals to respond to their changing environments, and by making the knowledge and resources created and preserved here accessible to the citizens of the state, the nation, and the world.

**Trends, Policies and Other Issues Affecting the Demand for Services, Facilities, or Capital Programs**

We are in a transformative era for higher education. For more than 150 years, the University of Minnesota has met the changing needs of the state's

citizens, businesses, farmers, and public institutions. Now, the state, as well as the nation, is facing demographic, economic, and social changes that compel the University of Minnesota to rise up to meet these new challenges. The University must strengthen its role as the state's only major research university, as its land grant institution, and as its magnet for students, faculty, professionals, entrepreneurs, and civic and artistic leaders.

Building on a proud 160-year history of commitment to the highest quality education, research, and service to the people of Minnesota, the 'U' has embarked on a journey to become one of the top three public research institutions in the world. The entire University community is poised to take its education, research, and public outreach mission to even higher levels of service to the people of Minnesota.

In the context of these challenges, the University must make the most of its resources. Minnesota's long-term interests are best served by an institution that can meet the challenges in this new era—an institution capable of offering the highest quality academic programs, supporting ground-breaking research, and delivering innovative, responsive service to Minnesota's communities.

As a large, multi-faceted research institution, a variety of factors affect the University's demand for facilities and capital programs. Three issues that are relevant to the 2014 capital request are outlined below:

- *Aging and Obsolete Facilities* – Approximately 65 percent of the University's major campus buildings are more than 30 years old (more than 25 percent are over 70 years old). The Twin Cities campus alone has nearly 100 buildings that are more than 50 years old. Buildings become less functional and require more maintenance as they age.
- *Promising New Discoveries* – The University must continually renew its existing programs and make targeted investments in emerging fields to meet state needs and remain competitive. High quality programs, for example, allow the University to compete at the national level for federal science and health initiatives funds (e.g. National Institutes of Health).
- *Increased Student Expectations* – The University in recent years has placed a considerable emphasis on upgrading its research facilities and

infrastructure. A similar effort is now required to improve the conditions and capabilities of its educational facilities. The University's most heavily used instructional facilities are in some of the oldest buildings and often lack the necessary technological and programmatic components required to effectively teach at the university level.

### **Provide a Self-Assessment of the Condition, Suitability, and Functionality of Present Facilities, Capital Projects, or Assets**

The University of Minnesota takes its facilities stewardship responsibilities seriously. While there is an ongoing effort on each campus to keep buildings clean and well maintained, as buildings age and programs evolve, it becomes necessary to invest additional resources to keep a building functional and operating. Recognizing the importance of taking care of what we have, the University has surveyed and documented the condition of all the major systems within University buildings system-wide. This *Facilities Condition Assessment* program has collected information on heating, ventilation, and air conditioning (HVAC) systems, elevators, plumbing, building interiors, electrical systems, code issues, and other building conditions. This assessment expands on a similar effort done in recent years on building exteriors - roofs, walls, and windows. The Facilities Condition Assessment will identify needed building improvements and help the University plan and prioritize projects. The projects outlined in the University's Higher Education Asset Preservation and Replacement (HEAPR) request were selected based on information from this assessment.

The capacity and condition of campus infrastructure remains a critical concern. The infrastructure of a University campus is a critical component of the physical and operational systems necessary to support the much more visible teaching, research, and outreach mission. Individual buildings depend upon campus infrastructure to deliver heating, cooling, communications, electricity, and water. In portions of the campus the existing buildings have stretched the service capacity of the infrastructure to the maximum limits; while in other areas, buildings are being fed by aging, obsolete services from near the turn of the century. In these areas, any new construction, significant remodeling or expansion of existing services will require a corresponding increase in infrastructure capacity.

### **Agency Process Used to Arrive at These Capital Requests**

The University of Minnesota's annual capital budget and Six-Year Capital Improvements Program is a method of providing for disciplined financial management. This decision making process supports the University's desire to focus on its mission, aligns capital projects with the academic goals of the institution and follows the Regents' directive to make the most efficient use of limited resources.

The capital budgeting process consists of the following steps:

- *Need Identification/Preliminary Ranking* - Academic units, Facilities Management, Campus Planning, Environmental Health and Safety, and other University groups identify capital needs. Capital needs are typically the outcome of either an academic priority (i.e. expansion of the Pharmacy program) or deficient facility condition (i.e. inadequate ventilation or electrical capacity). Capital and programmatic needs are reviewed as part of the compact process. The Provost, Chancellors, and Vice Presidents rank these needs.
- *Project Definition and Prioritization* - A predesign study, including a needs analysis, a preliminary facility program, cost estimates, and an implementation schedule, is prepared for each project and is evaluated against academic priorities, the campus master plan, and code requirements.
- *Annual Budget Approval/Program Acceptance* - The senior administrative officers forward a recommendation to the Regents. The Regents approve the annual capital budget, including capital request items, and accept the five-year Capital Improvement Program.

The University's capital budget calendar is synchronized with the biennial budgeting process in the state legislature.

**Major Capital Projects Authorized**

| <b>2010 Appropriation</b>      | <b>(\$ in Thousands)</b>     |
|--------------------------------|------------------------------|
| HEAPR                          | \$56,000                     |
| Folwell Hall                   | \$23,000                     |
| Lab Renovations                | \$ 6,700                     |
| Physics and Nano Design        | \$ 4,000                     |
| <br><b>2012 Appropriation</b>  | <br><b>(\$ in Thousands)</b> |
| HEAPR                          | \$50,000                     |
| Itasca Facilities Improvements | \$ 4,060                     |
| Combined Heat and Power Design | \$10,000                     |

## HEAPR

**2014 STATE APPROPRIATION REQUEST:** \$100,000,000

**AGENCY PROJECT PRIORITY:** 1 of 6

### Project At A Glance

- Health and safety funds are used by the University of Minnesota to ensure a safe, accessible environment for students, employees, and visitors in its more than 800 buildings.
- Building systems funds extend the useful life of existing facilities and preserve their structural integrity by replacing building components like roofs, elevators, chillers, windows, and mechanical systems.
- Infrastructure funds reduce the risk to people and research caused by aging and unreliable systems.
- Strategic investments improve energy efficiency and reduce long term operating costs.

### Project Description

The purpose and use of Higher Education Asset Preservation and Replacement (HEAPR) funds is defined in statute 135A.046 ASSET PRESERVATION AND REPLACEMENT. Funds are intended to preserve and renew existing campus facilities by funding five kinds of projects: Accessibility, Building Systems (e.g. exterior envelope, mechanical, and electrical systems), Energy Efficiency, Health and Safety (e.g. hazardous material abatement, building code compliance), and Infrastructure. HEAPR funds are used throughout the University of Minnesota system and are allocated to campuses and research stations based on facility need and overall quantity of space.

### Project Rationale

HEAPR funds are essential to support the teaching, research, and service mission of the University. The University's mission will be compromised without continued, sustained investment in buildings and infrastructure, particularly since one-quarter of the University's buildings are over 70 years old. The University's capital budget principles emphasize investment in

existing facilities and infrastructure to extend useful life and to ensure the health, safety, and well-being of building occupants. Individual projects have been identified and prioritized through the University's Facility Condition Assessment (FCA) process. The FCA is a comprehensive evaluation of the condition of the University of Minnesota's campus facilities and infrastructure portfolio. FCA data is used to triage existing buildings into those that need long-term investments, those that need short-term investments and those where no investment is required, in alignment with academic priorities.

HEAPR funds are used throughout the University of Minnesota system and are allocated to campuses and research stations based on facility need and overall space. They are essential in supporting the teaching, research, and service mission of the University. Funds keep people safe and make the campuses accessible for all Minnesotans. The value of the State's past investments is maximized by extending the functionality and useful life of existing buildings. HEAPR dollars are flexible, allowing the University to respond quickly to emergencies and to respond to unique opportunities. Regulatory compliance items, e.g. elevators, storm water and building codes, and other projects that are generally smaller than traditional capital request projects are funded with HEAPR allocations. These projects move faster, put people to work quicker, and provide different firms an opportunity to participate in design and construction at the University. HEAPR projects are green, since renewing an existing facility is more sustainable than even new "green" construction.

One example of a project to be funded in 2014 is the Mechanical Engineering Building on the Twin Cities Campus. This \$34.6 million project would renew this 64-year old engineering laboratory building. The University has the State's flagship mechanical engineering program. The program graduates ~200 Bachelors, ~45 Masters of Science and ~20 Ph.D degrees each year. Undergraduate enrollment has increased 40% in the last four years. ME graduates, particularly at the BME and MSME level, are highly sought after by Minnesota companies and companies with strong Minnesota presence. This 1948 building has major deficiencies in the areas of:

- Electrical systems
- Heating, ventilating and air conditioning systems
- Disability access (ADA)
- Stair enclosures, and other fire safety requirements
- Exterior building envelope, including windows.



## HEAPR

- Elevator code compliance.

**Impact on Agency Operating Budgets (Facilities Notes)**

HEAPR improvements to existing facilities will have negligible impact on the annual operating budget. No additional maintenance or program staff will result directly from these improvements.

**Previous Appropriations for this Project**

The University received \$25 million in 2009, \$56 million in 2010, \$25 million in 2011 and \$50 million in 2012. The University includes HEAPR in each biennial capital request. 99 percent of all HEAPR funds appropriated before 2012 are either spent or under contract.

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|                                |                          |
|--------------------------------|--------------------------|
| <b>University of Minnesota</b> | <b>Project Cost</b>      |
| <b>HEAPR</b>                   | <b>(\$ in Thousands)</b> |

| <b>TOTAL PROJECT COSTS</b><br>All Years and All Funding Sources | <b>Project Costs</b><br>All Prior Years | <b>Project Costs</b><br>FY 2014-15 | <b>Project Costs</b><br>FY 2016-17 | <b>Project Costs</b><br>FY 2018-19 | <b>Project Costs</b><br>All Years | <b>Project Start</b><br>(Month/Year) | <b>Project Finish</b><br>(Month/Year) |
|---|---|------------------------------------|------------------------------------|------------------------------------|-----------------------------------|--------------------------------------|---------------------------------------|
| <b>1. Property Acquisition</b>                                  |   |                                    |                                    |                                    |                                   |                                      |                                       |
| Land, Land Easements, Options                                   | \$0                                     | \$0                                | \$0                                | \$0                                | \$0                               |                                      |                                       |
| Land and Buildings  | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| <b>2. Predesign Fees</b>  | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| <b>3. Design Fees</b>   |   |                                    |                                    |                                    |                                   |                                      |                                       |
| Schematic   | 600                                     | 1,200                              | 840                                | 840                                | 3,480                             | 06/2014                              | 09/2014                               |
| Design Development  | 800                                     | 1,600                              | 1,120                              | 1,120                              | 4,640                             | 10/2014                              | 01/2015                               |
| Contract Documents  | 3,600                                   | 3,600                              | 2,520                              | 2,520                              | 12,240                            | 02/2015                              | 06/2015                               |
| Construction Administration                                     | 1,600                                   | 1,600                              | 1,120                              | 1,120                              | 5,440                             | 03/2015                              | 06/2016                               |
| <b>4. Project Management</b>                                    |   |                                    |                                    |                                    |                                   | 06/2014                              | 06/2016                               |
| State Staff Project Management                                  | 1,875                                   | 0                                  | 2,625                              | 2,625                              | 7,125                             |                                      |                                       |
| Non-State Project Management                                    | 0                                       | 3,750                              | 0                                  | 0                                  | 3,750                             |                                      |                                       |
| Commissioning   | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| Other Costs   | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| <b>5. Construction Costs</b>                                    |   |                                    |                                    |                                    |                                   | 03/2015                              | 06/2016                               |
| Site & Building Preparation                                     | 1,000                                   | 2,000                              | 1,400                              | 1,400                              | 5,800                             |                                      |                                       |
| Demolition/Decommissioning                                      | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| Construction  | 38,025                                  | 74,708                             | 45,704                             | 39,951                             | 198,388                           |                                      |                                       |
| Infrastructure/Roads/Utilities                                  | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| Hazardous Material Abatement                                    | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| Construction Contingency  | 2,500                                   | 5,000                              | 4,500                              | 3,900                              | 15,900                            |                                      |                                       |
| Other Costs   | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| <b>6. One Percent for Art</b>                                   | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| <b>7. Relocation Expenses</b>                                   | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| <b>8. Occupancy</b>   |   |                                    |                                    |                                    |                                   |                                      |                                       |
| Furniture, Fixtures and Equipment                               | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| Telecommunications (voice & data)                               | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| Security Equipment  | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| Other Costs   | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| <b>SUBTOTAL:</b>  | 50,000                                  | 93,458                             | 59,829                             | 53,476                             | 256,763                           |                                      |                                       |
| <b>9. Inflation</b>   |   |                                    |                                    |                                    |                                   |                                      |                                       |
| Midpoint of Construction  |   | 05/2015                            | 04/2017                            | 04/2019                            |                                   |                                      |                                       |
| Inflation Multiplier  |   | 7.00%                              | 17.00%                             | 30.90%                             |                                   |                                      |                                       |
| Inflation Cost  |   | 6,542                              | 10,171                             | 16,524                             | 33,237                            |                                      |                                       |
| <b>GRAND TOTAL</b>  | \$50,000                                | \$100,000                          | \$70,000                           | \$70,000                           | \$290,000                         |                                      |                                       |

| <b>TOTAL PROJECT COSTS<br/>All Years and Funding Sources</b> | <b>Prior Years</b> | <b>FY 2014-15</b> | <b>FY 2016-17</b> | <b>FY 2018-19</b> | <b>TOTAL</b>   |
|--|--------------------|-------------------|-------------------|-------------------|----------------|
| 1. Property Acquisition                                      | 0                  | 0                 | 0                 | 0                 | 0              |
| 2. Predesign Fees  | 0                  | 0                 | 0                 | 0                 | 0              |
| 3. Design Fees   | 6,600              | 8,000             | 5,600             | 5,600             | 25,800         |
| 4. Project Management  | 1,875              | 3,750             | 2,625             | 2,625             | 10,875         |
| 5. Construction Costs  | 41,525             | 81,708            | 51,604            | 45,251            | 220,088        |
| 6. One Percent for Art                                       | 0                  | 0                 | 0                 | 0                 | 0              |
| 7. Relocation Expenses                                       | 0                  | 0                 | 0                 | 0                 | 0              |
| 8. Occupancy   | 0                  | 0                 | 0                 | 0                 | 0              |
| 9. Inflation   | 0                  | 6,542             | 10,171            | 16,524            | 33,237         |
| <b>TOTAL</b>   | <b>50,000</b>      | <b>100,000</b>    | <b>70,000</b>     | <b>70,000</b>     | <b>290,000</b> |

| <b>CAPITAL FUNDING SOURCES</b> | <b>Prior Years</b> | <b>FY 2014-15</b> | <b>FY 2016-17</b> | <b>FY 2018-19</b> | <b>TOTAL</b>   |
|--------------------------------|--------------------|-------------------|-------------------|-------------------|----------------|
| State Funds :                  |                    |                   |                   |                   |                |
| G.O Bonds/State Bldgs          | 50,000             | 100,000           | 70,000            | 70,000            | 290,000        |
| <b>State Funds Subtotal</b>    | <b>50,000</b>      | <b>100,000</b>    | <b>70,000</b>     | <b>70,000</b>     | <b>290,000</b> |
| Agency Operating Budget Funds  | 0                  | 0                 | 0                 | 0                 | 0              |
| Federal Funds                  | 0                  | 0                 | 0                 | 0                 | 0              |
| Local Government Funds         | 0                  | 0                 | 0                 | 0                 | 0              |
| Private Funds                  | 0                  | 0                 | 0                 | 0                 | 0              |
| Other                          | 0                  | 0                 | 0                 | 0                 | 0              |
| <b>TOTAL</b>                   | <b>50,000</b>      | <b>100,000</b>    | <b>70,000</b>     | <b>70,000</b>     | <b>290,000</b> |

| <b>CHANGES IN STATE<br/>OPERATING COSTS</b>    | <b>Changes in State Operating Costs (Without Inflation)</b> |                   |                   |              |
|--|---|-------------------|-------------------|--------------|
|  | <b>FY 2014-15</b>   | <b>FY 2016-17</b> | <b>FY 2018-19</b> | <b>TOTAL</b> |
| Compensation -- Program and Building Operation | 0   | 0                 | 0                 | 0            |
| Other Program Related Expenses                 | 0   | 0                 | 0                 | 0            |
| Building Operating Expenses                    | 0   | 0                 | 0                 | 0            |
| Building Repair and Replacement Expenses       | 0   | 0                 | 0                 | 0            |
| State-Owned Lease Expenses                     | 0   | 0                 | 0                 | 0            |
| Nonstate-Owned Lease Expenses                  | 0   | 0                 | 0                 | 0            |
| Expenditure Subtotal                           | 0   | 0                 | 0                 | 0            |
| Revenue Offsets                                | 0   | 0                 | 0                 | 0            |
| <b>TOTAL</b>                                   | <b>0</b>  | <b>0</b>          | <b>0</b>          | <b>0</b>     |
| Change in F.T.E. Personnel                     | 0.0   | 0.0               | 0.0               | 0.0          |

| <b>SOURCE OF FUNDS<br/>FOR DEBT SERVICE<br/>PAYMENTS</b><br>(for bond-financed<br>projects) | <b>Amount</b> | <b>Percent<br/>of Total</b> |
|---|---------------|-----------------------------|
| General Fund  | 100,000       | 100.0%                      |
| User Financing  | 0             | 0.0%                        |

| <b>STATUTORY AND OTHER REQUIREMENTS</b>   |   |
|---|---|
| Project applicants should be aware that the following requirements will apply to their projects after adoption of the bonding bill. |   |
| No  | MS 16B.335 (1a): Construction/Major Remodeling Review (by Legislature)  |
| No  | MS 16B.335 (3): Predesign Review Required (by Administration Dept)      |
| Yes   | MS 16B.335 and MS 16B.325 (4): Energy Conservation Requirements         |
| No  | MS 16B.335 (5): Information Technology Review (by Office of Technology) |
| Yes   | MS 16A.695: Public Ownership Required                                   |
| No  | MS 16A.695 (2): Use Agreement Required                                  |
| No  | MS 16A.695 (4): Program Funding Review Required (by granting agency)    |
| No  | Matching Funds Required (as per agency request)                         |
| Yes   | MS 16A.642: Project Cancellation in 2018                                |



## Tate Science and Teaching Renovation

**2014 STATE APPROPRIATION REQUEST:** \$56,700,000

**AGENCY PROJECT PRIORITY:** 2 of 6

#### Project At A Glance

- Rehabilitates the historic 1926 Tate Laboratory of Physics for continued use by the College of Science & Engineering.
- Consolidates the Earth Sciences Department onto one building.
- Upgrades the existing instructional labs, classrooms, and auditoria.
- Upgrades the building's structural, HVAC, and electrical infrastructure.

#### Project Description

This project will renovate the existing 200,000 square foot Tate Laboratory of Physics building after the Physics and Nanotechnology Building, funded in 2011, is completed. Upon its completion, Tate will be the new home for the School of Earth Sciences as well as provide updated space for the remaining units from the School of Physics and Astronomy's programs in Astrophysics and Theoretical Physics.

#### Project Rationale

Completion of the Physics and Nanotechnology building will leave much of the Tate Laboratory of Physics vacant. The Tate Laboratory building was constructed in 1926 with additions constructed in the 1950s and 1960s. While research and teaching has changed, the building has not undergone any significant renovation. Consequently it has obsolete labs, inflexible classrooms, and an antiquated infrastructure. The renovation of Tate will create a building with a balanced focus on classrooms and research spaces. The School of Physics and Astronomy will occupy the building, as well as the majority of researchers in the School of Earth Sciences creating exciting academic collaboration opportunities between these two synergistic units.

The building renovation will deliver efficient and flexible-design classrooms consistent with the range of sizes and pedagogical styles required to teach modern Physics and Earth Sciences. More than 4,000 undergraduate students take physics courses alone each year on the Twin Cities campus.

Live demonstration lectures remain an important part of the physics curriculum. The University has a legislative performance goal to, "increase by at least three percent the total number of undergraduate STEM degrees, averaged over three years, conferred by the University of Minnesota Twin Cities campus reported in fiscal year 2014 over fiscal year 2012." The renovated teaching facilities will assist the University in meeting this goal.

The facilities for research in technology-driven fields such as Physics and Earth Sciences do not exist in a building designed nearly ninety years ago. As a consequence Physics and Earth Sciences at Minnesota are at a major competitive disadvantage in recruiting and retaining the highest quality faculty, recruiting graduate students, and attracting support for cutting-edge research. Most major research universities have recognized this need. New buildings have been constructed at the Ohio State University, Michigan State University, the University of Michigan, the University of Florida, UCLA, Santa Barbara, and the University of Washington, among others. Major additions or renovations to research facilities are in process or have been completed at the University of Illinois at Urbana-Champaign, Rutgers University, Stanford University, Harvard University, and the University of Wisconsin, Madison.

The project will ensure that Tate remains a contributing component of the Northrop Mall Historic District.

#### Impact on Agency Operating Budgets (Facilities Notes)

TBD

#### Previous Appropriations for this Project

None

#### Project Contact Person

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|   |                          |
|---|--------------------------|
| <b>University of Minnesota</b>              | <b>Project Cost</b>      |
| <b>Tate Science and Teaching Renovation</b> | <b>(\$ in Thousands)</b> |

| <b>TOTAL PROJECT COSTS</b><br>All Years and All Funding Sources | <b>Project Costs</b><br>All Prior Years | <b>Project Costs</b><br>FY 2014-15 | <b>Project Costs</b><br>FY 2016-17 | <b>Project Costs</b><br>FY 2018-19 | <b>Project Costs</b><br>All Years | <b>Project Start</b><br>(Month/Year) | <b>Project Finish</b><br>(Month/Year) |
|---|---|------------------------------------|------------------------------------|------------------------------------|-----------------------------------|--------------------------------------|---------------------------------------|
| <b>1. Property Acquisition</b>                                  |   |                                    |                                    |                                    |                                   |                                      |                                       |
| Land, Land Easements, Options                                   | \$0                                     | \$0                                | \$0                                | \$0                                | \$0                               |                                      |                                       |
| Land and Buildings  | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| <b>2. Predesign Fees</b>  | 0                                       | 573                                | 0                                  | 0                                  | 573                               | 01/2013                              | 10/2013                               |
| <b>3. Design Fees</b>   |   |                                    |                                    |                                    |                                   |                                      |                                       |
| Schematic   | 0                                       | 936                                | 0                                  | 0                                  | 936                               | 12/2013                              | 05/2014                               |
| Design Development  | 0                                       | 1,248                              | 0                                  | 0                                  | 1,248                             | 06/2014                              | 12/2014                               |
| Contract Documents  | 0                                       | 2,807                              | 0                                  | 0                                  | 2,807                             | 01/2015                              | 06/2015                               |
| Construction Administration                                     | 0                                       | 1,248                              | 0                                  | 0                                  | 1,248                             | 02/2015                              | 01/2017                               |
| <b>4. Project Management</b>                                    |   |                                    |                                    |                                    |                                   | 12/2012                              | 01/2017                               |
| State Staff Project Management                                  | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| Non-State Project Management                                    | 0                                       | 532                                | 0                                  | 0                                  | 532                               |                                      |                                       |
| Commissioning   | 0                                       | 300                                | 0                                  | 0                                  | 300                               |                                      |                                       |
| Other Costs   | 0                                       | 125                                | 0                                  | 0                                  | 125                               |                                      |                                       |
| <b>5. Construction Costs</b>                                    |   |                                    |                                    |                                    |                                   | 02/2015                              | 02/2017                               |
| Site & Building Preparation                                     | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| Demolition/Decommissioning                                      | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| Construction  | 0                                       | 57,112                             | 0                                  | 0                                  | 57,112                            |                                      |                                       |
| Infrastructure/Roads/Utilities                                  | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| Hazardous Material Abatement                                    | 0                                       | 1,475                              | 0                                  | 0                                  | 1,475                             |                                      |                                       |
| Construction Contingency  | 0                                       | 5,700                              | 0                                  | 0                                  | 5,700                             |                                      |                                       |
| Other Costs   | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| <b>6. One Percent for Art</b>                                   | 0                                       | 300                                | 0                                  | 0                                  | 300                               |                                      |                                       |
| <b>7. Relocation Expenses</b>                                   | 0                                       | 350                                | 0                                  | 0                                  | 350                               | 12/2015                              | 01/2017                               |
| <b>8. Occupancy</b>   |   |                                    |                                    |                                    |                                   | 12/2016                              | 02/2017                               |
| Furniture, Fixtures and Equipment                               | 0                                       | 2,750                              | 0                                  | 0                                  | 2,750                             |                                      |                                       |
| Telecommunications (voice & data)                               | 0                                       | 1,500                              | 0                                  | 0                                  | 1,500                             |                                      |                                       |
| Security Equipment  | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| Other Costs   | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| <b>SUBTOTAL:</b>  | 0                                       | 76,956                             | 0                                  | 0                                  | 76,956                            |                                      |                                       |
| <b>9. Inflation</b>   |   |                                    |                                    |                                    |                                   |                                      |                                       |
| Midpoint of Construction  |   | 02/2016                            |                                    |                                    |                                   |                                      |                                       |
| Inflation Multiplier  |   | 10.50%                             | 0.00%                              | 0.00%                              |                                   |                                      |                                       |
| Inflation Cost  |   | 8,044                              | 0                                  | 0                                  | 8,044                             |                                      |                                       |
| <b>GRAND TOTAL</b>  | \$0                                     | \$85,000                           | \$0                                | \$0                                | \$85,000                          |                                      |                                       |

|   |                          |
|---|--------------------------|
| <b>University of Minnesota</b>              | <b>Project Detail</b>    |
| <b>Tate Science and Teaching Renovation</b> | <b>(\$ in Thousands)</b> |

| <b>TOTAL PROJECT COSTS<br/>All Years and Funding Sources</b> | <b>Prior Years</b> | <b>FY 2014-15</b> | <b>FY 2016-17</b> | <b>FY 2018-19</b> | <b>TOTAL</b>  |
|--|--------------------|-------------------|-------------------|-------------------|---------------|
| 1. Property Acquisition                                      | 0                  | 0                 | 0                 | 0                 | 0             |
| 2. Predesign Fees  | 0                  | 573               | 0                 | 0                 | 573           |
| 3. Design Fees   | 0                  | 6,239             | 0                 | 0                 | 6,239         |
| 4. Project Management  | 0                  | 957               | 0                 | 0                 | 957           |
| 5. Construction Costs  | 0                  | 64,287            | 0                 | 0                 | 64,287        |
| 6. One Percent for Art                                       | 0                  | 300               | 0                 | 0                 | 300           |
| 7. Relocation Expenses                                       | 0                  | 350               | 0                 | 0                 | 350           |
| 8. Occupancy   | 0                  | 4,250             | 0                 | 0                 | 4,250         |
| 9. Inflation   | 0                  | 8,044             | 0                 | 0                 | 8,044         |
| <b>TOTAL</b>   | <b>0</b>           | <b>85,000</b>     | <b>0</b>          | <b>0</b>          | <b>85,000</b> |

| <b>CAPITAL FUNDING SOURCES</b> | <b>Prior Years</b> | <b>FY 2014-15</b> | <b>FY 2016-17</b> | <b>FY 2018-19</b> | <b>TOTAL</b>  |
|--------------------------------|--------------------|-------------------|-------------------|-------------------|---------------|
| State Funds :                  |                    |                   |                   |                   |               |
| G.O Bonds/State Bldgs          | 0                  | 56,700            | 0                 | 0                 | 56,700        |
| <b>State Funds Subtotal</b>    | <b>0</b>           | <b>56,700</b>     | <b>0</b>          | <b>0</b>          | <b>56,700</b> |
| Agency Operating Budget Funds  | 0                  | 28,300            | 0                 | 0                 | 28,300        |
| Federal Funds                  | 0                  | 0                 | 0                 | 0                 | 0             |
| Local Government Funds         | 0                  | 0                 | 0                 | 0                 | 0             |
| Private Funds                  | 0                  | 0                 | 0                 | 0                 | 0             |
| Other                          | 0                  | 0                 | 0                 | 0                 | 0             |
| <b>TOTAL</b>                   | <b>0</b>           | <b>85,000</b>     | <b>0</b>          | <b>0</b>          | <b>85,000</b> |

| <b>CHANGES IN STATE<br/>OPERATING COSTS</b>    | <b>Changes in State Operating Costs (Without Inflation)</b> |                   |                   |              |
|--|---|-------------------|-------------------|--------------|
|  | <b>FY 2014-15</b>   | <b>FY 2016-17</b> | <b>FY 2018-19</b> | <b>TOTAL</b> |
| Compensation -- Program and Building Operation | 0   | 0                 | 0                 | 0            |
| Other Program Related Expenses                 | 0   | 0                 | 0                 | 0            |
| Building Operating Expenses                    | 0   | 0                 | 0                 | 0            |
| Building Repair and Replacement Expenses       | 0   | 0                 | 0                 | 0            |
| State-Owned Lease Expenses                     | 0   | 0                 | 0                 | 0            |
| Nonstate-Owned Lease Expenses                  | 0   | 0                 | 0                 | 0            |
| Expenditure Subtotal                           | 0   | 0                 | 0                 | 0            |
| Revenue Offsets                                | 0   | 0                 | 0                 | 0            |
| <b>TOTAL</b>                                   | <b>0</b>  | <b>0</b>          | <b>0</b>          | <b>0</b>     |
| Change in F.T.E. Personnel                     | 0.0   | 0.0               | 0.0               | 0.0          |

| <b>SOURCE OF FUNDS<br/>FOR DEBT SERVICE<br/>PAYMENTS</b><br>(for bond-financed<br>projects) | <b>Amount</b> | <b>Percent<br/>of Total</b> |
|---|---------------|-----------------------------|
| General Fund  | 56,700        | 100.0%                      |
| User Financing  | 0             | 0.0%                        |

| <b>STATUTORY AND OTHER REQUIREMENTS</b>   |   |
|---|---|
| Project applicants should be aware that the following requirements will apply to their projects after adoption of the bonding bill. |   |
| Yes   | MS 16B.335 (1a): Construction/Major Remodeling Review (by Legislature)  |
| Yes   | MS 16B.335 (3): Predesign Review Required (by Administration Dept)      |
| Yes   | MS 16B.335 and MS 16B.325 (4): Energy Conservation Requirements         |
| No  | MS 16B.335 (5): Information Technology Review (by Office of Technology) |
| Yes   | MS 16A.695: Public Ownership Required                                   |
| No  | MS 16A.695 (2): Use Agreement Required                                  |
| No  | MS 16A.695 (4): Program Funding Review Required (by granting agency)    |
| Yes   | Matching Funds Required (as per agency request)                         |
| Yes   | MS 16A.642: Project Cancellation in 2018                                |





## Microbial Sciences Research Building

**2014 STATE APPROPRIATION REQUEST:** \$30,000,000

**AGENCY PROJECT PRIORITY:** 3 of 6

#### Project At A Glance

- Constructs a new research laboratory facility for 30 to 35 principal investigators.
- Replaces or upgrades existing research laboratories for three colleges: College of Biological Sciences, College of Food, Agriculture and Natural Sciences and College of Veterinary Medicine.
- Provides flexible, collaborative laboratories that are shared by scientists engaged in related research.
- Advances plans to decommission obsolete space and buildings

#### Project Description

This request is for funds to construct a new laboratory building for microbial research in the College of Biological Sciences (CBS), College of Food, Agricultural, and Natural Resource Sciences (CFANS), and College of Veterinary Medicine (CVM). The new facility will accommodate 30 to 35 principal investigators in microbiology-focused fields such as plant pathology, animal infectious diseases, microbial systems and synthetic biology, and fungal evolution. Shared laboratory facilities will provide a research environment that optimizes interaction and collaboration between microbial scientists in the three colleges focusing on: Food production and safety, Infectious diseases, and Bioremediation of water contamination resulting from mining, agricultural activities, and natural gas exploration.

#### Project Rationale

The opportunities in the microbial sciences are huge. Battelle Technology Partnership Practice was commissioned by the Agricultural Utilization Research Institute to conduct an analysis of the research capacity in the State of Minnesota for the future of Agricultural Bioscience. This analysis concluded that the strongest platform for this sector is the Microbial Sciences at the University of Minnesota. Battelle acknowledged, however, that the University's nearly unrivaled strength in this area remains virtual, given the

organizational and geographic fragmentation of the most capable scientists. Given these independent findings, and internal knowledge of capacity, academic leadership believes that research collaborations, expenditures, grants, publications and most importantly, impact will increase significantly with the opportunities provided by the new microbial research building.

In the last decade, the fragmented but substantive community of microbial scientists has become as capable as the Battelle report suggests, because of focused infusions of resources. In particular, two existing initiatives have boosted capacity: the Initiative in Renewable Energy and the Environment; and the Biocatalysis Initiative. It is prudent for the institution, and the State, to capitalize upon the increase in capacity as a consequence of these investments, and take this success to the next level.

Two components of the MnDrive Initiative (Securing the Global Food Supply and Advancing Industry and Conserving the Environment) are heavily dependent upon expertise in the microbial sciences. Just as MnDrive was designed to provide scientific solutions for bottlenecks faced by Minnesota industries, this facility will be a gathering spot for collaborations with industrial partners. Students will have expanded opportunities for internships in these industries; Industry will know where to come within the University to seek assistance they desire.

This project will maximize investments in lab space by emphasizing collaboration space and flexible work spaces instead of traditional individual offices. The project will allow the University to decommission one existing obsolete facility in the near term, and up to two additional buildings in the future.

#### Impact on Agency Operating Budgets (Facilities Notes)

TBD

#### Previous Appropriations for this Project

None.

#### Project Contact Person

**Microbial Sciences Research Building**

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|   |                          |
|---|--------------------------|
| <b>University of Minnesota</b>              | <b>Project Cost</b>      |
| <b>Microbial Sciences Research Building</b> | <b>(\$ in Thousands)</b> |

| <b>TOTAL PROJECT COSTS</b><br>All Years and All Funding Sources | <b>Project Costs</b><br>All Prior Years | <b>Project Costs</b><br>FY 2014-15 | <b>Project Costs</b><br>FY 2016-17 | <b>Project Costs</b><br>FY 2018-19 | <b>Project Costs</b><br>All Years | <b>Project Start</b><br>(Month/Year) | <b>Project Finish</b><br>(Month/Year) |
|---|---|------------------------------------|------------------------------------|------------------------------------|-----------------------------------|--------------------------------------|---------------------------------------|
| <b>1. Property Acquisition</b>                                  |   |                                    |                                    |                                    |                                   |                                      |                                       |
| Land, Land Easements, Options                                   | \$0                                     | \$0                                | \$0                                | \$0                                | \$0                               |                                      |                                       |
| Land and Buildings  | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| <b>2. Predesign Fees</b>  | 0                                       | 175                                | 0                                  | 0                                  | 175                               | 10/2013                              | 06/2014                               |
| <b>3. Design Fees</b>   |   |                                    |                                    |                                    |                                   |                                      |                                       |
| Schematic   | 0                                       | 378                                | 0                                  | 0                                  | 378                               | 06/2014                              | 10/2014                               |
| Design Development  | 0                                       | 504                                | 0                                  | 0                                  | 504                               | 10/2014                              | 01/2015                               |
| Contract Documents  | 0                                       | 1,134                              | 0                                  | 0                                  | 1,134                             | 01/2015                              | 06/2015                               |
| Construction Administration                                     | 0                                       | 504                                | 0                                  | 0                                  | 504                               | 06/2015                              | 01/2017                               |
| <b>4. Project Management</b>                                    |   |                                    |                                    |                                    |                                   | 06/2014                              | 01/2017                               |
| State Staff Project Management                                  | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| Non-State Project Management                                    | 0                                       | 270                                | 0                                  | 0                                  | 270                               |                                      |                                       |
| Commissioning   | 0                                       | 175                                | 0                                  | 0                                  | 175                               |                                      |                                       |
| Other Costs   | 0                                       | 75                                 | 0                                  | 0                                  | 75                                |                                      |                                       |
| <b>5. Construction Costs</b>                                    |   |                                    |                                    |                                    |                                   | 06/2015                              | 01/2017                               |
| Site & Building Preparation                                     | 0                                       | 300                                | 0                                  | 0                                  | 300                               |                                      |                                       |
| Demolition/Decommissioning                                      | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| Construction  | 0                                       | 31,000                             | 0                                  | 0                                  | 31,000                            |                                      |                                       |
| Infrastructure/Roads/Utilities                                  | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| Hazardous Material Abatement                                    | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| Construction Contingency  | 0                                       | 3,100                              | 0                                  | 0                                  | 3,100                             |                                      |                                       |
| Other Costs   | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| <b>6. One Percent for Art</b>                                   | 0                                       | 310                                | 0                                  | 0                                  | 310                               |                                      |                                       |
| <b>7. Relocation Expenses</b>                                   | 0                                       | 150                                | 0                                  | 0                                  | 150                               | 12/2016                              | 01/2017                               |
| <b>8. Occupancy</b>   |   |                                    |                                    |                                    |                                   | 12/2016                              | 01/2017                               |
| Furniture, Fixtures and Equipment                               | 0                                       | 1,350                              | 0                                  | 0                                  | 1,350                             |                                      |                                       |
| Telecommunications (voice & data)                               | 0                                       | 1,000                              | 0                                  | 0                                  | 1,000                             |                                      |                                       |
| Security Equipment  | 0                                       | 130                                | 0                                  | 0                                  | 130                               |                                      |                                       |
| Other Costs   | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| <b>SUBTOTAL:</b>  | 0                                       | 40,555                             | 0                                  | 0                                  | 40,555                            |                                      |                                       |
| <b>9. Inflation</b>   |   |                                    |                                    |                                    |                                   |                                      |                                       |
| Midpoint of Construction  |   | 03/2016                            |                                    |                                    |                                   |                                      |                                       |
| Inflation Multiplier  |   | 11.00%                             | 0.00%                              | 0.00%                              |                                   |                                      |                                       |
| Inflation Cost  |   | 4,445                              | 0                                  | 0                                  | 4,445                             |                                      |                                       |
| <b>GRAND TOTAL</b>  | \$0                                     | \$45,000                           | \$0                                | \$0                                | \$45,000                          |                                      |                                       |

| TOTAL PROJECT COSTS<br>All Years and Funding Sources | Prior Years | FY 2014-15    | FY 2016-17 | FY 2018-19 | TOTAL         |
|--|-------------|---------------|------------|------------|---------------|
| 1. Property Acquisition                              | 0           | 0             | 0          | 0          | 0             |
| 2. Predesign Fees                                    | 0           | 175           | 0          | 0          | 175           |
| 3. Design Fees                                       | 0           | 2,520         | 0          | 0          | 2,520         |
| 4. Project Management                                | 0           | 520           | 0          | 0          | 520           |
| 5. Construction Costs                                | 0           | 34,400        | 0          | 0          | 34,400        |
| 6. One Percent for Art                               | 0           | 310           | 0          | 0          | 310           |
| 7. Relocation Expenses                               | 0           | 150           | 0          | 0          | 150           |
| 8. Occupancy   | 0           | 2,480         | 0          | 0          | 2,480         |
| 9. Inflation   | 0           | 4,445         | 0          | 0          | 4,445         |
| <b>TOTAL</b>   | <b>0</b>    | <b>45,000</b> | <b>0</b>   | <b>0</b>   | <b>45,000</b> |

| CAPITAL FUNDING SOURCES       | Prior Years | FY 2014-15    | FY 2016-17 | FY 2018-19 | TOTAL         |
|-------------------------------|-------------|---------------|------------|------------|---------------|
| State Funds :                 |             |               |            |            |               |
| G.O Bonds/State Bldgs         | 0           | 30,000        | 0          | 0          | 30,000        |
| <b>State Funds Subtotal</b>   | <b>0</b>    | <b>30,000</b> | <b>0</b>   | <b>0</b>   | <b>30,000</b> |
| Agency Operating Budget Funds | 0           | 15,000        | 0          | 0          | 15,000        |
| Federal Funds                 | 0           | 0             | 0          | 0          | 0             |
| Local Government Funds        | 0           | 0             | 0          | 0          | 0             |
| Private Funds                 | 0           | 0             | 0          | 0          | 0             |
| Other                         | 0           | 0             | 0          | 0          | 0             |
| <b>TOTAL</b>                  | <b>0</b>    | <b>45,000</b> | <b>0</b>   | <b>0</b>   | <b>45,000</b> |

| CHANGES IN STATE<br>OPERATING COSTS            | Changes in State Operating Costs (Without Inflation) |            |            |          |
|--|--|------------|------------|----------|
|  | FY 2014-15   | FY 2016-17 | FY 2018-19 | TOTAL    |
| Compensation -- Program and Building Operation | 0  | 0          | 0          | 0        |
| Other Program Related Expenses                 | 0  | 0          | 0          | 0        |
| Building Operating Expenses                    | 0  | 0          | 0          | 0        |
| Building Repair and Replacement Expenses       | 0  | 0          | 0          | 0        |
| State-Owned Lease Expenses                     | 0  | 0          | 0          | 0        |
| Nonstate-Owned Lease Expenses                  | 0  | 0          | 0          | 0        |
| Expenditure Subtotal                           | 0  | 0          | 0          | 0        |
| Revenue Offsets                                | 0  | 0          | 0          | 0        |
| <b>TOTAL</b>                                   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b> |
| Change in F.T.E. Personnel                     | 0.0  | 0.0        | 0.0        | 0.0      |

| SOURCE OF FUNDS<br>FOR DEBT SERVICE<br>PAYMENTS<br>(for bond-financed<br>projects) | Amount | Percent<br>of Total |
|--|--------|---------------------|
| General Fund   | 30,000 | 100.0%              |
| User Financing   | 0      | 0.0%                |

| STATUTORY AND OTHER REQUIREMENTS  |   |
|---|---|
| Project applicants should be aware that the following requirements will apply to their projects after adoption of the bonding bill. |   |
| Yes   | MS 16B.335 (1a): Construction/Major Remodeling Review (by Legislature)  |
| Yes   | MS 16B.335 (3): Predesign Review Required (by Administration Dept)      |
| Yes   | MS 16B.335 and MS 16B.325 (4): Energy Conservation Requirements         |
| No  | MS 16B.335 (5): Information Technology Review (by Office of Technology) |
| Yes   | MS 16A.695: Public Ownership Required                                   |
| No  | MS 16A.695 (2): Use Agreement Required                                  |
| No  | MS 16A.695 (4): Program Funding Review Required (by granting agency)    |
| Yes   | Matching Funds Required (as per agency request)                         |
| Yes   | MS 16A.642: Project Cancellation in 2018                                |



## Campus Wellness Center

**2014 STATE APPROPRIATION REQUEST:** \$10,000,000

**AGENCY PROJECT PRIORITY:** 4 of 6

### Project At A Glance

- Wellness facilities are crucial for student success which includes recruitment, retention, and graduation.
- The present facility is inadequate and almost completely inaccessible for non-student-athletes.
- The number of on-campus students is currently 1,000 – 600 of whom live in campus residence halls. This represents a significant growth since the core of the facility was built in 1930 and most recent addition was 1980.
- A new facility is repeatedly stated as the students' highest priority need for the campus.

### Project Description

This project will add new usable space to the Sports Center and Lysaker Gymnasium building located on the Crookston Campus. Through this remodel and addition the University of Minnesota Crookston will provide wellness facilities and programs to its entire student body, faculty, and staff; provide multipurpose rooms for campus and community activities and educational programs; and efficiently use existing campus utility infrastructure while serving as a broader community asset. The predesign underway will determine how to best use existing space based on types of planned activities and existing conditions found in the building.

### Project Rationale

A high quality recreational facility is an essential component to the future vitality of the University of Minnesota Crookston, as it will allow the campus to compete on a more even level with the student services offered at other four-year undergraduate institutions in the region. This facility will provide a place for students to develop a sense of community in addition to instilling life-long exercise and health habits at a time when many young adults develop a sedentary lifestyle that can lead to such issues as obesity and diabetes. The facility will also be used as an educational laboratory for students in Sports and Recreational Management as well as other related

majors. The present facility consists of Knutson Hall, constructed in 1930, with the addition in 1980-81 of office space and locker rooms to create the present Sports Center and Lysaker Gymnasium building.

The University of Minnesota Crookston has experienced substantial enrollment growth since 2006 and has plans to continue to grow. Since that time three new residence halls have opened nearly doubling the campus residential capacity (375-700) from 1980-81 when the Sports Center and Lysaker Gymnasium opened. The daily campus population including staff is approximately 1,500 people, significantly larger than when the existing facilities were constructed.

The Wellness Center will allow the campus to meet enrollment targets by improving student recruitment. Studies of these kinds of facilities indicate that they have a positive impact on successful student persistence, grade point average, student engagement, and graduation rate. This point was made repeatedly by those involved with a similar facility recently built at other campuses at the University of Minnesota.

### Impact on Agency Operating Budgets (Facilities Notes)

TBD

### Previous Appropriations for this Project

None.

### Project Contact Person

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|                                |                          |
|--------------------------------|--------------------------|
| <b>University of Minnesota</b> | <b>Project Cost</b>      |
| <b>Campus Wellness Center</b>  | <b>(\$ in Thousands)</b> |

| <b>TOTAL PROJECT COSTS</b><br>All Years and All Funding Sources | <b>Project Costs</b><br>All Prior Years | <b>Project Costs</b><br>FY 2014-15 | <b>Project Costs</b><br>FY 2016-17 | <b>Project Costs</b><br>FY 2018-19 | <b>Project Costs</b><br>All Years | <b>Project Start</b><br>(Month/Year) | <b>Project Finish</b><br>(Month/Year) |
|---|---|------------------------------------|------------------------------------|------------------------------------|-----------------------------------|--------------------------------------|---------------------------------------|
| <b>1. Property Acquisition</b>                                  |   |                                    |                                    |                                    |                                   |                                      |                                       |
| Land, Land Easements, Options                                   | \$0                                     | \$0                                | \$0                                | \$0                                | \$0                               |                                      |                                       |
| Land and Buildings  | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| <b>2. Predesign Fees</b>  | 0                                       | 113                                | 0                                  | 0                                  | 113                               | 09/2013                              | 01/2014                               |
| <b>3. Design Fees</b>   |   |                                    |                                    |                                    |                                   |                                      |                                       |
| Schematic   | 0                                       | 118                                | 0                                  | 0                                  | 118                               | 06/2014                              | 10/2014                               |
| Design Development  | 0                                       | 158                                | 0                                  | 0                                  | 158                               | 10/2014                              | 01/2015                               |
| Contract Documents  | 0                                       | 354                                | 0                                  | 0                                  | 354                               | 01/2015                              | 06/2015                               |
| Construction Administration                                     | 0                                       | 158                                | 0                                  | 0                                  | 158                               | 06/2015                              | 06/2016                               |
| <b>4. Project Management</b>                                    |   |                                    |                                    |                                    |                                   | 06/2014                              | 06/2016                               |
| State Staff Project Management                                  | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| Non-State Project Management                                    | 0                                       | 90                                 | 0                                  | 0                                  | 90                                |                                      |                                       |
| Commissioning   | 0                                       | 60                                 | 0                                  | 0                                  | 60                                |                                      |                                       |
| Other Costs   | 0                                       | 59                                 | 0                                  | 0                                  | 59                                |                                      |                                       |
| <b>5. Construction Costs</b>                                    |   |                                    |                                    |                                    |                                   | 06/2015                              | 06/2016                               |
| Site & Building Preparation                                     | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| Demolition/Decommissioning                                      | 0                                       | 250                                | 0                                  | 0                                  | 250                               |                                      |                                       |
| Construction  | 0                                       | 11,000                             | 0                                  | 0                                  | 11,000                            |                                      |                                       |
| Infrastructure/Roads/Utilities                                  | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| Hazardous Material Abatement                                    | 0                                       | 75                                 | 0                                  | 0                                  | 75                                |                                      |                                       |
| Construction Contingency  | 0                                       | 110                                | 0                                  | 0                                  | 110                               |                                      |                                       |
| Other Costs   | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| <b>6. One Percent for Art</b>                                   | 0                                       | 110                                | 0                                  | 0                                  | 110                               |                                      |                                       |
| <b>7. Relocation Expenses</b>                                   | 0                                       | 75                                 | 0                                  | 0                                  | 75                                | 05/2016                              | 06/2016                               |
| <b>8. Occupancy</b>   |   |                                    |                                    |                                    |                                   | 05/2016                              | 06/2016                               |
| Furniture, Fixtures and Equipment                               | 0                                       | 550                                | 0                                  | 0                                  | 550                               |                                      |                                       |
| Telecommunications (voice & data)                               | 0                                       | 275                                | 0                                  | 0                                  | 275                               |                                      |                                       |
| Security Equipment  | 0                                       | 125                                | 0                                  | 0                                  | 125                               |                                      |                                       |
| Other Costs   | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| <b>SUBTOTAL:</b>  | 0                                       | 13,680                             | 0                                  | 0                                  | 13,680                            |                                      |                                       |
| <b>9. Inflation</b>   |   |                                    |                                    |                                    |                                   |                                      |                                       |
| Midpoint of Construction  |   | 12/2015                            |                                    |                                    |                                   |                                      |                                       |
| Inflation Multiplier  |   | 9.70%                              | 0.00%                              | 0.00%                              |                                   |                                      |                                       |
| Inflation Cost  |   | 1,320                              | 0                                  | 0                                  | 1,320                             |                                      |                                       |
| <b>GRAND TOTAL</b>  | \$0                                     | \$15,000                           | \$0                                | \$0                                | \$15,000                          |                                      |                                       |

**University of Minnesota**  
**Campus Wellness Center**

**Project Detail**  
 (\$ in Thousands)

| <b>TOTAL PROJECT COSTS<br/>All Years and Funding Sources</b> | <b>Prior Years</b> | <b>FY 2014-15</b> | <b>FY 2016-17</b> | <b>FY 2018-19</b> | <b>TOTAL</b>  |
|--|--------------------|-------------------|-------------------|-------------------|---------------|
| 1. Property Acquisition                                      | 0                  | 0                 | 0                 | 0                 | 0             |
| 2. Predesign Fees  | 0                  | 113               | 0                 | 0                 | 113           |
| 3. Design Fees   | 0                  | 788               | 0                 | 0                 | 788           |
| 4. Project Management  | 0                  | 209               | 0                 | 0                 | 209           |
| 5. Construction Costs  | 0                  | 11,435            | 0                 | 0                 | 11,435        |
| 6. One Percent for Art                                       | 0                  | 110               | 0                 | 0                 | 110           |
| 7. Relocation Expenses                                       | 0                  | 75                | 0                 | 0                 | 75            |
| 8. Occupancy   | 0                  | 950               | 0                 | 0                 | 950           |
| 9. Inflation   | 0                  | 1,320             | 0                 | 0                 | 1,320         |
| <b>TOTAL</b>   | <b>0</b>           | <b>15,000</b>     | <b>0</b>          | <b>0</b>          | <b>15,000</b> |

| <b>CAPITAL FUNDING SOURCES</b> | <b>Prior Years</b> | <b>FY 2014-15</b> | <b>FY 2016-17</b> | <b>FY 2018-19</b> | <b>TOTAL</b>  |
|--------------------------------|--------------------|-------------------|-------------------|-------------------|---------------|
| State Funds :                  |                    |                   |                   |                   |               |
| G.O Bonds/State Bldgs          | 0                  | 10,000            | 0                 | 0                 | 10,000        |
| <b>State Funds Subtotal</b>    | <b>0</b>           | <b>10,000</b>     | <b>0</b>          | <b>0</b>          | <b>10,000</b> |
| Agency Operating Budget Funds  | 0                  | 5,000             | 0                 | 0                 | 5,000         |
| Federal Funds                  | 0                  | 0                 | 0                 | 0                 | 0             |
| Local Government Funds         | 0                  | 0                 | 0                 | 0                 | 0             |
| Private Funds                  | 0                  | 0                 | 0                 | 0                 | 0             |
| Other                          | 0                  | 0                 | 0                 | 0                 | 0             |
| <b>TOTAL</b>                   | <b>0</b>           | <b>15,000</b>     | <b>0</b>          | <b>0</b>          | <b>15,000</b> |

| <b>CHANGES IN STATE<br/>OPERATING COSTS</b>    | <b>Changes in State Operating Costs (Without Inflation)</b> |                   |                   |              |
|--|---|-------------------|-------------------|--------------|
|  | <b>FY 2014-15</b>   | <b>FY 2016-17</b> | <b>FY 2018-19</b> | <b>TOTAL</b> |
| Compensation -- Program and Building Operation | 0   | 0                 | 0                 | 0            |
| Other Program Related Expenses                 | 0   | 0                 | 0                 | 0            |
| Building Operating Expenses                    | 0   | 0                 | 0                 | 0            |
| Building Repair and Replacement Expenses       | 0   | 0                 | 0                 | 0            |
| State-Owned Lease Expenses                     | 0   | 0                 | 0                 | 0            |
| Nonstate-Owned Lease Expenses                  | 0   | 0                 | 0                 | 0            |
| Expenditure Subtotal                           | 0   | 0                 | 0                 | 0            |
| Revenue Offsets                                | 0   | 0                 | 0                 | 0            |
| <b>TOTAL</b>                                   | <b>0</b>  | <b>0</b>          | <b>0</b>          | <b>0</b>     |
| Change in F.T.E. Personnel                     | 0.0   | 0.0               | 0.0               | 0.0          |

| <b>SOURCE OF FUNDS<br/>FOR DEBT SERVICE<br/>PAYMENTS</b><br>(for bond-financed<br>projects) | <b>Amount</b> | <b>Percent<br/>of Total</b> |
|---|---------------|-----------------------------|
| General Fund  | 10,000        | 100.0%                      |
| User Financing  | 0             | 0.0%                        |

| <b>STATUTORY AND OTHER REQUIREMENTS</b>   |   |
|---|---|
| Project applicants should be aware that the following requirements will apply to their projects after adoption of the bonding bill. |   |
| Yes   | MS 16B.335 (1a): Construction/Major Remodeling Review (by Legislature)  |
| Yes   | MS 16B.335 (3): Predesign Review Required (by Administration Dept)      |
| Yes   | MS 16B.335 and MS 16B.325 (4): Energy Conservation Requirements         |
| No  | MS 16B.335 (5): Information Technology Review (by Office of Technology) |
| Yes   | MS 16A.695: Public Ownership Required                                   |
| No  | MS 16A.695 (2): Use Agreement Required                                  |
| No  | MS 16A.695 (4): Program Funding Review Required (by granting agency)    |
| Yes   | Matching Funds Required (as per agency request)                         |
| Yes   | MS 16A.642: Project Cancellation in 2018                                |





## Research Laboratory Improvement Fund

**2014 STATE APPROPRIATION REQUEST:** \$12,000,000

**AGENCY PROJECT PRIORITY:** 5 of 6

### Project At A Glance

- ◆ Updated research facilities are critical to continuing the University of Minnesota's strong record of research discoveries.
- ◆ This project will improve and upgrade laboratory facilities system wide, replace obsolete greenhouse, and fund improvements in the invasive species research center.
- ◆ Updated research laboratories are needed to conduct cutting edge research, to attract and retain top researchers and to win competitive grant awards, all vital to the University's national competitiveness.

### Project Description

This request is for funds to improve existing research facilities systemwide. Updated research facilities are critical to continuing the University's strong record of research discoveries and attract federal and philanthropic dollars to Minnesota. Funding will be used to replace the University's existing bee research facility in the College of Food, Agricultural, and Natural Resource Sciences (CFANS), replace obsolete greenhouses in the College of Biological Sciences (CBS), and support continued improvements to the Aquatic Invasive Species research center. The remaining funds will be used for targeted, strategic investments in research laboratory space that will provide the margin-of-excellence that is needed to attract and retain top researchers or to obtain competitively awarded sponsored research grants.

### Project Rationale

Honey bees, our nation's most vital pollinators of natural, urban, and agricultural ecosystems, are being threatened by diseases, parasitic mites, pesticides, and habitat destruction, which in turn threaten our nation's food supply. Since agriculture is an important component of Minnesota's economy, a healthy bee population is critical to the state's economic health and well-being. There is an urgent need for effective research and outreach

programs on both managed and wild bee pollinators. The University of Minnesota is uniquely positioned to be the premiere provider of these important programs.

The University of Minnesota has maintained an internationally recognized research and extension program on honey bees since 1918. Dr. Marla Spivak runs this unique regional program that receives strong support from commercial and hobby beekeeping associations, and is the only research and extension program on honey bees in Minnesota, Wisconsin, North Dakota, and South Dakota. Today, bee research has to be conducted in two undersized locations on the St. Paul campus. The majority of the behavioral and applied research is conducted in an 800 square foot unfinished cinder-block structure.

The greenhouse project is intended to replace the current facility which has been deemed obsolete due to its poor physical condition, including deteriorated block walls and window systems. This building is dedicated to raising thousands of plant specimens for teaching purposes across 16 different courses. The building has a strong outreach function due to the number of visitors (school groups, horticulture clubs, K-12 educators) who are in the greenhouse on a regular basis. Earlier capital investment plans had the Greenhouse scheduled for replacement in the early 2000's. The reinvestment did not occur at the time due to the inability to secure adequate resources at the state level.

The Aquatic Invasive Species Research Infrastructure investment will reinvest in building systems to support aquatic holding functions in the Engineering Fisheries Laboratory building on the St Paul campus. Included in the scope of work is replacement of the electrical and air exchange systems, and water treatment systems. This work builds on construction undertaken in 2013 to renew the well water supply for the building.

### Impact on Agency Operating Budgets (Facilities Notes)

TBD

### Previous Appropriations for this Project

**Research Laboratory Improvement Fund**

The University received \$3.3 million for lab improvements in 2008 and \$6.7 million in 2010.

**Project Contact Person**

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|   |                          |
|---|--------------------------|
| <b>University of Minnesota</b>              | <b>Project Cost</b>      |
| <b>Research Laboratory Improvement Fund</b> | <b>(\$ in Thousands)</b> |

| <b>TOTAL PROJECT COSTS</b><br>All Years and All Funding Sources | <b>Project Costs</b><br>All Prior Years | <b>Project Costs</b><br>FY 2014-15 | <b>Project Costs</b><br>FY 2016-17 | <b>Project Costs</b><br>FY 2018-19 | <b>Project Costs</b><br>All Years | <b>Project Start</b><br>(Month/Year) | <b>Project Finish</b><br>(Month/Year) |
|---|---|------------------------------------|------------------------------------|------------------------------------|-----------------------------------|--------------------------------------|---------------------------------------|
| <b>1. Property Acquisition</b>                                  |   |                                    |                                    |                                    |                                   |                                      |                                       |
| Land, Land Easements, Options                                   | \$0                                     | \$0                                | \$0                                | \$0                                | \$0                               |                                      |                                       |
| Land and Buildings  | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| <b>2. Predesign Fees</b>  | 0                                       | 69                                 | 0                                  | 0                                  | 69                                | 09/2013                              | 06/2014                               |
| <b>3. Design Fees</b>   |   |                                    |                                    |                                    |                                   |                                      |                                       |
| Schematic   | 0                                       | 162                                | 0                                  | 0                                  | 162                               | 06/2014                              | 09/2014                               |
| Design Development  | 0                                       | 216                                | 0                                  | 0                                  | 216                               | 09/2014                              | 12/2014                               |
| Contract Documents  | 0                                       | 486                                | 0                                  | 0                                  | 486                               | 01/2015                              | 04/2015                               |
| Construction Administration                                     | 0                                       | 216                                | 0                                  | 0                                  | 216                               | 04/2015                              | 04/2016                               |
| <b>4. Project Management</b>                                    |   |                                    |                                    |                                    |                                   | 06/2014                              | 04/2016                               |
| State Staff Project Management                                  | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| Non-State Project Management                                    | 0                                       | 109                                | 0                                  | 0                                  | 109                               |                                      |                                       |
| Commissioning   | 0                                       | 100                                | 0                                  | 0                                  | 100                               |                                      |                                       |
| Other Costs   | 0                                       | 55                                 | 0                                  | 0                                  | 55                                |                                      |                                       |
| <b>5. Construction Costs</b>                                    |   |                                    |                                    |                                    |                                   | 04/2015                              | 04/2016                               |
| Site & Building Preparation                                     | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| Demolition/Decommissioning                                      | 0                                       | 100                                | 0                                  | 0                                  | 100                               |                                      |                                       |
| Construction  | 0                                       | 12,500                             | 0                                  | 0                                  | 12,500                            |                                      |                                       |
| Infrastructure/Roads/Utilities                                  | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| Hazardous Material Abatement                                    | 0                                       | 75                                 | 0                                  | 0                                  | 75                                |                                      |                                       |
| Construction Contingency  | 0                                       | 1,250                              | 0                                  | 0                                  | 1,250                             |                                      |                                       |
| Other Costs   | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| <b>6. One Percent for Art</b>                                   | 0                                       | 125                                | 0                                  | 0                                  | 125                               |                                      |                                       |
| <b>7. Relocation Expenses</b>                                   | 0                                       | 300                                | 0                                  | 0                                  | 300                               | 03/2106                              | 04/2106                               |
| <b>8. Occupancy</b>   |   |                                    |                                    |                                    |                                   | 04/2016                              | 04/2016                               |
| Furniture, Fixtures and Equipment                               | 0                                       | 500                                | 0                                  | 0                                  | 500                               |                                      |                                       |
| Telecommunications (voice & data)                               | 0                                       | 300                                | 0                                  | 0                                  | 300                               |                                      |                                       |
| Security Equipment  | 0                                       | 50                                 | 0                                  | 0                                  | 50                                |                                      |                                       |
| Other Costs   | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| <b>SUBTOTAL:</b>  | 0                                       | 16,613                             | 0                                  | 0                                  | 16,613                            |                                      |                                       |
| <b>9. Inflation</b>   |   |                                    |                                    |                                    |                                   |                                      |                                       |
| Midpoint of Construction  |   | 09/2015                            |                                    |                                    |                                   |                                      |                                       |
| Inflation Multiplier  |   | 8.50%                              | 0.00%                              | 0.00%                              |                                   |                                      |                                       |
| Inflation Cost  |   | 1,387                              | 0                                  | 0                                  | 1,387                             |                                      |                                       |
| <b>GRAND TOTAL</b>  | \$0                                     | \$18,000                           | \$0                                | \$0                                | \$18,000                          |                                      |                                       |

|   |                          |
|---|--------------------------|
| <b>University of Minnesota</b>              | <b>Project Detail</b>    |
| <b>Research Laboratory Improvement Fund</b> | <b>(\$ in Thousands)</b> |

| <b>TOTAL PROJECT COSTS<br/>All Years and Funding Sources</b> | <b>Prior Years</b> | <b>FY 2014-15</b> | <b>FY 2016-17</b> | <b>FY 2018-19</b> | <b>TOTAL</b>  |
|--|--------------------|-------------------|-------------------|-------------------|---------------|
| 1. Property Acquisition                                      | 0                  | 0                 | 0                 | 0                 | 0             |
| 2. Predesign Fees  | 0                  | 69                | 0                 | 0                 | 69            |
| 3. Design Fees   | 0                  | 1,080             | 0                 | 0                 | 1,080         |
| 4. Project Management  | 0                  | 264               | 0                 | 0                 | 264           |
| 5. Construction Costs  | 0                  | 13,925            | 0                 | 0                 | 13,925        |
| 6. One Percent for Art                                       | 0                  | 125               | 0                 | 0                 | 125           |
| 7. Relocation Expenses                                       | 0                  | 300               | 0                 | 0                 | 300           |
| 8. Occupancy   | 0                  | 850               | 0                 | 0                 | 850           |
| 9. Inflation   | 0                  | 1,387             | 0                 | 0                 | 1,387         |
| <b>TOTAL</b>   | <b>0</b>           | <b>18,000</b>     | <b>0</b>          | <b>0</b>          | <b>18,000</b> |

| <b>CAPITAL FUNDING SOURCES</b> | <b>Prior Years</b> | <b>FY 2014-15</b> | <b>FY 2016-17</b> | <b>FY 2018-19</b> | <b>TOTAL</b>  |
|--------------------------------|--------------------|-------------------|-------------------|-------------------|---------------|
| State Funds :                  |                    |                   |                   |                   |               |
| G.O Bonds/State Bldgs          | 0                  | 12,000            | 0                 | 0                 | 12,000        |
| <b>State Funds Subtotal</b>    | <b>0</b>           | <b>12,000</b>     | <b>0</b>          | <b>0</b>          | <b>12,000</b> |
| Agency Operating Budget Funds  | 0                  | 6,000             | 0                 | 0                 | 6,000         |
| Federal Funds                  | 0                  | 0                 | 0                 | 0                 | 0             |
| Local Government Funds         | 0                  | 0                 | 0                 | 0                 | 0             |
| Private Funds                  | 0                  | 0                 | 0                 | 0                 | 0             |
| Other                          | 0                  | 0                 | 0                 | 0                 | 0             |
| <b>TOTAL</b>                   | <b>0</b>           | <b>18,000</b>     | <b>0</b>          | <b>0</b>          | <b>18,000</b> |

| <b>CHANGES IN STATE<br/>OPERATING COSTS</b>    | <b>Changes in State Operating Costs (Without Inflation)</b> |                   |                   |              |
|--|---|-------------------|-------------------|--------------|
|  | <b>FY 2014-15</b>   | <b>FY 2016-17</b> | <b>FY 2018-19</b> | <b>TOTAL</b> |
| Compensation -- Program and Building Operation | 0   | 0                 | 0                 | 0            |
| Other Program Related Expenses                 | 0   | 0                 | 0                 | 0            |
| Building Operating Expenses                    | 0   | 0                 | 0                 | 0            |
| Building Repair and Replacement Expenses       | 0   | 0                 | 0                 | 0            |
| State-Owned Lease Expenses                     | 0   | 0                 | 0                 | 0            |
| Nonstate-Owned Lease Expenses                  | 0   | 0                 | 0                 | 0            |
| Expenditure Subtotal                           | 0   | 0                 | 0                 | 0            |
| Revenue Offsets                                | 0   | 0                 | 0                 | 0            |
| <b>TOTAL</b>                                   | <b>0</b>  | <b>0</b>          | <b>0</b>          | <b>0</b>     |
| Change in F.T.E. Personnel                     | 0.0   | 0.0               | 0.0               | 0.0          |

| <b>SOURCE OF FUNDS<br/>FOR DEBT SERVICE<br/>PAYMENTS</b><br>(for bond-financed<br>projects) | <b>Amount</b> | <b>Percent<br/>of Total</b> |
|---|---------------|-----------------------------|
| General Fund  | 12,000        | 100.0%                      |
| User Financing  | 0             | 0.0%                        |

| <b>STATUTORY AND OTHER REQUIREMENTS</b>   |   |
|---|---|
| Project applicants should be aware that the following requirements will apply to their projects after adoption of the bonding bill. |   |
| Yes   | MS 16B.335 (1a): Construction/Major Remodeling Review (by Legislature)  |
| Yes   | MS 16B.335 (3): Predesign Review Required (by Administration Dept)      |
| Yes   | MS 16B.335 and MS 16B.325 (4): Energy Conservation Requirements         |
| No  | MS 16B.335 (5): Information Technology Review (by Office of Technology) |
| Yes   | MS 16A.695: Public Ownership Required                                   |
| No  | MS 16A.695 (2): Use Agreement Required                                  |
| No  | MS 16A.695 (4): Program Funding Review Required (by granting agency)    |
| Yes   | Matching Funds Required (as per agency request)                         |
| Yes   | MS 16A.642: Project Cancellation in 2018                                |



## Chemical Sciences and Advanced Materials Building

**2014 STATE APPROPRIATION REQUEST:** \$24,000,000

**AGENCY PROJECT PRIORITY:** 6 of 6

**Project At A Glance**

- This facility will greatly increase faculty - industry interactions
- New labs will present a much healthier environment for faculty and student occupants.
- Student Services and education program offices and faculty offices will also be integrated into the project.
- The project will allow the campus to improve its learning environment and expand its signature programs to meet student demand.

**Project Description**

The project will construct a new building on the Duluth campus to support faculty and students in the Departments of Chemistry and Biochemistry, and advance an emergent Material Science and Engineering program. The building will be comprised of research and undergraduate instructional laboratories, a research center dedicated to industrial/academic partnerships with direct connections to industry in northeast Minnesota, and medium-sized general purpose classrooms that are in short supply on the campus.

**Project Rationale**

The Duluth campus is committed to creating an inclusive campus climate through curricula and programs in order to prepare students to be successful contributing members of diverse and global communities and work places and to expand the Science, Technology, Engineering, and Math (STEM) workforce. Scholarship and research, both basic and applied, are foundations for new discoveries and knowledge, and for economic growth. The proposed facility will attract high quality students in the STEM fields and excellent faculty who seek a collaborative environment in which to conduct leading-edge research and teach in interdisciplinary areas. It will lead to increased publication and external funding, economic growth and competitiveness, and greater technology- and knowledge- transfer to the state and region. The new research and education programs in material science and engineering will certainly broaden the impact that UMD and the

Swenson College of Science and Engineering has on regional and local industries.

To achieve these outcomes the campus needs modern laboratory space and rooms with specialized uses (instrument rooms, cold rooms, autoclave room, etc). As new faculty are hired due to retirements in the next 5-10 years, larger and more instrument-rich research programs will be established requiring more research space. Additionally, the campus has a need for additional upper division or advanced instructional labs in which our students receive training on modern instrumental, experimental, and computational techniques. To accomplish this, laboratories need to have both student work spaces and instructional support areas.

The existing Chemistry building was the first building constructed at UMD in 1948, and was not designed to be a building dedicated to Chemistry. Utility infrastructure is outdated, frequently in need of repair, and cannot support 21st century science. This building has numerous deficiencies including a lack of adequate eyewashes and showers, lack of chemical storage space, rusty and poorly ventilated under the hood storage, very old and poorly designed labs, lack of adequate wall space for chemical storage cabinets and gas cylinders, lack of adequate supply of wall or bench mounted electrical outlets, and water leaks. In addition, we have observed corroded gas lines and gas valves, poor air handling system, and an elevator which is often out of service. Many of these have the potential to compromise the health and safety of the building occupants.

**Impact on Agency Operating Budgets (Facilities Notes)**

TBD

**Previous Appropriations for this Project**

None

**Project Contact Person**

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|  |                          |
|--|--------------------------|
| <b>University of Minnesota</b>                           | <b>Project Cost</b>      |
| <b>Chemical Sciences and Advanced Materials Building</b> | <b>(\$ in Thousands)</b> |

| <b>TOTAL PROJECT COSTS</b><br>All Years and All Funding Sources | <b>Project Costs</b><br>All Prior Years | <b>Project Costs</b><br>FY 2014-15 | <b>Project Costs</b><br>FY 2016-17 | <b>Project Costs</b><br>FY 2018-19 | <b>Project Costs</b><br>All Years | <b>Project Start</b><br>(Month/Year) | <b>Project Finish</b><br>(Month/Year) |
|---|---|------------------------------------|------------------------------------|------------------------------------|-----------------------------------|--------------------------------------|---------------------------------------|
| <b>1. Property Acquisition</b>                                  |   |                                    |                                    |                                    |                                   |                                      |                                       |
| Land, Land Easements, Options                                   | \$0                                     | \$0                                | \$0                                | \$0                                | \$0                               |                                      |                                       |
| Land and Buildings  | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| <b>2. Predesign Fees</b>  | 0                                       | 139                                | 0                                  | 0                                  | 139                               | 09/2013                              | 01/2014                               |
| <b>3. Design Fees</b>   |   |                                    |                                    |                                    |                                   |                                      |                                       |
| Schematic   | 0                                       | 324                                | 0                                  | 0                                  | 324                               | 06/2014                              | 10/2014                               |
| Design Development  | 0                                       | 432                                | 0                                  | 0                                  | 432                               | 10/2014                              | 01/2015                               |
| Contract Documents  | 0                                       | 972                                | 0                                  | 0                                  | 972                               | 01/2015                              | 06/2015                               |
| Construction Administration                                     | 0                                       | 432                                | 0                                  | 0                                  | 432                               | 06/2015                              | 01/2017                               |
| <b>4. Project Management</b>                                    |   |                                    |                                    |                                    |                                   | 06/2014                              | 01/2017                               |
| State Staff Project Management                                  | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| Non-State Project Management                                    | 0                                       | 216                                | 0                                  | 0                                  | 216                               |                                      |                                       |
| Commissioning   | 0                                       | 200                                | 0                                  | 0                                  | 200                               |                                      |                                       |
| Other Costs   | 0                                       | 100                                | 0                                  | 0                                  | 100                               |                                      |                                       |
| <b>5. Construction Costs</b>                                    |   |                                    |                                    |                                    |                                   | 06/2015                              | 01/2017                               |
| Site & Building Preparation                                     | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| Demolition/Decommissioning                                      | 0                                       | 150                                | 0                                  | 0                                  | 150                               |                                      |                                       |
| Construction  | 0                                       | 23,700                             | 0                                  | 0                                  | 23,700                            |                                      |                                       |
| Infrastructure/Roads/Utilities                                  | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| Hazardous Material Abatement                                    | 0                                       | 75                                 | 0                                  | 0                                  | 75                                |                                      |                                       |
| Construction Contingency  | 0                                       | 2,400                              | 0                                  | 0                                  | 2,400                             |                                      |                                       |
| Other Costs   | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| <b>6. One Percent for Art</b>                                   | 0                                       | 237                                | 0                                  | 0                                  | 237                               |                                      |                                       |
| <b>7. Relocation Expenses</b>                                   | 0                                       | 200                                | 0                                  | 0                                  | 200                               | 12/2016                              | 01/2017                               |
| <b>8. Occupancy</b>   |   |                                    |                                    |                                    |                                   | 01/2017                              | 01/2017                               |
| Furniture, Fixtures and Equipment                               | 0                                       | 2,000                              | 0                                  | 0                                  | 2,000                             |                                      |                                       |
| Telecommunications (voice & data)                               | 0                                       | 750                                | 0                                  | 0                                  | 750                               |                                      |                                       |
| Security Equipment  | 0                                       | 125                                | 0                                  | 0                                  | 125                               |                                      |                                       |
| Other Costs   | 0                                       | 0                                  | 0                                  | 0                                  | 0                                 |                                      |                                       |
| <b>SUBTOTAL:</b>  | 0                                       | 32,452                             | 0                                  | 0                                  | 32,452                            |                                      |                                       |
| <b>9. Inflation</b>   |   |                                    |                                    |                                    |                                   |                                      |                                       |
| Midpoint of Construction  |   | 03/2016                            |                                    |                                    |                                   |                                      |                                       |
| Inflation Multiplier  |   | 11.00%                             | 0.00%                              | 0.00%                              |                                   |                                      |                                       |
| Inflation Cost  |   | 3,548                              | 0                                  | 0                                  | 3,548                             |                                      |                                       |
| <b>GRAND TOTAL</b>  | \$0                                     | \$36,000                           | \$0                                | \$0                                | \$36,000                          |                                      |                                       |



|  |                          |
|--|--------------------------|
| <b>University of Minnesota</b>                           | <b>Project Detail</b>    |
| <b>Chemical Sciences and Advanced Materials Building</b> | <b>(\$ in Thousands)</b> |

| <b>TOTAL PROJECT COSTS<br/>All Years and Funding Sources</b> | <b>Prior Years</b> | <b>FY 2014-15</b> | <b>FY 2016-17</b> | <b>FY 2018-19</b> | <b>TOTAL</b>  |
|--|--------------------|-------------------|-------------------|-------------------|---------------|
| 1. Property Acquisition                                      | 0                  | 0                 | 0                 | 0                 | 0             |
| 2. Predesign Fees  | 0                  | 139               | 0                 | 0                 | 139           |
| 3. Design Fees   | 0                  | 2,160             | 0                 | 0                 | 2,160         |
| 4. Project Management  | 0                  | 516               | 0                 | 0                 | 516           |
| 5. Construction Costs  | 0                  | 26,325            | 0                 | 0                 | 26,325        |
| 6. One Percent for Art                                       | 0                  | 237               | 0                 | 0                 | 237           |
| 7. Relocation Expenses                                       | 0                  | 200               | 0                 | 0                 | 200           |
| 8. Occupancy   | 0                  | 2,875             | 0                 | 0                 | 2,875         |
| 9. Inflation   | 0                  | 3,548             | 0                 | 0                 | 3,548         |
| <b>TOTAL</b>   | <b>0</b>           | <b>36,000</b>     | <b>0</b>          | <b>0</b>          | <b>36,000</b> |

| <b>CAPITAL FUNDING SOURCES</b> | <b>Prior Years</b> | <b>FY 2014-15</b> | <b>FY 2016-17</b> | <b>FY 2018-19</b> | <b>TOTAL</b>  |
|--------------------------------|--------------------|-------------------|-------------------|-------------------|---------------|
| State Funds :                  |                    |                   |                   |                   |               |
| G.O Bonds/State Bldgs          | 0                  | 24,000            | 0                 | 0                 | 24,000        |
| <b>State Funds Subtotal</b>    | <b>0</b>           | <b>24,000</b>     | <b>0</b>          | <b>0</b>          | <b>24,000</b> |
| Agency Operating Budget Funds  | 0                  | 12,000            | 0                 | 0                 | 12,000        |
| Federal Funds                  | 0                  | 0                 | 0                 | 0                 | 0             |
| Local Government Funds         | 0                  | 0                 | 0                 | 0                 | 0             |
| Private Funds                  | 0                  | 0                 | 0                 | 0                 | 0             |
| Other                          | 0                  | 0                 | 0                 | 0                 | 0             |
| <b>TOTAL</b>                   | <b>0</b>           | <b>36,000</b>     | <b>0</b>          | <b>0</b>          | <b>36,000</b> |

| <b>CHANGES IN STATE<br/>OPERATING COSTS</b>    | <b>Changes in State Operating Costs (Without Inflation)</b> |                   |                   |              |
|--|---|-------------------|-------------------|--------------|
|  | <b>FY 2014-15</b>   | <b>FY 2016-17</b> | <b>FY 2018-19</b> | <b>TOTAL</b> |
| Compensation -- Program and Building Operation | 0   | 0                 | 0                 | 0            |
| Other Program Related Expenses                 | 0   | 0                 | 0                 | 0            |
| Building Operating Expenses                    | 0   | 0                 | 0                 | 0            |
| Building Repair and Replacement Expenses       | 0   | 0                 | 0                 | 0            |
| State-Owned Lease Expenses                     | 0   | 0                 | 0                 | 0            |
| Nonstate-Owned Lease Expenses                  | 0   | 0                 | 0                 | 0            |
| Expenditure Subtotal                           | 0   | 0                 | 0                 | 0            |
| Revenue Offsets                                | 0   | 0                 | 0                 | 0            |
| <b>TOTAL</b>                                   | <b>0</b>  | <b>0</b>          | <b>0</b>          | <b>0</b>     |
| Change in F.T.E. Personnel                     | 0.0   | 0.0               | 0.0               | 0.0          |

| <b>SOURCE OF FUNDS<br/>FOR DEBT SERVICE<br/>PAYMENTS</b><br>(for bond-financed<br>projects) | <b>Amount</b> | <b>Percent<br/>of Total</b> |
|---|---------------|-----------------------------|
| General Fund  | 24,000        | 100.0%                      |
| User Financing  | 0             | 0.0%                        |

| <b>STATUTORY AND OTHER REQUIREMENTS</b>   |   |
|---|---|
| Project applicants should be aware that the following requirements will apply to their projects after adoption of the bonding bill. |   |
| Yes   | MS 16B.335 (1a): Construction/Major Remodeling Review (by Legislature)  |
| Yes   | MS 16B.335 (3): Predesign Review Required (by Administration Dept)      |
| Yes   | MS 16B.335 and MS 16B.325 (4): Energy Conservation Requirements         |
| No  | MS 16B.335 (5): Information Technology Review (by Office of Technology) |
| Yes   | MS 16A.695: Public Ownership Required                                   |
| No  | MS 16A.695 (2): Use Agreement Required                                  |
| No  | MS 16A.695 (4): Program Funding Review Required (by granting agency)    |
| Yes   | Matching Funds Required (as per agency request)                         |
| Yes   | MS 16A.642: Project Cancellation in 2018                                |



**HEAPR**

Approved Project Score has not been assigned.  
Project Locations are not defined.

**Tate Science and Teaching Renovation**

Cost for Art in item 6 should not exceed \$100 for 2014-2015.  
Approved Project Score has not been assigned.  
Project Locations are not defined.

**Microbial Sciences Research Building**

Cost for Art in item 6 should not exceed \$100 for 2014-2015.  
Approved Project Score has not been assigned.  
Project Locations are not defined.

**Campus Wellness Center**

Cost for Art in item 6 should not exceed \$100 for 2014-2015.  
Approved Project Score has not been assigned.  
Project Locations are not defined.

**Research Laboratory Improvement Fund**

Cost for Art in item 6 should not exceed \$100 for 2014-2015.  
Approved Project Score has not been assigned.  
Project Locations are not defined.

**Chemical Sciences and Advanced Materials Building**

Cost for Art in item 6 should not exceed \$100 for 2014-2015.  
Approved Project Score has not been assigned.  
Project Locations are not defined.