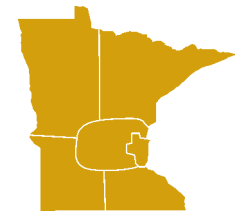


# All Minnesota State Colleges & Universities

## Repair & replacement

1  
\$110,000,000



### Project at a Glance:

- Projects are aimed at keeping students warm, safe and dry at all 32 state colleges and universities
- \$39.4 million – more than one-third – of the request is for replacing 940,000 square feet of roofs on 22 campuses
- \$42.3 million is for heating, ventilation and air conditioning systems to improve energy efficiency and air quality and reduce operating costs
- Life and fire safety code compliance and utility infrastructure make up the remainder of the request
- Renovation and repairs follow sustainable principles to lengthen the useful life span of campus facilities

### Student Impact:

Repair and replacement of failing plumbing, electrical and mechanical equipment and leaky roofs will provide students with safer, more comfortable classrooms and labs – a top priority set by the Board of Trustees for the Minnesota State Colleges and Universities in its 2008 capital budget request.

This project comprises more than 215 projects totaling \$110 million to protect the public’s investment in academic buildings and other facilities across the system. By improving energy efficiency, air quality and code compliance, the system extends the useful life of campus buildings and carries out principles of sustainability and conservation.

### Failing roofs, exteriors need repair

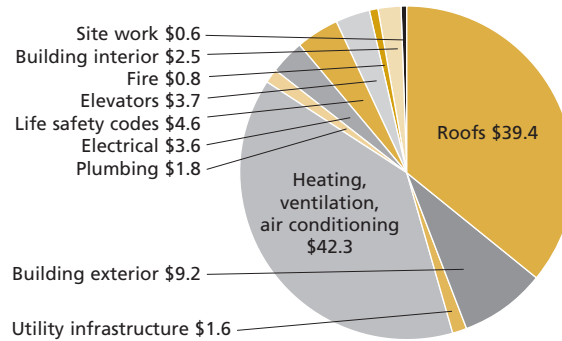
As custodian of 292 acres of roofs on academic buildings, the system has a systematic program to replace all failing flat roofs with built-up asphalt slope-to-drain roofs.

Replacement of the roof – the most critical waterproofing element on a building – protects the building structure, contents and occupants, and prevents mold and structural damage. These replacements, along with mechanical and electrical improvements, are expected to save up to \$1 million annually in operational costs.

The present roof program began in 1984 with the state universities and expanded to the two-year colleges in 1995 when the systems merged. When previously authorized construction is completed, 48 percent of the roofs will meet the system’s standards. The next six-year plan will increase the energy-efficient, built-up roof space to nearly 70 percent.

All campus roofs are inspected by professional engineers every year and rated for remaining useful life. The colleges and universities originally requested \$85 million for roof replacements; this request was pared down to the most critical \$39.4 million. Leaking roofs lead to additional operational costs, potential air quality issues and structural integrity concerns.

### Repairs, replacements needed for aging buildings



Heating, ventilation and air conditioning replacement and repair, roof replacements and building exterior work make up more than three-fourths of the \$110 million request.

The average age of campus buildings is close to 40 years; many of the exterior brick walls require repairs, and windows require replacement to stop water and air leakage. This category of repair has grown in the last decade, with requests of more than \$21 million submitted from colleges and universities; \$9.2 million is in this request for the most critical projects.

### Mechanical, electrical improvements needed

This request proposes 45 campus projects totaling \$45.9 million for replacing worn-out, outdated, energy-inefficient mechanical and electrical systems. These include boilers, chillers, energy-management systems and electrical transformers.

Most campus buildings in the system were built in the 1960s and 1970s, and mechanical systems now have far outlived their life

expectancy. Although campus maintenance personnel have been patching, repairing and maintaining these systems, many of these systems must be replaced.

These requests are aimed at improving air quality and code compliance and reducing energy consumption at the campus.

### Life safety, fire and elevator code

Elevators across the system need safety upgrades by 2012 because of a new state law. Of the 300 elevators in the system, about 190 will be affected by the code change. Campuses estimate that meeting the code changes will cost \$14 million to \$19 million; this request calls for \$3.7 million for elevator upgrades in this biennium.

Many campuses are striving to improve life safety code compliance; this top-priority project in the capital budget is the only funding source for many campuses.