

# UMTC Mechanical Engineering Building Infrastructure Improvement

Board of Regents Facilities and Operations Committee  
**May 9, 2013**

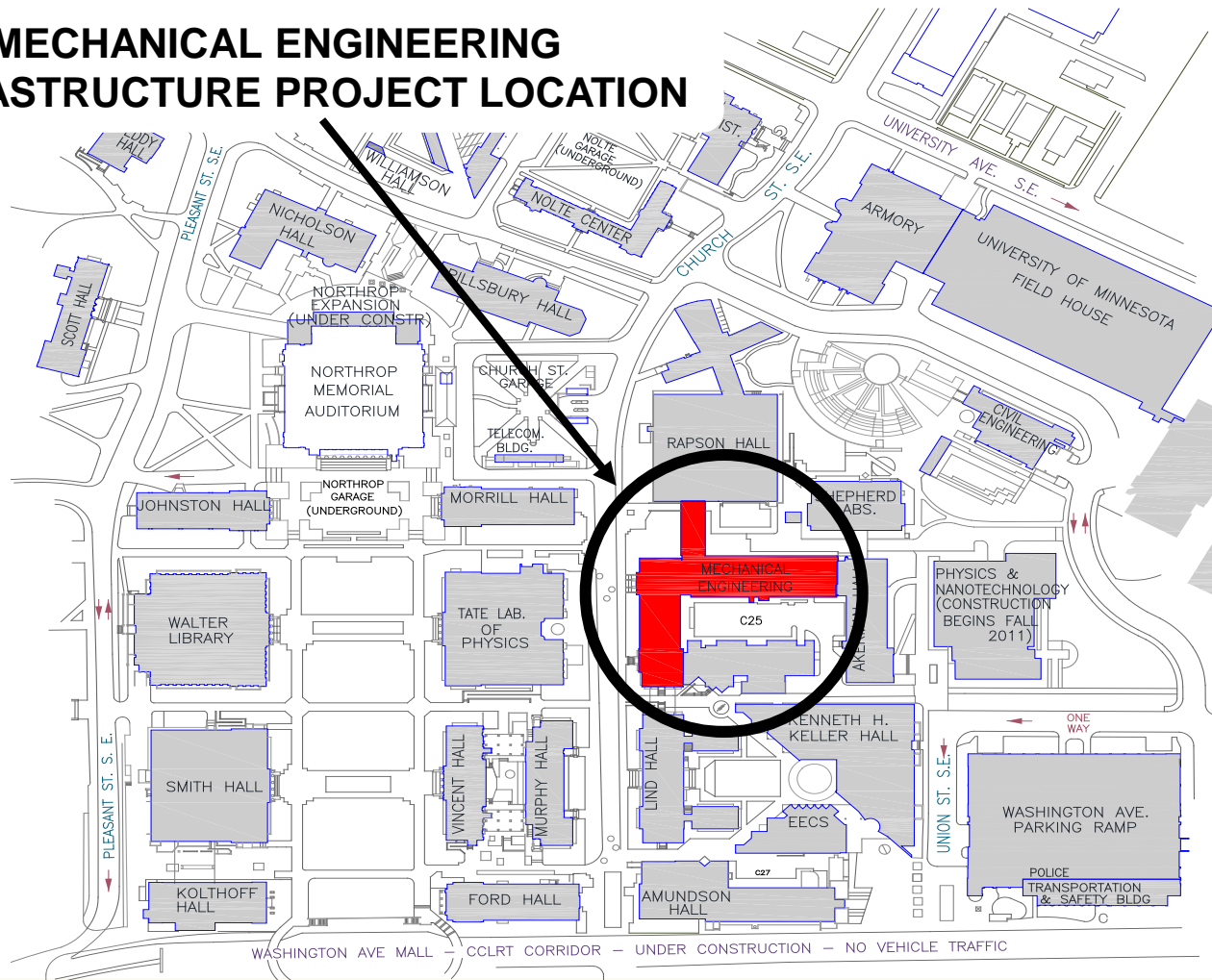


UNIVERSITY OF MINNESOTA

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# Location Map

## MECHANICAL ENGINEERING INFRASTRUCTURE PROJECT LOCATION



# Project Rationale

- The Mechanical Engineering building houses the Mechanical Engineering Department which provides educational and research programs
- The original infrastructure systems for the building (c1948) are still operating and require replacement
- The infrastructure replacement will create a modern, energy efficient, and flexible environment for learning and research



# Capital Plan Metrics

- Ensure student success by:
  - Creating facilities directly related to recruiting, educating, supporting, and graduating students
- Ensure research productivity and impact by:
  - Providing space conducive to the conduct of contemporary research
- Protect public assets and investment by:
  - Improving facility conditions, addressing code deficiencies, life safety and accessibility requirements
  - Making infrastructure investments that ensure reliability over the long term, lower energy and operating costs and advance environmental stewardship



# Project Description

- Phase 1 (approved FY12 Capital Budget):
  - Replace the main electrical service
  - Relocate the main telecommunication room
  - Install a new passenger elevator in new location
  - Replace a freight elevator
  - Enclose/remodel existing north wing central stair
  - Renovate toilet rooms
    - (alternate)



# Project Description

- Future Phases
  - New mechanical penthouse and air handling units
  - Connect to campus chilled water
  - New ventilation system throughout
  - New electrical distribution system
  - New telecom distribution system
  - Tuck point, repair brick and stone masonry
  - Window replacement

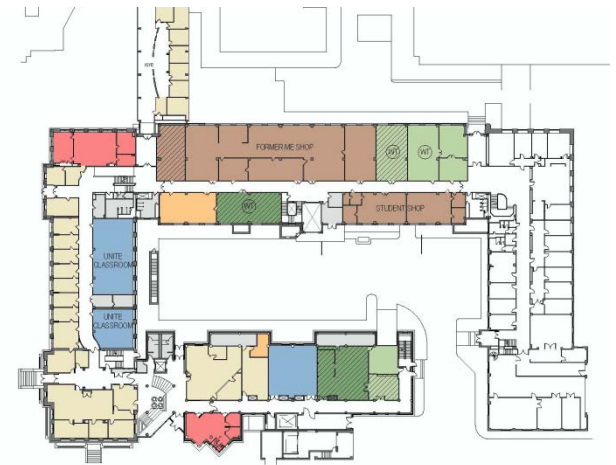
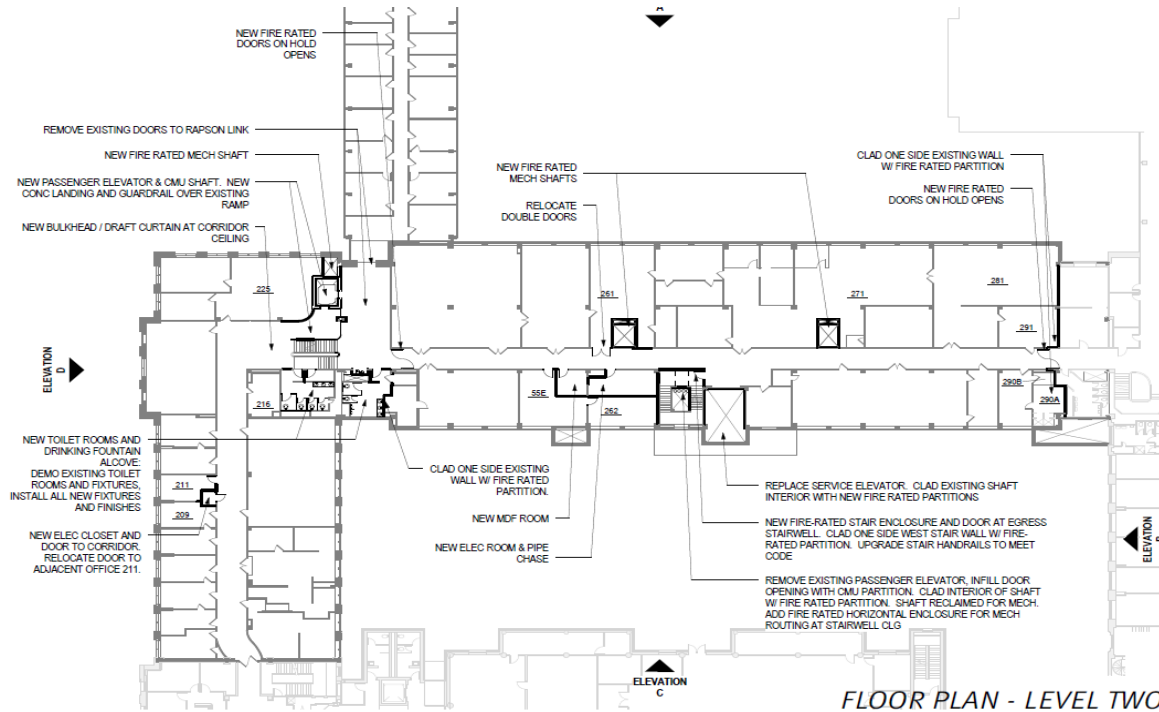


# Project Description

- Anticipated Completion – Phase 1
  - Fall 2014
- Estimated Annual Operating Costs - Phase 1
  - No increase
- Architect
  - Architectural Alliance
- Project Delivery Method: CM at Risk
  - M. A. Mortenson Construction



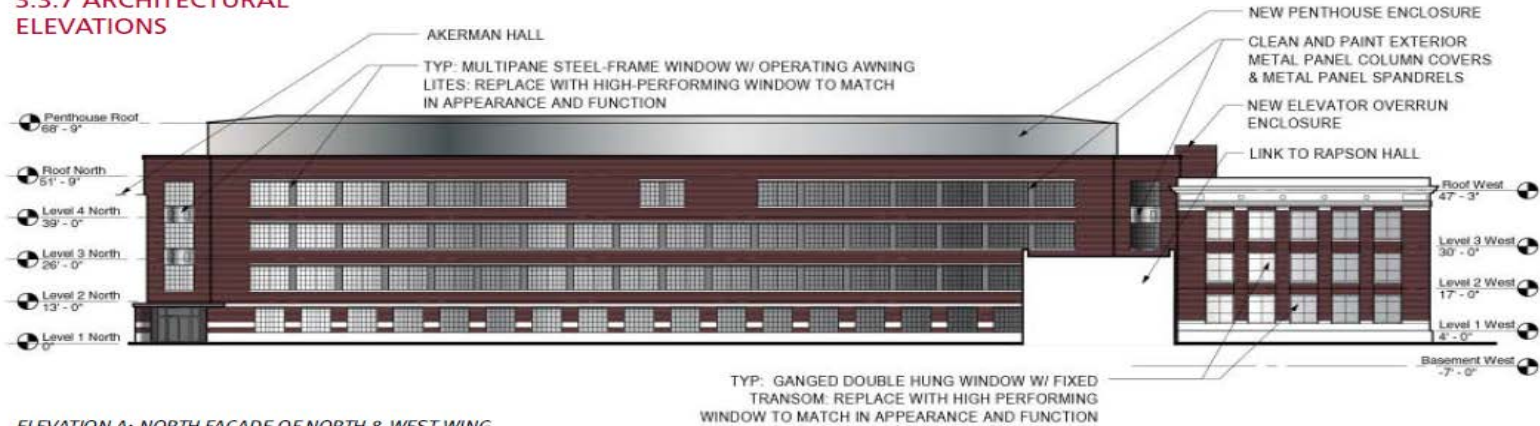
# Building Floor Plan





# Exterior Elevations

## 3.3.7 ARCHITECTURAL ELEVATIONS



ELEVATION A: NORTH FACADE OF NORTH & WEST WING



ELEVATION C: SOUTH FACADE OF NORTH WING

- TYPICAL EXTERIOR SCOPE, ALL FACADES
- TUCKPOINT BRICK EXTERIOR
  - REPAIR AND REPLACE STONE LINTELS

ELEVATIONS - NORTH WING



# Project Financials

- Cost Estimate

- Phase 1

– Construction Cost	\$ 7,933,000
– Non-Construction Cost (complete project design)	<u>\$ 4,825,000</u>
Subtotal Project Cost	\$12,758,000

- Capital Funding

- Phase 1

– 2011 State Appropriation HEAPR	\$ 58,000
– <u>2012 State Appropriation HEAPR</u>	<u>\$12,700,000</u>
Total Capital Funding	\$12,758,000



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