MiGBC MICHIGAN GREEN BUILDING COLLABORATIVE

Project Case Study

Western Michigan University
Spindler Hall

Objective: Improve building energy efficiency and operational reliability by targeting two common "silent" energy wasters: air leakage through aging window seals and steam system inefficiencies caused by compromised steam traps.

Solutions

- **Weatherization:** The team meticulously painted door jambs and recaulked dormer windows to seal the building envelope
- **Steam System Optimization:** All steam traps were manually tested using an Armstrong UMT. Traps identified as "blown through" or "plugged" were immediately repaired or replaced by campus pipefitters

Results

- 11% reduction in Weather Normalized Source Energy Use Intensity (EUI) from 2024 to 2025
- Air leaks were reduced
- 8 steam traps repaired
- Enhanced thermal comfort for occupants
- Awarded in the 2025 Michigan Battle of the Buildings competition

Financials

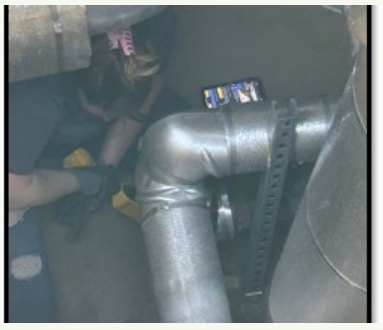
- $2,300 direct utility cost savings from 2024 to 2025
- $4,340 rebate from Consumers Energy for trap testing across the entire campus

Project Highlights

- 48,000 square feet
- “Back to basics” approach
- Consumers Energy rebate
- System optimization

Project Partners

- Armstrong - Longstanding partner on the steam trap management program



“This case study demonstrates the importance of energy benchmarking. Without the consistent track record of energy data to compare against, we likely wouldn’t have realized the impact our efforts were having. It goes to show that by maintaining good records and consistently chipping away at buildings, even old ones, significant energy savings are achievable.”

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