Proposal: Capital Renewal Plan



The Project Management and Construction Services (PMCS) department is seeking to **establish a funding level for the Replacement & Renewal (R&R) Program** that will:

- Minimize the risk of system failures in the university's buildings, and
- Stabilize the university's Facilities Condition Index (FCI), a benchmark of the relative condition of our facilities.

RISK OF SYSTEM FAILURES



Over time, the capital renewal backlog for buildings on the Main Campus, J.J. Pickle Research Campus, Wildflower Center, Marine Science Institute and McDonald Observatory has grown to a total of \$1.4 billion.

The figure at right illustrates the failure risk of just one type of building system, HVAC. Within the next 15 years, the campus risk increases greatly, with over 75 percent of buildings having an HVAC system past its useful life. The risk of system failures is increasing as the large number of campus buildings constructed in the 1960s through 1980s reach or exceed the expected lifespan of their major systems.

As the figure at left illustrates, **the average age of UT Austin buildings is 44 years,** with the majority of buildings constructed in the 1970s.



FACILITIES CONDITION INDEX

Currently, the university has an FCI or 0.26, with the recommended FCI below 0.05. Although the university reduced the FCI from 0.40 in 2010, this lower FCI reflects the addition of new campus buildings. UT Austin's FCI is significantly higher than that of its peer institutions and will continue to rise if unrestrained as systems and buildings continue to age.

PROPOSED SOLUTION

PMCS is proposing allocation of \$44 million annually over each of the next three years to focus on the \$1.4 billion capital renewal backlog. This investment represents 10 percent of the total backlog and is double the annual allocation for the past three years.

With this investment and the strategies described below, UT Austin would maintain the current FCI at the end of the three-year cycle by creating a deliberate and planned approach targeting critical systems and buildings. This will establish a foundation for reducing the FCI in the next three-year cycle, starting in FY 2019-20.

STRATEGIES FOR IMPLEMENTING

- Invest in buildings and projects identified as highest priority and with greatest risk of system failure. These are identified by ongoing analysis of nearly 250 E&G buildings, updated on a five-year cycle.
- Invest in component upgrades in buildings tied to planned capital improvement projects over the next three years, including RLM and AHG. These CIP projects are expected to include a large infrastructure upgrade that will help stabilize the FCI.
- Bundle R&R investment with planned, program-driven projects supporting the Provost, colleges, and other campus units.
- Focus on major system replacements, including HVAC, electrical, and building envelope. These three major areas represent 92 percent of the total deferred maintenance backlog, as shown at right. Other areas needing attention include ADA upgrades and escalator removals.

PERCENT OF TOTAL CAPITAL RENEWAL



One or more of the strategies outlined above would be prioritized in each of these buildings (in alpha order, by building purpose):

GENERAL ACADEMIC

- Battle Hall (BTL)
- Rappaport Building (BRB)
- College of Business Administration (CBA)
- Gearing Hall (GEA)
- Goldsmith Hall (GOL)
- T.S. Painter Hall (PAI)
- Sid Richardson Hall (SRH)
- Thompson Conference Center (TCC)
- Waggener Hall (WAG)
- West Mall Office Building (WMB)

SCIENCE/LABORATORIES

- Ernest J. Cockrell Hall (ECJ)
- Jackson School of Geosciences (JGB)
- J.T. Patterson Laboratories (PAT)

ARTS/MUSIC

- Music Building and Recital Hall (MRH)
- F.L. Winship Drama Building (WIN)

Other systems and buildings across campus would also receive a level of investment in specific upgrades.