The U’s Facilities Management Department (FM) conducted an internal review of its fire alarm testing process in 2009 that resulted in annual savings of approximately $578,000. The fire alarm systems, which cover the vast majority of campus buildings, were traditionally tested, maintained and repaired by FM employees. The review compared this service model to one where fire alarm services would be performed by external contractors.

**Problem**

As part of an overall business review, FM began researching best practices for fire alarm testing and maintenance services in 2009. FM discovered that its program did not follow recognized industry service standards, insurance underwriter recommendations or National Fire Protection Association (NFPA) safety guidelines.

Research also revealed that FM’s costs ($999,576 in FY09) were as much as 100% higher than the industry standard, when compared to the private sector. With this information and the realization of continuing reductions in University operating budgets, a decision was made in the summer of 2010 to formally explore opportunities for a new fire alarm testing program.

**Opportunities**

Most of the FM personnel conducting fire alarm testing and maintenance were trained in construction, not fire alarm testing. Moving to standardized testing methods and record keeping, along with inspections performed by fire alarm specialists, would make the program more efficient. The resulting improved reports and records would mean more accountability and accuracy for documentation, compliance reporting, equipment inventory and work history, making it easier to plan for system improvements and communicate with the code office and insurers.

Additionally, following national guidelines for fire alarm testing and adding new technology would improve system reliability and safety. These changes would elevate FM’s program to meet industry standards and NFPA guidelines. The resulting program would improve customer service by ensuring fewer false alarms, better coordination and more efficient scheduling.

**Benefits**

**Reliability and Safety**

Utilizing contractors with national fire alarm testing certification and adding new technology elevated FM’s program to meet industry standards and NFPA guidelines.

**Cost Effectiveness**

FM’s costs were as much as $500,000 higher annually versus national leaders. Switching to an outside contractor saved the U $578,000 annually.

**Accountability and Documentation**

Accountability and accuracy were improved in compliance reporting, documentation, equipment inventory and work history.

**Efficiency**

Standardizing FM’s approach made it easier to plan for system improvements and confidently explain its work to the code office and insurers.

**Bottom Line**

Total Annual Savings $578,000
Solution

FM had two options to capitalize on these opportunities. Fire alarm testing could be improved using internal staff or FM could contract out fire alarm testing and maintenance services. To determine what the total cost of a new program would entail, FM underwent a thorough RFP development process, including evaluating its current program, researching industry standards (public and private), gaining knowledge from vendors and evaluating peer institution fire alarm testing and maintenance procedures.

The resulting RFP for contracted services included pre-negotiated contracts for Fire and Life Safety (FLS) maintenance services; and minor repairs. An internal redevelopment plan was created based on services that vendors would provide according to the RFP and compared to the costs of providing them using FM staff.

The following considerations helped FM determine that using an outside contractor rather than internal personnel for fire alarm testing would be best for FM:

Cost – Outside vendors could provide the most potential savings in the shortest time with fewer operational resources.

Maintenance / Repair Services – Service technicians have the expertise to make minor repairs during the testing and inspection process. This reduces the need to schedule repairs at a later date and minimizes the risks associated with having an impaired fire alarm device in the meantime.

Reliability – Fire alarm testing and maintenance is more efficient and reliable with outside contractors that are required to follow established practices and industry standards.

Documentation / Accountability – Contractors utilize proven standards and methods of reporting and documentation, providing more accountability.

Risk / Liability – Vendors warranty their work, which is documented in reports and recommendations. As a result they are motivated to reduce risk and manage liability.

The Fire Alarm RFP process revealed several deficiencies in FM’s old program. FM’s only testing and inspection documentation came in the form of work orders, rather than standard industry reporting practices. Additionally, modern fire alarm systems feature proprietary software and components that necessitate a degree of technical expertise to make changes and upgrades that most FM employees do not have. Under the new program, FM requires that vendors have factory trained personnel with experience and National Institute for Certification in Engineering Technologies (NICET) certification.

FM also recognized that more than one vendor would be required to deliver Fire Alarm testing and maintenance due to the size and scope of required services. Contracting with multiple providers would also foster competition to provide quality service that will ensure contract renewal.

Results

Following its in-depth analysis, FM’s Fire Alarm Committee and Leadership recommended pursuing contracts with three qualified vendors. Contracts were awarded for each building to the vendor that could offer the lowest cost, with each one receiving a total contract for approximately $105,000.

The fire alarm service program offers significant improvements to the scope, quality, accountability and cost of servicing the University’s critical fire alarm systems. Services were elevated to industry standards and fully meet regulatory compliance requirements. Work is performed by technicians who have the highest level of specialized technical knowledge and expertise. Proven best business practices have been integrated into FM providing accountability, accuracy, timeliness and improved services, and the U saves more than $500,000 annually.

(Annual savings calculations based on costs for the first year of external fire alarm testing and inspection as compared to FY09 costs.)