Compact Planning For Twin Cities Facilities Management

Compact for Facilities Management FY 2003-04

A. INTRODUCTION

The majority of Facilities Management’s (FM) internal workforce is engaged in the delivery of maintenance and custodial services. FM has historically targeted improvement efforts to increase the productivity and effectiveness of both programs. For maintenance, this means planning and scheduling work, establishing time and task standards, procuring materials expeditiously and focusing on required regulatory and industry-recommended maintenance. For custodial, this means productivity standards by type of space, efficient cleaning methods and employee training. It also involves flexible service options to offer customers prioritized levels of service.

The department’s 1,200 employees, who are represented by 22 different unions and work in over 40 skill specialties, almost exclusively manage and operate:

- 250 buildings with an aggregate 21 million square feet (3 million square feet in research space) sitting on 900 acres and including 46 miles of sidewalks and 13 miles of streets),
- 15 miles of steam tunnels which distribute steam to 181 campus buildings,
- Distribution of electrical service as the 7th largest Excel customer in the region,
- A waste collection service for 8,000 tons of waste annually of which approximately 1/3 is recycled, and
- Operate 30,000 tons of cooling capacity daily, including the Academic Health Center plant, which is one of the largest in the State of Minnesota.

FM provides oversight for the production and distribution of utilities to campus. Local suppliers provide water, sewer and electric utilities. Steam is produced by University facilities under a 25-year operations and management agreement with a third party.

The challenges enumerated in last year’s compact are still with us:
- The rationing of facility services . . . not funding programs to the level defined by program and industry standards,
- Skills . . . the demand for and scarcity of workers with digital control experience and other technical disciplines,
- The tight supply of highly skilled building trades that perform a majority of maintenance work,
- Effective stewardship through maximizing industry expertise and creating strategic service partnerships,
- Potential inadequacies of building infrastructure to properly handle Indoor Air Quality regulations, and
- Effective internal and external communication.

The compact between the Executive Vice President and Provost and the Vice President for University Services with the Associate Vice President of Facilities Management for 2003-04 includes the following:

B. UPDATE – MAJOR LONG-TERM GOALS/PRIORITIES FROM PREVIOUS COMPACTS

1. Custodial Program Improvement Initiative (CPII)

This initiative, focusing on the improvement of all custodial programs, is in progress. The initiative’s goals are to improve customer satisfaction with custodial services, increase cleaning service levels with existing resources and create Custodian “pride and ownership” in the performance of duties through an integrated system. The cost is a 50% time investment by two project
overseers and a 15% time investment by the Project Manager, all of which will be funded by FM. Currently, 9 of the 27 identified initiatives have been implemented.

2. **Facilities Condition Assessment**

A Facilities Condition Assessment (FCA) is nearing completion on the Twin Cities Campus. The objective of this initiative is to define and document current or anticipated building and equipment deficiencies and estimate costs via inspection. The goals are to create a web-based database available to departments and to categorize and document reporting on the cost of deficiencies. This program will:

- Provide an on-going system of identification and prioritization of capital repair and replacement projects.
- Provide solid knowledge of deficiencies that must be corrected.
- Provide additional information on forecasting maintenance budget requirements.

FM anticipates rolling out the information to user community groups in the Fourth Quarter of FY03.

Athletics, Housing, Parking and Classroom Management are also participating in this project. The estimated cost of this project is $1M for the initial FCA, which is being funded by FM and the participating departments. Additional costs are anticipated beginning in year 2 or 3 after the project is completed. These recurring costs are estimated to be $250K per year, with funding yet to be identified. The processes and contracts are developed to allow future participation of the coordinate campuses.

3. **Preventative Maintenance Program Review**

A Preventative Maintenance (PM) Program Review was completed this year by the same consultant who performed the review in 1995. The consultant concluded that FM has made an effort to establish a strong maintenance program that places “this University among the leaders in this particular specialty.” The initiative’s goal to improve operational efficiency in the PM program will be met as additional recommendations are implemented. One-time costs of $23.5K, funded by FM, were lower than the estimate of $75K-100K provided in last year’s Compact.

4. **Technology**

During 1999, Facilities replaced its Computerized Maintenance Management System (CMMS) with new technology. This replacement project (called COMPASS) greatly advanced the underlying technology, brought web service requests and invoices to our customers and, most importantly, facilitated a major rework of 15 key business processes that reduced administrative costs by $600K annually.

In FY2003 FM again became a development partner with the software developer to implement the next generation of COMPASS (8i). This partnership provides the following benefits:

- Software modifications are created as enhancements to the base product, which should reduce time and costs to implement future software releases.
- FM has significant input on the software design.

8i was implemented in October 2002. Costs to date are $45K, but the initiative is expected to cost $75K. FM funded this project.

5. **Infrastructure and Utilities**

- FM has had success communicating the critical importance of prioritizing investments in the aging campus infrastructure, and incorporating these needs into the 6-year Capital Plan. Examples include infrastructure investments in support of AHC facilities, investments in individual building chiller replacements, steam distribution supporting the St. Paul Campus and steam reliability for the Minneapolis Campus.
- There is a direct connection between the adequacy of infrastructure and customer expectations for well-maintained, functional facilities that meet the academic program needs. FM will continue to focus on infrastructure needs identified in the 2000 Utility Master Plan (updated in 2001) and develop corrective strategies for the most critical portions of the deferred capital investment such as the chilled water systems.
Master Plan update funding needs are $225K, which will be provided by FM.

Completed Utility models include: steam model for East Bank, electrical model for East Bank and steam model for St. Paul. Storm and Sanitary Sewer modeling for St. Paul is in process.

- The University’s 2002 legislative request includes a project to replace aging building chiller units on the St. Paul campus with an energy efficient centralized chiller plant. Of the 39 chillers used in St. Paul, 32 are in need of replacement in the next 6 years. Without accounting for inflation, building a central plant, rather than replacing the individual chillers, will save the University $10.7M in capital and ongoing operating costs over the next 25 years.

Funding of $20M was approved in the 2002 Capital Plan. The project has gone through the State Designer Selection Committee and is in the design phase. Construction is expected to begin in FY03 4th Quarter.

The first phase of the project will build the plant and install two chillers. Additional phases will require an additional $24.2M in funding, which will be included in future capital requests.

6. Capital Project Delivery

- FM influenced legislative action to allow more University participation in the selections of design professionals. The University now selects the design professional of record from semi-finalists identified by the State Designer Selection Board.

- Design standards have been established for external spaces with the intent of creating a more uniform-appearing campus.

- University Design and Construction Standards were updated in 2002 after thorough review and input from various teams.

- Training was initiated for Owner Representatives (OR’s) in FY03 to improve their understanding of contracts. Additional training will be provided in FY04. The Design and Construction ISO will fund any external training that may be required.

Design and Construction has also completed a working draft for an OR Manual, which will provide the OR’s with one main reference resource.

NOTE: Capital Project Delivery responsibilities were transferred in FY03 to the new Capital Planning and Project Management Department of University Services under the leadership of Vice President, Kathleen O’Brien. FM will partner with this new unit as a valued team member in the delivery of capital projects.

7. Training and Development

As a service business, FM recognizes that the qualifications, skills and satisfaction of our employees directly impact its service quality. Training and development are key strategies to attain these objectives:

- An intensive character-based leadership development and coaching program was initiated for all director-level positions. The expectation is to develop leaders with a more focused vision, better insights into how to add value to the organization and an enhanced ability to lead the organization through change and growth.

  All directors have begun this program and many who have gone through the program continue to use it as an on going resource.

- Skill building among front-line employees is also on going. Initiatives are currently underway both in specialized technical job skill training and in customer service training, including the Great Services initiative, to improve the effectiveness of joint labor-management committees in redesigning service delivery processes.
Specialized technical training has enabled FM to begin the implementation of the Bureau of Mediation Services (BMS) ruling that allocated types of jobs between trades and teamsters.

- The December 2002 report from the American Society for Training & Development indicates that, on average, participating benchmark companies spend 1.9% of total payroll for training and development. The report also indicates that although the current economic climate has nearly all employers cutting costs, many retain their commitment to employee training as a means of also retaining top workers and increasing their talents.

- As indicated above, FM has targeted its training towards increasing both the more traditional technical skills but also the development of skills that enhance productivity and work environment. FM’s rate of spending, however, is .38% as compared with the benchmark standard of 1.9% of payroll, indicating that training and development should be a priority investment, if funding allows.

C. NEW LONG-TERM GOALS/PRIORITIES

1. Maintenance Operations Improvement Initiative (MOII)

This initiative deals with all Maintenance Operations process issues. The goals of the project are to:

- improve customer satisfaction with maintenance services
- reduce the cost of maintenance services
- increase maintenance levels with fewer resources
- update maintenance process documentation
- create operational pride and ownership in performance of duties

Implementation of the BMS ruling, which defined Teamster and Trades tasks, is an essential element of this initiative.

The cost is an investment of time by Operations management and staff and the Project Manager.

2. Partnership with Xcel and Fuel Alternatives

FY03 budgeted Purchased electric costs are $21M, almost $4M more than FY02 actual expenses. FM continues to actively work with Xcel to leverage the U’s relationship to obtain more competitive pricing with power purchases. Current initiatives include working with Xcel to:

- deliver power off of the University’s co-gen unit at the SE Steam Plan
- maximize the Conservation Improvement Program (CIP) rebate dollars by using CIP and CASK funds for combined heat and power (CHP) fuel cell experiments, Photovoltaic (PV) experiments, and alternative energy programs such as the burning of oat hulls.

Adding oat hulls to the fuel mix will save $1.5M a year. This initiative is currently awaiting permission from the MPCA to conduct tests.

Costs associated with this strategy will be borne by FM.

3. ImageSite Initiative

ImageSite is a web-based solution for a secure environment in which to organize, store and manage the access to project documents and building blue prints. This system was selected to address security issues in the old system and to achieve greater functionality. As an electronic repository for all project documents, ImageSite will also address recommendations from the Construction Audit Report dated April 2002 for both active and historical projects.

ImageSite empowers communication with a single, secure point of access for all project information for better project collaboration, engineering drawing management and the drawing review cycle. ImageSite benefits include eliminating errors due to wrong revision levels, tracking changes, reducing document distribution and reprographic costs and improving communications through “live” conferencing.
This software was implemented in Fall 2002. Currently, 12% of historical projects records have been entered into the system.

The cost of this initiative is an additional $300 per month addition to the lease with the provider, which is funded by FM.

4. Outreach - NA

5. Diversity
Diversity in FM’s workforce is consistent overall with what is available in the market. However, FM is weak in supervisory and senior management diversity relative to availability whereas line staff is heavily diverse. One female fills one of five senior level management positions in FM. Our strategy is to pursue diverse candidates for open positions.

D. ENROLLMENT MANAGEMENT N/A

E. FACILITIES ISSUES NOT USED

F. FINANCIAL ISSUES

1. Steam Plant Contingencies

The University operates the steam plant under a 25-year Management, Operations and Maintenance Agreement (MOM) with a third party. This third party was also contracted to design and build renovations to the plant that were to have been completed in May 1999. The third party has failed to perform adequately on the Design and Construction Agreement (DCA) and, as a result, plant acceptance was delayed. Delayed acceptance resulted in higher tariff rates for steam production, lower fuel efficiency guarantees and a loss of co-generation capability. In addition, the third party has neglected the annual facility maintenance of the plant resulting in a backlog of maintenance (some of it critical) estimated at $12M - $17M. Although the DCA provides delay damages of $5K per day, resolution on these matters has not been reached. The dispute resolution process is ongoing.

As of May 2002, FM made a conditional plant acceptance and began to pay the lower tariff.

2. Structural Budget Deficit

Implementation of a University-level strategic planning effort that evaluates options in fuel flexibility, labor strategy and the demand for facilities must occur if facility costs are to be reduced.

FM’s budget has historically contained about a $3M structural deficit that has been financed on a non-recurring basis primarily through utility cost savings based on favorable weather conditions. Trends in wage increases, particularly in the Trades but also the latest Teamster contract, combined with the practice of funding less than these increases centrally, pushed the projected structural deficit to $5.6M in FY03. Although FM’s budget process has a rigorous base budget review, it is not enough to mitigate the size of the structural deficit, which is estimated to grow by at least $2M annually from wage increases alone.

3. Growth in Facilities Costs

Costs continue to grow based upon contractual wage increases, fuel costs and the increasing size and complexity of the physical infrastructures. The growth in costs will continue unless mechanisms are put in place to reduce the demand for facilities.

Opportunities to:

• aggregate space use by day and time of day
• re-invest in existing space versus new
• schedule firm building operating hours
• create incentives for units to reduce the use of space could reduce costs. Significant facilities cost reductions can only be realized though reduction in the amount of space operated and maintained.

4. Utility Inflation and Consumption

Electricity, steam heat, cooling and water are unavoidable costs of operating facilities. The biennial funding request must reflect the cost increases in purchased utilities as well as the increases, usually 1.5% to 2%, in electricity use based on the increasing use of digital technology in the buildings.
5. New/Renovated Buildings

For new buildings, operating costs are predominantly for utilities, custodial and maintenance services. For replacement and renovated buildings, there is a cost savings associated with improving the overall energy efficiency of the buildings. There are also cost increases to cool the space and to establish maintenance and custodial programs at recommended levels to support what is typically new space with additional equipment and requirements.

6. Infrastructure Renewal

The 1998 Legislature passed a law requiring agencies of the state to include 2% of capitalized building costs in their annual budgets for routine in-kind replacement of building components.

Implementation of this legislation stalled on the financing side; nonetheless, some recurring provision for replacing the most critical and closes-to-failure components of infrastructure must be made.

7. Utility Infrastructure Issues

- The University is out of electric power at Fulton. The estimated cost to bring in a feeder from Xcel is $2.5M. FM has implemented a short-term fix that should last for 2-3 years.
- The University is out of steam in the southeast corner of the Minneapolis Campus. Any expansion in that area will require an upgrade to the distribution capacity.
- The St. Paul electrical distribution substation is in need of renovation and additional service. The anticipated cost is $4.5M.
- The northeast corner of the St. Paul campus is out of steam. $6M for tunnels and piping will be needed as the northeast corner is built out.

8. Meeting Routine Maintenance Standards

The University has developed preventative and regular maintenance standards by utilizing nationally identified standards, state and national building codes, and manufacturer’s specific recommended equipment maintenance. The maintenance backlog is $1.2M per year, unadjusted for inflation. The biennial request should include funding of the standards.

9. Meeting Custodial Standards

The University has established standards of cleanliness based on “Maroon” standards (ordinary tidiness levels) that were developed for FM as a part of the CPII. Standards of productivity per hour are based upon the activity occurring in the space. In addition, routine window washing is provided on an every-other-year basis. The custodial backlog is $1.1M per year, unadjusted for inflation. The biennial request should include funding for these standards.

10. Building Systems Automation Center (BSAC)

BSAC provides 24x7 building system automation systems service U-wide. Building physical points have increased 292% since 1995 with 44,125 points in place July 2003. 8,400 points have been added in the last year alone.

The growth of alarms has strained point capacity limits with Unity, the software product FM uses to integrate different building automation software into a single user interface. Unity is considered a Legacy product that will be obsolete in the next 12-18 months. To plan for the upgrade or replacement of the Unity system, FM hired a consultant to identify options for building systems interoperability and develop budget estimates. The analysis is in process with a report expected in the spring of 2003.

FM funded the consultant fees; however, funding for future costs has not been determined.

G. COMPACT DEVELOPMENT

The Compact was developed using Business Plans that were created as part of the FY04 budget process. These Business Plans are based on long-term strategic goals as well as customer input relative to FM performance. Customer expectations include:

- well-maintained and functional buildings to meet academic program standards, needs and accreditations,
facility services designed in accordance with authoritative standards, yet having the flexibility to design portions of facility services to better meet individual academic program needs,

- competent, cost-effective consultation and implementation, and

- knowing how to reach us, what to expect from us, and being notified when the work is done.

FM surveyed customers as part of the rollout of the Custodial Program Improvement Initiative to measure their satisfaction with custodial services. Overall baseline customer satisfaction with custodial services was rated at 2.4 (4.0 system). 40 days later, another survey was conducted in buildings where the new initiative had been implemented with the following results:

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<th>Building</th>
<th>Average</th>
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<th>40 Days</th>
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Heading into FY04, FM’s objectives and goals are refocused on the goals of service, accountability, stewardship, high performing teams in core competencies and continuous improvement, which were laid out in the reorganization plan of the Vice President of University Services in February 2003.