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# Equinox State University

## Facilities Management Evaluation Report

**Facilities Management Evaluation Report *[New Criteria]***

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# Equinox State University

November 1, 2010

Team members:

Bernie Schmertz  
Alejandro O'Brien  
Viktor Ivanovich

## INTRODUCTION

This report reflects the observations and recommendations of a team of senior facilities management professionals who visited Equinox State University (ESU), located in Equinox, Colorado, from September 10 through September 13, 2010 to conduct an evaluation of the Facilities organization.

The review was conducted at the request of Joan Price, Assistant Vice President for Facilities, and coordinated by Gerald Sandorff, Assistant Director, Management Services within Facilities Maintenance and Operations (FMO), who was designated as the Institutional Representative. The review was structured in accordance with the Facilities Management Evaluation Program (FMEP) of APPA: Leadership in Educational Facilities. Facilities professionals with specific expertise relevant to this FMEP were selected for the evaluation team based on their experience in the management of comparable facilities organizations. The following were members of the review team:

Bernie Schmertz, Team Leader  
Director of Facilities Management  
Northern Idaho University

Viktor Ivanovich  
Assistant Vice President for Facilities  
Santa Maria State University

Alejandro O'Brien  
Director of Physical Plant  
Ferule State College

During its visit to the campus the review team interviewed the following principal administrators, faculty, and staff external to the ESU Facilities organization:

Ben Pitcher  
Provost

Jerry Warnick  
Vice President, Finance and Administration

Cindy Hatch  
Vice President, Research and Graduate Studies

Steve Goodwin  
Vice President / Vice Provost, Student Services

Wayland Jensen  
Executive Director, Institutional Planning and Budget

Earl Barnett  
Dean, College of Mines and Earth Resources

John Dangerfield  
Dean, College of Business and Economics

Ron Brooks  
Dean, Library Services

LeGrande Johnson  
Dean, College of Natural Resources

Phillip Olson  
Dean, College of Letters and Science

Bruce Burnhan  
Dean of Students

John Downs  
Interim Dean, College of Art and Architecture

George Mansfield  
Associate Dean, College of Engineering

Sara Hendricks  
Associate Dean, College of Letters and Science

Kevin Harrison  
Assistant Vice President, Finance

Laurel Hibbard  
Director, Capital Planning and Budget

Patrick Stringham  
Interim Assistant Vice President, Human Resource Services

Denzil Schoenfeld  
Director, Auxiliary Services

Susan Einstein  
Director, Trusts and Investments

Carlton Lathrup  
Director, Campus Recreation

Joan Budge  
Director, Administrative Services  
College of Engineering

Rich Kotter  
Director, Administrative Services  
College of Natural Resources

Weldon Fargo  
Director, Auditing Services

Elizabeth Bonderant  
Director, Upward Bound

Kirk Foxley  
Director, Family and Consumer Sciences

Richard Heimschorn  
Associate Director and Dean  
Colorado Agricultural Experiment Station

Peter Penske  
Professor, Chemistry

Jane McCollough  
Professor, Entomology

George Halloran  
Assistant Professor, Dance

Floyd Kelley  
Building and Technical Support  
College of Engineering

Nedra Payne  
Administrative Assistant  
Family and Consumer Sciences

Stan Baugh  
Safety Officer, Environmental Health and Safety

Tim McGaggon  
Manager, Kibble Dome

May French  
Operations Manager, ITS Finance / Operations

Judith Blazzard  
Scheduling Coordinator, Registrar's Office

John Presley  
President, Residence Hall Association

Beth Greggson  
Hall President, Residence Hall Association

Brian Swisher  
Chief of Staff, Associated Students Equinox State University

Jenni LeMay  
Vice President, Associated Students Equinox State University

### **Acknowledgments**

The evaluation team acknowledges, with deep appreciation, the help and support of FMO's leadership and members of its management team. This group's development and preparation of the Institutional Profile, Facilities self-evaluation and other materials were insightful and essential ingredients in this evaluation. Additionally, the team acknowledges the wholehearted support, cooperation, and assistance of many members of the university's administration, faculty, researchers, and staff. The team is grateful to FMO's employees, whose willingness to share their time and perceptions contributed invaluable insights to this report.

Special recognition is given to the following members of the Facilities staff whose names are listed below, and who provided significant insight and input to team members:

John Price  
Assistant Vice President, Facilities

Joseph Black

Director, Facilities Maintenance and Operations

Benjamin Morris  
Director, Architectural and Engineering Services

John Cisson  
Director, Arboreta

Gerald Giles  
Associate Director, Building Trades

Gerald Sandorff  
Assistant Director, Management Services

Morris Bachelor  
Assistant Director, Utilities and Engineering

Chuck Zollinger  
Assistant Director, Landscape and Exterior Services

Tobi Braxton  
Manager, Building Services

The review team members' knowledge and experience as successful practitioners of university facilities management and university administration have guided the judgment and recommendations found in this report. That knowledge and experience were combined with the results of an extensive interview process, detailed document reviews, and studied comparisons. The judgments and recommendations included in this report are given not by way of criticism, but rather as a means to assist the Facilities organization in building on current levels of service to better meet the needs of the institution it serves. It is somewhat difficult in this report, which includes a significant number of recommendations and suggestions for improvement, to convey positively the magnitude of effort expended by the operations and maintenance staff and departmental management. The recommendations contained within this report, however, in no way take away from the hard work and dedication of individuals in the department who daily try to meet the needs of the institution.

Finally, the review team thanks ESU for the opportunity to provide this evaluation report and acknowledges the leadership and support of APPA in developing the criteria and guidelines by which this evaluation was conducted.

## EXECUTIVE SUMMARY

APPA: The Association of Higher Education Facilities Officers conducted a complete facilities management evaluation for Equinox State University (ESU) at the request of the Facilities Department. Using the seven objective criteria developed as part of APPA's Facilities Management Evaluation Program (FMEP), a review team assembled by APPA examined the Facilities Department at ESU with respect to its clarity and adequacy in the following areas:

- Leadership
- Facilities Strategic and Operational Planning
- Customer Focus
- Assessment and Information Analysis
- Development and Management of Human Resources
- Process Management
- Performance Results

FMO's leadership requested that the review team respond to four other issues that they felt might not be addressed by the FMEP criteria. The review team addressed a fifth issue that was identified during the team's campus visit. These five issues are included in a section at the end of the report titled Other Considerations.

The leadership of Joan Price, Joseph Black, and Benjamin Morris is an extremely prominent, positive and beneficial influence on campus. Through programs, initiatives and projects carried out under their direction and guidance, the facilities organization has been responsive to campus needs for facilities management services. Joan Price is extremely well regarded throughout the campus. She has provided exceptional service as an architect and campus and facility planner. Joseph Black has a wealth of experience in issues relating to facilities operation and maintenance. Joe is highly regarded throughout the campus. Benjamin Morris has done yeoman's work in the design and construction of facilities during a period of rapid campus expansion. Ben, too, is well regarded on campus. ESU is fortunate to have three such qualified, dedicated and responsive individuals to provide top leadership within the Facilities Department.

The review team has concluded that the Facilities Maintenance and Operations (hereafter frequently referred to as **FMO**) department has generally fulfilled its mission in the midst of difficult times. Operating in a period of rapid campus redevelopment with strained financial resources, increasing workloads, the complexity of developing a diverse and multi-skilled work force, coping with rapid changes in technology, and dealing with frequent changes, are just a few of the dynamics that must be dealt with every day. The success that the facilities organization has achieved is not an accident. Overall, the staff takes pride in its work and incorporates new ideas and innovations into the work processes.

Most members of the campus community are satisfied with the overall performance of the facilities organization, and noted improvements made during the past several years as impressive. During its four-day visit to the campus, the review team was greatly impressed that FMO seems to be in harmony with the university's vision and mission as well as its day-to-day needs.

FMO is entering an era when there will be a mismatch of expectations and resources. The campus community's expectations will likely not diminish to a level that corresponds with the anticipated decline in resources. In fact, the demand for services is growing and is driven by two major factors. The first is an increasing emphasis on research and outreach programs and an attendant need to be responsive, timely, knowledgeable, and economical in the delivery of its services. The second is the additional workload placed on the department by the growth in new and remodeled campus facilities, as evidenced by the Agriculture Biotech facility, Engineering and Physics Building, Rocky Commons and the Student Recreation Center, which is currently under construction. Each major project requires extensive integration and coordination of efforts between Facilities Maintenance and Operation (FMO) and Architectural and Engineering Services (AES) to be implemented successfully.

## **1.0 LEADERSHIP**

Equinox State University is fortunate to have developed, through a strategic planning process, a vision for what the institution can become and how it plans to get there. Through the encouragement of President Grandin, the institution's hallmarks of tradition, change and excellence have been brought into sharp focus. The Facilities organization was restructured in 1998 to integrate the programming, planning, and design functions with the architectural and engineering functions, and the facilities maintenance and operation functions to better meet the needs of the institution. The campus community views this restructuring positively and believes that the facilities organization is now functionally stronger, better coordinated, and structurally organized for current and future campus issues and needs. This new organization and filling of the campus planning leadership position will allow FMO to better plan and carry out the institution's ongoing requirements. The department's leaders have carefully defined and continually re-assess their own roles as well as those of the FMO staff in general, and communicate those definitions to stakeholders both internal and external to the organization. Over the past several years it appears that, in most areas, Facilities has done a commendable job in meeting the expectations of the institution's top leadership.

The new Facilities complex, that is able to house most operations under one roof, has enhanced the organization's ability to more effectively plan, refine and communicate its services to the campus. It appears that there is not, at this time, an active conduit in place that promotes active feedback and two-way communication regarding the department's functions and successes. FMO's leadership should continue efforts to further strengthen ties to college and departmental representatives to enhance information exchange. In addition, Facilities leadership should establish regular opportunities to interact with its own frontline staff. Many opportunities for this interaction now exist and can serve to reinforce departmental unity and performance.

FMO's leadership participates in the institutional process to establish goals and objectives. Participation in this process is vital for aligning the pressures of institutional goals with the resources of the facilities organization and the performance of its individual staff. Having "results-oriented" job descriptions within the department has established a framework and process that focuses the organization on quality and in providing services to meet customer needs. The department has established value statements and goals that underscore the importance of ethical behavior and excellent service and has made plans for continual improvement of facilities operations through the use of effectively developed benchmarks, critical success factors, strategic indicators and other comparisons to assess performance and the attainment of goals. Even so, FMO should explore additional opportunities for sharing such knowledge with its internal staff as well as the institution's senior leadership.

FMO's leaders are frequent participants in regional and national organizations that serve to keep them informed of current trends and practices within the area of facilities management. Members of its staff, at all levels, are encouraged to participate in educational programs that can contribute to their personal and professional development. To ensure continuity of leadership, a succession plan should be developed for key positions.

## **2.0 FACILITIES STRATEGIC AND OPERATIONAL PLANNING**

While the leadership at Facilities Maintenance and Operations is highly focused, informed and committed to institutional goals, the department would benefit from the development of its own vision, mission and strategic plan. This plan should be aligned with ESU's vision to become the "Residential Campus of Choice" in the West, and should be developed with input from both internal and external stakeholders. In pursuit of its own plan, Facilities should consider customer needs and expectations to establish and drive departmental goals. Plans and goals should be regularly evaluated to achieve desired levels of performance.

It is commendable that FMO's leadership has been involved in the institution's strategic planning process. This involvement is apparent in the institution's strategic plan, which includes a facilities-specific goal to "plan, develop, manage, and maintain buildings, grounds, and physical infrastructure of the University." It further documents specific related objectives, each with its own action strategy and key performance indicator. In addition, the Division of Finance and Administration includes specific facilities-related goals.



ESU has in place a master plan that was originally completed in 1993, with several updates having been applied since then. It is primarily a land-use plan. Although the review team recognizes that developing a new master plan may be beyond the capabilities of the current budget, it is essential that an effective master plan address criteria such as sustainability, utility infrastructure, pedestrian traffic patterns, parking, predisaster mitigation, and others. Organizational goals are understood by mid-management, although not as much by people on the front-line. The review team feels that some of the goals are no longer in tune with the institution's stated goals, and may need to be re-evaluated. Budget management within Facilities appears to be fiscally sound. Budgetary responsibilities are effectively delegated to persons at the appropriate level within the organization. Sufficient budget detail is available to insure that expenditure trends align with budgetary expectations, and aid in the development of future budgetary priorities. The review team feels that FMO's leadership must better identify and communicate budgetary impacts associated with projects driven by the institution's strategic plan. It appears that over the past several years, staff have been allocated to meet the demands of an ambitious redevelopment program of campus facilities, causing additional deferred maintenance projects and the downgrading of the condition level of most campus facilities to "fair."

The institution and FMO, have in place an emergency management plan that addresses three of the four components of emergency planning: mitigation, preparation, and response. In the view of the review team, not enough has been done yet in terms of preparing a business recovery plan, or in training and education as regards the overall plan. For instance, front-line employees did not appear to have any knowledge of the plan's existence. Effective emergency management involves planning, training, and technology. It appears to the review team that USF has addressed much of the planning aspect, but has not yet committed to training and technology.

To guide renovation and construction projects, Facilities maintains a formal set of design standards and guidelines for use by design professionals. These standards and guidelines will be effective only as they continue to reflect input from maintenance and operation staff and are made readily available online at the department's web site. The institution's long-range plan for campus development has been effective in guiding the redevelopment of the campus. The plan, however, needs to be upgraded to reflect current philosophies and to provide appropriate infrastructure to support its implementation. In particular, if appropriate planning for the utility infrastructure and related funding is not provided, future building project budgets will be negatively impacted. FMO has a significant role in the planning of facilities as well as the selection of design professionals and contractors. The department is commended for its ability to deliver excellent projects. Although a standing invitation exists for employees in the operational units to provide input into the design and construction process, there can be value in a more formal review and feedback process.

### **3.0 CUSTOMER FOCUS**

Customer satisfaction levels with services provided by FMO, as well as other support units, are measured through results obtained in the annually conducted university-wide survey of staff, faculty and graduating seniors. While the questions asked in the survey are general and limited in nature, they do generate some valuable feedback. Results from this campus-level survey results generally indicate a high level of customer satisfaction with the areas surveyed.

The FMO department uses feedback from telephone calls, e-mail, memos and letters as indicators of customer satisfaction. However, FMO should conduct its own survey and pursue other, more formal means to obtain customer feedback. Once customer feedback is received, it should be used to improve the effectiveness of the organization. Without such feedback, FMO cannot be confident that it has the appropriate organizational structure, or gauge overall performance. This type of feedback could easily comprise at least one of the department's KPIs.

Interviews conducted by the review team confirmed that there is a reasonable level of customer satisfaction for FMO's services, among those customers with whom the team had the opportunity to meet. However, there was some confusion among those same customers regarding expected levels of service. With input from both internal and external customers, FMO needs to define more clearly and communicate aggressively its budgeted service functions and levels. Other customers expressed concern over the timeliness of certain maintenance, renovation and construction services. It is the review team's view that the promptness of the construction planning group needs some attention.

Communication is the life-blood of any facilities organization, with both internal and external communications being vitally important. Any void in communications will be filled by rumors, gossip, and old anecdotes. FMO's leadership is partially successful by directly meeting with college and departmental representatives and other customers, and communicating to select individuals and groups by e-mail. However, these avenues are not pursued on a regular basis, and appear to occur mostly when there is a specific situation that requires some degree of recovery. More communication is warranted due to the great range of services the department provides. One way to enhance communications to customers is to refine and upgrade the department's printed and online service guide. Another is to regularly communicate through *Equinox State Today* institutional newsletter or other printed media.

#### **4.0 INFORMATION AND ANALYSIS**

Through the use of its computerized management system, the department has started to use some of the data and information to analyze and understand the organization. Eventually this data and information will be refined and used to make better-informed decisions to enhance the management of change and to gain additional knowledge. As resources continue to be tightened, the need for pertinent, accurate and reliable knowledge will be critical. With this knowledge in hand, it can be communicated throughout the organization and used to drive processes and improve departmental effectiveness.

FMO has yet to define, collect, and disseminate applicable key performance indicators (KPI), critical to the effective leadership of the department. Although a substantial amount of data is being collected through its legacy system, limitations inherent in that kind of system do not easily allow the transition from data to KPIs. FMO may thus explore opportunities to transition to a CMMS (computerized maintenance management system) or CAFM (computer-assisted facilities management system) that will help pave the way for collecting and utilizing credible data to identify and measure practicable key performance measures.

FMO currently uses a nationally recognized standard for determining overall building condition. The review team suggests two approaches for an effective building inspection or audit program: conduct a facilities condition audit which predicts current needs, or use a life-cycle approach to build a database of assets with replacement costs and remaining life of the asset with which to tabulate current resource needs. Doing so will help departmental leadership to monitor total cost of ownership (TCO), a useful barometer that can help make repair/replace determinations.

Monthly expenditure reports are used to balance expenditures and to plan for carryover projects. To better balance the pressures of funding capital projects with the needs of maintenance and operations, additional analysis and the adoption of clear priorities and adequate budgets will be required. Again, replacing or upgrading the existing legacy information system to a more comprehensive system can help achieve this objective.

The facilities organization does a good job of tracking and managing energy expenditures, although much of the effort is manual. Investing in a comprehensive CAFM system, along with a SCADA system, can help move this type of data collection and interpretation to where the department can insure that costs are correct, current, and passed on reliably to paying customers. Past and current information can be used to generate additional efficiencies and cost savings.

#### **5.0 DEVELOPMENT AND MANAGEMENT OF HUMAN RESOURCES**

The facilities organization encourages staff development through a broad range of external and internal programs. While FMO's management team continues to express a desire to provide adequate training programs, budget reductions has negatively affected the ability to do so. Rotational opportunities are provided for members of custodial teams to broaden their skills, and trades staff are provided with on-the-job training opportunities that may ultimately lead to advancement. Professional employees are able to pursue professional development opportunities, but their participation is somewhat hampered by heavy workloads and limited travel budgets. Mid-level management staff is encouraged to receive training through APPA's Institute for Facilities Management, or other similar programs.

Employees receive recognition through ESU's Employee Recognition Program. Although to be commended, this type of program does not go far enough to recognize and encourage particularly unique contributions by FMO staff. Thus, the department's leadership needs to explore internal programs of employee recognition. In order to better recognize outstanding individuals and work teams, Facilities leadership should also make sure that members of its staff are nominated for university recognition, something that has not happened frequently in previous years.

The consolidation of various operations of the FMO into its new building complex has worked to improve both internal and external communications. Frontline staff, however, desires more contact and interaction with departmental leadership. Opportunities to do so should be established. While employee orientation is conducted centrally by ESU Human Resources, FMO should supplement that training with department-specific information. Informal work performance and tracking measures are in place that achieve the desired goals, and help monitor career development needs and employee motivation.

ESU is located in a geographical area that does not have a great deal of diversity in its population. Additionally, the surrounding labor market is quite static, thus the turnover rate in the department is quite low. The review team thus recognizes that the demographics of FMO is largely reflective of the surrounding population, but encourages the institution and FMO to continue all reasonable efforts to recruit a diverse yet qualified pool of applicants for internal vacancies.

Staff positions within Facilities Maintenance and Operations appear to be appropriately classified. Over the past three years, an aggressive process of position reclassification was completed. The university has a policy that requires every job description to be re-inventoried at least once every five years. More than 80 positions have been reclassified to reflect new results-oriented position description criteria and competencies. These new position descriptions form the basis for annual employee performance evaluations. While some peer comparisons show ESU Facilities slightly above average levels of staffing, other indicators dispute the conclusion that the department is over-staffed. The review team feels that additional staff is needed in some units to perform assigned tasks on a timely basis. More comparison data is needed, however, before any firm conclusions may be drawn. Certainly, the establishment and tracking of pertinent KPIs will help leadership arrive at the appropriate conclusion.

Facilities Maintenance and Operations relies upon ESU's Administrative Procedures Manual and the Faculty / Staff Handbook to ensure that employees know his or her role in the department, as well as the role of related areas and the overall role of the department. However, the review team believes that department leadership has the responsibility to actively communicate and reinforce these roles to employees. Additionally, FMO may want to develop its own "operational guidelines" manual that will help educate its employees in regard to expected performance and work standards.

## **6.0 PROCESS MANAGEMENT**

Actual budget allocations have not kept pace with stated goals. The Facilities Condition Index (FCI) calculation results in only a "fair" condition rating for facilities. The FCI may be inaccurate, however, since it is computed with outdated information. It is the review team's view, however, that ESU should establish a realistic and predictable level of funding for capital renewal and deferred maintenance for its buildings and support infrastructure. FMO has not been able to find funding for a professionally conducted facilities condition index for at least ten years.

FMO recognizes that its "raison d'être" is defined by its core competencies: administration, operations and maintenance, planning design and construction, and utilities and energy. Thus, its organizational structure, policies, and business process are intentionally designed to achieve the maximum level of success in each of those competencies. Not unlike most contemporary facility O&M departments, budget and therefore staffing levels impede the organization's ability to achieve a high level of success. In the case of ESU's facilities organization, the department achieves a completion rate of approximately 60% in the completion of its PM efforts. It has a backlog of both maintenance and remodeling projects that leaves both FMO's management and its customers frequently frustrated. It is the opinion of the review team that ESU, and FMO, are reasonably successful in the completion of tasks defined by the four core competencies, while recognizing that the internally ranked rating of its buildings hovers only at "fair."

Planning, design, and construction of new facilities and major remodeling projects are handled by a centralized state agency. As campus stakeholders are mostly left out of the process, there is a great deal of anxiety around such projects. Standards and guidelines for construction and renovation projects are in place and are continually upgraded, with input from FMO staff. Efforts must be enhanced to ensure that these guidelines are uniformly incorporated into project documents and enforced with contractors on the job. There is a general feeling on campus that contractors are not held to the same standards as FMO's own staff. .

Instituting predictive maintenance techniques will allow a higher level of reliability for equipment and mission-critical systems. Work authorization and scheduling procedures are established and appear to be working well. Work identification and work management programs, however, need additional refinement and attention to increase effectiveness. The review team suggests that FMO review the systems and tasks currently included in its PM schedules to determine if any efficiencies can be gained by removing some line items, or by extending some of the frequencies.

Foremen or supervisors have established informal employee performance standards, which may not be formally defined or written around specific position requirements. Management relies on performance evaluation assessments in the absence of defined standards. More formal standards are used in the custodial and grounds areas. Employees are evaluated annually. This process seems to be working well, although some of the supervisors could derive benefit from additional training focused on performance evaluations...

FMO's leadership has, on occasion, invited input from some of its stakeholders as it attempts to quantify its successes in meeting the obligations defined by its core processes. However, customers reported to the review team that they generally are not invited to define those obligations and associated tasks and frequencies and are in fact often not aware of them—unless they actively seek to find out. The department could thus do more to involve and educate its beneficiaries.

## **7.0 PERFORMANCE RESULTS**

The condition of individual campus buildings varies is generally adequate, though the overall Facility Condition Index rating for campus facilities is "fair". Nevertheless, the overall appearance of the campus is pleasing and complements the appearance of the surrounding community. The arboretum, in particular, is a great asset to the university and a source of community pride. ESU has the vision of being a residential campus of choice in the West and its buildings and grounds are kept at a level to match that goal. Students told the review team they were attracted to the campus because of what they saw during their campus visit. This is also the reason they stay.

ESU is commended for its efforts to provide and maintain an environment that is attractive and functional, particularly to the casual observer and visitor. Nevertheless, the review team believes that many areas and systems unseen by the public are in poor repair, even though high standards have been set by the university and FMO. As noted earlier, the university has in recent years diverted resources to efforts not directly related to routine maintenance activities.

Various upgrades have been made to campus and its building systems over the past 10 years and are anticipated to continue these efforts into the future—depending on allocations by the State in a time of economic uncertainties. HVAC systems are the most problematic. Deferred maintenance levels that exceed \$50 million should be addressed to avoid critical failures and shutdowns of obsolete and worn out systems, some of which are highly mission critical. Even though efforts for systems maintenance and replacement have been targeted in documents directed to the Board of Regents and the State Legislature, funding has not been forthcoming. If this pattern continues, ESU must find alternative funding sources to prevent critical loss of service. An opportunity may exist that additional energy conservation efforts could generate some of this funding. Reportedly, this may require a change in state law.

Campus customers expressed concerns about the custodial team cleaning concept initiated on campus, and report that the levels, frequencies, and timing of service conflict with their needs. Team- cleaning is not uniformly well received and there are complaints of poor service. It is suggested that this situation be analyzed and to determine ways to overcome shortcomings. The review team concluded that much of the problem is based on customer perceptions, resulting from communication gap between custodial leadership and building occupants.

Customers seem to be generally satisfied with the services provided by FMO, Surveys show satisfaction levels to be reasonably high except within the custodial area. FMO's custodial management team has acknowledged customer concerns in custodial service and is beginning to make strides in adopting improved methods to overcome these shortcomings. Leadership recognizes the need for additional tools that provide more definitive data to better measure customer satisfaction.

## 8.0 OTHER CONSIDERATIONS

Funding for Facilities Maintenance and Operations appears to be consistent with that of ESU's peer institutions, but budget reductions could change that status. The team does not believe that FMO is adequately funded to fully accommodate the facilities-related costs associated with off-campus sites and outreach programs. Requiring FMO to handle all aspects of these projects concurrent with aggressive redevelopment of the main campus puts all projects at risk for mistakes, errors in design, cost overruns and schedule extensions. It also overloads Facilities staff with work resulting in stress, lowered morale and turnover. If facilities growth continues, both on the main campus and at off-campus locations, some creative solutions are needed to retain valuable and loyal employees. It is suggested that ESU clarify its facilities-related philosophies and develop guidelines for fully funding off-campus and outreach programs so they do not negatively affect main campus departmental budgets or overload campus programs and/or workloads. Project budgets need to carry the burden of their implementation by hiring project-specific temporary staff or contracting services rather than overloading employees with increased workloads.

In the recent redevelopment program for the campus, FMO appears to have taken a lead role as an agent for change. While this has placed departmental leadership in an uncomfortable position and has been a drain on the department's resources, the FMO team is uniquely qualified to offer leadership in this area, being well equipped to inform and educate the institution's senior leadership of the realities of being a large property owner. They are practiced to define and analyze facilities issues that must be faced to achieve institutional goals. The Facilities team is well versed in developing facilities strategies, in defining the architectural integrity of campus facilities, and in setting guidelines to insure quality construction. They are in an unbiased position to make necessary hard decisions for institutional facilities goals to be met. Those in higher levels within the institution need to effectively plan, design, manage and use their institution's facilities. Leadership within the facilities organization can best fulfill this need. For Facilities to continue in this important leadership role, it should develop a leadership strategy that answers the questions:

1. Are there any actions that have not yet been defined or addressed?
2. What actions have been completed, meeting expectations?
2. What actions were started or completed that need additional attention?
3. What action can be initiated?

This inventory of activities can be used to develop the department's own plan for its leadership to serve as a catalyst for positive change.

Initiating best practice typically comes from making useful cost comparison and benchmarking. APPA has tools for use by institutions in both of these areas. APPA's Strategic Assessment Model (SAM) has identified those items that are most meaningful to be tracked and has already answered the question of what data or processes should be benchmarked. APPA's Facilities Performance Inventory (FPI) can further identify potential candidates for improvement. FMO's leaders can best identify such opportunities by full participation in either of these APPA programs.

The efficient use of space resources directly affects the viability of any institution of higher education. If an institution's space is under-utilized or poorly managed, it can prove to be both financially and politically damaging to the institution. Institutional space is best managed, allocated and used through universally subscribed principles that reflect institutional priorities. Related decisions should be made using appropriate data. Since classroom space is typically heavily used, the greatest opportunity for space efficiency improvements resides in other dedicated-occupant space. This same set of space-related data can be used to review current space allocations, inform leadership of potential reallocation decisions, analyze current and future space needs, and to program space

requirements for new facilities. In this way, space can be actively managed and space allocations made that are consistent with the institution's strategic priorities. Maintenance and operational priorities can accordingly be integrated into this decision-making process.

## **CONCLUSION**

The Facilities Department leadership and management team and front-line staff are well qualified and fully capable of assisting the institution in the attainment of its vision, mission and strategic planning initiatives. The review team believes that if thoughtful consideration is given to the recommendations made in this report and a concerted effort made to implement them, the university will receive great and lasting benefits from them.

## EVALUATION REPORT AND RECOMMENDATIONS

Equinox State University located in Equinox, Colorado was founded in 1889 and is a comprehensive land-grant institution serving the educational needs of over 11,000 students from all states and 78 foreign countries. The main campus is located in Colorado's south-central plateau, nestled between the Park Mountains and the rolling hills of the Mesa de Maya Plateau. The community of almost 19,000 residents enjoys an assortment of cultural, recreational, and athletic attractions, combined with a mild climate, clean air, good schools, affordable housing, and a low crime rate. The main campus includes over 141 buildings totaling in excess of 3.8 million gross square feet located on approximately 550 acres of maintained land. Over half of the buildings were constructed in the period between 1950 and 1970 making the average age of the buildings just over 39 years. In addition to the main campus in Equinox, ESU delivers its programs to all corners of the state. University sites outside Equinox total over 11,000 acres, where nearly 500,000 square feet of building space houses university programs.

The Facilities organization at ESU includes a staff of over 250 employees who are responsible for the operation and maintenance of the physical plant. In addition to the challenges of preserving over \$580 million invested in physical assets, Facilities must also respond to Colorado's growing needs and increasing demand for higher education programs in Equinox and across the state. A staff of architects and engineers in Facilities also provides planning, design, project management, construction management, and inspection services for the university's major capital improvement program.

Starting in 1993, ESU initiated a long-range campus development planning process (LRCDP). The master plan has been completed and approved. The separate land-use and transportation plan remains in final draft stages. These plans create an important foundation for further elaboration on program directions and priorities. An illustrative plan was updated in 2001 following the development of a series of parallel campus planning initiatives and preparation of design guidelines. The five- and ten-year capital strategy resulting from the LRCDP reflects the facility needs of the university in a way that best matches available resources and priorities.

The people who make up the Facilities organization at ESU are highly skilled and dedicated employees. They strive to deliver quality service and adapt well to the dynamic and challenging forces in today's higher education. They also demonstrate creativity and vision when faced with tight budgets and competing priorities.

Facilities Maintenance and Operations at ESU maintains and operates several notable and unique systems, facilities, and programs for which they should be justly proud:

- The Power Plant on the main campus in Equinox operates two wood-burning boiler plants. Their operation has provided research opportunities for control systems monitoring, pollution monitoring, and wood product disciplines on campus.
- Two of three planned satellite chiller facilities have been constructed on campus.
- ESU operates its own domestic water system on the Equinox campus utilizing two deep-water wells.
- The university uses reclaimed effluent from city wastewater treatment facilities to irrigate sports fields, landscaping and the university golf course.
- In addition to the 18-hole golf course located adjacent to the campus, an arboretum has been developed on 63 acres adjacent to the golf course.
- Facilities operate a comprehensive solid waste and recycling program.
- The Kettle Dome located on campus provides an enclosed facility for intercollegiate programs in football, basketball, recreational sports, and track and field.

### 1.0 LEADERSHIP

Senior leaders in an effective facilities organization set direction and establish customer focus, clear and visible values, and high expectations in line with institutional mission, vision, and core values. Effective facilities leaders facilitate the dialogue around larger leadership issues, such as total cost of ownership (TCO), sustainability, recapitalization requirements, and facilities reinvestment. Leaders inspire the people in the organization and create an environment that stimulates personal growth. They encourage involvement, development and learning, innovation, and creativity. Leaders act as both educators and change agents.

The quality of leadership, more than any other single factor, determines the success or failure of an organization. Effective leaders inspire and motivate the entire work force and encourage involvement, development, learning, innovation, and creativity by all employees. With the advent of the 21<sup>st</sup> century, the need for quality leadership is more critical than ever before. Facilities leaders must consider the rapid advances or changes in technology, redefined work rules and work roles, the challenges associated with downsizing and budget reductions, dealing with ever-changing priorities, pressures to embrace privatization, decreasing financial resources, and changing customer expectations.

**1.1 Describe how leadership roles and responsibilities and the decision-making structure are defined by the facilities department and generally understood by internal and external stakeholders.**

In 1998 the university completed a major reorganization of the Facilities Maintenance and Operations department. The reorganization combined the functions of programming, planning and design, architecture and engineering, with those associated with facilities maintenance and operations. This organizational restructuring has provided the opportunity to more clearly define the role and mission of the aggregate facilities-related functions within the institution.

The university community generally is aware of the current structure and understands how it is designed to function. The community views this organizational structure and format as one that is functionally stronger than it was prior to the restructuring, and is better able to meet the needs of the institution. Building on the confidence and trust of the institutional leadership in the planning and programming roles, and assisting the other functional units within the facilities organization to achieve a similar level of trust and confidence, will be the ongoing challenge for department leadership. Other leadership positions within the facilities organization have clearly defined roles and responsibilities. Some clients observed that there are times when they are not sure “who is in charge,” particularly when there is a need to resolve a conflict.

**Recommendation 1A**

*Further develop the role of assistant vice-president for facilities to represent and provide leadership to all of the functions and roles within the facilities organization.*

**1.2 Describe how the leadership system includes mechanisms for the leaders to conduct self-examination, receive feedback, and make improvements.**

The leadership structure is generally understood by internal and external stakeholders. The mechanism used by FMO to conduct self-examination leading to improvement is rather informal, but believe to be reasonably effective.

Through its customer feedback process (discussed in Section 3), FMO occasionally receives input and feedback regarding the effectiveness of its structure. Even though the feedback is generally favorable, it is collected arrive on an informal and irregular basis. Accordingly, no significant changes or enhancements have been made to the structure since 1998, except as necessitated by lengthy vacancies.

**Recommendation 1B**

*Implement scheduled processes that invite input from internal and external stakeholders that will substantiate the validity of the current organizational structure, and provide potential opportunities for further enhancements.*

**1.3 Describe how the organization aligns its mission, vision, and value statements with those of the institution.**

The sign of a well-focused organization is how well it defines its stewardship and responsibility. Once defined the organization empowers its people to get the job done. This was most evident in the FMO. The goal has been defined and the path has been identified. Most people within the FMO organization seemed to know about the Presidents’ goals and direction for the institution. The institution’s strategic plan has been published and includes goals for



buildings, grounds and physical infrastructure.

The Division of Finance and Administration, within which FMO falls, has also developed a strategic plan that includes its own vision and values. Noted highlights of accomplishments for the previous year are impressive. The action plan for the most recent fiscal year is comprehensive. Key performance indicators document a history and measure most parts of the strategic plan. It is evident that considerable effort has gone into tying together the strategic objectives of the organization.

FMO was a key player in the achievement of the institution's strategic efforts. Approximately ten years ago, when the institution's strategic plan was first developed, FMO's leadership developed departmental value statements that align with the ESU's strategic plan. The review team heard several times that these statements were developed without significant input from the department's middle management team or from frontline employees. Copies of these statements are displayed liberally on numerous bulletin boards throughout the FMO building. Thus, most employees in the department were aware of the value statements, though they did not necessarily remember or understand them.

### **Recommendation 1C**

*With participation from both internal and external stakeholders, provide or update vision, mission and values statements unique to FMO and aligned with those of the institution. Gain endorsement of these statements from upper administration and effectively communicate them to all stakeholders.*

#### **1.4 Describe how effective the senior leadership of the department has been in establishing and sustaining internal and external communications plans that (a) educate the campus community on the facilities department's role in institution success; (b) promote customer and stakeholder feedback; and (c) reinforce the role of front-line staff in creating a positive public impression of the quality of organization services.**

There is an established annual process for gathering input and goals from FMO's employees. This is a component of the performance evaluation process. These goals are typically directed to the individual with some goals being used as section or department goals. Job descriptions within the FMO organization focus on results. This assists the management team in determining individual performance levels. In addition, the leadership team within FMO participates in the process to establish institutional goals and objectives. The president has set an ardent standard for institutional growth that causes the resources and workload of the facilities organization to be stretched. Employees seem to be aware of these goals, but the pressure of an increased workload combined with static or declining resources has negatively affected the quality and timely achievement of the goals. Efforts are being made to align the pressures of institutional goals with the performance of the employees. In this manner, the department's managers are able to reinforce continually the importance of "service excellence." Over the past few years it appears that the facilities organization has been generally effective in meeting the expectations of institutional top leadership, in spite of budgetary challenges.

The FMO department does not yet possess a formal, sustained communications plan. Occasional meetings with the institution's deans, etc. do tend to provide this service to a limited extent, as do internal staff meetings that occur on a more or less regular basis in and among the department's organizational units. As described in Section 3 of this report, FMO mainly collects feedback from its external stakeholders on an informal basis.

### **Recommendation 1D**

*Develop a communication process utilizing various technologies (electronic, print, etc.) that regularly and frequently informs the campus community of FMO's activities as they pertain to the institution's mission. Use a similar process to invite feedback from internal and external customers. Assign ownership of this process to a competent individual positioned near or among FMO's senior leadership. Additional opportunities are discussed in Section 5.*

## **Recommendation 1E**

*Establish a departmental policy that requires all units to hold regular and frequent staff meetings, where staff are informed of significant FMO activities, and where team building can be sustained.*

### **1.5 Describe how representatives of the facility department engage with key communities, both on and off campus (e.g., town and gown, agencies having jurisdiction) and contribute to the enhancement of their various communities—both personal and professional.**

The university's senior leadership encourages departmental managers to participate as much as reasonable with representatives of surrounding jurisdictions and relevant state agencies. Similarly, FMO's leadership encourages participation in professional associations and attendance at programs and events relevant to each employee's primary role. Even as budgets have been constrained, this type of activity has generally been sustained.

The review team was impressed by the relationships FMO's leadership had established with key players, which has resulted in amicable decision making processes. One of FMO's assistant directors serves on a Mayor's Development Committee in the local jurisdiction, while another is on the Board of the Directors for the city's Arts Council. Some of the front-line staff volunteer regularly for on-campus events, for which they are not compensated. A liberal tuition reduction policy enables interested staff to attend classes at ESU, on their own time.

### **1.6 Describe the leadership development and succession plans presently in place to ensure continuity of leadership.**

Not much was evident or even discussed with the review team concerning succession planning. A succession plan is critical to the long-term success of any organization. Possibly the trades and shop areas are more developed in this area than the upper levels of departmental administration. With the number of vacant positions in key administrative and professional areas, the review team suggests that an effort be made to determine how to deal with succession. The challenges related to ESU's somewhat isolated locality and the number of seasoned employees in key positions warrants the effort.

## **Recommendation 1F**

*Develop a succession plan for key positions within the facilities organization. An effective plan serves two primary purposes: (a) prepares individuals for potential career advancement, and (b) creates among individuals a much deeper awareness of the organization's needs and thus makes them more capable of dealing with issues that are broader than they would otherwise recognize.*

### **1.7 Describe how the leadership of the facilities department emphasizes the importance of excellence and how it engages in excellence.**

ESU's institution-level performance measures were reviewed and understood by the leadership of FMO. It appears that leadership within the FMO organization has spent some time in the initial development of benchmarks, critical success factors, strategic indicators and other measures used to assess performance. However, much more effort needs to go into this development. Leadership's request for this FMEP certainly demonstrates a desire to enhance the level of excellence currently attributed to the department.

FMO has participated in various APPA programs that are clearly designed to develop a roadmap toward continuous improvement and operational excellence. However, the review team found that the results of such activities are kept relatively close to the vest by senior management in FMO.

## **Recommendation 1G**

*Continue regular participation in programs such as APPA's FPI and SAM programs, and use feedback from internal staff as well as external stakeholders to identify and implement actions that can lead to enhanced excellence. Those actions need to be measured and adjusted as necessary on a regular basis, with the results being shared openly with all stakeholders and the institution's senior leadership*

**1.8 Describe how the leadership of the facilities department promotes and ensures ethical behavior in all interactions.**

The aforementioned vision statement and associated value statements clearly address this topic. Annual performance statements also require managers and supervisors to re-emphasize ethical behavior. The review team was shown evidence of appropriate disciplinary actions taken against individuals who displayed unethical behavior while in the workplace.

## **2.0 FACILITIES STRATEGIC AND OPERATIONAL PLANNING**

Strategic and operational planning consist of the overall planning process, the identification of goals and actions necessary to achieve success, and the deployment of those actions to align the work of the organization. The successful facilities organization anticipates many factors in its strategic planning efforts: changing customer expectations, business and partnering opportunities, technological developments, institutional master plans, programmatic needs, evolving regulatory requirements, building organizational capacity, and societal expectations, among other criteria.

The successful implementation of most plans hinges on the commitment of key individuals. If management becomes absorbed in "putting out fires" and dealing with current operational problems, the planning process is likely to fail. The decision-making process is improved by involving the front-line staff who will ultimately be the source of quality and productivity.

### **2.1 Describe the strategic plan that was developed for the facilities organization that includes the goals and objectives of the department.**

Some of the basic elements that should be included in a strategic plan to guide the Facilities Maintenance and Operations department are embedded within the university's overall strategic plan and, to some extent, within the Division of Finance and Administration's FY2002 Strategic Plan. The institutional strategic plan contains a single broadly structured facilities-specific goal to "plan, develop, manage, and maintain buildings, grounds, and physical infrastructure of the University." It is further documented by seven related objectives, with multiple action strategies and key performance indicators linked to each objective.

The Division of Finance and Administration's Strategic Plan cites stewardship of facilities in its vision statement as well as four facilities-related strategic goals. It also documents safety and risk management, facilities planning and development, space planning and allocation, utilities' growth, and cost allocation and recovery as critical initiatives for FY2002.

The Facilities Maintenance and Operations department, however, has not within itself generated a department-specific strategic planning document to further guide its operational units toward the development and management of resources necessary to execute the institution's strategic plan.

### **2.2 Describe the process used to develop the strategic plan and how participation from internal and external stakeholders was sought out, the process used to gain approval of the plan by the administration, and how it was communicated to internal and external stakeholders.**

As noted previously, informative facilities-oriented strategic elements are embedded in other institutional documents; however, FMO has not articulated a specific strategic plan to guide its own operations in support of the institution's strategic direction. While it appears that external stakeholders related to the upper administrative and academic levels of the institution are satisfied with the strategic and operational direction of the FMO Department, there appear to be opportunities for improvement. For instance, an effective process for creating a strategic plan invites input from internal as well as external stakeholders such as those from within Auxiliary Services, Residential Life, Athletics, Sports Facilities, Campus Recreation, and the Dean of Students. Not only could a FMO Strategic Plan give direction to the organization, but it could also establish a compelling consensus for deployment of limited resources during the current period of ambitiously high demands being placed on those limited resources.

At a minimum, FMO should consider orchestrating a brief series of internal and external forums to consolidate facilities-specific elements embedded in the institution's strategic plan into a facilities-oriented document. Since such a plan does not formally exist at the department level, it is unlikely that most stakeholders have been sought out to provide meaningful input. The intention is to establish a sense of ownership at the department's operational level, as well as among its customers. Such a plan would require the approval and endorsement of the institution's upper administration, and its effective communication, including annual performance assessments, to both internal and external stakeholders through appropriate forums. This has not specifically happened, so far.

**2.3 Describe the processes defined to ensure that strategic goals and key performance measures are understood by all, and the extent that those goals and measures are periodically reviewed.**

While the facilities-specific elements embedded in the institution's strategic plan reflect expectations at the institutional level, individual and specific customer needs and expectations may not be addressed. Initiating a facilities-specific strategic planning process will likely result in greater customer confidence in how FMO contributes to the institution's strategic goals.

**Recommendation 2A**

*Develop a strategic plan unique to the Facilities Maintenance and Operations department that is aligned with the institution's plan, with participation from both internal and external stakeholders. Gain endorsement of the plan from upper administration and effectively communicate the plan to all stakeholders.*

**2.4 Describe how the institution's and the facilities' master plan incorporate and reflect principles of sustainability, total cost of ownership (TCO), and overall facilities renewal.**

The update of the institution's master plan, completed a decade ago, references the environment and the need to protect it for future generations. However, the world and its perceptions of sustainability in its broadest sense have changed monumentally since then. It is important, in the opinion of the review team, that the institution's leaders as well as FMO revisit that section of the 2000 master plan, and articulate current strategies regarding sustainability. Certainly, the institution should be recognized as a signatory to the President's Climate Commitment.

Facilities renewal is mentioned specifically in the master plan, and is in fact one of its primary focuses. Planned renewal and replacement of buildings are closely integrated with the institution's vision of its future academic and research development. However, there is no apparently plan to address aging or undersized utility systems, pedestrian/bike traffic patterns, or various other aspects of typical institutional master plan typically developed by/for universities today.

TCO is not addressed in the most recent version of the master plan, although it does suggest that the institution needs to establish priorities such as capital replacements on a sound business model.

**Recommendation 2B**

*Obtain from the university an endorsement and funding authorizing an update of the master plan, focusing on TCO, sustainability, and planned replacement/upgrades of utility systems—including the aging boiler plant.*

**2.5 Describe the current strategies and processes defined to ensure continuity of functions in the event of staff turnover, contractor failure, or other unanticipated disruptions.**

The review team learned that the department only has informal plans on how to deal with unanticipated disruptions. Individuals in management positions rely on past experience and situational guidance from more senior leaders, when the need is perceived to arise. As a result, unit managers have on occasion taken actions that may not have been consistent with the department's long term strategies.

Relatively recent turnover of the custodial services manager position revealed that a lack of standardization and documentation existed in that particular area. It is noted that the incumbent has already recognized the deficiency and, with the cooperation and encouragement of the director, had begun to standardize training, performance evaluations, record keeping, and other critical functions, which should facilitate continuity for the future.

Continuity of function as it relates to management of the arboretum and botanical garden represents another potential concern. The current director is fully committed, knowledgeable, loyal and enthusiastic about the daily operation and management of the arboretum; however, he is approaching retirement. The director is apparently grooming an individual to become his successor, with no guarantees. To insure the continued success and vigorous support of the arboretum enterprise far beyond the tenure of the current director's influence, focus should be placed on collecting and / or developing standards, guidelines, policies, procedures, records management systems, and other

strategies to guide the operations and maintenance of the arboretum.

## **Recommendation 2C**

*Define strategies that clearly will guide the decision-making process for all levels of management should an unanticipated disruption arise. These should be well-documented, and rely on input from internal stakeholders, as well as representatives from human resources, law enforcement, procurement, and possibly legal counsel.*

### **2.6 Describe the emergency response plans that are currently in place and how they are communicated to facility employees and the campus community as required.**

The institution and FMO have in place an emergency management plan that addresses three of the four components of emergency planning: mitigation, preparation, and response. Not enough has been done yet in terms of preparing a business recovery plan, nor in training and education as regards the overall plan. For instance, front-line employees did not appear to have any knowledge of the plan's existence. Effective emergency management involves planning, training, and technology. It appears to the review team that USF has addressed the planning aspect, but has not yet committed to training and technology. State-of-the-art communication devices, scenario tracking software, etc. are not yet evident at ESU.

It should be noted that FMO has been highly successful in maintaining a well-catalogued file of current CAD drawings of a majority of its buildings and systems. Should a crisis occur, planners and respondents should have access to reliable information to assist in the response process.

The review team, through its interviews with internal stakeholders as well as those external to Facilities Maintenance and Operations, determined that very little communication and training has occurred regarding emergency preparedness. Mainly, the individuals responsible for the original development of the plan know of its contents and strategies. Apparently, the university's president is aware of the plan, but has not been actively involved in any practice scenarios. It is thus likely that, in case of a genuine emergency, effective response and coordination will be extremely problematic creating a higher risk of injury, loss of life and property.

## **Recommendation 2D**

*Insist on the further development of the plan, specifically addressing the missing components. Furthermore, a top-down action plan must be implemented that mandates participation by key players (including senior administration) in associated drills and exercises.*

FMO maintains a formal set of project design standards and guidelines through its Architectural and Engineering Section (AES). The standards inform contracted architectural and engineering (A/E) consultants of the university's requirements for building planning, design and construction as well as documenting specific system and materials standards where appropriate. Input is regularly sought from FMO and maintenance trades personnel in order to assure alignment of the standards with current operational philosophies and maintenance preferences.

In its self-assessment document FMO documented its desire to convert the present standards document into a web-based tool, which would enable a continuous revision process as well as providing easy access for A/E consultants. The self-assessment also identified a need to expand the sections of the standards that deal with energy management. Both of these desires represent potential benefits. These needs should be incorporated into the appropriate management area's action plan.

### **2.7 Describe the process and timing for a regular, periodic review of the facilities strategic plan.**

This process refers to the institution's planning process around its facilities—its buildings and infrastructure. It is important to note that this plan is different from the facilities departmental strategic plan. At Equinox, it is clear that the plan is reviewed and updated regularly (see following section). The basic plan's foundation is constructed upon the institution's strategic plan and LRCPD 2000 Update. Subsequent additions and deletions have been applied by FMO leaders since then, on an annual basis, reflecting developments and acknowledged adaptations to the plan in

the most recent twelve months. Institutional leadership, as well as interested governing boards and state agencies, acknowledge acceptance of the process, as attested in documents reviewed by the team.

## **2.8 Describe the process used to develop the capital plan, addressing needs for renovation, major repairs, and/or upgrades.**

The capital planning process at ESU is mostly handled at higher levels of the administration, with minimal input from FMO's internal stakeholders. The review team found, in spite of that omission, the capital plan is fairly complete and up-to-date, and is readily available on the FMO's website to any interested stakeholders. FMO's senior leadership has taken ownership of the plan, and attempts to update it on an annual basis adding new buildings and removing those that are abandoned or eliminated.

The university and the FMO point to the LRCDP 2000 Update as the campus master-planning document used in support of the institution's strategic plan. It encompasses land use goals, historic preservation, safety and convenience of transportation and parking systems. It also mentions preservation of open space, preservation of a pedestrian academic campus core, enhancement of the residential campus environment, and enhancement of space utilization processes. It is evident that the LRCDP is being used to guide campus development and is being periodically updated to remain a dynamic, influential and didactic planning instrument.

The LRCDP reflects the institutional vision of becoming the residential campus of choice in the West. It appears to be widely circulated and uniformly subscribed. Completed projects are perceived by the broad range of campus constituents as having a significantly positive influence on both the campus environment and the surrounding community. The university also recognizes the added importance that master planning represents to its competitive situation of having another major university (just 30 miles away), sharing the same relatively isolated rural environment.

The much anticipated extension of the central north / south campus pedestrian corridor will enhance the residential and academic connections that the university desires to reinforce as it moves toward its stated goal of constructing "blended" facilities that combine multifaceted and functional uses in a new customer-centered fashion.

It should also be noted that the FMO department has been instrumental in supporting facilities master planning efforts at the university's three major extended campus sites across the state, as well as supporting planning requests from other university outreach operations. Those with responsibilities relating to the campus master-planning process are commended for their efforts.

In the plan, there is little discussion about the need to provide appropriate utility infrastructure to support execution of the plan. The combination of aggressive growth, strained resources and evolving budget reductions will demand that special attention be focused on these priorities. FMO's utility engineering section has identified several significant utility infrastructure needs and updated utility record drawings to set the stage for future utility infrastructure assessment and planning. However, funding previously established in the Facilities budget to begin the actual assessment work became the victim of a recent institution-wide 2 percent budget holdback mandate. Since the university, and particularly the Facilities Division, must grapple with the implementation of a recently announced 10 percent budget cut for FY2003, it would appear that this specifically cited element of the LRCDP could be further at risk.

### **Recommendation 2E**

*Develop a utility infrastructure master plan that incorporates current and future utility needs. Have it approved and deployed in concert with the Long-Range Campus Development Plan.*

### **Recommendation 2F**

*Extend to FMO's own staff the opportunity to study the current plan, in order for them to be fully aware of where the institution is going, to provide feedback about its contents, and also to be able to make informed fix/replace decisions.*

**2.9 Describe the processes utilized to ensure a budget is developed with input from multiple levels of staff using historic expenditures, needs analyses, and with effective allocation of available resources to support the organization's goals and objectives, while seeking new and innovative measures to leverage resources.**

The Facilities Maintenance and Operations department provides operational budget information upward to the vice-president for finance and administration, which appears to satisfy institutional needs. FMO provides input regarding institutional budget issues such as annual appropriations from the state's permanent building fund, facilities-related legislative appropriations, and supplemental appropriations. Its leaders also provide input about operational budget issues such as utility forecasts, building and infrastructure maintenance funding, facility and administrative cost recovery analysis, and other incidental issues. While internal distribution of available resources is effectively handled, concerns remain regarding the identification and communication of significant present and future budgetary impacts linked to the execution of the goals and objectives in the institution's strategic plan.

Historic expenditure levels are used as one of the guiding factors in distributing current-year resources -- subject to adjustments mandated by other appropriately influential operational considerations. Budget management at the director level or below appears to be fiscally sound, accountable, and open to cross-scrutiny among the department's leadership group.

Budgetary responsibilities appear to be effectively delegated to the associate and directors. Sufficient budget detail is available and is reviewed with cognizant assistant directors to insure that expenditure trends align with budgeted expectations. Processes are adequate to provide opportunities to discover and address potential problems before they become departmental or institutional financial crises. However, it is suggested that FMO explore ways to more fully involve the trades' foremen-level personnel in the budgeting and accountability processes. As projected budget reductions are implemented, FMO will be expected to implement some very creative solutions to meet institutional needs.

The department's most recent formal facilities condition assessment was conducted approximately ten years ago. This decade-old information has been adjusted forward by simply applying assumed annual inflation factors and is being used to represent an institutional deferred maintenance liability of \$51 million. Given the apparent current replacement value of existing facilities, reported as \$502 million (KPI's note 1.5 percent of CRV to be \$7.53 million), one calculates a Facilities Condition Index (FCI) of 0.10. This leads to the probable conclusion that the university's facilities are in "fair" condition relative to national averages (based on NACUBO's Facilities Condition Index range of under 0.05 is good; 0.05 to 0.10 is fair; and over 0.10 is poor (from *Managing the Facilities Portfolio, 1991*). A cursory inspection of a representative sample of ESU's facilities seems to indicate that they would most likely fall within the "fair" range, if a systematic, consistent facilities assessment methodology were used.

Another specific area of concern is the debt service linked to the recent construction of the new Facilities Department building complex. Expecting the department's operational budget to cover this responsibility erodes the residual amount available for badly needed maintenance work.

**Recommendation 2G**

***Explore methods to more effectively anticipate the probable impacts that the institutional strategic plan is likely to impose upon the resources available to FMO. Demonstrate and communicate the resulting resource needs determined to be required to effectively support progress toward achieving stated strategic goals and objectives. Do so without abrogating the responsibility to maintain adequate long-term maintenance, infrastructure and services budgets.***

**Recommendation 2H**

***Implement a systematic and consistent facilities condition assessment process to more accurately identify and portray deferred maintenance liabilities, establish reasonable targets for reduction of deferred maintenance backlogs, and the resources required to achieve those established reduction targets. This facilities assessment tool should also be consistently used to allocate available maintenance resources toward documented maintenance***



*priorities at the operational level.*

## **Recommendation 2I**

*Reconsider in the context of the overall institutional budgeting process the institution's policy of requiring elements of the FMO's operational budget to retire debt, a high-risk strategy.*

### **2.10 Describe the process used to ensure that the capital planning process aligns itself with the campus master plan and the institution's strategic plan, in terms of preferences and current and future priorities/initiatives. Provide your institution's definition for each of these plans.**

ESU, in its strategic plan, has clearly defined each of these plans.

- The ESU Strategic Plan identifies, looking 5-25 years ahead, where the institution intends to be in terms of academia, research, student life, the environment, and the role it intends to play in the surrounding community, the nation, and beyond.
- The ESU Campus Master Plan super-imposes the Strategic Plan over the physical campus, identifying needs and priorities in terms of infra-structure for that same period of time, to insure that the strategies identified for the institution can be achieved.
- The Capital Planning Process takes the Master Plan one step further, identifying priorities and funding strategies for specific capital needs.

The institution has also done a yeoman's job in populating them with needs that are clearly driven by where the institution wants to go 5, 10, 25 years into the future. As mentioned before, utility infrastructure planning is one aspect of the planning processes that has been insufficiently addressed.

The flow of major projects from Campus & Facility Planning (CFP) to Architectural and Engineering Services (AES) and on through to FMO, appears to be well orchestrated to provide clear lines of responsibility, and continuity of intent, while at the same time encouraging the cross-flow of input as projects progress from inception to completion. The flow of information assures that operational and maintenance issues are equitably considered and subsequently incorporated into planning, design and construction efforts as appropriate. Input from FMO professional resources is sought during design and construction processes and FMO trades expertise is used to supplement construction inspection efforts as needed. Adequate inspection, commissioning and final acceptance procedures appear to be in place as well as the requisite trades training opportunities on specific building systems. In addition to specific project coordination efforts between the directors of AES and FMO, the director of AES regularly attends the weekly FMO managers meeting to maintain additional opportunities for project-related input between the two units.

During critical steps in the design process, the project manager designates a specific period of time that plans and specifications are made available to FMO staff, building users, and AES project managers for review and comment. An adequate timeframe allows critical input to improve the projects quality and performance. Unfortunately, due to recent constraints both in compressed project schedules and the availability of time to complete the review, this critical step has not been fully utilized or has been altogether bypassed.

While the FMO, in the overall sense, plays a significant role in the planning of facilities projects, two factors currently restrain the coordinated exchange of information from the major Facilities sub-units into projects. These factors include the long-standing vacancy of the Campus and Facility Planning (CFP) Director position that was recently filled and the current ambitious expansion program relating to campus facilities and at outlying locations. The hiring of the Campus Planning Director should begin to alleviate one restraint, and the final completion of several major projects may alleviate the other.

It should be noted that the Facilities Maintenance and Operations appears to maintain a keen balance between project load and personnel resources in the AES group. It balances the high work ethic of the staff that is on the edge of overload by relying on significant individual effort to respond to a continuous stream of project milestone commitments. As the budget situation tightens in the future, capital project budgets may need to carry an overhead

charge to fund project managers and an infrastructure component to fund supporting infrastructure needs from predictable and stable sources.

Statutory flexibility allows FMO to play a significant role in the selection of contracted project consultants and to have direct contract responsibility throughout a project's design and construction phases. While this factor provides significant opportunity for project input from sub-units, as previously noted, the effectiveness of that input is currently limited to triage efforts, due to the sheer amount of project work in progress.

The review team is concerned, however, that the current heavy project load has had a negative effect on the execution of smaller projects as identified by some customers. As available staff is deployed to handle multiple large projects, smaller projects receive intermittent attention, and are then dealt with on a crisis-management basis. The review team believes that better internal processes and controls are needed to assist staff in better doing their jobs. Increasing staff to handle the lengthy, but temporary, project glut may be imprudent. But more effective management of internal and external customer expectations could reduce incorrect perceptions and unfulfilled promises by establishing realistic preliminary schedules and actively assigning small projects that can be delayed for a specified period of time to a small project backlog category.

The review team heard concerns, both inside and outside FMO that the institution's capital planning process may need some rethinking about how projects are funded. The concerns centered on the potential risks associated with moving ahead with capital projects prior to the identification of the total financing package. Unanticipated glitches in this process could place the university in the very uncomfortable position of "mortgaging its future."

#### **Recommendation 2J**

*Ensure that adequate time is allocated in each major capital project for reviews by FMO staff, building users and AES project managers. Concurrently, FMO should elect to outsource more of the design and construction work associate with such projects.*

#### **2.11 Describe the process used to ensure that representatives from operational units participate in the development of construction program planning and are active participants in the acceptance of completed projects and documents.**

Representatives from internal operational units are invited, but rarely participate. The review team concluded that this was the result of a lack of feedback from the designers or contractors, since a number of those individuals had a "why bother" attitude.

#### **Recommendation 2K**

*Establish a system that will require documented feedback to individuals offering comments on designs, etc., indicating acceptance/rejection/status, with supporting reasons. FMO's leadership needs to take a more active role in this process, strongly encouraging participation by internal stakeholders.*

#### **2.12 Describe how leadership is building and expanding organizational capacity and capabilities.**

FMO's leadership has largely abandoned a previously existing process that steered the growth of capacity and abilities, largely due to budget cuts. They maintain, and the review team agrees, that the major challenge today is to keep what they have.

#### **Recommendation 2L**

*Develop a strategy for creatively funding needs such as this one, in collaboration with the institution's senior leadership. One possible opportunity is to aggressively implement energy conservation programs, with the net gains being applied to this and other needs.*

**2.13 Describe the practice used to ensure the workplace environment optimizes staff performance.**

Fortunately, FMO was quite recently the beneficiary of a new dedicated building. FMO's leadership has been able to continue purchasing vehicles, tools, and equipment required to perform required functions and operations assigned to FMO. It is truly the hope of the review team that this important strategy is able and allowed to continue.

### **3.0 CUSTOMER FOCUS**

Customer focus is a key component of effective facilities management. Various stakeholders (faculty, students, staff, and other administrative departments) must feel their needs are heard, understood, and acted upon. Various tools must be in place to assure customer communication, assess and assimilate what is said, and implement procedures to act on expressed needs. To be successful, a facility department must ensure that its customers have an understanding of standards, tasks, roles, frequencies of services, etc.

Because of the nature of its operations, a facilities organization's customers include a wide variety of customers on the campus each day. The multitude of services provided by the department affects visitors, contractors, vendors, students, staff, faculty and administrators. The stated goal of a facilities department is not only to meet the needs of these individuals but to exceed their expectations, wherever and whenever possible.

#### **3.1 Describe the process you use to identify your customers.**

FMO's leadership is fully aware that everyone who comes to the ESU campus is a customer. That is also the case with the majority of the staff. This is a significant culture change from not that many years ago, when campus maintenance workers at most institutions looked at the physical assets as their "customers."

The department's legacy CMMS system, basic as it is, allows management to identify individuals and campus units who are their primary or most frequent customers. Leadership is able to use this information to establish contact with those customers, and to make sure that they are being served as well as can reasonably be expected. It must be said, however, that the review team heard comments from customers that this type of contact is intermittent.

Middle management and front-line staff are constantly reminded by leadership that they are in the customer service business, and that they are not just there to keep the fans running and the toilets flushing. They are all part of the educational process, which is a point that is constantly reinforced in departmental staff meetings.

#### **3.2 Describe how you identify the needs and expectations of both your internal and external customers and how you measure your success in meeting those expectations.**

Customer feedback is an important tool to use in developing goals, establishing priorities, and improving a department's overall performance. A successful facilities organization has a customer-service focus. Currently, customer satisfaction within FMO is primarily measured through annual surveys conducted by the Office of Program Review and Assessment of graduating seniors, faculty and staff. While the questions are quite general, they query the adequacy, appearance and maintenance of buildings and grounds.

Survey results indicate the percentage of respondents in each category who are "satisfied" or "extremely satisfied" with the service provided. These survey results are analyzed to identify progress or the lack of progress in the areas surveyed. This information is then used to help determine general customer satisfaction levels and to assist in formulating strategic actions where needed. Review team member conversations with students, staff, faculty and administrators confirmed that these levels of satisfaction were generally average or above. The facilities organization is commended for its participation in this survey and its use of the information obtained.

Other indicators of customer satisfaction used by Facilities are unsolicited telephone calls, e-mail and memorandums from campus customers that are received by service personnel and shop supervisors, as well as by the FMO executive team. These sources of customer feedback provide both positive and negative levels of service. They note the work of employees that have performed well and others that delivered less than satisfactory services. These indicators can be an excellent demonstration of individual or employee group performance, however there are times when attention-seeking employees solicit positive customer feedback, which taints the veracity of the information. Additionally, most customers do not make the effort to provide feedback. The review team believes that Facilities should devise proactive means for obtaining additional customer feedback to broaden its understanding of customer satisfaction.

### **Recommendation 3A**

*Create formal departmental customer feedback mechanisms to solicit ongoing communications. This can be done via the web page or e-mail, through telephone surveys, or by using paper survey forms.*

#### **3.3 Describe the process you use to establish the type of organizational structure and levels of service most likely required to meet customers' needs and expectations and describe the communication processes you use to share those service levels and structure.**

The review team found the organizational structure of FMO is quite sound. The customers interviewed by the team, most of whom frequently interacted with FMO staff, were aware of and had a reasonable comfort level with the structure at FMO.

While most customers interviewed by the team seemed quite satisfied with the level of services provided by FMO there were a few that were not happy with certain areas of its service. To a certain degree, there seems to be differences of opinion in the expected levels of services provided. If Facilities defined its level of services in each of its service areas, it would help the campus community to better understand the funded levels of service and specific services that might be expected.

Similarly, the levels of service provided are consistent with the funding levels afforded the FMO department. It is true that both internal and external stakeholders wish that more could be provided, but there appears to be a general understanding of the situation in which FMO and the university find themselves.

In its interviews on campus, the team found that most persons, whether through verbal communications, from experience or by intuition knew of the services provided by Facilities Maintenance and Operations. No one interviewed had used the department's web page to obtain information. In fairness, however, most of the people interviewed were top level administrators and department heads who would delegate facilities related actions to others working under them. Even so, Facilities would benefit from the use of additional means of communication (such as *Equinox State Today*) to inform the campus community about a multitude of facilities-related subjects.

FMO could be more creative in communicating roles and service levels to the campus community. It appears that most customers were unaware of frequencies of service (including custodial), and the types of services that FMO would provide at no cost, in spite of FMO maintaining a fairly comprehensive website that lists most of that information..

### **Recommendation 3B**

*Publish a service guide with descriptions of services provided by the department and define levels of service for which the department is funded. Distribute the guide to the campus community, including Facilities staff. Make sure this information is consistent with that available on the department's web page. Consider working with HR to provide condensed versions of the service guide to new staff and faculty, as they go through orientation.*

#### **3.4 Describe the process that enables customers to obtain services and monitor progress or status. Describe the processes available to customers that encourage them to provide feedback on results and/or perceptions of quality and value.**

The CMMS used by FMO is not web-based, and does not allow customers to look up the status of their work requests and projects. Thus the only way customers can find out is by calling or sending an email to someone in FMO who might know or who has access to the system. Some of the customers expressed frustration with the lack of availability of information, and had simply given up trying.

On remodeling projects, customers are updated fairly regularly by the project manager in charge of the project. Even this varies from one project manager to the next, and from one customer to another.

### **Recommendation 3C**

*Find a way to either drastically upgrade the in-house developed CMMS, or to acquire one of the numerous “off-the-shelf” applications that perform functions such as this one on a user-friendly basis. (See also comments in Section 6 of this report.)*

#### **3.5 Describe how customer feedback is used to affect continuous improvement and innovation.**

FMO relies heavily upon the university-wide survey to obtain information on customer satisfaction. This survey provides limited and general information about the campus physical environment and the services offered by FMO. As noted above, the department is encouraged to pursue other means to obtain more specific customer feedback through additional surveys of its own.

Customer feedback is utilized to track progress in specific areas. It is important to know not only how well the facilities organization is performing, but also the campus community’s *perception* of how well it is performing. Many frustrations and inaccuracies about services can be corrected if feedback is gathered and a mechanism used for follow up on suggestions and problems. While additional types of feedback are needed, the feedback currently obtained is used in concert with other information to develop the department’s annual action plan and initiatives.

As additional customer feedback is received through the implementation of Recommendation 3A, the facilities organization must then determine what to do with the feedback. If a process to enhance feedback is used, the department must be committed to the analysis and use of the feedback to drive processes and to improve the effectiveness of the organization. All feedback should be analyzed for clarity and correctness. Some feedback merely requires direct communication with the giver of the feedback to clarify misinterpreted information or to correct inaccurate assumptions. Other feedback may well point out a problem or a weak link in one or more of the processes used within the department.

The reorganization that happened some years ago was in part driven and determined by several years’ accumulation of customer feedback. The review team was shown evidence that customer feedback had on various occasions affected the way FMO does business, and had in fact led to the ultimate termination of a mid-manager who was not a team player.

### **Recommendation 3D**

*Continue to use feedback to improve department operations and analyze all feedback to help refine processes and improve departmental effectiveness.*

#### **3.6 Describe the practice used to evaluate the extent to which both the leadership of the organization and its front-line staff meet customer needs and expectations.**

The campus-wide survey mentioned previously helps identify those areas where the department is successful in meeting needs and expectations of the community. The regular visits to deans, etc. by FMO’s top managers and the informal feedback received via emails and phone calls also help. Again, the lack of a formal survey (see Section 3.2) leaves the assessment process incomplete. The review team heard positive feedback from many of the customers interviewed that FMO’s leadership has generally been responsive to comments and suggestions, as resources would allow.

**See Recommendation 3A**

#### 4.0 Assessment and Information Analysis

Assessment and information analysis describes how your organization uses information and analyses to evaluate and drive performance improvements. Of interest are the types of tools used and how the tools are used to measure and enhance organizational performance.

Raw data is not very useful. Data must be refined to be beneficial. Data refinement is the process by which data become more important to the organization. The data refinement process includes the following steps: data → information → knowledge → wisdom. *Data* is the lowest common element collected. *Information* comes into existence when the data is organized and labeled so that it becomes important. Once data is collected and then becomes consistent, organized, or validated, it is transformed into *knowledge*. Knowledge helps individuals understand what is important and what must be known about a particular subject. The next step in the refinement process is *wisdom*, which comes from understanding the knowledge and then making judgments concerning it. Wisdom becomes *information- and knowledge-based management* when the gathering of information and knowledge can lead to better decision making.

*“Core beliefs, vision, and mission should drive the strategy in which the organization functions. Strategy will help to define the environment in which the organization needs to work. Proper direction and the continuous improvement process will help the organization meet its ongoing purpose. Once the strategy has been defined, it should drive the organization’s structures and systems. Most of the data, information, and knowledge needed by the organization will come from the way that the structures and systems are established. Structures and systems should focus on people making good judgments, and these judgments should be in line with and provide congruency to the organization’s core beliefs, vision, and mission. Each part of the strategy, structures, and systems should clearly define what data, information, and knowledge are needed so that wisdom can be used in making the correct judgments. All data, information, and knowledge must support this process.” (APPA BOK)*

#### 4.1 Describe the processes that are used to identify and collect key performance indicators/benchmarking for your most critical areas. Describe your key performance measures determined to be critical to your organization.

FMO has yet to define, collect, and disseminate applicable key performance indicators (KPI), critical to the effective leadership of the department. Although a substantial amount of data is being collected through its legacy system, limitations inherent in that kind of system do not easily allow the transition from data to KPIs. An improved computer-assisted facilities management system will help pave the way for utilizing credible data to identify and measure practicable key performance measures.

An improved computerized management system will give the facilities group a good start in collecting the appropriate data which will help recognize what is happening within the operation. As the information is refined and turned into knowledge, this operation will become better at understanding what its needs are and what impact changes have on it. Correctly identified key performance indicators must support the institution’s strategic long-term plan.

It is obvious that Facilities has been collecting data. Most institutions use information to assist them in making decisions. This is at the levels of knowledge, understanding or wisdom. Because of the vast amounts of information available, organizations are focusing on ways to manage the knowledge that is included in the information gathered. As knowledge management is used in organizations, the correct decision-making opportunities of an organization increase.

#### Recommendation 4A

***Upgrade or replace the legacy CMMS, to accommodate improved analysis of the vast amount of data already being collected by the department. Then the department’s management team will be able to establish appropriate KPIs, benchmarks, and dashboards that will enable informed decision making and improved planning for the future, as well as improving the credibility of information being shared with the institution’s senior leadership.***

**4.2 Describe the process that is used to incorporate the results of key performance metrics into a systematic evaluation that supports improvement of key processes, decision making and innovation, and achieving continuous improvement within the facilities departments. Include discussions on ROI calculations.**

As mentioned in Section 4.1, FMO has not yet defined sophisticated key performance indicators. They do have budget status reports that are available to all levels of management, and a type of “aged trial balance” indicating the status and numbers of active work orders. This is not to say that FMO’s leadership is making difficult decisions in a vacuum. They rely very heavily on the data that is available in the legacy system, requesting from the system administrator all sorts of reports that they have to digest when faced with making a decision. In this manner, they do perform an informal ROI analysis, but it is a time-consuming process that may not be based on all information relevant to the ultimate decision.

A concern of the review team is that information seems to flow upward within the organization better than information flows down to the shop areas. This is always a key issue since the focus for results seems to be upward. The review team heard comments from shops’ staff that they are not always given adequate information. The review team suggests that a careful analysis be made of what information is needed by the shops or other areas. The requests for more data and information are then justified as assisting in better function and result. The review team doubts that the shops are asking for a lot of new information.

**Recommendation 4B**

*See Recommendation 4A. Once an improvement over the current CMMS is in place, FMO’s entire management team can benefit from the existence of improved information and better knowledge—leading to better decisions and long-term planning.*

**4.3 Describe the process that is used to ensure that performance measures being used are current and valid and how these align with those of peer institutions.**

FMO does use some peer comparative data to hone and fine-tune facilities management operations. Fifteen peer institutions are used for comparative purposes. The department's self-study shared nine examples of data that is used and tracked. This group of peers shares such data on annual basis, after the books are closed on the most recent fiscal year. They are to be commended to having had this process in place for at least ten years!

**Recommendation 4C**

*Keep up the good work! As soon as possible, start comparing data collected from other institutions with FMO’s own key performance metrics, as they are established.*

**4.4 Describe the procedures used to communicate the results of the performance indicators and benchmarking to key campus decision makers and other interested stakeholders (internal and external) for the purpose of education, budgeting, and engagement. Describe the process used to validate the effectiveness of that communication process.**

The outcome from information currently being collected helps the institution to get funding and determine changes in the current environment. The information helps the institution cope with annual change. A new use for indicators is being tested by staff and members of the state Board of Regents to show the differences in the mission, history, facility condition and growth of each institution.

The results of this information assessment could allow for a new formula that would increase allocations for utilities, custodial and landscaping components of the facilities operation. As resources continue to be tightened the need for pertinent, accurate and reliable knowledge will be critical. As the department copes with the implementation of the recommendations listed in Section 3 and critically identifies needs, leadership will find additional opportunities for more and even better use of the data and information being collected.

FMO’s leadership and their vice president have a great relationship and communicate on these types of issues and



others on a weekly basis. Additionally, the president invites FMO's director into his cabinet meetings at least once per year to give all the vice presidents and the provost an up-to-date snapshot of FMO. Similarly, the Council of Academic Deans (CAD) has a standing invitation to the director to attend their monthly meetings several times a year.

As suggested above, all that is needed is credible performance indicators that are meaningful to this type of audience.

**4.5 Describe the process used to ensure that hardware and software systems are effective, user friendly, secure, reliable, and up to date. Include a description of the business continuity plan describing actions to be taken in the event of an emergency or other out-of-normal event.**

FMO's uses feedback from users, internal and external, to gauge the effectiveness of its IT systems. This process is mostly informal and spontaneous, although the review team noted that certain individuals' performance evaluations contain references to imperfect performance as a result of inferior technology. Customer survey processes, described in other sections of this report, could easily address this need.

As noted above, FMO's maintenance management system works well for what it was designed to do, but that no longer meets today's requirements for a facilities organization that wants to be a leader in the industry. Senior management at FMO is coming to this realization, but is hesitant to approach ESU's administration for funding required to purchase a new system plus the associated implementation and training costs.

**Recommendation 4D**

*Identify all costs associated with the purchase and successful implementation of a new CMMS or CAFM. Develop a business case justifying the investment, at least partially based on some of the recommendations in this report. Present the case to the administration, with a couple of strategies in hand illuminating options that could develop the necessary resources.*

The department's primary hardware and software issues are a mixed bag. The department is required to purchase computers and other electronic equipment from state bid sources. They do, however, attempt to include the specific models of equipment that best suit their needs. They rely heavily on the recommendations of the computer administrator/technician working within the department to be informed on the latest technology and to ensure that their internal systems are meeting their needs. When additional knowledge is needed they call upon the campus information technology group on campus. When specific problems or issues arise relating to either hardware or software, meetings are held with the information technology folks to jointly work out the matter.

**Recommendation 4E**

*Enhance the level of IT expertise within FMO, particularly if the department is successful in replacing its legacy system. An effective facilities department cannot afford to operate without reliable systems.*

The university has a fully implemented Building Automation System (BAS) that successfully monitors and controls in all of its buildings except a few stand-alone houses located off-campus. The university has been successful in specifying a sole vendor, and has in place a maintenance contract with that vendor. The existence of this BAS has allowed FMO to implement the early phases of an energy conservation program through load-shedding, etc.

## **5.0 DEVELOPMENT AND MANAGEMENT OF HUMAN RESOURCES**

An organization's success depends increasingly on the knowledge, skills, innovation, creativity, and motivation of its employees and partners. The following criteria addresses the ways in which the facilities organization ensures a continuous learning environment and a positive and progressive workplace.

The climate in which facilities leaders currently deal with human resources is uncertain. Concerns about the cost of higher education have caused the public to demand more credibility and accountability from colleges and universities. Funds have dwindled while regulatory, instructional, and operational costs have increased. These factors demand judicious use of all resources and greater accountability. Facilities operations constitute one of the largest expenses within the institution and consequently its costs are always under close scrutiny.

### **5.1 Describe the process used by the department to identify and develop position responsibilities, determine competencies required, and develop job descriptions to ensure these all align with work unit and department roles and responsibilities, and that they are well understood by all members of the staff.**

Staff positions within Facilities Maintenance and Operations appear to be appropriately classified. Over the past three years, an aggressive process of position reclassification was completed. The university has a policy that requires every job description be re-inventoried at least once every five years. More than 80 positions have been reclassified to reflect new results-oriented position description criteria and competencies. These new position descriptions form the basis for annual employee performance evaluations. Representatives from ESU's Human Resource department teams up with the management team in FMO to re-inventory descriptions on an on-going, rotating basis. Employees themselves are typically involved in the re-assessment process pertaining to their own positions. The review team heard no complaints from internal staff about the relevance or accuracy of their job descriptions, with the exception of course of the associated pay grades.

Job descriptions are posted on HR's website, and are available for public viewing. Additionally, the director's office at FMO has hard copies of all job descriptions available should a staff member want to have a copy. The review team found that staff members are generally aware of this availability.

### **5.2 Describe employee recognition programs and practices and how they are used to encourage, recognize, and reward improved performance.**

The president at ESU sponsors a recognition program known as the ESU Employee Recognition Program. A committee comprised of three non-exempt staff members from across the campus and three members of the faculty receive nominations from the campus community, including from FMO. The committee selects four non-exempt employees who, when endorsed by the president, receive a sizable cash award. Although to be commended, this type of program does not go far enough to recognize and encourage particularly unique contributions by FMO staff. Historically, nominations from FMO have not been submitted very frequently, and thus FMO staff have received such recognition only two or three times during the last ten years.

The university also sponsors a "years of service" program, through which employees receive a gift for every five years of service. Although most employees appreciate the gesture, everyone recognizes that it is not a reward for a job well-done. In fact, some employees told the review team that it is seen more as a reward for surviving and not rocking the boat.

FMO on its own does not have any type of formal recognition program that openly encourages improved performance. While the director encourages his managers to walk around and give the staff verbal acknowledgement of good performance, the reality is that supervisors and managers feel too busy to be able to do this with any regularity.

## **Recommendation 5A**

*Identify and implement internal programs of employee recognition. These can exist at the unit level, at the departmental level of both. Care has to be exercised to not allow any such program to be perceived as a popularity contest. One such program could recognize improved performance by an entire unit, or a team.*

## **Recommendation 5B**

*Facilities leadership must take the lead to nominate deserving internal staff to the ESU Employee Recognition Program, to better recognize outstanding individuals and work teams.*

### **5.3 Describe your process for setting individual goals and how they promote innovation in the department.**

The mandated performance evaluations have a section that allows the employee and his/her supervisor to establish individual goals relevant to the person's functions in the department. The truth is, according to various interviews performed by the review team, that some of the supervisors simply go through the motions on this section of the evaluation. Goals are identified that have little or no bearing on the actual job, and are not reviewed on a regular basis for progress, etc. Many supervisors have not participated in classes that cover this skill, and are offered regularly by HR.

## **Recommendation 5C**

*Require all new supervisors to attend HR's class on how to correctly administer a performance evaluation. Additionally, all supervisors and managers should be required to attend refresher courses on the same subject.*

### **5.4 Describe how the facilities department fosters an organizational culture that rewards cooperation, communication, and skill sharing across work units.**

The leadership at FMO openly and regularly encourages the disestablishment of "organizational cylinders. There are reports that he does this in his own staff meetings, and expects his direct reports to do the same at theirs.

The review team heard reports from internal and external stakeholders that those cylinders do still persist, although less so than a decade ago. The challenge lies in the reality that middle management, for the most part, has seen very little turn-over and thus old attitudes tend to persist. The team even heard some tales where the front-line staff member may have wanted to do the right thing, but was stopped by his supervisor.

These cylinders continue to have a negative effect on organizational efficiency as well as customer satisfaction and perspective of FMO.

## **Recommendation 5D**

*Continue to hack away at this challenge. The director and his assistant directors must always show themselves as models of appropriate behavior when it comes to intra-departmental collaboration and cooperation.*

### **5.5 Describe how work performance and attendance expectations are reviewed and the process used to communicate such information to employees.**

The legacy system as well as the institution's payroll system track absenteeism. This information is shared with the employee at the time of the performance evaluation, and as necessary before then if there is a serious problem. This seems to be happening, although it is not having much of an impact on the rate of absenteeism, which is currently over 18%.

Work performance is documented and reviewed at the same time. As mentioned before, however, there are some supervisors whose employees receive evaluations that are rather bland and non-confrontational. According to the

HR representative, this lack of documentation on performance, etc. has already had a negative impact on the organization's ability to terminate non-performers—due to insufficient or inaccurate documentation.

The review team thus feels that more can and should be done in this arena, for the sake of the organization as well as the employees.

#### **Recommendation 5E**

*Expose all supervisors and managerial staff to training programs provided by HR that teaches them or refreshes their ability to prepare proper performance evaluations, and teaches them how to conduct face to face review sessions with their employees.*

#### **5.6 Describe how career development needs are assessed, provided, and monitored.**

See discussion under Section 5.3.

FMO provides rotational training opportunities, most notably on the custodial team cleaning crews, where team members rotate responsibilities monthly as a means to cross-train each crewmember in all the team cleaning tasks. The most defined and orchestrated employee development occurs in the trades areas, such as plumbing and electrical work, where new employees receive on-the-job training that leads to advancement through the levels of Mechanic, Technician I and Technician II. The department also provides apprenticeship programs that have seen success. There is some concern among several supervisors that too much training can be detrimental, in that employees having benefitted from those programs may choose to leave for better paying positions elsewhere.

While professional employees in the department feel that the Facilities Maintenance and Operations department encourages them to pursue reasonable professional development opportunities, actually taking advantage of such opportunities is often difficult. The ambitious workloads under which most areas currently operate and the high travel costs associated with the institution's rural location are both deterrents to professional development. Wherever feasible, staff are encouraged to participate in programs offered by APPA at the national level, but also at more local events.

Sadly, it is true that as facilities organizations see their budgets continually slashed, the first programs to be eliminated appear to be training and recognition. In the opinion of the review team, this is precisely what should not be cut. In an era when we want our employees to be more productive and feel good about it, we should be doing more to reinforce that kind of behavior—not the opposite.

#### **Recommendation 5F**

*Remember, the only thing worse than training employees and having them leave is not training them and having them stay.*

#### **5.7 Describe the processes used by the organization, both at the institutional and departmental level, to promote organizational diversity both in its workforce and leadership.**

Equinox State University strongly promotes diversity at all levels, as evident in the latest version of the strategic plan and university policies. Although Facilities Maintenance and Operations does not have a strategic plan per se, its leadership team also encourages diversity in its recruiting and hiring practices.

ESU is located in a geographical area that does not have a great deal of diversity in its population. Additionally, the surrounding labor market is quite static, thus the turnover rate in the department is quite low. The review team recognizes that the demographics of FMO is largely reflective of the surrounding population.

#### **Recommendation 5G**

*Continue all reasonable efforts to recruit a diverse yet qualified pool of applicants for internal vacancies. When*

*it comes to recruiting candidates for more senior level positions, the university should elect to attract candidates from other regions—to attract a more diverse pool of applicants.*

### **5.8 How the organization utilizes both formal and informal assessment methods and measures to determine employee well-being, employee satisfaction, and motivation.**

Consistent with the absence of the department level customer satisfaction surveys, FMO also does not have or perform any formal assessment programs that determine how the employees feel about working at the university and for FMO. Most of the feedback is received informally or possibly through the performance evaluation process. The review team did find that most of the employees interviewed were rather proud and pleased to be working at the university (especially because of its perquisites and benefits), but were considerably less satisfied working for FMO. The team realizes, however, that employees tend to vent at outside reviewers, often only reciting the negative circumstances.

#### **Recommendation 5H**

*Implement opportunities to acquire tools that can assess attitudes and perceptions of internal customers. Then, the department needs to establish processes that routinely and regularly circulate these surveys, and that encourage interpretation of feedback in order to implement appropriate improvements.*

### **5.9 Describe the approaches used to ensure the effectiveness of recruitment programs to provide well-qualified staff and to retain high performers.**

In the past, FMO has utilized the standard recruitment procedures required by the university and affirmative action policies and procedures. Due to the institution's somewhat isolated location in the job market, FMO has made additional efforts to recruit some of its more technical positions. While turnover in some of the less-skilled and lower paying positions was noted, the team also found that the department employed staff who have been with the institution for considerable time. The review team heard many times that the pay rates at ESU were substantially lower than at "the institution just over the hill."

Facilities Maintenance and Operations considers its employees as its most valuable asset in its ongoing pursuit of constructing, operating and maintaining the buildings and grounds on campus. The institution has a goal to be a "workplace of choice" for staff and faculty positions just as it wants to be a "residential campus of choice" for students. Some of the efforts that have been made to enhance the recruitment and retention process within the Facilities Department include the following:

- **Salary Equity:** Over the past several years, the university has developed a salary model. This model establishes a formula that includes merit and experience to identify proper placement of employees in their pay range. Annually, employees are identified that fall outside the formula-derived salary ranges. The institution, however, has not allocated specific funds to move employees to the proper levels. Some funds have been identified internally by FMO to start the process, but the goal of providing salary equity to all staff members will likely be slow to reach, particularly as the institution faces budget reductions. Another approach used has been to compare selected positions against regional salaries. This has been done primarily in the custodial classifications. Salaries have been adjusted in the custodial area, and modest gains made in some of the trades to bring salaries to a competitive range through the use of operating funds. The next planned phase will include the remaining trade's positions and project managers.
- **Career Paths:** Apprenticeship programs have been developed in electrical and plumbing and career path opportunities have been identified in project management, HVAC, power plant, and team cleaning. As these programs progress, opportunities for growth and development will be created within the work environment.
- **Family-Friendly Environment:** The university encourages social activities with staff and their families in an attempt to make the workplace a friendly and safe environment where people want to come to work. A snack and drink concession operates in the department's central lunchroom, operating on the honor system, provides opportunities for staff interaction between all shops. Cross-functional and cross-level participation is encouraged in areas where work can be accomplished without the restriction of multiple levels of supervision.

(See related discussion in Section 5.4.) The review team observed that *new* employees enjoy the friendly and collegial work environment found in the campus community.

**5.10 Describe the processes used by both the department and the institution for orienting new employees so they can successfully fulfill their responsibilities.**

The university provides a new employee orientation through the institution's Human Resources Department (HR). The FMO then adds its own employee processing, handled mainly by the new employee's supervisor and guided by a very basic department level orientation checklist, addressing topics such as calling in sick, use of vacation time, lunches, breaks, etc. However, the implementation of a beefed-up FMO-specific orientation program could assure that all employees receive consistent indoctrination into the FMO environment, which has some significantly different elements than other campus employment areas.

**Recommendation 5I**

*Expand FMO's in-house, department-specific new employee orientation briefing procedure, due to the large number of personnel involved and the department-specific issues that may not be adequately addressed by the university level HR presentations.*

**5.11 Describe the processes used to determine appropriate staffing levels, based on identified and approved operational performance standard(s).**

In the absence of reliable performance indicators, the department's leadership relies on comparisons with its peer institution, discussed earlier. Leaders and planners also use publications such as APPA's Custodial Staffing Guidelines, and similar publications, to assess the adequacy of FMO's staffing levels. Once again, the situation with budget restrictions discourages efforts to increase staffing levels, and promotes the use of such comparisons to hang on to the staffing levels they that have. Based on the experience of the review team, coupled with available literature, it appears that FMO's current staffing levels are adequate to keep the campus condition at APPA's Lever 3. Any additional reductions could force the department's leadership into having to cut service levels or frequencies. It appears quite likely, to FMO's leadership and to the review team, that additional bleeding could occur to FMO's operating budgets.

**Recommendation 5J**

*Initiate processes that accurately document tasks, frequencies, etc. for all of its units. Any future budget reductions should be applied through the informed reduction of certain services, and not through across-the-board reductions as has been done in the past. Senior level institutional leaders must be convinced to become involved in this process.*

**5.12 Describe how the department manages and organizes its workforce to accomplish its advertised mission and objectives.**

Section 1 of this document discusses "Leadership" while section2 includes a discussion on "Strategic and Operational Planning." Both of those sections identify a lack of articulated mission and vision statements.

Nevertheless, the department's leaders and management team have a comprehensive grasp of the reasons that the department exists, and generally manage the organization accordingly. In the opinion of the review team, the organization may be somewhat fat in the middle management ranks. Some units appear to have a ratio of 2 or 3 to 1 between workers and supervisor. It appears that, as new responsibilities were assigned to the department, additional units may have been created so as not to burden existing units. While this may have been effective and the quickest way to deal with such a situation at the time, the cumulative effect seems to a number of exempt-type positions that could be trimmed or reclassified.

**Recommendation 5K**

*Review the organization of its work force to identify and implement opportunities for increased efficiencies without compromising the ability to “get the work done.”*

**5.13 Describe how the department identifies needs for improvement and measures progress in the areas of regulatory requirements, health, safety, emergency preparedness, and security. Describe the processes used to train employees in these categories and how the effectiveness of those training programs is ascertained.**

FMO relies heavily on its excellent relationship with the sister department of Environmental Health & Safety (EH&S). This department is staffed to guide programs such as safety, regulatory requirements, health and safety of FMO employees, and actually offers frequent training programs on each of those priorities. EH&S has the charge for identifying training needs in response to OSHA and EPA mandates, and has been fully funded to provide such training.

HR, along with FMO management, reviews incident reports associated with lost-time accidents, and identify training needs (and as needed, specific individuals) designed to address recurring incident types. For example, if the Moving Crew suffers frequent back injuries resulting from improper lifting techniques, they will be required to attend a training session addressing that specific need. The institution’s Office for Equal Opportunity and Diversity (OEOD) identifies situations where additional training is required to deal with improper behavior, sexual harassment, etc. HR and OEOD monitor the effectiveness of such training programs, and are empowered to make recommendations for disciplinary action and termination when appropriate.

As mentioned in Section 2.6, the campus community does have an impressive emergency operations plan. This, however, has not yet translated into aggressive training programs and exercises that would increase the likelihood of appropriate and effective response in case of need. As suggested in Section 2.6, the university’s leadership should take ownership of this deficit and strongly encourage EH&S and other departments to make it happen.

**Recommendation 5L (same as 2D)**

*Insist on the further development of the plan, specifically addressing the missing components. Furthermore, a top-down action plan must be implemented that mandates participation by key players (including senior administration) in associated drills and exercises.*

This campus has a number of buildings that could be considered as high security. Primary ownership of building security lies with University Police. The university has implemented a campus-wide card-access system for all exterior doors. Cards are issued by the Police department after performing a security check on the requestor, and with approval of the individual’s dean or director.

Security is an operational responsibility for maintenance personnel, who constantly have to be reminded to lock access doors, etc. after having finished their tasks. The Assistant Vice President for Facilities and his management team constantly remind individuals of this need, and have documented repeated violations. Police teams up with management to provide training programs in personal and building security.

**Recommendation 5M**

*FM, as it is developing the department-level orientation form, needs to include each of these topics as points for discussion.*

## 6.0 PROCESS MANAGEMENT

Effective process management addresses how the facilities organization manages key product and service design, delivery processes, and continuous improvement. Process management includes various systems or “core competencies,” such as work management, performance standards, estimating systems, planning, design, and construction of new or renovated facilities, space management, event management, and other key processes that affect facilities functions.

**6.1 It is critical that a facilities organization understand its “core competencies” and how they related to the mission, environment, and strategic goals in the areas of:**

- **Administration**
- **Operations and maintenance**
- **Planning, design, and construction**
- **Utilities and energy**

**Describe:**

- **How the core competencies described in 6.1 contribute to the delivery of customer value, organization success, and stewardship, in your organization.**
- **The Facility Performance Indicators and related measures for each of the core competencies.**
- **How the core competencies support compliance and coordination with the agencies having jurisdiction.**

It was apparent to the team that the leadership at the institutional level as well as in FMO are fully aware of the importance of understanding what the core competencies of the organization should be in order to be successful in supporting the mission and vision of the institution.

FMO has been generally successful in providing an environment that emphasizes those core competencies, and has not become sidetracked with activities that take away from or conflict with the competencies. For instance, other maintenance organizations (with which the review team is familiar) have become too pre-occupied with using internal staff to complete larger construction-type projects. This has too frequently resulted in sidetracking important maintenance activities. At ESU, this phenomenon almost occurred a few years ago, but has since been redirected to where maintenance and operations are clearly the dominant theme. Staff throughout the organization knows and understands this, even though a handful of the tradespeople would rather be doing more construction and remodeling. The department has a small staff that is dedicated to the performance of the “soft” aspects of remodeling and construction: estimating, scheduling, coordinating, client relations, etc. Design work, as well as the vast majority of the construction efforts, are outsourced by FMO. Generally, clients are satisfied with this approach, although occasionally critical of the (lack of) communication by the project managers, and the delayed invoicing.

### **Recommendation 6A**

***Provide additional training to the project managers, each one of whom came from the trade units and none of whom had received any formal training in how to be a good project manager. This action, along with a better computerized project management system, will do wonders for customer relations.***

The administration in FMO has established policies and procedures that have enabled the effective completion of mission critical tasks. These have been reviewed by the team, and were found to be well-written and available to staff. They are posted on the department’s website. Roles and functions are generally well-understood and regularly addressed in performance reviews.

The utilities and energy budget for the campus is larger than the O&M budget. The review team determined that the FMO department and the institution must do more about energy conservation, and found there are numerous opportunities available that can provide significant cost savings, which could be redirected to other O&M needs.



## **Recommendation 6B**

*Identify and implement opportunities for energy conservation programs. Consider hiring an energy manager whose salary could be covered by initial cost savings.*

The Facilities Department in August of 2000 occupied a new building complex. The complex is well designed and strategically located on the perimeter of the campus and fronting on the main road that circles the campus. Its location is outside the campus academic core but close enough to provide excellent vehicular access to the campus.

The facilities complex includes a 79,000 square foot administration and shops facility; an existing motor pool and garage; a storage building that was converted to house surplus properties, a mail room and light maintenance operations offices; a mini-storage building; and a shops storage building. Operations that had been scattered in a number of locations on campus were pulled together in the facility.

Nearly all Facilities operations are now in one location that allows for better interaction from shop to shop and from shop to departmental administrative functions. Offices, work areas and shops are provided with modern equipment and tools to support effective and efficient operations. Facilities shops, office, work areas and storage in the complex are top notch. As might be expected, all areas internal and external to the building are clean and well cared for.

The complex has been a great source of pride to the facilities organization and has boosted morale in times of budget austerity and heavy workloads. Its completion has produced numerous enhancements in the department's ability to provide its services and products to the campus. The facilities complex should adequately accommodate the needs of the department for many years to come.

While being much older, satellite facilities, including the heating and chilled water plants, are in good repair. During a visit to the chilled water complex adjacent to the central heating plant, however, the facility was noted to be dirty and cluttered with materials from construction and storage that should be cleaned up. The remote recycling facility shows signs of age and neglect and needs some attention and upgrading to meet institutional standards. Its condition is not consistent with other university facilities and has caused morale problems with employees stationed there.

Equipment and machinery within the Facilities Department has been upgraded over the past several years in a phased approach that has targeted specific funds toward their purchase and then leveraged those funds with multiple-year loans. The acquisition of additional laborsaving equipment is an ongoing process that will continue.

The review team saw evidence of these acquisitions such as a large bucket truck, snow plows, service and fleet vehicles and shop equipment which appear to be meeting departmental needs in replacing obsolete and unsafe equipment, allowing for greater dependability and efficiency. If staffing levels are to become fixed due to budgetary constraints, the use of state-of-the-art equipment and technology is vital to accomplishing needed tasks. This is especially true for a campus that is consistently adding new facilities, students, faculty and staff.

Previous sections of this document have identified opportunities for improvement in employee recognition programs, training, etc. There is a need for better wages, to improve retention. The structure is basically sound. The review team believes that the most significant non-HR challenge is the existing computerized maintenance management system, which needs to be seriously enhanced or, better yet, replaced. This will allow the department and its managers to beef up all sorts of activities that today's leaders in the facilities management profession must be able to perform. One highly desirable benefit will be improved metrics, leading to the establishment of critical benchmarks and key performance indicators. Certainly near the top of this list of activities is the ability to improve relations and communication with internal and external stakeholders.

### **6.2 Describe the processes used to establish measurements for process input and outputs required to achieve efficiency and effectiveness.**

Effective facilities organizations depend upon work management systems to organize, control and carry out the flow of activities that take place within the organization. Work management systems include the traditional activities of work reception, planning, estimating, and scheduling.

Once again, the inadequate CMMS with which FMO has to work serious limits the ability to measure input and outputs. The work order desk manually logs all incoming work requests. The system does provide a bulky report that managers can use to track new work orders and closures, but the review team found that very few supervisors actually use this report. There is plenty of room for improvement in this area, which can evolve with a new or improved information system.

Each work unit foreman or supervisor sets informal employee work performance standards, but these standards are not formally defined or written around specific position requirements. Foremen frequently rely on subjective assessments of performance levels in the absence of defined standards. Work performance standards primarily utilized by the department are the evaluation criteria found in the ESU Staff Performance Evaluation.

### **6.3 Describe how stakeholders are involved in the development and implementation of core processes.**

Generally, external stakeholders have not invited to participate in the development and implementation of core processes. The management team most often develops them in-house, and will then share them with the rest of the campus essentially on an as-needed basis. Understandably, this situation is reported to leave stakeholders in the dark as to why FMO performs certain functions, even though there may be a perfectly valid reason.

#### **Recommendation 6C**

*Establish a “Facility Advisory Committee” with broad membership from across the campus. Include representatives from various customer groups, and involve several individuals from senior administration as well as departmental secretaries or business managers. This group should meet no less than 3-4 times per year, when it will discuss these types of issues as well as participate in other information sharing. The chairperson of this committee should not be employed by FMO, but whose staff could be present in an advisory capacity.*

### **6.4 Describe the protocol established to evaluate processes established to determine opportunities for improving efficiency, effectiveness, and value to the success of the organization.**

There is no protocol of this type formally established. The Assistant Vice President for Facilities and his direct reports regularly discuss such opportunities in staff meetings, with front-line staff and first-line supervisors rarely getting involved. The department has no process enabling staff to offer suggestions, whether through a formal “suggestion box” process or otherwise. External stakeholders are also excluded, other than senior university administrators (see discussion under Section 6.3).

#### **Recommendation 6D**

*Establish a process that encourages staff at all levels to analyze processes and offer suggestions for improvement. A cost savings program could be implemented, offering a cash incentive for non-exempt employees who submit practicable suggestions. The aforementioned “Facility Advisory Committee” could also be put to good use for this purpose.*

## 7.0 PERFORMANCE RESULTS

The performance of a facilities organization can be assessed in a number of ways: campus appearance, customer satisfaction, employee satisfaction, effectiveness of systems operations, financial results, and supplier/business partner results. Having measurement tools in place to assess such performance is critical in an environment of continuous improvement.

The tools used to assess performance are wide and varied. They range from survey results to benchmarking and from detailed data analysis to budget performance. Results should be examined in relation to performance in areas such as customer focus, financial outcomes, human resource developments, and supplier and partner outgrowths.

### **7.1 Describe processes in place to ensure that the appearance of the buildings and grounds is in keeping with the surrounding community as well as the desired image of the institution.**

FMO relies heavily on spontaneous input from stakeholders, internal and external, and particularly from building occupants. Regular meetings between the department's director and higher level administrators also provide a setting where appearance of the entire campus is frequently discussed. Since there is no formal customer feedback process, FMO has learned to depend on this type of feedback process.

The university's president is aware that campus buildings are one of the few long-lasting assets of an institution. As much as resources will allow, he is supportive of the efforts demonstrated by FMO's leadership and staff. The architectural styles of ESU are varied and unique. They are a source of pride and identity for the university. Architectural integrity has been made a campus priority. The condition of campus buildings is adequate in meeting the needs of the institution. In interviews with students, staff, faculty and administration the review team found a consensus that the buildings were well-maintained. This does not mean that there are no maintenance needs. Deferred maintenance levels exceed \$50 million, but maintenance needs have not reached a level that university programs cannot be accommodated.

The standard of appearance is very high, whether compared to the surrounding community or to peer institutions. FMO has channeled additional resources into the maintenance and improvements to the campus landscape when needed. Campus customers are pleased with the physical environment in which they study, live and work. Surveys of students, staff and faculty give high marks to the appearance of campus grounds with students at 91 percent and faculty and staff at 95 percent that are "satisfied" or "very satisfied" with their condition and appearance.

Another campus gem is the Arboretum and Botanical Garden located on the edge of campus. In addition to providing a special learning environment for the study of native and introduced trees and plants, the area provides a pleasant and peaceful setting for leisurely walks, quiet conversation with friends, contemplation, bird watching, reading, photography, drawing and other artistic endeavors. The 63-acre site is artistically arranged, favorably managed and nicely maintained. The arboretum has become a source of pride, not only for the institution, but also within the community.

And nearby, the Shelley Arboretum, while smaller and not as intensely maintained, is also a great asset to ESU with its varied and mature growth of trees and shrubs.

### **7.2 Describe how the organization determines that the condition and cleanliness of facilities are in keeping with the image and standards adopted by the institution as well as activities associated with its mission and programs.**

The university has a vision of becoming a residential campus of choice in the West. As a consequence the condition of the buildings and grounds on campus have historically maintained at a level to match that vision. The institution subscribes to the philosophy that if potential students like what they see while visiting the campus that they will be more inclined to enroll and remain at the university. Team member interviews with several students confirmed that this is the case.

Adequate custodial services are essential in providing clean and sanitary facilities. When custodial services are missing or inadequate, the image of the institution suffers as do ongoing activities and programs. Custodial services at ESU were restructured about a year and a half ago. FMO moved from a traditional system of dedicated area cleaning to a team cleaning approach. Team cleaning is used throughout the country in an attempt to be more efficient and effective in providing cleaning services. It is unfortunate that a change of personnel in the custodial management initially caused the conversion to lag, but is now completed. In addition to changing the method of cleaning, a commitment has been made within FMO to upgrade cleaning equipment to further increase efficiency and to boost employee morale.

For a variety of reasons, the change implemented in the custodial area has not been uniformly received and welcomed. The review team heard complaints that some buildings were dirty and that the level of cleaning was not as good as the previous system. And that with teams narrowly focused on specific tasks, no one was looking at the "big picture" in building cleanliness.

While the review team was not able to visit many campus buildings, the level of cleaning in the buildings visited seemed adequate. The current custodial manager is fully committed to the team-cleaning concept and is working to continuously improve the effectiveness of the program and to ensure that the system meets the needs of the institution. Some building occupants told the review team that they miss the direct contact with "their" custodian and struggle to know how best to communicate cleaning needs.

Sufficient complaints surfaced, however, to conclude that FMO needs to take a closer look at how the team-cleaning program is working and to make changes to correct shortfalls. One concern of the review team is that custodians may not have been adequately schooled and trained in the conversion from one system to another.

#### **Recommendation 7A**

*With input from external and internal stakeholders, conduct an in-depth analysis of specific problems and complaints associated with team cleaning and devise methods and improvements to overcome any shortcomings found.*

#### **Recommendation 7B**

*Communicate results and standards to building occupants. Perform regular inspections of all buildings, involving the entire custodial management team (supervisors and higher).*

### **7.3 Describe how the department assesses that building systems, infrastructure systems, and utility systems are maintained and operated at a level of reliability and efficiency that contributes to the successful implementation of the institution's mission and programs.**

FMO, until recently, conducted condition assessments on its buildings and systems on a regular basis. However, since their budgets have been constrained in recent years, that has been one of the programs that was elected to be sacrificed.

Fortunately, because of those previous assessments, numerous building systems have been upgraded over the past ten years in connection with the aggressive program of renovation and construction at ESU. The university plans to continue building new facilities, demolish old and obsolete facilities, and to renovate and upgrade older facilities. However, the bulk of campus building systems continue to age as deferred maintenance backlogs exceed \$50 million. It was noted that one such system dates back to 1909. HVAC systems are the most problematic. While the team heard no complaints about critical failures and shutdowns, there were concerns expressed about the occurrence of such failures.

It is a fact of facilities life that old and outdated mechanical and electrical systems are prone to failure. Disruptions for customers happen most often when systems fail, and in particular, critical research projects are placed at high risk. With a university goal to significantly increase research programs, steps need to be

taken to meet and satisfy research program needs by providing more reliable mechanical and electrical systems and where needed, to install redundant systems.

Building systems are operated and maintained with funding targeted at 1.5 percent of building CRV. In recent years that fund has averaged 0.88 percent of CRV in spite of concerted efforts made by FMO to the institutional leadership, to the State Board and the State Legislature to advocate and define measures for "facilities maintenance adequacy." Another target goal set by FMO has been to have 1.5 percent of CRV made available for major replacement and renovation of building systems. While this fund varies from year to year it has averaged about 0.6 percent of CRV.

### **Recommendation 7C**

*To avoid critical systems failures, identify creative funding opportunities to fund more fully both the operating and maintenance budget, and the budget for major replacement and renovation of building systems.*

#### **7.4 Describe the processes established to insure that funding resources are effectively used and are adequate to support a level of facilities maintenance that prevents the deferral of major maintenance and repairs.**

The institution is commended for recognizing the importance of its facilities as well as their major maintenance, repair and replacement. A target goal of 1.5 percent of the facilities CRV has been established for the maintenance budget and a target of 1.1 percent dedicated to the alteration, repair and replacement of systems and infrastructure. While recent funding levels have been less than the stated goal, the establishment of a higher goal is very important.

Needs are mostly identified by in-house staff and building occupants, particularly since FMO can no longer afford to have a more formal audit performed by outside experts. The institution receives a yearly lump-sum allocation to address capital replacement and renewal needs. A project wish-list is prepared by FMO's senior staff, and submitted to the president's cabinet for review and approval. Once established, each of the projects is managed by one of FMO's project managers. The state requires that all funds be either fully committed or spent in the fiscal year during which those funds were provided. Thus, FMO does a significant amount of front-end effort preparing high-priority projects for immediate action once funding is in place.

The institution's aggressive renovation and construction program has demolished old facilities and replaced aging building systems within renovated buildings, which has worked to reduce deferred maintenance levels. But still the current estimate of deferred maintenance of \$51 million continues to grow. Current levels of facilities-related funding appear to be adequate to cover routine maintenance, emergency repairs with some left for minor reductions of the deferred maintenance backlog.

Every effort should be made to impress upon the institutional leadership that making significant progress toward the institutionally embraced and published goals of funding is critical to achieving the success desired for the institution's facilities in support of the institutional strategic plan. This includes both maintenance and repairs and alterations and replacement at the published target 1.5 percent of CRV, Attaining these funding goals is also crucial in avoiding the current risk of untimely or catastrophic system failures.

### **Recommendation 7D**

*Establish and maintain realistic and predictable annual funding levels for capital renewal and deferred maintenance that will allow FMO to carry out orderly and well planned facilities maintenance and upgrade programs. In addition to buildings, attention must be given to the needs of the central heating and chilled water plants as well as utility infrastructure.*

### **7.5 Describe the tools used to assess whether the staff is highly motivated and productive, taking pride in the accomplishment of their duties.**

FMO currently has no formal tools to help them make these assessments. Yet, when an outside review team conducts employee interviews within the facilities organization, the group's initial comments can be quite revealing. The comments received served to identify a group of employees that appear to be knowledgeable, motivated and take pride in what they do. Samples of the comments heard included:

- FMO has a vision of where the campus needs to go.
- Our quality of work is unsurpassed.
- We are good at problem solving in situations that are unique to the campus.
- FMO employees work well together as a team.
- Employees are more invested in their work here than in other places I have worked.
- We respond well to emergencies.
- We are tooled up well and have received some skills training.
- The quality of work is high; everyone expects it.
- New employees are made to feel welcome.

The review team also heard a number of negative comments, some of which have been mentioned in other sections of this report.

The new facilities complex appears to have been helpful in raising employee morale and in recruiting talented staff. The facility is well designed and provides an attractive and functional work place for FMO staff. Retention of staff should also be improved by having such a facility. Staff members seem to be motivated and take pride in the opportunity given them to produce high quality work - even if it costs more than "low bid" results.

Since FMO is a non-union shop, its policies and procedures allow more flexibility in making independent decisions and implementing work processes that favor staff members most closely associated with the job. FMO leadership recognizes that for the institution to achieve its goal of being an "employer of choice" its employees must be satisfied with their work situation and surroundings.

Staff productivity was more difficult for the team to measure. There are indicators, however, that point to a productive staff. The department has made improvements in its training and employee development process. Its original investment in training programs has dwindled some in recent years, as a result of budget cuts.

### **7.6 Describe the processes used to insure that the levels of service are consistent with customer needs and requirements and within the facilities department's capability.**

As noted previously, most customers interviewed by the review team seemed to be satisfied with the services provided by the FMO Department. A few customers, however, were unhappy with some provided services and the response from some shops. All felt that the facilities organization had been traditionally underfunded and understaffed. FMO leadership understands the importance of customer satisfaction and has made attempts to measure satisfaction levels for some of its services.

For the satisfaction levels tabulated in the university's survey, the only concern for customer satisfaction falls within the area of custodial services where only 76 percent of customers are "satisfied" or "very satisfied." Even that figure is not low compared with some standards. Without further definitive data, the review team feels that customer satisfaction is consistent with funding and the overall interests of the institution although service levels have not been well defined.

The results of the university survey are helpful, but the questions are general. They do not cover all services provided by FMO and it does not target specific customers. The department's most specific feedback currently comes from informal comments, notes, letters, memoranda and electronic mail received. The only

means for FMO to obtain data in needed areas would be to conduct its own survey. Any surveys conducted should include customer satisfaction levels in services provided by CFP, AES and FMO.

**7.7 Describe how managers and supervisors are encouraged and enabled to stay in touch with the needs of higher education and how they relate to their own institution.**

Departmental leaders are members of and participate in the programs of several associations that serve higher education such as SCUP, APPA and WACUBO / NACUBO. These associations stay in touch with what is happening within higher education and are familiar with the ongoing changes that occur in colleges and universities. The review team was impressed with the practice used within FMO whereby attendees at association functions are asked to report on significant information disseminated at a particular meeting or event. The review team was given several examples of changes made in FMO that directly resulted from information obtained from participation in these events or from their publications as well as from networking with other association members. For example, participation with institutional leadership in long-range planning was promoted by FMO's senior management after they had attended APPA's Leadership Academy.

Departmental management and supervision also regularly read articles and reports that are published in national magazines and journals that are geared to the programs of higher education. Employees are very good at bringing to the attention of others within FMO pertinent and timely information published in magazine and other periodicals.

**Recommendation 7E**

***Continue participation in APPA's programs, and others, in spite of budget constrictions. Broaden opportunities for mid-level managers and front-line supervisors to participate in events, even if only at the local level. Explore opportunities to partner with other institutions in the area to co-host events.***

## 8.0 OTHER CONSIDERATIONS

Prior to making the campus visit, the ESU Facilities leadership asked the review team to respond to four specific items that they felt might not be adequately addressed in the criteria utilized in the main body of the FMEP report. These items are listed below:

- The funding adequacy at ESU relative to the large "building boom" going on both on-campus and off-campus.
- ESU is now faced with statewide issues of outreach and trying to be "everything to everyone." Facilities are struggling with how to deal with off-campus and outreach programs and how to build in the infrastructure along with the additional student and faculty population. The days of having one building manager at off-campus sites are long gone, but the institution is still operating in that mode.
- The facilities organization is expected to be a "change agent" for many issues relating to buildings that are being constructed on campus. The nature of the buildings will require changes from both the faculty and administrators and these decisions are being made without consulting the people that will be affected the most. Facilities staff are fighting the resulting battles.
- In initiating best practice, Facilities needs a better understanding of benchmarking outcomes. What is meaningful to benchmark?

In addition, at a meeting held during the campus visit, the review team was asked its opinion on the subject of space management. This issue is one that the institution has struggled with, but the review format does not address this question at all. The team agreed to comment on this issue.

This section of the report responds to all five of the previously noted items.

### 8.1 Funding Adequacy for On-Campus and Off-Campus Growth

Facilities operating and maintenance budgets or allocations appear to be in line with its peer institutions as well as regional and national standards. Compared to its peers, however, the imminent budget reduction could well put the Facilities budget at a disadvantage. It appears that while cost comparisons are mostly done utilizing main campus statistics, the costs associated with facilities that are designed for off-campus and outreach programs have taken advantage of the budgets and staffing levels maintained for main campus operations without paying their fair share of the costs. The review team does not believe that Facilities is adequately staffed or funded to absorb the facilities-related cost burden associated with off-campus sites and outreach programs.

It is also the review team's view that the facilities organization is being "spread thin" as a result of the institution's effort to closely control and influence all aspects of off-site projects. While this is a respectable desire for the need to maintain continuity of purpose, design and product, it adds a burden to the existing and limited human resource. Requiring Facilities to handle all aspects of these projects concurrent with aggressive redevelopment of the main campus, puts all projects at risk for mistakes, errors in design, cost overruns and schedule extensions. It also puts Facilities staff in a work overload mode.

It is the understanding of the review team that ESU off-campus sites are financially maintained and operated by locally assigned funds, however, the planning, design and construction functions are provided through central campus. The review team believes that the institution needs to clarify its facilities-related philosophies and develop guidelines for full funding of off-campus and outreach programs.

Most institutions have made the decision to provide services at remote locations in a manner that allows the service to be best administered and is most cost-effective. Local resources typically are best at providing maintenance services for facilities located beyond 25 miles from the main campus. Planning and some design services, can be centrally administered as long as there are adequate staffing levels to do so. Local architects and engineering consultants based close to the project's site are best situated for the design and construction administration of small projects. Budgets for off-campus and outreach projects should carry their own weight with adequate funding provided for their planning, design, construction administration, ongoing maintenance and renewal.



## **8.2 Dealing with the Pressures of Off-Campus and Outreach Programs**

Over the past several years, the hectic pace of work maintained by employees throughout the Facilities Department has created a significant amount of stress and discouragement. These factors have contributed to a decrease in morale within the department. Employees will work within overload conditions for a time, but finally experience burnout or seek for a less demanding job elsewhere. If facilities growth continues on the main campus and at off-campus locations, some creative solutions are needed to retain valuable and loyal employees.

Solutions are needed to provide increased staffing levels during peak periods of service demand without resorting to hiring permanent staff that will not be needed when the workload decreases. Other institutions facing similar situations have rightly placed the burden on the individual project budget rather than pushing its employees to maintain a faster pace.

Facilities should look at creating an overhead charge on capital projects that will fund planning and project management costs, as well as needed infrastructure costs. These project-specific employees can be either hired as temporary staff directly supervised by Facilities or the needed help can be obtained through contracted services.

## **8.3 The Facilities Organization as a Catalyst for Change**

Leaders within the facilities organization typically find that there are significant challenges that occur not only within their own organization, but also within the institution it serves. It is no secret that the mission of the facilities organization has become technologically, economically, and legally complex. The consequences of missteps or incompetence are increasingly expensive and difficult to recover. However, administrative naiveté about these issues is alive and well on most campuses. It is not uncommon to find senior administrators and university executives who speak about the "excessive cost" of buildings, renovating, or maintaining facilities. Often these high costs are attributed to bureaucratic red tape, overregulation, monument-building architects, unscrupulous contractors or incompetent facilities staff.

ESU's physical plant is the single most identifiable and longest lasting asset of the institution. Who is in the best position to educate and inform the senior leadership at the institution on the realities of being a large property owner? Who will interpret the university's mission in facilities terms and requirements? Who will define and analyze the facilities issues that the institution must face to achieve its goals? Who will develop and recommend facilities strategies? Who will define the architectural integrity of campus facilities and set guidelines to insure quality construction? Who will make the hard decisions necessary for institutional goals to be met? The deans? The financial officer? The student affairs officer?

Leadership in facilities management cannot stop within the facilities organization. Those in higher levels within the institution have a real need to learn how to effectively plan, design, manage and utilize their institution's facilities. The fulfillment of this need can best come from the leadership within the facilities management organization. That is, if they are willing to step forward and offer their services.

Institutional leadership in the facilities context, is more than just being an advocate for facilities or being the "facilities specialist." In a broader sense, it is helping the institution attain its mission and vision through the most effective deployment of facilities resources. To accomplish this, the facilities leaders must be perceived as pursuing the institution's mission and vision as his or her first priority and not solely as an advocate for facilities. This is a much different role than just pursuing the interests of facilities, independent of other considerations or factors critical to the success of the institution.

The Facilities Department at ESU has created for itself a "place at the table" by taking the lead as an agent for change within the institution, but this role may have come at a high price. To accomplish the nearly impossible tasks of planning, designing, constructing and renovating a wide variety of campus facilities in a relatively short time frame, an expectation has been created that will be virtually impossible to maintain on an ongoing basis.

However, rather than give up its place at the table, Facilities leadership needs to do some critical thinking and planning on how they arrived at the table in the first place and what can be done to maintain this very enviable position within the university's hierarchy. Obviously facilities leadership has developed a level of trust within the upper echelons of the institution. Being a change agent is a mark of leadership.

Using the same creative process that brought Facilities to the table in the first place should give some answers to the question: How can Facilities maintain its role as a change agent within the institution? To effectively continue in this arena, a leadership plan must be developed that answers the following questions.

1. What actions have been completed?
2. What actions were started or completed that need additional attention? And
3. What actions can be initiated?

This inventory of activities can then be used to develop the department's own plan for its leadership to serve as a catalyst for positive change.

#### **8.4 Initiating Best Practice Through Benchmarking**

As a result of pressures created by shrinking budgets and the growing demand for timely, efficient and cost effective services, benchmarking has become an additional tool utilized by numerous facilities organizations. Benchmarking can identify areas where costs can be reduced without accompanying reductions in performance and, in some cases, with the expectation of improving performance. Facilities at ESU understand the value of benchmarking and have made efforts to do so.

The single and most important task in benchmarking is to ensure that comparisons are accurate. Comparing fuel costs per square foot must take into account the variances in fuel costs that occur in various parts of the country. Even fuel consumption per square foot must be adjusted for local / regional temperature variations before it can be relied upon to indicate relative levels of performance.

Costs of labor must consider local labor rates as well as the cost of benefits and holiday, vacation, and sick leave -- not simply the hourly rate paid to a worker. In short, if undertaken with a reasonable amount of precision, benchmarking can be a valuable tool for comparing one institution's cost and performance with others. Armed with relative data, an assessment can be made at the way work is accomplished or transactions are processed to see if changes can be instituted that would lead to lower costs or increased performance.

One way to look for opportunities is to compare costs on campus with those of similar campuses. Facilities at ESU have already tried this to some extent. APPA's own Comparative Costs and Staffing Report is an effective tool that provides information on cost and full-time equivalents (FTEs) in relation to the number of FTE students, regional institutions, and several other criteria. NACUBO has initiated a similar effort that focuses on administrative functions and practices.

APPA's Strategic Assessment Model (SAM) provides another means of benchmarking the effectiveness of the facilities operation. Again, Facilities at ESU is familiar with this model and has used portions of it. Using the balanced scorecard concept, a set of core benchmarks resides within one of four major areas: financial perspectives, internal processes, innovation and learning, and customer satisfaction. As Facilities endeavors to support the mission of ESU, the SAM is designed to normalize the sometimes wildly differing components, such as purposes, costs, policies and procedures, funding sources, politics, etc., that are found among the various facilities organizations.

With respect to the question of what data or processes should be benchmarked, the review team has previously suggested and will reiterate that Facilities should actively participate in APPA's Strategic Assessment Model. SAM already answers the question of what to benchmark. This question has been

thoroughly evaluated, debated and answered through the broad-based participation of the professional constituency represented by APPA. The most meaningful items to be tracked are included in SAM.

### **8.5 Implementing a Space Management Program**

The FMEP team was not able to spend adequate time evaluating all the issues relating to space management; however, the vice-president for finance and administration and the assistant vice-president for facilities represented their concern regarding the lack of an organized space management program at ESU.

While an institution's physical assets represent a significant investment, the space enclosed by those physical assets represents the most "usable" and the most valuable physical asset owned by the institution. Considering the significant investment in time, financial resources and human resources required to create, maintain, and use space, space-related costs exceed all other institutional costs, with the exception of salaries.

The efficient use of space resources directly affects the viability of any institution, and if an institution's space is under-utilized or poorly managed, it can prove to be both financially and politically damaging. Invariably, an institution's space resources are limited, inelastic, expensive to expand, and mission critical relative to the institution's growth.

Institutional space must be managed, allocated and utilized in accordance with universally subscribed principles that reflect institutional priorities, and related decisions should be made using appropriate data. In order to implement an effective space management program, basic information must be available in a format that can be easily understood and analyzed. This basic information should include a comprehensive and current space inventory, current building plans coded to the space inventory, institutional space standards and utilization factors all coupled to room scheduling and staff / faculty FTE occupancy data.

It may be counterintuitive to note that while classroom space is the most visible and manageable space on campus, it is usually a small percentage of the total space inventory. Nationally the percentage averages from eight to twelve percent of total net assignable space.

Since classroom space is typically heavily utilized, the greatest opportunity for efficiency improvements resides in other dedicated-occupant space. This same set of space-related data can be used to review current space allocations, inform of reallocation decisions, analyze current and future space needs, and to program space requirements for new facilities. In this way, space can be actively managed, and space allocations can be made consistent with institutional strategic priorities.

#### **Recommendation 8A**

*Evaluate space management methods and prepare a plan to implement sound space management practice; marshal the plan through the consensus developing process and implement it.*

## **CONCLUSION**

The best measure of a service organization is in its ability to deliver quality services in a timely manner and at an economical cost, while keeping the customer well informed throughout the process. ESU is a fine institution that is properly organized and appropriately served by its Facilities Department in the accomplishment of its mission. The department's leadership and management team is loyal and dedicated to the institution. The review team believes that if thoughtful consideration is given to the recommendations made in this report and a concerted effort made to implement them, the university and the facilities organization will receive great and lasting benefits.