ABSTRACT

In less than 20 years, the medical campus of the University of Colorado has redefined itself by moving an entire campus to a new location and developing into a world class medical research university. The Facilities Management (FM) department has been planning, building and supporting the university’s new campus throughout this ambitious development program.

The University of Colorado Anschutz Medical Campus (CU Anschutz Medical Campus) operates on 233 acres, previously an Army medical base. The university has built and renovated over 3.7M GSF since 2002. Additionally, two major hospitals lease property and share the campus, adding more than 4.2M GSF. This health care and medical research community serves Colorado and the Rocky Mountain region.

Facilities Management has an operating budget of $32.3M; a utility budget of $13.0M; an auxiliary budget of $28.0M; and a capital construction budget of $52.0M. With nearly 250 employees, the divisions within Facilities Management include:

- Building maintenance and operations
- Facilities projects and sustainability
- Facilities Support Services including custodial services, grounds, parking, and other functions
- Administration and Finance for the department

However, the span of FM responsibilities does not end there. Unusual among FM departments, they also include:

- Event Management
- University Bookstore
- Parking & Transportation
- Food Services
- Printing Services
- Mail Services
- Campus Transportation Management Association leadership
Section 1 LEADERSHIP

The facilities organization’s senior leaders should set direction and establish customer focus, clear and visible values, and high expectation in line with campus mission, vision, and core values. Leaders inspire the people in the organization and create an environment that stimulates personal growth. They encourage involvement, development and learning, innovation and creativity.

Facilities Management’s strategic goals and department direction were established within the framework of the university’s mission and vision. Within that framework, the FM leadership provides the direction for the department with a focus on integrity, safety, service, building partnerships, ingenuity, and celebrating our successes (see Exhibit A).

Within the last twenty years, FM has been committed to the development of a new medical research campus that has arisen from the closure of an Army medical base. FM has been involved in each stage of the development of the campus from planning, design, construction, commissioning, occupation and now the ongoing operations and maintenance. Using APPA criteria for levels of service, FM excels in the overall appearance of the buildings and grounds, allowing the university to attract the best and brightest of faculty, staff and students.

The staff of FM is creating a legacy for which each member is personally responsible. The leadership of FM has worked to develop a culture of success and achievement. In order to develop a sustainable culture of success, FM encourages the professional development of the staff and offers numerous educational opportunities for technical, regulatory, certification, and management training.

1.1 Leadership roles and responsibilities are clearly defined

The current FM organizational chart delineates the lines of responsibilities. We have found it very helpful to our staff and to others in the university to also provide facial photos for recognition as well as the positions the staff and leadership fill. This is available on the university webpage:

The Facilities Management Department is part of the university’s Office of Administration and Finance. The department is led by the Associate Vice Chancellor for Facilities Management (AVC), reporting to the Senior Vice Chancellor for Administration and Finance. Reporting directly to the AVC are:

- Director of Building Maintenance & Operations
- Director of Support Services
- Director of Facilities Projects
- Director of Finance & Administration
- Executive Assistant to the AVC

Positions and their descriptions (see Exhibit B) delineate the roles and responsibilities for each executive team member of Facilities Management. While the organizational chart (see Exhibit D) shows lines of supervision and management, the job descriptions provide the narrative supervisory, management and leadership roles that each assumes in their positions.

For the past few years, the department has been providing information to new hires in an on-boarding session that goes beyond the normal employee orientation. The FM on-boarding includes a “meet and
greet” lunch for our new employees by members of the senior management team. This has been a great way for our new hires to learn more about the leadership of the department in a relaxed environment.

Beyond the on-boarding, there are various organizational meetings, described in the next section, at all leadership levels to discuss departmental initiatives.

1.2 The leadership system is understood by and communicated among all levels. The leadership system includes mechanisms for the leaders to conduct self-examination, receive feedback, and make improvements

Communications is either the success or failure for all organizations. While there can be too little information provided to the department, which would probably result in failure, it is hard to provide too much information. This isn’t just a monologue by the AVC, but a dialogue between all the leaders within the department and the staff. This is accomplished through a variety of mechanisms.

Informational meetings include:

- Quarterly All Hands department meeting
- Monthly executive team meetings
- Monthly managers meeting
- Monthly supervisor’s meetings

Surveys, Self-studies, and feedback include the following six methods:

Annual employee climate survey

The last climate survey was done through the university Ombuds Office. This was to encourage employees to provide feedback anonymously. The results of that survey provided a deeper insight into issues that FM employees felt but were unable or unwilling to provide in the past. The results of this survey included many suggestions for improvements. Examples of these include, but not limited to:

- 360 evaluations for supervisors, managers, directors and the AVC.
- Need for consistent management. From this suggestion a Management Training Program (see Exhibit E) was developed, similar to a bachelor’s or master’s program that would provide consistent and necessary training for managers and those whose professional goals are to become managers. A good plumber doesn’t necessarily make a good manager and this program will help provide those skills necessary for success.
- A monthly newsletter by the AVC which welcomes new hires, congratulates new retirees, announces promotions, and provides the department with current events.

Annual Goal Setting and Achievements

Each division within the department is also responsible for identifying achievements over the past year when compared to the goals set for that year, and develop goals for the following year. This annual report, developed by the managers and directors of the department, allows the department to look back over the year to compare the expectations (the goals) and the measured outcomes (see Exhibit K).

Annual customer satisfaction survey – To evaluate our customer satisfaction on the campuses we use the APPA Facilities Performance Indicator (FPI) customer satisfaction survey (see Exhibit F). It is used to
validate the effectiveness of our Facilities Management programs and to ensure our customers’ needs are being met or exceeded. This is done every fall by Facilities Management reviewing the survey for any modifications needed to address certain areas and also to ensure all areas are covered, thus capturing an accurate assessment from the customer.

The survey results are then reviewed by Facilities Management looking for strengths, weaknesses, opportunities, and threats (SWOTs), enhancement projects or comments/kudos from customers. From this analysis Facilities Management formulates action plans for improvement where appropriate.

Administration Prioritization

The University of Colorado Board of Regents requested each CU campus to undertake a process of prioritizing both its academic and nonacademic programs. Administrative program prioritization is a structured and comprehensive study of the administrative functions and units of the University. Guided by the process outlined in Robert C. Dickeson’s *Prioritizing Academic Programs and Services: Reallocating Resources to Achieve Strategic Balance* (2010), prioritization involves evaluating the effectiveness and efficiency of each administrative program, then using that information to make strategic decisions with regard to resource allocation, enhancement and improvement (see Exhibit G).

Electronic suggestion box

The electronic suggestion box allows departmental staff to provide suggestions, comments, and critiques. The senders are able to remain anonymous, if they choose, in order to be able to say what is on their minds. Responses are then assigned to senior staff and reviewed by the departmental leadership prior to posting it back on the suggestion box web page (see Exhibit H). While it is not heavily used, it does provide another means for staff to ask questions and make suggestions.

Management by Walking About

One of the simplest ways to communicate with staff and for leadership to receive feedback, make improvements, and become more engaged with the staff is “Management by Walking About.” This gives staff the opportunity to show their managers and directors what they are doing in and around the buildings and on the grounds.

1.3 The organization has clearly aligned its mission, vision, and values statements with those of the Campus. Regularly communicates with employees, customers, suppliers, and other stakeholders.

The mission of CU Anschutz Medical Campus is that it is a diverse teaching and learning community that creates, discovers and applies knowledge to improve the health and well-being of Colorado and the world. The vision of the university is that it will be a leading public university with a global reputation for excellence in learning, research and creativity, community engagement and clinical care.

The mission of the Facilities Management Team is “to create a safe, efficient, and exemplary environment, offering the best solutions to our customers’ needs.” The vision of the department is that “the CU Denver Facilities Management is a team of highly skilled and dedicated employees supporting multiple campuses with seamless service. We are recognized as leaders in sustainability, technology, and showpiece facilities” (see Exhibit A).
Our mission, vision, and values for the department are truly aligned with those of the university. FM is dedicated to promoting the university mission of education, research, patient care and community service by supporting the Facilities Projects process, managing and maintaining Facilities Operations Programs, providing a safe physical environment and enhancing the quality of life of a diverse campus culture.

As stated in Section 1.2 above, communication is either the success or failure for all organizations. Within the university and FM there are numerous avenues for communications within and outside the department. A few examples of those include, but are not limited to:

- Monthly Senior Administrators Meeting – a cross section of the campus that includes senior administrators within each school and college to meet with central administration to go over internal and external issues of the day affecting the university.

- Management by Walking About – getting out to look at conditions of campus roads, grounds, and buildings; meeting with staff in performance of their jobs to learn about specific issues or just view the process of making improvements.

- Annual Working Climate Survey – in conjunction with the annual APPA survey, learning about the issues and concerns of staff related to their jobs (see Exhibit QQ).

- Annual Customer Satisfaction Survey – sent to all faculty, staff and students (see Exhibit I).

- Work Order customer satisfaction and survey card – provided with the completion of every maintenance project requested by individuals within the university community.

- Facilities Projects team regularly holds design meetings with their clients and services providers, and gets formal comments at each stage of design. In addition, there are weekly meetings with the clients, architects, contractors and service providers for status updates and to get input. In order to be eligible for construction projects on the campus, each design team must attend a 'standards boot camp' (see Exhibit J) to learn about the campus, the design and construction guidelines, and to become more familiar with the campus requirements.

- Facilities Directors meeting – monthly meetings with our facilities counterparts in the two hospitals that share our campus.

- Chancellor’s Leadership Team – bi-weekly meetings with senior leadership of the campuses including chancellors, vice chancellors, deans, associate and assistant vice chancellors and deans to go over internal and external issues affecting the university.
1.4 Facilities management leaders spend time on a regular basis with their customers and front-line staff.

The leadership of the department understands that there must be regular and effective communications between our customers and our front line staff to understand the needs of the campus. This is accomplished through a variety of means including, but not limited to:

- Scheduled meetings with senior administrators, weekly projects meetings with customers, architects, contractors, and stakeholders.
- Surveys on working climate for staff, customer satisfaction, and work order survey cards.
- Campus inspections and walk-abouts.

1.5 Performance measures at each level of the organization are clearly defined.

There are established measures to evaluate current performance, and to develop and implement strategies to enhance performance, of employees, FM, and the organization as a whole. Processes are in place for each level in the organization.

- Performance Management Program (PMP) is applicable for all employees who are part of the State Classified System and is a 3-Step process. 1) Upon hire and annually, a Plan defining objectives and key competencies is developed and discussed with the employee. 2) At least once a year (mid-year), the employee meets with his/her supervisor in a Coaching Session to discuss and document how s/he is doing in meeting expectations. 3) Annually, a final Evaluation is done. This PMP feedback provides the employee with an opportunity to receive feedback and to share ideas, thoughts and concerns with his/her supervisor.

- Performance Evaluations are done annually for University Staff who are unclassified. This, along with the annual process of establishing goals and the resulting achievements, clearly defines expectations and gives feedback to help enhance each employee’s performance as well as the work unit and FM.

- FM Climate Survey was done in 2015, which provided valuable information on areas needing improvement and those that are working well. As part of the process, staff were given an opportunity to evaluate their managers. The Executive Group (AVC and all director levels) were included in this process. Feedback was provided through the Ombuds Office who administered the confidential survey. The information shared was very specific, and was intended to help improve and enhance the performance of the entire management team and to provide each person with valuable insights.

- Benchmarking is a critical method for measuring and enhancing performance. Comparing one’s organization’s performance to comparable organizations provides valuable information that can lead to making positive changes in the future. Examples of benchmarks utilized include: Staffing Reports, APPA Service Levels, APPA FPI and FCI Reports, and Central Utility Plant cost and utility rates compared with Xcel Energy and other comparable facilities.
1.6 Senior leaders establish and reinforce an environment where shared values support self-direction, innovation, and decentralized decision making.

FM leadership understands that front-line staff are the key to exceptional service, customer satisfaction, and maintenance of the buildings and grounds. As such, the value of a well-trained and engaged workforce is clearly evident and important to the department. Throughout the staff development process, from orientation to annual performance management, FM leadership ensures goals and objectives are aligned with the University mission, vision and values. This cascading process lends itself naturally to a shared-values culture where employees feel safe and are encouraged to innovate, bring their ideas and talent to the forefront, and be largely self-directed in their day-to-day activities. This culture is supported via our PMP process and management training program, which utilize a comprehensive set of tools and techniques designed to ensure everyone has the necessary interpersonal, team, and leadership skills and training to successfully support the FM mission.

1.7 Informed of current trends and practices in the industry

Staff are encouraged to participate in organizations that enhance their knowledge in their field and bring that back to the department. Professional organizations such as APPA, IFMA, and BOMA offer professional and technical training, as well as networking. The university is committed to high performance buildings through US Green Building Council’s LEED rating system and State of Colorado High Performance Building Program. In sustainability, the university is a signatory to the American University & College Presidents Climate Commitment, and participates in the Energy Star program. Another way the university stays current in trends and practices is participating in the APPA FPI survey.

Some initiatives that are leading or following current trends include:

- Event management and associated energy management for space scheduling for any event.
- Building recommissioning through internal staffing.
- Circuit management for the protection of research equipment.
- Equipment monitoring and ultra-low freezer program for the protection of research.
- Monitoring and management of steam and chilled water meters at all buildings.
- Gas purchasing program that extends two years into the future for budget calming.
- Regional public transport initiative that provides low cost alternatives to commuting.

1.8 A succession plan is in place to ensure continuity of leadership

In any organization it is important to have a succession plan in place for continuity of operations and for protecting and preserving institutional knowledge. Anything can happen at any time to anyone. At the same time, naming successors may be seen as favoritism or fly in the face of acceptable business practices that require transparency. This may seem like a paradox but is really an opportunity to develop staff in ways that will facilitate succession planning. Examples of this include:

- FM - Management Certificate Program specifically for supervisors, managers, and directors, but also for those who aspire to become a manager/leader.
- Leadership roles in regional and state professional associations
- Development of staff through technical and professional training
Those in leadership roles look for the individuals who continue to embrace training and professional development. Those in the organization wishing to become leaders continue to show their readiness by taking full advantage of the training and development opportunities.
Section 2  STRATEGIC & OPERATIONAL PLANNING

Strategic and operational planning consists of the 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 facilities organization should anticipate many factors in its strategic planning efforts: changing customer expectations, business and partnering opportunities, technological developments, evolving regulatory requirements, and societal expectations, to name but a few.

2.1 A strategic plan exists that includes the goals and objectives of the department.

In alignment with the University of Colorado Denver | Anschutz Medical Campus 2020 Strategic Plan, the Facilities Management (FM) department has developed goals and objectives as part of the CU Anschutz Medical Campus Facilities Master Plan. The FM departmental goals and objectives are more than just numbers, figures and measurements. Employees in FM, from the leadership to the frontline staff, believe strongly in the mission, vision and values of our department and of the university. Without efficient, effective facilities, research cannot happen, patients cannot get to where they need to be, and our staff cannot do their jobs effectively.

Setting goals for everyone in the department is an important part of our day-to-day operations, in order to become the best at what we do each day. For example, one goal we have is to “increase operational effectiveness and efficiency of campus buildings and infrastructure”. Our efforts to meet this goal ultimately produce high performing buildings and superior levels of service to our customers, all at the lowest possible cost. This aligns with one of the university’s strategic priorities: to “deliver an outstanding and innovative educational experience...by building and sustaining superior educational facilities and infrastructure” (2020 Strategic Plan, Objective 2.1.1).

More detailed goals and Key Performance Indicators (KPI) will be discussed in section 2.4

2.2 The strategic plan was developed with participation from internal and external stakeholders, approved by administration, and effectively communicated.

The overall process of developing the “Facilities Master Plan” was interactive and collaborative, including representation from all key internal and external stakeholders. Three categories of stakeholders were created: core participants, advisory/consultative participants, and statutory review and approval. In addition to a series of open forums, workshops were conducted to inform and solicit input from the various customers and partners on campus. Stakeholder input was vital to the development process and represents a true shared-values approach to building a world class academic health center.

The strategic plan content represents an evolution from initial discussions through task force reports and various iterations of the plan. It was presented to campus leadership and has their full support and approval. Effective communication to past and present employees, partners and visitors occurs via strategically placed signage and website placement. As part of the departmental onboarding process everyone is introduced to the plan, goals and objectives and how they apply to their duties and tasks.
2.3 Customer needs and expectations serve as major drivers for setting strategic direction.

The following goals, selected through campus consensus, are broad concepts that independently and collectively embody the ambitions of the campus community. They are innovation, connectivity, and stewardship. As they relate to the Facilities Management department, innovation and connectivity in particular guide our fundamental operation and maintenance of the physical facilities supporting the university mission.

For innovation – we will enhance and build upon our unique physical environment to strengthen our identity and support a global healthcare destination of first choice that creates high-tech opportunities for integration, convergence, and collaboration between institutions, schools, colleges, community, and business partners.

For connectivity – our advanced, shared infrastructure, resources, and services will give rise to a highly efficient and integrated physical environment that supports and adds connectivity to the missions and strategic plans of all stakeholder entities. Through development of safe, intuitive, and universal access into and throughout the campus, we will enhance user experience and promote a collaborative, engaged community of learners, educators, researchers, entrepreneurs, and healthcare providers.

As mentioned in Leadership Section 1.4, we believe there must be regular and effective communications between our customers and front line staff in order to understand the needs and expectations of the customer. Regular meetings with those customers and building administrators help us keep a finger on the pulse of the campus community. Customer Focus Sections 3.1, 3.3 and 3.5 go into greater detail, highlighting various other tools and techniques that FM staff utilize to identify and support customer needs, as well as levels of service and feedback mechanisms.

2.4 Goals and key performance measures are understood by all and periodically reviewed.

Based upon the goals established in the FM Departmental Goals process, and as part of the annual performance management planning (PMP) process, departmental goals and KPIs are cascaded down to the team, then to the individual level. Looking at how the goals will ultimately lead to improved performance and customer satisfaction, the supervisor and employee collaboratively apply these to an annual performance plan. This addresses both functional goals as well as University-wide core competencies. At weekly and monthly staff meetings all teams review their performance against the goals and make adjustments as necessary. An integral part of the PMP process is regular feedback and adjustment. Every employee meets periodically with his/her supervisor to specifically discuss the annual plan and progress toward goals. These review and counseling sessions become part of the annual performance review.

2.5 Performance measures at each level of the organization are used to meet goals.

Weekly and monthly reviews of KPIs and goals are used across various divisions and teams to provide a check-in of current performance versus plan. This is accomplished via team-specific KPIs (see Exhibit L) or via individual KPI tracking between the supervisor and employee or team.
As outlined in Section 5.3 regarding performance management, the tie between individual, team and departmental goals are clearly evident and helps drive unified performance measures. Every individual plays an integral part in meeting our overall goals and KPIs. APPA service levels provide the framework for performance KPIs involving maintenance performance, response times, work backlogs, custodial performance and campus aesthetics (see Exhibit YY).

2.6 A budget is developed with input from staff that reflects historic expenditures, an analysis of needs, effective allocation or available resources to support the organization’s goals and objectives, and seeks new and innovative measures to leverage resources.

The budgetary development process begins with an analysis of actuals from the current year, which are reviewed with the AVC and his direct reports. Spending anomalies are called out and any re-allocation of funds are completed based on the current results. This serves as the baseline for the next fiscal year budget building process. Each work group is responsible for providing anticipated additional spending or expenditures that are out of the ordinary. These are then prioritized by need and resource availability and either built into the budget or listed with other deferred maintenance needs.

With headcount being such a large part of our organization’s budget, all headcount is reviewed to ensure each person is accounted for and how many open positions are available. In the summer, the AVC and the executive team meet to prioritize the headcount openings and discuss the best way to meet the needs of the department. The AVC meets with the vice chancellor on headcount prioritizations and requests approval from the list his staff provided.

For auxiliaries, each major auxiliary with rates to external customers are reviewed throughout the year in a cost study. Parking and the Central Utility Plant (CUP) go through a mid-year cost study and an annual cost study with our external partners. Other auxiliaries like Food Service and the Bookstore go through a forecasting process to fully understand revenue and expense issues. The University requires each auxiliary to be fully self-funded and to maintain a small cash reserve.

In order to track and meet FM budget goals, monthly budget review meetings are held with each area responsible for a budget line item. Results are reviewed and discussed, with out-of-spec conditions investigated further for impact and effect.

2.7 Standards have been defined for overall operational performance, built environment, and landscape.

The operational standards are defined by the “Facility Management – Facilities Operations Business Rules Manual” (see Exhibit M) which covers all aspects of managing the daily building maintenance operations for the campus. The entire campus work flow is managed through software called Maximo that generates work orders/requests to deliver all of FM’s services.

The standard for the built environment, grounds, and roads are defined in the “Guidelines and Standards for Design and Construction Projects” aka “campus standards” (see Exhibit N). The standards define codes, architecture, space, durability, performance, and product standards for buildings. The standards also define physical exterior space guidelines for landscape, hardscape, site furnishings and roadways. Architects/engineers and contractors are contractually required to follow this guideline for all work on campus. The campus standards document is supplemented by a “standards boot camp” (see Exhibit J).
which is used as a tool to orient designers to the content of the standards and to highlight their importance. A living document called “lessons learned” (see Exhibit O) collects a list of ongoing problems from previous projects that are shared with design teams as another tool to improve the outcome on every new project.

Our building maintenance, grounds, and custodial service standards are defined by APPA. Campus maintenance service is at level 2, “comprehensive stewardship;” campus custodial is at level 2, “ordinary tidiness;” and campus landscaping/grounds are at level 2, “turf high-level maintenance.” We participate in the APPA FPI Survey and use it as tool to establish our staffing levels and to communicate level of service to expect for our customers (see Exhibit F).

2.8 A campus master plan is in place, current, and utilized for decision making.

The Colorado Commission on Higher Education (CCHE) and elected CU Board of Regents (Board) require 10-year updates of the campus master plans. The last master plan update was completed in 2012 and approved by the Board in September 2013 (see Exhibit P). CU Anschutz Medical Campus’s Office of Institutional Planning and Facilities Projects, with leadership input, prepares an annual update of a 10-year projection of capital construction needs. All of the projects originate from a need identified in the current master plan and are prioritized by urgency of the need. Following this update, a formal 2-year cash funded and 5-year overall capital project plan for all projects over $2 million is submitted to the Board for approval. The Board must approve the plans and as a first step they must be consistent with the current master plan. The State of Colorado (State) follows and must approve any capital construction request that needs State funding. The master plan, capital construction planning, and program process are all outlined in a CU Administrative Policy Statement (APS 3002) (see Exhibit Q) and on CCHE website.

2.9 The operational units participate in the development of the construction program and are active participants in the acceptance of completed projects.

The operational units of the campus, including the Office of Information Technology, CU Police Department, Facilities Management, Building Department, Environmental Health and Safety, Planning, and Finance, are all advised and participate in the planning, design and construction phases of all projects.

Projects that are over $2 million requires a formal program plan document that includes space needs, cost, and schedule. The campus office of Institutional Planning leads this effort and the operational units are an active part of the development of each project over $2 million. The leadership of the campus approves the plan formally.

Projects that are under $2 million use a “Facilities Projects Scope of Work Questionnaire” (SOW) (see Exhibit R) with preloaded yes/no questions from each operational unit to help define what will be required to complete the requested work. The SOW is distributed to the operational units for input at each project’s inception.

All projects go through traditional design phases of schematic design, design development, and construction documents. Formal comments are collected and resolved using a “CU Denver Design Review Comment Form” (see Exhibit S). A facilities operations representative is assigned to every project to facilitate design comments, review and comment on submittals, provide feedback during site observation reviews, and to formally sign off at project completion. This important addition to the project lifecycle has
resulted in tangible operational improvements, the ability to capitalize on lessons learned, as well as increased standardization and reliability of our building systems. The acceptance of a project is handled through a series of acceptance forms from of the Colorado Office of the State Architect and through supplemental acceptance forms (see Exhibit T) that require sign off by operations staff in facilities management as well as the contractor and architect/engineer.

2.10 Strategies and processes are in place to ensure continuity of functions in the event of staff turnover or other disruption.

Facilities Management and CU Anschutz Medical Campus have a working group called the Emergency Response Team (ERT) that meets monthly with a focus on emergency preparedness, mitigation, response, recovery, and continuity of operations (COOP). FM plays a critical role when the campus is impacted by emergencies to the built environment and has a COOP plan in place for the overall department and each division within the department. The plan is located at www.continuityCU.com for credentialed access from any computer or smart phone. The COOP plan includes primary and backup staff for all roles during an emergency.

Although FM prides itself on the longevity and retention of employees, staff turnover is part of every organization. Facilities Management’s preparation for continuity begins with the public higher education system, of which it is part, that hires based on qualifications of staff. FM has a clear organizational chart that allows back up at key levels in the organization (see Exhibit D). The department has established a Management Certificate Program to bring a consistent training base to all the supervisory staff and to those interested in becoming a supervisor. The program includes a 7-course core curriculum and 3 electives covering all aspects of management and supervision. CU Anschutz Medical Campus has annual performance management plans that outline the goals for each unit and includes a section for training and goals for each individual employee in the FM organization. This is a tool to help guide a career path within the FM organization.

2.11 Emergency response plans are in place, current, and communicated to facilities employees and the campus community as required.

As discussed in Section 2.10, the ERT is responsible for developing, maintaining and communicating emergency response plans to each applicable university department. The monthly meeting of this group discusses and acts upon all currently relevant information and events that apply to emergency response. Routine updates are handled at the appropriate level and communicated via the departmental hierarchy as applicable.

The University Police Department takes the lead in organizing and performing quarterly and annual drills on various aspects of the emergency response plans in coordination with our partner hospitals and the City of Aurora Police and Fire. Volunteers for such events are pulled from all areas of the university, creating a coalition of engaged and vested parties to spread the message about our emergency response planning and execution process.
Section 3  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 ensure customer communication, assess and assimilate what is said, and implement procedures to act on expressed needs.

3.1 Surveys, tools, and other methods are used to identify customer requirements, expectations, and satisfaction levels

Facilities Management (FM) believes strongly in the mission, vision and values of our department and of the university. Without efficient, effective facilities, research cannot happen, patients cannot get to where they need to be and our staff cannot do their jobs effectively. Setting goals for everyone in the department is an important part of our operations to ensure we strive for excellence every day in the overall best interest of customer service. Doing so daily is more complex than constructing an exercise with an end date; FM focuses and prepares for what lies ahead. FM provides information on what the customers have voiced as important and critical. The department has integrated numerous devices into our practices to help determine the overall quality of the services provided, by seeing it through the eyes of the customer and in turn improving practices.

An online automated work request system is available to the campus community through the FM website enabling a request for work on campus to be generated at any time. This also provides instant feedback to the customer to confirm their request has been received. By way of a dedicated FM Customer Service Center (CSC) work orders are immediately assigned to the applicable department and personal contact is made with the customer. Upon work order completion, an email is sent to the customer asking them to participate in a customer satisfaction survey. Customer responses are circulated to the unit responsible for the work so that follow up can be made with the customer to ensure all needs are met.

FM also uses a multitude of unit specific customer satisfaction surveys to encourage the campus community to contribute by sharing information and customer experience with the services provided. Over the last 5 years additional surveys have been implemented and made readily accessible so that customer feedback is being collected almost daily. Surveys are displayed on the Facilities web pages to urge input from customers as they browse. Our customer responses and critiques allow us to build our program in line with their expectations.

In some cases, such as the Central Utility Plant (CUP) customer satisfaction is measured primarily by the dependability of the service provided. The CUP provides heating and cooling utilities to the buildings on campus as well as the University of Colorado Hospital and Children’s Hospital of Colorado. The steam produced is used for heating, humidification, sterilization and testing. The chilled water produced is used for comfort and equipment cooling. Reliability is imperative as it relates to the customers and critical care in all of these buildings. FM is meticulous about keeping clear communication with building and hospital administrators to ensure the service provided is exceptional and uninterrupted.

FM also relies heavily upon ongoing contact with organized groups within the campus community. FM actively provides information and solicits feedback by way of regularly scheduled meetings in some cases, as well as informal email communication to groups who represent a larger part of the campus population.
This has become a valuable part of our practices and has enhanced student and employee involvement and awareness. Examples of these groups and practices are:

- Student Senates
- Student Services
- Building Administrators
- University Communications
- Student orientations
- Exempt Professional Assembly
- Annual walk-thru of campus signage by University Chief of Police
- FM suggestion box
- FM Safety Committee
- Event Management Committee
- Traffic meetings
- Site Logistics meetings
- Senior Administrators Meeting
- Anschutz Medical Campus Transportation Management Association

3.2 The roles, responsibilities, and services provided by the facilities department are well defined, communicated, and understood within the department and by all communities served.

The Facilities Management website has options for customers to find assistance by simply choosing a question from a predefined drop down box or going to a comprehensive Services Index listing.

The goal is to provide a website that is easy to maneuver and understand. The website is available to all faculty, staff and students on campus. Customers can submit an electronic work order through the Facilities website. The electronic work order allows the customer to input detailed information to help eliminate confusion.

Phone numbers and information are available on the Facilities website for the contact person relative to the customer’s questions or needs. If a customer is unsure who to contact the website is built to walk him or her through the process. A direct number is provided to the FM Customer Service Center so that the customer can always receive assistance. For this reason, FM provides a 24/7 contact on site.

In conjunction with Technology Support Services, FM implemented the Event Management System (EMS) that is available on the website. This system provides all the answers and directions for a customer who is organizing an event of any size on campus. The EMS system reduces administrative overhead and streamlines communication by allowing meetings and events to be easily scheduled while efficiently securing resources and services. When FM makes an update to the services or resources provided the reservation is simultaneously updated. For further information on EMS, see Section 8.

FM recognizes the importance of developing connections with organizations that may be more peripheral to the campus. Due to the significant impact that many external projects and decisions will have on the campus it is imperative that the lines of communication are clear and consistent. The City of Aurora, the Regional Transportation District, and the Denver Regional Council of Governments are just a few examples of key external organizations with which FM maintains communication bridges. The same is true for how
the University’s development impacts the surrounding neighborhoods and businesses. FM keeps the campus informed through the FM webpage, open forum presentations and campus wide announcements. For this reason, all of these entities are also encouraged to attend the weekly Traffic Meetings and the Monthly Site Logistics Meetings.

The campus wide announcements are also used to send out important information related to all FM updates including scheduled outages of water, electricity, or steam, and road closures or construction impacts.

The AVC for FM holds quarterly “All Hands Meetings.” In these meetings the state of the department, departmental accomplishments, policy changes, upcoming events, employee recognitions and goals are all reviewed. FM staff have the opportunity to ask questions and add input to any of the topics. From this point the lines of communication within FM expands immensely. The FM Directors, Managers and Supervisors meet with their respective staff to promote follow up conversation and identify additional areas specific to their unit that may need to be assessed. These meetings are used as a communication vehicle to engage the entire staff in the development of the FM Department.

A monthly newsletter, “Just the FAC’s” (see Exhibit JJ), is published by office of the AVC for FM. The newsletter provides another opportunity to increase awareness and understanding of current events relative to the department. The newsletter content promotes and encourages staff to ask questions and provide input.

3.3 Levels of service are set to exceed customer expectation and are defined in terms that can be understood by the administration, building users and facilities staff.

FM expectations are outlined in various forums to reinforce the importance of customer service. Customers’ perception of performance is just as important as their expectations of FM. Providing ongoing reliable, quality service to our customers on campus builds the framework for perception. The APPA Facilities Performance Indicators are incorporated into FM as a means to measure service levels that include customer satisfaction and FM performance. Customers are able to view performance results on the FM Goals webpage. Given the vast diversity of the campus the customer’s level of expectation can vary widely from one area to another. The FM team strives to adapt to those variations and manage them to each customer’s satisfaction.

Well-defined expectations start with the FM employees. The FM training department ensures that all staff members are appropriately educated and highly prepared in their field of expertise. This includes training about how each staff position in FM impacts the overall customer service expectations on campus. Given the concentrated medical resources provided on campus it is important that all members of the staff are very cognizant of the diversity of the facilities and of the campus community. For this reason, the FM training department focuses on specialized guidance for the employees. For example, Medical Interpreter training and certification was provided to a staff member who has constant contact with a diverse community of customers on campus who need assistance when English is not their first language.

The FM training department offers an internal comprehensive Management Certification Program. The curriculum includes core courses and electives that are structured to build on the proficiencies of existing managers as well as the development of staff for future management opportunities. As employees complete the program they add extra depth, breadth and value to their talents.
FM integrated the Maximo software to track and monitor service levels. The level of service provided is set to exceed expectations, so that customers will be not merely neutral about the service provided but instead are extremely pleased.

_Policies and guidelines_ are displayed on the FM website. Hours of routine and preventive maintenance are also published. However, if customers have any questions they are able to reach the Facilities Customer Service Center for clarification. The contact information is readily accessible for both the campus community and general public.

As previously noted, FM provides a dedicated Customer Service Center to answer questions and to track customer communication and service levels. Customers are able to reach someone within Facilities 24 hours per day. There are employees designated as “essential staff” who will respond to all campus emergencies and/or situations that need to be handled immediately for the safety of the campus. In emergency situations such as a pipe breaking and flooding the utility is shut down immediately and a campus wide announcement is then sent. In other emergency situations FM will work with University Police to make an announcement over the buildings emergency intercom systems.

3.4 The communities served know how to obtain, monitor progress, and evaluate the services offered.

For a customer seeking services, the FM website is designed to provide easy-to-find service selections. The customer can choose the unit by name or by choosing a “frequently asked question” which will take them to the contact information they need. At that point a work order can be submitted for the desired service. Detailed instructions are provided to assist with developing the work request. The system also allows the customer to type any pertinent notes. An automatic reply and work order number is then sent to confirm the request was successfully submitted. The customer can log back in at any point to review the status of the work using this work order number. Once the work has been completed customers will receive a notice of completion as well as a satisfaction survey which allows them to rate their experience. This also offers them opportunity to provide information relevant to the work completed.

Beyond seeking services via work order, FM customers have access to a range of additional services. FM oversees the Food Services and vending operations, Parking and Transportation, Construction Services and Printing Services, for both the Anschutz Campus and downtown campus.

There are currently five cafes that are overseen by FM. In addition, ten to thirteen food trucks are coordinated and brought to campus every Wednesday, year round, weather permitting. Staff, faculty, students and visitors enjoy the convenience of having food vendors on campus to serve a wide variety of lunch, snacks and drink options. All food and drink vending on both campuses are under FM with over 55 vending machines total to serve the needs of the faculty, staff, students and visitors. Each vending machine has contact information for customer service to handle issues pertaining to them whether it is a refund or repair.

Printing Services serves both Anschutz Medical Campus and the downtown campus. A variety of printing services are provided, ranging from posters, brochures, business cards, and flyers, to the most complex jobs. Printing Services produces all the accounts payable checks for the entire CU system as well as producing the commencement programs for both campuses. Print Services is a one stop shop.
Parking and transportation operations on campus provide the community with the circulator, intercampus shuttle, parking office operations for permit sales, special event parking and alternative modes of transportation such as the RTD Eco Pass, Zimride carpooling, Zip Car and Car2go.

The Construction Services department completes smaller projects on both campuses. The services they provide include mounting wall hangings, small office or lab remodels, patch and paint jobs, shelving and cabinetry, lab equipment set up, and interior and exterior signage.

The Event Management System (EMS) is readily accessible on the FM website. EMS provides the event planner with a centralized database in which to organize an event of any size on campus. The EMS system reduces administrative overhead and streamlines communication by allowing events to be easily scheduled while efficiently securing resources and services. EMS records the customer's contact information when they first inquire about space and services and then bills them at the completion of their event along with everything in between. They will automatically receive confirmation emails as their reservation is processed by the department. EMS takes away many of the mundane organizational and manual tasks for the customer. Although the process is structured by EMS, direct contact is made with the organizer before, during and after the event to ensure the department is very attentive to their needs from beginning to end.

Facilities provides this type of personal customer follow up within all units. Customer interaction is key and therefore is made via several avenues including emails, calls and face to face contact with the customer. Any concerns are addressed and resolved to the customer’s satisfaction.

3.5 Campus Customer feedback is used to build positive relationships, drive processes and effect improvements.

FM recognizes that customers are the life of the organization. Maintaining regular interaction with our customers builds mutual trust and loyalty. In the end the customer experience is what confirms the department’s successes and indicates areas for improvement.

Customer satisfaction surveys are available on the FM web page to gather ongoing feedback. As not all customers prefer to email their feedback, the direct contact information for key personnel is listed on the FM web page. Punch lists and a walk-through with a FM representative ensures customers are satisfied with the service provided. Costs for additional services are relayed to the customer in advance so they are able to make adjustments as necessary.

Committees such as the Commencement Committee have been formed to simplify procedures and streamline the overall process to improve customer service. Again, when inefficiencies are noted task force teams are designated to review the situation, find a resolution, implement adjustments and follow up to ensure improvement. FM maintains credibility by utilizing customer feedback for improvements.

FM Support Services Building Proctors serve as quality assurance liaisons between customers and the custodial contractors in their assigned buildings. Their primary responsibility is to ensure our customers’ needs and expectations are being fulfilled by doing daily and follow up inspections, interacting with the customers, and meeting with management and the custodial contractor.

After a work order is closed the customer is sent a satisfaction survey which allows them to rate their experience from “failing” to “excellent.” This also offers the opportunity to provide information relevant
to the work completed. The survey reports are totaled monthly and issued to the supervisors. Any customer concerns are closely reviewed and addressed. FM takes pride in being flexible and accommodating special arrangements in the interest of customer service. As a result, FM currently maintains a 98% positive rating from customers.

3.6 Campus users have a clear understanding and positive view of the services provided by the facilities organization.

Our front line employees are empowered to provide superlative customer service. Although we believe there is always room for improvement and adaptation, our customers have an especially positive opinion of the services provided. FM employees have been widely nominated for areas of excellence. These nominations come primarily from the customers that they help to serve. The FM customers recognize the excellent service that is being provided and want the employees to be honored for their efforts. As a result, our customers regularly advocate for front line FM employees to be acknowledged.

FM prides itself on the longevity and retention of employees. Our staff is highly experienced, skilled and able to meet and exceed our customers’ expectations. In recognition of this, the campus community has nominated and awarded the FM staff with distinguished awards such as the campus wide “Employee of the Month,” “Extra Mile Awards,” “Customer Service Excellence,” “Let Your Light Shine Award,” “Super Star Award,” and “Safety Award,” just to name a few.

The campus faculty, staff and students acknowledge the FM team in many ways to make sure they are recognized for their ongoing efforts. The customers appreciate that FM makes a point to listen and take action when they voice any concerns.
Section 4 INFORMATION AND ANALYSIS

Information and analysis is used to evaluate performance and drive future performance improvements. Of interest are the types of tools used (for example, peer comparative data clarified and validated through benchmarking), and how the tools are used to enhance organizational performance. Various aspects of information include facilities inspections/audits, financial/expenditure reports, utility data, and other relevant measures and indicators.

If you can’t measure it, you can’t manage it. The department uses several different types of processes to make decisions that direct staff. Maximo is our Computerized Maintenance Management System (CMMS) that tracks labor hours and allows preventative maintenance to be prescheduled. The CMMS also allows tracking of ongoing maintenance activities. The Facilities Audit is a process used to evaluate buildings through inspection, allowing maintenance needs to be prioritized. Various benchmark processes are used to evaluate our campus in comparison to other similar facilities. Many of these processes use information obtained from our campus-wide Siemens Building Automation System (BAS). We have standardized around the sole-source provision of Siemens controls in each of our buildings and these control strategies allow for intelligent building operation.

4.1 A systematic process is in place for identifying and prioritizing performance indicators, comparative information, and benchmarking studies for the most critical areas

Each year in November the annual APPA FPI Survey is reviewed and metrics such as building maintenance per square foot and custodial cost per square foot are scrutinized and compared to our peer organizations.

Each year in December, the directors are tasked with discussing the accomplishments of the year and going over goals for the upcoming year with the AVC. With his staff, the AVC reviews all goals to ensure budget funding follows them. Budget money is re-allocated if necessary to ensure that goals are properly funded (see Exhibit K). This is reviewed several times through January and then submitted to the vice chancellor.

Facilities Management uses Maximo as our CMMS and effectively utilizes its reporting features. The work order process is well defined and documented in our Business Rules Manual (Exhibit M), and is accessible to all staff (see Exhibit M). The department utilizes numerous weekly, monthly, quarterly and annual KPIs. The department also utilizes benchmark resources such as the APPA Comparative Costs and Staffing Guidelines, and the APPA FPI survey. The APPA Comparative Costs and Staffing Guidelines are also used to determine current staffing levels for trades, grounds and custodial.

The Customer Service Center creates and helps report on department KPIs. This work unit actively coordinates with building maintenance and operations (BMO), information technology, and finance staff (see Exhibit L).

Building energy benchmarking is completed at the time new buildings are initially occupied. Existing buildings were benchmarked starting in 2005. Energy performance is tracked over time and action is taken to improve energy performance when possible (see Exhibit W). Projects are identified to improve energy performance and are completed as funding is available. Energy data is entered into the annual APPA FPI survey to be compared over time and with other organizations. Zone staff are shown annual performance of buildings under their responsibility (see Exhibit W).
This information allows us to make better decisions when it comes to customer service on campus. The information that Maximo provides and reporting from the Customer Service Center helps us make staffing decisions, and better understand what zones and buildings need additional help. The energy benchmarking provides us with historical data to help with systems upgrades and gives long term planning capability to the central utility plant.

4.2 Benchmarking results, comparisons, and performance indicators are tracked and used to drive action within the organization.

Benchmarking results are utilized to assess individual and departmental performance. Two in particular, percentage of completed preventive maintenance (PM) and APPA FPI surveys, are used on an annual basis. Charge out rates are also benchmarked with neighboring institutions and with local service providers.

This information informs FM decisions. For example, with increases in the percentage of completed preventive maintenance, we are able to decrease unplanned service requests preventing equipment downtime. The PM work order report (see Exhibit X) allowed the trades and zones staff to schedule over 90% of our preventive maintenance work out 3-5 days after the work order has been issued. This allows the stores to maintain a lower level of stock, resulting in reduced working capital needs for inventory, since the material can be ordered in time to be delivered prior to the service staff needing them. This process improves customer notification and response, stabilizes work flow for the shops, and reduces necessary supporting inventory.

In many cases, the performance evaluations mentioned in Section 1.5 are tied to these benchmarking results. In building maintenance and operations (BMO), for example, one goal for the zones group is to have 70% PM activity, and for the trades group to have 55% PM activity.

4.3 The department ensures that data and information are communicated and accessible to all appropriate users. The required data and information have all the characteristics users need, such as reliability, accuracy, timeliness, and appropriate levels of security and confidentiality.

The department has a monthly timeline in which information is sent out to the appropriate personnel. Human Resources sends out two monthly reports to supervisors: Open Positions (see Exhibit Y) and the Lost Time Report (see Exhibit Z). Finance sends out monthly financial statements (see Exhibit AA) to directors and assistant directors and conducts a meeting each month with the AVC and his staff. This meeting covers the current state of the department’s budget and goes over each auxiliary separately concerning its financial health.

The executive assistant to the director of projects sends out emails on construction notices in buildings and traffic issues due to construction. She works with the building maintenance group on any building outages taking place.

The AVC conducts a staff meeting each month, reviewing each director’s tasks and needs concerning the department. The AVC also sends out an email newsletter each month to all department personnel called “Just the FACs.” This newsletter gives an update to all personnel on the activities of the department and what is coming up for projects. The newsletter also lists retirements, new-hires, and upcoming events.
The monthly reports and monthly meetings allow the upper level leadership of FM to react quickly to the data, and make changes as necessary. Many times, in the monthly staff meeting with the AVC, guidance is given based on the information and a new path forward is chosen. Each year as the fiscal year end gets closer, this meeting also assists the group on deciding how to slow down spending or free up funding for projects that have been on hold throughout the year.

4.4 An effective facilities inspection or audit program is in place that provides a regular appraisal of facilities conditions, identifies maintenance and repair needs, and quantifies facilities maintenance resource requirements.

As buildings age, a regular and effective inspection process is needed to identify short term maintenance projects and long term capital renewal projects. The facilities audit program meets this need. This is a methodical process that inspects, evaluates, and prioritizes building deferred maintenance needs. The inspections are conducted by trained maintenance staff on a monthly basis. The program allows for each building and campus infrastructure system to be graded with an FCI score (facilities condition index = FCI, which is the ratio of deferred maintenance needs associated with building replacement value). The FCI allows for prioritization of needs.

Smaller short term projects are addressed through the annual operating budget. Larger capitalized projects are funded either through the State controlled maintenance process or the university deferred maintenance funding cycle. These larger projects typically require consulting services and a multiyear planning approach. Larger projects also need detailed cost estimating, including a complete understanding of all associated costs required to fully develop the project.

There are several processes in place to determine the campus FCI. BMO developed a 36-month repeatable campus facilities condition index (FCI) calculation. BMO trades and zones leads are scheduled to conduct an FCI report on one building per month (see Exhibit BB), identifying immediate repair needs and adding projects to our ongoing deferred maintenance list. This FCI report not only addresses the larger maintenance and capital items, but also addresses the smaller maintenance needs (see Exhibit CC).

A team is also in place to perform recommissioning in each building. This process not only ensures the building systems are performing as designed; it also helps to identify building deficiencies which are added to the deferred maintenance list.

As discussed in Section 2.7, the CMMS (Maximo) system tracks the activity involved in the FCI process and reports are created for supervisors on a monthly basis to monitor progress. A report on the campus needs and the annual needed investments is provided to the campus administration and to the Board of Regents.

4.5 An expenditure report is available to managers on a regular basis and is used to effectively evaluate and control expenditures in assigned sub-units.

The director of finance and administration sends out a report each month to directors and assistant directors for dissemination to their staff (see Exhibit AA). This report covers the department’s performance compared to budget and any areas that may need further analysis. Monthly meetings are scheduled for each major auxiliary, including Food Service and the Bookstore, to go over monthly financials. This has resulted in each auxiliary manager and upper level manager understanding their financials very well. Action items come out of these meetings on items such as late payments from
vendors and upcoming agreement negotiations. These meetings also allow us to have greater context around the numbers and a preliminary action plan prior to the monthly meeting with the AVC.

The department has a specific account that tracks rebates from energy savings and those funds are kept separate from the rest of the budget. When it is approved to move forward on a new energy cost savings initiative, those rebate funds are used for start-up costs related to the new energy project. Energy management and sustainability efforts are communicated on the FM website and embedded throughout our design specifications.

4.6 An effective system of measuring and recording utility data is in place and is used to establish trends, minimize costs, promote energy conservation, and encourage environmental preservation.

All permanent building utilities are metered. Most meters report consumption through the Building Automation System (BAS). Monthly BAS reports are generated to show building utility consumption (see Exhibit DD). Each building is trended over time through the use of a spreadsheet and results are reviewed with BMO staff on an annual basis. BMO staff are encouraged to use trend data to find opportunities to reduce energy consumption where possible. Energy reduction directly results in CO₂ emission reductions.

4.7 The organization has a process to ensure that hardware and software systems are user-friendly, reliable, up-to-date, and meet the needs of all users.

For operations within Facilities Management, FM uses Maximo software, which is our enterprise-wide Computerized Maintenance Management System. Maximo was selected as our comprehensive enterprise asset management tool for asset lifecycle and maintenance management. It offers limited built-in mobile access, crew management and analytical insight.

Another benefit of Maximo is it allows our organization to share and enforce best practices, inventory, resources and personnel. It also enables us to manage all types of assets including plant, production, infrastructure, facilities, and communications. Additionally, Maximo is used for time-accounting, material requests, service requests, project tracking, and historical reporting.

An internal web portal has been developed that centralizes access to FM internal data and makes it more user-friendly both for the staff to do time entry and for customers to look at the status of their open work request.

Virtual EMS (EMS) was selected as our campus wide room reservation and resource requests system for CU Anschutz Medical Campus, CU Denver, and CU South Denver (see Exhibit V). This software makes it easy for anyone working for the university to easily register and book a room using a web-based front end. We have set this software up so the requester can also request such add-ons as traffic control, housekeeping, parking, event setup, police services, electronic security access and a/v services. The system is also used to obtain permission to film or video on campus and to help manage the university asset disposal process.

Our building automation system is used for providing lower operating costs and ease of operation. Microprocessor PID controllers monitor and adjust building systems to optimize their performance and the performance with other systems in order to minimize overall power and fuel consumption of the
facility. BAS monitors systems such as HVAC and lighting. Virtual EMS is tied into the BAS system to control the lights and temperature of scheduled rooms on campus.

The System Center Configuration Manager (SCCM) (see Exhibit EE) is a software management suite provided by Microsoft that allows us to manage a large number of Windows-based computers. SCCM features remote control, patch management, operating system deployment, network protection and other various services.

The mission of Facilities Management is to create a safe, efficient, and exemplary environment, offering the best solutions to our customers’ needs. The use of technology in these areas described directly impacts the efficiency dimension of our mission. With these tools and the customer service oriented approach to them, FM has leveraged technology to provide a better customer experience throughout both campuses.
Section 5 DEVELOPMENT AND MANAGEMENT OF HUMAN RESOURCES

An organization's success depends increasingly on the knowledge, skills, innovative creativity, and motivation of its employees and partners. This criterion addresses the ways in which the facilities organization ensures a continuing learning environment through communication, policies, recognition, training, professional development opportunities, and other methods.

The services provided by FM vary greatly and the department includes areas that may not be typically included in an FM department (i.e. food services, bookstore, mail services, printing services, and parking and transportation). As a result, the training and development needs of individual work groups are very different. FM considers providing staff with knowledge, skills, and comprehensive orientation and training to perform successfully a high priority. To that end, FM has two full-time staff to manage and coordinate professional development (i.e. technical, safety/regulatory compliance, supervisory, and communication/customer service skills).

5.1 Staff positions are properly classified and allocated in adequate numbers to meet the standards for the targeted level of service

Chapter 2 of the Department of Personnel Rules for the State of Colorado (see Exhibit FF) describes the job evaluation systems and the processes utilized to review every individual position prior to the position being recruited for and filled. Within the department, there are two Human Resources liaisons who work closely with university Human Resources department to ensure position descriptions are clear and provide adequate detail to ensure that well qualified individuals are recruited and selected. Additionally, this process is linked to the budget process and monitoring to ensure adequate funding is available. When new facilities are added, FM uses established criteria established to determine the number and type of positions needed to adequately staff and service the new facilities. In order to confirm that current staffing levels were adequate, in 2012 an in-depth FM Staffing Analysis and Report (see Exhibit GG) was developed with management staff working closely with an outside consultant. This comprehensive report, using APPA Service Levels and APPA institutions, provided a comparison with comparable universities and provided insight concerning both staffing levels and overall costs of various services. To be consistent with the university’s mission, vision, and values, as well as provide high quality customer service, the department utilizes the standard of APPA Level 2.

5.2 Training programs provide for new employee orientation and technical skills enhancement for all staff.

There are three levels of training for FM employees. First, there is university-wide training provided by the Human Resources department that includes such things as Orientation, Performance Management, Preventing Sexual Harassment, and other general topics. Second, there is department-wide training that includes Onboarding, proper safety procedures and practices, policy reviews, and an introduction to FM’s Management Certificate Program and Internship Program (see Exhibit HH). Third, each division/work area has orientation and training programs specific to each area and the position for which the individual has been hired. A variety of training methods are used at all three levels described above, which include online training (i.e. SkillSoft), classroom training, on the job training, and outside training. These methods provide for both individual training, which can be more self-paced, as well as group training.
Within the department the BMO group includes the majority of staff, most of whom would fit into the labor, trades and crafts (LTC) or engineering classifications. The orientation and technical training for the LTC group is quite extensive and includes an Operator of the Month (OOM) Check Sheet Process (see Exhibit II) to familiarize new employees with the buildings on our campuses. This process requires that both the employee and supervisor sign off on all aspects of this program resulting in the employee being better prepared to handle their new position duties and assignments.

5.3 An effective communication system exists within the department to ensure that each employee knows his or her role in the department, the role of related areas, and the overall role of the department.

There are numerous forms of communication to help employees understand their role and how they interlink with others inside and outside the department, as well as the overall role and goals of the FM department. These include:

- Position descriptions and FM Organization Chart (see Exhibit D)
- Meetings (supervisor meetings, division meetings, department All Hands Meetings, campus meetings)
- Performance plan, coaching sessions, performance evaluation and progressive discipline process if necessary (see Exhibit WW and Exhibit XX)
- Online suggestion box
- Just the FAC’s Monthly Department Newsletter (See Exhibit JJ) and HSC Announces and Online News
- University and Facilities Management Websites

5.4 Safety policies and procedures have been established, written, and communicated to all staff.

Safety is a high priority within the FM Department and this area includes an FM safety officer and FM safety specialist who focus on safety training. The university also has an Environmental Health and Safety Department which FM utilizes for their expertise, policies and procedures concerning such areas as radiation safety, biosafety, and hazardous chemicals. The FM website provides information about all safety policies and procedures as well as a Comprehensive Job Hazard Assessment (JHA) to determine specifically what safety training is required for each position (see Exhibit KK). The training topics (see Exhibit LL) are extensive, providing greater assurances that each individual understands the importance of safety within the functions of their positions and that they are fully trained to correctly utilize Personal Protective Equipment (PPE), follow proper procedures, and complete all necessary documentation.

5.5 Accident records are maintained and used to reduce accidents and identify tasks for special attention.

All accidents within FM go through the university-wide Risk Management (RM) process, and the employee is seen by a designated medical provider for workers’ compensation in order to ensure their health needs are adequately handled. Each incident is investigated by a combination of RM, using the support of the employee’s supervisor and FM safety staff. Corrective actions are taken to minimize further incidents of this type from occurring and mitigating risks in the future. This may include additional training for the
employee, modifying procedures, and/or changes to the area, equipment or tools. A database of incidents is maintained by RM.

5.6 The organization promotes employee development and professional development through formal education, training, and on-the-job training such as rotational assignments, internships, or job exchange programs.

The university and FM department provide opportunities for formal education and training, including programs for professional engineers (two), engineers in training (three), two certifications from the Design Build Institute of America, and one from the American Institute of Architects. Currently, the university has a tuition waiver program (nine credit hours/year) allowing individuals to take courses at the University of Colorado Denver and Anschutz Medical campuses. Since technical training (i.e. freezer, BAS, autoclave) at times requires training specific to equipment/systems, employees responsible for this work are sent to specialized training schools to ensure success in their positions. These individuals return and get experience using what they have just learned. Since they have increased their skill level and expertise, which is beneficial to the university, they are given a non-base building pay differential and have increased their potential for future advancements in the workplace.

FM has an Internship Program (see Exhibit MM) which trains individuals in some of the Labor, Trades and Craft (LTC) positions, and FM has had a high success rate in hiring these individuals once their internship period is complete. There are currently 10 former interns who have been hired in permanent positions in FM and of those five have received promotions.

FM participates in a technician exchange program (see Exhibit NN), where staff will work for a day with an equivalent individual at another local peer institution. Then they switch and that peer institution employee will work for a day at our institution. This provides the workers with a perspective of how processes work at peer institutions, possibly giving them new ideas to implement in their work units, and provides them with a peer contact for future reference. Supervisors and managers are encouraged to develop relationships with peer institutions and to visit local institutions in order to meet and know their peers and learn more about other institutions and their facilities and processes.

The Management Certificate Program is intended to provide managerial tools to FM manager and director level staff and to create consistency across FM. Employees who aspire to become managers may enroll in the program which includes a curriculum of seven required core courses and seven electives (three electives are required to receive a certificate). This program recently was implemented and thus far the participation has been significant and well received (see Exhibit E).

5.7 Career development is supported through involvement in job-related and professional organizations, and opportunities to advance within the department.

FM maintains memberships in the Rocky Mountain APPA (RMA), APPA, International Facility Management Association (IFMA), LEED and other organizations in order to provide resources and promote employee development through education and training programs provided by these organizations. Examples of training and professional development include:

- Leadership Academy, a four track program to enhance and develop leadership.
• Institute for Facilities Management – to provide facilities professionals the tools they need to manage and operate in a diverse facilities management environment.

• Supervisor’s Toolkit – for enhancing and developing supervisory skills in all levels of facilities, from those wanting to become supervisors to others who are well into their careers as managers and directors.

• Drive-in Workshops – for technical sessions in various areas.

A few examples of what FM has achieved and contributed through these memberships are as follows:

• APPA – continuing education, training and certifications (EFP, CEFP) in Education Facilities Excellence
  - FM has two people who hold an EFP certificate
  - FM has eight personnel that hold CEFP certifications
  - AVC is the immediate past president of RMA, a 14er and mentor; FM has a total of nine 14ers, 2 Climbing Buddies, and 3 others in process for this RMA Mentoring Program.
  - FM has been instrumental in development and creation of Colorado APPA chapter (COAPPA), also has several officers and Board Members (4 in total) within the current chapter administration

• IFMA – continuing education, training and certifications (SFP, FMP, CFM) in general Facilities Management across all industries
  - FM has 9 personnel that hold SFP certifications
  - FM has 13 personnel that hold FPP certifications
  - FM has 6 personnel that hold CFM certifications
  - Several department personnel are involved in local chapter as officers and/or support staff including one who is the Educational Chair for IFMA.

• LEED – continuing education, training and certifications (LEED Green Associate, LEED AP) in efficient construction and operation of facilities
  - FM has 11 personnel that hold LEED Green Associate certifications
  - FM has 4 personnel that hold LEED AP certifications

Additionally, the FM department values succession planning and hiring from within as the first option whenever possible. As a result, there is significant on-the-job training preparing individuals for promotional opportunities within FM. This includes a Management Certificate Program that is open to anyone on a voluntary basis. This philosophy has been a very successful approach within the FM department, not to mention great for the overall morale of employees.
5.8 Work performance and attendance tracking measures are in place, are understood by staff members, and are used by supervisors to assess performance.

As mentioned in Section 5.2, there is a process in place for developing position descriptions and every employee, both during the recruitment process and once hired, has a job description detailing the responsibilities of his/her position. Additionally, the University has a comprehensive Performance Management Process that includes the development of a performance plan within the first 30 days of hire, coaching sessions, and an annual evaluation. The FM department has policies and procedures pertaining to attendance and individuals are evaluated on this in the core competency of Accountability. Chapter 6 of the Department of Personnel Rules for the State of Colorado describes the requirements of the Performance Management Process. All supervisors are required to participate in training related to this process as well as participate in the Management Certificate Program.

The FM Department utilizes two excellent systems to track attendance: the Kronos Time Clock System and Maximo. The Kronos system provides information for payroll purposes and information related to each employee as to his/her attendance record. The Maximo system is much more comprehensive providing information about work assignments and the amount of time required, and has an excellent Preventive Maintenance Program. More detailed information about Maximo is included in Section 4.0.

5.9 The organization utilizes both formal and informal assessment methods and measures to determine employee wellbeing, employee satisfaction, and motivation. Assessment findings are linked to performance results to identify priorities for improving the work environment, employee support climate, and the supervisor's effectiveness (coaching).

The FM department utilizes a variety of methods both formal and informal to assess employee satisfaction. These include feedback received in regularly scheduled staff meetings at a department level (All Hands Meetings), division level, and work unit level. FM has an online Suggestion Box, which has been received well by both staff and management. An individual can make a suggestion confidentially and then it is assigned to a management person to follow up and a response is posted for all employees to see.

For the 2015 annual Employee Climate Survey all aspects of the process were coordinated through the university’s Ombuds Office in order to ensure confidentiality and generate valuable feedback. The process included Focus Groups as well as additional surveys on Supervisors, Managers, Directors and the AVC. This provided information to help identify areas that needed improvement as a department and for specific management staff. FM has implemented opportunities for the entire department to come together to enjoy each other’s company and build morale (i.e. chili cook off, pumpkin carving contest, summer barbecue, holiday party). Refer to Section 8 for more details on these department events.

5.10 Employee recognition programs are in place for individuals and groups (may include community service).

The University of Colorado System campuses, CU Denver, and the FM Department have a variety of Employee Recognition programs. We are proud to say that a number of FM staff have been CU Denver’s Employee of the Month during the past several years. Since the University has both classified and exempt professional staff, and the Employee of the Month program only includes classified staff, the University
implemented the Let Your Light Shine Award for the exempt professional staff. We are happy to say the first recipient was one of our own.

The program that FM has implemented within the department is into its 6th year and has been a huge morale and motivational boost. Quarterly awards are given for Excellent Customer Service and Going the Extra Mile (see Exhibit OO). There are also Super Star and Safety Awards given on an annual basis (see Exhibit PP).

5.11 Processes are in place to determine the effectiveness of recruitment and retention programs and to identify areas for improvement.

The University of Colorado has a website (jobsatcu.com) and processes for recruitment of positions. In an effort to recruit and retain qualified employees as well as provide advancement opportunities, the FM Department has utilized various strategies.

- Compensation Snapshot is a helpful recruitment tool that includes information, beyond salary, about the value of benefits (leave time, medical and dental, retirement, etc.) allowing the employee to get a full picture.

- Training Programs: Operator of the Month (OOM), Management Certificate Program, and our Internship Program (12 individuals have been hired as employees and 10 still work for us).

- Succession Planning: It is extremely important to have staff prepared to step into new roles and to be promoted when a person leaves the university or has been promoted. The focus is to provide necessary training both on-the-job and through various programs discussed in Section 5.6.

- Internal Equity Comparisons and External Salary Surveys: FM works with HR to ensure that there is internal equity for staff in the same classification or classification series. Any inequities are rectified as soon as budget is available. State Personnel and HR perform annual and periodic external salary surveys to ensure that employees are compensated appropriately.

- Delayed Salary Program: Upon hire an employee’s years of experience and certifications are reviewed and, based on an established formula, they are eligible for a percentage pay increase once they have completed their one-year probationary period.

- Critical Skills Pay is a non-base building pay that is provided when an employee possesses or has obtained through training special skills that are essential to the operations of the university.
Section 6  PROCESS MANAGEMENT

Effective process management addresses how the facilities organization manages key product and service design and delivery processes. Process management includes various systems such as work management, performance standards, estimating systems, planning and design of new facilities, and other key processes that affect facilities functions.

6.1 Processes are in place to ensure that departmental facilities and equipment are adequate for the provision of effective and efficient services.

Anschutz Medical Campus (AMC) broke ground in early 1998. Over the past 18 years we have added 20 new buildings totaling more than 3 million square feet. This steady progression, when coupled with intense facility planning and design, has allowed for a highly effective allocation of resources. We have modeled our department to achieve APPA Level 2 service across maintenance, custodial and grounds. While generally higher than many of our peer institutions, the medical and academic community we serve demands that service excellence.

A 2012 Staffing Analysis (see Exhibit GG) was conducted in conjunction with a consulting service. The end result verified our approach to resource allocation was in line with the strategic vision and mission of the university. We consistently placed at or near the top of our peers with respect to budget and staffing as measured by FTE/GSF, AFOE/GSF and AFOE%/CRV. These measures are continually used as benchmarks to assure our effectiveness and efficiency. Monthly and annual performance results provide further proof, as does our customer feedback.

6.2 An effective work management system is in place to identify, report, correct, and document substandard conditions and maintenance requirements.

Our CMMS system, Maximo, is used as the main focal point for all maintenance activities and work management. The preventative maintenance system (PM) has been created to maintain equipment and facilities in line with manufacturer’s recommendations, historical performance, as well as customer need. The high-research environment of our campus necessitates a higher level of maintenance to keep the systems operating at peak efficiency.

Corrective maintenance and customer requests are received via two processes. Customers can use the university intranet to create a work request (WR) electronically. This information is received by our customer service center (CSC), who then assigns the request to the correct work group for further attention. Customers also have the option to call the CSC directly and initiate the WR over the phone. The CSC then creates the WR following the same process.

Internal reviews of building and system conditions by FM staff is achieved via daily, weekly and monthly inspections. Follow-on WR’s are generated to address substandard conditions. In addition, the recommissioning program systematically goes through large-scale building systems looking for efficiency upgrades and newer technological options. Finally, we utilize a Facility Condition Audit program to perform a periodic review of buildings and systems as they compare to Original Equipment Manufacturer (OEM) standards. The results of the audit are translated into industry standards in the form of a Facility Condition Index (FCI).
Completed in every building on a 3-year rotating cycle, we initiate a large portion of our corrective maintenance requests using the FCI results. Every utility infrastructure component, mechanical, electrical and control system is inspected during the audits. Not only does this put eyes on every square inch of the campus, it allows for increased on-the-job training and cross-training for our work groups as they support each other during these time intensive activities.

Low-level needs are handled via the normal departmental work and budgeting systems. Higher-level needs are included in the deferred or controlled maintenance processes, each addressing bigger ticket maintenance needs outside of the annual FM budget cycle. A more detailed look at these processes is included in Section 7.4.

6.3 Work authorization and scheduling procedures have been established that are consistent with the identified role of each work unit and achieve an equitable distribution of resources.

Work scheduling and work authorization are typically handled by the supervisor and lead technician for each work group. The goal of these individuals in the scheduling process is to anticipate and proactively plan repair work, order materials as needed, manage resources efficiently, coordinate directly with impacted customers, ensure data integrity, and participate in process improvement to continually improve the system.

The Preventive Maintenance (PM) system utilizes a 52-week work schedule. PM work orders are issued in Maximo the Thursday prior to the start date and assigned to different technicians by the supervisor or lead. Corrective Maintenance (CM) work orders are approved and assigned based on priority. These priorities are 1 – Urgent, 2 – High, 3 – Medium, and 4 – Low. Scheduling of CM work is based on the urgency and customer impact, system availability and resources.

Work backlog management is managed through KPIs that measure the total number of open, past due work orders. The 2015 goal was no open work orders past 90-days overdue. Results were consistently within this timeframe, so in 2016 we decreased the time limit to 60-days overdue. Continuous improvement efforts continue to get this KPI to the lowest number possible, reflecting more timely work order completion and higher levels of customer service.

6.4 An effective preventive maintenance (PM) program is in place to provide regular inspection and servicing of facilities equipment to assure maximum service life, reliability, and operation.

In 2007 we purchased the Maximo CMMS program to help implement and manage an effective PM program, providing regular inspection and servicing of facilities equipment to ensure maximum service life and reliability. A Maximo Committee, comprised of finance, IT, and building maintenance & operations (BMO) representatives began meeting twice a month to fully define processes, apply process improvement techniques, and implement measurement methodology. This major initiative required FM department leaders to utilize effective change management techniques. The results included a new vision and focus for our maintenance effort, improved communication with staff and customers, and improved PM and CM performance.
BMO, the Customer Service Center (CSC), and Projects Department worked together to identify the equipment inventory, while naming and labeling the equipment. Using manufacturer recommendations BMO determined needed resources, and developed and prioritized the PM tasks and periodicities. RESMeans, Whitestone and manufacturer recommendations were excellent resources for determining the weekly, monthly, quarterly and annual tasks for the various pieces of equipment.

In the nine years since we first installed Maximo we have upgraded to two newer versions, each providing more customizable content and improved user interface. Each trade and zone has become more effective at maintaining the University building and equipment. FM employees take great pride in their ability to reduce system failures and improve system performance. One hundred percent of the buildings and infrastructure equipment data is in the Maximo database. The FCI audit process assists to ensure this information remains accurate over time.

6.5 An estimating system is used that provides accurate estimates of labor and material requirements in order to plan and schedule the execution of work and to determine the causes of significant deviations between actual costs and estimated costs.

Since the implementation of Maximo in 2007, historical data on work order performance has been archived. The labor and material needs of each task are available to use as a reference for any future task or activity. The PM program has been streamlined periodically by reviewing both PM resource needs (labor and materials) and the periodicity of the PM tasks to ensure the correct frequency and maintenance strategy.

As the supervisor and work lead in each group assess the workload for the coming weekly planning cycle, they utilize this historical data, as well as their intimate knowledge of the resources needs of each individual task, to develop an estimate. When a task is complete, the supervisor is responsible for a final review and closeout of the PM or CM work order. Upon reviewing the activities and resources used, if the task deviated considerably from the estimate it is noted within Maximo on the work order for future reference. In addition, the supervisor takes note of this for the next planning/scheduling cycle when the PM will occur.

Industry standard cost estimating processes are in place for small construction projects, typically under $25k. Cost estimates for small construction are typically very accurate and actual costs average about 95% of the estimate. Auxiliary groups such as Construction Services and the Autoclaves/Freezer program also provide cost estimates to the customer. Their accuracy is evident in the consistently high customer feedback these groups receive from the customer once work has been completed.

The Facilities Projects group has developed a project estimating template (see Exhibit RR) for the projects over $25K that includes all of the necessary components of the project including hard construction costs and related soft costs of design, equipment, moving, commissioning, etc. The template also includes notes for the Project Manager to consider as the estimate is developed for completeness. The Facilities Project group has also outlined 3 basic estimate types that range from a “detailed estimate” after concept design for a high level of accuracy, to a “ballpark/magnitude of cost estimate” that has a low level of accuracy. The process is outlined in the “University of Colorado Denver – Project Estimating Process” (see Exhibit RR). These two estimating tools have helped bring a consistent approach to design and construction for our customers and minimized surprises when construction bidding occurs. Facilities
Projects tracks original estimate and final cost on a financial spreadsheet (see Exhibit SS) and has a strong track record of coming in below the original estimate on the majority of projects.

6.6 Design guidelines that incorporate such elements as energy consumption, operating costs, environmental concerns, maintainability, sustainability, accessibility, and safety have been prepared, updated, and are utilized.

Using consultants and staff, the university has prepared the “Guidelines and Standards for Design and Construction Projects Manual” (see Exhibit N) which is accessible through our internet portal. This document is all-encompassing and very detailed, and identifies the university’s expectations to the external design community. The document references codes and standards, prescribes specific university needs (including operating and maintenance objectives), and in some cases identifies sole-source equipment and manufacturer providers.

As a project requirement, the university has committed to developing all new capital construction projects as LEED-Gold certified, in cooperation with State objectives. All aspects that are included in the Leadership in Energy and Environmental Design certification of new buildings is enthusiastically pursued in department management processes.

6.7 The delegation of budgetary responsibility for management of sub-units of the budget is effective in controlling expenditures.

Each supervisor and above is assigned an accountant to handle any day to day questions on their specific financial responsibilities. Each month, the directors and assistant directors are given a report showing budgets versus actuals. Each accountant reviews the areas under their responsibility for variances and potential issues. Central finance also has flags in place through the system to identify any control issues.

Spending controls are in place for various categories of spending. For credit cards, employees have to apply and go through training to obtain a purchasing or travel card. Each month, any spending related to the card is reviewed by their immediate supervisor and a receipt has to correspond to each item. The central Procurement Service Center monitors the supervisor activity to ensure all receipts have been reviewed and all activity is related to the University.

The CU System has a procurement system where each requisition is reviewed by two accounting people and then reviewed at the system level.
Section 7 PERFORMANCE RESULTS

The facility organization’s performance can be assessed through campus appearance; employee satisfaction and motivation; effectiveness of systems operations; customer satisfaction; financial results; and supplier/business partner results. Where feasible, it is helpful to have measurement tools in place to assess performance in these areas.

The University of Colorado Anschutz Medical Campus and the FM staff take pride in their work and accomplishments, offering the best solutions to fulfill customers’ needs by providing a safe, efficient, and exemplary environment. By beautifully surrounding a former Army Hospital (Building 500 on the Colorado Register of Historic Places) with new technologically advanced and innovative facilities with several LEED Gold Certified buildings (Anschutz Health and Wellness, Bioscience 2, Fulginiti Center, and Pharmacy) the legacy of the past has been exquisitely interlinked with the vision for the future. Relocating and building this breathtaking campus required establishing strong partnerships with our affiliate hospitals, other educational institutions, community entities (including the cities of Denver and Aurora; the Regional Transit District; Colorado Department of Transportation; Fitzsimons Redevelopment Authority), as well as numerous suppliers and businesses in Colorado and beyond. The transition from the old campus and development of a new campus utilized the skills of a team of highly motivated and dedicated employees supporting multiple campuses with seamless service.

7.1 The appearance of the buildings and grounds is in keeping with the surrounding community as well as the desired image of the institution.

CU Anschutz Medical Campus Medical Campus has created an environment that is welcoming to visitors and the surrounding community with a beautiful appearance and layout of the buildings and grounds. The overall design has taken the best of the historical past using Building 500, built in 1941, as the center of campus and adding numerous new buildings to support the institution’s mission of education, research and patient care. In an effort to preserve the open space/pedestrian oriented campus and vegetation, as new buildings are constructed healthy trees are transplanted to other locations and new vegetation added to enhance the beauty of the campus, including a wonderful art-filled walkway through the campus. The beauty of our campus was a major attraction for our two affiliate hospitals, the University of Colorado Hospital and Children’s Hospital of Colorado, both of which relocated to our campus, constructing new facilities and resulting in a massive growth in the number of visitors. In addition, the Veteran’s Administration chose the Anschutz Campus to build the newest addition to the VA Medical System, which will open its doors to new patients beginning in 2018. To manage that volume increase, we have worked closely with various entities to create light rail stops adjacent to the campus and to expand our shuttle service in conjunction with the hospitals. We are proud of the fact that the appearance of buildings and grounds not only equals, but exceeds that of the surrounding community.

7.2 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 FM team understands the importance of first impressions and the significance of visitor perceptions. For that reason, the condition and cleanliness of facilities and grounds is a high priority for everyone in FM regardless of their role. APPA Level 2 has been established as the quality standard with the
expectation of achieving an even more pristine result. The grounds and custodial teams are always seeking to improve and reach a level that creates an environment to enhance the mission of the institution – education, research and patient care. A great deal of pride and effort has been placed in creating a green environment through LEED certifications, green products whenever possible for both custodial and grounds work, and a progressive pest management program dedicated to the health and safety of the campus community as well as minimizing any adverse environmental impact. Quality assurance is culturally engrained in our programs, with the Customer Service Center receiving calls and emails from members throughout the campus community. The MAXIMO work order system allows every request to be tracked as well as preventive maintenance schedules to be implemented. Zone Proctors, Building Proctors, and management staff inspect areas on a regularly scheduled basis to ensure the highest level of quality. Every visitor instantly sees the exceptional results, which is a great accomplishment for the FM staff.

7.3 Building systems and infrastructure are maintained and operated at a level of reliability that contributes to the successful implementation of the institution’s mission and programs.

CU Anschutz Medical Campus has the unique challenge of maintaining building and infrastructure that span 75 years and myriad missions. Seven buildings are early-1940s vintage Army, one being a hospital that has now been converted to our primary administration building. The challenge has only intensified as we have built world-class academic and laboratory buildings that support critical research involving a variety of hazardous chemicals and pathogens. No two buildings are alike and every day brings new and unique scenarios to our maintenance and operations teams. In addition, our utility infrastructure supplies and supports mission critical patient care to two of the Rocky Mountain region’s largest, premier hospitals. The clinical component, community outreach, medical research, and academic programs ARE the mission of the University.

CU Anschutz Medical Campus strives to maintain, and achieves in our results, APPA Level 2 standards of building maintenance. This represents a comprehensive stewardship level of care and maintenance aimed at providing exceptional service and reliability in our facilities and utilities. This is supported by the universities investment in capital renewal and is achieved through diligent planning and the passionate execution of our staff (see Exhibit YY).

Finally, it is evident from customer feedback that the occupants of buildings across CU Anschutz Medical Campus have a high level of confidence and trust in the service they receive from FM staff. They are proud of the environment we maintain. We are confident the conditions and appearance of campus buildings and infrastructure are at or above the vision of the University and its mission.

7.4 Funding resources are effectively used and are adequate to support a level of facilities maintenance that prevents the deferral of major maintenance and repairs.

CU Anschutz Medical Campus medical campus has a variety of funding sources to ensure we prevent major unplanned maintenance and repairs. The largest source of funding support comes from our capital projects and we strategically incorporate major infrastructure work along with the more cosmetic renovation upgrades of space. This strategic and comprehensive approach to renovations prevents multiple disruptions to space and creates a better working environment for our campus customers as we
update systems. It also takes care of our backlog of deferred maintenance. Our next biggest funding source is the State of Colorado and the Office of the State Architect, which offers annual funding for controlled maintenance funding for institutions of higher education. We have an ongoing program of facilities condition index audit of all our buildings to identify deficiencies. We prioritize these deficiencies into a Controlled Maintenance Request (see Exhibit TT), submitted annually, and typically have 2 significant maintenance projects funded each year. In addition to the controlled maintenance list we keep a real-time Deferred Maintenance Projects List (see Exhibit UU). We have successfully used this list to justify the next level of funding that includes annual one-time funding for significant maintenance from campus leadership. An analysis of the past two fiscal years’ planned capital funding and maintenance budgets shows we were provided with annual funds equivalent to 1.0% to 1.15% of our building and infrastructure’s current replacement value.

7.5 Staff is highly motivated and productive, taking pride in the accomplishment of their duties.

During the hiring process, FM strives to recruit those individuals with the required skills to perform the job who are also self-motivated and able to add value to the team. The FM Onboarding process and the CU Orientation process are just two of the ways utilized to help the new employee gain an understanding of the culture and expectations of the department and institution.

FM strongly values training and development to create an environment that fosters highly motivated and productive staff. FM also promotes from within whenever possible and has a well-established succession planning process. Supporting these practices are two training professionals and support staff to ensure every opportunity is made available to individuals to prepare themselves for future promotions. The recently established Facilities Management Certificate Program not only helps to achieve our staff development and promotion goals, but also provides consistency across the management team.

FM as an organization celebrates accomplishments through the Employee Awards Program, a variety of departmental events, and support for involvement in related national and regional associations such as APPA and IFMA. Positive feedback from customers is a frequent occurrence and employees take pride in their work and accomplishments. One example is the production of the Spring Commencement activities. The FM staff come together to help create extraordinary events for the graduates, their family and friends, and the faculty and administrators. This is one of FM’s shining moments each year and the team of employees involved demonstrates a level of excellence that is noticed and appreciated by everyone.

7.6 Customer satisfaction measures ensure that the levels of service are consistent with customer needs and requirements and within the facilities department’s capacity.

FM has integrated numerous devices and tools to help determine the overall quality of the services provided, improving practices in response to customer feedback. Goals, objectives, and measurements are clearly defined with expectations that reflect the university’s mission, vision, and values. The online work order system, Maximo, managed by the Customer Service Center (CSC), provides immediate feedback to the customer as well as status updates. It also provides a way to track recurring issues and categories of requests by location. Being able to review the history of a recurring issue is an excellent decision making tool as to whether changes need to be implemented for a long-term resolution.
FM also uses a multitude of unit-specific customer satisfaction surveys to encourage the campus community to contribute by sharing information and customer experience with the services provided. Customer responses allow FM to make changes to programs in line with their expectations. FM has a strong philosophy of making personal contact with the customers and meeting with organized groups in the campus community. These meetings and interactions not only open lines of communication and build strong relationships, but also ensure that customer needs and requirements are being consistently achieved at a high level of quality.

7.7 Managers and supervisors stay in touch with the needs of the education enterprise.

For managers and supervisors to stay in touch with the needs of the institution and customers, several factors are important. The university’s commitment is not just to teaching, research, and patient care, but also to shaping how these activities fit together as part of a community. FM leadership embraces the philosophy that the creation and discovery of knowledge must, where appropriate, be applied to the needs of communities and society. For FM that means open communication with customers, which includes teaching and research faculty, staff, students, visitors and the surrounding community. Beyond communication, “staying in touch” also means being involved in current issues and projects, providing vital input into the strategic planning process, and anticipating the needs of the institution and the community in order to be ready and prepared for an ever changing future. Learning from the past, being on the pulse of the present, and anticipating the future is a tall order; however, FM leadership must deal with this daily in order to contribute to the ongoing success of higher education, the university as an entity, and society as a whole.
Section 8 OTHER CONSIDERATIONS

At the request of the institutional representative this section would include any items or subjects that are not covered by the criteria in Sections 1 through 7. These items may include those things that are specific to the campus.

8.1 Unique History and Development Opportunities

The Anschutz Medical Campus of the University of Colorado has a unique history including a major transitional period that required significant Facilities Management staff involvement in order to successfully construct new buildings and relocate programs and staff from various locations, primarily the Denver Metro Area. Below is a synopsis of that period of history from the 1990s to 2007. More detail is available on the CU Anschutz Medical Campus Medical Campus website.

In the early 1990s the medical campus, located at 9th Avenue and Colorado Boulevard in Denver, identified a need for additional program space for the existing and growing academic and research functions. During the Master Planning Process, it became apparent that there was a need for additional space to accommodate the needs of new and expanding programs. By 1994, the medical campus had outgrown its facilities. Surrounded entirely by residential neighborhoods and six individual neighborhood associations whose residents were concerned with parking and congestion, it became clear that developing a facilities expansion plan to suit everyone involved was very unlikely.

The University began to explore and assess potential expansion space at recently closed facilities such as Lowry Air Force Base, Stapleton Airport, and Fitzsimons Army Garrison. A request was submitted to the Department of Education and the Fitzsimons Redevelopment Authority in 1997 by University of Colorado, University Hospital and University Physicians, Inc. for 186 acres at Fitzsimons, in Aurora. In September 1997 the application was approved with a phased conveyance plan.

The Anschutz medical campus development presented the University with an opportunity to compete and prevail as a top tier health professions education, research and clinical campus. The Institutional Master Plan for the new campus, approved by the University of Colorado Board of Regents and the Colorado Commission on Higher Education in 1998, provided for the CU Denver campus to expand from its 9th Ave and Colorado Boulevard campus to the Aurora campus site.

At the core of the 1998 Master Plan was specification of a phased construction program totaling approximately nine million square feet of new program space and associated infrastructure for the medical campus, University of Colorado Hospital, and affiliate institutions.

The unique opportunity and the compelling vision of the academic health center of the future have made the medical campus project a model at the national level for base closures across the country. The endeavor is not simply an economic development effort on the part of a local community, but one that will also benefit the entire nation.

In the decade following 1998, supported by federal, state and philanthropic investments of over $2 billion, the former Fitzsimons Army Garrison site was transformed into a premier academic medical center with nearly 7 million square feet of research, education, health care and administrative space. The relocation of the medical campus was completed in January 2009. The University of Colorado Hospital and the Children’s Hospital have also successfully relocated to the Aurora site. The future relocation of Denver’s
VA Medical Center to new facilities currently under construction at the Anschutz campus, will further improve the synergies and productivity of the only academic health center in Colorado and the largest between Chicago, Texas and the west coast. The medical campus positions basic and translational research, educational and clinical facilities all within walking distance. These synergies encourage a culture of collaboration among investigators, educators, and clinicians that is invigorating the academic health and research enterprise. The campus is enhanced further by the adjacent Colorado Science and Technology Park in which industry partners and start-up companies are located.

8.2 Event Management System and Energy Savings

The Event Management System (EMS) that was referenced in Section 3 deserves to be described in more detail. Prior to the development of EMS, space could be reserved for various university events. While space was scheduled, all other services had to be requested individually. Often, the event organizer failed to include all the necessary components for a successful event. Typically, what was missed was reserving parking, arranging for space to be unlocked, and housekeeping for events with food. The first call made after the event usually would be the event organizer to Facilities Management complaining about the lack of services provided for the event. There had to be a better way to help the university community with organizing events. Research was conducted and it was determined that the space reservation system had far greater capacity than what was being used.

In the summer of 2013, FM led a training and implementation effort for EMS for the two campuses. The new system allows any staff, faculty, or student to request an event location, and at the same time coordinate setup, custodial, and parking support needs for the event, along with other options. The system is very user-friendly and makes the University space a more open environment for any of our customers to use.

Along with EMS increasing the customer service level for our customers, it also has improved the level of service FM gives to our 3rd party vendors and internal departments. Each month, a report is generated to our Parking and Custodial companies and they use it for billing purposes. We are better able to track the department’s setup crew and make better recommendations on staffing levels. The internal departments are able to use their expense accounts to make coordinating events easier and faster.

As advantageous as this comprehensive system has been since implementation (for example, calls for services have nearly been eliminated) there has been some resistance to using the EMS. It is not the intent of the FM department to restrict people from going into empty conference rooms for impromptu meetings or events. However, the EMS system also helps prepare a space for an event if the event is set up in EMS. That is where the energy component becomes important.

All class rooms and conference rooms have been retrofitted with occupancy sensors, for both movement and CO2. Events scheduled in EMS will automatically trigger the building automation system (BAS) to raise or lower temperatures in the room to accommodate the event. If the event is not scheduled in EMS, the sensors will acknowledge presence and the BAS will engage and bring the temperatures to accommodate the event within 10 to 15 minutes. When people leave the room, the sensors will notify the BAS system to resume the unoccupied mode. This energy savings component is sort of like the carrot and the stick, promoting more use of EMS for scheduling. The energy savings has been calculated to have less than a two-year payback.
8.3 Equipment Monitoring and Circuit Management

In 2004 an ultra-low temperature (ULT) freezer failed resulting in a loss of about $1.5M and years of research. Unfortunately, this was not a very rare occurrence and as losses mounted, the chancellor requested solutions to the problem. The solution turned out to have a number of parts that complement one another. The first component is the security monitoring system backbone that has been placed throughout research areas and allows equipment to be connected for 24/7 monitoring. Researchers provide lists of responders to Electronic Security so a text or page can be sent by the system to those on the list for their immediate response. The policy that was developed is Exhibit VV.

The second component is a circuit management program that inspects all circuits within the research zones to balance power loads on those circuits. Additional circuits are added when necessary and outlets are tagged for use or non-use, depending on the load placed on that circuit. The inspection process helps researchers identify available circuits for their critical equipment. The electrician also records locations of all equipment and maintains an electronic record of each one, which currently numbers in the thousands. This information is then forwarded to our risk management department for insurance purposes. Another benefit of the inspection is to find and remove power strips that pop up from time to time to make more outlets are available, which defeats the purpose of circuit management.

The third and last component of the program is the maintenance of the ULTs and other critical equipment. The FM department has trained technicians in maintenance and repair of various brands of ULTs. These technicians also maintain a variety of spare ULTs and freezers throughout the research zones so that, in the event of an emergency, a researcher can relocate the contents of the ULT or freezer to one of the spares that are owned and maintained by FM. This program has reduced research losses to a minimum.

Over time, the majority of the researchers understand the value of the Circuit Management program and are very appreciative of all the effort taken by our FM staff to prevent the loss of any research. Most researchers, coming from another facility or state, note this is a unique service and did not have anything to compare to it from previous positions.

8.4 Campus Shuttle System to Promote Public Transportation and Reduce Parking Demand

In 2014 Facilities Management applied for and was awarded a federal Transportation Improvement Program (TIP) grant through Denver Regional Council of Governments (DRCOG). The $1.5 million grant will be used to purchase buses, equipment and hire drivers to run a new shuttle bus service from the Regional Transportation District (RTD) Light Rail R-Line stop on Fitzsimons Parkway into the Anschutz Medical Campus. The shuttle service will begin operations in late December 2016 concurrent with the opening of the R Line. It will be a free, seven-day per week operation for the entire community’s benefit. The route will run through campus making stops at key locations near the hospitals as well as university buildings.

To promote the use of public transportation, the university offers an RTD light rail pass for all full-time university faculty and staff for $25 per month. This pass, if purchased individually and directly from RTD, would cost $173 per month. Encouraging faculty and staff to use alternate modes of transportation, such as buses and light rail also helps reduce traffic on and around the campus, reduce greenhouse gases, and delay the development of new surface and garage parking structures. The students also have a similar
pass for public transportation, called the Student Pass, that they assessed themselves a fee to pay for the cost and offer the pass to each student.

8.5 Gas Purchasing for the Central Utility Plant

Gas futures are purchased in thirds based on historical needs and future demands. Two thirds of the gas supply are purchased up to two years in advance to stabilize the utility budget, while the last third is purchased at the monthly index price. While the monthly index pricing is variable and there is some risk that this cost could skyrocket, usually the monthly index will yield favorable pricing so that the net effect on the cost of gas becomes somewhat lower, reducing the cost of steam that is produced and distributed throughout the campus. This has resulted in $4M in gas savings over the 8 years since implementation.

8.6 Management Certificate Program

In the 2015 annual FM Employee Climate Survey (discussed in Section 5.9), it became clear that there was a need for greater consistency across management staff; this seemed to be affecting employee morale. With the FM department’s philosophy of staff development and promoting from within, not having a formalized management training program was creating some inconsistencies and challenges across work groups. Although an individual may be an outstanding performer in his/her trade, the transition to supervisor/manager can be a difficult one. Working with Human Resources, the Ombuds Office, and outside resources, the FM Training Manager developed a Management Certificate Program, which was reviewed and finalized by the FM Executive Management Group. Sections 5.6, 5.8 and 5.9 above describe aspects of this program in more detail. The training courses officially began in spring of 2016 and since then approximately 200 FM participants have attended 15 courses. Additionally, there are some employees who are close to completing the program requirements of 7 Core Courses and 3 Electives. Some of these courses were open to other agencies for their employees also to participate, which provided a good exchange between institutions as well as an opportunity for others to gain knowledge and skills.

8.7 Special Events Committee

With state funds dwindling and the ability to reward employees with significant monetary awards virtually impossible, leadership for the department created a special events committee to create events throughout the year for employees where they can come together to engage in extra-curricular activities with one another, and in some instances, family members. The committee sends surveys out several times per year to gauge interest levels of employees for events. Standing events include the annual CU Facilities Management Golf Tournament where employees from all four CU campuses are invited to participate in a friendly golf tournament with their peers; the CU Anschutz Medical Campus Golf Tournament hosted and coordinated by the FM department where employees and their families from the CU Anschutz Medical Campus community gather to play golf; the FM annual Car Show; annual FM Chili Cook-Off and Pumpkin Carving Contest; annual Thanksgiving Holiday Food drive where the department sponsors dozens of families through a local charitable organization providing much needed clothes, toys, personal items, and food for needy families in the area; Friday afternoon lunch BBQ events in the summer where we cook hamburgers and brats for the staff during the lunch hour; and our annual holiday event which ranges from milk and cookies to full blown Vegas-style fun. All of these events are funded by the committee’s fundraising efforts throughout the year. This committee exists to foster good-will between
employees in the department and the leadership team, but also to foster good-will between FM and the campus and surrounding communities.