

November 20, 2018

Facilities Services FMEP report response

The external review of Facilities Services was a productive exercise and provided valuable information. The Facilities Services leadership team has carefully reviewed the report and created a response plan so we can use the information as we continue to focus on improving our operations.

The FMEP report and the FS response are divided into sections:

- 1.0 Leadership
- 2.0 Facilities Strategic and Operational Planning
- 3.0 Customer Focus
- 4.0 Assessment and Information Analysis
- 5.0 Development and Management of Human Resources
- 6.0 Process Management
- 7.0 Performance Results

We have provided a response to the key findings and suggestions in each section.

Section 1 - Leadership:

Facilities Services leadership and staff take great pride in our organization and our focus on service. We embrace our mission to operate and maintain facilities in support of the teaching, research and public service of the University of California. The department has faced many changes and challenges over the last several years including budget reductions and several leadership shifts which have affected morale and efficiency. However, we feel we are on solid ground at last and are eager to build on what we've accomplished so far so that we can support the campus as it deserves.

FMEP suggestion: *Restructuring and consolidations of the Leadership Team functions is recommended. This change would include two Director Positions; Director Operations and Maintenance, and Director Administrative Service. One of these two directors would be designated as the deputy to the AVC. Both directors would report to the AVC.*

FS Response: For the last several years, Facilities Services leadership has been focused on restoring stability to the organization. We feel it is crucial that the department have a sustained period of consistent leadership. While this suggestion might be an effective change in the future, it would be detrimental to the department now since it would disrupt the leadership team and the structure of the department. We will revisit this suggestion in the future. In the meantime, the AVC will bring the leaders of each subject into campus discussions so that continuity can be maintained and that person can be the deputy for the subject area.

FMEP suggestion: *When it comes to core-values we find that many organizations most generally need to review and to document existing organizational values. There is a need to develop and communicate these statements for achieving a shared understanding beyond the leadership team levels of the organization.*

FS Response: Developing a strategic direction and communication strategy is a major goal for FS leadership and we feel we have laid a solid foundation for doing so. Facilities is a

large and complicated organization and we want to make sure we develop our strategic direction through an inclusive and collaborative process. We plan to engage an external partner to help us with this effort so we can develop and articulate our mission, vision and value statements.

FMEP suggestion: *The review team understands the difficulty in gaining traction on communications while in the midst of major leadership changes. And we applaud the work that has been done to establish internal and external communications. Yet, there remains work to be done in communicating top to bottom within the FS organization and communicating with campus customers and stakeholders on numerous services, and policy. It is recommended that FS leadership consider an internal communications audit of FS staff.*

FS Response: Communication is a constant challenge. FS leadership is committed to the concept of open, shared communication with both internal and external constituents but it has been difficult to develop effective methods for communicating in a place as multifaceted as UC Berkeley. We are pursuing many options such as improving our website, providing internal newsletters, and more comprehensive stakeholder meetings to find ways to reach our colleagues and customers effectively. We have engaged Gallup for employee surveys and will include a communication component.

FMEP suggestion *FS leaders should consider action within institutional policy to mitigate the risk of vacancies in critical positions. Success in this area requires having the right people, in the right place, at the right time. In accordance with institutional policy, FS is encouraged to continue its practice to develop a workforce plan that will identify the critical positions and advance an approach for identifying and developing the right individuals into those key positions. A practical approach is recommended that allows for a total assessment of the most critical position needs of the organization and the development of a plan of action to address the needs. Also, a leadership development program specific to the facility management profession for those in Supervisory, Management, and Leadership positions should be pursued.*

FS Response: The budget reductions within FS over the last many years have led to an over-reliance on a single staff member for many critical positions. FS is aware of the risk this creates for the campus and is taking steps to reduce it. We currently have an informal plan for successor development in which likely candidates are given development and promotional opportunities. However, we feel that a more formal process would be helpful and intend to develop this. Our concept is that each unit would identify the necessary key skills and knowledge for their critical positions. We would then develop a training program for and career path into those key roles. Our trade staff is particularly hard pressed to find successor candidates so we are developing entry-level programs to develop qualified candidates internally. We are especially interested in fostering a career path from our custodial staff to our trade groups.

Section 2 - Facilities Strategic and Operational Planning

Facilities Services takes its responsibility to provide adequate service to the campus very seriously. However, our ability to do so to the level which we'd like and campus expects is complicated by both internal and external factors. Internally, we have labored under an obsolete work tracking system which,

coupled with staff limitations due to budget reductions, has made it difficult to be as effective as we should have been. External factors such as frequent leadership changes, increasing complexity and size of the campus and insufficient investment in both deferred maintenance and ongoing maintenance and support have also impacted FS' ability to be effective.

Facilities Services is tackling our internal issues. We have implemented a new computer system to allow us to track and manage work more effectively. We are developing internal processes for better scheduling and coordination of work. We have focused on being competitive for hiring with the external market so that we can attract and retain qualified staff. And we have attempted to make a compelling argument to campus leadership for the necessary financial support.

External factors are, of course, harder for us to alter but we strive to provide service to the campus at a level which supports the campus' mission while adjusting to the environment in which we operate.

FMEP suggestion: *The review team believes that FS would benefit greatly by establishing APPA service-levels for these three core-services based on resource availability and a more clear determination of specific customer needs. Also, as conditions permit, higher service levels should be targeted for continuous improvement of these services for efficiency and effectiveness goals as well as for restoring services and service frequencies that were sacrificed because of budget cuts.*

FS response: FS is in complete agreement with the suggestion to develop APPA service levels for adoption by campus leadership. We intend to provide the campus with information about the level of service which can be provided with the current resources as well as the cost for higher levels of service so that the campus can make an informed decision about what it is able and willing to support. The process for having these discussions, who should be included and how the result will be communicated to the campus will be a critical element of this and will need to be developed with campus leadership.

FMEP suggestion: *FS would benefit from the adopting a practical, coherent, and sustainable strategic process for strategy development and strategy execution. Rather than developing a laundry list of "to-do" things, it is recommended that FS focus on identifying truly strategic initiatives-the things that matter most for successfully achieving the FS distinct mission. This mission clearly emphasizes a customer focused purpose, in the design and delivery of Operations and Maintenance services. . Both of these program responsibilities require a clear and concise strategy and intensely focused strategy. FS cannot continue to try to be all things to all people on campus and must do a better job in strategically identifying the things that it can do and the things that it cannot do. Strategy for FS is as much about things that it will not do as it is about things that it will do.*

FS response: FS agrees with the suggestion to develop a strategic process with a focus on a core mission. We plan to engage an external partner to develop an effective process so we can collaboratively develop and implement a guiding strategy. Discussion about what FS can and cannot provide will be a part of this process and FS will work with campus leadership to communicate the result.

FMEP suggestion: *The review team did not find that a Total Cost of Ownership (TCO) concept has been adopted and practiced. Adopting a long-term stewardship approach to the planning, design, and*

construction of campus facilities requires a collaborative approach of all parties involved in the capital processes. It is based on a comprehensive perspective of the total financial and operational impacts that a facility will have on the institution from cradle-to-grave. This comprehensive perspective of building ownership is especially important in situations where over the years, faced with rising costs and budget constraints, institutions have tended to either underfund or fail to fund the operating costs of new facilities.

FS response: FS strongly supports the suggestion for a TCO approach for campus facilities to be implemented by all campus units responsible for the creation and management of campus facilities. This has been a focus of FS' internal operations and was an important reason for the development of the Asset Management unit. Their responsibilities include the gathering, tracking, analyzing and reporting of facility data including cost of ownership. This information will be shared with capital project managers and decision makers. The campus will need to prioritize using this analysis to inform decisions regarding capital investment.

FMEP suggestion: *We strongly recommend that FS hire a third party that specializes in Facility Condition Assessments. The review team also recommends that FS carefully examine its capability and capacity to manage all aspects of the Capital Renewal/Deferred Maintenance program and to carefully consider the resource needs and competencies required to align with the operational aspects of the ICAMP program.*

Typically, many of the high priority DM projects which can be considered maintenance and repair projects can be expedited and managed most effectively by FS because of knowledge of existing building conditions, its construction inspection capabilities, customer relationships, and the ability to effectively coordinate shut-downs, and schedules to avoid and/or minimize disruption to campus academic and research programs. It is recommended that FS request the necessary resources to increase its organizational capabilities and capacity to implement this role and responsibility effectively.

FS and the campus would benefit substantially by developing the capability and capacity in the organization for understanding and developing of a credible methodology to determine in advance what a new facility and what a major renovated facility will cost to operate and maintain for the projects life expectancy. This is an appropriate role and responsibility for the revised tasking of the Asset Management group.

FS response: FS is plays a central role for UCB in UCOP's ICAMP program. Through this program, all ten campuses will gather and assess asset condition using the same information, assumptions and process. FS Asset Management is responsible for coordinating this effort for the Berkeley campus. Our ICAMP manager coordinates the program and the regional Asset Managers assist the effort. The FCA condition assessments will be done by a third party company procured through UCOP. FS is focused on making sure this effort is effective and productive and provides information for informed decisions for facility investment.

FS is interested in having a more central role in CR/DM projects in order to facilitate the rapid execution of these critical projects. FS is in agreement that many DM projects are most appropriately done by FS given our role on the campus. While we do not, at this time, have authority to execute projects, our staff, especially in Asset Management, have been looking for

opportunities to collaborate more effectively with Capital Projects about CR/DM projects to make sure they are scoped and executed efficiently and in the best interest of the campus.

One of Asset Management's core roles is to develop long term facility operating and renewal costs for campus assets so the information can be used to inform decisions, especially regarding capital project investments.

FMEP suggestion: *Communication during utility interruptions needs to be improved according to customer interviews. Roles and responsibilities for all who are involved should be defined including utility staff, customer service in FS, and contractors and customers. One goal of this effort should be to free the utilities maintenance staff resolving the issue from complex communication responsibilities. FS leaders should meet with its various primary customers to get feedback on its effectiveness on communication during campus outages. These discussions should include a more clear understanding of the customer's needs and expectations during outages. Campus customers who participated in this review were not happy about communications and response on past outages. Surprises associated with emergency power not being available for research areas seemed to be particularly problematic. Customer knowledge of which circuits in their research space are on emergency power is inadequate and FS may want to consider specifying this issue for special communication attention with research departments. An assessment of risk of research materials would benefit all parties.*

FS response: FS and a recently affected department partnered on an emergency response plan with a communication tree. The plan requires preplanning by the building managers to identify a limited number of circuits which need FS to provide back up power to in an emergency. FS will work with building managers to communicate this plan so that adequate preplanning can be done and communication responsibilities can be jointly understood.

FMEP suggestion: *In times of budget constraints and reductions, the review team members have found it helpful to employ a zero-based budget process. The FS budget process should become a strong advocate for improving FS core services. This can be accomplished by carefully articulating the service levels that can be achieved and the financial resources required to sustain services. A critical discussion should take place about budget resources and the University administrations "tolerance for risk" of the core service levels. To a large extent, this tolerance will determine budget allocations and impact directly the quality of services that FS will be able to offer. Fs can do a better job of understanding the true cost of its core services.*

FS response: FS has used an expense focused, zero based budget process for several years. Each operating unit analyzes its operations and expenses and works closely with the Business Manager to develop and adhere to an annual budget. FS leadership has been looking for all opportunities to communicate about the impact of budget decisions on the campus operations and would welcome the chance to align the FS budget with the campus' expectations of service and tolerance for risk.

FMEP suggestion: *Although FS is in the process of implementing a centralized permit office to help provide more rigor and input in the plan review process and to better manage the intake and storage of documents, much more needs to be done. The most successful project managers in educational facilities are those who have discovered the richness of the body of institutional knowledge that lies within the*

operations and maintenance, and utilities staffs. Institutions achieving the highest levels of success are those that have developed enabling procedures and processes that tap into operating staffs as resources for reviewing plans, developing standards, and commissioning buildings.

Commissioning, in particular, has served the needs of users and operating staff by ensuring that facilities are built systematically to comply with campus standards of quality and serviceability. The days of working the bugs out of new facilities for the first four seasons of operation are disappearing on those campuses where operation and maintenance staff work side-by-side with project managers.

FS response: FS feels strongly that the process for developing projects could be improved to better incorporate FS knowledge and maintenance needs into projects from the beginning. FS proposes that the planning phase be reinvigorated to include FS input and TCO considerations prior to finalization of scope and budget. The permit office, as a central repository of project information, is intended to facilitate this kind of collaboration. Commissioning is something which FS fully supports and would like all projects, not simply new buildings, to include and complete commissioning prior to project close out. FS would want to be part of the commissioning process throughout to facilitate better turnover and building operation

Section 3 - Customer Focus

Facilities Services is committed to being a better customer service organization and we understand the need to prioritize this in our operations. As the report notes, lack of resources has been a barrier to effective service but there are many areas in which our internal processes were a significant problem in themselves. We are working diligently to identify and address where we can improve within our current resource level. Initiatives like implementing Maximo to replace our archaic work management system, utilizing Promapp to refine work processes, developing a coherent departmental strategy, improving our website, meeting more frequently with campus stakeholders, developing asset management processes and other activities are all part of our effort to improve our organizational capability.

FMEP suggestion: *Meet with subordinate FS leaders, particularly the trade managers and leads, to better understand their specific concerns with regard to safety and training. Collaboratively develop a plan to address their concerns.*

FS response: A strong safety culture is a high priority for FS leadership. We recently completed a pilot program in coordination with EH&S to restore the position of departmental safety coordinator. Building on that program, we are currently recruiting for the position of Facilities Services Safety Specialist in an effort to hire an experienced professional to guide our program so we can ensure our staff is supported and safe.

FMEP suggestion: *Develop and administer a comprehensive annual employee survey to measure levels of employee engagement and employee satisfaction. The survey should be professionally designed to understand and draw out employee perceptions about key focus areas.*

FS response: FS is contracting with Gallup to provide an annual employee survey

FMEP suggestion: Objectively examine current FS internal practices and process controls to identify significant contributors to poor performance that are within FS control. The review team felt that there are a number of opportunities within FS to improve performance that are not directly tied to increased resourcing. In particular: better work control and scheduling for maintenance; increased focus on preventive maintenance (reallocation of resources to PMs); minimization of travel time between campus and shops/warehouse; deliberate planning/prioritization of cleaning tasks that will/will not be performed under short-staff situations and more effective quality control checks on those tasks that are performed; more effective supervision of staff with respect to productivity and accountability; ensuring day-porters and special cleaning teams have access to cleaning supplies and equipment during the day; establishment and enforcement of consistent work intake and prioritization processes; improvements to onboarding process for new employees with respect to getting badges, keys, ID numbers, etc.; streamlining of process/approvals for ordering of parts; increased availability of most needed parts in warehouse; increased focus on fully implementing MAXIMO, particularly the time-saving, productivity enhancing features.

FS response: FS leadership agrees that there are many improvements which can be made to our operations. We agree with and have already begun to work on many noted here. For example, over a year ago we created a separate PM shop so that PM work could be protected from the demands of reactive maintenance. We are in the process of developing a scheduling group and methodology so we can more effectively plan and organize reactive work. We are implementing an inventory process for the shops so that we better track materials. We will continue to prioritize improving our effectiveness through clear and streamlined processes. However, some of the items noted here, such as improving key and badge access for new employees and the minimization of travel time are outside of our control. We will, however, work on those issues with the responsible parties.

FMEP suggestion: Examine the current roles and responsibilities of the asset management program and make necessary adjustments to clarify the programs purpose and refocus its efforts on true asset management tasks such as: maintaining accuracy of asset inventory (add/change/delete logs); management of asset documentation; establishing asset PM requirements; determination of asset criticality; asset condition assessment; establishing campus design standards, owner's project requirements, etc.; prioritization of capital renewal spending; among others.

Clarify the roles and responsibilities of the Customer Service Center, asset managers, and trade managers/leads with regard to customer service and communicate such to campus customers. There was a significant amount of confusion (both internally and externally) regarding these roles and their respective duties/responsibilities.

FS response: With the advent of direct customer access in Maximo, the AM are stepping back from the customer service role to focus on asset and cost data and ICAMP. In an effort to resolve internal confusion about the customer response process, we have developed a clear prioritization and escalation process which puts the CSC at the center of customer service and provides all parties with a shared process for responding to customer concerns.

FMEP suggestion: *Meet with the provost and college deans to better understand their specific concerns regarding the need for greater FS flexibility and collaboration when solving problems. Collaboratively develop a plan to address their concerns.*

FS response: AVC will continue to meet with the provost and deans to better understand and address their concerns.

FMEP suggestion: *Using APPA and/or other nationally recognized productivity standards as a guide, objectively determine what level of service can realistically be achieved given current staffing and resourcing levels in each functional area. Work with the VCA and a representative customer group to specifically identify and prioritize what work will and will not get done. Publish the results and hold work unit leaders accountable for performance. FS currently lacks credibility with its customers. Establishing a realistic baseline level of service (and living up to it) is critical to rebuilding credibility with customers and it is a necessary first step in determining the level of resources required in order to increase services to acceptable levels.*

FS response: FS leadership understands that we have a credibility issue and is focused on improving services to restore faith in FS. As the report notes, having an agreed upon service level is a critical step in achieving this. FS is already developing service models which are based both on available and aspirational resources. We intend to develop a process for communicating this to the campus so we can receive and incorporate feedback so that expectations can be aligned. We are also focused on providing better information to our customers about our services through such things as work order notifications, stakeholder meetings, improvements to work scheduling, and an updated website.

FMEP suggestion: *Consider implementing OS1 or some other recognized team cleaning system in place of the traditional zone/area cleaning approach currently in practice.*

FS response: We are currently focused on supporting a stronger concept of personal accountability and are concerned that converting to a team approach will undermine this effort. Furthermore, the custodial unit has been through too many management and operational changes to make this change now. However, we intend to look again at this once the custodial unit's operations are more stable.

FMEP suggestion: *Develop a rigorous and consistent customer service survey process associated with work order completion that measures levels of customer satisfaction. Implementing a periodic and random customer survey process for work orders is an excellent way of gauging customer satisfaction levels and learning about service delivery problems that you may not otherwise hear about. It is also a good vehicle for hearing positive feedback about service delivery and/or about the technicians performing the work. Subpar service or complaints present an opportunity to improve the organization, while compliments need to be shared with the entire FS staff. It is recommended that FS explore the available tools for customer work order surveys already built into MAXIMO.*

FS response: FS is very interested in doing having a survey automatically generate with a work order. We were able to do this with our old work order system but we were hesitant to include it in Maximo during the major implementation. Now that Maximo is more stable and our use of

it more mature, we intend to enable this function. While this Maximo change was pending, we focused on having the trade managers conduct quality assurance checks on completed work orders, inspect jobs and meet with customers about the work performed.

FMEP suggestion: *Develop and administer a comprehensive annual customer survey to measure overall levels of customer satisfaction. The survey should be designed to capture the customers' overall perceptions about the quality of service provided by FS in each functional area. Quality of service is generally defined as how well the department meets customer expectations in terms of timeliness, quality of work, cost, and communication. The survey should also capture the relative importance of each functional area to your customers, which is extremely helpful when making decisions regarding the allocation of limited resources. In addition to the quality of service assessment, the survey should also capture a general assessment of building condition and cleanliness (appearance, lighting, general repair of interior spaces and furnishings, cleanliness of spaces and restrooms, availability of restroom supplies, etc.), building comfort (temperature, air quality, odors, noises, water quality, etc.), and condition of landscaping and grounds.*

FS response: FS has engaged Sightlines to prepare and disseminate an annual survey which incorporates these questions. The first survey was released to the campus in November 2018.

FMEP suggestion: *Develop key performance metrics to measure the customer survey responses for each divisional unit providing service on a work order and for projects. Also, develop metrics to measure work order turnaround time, backlog including aging, number of completed work orders by FS including preventative maintenance. All these results should be regularly shared with managers and integrated into the performance evaluation process whenever possible.*

FS response: FS is very interested in identifying and measuring the appropriate KPIs to assess our progress in key areas. We are using information from professional organizations such as EAB and APPA, our own goals, the customer survey results and our Maximo capability to determine which KPIs we should select to measure our performance and how we will gather and analyze the information. We intend to also develop a process for communicating and acting on the results.

FMEP suggestion: *As staffing and resourcing levels begin to rise, focus new resources primarily on preventive maintenance efforts to increase the total percentage of work orders that are preventive vs. reactive in nature.*

Within the trade shops, develop and implement best-practice work scheduling to increase the percentage of work orders that are scheduled.

The Maximo software has significant capability for the prioritization, planning and scheduling of work orders. The current methods in use can be improved upon to maximize the use of the limited worker resources available to FS. It is especially important to maximize the use as new Trades staff becomes available and to not allow these assets to fall into current practice. To move a change process along it is important to map out new procedures, plan a roll out effort for the skilled staff and maximize use of MAXIMO. The addition of a Work Planner to the Skilled Trades group to drive the above process is recommended.

FS response: Improving our work scheduling and planning is a major goal for FS and we expect that this will, over time, allow us to shift the ratio of PM to reactive work in all our operations. We are planning to hire scheduler/planners as resources allow and are piloting scheduling practices in shops and custodial. Unfortunately, many campus systems are beyond the point where PM is possible or effective. FS' approach is to dedicate resources to restoring equipment that is beyond its useful life while also having dedicated PM staff for the equipment which allows for PM. Both together allow for more PM to be done on more equipment as part of our long term transition to being a planned maintenance organization.

FMEP suggestion: *Provide customer access to MAXIMO to allow them to electronically submit work orders, obtain status updates, and run reports without having to rely on FS staff to provide the information.*

FS response: This has been done for key customers to have direct access to Maximo. We will consider expanding this in the future. We currently do not have the resources to provide licenses or support services to expand this to the larger campus community.

Section 4 - Assessment and Information Analysis

FS is aware of the need to more effectively organize and analyze the data we collect. This has been a low priority during the implementation of Maximo over the last few years as that system significantly changes the data we are able to collect and analyze. The Maximo roll out has now progressed far enough that we can begin to rely on the data in it and have sufficient data to assess. In addition, ICAMP has started, Sightlines has finished its first year of analysis and we are able to use Promapp to develop our processes. All of this positions us well to respond to the suggestions in the FMEP report.

FMEP suggestion: *Continue Implementation of MAXIMO. Continue collection of data from other key sources. Develop workflow plans for key processes that are followed by FS shops and departments. Establish the key performance indicators that reflect compliance with work processes and strategic goals. Remember that KPI's must be understood by those that are using them.*

Failure to provide adequate system training leads to data gaps, misinformation, and ultimately a chorus of "we have a non-user-friendly system". This refrain is always an indication of a potential training issue. Remember training must go beyond the classroom and include on the shop floor and in the field coaching and mentoring. Make sure that users see the benefit of capturing and reporting correct information. If you can't tell them, chances are that you are not going to get what you need. AND never use information as a hammer or you will receive misinformation. More information on process is described below in Recommendation 4.2.1.

FS response: We are in the process of reviewing our existing KPIs and modifying or adding new KPIs as necessary. We intend to enable the tools in Maximo to allow us to use the information in it. We have also begun to use Promapp to document and clarify our work processes. We see this as a long term, evolving, ongoing process as we improve our use of the tools available to us. We are in the currently developing work structures which support using KPIs and expect our

KPIs to change as we figure out what we can meaningfully measure and how we can act on the data collected.

Regarding training, the comments and concerns described here are from early in the Maximo roll out when people were just grappling with using the tools. We have done a lot of work to train and raise the comfort level of all FS staff when using Maximo and have had success. Adoption is much higher and staff are starting to use and see the benefit of work notes, mobile work management, time capture on Maximo, labor reporting, more timely billing of clients, and improved client communication through automatic notices and the work log. As we continue to develop our competency with Maximo and enable additional functions, along with continued hands on training, we anticipate increased and more thorough adoption of the system by staff.

FMEP suggestion: *FS has not yet performed the fundamental work to align all the activities needed to determine Performance Indicators (KPIs) that are the best indicators of desired FS department performance.*

KPI development should be better focused and linked to FS strategic objective. There is a good deal of foundational work on process development that needs to occur.

FS response: We believe our next step as LT and managers is to determine our departmental goals which will determine the appropriate KPIs. We will be reviewing our departmental strategies and goals starting in January 2019 . As stated above, we will use these goals along with the information from the survey and our available data to develop KPIs which align with our strategic direction.

FMEP suggestion: *Continue use of Sightlines and seek out best practice among peers. In depth benchmarking can reveal work processes that are effective and sustainable. It is recommended that FS continue its participation in the UC P-4-P and that it restart its participation in the APPA FPI. APPA FPI is increasingly becoming more utilized but institutions as other third party benchmarking effort increase in cost.*

FS response: We agree that benchmarking is important and will continue to work with outside groups to benchmark our data. We do participate in P4P, will restart FPI and continue working with Sightlines

FMEP suggestion: *FS is currently rolling out customer service portal of the MAXIMO CMMS. The review team fully supports this effort and considers transparency vital to stakeholder relationships. The same transparency should exist in other services provided by FS. We encourage FS to expand the availability of information with its stakeholders as appropriate to their needs.*

FS response: Asset Management, FSIT and Customer Service worked together to provide client access to Maximo as of July 2018. We value transparency. We have provided access to clients and the reception is extremely positive. We are updating our website with more information and client resources. We are continuing our efforts to provide the information and access which our customers need

Section 5 - Development and Management of Human Resources

Facilities Services relies on our staff and FS leadership is dedicated to supporting them so they can effectively provide service to the campus. It's important that we create a positive work environment which recognizes hard work and provides opportunities. Employee morale has been negatively affected by the leadership changes and budget challenges which FS has endured over the last several years but we are seeing improvement and are optimistic that we will be able to sustain a better work culture and climate.

FMEP suggestion: *When administered well, a merit based compensation plan is an excellent mechanism for financially recognizing and advancing high-achievers in an organization as it rewards them for outcomes associated with creativity, innovation, teamwork, process improvement, strategic thinking, leadership (including and especially those that are independent of positional authority), and excellence.*

It is unclear if analyses of the trends and impact of the merit based compensation plan are being conducted. An important area for review is that of merit increases broken down by protected and unprotected classes so that potential biases can be discovered and eliminated. Calibration across work units and teams is also recommended to assure that managers are consistent in their assessments. Finally, reviewing the merit increases to assure that they are aligned with advancing FS strategic initiatives will provide positive reinforcement of FS goals.

FS response: Equity of salaries, with campus, internally and against the market, is a high priority for us and we have made every effort possible to provide an equitable and fair environment for all staff. We continue to monitor this and use the annual merit and equity programs to resolve any discrepancies within the resources available to us. We operate in a very constrained environment with represented staff, salary ranges, morale implications, equity, etc which makes it difficult to have a truly merit based compensation plan. However, we use every tool we can to provide financial appreciation of work including the merit and equity annual programs, award programs, reclasses, etc. For non-represented employees, merit increases are systemwide and performance based. Increases for represented employees are dictated by their respective collective bargaining agreements. Leadership calibrates across teams and across the unit.

FMEP suggestion: *Most individuals thrive in an organization that values teamwork, presents opportunities for individuals and teams to feel that they make a difference and effect positive impact, and enables people to feel that they are part of the mission of their organization. As such, a focus on increasing employee involvement and engagement in decision-making as well as recognizing and publicly celebrating and recognizing employees and teams for innovation are recommended as these will yield positive benefits in idea generation, innovation and creativity, customer satisfaction, employee productivity, and quality of work.*

FS response: We want to provide a chance for all staff to be heard and to share ideas and concerns. To do this, we have focused on providing opportunities for employee engagement and interactions through things such as the Workplace Improvement Team, Maximo champions, the Leads meetings, the Managers' meetings, Executive Safety Meetings, Operations meetings, Huddles, HVAC collaboration meetings, FS/CD meetings, and stretch and flex. We will continue to look for ways to create a sense of connection and teamwork in our department.

FMEP suggestion: *FS is to be commended for its decision to hire a training coordinator as effective training programs are critically important to creating a desired culture, ensuring that its staff is well-trained and prepared to effective, and advancing the mission of FS in its service to UC Berkeley. FS is in great need of a robust training and development program. As such, FS is encouraged to make training a top priority, including assuring that it is adequately staffing its training and development needs, which likely requires more than one training coordinator.*

FS response: FS recognizes that we have training needs throughout the department and that our training should be better tracked and coordinated. Currently, Maximo training is handled through FSIT, HR training is managed through HR, trades manage their training and safety training will be handled by the safety specialist. Custodial is hiring a dedicated trainer because of their high turnover. We also provide some administrative and basic skills training for all staff to make sure that we give them the skills they need. How to centralize and manage the tracking of all of this training is an ongoing consideration.

FMEP suggestion: *At the manager and frontline supervisor level, there is less evidence that collaboration, skill sharing, resource sharing, and communication occur outside their respective teams and units, and in at least one area, managers acknowledged that they infrequently engage with peer managers in their same line of work. While this is likely the result of the prior years of revolving door leadership and budget cuts from which FS is working to recover, this silo approach to managing work is very resource intensive, precludes the sharing of resources across units, increases stress in managers, supervisors, and employees, and leads ultimately to resource hoarding, poor productivity and work quality lack of pride, increased costs, and poor customer service. This is an area that needs significant intervention possibly including obtaining expert advice outside FS in developing a comprehensive, multi-faceted approach for addressing this issue for the entire FS organization. In order to build a culture in which working across units is rewarded and valued, training is needed that focuses on team approaches to providing services, sharing resources, solving problems, and supporting each other and other units. In addition, placing a greater emphasis on rewarding teams for performance, rewarding multi-trade or service efforts, and celebrating team-based successes over individual success would begin to shift the organization toward a resource sharing organization. Focus should be on rewarding proactive actions over reactive response, innovative problem solving, exceptional customer service, and initiatives that advance effectiveness, efficiency, and excellence.*

FS response: The different FS groups have traditionally seen themselves as separate and this is a challenge the FS leadership is very interested in overcoming. We need to create a sense that the entire operation functions as a team. It's a paradigm shift based on core values where the goals of the organization are paramount and the entire unit is expected to support those goals as a priority. Through rewarding this kind of thinking and providing opportunities to break down silos, we feel we can achieve this over time.

FMEP suggestion: *How new employees are introduced into an organization is critically important to gaining commitment to the organizational culture that FS desires to create and foster. While Berkeley has an employee orientation program, FS could benefit from developing and implementing its own FS-focused orientation and onboarding program for all new FS employees. This orientation should include comprehensive one to two day in-person sessions and training modules in which new employees learn*

about the FS organization, its mission and core values, and its key initiatives. It should include modules on topics that are common across a facilities organization such as safety, security, building access, sustainability, customer service, respectful workplace, work expectations, and the FS Code of Conduct. A 30-minute “AVC Welcome Session” is highly recommended as this presents an excellent opportunity for the AVC to meet and be introduced to new employees, and share with them the mission, values and key initiatives of FS thereby signaling the importance of these by the leader of the organization. It is recommended that any of the AVC’s leadership team who has new employees hired in their areas be included in this session, further strengthening the message and commitment from the top. This Welcome session could be expanded to include newly promoted employees as well so that new and advancing leaders can hear or continue to hear this messaging. The session could be scheduled to occur once or twice a month, thereby optimizing the time of the AVC and her leadership team

FS response: The entire leadership team now meets with new employees in all three shifts. We have also been developing better onboarding methods to make sure that new employees are introduced to the department correctly.

FMEP suggestion: *Some managers and supervisors in custodial services feel unsupported by HR in holding employees accountable for work performance and attendance. Most seem to understand the process of progressive discipline, but their real or perceived lack of support when pursuing discipline makes them highly unmotivated to take action. Some of this is possibly a result of earlier management issues within the unit. While this may be a perceived lack of support as opposed to real, the outcome is the same: supervisors and managers feel frustrated as a result of trying to take action, and employees are not being held accountable. Failure to hold poor or non-performing employees accountable leads to low morale for co-workers and teams, work unit stress, poor work productivity and quality, increased costs, and poor customer service, which are evident within some FS units.*

While compliance with legal requirements is non-negotiable, it appears that the campus may be unduly risk-adverse, erring on the side of caution and non-action. Managers and supervisors feel strongly that they need more effective collaboration with FS-HR to provide advice, support them in handling pre-determinations, help them in determine the type and level of discipline, take their input regarding disciplinary documents, and actively support them in general with all employee actions.

This real or perceived need for more support of managers and supervisors by FS HR needs to be addressed.

FS response: One of our ongoing efforts is to educate supervisors/managers in managing performance. We will continue to offer training sessions, working with central HR as necessary, to create a common and consistent definition of management and supervisory expectations across the department, ensure consistent understanding of HR policies and practices, and learn how those policies and practices play out in the workplace. We will continue to encourage Supervisors and Managers to provide early constructive feedback to employees when performance tasks or behavior becomes a concern. We are preparing procedural documents to ensure common understandings and shared information so that all managers understand the process the same way and can be held to the same expectations with clear cut standards. This applies to all employees and managers so that we are consistent and fair across all of FS.

FMEP suggestion: *Managers and supervisors could benefit greatly in FS-focused training and development programs that enable them to become more successful in their roles and which are designed to advance FS initiatives on managing poor and non-performing employees, increasing employee engagement, empowering decision-making, improving customer service, improving productivity and quality of work, growing a culture of safety, leveraging technology, and communicating effectively with employees and others.*

Specific to work expectations, the development of training modules that include case studies illustrating common problems and how to manage them such as tardiness, absenteeism, sleeping on the job, disrespectful workplace, and poor quality work would be useful.

FS response: We are in the process of developing trainings and documentation to provide real life guidance to our managers and supervisors.

FMEP suggestion: *It is essential to develop FS HR specific trends, metrics, goals, and strategies to understand and improve the effectiveness of existing programs, identify and correct emerging problems and to innovate when and where needed to assure that the organization is recruiting and retaining talent to meet current and evolving business needs. While FS HR tracks data, it is unclear the extent to which data are collected and analyzed, targets are established, and initiatives are developed to mitigate declining performance or advance FS strategic goals. It is also unclear who is responsible for developing and implementing initiatives.*

FS response: Hiring at UCB requires collaboration with many groups and is directly affected the health of the employment market in the Bay Area. While these goals stated here are laudable, many of them are outside FS' ability to influence. For example, time to hire is affected by the posting and approval processes of central HR and CSS. The ability to recruit talent is directly affected the salary ranges imposed by UCOP. Within these parameters, FS HR actively engages with managers to recruit effectively. FS HR will look at how to track the recruiting data more comprehensively so that we can adjust our processes to be more effective when necessary.

FMEP suggestion: *FS may want to reexamine its current organization structure and realign some functions. As noted in other sections of this report, some confusion currently exists within the customer base and within the FS organization concerning which area of the FS organization is responsible for planning, decision-making, and execution of work. Some services typically provided by a facilities management organization seem to be filled by building managers working for the schools and administrative units as opposed to FS. In addition, some customers rely on who they know in FS to get work done as opposed to using established work management processes. Even some FS managers acknowledged that they get work done based on who they know within the FS organization and knowing where resources are kept.*

FS response: Given its size and complexity, the Berkeley campus relies on having both departmental facility managers and FS. The building managers manage the occupants and their needs and FS manages the campus plant. Both are necessary and are complementary rather than duplicative. However, we have seen some confusion about responsibilities and process and are taking steps to address this. The use of work notes in Maximo is increasing which is improving FS' ability to coordinate our work effectively so that building managers don't have to

be involved. We expect the Scheduler/Planner group to continue to improve this effort. We also have developed internal prioritizations to allow FS to determine work priority so that work is organized transparently rather than through personal contacts. We are also updating our website with clear information about responsibilities and areas so that the campus community knows who to contact.

FMEP suggestion: *In addition to tracking and reporting on OSHA required data, FS should set its own long-term goal to make its institution “the safety university in the country” to include its own specific targets for recordable, lost work days, restricted work days, and similar metrics. In addition, FS needs expertise that can assess and address safety training needs of its staff and safety issues of its facilities and systems. For example, documentation of confined spaces and permit required confined spaces, arc-flash labeling of electrical equipment in buildings and plants, examination of fall protection for roofs, development of lockout/tagout procedures for all equipment, review of job-specific personnel protection equipment, completion of job hazard analyses, and similar issues.*

FS response: FS agrees with the recommendation and we are currently in the process of recruiting for a dedicated Safety Specialist. All of the identified goals will be the Safety Officer's responsibility, with the support of FS leadership. An important part of the safety specialist's role will be to codify and capture all this information as part of a robust safety plan.

Section 6 - Process Management

Facilities Services is a large and complicated department with many areas of responsibility. As the report states, our performance is impacted by long term lack of investment in the campus plant and our distance from campus. In addition, many of our processes have been developed by expediency and habit over many years and are no longer appropriate in this era of reduced funding, greater demand and increased technology. Together, all of these influences make FS less effective just as the campus is asking more of us. We understand that through improved processes and work effectiveness, we can overcome some of the challenges we face and improve our service to the campus.

FMEP suggestion: *The development of meaningful metrics is needed to measure progress. The use of and success of FS business processes should be examined in the context of the published APPA FPI standards to ensure that an actual comparison of performance against peer institutions is possible.*

The MAXIMO CMMS system has a great deal of capability that goes far beyond simple work order management. Augmenting the CMMS to track all types of work by creating functional coding to be used in analysis is invaluable. Additionally, areas of inventory management, equipment history, reactive vs. proactive maintenance, tool management, etc. are valuable data sets that should be developed into information and subsequently knowledge of the FM operation.

FS response: As stated in previously, FS intends to develop metrics and KPIs to measure our performance against goals which are aligned with our strategic direction.

FMEP suggestion: *Restructuring the Operations and Maintenance organization as described in Section: 1.0 Leadership including the development of a Work Management (WM) group can further the progress of several goals of the FS department and consolidate several functions reporting to the AVC. Work*

Management would be responsible for the workflow process for all working shops. Intake and generation of work orders, maintenance of asset data, issuing of performance reports, management of work order processes and the creation of a master schedule would be the responsibility of work management. In effect WM is a "traffic Cop" operation. It is recommended that the asset manager group, the call center, PM ticket generation and tracking, work order generation and classification/prioritizing of all work orders functions be consolidated into this group. Additional considerations could be the addition of a planning function for multi-shop jobs.

FS response: While FS leadership does not agree that a reorganization is appropriate at this time, we do agree with the need for an improved work management in our operations. We are focused on creating the Scheduler/Planner function at the moment and will add additional responsibilities as that effort develops.

FMEP suggestion: *An approach for technical training is recommended that is needs-based and designed to address the skills actually needed by the worker in the execution of their daily duties. Apprentice program often exceed in scope those skills needed in building maintenance. In this approach, a needs assessment is developed based on a template that is derived in committee, with the union and supervision participating to develop the skill set needed. Each current worker can then be judged against the template and a list of needs for each worker is developed. A prioritized training program can then be developed using internal and external training resources to provide the training in a cost efficient manner. These types of training programs are cost effective. It is recommended that FS explore use of this kind of program for both technical and supervisor training.*

FS response: Training is an increasingly high priority for FS - our buildings are more complex and it's important that our staff have the skills they need to serve the campus. In addition, it is difficult to recruit qualified personnel so we understand that we need an internal training program to create the staff we need. We are in the process of creating "helper/apprenticeship" programs to allow interested staff to advance into journeyman status. We are also sending staff to technical training or bringing trainers to FS to provide group training where appropriate. Developing a robust training program will be an ongoing effort within FS to keep pace with demands of our buildings and the hiring market of the Bay Area.

FMEP suggestion: *Consider a long term plan to move the capital renewal/deferred maintenance construction program to the AVC FS. This will provide better control of the deferred maintenance program by having personnel familiar with the complexities of these construction projects in charge and better keeps the priority focus in place and not competing for resources with large new capital developments.*

FS response: We agree that FS would be the appropriate entity to perform CR/DM projects due to our unique knowledge of and position in the campus.

FMEP suggestion: *The asset manager role needs to be more precisely defined in order to eliminate the confusion among both customers and FS staff as to asset manager's role, responsibility, and authority.*

FS response: The Asset Manager group is a critical unit within FS as they provide comprehensive, overall stewardship of the campus plant. While other groups in FS are responsible for specific tasks and operations, the asset managers are responsible for providing

the planning, data and analysis and general oversight to make sure the campus plant is being supported for the long term. They have an important customer service role as well as a critical role in developing and providing data regarding facility condition, costs and renewal needs. They are a relatively new group and it has taken time to adjust their role to ensure that they were providing support most effectively. This has resulted in occasional confusion, especially in their interactions with Facility Managers, but we have taken steps to resolve this through improved processes. We will continue to document processes in Promapp to make sure we have clearly defined and communicated their role.

FMEP suggestion: *The long-view Operations and Maintenance solution for the UC Berkeley campus should be considered. It is recommended that a Zone Maintenance concept be considered. Many of the leading Research campuses utilize the zone maintenance concept to improve services by being closer to the customer through locating maintenance shops consisting of multi-craft personnel in campus buildings within campus zones or areas. There are many versions of this approach and there are plenty of examples available from peer institutions if Facility Services wants to pursue this concept.*

FS response: We understand that this could be a desirable model but it is not possible for UCB. To have an effective Zone model requires significantly more staff and resources since it effectively creates several facilities organizations on single campus. This is not financially feasible in UCB's current situation. We are focused on being the most effective centralized FS organization which we can be.

FMEP suggestion: *A formal mechanism for use in evaluating core processes is recommended. This section of the report and Section 4.0 identify a number of opportunities particularly in work management and maintenance stores and purchasing that are candidates for process improvement.*

FS response: We are formalizing and documenting processes and procedures, using a new tool called Promapp, for both administrative processes and day to day job duties. This will be utilized to manage the process and to set expectations and accountability within each role across FS.

Section 7 - Performance Results

FS is very focused on improving our performance with visible results. We understand that our actions affect the entire campus as we impact each campus occupant's experience. Though resources are limited, we are finding ways to achieve improvement through such things as reorganizing our approach where resources allow, developing quality assurance protocols, and empowering managers to become customer service representatives. We will continue to look for opportunities for improvement in both how we manage our operations and how we measure our performance.

FMEP suggestion: *The landscape maintenance schedule for zoned areas of grounds is currently based on a weekly cycle, which is the typical minimum frequency needed to achieve an APPA Level 3 rating. The fact that the grounds team has been able to achieve a higher level of service in some areas of campus balanced by lower levels in other areas suggests that the unit has either informally or formally established distinct service level targets for the different areas of grounds. If informal, it is*

recommended that these distinct service level targets be converted into formal, approved ones and documented in the GIS maps. Doing this will formalize and support the goal of assuring that the allocation and use of resources are aligned with targeted performance. It will also support the current initiative of implementing a formal quality inspection, control, and assurance program that can enable a metrics-driven approach for assessing progress toward achieving the service level targets. Finally, the development of a map that displays service level targets for different areas of grounds will provide an excellent resource for training and guiding staff in their work as well as yield an excellent communication tool with customers.

FS should consider setting the long-term minimum average service level target for its grounds at an APPA Level 2 (High Level of Maintenance), which is associated with and recommended for a well-developed university campus such as Berkeley, the 2018 U.S. News & World Report ranked #1 Top Public Schools. While this entails the need for more resources, which are currently constrained at Berkeley, this should become a long-term goal for the institution as it recovers from its current budget deficits.

FS response: We agree that the APPA level for current operations should be formalized and a Level 2 should be our long term goal for Grounds services. In the absence of resources to allow us to achieve a Level 2 on the entire campus, we are focused on providing and documenting area appropriate service levels.

FMEP suggestion: *FS should develop a deferred maintenance and landscape renewal plan for its grounds. This should be accomplished in concert with an update of the Berkeley Landscape Master Plan, which dates to 2004. This will enable FS to formally document the deferred maintenance and renewal need for grounds, identify the type and amount of resources required to address the need, communicate the need in order to better compete for funding, and prioritize the allocation and use of scarce resources to manage this program.*

FS response: We agree and this would be a responsibility of the Asset Managers in collaboration with the Grounds unit and campus Planning.

FMEP suggestion: *FS may want to consider implementing the OS1 program that has been used successfully by several institutions and which employs a comprehensive, team-based approach to cleaning that includes in-depth training of managers and staff with prescriptive approaches to cleaning and use of materials and equipment. The FS plan to implement a formal quality inspection, control, and assurance program is supported as it can provide a metrics-driven approach for assessing progress toward achieving the service level goal. For the QA/QC initiative, FS should considering using OS1 (or similar) methods, or alternatively, assess and implement best practices for QA/QC programs that have been used by other institutions.*

FS response: The custodial unit is looking at different options and have started to engage in conversation with ISSA and OS1.

FMEP suggestion: *FS should consider setting the long-term minimum average service level target for its custodial services at an APPA Level 2 (Ordinary Tidiness), which is associated with and recommended for a well-developed university campus such as Berkeley, the 2018 U.S. News & World Report ranked #1 Top Public Schools.*

FS response: We feel the campus should be maintained at a Level 2 but are aware that this would be a significant increase in cost. Service level discussion will include both aspirational and currently funded levels for consideration by campus leadership

FMEP suggestion: *Work with the VCA to educate and inform the appropriate campus leadership on the level of risk the campus is assuming with the current condition of its facilities. Well-functioning and maintained facilities are an enabler of the campus educational and research mission. By the same token, poorly functioning and maintained facilities are seriously detrimental to this same mission. The review team feels that U.C. Berkeley is at a critical juncture, where the condition of its facilities and infrastructure will shortly lead to catastrophic mission failures if not immediately addressed. Deliberate planning to develop immediate, mid- and long-term strategies for addressing this risk is critical.*

FS response: FS shares the concern that our facilities are at a critical point and the current state leaves the campus as serious reputational and operational risk. We are doing what we can internally to improve our services but we cannot overcome the fundamental condition of the campus plant. We are working actively with the VCA to raise this concern to campus leadership.

FMEP suggestion: *An employee climate survey needs to be conducted to gauge the extent to which employees are engaged, feel committed to their organization, and take pride in their organization and the accomplishments of their work and that of their colleagues. The initial survey will establish a baseline for the FS organization from which to measure progress or change, and will provide insights into areas that are highly engaged, and conversely, those areas that suffer from poor morale. Action plans should be developed and implemented for those areas that need addressing. Follow-up employee climate surveys should be conducted every one to two years to measure the success of those action plans as well as to spot and address emerging issues before they become a concern.*

FS response: We have engaged Gallup to send out an employee survey in early 2019

FMEP suggestion: *FS should set service level targets for each area, including an overall “average” level of service, recognizing that these likely vary by building and grounds area. For example, a building slated for capital renewal or demolition would have a different maintenance service level set for it than a clinical or major research facility. As another example, the most public facing areas of the campus would warrant a higher level of service for grounds care than an infrequently used space.*

FS response: We agree with this recommendation. This has been our practice but we do not have it codified and believe doing so would be beneficial and support our efforts of transparency.

FMEP suggestion: *FS should consider establishing a work management unit whose primary function is to fully implement MAXIMO modules for asset management, planning and scheduling work, managing workflows, PM preparation and kitting, managing inventory and procurement, process improvement, and other capabilities. The application of 5S Lean principles in all work areas and within all work units is an example of a major process improvement initiative that could be guided by this unit and applied consistently across FS.*

FS response: We concur with the recommendation of establishing work management and fully implementing the MAXIMO modules. FS plans to hire a scheduler planner and material

acquisitioners in the near future to support work management. Our department has begun a couple of large initiatives such as: inventorying all of the materials located in the shops and Promapping all of our major processes, including scheduling work, managing inventory and procurement. We believe these efforts will move us in the right direction.

FMEP suggestion: *The work management unit could also be tasked with using Tableau or other visualization tool with the MAXIMO data to support trending and analytics of key performance indicators set by the organization such as PM completion rates, cost per square foot for custodial and maintenance work, productive hours per square foot for custodial and maintenance, cost and/or productive hours per acre for grounds or landscape feature, frequency of reactive work by building or asset, frequency and type of work for category “5D/High” work orders, customer-oriented service requests by building or area, and similar performance indicators.*

FS response: The Asset Management Team and the ICAMP Program Manager are currently developing Tableau capabilities to support exactly this kind of data gathering and reporting

FMEP suggestion: *Because connecting with other professionals in the industry is critically important to staying relevant and gaining perspective beyond one’s own institution, FS should consider sending key members of its leadership team as well as its emerging leaders to training programs for higher education facilities officers such as the APPA Institute for Facilities Management and the APPA Leadership Academy. In addition, FS should continue to encourage staff to attend conferences, and equally important, become involved in associations relevant to their specific profession such as NACUBO, AASHE, APPA, and the IDEA Campus Energy Conference.*

FS response: We support this recommendation and have already begun to send our leadership team and our emerging leaders to various industry training programs. Additionally, to be mindful of UCB fiscal constraints and the costs associated with travel, FS is exploring the possibility of bringing trainers to our location and we actively utilize online training sessions through APPA, CHESC EAB and NFPA whenever available.