AUDIT AND ADVISORY SERVICES

Facilities Services
Audit
Project No. 17-692

December 20, 2017

Prepared by:

Benjamin Wong
Auditor in Charge

Reviewed by: Approved by:

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Jaime Jue   Wanda Lynn Riley
Associate Director   Chief Audit and Risk Executive

UNIVERSITY OF CALIFORNIA, BERKELEY

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AUDIT AND ADVISORY SERVICES
Tel: (510) 642-8292

611 UNIVERSITY HALL #1170
BERKELEY, CALIFORNIA 94720-1170

December 20, 2017

Marc Fisher
Vice Chancellor
Administration

Vice Chancellor Fisher:

We have completed our audit of Facilities Services as per our annual service plan in accordance with the Institute of Internal Auditors' *Standards for the Professional Practice of Internal Auditing* and the University of California Internal Audit Charter.

Our observations with management action plans are expounded upon in the accompanying report. Please destroy all copies of draft reports and related documents. Thank you to the staff of Facilities Services for their cooperative efforts throughout the audit process. Please do not hesitate to call on Audit and Advisory Services if we can be of further assistance in this or other matters.

Respectfully reported,

Wanda Lynn Riley
Chief Audit and Risk Executive

cc: Associate Vice Chancellor Sally McGarrahan
       Senior Vice President and Chief Compliance and Audit Officer Alexander Bustamante
       Associate Chancellor Khira Griscavage
       Assistant Vice Chancellor and Controller Delphine Regalia

University of California, Berkeley
Audit and Advisory Services
Facilities Services

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OVERVIEW

Executive Summary

The objective of this audit was to assess the departmental system of control to assure sound business practices are in place to support operational effectiveness and efficiency, including compliance with university policies as well as federal and state regulations. The review focused on administrative and operational processes and related key business risks for key Facilities Services units and their business processes.

The Real Estate division has experienced significant recent leadership and management turnover as well as budget shortfalls in the past three years that have impacted its ability to realize its goal of maintaining the campus environment. Subsequent to the completion of our audit fieldwork, the division was divided among the newly created Vice Chancellor of Finance and Vice Chancellor of Administration portfolios. Within Facilities Services, vacant positions and internal reorganizations have also impacted forward progress on overall unit objectives and employee morale. Current Facilities Services management appears to have a reasoned and sensible approach for stabilizing the managerial structure and enhancing the provision of customer service. This approach requires continued support and investment by central campus. Withdrawal or reduction of this support would impact the ability to affect future positive changes and may extend the cultural and operational challenges that the unit is currently experiencing.

Based upon our audit procedures performed, we make the following observations:

- *Information System Investment and Development (Maximo)* — The ultimate success of Maximo as an information system is interrelated with transforming business processes in Facilities Services. The implementation of certain efficiency enhancing features such as mobile devices and additional work required for key interfaces with campus systems such as BearBuy will require additional investment. Facilities Services will need to weigh tradeoffs between additional financial investment and scaling back the end functionality of the system.
- *Recharge versus Maintenance and Operation of Plant (MOP) Classification* — The current Facilities Services internal recharge policy is out-of-date. Therefore, guidance for the Customer Service Center (CSC), asset managers, or service-providing units is unclear to determine proper classification between recharge and MOP work orders.
- *Custodial Services* — We noted several process improvement opportunities related to establishing written expectations of cleaning standards; implementing a quality assurance program; implementing key performance indicators; ensuring the consistency of staff performance management; periodic evaluation of outsourced providers; and more effective staff scheduling.
- *Procurement* — We have identified several dependencies which, if not adequately addressed, may impact the ability to achieve intended benefits, including addressing potential process redundancies between Maximo and BearBuy; acclimation of staff to online ordering items that they previously ordered by e-mail, phone, or paper requisition forms; and the continuation of satellite accounts payable (A/P) functions.

- *Asset Management* — We observe process improvement opportunities in the following areas: developing an integrated approach to customer service across multiple Facilities Services units; clarifying the role of the Facilities Services asset manager and unit facility manager; and assigning adequate resources to facilities cost monitoring and forecasting.
- *Customer Service Center* — We observe process improvement opportunities in the following areas: enabling electronic intake of service requests via e-mail or web forms; standardizing processes, procedures, call scripts, and escalation procedures; and developing standardized Maximo reporting for CSC to monitor work order status and backlog.

Source and Purpose of the Audit

The objective of this audit was to assess the departmental system of control to assure sound business practices are in place to support operational effectiveness and efficiency, including compliance with university policies as well as federal and state regulations. The review focused on administrative and operational processes and related key business risks for key Facilities Services units and their business processes.

Scope of the Audit

Based upon our audit planning and risk assessment procedures, our audit scope included the following areas within Facilities Services:

- Management of Facilities Services
- Procurement
- Grounds
- Custodial Services
- Customer Service Center
- Inventory Management and Storehouse
- Information Management Systems (Maximo)

Based upon the results of our planning risk assessment, we determined the following areas of Facilities Services to be out of scope due to lower perceived risk (relative to the areas in scope above), prior projects in that area, or our allocated project hours:

- Payroll
- Individual Trade Shops
- Hazardous Materials and Abatement
- Safety Program
- Motor Pool
- Stationary Engineers
- Engineering and Technical Services
- Energy Management
- Sustainability
- Capital Renewal
- Units who have their own independent facilities functions (Residential and Student Service Programs, Intercollegiate Athletics, Cal Performances, Berkeley Art Museum and Pacific Film Archive, etc.)

We note that we previously conducted an audit of capital renewal and completed an advisory service related to an operational review of the end-to-end work order business process in 2015.

Our audit work was conducted between December 2016 and May 2017.

Background Information

Facilities Services is currently part of the Real Estate division[1] and works to maintain a campus built environment that is conducive to teaching, learning and research. It is comprised of the following units:

- Cal Zero Waste
- Custodial Services
- Customer Service Center
- Engineering and Technical Services
- Environmental Services
- Ground Operations
- Shops
- People's Park
- Asset Management[2]

The Real Estate division has experienced significant recent leadership and management turnover as well as budget shortfalls in the past three years that have impacted its ability to realize its goal of maintaining the campus environment. Within Facilities Services, vacant positions and internal reorganizations have also impacted forward progress on overall unit objectives and employee morale. Current Facilities Services management appears to have a reasoned and sensible approach for stabilizing the managerial structure and enhancing the provision of customer service. This approach requires continued support and investment by central campus. Withdrawal or reduction of this support would impact the ability to affect future positive changes and may extend the cultural and operational challenges that the unit is currently experiencing.

Maximo

In December 2016, the Real Estate division partially implemented Maximo to replace the Span (work orders) and Dynalogix (inventory and accounting) systems. The vision for full implementation includes the deployment of handheld devices running a mobile version of Maximo. The goal is for all trade shop employees to be able to see their assigned work orders, document the work performed, record their time and materials used, and order parts, supplies, and materials from stock inventories on handheld devices. Previously work order assignments, time and materials records, and purchase requests were primarily paper-based.

The Maximo vision also includes cataloging all facilities, buildings, rooms, equipment and other assets within a facilities asset database so that preventive maintenance, work orders, and other conditions-based information can be associated with the item. For procurement, all parts, supplies and materials inventory, usage, and replenishment are to be tracked in Maximo. Purchase requisitions created in Maximo will interface with BearBuy, the campus procurement system, so that purchases can be tracked in both systems.

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[1] Subsequent to the completion of our audit fieldwork but prior to the issuance of our report, the division was divided among the newly created Vice Chancellor of Finance and Vice Chancellor of Administration portfolios.

[2] Asset Management was created as a separate unit but was later merged into Facilities Services in 2015.

Subsequent Events

After the conclusion of our audit fieldwork but prior to the issuance of our audit report, the campus announced the division of the Real Estate division as part of the separation of the Vice Chancellor – Administration and Finance's portfolio between the newly created Vice Chancellor of Administration and Vice Chancellor of Finance positions. Under the final reassignment of units between the two divisions in December 2017, Facilities Services will report to the Vice Chancellor of Administration. In addition, for FY2018, the campus received an allocation of $50M from UCOP to address deferred maintenance on the campus.

Summary Conclusion

We observe that pressures on Facilities Services to reduce costs, improve service, and boost staff morale and satisfaction are even more difficult given recent leadership turnover and organizational changes. As a result, our following observations should all be considered against the background that management action plans can only be fully realized if all levels of campus and Facilities Services leadership and management are aligned to support Facilities Service's mission.

Based upon our audit procedures performed, we make the following observations:

- *Information System Investment and Development (Maximo)* — The ultimate success of Maximo as an information system is interrelated with transforming Facilities Services business processes. Maximo is intended, among other things, to incorporate work order processing, labor timekeeping, materials inventory tracking and purchasing, facility and asset condition tracking, and preventive maintenance schedules. Full implementation requires ongoing system support and development as business needs or other campus processes change. The implementation of certain efficiency-enhancing features such as mobile devices and additional work required for key interfaces with campus systems such as BearBuy will require additional investment. Facilities Services will need to weigh the tradeoff between additional financial investment and scaling back the end functionality of the system. Management should proactively monitor ongoing implementation and identify timely additional financial investment for senior management consideration.
- *Recharge versus MOP Classification* — Developing policies and protocols for the allocation and prioritization of MOP versus recharge work would likely promote a more sustainable division of resources that balances between both needs. The current Facilities Services internal recharge policy is out-of-date. Therefore guidance for the CSC, asset managers, or service-providing units is unclear to determine proper classification between recharge and MOP work orders.
- *Custodial Services* — Custodial Services is widely viewed, rightly or wrongly, as an underperforming unit. We noted several process improvement opportunities related to establishing written expectations of cleaning standards, implementing a quality assurance program, implementing key performance indicators, ensuring the consistency of staff performance management, periodic evaluation of outsourced providers, and more effective staff scheduling.
- *Procurement* — The full vision of Facilities Services procurement includes mobile devices for staff that include a mobile version of the Maximo platform from which they can order parts, supplies and materials that are associated with work orders. We have identified several dependencies which, if not adequately addressed, may impact the ability to achieve

intended benefits, including: addressing potential process redundancies between Maximo and BearBuy; acclimation of staff to online ordering of items that they previously ordered by e-mail, phone, or paper requisition forms; and the continuation of satellite A/P functions.

- *Asset Management* — Asset managers have moved away from their envisioned primary role of region-based customer service and increasingly are focused on facility data management, cost forecasting, condition surveys and renewal planning. We observe process improvement opportunities in the following areas: developing an integrated approach to customer service across multiple Facilities Services units; clarifying the role of the asset manager and unit facility manager; and assigning adequate resources to facilities cost monitoring and forecasting.
- *Customer Service Center* — A key responsibility of customer service representatives (CSRs) is to translate service requests into work orders in Maximo that are assigned to various units, depending on the nature of the request. We observed process improvement opportunities in the following areas: enabling electronic intake of service requests via e-mail or web forms; standardizing processes, procedures, call scripts, and escalation procedures; and developing standardized Maximo reporting for CSC to monitor work order status and backlog.

SUMMARY OF OBSERVATIONS & MANAGEMENT RESPONSE AND ACTION PLAN

Information System Investment and Development (Maximo)

Observation

The ultimate success of Maximo as an information system is interrelated with transforming other parts of Facilities Services through business process improvement. Maximo is intended, among other things, to incorporate work order processing, labor timekeeping, materials inventory tracking and purchasing, facility and asset condition tracking, and preventive maintenance schedules. Full implementation requires ongoing system support and development as business needs or other campus processes change. Although external consultant resources were budgeted for initial implementation last December, the delay in the implementation of certain critical features such as mobile devices and additional work required for key interfaces with campus systems such as BearBuy will require additional consultant and staff hours which were not budgeted. It is likely that additional financial resources will be required which may involve ultimately considering tradeoffs between additional financial investment and scaling back the end functionality of the system. Management should proactively monitor ongoing implementation and identify timely additional financial investment for senior management consideration.

Facilities Services implemented Maximo in late 2016 to manage project and work order flow, fixed assets and equipment, procurement and inventory, time and materials tracking, and contracts and services. The purported major benefits include reducing manual tracking of time and materials, streamlining workflows, deploying handheld technology to trade shop employees for electronic transaction recording and approval, and collecting transactional data for analysis. The urgency for implementing Maximo was expedited because the systems it replaced, Span and Dynalogix, were past the end of their product life, no longer had vendor support, and were not compatible with other software and operating systems used by the campus.

The ultimate success of Maximo is interrelated with transforming other parts of Facilities Services such as redesigning end-to-end business processes in every unit, training employees on new ways of performing various work tasks, building a repository of operational and financial data for monitoring progress against performance standards, and developing solutions for interacting with other campus systems.

It is likely that additional financial and operational resources, both internal and external, will be required to see Maximo through further implementation phases. These resources are not currently budgeted for and, if not secured, may negatively impact the ability to fully realize its anticipated benefits.

Management Response and Action Plan

The Maximo implementation has been extremely challenging due to the very short time frame available for the implementation and the sheer extent of the business process changes the system requires. There have been significant technical challenges as well. The department anticipates that functional adoption of the system will occur over the next few years as staff become more

adept and the data available in the system is more complete. As adoption increases, we expect to see that system adjustments are required to better support our business practices and resources will be needed in order to make the necessary changes. We plan to include allocations in our budget for this ongoing implementation for the next several years. Our immediate goal is to have all staff using the mobile device and planning and scheduling at least a portion of their work orders through Maximo by the end of the fiscal year. Management will continue to work through the annual budget process for the Vice Chancellor of Administration to ensure that there is an ongoing recognition of the need for continued support of Maximo as a critical information system and related business process transformation.

Recharge versus MOP

Observation

Developing policies and protocols for the allocation and prioritization of MOP versus recharge work would likely promote a more sustainable division of resources that balances between both needs. The current Facilities Services internal recharge policy is out-of-date and, therefore, there is not clear current guidance for the CSC, asset managers, or service-providing units to determine proper classification.

The allocation of effort and resources between MOP and recharge work is a critical division that affects the overall objectives of maintaining the campus physical environment given limited resources. Facilities Services units provide services to both MOP and recharge facilities and assets with no fundamental difference in the quality or priority of the work provided. The main difference is how the work is paid for internally. The determination of whether the work to be performed, particularly by trade shops, is MOP or recharge in many cases involves some professional judgment by the CSR, asset manager, or trade staff and may depend on a number of the following factors:

- Is the unit requesting service eligible for ongoing state support for its facilities?
- Is the facility (building) being serviced eligible for ongoing state support?
- Even if the facility is eligible for ongoing state-support, is the particular space, asset, or equipment itself eligible for ongoing state support?
- What is the nature of the service being provided? Is the service beyond what is included in the scope of ongoing operation and maintenance of plant?
- Are there any previous verbal commitments or handshake agreements between Facilities Services and the campus unit regarding classification that affect the current determination?

Critical to this determination is historical information on the facility as well as the assets and equipment contained therein. Facilities Services management has made it a priority to populate the new Maximo system as much as possible with information on each facility and asset to help determine whether a service should be provided on a MOP or recharge basis. In the meantime, professional judgment and outdated policy guidelines are the primary resources to make that determination. Until the Maximo system is relatively complete, management should ensure that adequate guidance is in place that can be used consistently by CSRs, asset managers, and other Facilities Services staff.

Such guidance would help clarify classification and curb tendencies to classify work as MOP rather than recharge because there is additional administrative burden for tracking time and materials for recharge work. It would also likely curb an opposite tendency to classify work as recharge because such charges directly offset Facilities Services' operating costs. In the former case, MOP funds are overcharged whereas, in the latter, facilities eligible for state support are potentially under-serviced.

As a point of reference, we note that UC Irvine and UC San Francisco facilities units have developed guides to help their campus understand the difference between MOP versus recharge services that may be useful to consider as a model.

Management Response and Action Plan

Facilities Services has been developing a "Service Guide" which documents which services are MOP and which are recharge. This document was developed in collaboration with campus partners such as major facility managers and has been reviewed by some campus administrative officers. This effort was deferred when it seemed possible that Facilities Services would receive a significant budget cut as that would have changed many of the assumptions in the document. Now that it is likely that Facilities Services funding will be stable, we propose to restart the process of having this document reviewed and adopted by the campus leadership. Our goal will be to restart this process once VCA Fisher has been able to review and approve the effort. Management is targeting review and approval of this guide by the end of fiscal year 2018 with rollout to the campus in fiscal year 2019.

Custodial Services

Observation

Custodial Services is widely viewed, rightly or wrongly, as an underperforming unit. We noted several process improvement opportunities related to establishing written expectations of cleaning standards, implementing a quality assurance program, implementing key performance indicators, as well as ensuring the consistency of staff performance management, periodic evaluation of outsourced providers, and more effective staff scheduling.

- *Establishing written expectations of cleaning standards* – Custodial Services should work with key campus stakeholders to establish written expectations of minimal and optimal levels of cleaning, using external criteria such as from APPA: Leadership in Educational Facilities (APPA)[3] where appropriate that is used by other UC campuses and peer institutions. With mutually agreed upon standards, Custodial Services can model the minimum and maximum levels of service that can be provided given various staffing and resource models so that there is greater transparency to the campus of operational and financial tradeoffs for given levels of cleanliness. We believe there is an opportunity for Custodial Services to better articulate the internal and external standards to which they hold themselves.
- *Implementing a quality assurance program* – Currently individual supervisors conduct quality assurance on an ad hoc basic and not according to a common standard. Custodial

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[3] See www.appa.org

management should implement standardized quality assurance procedures for various tasks (routine cleaning, non-routine cleaning, recharge activities, etc.) that would include routine inspections, customer feedback surveys, analysis of customer complaints, etc.

- *Implementing key performance indicators* (KPIs) – Currently department performance is not consistently measured, evaluated, and reported. Key performance indicators for financial and operational performance should be developed and implemented, such as number of square feet cleaned, quality audit scores, customer feedback ratings, absentee rates, spending on supplies, etc. Quantitative data should be collected, analyzed, and reported to monitor ongoing performance against those KPIs

- *Consistency of performance management* – Performance standards for custodial staff are not consistently documented across custodial teams which makes it difficult to evaluate individual team member performance. Routine performance management should be implemented, consistent with protocols laid out in collective bargaining agreements, to ensure minimum expected levels of performance, promote a culture of meeting or exceeding expectations, and manage underperformance in a timely manner.

- *Periodic evaluation of outsourced providers* – Given the serious campus budget situation, the continued use of outsourced providers for certain custodial tasks or for certain campus units should be periodically evaluated (except if minimal acceptable levels cannot be maintained by internal resources). Management should evaluate, after a suitable period, the ongoing need for a separate contract services unit dedicated to managing outsourced custodial service contracts.

- *More effective staff scheduling* – Currently projected absences are not incorporated in staff scheduling to ensure adequate service coverage. In practice, custodial supervisors fill in as temporary or full-time custodians and complete daily fixed route assignments when staff are absent, limiting their ability to provide supervision and quality assurance. Adjusting daily schedules and routes may be necessary to allow for projected absences. Alternatively, management may wish to focus attention on reducing absences.

Management Response and Action Plan

Facilities Services has made significant efforts to address poor performance in the Custodial unit including replacing the management staff. We agree with all these suggested improvements and expect to implement them over the next year. Over this fiscal year, new custodial management will perform an assessment of current needs and potential process improvements, including those described above, for discussion with the Associate Vice Chancellor.

Procurement

Observation

The full vision of Facilities Services procurement includes mobile devices for staff that include a mobile version of the Maximo platform from which they can order parts, supplies and materials that are associated with work orders. We have identified several critical dependencies which, if not adequately addressed, may impact the ability to achieve intended benefits, including: addressing potential process redundancies between Maximo and BearBuy, acclimation of staff to online ordering items that they previously ordered by e-mail, phone, or paper requisition forms, and the continuation of satellite A/P functions.

- *Addressing potential redundancies between Maximo and BearBuy* – As Facilities Services does not have an exemption from using the campus procurement system, BearBuy, to process purchase requisitions, transactions are essentially created in duplicate in both the Maximo and BearBuy systems. There is a business need to create and track purchase requisitions in Maximo so that inventory can be tracked and restocked automatically and use of items can be tracked to work orders. However, there is also a business need to use BearBuy to ensure completeness of the campus system of record for procurement and so that overall campus spending can be tracked centrally. Ideally, requisition approval workflow need not be duplicated in two systems. Furthermore, there is receiving functionality in Maximo and BearBuy. Receiving in Maximo would help to confirm receipt of inventory. Receiving in BearBuy would assist in voucher payment via potential three-way matching. As Maximo deployment continues, Facilities Services management should consider the cost-benefit tradeoff between developing more automated interfaces between the two systems versus allowing for certain duplication in the two systems.
- *Acclimating staff to online ordering* – Facilities Services units that previously made purchase requests through e-mail, phone, or paper forms are now required to initiate a requisition in Maximo. User comfort and abilities with using Maximo have been inconsistent, sometimes involving a steep learning curve for some staff or resulting in additional efforts downstream by Real Estate buyers who have to contact the unit to obtain information necessary to complete the requisition, adding delays in fulfillment. Periodic review and updating of training and communication plans to allow for incorporation of end-user experiences and feedback, similar to what has been done for the BearBuy user community, would likely increase user adoption of and comfort using the new system.
- *Continuation of satellite A/P functions* – Real Estate has historically had their own satellite accounts payable function for entering vendor invoices and creating vouchers for approval and payment. As Real Estate was split between the Vice Chancellor of Finance (capital projects) and Vice Chancellor of Administration (facilities services) divisions, a decision may need to be made as to whether Facilities Services invoices should then go to central accounts payable.

Management Response and Action Plan

Procurement, Warehouse and Accounting teams are working together to develop processes to streamline the receipt of goods and services in Maximo to reduce processing time. With separation of the former Vice Chancellor Real Estate service portfolio, Facilities Services has incorporated the Accounting group under Facilities Services Management and the A/P team will utilize Maximo information to track the receipt of goods and services. A/P will use that information to update BearBuy and process the payment.

Bi-weekly brown bag meetings are offered to Maximo users to address Maximo features like online ordering. Additional training is offered at the shop level or by appointment with a specialist. With the roll out of mobile during the remainder of 2017, training and standard operating procedures will be refined and communicated to staff. Management believes in first prioritizing moving away from a historic culture of paper-based procurement transactions by requiring capturing information electronically in Maximo rather than prioritizing a full system interface between Maximo and BearBuy at this time. Management continues to have proactive discussions with campus Supply Chain Management to improve process flows and obtain efficiencies where possible.

Asset Management

Observation

Asset managers have moved away from their envisioned role of region-based customer service and increasingly are focused on facility data management, cost forecasting, condition surveys and renewal planning. We observe process improvement opportunities in the following areas: developing an integrated approach to customer service across multiple Facilities Services units, clarifying the role of the asset manager and unit facility manager, and assigning adequate resources to facilities cost monitoring and forecasting.

- *An integrated approach to customer service across multiple Facilities Services units* – Campus clients interact with Facilities Services primarily through the CSC, the asset managers, and the individual trade shops and other Facilities Services units (custodial, grounds, etc.), but overall client portfolio management is not coordinated between these functions even though they now share an underlying system (Maximo). Given the potential overlap between asset managers and CSR's in providing customer service interaction, Facilities Services management should consider whether formal delineation in the roles and responsibilities should be further defined. For example, asset managers could be given the ability to open service requests and assign work orders in Maximo. Also, unit facility managers could be given view access to see the real-time status of service requests. Both CSR's and asset managers are tasked with handling customer inquiries, requests, or complaints. However, protocols have not been communicated to the campus community as to whom one should contact (facility manager, CSC, asset manager, shop supervisor, Facilities Services management, etc.) for different types of situations to have their issue resolved in the most direct and expeditious manner with a minimum of handoffs.
- *The role of the asset manager versus the unit facility manager* – With respect to how individual buildings or facilities are managed, there is potential duplication of effort between a unit facilities manager and the assigned asset manager. The asset manager may have to augment their role in those situations where unit capabilities are not strong. In those situations there may be conflicting interests for an asset manager in balancing satisfying the needs of the unit versus the campus. Developing a standardized approach to asset management, with defined protocols, would help asset managers better navigate those situations and maintain credibility as not being solely beholden to particular interests.
- *Facility cost monitoring and forecasting* – One key potential role for an asset manager could be to monitor and provide analysis of the ongoing cost to maintain and renew individual facilities and assets, which is not being performed consistently for all facilities on campus. Such information would be helpful for making strategic decisions on where and how to annually discharge campus resources for capital renewal.

Management Response and Action Plan

The Asset Management group was conceived by the previous Vice Chancellor for Real Estate as a private property management model with the asset managers directing the work of union trades staff. It quickly became clear that this model was infeasible and unproductive in the campus setting. It also became clear that there is a significant need for the asset managers to support campus clients and Facilities Services with work prioritization, asset data and cost management

information. Facilities Services is expanding its focus from reactive response to more data based response. The Asset Management group's role is to collect, maintain, prioritize and analyze information about the campus' physical plant and associated costs in order to allow Facilities Services to plan and respond effectively. Their customer service role is an important component but is not its only responsibility. We have recently hired an Associate Director for Asset Management to guide the unit as it develops protocols and standards to clarify its role. The Associate Director will also be responsible for implementing the Integrated Capital Asset Management Program (ICAMP) as UC Office of the President has directed. Our goal is to have cost and asset data available for a pilot group of buildings by the end of the fiscal year. We also plan to have the first phase of the ICAMP program underway.

Customer Service Center

Observation

The CSC responds to telephone and email requests for campus maintenance and other service requests for Facilities Services. A key responsibility of CSRs is to translate service requests into work orders in Maximo that are then assigned to various units, depending on the nature of the request. We observed process improvement opportunities in the following areas: enabling electronic intake of service requests via e-mail or web forms; standardizing processes, procedures, call scripts, and escalation procedures; and developing standardized Maximo reporting for CSC to monitor work order status and backlog.

- *Electronic intake of service requests* – As capabilities of systems like Maximo increase to intake customer requests directly from web forms or e-mails, the demand for a live telephone call center may decrease. Investment in developing capabilities of direct intake of customer requests into Maximo may involve near term financial investment, but long-run cost savings and enhanced levels of customer service are potential benefits as CSR's become available for other higher-value tasks.
- *Standardizing processes, procedures, call scripts, and escalation procedures* – The use of standardized and documented processes and procedures, call scripts, and escalation processes within the CSC is limited at this time. Development of these items will facilitate regular measurement and evaluation of the CSC as a unit. It will also ensure that other units that may be given access to the Maximo system align their Maximo data entry practices with the expectations established by the CSC.
- *Standardized Maximo reporting* – Maximo holds promise for better tracking, reporting and monitoring of customer requests (service tickets) and work orders assigned. However, development of customized management reporting capabilities for Facilities Services is still in the early stages. Management will need to continue to focus on targeted resource investment to develop meaningful and useful key performance indicators and management reporting. If the CSC will play a role in the ongoing analysis, quality assurance, and operational and customer feedback that this reporting will provide, a reevaluation of the necessary skillset of CSRs may be necessary.

Management Response and Action Plan

The role of the CSC is in flux with the implementation of Maximo. Facilities Services is looking into using Maximo to automate some CSC tasks and others will disappear with full adoption of the system. This will necessitate clarification of the CSC role as described in the audit. Due to current staff leaves of absence, management expects to consider revising roles, responsibilities, and standardized processes beginning in spring 2018, in conjunction with the consideration of the role of asset managers. The result of this examination would be a transition study or workplan for the Associate Vice Chancellor.