

**Audit and Advisory Services**  
401 Golden Shore  
Long Beach, CA 90802-4210

562-951-4430  
562-951-4955 (Fax)  
lmandel@calstate.edu

June 9, 2020

Dr. Tom Jackson, Jr., President  
Humboldt State University  
1 Harpst Street  
Arcata, CA 95521

Dear Dr. Jackson:

**Subject: Audit Report 20-46, Facilities Management, Humboldt State University**

We have completed an audit of *Facilities Management* as part of our 2020 Audit Plan, and the final report is attached for your reference. The audit was conducted in accordance with the Institute of Internal Auditors' *International Standards for the Professional Practice of Internal Auditing*.

I have reviewed the management response and have concluded that it appropriately addresses our recommendations. The management response has been incorporated into the final audit report, which has been posted to Audit and Advisory Services' website. We will follow-up on the implementation of corrective actions outlined in the response and determine whether additional action is required.

Any observations not included in this report were discussed with your staff at the informal exit conference and may be subject to follow-up.

I wish to express my appreciation for the cooperation extended by the campus personnel over the course of this review.

Sincerely,



Larry Mandel  
Vice Chancellor and Chief Audit Officer

c: Timothy P. White, Chancellor

**CSU Campuses**

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# **FACILITIES MANAGEMENT**

**Humboldt State University**

Audit Report 20-46  
April 17, 2020

## EXECUTIVE SUMMARY

### OBJECTIVE

The objectives of the audit were to ascertain the effectiveness of operational, administrative, and financial controls related to facilities operations and to ensure compliance with relevant governmental regulations; Trustee policy; Office of the Chancellor (CO) directives; and campus procedures.

### CONCLUSION

Based upon the results of the work performed within the scope of the audit the operational, administrative, and financial controls for facilities management as of February 27, 2020, were unlikely to provide reasonable assurance that risks were being managed and objectives were met.

At the time of the audit, facilities management started a project to improve their preventive maintenance (PM) program. This project included identifying all assets requiring PM and ensuring these assets and their required PM tasks were input in the computerized maintenance management system (CMMS). However, we found that some facilities management functions needed improvement, in part due to limited resources and staffing.

Our review found that the campus had not identified all assets requiring PM, and some scheduled PM tasks were not consistently completed as required. As noted above, the campus was in the process of improving their PM program. Additionally, overall work-order administration needed improvement to ensure that all work orders were prepared to include required information, were updated as their status changed, and were reviewed by management. In addition, we found that the campus did not have an adequate process to ensure that costs for performing non-routine maintenance services were reimbursed. We also found that the campus had not documented a process for managing user access to the CMMS and electronic facility access system, and that physical key inventories were not periodically conducted. Further, the campus did not have documented or timely executed service-level memoranda of understanding (MOU) with auxiliaries and self-support units for facilities services.

Specific observations, recommendations, and management responses are detailed in the remainder of this report.

## **OBSERVATIONS, RECOMMENDATIONS, AND RESPONSES**

### **1. PREVENTIVE MAINTENANCE**

#### **OBSERVATION**

Administration of the campus PM program needed improvement.

We found that the campus had not established a PM program to identify all PM requirements and the frequency with which the PM tasks should be performed for each asset. We were informed that certain PM tasks were not in AiM, the campus CMMS, and that AiM did not include asset warranty information or requirements. At the time of the audit, the campus was working on a project to identify all assets with PM requirements and input these assets into AiM with PM required tasks.

We also found that the scheduled recurring tasks in AiM were not consistently completed. PM data obtained from AiM indicated that there were more than 7,500 PM work orders created and scheduled during the audit period. However, we found that more than 250 annual or semiannual PM work orders were canceled prior to completion. In addition, we were informed that since March 2018, vehicles had not always been serviced at the scheduled intervals in AiM. In addition, we selected ten assets for detailed review and found that four assets were not serviced at the scheduled intervals shown in AiM. According to FM, the inability to comply with the PM task schedule for fixed equipment, including vehicles, was due in part to inadequate staffing and the need to prioritize certain scheduled tasks.

Consistent completion of PM provides greater assurance that assets and equipment will perform at peak efficiency and decreases the risk of deterioration.

#### **RECOMMENDATION**

We recommend that the campus:

- a. Establish a PM program to identify all PM requirements and develop documented procedures for establishing PM intervals.
- b. Incorporate asset warranty information and requirements in the AiM PM schedule.
- c. Establish a process to monitor compliance with established PM intervals.

#### **MANAGEMENT RESPONSE**

We concur.

- a. The campus will establish a PM program to identify all PM requirements and develop documented procedures for establishing PM intervals.
- b. The campus will incorporate asset warranty information and requirements in the AiM PM schedule.

- c. The campus will establish a process to monitor compliance with established PM intervals.  
The campus will implement the recommendations by November 30, 2020.

## 2. WORK-ORDER ADMINISTRATION

### OBSERVATION

Administration, maintenance, and review of aged and closed work orders lacked consistency and needed improvement.

The campus used AiM as its CMMS to capture, assign, monitor, and analyze the status and completion of work and maintenance requests. We reviewed 15 aged work orders and found that:

- 13 aged work orders had no evidence of periodic management review or documentation of the progress made toward completing the work order. Five of these work orders did not reflect the current status as they should have been marked as canceled.
- Three aged work orders were determined to have been completed; however, their status had not been updated in AiM.

Additionally, we reviewed 30 work orders completed and closed during the audit period and found that:

- Six work orders did not include estimated start and end dates.
- Four work orders were not completed timely, one of which also did not have labor hours recorded, even though it was completed.
- Two work orders indicated that work had been completed by technicians; however, the work orders were not reviewed timely for quality and completion by management.

Proper administration of the work-order process enhances service levels, provides greater assurance that assets will be adequately maintained, and allows management to accurately report on state facilities and the resources necessary to maintain them.

### RECOMMENDATION

We recommend that the campus:

- a. Develop and implement a procedure to review aged work-orders and prioritize work based on risk factors such as age, task category, and billable costs.
- b. Revise the current work-order review procedures to enhance management oversight and ensure that all elements are captured, including estimated start and end dates, labor hours, and task details.

- c. Communicate the updated procedures noted above and provide training to key personnel.

**MANAGEMENT RESPONSE**

We concur.

- a. The campus will develop and implement a procedure to review aged work-orders and prioritize work based on risk factors such as age, task category, and billable costs. The campus will implement the recommendation by August 31, 2020.
- b. The campus will revise the current work-order review procedures to enhance management oversight and ensure that all elements are captured, including estimated start and end dates, labor hours, and task details. The campus will implement the recommendation by November 30, 2020.
- c. The campus will communicate the updated procedures and provide training to key personnel. The campus will implement the recommendation by November 30, 2020.

**3. CHARGEBACKS**

**OBSERVATION**

The process for ensuring that chargebacks were fully recovered was inadequate.

We reviewed 20 work orders for non-maintenance services and found that FM did not recover the cost of its services for two work orders, as required by Executive Order (EO) 847, *Policy Statement on Facility Maintenance*. We found that the campus did not have a process to verify that all submitted chargebacks were fully reimbursed, such as a periodic reconciliation between the billable charges built into AiM work orders and the receipt of billed charges in the Oracle accounting system. We found that the two systems do not interface, and Oracle requires manual entry of chargeable services.

Further, we noted that the campus generated a chargeback billing report to review uncollected chargebacks; however, the report did not capture all aged and open chargeback receivables, as it reflected only records that had been verified by management in AiM. Management did not always timely verify work orders to indicate that the work order was ready for billing, as noted above.

We also found that the campus did not prepare an annual report detailing services provided, resources used, cost of said resources, and total costs recovered, as required by the *Special Event Support* standard operating procedure (SOP). In addition, we noted that the recovered costs for chargebacks related to events were not recorded in AiM.

Adequate processes to ensure that FM costs are fully recovered may help to ensure that the campus operating fund is fully compensated for non-maintenance work performed for the campus and other support services provided to outside entities. In addition, periodic reconciliations help prevent potential losses and provide greater assurance that errors or unrecorded transactions will be detected and corrected promptly.

**RECOMMENDATION**

We recommend that the campus:

- a. Evaluate the current chargeback billing process and implement improvements to accurately track all open chargeback receivables.
- b. Perform a periodic reconciliation of the billable charges built into AiM work orders, including events, and the receipt of billed charges in the Oracle system, and consider developing an interface between the AiM and Oracle systems, if possible.
- c. Prepare an annual report detailing the items above for events, or review and update the *Special Event Support* SOP as needed to address the issue above.

**MANAGEMENT RESPONSE**

We concur.

- a. The campus will evaluate the current chargeback billing process and implement improvements to accurately track all open chargeback receivables.
- b. The campus will perform a periodic reconciliation of the billable charges built into AiM work orders, including events, and the receipt of billed charges in the Oracle system. The campus will consider developing an interface between the AiM and Oracle systems.
- c. The campus will prepare an annual report detailing the items, referenced in the finding, for events, or review and update the *Special Events Support* SOP as needed to address the cited issue.

The campus will implement the recommendations by November 30, 2020.

**4. LOGICAL AND PHYSICAL ACCESS**

**OBSERVATION**

Administration of system and physical access needed improvement.

FM managed user access for AiM and Onity, the security system that controls access to approximately half of the exterior doors and half of the interior doors on campus. We found that there was no documented process for provisioning approved additions, changes, and terminations of user-access rights and reviewing access for existing account holders for both systems, as required by systemwide policy.

In addition, we found that the campus had not performed a periodic review or inventory of physical keys from July 1, 2018, through February 27, 2020.

Effective administration of user accounts decreases the risk of unauthorized access and data manipulation, and adequate administration of physical access lowers the risk that keys will be unaccounted for or misused.

**RECOMMENDATION**

We recommend that the campus:

- a. Establish written policies and procedures for approving, changing, terminating, and reviewing access to AiM and the Onity security system.
- b. Develop policies and procedures for reviewing physical key issuance records on a periodic basis, at least annually.

**MANAGEMENT RESPONSE**

We concur.

- a. The campus will establish written policies and procedures for approving, changing, terminating, and reviewing access to AiM and the Onity security system. The recommendation will be implemented by July 31, 2020.
- b. The campus will develop policies and procedures for reviewing physical key issuance records on a periodic basis, at least annually. The recommendation will be implemented by November 30, 2020.

**5. AGREEMENTS WITH AUXILIARIES AND SELF-SUPPORT UNITS**

**OBSERVATION**

The campus had not established or timely executed MOUs with auxiliaries and self-support units, and the MOU between FM and housing was not executed timely.

We found that although detailed calculations for the annual cost allocation amount were documented for fiscal year 2019/20, the arrangement for FM services related to the cost allocation was not documented in an agreement or MOU for the Sponsored Program Foundation (SPF), Associated Students (AS), and University Center (UC), and the MOUs with the Advancement Foundation (AF) and other self-support units were not executed timely.

In addition, we found that the agreement between the campus and UC for the Humboldt Bay Aquatic Center (HBAC) was not executed timely for fiscal year 2018/19, and a current agreement had not been established.

Further, we found that the service level agreement between FM and housing was not executed timely.

Written agreements decrease the risk of misunderstandings and miscommunications regarding rights, responsibilities, and payment terms.



**RECOMMENDATION**

We recommend that the campus:

- a. Develop and implement agreements or MOUs with the above auxiliaries to document the responsibilities, scope, and cost of billable maintenance services provided by FM.
- b. Implement a process to obtain proper and timely approvals for agreements and MOUs.

**MANAGEMENT RESPONSE**

We concur.

- a. The campus will implement agreements or MOUs with the above auxiliaries to document the responsibilities, scope, and cost of billable maintenance services provided by FM.
- b. The campus will implement a process to obtain proper and timely approvals for agreements and MOUs. The campus will implement the recommendation by August 31, 2020.

**6. POLICIES AND PROCEDURES**

**OBSERVATION**

FM policies and procedures for chargebacks and key access to campus facilities were outdated.

Specifically, we found that the *Chargeback Policy, Key Policy, and PM Work Order Development and Processing SOP* did not reflect current campus procedures.

Current policies and procedures help to ensure that physical access to campus facilities is safeguarded, assets are well-maintained, service levels are enhanced, and resource needs for the maintenance of campus facilities are effectively administered and accurately reported.

**RECOMMENDATION**

We recommend that the campus update the *Chargeback Policy, Key Policy, and PM Work Order Development and Processing SOP* to reflect current campus procedures.

**MANAGEMENT RESPONSE**

The campus will update the *Chargeback Policy, Key Policy, and PM Work Order Development and Processing SOP* to reflect current campus procedures. The recommendation is partially implemented. The campus approved and published the *Key Policy* in April 2020. The campus will implement the remaining recommendations by November 30, 2020.

## GENERAL INFORMATION

### BACKGROUND

The need to protect the substantial public investment represented by California State University (CSU) facilities and grounds was brought to the forefront in the Legislative Analyst's Report on the 1979/80 state budget. Subsequently, the Legislature directed the CSU to implement a preventive maintenance program. As a result, the CSU has adopted directives, executive orders and technological tools to ensure that facilities-related assets are adequately maintained.

Executive Order (EO) 847, *Facility Maintenance*, refines the standards in which campuses maintain CSU facilities. It provides clear definitions of operations and maintenance, deferred maintenance, and capital renewal requirements to assure efficient and effective use of available maintenance funding. It also requires the university president to ensure that appropriate resources are directed toward meeting the requirement of proper operations and maintenance of the campus physical plant.

The Capital Planning, Design and Construction (CPDC) department at the CO maintains a space and facilities database (SFDB), a centralized system that provides information about capacity and facilities at each of the 23 campuses. It also provides details regarding custodial space and farm acreage on the campuses and contains information on each facility, including the condition, construction type, gross square footage, and master plan status. CPDC requires each campus to annually update its facility file in the SFDB; this information provides the basis for the capital outlay program, including funding for any required deferred maintenance, for the immediate and subsequent years.

In 2016, CPDC launched a multiyear plan to improve the quality of facilities data in multiple areas of development and operations. The plan included a new energy information system, which streamlined and improved campus monthly utility reporting; refinements in the reporting categories for self-support facilities such as recreation centers, public/private partnerships, and faculty/staff housing; and detailed facility condition assessments (FCA) to update, in a consistent manner, the estimated backlog of renewal needs. CPDC initiated a master enabling agreement with a qualified firm to conduct the FCAs. As of October 2019, 22 campuses had completed the process, and one was finalizing the FCA collected data. Information from the FCA reports will make campus reporting of facility conditions more uniform and allow CPDC to more accurately determine annual funding priorities to reduce the capital renewal backlog.

In recent years, funding appropriation challenges in the CSU system have affected facilities maintenance. Each year, CPDC must not only determine how much funding is necessary to maintain the 89 million square feet of facilities systemwide, but also identify, prioritize, and find funds for the backlog of deferred maintenance projects, which, as of 2019, has an estimated cost of \$3.7 billion dollars. Using the 2015 FCA for Humboldt State University (HSU), the campus estimates a total need of \$166 million in capital renewal costs.

The HSU campus sits on 154 acres overlooking Humboldt Bay and adjacent to redwood forests. The campus operates and maintains 95 buildings encompassing more than 2.3 million square feet of general education, administrative, athletics, lab, utility, and support space. The

majority of the campus was built in the 1950s and 1960s. More than 30 buildings constructed between 1949 and 1973 are still in use today. Newer construction projects include the Kinesiology and Athletics building (2009), Behavioral and Social Sciences Building (2007), and College Creek Apartments (2010).

At HSU, the FM department reports to the associate vice president of FM in the division of Administration and Finance, and its responsibilities includes maintenance, repair, utilities, and construction efforts of all state-owned buildings campuswide. For self-support units and non-state buildings, such as housing, parking services, and the University Center, FM provides services on a chargeback basis or enters into an MOU to document the scope of services provided, as appropriate. The staff at FM includes skilled trades, grounds, and custodial staff and administrative support.

## SCOPE

We visited the HSU campus from January 27, 2020, through February 27, 2020. Our audit and evaluation included the audit tests we considered necessary in determining whether operational, administrative, and financial controls are in place and operative. The audit focused on procedures in effect from July 1, 2018, through February 27, 2020.

Specifically, we reviewed and tested:

- Facilities management administration and organization, to determine whether it includes clear lines of organizational authority and responsibility, and current and comprehensive policies and procedures.
- The comprehensive planned/programmed maintenance schedule, to ensure that it captures all categories of maintenance, including routine, preventive, and deferred.
- The process by which the campus identified facility conditions, including deferred maintenance and capital renewal needs, and annually reported the information to the CO.
- Campus implementation of an effective CMMS to ensure proper administration of maintenance tasks, including scheduling, cost management reporting, and productivity tools to account for resource utilization.
- Campus implementation of effective and efficient custodial and groundskeeping programs that include productivity and performance standards to ensure the work is performed in an effective and efficient manner.
- The campus process to ensure proper capture, tracking, and collection of costs for non-maintenance and auxiliary-related work orders.
- Campus procedures to control access to work order and electronic key access systems and procedures to adequately safeguard the inventory of physical keys to facilities.

As a result of changing conditions and the degree of compliance with procedures, the effectiveness of controls changes over time. Specific limitations that may hinder the effectiveness of an otherwise adequate system of controls include, but are not limited to,

resource constraints, faulty judgments, unintentional errors, circumvention by collusion, and management overrides. Establishing controls that would prevent all these limitations would not be cost-effective; moreover, an audit may not always detect these limitations.

Our testing and methodology, which was designed to provide a review of key operational, administrative, and financial controls, included interviews, walkthroughs, and detailed testing on certain aspects of the campus facilities operations. Our review was limited to gaining reasonable assurance that controls were in place to identify and address facility maintenance needs, but did not assess the quality of any repair or maintenance tasks.

## CRITERIA

Our audit was based upon standards as set forth in federal and state regulations and guidance; Trustee policy; Office of the Chancellor directives; and campus (and auxiliary, if applicable) procedures; as well as sound administrative practices and consideration of the potential impact of significant risks. This audit was conducted in conformance with the Institute of Internal Auditors' *International Standards for the Professional Practice of Internal Auditing*.

This review emphasized, but was not limited to, compliance with:

- EO 649, *Safeguarding State Property*
- EO 847, *Policy Statement on Facility Maintenance*
- EO 1000, *Delegation of Fiscal Authority and Responsibility*
- Government Code §13402 and §13403
- Integrated California State University Administrative Manual (ICSUAM) §9047.01, *Space Facilities Database*
- ICSUAM §8060.00, *Access Control*
- ICSUAM §9047.01, *Space Facilities Database*
- HSU FM SOP FSS0011-131105, *PM Work Order Development and Processing*
- HSU FM SOP FSS004-130717, *Special Event Support SOP*

## AUDIT TEAM

Audit Manager: Jennifer Rethwisch  
Senior Auditor: Laura Vazquez