

June 7, 2013

VICE CHANCELLOR MILLER

Subject: Audit Report No. M13A006
 Minor Construction Projects Audit

Attached is the final report for Audit No. M13A006: Minor Construction Projects. It includes action plans that were developed by members of your staff. These action plans will be entered into the TeamCentral Database and monitored until completion. With the issuance of this final report, please destroy any previous draft versions.

I appreciate the assistance provided to me by Facilities Management and PPD&C staff during the review. If you should have any questions, please feel free to contact me.



Todd Kucker
Internal Audit Director
UC Merced Internal Audit Services

Attachment

cc: SVP Vacca
 Chancellor Leland
 Associate Vice Chancellor and Campus Architect Lollini
 Assistant Vice Chancellor Mitchell

**UNIVERSITY OF CALIFORNIA, MERCED
INTERNAL AUDIT SERVICES**

**Minor Construction Projects
Report No. M13A006**

June 7, 2013

Work Performed by:
Todd Kucker, Internal Audit Director

Purpose and Scope

Internal Audit has completed an audit of minor construction projects and renovations, which was a part of the fiscal year 2013 audit plan. The primary purpose of this audit was to ensure that minor capital improvement projects are effectively managed. The audit objectives were:

- To determine whether policies as outlined in the UC Facilities Manual were complied with; and,
- To verify that project costs were properly monitored, reviewed, and approved.

The scope of the review included recent minor capital improvement projects in progress or completed during fiscal year 2013. The following four projects were reviewed:

Project	Approved Budget for Project
Wellness Center	\$563,978
Classroom Building Rooms 110 & 114	\$290,000
Changes to the Library Lantern Cafe	\$136,900
Academic IT Trailer at Castle Site	\$227,000

To accomplish the audit objectives, we reviewed:

- Documentation regarding the planning and approval of the projects;
- Financial system data for projects;
- The bidding and award documentation for the selection of contractors; and,
- Supporting documentation for amounts charged to the projects.

We also met with the campus customers to obtain their feedback regarding the overall management of the projects. Two of the selected projects were managed by Facilities Management project managers (Wellness Center and Academic IT Trailer) and two were managed by Physical Planning, Design, and Construction (PPD&C) project managers (Classroom Building Rooms 110 & 114 and Changes of the Library Lantern Café).

Background

Minor capital improvement projects (projects not to exceed \$750,000) and Renovation and Alterations Projects (anticipated spending of \$35,000 or less) are projects that include the following changes:

- Any change to external aesthetics of a building;
- Change in space classification (e.g. from classroom to office, conference to laboratory, etc.);
- Subdivision or enlargement of space;
- Change of space allocation from one department to another;
- Modifications of existing HVAC, plumbing, and electrical systems;
- Installation or modification of fire/life safety systems; and,

- Installation of carpeting or window coverings.

When a campus unit wants to complete a minor capital improvement project or a renovation to an existing building, the department completes and submits a Renovations and Alterations Form to the Capital Planning and Space Management Department. After funding for the project has been identified, approved projects are then assigned to Facilities Management or to PPD&C for completion. Many requirements in the UC Facilities Manual that relate to major construction projects also relate to minor capital improvement projects. For example, formal competitive bidding is required for contract sums over \$100,000. The UC Facilities Manual also elaborates informal bidding requirements for contracts between \$50,000 and \$100,000.

Conclusion

Based upon the audit, we concluded that minor capital projects are effectively managed by Facilities Management and PPD&C. All four selected projects finished in line with the projected costs and approved budgets. We identified the following areas related to coordinating projects that could be improved:

- Coordination of required inspections and maintaining close-out documentation could be improved
- Facilities Management and PPD&C should work together to establish criteria regarding which department will manage a project

Observations and Management Action Plans

1. Coordination of required inspections and maintaining close-out documentation could be improved

During the audit, we noted concerns that, as PPD&C and Facilities Management work independently on minor construction projects, there could be issues with necessary inspections and documentation. We did not identify this issue on the selected projects.

There are many California Codes of Regulations and UC Facilities Manual requirements related to different aspects of University projects. Per discussion with the Campus Architect, there are concerns that permitting for renovations and minor capital improvement projects has not always been completed as required by the regulations. The Campus Architect is the "Campus Building Official" whose responsibilities are outlined in the UC Facilities Manual and California Building Code, and include reviewing code compliance in building projects. As PPD&C and Facilities Management work independently on projects, the risk is that plans are intermittently reviewed in advance of construction, and inspections are only called for at the discretion of the project manager as work progresses.

Another related risk is that changes to campus buildings are not adequately documented. The Facilities Manual explains the importance of "As-Built Documents": "As-Built documents are copies of the drawings, specifications, and all other contract documents that have been updated by the contractor to reflect changes that have been issued to builders. Completed record documents provide a record of the project as it was actually constructed."

We recommend that PPD&C and Facilities Management work together to confirm that all projects are reviewed and permitted in advance of construction, all required inspections are completed, and all documentation of changes to university buildings are maintained in one location.

Management Action Plan

Collaborative budget proposals to provide funding for a PPD&C employee to serve as a Construction Inspector/Coordinator to review and permit plans and conduct inspections, and another position within Facilities Management to serve as Assistant Engineer to prepare plans for small projects and document As-Builts, were submitted by PPD&C and Facilities Management for FY 2013 – 2014. If the positions are approved, this action plan will be completed by June 30, 2013.

Facilities and PPD&C managers will meet periodically to discuss current projects. This will improve the coordination of inspections and documentation. This action plan will be completed by August 31, 2013.

2. Facilities Management and PPD&C should work together to establish criteria regarding which department will manage a project

During discussion with department customers, we noted that there are not established criteria regarding the selection of Facilities Management or PPD&C to complete a particular project.

From discussion with PPD&C and Facilities Management employees, the rationale for selecting a project manager should be based upon required expertise and whether the project relates to a new facility or is a change to an existing facility. Facilities Management generally manages projects that relate to changes to existing facilities, while PPD&C generally manages projects that relate to new facilities. It appears that it is sometimes difficult to differentiate between the types of projects. One of the selected projects managed by Facilities related to a new facility (the Academic IT Trailer Project), while the two PPD&C projects reviewed could be classified as changes made to existing facilities (the Library Lantern Project and the Classroom Building Rooms 110 and 114 renovations).

According to project customers, the rationale for selecting Facilities Management or PPD&C to manage a project is sometimes based upon cost as Facilities Management

does not charge their labor to projects while PPD&C does. The UC Accounting Manual has the following about charging labor to projects: "For construction projects, all direct construction costs should be capitalized. Internal labor costs incrementally identified to specific projects and appropriately tracked and documented may also be capitalized."

As PPD&C is accustomed to charging labor to the large construction projects they manage, the department has a recharge process in place to identify and allocate these costs to projects.

Necessary expertise on particular projects rather than internal price competition should be the reason for selecting Facilities Management or PPD&C to manage a minor capital improvement project. Developing a fee-based approach to cover overhead, and management costs for minor renovations and alterations, might be one method of avoiding price competition in the determination of which department is best suited to oversee the work.

Management Action Plan

Managers from Facilities and PPD&C will meet periodically to discuss projects to determine which department should manage particular minor capital improvement projects. Based upon expertise required to complete the project, projects will be assigned to managers in Facilities or PPD&C. This action plan will be completed by August 31, 2013.