
Internal Audit Report

SYSTEMWIDE CONSTRUCTION AUDIT

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Approved
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I. EXECUTIVE SUMMARY

Audit & Management Advisory Services (AMAS) has completed a systemwide audit of construction management policies and procedures, including internal controls and processes related to the administration of construction activities, and specifically, bidding, the University Controlled Insurance Program (UCIP), change orders and funding requirements.

Overall, Physical Planning & Construction (PP&C) maintained effective internal controls and processes over bidding, UCIP, funding requirements, and was in general compliance with applicable UC construction policies and procedures. PP&C together with other campus units maintained an adequate separation of duties and coordination to reasonably ensure funding for capital projects complied with funding restrictions and requirements.

However, an opportunity was identified for improving the review and follow-up of change order cost proposals requiring management corrective action as follows:

A. Change Order Cost Proposal Review

The role and responsibility of a project manager to review the accuracy of change order cost proposals submitted by a contractor had not been sufficiently established or articulated to the project manager whose review of change order cost proposals was not extensive enough to detect an overcharge in a change order we reviewed.

Management agreed to the corrective actions recommended to address risks identified.

The observation and related management corrective actions are described in greater detail in section III of this report.

II. INTRODUCTION

Purpose

The purpose of this audit was to assess the effectiveness of construction management policies and procedures, including internal controls and processes related to the administration of construction activities, and specifically, bidding, the University Controlled Insurance Program, change order and funding requirements. The audit was requested by the Office of Ethics, Compliance and Audit Services at the Office of the President, who provided the audit program we followed.

Background

Physical Planning and Construction (PP&C) is the campus unit responsible for ensuring compliance with all applicable building and life safety codes and public works contracting law, as well as maintaining the aesthetic integrity of the campus. PP&C oversees the provision of all planning, design, and construction required to construct or alter facilities for the UC Santa Cruz campus as well as for Long Marine Laboratory, Mount Hamilton, Big Creek Reserve, and Monterey Bay Education Science and Technology Center, and 2300 Delaware Avenue. Any alterations to these facilities must be with the approval of the associate vice chancellor for PP&C (campus architect) and must be accomplished under the supervision of PP&C personnel.

While PP&C was the principal unit we worked with during our review, there were other units involved in the processes under review. These included Capital Planning & Space Management, Planning & Budget, and Plant Accounting. The roles these units played will be discussed in more detail in the appendices.

Bidding

According to the California Constitution, the University is subject to "competitive bidding procedures as may be made applicable to the university by statute for the letting of construction contracts, sales of real property, and purchasing of materials, goods, and services."

University Controlled Insurance Program

The Regents of the University of California has established a controlled insurance program for large construction projects. Projects with a projected construction value of \$25 million and over (total for all phases) are to be insured under the University Controlled Insurance Program (UCIP). The UCIP is a single insurance program that insures the University of California, enrolled contractors, enrolled subcontractors, and other designated parties for work performed at the project site. Coverage under the UCIP includes workers' compensation/employer's liability, general liability, and excess liability. The Regents of the University of California is covered under the general and excess liability policies. Contractors are covered under the workers' compensation/employer's liability and general and excess liability policies. The University of California will pay the insurance premiums for the UCIP coverages described in the *UCIP Insurance Manual*. When the University includes UCIP coverage on a project, each bidder is required to submit a bid net of all insurance costs for coverages provided by the University of California.

Change Orders

A change order is a post-award modification to a construction contract. A change order may clarify, revise, add to, or delete previous requirements of the work, adjust the contract sum, or adjust the contract completion time. In general, there are three causes of change orders: 1) changes in design requested by the owner or user; 2) field conditions not described in the bid process or unknown to the owner prior to

bidding; and 3) errors or omissions in design which need to be corrected during construction, also known as “document clarification.” Change orders may contain one or more items requiring modification. A change order may represent a project that was added to another project rather than separately bid when circumstances made it advantageous and conditions were met.

Funding Restrictions/Requirements

There are many types of funds that may be used to fund capital projects. These include university funds, gifts and private donations, loans, state appropriations, and funding from state or federal agencies. Depending on the fund source, there may be restrictions or requirements on the use of those funds. These include

- Competitive bidding and public advertising requirements
- Affirmative action
- Funds may only be used for projects they were provided for
- An adequate review and approval process to ensure that construction costs are reasonable
- Prevailing wage rates must be used
- Reporting requirements

Scope

We assessed the effectiveness of construction management policies and procedures, including internal controls and processes related to the administration of construction activities, and specifically, bidding, the UCIP, change order and funding requirements by means of interviews with process managers, reviews of relevant policies and procedures, gathering and evaluating data over three fiscal years and into the present fiscal year; reviews of bid and construction documents; sampling change orders; and reviewing funding restrictions and the related control processes. Our procedures included

Bidding

- Documented active projects during the review period.
- Analyzed for trends among contractors awarded contracts.
- Verified that bid documents of a sample project were in compliance with the UC Facilities Manual requirements.
- Verified that the prequalification procedures, including advertisements, were in compliance.
- Verified that the bidding process for prequalified bidders was in compliance.
- Verified that the lowest competitive bid was selected.

UCIP

- Obtained the list of construction manager (CM) and top level subcontractors from the contract documents
- Obtained the UCSC Coastal Biology Contractors Log from the UCIP program administrator
- Obtained the Contractors Log and an example of insurance documents from the CM for the Coastal Biology project.
- Obtained a list of subcontractors and sub-tier from the CM

Change Orders

- Sampled change orders from a current project.

- Verified that change orders greater than \$100,000 had adequate justification to process as change orders rather than through competitive bidding.
- Verified adequate documentation to support change order expenses.
- Verified math calculations and appropriate approvals.
- Reviewed compliance with contract general conditions.

Funding Restrictions/Requirements

- Reviewed processes and coordination among campus units to ensure funding restrictions and requirements were met.
- Identified funding sources for projects over a three-year period and the amount and use of these sources for projects.
- Reviewed various funding restrictions, including those stated in award documents.

The criteria provided by UCOP for choosing constructions projects for review, in order of priority were:

1. Active construction projects
2. Prop 1D projects
3. Projects over \$60M (approved by the Regents)

The only active Prop 1D project was Infrastructure Improvements Phase 2, with a budget of \$684,000, which was in the last couple of months of activity. PP&C had returned some funding as it came in under budget and we did not review this project.

One project that best fit the criteria was the Coastal Biology Building, with a budget of \$80 million and early in the construction phase. This project was selected for our review.

III. OBSERVATIONS REQUIRING MANAGEMENT CORRECTIVE ACTION

A. Change Order Cost Proposal Review		
<p>The role and responsibility of a project manager to review the accuracy of change order cost proposals submitted by a contractor had not been sufficiently established or articulated to the project manager whose review of change order cost proposals was not extensive enough to detect an overcharge in a change order we reviewed.</p>		
Risk Statement/Effect		
<p>The project manager review of cost proposals for change orders is a key control to ensure change orders are appropriate and costs are reasonable. When change order cost proposals are not adequately reviewed, the University could be charged more for changes than it should be.</p>		
Agreements		
A.1	<p>PP&C senior management has established a change order cost proposal review protocol and will provide encouragement and support for project managers to increase their efforts to thoroughly review change orders and obtain explanations and all supporting documentation from the construction managers/contractors as needed.</p>	Implementation Date
		5/31/2016
		Responsible Manager
		Director, Architectural Services
A.2	<p>PP&C will obtain reimbursement for overcharges it is entitled to.</p>	Implementation Date
		5/31/2016
		Responsible Manager
		Director, Architectural Services

A. Change Order Review - Detailed Comments

The change order process is described in the general conditions of the long-form contract and other contract forms, such as CM-at-Risk, made available through the *UC Facilities Manual*. Procedures include a cost proposal provided by the contractor, signed by the contractor and the campus project manager; a justification for pursuing a change greater than \$100,000 as a change order rather than separately bid, signed by the project manager, the director of PP&C Finances & Operations, and the campus architect; and supporting documentation reviewed by the project manager.

A sample of change orders from the Coastal Biology project was chosen for this review. We reviewed change orders exceeding \$100,000 to determine if doing them as change orders rather than competitively bid was justified. We reviewed supporting documents to ensure that the costs of change orders were reviewed for reasonableness.

Further, we reviewed the samples to:

- Ensure that change orders were approved in accordance with the contract terms and conditions.
- Ensure that math calculations were without error.
- Verify that change order costs were in accordance with contract terms and conditions.
- Verify that labor and labor burden pricing for change orders was reviewed.
- Verify that materials costs were reviewed.
- Verify that the scope of work required by the change order was a legitimate change in scope of work already including in the base contract.

At the time of our review, there were two change orders for the Coastal Biology project - #2 and #5 – that were for more than \$100K. However, the first did not involve a change in the scope of work, and the second did not involve a single change item worth more than \$100K. Change order #2, which occurred during the pre-construction phase, was for \$121,179.50 and was due to the start of Early Package Construction being delayed from August 20, 2014, to December 1, 2014, or 103 days. Change order #5 involved 12 distinct tasks or changes that totaled \$111,435.70, the largest costing \$32,728. It is not unusual for a change order to include more than one task or change, each with its own cost proposal and supporting documentation, in the interest of saving time. Consequently, neither change order needed justification to proceed as a change order rather than separately bid.

The PP&C practice for reviewing change orders includes steps for the project manager to consult with a contracted, local construction firm and the project's design architect as needed to ensure that proposed changes in scope are justified and not already within the scope of the base contract. Further, the project manager consults with PP&C inspectors, who are in the field daily, to verify the hours of work included in cost proposals.

In spite of the review by the project manager, we observed that the CM was not required to provide adequate supporting documentation for six of the 12 change order cost proposals. Further, there were calculation errors or unexplained entries in six of the 12 cost proposals that the project manager did not seek clarification for. Accordingly, these resulted in the University being overcharged by \$1,888. For example, in one cost proposal, the project manager recalculated the direct costs of materials used based on actual invoices and found the result was less than the amount charged by the CM. However, the project manager did not require the CM to change his amount nor did she require the CM's justification for his amount. Also, when we added up the amounts for each cost proposal, which should equal the change order total, we discovered an additional \$1,000 was included in the change order total without justification.

Although the additional review we provided would add a little more time to a project manager's review of change orders, it would inform the contractor of issues found, which would result in more accurate cost proposals from the contractor as a project proceeds. This, in turn, would result in less time needed for review/correction and potentially less overcharging.

APPENDIX A – Summary of Work Performed and Results

Bidding Process	
Work Performed	Results
<p>Gain a detailed understanding of the bidding process established at the campus (general process inquiry):</p> <ol style="list-style-type: none"> 1. Interview Capital Programs staff and review internal policies and procedures to gain an understanding of the bidding process for the various types of construction projects and contracts. 2. Perform analysis of contractors and subcontractors awarded construction projects in the past 3 years to identify potential trends that show a few contractors are receiving a significant percentage of the construction jobs. If one or two contractors are receiving a high percentage of the construction contracts, perform work to assess why this has occurred. 	<ol style="list-style-type: none"> 1. Little has changed in the bidding process since the last audit in FY12. CA Code now allows project advertising on the campus website. 2. During the 3-year period, <ul style="list-style-type: none"> • 118 contractors performed 564 projects for a total cost of \$105.4M. • 18 contractors had 10 or more projects each (range 10 to 66) for a total of 369 projects or 65% of all projects for \$26.8M or 25% of total cost. • 13 contractors had projects with total costs exceeding \$1M (range \$1.06M - \$50M); six had 10 or more projects. • 57 contractors (48%) had only one project within the 3-year period. 3. PP&C does not maintain data on subcontractors. As it would be too time consuming to obtain such data, we will exclude subcontractors from this part of the review. <p>Six projects in the original spreadsheet had negotiated contracts but their costs were > \$50K. This required an explanation, which proved satisfactory.</p> <p>NO ISSUES</p>
<p>Determine whether construction documents (designs, scope, building requirements, etc.) are reviewed and approved in accordance with the type of construction contracting being considered.</p> <ol style="list-style-type: none"> 1. Using information obtained from objective above, determine if bidding process utilized to award construction contracts comply with the University Facilities Manual; judgmentally select one major capital project for detail testing. 2. Obtain construction documents for the selected project and verify that designs, scope, building requirements, etc. are appropriately documented, reviewed and approved as required by the <i>Facilities Manual</i> (FM5[I]). 	<p>PP&C complies with the <i>Facilities Manual</i> (FM) per the bidding process.</p> <p>Our review of the 700 pages of Coastal Biology contract documents leads us to the conclusion that PP&C complies with the FM to ensure that designs, scope, building requirement, etc. are appropriately documented, reviewed and approved. There were some minor discrepancies in the wording of the Coastal Biology contract documents and templates currently posted on the UCSC FM website. However, these were not substantial differences and were adequately explained by the Contracts Office manager.</p> <p>NO ISSUES</p>

<p>Determine that contractor pre-qualification process complies with University FM requirements or applicable LBNL requirements (when the Capital Program group follows a regular practice of prequalifying contractors).</p> <ol style="list-style-type: none"> 1. Verify that the Advertisement for Contractor Prequalification informs bidders that prequalification documents (FM5: RD2.2) will be issued to interested bidders and that bidding documents will only be issued to prequalified bidders. 2. Verify that a prequalification process (including evaluation form (FM5:RD2.4) or equivalent) was used to evaluate the bidders. 3. Verify that the Supplementary Instruction to Bidders is modified as appropriate for prequalifying bidders. 4. Verify that capital programs only accepts bids from prequalified bidders. 	<ol style="list-style-type: none"> 1. We verified that the Advertisement for Contractor Prequalification informs bidders that prequalification documents will be issued to interested bidders and that bidding documents will only be issued to prequalified bidders. 2. We verified that a prequalification process conforming with the FM was used to evaluate the bidders. 3. Supplementary Instructions to bidders were appropriate for bidders. Only prequalified bidders were provided with bid documents. 4. Prequalification is made use of when required by contract or at the discretion of the project management due to the circumstances of a project. This conforms with the Facilities Manual, Section 4.3.1.1, which states: "Contractors may be prequalified, at the Facility's discretion, to bid on projects of any value." <p>NO ISSUES</p>
<p>Determine that advertising, receiving, opening, evaluating and awarding of contract complies with University Facilities Manual requirements (FM4).</p> <ol style="list-style-type: none"> 1. Verify that an invitation for bids was advertised in both 1) a general circulation publication and 2) a trade publication at least twice in the 60 days prior to the bid deadline (or electronically on the Internet Web site of the university CA Codes 10502a). 2. Verify that the invitation to bid provided notice of the time/space for receiving and opening sealed bids, described the scope of work, and the method by which a responsible bidder will be selected. 3. Verify that bids collected are received on or before the Bid Deadline and are opened publicly according to the invitation to bid instructions. 4. Review the Bid Form Checklist and the Selected Contractor's bid package to validate if required items were submitted. 5. Review the Bid Summary to validate that the contractor selected was appropriate based on evaluation method prescribed. 	<ol style="list-style-type: none"> 1. We verified that an invitation for bids was advertised in both a general circulation publication and a trade publication (2 in this case) at least twice prior to the bid deadline. 2. We verified that the ads included a notice of time/space for receiving and opening sealed bids, the scope of work was described and the method by which a responsible bidder will be selected. 3. We verified that bids collected were received on or before the bid deadline and were opened publicly according to the bid instructions. 4. We verified that the Bid Form Checklist and Selected Contractor's bid package required items were submitted. 5. We verified that the contractor selected was appropriate based on the evaluation method prescribed (low bid by responsible, responsive bidder). 6. We verified that the contractor selected met the minimum responsibility requirements of licensing, bonding and insurance. 7. CM-At-Risk Contract included all top level subcontractors. A complete list of subcontractors

<p>6. Review the bid package to validate that contractor selected met the minimum responsibility requirements of licensing, bonding and insurance.</p> <p>7. If a CM-At-Risk Contract was used, verify if all subcontract awards agree to the Bid Package Certification.</p>	<p>at all levels was obtained during the review of the University Controlled Insurance Program.</p> <p>NO ISSUES</p>
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University Controlled Insurance Program (UCIP)	
Work Performed	Results
<p>For projects over \$25 million, ensure that contractor and sub-contractors are enrolled and covered under the UCIP insurance program according to program underwriting requirements.</p> <ol style="list-style-type: none"> For the project selected for review, request a list of all contractors and subcontractors performing on the job site. Confirm with the UCIP program administrator that the general contractor and all subcontractors have been enrolled in UCIP. Request insurance documents for the general contractor and all subcontractors from the UCIP administrator to validate appropriate insurance coverage. 	<p>According to the Controlled Insurance Program Administration log, the CM/Contractor and 66 subcontractors at all levels were included on this project's Contractors Log (all 16 subs from the Contract Documents were included). The CM policy is 47 pages long. The Audit Program calls for insurance documents for the general contractor and all subs to validate appropriate insurance coverage. There are 66 subs on the Coastal Biology project. This would require a great amount of space and effort with no added value as all the enrolled contractors and subs are included in the UCSC Coastal Biology Building Contractors Log.</p> <p>NO ISSUES</p>

Project Change Order Analysis	
Work Performed	Results
<p>Identify possible correlations between contract type/bid selection process and total dollar amount of change orders or construction delays (consider all projects with construction costs of \$5 million or more that were substantially completed within the last three fiscal years).</p> <ol style="list-style-type: none"> Using the attached template, collect the requested information for projects with a total cost of \$5 million or more that have been substantially completed within the last three fiscal years (2012/13, 2013/14, and 2014/15). Send collected data to ECAS for consolidation. ECAS will determine if there are any correlations between the contract type or bid selection process and the total dollar 	<p>This work was completed with the assistance of PP&C Business & Operations management and staff and sent to UCOP for their analysis of possible correlations.</p> <p>NO ISSUES</p>

<p>amount of change orders or construction delays. This analysis will be discussed in the systemwide report.</p>	
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Change Order Review	
Work Performed	Results
<p>Evaluate project management change order review and approval processes. (General process inquiry)</p> <ol style="list-style-type: none"> 1. Through discussions with Project Management, gain a detailed understanding of change order procedures, including, but not limited to, the following: <ol style="list-style-type: none"> a. The thresholds, if any, for change orders being treated as a new contract; b. The list of offices the change orders are routed through; c. The rationale for existing routing procedures; d. The necessary supporting documentation that must be included in change orders. 	<p>PP&C follows the FM and the construction contract regarding change orders.</p> <p>NO ISSUES</p>
<p>Gain a detailed understanding of the number of change orders processed, as well as the amount and description of each change order. (Reviewed for a specific project selected for review.)</p> <ol style="list-style-type: none"> 1. In consultation with the campus architect, select a construction project in which the retention has not yet been released, and on which several change orders have been processed (this may be the same project reviewed in the Bidding Process section). 2. For the project selected, obtain a listing of change orders that were processed. If possible, the listing should contain the change order/field order number, brief description of the change order and total costs associated with the change order. Review this listing and complete the following steps: <ol style="list-style-type: none"> a. Review for change orders exceeding \$100,000. If so, determine if it was competitively bid. If not, is there a permanent record of the facts and conditions justifying not conducting an advertised bid? Review for appropriateness. b. Review for change orders which include costs based upon an agreed upon lump sum amount. Typically, change orders based on 	<p>We interpret the FM on this point to refer to a single change in scope that exceeds \$100K. Two change orders - #2 and #5 - were for more than \$100K. However, each did not involve a single change in the scope of work that exceeded \$100K. Change order #2, which occurred during the pre-construction phase, was for \$121,179.50 and was due to the start of Early Package Construction being delayed from Aug 20, 2014, to December 1, 2014, or 103 days. Change order #5 involved 12 tasks or changes that totaled \$111,435.70, the largest one costing \$32,728. It is not unusual for a change order to include more than one task or change, each with its own cost proposal and supporting documentation, in the interest of saving time.</p> <p>NO ISSUES</p>

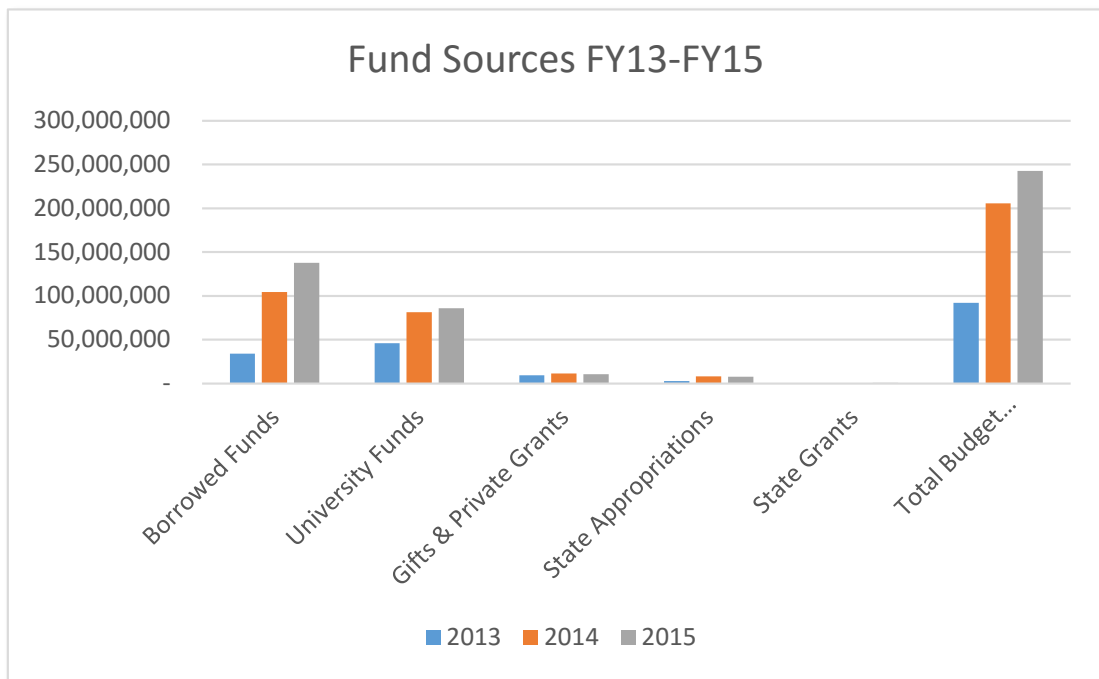
<p>lump sum agreed upon amounts are distinguishable because total costs are rounded to the nearest thousand, ten thousand or hundred thousand. Review change orders based on agreed upon lump sum amounts to ensure that costs are supported by a detailed cost breakdown.</p>	
<p>Review a representative sample of change orders and verify that 1) change orders are priced in accordance with the Facilities Manual and/or the construction contract documents, 2) deficiencies do not exist in the pricing methodologies or the pricing data and 3) that change orders represent a true change in scope, and that the extra work was completed. (Sampled CO)</p>	<p>See Section III. Observations Requiring Management Corrective Actions, A. Change Order Review</p>

<p style="text-align: center;">Restrictions/Requirements Attached to Funding</p>	
<p>Work Performed</p>	<p>Results</p>
<p>Determine the most frequently used sources of funding for construction projects (by dollar volume and/or number of projects).</p> <ol style="list-style-type: none"> 1. Interview appropriate Capital Programs and/or Facilities Mgmt. staff to ascertain the most utilized sources of funding for construction projects over the past three years. Obtain their feedback on any benefits derived from particular funding sources and/or challenges unique to particular funding sources. 2. Request a listing to document the construction funding sources used over the past three years, including the dollar amount of each funded project. 3. From the listing obtained earlier, identify the top 3-5 funding sources by both dollar volume and a number of projects funded. 4. To help facilitate review, categorize funding restrictions and requirements by source (e.g., federal/state gov't, bond funds, private agency, University policy, etc.) 	<p>See Appendix B NO ISSUES</p>

APPENDIX B – Control of Funding Restrictions and Requirements

1. Fund sources (dollars per year/percent of total funds for capital projects):

	FY13		FY14		FY15	
Borrowed Funds – restricted	\$33.8M	37%	\$104.4M	51%	\$137.8M	57%
University Funds – unrestricted	\$45.9M	50%	\$81.3M	40%	\$86.1M	35%
Gift & Private Grants – restricted	\$9.4M	10%	\$11.3M	5%	\$10.6M	4%
State Appropriation – restricted	\$2.6M	3%	\$8.2M	4%	\$7.7M	3%
State Grants – restricted	\$226.6K	0%	\$378.1K	0%	\$455K	0%
Endowment/Opportunity Funds	-	0%	-	0%	-	0%
Federal Grants – restricted	-	0%	-	0%	-	0%
Total	91.9M	100%	\$205.6M	100%	\$242.6M	100%



There were 146 projects in FY13; 180 projects in FY14; and 198 projects in FY15. Opportunity Funds and Federal Grants fund codes were included as fund sources on projects in FY13, but without any appropriation and were not included as fund sources for FY14 & FY15 projects.

Borrowed funds have surpassed University funds as the main source of funding for the majority of construction projects since FY13.

2. Common restrictions on funding for capital projects are:

- Competitive bidding and public advertising requirements.
- Affirmative action
- Funds may only be used for projects they were provided for.
- Project scope must remain the same.

- An adequate review and approval process to ensure that construction costs are reasonable.
- Prevailing wage rates must be used.
- Reporting requirements.

The above restrictions apply to most funding sources. However, there are restrictions by amount, such as for state appropriations, unless specifically allowed by state budget line item.

3. Campus units responsible for monitoring compliance with funding restrictions or requirements are:

- Capital Projects and Space Management
- Planning & Budget
- Plant Accounting
- Physical Planning & Construction

4. Control Process:

- Capital Planning & Space Management (CPSM) is responsible for developing and coordinating all project documentation necessary for project approval and funding, both on campus and for UCOP. CPSM prepares project planning guides in cooperation with PP&C and the originating campus unit that include the project justification, description, budget and schedule. Project planning guides are like an agreement with the fund source that we will build what we state in the guide. Once a project is approved and funds are transferred into the campus capital accounts, PP&C assumes responsibility for the project and manages it through completion.
- University funds (that are operating funds) allocated for capital projects are transferred through the Office of Planning & Budget (P&B). The P&B director reviews these to ensure the funds can be used for a capital project. There are plant fund numbers that correspond to operating fund numbers. When he receives a transfer of funds (TOF), he uses the appropriate plant fund number for the specific operating fund that is being transferred. If the TOF involves a fund that has never been used for capital purposes before, he asks Accounting to establish a new plant fund number.
- Plant Accounting confirms with Extramural Funds Accounting that a sponsored award allows the funding to be used for a particular capital project. Plant Accounting also allocates external financing (loans) directly in accordance with UCOP approval. Plant Accounting also allocates gifts and private donations to capital projects according to University Relations communications. Plant Accounting assigns fund numbers to the funds it deals directly with, consistent with UCOP's direction. Further, Plant Accounting reviews requests to pay contractor invoices to ensure that expenses are assigned to the right project, are reasonable and that there are sufficient funds for payments. Plant Accounting provides its approval if its criteria are met. This is the third level of approval after that of the project manager and the PP&C director of Finances & Operations.
- PP&C has two main control points regarding the use of funds for a capital project. Project management ensures that the project complies with the contract to meet the scope, budget and schedule. The Finances and Operations Office ensures that each project is identified with a unique project number that functions as the organization code in the campus ledger system. It then ensures that all funds from different fund sources allocated to each project are individually tracked, including their budgets. Project manager's sign-off on contractor invoices and submit them to Finances & Operations who review these again to ensure reasonableness and budget, and assign appropriate ledger codes (foapal). Finance and Operations then forward the invoice to Plant Accounting for approval and payment.

- There is a control over labor rates provided by LCPtracker, an application in wide use around the UC system.
- During the scope of our review, there were no projects funded with federal or state funds that required special reporting requirements. Previously, there was a project, the Biomedical Science Facility, with such requirements. The director of CPSM coordinated the effort to comply with reporting requirements for the state and federal agencies participating in the funding of that project. Coordination included PP&C, the assistant director of Biomolecular Science & Engineering and the dean of Physical & Biological Sciences. Agencies sent letters requesting reports to the PIs identified on the grant documents, who then contact the director of CPSM to respond to them. In the case of the state agency, California Institute for Regenerative Medicine, the grant conditions included that they could request an external audit to provide assurance that grant conditions were met upon completion of the project. UCOP arranged for the external auditor when it was requested.