



AUDIT AND ADVISORY SERVICES

Capitalized Fixed Assets — Equipment Project No. 17-693

February 27, 2018

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February 27, 2018

Eric Anglim
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Assistant Vice Chancellor and Controller
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Director Anglim and Assistant Vice Chancellor and Controller Regalia:

We have completed our Capitalized Fixed Assets – Equipment audit 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 presented in the accompanying report. Please destroy all copies of draft reports and related documents. Thank you to the staff of Property Management, Plant Accounting, and the various campus department personnel 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: Vice Chancellor Marc Fisher
Vice Chancellor and Chief Financial Officer Rosemarie Rae
Associate Chancellor Khira Griscavage
Senior Vice President and Chief Compliance and Audit Officer Alexander Bustamante

**University of California, Berkeley
Audit and Advisory Services
Capitalized Fixed Assets — Equipment**

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OVERVIEW

Executive Summary

The purpose of the audit was to assess whether capitalized assets are accurately accounted for in the campus asset management system and appropriately safeguarded (e.g., comply with university policies and employ best business practices). Overall, we found that inventorial asset practices are consistent with university policy and procedure requirements. We also found that the design of processes associated with the recording, tracking, and disposing of inventorial assets, using the Berkeley Equipment Tracking System (BETS), appear reasonable overall to support inventorial assets. We observed that documentation requirements related to inventorial asset processes are thorough and are rigorously maintained by Property Management. Our testing of asset acquisitions, asset transfers, and asset disposals did not produce material exceptions.

We also identified opportunities related to BETS that may further reduce the risk of error and improve work efficiency. These opportunities include

- *System Modification and Support.* BETS is a complex older system designed and implemented by campus Information Services and Technology (IST). The system is layered with previous modifications and updates and is subject to continual change in order to maintain its stability and future viability as the systems solution for inventorial assets. The creator of the system has been and continues to be the primary resource support but his continued availability is not secure.
- *Purchase Order-Based System.* BETS is a purchase order-based system that must be manually adjusted for differences between the purchase order (PO) and the invoice for taxes, freight, changes in price, and any added costs (e.g., fees, installation). While there is a process to periodically identify and review differences over \$300, because the update process is manual and does not cover all differences, there is risk that some differences are not added to the cost in BETS and assets are undervalued.
- *Non-PO costs for Inventorial Assets.* Non-PO costs (procurement card purchases and financial journal entries) are not interfaced from the general ledger system to BETS for inventorial assets. BETS relies on manual identification and subsequent correction. For fabrications, non-PO costs are not added to the value of the fabrication in BETS until the completion of the fabrication. Fabrications are usually built over multiple years and in some cases have taken up to seven years to complete. There is risk that the final cost of fabrications may be undervalued.
- *Available Technologies.* BETS does not currently take advantage of available technologies to simplify, identify, track, and report inventorial assets.

Source and Purpose of the Audit

The purpose of the audit was to assess whether capitalized assets are accurately accounted for in the campus asset management system and appropriately safeguarded (e.g., comply with university policies and employ best business practices).

Scope of the Audit

The audit scope included the administration of capitalizable assets held by the campus, with focus on inventorial assets, as defined in BFB-BUS-43 *Material Management*. The UC Accounting Manual and campus policies and guidance related to inventorial assets were considered as well as campus property management procedures. BETS was reviewed as part of the administrative process.

The review covered the inventorial asset process, starting with the process for populating and updating BETS. Also included were processes associated with the receipt and tagging of inventorial assets, transfer of assets, maintenance of asset records, and disposal of assets. The audit included the reconciliation of BETS to the general ledger as well as the process to record fabrications. General physical inventory practices were reviewed, however, the audit did not include a review of department inventory records. The audit also did not include certain specialized types of assets such as library or museum collections or other items considered special collections.

Property Management practices, specifically those of the Capital Asset Unit and the Salvage Unit, were reviewed. A limited number of department asset custodians and department finance personnel were interviewed. We also worked with the Controller's Office to review the accounting and reporting of both capitalized and non-capitalized inventorial assets. Our audit work was conducted between October 2016 and May 2017.

Background Information

Inventorial assets costing in excess of \$100 million were reported in the campus financial statements in fiscal year 2016, as part of "Capitalized Assets", which is categorized as a noncurrent asset. Inventorial assets include computer equipment, other equipment (trucks, automobiles, etc.), office furniture and office equipment, sporting equipment, fabricated equipment, and special collections (excluding library). Inventorial assets over \$5,000 with a useful life greater than one year are individually recorded and tracked in BETS throughout their lifecycle; from acquisition through disposal.

BETS was developed and implemented by campus IST and has been operating since 1986. It serves as a subsidiary system supporting the summarized asset amounts recorded in the general ledger system. Twice each year information in BETS is identified and summarized. UC Office of the President calculates depreciation based on information from BETS that has been provided to them. BETS maintains a variety of information attributed to each individual inventorial asset, including the property number, account code, custody code, department, value, fabrication number, serial number, manufacturer, model, asset location, useful life, etc.

Property Management shares joint responsibility with campus asset owners for maintaining assets in BETS. Purchase order items that are coded to one of several inventorial expense accounts are downloaded from BearBuy daily. Property Management reviews the downloaded information and assesses whether the item qualifies as an inventorial asset. If so, Property Management establishes a new asset record in BETS. Asset specifications (serial number, manufacturer, model) and changes in asset location are normally input by the department asset custodian. Updates to asset information in BETS are made by Property Management and is usually based on Equipment Inventory Modification Request (EIMR) forms received from the department asset custodians.

Campus departments are responsible for inventorial assets within their areas and use BETS as a tracking tool. They are responsible for maintaining the assets in an operable condition and keeping them secure. Departments are required to perform a physical inventory of their inventorial assets every two years. Departments certify (using an Inventory Certification Form) that they have physically located the inventorial assets recorded in BETS. Assets that are not located during the physical inventory are identified and investigated by the department, and a police report is prepared if the asset is considered stolen or lost.

Assets to be disposed of are identified by the departments and, once approved, are subsequently transferred to the Salvage Unit within Property Management for disposal. Items that can be reused are disposed of through in-house auction, sold through the warehouse store, transferred to other UC campuses, or transferred to other universities and non-profit entities. The Salvage Unit coordinates the transfer of assets. The net proceeds from inventorial assets sold are shared with the originating departments based on standard percentages designated by asset value. Items that cannot be reused are salvaged.

Summary Conclusion

Overall, we found that inventorial asset practices are consistent with university policy and procedure requirements. We also found that the design of processes associated with the recording, tracking, and disposing of inventorial assets overall appear reasonable to support inventorial assets. We observed that documentation requirements related to inventorial asset processes are thorough and are rigorously maintained by Property Management. Our testing of asset acquisitions, asset transfers, and asset disposals did not produce material exceptions.

As an outcome of our review, we also identified opportunities related to BETS that may further reduce the risk of error and improve work efficiency. These opportunities include

Systems Modification and Support. The BETS system is a complex system in use since 1986. The system is layered with previous modifications and updates and is subject to continual change in order to maintain its stability and future viability as the systems solution for inventorial assets. It is unclear whether maintenance and future enhancement efforts can sustain it as a viable system solution going forward. An added risk is that the continued availability of the system's creator and main support resource is not secure and any replacement resource(s), either internal or external, will not have a comparable level of knowledge and experience with the system. As

with all campus enterprise systems, the system owner, the vice chancellor of administration, should periodically evaluate the current business need and the most effective and economical solution to support and track inventorial assets given other available options in the marketplace.

Purchase Order-Based System. New PO information for certain expense accounts designated for inventorial assets is downloaded daily from BearBuy and reviewed for appropriateness as an inventorial asset by Property Management prior to entry into BETS. The downloaded information does not include tax, freight, changes in price, and any added costs (e.g., fees, installation) not originally reflected in the PO but later contained in the invoice. On occasion, campus IST runs a report that identifies differences over \$300 between the PO and the related invoice and Property Management manually adjusts the cost of each item in BETS. BETS does not flag or otherwise indicate that the PO has been updated. There is risk that the differences between the PO and invoice may not be added to the equipment cost in BETS, resulting in inaccurate inventorial asset reporting. Property Management should consider enhancing BETS so that any changes between the PO and the invoice are identified for either automated or manual entry.

Non-PO Costs for Inventorial Assets. Non-PO costs (procurement card purchases and financial journal entries) recorded in certain expense accounts designated for inventorial assets are not directly interfaced from the general ledger system to BETS for inventorial assets. Proper recording of these costs and association with individual fabrications relies on manual identification and subsequent correction. For fabrications, non-PO costs are not added to the value of the fabrication in BETS until the completion of the fabrication. Fabrications are usually built over multiple years and in some cases have taken up to seven years to complete. The adjustment is made using the “value-added adjustment” feature in BETS. This adjustment is a single cumulative number that is manually calculated by the department and is to be based on charges posted to the general ledger. There is no automated control in the general ledger or BETS to ensure that non-PO costs are associated with the final fabrication. There is risk that the final cost of fabrications may be understated resulting in inaccurate valuation of both asset and calculated depreciation.

Annual review by departments of fabrication non-PO transactions for potential value-added adjustment can improve the completeness and accuracy of the asset valuations in BETS.

Available Technologies. BETS does not currently have the capability to support newer technologies that simplify identification, tracking, and reporting inventorial assets. Property Management should evaluate whether the potential benefit of adopting such technologies for high-dollar value assets, or those associated with greater risk of misappropriation, exceed potential costs (direct and indirect) especially given the current campus budget situation.

SUMMARY OF OBSERVATIONS & MANAGEMENT RESPONSE AND ACTION PLAN

Property Management System

Observation

The campus uses the Berkeley Equipment Tracking System (BETS) to track inventorial assets from acquisition through disposal. BETS was developed and implemented by campus IST and has been operating since 1986. The system is complex, incorporating a download from the BearBuy procurement system and online input by both Property Management and the many department asset custodians throughout campus who work with inventorial assets. We noted the following opportunities for improvement associated with BETS.

Systems Modifications and Support. BETS is a complex older system that is layered with previous modifications and updates and is subject to continual change in order to maintain its stability and future viability as the systems solution for inventorial assets. BETS is currently being modified by campus IST to improve its structure and user accessibility and additional modifications are being considered to improve known conditions and limitations. Future enhancements will likely be necessary to address new requirements that may surface. However, it is unclear whether maintenance and future enhancement efforts will be sufficient to sustain it as a viable systems solution for the campus going forward.

BETS is currently supported by the system's creator who has maintained the system since its inception. This primary resource, and one assistant, support the system on a part-time basis. It is unclear how long the primary resource will continue to be available to support the system but it is acknowledged that any replacement resource(s), either internal or external, will not have a comparable level of detailed knowledge and experience about the system.

As with all campus enterprise systems, the system owner, the vice chancellor of administration, should periodically evaluate the current business need and the most effective and economical solution to support and track inventorial assets given other available options in the marketplace.

Purchase Order-Based System. New purchase order (PO) information for certain expense accounts designated for inventorial assets is downloaded daily from BearBuy and reviewed for appropriateness as an inventorial asset by Property Management prior to entry into BETS. The downloaded information does not include tax, freight, changes in price, and any added costs (e.g., fees, installation) not originally reflected in the PO but later contained in the invoice. BETS is not automatically updated with this additional information. A manual process is used to update the PO information in BETS. Only by looking at whether taxes and freight are included in BETS can one tell that the PO has been updated. BETS does not flag or otherwise indicate that the PO has been updated.

On occasion, campus IST runs a report that identifies differences over \$300 between the PO (downloaded to BETS) and the vendor invoice. Property Management verifies the changes based on available information in BearBuy and updates BETS with the changes. In addition, Plant Accounting may identify an asset that has been recently paid and add it to a list of items periodically forwarded to Property Management for follow-up and possible adjustment in BETS. Because the update process is manual, there is risk that the differences between the PO and invoice may not be added to the equipment cost in BETS. Reconfiguring to pull from invoice data will increase accuracy and significantly reduce workload as currently every transaction must be handled twice.

Non-PO Costs for Fabrications. Non-PO costs (procurement card purchases and financial journal entries) recorded in expense accounts designated for inventorial assets are not directly interfaced from the general ledger to BETS. Proper recording of these costs and association with individual fabrications relies on manual identification and subsequent adjustment. For fabrications, non-PO costs are not added to the value of the fabrication in the year incurred but are added at the completion of the fabrication. Fabrications are usually multi-year projects and some have taken as much as seven years to complete. The adjustment is done using the “value-added adjustment” feature in BETS. This adjustment is a single cumulative number calculated by the department and supplied to Property Management for input to BETS. When entered into BETS, the total amount of the asset (both PO and non-PO costs) is assigned a useful life and designated as a capitalizable asset. It is included in the year end BETS reports (EAS100) for use by Plant Accounting and UC Office of the President and is subject to depreciation. There is no automated control in the general ledger system or BETS to ensure that the correct non-PO costs are associated with the final fabrication. There is a risk that, by not accurately manually identifying non-PO costs related to a fabrication, the final capitalized value of the fabrication may be misstated, resulting in inaccurate valuation of both asset and calculated depreciation.

Annual review by departments of fabrication non-PO transactions for potential value-added adjustments would improve the completeness and accuracy of the asset valuations in BETS.

Available Technologies. BETS does not currently have the capability to support newer technologies that simplify identification, tracking, and reporting of inventorial assets. An example of an available technology is the integration of inventory management and tracking systems with enterprise systems like PeopleSoft, SAP, and other systems. Data within these systems can be readily interfaced and shared to promote consistency and completeness of information. The accuracy of information is also improved since integration reduces the need for manual input and summary reporting.

Another available technology involves physical inventory of assets. We understand from some departments that the amount of time currently needed to complete a physical inventory of inventorial assets using line-of-sight manual identification can be burdensome. This is compounded by the manual update of BETS. For some larger departments, it can take significant time (sometimes several months) to locate each asset and complete the required physical inventory. If departments do not fully complete their physical inventory due to the time and resources required, there is risk that the inventory may not be properly administered and inventory records may not be accurate. Theft, misplacement, and cannibalization can go

undetected. Technology is available that combines radio-frequency identification (RFID), bar codes, and global positioning software (GPS) technologies into a single solution that can allow users to scan multiple items at one time without line of sight contact, and can integrate results with asset tracking systems.

Property Management should evaluate whether the potential benefit of adopting such technologies for high-dollar value assets, or those associated with a greater risk of misappropriation, exceed potential costs (direct and indirect) especially given the current campus budget situation.

Management Response and Action Plans

Systems Modifications and Support

We understand the observations and concerns and share the importance of ensuring that the campus' equipment tracking system remains relevant, up to date, and supportable. We further agree that the key is the continuity of support and timely enhancements, which are put at risk where system knowledge is limited. IST leadership reports that besides the original BETS developer, it has additional staff fully knowledgeable in the language used to program BETS with an additional staff member slated for like training.

Presently, the campus' internally developed equipment tracking system, BETS, is in the process of being updated over three phases. The first phase has just been completed providing enhanced end user functionality, redesign of the users' interface experience to provide more convenient viewing capabilities, and expanded custom reports. Pre roll-out meetings were conducted with end-users resulting in positive feedback. Phase 2 is planned to be completed within an additional six months (April 2018) and will convert Equipment Management oversight access and processes from a PC-based environment to the same web-based environment enjoyed by end-users. Phase 3 will come four months after Phase 2 (August 2018) and provide users with the ability to access and update the system through mobile devices, take and upload digital photos of equipment directly to the system, and recognize equipment property tags. Property Management will work with the Administration and Finance organizations to implement future BETS modifications.

Target Completion Date: August 31, 2018

Purchase Order-Based System

We agree with the topic observations. Campus IST is updating BETS to create a one way real-time electronic update interaction, whereby the campus' financial system, BFS, will feed information directly into BETS. For each capitalizable asset, information in BETS (originally downloaded from BearBuy) will be automatically updated with information subsequently recorded in BFS through invoice payment or other adjustments, including fabrications.

Further, we will work with those departments that typically create fabrications, to establish a mechanism for tracking purchases associated with fabrications, such as setting up a unique

chartfield1 for that fabrication and linking associated PCard and voucher purchases accordingly. This action is intended to alleviate the need for staff to reconcile the two systems, ensuring BETS values mirror the campus' financial system values for target equipment. To ensure the outcome is as desired, Equipment Management staff will perform random reconciliations to ensure accuracy. Noted discrepancies that are not the result of timing delays will be advanced to the developer for corrective action to the process.

Target Completion Date: June 30, 2018

Non-PO Costs for Fabrications

We agree with the topic observations. Process changes are underway whereby fabrication non-purchase order expenses are added to the assets in BETS through the real-time update process described above. However, the effectiveness of this enhancement continues to be dependent upon those campus staff associating asset financial information in the financial system utilizing the appropriate code to link the expense with the target fabrication. Where the previously identified ongoing random reconciliations result in identification of custodial department entry accounting errors, Equipment Management will require departments to provide for each of its active fabrications, a comprehensive list of all added value adjustments, in order to confirm accuracy or affect needed corrections.

Target Completion Date: June 30, 2018

Available Technologies

We appreciate the caution offered in the topic observations, but find that BETS continues to support newer technologies that simplify identification, tracking, and reporting of inventorial assets and more. As an example, critical to the accountability process required by university policy is the timely confirmation of inventorial assets. BETS has been enhanced to provide automated, escalating electronic communications of this requirement on a department-by-department basis as well as notification to department management, as needed.

It is as a direct result of this kind of existing feature that more and more campus custodial departments are conducting reviews of their internal equipment verification processes to ensure accurate confirmation of those inventorial assets under their control. These actions have prompted departments to give consideration to asset verification through electronic solutions as referenced in the observations such as Radio Frequency Identification technology. At this time, there is no data to support the cost-to-benefit ratio of implementing such a solution globally and we look forward to the lessons learned leading to further considerations. However, IST has committed to integrating BETS with all such enhancements.

Further, Property Management continues to be open to consideration of replacing the campus' current asset tracking system, but any such consideration must include a return-on-investment analysis and identify funding sources, as there is no equipment acquisition funding in the Equipment Management budget. To date, the campus continues to enjoy recurring federal

approval of its property control system, including BETS, making the costly move to another system not necessary at this time.

Target Completion Date: August 31, 2018 (Phase 3)