

# **AUDIT REPORT**

## **PROJECT MANAGEMENT OF THE NATIONAL MUSEUM OF THE AMERICAN INDIAN MALL MUSEUM**

**Number A-02-05**

**September 30, 2002**

## SUMMARY

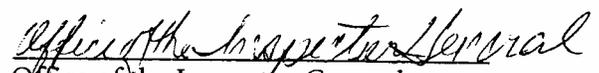
The Office of the Inspector General audited the controls over project management of the National Museum of the American Indian (NMAI) Mall Museum construction project. The purpose of the audit was to determine whether project management was effective and whether financial and management controls were adequate to ensure compliance with contract terms, policies and procedures, and laws and regulations. The NMAI Mall Museum is the third and final facility established by Public Law 101-185, the National Museum of the American Indian Act, dated November 28, 1989. We reviewed the significant phases of the project from planning to construction as of our audit date. We determined whether controls were in place to ensure that the project was within budget, on time, and in compliance with the terms of the major construction and design contracts.

Overall, we found that project management of the planning, design, and construction of the NMAI Mall Museum was effective. We also found that financial controls were adequate and that management controls were adequate to ensure compliance with contract terms. However, we noted that in the area of financial management, improvement was needed in the reconciliation of Office of Facilities Engineering and Operations (OFEO) internal financial records to the official accounting records. OFEO was not always completing the reconciliation of its internal project financial tracking system records to the official Smithsonian Financial System (SFS) records by project in a timely manner. This occurred primarily because SFS did not provide useful information on a project level to monitor construction and repair, restoration, and alteration (RR&A) projects and programs.

The Institution will be implementing a new Enterprise Resource Planning (ERP) system to meet its financial management needs, beginning October 1, 2002. Therefore, we made recommendations to improve financial controls within the project management process by:

- Meeting regularly with the ERP system project team to define requirements and develop reports that are useful for monitoring construction and RR&A projects and programs, and
- Reconciling internal OFEO financial records to the official ERP system records at least quarterly for construction and RR&A projects and programs.

The Director, OFEO concurred with the first recommendation, and concurred, with exception, with the second recommendation. The Director provided implementation plans for both recommendations. We believe that the Director's plans are responsive to our recommendations.

  
Office of the Inspector General

## TABLE OF CONTENTS

	<u>Page</u>
1. Introduction.....	1
A. Purpose .....	1
B. Scope and Methodology.....	1
C. Background .....	1
2. Results of Audit.....	4
Reconciliation of Official Accounting Records to OFEO’s Internal Financial Records .....	4
Appendix 1. Comments of the Director, OFEO .....	8

## ABBREVIATIONS AND ACRONYMS

ERP	Enterprise Resource Planning
NMAI	National Museum of the American Indian
OFEO	Office of Facilities Engineering and Operation
PFITS	Project Financial Information Tracking System
RR&A	Repair, Restoration and Alteration
SFS	Smithsonian Financial System

## INTRODUCTION

### **A. Purpose**

The audit was included in our fiscal year 2002 plan because the National Museum of the American Indian (NMAI) Mall Museum project is one of the largest construction projects at the Institution. The objectives of the audit were to determine whether: 1) project management was effective; 2) financial controls were adequate; and 3) management controls were adequate to ensure compliance with contract terms, policies and procedures, and laws and regulations.

### **B. Scope and Methodology**

The audit was conducted from June 14, 2002, to September 6, 2002, in accordance with generally accepted government auditing standards. The scope of the audit covered the significant phases of the project from planning to construction as of our audit date. We determined whether controls were in place to ensure that the project was within budget, on time, and in compliance with the terms of the major design and construction contracts. We reviewed:

- Policies and procedures relating to project management;
- Duties and responsibilities of the project management team, including Project Manager, Resident Engineer, Quality Assurance Chief, and construction management firm;
- Major contracts and modifications;
- Key documents used to manage the project, including the project plans, cost estimates, schedules, and budgets;
- Changes to the budget since inception;
- Monitoring of budget to actual costs;
- Funding sources, including use of advances;
- Smithsonian Directive 410 design reviews;
- Tracking of change orders, requests for information (RFI), and submittals;
- Monthly and weekly progress reports; and
- Minutes of the NMAI Oversight Board and Board of Regents meetings.

We conducted interviews with all offices involved in the project: Office of Facilities Engineering and Operations (OFEO), NMAI, Office of Planning, Management and Budget, Office of the Comptroller, and the Office of the Treasurer. We also interviewed selected members of the NMAI Oversight Board, including the Director for Financial Affairs of the Office of the Under Secretary for American Museums and National Programs.

### **C. Background**

The NMAI Mall Museum is the third and final facility for the NMAI within the Smithsonian Institution that was established by Public Law 101-185, dated November 28, 1989. The NMAI is dedicated to the preservation, study, and exhibition of the life, languages, literature, history, and arts of Native Americans.

The legislation stated that the Institution should not pay more than two-thirds of the total cost of planning, designing, and constructing the Mall Museum from federal appropriations. As part of the planning process for the NMAI the Institution contracted with architectural firm Venturi, Scott Brown and Associates to develop a Master Facilities Programming Report, entitled "The Way of the People," on the purpose and design of the facilities. The third volume of this report, issued on September 15, 1993, described plans for the Mall Museum and included an original budget of \$110 million for construction of the facility.

The construction budget for the project has increased incrementally since 1993, and is now set at \$199.3 million. In addition, exhibit and opening costs for the Mall Museum are budgeted at \$20 million. In June 2001, the Institution reported to the U.S. Senate Committee on Appropriations, Subcommittee on Interior and Related Agencies, that increases in the cost of the Mall Museum were caused by increased design and construction costs. Increased design costs were attributed to the termination of the original design contract and additional presentation materials required by the architectural review commissions. Factors contributing to the increase in construction costs were: the complexity of the curvilinear design and exterior skin construction, escalation related to the extension of the project schedule and higher construction prices in the Washington area, increased technological requirements for the building, and greater allowances for Native American craft elements.

A construction contract was awarded to Clark/TMR, a Joint Venture, in June 2001. The total contract price is \$141.9 million. The contract is funded in increments according to a phased schedule. The phases were established to coincide with the construction contractor's critical path schedule: infrastructure, enclosure, and finish work. Construction is expected to be completed in May 2004. Exhibit installation and opening events are being coordinated by the NMAI Mall Museum Transition Team for the fall 2004 opening.

The project is funded from both federal and private sources. As of July 31, 2002, \$103.3 million had been received in federal funding, and \$78.8 million, including cash and outstanding pledges, had been raised by NMAI for the project.

OFEQ has responsibility for managing the planning, design, and construction of new Institution facilities. For the NMAI Mall Museum project, OFEQ has a field office on the construction site. The field office includes a Project Manager, Resident Engineer, Chief of Quality Assurance, Chief of Engineering Support, Design Managers, and Construction Engineers. The Institution also uses the services of a commercial construction management firm, Bovis Lend Lease. These services include schedule and documentation tracking, cost and schedule analysis, inspections, testing, and other administrative assistance. Architectural and Engineering support is provided by the architectural firms Polshek/Smith Group and Jones +Jones.

Oversight for the project has been provided by the NMAI Oversight Board, which is chaired by the Under Secretary for American Museums and National Programs and is comprised of the Directors of NMAI, OFEQ, Office of Contracting, Office of Government Relations, and Office of the General Counsel. Other members of the Board include the Chief Executive Officer for Smithsonian Business Ventures, Chief Financial Officer, Treasurer, Deputy Director of NMAI, and the NMAI Mall Museum Project Manager.

The primary objectives of the Board are to ensure continued effective coordination among relevant SI organizations; provide for a mechanism for obtaining internal and external input; ensure the on-time completion and opening of the Museum; and evaluate the schedule, funding and cost status. Other oversight entities include the NMAI Mall Museum Monthly Executive Committee, the Capital Planning Board, and the Board of Regents.

## RESULTS OF AUDIT

Overall, we found that project management of the planning, design, and construction of the NMAI Mall Museum was effective. We also found that financial controls were adequate and that management controls were adequate to ensure compliance with contract terms.

We found that the Project Manager was effectively managing and tracking the numerous activities associated with the project. The Project Manager effectively carried out the duties of guiding the project through the design and construction process, and acting as a liaison between the customer, design manager, construction manager, reviewers, and representatives from various Institution groups. Progress reports were prepared and presented at monthly meetings. Detailed financial reports tracking budget to actual costs were prepared and distributed monthly.

We found that teamwork and communication on the project were strong. All of the key personnel in the management process were informed of their responsibilities to the project and the status of the project.

However, in the area of financial management, we found that OFEO needs to improve the reconciliation of official accounting records to OFEO's internal financial records.

### Reconciliation of Official Accounting Records to OFEO's Internal Financial Records

OFEO was not always completing the reconciliation of official SFS records to OFEO's Project Financial Information Tracking System (PFITS) records by project in a timely manner. We found that OFEO was not always identifying the dollar amount of variances by project between SFS and PFITS and resolving the variances on a monthly or quarterly basis. This occurred primarily because SFS did not provide useful information on a project level to monitor construction and RR& A projects and programs. Failure to reconcile SFS to PFITS increases the likelihood that financial reports tracking the status of the NMAI Mall Museum project may be inaccurate. Timely information on available funds is critical to ensure that contractors are paid promptly and that the project is on schedule.

### Background

OFEO uses its own internal system, the Project Financial Information Tracking System (PFITS), to manage project costs. The PFITS system is separate from the official Smithsonian Financial System (SFS), although both systems use many of the same data sources. Data is manually entered into PFITS and then again into SFS. OFEO project managers rely on PFITS to provide project-level information on requisitions, obligations, and expenditures.

The Institution is implementing a new Enterprise Resource Planning (ERP) system to meet its financial management needs. The ERP system will operate using PeopleSoft software. The ERP system will replace SFS and will be implemented incrementally from FY 2003 through FY 2005. The first phase will be implemented October 1, 2002, and includes the general ledger, accounts payable, and purchasing modules. The second phase

will be implemented October 1, 2003, and includes the contracting, projects, assets, grants, budget, accounts receivable, and billing modules.

Smithsonian Directive 305, *Administrative Control of Funds*, dated March 15, 1999, states that heads of museums, research institutes, and offices are responsible for working with the Office of the Comptroller to ensure that official accounting records reflect accurate and appropriate information.

Smithsonian Directive 115, *Internal Controls*, dated July 23, 1996, states that transactions should be promptly recorded, properly classified, and accounted for in order to prepare timely accounts and reliable financial and other reports.

The Office of the Comptroller has been working with the Directors of units to incorporate a requirement for monthly reconciliations in the performance plans of administrative officers. The performance plan of the financial management advisor in OFEO includes a requirement to “share project schedules, which are maintained on a monthly basis and provide formal monthly reports to director-level personnel as appropriate.” The Office of the Comptroller is in the process of preparing a financial procedural manual and will be looking at the issue of reconciliations in December 2002.

#### Results of Review

OFEO was not performing a complete reconciliation of SFS records to OFEO’s Project Financial Information Tracking System (PFITS) records by project in a timely manner. We found that OFEO was not always identifying the dollar amount of variances by project between SFS and PFITS and was not always resolving the variances in a timely manner. The financial management advisor advised that she was not always resolving variances monthly or even quarterly, but was able to resolve the variances by the end of the fiscal year. For the NMAI Mall Museum project, we found a variance of about \$67,000 that was unresolved for 6 months. Our review of the June 2002 reconciliation for all construction and RR&A projects and programs found that OFEO had identified the dollar amount of variances, as of June 2002, for 65 of the 102 projects and programs, or 64 percent. Of the 65 projects and programs for which the dollar amount of variances was identified, 21, or 32 percent, had unresolved variances over \$1,000. These variances ranged from about \$2,000 to \$500,000.

The financial management advisor in OFEO advised that she does not complete the reconciliation by project on a monthly basis due to 1) the large number of projects and programs (totaling about 100), 2) the difficulty of reconciling SFS records to PFITS records, 3) SFS’s inability to provide useful project-level information and 4) limited staff. Only one person works on the reconciliation process, and this is only one of many critical duties and responsibilities.

Reconciliation of SFS to PFITS is a difficult, time-consuming process. The reports produced from SFS do not provide detailed project-level information organized in a format that is useful for reconciliations. The financial management advisor in OFEO advised that she is not able to use certain detailed SFS reports, such as the accounts payable/purchase order (AP/PO) report to resolve discrepancies. Rather, she goes online and queries the system to obtain transaction-level detail and identify the nature of the discrepancies. This query process is very time-consuming.

Because SFS does not provide useful information on a project basis, OFEO tries to identify and resolve variances by contract. Each project or program may involve numerous contracts. OFEO regularly reviews the SFS contract validation report for large errors. OFEO also reviews contract and modification information on a regular basis as it is entered into the SFS system by the Office of Contracting to make sure it is set up correctly and to detect errors early.

The financial reports prepared by OFEO and NMAI use obligation and expenditure numbers from PFITS. Management relies on these reports for decision making. Failure to reconcile SFS to PFITS increases the likelihood that financial reports tracking the status of the NMAI Mall Museum project may be inaccurate. Timely information on available funds is critical to ensure that contractors are paid promptly and that the project is on schedule.

### Conclusion

The Institution will be implementing a new financial system beginning October 1, 2002. According to the Office of the Chief Information Officer (OCIO), the new ERP system has a stronger, more user-friendly reporting and query capability than SFS. OCIO also advises that one of the benefits of the ERP system will be a substantial reduction in the amount of time that will be needed to reconcile between the central records and individual unit records. We believe that during the ERP implementation the Institution should strive to eliminate duplicate data entry and maximize automation as much as possible. OFEO should work with the ERP implementation team to define functional requirements and develop reports that are useful for monitoring construction and RR&A projects and programs.

### Recommendations

We recommended that OFEO:

1. Meet regularly with the ERP system project team to define requirements and develop reports that are useful for monitoring construction and RR&A projects and programs.
2. Reconcile ERP records to PFITS record, including identifying and resolving variances, on at least a quarterly basis, for construction and RR&A projects and programs.

### Management Comments

1. Concurred. OFEO has begun to partner with the systems experts. OFEO is currently re-establishing two internal OFEO groups to ensure that it has the proper focus on future automated systems: a) an automation steering group made up of OFEO's senior leadership who will provide strategic direction and oversight, and b) an advisory group made up of key OFEO personnel and other functional experts who will work closely with the technical systems group to articulate OFEO requirements and effect implementation. Actions will be ongoing beginning the first quarter of fiscal year 2003.

2. Concurred, with exception. OFEO plans to take the following actions until PeopleSoft is positioned as a comprehensive ERP with fully implemented functionality: a) Identify values in SFS that are greater than related values in PFITS and reconcile them, b) Identify material differences (material to the value of the project) between PFITS and PeopleSoft in existing projects and reconcile them, and 3) Reconcile all differences in new projects(those that are entered into PFITS and PeopleSoft after October 1, 2002). Corrective actions will be taken during the first quarter of fiscal year 2003.

OFEO also suggested that the recommendation be modified and worded as follows: "Participate with the OCIO and OCFO, and other users in a cross-functional review of future SI business processes (including project management) so that the new integrated systems will be aligned to and have embedded automatic reconciliation procedures with the accounting system of record."

#### Office of the Inspector General Response

1. The Director's plan of action is responsive to our recommendation. We will follow up in December 2002 on the status of the recommendation.
2. The Director's plan of action is responsive to our recommendation. With regard to interim reconciliation measures, we will evaluate what OFEO proposes with regard to materiality once the differences have been identified. We will follow up in December 2002 on the status of the recommendation.

With regard to OFEO's proposal to expand the recommendation, we appreciate OFEO's concern that functional users and system developers work together. Because of the large number and cost of construction projects, OFEO's participation and involvement is crucial to the success of the ERP projects module. Work groups, including representation from central staff (e.g. Comptroller), end users, and system developers have been established for Phase 1 of the implementation. According to OCIO, they have not formalized the membership for the Phase 2 workgroups, but expect OFEO representation in the projects and asset modules work groups. In future audits, scheduled for fiscal year 2003, we will evaluate how user requirements are being addressed and implemented by the ERP system.

WRITTEN COMMENTS BY THE DIRECTOR, THE OFFICE OF FACILITIES  
ENGINEERING AND OPERATIONS



Smithsonian Institution

Memo

Office of Facilities Engineering and Operations

Date September 27, 2002

To Thomas D. Blair  
Inspector General

From William W. Brubaker *WLB*

Subject Response to Draft Report on Audit of Project Management of the National Museum of the American Indian Mall Museum

Thank you for the opportunity to comment on the results of your audit of Project Management of the National Museum of American Indian (NMAI). We appreciate your efforts to help improve the execution of this important project, and others, for the Smithsonian and our Nation.

In considering your draft, I am pleased with your overall conclusion that our project management was effective, financial controls were adequate, and management controls were adequate to ensure compliance with the contract terms. I believe we can work together to resolve our remaining differences (described below). Generally, I feel that more emphasis in the report needs to be placed on the integration of project management systems into the overall Enterprise Resource Planning (ERP) environment. A focus on reconciliation to an outmoded and inaccurate system is not the direction we plan to take. My specific comments are keyed to the two recommendations offered in your draft report.

Recommendation #1. Concur. Independent of this audit, we have begun to partner with the systems experts. We are currently re-establishing two internal OFEO groups to ensure that we have the proper focus on future automated systems: (1) an automation steering group made up of OFEO's senior leadership who will provide strategic direction and oversight, and; (2) an advisory group made up of key OFEO personnel and other functional experts who will work closely with the technical systems group to articulate OFEO requirements and effect implementation. Further, we suggest that your first recommendation be strengthened with the following addition directed to the CIO and CFO: "OCIO and OCFO should partner with OFEO to establish system functionality, define requirements, and begin the user interface communication." This assigns responsibility to the organizations that have the mission, functions and capability to effect the changes (actions on-going beginning 1<sup>st</sup> quarter FY 03).

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WRITTEN COMMENTS BY THE DIRECTOR, THE OFFICE OF FACILITIES  
ENGINEERING AND OPERATIONS

Recommendation #2. Concur, with exception. During a recent meeting with the IG audit team, we expressed concerns regarding this recommendation and offered suggestions to improve it. We agree conceptually that reconciliation is an important feature of good financial systems, however devoting concentrated blocks of time to a comprehensive reconciliation effort is not practical based on current systems. The scope of the draft recommendation is too shallow and I believe should focus efforts on developing future business processes and automated tools and techniques that maximize the capabilities of an ERP/integrated system, rather than reconciling to an inaccurate and outmoded system (SFS). While we understand that these suggestions are future-minded and receipt of benefits is likely more than a year away, we could use your assistance to help influence the SI in that direction. As an interim measure, we plan to take the following actions until PeopleSoft is positioned as a comprehensive ERP with fully implemented functionality:

a. Identify values in SFS that are greater than related values in PFITS and reconcile them (corrective actions to be taken during 1<sup>st</sup> quarter FY 03).

b. Identify material differences (material to the total value of the project) between PFITS and PeopleSoft in existing projects and reconcile them (corrective actions taken 1<sup>st</sup> quarter FY 03).

c. Reconcile all differences in new projects (those that are entered into PFITS and PeopleSoft after 1 Oct 02) (corrective actions taken during 1<sup>st</sup> quarter FY 03).

We suggest that your 2<sup>nd</sup> recommendation be modified and worded as follows: "Participate with the OCIO and OCFO, and other users in a cross-functional review of future SI business processes (including project management) so that the new integrated systems will be aligned to and have embedded automatic reconciliation procedures with the accounting system of record." Rationale: a key concept is that policy drives systems. Automated reconciliation should occur routinely between the general ledger and subsidiary ledgers within the accounting system. Unreconciled differences should be available to functional users by virtue of an exceptions report structured by organization and project with transaction level of detail available in the system (corrective actions on-going by 4<sup>th</sup> quarter FY 03).

We note your verbal concern that several of our suggestions to strengthen your report are contained in other IG reports. We believe that these areas are important enough to also be addressed, or as a minimum, be cross-referenced in this report. Clearly, automation is one of the critical keys to future success for the SI and we should take every available opportunity to reinforce its importance.

We look forward to working with your audit team to resolve our differences and in working together to improve the SI's overall automated systems environment. OFEO points of contact are Mr. Steven Butler at 275-0325 and Ms. Ellen Williams at 275-0226.