

The Library of Congress  
*Office of the Inspector General*

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## Integrated Support Services

*Opportunities Exist to Improve  
Space Management*

Final Audit Report No. 2004-PA-104

July 2005





UNITED STATES GOVERNMENT

LIBRARY OF CONGRESS

**Memorandum**

*Office of the Inspector General*

**TO:** James H. Billington  
Librarian of Congress

July 20, 2005

**FROM:** Karl W. Schornagel  
Inspector General

A handwritten signature in black ink, appearing to read "Karl Schornagel".

**SUBJECT:** *Opportunities Exist to Improve Space Management—*  
Final Audit Report No. 2004-PA-104

This transmits our final report and addresses the response to our draft report distributed March 31, 2005. The report distributed for comment is unchanged and serves as the final report. Therefore, we will not distribute additional copies to the offices that received the draft (Deputy Librarian and Integrated Support Services). The written comments from ISS are attached. To assist us with the audit, we engaged RTKL Associates, a top ten international architecture, engineering, and planning firm. RTKL prepared the report distributed in March that includes detailed recommendations to improve the efficiency and effectiveness of the Library's space planning process. Implementing these recommendations provides real opportunities for ISS' Facility Services office to better support the organizational, operational, and mission-related goals of the Library, and the effective performance of its employees. The Executive Summary begins on page i, and complete findings and recommendations appear on pages 9 to 16.

Based on ISS' response to the report, we consider recommendations I. 1, II. 1., III. 1 and 2, IV. 1, V. 1, 2, 3, and 4, and VI. 1, 2, and 3 resolved. Accordingly, ISS' action plan should address recommendations I. 2 and 3, II. 2 and 3, IV. 2 and 3, V. 5 in accordance with LCR 1519-1, Section 4B, and is due within thirty days.

We appreciate the cooperation and courtesies extended by personnel from ISS, Architect of the Capitol, Library Services, and Congressional Research Service during the audit.

Attachment 1 - OIG Comments on Integrated Support Services' Response  
Attachment 2 - Integrated Support Services' Response to the Draft Report

cc: Deputy Librarian  
Director, Integrated Support Services

# The Library Of Congress

Office of Inspector General

Audit Report No. 2004-PA-104

**RTKL Associates**

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March 2005

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## EXECUTIVE SUMMARY

The objective of this study was to assess the performance and management of the Library of Congress' (hereafter referred to as the Library) space management operations to determine spatial efficiency compared to other government agencies and the private sector. The study included an evaluation of random office spaces as selected by the Office of the Inspector General. RTKL focused on the Madison Building because the Jefferson Building is an historic structure that would be difficult to modify and the Adams Building is predominantly used as book storage space. Included in the study was an evaluation of the Library's space standards based on approved staffing levels and industry standards and recommendations for a more "standardized" approach to space planning.

Overall, RTKL concludes that the Library's design layout of office-related space needs significant improvement. Many of the areas within the Library are both under and over utilized due to the lack of standards for space usage, including workspace standards as well as standards for support functions. The Library's space management practices are undergoing some changes, based on a previous study conducted by the OIG, which will improve the process and results of the work provided by Facility Design and Construction. However, the Library needs to develop a long-term strategy that allows for making decisions to improve the efficiency of space and staff productivity. Our findings and recommendations are summarized as follows:

### **The Library Needs to Establish Consistent Space Utilization Metrics**

RTKL evaluated the randomly selected offices of the Library Service's (LS) Cataloging units and those of the Congressional Research Service (CRS) and found a large discrepancy between the utilization rates of the two service units. Although the functional requirements of the two units are quite different, the large discrepancy stresses the need for a standard space utilization strategy within the Library. Without a consistent space utilization metric, the Library will not be able to establish spatial efficiencies within service units and effectively maintain and manage space usage. We recommend that the Library establish an appropriate metric for space utilization and evaluate each of the service units for compliance. In addition, the Library should consider charging service units for space usage as an incentive to manage space more efficiently.

### **The Library Needs to Develop Uniform Office and Workstation Standards**

RTKL inventoried the third, fourth, and fifth floors of the Madison Building and found 47 different workstation and 30 different office sizes. It is our experience that it is difficult and expensive to move people and departments quickly and efficiently when there are such large variables in the number of standards for offices and workstations. RTKL has found that many organizations and government offices are greatly reducing the number of office and workstation sizes and are using consistent standards that are based on job function, resulting in more efficient use of space. We recommend that the Library develop consistent space standards that relate to job function and limit the

number of standards to no more than three for all future projects. In addition, the Library should present these standards to its unions for approval so that the bargaining process during space review is eliminated.

### **Establish Target Open Workstation to Closed Private Office Planning Ratios**

RTKL studied alternative office layouts on the 5<sup>th</sup> floor of the Madison Building utilizing varying ratios of open workstations to closed offices. The ratios were 100:0, 80:20, 70:30, and 60:40. For each scenario, standard workstation sizes of 7'-6" x 10' and offices of 10' x 15' were used because the sizes worked with the physical parameters of the building. Further, the 70:30 ratio of open workstations to closed offices is most consistent with the existing blended ratios of the Library Services Cataloging divisions and CRS divisions that were studied. The 70:30 ratio provided for 277 staff with 195 Useable Square Feet (USF) per person.

Establishing planning ratios that work with the building modules will allow the Library to increase flexibility and utilization and efficiency within their office space. We recommend that the Library develop guidelines for planning ratios that relate to job function and work within the physical characteristics of the Madison Building.

### **Develop a Space Use Concept Plan**

While studying the sample service units within the Library, RTKL found that there was no consistent planning concept for locating support spaces, office areas, and circulation in typical configurations. RTKL has found that developing a planning concept that relates to the planning depth, structural grid, and mullion spacing provides greater efficiencies. In addition, a planning module can provide a framework for locating office areas along the perimeter to allow access to natural light and exterior views, and locating support spaces within interior space where natural light is not an issue. Support spaces can also be located in consistent locations on each floor for efficiency and establishing way-finding for visitors from other floors. There are currently 82 conference rooms throughout the Madison Building totaling 25,782 SF. With past clients RTKL has found that consolidating conference rooms and sharing them between departments provides for more efficient space usage and often creates a reduction in overall square footage. Similarly, the Library could realize efficiencies by consolidating and centrally locating training facilities. We recommend that the Library develop a consistent approach for spatial planning that maximizes worker access, in both offices and workstations, to natural daylight and exterior views, and more efficiently utilize meeting and training space.

### **Develop Workplace Standards that Enhance User Productivity**

RTKL found that the current Library office environment does not support current best practices in design for efficient and productive workplace environments. We recommend that the Library do the following to improve the office environment:

- Develop workplace standards that support current ergonomic requirements.

- 
- Develop filing standards or use efficient storage methods such as high density filing systems.
- Develop standards for common and special support spaces such as copy rooms, pantries, and meeting rooms.
- Develop consistent standards for technology support in conference rooms, including appropriate lighting.
- Develop methods to provide natural light and exterior views to staff.

### **Develop a Long-Term Strategic Plan for Space Strategies and Personnel Vacancies**

Several initiatives underway at the Library are creating available space in the Madison Building. These include moving the Motion Picture, Broadcasting, and Recorded Sound Division to Culpepper, VA, and creating an Alternative Computing Facility in Manassas, VA. In addition, two factors that may also have a significant impact on space requirements within the Library include:

- Reduction in the Library's workforce as approximately 50% of the current staff is eligible for retirement over the next five years. Replacement strategies may impact future space needs.
- Fewer patrons are visiting the Library's reading rooms because of advancements in technology that allow materials to be available on-line. This could allow the Library to reduce the number of reading rooms and create additional available space.

RTKL recommends that the Library develop a long-term strategic plan that identifies projected vacancies and under-utilized space within the Library along with a timetable when available space will become available and establish a long-term space management plan.

Detailed findings and recommendations begin on page nine.

## INTRODUCTION

RTKL has undertaken an assessment of the Library of Congress's performance and management of space planning operations. Our objective was to determine if there is economy and efficiency in space utilization compared to other government agencies and the private sector. RTKL's study is in response to the Library's Request for Proposal dated May 10, 2004 and based on the following criteria:

1. To evaluate the design/layout of the office-related space including conference and reception areas, and training facilities. The spaces to be sampled have not been specifically identified, but must be representative of typical library space so that projections can be made from the contractor's work. The study is to include the evaluation of 250,000 SF of space.
2. To determine if space is under-utilized or over-crowded based on approved staffing levels and industry standards, and to determine the square footage of the under utilization or square footage needed to relieve overcrowding.
3. To provide alternative configurations for 10 to 15% of the offices that are underutilized and criteria for efficient space configuration with a graphic representation of floor plans. Considerations should be given to unique characteristics and planning constraints in each building. The alternative configurations will only require block planning. It is the Library's intention to use examples of before and after graphics showing under utilized space and the same space more efficiently configured.
4. To compare the Library's present policies and procedures with best practices for management of space from the government and private sector, and document differences.
5. To provide an overall assessment of long-term planning for space utilization considering the long-term initiatives as follows:
  - Moving the Motion Picture, Broadcasting, and Recorded Sound functions to Culpepper, VA;
  - Creating a new Alternative Computing Facility in Manassas, VA; and
  - Responding to the reality of fewer patrons' visiting the library due to advancements in technology.

## BACKGROUND

The Library of Congress' headquarters consists of three Capitol Hill structures: the Jefferson Building, the Adams Building, and the James Madison Memorial Building. The Jefferson Building, completed in 1897, is a five-story structure totaling 890,000 square feet that includes a basement, cellar, attic, and top deck. Thirty-five individual book stacks occupy approximately forty-four percent of the total available area. The Adams Building, completed in 1938, is an eight-story structure, including a sub-basement and cellar, totaling 762,000 square feet. Three-quarters of the total available area is used for the storage of books, most of which are found in twelve levels of book stacks in the building's center. The Madison Building is the newest of the Library of Congress' buildings. Completed in 1981, the Madison Building contains over 2,100,000 square feet of space. It is the fourth largest government building in the metropolitan area. It follows the Pentagon, the Ronald Reagan Building, and the Federal Bureau of Investigation Building.

The Library's Facility Design and Construction (FD&C), Facility Services, is responsible for coordinating all space utilization, maintenance, relocation, renovation, new construction, and public programs in Library facilities. FD&C is the liaison with the Architect of the Capitol, who is responsible for the maintenance, operation, development, and preservation of the Library of Congress' buildings.

Facility managers monitor maintenance and repair of the Library's three Capitol Hill buildings plus the Little Scholars Child Care Center on East Capitol Street. These facilities total approximately four million square feet. The Library also maintains an additional 334,730 of leased facility space in the Washington Metropolitan area. Included in the leased space is a 246,100 square foot warehouse operation in Landover, Maryland and an 88,630 square foot facility on Taylor Street. Facilities Services is currently working with the Architect of the Capitol to develop initial program requirements for the design of a planned 166,000 square foot warehouse at Ft. Meade, Maryland to replace this leased warehouse facility.

The Library is working on two major long-term initiatives: moving the Motion Picture, Broadcasting, and Recorded Sound functions to Culpepper, Virginia, and creating a new Alternate Computing Facility in Manassas, Virginia. These initiatives will impact staffing at the Capitol Hill location. In the last several years there has also been a shift in the way the Library of Congress' patrons use the vast resources they offer. As millions of digitized documents become available on the Library's web site, fewer patrons are visiting the Library in person. As a result, Facility Services now must weigh space availability, corporate culture, mission, job requirements, technology changes, cost, and efficiency when determining how to allocate space.

### Space Management Processes

The Library's Office of the Inspector General audited FD&C in September 2002. This audit provided 23 recommendations regarding process and management controls in order to better serve their customers. Subsequently, in October 2004 the OIG issued a

memorandum as a follow-up review of the audit recommendations. Based on the follow-up review, the OIG determined that FD&C implemented 17 of the 23 recommendations. Of the 6 recommendations that had not been fully implemented, FD&C had taken action, but either additional action and/or more time was required to determine if the action will achieve desired results.

Based on the memorandum FD&C has modified their present policies and procedures and have now implemented the following:

- FD&C now forecasts projects 18 months in advance.
- Projects are assigned to a service unit team. Each service unit team is composed of a project coordinator, a senior and a junior Interior Designer. FD&C noted that based on the new project delivery system, the workloads for the design staff will be significantly increased.
- Based on a Memorandum of Understanding signed in 2003, the Library may now transfer funds to the AOC for projects, or hire contractors provided the AOC has oversight.
- Starting in 2005, FD&C will begin using MS Project Management to better manage each project. Safety Services, Information Technology Services, Architect of the Capitol, and the occupant will all get a hard copy of reports that show the steps for each project, including the time table. Occupants will know when each step should begin and finish.
- FD&C will also begin better monitoring the time spent on each project. Designers will be assigned hours based on the square footage of the project.
- In September 2005, a new automated Computer Aided Facilities Management (CAFM) system will be installed. This will allow FD&C to better track office usage, vacancies etc.

## OBJECTIVES, SCOPE, AND METHODOLOGY

### Objectives and Scope

The objective of this audit was to study the space-planning program at the Library of Congress and provide the following:

- Evaluation of the design/layout of office-related space, including conference, reception, and training areas.
- Evaluation of selected office space to determine efficiency, and identify under-utilized and over-crowded conditions.
- Development of prototypical alternative configurations and/or design criteria for efficient space configurations.
- Evaluation of the Library's space standards based on approved staffing levels and industry standards, including recommendations for a more "standardized" approach to space planning and an assessment of the Library's Facility Design and Construction (FD&C) planning operations.
- Benchmark of current space management policies against industry 'best practices' and other government and private sector users.
- Assessment of long term planning strategies for space utilization.

As RTKL and the OIG toured the randomly selected spaces, the scope of RTKL's assignment was changed, as it was determined that the spaces in the original selection of office spaces were too small or inappropriate to have value for a space efficiency study. In addition, the Jefferson Building was eliminated because it is an historic structure that would be difficult to modify. The Adams Building was eliminated because it is predominantly used as book storage space. Because of these factors, RTKL recommended focusing on the Madison Building for this study.

### Methodology

To accomplish the audit objectives, we: 1) conducted visual surveys of random samplings of office space in the Library's three Capital Hill facilities; 2) developed a program questionnaire, collected data, and conducted follow-up interviews with FD&C staff, AOC management, and select building occupants regarding the Library's space procurement and management policies; 3) performed a detailed efficiency analysis for select areas of the office space at the Madison Building; 4) benchmarked the Library's space standards and facility services processes with those of the World Bank because they occupy a similar square footage in Washington, DC and are also part of the public sector.

RTKL conducted the work between September and December 2004, and the criteria used to evaluate the audit included industry standards and best practices.

## Summary of Survey and Interview Process

The facility survey began with a tour of randomly selected spaces (as identified by the Library/OIG), throughout the three existing Library facilities; the Madison, Adams, and Jefferson buildings. On 20 September, the RTKL team and Library representatives toured the spaces listed below.

### Madison Building

- Ground Floor: ITS (1/3 of Group), LS/Preservation/Preservations Research & Testing Lab (not accessible because door was locked)
- First Floor: LS/Music Division Reading Room/Collections Office
- Second Floor: CRS/American Law Division
- Third Floor: LS/Motion Picture and Recorded Sound Division
- Prints and Photographs
- Fourth Floor: CRS/Office of Legislative Information and Technology Office
- Fifth Floor: LS/History and Literature Cataloging
- Sixth Floor: LS/Publishing Office and Office of Strategic Initiatives

### Adams Building

- First Floor: Photo Duplication Service
- Fifth Floor: Science Business & Technology Reference Room
- Federal Research Division

### Jefferson Building

- Ground Floor: Collections Access & Loan Management Division
- Second Floor: Hispanic Reading Room

### Additional Tours (27 September 2004)

Because it was determined to change the scope of work to only the office spaces located in the Madison Building, additional surveys became necessary. In addition, the OIG requested that RTKL survey the following additional spaces:

### Madison Building

- Sub-Basement Level: Parking Garage and Law Library Collection
- Basement Level: Geography & Map Collection Reading Room
- First Floor: Atrium, Madison Hall, and storage space across from Madison Hall (formally the Gift Shop)
- Second Floor: Exhibition Space and the CRS/LaFollette Reading Room
- Sixth Floor: Dining Area/Cafeteria

Further, the evaluation scope was revised to include a detailed program verification and analysis of LS/History and Literature Cataloging Division and CRS/American Law Division. RTKL was interested in evaluating LS History and Literature Cataloging Division space because the layout of the work areas appeared over crowded with no centralized support (See Figures 1 and 2 on the next page). As well, RTKL was interested in evaluating the CRS/American Law Division because its closed office to open workstation ratio appeared higher than other areas toured in the random sample. We also observed that their collections were on standard shelving and we felt the space

could be more efficient if a high-density compact shelving system were utilized. In a subsequent interview with CRS, we were told that the enclosed office ratio was high because of confidentiality reasons, and that CRS is in the process of replacing the standard shelving units with a high-density compact system.



Figure 1 – History and Literature Cataloging Division, 5<sup>th</sup> Floor Madison Building



Figure 2 – History and Literature Cataloging Division, 5<sup>th</sup> Floor Madison Building

## Interviews

The OIG recommended select individuals for interviews to discuss and understand the current Library space allocation and modification process. Interviews focused on two primary areas 1) collection of program data for select divisions to support the detailed efficiency analysis; and 2) evaluation of current Library planning strategies as implemented in the Madison Building. Interviews included the following:

- Library Services (27 September 2004)
- Facilities Design and Construction (30 September 2004)
- LS/History and Literature (1 October 2004). Note: This interview included detailed program verification review.
- Congressional Research Service (1 October 2004). Note: This was intended to be a program verification interview but the RTKL questionnaires were not completed.
- Office of Strategic Initiatives (13 October 2004)
- Architect of the Capitol (13 October 2004)

## Efficiency Analysis

RTKL has evaluated the existing condition floor plate of the Madison Building and analyzed factors that impact planning as follows:

- Planning Depths (the plannable dimension from the building exterior wall to the core wall)
- Structural Grid (the spacing between the structural columns within the building, which affects planning efficiencies)
- Mullion Spacing (the spacing between the mullions on the exterior wall, which determines the spacing of office walls along the perimeter of a building)
- Space Types (office and workstation sizes)
- Shared/Common Use Spaces (conference rooms, reading/stack spaces, unused and under-utilized spaces)

As well, RTKL has evaluated the design/layout of the office-related space included in the random sample as well as the additional spaces identified on Page 5.

## Benchmark Study of Space Management Process

RTKL has compared the current space management process utilized by the Library's FD&C and the space management process that is in place at the World Bank's Facility Group. The following observations were noted:

- FD&C is made up of approximately 11 Senior Designers, 4 Junior Designers, and 1 Division Head.
- *The World Bank's facilities department is made up of 1 Business Manager, 2 Exhibit Management and Special Project's Staff, 8 Client Representatives (each*

*represent a building or buildings), 11 Construction Managers and Engineers, 9 Building Engineers, 1 Real Estate and Planning staff, 3 Facilities Information Analysts (CADD), 3 Facilities Relocation Specialists and 1 Fire and Life Safety Staff.*

- The Library has no space standards.
- *The World Bank has very strict space standards that include only 2 office sizes. These space standards were established by the Facilities Group and are fully supported from the top of the organization.*
  
- The Library does not charge back for space.
- *The World Bank began charging back for space in 1993 and this has provided a positive incentive for users to manage their space more efficiently.*
  
- The Library occupies approximately 4 Million SF in three owned buildings on Capitol Hill.
- *The World Bank occupies 4 Million SF in five owned and three leased facilities.*
  
- The Library completed approximately 48 projects last year.
- *The World Bank completed between 300 – 500 projects last year, including small moves, large moves, capital improvements such as chiller replacement, and special projects.*
  
- The Library's projects are initiated by the service units.
- *The World Bank's projects are initiated by the client groups.*
  
- The Library's projects can be prioritized by the Librarian or Congress.
- *The World Bank's projects can be prioritized by the President of the WB or a VP.*

## FINDINGS AND RECOMMENDATIONS

Evaluations of space and space management process were benchmarked against current industry standards and 'Best Practices' for both Government and private sector workplaces, and the following issues were identified.

### I. The Library Needs to Establish Consistent Space Utilization Metrics

Based on the random sample evaluation, RTKL evaluated and compared density and utilization rates for 156,899 Useable Square Feet (USF) of existing LS/Cataloging space on the fifth floor to 208,000 USF of Congressional Research Services (CRS) space on the second, third, and fourth floor of the Madison Building.

Our analysis indicated that there is a wide discrepancy in space utilization metrics between service units: Cataloging is at 151/USF per person, while CRS is at 258 USF per person. Although CRS generally has staff at higher-grade levels, and the work performed by the LS/Cataloging and CRS is quite different, the large discrepancy in space utilization between the two units and the numerous workstation and office configurations addressed subsequently in this report highlights the lack of a standard space utilization strategy within the Library.

By not establishing and maintaining standards for space utilization the Library is unable to determine efficiency within its service units. The lack of standards also promotes an environment where users feel they must maintain all space, even if it is not being used, because they are not confident that there are systems in place to ensure their space requirements can be met if circumstances change. Finally, the lack of space utilization metrics makes the FD&C's job of maintaining and managing space within the Library difficult as there are no guidelines to establish the quantity of space a user is entitled to when requests are submitted for space modifications.

Based on the International Facility Management Association (IFMA) benchmarking and RTKL best practices, typical target ratios for federal agencies and private sector companies range from 185 USF to 250 USF per person. The GSA's "The Integrated Workplace" stated target ratio is 200 USF per person. RTKL has seen other government agencies with specialized support requirements with utilization rates ranging from 230 – 250 USF per person.

The following table shows a comparison of USF Metrics at other government agencies:

<b>Organization</b>	<b>USF / Person</b>
Library of Congress	151 – 258 *
The World Bank	210
Florida State Employees	180
GSA	200
FDA	250

\* Includes only metrics for the CRS and Cataloging Divisions (See Appendix A).

## Recommendations

The Library of Congress should do the following:

1. Establish an appropriate metric for space utilization and evaluate each service unit for compliance. By establishing an appropriate standard for space utilization the Library can work toward setting user's expectations for space and develop a framework for the process of determining the allocation of space based on an actual metric rather than an arbitrary method that is unclear to both the FD&C group and the user.
2. Once the Library has determined the appropriate metric for space utilization, they should present it to the Library's unions for approval. It has been RTKL's experience that if the union representatives review and approve the metrics before implementation, the process of implementation is improved.
3. Consider implementing a process to charge Service Units for space usage. RTKL's work with other organizations that developed processes to charge their Business Units for space usage has shown that there is a positive incentive for the Business Units to manage their space more efficiently.

## II. The Library Should Develop Uniform Office and Workstation Standards

As part of this study, RTKL inventoried existing workstation and office sizes on the third, fourth, and fifth floors of the Madison Building. On these three floors, the Library has a total of 47 differently configured workstations and 30 different enclosed office sizes (See Appendix B).

As a means of comparison, the World Bank has approximately 4 million SF of office space in Washington DC. The Bank formerly had 7 million SF, but reduced their real estate holdings by limiting the amount of workstation and office standards. The current standards are 120 SF for both enclosed and open workstations for Directors and below and 225 SF for Vice Presidents. In addition, the Government Accountability Office (GAO) uses the following standards: Workstation – 64 SF, Interior Office (GS level 13, 14, 15) -150 SF, and Senior Executive Office - 300 SF.

It is difficult and costly (i.e.: churn costs) to move people quickly and efficiently when office and workstation sizes are not consistent or vary greatly, and are based on job levels rather than functional requirements. In addition, the Library is subject to continuous bargaining with its labor unions because of the lack of clear and consistent workplace standards that are not tied to job function.

Today's organizations have greatly pared down the number of office and workstation sizes and are using consistent standards to manage workspace allocations. Many organizations have reduced the number of standards to as few as three to allow workers to move with minimal reconfiguration, thereby increasing the flexibility of office space.

## **Recommendations**

The Library of Congress should do the following:

1. Develop consistent written space standards for long-term implementation that relate to job function (such as cataloging) rather than job level, in an effort to manage workplace and space allocations.
2. Create no more than three different office sizes and configurations to be used for any future projects. This will provide flexibility for workers to move without costly changes and modifications.
3. Present standards to the Library's unions for approval prior to implementation so that the unions do not have to review every modification made to a service unit. The unions will only need to review the user's space assignments once the physical modification is made.

### **III. The Library Should Establish Target Open Workstation to Closed Private Office Planning Ratios**

RTKL studied alternative office layouts using an approximate 54,000 square foot block of space in a LS Cataloging division on the 5<sup>th</sup> floor of the Madison Building. The study compared workstation to enclosed office ratios of 100:0, 80:20, 70:30, and 60:40 (See Appendix C).

In each of these studies, RTKL utilized a more universal approach to office planning by limiting the size of the workstations and enclosed offices. The planning module we used was a 7'-6" x 10' open workstation and a 10'x15' enclosed office. This module was chosen because it worked well within the existing physical parameters of the Madison Building, including the core depth, window mullion spacing, and structural grid.

The 100:0 open workstation layout provided for 298 people, and 181 SF per person; the 80:20 layout provided for 301 people, and 179 SF per person; the 70:30 layout provided for 277 people and 195 SF per person and the 60:40 provided for 256 people and 211 SF per person. Based on the Library's current layouts, RTKL believes the 70:30 mix of workstations to offices would be the most appropriate because it is more consistent with the blended ratios (70:30) of open workstations to closed offices that were seen on the two floors that were studied.

By establishing target planning ratios that work with the building modules the Library will increase the flexibility of its office space as well as the overall utilization and efficiency of space.

## **Recommendations**

The Library of Congress should do the following:

1. Develop guidelines for appropriate planning ratios based on job function that work within the physical parameters of the Madison Building.
2. Begin implementation of planning ratios as projects are approved to move forward.

#### **IV. The Library Needs to Develop a Space Use Concept Plan**

RTKL found that the Library did not have a consistent planning concept for locating support spaces, office areas, and circulation in typical configurations. RTKL studied a typical LOC floor plan, and graphically indicated our recommendations for an alternate use of space. The 'Space Use Concept Plan' we developed revolves around the primary circulation and core areas and illustrates our recommendations for locating divisions and centralized division support, centralized conference/lounge areas, alternative uses of space for non-daylighted areas (space in the center of the building) of the floor plan (See Appendix B). This plan also includes the concept of shared conference/training rooms.

Developing a planning concept that relates to the building's characteristics i.e.: planning depth, structural grid, and mullion spacing, allows for greater efficiencies. This also creates a framework for locating offices and workstations in areas along the building perimeter that allow access to natural daylight and views for the workers rather than using that space for support activities (conference/training rooms, copier, pantries, storage, book shelves) which have no full-time staff.

RTKL determined that the Library has conference rooms located within each office. We have found that most clients are moving toward centralizing conference and training rooms and sharing them between offices. Consolidating and centrally locating conference rooms can provide the Library with space efficiencies as well as optimize the technology in the rooms (as discussed in the next finding). FD&C floor plans indicate that the Madison Building has 82 conference rooms totaling 25,782 USF. (See Appendix E) This would necessitate assigning an office responsibility for taking reservations for the central conference and training rooms.

Support spaces should be placed in consistent locations where possible on each floor for greater efficiency as well as providing way-finding clues for the building users. As Figures 3 and 4 below illustrate, floor plans often do not include dedicated space for pantry items. It has been RTKL's experience that these types of planning standards benefit the organization by saving design and construction costs as well as by increasing efficiency (See Appendix B for the Space Concept Plan).

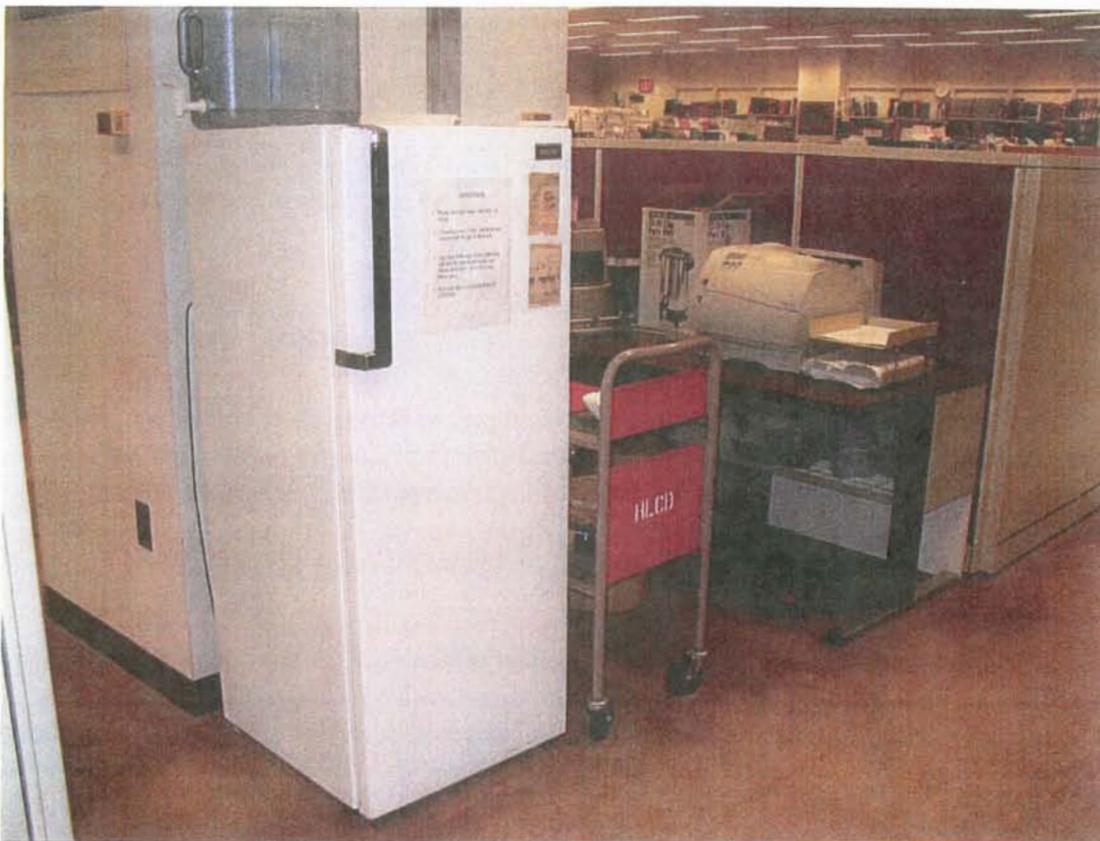


Figure 3- History and Literature Cataloging Division, 5<sup>th</sup> Floor Madison Building

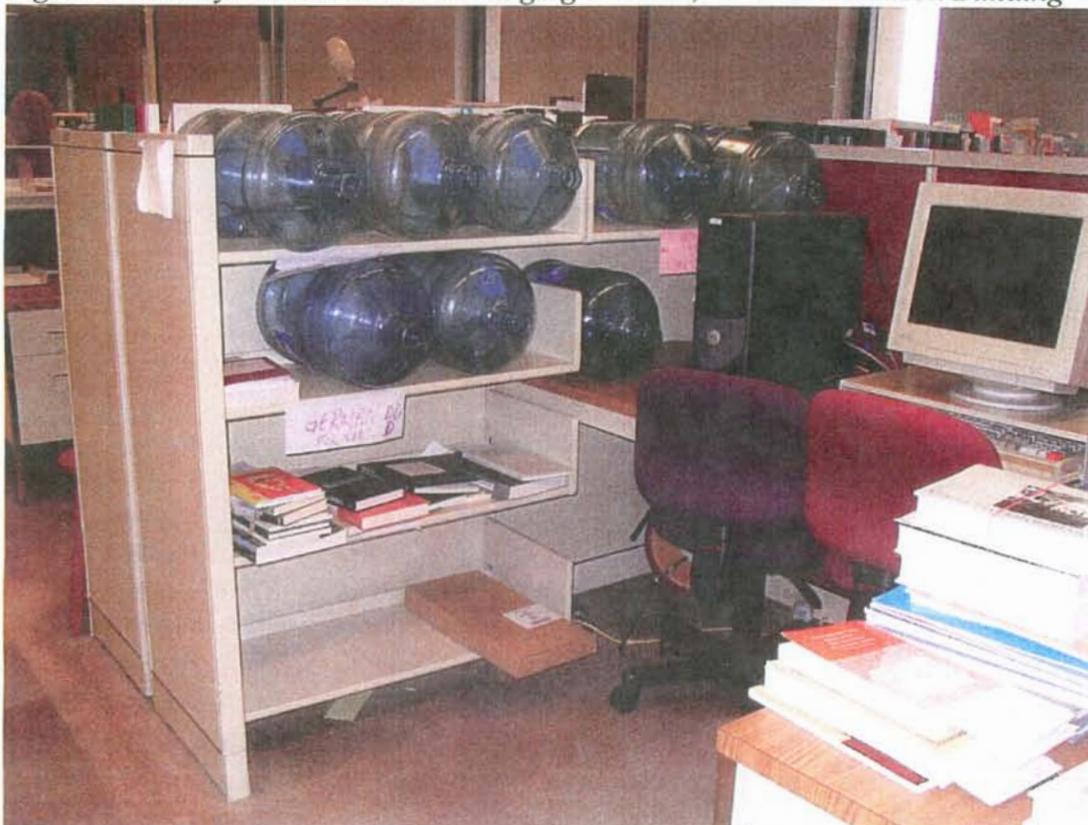


Figure 4 – History and Literature Cataloging Division, 5<sup>th</sup> Floor Madison Building

## Recommendations

The Library of Congress should do the following:

1. Develop a consistent approach for spatial planning, including zoning support vs. office function for typical floor and strategies for centralized common support space.
2. Develop strategy to maximize worker access to natural daylight and views to the outdoors in an effort to maximize worker productivity and job satisfaction.
3. Consolidate and centralize the conference and training rooms into one area located centrally on each floor. Assign an office responsibility for handling the reservations for these rooms.

### V. The Library Should Develop Workplace Standards that Enhance User Productivity

Although the Library is in the process of retrofitting some workstations with ergonomic work surfaces, RTKL believes that more needs to be done to comply with current best practices in design for efficient and productive workplace environments. Our observations of deficiencies include the following:

- Workstations are not consistently configured to support the users' functional requirements and work processes, nor do they meet most current ergonomic standards. Effective and efficient workspaces can lead to greater productivity and employee satisfaction. In addition, according to OSHA guidelines, workstations that are designed to meet current ergonomic standards offer the following benefits:
  - Decreased injury risk
  - Increased productivity
  - Decreased mistakes/rework
  - Increased efficiency
  - Decreased lost work days
  - Decreased turnover
  - Improved morale
- There are no consistent filing standards or use of efficient storage methods, such as high density filing systems. Standardization of filing can create more efficient use of space. Likewise, utilizing high density filing systems can reduce space requirements from 35 - 40%.
- There is no standard for common and special support areas, such as copy rooms, pantries, and conference and meeting spaces. Establishing standards for common support areas can provide for more efficient space usage, as well as locating support areas in spaces that are appropriate and consistent, which allows for proper ergonomic layout.
- There are no consistent standards for technology support in conference rooms and other meeting spaces. Most large organizations are outfitting their conference rooms and meeting spaces with consistent technology configurations so that

user's can reserve any room and have the required technology available, allowing greater flexibility and ease of use. In addition, conference rooms should be configured with appropriate lighting, which supports the technology configuration.

- Access to natural light and views to the outside are not consistently available to staff. It has been proven that providing access to daylight and views to the outdoors increases worker productivity, morale, and overall physical well-being.

### **Recommendations**

The Library of Congress should do the following:

1. In conjunction with the recommendations in Finding II, develop consistent workplace standards that support current best practices and productive workplace environments.
2. Develop workstation standards that meet all current ergonomic standards and functional requirements.
3. Establish consistent filing standards and consider more efficient storage methods, such as high density filing systems. FD&C should conduct a cost/benefit analysis to determine the benefit of compact shelving as well as consult with the AOC to assess structural load issues.
4. Establish consistent standards for support areas.
5. Develop consistent standards for technology in support spaces such as meeting rooms.
6. Develop standards that maximize employee access to natural light.

### **VI. The Library Must Develop a Long-Term Strategic Plan for Space Strategies and Personnel Vacancies**

The Library has several initiatives underway for freeing up space and they include:

- Moving the Motion Picture, Broadcasting, and Recorded Sound functions to Culpepper, VA.
- Creating a new Alternative Computing Facility in Manassas, VA.

RTKL has been unable to determine how much space may become available when the Motion Picture, Broadcasting, and Recorded Sound function moves to Culpepper. Library Services indicated that there would be as much as 150,000 SF available, while Facility Services indicated that there might be 43,000 SF.

If the Library were to free up space in the Madison Building one strategy for reducing costs would be to relocate approximately 88,000 SF for the National Library Service for

the Blind and Physically Handicapped from a leased facility on Taylor Street. The relocation of this operation to the Madison Building could save the Library approximately \$1M per year in rent.

The other two major factors impacting space at the Library are as follows:

- A significant percentage of the workforce will be eligible to retire over the next five years. The OIG has recommended that the Library formalize a Succession Planning Program that is tied to its Strategic and Training Plans. In addition, the OIG recommends that the Service Units must identify critical positions and consider the Library's hiring process and its impact on studying the Library's Succession Planning. The Succession Plan that will eventually be implemented by the Library's Service Units will impact the size of the future workforce. The size of the Library's future workforce will also have a significant impact on the Library's space requirement and should be considered in any long-term strategic space plan.
- Fewer patrons visit the library's reading rooms because millions of documents are now available on line and therefore limiting the number of in-person visits required to access the Library's resources. The Library could better utilize the reading room space, which would result in greater economy and efficiency in space utilization.

### **Recommendations**

The Library of Congress should do the following.

1. Develop a long-term strategic plan that identifies potential vacancies, a timetable for available space, and establish long-term space management plan.
2. Identify and quantify potential under-utilized space within the Madison Building to serve as swing space during re-design projects.
3. Determine the feasibility of moving Library operations located at Taylor Street Annex to the Capitol Hill complex based on opportunities for greater efficiency in space utilization and space being vacated for relocation to off-site facilities.

## **Appendix A**

Due to their large format, the appendices are not included in this electronic version.

## **OIG Comments on Integrated Support Services' Response**

ISS provided comments concerning our findings, conclusions, and recommendations; as well as planned corrective actions, and agreed with 12 of the 20 recommendations. For the remaining eight recommendations, ISS often disagreed with the specifics or the feasibility of the recommendation rather than disputing the validity of the deficiency finding. Any alternatives for addressing the issues should be included in ISS' Action Plan.

ISS has made significant progress and expects to continue making improvements in its infrastructure management, but much work remains to be done. We recognize that ISS will not be able to fully implement most of the recommendations within a year. Facility transformation requires long-term cultural change, business process reengineering, and a commitment from both the Library's senior management and the service units. Due to the complexity and long-term nature of the recommended improvements, strong and sustained executive leadership is needed if these initiatives are to succeed.

### **General Comments:**

ISS responded that "Prior to the initiation of this audit Facility Services had already identified most of the auditor's recommendations and had already taken substantial action toward implementation of these into its business process. However, this audit report does not take into account or recognize any of these actions already implemented by Facility Services." We believe our review of the Library's space management program was objective, balanced, and represented program conditions existing at the time we completed our review in December 2004. We recognized the positive aspects of FD&C that are applicable to the audit objectives. For example, in the second paragraph of the Executive Summary we noted that the Library's space management practices are undergoing some changes that will improve the process and results of the work provided by FD&C. Likewise, on page three we detail six actions FD&C has taken to improve its operations.

We disagree with Facility Services' contention that it has taken "substantial action toward implementation" for most of our recommendations. While we agree that FD&C was aware of most of the deficiencies and acknowledge that it has drafted task orders for a contractor to analyze the deficiencies and make recommendations, this represents plans rather than actions. Government Auditing Standards on reporting the views of responsible officials states, "Comments, such as a promise or plan for corrective action, should be noted but should not be accepted as justification for deleting a significant finding or a related recommendation."

ISS stated that recommendations I.1, II.1, III.1, IV.1, and V.I. were "already in process" and "FD&C had already incorporated this requirement into a task order for standards documentation through an existing FD&C contract." We note that as of June 29, 2005, FD&C had drafted a task order but had not forwarded it to the Contracting Office for bids. The draft

task order included “Provide a written document with recommendations on a LOC policy for implementing the new space standards being proposed.” We agree that the task order deliverables are an important first step toward Facility Services effectively managing space. However, until the Contracting Office awards the task order and the contractor delivers the space standards plus an implementation strategy and policy, we do not agree with ISS that it has “taken substantial action toward implementation.”

ISS’ statement that it had already started establishing an appropriate metric for space utilization (Recommendation I.1), and developing consistent written space standards for long-term implementation that related to job function (recommendation II.1), is correct but occurred after we completed our fieldwork. The Head of FD&C told us during an audit interview on September 30, 2004 that, “It has been an approach to plan to the space and the customers’ individual preferences.” She also stated that workplace standards were “very limited in terms of industry standards.” This indicated to us that ISS had not established metrics. The draft task order does include evaluating existing conditions and recommending standard sizes based upon job function. However, as stated above, ISS did not mention this during the audit or the exit conference, and had not forwarded this task order to the Contracting Office as of June 29, 2005.

We attempted to work collaboratively with Facility Services. Before engaging RTKL, we sought Facility Services’ input on the scope and deliverables for the consulting contract for this audit. Facility Services did not respond to our request. These attempts to work collaboratively occurred before ISS appointed a new FD&C Head. During our fieldwork, the newly hired FD&C Head fully cooperated and greatly assisted us with this audit. We were also led to believe that ISS supported centralized space management. However, the ISS response does not reflect this position.

ISS is correct concerning a misstatement in the “Background” section of the report. The contractor inadvertently referred to Facility Design and Construction instead of Facility Services (page 2, paragraph 2).

We disagree with ISS that the World Bank is an unfair comparison to the Library of Congress. RTKL used the World Bank as a benchmark because it has about the same amount of personnel and square footage in Washington as the Library, plus RTKL was very familiar with its facilities operation. Even though functions of the organizations are in some cases different, our consultant believes there are enough similarities to make a useful benchmark comparison. To ensure objectivity, we also provided comparisons with the General Services Administration, Food and Drug Administration, and the Government Accountability Office.

ISS responded that in addition to the 48 projects FD&C completed, it also handled 1,100 Requests for Services. At a meeting subsequent to submitting its comments, ISS informed us that the 1,100 requests did not include requests to the AOC for services such as light bulb replacement or spot cleaning carpeting that require minimal effort from FD&C. Since we did not review each of these 1,100 orders, we can not comment on whether they are comparable to

the World Bank's orders. Nevertheless, the comparison of work orders is contained in the "Background" section and our findings did not include any recommendations regarding FD&C manpower or efficiency.

**Specific Recommendations That Were Not Fully Accepted by ISS and OIG Comments:**

**Recommendation I.2:**

ISS disagreed with the recommendation to discuss appropriate metrics for space utilization with the unions. We agree with ISS that it should first present any space utilization metrics to the Deputy Librarian for approval and then to the Library's Executive Committee. This approval process is what we meant when we said, "Once the Library has determined the appropriate metrics for space utilization..." Standards that are based on actual metrics rather than an arbitrary method could be bargained upfront with the unions to reduce the need to negotiate every office move. (Also see II.3 below.)

**Recommendation I.3:**

ISS disagreed with our recommendation to consider implementing a process to charge service units for space usage to improve efficiency. In our opinion, the recommendation has merit. The Central Intelligence Agency is presently using a similar system. Whether or not a conventional charge-back is feasible, ISS needs to begin managing space effectively. In addition to a charge-back system, ISS should explore other models. For example, the Federal Highway Administration allows every office the same square footage per person with a "plus factor" for support space. It then monitors the utilization rates of every office and determines which offices should be given more space, and which should release space if the opportunity arises. As described in the General Comments section on the first page of this attachment, an alternative solution is certainly acceptable if it will result in more effective management of space.

**Recommendation II.2:**

ISS disagreed with our recommendation to create no more than three different office sizes and configurations. However, it did not address our finding that 47 different workstation configurations and 30 different enclosed office sizes on three floors is excessive customization and is not conducive to efficient office moves. We agree that a limit of three office configurations may not be practical. However, ISS needs to determine a reasonable number of configurations (a relatively small number) and require the service units to select from these limited configurations when redesigning their space.

### **Recommendation II.3:**

ISS disagreed with our recommendation to present the space standards to the unions so that negotiations over space are not necessary for every office redesign or move. We agree with ISS that the unions may not “waive future bargaining rights they now enjoy.” However, we believe ISS needs to meet with HRS’ Workforce Services, and ask that the standard space allowance and office configurations be discussed when the next collective bargaining agreement is negotiated. The purpose of this recommendation is to allow Facility Services to operate more efficiently when moving offices.

### **Recommendations IV.2 and V.6:**

ISS agreed with the underlying principle but disagreed with the recommendation to develop a strategy to maximize worker access to natural daylight and views to the outdoors. ISS stated that in general, it followed this concept whenever possible. Our observations of recent redesign work indicate otherwise. For example, the Office of the Chief Financial Officer redesign last year placed enclosed offices next to windows previously occupied by desks with free standing dividers. More recently, the redesign of space in LM-630 for the Office of Strategic Initiatives placed enclosed offices next to the windows. This indicated to us that the service units still determine the arrangement of space, and provide higher graded staff window offices. Subsequent to submitting its comments, ISS informed us that the examples cited above represent design work initiated three or more years ago. FD&C’s current design work tries to follow our recommendation. A major theme of our report is that Facility Services needs centralized authority over decision-making for office space. For this to happen, FD&C will have to convince service units of the overall benefits to productivity by not constructing enclosed offices next to the windows.

### **Recommendation IV.3:**

ISS agreed with the underlying principle of the recommendation. However, it thought consolidating and centralizing conference and training rooms on a service unit and support unit basis would be more practical than by floor. We agree it may be more practical to implement, however, it will not ensure optimal use of the space. As stated above, Facility Services needs to have centralized control over space to ensure it is efficiently used. Decentralized control has resulted in 82 conference rooms totaling 25,782 square feet in the Madison Building. Allowing service units to control these rooms hinders Facility Services’ ability to monitor usage and make informed resource allocation decisions. With centralized authority, we believe Facility Services can reduce the number of separate rooms while providing improved facilities with better technology as discussed below in recommendation V.5.

### **Recommendation V.2:**

ISS disagreed with our recommendation to develop workstation standards. RTKL based this recommendation on its observations during a walk-through of the Madison Building,

particularly the History and Literature Cataloging Section. Given that apart from this report ISS recognizes that 80 percent of the workstations in the Madison Building need ergonomic upgrades, we consider this finding resolved.

**Recommendation V.5:**

ISS disagreed with our recommendation to develop consistent standards for technology in support spaces, stating that it is the service units' responsibility. ISS needs to consider this recommendation in connection with our recommendation IV.3 to have a bank of conference and training rooms not dedicated to any specific service unit. ISS would be responsible for designing the rooms with state of the art audio-visual equipment, lighting, etc. Of course, ISS should seek input from the service and support units, and research best industry practices.

**Recommendation VI.1:**

ISS agreed in part with our recommendation to develop a long-term strategic plan that identifies potential vacancies, a timetable for available space, and to establish a long-term space management plan. ISS stated, "There is no way for ISS to determine 'potential vacancies' of staff." We disagree. Working collaboratively with Human Resources Services and the Budget Office, ISS can be aware of staffing trends based on retirement estimates and program downsizing. For example, the Cataloging Directorate has undergone significant downsizing without funding to hire additional staff. ISS needs to be aware of these trends and manage space accordingly. We believe that ISS is coordinating with the service units for major initiatives during the support requirements meetings for the AP3 process. We therefore consider this recommendation resolved.

**Recommendation VI.3:**

ISS disagreed with the recommendation to determine the feasibility of moving NLS/BPH to the Library's Capitol Hill complex. ISS cited that NLS/BPH has very special needs that can be more effectively met at its Taylor Street facility, at this time. After receiving ISS' comments, we met with the Facility Services Officer and the FD&C Head to discuss this matter. They provided some clarifying information. Facility Services has initiated a Task Order to develop a Requirements Document for NLS/BPH. When this task is completed, FD&C will decide whether it is more cost efficient to lease space, buy a new facility, or move NLS/BPH to the Library's Capitol Hill Headquarters. Based on this information, we believe ISS is taking appropriate action to address our finding. We will review the requirements document as part of our follow-up.

UNITED STATES GOVERNMENT

LIBRARY OF CONGRESS

# Memorandum

Integrated Support Services

TO: Karl W. Schornagel  
Office of the Inspector General

DATE: May 6, 2005

FROM: Mary Levering   
Director, Integrated Support Services

SUBJECT: Integrated Support Services' Response to Audit No.: PA-2004-104

On behalf of Integrated Support Services and the Facility Services division, we thank you for the opportunity to comment on the draft report on Space Management from the contractor, RTKL, on Audit PA-2004-104. The research data and accompanying graphics help to confirm the value and importance of ISS and Facility Services on-going and continued efforts toward space modernization and improved service delivery for the Library. As you know, ISS Facility Services is in the early stages of developing a Computer Aided Facility Management (CAFM) system for the Library. This system will serve as a critical component of the ISS space planning and utilization activities in the coming years.

Attached is Integrated Support Services' response to the draft audit report. Again, thank you for the opportunity to respond.

## Attachment

### cc w/copy of attachment:

Mary Levering, Director, ISS  
Neal Graham, Chief, Facility Services  
Jim Duda, Facility Services Officer  
Charon Ware, Facility Design and Construction Office

**Integrated Support Services response  
to Draft Audit Report No. 2004-PA-104  
March 31, 2005**

**General Comments:**

1. Prior to the initiation of this audit Facility Services had already identified most of the auditor's recommendations and had already taken substantial action toward implementation of these into its business processes. However, this audit report does not take into account or recognize any of these actions already implemented by Facility Services.
  
2. Page 2, paragraph 2 of the draft report misstates the responsibility of Facility Design and Construction (FD&C). FD&C, which is one section of the Facility Services division, is limited to new construction, space utilization, relocation and renovation. Facility maintenance and public programs are responsibilities of separate sections under Facility Services. Maintenance is handled by Facility Operations and Public Program Services handles public meeting space. The paragraph should read:  
The Library's Facility Services, Integrated Support Services, is responsible for coordinating all space utilization, maintenance, relocation, renovation, new construction, and public programs in Library facilities. The Chief of Facility Services is the liaison with the Architect of the Capitol, who is responsible for the maintenance, operation, development, and preservation of the Library of Congress' buildings.
  
3. Page 4, paragraph 4, line 7 and page 8 compares the Library of Congress to the World Bank. However, comparing the Library of Congress with a well-funded quasi-government agency, which operates under a revolving fund, is not a fair comparison. The World Bank's resources are far greater than the Library of Congress for the employment of space utilization. The World Bank staff is twice the size of the Library of Congress, and its functions are not as varied.
  
4. Page 8, bullet 7 references 48 facility projects completed by FD&C last year, in comparison to the World Bank's 300-500 completed projects. The following is a more accurate account of Library space-related projects completed by FD&C in FY04:  
Last year, the Library's FD&C of Facility Services, Integrated Support Services completed 48 major facility plan projects (major projects involve some AOC construction work), and 1,100 Requests for Service related to small moves and space-related changes. In addition, and the AOC completed over 100 physical plant projects to Library facilities such as upgrades, maintenance and replacements.

## **ISS Responses to Recommendations:**

**Recommendation I.1: Establish an appropriate metric for space utilization and evaluate each service unit for compliance. By establishing an appropriate standard for space utilization the Library can work toward setting user's expectations for space and develop a framework for the process of determining the allocation of space based on an actual metric rather than an arbitrary method that is unclear to both the FD&C group and the user.**

**ISS response: Agree. – *This was already in process***

FD&C had already incorporated this requirement to propose an appropriate standard for Library space utilization into a task order for standards documentation through a current FD&C consultant contract to develop standard office and workstation configuration. The deployment of a new Computer Aided Facility Management (CAFM) System will help in the development of appropriate metrics. The CAFM system is scheduled for installation fall 2005, but lack of Congressional appropriations for facilities support funding has slowed data gathering required to populate the system fully. ISS hopes to obtain some end-of-year FY05 funding to continue collecting data.

**Recommendation I.2: Once the Library has determined the appropriate metric for space utilization, they should present it to the Library's unions for approval. It has been RTKL's experience that if the union representatives review and approve the metrics before implementation, the process of implementation is improved.**

**ISS response: Disagree.**

After Facility Services has reviewed the consultant's recommendations and sought informal input from the Library's experts in the Labor Relations Office for the appropriate space utilization metric, ISS believes that this information should be presented first to the Deputy Librarian for review and approval, and then, at the direction of the Deputy Librarian, to the Library's Executive Committee for their review, approval and recommendation for next steps.

**Recommendation I.3: Consider implementing a process to charge Service Units for space usage. RTKL's work with other organizations that developed processes to charge their Business Units for space usage has shown that there is a positive incentive for the Business Units to manage their space more efficiently.**

**ISS response: Disagree.**

This is not feasible, nor is it appropriate, since as a legislative branch agency, the Library does not reimburse the Architect of the Capitol's appropriation for the space it occupies on Capitol Hill, so it is not appropriate to charge the service units' appropriations for space occupancy on Capitol Hill. In addition, Congress appropriates funds for infrastructure support for the Library as part of the infrastructure budget in the ISS budget, separate from program costs. Furthermore, ISS Facility Services is responsible for management of all Library space. It is the ISS Facility Services role and responsibility to ensure that space is allocated to service units in an efficient and consistent manner; it is not the service unit's responsibility.

**Recommendation II.1: Development of consistent written space standards for long-term**

implementation that relate to job function (such as cataloging) rather than job level, in an effort to manage workplace and space allocations.

**ISS response:** Agree. – *This was already in process*

FD&C had already incorporated this requirement into a task order for standards documentation through an existing FD&C contract.

**Recommendation II.2:** Create no more than three difference office sizes and configurations to be used for any future projects. This will provide flexibility for workers to move without costly changes and modifications.

**ISS response:** Disagree.

This is not a practical recommendation given the variations in the job functions throughout the Library. A maximum of only three office sizes and workstation configurations does not provide sufficient flexibility to adequately address the Library's needs. FD&C's recent experience with redesigning the Copyright Office reveals the need for at least 5 or more typical workstation configurations.

**Recommendation II.3:** Present standards to the Library's unions for approval prior to implementation so that the unions do not have to review every modification made to a service unit. The unions will only need to review the user's space assignments once the physical modification is made.

**ISS response:** Disagree.

Even if the unions had a right to negotiate over the number of standard designs the Library used (and that is not an established right), and even if the unions "approved" of a standardized number of designs (and there is no guarantee they will), that is only ½ half of the equation. The controlling statutory authority governing labor management relations in the federal sector provides that the exclusive representative (i.e., a labor organization) has the right to bargain with an agency over the changes in conditions of employment that affect the bargaining unit employees it represents. If a particular standardized scheme affects particular employees the union may have a right to consult with the affected employees and present negotiable impact and implementation proposals to the agency.

Presently the three contracts covering non-police positions in the Library each have different provisions addressing the relocation of bargaining unit employees (i.e., the AFSCME 2477 collective bargaining agreement requires that the Library give written notice to the union of a decision to relocate ten or more employees and negotiate any impact that materially and substantially affects the working conditions of these employees involved in such a relocation). Since each future space move will affect different employees under different collective bargaining agreements, including future employees not yet hired, it is doubtful that the unions would agree to essentially waive future bargaining rights they now enjoy.

**Recommendation III.1:** Develop guidelines for appropriate planning ratios based on job function that work within the physical parameters of the Madison Building.

**ISS response:** Agree. – *This was already in process*

FD&C had already incorporated this requirement into a task order for standards

documentation through an existing FD&C contract.

**Recommendation III.2: Begin implementation of planning ratios as projects are approved to move forward.**

**ISS response: Agree.**

FD&C plans to begin applying a planning ratio to new projects as these are approved for division-wide (or larger) space modifications, (1) once guidelines for planning ratios have been proposed by the consultant and approved by the Library, and (2) once the planned CAFM System is fully operational.

**Recommendation IV.1: Develop a consistent approach for spatial planning, including zoning support vs. office function for typical floor and strategies for centralized common support space.**

**ISS response: Agree. – *This was already in process***

FD&C had already incorporated this requirement into a task order for standards documentation through an existing FD&C contract.

**Recommendation IV.2: Develop strategy to maximize worker access to natural daylight and views to the outdoors in an effort to maximize workers productivity and job satisfaction.**

**ISS response: Agree with underlying principle but disagree with recommendations to develop a strategy for implementation.**

While ISS concurs with this concept in principle, and follows it in general whenever possible, many factors must be balanced in making and changing actual space assignments and access to windows is only one of the many factors that must be considered. Additional cost benefit and productivity analysis for Library personnel would be required before implementing this beyond its current application.

**Recommendation IV.3: Consolidate and centralize the conference and training rooms into one area located centrally on each floor. Assign an office responsibility for handling the reservations for these rooms.**

**ISS response: Agree with the underlying principle but disagree with the specifics of one conference area per floor.**

While ISS concurs with some aspects of this recommendation in principle, there are many factors which must be considered. Public meeting space scheduling is already handled centrally for the whole Library by the ISS Public Programs Office for several decentralized meeting locations. This recommended principle is being followed for the Copyright Office re-engineering renovation with a central meeting/training area. The management of this area will be handled by that service unit for its employees that may occupy multiple floors. However, this general approach would be more practical to implement on a service and support unit basis, rather than by floor, since many service units occupy more than one floor.

**Recommendation V.1: In conjunction with the recommendations in Finding II, develop consistent workplace standards that support current best practices and productive**

workplace environments.

**ISS response:** Agree. – *This was already in process*

FD&C had already begun working to develop such workplace standards by incorporating this requirement into a task order for an existing FD&C contract.

**Recommendation V.2:** Develop workstation standards that meet all current ergonomic standards and functional requirements.

**ISS response:** Disagree.

ISS does not need to develop such standards because they already exist and have been fully implemented by FD&C for the past several years. FD&C already incorporates ergonomic standards into all new workstation designs. FD&C is also currently implementing a multi-year Congressionally-funded project for systematic ergonomic upgrades for 80% of the workstations in the Madison building.

**Recommendation V.3:** Establish consistent filing standards and consider more efficient storage methods, such as high density filing systems. FD&C should conduct a cost/benefit analysis to determine the benefit of compact shelving as well as consult with the AOC to assess structural load issues.

**ISS response:** Agree to develop shelving standards. Disagree that FD&C conduct cost benefit analysis.

ISS has interpreted this recommendation as referring to standards for shelving of collections (not to filing standards for paper files). However, shelving of collections is a service unit responsibility, not an ISS Facility Services responsibility. FD&C has issued a task order to a design firm to develop proposed shelving standards for Library collections to include compact shelving. FD&C will provide this analysis to service units for their use in developing their own cost/benefit analysis since they are the ones responsible for purchasing shelving for collections. FD&C will confer with AOC on structural load issues in reference to potential compact shelving.

**Recommendation V.4:** Establish consistent standards for support areas.

**ISS response:** Agree.

FD&C has already developed a typical design for administrative support areas, e.g. copier space, and will apply this approach in the future for division-wide, or larger, redesigns.

**Recommendation V.5:** Develop consistent standards for technology in support spaces such as meeting rooms.

**ISS response:** Disagree.

Facility Services does not determine what technology will be available in service unit support spaces. Service units arrange for installation of technology capabilities in their own support spaces according to their changing requirements.

**Recommendation V.6:** Develop standards that maximize employee access to natural light.

**ISS response:** Disagree.

While Facility Services agrees with this concept in principle and applies it whenever feasible, ISS disagrees with developing standards for this, as described in ISS response to VI.2.

**Recommendation VI.1: Develop a long-term strategic plan that identifies potential vacancies, a timetable for available space, and establish long-term space management plan.**  
**ISS response: Agree in part.**

There is no way for ISS to determine “potential vacancies” of staff. However, the Space Management Module of the CAFM system will help support creating a timetable for available space and also will support long-term space management planning. The MBRS space, soon to be vacated, that has not already been planned for re-utilization, will be re-designed in FY06 for FY07 installation, based on funding approval. No vacant space was created on Capitol Hill when the ACF was set up in Manassass; the ACF houses only a few ITS staff members and their former workstations on Capitol Hill and already utilized for other purposes.

**Recommendation VI.2: Identify and quantify potential under-utilized space within the Madison Building to serve as swing space during re-design projects.**

**ISS response: Agree.**

The Committee on Homeland Security of the U.S. Congress is currently occupying the Library’s main swing space in the Adams Building. Two smaller swing spaces have recently been allocated – the Madison building swing space (LM-241) is currently in use and other Adams building swing space (LA-139) is planned for construction in May 2005.

**Recommendation VI.3: Determine the feasibility of moving Library operations located at Taylor Street Annex to the Capitol Hill complex based on opportunities for greater efficiency in space utilization and space being vacated for relocation to off-site facilities.**

**ISS response: Disagree.**

The National Library Service for the Blind and Physically Handicapped (NLS/BPH) staff and operations have very specialized needs which were not as well supported when NLS was located on Capitol Hill many years ago. NLS/BPH currently occupies more than 88,000 sq. ft. of space at Taylor St. This is a major space requirement. NLS/BPH has its own significant material management requirements including shipping facilities, talking book and braille storage, equipment storage, equipment repair facilities, and loading dock operations which are much more efficiently operated from the Taylor Street location than they could be on Capitol Hill, especially with the tighter perimeter security requirements now on Capitol Hill. The requirements of the special needs of the staff and operations at Taylor Street as well as the existing space requirements on Capitol Hill does not make this a feasible alternative.