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ARCHITECT OF THE CAPITOL

Management and Accountability Framework Needed to Lead and Execute Change

Statement for the Record by J. Christopher Mihm
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Abstract We are pleased to respond to your request that we provide preliminary observations from our ongoing general management review of the Architect of the Capitol (AOC). As you know, the Senate and House Appropriations Committees mandated this review for completion in November 2002. At that time we will provide our final observations and recommendations. Upon completion of our review, AOC is to develop a management improvement plan to address our recommendations. You asked us to focus on certain management shortcomings at AOC that needed attentionstrategic planning, organizational alignment, strategic human capital management, financial management, and information technology (IT) management. You also asked us to assess two key program areasworker safety and recyclingboth to illustrate the management issues we are addressing and to help AOC identify best practices and areas for improvement in these important programs. We plan to explore project management and budgeting, among other issues, in greater depth in the next phase of our review. We have briefed AOC on the preliminary observations in this statement and the accompanying appendix, which provides additional details on the results of our work.		
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Mr. Chairman and Members of the Subcommittee:

We are pleased to respond to your request that we provide preliminary observations from our ongoing general management review of the Architect of the Capitol (AOC). As you know, the Senate and House Appropriations Committees mandated this review for completion in November 2002. At that time we will provide our final observations and recommendations. Upon completion of our review, AOC is to develop a management improvement plan to address our recommendations. You asked us to focus on certain management shortcomings at AOC that needed attention—strategic planning, organizational alignment, strategic human capital management, financial management, and information technology (IT) management. You also asked us to assess two key program areas—worker safety and recycling—both to illustrate the management issues we are addressing and to help AOC identify best practices and areas for improvement in these important programs. We plan to explore project management and budgeting, among other issues, in greater depth in the next phase of our review. We have briefed AOC on the preliminary observations in this statement and the accompanying appendix, which provides additional details on the results of our work.

We have been working constructively with AOC managers to understand their complex operating environment and the long-standing challenges they must address. Our observations today are based on a review of AOC's legislative authority and internal AOC documents, including policies and procedures, AOC consultant reports and internal studies on AOC management issues, as well as GAO and other reports on best practices for management functions and worker safety and health and recycling programs. We also interviewed senior- and mid-level AOC managers for each of the management functions and programs we reviewed.

AOC has demonstrated a commitment to change through the management improvements it has planned and under way. For example, AOC has

- established routine management meetings to help improve communication across organizational boundaries;
- established and implemented basic policies and procedures in human capital, such as a performance evaluation system for non-union AOC employees up to GS-15;

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- recently drafted a senior executive performance evaluation system— informed by our human capital policies and flexibilities—and established an employee awards program;
 - added to its professional workforce ranks by hiring new jurisdictional superintendents and deputy superintendents and budget and accounting officers and creating and filling new positions, such as chief financial officer (CFO), facilities manager, worker safety specialists, and a facilities planning and development manager;
 - reorganized and took actions to improve worker and fire safety programs; and
 - upgraded and filled key recycling program positions.

AOC is also revisiting its strategic planning efforts, working with a consultant to implement best practices for project management, and implementing a new financial management system.

AOC recognizes that because of the nature of the challenges and demands it faces, change will not come quickly or easily. AOC therefore must ensure that it has the policies, procedures, and people in place to effectively implement the needed changes. That is, to serve the Congress, central AOC management needs the capability to define goals, set priorities, ensure follow through, monitor progress, and establish accountability. Our observations today all focus on this basic issue—building the capability to lead and execute change. Therefore, we believe that as a first priority, AOC should establish a management and accountability framework by

- demonstrating top leadership commitment to change;
- identifying long-term, mission-critical goals through a re-invigorated strategic planning process tied to serving the Congress;
- developing annual goals and a system for measuring progress; and
- establishing individual accountability and commensurate authority for achieving results.

We recognize that this statement outlines a large and complex agenda for change at AOC, and that AOC cannot possibly tackle all these changes at once. Nonetheless, this agenda provides the broad landscape of issues

confronting AOC and is therefore important to crafting a comprehensive and integrated approach to addressing AOC's challenges and setting appropriate priorities, even though by necessity it will have to be phased in over time. By drawing on the full potential of its management team, AOC can begin to take immediate steps on a number of actions, although we recognize that AOC will be able to implement some of these actions more quickly than others. Key actions that AOC can consider are highlighted in the following sections and detailed in appendix I.

AOC-Wide Communications Strategy Is Needed to Achieve Mission-Critical Goals

AOC must develop a communications strategy as an integral part of its strategic planning and change management initiatives. Such a strategy will be important to providing AOC with the customer and employee information and perspective it needs to strike a balance between the competing priorities it faces and the results it seeks to achieve. In building a communications strategy AOC should consider taking the following actions:

- Provide opportunities for routine employee feedback.
- Develop congressional protocols.
- Publicize the impact of highly visible projects.
- Improve accountability reporting.
- Measure customer satisfaction.

Strategic Human Capital Management Can Improve Organizational Accountability to Mission-Critical Goals

Strategic human capital management can transform AOC into a results-oriented organization by aligning employee performance with AOC goals and by providing the tools to better plan its workforce needs. In 1994 we reported that AOC's personnel management system did not follow many generally accepted principles of modern personnel management.¹ In our current review, we found that AOC has made progress in establishing a modern personnel system that is meeting the guidelines set forth by the AOC Human Resources Act of 1994 and the Congressional Accountability

¹U.S. General Accounting Office, *Federal Personnel: Architect of the Capitol's Personnel System Needs Improvement*, GAO/GGD-94-121BR (Washington, D.C.: Apr. 29, 1994).

Act of 1995.² AOC has developed basic personnel policies and procedures and streamlined certain human resource processes, and has continued to add to its professional workforce ranks. These efforts are helping AOC to construct a sound foundation on which to build a high-performing organization. As AOC moves forward with its human capital efforts, it has opportunities to make additional important improvements:

- Develop capacity to collect and analyze workforce data.
- Identify current and future workforce needs and develop strategies to fill gaps.
- Establish agencywide core and technical competencies.
- Link proposed senior executive and existing employee performance management systems to mission-critical goals.

AOC Needs to Continue and Expand Efforts to Improve Financial Management

In recognition of the critical role a chief financial officer (CFO) plays in achieving financial accountability and control, AOC established a CFO position and, in January 2002, filled the position. The new CFO is a member of the Architect's executive council and reports directly to the Architect. Organizationally, the CFO is responsible for the activities of AOC's Budget Office, Accounting Office, and Financial Systems Office. Included among the many challenges facing the new CFO are his responsibilities for (1) implementing AOC's new financial management system (Momentum), (2) implementing applicable accounting and operational policies and procedures, and (3) preparing a complete and auditable set of AOC financial statements.

Among his first actions, the new CFO recently hired staff members to fill key budget and accounting officer positions, including additional accounting staff members with the general ledger accounting experience needed to maintain AOC's new general ledger. He has also focused his efforts on bringing AOC's new financial management system on-line. While these steps are critical and represent the initial steps to improving AOC's financial management and budget functions, much work remains to be done. The CFO has also recognized or started work on other key issues

²See P.L. 103-283, Sec. 312, Architect of the Capitol Human Resources Act.

that need to be addressed in the near term. Building on the progress already under way, the new CFO needs to take the following actions:

- Ensure effective implementation of new financial management system.
- Continue and expand ongoing efforts aimed at strengthening AOC's budget formulation and execution and financial accounting and reporting across AOC.
- Model AOC efforts on established best practices of leading organizations.

AOC Needs to Adopt an Agencywide Approach to IT Management

Our research of private and public sector organizations that have effectively leveraged IT shows that these organizations' executives have embraced the central role of IT to mission performance. As such, they have adopted a corporate or agencywide approach to managing IT under the leadership and control of a chief information officer (CIO), who is a full participant in senior executive decision making. Additionally, these organizations have implemented certain corporate IT management controls such as using a portfolio-based approach to IT investment decision making, using an enterprise architecture or blueprint to guide and constrain IT investments, following disciplined IT system acquisition and development management processes, and proactively managing the security of IT assets.

Our preliminary work shows that AOC has yet to adopt such an approach. AOC could greatly benefit from an agencywide approach to managing IT under the leadership and control of an empowered CIO. Such an approach should, at a minimum, include each of the above IT management controls as defined in relevant federal guidance and proven best practices. AOC's top leadership will need to consider carefully its environment and the scope of its IT investments to determine how best to apply this guidance and the best practices to its specific situation. The following are the key steps that AOC needs to consider as it seeks to more effectively leverage use of IT to improve mission performance:

- Appoint a CIO to manage IT across the agency.
- Establish and implement a portfolio-based approach to IT investment management.

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- Develop, maintain, and use an enterprise architecture consistent with federal guidance and recognized best practices.
 - Establish and implement disciplined processes for managing the development and acquisition of information systems.
 - Establish and implement an information security program.

AOC Could Make Worker Safety Program Improvements More Effective by Adopting Certain Best Practices

Because of the concerns that the Congress and others raised about worker safety at AOC, in 2001, the Architect issued a statement that safety is his highest organizational priority. To effectively implement the Architect's commitment to safety, and consistent with best practices for health and safety programs as described in the Occupational Safety and Health Administration's guidance and our work, AOC must develop comprehensive and reliable data, provide a clear understanding of what the program is trying to accomplish, and how it will evaluate results. AOC also needs to examine strengthening the accountability relationships between the various safety program officials. Best practices also indicate that standardized and agencywide policies and procedures must be in place—such as procedures that encourage employees to report incidents, accidents and unsafe conditions (often called hazards), and procedures to investigate causes of accidents to identify why accidents occurred. By gathering more comprehensive and reliable data, and developing and consistently applying policies and procedures for reporting and investigating accidents, injuries, and illnesses, AOC can begin to take a more strategic approach to addressing safety issues. For example, better information about the type and frequency of injuries and the hazards that contribute to them could help AOC establish a risk-based approach for addressing the most significant worker safety issues that are occurring and for allocating resources. Key actions that AOC should consider on worker health and safety can be summarized as follows:

- Develop more comprehensive and reliable data to set goals and to track program improvements.
- Assess accountability relationships of the safety specialists at the central and jurisdictional levels to carry out their work.
- Establish agencywide policies and procedures for reporting, investigating, and tracking worker safety incidents, accidents, and hazards.

AOC Needs to Build on Current Efforts by Adopting a Strategic Approach to Recycling

Programs that separate and collect recyclable materials from the waste stream produce numerous benefits. It is estimated that recycling 1 ton of paper saves 17 mature trees, 3.3 cubic yards of landfill space, 7,000 gallons of water, 380 gallons of oil, 4,100 kilowatt hours of energy, and 60 pounds of air pollutants. AOC is responsible for operating recycling programs for much of the Capitol complex.³ In recent years, AOC, both centrally and at the jurisdiction level, has taken steps to improve the overall effectiveness of its recycling programs. To maximize the benefits derived from its recycling program, AOC must build on the steps it has taken to improve the effectiveness of its programs by taking a more strategic approach:

- Revisit and clarify recycling mission and goals.
- Develop a performance measurement, monitoring, and evaluation system that supports accomplishing recycling mission and goals.
- Reexamine roles and responsibilities of AOC recycling program staff members.
- Implement best practices to improve performance.

Key Management Options Require Further Exploration

Adopting a vigorous approach to strategic planning and holding managers and employees accountable for achieving organizationwide goals will go a long way toward helping AOC become a high-performing organization. However, further measures may be needed; we plan to explore other options with AOC and its key congressional customers in the next stage of our management review. To strengthen AOC's executive decision-making capacity and accountability, we are exploring options to better define the roles and responsibilities for certain key functions and to clarify some accountability relationships. For example, a chief operating officer could be responsible for major long-term management, cultural transformation,

³AOC operates all aspects of the recycling programs in the House and Senate Office Buildings, except for the Ford building, which is operated by a custodial contractor. In addition, the House jurisdiction picks up recyclable materials collected by the House side of the Capitol building, the Botanic Garden, the page dorm (501 1st St.), and, most recently, the Capitol Power Plant. On the Senate side of the Capitol building, the Senate Sergeant-at-Arms operates the recycling program, and AOC transports the materials to its collection site in the Hart Office Building. The Supreme Court and the Library of Congress operate their own recycling programs.

and stewardship responsibilities within AOC. Additional options are discussed in appendix I.

We look forward to continuing our constructive relationship with AOC. In the worker safety and recycling areas, we will continue to provide on-the-spot advice on safety hazards and recycling practices observed on our site visits. For example, we identified several safety hazards at the Capitol Power Plant. We brought these potential hazards to the attention of the acting chief engineer of the plant, who said that he would act upon our advice. We also suggested to him that the power plant could start a recycling program for its office waste consistent with the Botanic Garden's program, which the plant is starting to implement. To support management improvements that we are recommending or options we plan to explore, we have provided best practices guidance and we will, at the invitation of AOC, brief AOC's senior managers on best management practices in the public as well as private sectors.

In summary, we recognize that AOC faces long-standing management challenges to becoming a high-performing organization, and that it has many initiatives under way for improvement. As a first step in addressing these challenges, AOC must create a management and accountability framework that provides a foundation of mission-critical goals from which other efforts can flow, and clarifies organizational lines of authority and accountability. We will continue to work constructively with AOC, this subcommittee, the House Committee on Appropriations and its Subcommittee on Legislative, and other congressional stakeholders to support this framework, as well as to help AOC identify other priorities for improvement.

Management and Accountability Framework Needed to Lead and Execute Change

This appendix discusses our preliminary observations on strategic planning, organizational alignment, strategic human capital management, financial management, and information technology (IT) management. It also discusses two key program areas—worker safety and recycling—both to illustrate the management issues we are addressing and to help AOC identify best practices and areas for improvement in these important programs.

AOC Facing Long-standing Management Challenges in Complex Operating Environment

AOC's general mission is to maintain and care for the buildings and grounds located in the Capitol Hill complex. The historic nature and high-profile use of many of these buildings create a complex environment in which to carry out this mission. For example, the U.S. Capitol building is, at once, a national capitol, museum, office building, ceremonial site, meeting center, media base, and tourist attraction. In making structural or other physical changes, AOC must consider the historical significance and the effect on each of these many uses. Further, AOC must perform its duties in an environment that requires balancing the divergent needs of congressional leadership, committees, individual members of the Congress, congressional staffs, and the visiting public. The challenges of operating in this environment are compounded by the events of September 11, 2001, and their aftermath, especially the October 2001 discovery of anthrax bacteria on Capitol Hill, and the resulting need for increased security and safety.

In fiscal year 2002, AOC operated with a budget of \$426 million, which included \$237 million for capital expenditures. Organizationally, AOC has a centralized staff that performs administrative functions; what AOC refers to as "jurisdictions" handle their own day-to-day operations. These jurisdictions include the Senate Office Buildings, the House Office Buildings, the U.S. Capitol Buildings, the Library of Congress Buildings and Grounds, the Supreme Court Buildings and Grounds, the Capitol Grounds, the Capitol Power Plant, and the U.S. Botanic Garden. There are over 2,300 employees in AOC; nearly one out of every three employees is a member of a union.

New requirements to meet long-standing labor and safety laws have added to the complexity of AOC operations. For example, the Congressional Accountability Act of 1995 (CAA) applied 11 civil rights, labor, and workplace laws to AOC as well as other legislative branch agencies. In particular, meeting the obligations of labor laws, such as the Fair Labor Standards Act of 1938 and the Federal Service Labor-Management Relations Statute, while overcoming a history of poor labor-management

relations has been a struggle. CAA also requires AOC to meet standards set by the Occupational Safety and Health Act of 1970, which applied new life and fire safety codes, as well as other building codes, to the agency. CAA established the Office of Compliance (OOC) to enforce the provisions of the act through inspections, investigations, and prosecution of potential violations. In addition, OOC provides education to employees and employing offices, and administers dispute resolution procedures if violations are found.

AOC Has Taken Steps to Begin Addressing Challenges

AOC has a number of initiatives completed and under way to begin addressing its challenges and improving its performance and customer and client satisfaction. The following points highlight some of these initiatives. For example, AOC has

- established routine management meetings to help improve communication across organizational boundaries;
- established and implemented basic policies and procedures in human capital, such as a performance evaluation system for AOC's non-union employees up to GS-15;
- recently drafted a senior executive performance evaluation system—informed by our human capital policies and flexibilities—and established an employee awards program;
- added to its professional workforce ranks by hiring new jurisdictional superintendents and deputy superintendents and budget and accounting officers and creating and filling new positions, such as chief financial officer (CFO), facilities manager, worker safety specialists, and a facilities planning and development manager;
- reorganized and took actions to improve worker and fire safety programs; and
- upgraded and filled key recycling program positions.

AOC is also in the process of

- revisiting its strategic planning efforts,

- working with a consultant to implement best practices for project management, and
- implementing a new financial management system.

The initiatives provide important aspects of a needed foundation for AOC to address its current and emerging challenges. To be successful, AOC needs to continue these efforts and take a number of other steps to become a high-performing organization committed to results, service quality, and customer satisfaction.

Building Management and Accountability Framework to Lead and Execute Change

Key Actions for Management and Accountability Framework

- *Continue to demonstrate top leadership commitment to change.*
- *Identify and implement mission-critical goals for key results through strategic planning.*
- *Develop annual goals and measure performance.*
- *Create clear lines of accountability for achieving results.*

AOC needs to build on its current efforts to create a management and accountability framework and establish priorities for action. This framework involves (1) continuing to demonstrate top leadership commitment to change, (2) integrating and building on existing strategic planning efforts to identify and communicate AOC's long-term, mission-critical goals to external as well as internal stakeholders, (3) developing annual goals and measuring performance, and (4) creating clear lines of accountability for achieving results, including satisfying customers. AOC performs its activities without the guidance of an agencywide strategic plan for serving the Congress or means to hold individuals accountable for accomplishing its mission-critical goals. AOC also operates without written standards or policies and procedures in critical areas, such as financial management, IT management, and facilities management. The absence of clearly defined goals and performance measures at AOC hampers the Architect's efforts to send clear and consistent messages

throughout the organization about his priorities and performance expectations. Likewise, it hinders the Architect's ability to communicate in a transparent way to the Congress what the agency is doing, how well it is performing, and where it can improve.

Demonstrate Top Leadership Commitment to Change

One of the most important elements of successful management improvement initiatives is the demonstrated, sustained commitment of top leaders to change.⁴ Top leadership involvement and clear lines of accountability for making management improvements are critical to ensuring that the difficult changes that need to be made are effectively implemented throughout the organization.

In looking at the experiences of leading organizations that were successfully pursuing management reforms, we found that top leadership practices were critical to making needed changes. For example, successful leaders create a set of mission-related processes and systems within which to operate, but they give their managers extensive authority to pursue organizational goals while using those processes and systems. They also integrate the implementation of separate organizational improvement efforts into a coherent unified effort. The unwavering commitment of top leadership in an agency is especially important to overcoming natural resistance to change, marshaling the resources needed in many cases to improve management, and building and maintaining an organizationwide commitment to new ways of doing business.

Refocus and Integrate Strategic Planning Efforts to Identify and Implement Mission-Critical Goals for Key Results

Since 1997, AOC and a number of its subsidiary offices and jurisdictions have attempted to implement strategic planning processes. In 1997, the Architect led the first effort to produce an AOC-wide strategic plan that laid out AOC's mission, vision, core values, strategic priorities, and goals and objectives. According to AOC officials, turnover in key staff and inability to reach agreement on how to measure performance led AOC management to discontinue that effort. More recently AOC has shifted to a scaled-back approach that focuses on tasks to be completed in a number of key priority areas: (1) develop a process and establish realistic goals and priorities, (2) improving employee support by, for example, improving

⁴U.S. General Accounting Office, *Management Reform: Using the Results Act and Quality Management to Improve Federal Performance*, GAO/T-GGD-99-151 (Washington, D.C.: July 29, 1999).

communications, (3) safety, (4) project delivery, and (5) quality assurance. Similarly, a number of business units within AOC, such as the human resources division, the inspector general, and the House Office Buildings jurisdiction have developed their own strategic plans, and the Capitol Buildings jurisdiction is developing a new master plan for the Capitol, but these plans do not flow directly from an AOC-wide plan. According to senior AOC managers, AOC plans to place renewed emphasis on organizationwide strategic planning beginning immediately.

We strongly endorse AOC's renewed emphasis on strategic planning. However, in revisiting strategic planning, it is crucial that AOC move beyond a focus on actions to be completed to a broader focus on the mission-critical, long-term goals needed to serve the Congress. These long-term goals should also provide the starting point and serve as a unifying framework for AOC's various business unit and jurisdictional planning efforts. Such an effort would position AOC to answer questions such as what fundamental results does AOC want to achieve, what are its long-term goals, and what strategies will it employ to achieve those goals.

Because a major focus of AOC's mission is the stewardship of existing Capitol complex facilities and the design and construction of new ones, another important planning initiative that should flow from a strategic plan is a strategic facilities plan, which is the standard industry best practice. A strategic facilities plan would capture in one document all the preventive maintenance, renovation, and construction activities needed to accomplish AOC's facilities goals. The document would also show the timetable, staffing, and budget needed to implement the plan. In addition, a strategic facilities plan would provide AOC an important tool for communicating to its congressional stakeholders and others the resources needed to accomplish its facilities goals and better illustrate, for example, the effect of undertaking new projects on the accomplishment of the goals.

Although a variety of management activities, such as project management and budgeting, are needed to develop and support a strategic facilities plan, an important first step is to perform a condition assessment of all facilities maintained by AOC. According to industry guidance,⁵ organizations use condition assessments to identify existing deficiencies they need to address. Although AOC has begun to assess the condition of the Capitol

⁵Harvey H. Kaiser, Ph.D., *The Facilities Manager's Reference* (Kingston Mass.: R.S. Means, 1989).

building, we encourage AOC to complete this assessment and then to begin assessments of the remaining buildings as soon as resources are available. We plan to explore project management and budgeting in greater depth in the next phase of our review.

Develop Annual Goals and Measure Performance

Another key action AOC needs to take is developing annual performance goals that provide a connection between the long-term strategic goals in the strategic plan and the day-to-day activities of managers and staff. Measuring performance allows an organization to track the progress it is making toward its goals, gives managers crucial information on which to base their organizational and management decisions, and creates powerful incentives to influence organizational and individual behavior.

Leading organizations we have studied that were successful in measuring their performance generally had applied two practices.⁶ First, they developed measures that were (1) tied to program goals and demonstrated the degree to which the desired results were achieved, (2) limited to the vital few that were considered essential to producing data for decision making, (3) responsive to multiple priorities, and (4) responsibility-linked to establish accountability for results. Second, the agencies recognized the cost and effort involved in gathering and analyzing data and made sure that the data they did collect were sufficiently complete, accurate, and consistent to be useful in decision making.

Developing measures that respond to multiple priorities is of particular importance for programs operating in dynamic environments where mission requirements must be carefully balanced. This is the case for AOC where the role of protecting and preserving the historic facilities under its control may occasionally conflict with its role of providing maintenance and renovation services to occupants who use the facilities to conduct congressional business. For example, according to AOC officials, following elections, new members of the Congress may ask AOC to modify office suites containing historic, architectural features. In those cases, AOC must balance the members' needs for functional office design with its responsibility for protecting the architectural integrity of the rooms. Consequently, organizations must weigh their mission requirements and

⁶U.S. General Accounting Office, *Executive Guide: Effectively Implementing the Government Performance and Results Act*, GAO/GGD-96-118 (Washington, D.C.: June 1996).

priorities against each other to avoid distorting program performance. AOC could better gauge its success in this environment by first employing a balanced set of measures that encompasses its diverse roles, such as maintaining historic facilities and satisfying customers and then benchmarking its results both internally—across its jurisdictions—as well as against other leading organizations with comparable facility management operations.

**Provide Results-Oriented
Basis for Individual
Accountability and
Authority to Act**

The danger to any management reform is that it can become a hollow, paper-driven exercise when management improvement initiatives are not integrated into the day-to-day activities of the organization. We recently testified that a critical success factor for creating a results-oriented culture is a performance management system that creates a “line of sight” showing how individual employees can contribute to overall organizational goals.⁷ Agencies that effectively implement such systems must first align agency leaders’ performance expectations with organizational goals and then cascade performance expectations to other organizational levels. These agencies must also seek to ensure that their performance management systems are not merely once or twice yearly expectation-setting and appraisal tools, but help manage the organizations on a day-to-day basis. Thus, an effective performance management system provides a vehicle for top leadership to translate its priorities and goals into direct and specific commitments that senior managers will be expected to meet.

AOC has taken an important first step in this regard by drafting a set of policies and procedures for managing the performance of its senior executives.⁸ Completing and implementing this effort will be critical to the success of AOC’s strategic planning initiative and would be in line with recent executive branch reforms. Five of the six critical job elements that form the basis of the senior performance management plan are structured around the Office of Personnel Management’s (OPM) Executive Core qualifications, which OPM encourages for government executives. The five critical job elements corresponding to OPM’s core qualifications are results driven, leading change, leading people, business acumen, and building

⁷U.S. General Accounting Office, *Managing for Results: Building on the Momentum for Strategic Human Capital Reform*, GAO-02-528T (Washington, D.C.: Mar. 18, 2002).

⁸Architect of the Capitol, *Managing Senior Management Performance for Exempt Employees Serving at the Pleasure of the Architect*, Draft.

coalitions/communications. AOC has added equal employment opportunity as a sixth critical job element.

In particular, AOC's proposed "results driven" job element would provide the basis for the results-oriented individual accountability that we discuss. The first part of this job element generally deals with achieving agency and organizational objectives, while the second part requires each senior manager to identify individual areas of accountability for the accomplishment of agency goals and objectives.

One component of AOC's draft senior executive performance management system is the use of performance agreements. These agreements provide an unparalleled opportunity for AOC to drive the strategic and program performance goals it sets directly into daily AOC operations. For example, the individual performance agreements of AOC facility managers could explicitly reflect AOC-wide goals for service quality, worker safety, and customer satisfaction flowing from its strategic plan, thus allowing for unambiguous links between organizational goals and individual performance, accountability, bonuses, and other rewards.

We have evaluated the experience of several executive branch agencies with the use of performance agreements to align executive performance with agency goals and found a number of benefits of direct importance to achieving improved performance at AOC:

- **Strengthened alignment of results-oriented goals with daily operations:** Performance agreements define accountability for specific goals and help to align daily operations with agencies' results-oriented, programmatic goals.
- **Fostered collaboration across organizational boundaries:** Performance agreements encourage executives to work across traditional organizational boundaries or "silos" by focusing on the achievement of results-oriented goals.
- **Enhanced opportunities to discuss and routinely use performance information to make program improvements:** Performance agreements facilitate communication about organizational performance, and provide opportunities to pinpoint improved performance.

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- **Provided results-oriented basis for individual accountability:** Performance agreements provide results-oriented performance information to serve as the basis for executive performance evaluations.
 - **Maintained continuity of program goals during leadership transitions:** Performance agreements help to maintain a consistent focus on a set of broad programmatic priorities during changes in leadership.⁹

A results-oriented approach to accountability with the use of performance agreements that are directly tied to AOC goals can serve as a basis for considering the authorities and resources managers and their teams need in order to achieve results. We have reported that high-performing organizations seek to involve and engage employees by devolving authority to lower levels of the organizations. Employees are more likely to support changes when they have the necessary amount of authority and flexibility—along with commensurate accountability and incentives—to advance the agency’s goals and improve performance. Allowing employees to bring their expertise and judgment to bear in meeting their responsibilities can help agencies capitalize on their employees’ talents, leading to more effective and efficient operations and improved customer service.¹⁰

Management and Accountability Framework Provides Context for Addressing Other Major Management Challenges

The management and accountability framework we have described provides a context for addressing other long-standing management challenges AOC faces. These include (1) communicating and obtaining buy-in on AOC’s mission, goals, and strategies from key internal and external stakeholders, (2) strategic human capital management, (3) financial management, and (4) IT management.

⁹U.S. General Accounting Office, *Managing for Results: Emerging Benefits from Selected Agencies’ Use of Performance Agreements*, GAO-01-115 (Washington, D.C.: Oct. 2000).

¹⁰U.S. General Accounting Office, *Management Reform: Elements of Successful Improvement Initiatives*, GAO/T-GGD-00-26, (Washington, D.C.: Oct. 15, 1999).

AOC-Wide Communications Strategy Is Needed to Achieve Mission-Critical Goals

Key Actions for Communication Strategy

- *Provide opportunities for routine employee feedback.*
- *Develop congressional protocols.*
- *Publicize the impact of highly visible projects.*
- *Improve accountability reporting.*
- *Measure customer satisfaction.*

For successful implementation of strategic planning and change management, AOC must develop a communications strategy for its internal and external customers. Communications is an integral part of striking a better balance between the results AOC is trying to achieve and improving its employee and customer communication and participation.

AOC recognizes the need to strengthen its communications and has several efforts under way. In a May 2001 discussion among senior managers on AOC's planning and priority setting, the senior managers discussed the need to broaden and improve internal communications. As a result, the Architect implemented a series of regular meetings for decision making and routine sharing of information. These meetings include regular staff meetings, management council meetings (quarterly meetings of AOC's senior managers to address agency business issues and priorities), and superintendent meetings (monthly meetings of AOC's superintendents who discuss common issues and experiences across AOC's jurisdictions). In addition to these routine meetings, we believe that AOC could strengthen its internal communications by developing a communications strategy that will help AOC's line employees understand the connection between what they do on a day-to-day basis and AOC's goals and expectations, as well as to seek employee feedback and develop goals for improvement. One way of implementing such a strategy is to conduct routine employee feedback surveys and/or focus groups. In addition, AOC could adopt a "lessons learned" and internal best practices approach, to encourage and reward AOC employees who share and implement best practices across the various jurisdictions, teams, and projects. For example, we found that the

safety specialist for the Capitol Buildings jurisdiction prepares a monthly newsletter that provides a summary of the accidents and injuries that have occurred in the jurisdiction and provides guidance on how to avoid the most prevalent injuries, but the practice had not been shared outside the jurisdiction. AOC management should actively encourage the sharing of such practices to determine if AOC could achieve greater performance by duplicating them in other jurisdictions.

AOC also must improve its external communications and outreach in a number of areas, including (1) developing congressional protocols, (2) publicizing the impact of highly visible projects, (3) improving its accountability reporting, and (4) measuring customer satisfaction with its services. As a first step, we would encourage AOC to consider developing congressional protocols, which would document agreements between the Congress and AOC on what committees and members can expect when they request AOC's services. The protocols would ensure that AOC deals with its congressional customers using clearly defined, consistently applied, and transparent policies and procedures. Congressional protocols would also enable AOC to better cope with the competing demands for its services by helping the organization set priorities for allocating its resources. As you know, working closely with the Congress and after careful pilot testing, we implemented congressional protocols in 1999. Our experience using them as a transparent, documented, and consistent way to set priorities has been very positive for us as well as our clients.

AOC could build on its communication efforts in high profile and other key projects that affect the broader community of AOC customers. AOC has recently expanded its efforts to keep its external customers—including the Congress, the Capitol Hill community, the public, and the media—routinely informed and educated on the planning, design, and construction of some high-visibility projects. For example, AOC hired a communications officer and developed a communications plan for the construction of the Capitol Visitors Center (CVC). AOC is employing a variety of informational tools to achieve its communications goals on this project. In addition to developing a Web site, the communications officer circulates a weekly summary of the status of construction work on the CVC project to AOC's key congressional customers. Because maintenance work on the Capitol Dome will also be highly visible, the status of this project was recently added to the summary.

AOC also needs to identify and address expectations gaps in the type of information and frequency of accountability reporting that would be most

useful to its congressional customers. Since 1965, AOC has reported semiannually to the Congress on its detailed expenditures, such as for salaries and maintenance supplies. As directed by the Senate Appropriations Committee, in February 2002, AOC provided the committee the first of its quarterly reports indicating the status of all ongoing capital projects. One option that we are considering to make AOC's accountability reporting more useful is to require AOC to notify the Congress if certain predefined, risk-based "reportable events" occur that require prompt attention. Reportable events notification is not intended to be a substitute for a more comprehensive periodic reporting of financial and program performance, but rather is to draw attention to specific events needing immediate attention. In such an approach, AOC and its congressional customers would reach agreement on the type of information needed on key projects and on what events would warrant reporting, such as percentage of milestones slipped, percentage over budget, or both.¹¹

AOC's communications strategy should also include tools for gauging customer satisfaction with its services. AOC should develop a more comprehensive and routine approach to obtaining customer feedback. For example, AOC is working on a customer feedback survey for custodial services. But we believe AOC could broaden and deepen these efforts to address all services provided by its jurisdictions. AOC could also learn from the efforts of the chief administrative officer of the House of Representatives who told us that he recently hired a consulting firm to develop a uniform customer satisfaction survey for his customers. Consistent with an effort to develop congressional protocols, AOC could also develop protocols for customer service so that customers know whom to contact for services and what to expect.

¹¹See U.S. General Accounting Office, *District of Columbia: Oversight in the Post-Control Board Period*, GAO-01-845T (Washington, D.C.: June 8, 2001) for more information on reportable events as an approach to assisting congressional oversight and decision making.

Strategic Human Capital Management Can Improve Organizational Accountability to Mission-Critical Goals

Key Actions for Strategic Human Capital Management

- *Develop capacity to collect and analyze workforce data.*
- *Identify current and future workforce needs and develop strategies to fill gaps.*
- *Establish agencywide core and technical competencies.*
- *Link proposed senior executive and existing employee performance management systems to mission-critical goals.*

Strategic human capital management can transform AOC into a results-oriented organization by aligning employee performance with AOC goals and by providing the tools to better plan its workforce needs. In 1994 we reported that AOC's personnel management system did not follow many generally accepted principles of modern personnel management.¹² In our current review, we found that AOC has made progress in establishing a modern personnel system that is meeting the guidelines set forth by the AOC Human Resources Act of 1994 and CAA.¹³ AOC has developed basic personnel policies and procedures and streamlined certain human resource processes, and has continued to add to its professional workforce ranks. These efforts are helping AOC to construct a sound foundation on which to build a high-performing organization.

Specifically, AOC has made the following improvements in its management of human capital:

- Created and administered a formal written, performance appraisal system for its General Schedule (up to GS-15) and Wage Grade employees (non-union) and, as noted elsewhere, drafted performance appraisal policies for its senior executives.

¹²U.S. General Accounting Office, *Federal Personnel: Architect of the Capitol's Personnel System Needs Improvement*, GAO/GGD-94-121BR (Washington, D.C.: Apr. 29, 1994).

¹³See P.L. 103-283, Sec. 312, Architect of the Capitol Human Resources Act.

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- Implemented an employee rewards and recognition program (Architect's Awards program) and dedicated additional resources to its employee training programs.
 - Established (1) procedures intended to produce a competitive merit-based system for hiring, promoting, and assigning employees, (2) Equal Employment Opportunity, Conciliation, and Employee Assistance programs, and (3) a position classification system.
 - Streamlined its job recruitment and hiring processes, and is currently refining certain personnel action processes.
 - Added to its professional workforce ranks by hiring new jurisdictional superintendents and deputy superintendents, and creating new positions, such as a CFO, a facilities manager, worker safety specialists, and a facilities planning and development manager.

AOC can build on the progress it has made in human capital management by incorporating the principles embodied in our *Model of Strategic Human Capital Management*.¹⁴ We designed this model based on the human capital practices of leading public and private organizations to help agency leaders manage their people and integrate human capital considerations into daily decision making to help achieve program results. AOC should especially consider applying the practices contained in two of the four cornerstones of the model: strategic human capital planning and results-oriented organizational cultures.

Collecting and analyzing data are fundamental building blocks for measuring the effectiveness of human capital approaches in support of the mission and goals of an agency. AOC needs to develop a fact-based, electronic approach to its management information systems and data sources to allow for accurate and reliable information across a range of human capital activities. The ability to gather reliable data will greatly enhance AOC's ability to acquire, develop, and retain talent, while allowing it to effectively plan for workforce needs.

Based on mission-critical agency goals, AOC also needs to identify its current and future workforce needs and create strategies for filling any

¹⁴U.S. General Accounting Office, *A Model of Strategic Human Capital Management*, Exposure Draft, GAO-02-373SP (Washington, D.C.: Mar. 2002).

gaps. As part of this workforce planning effort, AOC should conduct an employee skills inventory to determine a baseline and to address gaps in skills needed and skills available. This workforce analysis will also help AOC to create a succession planning program. For instance, if AOC is to develop reliable project cost estimates to support budgeting and financial and project management, the designated workforce must have the necessary skills to complete these functions. AOC would then need to

- determine how many project management employees it needs to accomplish its project management goals,
- assess the skills of the employees currently available to do this work,
- determine the gap in the number of skilled employees needed to do this work,
- develop a training and recruitment plan for filling the gap, and
- create a succession plan to manage project management employees exiting the organization.

We also suggest that AOC establish agencywide core and technical competencies—reflecting its core values¹⁵—that would form the basis of a best-in-class facilities management environment. The competencies would also relate to mission-critical goals that should be cascaded throughout AOC in its performance management system. AOC competencies can also help to provide the direction for future employee selection, promotion, training initiatives, and succession planning efforts. For example, AOC's Human Resource Management Division (HRMD) has made progress in developing a competency model for its own staff. HRMD intends to use this competency model to “reinforce its strategic focus” and to outline “the workforce requirements necessary to develop a highly competent cadre of HR [human resources] staff dedicated and committed to providing high-quality, timely and responsive human resources services to managers and employees of the AOC.”¹⁶ Like HRMD, other AOC units need to adopt competency models reflecting their own individual needs, thus enabling

¹⁵AOC's core values are professionalism, respect and diversity, integrity, loyalty, stewardship, teamwork, and creativity.

¹⁶Architect of the Capitol, HRMD's Model for Success, Oct. 1999.

the agency to align its workforce skills and behaviors with the its mission-critical goals.

As discussed elsewhere, once AOC has developed mission-critical annual goals it should incorporate them into the “results driven” job element AOC has proposed as part of its new senior executive performance management system. The existing staff-level performance appraisal system, Performance Communication and Evaluation System (PCES), consists of four evaluation areas: work results, interactions with others, judgment, and safety; a fifth evaluation area for supervisors is supervision and management. As an interim step, the four evaluation areas could be linked to overall agency goals to increase assurance that AOC’s mission will be met. In the longer term, AOC could strengthen individual accountability for achieving organizational goals by thoroughly reexamining PCES to incorporate core and technical competencies that would be linked to these goals.

AOC Needs to Continue and Expand Efforts to Improve Financial Management

Key Actions for Financial Management

- *Ensure effective implementation of new financial management system.*
- *Continue and expand ongoing efforts aimed at strengthening AOC’s budget formulation and execution and financial accounting and reporting across AOC.*
- *Model AOC efforts on established best practices of leading organizations.*

AOC faces significant challenges in building sound financial management and budget functions. Accurate and reliable budget formulation and execution and financial accounting and reporting are key functions that form the foundation of financial control and accountability. Historically, the AOC has lacked reliable budgets for both projects and operations and has not prepared auditable financial statements.

In recognition of the critical role a CFO plays in achieving financial accountability and control, AOC established a CFO position and, in January 2002, filled the position. The new CFO is a member of the Architect's executive council and reports directly to the Architect. Organizationally, the CFO is responsible for the activities of AOC's Budget Office, Accounting Office, and Financial Systems Office. Included among the many challenges facing the new CFO are his responsibilities for (1) implementing AOC's new financial management system (Momentum), (2) implementing applicable accounting and operational policies and procedures, and (3) preparing a complete and auditable set of AOC financial statements.

Among his first actions, the new CFO recently hired staff members to fill key budget and accounting officer positions, including additional accounting staff members with the general ledger accounting experience needed to maintain AOC's new general ledger. He has also focused his efforts on bringing AOC's new financial management system on-line. While these steps are critical and represent the initial steps to improving AOC's financial management and budget functions, much work remains to be done. The CFO has also recognized or started work on other key issues that need to be addressed in the near term, including the following:

- Providing continued training and support for using the new financial management system, which began operating AOC-wide on April 2, 2002.
- Developing procedures and controls to ensure that accurate and reliable data are produced by the new financial management system.
- Addressing systematically recommendations made by the AOC inspector general and various consultants for improving internal controls, as we recommended during our review.
- Establishing a credible budget formulation and execution process that includes an effective acquisition strategy to develop operating and capital budget information and to help ensure reliable project cost estimates (including 100 percent design, current working estimates, and reliable full-time equivalent information).
- Developing and implementing policies and procedures needed to properly account for and report financial information, especially accounting policies needed to properly report and control AOC's assets.

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- Establishing inventory management and control policies and procedures that help ensure accurate and useful information, provide adequate safeguards over inventory, and facilitate an annual inventory and financial reporting.
 - Assessing human capital needs, which includes identifying the skills and competencies needed for AOC's financial management workforce and providing for continuing training to ensure a financial team with the right mix of skills and competencies.
 - Integrating project-related financial information from the new financial management system with the related financial information maintained in the Project Information Center system to enhance completeness and accuracy of financial and budget information on AOC's projects.

The AOC's CFO has endorsed the use of our executive guide on best practices in financial management as a road map for these and other needed improvements.¹⁷ The CFO acknowledges the challenges that lie ahead and has established a goal for AOC to prepare auditable agencywide financial statements for the first time in fiscal year 2004. As we continue to review AOC's financial management and budget formulation and execution, we plan to look more closely at the processes and usefulness of AOC's financial and budget information, as well as project cost estimation to complement our assessment of project management at AOC.

¹⁷U.S. General Accounting Office, *Executive Guide: Creating Value Through World-class Financial Management*, GAO/AIMD-00-134 (Washington, D.C.: Apr. 2000).

AOC Needs to Adopt an Agencywide Approach to IT Management

Key Actions for IT Management

- *Appoint a chief information officer to manage IT across the agency.*
- *Establish and implement a portfolio-based approach to IT investment management.*
- *Develop, maintain, and use an enterprise architecture consistent with federal guidance and recognized best practices.*
- *Establish and implement disciplined processes for managing the development and acquisition of information systems.*
- *Establish and implement an information security program.*

IT can be a valuable tool in achieving an organization's mission objectives. Accordingly, in fiscal year 2001, AOC obligated about \$7.9 million for IT-related activities. For example, AOC uses the Computer Aided Facilities Management System (CAFM) to automate work order requests and fulfillment for ongoing maintenance of the Capitol and the surrounding grounds. Moreover, the Records Management System archives available architectural drawings pertaining to the U.S. Capitol, Library of Congress, Botanic Garden, and other buildings.

Our research of private and public sector organizations that have effectively leveraged IT shows that these organizations' executives have embraced the central role of IT to mission performance. As such, they have adopted a corporate or agencywide approach to managing IT under the leadership and control of a chief information officer (CIO), who is a full participant in senior executive decision making. Additionally, these organizations have implemented certain corporate IT management controls such as using a portfolio-based approach to IT investment decision making, using an enterprise architecture or blueprint to guide and constrain IT investments, following disciplined IT system acquisition and development management processes, and proactively managing the security of IT assets.

Our preliminary work shows that AOC has yet to adopt such an approach. AOC could greatly benefit from an agencywide approach to managing IT

under the leadership and control of an empowered CIO. Such an approach should, at a minimum, include each of the above IT management controls as defined in relevant federal guidance and proven best practices. AOC's top leadership will need to consider carefully its environment and the scope of its IT investments to determine how best to apply this guidance and the best practices to its specific situation.

CIO. Our research of private and public sector organizations shows that instituting an effective CIO organization begins with understanding IT's vital role in accomplishing mission objectives and positioning the CIO for success.¹⁸ It also identified a number of practices and strategies that senior managers in leading organizations use to establish their CIO positions to effectively meet business needs. These include establishing the CIO as a full participant in executive decision making; clearly defining the roles, responsibilities, and accountabilities of the CIO; matching the CIO position to the specific needs of the agency, as determined by the agency head based on the agency's mission and strategic plan; and ensuring that the CIO has the right technical and management skills to meet business needs.

AOC does not have a CIO or senior-level executive to manage IT across the agency. AOC has a director of information resources management who is neither a full member of the executive management team nor a participant in senior executive decision making. Without a CIO or other senior-level executive to manage its IT, AOC's IT does not have the substantive leadership, full-time attention, and consistent direction to effectively optimize mission performance across the agency.

To address AOC's need for an effective CIO, we recommend that the Architect establish a CIO and position the CIO for success by implementing the practices referenced in this testimony and further discussed in our best practices guide.¹⁹

Investment Management. Our best practices guide, based on research of private and public sector organizations that effectively manage their IT investments, outlines a portfolio-based approach to IT investment decision making that includes processes, practices, and activities for continually

¹⁸U.S. General Accounting Office, *Maximizing the Success of Chief Information Officers: Learning From Leading Organizations*, GAO-01-376G (Washington, D.C.: Feb. 2001).

¹⁹GAO-01-376G.

and consistently selecting, controlling, and evaluating competing IT investment options in a way that promotes the greatest value to the strategic interest of the organization.²⁰ The first step toward establishing such an approach is putting in place foundational, project-level control and selection processes.

To do this, the organization needs to establish and implement processes and practices for (1) operating an IT investment board responsible for selecting, controlling, and evaluating IT investments, (2) providing effective oversight for ongoing IT projects throughout all phases of their life cycles, (3) identifying, tracking, and managing IT resources, (4) ensuring that each IT project supports the organization's business needs, and (5) establishing criteria for selecting new IT proposals. Once the organization has established these project-specific control and selection processes, it should move to considering each new investment as part of an integrated portfolio of investments that collectively contribute to mission goals and objectives. To do this, the organization needs to establish and implement processes and practices for (1) developing and implementing criteria to select investments that will best support the organization's strategic goals, objectives, and mission, (2) using these criteria to consistently analyze and rank all IT investments, (3) ensuring that the optimal IT investment portfolio with manageable risks and returns is selected and funded, and (4) overseeing each IT investment within the portfolio to ensure that it achieves its cost, benefit, schedule, and risk expectations.

AOC has not implemented a portfolio-based approach to IT investment management. The director of information resources management proposed a high-level committee structure for selecting IT investments across AOC about 2 years ago. The proposed structure included an AOC IT Strategy Council, composed of the director and AOC executive management, to rank and approve agencywide IT investments, as well as an IT Business Planning Committee, composed of both IT and business representatives, to evaluate IT projects based on financial, business, and risk factors and recommend projects to the IT Strategy Council for investment. However, the director stated that AOC leadership has yet to adopt the proposal. While the proposal is a positive first step, it does not

²⁰U.S. General Accounting Office, *Information Technology Investment Management: A Framework for Assessing and Improving Process Maturity*, version 1, GAO/AIMD-10.1.23 (Washington, D.C.: May 2000).

address many of the critical elements of an effective IT investment management process, as outlined in our best practices guidance. Without an effective investment management process, AOC does not know whether its IT investments are commensurate with cost and risk and whether they are superior to alternative investment alternatives.

To strengthen its investment management capability, we recommend that AOC develop and implement an IT investment management process. In doing so, we recommend that the Architect develop a plan for developing and implementing the investment management processes we describe and that are also outlined in our IT investment management guide.²¹ At a minimum, the plan should specify measurable goals and time frames, rank initiatives, and define a management structure for directing and controlling the improvements.

Enterprise Architecture. As defined in federal guidance, and as practiced by leading public and private sector organizations, an enterprise architecture, or blueprint, guides and constrains IT investments and defines, both in logical terms (including business functions and applications, work locations, information needs, and users and the interrelationships among these variables) and in technical terms (including IT hardware, software, data communications, and security) how the organization operates today, how it intends to operate tomorrow, and a road map for moving from present to future.²² This guidance also defines a set of recognized practices for developing, implementing, and maintaining an enterprise architecture that includes, among other things, developing a clear enterprise architecture policy statement, creating a steering committee or executive body to oversee the development and maintenance of the enterprise architecture, designating a lead individual responsible for developing the enterprise architecture, establishing a program office with appropriate resources, and selecting a framework and tool for developing the architecture.

AOC does not have an enterprise architecture consistent with federal guidance and recognized best practices and does not plan to develop one. However, the director of information resources management has some

²¹GAO/AIMD-10.1.23.

²²Chief Information Officers Council, *A Practical Guide to Federal Enterprise Architecture*, version 1.0 (Washington, D.C.: Feb. 2001).

information that would be useful in developing some elements of such an architecture, such as existing network topology maps and server hardware and software descriptions. By not having and using a complete enterprise architecture, AOC lacks an effective means for promoting integration of, and avoiding duplication and inconsistencies in, business operations and supporting system investments.

To develop, implement, and maintain an enterprise architecture, we recommend that the Architect implement the practices we discuss, which are outlined in the CIO Council's architecture management guide.

System Acquisition/Development. The use of disciplined processes and controls based on well-defined and rigorously enforced policies, practices, and procedures for system acquisition and development can greatly reduce the risk that IT systems do not perform as intended, are delivered late, and cost more than planned. Such processes for managing system acquisition/development are defined in various published models and guides, such as Carnegie Mellon University's Software Engineering Institute's (SEI) Capability Maturity ModelSM.²³ Key processes such as requirements management, risk management, test management, and contract oversight and tracking are important for ensuring that systems are delivered on time, within budget, and perform as intended. Additionally, configuration management and quality assurance processes are critical to ensuring the integrity of the products and processes used to develop the products.

AOC has not implemented agencywide, disciplined processes for managing the development and acquisition of systems. In 1995, AOC's Office of Information Resources Management (OIRM) developed its Information Systems Life Cycle Directive (ISLC) that defines policies and procedures for software development and acquisition. Based on our preliminary review, ISLC addresses some, but not all, of the key process areas that are considered critical to successful system development and acquisition. For example, it defines processes for requirements management that include, among other things, the definition, documentation, and validation of requirements. ISLC also includes processes for test management that include such important areas as development of a test methodology, test

²³Carnegie Mellon Software Engineering Institute, *CMMISM for Systems Engineering/Software Engineering/Integrated Product and Process Development, Continuous Representation*, version 1.02 (Pittsburgh, Pa.: Nov. 2000).

plan, and test environment and documentation and reporting of test results and deficiencies. However, it does not include processes for two key areas: risk management and contract tracking and oversight. More important, ISLC is not being used to guide AOC system development and acquisition projects. Without a complete and enforced system development and acquisition life cycle process, AOC risks investing in systems that do not perform as intended, are delivered late, and cost more than planned.

To strengthen AOC's system acquisition and development controls, we recommend that the Architect introduce rigorous and disciplined processes for risk management and contractor oversight into OIRM's ISLC. We also recommend that the Architect ensure that OIRM's ISLC is implemented throughout the agency to guide systems development and acquisition projects, as appropriate.

Information Security. Our research of public and private sector organizations recognized as having strong information security programs shows that these organizations have implemented information security programs that include continual cycles of assessing business risks, maintaining policies and controls, promoting awareness, and monitoring and evaluating policy and control effectiveness.²⁴

AOC does not have an information security program, although the director of information resources management has recently initiated some efforts to establish one. For example, the director has designated an IT security officer whose responsibilities include developing IT security policies, planning and coordinating security risk assessments, conducting security training, and evaluating IT security effectiveness. Also, the security officer has recently completed a risk assessment of AOC's general support system and some key intellectual property, and has begun developing policies outlining the security officer position's roles and responsibilities as well as a security plan to address vulnerabilities identified in the risk assessment.

Nevertheless, several critical areas related to implementing leading security management principles, as outlined in our best practices guide, warrant attention. For example, AOC has not (1) developed and

²⁴U.S. General Accounting Office, *Executive Guide: Information Security Management, Learning From Leading Organizations*, GAO/AIMD-98-68 (Washington, D.C.: May 1998) and *Information Security Risk Assessment: Practices of Leading Organizations, A Supplement to GAO's May 1998 Executive Guide on Information Security Management*, GAO/AIMD-00-33 (Washington, D.C.: Nov. 1999).

implemented policy and guidance for performing periodic risk assessments, (2) provided the security officer the authority and resources to implement an agencywide security program, and (3) developed policies for such areas as security training and awareness, incident response, and program monitoring and evaluation. Without effective information security practices in place, financial and sensitive information contained in AOC's systems may be at risk of inadvertent or deliberate misuse, fraud, improper disclosure, or destruction—possibly without detection.

To strengthen AOC's information systems security, we recommend that the Architect follow the steps detailed in our information security guide²⁵ to establish an information security program, including (1) providing the security officer with the authority and resources to implement an agencywide security program, (2) developing and implementing policy and guidance for performing periodic risk assessments, (3) using the results of the risk assessments to develop and implement appropriate controls, (4) developing policies for security training and awareness and providing training, and (5) monitoring and evaluating policy and control effectiveness.

AOC Could Make Worker Safety Program Improvements More Effective by Adopting Certain Best Practices

Key Actions for Worker Safety Program

- *Develop more comprehensive and reliable data to set goals and to track program improvements.*
- *Assess accountability relationships of the safety specialists at the central and jurisdictional levels to carry out their work.*
- *Establish agencywide policies and procedures for reporting, investigating, and tracking worker safety incidents, accidents, and hazards.*

Because of the concerns that the Congress and others raised about worker safety at AOC, in 2001, the Architect issued a statement that safety is his

²⁵GAO/AIMD-98-68.

highest organizational priority. The maintenance, repair, and renovation of the Capitol complex is potentially dangerous work that exposes AOC employees to a variety of hazards related to the carpentry, electrical, painting, construction, custodial, and other work they perform. The types and severity of injuries and illnesses AOC employees could face range from injuries to the back, hand, and head to more life-threatening accidents. To effectively implement the Architect's commitment to safety, and consistent with best practices for health and safety programs as described in OSHA guidance and our work, AOC must develop comprehensive and reliable data, provide a clear understanding of what the program is trying to accomplish, and how it will evaluate results. AOC also needs to examine strengthening the accountability relationships between the various safety program officials. Best practices also indicate that standardized and agencywide policies and procedures must be in place—such as procedures that encourage employees to report incidents, accidents and unsafe conditions (often called hazards), and procedures to investigate causes of accidents to identify why accidents occurred. By gathering more comprehensive and reliable data, and developing and consistently applying policies and procedures for reporting and investigating accidents, injuries, and illnesses, AOC can begin to take a more strategic approach to addressing safety issues. For example, better information about the type and frequency of injuries and the hazards that contribute to them could help AOC establish a risk-based approach for addressing the most significant worker safety issues that are occurring and for allocating resources.

AOC Has Taken Significant Steps to Address Worker Safety and Health

AOC has taken and is in the process of implementing many significant steps that demonstrate its commitment to improving worker safety. For example, AOC has done the following:

- Developed a high-level 5-year approach to worker safety and health and is developing a 5-year worker safety master plan. This plan will be used as a road map for AOC to identify its safety philosophy, establish priorities, assign responsibilities, and identify project and funding needs.
- Reorganized its Office of the Executive Officer for Facilities Management to increase the emphasis on safety, hired a new facilities manager, and increased the staff from 5 to 10 professionals in the Safety and Environmental Health Division.

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- Hired eight safety specialists who oversee the safety programs for the six jurisdictions and one division—the House and Senate Office Buildings, Capitol Buildings, Library of Congress, Capitol Power Plant, Botanic Garden, and Construction Management Division.
 - Implemented 11 of 41 pending safety programs that will comply with the Occupational Safety and Health Administration (OSHA) regulations, and are aimed at reducing the risk and rate of illnesses and injuries. The programs cover policies such as handling hazardous materials, working in confined spaces, using safety equipment, and wearing respiratory protection.²⁶
 - Established safety and health committees at the executive and jurisdictional levels.
 - Purchased protective equipment for employees to help reduce many of the common work-related injuries.
 - Provided over 13,000 hours of formal training to employees on safety and health issues to raise awareness, decrease work-related accidents, and maintain a safer work environment.
 - Contracted or is in the process of contracting for outside experts—including technical assistance from the Public Health Service, Dupont, and OSHA through the Office of Compliance—to assist in establishing worker safety policies and procedures and best practices and to provide additional health and safety training.

Effective Safety and Health Programs Depend on Establishing Goals and Key Policies and Procedures for Reporting and Abating Hazards

Implementing the six core components of an effective worker safety program, as shown in table 1, is critical for instilling an organizational focus on safety and for helping reduce injuries, illnesses, and fatalities. Together, these components help an organization outline what it is trying to achieve, assess its progress, and ensure that it has the proper policies in place. After evaluating AOC's worker safety and health program, our analysis focused on four of the six components that we believed were the most important initially for AOC to address. These four core components of an effective worker safety and health program are management commitment, employee

²⁶ AOC has contracted out with the Department of Labor's Public Health Service to write these programs at a cost of about \$166,000. AOC plans to have these 41 programs developed by fiscal year 2004.

involvement, identification of problem jobs, and analysis and development of controls for problem jobs. In the next stage of our review, we plan to assess AOC's education and training and medical management components.

Table 1: Core Components of an Effective Safety and Health Program

Component^a	Ways in which the component can be demonstrated
Management commitment	Establish goals for the program, collect reliable data, and evaluate results. Establish program responsibilities of managers and employees for safety and health in the workplace and hold them accountable for carrying out those responsibilities. Communicate to the staff the program's importance.
Employee involvement	Establish mechanisms to get employees involved in the program, such as creating committees or teams to receive information on problem jobs or areas. Establish procedures for employees to report job-related fatalities, injuries, illnesses, incidents, and hazards; ensure that employees are not discouraged from reporting accidents, injuries, illnesses, or unsafe conditions. Establish regular channels of communication with employees regarding worker safety issues.
Identification of problem jobs	Follow up on employee reports of injuries, symptoms, or hazards. Review injury logs or other data to identify problem areas. Conduct inspections of the workplace to identify hazards causing injuries, illnesses, or fatalities.
Analysis and development of controls for problem jobs	Through investigation or other analysis, identify hazards present in problem jobs. Develop controls for problem jobs by brainstorming with employees or other methods. Follow up to ensure that hazards are abated and controls are effective.
Education and training	Provide general awareness training to all employees so they can recognize hazards and risks, learn procedures for reporting injuries, and become familiar with the program. Provide targeted training to specified groups of employees because of the jobs they hold, the hazards they face, or their roles in the program.
Medical management ^b	Encourage early reporting of symptoms and ensure that employees do not fear reprisal or discrimination. Ensure a prompt evaluation by a medical provider. Provide employees who have work-related medical conditions with restricted or light duty employment.

^aDifferent terminology is often used to describe these components. For example, identification of problem jobs is sometimes referred to as hazard identification and assessment. Analysis and development of controls for problem jobs is sometimes referred to as hazard prevention and control. The terms used here are identical to those used in our prior work.

^bOrganizations may have medical management programs without necessarily having safety and health programs.

Sources: OSHA, *Safety and Health Program Management Guidelines*, Issuance of Voluntary Guidelines, Federal Register 54:3904-3916 (Washington, D.C.: Jan. 26, 1989) and U.S. General Accounting Office, *Private Sector Ergonomics Programs Yield Positive Results*, GAO/HEHS-97-163 (Washington, D.C.: Aug. 27, 1997).

Management Commitment: AOC
Must Develop Program Goals
Based on Reliable Data and
Strengthen Accountability
Relationships

Management commitment requires establishing program goals, collecting reliable data, and assessing progress towards those goals. It also involves establishing program responsibilities of managers and employees for safety and health in the workplace and holding them accountable for carrying out those responsibilities, and communicating to the staff the program's importance. AOC, with the personal involvement of the Architect, has communicated to managers and staff members that it must become a safer organization and is working on changing the organizational culture to focus on safety and health. As a clear sign of that commitment, in June 2001 AOC established a goal of reducing the rate of worker injuries and illnesses by 10 percent per year for 5 years, starting from the fiscal year 2000 rate of 17.9 per 100 workers.

AOC is measuring its progress in achieving its injury and illness reduction goal using OSHA's published measure of total injuries and illnesses, which provides the total number of cases and the rate of injuries and illnesses that incur costs under the federal workers' compensation program. The OSHA measure is important to show the extent to which those injuries and illnesses that could include the most severe—that is, those in incurring medical expenses or lost time—are increasing or decreasing. According to this measure, both the number and rate of these injuries and illnesses at AOC showed an overall increase from fiscal years 1997 through 2000.²⁷ In fiscal year 2000, according to this measure, the rate of injury and illness was 17.9 per 100 workers. Although OSHA has not published these data for fiscal year 2001, OSHA officials told us that for AOC both the number and rate of injury and illness declined in 2001. At the same time, however, AOC has been tracking the total number of injuries and illnesses occurring at AOC, regardless of whether the injury or illness incurred costs under the federal workers' compensation program. These data show a decline in the total number of recorded injuries and illnesses from fiscal years 1999 (the first year the data were available) through 2001.

AOC and OSHA's data provide valuable information for AOC. However, neither of these data is directly comparable to key measures used in the private sector, so AOC has been missing the opportunity to compare itself to—and learn from—the application of industry standards. According to private sector best practices, organizations should rely on a more precise measure of severe injuries and illness than either the OSHA or AOC total injury and illness data provide. The private sector generally uses a measure

²⁷OSHA did not publish these data prior to 1997.

called “OSHA recordables,” which include any work-related injury or illness that requires more than first aid or leads to lost time. As a result, tracking OSHA recordables allow an organization to identify the most severe injuries and illnesses occurring in the workplace. To be more consistent with industry standards, in 2001, AOC began to collect on a limited basis OSHA recordables, which we believe will help AOC create a more accurate picture of its injuries and illnesses.

At the same time AOC is developing more comprehensive illness and injury data, AOC needs to ensure that the data it gathers are reliable. For example, although AOC has established policies and procedures that require reporting of all workers’ compensation claims, it does not have policies and procedures in place for reporting the more comprehensive data on injuries and illnesses consistent with industry best practices. The partnership that the AOC is developing with the Office of Compliance and OSHA and the contract with Dupont to provide technical assistance in the area of worker safety could help AOC make progress on assessing its policies and procedures for collecting injury and illness data and help ensure their completeness and reliability.

Management commitment also dictates that an organization put the right people in place with the authority to make the program work. As we mentioned, AOC reorganized its Executive Office of Facilities Management to increase its emphasis on safety. The office includes the Safety and Environmental Health Division, which includes the safety officer and the central safety specialist positions. This office has recently increased its staffing from 5 to 10 safety and health professionals. In addition, AOC has hired eight safety specialists for six of its jurisdictions and one division. As these safety specialists assume their full responsibilities, AOC needs to ensure that it has clearly defined their roles, responsibilities, and authorities at the central and jurisdictional levels so that they can carry out their work. Implementation of the worker safety program occurs at the jurisdictional level. In the next stage of our review, we plan to explore which of the safety program responsibilities would be best carried out by central AOC staff and which would best be carried out by the jurisdictional staff.

Employee Involvement: AOC Should Strengthen Employee Involvement with Reporting Incidents, Accidents, or Hazards

As noted above, AOC has established mechanisms to get employees involved in the worker safety program and has established regular channels of communication with employees through the safety and health committees and through formal training. Employee involvement also includes establishing procedures for employees to use in reporting job-

related incidents, accidents, and hazards, and ensuring that they are encouraged to do so. AOC should develop such procedures to encourage and reward employees for reporting these situations. For example, AOC could develop procedures along with awareness training that clearly articulate the steps employees should take to report all job-related incidents, accidents, and hazards and ensure they are followed consistently. AOC could also recognize employees for following these procedures through the Architect's new employee rewards and recognition program. Another way to increase employee involvement is to have employees serve on teams responsible for identifying and ranking problem jobs as well as developing controls for those jobs, which several of the jurisdictions have initiated. Finally, AOC should hold top managers, frontline supervisors, and employees accountable for ensuring that this process is followed. In the next stage of our review, we plan to explore these reporting and accountability issues further through a series of focus groups with AOC employees.

Identification, Analysis, and Development of Controls for Problem Jobs: AOC Needs Consistent Policies and Procedures for Conducting Investigations and Abating Hazards

Leading organizations systematically seek to identify why injuries, illnesses, and accidents occur or why hazards exist and eliminate underlying conditions as part of a risk-based approach to creating safe and healthy work environments. In that respect, it is vital to have adequate processes to investigate problem areas, develop controls for those areas, and follow up to ensure that hazards are abated. Furthermore, staff members conducting these investigations should have the knowledge and authority to remedy the situations. In 1998, the Office of Compliance recommended that AOC develop a system to routinely investigate accidents or hazardous situations and ensure that hazards are corrected. In response, AOC has placed safety specialists in several of the jurisdictions, which provides greater assurance that an effort is being taken to investigate accidents, incidents, or identified hazards.

However, there is still no consistent AOC-wide system for conducting investigations and follow-up to ensure that corrective actions have been taken. Such a system is critical to providing AOC with the assurance that its efforts are risk-based—targeted directly toward identifying and abating those factors leading to the most severe and frequent incidents, accidents, and hazards. To illustrate, some of the jurisdictions have (1) developed their own investigation procedures, (2) involved different staff members in the investigations (e.g., a safety specialist in one case, a safety and health committee representative in another case), and (3) developed their own forms to gather accident or incident data. Another important component is follow-up, and we found that only two of the five jurisdiction safety

specialists we interviewed were tracking resolution of hazards identified. AOC has procured a data system—Facility Management Assistant—that is to include inspection data and provide risk analysis and hazard abatement assessment and follow-up, which we think is a positive step.²⁸ According to the director of AOC’s Safety and Environmental Health Division, this system is expected to be operational by July 2002.

AOC Needs to Build on Current Efforts by Adopting a Strategic Approach to Recycling

Key Actions for Recycling Program

- *Revisit and clarify recycling mission and goals.*
- *Develop a performance measurement, monitoring, and evaluation system that supports accomplishing recycling mission and goals.*
- *Reexamine roles and responsibilities of AOC recycling program staff members.*
- *Implement best practices to improve performance.*

Programs that separate and collect recyclable materials from the waste stream produce numerous benefits. It is estimated that recycling 1 ton of paper saves 17 mature trees, 3.3 cubic yards of landfill space, 7,000 gallons of water, 380 gallons of oil, 4,100 kilowatt hours of energy, and 60 pounds of air pollutants. To maximize the benefits derived from its recycling program, AOC must build on the steps it has taken to improve the effectiveness of its programs by taking a more strategic approach. Such an approach would include revisiting and clarifying recycling mission and goals, measuring and monitoring performance against goals to gauge and improve program effectiveness, and reexamining the roles and responsibilities of the recycling program staff to ensure accountability for achieving recycling goals. We provide observations on how AOC could improve recycling results by replicating its own and others’ best practices.

²⁸This system will be integrated with AOC’s financial management tracking system for processing work orders.

AOC Has Taken Steps to Improve Effectiveness of Recycling Programs

AOC is responsible for operating recycling programs for much of the Capitol complex.²⁹ In recent years, AOC, both centrally and at the jurisdiction level, has taken steps to improve the overall effectiveness of its recycling programs. Some of the steps include

- formalizing the positions and responsibilities of the AOC resource conservation manager and the House and Senate recycling program managers to include activities such as planning, policy and program development, monitoring, and evaluation of recycling operations;
- filling the Senate recycling program manager position, which was vacant for a number of months;
- suggesting that the Senate adopt a consultant's recommendation to simplify the recycling program to improve participation and increase effectiveness;
- developing a draft set of performance indicators and starting to collect data; and
- reworking the recycling program for the House Office Buildings jurisdiction to increase promotion and education and reequip participating offices with new recycling containers.

Recycling Program Design Depends on Desired Goals

There are a variety of environmental and financial benefits to be derived from an office recycling program, and program designs will differ depending on the goals selected. A typical goal is reducing to the extent possible the amount of solid waste sent to landfills. Another goal is generating as much revenue as possible from the sale of the recyclable materials collected. A key to achieving either goal is making the recycling program as easy as possible for employees to use. Generally, the less sorting, decision making, and walking required by individual participants, the more successful the program will be. And although the two goals of

²⁹AOC operates all aspects of the recycling programs in the House and Senate Office Buildings, except for the Ford building, which is operated by a custodial contractor. In addition, the House jurisdiction picks up recyclable materials collected by the House side of the Capitol building, the Botanic Garden, the page dorm (501 1st St.), and, most recently, the Capitol Power Plant. On the Senate side of the Capitol building, the Senate Sergeant-at-Arms operates the recycling program, and AOC transports the materials to its collection site in the Hart Office Building. The Supreme Court and the Library of Congress operate their own recycling programs.

waste reduction and revenue generation are not mutually exclusive, the designs of each would differ.

Specifically, a recycling program with the goal of generating revenue, commonly referred to as a source separation program, is more complicated, expensive, and difficult to implement than a program designed for waste reduction. This is because separating a greater variety of recyclable materials at the source requires more resources for educating clients and the recycling staff, collecting recyclable materials, and monitoring for compliance. The complexity of source separation, unfortunately, increases the likelihood of contamination of the recyclable materials collected, reducing their value and increasing the volume of waste sent to landfills. Given the complexity and potential performance problems with a source separation program, an organization needs to analyze the costs and benefits of such a program compared to other, simpler options to determine whether such a program will be cost-effective.

AOC Needs to Revisit and Clarify Recycling Mission and Goals

High levels of contamination have prevented the House and Senate recycling programs from achieving either of the two goals. AOC's recycling contractor does not pay for high grade (e.g., white copy) paper with greater than 5-percent contamination or mixed grade (e.g., glossy or colored) paper with greater than 10-percent contamination. However, in fiscal year 2001, over 60 percent of about 650 tons of recyclable paper collected from Senate Office Buildings and more than 70 percent of about 1,720 tons of recyclable paper collected from the House Office Buildings were contaminated. Although AOC avoided the cost of disposing of the waste, the collected materials generated no revenue. The recycling contractor may sort and recycle some of this contaminated waste, but the rest ultimately will go to a landfill.

AOC needs to clearly define the overall mission and goals of its recycling programs to assess whether it has the right program design, organization, and implementation strategies in place to achieve desired results. AOC's goals for its recycling programs are unclear. The House and the Senate have directed their respective jurisdictions to implement source separation recycling programs. Furthermore, the position descriptions for the House and Senate recycling program managers state that these managers are responsible for, among other things, increasing the financial returns of their programs. However, other documents we reviewed, such as the position description of the AOC resource conservation program manager and a 1999 audit by the AOC inspector general, indicate that AOC is also pursuing the

goal of waste reduction. If AOC's goal is to generate as much revenue as possible through a source separation program, then based on the high rate of contamination it will need to design a program that is much more aggressive in terms of the education, training, and equipment it provides to participants and the collection staff. However, if the goal is reducing the volume of waste sent to landfills, then AOC should implement a simpler program, requiring as little separation as possible to increase participation and compliance.

Cost-benefit analysis could help AOC strike the right balance in its recycling program. For example, the recently completed study of the Senate's source separation recycling program requested by the Senate Appropriations Committee shows that AOC could lower contamination and therefore increase revenues by simplifying the program. Not addressed in the study is whether this type of program would also reduce the amount of waste sent to landfills.

Furthermore, other than coordination to remove recycling materials at the Botanic Garden and—in response to our recent suggestion—the Capital Power Plant, AOC has no formal plans to implement a Capitol complex-wide recycling program. For example, AOC could expand its recycling programs to include waste from its landscaping or construction activities. Incorporating these materials into its overall recycling program could improve AOC's overall performance in reducing waste sent to landfills.

Consistent with the communication strategy we outline in this statement, AOC needs to seek input from its stakeholders to determine the most appropriate mission and goals for its recycling program(s). Whether the resulting program is Capitol complex-wide or is tailored to meet the specific requirements of the House or Senate, AOC needs to clarify whether the primary focus of the recycling program is to reduce the total amount of waste sent to landfills, to generate a desired level of revenue, or both.

AOC Needs to Develop a Performance Measurement, Monitoring, and Evaluation System That Supports Accomplishment of Recycling Mission and Goals

In response to a Senate Appropriations Committee request for a quarterly report on the recycling program in the Senate, AOC has proposed a performance measurement system that it will use to monitor both the Senate and the House recycling programs. The data and indicators they will collect include, among other things, revenue generated from the sale of recyclables, customer satisfaction, education of participating offices, status of equipping offices with recycling containers, rate of office participation, and training of recycling collection staffs.

AOC's proposed performance system is a promising first step. In revisiting its program mission, goals, and design, AOC should also reexamine and refine this system to improve its usefulness for program monitoring and decision making. As discussed elsewhere in this statement, AOC's performance measurement system should (1) show the degree to which the desired results were achieved, (2) be limited to the vital few measures needed for decision making, (3) be responsive to multiple priorities, and (4) establish accountability for results. Also, as part of its responsibility for handling waste from government facilities, including recyclable materials, the General Services Administration (GSA) has developed a guide that describes a number of steps an agency can take to measure and monitor recycling efforts that could be useful to AOC in developing its system.³⁰ These steps are listed in table 2.

Table 2: Ten Steps Identified by GSA for Best Administering a Recycling Program

Steps	Purpose and example
1. Determining the building profile	Purpose: To ascertain the types of materials to be recovered in a recycling program and identify any special restrictions or requirements. Example: Does the storage space have sprinklers or will special containers be required?
2. Determining the waste stream size	Purpose: To manage and reduce a building's waste stream data on the total size of the waste stream are compiled. Example: Obtain monthly reports showing the amount of waste hauled.
3. Analyzing the waste stream	Purpose: To determine the quantity of various types of recyclable materials included in the waste stream. Example: Develop an estimate of the quantity of recyclable material collected daily.
4. Determining the amount recycled	Purpose: To show how much is being diverted from the waste stream. Example: The recycling contractor provides a monthly report showing the amounts and types of materials recycled.
5. Tracking the information	Purpose: To determine the percentage of the total waste stream diverted by recycling. Example: Data are entered on a regular basis, for example, monthly, and totaled at the end of the fiscal year.
6. Reporting the information	Purpose: To report status of the program to management and to offices participating in the program. Example: Reports to offices keep employees informed about how their efforts are helping the environment and measuring progress and goals.

³⁰U.S. General Services Administration, *Recycling Program Desk Guide* (Washington, D.C.: Mar. 2001).

(Continued From Previous Page)

Steps	Purpose and example
7. Reducing the waste stream	Purpose: To determine whether trash includes recyclable materials that are improperly discarded and opportunities to recycle other materials (e.g., construction debris, discarded/leftover carpeting, or scrap metal). Example: Meet with office representatives to ascertain their container needs and find out what types of waste they generate.
8. Assessing the program	Purpose: To determine how well the program is working. Example: Observe whether employees understand how the program works or modifications that might be necessary.
9. Educating employees	Purpose: To provide employees with reasons for recycling and a description of how the program works; to reduce the container contamination by giving detailed instructions on what is and is not acceptable. Example: An environmental team consisting of building management and participating offices would promote and educate employees.
10. Monitoring and evaluating program	Purpose: To be aware of fluctuations in the volume of recycled materials collected in an effort to identify the cause and determine whether associated waste disposal costs can be reduced. Example: Periodically review waste disposal costs and assess whether the program implemented has had an impact.

Source: U.S. General Services Administration, *Recycling Program Desk Guide* (Washington, D.C.: Mar. 2001).

AOC's proposed recycling program goals are not linked to a desired level of performance and therefore cannot demonstrate the extent to which performance is achieved. For example, AOC seeks to *decrease* contamination rates for recyclable materials collected, but does not state a goal for a desired level of contamination against which to measure progress. As shown in table 2, steps 2 and 3, AOC should determine how much waste the Capitol complex generates overall and analyze how much of that waste could be recycled. Such information could form the basis of AOC's overall waste reduction goals. Furthermore, AOC should develop its performance measurement system with input from recycling program staff members to ensure that the data gathered will be sufficiently complete, accurate, and consistent to be useful in decision making. As AOC clarifies its goals and performance measures for its recycling program, it will likely identify opportunities to reduce the recycling data currently collected.

After establishing an organizational mission and goals and building a performance measurement system, the next key step is to put performance data to work. As shown in table 2, steps 4 through 8 and step 10 provide guidance on ways to monitor and evaluate program performance. AOC has proposed a quarterly monitoring system. Such monitoring of performance against goals will enable AOC program managers to identify where performance is lagging, investigate potential causes, and identify actions designed to improve performance. AOC should also obtain periodic

feedback from its customers/stakeholders to obtain their views about the quality of the program, ease of participation, and other areas for improvement. AOC has proposed a recycling program customer survey as part of its performance measurement system. We believe AOC should develop this survey as part of an overall communication strategy for external stakeholders, as discussed earlier in the statement.

Reexamine Roles, Responsibilities, and Number of AOC Recycling Program Staff Members

The roles and responsibilities of AOC's recycling program staff members have evolved in recent years, without the guidance of a clearly defined mission and goals. In revisiting its recycling program mission and goals, AOC should also reexamine the roles and responsibilities of its program staff members to ensure that they are performing the right jobs with the necessary authority. AOC recently changed the responsibilities of its recycling program management positions to incorporate a greater focus on program planning and evaluation. However, according to these staff members, much of their time is spent in day-to-day program implementation activities, leaving little time to fulfill their expanded roles.

The AOC resource conservation manager, originally responsible for only the AOC hazardous waste program, currently is responsible for planning and developing policies and programs for an AOC-wide approach to waste management, analyzing waste removal programs, developing and presenting briefing and training materials on agency recycling efforts, and serving as the administrator and technical representative for the recycling collection contract. However, according to the resource conservation manager, about half of her effort is devoted to hazardous waste management activities. She has little time and no staff to carry out the broad, agencywide planning and evaluation activities required by the position.

In fiscal year 2001, AOC replaced its recycling coordinator position with a recycling program manager position in the House and Senate jurisdictions. These positions are responsible for working with other Capitol complex recycling specialists to carry out agencywide recycling, planning and developing recycling policies and programs, reviewing program effectiveness and monitoring implementation (e.g., compliance inspections), and analyzing the financial returns of waste recycling contracts. However, the House recycling program manager told us that the current focus is primarily on implementation activities, such as program promotion and education and providing recycling equipment to offices, limiting the time available to focus on other responsibilities, such as program monitoring and evaluation.

As previously stated, AOC needs to provide a results-oriented basis for individual accountability. With respect to recycling, AOC has neither established clear goals nor assigned accountability for achieving results. Because program implementation occurs in the House and Senate jurisdictions, AOC needs to incorporate its desired recycling goals into its performance management system and cascade those goals down through the jurisdictions to the individuals responsible for program implementation.

In our opinion, overlapping responsibilities for planning, education, monitoring, and evaluation between the resource conservation manager and jurisdiction recycling program managers raise questions about the appropriate number of staff members and mix of responsibilities needed to carry out AOC's recycling programs at the central and jurisdictional levels. In the next stage of our review, we plan to explore with AOC which responsibilities would be best carried out by a central AOC staff and which would be best carried out by jurisdiction staffs. For example, the focus of the central staff could be on planning, developing educational materials, monitoring, and evaluating recycling from an AOC-wide perspective. In contrast, the focus of the jurisdiction staffs could be on implementation of the recycling program, including equipping offices, educating participants, and collecting recyclable materials.

Implementing Best Practices Can Help Improve Performance

In addition to addressing strategic program management issues, AOC could implement best practices that may provide immediate improvements to its recycling program results. For example, AOC could do the following:

- Take advantage of intra-agency best practices by sharing ideas across jurisdictions. For example, the House jurisdiction has already developed promotional materials that can be shared with the Senate jurisdiction to avoid duplication of effort.
- Expand on House efforts to promote the reuse and sharing of office materials by listing available excess materials.
- Create greater incentives to recycle by providing participants feedback on the results of their recycling efforts, such as trees saved, landfill space not used, or revenues generated for employee programs, such as a day care or fitness center. (See table 2, step 6.)
- Provide information and solicit feedback using electronic means, such as e-mails with links to an AOC recycling Web site.

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- Continue to work with participating offices to select recycling containers designed to reduce contamination. For example, AOC could make greater use of containers with lids designed to prevent the disposal of inappropriate materials (slots for paper, can-shaped holes, etc.).

Key Management Options Require Further Exploration

Adopting a vigorous approach to strategic planning and holding managers and employees accountable for achieving organizationwide goals will go a long way toward helping AOC become a high-performing organization. However, further measures may be needed; we plan to explore other options with AOC and its key congressional customers in the next stage of our management review. These proposed options aim to strengthen AOC's executive decision-making capacity and accountability, so that the right senior executives are making important operating and investment decisions, and that these decisions are based on solid financial, budget, and performance information. We also plan to explore opportunities for further improving labor-management relations, worker safety, and project management and budgeting at AOC. As we move forward, we will support AOC in exploring these management options through on-the-spot advice, best management practice briefings for AOC's senior managers, focus groups for AOC's employees, and outreach to AOC's labor unions and key congressional customers.

Key Management Options We Plan to Explore with AOC

To strengthen AOC's executive decision-making capacity and accountability, we are exploring options to better define the roles and responsibilities for certain key functions and to clarify some accountability relationships. For example, executive-level decisions on issues such as major capital investments could be made by an executive committee consisting of these top managers, in addition to the new CFO. A chief operating officer (COO) could be responsible for major long-term management, cultural transformation, and stewardship responsibilities within AOC. In March 2002, we testified on the potential for creating statutory COOs within major executive branch agencies, who could provide the continuity that spans the tenure of political leadership and helps ensure that long-term stewardship issues are addressed and change

management initiatives are successfully completed.³¹ As we discussed above, a CIO could lead and manage policies and procedures for making agencywide IT investment decisions. In addition, to develop and implement congressional protocols and strengthen AOC's communications and outreach with its congressional customers, AOC may want to consider assigning full-time responsibility for its congressional relations functions to a senior manager. We will also assess whether AOC should clarify organization lines of authority and accountability to improve program management in areas such as worker safety, recycling, and facilities and project management. Such comprehensive organizational changes should only take place within the context of decisions made by AOC as it implements the framework for management and accountability that we discuss.

To support improving AOC's executive decision-making capacity, we will continue to review the processes and usefulness of AOC's financial and budget information, and explore the use of performance information. In the next stage of our review, our analysis of project cost estimation will complement an assessment of overcoming challenges to effective project management at AOC.

To improve labor-management relations, we will look at best practices in alternative dispute resolution in the workplace and explore the relationships between AOC's Equal Employment Opportunity and Conciliation Program Office, Employee Advisory Council, and newly created Office of the Ombudsperson—formerly the Employee Advocate—and the Office of Compliance. We have supported using ombudsmen in dispute resolution and believe that this office can be an integral part of an organization's human capital management strategy to create a fair, equitable, and nondiscriminatory workplace.³² We plan to assess the new role of the ombudsperson in AOC and whether it will adhere to the standards of practice for ombudsmen established by professional organizations. These standards revolve around the core principles of independence, neutrality, and confidentiality.

³¹U.S. General Accounting Office, *Managing for Results: Building on the Momentum for Strategic Human Capital Reform*, GAO-02-528T (Washington, D.C.: Mar. 18, 2002).

³²U.S. General Accounting Office, *Human Capital: The Role of Ombudsmen in Dispute Resolution*, GAO-01-466 (Washington, D.C.: Apr. 13, 2001).

We Are Helping Assess These Options and Recommending Needed Management Improvements

We are exploring these management options in several ways. In the worker safety and recycling areas, we will continue to provide on-the-spot advice on safety hazards and recycling practices observed on our site visits. For example, we identified several safety hazards at the Capitol Power Plant. We brought these potential hazards to the attention of the acting chief engineer of the plant, who said that he would act upon our advice. We also suggested to him that the power plant could start a recycling program for its office waste consistent with the Botanic Garden's program, which the plant is starting to implement.

To support management improvements that we are recommending or options we plan to explore, we have provided best practices guidance and we will, at the invitation of AOC, brief AOC's senior managers on best management practices in the public as well as private sectors, potentially including the following topics:

- strategic planning and performance measurement;
- our congressional protocols and the role of our Congressional Relations Office;
- human capital management, including our guidance on strategic human capital management and our human capital policies and procedures,³³ and
- IT management, financial management, and worker safety.

To identify opportunities to further improve AOC's internal communications, we will be holding a series of focus groups with AOC's employees to obtain employee feedback on AOC's organizational culture, morale, management support, and worker safety issues, and meeting with officials from AOC's labor unions. To assess AOC's communications with its external customers, we will contact key congressional staffs to get feedback on the types of AOC services most important to them, their satisfaction with these services, and suggestions for management improvements.

³³GAO-02-373SP and U.S. General Accounting Office, *Human Capital: A Self Assessment Checklist for Agency Leaders*, Discussion Draft, GAO/GGD-99-179 (Washington, D.C.: Sept. 1999).

Contact and Acknowledgments

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