

GAO

Testimony

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CAPITOL VISITOR CENTER

Update on Status of Project's Schedule and Costs

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Physical Infrastructure Issues



Mr. Chairman and Members of the Subcommittee:

We are pleased to be here today to assist the Subcommittee in monitoring progress on the Capitol Visitor Center (CVC) project. As requested, we will focus our remarks today on the Architect of the Capitol's (AOC) progress in achieving selected project milestones and in managing the project's schedule since the Subcommittee's June 14 hearing on the project.¹ We will also discuss the project's costs and funding, including the potential cost impact of schedule-related issues. Our observations today are based on our review of schedules and financial reports for the CVC project and related records maintained by AOC and its construction management contractor, Gilbane Building Company; our observations on the progress of work at the CVC construction site; and our discussions with AOC's Chief Fire Marshal and CVC project staff, including AOC, its major CVC contractors, and representatives of an AOC schedule consultant, McDonough Bolyard Peck (MBP). We did not perform an audit; rather, we performed our work to assist Congress in conducting its oversight activities.

In summary, AOC and its major construction contractors have made progress on the project since the Subcommittee's June 14 hearing, but work on some of the selected milestones scheduled for completion by today's hearing is incomplete; some work has been postponed; and some new issues have arisen that could affect the project's progress. Specifically, as of July 12, AOC's sequence 2 contractor, Manhattan Construction Company, had completed work on 11 of the 17 selected milestones scheduled for completion before today's hearing; however, it completed only 3 of the 17 milestones on time. The sequence 2 contractor missed the 14 remaining milestones for such reasons as unforeseen site conditions, design problems, and more time being taken to complete some other work than expected. In addition, the date scheduled for the initial operation of the utility tunnel is now about 5 months later than AOC had anticipated, and unforeseen conditions could delay the installation of stone in the East Front. Although the June project schedule shows that the delay on the East Front stonework would move the scheduled opening date for the CVC project to October 19, 2006, AOC does not expect the delays in completing the remaining milestones, including the utility tunnel

¹GAO, *Capitol Visitor Center: Effective Schedule Management and Updated Cost Information Are Needed*, [GAO-05-811T](#) (Washington, D.C.: June 14, 2005). See also GAO, *Capitol Visitor Center: Priority Attention Needed to Manage Schedules and Contracts*, [GAO-05-714T](#) (Washington, D.C.: May 17, 2005).

and East Front stonework, to postpone the project's scheduled September 2006 completion date. In AOC's view, the contractor can recover the time lost in completing these milestones, as well as make up for delays in completing interior stonework, by such means as using temporary equipment, adding workers, or resequencing work, although using temporary equipment or adding workers will also increase the project's costs. Largely because of past problems, remaining risks and uncertainties, and the number of activities that are not being completed on time, we continue to believe that the project is more likely to be completed in the December 2006 to March 2007 time frame than in September 2006. AOC and its construction management contractor have continued their efforts to respond to two recommendations we made to improve the project's management—having a realistic, acceptable schedule and aggressively monitoring and managing adherence to that schedule. However, we still have some concerns about the amount of time scheduled for some activities, the extent to which resources can be applied to meet dates in the schedule, the linkage of related activities in the schedule, and the integration of planning for completing construction and starting operations. Since the Subcommittee's last CVC hearing, AOC has engaged contractors to help it respond to two other recommendations we made—developing risk mitigation plans and preparing a master schedule that integrates the major steps needed to complete construction with the steps needed to prepare for operations. AOC has also been taking a number of actions to improve coordination between the CVC project team and AOC's Fire Marshal Division. Insufficient coordination in this area has already affected the project's schedule and cost, and could do so again if further improvements are not made.

We continue to believe that the project's estimated cost at completion will be between \$522 million and \$559 million, and that, as we have previously indicated, AOC will likely need as much as \$37 million more than it has requested to cover risks and uncertainties to complete the project. At this time, we believe that roughly \$5 million to \$15 million of this \$37 million is likely to be needed in fiscal year 2006, and the remainder in fiscal year 2007. In the next 2 to 3 months, AOC plans to update its estimate of the project's remaining costs. We will review this estimate and provide Congress with our estimate together with information on when any additional funding is likely to be needed. During the next several months, AOC is likely to face competing demands for funds that can be used for either CVC construction or operations, and it will be important for AOC to ensure that the available funds are optimally used. Finally, we are concerned that AOC may incur costs to open the facility to the public in September 2006 that it would not incur if it postponed the opening until

after the remaining construction work is more or fully complete—that is, in March 2007, according to AOC’s estimates.

We are recommending that AOC designate who will be responsible for integrating the planning and budgeting for CVC construction and operations and notify Congress in advance of any estimated costs it believes it will incur to open CVC to the public in September 2006 rather than when the facility is more complete. AOC agreed with these recommendations.

Schedule Milestones and Management

AOC and its major construction contractors have moved the CVC project forward since the Subcommittee’s June 14 hearing, although the majority of the selected milestones scheduled for completion by today’s hearing have not been completed on time. According to the construction management contractor, the base project’s construction was about 70 percent complete as of June 30, compared with about 65 percent as of May 31. The sequence 1 contractor, Centex Construction Company, which was responsible for the project’s excavation and structural work, has continued to address punch-list items, such as stopping water leaks. Although AOC had expected the sequence 1 contractor to complete the punch-list work and be off-site by June 30, some of this work remains to be done. The sequence 1 contractor has closed its on-site project office and plans to send workers back to the site to complete the remaining work. AOC has retained funds from the sequence 1 contractor that it believes will be sufficient to cover the cost of the remaining work. Furthermore, the sequence 2 contractor, which is responsible for the mechanical, electrical, plumbing, and finishing work, has continued to make progress in these areas, including erecting masonry block, placing concrete, and installing finish stone, drywall framing, plaster, and granite pavers. Many of the granite pavers that were installed on the plaza deck for the inauguration have to be replaced because of problems with quality or damage after installation. The sequence 2 contractor plans to replace these pavers when the plaza deck will no longer be needed for deliveries of construction materials. The sequence 2 contractor has also continued work on the utility tunnel, and in June, AOC executed a sequence 2 contract modification to construct the House connector tunnel. AOC expects this work to begin soon.

As the Subcommittee requested, we worked with AOC to select sequence 2 milestones that the Subcommittee can use to help track the project’s progress from the Subcommittee’s May 17 hearing to July 31. We and AOC selected 22 milestones, of which 11 were scheduled for completion before

June 14, 6 others before July 14, and 5 others before July 31. These milestones are shown in appendix 1 and include activities on the project's critical path, as well as other activities that we and AOC believe are important for the project's timely completion.² As we reported during the Subcommittee's June 14 hearing, AOC's sequence 2 contractor completed 6 of the 11 selected activities scheduled for completion before that date—3 were completed on time and 3 were late. The remaining 5 activities had not been completed as of June 14. Of these 5, 4 have now been completed and as of July 12, 1 remained incomplete. In addition, as of July 12, the contractor was late in completing 1 of the 6 selected activities scheduled for completion between June 14 and July 14 and had not yet completed the remaining 5. AOC does not expect these delays to extend the project's scheduled September 2006 completion date because it believes that the sequence 2 contractor can recover the lost time.

A few months ago, AOC expected the utility tunnel to be operational in October 2005, but it extended that date to March 20, 2006, before the June hearing. The June schedule shows the tunnel being operational on March 7. The sequence 2 contractor has indicated that the impact of the October-to-March delay on CVC construction could be mitigated by using temporary dehumidification equipment, adding more workers to certain utility tunnel activities, or both. However, this mitigation approach would increase the government's costs. We previously identified the utility tunnel as a project schedule and cost risk because of possible unforeseen conditions associated with underground work, and AOC and the sequence 2 contractor believe that such risk still exists with respect to the remaining tunnel work. Given this risk and the importance to the rest of the project of having the utility tunnel operational as soon as possible, AOC has asked the project team to explore options for accelerating the completion of the work necessary to begin the tunnel's operations. We agree with AOC that delays in making this tunnel operational could have significant adverse effects on other project elements and that priority attention should be given to this area. Accelerating work may be cost-beneficial in this case.

²A critical path is a sequence of activities in a schedule that has the longest duration. There is no scheduling flexibility or slack time associated with the activities. This means that a delay in a critical path activity will delay the entire project unless a way is found to reduce the time required for other activities along the critical path. A schedule may have multiple critical paths simultaneously, and the critical path through a project can change as the project is updated and as the time estimated to complete the tasks changes. Currently, AOC's schedule shows CVC's critical path running through some interior wall stone and East Front stonework. The schedule also shows other work elements, such as the utility tunnel and millwork, as near critical (i.e., having little slack time).

Since the June 14 hearing, the sequence 2 contractor has also encountered unforeseen conditions that, according to AOC's construction management contractor, could delay the installation of stone on the Capitol's East Front. Unless mitigated, this delay, in turn, could delay AOC's estimated September 15, 2006, opening date. In fact, the June schedule shows a 24-day delay for this work, which is on the project's critical path, and therefore pushes AOC's scheduled date for opening CVC to the public to October 19, 2006. AOC and its construction management contractor are assessing the situation and expect to have more information on this problem within the next month. However, they believe that they will be able to recover the lost time by resequencing work, although they acknowledge that their mitigation approach would require sufficient stone to be available. The project has not been receiving stone in the quantities set forth in the delivery schedule—a risk that we previously identified—and AOC and its contractors have been taking action to address this problem, but have not yet resolved it. Mitigating this potential delay in East Front stone installation could increase the government's costs if the mitigation involves, among other actions, expediting the installation to recover lost time.

Our May 17 and June 14 statements contained several observations on AOC's management of the project's schedules, including our view that problems in this area contributed to slippage in the project's scheduled completion date and additional project costs associated with delays. The statements also discussed recommendations we had already made to AOC to enhance its schedule management. AOC had agreed with these recommendations and had generally begun to implement them, but we believed that it still needed to give priority attention to them to keep the project on track and as close to budget as possible. An updated discussion follows of the issues that need AOC's priority attention, along with current information on the status of AOC's actions to address these issues.

- **Having realistic time frames for completing work and obtaining fully acceptable schedules from contractors.** Over the course of the project, AOC's schedules have shown dates for completing tasks that project personnel themselves considered optimistic or unlikely to be met. In addition, the master project schedule (prepared by AOC's construction management contractor) that AOC was using in May 2005 (the April schedule that AOC said it would use as a baseline for measuring progress on the project) did not tie all interrelated activities together and did not identify the resources to be applied for all the activities, as AOC's contract requires. During the Subcommittee's June 14 hearing, AOC said that it would reassess the time scheduled for tasks by today's hearing. Since the

Subcommittee's June 14 hearing, AOC's construction management and sequence 2 contractors reviewed the reasonableness of the time scheduled for 14 critical or near-critical activities and determined that, in general, the time shown in the May 2005 schedule reasonably reflected the time required to perform 11 of these activities. In addition, the sequence 2 contractor agreed to provide more detail about the 3 remaining activities so that the reasonableness of the time scheduled for them could be reviewed later.

Although the contractors' review did not involve a detailed, data-based analysis of the time scheduled for activities using such information as crew size and worker productivity, AOC's construction management contractor said that it would do such analyses in the future, as appropriate. The construction management contractor said it has not yet done such an analysis for stonework because, to date, less stone has been delivered to the site than was expected and more stone workers have been available than could be used, given the shortage of stone. In AOC's view, this stone shortage has begun to delay important activities, and as we previously indicated, AOC is working with its contractors to resolve the problem.

According to AOC's construction management contractor, both the project's May and June 2005 master schedules (1) reflect significant improvement in the linkage of interrelated tasks, although the contractor recognizes that more work needs to be done in this area and (2) generally provide sufficient information to manage the project's resources. However, the contractor also recognizes the need for the sequence 2 and other contractors to continue adding more detail to the activities scheduled for some project elements, such as the exhibit and expansion spaces, so that more of the interrelated activities will be linked in the schedule. The contractor also said that it will be continuously reassessing the extent to which construction contractors identify the resources they plan to apply to meet scheduled completion dates, as contractually required. Both adding detail to activities and identifying the resources to be applied are helpful in assessing the reasonableness of the time scheduled and in managing contractors' performance. The sequence 2 contractor has provided a separate schedule showing its target dates for adding more detail to 30 project tasks. On July 8, AOC's construction management contractor accepted the April project schedule, subject to several conditions.

Because the May 2005 master schedule for the CVC project contains additional detail on activities and information on resources to be applied,

we agree with AOC's construction management contractor that this schedule represents an improvement over earlier schedules. However, we still have concerns about the extent to which the schedule links related activities, which the construction management contractor has agreed to address, and about whether AOC's September 15, 2006, target date for opening the facility to the public is realistic. For the following reasons, we continue to believe that the project is more likely to be substantially completed in the December 2006 to March 2007 time frame than by September 2006:

- Because of unforeseen site conditions and other problems, AOC's construction contractors have had difficulty meeting a number of milestones. The project still faces risks and uncertainties that could adversely affect its schedule. As we noted in our June 14 testimony, the number of critical and near-critical paths the construction management contractor has identified complicates schedule management and increases the risk of problems that could lead AOC to miss the scheduled completion date. Like the project's May 2005 schedule, the June schedule shows seven paths that are critical or near critical. Among the critical paths are East Front stonework and some interior stonework, which slipped by 24 days and 3 days in June, respectively. In addition, some other interior stonework that is not generally on a critical path, such as the installation of wall stone in the Great Hall, has slipped by about 4 months since April because of stone shortages according to AOC. Continued slippages in interior stonework could make it difficult for the sequence 2 contractor to meet the September 15, 2006, completion date. Although the CVC project team believes that it can recover this time, its ability to do so is not yet clear, given the stone supply problem facing the project. Furthermore, although work on the utility tunnel progressed during June, the tunnel work continues to face risks and uncertainties that could delay the project, and the May and June schedules show that the start and finish dates for a number of activities have continued to slip. Although it is possible for AOC to recover this time, continued slippage could push so many activities to later dates that the contractors may not be able to complete all the work in the remaining available time.
- In our opinion, AOC lacks reasonable assurance that its contractors have accurately estimated the time necessary to complete work for a number of activities in the schedule. Although the construction management contractor's recent review of how much time is needed to complete schedule activities was helpful, we are still concerned about the reasonableness of the time allowed for a number of the activities. For example, one of the activities reviewed in June whose scheduled duration was found to be generally reasonable was final occupancy inspections.

Although AOC's Fire Marshal Division is to do critical work associated with this activity, the duration review that took place since the June 14 hearing occurred without any input from that division, which is to conduct fire safety and occupancy inspections for the project and approve its opening to the public. The Chief Fire Marshal told us that although coordination has improved between his office and the CVC project team, he has not always had an opportunity to review project documentation early in the process and has not yet received the project schedule. As a result, he was uncertain whether the schedule provided enough time for his office to do its work. For example, as of July 8, he had not yet received documentation for the fire protection systems, which his office needs to examine before it can observe tests of these systems as the CVC team has already requested. The Fire Marshal Division will also be involved in fire alarm testing; the construction management contractor plans to assess the duration of this activity later after more detail is added to the schedule. In addition, at the time the construction management contractor performed its duration reassessment of East Front stonework, the project was experiencing difficulty getting stone deliveries on time. It is unclear to us how the duration of the stonework could have been determined to be reasonable given this problem and the lack of a clear resolution at the time.

- The May 2005 schedule includes a number of base project activities that could be completed after September 15, 2006, even though their completion would seem to be important for CVC to be open to the public. Such activities include installing security systems, kitchen equipment, and theater seating. According to the schedule, the late finish dates for these activities are after September 15. The late finish date is the latest date that an activity can be completed without delaying the scheduled completion date for the entire project. According to the construction management contractor, a number of activities in the schedule that are important to CVC's opening were not linked to the September 15 opening date in the schedule. The contractor agreed to address this issue.
- Last week, we began to update our risk assessment of the project's schedule and plan to have this update completed in September. AOC has also engaged a consultant to perform a risk assessment of the project's schedule and expects the assessment to be done by mid-September. We believe that better information on the likelihood of AOC's meeting its September 15, 2006, opening date will be available after our update and AOC's schedule risk assessment are done.
- **Aggressively monitoring and managing contractors' adherence to the schedule, including documenting and addressing the causes of**

delays, and reporting accurately to Congress on the status of the project's schedule. We noted in our May 17 testimony that neither AOC nor its construction management contractor had previously (1) adhered to contract provisions calling for monthly progress review meetings and schedule updates and revisions, (2) systematically tracked and documented delays and their causes as they occurred or apportioned their time and costs to the appropriate parties on an ongoing basis, and (3) always accurately reported on the status of the project's schedule. On June 7 and July 8, AOC, its construction management contractor, the sequence 2 contractor, and AOC's schedule consultant conducted the first and second monthly reviews of the schedule's status using a newly developed approach that we discussed during the Subcommittee's June 14 hearing. Additionally, on June 28, we met with AOC and its construction management contractor to discuss how delays are to be analyzed and documented in conjunction with the new approach to schedule management. During that meeting, AOC's construction management contractor agreed to have its field supervisors document delays and their causes on an ongoing basis and its project control engineer summarize this information for discussion at the monthly schedule reviews. After assessing the new approach and observing the first two review sessions, we believe that, if effectively implemented and sustained, this approach should generally resolve the schedule management concerns we previously raised, including how delays will regularly be handled and how better information on the status of the project will be provided to Congress. As we indicated on June 14, we are encouraged by the construction management contractor's addition of a full-time project control engineer to the project and have seen noteworthy improvements in schedule management since his arrival. Nevertheless, we plan to closely monitor the implementation of this new approach, including the resources devoted to it, the handling of delays, and the accuracy of the information provided to Congress.

- **Developing and implementing risk mitigation plans.** While monitoring the CVC project, we have identified a number of risks and uncertainties that could have significant adverse effects on the project's schedule and costs. Some of these risks, such as underground obstructions and unforeseen conditions, have already materialized and have had the anticipated adverse effects. We believe the project continues to face risks and uncertainties, such as unforeseen conditions associated with the project's remaining tunnels, the East Front, and other work; scope gaps or other problems associated with the segmentation of the project between two major contractors; and shortages in the supply of stone and skilled stone workers. As discussed during the Subcommittee's June 14 hearing, AOC has not yet implemented our recommendations that

it develop risk mitigation plans for these types of risks and uncertainties, but it has agreed to do so by mid-September. On July 1, AOC added assistance in risk mitigation to the scope of its contract with its schedule consultant.

- **Preparing a master schedule that integrates the major steps needed to complete CVC construction and the steps necessary to prepare for operations.** A number of activities, such as obtaining operators' input into the final layouts of retail and food service areas, hiring and training staff, procuring supplies and services, and developing policies and procedures, need to be planned and carried out on time for CVC to open to the public when construction is complete. Although AOC has started to plan and prepare for CVC operations, as we indicated in our May 17 and June 14 testimonies, it has not yet developed a schedule that integrates the construction activities with the activities that are necessary to prepare for operations. The Subcommittee requested such a schedule during its April 13, 2005, hearing on AOC's fiscal year 2006 budget request. Because it lacked funds, AOC had not been able to extend the work of a contractor that had been helping it plan and prepare for operations. During the week of June 6, AOC received authority to spend the funds needed to re-engage this contractor, and on June 30, AOC awarded a contract for the continued planning and preparation for CVC operations. Now that AOC has re-engaged its operations planning contractor, we believe that close coordination between AOC staff working with this contractor and the CVC project's construction team will be especially important for at least two reasons. First, the operations planning contractor's scope of work includes both the design of certain space within the CVC project and the wayfinding signs that are to be used within the project, and the timing and content of this work needs to be coordinated with CVC construction work. Second, about \$7.8 million³ is available for either CVC construction or operations, and it will be important for AOC to balance the need for both types of funding to ensure optimal use of the funds. Moreover, it is not clear to us who in AOC will be specifically responsible for integrating the construction and operations schedules and for overseeing the use of the funds that are available for either construction or operations.

³See footnote 6.

Project Costs and Funding

As we said during the Subcommittee's May 17 and June 14 hearings, we estimate that the cost to complete the construction of the CVC project, including proposed revisions to its scope, will range from about \$522 million without provision for risks and uncertainties to about \$559 million with provision for risks and uncertainties. As of July 11, 2005, about \$483.7 million had been provided for CVC construction.⁴ In its fiscal year 2006 budget request, AOC asked Congress for an additional \$36.9 million for CVC construction. AOC believes this amount will be sufficient to complete construction and, if approved, will bring the total funding provided for the project's construction to \$520.6 million. Adding \$1.7 million to this amount for additional work related to the air filtration system that we believe will likely be necessary brings the total funding needed to slightly more than the previously cited \$522 million. AOC believes that it could obtain this \$1.7 million, if needed, from the Department of Defense, which provided the other funding for the air filtration system. AOC's \$36.9 million budget request includes \$4.2 million for potential additions to the project's scope (e.g., congressional seals, an orientation film, and storage space for backpacks) that Congress will have to consider when deciding on AOC's fiscal year 2006 CVC budget request.

AOC has not asked Congress for an additional \$37 million (the difference between \$559 million and \$522 million) that we believe will likely be needed to address the risks and uncertainties that continue to face the project. These include, but are not limited to, shortages in the supply of stone, unforeseen conditions, scope gaps, further delays, possible additional requirements or time needed because of life safety or security changes or commissioning, unknown operator requirements, and contractor coordination issues. These types of problems have been occurring, and as of June 30, 2005, AOC had received proposed sequence 2 change orders whose costs AOC now estimates exceed the funding available in fiscal year 2005 for sequence 2 changes by about \$1.3 million. AOC's estimate of these change order costs has grown by about \$900,000

⁴This amount does not include \$700,000 made available by the Capitol Preservation Commission from the Capitol Preservation Fund for the design of the Library of Congress tunnel.

during the past 4 weeks.⁵ AOC plans to cover part of this potential shortfall by requesting approval from the House and Senate Committees on Appropriations to reprogram funds that AOC does not believe will be needed for other project elements. At this time, AOC does not believe that it will need additional funds in fiscal year 2005, assuming it receives reprogramming authority for sequence 2 changes, unless it reaches agreement with the sequence 2 contractor on the costs associated with 10 months' worth of delays that have already occurred. If AOC needs funds for this purpose or for other reasons, it can request approval from the Appropriations Committees to use part of the \$10.6 million that Congress approved for transfer to the CVC project from funds appropriated for Capitol Buildings operations and maintenance.⁶

For several reasons, we believe that AOC may need additional funds for CVC construction in the next several months. These reasons include the pace at which AOC is receiving change order proposals for sequence 2 work, the problems AOC has encountered and is likely to encounter in finishing the project, the uncertainties associated with how much AOC may have to pay for sequence 2 delays, and uncertainty as to when AOC will have fiscal year 2006 funds available to it. For example, AOC is likely to incur additional costs for dehumidification or for additional workers to mitigate the expected delay in the utility tunnel. AOC may also incur more costs than it expects for certain activities, such as those necessary to support security during the remainder of the project's construction. AOC may be able to meet these needs as well as the other already identified needs by obtaining approval to use some of the previously discussed \$10.6

⁵In our May 17 testimony, we reported that AOC had about \$700,000 remaining in its fiscal year 2005 funding for sequence 2 changes after deducting the estimated costs for proposed changes it had received. As of June 1, the estimated costs for sequence 2 changes exceeded the amount available for such changes by about \$400,000. Since then, another \$900,000 in estimated costs for potential change orders has been identified. About two-thirds of the \$900,000 increase in estimated costs for sequence 2 changes during June was for additional fire safety work.

⁶Public Law 108-447, enacted in December 2004, provided that up to \$10.6 million could be so transferred upon the approval of the House and Senate Committees on Appropriations for the use of the CVC project. In March 2005, AOC requested that about \$4 million of these funds be transferred to CVC, including some funds for such work as the design of the gift shop space and consultant services to transition the project from construction to operations. As of June 10, AOC had received approval to use about \$2.8 million of this \$10.6 million, leaving a balance of about \$7.8 million that can be used in the future. None of the \$10.6 million is included in the previously cited \$483.7 million.

million and by additional reprogramming of funds.⁷ However, these funds may not be sufficient to address the risks and uncertainties that may materialize from later this fiscal year through fiscal year 2007. Thus, while AOC may not need all of the \$37 million we have suggested be allowed for risks and uncertainties, we believe that, to complete the construction of CVC's currently approved scope, AOC is likely to need more funds in fiscal years 2006 and 2007 than it has already received and has requested. Although the exact amount and timing of AOC's needs are not clear, we believe that between \$5 million and \$15 million of this \$37 million may be required in fiscal year 2006. Effective implementation of our recommendations, including risk mitigation, could reduce AOC's funding needs.

Since the Subcommittee's June 14 hearing, three issues related to the project's costs have emerged that we believe should be brought to your attention. Discussion of these issues follows.

- First, coordination within the CVC project team and between the team and AOC's Fire Marshal Division has been an issue, especially with respect to the project's fire protection systems. Although the CVC project team established biweekly meetings with Fire Marshal Division staff in March 2005 to enhance coordination, gaps in coordination have, as discussed, already led to uncertainty about whether enough time has been scheduled for fire alarm testing and for building occupancy inspections. Such gaps have also increased the costs associated with the fire protection system. For example, AOC recently took contractual action costing over \$90,000 to redesign the mechanical system for the Jefferson Building connection to the Library of Congress tunnel to meet the Fire Marshal Division's fire safety requirements. According to the Chief Fire Marshal, he was not given the opportunity to participate in the planning process before the design of the Jefferson Building connection was substantially completed. In addition, several fire-safety-related contract modifications and proposed change orders for additional work now total over \$3.5 million. With better coordination between the CVC project team and the Fire Marshal Division, the need for some of this work might have been avoided or identified sooner, and had this work been identified during the original competition, the price would have been subject to competitive pressures that might

⁷AOC has requested approval to reprogram about \$1.6 million from sequence 1 construction and the East Front Interface to fund anticipated additional costs for the House connector tunnel, the Jefferson Building connection to the Library of Congress tunnel, and certain security-related work.

have resulted in lower costs. Because of the fire protection system's increasing costs, disagreements within the CVC team and between the team and the Fire Marshal Division over fire safety requirements, problems in scheduling fire safety activities, and other related issues, we suggested that AOC take appropriate steps to address the coordination of fire protection activities related to the CVC project. AOC agreed and has taken action. For example, starting this week, AOC's Fire Marshal Division agreed to have a staff member work at the CVC site 2 days a week, and AOC CVC staff recently agreed to provide the necessary documentation to the Fire Marshal Division before its inspections or observations were needed.

- Second, as we indicated earlier in our testimony, we are concerned about the integration of planning, scheduling, and budgeting for CVC construction and operations. While the CVC project team has been overseeing CVC construction, other AOC staff have been assisting the operations planning contractor in planning and budgeting for CVC operations. Close coordination between the two groups will be especially important in the next few months, when decisions will likely have to be made on how to use the \$7.8 million remaining from the \$10.6 million that Congress made available to the CVC project for either operations or construction. The Architect of the Capitol agreed to give this issue priority attention.
- Finally, we are concerned that AOC may incur additional costs for interim measures, such as temporary walls that it may have to construct to open CVC to the public in September 2006. Such interim measures may be needed to make the project safe for visitors if some other construction work has not been completed. For example, AOC may have to do additional work to ensure adequate fire protection for CVC, since the House and Senate expansion spaces are not scheduled to be done until March 2007. In addition, AOC may have to accelerate some work to have it completed by September 15, 2006. While it is not necessarily unusual to use a facility for its intended purpose before all construction work is complete, we believe that it will be important for Congress to know what additional costs AOC expects to incur to open CVC by September 15, 2006, so that Congress can weigh the costs and benefits of opening the facility then rather than at a later date, such as March 2007, when AOC plans to complete the House and Senate expansion spaces.

Recommendations for Executive Action

To ensure that (1) Congress has sufficient information for deciding when to open CVC to the public and (2) planning and budgeting for CVC

construction and operations are appropriately integrated, we recommend that the Architect of the Capitol take the following two actions:

- In consultation with other appropriate congressional organizations, provide Congress with an estimate of the additional costs that it expects will be incurred to open CVC to the public by September 15, 2006, rather than later, such as after the completion of the House and Senate expansion spaces.
- Promptly designate who is responsible for integrating planning and budgeting for CVC construction and operations and give this activity priority attention.

Agency Comments

AOC agreed to take the actions we are recommending. According to AOC, information on the estimated costs of the additional work necessary to open CVC to the public in September 2006 may not be available until this fall. In addition, AOC said that the recent re-engagement of the contractor assisting AOC in planning for CVC operations and the hiring of an executive director for CVC, which AOC plans to do in the next few months, are critical steps for integrating CVC construction and operations.

Mr. Chairman, this completes our prepared statement. We would be happy to answer any questions that you or other Subcommittee Members may have.

Contacts and Acknowledgments

For further information about this testimony, please contact Bernard Ungar at (202) 512-4232 or Terrell Dorn at (202) 512-6923. Other key contributors to this testimony include Shirley Abel, Maria Edelstein, Elizabeth Eisenstadt, Brett Fallavollita, Jeanette Franzel, Jackie Hamilton, Bradley James, Scott Riback, and Kris Trueblood.

Appendix I: Capitol Visitor Center Critical Construction Milestones, May 2005-July 2005

Activity	Location	Scheduled completion	Actual completion
Wall Stone Area 1	Great Hall ^{a,b}	5/11/05	6/06/05
Scheduled for completion between 5/17/05 and 6/14/05			
Wall Stone Area 3 Base Support	Great Hall ^a	5/20/05	5/20/05
Wall Stone Layout Area 4	Great Hall	5/20/05	6/06/05
Saw Cut Road at 1 st Street	Utility Tunnel ^a	5/24/05	6/27/05
Wall Stone Area 4 Base Support	Great Hall ^a	5/27/05	6/15/05
Wall Stone Layout Area 5	Great Hall	5/27/05	5/27/05
Masonry Wall Lower Level East	Cong. Auditorium	6/03/05	5/25/05
Wall Stone Area 5 Base Support	Great Hall ^a	6/06/05	6/09/05
Wall Stone Layout Area 6	Great Hall	6/06/05	6/15/05
Drill/Set Soldier Piles at 1 st Street	Utility Tunnel ^a	6/08/05	
Wall Stone Area 6 Base Support	Great Hall ^a	6/13/05	6/17/05
Scheduled for completion between 6/15/05 and 7/31/05			
Wall Stone Layout Area 8	Great Hall	6/20/05	
Masonry Wall	Orientation Theater	6/24/05	6/28/05
Wall Stone Layout Area 9	Great Hall	6/24/05	
Wall Stone Area 9 Base Support	Great Hall ^a	7/05/05	
Wall Stone Installation Area 2	Great Hall	7/06/05	
Wall Stone Installation Area 3	Great Hall	7/06/05	
Wall Stone Installation Area 4	Great Hall	7/15/05	
Wall Stone Area 9 Base	Great Hall ^a	7/15/05	
Excavate/shore Station 0-1	Utility Tunnel ^a	7/21/05	
Concrete Working Slab 1 st Street	Utility Tunnel ^a	7/26/05	
Waterproof Working Slab Station 0-1	Utility Tunnel ^a	7/29/05	

Source: AOC's April 2005 CVC sequence 2 construction schedule for the scheduled completion dates and AOC and its construction management contractor for the actual completion dates.

Note: Actual completion information was obtained on July 12.

^aThese activities are critical.

^bThis activity was scheduled for completion by the Subcommittee's May 17 hearing but was not done as of that date.

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