

**PROGRESS OF CONSTRUCTION OF THE CAPITOL
VISITOR CENTER, 2005**

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE
COMMITTEE ON APPROPRIATIONS
UNITED STATES SENATE
ONE HUNDRED NINTH CONGRESS

FIRST SESSION

SPECIAL HEARINGS

MAY 17, 2005—WASHINGTON, DC
JUNE 14, 2005—WASHINGTON, DC
JULY 14, 2005—WASHINGTON, DC
SEPTEMBER 15, 2005—WASHINGTON, DC
OCTOBER 18, 2005—WASHINGTON, DC
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PROGRESS OF CONSTRUCTION OF THE CAPITOL VISITOR CENTER

TUESDAY, MAY 17, 2005

U.S. SENATE,
SUBCOMMITTEE ON THE LEGISLATIVE BRANCH,
COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:30 a.m., in room SD-138, Dirksen Senate Office Building. Hon. Wayne Allard (chairman) presiding.
Present: Senators Allard, Cochran, and Durbin.

STATEMENT OF ALAN M. HANTMAN, FAIA, ARCHITECT OF THE CAPITOL

ACCOMPANIED BY BOB HIXON, PROJECT DIRECTOR, CAPITOL VISITOR CENTER, ARCHITECT OF THE CAPITOL

OPENING STATEMENT OF SENATOR WAYNE ALLARD

Senator ALLARD. The subcommittee will come to order. We meet today to take testimony from the Architect of the Capitol, Alan Hantman, and the Comptroller General, David Walker, on the progress of the Capitol Visitor Center (CVC).

Accompanying Mr. Hantman is the CVC Project Director Bob Hixon. Mr. Walker is joined by Terrell Dorn of GAO.

As chairman of the Legislative Branch Subcommittee, I intend to monitor progress of this critical project closely, to ensure the Architect is doing all in his power to finish this project in a timely and cost effective fashion.

While the AOC met a major milestone in ensuring the east front plaza was in sufficient condition to accommodate the requirements of the 2005 inaugural, we are a long way from completion of this project. It is at least 20 months behind the original schedule and many dollars over the 2002 budget, which included new security requirements and expansion of House and Senate space. The budget and schedule for this 580,000 square foot underground facility have been concerns for at least 3 years. Today's hearing will focus on getting further clarification on the budget and schedule.

There are many other CVC-related issues, particularly those associated with the operation of the visitor center. But we will save those for another day. We have asked the Comptroller General to testify today since the Government Accountability Office has been monitoring the project closely from the start.

We will first hear the Architect's opening statement followed by Mr. Walker's and then we'll have 5-minute rounds of questions. I have been informed that the minority member, Senator Richard

Durbin, will be here a little bit later this morning and when he arrives, we'll give him an opportunity to do an opening statement if he'd like, and then I'd call on the chairman of the full committee to see if he has any statements that he'd like to make.

Senator COCHRAN. Mr. Chairman, thank you for the convening of the hearing and for your leadership as chairman of this subcommittee. We think it is very important for us to understand fully what the needs are and what our interests are in connection with the expansion of the Capitol and the improvements that are being made for our capabilities for screening and other security measures that will help protect the Capitol, and also enhance the opportunities of visitors to the Capitol to enjoy and appreciate the U.S. Capitol.

So, it's a big undertaking. We know it's not easy to address all of these issues in a hearing of this kind. But, over the last several months I think the subcommittee has shown a willingness to get involved in an understanding of the challenges so that we can better respond to the needs that we have for an orderly and thoughtful support effort by the Congress for the work that's being done to try to help improve the lines of communication between the Architect's office and others who are involved in this project. And I think great progress on this plan, Mr. Chairman, is being made, and much of that is due to your leadership and I appreciate that and I want to commend you for it.

We also recognize the fact that others are working hard, conscientiously in connection with this project to discharge their responsibilities and I think we need to recognize that and express our appreciation to the Architect and all of those who have been involved in this project over the last several years.

Senator ALLARD. Thank you, Mr. Chairman, and I appreciate your personal interest in coming to these meetings. We very much appreciate your support.

Mr. Hantman, we'll go ahead and ask you to begin your testimony. Welcome to the subcommittee, along with Mr. Hixon.

OPENING STATEMENT OF THE ARCHITECT

Mr. HANTMAN. Thank you.

Good morning, Mr. Chairman, Senator Cochran. Thank you for this opportunity to testify today, and to report to you on the progress made on the CVC project since we last met on April 13.

While a little more than 4 weeks have passed, we have indeed achieved some significant goals that we discussed with you last month. Mr. Chairman, you pointed out, and we all acknowledged that the most important of these goals was the need for a fully integrated project schedule. One that encompassed not only construction, but the myriad ancillary activities necessary to open the Capitol Visitor Center to the public. While we had a construction schedule and a master schedule, the two were not fully integrated. I am pleased to report that we now have that fully integrated schedule in hand, which gives us the tool necessary to monitor more closely and accurately the progress of our contractors. I should note that with more than 4,000 scheduled activities remaining, refinements to the schedule will continue to occur as we move forward.

But certainly we are in a better position than ever before to track construction activities, identify issues and perhaps most importantly, recognize the relationship between activities. Seeing the fully integrated picture will help us minimize the ripple effect that can occur when a problem of delay in one area affects several other areas or activities. I look forward to discussing this with you in some detail at this hearing.

We also spoke last month, Mr. Chairman, about the need to award the contract to construct the exhibition galleries phase, a key component of the visitor experience in the CVC. Again, I am pleased to report that since our last meeting, we received the necessary approvals to award the contract, and that award occurred on May 4. We're now evaluating the exhibition gallery construction schedule to ensure that delay in the award does not affect our ability to complete this space in September 2006, to coincide with the completion of other visitor-related activities.

And finally, as you know, the President signed a supplemental appropriations budget last Thursday. Therefore, just yesterday, Mr. Chairman, we awarded the contract for the build out of the House and Senate expansion space, a very significant milestone.

As we discussed in April, while work on the expansion space will extend beyond the completion of the visitor center facilities by several months, we do not, at this time, expect it to delay our abilities to open the doors of the visitor center to the public.

Now, Mr. Chairman, while you visited the project site with me just last month, much additional progress has been made, which I would like to detail for you at this time, if I may. As I discuss specific areas, I have four photo boards which will help you see the progress we have made in several areas.

First, let me say that our sequence 2 contractor, Manhattan Construction, continues its operations in all areas of the project site. We have completed fireproofing on all three levels of the CVC including the Congressional Auditorium. We are now working on remaining fireproofing work on the east front extension inside the Capitol building itself, while contractors continue to install duct work and piping for all heating, cooling, supply and waste water, and fire protection. Concrete masonry block walls continue to rise to define interior spaces. In the exhibition gallery, for example, block walls now define the virtual House and Senate theaters. And here on this rendering, Mr. Chairman—this is the South Orientation Theater—it's now almost entirely enclosed as the block work for the screen wall up here is done, the columns are in place; you can see a worker up over here finishing that up. We are now getting it completely detailed and laid out, so that we can begin stone installation in this area.

The bottom rendering essentially is just that—it's a rendering of what this space will look like once it is completed and you can see the form and the shape of the space is taking shape very nicely.

On the next board it shows the Great Hall and the majestic view of the Capitol Dome in the rendering over here through one of the skylights. You can see some of the block work columns are already in place. This, in fact, is the view through the skylight, the fastening elements, the support elements are being installed around the fascia of the skylight, and you can see again the space is taking

shape. It's going to turn out to be very much as we show in the rendering over here and we're moving along well on that.

Now, outside at the CVC entrance area, stone crews are beginning to install exterior wall stones at the retaining wall along the pedestrian ramp leading down from the Senate side here. And as you can see on this board, the view from the rendering is very much like what essentially is being built right now. So the reality of the physical form is taking shape and people can begin to appreciate the physical finality of the project as we continue to move ahead.

And finally, on this last board it shows a broader view of the east front plaza. Our deck, as you can see, is entirely in place, the crews continue to set some of the 200,000 granite pavers that will cover the plaza, the entrance zones in the foreground are near their final graded elevations and we continue to move ahead. And here is the rendering essentially from that same angle of what this will look like as we complete the work.

Once again, I thank you for this opportunity to report to you on the CVC project. I do thank you also for your active involvement on this subcommittee. It clearly has helped move the project forward just over the last month in fact. I'd be happy to answer any questions you might have at this time.

Senator ALLARD. Thank you Mr. Hantman.
[The statement follows:]

PREPARED STATEMENT OF ALAN M. HANTMAN, FAIA

Mr. Chairman, Senator Durbin, members of the Committee, thank you for this opportunity to testify today and to report to you on the progress made on the Capitol Visitor Center project since we last met on April 13.

While little more than four weeks have passed, we have, indeed, achieved some significant goals that we discussed with you last month. Mr. Chairman, you pointed out, and we all acknowledged, that the most important of these goals was the need for a fully integrated project schedule—one that encompassed not only construction, but the myriad ancillary activities necessary to open the Capitol Visitor Center to the public. While we always had a construction schedule and a master schedule, the two were not fully integrated. I am pleased to report that we now have that fully-integrated schedule in hand, which gives us the tool necessary to monitor more closely and accurately the progress of our contractors. I should note that with more than 4,000 scheduled activities remaining, refinements to the schedule will continue to occur as we move forward, but certainly, we are in better position than ever before to track construction activities, identify issues and perhaps most importantly, recognize the relationship between activities. Seeing the big—and fully-integrated—picture will help us minimize the ripple effect that can occur when a problem or delay in one area affects several other areas or activities.

We also spoke last month, Mr. Chairman, about the need to award the contract to construct the Exhibition Gallery space, a key component of the visitor experience in the CVC. Again, I am pleased to report that since our last meeting, we have received the necessary approvals to award the contract and that award occurred last week. We are now evaluating the Exhibition Gallery construction schedule and are working to ensure that the delay in the award does not affect our ability to complete this space in September 2006 to coincide with the completion of the other visitor facilities.

And finally, now that the President has signed the Supplemental Appropriations budget, we are poised to award the contract for the build-out of the House and Senate Expansion Space and we are hopeful that will occur within the next several days. While work in the expansion space will extend beyond the completion of the Visitor Center facilities by several months, we do not, at this time, expect it to delay our ability to open the doors of the Visitor Center to the public.

Mr. Chairman, while you did visit the project site with me just last month, already much additional progress has been made, which I would like to report to you at this time.

First, let me say that our Sequence 2 contractor, Manhattan Construction, continues its operations in all areas of the project site and we have completed fireproofing on all three levels of the CVC, including the Congressional Auditorium. We are now completing the remaining fireproofing work in the East Front Extension inside the Capitol Building. While contractors continue to install ductwork and piping for all heating, cooling, supply, waste water, fire protection, and electrical systems, the concrete masonry block walls continue to rise to define interior spaces. In the Exhibition Gallery, for example, blockwalls define the virtual House and Senate theaters and now hide the East Front concrete columns along the west wall of the gallery. The south orientation theater is now almost entirely enclosed as the blockwork for the screen wall, interior columns and elevator shaft is complete.

In the Service Level, the delivery and installation of air handling units continue to be the most critical and sensitive activities in this area. The units are so large, Mr. Chairman, that they must be delivered in up to five pieces to be able to fit through openings and between columns as they are transported and maneuvered into place on concrete equipment pads. The largest unit is approximately 40 feet long, 20 feet wide and 12 feet high.

Outside, at the CVC entrance zone, a stone crew began to install the first exterior wall stone to the retaining wall along the north pedestrian ramp.

Finally, at the CVC utility tunnel along East Capitol Street, trench excavation was completed to a depth of 20 feet and a concrete slab was placed. The pre-cast concrete tunnel sections began to arrive late in the month and installation will continue through May. We are still on schedule to bring steam in the CVC this October.

Again, thank you for this opportunity to report to you on the CVC project and I would be happy to answer any questions you may have at this time.

CAPITOL VISITOR CENTER EXPLANATION OF ACTUAL AND EXPECTED COST INCREASES¹—
APRIL 7, 2005

Base Project

The 1999 project budget was \$265 million.

Congress added \$38.5 million for five additional scope items (LOC and House Connector tunnels, extension of East Front elevators, enhanced perimeter security, and temporary operations and security), which brought the budget to \$303.5 million. These items are now expected to cost substantially less (about \$30 million) than anticipated when the funds were appropriated.

The project experienced significant unexpected cost increases of about \$34 million in its early stages. The bid prices for Sequences 1 and 2 contracts exceeded the budget by \$4 million and \$14 million, respectively, and pre-construction costs exceeded the budget by about \$16 million due largely to unforeseen circumstances and increased scope.

Sequence 1 work experienced significant delays (about a year) due to such factors as unforeseen conditions, weather, and schedule management issues, and these delays, in turn, delayed the start of Sequence 2. Costs associated with delays are expected to be about \$36 million, of which AOC has already paid \$10.3 million for Sequence 1 delay costs.²

AOC soon plans to award contracts for several design-to-budget items (e.g. exhibits, House Connector tunnel, and equipment) that are now expected to overrun the budget by about \$6 million, due largely to higher than expected bid prices.

In an attempt to save money the AOC delayed proceeding with construction of the Utility Tunnel while it was deciding on design options. This delay will cost about \$1 million.

AOC has or plans to make about \$5 million in design changes due to such problems as necessary redesigns resulting from expansion space requirements, scope gaps between Sequences 1 and 2, and designs that were initially incomplete or inaccurate. At least some of these costs are due to fast tracking design and procurement.

AOC had to or expects to make about \$7 million in changes for security and enhanced fire protection and about \$4 million in changes due to unforeseen field conditions during construction.

AOC will likely need about \$7 million for future changes to Sequence 2.

¹The cost estimates and categorizations discussed are based on the best information readily available, does not include potential additional scope items (\$4.2 million), and could change in the future.

²No funds were initially included in the budget for delays, but \$3.9 million was added in 2003 for delay costs (part of \$47.8 million).

Expansion Spaces and Filtration

An additional \$70 million was added to the project budget for the construction and fit-out of the House and Senate expansion spaces. In November 2004 AOC received higher than expected bid prices for the fit-out work. These increased prices together with provision for additional contingency are likely to exceed the budgeted cost by about \$15 million.

USCP has recently identified the need for a contractor to monitor SCIF space construction and it roughly estimates this will cost about \$3.9 million. It is not clear if these funds will be funded by the CVC or the USCP budget.

AOC received an additional \$35 million from DOD for an enhanced air filtration system. AOC returned about \$1.7 million in unobligated funds to DOD at the end of fiscal year 2004. This \$1.7 million may be needed for future work on the filtration system due to its uniqueness and complexity.

CAPITOL VISITOR CENTER ADDITIONAL FUNDS NEEDS TO COMPLETE THE PROJECT—APRIL 7, 2004

	Project Budget	GAO Estimated Cost	Variance from Budget	Summary Reasons for Additional Funds Needed
Base Project:				
AOC Administration	\$7,600,000	\$8,567,000	\$967,000	Additional staff costs due to delays.
Design and Construction Admin	22,288,780	22,885,000	596,000	Cost of extending consultant contracts due to delays and additional commissioning.
Construction Management	16,000,000	19,218,000	3,218,000	Cost of extending construction manager contract due to delays.
Pre-Construction Work	27,400,000	26,996,000	(404,000)	Funds no longer needed per AOC
Sequence 1	114,950,000	113,953,000	(997,000)	Delay costs; net reduction due to work transferred from Sequence 1 to Sequence 2 contractor.
East Front Interface	13,600,000	15,494,000	1,894,000	Changes due to differing site conditions, design changes and additional contingency.
Sequence 2	106,300,000	139,086,000	32,786,000	Delay costs (\$18.2 million), known and forecasted changes, and additional contingency
Jefferson Building Modification	3,300,000	3,577,000	277,000	Additional funds for punching through Jefferson Bldg.
Equipment (Kitchen & AV)	4,300,000	4,843,000	543,000	Additional contingency.
Exhibit and Film	18,000,000	21,979,000	3,979,000	Higher than expected bid prices and additional contingency.
Security	17,350,000	18,218,000	868,000	Additional contingency.
Base Project Subtotal	351,088,780	394,816,000	43,727,000	
Expansion Space:				
House	35,000,000	43,200,000	8,200,000	Additional contingency and higher than expected bid prices.
Senate	35,000,000	42,100,000	7,100,000	Additional contingency and higher than expected bid prices.
Subtotal	70,000,000	85,300,000	15,300,000	
Filtration	33,300,000	35,000,000	1,700,000	Additional contingency.
Total	454,388,780	515,116,000	60,727,000	
Reserve Fund	N/A	43,500,000	.....	For additional risk and uncertainty.
Potential additional scope items	N/A	4,232,000	.....	As requested in AOC's fiscal year 2006 budget.
SCIF construction monitoring	N/A	3,900,000	.....	Monitoring necessary for accreditation.

NOTE:
 Delay cost estimates are for budgetary purposes only; the basis for contractor equitable adjustments has not been evaluated.
 Expansion space costs are based on bids received 11/09/2004 and have not been fully evaluated by the AOC.
 Estimate for SCIF construction monitoring provided by USCP.

CAPITOL VISITOR CENTER RECONCILIATION OF ORIGINAL ESTIMATE TO FUNDING PROVIDED AND
REQUESTED —APRIL 7, 2005

[In millions of dollars]

	Amount	
Original Estimate (1999)	265.0	Funding Dates/Sources: \$100.0—Oct. 1998 (Pub. L. No. 105-277) \$100.0—Sept. 2001 (Pub. L. No. 107-38) \$65.0—April 2003; CPC approval of amount from Capitol Preservation Fund.
Additional Scope Items:		
Library of Congress Tunnel	12.0	
Improved House Connection	6.0	
Extend Existing East Front Elevators	6.0	
Enhanced Perimeter Security	3.5	
Temporary Operations and Security	11.0	
Additional Scope Items	38.5	Sept. 2001 (Pub. L. No. 107-38)
Original Estimate plus Additional Scope Items	303.5	
Adjustments Based on Gilbane/Tishman/GAO Analyses	47.8	Sept. 2003 (Pub. L. No. 108-83) ¹
Adjusted Estimate After Analyses	351.3	
Rescission Applied Against \$47.8 million Additional Funding	(0.2)	
Adjusted Cost Estimate—Base Project	351.1	
Expansion Space:		
Senate	35.0	
House	35.0	
Expansion Space	70.0	Nov. 2001 (Pub. L. No. 107-68)
Base Project plus Expansion Space	421.1	
Security Enhancements	35.0	April 2003: Funding provided by DOD
Total Security Enhancements	456.1	
Security Enhancement Funds Returned by AOC	(1.7)	July 2004: Funding returned to DOD
Total Funding Provided (Base Project plus Expansion Space plus Security Enhancements).	454.4	
Funding Requested:		
Transfer from Emergency Response Fund (November 2004/January 2005)	² 26.3	
Fiscal Year 2006 Budget (construction only)	36.9	
Total Funding Requested	63.2	
Total Funding Provided and Requested	³ 517.6	

¹ Comprised of \$35.8 million appropriated to AOC and \$12.0 million made available to AOC through transfer from AOC account "Capitol Police Buildings and Grounds" to AOC account "Capitol Visitor Center." The funds being transferred were appropriated under Pub. L. No. 108-11.

² In addition, the November 2004 and January 2005 letters included a request for obligation authority of previously provided funding.

³ In addition, Pub. L. No. 108-447 authorizes the transfer of not more than \$10.6 million from AOC's Capitol Building account to the Capitol Visitor Center project.

Senator ALLARD. I would like to next call on Mr. Walker to give us his testimony. We appreciate you helping us with this project, Mr. Walker.

**STATEMENT OF DAVID M. WALKER, COMPTROLLER GENERAL OF THE
UNITED STATES, GOVERNMENT ACCOUNTABILITY OFFICE**

**ACCOMPANIED BY TERRELL DORN, ASSISTANT DIRECTOR, PHYSICAL
INFRASTRUCTURE, GOVERNMENT ACCOUNTABILITY OFFICE**

Mr. WALKER. Thank you, Chairman Allard, Chairman Cochran, it's a pleasure to be before you to be able to discuss GAO's ongoing work regarding the progress of the Capitol Visitor Center project. As you both know, we testified on this topic before the Subcommittee on the Legislative Branch, the House Committee on Appropriations in July 2003, and we continue to periodically brief congressional representatives, the CVC Project Executive, and the Architect of the Capitol with regard to our related activities. Before I come to the bottom line, Mr. Chairman, I assume that my entire statement will be included in the record.

Senator ALLARD. Yes.

Mr. WALKER. Thank you.

Senator ALLARD. Yes, your statement will be made a part of the complete record.

Mr. WALKER. Thank you, Mr. Chairman. Therefore, I'll summarize the critical elements.

I think it's important to note that the AOC has overall responsibility for this complex project, but a construction management firm, mainly Gilbane Building Company, is providing a range of construction management services in support of the AOC, including coordinating the activities of the major construction contractors, monitoring worker safety and providing AOC with the status information for reporting to the Congress. The Architect of the Capitol has decided to implement the project in two phases or sequences. In June 2002 it awarded the sequence 1 contract, the excavation and structural work to Centex Construction Company, and in April 2003, it awarded the sequence 2 contract for the mechanical, electrical, plumbing and interior finishing work to Manhattan Construction Company.

In summary, the CVC project is taking about 2 years longer than originally planned, is expected to cost between \$522 million and \$559 million, significantly more than originally estimated. However, the majority of the delays and cost increases were largely outside of AOC's control. But weaknesses in AOC's schedule and contract management activities have contributed to a portion of the delays and the cost overruns.

Of the project's estimated cost increase, about \$147 million is due to scope changes, such as the addition of the House and Senate expansion spaces. About \$45 million are attributed to factors that are partially or outside the ability of AOC to control, such as higher than expected bids on the sequence 2 contract, due to some—in part due to some—unexpected conditions below ground. And about \$58 million are due to factors that were somewhat within AOC's ability to control, such as delays.

Also, our analysis of the CVC worker safety data show the injury and illness rate for 2003 was about 50 percent higher for the CVC than for comparable construction sites, and that the rate for 2004 was about 30 percent higher than 2003. I will, however, note Mr. Chairman, that we have done a little bit of work for 2005, for the

first quarter of 2005 and things seem to have improved in the first quarter of 2005, although we haven't completed that work yet.

Finally, a number of monthly reports to the Congress in our view have not fully and fairly reflected the status of the project's construction schedules and costs, and in some cases are not including accurate worker safety data. This has led to certain expectation gaps within the Congress. I might also note that AOC's current schedule completion date for the CVC is now September 2003—pardon me, 2006. I apologize. We believe however that given past problems and future risks and uncertainties, that the completion date may be delayed to between December 2006 and March 2007. Additionally AOC's scheduled completion date of the interior of the House and Senate expansion spaces is now March 2007.

I think it's important to note that the AOC has taken a number of actions to improve its management of the project. I will also note that since Bob Hixon has joined the AOC in March 2004, we have seen a significant improvement, and I think that should be noted for the record.

However, a number of actions still need to be taken in order to fully identify the challenges that we have brought forth. To help prevent further schedule delays, control cost growth and enhance worker safety, AOC urgently needs to give priority attention to managing the project's construction schedules and contracts, including those contract provisions that address worker safety. These actions are imperative if future cost growth, schedule delays and worker safety problems are to be avoided.

AOC also needs to see that it reports accurate information to the Congress on the project. Furthermore decisions by the Congress will have to be made regarding additional funding needed to complete construction and to address any related risk and uncertainties that may arise. Mr. Chairman, that summarizes my statement. I'll be happy to answer any questions that any of you may have.

[The statement follows:]

PREPARED STATEMENT OF DAVID M. WALKER

Mr. Chairman and Members of the Subcommittee: I am pleased to be here today to discuss GAO's ongoing work on the progress of the Capitol Visitor Center (CVC) project. As you know, we have been performing this work in response to requests from members of the Capitol Preservation Commission (CPC) and as directed by the Conference Report to the Omnibus Consolidated and Emergency Supplemental Appropriations Act, 1999 (House Conference Report 105-825) and the Conference Report on the Legislative Branch Appropriations Act, 2004 (House Conference Report 108-279).

Approved in the late 1990s, CVC is the largest project on the Capitol grounds in over 140 years. Its purposes are to provide greater security for all persons working in or visiting the U.S. Capitol and to enhance the educational experience of visitors who have come to learn about Congress and the Capitol building. When completed, this three-story, underground facility, located on the east side of the Capitol, is designed to be a seamless addition to the Capitol complex that does not detract from the appearance of the Capitol or its historic landscaping. According to current plans, it will include theaters, an auditorium, exhibit space, a service tunnel for truck loading and deliveries, storage, and additional space for use by the House and Senate.

In my testimony today, I will discuss the Architect of the Capitol's (AOC) management of the project's schedules and contracts; the project's estimated costs, including risks and uncertainties; worker safety issues; and AOC's monthly reporting to Congress on the project. I will also discuss recommendations that we have made in previous testimony and briefings and the actions AOC has taken in response. We testified on this topic before the Subcommittee on the Legislative Branch, House Com-

mittee on Appropriations, in July 2003,¹ and we have periodically briefed congressional representatives, the CVC project executive, and the Architect of the Capitol since then.

My statement is based on our monitoring of the CVC project, which included reviewing monthly status reports, contract files, schedules, contractors' cost estimates, other organizations' construction management policies and procedures, industry best practices, and data for construction projects compiled by the Construction Industry Institute and the Bureau of Labor Statistics. We have attended regularly scheduled meetings on the CVC project's progress; observed construction work at the site; and discussed management, procurement, and safety issues with AOC, contractor personnel, as well as experienced construction and contract management personnel at other organizations. Additionally, we obtained expert assistance in analyzing construction project costs and schedules from KPMG, Hulett & Associates, and the Defense Contract Audit Agency (DCAA). We did not perform an audit; rather, we performed our work to assist Congress in conducting its oversight activities.

Before I summarize our principal observations and recommendations for moving forward, let me briefly set the stage. As previously noted, AOC is managing and has overall responsibility for this complex project, but a construction management firm, Gilbane Building Company, is providing a range of construction management services in support of AOC, including coordinating the activities of the major construction contractors, monitoring worker safety, and providing AOC with status information for reporting to Congress. AOC is implementing the project in two phases, or sequences. In June 2002, it awarded the sequence 1 contract for the excavation and structural work to Centex Construction Company, and in April 2003, it awarded the sequence 2 contract for mechanical, electrical, plumbing and interior finishing work to Manhattan Construction Company.

In summary, the CVC project is taking about 2 years longer than planned and is expected to cost between about \$522 million and \$559 million—significantly more than originally estimated. The majority of delays and cost increases were largely outside AOC's control, but weaknesses in AOC's schedule and contract management contributed to a portion of the delays and cost overruns. Of the project's estimated cost increase, about \$147 million is due to scope changes, such as the addition of the House and Senate expansion spaces; about \$45 million to other factors also outside or largely outside AOC's control, such as higher than expected bid prices on the sequence 2 contract; and about \$58 million to factors more within AOC's control, such as delays. Also, our analysis of CVC worker safety data showed that the injury and illness rate for 2003 was about 50 percent higher for CVC than for comparable construction sites and that the rate for 2004 was about 30 percent higher than the rate for 2003. Finally, a number of AOC's monthly reports to Congress have not accurately reflected the status of the project's construction schedules and costs and have transmitted inaccurate worker safety data. This has led to certain "expectation gaps" within Congress.

AOC has taken a number of actions to improve its management of the project; however, these actions have not yet fully corrected all identified problems. To help prevent further schedule delays, control cost growth, and enhance worker safety, AOC urgently needs to give priority attention to managing the project's construction schedules and contracts, including those contract provisions that address worker safety. These actions are imperative if further cost growth, schedule delays, and worker safety problems are to be avoided. AOC also needs to see that it reports accurate information to Congress on the project. Furthermore, decisions by Congress will have to be made regarding the additional funding needed to complete construction and address any risks and uncertainties that arise.

Enhanced Schedule Management Needed

According to AOC, the entire base project is about 60 percent complete.² Except for some punch-list items, such as fixing water leaks, construction work under the sequence 1 contract is now complete. This work includes the basic structure, the truck and Library of Congress tunnels, and the East Front interface. AOC and its contractors also completed work associated with the Inauguration. Work has started on the sequence 2 contract, including fitting out and finishing the basic structure

¹ GAO, *Capitol Visitor Center: Current Status of Schedule and Estimated Cost*, GAO-03-1014T (Washington, D.C.: July 15, 2003).

² The base project includes a finished visitor center shell and core, an extended loading dock service tunnel, exterior finishes, improvements to the East Plaza, construction of unfinished House and Senate expansion space shell, exhibits, technical security systems, a utility tunnel, and a connecting tunnel to the Library of Congress. The base project does not include other items, such as finishing the House and Senate expansion space and certain security-related enhancements.

and the Library of Congress tunnel and constructing the utility tunnel and space for the exhibits. AOC has just made contractual arrangements for fitting out and finishing the Senate and House expansion spaces and is now procuring the House Connector tunnel and the connection between the Library of Congress tunnel and the Jefferson building.

AOC's scheduled completion date for CVC is now September 2006, nearly 20 months later than originally planned. We believe, given past problems and future risks and uncertainties, that the completion date may be delayed until sometime between December 2006 and March 2007. Additionally, AOC's scheduled completion date for the interior of the House and Senate expansion spaces is March 2007.

The project's schedule delays are due in part to scope changes, design changes, and unforeseen conditions beyond AOC's control (e.g., adding the Senate and House expansion spaces and encountering underground obstructions). However, factors more within AOC's control also contributed to the delays. First, the original schedule was overly optimistic. Second, AOC has had difficulty obtaining acceptable, contractually required schedules from its contractors, such as a master summary schedule from its construction management contractor. In addition, AOC and its contractors did not adhere to contract provisions designed for effective schedule management, including those calling for monthly progress review meetings and schedule updates and revisions. AOC and its construction management contractor also had difficulty coordinating the work of the sequence 1 and 2 contractors and did not systematically track and document delays and their causes as they occurred or apportion time and costs to the appropriate parties on a timely basis. Additionally, AOC has not yet reached full agreement with CPC on the extent to which construction must be completed before the facility can be opened to the public, and AOC has not yet developed an overall summary schedule that links the completion of construction with the steps necessary to prepare CVC for facility operations. Finally, AOC needs to fully implement our recommendation that it develop plans to mitigate the project's remaining risks and uncertainties, such as shortages in the supply of stone or skilled stone workers, unforeseen conditions associated with the remaining underground tunnels, and commissioning the building in the allotted time.

We have made numerous recommendations to improve schedule management, and AOC has taken actions to implement most of them. We believe, however, that both AOC and its construction management contractor will need to sustain their attention and apply additional effort to managing the project's schedule, as well as fully implement our recommendations, to help keep the project on track and as close to budget as possible. More specifically, AOC needs to give priority attention to: obtaining and maintaining acceptable project schedules, including reassessing the times allotted for completing sequence 2 work; aggressively monitoring and managing contractors' adherence to the schedule, including documenting and addressing the causes of delays; developing and implementing risk mitigation plans; reaching agreement on what project elements must be complete before CVC can open to the public; and preparing a summary schedule, as Congress requested, that integrates the major steps needed to complete CVC construction with the steps necessary to prepare for operations.

Stronger Contract Management Needed

AOC is relying on contractors to design, build, and help manage CVC's construction and help prepare for its operation. AOC has obligated over \$350 million for contracts and contract modifications for these activities. We found that AOC needed to take additional steps to ensure that it was (1) receiving reasonable prices for proposed contract modifications, (2) obtaining adequate support for contractors' requests for reimbursement of incurred costs, (3) adequately overseeing its contractors' performance, and (4) taking appropriate steps to see that contractual work is not done before it is appropriately authorized under contractual arrangements.

—Initially, AOC was not preparing independent government estimates as part of its price analyses for proposed modifications to the two major contracts. In early 2004, AOC hired an employee for the CVC staff with contract management experience, and AOC has improved its capacity to obtain reasonable prices by, among other things, preparing government estimates as part of its effort to evaluate the reasonableness of prices offered by the contractors for the proposed modifications.

—Although most CVC work is being done under fixed price contracts, for which payment is not based on incurred costs, AOC has received or is anticipating requests for reimbursement of over \$30 million in costs that the contractors say

they incurred because of delays.³ In addition, AOC has awarded some contract modifications for unpriced work that will require reliable information on incurred costs. According to the Defense Contract Audit Agency, several concerns relating to the contractors' accounting systems need to be addressed to ensure the reliability of the contractors' incurred cost information.

—AOC has continued to experience difficulty getting fully acceptable performance from contractors. For example, as of April 30, 2005, the construction management contractor had not provided an acceptable master schedule identifying appropriate links between tasks and key milestones, and it has not been providing AOC with accurate safety data for an extended period of time. Similarly, one of AOC's major construction contractors had not corrected recurring safety concerns over an extended period.

—One of AOC's CVC consultants began work several months before AOC had awarded a contract to it authorizing the work. AOC agreed to take action to prevent this type of problem from recurring.

We have made several recommendations to enhance AOC's contract management. AOC has generally agreed and taken action to implement these recommendations. For example, it has enhanced its capacity to review cost-related data submitted by contractors with requests for reimbursement based on incurred costs, and it has better evaluated its construction management contractor's performance and taken action to obtain improvements. To help prevent further schedule delays and control cost growth, AOC needs to aggressively manage its contractors' performance, particularly in the areas of managing schedules and obtaining reasonable prices on contractual actions, and continue to ensure that contractors' requests for payment based on incurred costs are adequately evaluated. It also needs to ensure that its contractors report accurate safety data and promptly act to correct safety concerns.

Project Costs and Funding Provided as of May 2005

We currently estimate that the cost to complete the construction of the CVC project, including proposed additions to its scope, is about \$522 million without any allowance for risks and uncertainties.⁴ Of this amount, \$483.7 million has been provided to date.⁵ In November 2004, we estimated that the cost to complete the scope of work approved at that time was likely to be about \$515 million, without an allowance for risks and uncertainties. Since November 2004, AOC and the U.S. Capitol Police have proposed about \$7 million in scope changes that we included in our current estimate, bringing it to \$522 million.⁶ However, the project continues to face risks and uncertainties, such as unforeseen conditions, scope gaps and changes, and possible further delays.⁷ To provide for these, we estimated in November 2004 that an additional \$44 million would likely be needed, bringing our estimate of the total cost to about \$559 million. We continue to believe that this estimate of the project's total costs is appropriate. We have not increased our allowance for risks and uncertainties in response to the recent requests for \$7 million in scope changes because we consider such changes among the risks and uncertainties that the project faced in November.

Over the years, CVC construction costs have increased considerably. Most of these costs were outside or largely outside AOC's control, but other costs were more within its control. About \$147 million of the cost increase was due to changes in the project's scope, many of which were for security enhancements following September 11 and the anthrax attacks in October 2001. Congress added the House and Senate expansion spaces and the Library of Congress tunnel to the project's scope after the

³Reimbursements for the costs of non-weather-related delays not attributable to the contractor are standard practice in the construction industry.

⁴Our November 2004 estimate of \$515 million was similar to AOC's estimate based on work done by one of its consultants; however, except for the \$4.2 million in additional scope items, AOC has not requested funds to cover risks and uncertainties provided for in our \$44 million.

⁵Public Law 108-447, enacted in December 2004, provided that up to \$10.6 million could be transferred from funds appropriated for Capitol Buildings operations and maintenance to CVC upon the approval of the House and Senate Committees on Appropriations. In March 2005, AOC requested that about \$4 million of these funds be transferred to CVC, including some funds for construction-related work, such as design of the gift shop space. As of May 12, the House Committee had not yet approved this transfer, and none of the \$10.6 million has been included in the \$483.7 million figure above.

⁶Last week, Congress enacted legislation that provided the additional funding requested by the Capitol Police for security monitoring. Public Law 109-13, Emergency Supplemental Appropriations for Defense, the Global War on Terror, and Tsunami Relief, 2005 (May 11, 2005).

⁷Other risks and uncertainties that continue to face the project include, but are not limited to, shortages in the supply of stone and skilled stone workers, possible additional requirements for life safety or security changes, unknown operator requirements, and contractor coordination issues.

original project's cost was estimated; similarly, the Department of Defense recommended and funded an air filtration system for the facility. Other factors also outside or largely outside AOC's control contributed about \$45 million to the increase. For example, bid prices for the sequence 1 and 2 contracts exceeded budgeted costs, and unforeseen field conditions, such as underground obstructions, necessitated additional work. Finally, factors more within AOC's control accounted for about \$58 million of the expected additional project costs. For example, the project experienced significant delays during sequence 1, and we expect AOC will incur additional costs in the future because we believe the sequence 2 work will not be done by AOC's September 2006 completion date; slow decision-making by AOC also contributed to higher costs.

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 the project's construction and, if approved, will bring the total funding provided for the project to \$520.6 million. AOC's request includes the \$4.2 million for potential additions to the project's scope (e.g., congressional seals, an orientation film, and backpack storage space), but does not include \$1.7 million for the air filtration system—an amount that AOC thought it would not need and returned to DOD, but that we believe AOC will still likely need. AOC believes that it could obtain these funds from DOD if needed. Thus, with a \$1.7 million increase for the air filtration system, the total estimated cost to complete the project's construction would be the \$522.3 million cited above without provision for risks and uncertainties.⁸

To continue to move the project forward, Congress will have to consider the additional funding AOC has requested for fiscal year 2006 to complete the project, including the \$4.2 million in additional scope items. Through effective risk mitigation, as we have recommended, and effective implementation of our other recommendations for enhancing schedule and contract management, AOC may be able to avoid some of the \$44 million that we allowed for risks and uncertainties. However, given the project's complexity and the additional requests for funds already made and anticipated, we believe AOC will likely need much of this \$44 million even with effective implementation of our recommendations. Already, it appears that AOC may need additional funds for sequence 2 changes in fiscal year 2005. For example, as of April 30, 2005, AOC had identified proposed changes to the sequence 2 contract that it considered necessary and expected to cost about \$13.8 million. This sum is about \$700,000 less than the \$14.5 million AOC has available during fiscal year 2005 for sequence 2 changes.

Worker Safety Issues

Because the number of construction workers at the CVC site is soon expected to increase significantly, worker safety will continue to be an important issue during the remainder of the project. Our review of worker safety issues found that the construction management contractor's monthly CVC progress reports contained some inaccurate data for key measures of worker safety, including injuries and illnesses and lost time. For example, the contractor reported 3 lost-time incidents for 2004, but our analysis identified 45 such incidents. These inaccuracies resulted in both overstatements and understatements of rates.⁹ For instance, the contractor reported a rate of 6.3 injuries and illnesses for April 2004, whereas our analysis identified 12.5.¹⁰ The construction management contractor attributed the inaccuracies to key data missing from its calculations, unawareness of a formula change that began in 2002, mathematical errors, and poor communication with the major construction contractors.

⁸Essentially, AOC's \$36.9 million fiscal year 2006 budget request was consistent with our \$515.1 million estimated cost at completion except that it included \$4.2 million for the additional scope items and excluded the \$1.7 million for filtration—\$517.6 million less \$4.2 million plus \$1.7 million equals \$515.1 million.

⁹The Bureau of Labor Statistics (BLS) calculates the number of injury/illness incidents per 100 full-time workers as follows: $(N/EH) \times 200,000$, where (N) equals number of injuries/illnesses, (EH) equals total hours worked by all employees during the calendar year, and 200,000 equals base for 100 equivalent full-time workers (working 40 hours per week, 50 weeks per year). BLS calculates the number of lost-time incidents per 100 full-time workers as follows: $(LT/EH) \times 200,000$ where (LT) equals cases of (1) days away from work, (2) restricted work or (3) work transfer, (EH) equals number of employee hours for the desired period and 200,000 equals base for 100 equivalent full-time workers (working 40 hours per week, 50 weeks per year).

¹⁰In early 2005, the major contractors provided us with updated data for injuries and illnesses and lost time in 2004. We used these data to recalculate the 2004 rates. For example, the monthly rate for injuries and illnesses in April 2004 increased to 15.7.

According to our analysis, the rates for injuries and illnesses and for lost time were higher for CVC than for comparable construction sites. For 2003, the injury and illness rate was about 50 percent higher, and the lost-time rate was about 160 percent higher.¹¹ Additionally, both the numbers and the rates for injuries and illnesses and for lost time worsened from 2003 to 2004. For example, the injury and illness rate increased from 9.1 in 2003 to 12.2 in 2004, and the lost-time rate increased from 8.1 to 10.4. AOC and its contractors have taken some actions to promote and manage safety on the site, such as conducting monthly safety audits and making recommendations to improve safety. However, at the time of our review, neither AOC nor its construction management contractor had analyzed the results of the monthly safety audits to identify trends or concerns, and neither had reviewed the safety audit findings in conjunction with the injury and illness data. Our analysis of key safety audit data for the first 10 months of 2004 identified about 700 safety concerns, the most frequent of which was inadequate protection against falls. Furthermore, AOC had not fully exercised its authority to have the contractors take corrective actions to address recurring safety concerns.

We recommended that, to improve safety and reporting, AOC ensure the collection and reporting of accurate injury and illness and lost-time data, work with its contractors to develop a mechanism for analyzing the data and identifying corrective actions, and more fully exercise its authority to take appropriate enforcement actions when warranted. AOC agreed with our recommendations and initiated corrective actions. However, follow-up work that we did in early 2005 at AOC's request indicated the corrective actions had not yet fully eliminated errors in reporting. AOC agreed that continued action on our recommendations was essential.

Reporting to Congress

Both AOC and its construction management contractor prepare monthly progress reports on CVC. AOC relies heavily on its contractor for the information it puts into its own reports, which it sends to Congress. We have found that AOC's reports have sometimes failed to identify problems, such as cost increases and schedule delays. This has resulted in certain "expectation gaps" within Congress. We have suggested to AOC that its reports could be more helpful to Congress if, for example, they discussed critical issues facing the project and important upcoming decisions. AOC has been making improvements to its monthly reports and has agreed to continue doing so.

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

COMPLETION DATE

Senator ALLARD. Thank you for your testimony, we appreciate that. I'll proceed to some of our questions.

Mr. Hantman, you say in your statement that the Architect of the Capitol now has a fully integrated master schedule, and you say the project can be completed by September 2006. Does this date reflect any known changes that could affect the completion date, but have not yet been incorporated into the schedule such as the exhibit construction, and some sequence 2 change orders?

Mr. HANTMAN. Mr. Chairman, relative to the exhibit construction, our sense at this point in time, since we just signed the contract on May 4, is that it should not impact the opening. Clearly, as we discussed at our last hearing, the total visitor experience is an important one for people to come on in, to be screened respectfully, to go down into the Great Hall to see the orientation film, and to be brought into the building for their tours and also to have the exhibit experience. As we are looking at the schedule right now, now that we were able to sign it on the 4th, we do not see, at this point, any impact to completing that in concurrence with the visitor portion as well. As Mr. Walker indicated, of course, the

¹¹The CVC rates are sensitive to small variations in the number of injuries, illnesses, or lost-time incidents for a given year.

expansion areas which we just awarded yesterday, in fact, will be later on.

And one of the concerns that we have been discussing clearly with the Capitol Preservation Commission senior staff is what really needs to be in place for the visitors to be welcomed effectively to the building. And we believe because of the nature of the setup of the mechanical room, we have 23 separate air handling units, the air handling units that deal with the areas in the exhibition—I'm sorry—the expansion space, could essentially be serving just those areas. Therefore any dust in the air would be taken up in those areas as opposed to in the central visitor center portion, or in the exhibition area, which was a concern of Ms. Reynolds and the people from the Archives. So we believe that the whole visitor experience with all the areas that are under contract as of now, will be ready for them in September. That's basically what Bob Hixon can talk to in terms of the whole schedule and show you some boards on where we are on that.

SEQUENCE 2 CHANGE ORDERS

Senator ALLARD. Did you talk about some of your sequence 2 change orders?

Mr. HIXON. At this time, all of the sequence 2 change orders, the impact of all those is included in our schedule to the extent that we are aware of them. There are new change orders coming on board all the time, and as those come on, we continue to evaluate those to see if there is an impact. At this time, based on all the information that we have to date, we are in good shape. There are a couple of areas of concern. There are several elements that still need to be procured—there's the House connector tunnel, there is the Jefferson Building work that needs to be factored into the Library of Congress tunnel. There is a little bit to be finished as far as connections to the utility tunnel, all of those items suppose some risk which could have some impact. We certainly want to make sure we don't have an impact, but those areas are still ahead of us as far as an evaluation.

Senator ALLARD. Could you give me a little clearer understanding of how the change orders come about?

Mr. HIXON. Certainly, change orders come to us usually in one of two ways, either the contractor discovers something that they feel is extra under the contract or that ask a question of the designer, or the designer discovers an issue that needs to be changed in some manner. For example, they may find that a dimension doesn't work correctly, and they have to adjust ceiling height or they have to adjust the width of a corridor, or we may discover that materials that were selected don't work well in that, say the wainscot in the Great Hall for example, the stone, when you put the two pieces together and the mock up didn't match and we had a change in the stone—so those kinds of things are occurring all the time. There are some things in the project that sometimes don't dimensionally fit, we have materials that no longer are available that have to be replaced with other materials, or you put something like stone together and you create the mock up to make sure it does work well, and you find out you need to—

CONTRACTOR CHANGE ORDERS

Senator ALLARD. I can understand that. But on the contractor's side, what drives change orders?

Mr. HIXON. From the contractor side, more often than not there are different site conditions, especially during the sequence 1 contract, or else they will find issues associated—if we are in sequence 2 right now, for example—there are some issues associated with the installation of the sequence 1 work, a concrete column may be an inch out of position and have to be chipped in order for the sequence 2 work to be done, things of that nature.

Senator ALLARD. Aren't these things that ordinarily the contractor should figure into his quote when he initially gives you the bid?

Mr. HIXON. Well, the sequence 2 contractor, when he gives you his quote, is going to assume that the sequence 1 contractor's work is in place, he will ask for extra for whatever work he has to do, we will have to back charge the sequence 1—

Senator ALLARD. And part of the problem is the sequence 1 contractor didn't do the work or the sequence 2 contractor has some concerns with sequence 1 work, is that how that comes about?

Mr. HIXON. If he finds that something is not in the right location, he will alert us and we will have to either have the work done by the sequence 1 contractor to correct it, or else the sequence 2 contractor will perform the work and we'll back charge the sequence 1 contractor. It should be a no net cost to the Government.

Senator ALLARD. That's what I wanted to make sure, that it's no net to the Government. It seems to me these are contractor responsibilities.

Mr. HIXON. They are, yes. Those kinds of deficiencies, if it's a different site condition issue, for example, work is occurring in the utility tunnel, and something unknown is discovered, then that's a different site condition, and the contractor is entitled to compensation for added costs for things that are different from what he could have reasonably contemplated.

Senator ALLARD. There may be some unknown event that you didn't anticipate.

Mr. HIXON. That's correct.

Senator ALLARD. Okay, my time is expired, Mr. Chairman, do you have any questions?

CONSTRUCTION CONTRACT MANAGEMENT

Senator COCHRAN. Mr. Walker, you said that the AOC should improve its management of the construction contract if further delays and cost increases are to be avoided. What do you suggest the AOC do that is not being done already?

Mr. WALKER. We have had a number of recommendations, Mr. Chairman, one of which Alan talked on earlier, and that is, we recommended for a long time that there needs to be a comprehensive and integrated project plan that, my understanding is they have one now, we have not had an opportunity to review it in detail, we've received a very high level briefing on that.

Second, there are a number of issues that are very fundamental, like how do you define complete? That still has not been defined

yet, there is not an understanding between the Capitol Preservation Commission personnel and AOC yet on what the term “complete” means. There are a number of—

Senator COCHRAN. We can look in the dictionary and find out what it means, can't we?

Mr. WALKER. You're correct that Webster's does provide some help in this regard, however, the details matter. For example, Alan talked about at what state do things have to be in before you start allowing the public to be able to come in? Now, candidly that might be deemed to be complete for purposes of being able to allow public access, but on the other hand there could be still be activities undergoing which could require time and money before—

Senator COCHRAN. Well, what's the Architect supposed to do about that?

Mr. WALKER. Well, I think it's important for the Architect to be able to work constructively, as he's trying to do, I believe, with the key personnel in the Congress to be able to make sure that there's not an expectation gap that exists.

Senator COCHRAN. Well, we have got some in Congress whose expectations are way beyond reality.

Mr. WALKER. That can happen, Mr. Chairman. If you have 100 Members of the Senate, and 435 Members of the House, not everybody thinks the same way.

Senator COCHRAN. Well, if he tries to please every Member of Congress, we are going to be working on this forever.

Mr. WALKER. And that would be totally inappropriate and unrealistic. Just as we find ourselves sometimes not being able to please every Member of Congress as well.

Senator COCHRAN. I have no further questions.

INTEGRATED SCHEDULE

Senator ALLARD. Mr. Hantman, the GAO has reported several times that your schedules were somewhat optimistic. Your staff agreed to have the durations of the schedule's tasks reassessed. Has this reassessment been done?

Mr. HANTMAN. Yes, and we're constantly doing that. Maybe it would be appropriate, Mr. Chairman, for us to walk you through a few of the things that we've done since our last hearing in response to the imperatives of this integrated schedule, and tell you what we have done, where it's going and how we are constantly reviewing these issues.

Senator ALLARD. And while you are doing that, could you reassure me and the subcommittee as to how you know that this latest schedule is realistic, and when you think the total reassessment will be done.

Mr. HIXON. You can see from the board here that we have established this integrated project master schedule. We now have everything tied into one large schedule, both the Manhattan work and all the other items of work, such as way finding and things of that nature, that are all associated with completion of space. We have gone through this, and to ensure that all the activities that are required will result in a completion date in September 2006 for all of those activities, except the expansion space, and I wanted to show you a couple of boards just to give you some idea of what we

are doing. We are not looking for anybody to read this, obviously, because you can't.

Senator ALLARD. You can't see it from here.

Mr. HIXON. I think it's too low behind the—what we've done is we've—this is just an example of one of the charts, this is the critical path, all those activities that are required that have what we call zero float in them, every activity has to occur on schedule to be completed, other activities—you can see this is only a minor portion of the 3,500 to 4,000 activities depending on where we are in the process. But you can see this is only a few of those activities, but these are all critical to being done on time.

Mr. HANTMAN. But before you leave that—

Senator ALLARD. Those red lines, it looks to me like those are dates or activities that have been extended—

Mr. HIXON. Okay, well what you see here this one set of activities across here is the House and Senate expansion space, the blue line that runs vertically here is the date, the current date, what this allows us to do is say, "Okay, on a particular date, what activity should be finished and which activities are yet to be done in the future?" Activities are indicated here on the left side of the chart, and like I say, these are only the critical activities, so it may be something like the pedestals that support the Tennessee marble base in the Great Hall, and when does that have to be done, that is a critical activity, and it's reflected on the chart.

But the bottom line here, Mr. Chairman, is at the bottom line. It basically shows that in September 2006, all of this whole string of activities will be completed—again with the exception of the two broad lines that talk about the expansion space for the House and the Senate.

Senator ALLARD. And you think this is realistic, Mr. Hixon?

Mr. HIXON. Yes, sir. At this point, based on everything that we are aware of, this is entirely realistic. We have looked through the individual dates, we have brought an engineering firm that does construction management to assist us in this, as well as Gilbane's review of the Manhattan schedule, and we all feel comfortable that we can achieve this date, the durations are good, the logic is good.

POTENTIAL RISK

Mr. HANTMAN. One of the things, clearly, that GAO and we are working together on, and what they have been doing with us in the past, is they are assessing potential risk. We are assuming that, again, nothing untoward happens with the tunnel that we are excavating on East Capitol Street, that we are able to do the work under the house stairs for the connector tunnel there, things of that nature. So, in terms of our discussion with GAO, clearly in terms of dollars and time, they are looking at things that we don't see on the horizon at this point and time, and can't predict. But everything that we are aware of right now, even the level of risk that we believe we have on those pieces of work, we believe it is a tight schedule, but it is a doable schedule now.

Senator ALLARD. And Mr. Walker, Mr. Hantman has indicated that he had been working with your office on this and I assume that your staff has had an opportunity to review this new integrated schedule, and you believe it's complete and accurate?

Mr. WALKER. Well, first, Mr. Chairman, we received a high-level briefing of this new integrated schedule, we have not had an opportunity to review it in detail, we do plan to do that and we obviously will report back to the interested parties after we have a chance to do that. I think in fairness—

Senator ALLARD. Maybe you can follow up on this, this would be a good follow-up question a month from now, we can follow up on that.

Mr. WALKER. Absolutely, Mr. Chairman. I think it's important to note that the AOC is making a good faith effort to come up with what they think the schedule is going to be, what they think the cost is going to be. Reasonable people can and will differ on these factors. I think history will show in the past they've tended to be overly optimistic, and that we looked at it more from the standpoint, well what are some of the risks that could happen typically in construction projects and have happened, what are some of the uncertainties that we may not be aware of, and our general view is you're better to exceed expectations than to continue to disappoint people. I think our history has been pretty accurate over the past with regard to schedule and costs, I think a couple of examples of things that have been or are to be resolved would be, for example, it's my understanding that even if the September 15 date is met, that there will not be full security features in place at that point in time. I don't know what security features would be in place, and whether or not they would be acceptable to Congress and whether or not they would be acceptable to the Capitol Police and other interested parties. It's also my understanding that certain things will be completed to a temporary state, not a final state. That may or may not be acceptable to Congress, all the more reason why I come back to—what's the definition of complete, and what status has to exist in order for the facility to be utilized?

EXPANSION SPACE

Senator ALLARD. We haven't talked any about the expansion space here and that's been awarded. I think you indicated that in your remarks. What is the completion date now for the expansion space?

Mr. HIXON. The completion date for the expansion space contractually is March 18, 2007. We expect the work, except for the integration of systems, to be done September 18, 2006.

Senator ALLARD. And that's all been worked into the master schedule I assume?

Mr. HIXON. That has got to be put into the master schedule, the award made occurred on Monday, and we haven't—

Senator ALLARD. But it will be.

Mr. HIXON. Yes, sir.

Senator ALLARD. And that would be another question we might have a month from now.

Now, back to you, Mr. Walker, in November 2004, GAO advised that the project was likely to be completed in late 2006, or early 2007 due to optimistic durations and risks and uncertainties. Since that time additional issues have arisen that may extend the projects timeline. Mr. Walker, what is the GAO's current assessment for when the project could be certified to be opened?

Mr. WALKER. Mr. Chairman, our view is considering certain risks and uncertainties, we think it's more realistic to expect for the project, the base project, to be done in December 2006 to March 2007, and at the present point in time, we don't have a basis to differ with the Architect of the Capitol on the March 2007 date for the expansion. We take some comfort in the fact that contract has now been awarded, but that's where we're at at the present point in time.

COMPLETION AND OCCUPANCY

Senator ALLARD. I assume that when we talk about certified to be open, that's actually an occupation time, is that correct?

Mr. WALKER. Candidly, Mr. Chairman, these are some of the issues that have to be worked out, I think there's two issues—one of which is, what has to be done in order for it to be occupied, or utilized in some way? And then second, when is it totally done? Such that we are no longer incurring any related costs.

Senator ALLARD. And totally occupied.

Mr. WALKER. Not only totally occupied, but totally complete, such that the contractors are no longer on the site, we're no longer incurring any additional costs. Those are two different dates. There may be several dates involved here.

Senator ALLARD. But the practical date is when is it going to be finished so it can be totally occupied. Do you have a time in mind when that might be possible?

Mr. WALKER. The timeframes that I am talking about, Mr. Chairman, really envision that you would be occupying within those timeframes—in other words, December 2006 to March 2007, and March 2007 for the House and Senate expansion space. We are not quite as optimistic as the Architect of the Capitol, based on past experience.

Senator ALLARD. Do you think he has reason, Mr. Hantman, or Mr. Hixon for his projections? Or do you feel comfortable with what you are telling us here today?

Mr. HANTMAN. Mr. Chairman, the things that Mr. Walker talked to specifically that may not be ready in our September timeframe that we are working to have ready, he mentioned security features, for instance. We are working with the Capitol Police who have a responsibility to install their cameras inside conduit that we provide for them, so we need to make sure that they are fully integrated into our schedule, so that those comments could be there. But in reality, if they don't make that date, we have Capitol Police officers who could be there, and be providing the security in any event. So it's a question of evaluating, at that point, what level of security we do have, and is it adequate for the public to come in.

Another thing that I think Mr. Walker was referring to was a contract that we have not let yet, we have an obligation plan—from March of this year—which gave us some funding, and it's not been authorized for us yet, on signage, to design and put in way finding signage.

So the issue there is if—we assume given the appropriations, the authority to award that way finding sign program—that perhaps we won't need temporary signage that would otherwise go up. So, it's that kind of finishing element that we are talking about.

In terms of the basic facility, in terms of operations, in terms of mechanical systems, in terms of security systems, the air-conditioning, the electrical, the lighting, all of those things, all of the architectural finishes are on our integrated schedule, and show a completion date in September. Clearly one of the big issues which you indicated in your opening remarks, and we'll talk about later on, is the whole operations issue. What staff would be there to welcome people, what kind of programs would be in place, and how the staff essentially would work, that is another issue.

Senator ALLARD. Mr. Chairman, I noticed you are taking notes, do you have more questions?

COST IMPLICATIONS

Senator COCHRAN. I don't want to get in way over my head, because I know everybody has more experience in this project than I do, but I am interested in trying to figure out exactly what the impact on the appropriations process—some of these changes that have recently been discovered, and the cost implications of changes—what that's going to have on the appropriations schedule, and whether or not the request submitted for this fiscal year is adequate to really meet the needs. I don't want us to be a part of the problem, this is another thing I want to make clear. Does the appropriation of funds, in your view, have an impact on your ability to efficiently manage the work and complete the contract, Mr. Hantman?

Mr. HANTMAN. Well, first of all, Senator, I want to thank you for signing our March obligation plan. The Senate has signed off on that, which does impact the way finding and other issues, and we are waiting on the House for their signoff right now. But clearly, the ability to award the expansion spaces, that was delayed somewhat. When we submit an obligation plan we have the responsibility of giving you adequate information to know what it's all about and what kind of timing there is so that you can effectively react, and not be impacting the project. That's our responsibility to give that to you, and we still have this issue on the operations side. One of the things that we are discussing right now is the effective opening date, and clearly that opening date impacts the cost for personnel—how many people you have on board and need to have on board that time whether it's September or another time—will depend upon, again, when the opening date is. So that will be an appropriations related issue.

But in general, the requests that we have made in the budget for this year, the \$36.9 million, in our view makes us whole without the risks that the GAO is talking about.

Senator COCHRAN. I want to ask Mr. Walker the same question.

Mr. WALKER. Thank you, Mr. Chairman. It's my understanding that the \$36.9 million is based on estimated total costs of \$517 million. Our current estimate is \$522 million, without risks and uncertainties, and with risks and uncertainties, potentially as high as \$559 million. So I think clearly there are appropriations issues here that I think need to be monitored closely.

Furthermore, it's my understanding that there are limited reserves still available for the AOC and that obviously Congress has to approve certain reprogramming requests and I think, you know,

that there could be issues coming up in the interim, even if this total amount of money is allocated, the need for certain reprogramming requests in the interim that the Congress would have to deal with. Terry, did you have anything else that you wanted to add to that?

Mr. DORN. We're concerned for the balance of fiscal year 2005, that there may be not much more than, say, \$1 million or so left, assuming that their temporary estimates are accurate, to get to the balance of 2005 unless there's some reprogramming done, moving money around between different accounts.

Like Mr. Walker said, I'm concerned in 2006 that the \$36.9 million that you all would appropriate would not cover any risk and uncertainties so that according to the assessment that we did, that \$36.9 million would not be sufficient for 2006.

FISCAL YEAR 2006 BUDGET REQUEST

Senator COCHRAN. Do you have another number in mind that you would include as a request of the Congress if you were responsible for submitting a budget request?

Mr. DORN. Back in November when we did our last cost-to-complete estimate we estimated that there would be additional, I believe it was \$42 million or so, up to that amount, could be needed for risks and uncertainties. We recommended at that time that that money be set aside in something like a reserve account that you all could control, but you could give to the AOC as they really proved that they needed it. We were reluctant to recommend that that full amount be appropriated all at once.

Senator COCHRAN. Well, I don't think you ought to put the Appropriations Committee in the management of this project. Do you really believe that we should be assuming more responsibility in the fiscal management of the contract?

Mr. WALKER. I don't think you should be getting involved in that level of detail, Mr. Chairman. I think, my understanding as I understand the numbers that we have been dealing with and the AOC has been dealing with—at a minimum there's a \$5 million difference between what we say is going to be needed, and what they are estimating. We are saying \$522 million and they are saying \$517 million. So that would be a \$5 million difference between—

Senator COCHRAN. That's kind of a guess, too, I mean, we all realize those are guesses. You're using facts and understanding and knowledge and experience and judgment and everything else. But there's no way to be certain at this point. But our responsibility is to appropriate money on an annual basis, and so what I'm hoping to learn at this hearing, in addition to whatever else you think we need to know, is whether or not the fiscal year 2006 budget request is sufficient to meet the needs for the project. And if we appropriate that amount, it would be a positive contribution to the appropriate management of the contract. If we underfund it, we have got to expect problems. That's my question. Have we asked for enough money in this next fiscal year, in your opinion?

Mr. WALKER. And my answer is, Mr. Chairman, I think you should consider appropriating an additional \$5 million. Obviously if it turns out these risks and uncertainties manifest themselves, and if it turns out that the project does take longer than what the

AOC estimates, then you'd be getting into fiscal 2007, and there might be enough lead time to be able to consider that as part of the fiscal 2007 budget requests, or other supplemental actions at a later date.

Senator COCHRAN. Okay, thank you.

Senator ALLARD. Senator Durbin.

WORKER SAFETY

Senator DURBIN. Thank you, Mr. Chairman.

Mr. Hantman, several years ago when I first came to this subcommittee, we had a long discussion about worker safety, and my concern about the Architect of the Capitol's office, and the fact that the accident and injury rate among employees in your office was way above the average for Federal agencies, dramatically. And after some discussion we brought in outside consultants that have dramatically improved those numbers, and that's why I was really stunned to read the report from the GAO about safety at the CVC work site. This appears to be one of the most dangerous work sites in Washington, and I don't know why.

If I read this correctly, and I'm anxious to hear a response to it, the reports that you have been receiving, the progress reports have been giving inaccurate data about worker safety, including injuries, illnesses and lost time. The GAO analysis, and I read from the report, says that from 2003, the injury and illness rate was about 50 percent higher than comparable construction sites and the lost time rate, 160 percent higher. Additionally, both the numbers in the rates for injuries and illnesses, and for lost time worsened from 2003 to 2004.

It goes on to say that neither the Architect of the Capitol nor the construction management contractor, which I assume is Gilbane, had analyzed the results of these monthly safety audits to identify trends or concerns. The GAO prefaced this section by saying the number of construction workers is soon expected to increase significantly. Why would we even want to send people into this dangerous situation? What is being done about it, and how can an issue, which you and I had a very public flare-up over, be allowed to deteriorate to this point? Is this the most dangerous construction site in Washington? And if so, why aren't you embarrassed by it?

Mr. HANTMAN. Well, first of all may I please state that your interest, and our working together over the past years have, in fact, as you said, really improved the working conditions at the AOC. We are down to basically a better record than most of our blue collar sister organizations in security and safety, and almost approaching the level for white collar organizations right now. So I take very seriously what we have done these past years within the agency itself.

Now, in terms of monitoring the security and the safety of the workers on the site, this is a function that Gilbane Associates, our construction manager, has been tasked with, and may I ask Bob Hixon to talk that through.

Mr. HIXON. Gilbane, under their contract, is required to monitor the safety records. They have been doing that, we have a monthly safety audit by one of their safety professionals who comes through and has done this, both for Centex and Manhattan. They will

evaluate through their site inspection and they'll generate a report that tells us all of the issues that they have found with pictures, so that we've got it all documented what problems there are.

Currently, as a result of GAO's coming in and talking with us about safety for the last few months, we've had monthly meetings with both the Manhattan people—Centex is essentially off the site now—with Manhattan, and Gilbane and my field representatives. They've gone through all of these reports, Manhattan has responded to each item that's noted within the report that has been generated by Gilbane so that they've responded to each one. They have been very conscientious about safety; this is a change from what we had going on in 2003 and 2004 with the sequence 1 contractor.

SAFETY RECORDS

Senator DURBIN. Well, let me ask you, was inaccurate data given to the Architect of the Capitol about the number of injuries and illnesses and lost time?

Mr. HIXON. Yes, it was, there was inaccurate information provided by Centex to Gilbane, and they conveyed that information to us. There were some 16 accidents that were never reported, there was also a difference of opinion in how to account for lost time or light duty if someone was injured and came back and performed light duty. Effective in 2003, OSHA changed the requirements to require that that be reported as lost time as well; it was not being recorded that way.

Senator DURBIN. Is the GAO accurate in saying that the injuries and illnesses at the CVC site were 50 percent higher than comparable construction sites, and the lost time rate 160 percent higher and increasing from the year 2003 to 2004, is that accurate?

Mr. HIXON. That is accurate.

Senator DURBIN. And this did not come to the attention of either Gilbane or the Architect of the Capitol?

Mr. HIXON. We were not aware that the situation was as bad as it has been until recently when the Government Accountability Office went directly to the sequence 1 contractor to get their safety records. The data was differing from the data that had been transmitted to Gilbane.

Senator DURBIN. So who dropped the ball here, did Gilbane drop the ball? Or your office?

Mr. HIXON. I believe it's the sequence 1 contractor failed to report accurately the safety information to Gilbane, who was collecting the data from both Centex and Manhattan, and reporting it to us. I don't think there was an intention there, I think they had incomplete information.

Senator DURBIN. That dramatically? I mean, that big a difference?

Mr. HIXON. Well, there are two issues. One of them is the 16 or so accidents that the Gilbane people had never received an accident report for these individuals, they knew nothing about it. The other aspect of it is this lost time, the calculation of lost time where the calculation was done inaccurately.

INCREASED INSURANCE COSTS

Senator DURBIN. So, aside from the personal loss to the victim of the accident, has this added to the cost of the project, the fact that it's a dangerous work site?

Mr. HIXON. It would have probably added to the insurance cost of the construction contractor, it should not have added to the Government's cost for the project.

Senator DURBIN. So, when we talk about the increased costs of the Capitol Visitor Center, you're saying that those increased insurance costs were not passed on to be paid for by the taxpayers.

Mr. HIXON. The Manhattan Construction Company has had a good safety record, as has Gilbane, for that matter, and those insurance rates would be good, and so they wouldn't be excessive. The insurance rates under the sequence 1 contract, and particularly some of their subcontractors, when you look at the sheet, you can see that there were a lot of accidents by one particular subcontractor in the September/October period; their insurance rates, I expect, are very high.

Senator DURBIN. And we don't pay for their higher insurance? That's not an add-on cost?

Mr. HIXON. I suspect that their insurance cost is part of their overhead which is included in their bid pricing and that would price them out of the market compared to others.

CONTRACTOR SAFETY RECORDS

Senator DURBIN. So now we're going to have more construction workers on the scene. What have you put in place, or what will you put in place, to make sure that you receive accurate information and that Gilbane or the Architect's Office ask the hard questions of the contractors about their safety records?

Mr. HIXON. Currently every time there is an accident, I receive the accident report myself, it comes through to me to review. But monthly what we are doing, we have a meeting monthly with Manhattan, Gilbane and the AOC to review the safety inspection that was done by Gilbane safety professionals. They go through each item on that, and they are to go through each accident report to ensure that we identify what the cause is and eliminate that as a recurring problem, so it's a very active program now.

Senator DURBIN. The GAO thinks they've found a trend in these accidents, have you identified one?

Mr. HIXON. No, I have not.

The other—the trends that they have talked about is fall protection. I mean, there was one other one, but—fall protection was clearly an issue. One of the things they would like us to do, that we have not done in the past, is do some kind of a trend analysis based on the data; I think that's a good idea.

Senator DURBIN. Well, I think it sure is a good idea this far in the project to think about that. Mr. Walker, would you like to comment?

Mr. WALKER. Yes, Senator Durbin.

I think it's important to put things into perspective. I understand your concern and share your concern with regard to worker safety, and the optics of having a site that has a much higher incidence

of accidents and lost time than would be expected, and also your concern about the potential additional costs that could be incurred to the Government as a result of that as well.

I think it's fair to say that there's a shared responsibility for this between the contractor, between Gilbane and between the AOC, but I think it's also fair to say that this was a disproportionate problem for the sequence 1 contractor, Centex. Centex is basically gone now.

We have seen in the last several months, in 2005 the AOC paying much greater attention to this, as was mentioned by the fact that they are now having regular recurring meetings.

Manhattan has a much better safety record than Centex, and I would hope and expect that things would be getting better from this point forward. The facts are what they are, but I do think it's important for AOC to continue to try to act on some of the recommendations that we've made to minimize the possibility of having problems going forward.

But the most recent trend based on preliminary work that we have done in the first quarter of 2005 is a significant improvement over the past.

Senator DURBIN. Mr. Chairman, you've been kind enough to give me a little extra time here, and I just want to say that you have said we are going to be on top of this project and I'm glad we are doing this. And I hope that the regular reports relative to the schedule and the costs will include reports on worker safety. Maybe that will be an incentive for all of us to take this more seriously.

Thank you.

COST OVERRUNS

Senator ALLARD. I think that's a reasonable request and hopefully we'll be getting a report. In the last year, there's been about \$100 million override and there haven't been any scope changes. Most of what has been justified on cost overruns have been explained by scope changes. So, I would like to have a little better explanation of what has happened to cause that \$100 million growth in costs which wasn't anticipated in the last year when there wasn't any scope changes.

Mr. HIXON. I wanted to be able to find the sheet that I had here that talks about some of the increases that have occurred in the last year, what they were for. Much of that has to do with the delay cost associated with the sequence 1 contractor's late completion of his work as a consequence of the scope increases that we previously talked about and different site conditions. As a consequence of sequence 1 being late by 10½ months, the sequence 2 contractor, in lieu of starting in January 2004, actually commenced his work in November 2004, 10 months late. The costs associated with that delay, together with the extended period that the construction manager, AOC and the Architect will have to be on site is significant. That—together with several other issues, we have talked about the utility tunnel, there was a delay—while we looked at alternatives on the utility tunnel and there was a material escalation cost associated with that. There are some life safety issues associated with stair pressurization and damper monitoring on behalf of the fire marshal. There are some scope gaps that we have

identified as a consequence of what's going on with the various designs between sequence 1 and sequence 2, there are some elements that we left out, the exhibit prices came in higher than expected, the House and Senate expansion spaces came in higher than expected; all of those things together add up to the total of \$38.6 million that was the increase that we had in our cost-to-complete and that's between last year—that was done last year in October and reported in November.

Senator ALLARD. When you said higher than expected, are you referring to inflated costs—

Mr. HIXON. That's correct, sir. Yes. Some of these elements such as the House and Senate—

Senator ALLARD. I assume it's inflated costs of raw material?

Mr. HIXON. We have had both because we have got steel material, for example, which has jumped up dramatically in the last couple of years, but in addition to that, we've had an inflation rate in the construction area, the escalation in cost, that had typically been running about 3.5 percent, and the estimates for the cost were made at about 3.5 percent per year. In reality, they were more than twice that.

Senator ALLARD. Is that labor cost?

Mr. HIXON. That would be labor and material.

Engineering News Record is reporting it at just over 7 percent, I believe. So those things together with some of these other items, with coping with the delay costs associated with the late start, is what has caused the majority of the increase in costs here in the last year.

Senator ALLARD. Mr. Walker?

Mr. WALKER. Mr. Chairman, it's my understanding that the estimate 1 year ago was about \$454 million, and as I mentioned before, estimate without risks and uncertainties is \$517 million now. And it's my understanding that there are two primary reasons for those variances in the last year.

First, delay costs of about \$32 million, and second, design to budget gaps for the Senate and House expansion spaces, as well as the exhibits, of \$21 million, in other words, the idea that rather than cutting back to meet the budget, the decision was made to go ahead and continue to do things in accordance with the preliminary specifications, but it would cost \$21 million more in order to be able to meet those preliminary specifications.

PROJECT SCOPE CHANGES

Senator ALLARD. Thank you for that clarification. Now, Mr. Hantman, I understand that at the recent House Appropriations Committee hearing, it was suggested that some cost increases occurred because staff of the Capitol Preservation Commission were routinely requesting changes to the project scope. Is this true, and have there been any budget increases because of staff directives?

Mr. HANTMAN. Most of the discussions that we have on our standard Monday afternoon meetings are issues where we are trying to resolve things in terms of the type of work that we want to do. For instance, we bring in fabrics and stones and say, "This is what we are going to be doing," because when the Capitol Preservation Commission originally approved the concepts, it certainly

wasn't down to the level of actual finishes and quality of materials. So those are the kinds of things that we would generally be discussing. Operations issues, we had a couple of meetings where we talked about, for instance, open captioning in the orientation theater. This is something that goes beyond what code really calls for, what the ADA really calls for in terms of people who are hearing-impaired being able to be accommodated, so we had a series of discussions on whether or not we should be requesting—I think it was an additional \$85,000 for instance—for open captioning. So there was some very significant discussions on the part of the subcommittee to say that yes, this should be something that we put in our \$4.2 million below the line types of things. So talking about all those below the line issues and what they want to support, has certainly been elements that we have discussed. In fact they are in our request for this year, the \$36.9 million includes many of those issues. One of the discussions that we had at these meetings was the issue of seals, congressional seals that would be in the atria, the circular stairways of the House and Senate expansion space, and on the floor of the Great Hall. There's been no real agreement in terms of doing that or not doing that. So we are planning, potentially, to do that in the future, if in fact we are given that clearance to do so.

COST TO COMPLETE

Senator ALLARD. Now, I want to get down to the final question here, and I'll address this to Mr. Walker.

Last November you released your GAO report on an update of the assessment of the cost to complete the project, and when should the process of updating the current cost to complete take place, when would you suggest?

Mr. WALKER. We do believe that it's appropriate to do a new cost to complete, and it should be done subsequent to the AOC's current completion of its integrated scheduling efforts. We think once that's agreed, I'm sure you are going to want us to take a look at that and provide our comments back to the Congress, we think it's appropriate at that point in time to come up with another estimate.

Senator ALLARD. Mr. Hantman, when do you think you are going to have your schedule so that he can move ahead with his cost update?

Mr. HANTMAN. As Mr. Walker indicated, we had given a GAO top-level schedule overview, what we need to do is have his staff sit down with our staff, review in detail what we have in a lot more detail than what we showed you today, and see what level of comfort they have and what kind of questions they would want to raise. I would think that certainly by the next hearing we will have met and discussed that and GAO can develop their own thoughts.

Senator ALLARD. Can you give us some date at that point in time when it would be practical to go ahead with a cost-to-complete update?

Mr. HANTMAN. Yes.

Senator ALLARD. Okay. Mr. Chairman, do you have any more questions?

SECURITY CONCERNS

Senator COCHRAN. Mr. Chairman, I just have one other question and it's mainly to clarify one of the real purposes of this entire project.

There's been some considerable pressure from the House side in particular, most recently during our conference on the supplemental appropriations and we were meeting to discuss differences in the House and Senate-passed supplemental bills, for there to be more included in this project than has been designed now for working spaces for Members of Congress, committee meeting rooms, other offices, accommodating the needs for more space for congressional activities. And it occurred to me that there may be some who are not appreciating the fact that much of the space that's being occupied by this visitor center is for the purpose of moving the perimeter and the distance between the actual working spaces of the Capitol and the Congress out to a point where it's less likely that someone who intends to do harm to the Capitol or to the Congress could get close access to the Congress and during its working days, moving the perimeter out beyond where it is now so that a truck making a delivery, or visitors coming to see the Capitol are actually screened or inspected, as the case may be with a truck, at a far distant location, rather as now, or as previously in the past, right up against the Capitol. Or as someone is entering the Capitol, we have the screening devices inside the Capitol, as a matter of fact, for visitors.

And so if we filled up all the space between what is now the Capitol and what the perimeter is going to be with meeting rooms and activities and have the Congress working in a larger area, one of the purposes of having the new perimeter extended would be defeated. Is that something that is a factor in the decision to extend to far distant locations the opportunity to screen and to inspect those who are coming in or making deliveries to the Capitol? Mr. Hantman and then I'll ask Mr. Walker to respond as well.

Mr. HANTMAN. Mr. Chairman, you certainly have hit upon and reiterated one of the primary rationales for doing the visitor center in the first place. I think everybody recalls that the first increment of dollars, \$100 million was appropriated directly after the two police officers were murdered in July 1998. Within 4 months, we had essentially the start-up money to begin the re-design and to move ahead with the project. As for the rest of the money, the first increments of it came after 9/11, so security clearly is the driver on this project.

The perimeter security program that we're putting in place, that is in place right now, on Capitol Square, for instance, is really a vehicle interdiction type of program. We're out basically at streets, on First Street on the west side as well, and along the drives on the House and the Senate side as well, giving us hundreds of feet of stand-off from the building itself for any vehicle that would in fact want to come here. The idea of off-site inspection is making sure that vehicles are checked a greater distance away. That they have *x* amount of time to come to the building, and see that their tags are intact so nothing could have been added to it before they would even go into what is our new truck dock, three stories below

the visitors center. This is certainly part and parcel of that whole philosophy of making sure vehicular traffic is controlled.

As far as pedestrian traffic is concerned, the more people that come through the visitor center—several hundred feet away from the Capitol Building itself, as opposed to coming through the dozen entrances that we have on the north, the south, on the east front of the Capitol, the safer the building will be. And I think the police are certainly very sensitive to that. On an administrative philosophy, it's really going to be up to the House and Senate to determine who can still come through the north doors, the south doors. Clearly Members, senior staff, pre-screened visitors will be doing that. But the more people who come through the visitor center itself, 300 feet away from the Capitol building, before they enter the building, the safer the facility will be.

Senator COCHRAN. Mr. Walker?

Mr. WALKER. Senator Cochran you are correct to say that security is one of the primary reasons for creating the Capitol Visitor Center. I will also note there is another reason that I think we have to lock down what the requirements are because failure to lock down the requirements means that we have increased risk of scheduled delays and cost increases, so security is a primary factor, but there's also a need to lock this down to increase the likelihood that we could come in on time and within budget.

Senator COCHRAN. Thank you very much. Thank you, Mr. Chairman.

CONTRACTOR PENALTIES AND INCENTIVES

Senator ALLARD. Thank you, Mr. Chairman.

In the last hearing I mentioned the importance of trying to implement incentives as best we could. The sequence 1 contractor was 10 months late. Did he receive any late charges or any fines or assessments for his tardiness in that regard?

Mr. HIXON. The sequence 1 contractor submitted a request for a time extension, and documented that time extension for delays due to added scope and different site conditions. Those items were all reviewed for the contractor against the schedule and no, he did not get assessed any liquidated damages. The time was determined to be excusable and a major portion of it was compensable because it was under the contract, he was entitled to compensation for the delay.

Senator ALLARD. Now, let's go the other direction, did the sequence 1 contractor receive any incentives or award fees from the Architect of the Capitol?

Mr. HIXON. Yes, he did. He received award fees up until the end—there is a portion of the budget that he had—that still remains, he did not receive the full incentive fee that he could have. I think there's an amount, \$250,000 or something that was not given to him because of his performance.

Senator ALLARD. Okay, and maybe you could go on to some explanation of why he received those in greater detail?

Mr. HIXON. I can't at this time, I wasn't here for the first few award fees that were handed out. The last one that he did, we changed it to milestone dates. He received three out of five—he achieved three out of five milestones—two of those related to the

plaza, having his work done on the plaza so the sequence 2 contractor could be completed. He achieved those, and received his incentive for meeting his milestone dates. The other one was the service level, he achieved completion on that area on schedule, too.

This was done differently than the way the incentive fee was set up originally and differently from the way we are doing Manhattan's incentive fee. We actually set milestone dates and said if you achieve that milestone date, you will receive your compensation, if you don't, you will not.

CONTRACTOR VARIANCES

Senator ALLARD. So we are handling the sequence 2 contract differently than the sequence 1?

Mr. HIXON. We are doing sequence 2 the way the first part of sequence 1 was done, which has to do with quality management, time management, a whole lot of issues. And since I wasn't here during that period of time, I'm not sure what the conversation was. I can tell you that for sequence 2 schedule management, all of those things were evaluated. There are monitors in the construction manager's office that monitor every month, it's a very rigorous process. We have graded them in their first evaluation period which was from the beginning that they were awarded the contract, up at the end of February and determined that their performance is excellent but at the low end, so they received approximately 91 percent of the \$150,000 that was available in their first award fee. We feel they are doing a very good job.

Senator ALLARD. Mr. Walker.

Mr. WALKER. Mr. Chairman, it's my understanding that the sequence 1 contractor who was Centex did not incur any penalties and was paid incentive award fees of about \$820,000. There are clearly lessons to be learned here with regard to the future design of contracts to be able to provide more incentives in appropriate circumstances, but penalties as well. I might note that the safety issue was an issue that, in my view, was not given adequate consideration with regard to this factor. You have heard about some misreporting of safety factors. We need to move in Government to more performance-based contracts. We need to move in Government to provide more incentives to people that are doing the right thing, and penalties if they don't. I do think there are some lessons to be learned here but I do think things are going better with the sequence 2 contractor, as I've noted before.

CONSTRUCTION MANAGER

Senator ALLARD. Is it true that the longer the project lasts, the more money the contractor makes?

Mr. HIXON. Are you referring to the construction contractor or the construction managers?

Senator ALLARD. The latter.

Mr. HIXON. The construction manager?

Senator ALLARD. Yes.

Mr. HIXON. The construction manager if—he is paid for having a staff on site and he is paid for a given duration, and so that's correct. If, in fact, his staff would stay on site for an extended period, the way the contract is developed if we wanted him here, we'd

have to pay him to continue to stay on site during that period. We have included that in the budget request for fiscal year 2006.

Senator ALLARD. And are there incentives, then, for the managing contractor to move the project along?

Mr. HIXON. There are no incentive fees associated with the construction manager contract, that contract—it's a typical construction manager contract, a professional services contract, and it does not have incentive fees in it, nor does the Architect's.

Senator ALLARD. And typically a construction management contract doesn't have incentives fees?

Mr. HIXON. Typically they have not, to date. That's something that I think for the future would be a good idea. I think they ought to have incentive contracts in construction manager contracts. I think they ought to have them in A&E contracts as well, so that if they do perform and they collaborate well together, that they will derive a benefit, there is an incentive for them to do so.

MAJOR MILESTONES

Senator ALLARD. Thank you. Now, finally, to get us ready for the next hearing, what major milestones do you expect to complete in the next 4 weeks? Mr. Hantman or Mr. Hixon?

Mr. HIXON. The major milestones that we have going on schedulewise as far as work itself are, we should be seeing that the stone work is really going well in the Great Hall, that that work should be going on. But more importantly, from a project perspective, as we had the opportunity now because of the expansion space awards and the exhibit construction, to finalize those elements and refine even further the schedule and these other activities that need to be done in conjunction with the move in to the building. We have kind of turned the corner now, and we're kind of focused less on just trying to get the work underway, but more on looking at how we need to complete the work in order to be successful with such issues as the Capitol Police and their security requirements, things of that nature. Those are the kinds of issues that in the next 4 weeks we ought to have some closure on.

Mr. HANTMAN. But one of the things that Bob alluded to, Mr. Chairman, certainly is the stone work. The stone work is basically complete in the kitchen area at this point in time. They are starting to move out to the Great Hall. And that's really the critical path of the job with the volume of stone that we have, so monitoring that, making sure that those starts occur when those starts need to occur, and the number of crews that are important to keep that flowing is, in fact, coming in, so that's again the critical path of the project.

Senator ALLARD. I was hoping we could get a little more specific response to that question. Could you get a response to that question within the next 10 days, if that gives you enough time?

Mr. HANTMAN. Yes.

CLOSING REMARKS

Senator ALLARD. I don't have any other questions to follow up on, Mr. Chairman, do you have anything?

Senator COCHRAN. No, I don't.

Senator ALLARD. I want to thank you both for taking the time to keep us informed on how the project is going. I appreciate both of you. I think you're professional and we appreciate your hard work and dedication to the effort and taking time to come and share with us your views on how the project is going. And I would like to thank the chairman of the full committee, Senator Cochran, for his special interest with everything that's going on.

SUBCOMMITTEE RECESS

We will see you next month like I indicated. We want to make this a monthly event and help keep ourselves informed as to what is happening. I would like to meet again on June 14 and we'll have it scheduled the same time, same place if that works for you, Mr. Hantman.

Mr. HANTMAN. Yes, sir.

Senator ALLARD. Okay. And with that, the subcommittee stands in recess until that time.

[Whereupon at 11:45 a.m., Tuesday, May 17, the subcommittee was recessed to reconvene subject to the call of the Chair.]

PROGRESS OF CONSTRUCTION OF THE CAPITOL VISITOR CENTER

TUESDAY, JUNE 14, 2005

U.S. SENATE,
SUBCOMMITTEE ON THE LEGISLATIVE BRANCH,
COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:36 a.m., in room SD-138, Dirksen Senate Office Building, Hon. Wayne Allard (chairman) presiding.
Present: Senators Allard and Durbin.

STATEMENT OF ALAN M. HANTMAN, FAIA, ARCHITECT OF THE CAPITOL

ACCOMPANIED BY BOB HIXON, PROJECT MANAGER, CAPITOL VISITOR CENTER, ARCHITECT OF THE CAPITOL

OPENING STATEMENT OF SENATOR WAYNE ALLARD

Senator ALLARD. The subcommittee will come to order. We meet today to take testimony on the progress of the Capitol Visitor Center (CVC). We will hear from the Architect of the Capitol Alan Hantman, CVC Project Manager Bob Hixon, and Bernard Ungar and Terrell Dorn of the Government Accountability Office (GAO).

This is our second hearing on the progress of the CVC and I intend to continue holding monthly hearings. Our third hearing will be the same time and place, 1 month from today, July 14.

In the last hearing the Architect reported that it had just received a fully integrated schedule from its construction management contractor. Mr. Hantman, you indicated you stood firmly behind the September 15, 2006, completion date for construction. Specifically, you said: "We believe the whole visitor experience with all the areas that are under contract as of now will be ready for them in September."

In the last month, the contract for the exhibition galleries has been awarded and progress has been made in a number of areas. But there have been problems, too, including work in the utility tunnel, which is 5 months behind. Moreover, there continues to be a need for schedule management to be given top, ongoing priority attention, and AOC needs to develop a risk mitigation plan.

We look forward to a robust discussion today, and particularly look forward to recommendations from our witnesses on the fiscal year 2006 budget as we will take up the 2006 legislative branch bill in committee next week.

I am heartened by the response that we have had since our last hearing to many of the areas and I appreciate the diligence and ef-

fort in that regard. So I do not want the fact that we are making headway to be overshadowed by some of the questions that we may focus on today. But we are trying to make sure that we can keep things moving forward according to schedule and holding down our costs as much as possible.

So why do we not go ahead now and I will recognize you, Mr. Hantman, to proceed.

OPENING STATEMENT OF THE ARCHITECT

Mr. HANTMAN. Thank you, Mr. Chairman. Good morning. I am pleased to be here to discuss the progress we have made on the CVC since our last May 17 hearing.

Since I last testified, we have accomplished a number of tasks. Before I get into the details, though, I'd like to update you on the safety issues that were discussed at our last meeting. Recently the Occupational Safety and Health Administration, OSHA, made an unannounced comprehensive inspection of our work site. That was on May 24. They were satisfied with the work Manhattan was doing, its emphasis on worker safety, and they identified no significant issues to address. No citations were issued.

Mr. Chairman, my office is dedicated to providing a safe, healthy, and secure environment for all who work in the Capitol complex and millions of visitors who come there every year, and the CVC work site is no exception. Additional steps have been made to assure that this is in fact the case.

INTERIOR CONSTRUCTION PROGRESS

Mr. Chairman, with the recent implementation of the fully integrated schedule that you mentioned we have been closely monitoring the activities of our contractors. Since our last meeting, much progress has been made inside the visitor center. Contractors continue to install mechanical, electrical, and plumbing systems, erect masonry block work, place concrete, and install finished stone work. In fact, stone installation in the food service area has been completed ahead of schedule.

This is a recent photograph, Mr. Chairman, that shows all of the stone work that we have in. This is one of the areas on the House side where secure dining could be had. There will be doors in this opening. You can see that in areas where the block work is we have the base in, and all of this base will have plaster going on in top of that.

Block work in the congressional auditorium is almost complete and soon stone installation will begin in this area. You can see that there's a lot of block work, Mr. Chairman. When we walked through it last time there was nothing up over here. These are the emergency egress corridors, up above the areas that will allow people to come safely from the front of the auditorium out to the side ramp area. You can see that the block work is proceeding apace over here.

In addition, crews have completed all concrete placements in the exhibit gallery. The stone installation on the walls and columns inside the great hall is progressing very well. The schedule for some wall stone installation activities are being slightly revised to accommodate design or construction issues as they're encountered so

that the contractor can complete the wall stone installation in the great hall in August as planned.

This is the rendering that we had showed you last time, Mr. Chairman, and this was the photograph looking through one of the skylights at the dome. The next two boards show you the actual progress that we have been making since then.

This is down on the House side. You can see the stone work being installed over here and on the orientation side of the wall as well.

The next rendering, the next photograph, shows the area down on the Senate side. Again, all the block work is basically in. This is the area, Mr. Chairman, where the information booth will be on the Senate side, right under the skylight.

What happens with some of this work, Mr. Chairman, is if there is a field condition that is found that is difficult to work on, sometimes the workers will have to work that out and at the same time they will go to another section of the great hall or other areas to continue laying stone. That is the policy that we have been following and Manhattan certainly has the flexibility to do that.

EXTERIOR CONSTRUCTION PROGRESS

Above ground, exterior stone work is nearing completion along the pedestrian ramp located on the north side of the CVC entrance zone. If we see over here, this is what we showed you last time, Mr. Chairman. Here is the rendering of what the entrance area and the screening area will look like, with that wall along the right. You can see this worker was installing the stone on that rampway over here, and the photograph beneath this shows that we have very good progress. Most of the stone work is installed on the Senate side ramp coming on down. You can see a lot of the stone in the foreground over here.

We are trying to select the stone so that we can make sure that it blends as much as possible. There is a whole range of stone that is allowable in the contract and we want to make sure that there are no jarring contrasts over there. So that is proceeding very well.

On the eastern half of the front plaza, workers are continuing to install granite pavers. All air-handling units are now on site and installation will continue throughout the month at the basement level.

With regard to the East Capitol Street utility tunnel that you mentioned in your opening comments, we have experienced delays due to unforeseen site conditions while relocating water lines on First and Second Street to permit the utility tunnel installation. At this time the First Street work is completed. The D.C. Water and Sewer Authority, WASA, has shut down the water in one of the Second Street water lines so that the contractor can cut and cap an existing 30-inch water line. The contractor will then install a large concrete thrust block and that concrete must cure and harden so that work at Second Street can continue.

This, Mr. Chairman, is a major milestone that is necessary to complete work in this area. The impact of this added work is a delay in utility tunnel construction of a number of weeks and the requirement for temporary dehumidification in the CVC so finish

work can continue as scheduled. This is something that we now have to do.

This photograph shows the work in East Capitol Street. This entire area pretty much will be covered up very shortly, where we have the precast concrete elements. The biggest holdup is in Second Street right now with that 30-inch water line.

COMPLETION SCHEDULE

Mr. Chairman, we also spoke last month about award of the contract to construct the exhibition gallery space, a key component of the visitor experience in the CVC. I am pleased to report that we have incorporated the exhibition gallery construction schedule into the master schedule and are working to ensure completion of the space in September 2006 to coincide with the completion of the visitor facilities.

Here we see the rendering of what the Senate virtual theater will look like when it is completed, and here you can see the block work is up, ready to receive finishes now in that very area. So as we go through the whole visitor center, Mr. Chairman, you can see that the block work is really defining spaces, allowing us to begin the finished stone work and the plaster work in many areas.

We also discussed the award of the House and Senate expansion space. That work has also been incorporated into the master schedule, which reflects a completion date of spring 2007 for that separate part of the work.

Mr. Chairman, I thank you for this opportunity to again report to the subcommittee on the status of the project and I think that these monthly meetings are very helpful and look forward to continuing them, and I am happy to answer any questions you might have at this time.

Senator ALLARD. Thank you.

[The statement follows:]

PREPARED STATEMENT OF ALAN M. HANTMAN, FAIA

Mr. Chairman, Senator Durbin, members of the Committee, I am pleased to be here today to discuss the progress made on the Capitol Visitor Center project since our May 17 hearing.

Since I last testified, we have accomplished a number of important tasks. Before I get into the details, I would like to update you on the safety issues that were discussed at our last meeting. Recently the Occupational Safety and Health Administration (OSHA) made an unannounced inspection of our worksite. They were satisfied with the work Manhattan was doing, its emphasis on workers' safety, and they identified no significant issues to address.

Mr. Chairman, as you know, my office is dedicated to providing a safe, healthy, and secure environment for all who work in the Capitol complex and millions of people who visit every year—the CVC worksite is no exception.

With the recent implementation of the fully-integrated schedule, we have been closely monitoring the activities of our contractors. Since our last meeting, much progress has been made inside the Visitor Center. Contractors continue to install mechanical, electrical, and plumbing systems, erect masonry block work, place concrete, and install finish stone. Stone installation in the food service area has been completed ahead of schedule. Block work in the Congressional Auditorium is almost complete and soon stone installation will begin in this area. In addition, crews have completed all concrete placements in the Exhibit Gallery.

The stone installation on the walls and columns inside the Great Hall is progressing well. The schedule for some wall stone installation activities are being slightly revised to accommodate design or construction issues as they are encountered so that the contractor can complete the wall stone installation in the Great Hall in August as planned.

Above ground, exterior wall stonework is nearing completion along the pedestrian ramp located on the north side of the CVC entrance zone. On the eastern half of the East Front Plaza, workers continue to install granite pavers. All air handling units are now on-site and installation will continue throughout the month at the basement level.

With regard to the East Capitol Street Utility Tunnel, we have experienced delays due to unforeseen site conditions while relocating waterlines on First and Second Streets to permit the utility tunnel installation. At this time, the First Street work is complete. The D.C. Water and Sewer Authority (WASA) has shut down the water in one of the Second Street waterlines so that the contractor can cut and cap an existing 30-inch waterline. The contractor will then install a large concrete thrust block and that concrete must cure and harden so that work at Second Street can continue. This is a major milestone that is necessary to complete work in this area. The impact of this added work is a delay in utility tunnel construction of a number of weeks, and the requirement for temporary dehumidification in the CVC so finish work can continue as scheduled (i.e. plaster, millwork, drywall).

We also spoke last month, Mr. Chairman, about award of the contract to construct the Exhibition Gallery space, a key component of the visitor experience in the CVC. I am pleased to report that we have incorporated the Exhibition Gallery construction schedule in the Master Schedule and are working to ensure completion of this space in September 2006 to coincide with the completion of the visitor facilities.

We also discussed the award of the House and Senate expansion space. That work has also been incorporated into the Master Schedule which reflects a completion date of Spring 2007 for that separate part of the work.

Thank you, Mr. Chairman, for this opportunity to again report to you and the Committee on the status of the CVC project. I am happy to answer any questions you may have at this time.

**STATEMENT OF BERNARD L. UNGAR, DIRECTOR, PHYSICAL INFRA-
STRUCTURE, GOVERNMENT ACCOUNTABILITY OFFICE**

**ACCOMPANIED BY TERRELL DORN, ASSISTANT DIRECTOR, PHYSICAL
INFRASTRUCTURE, GOVERNMENT ACCOUNTABILITY OFFICE**

Senator ALLARD. First of all, we would like to hear from Mr. Ungar with the Government Accountability Office. We look forward to your testimony, Mr. Ungar.

Mr. UNGAR. Mr. Chairman, Mr. Dorn and I appreciate the opportunity to be here this morning to assist the subcommittee in its oversight activities of the Capitol Visitor Center. Mr. Dorn and I are accompanied this morning by several of our team members: Shirley Abel, Brad James, Maria Edelstein, John Craig, and Kris Trueblood, who will hopefully help bail us out when the tough questions come, and we know they will come.

Our written statement addresses two issues, schedule and cost. We would like to focus our summary this morning on schedule, talk just a short bit about cost. We think schedule is the most significant issue facing the project, and there are four areas that deal with the schedule that we think require priority attention now and will require priority attention for the remainder of the project.

SCHEDULE MANAGEMENT

The first is the need to have a good realistic schedule that conforms to good scheduling practice. This has been a longstanding problem with the project. It has not had a good schedule for a period of time. Last week, as we had recommended, AOC and its contractors had provided an updated schedule that they believe addresses many of the concerns that we had previously raised. The schedule has over 4,000 activities, so we have not had a chance to review it and evaluate it in depth.

Our superficial look, though, does indicate that it does have a number of improvements. There are a number of concerns that we have. We intend to more fully evaluate this schedule in time for the subcommittee's next oversight hearing in July. Also, during the summer we plan to update the risk assessment of the schedule that we had completed last year.

In terms of the schedule and how realistic it is, we continue to believe at this point that the project is more likely to be substantially completed in the December 2006 to March 2007 timeframe as opposed to the September 2006 schedule that currently exists. One of the indicators of that is the extent to which AOC and its contractors meet project milestones and, as we reported in our written statement, for the milestones that were set between these two hearings AOC and its contractors met 3 of the 11 milestones for that period of time.

On the one hand, AOC rightfully says that there's plenty of time between now and next year for it to make up the time. On the other hand, it's not a good indicator at this point. If we were responsible for the project, we would not necessarily be able to sleep well at night given that indicator. Time will tell how well time is recovered and it certainly is possible, but it's certainly something to be watched in the future.

Second and perhaps the single most important issue with respect to the schedule is the need to have an aggressive, effective schedule management program. This too has been a longstanding problem from our perspective. We don't believe AOC or its construction management contractor has effectively and aggressively managed the project for the previous period. However, last week AOC and its major contractors unveiled a new approach to schedule management and schedule monitoring that they believe addresses many of the concerns that we have raised in the past. It does appear as though this new process, if it is effectively implemented on a sustained basis, will indeed address many of the concerns that we had.

We still have some question about the extent to which this new process will sufficiently address the issue of the handling of delays, but we intend to monitor that very closely during the upcoming months.

Another very important factor with respect to schedule management is the commitment of skilled resources to that effort, and we were very heartened to learn that effective yesterday Gilbane, the construction management contractor, assigned an individual—who had been temporarily assigned to the project—on a full-time basis to be responsible for helping to manage and oversee the schedule. We think that is a very positive development.

The third problem area that we identified with respect to schedule has to do with risk management, risk planning and mitigation. About 2 years ago, recognizing a number of risks that existed with the project, we had recommended AOC begin to develop a risk mitigation plan. AOC agreed with the recommendation. However, it has not yet implemented that recommendation.

The project executive has agreed to promptly begin to tackle this area and we think that is very important because of the types of risks and the severity of the problems that have occurred in the past and that could occur in the future.

Finally, with respect to schedule, an item that the subcommittee raised in the April hearing on AOC's fiscal year 2006 budget is an important item. That has to do with the need for a schedule that integrates both construction work and operation activities that need to be carried out to open the CVC to the public. To date there is not such a schedule.

AOC has not been able to work on that, largely because up until last week it did not have the funding necessary to reengage a contractor that had been supporting AOC in the operational planning. Now that AOC has that money, which it received last week, the Architect has agreed to reengage the contractor and to work toward putting together a plan that would integrate both operations and construction. So we're very pleased about that.

PROJECT COST

Concerning the cost to complete the project, we continue to believe that it will cost more to complete the project than AOC has received to date and that it has requested. At this point in time we believe the additional cost could be as much as \$37 million. Exactly how much of that would be needed at what point in time it is not clear.

Senator ALLARD. That is \$37 million additional to what we talked about as of the last hearing?

Mr. UNGAR. That is correct, sir. AOC has asked for \$36.9 million for 2006 and the \$37 million is over on top of that.

We do believe AOC may need some additional funds in 2005 because of the pace at which it is receiving sequence 2 change orders and some of the problems that are coming up. That remains to be seen. AOC does have available to it part of \$10.6 million that was made available last year from the Capitol operations and maintenance budget. We have urged AOC to consider asking for some of that money sooner rather than later to make sure that it has sufficient funds between now and the end of fiscal year 2005 and given that it's not exactly clear when the 2006 funds will be available to it.

Mr. Chairman, that concludes our summary. We would be happy to answer questions.

[The statement follows:]

PREPARED STATEMENT OF BERNARD L. UNGAR

Mr. Chairman and Members of the Subcommittee: We are pleased to be here today to discuss GAO's ongoing work on the progress of 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 May 17 hearing on the project.¹ We will also discuss the project's costs and funding, including the potential impact of schedule-related issues on the project's costs. 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 CVC project staff, including AOC, its construction management contractor, and representatives of an AOC schedule consultant,

¹ GAO, *Capitol Visitor Center, Priority Attention Needed to Manage Schedules and Contracts*, GAO-05-714T (Washington, D.C.: May 17, 2005).

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's sequence 2 contractor, Manhattan Construction Company, has met 3 of 11 significant milestones scheduled for completion by today's hearing. The sequence 2 contractor missed the other 8 milestones for several reasons, such as unforeseen site conditions and a design problem. AOC does not expect these delays to affect the CVC project's scheduled September 2006 completion date because AOC believes that the contractor can recover the lost time. Furthermore, certain utility tunnel work is scheduled for completion about 5 months later than previously reported, but AOC does not expect this delay to postpone the project's completion date because AOC plans to use temporary equipment that will allow the project to move forward but will also increase its costs. However, largely because of past problems and risks and uncertainties that face the project, 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, as shown in AOC's schedule. AOC and its construction management contractor have continued their efforts to address two of the areas we identified during the Subcommittee's May 17 CVC hearing as requiring priority attention—having a realistic, acceptable schedule and aggressively monitoring and managing adherence to the schedule. But AOC has not yet developed risk mitigation plans or, as the Subcommittee requested, prepared a master schedule that integrates the major steps needed to complete construction with the steps needed to prepare for operations. Until recently, AOC did not have funding to continue contractual support it had been receiving to help plan and prepare for CVC operations. We continue to believe that these areas require AOC's priority attention and that the project's estimated cost at completion will be between \$522 million and \$559 million, and that, as we indicated during the May 17 hearing, AOC will likely need as much as \$37 million more than it has requested to cover risks and uncertainties to complete the project. We believe that most of these additional funds will be needed in fiscal years 2006 and 2007, although exactly how much will be needed at any one time is not clear. We are recommending that this fall AOC update its estimate of the cost to complete the project.

Schedule Milestones and Management

AOC and its major construction contractors have made progress since the Subcommittee's May 17 hearing. As of May 31, the construction management contractor reported that the CVC project's construction was about 65 percent complete. 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 that continue to appear in perimeter walls. According to the construction management contractor, as of May 31, the sequence 1 contractor had completed almost all of the items on the punch list. AOC expects the sequence 1 contractor to be completely done with this list and off site by June 30, although the contractor may have to return later to address some issues. Furthermore, the sequence 2 contractor, which is responsible for the mechanical, electrical, plumbing, and finishing work, continued to make progress in these areas, including erecting masonry block, placing concrete, and installing finish stone, sheetrock and plaster, and granite pavers. The sequence 2 contractor also continued work on the utility tunnel.

As the Subcommittee requested, we worked with AOC on the selection of several 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. These milestones are shown in appendix I 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 AOC's sequence 2 contractor completed 3 of the 11 activities listed in appendix 1 as scheduled for completion by today. The 11 activities include certain stone work in the Great Hall, a portion of the masonry wall in the auditorium, and certain utility tunnel work. According to AOC, the delays in 8 of these activities were caused by a number of factors, such as unforeseen site conditions, a design problem, and delays in completing certain masonry work that had to be completed before other work could be done. AOC does not expect these delays to postpone the

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 the time estimated to complete the tasks changes. Currently, AOC's schedule shows CVC's critical path running through wall stone and East Front stonework, and also shows other work elements, such as utility tunnel and millwork, as near critical (i.e. having little slack time).

project's scheduled September 2006 completion date because it believes that the sequence 2 contractor can recover the lost time.

Since the May 17 hearing, AOC learned that the utility tunnel, which was expected to be operational in October 2005, is not now likely to be operational until March 2006. According to AOC, this date slipped because of unforeseen site conditions and the need to do certain work earlier than originally anticipated. The sequence 2 contractor has indicated that the impact of this delay on the project's scheduled September 2006 completion date will be mitigated by the use of temporary dehumidification equipment. However, this mitigation approach will result in additional costs, as explained later in this statement. Also since the May 17 hearing, AOC's contractors have updated the project's master schedule, and the new schedule shows seven paths that are critical or are within 15 days of being critical. For example, the updated schedule shows millwork and finishing the auditorium to be within 10 days and 15 days, respectively, of being critical. Having so many critical or near-critical paths complicates schedule management and increases the risk of problems that could lead AOC to miss its scheduled completion date.

In our May 17 statement, we provided 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. We 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, it still needed, in our view, to give priority attention to them to keep the project on track and as close to budget as possible. A brief discussion follows of the issues that need AOC's priority attention and the current 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 unlikely to be met. In addition, the master project schedule (prepared by AOC's construction management contractor) that AOC was using in May 2005 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. On June 10, the construction management contractor told us that it had reassessed the reasonableness of the activity durations and found that they reasonably reflected the time required to perform the activities. Last week, AOC provided us with a revised master schedule that the construction management contractor said (1) reflected significant improvement in the linkage of interrelated tasks and (2) provided sufficient information to manage the project's resources. AOC said that it planned to approve and accept this schedule subject to several conditions. Although our initial review of this revised schedule indicates that a number of improvements have been made, we have not yet had time to fully evaluate it. We will have a more complete assessment for the Subcommittee by its next CVC oversight hearing. Furthermore, as we said during the May 17 hearing, we continue to believe that AOC's scheduled September 2006 completion date is optimistic and that the project is more likely to be done in the December 2006 to March 2007 time frame, largely because of past problems, the risks to the schedule identified during our assessment of it in early 2004, and future risks and uncertainties facing the project. We plan to update our risk assessment for AOC's revised schedule and have our update completed in September 2005. Our update will include a review of activity durations.

Aggressive 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. AOC and the construction management contractor have been working with the schedule consultant to develop a new, systematic process for tracking, analyzing, and documenting schedule progress and delays, addressing schedule issues, approving proposed schedule changes, and reporting on the schedule's status. On June 7, AOC, the construction management contractor, the sequence 2 contractor, and the schedule consultant conducted the first monthly schedule status review session using the newly developed approach. If effectively implemented and sustained, we believe that this new approach should generally resolve the schedule management concerns we previously raised, although it is not yet clear how delays will be handled on an ongoing basis. We believe that the successful implementation of this new approach, including the effective handling of delays, de-

pends heavily on the CVC project team's continuous commitment of sufficient skilled resources to schedule management. On June 9, the construction management contractor told us that a project control engineer who had been assigned temporarily to help manage the project's schedule would be working full time on the project starting June 13. 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.—In the course of 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 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. Although we have recommended that AOC develop and implement risk mitigation plans for these types of risks and uncertainties, AOC has not yet done so. AOC has agreed, however, to begin to do this shortly, and, according to AOC's CVC project executive, is exploring possible approaches.

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 hiring and training staff, procuring supplies and services, and developing policies and procedures, need to be planned and carried out on a timely basis 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 testimony, it has not yet developed a schedule that integrates the construction activities with those activities 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 of a lack of funds, AOC had not been able to extend the work of a contractor that had been helping it plan and prepare for operations. Last week, AOC received the funding needed to re-engage this contractor, and AOC said that it would be working with the contractor to continue planning and preparing for CVC operations.

Project Costs and Funding

As we said during the Subcommittee's May 17 hearing, 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 June 10, 2005, about \$483.7 million had been provided for CVC construction. 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. 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 the additional \$37 million (\$559 million minus \$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 and skilled stone workers, unforeseen conditions, scope gaps, further delays, possible additional requirements or time for life safety or security changes and commissioning, unknown operator requirements, and contractor coordination issues. These types of problems have been occurring, and as of June 1, 2005, AOC had received proposed sequence 2 change orders with costs estimated to exceed the funding available in fiscal year 2005 for sequence 2 changes by about \$400,000.³ AOC plans to help cover this potential shortfall by requesting approval from the House and Senate Committees on Appropriations to reprogram funds from other project elements that it does not believe will be needed for those

³In 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 estimated costs for proposed changes it had received.

elements. AOC can also request approval from these Committees to use part of \$10.6 million that Congress approved for transfer to the CVC project from funds appropriated for Capitol Buildings operations and maintenance.⁴

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 proposed change orders for sequence 2, the problems it is encountering and likely to encounter in finishing the project, and the uncertainties associated with how much AOC may have to pay for sequence 2 delays as well as when AOC will have fiscal year 2006 funds available to it. For example, AOC is likely to incur additional costs for dehumidification if the expected delay in the utility tunnel cannot be mitigated or AOC has to obtain temporary equipment to provide steam and chilled water to CVC. AOC may be able to meet this need as well as the other already identified needs by additional reprogramming of funds and by obtaining approval to use some of the previously discussed \$10.6 million.⁵ 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 remaining \$37 million we have suggested be allowed for risks and uncertainties, we believe AOC is likely to need more funds in fiscal years 2006 and 2007 than it has already received and has requested to complete the construction of CVC's currently approved scope, although the exact amount and timing are not clear at this time. Effective implementation of our recommendations, including risk mitigation, could reduce AOC's funding needs.

Recommendation for Executive Action

Given the development of a new project schedule, the pace at which sequence 2 change orders are being proposed, and the risks and uncertainties that continue to face the project, we recommend that, in the September to November 2005 time frame, the Architect of the Capitol update the estimated cost to complete the project. We believe that such information will be useful to Congress as it considers AOC's budget request for fiscal year 2007 as well as any other requests AOC may make for CVC funding. We expect to have our risk assessment of AOC's new project schedule done in September and believe that the information developed during this assessment will be important in estimating future costs. In addition, we believe that AOC will have more information on the possible costs of sequence 2 delays by that time. AOC has agreed to do this update.

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

APPENDIX I.—CAPITOL VISITOR CENTER CRITICAL CONSTRUCTION MILESTONES, MAY 2005-JULY 2005

Activity	Location	Scheduled completion	Actual completion
Wall Stone Area 1	Great Hall ^{1 2}	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 ¹	5/20/05	5/20/05
Wall Stone Layout Area 4	Great Hall	5/20/05	6/06/05
Saw Cut Road at 2nd Street	Utility Tunnel ¹	5/24/05	.....
Wall Stone Area 4 Base Support	Great Hall ¹	5/27/05	.....
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 ¹	6/06/05	6/09/05
Wall Stone Layout Area 6	Great Hall	6/06/05	.....
Drill/Set Soldier Piles at 2nd Street	Utility Tunnel ¹	6/08/05	.....
Wall Stone Area 6 Base Support	Great Hall ¹	6/13/05	.....
Scheduled for completion between 6/15/05 and 7/31/05:			
Wall Stone Layout Area 8	Great Hall	6/20/05	.....

⁴Public 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. In March 2005, AOC requested that about \$4 million of these funds be transferred to CVC, including some funds for construction-related work, such as design of the gift shop space. As of June 10, AOC had received approval to use about \$2.8 million of this \$10.6 million. None of the \$10.6 million was included in the \$483.7 million above.

⁵AOC plans 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 by requesting approval to reprogram about \$1.6 million from sequence 1 construction and the East Front Interface to these project elements.

APPENDIX I.—CAPITOL VISITOR CENTER CRITICAL CONSTRUCTION MILESTONES, MAY 2005-JULY 2005—Continued

Activity	Location	Scheduled completion	Actual completion
Masonry Wall	Orientation Theater	6/24/05	.....
Wall Stone Layout Area 9	Great Hall	6/24/05	.....
Wall Stone Area 9 Base Support	Great Hall ¹	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 ¹	7/15/05	.....
Excavate/shore Station 0-1	Utility Tunnel ¹	7/21/05	.....
Concrete Working Slab 2nd Street	Utility Tunnel ¹	7/26/05	.....
Waterproof Working Slab Station 0-1	Utility Tunnel ¹	7/29/05	.....

¹ These activities are critical.

² This activity was scheduled for completion by the Subcommittee's May 17 hearing but was not done as of that date.

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 June 9, and AOC did not expect that the wall stone area 6 base-support work in the Great Hall would be done by June 13; it is now expected to be done after June 14.

MILESTONE COMPLETION

Senator ALLARD. I want to thank both of you for your testimony.

We have two other individuals at the table. Mr. Dorn is here with the GAO, and Mr. Hixon is the CVC Project Executive with the Architect of the Capitol.

First question I will direct to Mr. Hantman. GAO's testimony indicates only 3 of 11 significant milestones scheduled for completion at this time by the sequence 2 contractor have actually been completed. Did this occur because of more diligence on the part of the contractor or because the schedule was just entirely too optimistic?

Mr. HANTMAN. Bob.

Mr. HIXON. Sir, I will be happy to answer that question. We have been working with the Government Accountability Office to identify items on the critical path. The critical path has changed somewhat between the April and the May date, which created some difficulty in trying to make sure we had items we could compare both in April and May.

You do note that some items have been delayed. The ones related to the utility tunnel, we have a real issue there that we have been trying to work through that has delayed us for a number of weeks. For the wall stone issues in the great hall, the dates have slipped 2 to 3 weeks on some of those activities, and those are items that we are working on. We continue to look for ways to recover that. We expect that we will recover all of those and that will not be a problem.

Of note, in the food service area there was concern that we were running behind in the food service area with stone installation, and in fact we were able to complete that area ahead of schedule. So the expectation is, provided we receive the stone in the quantities we need it, the installation will be able to move forward and will be able to be done in August, which is our date to be done for stone installation in the great hall.

Senator ALLARD. So this has to do more with just a diligence issue and forcing things to move along as opposed to scheduling miscalculations?

Mr. HIXON. The schedule is the contractor's. When he lays out his schedule that is his plan and his plan is changing periodically. We will find design issues that need to be resolved, which will cause them to stop installing stone in one area and move to another area. So they have some work that has progressed ahead of schedule in other areas, but in these areas here they are in fact 2 to 3 weeks behind in completing that. But we expect to be able to complete all of the work in the area on schedule.

SCHEDULE DELAYS

Senator ALLARD. The overall schedule, though, has slipped; is that correct?

Mr. HIXON. The overall schedule, the September 15 completion date, if you look at the pure schedule, we had a 1-day slippage and we are looking to recover that 1 day.

Senator ALLARD. Okay. What I understand is that we have had some dates that have been on the critical path that have been missed and the critical path as I understand it is that path where there is no leeway for error. In other words, you are down to the last minute practically on your schedule. You do not have any flexibility. If something unexpected happens, you begin to fall behind.

Mr. HIXON. That is correct, sir.

Senator ALLARD. My understanding is that you have missed some of the dates on that critical path. Despite that, though, you are still confident that we will finish on time, which would be September 15, 2006?

Mr. HIXON. Yes, sir. The critical path indicates those items that must be done on time. If you miss a date we have to do something in the schedule, I mean with the work that is accomplished in that schedule, either complete work within a shorter duration than is reflected or resequence activities. That is part of the issue between the April and the May date. There is some resequencing of work so that the contractor is making the necessary adjustments in order to be able to complete the project on time.

COMPLETION DATE

Senator ALLARD. It seems to me that the difference that we are getting in testimony for the date of completion between the GAO and the Architect's Office is how you look at this critical path and the margin that you may have there and the likelihood of whether something will happen that will get you off your critical path. Am I correct in that?

Mr. HANTMAN. I think that is a part of the story, Mr. Chairman. I think clearly what GAO is also recognizing over here is there are still potential unknowns on the project. Things that just happened with the thrust block for instance on East Capitol Street is something we certainly had not projected. There will be a time and a cost implication of something that WASA is now telling us to work on, that we had never projected before.

I think in that sense—and please, Bernie, correct me if necessary—I think they are looking forward and saying there is going to be more of those things coming forward, which we cannot count in our schedule at this point in time.

But I think it is important to note, Mr. Chairman, that the September date that we are talking about was not artificially created and that we are not trying to cram everything in to meet that. Ninety-five percent of the schedules for the subcontractors were created by the subcontractors, taken by Manhattan and incorporated into this schedule showing that we can meet that.

Now, clearly there are a lot of constraints, a lot of risks still going on, things that we are not aware of right now. The weather may impact us, other things. But right now, the way those pieces of the schedule are coming together, it still indicates that that September date is still possible.

Senator ALLARD. Very good. I thank you for that clarification.

SCHEDULE RISKS ASSESSMENT

Mr. Ungar, did you want to comment on that question?

Mr. UNGAR. Yes, Mr. Chairman, we would. One of the other issues aside from the risks and uncertainties that we have raised in the past is how realistic the schedule is in itself. We have through our previous work found that a number of the durations for some of the key tasks were optimistic based on the information provided by the project personnel themselves.

We identified about 12 to 15 tasks that were particularly at risk, such as the stone work and the fire system inspection and so forth, that were likely to take longer than the schedule had shown. We had recommended a while back that AOC reassess these activities to determine whether or not the durations were realistic.

Last week Gilbane informed us that its superintendents had done a general evaluation of that and found the durations to generally be reasonable, but it had not yet done a detailed evaluation of key activities. That is the latter, the detailed evaluation, is the type of evaluation that we believe is really necessary to make a good judgment and a good determination on that. We are looking forward to that.

As I mentioned, we also plan to update our risk assessment of the schedule during the summer.

SCHEDULE DURATION REASSESSMENT

Senator ALLARD. The question, back to you, Mr. Hantman then, can you commit to providing a complete reassessment of the schedule durations by the next hearing, following up on Mr. Ungar's comments?

Mr. HIXON. We are doing a reassessment as we go along. But certainly we should be completed with that activity before the next hearing, yes, sir.

TUNNEL UTILITIES

Senator ALLARD. Good, okay. Well then, we will make that part of our next hearing schedule.

There have been problems with the utility tunnel, as was pointed out in your testimony, Mr. Hantman.

Your view is that this is going to have little if any impact on our schedule?

Mr. HANTMAN. One of the things that we are discussing in fact, Mr. Chairman, at last night's Preservation Commission review was the need, as I mentioned earlier here as well, for dehumidification systems to be brought in. What we are going to need to do is, in order to do the plaster work, to begin to bring in millwork, things that need humidity type of control, we are going to have to bring in a temporary system while the East Capitol work is completed, the utilities are hooked up, and then air-handling units we are installing in the basement can be made operable.

Senator ALLARD. So it looks like you may be able to catch up on your schedule, but it is going to cost some extra dollars because bringing the dehumidification equipment in is going to add to the cost.

Mr. HANTMAN. That is correct.

COORDINATION WITH WASA

Senator ALLARD. Okay. Do you believe that the problems you are seeing now with the utility work could have been foreseen?

Mr. HANTMAN. Mr. Chairman, in the past when we had major utilities, a major water line down Constitution Avenue with WASA also, it appears as if when we get into the system and we are trying to move lines and work with them, that WASA has taken this opportunity to upgrade their system. So in terms of the major thrust block and the ability for us to essentially upgrade their system in that area, this is what they are requesting of us.

Senator ALLARD. So their attitude is, while you have that area open, so we do not have to come back and reopen it, let us get some other work done?

Mr. HANTMAN. And they are trying to mitigate their risk as well. So in order to proceed we are working with them in trying to move ahead with as much alacrity as possible while still not degrading their service to the surrounding area.

Senator ALLARD. It would have been nice if they had let us know ahead of time about what they were thinking of.

Mr. HANTMAN. Basically when we get it opened up is when the decisions come down.

UTILITY COSTS

Senator ALLARD. Now, what is that going to do to the cost? You do not have a figure on how much this is going to add to the cost of the project?

Mr. HIXON. The cost of the entire utility tunnel? We have a modification in place for the utility tunnel that does not include the added cost for the thrust block. This was work that became apparent after we had the area excavated so that WASA could review where we were and what our plan was. So that is an added cost to us. We do not have it defined yet as far as the actual numbers.

Senator ALLARD. So by doing this extra work tasked by WASA, in effect we have saved them money, but added a little bit to our cost.

Mr. HIXON. Well, I think there is work here that is a different site condition, that as a consequence of the installation as it exists, WASA drawings—we were working with WASA's drawings. The installations, especially the part on First Street, was not installed

quite like the drawings reflected, and when it was opened up there were corrections that needed to be made for a proper installation.

So we are fixing some deficiencies in WASA's system, that's true. But it is also things that we could not identify until we had actually opened the lines up and could see we had a leaded joint or something like that.

ADDITIONAL UTILITY WORK

Senator ALLARD. Mr. Ungar, maybe you would like to comment about whether you believe the utility work could have been foreseen and how you see this affecting the costs.

Mr. UNGAR. Mr. Chairman, Mr. Dorn would like to address that issue.

Mr. DORN. We do believe there could have been better coordination between AOC and WASA, for example. As Mr. Hantman just testified, there is a long history of problems dealing with WASA and making additional requirements on the Government to get work done in that area. So we could have probably done a better job in coordinating that, once again, and that would have reduced some of the costs we are seeing now.

The problem now is you have a contractor on site that we are paying every day, so it makes it much harder to get that work done with the pressure of having the construction contractor waiting when you make these things happen.

The other coordination issue relating to the utility tunnel that has not been addressed is the book tunnel which runs between the Supreme Court and the Library of Congress. It has always been known that there is a book tunnel there, but someone assumed that we could blow through that tunnel without affecting the security at the Supreme Court, which it turned out to have not been a good assumption. So again, better coordination could have reduced those costs going forward.

As far as the cost, it is probably not appropriate because of the ongoing negotiations for us to get much into additional costs.

UTILITY CONNECTIONS

Senator ALLARD. Now, when you agreed to work with the District and their government on this issue, was any discussion made of, well, look, we are doing this for you, do you want to pay in a share of costs on this project? Was there any of that discussion?

Mr. HIXON. No, sir. Essentially, we are working on their line. This is not work they need to have done at this time. And if you are going to disturb the line, then you need to install it to the current standards.

We are really at a point where if we want them to cooperate with us and shut the water down so we can move on to the next step, we are doing what we need to do to accommodate them.

Senator ALLARD. I have known instances like this where the city has come in and said: Look, the contractor is doing some extra work on our line. While you have it open, we would like to take advantage to upgrade that line. We will pay a portion of that cost to do that. But you have never had that discussion or they were not willing to enter into those kind of discussions?

Mr. HIXON. We do not feel the work we are doing would be characterized as upgrading their line as much as working on it. We are cutting out pieces of it. There are elements of the installation that are not done quite the way they want. It is different from what was reflected on the drawings, so we are just correcting the installation.

Yes, we are spending a little money upgrading their lines, but in the sense of getting their cooperation, we are just trying to get through this so that we can move on to the more difficult part, which is on Second Street.

Senator ALLARD. I understand the situation. Thank you for your comments on that.

MASTER SCHEDULE

The Architect now has a fully integrated master schedule, but it seems to change regularly. How can we keep track of progress if the baseline is changing on us?

Mr. HIXON. The schedule that we have, the baseline that we have established for April, should be reasonably firm. But the contractor does have the opportunity, since it is his schedule, to resequence work. We have the opportunity to review that and make sure it makes sense. But it is ultimately his schedule for how he is going to perform the work and he could change the way he wants to do it as long as it makes sense and he is not doing something inappropriate.

So we expect the plan to not change much, but we have to recognize he does have the opportunity to revise his schedule, subject to our approval.

Senator ALLARD. That is fine. But for our accounting purposes, can we keep a baseline that does not change so that we have a real feel of what actually is happening? Because a change in baseline can distort it.

Mr. HIXON. That is correct, and that is why we have established April as the baseline that we are managing against. If you look at the chart, we have got the April date on there. We will be comparing. Next month we will compare against the April baseline. It will be the activities that we have on a second chart that shows what is going to be occurring during the next month.

Senator ALLARD. So as we move along you can provide us, as the schedule changes occur, with this information and then the reason for the change?

Mr. HIXON. Yes, sir.

Senator ALLARD. It would be real helpful.

Mr. HIXON. Yes, sir. So what we are looking at right now is in the next month these are a selection of activities, and you can see it has got the May dates against the April, and then we will go to June dates against the April. So we will be tracking against the April plan.

SAFETY ISSUES

Senator ALLARD. Let me call on Senator Durbin for, hopefully, comments and any questions he may have.

Senator DURBIN. Thank you, Mr. Chairman. I thank you for the hearing.

I would like to go directly to ask questions. I would like to ask first of the GAO. Centex responded to the safety issues you raised in last month's testimony by writing a letter to our subcommittee. Their letter said that GAO's comparison of their data to national averages was inaccurate and that your statement about recurring safety problems was not correct. I would like to give you an opportunity to respond to that letter.

Mr. UNGAR. Yes, sir, I would be pleased to do that, Mr. Durbin. We believe that the information that we reported in our last testimony was correct. Centex, as you indicated, did point out that in its view, we should have used a different benchmark rate to compare its safety record to.

On the one hand, we would say that reasonable people can disagree on the issue of what benchmark should be picked. However, in this particular instance we did not independently select the benchmark. The comparison that we did was based on the agreement that OSHA entered into with Centex. So we used the rate, the benchmark rate that Centex itself agreed to meet with OSHA.

With respect to the rate that we used, which is the rate for non-residential construction, and that Centex agreed to use, unfortunately the Centex or site rates were higher or the site rates were higher than that rate, and also the rates got worse from 2003 to 2004. The agreement called for OSHA—excuse me—Centex to have an incident rate that was lower than the comparable BLS rate and to improve the rate by 3 percent each year.

So in effect, using that rate, what we reported was correct. Second, if one were to use the rate that Centex proposes, it would have been below the BLS rate for overall incidents in 2003, but it would not have been below that rate for lost time incidents. Also, Centex's safety rates got worse between 2003 and 2004. So Centex did not even meet that rate's goal for the time period.

Second, Centex did take issue with our report in the context that it did not agree that safety issues were recurring. The evidence and the facts basically say yes, they were. Gilbane did monthly audits. We analyzed the information that was identified in those monthly audits. It clearly showed that there were a number of problems that recurred. The same type of problem recurred month after month.

For example, fall protection was identified as a problem in each of the 10 monthly reports that we reviewed from Gilbane. So was temporary power setup. So while Centex may have corrected an individual problem, the same type of problem in many cases kept recurring over and over again, and that is the point that we were focusing on in our statement.

SAFETY STANDARDS

Senator DURBIN. So what you are saying is, despite Centex's letter, you feel that the standard that was used to judge their performance on worker safety was the standard they agreed to?

Mr. UNGAR. That is correct, sir.

Senator DURBIN. If I understand your testimony, what you are saying is that, even by their own standard, what they agreed to, they failed to meet their own standards of worker safety on the job.

Mr. UNGAR. Centex did meet one part of that standard in 2003—the recordable incident rate it proposed in its letter. Centex’s rate was less than the BLS rate for that particular measure. However, it was above the BLS rate for lost time incidents, and both those rates, the recordable incident rate and the lost time rate, increased from 2003 to 2004.

Senator DURBIN. There was some testimony at the last hearing about either misinformation, bad information, no information, coming from Centex to Gilbane, which was in charge of managing this construction, which may have led to overlooking this, the danger at the work site to Centex employees. Is that a fact?

Mr. UNGAR. Sir, we really did not identify that particular issue in our statement. What we said was that the information on safety that Gilbane was reporting to AOC was incorrect, and there were a number of reasons for that. One of the major reasons was that Gilbane did not report to AOC lost time incidents that involved restricted duty or transfers.

When we asked Gilbane about that, it had the following explanation. Number one, it said that it did not receive some individual accident reports on lost time incidents from Centex. Now, we do not know whether Gilbane did or not. On the other hand, Gilbane did receive a log from Centex that did identify each and every incident. So it was unclear to us if, given that Gilbane had the log and it had on the other hand a smaller number of incident reports, why Gilbane did not pursue that with Centex to ask, why do we have a different number here.

Senator DURBIN. Was that not why Gilbane was hired?

Mr. UNGAR. Yes, sir.

Senator DURBIN. To go through this information and to be paid to manage, which means as I understand it collating information and data so that you meet targets and people are living under the terms of their contract?

Mr. UNGAR. Yes, sir. Gilbane did have a very active safety program. On this particular issue, however, with respect to accurate reporting, there were a number of problems that did exist, and Gilbane has agreed to redouble its efforts to address those, and its reports for April and May were correct.

Senator DURBIN. For the sake of the workers and for the taxpayers, I am glad to hear that. But I want to tell you, Mr. Chairman, I am glad you are having these hearings and I think you are paying closer attention to this than many have in the past.

I also want to tell you that if you get in a car and drive around Capitol Hill you see Centex’s name on everything. They are still around. This is not a company that has come and gone. The fact that they would not live up to their own worker safety standards and the fact that Gilbane may have been somewhat derelict in their own responsibilities does not give me a great amount of confidence.

But I want to ask you, do you have any idea what the status of worker safety is now at the Capitol Visitor Center?

Mr. UNGAR. Yes, sir. Mr. Dorn would like to address that.

SAFETY RECORDS

Mr. DORN. We have worked with AOC and Gilbane to address the factors leading into the inaccuracies. They are doing a much better job of reporting now. Over the first 5 months of the year, the year to date injury and illness rate is below the industry average. Gilbane does still continue to rely upon a narrower definition of lost time than what GAO is using and the BLS standard is, but I understand that they are going to make that correction in the next month.

There was a lost time accident in the past month that was reported by Gilbane, which did raise the rate back up a little bit. But generally things are better.

Senator DURBIN. Was there a recent OSHA assessment? Is that what you are referring to?

Mr. DORN. Yes, there was a recent OSHA assessment and they did not—as Mr. Hantman said in his testimony, did not have any citations that came out of that assessment.

MANHATTAN'S PROGRESS

Senator DURBIN. Does GAO have any comment on the Manhattan Construction Company experience at the work site? It is my understanding they have met only 3 of the 11 milestones scheduled for completion.

Mr. UNGAR. Are you talking about worker safety, sir, or construction work?

Senator DURBIN. Construction work.

Mr. UNGAR. Overall, Manhattan is making a great deal of progress, sir. However, it has not met a number of the milestones that were set in the April schedule for the period between the last hearing and this hearing, for a variety of reasons. One of the things that it has done is resequenced the schedule to change some of those milestones.

On the one hand, as Mr. Hixon said, Manhattan certainly has the wherewithal to do that. It is their schedule and as long as it is approved by AOC that is fine. On the other hand, some of those dates have slipped continuously, for example, some of the wall stone work, since the February schedule.

But our concern is that if this continues to happen what is going to end up happening is that there will be a stacking of activities toward the end and they will not possibly be able to finish all those on time. So on the one hand, progress is being made. Unfortunately, the schedule milestones were not met. The schedule has been revised. It yet remains to be seen as to how much progress will be made from this point forward, but we are going to be tracking that.

Senator DURBIN. I know Senator Allard has asked questions on this, so I will not dwell on it any more. We will keep a close eye on it. I would like to just suggest to the subcommittee we ought to find out where Centex is also working for the Government, if there are other construction projects, and see if there has been a similar situation in terms of worker safety. Has the GAO looked into that?

Mr. UNGAR. No, sir, we have not. We have focused on this particular site.

I would point out, as Centex has said, that, on the one hand, fortunately, there have been no fatalities, and most of the injuries have not been serious. However, there have been some serious injuries and there have been a large number of injuries. So it is certainly something that needs to be attended to.

In addition, there are a number of these safety issues and concerns that Gilbane identifies monthly that are potentially hazardous situations and they continue to be identified. In our view, AOC and Gilbane need to continue to focus attention in a more proactive sense on safety at the CVC site.

Senator DURBIN. I will just close by saying that my experience with worker safety is unless you are on this issue and stay on this issue it slips away, and people think it is just one of the costs of doing business that people have to walk off the work site injured, at great expense to themselves, their family, and the taxpayers.

I hope that does not happen. If I could ask the GAO to do a formal letter of response to this Centex letter that would spell out your testimony, I would appreciate that.

Mr. UNGAR. Yes, sir.

Senator DURBIN. Thank you very much, Mr. Chairman.

Senator ALLARD. Thank you.

CONSTRUCTION PROGRESS

Mr. Ungar, I want to follow up a little bit. Before I called on my esteemed colleague from Illinois, I was pursuing with the Architect and Mr. Hixon the idea that when you have the schedule change that you keep this subcommittee provided with the information. My question to you is what should the Architect's Office be doing to track the construction contractor's daily progress against the schedule?

Then just a follow-up on this: How is this comparing with the process that we used during sequence 1?

Mr. UNGAR. Mr. Dorn will answer that, sir.

Mr. DORN. What they are starting to do is print out a daily list of activities for the superintendents and then the superintendents go out on the job site to see what is being done and what was supposed to be done, is it being done or not. That is a great step, to do this daily and weekly monitoring of actual activities to what is going on out there on the job site. That is real progress. And if it was not done, you would document the reasons why it was not done, and what is going to be done in the future to get those tasks on track.

It is like Mr. Ungar said a little while ago, if things keep moving off to the right eventually you get so many activities stacked up that you cannot get them all done at once.

One of the indicators we are seeing of that is 1 month ago we had one critical path and now we have got a number of critical or near-critical paths simultaneously. That is not completely uncommon. It does happen, but it is an indicator that things are starting to become more critical.

SYSTEM COMMISSIONING

Senator ALLARD. On the commissioning of systems, my understanding is that will not be done until about March 2007. Is that your understanding?

Mr. HANTMAN. We are in the process, Mr. Chairman, as was indicated earlier. We have just gotten some funds approved. We are in the process of hiring three or four people to check into the commissioning of systems and start involving essentially the AOC and ultimate operations in that.

Bob.

Mr. HIXON. There are two elements of commissioning that are going to occur: the commissioning of the CVC proper and the commissioning of the expansion space. The expansion space commissioning efforts will in fact occur in early 2007, January through March. The commissioning for the CVC portion will be occurring in late April and early—did I say late April? It will be the late spring, summer period. Those will be the activities that will be taking place in order for us to open the facility in September.

Senator ALLARD. In 2006?

Mr. HIXON. In 2006.

Senator ALLARD. And then the two expansion areas will be—

Mr. HIXON. In 2007, that is correct. The planning for that is underway now.

OCCUPANCY PERMITS

Senator ALLARD. A certificate of occupancy is the final step. I would assume that they are not going to issue that certificate of occupancy until everything is in place and that is part of the process. Will they write you a certificate of occupancy for the entire new complex on the site or do they issue two separate certificates of occupancy, one for the expansion space and then one for the Capitol Visitor Center?

Mr. HIXON. Yes, sir.

Senator ALLARD. I think that could resolve some of our issues that we might have with the actual date when we can go ahead and occupy that portion of the new Capitol complex.

Mr. HIXON. We are working with the fire marshal and going through that. We have to get his concurrence and acceptance of the fire alarm systems and the smoke evacuation systems. That work is going to be occurring in the late spring and during the summer for the CVC portion, so that we can in fact occupy the CVC on schedule.

Then we will be going through the same effort to take care of the expansion space, and then we will have to integrate those systems in the expansion space into the base CVC program. So all those smoke detector systems that are in the expansion space have to be integrated into the main building system. So that is what will be occurring in the early part of 2007.

OCCUPANCY CERTIFICATION

Senator ALLARD. So we have got one certificate of occupancy that will not be issued until all the fire alarms are in place?

Mr. HIXON. Yes, sir. We will be able to occupy. We will get the certificate to occupy the CVC for September, but not the expansion space. And then we will have another certificate to occupy the expansion space, which will probably incorporate all the expansion space into the CVC area.

Senator ALLARD. Then the last thing to go in would be in March. It looks like we've got around the end of March here, and that would be the fire alarm commissioning.

Mr. HIXON. That is bringing the expansion space fire alarm system into the base building. So we will be attaching all of those elements into it and retesting the entire building system with the expansion space included with the CVC. So they will be doing retesting to make sure when we add those components everything all functions properly.

Senator ALLARD. That will not have any effect on the main visitor center?

Mr. HIXON. No, sir. It will be done evenings and weekends.

Senator ALLARD. Mr. Ungar?

FIRE ALARM SYSTEM

Mr. UNGAR. Sir, I just wanted to point out that the system that Mr. Hixon is referring to, the fire alarm system and the smoke evacuation system, are among those activities that our last review of the schedule found to be optimistic. In other words, the project participants believed that the time allotted for those activities in the last schedule was not doable in their view. So this is an activity that we have asked AOC and Gilbane to go back and reassess in detail to get a better handle on that.

Senator ALLARD. Yes, it seems to me we have to have some cooperation from the fire marshal.

Mr. HIXON. Absolutely.

Senator ALLARD. I mean, if he does not cooperate we are in trouble on your dates.

Mr. HIXON. Yes, sir. We are meeting with the fire marshal every other week as we work through the planning on how to do the commissioning of these systems and ensure that all the components are acceptable. So we are in the throes of the process right now of planning exactly how we will test these systems and in what order and what components. So that process is very much underway.

Senator ALLARD. I would hope that he would have his ducks in order. I serve on the D.C. subcommittee too, so maybe I will ask a few questions about whether they are getting their ducks in order for that.

Mr. HIXON. This is the AOC's fire marshal that we are working with.

Senator ALLARD. Oh, it is our fire marshal.

Mr. HIXON. Yes, sir, although he does coordinate with the District emergency response and organizations of that nature. So he is our contact to any District support.

Senator ALLARD. We still need to make sure that they are coordinating with us, so that we do not have unnecessary delays, to make sure that they have money in their budget, to make sure that they have whatever it takes to get a smooth transition. Even though we

have the opening date on the visitor center, we still could have some issues.

Mr. HANTMAN. The Fire Department of D.C. is the fire department that serves Capitol Hill as well. So clearly, whatever they need in terms of hydrants and accessibility is something that they would be concerned with and we are concerned with working with them on.

Senator ALLARD. And they would provide the fire hydrants?

Mr. HANTMAN. We provide the fire hydrants, basically where they agree to it. That is why our fire marshal is interfacing with them and making sure that wherever the trucks come on campus that we have the taps for them.

Senator ALLARD. And you are reaching some agreements with those local agencies?

Mr. HIXON. I am adding some fire hydrants right now.

Senator ALLARD. Do you want to comment, Mr. Dorn?

LIFE SAFETY EGRESS

Mr. DORN. Yes, sir. It adds to what Bernie was saying just a second ago. On the schedule, when the CVC and the expansion spaces were going to be finished at the same time there was not an issue about the egress. But if the expansion space is not going to be finished until months later than the CVC, the Architect has determined that there are egress pathways that need to be built to get through the expansion space so that everyone can get out of the CVC in case there is an incident of some sort. And finishing those separately will probably end up costing more money.

Senator ALLARD. Do you want to respond, Mr. Hantman?

Mr. HANTMAN. No question about that. In terms of planning, the horizontal means of visitor egress from the center into the stairways that are part of the expansion space are part and parcel of all of the planning and our discussions with the fire marshal to make sure that we have that level of safety incorporated.

EXPANSION SPACE WORK

Senator ALLARD. Mr. Hantman, I understand now that the expansion space contract has been awarded to Manhattan Construction, but the award to Manhattan's subcontractor has not been made. Why and will this impact the schedule, and when will the award be made?

Mr. HANTMAN. This should not impact the schedule. This is part of Manhattan's internal contracting process, to reach agreement with their subcontractor. So it typically is taking them 2 to 3 weeks to have a ratified contract with their subcontractor. They are in the process of doing that. That is not something we are normally aware of. As far as the Government is concerned, we have a contract with Manhattan and this is internal to them.

It becomes of interest to us to make sure it does not impact anything. But at this point we are not anticipating any impact.

RISK MITIGATION PLAN

Senator ALLARD. Now, the GAO recommended several times over the past 2 years that the Architect of the Capitol develop a risk

mitigation plan. Mr. Ungar, what is a risk mitigation plan and what do you see as the top five risks to the project's schedule and budget? Then, Mr. Hantman, can you give us a commitment to produce a risk mitigation plan for the top five risks by the time we meet next month?

So let us go ahead with GAO and then we will have Mr. Hantman follow up.

Mr. UNGAR. Mr. Dorn will address that, sir.

Mr. DORN. A risk mitigation plan would first identify the major risks that are facing the project, and would then look at the ones that are most likely to occur and that have the greatest adverse impact on the project. You are not going to look at every risk. You are going to look at the ones that have a high probability of occurring and the ones that are going to have a cost or schedule impact on the project.

Some of the top risks would be the supply of stone and skilled stone masons. There is an issue right now that has been brought to our attention about how much stone we can get. Unforeseen conditions with the—

Senator ALLARD. Yes, I have noted, reading some testimony here, that not only is there a shortage in the stone, but also a shortage in craftsmen who know how to work with the stone. Is that correct, or is it just a shortage of the stone?

Mr. DORN. It has been an ongoing risk that has been identified by the Architect and by us, I believe, that the supply of stone masons is limited, of skilled stone masons. I know Manhattan has been scouring the country looking for stone masons, from what they have told me. But it is a risk.

The unforeseen conditions with the two remaining tunnels. The utility tunnel, it is still not complete yet; and the House connector tunnel, which is up closer to the building and because of that has a lot of risks to it.

Additional requirements from the fire marshal or from security for life safety, security, filtration systems, and commissioning. Contractor coordination issues as we get down, get down to the wire and we have additional contractors on site. Unknown operator requirements. This gets back to the idea that Zell is just now being brought back on board again and until we get the operator requirements and get those integrated into the master schedule that AOC and Gilbane are working on, to know what you need to do to get the operational piece of it done, you have got the risk of your schedule going off to the right for you.

There are additional risks for scope gaps. Between sequence 1 and sequence 2, work that was never in any of the contracts just slipped through the cracks, when you break these jobs up into smaller projects; or between sequence 2 and the expansion spaces. An example would be the utility tunnel. The utility tunnel is under contract. There is a plan for the modifications to the Jefferson Building.

There is the intersection—knocking a hole in the wall of the Jefferson Building. I believe there is a separate plan now for that, but that was not included in some of the original estimates. There is an example of where you can lose track of all the pieces.

RISK MITIGATION FACTORS

Senator ALLARD. Let me make sure I understand your five, then. It would be the stone, the tunnel, the safety issues, a coordination issue between the contractor and the construction issues, as well as the operator, and the fifth would be the sequence 1 to sequence 2 issues. Would that be your five?

Mr. DORN. Yes, sir. I may have misspoken on that. It was the Library of Congress tunnel.

Senator ALLARD. Okay, Mr. Hantman or Mr. Hixon?

Mr. HIXON. Yes, sir. We are pursuing doing a risk assessment with McDonough Bolyard Peck, who's been a consultant to us doing research. Risk assessment on construction is a relatively new issue. There is a process that is evolving on how to do that, software in order to process that. So now we have been researching how to do that.

I expect to do it. We will not have it done by the next hearing. We have to bring them under contract. We have to actually go through this evaluation. It is going to take us a few months in order to be able to complete that activity. We do agree that it is a good idea. We probably have slightly different areas that we are concerned about, but many of them are the same. The House connector tunnel is certainly an area of risk for us; the Jefferson Building work where we are going into the building and building a stairwell. Those are the kinds of things that we agree this would probably be a useful process for. We have never done it before, so we are looking for consultants who have done this effectively so that we can do it. But it is going to take us a few months in order to accomplish that.

Senator ALLARD. So for us to expect you to have a risk mitigation plan by the next month would be unrealistic?

Mr. HIXON. That is correct, sir.

Senator ALLARD. Do you think that is something we ought to set up for September?

Mr. HIXON. Yes, sir.

Senator ALLARD. Would that be more appropriate?

Mr. HIXON. Yes, sir.

Senator ALLARD. Do you think you could have it done by then?

Mr. HIXON. We believe we can. We will certainly be able to tell you next month if there is an issue with that.

ADDITIONAL FISCAL YEAR 2005 FUNDING

Senator ALLARD. Okay, very good.

Now, we did give the Architect of the Capitol some extra money here to finish off the year. Do you have some money left over for a contingency if something unexpected should come up between now and the end of the fiscal year?

Mr. HANTMAN. We have just asked for some reprogramming dollars, dollars that we did not need for sequence 1, for some other activities on the East Front to enable us to do just that, Mr. Chairman.

Senator ALLARD. So you do not see any need for additional dollars right now, from now until the end of the year?

Mr. HANTMAN. At this time we do not. However, there is the settlement of delays to the sequence 2 contractor that we have received some proposals from the contractor for those delays. The compensation, the money funding for those activities, is in the fiscal year 2006 budget request.

We also are looking at the quantity of change orders and so our expectation is that we are going to be close but okay. But we are continuing to monitor that as we go along. Some of the reprogramming that we have talked about was to take some funds available that will not be used in sequence 1 and 1C, the East Front, and utilize that for contingencies, for the Jefferson Building work, the stairwell there, and for contingency for the House connector tunnel, because when we award that tunnel there will be no contingency funding available on that line item.

With that done, we expect to be very close on the quantity of change orders that have been identified. So I think GAO's point is they recognize how close we are and they say, if you get a big surprise then you are going to have a problem. We have the funding available under the CVC operations budget. There are a few million dollars there that would be available if we need it. We were waiting to ask for that until we can document that we do in fact need that money.

If I do not process change orders as quickly as we want to, there would still be change order contingency money available. So I think it is a little bit premature for me to ask for funding right now because I can't document the need is really there. But it is a bit tight.

FISCAL YEAR 2006 BUDGET REQUEST

Senator ALLARD. The last question then is, for your fiscal year 2006 budget request, which includes \$36.9 million for the CVC, since we are marking up now, just next week, can you give me your best estimate of what you need for fiscal year 2006 and when the Architect of the Capitol will need those funds?

Mr. HIXON. My best guess is that we will need, at this point we will need all \$36.9 million. I think it would not be prudent to go for less than that. There are items of work that were identified when this was put together, when we did our cost to complete last year, that we may not do. But there are other things that have come up that would require the use of those funds.

I have asked McDonough Bolyard Peck to update their proposal for the cost to complete. We have had some discussions with the CPC about doing that perhaps a little sooner so that we can get the answers in here and give GAO the opportunity to review those, so we have that information in September. But at this point in time I don't think it would be prudent to reduce that at all.

I do not think we need to increase it at all, but I do not think, with the number of issues that are going on, and especially until we get the new cost to complete updated, that we would need all of that with the issues that have been coming up.

Senator ALLARD. Mr. Ungar?

Mr. UNGAR. Mr. Chairman, we believe that, as we indicate in our statement, that AOC is likely to need more than the \$36.9 million in fiscal year 2006. Exactly how much we are not sure. But our best guess at this point would be roughly somewhere between \$5

million and \$15 million more in fiscal year 2006, depending upon how the risks and uncertainties play out and AOC's experience with the delay costs that may arise from sequence 1.

I also want to point out that I may have misunderstood your question that you raised during my oral summary about the \$37 million.

Senator ALLARD. Yes.

Mr. UNGAR. We did identify that in our last statement as being needed. So it was not something that just came up between hearings. I may not have understood exactly what you were asking when you asked it, since last year, we have identified that amount of money, plus some additional funds that we thought would be needed in addition to the amount that AOC has asked for.

CLOSING STATEMENT OF SENATOR WAYNE ALLARD

Senator ALLARD. I appreciate your clarifying that and I am sure Mr. Hantman does, too.

I want to thank you for taking the time to appear before our panel today and giving us an update on how things are going on the Capitol Visitor Center. I am pleased with the progress that we are making. Obviously there are some things that we have to watch very closely as we move forward. I think we are beginning to get those identified and hopefully begin to get the schedule in place with better cost estimates.

SUBCOMMITTEE RECESS

So I want to thank you, and we will plan on holding another hearing next month, July 14. There were a few questions we put in place today. We had some commitments for follow-up, so you can expect those.

Thank you very much, gentlemen.

[Whereupon, at 11:42 a.m., Tuesday, June 14, the subcommittee was recessed, to reconvene subject to the call of the Chair.]

PROGRESS OF CONSTRUCTION OF THE CAPITOL VISITOR CENTER

THURSDAY, JULY 14, 2005

U.S. SENATE,
SUBCOMMITTEE ON THE LEGISLATIVE BRANCH,
COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:49 a.m., in room SD-138, Dirksen Senate Office Building, Hon. Wayne Allard (chairman) presiding.
Present: Senator Allard.

**STATEMENT OF BERNARD L. UNGAR, DIRECTOR, PHYSICAL INFRA-
STRUCTURE, GOVERNMENT ACCOUNTABILITY OFFICE**
**ACCOMPANIED BY TERRELL DORN, ASSISTANT DIRECTOR, PHYSICAL
INFRASTRUCTURE, GOVERNMENT ACCOUNTABILITY OFFICE**

OPENING STATEMENT OF SENATOR WAYNE ALLARD

Senator ALLARD. We will go ahead and call the Legislative Branch Appropriations Subcommittee to order. This is the situation this morning: we have just finished one vote on the floor of the Senate. We are anticipating a total of four votes altogether and so we are going to try and work this through as best we can this morning.

Mr. Ungar, you are going to testify on behalf of the Government Accountability Office (GAO), correct?

Mr. UNGAR. Along with Mr. Dorn, yes, sir.

Senator ALLARD. Okay. Then the plan is that I will go ahead and make an opening statement and get things started, and then if Mr. Hantman is not here we will let you go ahead and present your testimony, and then we will go to Mr. Hantman. I appreciate the panel joining us this morning. We will struggle through this morning with all the votes.

We meet today to take testimony on the progress of the Capitol Visitor Center (CVC). We will hear from the Architect of the Capitol, Alan Hantman; the CVC Project Manager Bob Hixon; and Bernard Ungar and Terrell Dorn of the Government Accountability Office. Thank you all for being here this morning for our third hearing on the progress of the Capitol Visitor Center.

At our hearing last month, the Architect and GAO reported that progress had been made in many areas, but milestones were not being met in several areas on the critical path. This month more milestones have not been met on schedule. In fact, only 3 of 17 milestones in the last 2 months have been met by the date that they were scheduled to be completed.

Currently it seems the biggest concern is an inadequate delivery of stone to the job site, resulting in insufficient progress on stone work. Stone work in the Great Hall is months behind, as I understand it.

In addition, coordination issues with the fire marshal continue to be a key concern. Finally, I understand the contractor's schedule is showing a completion date of October 19, 2006, not September 15, 2006, as we were informed last month.

So we have plenty to discuss today and we look forward to understanding these issues better. Before we get started, let me note that one of our GAO witnesses, Terry Dorn, left his family at the beach, where they were vacationing this week, to be here today. We do appreciate, Mr. Dorn, your commitment to public service.

So let me go ahead and call on GAO to give their testimony.

Mr. UNGAR. Mr. Chairman, we are pleased to be here today to assist the subcommittee in its oversight of the Capitol Visitor Center. I would like to summarize the key points that we have in our statement, particularly with respect to the project schedule and cost.

SCHEDULE PROGRESS AND PROBLEMS

First, on the schedule, progress has been made during the month in a number of areas, particularly electrical, mechanical, masonry block, and plaster walls. Another area where we saw significant progress was in the actual management of the project schedule by the construction manager and the AOC. We noted this month a much more rigorous analysis and monitoring of the schedule, a very good use of the information that that monitoring and analysis produced. We are very encouraged by the quality of the work that has been done by the project control engineer that Gilbane has recently assigned full time to the project and by the project executive, Bob Hixon, as well as the rest of the team to focus on schedule management. It really has made a difference.

Having said that, however, we do still have a number of concerns with respect to the schedule which we would just like to briefly summarize. First, we continue to be concerned about the realism associated with the September 15, 2006, opening for a number of reasons. There are a number of remaining risks to the project which have actually materialized.

For instance, you indicated a problem on the stone supply; that has been a real problem. In fact, a stone problem associated with the east front work has resulted in, as you indicated, a pushing on the schedule of the opening date from September 15 to October 19. AOC and the construction contractor and the construction manager are aware of this problem and they are working to resolve that. They do believe that they can mitigate that particular situation and bring the schedule back, but that has yet to be worked out.

They also have a stone supply problem that they are working on and that has other issues associated with it that they are not directly controlling, and that has to do with some litigation.

They are also having problems on the utility tunnel. That is scheduled right now to be operational 5 months later than AOC anticipated the team is working to bring that back. However, they

still may need to use temporary dehumidification. That is not clear yet and we may know more by your next hearing on that.

As you indicated, there are a number of milestones that are slipping because of some of these problems that have come up, such as the stone work and utility tunnel. Also, this month we were tracking along with AOC for the subcommittee six milestones. The sequence 2 contractor has finished work on one of those six, but was not on time, so, in effect, none of those milestones were met.

Again, AOC believes that time can be made up. It has plenty of time to do that. On the other hand, as these milestones keep slipping there may be so many of them stacked up at one point that they may not be able to get to them all, and time will tell that story.

There are several activities, seven to be exact, that have been identified on the schedule for the last 2 months that are either critical or near-critical. Having so many activities in that status makes it much more difficult to manage the project and it will make it more complicated for the team to meet the date. But at least they are aware of them and they are working on them.

We continue to believe that the schedule durations are optimistic. The construction manager and contractor did do an assessment this month of 11 of the 14 that they were going to assess. They delayed the assessment on three of those. They believed—using their judgment, that the durations were reasonable. On the other hand, we were looking toward perhaps a more detailed data-based assessment. They said they will do that in the future.

When we looked at some of the specific activities, we had some concerns. For example, the stone work in the food service area, which is the furthest along, is actually taking significantly longer than the duration that was originally anticipated, which indicates to us that the durations that are in the schedule may still be optimistic.

Another problem with the schedule that we noted this month has to do with coordination with the fire marshal, between the team and the fire marshal. That has been a problem. We have brought that to AOC's attention and AOC has been taking steps with the AOC fire marshal, to address that. So I think that appropriate steps have been put in place to address that issue.

Finally, as we indicated on the schedule last month, AOC does not yet have an integrated schedule with respect to both construction and operations. We believe that is very important and getting more important as the months go by; it is something that really does need to be done.

PROJECT COSTS CONTINUE TO INCREASE

On the cost side, costs continue to increase, as we had indicated in our statement. For example, the estimated cost for the proposed or potential change orders have increased about \$900,000 since the last testimony that we did. Most of that estimated cost increase was related to the fire protection system. Overall that system is increasing in cost; it increased over \$4 million overall. We do think that there are some issues associated with exactly what is required. There had been some disagreement within the CVC project

team on that. AOC is aware of that, and we had suggested that AOC try to nail that down and AOC is in the process of doing that.

We also believe that there is an important need to balance the funding available for both construction and operations so that there is an optimal use of those funds between now and the time that the fiscal year 2006 appropriation is available. There is about \$7.8 million available for either construction or operations right now, and both construction and operations in our view need funds. So AOC will have to work an approach out to make sure there is an appropriate decision made there as to what to ask for.

Also on the cost side, we do believe it would be important for Congress and the subcommittee to know how much additional it may cost for AOC to meet the September 15, 2006, date. We see two areas where AOC may incur additional costs. One is having to take temporary measures to open the facility to the public because the expansion spaces may not be done or other aspects of the facility may not be done; or AOC may have to accelerate some work in order to meet that timeframe. The question in our mind is are those costs going to be acceptable to the Congress.

ACTIONS NEEDED

In terms of actions that we think need to be taken, first we think that AOC needs to designate an official, a responsible official to oversee the integration of the construction and operations planning, scheduling, and budgeting. Right now there is a team on construction and AOC has individuals who are going to be working on operations, but there is nobody who is overseeing the integration or the linkage of the two. That is very important, to make sure both the scheduling and the budget are worked out for that activity.

Second, we think that AOC needs to inform the Congress on what its estimated additional costs are for opening the facility on September 15, to the extent that there may be those kinds of costs.

Third, we think that AOC needs to focus continuously on schedule management and monitoring and aggressively dealing with the issues that come up, particularly looking at the durations. Our thinking is that for your next hearing if AOC were to relook at stone in depth and the utility tunnel, and perhaps the occupancy inspection activity, that that would be a good start to getting a real rigorous analysis of the realism of the schedule.

Finally, if AOC were to have a clear definitive picture of the fire safety and life safety requirements for the facility by the next hearing, we believe that would be a very positive step in the right direction.

That concludes our summary. We would be happy to answer questions.

Senator ALLARD. Well, thank you, Mr. Ungar, for your testimony. [The statement follows:]

PREPARED STATEMENT OF BERNARD L. UNGAR

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 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 timeframe 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.

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).

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 oper-

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).

ations. 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.

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 timeframes 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.

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 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 ap-

³See footnote 6.

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.

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.

proved 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 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 bi-weekly 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 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.

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.

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.

- 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.

APPENDIX I.—CAPITOL VISITOR CENTER CRITICAL CONSTRUCTION MILESTONES, MAY 2005-JULY 2005

Activity	Location	Scheduled completion	Actual completion
Wall Stone Area 1	Great Hall ^{1 2}	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 ¹	5/20/05	5/20/05
Wall Stone Layout Area 4	Great Hall	5/20/05	6/06/05
Saw Cut Road at 1st Street	Utility Tunnel ¹	5/24/05	6/27/05
Wall Stone Area 4 Base Support	Great Hall ¹	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 ¹	6/06/05	6/09/05
Wall Stone Layout Area 6	Great Hall	6/06/05	6/15/05
Drill/Set Soldier Piles at 1st Street	Utility Tunnel ¹	6/08/05	.....
Wall Stone Area 6 Base Support	Great Hall ¹	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	.....

APPENDIX I.—CAPITOL VISITOR CENTER CRITICAL CONSTRUCTION MILESTONES, MAY 2005-JULY 2005—Continued

Activity	Location	Scheduled completion	Actual completion
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 ¹	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 ¹	7/15/05	.....
Excavate/shore Station 0-1	Utility Tunnel ¹	7/21/05	.....
Concrete Working Slab 1st Street	Utility Tunnel ¹	7/26/05	.....
Waterproof Working Slab Station 0-1	Utility Tunnel ¹	7/29/05	.....

¹ These activities are critical.

² This activity was scheduled for completion by the Subcommittee's May 17 hearing but was not done as of that date.

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.

Senator ALLARD. Now, Mr. Hantman. We are proceeding. I apologize for how our morning is getting to be fractionated, but we have a number of votes on the floor of the Senate and you know how that works around here. I know you are very busy. All of you have very busy schedules, and I know we are disrupting them and I apologize for that.

But go ahead and proceed with your testimony if you would, Mr. Hantman.

STATEMENT OF ALAN M. HANTMAN, FAIA, ARCHITECT OF THE CAPITOL

ACCOMPANIED BY BOB HIXON, PROJECT MANAGER, CAPITOL VISITOR CENTER, ARCHITECT OF THE CAPITOL

Mr. HANTMAN. Thank you, Mr. Chairman, and I apologize again for not being here for your opening statements. We will just proceed from here. I am pleased in fact to be here to discuss the progress that we have made since our hearing on June 14.

Last month we discussed several important issues, including development of an overall project risk mitigation plan, our coordination with the fire marshal that Mr. Ungar just talked about, our continuing work on the East Capitol Street utility tunnel, the integration of our construction sequence with an operations plan, and finally some concerns related to stone deliveries. All those things I can give you an overview on.

Regarding the last issue, though, we noted in our previous discussion that the delivery of stone to the project site in the quantities specified by the contract continues below expected levels. However, we have taken some important steps that we hope will facilitate and expedite both the fabrication and delivery of stone, most importantly to the Great Hall where some critical pieces are needed for other work to progress. I will be happy to discuss this with you in greater detail and I look forward to answering your questions regarding all of these issues.

INTERIOR CONSTRUCTION PROGRESS

But first, with the help of a few photo boards, I would like to show the subcommittee some of the progress that has continued during the past few weeks. As has been the case since the Inaugural, all the work continues inside the CVC, with the sequence 2 contractor, Manhattan, continuing installation of ductwork and piping, all the heating, cooling, supply, waste, fire protection, and electrical systems. All 20 air-handling units have been installed, clearing the way for completion of adjacent piping and support steel that had been left out to provide open pathways to move the air-handling units into place.

In the photo on the easel to my right, Mr. Chairman, you can see the crews are busy installing cable trays in all the ceiling spaces to carry fire alarm, security, and communication wire through all areas in the CVC.

In the bottom photo, you can see the installation of restaurant plumbing that is also proceeding well.

In the next photo board, you can see that the food service area is receiving metal stud framing in the top picture and wall framing to the front, individual rooms and equipment areas at the bottom.

The concrete topping slab has been completed throughout the zone. Stone wall installation is substantially complete and plaster work now has become the primary finishing activity in this area and is also proceeding well.

In the next board, this photo was taken last Friday in the Great Hall. You can see that stone work continues to be the dominant activity. Sandstone now reaches the ceiling both on the south wall and on the southwest wall, which encloses the south orientation theater. Stone installation has now begun on the north walls as well.

Much of the stone for the Great Hall previously stored in the House expansion space has been moved to the Great Hall and is awaiting installation. Moving stone out of the House expansion space has cleared the way for Manhattan's subcontractor, Grunley, to begin laying conduit in the expansion space floor slabs. Grunley is the subcontractor who will complete the fit-out work, Mr. Chairman, for both the House and the Senate expansion space.

As I mentioned earlier, some critical stone pieces have not yet been delivered, so the contractor has resequenced some of the work. This is a pretty common practice and it will help explain, in some cases, why some of our stone work is not tracking precisely as scheduled.

Now, in the orientation theaters, only minor masonry block work remains along the west walls of the theater at the locations of the door openings. At the bottom is a recent shot of the south orientation theater, with some of the interior railing walls being erected. Last, Mr. Chairman, in the east front, the east front extension spray fireproofing has been completed on all three levels.

EXTERIOR CONSTRUCTION PROGRESS

Now, outside on the CVC roof deck, granite paver installation has resumed. Meanwhile, in this photo you can see that masons are installing the original stone base for the historic lanterns and

the fountains in the center of the east front plaza. This clears the way for paver installation around these elements. This base work was completed last week and this rendering shows a view looking east at one of those lanterns and how it will look upon completion.

Stone crews have also nearly completed the installation of granite blocks along the north pedestrian ramp and work is now progressing well along the south wall. In the top photo, Mr. Chairman, you can see a worker applying grout between the granite blocks on the north wall.

At the bottom of the next board, a mason is installing dowels that will be used to align and anchor the granite steps for the monumental stairs that we walked down on our last tour. In the top photo we see a new granite bench that is being installed on the plaza near First Street. So a lot of exterior finish stone work is proceeding as well.

UTILITY TUNNEL PROGRESS

Along East Capitol Street, work on the primary utility tunnel for the CVC continues to progress and critical work centers around the utility tie-ins at Second Street and First Street installations. Despite some setbacks on Second Street related to the D.C. Water and Sewer Authority's inability to operate some existing, antiquated water line valves, we were able to complete some utility work in that area and restore two-way traffic on Second Street earlier this week.

ADMINISTRATIVE ITEMS

I am also pleased to report that the sequence 1 contractor, Centex Corporation, has demobilized its on-site project trailer office and will complete the remaining punch list items with personnel who will be sent to the site for specific activities.

Mr. Chairman, I would like to note one more important development on the administrative side of the project. I am pleased to announce that we have renewed our contract with J.M. Zell Partners, Ltd, our operations consultant. We met with them this week and they have begun an intensive effort to update and refine their earlier recommendations regarding personnel and procedures, as well as identifying the most critical and urgent actions necessary to ensure that all operations elements will be in place for a smooth opening of the Capitol Visitor Center.

Given the fact, Mr. Chairman, that governance has not yet been decided between the House and the Senate, at our Capitol Preservation Commission meeting this Monday, it was determined that one of the best ways of proceeding, specifically to begin to get an executive director on board, is to refine that job description. We would then send it to our oversight committees with a request, basically a proposal that would allow me to advertise for this position using AOC general funds in advance of the 2006 budget coming in, so that we can start moving along, pending the availability of funds, to hire somebody to do this important job, and the other people as well.

So thank you, Mr. Chairman. I am certainly more than happy to answer your questions as we go along.

[The statement follows:]

PREPARED STATEMENT OF ALAN M. HANTMAN, FAIA

Good morning, Mr. Chairman, Senator Durbin, members of the committee. I am pleased to be here to discuss the progress we have made since our last hearing on June 14.

Last month, we discussed several important issues including the development of an overall project risk mitigation plan, our coordination with our Fire Marshal, our continuing work on the East Capitol Street Utility tunnel, the integration of our construction sequence with an operations plan, and finally, some concerns related to our stone deliveries. Regarding this last issue, we noted in our previous discussion that the delivery of stone to the project site in the quantities specified by the contract continues below expected levels. However, we have taken some important steps that we hope will facilitate and expedite both the fabrication and delivery of stone, most importantly to the Great Hall, where some critical pieces are needed for other work to progress. I will be happy to discuss this with you in greater detail and I look forward to answering your questions regarding all of these issues, but first, with the help of a few photo boards, I would like to show the committee some of the progress that has occurred during the last few weeks.

As has been the case since the Inaugural, the bulk of work continues inside the CVC with the Sequence 2 contractor, Manhattan, continuing installation of duct-work and piping for all of the heating, cooling, supply, waste water, fire protection, and electrical systems. All 20 air handling units have been installed, clearing the way for completion of adjacent piping and support steel that had been left out to provide open pathways to move the air handling units into place. In this photo here, crews are busy installing cable trays in all of the ceiling spaces to carry fire alarm, security and communications wiring to all areas of the CVC.

As you can see in this photo, the Food Service Area is receiving metal stud ceiling framing and wall framing to define individual rooms and equipment areas. The concrete topping slab has been completed throughout this zone and stone wall installation is substantially complete. Plaster work now has become the primary finish activity in this area and is proceeding well.

In this photo taken last Friday in the Great Hall, you can see that stone work continues to be the dominant activity. Sandstone now reaches the ceiling on both the south wall and on the southwest wall, which encloses the south orientation theater. Stone installation has now begun on the north walls. Much of the stone for the Great Hall, previously stored in the House expansion space, has been moved to the Great Hall and is awaiting installation. Moving stone out of the House expansion space has cleared the way for Manhattan's sub-contractor, Grunley, to begin laying conduit in the expansion space floor slabs. Grunley is the subcontractor who will complete the fit-out work for both House and Senate expansion spaces. As I mentioned earlier, Mr. Chairman, some critical stone pieces for the Great Hall have not yet been delivered, so the contractor has re-sequenced some of the work. This is a common practice and it will help explain, in some cases, why some of our stone work isn't tracking precisely as scheduled.

In the Orientation Theaters, only minor masonry block work remains along the west walls of the theater at the locations of the doorway openings. Here is a recent shot of the south orientation theater with some of the interior walls being erected. Finally, in the East Front Extension, spray fireproofing is complete on all three levels.

Outside on the CVC roof deck, granite paver installation has resumed. Meanwhile, in this photo, you can see masons installing the original base stone for the historic lanterns and fountains in the center of the East Front Plaza, clearing the way for paver installation around these elements. This base work was completed last week and this rendering shows a view looking east at one of those lanterns.

Stone crews have also nearly completed the installation of granite blocks along the north pedestrian ramp and work is now progressing well along the south wall. In the top photo, you see a worker applying grout between the granite blocks on the north wall. At the bottom, a mason is installing dowels that will be used to align and anchor the granite steps for the monumental stair that flanks the north side of the CVC entrance.

Along East Capitol Street, work on the primary utility tunnel for the CVC continues to progress and critical work centers around the utility tie-ins at the Second Street and First Street intersections. Despite some setbacks on Second Street related to the D.C. Water and Sewer Authority's inability to operate some antiquated waterline valves, we were able to complete some utility work in that zone and restore two-way traffic on Second Street earlier this week.

One last note on the construction side: I am pleased to report that the Sequence 1 contractor, Centex Construction, has demobilized its on-site project trailer office

and it will complete the remaining punchlist items with personnel who will be sent to the site for specific activities.

Before I take your questions, Mr. Chairman, I would like to note one important development on the administrative side of the project. I am pleased to announce that we have renewed our contract with the Zell Corporation, our operations consultant. They have begun an intensive effort to update and refine their earlier recommendations regarding personnel and procedures, as well as identify the most critical and urgent actions needed to ensure that all operations elements are in place for a smooth opening of the Capitol Visitor Center.

Thank you, Mr. Chairman, for this opportunity to report to you and the Committee on the status of the CVC project. I am happy to answer any questions you may have at this time.

COST TO COMPLETE

Senator ALLARD. Well, thank you, very much, both of you, for your testimony. We are in a 10-minute vote and I will ask one question to you, Mr. Hantman, and then I will go vote.

Mr. Hantman, I am going to give you a last shot here at our budget for fiscal year 2006. This will be your last opportunity to make some remarks in that regard. As you are aware, the House position is at \$36.9 million. Are you comfortable with the House position or do you believe the higher Senate level of \$42 million for the CVC will be necessary?

Mr. HANTMAN. We have reviewed the budget. We continue to review the budget. Based on everything that we know at this time, the amount of money that we have requested for fiscal year 2006 would be adequate. What we are discovering, recently, is we have got some issues that have come up. We have not received all of the proposals yet for the delay costs, so we cannot be certain that there might not be some added costs in the future.

But at this point, based on everything that we are aware of, the \$36.9 million is adequate. Again, our friends at GAO are certainly pointing out risks going down the road and we can only identify things that we see at this point in time. Certainly when they talk about Monte Carlo and risk analysis, the concern with unforeseen circumstances is still real and we respect where they are coming from.

Senator ALLARD. Can you give me your commitment that by the time of our next hearing you and GAO will be able to provide us with an updated assessment of the cost to complete the CVC project?

Mr. HIXON. Sir, we have contracted with McDonough Bolyard Peck to do the update of the cost to complete. The draft will be done the first part of September. We are working through the congressional work period for a number of these people. But we will have the draft in in the first part of September. The final report will not be done until October. But we will certainly be sharing all the data we get with the GAO so that they know what we know about what those expectations are and if there are any surprises.

Senator ALLARD. Well, thank you both.

POTENTIAL COST INCREASES

Next question, and this again is to you, Mr. Hantman. This is in relation to the increase in costs over the last month. According to the GAO, the cost estimate for potential changes worsened quite

a bit over the past month. Why did this happen and are you still comfortable that you will not need any additional funds?

Mr. HANTMAN. Bob.

Mr. HIXON. Sir, if I can respond to that, we have had two large change orders that, or potential change orders (PCO), that were generated in the last month. One of them deals with the control system for smoke control, fire alarm areas. We are trying to sort out what the value of that is. The number that is in the PCO log that is so large is a surprise to all of us. We did not expect it to be anywhere near that big and we are trying to determine if there are misunderstandings of scope, if the number really should be anything near as big as that.

The other relates to a plug number that was put into the record in anticipation of what the cost might be for building temporary partitions and doing things associated with the occupancy of the CVC earlier than the completion of the expansion space. It is simply a plug number. There is no basis for the number. It was just a number put in there.

Those are two very large numbers that have accounted for the big increase that we have had over what we have had before. We are still continuing to receive change orders, change order requests, from the contractor. We will be continuing to receive those for a long time. But these two large ones push the number up much higher than you would normally expect and they need to be reviewed.

Senator ALLARD. Mr. Hantman.

Mr. HANTMAN. Mr. Chairman, just a little more clarification on that. One of the things that Mr. Ungar indicated in his opening statement was the idea that if, in fact, additional funds are going to be spent on opening the visitor center prior to the completion of the expansion spaces, which we know are going to be several months behind since we just awarded that contract a number of weeks ago, and we testified to this at the last hearing.

So when Mr. Ungar talked about letting Congress know about possible dollars that might be spent to, as he called it—whether it is accelerating the opening of the CVC, I really do not think of it that way. What I think of it as is, because we will still be under construction for the House and Senate expansion spaces after the CVC is completed, do we need from an emergency egress perspective to essentially put in some additional sheet rock, some additional lighting, so in fact if there is an emergency evacuation of the CVC that they will be able to get to the stairways in the House and Senate expansion space.

So that is the plug number that has been referred to right now, and clearly we would not be spending those dollars unless, as Mr. Ungar indicates, we inform the Preservation Commission of that and we get approval to do so.

FIRE MARSHAL

Senator ALLARD. We have pushed you to work with the fire marshal on what his requirements might be. We want to feel confident about exactly what his requirements might be, and I assume that you are continuing to push this dialogue with the fire marshal.

Do you feel confident at this point in time that you are there? And then I will ask Mr. Ungar if he is comfortable with where everything is?

Mr. HANTMAN. Mr. Chairman, we have initiated a situation where the fire marshal now has a representative sitting in Bob's trailer 2 days a week and we have dedicated times when the fire marshal's people will be available to do checkoffs and things of that nature. If we are ready for it and they are not available, that would not happen; so that we have dedicated times and hopefully we can work more closely together and give them the drawings in advance, so they can in fact know what is coming down the road.

Senator ALLARD. Good.

Mr. HANTMAN. Bob, do you have any more to add?

Mr. HIXON. We have also been meeting with the fire marshal every other week. So the goal is to ensure that we do have all the activities coordinated. As sophisticated as the smoke evacuation system is for the building, together with the regular fire alarm system, it is a very complicated system. So there is a great deal of coordination that is underway. We are working very well with the fire marshal to accommodate all of those requirements.

The control system that we talk about is not something generated by the fire marshal as a requirement, but rather the design is accommodating some elements that make the system work better. So we think we are doing a good job of coordinating with them and we expect to be able to get through all of this planning here in the next 5 months. We will start checking out the systems in the springtime, but there is a great deal of planning that has been done to date and there is a great deal more to be accomplished.

Mr. HANTMAN. Just one last point on that, Mr. Chairman. Some of the dollars and the coordination issues that GAO referred to relative to the fire marshal is really a result of the fact that we are on the cutting edge of trying to balance some of the fire safety issues with security issues. Security issues have never been imposed to the extent that they are now with this new visitor center, and sometimes they are in conflict with fire marshal criteria, which is why it is even more important for us to sit down and make sure that we have this ongoing communication.

Senator ALLARD. I know you are serving food down in the lower level. If food is cooked down there and you have a lot of smoke or it could be a problem.

Mr. UNGAR. Yes, Mr. Chairman. We think that the steps that AOC has put into place should hopefully help resolve the problems that have existed. There is one other step that Bob and Alan did not mention that they are taking that we think is also important and necessary, and that is that they have asked the team to go back and relook at this whole issue, because there were some disagreements within the team.

So we think in addition to coordination with the fire marshal and having the fire marshal's representative there, this is an important step.

ACCELERATION OF WORK

There is one other issue I just wanted to clarify. When Alan was talking about the additional costs that might be associated with

opening the facility in September, the example he gave was correct. Because of the House and Senate expansion spaces not being done, there may have to be some temporary work. But the other issue that we are concerned about equally as well is acceleration of work between now and then, for example acceleration of work solely for the purpose of meeting the September 15 deadline—excuse me, target date.

AOC is experiencing a problem with the stone work on the east front that had to do with some unforeseen conditions and AOC is anticipating that it will be able to bring the schedule back to regain the 24 days that have been lost. Now, if that is going to cost more money, though, to do that, the question is should AOC really do that if the only purpose is to meet the September 15 date.

I would contrast that with the problems that AOC is experiencing on the utility tunnel with some delay there. If AOC has to expend additional money to recover time, there are many benefits to doing that, to getting that operational sooner, aside from the September 15 opening date. So we would distinguish between acceleration that really has a lot of benefits to acceleration that would solely benefit or help AOC achieve the September 15 date, which to our knowledge is not a congressionally mandated date.

LEGAL ISSUES INVOLVING STONE CONTRACTOR

Senator ALLARD. You have brought up the issue of the stone quarry. My understanding is that we are having some supply problems with the stone. I believe you may have had to lay off one or two of your masons because of not enough supply coming in. I remember in a previous hearing we were wondering whether we were going to have enough masons there to be able to install the stone.

So apparently there are some legal problems, and we only have a single source for stone and do not have an option of going to another source. We are locked in. Can you explain how it is that we got to that position and is there a remedy? I do not know how you control the length of time of the lawsuit.

Do we have a remedy in case this gets dragged out?

Mr. HANTMAN. Mr. Chairman, there was a hearing in Pittsburgh on Friday. The situation is that Manhattan Corporation has an injunction that has been issued against them, mandating that they use the fabricator that they are currently using and the quarry that they are currently using. Now, those folks have not been delivering enough stone, as we see on our schedule, for the installation to proceed in accordance with the schedule that we have.

So the injunction—there was a hearing on Friday, to which I sent Bob Hixon and our attorney, and I also sent a letter to Manhattan expressing concern, as we discussed at our last hearing, about the quantity of stone being delivered and installed in a timely way. Since Bob was there, I will let him talk directly to what was heard and what the next step is relative to this injunction.

Senator ALLARD. Bob.

Mr. HIXON. At the Friday meeting, we had representatives from Annandale, who is the supplier of the stone and quarry as well as the fabricator, as well as the contractors involved, Boatman Magnani, who is the stone subcontractor, and Manhattan. We were only an interested party present there to observe and let the judge

know that we are very concerned about the delivery of the stone because it is not coming in in accordance with the schedule that Manhattan has.

We are really supporting Manhattan in trying to ensure that they can get the stone required and have it installed. What came out of that were two items. One is the judge has said that we were not a party to the injunction, so that our contractual opportunities that we would normally have are still retained. But more importantly, what she required is a certification by the parties in the injunction that they could in fact provide stone in accordance with the schedule required for timely completion of the project, in accordance with the current contract completion date of September 15. So they have required that certification. It is to be submitted to her by this Friday, and if someone for some reason cannot sign the certification she said she wanted to hear about that immediately so that she could schedule a meeting next week to talk about it.

So she seems very supportive in ensuring that the actions that she has imposed by the injunction do not adversely affect our ability to get stone from the parties. If in fact they cannot certify and deliver on time, then there are other options that will have to be evaluated. So at this point we are looking to see if they will certify and we are also monitoring the delivery of stone that is coming to the job site to see if it meets the new schedule that the fabricator has provided.

Senator ALLARD. Well, your comments are somewhat heartening. So I appreciate your work on that.

MILESTONE COMPLETION

According to GAO, only 3 of the 17 critical milestones last month were accomplished on schedule.

Two questions. Why have these milestones not been met; and how do you expect to meet your September 15 deadline as we continue to miss so many milestones?

Mr. HIXON. Yes, sir. We are concerned with the milestones that we have missed. What we have had is since the April schedule was developed the critical path has moved around a little bit as the schedule became further defined. We have missed some milestones associated with the utility tunnel and we all understand the reason for those, and they are working to try and—we should be installing the sheeting piles on First Street here in the next couple of days and begin to start doing that work, which will be helpful. That is one of the items left over from the first chart that we had. You can see it marked in yellow there.

When you look at the second chart, which talks about the activities that have been done lately, later after that—well, yes. Mr. Hantman has pointed out that all of those items on that first chart were in fact completed except the one in yellow. It is now done. So all those activities are in fact complete. Some of them were a few weeks late being completed.

When you go to the second chart, we have two issues there. Again, you have the utility tunnel with some issues with the issues associated with the completion of that work, with the water lines and all. The rest of those items have to do with the wall stone in-

stallation in the Great Hall area, and they have two items on the top associated with layout of areas 8 and 9. Those are supposed to be done in the next couple of days and they will be completed and off the chart.

The other has to do with the wall stone in areas 3 and 4. You saw the picture that Mr. Hantman showed earlier of area 3, which is almost finished. Area 4 is hardly started. That work will not be done for some time. That is on the north orientation theater. That is going to take a number of weeks. So that one will be weeks late being completed. It is no longer on the critical path, but it is going to be much later than was reflected in the April schedule.

Senator ALLARD. Now, on the—my question is, do you agree with their assessment, Mr. Ungar?

Mr. UNGAR. Let me start, Mr. Chairman, and turn it over to Mr. Dorn.

I would just like to say one thing first and that is that one of the issues that we have talked to AOC about during this month with respect to these milestones has to do with the stone installation. What we have noted in this process is that for the most part the installation of the wall stone is not on the project's critical path, and AOC has certainly said that this is one of the most important activities in the whole project.

So we have asked AOC to go back and reassess this whole issue, because it was not logical that it not be on the critical path, at least in our perception. So that is one issue that we think needs to be addressed.

STONE INSTALLATION DELAYS

I think Mr. Dorn has some further comments on the effects of not meeting these milestones.

Senator ALLARD. Mr. Dorn.

Mr. DORN. I guess first a comment about the stone. Alan did a great job of sending a letter out to Manhattan about their suppliers and getting the stone here on time. In that letter he attached a couple charts that he received from the contractor that showed that by next week, on July 22, we should have over 85 percent of the stone here on site. And we are nowhere near that quantity, nowhere near it.

The dates continue to slip. There are a number of dates on that chart now that show 8 to 10 weeks later than what the April baseline showed. We cannot say it is impossible for them to meet this September 15 target that they have got, but at what cost? That is what concerns me. Stone supply is still a risk.

The stone work that they have done, while they did the food service area ahead of schedule, they still took longer to do it than they said they were going to do. So the duration was longer. You just moved it further ahead, and it was not critical to begin with.

The suppliers again have not met their production for months. There is talk of adding a second supplier possibly at this later date, but at what cost is that going to be? Someone cannot start up immediately and produce the stone that you need. Second, it would be a noncompetitive procurement, so you have got an additional cost risk there.

ACCELERATION COSTS

Also, you have got the utility tunnel delay. Bernie mentioned that you could accelerate the construction of that tunnel to minimize temporary services and that was, I think, Bob Hixon's idea, which we think is a good one, if you analyze your schedule and determine that it is going to help. It could, though, be an arbitrary decision and I do not think Bob will make that sort of thing. But you need to look at the schedule and make sure that there are not other concurrent delays that would overtake this thing anyway. Why pay to accelerate here if other delays are going to stop you from getting to where you need to be on a certain date.

Your other choice is to add temporary dehumidification or temporary services. Again, we pay for that. All of these things are to get us to that September 15 date, which is arbitrary.

There is talk about trying to, on the stone issue, particularly the east front that Bernie mentioned, that one of the ways to speed up the stone is to get the tickets to the contractor faster. Instead of getting all of your shop drawings together and sending one order in to the stone supplier, break it up into smaller orders and send it. I am not quite sure how that really helps a lot.

It is like my Burger King analogy. If I took my three kids to Burger King at the beach and I saw they were slow making hamburgers, does it help me if I send the three of them to different registers to place their orders separately from me? If the hamburgers are slow, I am not going to get there any faster.

There is a \$1 million, roughly, placeholder for tasks that are required to get the CVC open before the expansion space. It is a placeholder. There is nothing really behind that yet that we are aware of, but we are concerned about that.

All this rolls up into saying that we are concerned about their assessment of the schedule. It is similar to the optimistic statements that we heard 2 years ago with Centex. The people over there at the other table are sincere. They really want to make this happen for you. They are aggressively trying to make it happen. But we are concerned.

ASSESSMENT OF TASK DURATIONS

Senator ALLARD. This has to do with the assessment of the task durations. At our last meeting the Architect of the Capitol agreed to reassess schedule task durations by the time of this hearing. Has a detailed evaluation of key activities been conducted and what were the steps you followed in conducting this reassessment?

Mr. HANTMAN. Bob.

Mr. HIXON. Yes, sir. The assessment was done. All but three of the items have been reviewed, and that is the testing and balancing—and these are complicated ones that require additional refinement of the schedule and additional evaluation—but the commissioning of the systems, the test and balancing of the HVAC system, and the fire alarm system are the three that remain.

All other durations have been evaluated by Gilbane's project managers, their superintendents, and they have done that in conjunction with Manhattan to determine that the durations are in fact reasonable. But this is also an activity that will continue as

the contract, the schedule, will develop further details to ensure that they are reasonable. There are some activities that will come up periodically and require reassessment.

But we have gone through that first exercise to see if the schedule looks reasonable. The schedule from April has been accepted by the Government, done by Gilbane on behalf of us. So we have those three remaining. All others are fine at this time.

GAO'S OPINION ON ASSESSMENT

Senator ALLARD. Mr. Ungar, do you agree that the assessment has been done in a comprehensive manner?

Mr. UNGAR. Mr. Chairman, we think what was done was certainly helpful. We still have concerns, though. What we really had in mind in making that recommendation was a more rigorous data-based objective assessment using such information as productivity, crew size, actual experience on the site, or industry guides. I do not know that the construction manager really had enough time to do that between hearings, but that is the sort of an assessment that we really had in mind.

One of the results that we still do not feel comfortable with, for example, is the life safety, or occupancy inspection, activity that was deemed to be reasonable. Unfortunately the contractors expressed their judgment, but they did not involve the fire marshal at all in that assessment, and the fire marshal is critically involved in that activity. So we are not comfortable that without input from the fire marshal, that activity could be judged to be reasonable. It may be, but we do not have that assurance.

Second, as another example, a number of the stone work activities in the center itself have been underway and there is some data available on the durations that have actually been experienced versus the durations that were initially estimated. In the two cases that we looked at where stone work is fairly far along in the interior of the center, the food service area and the Great Hall, the actual durations were exceeding the durations that were estimated.

So to us that is not a good indicator. With the auditorium having a duration of 65 days, it seems unlikely to us that they are going to be able to meet that, given their experience. So we are concerned about the need to go back and do more rigorous assessments in the future.

TRANSITION TO OPERATIONS

Senator ALLARD. I thank you. We have a vote now that has come up.

The question I wanted to ask before we conclude has to do with the master schedule and the transition to operations phase. Now that you have your operations consultant on board, when will the operations tasks be incorporated into the master schedule so we will know when funding for operations is needed?

Mr. HANTMAN. Mr. Chairman, as I indicated in my opening remarks, governance has not yet been determined between the House and the Senate for the overall project. In fact, one of the things that I also mentioned was, because there is no formal clearance that says the Architect of the Capitol will in fact be running the visitor center—I know the Senate has passed some legislation indi-

cating that, but it has not been agreed to yet between the House and the Senate in a formal way. I do want to, as quickly as possible, have Zell refine the job description, the position description, for an executive director. He or she essentially is going to be able to work with all of Zell's recommendations and refine the type of organization and policies and procedures that he or she would like to have in the visitor center.

Senator ALLARD. If they do not make a decision, then does that not default to you?

Mr. HANTMAN. I am not sure if it defaults to me. We had a meeting on Monday afternoon with the Capitol Preservation Commission and, quite frankly, there was nobody who knew how a decision could be made on this.

EXECUTIVE DIRECTOR

What I want to do, though, Mr. Chairman, is I do want to be able to initiate this search now, even before 2006 dollars come in. Whether or not—I want to prepare this position description. I want to send a letter out indicating that what I propose to do is expend dollars, and perhaps the dollars need to be from this \$2.8 million that we already have allocated, as opposed to future dollars in 2006, or from the AOC general account. That way we can retain an executive search firm to start the process but not hire anybody pending the availability of funds when they come in the 2006 budget.

So I want to jump-start this process, Mr. Chairman, start that search now, begin to get out there. And I just want to make sure that everybody is comfortable with my expending funds since I have not formally been told that I am in charge of the process.

Senator ALLARD. Well, sometimes you just go ahead and do it and see what happens.

Now, what position now is going to integrate all of this?

Mr. HANTMAN. This would be the executive director, essentially. But again, the key point here, Mr. Chairman—

CONSTRUCTION TO OPERATIONS INTEGRATION

Senator ALLARD. What about the operations contractor? Would they have any responsibility for some of this integration?

Mr. HANTMAN. Well, in terms of Zell Partners, Ltd., they have put out a blueprint essentially and they are going to be refining that blueprint. One of the first tasks, in addition to the job position description for the executive director, is for them to take a look at quarterly needs in terms of staffing up the project. Based on this analysis, they could tell us when we open in September, 3 months before that we should have x number of people in positions on board, 3 months before that, the quarter before that, we should have these kind of people. Therefore we are informing each other in terms of what we really need on board, so that when the construction is finished and the doors are ready to open that we have a staff there to support that.

All of that needs to be done and that needs to be integrated with the construction side on Bob's side, who maintains the master schedule.

Senator ALLARD. So you have taken some steps in trying to plan for this transition. Can you give us some more detail in the next hearing?

Mr. HANTMAN. Within the next several weeks we would expect—we will be meeting with Zell and talking about this whole profile of staffing and what they see as being necessary. While we, in parallel, hopefully are able to get out on the street and start soliciting proposals or résumés so that we can consider hiring an executive director.

Senator ALLARD. Very good. If you can get us some more information in the next hearing, that will be one of the questions we will want to bring up.

Mr. HANTMAN. Absolutely.

SUBCOMMITTEE RECESS

Senator ALLARD. That is the last question I have, and I want to thank all of you for participating. We plan on now having the next hearing on September 15 of next month.

Thank you.

[Whereupon, at 11:58 a.m., Thursday, July 14, the subcommittee was recessed, to reconvene subject to the call of the Chair.]

PROGRESS OF CONSTRUCTION OF THE CAPITOL VISITOR CENTER

THURSDAY, SEPTEMBER 15, 2005

U.S. SENATE,
SUBCOMMITTEE ON THE LEGISLATIVE BRANCH,
COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:28 a.m., in room SD-138, Dirksen Senate Office Building, Hon. Wayne Allard (chairman) presiding.
Present: Senator Allard.

OPENING STATEMENT OF SENATOR WAYNE ALLARD

Senator ALLARD. I'm going to go ahead and call the subcommittee to order. We will, perhaps, have other members show up later on. We do have some votes that we're looking at this morning that could interrupt our testimony, at which point in time we'll put the subcommittee in recess and then cast our votes and be back to finish testimony and questions.

We meet today for our fourth hearing this year on the progress of the Capitol Visitor Center. We welcome back to the witness table after a month's break, Architect of the Capitol Alan Hantman, CVC Project Director Bob Hixon, and GAO's representatives Bernard Ungar and Terrell Dorn.

Today marks 1 year from the anticipated completion of the Capitol Visitor Center, September 15, 2006. While all of us look forward with great anticipation to the opening, the project is only 64 percent complete, according to the Architect of the Capitol's last monthly report. Progress is slower than expected, illustrated by the fact that only 7 of the 16 selected milestones scheduled for completion by today have actually been completed, and none were on time.

While AOC remains confident in their September 2006 projected completion date, GAO has become even more pessimistic in its projections, based on their observations to date. GAO has found that there continue to be problems with the schedule, such as optimistic durations of certain activities and various requirements have not been fully reflected in the schedule. According to GAO, the construction contractor would need to work more than 7 days a week for the next year to make up for lost time and meet the September 15 deadline, and that assumes no additional problems, going forward. In addition, despite a commitment by AOC to have completed a risk-mitigation plan by today's hearing, such a plan is not finished. While we recognize progress has been made since our last

hearing, significant concerns, most of which we've discovered over the past several months, have not been resolved.

In addition to discussing the CVC project, I have asked GAO to brief us on progress with the construction project at the Capitol Power Plant, referred to as the west refrigeration plant expansion. The \$100 million project is critical to ensure adequate cooling capacity for the Capitol campus, including the Capitol Visitor Center. The expansion project must be completed in a timely way and without disruption to service. We want to be sure this project is under control.

Before turning to my ranking member, I'd like to make sure our witnesses know of our plans for the next CVC hearing, which is scheduled now for October 18, same place and same time. At that time, we will look forward to getting an update on the latest estimate of the cost to complete the project currently in draft and being reviewed by GAO.

I will now turn to you, Mr. Hantman, for your testimony, to be followed by GAO's Bernard Ungar.

Proceed, Mr. Hantman.

STATEMENT OF ALAN M. HANTMAN, FAIA, ARCHITECT OF THE CAPITOL

ACCOMPANIED BY BOB HIXON, PROJECT DIRECTOR, CAPITOL VISITOR CENTER, ARCHITECT OF THE CAPITOL

Mr. HANTMAN. Good morning, Mr. Chairman, and thank you. Thank you for this opportunity to update you on the progress of the Capitol Visitor Center project and the key issues we discussed at our last meeting, on July 14, including the status of our overall project schedule and the risk-mitigation plan.

But, first, with the help of some recent photos from the project site, let me bring you up to date on the status of some specific areas of the construction. These photos, however, Mr. Chairman, can't truly depict the real progress made, the quality of the work, its true complexity, or the wonderful feeling of the spaces in this historic addition to our Capitol.

Since, Mr. Chairman, so much good work has occurred since you last visited the project, I'd welcome the opportunity to take you and members of the subcommittee on an inspection tour to see this progress firsthand.

On this first board, you see the Great Hall. Stone has been installed up to the ceiling on the north and the south walls and the west walls. You can glimpse the completed stonework behind the scaffolding. Those scaffolds will remain in place to facilitate the installation of the two large skylights, and that work is going to be beginning in November.

Stone is also going up on three walls and around the columns, as shown on this photo, in the Orientation Theaters. With nearly 20 stonemason teams now on site, we have stonework occurring concurrently in the Great Hall, both Orientation Theaters, and the Congressional Auditorium. Additional stonework is occurring on the roof deck of the CVC.

On this board, you can see historic preservation contractors busy reinstalling the original historic stone for the fountains and lan-

terns, which were designed by Frederick Law Olmsted in the 1870s.

Meanwhile, Mr. Chairman, throughout the facility, as you see on this board, workers continue to install mechanical, electrical, and plumbing systems, apply plaster, place concrete, and pull telecommunications wiring in the Congressional Auditorium and other areas.

Finally, I am pleased to report that fit-out work in both the House and Senate expansion spaces is proceeding well and the contractor is moving aggressively in both those areas. On this board, you can see some of the activities occurring as crews install underslab conduit over here, ductwork and place concrete for the floor topping in those spaces.

Mr. Chairman, in addition to the physical work being done on the CVC, we've also been providing Members and their staffs and other professionals with a firsthand look at the work being done on the project. As you may have read in last week's Roll Call article entitled, "Off Hill, CVC is 'Truly Impressive,'" other elected officials, foreign dignitaries, and construction professionals have been impressed by the significance of this project. County Executive Chris Coons from New Castle County, Delaware, was quoted as saying he was "blown away" during his visit to the CVC, and that they were, quote, "truly impressed with the complexity of the building site, with the way it was being integrated into the worksite of the Capitol, and how it fits into a major historic property." We're pleased to be able to share our lessons learned with others who are undertaking similar, although perhaps less complex, projects.

As you can see, Mr. Chairman, there's a tremendous amount of activity occurring throughout the facility. We expect the pace of work to increase further as more contractors involved in the installation of finishing materials come onboard in the months ahead.

OPENING STATEMENT OF ALAN HANTMAN

While we were working aggressively to meet the contract completion date, as we've discussed at prior hearings there are three critical areas currently impacting the sequence to contractors' work and schedule.

First, stone installation in the east front has been delayed in the development of shop drawings due to differing site conditions and the necessary design revisions. And there are other causes, as well. In an effort to minimize or eliminate the current delay, the contractor has divided his stone-shop drawing submittal into two parts. He submitted his lower-level shop drawings. The design architect has expedited the review, trying to mitigate the delay there, as well. And the contractor is also considering alternatives in stone fabrication and installation to further mitigate delay.

Second, stone delivery and installation. The project schedule also has been impacted by the reduced number of masons installing wall stone in the Great Hall and the surrounding corridors. The number of stonemasons had dropped off in past months due to slow stone deliveries and missing key pieces of wall stone. The contractor has worked with his stone subcontractor to double the number of stonemasons in the past month to install the stone.

Now, while the court injunction we discussed in July is still in place, deliveries of wall stone are approximately 80 percent of the scheduled amounts. Although key pieces are sometimes still missing to complete a wall elevation, we've experienced a significant improvement in stone installation in recent weeks. The contractor continues to actively work to resolve this issue and recover time.

Third, utility tunnel. Differing site conditions, the resulting design revisions, and other issues have delayed completion of construction of the utility tunnel by 1 month, from the end of October 2005 to the end of November 2005. That delay in completion of the tunnel may, in turn, delay the installation of piping for delivery of steam and chilled water until March 2006. If this is the case, the required temperature and humidity controls necessary to install building finishes such as millwork, acoustical ceiling panels, and acoustical tile could be impacted.

The excavation contractor is working additional hours each day and Saturdays to make up as much time as possible. We continue to evaluate other alternatives to avoid or minimize delays, including providing temporary temperature control and dehumidification for the Orientation Theaters, and food-service areas, so millwork can proceed on schedule.

Of future concern, Mr. Chairman, also reflected in the current schedule, is the very complicated process of commissioning the building, and especially the fire safety system, which is scheduled for next summer. We're coordinating the process with the contractor, the commissioning agent, and the fire marshal. The latest draft of the project schedule includes a large number of additional commissioning detail activities. The addition of those activities to the schedule moves the project completion date beyond the contract term. This process is being evaluated with all parties to ensure all activities have reasonable logic and durations and we can identify potential delay issues and resolve them well in advance of commissioning beginning. While the current overall construction schedule reflects a completion date after September 2006, the project team continues to work to try to recover time in all pertinent project activities to stay within the contract period.

Mr. Chairman, clearly there are many areas of risk that need to be mitigated to achieve the contract completion date. A risk assessment of the CVC was conducted last month, and a list of risk items was developed. Risk-handling plans for each of these items are currently being developed, and each plan will be managed by having the items reviewed in an ongoing basis. Items resolved will be moved from the list each month, any new risk items that are identified will be added.

Taking these factors into account, we have asked the contractor to submit his recovery plan to reflect the necessary revised schedule logic and durations so that the schedule will, again, help facilitate the timely completion, per the contract. That effort, Mr. Chairman, will take a number of weeks to complete. And in addition to our own risk assessment, as you know, GAO also continues to point out similar risks to the project schedule.

While the construction team is creatively and responsibly trying to recover lost time and meet the September 2006 contract completion date, there may well be items, Mr. Chairman, related to com-

missioning, the fine-tuning of mechanical systems, and punchlist items that current evaluations indicate could extend beyond then. Therefore, in recognizing these risks, for planning purposes, it would be prudent to aim for December 2006 to have full building operations tested and ready. In parallel with that work, the visitor services operations would be under development and preparation, including staffing activities. The completion date for the House and Senate expansion space remains unchanged at March 2007.

With respect to visitor services operations, we've been working with our CVC operations consultant to refine the staffing plan they developed. We're coordinating the plan with the construction schedule to facilitate the hiring and training of personnel who are needed to manage visitor center services within the CVC. Concurrently, we have already presented a draft of the staffing plan, required in legislation by December of this year, to the Capitol Preservation Commission. We look forward to working with the Appropriations Committee to continue refining it and finalizing it, in coordination with the construction schedule, to assure that people are hired when needed, but not too early.

Additionally, we're working with the Capitol Preservation Commission on a draft position description for the CVC executive director. Together, we hope to move the process forward so we can advertise the position and have that person onboard by January 2006. The executive director would then hire the required visitor services staff and work to put policies and procedures in place to allow for the opening of the CVC. The hiring of building operations staff has already begun.

Regarding the project budget, the CVC cost-to-complete is being updated, as you mentioned, by the independent firm of McDonough Bolyard Peck. The preliminary data has been submitted and is being reviewed and refined, and we'll be able to discuss them in detail at our next hearing.

One last note, Mr. Chairman, to let you know that Bob Hixon has just received a wonderful honor. He has been made a Fellow of the Construction Managers Association of America. If I may quote from their brochure here, "The Fellows designation is one of CMAA's highest honors conferred upon industry leaders who have made significant contributions to their organizations, the industry, and their profession. The following leaders of the construction management community are being named to the 2005 Class of Fellows, bringing the number of individuals who've received this designation to 27 since CMAA's inception in 1982." So, that's—out of some 3,000 or so members, Bob is 1 of 27 Fellows, and we're very proud of him. It's well deserved. It's nice to know that his recognized expertise is being brought to our project.

Mr. Chairman, that concludes my opening remarks.
[The statement follows:]

PREPARED STATEMENT OF ALAN M. HANTMAN, FAIA

Mr. Chairman, thank you for this opportunity to update you on the progress of the Capitol Visitor Center project and the key issues that were discussed at the last meeting on July 14, including the status of the CVC overall project schedule and risk mitigation plan. But first, let me bring you up to date on the status of some specific areas of the construction.

In the Great Hall, we have stone installed up to the ceiling on the north, south, and west walls. Scaffolds will remain in place inside the Great Hall to facilitate the installation of the two large skylights, and that work will occur in November.

Also in the Great Hall, work is progressing on the east wall and the areas adjacent to the water features at the base of the two grand staircases. Currently, workers are assembling the plumbing infrastructure for those water features.

Stone is also going up on three walls and around the columns in the south orientation theater. With nearly 20 stone mason teams now on site, stone work is occurring concurrently in the Great Hall, both orientation theaters and the Congressional auditorium.

Additional stone work is occurring on the roof deck of the CVC. The historic preservation contractor is busy re-installing the original historic stone for the fountains and lanterns which were designed by Fredrick Law Olmsted in the 1870s.

Meanwhile, throughout the facility, workers continue to install mechanical, electrical, and plumbing systems; apply plaster; place concrete, and pull telecommunications wiring in the Congressional auditorium and other areas.

Finally, I am pleased to report that fit-out work in both the House and Senate expansion spaces is proceeding well and the contractor is moving aggressively in both those areas. Crews are at work in both the House and Senate spaces installing underslab conduit and ductwork and placing concrete for the floor topping slabs.

In addition to the physical work being done on the CVC, the CVC project office has also been providing Members, their staffs, and other professionals with a first-hand look at the work being done on the project. As you may have read in last week's Roll Call article entitled, "Off Hill, CVC is 'Truly Impressive,'" other elected officials, foreign dignitaries, and construction professionals have been impressed by the significance of this project.

County Executive Chris Coons from New Castle County, Delaware, was quoted as saying he was "blown away" during his visit to the CVC, and that they were "truly impressed with the complexity of the building site, with the ways it was being integrated into the work site of the Capitol and how it fits into a major historic property."

We are pleased to be able to share our lessons learned with others who are undertaking similar, although less complex, projects.

There is a tremendous amount of activity occurring throughout the facility and we expect the pace of work to increase further as more contractors involved in the installation of finishing materials come on board in the months ahead. Out on East Capitol Street, where the primary utility tunnel is being constructed, the contractor is working extra hours each day and on Saturdays in an effort to recover some time that was lost during the execution of the work in this area. As has been mentioned at previous hearings, the timely completion of the utility tunnel is one of the factors critical to the contractor's ability to meet their contract completion date for September 15, 2006.

While we are working aggressively to meet the contract completion date, as we have discussed at prior hearings, there are three critical areas currently impacting the Sequence 2 contractor's work and schedule. They are:

- Stone installation in the East Front has been delayed in the development of shop drawings from the end of June to mid-August due to differing site conditions and the consequential design revisions. In an effort to minimize or eliminate the current delay, the contractor has broken his stone shop drawing submittal into two parts. He has submitted his lower level shop drawings, and the design architect has expedited the review to mitigate delay. The contractor is considering alternatives in stone fabrication and installation to further mitigate delay.
- The project schedule also has been impacted by the reduced number of masons installing wall stone in the Great Hall and the surrounding corridors. The number of stone masons had dropped off in the past months due to slow stone deliveries and missing key pieces of wall stone. The contractor has worked with his stone subcontractor to double the number of stone masons in the past month to install the stone currently available. While the court injunction we discussed in July is still in place, deliveries of wall stone are approximately 80 percent of the scheduled amounts. Although key pieces are sometimes still missing to complete a wall elevation, we have experienced significant improvement in stone installation in recent weeks.
- Differing site conditions and the resulting design revisions, along with other issues, have delayed completion of construction of the utility tunnel by one month from the end of October 2005 to the end of November 2005. That delay in completion of the tunnel may delay the installation of piping for delivery of steam and chilled water until March 2006. If this is the case, the required tem-

perature and humidity controls necessary to install building finishes such as millwork, acoustical ceiling panels, and acoustical wall panels, would be delayed. The excavation contractor is working additional hours each day and Saturdays to make up as much time as possible. We are also evaluating other alternatives to avoid or minimize delays in completion of the utility tunnel and piping installation, and providing temporary temperature control and dehumidification for the orientation theaters and food service areas so millwork can proceed on schedule.

A future concern also reflected in the current schedule is the very complicated process of commissioning the building, and especially the fire safety system. We are continuing to coordinate the process with the contractor, the commissioning agent, and the Fire Marshal. The latest draft of the project schedule includes a large number of additional commissioning detail activities. The addition of these activities to the schedule moves the project completion date beyond the contract term. This process is being evaluated with all parties to ensure all activities have reasonable logic and durations. While the current construction schedule reflects a completion date after September 15, 2006, the project team continues to work to try to recover time in all pertinent project activities to stay within the contract period.

There are, clearly, many areas of risk that need to be mitigated to achieve the contract completion date. A risk assessment of the CVC was conducted last month and a list of risk items was developed and will be evaluated. Risk handling plans for each of these items are being developed currently. Each risk mitigation plan will be managed by having the items reviewed monthly by the team with one-fourth of the items addressed in depth each week. Items resolved will be removed from the list each month and any new risk items that are identified will be added.

Taking these factors into account, we have asked the contractor to submit his recovery plan to reflect the necessary revised schedule logic and durations so that the schedule will again help facilitate the timely completion per the contract. That effort will take a number of weeks to complete. In addition to our own risk assessment, as you know, GAO also continues to point out similar risks to the project schedule. While the construction team is striving to recover lost time and meet the September 15, 2006, contract completion date, there may well be items related to commissioning, fine tuning of mechanical systems and punch list items that could extend beyond the CVC contract completion date. Therefore, for planning purposes, a December 2006 date would be prudent to aim for to have full building operations tested and ready. The completion date for the House and Senate Expansion Space remains unchanged at March 2007.

Regarding the project budget, the CVC Cost-to-Complete is being updated by the independent firm of McDonough, Bolyard, Peck. The preliminary data has been submitted and is being reviewed and refined.

We also have been working with our CVC visitor services operations consultant to refine the staffing plan they have developed. We are coordinating the plan with the construction schedule to facilitate the hiring and training of personnel who are needed to manage visitor services within the CVC. Concurrently, we have presented a draft of the staffing plan, required in legislation by December of this year, to the Capitol Preservation Commission and we will be working with the Appropriations Committees to finalize it as soon as possible.

Additionally, a draft position description for the executive director has been submitted to the Capitol Preservation Commission. It is important to move the process along so we can advertise the position and have that person on board by January 2006. The executive director would then hire the required staff and work to put policies and procedures in place to allow for the opening of the CVC.

Mr. Chairman, this concludes my opening remarks. I would be happy to answer any questions you may have.

Senator ALLARD. Thank you for your testimony. And I would also like to join in congratulating you, Mr. Hixon, for the award that you received.

Mr. Ungar.

**STATEMENT OF BERNARD L. UNGAR, DIRECTOR, PHYSICAL INFRA-
STRUCTURE, GOVERNMENT ACCOUNTABILITY OFFICE**

**ACCOMPANIED BY TERRELL DORN, ASSISTANT DIRECTOR, PHYSICAL
INFRASTRUCTURE, GOVERNMENT ACCOUNTABILITY OFFICE**

Mr. UNGAR. Mr. Chairman, we're pleased to be here again to assist the subcommittee in its oversight. We're again accompanied by our team members, who are identified in our statement. We really appreciate their help and assistance. And, hopefully, again they'll help us—bail us out if we get some tough questions.

What I'd like to do is give you a brief overview of where we think we are on the project, how we got there, and what needs to be done from our perspective, and ask Mr. Dorn to hone in on a very few specific points that he'd like to focus on to give you a greater appreciation for some of the issues here that we're dealing with.

As Mr. Hantman indicated, progress is certainly continuing to be made on the project—there is no question about that—in a number of areas. At the same time, problems are continuing to occur with stonework and the utility tunnel, where actual delays have been occurring.

What's really been happening over the last couple of months since your last hearing is this. The delays have continued. As a result of one of the recommendations that we previously made to AOC, the project team has been looking at the schedule, particularly some activities with respect to the heating, air-conditioning, and ventilation system, and the fire protection system. We had previously noted that these activities appeared to have unrealistically short durations in the schedule. During the process of the team's assessment, the team identified a number of activities, detailed activities, that were not in the schedule that would require a substantial amount of time on their initial assessment to undertake. Then they came up with their August schedule, which identified a slippage in the expected completion date from November 2006, which was the completion date shown in the schedule discussed at the last hearing, until the end of February 2. They recognized, however, that the activities they added had not yet been evaluated in-depth; that is, it was the first go-around. And that basically had to do with the added activities and some of the slippages to date.

At the same time that AOC was going through its evaluation, we were doing our risk assessment of the schedule. We were identifying the same types of things that AOC was identifying, meaning that there were significant problems with the schedule with respect to the heating, air-conditioning, and ventilation system and the fire protection system which would add time to the schedule. In addition to that, we also found a number of problems that we had identified previously with optimistic durations, and that included the stonework, the utility tunnel, and some of the finishing work. We had identified all of these issues, back in early 2004, as areas that really needed to be assessed. And, unfortunately, there wasn't a real aggressive assessment of those until after the hearing process started. But we are certainly pleased that that's now underway.

So, all these things were happening at the same time, and now we're at a situation where, because of all the uncertainty associated with the schedule because of the added activities and the concerns and problems that were occurring, a definitive completion date is

not possible to predict at this point. We do have a general sense of when we think the basic project is going to be completed, pending a reevaluation. And our sense right now, given all the information that we see, is: a completion date of sometime in the spring/summer of 2007 is more likely at this point than the September date that AOC is currently focusing on.

We got here because, at least in our view, initially the sequence 2 schedule did not have sufficient detail to determine whether or not it could be achieved. We raised this concern when the sequence 2 schedule was first proposed. We had a great deal of concern about that, about the degree of detail and the level of resource loading that was there. We raised these concerns to AOC and to Gilbane. At that point in time, there was a different management team there, and, basically, they just didn't move forward with our suggestion at that time that they reevaluate those activities.

At this time, AOC believes that it can recover a significant amount of time that's been added to the schedule. And we don't disagree that some time is likely to be able to be recovered, because they could do some resequencing. At the same time, we have a number of concerns about some adverse consequences that could result from various steps that might be taken to recover time or accelerate the project or perhaps take some shortcuts, which we have identified in our statement.

And that leads me to some very specific actions that we think are critical and need to be taken from this point forward:

First, we believe that AOC and the rest of the team need to do a very rigorous evaluation of the schedule—not only the areas that they've added, but the other areas in the schedule, too. And we've given AOC a list of activities that we continue to believe have optimistic durations, and they're the same activities that we've identified over a period of time: the stonework, the utility tunnel, and some of the finishing work. And there are a number of other areas.

Second, we believe that AOC needs to have strong management controls in place to really look at the quality of the project when more time is being spent—if they're going to work nights and weekends, add shifts, or take some shortcuts that hopefully will not be taken, but could be taken, to meet some of the timeframes. Such steps could impact the safety of the facility, from a fire and life safety standpoint, the efficiency of the work, the functionality of the equipment, or worker safety. So, we think it's very important that, from this point forward, AOC and Gilbane really focus on these types of potential problems.

Third, we think that it's very important to have a reasonable amount of time between the end of construction and the beginning of operations, the opening of the facility, to allow for some unexpected delays or problems or operations preparation.

Fourth, we think that it's very important that AOC and its construction manager document and determine the causes of delays and take appropriate action and that they notify Congress of any planned acceleration steps or scope changes that might be made to meet the schedule.

And, finally, that AOC expedite efforts to replace the director of the Capitol Power Plant, who left several months ago, I believe in May. It's a very important position. It's not only important to the

CVC that the west refrigeration plant that you referred to is up and running, but that the other issues that exist at the plant be addressed and that there be a proven, talented leader in place there as soon as possible.

And, with that, I'd like to ask Mr. Dorn to focus in on a few specific points.

[The statement follows:]

PREPARED STATEMENT OF BERNARD L. UNGAR

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. Our remarks will focus on (1) the Architect of the Capitol's (AOC) progress in managing the project's schedule since the Subcommittee's July 14 hearing on the project; (2) our estimate of a general time frame for completing the base project's construction and the preliminary results of our assessment of the risks associated with AOC's July 2005 schedule for the base project; and (3) the project's costs and funding, including the potential impact of scheduling issues on cost.¹ However, we will not, as originally planned, provide specific estimated completion dates because AOC's contractors revised the schedule in August to reflect recent delays, but AOC has not yet evaluated the revised schedule. AOC believes that the time added to the schedule by its contractors is unreasonable. Until AOC completes its evaluation and we assess it, any estimates of specific completion dates are, in our view, tentative and preliminary. Similarly, we will wait until the schedule is stabilized to update our November 2004 estimate of the cost to complete the project. Currently, AOC and its consultant, McDonough Bolyard Peck (MBP), are still developing their cost-to-complete estimates.

Our remarks 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 CVC project staff (including AOC, its major CVC contractors, and representatives of MBP), AOC's Chief Fire Marshal, and officials responsible for managing the Capitol Power Plant. We also reviewed applicable appropriations legislation. Appendix I provides more detailed information on our assessment of the project's schedule. We did not perform an audit; rather, we performed our work to assist Congress in conducting its oversight activities.

In summary, although AOC and its construction contractors have continued to make progress since the Subcommittee's July 14 CVC hearing, several delays have occurred and more are expected. These delays could postpone the base project's completion significantly beyond September 15, 2006, the date targeted in AOC's July 2005 schedule.² Although not yet fully reviewed and accepted by AOC, the schedule that AOC's contractors revised in August 2005 shows February 26, 2007, as the base project's completion date. The contractors reported this revised date largely because some key activities associated with the heating, ventilation, and air-conditioning (HVAC) and fire protection systems had not been included in previous schedules and because delays were occurring, both in constructing the utility tunnel and in completing interior stonework.

According to our preliminary analysis of the project's July 2005 schedule, the base project is more likely to be completed sometime in the spring or summer of 2007 than by September 15, 2006. Unless the project's scope is changed or extraordinary actions are taken, the base project is likely to be completed later than September 15, 2006, for the reasons cited by the contractors and for other reasons, such as the optimistic durations estimated for a number of activities and the risks and uncertainties facing the project. AOC believes that the contractors added too much time

¹See GAO, *Capitol Visitor Center: Update on Status of Project's Schedule and Costs*, GAO-05-910T (Washington, D.C.: July 14, 2005).

²AOC set September 15, 2006, as the contractual date for completing the base project's construction and for opening the CVC facility to the public. The House and Senate expansion spaces were scheduled to be completed after that date. AOC set the September contract completion date in November 2004, when it reached agreement with the contractor on a new date for starting sequence 2 that reflected the delays experienced on sequence 1. On September 6, 2005, AOC informed Capitol Preservation Commission representatives that it still expected the base project's construction to be substantially complete on September 15, 2006, but was postponing the date for opening the facility to the public to December 15, 2006, so that it could complete system tests, minor punch-list work, and preparations for operations.

to the schedule in August for activities not included in the schedule and that it can expedite the project by working concurrently rather than sequentially and by taking other actions. While AOC may not need all of the time added for the missing activities, CVC project personnel believe that more time will be needed than is currently scheduled for other activities, such as the utility tunnel, interior finishes and stonework, and the East Front. Because of the uncertainty surrounding the base project's construction schedule, we cannot estimate a specific completion date at this time. Additionally, we are concerned about actions that have been, or could be, proposed to accelerate work to meet the September 15, 2006, target date. While such actions could expedite the project and save some costs, they could also increase other costs or adversely affect the CVC facility's quality, functionality, or life safety provisions. The project's schedule also raises a number of management concerns, including the potential for delays caused by not allowing enough time to address potential problems or to complete critical activities. Since the Subcommittee's July 14 hearing, we have discussed several actions with AOC that we believe are needed to address the CVC project's schedule problems and our concerns. These actions include

- evaluating the project's revised schedule, including the activity durations, to ensure that adequate time is provided;
- analyzing the impact of various factors on the schedule and the adequacy of the resources scheduled to be applied to meet completion dates;
- carefully considering the costs, benefits, and risks associated with proposals to accelerate work or reduce its scope and ensuring that appropriate management controls are in place to prevent or minimize the possible adverse consequences of such actions, if taken;
- proposing a CVC opening date that allows reasonable time between the completion of construction and the facility's opening to address problems that may arise;
- ensuring that delays and their causes are adequately determined and documented on an ongoing basis; and
- advising Congress of any plans for accelerating work or reducing its scope so that Congress can be involved in such decisions.

AOC agreed with our suggestions.

Fiscal year 2006 appropriations have provided sufficient funds to cover AOC's request for CVC construction funding as well as additional funds for some risks and uncertainties that may arise, such as costs associated with additional sequence 2 delays or unexpected conditions. Although sequence 2 delays have been occurring, the extent to which the government is responsible for their related costs is not clear at this time. Additional funding may be necessary if the government is responsible for significant delay-related costs or if significant changes are made to the project's design or scope or to address unexpected conditions. In addition, we and AOC identified some CVC construction activities that received duplicate funding. AOC has discussed this issue with the House and Senate Appropriations Committees.

Work on the Project Is Progressing, but Delays Continue

AOC and its contractors have continued to make progress on the project since the Subcommittee's July 14 hearing. However, mostly because some key activities associated with the HVAC and fire protection systems were not included in earlier schedules and because delays occurred in installing stonework and excavating the utility tunnel, the sequence 2 contractor's August schedule shows the expected completion date for the base project as February 26, 2007. As discussed at the Subcommittee's July 14 hearing, AOC recognized some delays in its June 2005 schedule, which showed the base project's expected completion date as October 19, 2006. Although AOC has not evaluated the contractor's August schedule, it does not believe that so much additional time will be needed. Furthermore, as discussed in the next section, AOC maintains that work could be accelerated to meet the September 15, 2006, target date.

Project's Schedule, Including Possible Actions to Accelerate Work, Raises Management Concerns

According to our analysis of the CVC project's schedule, the base project is unlikely to be completed by the September 15, 2006, target date for several reasons. AOC believes that it could take actions to complete the project by then, but these actions could have negative as well as positive consequences. These and other schedule-related issues raise a number of management concerns. We have discussed actions with AOC officials that we believe are necessary to address problems with the schedule and our concerns. AOC generally agreed with our suggestions.

Base Project's Construction Is Likely to Be Completed Later Than Scheduled for Several Reasons

For several reasons, we believe that the base project is more likely to be completed sometime in the spring or summer of 2007 than by September 15, 2006:

- As we have previously testified, AOC's sequence 2 contractor, Manhattan Construction Company, has continued to miss its planned dates for completing activities that we and AOC are tracking to assist the Subcommittee in measuring the project's progress. For example, as of September 8, the contractor had completed 7 of the 16 selected activities scheduled for completion before today's hearing (see app. II); however, none of the 7 activities was completed on time. Unforeseen site conditions, an equipment breakdown, delays in stone deliveries, and a shortage of stone masons for the interior stonework were among the reasons given for why the work was not completed on time.³ Our analysis of the sequence 2 contractor's production pace between November 2004 and July 2005 indicates that the base project's construction is unlikely to be finished by September 15, 2006, if the contractor continues at the same pace or even accelerates the work somewhat. In fact, at the current or even a slightly accelerated pace, the base project would be completed several months after September 15, 2006. To finish the base project's construction by that date, our analysis shows that the sequence 2 contractor would have to recover 1 day for every 8 remaining days between July 2005 and September 2006 and could incur no further delays.⁴
- We continue to believe that the durations scheduled for a number of sequence 2 activities are unrealistic. According to CVC project team managers and staff, several activities, such as constructing the utility tunnel; testing the fire protection system; testing, balancing, and commissioning the HVAC system; installing interior stonework; and finishing work in some areas are not likely to be completed as indicated in the July 2005 schedule. Some of these are among the activities whose durations we identified as optimistic in early 2004 and that we and AOC's construction management contractor identified as contributing most to the project's schedule slippage in August 2005; these activities also served as the basis for our March 2004 recommendation to AOC that it reassess its activity durations to see that they are realistic and achievable at the budgeted cost. Because AOC had not yet implemented this recommendation and these activities were important to the project's completion, we suggested in our May 17 testimony before the Subcommittee that AOC give priority attention to this recommendation.⁵ AOC's construction management contractor initiated such a review after the May 17 hearing. Including more time in the schedule to complete these activities could add many more weeks to the project's schedule.
- AOC's more aggressive schedule management is identifying significant omissions of activities and time from the sequence 2 schedule. AOC's approach, though very positive, is coming relatively late in the project. For example, several detailed activities associated with testing, balancing, and commissioning the CVC project's HVAC and fire protection system were added to the schedule in July and August, extending the schedule by several months. AOC believes, and we agree, that some of this work may be done concurrently, rather than sequentially as shown in the August schedule, thereby saving some of the added time. However, until more work is done to further develop this part of the schedule, it is unclear how much time could be saved. Furthermore, the July schedule does not appear to include time to address significant problems with the HVAC or fire alarm systems should they occur during testing.
- In August 2005, CVC project personnel identified several risks and uncertainties facing the project that they believed could adversely affect its schedule. Examples include additional unforeseen conditions in constructing the utility and House Connector tunnels; additional delays in stonework due to slippages in stone deliveries, shortages of stone masons, or stop-work orders responding to complaints about noise from work in the East Front; and problems in getting the HVAC and fire protection systems to function properly, including a sophisticated air filtration system that has not been used before on such a large scale. Providing for these risks and uncertainties in the schedule could add another 60 to 90 days to the completion date, on top of the additional time needed to

³Also see, for example, GAO, *Capitol Visitor Center: Effective Schedule Management and Updated Cost Information Needed*, GAO-05-811T (Washington, D.C.: June 14, 2005).

⁴This analysis assumes the 60-day delay shown in the project's July schedule.

⁵GAO, *Capitol Visitor Center: Priority Attention Needed to Manage Schedules and Contracts*, GAO-05-714T (Washington, D.C.: May 17, 2005).

perform activities that were not included in the schedule or whose durations were overly optimistic.

—Over the last 2 months, AOC's construction management contractor has identified 8 critical activity paths that will extend the base project's completion date beyond September 15, 2006, if lost time cannot be recovered or further delays cannot be prevented. These 8 activity paths are in addition to 3 that were previously identified by AOC's construction management contractor. In addition, the amount of time that has to be recovered to meet the September 15 target has increased significantly. The activity paths include work on the utility tunnel and testing and balancing the HVAC system; procuring and installing the control wiring for the air handling units; testing the fire alarm system; millwork and casework in the orientation theaters and atrium; and stonework in the East Front, orientation theaters, and exhibit gallery. Having so many critical activity paths complicates project management and makes on-time completion more difficult.

Possible Actions to Accelerate Work Raise Concerns

AOC believes it can recover much of the lost time and mitigate remaining risks and uncertainties through such actions as using temporary equipment, adding workers, working longer hours, resequencing work, or performing some work after the CVC facility opens. AOC said that it is also developing a risk mitigation plan that should contain additional steps it can take to address the risks and uncertainties facing the project. Various AOC actions could expedite the project and save costs, but they could also have less positive effects. For example, accelerating work on the utility tunnel could save costs by preventing or reducing delays in several other important activities whose progress depends on the tunnel's completion. Conversely, using temporary equipment or adding workers to overcome delays could increase the project's costs if the government is responsible for the delays. Furthermore, (1) actions to accelerate the project may not save time; (2) the time savings may be offset by other problems; or (3) working additional hours, days, or shifts may adversely affect the quality of the work or worker safety. In our opinion, decisions to accelerate work must be carefully made, and if the work is accelerated, it must be tightly managed.

Possible proposals from contractors to accelerate the project by changing the scope of work or its quality could compromise the CVC facility's life safety system, the effective functioning of the facility's HVAC system, the functionality of the facility to meet its intended purposes, or the life-cycle costs of materials. In August, project personnel raised such possibilities as lessening the rigor of systems' planned testing, opening the facility before all planned testing is done, or opening the facility before completing all the work identified by Capitol Preservation Commission representatives as having to be completed for the facility to open. While such measures could save time, we believe that the risks associated with these types of actions need to be carefully considered before adoption and that management controls need to be in place to preclude or minimize any adverse consequences of such actions, if taken.

Project's Schedule Presents Other Management Concerns

AOC's schedule presents other management issues, including some that we have discussed in earlier testimonies.

—AOC tied the date for opening the CVC facility to the public to September 15, 2006, the date in the sequence 2 contract for completing the base project's construction. Joining these two milestones does not allow any time for addressing unexpected problems in completing the construction work or in preparing for operations. AOC has since proposed opening the facility to the public on December 15, 2006, but the schedule does not yet reflect this proposed revision. Specifically, on September 6, 2005, AOC told Capitol Preservation Commission representatives that it was still expecting the CVC base project to be substantially completed by September 15, 2006, but it proposed to postpone the facility's opening for 3 months to provide time to finish testing CVC systems, complete punch-list work, and prepare for operating the facility. In our view, allowing some time to address unexpected problems is prudent.

—AOC's and its contractors' reassessment of activity durations in the August schedule may not be sufficiently rigorous to identify all those that are unrealistic. In reassessing the project's schedule, the construction management contractor found some durations to be reasonable that we considered likely to be too optimistic. Recently, AOC's sequence 2 and construction management contractors reported that, according to their reassessment, the durations for interior stonework were reasonable. We previously found that these durations were

optimistic, and CVC project staff we interviewed in August likewise believed they were unrealistic.

- We have previously expressed concerns about a lack of sufficient or timely analysis and documentation of delays and their causes and determination of responsibility for the delays, and we recommended that AOC perform these functions more rigorously. We have not reassessed this area recently. However, given the project's uncertain schedule, we believe that timely and rigorous analysis and documentation of delays and their causes and determination of responsibility for them are critical. We plan to reexamine this area again in the next few weeks.
- The uncertainty associated with the project's construction schedule increases the importance of having a summary schedule that integrates the completion of construction with preparations for opening the facility to the public, as the Subcommittee has requested and we have recommended.⁶ Without such a schedule, it is difficult to determine whether all necessary activities have been identified and linked to provide for a smooth opening or whether CVC operations staff will be hired at an appropriate time. In early September, AOC gave a draft operations schedule to its construction management contractor to integrate into the construction schedule.
- As we noted in our July 14 testimony, AOC could incur additional costs for temporary work if it opens the CVC facility to the public before the construction of the House and Senate expansion spaces is substantially complete. As of last week, AOC's contractors were still evaluating the construction schedule for the expansion spaces, and it was not clear what needs AOC would have for temporary work. The schedule, which we received in early September, shows December 2006 as the date for completing the construction of the expansion spaces. We have not yet assessed the likelihood of the contractor's meeting this date.
- Finally, we are concerned about the capacity of the Capitol Power Plant (CPP) to provide adequately for cooling, dehumidifying, and heating the CVC facility during construction and when it opens to the public. Delays in completing CPP's ongoing West Refrigeration Plant Expansion Project, the removal from service of two chillers because of refrigerant gas leaks, fire damage to a steam boiler, management issues, and the absence of a CPP director could potentially affect CPP's ability to provide sufficient chilled water and steam for the CVC facility and other congressional buildings. These issues are discussed in greater detail in appendix III.

Actions Are Needed and Being Taken to Move the Project Forward and Address Concerns

Since the Subcommittee's July 14 CVC hearing, we have discussed a number of actions with AOC officials that we believe are necessary to address problems with the project's schedule and our concerns. AOC generally agreed with our suggestions, and a discussion of them and AOC's responses follows.

- By October 31, 2005, work with all relevant stakeholders to reassess the entire project's construction schedule, including the schedule for the House and Senate expansion spaces, to ensure that all key activities are included, their durations are realistic, their sequence and interrelationships are appropriate, and sufficient resources are shown to accomplish the work as scheduled. Specific activities that should be reassessed include testing, balancing, and commissioning the HVAC and filtration systems; testing the fire protection system; constructing the utility tunnel; installing the East Front mechanical (HVAC) system; installing interior stonework and completing finishing work (especially plaster work); fabricating and delivering interior bronze doors; and fitting out the gift shops. AOC agreed and has already asked its construction management and sequence 2 contractors to reassess the August schedule. AOC has also asked the sequence 2 contractor to show how it will recover time lost through delays.
- Carefully consider the costs, benefits, and risks associated with proposals to change the project's scope, modify the quality of materials, or accelerate work, and ensure that appropriate management controls are in place to prevent or minimize any adverse effects of such actions. AOC agreed. It noted that the sequence 2 contractor had already begun to work additional hours to recover lost time on the utility tunnel. AOC also noted that its construction management contractor has an inspection process in place to identify problems with quality and has recently enhanced its efforts to oversee worker safety.
- Propose a CVC opening date to Congress that allows a reasonable amount of time between the completion of the base project's construction and the CVC fa-

⁶See, for example, GAO-05-714T.

cility's opening to address any likely problems that are not provided for in the construction schedule. The December 15, 2006, opening date that AOC proposed earlier this month would provide about 90 days between these milestones if AOC meets its September 15, 2006, target for substantial completion. However, we continue to believe that AOC will have difficulty meeting the September 15 target, and although the 90-day period is a significant step in the right direction, an even longer period is likely to be needed.

- Give priority attention to effectively implementing our previous recommendations that AOC (1) analyze and document delays and the reasons and responsibility for them on an ongoing basis and analyze the impact of scope changes and delays on the project's schedule at least monthly and (2) advise Congress of any additional costs it expects to incur to accelerate work or perform temporary work to advance the CVC facility's opening so Congress can weigh the advantages and disadvantages of such actions. AOC agreed.

Project Costs and Funding Provided as of September 2005

AOC is still updating its estimate of the cost to complete the CVC project, including the base project and the House and Senate expansion spaces. As a result, we have not yet had an opportunity to comprehensively update our November 2004 estimate that the project's estimated cost at completion will likely be between \$515.3 million without provision for risks and uncertainties and \$559 million with provision for risks and uncertainties. Since November 2004, we have added about \$10.3 million to our \$515.3 million estimate to account for additional CVC design and construction work. (App. IV provides information on the project's cost estimates since the original 1999 estimate.) However, our current \$525.6 million estimate does not include costs that AOC may incur for delays beyond those delay costs included in our November 2004 estimate. Estimating the government's costs for delays that occurred after November 2004 is difficult because it is unclear who ultimately will bear responsibility for various delays. Furthermore, AOC's new estimates may cause us to make further revisions to our cost estimates.

To date, about \$528 million has been provided for CVC construction. (See app. V.) This amount does not include about \$7.8 million that was made available for either CVC construction or operations.⁷ In late August, we and AOC found that duplicate funding had been provided for certain CVC construction work. Specifically, about \$800,000 was provided in two separate funding sources for the same work. The House and Senate Committees on Appropriations were notified of this situation and AOC's plan to address it. The funding that has been provided and that is potentially available for CVC construction covers the current estimated cost of the facility at completion and provides some funds for risks and uncertainties. However, if AOC encounters significant additional costs for delays or other changes, more funding may be needed.

Because of the potential for coordination problems with a project as large and complex as CVC, we had recommended in July that AOC promptly designate responsibility for integrating the planning and budgeting for CVC construction and operations. In late August, AOC designated a CVC staff member to oversee both CVC construction and operations funding. AOC had also arranged for its operations planning consultant to develop an operations preparation schedule and for its CVC project executive and CVC construction management contractor to prepare an integrated construction and operations schedule. AOC has received a draft operations schedule and has given it to its construction management contractor to integrate into the construction schedule. Pending the hiring of an executive director for CVC, which AOC would like to occur by the end of January 2006, the Architect of the Capitol said he expects his Chief Administrative Officer, who is currently overseeing CVC operations planning, to work closely with the CVC project executive to integrate CVC construction and operations preparations.

Work and costs could also be duplicated in areas where the responsibilities of AOC's contractors overlap. For example, the contracts or planned modification for both AOC's CVC construction design contractor and CVC operations contractor include work related to the gift shop's design and wayfinding signage. We discussed the potential for duplication with AOC, and it agreed to work with its operations planning contractor to clarify the contractor's scope of work, eliminate any duplication, and adjust the operations contract's funding accordingly.

⁷Public 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 June 2005, AOC 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.

Mr. Chairman, this concludes our statement. We would be pleased to answer any questions that you or Members of the Subcommittee may have.

APPENDIX I.—RISK ASSESSMENT METHODOLOGY

With the assistance of a contractor, Hulett & Associates, we assessed the risks associated with the Architect of the Capitol’s (AOC) July 2005 schedule for the Capitol Visitor Center (CVC) project and used the results of our assessment to estimate a time frame for completing the base CVC project with and without identified risks and uncertainties.⁸ In August 2005, we and the contractor interviewed project managers and team members from AOC and its major CVC contractors, a representative from the Army Corps of Engineers, and AOC’s Chief Fire Marshal to determine the risks they saw in completing the remaining work and the time they considered necessary to finish the CVC project and open it to the public. Using the project’s July 2005 summary schedule (the most recent schedule available when we did our work), we asked the team members to estimate how many workdays would be needed to complete the remaining work. More specifically, for each summary-level activity that the members had a role or expertise in, we asked them to develop three estimates of the activity’s duration—the least, most likely, and longest time needed to complete the activity. We planned to estimate the base project’s most likely completion date without factoring in risks and uncertainties using the most likely activity durations estimated by the team members. In addition, using these three-point estimates and a simulation analysis to calculate different combinations of the team’s estimates that factored in identified risks and uncertainties, we planned to estimate completion dates for the base project at various confidence levels.

In August 2005, AOC’s construction management and sequence 2 contractors were updating the July project schedule to integrate the construction schedule for the House and Senate expansion spaces, reflect recent progress and problems, and incorporate the results to date of their reassessment of the time needed for testing, balancing, and commissioning the heating, ventilation and air-conditioning, (HVAC) system and for fire alarm testing.⁹ This reassessment was being done partly to implement a recommendation we had made to AOC after assessing the project’s schedule in early 2004 and finding that the scheduled durations for these and other activities were optimistic. AOC’s construction management and sequence 2 contractors found that key detailed activities associated with the HVAC system had not been included in the schedule and that the durations for a number of activities were not realistic. Taking all of these factors into account, AOC’s contractors revised the project’s schedule in August. AOC believes that the revised schedule, which shows the base project’s completion date slipping by several months, allows too much time for the identified problems. As a result of this problem and others we brought to AOC’s attention, AOC has asked its contractors to reassess the schedule. AOC’s construction management contractor believes that such a reassessment could take up to 2 months. In our opinion, there are too many uncertainties associated with the base project’s schedule to develop reliable estimates of specific completion dates, with or without provisions for risks and uncertainties.

APPENDIX II.—CAPITOL VISITOR CENTER CRITICAL CONSTRUCTION MILESTONES, JULY-SEPTEMBER 2005

Activity	Location	Scheduled completion	Actual completion
Wall Stone Area 8 Layout	Great Hall	6/20/05	7/25/05
Wall Stone Area 9 Layout	Great Hall	6/24/05	7/28/05
Wall Stone Area 3 ¹	Great Hall	7/06/05	7/22/05
Wall Stone Area 2 ¹	Great Hall	7/06/05	7/25/05
Drill/Set Soldier Piles Sta. 0:00–1:00	Utility Tunnel	6/08/05	.....
Wall Stone Area 9 Pedestals	Great Hall	7/05/05	.....
Wall Stone Area 1	Cong. Auditorium	8/08/05	.....
Wall Stone Area 2	Cong. Auditorium	8/22/05	.....
Bridge Over First Street	Utility Tunnel	8/02/05	8/12/05
Wall Stone Area 3	Cong. Auditorium	9/06/05	.....

⁸We did not include the schedule for work on the House and Senate expansion spaces in our assessment because the schedule was not completed in time for analysis before the Subcommittee’s September hearing.

⁹AOC’s sequence 2 contractor was unable to integrate the detailed schedule for the expansion spaces into the overall project schedule because of a number of problems, but plans to do so in the September schedule.

APPENDIX II.—CAPITOL VISITOR CENTER CRITICAL CONSTRUCTION MILESTONES, JULY-SEPTEMBER 2005—Continued

Activity	Location	Scheduled completion	Actual completion
Excavate and Lag Stations 1:00–2:00	Utility Tunnel	8/02/05	8/24/05
Wall Stone Area 4 ¹	Great Hall	7/15/05	8/30/05
Excavate and Shore Sta. 0:00–1:00	Utility Tunnel	7/21/05	.....
Concrete Working Slab First Street	Utility Tunnel	7/26/05	.....
Waterproof Working Slab Sta. 0:00–1:00	Utility Tunnel	7/29/05	.....
Wall Stone Area 9 Base	Great Hall	7/15/05	.....

¹ These activities are not critical. All other activities were critical in the April schedule or became critical in subsequent schedules.

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 September 8, 2005.

APPENDIX III.—ISSUES AFFECTING THE CAPACITY OF THE CAPITOL POWER PLANT TO PROVIDE FOR COOLING AND HEATING THE CAPITOL VISITOR CENTER

Several issues could affect the capacity of the Capitol Power Plant (CPP) to provide sufficient chilled water and steam for the CVC facility and other congressional buildings. CPP produces chilled water for cooling and dehumidification and steam for heating Capitol Hill buildings.¹⁰ To accommodate the CVC facility and meet other needs, CPP has been increasing its production capacity through the West Refrigeration Plant Expansion Project. This project, which was scheduled for completion in time to provide chilled water for the CVC facility during construction and when it opened, has been delayed. In addition, problems with aging equipment, fire damage, management weaknesses, and a leadership vacancy could affect CPP's ability to provide chilled water and steam. More specifically:

- In July, two chillers in CPP's East Refrigeration Plant were taken out of service because of a significant refrigerant gas leak. The refrigerant, whose use is being phased out nationally, escaped into the surrounding environment. Because of the chillers' age and use of an outdated refrigerant, AOC has determined that it would not be cost-effective to repair the chillers. CPP's chilled water production capacity will be further reduced between December 1, 2005, and March 15, 2006, when the West Refrigeration Plant is to be shut down to enable newly installed equipment to be connected to the existing chilled water system. However, the remainder of CPP's East Refrigeration Plant is to remain operational during this time, and AOC expects that the East Refrigeration Plant will have sufficient capacity to meet the lower wintertime cooling demands. Additionally, CPP representatives indicated that they could bring the West Refrigeration Plant back online to provide additional cooling capacity in an emergency. CPP is developing a cost estimate for this option.
- In June, one of two CPP boilers that burn coal to generate steam was damaged by fire. According to a CPP incident report, CPP operator errors contributed to the incident and subsequent damage. Both boilers were taken off-line for scheduled maintenance between July 1 and September 15, and CPP expects both boilers to be back online by September 30, thereby enabling CPP to provide steam to CVC when it is needed.
- Several management issues at CPP could further affect the expansion plant's and CPP's operational readiness:
 - CPP has not yet developed a plan for staffing and operating the entire plant after the West Refrigeration Plant becomes operational or contracted for its current staff to receive adequate training to operate the West Refrigeration Plant's new, much more modern equipment.
 - CPP has not yet received a comprehensive commissioning plan from its contractor.
 - A number of procurement issues associated with the plant expansion project have arisen. We are reviewing these issues.
- CPP has been without a director since May 2005, when the former director resigned. CPP is important to the functioning of Congress, and strong leadership is needed to oversee the completion of the expansion project and the integration, commissioning, and operation of the new equipment, as well as address the

¹⁰The Capitol Power Plant is no longer used to generate electric power, but it does generate steam and chilled water to serve the heating and cooling needs of the U.S. Capitol and 23 surrounding facilities. These facilities include about 16 million square feet.

operational and management problems at the plant. Filling the director position with an experienced manager who is also an expert in the production of steam and chilled water is essential. AOC recently initiated the recruitment process.

APPENDIX IV.—COST GROWTH FOR THE CVC PROJECT

[In millions of dollars]

Factors	Cost increase	Subtotal	Total
Project budget, original (1999)			265.0
Factors beyond or largely beyond AOC's control:			
5 additional scope items ¹	29.7		
House and Senate expansion spaces	70.0		
Air filtration system funded by Dep't. of Defense (DOD)	33.3		
Enhanced fire safety and security	13.7		
		146.7	
Bid prices exceeding estimates, preconstruction costs exceeding budgeted costs, unforeseen field conditions, and design changes	46.0		
		46.0	
Other factors (costs associated with delays and design-to-budget overruns)		57.6	250.3
Project budget after increases (as of November 2004)			515.3
GAO-projected costs to complete after proposed scope changes (as of June 2005, excluding risks and uncertainties) ²		7.2	522.5
Additional cost-to-complete items (as of August 2005):			
Design of the Library of Congress tunnel (Funds from Capitol Preservation Fund)	0.7		
Wayfinding fabrication and installation	1.0		
Gift shop design	0.1		
Gift shop construction and fit-out	1.3		
GAO-projected costs to complete (as of August 2005, excluding risks and uncertainties) ³		3.1	525.6
Potential additional costs associated with risks and uncertainties (as of November 2004) ⁴	43.5		
Less: Risks and uncertainties GAO believes the project faced in November 2004 [Congressional seals, orientation film, and backpack storage space (\$4.2) + US Capitol Police security monitoring (\$3.0)]	(7.2)		
Less: Additional cost-to-complete items (as of August 2005)	(3.1)		
Potential remaining costs related to risks and uncertainties		33.2	
GAO estimate of total cost to complete			558.8

¹The five additional scope items are the House connector tunnel, the East Front elevator extension, the Library of Congress tunnel, temporary operations, and enhanced perimeter security.

²The proposed scope changes totaling \$7.2 million include \$4.2 million for congressional seals, an orientation film, and backpack storage space and \$3 million for U.S. Capitol Police security monitoring.

³Because of rounding dollars in tenths of millions, this estimate excludes \$2,892.00 for CVC ceremonial groundbreaking activities.

⁴Risks and uncertainties can include shortages in skilled stone masons and stone, security and life safety changes, unknown operator requirements, unforeseen conditions, and contractor coordination issues.

Sources: AOC and its contractors.

APPENDIX V.—CURRENT FUNDING PROVIDED TO THE CVC PROJECT

[In millions of dollars]

Project	Funding	Subtotal	Total
Funding as of June 2005:			
Base project (as of November 2004)			351.1
Expansion spaces:			
House	35.0		

APPENDIX V.—CURRENT FUNDING PROVIDED TO THE CVC PROJECT—Continued

[In millions of dollars]

Project	Funding	Subtotal	Total
Senate	35.0		
Filtration system	33.3	70.0	
U.S. Capitol Police security monitoring	3.0		
Transfer of emergency response funds	26.3	36.3	
Current funding provided (as of June 2005) ¹			483.7
Funding provided for fiscal year 2006 ^{2 3}		41.9	
Design of Library of Congress tunnel (funds from the Capitol Preservation Fund) ²		0.7	
Construction-related funding provided in operations obligation plan:			
Gift shop ²	0.7		
Wayfinding ^{2 3}	0.3		
Commissioning systems ^{2 3}	0.2		
Miscellaneous design and construction ^{2 3}	0.4		
Construction-related funding provided in operations		1.6	
Other funding provided		2.3	
Additional funding			44.2
Current funding provided (as of August 2005) ⁴			527.9

¹ Because of rounding dollars in tenths of millions, the \$483.7 million does not include \$2,892 made available by the Capitol Preservation Commission from the Capitol Preservation Fund in October 2000 for the groundbreaking ceremony.

² Fiscal year 2006 CVC construction funding does not include some construction-related items funded from other sources. Funds for these items include \$700,000 for the Library of Congress tunnel provided by the Capitol Preservation Fund and \$1.6 million provided in CVC's June 2005 operations obligation plan. The \$1.6 million is part of the \$10.6 million made available in December 2004 by Public Law 108-447 for both CVC construction and operations.

³ Funds were provided for certain items that duplicated funding already provided in fiscal year 2006 CVC construction funding. The \$41.9 million represents fiscal year 2006 funding made available for CVC construction-related activity. Included in this \$41.9 million fiscal year 2006 funding are some construction-related items (i.e., \$150,000 for wayfinding design, \$232,000 for commissioning systems, and \$423,000 for miscellaneous design and construction) totaling \$805,000 for which AOC received the duplicative funding. These items had also been included in the \$2.8 million operations obligation plan approved in June 2005. AOC has stated that it will not use fiscal year 2006 funding for these items. Thus, \$805,000 of the \$41.9 million fiscal year 2006 funding will be available for other uses.

⁴ Two construction-related items have not yet been fully funded. These are the gift shop construction (approximately \$771,000) and wayfinding fabrication and installation (approximately \$800,000).

Sources: Legislation, Conference Reports, and AOC.

Senator ALLARD. Mr. Dorn.

Mr. DORN. Thank you, Mr. Chairman.

And before I get into more detailed observations about the CVC, I'd also like to join Bernie in pointing out that the work is continuing to move along. There are stonemasons onsite, electricians are installing conduit. And, because of Bob Hixon and 10 years of hard work from Alan Hantman, in the end we're going to have a sausage that we can all be proud of. We're going to be happy with this building when it's done.

The big question today, though, is: When will the construction be complete and ready to open to the public?

I was in a meeting recently and heard a contractor very succinctly describe GAO as just an observer whose job was to be somewhat pessimistic while his company was the doers, and their job was to get the project finished, and that's what they were going to do by September 15.

Well, part of GAO's role certainly is to be an observer, but what we also do is analyze those observations, based on our experience, and apply foresight to the situation so that the doers can make needed adjustments.

So, as predicted by the contractor, here are some somewhat pessimistic observations on whether or not they're getting it done.

To bring us up to date from the last hearing, in June the contractor's schedule said they'd finish on October 15, but AOC was confident that they would—could make up that month and the project would finish on September 15. In July, the contractor's schedule said they'd finish on November 17, but the AOC was still confident that they could make up 2 months and the project would finish on time, September 15. Now, on September 15, 2005, 1 year before the scheduled opening, the contractor's schedule says that they won't finish the CVC until February 26, 2007. And, still, the contractor and AOC say that the project will be substantially complete by September 15, 2006.

My observations on those facts follow, but first I'd like to point out that, while, for various reasons, there have been some delays to the actual work, the vast majority of the apparent schedule slippage, like Bernie said, this summer, has been due to work that's always been in the construction contractor's contract; he just didn't reflect it in the schedule. This omitted work includes items such as stone installation, fire-alarm testing, and commissioning—that GAO observed and pointed out to the CVC team in early 2004.

At the subcommittee's request, AOC and GAO agreed on a number of critical milestones to be observed in helping to keep the CVC project on schedule. Mr. Chairman, as you pointed out, out of 16 milestones reached to date, only 7 have been completed, and none of those were completed on time.

Back in July, when the contractor was only 60 days behind schedule, he also had only 480 days to finish. That meant that for every 8 days he worked, he'd have to make up another day. Put another way, even working 8 days a week, those herculean efforts would not be enough, because it doesn't allow time for weekends, holidays, risk and uncertainties or anything else that may come up. Since then, the schedule reflects an additional 3 months of work to get done in that same time period.

Again back in July the contractor had worked on the CVC for about 250 days, but his schedule was already reflecting that same 60-day delay. Or, put another way, 75 percent efficiency up to date. If you extrapolated forward 2 months to where we are today, the same efficiency would forecast that the contract would be 75 days late at this point, while the contractor's schedule says they're over 150 days late. But, ignoring that, extrapolating the same 75 percent over the remaining contract duration would say that they're not going to finish until May 2007.

As part of our schedule risk assessment since the last hearing, we conducted a number of interviews of individual members of the CVC project team representing the contractors, construction-management firm, and AOC employees. In those interviews, we heard a number of the schedule durations are still considered by the CVC team members themselves to be optimistic, something we have been cautioning about for a number of months. Replacing the optimistic durations in the schedule with most-likely durations, as reported, again, by the CVC team members, would extend the completion date by 14 weeks, which, again, gets you to May 2007.

Unfortunately, because of all the turmoil in the contractor schedule to date, which, on a positive note, is due to the concerted efforts of AOC and Gilbane and Manhattan to resequence activities and rein in the completion date, we can't accurately forecast a completion date as accurately as we would like to do. But, as Bernie has pointed out, all the data points to a completion date in the spring/summer of 2007, unless AOC is able to meet their goal of resequencing and consolidating activities.

Thank you, Mr. Chairman.

Senator ALLARD. Thank you for your testimony.

In June, the Architect of the Capitol committed to completing a risk-mitigation plan by this hearing. This is needed to ensure plans are in place to make up for the lost time, in the event certain risks become realities. As you've experienced with the utility tunnel, for example, Mr. Hantman why is the plan not complete?

Mr. HIXON. Well, Mr. Chairman, I can answer that question.

I do have the plan. We have the draft here. A copy of that plan was forwarded to the Government Accountability Office last week. We have identified the risk, the project team has, over a number of sessions. We used the head of Project Management Institute's SIG for risk assessment, working with McDonough Bolyard Peck. So, the items have been identified. We'll be working on developing handling plans on September 20. We have a meeting set up for that right now. And then we'll begin, in October, evaluating those things on a weekly basis to make sure we're staying current with them, identify any issues. As Mr. Hantman said, we would drop items as they are resolved, and add new items as they become apparent. So, we do have a plan in place. It's—this is the draft plan, but it's the beginning of this process.

Senator ALLARD. Why was the contract not awarded until August 11, when this issue's been raised by GAO for some time?

Mr. HIXON. It's not my recollection that we waited until August 11. We may have actually awarded it—I think we may have started the work then. The impression I have is that we awarded that work back in July.

Senator ALLARD. In July? Okay.

Mr. HIXON. I—you know, I could verify that.

Senator ALLARD. Would you verify that—

Mr. HIXON. Sure.

Senator ALLARD [continuing]. For the subcommittee? Appreciate that. And then, if you would get something after the hearing to us, within a week's time, we would appreciate that. Make sure we have that straight on the record.

[The information follows:]

VERIFICATION OF CVC RISK ASSESSMENT AWARD DATE

The contract modification for the CVC risk assessment was awarded on July 11, 2005.

Senator ALLARD. We heard from GAO in 2004 about areas of potential risk, and Mr. Dorn testified somebody had said, "Well, our job is constructing and building, yours is to be pessimistic." And I do think that sometimes AOC's attitude was that GAO was just a minor irritant out there, and you have to deal with them. But the significant thing is that we've got a number of concerns that they

raised at that particular time that are happening today. And my question is: Why weren't those treated more seriously by the contractor? And why wasn't something being done to treat the GAO recommendations more seriously? Because time and time again GAO has been showing up before our subcommittee making these assessments, indicating there's potentially problems. Everybody tends to ignore it. And then we get around to that time, sure enough, we've got a problem in front of us of dealing with those. And I've got some 13 examples here before me.

And, Mr. Hantman, while you continue to believe the September 2006 construction deadline can be met, you have moved the opening to December 2006 to allow for commissioning of systems and other requirements to have completed. And aren't the reasons your schedule slipped the same ones identified by GAO in 2004?

Mr. HANTMAN. Mr. Chairman, in my opening statement I certainly addressed the fact that there are several key areas which have been plaguing us from the beginning of the project, pretty much—the stone issue, as we came about with the East Capitol Street issue—and the idea of getting enough detailed information together so that the commissioning plan could be fully integrated into the schedule. In fact, there was a meeting, just earlier this week, with our contractors and their subcontractors, with Gilbane sitting in on it, taking a look at one of those key issues: commissioning, also East Capitol Street. And while GAO rightly says that the current schedule we have out there has added additional time to it, that's basically because the commissioning schedule didn't have an opportunity to be integrated. It was not at the level of detail that it is right now. Everybody I've talked to who basically worked through that meeting, an—almost an all-day session, said that our next schedule should reflect a couple of months coming off because of the way that things could be worked out.

CAPITOL VISITOR CENTER OPENING SCHEDULE

Now, Mr. Ungar clearly indicated that he recognizes that some things can be done in parallel and that, in fact, we are working to do that and make sure that we integrate them clearly with the fire marshal and anticipate them in advance of things happening.

We've had an evolution, Mr. Chairman, in terms of our staff, both on the Gilbane side, as well as our construction management side. Because of some of the turmoil on the staff, we haven't had the strength up there to be able to address some of the issues that we've all been aware of, going back. We have that staff in place now, and we feel very secure about the schedule, the level of detail we're looking at, on the schedule. And, hopefully, that will be a tool for us to continue addressing those issues while still maintaining the quality and the progress and the life-safety issues on the project, going forward.

Senator ALLARD. And why did it take Gilbane and yourself so long to reevaluate these issues?

Mr. HIXON. I'm not sure I understand what you're—

Senator ALLARD. Well, it seems—

Mr. HIXON [continuing]. Referring to.

Senator ALLARD [continuing]. Like these issues have been—they were mentioned in 2004, and now we're back dealing with these

issues now, even though they were brought to our attention way back in 2004. Why is it that we're just addressing them now?

Mr. HIXON. Well, first let me say that we're working very closely with GAO. They have made recommendations, they have made a lot of very good recommendations that we have moved out on. We have had schedule evaluation issues in the past. When we brought in a new scheduler, Mr. Dooley, from Gilbane, we've had a dramatic increase in the quality of the schedule management being done by Gilbane. It's being done in an excellent manner right now. And, frankly, that's the reason a lot of these issues have come to bear. They are now readily apparent, when, before, they were buried within the schedule. So, I don't believe that we've over-ignored them, but I think a lot of issues that have come—that we're dealing with, particularly the commissioning activities—so many of those activities were a year out from the project. This is the point in time when you would be identifying all those items to make sure you've got it well planned. The activities, when they were added to the schedule in this last month, added 11 weeks to the schedule. We knew that was an unreasonable amount of time, but it also had a great deal of detail, in coordination with the subcontractors, on how these activities need to be performed. So that, now, is being re-evaluated to see what the real duration should be, when it should start, based on the completion of the air-handling units and the provision of chilled water and steam from the utility tunnel.

So, I think it's a very good process that's underway to get us to a real date.

Senator ALLARD. Seems to me that the later on you wait to address these issues, the less time you have for correction on the back end. And the sooner you can get to them, the more time you have to make those corrections.

Mr. HIXON. That's absolutely true, sir.

Senator ALLARD. I'm perplexed and somewhat frustrated that we don't deal with these earlier, because it would give us more flexibility, and I think it would lend more confidence to the subcommittee, and probably GAO, too, if we saw those happening a little bit earlier. Once they get pointed out, that something begins to happen with those issues that get brought up early that are potentially a problem.

Mr. HIXON. That's true. And the schedule activities, as of April, when we—we began with the new scheduling process in January. And between January and April of this year is when we really brought—got the quality of scheduling to a point where we were able to identify all these things. And we had real solid schedule activities to deal with. This process has evolved very well since then. But, I agree, it's, ideally, something that would have happened much earlier.

Senator ALLARD. GAO is projecting a completion date of as late as summer of 2007—about 6 to 9 months later than AOC's projection. How do you account for that?

Mr. HIXON. I believe that the schedule data that the GAO consultant was working off of added the 11 weeks to our data. And they've done it—they've done their analysis several other ways, and I—I'm not about to take the consultant on, and his capabilities. But when we look at the activities ourselves in the schedule, and what

the plan is, we—it doesn't seem at all reasonable to project that things will go out until 2007, based on the amount of work we have available to complete construction. The concern we have, primarily, is the amount of time it'll take in commissioning, especially the life-safety systems, to make sure those activities are all done. The base construction, itself, when you—while we've missed milestones, we have not missed them by that much. We've missed them by weeks and maybe 1 month or 1½ months when you look through the whole schedule. That would not account for that kind of a deviation in the end date.

So, we just disagree that it's going to be as dire as GAO projects. We think that the scheduling activities—and the construction contractor certainly does—thinks that, at this point, we would be on or about September for the completion of the construction.

Now, this is clearly a stretch goal. This is not something easy to achieve. I don't think the original contract duration of 22 months was an easy duration. And, while everybody can commit, the real question is: How realistic are those opportunities to deliver on time? And that's something we continue to refine.

The contract completion date remains September 15, as of this date. We have not been asked by the contractor to provide a time extension, to date; so, contractually, they still have the obligation to deliver by September 15. There are some issues associated with the utility tunnel that have impacted them. They are looking to overcome that. They would have otherwise had a 16-week delay in the utility tunnel. We've got a 4-week delay right now in the utility tunnel. So, their activities, in order to try and resolve issues, have improved the utility tunnel completion by what it would have been otherwise.

So, I think we will know—we will have a lot more information next month, because we will have digested a lot of this schedule activity. And—but, at this point, we're still anticipating a fall completion of construction.

Senator ALLARD. Okay, so the contractor hasn't asked for an extension beyond September 15. And his contract says it will be completed by September 15 of next year, 1 year from now. If they don't meet those contract requirements, then what happens?

Mr. HIXON. If, in fact, they do not complete the construction by the completion date in their contract, they're liable for liquidated damages. If, on the other hand, we have—they have differing site conditions, they're entitled to a time extension. If there are concurrent delays, which means both of us are delaying, we have delays or the differing site conditions, which are excusable, and the contractor also has delays on his end, then the—on his side—then you'd have time, but not compensation.

Senator ALLARD. Do you see any potential delays that would be attributed to those exceptions in the contract on completing that date? Do you understand what I'm saying?

Mr. HIXON. Yes. I—the opportunity exists, with the delays that have occurred in the utility tunnel for differing site conditions, that the contractor has entitlement on those issues. If—but the evaluation of that is, you can also—shall I wait? The issue is that once you get into that evaluation, we will be looking at anything that occurred contractually that we had an obligation on, versus any-

thing that they had an obligation on. And that will be sorted out in time. But, at this point, we're working very collaboratively together, and the focus is not on trying to sort out contractually who gets to do what to whom, but, rather, to see if we can't successfully deliver the project on time. But I'm—

Senator ALLARD. I guess the key point to this is that Manhattan feels they can get things done by September 15, and they don't see any reason, at this point in time—at least they haven't approached us for any reason—

Mr. HIXON. That's correct.

Senator ALLARD [continuing]. Why that date wouldn't be met.

Mr. HIXON. And they reiterated that as recently as 1 week ago. Now, that doesn't mean that there aren't a lot of challenges for us to face between now and then, but, at this point in time, it does not seem impossible to achieve, and it's certainly the commitment of the team to try and meet that date. The team will be meeting in a partnering session tomorrow—this is with all our subcontractors—to make sure we've got everybody in line, focused on this goal. If there is something that comes up that renders this an impossible date, then we will want to include that. And that's part of our scheduling effort, to try and be realistic on what we're going to deliver.

Senator ALLARD. GAO is testifying that the contractor would have to come up with 1 recovery day for every 8 remaining days between July 2005 and September 2006. And that's assuming there's no further delays. It's hard to imagine that that would happen. And that's to complete the project by 2006. Is that completion date really realistic?

Mr. HIXON. Well, I believe that's the reason we have changed our target for doing a public opening. We have looked at what's going on, the risks that have been presented to us, the impacts that we have incurred, and we said it would be imprudent to expect that all of these things have not had some impact on the process that would preclude us being able to have the grand opening in September. So, you know, the date of the grand opening will be whenever it is, whenever it's selected. But there are activities that have been taking place that could impact our ability to deliver the completed facility on September 15.

FIRE SYSTEMS COMMISSIONING

Senator ALLARD. Okay. I'd like to move on to the commissioning of our fire-safety systems. In our June hearing, Mr. Ungar voiced concern that the time allotted for commissioning of the fire alarm and smoke evacuation systems was optimistic and should be reassessed.

And, Mr. Ungar, has this reassessment been completed? And are you now satisfied that the time required for commissioning of these systems is appropriately reflected in the schedule?

Mr. UNGAR. Mr. Chairman, first, the assessment has been taking place. That's one of the reasons why so much time has been added to the schedule. We and AOC, concurrently, found since your last hearing, that the time for the fire protection system work was understated in the schedule. Now the question is: Exactly how much will be required? I don't think we'll know that until AOC finishes

this current evaluation, because that's one of the items that's included in its study—

Senator ALLARD. Yes.

Mr. UNGAR. So, exactly how much time will eventually be required, we don't know. We feel very strongly it's going to be very likely to be more than the July schedule shows. Now, exactly how much more remains to be seen, but at least 3 to 4 weeks, probably more, depending on what they can do sequentially versus concurrently.

Senator ALLARD. So, we do not have a clear understanding of the fire- and life-safety requirements, basically because there is some disagreement between you and the Architect of the Capitol about what can be done sequentially and what can be done concurrently. Is that correct?

Mr. UNGAR. Right, sir. There are two different issues.

One is: What are the requirements for the system—what components, what elements, what characteristics, what's the design of the system? That issue, we understand. The team has come up with a design that they believe is acceptable. I don't believe the fire marshal has had an opportunity yet, though, to thoroughly review that. So, that's a bit of a question. But I think, at least now that a team is together—whereas, last time we met, the team was disagreeing among itself—so, that's an accomplishment. How much time it will take for the system testing of the fire protection system and the inspection process is what's up in the air right now. It definitely does seem like it's going to take more time than is allowed in the current schedule. The question is: How much is it going to eventually take? And that, we need to resolve in the next 4 to 6 weeks.

Senator ALLARD. Mr. Hantman, what comments do you have about finalizing the fire- and life-safety requirements?

Mr. HANTMAN. This goes, Mr. Chairman, to the comment I made earlier, when I mentioned, just on Tuesday, we had Manhattan meeting with their subcontractors, the electrical and the mechanical subcontractors. We also had Gilbane in that meeting, as well. Everybody I've talked to who attended that detailed meeting, basically for the day on Tuesday, indicated that the people who are actually going to be doing the work, the mechanical and electrical subcontractors, are feeling very positive about their schedules on this, that they can make it within the contract date.

The issue is that Manhattan needs to put all of this information and the creative thinking—and, quite frankly, as GAO has indicated, there are many different ways to achieve an end product over here. They're talking about, creatively, what can be done in parallel, as opposed to in sequence, which is what this latest schedule indicates, that 11 weeks added was purely sequential, without putting it all together. So, this major step of having the installers, the vendors who are basically contractually responsible for these systems, come up with their ideas of how they propose to install it, have Manhattan put that in a schedule and sit for significant work sessions with the fire marshal to see if the fire marshal has any problem with that; and when and if that inspection can be done in an orderly path.

The concept that we have, basically, is that you really have a 3-month inspection period for all of these life-safety systems. And the contractors surely want to do them in parallel. And the fire marshal has indicated that doing things in parallel also is something that they would be comfortable with. The question is what the contractors are now thinking of, in terms of normal practice, would be acceptable to the fire marshal.

So, our first major step has been taken in bringing this to the point where we can sit down with the fire marshal and say, "This is what the vendors, the contractors, in fact, specifically intend to do. Let's talk about your issues and see if we can resolve this way in advance of starting that activity next summer," so that when we get to that point in time, everything's smooth and nobody has surprises coming forward.

Senator ALLARD. And when we are dealing with all this creative thinking that you mentioned, what is the price tag that's coming along with that creative thinking? Do we have any idea what the total price tag associated with the new requirements might be?

Mr. HANTMAN. I don't know, Mr. Chairman, if I'd characterize them as new requirements. It's a question of a different way of achieving the same end.

Senator ALLARD. I see.

Mr. HANTMAN. And the creativity that we're looking for, in terms of our contractors, is—means and methods of getting the job done—is basically the responsibility of the individual contractors. They need to get from point A to point C. How they get there, basically, is their decision. We just have to make sure that the pathway is in sync with good practices and that our fire marshals agree with. And I've not heard anything, at this point, implying that there are any additional dollars involved in that.

Senator ALLARD. I gather from your response that there really hasn't been any discussion about cost at this particular point.

Mr. Ungar.

Mr. HANTMAN. Mr. Chairman, I would respond to the—

Mr. UNGAR. Mr. Chairman, I think there's a separate issue on the cost question, and it has to do with what the current system would look like, versus what the fire protection system was when they originally awarded sequence 2. And there, there is a significant additional cost. Based on what we've seen right now, it looks like the additional cost for the fire protection system, because of changes that have been made over the last many months, is well over \$3 million, at least the way we interpret the information.

Senator ALLARD. Wow.

Mr. UNGAR. Maybe Mr. Hixon would have a more elaborate discussion of that.

Senator ALLARD. You wanted to respond to that, Mr. Hantman?

Mr. HANTMAN. One of the issues we're looking at over here—and I certainly don't dispute, necessarily, what GAO is saying—but one of the issues that we are dealing with over here is taking a base building system, a series of systems, and trying to work them out with a very complex security system, something which is state of the art. We're basically a beta test site for some of the things in security, for chem/bio concerns, that have never been done before. So, some of the changes that GAO is referring to is, basically, as

we evolve and that people understand what the requirements are, we're trying to deal with those issues and make sure that we don't compromise either of those, the security or the life-safety issues.

Bob, did you have anything to add to that?

Mr. HIXON. I believe the only thing we need to add is that the fire marshal is working very closely with us in coordinating all these activities.

We have given them copies of the planned schedule, the original schedule before we started revising it. We're seeking their input on the new schedule. So, there's a—we've got the fire marshal much more involved with the team now than they were previously in order to ensure that we've got all their requirements accurately folded into the schedule activities that need to take place.

We do have revisions to the control system for the building that also affects the fire-alarm system, and those are the numbers that Mr. Ungar is talking about. But we have that data. The contractor's been authorized to proceed with it. So, it's now a matter of just making sure we get the programming and the requirements for all of these very complicated systems that must interact together if there is an event that requires use of those systems.

Senator ALLARD. And is that within the budget that we've originally laid out for it?

Mr. HIXON. Certainly, I've already authorized the funding for these activities, or at least the part—the amounts that we think are reasonable. Yes, it's within the budget. It does create added impact to the budget for us.

Senator ALLARD. And you think it might be \$3 million? Would you agree with what he's suggesting?

Mr. HIXON. It—there are a number of changes that have taken place, and—incorporating all of these things. If you look at the estimated prices, those numbers are in that vicinity. We are expecting—we still have to reconcile some issues with the control system. There's a big swing difference between what the designer feels that the control system should cost and what the contractor tells him it costs. We're trying to reconcile that and make sure we're all talking the same thing. We're—that we don't have a scope difference of opinion.

INTERIOR STONE CONSTRUCTION

Senator ALLARD. I'll go to the stonemasons. I think we've recognized that, for some time, there might be a problem with an inadequate number of stonemasons. Then we had an inadequate supply of stone. Now we have the stone coming in, but we're back to the shortage of stonemasons again. Currently, we have about 16 stonemasons, while 24 are needed to keep pace. Would you agree with that?

Mr. HIXON. No, Mr. Chairman, we've—currently are carrying 20 stonemasons but not all of them are here every day, so we've been averaging about 18 actually present on the site. This is up from about eight in the first part of August, so we've had a dramatic improvement, thankfully. GAO did predict, last year, that we would have a stonemason problem. When we started the stone installation, we had a lot of masons, and we didn't have enough stone. Now we've got a lot of stone delivered and we're ramping up the

number of masons. They're looking to get up to a number of approximately 28 teams. They are hiring them as they find them. And we are expecting the situation will improve as the weather gets cooler.

Senator ALLARD. So, your view is that the contractor is doing everything they can to bring in the critical workers that we need.

Mr. HIXON. They are pushing very hard to get more masons on. And the quantity of stone—we have no change in the quality, that's—you know, we're—that's our first priority, is to make sure it's done right—but the quantity of stone, with these additional teams, has improved dramatically in the last 2½ weeks. And you can see that—the Orientation Theater work has actually all been done since the middle of August.

Senator ALLARD. Mr. Hantman, you say in your testimony that the contractor is considering alternatives in stone fabrication and installation to further mitigate delays. What are those alternatives? And will they affect quality or the life-cycle cost?

Mr. HANTMAN. Well, with the injunction still in place, perhaps it's safer, Mr. Chairman, for the contractor to speak, himself, as to what he can actually say. So, if I could, Mr. John Barron, who is the president of the eastern region for Manhattan, can talk about what they are attempting to do on the stone.

Senator ALLARD. Well, maybe what we can do is have a response to that question in the next month, when we get together, and let's have that clearly laid out for us, if we can, in the next month. We'll bring it back up.

Mr. HANTMAN. We have been driving them, essentially, to finalize those additional preparations that they are considering right now.

Senator ALLARD. Okay. And, again, the bottom part of that is your alternatives and then how they may affect quality or life-cycle costs.

[The information follows:]

During the September 15, 2005 hearing with the Legislative Subcommittee of the Senate Appropriations, Senator Allard requested a written statement regarding the effect of an injunction imposed upon Manhattan Construction Company ("Manhattan"), the contractor, relative to stone supply for the Capitol Visitor Center (CVC) project and actions being taken by Manhattan to ensure timely stone deliveries to the project in light of the injunction.

This statement can only provide brief explanation and basic understanding of the injunction, the effects it is having on our subcontractor's and our ability to perform and our actions to complete the construction as required by the project schedule. In order to understand, one must review the allegations (yet unproven) that gave rise to the injunction.

The injunction has been imposed on Manhattan, and its subcontractor, Boatman & Magnani, Inc. by the U.S. District Court for the Western District of Pennsylvania, requiring that Quarra Stone Company be used as the fabricator to supply the sandstone to be used on the CVC Sequence 2 project. This injunction stems from a lawsuit by Quarra Stone Company against Annandale Sandstone Quarries, Boatman & Magnani, Inc. and Manhattan regarding an alleged breach of an alleged exclusivity agreement between Quarra Stone Company and Annandale Stone Quarries. We begin by looking at the responsibilities of the parties involved.

Boatman & Magnani, Inc. ("Boatman") is the interior stone installer with responsibility for ordering, engineering, receiving and installing the interior stonework for the project. It should be noted that sandstone is only one of the stone types to be installed by Boatman for the project but represents the primary stone material used on interior wall surfaces. To perform the installation of the stone, Boatman is required to provide the necessary manpower, in form of skilled stonemasons, to ensure

the stone is installed in accordance with the performance period allocated for stonework by the project schedule. They are a first tier subcontractor to Manhattan.

Annandale Sandstone Quarries ("Annandale") is the sandstone quarry with responsibility to provide sufficient raw material from the quarry, in the form of stone slabs to the fabricator, to allow for the timely fabrication and delivery of sandstone for the project. Annandale is a direct vendor to Boatman. It should be noted that normal industry practice is for the quarry to be a direct vendor to the fabricator, versus a vendor to the stone installer, to allow for effective control, by primacy of contract, of the fabricator over the quarry. This unusual contractual relationship stems from the central issue of the lawsuit and resultant injunction.

The current levels of fabrication find us behind by nine truck loads of material and losing ground at the approximate rate of three quarters of a truck load a week. This analysis is based on Quarra's court certified fabrication schedule commitments of three months ago. We have asked the vendors, through Boatman, that the time lost on deliveries be recovered. This urging has led to a recent commitment from Quarra, details unknown, to provide an additional resource to assist them in fabrication. We are unable to determine if this action will satisfy Boatman's needs for deliveries. We should see the results of this action in the coming weeks. We continue to understand the status of fabrication through daily communication with all parties involved with fabrication and continue to push the effort through our subcontractor. In addition, we have required Boatman to provide a plan to overcome the late deliveries with a shorter installation period. This program will have a cost impact but we expect it will overcome some of the impact of the late deliveries.

At Manhattan's request, Boatman has notified its vendors several times and the court at least twice of these problems. The Court does not appear to be convinced that the delay and the timing problems are significant. Despite Manhattan's and AOC's efforts, the Court seems convinced that the schedule for completion is illusory and insignificant, and more important is protecting Quarra's alleged exclusivity agreement wherein Quarra alleges it is the only fabricator allowed to touch any Annandale stone. In each instance of discussion with the Court, we have been directed to resolve the issues among the parties. We continue to attempt to obtain the relief we need through the Court.

Manhattan entered into this contract intent on providing the United States government and United States taxpayer with the best value, and an on time, on budget delivery. Manhattan's record of work speaks for itself, as does the AOC's track record on projects of this type. However, in none of those projects has the federal court system, on behalf of a third or fourth tier subcontractors, involved itself in the construction process. Presently, the hands of the people who could mitigate this delay with decisive action (action that is typical of any other construction project either public or private) are tied.

Mr. HANTMAN. Well, certainly, in terms of quality, as Bob indicated, that nothing that we're doing is decreasing quality on anything. We're trying to make sure that, again, this is a building built for the ages and we're doing it the right way, in terms of those costs, yes.

CAPITOL POWER PLANT

Senator ALLARD. Let me go to the Capitol Power Plant. As mentioned in my opening testimony, we've become aware of problems at the Capitol Power Plant, where a major expansion project is underway. And I understand that the director of the plant resigned in April, yet no solicitation has gone out, as of last week, to hire a new director. I'm getting reports of problems at the power plant, as leading to some serious problems there. And it seems to me like nobody's in charge. And I'm wondering why there hasn't been a request to have somebody in charge there.

Mr. HANTMAN. Mr. Chairman, we are actively soliciting now for a replacement for our director, who left. The issue of not having started earlier, perhaps that is my fault. The issue there was, I was looking at a project that was going well, that, in fact, was approaching completion fairly soon, and—did we need a person in that staff level for that point in time? I put in my Assistant Archi-

tect to take a look at that, and now I have the head of our engineering department, Scott Birkhead, coming in. And until we can find that individual, a new person, for that position, we have Mr. Birkhead, who had responsibility for the plant before, working directly with the team that's in place.

So—and while there were several issues that have occurred, one of the reasons, in fact, for our building the power plant in the first place, or doing the expansion for the refrigeration, was because the equipment in the east plant was old. We had R-12 refrigerant, all of those issues. So, in past weeks, some of that refrigerant has leaked out, and the seals were no good, so those two units will not be put back into service. We do have two temporary units in place in the east refrigeration plant. I spoke, in fact, to Scott this morning, and we can give you a background, in terms of the capacity that we have in place currently, and what's being put into place, and the timeframes, in terms of our expected load requirements as it impacts the CVC, and, in fact, the Hill, as a totality, and give you a sense of where we are on that.

Senator ALLARD. So, when do you think the Capitol Visitor Center is going to need the steam and chilled water from the power plant? And when that comes online, are you confident that the power plant will be able to provide the needed heat or cooling at that particular point in time?

Mr. HANTMAN. Our current schedule, Mr. Chairman, calls for March 2006 being the timeframe in which we would want to hook in the work that we're doing in East Capitol Street to the chilled water piping. The steam is not an issue. We have that capacity, we've had that capacity for a long time. The issue was the adequacy of the chilled water, which is why we're doing the refrigeration equipment now on East. That—the schedule on the power plant, right now, calls for those pieces of equipment to be ready to be manually operated, come December of this year, and that, by March, also of 2006, the control should be up and running, as well. So, if we needed to produce the kind of chilled water capacity that we need, even if we had a 75 degree day in January, we should be able to do that. And we can give you some backup information on that, Mr. Chairman.

Senator ALLARD. So, you're confident that we don't have a problem there, where our requirements at the Capitol Visitor Center can't be met because of problems at the power plant.

Mr. HANTMAN. Everything I've heard to date, Mr. Chairman, indicates that we should be able to have that capacity available when it's necessary.

Senator ALLARD. Okay. Let me ask you this, Mr. Ungar. If another one of the 50-year-old chiller fails prior to completion of the expansion project, what are the implications of such a failure, and how likely is that to happen?

Mr. UNGAR. Mr. Chairman, Mr. Dorn would like to answer that question.

Senator ALLARD. Okay. Mr. Dorn.

Mr. DORN. Our analysis out there at the Capitol Power Plant would show, at this point, that if something happened today, there would still be sufficient chilled water for the buildings that are online today. The biggest risk would be when they make the transi-

tion to put the new west plant online. At that point, they would take the existing west plant offline so they could drain the pipes and then attach the new pipes, and you'd be in danger, if you had to try to start up one of the new chillers sooner than you want to, and you'd have to get York, the manufacturer of the chillers, in there to help you.

Now, I understand that AOC is working with York now and setting up those contingency plans so that if it happens, they can respond to it. There would probably be some cost associated with it, but it's doable.

On the completion date, my understanding is, first, that I think Bob would prefer to have chilled water in January/February 2006, and not March. So, if we don't get chilled water down there—because of the utility tunnel, not because of the Capitol Power Plant—until March, it may affect his ability to hit September or December, because it affects dehumidification, like we talked about last month.

Also, you were talking about the commissioning and schedules. What you heard a few minutes ago was that the commissioning still hasn't been fully integrated into the schedule. And you've heard us harping, several months now, about a fully integrated schedule.

Senator ALLARD. Yes.

Mr. DORN. That's one of the risks there.

INTEGRATED SCHEDULE

The other two things that AOC has been working on developing since our last hearing, but that are still not integrated into this master schedule, would be the House and Senate shell space and operations. They do have good independent schedules now, but they haven't been integrated, and that integration could further affect the master schedule.

Senator ALLARD. What about his comments on integrating those schedules?

Mr. Hixon.

Mr. HIXON. Mr. Chairman, the schedule for the House and Senate space was going to be integrated into the August schedule. There are about 1,000 activities. But, as they tried to integrate it, it was not working well, so they generated the August schedule without the expansion space. They are, over the next couple of weeks, integrating that in, so, when we run the schedule at the end of September, we should have all that included.

In addition to that, we're integrating the operations schedule activities. There are about 450 items there, so all of those are being included. So, we should have all of those parts included in the schedule here in the next—next time we run it.

Senator ALLARD. All right. I want to talk a little bit about the upcoming milestones. What major milestones are we going to have when we come up to our next hearing, on October 18? The integrated schedule would be one.

Mr. HIXON. The—other than those activities that we're currently reflecting on the schedules, we've got the wall stone for the upper level assembly rooms 1 and 2, and we're also looking at roof for the area in the utility tunnel. What's—other than those activities as

things we can point out, what's of particular interest to us is being able to get the mechanical piping started in the utility tunnel. They're looking at alternatives to that, to manufacture the pipe in longer lengths than they were originally planning to, which would leave the roof open a little longer in the utility tunnel, but that would expedite the installation by reducing the number of field welds, which would permit installation to be started earlier. So, we're looking to do some rework of the scheduled activities for the mechanical portion of the utility tunnel to see if we can use that to improve the overall schedule for that particular activity.

Senator ALLARD. Okay.

Then, you expect to have these complete by the time—

Mr. HIXON. Well, the—

Senator ALLARD [continuing]. Our next meeting happens, on October 18?

Mr. HIXON. We won't have those—either of those completed. We were just going to add those to the list of items that we're currently tracking. So, most of the list that we had, currently, that GAO is reporting on, as well, we've got a number of activities that are not finished. They're started, but they're not finished yet. And a couple that have not started. Primarily, those activities all relate to the completion of the installation of stone in the Orientation Theater and the installation of stone in the Auditorium. The Auditorium stone was delayed because of some elevation issues, where we were off by five-eighths to an inch, and those have been chipped out, and the installation can now commence. But we've lost some time in commencing that work.

So, those are some of the activities that we had tracked earlier as starting and finishing that we'd be reporting on their completion.

Senator ALLARD. Okay.

We have gotten through this hearing without having to be interrupted by a vote. I'm pleased about that. Do any of you have any other comments before we wrap up the hearing?

Yes, Mr. Ungar?

Mr. UNGAR. Yes, Mr. Chairman. I think it's very important for AOC and the CVC team to take a real hard, rigorous look at the entire schedule before your next hearing, or around that time, to not only look at the areas that were added by the HVAC system and the fire protection system, but the other activities, as well—as I mentioned, the stone and the finishing—to make sure that you have a good, solid, realistic schedule, that's complete, that we can all look at and rely on now for the rest of the project, subject to natural changes that would take place.

Senator ALLARD. I think that's a wonderful suggestion. Do we have any concerns, Mr. Hixon, on that suggestion?

Mr. HIXON. No, sir. We're certainly doing that right now. The focus has been on these commissioning activities that we've folded in, frankly, surprised us with the impact that they had. But, no, we'll—we will work through those and look at the balance of the schedule. I'll ask McDonough Bolyard Peck to look at that, as well, so that—

NOVEMBER HEARING PREPARATION

Senator ALLARD. That's a question you might expect at the next hearing: What's going to be happening in our November meeting? If you'd keep that in mind while you're thinking in those terms, and be prepared for that answer when it comes up in the next meeting.

Mr. HIXON. Yes, sir.

Senator ALLARD. Yes, Mr. Hantman?

CONSTRUCTION QUALITY

Mr. HANTMAN. One more thing, Mr. Chairman. I would like to thank GAO, and specifically the comment that Terry Dorn made earlier, that we all recognize this is an important and a historic project, and it's a fine project, something, I think, that the Congress and the American people are going to be proud of when we get it finished. The issue of the scheduling and meeting those bumps in the road, and working together to make sure that we get over those bumps in a good way, is important, and I think that's largely what we're talking about. And if you do have the time, I would welcome, again, your inspection tour of the visitor center. Look at the quality of work we're building here. This is going to be something that's going to last for many generations.

Senator ALLARD. I've been assured by your testimony here that the quality of the work's going to remain there. I remain concerned that things get put off, when, if we'd been dealing with them earlier, perhaps we wouldn't have as many problems. So, I just hope that we do everything we can to try and get a jump on it. I understand your testimony, where you think that things can be done concurrently. Perhaps those have not been taken into account. I hope you're right. We're looking forward to seeing how this comes out. So far, what GAO has suggested to this subcommittee, has developed. So we get concerned at this point in time, about assurances that things are going to happen. And when there's been a difference between the Architect of the Capitol and the GAO, GAO's concerns have come to fruition. So, I do hope that we can get some realistic expectations here as we move toward closure on September 15.

SUBCOMMITTEE RECESS

I appreciate your taking the time with this subcommittee to testify, both of you. I think that this is a very important project, and I think it's important that we do everything we possibly can to get it done on time, and avoid cost overruns.

Thank you very much for your participation in this hearing.

[Whereupon, at 11:35 a.m., Thursday, September 15, the subcommittee was recessed, to reconvene subject to the call of the Chair.]

PROGRESS OF CONSTRUCTION OF THE CAPITOL VISITOR CENTER

TUESDAY, OCTOBER 18, 2005

U.S. SENATE,
SUBCOMMITTEE ON THE LEGISLATIVE BRANCH,
COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:28 a.m., in room SD-138, Dirksen Senate Office Building, Hon. Wayne Allard (chairman) presiding.
Present: Senator Allard.

OPENING STATEMENT OF SENATOR WAYNE ALLARD

Senator ALLARD. The subcommittee will come to order.

We meet today for our fifth hearing this year on the progress of the Capitol Visitor Center (CVC). We welcome once again Architect of the Capitol Alan Hantman, CVC Project Director Bob Hixon, and GAO's representatives, Bernard Ungar and Terrell Dorn.

Since our last hearing, progress has been made in some areas, such as completing an integrated schedule, but work continues to fall behind in such activities as the utility tunnel and stone installation. Only 3 of the 11 milestones have been completed in the last month and none were on time.

In our September hearing, GAO made a number of recommendations, including the need for the Architect to undertake a rigorous evaluation of the schedule, the need for the Architect of the Capitol, along with its project manager Gilbane, to determine the causes of delays and take appropriate action, and the need for AOC to notify Congress of scope changes or plans to accelerate work. We look forward to hearing about how the Architect of the Capitol is meeting these recommendations.

While we had anticipated having a discussion on the updated estimate of the cost to complete the Capitol Visitor Center project, we understand that GAO has not been able to undertake their review because the schedule is still in flux.

Let me mention that we have tentatively set the next hearing date for November 15 and we will be working with Senator Durbin to finalize this shortly.

Now I would like to turn to you, Mr. Hantman, for your testimony, to be followed by GAO's testimony.

STATEMENT OF ALAN M. HANTMAN, FAIA, ARCHITECT OF THE CAPITOL

ACCOMPANIED BY BOB HIXON, PROJECT DIRECTOR, CAPITOL VISITOR CENTER, ARCHITECT OF THE CAPITOL

Mr. HANTMAN. Thank you, Mr. Chairman, and good morning. I welcome this opportunity to update you on the status of the Capitol Visitor Center project, the key issues that were discussed in our last hearing, and the comments that you addressed in your opening statement as well. In line with those comments, there is clearly a concern regarding the time gap between our projection of having the CVC operational next December and GAO's expectation of an opening in mid-2007.

While we continue to acknowledge and work to resolve the challenges and potential risks that are still ahead, 2 weeks ago our general contractor, Manhattan, submitted a revised schedule in line with our past discussions, and this schedule now incorporates, as you indicated, the expansion spaces for the House and the Senate. It incorporates the operations spaces.

Now, what this does is it takes us from about 4,500 issues that need to be correlated on the schedule to well over 6,500 activities. But it is important to note, Mr. Chairman, that Manhattan, in developing this new schedule, has incorporated the input from all of their subcontractors. So this is not a pie in the sky thing; it is a very detailed schedule. It significantly improves upon their August schedule.

The issue of sequencing is something that we have talked about, the commissioning of all the life safety and fire safety systems. Those are the issues that primarily were moved back. In fact, in their August schedule they talked about a February 2007 completion. They are now talking about, including commissioning, of a December 2006 completion.

But this schedule is currently being evaluated by our fire marshal and by Gilbane, our construction manager, to assure adequate durations and appropriate system commissioning. Now, while this review is going to take another 6 to 8 weeks or so, and of course GAO will be looking at that as well, we will update you at the next hearing on the progress of taking a look at this fully integrated and expanded schedule.

In light of these schedule adjustments and the refinements and the risks identified—and clearly the risks you talked about are still there: the commissioning process, East Capitol Street tunnel, the stone issues—we continue to acknowledge that December 2006 remains a more prudent date for public opening than the September 2006 date that we talked about originally.

KEY MANAGEMENT ISSUES

I would like to briefly discuss the two key management initiatives that you referred to. First of all, as we reported last month, a risk assessment by McDonough Bolyard Peck (MBP) had identified current and potential future risk items. To date, we have conducted two follow-up working sessions as part of the review process to develop a comprehensive risk management and mitigation plan for each risk item. This is an ongoing, very positive process; keeping us focused on actual and potential problems.

Second, the cost-to-complete assessment that you referred to was completed last week and it has been circulated for review. No additional funds are contemplated in the report, although GAO, as you indicated, and my staff have not yet conducted a full evaluation. We will certainly review that in November.

In terms of cost, Mr. Chairman, I think it is important to note that we are on the cutting edge of trying to reconcile often conflicting code criteria related to fire and life safety with new and evolving security criteria so critical, and in some respects, Mr. Chairman, unique to this project. Life safety codes that were written in the 1990s never anticipated such in-depth security criteria in places of public assembly, such as the CVC. Additional costs, as GAO has pointed out, certainly have accrued to the project as we have resolved and worked through these issues, and we believe we are there at this time.

CAPITOL VISITOR CENTER EXECUTIVE DIRECTOR

In terms of operations, Mr. Chairman, let me update you on two key initiatives. First of all, we have obtained the necessary leadership approvals on the language for the position description for the CVC executive director. We expect to advertise the position shortly, with the goal of hiring in January 2006. What we have done, Mr. Chairman, is we have broken out this individual position, and we will be talking with you shortly about another half dozen associated positions that we believe are key to get on board as soon as possible. The rest of the positions, as we have been talking with both Appropriations Committees about, will be brought on as we are more sure that we have a coordinated schedule and the construction actually can support this. That way we will not have people waiting around for the visitor center to open and they are not brought on inappropriately early.

FOOD SERVICE CONTRACT

The second operations initiative, Mr. Chairman, relates to the CVC food service contract. Based on the congressional mandate that internal functions be reviewed for possibly more efficient external contracting, it is prudent for us to consider whether Senate restaurant services should be provided through a private contractor. The House of Representatives has also reviewed their food services operations and as a result this initiative includes options for inclusion of both House and Senate food services under a single CVC food services contractor.

After having briefed all Senate restaurant staff on this initiative, we issued a request for proposal, an RFP, on September 26 to solicit interest from food services contractors. The RFP process will take several months to complete and, once potential contractors submit their proposals, they will be evaluated to determine which options may provide the best value to the Government. We will have follow-up meetings with Senate restaurant staff as this process moves forward and as decisions are made to answer any questions they may have.

Mr. Chairman, before I close I would like to show you several photos of the status of construction in critical areas of the project.

CONSTRUCTION STATUS

First of all, Mr. Chairman, the stonework in the Great Hall is truly beautiful. As more stone goes in and the quality and the shape of the spaces become more and more evident, this is something that will resonate through the duration of the project. Now, as we complete the stone on the columns, as you see in this shot, we will be assembling scaffolds in the adjacent areas to allow work to begin on the Great Hall ceiling, and we expect that ceiling work to begin next month.

We now have some 24 mason teams on site, compared to the 20 who were working at the time of our last hearing, and the stone contractor is still continuing an aggressive pursuit of additional masons.

On the service level, Mr. Chairman, I am pleased to report that all of the major equipment is now installed and crews, as shown here, are making the final duct connections to the air-handling units and fans, piping connections to equipment, final electrical connections to equipment and electrical panels.

Permanent power has now been brought in and temporary power is not being used any more. As a consequence, we are going to begin turning on the air-handling unit fans this week, which will ultimately provide fresh air throughout the facility. Mr. Chairman, this is a major accomplishment. These are critical areas that could have seriously impacted the project if not properly thought through and executed. It is truly impressive and I look forward to showing it to you when we have our tour.

On the next board, inside the expansion space the contractor continues to make good progress on both the House and the Senate sides, and work continues on schedule. We are pleased so far with the aggressive pace of construction in these areas. Crews here are busy installing metal stud walls, drywall, ductwork, and electrical rough-in.

Overall, Mr. Chairman, inside the CVC, despite some of the delays that have occurred and the need for resequencing of work, the contractor has consistently provided an excellent quality of work, not only in mechanical and electrical work, but also in the installation and application of stone wall, stone, masonry, and plaster.

On the next board, Mr. Chairman, outside the facility we see that our historic preservation contractor continues to install the stone for the historic lanterns and the fountains, while workers continue placing the granite pavers in adjacent areas. In addition, on the major part of that photograph you can see that we have begun to set stone on the monumental steps on the north side of the CVC entrance. On the Senate plaza, crews are busy placing concrete to prepare the plaza for granite stone pavers. Mr. Chairman, this work is transforming the plaza into a high-quality pedestrian zone worthy of being called the front door to our Capitol.

Last, on East Capitol Street, with respect to our tunnel, work has continued there with excavation and piling work nearing completion. An additional subcontractor has been brought on board to expedite concrete work at First Street. While, as you know, we did encounter additional unforeseen conditions in September, the con-

tractor has made significant progress. Crews, as you can see here, began in September installing large 40-foot long sections of steam and chilled water pipes inside the tunnel, and that is clear and that work is continuing appropriately.

Mr. Chairman, in conclusion, the project is moving forward on many fronts. When it is completed, the visitor center will provide all visitors to the Capitol with a state of the art, accessible facility that will welcome them respectfully and securely while also providing them with films, exhibits, and computers, to help them learn about Congress and its role in our democracy.

I welcome the opportunity to review and discuss this historic project and am happy to answer any questions you might have.

Senator ALLARD. Thank you for your testimony, Mr. Hantman.
[The statement follows:]

PREPARED STATEMENT OF ALAN M. HANTMAN, FAIA

This statement provides an update on the progress of the Capitol Visitor Center project and the key issues that were discussed at the previous Senate hearing on September 15. A brief update on the status of construction follows.

CONSTRUCTION UPDATE

In the Great Hall, stone has been installed up to the ceiling on the north, south, and west walls and masons are now setting stone on the Great Hall columns. As crews complete the stone on the columns, they will begin to assemble scaffolds in the adjacent areas to allow work to begin on the Great Hall ceiling, and that work is expected to begin next month. As more stone goes in, the quality and shape of the spaces becomes more and more evident.

Overall, the stone contractor continues to increase the number of mason teams working on the project. There are now 24 mason teams on site compared to the 20 that were working at the time of the previous hearing. The stone contractor is continuing an aggressive pursuit of additional masons to keep pace with the amount of stone still to arrive or awaiting installation. Attached to this written statement is Manhattan's October 7th statement concerning the stone injunction that remains in place.

On the Service Level, all of the major equipment is now installed and crews are making the final duct connections to the air handling units and fans, piping connections to equipment, and final electrical connections to equipment and electrical panels. The contractors also continue their transition from temporary to permanent power now that permanent power has been installed in both the House and Senate electrical vaults. As a consequence, crews will begin turning on the air handling unit fans this week, which will ultimately provide for fresh air throughout the facility. These are critical areas that could have seriously impacted the project if not properly executed.

Inside the expansion space, the contractor continues to make good progress on both the House and Senate sides and work continues to track on schedule. The AOC is pleased thus far with the aggressive pace of construction in these areas. Crews are busy installing metal stud walls and drywall, ductwork and the electrical rough-in.

Overall, inside the CVC, the Sequence 2 construction is proceeding well as mechanical, electrical, plumbing and fire protection piping and associated elements continue to populate ceiling spaces throughout the facility. Despite some of the delays that have occurred and the need for resequencing of work, the contractor has consistently provided an excellent quality of work not only in mechanical and electrical, but also in the installation and application of wall stone, masonry and plaster.

Outside the facility, work on the Plaza continues and an historic preservation contractor continues to install the stone for the historic lanterns and fountains while workers continue placing the granite pavers in adjacent areas. In addition, masons have begun to set stone on the monumental steps at the north side of the CVC entrance. On the Senate Plaza, crews are busy placing concrete to prepare the plaza for granite paving stones. This work is transforming the plaza into a high quality pedestrian zone worthy of being the front door to our Capitol.

On East Capitol Street, work has continued on the utility tunnel with excavation and piling work nearing completion at the intersection of First and East Capitol Street and complete at Second Street. The installation of formwork and reinforcing steel has started at Second Street and an additional sub-contractor has been brought on board to expedite concrete work at First Street. While crews did encounter some unforeseen conditions in September, the contractor has made significant progress installing the balance of the pre-cast tunnel and pipe supports, and crews began in September to install the large 40-foot-long sections of steam and chilled water pipes inside the tunnel.

SCHEDULE UPDATE

The AOC recognizes that there is clearly concern regarding the time gap between the AOC's projection of having the CVC operational next December and the GAO's expectation for an opening three to six months later in 2007. While the AOC continues to acknowledge the challenges and potential risks still ahead, two weeks ago Manhattan submitted a revised schedule that now includes the House and Senate expansion space as well as operational activities. This revised schedule now reflects an increase from 4,500 activities to some 6,500 activities and includes full input from their sub-contractors. This schedule significantly improves upon Manhattan's August schedule, primarily in the sequencing of commissioning activities, and brings the total completion date, including commissioning, back to December 2006. This schedule is currently being evaluated by the Fire Marshal and the CVC construction manager, Gilbane, to assure adequate durations and system commissioning sequencing. While this review will require six to eight weeks to complete, the AOC will update the Committee on progress at the November hearing.

In light of the schedule adjustments and refinements discussed, and the risks identified, including the possibility of delays occurring during the commissioning process, the AOC continues to believe that December 2006 remains a more prudent date for a public opening than does September 2006. Further, a December opening would also provide additional time to staff operations personnel and establish operational policies and procedures. The recommended staffing would proceed in line with the fully coordinated schedule and actual construction progress so that portions of the staff were not hired too far in advance of the public opening.

MANAGEMENT INITIATIVES

Following is a brief discussion of the status of two key management initiatives. First, as reported last month, a Risk Assessment by McDonough Bolyard Peck had identified potential future risk items. To date, the project team has conducted two follow-up working sessions as part of the review process to develop a comprehensive risk management and mitigation plan for each risk item. This is an ongoing process.

Second, a Cost-to-Complete assessment was completed by McDonough, Bolyard Peck on October 11, 2005, and has been circulated for review. No additional funds are contemplated in the report, although GAO and AOC staff have not yet conducted a full evaluation, which will be provided at the November hearing. In terms of cost, it is important to note that the CVC project is on the cutting edge of trying to reconcile often conflicting code criteria related to fire and life safety with new and evolving security criteria so critical, and in some respects, unique to this project. Life safety codes written in the 1990's never anticipated in-depth security criteria in places of public assembly, such as the CVC. Additional costs to the project have been incurred as the project team has worked through and resolved these issues.

OPERATIONS INITIATIVES

Following is an update on two key initiatives related to CVC operations. First, the AOC has obtained the necessary leadership approvals on the language for the Executive Director position description and expects to advertise the position shortly with the goal of hiring the Executive Director by January 2006. This time frame would allow for the approximate 12-month period that the AOC operations consultant feels is necessary to meet operations staffing requirements and establish procedural policies necessary for a public opening at the end of next year.

A second operations initiative relates to the CVC food service contract. Based on the Congressional mandate that internal functions be reviewed for possibly more efficient external contracting, it is prudent for all parties to consider whether Senate Restaurant services should be provided through a private contractor. The House of Representatives has also reviewed their food service operations, and as a result, options for inclusion of both House and Senate Restaurant food services under a single CVC food services contractor are included in this initiative.

Therefore, after having briefed all Senate Restaurant staff on this initiative, the AOC procurement division issued a Request For Proposals (RFP) on September 26th to solicit interest from food service contractors. Potential firms interested in performing this work will submit proposals on how they would do the work and financial implications.

The RFP process will take several months to complete. Once potential contractors submit their proposals, they will be evaluated to determine which options may provide the best value to the government. The AOC will have follow-up meetings with Senate Restaurant staff as this process moves forward, and as decisions are made, to answer any questions they may have over the next year.

In conclusion, the project is moving forward on many fronts and when it is completed, the Visitor Center will provide all visitors to the Capitol with a state-of-the-art and accessible facility that will welcome them respectfully and securely, while also providing them with the tools to learn about the Congress and its role in our democracy.

Senator ALLARD. Now we will call on Mr. Ungar.

STATEMENT OF BERNARD L. UNGAR, DIRECTOR, PHYSICAL INFRASTRUCTURE, GOVERNMENT ACCOUNTABILITY OFFICE

ACCOMPANIED BY TERRELL DORN, ASSISTANT DIRECTOR, PHYSICAL INFRASTRUCTURE, GOVERNMENT ACCOUNTABILITY OFFICE

Mr. UNGAR. Mr. Chairman, Mr. Dorn will do our summary for us at this hearing and we will both be available for questions.

Senator ALLARD. Okay, very good.

Mr. Dorn.

Mr. DORN. Good morning, Mr. Chairman, and thank you for the opportunity to be here today to discuss our continued assistance to the subcommittee in its oversight of the Capitol Visitor Center.

What I would like to do is briefly summarize our written statement, focusing on two issues, cost and schedule, and what needs to be done in those areas from our perspective; and then Mr. Ungar and I would be glad to answer any questions you may have for us about our written statement.

Beginning with schedule, as Mr. Hantman has already indicated, progress is continuing to be made on the project in a number of areas and the building is going to be beautiful. Overall, however, that progress is not occurring at the pace necessary to complete the CVC construction in September 2006, which would lead to the opening in December 2006 as AOC hopes for.

You have already pointed out, Mr. Chairman, that out of the 11 milestones this month only 3 were complete and none of those on time, according to the April baseline schedule, and only 1 was completed on time compared to the revised June schedule. This continues a 3-month trend of not hitting the milestones, milestones from the contractor's own schedule, from his list of critical activities that by definition must be completed on time for the project to remain on schedule. Progress is not being made at the pace necessary to complete construction in September.

Coincidentally to having 11 milestones this month, we also have 11 critical paths identified by Gilbane in the sequence 2 (S-2) contractor's schedule. Four of the critical paths showed improvement this month, at least on paper, due to significant schedule resequencing and revisions by the sequence 2 contractor in his attempt to find a faster way to complete the commissioning, testing and balancing, and fire marshal-related tasks. On the remaining critical paths, related to the utility tunnel and the stonework, the schedule actually slipped another couple weeks, in spite of the ad-

ditional masons that were on site. Again, progress is not being made at the pace necessary to complete the construction in September.

The significant revisions to the sequence 2 contractor schedule, that I mentioned a moment ago are in the areas that we discussed last month as needing revision and the contractor is giving it his best shot, even proposing to do work out of its normal sequence. We applaud the contractor's willingness to find creative ways to move the project along and do not disagree with what he is doing, and we also agree that some of the time can be recovered. However, compressing the schedule and possibly doing some activities out of sequence certainly raises the risk level and the need for improved coordination.

As we recommended again last month, it is very important for AOC and Gilbane to rigorously examine the schedule, particularly the optimistic durations and the resource loading, including not only HVAC and fire protection systems, but also the stone and finishing activities. This has still not been done. Until the CVC team completes the analysis of the schedule, the schedule settles down and a realistic completion date is set, the team is almost flying blind, not able to see more than a few weeks down the road, and surprises will continue. Again, we strongly urge that AOC and Gilbane devote sufficient resources to this scheduling effort so that a credible schedule is available to the team. We have not seen anything in the last month to change our prediction of a CVC completion in the spring or summer of 2007.

Last, on the cost, as Alan noted, the McDonough Bolyard Peck final cost-to-complete estimate was received by us last week and our evaluation has begun. However, the cost to complete will not be accurate until a completion date is known. So, again, it gets back to the fact that we need to get a completion date and the schedule set.

This concludes my statement, Mr. Chairman, and I would like to thank you for the chance to come here and discuss our work with you, and we are available to answer any other questions you may have.

[The statement follows:]

PREPARED STATEMENT OF BERNARD L. UNGAR

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. Our remarks will focus on (1) the Architect of the Capitol's (AOC) progress in managing the project's schedule since the Subcommittee's September 15 hearing on the project, (2) issues associated with the CVC's fire protection system, and (3) the project's costs and funding.¹ Our ability to fully address these issues is limited by two important factors. First, AOC's sequence 2 construction contractor's—Manhattan Construction Company—September 2005 schedule reflects a number of significant changes, and AOC has not yet had the opportunity to fully evaluate these changes. Second, neither AOC nor its construction management contractor—Gilbane Building Company—has completed the evaluation of elements of the project schedule that we recommended during the Subcommittee's September 15 hearing. Thus, while we will discuss the schedule's status today, we will not be able to provide specific estimated completion dates until AOC and its construction management contractor complete their assessments and we have the opportunity to evaluate them. Similarly, while we will discuss the status of the project's costs and fund-

¹ See GAO, *Capitol Visitor Center: Schedule Delays Continue; Reassessment Underway*, GAO-05-1037T (Washington, D.C.: September 15, 2005).

ing today, we will wait until the project schedule is fully reviewed and stabilized and we have had an opportunity to evaluate AOC's consultant's, McDonough Bolyard Peck (MBP), cost-estimation work before we comprehensively update our November 2004 estimate of the cost to complete the project.

Our remarks 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; our observations on the progress of work at the CVC construction site; and our discussions with CVC project staff (including AOC, its major CVC contractors, and representatives of MBP), AOC's Chief Fire Marshal, United States Capitol Police (USCP) representatives, and officials responsible for managing the Capitol Power Plant (CPP). We did not perform an audit; rather, we performed our work to assist Congress in conducting its oversight activities.

In summary, AOC and its construction contractors have made progress in managing the schedule and accomplishing work since the Subcommittee's September 15 CVC hearing, but additional delays have been encountered. Work on all interior levels of the CVC, various sections of the House and Senate expansion spaces, the plaza, and the utility tunnel has continued. However, additional delays have occurred in a number of areas. For example, despite an increase in the number of stone masons working on the project in September, the project lost about 2 weeks on interior stone work installation and a similar amount of time on the utility tunnel.

Moreover, some revisions have been made to project activities and schedules, but these revisions have not been fully evaluated. The sequence 2 contractor revised the manner in which the HVAC and fire protection systems' commissioning work and acceptance testing would be done, which changed this contractor's scheduled completion date for the base project to December 11, 2006, from a completion date of February 26, 2007, in the contractor's August schedule. However, neither AOC nor its construction management contractor has had time to fully evaluate these revisions. In addition, AOC's construction management contractor has now integrated into the project's September 2005 schedule a number of recently prepared component schedules, including schedules for preparing for CVC operations and House and Senate expansion space construction. This integrated project schedule shows the base project as being ready for opening to the public by mid December 2006 and a completion date of February 26, 2007, for the House and Senate expansion spaces.² However, neither AOC nor its construction management contractor has fully evaluated the activity durations or adequacy of resource levels shown in the base project's schedule as we recommended in our September 15 statement. Also, the September 2005 schedule does not yet fully reflect input from AOC's Chief Fire Marshal on commissioning or testing and inspection activities. Thus, we are not now in a position to estimate a specific completion date, and our views should be regarded as preliminary at this time. With this qualification in mind, we have not seen recent evidence that would change our preliminary view that a base project completion date in 2006 will be difficult to achieve and that construction completion in early to mid 2007 is more likely unless AOC and its contractors take extraordinary action or change the project's scope, which could result in additional costs to the Government. Our view is based on the schedule slippages that have already occurred, the views of project personnel that several activities (such as interior wall stone installation and interior finish work) are likely to take longer than shown in the schedule, the large number of activities that the current project schedule shows as being at risk of causing the project's completion date to slip, and the risks and uncertainties that continue to face the project. While we view the increased number of stone masons as quite positive, it is not clear whether the contractor will be able to maintain a sufficiently high number of masons on the site or whether sufficient stone supplies will be available on time given the problems that have been experienced in this regard. AOC and its construction manager expect to have their evaluations of the sequence 2 contractor's schedule changes, scheduled activity durations, and proposed resource levels done by the end of this year. We will re-evaluate the project schedule and inform the Subcommittee of our results after AOC and its construction manage-

²AOC set September 15, 2006, as the contractual date for completing the base project's construction and for opening the CVC facility to the public. The House and Senate expansion spaces were scheduled to be completed after that date. AOC set the September contract completion date in November 2004, when it reached agreement with the contractor on a new date for starting sequence 2 that reflected the delays experienced on sequence 1. On September 6, 2005, AOC informed Capitol Preservation Commission representatives that it still expected the base project's construction to be substantially complete on September 15, 2006, but was postponing the date for opening the facility to the public to December 15, 2006, so that it could complete system tests, minor punch-list work, and preparations for operations.

ment contractor have what they consider to be a reasonably stable integrated schedule.

The design of the CVC's fire protection system has undergone a number of changes—largely to reconcile conflicts between security and life and fire safety requirements—and in a number of instances has been the focus of considerable debate among stakeholders (e.g. CVC project team members, AOC's Chief Fire Marshal and AOC fire protection engineers, and USCP representatives). Changes to the system's design and scope have resulted in about \$900,000 in cost increases so far and could result in additional increased costs of about \$4.4 million based on anticipated changes as of September 30, 2005. The bulk of the potential \$5.3 million cost increase stems from two factors—a change in the manner smoke will be kept from egress stairwells that was requested by AOC's Chief Fire Marshal and agreed to by the stakeholders and which resolves a conflict between security and life and fire safety requirements, and a disagreement between AOC and a contractor over contract requirements for certain detection devices. The increased cost figure could change significantly, however, because some CVC project team members believe that the estimated costs for these changes are too high, costs for all proposed or anticipated changes have not yet been fully evaluated, and negotiations relative to the estimated \$4.4 million in anticipated changes have not been completed. We have discussed the costs associated with the stairwell change with AOC, and it has agreed to fully evaluate the situation before it executes any additional contract modifications for this change. Based on our discussions with the CVC project team, AOC's Chief Fire Marshal, and USCP representatives, it appears that the fire protection system design is now essentially complete and agreed to by all the stakeholders. Finally, coordination problems have existed between the CVC project team and AOC's Chief Fire Marshall in arranging for inspections of completed work, but steps are being taken to resolve the problems.

We have not updated our interim estimate of a cost of between \$525.6 million and about \$559 million to complete the project, which we reported at the Subcommittee's September 15 CVC hearing, because AOC's consultant just completed its updated cost estimate and we have not yet had the opportunity to evaluate it, and because the project schedule has not yet stabilized. As soon as we evaluate MBP's report and the project schedule stabilizes, we will begin our work to reassess the reasonableness of project completion dates and comprehensively update our cost-to-complete estimate. No additional funding beyond the \$527.9 million for CVC construction and the \$7.8 million that remained available for CVC operations or construction that we reported at the Subcommittee's last CVC hearing has been provided for the CVC.

Project Schedules Have Been Revised but Not Fully Evaluated

While work in several areas has moved forward since the Subcommittee's September 15 CVC hearing, additional delays have been encountered, and project schedules have been revised but not fully reviewed or evaluated. Construction work has continued on the CVC, the East Front, the plaza, the House and Senate expansion spaces, and the utility tunnel since the Subcommittee's September 15 hearing. For example, wall stone installation work has continued in the great hall, the orientation theaters, and the auditorium, and the number of stone masons working in the interior of the CVC has increased since mid August. Some stone masons worked on weekends between mid August and mid September. In addition, excavation, concrete, and piping work in the utility tunnel has been proceeding, as has mechanical, electrical, and plumbing work in the CVC.

On the other hand, between the Subcommittee's September 15 hearing and October 12, the sequence 2 contractor completed work on only 3 of the 11 activities we and AOC have been tracking for the Subcommittee. None of these activities had been completed by the target dates shown in the contractor's April 2005 baseline schedule, although one was completed by the date shown in the contractor's June 2005 schedule. (See app. I.) Furthermore, additional delays have occurred on interior and exterior stonework installation, the East Front, the utility tunnel, and the House connector tunnel. For example, according to AOC's construction management contractor, during September, the sequence 2 contractor gained only 12 workdays on critical interior stonework and 10 workdays on the utility tunnel out of a possible 21 days of work. According to the construction management contractor, stonework has been delayed due to a shortage of stone masons, a lack of critical pieces of stone, the need to do remedial concrete work in the orientation theaters and along the exterior concrete walls and interior concrete floors of the auditorium, and delays in getting shop drawings for stonework on the East Front. According to AOC's construction management contractor, excavation work on First Street for the utility tunnel has been delayed due to unforeseen conditions and the need to stop work for

the former Chief Justice's funeral at the Supreme Court, and unforeseen conditions have also delayed work on the House connector tunnel.

During September, the sequence 2 contractor changed the manner in which the HVAC and Fire Protection system's commissioning work and acceptance testing would be done, with the potential result of a time savings. The changes largely involved re-sequencing work and doing work concurrently that the August schedule showed would be done sequentially. According to the contractor's revised schedule, these changes will result in an improvement of over 60 workdays and bring the scheduled completion date for this work to December 11, 2006, compared to the February 26, 2007, date shown in the August schedule. However, these changes have not yet been fully evaluated. AOC and its construction management contractor are reviewing the changes, as is AOC's Chief Fire Marshal. AOC and its construction management contractor believe it will take about 30 to 60 days to complete their assessments, and AOC's Chief Fire Marshal believes that he may have his evaluation done before the end of October.

Altogether, the construction management contractor has identified a total of 11 critical activity paths in the September schedule that will extend the base project's completion date beyond AOC's September 15, 2006, target date if expected lost time cannot be recovered or further delays cannot be prevented. In addition to the critical paths related to the HVAC system and the fire alarm system that are discussed above, examples of other base project critical path activities included in the contractor's September schedule are utility tunnel and piping, stonework in the East Front, interior wall stone in such areas as the orientation theaters and atria, stonework in the auditorium and exhibit gallery, millwork and casework installation in the orientation theaters and atria, fabrication and installation of bronze doors, and pent-house mechanical work. Of the 11 critical activity paths in the September schedule, completion dates for 4 paths improved compared to the August schedule, but completion dates for the other 7 paths, including all of the stonework paths, slipped. For example, according to the construction management contractor, the September schedule shows all of the work associated with the fire alarm testing critical path being completed by November 22, 2006, an improvement over the August schedule's date of February 26, 2007; the September schedule also shows all of the work associated with the interior auditorium wall stone critical path being completed by December 12, 2005, more than a month later than the August schedule's date of November 2, 2005. The sequence 2 contractor's September 2005 schedule indicates that construction work on the base CVC will be essentially complete by September 15, 2006, and that remaining work between that date and December 11, 2006, will largely consist of testing, balancing, and commissioning the HVAC system; testing and inspecting the fire protection system; punch-list work; and preparing for operations.

Most of the activities discussed above are among the activities we previously identified as likely having optimistic durations, suggesting that it could take even longer to complete them than shown in the project schedule. These activities served as the basis for the recommendation we made to AOC during the Subcommittee's September 15 hearing that AOC rigorously evaluate the durations for the activities shown in the project schedule. According to AOC, it has not yet completed this evaluation. Moreover, we continue to believe that having such a large number of critical activity paths complicates project management and makes on-time completion more difficult.

AOC's construction management contractor has continued to integrate various component schedules into the CVC construction and summary schedules as they have been completed, and the integrated schedule contains about 6,500 activities. Consequently, AOC now has a summary schedule that integrates the completion of CVC and House and Senate expansion space construction with preparations necessary for opening the CVC to the public. This integrated summary schedule shows CVC construction as well as the activities necessary for opening the CVC to the public being completed by mid December 2006, the time AOC proposed last month for opening the CVC to the public. That is, AOC expects construction work on the base CVC project to be substantially completed by September 15, 2006, but expects such work as HVAC commissioning, fire protection system testing and inspection, punch-list work, and operations preparations work to be ongoing until December 15, 2006. According to AOC's sequence 2 and construction management contractors, it is not yet clear whether expansion space construction will have progressed to the point where temporary work for fire safety once believed to be necessary to open the CVC to the public will no longer have to be done. They said that they are still analyzing the work associated with those areas where the base project interfaces with the expansion spaces and whether and how the need for temporary work for fire safety can be minimized or eliminated.

Although the sequence 2 contractor has taken, plans to take, and is considering various actions³ to recover lost time and prevent or mitigate further delays, we continue to believe that the contractor will have difficulty completing construction before early to mid 2007. Our reasons for concern include the uncertainty associated with the September changes in the HVAC commissioning and fire protection system schedules that have not yet been fully reviewed, the schedule slippages to date, optimistic durations for a number of activities based on the views of CVC team members, the large number of activity paths that are critical, and risks and uncertainties that continue to face the project. AOC's construction management contractor also points out that further delays could result from congressional requests to stop work due to high noise levels in the East Front and delays in completing CVC ceiling work necessary for the HVAC and fire protection systems, although the CVC team is considering ways to mitigate these risks. We also note that the Chief Fire Marshal has not yet approved the construction drawings for the fire protection system or the schedule for the system's commissioning and testing.

In addition to our views on the project's September schedule changes and progress, we would also like to briefly discuss several schedule-related issues about which we have previously raised questions or issues or made recommendations to AOC.

- We have been recommending for some time that AOC improve schedule management and analyze and document delays and the reasons and responsibilities for them on an ongoing basis—at least monthly. We have noted considerable improvements in the CVC team's schedule analysis and management since the arrival of the construction management contractor's project control engineer several months ago. Shortly after his arrival, the scope and depth of schedule analysis and management improved significantly, and AOC's construction management contractor modified its monitoring process to capture information on delays. However, we continue to be concerned about AOC's not having adequate information systematically compiled and analyzed to fully evaluate the causes and potential responsibilities for delays on an ongoing basis. In our view, not having this type of information on an ongoing basis is likely to create problems later on should disputes arise and knowledgeable staff leave. Also, in this regard, we have previously expressed concerns about the need for the project schedule to show resources to be applied to meet schedule dates. While the sequence 2 contractor has shown proposed resource levels for many activities, proposed resource levels have not been included for many of the new activities added to the project schedule. The lack of such information can complicate the analysis of delays, including their causes and costs. AOC agreed that these issues are important and said it would discuss them with its construction management contractor.
- We have previously recommended that AOC develop risk mitigation plans to address risks and uncertainties facing the project. In July, AOC asked one of its consultants—MBP—to assist it in identifying risks and developing plans to address those risks. AOC has identified over 50 risks facing the project and established a process for addressing them. AOC has begun to develop and implement plans for managing these risks. As of October 11, AOC had developed plans for addressing 12 risks, such as unforeseen conditions associated with constructing the House connector tunnel, and fabrication and installation of custom bronze doors and windows. AOC said that it will continue to develop plans for the remaining risks. It also plans to discuss the risks at a weekly meeting and add new risks to its list and develop mitigation plans for them as they are identified.
- The September schedule shows utility tunnel construction being completed in February 2006 and CVC's air handlers beginning to operate at that time, assuming that they can get steam and chilled water from the Capitol Power Plant. During our September 15 testimony, we noted several problems associated with CPP that could adversely affect the CVC as well as other congressional buildings if not corrected or addressed. These problems included, for example, poten-

³In September, the sequence 2 contractor increased the number of stone masons working on the project. For example, AOC's construction management contractor reported that an average of 22 stone masons worked on the project each work day for the work week ending October 14, compared to an average of 14 each work day for the work week ending August 26. Stone masons also worked on several weekends, and the contractor plans to further increase the number of stonemasons during October and to re-sequence stonework to help mitigate a delay in the exhibit gallery. The contractor has hired an additional subcontractor to help construct the utility tunnel and is considering working longer hours or additional weekends to recover time. The contractor also plans to continue to evaluate the schedule to see what changes can be made to save time in a variety of areas.

tial delays in completing the West Refrigeration Plant Expansion Project, which is necessary to provide chilled water to the CVC; the removal from service of two chillers in the East Refrigeration Plant because of refrigerant gas leaks; fire damage to a steam boiler; and staffing and training issues associated with operating the new plant and the absence of a CPP director. Since the Subcommittee's September 15 CVC hearing, the fire damage to the boiler has been repaired, and the two coal-burning boilers that were taken off line for maintenance had been put back on line; however, another maintenance problem occurred with one of the boilers and it had to be turned off for repairs, which AOC expects to have completed by the end of this week. Also, over the Columbus Day weekend, heavy rains caused damage to electrical equipment that resulted in a power outage affecting the entire plant. Power was restored within a few hours; however, because of damage to the electrical equipment, power is not available at certain locations within the plant. In particular, one of the chillers in the East Plant is inoperable because power cannot be provided to it. This incident prompted AOC to make a change that affects the West Refrigeration Plant Expansion Project. Specifically, AOC has decided to reconfigure the chilled water piping system to allow the West Plant to operate in isolation of West Plant Expansion. This change, which could result in an increase to the contract cost, will decrease CPP's reliance on the older East Plant and will enhance its capacity to reliably provide chilled water to the CVC and other congressional buildings. Finally, AOC recently advertised the vacant director's position. At this time, GAO has an active engagement to assess certain CPP issues, such as staffing and training for, and the estimated cost to complete, the West Refrigeration Plant Expansion Project. This engagement is being conducted as part of a separate review for the Subcommittee.

—Although AOC determined that the sequence 1 work was substantially complete in November 2004, the sequence 1 contractor has continued to work on punch-list items. Since the Subcommittee's September 15 CVC hearing, AOC's construction management contractor added about 15 additional work items to this list, such as chipping concrete interfering with wall stone installation and repairing drains. According to AOC's construction management contractor, the sequence 1 contractor has been making satisfactory progress in completing the punch-list work.

Fire Protection System Issues Are in the Process of Being Resolved

The CVC's fire protection system is complicated, interfaces with security and other building systems, and encompasses a variety of subsystems and components, such as smoke and heat detectors, an alarm system, a sprinkler system, a smoke evacuation system, door locks that will open in the event of a fire, monitoring and control systems, emergency signage, lighting, communication, and a system for preventing smoke from entering stairwells—referred to as stair pressurization—to allow occupants to get out of the building. We have identified three issues related to the fire protection system, each of which we would like to briefly discuss.

1. *Evolving design.*—The CVC's fire protection system has undergone a number of design changes and has been the subject of debate among relevant stakeholders for a number of reasons, largely due to conflicts between security and life and fire safety requirements. According to AOC, the building codes governing the design of the CVC often conflict with security requirements, do not recognize the unique security needs of the Capitol, and are particularly silent when it comes to the integration of new air filtration technologies. In addition, AOC said that security requirements and the decision to add state-of-the-art air filtration technology to the project when the construction documents were almost complete forced the project team to redesign all of the air handling systems in a compressed timeframe in order to maintain the overall schedule. It also forced the project team to devise a complex design solution with AOC's Chief Fire Marshal and USCP while sequence 2 was out for bid as well as after the contract had been awarded. On October 5, we attended meetings of representatives from the CVC project team, AOC's Fire Marshal Division, and USCP where issues surrounding the CVC's fire protection system were discussed. Based on those discussions and information subsequently provided by AOC and USCP, it appears to us that the design of the CVC's fire protection system is now essentially complete and agreed to by all of the relevant stakeholders. The CVC project team and the Chief Fire Marshal note, however, that not all of the shop drawings related to the fire protection system have been submitted or approved, and some issues could arise during the review process.

2. *Increased cost.*—As of September 30, executed contract modifications and anticipated changes related to CVC's fire protection system totaled about \$5.3 million, with most of this amount, about \$4.4 million, being estimated costs for anticipated

changes that have not been fully evaluated or approved. Changes to the system's design and scope already made have resulted in about \$900,000 in cost increases. Costs for changes that have been made or that are anticipated have increased or are expected to increase for several reasons, but the bulk of the increases stems largely from two factors—changes requested by AOC's Chief Fire Marshal aimed at ensuring that the system meets fire safety standards based on his interpretation of code requirements (an area where conflict existed between fire safety and security requirements) and a disagreement between AOC and a contractor on contract requirements regarding certain detection devices. The most costly change involving the security/fire safety conflict that the CVC team has agreed to relates to the manner in which fresh air will be brought into the building to pressurize stairwells to prevent smoke infiltration in the event of a fire. The estimated costs for this change (including the expansion space) amount to about \$2.2 million, or over 40 percent of the estimated increased costs for the fire protection system. Differences of opinion among CVC team members exist on the magnitude of the estimated costs for this change. We have discussed this issue with AOC, and it has agreed to fully evaluate the cost before it executes additional contract modifications relating to stair pressurization. The final costs for the stair pressurization and detection devices in question as well as the other anticipated changes could change significantly from the estimated amounts once any open issues regarding costs are resolved. It is also possible that some of the proposed change orders include work items that are not related to the CVC's fire protection system, and to the extent this situation exists, costs for such work items would not be attributable to the fire protection system.

3. *Coordination problems.*—The CVC project team and AOC's Fire Marshal Division have been experiencing difficulties arranging for timely inspections of completed work due to coordination problems involving the amount of notice and documentation needed before inspections can occur. To improve coordination, the CVC project team has been working with its construction management contractor and the Chief Fire Marshal to develop a systematic process for arranging for and documenting fire safety inspections and is considering hiring a consultant to help facilitate the coordination process. The Chief Fire Marshal has increased staffing devoted to the CVC and is planning to obtain contract support to help perform CVC inspections. The Chief Fire Marshal is also reviewing the sequence 2 contractor's September 2005 schedule to determine whether the sequencing of work and the time allotted for fire safety and occupancy inspections are acceptable.

Our Project Cost Estimate Update Awaits Assessment of Consultant Estimate and Schedule Stabilization; Funding Provided Has Not Changed Since September 2005

AOC's consultant—MBP—finished its work last week to update the estimated cost to complete the project. We have not yet had time to evaluate MBP's report. Also, as we said during the Subcommittee's September 15 CVC hearing, we are waiting for the project schedule to stabilize before we begin our work to comprehensively update our November 2004 estimate of the cost to complete the project. Thus, we are not revising our interim updated estimated cost to complete the project of between \$525.6 million and about \$559 million that we discussed at the Subcommittee's September 15 CVC hearing. As soon as we evaluate MBP's report and the project schedule stabilizes, we will begin our work to assess the reasonableness of the scheduled completion dates for the CVC and the House and Senate expansion spaces and comprehensively update our estimate of the cost to complete the project.

No additional funding beyond the \$527.9 million for construction and the \$7.8 million that was available for CVC construction or operations has been provided for the project since the Subcommittee's September 15 hearing.⁴ As you may recall, Mr. Chairman, at your last CVC hearing, we expressed concern about possible duplication of work and costs in areas where the responsibilities of AOC's CVC construction and operations contractors overlap, such as in designing wayfinding signage and the gift shops. AOC agreed to work with its operations planning contractor to clarify the contractor's scope of work, eliminate any duplication, and adjust the operations contract's funding accordingly. AOC told us that it has discussed these issues with its contractor and concluded that while no duplication of work or funding exists, it

⁴AOC had planned to use \$100,000 of its fiscal year 2006 appropriation for CVC construction to move a fire alarm control panel in the Capitol building related to CVC construction but outside the CVC work area. AOC has decided to pay for this move with other funds, thus making the \$100,000 available for other CVC construction purposes subject to approval of the House and Senate Committees on Appropriations. As we reported in September, AOC had also used about \$805,000 in CVC operations funds for certain construction work that had been funded by the fiscal year 2006 construction appropriation. These funds also could be used for other CVC work subject to the Committees' approval.

needs to clarify the contract's scope of work on wayfinding signage because it included more work than the contractor would actually do.

Mr. Chairman, this concludes our statement. We would be pleased to answer any questions that you or Members of the Subcommittee may have.

APPENDIX I.—CAPITOL VISITOR CENTER CRITICAL CONSTRUCTION TARGET DATES SEPTEMBER 16-OCTOBER 18, 2005

Activity	Location	April 2005 Scheduled Finish Date	June 2005 Scheduled Finish Date	Actual Finish Date
Drill/Set Soldier Piles Sta. 0:00–1:00	Utility Tunnel	6/08/05	8/23/05	9/21/05
Wall Stone Area 9 Base	Great Hall	7/15/05	11/03/05	9/14/05
10 Inch South Fire Line	Site	7/19/05	1/09/06	.....
Excavate and Shore Sta. 0:00–1:00	Utility Tunnel	7/21/05	10/05/05	.....
Concrete Working Slab Sta. 0:00–1:00	Utility Tunnel	7/26/05	10/10/05	.....
Waterproof Working Slab Sta. 0:00–1:00	Utility Tunnel	7/29/05	10/13/05	.....
Wall Stone Area 1	Congressional Auditorium.	8/08/05	7/22/05	.....
Wall Stone Area 2	Congressional Auditorium.	8/22/05	8/05/05	.....
Wall Stone Area 3	Congressional Auditorium.	9/06/05	8/19/05	.....
Wall Stone Area 5 ¹ Base	Orientation Theater	9/13/05	9/28/05	.....
Perimeter CMU Walls	Orientation Lobby	9/20/05	9/16/05	.....

¹This activity was not noted listed in the April schedule. All other activities were critical in the April schedule or became critical in subsequent schedules.

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

Note: Actual completion information was obtained on October 12, 2005.

Senator ALLARD. Thank you very much. I appreciate the panel being here with us this morning. I think it is important that this subcommittee continue to review carefully progress on the construction project, and hopefully we do this in a constructive manner, and I think your comments have been constructive.

CONSTRUCTION SCHEDULE

I know, Mr. Hantman, Mr. Hixon, it is frustrating at times when you have these unexpected problems. But I do think that the subcommittee has to have a thorough understanding of how we are progressing. I would like to urge you to get that schedule in place, because I see that as critical.

In your testimony, Mr. Hantman, you indicated another 6 to 8 weeks is required to thoroughly evaluate that schedule. We do want it precise as you can possibly get it, but I am curious to know why it is taking so long to get this finalized.

Mr. HANTMAN. Mr. Chairman, we have been talking about an integrated schedule with all components coming into it for a while now. As you know, the expansion space contractor has come on board fairly recently and their input into the completion of the expansion spaces both for the House and the Senate has been a critical component that needed to be fed into it. So as a contractor determines their means and methods and their own sequencing of how they are going to get the job done, that gets done as the work is progressing.

So they have now fed their information into the full schedule and that work, as you know, just happened fairly recently, or just started fairly recently.

OPERATIONS CRITERIA

The other end of it, Mr. Chairman, relates to the operations. Clearly, we have brought Zell Corporation back on board to talk about all of the operations criteria. The concern that you have mentioned in past hearings, talking about making sure that the operations issues are factored in; we now have some 500 or so items on operations that are factored into this fully integrated schedule. So while Mr. Dorn characterized us as flying blind a little while ago, the issue here really is that we have got a very thorough schedule that the contractor has committed to and that we need to evaluate from both the fire marshal's perspective and from our construction manager's perspective, to take a look at the reality, make sure the durations are reasonable.

But this schedule I think, in most people's experience, is more detailed and more coordinated than any they have seen pretty much in their professional careers. So we have really tried to dot those "i's", cross those "t's", and make sure that we are integrating, so that we can avoid problems down the road.

BASE SCHEDULE

Senator ALLARD. Now, true, we have just brought on the expansion spaces for the House and the Senate and that is a new factor to bring in. But as far as base scheduling, it has been 1 year, has it not, when Manhattan came on board? I see Mr. Ungar is nodding his head. Perhaps maybe you can clarify this for the record, but I think it has been 1 year where we have had Manhattan on with sequence 2; actually we had the contractor start in November 2004. Am I correct in that, Mr. Ungar?

Mr. UNGAR. Yes, Mr. Chairman, you are.

Senator ALLARD. So again, we do not have a final base schedule.

Mr. HANTMAN. Absolutely.

CONSTRUCTION SCHEDULE ASSESSMENT

Senator ALLARD. By the way, who is doing the schedule assessment and what is its scope and methodology?

Mr. HANTMAN. Bob?

Mr. HIXON. The schedule review, we have had McDonough Bolyard Peck working on it. They are going to be completing their review. They have started it and they generated some initial comments.

McDonough Bolyard Peck is doing it as a consultant for us. In addition to that, Gilbane will be doing the review themselves. We have talked about if we have a separate group of people within Gilbane, not the current field staff but other staff, come in and do that evaluation as far as the durations and the logic within the schedule.

The team themselves have been doing this review. The schedule itself, you are correct, it did come in in January, we received the new baseline schedule. That schedule has continued to evolve. What has occurred in the last month was primarily the integration of all of the commissioning activities, a number of activities, and that was all added in August.

We were expecting to have the review of the durations and logic completed by this hearing. However, when we got the report in, there was an inadequate amount of time to do it. There have been such significant changes to the commissioning activities that we need to have the fire marshal participate in that review. So that is why that has been put off.

The integration of the schedule for the expansion space, as well as the operations, adds more detail. It will be reflected in some of the activities in construction, but more to ensure that they are well coordinated, not really changing the schedule itself.

Senator ALLARD. I am curious about your methodology. Would you agree with me that if we could have at least a basic plan then as things change we can always incorporate those changes into the basic plan?

Mr. HIXON. Absolutely, sir. That is exactly what we are doing. We had the base schedule in January. We have done some reviews of that and it has been improved. The original base schedule had broad periods of time. It would say, for example, install wall stone in the Great Hall. The detailed schedule now reflects 10 different areas of wall stone, so that it is broken down into durations that are small enough you can actually measure.

So the original baseline schedule did not have as much detail as we felt was necessary to adequately monitor the project. As we develop more of these details, the schedule has grown. Then with the inclusion of all the commissioning activities, when those details were added in August, the schedule completion date became unacceptable and the contractor went back to look at that to see what was wrong with the logic that we were using. Now the contractor is satisfied that the schedule is perfect, but the fire marshal, the construction manager, and we have not had an opportunity to review that in detail. It only came in 1½ weeks ago. So what we need is some time to get the fire marshal—the critical part of this is not the construction part. The construction should be done in September. The critical part is making sure we all thoroughly understand what the commissioning activities are that need to take place, so that the fire marshal's input works well with the contractor's plan for completion of facility. That is the piece that we are really working to try and pull together.

Senator ALLARD. Mr. Ungar, do you believe that the Architect of the Capitol and Gilbane are doing all they should to reevaluate and finalize the schedule in a timely manner?

Mr. UNGAR. Mr. Chairman, that is a question that we have right now. What we are looking for when we use the term "rigorous, aggressive assessment" is a real fact-based, data-based, expert review of the schedule. For example, on the stonework, what we had in mind would be having somebody knowledgeable about stonework looking at the actual experience of the project to date with the number of masons, the productivity, looking at what the durations are in the schedule, and making an assessment. Is this realistic, based on the experience of this project and the professional experience that the stonemasons might have?

We have not seen that kind of assessment at this point. That is the type of assessment that we would be looking for.

OPENING DATE

Senator ALLARD. Mr. Hixon, Mr. Hantman, do you both believe that the December 2006 opening date is realistic, in light of this slippage in the area of the masonry work, and continued slippage on the utility tunnel?

Mr. HANTMAN. As Bob Hixon just indicated, the contractor's schedule does call for construction completion in September 2006. As I talked about in our last hearing and I reiterated a bit in my opening statement today, we believe that clearly the whole issue of the possibility of overlapping of commissioning activities and finishing work is the key to the opening date.

With the construction completion basically still planned for September, the issue of operational staff coming on board and at that point in time, with construction basically complete but commissioning ongoing. The issue is to analyze, whether they can appropriately and safely come into the space and do their work in the shakedown and the practicing and setting things up while the commissioning goes on. We think that will be the case, and that is the kind of examination we are doing with the fire marshal and the construction manager.

So the issue there again is heavy construction, including the stone, that we are looking at, as the schedule currently talks about, being completed basically in September. The issue there is again systems and making sure that the systems are shaken down and appropriately managed so that we can spend the next couple months making sure that it is ready for opening.

STONEMASONS

Senator ALLARD. I can understand why we might be having problems with the stonemasons. There was a supply problem at the start, although I think maybe they could have planned a little better in knowing the amount of stone that they needed.

Now we are having a hard time running down stonemasons. I guess we just do not have enough skilled stonemasons in the area that are available for the project.

Mr. HANTMAN. That is true, Mr. Chairman.

UTILITY TUNNEL

Senator ALLARD. That is not hard to understand and visualize. The problem I have understanding and visualizing is the utility tunnel. We had 21 days of work here and we only got 10 days out of that to actually work in there, so we lost 10 days of labor and construction in that utility tunnel.

Maybe you would like to respond to that. When we have our tour, I would like to spend some time on the utility tunnel.

Mr. HIXON. Mr. Chairman, I would be happy to respond to that. The utility tunnel has been impacted by different site conditions on a number of occasions, the last of which was another—not the last, but the previous one was a PEPCO vault. The latest thing is we encountered a concrete foundation and steel in the base of the excavation near the auditorium there at First Street. So we have had that.

We had the rainfall last week. The rainfall put us back 1 week for the area where we have got the excavation taking place. We need to be able to get the mud mat down so that the water does not affect us adversely.

The good news is that two-thirds of the piping, the chilled water and steam pipe, is literally in the tunnel. It is to be welded there, but it has already been set in the tunnel so that the welding can take place, and that is very positive, what the mechanical contractor has been able to achieve.

Also they have brought on an additional contractor to do the construction at First Street because their own force is, Manhattan's force is, doing the concrete work at Second Street and at the bridge, the book tunnel. They do not have enough forces to be able to do both at the same time, and so we brought in—they brought in an additional contractor in order to make up for that lost time.

Currently the projection is, the sum total from the original schedule is, that we would finish the construction December 7, if I have the date exactly right. It is about 1 week late. For all of these issues that we have encountered with differing site conditions, the contractor's efforts in hours per day and weekends have been good enough to make up for most of these, so that the slippage, instead of being a number of weeks, is really now down to 1 week.

What we are endeavoring to do as soon as we get the tunnel, so that the mechanical piping can go through, is see if they cannot expedite the installation of the piping. But of course, they cannot do that until they have a tunnel to construct it in.

But the issues have been predominantly differing site conditions that have caused some redesigns and that is what the impact has been to the utility tunnel.

UNFORESEEN CONDITIONS

Senator ALLARD. There must have been some things in the ground that were not properly documented and that is why they were a surprise to you when you came across them?

Mr. HIXON. What was in the ground was neither documented—we for example ran into a fiber optic cable that was not reflected on the drawings, and you cannot detect that with a metal detector. We have run into duct banks that we should have been able to support that fell apart. There have been a number of issues. And when you run into the utilities, the utility companies then have to come, and you cannot touch their work until they finish doing their part of it.

So those have been the things that have caused delays, plus this deep foundation that we encountered that no one knew was down there. So there have been a number of issues, unfortunately.

SCHEDULE MAKEUP

Senator ALLARD. GAO told us last month that AOC would have to make up 1 day for every 8 remaining days between July 2005 and September 2006. What is the current estimate of time to be made up? Let us go to GAO for that question.

Mr. DORN. Mr. Chairman, I did not do that same metric this time.

Senator ALLARD. Okay. Well, maybe we can have that ready for the next hearing.

Mr. DORN. Yes.

Senator ALLARD. I thought that was an interesting metric and I think it was helpful to understand how we were progressing.

Mr. DORN. Yes, sir.

Mr. UNGAR. Mr. Chairman, if I might just add, the issue that you were last asking about I think is at the heart of the reason why we have a difference between GAO and AOC on when the project will be complete. As Mr. Hantman and Mr. Hixon said, the schedule shows that construction will be complete in September 2006. Our question is, is that a realistic and a credible schedule, given the slippages that have occurred so far and durations and the logic that exists in the schedule, for the work that is expected to be done in the next several months, such as the stonework, the millwork, and the casework?

That is why we are so concerned about having a really good assessment of the schedule, because if that work is not scheduled to be done in a realistic period of time they cannot meet the September 15 date.

Senator ALLARD. Maybe we can have a little more discussion at our next hearing on that, when we look at these makeup days.

COST TO COMPLETE

Now, I would like to pursue this cost-to-complete issue. In last month's hearing we were told that the cost to complete would be ready by this month's hearing. Mr. Ungar, can you tell us why GAO has not been able to complete its review of the independent assessment of the cost to complete, and will you have it by next month's hearing?

Mr. UNGAR. Mr. Chairman, there are two reasons why we have not been able to complete our review. One is that AOC just last week received the final report from its consultant, McDonough Bolyard Peck, on the results of its review, and of course we needed to have that before we could start our review. So we will begin immediately to look at that report.

But the other reason is that we do not feel it would be prudent to complete our work until we have a stable schedule, because a large part of the cost to complete is going to be dependent upon what a good solid estimate of the completion date is going to be and because a number of costs are driven by how long the project will continue, including expected delay costs and so forth.

So we will basically start right away, as soon as we get, hopefully in December, a stable schedule that hopefully has been evaluated. We should then be able to finish the cost to complete, I would guess by your February hearing if you have one in February, at the latest.

Senator ALLARD. We will have one in February. Count on it.

Mr. UNGAR. Maybe before.

Senator ALLARD. Do you have any preliminary information that you would like to share with us on that? Stick your neck out a little bit.

Mr. UNGAR. Well, we have not updated our estimate since your last hearing, and I think we were around \$526 million in terms of

cost to complete without risks, to around \$559 million with risks and uncertainties. We have made a quick review of the MBP report and it is basically indicating MBP expects there to be an increase in the cost of sequence 2, basically for the reasons of the higher than expected pace of change orders that have taken place, some delay costs, and some additional costs that MBP is, as we are, identifying with respect to the CVC's fire protection system.

So it sees basically about an \$8 million increase in the cost of sequence 2. But by the same token, MBP is estimating the expansion space would not cost as much as expected by about the same amount. So there would be an increase on the one hand and maybe a lesser expense on the other, according to the MBP report.

We have not, as I said, thoroughly reviewed that. We do have some questions about that that we need to address and we will address.

The other side of the coin is that, even with the increases, MBP's report would indicate that there are sufficient funds made available right now to cover the costs that are estimated.

BRONZE DOORS

Senator ALLARD. Mr. Hantman, he mentioned it is hard to put some of it together because of unforeseen problems that may occur. So this brings up the issue of the risk management plan. Can you give us any examples of the worst risks and actions taken to address those risks at this point in time, Mr. Hixon?

Mr. HIXON. The example that probably comes to mind first is the bronze doors, which was brought up during our risk assessment by the Architect as an issue he was concerned about. We reviewed the status of the bronze doors, the status of the work and where they were in the production of those, found out that we did, in fact, have an issue that could be a problem if we did not jump on it right away.

That issue has been reviewed. We have developed detailed schedules for the bronze doors. The issue there was UL testing of a door that had never been made before and going into production. So going through that risk assessment, identifying that particular item and pursuing that has been very beneficial for the project. So that is one example.

Most of the rest of the examples we have are things that could be problems in the future and so we continue to monitor them to ensure that they do not become problems.

Mr. HANTMAN. Many of the issues, Mr. Chairman, also deal with the commissioning and the testing of the systems, and this is what both we and GAO have been talking about and trying to work through. The major issue now with Manhattan's new schedule is for us to make sure that those times are appropriate, the durations are appropriate. Again, that commissioning and testing will not begin until next summer, so we are trying to jump on it before it becomes a problem and make sure that we can resolve that and integrate that schedule appropriately.

Senator ALLARD. Now, Mr. Hixon, on the bronze doors, those have to be approved by the Underwriters Laboratory, is that correct?

Mr. HIXON. Yes, sir.

Senator ALLARD. Have they given you the approval yet? When do you expect that?

Mr. HIXON. We have run the first test. They failed the test. They identified exactly what caused the failure. They will be running the test again on the 21st, in 3 days, and we fully expect to pass the test. It was an inner core issue, inner core of the door. So we feel very good that we will go on to production.

About half the doors are fire-rated doors requiring UL approval. The other half do not.

Senator ALLARD. I see, and so the tests are essential to have these fire-rated for the marshal?

Mr. HIXON. For the portion that are fire-rated, they must pass the test. Since we have had one test and we have identified the problem with the core, they have made that change, and so we expect it to perform satisfactorily.

CONSTRUCTION DELAY DOCUMENTATION

Senator ALLARD. Now, none of the 11 milestones, as both I point out in my testimony and we got from GAO, for the last month have been completed on time. Mr. Hixon, what progress has the Architect of the Capitol and Gilbane made in implementing GAO's long-standing recommendation that it more systematically document delays to the project on an ongoing basis?

Mr. HIXON. The documentation of delays has been a discussion with Gilbane. They are keeping those records on daily reports. What we have talked about is do we need to have something that summarizes the data monthly, so that we would have that information available to factually document delays either caused by differing site conditions or something that someone else caused.

So we have got the base data. We have just not summarized that data into some kind of a monthly format. We have been having conversations on how best that should be done.

Senator ALLARD. Now, I am under the impression that we do have a representative here from Gilbane Building Company.

Mr. HIXON. That is correct.

Senator ALLARD. Mr. Marvin Shenkler.

Mr. HIXON. Yes, sir.

Senator ALLARD. I would like to call him to the witness table just for a couple questions, if I might.

STATEMENT OF MARVIN SHENKLER, GILBANE BUILDING COMPANY

Senator ALLARD. Mr. Shenkler, the first question I have for you, do you believe the September 2006 date for planned completion date is realistic and achievable?

Mr. SHENKLER. I think it is overly optimistic and I have indicated that prior. It is a very aggressive schedule. It is one which, given adequate resources, which so far we have been unable to obtain, in the way of stonemasons, for example, leads me to conclude that it is not likely to be accomplished by then.

Senator ALLARD. Is there any hope that we will be getting more skilled masons into the area here that can help us get through the delays on the stonemason project?

Mr. SHENKLER. There is a possibility. We have been advised by Manhattan that they are exploring ways of getting additional re-

sources in the way of stonemasons here. And we have had increases from when we first started. We are up to around 23, 24 stonemasons on a daily basis. We think we need to get to somewhere around 30 in order to recover the time that we have lost in order to complete on schedule.

Senator ALLARD. Now, GAO has testified that it is critical to have a reasonable amount of time between the end of construction and the beginning of operations to allow for some unexpected delays or problems. Does the current schedule allow for this so far as you are aware?

Mr. SHENKLER. Well, we are looking at a substantial completion some time, in my mind, around December 2006. That means a fully functional facility, ready for its intended use. That would incorporate not only construction completion, but also resolution of any punch list items that might still be on the—required to be corrected.

Senator ALLARD. Is Gilbane doing all it can to ensure timely completion of the project within available funds?

Mr. SHENKLER. We are monitoring the schedule on a daily basis. We are taking a proactive approach to looking at durations for all critical and near-critical activities. Starting tomorrow, we are going to have two additional senior superintendents coming in to take a look at activity durations to make sure that the staff who is on site right now is realistic in the way we are looking at durations based on quantity of work to be done per activity, crew sizes, and productivity per crew.

Senator ALLARD. So you feel that right now you have the right people on board to complete the remaining tasks?

Mr. SHENKLER. I think we do.

ASSESSMENT OF GILBANE'S PERFORMANCE

Senator ALLARD. How would you assess Gilbane's performance thus far and what is Gilbane doing to ensure that it has its A team on the job?

Mr. SHENKLER. As with any job of a complexity and size of this magnitude, this is a very difficult job to accomplish. I think we have done a satisfactory project so far. We obviously need to do better. We have done—taken action to do that by taking, by bringing additional staff on board. We have got a full-time project control engineer who is rigorously looking at the schedule, as suggested by GAO.

We are looking at costs. We are negotiating change orders. We are envisioning a timeframe that we think is realistic to complete the project.

Senator ALLARD. You think you have the best people there to do that?

Mr. SHENKLER. I think for the most part we have got superior people, the A team from Gilbane, on this job.

Senator ALLARD. Well, thank you very much, Mr. Shenkler. I do not think there is any need for you to remain at the table now. Thank you.

Mr. SHENKLER. Thank you.

CAPITOL POWER PLANT DIRECTOR

Senator ALLARD. I would like to move to the Capitol Power Plant (CPP), an unexpected problem that came up this last week. We have discussed the power plant in our hearing last month. The first thing I wanted to start off with is, what is the status now of hiring the CPP director?

Mr. HANTMAN. Mr. Chairman, the job description is out on the street. It is being advertised right now.

Senator ALLARD. Okay. What has been the initial response?

Mr. HANTMAN. I will have to get back to you on that. I am not sure how many applications—

WEST REFRIGERATION PLANT COST TO COMPLETE

Senator ALLARD. Do you expect additional funds will be needed to complete the \$100 million west refrigeration plant project, and if so when will funds be needed?

Mr. HANTMAN. We are looking at a cost to complete right now, Mr. Chairman—I was talking to our project manager just yesterday about that—to make sure that we cover not only the cost to complete of the plant itself, but the issue of increasing utility costs, with gas prices going up and how that might be impacting our overall power plant budget itself.

We do expect that there will be additional dollars necessary to do that and we are looking at the magnitude of that, and also looking internally to see what other sources of funds that we already have at the power plant to help defer that magnitude of dollars.

Senator ALLARD. What is the current estimated completion date? The original schedule called for March 2006.

Mr. HANTMAN. There are basically two dates, Mr. Chairman. The first date essentially is for manual operation on December 1 of this year for the new chillers, and our contractor informs us that that schedule is on board and they have no concern about that.

In terms of the controls, there have been some difficulties in terms of the control systems and making sure that those occur. We met with our contractor last week to discuss those issues. They are looking for time extensions on their contract and we are trying to work out with them what that might mean.

The bottom line in terms of chilled water capacity is that, with the existing capacity in the west refrigeration plant, the four machines we have there now, and the capacity in the existing east refrigeration plant—and as you are probably aware, Mr. Chairman, we lost a couple of units on that in the last several weeks, which is one of the reasons we wanted to do the expanded west refrigeration plant, because those units are outdated. In fact, we had a fire in one of the breaker panels over there, which is equipment that was meant to be decommissioned once the new west refrigeration plant was online.

We believe that the capacity that we have in the existing units in the west refrigeration plant and the east refrigeration plant should be adequate for our needs coming on board for a potential February-March need from the visitor center itself. We are looking at other opportunities to look at new piping arrangements to make sure that we have the flexibility between the west refrigeration

plant and the east refrigeration plant as we turn over the new units to be able to flexibly use them as we need to and not have a down time on that.

CAPITOL POWER PLANT FIRE

Senator ALLARD. On Columbus Day weekend, there was a fire at the power plant, fortunately it occurred on the weekend, when we did not have much demand, and it was during a time when we had relatively mild weather. Can you bring us up to date as to what was the cause of the fire? Were we slacking off on maintenance because of the new equipment that was coming on?

Mr. HANTMAN. Mr. Chairman, this equipment has outlived its life already, which is again why we are appreciative that the Appropriations Committees have funded this new west refrigeration plant. This electric circuit breaker malfunctioned on October 8 and it started an electrical fire. The breaker serviced a chilled water pump in the east refrigeration plant which was not in operation at the time.

We are investigating the cause of the breaker failure, but predominantly it is aging equipment and, quite frankly, I think the plant has done a good job in terms of putting bandaids and keeping them running as long as they have.

There were no injuries. Damage was limited to equipment scheduled to be taken out of service as part of the west refrigeration plant expansion project, and it will not be replaced.

Our staff responded quickly to isolate the power to the substation. D.C. Fire extinguished the fire with foam. During the incident, chilled water service air-conditioning to the complex was not disrupted since the west refrigeration plant was not impacted, because of the newer machines. But the steam service, the heat and humidity, was reduced temporarily as a result of the reduction in power, which had a slight impact on room temperatures. But by Saturday evening the service was returned to normal.

MITIGATION PLAN

Senator ALLARD. You had mentioned getting the ducts completed in the new Capitol Visitor Center was a key milestone in getting things moving. I assume that is because you can sustain a proper working environment there for your internal job.

If we have another incident like this at the power plant, during the cold winter months we have a shutdown, that could be one of our high risk factors, could it not? Do you think that is likely to happen? Do we have of a mitigation plan for that?

Mr. HANTMAN. The mitigation plan again refers to the piping bypass that I talked about just a moment or so ago. The flexibility to be able to operate the existing east plant chillers and the west plant chillers as we bring on the new ones and hook them up is what this piping scene is all about. We expect that is a \$500,000 to \$600,000 element that really relates back to the fact that we have lost existing equipment on line, and we want to make sure that we have the redundancy necessary.

Senator ALLARD. Is there anything to be done at the power plant to make it less likely we would have these kind of fire incidents?

Mr. HANTMAN. Well, part of the solution, sir, is to get rid of the old equipment and bring in new, which is exactly what we are doing. The fire was in fact in the old equipment, which is slated for removal and replacement. It has outlived its life and certainly proper observation, testing and maintenance is critical and has been critical to getting us where we are at this point.

UPCOMING MILESTONES

Senator ALLARD. Mr. Hixon, on the milestones, what are the major milestones we should expect you to meet the next month toward completion of the Capitol Visitor Center?

Mr. HIXON. The milestones for next month should be the continuation of the utility tunnel items that have not been reported as completed yet, and then we will be talking about the upper level assembly rooms, the exhibit gallery, the east front sub-basement masonry, continuation of additional utility tunnel activities. So those are the things that we should be reporting on, and I have a sheet of paper with a list of those that we can convey with our statement.

Senator ALLARD. We would appreciate you putting that in the record if you would, please.

[The information follows:]

CAPITOL VISITOR CENTER CONSTRUCTION ACTIVITIES
 [Schedule Activities between October 18, and November 15, 2005]

Item #	Location	Description	June 2005 Start Date	September 2005 Start Date	Actual Start	June 2005 Finish Date	September 2005 Finish Date	Actual Finish	Notes
4520	Orientation Lobby	Perimeter CMU walls	9/2/05	9/30/05	9/12/2005 ¹	9/16/05	10/13/05		
2016	Upper Level Assembly Room	Topping slab	9/1/05	9/15/05	9/15/05 ¹	9/29/05	10/20/05		
80160	East Front Subbasement	Interior CMU walls	8/12/05	9/30/05		9/9/05	10/27/05		
SD5861	Exhibit Gallery	Wall stone Area 2 base	9/22/05	10/24/05		9/29/05	10/31/05		3
6081	Congressional Auditorium	Wall Stone Area 1	7/1/05	9/30/05	8/15/05 ¹	7/22/05	11/3/05		1
SD5951	Upper Level Assembly Room	Wall stone area 1 layout	9/30/05	11/7/05		10/4/05	11/9/05		
SD5891	Exhibit Gallery	Wall stone Area 3 base	9/22/05	11/3/05		9/29/05	11/10/05		3
4540	Orientation Lobby	Interior CMU walls	9/19/05	10/12/05		10/21/05	11/15/05		
SD5831	Exhibit Gallery	Wall stone Area 1	10/7/05	10/31/05		10/25/05	11/16/05		
6082	Congressional Auditorium	Wall Stone Area 2	7/25/05	11/4/05		8/5/05	11/17/05		1
84280	Utility Tunnel	Excavate/shore Station Sta 0.00-1.00	8/24/05	8/12/05	8/12/05 ¹	10/5/05	10/6/05		2
84340	Utility Tunnel	Concrete Working Slab Sta. 0.00-1.00	10/6/05	10/7/05		10/10/05	10/11/05		2
84350	Utility Tunnel	Waterproof Working Slab Sta. 0.00-1.00	10/11/05	10/12/05		10/13/05	10/14/05		2
84360	Utility Tunnel	Install Mat Slab Sta. 0.00-1.00	10/14/05	10/17/05		10/19/05	10/20/05		2
84560	Utility Tunnel	Install Mat Slab Sta. 1.00-2.00	10/12/05	10/17/05		10/19/05	10/24/05		2
84570	Utility Tunnel	Install Walls Sta. 1.00-2.00	10/24/05	10/25/05		11/11/05	11/4/05		2

¹ Notes activities identified as critical.

Notes:

1. Wall stone manpower.
2. Utility tunnel work delayed by unforeseen site conditions and resultant design revisions. Dates based on current Early Start.
3. Special bid for exhibit wall stone base.

Senator ALLARD. Mr. Ungar, on critical activities, what do you think is the most important action the Architect of the Capitol needs to take with respect to the Capitol Visitor Center project to ensure its timely completion?

Mr. UNGAR. Yes, Mr. Chairman. I think the most critical action would be to have a realistic, credible schedule that is complete as soon as possible.

Senator ALLARD. Do we have any comments from the panel that they would like to make for the record?

Mr. HANTMAN. Just, Mr. Chairman, that I do welcome the opportunity to have these hearings and to bring these issues forward and try to resolve them in an appropriate way. I also welcome the opportunity to show you first-hand all of the issues that we have been talking about and the quality of the work. I truly still do believe, sir, that we are going to have a wonderful, historic project over here that will serve the Congress and the American people who come to visit their Congress as well.

Senator ALLARD. Well, I appreciate the opportunity to have a tour.

Mr. HANTMAN. Yes. Again, a lot of the discussion we have been having, Mr. Chairman, is about things you can see on the visitor level. I think being able to look at the utility tunnel, look at the mechanical and electrical spaces down below on the third level, perhaps the truck dock area, whatever your time will allow us to see, we would welcome the opportunity to show you.

Senator ALLARD. Well, we will have our staffs work together and see if we can set up a timely tour hitting the main issues that we have been talking about here on the subcommittee.

SUBCOMMITTEE RECESS

Thank you very much for your time and I look forward to visiting with you 30 days from now.

[Whereupon, at 11:21 a.m., Tuesday, October 18, the subcommittee was recessed, to reconvene subject to the call of the Chair.]

PROGRESS OF CONSTRUCTION OF THE CAPITOL VISITOR CENTER

WEDNESDAY, NOVEMBER 16, 2005

U.S. SENATE,
SUBCOMMITTEE ON THE LEGISLATIVE BRANCH,
COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 11:01 a.m., in room SD-138, Dirksen Senate Office Building, Hon. Wayne Allard (chairman) presiding.
Present: Senator Allard.

OPENING STATEMENT OF SENATOR WAYNE ALLARD

Senator ALLARD. I am going to call to order the subcommittee. We meet today for our sixth hearing this year on the progress of the Capitol Visitor Center (CVC). We welcome once again Architect of the Capitol Alan Hantman, the CVC Project Executive Bob Hixon, and GAO's representatives Bernard Ungar and Terrell Dorn.

Today we look forward to discussing the latest estimate of the cost to complete the CVC project, the Architect's efforts to keep the project on schedule, as well as the status of critical activities such as stone installation and the utility tunnel construction.

It appears that the Architect believes sufficient funds remain to complete the project, while the Government Accountability Office estimates the need for a minimum of \$14 million in additional appropriations. Once again, we have a wide discrepancy between the projections of AOC and that of the GAO. In addition, we understand GAO's estimate is very preliminary since the schedule is still in flux. GAO cannot with any degree of precision estimate the cost.

As to progress in the past month, GAO reports that 8 of 16 activities to have been completed in the last month have actually been completed. Only three of these milestones were completed on time. About 10 days of work on the utility tunnel and the interior stone work were lost out of 21 work days in the last month. Despite AOC's projection that it would be able to make up the lost time, the trend of losing time against the schedule continues.

I would just note that I frequently will walk by the Capitol Street utility tunnel on the east side and I've seen much more activity in the last couple of days, which has been heartening.

So now let me turn to you, Mr. Hantman, for your testimony, to be followed by GAO.

STATEMENT OF ALAN M. HANTMAN, FAIA, ARCHITECT OF THE CAPITOL**ACCOMPANIED BY BOB HIXON, PROJECT DIRECTOR, CAPITOL VISITOR CENTER, ARCHITECT OF THE CAPITOL**

Mr. HANTMAN. Thank you, Mr. Chairman, and good morning. Once again I welcome this opportunity to update you on the status of the Capitol Visitor Center project and to discuss the key issues that you mentioned, the schedule, the budget, and project progress. First, I would like to thank you for taking the time to scale the ladders with us a few weeks ago and visit the project, including the utility tunnel on East Capitol Street that you just referred to. As you know, this is a critical activity that has provided us with many challenges and physical obstacles over the past months.

STONE DELIVERY STATUS

The most significant challenge, Mr. Chairman, since last month's hearing, however, is the continued lack of adequate wall stone delivery. In October we received only 2 truckloads of stone, not the 11 truckloads that were scheduled for delivery. This severely impacted our installation schedule and forced the contractor to move stonemasons to areas of the project that were not as high a priority in the work flow. This allowed the contractor to keep the 25 teams of masons working productively, but this is a very troubling situation that we have been pursuing with our contractors.

On November 2, we met with representatives of Manhattan and the stone installer, Boatman and Magnani, and their attorneys to obtain a briefing on the status of stone delivery and what actions they proposed to take. We made it clear to them that late delivery of stone is significantly jeopardizing the timely completion and opening of the CVC and that we expected that necessary steps be taken to ensure that the contract completion date would be met. At the same time, we recognize that the injunction has inhibited their ability to resolve this issue on their own.

Therefore, on November 5, attorneys for Boatman and Magnani filed a motion in Federal District Court for the Western District of Pennsylvania seeking relief from the existing injunction and an expedited hearing on the matter. In its motion, Boatman and Magnani asserts that stone is not being delivered to the project in sufficient quantities to meet the contract completion date nor in accordance with the schedule the parties had certified to the court earlier. Therefore, Boatman and Magnani requested permission from the court to supplement the work of either the current stone fabricator and/or the quarry by contracting with others to assist with or supplement that work. Also, before the court are other motions from both the quarry and the fabricator.

While we are not a party to this litigation, our interests are critically affected by it, and we are being represented by the U.S. Attorney's Office for the Western District of Pennsylvania, who has appeared on our behalf to ensure our interests are made known to the court. Yesterday, the U.S. attorney filed a statement of interest on our behalf as a friend of the court, reiterating the need for an expedited hearing and ruling on the matter, given the impact that stone delivery is having on the CVC project.

The judge has now scheduled a hearing for December 1, for presentation of all pending motions. The U.S. Attorney's Office will be there to represent us and so will Mr. Hixon and my general counsel. While we take no position on any of these motions, we do believe the issues presented represent the need for the court to take immediate appropriate action to ensure that stone is delivered to the project in sufficient quantities to allow timely completion of the project.

Mr. Chairman, until we know what relief, if any, will be granted to Boatman and Magnani by the court, we cannot predict what impacts to the schedule may result. In the meantime, our contractors are working around the problem areas and initiating other productive work.

CONSTRUCTION PROJECT STATUS

In general, with regard to the overall project schedule, at last month's hearing we committed to include the testing and balancing commissioning activities for the heating, ventilating, and air-conditioning system into the fully integrated schedule. We have completed that effort and we are in the process of developing the detailed schedule activities for life safety acceptance testing. The fire marshal will perform these activities during the second half of next year.

At a meeting last week with the fire marshal, we reviewed the requirements for acceptance testing so we can develop the detailed schedule over the next few weeks. In accordance, Mr. Chairman, with our commitment at the last hearing, we should complete that effort in December. This will in turn help us determine with greater accuracy when specific areas of the visitor center will become available for occupancy by the staff and by the public. This information also will be necessary for an executive director to determine when to hire the appropriate operations personnel as areas are completed in the months ahead.

COST TO COMPLETE

Another key issue relates to the cost-to-complete analysis completed and submitted last month by our independent cost consultant, McDonough Bolyard Peck. We said in October, as you mentioned, Mr. Chairman, that we believed that no additional funds would be required. We continue to believe that, based on this report, all currently known issues, and a completion date of December 2006, we can still work within existing appropriated funds for the construction of the project, although the funding is tight.

Nevertheless, we concur with GAO that potential risks clearly do still exist and that additional funds may be necessary to complete the project should these risks turn into reality; if completion therefore occurs after December 2006, or if significant additional change orders are required. In light of the unforeseen conditions we have encountered thus far, in addition to the challenges we face with the utility tunnel, the stone fabrication and installation, and the finish work still remaining in the east front, we acknowledge that funds for additional contingency might be necessary as we move forward. We will be reviewing this issue with GAO in conjunction with their

analysis and with the development of the fiscal year 2007 budget request.

PROJECT HIGHLIGHTS

Mr. Chairman, I would now like to briefly discuss a few project highlights. Stonemason teams continue to set stone on the columns in the Great Hall and throughout the congressional auditorium and we are completing stone installation in both orientation theaters. To offset the delay in the exhibit gallery that we discussed at the last hearing, as shown on this board, the contractor moved crews to the upper level lobby just outside the orientation theaters and they set base stone and wall stone in that area, as well as in the congressional auditorium. So while the stone was not available earlier for the exhibition gallery, masons completed base stone in the lobby area 3 months earlier than scheduled.

It is critical to keep the mason teams working productively or risk losing them to another project. Therefore, to adjust to the inconsistencies in stone deliveries that I discussed earlier, we have deviated from our schedule at times and moved the masons to other areas. That in turn has impacted milestones we have talked about in previous hearings, but if we have to move the crews around to keep them productive it is important to do so.

In the last weeks, as shown on this board, the base stone for the exhibition gallery has been received. Much of that has been installed, allowing masons to move forward with the wall stone installation and the conduits for the interactive computer stations.

Mr. Chairman, inside the House and Senate expansion space the contractor continues to make good progress. Crews are busy installing the ductwork for the air handling systems, conduit and wiring for all of the mechanical and electrical plumbing systems. On the Senate side, masonry block work and ductwork has been completed in many areas and crews are now erecting the metal stud walls and installing drywall throughout the space.

On the Senate plaza, with all the elevation issues now resolved, that work is progressing well. Crews have placed concrete slabs and resumed installation of curb stones and granite pavers.

Work on the utility tunnel along East Capitol Street has continued, as you mentioned, with concrete placements occurring at the intersections of First and Second Streets. Below First Street, as you saw during your inspection, Mr. Chairman, an existing gas line was found to be 6 feet lower than expected based on available drawings and is in the path of the utility tunnel. We have installed a new temporary bridge and shifted traffic to the west side of First Street to clear the way for Washington Gas crews to perform the gas line revisions.

Meanwhile, the contractor personnel continue to install the chilled water, the steam lines, the welding connections, and place concrete.

Mr. Chairman, construction challenges continue to pop up and we continue to address and resolve them, making progress as we go.

STATUS OF OPERATIONS

With respect to exhibits and operations, the project continues to move forward on many fronts. Principal filming for the orientation film has been completed. A separate contractor involved in producing all of the interactive programs for the 24 computer stations in the exhibit gallery has been photographing in the Capitol. These images will be used to create a virtual tour through the building. Meanwhile, a model fabricator is busy creating the 10-foot touchable model of the Capitol Dome, while another modelmaker is beginning to construct six models showing the evolution of the Capitol campus over the past 212 years.

In addition, we continue to make progress on our operations initiatives. We reported last month that the request for proposal for food service contract had been issued and the search for the executive director is underway. We are looking forward to the candidates being reviewed for that position in December and having a selection made in January. In the meantime, we are working with your staff to examine a handful of other positions that need to be filled in the near future based on the recommendation of our operations consultant, Zell Partners.

In closing, Mr. Chairman, several weeks ago I had the opportunity to escort the national board of directors of the American Institute of Architects to the project site. In their newsletter published a few days later and distributed to 76,000 professional members across the country, AIA President Douglas Steidl said that, quote: "All great projects require the collaboration of many individuals to achieve success. The Congress and the congressional leadership provided an exceptional focused vision for the project. The architect, RTKL, creatively integrated the complex functions with a clear vision and contractors appear to be executing the design details with superb craftsmanship."

Mr. Steidl added that the project team, quote, "is well on its way to achieving the significant architectural distinction that is worthy of this historic and celebrated site," and that "the excellence of the project is consistent with the significance of the place and will serve citizens of this country extremely well long into the future."

Mr. Chairman, this helps us maintain our perspective as we work through and resolve issues that continue to arise. I would like to include this full article as part of the official record, to talk about how recognized experts in the design and construction community perceive our project.

Senator ALLARD. Without objection, we will include the full article.

[The information follows:]

[From AIArchitect, November 2005]

ARCHITECT OF THE CAPITOL, RTKL "DOING IT RIGHT" AT THE U.S. CAPITOL VISITOR CENTER

While convening in Washington, D.C. members of the AIA Executive Committee toured the construction site of the new U.S. Capitol Visitor Center on October 19 with the best of all possible tour guides: Architect of the Capitol Alan Hantman, FAIA. Construction of the visitor center began in July 2002 for the purpose of making the Capitol "more accessible, comfortable, secure, and informative for all visitors." Architecture firm RTKL Associates Inc. placed the facility underground below

the East Capitol grounds, so as not to detract from the venerable appearance of the Capitol and its historic Frederick Law Olmsted landscape.

Encompassing 580,000 square feet on three levels, the new visitor center is nearly three-quarters the size of the Capitol itself and includes space for two orientation theaters, an auditorium, exhibits, gift shops, food service, security and other ancillary spaces, as well much needed space for the House and Senate. Working in the days following the terrorist attacks on September 11, 2001, RTKL designed the visitor center to enhance security while preserving an atmosphere of free and open access, using such processional elements as gently sloping ramps. Six skylights in the center's roof deck welcome sunlight to flood interior spaces while offering visitors dramatic views of the Capitol dome.

Exceptional, focused vision

"All great projects require the collaboration of many individuals to achieve success. The Congress and congressional leadership provided an exceptional, focused vision for the project; the architect (RTKL) creatively integrated the complex functions with a clear vision; and the contractors appear to be executing the design details with superb craftsmanship," noted AIA President Douglas L. Steidl, FAIA, in a letter of appreciation to Hantman. "As the Architect of the Capitol, you have obviously excelled in unifying the team effort, ensuring that the visionary ideals were adroitly integrated with functional demands. Further, your team is well on its way to achieving the significant architectural distinction that is worthy of this historic and celebrated site."

Construction, resolutely on track for a fall 2006 completion, is entering its final phase. Board members saw interior crews busily installing MEP systems, erecting interior walls, and hooking up fire and life-safety systems. Stone masons currently are installing some of the \$35 million worth of finish stone, including in the Great Hall and the center's two theaters. Outside, on the roof deck, historic preservation contractors are re-installing the original Olmsted-designed lanterns, fountains, and seat walls that had been temporarily stored during excavation and construction.

Steidl, on behalf of the AIA's 76,000 members, expressed gratitude to the Architect of the Capitol "for shepherding this most vital public project in such a manner that it is being exceptionally well constructed, despite the most difficult of technical, environmental, schedule, and iconic demands." He further wrote to Hantman, "We believe you deserve the gratitude of every American for 'doing it right.' The excellence of this project is consistent with the significance of the 'place' and will serve the citizens of this country extremely well, long into the future."

Building bridges on the Hill

In the same week, in the nearby Hart Senate Office Building, Duane A. Kell, FAIA, Ankeny Kell Architects, PA, St. Paul, and AIA Executive Vice President/CEO Norman L. Koonce, FAIA, paid a visit to Senator Norman Coleman (R.-Minn.). Kell, who first came to know the senator during Coleman's term as mayor of St. Paul, brought regards from the Minnesota components of the AIA and thanked the senator for his help in protecting Community Development Block Grants.

Kell and Koonce discussed public advocacy for public buildings with Sen. Coleman, and explained to him the Institute's legislative initiatives that, if enacted, would offer appropriate and cost-effective assistance to those affected by the devastation of hurricanes Katrina and Rita. "Both Duane and I came away from our meeting convinced that Senator Coleman has the keen insights and experience to take a leadership role in the Senate as a spirited advocate for design excellence in the public sector," Koonce said. Koonce and Kell both thanked AIA Minnesota Executive Director Beverly Hauschild-Baron, Hon. AIA, for her valuable assistance in arranging the visit.

In a follow-up visit, the senator's staff and members of the AIA's Government Advocacy staff agreed to explore development of Senate legislation on federal tax credits for historic preservation that is like the English-Jefferson bill in the House. It would be introduced during the second session of the 109th Congress.

Mr. HANTMAN. Thank you, sir.

That concludes my opening remarks, Mr. Chairman, and I welcome the opportunity to answer any questions you may have.

[The statement follows:]

PREPARED STATEMENT OF ALAN M. HANTMAN, FAIA

Thank you, Mr. Chairman, and good morning. Once again, I welcome this opportunity to update you on the status of the Capitol Visitor Center project and to discuss the key issues related to schedule, budget, and project progress.

First, I would like to thank you for taking the time to scale the ladders with us a few weeks ago and visit the project, including the utility tunnel on East Capitol Street, which is a critical activity that has provided us with many challenges and physical obstacles over the past weeks.

The most significant issue since last month's hearing is the continued lack of adequate wall stone delivery. In October we received only two truck loads of stone; not the 11 truck loads that were scheduled for delivery. We have met with the contractor to discuss this issue and the stone contractor's attorney has filed paperwork with the Federal Court involved in the dispute with the stone supplier. We are hoping for a prompt hearing on this issue and relief from the injunction.

PROJECT SCHEDULE

With regard to the project schedule, as we reported last month, our contractor, Manhattan, submitted a revised schedule that fully integrates the project's nearly 6,600 scheduled activities, including testing and balancing of the HVAC system. The only element not resolved in the schedule is the level of detail for the life-safety acceptance testing to be performed by the Fire Marshal during the second half of next year. At a meeting last week with the Fire Marshal, we reviewed the requirements for acceptance testing so we can develop the detailed schedule over the next few weeks. In accordance with our commitment at the last hearing, we should complete that effort in December.

Our project master schedule still shows completion of the Visitor Center, including commissioning activities, in December 2006; with the House and Senate Expansion space on track for completion in March 2007. Our efforts with the Fire Marshal will produce, in late December, a schedule with all required construction activities which will, in turn, help us determine with greater accuracy when specific areas of the Visitor Center will become available for occupancy. This information will be necessary for an Executive Director to determine when to hire the appropriate operations personnel as areas are completed in the months ahead.

COST TO COMPLETE

Another key issue relates to the Cost-to-Complete analysis completed and submitted last month by our independent cost consultant, McDonough Bolyard Peck. We said in October that we believed that no additional funds would be required. We continue to believe that, based on all currently known issues and a completion date of December 2006, we can still work within existing appropriated funds for the construction of the project, although the funding is tight. I want to note that there is an increase of \$5 million in the Cost-to-Complete estimate compared to last year. The reasons for that increase include extension of the AOC and A/E construction management staff for three months, additional time for temporary power and construction materials testing, and, most significantly, new and projected change orders. However, funding to cover this increase in the estimated Cost-to-Complete is available within currently appropriated funding.

Nevertheless, we concur with GAO that potential risks do still exist and that additional funds may be necessary to complete the project should these risks turn into reality, if completion occurs after December 2006, or if significant additional change orders are required. In light of the design changes and unforeseen conditions we have encountered thus far, in addition to the challenges we face with the utility tunnel, stone fabrication and installation, and the finish work still remaining in the East Front, we acknowledge that funds for additional contingency might be necessary as we move forward.

PROJECT HIGHLIGHTS

Mr. Chairman, for the record, I would like to discuss a few project highlights. Stone mason teams continue to set stone on the columns in the Great Hall and throughout the Congressional Auditorium, and we are completing stone installation in both orientation theaters. To offset the delay in the Exhibit Gallery stone work, the contractor moved crews to the upper level lobby just outside the orientation theaters and they set base stone and wall stone in that area, as well as in the Congressional Auditorium. So, while stone was not available for the Exhibition Gallery, masons completed base stone in the lobby area three months earlier than scheduled. It is critical to keep the mason teams working productively or risk losing them to

another project. Therefore, to adjust to the inconsistencies in stone deliveries, we have deviated from our schedule at times and moved the masons to other areas. That, in turn, has impacted milestones we've talked about in previous hearings, but if we have to move crews around to keep them working, it is important to do so.

Inside the House and Senate Expansion Space, the contractor continues to make good progress. Crews are busy installing the ductwork for the air handling systems and conduit and wiring for all of the mechanical, electrical, and plumbing systems. On the Senate side, masonry blockwork and ductwork has been completed in many areas and crews are now erecting the metal stud walls and installing drywall throughout the space. On the Senate Plaza, with all of the elevation issues now resolved, that work is progressing well. Crews have placed concrete slabs and resumed installation of curb stones and granite pavers.

Work on the utility tunnel along East Capitol Street has continued with concrete placements occurring at the intersections at First and Second Streets. Below First Street, as you saw during your inspection, Mr. Chairman, an existing gas line was found to be six feet lower than expected based on available drawings and is in the path of the utility tunnel. We have installed a new temporary bridge and shifted traffic to the west side of First Street to clear the way for Washington Gas crews to perform the gas line revision. Meanwhile, contractor personnel continue to install the chilled water and steam pipes, weld connections, and place concrete in other areas of the tunnel.

Also regarding utilities, I am pleased to report that the chillers in the West Refrigeration Plant Expansion are scheduled to be operational on December 1, 2005, and the contractor has confirmed that they will be ready on that date. This does not include the installation of the entire digital control system to automatically operate the chillers, but the chillers will be operated in a manual mode and will be fully capable of producing chilled water well in advance of the completion of the CVC utility tunnel. While it is planned that the East Refrigeration Plant and the existing West Refrigeration Plant would provide all required chilled water this winter, the chillers added as part of the West Refrigeration Plant Expansion project could be used if necessary. With the completion of the utility tunnel serving the CVC, we are confident that adequate capacity exists to service the CVC during the upcoming winter period and beyond.

EXHIBITS AND OPERATIONS

Mr. Chairman, with respect to exhibits and operations, the project continues to move forward on many fronts. Principal filming for the orientation film has been completed, and a separate contractor involved in producing all of the interactive programs for the 24 computer stations in the Exhibit Gallery has begun photographing the Capitol. These images will be used to create a virtual tour through the building. Meanwhile, a model fabricator is busy creating the 10-foot touchable model of the Capitol Dome while another model maker is beginning to construct six models showing the evolution of the Capitol campus over the past 212 years. In addition, we continue to make progress on our operations initiatives. We reported last month that the Request for Proposal for the food service contract was issued, and the search for the Executive Director is underway. We are looking forward to the candidates being reviewed for that position in December and having a selection made in January. In the meantime, we are working with your staff to examine a handful of other positions that need to be filled in the near future based on the recommendation of our operations consultant, Zell Partners.

Mr. Chairman, several weeks ago I had the opportunity to escort the National Board of Directors of the American Institute of Architects to the project site. In their newsletter published a few days later and distributed to 76,000 members across the country, AIA president Douglas Steidl said that, "All great projects require the collaboration of many individuals to achieve success. The Congress and the congressional leadership provided an exceptional, focused vision for the project; the architect (RTKL) creatively integrated the complex functions with a clear vision; and the contractors appear to be executing the design details with superb craftsmanship." Mr. Steidl added that the project team "is well on its way to achieving the significant architectural distinction that is worthy of this historic and celebrated site" and that the "excellence of this project is consistent with the significance of the 'place' and will serve citizens of this country extremely well, long into the future." Mr. Chairman, I would like to include the full article as part of the official record of today's hearing as an indication of how segments of the design and construction community perceive the Visitor Center project.

That concludes my opening remarks, Mr. Chairman, and I welcome the opportunity to answer any questions you may have.

Senator ALLARD. Very good. GAO, go ahead if you would, please, with your testimony.

STATEMENT OF BERNARD L. UNGAR, DIRECTOR, PHYSICAL INFRASTRUCTURE, GOVERNMENT ACCOUNTABILITY OFFICE

ACCOMPANIED BY TERRELL DORN, ASSISTANT DIRECTOR, PHYSICAL INFRASTRUCTURE, GOVERNMENT ACCOUNTABILITY OFFICE

Mr. UNGAR. Mr. Chairman, Mr. Dorn will provide our summary and we will both be available for questions.

Mr. DORN. Good morning, Mr. Chairman. I would like to thank you for the opportunity for Mr. Ungar and I to come and discuss our continuing assistance to the subcommittee in its oversight of the Capitol Visitor Center construction. Our summary this morning is going to center on two areas, schedule and cost. However, as you mentioned before, we still cannot come to an exact number on the cost or the completion date until the schedule is finalized by AOC next month.

While we may disagree with AOC's monthly report that the project is proceeding according to the master schedule, we do agree that work is continuing in many areas and that it is exciting to see the spaces take shape as walls and mechanical equipment are installed, particularly in the House and Senate expansion spaces.

CONSTRUCTION ISSUES

Unfortunately, as we reported last month, work is still not proceeding at the pace necessary to meet the contract completion date of September 2006, 10 months from now, which in turn affects the opening. Three examples of the slower than expected pace are the continuing trend of missing milestones, two critical project drivers losing 2 weeks in the last month, and the amount of time that needs to be made up between now and September 2006.

First, as you mentioned, only 8 out of the 16 milestones were completed and out of those 8 only 3 were on time. This is after moving the goalpost forward from the April baseline schedule to the September schedule.

Second, the two critical drivers are interior stone and the utility tunnel, as the Architect has already mentioned. Like last month, both of these critical paths lost about 2 weeks in the last month.

Third, a couple months back we reported that as of the end of July the project was about 60 calendar days behind and the team would have to work the equivalent of 8 days a week to make up the lost time. Three months later, the project is now over 80 calendar days behind and the team would have to work the equivalent of 9 days a week for the next 10 months straight to complete the contract on time.

As I mentioned a moment ago, the two critical drivers currently are utility tunnel and interior stone. The CVC team is working to pick up the pace in the utility tunnel and another concrete sub is on site and helping. Most of the excavation is now complete and along with that most of the opportunities for differing site conditions are gone. However, we still have the excavation for the movement of a 24-inch gas line to do, and that is going to extend out 15 feet or so on both sides of the utility tunnel, which means you are going to cut through quite a bit of East Capitol Street, where

you are going to have more opportunities to run into more utilities. So there is a high risk there, even though it is a limited amount of excavation.

The other risk on the utility tunnel is, as the Architect mentioned, the gas pipe is actually going to be replaced by Washington Gas, not the CVC, so we are at the gas company's mercy as far as when that pipe actually gets replaced.

On interior stone, while Manhattan has been successful in its effort to get more masons on the job, they have been much less successful in getting stone for the masons to install. The project has repeatedly only received half the stone deliveries that Manhattan says it needs to stay on schedule, and since the last hearing the situation has worsened to only 2 truckloads out of 11 required. Manhattan has kept the masons busy by doing work out of sequence, but doing work in that way is not helping the critical path.

CONSTRUCTION SCHEDULE

AOC has made significant effort over the past month to resolve the scheduling issues surrounding the heating and air-conditioning equipment, testing and balancing, and the fire protection equipment. However, they have not yet reached a conclusion with the fire marshal on the testing of the fire protection equipment and until this is done there is a risk of a slip to the project schedule of an additional 2 to 4 months.

In addition on the project schedule, Mr. Chairman, we have talked before about the need to have a fully integrated schedule, including operations, and I just want to point out that the operations piece, while it is added to the end of the schedule, is still not linked in logically and that could create problems as the construction schedule slips. So we need to again reinforce the need to fully integrate the operations schedule and the construction schedule.

A few months ago we recommended that AOC and Gilbane reexamine the schedule, particularly the project durations. Gilbane has completed that work and has made a number of recommendations to correct schedule inaccuracies and unrealistic durations in some areas, particularly the stone. We recommend that AOC implement the Gilbane recommendations, which are consistent with our previous recommendations on improving schedule management, and that AOC also re-assess its proposed December 2006 date for opening the CVC to the public.

Gilbane's recommendations reinforce GAO's view that the CVC is much more likely to be completed in the spring to summer of 2007.

COST TO COMPLETE

Mr. Chairman, in November 2004 we estimated that, given the risks and uncertainties that the project was likely to face, that the cost was likely to be between \$515 and \$559 million. A year later, our preliminary work indicates that the CVC project is likely, at a minimum, to cost \$542.9 million. This number does not provide any more funds for the remaining risks and uncertainties that may materialize or cover the costs of certain delays that may occur. It also could change again if the schedule changes next month with AOC.

Our estimate of \$542.9 million is significantly more than the McDonough Bolyard Peck cost-to-complete estimate that we received last month through the AOC, largely because McDonough Bolyard Peck's estimate does not include a number of project components or in our view include sufficient contingency to complete the project. Our estimate of \$542.9 exceeds the funds specifically provided to date for construction by a total of \$14.5 million.

WORKER SAFETY STATISTICS

Last, Mr. Chairman, I have some good news to report about worker safety. According to our analysis of CVC data, worker safety rates have substantially improved this year. The injury and illness rate for the first 10 months of 2005 declined 52 percent from the 2004 rate, putting the site 3 percent below the national average. The lost time rate declined 62 percent during the same period, but it is still 29 percent higher than the average rate for comparable construction sites, and the AOC and Gilbane and Manhattan should be congratulated for their effort to improve the safety records.

OVERALL STATUS

Mr. Chairman, in conclusion, while significant effort has been made in schedule management, much remains to be done. Work is continuing to slip. Increasingly, stone deliveries are critical and Manhattan needs to meet its schedule on delivering stone. We recommend that AOC implement the Gilbane recommendations on the schedule and reassess the project's opening date. In addition, we believe that at a minimum an additional \$14.5 million will be needed to complete the project.

Thank you, Mr. Chairman, for the opportunity and Mr. Ungar and I are prepared to answer any questions.

[The statement follows:]

PREPARED STATEMENT OF BERNARD L. UNGAR

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. Our remarks will focus on (1) the status of the project schedule since the Subcommittee's October 18, 2005, hearing¹ on the project, (2) the project's costs and funding, and (3) worker safety issues. We will discuss the progress made and problems encountered in completing scheduled construction work and in continuing to develop the project schedule, as we indicated during the Subcommittee's October 18 hearing; however, we will not be able to estimate specific completion dates until the project schedule is stable and AOC and its construction management contractor—Gilbane Building Company—have completed their assessments of the schedule and we have had an opportunity to evaluate them. Also, we will update the information we previously provided on the project's costs and funding, using readily available data, but we will wait until the project schedule is stable and has been fully reviewed before we comprehensively update our November 2004 estimate of the cost to complete the project and update the provision in our estimate for risks and uncertainties facing the project.

Our remarks today are based on our review of schedules, financial reports, and worker safety information for the CVC project and related records and reports developed or maintained by AOC and its construction management contractor; our review of AOC's consultant's—McDonough Bolyard Peck (MBP) November 1, 2005, report updating its October 2004 estimate of the cost to complete the project; our observa-

¹See GAO, *Capitol Visitor Center: Status of Schedule, Fire Protection, Cost, and Related Issues*, GAO-06-180T (Washington, D.C.: Oct. 18, 2005).

tions on the progress of work at the CVC construction site; and our discussions with CVC project staff (including AOC and its major CVC contractors), AOC's Chief Fire Marshal, U.S. Capitol Police representatives, and officials responsible for managing the Capitol Power Plant (CPP). We did not perform an audit; rather, we performed our work to assist Congress in conducting its oversight activities.

In summary, construction work in several areas has moved forward since the Subcommittee's October 18 CVC hearing, but additional delays have occurred, and AOC's construction management contractor has identified several concerns with the schedule that raise questions about its proposed mid-December 2006 opening of the base CVC project to the public.²

—Construction work has continued on all interior CVC levels, various sections of the House and Senate expansion spaces, the plaza, and the House connector and utility tunnels. Overall, however, the work, especially stonework, has taken longer than scheduled. For example, the installation of interior wall stone fell behind about 2 weeks because of delays in receiving needed stone. Work on the utility tunnel was delayed by a similar amount of time for a variety of reasons.

—Efforts by the sequence 2 contractor to resequence activities involved in testing, balancing, and commissioning the heating, ventilation, and air-conditioning (HVAC) system had the net effect of moving the base project's completion date forward 3 days. AOC's construction management contractor has accepted this resequencing. However, other scheduling issues could delay completion. For example, AOC's Fire Marshal Division has raised several concerns about the schedule for testing and inspecting the CVC's fire protection system, and the construction management contractor has identified a number of critical activities whose completion dates slipped from the September to the October schedule. Delays in completing these critical activities affect the progress of the project because other work cannot continue until they are completed. Critical stonework activities pose particular concerns, given the problems with labor and supplies that the project has experienced. For example, in October, the sequence 2 contractor received less than 20 percent of the stone expected.

—AOC's construction management contractor's evaluation of the duration of selected activities, completed last week, points to a later completion date than is currently scheduled unless additional actions are taken. This evaluation identified unrealistic durations for the selected activities (especially stonework), concerns about the schedule's logic, and inaccuracies in reflecting the impact of delays and sequence 2 contract changes to date. The construction management contractor made a number of recommendations based on its findings. The contractor's evaluation has reinforced our view that the base project would be difficult to complete in 2006 and is more likely to be completed in early to mid-2007 unless AOC and its contractors take extraordinary action or change the project's scope, which could increase the government's costs. Our belief is based on the project's history of delays; the views of project personnel that several activities (such as the installation of interior wall stone) are likely to take longer than scheduled; the large number of critical activities in the current project schedule; and the risks and uncertainties that continue to face the project.

AOC and its construction management contractor expect to resolve outstanding scheduling concerns and issues by the end of this year. When AOC and its construction management contractor have prepared what they consider to be a reasonably stable project schedule, we will reevaluate the schedule and inform the Subcommittee of our results. In the interim, to help ensure that Congress has better information for making CVC-related decisions, we are recommending that AOC (1) implement the recommendations for obtaining a more reliable project schedule contained in its construction management contractor's November 2005 report, which are consistent with our previous recommendations on schedule management, and (2) reassess its proposed December 2006 date for opening the CVC to the public when it has a more reliable construction schedule.

Our preliminary work indicates that the entire CVC project is likely, at a minimum, to cost \$542.9 million. This preliminary estimate falls about midway between our September 15, 2005, interim estimate of \$525.6 million, which did not provide

²AOC set September 15, 2006, as the contractual date for completing the base project's construction and for opening the CVC facility to the public. The House and Senate expansion spaces were scheduled to be completed after that date. AOC set the September contract completion date in November 2004, when it reached agreement with the contractor on a new date for starting sequence 2 that reflected the delays experienced on sequence 1. On September 6, 2005, AOC informed Capitol Preservation Commission representatives that it still expected the base project's construction to be substantially complete on September 15, 2006, but was postponing the date for opening the facility to the public to December 15, 2006, so that it could complete system tests, minor punch-list work, and preparations for operations.

for risks and uncertainties, and our November 2004 estimate of about \$559 million, which did provide for risks and uncertainties. Specifically, this current \$542.9 preliminary estimate is about \$17.3 million more than the September 15 interim estimate and about \$16.1 million less than the November 2004 estimate. The current \$542.9 million preliminary estimate does not provide for risks and uncertainties or for additional payments to contractors to cover the costs of certain delays and other contingencies. Even without providing for risks and uncertainties, though, we have increased our cost estimate since September 15 because additional and more expensive changes to the project have been identified; we have increased our allowance for contingencies; and we have added funding for AOC and contractor staff that we believe are likely to be working on the project through the spring of 2007. Our preliminary estimate substantially exceeds MBP's November 2005 updated estimate of \$481.9 million, largely because MBP's estimate does not cover a number of project components and does not, in our view, provide adequately for contingencies. In total, the funds specifically provided for project construction to date—about \$528.4 million—are \$14.5 million less than our preliminary \$542.9 million cost estimate. In addition, another \$7.7 million has been provided to cover either CVC construction or operations, although at this time AOC does not plan to use any of these funds for construction. Congress has limited the amount of federal funds that can be used for the construction of the tunnel connecting the CVC with the Library of Congress to \$10 million.³ As of October 31, 2005, AOC estimated that the tunnel would cost about \$8.8 million to construct; however, AOC had not yet awarded the contract for certain modifications to the tunnel project. Nevertheless, AOC believes that it will be able to keep the tunnel's construction cost below the congressional limitation, and both we and AOC plan to monitor the tunnel's construction cost closely.

According to our analysis of CVC data, worker safety rates have improved substantially this year, although the lost-time rate remains above industry norms. The injury and illness rate for the first 10 months of 2005 declined 52 percent from the rate for 2004, putting the CVC site's rate 3 percent below the average for comparable construction sites. The lost-time rate decreased 62 percent during the same period, but the CVC site's rate is still 29 percent higher than the average rate for comparable construction sites. AOC and its contractors have taken a number of actions during 2005 to improve safety performance on the project, such as conducting training to elevate safety awareness and placing safety posters around the worksite. In addition, senior managers are meeting periodically to develop strategies to improve safety. Poor housekeeping, however, has been an ongoing issue at the site, and the sequence 2 contractor has recently taken actions to address this issue.

WORK AND REVISIONS TO THE PROJECT SCHEDULE CONTINUE, BUT DELAYS HAMPER PROGRESS

Work in several areas has moved forward since the Subcommittee's October 18 CVC hearing, but additional delays have occurred, and AOC's construction management contractor has identified several concerns about the project schedule. AOC has been addressing previously identified schedule-related problems.

AOC Continues to Project a Mid-December 2006 Opening for the Base CVC Project

According to the October 2005 schedule prepared by AOC's sequence 2 construction management contractor, the base CVC project can open to the public in December 2006, and the House and Senate expansion spaces will be finished by the end of February 2007. The contractor's October schedule indicates that, with some exceptions, construction work on the base CVC project will be essentially complete by September 15, 2006, and the remaining work will be completed by December 8, 2006. This remaining work includes testing, balancing, and commissioning the HVAC system; testing and inspecting the fire protection system; completing punch-list items; and preparing for operations. For the East Front, the October schedule shows construction work, such as the roof restoration, finish work, and elevator/escalator installation, completed after September 15, 2006. The October schedule also shows other construction work, such as the installation of ceiling panels in the orientation lobby and painting in the atria, extending after September 15, 2006. AOC expects all this construction work to be done and the base CVC project to be ready for operations between September 15, 2006, and mid-December 2006, enabling the facility to open to the public in mid-December. Additionally, under the October project schedule, the House and Senate expansion spaces will be completed in December 2006, and the testing, balancing, and commissioning of the HVAC system and the testing of the fire protection system will be finished by February 26, 2007.

³Public Law 108-83, 117 Stat. 1007, 1026 (Sept. 30, 2003).

According to AOC's sequence 2 and construction management contractors, it is not yet clear whether the expansion space construction work will have progressed far enough to omit the temporary fire safety measures once considered necessary to open the CVC to the public. They said they are still analyzing the work associated with the areas where the base project and the expansion spaces come together to determine whether and how the need for temporary fire safety measures can be minimized or eliminated.

Construction Work Continued, but Problems with Stonework and Other Issues Caused Delays

Since the Subcommittee's October 18 CVC hearing, construction work has continued on the CVC, the East Front, the plaza, the House and Senate expansion spaces, and the House connector and utility tunnels. For example, the installation of wall stone has continued in the auditorium, the orientation theaters, and the upper west lobby. Mechanical, electrical, and plumbing work has also been proceeding in the CVC.

Overall, however, construction work, especially stonework, has taken longer than scheduled. Between the Subcommittee's October 18 hearing and November 10, the sequence 2 contractor completed 8 of the 16 activities that we and AOC have been tracking for the Subcommittee, but only 3 of these activities were completed by the target dates shown in the contractor's September 2005 schedule. (See app. I.) Delays have also occurred in interior stonework and in work on the East Front, the utility tunnel, and the penthouse's mechanical systems. For example, according to AOC's construction management contractor, similar to what happened in September, the sequence 2 contractor lost about 10 out of 21 possible workdays, both on critical interior stonework and on the utility tunnel. According to the construction management contractor, the stonework was delayed by the slow and late delivery of stone, a lack of critical pieces of stone, the need to address problems arising from sequence 1 work, and a shortage of stone masons. During October, the installation of wall stone in the great hall and exhibit gallery was especially impeded because the stone supplier failed to meet scheduled delivery dates and the sequence 2 contractor received less than 20 percent of the stone the supplier had agreed to provide. Moreover, according to the sequence 2 contractor, during several preceding months, deliveries of stone were only about half as large as expected. Additionally, the contractor said, the delivered stone was not in the appropriate sequence and did not cover complete areas. To help mitigate these problems, during October, the sequence 2 contractor transferred stone masons from areas such as the exhibit gallery, for which no wall stone was available, to the auditorium, for which wall stone was available.

AOC's construction management contractor cited other delays in October, especially in the utility tunnel and in the exhibit gallery. For instance, work on First Street for the utility tunnel was delayed by unforeseen site conditions, rain, and the need to do unanticipated work. However, the construction management contractor said that steps have been taken to mitigate the impact of the delays, including the sequence 2 contractor's hiring of another subcontractor and the installation of piping in the tunnel. In the view of the construction management contractor and the sequence 2 contractor, these steps will enable the CVC's air-handling units to start up in February 2006 rather than in March 2006, as indicated in the October schedule. In the exhibit gallery, besides the delay in wall stone installation, the construction management contractor identified several problems, including delays in drawings for marble and finishes and concerns about the acceptability of the gallery's fire suppression system that could further delay work in the exhibit gallery.

Schedule Revisions Saved Some Time, but Many Activities Are Highly Vulnerable to Delay

The sequence 2 contractor resequenced activities involved in testing, balancing, and commissioning the HVAC system and made other schedule changes that had the net effect of moving the base project's completion date forward 3 days. While the resequencing will result in a loss of 10 workdays for the HVAC activities, according to the contractor's revised schedule, the other changes have advanced the base project's scheduled completion date to December 8, 2006, rather than December 11, 2006, as indicated in the September schedule. AOC's construction management contractor reports that it, the sequence 2 contractor, and AOC's commissioning contractor have generally agreed on the revised schedule for testing, balancing, and commissioning the HVAC system. However, AOC's Fire Marshal Division has not yet agreed on the schedule for those activities that relate to the CVC's fire protection system, such as testing and inspecting the smoke control system, the fire alarm system, and stair pressurization. On October 31, the division provided its comments on the revised schedule for the fire protection system. The division's Deputy Fire

Marshal expressed several significant concerns about the schedule. AOC and its construction management contractor expect to complete their reviews of this part of the schedule and resolve the Fire Marshal Division's concerns by December 31, 2005.

The construction management contractor has identified 14 critical activity paths in the October schedule that will extend the base project's completion date beyond AOC's September 15, 2006, target date if expected lost time cannot be recovered or further delays cannot be prevented. Eleven of the 14 critical activity paths in the October schedule were also identified in the September schedule. For 4 of these 11 paths, such as the auditorium wall stone installation and the orientation theater millwork, the completion dates showed improvement compared with the September schedule, but for the other 7 paths, such as the utility tunnel and the exhibit gallery stonework, the completion dates slipped. The 3 paths newly identified in October are elevator installation, exhibit gallery steel framing, and 10- and 12-inch water line installation,⁴ each of which could delay the project if expected lost time cannot be recovered. In addition, our analysis of productivity data for interior wall stone installation, coupled with the sequence 2 contractor's analysis of stone deliveries, indicates that AOC is not likely to meet its September 15, 2006, target date for completing the base project's construction without significant increases in the pace of wall stone deliveries and installation. That is, without more stone masons and/or more work hours, more stone delivered more quickly, and faster stone installation, AOC is unlikely to meet its target schedule. The sequence 2 contractor believes that stone masons will be able to install more wall stone per day in some areas, such as the exhibit gallery, because the work is not as difficult as in the great hall or orientation theaters. However, the pace of this installation remains uncertain, in our view. Furthermore, given the project's experiences to date with the number of stone masons, the quantity of stone deliveries, and the pace of installation, AOC's construction management contractor notes that the completion of wall stone installation could extend up to several months beyond the July 2006 date shown in the project schedule without more work hours, higher productivity, and sufficient stone. The pace of wall stone installation is especially important because it affects the timing of other critical work necessary for the project's completion, such as the ceiling's installation and the HVAC system's testing, balancing, and commissioning. The stone supply problem is the subject of litigation between the sequence 2 contractor and its subcontractors, and the sequence 2 contractor has been working to resolve the problem. However, at this time, it is not clear how or when this issue will be resolved.

Construction Management Contractor's Evaluation and Our Analysis Point to a Later Completion Date

Most of the activities we have been discussing, such as the wall stone installation, fire safety inspections, and House connector tunnel construction, are among the activities that we previously identified as likely having optimistic durations, suggesting that those activities could take longer to complete than shown in the project schedule. These activities served as the basis for our September 15 recommendation that AOC rigorously evaluate the durations for the activities shown in the project schedule. Last week, AOC's construction management contractor finished evaluating these durations and the logic for what it considered the most critical activities, such as wall stone installation, and discussed the impact of delays and sequence 2 contract changes on the project schedule. In its November 9 report to AOC, the construction management contractor said that (1) it was generally difficult to identify any activities that were completed within the planned duration; (2) none of the activities underway, primarily stonework, can be projected to be completed within the planned duration unless additional resources are applied; (3) the durations for a number of activities exceed 40 days compared with the contractual limit of 20 days; and (4) the sequence 2 contractor's resequencing of work to mitigate the impact of delays will result in a "stacking of trades,"⁵ which will require more manpower. Moreover, although the sequence 2 contractor has said that the project schedule reflects the impact of contract modifications executed to date and delays, the construction management contractor noted that the schedule does not accurately reflect the impact of contract changes and of delays due to the schedule's logic and raised con-

⁴The construction management contractor identified the water lines as an issue in September but did not list them as critical until October.

⁵This situation can occur when workers from different trades, such as stone masons, electricians, plumbers, or plasterers, have to work in the same area at the same time to meet a schedule, sometimes making it difficult to ensure sufficient space and resources for concurrent work.

cern about whether the schedule fully reflected the impact of changes and delays given their magnitude.

The construction management contractor made several recommendations to AOC based on its findings. For example, the construction management contractor recommended the development of a revised schedule that reflects (1) enhanced logic and sequencing of work, (2) activity durations more in line with the contract's 20-day maximum requirement, and (3) the impact of all delays and contract changes encountered to date and the use of available resources. The construction management contractor also recommended the development of a recovery schedule for each recognized delay, an analysis of the impact of the recovery activities on required resources, and an examination of the amount of time required to prepare for operations between completing construction and opening to the public. The construction management contractor's findings and recommendations concerning the project schedule are generally consistent with ours.⁶

Although the sequence 2 contractor has taken, plans to take, and is considering various actions to recover lost time and prevent or mitigate further delays, we continue to believe that the contractor will have difficulty completing construction before early to mid-2007. Among our reasons for concern are the uncertainty associated with the fire protection system schedule, including the concerns expressed by AOC's Fire Marshal Division and our earlier work that raised questions about the amount of time being provided for system testing and inspections; the schedule slippages to date; the optimistic durations for a number of activities based on the views of CVC team members and the results of the construction management contractor's recently completed review; the large number of activity paths that are critical; and the risks and uncertainties that continue to face the project. In addition, the continued schedule slippages indicate that more and more work will have to be done in a diminishing amount of time, and we are concerned—as is the construction management contractor—that the project schedule may not reflect the impact of changes to sequence 2 work resulting from contract modifications. Many changes, some substantial, have been made to the sequence 2 contract since it was initially awarded in April 2003. Yet, according to the construction management contractor, none of the modifications that have added work to the sequence 2 contract or changed the facility's design have been reflected in the project schedule. Moreover, as AOC's construction management contractor has noted, several problems have developed with activities associated with the exhibit gallery, and delays in completing CVC ceiling work necessary for the HVAC and fire protection systems could be problematic, although the CVC team is considering ways to mitigate these risks. We also note that the Chief Fire Marshal has not yet approved the construction drawings for the fire protection system or the schedule for the system's commissioning and testing.

AOC Has Been Addressing Previously Identified Schedule-Related Issues

AOC and its construction management contractor have been working to implement recommendations we have made to improve AOC's schedule management and to address other schedule-related issues we have identified.

- We have recommended for some time that AOC improve its schedule management and analyze and document delays and the reasons and responsibilities for them on an ongoing basis—at least monthly. In an October 20, 2005, letter, AOC asked its construction management contractor to implement this recommendation. The construction management contractor has begun to establish a process for doing so and plans to have it operational by December 31.
- We have also recommended that the project schedule show the resources to be applied to meet the schedule dates. While the sequence 2 contractor has shown proposed resource levels for many activities, it has not done so for many of the new activities added to the project schedule. The lack of such information can complicate the analysis of delays, including their causes and costs. AOC's construction management contractor has expressed particular concern about the resources for the stone and finishing work and has requested additional resource information from the sequence 2 contractor for these activities.
- We have further recommended that AOC develop plans to mitigate risks and uncertainties facing the project. In July 2005, AOC asked one of its consultants—MBP—to assist it in identifying risks and developing plans to address those risks. As of November 1, AOC had identified 55 risks facing the project and had begun to develop and implement plans for managing these risks. As of November 1, AOC said that it had developed mitigation plans in varying lev-

⁶On November 14, 2005, AOC provided us with MBP's draft report on MBP's assessment of the schedule durations for 19 activities. We did not, however, have sufficient time to evaluate the report for discussion in this statement.

els of detail for about 30 risks and has been discussing or plans to discuss the remaining risks at a weekly meeting. AOC also said that it plans to add new risks to its list and develop mitigation plans for other risks as appropriate.

—In our October 18 testimony, we noted several problems associated with the CPP that could adversely affect the CVC, as well as other congressional buildings, if they are not corrected or addressed. For example, potential delays in completing the West Refrigeration Plant Expansion project and storm damage to electrical equipment that has precluded the use of an East Refrigeration Plant chiller could limit the ability of the CPP to provide enough steam and chilled water for the CVC's air handlers to begin operating in March 2006, as shown in the October 2005 schedule. Staffing and training issues associated with operating the new equipment and a vacant CPP director position also pose management concerns. Work on the West Refrigeration Plant Expansion project could be delayed because AOC has directed the contractor to proceed with two significant contract modifications since the Subcommittee's October 18 CVC hearing. Specifically, the contractor is authorized to (1) reconfigure piping so that the existing West Refrigeration Plant can be operated independently of the West Refrigeration Plant Expansion to enhance the CPP's chilled water production capability and (2) change the design of the control system that will serve both the West Refrigeration Plant and new West Refrigeration Plant Expansion. These changes could affect the March 2006 completion date for the expansion project; however, AOC believes it will have sufficient chilled water capacity for the CVC even if the expansion project's completion is delayed. Furthermore, AOC plans to restore power to the chiller in the East Plant by realigning existing equipment and is still determining why the electrical equipment (e.g., aging equipment, inadequate maintenance) was vulnerable to storm damage. Finally, the period for applying for the plant's vacant director's position closed on November 4. According to AOC, it received 26 applications and expects to fill the position in December. As part of a separate review for this Subcommittee, we are continuing to assess certain CPP issues, such as the staffing and training for, and the estimated cost to complete, the West Refrigeration Plant Expansion project.

—In our October testimony, we identified problems with coordination between the CVC project team and AOC's Fire Marshal Division. To address these problems, AOC and its construction management contractor have established a process for the team and the division to arrange for and document CVC inspections.

Recommendations for Executive Action

To help ensure that Congress receives a more reliable estimate of the project's completion date in order to plan for the CVC's opening to the public and make more informed decisions about AOC's funding needs for CVC construction and operations, we recommend that the Architect of the Capitol (1) implement the recommendations (which are consistent with our prior recommendations on schedule management) made by its construction management contractor in its November 9 report on its schedule evaluation; and (2) reassess its proposal to open the CVC in mid-December 2006 when it is confident that it has a project schedule that reflects realistic durations, enhanced logic, the resolution of concerns expressed by the Fire Marshal Division, and the impact of delays and contract changes.

PROJECT'S ESTIMATED COST TO COMPLETE EXPECTED TO INCREASE, BUT OUR COMPREHENSIVE ASSESSMENT AWAITS SCHEDULE STABILIZATION

Mr. Chairman, our preliminary work shows the cost to complete the entire CVC project at around \$542.9 million without provision for risks and uncertainties. This preliminary estimate falls between our September 15, 2005, interim estimate of \$525.6 million without provision for risks and uncertainties, and our November 2004 estimate of about \$559 million with provision for risks and uncertainties. Our current estimate is substantially higher than MBP's updated estimate, and it exceeds the funding provided for the project to date. As we said at the Subcommittee's October 18 hearing, we are waiting for the project schedule to stabilize before we comprehensively update our November 2004 estimate of the cost to complete the project, including any costs to the government for delays. We plan to provide this updated estimate with and without allowances for risks and uncertainties and with adjustments for specific expected project completion dates.

We would now like to discuss the basis for our estimate and why we expect the project's costs to increase, why our estimate differs from MBP's, how much funding is currently available for CVC construction and how much more may be needed, and how much the Library of Congress tunnel's construction is likely to cost.

Estimate Is Preliminary

Our preliminary estimate of the cost to complete the entire CVC project, which we will discuss today,⁷ is based on information provided by AOC and its construction management contractor. It reflects our review of MBP's November 1, 2005, final report, which updates MBP's October 2004 estimate and includes supporting data; our review of CVC contract modifications and changes proposed between August 1, 2005, and October 31, 2005;⁸ the knowledge and experience we have gained from monitoring this and other major construction projects; and our view that the base CVC project is not likely to be completed before the spring of 2007. We have discussed our preliminary estimate with AOC; however, we have not completed other work needed for a comprehensive update of our cost-to-complete estimate. For example, we have not updated our previous discussions of the project's expected costs, risks, and uncertainties with other CVC project team members and fully assessed the schedule's impact on costs, because the schedule has not been stabilized. Furthermore, we have not incorporated any costs for delays over and above the amount included in our November 2004 estimate. Delays have occurred since then, but as of October 31, 2005, CVC construction contractors had not filed any requests for adjustments or claims with AOC for delays occurring after November 2004. AOC nevertheless expects to receive additional requests for adjustments, and AOC's construction management contractor believes that AOC may incur more costs than budgeted for delays. At this time, it is unclear who will bear responsibility for the various delays that have occurred at the CVC site, and it is therefore difficult to estimate their possible costs to the government.

CVC Costs Are Likely to Increase, Largely Because of Actual and Anticipated Changes and Delays

Assuming that the base project and the House and Senate expansion spaces are completed in the spring of 2007 and considering the qualifications just discussed, our preliminary estimate of the cost to complete the entire project is about \$542.9 million without provision for risks and uncertainties. This estimate is about \$17.3 million greater than our September updated estimate of \$525.6 million without provision for risks and uncertainties and about \$16.1 million less than our November 2004 estimate of about \$559 million with provision for risks and uncertainties. The \$17.3 million increase is due largely to the following:

1. *Actual and anticipated changes in the project's work scope.*—Most of these changes were associated with sequence 2 work, but some also occurred or are expected in other project components, such as preconstruction. Significant sequence 2 changes include the modifications to the CVC fire protection system that we discussed at the Subcommittee's October 18 CVC hearing, changes to the building's automated control system, and additional work to address gaps in the scopes of sequence 1 and sequence 2 work, such as additional waterproofing. Changes in the preconstruction component include moving security screening trailers and doing additional materials testing.

2. *Additional contingency funds.*—We believe that AOC will need significantly more contingency funds for the remainder of the project for three major reasons: First, the actual or estimated costs for changes in sequence 2, the East Front interface, and the preconstruction project components either exceed or account for the majority of the funds budgeted for unanticipated work, and available information indicates that additional changes in these areas are likely as the project progresses. For example, the actual and proposed sequence 2 changes to date are more numerous and more costly (without any provision for risks and uncertainties) than we, AOC, and MBP anticipated in late 2004, and the actual and estimated value of the already identified changes greatly exceeds the budgeted contingency funding. Moreover, according to AOC's construction management contractor, only about half the value of sequence 2 work is complete. Given that about half the work remains and changes to the project have been frequent thus far, we believe that more changes are likely to require funding in the future. Second, a number of issues that were not included in MBP's analysis, such as the need for temporary dehumidification, have arisen. Proposed change orders for work to address these issues were not com-

⁷We previously updated our November 2004 estimate (\$515.3 million) of the cost to complete the project without provision for risks and uncertainties for the Subcommittee's September 15, 2005, CVC hearing. See *Capitol Visitor Center: Schedule Delays Continue; Reassessment Underway*, GAO-05-1037T (Washington, D.C.: Sept. 15, 2005).

⁸MBP's estimate was based on contract modifications and proposed changes as of July 31, 2005, except that for sequence 2, MBP included updated information from AOC on contract modifications executed through October 14, 2005. Also, MBP initially issued its report on October 11, but issued a revision on November 1, 2005, based on comments it had received from AOC.

pleted in time for the work to be included in MBP's report. Third, as MBP pointed out, the costs of many pending (proposed, but not yet approved) changes that were included in its report may be understated because they are based on AOC's and its construction management contractor's estimates rather than on the contractor's price. According to MBP, historically, AOC's construction management contractor has significantly understated the costs of pending changes. Thus, additional funds are likely to be needed to cover the difference between the estimated and actual costs of the approved changes.

3. *Delay-related project management costs.*—The schedule analysis underlying our November 2004 cost-to-complete estimate suggested that the CVC base project would most likely be completed in December 2006, and our November 2004 and September 2005 cost estimates therefore included funding for AOC's CVC staff and architectural and construction management contractors through that time. Although the specific expected completion date for the base project is still uncertain because AOC and its contractors have not yet finished their schedule reassessment, our work indicates that the base project is unlikely to be done before early 2007. Thus, our preliminary estimated cost to complete includes the estimated costs for extending AOC's CVC staff and architectural and construction management contractors for the base project to March 2007.⁹

Our Estimate Differs from MBP's Estimate Largely Because We Included More Items in the Project Scope and More Funds for Contingencies

Our preliminary \$542.9 million estimate of the cost to complete the CVC project is significantly higher than MBP's November 1, 2005, \$481.9 million estimate for several reasons.

- Our estimate includes the costs for the CVC's air filtration system; MBP's does not.
- MBP assumed the base project would be completed in December 2006; we considered the spring of 2007 more likely.
- MBP did not include the costs of all CVC construction-related work, such as the fabrication and installation of wayfinding signs or the fit-out of the gift shops. Our estimate includes these costs.
- MBP provided less contingency funding than we did for a number of project components (sequence 2, the House connector tunnel, the East Front interface with the CVC, and the House and Senate expansion spaces). We believe that our larger allowance is warranted, given the complexity of the work, the CVC project's experience with changes, and our experience in monitoring other Capitol Hill construction projects.

Available Funding Is Unlikely to Be Sufficient

About \$528.4 million has been provided for CVC construction, and an additional \$7.7 million has been provided for CVC construction or operations.¹⁰ The \$528.4 million consists of the 527.9 million we discussed during the Subcommittee's October 18 CVC hearing; and \$500,000 that the Department of Defense (DOD) originally provided to AOC for security enhancements for the East Front of the Capitol and that AOC now intends, with DOD's approval, to use for security enhancements related to the CVC's air filtration system.

According to AOC, it does not currently plan to use any of the \$7.7 million for CVC construction. Thus, our preliminary \$542.9 million cost-to-complete-estimate indicates that AOC would need about \$14.5 million more to complete the project, assuming it is completed in March 2007. As noted, this estimate is preliminary and does not provide for contractor delay costs beyond the amount included in our November 2004 cost estimate.

AOC does not believe that future changes will require as much funding as we do. We recognize that the total amount of funds that will be needed for contingencies, as well as for adjustments to contracts to offset the costs of delays, is unclear at this time and is subject to differing views. Nevertheless, the costs for these items

⁹This time extension estimate is largely based on information provided by AOC and MBP.

¹⁰AOC had planned to use \$100,000 of its fiscal year 2006 appropriation for CVC construction to move a fire alarm control panel in the Capitol building to the CVC. If the control panel is to be moved, AOC will then decide what appropriation account will be used to pay for this move. If other than CVC funds are used, the \$100,000 would be available for other CVC construction purposes subject to the approval of the House and Senate Committees on Appropriations. As we reported in September, AOC had also used about \$805,000 in CVC operations funds for certain construction work that had been funded by the fiscal year 2006 construction appropriation. These funds also could be used for other CVC work subject to the Committees' approval. AOC previously had about \$7.8 million remaining available for CVC operations or construction, but about \$100,000 has been rescinded.

will be a major factor in determining whether AOC will need additional appropriated funds. We plan to address both issues when we do our comprehensive cost-to-complete update early next year.

Estimated Construction Costs for Library of Congress Tunnel under Limit, but Could Increase

Public Law 108–83 limits to \$10 million the amount of federal funds that can be obligated or expended for the construction of the tunnel connecting the CVC with the Library of Congress. As of October 31, 2005, AOC estimated that the tunnel's construction would cost about \$8.8 million, and AOC had obligated about \$4.7 million for it. The remaining estimated costs are for modifications to the Jefferson building to accommodate the tunnel and for contingencies. AOC expects to receive the bids for the Jefferson building work by November 22. Given that the work associated with the Jefferson building has not started and involves risks and uncertainties (since it will create an opening in the building's foundation and change an existing structure), we believe that AOC could receive higher-than-expected bids and is likely to encounter unforeseen conditions that could increase costs significantly. Both we and AOC plan to monitor the tunnel's construction closely to ensure that the statutory limit is not exceeded.

WORKER SAFETY HAS IMPROVED

Worker safety will remain an important issue at the CVC site as new hazards arise with changes in the site's physical structure and increases in the number of employees and subcontractors in the months ahead. Since we testified in May 2005 on worker safety, AOC and its contractors have achieved improvements in key worker safety measures and actions. For example, the CVC injury and illness rate declined, from 9.1 in 2003 and 12.2 in 2004, to 5.9 for the first 10 months of 2005—below the 2003 industry average of 6.1. Furthermore, the CVC lost-time rate declined, from 8.1 in 2003 and 10.4 in 2004, to 4.0 for the same 10-month period—approaching the 2003 industry average of 3.1. The quality of the construction management contractor's monthly CVC progress reports has also improved. Whereas the reports for 2003 and 2004 contained inaccurate data for key worker safety measures, as we testified in May 2005, the reports since June 2005 have contained accurate worker safety data. (In one instance, however, the draft report we received from the construction management contractor contained inaccurate worker safety data, which were corrected after we pointed them out to the construction management contractor.) Finally, AOC's reporting of lost-time rates is now consistent with an updated definition issued by the Bureau of Labor Statistics in 2003.

AOC and its contractors have taken a number of actions during 2005 to improve worker safety at the CVC site. For example, they have

- held periodic safety meetings with senior managers to elevate safety issues (and will schedule additional meetings as needed);
- held a project safety day to increase CVC project employees' safety awareness;
- provided and scheduled training on fall protection and electrical safety, for example, to elevate safety awareness and avoid accidents;
- posted safety-related signs and banners around the CVC site to reinforce safety messages; and
- added a second safety professional at the CVC project.

In addition, since this past summer, AOC's Central Safety Office has been involved in CVC worker safety. Specifically, the responsible official has (1) clarified his role on the project with the CVC Project Executive, (2) visited the CVC project site to obtain an understanding of general site conditions, (3) attended periodic CVC safety meetings and (4) reviewed safety-related data, reports, and meeting minutes. Drawing upon these efforts, the official has made suggestions to CVC management on ways to improve worker safety.

Poor housekeeping has been an ongoing issue at the site, and the sequence 2 contractor has recently taken actions to address this issue. Piles of construction debris and trash, improperly stored equipment and materials, and poorly maintained employee break areas have been identified in the construction management contractor's past safety audits. Although no injuries have been attributed to housekeeping issues, the construction management contractor and the sequence 2 contractor have recognized that these issues present an ongoing problem. To address these issues, the sequence 2 contractor is daily (1) cleaning up construction material debris and other items, (2) cleaning up the site's three assigned eating areas, and (3) removing five to seven truckloads of trash. In addition, the sequence 2 contractor has placed more bait traps around the site to control rodents.

Mr. Chairman, this concludes our statement. We would be pleased to answer any questions that you or Members of the Subcommittee may have.

APPENDIX I.—CAPITOL VISITOR CENTER CRITICAL CONSTRUCTION MILESTONES—OCTOBER 19-
NOVEMBER 17, 2005

Activity	Location	September 2005 scheduled finish date	Actual finish date
Orientation Lobby	Perimeter CMU walls	10/13/05	.....
Upper Level Assembly Room	Topping slab	10/20/05	10/20/05
East Front Subbasement	Interior CMU walls	10/27/05	.....
Exhibit Gallery	Wall stone Area 2 base	10/31/05	.....
Congressional Auditorium	Wall Stone Area 1	11/3/05	10/26/05
Upper Level Assembly Room	Wall stone area 1 layout	11/9/05	10/24/05
Exhibit Gallery	Wall stone Area 3 base	11/10/05	.....
Orientation Lobby	Interior CMU walls	11/15/05	.....
Exhibit Gallery	Wall stone Area 1	11/16/05	.....
Congressional Auditorium	Wall Stone Area 2	11/17/05	.....
Utility Tunnel	Excavate/shore Station Sta. 0.00-1.00	10/6/05	10/24/05
Utility Tunnel	Concrete Working Slab Sta. 0.00-1.00	10/11/05	10/26/05
Utility Tunnel	Waterproof Working Slab Sta. 0.00-1.00	10/14/05	10/31/05
Utility Tunnel	Install Mat Slab Sta. 0.00-1.00	10/20/05	11/10/05
Utility Tunnel	Install Mat Slab Sta. 1.00-2.00	10/24/05	11/07/05
Utility Tunnel	Install Walls Sta. 1.00-2.00	11/4/05	.....

Source: AOC's September 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 November 10, 2005.

COST TO COMPLETE

Senator ALLARD. Thank you both for your testimony this morning. I want to follow up first with a question concerning the cost to complete. I want to direct this to GAO and, Mr. Dorn, I believe you are the one to answer this. The estimate that you had last year was between \$522 million and \$559 million. Is that upper range going to change?

Mr. DORN. It may change, Mr. Chairman. A number of the risks and uncertainties are past us at this point. But when we get the schedule update from AOC at the end of December and we are confident that we have a good workable schedule, we will do another analysis of the schedule and then we will get a completion date, and then we will do another analysis of the cost.

So we will re-estimate that number. I would love to say it is going to stay at \$559 million, but I do not know. My suspicion is it is going to creep higher.

Senator ALLARD. Now I would like to have Mr. Shenkler from Gilbane to come up if you would, please.

I have a few questions. One is in regard to the issue that I just asked the GAO and then I will have one or two questions later on. So I ask that you stay at the table if you would, please.

Mr. Shenkler, do you agree with the Architect of the Capitol's estimate of the cost to complete?

STATEMENT OF MARVIN SHENKLER, GILBANE BUILDING COMPANY

Mr. SHENKLER. My review of the report that was done by MBP indicates that it did not reflect a number of contingencies that we need to consider. When I looked at the numbers, I thought we would probably need somewhere in the neighborhood of \$15 million to complete.

Senator ALLARD. In addition?

Mr. SHENKLER. In addition.

Senator ALLARD. Now, why were those not incorporated into the final MBP estimate? Mr. Hixon?

Mr. HIXON. Yes, sir. When we looked, we went through the cost to complete and evaluated the draft report and we had the comments from Marvin, from Gilbane, there were a number of issues in his list that we did not feel needed to be adjusted. There is also the issue of the risk on Marvin's evaluation including future risk that we are not aware of yet. Mr. Hantman testified in his statement that we will be reevaluating those items, including the costs that were not reflected by MBP that are included by Gilbane, in evaluation for the fiscal year 2007 budget.

Those things relate to such issues as future delays that could occur not as a consequence of the delay in starting sequence number 2, but as a consequence of delays during the sequence 2 performance of the work, as well as the value of the claims or the delay costs that have been submitted by sequence 2 from the delay in commencement of their work. So there are some items that the numbers are bigger than we thought they would be and we will be evaluating both Gilbane's comments together with GAO's here in the next few weeks.

CONSTRUCTION SCHEDULE

Senator ALLARD. Okay. Now, it seems like over the period of time we have had these hearings there has been quite a bit of slippage on the schedule. How do you plan on making up lost time and at what cost? Do we have anything on that?

Mr. HIXON. Is that addressed to me, sir?

Senator ALLARD. Yes, if you would.

Mr. HIXON. The schedule, when we originally had the schedule in November of last year, we were contemplating construction being completed on June 21. We currently are expecting construction to be done on September 15, except for a few minor items after that, some of which are in the east front. That essentially reflects a 3-month slippage on the construction schedule.

The schedule that we currently have right now accommodates all of the delays that we have had to date. What we are going to end up with is the commissioning activities that also have to be included within the schedule will be pushing the date out from September to a future date, which could be the current schedule completion date of December 8 or some other date.

I am expecting that the contractor at some point will submit a request for a time extension on a future change order to contractually add that time to his contract. At this point, he has not requested any time extensions and all change orders issued to date have been issued without a time extension request. So these would be for future, some major changes we have that have not yet been settled.

SCHEDULE SLIPPAGES

Senator ALLARD. Now, this last month we had a slippage of 10 days out of a 20-day work month.

Mr. HIXON. That is correct.

Senator ALLARD. Last month that was attributable to the weather. That was understandable. Would you explain to me why we slipped 10 days this month?

Mr. HIXON. Yes, sir. The interior stone work slippage is as a consequence of the stone deliveries that did not occur. This is a serious issue that we need to get resolved in order to not have an adverse impact on the project overall. For the utility tunnel, we had some rain days at the beginning of the month. We have the work that has got to take place with regard to Washington Gas in preparation for that work. Aside from that, the utility work is going very well.

If you look at the schedule of activities, of the 16, 4 of those activities are related to the utility tunnel. Three of those are complete, one is not yet complete. Typically these are falling 1 week or so after the original, after the completion date that was reflected in the September schedule. So we are not on schedule, but we are very close to having this work done.

Senator ALLARD. I understand this last week that Gilbane completed its review of the schedule durations for most critical activities, such as the utility tunnel. Mr. Shenkler, can you brief us on that review and Gilbane's recommendations?

Mr. SHENKLER. Our review of the schedule has been the same as it was last month in terms of stone. We are losing time because we cannot get adequate stone to install. You have got a comparable issue. If we get stone, we do not have the masons; if we have the masons, we do not have the stone. Until we can resolve this issue on stone deliveries, we cannot tell you when we are going to land with completion of this job.

STONE INJUNCTION

Right now, the injunction is prohibiting Manhattan from exercising their normal contractor rights to go and seek other sources to supplement their forces, and until that injunction is removed and they are released to do what they would normally do we are looking at day for day delay. Even when, if they are released, there is no assurances that we have got or they have another fabricator on hand because they have not been able to talk to anybody else until that injunction is released to see whether there is capacity out there in the marketplace to fabricate the stone required.

Senator ALLARD. If I understand where we are with the court, if we can make a strong case that stone delivery is affecting our completion date then there is a possibility the court would give us some relief in that regard. My understanding now is that you are moving forward with the court, saying that our completion date will be affected. Do you want to speculate on where we might be with the court?

Mr. SHENKLER. Speculating on what the judiciary does is questionable at best. But even if they were to give us relief on December 1, I think it is going to take at least 2 months for Manhattan to locate a fabricator and get stone back on the job from a new fabricator. We are probably looking at maybe 3 months before we actually see some positive impact as a result of a second fabricator.

That, in conjunction with what the impact will be from Quarra, who may very well decide to slow down their slow production already, just may exacerbate the problem even more. While we may

be getting more stone or some stone from a second fabricator, we may wind up getting less stone from Quarra because they are unwilling to produce like they were supposed to.

Senator ALLARD. Do they not have some contract obligations there?

Mr. SHENKLER. Yes. They have not lived up to them yet.

Senator ALLARD. What is our recourse?

Mr. SHENKLER. There is none because until we can get relief we cannot go look for a second fabricator, and the only thing we have available to us is to wait and get the stone and then find out what the cost to the Government is as a result of these delays and seek relief from the contractor.

Senator ALLARD. Now, Mr. Hantman, do you see this affecting our December opening date?

Mr. HANTMAN. Well, Mr. Chairman, in the sequence of construction certainly the stone work needs to be finished before other activities can take place. In some instances, we will be able to start ceiling work without some of the stone work being done. In some instances we may be able to start some floor work areas. But the critical issue of installing and finishing off the other finishes really is contingent upon the stone deliveries and installation.

So our reality is if we do not get the relief and find the capacity that can really increase the volume of stone that has been delivered and installed, the December date certainly could be in jeopardy.

SECOND STONE SUPPLIER

Senator ALLARD. Is there any reason for us to start looking now for a second masonry supply? What would keep us from starting to look now, because it looks to me like there is a potential problem here and we are going to have to deal with it. If we have recognized it, if we could get a jump ahead instead of waiting for the final court decision, maybe we could at least get our ducks lined up, and if the court decision goes against us then there is not much we can do about it. But if they say okay, you can go ahead and get a second contractor, at least we can have somebody lined up.

Mr. HANTMAN. Mr. Chairman, we would love to do exactly what you are talking about. The issue is that Boatman and Magnani is the one who has the contracts with both the quarry and the fabricator and they are the ones that have the injunction that says basically you have to use this quarry and this fabricator, and that is what we are seeking relief from so that we can find alternatives.

So in reality, Manhattan and Boatman are not able to go out and look for alternative sources, as per the court injunction at this point in time.

Senator ALLARD. I see.

Mr. UNGAR. Mr. Chairman.

Senator ALLARD. Yes, Mr. Ungar.

Mr. UNGAR. We might want to add a thought here. It is our understanding that the Government is not itself bound by the court's order, and there is another option, although it may not be very attractive to the Government for a number of reasons. That is, the Government itself could take action to acquire the stone. But there are some financial and contractual issues associated with that. We

are not recommending that. We are just bringing it to your attention.

Senator ALLARD. Mr. Hantman.

Mr. HANTMAN. There are also legal aspects to that. We may be brought into the case and have the original quarry and fabricator sue us for interfering with the contracts that they have with Boatman and Magnani. I am not an attorney. I—

Senator ALLARD. There is a liability with that approach—

Mr. HANTMAN. Yes, and there may be additional costs, which if we direct the contractors to do something we would be accruing as our responsibility. We do not have any concept of what those costs or schedule implications would be.

Senator ALLARD. It is really frustrating for me to have a nonperformer on the contract and we are tied up legally here. That is a frustrating situation we find ourselves in.

Mr. HANTMAN. Terribly frustrating. And that is exactly why we have taken the action. Now, with the December 1 court date, hopefully we will get, or actually Boatman and Magnani and Manhattan will get some relief and they will be able to go out and start solving the problems. Then, as Marvin has indicated, we need to take a look at the schedule if in fact a second contractor is found.

There are contractors who are doing work on other aspects of the building separate and distinct from this that might be involved in this, but we cannot commit or explore that because of the injunction at this point.

Senator ALLARD. I see.

Mr. Ungar.

Mr. UNGAR. Mr. Chairman, just one more point, I think, along the lines that Mr. Shenkler was speaking about. I think as AOC proceeds and hopefully the stone issue does get resolved one way or the other, we still strongly believe that the durations in the schedule for the stone work and certain other work need to be re-evaluated, given the previous findings that we have had there.

That is why, as Mr. Dorn mentioned, we are recommending that AOC implement the Gilbane recommendations, because some of those are aimed at getting a better handle on the durations in the schedule. Even if you had the stone, how long is it really going to take to get it up based on the productivity rates and the experience of the project to date?

Senator ALLARD. Sure.

STONEMASONS

I was going to direct this next question to Mr. Dorn. Mr. Hantman said that to keep our stonemasons employed we have gone to some tasks of a lesser priority. I assume that is the theater area. Do you see us having enough work to keep the stonemasons going in light of some of the possible complications we have here from the court?

Mr. DORN. I have asked for some detailed numbers from Gilbane and they were able to provide them as I was riding in the van on the way here, so I have not been able to do more detailed calculations. But the back of the envelope numbers would indicate that if the stone deliveries do not increase, that somewhere in the February to April timeframe we may be almost out of stone.

You literally will not run completely out because each piece of stone is not the same. Some pieces are critical, which hold up other pieces. But particularly since Manhattan has talked about increasing the productivity from 6 pieces per mason per day up to 11 or 12 pieces per day, you are just going to run out of—you are barely getting by now. If they increase their productivity, it is going to be even worse.

Senator ALLARD. It seems to me like we are at a very critical point here.

Mr. DORN. We are, and I agree with Mr. Hantman that the stone deliveries are a critical step going forward.

FIRE PROTECTION SYSTEM

Senator ALLARD. Let me move over to the fire protection system. Does the master schedule now fully reflect the fire marshal's requirements for testing, balancing, and commissioning the fire protection system?

Mr. HIXON. No, sir, they do not reflect all those yet. We had committed to get the testing and balancing done before this hearing and to have the fire marshal's, the life safety acceptance testing, done by the December period, and we are well on the way to start that process. We have already had a meeting with the fire marshal to review that. They have gone through the fire alarm shop drawings. So we expect that we would have those elements, those activities, included in the schedule here in the next month.

SECURITY EQUIPMENT INSTALLATION

Senator ALLARD. On security equipment installation, we understand that a delay has occurred in arranging for the installation of security cabling and equipment in the CVC. Could you explain what the problem is there and whether it is being resolved or not and who is responsible for resolving the problem and how much additional cost we may be looking at there?

Mr. HIXON. Mr. Chairman, we have been endeavoring to secure funds that we have previously transferred from the project to the Capitol Police, to use those to fund the purchase of cable and equipment. The arrangement that we originally had was the Capitol Police would do that themselves. Then since we have the conduit installed, we thought it would help facilitate things if we had our contractor perform that work.

There have been discussions recently about the transfer of funding from the Capitol Police back to the AOC in order for us to use those funds to perform that work as part of our contract. We had some issues with the memorandum of understanding. Those have essentially been resolved, but we have a new issue that the General Accounting—the Government Accountability Office has brought up, concerning using direct cites versus the transfer of funds. So we have been in discussions about that over the past few days and as recently as this morning, we understand that the Capitol Police may elect to go ahead and contract for this work directly themselves.

So the issue is being worked. It just has not reached a conclusion. As far as the impact to the costs associated with that, we are uncertain at this time what that would be. The cabling takes about

6 weeks to get here from when it is ordered and 6 weeks from now we should have some ceiling work going in. Depending on where that work occurs and when the cabling shows up, there may be some impacts to the price that was previously submitted for this work in order to install it around the existing construction at that time.

Senator ALLARD. So the Capitol Police then want to do it themselves? Did they give us a reason?

Mr. HIXON. The issue relates to control of the funds, control of the work. That was how our MOU became difficult between us, is who was actually controlling the contracts. We have resolved the wording on that. We would be happy to do the work for them if we could work out the funding. So we were prepared to pursue having the funds transferred back, which requires committee approval.

Senator ALLARD. I see.

Mr. HIXON. But if not, if they choose not to do that, they could contract directly with the contractor's personnel, the electrical subcontractor who is performing that work. We would be happy to facilitate that if that is what they choose to do.

Senator ALLARD. So now who is responsible for the final resolution of this?

Mr. HIXON. At this moment we need to complete a conversation with the Capitol Police to determine if they want to use our contractor to do this work, which I would expect them to do, or if they want to pursue a transfer of funds, which they would need to initiate.

Senator ALLARD. I see, okay. Do you think there is a chance we could get this resolved by the end of the week?

Mr. HIXON. We expect to resolve it, yes, sir, very quickly.

EXECUTIVE DIRECTOR

Senator ALLARD. Can you give us an update, Mr. Hantman, on the process of hiring the executive director for the CVC?

Mr. HANTMAN. As you know, Mr. Chairman, Korn Ferry has been retained by Zell Partners, who are our consultants on this. Working through Zell Partners, they have identified a number of strong potential candidates. They want to make sure that they have a listing of enough candidates to come forward, perhaps five to six candidates. They already have several strong people that they have in mind.

I think part of the issue also is the decision on who does the interviewing and when those people can get together to do the interviewing. There have been discussions about doing it by the end of the month. I am not sure that those dates are going to hold, so it is really kind of out of our hands in terms of when interviews would be held. But I think Korn Ferry has progressed to the point where they have a list of candidates to be interviewed.

Senator ALLARD. Thank you.

FISCAL YEAR 2007 BUDGET SUBMISSION

Now, when we start off our next session we will be getting right into the budget time, and I assume that you are working on your 2007 budget. We have got some unknown factors here. How are you factoring those into your 2007 budget?

Mr. HANTMAN. As Mr. Hixon indicated a while ago, there are some strong concerns certainly voiced by Mr. Shenkler and Gilbane, and that is what we hired them for, to look at those concerns and advise us on what they think is appropriate. There are certainly many issues that GAO has developed and questions they have about the McDonough Bolyard Peck cost to complete.

So what we would want to do is sit down and find out in detail the concerns and the source of the concerns that GAO has and what the recommendations are from the Gilbane side, and if we need to address those in the fiscal year 2007 budget we will certainly do so.

Senator ALLARD. Do you think you will be ready with your 2007 budget?

Mr. HANTMAN. I guess the timing is the issue on that. We need to get together very soon and take a look at just what those concerns are on both sides. There is no doubt that our submission for the 2007 budget needs to include any potential funds for this.

Senator ALLARD. Well, I hope we can get started because my intention is to get started fairly early next year on the budget. I do not know what our Appropriations chairman is thinking of, but my thought is that we get going as quickly as possible next year.

SUBCOMMITTEE RECESS

I think we have covered everything, and I want to thank you all for testifying again here today. We are out of session now December and January. I do not anticipate a need for a hearing. We will have another hearing in February.

Thank you very much.

[Whereupon, at 11:45 a.m., Wednesday, November 16, the subcommittee was recessed, to reconvene subject to the call of the Chair.]

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