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United States Government

MEMORANDUM

DATE: June 24, 2016

TO: The Honorable Stephen T. Ayers, FAIA, LEED AP,
Architect of the Capitol

FROM: Kevin Mulshine, Inspector General

SUBJECT: Cannon House Office Building Renewal Project - OIG Report A-2016-01

This memorandum conveys the Office of Inspector General's (OIG) first report on the results of the review of the Cannon House Office Building Renewal Project. This review was requested by the Architect of the Capitol's (AOC) Chief Operating Officer. The construction phase of the project began January 2015. Our scope was limited to the review of the Partnering Fee Plan (PFP), Project Management Plan (PMP) and Tower Crane Procurement Plan.

Our objective is to review AOC's efforts to complete the project within the established timelines and on budget. In addition, we reviewed the Contracting Officer's Technical Representative (COTR) actions in evaluating contractor performance in accordance with quality control measures outlined in the contract Statement of Work (SOW). OIG will continue to report on the Cannon Project during the duration of the renewal efforts.

Background. The Cannon House Office Building is one of three¹ buildings occupied by the U.S. House of Representatives with Member suites, committee hearing rooms and support offices, food services, facility and utility space. Over 2,000 people occupy the 800,000 square foot building, which contains five stories, a full basement and a multi-level parking garage.

In fulfilling the AOC's mission to maintain the buildings and grounds of Capitol Hill, annual facility assessments were performed on the Cannon House Office Building. These assessments revealed that the century-old building has serious safety, health, environmental, and operational issues due to prolonged deterioration. AOC recommendations to address the issues were approved by Congress.

The AOC Planning and Project Management Division (PPM) and the AOC House Office Building Superintendent's Office share responsibility for the oversight of this project. The amount budgeted for the project is \$752 million with scheduled completion by 2024. This undertaking is managed and monitored by the Cannon Project Team including two COTRs. The

¹ The Ford House Office Building and Thomas P. O'Neill Jr. Federal Building are additional buildings occupied in part by House Offices, but not by Members.

project team's staff possess expertise in architecture, engineering, project management, construction, and procurement and have a wide variety of responsibilities over the renewal.

The renovation project was awarded to the following three contractors who are working together as a team:

- Architect/Engineer (A/E) – Shalom Baranes Associates, PC
- Construction Manager as Agent (CMA) – MBP-AECOM, A Joint Venture
- Construction Manager as Constructor (CMc) – Clark Christman, A Joint Venture

The requirements of the project are to upgrade aging and inefficient building systems, including mechanical, electrical, fire protection, telecommunication/information technology and audio visual while assuring compliance with existing building codes and AOC standards. An important aspect of the renewal project is to conserve, preserve and maintain the rich historic nature of the building.

The project required a tower crane that was erected in the Cannon House Office Building courtyard in February 2015. The crane is 550 tons and extends 40 feet above the building. In addition to the successful deployment of the crane, the project has a series of future challenges. They include continued project funding; coordination of a move plan that disrupts certain House offices; disabling certain systems during the Renewal; and the completion of further survey work in the building.

Objective, Scope and Methodology. Our objective is to review AOC's efforts to complete the project within the scheduled timeline and budget. In preparing this report, we reviewed the COTRs' actions in evaluating contractor performance in accordance with quality control measures outlined in the contract SOW. As the construction phase of the project began in early 2015, our scope was limited to the review of the PFP, PMP, and the Tower Crane Procurement Plan for base periods 1 and 2. We performed fieldwork from January 2014 to June 2015.

We examined (i) applicable orders, policies, laws, regulations and guidance; (ii) reviewed related documents and records, (iii) interviewed AOC staff to obtain an understanding of the plans, programs and internal controls, and (iv) quality controls. We assessed internal controls related to the operations and programs covered by the objective for sufficiency. We conducted this performance audit under the authority of the Architect of the Capitol Inspector General Act of 2007, and in accordance with Generally Accepted Government Auditing Standards. These standards require that we plan and perform the audit to obtain sufficient and appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective.

Criteria. The AOC Cannon Project Team established the PFP and the CMA developed the PMP to facilitate managing and monitoring the Cannon House Office Building Renewal Project. Partnering fee provisions have been approved for all three contracts. The PFP provides contractors with a monetary incentive for performing at a superior level related to cost, timeliness, quality and safety through collaboration, cooperation and a joint effort with all participants.

Section B. Article 5 of each contract describes the provisions for the PFP. The Federal Acquisition Regulation (FAR)² *Subpart 16.4 Incentive Contracts* provides general guidance for instances with improved delivery or technical performance by relating the amount of profit or fee payable under the contract to the contractor's performance. Incentive contracts are designed to obtain specific acquisition objectives by:

- Establishing reasonable and attainable targets that are clearly communicated to the contractor,
- Including appropriate incentive arrangements designed to motivate contractor efforts that might not otherwise be emphasized, and
- Discourage contractor inefficiency and waste.

The purpose of the PMP is to provide the framework to ensure efficiency and effectiveness in the management of the renewal project. It also serves as the planning, communications and quality management tool for the project. The PMP prescribes the process of developing, communicating, implementing and monitoring the policies, procedures, organizational structures and practices associated with the project.

Contract provisions outlining the CMA responsibilities are presented in the following contract sections:

- C.12.A.8 a-b – The CMA will submit a completed PMP within 30 calendar days from the conclusion of the review and comment period.
- C.12.A.8.c – The CMA will review and update the PMP no less than semiannually after initial approval to incorporate lessons learned and amendments to reflect revised methods and means of executing the project. This process is to begin for the Base Part 2 period.

The AOC Contracting Manual 34-1 March 31, 2014 *Section 12.1 Cost and Price Analysis* provided the guidance used in the development of the Tower Crane Procurement Plan. A price analysis is used to ensure that the agency receives supplies and services at a fair and reasonable price. The Contracting Officer's (CO) primary objective in pricing a contract action is to consider the contract type, cost, and profit or fee negotiated. The CO may request a technical analysis of the proposed prices from personnel (such as the COTR) having specialized knowledge, skills, and experience. Technical analysis can include review of proposed types and quantities of materials, labor processes, special tools, facilities, scrap and spoilage, and other associated factors set forth in the proposal.

Results. In our review, we found no significant issues in executing the PFP, PMP and Tower Crane Procurement plan. We determined that the PFP and PMP were effectively designed to execute the tasks and activities supporting the renewal project. However, we did identify areas for improvements. In particular, the PMP showed differences with the contract performance requirements, as detailed below. We found that the project team performed a thorough and well supported evaluation and selection of the tower crane purchase options that complied with AOC procurement policies and federal procurement regulations.

² Although the AOC is not required to follow the FAR, the Acquisitions and Materials Management Division has adopted and relies on some FAR guidelines in its procurement policies, contracts and etc.

Partnering Fee Plan (PFP): The PFP contains the following control components: management review, evaluation plan process, criteria, scoring, and weighting. The contractors are evaluated on factors such as cost, schedule, quality, safety and customer satisfaction through collaboration, cooperation and joint effort. These components and factors ensure the partnering fee funds paid are earned by the contractors. We reviewed a draft version of the PFP and found the control components contained adequate levels of project team and senior management assessments. We did identify some discrepancies in the plan's scoring and weighting areas that could impact the interpretation of the agreement.

- Sections *V Process for Determining Partnering Fee* and *VII Evaluation Factors and Criteria*, contain attachments that use positive (+) criteria to determine the ratings for the contractors. However, there was no criteria or methodology for making subtractions from performance factors and documenting support for those subtractions. Section *VI Grading and Scoring Line 5* of the plan states that "*the contractors are to be awarded one hundred percent of the partnering fee. Subtractions are to be made from the one hundred percent amount for unresolved issues and performance that does not meet the standards of the table below.*" The table referenced in *Line 5* does not provide for any method for reduction. Detailed information provided for only totaling the rating up to a final score using the categories of the Adjectival Rating (excellent, very good, and etc.). Even the "*The End of Period Performance Evaluation Worksheet*" does not provide for subtractions but just for positives (+).
- The PFP was not consistent in the Adjectival Ratings categories to be used in determining the partnering fees. The main body of the plan lays out five rating categories (Excellent, Very Good, Good, Fair, Unsatisfactory) while the report to be used by the raters to document their actions (*Attachment 2 Quarterly Performance Evaluation Report*) only lists four excluding Fair. The five rating categories are in line with the ratings outlined in the FAR subpart 16.4.

The project team immediately corrected these issues once we brought them to their attention. The plan language was clarified and approved in January 2015.

Project Management Plan (PMP): The PMP contains 24 sections and an appendix. When engaging specific project processes and workflows, the project team will use the PMP for guidance. During our review period, the project was in the pre-construction phase and some of the sections were not in effect yet. The PMP is a living document that will be revised throughout the life of the project. Therefore, we focused our review on the plan's internal control structure. Specifically, we focused on whether the sections clearly defined the responsibilities of AOC and contractor staff.

- We found the PMP was not being updated as required. The CMA contract (section C.12.A.8) states "*the plan should be updated no less than semiannually*". The version of the plan we used to perform our review was dated May 3, 2013 (v1.1). In August 2014, we requested a copy of the latest version from the project team who responded that the plan was under review and being revised for Phase 0 activities. Revising and updating a plan of this nature throughout a project is reasonable. However, the CMA and project team should ensure the documentation of the revisions are updated not less than semiannually, as the contract requires. We recommended that the project team establish specific times within the semiannual period for PMP revisions to be completed to ensure the sections contain current

industry processes and lessons learned information. A revised plan was completed on April 15, 2015.

- We reviewed the adequacy of the internal control structure for the following 15 sections, of the written PMP plan. These sections were identified as being more relevant in support of the budget and scheduling activities of the project.

Sec.#	Section Title	Sec.#	Section Title
1	Executive Summary	9	Value Management Plan
2	Project Management Approach	10	Procurement Plan
3	Project Guidance	11	Quality Management Plan
4	Financial Management Plan	13	Risk Management Plan
5	Cost Management Plan	17	Partnering Plan
6	Schedule Management Plan	22	Lessons Learned
7	Work Breakdown Structure	23	Document Management Plan
8	Change Management Plan		

Overall, we found that the plan sections were designed effectively as they describe the tasks, outputs, roles, and responsibilities of the AOC, A/E, CMA, and CMc. Of the 15 sections, we found six sections listed below that needed further revisions and updates to reflect consistent and current information to provide accurate guidance to users. The remaining nine sections were sufficient. The following elements of the individual management plans could be improved as described below:

- Financial Management - Some tasks were not clearly defined. For example, the plan states the A/E contractor is to provide clear and timely financial reports to the AOC. This task as established by the project team will actually be performed by the CMA, rather than the A/E.
- Cost, Schedule, and Value Management – These sections do not state what the AOC responsibilities are. In some areas, the plan describes activities the AOC is to perform, but it did not identify AOC’s overall role for these management sections. Even though the CMA and CMc will perform the majority of tasks, the plan should identify how the AOC will ensure that each task will be performed effectively.
- Change Management Plan – In the “Change Approval Authority” section for the change approval requirements, some sections for “*Priority*” classifications did not include the COTR or Cannon project team in the approval process. Significant modification requests from the contractors are reviewed by the Change Control Board; however, the project team and COTRs should also review and give approval of all changes/modifications before submission to the CO. We recommended the AOC project team further define approval responsibilities needed in the two following areas:
 - Priority 2 Urgent Changes - Urgent changes will be forwarded to the CO and PEx³ immediately by the CMA and may be addressed on a verbal basis. These changes will be followed up with the appropriate documentation; however, they must otherwise follow the process for routine changes.

³ PEx – An AOC Construction Program Executive who provides initial direction to CMA to evaluate potential design and/or construction changes.

- Priority 3 Mandatory Tier 3 – Changes will be evaluated by the CMA (Independent government estimate not required), reviewed by the PEx, and approved/not approved by the CO.
- Risk Management Plan – Requires that a regularly updated risk register be included in the Cannon Monthly Report. Our review found the risk register was not updated monthly. The risk register was last updated as of 1/17/2014 and this version remained in the monthly reports from January 2014 to August 2014. The risk management plan contains several sections that state the risk register should be updated at least monthly. After the project team performed in depth risk assessments, an updated risk register was included in the January 2015 monthly report

Risk assessment issues were noted in a cost estimate review performed by the Government Accountability Office (GAO) in March 2014. During the course of GAO's review, the AOC project team decided to perform significant risk assessment activities by hiring a consultant to perform an integrated cost-schedule risk analysis. The CMA and a risk assessment expert facilitated the project team to identify and assess 30 risks which included (i) not getting the necessary funding, (ii) awarding the Guaranteed Maximum Price (GMP) contract modifications not on time, and (iii) not having sufficient staffing to manage the project.

The project team postponed updates to the risk register to focus on risk and activities associated with getting Phase 0 started on time. The project team accomplished these initiatives by issuing the GMP modification in December 2014 and hiring additional staff for the overall project team and swing space processes. However, these activities were not clearly communicated in the monthly reports. The monthly report contains two sections (*Discussion of Key Project Activity* and *Risk Register*) that list risk assessment information. The project team did not note until August 2014 that updates have been put on hold due to a cost/schedule risk analysis. Under the *Discussion of Key Project Activity*, it was noted the mitigation strategies identified during the analysis would be integrated within the existing risk register by the end of September 2014.

Starting in September 2014, the risk register was replaced by the *Risk Mitigation Actions Accepted and Impact Risk Parameters* schedule. This schedule was the product of the cost/schedule risk analysis and showed proposed actions to offset risk. The schedule also shows a series of categories (Optimistic, Most Likely, and Pessimistic Impact Factors) and percentages which were not defined so the reviewer could interpret the meaning or explanation of purpose. This schedule did not represent an updated risk register with mitigation strategies. This schedule remained in the monthly reports for four months.

As of January 2015, the project team improved their efforts to present clear and consistent risk assessment activities in the risk registers and monthly reports. Based on our recommendation, the project team established a review process for each phase (October 2015/Phase 0 – June 2024/Phase 4) and at six-month intervals. The phase updates will also include project team's inputs from PMP workshops. The CMA will make suggestions for PMP revisions to the CMA COTR during the six month intervals. In addition, the CMA COTR will review workshop minutes to ensure comments are incorporated into the PMP and updates are approved before publishing. The PMP dated April 15, 2015 was the first updated version after we noted the issues and contained the required updates and the proper management review.

Tower Crane Procurement Plan: The tower crane was erected in the Cannon courtyard in February 2015. The crane weighs 550 tons and extends 40 feet. The tower crane is one of the first construction procurements of about \$1.1 million. The project team reviewed several procurement options for feasibility and cost presented by the CMc Clark Christman. The project team initially found the CMc purchasing the tower crane the best choice because the cost analysis at one time showed this would be the most beneficial cost option. We recommended that this complex procurement be reviewed by the Office of the General Counsel (OGC). OGC reviewed the procurement and provided recommendations to the project team. The project team then prepared a white paper that noted the purchase method of procurement could not be justified because AOC could not obtain title to the crane. The option ultimately approved by AOC was to obtain a two year lease of the tower crane. We found that this option was fully supported by the project team's analysis.

Conclusions. Our recommendations for improvements to monitoring procedures that will be used by the project team in managing the Cannon House Office Building Renewal Project include:

- Revising the descriptions for the grading section to include negative scores and to consistently use the same rating categories throughout the PFP.

AOC Comment: Concur. Management agreed and has performed corrective action. The full context for the comment is located on page 10.

- Ensuring risk assessment updates are clearly communicated in the Cannon monthly reports.

AOC Comment: Concur. Management agreed and has performed corrective action. The full context for the comment is located on page 11.

- Establishing a review process to include time periods to identify errors and include process and industry practices in the PMP.

AOC Comment: Concur. Management agreed and has performed corrective action. The full context for the comment is located on page 11.

Based on our recommendations, the project team revised and updated sections of the PFP and PMP while ensuring semiannual updates and changes to the PMP are documented.

We held an exit conference on May 16, 2016 to discuss the findings in this report. This memorandum transmits the Final Audit Report A-2016-01 Cannon House Office Building Renewal Project. We incorporated your official response in this report. The AOC concurred with all findings and recommendations.

The OIG is satisfied that improvements and changes implemented by the project team resolve all issues identified in the report. Therefore, we concluded no further action is necessary for the audit resolution process. The OIG will continue to perform our review of contract execution until the project is completed. Further reports will be issued as needed.

If you have any questions, please contact Ashton Coleman, Assistant Inspector General of Audit, at 202.593.0261 or Ashton.Coleman@aoe.gov and Ashanti Jones, Auditor, at 202.593.0081 or asjones@aoe.gov.

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AOC's Response




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United States Government

MEMORANDUM

DATE: June 15, 2016

TO: Kevin Mulshine
Inspector General

FROM: Stephen T. Ayers, FAIA, LEED 
Architect of the Capitol

SUBJECT: AOC Comments to Draft Cannon House Office Building Renewal Project -
OIG Report A-2016-01

This memorandum provides the Architect of the Capitol's (AOC) comments regarding the Office of Inspector General's (OIG) Draft Audit report on the Cannon House Office Building Renewal Project - OIG Report A-2016-01. The draft notes that your objective was to review AOC's efforts to complete the project within the established timelines and on budget, and that your scope for this first review addressed the project team's execution in three areas: the Partnering Fee Plan (PEP), the Project Management Plan (PMP), and the Tower Crane Procurement Plan.

We are pleased that your first audit of the project did not identify any significant issues associated with three areas you reviewed. Equally important, we are pleased to report that the project has achieved its major milestones to date with an excellent safety record and is on track to complete the entire project on time and on budget. Your draft notes that the PEP and PMP were effectively designed to execute the project, although you found some areas for improvement. We concur that improvements were needed as your draft indicates and that we have made the needed improvements following discussions with your audit team during the course of its review. With respect to the tower crane, you found that the Cannon Renewal project team performed a thorough and well supported evaluation and selection of options that complied with AOC procurement policies and federal procurement regulations.

Although we agree with your findings, we believe that it is important to emphasize the project's status during your January 2014-June 2015 review period. During this time, the project team was completing the design for Phase 0, designing for Phases 1-4, estimating and reconciling construction cost estimates, planning and managing pre-construction work, securing funding approvals, negotiating construction contract terms, staffing up, responding to information requests from the OIG and the Government Accountability Office (GAO), and identifying and mitigating risks associated with Phases 0 and 1. Unfortunately, the team did not focus on updating the PMP while it was undertaking these critical activities, and due to an unexpected staff departure had only one COIR for about 6 months of OIG's review period. A new COIR joined the team in the fall of 2014 who supported and the team's work that led to the successful

contract award of Phase 0 on time and within budget. Subsequently, the team focused efforts on updating the Plan later during OIG's review.

In addition, we are providing a brief clarification of the introductory information included in your draft report as well as information on the PFP, the PMP, and the tower crane acquisition so that readers of the report will be familiar with the context associated with these issues.

Introductory Information

We have three observations concerning the introductory information in the draft report.

- We believe that the statement on Page 1 that the construction phase of the project is just beginning is misleading. Construction began in early 2015 and your final report is likely to be issued in June 2016, about 18 months after the start of construction. We suggest you consider clarifying page 1 of the report to reflect this.
- Page 1 of the draft report says that the Cannon House Office Building is one of three buildings occupied by the U.S. House of Representatives with Member suites, committee hearing rooms and support offices, food services, facility and utility space. It is important to note that support staffs are actually housed in five office buildings. In addition to the Rayburn, Longworth, and Cannon House Office Buildings, House support staff are also located in the Ford House Office Building and the Thomas P. O'Neill, Jr. Federal Building. This is particularly important to recognize because these latter two buildings are being used to provide "swing space" for support staff during the Cannon Renewal project. Although the Ford Building is one of four House office buildings, the O'Neill Building is a General Services Administration building in which space for House support staff is being leased during the Cannon Renewal project.
- Pages 2 and 3 of the draft report refer to the Federal Acquisition Regulation (FAR) criteria with respect to the PFP and federal procurement regulations relative to the tower crane purchase, respectively. While we are pleased that OIG found that the team's actions were consistent with the FAR, we believe that it is important to note that AOC is not subject to the FAR.

Partnering Fee Plan

The PFP is an integral part of AOC's strategy for safely completing the project on schedule and budget. As your draft report notes, the PFP was in draft at the time OIG reviewed it. Because of its importance, the project team worked closely with AOC's Acquisition and Material Management Division and the Office of General Counsel in its development and proactively sought input and advice on its provisions from a variety of parties, including OIG and GAO. OIG's suggestions were helpful to us in finalizing the plan. In developing the plan, the project team also researched incentive contracting. Although the team considered the FAR provisions on incentive contracting, as stated above, it is important to recognize that AOC is not subject to this Regulation.

Project Management Plan

We appreciate your overall finding that the 15 Plan sections you reviewed were designed effectively and concur that further revisions and updates for six of the 15 Plan sections were needed to provide better guidance to users. As your draft report states, the project team has made these revisions and updates and has a process in place to review and update the entire plan every six months.

One of the six Plans you identified as needing improvement was the Risk Management Plan. Your draft notes that the project's risk register was not always updated monthly as called for in the Plan and that some of the information reported was not always clear. We agree with these observations. However, this does not mean that the project team was not proactively and aggressively managing risk during OIG's review period. To the contrary, in addition to focusing on other efforts needed to get Phase 0 started on time, the project team planned and carried out a sophisticated, state-of-the-art integrated cost-schedule risk assessment with the assistance of an internationally recognized risk management expert. During the assessment, the team developed and began to implement high-priority risk mitigation actions which were itemized and being tracked separately from the monthly risk register process until the new risks could be seamlessly merged into the routine monthly process. Although as OIG's report indicates, the team did not update the existing risk register for several months while these actions were underway, it did keep AOC's management informed on risk management during this period. The team's risk management efforts in 2014 significantly contributed to its ability to award Phase 0 on time and within budget, effectively plan and prepare swing spaces for Committees and Members as well as their staffs and support offices, and keep Phase 0 on track for an on-time completion.

The team resumed monthly updates to the risk register in early 2015 as OIG reports, completed another integrated cost-schedule risk assessment in late 2015, and has been implementing mitigation actions and routinely updating the risk register. Once again, the team's proactive risk management efforts contributed to the April 2016 on time and within budget award of the Guaranteed Maximum Price construction contract for Phase 1 with options for the remaining Phases to keep the project on budget.

Lower Crane Procurement Plan

We are pleased with your finding that the selected acquisition option was fully supported by the project team's analysis and that the selection complied with AOC procurement policies. This acquisition turned out to be quite challenging. The Construction Manager as Constructor (CMc) presented AOC with a number of purchase and lease options for the tower crane. To minimize the cost to AOC, Clark-Christman, A Joint Venture (CCJV), initially proposed to purchase the tower crane for the duration of the project. The project team, assisted by AOC's procurement and legal staff, analyzed the financial, legal, and logistical implications and risks associated with this option as well as other purchase and lease options. The team also obtained advice on appropriations and procurement law from GAO. While the team was performing its analysis, CCJV withdrew its suggestion that it purchase the crane. Ultimately, appropriation and procurement law limitations, title issues, and risks associated with crane ownership led to a determination that a 2-year lease by CCJV was the most appropriate path forward.

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In closing, I would like to express my appreciation for your staff's willingness to allow flexibility in its response timeframes for information requests during the course of its review so that the project team could remain focused on meeting critical milestones to keep the project on schedule. This flexibility was very helpful to the team as was your staff's willingness to share its preliminary concerns with the team as your review progressed. This enabled the project team to better understand what information your staff was looking for and promptly take action to address concerns.

Please let me know if you have any questions on our comments or need additional information

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