

O'Connor Construction Management (OCMI) Recommendations for Cost Savings

On March 19, 2019, the APS Audit Committee reviewed the APS Facilities and Operations Response to the O'Connor Construction Management (OCMI) Recommendations for Cost Savings.

A ranking of the 5 “accept” or “consider” OCMI recommendations was requested.

It was noted that 4 of the recommendations (all except #7) would likely require the services of an outside consultant.

Assistant Superintendent, Facilities & Operations, noted that of the 11 recommendations offered, APS is already doing 5 of them (#2, #3, #4, #5 & #6), and is unable to implement one (#1) because current VA procurement regulations prohibit pre-qualification of large project vendors.

The remaining 5 recommendations were ranked by Facilities & Operations in order of greatest feasibility:

#10 Benchmarking & Cost Modeling

Note: Use of standardized project budgets within the recently implemented Oracle Project Unifier system creates a database that will allow APS to compare historical costs and aid in preliminary budget planning.

#11 Developing a Risk Register

#9 Conducting Market Research & Market Studies

#8 Instituting a Pull Planning/Last Planner Process

#7 Explore alternative delivery methods

APS staff will analyze potential implementation costs of each of these recommendations compared to potential cost savings and efficiencies that might be gained.

APS Facilities & Operations Response to OCMI Recommendations for Cost Savings

February 20, 2019

#	Recommendation	Details	Already Doing	Accept	Consider	Decline	Comments
2	Present three Schematic Design options	<p>As part of any A/E contract, APS can require the awarded design team to present three schematic design options. Each would meet the functional needs of the school.</p> <p>For example, during the initial schematic design phase, the selected A/E firm could present:</p> <ul style="list-style-type: none"> • One design option that is approximately 10% below the project budget • One design option that is roughly equal to the project budget • One design option that is 10% above the project budget <p>For each of these options, the A/E firm should include a detailed cost estimate broken down by division costs.</p>	X				<p>The standard APS contract requires a minimum of three options to be developed by the A/E in the Concept Design phase. Cost estimates are required for two or three options. One of the options is selected and approved by the School Board to proceed to the Schematic Phase. Because carrying three options through the Schematic Design phase would both lengthen the phase and increase A/E fees substantially, staff does not recommend this approach. Preparing one design option that is estimated to cost 10% above approved funding would be contrary to direction from the School Board.</p> <p>Staff recommends that A/E teams be directed to produce two concept designs, one at or close to or at, and one less than the funding approved by the School Board for the project.</p>

APS Facilities & Operations Response to OCMI Recommendations for Cost Savings

February 20, 2019

#	Recommendation	Details	Already Doing	Accept	Consider	Decline	Comments
3	Update Space Guidelines & Educational Specifications	Space guidelines and educational specifications serve as standards for educators and design professionals to meet the overall programmatic and pedagogical goals of the school division. They also identify design features, including spatial sizes, relationships, and other elements, that enhance educational and community outcomes through clear and consistent standards.	X				<p>This is standard practice at APS.</p> <p>For further information please refer to the presentation made to the School Board on the Educational Center Reuse Project on December 20, 2018 at https://www.boarddocs.com/vsba/arlington/Board.nsf/files/B7FR6Q697DFB/\$file/E-4%20Ed%20Center%20Reuse-Ed%20Spec%20Presentation.pdf and the Educational Specifications for the project at https://www.boarddocs.com/vsba/arlington/Board.nsf/files/B7FR6N697DCF/\$file/E-4%20ED%20Center%20Reuse%20-%20Ed%20Specifications.pdf.</p>
4	Create APS-specific FF&E contracts	Creating APS-Specific FF&E contracts. Throughout the District of Columbia, Maryland and Virginia, there are several cooperative purchasing agreements that APS has access to, including the Metropolitan Council of Governments, which offers discounts on furniture and other equipment.	X				<p>Design & Construction staff has collaborated with Department of Teaching and Learning and Department of Information Services staff to develop standard furniture layouts and information technology requirements for all typical learning spaces for Pre-K through twelfth grade. These layouts and requirements are being integrated into the current construction projects, will be integrated with the Educational Specifications for current and future projects, and will be updated regularly.</p> <p>Recognizing that prices available under the various the various state, local, MCOG and GSA contracts that may be used by APS may not yield the lowest possible price, all furniture for The Heights Building, Dorothy Hamm Middle School, and Alice West Fleet Elementary School projects has been consolidated into a single purchasing package so that prices lower than those available under the various the various state, local, MCOG and GSA contracts will be secured. Please refer to confidential memo included in 1/11/19 Friday Letter.</p>

APS Facilities & Operations Response to OCMI Recommendations for Cost Savings

February 20, 2019

#	Recommendation	Details	Already Doing	Accept	Consider	Decline	Comments
5	Standardize building elements	Standardization and repetition of systems and components from school-to-school	X				<p>Despite very different site conditions, many systems and components are common to Discovery, Fleet and Reed elementary schools, notably the HVAC and solar photovoltaic renewable energy systems. Design & Construction continually strives to expand standardization and repetition of systems and components despite different conditions among the projects.</p> <p>From a maintenance perspective, standardization is preferred and standard products are mostly utilized as the 'basis of design' unless it is discontinued or a better product or system is more appropriate. Due to procurement regulations, "equal" products or systems must be accepted, unless a case can be made to allow a sole source contract. Sole source contracts are used for key items, notably the APS standard Building Automation System (BAS).</p>
6	Conducting formal Value-Engineering (VE) workshops/studies	Conduct two VE workshops/studies – one at the completion of Concept Design and the other at the completion of Design Development.	X				<p>Though Design & Construction practices continuous VE and incorporates VE savings that have been accepted on one project into subsequent projects, it plans to follow this recommendation on current and future design projects. A formal VE study at the conclusion of the Design Development phase is already included in the standard A/E and CMR scope of services.</p> <p>The services of an outside consultant such as OCMI might be helpful for this effort, which would incur additional fees that would have to be more than offset by savings. As we already utilize a Construction Manager Advisor (CMA) on projects, conducting additional workshop/studies could be added to the CMA scope on future projects.</p>

APS Facilities & Operations Response to OCMI Recommendations for Cost Savings

February 20, 2019

#	Recommendation	Details	Already Doing	Accept	Consider	Decline	Comments
10	Benchmarking & Cost Modeling	By collecting data from comparable projects, APS' benchmarking and cost models can serve as planning guides for designing a budget during a project's early stages.		X			Staff agrees that a more rigorous approach to collecting and comparing data would be productive. Design and Construction staff has recently completed a construction manager software transition to the Oracle Project Unifier product. Project budgets are now standardized within the Unifier system assigning individual cost codes to regularly used construction and owner costs. Over time this will create a database that will allow APS to compare historical costs aiding in preliminary budget planning. Prior to the transition comparing costs across projects was only available via a manual process. The services of an outside consultant, such as OCMI, might be required for this effort, which would incur additional fees that would have to be more than offset by savings.
11	Developing a Risk Register	Once key risks have been identified, APS and its team can evaluate the potential for the risk to occur and categorize it as likely, probable, or unlikely, with a subsequent categorization for the overall risk impact being high, medium, or low.			X		Risk Management is a highly sophisticated professional service most often applied to very large construction and infrastructure projects. Staff will consider the benefits of a risk management workshop at the inception of each major capital project, at which a risk register would be established, followed by regular updates to confirm that projects remain on track and to act when risk events occur. The services of an outside consultant, such as OCMI, would be required for this effort, which would incur additional fees. Though not a formal risk register, APS staff maintains an issues log through both design and construction phases to track items that could potentially have cost and/or schedule impacts.
9	Conducting Market Research & Market Studies	Conducting market research and completing market studies on, at least, an annual basis, will better assist APS with understanding how national and local economic conditions impact the future costs of its construction projects.			X		APS currently utilizes at least two firms in touch with national and local economic conditions to determine budgets for future projects. Staff will consider the value of this annual service for helping to establish the total costs of capital projects to be included in the Capital Improvement Plan every two years. It would supplement services already provided by others and would likely require additional outside consultants, such as OCMI, which would incur additional fees.

APS Facilities & Operations Response to OCMI Recommendations for Cost Savings

February 20, 2019

#	Recommendation	Details	Already Doing	Accept	Consider	Decline	Comments
8	Instituting a Pull Planning™ / Last Planner© Process	Brings the project's players together to review how the team can remove constraints or obstacles that could increase costs or develop delays.			X		While removal of constraints and obstacles is always included in the administration of projects, staff will consider this process, which would formalize and supplement the comprehensive scheduling services already provide by the CM at Risk. The services of an outside consultant, such as OCMI, would be required, which would incur additional fees that would have to be more than offset by savings.
7	Exploring alternative project delivery methods	Design-Build (DB) method is an alternative delivery method where one company, typically the general contractor, is financially and managerially responsible for architectural design and construction. With one firm in charge of all a project's aspects, the DB method can eliminate challenges in managing and overseeing multiple parties. Cost savings can occur from the beginning to the end of the project.			X		APS has already explored and adopted alternative project delivery methods by changing from GC to CMR contracts for The Heights Building, Dorothy Hamm Middle School and Fleet Elementary School projects. Indeed, had it not done so it is highly likely that the three projects would not be delivered on schedule and on budget. For APS, DB would likely entail the development of very detailed performance specifications by an A/E to be included in the DB bid document package, and independent A/E services during design and construction to help us ensure that the performance specifications were being met. Depending on the structure of the DB and firm selected, this method may conflict directly with any standardization of building elements in place as well as affecting, universal accessibility agility, adaptability of facilities and long-term durability of facilities. Though DB may be challenging on projects as complex as schools in Arlington, staff is carefully observing the County's first DB project for the Long Bridge Aquatic Center to evaluate whether this method might be considered on future projects.
1	Pre-qualify Architects/Engineers (A/E), General Contractors (GC) and Construction Managers (CMs) through on-call contracts	Consistently work with a select group of firms that APS has determined meet its level of standards for the design and construction of its schools.				X	Under current VA Procurement regulations for on-call contracts separate Requests for Proposals (RFPs) must be used on all design and construction projects above a certain value. All major APS design and construction projects exceed that value. Nevertheless, APS has managed to work with a select group of A/E's that meet its standards for design through its normal A/E selection process. The recent change from GC to CM-at-Risk (CMR) procurement on construction projects over \$10 million has greatly reduced APS risk of cost overruns, late delivery and poor quality construction by making APS projects attractive to the highest quality contractors. In Virginia,

APS Facilities & Operations Response to OCMi Recommendations for Cost Savings

February 20, 2019

#	Recommendation	Details	Already Doing	Accept	Consider	Decline	Comments
							the CMR selection process is qualifications-based and includes both a Request for Qualifications (RFQ) and a Request for Proposal (RFP). For construction projects less than \$10 million, APS typically includes a qualifications form with the Invitation to Bid (ITB) to ensure that GC's which respond have the capacity and skill to perform the work.

DRAFT