

## **EXHIBIT A BULL RUN DAM 2 TOWERS IMPROVEMENTS**

### **POST PROJECT EVALUATION FACTUAL FINDINGS EXEMPTION FROM COMPETITIVE BIDDING**

The Bull Run Dam 2 Tower Improvements (Project) is the largest key component project of the Bull Run Water Supply Habitat Conservation Plan (HCP). In particular, habitat conservation measure T-2, Post-Infrastructure Temperature Management, requires the North tower be modified to allow taking water from the reservoirs at three different levels so the temperature of the Bull Run River downstream at Larson's Bridge can be managed by the Portland Water Bureau (PWB).

ORS 279C.355 requires an evaluation report upon completion of a project exempt from competitive bidding. The report must include information on the Guaranteed Maximum Price (GMP) if used; actual and estimated project costs; numbers of change orders; an analysis of the success and failures of the design, engineering and construction; and an objective assessment of the use of the alternative contracting process as compared to the findings required by ORS 279C.355. The following is the report required by ORS 279C.355 and how the use of an alternative method was in the City's best interest.

Advanced American Construction, Inc. (AAC) was awarded the contract to perform pre-construction services and construction of the Project.

#### GMP, Costs and Change Orders.

The original amount for the Phase 1 Pre-Construction Services contract was \$350,000.00. The contract was amended to include an additional fee. The final contract was \$437,086.92.

The GMP Contract amount is \$31,552,701. The Contract was divided into two (2) parts; Part 1 was for the construction of the North and South tower components and Part 2 was for the piping downstream at Headworks to divert the flow from the South tower directly to the Bull Run River bypassing the Headworks intake structure. The substantial completion date for Part 1 was April 28, 2014 and the substantial completion date for Part 2 was July 31, 2014.

There have been two (2) no cost change orders issued for the Construction Contract. Change Order No. 1 provided a mechanism to move contingency funds from Part 1 of the contract to Part 2, so as to pay for additional work required on Part 2. Change Order No. 2 extended the contract completion date due to delays in regulatory permit approval and tower component fabrication issues. Each change order was covered under a combination of contingency funds and Owner Savings within the project GMP. The final contract amount is \$29,889,640.48 (5.2% under the original GMP contract amount). The balance due on the contract is \$7.63. The Project is now complete and all work necessary to close the Project has been executed in accordance with the contract.

Objective assessment of the use of the alternative process.

The paragraphs in italics below are from the Findings dated September 2, 2009 (Ordinance No. 183161, Exhibit A). These statements were used to justify that the Project could use an alternative procurement process. The Project Manager's response states how the Project achieved or not the expectations set forward in the initial document.

*(1) Competition.*

*ORS 279C.335 (2) requires that an agency make certain findings as a part of exempting public contracts or classes of public contracts from competitive bidding. PRS 279C335 (2) (a) requires an agency to find that: It is unlikely that such an exemption will encourage favoritism in the awarding of public improvement contracts or substantially diminish competition for public improvement contracts. This conclusion is supported by the following:*

*The Water Bureau will issue a Request for Proposals (RFP) for a Contractor for this project in accordance with procedures that will attract competition for this contract from qualified contractors in the construction community. The RFP will be advertised in the Daily Journal of Commerce, and will be posted on the City of Portland's ebid website. Potential Contractors will submit proposals. A committee consisting of personnel from Water Bureau, Procurement Services, and others from the community will evaluate the proposals and will then select a contractor based on evaluation of the proposals and subsequent interviews, if necessary. The selection process will be completed under the supervision of Procurement Services staff. The evaluation process will be based on predefined criteria of demonstrable technical qualifications and the proposed fixed fee. Subcontracted portions of the work will be contracted by the Contractor through a competitive bidding process. The alternate contracting process will not limit competition or encourage favoritism in the selection process when compared to the standard "low bid" process.*

*The level of experience and knowledge by the selected contractor needs to be extremely high. This is a very unique, complicated, and important project for the PWB. A quality based selection is key to obtaining a contractor that can effectively coordinate all the pieces of the project. Significant risks are associated with this project. A competent contractor will minimize risks, reduce change orders, and maintain the critical path of the project. The experience of this contractor will require the schedule to stay on track and assure the PWB has a completed project that will operate correctly to meet the requirements of the HCP by December 2013. The Construction Manager/General Contractor (CM/GC) process is critical in allowing the contractor to be intensely involved in the design, Value Engineering (VE), schedule, risk reduction and overall successful completion of this project. The CM/GC method maintains competition among qualified proposers.*

Project Manager's response: The CM/GC team was selected using the RFP process. Three proposals were received. A selection committee composed of City staff and outside members in accordance with City requirements reviewed the proposals. The selection committee used a "best value" process to select the CM/GC contractor based on a combination of technical merit and price. The AAC team was selected as the successful contractor. They received the highest score in a very tight, competitive process. All of the proposals were of very high quality. The

fees of the proposals were within +/-10% of the mean. AAC brought an efficient and technically competent team to the Project. The Project was completed without claims and well under the GMP.

*(2) Public benefits.*

*The PWB cannot fail to meet its commitment to the City of Portland to provide quality potable water to its 800,000 customers and maintain water storage and firefighting capacity during construction. Bull Run Reservoir 2 is a critical storage site for the majority of potable water provided to the City. Therefore, it is necessary that construction of the project proceed smoothly and with minimal interruptions, delays and claims.*

*Bull Run Reservoir 2 and the Bull Run Watershed include environmentally sensitive areas, it is important that both design and construction contractors have a thorough understanding of the requirements to protect these resources, and that design and environmental permitting are coordinated smoothly. Alternative contracting will also allow the contractor proactive involvement in design to develop a construction approach and method to minimize impacts in and around the Bull Run Reservoir 2, around the Headworks Facility, and the S-10 access road. Such involvement in the design stage would not be possible using the traditional "low bid" contracting method and therefore it is likely that there will be a lower chance of disruption to the public's water supply by using the alternative contracting approach. Electing to adopt reasonable measures such as alternative contracting to meet its commitments falls well within the Water Bureau's fundamental mission of maintaining the livability of the City. Finally, alternative contracting will allow construction of the current facility plan at the lowest life-cycle cost of any other technically feasible alternative identified to date. Alternative contracting will allow the public to receive the benefits of both timeliness and lowest cost.*

Project Manager's response: The alternative procurement method resulted in the selection of a qualified CM/GC contractor with the specialized experience and equipment necessary to complete a complicated project of this nature. AAC was involved at the 60% design phase which allowed the Project team to design a structure that would limit impacts and disruption to the City's water supply source in Reservoir 2. During the underwater excavation and installation of the wet well sections in Reservoir 2, AAC did not cause a single water supply disruption to the City water system. The CM/GC process allowed the team to achieve maximum flexibility for the sequencing of construction, constructability reviews, construction staging, and assuring environmental compliance was maintained.

*(3) Value Engineering.*

*The alternate contracting process will give the Contractor an opportunity to partner with PWB design and construction staff in performing VE and constructability reviews. In contrast, contractor input into the project while it is being designed is not possible using the conventional "low bid" Design-Bid-Build (DBB) construction process. Early involvement will reduce overall project costs and more efficiently attain the project objectives. The Contractor can therefore see conditions while design is ongoing and thus has the opportunity for input. The Contractor's construction experience and knowledge will also help identify and resolve issues prior to construction and will aid in early identification of effective measures to minimize disruption. This partnering will reduce the need for change orders, claims, and delays, resulting in*

*significant cost savings and delivery of quality facilities on time. In contrast, the “low bid” process, which does not permit significant contractor input during the design phase, would not allow the contract to see actual conditions while design is ongoing. CM/GC will be brought onto the project at 30% design.*

Project Manager’s response: Because the contractor was involved early in the design, the Project benefited from early and ongoing VE, constructability reviews, and schedule refinement. This integration resulted in significant cost savings to the project with no significant change orders. A VE session was completed at the 60% design milestone that involved the design team, outside consultant review, and AAC.

At the 90% design milestone it became clear to the team the Project costs were approaching \$38 million. This was much higher than originally estimated for the project. In August 2011, it was decided to modify one tower instead of two and create new downstream piping to reduce project cost but still meet the project objectives. This VE reduced the cost of the project GMP from \$38 million to \$31.5 million. Without the early input of the CM/GC contractor, the concerns over Project cost would not have surfaced until much later in the procurement process likely leading to schedule delays and a redesign at a point when it would have been much more expensive to undertake.

*(4) Specialized Expertise Required.*

*Maintaining the water supply to the public while constructing state of the art multi-level intakes on the existing 140’ tall structures and a water depth of 112’ is highly specialized work that requires a great deal of extraordinary experience and care. The North and South Towers are the only intakes to the conduits that supply water to the City of Portland. The construction will occur within a constricted underwater work zone and must take into account the on-going Headworks operations and activities assuring water operations are not interrupted. This project is also located in the environmentally sensitive Bull Run Watershed.*

*Expertise in underwater construction methodology, sequencing, scheduling, and cost estimating is essential to make sure the City realizes an optimum design that remains practical and within budget. The alternate contracting process will provide the best opportunity to select not simply a qualified contractor, but the most knowledgeable Contractor available with the necessary expertise for this project. In addition, the alternative design process provides the only realistic way to make sure that expertise is available during the project design phase. In contrast, the conventional “low bid” method does not permit the City to use the Contractor’s expertise to help design the project nor does it permit the City to exercise judgment about who may be the most qualified contractor to perform this work. Therefore, specialized expertise on this project requires use of the alternative contracting process to maximize the project’s success.*

Project Manager’s response: The CM/GC selection method provided the best opportunity to select not just a qualified contractor, but the most knowledgeable contractor available with the necessary expertise and equipment for this project. AAC provided expertise in diving, underwater excavation, project management, and assured the PWB an optimum design that remained practical and within budget.

Diving work is very difficult and complex. By using the CM/GC procurement method, the PWB was able to solicit the diving/heavy civil construction community and have them provide input on the best match to the project parameters and their skill sets. The PWB received three proposals all of which were viable. Conventional DBB methods would have required the PWB to select the lowest bidder who may not have had the technical expertise to complete such a complicated project. The silt curtain used to contain turbidity while excavation took place on the North Tower was the largest ever sold by the supplier. Without early input from AAC it would have been challenging to provide a strategy to contain the silt while allowing construction to continue unhindered. There was huge technical risk in this activity and the CM/GC method allowed the PWB to shift some of the risk to the contractor who is best suited to handle it. It was a very difficult task to prevent any turbidity from leaving the silt curtain but AAC contained all the turbid water. There weren't any events that disrupted the critical water supply.

*(5) Public Safety.*

*The PWB must deliver high quality water to customers and have water available for emergencies twenty four hours a day, three hundred and sixty five days a year, notwithstanding whatever construction activities are incurring on site. The construction activities cannot interfere with PWB's mission of providing high quality water that meets all regulatory standards.*

*The CM/GC process enables the selected contractor to provide input during the design process, enables it to establish a safety plan and a more coordinated construction phasing plan. Therefore, this process is more likely than the low bid process to assist the Water Bureau in meeting the demands for water quality, reliability and system security. It will result in early implementation of health and safety measures to protect the public water source, PWB operators, and construction workers throughout the project.*

Project Manager's response: By using the CM/GC procurement method, AAC was able to assist the project team in assuring that the design and construction methods would not impact the water system. Allowing AAC to be involved early in the process allowed the project team to build trust and strong working relationships that made this project a success. AAC was required to submit a health and safety plan to protect the public water source, PWB operators/staff, and construction workers. AAC developed this plan early in the design process.

*(6) Market Conditions.*

*The alternate contracting process reaches the same or greater market of construction contractors as the conventional bidding process would. The specialized skills and major components of work necessary for the Bull Run Dam 2 Towers Improvements will reach the state and national market place. Competitive contracting to this market will be obtained during the solicitation for qualifications and proposals. The interaction of the Contractor during the design phase mitigates the project design for not matching well with the market innovations in means and methods.*

*The alternative contracting process has the added benefit of allowing the selected contractor to solicit bids for various aspects of work (equipment, labor, etc.) when the portions of work are ready to go out to bid. This allows the alternatively selected contractor extra time to coordinate construction activities between its various resources to minimize construction risks and delays.*

*The contractor will be able to prepare material and equipment submittals early and thus issue purchase orders to suppliers and vendors for timely delivery. This will also provide a lengthened opportunity to identify and reach out to qualified minority, women, and emerging small businesses that may otherwise not have an opportunity to participate in the project. Overall, the alternate contracting process provides the best assurance that the most qualified and cost effective subcontractors, suppliers, and vendors will be available to meet the demanding schedule at minimum cost.*

Project Manager's response: The CM/GC process allowed the PWB to coordinate and attract qualified contractors early on in the design process. Involving AAC early in the process allowed the wet well design to be developed in a way to reduce dive time and the cost of the project.

The method also allowed AAC to solicit subcontractors for design recommendations and pricing on the project while it was still in design. This was especially useful when working with the wet well fabricator. Oregon Iron Work (OIW) was able to assess design assumptions and provide recommendations on how the wet well would be transported and handled. The wet well sections were some of the largest pieces allowed on the state highways. It was critical to get OIW input early on to make sure the pieces as designed could be transported to the site and positioned without damage.

*(7) Technical Complexity.*

*Several elements of this project require specialized expertise, as described above. Therefore many of the same reasons that support use of an alternative contracting process that were described in that section are equally applicable because of the technical complexity of this project.*

*In addition, the complexity of the elements of work requires the Contractor to understand and be able to manage all aspects of work. The alternative contracting process permits selection of the most qualified contractor to perform this work, rather than requiring the City to accept a contractor based on the lowest bid, which may not have been submitted by the most qualified contractor. Nonetheless, selection of the most qualified contractor is liable to yield substantial cost savings because additional expertise will likely identify problems or solutions during the design phase that a less qualified contractor would not. It will reduce the risk level for the project.*

*The project is technically complex because the contractor must maintain the existing water supply all while minimizing impacts to the Headworks Facility and the Bull Run Watershed. It is technically complex because of the need to reduce dive time for the project, therefore allowing the installation to be cost effective and safe. Dive time is one of the most expensive and dangerous components for this project. Since the Contractor will be responsible for supplying and coordinating the various crews to complete the work, they can better coordinate the phasing, diving, safety, and installation methods.*

*The conventional "low bid" process, based strictly on the initial price, will not necessarily produce the contractor best able to handle the technical complexity of this process and thus may well cause the City additional costs and risk by the time the project is complete. This is less likely to happen if the most qualified contractor is selected who is able to participate in the design process.*

Project Manager's response: Underwater work is always challenging and risky. It requires a high degree of competence and care to create a safe and successful project. This project was even more challenging by the need to maintain the water supply and construct the project during the entire year when weather conditions can change daily. The CM/GC process allowed the PWB to select some of the most highly skilled diving/underwater contractors in the country. The Water Bureau was able to assess all elements of the CM/GC team and make a selection that provided good coverage of all the key elements of the project.

The integrated nature of the CM/GC team facilitated early and constant feedback between the designers and the contractors. The PWB was also an integral member of the team, being present during all aspects of the project development and quality assurance. This high level of coordination was critical in making this project a success. It is hard to imagine how a low bid project would have led to the same successful outcome.

The technical complexity and successful use of the CM/GC method on this project has been acknowledged by the overall construction community. The Project received the Associated General Contractors of America, Alliant 2014 Build America Award of Excellence in Utility projects at their National Convention in Las Vegas, Nevada. The project was also recognized by the *Oregon Daily Journal of Commerce* as a 2014 Top Project for infrastructure and the *Engineering News-Record* as Best Water/Environment Project in the Pacific Northwest Region, 2014.

#### *(8) Funding Sources.*

*The project is in the requested budget for FY 2009-2014 Capital Improvement Program. The amount of \$30 million is to cover costs for design, construction, permitting, management, PWB management, and contingency. There is funding in the current fiscal year and the PWB has requested more funding in the FY 2009-2014 Capital Improvement Program.*

Project Manager's response: The negotiated GMP price is \$31,552,701. The final cost of the project is \$29,889,640.48. There are no claims or change orders that required an increase to the GMP. All the changes were covered under the agreed upon GMP contract. The final construction costs being \$1.6 million less than the GMP helps demonstrate the advantages of using the CM/GC alternative contracting method for a complicated one-of-a-kind project.

The CM/GC procurement method worked very well for this Project. The Project came in under the contract GMP, did not create any disruptions to the City of Portland water supply, and has proven to work as designed.

This project has won Project of Excellence awards from the following organizations:

- Associated General Contractors of America, Alliant 2014 Build America Award
- Daily Journal of Commerce, 2014 Top Projects Award
- Engineering News-Record, First Place Infrastructure, Best Water/Environmental

This methodology was appropriate for this Project and should continue to be viewed as a viable contracting option on selected projects.