DATE: January 28, 2011

TO: City Council

FROM: Rob Roshanian, Interim Public Works Director
Public Works Department

SUBJECT: Second Amendment to the Consulting Services Agreement with CH2M Hill, Inc. for the Advanced Water Purification Facility (Agreement No. A-6841)

RECOMMENDATION

That City Council approve and authorize the Mayor to execute a Second Amendment to the Consulting Services Agreement with CH2M Hill, Inc. (Agreement No. A-6841) to increase the amount by $157,608 for a total of $8,931,904 for the pre-bid instrumentation, control, and electrical procurement documents and integration, and for the development of single story concepts and redesign of the Administration Building and foundation analysis.

SUMMARY

The Second Amendment to Agreement No. A-6841 with CH2M Hill represents all additional services provided during the Advanced Water Purification Facility (AWPF) pilot testing and pre-bid period, as well as the efforts to explore an alternative design of the Administration/Visitors’ Center Building, with a total cost of $505,090, and total credits of $347,482, resulting in a net cost of $157,608.

DISCUSSION

On March 13, 2007, the City Council approved the Agreement with CH2M Hill for the final design of the AWPF Phase 1 (Agreement No. A-6841). A description of the additional work items included in the Second Amendment to Agreement No. A-6841 and their associated costs are described below.

Part 1A -- Design Submittals, Pre-Bid and Pilot Testing Additional Scope

The following changes were verbally approved by Public Works Department staff from 2007 to 2009.

Pilot Study and Procurement of Treatment Equipment Impacts on Project Management. The selection and procurement of the final treatment components for the AWPF required a lengthy procurement and negotiations effort. The pilot testing phase also took longer than expected, due to start-up problems and the need to test a second reverse osmosis membrane system. This
approximately 18 month delay required significant additional project management effort and expenditure by the CH2M Hill design team. The cost of this work was $201,600.

**Project Art and Furniture Coordination.** CH2M Hill prepared and coordinated submittals regarding art to comply with the City’s Art in Public Places requirements, as well as coordinated efforts regarding office furniture. The cost of this work was $27,746.

**Schedule Shortening and Electrical, Instrumentation & Control Equipment.** The U.S. Bureau of Reclamation (BOR) awarded the City a Title XVI grant for up to $20 million. The grant required a compressed project schedule, shortening construction time from three years to two years. The most critical concern with the shortened schedule was the procurement of long lead time electrical, instrumentation and control equipment. The City determined that it could save time by procuring the equipment on a parallel path to the construction bid and assigning the equipment agreement to the construction contractor. CH2M Hill removed the electrical, instrumentation and control systems specifications from the original contract documents and prepared stand-alone specifications for use by the City to procure the equipment. The cost of this work was $118,136.

**Part 1B – Scope Reductions.**

Subsequently, in 2010, in order to reduce cost impacts to the project, City staff and CH2M Hill negotiated the following reductions in the scope of the original design Agreement. The cost of the additional work is offset by the credits from reductions in scope.

**Visitor’s Center Displays.** The GREAT Program visitors’ center contains spaces intended for exhibits to provide public education about the AWPF and the Desalter Facility. This work will not be done, and will result in a credit of $270,000.

**As-Built Drawings.** The original scope of work included $135,212 level of effort for as-built drawings. This level of effort will be reduced to $102,690, and will result in a credit of $32,522. This revised level of effort will still provide the City with the necessary as-built drawings.

**Warranty Period Services.** The original scope of work included consultant-provided Warranty Period Services. City staff typically takes the lead in warranty related issues, and has the necessary in-house expertise to resolve warranty issues. This will result in a credit of $44,960.

**Part 2 – Administration/Visitors’ Center Building.**

On July 21, 2009, City Council approved Project Specification PW07-21 for the construction of the AWPF Phase 1, and authorized staff to solicit construction bids. The associated agenda staff report described staff’s ongoing effort to evaluate potential value engineering and redesign options to reduce the construction costs of the AWPF Administration/Visitor’s Center Building, as a significant portion of the Building was not eligible for BOR funding, but was to be funded by Water Revenue Bonds proceeds. Following a competitive bid process, the City awarded the construction of the AWPF Project to McCarthy Building Companies, Incorporated (McCarthy) for $52,572,000. McCarthy started construction in February 2010.
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On April 23, 2010, Public Works Department authorized CH2M Hill in writing to initiate conceptual redesign of the Administration/Visitors Center Building, including a foundation analysis, and to work with City staff and McCarthy, the selected construction contractor, to develop a design alternative that could significantly reduce construction costs. The joint effort resulted in a project alternative that could have saved up to $2.1 million in construction costs. The alternative would have resulted in an Administration/Visitors Center Building that was significantly smaller, but still preserving most of the functional elements. On July 27, 2010, after considering the merits of the two alternatives, the City Council directed staff to proceed with construction of the original design of the Building. Alternative design evaluation work completed by the CH2M Hill design team included:

Single Story Administration Building Concepts - $44,014: Evaluated the removal of the 2nd floor of the Administration/Visitors Center Building, leaving the ground floor intact, including foundation design, and retaining the option to construct a 2nd floor in the future.

Foundation Analysis - $22,356: Analyzed an alternative foundation design to assist the City in evaluating an alternative Administration/Visitors Center design concept.

Redesign Development - $91,238: Provided preliminary design of the alternative Administration/Visitors Center Building architectural layout of building spaces, interior and exterior walls, exterior elevations, and a site rendering showing the revised Building.

The total cost of this work was $157,608.

FINANCIAL IMPACT

Funds are available in the AWPF Project No. 066010 from bond proceeds in Account 609-6553-821-8610 for the $157,608 net cost of the second amendment.

Attachment #1 - Second Amendment to Agreement No. A-6841
SECOND AMENDMENT TO AGREEMENT FOR CONSULTING SERVICES

This Second Amendment ("Second Amendment") to the Agreement for Consulting Services ("Agreement") is made and entered into in the County of Ventura, State of California, this 8th day of February, 2011, by and between the City of Oxnard, a municipal corporation ("City"), and CH2M Hill, Inc. ("Consultant"). This Second Amendment amends the Agreement entered into on March 7, 2007, by City and Consultant. The Agreement previously has been amended on September 9, 2008.

City and Consultant agree as follows:

1. In Section 14a of the Agreement, the figure "$8,774,296" is deleted and replaced with the figure "$8,931,904."

2. Exhibit A1 of the Agreement Scope of Services is supplemented by Exhibit A2, attached hereto, and incorporated herein by reference.

3. As so amended, the Agreement remains in full force and effect.

CITY OF OXNARD

Dr. Thomas E. Holden, Mayor

ATTEST:

Daniel Martinez, City Clerk

CONSULTANT

Terry L. Foreman, Vice President
CH2M Hill, Inc

APPROVED AS TO INSURANCE:

James Cameron, Risk Manager

APPROVED AS TO CONTENT:

Rob Roshanian, Interim Public Works Director

APPROVED AS TO FORM

Alan Holmberg, City Attorney

Anthony Emmert, Project Manager
EXHIBIT A2
City of Oxnard AWPF
Administration Building Modifications Conceptual
Design Contract Amendment

SCOPE OF WORK

TASK 4.0  SINGLE STORY ADMINISTRATION BUILDING CONCEPTS ($44,014)

Consultant shall prepare several approaches to the Administration Building re-design. This task was based on the assumption that any re-design scheme takes into account NO CHANGE to the existing foundation design in order to not affect the current project schedule and cost. Also provisions are required to extend structural elements past 1st floor roof deck for the future 2nd floor construction. This entails special care to prevent corrosion of the extended steel columns and gusset plates. The Consultant shall provide three schemes for review and feedback.

Two of the schemes shall reflect the City’s request for a second level observation terrace and one scheme shall be a simpler approach without American with Disabilities Act (ADA) access to the upper level terrace.

TASK 4.1  FOUNDATION ANALYSIS ($22,356.00)

The Advanced Water Purification Facility (AWPF) includes a two-story Administration Building/Visitor’s Center (Bldg 70). In an effort to reduce project costs, the City is considering redesigning Bldg 70 to a single story structure and reconfiguring the associated foundation. The original concept includes Bldg 70 situated within the marsh area of the demonstration wetlands. To give the structure an island effect, the wetland surrounds the structure with bridge access to the foundation pad. A special below grade concrete mat foundation with elevated floor slab was used to accommodate the seismic requirements of the site and to act as a retaining wall adjacent wetland. Consultant shall provide a Technical memorandum™ with an alternative foundation design to assist the City in their decision to change the current Bldg 70 design concept.

TASK 4.2  REDESIGN OF ADMINISTRATION BUILDING ($91,238.00)

The intent of this preliminary design was to provide an architectural layout of building spaces and interior and exterior walls, exterior elevations, and a site rendering showing the revised administration building. The redesign effort was terminated on July 27, 2010.

- Consultant shall develop Heating-Ventilating Air Conditioning (HVAC), plumbing, electrical, fire protection, and Leadership Energy and Environmental Design (LEED) design criteria and guidelines for McCarthy’s use in developing final designs for these disciplines.
- Consultant shall conduct weekly progress meetings with the City and McCarthy to review design layouts, criteria, guidelines and considerations for the HVAC, plumbing, electrical, fire protection, and LEED design.
- Consultant shall prepare project schedule updates, agendas and meeting minutes for progress meetings.
• Consultant shall prepare six preliminary building layout options for consideration by the City.

• Consultant shall refine the selected building layout based on input from the City and McCarthy.

• Consultant shall prepare: a preliminary site plan, a preliminary structural framing plan, preliminary building sections and a preliminary roof plan for the selected building layout.

• Consultant shall prepare preliminary design calculations for structural framing and foundation redesign.

• Consultant shall reconfigure the demonstration wetland based on foundation redesign.

The preliminary design effort by Consultant included the following:

• One Architectural conceptual plan showing locations of interior spaces, including the ground level administration building spaces currently shown and a small auditorium.

• Architectural exterior elevations of the building for the proposed conceptual design.

• One site rendering showing the revised administration building concept on the project site. This rendering used the preliminary concept developed for the single level administration building.

Deliverables by Consultant included the following:

• Preliminary architectural floor plan and exterior elevation drawings – 1 half size set and a disc with electronic pdf files of drawings.

• One architectural site rendering showing revised Administration Building – One 22 x 34 rendering, one 11 x 17 rendering, and one disc with the pdf file of rendering.

**TASK 4.3 – FINAL DESIGN SERVICES (NET $0.00) – THIS TASK RESOLVES ALL ISSUES RESULTING FROM PREVIOUSLY VERBALLY AUTHORIZED WORK**

1. **Pre-bid and Electrical, Instrumentation and Control Procurement Documents – ($118,136)**

    The City made a decision to pre-bid the major instrumentation, control and electrical equipment and instrumentation and control integration services, with the pre-bid contract to be signed over to the AWPF general contractor. The Consultant developed pre-bid documents for the Major Electrical and Instrumentation and Control Systems Integration. The pre-bid documents included Division 0 and 1 pre-bid specifications, the instrumentation and control and electrical technical specifications, and the drawings required for the pre-bid package. Specifications were also developed for the Oxnard Wastewater Treatment Plant (OWTP) Supervisory Control and Data Acquisition (SCADA) system modifications. In addition, coordination for this pre-bid package was incorporated into the overall AWPF contract documents. Consultant services related to this pre-bid package also included bidding phase support, issuing addenda as needed during bidding, and review and evaluation of the pre-bid proposals and review of the submittal information provided with the proposal. Subtasks associated with this work are described below.

**Project Management**

This task includes coordinating the pre-bid document work activities and coordinating with the City on pre-bid package content and requirements.
This task included attending the following meetings:

1. The Consultant's Project Manager and Construction Consultant attended four meetings with the City for planning the pre-bid package content and coordination with the AWPF project.

2. The Consultant’s Project Manager attended one pre-bid meeting.

3. The Consultant’s Project Manager attended one meeting with the City following bid opening for initial review of the bid packages and for recommendations and discussion regarding the low-bid supplier.

In addition to attending meetings, the Consultant’s Project Manager provided status updates to the City, manage the design team work in developing the pre-bid package, coordinate Division 0 and 1 specifications with the City and provided coordination with the City on pre-bid package content and bidding.

Pre-Bid Specifications and Drawings

The Consultant developed Division 0, 1, and electrical and instrumentation and control specifications for the pre-bidding the Major Electrical and Instrumentation and Control Systems Integration package. Drawings were included in the pre-bid package as required to show the electrical and I&C work included in the package. The pre-bid package included the following:

1. Division 0, 1, and instrumentation and control and electrical technical specifications for the AWPF instruments, panels, major instrumentation and control equipment, major electrical equipment and the OWTP SCADA system equipment hardware. Specifications for instrumentation and control integrator services, including software development, startup, and testing for the AWPF instrumentation and control system and the OWTP new SCADA system.

2. Specification supplements including instrument list, input/output lists, panel schedules, lists of instrumentation and control hardware equipment and components, and process control narratives.

3. Pre-bid package drawings including, instrumentation and control system block diagram, Process and Instrumentation Diagrams (P&ID's), typical panel drawings, electrical one-line and site drawings.

Although a number of these items were originally developed for the AWPF project contract, some of the instrumentation and control and electrical materials and services were originally planned to be Owner-Furnished. Therefore the level of effort for their development was not included in the AWPF design scope and was included in this task. The specifications and drawings that were originally developed for the AWPF project required modifications and additional coordination to incorporate into the pre-bid package documents. The pre-bid documents were provided to the City electronically for the City’s use in advertising and bidding the project.
Pre-Bid Package Bid Phase Services
This task included the following:

1. Attending one pre-bid meeting at the City’s offices.

2. Receiving bidder’s questions from the City and responding to bidder’s questions by issuing electronic addenda. The level of effort is based on issuing up to two addenda.

3. Attending two meetings after bid receipt for 1) reviewing bid proposals with the City and 2) presenting information to the City regarding design team bid proposal review and providing a recommendation to the City. The level of effort for this task is included in Task 1 Project Management.

4. Design team review of the initial technical submittal from the low bidder and providing the City with a summary of comments.

Incorporation of Pre-Bid Package Installation and Coordination into AWPF Contract Documents
This task included incorporating Contractor requirements into the AWPF related to furnishing and installing the pre-bid package components, coordinating for supply of components and services, and other interface and Contractor responsibilities relative to the pre-bid package.

This work included modifications to the Division 0, 1, and technical specifications and the drawings that have been developed for the AWPF project. These modifications were included in the 100% AWPF project contract documents.

Assumptions
This scope of work and level of effort was based on the following assumptions.

1. The City will be responsible for advertising for bidding, direct communication with bidders during construction, and for distributing and tracking electronic bidding documents, including electronic distribution of addenda to bidders.

2. This scope of work does not include reworking package overall content or scope of supply during bidding phases for either the pre-bid package or the AWPF as a result of Contractor or Supplier alternative proposed approaches. These bid phase services regarding answering questions and developing addenda are intended to address minor coordination and technical questions and not to address the overall pre-bid approach that was developed with input from the City.

3. This level of effort and scope apply during the bid-phase for the pre-bid package and do not include construction phase services related to pre-bid coordination.

4. The Consultant’s pre-bid package and AWPF contract documents will be developed based on the City’s input. Actual coordination during bidding and construction of the AWPF shall be the responsibility of the Contractor and pre-bid package supplier. The Consultant will not be responsible for the means, methods, techniques, sequences or procedures of the Contractor, nor shall the Consultant be responsible for the Contractor’s failure to perform in accordance with the contract documents.
2. **Extended Project Management** – ($201,600)

The AWPF Project with an initial capacity of 6.25 million gallons per day is currently being constructed. This scope of work includes the Consultant providing additional project management during the AWPF design phase.

The original design schedule showed a bid date of June 2008. Due to delays with procurement of major process equipment and pilot testing of the equipment, the project schedule was extended 18 months. Actual bid date was December 2009. During that extended time period, the Project manager completed the following activities:

**Project Administration**
The Consultant provided project instructions, work planning, scheduling, budget control, records management, communication protocols and related functions for management of the Consultant’s Project Team. The Consultant prepared monthly invoices and project status reports for the City.

**Communications**
The Consultant provided routine communications with the City including scheduling and attending bi-weekly project status meetings.

**Coordination**
As requested by the City, the Consultant coordinated conference calls and site-visits by members of the design team to review and respond to City Public Works Staff and Planning Department Staff comments. The Consultant coordinated the activities of its subconsultants.

**Other Coordination Meetings**
The Consultant attended monthly meetings with City and other GREAT Program consultants to be held at the City. The project Manager prepared meeting minutes as requested by the City.

3. **Project Art and Furniture Coordination** – ($27,746)

The City of Oxnard has a goal to provide Art in Public Places. The project architect attended a workshop and prepared several sketches for a potential monument to fulfill the City’s Art in Public Places requirements. The project architect participated in several meetings to discuss the furniture for the Admin/Visitor’s Center, building 70, as well as the conference room in the process building. This task involved reviewing vendor literature, a meeting with the City and preliminary selection of furnishings for the project.

4. **Visitor Center Displays** - (credit $270,000)

The Consultant will reduce the level of effort for services as defined in Task 1, Design Phase Services of the First Amendment to Agreement for Consulting Services (Agreement No. A-6841) dated September 9, 2008 as follows:
This task involved performing services associated with educational components of the GREAT Program Visitor’s Centers. The facilities have space intended for exhibits to provide public education about the GREAT Program including the AWPF as well as the Desalination Facility. These services were not completed and therefore a credit is given for this Task.

5. **As-Built Drawings - (credit $32,522)**

The Consultant will reduce the level of effort for services as defined in Task 3.4, As-Built Drawings of the First Amendment to Agreement for Consulting Services (Agreement No. A-6841) dated September 9, 2008 as follows:

The Consultant will support City staff to revise the original design drawings to reflect available record information provided by the Contractor and equipment suppliers. The Consultant will provide services on a time and material basis up to an amount of $102,690.

6. **Warranty Period Services – (credit $44,960)**

The Consultant will not provide services as defined in Task 3.5, Warranty Period Services of the First Amendment to Agreement for Consulting Services (Agreement No. A-6841) dated September 9, 2008. Therefore, a credit is given for this Task.