



COUNTY OF ALAMEDA  
PUBLIC WORKS AGENCY

399 Elmhurst Street • Hayward, CA 94544-1307  
(510) 670-5480

May 24, 2011

The Honorable Board of Supervisors  
County Administration Building  
1221 Oak Street, Suite 536  
Oakland, CA 94612-4305

Dear Board Members:

SUBJECT: APPROVE MODIFICATION NO. 1 TO CONTRACT NO. 4477 WITH MGE ENGINEERING, INC., (PRINCIPAL: DARREL HUCKABAY, P.E.; LOCATION: OAKLAND, CA) TO PROVIDE ADDITIONAL ENGINEERING SERVICES RELATING TO THE EDEN LANDING PUMP STATION REHABILITATION PROJECT IN FLOOD CONTROL ZONE 3A

RECOMMENDATION:

Approve and execute Modification No. 1 to Contract No. 4477 with MGE Engineering, Inc. (Principal: Darrel Huckabay, P.E.; Location: Oakland, CA), to provide engineering services for the Eden Landing Pump Station Rehabilitation Project in Flood Control Zone 3A, increase contract amount from \$414,500 to \$639,875 (an increase of \$225,375) and extending the contract termination date from December 30, 2011 to December 30, 2013 (2 year extension).

SUMMARY/DISCUSSION:

In September 2009, your Board approved and executed a contract between the Alameda County Flood Control and Water Conservation District (District) and MGE Engineering, Inc. (MGE), to provide engineering services associated with alternative analyses and design of flood control improvement projects including the Eden Landing Pump Station in Flood Control Zone 3A.

The Eden Landing pump station is located in Hayward and was constructed in 1970, utilizing natural gas engines to operate the discharge pumps. There are a total of four pump engines operating to meet the District's and FEMA's flood control requirements. These engines are at the end of their useful life and are in need of replacement.

The final evaluation report for the Eden Landing Pump Station, performed under the current contract, is near completion. However, during a recent pump station inspection by our Maintenance and Operation staff in February 2011, it was discovered that the block cover for one of the pump engines (engine no. 2) was cracked and beyond repair. In addition, because of the age of the pump engines, replacement parts are no longer available. Complete engine replacement is required.

Because of concerns that the other pump engine might fail, the District is planning to convert the entire pump station now to utilize new electric motors and drivers, along with the development of electrical service and backup electrical power generation.

Because MGE has already performed a detailed evaluation of the pump station, and because it is imperative that the pump station be repaired and rehabilitated as quickly as possible in order to avoid future engine failures and the potential flooding that could cause, it is recommended that this contract be modified to include the design of needed repairs and rehabilitation at the Eden Landing pump station. The existing contract is summarized below:

	Contract #	Amount	Effective Date	Expiration Date
Initial Contract	4477	\$414,500	September 15, 2009	December 30, 2011
Modification No. 1	4477	\$225,375	June 7, 2011	December 30, 2013

SELECTION AND CRITERIA:

*A qualifications-based selection method as mandated by Government Code Sections 4525-4529.5 for selecting Civil Engineering consultants was followed, during the selection process in 2009. MGE was ranked number 1 and was a certified SLEB at the time of contracting.*

*Although MGE was recently decertified because they have exceeded the company size limit to qualify as a SLEB, the SLEB sub-consultant (YEI Engineers, Inc. (SLEB #02-89976, 8/1/2008 – 10/31/2011)) that was contracted as part of the original contract still fulfills the 20% minimum SLEB contract requirement.*

*Elation System indicates that YEI Engineers, Inc., has confirmed payments received from MGE to-date, at about 8%. MGE is on-track to fulfill the minimum 20% requirement on the original contract amount. For the additional work to be performed under Modification No. 1, MGE will continue to use YEI Engineers, Inc. to perform electrical and mechanical tasks, for a minimum 20% of the amended total contract amount as shown on Attachment 1.*

FINANCING:

There is no impact on the County General Fund. Funding for this contract modification no. 1 in the amount of \$225,375 is included in the FY 2010-11 budget in Fund 21805, Organization 270331, Account 610261, Program 50600 (Professional and Specialized Services).

Yours truly,



Daniel Woldesenbet, Ph.D., P.E.  
Director of Public Works

c: Susan Muranishi, County Administrator  
Crystal Hishida Graff, Clerk of the Board  
Patrick O'Connell, Auditor-Controller  
Andrew Massey, Deputy County Counsel  
Louie Martirez, CAO

DW/MT:mt

**ATTACHMENT 1**

Engineering Services for Flood Control Projects  
In Flood Control Zones 3A and 6

September 15, 2009 through December 30, 2013

Consultant	Location	Dollar Value of Modification No. 1	<i>Local Business Participation</i>		<i>Emerging Business Participation</i>		<i>Small Business Participation</i>	
			<i>Percentage</i>	<i>Dollar Amount</i>	<i>Percentage</i>	<i>Dollar Amount</i>	<i>Percentage</i>	<i>Dollar Amount</i>
MGE Engineering, Inc.	Oakland, CA	\$225,375	100%	\$225,375	0%	\$0	72%	\$162,270

*Certified SLEB Partner:*

*YEI Engineers, Inc. (Small; 72%)  
7700 Edgewater Drive, Suite 128  
Oakland, CA 94621  
Certification #02-89976; Expiration Date: 10/31/2011*

MODIFICATION NO. 1  
TO AGREEMENT WITH MGE ENGINEERING, INC.

Modification No. 1 (the "Modification") is made as of June 7, 2011, by the Alameda County Flood Control and Water Conservation District, hereinafter referred to as the DISTRICT, and MGE Engineering, Inc., hereinafter referred to as "CONSULTANT", with respect to that Professional Services Agreement (the "Agreement") dated September 15, 2009, (Contract No. 4477).

RECITALS:

DISTRICT and CONSULTANT desire to modify the Agreement to provide for an increase in total contract amount with time extension. Therefore, DISTRICT and CONSULTANT agree as follows:

1. The total contract amount will be increased from \$414,500 to Not-to-Exceed \$639,875, an increase of \$225,375.
2. The CONSULTANT shall perform additional engineering services as shown in attached Exhibit 1A.
3. The termination date of the Agreement shall be extended from December 30, 2011, to December 30, 2013.

All other unmodified terms and conditions of the Agreement shall remain in full force and effect.

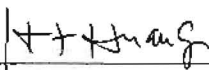
IN WITNESS WHEREOF, the parties have executed this Modification on the dates shown below their respective authorized signatures.

ALAMEDA COUNTY FLOOD CONTROL  
& WATER CONSERVATION DISTRICT

CONSULTANT

By: \_\_\_\_\_  
President, Board of Supervisors  
County of Alameda, State of California

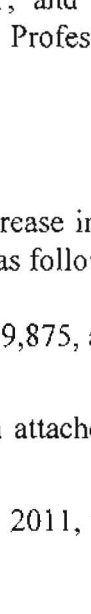
MGE Engineering, Inc.

By:   
H. Fred Huang

President  
Title

Approved as to form:  
Richard R. Karlsson, Interim County Counsel

212 9<sup>th</sup> Street, Suite 202  
Oakland, CA 94612  
Address

By:   
Deputy County Counsel

By signing above, signatory warrants and represents that he/she executed this Modification in his/her authorized capacity and that by his/her signature on this Modification, he/she or the entity upon behalf of which he/she acted, executed this Modification.



May 19, 2011

Moses Tsang, P.E.  
Supervising Civil Engineer, Flood Control Program  
County of Alameda Public Works Agency  
399 Elmhurst Street  
Hayward, CA 94544-1307  
Via E-mail: [moses@acpwa.org](mailto:moses@acpwa.org)

**Subject: Estimate for Engineering Services  
Zone 3A: Eden Landing Pump Station, Conversion to Electric**

MGE Engineering, Inc. (MGE) is pleased to offer professional engineering services to the Alameda County Flood Control and Water Conservation District (District) for the proposed conversion of the Eden Landing Pumps Station from a Dual Gas operated station, to a fully electrical operation station. This work also includes the required modifications that allow for full capacity operation during phased construction conversion.

For this work, MGE will continue in our role of Project Management and Administration, Civil and Structural engineering services. MGE will also utilize YEI Engineers, Inc., our SLEB partner to provide Electrical and Mechanical engineering services. The team's Project Manager, Jeffrey Crovitz, P.E., can be contacted at the address and telephone number shown on the letterhead and via e-mail at [jcrovitz@mgeeng.com](mailto:jcrovitz@mgeeng.com).

This letter serves to document MGE's understanding of the scope of work required for this project, our assumptions and provides preliminary budgetary estimates of the level of effort necessary to complete the scope of work. MGE assumes the duration of these project to take up to two years. Please consider the following:

***Zone 3A, Eden Landing Pump Station, Pump Station Conversion to Electrical Operation***

The Eden Landing pump station is located in Hayward, CA, and utilizes four 35-year old Natural Gas engines to operate the discharge pumps. These engines are at the end of their useful life and are in need of replacement and engine #2 is permanently inoperable. The scope of work for this project includes:

1. Provide Engineering services necessary to remove existing motors and accoutrements.
2. Install site support including transformer, electrical conduit and conductors, generator with electric infrastructure.
3. Design replacement of (4) Natural Gas Engines with electric pump drivers and supporting infrastructure including motor control center, VFD controls and connection to existing SCADA and control system.
4. Provide Purchase Order specification to obtain a Trailer Mounted Generator capable of operating one electric motor pump driver for interim operation.

5. Prepare construction diagrams and supporting specifications for phased construction conversion of Pump Station to electric operation with backup generator.
6. Prepare replacement and rehabilitation drawings, specifications and engineer's estimate for engine replacement

***Assumptions:***

- A. This project will require Civil, Structural, Electrical and Mechanical disciplines.
- B. The size and rating of equipment will provide the same operational capacity.
- C. Surveying work and Geotechnical evaluations will not be needed.
- D. The County will prepare Advertisement, Bid and Award documentation as appropriate for the level of conversion effort. It is anticipated that conversion will be completed through formal Bid, Advertisement and Award process.
- E. The MGE team will provide technical specifications associated with of Pump Station to electric operation.
- F. Construction inspection by County.
- G. Construction support by the MGE including submittal review, response to RFI's, evaluation of Contractor substitutions, construction observation and post-project operational review and recommendations.

***Task 1: Replace one propane pump with an electrical pump***

Work with PG&E on behalf of District for primary service of four electrical pumps  
Electrical single line diagram  
Electrical switchgear, motor controller, ATS layout. - space requirements for four electrical pumps  
Electric motor controller, VFD. - ventilation/cooling requirements  
Pump control schematics, control and monitoring instruments and devices  
Pump layout and reconnection to existing gear reducer box  
Evaluation of Pump Configuration, pump mounted on top or horizontal  
Specifications for equipment and construction

***Task 2: Backup Generator***

Generator sizing for four electrical pumps  
Generator enclosure, layout  
Generator fuel storage  
If generator will be in a building, additional electrical/mechanical scope will be needed

***Task 3: Replace remaining three propane pumps with electrical pumps***

Consideration and proposed process of transition and cut-over  
System study including short circuit, protective device coordination, pump motor starting, arc flash hazard analysis  
SCADA system and interface with District Central

***Budgetary Engineering Services Estimate:***

I. PS&E	\$210,000
II. Extension of Required Insurance by 1-year	\$4,375
III. Option 1, Construction Support	\$11,000
<b>Total Budgetary Estimate of Services</b>	<b>\$225,375</b>
<b>YEI SLEB Participation</b>	<b>72%</b>

Please feel free to contact us with regard to the scope, tasks and/or preliminary budgetary estimates for the above noted projects should you have any questions or comments. We look forward to continuing our work with the Alameda County Public Works team for the completion of these projects.

Sincerely,

MGE Engineering, Inc.



Jeffrey S. Crovitz, P.E.  
Vice-President