TO: HONORABLE CITY COUNCIL

FROM: CITY MANAGER

DEPARTMENT: PUBLIC WORKS

DATE: OCTOBER 4, 2004

SUBJECT: APPROVAL OF AMENDMENT NO. TWO TO EXISTING CONTRACT NO. C2131552 WITH BLYMYER ENGINEERS, INC. IN THE AMOUNT OF $93,200 FOR CONSTRUCTION MANAGEMENT AND TECHNICAL SUPPORT SERVICES, AND ADDITIONAL WORK RELATED TO THE DESIGN OF AN INTEGRATED FUELING FACILITY AT THE MUNICIPAL SERVICES CENTER

RECOMMENDATION

Staff recommends that Council:

1. Approve and authorize the Mayor to execute the attached Amendment No. Two to Contract C2131552 with Blymyer Engineers, Inc. (Attachment A) to increase the contract amount by $93,200 to a total of $280,020; to amend the scope of work, and to increase the term of the contract. This amendment is necessary to:
   
   a. Cover the cost of additional but unforeseen work related to the design of the Integrated Fueling Facility at the Municipal Services Center ($38,200); and
   
   b. Cover the cost of design and technical support services during the construction phase (which were not part of the original contract) ($55,000).

2. Authorize the City Manager or his designee to negotiate and authorize the performance of additional but unforeseen work which may develop during the project, including, but not limited to: soils testing, hazardous materials testing, and further design revisions required as a result of unforeseen site conditions. The total value of the additional work shall not exceed $9,000.

BACKGROUND

In July 2001, the City Council approved a contract for design services for the design of a new Integrated Fueling Facility at the Municipal Services Center (MSC). The original scope of work for this project included the design of a main automotive fueling facility (located inside the MSC), and a separate, publicly accessible compressed natural gas (CNG) fueling facility (to be located outside the MSC, on East Bayshore Road). The main facility will include new underground storage tanks, a CNG compressor station and storage cascade, dispensing equipment, and associated driveways, fueling islands, canopy, piping, electrical systems, and leak monitoring systems. This will allow for the storage and dispensing of unleaded gasoline, diesel, CNG, and an
alternative liquid fuel, such as synthetic diesel ("biodiesel") or ethanol from one integrated facility. This new facility will replace an existing, 35-year old gasoline and diesel fueling facility that is well beyond the end of its useful life. An existing, 10-year-old CNG compressor station will be replaced as well. The existing CNG compressor station, while undersized, is still serviceable, and will relocated elsewhere within the City through a separate project. The separate public CNG fueling facility was to include two CNG fuel dispensers, a fueling island, control systems, and the piping necessary to connect the dispensers to the main facility’s CNG storage cascade.

The original RFP and consultant proposals included services for all phases of the project, including site surveys, environmental assessments, engineering services, bid document preparation, and ARB support. Construction phase services, such as construction management and technical support during facility start-up were included as well. Staff chose not to include the construction phase services in the original contract, but rather to wait until the design was complete, so the nature and extent of these services could be more accurately projected. At this time, it is evident that construction management and technical support services will be required in order to achieve successful completion of the project.

**DISCUSSION**

Since the original design for this project was completed, there has been a significant decline in the availability of CNG and propane-fueled light trucks and automobiles. The first production model CNG-fueled vehicles were introduced in 1996, and our expectation was that the number and variety of CNG vehicles being produced would increase over time. Ownership of CNG vehicles increased approximately 15% annually from 1998-2002 (*Source: U.S. Department of Energy*); however, the variety of vehicles being produced did not. Since their introduction by the major automotive manufacturers, dedicated CNG fuel systems have, with few exceptions, only been available on full-size pickups and vans, and subcompact sedans. Even for those vehicles, applications are limited. This is particularly true in cases where cargo carrying capacity is important, since CNG fuel storage cylinders are normally installed in the trunk area of an automobile, or in the bed of a pickup truck. The majority of CNG vehicles in the City’s fleet are cargo vans and subcompact sedans.

Although ownership data for the last two years is not yet available, it is evident that the CNG vehicle market has been in decline for most of that time. This conclusion is supported by the decline in City purchases of CNG vehicles, as shown in the following table:

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<td>Quantity Purchased</td>
<td>2</td>
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<td>7</td>
<td>11</td>
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To make matters worse, Ford recently dropped its entire line of CNG-fueled vehicles, and General Motors has discontinued production of CNG-fueled vans. Honda still produces the Civic GX sedan, and General Motors continues to produce CNG-fueled pickup trucks, although the future availability of these vehicles is far from certain. Propane-fueled light-duty vehicles are no longer
available from any manufacturer

The automotive industry as a whole has shifted its alternative fuels research and development efforts from CNG and battery-electric vehicles, to gasoline-electric hybrids and hydrogen fuel cells. It is possible that new City fleet vehicles could be converted to CNG fuel by third party vendors; however, given the City’s poor experience with these conversions in the past, they would only be considered on a limited, evaluation basis. There are still several CNG-fueled medium and heavy-duty truck engines available, although the high cost premium (up to $50,000 per vehicle) for the CNG fuel system installation necessitates purchase assistance through grants from state and local air quality agencies. The bulk of these incentives are awarded for the purchase of street sweepers, refuse trucks, and school buses. Grant applications for these types of vehicles are more competitive than others due to the route-based nature of those operations, and the attendant high fuel consumption. Given the City’s small service area, and relatively low annual fuel consumption in operations where CNG truck engines would be suitable, grant applications for the types of vehicles that comprise the bulk of the City’s medium and heavy-duty truck fleet (dump trucks, crane trucks, service trucks, aerial devices, etc.) have little chance of being funded. Since the City does not operate refuse trucks (except indirectly, through PASCO) or school buses, and only eight street sweepers, there are few opportunities for purchasing CNG-fueled trucks.

The circumstances described in previous paragraphs have created a situation where the number of CNG vehicles in the City’s fleet, and being purchased by the public, will be decreasing over time. Another factor to consider is that buyers of the Honda Civic GX are now provided with a home refueling appliance, which means that there will be no need to Civic owners to refuel at our public CNG facility unless they are traveling beyond the vehicle’s range.

Given this outlook, it is clear that the proposed separate public CNG fueling facility is no longer viable, and will offer little return on the investment. Therefore, it will be removed from the design. Since the City does not operate any propane vehicles, and will not be able to purchase any in the immediate future, all propane dispensing equipment will be removed from the design as well. Removing these items from the project design will not affect our ability to construct them at a later date if the availability of CNG and propane vehicles happens to improve. These changes will reduce the cost of this project by approximately $250,000. The design will be revised to reflect these changes, after which the project will be ready to bid for construction.

Even without a separate public CNG fueling facility, public access to CNG fuel will be assured. Commercial transaction capability will be added to the CNG dispensers at the new main fueling facility. In addition, a security policy that allows limited access to the MSC by private CNG vehicle owners is currently under development.

Regardless of the current state of the CNG vehicle market, it is imperative that we proceed with the construction of our new main fueling facility. The City’s fleet includes more than 570 motorized vehicles, 70 of which are CNG-fueled. We are also providing CNG fuel to Palo Alto Unified School District (six buses), Mountain View-Whisman School District (four buses – permit pending), and PASCO (four refuse trucks – permit pending). We are anticipating award of a grant that will help fund the purchase of a CNG-fueled street sweeper, and despite the bleak
outlook for the light-duty CNG vehicle market, we will continue to look for opportunities to add other CNG vehicles to the City’s fleet wherever possible.

Consultant Services Description
The following additional services are included in this contract amendment:

- Construction inspection coordination – observe the installed work for conformance with the plans and specifications, and assist City staff in final permit close-out with the contractor.

- Provide technical support during facility startup and testing.

- Assist City staff in preparing necessary operation and maintenance manuals and developing a maintenance program for the new facility.

- Remove the separate public CNG fueling facility from the design; add commercial transaction capability to the main fueling facility (to allow public fueling); evaluate the impact of these changes on other areas of the design, and revise the drawing set and specifications accordingly.

- Remove all propane fueling equipment from the design; evaluate the impact of this change on other areas of the design, and revise the drawing set and specifications accordingly.

- Address plan check comments that may result from the Building Division’s review of the design changes.

- Perform an extensive review of all project documents to insure compliance with all currently applicable codes and regulations. This is necessary given the length of time since project commencement.

- Provide an updated engineer’s construction cost estimate after the design revisions are complete.

Staff has negotiated the cost of these services with the consultant and has limited the scope of work for additional services to what is essential. The term of the contract will be extended so that it expires coincident with the expiration of the warranty period for the completed facility.

RESOURCE IMPACT
Funds for this contract are available in Capital Improvement Project VR-01001 and GS-00011.
POLICY IMPLICATIONS
This project will further the implementation of the Comprehensive Plan as follows:

Policy N-26 – (Support regional, state, and federal programs that improve air quality in the Bay Area).

Program N-40 – (Expand the use of alternative fuels for City vehicles and establish a program to encourage expanded use of such fuels in private vehicles) of the Comprehensive Plan.

ENVIRONMENTAL REVIEW
The Planning Department has determined that the environmental review for this project can be completed at the staff level, and that an Environmental Impact Report (EIR) will not be required. The proposed design revisions will not affect the environmental impact of the facility. Staff will obtain appropriate California Environmental Quality Act (CEQA) clearance prior to the commencement of construction.

ATTACHMENTS
Attachment A: Amendment No. Two
Attachment B: Revised Fee Schedule

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