



Council Communication

Office of the City Manager

Date November 5, 2007

Agenda Item No. 26C
Roll Call No. 07-
Communication No. 07-648
Submitted by: Phillip C. Vorlander.
Chief of the Fire Department

AGENDA HEADING:

Purchase of one (1) 1500 gpm fire engine for the Des Moines Fire Department.

SYNOPSIS:

Approval of the bid from Toyne, Incorporated, (Mike Schwabe, President, 104 Granite Avenue, Breda, Iowa 51436), for the provision of one (1) 1500 gpm fire engine with compressed air foam system (CAFS).

FISCAL IMPACT:

Amount: \$462,479

Funding Source: 2008 CIP: Fund Code CP041, Organization FIR990000, Project FIR013, Account 544070, Page: Fire – 6

ADDITIONAL INFORMATION:

On September 19, 2007 Bid #V08-025 was sent to thirteen (13) reputable manufacturers of fire apparatus for the provision of one (1) 1500 gallon per minute (gpm) fire engine with compressed air foam system (CAFS) for the Des Moines Fire Department. **Purchase of the this piece of fire apparatus will not result in an increase in the City's vehicle equipment fleet** – this engine will go into first line service, the engine it replaces will go into ready reserve service, and an engine currently in ready reserve service will go into standby reserve. A 1991 Sutphen 1500 gpm engine currently in standby reserve will be sold.

The Fire Department Superintendent of Maintenance discussed our requirements with several major manufacturers prior to finalizing the specifications, soliciting feedback to assure to the extent practical that manufacturers were capable of building the apparatus. Of the manufacturers who were sent a bid package, three (3) proposals were received from two (2) vendors – Toyne, Incorporated and Clarey's Safety Equipment representing Pierce Manufacturing. Three (3) vendors responded that they would not bid, and eight (8) did not respond. On October 10, 2007 the Procurement Division opened the received bids. The proposal from Toyne Inc. was found to be the sole compliant bid. The other two proposals, while quoting lower costs, were found to be noncompliant in several requirements, including the following significant specifications:

- **Apparatus Air Compressor Size**

Specifications called for a 32 cubic feet per minute (cfm) engine-driven air compressor. Pierce proposed a smaller 15.8 cfm compressor. While a smaller compressor may provide a volume of air adequate for the operation of air brakes and air horns, the DMFD specifies the larger compressor as

we have additional air requirements for the operation of air-actuated mounted tire chains and as the power source for our pneumatic extrication tools.

- **Front Brakes**

Our specifications call for drum brakes on all four wheels. Pierce proposed disc brakes. As a result of DMFD past experience with the inability of disc brakes to perform as effectively at stopping our heavier apparatus as drum brakes and coupled with the fact that disc brakes require more maintenance has caused us to specify drum brakes specifically engineered for fire service use and superior to drum brakes specified on heavier over-the-road trucks.

- **Front Suspension**

Pierce proposed a proprietary, brand, model, and type than that specified and no local parts or service is available for future required maintenance. Product proposed by Pierce is supplied by and only available through Pierce.

- **Wheel Base**

Specifications call for a 194" wheel base, Pierce proposed a 199.5" wheel base. A longer wheel base makes vehicles more difficult to maneuver in tight areas.

- **Pre Connect Crosslay Hosebed Height**

Specifications call for a Maximum 68" crosslay hosebed height. Pierce proposed (by scale drawing) over an 80" hosebed height. The greater height makes it very difficult to reach for the deployment and reloading of hose.

- **Supply Hosebed Height**

Specifications call for maximum 66" supply hosebed height. Pierce proposed (by scale drawing) a 77" height. The greater height makes it difficult to reach for the laying and reloading of hose.

- **Compressed Air Foam System**

Specifications call for a Hale Foam Pro Compressed Air Foam System (CAFS). Pierce proposed a Hercules CAFS. Operation, parts and maintenance would be different from existing apparatus resulting in potential issues with nonstandard operating practices and increased cost for additional parts inventory and training of maintenance personnel.

- **Fire Pump Intake Plumbing Design**

Specifications call for an integrated design capable of supplying water to both the fire pump and CAFS through a common 6" intake. Pierce proposed separate intakes adding to operational complexity.

- **Ground Ladder Storage Arrangement Design**

Specifications call for all ladders and pike poles to be stored in a compartment at one location on the apparatus. Pierce is unable to locate these in one area, and items would be spread though out apparatus in different compartment locations, some ladders would require storage on the top of the hose compartment necessitating climbing on top of the apparatus to deploy – a safety as well as a time to deploy issue.

- **Apparatus Body Sub Frame Design**

Specifications call for a stainless steel body sub frame under stainless steel compartment body. Pierce proposed a steel sub frame that will corrode over time shortening useful life span.

- **Apparatus Compartment Body Configuration and Design**

Apparatus proposed by Pierce is significantly different in design than that specified. It has fewer compartments and the compartments are smaller than those specified, significantly limiting the space available to carry the equipment that is standard on DMFD engines.

- **Rear View Mirror Model/Manufacturer**

Specifications call for Lang-Merkra 300 series mirrors. Pierce proposed Velvac #2010 mirrors. The DMFD has experience with Velvac 2010 mirrors and have found that they provide a reduced field of vision and lower quality mirror as compared to the specified Lang-Merkra mirror as are currently in use; in fact, the DMFD has retrofitted apparatus originally equipped with the Velvac 2010 with the Lang-Merkra mirrors.

Toyne, Incorporated is compliant in all of these areas and the Chief of the Fire Department and the Procurement Administrator recommend awarding the contract for purchase to Toyne.

PREVIOUS COUNCIL ACTION(S): NONE

BOARD/COMMISSION ACTION(S): NONE

ANTICIPATED ACTIONS AND FUTURE COMMITMENTS: NONE