DEPARTMENT: Public Works/Fleet Services

RECOMMENDED ACTION AND JUSTIFICATION:

Approve requested changes by the Fire Department to the specifications for 11 Fire Engines.

At the delivery inspection of the new FEMA engine some issues were raised regarding the specifications. However it was too late to make the changes to the additional 11 fire engines as the bid had been awarded to Golden State and accepted. The attached changes are minor; however, in order to ensure no net increase in cost, additional changes have been requested which will provide credits to offset the cost increases.

BACKGROUND AND HISTORY OF BOARD ACTIONS:

The Board approved the specifications and awarded the bid on May 06, 2008.

ALTERNATIVES AND CONSEQUENCES OF NEGATIVE ACTION:

If no changes are made the engines will be constructed per the original specifications.

Financial Impact? (x) Yes ( ) No Current FY Cost: $
Budgeted In Current FY? ( ) Yes ( ) No ( ) Partially Funded
Amount in Budget: $
Additional Funding Needed: $
Source:
Internal Transfer
Unanticipated Revenue ______ 4/5's vote
Transfer Between Funds ______ 4/5's vote
Contingency ______ 4/5's vote
( ) General ( ) Other

CLERK'S USE ONLY:
Res. No.: 03-0222 Ord. No. ______
Vote – Ayes: ____ Noes: _____
Absent: _____
Approved ( ) Minute Order Attached ( ) No Action Necessary

The foregoing instrument is a correct copy of the original on file in this office.
Date: ______
Attest: MARGIE WILLIAMS, Clerk of the Board
County of Mariposa, State of California
By: __________________________
Deputy

COUNTY ADMINISTRATIVE OFFICER:
✓ Requested Action Recommended
____ No Opinion
Comments:

________________________
________________________
________________________

CAO: [Signature]
ATTACHMENT #1

Proposed Changes In Fire Engine Specifications

Cost Increases

- Backboard Brackets $345
- Add one (1) step to PS rear. Same as previous job #21141. $255
- Add micro switch on front monitor to prevent cab from tilting. $279
- Cover to protect Auxillary Pump $1,575
- EMS cabinet behind driver seat with "D" handled latch. $649
- More aggressive tire tread on rear tires (XDN2 tread) $531
- Air activated front monitor switch in cab (AUX. PUMP to TANK) $495
- Recessed back up lights-body mount. $313
- Handle on hosebed cover $59
- 8" spot mirrors on both sides. $134
- Locate air eject outside near shore line eject. $78
- Locate lanyard in the center for both the driver and officer. $8
- Provide ice chest rack behind captain's seat. $375
- SCBA seat pads. $134
- Water tank gauge in cab. $478

**TOTAL ADDITIONS** $5,708

Cost Reductions

- Reduce horsepower from 370 to 360 ($4,195)
- Non-SCBA officer's seat. ($195)
- Remove Generator ($1,319)

**TOTAL REDUCTIONS** ($5,709)
Engines for the Interface

California’s OES uses custom-built wildland/urban interface rigs

Each year, many of us on the East Coast or in the Midwest closely follow the devastation caused by wildfires in California. Most likely, you’ve seen Office of Emergency Services (OES) engines in operation fighting these fires.

Currently, 120 OES fire engines are stationed with fire districts at strategic locations throughout California and can be dispatched as needed. Unlike California Department of Forestry and Fire Protection (CAL FIRE) rigs, the OES engines are manned by local firefighters, which creates a unique response resource critical to wildland and wildland/urban interface (WUI) firefighting in California.

SPREADING THE RESOURCE
OES vehicles are given to individual fire departments in exchange for their agreement to respond when called to any statewide alert. The department must respond with three firefighters on the engine.

Initially, the vehicle comes fully equipped with hose and tools, at a cost of approximately $314,000. When called to assist in a statewide operation, all expenses related to the rig and crew are paid by OES, the U.S. Forest Service or the Bureau of Land Management. According to Paul Beckstrom, assistant chief of the Fire & Rescue Branch of OES, the OES also provides training and all manuals for the vehicles. The departments are free to use the vehicles for regular calls as well.

OES has been purchasing vehicles from Hendrickson Mobile Equipment (HME) since 1992; 90 percent of its WUI fleet is manufactured by HME. In all, the State of California awarded HME a multi-year contract to build more than 120 vehicles, not only for OES, but also for CAL FIRE, the Department of Corrections and the Sonoma Center. The vehicles are available for purchase by local governments through the HME Municipal Fire Apparatus Cooperative Purchase Program.

BUILT FOR THE WUI
“We formed our apparatus committee back in the 1990s to come up with a new design for our vehicles,” Beckstrom says. “The OES mission was the deciding factor in how to build the current vehicles. CAL FIRE had model specs on paper; we basically took that...”
design, tweaked it and made it work for OES. Also, by listening to
the end users—the firefighters, officers and chiefs—we made it better
in the field.”

Each department that has an OES engine in service tries to replace it
every 17 years. The vehicle then operates in reserve for another 5 years,
used as a fill-in vehicle if the department has a unit out of service.

“The current vehicles were built for the wildland/
urban interface, in which most of the fire departments
that operate these vehicles will respond,” Beckstrom
says. To meet the challenges of WUI firefighting, the
engines were designed with
two pumps, a Hale 1,250-
gpm Q-Flo Plus single-
stage pump and a Darley
diesel auxiliary pump.

They also feature a 162"
wheelbase, a 56' turning
radius and a 21-degree
angle of departure. “The
departments that staff OES
vehicles all have small cul-
de-sacs and dirt roads,” Beckstrom notes. “The small wheelbase and
turning radius is a big help. The low hosebeds are also a plus, as well
as ladder storage through the water tank, which gives more compart-
ment space.”

Other features include a Hale FoamLogix 2.1 Class A foam system
and an 850-gallon T-shaped water tank. The vehicles also incorpo-
rate progressive hoseways with 1,000 feet of 1 ½” hose and 800 feet
of 1” hose so a four-person team can handle a quick attack. “Even
though the vehicle was built as a Type 1 vehicle, it has Type III capa-
bilities,” Beckstrom notes. Also included is a Type III USAR tool
compartment, which enhances the vehicle’s ability to respond to a
variety of calls.

To date, the OES has taken delivery of 21 vehicles on the current
contract, and it expects to sign a new contract in 2009 for an addi-
tional 21 rigs. Beckstrom notes HME’s excellent warranty and says
OES found virtually no flaws in any of the vehicles after delivery. “The
vehicles are working well in all areas in the field and are well received
by firefighters around the state,” he says.

WORTH A LOOK
We are seeing more and more WUI vehicles built, in part because of the
expansion of the WUI, don’t think this is just a West Coast problem.

But WUI rigs are versatile as well, with a design that’s ideal for a lot
of different fireground situations, not just rural firefighting. They can
operate on pavement, dirt roads, narrow streets and cul-de-sacs, all
while carrying a normal complement of firefighting equipment and
tools. And they feature low hosebeds with diverse hoseways.

For fire departments fighting the financial crunch, these small, agile
rigs might be worth considering.

Bob Vaccaro has more than 30 years of fire-service experience. He is a former chief of the
Deer Park (N.Y.) Fire Department. Vaccaro also worked for the Insurance Services Office,
The New York Fire Patrol and several major commercial insurance companies as a senior loss-
control consultant. Vaccaro is a life member of the International Association of Fire Chiefs.