

2019 Capital Equipment_ Fire Station Alerting Systems

Technology Request #:	3	Carry-Over (Y/N);	N
Department:	Fire Department		
Fund Name & Account:	Capital Project*** NEW		
Name of Project or Individual:	FD Station Alerting System Replacement		
Name of Technology:	Digital Station Alerting System		
Anticipated Years of Service	20 years +		
Technology Description:	Dispatching Alerting System		
Explanation and Justification of requested capital:	Current Alerting system at all Fire Stations is outdated and can no longer be serviced. See attachment for further justification.		
Total Purchase Price:	\$126,000.00 <u>Foreign Fire Approved to split cost</u> \$62,500.00 VOP \$62,500.00 FF		
Unit Price:	Estimated Cost Per Fire Station \$42,000.00		
Quantity:	3 Units		
Other Expenses (e.g.- training):	N/A		
Annual Support Cost:	Maintenance Cost Pending		

Description:

The Fire Department's Station Alerting System is an essential communication tool that processes calls for service from the 911 center to the fire department. This consists of equipment at both the dispatch center and the fire stations to quickly get information from the dispatcher to the Firefighter/Paramedics. Equipment includes speakers, lights, sign boards, processing computer/programs, and redundancy components.

Justification

The current equipment was originally obtained in 2000 with off-the-shelf parts that were purchased with a low cost being the priority. It consists of a VHF Federal Signal Informer wired into a home-built amplifier system. For lighting we were able to purchase a delay timer off the internet and wire it to a fan relay to power the lights. The system is provisional and does not always work correctly. Tones are startling and the voice quality is terrible. This subsequently forces fire companies to walk to their vehicles and check the computer screen to see what the address and nature of the call is because it is unintelligible over the system. Through the years we have had to replace multiple components that are increasingly difficult to acquire due to the age of the products and the advancements in the standards for station alerting systems. Programming and modifying the alert boxes themselves is nearly impossible due to the fact that the computer operating software no longer works with the software. Attempts were also made using resistors and relay timers to create "ramped tone" style alerts with minimal lasting success. We have also attempted to wire in a backup system using radio pagers and amplifiers, but this did not work as well as hoped and was not an effective redundant alerting system for an area as busy as ours. After an extensive evaluation of our alerting methods via a committee the following deficiencies were found:

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- Tones not meeting NFPA 1500 “Standard on Fire Department Occupational Safety and Health Program”.
- Delayed dispatches not meeting NFPA 1710 “Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments”.
- Equipment failure and setup not meeting NFPA 1221 “Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems”.
- Interoperable deficiencies relating to the dispatch and response of calls for mutual aid.