

## Response to Questions on the FY 2016 Budget

**Request By:** Supervisor Hyland

**Question:** Please report back to the Board with information on issues related to Fire and Rescue vehicle apparatus replacement.

**Response:** The price of apparatus has risen dramatically over the past several years for all fire and rescue departments. This increase is primarily the result of three factors—emissions standards, safety regulations and industry costs.

*Emissions Standards:* more stringent EPA regulations governing diesel engine emissions took effect requiring diesel engine manufacturers to change technologies and also required apparatus manufacturers to engineer major vehicle cab redesigns to accommodate new diesel engine emissions standards. Redesigns, combined with higher costs of EPA-compliant diesel engines, increased the cost of an engine by over \$50,000.

*Safety Regulations:* changes in the National Fire Protection Association Standard for Automotive Fire Apparatus (NFPA #1901). The standard added requirements for vehicle data recorders, rollover stability, portable equipment and cab-integrity testing. These enhancements, adding an additional \$10,000 to vehicle costs, have made emergency vehicles safer for responding and operating at incidents.

*Industry Costs:* price escalations between three and five percent annually due to the rising cost of raw materials.

### Fire and Rescue Apparatus

The Fire and Rescue Department (FRD) operates and maintains an emergency response fleet of over 120 vehicles including ambulances and large apparatus such as heavy rescues, engines, ladder trucks, and other specialized fire and rescue vehicles.

In order to provide adequate and stable funding the ambulance and large apparatus replacement reserves were established in the Department of Vehicle Services (DVS). Funds are contributed annually from FRD's general fund budget to the reserves for the purchase of specialized FRD vehicles. Apparatus replacement is based on established vehicle replacement criteria and vehicle surveys managed in partnership with DVS.

In an effort to minimize the impact of rising costs, FRD has identified multiple strategies including eliminating several nonessential items from fire apparatus, increasing the annual contribution amount by \$250,000 from FRD funds, using Four-for-Life grant funds to purchase ambulances, as well as extending the lifecycle of some vehicles.

FRD, with the assistance of the Department of Management and Budget (DMB), has developed multi-year replacement strategies with the goal of stabilizing the replacement reserves and ensuring sufficient funding is available in future years. *Included in the FY 2017 multi-year budget is funding of \$1,000,000 to support a multi-year process to gradually increase the annual contributions to the Large Apparatus Replacement Fund and Ambulance Replacement Fund.*

Without this additional funding, replacement reserves will be underfunded in FY 2017 which may result in vehicles scheduled to be replaced in FY 2017 being deferred.

#### Volunteer Apparatus

Currently, out of the 12 volunteer fire departments in Fairfax County, six have notified FRD of their inability to replace volunteer-owned large apparatus. Of the 106 front-line vehicles career FRD staff operates daily for emergency response, 35 are owned by volunteer companies. These vehicles are not additional or extras, they are operated 24-hours a day/7 days a week with career personnel as part of the minimum staffing calculation. Without these vehicles, FRD does not have the apparatus available to provide the current level of emergency response coverage throughout the County. Because these are front line units, FRD must purchase replacements or daily emergency response coverage will fall below currently established numbers. These thresholds have been established in order to provide the greatest coverage by each vehicle type in order to reduce response times to medical and fire emergency calls. Elimination of vehicles and associated staffing would result in response time delays. Even with current staffing, FRD does not meet several of the National Fire Protection Association's (NFPA) standards for fire protection and emergency medical response.

FRD, with the assistance of DMB, has developed a long-term strategy in which FRD has used Fire Programs Grant funding (up to \$1 million per year, maximum), one-time year-end balances and volunteer contributions (when available) to assist with the initial purchase of volunteer units requiring replacement. *In addition, funding of \$775,000 has been included in the FY 2017 multi-year budget to cover the out year replacement costs.* Without this additional funding, replacement reserves will be underfunded in FY 2017 which may result in vehicles scheduled to be replaced in FY 2017 being deferred.

#### Future Liability

The General Services Administration recently issued a change notice to the current KKK-1822-F specifications pertaining to ambulances. This change notice affects EMS agencies in Virginia because EMS Regulation (12VAC5-31-810) requires an ambulance to be commercially constructed and certified to comply with current federal specifications. Changes relate to: EMS provider and patient compartment seating, patient seating, litter fasteners and anchorages, storage compartments and cabinets design, location of medical equipment and supplies, and mounting and retention of medical devices and equipment.

Changes to the KKK-1822-F ambulance specifications are based upon research conducted by the National Institute of Standards and Technology (NIST) and the National Institute for Occupational Safety and Health (NIOSH). From an EMS provider and patient safety perspective these changes are long overdue; however, from a financial perspective, some of the changes will result in a significant cost increase. Specifically, the cost to incorporate crash test rated stretcher retention systems that meet SAE J3027 standards in ambulances constructed after July 1, 2015 may result in additional costs between \$20,000 and \$50,000 depending upon the brand and type of stretcher and retention system utilized. This change notice is not retroactive, but may cause backwards compatibility issues with some older stretchers not fitting the new stretcher retention systems.

FRD has asked their current vendor to provide them with a more accurate estimate so they may begin planning for these changes. Once this information is received FRD will work with partner agencies in order to determine what actions and funding requirements will need to occur.