

# Memorandum

City of Lawrence

Fire Medical

TO: David Corliss, City Manager

FROM: Mark Bradford, Fire Chief

CC: Diane Stoddard, Assistant City Manager  
 Cynthia Wagner, Assistant City Manager  
 Casey Toomay, Budget Manager  
 Steve Stewart, Central Garage Superintendent  
 Bill Stark, Division Chief

Date: January 29, 2014

RE: 2014 105' Quint Purchase – Equipment Replacement

## Program Introduction and History

In 2006, the Fire Medical Department began a review of its fire apparatus fleet. The efforts of city staff culminated in a comprehensive vehicle study that included a survey of all primary and secondary fire apparatus, an overview of the organizational and city commission goals and service demands of the department, a comparative analysis of the fire apparatus replacement programs in other jurisdictions, and a proposed apparatus replacement schedule.

The departments' fire apparatus replacement program outlines the order of replacement based on the overall replacement score as determined by the Public Works Vehicle Maintenance department and operational efficiency.

The below table provides a 4-year history of the departments vehicle replacement program.

	2008	2010	2011	2012	2014
Vehicle Type (Purchased)	2 - 75' Quint and 1 - Rescue	100' Platform and Engine	Engine/Haz Mat	75' Quint	105' Quint (requested)
Cost	\$2,285,173	\$1,853,458	\$894,496	\$1,014,524	\$1,200,810
Pre-Pay Discount	\$0	\$0	\$46,529	\$41,999	\$44,251
Trade-In					\$36,000
Total Cost	\$2,285,173	\$1,853,458	\$847,967	\$972,525	\$1,120,559
Funding					
Sales Tax		\$1,000,000	\$500,000	\$200,000	\$500,000
GO Bond	\$2,285,173	\$750,000	\$347,967	\$722,525	\$620,559
KU Student Housing		\$50,000			
Equipment Reserve		\$53,485			
Replaces (Sold)	'86 Ladder '88 Engine '92 Quint	'88 Quint – (Donated to Pink Heals) '88 Quint '86 Ladder	'96 Quint and '96 Haz Mat	'96 Quint	'02 Engine '98 Ladder

## General Obligation Bonds

On August 13, 2013, the City Commission adopted Resolution No. 7041 authorizing the issuance of General Obligation Bonds for the acquisition of fire-fighting equipment in the amount of \$654,885. While staff recommended the City Commission adopt the resolution authorizing the issuance of general obligation bonds in 2013, the bonds will not be issued until Spring 2014. Following the bond sale, the order for the apparatus will be placed, which will mean an estimated delivery date in the fourth Q2014 or first Q2015.

## Operational Efficiency

The replacement study anticipated a request of a quint in 2014. The department has reviewed operational and response capabilities and existing apparatus and determined that it is not necessary to continue supporting a secondary (reserve) 100' aerial apparatus to accomplish the missions of the department. Replacement of a front-line 75' quint with a 105' quint will accomplish our operational needs and reduce the overall cost associated with maintaining an additional reserve ladder. This change will eliminate the original plan of adding a 100' platform in 2016 which will realize an overall replacement program savings of approximately \$500,000. The present 100' platform will be traded in as part of its replacement request at the end of its 12 year life. This modification to the apparatus replacement plan has no impact on our ISO community rating.

This is the third year the department has evaluated existing apparatus and has determined that greater efficiency can be achieved by combining apparatus capabilities. This previously was achieved in 2010 by replacing an engine and 100' ladder with a 100' ladder platform and again in 2011 by combining a 75' quint and hazardous materials vehicle with a Engine capable of providing hazardous materials response capabilities. Overall reduction of the Fire Medical fleet by four vehicles is the result of this ongoing review.

## Program Details

### 2014 Vehicle Replacement Request:

- Engine – Request will replace a 2002 American LaFrance (Unit 627) with an overall replacement score of 38.72. Mileage of 70,191 and Engine Hours of 7,825.
- 100' Ladder – Request will eliminate from the fleet a 1998 Smeal HME (Unit 640) with an overall replacement score of 39.76. Mileage of 46,196 and Engine Hours of 5,887.

Note: Overall Replacement Score – This is the score obtained by Public Works Central Vehicle Maintenance utilizing the replacement program worksheet which is used on all city vehicles. Any score equal to or greater than 30 points indicates immediate replacement is necessary.

The 2008 multi-year sales tax program currently projects \$500,000 in 2014 for fire equipment replacement. The apparatus replacement plan anticipated that total equipment replacement costs would be greater than sales tax proceeds, which would require additional funding sources.

Ed Mullins, Finance Director, has conducted a financing analysis to determine the best method of securing additional funds required for apparatus purchases. They included purchase/cash, purchase/GO Bond debt, lease, or lease/purchase of the equipment. The cost analysis indicates that 12-year debt issuance as the best option to meet the designated useful life expectancy. Historically, the city has used cash, cash with GO Bond issuance or full GO Bond issuance for purchasing.

“Pre-paying” the purchase of this vehicle would result in a savings of \$44,251. This savings is due to the apparatus manufacturer paying for the major components (chassis and body) as they are constructed. Ed Mullins has evaluated the prepay option and recommends the financial benefit of prepaying.

#### Action Request

Utilizing the Houston-Galveston Area Council contract administered by MARC, the pricing for this vehicle is quoted at \$1,200,810. With a pre-pay option, that cost is reduced \$44,251 and another \$36,000 trade-in discount, equaling a total purchase price of \$1,120,559. The City has previously utilized the pre-pay option in order to realize savings and has requested a performance bond, which has been reviewed and approved by the Legal Department, ensuring that the purchased vehicle is delivered as specified.

#### Staff recommends:

- Utilization of the Houston-Galveston Area Council contract administered by MARC for pricing quotes;
- Dispose of city assets - 2002 American LaFrance (Unit 627) and 1998 Smeal HME (Unit 640) for a trade in amount of \$36,000.
- Purchase One (1) Velocity 105' PUC from Pierce Manufacturing in the amount of \$1,120,559 utilizing prepay and trade in options.