

**RESOLUTION #18-0116-06**

**Authorize Purchase of Rescue/Engine**

**WHEREAS**, the Liberty Township Fire Department has submitted their budget and has appropriated the necessary funds to purchase a new Fire Rescue/Engine and associated equipment in the 2019 fiscal year, and

**WHEREAS**, staff would like to begin the Request for Bid process, with no costs to be incurred until the 2019 fiscal year.

**NOW, THEREFORE BE IT RESOLVED, THAT THE LIBERTY TOWNSHIP BOARD OF TRUSTEES, DELAWARE COUNTY, OHIO, authorizes the Fire Department to move forward with the Request for Bid process for the purchase of a Fire Rescue/Engine with associated equipment at an expenditure not to exceed \$700,000 and with no costs for this purchase being incurred until Fiscal Year 2019.**

Motion made by Leneghan and seconded by Eichhorn.

**Vote:** yes Mrs. Eichhorn yes Mr. Gemperline yes Mrs. Leneghan

This Resolution shall be in force and become effective immediately upon its execution.

Jan. 16, 2018

Date

Melanie Leneghan  
Melanie Leneghan, Trustee

CERTIFIED BY:

Nancy Denutte  
Nancy Denutte, Fiscal Officer

Mike Gemperline  
Mike Gemperline, Trustee

Shyra Eichhorn  
Shyra Eichhorn, Trustee

NEW ENGINE 321

PROPOSAL



The time has come to replace the current Engine 321. This engine is 10 years old and has over 70,000 miles. NFPA 1901, 1911 and 1912 all assist the fire department with maintenance, testing and replacement guidelines. To maximize fire fighter capabilities and minimize risk of injuries, it is important that fire apparatus be equipped with the latest safety features and operating capabilities.

In the last 10 to 15 years, much progress has been made in upgrading functional capabilities and improving the safety features of fire apparatus. Because the changes, upgrades, and fine tuning to NFPA 1901, Standard for Automotive Fire Apparatus, since 1991 have been truly significant, especially in the area of safety, fire departments should seriously consider the value (or risk) to fire fighters of older fire apparatus in first-line service. Utilizing these standards, Liberty Fire reviewed the current condition of the engine that we are asking to be replaced.

A fire apparatus is an emergency vehicle that must be relied on to transport fire fighters safely to and from an incident and to operate reliably and properly to support the mission of the fire department. A piece of fire apparatus that breaks down at any time during an emergency operation not only compromises the success of the operation but might jeopardize the safety of the fire fighters relying on that apparatus to support their role in the operation. An old, worn out, fire apparatus has no role in providing emergency services to a community.

A thorough cost-benefit analysis of the value of upgrading or refurbishing a fire apparatus has been conducted. It was found that refurbishing costs will greatly exceed the current value of the current apparatus. Experience has also shown that refurbishing a fire apparatus that is over 10 years old, other than to paint or repair the apparatus, would be a very poor investment.

## **COST BENEFIT ANALYSIS**

**Purpose:** The Replacement Class System and Replacement Guidelines are used to define practical criteria and guidelines for replacing fleet units and are applied in fleet unit life cycles projection. The replacement guidelines outlined in this policy generally reflect operational, technological, downtime, and financial criteria.

**Life Cycles:** Fleet unit life cycles are based on the best practice method recommended by industry standards. This method involves an internal customer survey and using replacement guidelines set forth in the vehicle replacement guide in most fleet software programs. The results are compiled and adjustments are made to take into account factors unique to a fleet such as type of use. Once the vehicle has met the replacement criteria, it goes through a review process to determine if the vehicle should be replaced, retained for limited use, or have its life cycle extended. The overall goal is to replace vehicles at the lowest life cycle cost before the operating cost exceeds vehicle capital.

## ENGINE 321

<b><u>FACTOR</u></b>		<b><u>POINTS</u></b>
<b>AGE/MILES</b>	One point for every year of chronological age, based on in-service date.	<b>10-</b> in service Feb. 2008
<b>MILES/HOURS</b>	One point for each 10,000 miles or 1,000 engine hours of use	7-77,000/6059
<b>TYPE OF SERVICE</b>	One, three, or five points are assigned based on the type of service the unit is exposed to. For instance, fire pumper would be given a five because it is classified as severe duty service. In contrast, an administrative sedan would be given a one.	<b>5-</b> fire pumper
<b>RELIABILITY</b>	Points are assigned as one, three, or five depending on the frequency that a vehicle is in the shop for repair. A five would be assigned to a vehicle in the shop two or more times per month on average, while a one would be assigned to a vehicle in the shop an average of once every three months or less.	<b>4-</b> often out of service and becoming more frequent
<b>M &amp; R COSTS</b>	One to five points are assigned based on total life M&R costs (not including repair of accident damage). A five is assigned to a vehicle with life M&R costs equal to or greater than the vehicle's original purchase price, while a one is given to a vehicle with life M&R costs equal to 20 percent or less than its original purchase cost	<b>4-</b> over the last 18 months repairs are costing \$2000.00 per month on average
<b>CONDITION</b>	This category takes into consideration body condition, rust, interior condition, accident history, anticipated repairs, and so on. A scale of one to five points is used with five being poor condition.	<b>4-</b> lots of wear and tear, rust and motor is close to giving out/ which will be a minimum repair of \$20,000

Age = 10 points

Miles or engine hours = 7 points

Type of service is severe = 5 points

Reliability = 4 points

M&R costs = 4 points (quickly approaching 5)

Condition = 4 points

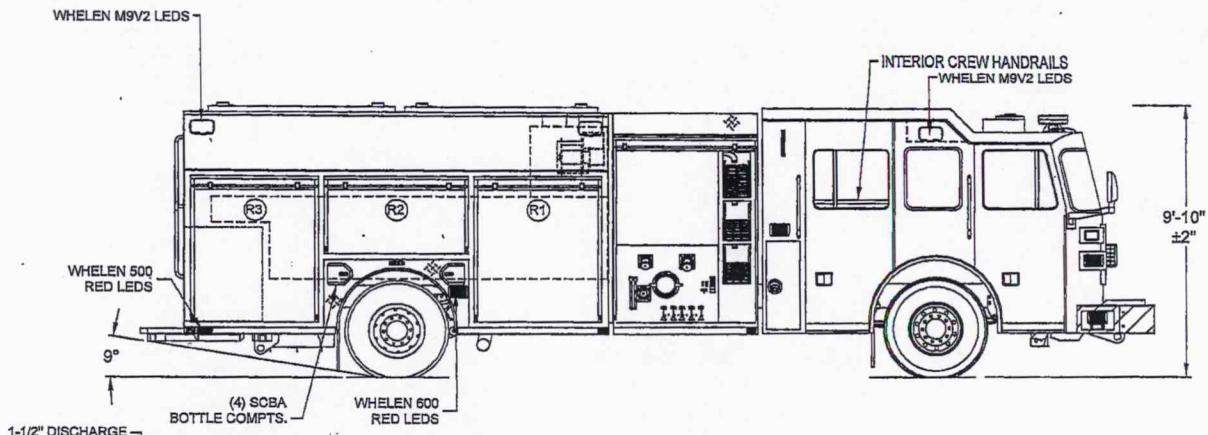
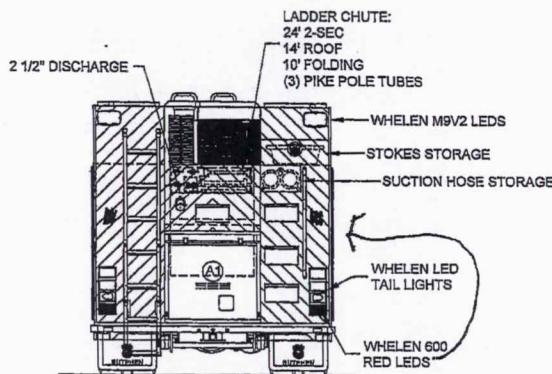
Total = 34 points and needs immediate consideration

## POINT RANGES

Fewer than 18 Points	Condition I	Excellent
18 to 22 points	Condition II	Good
23 to 27 points	Condition III	Qualifies for replacement
28 points and above	Condition IV	Needs immediate consideration

The original discussion and plan was to purchase this engine in 2017 to be delivered in 2018. After discussions with the Finance Officer, the request for purchase was pushed to 2018, with delivery and payment due in 2019.

The department's request is for a revolution of authority to purchase the engine and associated equipment, not to exceed \$700,000.00 and to be paid in February or March of 2019. You will see attached a contract for the engine which is the total cost of all associated items to build it. There have been items left off of the vehicle that would add to the cost, but these items will be purchased separately as part of the overall \$700,000.00 package.



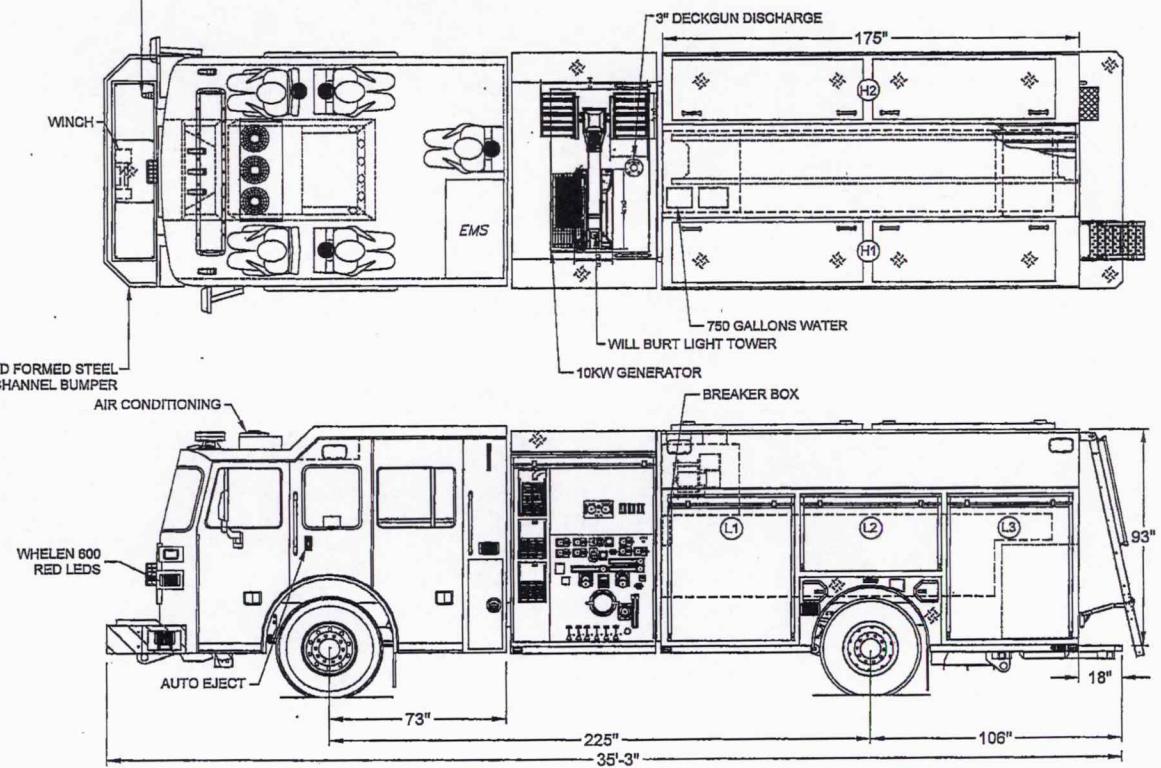
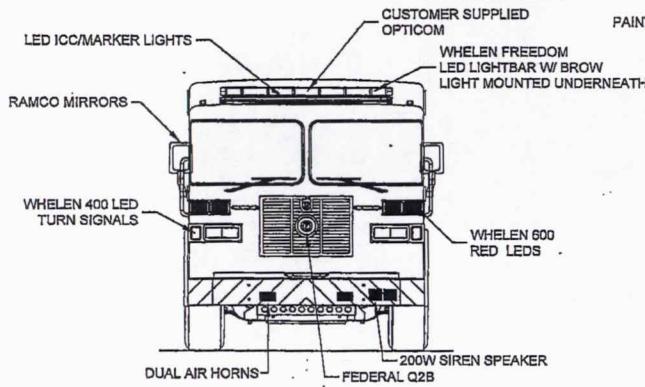
LEFT SIDE COMPARTMENTS				
COMP'T	DOORS	OPENING DIMENSIONS	INSIDE DIMENSIONS	VOLUME
L1	ROLL-UP	50.5" w X 55.4" h	56.1" w X 66.7" h X 27.3" d	59.5 CU. FT.
L2	ROLL-UP	57.5" w X 26.2" h	61.6" w X 38.5" h X 27.3" d	35.8 CU. FT.
L3	ROLL-UP	50.5" w X 55.4" h	52.4" w X 66.7" h X 27.3" d	55.7 CU. FT.
H1	LIFT-UP	(2) 23.25" w X 73.25" w	174.7" w X 24.6" h X 29.2" d	73.2 CU. FT.

RIGHT SIDE COMPARTMENTS				
COMP'T	DOORS	OPENING DIMENSIONS	INSIDE DIMENSIONS	VOLUME
R1	ROLL-UP	50.5" w X 55.4" h	56.1" w X 66.7" h X 27.3" d	59.5 CU. FT.
R2	ROLL-UP	57.5" w X 26.2" h	61.6" w X 38.5" h X 27.3" d	35.8 CU. FT.
R3	ROLL-UP	50.5" w X 55.4" h	52.4" w X 66.7" h X 27.3" d	55.7 CU. FT.
H2	LIFT-UP	(2) 23.25" w X 73.25" w	174.7" w X 24.6" h X 29.2" d	73.2 CU. FT.

REAR STEP COMPARTMENT

COMP'T	DOORS	OPENING DIMENSIONS	INSIDE DIMENSIONS	VOLUME
A1	ROLL-UP	37.5" w X 30.5" h	40" h X 40" w X 31" d	28.7 CU. FT.

TOTAL: 475.2 CU. FT.



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CUSTOMER APPROVAL

NAME: \_\_\_\_\_  
TITLE: \_\_\_\_\_  
DATE: \_\_\_\_\_

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