

# KANAWHA COUNTY COMMISSION

P. O. BOX 3627  
407 VIRGINIA STREET, EAST  
CHARLESTON, WEST VIRGINIA 25301  
(304) 357-0115

## Request for Quotations

Re: New Fire Apparatus for the Lakewood Volunteer Fire Department  
Date: May 27, 2015  
Fiscal Year: 2014-2015  
Bid Opening: Bids must be received on or before Tuesday, June 23, 2015, at 11:00 a.m. in the Kanawha County Commission Purchasing Office, 407 Virginia Street, East, Third Floor, Room 229, Charleston, WV 25301 (P.O. Box 3627, Charleston, WV 25336)

### INSTRUCTIONS TO BIDDERS:

#### **\*THIS FORM MUST BE THE COVER SHEET FOR YOUR BID**

1. Bids must be received in a sealed envelope with the date and time of the bid opening on the outside of the envelope. Faxed or electronically submitted bids will not be accepted.
2. Bid must be F.O.B. Delivery Point, unless otherwise indicated in the bid specifications.
3. All bids should be signed and in ink showing all facts and the total amount of the bid.
4. The Lakewood Volunteer Fire Department reserves the right to accept or reject in part or in whole any bid submitted, whichever is in the best interest of the fire department.

Item No.	Quantity	Description	Amount
1	1	New Fire Apparatus for the Lakewood Volunteer Fire Department per the Attached Specifications	\$

Written Bid Amount: \_\_\_\_\_ Dollars

Vendor Name: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

Date: \_\_\_\_\_

E-Mail Address: \_\_\_\_\_

Signature: \_\_\_\_\_

**SPECIFICATIONS  
COUNTY COMMISSION OF KANAWHA COUNTY  
CHARLESTON, WEST VIRGINIA**

**ITEM:** New Fire Apparatus for the Lakewood Volunteer Fire Department

**LOCATION:** Lakewood Volunteer Fire Department  
2627 Shadyside Road  
St. Albans, WV 25177

<b>CONTACT:</b>	<u>Questions Regarding Bid Submission</u>	<u>Questions Regarding Bid Specifications</u>
	Jerie Whitehead Purchasing Director Kanawha County Commission 407 Virginia St., East P.O. Box 3627 Charleston, WV 25336 <a href="mailto:jeriewhitehead@kanawha.us">jeriewhitehead@kanawha.us</a>	Terry White, Chief Lakewood VFD 2627 Shadyside Road St. Albans, WV 25177 Telephone (304) 415-6263

**BID OPENING:** Bids must be received in a sealed envelope, with the date and time of the bid opening on the outside of the envelope, on or before Tuesday, June 23, 2015, at 11:00 a.m., in the Kanawha County Commission Purchasing Office, 407 Virginia Street, East, Third Floor, Room 229, Charleston, West Virginia 25301 (P.O. Box 3627, Charleston, WV 25336). *Faxed bids will not be accepted.*

**SPECIFICATIONS:** The following specifications are intended to describe new fire apparatus for the Lakewood Volunteer Fire Department, and the details contained in these specifications are not intended to exclude any vendor from bidding, but are offered as a means of describing the needs of the Lakewood VFD. All specifications are minimum requirements.

## **INTENT OF SPECIFICATIONS**

It shall be the intent of these specifications to provide a complete apparatus equipped as hereinafter specified. With a view to obtaining the best results and the most acceptable apparatus for service in the Lakewood Fire Department, these specifications cover only the general requirements as to the type of construction and tests to which the apparatus must conform, together with certain details as to finish, equipment and appliances with which the successful bidder must conform. Minor details of construction and materials where not otherwise specified are left to the discretion of the contractor, who shall be solely responsible for the design and construction for all features. The National Fire Protection Association Standard 1901, current edition, unless otherwise specified in these specifications, shall prevail.

Bids shall only be considered from companies that have an established reputation in the field of fire apparatus construction and have been in business for a minimum of twenty-five years.

Each bidder shall furnish satisfactory evidence of their ability to construct the apparatus specified, and shall state the location of the factory where the apparatus is to be built. They shall also show that they are in a position to render prompt service and to furnish replacement parts for said apparatus.

Each bid shall be accompanied by a set of "Contractor's Specifications" consisting of a detailed description of the apparatus being furnished under this contract which conform. Computer runoff sheets are not acceptable as "Contractor's Specifications". Note: Each bidder shall submit their bid in the same sequence as these specifications to allow the department to easily compare bid. There shall be no exception to this requirement.

"D" size drawings of proposed apparatus shall be provided with bid documents.

## **QUALITY AND WORKMANSHIP**

The design of the Apparatus must embody the latest approved automotive engineering practices.

The workmanship must be of the highest quality in its respective field. Special consideration will be given to the following points: Accessibility of the various units that require periodic maintenance, operations, ease of operation (including both pumping and driving) and symmetrical proportions.

Construction shall be rugged and ample safety factors shall be provided to carry loads as specified and to meet both on and off road requirements and to speed conditions as set forth under "Performance tests and requirements".

Welding shall be employed in the assembly of the apparatus in a manner that will not prevent the

ready removal of any component part for service or repair.

### **FINAL INSPECTION**

There shall be provided, one (1) final inspection for two (2) Fire Department personnel. This inspection shall take place at the manufacturer's facility and all expenses for Fire Department participation shall be covered by the dealer or manufacturer. The dealer or a qualified representative of the dealer shall be present for this inspection.

NOTE: This apparatus shall be engineered, manufactured, equipped as specified and assembled at the manufacturer's facility. The apparatus shall be complete as specified upon departure from manufacturer's facility and there are no exceptions or options to this request. Dealer fabricated or sub-contracted bodies are not desired.

### **DELIVERY**

To insure proper break-in of all components while still under warranty, the apparatus shall be delivered under its own power. A qualified delivery engineer representing the contractor shall instruct the Fire Department Personnel in the proper operation, care and maintenance of the equipment delivered.

### **PERFORMANCE TESTS AND REQUIREMENTS**

A road test shall be conducted with the apparatus fully loaded and a continuous run of ten miles or more will be made, during which time the apparatus shall show no loss of power or overheating. The transmission drive shaft or shafts and rear axles shall run quietly and be free from abnormal vibration or noise throughout the operating range of the apparatus. The successful bidder shall furnish a Weight Certificate showing weights on front axle, rear axles and total weight for the completed apparatus at time of delivery.

- A. The apparatus shall be capable of accelerating to 35 MPH from a standing start within 25 seconds on a level concrete highway without exceeding the maximum governed RPM of the engine.
- B. From a steady space of 15 MPH the vehicle shall accelerate to 35 MPH within 30 seconds. This shall be accomplished without moving the gear selector.
- C. The service brakes shall be capable of stopping the fully loaded vehicle in 35 feet at 20 MPH on level dry concrete highway.
- D. The apparatus, fully loaded, shall be capable of obtaining a minimum speed of 50 MPH on a level dry concrete highway with the engine not exceeding its governed RPM (fully loaded).

E. If optioned, the apparatus shall be tested and approved by the Underwriter's Laboratories Incorporated in accordance with their standard practices for pumping engines.

F. If a pump is supplied, the Contractor shall furnish copies of the Pump Manufacturer's Certification of hydrostatic test, the Engine Manufacturer current certified brake horsepower curve, and the Manufacturer's record of pumper construction details when delivered.

If optioned, the vendor, at their expense, shall have the Underwriter's Laboratories Incorporated conduct the tests required by the Underwriter Laboratories Incorporated (Guide for the Certification of Fire Department Pumper subject 822 dated 1995 or latest). A copy of all tests shall accompany the Apparatus.

The contractor shall supply the final manufacturer's furnished certification of GVWR and GAWR on a nameplate affixed to the vehicle.

A permanent plate shall be mounted in the driver's compartment to specify the quantity and type of the following fluids used in the vehicle: Engine oil, engine coolant, chassis transmission fluid, pump transmission lubrication fluid, pump primer fluid (if used) and drive axle lubrication fluid.

A permanent plate in the driver's compartment shall be installed, specifying the seating capacity of the enclosed cab.

Signs that state "OCCUPANTS MUST BE SEATED AND BELTED WHEN APPARATUS IS IN MOTION" shall be provided and will be visible from each seated position. An accident prevention sign shall be located at the rear step area of the apparatus. It shall warn all personnel that standing on the step while apparatus is in motion shall be prohibited.

A nameplate indicating the chassis transmission shift selector position to be used when pumping shall be provided in the driving compartment and located so that it can be easily read from the driver's position.

### **LIABILITY**

The bidder, if their bid is accepted, shall defend any and all suits and assume all liability for the use of any patented device or article forming part of the apparatus or any appliance furnished under the contract.

### **GENERAL CONSTRUCTION**

The apparatus shall be designed with due consideration to distribution of load between the front and rear axles, so that all specified equipment, including filled water tank, a full complement of personnel and fire hose will be carried without injury to the apparatus. Weight balance and distribution shall be in accordance with the recommendations of NFPA 1901.

The apparatus shall be designed so that the operator could perform all recommended daily maintenance checks easily without the need for hand tools. Apparatus components that interfere with repair or removal of other major components must be attached with fasteners (cap, screws, nuts, etc.) so that the components can be removed and installed with normal hand tools. These components must not be welded or otherwise permanently secured into place.

The GAWR and GVWR of the chassis shall be adequate to carry the fully equipped apparatus including all tanks filled, the specified hose load, unequipped personnel weight, ground ladders and a miscellaneous equipment allowance per NFPA criteria. It shall be the responsibility of the purchaser to provide the contractor with the weight of equipment to be carried if it is in excess of the allowance as set forth by NFPA.

The unequipped personnel weight shall be calculated at 250 lbs. per person times the maximum number of persons to ride on the apparatus.

The height of the fully loaded vehicle's center of gravity shall not exceed the chassis manufacturer's maximum limit.

The front to rear weight distribution of the fully loaded vehicle shall be within the limits set by the chassis manufacturer. The front axle loads shall not be less than the minimum axle loads specified by the chassis manufacturer, under full loads and all other loading conditions.

The difference in weight on the end of each axle, from side to side, when the vehicle is fully loaded and equipped shall not exceed 7 percent.

The apparatus shall be so designed that the various parts are readily accessible for lubrication, inspection, adjustment and repair.

Where special tools manufactured or designed by the contractor and are required to provide routine service on any component of the apparatus built or supplied by the contractor, such tools shall be provided with the apparatus.

### **EXCEPTIONS TO SPECIFICATIONS**

The following Chassis, and Body specifications shall be strictly adhered to. Exceptions shall be allowed if they are equal to or superior to that specified and provided they are listed and fully explained on a separate page entitled "Exceptions to Specifications". The exception list shall refer to specification page number and paragraph. Proposals taking total exception to specifications or total exception to certain parts of the specifications such as Electrical Systems, Body or Pump, will not be accepted. Apparatus shall be inspected upon apparatus completion for compliance with specifications. Deviations will not be tolerated and will be cause for rejection of Apparatus unless they were originally listed in bidder's proposal and accepted in writing by the

department.

If the bidder takes an exception, on the exception page, the bidder must state an option price to bring their specifications into full compliance with the Department specifications. Failure to provide this information shall be cause to reject the proposal as being non-responsive.

**BID SECURITY**

A bid bond in the amount of 10% of the total price shall be supplied.

**PURCHASER'S RIGHTS**

The Purchaser reserves the right to accept or reject any or all bids as it deems to be of their best interest to do so.

One (1)

**TWO (2) YEAR GENERAL WARRANTY**

A warranty shall be offered for each new fire apparatus manufactured for a period of two (2) years from the date of delivery, except for the commercial chassis and certain other components as noted in the next paragraph.

In the case of the commercial chassis being used, the warranty on the chassis, engine, transmission, tires, storage batteries, generators, electrical lamps and other devices subject to deterioration is limited to the warranty of the manufacturer thereof and adjustments for the same are to be made directly with the manufacturer by the customer.

This warranty is in lieu of all other warranties, expressed or implied, and all other obligations or liabilities. Please see the official warranty document in the appendix (attached) for specific details.

One (1)

**STRUCTURAL WARRANTY – ALUMINUM BODY WARRANTY**

A structural warranty shall be provided by the apparatus manufacturer for products of its manufacture to be free from defects in material and workmanship, under normal use and service, for a period of ten (10) years. Please see the official warranty document in the appendix (attached) for specific details.

One (1)

**PLUMBING WARRANTY**

A Stainless Steel Plumbing/Piping warranty shall be offered (if applicable) for each new fire apparatus manufactured for a period of ten (10) years from the date of delivery.

Please see the official warranty document in the appendix (attached) for specific details.

One (1)

**PAINT WARRANTY**

A ten (10) year limited paint warranty shall be provided by the apparatus manufacture. Please see the official warranty document in the appendix (attached) for specific details.

One (1)

**NO OVERALL LENGTH REQUIREMENT**

One (1)

**NO OVERALL HEIGHT REQUIREMENT**

One (1)

**FLUID DATA PLAQUE**

A fluid data plaque containing required information shall be provided based on the applicable components for this apparatus, meeting current NFPA Standards as follows:

- a. Engine oil
- b. Engine coolant
- c. Chassis transmission fluid
- d. Drive axle lubrication fluid
- e. Power steering fluid
- f. Pump transmission lubrication fluid
- g. Other NFPA applicable fluid levels or data as required.

Location shall be in the driver's compartment or on the driver's door.

One (1)

**DIMENSIONS DATA PLAQUE & "NO HELMET" LABEL**

The cab dash area shall have a highly visible plaque indicating the maximum overall height, length, and GVWR of the vehicle in the destination areas unit of measure (SAE or METRIC).

A label stating "DO NOT WEAR HELMET WHILE SEATED" shall be installed in the cab within the view of all occupants.

One (1)

**"NO RIDE" LABEL**

A "NO RIDE" label shall be located on the vehicle at the rear step area or other applicable areas. The label shall warn personnel that riding in or on these areas while the vehicle is in motion is prohibited.

One (1)

**PERSONNEL PAYLOAD CAPACITY**

A label shall be installed in cab to denote that FIVE (5) personnel may be carried. For engineering purposes, an allowance of 1000# shall be provided for personnel.

One (1)

**NFPA COMPLIANCE STATEMENT**

The apparatus shall comply with the 2009 edition of the NFPA #1901 standards and section contained therein - except in the items noted throughout the specification.

The apparatus manufacturer (and/or dealer) shall not be held liable for items (chassis or otherwise) required to meet NFPA compliance that are not available at time of apparatus order. Any items not provided on the apparatus, that become available after the date of order shall be either be changed at cost to the Fire Department, or remain on the list of NFPA exceptions / deviations.

One (1)

**NFPA LIST OF DEVIATIONS**

At time of delivery the apparatus shall be accompanied by a list of deviations that state where the apparatus does not comply with NFPA (1901, 2009 edition). The purchaser shall be required at that time to sign off on the list of deviations.

One (1)

**CHASSIS SPECIFICATIONS**

Ford F550 Chassis Cab 4x4  
Crew Cab  
200" Wheelbase / 84" cab to axle  
Chrome Grille  
Aluminum Wheels  
XL Décor Trim Package  
AM/FM Stereo with Clock  
6.7 Diesel engine w/Live Drive PTO provision  
6 Speed Automatic Transmission  
225 Max Trac Tires  
limited slip 4.88  
Heavy Duty rear suspension package  
Power Equipment Group (windows, locks, and mirrors)  
19,500# GVWR  
Engine Block Heater  
Ambulance Prep Package  
Dual Alternators

One (1)

**NFPA 1901 2009 CHASSIS AFTERMARKET COMPLIANCE PACKAGE**

One (1)

**SEAT BELT MONITORING SYSTEM**

The chassis shall include the following items in compliance with NFPA 1901 (2009 version):

1. Seat sensors (up to 5)
2. Extended red seat belts

3. Interface module mounted under the dash
4. Dash display

One (1)

#### **VEHICLE DATA RECORDER**

The apparatus shall be equipped with a vehicle data recorder (VDR). This device shall keep a record of the vehicle speed, acceleration/deceleration (from the speedometer), engine rpm speed, engine throttle position, anti-lock brake system (ABS) events, seat occupation status, seat belt status, master optical warning switch position, time (24hr clock) and Date.

One (1)

#### **CHASSIS EXHAUST EXTENSION**

The chassis exhaust shall be modified and will terminate behind the right rear wheels.

One (1)

#### **EMBER SEPARATOR**

An Ember Separator shall be provided for the engine air intake in accordance with NFPA.

One (1)

#### **MASTER ELECTRIC SWITCH**

A battery disconnect switch shall be located conveniently to the driver of the apparatus. The switch shall disconnect the power supply from the battery system.

One (1)

#### **BATTERY SYSTEM INDICATOR LIGHT**

There shall be a green battery "on" light provided in view of the driver.

One (1)

#### **BATTERY CHARGER 20AMP / 110VOLT**

A 20 amp battery charger shall be wired to the 12 volt battery system. The charger unit shall be mounted in a clean dry area and will be accessible for service and/or maintenance.

One (1)

#### **ROCKER SWITCH PANEL WITH 6 SWITCHES**

A switch panel with six (6) individual rocker switches to control electrical equipment and emergency lighting shall be installed in the chassis cab dash area.

One (1)

**CAB CONSOLE**

A fabricated aluminum electrical console and enclosure shall be provided to house cab mounted electrical switching devices and equipment. The console shall be located between the driver's and the officer's seating.

One (1)

**FOUR DOOR CAB INTERIOR CEILING CLEAR LIGHTS**

Four (4) 5" diameter ceiling mounted lights with a push button switch shall be provided in the cab. The lens color shall be clear and the light shall be mounted on the cab ceiling.

One (1)

**LED GROUND ILLUMINATION LIGHTS**

Four (4) automatic ground illumination LED lights shall be installed. One light will be mounted to illuminate each cab door area.

One (1)

**ENGINE COMPARTMENT LIGHT**

A light with a switch shall be mounted in the engine enclosure.

One (1)

**ROUND TUBE STEP BARS**

There will be a set of round tube step bars mounted under the cab doors for ease of entering the cab. THE CAB STEP BARS SHALL BE CHROME PLATED.

One (1)

**REAR MUD FLAPS**

There shall be a set of mud flaps installed, behind the rear chassis wheels.

One (1)

**REAR TOW PLATES UNDER BODY**

Two (2) painted rear tow plates constructed of 3/4" steel plate shall be fastened directly to the

rear chassis frame rails of the vehicle, under the body. The tow plates shall be equipped with 3" inside diameter holes (eye). PROVIDE PHOTOS OF INTENDED MANUFACTURING METHOD

One (1)

**FRONT MOUNTED ELECTRIC WINCH**

A 12,000 pound capacity (6-ton) winch manufactured by the Warn Winch Company shall be provided. The 12-volt electric winch system shall be installed on the front of the apparatus. The winch shall have forward and reverse gears.

The unit shall have three stage planetary gearing and a rotating ring gear clutch that will permit free-spooling for quick unwinding of cable.

The winch shall be controlled with a push button device attached to a twelve foot (12') control cable and weatherproof receptacle.

The winch shall have 125 feet of 3/8" diameter galvanized aircraft cable, with slip hook installed. A 4 way roller shall be installed to guide the cable.

One (1)

**BRUSH GUARD      MUST BE A BUCK STOP BRAND**

A front bumper mounted brush guard for a Ford F550 shall be provided. The guard shall be designed to protect the entire width of the front of the truck. The brush guard shall have a black finish.

One (1)

**DOT REQUIRED EQUIPMENT**

A DOT highway safety kit shall be provided on the vehicle. The kit will contain three (3) collapsible reflective safety triangles.

One (1)

**RETAINER FOR IGNITION KEY**

A retaining cable shall be provided so the vehicle's ignition key cannot be removed from the vehicle.

One (1)

**VALVE STEM TIRE PRESSURE INDICATOR**

The apparatus shall be equipped with a tire pressure indicator located on the valve stem of each tire.

One (1)

**NFPA TILT REQUIREMENT**

The apparatus shall not be equipped with an electronic stability control system due to engine manufacturer limitations. The apparatus shall meet the NFPA tilt requirement through rear track width-center of gravity calculation allowed by NFPA.

One (1)

**REAR TRAILER HITCH**

A Class 5 (up to 10,000 lbs.) trailer hitch shall be installed at the rear of the apparatus. The hitch shall include a slide-in receiver insert ball mounting with 2" ball, 5/8" hitch pin.

A seven (7) pin electrical connector wired to the chassis stop, running, and turn lights shall be installed near the hitch.

THERE SHALL ALSO BE PROVIDED, A 12V POWER CONNECTION POINT FOR POWER FOR A PORTABLE 9000 LB. RESCUE WINCH.

THERE SHALL ALSO BE PROVIDED, TWO (2) ADDITIONAL HITCH RECEIVERS, EACH WITH A RATING TO ACCOMMODATE A 9,000 RESCUE WINCH. THEY SHALL BE INSTALLED ONE (1) EACH SIDE OF THE APPARATUS. POWER CONNECTION POINTS FOR 12V POWER SHALL BE PROVIDED AT EACH RECEIVER.

CUSTOMER SHALL PROVIDE THE BRAND AND PART NUMBER FROM THE POWER POINT PLUG THAT IS SUPPLIED WITH THE CUSTOMER SUPPLIED PORTABLE WINCH. THIS WAY, ALL WILL MATCH ON DELIVERY DAY.

PLEASE PROVIDE PHOTOS OF MANUFACTURING METHODS USED TO PROVIDE THIS OPTION AND INCLUDE WITH BID PACKAGE.

One (1)

**REAR TRAILER HITCH POWER CONNECTION**

In addition to the brake harness package, an additional power connection point shall be provided at the rear of the apparatus to supply 12v power to the trailer from the towing apparatus. The power point shall be an Anderson style two prong plug, capable of supplying up to 45 amps of total power.

One (1)

### **SHORE POWER RECEPTACLE**

One (1) Kussmaul model 15 amp 120 volt "auto-eject" shore power receptacle shall be installed. The shore power plug shall "eject" when the engine is started. The receptacle shall be wired to specified electrical equipment. A female plug shall be shipped loose for use with shore power.

One (1)

### **APPARATUS RESCUE BODY CONSTRUCTION**

The apparatus body shall be designed for a 84" cab to axle and shall be constructed entirely of aluminum. The complete body frame work shall be completely constructed from #6061-T6 and #6063-T6 aluminum extrusions. To form the frame work, these extrusions are beveled and electrically seam welded at each joint using #5356 aluminum alloy welding wire.

The front and rear body corner sections shall be a 3-1/2" x 3-1/2" hollow aluminum #6063-T6 alloy extruded corner sections with .150 wall thickness and shall be welded as an integral part of the frame work. These corner extrusions shall have outside radius.

The horizontal frame member extrusions shall be 2" x 4" aluminum #6063-T6 alloy with .150" wall thickness.

The frame cross member extrusions shall be 2" x 4" aluminum #6061-T6 alloy with 1/4" outer wall thickness, and a 3/8" center wall thickness. These cross members shall extend the full width of the body to support the compartments. The cross members shall be welded to a solid aluminum #6061-T6 alloy frame sill extrusion that is 3/4" x 3" and is shaped in contour with the chassis frame rails.

The wheel well frame shall be constructed from 2" x 4" aluminum #6063-T6 alloy extrusions slotted the full length to permit an internal fit of .125" aluminum diamond plate.

All of the smooth aluminum plate used in body construction shall be aluminum #3003-H14 alloy.

All horizontal surfaces and the rear body surface shall be .125" aluminum diamond plate. All body compartments shall be constructed from .125" formed aluminum 3003-H14 alloy smooth plate. All compartment floors shall be constructed of aluminum plate welded in place. All

compartment seams shall be sealed by using a permanent pliable silicone caulking. The compartments shall be louvered for adequate ventilation.

All aluminum extrusions shall be slotted the full length to allow the fitting of 1/8" aluminum diamond plate. All aluminum diamond plate used in body construction shall be aluminum #3003-H14 alloy.

Aluminum drip rail shall be located over the compartment doors. This drip rail shall have an anodized finish.

The apparatus body shall be fastened to the chassis with 5/8" steel U-bolts. 1/4" x 2" fiber reinforced rubber shall be used to keep the body frame sills from contact with the chassis frame rails.

The apparatus body frame work shall have no nuts, bolts or other type fastener, but shall be welded, sanded and de-burred for the removal of all sharp edges.

One (1)

#### **REAR BODY FENDERS AND LINERS**

The rear body single axle wheel well openings shall be equipped with radiused, welded aluminum fenders and bolted poly liners. The wheel well trim will be painted.

One (1)

#### **FUEL FILL**

The apparatus fuel fill system shall be piped from the fuel tank and equipped with a Cast Products fuel fill, located in the area of the driver's side wheel well.

The fuel fill shall be cast aluminum with a brushed finish.

One (1)

#### **LABEL, DIESEL FUEL ONLY**

There shall be a metallic label at each fuel fill location that designates "Diesel Fuel Only" requirements. It shall be black with white or equivalent contrasting letters a minimum of .5" high.

One (1)

#### **ANODIZED ALUMINUM RUB RAILS**

The body side rub rail assemblies shall be constructed of anodized aluminum extrusion channels.

NFPA compliant reflective material shall be attached to the entire length of the rub rail to improve side profile visibility.

One (1)

### **TRANSVERSE COMPARTMENT FOR L1& R1**

The area over the frame, between left and right side compartments (#L1 and #R1) shall be transverse through the body.

One (1)

### **TRANSVERSE COMPARTMENT FLOOR EXTENSIONS**

The floor over the frame, between left and right side compartments (#L1 and #R1) shall be extended through the transverse compartment to the door openings creating a full width floor between the doors.

One (1)

### **TRANSVERSE COMPARTMENT FOR L2& R2**

The area over the frame, between left and right side compartments (#L2 and #R2) shall be transverse through the body.

One (1)

### **BODY COMPARTMENTS**

#### **LEFT SIDE (Driver's Side)**

The left side of the apparatus shall have three (3) compartments, one (1) ahead of rear wheel well, one (1) over the wheel well, and one (1) aft of the rear wheel well area.

##### **1. L1 compartment:**

There shall be one (1) compartment located ahead of the rear wheel well. The L1 compartment shall be full height and transverse with the R1 Compartment. The L1 compartment shall be approximately 53" wide x 55" high x 94" deep. The compartment opening dimensions are approximately 51" wide x 45" high.

##### **2. L2 compartment:**

There shall be one (1) compartment located above the rear wheel well that is full height and transverse with the R2. The L2 compartment shall be approximately 42" wide x 31" high x 94" deep. The compartment opening dimensions are approximately 39" wide x 21" high

**3. L3 compartment:**

There shall be one (1) compartment located behind the rear wheel well that is full height. The L3 compartment shall be approximately 33" wide x 55" high x 21" deep. The compartment opening dimensions are approximately 31" wide x 45" high.

**RIGHT SIDE (Officer's Side)**

The right side of the apparatus shall have three (3) compartments, one (1) ahead of rear wheel well, one (1) over the wheel well, and one (1) aft of the rear wheel well area.

**1. R1 compartment:**

There shall be one (1) compartment located ahead of the rear wheel well. The R1 compartment shall be full height and transverse with the L1 Compartment.. The R1 compartment shall be approximately 53" wide x 55" high x 94" deep. The compartment opening dimensions are approximately 51" wide x 45" high.

**2. R2 compartment:**

There shall be one (1) compartment located above the rear wheel well that is full height and transverse with the L2.. The R2 compartment shall be approximately 42" wide x 31" high x 94" deep. The compartment opening dimensions are approximately 39" wide x 21" high

**3. R3 compartment:**

There shall be one (1) compartment located behind the rear wheel well that is full height. The R3 compartment shall be approximately 33" wide x 55" high x 21" deep. The compartment opening dimensions are approximately 31" wide x 45" high.

**REAR**

The rear of the apparatus shall have one (1) compartment.

1. B1 compartment:

There shall be one (1) compartment located at the rear of the body. The B1 compartment shall be approximately 49" wide x 52" high x 36" deep. The compartment opening dimensions are approximately 46" wide x 42" high.

One (1)

**ROLL-UP COMPARTMENT DOORS**

The roll-up compartment doors shall be anodized satin finish aluminum manufactured by R-O-M Corporation.

The doors shall be front roll type with a minimum header at the top of the compartment opening. The compartment doors shall be counter-balanced for easy opening and closing. The doors shall be designed to be easily removable and repairable, in a minimal amount of time. The door mounting system that connects the curtain slats to the operator drum shall allow for easy tension adjustment without tools. Each roll-up door shall have a four inch diameter counterbalance operator drum to assist in lifting the door. The compartment door track shall be one-piece aluminum with attaching and finishing flange.

The door slats shall be double-wall extrusion 1.366" high by .315" thick, with the exterior surface to be flat and interior surface to be concave to prevent loose equipment from interfering with door operation. Door slats shall have an interlocking end shoes to prevent slat from moving side-to-side and binding the door. Each slat shall have an "end shoe" are swaged/dimpled into the slat, to allow easy slat replacement. In addition, the slats shall have interlocking joints with a folding locking flange to provide security and prevent penetration by sharp objects. Between each slat shall be a co-extruded PVC inner seal to prevent metal-to-metal contact, repel moisture, and shall not be visible from the front of the door.

There shall be an aluminum drip rail above each compartment door with a non-abrasive or brush type seal at the top door opening area. Drip rail shall have a seal design that prevents it from scratching the door.

The door latching system shall be a full width one piece lift bar operable by one hand, with a retainer block on each end of the lift bar. A two inch wide finger pull shall be integrated into the bottom rail extrusion for easy one hand opening and closing.

Each compartment door shall be equipped with a magnetic door light actuator and "tell-tale" door-ajar system. The unit shall be integrated in lift bar handle and the retainer block to signal open door in the cab. There shall be no mechanical switches or switches mounted on the interior compartment for compartment lights.

The seven (7) exterior compartments shall be provided with anodized roll-up compartment doors.

One (1)

### **INTERIOR COMPARTMENT FINISH**

The aluminum compartments shall have a bright aluminum finish interior.

Two (2)

### **ADJUSTABLE SHELF FOR SIDE COMPARTMENTS**

An adjustable shelf shall be provided in the specified compartments. The shelf shall be constructed of .188" thick #3003 smooth aluminum sheets and be mounted with double bolt cast aluminum shelf brackets. Each shelf shall have a broken front edge (2" up), and a broken rear edge (2" down) for added strength and reinforcement.

The location shall be in: One (1) in L3 and one (1) in R3 compartments.

Seven (7)

### **ADJUSTABLE SHELVING TRACKS**

The compartment shall be equipped with four (4) aluminum adjustable tracks, vertically mounted, that are bolted in place for adjustable shelving and equipment mounting.

Two (2)

### **300# ROLLOUT TRAY**

A rollout equipment tray shall be installed. The 300# rated tracks shall have sealed roller bearings with steel angle framework. The tray shall be constructed of 3/16" aluminum, fabricated with four 3" sides and welded corners.

The location shall be: (1) in L3 and one (1) in R3 compartment.

One (1)

### **1000 # ROLLOUT TRAY**

A rollout equipment tray shall be installed. A heavy duty slide assembly shall be utilized to support a tray constructed of 3/16" aluminum, fabricated with four 3" sides and welded corners.

The location shall be: B1 compartment

Two (2)

**HEAVY DUTY BI-DIRECTIONAL ROLL-OUT TRAY**

A heavy-duty bi-directional rollout tray constructed of 3/16" (.1875) smooth aluminum with 2" sides shall be provided. The tray shall be mounted in the compartment on SlideMaster slides that will permit the tray to extend to either side of the apparatus 70% of the compartment depth (up to 90" deep). The capacity rating shall be 1000 pounds distributed load and 500 pounds end load at full extension. The tray shall be located as directed by the purchaser.

Location: One (1) in L1/R1 and one (1) in L2/R2 compartments.

THERE SHALL BE PROVIDED, PAC TRAC TOOL BOARDS ON THE TRANSVERSE TRAYS. THE PAC EXTRUSION SHALL BE INSTALLED IN SUCH A MANNER AS TO PROVIDE TOOL MOUNTING ON BOTH SIDES. THE TOOL BOARDS SHALL BE SECURED TO AN ADJUSTABLE TRACK TO ALLOW FOR FRONT AND AFT ADJUSTMENT. THE TRACK SHALL BE AS TALL AS SPACE WILL ALLOW UNDER THE COMPARTMENT DOOR CAPTIVE ROLLERS WHEN TRAY IS MOVED IN AND OUT EACH SIDE.

One (1)

**COMPARTMENT MATTING**

The trays and shelves shall be fitted with removable turtle tile matting. The turtle tile shall be black in color.

One (1)

**10" REAR BODY STEP**

A 10" deep rear step shall be provided at the rear of the apparatus, bolted in place and easily removable for replacement. The tailboard shall be constructed of aluminum diamond plate with an NFPA compliant stepping surface.

The maximum height of the step shall be no more than 24" from the ground in compliance to NFPA #1901 standards. A label shall be provided warning personnel that riding on the rear step while the apparatus is in motion is prohibited.

One (1)

### **REAR STEP LIGHTS**

Two (2) incandescent recessed step lights shall be installed. The lights shall be installed on rear of unit to illuminate rear step, one each side.

Two (2)

### **36" HAND RAIL**

A non-slip extruded aluminum hand rail, approximately 36" in length, shall be installed on the apparatus. The hand rail shall be secured to the body with chrome plated fittings.

The location shall be: installed vertically on each side of the rear door.

One (1)

### **BODY PAINTING SPECIFICATIONS**

The apparatus body shall be painted to the highest of fire apparatus standards. All materials used in the painting of the body and components shall be approved by the manufacturer of the final painting material.

The apparatus manufacturer shall submit a separate warranty on the complete painting system, noting number of years covered, labor and material provided, and costs of transportation for any repainting work required.

All flush-mounted lights, drip moldings, and other equipment shall also be removed prior to final finishing. This shall assure finish paint under all body mounted equipment. Prior to painting of the body and components, all surfaces shall be chemically cleaned and prepared. The apparatus body shall be sanded smooth on all exterior surfaces to assure removal of imperfections in the metal surface. Primers and fillers shall be applied to the metal surface to assure a quality surface for the final painting.

The apparatus body shall be painted with a polyurethane type paint manufactured by Dupont, Sikkens, PPG, or other approved manufacturer. The final painting surface must be free of defects, paint runs, scratches, orange peel, buff marks, or other normal imperfections.

One (1)

### **WHEEL WELL PANELS**

The exterior panels of the wheel well enclosures shall be constructed of .125" aluminum diamond plate.

One (1)

**WHEEL WELL FENDERS**

The body wheel well openings shall be equipped with radiused, polished stainless steel fenderettes that are bolted in place.

One (1)

**RESCUE RAISED ROOF**

The body will incorporate a raised roof to allow adequate mounting for lights and any equipment required.

One (1)

**12 VOLT ELECTRICAL SPECIFICATIONS**

One (1)

**LOW VOLTAGE ELECTRICAL SYSTEM SPECIFICATIONS**

The following specifications describe the low voltage electrical system on the specified initial attack type fire apparatus. The electrical system shall include all panels, electrical components, switches and relays, wiring harnesses and other electrical components.

The electrical equipment installed by the apparatus manufacturer shall conform to current automotive electrical system standards, the latest Federal DOT standards, and the requirements of the applicable NFPA standards.

All wiring shall be stranded copper or copper alloy conductors of a gauge rated to carry 125 percent of the maximum current for which the circuit is protected. Voltage drops in all wiring from the power source to the using device shall not exceed 10 percent. The wiring and wiring harness and insulation shall be in conformance to applicable SAE and NFPA standards. The wiring harness shall conform to SAE J-1128 with GXL temperature properties. All exposed wiring shall be run in a loom with a minimum 289 degree Fahrenheit rating. All wiring looms shall be properly supported and attached to body members. The electrical conductors shall be constructed in accordance with applicable SAE standards, except when good engineering practice requires special construction.

The wiring connections and terminations shall use a method that provides a positive mechanical and electrical connection and shall be installed in accordance with the device manufacturer's instructions. Electrical connections shall be with mechanical type fasteners and large rubber grommets where wiring passes through metal panels.

The wiring between the cab and body shall be split using Deutsche type connectors or an enclosed in a terminal junction panel area. This system will permit body removal with minimal impact on the apparatus electrical system. All connections shall be crimp-type with heat shrink tubing with insulated shanks to resist moisture and foreign debris such as grease and road grime. Weather-resistant connectors shall be provided throughout to ensure the integrity of the electrical system.

Any electrical junction or terminal boxes shall be weather resistant and located away from water spray conditions. In addition, the main body junction panel shall house the automatic reset breakers and relays where required.

There shall be no exposed electrical cabling, harnesses, or terminal connections located in compartments, unless they are enclosed in an electrical junction box or covered with a removable electrical panel. The wiring shall be secured in place and protected against heat, liquid contaminants and damage. Wiring shall be uniquely identified at least every two feet (2') by color coding or permanent marking with a circuit function code and identified on a reference chart or electrical wiring schematic per requirements of applicable NFPA standards.

The electrical circuits shall be provided with low voltage over-current protective devices. Such devices shall be accessible and located in required terminal connection locations or weather resistant enclosures. The over-current protection shall be suitable for electrical equipment and shall be automatic reset type and meet SAE standards. All electrical equipment, switches, relays, terminals, and connectors shall have a direct current rating of 125 percent of maximum current for which the circuit is protected. The system shall have electro-magnetic interference suppression provided as required in applicable SAE standards.

The electrical system shall include the following:

- a) Electrical terminals in weather exposed areas shall have a non-conductive grease or spray applied. A corrosion preventative compound shall be applicable to all terminal plugs located outside of the cab or body.
- b) The electrical wiring shall be harnessed or be placed in a protective loom.
- c) Heat shrink material and sealed connectors shall be used to protect exposed connections.
- d) Holes made in the roof shall be caulked with silicone. Large fender washers shall be used when fastening equipment to the underside of the cab roof.
- e) Any electrical component that is installed in an exposed area shall be mounted in a manner that will not allow moisture to accumulate in it.

- f) A coil of wire must be provided behind an electrical appliance to allow them to be pulled away from mounting area for inspection and service work.
- g) All lights that have their sockets in a weather exposed area shall have corrosion preventative compound added to the socket terminal area.

The warning lights shall be switched in the chassis cab with labeled switching in an accessible location. Individual rocker switches shall be provided only for warning lights provided over the minimum level of warning lights in either the stationary or moving modes. All electrical equipment switches shall be mounted on a switch panel mounted in the cab convenient to the operator. The warning light switches shall be of the rocker type. For easy nighttime operation, an integral indicator light shall be provided to indicate when the circuit is energized. All switches shall be appropriately identified as to their function.

A single warning light switch shall activate all required warning lights. This switch will allow the vehicle to respond to an emergency and "call for the right of way". When the parking brake is activated, a "blocking right of way" system shall be automatically activated per requirements of NFPA. All "clear" warning lights shall be automatically shed on actuation of parking brake.

#### **NFPA REQUIRED TESTING OF ELECTRICAL SYSTEM**

The apparatus shall be electrical tested shall be completion of the vehicle and prior to prior to delivery. The electrical testing, certifications, and test results shall be submitted with delivery documentation per requirements of NFPA. The following minimum testing shall be completed by the apparatus manufacturer:

##### **1. Reserve capacity test:**

The engine shall be started and kept running until the engine and engine compartment temperatures are stabilized at normal operating temperatures and the battery system is fully charged. The engine shall be shut off and the minimum continuous electrical load shall be activated for ten (10) minutes. All electrical loads shall be turned off prior to attempting to restart the engine. The battery system shall then be capable of restarting the engine. Failure to restart the engine shall be considered a test fail.

##### **2. Alternator performance test at idle:**

The minimum continuous electrical load shall be activated with the engine running at idle speed. The engine temperature shall be stabilized at normal operating temperature. The battery system shall be tested to detect the presence of battery discharge current. The detection of battery discharge current shall be considered a test failure.

##### **3. Alternator performance test at full load:**

The total continuous electrical load shall be activated with the engine running up to the engine manufacturer's governed speed. The test duration shall be a minimum of two (2) hours. Activation of the load management system shall be permitted during this test. However, an alarm sounded by excessive battery discharge, as detected by the system required in NFPA Standard, or a system voltage of less than 11.7 volts dc for a 12 volt nominal system, for more than 120 seconds, shall be considered a test failure.

4. Low voltage alarm test:

Following the completion of the above tests, the engine shall be shut off. The total continuous electrical load shall be activated and shall continue to be applied until the excessive battery discharge alarm activates. The battery voltage shall be measured at the battery terminals. With the load still applied, a reading of less than 11.7 volts dc for a 12 volt nominal system shall be considered a test failure. The battery system shall then be able to restart the engine. Failure to restart the engine shall be considered a test failure.

**NFPA REQUIRED DOCUMENTATION**

The following documentation shall be provided on delivery of the apparatus:

- a. Documentation of the electrical system performance tests required above.
- b. A written load analysis, including:
  1. The nameplate rating of the alternator.
  2. The alternator rating under the conditions.
  3. Each specified component load.
  4. Individual intermittent loads.

One (1)

**ELECTRICAL LOAD MANAGEMENT SYSTEM**

A Class 1 Total System Manager (TSM) shall be installed to control the 12 volt electrical system in the commercial cab. This system shall automatically shed excess loads in a preprogrammed fashion when system voltage levels are compromised. When proper voltage resumes the items that were turned off will re-activate.

The high idle mode shall automatically engage upon a drop in voltage provided that the parking brake is applied and the pump is not in gear. When proper voltage resumes the normal idle will resume.

The TSM shall be protected against reverse polarity and shorted outputs and be enclosed in a metal enclosure to enhance EMI/RFI protection.

One (1)

**DOT LIGHTING PACKAGE**

The lighting on the body shall conform to DOT standards. LED lighting shall be used.

One (1)

**STOP/TAIL, TURN AND BACK-UP LIGHTS**

The rear of the apparatus body shall be equipped with two (2) Whelen Model #600PLAST4 series LED lights. The rear "tail" & stop lights shall be red, the turn lights shall be amber with a black arrow and the back-up lights shall be clear. A total of six (6) individual lights shall be provided. Two (2) chrome housings shall be provided to contain the lights. The stop/tail lights shall be in the top position, the turn light shall be in the second position and the backup light shall be in the third position from the top. The lower position is reserved for the warning lights.

One (1)

**REAR SIGNAGE / LICENSE PLATE BRACKET WITH LED LIGHT**

There shall be a LED rear license plate bracket for unit designation purposes provided.

One (1)

**REAR STEP GROUND LIGHTS**

Two (2) LED lights shall be installed under the rear step. These lights shall automatically activate when the vehicle is in park or neutral.

One (1)

**SCENE LIGHTS**

Four (4) Whelen model 900 LED 7"x 9" 12 volt scene lights shall be provided. The lights shall be installed on the upper side area of the body. Two lights shall be located on the driver's side and two lights located on the officer's side. Two switches labeled DRIVER'S SIDE SCENE LIGHTS and OFFICERS SIDE SCENE LIGHTS shall be located in the cab.

One (1)

**SCENE LIGHTS**

Two (2) Whelen model 900 LED 7"x 9" scene lights shall be provided. The lights shall be installed with one located on each side of the rear upper area of the body. A switch labeled REAR SCENE LIGHT'S shall be located in the cab.

One (1)

**SCENE LIGHT ACTIVATION**

The rear scene lights shall activate automatically upon placing the transmission into reverse.

**SCENE LIGHTS FOUR (4)**

There shall be provided and installed, four (4) Whelen Pioneer dual light LED push-up pole lights or FRC equivalent. One (1) shall be mounted on each corner of the apparatus body.

The light activation shall be controlled at the light head and/or at the cab center console.

There shall be provided, a warning system to alert driver if lamp head is not completely in the stowed position. This light shall be a rotator with an amber lens, located in full view of driver and crew and be separate from the door ajar warning system.

One (1)

**BACK-UP ALARM**

An automatic electric back-up alarm shall be wired to the back-up light circuit, and mounted under the rear of the apparatus body.

Seven (7)

**ROLL UP DOOR STRIP LIGHTING**

Two (2) vertically mounted roll-up compartment LED door lights shall be installed one on each side of the door opening. The door lighting shall be actuated upon door opening.

One (1)

**HAZARD WARNING LIGHT**

A flashing LED light with a red lens, located in the driving compartment, shall be illuminated automatically whenever any cab door or equipment compartment door is open. An audible alarm shall also be located in the driving compartment and will activate with the hazard light.

The light shall be marked, "DO NOT MOVE APPARATUS WHEN LIGHT IS ON".

One (1)

## **WARNING LIGHTS**

One (1)

### **WHELEN LED 56" LIGHT BAR**

A Whelen Justice series LED 56" light bar shall be installed. The light bar shall have four (4) red corner LED's, six (6) forward facing red LED's, and two (2) forward facing white LED's. The light bar lenses shall be clear.

One (1)

### **LED FRONT GRILLE WARNING LIGHTS**

Two (2) Whelen Model LINZ6R LED warning lights shall be installed.

Lens color shall be: Red

Location shall be: Front grille

One (1)

### **LED FRONT CORNER WARNING LIGHTS**

Two (2) Whelen Model LINZ6R LED warning lights shall be installed.

Lens color shall be: Red

Location shall be: Front corner

One (1)

### **WHELEN SUPER LED LOWER BODY WARNING LIGHTS**

Two (2) Whelen Model #600 Super LED warning lights shall be installed. The light dimensions shall be 4" x 6".

Lens color shall be: Red

Location shall be: Lower side of body

One (1)

### **SIDE OF BODY WHELEN SUPER LED WARNING LIGHTS**

Four (4) Whelen Model #900 Super LED warning lights shall be installed. The dimensions of the light shall be 7" x 9".

Lens color shall be: red

Location shall be: Side of body

One (1)

**WHELEN SUPER LED LOWER REAR OF BODY WARNING LIGHTS**

Two (2) Whelen Model #600 Super LED warning lights shall be installed. The dimensions of the light shall be 4" x 6".

Lens color shall be: Red

Location shall be: Lower rear of body

One (1)

**WHELEN SUPER LED REAR UPPER LED WARNING LIGHTS**

Two (2) Whelen Model #900 Super LED warning lights shall be installed. The dimensions of the light shall be 7" x 9".

Lens color shall be: Red

Location shall be: upper rear of body

One (1)

**ELECTRIC SIREN AND CONTROL**

One (1) Whelen Model #295SLSA1 electronic siren shall be mounted in the cab. This unit shall feature an electronic air horn, wail, yelp, hi-lo and shall have a hard wired PA microphone.

One (1)

**WHELEN SA315P ELECTRIC SIREN SPEAKER**

A Whelen Model #SA315P speaker shall be installed. The speaker shall be wired to the electric siren located in the cab.

One (1)

**LOOSE EQUIPMENT**

One (1)

**EQUIPMENT PAYLOAD WEIGHT ALLOWANCE**

In compliance with NFPA #1901 standards, the apparatus shall be engineered to provide an allowance of 1500 pounds of fire department provided loose equipment.

One (1)

**NO TRAFFIC CONES SUPPLIED**

The apparatus shall not be equipped with the five (5) NFPA required traffic safety cones per NFPA requirements. The dealer or the fire department shall supply the traffic safety cones.

The apparatus SHALL NOT be NFPA Compliant (1901 2009 edition) in this area upon its delivery from the fire apparatus manufacturer.

One (1)

**NO TRAFFIC FLARES SUPPLIED**

The apparatus shall not be equipped with the five (5) NFPA required traffic flares per NFPA requirements. The dealer or the fire department shall supply the traffic flares.

The apparatus SHALL NOT be NFPA Compliant (1901 2009 edition) in this area upon its delivery from the fire apparatus manufacturer.

One (1)

**NO TRAFFIC SAFETY VESTS SUPPLIED**

The apparatus shall not be equipped with the traffic safety vests per NFPA requirements. The dealer or the fire department shall supply the traffic safety vests.

The apparatus SHALL NOT be NFPA Compliant (1901 2009 edition) in this area upon its delivery from the fire apparatus manufacturer.

One (1)

**NO AUTO DEFIBRILLATOR SUPPLIED**

The apparatus shall not be equipped with the auto defibrillator unit (AED). The dealer or the fire department shall supply the AED.

The apparatus SHALL NOT be NFPA Compliant (1901 2009 edition) in this area upon its delivery from the fire apparatus manufacturer.

One (1)

**NO HAND LIGHTS SUPPLIED**

The apparatus shall not be equipped with the two Portable Hand Lights required by NFPA. The dealer or the fire department shall supply the Hand Lights.

The apparatus SHALL NOT be NFPA Compliant (1901 2009 edition) in this area upon its

delivery from the fire apparatus manufacturer.

## **PAINT AND LETTERING SPECIFICATIONS**

### **CAB PAINT**

The cab and apparatus body color shall match Lakewood Engine #201. If Ford Motor Company does not provide this color, the entire cab shall be repainted. The apparatus body shall be a single color and match that of the cab.

Provide description and photos of your standard cab preparation methods. The entire cab and apparatus shall be color sanded and buffed after painting to ensure the highest possible quality appearance.

One (1)

### **TOUCH UP PAINT**

A container of touch up paint matching the apparatus' primary color shall be shipped with the apparatus.

One (1)

### **NFPA INNER DOOR STRIPING (4 DOOR)**

There shall be 96 square inches of reflective material located inside each cab door. The reflective material shall be visible to traffic approaching from the rear of the apparatus.

One (1)

### **CAB AND BODY STRIPE**

A Scotchlite reflective stripe for the cab and body shall be supplied, and shall conform to current NFPA standards. The stripe shall be straight along the lower portion of the cab, and on the L1 and R1 compartments it shall "hockey" up to the upper area of the body side. The color of the material is to be specified by the purchaser.

The stripe shall conform as close to the color and design of the striping as pumper # 201 as possible.

One (1)

### **REAR BODY CHEVRON STRIPING**

A diamond grade reflective stripe for the rear body only shall be supplied. The chevron striping shall cover the rear body panels. The chevron striping will be made up of 6" reflective red stripe that alternates with a 6" reflective yellow stripe. The stripe shall be in an inverted "V" pattern,

also known as an "A" pattern.

One (1)

**LETTERING AND ADDITIONAL STRIPING**

The manufacturer shall provide additional striping and lettering. This product provided shall be ***SIGN GOLD or equal*** and follow the same style as the newest pumper, which is # 201

**TERMS & CONDITIONS:**

**Real Estate and Personal Property Taxes:** No bid will be accepted or opened on any County contract if the vendor is listed on the last published list of delinquent real or personal property taxes in Kanawha County; however, the Commission will accept bids by vendors who provide satisfactory proof of payment of current taxes or a certification from the Sheriff that no taxes are due.

**Rejection of Bids:** The Lakewood VFD reserves the right to reject any and/or all bids and to waive any informality in bidding.