

VENDOR

# PURCHASE ORDER

## TEXAS A&M FOREST SERVICE PURCHASING DEPARTMENT

Order Date  
12/22/2022

Page 01

200 Technology Way, Suite 1120, College Station, TX 77845-3424; Phone 979-458-7380, FAX 979-458-7386

Purchase Order No.	(Include this number on all correspondence and packages)
P300234	

VENDOR GUARANTEES  
MERCHANDISE DELIVERED ON  
THIS ORDER WILL MEET OR  
EXCEED SPECIFICATIONS IN  
THE BID INVITATION.

<b>VENDOR</b>
17518309291 SOUTHWEST INTERNATIONAL TRUCKS INC PO BOX 560685 DALLAS, TX 75356

ALL TERMS AND  
CONDITIONS SET  
FORTH IN OUR BID  
INVITATION BECOME  
A PART OF THIS  
ORDER.

<b>INVOICE TO:</b>
TEXAS A&M FOREST SERVICE FRP--CAPACITY BUILDING 200 TECHNOLOGY WAY, SUITE 1162 COLLEGE STATION TX 77845-3424
<b>SHIP TO:</b>
TEXAS A&M FOREST SERVICE FRP--CAPACITY BUILDING 200 TECHNOLOGY WAY, SUITE 1162 COLLEGE STATION TX 77845-3424

ANY EXCEPTIONS TO PRICING OR DESCRIPTION CONTAINED HEREIN MUST BE APPROVED  
BY THE TEXAS A&M FOREST SERVICE PURCHASING DEPARTMENT PRIOR TO SHIPPING.

PLEASE NOTE: IF YOUR INVOICE IS NOT ADDRESSED AS INSTRUCTED  
PAYMENT WILL BE DELAYED.

Item	Description	Quantity	UOM	Unit Price	Ext Price
	STATE ORDER: 651-21				
	USER REF: 000000-SB				
1	924 - PIERCE-COMMERCIAL FREIGHTLINER M2-106 4-DOOR, DRYSIDE TANKER, 4x2 SINGLE REAR AXLE, ALUMINUM BODY, AND LOOSE EQUIPMENT. Delivery within 29-30 months of order date ** BELOW IS FOR TAMFS REFERENCE ** For North Branch - Waco Fire Department	1	EA	635,600.000	635,600.00
2	BUYBOARD FEE  ** FOR TAMFS REFERENCE ONLY ** NORTH BRANCH - WACO FIRE DEPARTMENT	1	EA	1,500.000	1,500.00
				TOTAL	637,100.00
	***** NET 30 *****				
	NOTE TO VENDOR: "SHIP TO" AND "INVOICE TO" ADDRESSES MAY DIFFER. FAILURE TO SUBMIT INVOICE TO PROPER ADDRESS MAY RESULT IN DELAYED PAYMENT.				
	GROUP PURCHASE - AS PER TAMUS REGULATION 25.99.02 SECTION 3 AND TAMUS PROCUREMENT CODE SECTION 15.				
	BY ACCEPTANCE OF THIS PURCHASE ORDER VENDOR AGREES TO ALL TERMS AND CONDITIONS (AS APPLICABLE) LISTED ON ATTACHED "TEXAS A&M FOREST SERVICE PURCHASE ORDER--ATTACHMENT A".				
	PRICING IS COMPLIANT WITH BUYBOARD CONTRACT#				

RTL

Texas A&amp;M Forest Service cannot accept collect freight shipments.

FOB: DESTINATION FRT INCLUDED

Terms:

FAILURE TO DELIVER - If the vendor fails to deliver those supplies by the promised delivery date or a reasonable time thereafter, without giving acceptable reasons for delay, or if supplies are rejected for failure to meet specifications, the State reserves the right to purchase specified supplies elsewhere, and charge the increase in price and cost of handling, if any, to the vendor. No substitutions nor cancellations permitted without prior approval of Purchasing Department.

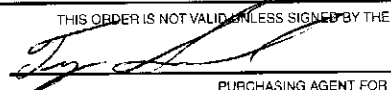
IN ACCORDANCE WITH YOUR BID, SUPPLIES/EQUIPMENT MUST BE PLACED IN THE  
DEPARTMENT RECEIVING ROOM BY

The State of Texas is exempt from all Federal Excise Taxes.

STATE AND CITY SALES TAX EXEMPTION CERTIFICATE: The undersigned claims an exemption from taxes under Texas Tax Code, Section 151.309 (4), for purchase of tangible personal property described in this numbered order, purchased from contractor and/or shipper listed above, as this property is being secured for the exclusive use of the State of Texas.

The Terms and Conditions of the State of Texas shall prevail.

THIS ORDER IS NOT VALID UNLESS SIGNED BY THE PURCHASING AGENT



PURCHASING AGENT FOR

TEXAS A&amp;M FOREST SERVICE

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PURCHASING DEPARTMENT

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Item	Description	Quantity	UOM	Unit Price	Ext Price
RTL	651-21 PER VENDOR QUOTE# SMEG-0004714-1 AS BID# 924. ALSO ATTACHED IS VENDOR INVOICE# 14003036 FOR LOOSE EQUIPMENT TO BE INCLUDED WITH VEHICLE.  AGENCY TERMS AND CONDITIONS SHALL APPLY, AND ARE INCLUDED WITH DOCUMENTATION.  VENDOR QUOTE: 0004714-1 VENDOR REF: WILLIAM TOPF				

Texas A&M Forest Service cannot accept collect freight shipments.

FOB: DESTINATION FRT INCLUDED

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PURCHASING AGENT FOR

TEXAS A&M FOREST SERVICE

Proposal for **Texas AM Forest Service**

Prepared by **Siddons-Martin Emergency Group**

11/18/2022 – Bid 924



**PERFORM. LIKE NO OTHER.™**

Siddons-Martin Emergency Group is pleased to submit a proposal to TIFMAS for a **Pierce® Tanker** per your request for quotation. The following paragraphs will describe in detail the apparatus proposed. It will meet the applicable requirements of the National Fire Protection Association (NFPA) as stated in current edition at time of contract execution, except where amended by your specifications. Loose equipment not specifically requested will not be provided.

PIERCE MANUFACTURING was incorporated in 1917. Since then we have been building bodies with one (1) philosophy, "BUILD THE FINEST". Our skilled craftsmen take pride in their work, which is reflected, in the final product. We have been building fire apparatus since the early "forties" giving Pierce Manufacturing over 75 years of experience in the fire apparatus market. Pierce Manufacturing has built and put into service more than 28,500 apparatus on commercial chassis, and more than 33,900 on Pierce custom chassis designed and built specifically for fire and emergency applications. Our Appleton, Wisconsin facility has over 870,000 total square feet of floor space situated on approximately 105 acres of land. Our Bradenton, Florida facility has 300,000 square feet of floor space situated on approximately 38 acres of land. A multi-million dollar inventory of parts is available to keep your unit in service long after it has left the factory.

Our beliefs in high ethical standards are carried through in all of our commitments and to everyone with whom we do business. Honesty, Integrity, Accountability and Citizenship are global tenets by which we all live and work. Consequently, we neither engage in, nor have we ever been convicted of price fixing, bid rigging, or collusion in any domestic or international fire apparatus market.

Pierce has only one brand of fire apparatus "Pierce", ensuring you are receiving top of the line product that meets your specification.

In accordance with the current edition of NFPA 1901 standards, this proposal will specify whether the fire department, manufacturer, or apparatus dealership will provide required loose equipment.

Images and illustrative material in this proposal are as accurate as known at the time of publication, but are subject to change without notice. Images and illustrative material is for reference only, and may include optional equipment and accessories and may not include all standard equipment.

### **GENERAL DESIGN AND CONSTRUCTION**

To control quality and ensure the compatibility of all the components, Pierce specifically designs the pump module, body, and electrical system to properly integrate and function with the commercial cab and chassis.

All welding, assembly and paint work will be done in Pierce owned manufacturing facilities. This includes, but not limited to the pumphouse module assembly, the body and the electrical system.

### **QUALITY AND WORKMANSHIP**

Pierce has set the pace for quality and workmanship in the fire apparatus field. Our tradition of building the highest quality units with craftsmen second to none has been the rule right from the beginning and we demonstrate that ongoing commitment by: Ensuring all steel welding follows American Welding Society D1.1-2004 recommendations for structural steel welding. All aluminum welding follows American Welding society and ANSI D1.2-2003 requirements for structural welding of aluminum. All sheet metal welding follows American welding Society B2.1-2000 requirements for structural welding of

sheet metal. Our flux core arc welding uses alloy rods, type 7000 and is performed to American Welding Society standards A5.20-E70T1. Furthermore, all employees classified as welders are tested and certified to meet the American welding Society codes upon hire and every three (3) years thereafter. Pierce also employs an American Welding Society certified welding inspector in plant during working hours to monitor weld quality.

Pierce Manufacturing operates a Quality Management System under the requirements of ISO 9001. These standards sponsored by the International Organization for Standardization (ISO) specify the quality systems that are established by the manufacturer for design, manufacture, installation and service. A copy of the certificate of compliance is included with this proposal.

In addition to the Quality Management system, we also employ a Quality Achievement Supplier program to insure the vendors and suppliers that we utilize meet the high standards we demand. That is just part of our overall "Quality at the Source" program at Pierce.

To demonstrate the quality of our products and services, a list of at least twenty five (25) fire departments/municipalities that have purchased vehicles for a second time is provided.

### **DELIVERY**

The apparatus will be delivered under its own power to insure proper break-in of all components while the apparatus is still under warranty. A qualified delivery representative shall deliver the apparatus and remain for a sufficient length of time to instruct personnel in proper operation, care and maintenance of the equipment delivered.

### **MANUAL AND SERVICE INFORMATION**

At time of delivery, complete operation and maintenance manuals covering the apparatus will be provided. A permanent plate will be mounted in the driver's compartment specifying the quantity and type of fluids required including engine oil, engine coolant, transmission, pump transmission lubrication, pump primer and drive axle.

### **SAFETY VIDEO**

At the time of delivery Pierce will also provide one (1) 39-minute, professionally-produced apparatus safety video, in DVD format. This video will address key safety considerations for personnel to follow when they are driving, operating, and maintaining the apparatus, including the following: vehicle pre-trip inspection, chassis operation, pump operation, and safety during maintenance.

### **PERFORMANCE TESTS**

A road test will be conducted with the apparatus fully loaded and a continuous run of no less than ten (10) miles. During that time the apparatus will show no loss of power nor will it overheat. The transmission drive shaft or shafts and the axles will run quietly and be free of abnormal vibration or noise. The apparatus will meet NFPA 1901 acceleration requirements and NFPA 1901 braking requirements. The apparatus when fully loaded will not have less than 25 percent nor more than 50 percent on the front axle and not less than 50 percent nor more than 75 percent on the rear axle.

### **SERVICE AND WARRANTY SUPPORT**

Pierce dealership support will be provided by Siddons-Martin Emergency Group by operating a Pierce authorized service center. The service center will have factory-trained mechanics on staff versed in

Pierce fire apparatus. The service facility will be located within one hundred fifty (150) miles of the fire department.

In addition to the dealership, Pierce has service facilities located in both, Weyauwega, Wisconsin and Bradenton, Florida. Pierce also maintains a dedicated parts facility of over 100,000 square feet in Appleton, Wisconsin. The parts facility stocks in excess of \$5,000,000 in parts dedicated to service and replacement parts. The parts facility employs a staff dedicated solely for the distribution and shipment of service and replacement parts.

Service parts for the apparatus being proposed can be found via [Pierceparts.com](http://Pierceparts.com) which, is an interactive online tool that delivers information regarding your specific apparatus as well as the opportunity to register for training classes.

As a Pierce customer you have the ability to view the complete bill of materials for your specific apparatus, including assembly drawings, piece part drawings, and beneficial parts notations. You will also have the ability to search the complete Pierce item master through a parts search function which offers all Pierce SKU's and descriptions offered on all Pierce apparatus. Published component catalogs, which include proprietary systems along with an extensive operators manual library is available for easy reference.

Pierce Manufacturing maintains a dedicated service and warranty staff of over 35 personnel, dedicated to customer support, which also maintains a 24 hour 7 day a week toll free hot line, four (4) on staff EVTs, and offers hands-on repair and maintenance training classes multiple times a year.

### **LIABILITY**

The successful bidder will defend any and all suits and assume all liability for the use of any patented process including any device or article forming a part of the apparatus or any appliance furnished under the contract.

### **INSURANCE PROVIDED BY BIDDER**

#### **COMMERCIAL GENERAL LIABILITY INSURANCE**

The successful bidder will, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of commercial general liability insurance:

Each Occurrence\$1,000,000

Products/Completed Operations Aggregate\$1,000,000

Personal and Advertising Injury\$1,000,000

General Aggregate\$2,000,000

Coverage will be written on a Commercial General Liability form. The policy will be written on an occurrence form and will include Contractual Liability coverage for bodily injury and property damage subject to the terms and conditions of the policy. The policy will include Owner as an additional insured when required by written contract.

### **COMMERCIAL AUTOMOBILE LIABILITY INSURANCE**

The successful bidder will, during the performance of the contract, keep in force at least the following minimum limits of commercial automobile liability insurance and coverage will be written on a Commercial Automobile liability form:

Each Accident Combined Single Limit:\$1,000,000

### **UMBRELLA/EXCESS LIABILITY INSURANCE**

The successful bidder will, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of umbrella liability insurance:

Aggregate:\$3,000,000

Each Occurrence:\$3,000,000

The umbrella policy will be written on an occurrence basis and at a minimum provide excess to the bidder's General Liability and Automobile Liability policies.

The required limits can be provided by one (1) or more policies provided all other insurance requirements are met.

Coverage will be provided by a carrier(s) rated A- or better by A.M. Best.

All policies will provide a 30-day notice of cancellation to the named insured. The Certificate of Insurance will provide the following cancellation clause: Should any of the above described policies be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions.

Bidder agrees to furnish owner with a current Certificate of Insurance with the coverages listed above along with the bid. The certificate will show the purchaser as certificate holder.

### **INSURANCE PROVIDED BY MANUFACTURER**

#### **PRODUCT LIABILITY INSURANCE**

The manufacturer will, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of Product Liability insurance:

Each Occurrence\$1,000,000

Products/Completed Operations Aggregate\$1,000,000

Coverage will be written on a Commercial General Liability form. The policy will be written on an occurrence form. The manufacturer's policy will include the owner as additional insured when required by written contract between the Owner and a Pierce authorized dealer.

## **UMBRELLA/EXCESS LIABILITY INSURANCE**

The manufacturer will, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of umbrella liability insurance:

Each Occurrence:\$25,000,000

Aggregate:\$25,000,000

The umbrella policy will be written on an occurrence basis and provide excess to the manufacturer's General Liability/Products policies.

The required limits can be provided by one (1) or more policies provided all other insurance requirements are met.

Coverage will be provided by a carrier(s) rated A- or better by A.M. Best.

All policies will provide a 30-day notice of cancellation to the named insured. The Certificate of Insurance will provide the following cancellation clause: Should any of the above described policies be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions.

Manufacturer agrees to furnish owner with a current Certificate of Insurance with the coverages listed above along with the bid. The certificate will show the purchaser as the certificate holder.

Your apparatus will be manufactured in Bradenton, Florida.

## **NFPA 2016 STANDARDS**

This apparatus specification includes a commercial chassis that has not been certified to meet the requirements of NFPA 1901 by the chassis manufacturer. Although this chassis may comply with certain aspects of the standard, Pierce has not received certification from this chassis manufacturer that all criteria have been met. The body as built by the manufacturer must comply with the NFPA standards effective January of 2016.

Certification of slip resistance of all stepping, standing and walking surfaces must be supplied with delivery of the apparatus.

All horizontal surfaces designated as a standing or walking surface that are greater than 48.00" above the ground must be defined by a 1.00" wide line along its outside perimeter. Perimeter markings and designated access paths to destination points will be identified on the customer approval print and are shown as approximate. Actual location(s) will be determined based on materials used and actual conditions at final build. Access paths may pass through hose storage areas and opening or removal of covers or restraints may be required. Access paths may require the operation of devices and equipment such as the aerial device or ladder rack.

A plate that is highly visible to the driver while seated will be provided. This plate will show the overall height, length, and gross vehicle weight rating.



The manufacturer will have programs in place for training, proficiency testing and performance for any staff involved with certifications.

An official of the company will designate, in writing, who is qualified to witness and certify test results.

### **NFPA COMPLIANCY**

Apparatus proposed by the bidder will meet the applicable requirements of the National Fire Protection Association (NFPA) as stated in the current edition at time of contract execution. Fire Department's specifications that differ from NFPA specifications will be indicated in the proposal as "non-NFPA."

### **PUMP TEST**

The rated water pump will be tested, approved, and certified by an ISO certified independent third party testing agency at the manufacturer's expense. The test results, along with the pump manufacturer's certification of hydrostatic test, the engine manufacturer's certified brake horsepower curve, and the manufacturer's record of pump construction details will be forwarded to the Fire Department.

### **GENERATOR TEST**

If the unit has a generator, the generator will be tested, approved, and certified by an ISO certified independent third party testing agency at the manufacturer's expense. The test results will be provided to the Fire Department at the time of delivery.

### **BID BOND**

Notwithstanding any document or assertion to the contrary, any surety bond related to the sale of a vehicle will apply only to the Basic One (1) Year Limited Warranty for such vehicle. Any surety bond related to the sale of a vehicle will not apply to any other warranties that are included within this bid (OEM or otherwise) or to the warranties (if any) of any third party of any part, component, attachment or accessory that is incorporated into or attached to the vehicle. In the event of any contradiction or inconsistency between this provision and any other document or assertion, this provision will prevail.

### **PERFORMANCE BOND NOT REQUESTED**

A performance bond will not be included. If requested at a later date, one will be provided to you for an additional cost and the following will apply:

The successful bidder will furnish a Performance and Payment bond (Bond) equal to 100 percent of the total contract amount within 30 days of the notice of award. Such Bond will be in a form acceptable to the Owner and issued by a surety company included within the Department of Treasury's Listing of Approved Sureties (Department Circular 570) with a minimum A.M. Best Financial Strength Rating of A and Size Category of XV. In the event of a bond issued by a surety of a lesser Size Category, a minimum Financial Strength rating of A+ is required.

Bidder and Bidder's surety agree that the Bond issued hereunder, whether expressly stated or not, also includes the surety's guarantee of the vehicle manufacturer's Bumper to Bumper warranty period included within this proposal. Owner agrees that the penal amount of this bond will be simultaneously amended to 25 percent of the total contract amount upon satisfactory acceptance and delivery of the vehicle(s) included herein. Notwithstanding anything contained within this contract to the contrary, the surety's liability for any warranties of any type will not exceed three (3) years from the date of such

satisfactory acceptance and delivery, or the actual Bumper to Bumper warranty period, whichever is shorter.

Due to global supply chain constraints, any delivery date contained herein is a good faith estimate as of the date of this order/contract, and merely an approximation based on current information. Delivery updates will be made available, and a final firm delivery date will be provided as soon as possible.

### **APPROVAL DRAWING**

A drawing of the proposed apparatus will be prepared and provided to the purchaser for approval before construction begins. The Pierce sales representative will also be provided with a copy of the same drawing. The finalized and approved drawing will become part of the contract documents. This drawing will indicate the chassis make and model, location of the lights, siren, horns, compartments, major components, etc.

A "revised" approval drawing of the apparatus will be prepared and submitted by Pierce to the purchaser showing any changes made to the approval drawing.

### **ELECTRICAL WIRING DIAGRAMS**

Two (2) electrical wiring diagrams, prepared for the body as it interfaces with the commercial chassis, will be provided.

### **CHASSIS**

The chassis will be a Freightliner, Model M2, 106MD Conventional Chassis, supplied with the following equipment:

### **WHEELBASE**

The wheelbase of the vehicle will be 249".

### **GVW RATING**

The gross vehicle weight rating will be 47k.

### **FRAME**

The frame rails will be formed from 120,000 psi yield, heat treated alloy steel. The frame rails will be E-coated prior to painting.

### **FRAME LINER**

An 0.25" inner frame reinforcement will be provided.

The frame section properties will be:

- Section Modulus: 26.80 cubic inch, per rail
- RBM: 3,217,000 in-lb, per rail
- Yield Strength: 120,000 psi, per rail

### **FRONT AXLE**

Front axle will be an "I" beam type, made of forged steel. It will have a ground rating capacity of 16,000 pounds.

## **FRONT SUSPENSION**

Taper leaf spring

Capacity at Ground: 16,000 lb

Shock absorbers will be provided on the front axle.

## **FRONT BRAKES**

The front brakes will be S-Cam, 16.50" x 6.00". The front brakes will be provided with automatic slack adjusters.

## **TIRE BRAND**

The default brand of tire for the commercial chassis manufacturer for this apparatus is Michelin.

However, the commercial chassis manufacturer reserves the right to substitute brands and models of tire as may be available at the factory on the date of manufacture. They will provide the proper tread style and weight rating for the position in which the tire is installed.

Pierce Manufacturing and the chassis manufacturer are working to provide the brand of tire specified. However, due to shortages (and even model changes by the tire manufacturers), if the chassis manufacturer substitutes other tires, they will not be changed by Pierce.

## **TIRES, FRONT**

Front tires will be 315/80R22.50, radial tires with a tread pattern suitable for the steering axle position. The maximum capacity of the tires will be 18,180 lbs. and a maximum top speed per the requirements described elsewhere in this proposal, up to 65 MPH.

## **WHEELS, FRONT**

Wheels for the front axle will be 22.50" x 9.00" steel disc.

## **REAR AXLE**

The single reduction rear axle will be a Meritor™, Model RS-30-185, with a ground rating capacity of 31,000 lb.

## **PARKING BRAKE**

The parking brake will be spring set and located on the rear axle service brake.

Rear axle brakes will be 16.50" x 7.00", S-Cam drum type brakes. Automatic slack adjusters will be provided.

## **REAR AXLE RATIO**

A rear axle ratio will be furnished to allow the vehicle to reach a top speed of 60 MPH.

## **REAR SUSPENSION**

The rear suspension will be leaf spring type with a capacity at ground level of 31,000 lbs. Auxiliaries will be included.

## **DUST SHIELDS**

The front and rear brakes will be provided with dust shields.

### **TIRES, REAR**

Rear tires will be 315/80R22.50 radial tires with a traction tread pattern suitable for the drive axle position. The maximum single axle capacity of the tires will be 33,080 lbs. Tires will be rated for a maximum top speed per the requirements described elsewhere in this proposal, up to 65 MPH.

### **WHEELS, REAR**

The rear wheels will be 22.50" x 9.00" steel disc.

### **TIRE PRESSURE MANAGEMENT**

There will be a RealWheels LED AirSecure™ tire alert pressure management system provided, that will monitor each tire's pressure. A sensor will be provided on the valve stem of each tire for a total of six (6) tires.

The sensor will calibrate to the tire pressure when installed on the valve stem for pressures between 10 and 200 psi. The sensor will activate an integral battery operated LED when the pressure of that tire drops 5 to 8 psi.

Removing the cap from the sensor will indicate the functionality of the sensor and battery. If the sensor and battery are in working condition, the LED will immediately start to flash.

### **CHROME LUG NUT COVERS**

Chrome lug nut covers will be supplied on front and rear wheels.

### **MUD FLAPS**

Mud flaps with a Pierce logo will be installed behind the front and rear wheels.

### **WHEEL CHOCKS PROVIDED BY DEALER**

NFPA 1901, 2016 edition, section 7.9.4 requires two (2) or more wheel chocks mounted in readily accessible locations, that together will hold the apparatus, when loaded to its GVWR or GCWR, on a hard surface with a 20 percent grade with the transmission in neutral and the parking brake released.

The wheel chocks are not on the apparatus as manufactured. The dealer will provide and install these wheel chocks.

### **Wheel Chock Brackets Provided by Dealer**

The wheel chock brackets are not on the apparatus as manufactured. The dealer will provide and install the wheel chock brackets.

### **ANTI-LOCK BRAKE SYSTEM**

The vehicle will be equipped with an anti-lock braking system. The ABS will provide anti-lock braking control on both the front and rear wheels. It will be a digitally controlled system that utilizes microprocessor technology to control the anti-lock braking system. Each wheel will be monitored by the system. When any particular wheel begins to lockup, a signal will be sent to the control unit. This control unit then will reduce the braking of that wheel for a fraction of a second and then reapply the brake. This anti-lock brake system will eliminate the lockup of any wheel thus helping to prevent the apparatus from skidding out of control.

The system will include Automatic Traction Control (ATC).

The system will include Electronic Stability Control (ESC). When instability is detected, the ESC system will automatically apply brakes to individual wheels (with no intervention from the driver) and may also reduce engine torque to help keep the vehicle on track.

### **AIR COMPRESSOR, BRAKE SYSTEM**

The air compressor will have an output of 18.7 cubic feet per minute.

### **AIR DRYER**

An air dryer with a heater will be provided. Other features of this air dryer include:

- Desiccant style filter
- In-line filtration system
- Automatic purge valve

### **AIR INLET/OUTLET**

One (1) air inlet/outlet will be installed with the female coupling located on the driver side pump panel. This system will tie into the "wet" tank of the brake system and include a check valve in the inlet line and an 85 psi pressure protection valve in the outlet line. The air outlet will be controlled by a needle valve.

A mating male fitting will be provided with the loose equipment.

The air inlet will allow a shoreline air hose to be connected to the vehicle. This will allow station air to be supplied to the brake system of the vehicle to insure constant air pressure.

### **ENGINE**

- Model: Electronic Cummins L9
- Number of Cylinders: Six (6)
- Bore and Stroke: 4.49" x 5.69"
- Displacement: 543 cubic inches (8.9 Liter)
- Rated Brake Horsepower: 360 at 2200 rpm
- Peak Torque: 1150 at 1200 rpm
- Governed rpm: 2200
- VGT Turbocharger
- Fuel System: High pressure common rail (HPCR)

### **ENGINE ACCESSORIES**

- Air Cleaner: Dry type, with restriction indicator in cab
- Fuel Filters: Dual, with check valve
- Governor: Limiting speed type
- Lube Oil Cooler
- Lube Oil Filter: Combination full flow/bypass
- Starting Motor: 12-volt

- Oil Fill and Level Gauge

### **RADIATOR**

- Pressurized System, Tube and Fin
- Deaeration Tank
- Anti-Freeze Protection -34 Degrees Fahrenheit

### **HIGH IDLE**

A high idle switch will be provided on the instrument panel inside the cab. Activating the switch will cause the vehicle to automatically maintain a preset engine rpm.

The high idle switch will be operational only when the parking brake is on and the truck transmission is in neutral. A green indicator light will be provided adjacent to the switch. The light will be labeled "OK To Engage High Idle."

### **ENGINE BRAKE**

A Cummins C-Brake engine brake is to be installed with the controls located on the instrument panel within easy reach of the driver. The driver will be able to turn the brake system "On" or "Off" and have at least a "High & Low" setting.

When the engine brake is engaged it will activate the brake lights.

### **AIR INTAKE, W/EMBER SEPARATOR**

The air inlet will be equipped with a stainless steel mesh to separate water and burning embers from the air intake system such that particulate matter larger than 0.039" (1.0 mm) in diameter cannot reach the air filter element.

This will comply with NFPA 1901 and 1906 standards.

### **EXHAUST SYSTEM**

The exhaust system will consist of a single vertical stack with a diesel particulate filter (DPF) and a diesel oxidation catalyst to meet current EPA standards. The DPF will be mounted horizontally outside of the frame rails in the passenger side front step area. The stack will be located at the right rear side of the cab. A perforated stainless steel heat shield will cover the stack along the cab door frame opening.

A vertical handrail will be provided and may be mounted to the heat shield or to the cab.

### **COOLANT LINES**

Gates Blue Stripe rubber hose will be used for all engine coolant lines installed by the chassis manufacturer.

Hose clamps will be the constant torque type to prevent coolant leakage. They will expand and contract according to coolant system temperature thereby keeping a constant clamping pressure on the hose.

### **FUEL TANK**

A 50 gallon fuel tank will be provided and mounted at the left-hand cab step. The tank will be constructed of aluminum.

### **DIESEL EXHAUST FLUID TANK**

A diesel exhaust fluid (DEF) tank will be provided and mounted on the left side, below the cab.

The tank will be sized by the chassis manufacturer based on the engine provided. It will include an integrated heater unit that utilizes engine coolant to thaw the DEF in the event of freezing.

### **FUEL PRIMING PUMP**

A Cummins automatic electronic fuel priming pump will be integrated as part of the engine.

### **AUXILIARY FUEL COOLING SYSTEM**

A supplementary fuel cooling system will be provided to allow the use of water from the discharge side of the pump for cooling the chassis engine fuel. The heat exchanger will be a cylindrical type and will be a separate unit. The cooler will operate any time the pump is discharging water and will be plumbed to the master drain valve.

### **TRANSMISSION**

An Allison, model 3000 EVS, electronic torque converting automatic transmission will be provided. To qualify for the EVS rating, the transmission will be filled with synthetic transmission fluid.

Two (2) PTO openings will be located on left and right side of the converter housing (positions 8 o'clock and 4 o'clock).

A transmission temperature gauge or warning light will be installed on cab instrument panel.

### **TRANSMISSION SHIFT CONTROL**

A push button shift module will be mounted to right of driver. Shift position indicator will be indirectly lit for after dark operation.

The transmission will be a five (5)-speed.

### **TRANSMISSION COOLER**

A transmission oil cooler will be provided in a tank of the radiator.

### **DRIVELINE**

Drivelines will be a heavy duty metal tube equipped with universal joints properly sized for the application. A splined slip joint will be provided in each driveshaft.

### **STEERING**

The steering system will be hydraulically driven. The steering column will have an adjustable tilt and telescope feature.

### **BUMPER**

A one (1) piece bumper manufactured from 0.25" formed steel with a 0.38" bend radius will be provided. The bumper will be a minimum of 10.00" high with a 1.50" top and bottom flange, and will

extend 22.00 " from the face of the cab. The bumper will have 45 degree corners. The bumper will be metal finished and painted job color.

To provide adequate support strength, the bumper will be mounted directly to the front of the C channel frame. The frame will be a bolted modular extension frame constructed of 50,000 psi tensile steel.

#### **GRAVEL PAN**

A gravel pan, constructed of bright aluminum treadplate, will be furnished between the bumper and the cab face and front wheel wells. The pan will be properly supported from the underside to prevent flexing and vibration.

#### **TOW HOOKS**

Two (2) chromed steel tow hooks will be installed under the bumper and attached to the front frame members. The tow hooks will be designed and positioned to allow up to a 6,000 lb straight horizontal pull in line with the centerline of the vehicle. The tow hooks will not be used for lifting of the apparatus.

#### **LICENSE PLATE BRACKET**

A non-illuminated license plate bracket will be mounted on the front bumper. The bracket will be formed from bright stainless steel.

#### **CAB**

A 4-door, high-roof cab will be provided. The cab and doors will be of an aluminum construction.

#### **Exterior Styling**

Aerodynamic hood and windshield

Tinted Glass in all Windows

Fiberglass hood with mounted plastic grille

Single 63"x14" rear window (unless deleted by the customer - option elsewhere in proposal)

#### **Interior**

Air bag rear cab suspension

Gray vinyl mats

Forward roof mounted console

Two (2) dash-mounted cup holders, right-hand and left-hand

Gray Vinyl Upholstery

Dual Sun visors

Fresh Air Heater and Defroster



### **CAB INTERIOR W/CONVENIENCE PACKAGE**

The cab upholstery will be gray vinyl.

The cab interior will include wood grain driver and center instrument panels, molded plastic door panels with vinyl inserts and brushed aluminum lower door kick plates.

### **CAB GRILLE - CHROMED**

The cab grille will be a chromed high impact plastic with a horizontal rib design. The headlight bezels and air intake grilles will also have a chromed finish. The grille will tilt with the hood.

### **MIRRORS**

West Coast style heated, remote operated mirrors constructed from a molded composite material with a bright finish will be provided. A heated 8.00" convex mirror will be included below the primary mirrors.

### **CAB ACCESS STEPS**

The cab steps will be provided by the chassis manufacturer. These steps will be modified by the apparatus manufacturer if required to meet NFPA step requirements.

Bright aluminum treadplate trim between the steps will be provided by the apparatus manufacturer. A bright aluminum overlay will be placed over the fuel tank, under the mounting bands. Access to the chassis batteries will be provided if batteries are located under the cab.

### **COMPARTMENT, STORAGE**

A storage compartment will be provided under the crew cab in the right side step area. An aluminum treadplate drop-down door with a rubber seal will be provided on the compartment. The door will have a single pan construction.

### **STEP LIGHTS**

There will be eight (8) white LED step lights provided. There will be two (2) lights installed at each cab and crew cab door, one (1) light per doorstep.

In order to ensure exceptional illumination, each light will provide a minimum of 25 foot-candles (fc) covering an entire 15" x 15" square placed ten (10) inches below the light and a minimum of 1.5 fc covering an entire 30" x 30" square at the same ten (10) inch distance below the light.

The lights will be activated when the adjacent door is opened.

### **DAYTIME RUNNING LIGHTS**

The chassis will be provided with daytime running lights.

### **AIR CONDITIONING**

An air conditioner will be provided that is integral with heater and defroster system.

### **ENGINE COMPARTMENT LIGHTS**

Two (2) engine compartment lights will be installed under the engine hood, of which the switches are an integral part.

### **STORAGE CONSOLE**

There will be a console located between the front seats with room for map storage, the siren head and a radio. There will be four (4) sections for map storage to the rear of the console. Each map storage section will be approximately 4.00" wide x 13.00" long x 12.25" deep. The console will be constructed of smooth aluminum and painted black.

### **SEATING CAPACITY**

The seating capacity in the cab will be five (5).

### **SEATING**

Seating inside the cab will consist of a Seats Inc. 911 air-ride driver seat and a Seats Inc. 911 air-ride officer seat.

### **SEATING (CREW CAB)**

Three (3) individual Seats Inc. #911 non-SCBA style seats will be provided inside the crew cab. Each seat will be mounted to an individual storage box with drop down hinged door and latch.

### **SEAT BELT WEB LENGTH**

NFPA 14.1.3.2 and 14.1.3.3 requires effective seat belt web length for a Type 1 lap belt for pelvic restraint to be a minimum of 60 in., and a Type 2 pelvic and upper torso restraint-style seat belt assembly to be a minimum of 110 in.

Per Fire Department specification of a commercial chassis, this apparatus will have seat belts of the required length. These belts will provide sufficient length for large firefighters in bunker gear. This apparatus will be compliant to NFPA standards effective at time of contract execution.

### **SEAT BELTS**

All seating positions in the cab and crew cab will have highly visible (orange) seat belts.

### **HELMET STORAGE PROVIDED BY FIRE DEPARTMENT**

NFPA 1901, 2016 edition, section 14.1.7.4.1 requires a location for helmet storage be provided.

There is no helmet storage on the apparatus as manufactured. The fire department will provide a location for storage of helmets.

### **PORTABLE HAND LIGHTS, PROVIDED BY FIRE DEPARTMENT**

NFPA 1901, 2016 edition, section 7.9.4 requires two portable hand lights mounted in brackets fastened to the apparatus.

The hand lights are not on the apparatus as manufactured. The fire department will provide and mount these hand lights.

### **HAND HELD SPOTLIGHT**

There will be two (2) lights Streamlight, Model Survivor 90503, LED flashlights with chargers and AC/DC chords provided and installed rear of console, one each side, up high.

The flashlights will be connected battery direct and will charge when the chassis batteries are charging.

### **CAB INSTRUMENTS**

- Engine Temperature Gauge and Warning Buzzer
- Engine Oil Pressure Gauge and Warning Buzzer
- Speedometer with Odometer
- Engine Tachometer
- Engine Hourmeter
- Fuel Level Gauge
- DEF Level Gauge and Warning Lamp
- Voltmeter: Low voltage red warning light and audible alarm
- Air Brake Pressure Gauge
- Air Restriction Indicator
- Circuit Breakers: For overload protection of electric circuits
- Ignition Switch: Keyless type

### **EMERGENCY SWITCH PANEL**

An emergency switch panel will be provided in the cab. The switch panel will be located overhead and on the cab instrument panel.

### **"DO NOT MOVE APPARATUS" INDICATOR**

A Whelen Model 3SR00FRR flashing red LED indicator light with a Whelen, Model 3FLANGEC chrome surface mount flange located in the driving compartment, will be illuminated automatically per the current NFPA requirements. The light will be labeled "Do Not Move Apparatus If Light Is On".

The same circuit that activates the Do Not Move Apparatus indicator will activate a steady tone alarm when the parking brake is released.

### **OPEN DOOR INDICATOR LIGHT**

A red "open door" indicator light will be provided inside the cab, in clear view of the driver, to warn of an open compartment door.

### **WIPER CONTROL**

Wiper control will include an intermittent feature and windshield washer controls.

### **SPARE CIRCUIT**

There will be four (4) pair of wires, including a positive and a negative, installed on the apparatus.

The above wires will have the following features:

- The positive wire will be connected directly to the battery power
- The negative wire will be connected to ground
- Wires will be protected to 15 amps at 12 volts DC
- Power and ground will terminate two (2) on the officer dash and two (2) on the front of the console
- Termination will be with 15 amp, power point plug with rubber cover
- Wires will be sized to 125 percent of the protection

The circuit(s) may be load managed when the parking brake is set.

### **SPARE CIRCUIT**

There will be four (4) pair of wires, including a positive and a negative, installed on the apparatus.

The above wires will have the following features:

- The positive wire will be connected directly to the battery power.
- The negative wire will be connected to ground.
- Wires will be protected to 2.0 amps at 12 volts DC.
- Power and ground will terminate two on front on console and two rear of console..
- Termination will be a Blue Sea Systems part number 1016 dual USB charger socket.
- Wires will be sized to 125 percent of the protection.

This circuit(s) may be load managed when the parking brake is applied.

### **RADIO**

An AM/FM stereo radio with weatherband and Bluetooth, USB inputs, auxiliary input, and J1939 compatibility will be provided. It will also include two (2) speakers and a clock.

### **VEHICLE DATA RECORDER**

There will be a vehicle data recorder (VDR) capable of reading and storing vehicle information provided.

The information stored on the VDR can be downloaded through a USB port mounted in a convenient location determined by cab model. A USB cable can be used to connect the VDR to a laptop to retrieve required information. The program to download the information from the VDR will be available to download on-line.

The vehicle data recorder will be capable of recording the following data via hardwired and/or CAN inputs:

- Vehicle Speed - MPH
- Acceleration - MPH/sec
- Deceleration - MPH/sec
- Engine Speed - RPM
- Engine Throttle Position - % of Full Throttle
- ABS Event - On/Off

- Seat Occupied Status - Yes/No by Position
- Seat Belt Buckled Status - Yes/No by Position
- Master Optical Warning Device Switch - On/Off
- Time - 24 Hour Time
- Date - Year/Month/Day

The system will also be capable of no additional functionality required.

An additional input will be included with this system. When the VDR is active, this input will not be required.

### **SEAT BELT MONITORING SYSTEM**

A seat belt monitoring system (SBMS) will be provided. The SBMS will be capable of monitoring up to six (6) seating positions indicating the status of each seat position per the following:

- Seat Occupied & Buckled = Green LED indicator illuminated
- Seat Occupied & Unbuckled = Red LED indicator with audible alarm
- No Occupant & Buckled = Red LED indicator with audible alarm
- No Occupant & Unbuckled = No indicator and no alarm

The SBMS will include an audible alarm that will warn that an unbuckled occupant condition exists and the parking brake is released, or the transmission is not in park.

### **VEHICLE CAMERA SYSTEM**

There will be a color vehicle camera system provided with the following:

- One (1) Analog High Definition (AHD) white camera located at the rear of the apparatus, pointing rearward, displayed automatically with the vehicle in reverse.

The camera image will be displayed on a 7.00" High Definition (HD) display located in view of the driver on the dash. The display will include manual camera activation capability and audio from the active camera.

The following components will be included:

- One (1) HD700136DC, display
- One (1) 1080p AHD rear camera
- All necessary cables

### **VEHICLE CAMERA GUARD**

There will be one (1) aluminum treadplate guard(s) fastened over the vehicle camera(s) located rear of truck covering camera .

### **ELECTRICAL**

All 12-volt electrical equipment installed by the apparatus manufacturer will conform to modern automotive practices. All wiring will be high temperature crosslink type. Wiring will be run in loom or conduit where exposed and have grommets where wire passes through sheet metal. Automatic reset

circuit breakers will be provided which conform to SAE Standards. Wiring will be color, function and number coded. Function and number codes will be continuously imprinted on all wiring harness conductors at 2.00" intervals. Exterior exposed wire connectors will be positive locking, and environmentally sealed to withstand elements such as temperature extremes, moisture and automotive fluids. Electrical wiring and equipment will be installed utilizing the following guidelines:

- (1) All holes made in the roof will be caulked with silicon. Rope caulk is not acceptable. Large fender washers, liberally caulked, will be used when fastening equipment to the underside of the cab roof.
- (2) Any electrical component that is installed in an exposed area will be mounted in a manner that will not allow moisture to accumulate in it. Exposed area will be defined as any location outside of the cab or body.
- (3) Electrical components designed to be removed for maintenance will not be fastened with nuts and bolts. Metal screws will be used in mounting these devices. Also a coil of wire will be provided behind the appliance to allow them to be pulled away from mounting area for inspection and service work.
- (4) Corrosion preventative compound will be applied to all terminal plugs located outside of the cab or body. All non-waterproof connections will require this compound in the plug to prevent corrosion and for easy separation (of the plug).
- (5) All lights that have their sockets in a weather exposed area will have corrosion preventative compound added to the socket terminal area.
- (6) All electrical terminals in exposed areas will have silicon applied completely over the metal portion of the terminal. All emergency light switches will be mounted on a separate panel installed in the cab. A master warning light switch and individual switches to be provided to allow pre-selection of emergency lights. The light switches will be "rocker" type with an internal indicator light to show when switch is energized. All switches will be properly identified and mounted in a removable panel for ease in servicing. Identification of the switches will be done by either printing or etching on the switch panel. The switches and identification will be illuminated.

All lights and reflectors, required to comply with Federal Motor Vehicle Safety Standard #108, will be furnished. Rear identification lights will be recessed mounted for protection. Lights and wiring mounted in the rear bulkheads will be protected from damage by installing a false bulkhead inside the rear compartments.

An operational test will be conducted to ensure that any equipment that is permanently attached to the electrical system is properly connected and in working order.

The results of the tests will be recorded and provided to the purchaser at time of delivery.

### **BATTERY SYSTEM**

A single starting battery system will be provided consisting of three (3)-12 volt, maintenance-free batteries. The battery system will have a total of 2250 to 2280 cold cranking amps.

### **Jump Start Connections**

Positive and negative posts for jump starting will be provided by the chassis manufacturer. They will be frame mounted and located under the hood.

### **BATTERY LOCATION - CREW CAB STEP COMPARTMENT**

The batteries will be relocated by the apparatus manufacturer. They will be installed in the left side crew cab step compartment. That compartment is defined elsewhere in this specification.

No other electrical components are to be installed in this same compartment due to potential explosive fumes from the batteries.

### **MASTER BATTERY SWITCH**

A master battery switch, to activate the battery system, will be provided inside the cab within easy reach of the driver.

The master battery disconnect switch will be wired between the starter solenoid and the remainder of the electrical loads on the apparatus.

A green "battery on" indicator light, visible from the driver's position, will be provided.

### **BATTERY CHARGER/ AIR COMPRESSOR**

A Kussmaul Pump Plus 1200, Model 091-9-1200, single output battery charger/air compressor system will be provided. A Kussmaul, Model 091-194-IND, auto charge status center indicating the state of charge will be included.

The automatic charger will maintain one (1) set of batteries with a maximum output current of 40 amps.

The 12-volt air compressor will be installed to maintain the air system pressure when the vehicle is not in use.

There will be an auto pump timer installed between the pressure switch and the pump that will allow the pump to run for one hour then shut down for one hour.

The battery charger will be wired to the AC shoreline inlet through an AC receptacle adjacent to this battery charger.

Battery charger/compressor will be located in the front left body compartment.

The battery charger indicator will be located adjacent to the driver's seat riser. The indicator will be enclosed to protect it from damage.

### **AUTO EJECT FOR SHORELINE**

There will be one (1) Kussmaul™, Model 091-55-20-120, 20 amp 120 volt AC shoreline inlet(s) provided to operate the dedicated 120 volt AC circuits on the apparatus.

The shoreline inlet(s) will include red weatherproof flip up cover(s).

There will be a release solenoid wired to the vehicle's starter to eject the AC connector when the engine is starting.

The shoreline(s) will be connected to the battery charger.

There will be a mating connector body supplied with the loose equipment.

There will be a label installed near the inlet(s) that state the following:

- Line Voltage
- Current Rating (amps)
- Phase
- Frequency

The shoreline receptacle will be located driver side pump panel.

### **ALTERNATOR**

The alternator will be a Delco with a capacity of 12-volt 300 amp.

### **ELECTRONIC LOAD MANAGEMENT**

A Kussmaul Load Manager 2 will be provided on the apparatus. The device is an electronic load management (ELM) system that monitors the vehicles 12-volt electrical system, and automatically reduces the electrical load in the event of a low voltage condition and by doing so, ensures the integrity of the electrical system.

The ELM will monitor the vehicle's voltage while at the scene (parking brake applied). It will sequentially shut down individual electrical loads when the system voltage drops below a preset value. Two (2) separate electrical loads will be controlled by the load manager. The ELM will sequentially re-energize electrical loads as the system voltage recovers.

### **EXTERIOR LIGHTING - HEADLIGHTS**

Exterior lighting will meet or exceed Federal Department of Transportation, Federal Motor Vehicle Safety Standards and National Fire Protection Association requirements in effect at time of proposal.

Front headlights will be LED type and comply to all FMVSS requirements.

### **EXTERIOR LIGHTING**

Exterior lighting will meet or exceed Federal Department of Transportation, Federal Motor Vehicle Safety Standards and National Fire Protection Association requirements in effect at this time.

Five (5) LED clearance/marker lights will be installed across the leading edge of the cab.



### **INTERMEDIATE LIGHT**

There will be two (2) Truck-Lite®, Model 60421Y, amber LED lights furnished, one (1) each side, horizontally in the rear fender panel. The light will double as a turn signal and marker light.

A stainless steel trim will be included with this installation.

### **REAR CLEARANCE/MARKER/ID LIGHTING**

There will be three (3) Whelen®, Model 0SR00MCR, LED lights with a chrome flange used as identification lights located at the rear of the apparatus per the following:

- As close as practical to the vertical centerline
- Centers spaced not less than 6.00" or more than 12.00" apart
- Red in color
- All at the same height

There will be two (2) Whelen, Model 0SR00MCR, LED lights with a chrome flange installed at the rear of the apparatus used as clearance lights located at the rear of the apparatus per the following:

- To indicate the overall width of the vehicle
- One (1) each side of the vertical centerline
- As near the top as practical
- Red in color
- To be visible from the rear
- All at the same height

There will be two (2) Whelen, Model 0SR00MCR, LED lights with a chrome flange installed on the side of the apparatus as marker lights as close to the rear as practical per the following:

- To indicate the overall length of the vehicle
- One (1) each side of the vertical centerline
- As near the top as practical
- Red in color
- To be visible from the side
- All at the same height

There will be two (2) red reflectors located on the rear of the truck facing to the rear. One (1) each side, as far to the outside as practical, at a minimum of 15.00", but no more than 60.00", above the ground.

There will be two (2) red reflectors located on the side of the truck facing to the side. One (1) each side, as far to the rear as practical, at a minimum of 15.00", but no more than 60.00", above the ground.

Per FMVSS 108 and CMVSS 108 requirements.

### **REAR FMVSS LIGHTING**

The rear stop/tail and directional lighting will include the following:

- Two (2) Whelen®, Model M62BTT, 4.30" high x 6.70" wide x 1.40" deep brake/tail lights with red LEDs
- Two (2) Whelen, Model M62T, 4.30" high x 6.70" wide x 1.40" deep directional lights with amber LEDs. The directional lights will be set to Steady On (Arrow) flash pattern.
- The lens color(s) to be the same as the LEDs.
- The lights to include chrome trim.

There will be two (2) Whelen® Model M62BU, 4.31" high x 6.75" wide x 1.37" deep backup lights with white LEDs, clear lenses and chrome trim provided.

### **LICENSE PLATE BRACKET**

One (1) license plate bracket constructed of stainless steel will be provided at the rear of the apparatus.

One (1) white LED light with chrome housing will be provided to illuminate the license plate. A stainless steel light shield will be provided over the light that will direct illumination downward, preventing white light to the rear.

### **BACK-UP ALARM**

A PRECO, Model 1040, solid-state electronic audible back-up alarm that actuates when the truck is shifted into reverse will be provided. The device will sound at 60 pulses per minute and automatically adjust its volume to maintain a minimum ten (10) dBA above surrounding environmental noise levels.

### **CAB PERIMETER SCENE LIGHTS**

There will be four (4) Amdor white LED strip lights provided, one (1) for each cab door and crew cab door.

- Two (2) Amdor, Model AY-LB-12HW020, 350 lumens each, 20.00" LED strip lights, one (1) for each cab door.
- Two (2) Amdor, Model AY-LB-12HW012, 190 lumens each, 12.00" LED strip lights, one (1) for each crew cab door.

These lights will be activated automatically when the battery switch is on and the exit doors are opened or by the same means as the body perimeter scene lights.

### **PUMP HOUSE PERIMETER LIGHTS**

There will be two (2) Amdor, Model AY-LB-12HW012, 190 lumens each, 12.00" LED weatherproof strip lights with brackets provided under the pump panel running boards, centered front to rear as much as possible, one (1) each side.

The lights will be activated when the battery switch is on, and controlled by the same means as the body perimeter lights.

### **BODY PERIMETER SCENE LIGHTS**

There will be two (2) Amdor Model AY-LB-12HW020, 350 lumens, 20.00" LED lights provided at the rear step area of the body, one (1) each side shining to the rear.

The perimeter scene lights will be activated when the battery switch is on, and the parking brake is applied.

### **ADDITIONAL PERIMETER LIGHTS**

There will be two (2) Amdor® Model AY-LB-12HW020, 350 lumens, 20.00" long, with white LED's installed with one (1) light under each side of the front bumper spaced evenly.

With the chassis battery switch energized, the lights will be activated by the same means as the body perimeter lights.

### **STEP LIGHTS**

Four (4) white LED step lights will be provided. One (1) step light will be provided on each side, on the front compartment face and two (2) step lights at the rear to illuminate the tailboard.

In order to ensure exceptional illumination, each light will provide a minimum of 25 foot-candles (fc) covering an entire 15.00" x 15.00" square placed 10.00" below the light and a minimum of 1.5 fc covering an entire 30.00" x 30.00" square at the same 10.00" distance below the light.

These step lights will be actuated with the pump panel light switch.

All other steps on the apparatus will be illuminated per the current edition of NFPA 1901.

### **SCENE LIGHTS**

There will be two (2) Fire Research, Model SPA900-Q70 scene light(s) with chrome flange(s) installed on the side of the apparatus, driver side front of body and rear of body.

A control for the light(s) selected above will be the following:

- a switch at the driver's side switch panel
- a switch at the pump operator's panel
- no additional switch location
- no additional switch location

These lights may be load managed when the parking brake is set.

### **SCENE LIGHTS**

There will be one (1) Fire Research, Model SPA900-Q70 scene light(s) with chrome flange(s) installed on the side of the apparatus, passenger side rear of hard suction..

A control for the light(s) selected above will be the following:

- a switch at the driver's side switch panel
- a switch at the pump operator's panel
- no additional switch location
- no additional switch location

These lights may be load managed when the parking brake is set.

## **12 VOLT LIGHTING**

A Fire Research, Model SPA851-Q15-\*, 12 volt LED floodlight will be provided. The visor light will be mounted on a special bracket painted exterior cab roof color, provided on the front of the cab roof.

The painted parts of this light assembly to be white with a white bezel.

The light will be controlled in the following way:

- a switch at the driver's side switch panel.
- no additional switch location.

This light may be load managed when the parking brake is applied.

## **DECK LIGHTS**

There will be two (2) Whelen®, Model MPBB, black 12 volt DC LED floodlights with stud bail mount provided at the rear of the hose bed, one (1) each side.

The lights will be activated by a control from a switch at the rear of the truck and a switch located at the driver side switch panel.

## **FRONT OF HOSE BED LIGHT**

Installed at the front of the hose bed will be one (1) On Scene Solutions Night Axe, Model 70035, LED strip light(s). Each light will be 63.00" in length and be installed on the cross divider front of hosebed.

The light(s) will be activated by a cup switch at the rear of the apparatus no more than 72.00" from the ground.

## **REAR SCENE LIGHT(S)**

There will be two (2) Fire Research, Model SPA900-Q70, LED scene light(s) with chrome trim bezels installed at the rear of the apparatus, One each side at rear.

The light(s) will be controlled by a switch at the driver's side switch panel and by a switch at the driver's side pump panel.

The light(s) may be load managed when the parking brake is set.

## **WALKING SURFACE LIGHTS**

There will be One (1) Amdor®, Model AY-LB-12HW0\*\*, white 12 volt DC LED strip light(s) provided in the cargo area(s) to illuminate the interior surface of the cargo area(s). Light(s) will be forward cargo sheet.

The light will be activated when the body step lights are on.

## **WATER TANK**

The tank will have a minimum capacity of 2000 U.S. gallons. The tank will be of a specified configuration, and so designed to be completely independent of the compartment and/or fender modules. When placed on the chassis, the tank will meet or exceed all federal DOT regulations regarding weight distribution, axle loading, and horizontal and vertical center of gravity locations. The

tank manufacturer will mark the tank with the manufacturers name, date of manufacture, and serial number. The tank manufacturer will furnish notice that indicates proof of warranty.

The tank will be constructed using a virgin polypropylene sheet with a minimum thickness of .50". This material will be a high impact copolymer (HIC), non-corrosive, stress relieved thermoplastic, UV stabilized for maximum protection.

All joints and seams will be nitrogen welded and tested for maximum strength and integrity. All swash partitions will interlock and be welded to each other as well as to the walls of the tank.

The tank will incorporate a manual fill tower with a 6.00" combination vent/overflow pipe. The fill tower will be constructed of polypropylene and will be large enough to provide filling by means of a conventional 2.50" hose nozzle. The tower will be located near the center of the tank to minimize water surge during vehicle operation. The tower will have a removable polypropylene screen and a polypropylene hinged cover. The vent/overflow pipe will run through the tank and exit through the floor of the tank behind the rear axle.

The sides of the tank will be covered with smooth sheets of aluminum that are painted to match the body. These sheets will provide a pleasing, finished, traditional "fire truck" appearance. These side sheets will not comprise any part of the body or its structure. They will be spaced approximately 1.00 inch from the sides of the tank, to allow any condensation that the tank may collect to drain away without making the exterior of the side sheet surface "wet", and holes may be drilled into the side sheets for the attachment of lights, signage or other surface mounted items, and will not compromise the water tank integrity - hence the term "dry side tanker". These sheets will protect the water tank, but also be removable in sections in case of accidental damage.

The front cross sheet will be aluminum treadplate.

To closely match the expansion / contraction of the water tank, these sheets will always be aluminum, regardless of the material used to construct the body compartments.

The tank, side sheets and hose bed (if provided) will be removable as a unit and will be a separate component from the body compartmentation.

### **WATER TANK RESTRAINT**

A heavy-duty water tank restraint will be provided to keep the water tank in position.

### **TOP OF TANK, ACCESS LADDER**

An access ladder constructed of aluminum tubing will be provided for access to the hosebed and/or tank dome. The ladder will have a flexible mount attached to the tailboard. The ladder will be located on the left side of the truck at the rear.

### **TANK OVERFLOW/VENT**

A 6.00" tube will be installed through the shell of the tank. This tube will function as an overflow to discharge water to the ground once the tank is filled to capacity. It will also function as a vent to allow air to enter the tank when water is being dumped or pumped from the tank.

The tube will be positioned to drain at the bottom of the truck near the center, behind the rear axle.

### **FOLD-A-TANK RACKS**

A quantity of one (1) Zico Quic-Lift PTS-HA hydraulic rack(s) will be provided on the left side for storage of a 2100 gallon aluminum framed Fol-Da-Tank (w/closed dimensions of 135" x 9" x 30") portable folding tank. The Quic-Lift lowering system will be powered by two (2) self-contained hydraulic actuators.

The controls will be located in such a manner to allow the operator full view of the area in which the fold-a-tank will be lowered.

The actuator control will have a master switch and also be interlocked to prevent operation should a compartment door, in the travel area of the rack, be in the open position.

A bright finish aluminum treadplate cover will be installed on the lowering device to protect and conceal the fold-a-tank when in the stored position. This cover will be installed with a Zico mounting kit to allow for flexing.

### **RACK INTERLOCK AND NOT STOWED INDICATOR LIGHT**

An interlock will be provided to prevent operation of the rack unless the apparatus parking brake has been activated.

A steady red indicator light will be located on the cab instrument panel and illuminated when the rack is not in the stowed position. The light will be labeled "Rack". In addition, the "Do Not Move Apparatus" light located in the cab will be activated when the rack is not in the stowed position.

### **LIGHTS, FLASHING, RACK**

Flashing amber LED lights facing the front and rear will be provided on the rack and activated whenever the rack is in the down position.

### **EXTENSION BRACKET**

In order to accommodate the powered equipment rack, a reinforced extension bracket may be required. This bracket will be constructed of aluminum and covered with aluminum treadplate.

### **REAR TANK FILL**

A 2.50" gated external tank fill will be installed and properly labeled at the rear of the water tank, located right side.

Piping, for the fill, will be routed through the rear wall of the tank and include a flow deflector to break up the stream of water entering the water tank.

A 2.50" full flow ball valve with 2.50" piping and a 2.50" (F)NST chrome swivel will be located at the inlet.

A 2.50" chrome plated 30 degree elbow and plug with VLH automatic pressure relieving thread technology will be provided for the tank fill.

### **REAR TANK DUMP VALVE**

One (1) 10.00" Newton Quick Dump will be installed at the rear of the tank. The valve will be controlled electrically from one (1) switch inside the cab and one (1) switch at the rear of the apparatus.

A 180 degree, Newton 6012SW-34 swivel dump chute will be provided.

The chute will include a Newton 4036-34 telescopic extension to allow the chute to extend past the body side for dumping.

The water tank design will include additional support for this chute.

### **HOSE BED**

The hose bed will be fabricated of 0.190"-5052 aluminum with a nominal 38,000 psi tensile strength.

Upper edges of side panels will have a double break for rigidity.

The inside of the hose bed will be painted to match the job color on the side sheets of the body.

Flooring of the hose bed will be removable aluminum grating with the top surface corrugated to aid in hose aeration. The grating slats will be a minimum of 0.50" x 4.50" with spacing between slats for hose ventilation.

### **HOSE BED CAPACITY - DRY SIDE TANKER**

Per NFPA 1901, a tanker will carry a minimum of 200 feet of 2.50" hose.

However, Dry Side hose beds are large and can accommodate much more hose than the NFPA minimum. The intended amount of hose to be carried is 500' of 2.50" . Pierce will calculate whether or not the intended amount of hose will fit. The hose bed side sheets will not be altered from their standard size. If necessary, the purchaser agrees that the amount of hose to be carried will be decreased so that it properly fits within the hose bed.

The intended amount of hose will also be factored into the engineering weight distribution calculation to assure proper axle capacity.

### **HOSE BED DIVIDER**

Two (2) hosebed dividers will be furnished for separating hose.

Each divider will be constructed of a .25" brushed aluminum sheet. Flat surfaces will be sanded for uniform appearance, or constructed of brushed aluminum.

Divider will be fully adjustable by sliding in tracks, located at the front and rear of the hose bed.

Divider will be held in place by tightening bolts, at each end.

Acorn nuts will be installed on all bolts in the hose bed which have exposed threads.

### **HOSE BED HOSE RESTRAINT**

The hose in the hose bed will be restrained by a pair of black nylon Velcro® straps at the top of the hose bed. At the rear of the hose bed, 2.00" black nylon webbing with a 1.50" x 4.00" box pattern will attach at the top rear outside corners with seat belt buckle fasteners. The webbing will have straps connected with seat belt buckle fasteners located at the rear body sheet below the hose bed.

### **TOOL STORAGE COMPARTMENT**

A storage compartment for long handled tools, sized to be the length of the hosebed and 10" wide, will be located on the left side of the hose bed. The tool compartment will consist of a permanent hose bed divider with hose bed grating to form the top.

A door will be provided at the rear of the hose bed. The door will be constructed of aluminum treadplate and hinged on the right side. The door will have a D-handle latch.

### **RUNNING BOARDS**

Running boards will be fabricated of .125" bright aluminum treadplate.

Each running board will be supported by a welded 2.00" square tubing and channel assembly, which will be bolted to the pump compartment substructure.

Running boards will be 12.75" deep and spaced .50" away from the pump panel.

A splash guard will be provided above the running board treadplate.

### **TAILBOARD**

The tailboard will be constructed of .125" bright aluminum treadplate supported by a structural steel assembly.

The rear tailboard will be 16.00" deep.

The exterior side will be flanged down and in. The flanges will not be notched.

### **SMOOTH ALUMINUM REAR WALL**

The rear wall will be smooth aluminum.

### **TOW EYES**

There will be a total of two (2) painted tow eyes provided and mounted directly to the chassis frame rails at the rear of the apparatus. The inner and outer edges of the tow eyes will have a radius.

### **COMPARTMENTATION**

Body and compartments will be fabricated of .125", 5052-H32 aluminum.

Side compartments will be an integral assembly with the rear fenders.

Circular fender liners will be provided for prevention of rust pockets and ease of maintenance.

Side compartment flooring will be of the sweep out design with the floor higher than the compartment door lip.

The compartment door opening will be framed by flanging the edges in 1.75" and bending out again .75" to form an angle.

Drip protection will be provided above the doors by means of bright aluminum extrusion, formed bright aluminum treadplate or polished stainless steel.



Front facing compartment walls will be covered with bright aluminum treadplate.

All screws and bolts which protrude into a compartment will have acorn nuts on the ends to prevent injury.

### **UNDERBODY SUPPORT SYSTEM**

Due to the severe loading requirements of this tanker, a method of body and compartment support suitable for the intended load will be provided.

The backbone of the support system will be the chassis frame rails which is the strongest component of the chassis and is designed for sustaining maximum loads.

The support system will include .375" thick steel vertical angle supports bolted to the chassis frame rails with .625" diameter bolts.

Attached to the bottom of the steel vertical angles will be horizontal angles, with gussets welded to the vertical members, which extend to the outside edge of the body.

The body substructure will result in a 500 lb equipment support rating per lower compartment.

### **AGGRESSIVE WALKING SURFACE**

All exterior surfaces designated as stepping, standing, and walking areas will comply with the required average slip resistance of the current NFPA standards.

### **LOUVERS**

Louvers will be stamped into compartment walls to provide the proper airflow inside the body compartments and to prevent water from dripping into the compartment. Where these louvers are provided, they will be formed into the metal and not added to the compartment as a separate plate.

### **PROOF OF TESTING OF BODY DESIGN**

A structural analysis has been performed on the body and substructure design. Proven engineering and test techniques such as finite element analysis, stress coating and strain gauging was used with special attention given to fatigue, life and structural integrity of the body and substructure.

When the test was performed, the body was loaded to its greatest in-service weight.

Other criteria used during the testing procedure was include:

- Raising opposite corners of the vehicle tires 9.00" to simulate the twisting a truck may experience when driving over a curb.
- Making a 90 degree turn, while driving at 20 mph to simulate aggressive driving conditions.
- Driving the vehicle at 35 mph on a washboard road.
- Driving the vehicle at 55 mph on a smooth road.
- Accelerating the vehicle fully, until reaching the approximate speed of 45 mph on rough pavement.

Each truck produced is not subject to this testing. However, the design has been proven via testing. Evidence and actual test results and techniques are available upon request.

### **LEFT SIDE COMPARTMENTATION**

A roll-up door compartment in the lower area, ahead of the rear wheels will be provided. The interior dimensions will be 63.00" wide x 22.13" high x 25.88" deep. The height of the compartment will be measured from the compartment floor to the bottom edge of the door roll. The depth of the compartment will be calculated with the compartment door closed. The clear door opening of the compartment will be 57.25" wide x 21.88" high. Closing of the door will not require releasing, unlocking, or unlatching any mechanism and will easily be accomplished with one hand.

A roll-up door compartment in the lower area, behind the rear wheels will be provided. The interior dimensions of this compartment will be 15.50" wide x 22.13" high x 25.88" deep. The height of the compartment will be measured from the compartment floor to the bottom edge of the door roll. The depth of the compartment will be calculated with the compartment door closed. The clear door opening of this compartment will be 12.75" wide x 21.88" high. Closing of the door will not require releasing, unlocking, or unlatching any mechanism and will easily be accomplished with one hand.

### **RIGHT SIDE COMPARTMENTATION**

A roll-up door compartment in the lower area ahead of the rear wheels will be provided. The interior dimensions will be 63.00" wide x 22.13" high x 25.88" deep. The height of the compartment will be measured from the compartment floor to the bottom edge of the door roll. The depth of the compartment will be calculated with the compartment door closed. The clear door opening of the compartment will be 57.25" wide x 21.88" high. Closing of the door will not require releasing, unlocking, or unlatching any mechanism and will easily be accomplished with one hand.

A roll-up door compartment in the lower area behind the rear wheels will be provided. The interior dimensions of this compartment will be 15.50" wide x 22.13" high x 25.88" deep. The height of the compartment will be measured from the compartment floor to the bottom edge of the door roll. The depth of the compartment will be calculated with the compartment door closed. The clear door opening of this compartment will be 12.75" wide x 21.88" high. Closing of the door will not require releasing, unlocking, or unlatching any mechanism and will easily be accomplished with one hand.

### **ROLLUP DOOR, SIDE COMPARTMENTS**

There will be four (4) compartment doors installed on the side compartments. The doors will be double faced aluminum construction, an anodized satin finish and manufactured by Gortite®.

Lath sections will be an interlocking rib design and will be individually replaceable without complete disassembly of door.

Between each slat at the pivoting joint will be a PVC inner seal to prevent metal to metal contact and prevent dirt or moisture from entering the compartments. Seals will allow door to operate in extreme temperatures ranging from 180 to -40 degrees Fahrenheit. Side, top and bottom seals will be provided to resist ingress of dirt and weather and be made of Santoprene.

All hinges, barrel clips and end pieces will be nylon 66. All nylon components will withstand temperatures from 300 to -40 degrees Fahrenheit.

A polished stainless steel lift bar with locking key latches to be provided for each roll-up door. The keys to be Model 1250 for all compartment doors. Lift bar will be located at the bottom of door and have latches on the outer extrusion of the doors frame. A ledge will be supplied over lift bar for additional area to aid in closing the door.

Doors will be constructed from an aluminum box section. The exterior surface of each slat will be flat. The interior surfaces will be concave to provide strength and prevent loose equipment from jamming the door from inside.

To conserve space in the compartments, the spring roller assembly will not exceed 3.00" in diameter.

The header for the rollup door assembly will not exceed 4.00".

A heavy-duty magnetic switch will be used for control of open compartment door warning lights.

### **COMPARTMENT LIGHTING**

There will be four (4) compartment(s) with two (2) white 12 volt DC LED compartment light strips. The dual light strips will be centered vertically along each side of the door framing. There will be two (2) light strips per compartment. The dual light strips will be in all body compartment(s).

Any remaining compartments without light strips will have a 6.00" diameter Truck-Lite, Model: 79384 light. Each light will have a number 1076 one filament, two wire bulb.

Opening the compartment door will automatically turn the compartment lighting on.

### **MOUNTING TRACKS**

There will be two (2) sets of tracks for mounting shelf(s) in LS2 and RS2. These tracks will be installed vertically to support the adjustable shelf(s). The tracks will be painted to match the compartment interior.

### **ADJUSTABLE SHELVES**

There will be one (1) shelf with a capacity of 500 lb provided. The shelf construction will consist of .188" aluminum with 2.00" sides. Each shelf will be painted spatter gray. Each shelf will be infinitely adjustable by means of a threaded fastener, which slides in a track.

The shelves will be held in place by .12" thick stamped plated brackets and bolts.

The location will be passenger side front (RS2) .

### **SLIDE-OUT FLOOR MOUNTED TRAY**

There will be two (2) floor mounted slide-out tray(s) provided.

Each tray will have 2.00" high sides and a minimum capacity rating of 500 lb in the extended position.

Each tray will be constructed of aluminum painted spatter gray

There will be two undermount-roller bearing type slides rated at 250lb each provided. The pair of slides will have a safety factor rating of 2.

To ensure years of dependable service, the slides will be coated with a finish that is tested to withstand a minimum of 1,000 hours of salt spray per ASTM B117.

To ensure years of easy operation, the slides will require no more than a 50lb force for push-in or pull-out movement when fully loaded after having been subjected to a 40 hour vibration (shaker) test under full load. The vibration drive file will have been generated from accelerometer data collected from a heavy truck chassis driven over rough gravel roads in an unloaded condition. Proof of compliance will be provided upon request.

Automatic locks will be provided for both the "in" and "out" positions. The trip mechanism for the locks will be located at the front of the tray for ease of use with a gloved hand.

The location(s) will be RS2 and LS2.

### **RUB RAIL**

Bottom edge of the side compartments will be trimmed with a bright aluminum extruded rub rail.

Trim will be 2.12" high with 1.38" flanges turned outward for rigidity.

The rub rails will not be an integral part of the body construction, which allows replacement in the event of damage.

### **BODY FENDER CROWNS**

Stainless steel fender crowns will be provided around the rear wheel openings. These fender crowns must be wide enough to prevent splashing onto the body from the specified tires.

A rubber welting will be provided between the body and the crown to seal the seam and restrict moisture from entering.

A dielectric barrier will be provided between the fender crown fasteners (screws) and the fender sheet metal to prevent corrosion.

### **HARD SUCTION HOSE**

Two (2) lengths of 5.00" clear corrugated PVC hard suction hose, 10' in length, will be provided. The hose will be equipped with a long handle female coupling on one (1) end and a rocker lug male coupling on the other end. Couplings will be hard coated aluminum.

### **HOSE TROUGHS**

A total of two (2) trough(s) for hard suction hose will be installed on the on the right side of the tank. Each trough will be designed to carry a 5.00" diameter 10' long hose.

The trough(s) will be designed to remove the hose out the rear, and will be positioned toward the rear of the body so a person standing on the tailboard may access the hose. Each trough will be full-length of the hard sleeve being carried within.

Two Velcro straps, at the rear of each trough, will keep the hose in place. One strap for over the top of the hose and one across the rear to prevent the hose from sliding out rearward. Each trough will have a retaining tab at the forward end to prevent the hose from accidentally coming out of the trough.

Troughs will be constructed of smooth painted aluminum. A smooth durable material will line the bottom of the trough to aid in the removal and installation of the hose. Troughs will be constructed of smooth painted aluminum.

Hose troughs will be adjustable up and down.

### **HANDRAILS**

The handrails will be 1.25" diameter knurled aluminum to provide a positive gripping surface.

Chrome plated end stanchions will support the handrail. Plastic gaskets will be used between end stanchions and any painted surfaces.

Drain holes will be provided in the bottom of all vertically mounted handrails.

Handrails will be provided to meet NFPA 1901 section 15.8 requirements. The handrails will be installed as noted on the sales drawing.

### **ADDITIONAL HANDRAIL**

One (1) handrail, 12.00" long, will be mounted on the front hosebed sheet on the left side as noted on the AD.

### **AIR BOTTLE STORAGE (DOUBLE)**

A quantity of four (4) air bottle compartments, 15.25" wide x 7.75" tall x 26.00" deep, will be provided on the left side forward of the rear wheels, on the left side rearward of the rear wheels, on the right side forward of the rear wheels and on the right side rearward of the rear wheels. A brushed stainless steel door with a Southco raised trigger C2 black lever latch will be provided to contain the air bottle. A dielectric barrier will be provided between the door hinge, hinge fasteners and the body sheet metal.

Inside the compartment, black rubber matting will be provided.

### **EXTENSION LADDER**

There will be a 24', two (2) section, Alco-Lite, Series PEL-24 extension ladder provided.

### **ROOF LADDER**

There will be a 14' aluminum, Alco-Lite, Series PRL-14 roof ladder provided.

### **LADDER BRACKETS**

The ladders will be installed on the right side of the tank, above the catwalk, in lined brackets and held in place by chrome plated, quarter-turn spring loaded clamps. The clamps will be such that when the roof ladder is removed, the clamps can be moved a half-turn to hold the extension ladder in place. The ladder brackets will be adjustable up and down.

The ladders to be carried on these brackets are passenger side 24, 14 foot.

### **FOLDING LADDER**

One (1) 10' aluminum Alco-Lite, Series FL-10 folding ladder will be installed in a stainless steel trough mounted below the ladders on the ladder brackets.

### **PIKE POLE, 8'**

One (1) pike pole, 8' long Nupla with a fiberglass I-beam handle will be provided and located Pike Pole Compartment.

### **PIKE POLE, 6'**

One (1) pike pole, 6' long Nupla with a fiberglass I-beam handle, will be provided.

### **PIKE POLE COMPARTMENT**

One (1) pike pole compartment will be provided, recessed below the water tank tee at the rear of body, on the left side. The pike pole compartment will be equipped with two (2) aluminum tubes to hold two (2) pike poles and have a polished stainless steel drop down door.

### **STEPS**

A folding step will be provided on the front of each fender compartment. The step will be bright finished, non-skid with a black tread coating on the stepping surface. The step can be used as a hand hold with two openings wide enough for a gloved hand.

Two (2) additional folding steps will be located on the front body sheet and cargo per the AD of the cargo area. The step(s) will be bright finished, non-skid with a a black tread coating. The step(s) can be used as a hand hold with two openings wide enough for a gloved hand.

### **I - ZONE BRACKETS**

There will be two (2) folding, flip-out style "I - Zone" brackets provided and mounted at the rear of the apparatus, located one (1) on each side of the rear body bulkhead, standard locations..

### **MOUNTING PROVISIONS**

Mounting provisions will be provided at the rear of the poly water tank to mount a pair of I Zone brackets.

### **PUMP COMPARTMENT**

The pump compartment will be separate from the hose body and compartments so that each may flex independently of the other. It will be a fabricated assembly of steel tubing, angles and channels which supports both the fire pump and the side running boards.

The pump compartment will be mounted on the chassis frame rails with rubber biscuits in a four point pattern to allow for chassis frame twist.

Pump compartment, pump, plumbing and gauge panels will be removable from the chassis in a single assembly.

### **PUMP MOUNTING**

Pump will be mounted to a substructure which will be mounted to the chassis frame rail using rubber isolators. The mounting will allow chassis frame rails to flex independently without damage to the fire pump.

### **PUMP CONTROL PANELS (SIDE CONTROL)**

All pump controls and gauges will be located at the left side of the apparatus and properly marked.

The pump panel on the right side will be removable with lift and turn type fasteners. The left side will be fastened with screws.

The control panels will be 34.00" wide.

The gauge and control panels will be two (2) separate panels for ease of maintenance.

Polished stainless steel trim collars will be installed around all inlets and outlets.

All push/pull valve controls will have 1/4 turn locking control rods with polished chrome plated zinc tee handles. Guides for the push/pull control rods will be chrome plated zinc castings securely mounted to the pump panel. Push/pull valve controls will be capable of locking in any position. The control rods will pull straight out of the panel and will be equipped with universal joints to eliminate binding.

All line pressure gauges will be mounted in individual chrome plated castings with the identification tag recessed in the casting below the gauge. All remaining identification tags will be mounted on the pump panel in chrome plated bezels. Mounting of the castings and identification bezels will be done with a threaded peg cast on the back side of the bezel or screws.

### **PUMP**

Pump will be a Waterous CXPA, 1000 gpm, single (1) stage, power take off (PTO) driven midship mounted centrifugal type.

Pump will be the class "A" type.

Pump will deliver the percentage of rated discharge at pressures indicated below:

- 100% of rated capacity at 150 psi net pump pressure.

- 70% of rated capacity at 200 psi net pump pressure.

- 50% of rated capacity at 250 psi net pump pressure.

Pump casting will be a two (2) piece, vertically split design and will be constructed of high tensile, close grain gray iron.

Impeller shaft will be stainless steel, heat treated, accurately ground to size, and polished under the shaft seal. It will be supported by oil lubricated ball bearings.

Bearings will be protected from water and sediment by suitable stuffing boxes, flinger rings, and oil seals. No special or sleeve type bearings will be used.

### **MECHANICAL SEAL ON PUMP**

Pump will be equipped with a self-adjusting, maintenance-free, mechanical shaft seal.

The mechanical seal will consist of a flat, highly polished, spring fed carbon ring that rotates with the impeller shaft. The carbon ring will press against a highly polished stainless steel stationary ring that is sealed within the pump body.

In addition, a throttling ring will be pressed into the steel chamber cover, providing a very small clearance around the rotating shaft in the event of a mechanical seal failure. The pump performance will not deteriorate, nor will the pump lose prime, while drafting if the seal fails during pump operation.

Wear rings will be bronze and easily replaceable to restore original pump efficiency and eliminate the need to replace the entire pump casing due to wear.

### **PUMP TRANSMISSION**

Pump transmission will be made of light weight aluminum casing. Power transfer to pump will be through a pressure lubricated, Morse HY-VO drive chain.

Drive shafts will be a minimum of 1.50" diameter hardened and ground alloy steel. All shafts will be ball bearing supported. The case will be designed as to eliminate the need for water cooling.

The water pump will be driven by a ten (10)-bolt hot shift PTO will be located on the left side of the chassis transmission.

### **PUMPING MODE**

An interlock system will be provided to ensure that the pump drive system components are properly engaged so that the apparatus can be safely operated. Interlock system will be designed to allow the truck to be in motion while pumping.

NFPA 1901, 2016 Edition, Section 16.2.2 requires that the apparatus is designed for "pump-and-roll" operations, the vehicle drive engine and drive train will be arranged so that the pump can deliver at least 20 gpm (76 L/min) at a gauge pressure of 80 psi (550 kPa) while the fire apparatus is moving at 2 mph (3.2 km/h) or less.

The apparatus as configured may not meet each of those required performance criteria simultaneously.

Per Fire Department specification request, the apparatus will be non compliant to the afore mentioned NFPA 1901 standard at time of contract execution.

### **PUMP SHIFT**

A pump shift will be provided within easy reach of the driver for engagement of the PTO driven pump. The shift will include the indicator lights as mandated by NFPA. The pump shift control will be illuminated to meet NFPA requirements.

### **AUXILIARY COOLING SYSTEM**

A supplementary heat exchange cooling system will be provided to allow the use of water from the discharge side of the pump for cooling the engine water. The heat exchanger will be a separate unit. It will be installed in the pump or engine compartment with the control located on the pump operator's control panel. The exchanger will be plumbed to the master drain valve.

### **INTAKE RELIEF VALVE**

One (1) Trident Air Max intake relief valve(s) will be installed on the suction side of the pump preset at 125 psig.

The relief valve will have a working range of 50 PSI to 350 PSI.



The outlet will terminate below the frame rails with a 2.50" National Standard hose thread adapter and will have a "do not cap" warning tag.

One (1) adjustable air regulator and pressure indicating gauge will be located on a common bezel on the left side pump panel to control the intake valve(s).

### **PRESSURE GOVERNOR**

This apparatus will be equipped with a Class1 "Sentry" engine/pump governor/throttle system that is connected directly to the Electronic Control Module (ECM) mounted on the engine.

A special preset feature will permit a predetermined pressure or RPM to be set. The preset pressure or RPM will be displayed on the message display of the "Sentry" . The preset will be easily adjustable by the operator.

The pressure sensor governor system will be operable only after the vehicle parking brake has been set, the transmission is the pumping mode, and the fire pump has been engaged.

The pressure sensor governor system will have two (2) modes of operation: pressure mode or rpm mode.

When in the pressure mode, the PSG system will automatically maintain the discharge pressure set by the operator regardless of flow (within engine/pump operating capabilities).

In the rpm mode, the PSG system will automatically maintain a set engine speed, regardless of engine load (within engine operation capabilities).

The digital display will include:

- Pump intake pressure
- Pump discharge pressure
- Target pressure
- Engine RPM
- Battery voltage
- Oil pressure
- Coolant temperature
- Transmission Temperature
- Fuel economy
- Mode, increase, decrease and idle buttons
- Mode and interlock indicators

- Presets and "soft" buttons

The engine throttle will be a separate Twister rotary knob that can be operated in clockwise or counter clockwise operation.

### **PRIMING PUMP**

The priming pump will be a Trident Emergency Products compressed air powered, high efficiency, multistage venturi based AirPrime System, conforming to standards outlined in the current edition of NFPA 1901.

All wetted metallic parts of the priming system are to be of brass and stainless steel construction.

One (1) priming control will open the priming valve and start the pump primer.

### **PUMP MANUALS**

There will be a total of two (2) pump manuals provided by the pump manufacturer and furnished with the apparatus. The manuals will be provided by the pump manufacturer in the form of two (2) electronic copies. Each manual will cover pump operation, maintenance, and parts.

### **PLUMBING, STAINLESS STEEL AND HOSE**

All inlet and outlet lines will be plumbed with either stainless steel pipe, flexible polypropylene tubing or synthetic rubber hose reinforced with hi-tensile polyester braid. All hose's will be equipped with brass or stainless steel couplings. All stainless steel hard plumbing will be a minimum of a schedule 10 wall thickness.

Where vibration or chassis flexing may damage or loosen piping or where a coupling is required for servicing, the piping will be equipped with victaulic or rubber couplings.

Plumbing manifold bodies will be ductile cast iron or stainless steel.

All piping lines are to be drained through a master drain valve or will be equipped with individual drain valves. All drain lines will be extended with a hose to drain below the chassis frame.

All water carrying gauge lines will be of flexible polypropylene tubing.

All piping, hose and fittings will have a minimum of a 500 PSI hydrodynamic pressure rating.

### **FOAM SYSTEM PLUMBING**

All piping that is in contact with the foam concentrate or foam/water solution will be stainless steel. The fittings will be stainless steel or brass. Cast iron pump manifolds will be allowed.

### **MAIN PUMP INLETS**

A 5.00" pump manifold inlet will be provided on each side of the vehicle. The suction inlets will include removable die cast zinc screens that are designed to provide cathodic protection for the pump, thus reducing corrosion in the pump.

### **MAIN PUMP INLET CAP**

The main pump inlets will have National Standard Threads with a long handle chrome cap.

The cap will be the Pierce VLH, which incorporates an exclusive thread design to automatically relieve stored pressure in the line when disconnected.

### **VALVES**

All ball valves will be Akron® Brass. The Akron valves will be the 8000 series heavy-duty style with a stainless steel ball and a simple two-seat design. No lubrication or regular maintenance is required on the valve.

Valves will have a **ten (10) year** warranty.

Inlet valve location will be outside the pump panel.

### **INLET CONTROL**

The side auxiliary inlet(s) will incorporate a quarter-turn ball valve with the control located at the inlet valve. The valve operating mechanism will indicate the position of the valve.

### **LEFT SIDE INLET**

There will be one (1) auxiliary inlet with a 2.50" valve at the left side pump panel, terminating with a 2.50" (F) National Standard hose thread adapter.

The auxiliary inlet will be provided with a strainer, chrome swivel and plug.

### **INLET BLEEDER VALVE**

A 0.75" bleeder valve will be provided for each side gated inlet.

The valves will be located behind the panel with a "T" swing style handle control extended to the outside of the panel.

The handles will be chrome plated and provide a visual indication of valve position. The swing handle will provide an ergonomic position for operating the valve without twisting the wrist and provides excellent leverage.

The water discharged by the bleeders will be routed below the chassis frame rails.

### **TANK TO PUMP**

The booster tank will be connected to the intake side of the pump with heavy duty 4.00" piping and a quarter turn 3.00" valve with the control remotely located at the operator's panel. A rubber coupling will be included in this line to prevent damage from vibration or chassis flexing.

A check valve will be provided in the tank to pump supply line to prevent the possibility of "back filling" the water tank.

### **TANK REFILL**

A 2.00" combination tank refill and pump bypass line will be provided using a quarter-turn full flow ball valve, controlled from the pump operator's panel.

### **DISCHARGE OUTLET CONTROLS**

The discharge outlets will incorporate a quarter-turn ball valve with the control located at the pump operator's panel. The valve operating mechanism will indicate the position of the valve.

If a handwheel control valve is used, the control will be a minimum of a 3.9" diameter stainless steel handwheel with a dial position indicator built in to the center of the handwheel.

Any 3.00 inch or larger discharge valve will be a slow-operating valve in accordance with NFPA 16.7.5.3.

#### **LEFT SIDE DISCHARGE OUTLETS**

There will be Two (2) discharge outlets with a 2.50" valve on the left side of the apparatus, terminating with a 2.50" (M) National Standard hose thread adapter.

#### **LEFT SIDE OUTLET ELBOWS**

The 2.50" discharge outlets located on the left side pump panel will be furnished with a 2.50" (F) National Standard hose thread x 2.50" (M) National Standard hose thread, chrome plated, 45 degree elbow.

The elbow will be Pierce VLH, which incorporates an exclusive thread design to automatically relieve stored pressure in the line when disconnected.

#### **RIGHT SIDE DISCHARGE OUTLETS**

There will be One (1) discharge outlet with a 2.50" valve on the right side of the apparatus, terminating with a 2.50" (M) National Standard hose thread adapter.

#### **RIGHT SIDE OUTLET ELBOWS**

The 2.50" discharge outlets located on the right side pump panel will be furnished with a 2.50" (F) National Standard hose thread x 2.50" (M) National Standard hose thread, chrome plated, 45 degree elbow.

The elbow will be Pierce VLH, which incorporates an exclusive thread design to automatically relieve stored pressure in the line when disconnected.

#### **FRONT DISCHARGE OUTLET**

There will be one (1) 2.50" discharge outlet piped to the front of the apparatus and located on the top of the left side of the front bumper.

Plumbing will consist of 2.50" piping and flexible hose with a 2.50" full flow valve with control at the pump operator's panel. A fabricated weldment made of stainless steel pipe will be used in the plumbing where appropriate. The piping will terminate with a 2.50" NST with 90 degree stainless steel swivel.

There will be automatic drains provided at all low points of the piping.

#### **GROUND SWEEPS, TWO (2), UNDER FRONT BUMPER**

There will be two (2), 316 S/S, 0.50" Bete model #NF120 ground sweeps with a 65 degree flat/fan spray pattern style of nozzles provided under the front bumper with a 316 S/S, Bete model #3/4x1/2SJ swivel. Each nozzle will be located at the forward, outside corner of the vehicle under the front bumper. The nozzles will be aimed forward and downward to maximize the spray pattern produced by the flat/fan spray pattern of the nozzle. The ground sweeps will be rated up 17 gpm @ 80psi. Each ground sweep nozzle will be controlled by a 0.50" electric valve (Non-gateable, only open/closed) and plumbed

off of the water pump with a minimum of 0.50" stainless steel plumbing and/or hose with non-corrosive fittings (Brass or S/S).

A control switch will be provided for each ground sweep/valve and will be located inside the cab within easy reach of the driver. A green indicator light will be provided in each switch to indicate when the ground sweep valve is open. No indicator light will be provided to indicate when the valve is closed.

There will be automatic drains provided at all low points of the piping.

### **REAR DISCHARGE OUTLET**

There will be One (1) discharge outlet piped to the rear of the hose bed, right side, installed so proper clearance is provided for spanner wrenches or adapters. Plumbing will consist of 2.50" piping along with a 2.50" full flow ball valve with the control from the pump operator's panel.

### **REAR OUTLET ELBOWS**

The 2.50" discharge outlets, located at the rear of the apparatus, will be furnished with a 2.50" (F) National Standard hose thread x 2.50" (M) National Standard hose thread, chrome plated, 30 degree elbow.

The elbow will be Pierce VLH, which incorporates an exclusive thread design to automatically relieve stored pressure in the line when disconnected.

### **DISCHARGE CAPS/ INLET PLUGS**

Chrome plated, rocker lug, caps with chain will be furnished for all discharge outlets 1.00" thru 3.00" in size, besides the pre-connected hose outlets.

Chrome plated, rocker lug, plugs with chain will be furnished for all auxiliary inlets 1.00" thru 3.00" in size.

The caps and plugs will incorporate a thread design to automatically relieve stored pressure in the line when disconnected.

### **OUTLET BLEEDER VALVE**

A 0.75" bleeder valve will be provided for each outlet 1.50" or larger. Automatic drain valves are acceptable with some outlets if deemed appropriate with the application.

The valves will be located behind the panel with a T swing style handle control extended to the outside of the side pump panel.

The handles will be chrome plated and provide a visual indication of valve position.

The T swing handle will provide an ergonomic position for operating the valve without twisting the wrist and provides excellent leverage.

Bleeders will be located at the bottom of the pump panel. They will be properly labeled identifying the discharge they are plumbed in to.

The water discharged by the bleeders will be routed below the chassis frame rails.

### **DELUGE RISER**

A 3.00" deluge riser will be installed above the pump in such a manner that a monitor can be mounted and used effectively. Piping will be rigidly braced and installed securely so no movement develops when the line is charged. The riser will be gated and controlled at the pump operator's panel.

Any 3.00 inch or larger discharge valve will be a slow-operating valve in accordance with NFPA 16.7.5.3.

### **MONITOR**

A customer/dealer supplied and installed make and model customer provided. Brand: TBD Model: TBD monitor will be properly installed on the deluge riser.

The deluge riser will have male National Pipe Threads for mounting the monitor.

### **CROSSLAY HOSE BEDS**

Two (2) crosslays with 1.50" outlets will be provided. Each bed to be capable of carrying 150 feet of 1.75" hose - single stack and will be plumbed with 2.00" i.d. pipe and gated with a 2.00" quarter turn ball valve.

Outlets to be equipped with a 1.50" National Standard hose thread 90 degree swivel located in the hose bed so that hose may be removed from either side of apparatus.

The crosslay controls will be at the pump operator's panel.

The divider will be fabricated of .25" aluminum and will provide adjustment from side to side. The divider will be painted job color. The remainder of the crosslay bed will be painted job color also.

Bottom of hose bed ends (each side) will also be equipped with a stainless steel scuffplate.

Crosslay bed flooring will consist of removable perforated brushed aluminum.

### **CROSSLAY/DEADLAY HOSE RESTRAINT**

There will be blue vinyl end flap provided across each end of two (2) crosslay/deadlay opening(s) to secure the hose during travel. Each vinyl end flap will be attached with quarter-turn fasteners at the top of the crosslay/deadlay opening(s). They will be attached with Lift-a-dot fasteners at the bottom of the crosslay/deadlay opening(s).

### **CROSSLAY/DEADLAY HOSE RESTRAINT**

An aluminum treadplate cover, hinged at the front will be installed over the top of the crosslay/deadlay(s). It will include a latch at each end of the cover to hold it securely in place, a chrome grab handle at each end for opening and closing the cover and a foam rubber gasket where the cover comes into contact to a painted surface. The cover will be provided with no stay arm device hold open device.

### **BOOSTER HOSE REEL**

A Hannay electric rewind booster hose reel will be installed over the pump in a recessed open compartment on the right side of the apparatus.

The exterior finish of the reel will be painted #269 gray from the reel manufacturer.

A polished stainless steel roller and guide assembly will be mounted on the reel side of the apparatus.

Discharge control will be provided at the pump operator's panel. Plumbing to the reel will consist of 1.50" Aeroquip hose and a 1.50" valve.

Reel motor will be protected from overload with a circuit breaker rated to match the motor.

An electric rewind control switch will be installed on the reel side pump panel.

Kochek, model KBH10, booster hose, 1.00" diameter by 150 feet (100 feet plus 50 feet), with chrome plated Barway, or equal couplings will be provided.

Working pressure of the booster hose will be a minimum of 300 psi.

Capacity of the hose reel will be 150 feet of 1.00" booster hose.

### **FOAM SYSTEM**

There will be a Hypro/Foam Pro, Model 1601, direct injection foam proportioning system furnished and installed on the apparatus.

The system will be a single agent system capable of handling Class A foam concentrate.

The foam system will be plumbed to three (3) discharges. The discharges capable of dispensing foam will be crosslays, redline.

The proportioning operation will be based on an accurate direct measurement of water flows with no water flow restriction. The foam system will be installed in accordance with the manufacturer recommendations.

The system will be equipped with a control module. It will be installed on the pump operator's panel and enable the pump operator to perform the following functions:

Activate the foam system.

Change foam concentrate proportioning rates from .1 percent to 1 percent.

Flash a low concentrate warning light when the foam concentrate tank runs low of concentrate and in two (2) minutes if foam concentrate is not added to tank shut the foam pump down.

The foam system will have a 12volt, 1/3 hp electric motor driven positive displacement piston type foam concentrate pump with a rated capacity of 1.0 gpm @ 200 psi with a maximum operating pressure of 400 psi.

A full flow check valve will be provided in the discharge piping to prevent foam contamination of the fire pump and water tank.

A 5 psi opening pressure check valve will be installed in the concentrate line.

### **FOAM TANK**

The foam tank will be an integral portion of the polypropylene water tank. The cell will have a capacity of 25 gallons of foam with the intended use of Class A foam. The foam cell will reduce the capacity of the water tank. The foam cell will have a screen in the fill dome and a breather in the lid.

### **FOAM TANK DRAIN**

The foam tank drain will be a 1.00" drain valve located inside the pump compartment accessible through a door on the right side pump panel.

### **PUMP PANEL CONFIGURATION**

The pump panel configuration will be neat and orderly.

### **PUMP AND GAUGE PANEL**

The pump and gauge panels will be constructed of aluminum with a painted FormCoat black finish. A polished aluminum trim molding will be provided around each panel.

### **PUMP ACCESS**

#### **Right Side Panel**

The right side upper pump panel will be removable.

#### **Panel Fastener**

The removable panels will be secured with black swell latch .

The left side pump panels will be attached with screws.

The right side lower pump panel (drain bank) will be attached with screws.

### **PUMP COMPARTMENT LIGHT**

A pump compartment light will be provided inside the right side pump enclosure and accessible through a door on the pump panel.

A .125" weep hole will be provided in each light lens, preventing moisture retention.

Engine monitoring graduated LED indicators will be incorporated with the pressure controller.

Also provided at the pump panel will be the following:

- Master Pump Drain Control

### **THROTTLE READY GREEN INDICATOR LIGHT**

There will be a green indicator light integrated with the pressure governor and/or engine throttle installed on the pump operators panel that is activated when the pump is in throttle ready mode.

### **OK TO PUMP INDICATOR LIGHT**

There will be a green indicator light installed on the pump operators panel that is activated when the pump is in Ok To Pump mode.



### **VACUUM AND PRESSURE GAUGES**

The pump vacuum and pressure gauges will be liquid filled and manufactured by Class 1 Incorporated ©.

The gauges will be a minimum of 4.00" in diameter and will have white faces with black lettering, with a pressure range of 30.00"-0-600#.

Gauge construction will include a Zytel nylon case with adhesive mounting gasket and threaded retaining nut.

The pump pressure and vacuum gauges will be installed adjacent to each other at the pump operator's control panel.

Test port connections will be provided at the pump operator's panel. One will be connected to the intake side of the pump, and the other to the discharge manifold of the pump. They will have 0.25 in. standard pipe thread connections and non-corrosive polished stainless steel or brass plugs. They will be marked with a label.

This gauge will include a 10 year warranty against leakage, pointer defect, and defective bourdon tube.

### **PRESSURE GAUGES**

The individual "line" pressure gauges for the discharges will be Class 1© interlube filled.

They will be a minimum of 2.00" in diameter and have white faces with black lettering.

Gauge construction will include a Zytel nylon case with adhesive mounting gasket and threaded retaining nut.

Gauges will have a pressure range of 30"-0-400#.

The individual pressure gauge will be installed as close to the outlet control as practical.

This gauge will include a 10 year warranty against leakage, pointer defect, and defective bourdon tube.

### **WATER LEVEL GAUGE**

There will be a Class 1, Model ITL-40M multi colored LED electronic water level gauge(es) provided pump panel.

### **ADDITIONAL MINI WATER LEVEL GAUGE**

An additional Class-1 ITL, mini water level gauge will be provided. This gauge will have five (5) indicator lights and it will be installed inside the cab.

### **FOAM LEVEL GAUGE**

An electronic foam level gauge will be provided on the operator's panel that registers foam level by means of eight (8) colored LED lights. The lights will be durable, ultra-bright eight (8) colored LED design viewable through 180 degrees.

The foam level indicators will be as follows:

- 100% = Two (2) Green
- 75% = Two (2) Blue
- 50% = Two (2) Yellow
- 25% = Two (2) Red steady burn
- Refill = The entire light scrolls through all the lights.

The light will flash when the level drops below the given level indicator to provide an eighth of a tank indication. To further alert the pump operator, the lights will flash sequentially when the foam tank is empty.

The level measurement will be based on the sensing of head pressure of the fluid in the tank.

The display will be constructed of a solid plastic material with a chrome plated die cast bezel to reduce vibrations that can cause broken wires and loose electronic components. The encapsulated design will provide complete protection from foam and environmental elements. An industrial pressure transducer will be mounted to the outside of the tank. The display will be able to be calibrated in the field and will measure head pressure to accurately show the tank level.

### **LIGHT SHIELD**

There will be a polished, 16 gauge stainless steel light shield installed over the pump operator's panel.

- There will be 12 volt DC white LED lights installed under the stainless steel light shield to illuminate the controls, switches, essential instructions, gauges, and instruments necessary for the operation of the apparatus. These lights will be activated by the pump panel light switch. Additional lights will be included every 18.00" depending on the size of the pump house.
- One (1) pump panel light will come on when the pump is in ok to pump mode.

There will be a light activated above the pump panel light switch when the parking brake is set. This is to afford the operator some illumination when first approaching the control panel.

### **AIR HORN SYSTEM**

Two (2) Hadley round air horns with 6.00" bell will be provided and located one (1) each side of the engine. The horn system will be piped to the air brake system wet tank utilizing 0.38" tubing. A pressure protection valve will be installed in-line to prevent the loss of air, in the air brake system.

### **Air Horn(s) Location**

The air horn(s) location will be on the side of the engine hood.

### **Air Horn Control**

The air horns will be actuated by a chrome push button located on the officer's side of the engine tunnel and by the horn button in the steering wheel. The driver will have the option to control the air horns or the chassis horns from the horn button by means of a selector switch located on the instrument panel.

### **ELECTRONIC SIREN**

A Whelen®, Model 295SLSA1, electronic siren with noise canceling microphone will be provided.

This siren to be active when the battery switch is on and that emergency master switch is on.

Siren head will be located in the center console.

### **ELECTRONIC SIREN CONTROL**

The electronic siren will be activated by the following:

- The steering wheel horn ring with siren/horn selector switch.
- The control to be available when the parking brake is released.
- The right side push button.

### **SPEAKERS**

There will be two (2) Whelen, Model SP123BMC, 100-watt, flange mount speakers with a chrome plated ABS grille provided. Each speaker will be connected to the siren amplifier.

The speakers will be recessed in each side of the front bumper, inside of the frame rails.

A momentary red switch will be included on the center console switch panel to activate the siren brake.

### **FRONT ZONE UPPER WARNING LIGHTS**

There will be one (1) 72.00" Whelen Freedom IV LED lightbar mounted on the cab roof.

The lightbar will include the following:

- One (1) red flashing LED module in the driver's side rear corner position.
- Open in the driver's side end position.
- One (1) red flashing LED module in the driver's side front corner position.
- Open in the driver's side first front position.
- One (1) red flashing LED module in the driver's side second front position.
- Open in the driver's side third front position.
- Open in the driver's side fourth front position.
- One (1) red flashing LED module in the driver's side fifth front position.
- Open in the driver's side front center position.
- Open in the passenger's side front center position.
- One (1) red flashing LED module in the passenger's side fifth front position.
- Open in the passenger's side fourth front position.
- Open in the passenger's side third front position.
- One (1) red flashing LED module in the passenger's side second front position.
- Open in the passenger's side first front position.

- One (1) red flashing LED module in the passenger's side front corner position.
- Open in the passenger's side end position.
- One (1) red flashing LED module in the passenger's side rear corner position.

There will be clear lenses included on the lightbar.

There will be a switch installed in the cab on the switch panel to control the lightbar.

The four (4) red flashing LED modules in the front positions may be load managed when the parking brake is applied.

### **FRONT ZONE LOWER LIGHTING**

Two (2) Whelen model M7\*C flashing LED warning lights with a chrome flange will be provided on the cab face or grille.

The driver's side front warning light to be red.

The passenger's side front warning light to be red.

Both lights will include a clear lens.

Both lights will be controlled by a lighted switch on the cab instrument panel.

### **SIDE ZONE LOWER LIGHTING**

There will be six (6) Whelen® Model M7\* flashing LED warning lights with chrome trim installed per the following:

- Two (2) lights, one (1) each side on the bumper extension. The side front lights to be red.
- Two (2) lights, on the lower forward corners of the pump panels. The side middle lights to be red.
- Two (2) lights, one each side rear of the rear wheels. The side rear lights to be red.
- The lights will include clear lenses.

There will be a switch in the cab on the switch panel to control the lights.

### **REAR ZONE LOWER LIGHTING**

Two (2) Whelen, Model M7\*C LED flashing warning lights with bezels will be located at the rear of the apparatus.

The driver's side rear light to be red.

The passenger's side rear light to be red.

Both lights will include a lens that is clear.

There will be a switch located in the cab on the switch panel to control the lights.

### **REAR/SIDE ZONE UPPER WARNING LIGHTS**

There will be two (2) Whelen®, Model L31H\*FN, LED warning beacons provided at the rear of the truck, located one (1) each side. There will be a switch located in the cab on the switch panel to control the beacons.

The color of the lights will be red LEDs with both domes clear.

The rear warning lights will be mounted on stainless steel brackets with all wiring totally enclosed. These brackets will also support the clearance/marker lights. The brackets will be mounted low enough so the top of the warning light is no higher than the top of the body side sheet.

### **LOOSE EQUIPMENT**

The following equipment will be furnished with the completed unit:

- One (1) bag of chrome, stainless steel, or cadmium plated screws, nuts, bolts and washers, as used in the construction of the unit.

### **NFPA REQUIRED LOOSE EQUIPMENT PROVIDED BY DEALER**

The following loose equipment as outlined in NFPA 1901, 2016 edition, section 7.9.3.1, 7.9.3.2, and 7.9.4 will be provided by the dealer.

- 200 ft (60 m) of 2.50" (65 mm) or larger fire hose.
- 100 ft (120 m) of 1.50" (38 mm), 1.75" (45 mm), or 2.00" (52 mm) fire hose (if equipped with a fire pump).
- One (1) handline nozzle, 95 gpm (360 L/min) minimum (if equipped with a fire pump).
- One (1) first aid kit.
- Two (2) combination spanner wrenches.
- One (1) hydrant wrench.
- One (1) double female adapter, sized to fit 2.50" (65 mm) or larger fire hose.
- One (1) double male adapter, sized to fit 2.50" (65 mm) or larger fire hose.
- One (1) rubber mallet, for use on suction hose connections (if equipped with a fire pump).
- One (1) traffic vest for each seating position, each vest to comply with ANSI/ISEA 207, *Standard for High Visibility Public Safety Vests*, and have a five-point breakaway feature that includes two (2) at the shoulders, two (2) at the sides, and one (1) at the front.
- Five (5) fluorescent orange traffic cones not less than 28.00" (711 mm) in height, each equipped with a 6.00" (152 mm) retro-reflective white band no more than 4.00" (152 mm) from the top of the cone, and an additional 4.00" (102 mm) retro-reflective white band 2.00" (51 mm) below the 6.00" (152 mm) band.
- Five (5) illuminated warning devices such as highway flares, unless the five (5) fluorescent orange traffic cones have illuminating capabilities.
- One (1) automatic external defibrillator (AED).
- If none of the pump intakes are valved, a hose appliance that is equipped with one or more gated intakes with female swivel connection(s) compatible with the supply hose used on one side and a swivel connection with pump intake threads on the other side will be carried. Any

intake connection larger than 3.00" (75 mm) will include a pressure relief device that meets the requirements of 16.6.6 (if equipped with a fire pump).

- If the apparatus does not have a 2.50" National Hose (NH) intake, an adapter from 2.50" NH female to a pump intake will be carried, mounted in a bracket fastened to the apparatus if not already mounted directly to the intake.
- If the supply hose carried has other than 2.50" National Hose (NH) threads, adapters will be carried to allow feeding the supply hose from a 2.50" NH thread male discharge and to allow the hose to connect to a 2.50" NH female intake, mounted in brackets fastened to the apparatus if not already mounted directly to the discharge or intake.

### **SOFT SUCTION HOSE**

There will be no soft suction hose provided.

- One (1)-5.00" NST barrel strainer, chrome plated

### **DRY CHEMICAL EXTINGUISHER PROVIDED BY FIRE DEPARTMENT**

NFPA 1901, 2016 edition, section 7.9.4 requires one (1) approved dry chemical portable fire extinguisher with a minimum 80-B:C rating mounted in a bracket fastened to the apparatus.

The extinguisher is not on the apparatus as manufactured. The fire department will provide and mount the extinguisher.

### **WATER EXTINGUISHER PROVIDED BY FIRE DEPARTMENT**

NFPA 1901, 2009 edition, section 7.7.3.1 requires one (1) 2.5 gallon or larger water extinguisher mounted in a bracket fastened to the apparatus.

The extinguisher is not on the apparatus as manufactured. The fire department will provide and mount the extinguisher.

### **AXE, FLATHEAD, NOT REQUIRED BY NFPA 2016**

NFPA 1901, 2016 edition, Section 7.9.4 does not require a flathead axe to be provided under the miscellaneous equipment.

### **PAINT PROCESS**

The exterior custom cab and/or body painting procedure will consist of a seven (7) step finishing process. A commercial chassis paint process will follow similar processes as determined by the chassis manufacturer. The following procedure will be used by Pierce:

1. Manual Surface Preparation - All exposed metal surfaces on the custom cab and body will be thoroughly cleaned and prepared for painting. Imperfections on the exterior surfaces will be removed and sanded to a smooth finish. Exterior seams will be sealed before painting. Exterior surfaces that will not be painted include; chrome plating, polished stainless steel, anodized aluminum and bright aluminum treadplate.
2. Chemical Cleaning and Pretreatment - All surfaces will be chemically cleaned to remove dirt, oil, grease, and metal oxides to ensure the subsequent coatings bond well. The aluminum surfaces

will be properly cleaned and treated using a high pressure, high temperature 4 step Acid Etch process. The steel and stainless surfaces will be properly cleaned and treated using a high temperature 3 step process specifically designed for steel or stainless. The chemical treatment converts the metal surface to a passive condition to help prevent corrosion. A final pure water rinse will be applied to all metal surfaces.

3. Surfacer Primer - The Surfacer Primer will be applied to a chemically treated metal surface to provide a strong corrosion protective base coat. A minimum thickness of 2 mils of Surfacer Primer is applied to surfaces that require a critical aesthetic finish. The surfacer primer will be a two-component high solids urethane that has excellent sanding properties and an extra smooth finish when sanded.
4. Finish Sanding - The surfacer primer will be sanded with a fine grit abrasive to achieve an ultra-smooth finish. This sanding process is critical to produce the smooth mirror like finish in the topcoat.
5. Sealer Primer - The sealer primer is applied prior to the base coat in all areas that have not been previously primed with the surfacer primer. The sealer primer is a two-component high solids urethane that goes on smooth and provides excellent gloss hold out when top coated.
6. Base coat Paint - Two coats of a high performance, two component high solids polyurethane base coat will be applied. The Base coat will be applied to a thickness that will achieve the proper color match. The Base coat will be used in conjunction with a urethane clear coat to provide protection from the environment.
7. Clear Coat - Two (2) coats of clear coat will be applied over the base coat color. The clear coat is a two-component high solids urethane that provides superior gloss and durability to the exterior surfaces. Lap style doors will be clear coated to match the body. Paint warranty for the roll-up doors will be provided by the roll-up door manufacturer.

Our specifications are written to define cyclic corrosion testing, physical strengths, durability and minimum appearance requirements must be met in order for an exterior paint finish to be considered acceptable as a quality finish.

Each batch of base coat color will be checked for a proper match before painting of the cab and the body. After the cab and body are painted, the color is verified again to make sure that it matches the color standard. Electronic color measuring equipment will be used to compare the color sample to the color standard entered into the computer. Color specifications are used to determine the color match. A Delta E reading will be used to determine a good color match within each family color.

All removable items such as brackets, compartment doors, door hinges, and trim will be removed and separately if required, to ensure paint behind all mounted items. Body assemblies that cannot be finish painted after assembly will be finish painted before assembly.

### **Environmental Impact**

Contractor will meet or exceed all current State regulations concerning paint operations. Pollution control will include measures to protect the atmosphere, water and soil. Controls will include the following conditions:

- Topcoats and primers will be chrome and lead free.

- Metal treatment chemicals will be chrome free. The wastewater generated in the metal treatment process will be treated on-site to remove any other heavy metals.
- Particulate emission collection from sanding operations will have a 99.99 percent efficiency factor.
- Particulate emissions from painting operations will be collected by a dry filter or water wash process. If the dry filter is used, it will have an efficiency rating of 98 percent. Water wash systems will be 99.97 percent efficient.
- Water from water wash booths will be reused. Solids will be removed on a continual basis to keep the water clean.
- Paint wastes will be disposed of in an environmentally safe manner.
- Empty metal paint containers will be recycled to recover the metal.
- Solvents used in clean-up operations will be recycled on-site or sent off-site for distillation and returned for reuse.

Additionally, the finished apparatus will not be manufactured with or contain products that have ozone depleting substances. Pierce will, upon demand, present evidence that the manufacturing facility meets the above conditions and that it is in compliance with the state EPA rules and regulations.

### **PAINT**

The chassis will be painted by the chassis manufacturer, and will remain the commercial grade finish as provided. The body will be painted the matching color by Pierce.

To ensure a good color match between the body and chassis, Pierce has a mutually pre-approved paint color program with the chassis manufacturer. The apparatus will be painted Pierce #10 white .

### **COMMERCIAL CHASSIS PAINT**

The chassis will be painted by the chassis manufacturer. It will remain the color and commercial quality finish as provided. The primary color will match Pierce #10 white .

### **PAINT CHASSIS FRAME ASSEMBLY**

The chassis frame assembly will be painted black by the chassis manufacturer. It will remain the commercial grade finish as provided.

### **WHEEL PAINT**

The wheels will be painted by the chassis manufacturer to match the main color of the cab.

### **COMPARTMENT INTERIOR PAINT**

The interior of all compartments will be painted with a gray spatter finish for ease of cleaning and to make it easier to touch up scratches and nicks.

### **REFLECTIVE BAND**

A 4.00" blue reflective band will be provided across the front of the vehicle and along the sides of the body.

### **REFLECTIVE VINYL ON FRONT BUMPER**

There will be a reflective vinyl band provided across the front bumper.



### **REAR CHEVRON STRIPING**

There will be alternating chevron striping located on the rear-facing vertical surface of the apparatus.

The colors will be red and fluorescent yellow green diamond grade.

Each stripe will be 6.00" in width.

This will meet the requirements of the current edition of NFPA 1901, which states that 50% of the rear surface will be covered with chevron striping.

### **CHEVRON STRIPING ON THE FRONT BUMPER**

There will be alternating chevron striping located on the front bumper.

The colors will be fluorescent yellow green and red diamond grade.

The size of the striping will be 6.00".

### **CAB DOORS REFLECTIVE STRIPE**

A blue reflective stripe will be provided on the interior of each cab door.

This stripe will be a minimum of 96.00 square inches and will meet the NFPA 1901 requirement.

### **LETTERING**

Forty-one (41) to sixty (60) reflective lettering, 2.00" high, with no outline or shade will be provided.

### **LETTERING**

There will be reflective lettering, 18.00" high, with no outline or shade provided. There will be five (5) letters provided.

### **LETTERING**

There will be reflective lettering, 3.00" high, with no outline or shade provided. There will be ten (10) letters provided.

### **LETTERING**

Forty-one (41) to sixty (60) reflective lettering, 6.00" high, with no outline or shade will be provided.

### **LETTERING**

There will be reflective lettering, 6.00" high, with no outline or shade provided. There will be eight (8) letters provided.

### **LETTERING**

There will be reflective lettering, 2.00" high, with no outline or shade provided. There will be ten (10) letters provided.

### **MANUAL, BODY PARTS ONLY**

A custom parts manual for the Pierce® installed parts only will be provided in USB flash drive format with the completed unit.

The manual will contain the following:

- Job number
- Part numbers with full descriptions
- Table of contents
- Parts section sorted in functional groups reflecting a major system, component, or assembly
- Parts section sorted in Alphabetical order
- Instructions on how to locate parts

The manual will be specifically written for the body model being purchased. It will not be a generic manual for a multitude of different bodies.

### **SERVICE PARTS INTERNET SITE**

The service parts information included in this manual are also available on the Pierce website. The website offers additional functions and features not contained in this manual, such as digital photographs and line drawings of select items. The website also features electronic search tools to assist in locating parts quickly.

### **MANUALS, SERVICE**

A USB flash drive format service manual supplement containing parts and service information on Pierce® installed components will be provided with the completed unit.

The manual will be specifically written for the unit being purchased. It will not be a generic manual for a multitude of different units.

### **MANUAL, CHASSIS OPERATION**

One (1) chassis operation manual will be provided with the completed unit.

### **ONE (1) YEAR MATERIAL AND WORKMANSHIP**

Each new piece of apparatus will be provided with a minimum one (1) year basic apparatus material and workmanship limited warranty. The warranty will cover such portions of the apparatus built by the manufacturer as being free from defects in material and workmanship that would arise under normal use and service.

A copy of the warranty certificate will be submitted with the bid package.

### **CHASSIS WARRANTY**

The chassis manufacturer will provide a **one (1) year or 50,000 mile warranty**.

Reduced warranty duration will occur due to greater GVW rating of the chassis. Review coverage documents for details.

### **PAINT WARRANTY**

The commercial chassis manufacturer's paint warranty will apply to the paint on the chassis only.

### **CAMERA SYSTEM WARRANTY**

A Pierce fifty four (54) month warranty will be provided for the camera system.

### **COMPARTMENT LIGHT WARRANTY**

The Pierce 12 volt DC LED strip lights limited warranty certificate, WA0203, is included with this proposal.

### **TRANSMISSION WARRANTY**

The transmission will have a **five (5) year/unlimited mileage** warranty covering 100 percent parts and labor. The warranty to be provided by Allison Transmission and not apparatus builder.

### **TEN (10) YEAR STRUCTURAL INTEGRITY**

The Pierce apparatus body limited warranty certificate, WA0009, is included with this proposal.

### **ROLL UP DOOR MATERIAL AND WORKMANSHIP WARRANTY**

A Gortite roll-up door limited warranty will be provided. The mechanical components of the roll-up door will be warranted against defects in material and workmanship for the lifetime of the vehicle. A **six (6) year** limited warranty will be provided on painted and satin roll up doors.

The limited warranty certificate, WA0190, is included with this proposal.

### **PUMP WARRANTY**

The Waterous pump will be provided with a Seven (7) year material and workmanship limited warranty.

A copy of the warranty certificate will be submitted with the bid package (no exception).

### **TEN (10) YEAR PUMP PLUMBING WARRANTY**

The Pierce apparatus plumbing limited warranty certificate, WA0035, is included with this proposal.

### **LIFETIME MATERIAL AND WORKMANSHIP**

A UPF poly water tank limited warranty certificate, WA0195, is included with this proposal.

### **TEN (10) YEAR PRO-RATED PAINT AND CORROSION**

A Pierce body limited pro-rated paint warranty certificate, WA0057, is included with this proposal.

### **VEHICLE STABILITY CERTIFICATION**

The fire apparatus manufacturer will provide a certification stating the apparatus complies with NFPA 1901, current edition, section 4.13, Vehicle Stability. The certification will be provided at the time of bid.

### **CAB INTEGRITY**

The cab has been tested to and passed the following standards:

- ECE Regulation No.29
- SAE J2422 Cab Roof Strength Evaluation - Quasi-Static Loading Heavy Trucks.

### **AMP DRAW REPORT**

The bidder will provide, at the time of bid and delivery, an itemized print out of the expected amp draw of the entire vehicle's electrical system.

The manufacturer of the apparatus will provide the following:

- Documentation of the electrical system performance tests.
- A written load analysis, which will include the following:
  - The nameplate rating of the alternator.
  - The alternator rating under the conditions specified per:
    - Applicable NFPA 1901 or 1906 (Current Edition).
  - The minimum continuous load of each component that is specified per:
    - Applicable NFPA 1901 or 1906 (Current Edition).
  - Additional loads that, when added to the minimum continuous load, determine the total connected load.
  - Each individual intermittent load.

All of the above listed items will be provided by the bidder per the applicable NFPA 1901 or 1906 (Current Edition).



**Siddons-Martin Emergency Group**  
**3500 Shelby Lane**  
**Denton TX USA 76207**  
**Phone #:(940) 315-4948**  
**Fax #: (940) 382-9605**

**Invoice Number:** 14003036

**Ticket Date:** 10/7/2022

**Parts Employee:** (A0PS) Megan Schmitz

**Shipping Terms:**



Texas A&M Forest Service  
P.O. Box 310  
Lufkin TX 75902

1000728

**Ship To:**

Work: (979) 458-6640

Part #	Description	Qty Ordered	Qty Shipped	Qty Back Ordered
TSC-769-10004 32	Deluxe Chainsaw Chaps 32" Stanco	1.00	0.00	1.00
AC-1	ZICO WHEEL CHOCK	2.00	0.00	2.00
FLF-MSTR-P	PUMP, MINI-STRIKER® 2.5 HP PORTABLE	1.00	0.00	1.00
TSC-770-64501	DRIP TORCH 1.25	1.00	0.00	1.00
B01M0MWXOZ	M2 BASICS 300 Piece First Aid Kit	1.00	0.00	1.00
ZOR-10038-25BXGRA	25FT, 3/8" CHAIN	1.00	0.00	1.00
KOC-35R2525-H51	DBL FEMALE 2.5", NATURAL HARDCOAT	1.00	0.00	1.00
KOC-36R2525-H51	2.5" NH, DBL MALE, NATURAL COLOR	1.00	0.00	1.00
KOC-P251-10-A52	2.5" LH, F X 2.5" LH M, PVC SUCTION, 10ft	2.00	0.00	2.00
KOC-P152-10-H51	HARD SUCTION 1.5" RL X 10FT	2.00	0.00	2.00
852-51201	Foot Valve Strainer 1.5 NH Aluminum	1.00	0.00	1.00
37R11P-H51	ADAPTER 1" NH RL F X 1 NPSH M	4.00	0.00	4.00
37R1P-G-H51	1" NPSH FEMALE X 3/4" GHT M, NATURAL HARDCOAT	4.00	0.00	4.00
37R151P-H51	ADAPTER, 1.5" M NH X 1" F NPSH	6.00	0.00	6.00
BS25-P09	BARREL STRAINER, 2.5" NH	1.00	0.00	1.00
37R1525-H51	KOCHEK 1.5"F X 2.5" M, NATURAL COLOR	1.00	0.00	1.00
TSC-859-15204	3/4" GHT GATED WYE	6.00	0.00	6.00
37R15P15-H51	KOCHEK 1.5" F NP X 1.5" M NH, NATURAL COLOR	2.00	0.00	2.00
37RG1P-H51	3/4" GH-F X 1" NPSH-F, NAT HARDCOAT	1.00	0.00	1.00
37R1P15-H51	1" NPSH-F X 1.5" NH-M, NATURAL HARDCOAT	2.00	0.00	2.00
35R1P1P-H51	1" NPSH, DBL F. NAT HARDCOAT	1.00	0.00	1.00
36R1P1P-H51	1" NPSH, DBL Male	1.00	0.00	1.00
35R1515-H51	KOCHEK DBL FEMALE 1.5", NAT HARDCOAT	2.00	0.00	2.00
36R1515-H51	KOCHEK DBL MALE 1.5", NAT HARDCOAT	1.00	0.00	1.00
37R1PG-H51	1" NPSH-F X 3/4" GHT-M, NATURAL HC	3.00	0.00	3.00
SH-T-1NP-1NP	1" NPSH-F X 1" NPSH-M X 1" NPSH-M, W/CAP	4.00	0.00	4.00
SH-T-15NH-1NP	1.5" NH-F X 1.5" NH-M X 1" NPSH- M, W/CAP	4.00	0.00	4.00
SH-TV-15NH-1NP	1.5" NH-F X 1.5" NH-M X 1" NPSH- W/VALVE	2.00	0.00	2.00
CFE-11153	1.5" NH-F, AUTOMATIC CHECK AND BLEEDER	1.00	0.00	1.00
HD-27933	BRASS SHT OFF GHT	5.00	0.00	5.00



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Work: (979) 458-6640

Part #	Description	Qty Ordered	Qty Shipped	Qty Back Ordered
853-30701-1 NH	1" Shut Off 1201, 1 NH	1.00	0.00	1.00
853-30701-1.5 NH	1.5" Shut Off, 1.5" NH	1.00	0.00	1.00
RST-X5158200ORS	ACCESS LINE ORANGE 200FT	1.00	0.00	1.00
RST-801214	ROPE BAG, RED	1.00	0.00	1.00
TFT-DS1040BCP	BUBBLE CUP W/GRIP 1", 100PSI, 10&40GPM	1.00	0.00	1.00
TFT-FQS125PS	QUADRAFOG W/GRIP 1.5"NH, 125gpm @ 100psi	1.00	0.00	1.00
TT300 NST	1" Wildland Nozzle Straight Stream & Fog NST	1.00	0.00	1.00
851-35101 1 NP	Hose 100 Supply Fireboss, Mercedes Textiles	8.00	0.00	8.00
853-30401 1 NP	Nozzle Dual Range (10 / 30 GPM), S & H Products	4.00	0.00	4.00
TSC-853-31101	MOP UP APPLICATOR W/ TIP	2.00	0.00	2.00
TSC-853-31051	MOP UP NOZZLE	4.00	0.00	4.00
SH-WV-1NP-1NP	GATED WYE, 1" NPSH X 1" NPSH	4.00	0.00	4.00
851-35201 100	Hose Myti-Flo Mop Up, Mercedes Textiles, 100FT	8.00	0.00	8.00
SH-WV-15NH-15NH	WYE, GATED 1.5" NH X (2) 1.5" NH	4.00	0.00	4.00
651-24301	COMBI TOOL, 42", COUNCIL TOOLS	2.00	0.00	2.00
SH-WV-15NH-1NP	WYE, 1.5" NH X 1" NPSH	1.00	0.00	1.00
659-25251	FOREST FIRE SHOVEL, J-450 PONY, JACKSON TOOLS	3.00	0.00	3.00
MCLF	MCCLOUD W/ FIBERGLASS	1.00	0.00	1.00
TSC-250-12051-REGULAR	FIRE SHELTER, NEW GENERATION, REG	4.00	0.00	4.00
TSC-604-30251 BLACK	OPERATOR SHELTER PACK	4.00	0.00	4.00
FHU-CM-2	MALLET, DEAD BLOW	1.00	0.00	1.00
HD-31030	24" PIPE WRENCH	1.00	0.00	1.00
HD-31020	Rigid 14" Pipe Wrench	1.00	0.00	1.00
104	DBL END HOLE TYPE, SPANNER	2.00	0.00	2.00
FHU-PUL-AXE	PULASKI AXE FIBERGLASS HANDLE	3.00	0.00	3.00
P639	REFLECTOR KIT	1.00	0.00	1.00
G2991405	CHANNELOCK 85 PLIERS	2.00	0.00	2.00
G2991405	CHANNELOCK 85 PLIERS	1.00	0.00	1.00
BKS-AX402	EXTG 5# ABC (3A:40B:C), NO BRACKET	1.00	0.00	1.00
DAR-U235	COLLAPSIBLE BACK PUMP	2.00	0.00	2.00
TSC-623-95207	TRUE NORTH CHEST HARNESS	4.00	0.00	4.00



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**Ship To:**

Work: (979) 458-6640

Part #	Description	Qty Ordered	Qty Shipped	Qty Back Ordered
26RS81	20" Chain for MS462	3.00	0.00	3.00
06176-1450C	Honda 06176-1450C No-Spill Can,5 Gal	1.00	0.00	1.00
STHL-MS261-CM-20	MS261-CM-20	1.00	0.00	1.00
KEY-DP15-800PU-50-Y-ARN	HOSE, KEYLITE 1.5" 50FT YELLOW	5.00	0.00	5.00
KEY-DP25-800-ECO-50-Y-ARN	HOSE, 2.5" ECO-10, 50FT, YELLOW	1.00	0.00	1.00
KEY-DP25-800-ECO-25-Y-ARN	HOSE, 2.5" ECO-10, 25FT, YELLOW	1.00	0.00	1.00
MAX-69	30" HEAVY DUTY BOLT CUTTER	1.00	0.00	1.00
FSC	WILDLAND HOSE CLAMP, 1" & 1.5" HOSE	8.00	0.00	8.00
FOX-42-25 OD	GREEN RUCK SACK, FOX OUTDOOR 19" X 12" OLIVE	8.00	0.00	8.00
KEY-DP25-800-ECO-50-Y-ARN	HOSE, 2.5" ECO-10, 50FT, YELLOW	12.00	0.00	12.00
TFT-XFI-PLNJ	HURRICANE 3"NPT FEMALE X 2.5"NH OUTLET	1.00	0.00	1.00
TFT-MST-4NJ	4 STACKED TIPS, 2, 1.75, 1.5, 1.375	1.00	0.00	1.00
KOC-K45-3-P18-P09	KOCHEK TRIPLE HOLDER, (1) K05, (2) K01	2.00	0.00	2.00
TFT-FQS125PS	QUADRAFOG W/GRIP 1.5"NH, 125gpm @ 100psi	1.00	0.00	1.00
FDTS-2100-22-V	PORTABLE TANK, 2100 G, 22OZ VNYL, STEEL	1.00	0.00	1.00
BKS-15HB	EXTINGUISHER BRACKET	1.00	0.00	1.00



# Option List

11/18/2022

<b>Customer:</b>	Texas AM Forest Service	<b>Bid Number:</b>	924
<b>Representative</b>	Topf, William	<b>Job Number:</b>	
<b>Organization:</b>	Siddons-Martin Emergency Group	<b>Number of Units:</b>	1
<b>Requirements Manager:</b>		<b>Bid Date:</b>	10/07/2022
<b>Description:</b>	TIFMAS - Tactical Tender	<b>Stock Number:</b>	
<b>Body:</b>	Tanker, Dry Side, Aluminum Body, Single Rear Axle, Commercial Chassis	<b>Price Level:</b>	43 (Current: 43)
<b>Chassis:</b>	Freightliner M2-106, 4x2 Single Rear Axle	<b>Lane:</b>	

Line	Option	Type	Option Description	Qty
1	0784629		Build-to-Order, Pierce Florida Product - Dry Side Tanker	1
2	0766671		Boiler Plate, Tanker, w/Commercial Chassis	1
			Fire Department/Customer - TIFMAS	
			Operating/In conjunction W-Service Center - Operating	
			Miles - 150 Miles	
			Number of Fire Dept/Municipalities - 25	
			Bidder/Sales Organization - Siddons-Martin Emergency Group	
			Delivery - Delivery representative	
			Dealership/Sales Organization, Service - Siddons-Martin Emergency Group	
3	0018257		Commercial chassis & Snorkel products	1
4	0584455		Manufacture Location, Bradenton, Florida	1
5	0584453		RFP Location: Bradenton, Florida	1
6	0588609		Vehicle Destination, US	1
7	0610783		Comply NFPA 1901 Changes Effect Jan 1, 2016, With Exceptions, Commercial Chassis	1
8	0545738		Mobile Water Supply Fire Apparatus, PMFD	1
9	0588617		Vehicle Certification, Tanker	1
10	0568412		Agency, Apparatus Certification, Pumper/Tanker, Third Party, PMFD	1
11	0620358		Buy Board	1
12	0537375		Unit of Measure, US Gallons	1
13	0060026		Requested, Statement by Sales Rep	1
14	0807703		Performance Bond, Not Requested	1
15	0000007		Approval Drawing	1
16	0589819		Electrical Diagrams, Commercial	1
17	0583846		Freightliner M2-106, 4x2 Single Rear Axle	1
18	0804178		Model Year 2025	1
19	0804122		Base Price, Freightliner M2-106, 4x2, Effective 07/01/2022	1
20	0623751		Wheelbase, 247" to 278", Single Axle (16K/27+K GAWR), Freightliner	1
			Wheelbase - 249"	
21	0584367		GVW Rating, Commercial Chassis	1
			GVW rating - 47k	
22	0579898		Frame, Chassis, Freightliner, 120 KSI	1
23	0582814		Frame Reinforcement, 1/4" Inner Liner, Freightliner	1
24	0669868		Axle, Front, 16K (w/16K Rating), Freightliner, 4x2	1
25	0083043		Suspension, Front Spring, 16,000 lb, Commercial	1
26	0073051		Shock Absorbers, Front	1
27	0082996		Brakes, Cam Front, 16.50"x 6.00" Commercial	1
28	0585775		Michelin Tires	1
29	0772241		Tires, Front, 315/80R22.50	1
30	0582451		Wheels, Steel, 22.50" x 9.00"	1
31	0582536		Axle, Rear, Meritor RS-30-185, 31K Rating, Freightliner	1
32	0772020		S-Cam Type	1
33	0544651		Top Speed of Vehicle, 60 MPH, Commercial Chassis	1
34	0771243		Suspension, Rear Spring, 31,000 lb, Commercial	1
35	0008102		Dust Shields, Front and Rear Brakes, Commercial Chassis	1
36	0772234		Tires, Rear, 315/80R22.50	1
37	0582449		Wheel, Steel, 22.50" x 9.00"	1
38	0620570		Tire Pressure Monitoring, RealWheels, AirSecure, Valve Cap, Single Axle	1
			Qty, Tire Pressure Ind - 6	
39	0057936		Covers, Lug Nut, Chrome	1



Line	Option	Type	Option Description	Qty
40	0002045		Mud Flap, Front and Rear, Pierce Logo	1
41	0602465		Chocks, Wheel, Mobile Water Supply, Provided by Dealer, NFPA 2016	1
42	0544692		Mounting Brackets, Chocks, Provided by Dealer	1
43	0773967		ABS, Anti-Lock Braking, w/Electronic Stability Pgm w/ATC, Commercial	1
44	0009547		Air Compressor, Brake, 18.7 CFM, Commercial	1
45	0773985		Air Dryer, Brake, w/Heater, Commercial	1
46	0000858		Inlet/Outlet, Air, w/Disconnect Fitting	1
			Location, Air Coupling(s) - h) DS Pump Panel	
			Qty, Air Coupling (s) - 1	
47	0728954		Engine, Cummins L9, 360 hp, Freightliner	1
48	0755088		Engine Surcharge, Cummins/Freightliner	1
49	0001247		High Idle w/Electronic Engine, Commercial	1
50	0627254		Auxiliary Brake, Engine Brake, Cummins C-Brake with Brake Lts, Freightliner	1
51	0070832		Air Intake, w/Ember Separator, Supplier Installed, FL	1
52	0517900		Exhaust System, Vertical Exhaust, RH Step Mounted DPF, Commercial	1
53	0765018		Exhaust Modifications, None Req'd, OEM Vertical Exhaust, Commercial Chassis	1
54	0061579		Coolant Hoses, Gates Blue Stripe, FL M2	1
55	0773913		Fuel Tank, 50 Gallon, Left Side, Aluminum, Commercial	1
56	0773952		DEF Tank, Left Side Location, Commercial	1
57	0723716		Fuel Priming Pump, Electronic, Automatic, Cummins, No Swt Req'd	1
58	0552712		Not Required, Shutoff Valve, Fuel Line	1
59	0023745		Cooler, Chassis Fuel, Pierce Installed	1
60	0773950		Trans, Automatic, Allison 3000 EVS, w/(2) PTO Provsions, Commercial	1
61	0773949		Transmission, Shifter, Push Button, 5 Speed, Commercial	1
62	0011475		Transmission Oil Cooler, Internal, Commercial	1
63	0733744		Driveline for PTO/Transfer Case or No Pump Installation - Commercial	1
64	0773977		Steering, Power w/Tilt/Telescope Column, Commercial	1
65	0631834		Bumper Extension, 22", Steel Painted, Chicago Style, Commercial Chassis	1
66	0002270		Tow Hooks, Chrome	1
67	0012300		Bracket, License Plate, Frt Bumper Non-Illuminated	1
68	0582756		Cab, 4-door, Crew Cab High-Roof, Freightliner, M2-106/108SD	1
69	0769892		Cab Interior, Gray, w/Convenience Package, 4-Door Crew Cab, Freightliner	1
70	0668972		Grille, Chromed Plastic, w/Exterior Appearance Pkg, Freightliner	1
71	0641391		Mirrors, West Coast, 8" Convex, Heated, Remote, Bright, Less PS Downview, FLR	1
72	0027013		Not Required, Peeper Window	1
73	0769986		Step Package, Standard Polished Steps, w/4-way Trim, FLR, 4-Dr, NFPA Compliant	1
74	0073115		Compartment, Storage/Tool, Under Right Crew Cab	1
75	0509494		Lights, Cab & Crw Cab Acs Stps, P25, LED, 8Lts	1
76	0070598		Daytime Running Lts, Commercial	1
77	0773943		Air Conditioning, Commercial	1
78	0005940		Lights, Engine Compt, (2) Commercial Chassis	1
79	0543655		Console, Freightliner M2, 2/4 Door, Radio/Map Storage	1
80	0726718		DECLINED - Side Roll Protection, Freightliner	1
81	0624106		Seating Capacity, Cab, 4-Door, Commercial	5
			Qty, - 05	
82	0582132		Seats, Cab, Air Driver w/911 Air Susp Passenger, Non-SCBA, Freightliner	1
83	0769069		Seats, 3-man 911 NON-SCBA, Non-Suspended, Freightliner	1
84	0597773		Seat Belt Web Length, NFPA Compliant, Commercial Chassis	1
85	0581771		Seat Belts, Orange, Commercial Chassis	1
86	0602464		Helmet Storage, Provided by Fire Department, NFPA 2016	1
87	0602629		Portable Hand Lt, Provided by Fire Dept, Mobile Water Supply, NFPA 2016	1
88	0695283		Handlight, Streamlight, Survivor, 90503, C4 LED, 12v, Orange, Steady Charge	2
			Qty, Lights - 02	
			Location, Lights - rear of console, one each side, up high	
89	0584358		Cab Instrumentation, Commercial Chassis	1
90	0058045		Panel, Emergency Switch, Overhead, Freightliner	1
91	0673123		Light, Do Not Move Apparatus, WIn 3SR00FRR LED	1
			Alarm, Do Not Move Truck - Steady Alarm	
92	0005926		Light, Open Door - Commercial Std	1
93	0072620		Wiper control, intermittent feature Commercial	1

Line	Option	Type	Option Description	Qty
94	0610968		Wiring, Spare, 2.0 A 12V DC, USB Termination Blue Sea 1016 1st Qty, - 04 12vdc power from - Battery direct Location - two on front on console and two rear of console.	4
95	0548004		Wiring, Spare, 15 A 12V DC 1st Qty, - 04 12vdc power from - Battery direct Wire termination - 15 amp power point plug Location, Spare Wiring - two (2) on the officer dash and two (2) on the front of the console	4
96	0637217		Radio, AM/FM/Weather Band, Bluetooth, USB/ Aux Input, J1939,Freightliner	1
97	0626864		Not Required, Vehicle Information Center, No Multiplex System	1
98	0734854		Collision Mitigation, Not Requested	1
99	0611591		Vehicle Data Recorder w/Seat Belt Monitor, Commercial VDR Primary Inputs - No Primary Input VDR Additional Input - No Additional Input	1
100	0808099		Camera, Pierce, 7" HD, Rear Camera Only, AHD Color - 4) white Location, Camera Monitor - Driver Side Dash	1
101	0511071		Guard, 4-Way, Rear Vision Camera Qty, - 01 Location - rear of truck covering camera	1
102	0622833		Electrical System, Commercial Chassis	1
103	0623127		Electrical System, Freightliner M2-106/108SD, Tanker	1
104	0728759		Single Start, (3) Batteries, 2250-2280 CCA, Freightliner	1
105	0893220		RELOCATE BATTERIES	1
106	0897736		Battery Location, Inside Crew Cab Step Compartment, Left Side	1
107	0072685		Selector, Single Start Battery, Commercial Chassis	1
108	0687320		Charger, Sngl Sys, Kussmaul, Pump Plus 1200, 091-9-1200-194	1
109	0012781		Location, Charger/Compr, Front left body compt	1
110	0567881		Location, Bat Chrg Ind, Driver's Seat Riser, Comm Chassis	1
111	0016857		Shoreline, 20A 120V, Kussmaul Auto Eject, 091-55-20-120, Super Qty, - 01 Color, Kussmaul Cover - b) red Shoreline Connection - Battery Charger	1
112	0067386		Shoreline Location, Fill-In-Blank Feature Location 1 - driver side pump panel	1
113	0621234		Alternator, 300 amp, Delco, 40SI, FLR	1
114	0040194		Load Manager, Kussmaul 2 Channel	1
115	0738018		Cab Lighting, LED HEADLIGHTS, Freightliner	1
116	0773739		Cab Lighting, LED Marker Lights, Commercial	1
117	0750542		Light, Directional/Marker, Intermediate, Truck-Lite 60421Y LED 2lts	1
118	0591889		Lights, Clearance/Marker/ID, Rear, WIn 0SR00MCR LED 7Lts	1
119	0804519		Lights, Tail, WIn M62BTT* Red Stop/Tail & M62T* Amber Dir Arw Color, Lens, LED's - Match Color, Trim - Chrome Trim Flash Pattern, Directional Lts - Steady On (Arrow)	1
120	0805618		Lights, Backup, WIn M62BU Color, Trim - Chrome Trim	1
121	0889577		Bracket, License Plate & Light, P25 LED, Stainless Brkt Color, Trim - Chrome Housing	1
122	0589905		Alarm, Back-up Warning, PRECO 1040	1
123	0769566		Lights, Perimeter Cab, Amdor AY-LB-12HW020 & AY-LB-12HW012 LED 4Dr	1
124	0769559		Lights, Perimeter Pump House, Amdor AY-LB-12HW012 LED 2lts	1
125	0768520		Lights, Perimeter Body, Amdor AY-LB-12HW020 LED 2lts, Rear Step, Comm Chassis Control, Perimeter Lts - Parking Brake Applied	1
126	0769570		Lights, Perimeter, Amdor AY-LB-12HW020 20", Brkt Qty, - 02 Location, Additional Perimeter Lights - Each Side Under Front Bumper, 2lts	2
127	0556360		Lights, Step, P25 LED 4lts, Pump Pnl Sw	1
128	0032623		Lights, Additional Scene Lights Not Req'd @ Rear	1

Line	Option	Type	Option Description	Qty
129	0598966		Lights, Side Scene, FRC SPA900-Q70 Surface Mt, 2nd Location, Lights - passenger side rear of hard suction. Qty, - 1 Switch, Lt Control 1 DC,1 - a) DS Switch Panel Switch, Lt Control 2 DC,2 - f) Pump Operator's Panel Switch, Lt Control 3 DC,3 - d) No Control Switch, Lt Control 4 DC,4 - d) No Control	1
130	0598967		Lights, Side Scene, FRC SPA900-Q70 Surface Mt, 1st Location, Lights - driver side front of body and rear of body Qty, - 02 Switch, Lt Control 1 DC,1 - a) DS Switch Panel Switch, Lt Control 2 DC,2 - f) Pump Operator's Panel Switch, Lt Control 3 DC,3 - d) No Control Switch, Lt Control 4 DC,4 - d) No Control	2
131	0796836		Light, Visor, FRC, 12V SPA851-Q15-* LED, Brow Mt, Commercial, 1st Switch, Lt Control 1 DC,1 - a) DS Switch Panel Switch, Lt Control 2 DC,2 - e) No Control Color, FRC/Rom Lt Housing - FRC, White	1
132	0798591		Lights, Deck, Wln (2) MPBB Micro Pioneer LED Rear Flood Lights Switch, Scene Lt Cntrl - i)switch at rear and ds sw pnl	1
133	0645676		Lights, Not Required, Hose Bed, Deck Lights At Rear	1
134	0645830		Light, Front Of Hose Bed, On Scene Solutions, 63" LED Night Stik, Location Location - front of hosebed Qty, - 01 Control, Hose Bed Lts - Cup Switch At Rear	1
135	0645681		Lights, Not Required, Rear Work, Deck Lights At Rear	1
136	0645611		Lights, Rear Scene, FRC, SPA900-Q70, Surface Mt, 1st Location, Lights - One each side at rear Qty, - 02 Control, Rear Scene Lts - Cab Switch Panel DS and Pump Panel DS	2
137	0763248		Lights, Walk Surf, Amdor AY-LB-12HW0**, LED, Cargo Areas Location - forward cargo sheet Qty, Cargo Lts - 1	1
138	0802885		Tanker, Dry Side, Aluminum Body, Single Rear Axle, Commercial Chassis	1
139	0682210		No Value Discount Available	1
140	0036231		Tank, Water, Poly, Dry Sides, 2000 Gallon, w/Catwalks	1
141	0028104		Foam Cell Required	1
142	0556517		Restraint, Water Tank, Dry SideTanker	1
143	0083235		Tank Access Ladder, Poly Tank, Dry Side Tanker Location, driver's/passenger's/center - Left Side	1
144	0027805		Overflow, 6" Poly, Tanker	1
145	0027604		Bracket, For Over Length Zico Quic-Lift, Etanker/ Dry Side	1
146	0645089		Rack, Zico Quic-Lift, PTS-HA, Hydraulic Tank Rack, Cover Qty, - 01 Location, driver's/passenger's/center - Left Side Size, Portable Tank - 2100g Fol-Da-Tank - Aluminum Frame Cover Material, Rack, Folding Tank or HSH - Aluminum Treadplate	1
147	0021854		Tank Fill, 2.50" Direct, Rear, Poly Tank Location, driver's/passenger's/center - Right Adapter, Elbow - 2.5"NST	1
148	0048710		Not Required, Jet Assist	1
149	0031169		Dump, 10" Newton, Rear, Electric, DRY SIDE TANKER	1
150	0637710		Dump Chute, Rear, Newton 6012SW-34 Swivel, Stainless Steel, w/Telescopic Ext.	1
151	0028740		No Left Side Dump Req'd	1
152	0028767		Not Required, Dump Valve Chute, Left Side	1
153	0028741		No Pass Side Tank Dump Req'd	1
154	0028759		Not Required, Dump Valve Chute, Right Side	1
155	0091023		Hose Bed, Aluminum, Dry Side Tanker Finish, Inside of Hose Bed - Painted	1
156	0618593		Hose Load, Dry Side Tanker, Other than Standard Capacity, Hosebed - 500' of 2.50"	1
157	0059656		Divider, Hose Bed, .25" Unpainted, PMFD Qty, Hosebed Dividers - 2	2

Line	Option	Type	Option Description	Qty
158	0589278		Hose Restraint, Hose Bed, Velcro Strap on Top, 2" Heavy Nylon Web at Rear Type of fastener - seat belt buckle Nylon Web Color - Black Type of fastener, Rear - seat belt buckle - bottom of hosebed	1
159	0608475	SP	Compt, Hose Bed, Long Handled Tools, Door Location - left side Size - the length of the hosebed and 10" wide Door, Material & Finish, Storage - Aluminum Treadplate Latch, Door, Storage - "D" Handle Latch Hinge Location - Right Side	1
160	0013512		Running Boards, 12.75" Deep	1
161	0028777		Tailboard, 16" Deep, Etanker & Dry Side	1
162	0690023		Wall, Rear, Smooth Aluminum	1
163	0003540		Tow Eyes (2) (Tanker/Rescue)	1
164	0003581		Construction, Compt, Alum, Dry Side Tanker	1
165	0091056		LS 148" Rollup, Commercial Chassis, Dry Side Tanker	1
166	0001401		LS, No Hard Suction Hose Compt Available, Dry Side	1
167	0091057		RS 148" Roll-up Doors, Commercial Chassis, Dry Side Tanker	1
168	0001488		RS, No Hard Suction Hose Compt Available, Dry Side	1
169	0692760		Doors, Gortite, Roll-up, Side Compartments Qty, Door Accessory - 04 Color, Roll-up Door, Gortite - Satin finish Latch, Roll-up Door, Gortite - Locking, 1250, Match Compartments	4
170	0048732		No Rear Compt Req'd - Dry Side/Tanker	1
171	0616670		Lights, Compt, Pierce LED, Dual Light Strips, Each Side of Door, Pumper/Tanker Qty, - 04 Location, Compartment Lights - All Body Compts	4
172	0687146		Shelf Tracks, Painted Qty, Shelf Track - 02 Location, Shelf Track - LS2 and RS2	2
173	0687112		500 lb Painted Adjustable Shelf Qty, Shelf - 01 Location, Shelf - passenger side front (RS2)	1
174	0647091		Tray, Floor Mounted, Slide-Out, 500lb, 2.00" Sides Qty, - 02 Location, Tray Slide-Out, Floor Mounted - RS2 and LS2 Material Finish, Tray - Painted - Spatter Gray	2
175	0004016		Rub Rail, Aluminum Extruded, Side of Body	1
176	0510626		Fender Crowns, Rear, S/S, Wider Than Std.	1
177	0004067		Hose, Hard Suction, 5.0", 10.0', Clear Corrugated Qty, Hard Suction Hose - 2	2
178	0091111		Troughs, Hard Suction Hose, U-Shaped, Dry Side Tanker Qty, - 02 Location, Hose Trough/Compartment - b) right side Length, Hard Suction Hose - 10 Diameter, Hard Suction Hose - 5.00"	2
179	0626229		Handrails, Side Pump Panels, Per Print	1
180	0519354		Handrail, Extra - 12" Location, Handrails - on the front hosebed sheet on the left side as noted on the AD Qty, Handrails - 01	1
181	0657651		Compt, Air Bottle, Double, Fender Panel Qty, Air Bottle Comp - 4 Door Finish, Fender Compt - Brushed Location, Fender Compt - Double - LS Fwd, Double - LS Rear, Double - RS Fwd and Double - RS Rear Latch, Air Bottle Compt - Southco C2 Black Raised Insert, Air Bottle Compt - Rubber Matting	4
182	0004264		Ladder, 24' Alco-Lite PEL-24 2 Sect	1
183	0004266		Ladder, 14' Alco-Lite, PRL-14, Roof	1
184	0561002		Brackets Ladder, Adjustable, Right Side Ladder, Make/Model/Length - passenger side 24, 14 foot	1

Line	Option	Type	Option Description	Qty
185	0034270		Ladder, 10' Alco-Lite Folding FL-10	1
			Location, Folding Ladder - Below Ladders	
186	0074335		Pike Pole, 8' Nupla, Fiberglass, I Beam	1
			Location - Pike Pole Compartment	
			Qty, Pike Poles - 1	
187	0084332		Not Required, Pike, Pole, 8'	1
188	0548182		Pike Pole, 6' Nupla, Fiberglass, I Beam, SPD-6	1
			Qty, Pike Poles - 1	
189	0748710	SP	Compt, (2) Pike Poles Below Tee, LS, Aluminum Tubes	1
			Door, Material & Finish, Storage - Polished S/S	
190	0591177		Steps, Folding, Front of Body, One Each Side, Trident	1
			Coating, Step - black	
191	0014381		Not Required, Rear Step (No rear door)	1
192	0747016		Step, Folding - Extra, Cargo Area Only, Trident, Dry Side	2
			Qty, Folding Step - 02	
			Location, Additional Step - on the front body sheet and cargo per the AD	
			Coating, Step - black	
193	0755315	SP	I Zone Bracket, Pair, Folding Style, w/Tank Mounting Provisions, Dry Side Tanker	1
			Location - one (1) on each side of the rear body bulkhead, standard locations.	
194	0085495		Pump House, Side Control, 34" ( NFPA 1901 pumps)	1
195	0035501		Pump House Structure, Std Height	1
196	0001710		Pump, Waterous, CXPA, 1000 GPM, Single Stage, PTO	1
197	0084489		Seal, Mechanical, Waterous, PTO	1
198	0074478		Trans, Pump, Waterous, "PA" Series, PTO	1
199	0602328		Pumping Mode, Mobile, Non-NFPA 2016 Compliant	1
			Pumping Mode - Pump in Motion	
200	0535276		Pump Shift, PTO Pump	1
201	0581602		Transmission Lock-up, Not Req'd, PTO Pump	1
202	0004547		Auxiliary Cooling System	1
203	0014486		Not Required, Transfer Valve, Single Stage Pump	1
204	0746508		Valve(s), Relief Intake, Trident Air Max, Control Location	1
			Qty - 1	
			Pressure Setting - 125 psig	
			Intake Relief Valve Control - Left Side Pump Panel	
205	0745280		Controller, Pressure, Class 1 Sentry, w/Twister Throttle, Horz Orientation	1
206	0072153		Primer, Trident, Air Prime, Air Operated	1
207	0780364		Manuals, Pump, (2) Total, Electronic Copies	1
208	0603129		Plumbing, Stainless Steel and Hose, Single Stage Pump	1
209	0795135		Plumbing, Stainless Steel, w/Foam System	1
210	0004635		Inlets, 5.00" - 1000 GPM Pump	1
211	0004646		Cap, Main Pump Inlet, Long Handle, NST, VLH	1
212	0084610		Valves, Akron 8000 series- All	1
213	0004685		Valve, Inlet(s) - Outside Panel	1
214	0004700		Control, Inlet, at Valve	1
215	0004660		Inlet (1), Left Side, 2.50"	1
216	0029147		Not Required, Inlet, Right Side	1
217	0092569		No Rear Inlet (Large Dia) Requested	1
218	0064116		No Rear Inlet Actuation Required	1
219	0092696		Not Required, Cap, Rear Inlet	1
220	0009648		No Rear Intake Relief Valve Required on Rear Inlet	1
221	0092568		No Rear Auxiliary Inlet Requested	1
222	0723049		Valve, .75" Bleeder, Aux. Side Inlet, "T" Swing Handle	1
223	0084756		Tank to Pump, (1) 3.00" Valve, 4.00" Plumbing, PTO Pump	1
224	0027900		Tank Fill, 2.00"	1
225	0062133		Control, Outlets, Manual, Pierce HW if applicable	1
226	0004940		Outlet, Left Side, 2.50"	2
			Qty, Discharges - 02	
227	0005091		Elbow, Left Side Outlets, 45 Degree, 2.50" FNST x 2.50" MNST, VLH	1
228	0092570		Not Required, Outlets, Left Side Additional	1
229	0035094		Not Required, Elbow, Left Side Outlets, Additional	1

Line	Option	Type	Option Description	Qty
230	0004945		Outlet, Right Side, 2.50"	1
			Qty, Discharges - 01	
231	0025091		Elbow, Right Side Outlets, 45 Degree, 2.50" FNST x 2.50" MNST, VLH	1
232	0092571		Not Required, Outlets, Right Side Additional	1
233	0089584		Not Required, Elbow, Right Side Outlets, Additional	1
234	0029137		Not Required, Outlet, Large Diameter	1
235	0007308		Not Required, Elbow, Large Diameter Outlet	1
236	0648906		Outlet, Front, 2.50" w/2.50" Plumbing	1
			Fitting, Outlet - 2.50" NST with 90 degree swivel	
			Drain, Front Outlet - Automatic	
			Location, Front, Single - top of left bumper	
237	0757944		Outlet, Ground Sweep, (2), Flat Nozz, Frt Bumper, Switches In Cab, Up To 17 GPM	1
			Drain, Front Outlet - Automatic	
238	0004995		Outlet, Rear, 2.50"	1
			Qty, Discharges - 01	
			Location, Outlet - a) right side	
239	0040286		Elbow, Rear Outlets, 30 Degree, 2.50" FNST x 2.50" MNST, VLH	1
240	0092574		Not Required, Outlet, Rear, Additional	1
241	0085695		Not Required, Elbow, Rear Outlets, Large, Additional	1
242	0092573		Not Required, Outlet, Hose Bed/Running Board Tray	1
243	0752097		Caps/Plugs for 1.00" to 3.00" Discharges/Inlets, Chain	1
244	0723042		Valve, 0.75" Bleeder, Discharges, "T" Swing Handle	1
245	0005065		Outlet, 3.00" Deluge Riser	1
246	0770359		No Monitor Requested, Customer/Dealer Furnished and Installed	1
			Fill in Blank - customer provided. Brand: TBD Model: TBD	
247	0029304		No Nozzle Req'd	1
248	0005070		Deluge Mount, NPT	1
249	0087160		No Deadlay Req'd., - Etanker & Dry Side	1
250	0723726		Speedlay Module Not Required	1
251	0722432		Hose Restraint Not Required, No Speedlay Module	1
252	0723395		Speedlays, Not Required	1
253	0723394		Speedlays, Not Required	1
254	0547471	SP	Crosslay, 1.50" Special Cap or Single Stack, Painted	2
			Capacity, Special Xlay - 150 feet of 1.75" hose - single stack	
			Qty, Crosslays - 2	
255	0029196		No Crosslay	1
256	0687205		Hose Restraint, Crosslay/Deadlay, Vinyl, Fasteners, Each Side, Ends	2
			Color, Vinyl Cover - i) blue	
			Qty, - 02	
			Type of fastener - Lift-a-dot - 1 side of crosslay/deadlay/speedlays	
257	0029260		No Speedlays	1
258	0750536		Hose Restr, Spdly, Not Required, No Spdly	1
259	0590877		Hose Restraint, Crosslay/Deadlay, Aluminum Treadplate, Top Only	1
			Stay arm, Tray Cover - d) No Stay Arm	
			Restraint Location - Front (towards front of truck)	
260	0606483	SP	Reel, Booster, Over Pump, Right Side, Steel, Special Narrow Configuration	1
			Finish, Reel - Painted Gray	
261	0011060		Switch, Reel Rewind - One at Pump Panel	1
262	0792747	SP	Hose, Booster - Kocheck, KBH10, 150' of 1.00"/300 PSI (100' + 50')	1
263	0017858		Capacity, Hose Reel 150' of 1"	1
264	0007428		Nozzle for Booster Reel Not Req'd	1
265	0014953		Foam Sys, FoamPro 1601 (Single Agent)	1
			Discharge - crosslays, redline	
			Amount of Disc. W/Foam - 3	
266	0012126		Not Required, CAF Compressor	1
267	0552517		Not Required, Refill, Foam Tank	1
268	0031896		Demonstration, Foam System, Dealer Provided	1
269	0041377		Foam Cell, 25 Gallon, Reduce Water	1
			Type of Foam - Class "A"	
270	0091036		Drain, 1.00" Foam Tank #1	1
271	0091079		Not Required, Foam Tank #2	1
272	0091112		Not Required, Foam Tank #2 Drain	1

Line	Option	Type	Option Description	Qty
273	0738072		Approval Dwg, Pump Panel(s), Not Required	1
274	0035570		Pump Panel Configuration, No Match Required	1
275	0635355		Material, Pump Panels, Side Control Painted FormCoat Black	1
			Material Finish, Pump Panel, Side Control - Painted FormCoat Black	
			Material, Pump Panel, Side Control - Aluminum	
276	0721765		Panel, Pump Access - Right Side Only, Side Control	1
			Latch, Pump Panel Access, Side Mount - Swell Latch, Black	
277	0720905	SP	No Chassis Equipment/Pump House/Body Interference,4Dr/2Dr Extd Cab,Vert Exh	1
278	0005945		Light, Pump Compt	1
279	0586382		Gauges, Engine, Included With Pressure Controller	1
280	0745300		Throttle, Engine, Class 1 Twister, Incl'd w/Press Controller	1
281	0739224		Indicator Light @ Pump Panel, Throttle Ready, Incl w/Pressure Gov/Throttle,Green	1
282	0549333		Indicators, Engine, Included with Pressure Controller	1
283	0745568		Indicator Light, Pump Panel, Ok To Pump, Green	1
284	0511078		Gauges, 4.00" Master, Class 1, 30"-0-600psi	1
285	0511100		Gauge, 2.00" Pressure, Class 1, 30"-0-400psi	1
286	0650285		Gauge, Water Level, Class 1, ITL-40M, Colored LEDs, Loc Fea	1
			Location 1 - pump panel	
287	0617063	SP	Water Level Gauge, Add'l, Class-1 ITL, Mini, Location	1
			Location - inside the cab	
288	0558912		Gauge, Foam Level, (1) Tank, Class 1 ITLF-40M Red Label	1
289	0593161		Light Shield, S/S LED	1
290	0508023		Air Horns, (2) Hadley, 6" Round, eTone, Sides of Engine Hood	1
291	0791273		Location, Air Horn(s), Side of Engine Hood	1
292	0016065		Control, Air Horn, Horn Ring, PS Chrome Push Button	1
293	0525667		Siren, WIn 295SLSA1, 100 or 200 Watt	1
294	0082324		Location, Elect Siren, Console, Commercial	1
295	0748306		Control, Elec Siren, Multi Select	1
296	0805709		Control, Elec Siren, Horn Ring, Interlock	1
			Control, Interlocks - Prk Brk Released	
297	0748292		Control, Elec Siren, Push Button Sw, RS	1
298	0601294		Speaker, (2) WIn, SP123BMC, Chrome ABS	1
			Connection, Speaker - siren head	
299	0601559		Location, Speaker, Frt Bumper, Recessed, Each Side, Inside Frame (Pos 3 & 5)	1
300	0736649		Sw, Siren Brake, Momentary Red, Center Console Sw Pnl	1
301	0746353		Not Required, Warning Lights Intensity	1
302	0608632		Lightbar, WIn, Freedom IV-V, 72", R_R_R_R_R_R_R_R	1
			Filter, Whl Freedom Ltbrs - No Filters	
303	0545495		Lights, Front Zone, WIn M7*C LED, Clear Lens, Comm	1
			Color, Lt DS Front - Red	
			Color, Lt PS Front - Red	
304	0020909		ABS SYSTEMS, Commercial	1
305	0641536	SP	Lights, Side Zone Lower, WIn M7* LED, Clear Lens, 6lts	1
			Location, Lights Mid - on the lower forward corners of the pump panels	
			Location, Lights Rear - one each side rear of the rear wheels	
			Location, Lights Front Side - b)each side bumper	
			Color, Lt Side Front - Red	
			Color, Lt Side Middle - Red	
			Color, Lt Side Rear - Red	
306	0540782		Lights, Rear Zn Lwr, WIn M7*C LED, Clear Lens	1
			Color, Lt DS Rear - r) DS Rear Lt Red	
			Color, Lt PS Rear - r) PS Rear Lt Red	
307	0088745		Light, Rear Zone Up, WIn L31HRFN LED Beacon, Red LED	1
			Color, Dome, Rear Warning - j) both domes clear	
308	0006551		Not Required, Lights, Rear Upper Zone Blocking	1
309	0035021		Rear Warning Brackets, S/S, LOW Mount for Dry Side Tanker	1
310	0519934		Not Required, Brand, Hydraulic Tool System	1
311	0649753		Not Required, PTO Driven Hydraulic Tool System	1
312	0007150		Bag of Nuts and Bolts	1
			Qty, Bag Nuts and Bolts - 1	
313	0602519		NFPA Required Loose Equipment, Mobile Water Supply, NFPA 2016,Provided by Dealer	1

Line	Option	Type	Option Description	Qty
314	0519913		Not Required, Soft Suction Hose	1
315	0007026		Strainer, 5.00"	1
316	0602536		Extinguisher, Dry Chemical, Mobile Water Supply, NFPA 2016, Provided by Fire Dept	1
317	0602355		Extinguisher, 2.5 Gal. Press. Water, Mobile Water/Foam, Not Required	1
318	0784238		Axe, Flathead, Mobile Water Supply, Not Required by NFPA 2016 Classification	1
319	0007492		Not Required, Axes, Pickhead	1
320	0607712		Paint Process/Environmental	1
321	0583880		Paint, Optional Color, Commercial Grade Chassis Finish, PMFD	1
			Paint Color - Commercial, PMFD - #10 White	
322	0586530		Chassis Cab Paint, Optional Color, by Chassis Manufacturer	1
			Paint Color, Commercial, Optional - #10 White	
323	0583915		No Two-Tone Paint Req'd	1
324	0582663		Paint, Chassis Frame Assy, Black, by Commerical Chassis Manufacturer	1
325	0651188		Paint, Wheels, By Chassis Manufacturer, Single Rear Axle, Commercial	1
326	0651164		Wheels, Accent Stripe NOT REQUIRED	1
327	0007230		Compartment, Painted, Spatter Gray	1
328	0544074		Reflective Band, 4"	1
			Color, Reflect Band - A - d) blue	
329	0007357		Reflective on Front Bumper	1
330	0544909		Stripe, Chevron, Rear, Diamond Grade, Dryside Tanker	1
			Color, Rear Chevron DG - fluorescent yellow green	
331	0545179		Stripe, Diamond Grade, Chevron, Front Bumper	1
			Size, Chevron Striping - 06	
			Color, Chevron DG - Yellow Green, Fluorescent	
			Color, Chevron DG - B - Red	
332	0065785		Stripe, Reflective, Cab Drs Interior, Commercial Cabs, 4dr	1
			Color, Reflective - d) blue	
333	0027286		Not Required, Lettering Specs	1
334	0007472		[Lettering not Requested]	1
335	0686039		Lettering, Reflective, 2.00", (41-60)	1
			Outline, Lettering - No Outline or Shade	
336	0686009		Lettering, Reflective, 6.00", (41-60)	1
			Outline, Lettering - No Outline or Shade	
337	0686042		Lettering, Reflective, 2.00", Each	10
			Qty, Lettering - 10	
			Outline, Lettering - No Outline or Shade	
338	0686013		Lettering, Reflective, 6.00", Each	8
			Qty, Lettering - 08	
			Outline, Lettering - No Outline or Shade	
339	0686084		Lettering, Reflective, 3.00", Each	10
			Qty, Lettering - 10	
			Outline, Lettering - No Outline or Shade	
340	0685978		Lettering, Reflective, 18.00", Each	5
			Qty, Lettering - 05	
			Outline, Lettering - No Outline or Shade	
341	0766245		Manual, Fire Apparatus Parts, USB, Body Parts Only, Commercial Product	1
342	0766243		Manual on USB Flash Drive, Service, Commercial	1
343	0002902		Manual, Commercial Chassis Operation	1
344	0080008		Warranty, Basic, 1 Year, Apparatus, Commercial Chassis, WA0008	1
345	0632757		Warranty, Basic Vehicle, 1 yr, FL M2-112/114SD	1
346	0595282		Warranty, Cab Paint, As Provided By Chassis Manufacturer, Commercial	1
347	0695416		Warranty, Pierce Camera System, WA0188	1
348	0647720		Warranty, Pierce LED Strip Lights, WA0203	1
349	0021516		Warranty, 5-Year EVS Transmission, Standard Comm, WA0187	1
350	0596025		Warranty, Structure, 10 Year, Body, WA0009	1
351	0693127		Warranty, Gortite, Roll-up Door, 6 Year, WA0190	1
352	0734463		Warranty, Pump, Waterous, 7 Year Parts, WA0382	1
353	0648675		Warranty, 10 Year S/S Pumbing, WA0035	1
354	0641372		Warranty, Foam System, Not Available	1
355	0688015		Warranty, Water Tank, Lifetime, UPF, Poly Tank, WA0195	1
356	0595820		Warranty, Paint, 10 Year, Body, Pro-Rate, WA0057	1



Line	Option	Type	Option Description	Qty
357	0593921		Not Required, Warranty, No Lettering	1
358	0683627		Certification, Vehicle Stability, CD0156	1
359	0544897		Certification, Cab Integrity, Freightliner, CD0022	1
360	0545073		Amp Draw Report, NFPA Current Edition	1
361	0002758		Amp Draw, NFPA/ULC Radio Allowance	1
362	0000017		FLORIDA DIVISION BODY	1
363	0000015		FLORIDA DIVISION COMMERCIAL CHASSIS	1
364	0004713		ENGINE, OTHER	1
365	0046395		EVS 3000 Series TRANSMISSION	1
366	0020011		WATEROUS PUMP	1
367	0089358		DRY SIDE - TANK	1
368	0028048		FOAM SYSTEM	1
369	0020006		SIDE CONTROL	1
370	0020007		AKRON VALVES	1
371	0658751		PUMPER BASE	1

Siddons Martin Emergency Group, LLC  
3500 Shelby Lane  
Denton, TX 76207  
GDN P115891  
TXDOT MVD No. A115890

November 18, 2022

Jared Karns, Planning & Preparedness  
Department Head  
TEXAS A&M FOREST SERVICE  
200 TECHNOLOGY WAY STE 1281  
COLLEGE STATION, TX 77845



**Proposal For: 2022 Texas A&M Forest Service Tactical Tender**

Siddons-Martin Emergency Group, LLC is pleased to provide the following proposal to TEXAS A&M FOREST SERVICE. Unit will comply with all specifications attached and made a part of this proposal. Total price includes delivery FOB TEXAS A&M FOREST SERVICE and training on operation and use of the apparatus.

Description	Amount	
<b>Qty. 1 - 924 - Pierce-Commercial Freightliner M2-106 Tanker, Dry Side</b>		
<b>(Unit Price - \$600,600.00)</b>		
Delivery within 29-30 months of order date		
QUOTE # - SMEG-0004714-1		
	Vehicle Price	\$600,600.00
	Loose Equipment Budget	\$35,000.00
	<b>924 - UNIT TOTAL</b>	<b>\$635,600.00</b>
	SUB TOTAL	\$635,600.00
	BuyBoard 651-21 (FIRE)	\$1,500.00
	<b>TOTAL</b>	<b>\$637,100.00</b>

Price guaranteed for 60 days

**Additional:** Due to global supply chain constraints, any delivery date contained herein is a good faith estimate as of the date of this order, and merely an approximation based on current information. Pierce will provide delivery updates when available.

**Taxes:** Tax is not included in this proposal. In the event that the purchasing organization is not exempt from sales tax or any other applicable taxes and/or the proposed apparatus does not qualify for exempt status, it is the duty of the purchasing organization to pay any and all taxes due. Balance of sale price is due upon acceptance of the apparatus at the factory.

**Late Fee:** A late fee of .033% of the sale price will be charged per day for overdue payments beginning ten (10) days after the payment is due for the first 30 days. The late fee increases to .044% per day until the payment is received. In the event a prepayment is received after the due date, the discount will be reduced by the same percentages above increasing the cost of the apparatus.

**Cancellation:** In the event this proposal is accepted and a purchase order is issued then cancelled or terminated by Customer before completion, Siddons-Martin Emergency Group may charge a cancellation fee. The following charge schedule based on costs incurred may be applied:

- (A) 10% of the Purchase Price after order is accepted and entered by Manufacturer;
- (B) 20% of the Purchase Price after completion of the approval drawings;
- (C) 30% of the Purchase Price upon any material requisition.

The cancellation fee will increase accordingly as costs are incurred as the order progresses through engineering and into manufacturing. Siddons-Martin Emergency Group endeavors to mitigate any such costs through the sale of such product to another purchaser; however, the customer shall remain liable for the difference between the purchase price and, if applicable, the sale price obtained by Siddons-Martin Emergency Group upon sale of the product to another purchaser, plus any costs incurred by Siddons-Martin to conduct such sale.

**Acceptance:** In an effort to ensure the above stated terms and conditions are understood and adhered to, Siddons-Martin Emergency Group, LLC requires an authorized individual from the purchasing organization sign and date this proposal and include it with any purchase order. Upon signing of this proposal, the terms and conditions stated herein will be considered binding and accepted by the Customer. The terms and acceptance of this proposal will be governed by the laws of the state of Texas. No additional terms or conditions will be binding upon Siddons-Martin Emergency Group, LLC unless agreed to in writing and signed by a duly authorized officer of Siddons-Martin Emergency Group, LLC.

Sincerely,



**William Topf**

I, \_\_\_\_\_, the authorized representative of TEXAS A&M FOREST SERVICE, agree to purchase the proposed and agree to the terms of this proposal and the specifications attached hereto.

\_\_\_\_SEE PURCHASE ORDER\_\_\_\_\_

Signature & Date

## Lull, Travis

---

**From:** Steve Fisher <Steve.Fisher@tasb.org>  
**Sent:** Wednesday, December 21, 2022 10:00 AM  
**To:** Lull, Travis  
**Subject:** [External] FW: R300232 Documentation  
**Attachments:** 11.18.22 - Proposal.pdf; 11.18.22 - Specification.pdf; 11.18.22 - Option List.pdf; TIFMAS T6 and T3 Loose Equipment Estimate, EST 14003036, 10-7-23.pdf

Good Morning Travis

The information provided by Siddons-Martin Emergency Group is complaint with RFP 651-21 Fire Services Apparatus Vehicles.

Any questions, let me know. Thanks

Happy Holidays



**Steve Fisher**  
*Division Director*  
*Cooperative Purchasing*  
512.467.0222x 7153 • 800.695.2919  
[buyboard.com](http://buyboard.com)

**From:** Lull, Travis <[Travis.Lull@tfs.tamu.edu](mailto:Travis.Lull@tfs.tamu.edu)>  
**Sent:** Tuesday, December 20, 2022 3:37 PM  
**To:** BuyBoard Info <[Info@buyboard.com](mailto:Info@buyboard.com)>  
**Subject:** FW: R300232 Documentation

Greetings,

I need to make sure that the attached quotes from Siddons-Martin are in line with the terms of contract 651-21. Please let me know.

Thanks,

**Travis Lull**, CTCD, EMT-B  
Buyer, Texas A&M Forest Service | Finance & Administration  
200 Technology Way, Suite 1120 | College Station, TX 77845-3824  
Tel: (979) 458-7382

Fax: (979) 458-7386



**From:** Noak, Merrie <[Merrie.Noak@tfs.tamu.edu](mailto:Merrie.Noak@tfs.tamu.edu)>

**Sent:** Friday, December 16, 2022 8:42 AM

**To:** Smith, Terry <[tsmith@tfs.tamu.edu](mailto:tsmith@tfs.tamu.edu)>; Lull, Travis <[Travis.Lull@tfs.tamu.edu](mailto:Travis.Lull@tfs.tamu.edu)>; Cavanaugh, Charles <[Charles.Cavanaugh@tfs.tamu.edu](mailto:Charles.Cavanaugh@tfs.tamu.edu)>

**Subject:** R300232 Documentation

Morning,

Please find attached the documents for R300232.

Thanks,  
Merrie

**Merrie Noak | Program Coordinator II**

Texas A&M Forest Service | Capacity Building Department

200 Technology Way, Suite 1162 | College Station, TX 77845

Office: 979.458.7354 | FAX: 979.845.6160 | [merrie.noak@tfs.tamu.edu](mailto:merrie.noak@tfs.tamu.edu)



*Effective September 1, 2022, a pathway to apply for training tuition grants is now available in [FireConnect](#). Throughout the rest of the calendar year 2022, departments may apply for training grants through [FireConnect](#) or via existing methods.*

*Starting January 1, 2023, all training tuition applications must be submitted through [FireConnect](#). Sign in to [FireConnect](#) at [fireconnect.tfs.tamu.edu/](https://fireconnect.tfs.tamu.edu/) to apply and stay up-to-date. A video walkthrough of the training tuition application process can be found on the [Fire Department Assistance – Texas A&M Forest Service](#) Facebook page (post dated September 15<sup>th</sup>) and [TexasFD.com](https://www.texasfd.com).*

# ATTACHMENT A

## TEXAS A&M FOREST SERVICE

### PURCHASE ORDER

### TERMS AND CONDITIONS

#### 1. REQUIREMENTS OF AWARDED BID

- 1.1 Vendor must comply with all rules, regulations and statutes relating to purchasing in the State of Texas in addition to the requirements of this form.
- 1.2 Vendor must have price per unit shown. Unit prices shall govern in the event of extension errors.
- 1.3 Awarded bid was submitted to the Texas A&M Forest Service (TFS) on or before the hour and date specified for the bid opening.
- 1.4 Late and/or unsigned bids were not considered under any circumstances. Person signing bid must have the authority to bind the firm in a contract.
- 1.5 Awarded bid quoted F.O.B. destination, freight prepaid and allowed unless otherwise stated within the order.
- 1.6 Bid prices are to be firm for TFS acceptance for 60 days from opening date. Cash discounts offered will be taken if earned.
- 1.7 Bid cannot be altered or amended after opening time. Any alterations made before opening time should be initiated by bidder or his authorized agent. No bid can be withdrawn after opening time without approval by TFS Purchasing Office based on a written acceptable reason.
- 1.8 Purchases made for TFS are exempt from the State Sales tax and Federal Excise tax. Do not include tax in quotation. Excise Tax Exemption Certificate will be furnished by TFS upon request.
- 1.9 TFS reserves the right to accept or reject all or any part of any bid, waive minor technicalities and award the bid to best serve the interests of the TFS.
- 1.10 Late, illegible, incomplete, or otherwise non-responsive bids will not be considered.

#### 2. SPECIFICATIONS

- 2.1 Vendor shall furnish items as specified by model or catalogue numbers, brand names or manufacture referenced on the purchase order.
- 2.2 Unless otherwise specified, items shall be new and unused and of current production.
- 2.3 All electrical items must meet all applicable OSHA standards and regulations, and bear the appropriate listing from UL, FMRC or NEMA.
- 2.4 TFS will not be bound by any oral statement or representation contrary to the written specifications of this purchase order.
- 2.5 Manufacturer's standard warranty shall apply unless otherwise stated in the IFB.
3. **TIE BIDS**  
Awards will be made in accordance with TAC Rule 20.36 (b) (3) and 20.38 (preferences).

#### 4. DELIVERY

- 4.1 Delivery shall be within the quoted number of days required to place material in receiving agency's designated location under normal conditions. Delivery days mean calendar days, unless otherwise specified. Failure to state delivery time obligates bidder to deliver in 14 calendar days. Unrealistic delivery promises may cause bid to be disregarded.
- 4.2 If delay is foreseen, vendor shall give written notice to TFS. Vendor must keep TFS advised at all times of order status. Default of promised delivery (without accepted reasons) or failure to meet specifications authorizes TFS to purchase supplies elsewhere and charge full increase, if any, in cost and handling to defaulting vendor.
- 4.3 No substitutions permitted without TFS written approval.
- 4.4 Delivery shall be made during normal working hours only, unless prior approval has been obtained from TFS.
- 4.5 Each shipment must be accompanied by a packing slip which shows the TFS Purchase Order number and the description, quantity shipped and any back-ordered quantity for each item shipped. Each package must be clearly marked with the destination address and TFS Purchase Order number.
5. **INSPECTION AND TESTS**  
All goods will be subject to inspection and test by TFS. Authorized TFS personnel shall have access to any supplier's place of business for the purpose of inspecting merchandise. Tests shall be performed on samples submitted with the bid or on samples taken from regular shipment. All costs shall be borne by the vendor in the event products tested fail to meet or exceed all conditions and requirements of the specification. Goods delivered and rejected in whole or in part may, at the TFS' option, will be returned to the vendor or held for disposition at vendor's expense. Latent defects may result in revocation of acceptance.

#### 6. AWARD OF CONTRACT AND FORCE MAJURE

A response to this IFB is an offer to contract based upon the terms, conditions and specifications contained herein. Bids do not become contracts until they are accepted through a TFS purchase order. The contract shall be governed, construed and interpreted under the laws of the State of Texas, and as same may be amended. Any legal actions must be filed in Brazos County, Texas. The TFS may grant relief from performance of the contract if the vendor is prevented from compliance and performance by the act of war, order of legal authority, act of God, or other unavoidable causes not attributed to the fault or negligence of the contractor. To obtain release on Force Majeure, the vendor must file a written request to the TFS.

#### 7. PAYMENT

Vendor shall submit one (1) copy of an itemized invoice referencing TFS Purchase Order number. TFS will incur no penalty for late payment if made in 30 or fewer days from receipt of goods or services and an uncontested invoice. **TFS will not be liable for payment of invoices received six (6) or more months after receipt of goods/services.**

#### 8. PATENTS OR COPYRIGHTS

Vendor agrees to protect the TFS from claims involving infringement of patents or copyrights.

#### 9. VENDOR ASSIGNMENTS

Vendor hereby assigns to TFS any and all claims for overcharges associated with this contract arising under the antitrust laws of the United States 15 U.S.C.A. Section 1, et seq. (1973), and the antitrust laws of the State of Texas, TEX. Bus. & Comm. Code Ann. Sec. 15.01, et seq. (1967). Inquiries pertaining to quotation must give the quotation number and opening date.

#### 10. BIDDER AFFIRMATION

Signing a bid with a false statement is a material breach of contract and shall void the submitted bid or any resulting contracts, and the bidder shall be removed from all bid lists. By signature hereon affixed, the bidder hereby certifies that:

- 10.1 The bidder has not given, offered to give, nor intends to give at any time hereafter any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to a public servant in connection with the submitted quotation.
- 10.2 The bidder is not currently delinquent in the payment of any franchise tax owed the State of Texas.
- 10.3 Neither the bidder nor the firm, corporation, partnership or institution represented by the bidder, or anyone acting for such firm, corporation or institution has violated the antitrust laws of this State, or the Federal Antitrust Laws, (see Section 9 above) nor communicated directly or indirectly the bid made to any competitor or any other person engaged in such line of business.
- 10.4 Pursuant to Section 2155.004(a) Government Code the bidder has not received compensation for participation in the preparation of the specification for this IFB.
- 10.5 Pursuant to Section 231.006 (d), Family Code, re: child support, the bidder certifies that the individual or business entity named in this bid is not ineligible to receive the specified payment and acknowledges that this contract may be terminated and payment may be withheld if this certification is inaccurate.
- 10.6 Pursuant to Section 2155.004(b) Government Code the bidder certifies that the individual or business entity name in this bid is not ineligible to receive the specified payment and acknowledges that this contract may be terminated and/or payment withheld if this certification is inaccurate.
- 10.7 The Contractor shall defend, indemnify, and hold harmless the State of Texas, all of its officers, agents and employees from and against all claims, actions, suits, demands, proceedings, costs, damages, and liabilities, arising out of, connected with, or resulting from any acts or omissions of contractor or any agent, employee, subcontractor, or supplier of contractor in the execution of performance of this contract.
- 10.8 Bidder agrees that any payment due under this contract will be applied towards eliminating any debt or delinquency, regardless of when it arises, including but not limited to delinquent taxes and child support that is owed to the State of Texas.
- 10.9 Bidder certifies that they are in compliance with section 669.003 of the Government Code, relating to contracting with executive head of a State agency. If section 669.003 applies, bidder will complete the following information in order for the bid to be evaluated:  
Name of Former Executive: \_\_\_\_\_  
Name of State Agency: \_\_\_\_\_  
Date of Separation from State Agency: \_\_\_\_\_  
Position with Bidder: \_\_\_\_\_  
Date of Employment with Bidder: \_\_\_\_\_
- 10.10 Bidder agrees to comply with Government Code 2155.4441, pertaining to service contract use of products in the State of Texas.
- 10.11 Contractor understands that acceptance of funds under this contract acts as acceptance of the authority of the State Auditor's Office, or any successor agency, to conduct an audit or investigation in connection with those funds. Contractor further agrees to cooperate fully with the State Auditor's Office or its successor in the conduct of the audit or investigation, including providing all records requested. Contractor will ensure that this clause concerning the authority to audit funds received indirectly by subcontractors through Contractor and the requirement to cooperate is included in any subcontract it awards.

#### 11. BUSINESS OWNERSHIP

Pursuant to Section 231.006 (c), Family Code, quotation must include name and Social Security Number of each person with at least 25% ownership of the business entity

submitting quotation. Bidders that have pre-registered this information on the TPASS Centralized Master Bidders List have satisfied the requirement. If not pre-registered, attach name & social security number for each person. Otherwise, information must be provided prior to award.

#### 12. NOTE TO BIDDER

Any terms and conditions attached to a bid will not be considered. Such terms and conditions may result in disqualification of the bid.

#### 13. ALTERNATIVE DISPUTE RESOLUTION

The dispute resolution process provided for in Chapter 2260 of the Texas Government Code shall be used, as further described herein, by Texas A&M Forest Service and the Contractor to attempt to resolve any claim for breach of contract made by the contractor:

- (a) A contractor's claim for breach of this contract that the parties cannot resolve in the ordinary course of business shall be submitted to the negotiation process provided in Chapter 2260, subchapter B, of the Texas Government Code. To initiate the process, the contractor shall submit written notice, as required by subchapter B, to Robby DeWitt, Associate Director for Finance and Administration. Said notice shall specifically state the provisions of Chapter 2260, subchapter B, are being invoked. A copy of the notice shall be given to all other representatives of Texas A&M Forest Service and the contractor otherwise entitled to notice under the parties' contract. Compliance by the contractor with subchapter B is a condition precedent to the filing of a contested case proceeding under Chapter 2260, subchapter C, Texas Gov't Code.
- (b) The contested case process provided in Chapter 2260, subchapter C, of the Texas Government Code is the contractor's sole and exclusive process for seeking a remedy for any and all alleged breaches of contract by Texas A&M Forest Service, if the parties are unable to resolve their disputes under this subparagraph (A).
- (c) Compliance with the contested case process provided in subchapter C is a condition precedent to seeking consent to sue from the Legislature under Chapter 107 of the Civil Practices and Remedies Code. Neither the execution of this contract by Texas A&M Forest Service nor any other conduct of any representative of Texas A&M Forest Service relating to the contract shall be considered a waiver of sovereign immunity to suit.
- (1) The submission, processing, and resolution of the contractor's claim is governed by the published rules adopted by the Office of the Attorney General of the State of Texas pursuant to Chapter 2260, as currently effective, hereafter enacted or subsequently amended. These rules are found under Title 1, Part 3, Chapter 68 of the TAC.
- (2) Neither the occurrence of an event nor the pendency of a claim constitutes grounds for the suspension of performance by the contractor, in whole or in part.
- (3) The designated individual responsible on behalf of Texas A&M Forest Service for examining any claim or counterclaim and conducting any negotiations related thereto as required under Title 10, Subchapter B, Section 2260.052 of the Texas Government Code shall be Robby DeWitt, Associate Director for Finance and Administration (979) 458-7300.

#### 14. PUBLIC DISCLOSURE

- (a) Bidder acknowledges that Texas A&M Forest Service is obligated to strictly comply with the Public Information Act, Chapter 552, *Texas Government Code*, in responding to any request for public information pertaining to this Agreement, as well as any other disclosure of information required by applicable Texas law.
- (b) Upon Texas A&M Forest Service's written request, bidder will provide specified public information exchanged or created under this Agreement that is not otherwise excluded from disclosure under chapter 552, Texas Government Code, to Texas A&M Forest Service in a non-proprietary format acceptable to Texas A&M Forest Service. As used in this provision, "public information" has the meaning assigned Section 552.002, *Texas Government Code*, but only includes information to which Texas A&M Forest Service has a right of access.
- (c) Bidder acknowledges that Texas A&M Forest Service may be required to post a copy of the fully executed Agreement on its internet website in compliance with Section 2261.253(a)(1), *Texas Government Code*.

#### 15. REHAB ACT, VEVRAA, SECTION 503

This contractor and subcontractor shall abide by the requirements of 41 CFR §§ 60-1.4(a), 60-300.5(a) and 60-741.5(a). These regulations prohibit discrimination against qualified individuals based on their status as protected veterans or individuals with disabilities, and prohibit discrimination against all individuals based on their race, color, religion, sex, or national origin. Moreover, these regulations require that covered prime contractors and subcontractors take affirmative action to employ and advance in employment individuals without regard to race, color, religion, sex, national origin, protected veteran status or disability.

**ATTACHMENT A  
TEXAS A&M FOREST SERVICE  
PURCHASE ORDER  
TERMS AND CONDITIONS**

16. **Conflict of Interest.** By executing this Agreement, Contractor and each person signing on behalf of Contractor certifies, and in the case of a sole proprietorship, partnership or corporation, each party thereto certifies as to its own organization, that to the best of their knowledge and belief, no member of The A&M System or The A&M System Board of Regents, nor any employee, or person, whose salary is payable in whole or in part by The A&M System, has direct or indirect financial interest in the award of this Agreement, or in the services to which this Agreement relates, or in any of the profits, real or potential, thereof.
17. **Prohibition on Contracts with Companies Boycotting Israel.** Prohibition on Contracts with Companies Boycotting Israel. To the extent that Texas Government Code, Chapter 2270 applies to this Agreement, PROVIDER certifies that (a) it does not currently boycott Israel; and (b) it will not boycott Israel during the term of this Agreement. PROVIDER acknowledges this Agreement may be terminated and payment withheld if this certification is inaccurate.
18. **Certification Regarding Business with Certain Countries and Organizations.** Pursuant to Subchapter F, Chapter 2252, Texas Government Code, Contractor certifies it is not engaged in business with Iran, Sudan, or a foreign terrorist organization. Contractor acknowledges this Agreement may be terminated if this certification is inaccurate.
19. **Prohibition on Contracts Related to Persons Involved in Human Trafficking.** Under Section 2155.0061, Government Code, the Contractor certifies that the individual or business entity named in this Agreement is not ineligible to receive the specified contract and acknowledges that this contract may be terminated and payment withheld if this certification is inaccurate.