

# Anderson County Government

## Request for Bids

100 North Main Street, Suite 214  
Courthouse  
Clinton, Tennessee 37716  
(865) 457-6218 Office  
(865) 457-6252 Fax

[purchasing@andersoncountyttn.gov](mailto:purchasing@andersoncountyttn.gov)

**Bid No.: 2225**

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**Date Issued: February 24, 2022**

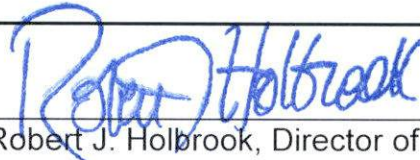
**Bids will be received until  
2:30 p.m. Eastern Time on March 22, 2022**

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Sealed bids are subject to the General Terms and Conditions of this bid, and any other data attached or incorporated by reference. Bids will be received in the Anderson County Purchasing Office until the date and time specified above, and at that time publicly opened and read aloud.

ANDERSON COUNTY RESERVES THE RIGHT TO WAIVE ANY INFORMALITIES  
IN OR TO REJECT ANY OR ALL BIDS AND TO ACCEPT THE BID DEEMED  
FAVORABLE AND IN THE BEST INTEREST OF ANDERSON COUNTY.

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Robert J. Holbrook, Director of Finance

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BID DESCRIPTION
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<p>Bid for the Andersonville Volunteer Fire Department are seeking bids for a Tanker/Pumper. RFP Envelope cover must list the RFP Title and RFP Number.</p>
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The specification book for this project will be posted on vendor registry once it is finalized.

**Bidders should note that the Time Clock in the Purchasing runs 5 minutes fast. Bids must be received by the deadline as recorded by the date stamp on this Time Clock.**

Questions are to be emailed to [purchasing@andersoncountyttn.gov](mailto:purchasing@andersoncountyttn.gov) and [kajmeri@andersoncountyttn.gov](mailto:kajmeri@andersoncountyttn.gov)

Bidder Complies	
Yes	No

## SPECIFICATIONS FOR A TANKER/PUMPER

Sealed bids will be received by Andersonville Volunteer Fire Department for the furnishing of all necessary labor, equipment and material for the Fire Apparatus and other equipment as outlined in the following specifications.

### INTENT OF SPECIFICATIONS

It shall be the intent of these specifications to cover the furnishing and delivery of a complete fire apparatus. These detailed specifications cover the requirements as to the type of construction and test to which the apparatus shall conform, together with certain details as to finish, equipment and appliances with which the successful bidder shall conform. Minor details of construction and materials, which are not otherwise specified, are left to the discretion of the contractor. The manufacturer shall provide loose equipment only when specified by the customer. Otherwise, in accordance with the current edition of NFPA 1901 standards, the proposal shall specify whether the fire department or apparatus dealership shall provide required loose equipment.

In order to ensure fair, ethical, and legal competition, neither original equipment manufacturer (O.E.M.) or parent company of the O.E.M. shall have never been fined or convicted of price fixing, bid rigging, or collusion in any domestic or international fire apparatus market (no exception).

The purchaser's standards for bidding automotive fire apparatus must be strictly adhered to, and all bid forms and questions must be complete and submitted with the bid. **Omissions and variations shall result in immediate rejection of the bid.**

Bids shall only be considered from companies that have an established reputation in the field of fire apparatus construction and have been in business for a minimum of 20 years. Furthermore, in order to insure fair, ethical, and legal competition, neither the original equipment manufacturer (O.E.M.) nor parent company of the O.E.M. shall have ever been fined or convicted of price fixing, bid rigging, or collusion in any domestic or international fire apparatus market (no exception).

If a bidder represents more than one fire apparatus company or brands of apparatus, they must only bid the top of the line that meets specification.

Each bidder shall furnish satisfactory evidence of their ability to construct the apparatus specified.

Any apparatus manufacturer or their parent company who has had a performance bond called in the last 10 years, shall not be eligible to bid. Any bids from these manufactures shall be immediately rejected (no exception).

Each bid shall be accompanied by a set of manufacturer's set of specifications consisting of a detailed description of the apparatus, construction methods, and equipment proposed to which

Bidder Complies	
Yes	No

the apparatus furnished under contract shall conform. These specifications shall indicate size, type, model and make of all components parts and equipment, providing proof of compliance with each and every item in the departments advertised specifications. A letter only, even though written on company letterhead, shall not be sufficient. **An exception to this requirement shall not be acceptable.**

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

The purchaser will utilize this advertised specification to compare all submitted bid proposals. To facilitate comparison, all bid proposal specifications shall be submitted in the same sequence as the advertised specification. Any bidder who fails to submit a set of bid proposal specifications, or who photo copies and submits these specifications as their own construction details will be considered non responsive. This shall render such proposal ineligible for award.

The purchaser's specification shall, in all cases, govern the construction of the apparatus, unless a properly documented exception or deviation was approved. Any bid indicating that the manufacturer's proposal shall supersede the purchaser's specification will be considered a complete substitute and immediately rejected.

THE PURCHASER HAS THE RIGHT TO REJECT ANY BIDS WHICH DOES NOT MEET THESE SPECIFICATIONS AND IS THE SOLE DECIDER TO DEEM WHICH BID IS IN THE BEST INTEREST OF THE PURCHASER.

**EXCEPTIONS**

These specifications are based upon design and performance criteria which have been developed by the fire department as a result of extensive research and careful analysis. Subsequently these specifications reflect the only type of fire apparatus that is acceptable at this time and all specifications herein contained are considered as minimum. Therefore exceptions to the specifications may not be accepted.

Bidders shall indicate in the "yes/no" column if their bid complies on each item (paragraph) specified.

If a product brand name is specified and is commercially available to all bidders, an exception to such items is not acceptable and such bid may be rejected.

Exceptions shall be allowed if they are equal to or superior to that specified and provided they are listed and fully explained on a separate page. All deviations, no matter how slight, shall be clearly explained on a separate sheet, in the bid sequence, citing the page and paragraph number(s) of the specifications, how the proposal deviation is different, how the deviation meets or exceeds the specifications and why it is necessary, and entitled "EXCEPTIONS TO SPECIFICATIONS". The buyer reserves the right to require a bidder to provide proof in each case that a substituted item is equal to that specified. The buyer shall be the sole judge in determination of acceptable substitutes.

Bidder Complies	
Yes	No

Proposals that are found to have deviations without listing them or bids taking total exceptions to these advertised specifications will be rejected (no exception).

Bids not including all exceptions is a material breach and shall result in the bid being immediately rejected (no exception).

**GENERAL DESIGN AND CONSTRUCTION**

The prime vehicle manufacturer shall be responsible for the overall design so that the cab, chassis, pump module, and body are all integrated and function together as a complete fire apparatus, which shall also minimize third party involvement on engineering, design, service and warranty issues.

All bidders shall provide a list of the company, manufacturing location, and engineering source for each individual major component, including but not limited to the cab assembly, the pumphouse module assembly, the chassis assembly, body and electrical system.

The apparatus shall be designed with due consideration to distribution of load between the front and rear axles. Weight balance and distribution shall be in accordance with the recommendations of the National Fire Protection Association.

The bidder shall make accurate statements as to the apparatus weight and dimensions.

**QUALITY AND WORKMANSHIP**

The design of the apparatus shall embody the latest approved automotive engineering practices. The workmanship shall be of the highest quality in its respective field. Special consideration shall be given to the following points: Accessibility of the various units which require periodic maintenance; ease of operation (including both pumping and driving); and symmetrical proportions. Construction shall be rugged and ample safety factors shall be provided to carry the loads specified and to meet both on and off road requirements and speed conditions as set forth under Performance Tests and Requirements. Welding shall not be employed in the assembly of the apparatus in a manner that shall prevent the ready removal of any component part for service or repair. All steel welding shall follow American Welding Society D1.1-2004 recommendations for structural steel welding. All aluminum welding shall follow American Welding Society and ANSI D1.2-2003 requirements for structural welding of aluminum. All sheet metal welding shall follow American Welding Society B2.1-2000 requirements for structural welding of sheet metal. Flux core arc welding to use alloy rods, type 7000, American Welding Society standards A5.20-E70T1. Employees classified as welders are tested and certified to meet American Welding Society codes upon hire and every three (3) years thereafter.

To demonstrate the quality of the product and service, each bidder shall provide a list of at least two (2) fire departments/municipalities in the region that have bought a second time from the representing dealer. An exception to this requirement shall not be acceptable.

	Bidder Complies	
	Yes	No
<p><b><u>DELIVERY</u></b></p> <p>Apparatus, to insure proper break in of all components while still under warranty, <b>shall be delivered under its own power</b> - rail or truck freight shall not be acceptable. 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. Delivery of Apparatus shall be before September 2022.</p> <p><b><u>INFORMATION REQUIRED</u></b></p> <p>The manufacturer shall supply at time of delivery, complete operation and maintenance manuals covering the completed apparatus as delivered. A permanent plate shall be mounted in the driver's compartment which specifies the quantity and type of fluids required including engine oil, engine coolant, transmission, pump transmission lubrication, pump primer and drive axle.</p> <p><b><u>SAFETY VIDEO</u></b></p> <p>Documentation provided at the time of delivery shall also include an apparatus safety video, in DVD format. This video shall address key safety considerations for personnel to follow when they are driving, operating, and maintaining the apparatus. Safety procedures for the following shall be included: vehicle pre-trip inspection, chassis operation, pump operation, and maintenance.</p> <p><b><u>PERFORMANCE TESTS AND REQUIREMENTS</u></b></p> <p>A road test shall be conducted with the apparatus fully loaded and a continuous run of ten (10) miles or more shall be made under all driving conditions, during which time the apparatus shall show no loss of power or overheating. The transmission drive shaft or shafts, and rear axles shall run quietly and be free from abnormal vibration or noise throughout the operating range of the apparatus. Vehicle shall adhere to the following parameters:</p> <p>A) The apparatus, when fully equipped and loaded, shall have not less than 25 percent nor more than 50 percent of the weight on the front axle, and not less than 50 percent nor more than 75 percent on the rear axle.</p> <p>B) The apparatus shall be capable of accelerating to 35 mph from a standing start within 25 seconds on a level concrete highway without exceeding the maximum governed rpm of the engine.</p> <p>C) The service brakes shall be capable of stopping a fully loaded vehicle in 35 feet at 20 mph on a level concrete highway. The air brake system shall conform to Federal Motor Vehicle Safety Standards (FMVSS) 121.</p> <p>D) The apparatus, fully loaded, shall be capable of obtaining a speed of 50 mph on a level concrete highway with the engine not exceeding its governed rpm (full load).</p> <p><b><u>FAILURE TO MEET TEST</u></b></p> <p>In the event the apparatus fails to meet the test requirements of these specifications on the first trial, second trials may be made at the option of the bidder within 30 days of the date of the first</p>		

	Bidder Complies	
	Yes	No
<p>trial. Such trials shall be final and conclusive and failure to comply with these requirements shall be cause for rejection. Failure to comply with changes to conform to any clause of the specifications, within 30 days after notice is given to the bidder of such changes, shall also be cause for rejection of the apparatus. Permission to keep or store the apparatus in any building owned or occupied by the purchaser or its use by the purchaser during the above-specified period with the permission of the bidder shall not constitute acceptance.</p> <p><b><u>SERVICE AND WARRANTY SUPPORT (DEALERSHIP)</u></b></p> <p>TO INSURE FULL SERVICE AFTER DELIVERY, THE SELLING BIDDER/DEALERSHIP MUST BE CAPABLE OF PROVIDING SERVICE WHEN REQUIRED.</p> <p>The bidder/dealership shall show that the company is in position to render prompt service and to furnish replacement parts.</p> <p>Each bidder/dealership must be able to display that they are actively in the fire apparatus service business by operating a factory authorized service center and parts repository capable of satisfying the warranty service requirements and parts requirements of the vehicle(s) being purchased.</p> <p>The bidder/dealership must state the location of this authorized service center. This service center must have a staff of factory-trained mechanics, well versed in all aspects of service for all major components of the apparatus. The service center must be within twenty five (25) miles of the Fire Department.</p> <p><b><u>SERVICE AND WARRANTY SUPPORT (MANUFACTURER)</u></b></p> <p>To provide an additional layer of service support, the successful manufacturer must also own a least two separate service facilities, one located in the northern portion of the US to service both Canada and the northern US states and one in the south to service the southern states.</p> <p>The manufacturer shall stock 1 million parts equating to \$5,000,000 of inventory dedicated to service and replacement parts to ensure quick response and minimize down time. Furthermore, the manufacturer shall house the inventory in a dedicated facility, with a dedicated shipping area that ensures service parts are given priority. The bidder shall provide detailed documentation of service and replacement part resources.</p> <p>Parts identification shall be provided to both the dealer and the Fire Department through an on line web based application for the specific truck reflected in this specification. Access will be granted using the specific VIN number of the vehicle. The online web application will provide the ability to view complete bills of materials, digital photographs, parts drawings, assembly drawings, and access to all current operation, maintenance and service publications.</p> <p>The manufacturer must also maintain a 24 hour/ 7 day a week, toll free emergency hot line.</p>		

	Bidder Complies	
	Yes	No
The manufacturer shall employ a staff of adequate size (a minimum of 30 personnel) specifically dedicated to providing customer support and parts for the fielded fleet of vehicles it has produced.		
The manufacturer must be capable of providing both in-house and on-site service for the apparatus.		
The manufacturer shall offer regional factory hands-on repair and maintenance training classes.		
The manufacturer shall employ a minimum of four certified EVT technicians on staff, not only providing technical expertise in the repair of fire apparatus, but also demonstrating the commitment to service after the sale.		
<b><u>LIABILITY</u></b>		
The successful bidder shall 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.		
<b><u>SPECIFICATION BID REQUIREMENTS</u></b>		
Bidders shall also indicate in the "yes/no" column if their bid complies <b>on each item</b> (PARAGRAPH) specified. Exceptions shall be allowed if they are equal to or superior to that specified and provided they are listed and fully explained on a separate page.		
<b>Proposals taking total exception to specifications shall not be acceptable.</b>		
Also, bidders shall submit a detailed proposal. A letter only, even though written on a company letterhead, shall not be sufficient. Bid proposals shall be submitted in the same sequence as specifications for ease of evaluation, comparison and checking of compliance. <b>An exception to these requirements shall not be tolerated.</b>		
<b><u>EXCEPTIONS</u></b>		
All exceptions shall be stated no matter how seemingly minor. Any exceptions not taken shall be assumed by the purchaser to be included in the proposal, regardless of the cost to the bidder.		
<b><u>GENERAL CONSTRUCTION</u></b>		
The apparatus shall be designed with due consideration to distribution of load between the front and rear axles. Weight balance and distribution shall be in accordance with the recommendations of the National Fire Protection Association.		
<b><u>INSURANCE PROVIDED BY BIDDER</u></b>		
<b><u>COMMERCIAL GENERAL LIABILITY INSURANCE</u></b>		
The successful bidder shall, 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:		

	Bidder Complies	
	Yes	No
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 shall be written on a Commercial General Liability form. The policy shall be written on an occurrence form and shall include Contractual Liability coverage for bodily injury and property damage subject to the terms and conditions of the policy. The policy shall include Owner as an additional insured when required by written contract.		
<b><u>COMMERCIAL AUTOMOBILE LIABILITY INSURANCE</u></b>		
The successful bidder shall, during the performance of the contract, keep in force at least the following minimum limits of commercial automobile liability insurance and coverage shall be written on a Commercial Automobile liability form:		
Each Accident Combined Single Limit:\$1,000,000		
<b><u>UMBRELLA/EXCESS LIABILITY INSURANCE</u></b>		
The successful bidder shall, 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 shall 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 shall be provided by a carrier(s) rated A- or better by A.M. Best.		
All policies shall provide a 30-day notice of cancellation to the named insured. The Certificate of Insurance shall provide the following cancellation clause: Should any of the above described policies be cancelled before the expiration date thereof, notice shall 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 shall show the purchaser as certificate holder.		



Bidder Complies	
Yes	No

**INSURANCE PROVIDED BY MANUFACTURER**

**PRODUCT LIABILITY INSURANCE**

The manufacturer shall, 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 shall be written on a Commercial General Liability form. The policy shall be written on an occurrence form. The manufacturer's policy shall 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 shall, 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 shall 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 shall be provided by a carrier(s) rated A- or better by A.M. Best.

All policies shall provide a 30-day notice of cancellation to the named insured. The Certificate of Insurance shall provide the following cancellation clause: Should any of the above described polices be cancelled before the expiration date thereof, notice shall 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 shall show the purchaser as the certificate holder.

**ISO COMPLIANCE**

The manufacturer shall operate 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 shall be established by the manufacturer for design,

	Bidder Complies	
	Yes	No
<p>manufacture, installation and service. A copy of the certificate of compliance shall be included with the bid.</p> <p>The bidder shall state the location of the factory where the apparatus is to be built.</p> <p><b><u>NFPA 2016 STANDARDS</u></b></p> <p>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, 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.</p> <p>Certification of slip resistance of all stepping, standing and walking surfaces must be supplied with delivery of the apparatus.</p> <p>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 shall be identified on the customer approval print and are shown as approximate. Actual location(s) shall 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.</p> <p>A plate that is highly visible to the driver while seated shall be provided. This plate shall show the overall height, length, and gross vehicle weight rating.</p> <p>The manufacturer shall have programs in place for training, proficiency testing and performance for any staff involved with certifications.</p> <p>An official of the company shall designate, in writing, who is qualified to witness and certify test results.</p> <p><b><u>NFPA COMPLIANCY</u></b></p> <p>Apparatus proposed by the bidder shall 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 shall be indicated in the proposal as "non-NFPA."</p> <p><b><u>PUMP TEST</u></b></p> <p>The rated water pump shall 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 shall be forwarded to the Fire Department.</p>		

Bidder Complies	
Yes	No

**GENERATOR TEST**

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

**AFTERMARKET SUPPORT WEBSITE**

A Customer Service website shall provide authorized dealers access to comprehensive information pertaining to the maintenance and service of their customer's apparatus. This tool shall provide the authorized dealer the ability to service and support their customers to the best of their ability with factory support at their fingertips.

This website shall also be accessible to the end user through the guest login. Limited access is available and vehicle specific parts information accessible by entering a specific VIN number. All end users should see their local authorized dealer for additional support and service.

The website shall provide the following to the designated individuals:

- Authorized dealer only - ability to access truck detail information on the major components of the vehicle, warranty information, available vehicle photographs, vehicle drawings, sales options, applicable vehicle software downloads, etc.
- Authorized dealer and customer - parts look-up capability, with the aid of digital photographs, part drawings, and assembly drawings.
- Authorized dealer only - ability to electronically submit warranty claims directly to the factory for reimbursement.
- Authorized dealer only - accessibility to multiple dealer reports that allow the dealership to maintain communication with the customer on the status of orders, claims, and phone contacts.
- Authorized dealer and customer - access to all currently published Operation and Maintenance and Service publications.
- Authorized dealer only - access to manufacturer Service Bulletins and Work Instructions containing information on current service topics and recommendations provided.
- Authorized dealer and customer - access to upcoming training classes offered by the manufacturer.
- Authorized dealer only - access to interactive electronic learning modules (Operators Guides) covering the operation of major vehicle components.
- Authorized dealer only - access to customer service articles, corporate news, quarterly newsletters, and key contacts.

Bidder Complies	
Yes	No

**BID BOND**

All bidders shall provide a bid bond as security for the bid in the form of a 10% bid bond to accompany their bid. This bid bond shall be issued by a Surety Company who is listed on the U.S. Treasury Departments list of acceptable sureties as published in Department Circular 570. The bid bond shall be issued by an authorized representative of the Surety Company and shall be accompanied by a certified power of attorney dated on or before the date of bid. The bid bond shall include language, which assures that the bidder/principal shall give a bond or bonds as may be specified in the bidding or contract documents, with good and sufficient surety for the faithful performance of the contract, including the Basic One (1) Year Limited Warranty, and for the prompt payment of labor and material furnished in the prosecution of the contract.

Notwithstanding any document or assertion to the contrary, any surety bond related to the sale of a vehicle shall apply only to the Basic One (1) Year Limited Warranty for such vehicle. Any surety bond related to the sale of a vehicle shall 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 shall prevail.

**PERFORMANCE BOND NOT REQUESTED**

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

The successful bidder shall 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 shall 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 shall 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 shall 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.

**REFERENCE DRAWING**

A drawing depicting the basic configuration of the apparatus shall be provided.

This drawing shall indicate the major components such as the chassis make and model, body configuration and door style, locations of the standard lights, etc.

	Bidder Complies	
	Yes	No
<p>This drawing shall not need to be signed and returned to the apparatus manufacturer.</p> <p><b><u>ELECTRICAL WIRING DIAGRAMS</u></b> Two (2) electrical wiring diagrams, prepared for the body as it interfaces with the commercial chassis, shall be provided.</p> <p><b><u>CHASSIS</u></b> The chassis shall be a Freightliner, Model M2, 106MD Conventional Chassis, supplied with the following equipment:</p> <p><b><u>WHEELBASE</u></b> The wheelbase of the vehicle shall be no greater than 184.00".</p> <p><b><u>GVW RATING</u></b> The gross vehicle weight rating shall be a minimum of 45,600 lbs.</p> <p><b><u>FRAME</u></b> The frame rails shall be formed from 120,000 psi yield, heat treated alloy steel. The frame rails shall be E-coated prior to painting.</p> <p><b><u>FRONT AXLE</u></b> Front axle shall be an "I" beam type, made of forged steel. It shall have a ground rating capacity of 16,000 pounds. Suspension or other components may limit the actual GAWR.</p> <p><b><u>FRONT SUSPENSION</u></b></p> <ul style="list-style-type: none"> <li>- Spring mounted</li> <li>- Capacity at Ground: 14,600 lb</li> </ul> <p>Shock absorbers shall be provided on the front axle.</p> <p><b><u>FRONT BRAKES</u></b> The front brakes shall be S-Cam, 16.50" x 6.00". The front brakes shall be provided with automatic slack adjusters.</p> <p><b><u>TIRE BRAND</u></b> The default brand of tire for the commercial chassis manufacturer for this apparatus is Michelin.</p> <p>However, it is understood that 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 shall provide the proper tread style and weight rating for the position in which the tire is installed.</p> <p><b><u>TIRES, FRONT</u></b> Front tires shall be 12R22.50, radial tires with a tread pattern suitable for the steering axle position. The capacity of the tires shall meet or exceed the rating of the axle and/or suspension.</p>		

	Bidder Complies	
	Yes	No
<p><b><u>WHEELS, FRONT</u></b> Wheels for the front axle shall be 22.50" x 8.25" aluminum disc.</p> <p><b><u>REAR AXLE</u></b> The single reduction rear axle shall be a Meritor™, Model RS-30-185, with a ground rating capacity of 31,000 lb.</p> <p><b><u>PARKING BRAKE</u></b> The parking brake shall be spring set and located on the rear axle service brake.  Rear axle brakes shall be 16.50" x 7.00", S-Cam drum type brakes. Automatic slack adjusters shall be provided.</p> <p><b><u>REAR AXLE RATIO</u></b> A rear axle ratio shall be furnished to allow the vehicle to reach a top speed of 60 MPH.</p> <p><b><u>REAR SUSPENSION</u></b> The rear suspension shall be leaf spring type with a capacity at ground level of 31,000 lbs. Auxiliaries shall be included.</p> <p><b><u>TIRES, REAR</u></b> Rear tires shall be 315/80R22.50 radial tires with a traction tread pattern suitable for the drive axle position. The tires shall meet or exceed the weight rating of the axle and/or suspension.</p> <p><b><u>WHEELS, REAR</u></b> The rear wheels shall be aluminum 22.50" x 9.00" disc.</p> <p><b><u>TIRE PRESSURE MANAGEMENT</u></b> There shall be a RealWheels LED AirSecure™ tire alert pressure management system provided, that shall monitor each tire's pressure. A sensor shall be provided on the valve stem of each tire for a total of six (6) tires.  The sensor shall calibrate to the tire pressure when installed on the valve stem for pressures between 10 and 200 psi. The sensor shall activate an integral battery operated LED when the pressure of that tire drops 5 to 8 psi.  Removing the cap from the sensor shall indicate the functionality of the sensor and battery. If the sensor and battery are in working condition, the LED shall immediately start to flash.</p> <p><b><u>CHROME LUG NUT COVERS</u></b> Chrome lug nut covers shall be supplied on front and rear wheels.</p> <p><b><u>WHEEL CHOCKS PROVIDED BY FIRE DEPARTMENT</u></b> NFPA 1901, 2016 edition, section 7.9.4 requires two (2) or more wheel chocks mounted in readily accessible locations, that together shall 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.</p>		

	Bidder Complies	
	Yes	No
<p>The wheel chocks are not on the apparatus as manufactured. The fire department shall provide and install these wheel chocks.</p> <p><b><u>WHEEL CHOCK BRACKETS PROVIDED BY FIRE DEPARTMENT</u></b></p> <p>The wheel chock brackets are not on the apparatus as manufactured. The fire department shall provide and install the wheel chock brackets.</p> <p><b><u>ANTI-LOCK BRAKE SYSTEM</u></b></p> <p>The vehicle shall be equipped with an anti-lock braking system. The ABS shall provide anti-lock braking control on both the front and rear wheels. It shall be a digitally controlled system that utilizes microprocessor technology to control the anti-lock braking system. Each wheel shall be monitored by the system. When any particular wheel begins to lockup, a signal shall be sent to the control unit. This control unit then shall reduce the braking of that wheel for a fraction of a second and then reapply the brake. This anti-lock brake system shall eliminate the lockup of any wheel thus helping to prevent the apparatus from skidding out of control.</p> <p>The system shall include Automatic Traction Control (ATC).</p> <p>The system shall include Electronic Stability Control (ESC). When instability is detected, the ESC system shall 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.</p> <p><b><u>AIR COMPRESSOR, BRAKE SYSTEM</u></b></p> <p>The air compressor shall have an output of 18.7 cubic feet per minute.</p> <p><b><u>AIR DRYER</u></b></p> <p>An air dryer with a heater shall be provided. Other features of this air dryer include:</p> <ul style="list-style-type: none"> <li>- Desiccant style filter</li> <li>- In-line filtration system</li> <li>- Automatic purge valve</li> </ul> <p><b><u>AIR INLET</u></b></p> <p>A single air inlet with male coupling shall be provided. It shall allow station air to be supplied to the apparatus brake system through a shoreline hose. The inlet shall be located near the pump operator's position. A check valve shall be provided to prevent reverse flow of air. The inlet shall discharge into the "wet" tank of the brake system. A mating female coupling shall also be provided with the loose equipment.</p> <p><b><u>ENGINE</u></b></p> <ul style="list-style-type: none"> <li>• Model: Electronic Cummins B6.7 360EV</li> <li>• Number of Cylinders: Six (6)</li> <li>• Displacement: 6.7 liters</li> <li>• Rated Brake Horsepower: 360 at 2600 rpm</li> </ul>		

	Bidder Complies	
	Yes	No
<ul style="list-style-type: none"> <li>• Peak Torque: 800 at 1800 rpm</li> <li>• Governed rpm: 2600</li> <li>• Charge Air Cooled</li> </ul> <p><b><u>ENGINE ACCESSORIES</u></b></p> <ul style="list-style-type: none"> <li>• Air Cleaner: Dry type, with restriction indicator in cab</li> <li>• Fuel Filters</li> <li>• Governor: Limiting speed type</li> <li>• Lube Oil Cooler</li> <li>• Lube Oil Filter: Full flow</li> <li>• Starting Motor: 12-volt</li> </ul> <p><b><u>ENGINE WARRANTY</u></b></p> <p>The engine shall come with a warranty provided by the engine manufacturer.</p> <p><b><u>RADIATOR</u></b></p> <ul style="list-style-type: none"> <li>• Pressurized System, Tube and Fin</li> <li>• Deaeration Tank and Sight Glass</li> <li>• Anti-Freeze Protection -34 Degrees Fahrenheit</li> </ul> <p><b><u>HIGH IDLE</u></b></p> <p>A high idle switch shall be provided on the instrument panel inside the cab. Activating the switch shall cause the vehicle to automatically maintain a preset engine rpm.</p> <p>The high idle switch shall be operational only when the parking brake is on and the truck transmission is in neutral. A green indicator light shall be provided adjacent to the switch. The light shall be labeled "OK To Engage High Idle."</p> <p><b><u>ENGINE EXHAUST BRAKE</u></b></p> <p>An exhaust brake with an integral variable geometry turbo charger (VGT) shall be provided. The control shall be located on the instrument panel within easy reach of the driver.</p> <p><b><u>AIR INTAKE, W/EMBER SEPARATOR</u></b></p> <p>The air inlet shall 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.</p> <p>This shall comply with NFPA 1901 and 1906 standards.</p> <p><b><u>EXHAUST SYSTEM</u></b></p> <p>The exhaust system shall include a diesel particulate filter (DPF) and a selective catalytic reduction (SCR) device to meet current EPA standards. The DPF and SCR shall be mounted horizontally outside of the frame rails in the right side front step area.</p>		



	Bidder Complies	
	Yes	No
<p><b><u>EXHAUST MODIFICATIONS</u></b></p> <p>The exhaust shall terminate with a horizontal tailpipe and diffuser ahead of the right side rear wheels.</p> <p>A heat deflector shield shall be provided where the tail pipe is routed under any side compartmentation.</p> <p>All modifications shall be approved by the chassis engine manufacturer and/or the chassis OEM. Exhaust treatment devices shall not be altered.</p> <p><b><u>COOLANT LINES</u></b></p> <p>Gates Blue Stripe rubber hose shall be used for all engine coolant lines installed by the chassis manufacturer.</p> <p>Hose clamps shall be of a design commonly called constant torque type to prevent coolant leakage. They shall react to temperature changes in the cooling system and expand or contract accordingly while maintaining a constant clamping pressure on the hose.</p> <p><b><u>FUEL TANK</u></b></p> <p>A 50 gallon fuel tank shall be provided and mounted at the left-hand cab step. The tank shall be constructed of aluminum.</p> <p><b><u>DIESEL EXHAUST FLUID TANK</u></b></p> <p>A diesel exhaust fluid (DEF) tank shall be provided and mounted on the left side, below the cab.</p> <p>The tank shall be sized by the chassis manufacturer based on the engine provided. It shall include an integrated heater unit that utilizes engine coolant to thaw the DEF in the event of freezing.</p> <p><b><u>FUEL PRIMING PUMP</u></b></p> <p>A Cummins automatic electronic fuel priming pump shall be integrated as part of the engine.</p> <p><b><u>AUXILIARY FUEL COOLING SYSTEM</u></b></p> <p>A supplementary fuel cooling system shall be provided to allow the use of water from the discharge side of the pump for cooling the chassis engine fuel. The heat exchanger shall be a cylindrical type and shall be a separate unit. The cooler shall operate any time the pump is discharging water and shall be plumbed to the master drain valve.</p> <p><b><u>TRANSMISSION</u></b></p> <p>An Allison, model 3000 EVS, electronic torque converting automatic transmission shall be provided. To qualify for the EVS rating, the transmission shall be filled with synthetic transmission fluid.</p> <p>Two (2) PTO openings shall be located on left and right side of the converter housing (positions 8 o'clock and 4 o'clock).</p> <p>A transmission temperature gauge or warning light shall be installed on cab instrument panel.</p>		

	Bidder Complies	
	Yes	No
<p><b><u>TRANSMISSION SHIFT CONTROL</u></b>  A push button shift module shall be mounted to right of driver. Shift position indicator shall be indirectly lit for after dark operation.</p> <p>The transmission shall be a five (5)-speed.</p> <p><b><u>TRANSMISSION COOLER</u></b>  A transmission oil cooler shall be provided in a tank of the radiator.</p> <p><b><u>DRIVELINE</u></b>  Drivelines shall be a heavy duty metal tube equipped with universal joints properly sized for the application. A splined slip joint shall be provided in each driveshaft.</p> <p><b><u>STEERING</u></b>  The steering system shall be hydraulically driven. The steering column shall have an adjustable tilt and telescope feature.</p> <p><b><u>BUMPER</u></b>  A 14.00", three (3) piece, full width chrome plated steel bumper with collapsible boxed ends shall be attached to the front of the chassis frame.</p> <p><b><u>TOW HOOKS</u></b>  Two (2) painted, forged steel tow hooks shall be provided.</p> <p><b><u>CAB</u></b>  A 2-door flat-roof cab shall be provided. The cab and doors shall be of an aluminum construction.</p> <p><b>Exterior Styling</b></p> <p>Aerodynamic hood and windshield</p> <p>Tinted Glass in all Windows</p> <p>Fiberglass hood with mounted plastic grille</p> <p>Single 63"x14" rear window</p> <p><b>Interior</b></p> <p>Leaf spring rear cab suspension</p> <p>Vinyl mats</p> <p>Forward roof mounted console</p>		

	Bidder Complies	
	Yes	No
Two (2) dash-mounted cup holders, right-hand and left-hand		
Gray Vinyl Upholstery		
Dual Sun visors		
Fresh Air Heater and Defroster		
<b><u>CAB INTERIOR W/CONVENIENCE PACKAGE</u></b>		
The cab upholstery shall be gray vinyl.		
The cab interior shall include wood grain driver and center instrument panels, molded plastic door panels with vinyl inserts and brushed aluminum lower door kick plates.		
<b><u>CAB GRILLE - CHROMED</u></b>		
The cab grille shall be a chromed high impact plastic with a horizontal rib design. The headlight bezels and air intake grilles shall also have a chromed finish. The grille shall tilt with the hood.		
<b><u>MIRRORS</u></b>		
West Coast style heated, remote operated mirrors constructed from a molded composite material with a bright finish shall be provided. A heated 8.00" convex mirror shall be included below the primary mirrors.		
<b><u>CAB ACCESS STEPS</u></b>		
The cab steps shall be provided by the chassis manufacturer. The stepping surface shall be constructed from polished stainless steel and have a punch formed slip resistant surface.		
No modifications of any type shall be required by the apparatus manufacturer.		
<b><u>STEP LIGHTS</u></b>		
There shall white LED step lights provided to meet NFPA step lighting requirements. Lights shall be installed at each cab door step.		
The lights shall be activated when the adjacent door is opened.		
<b><u>POWER WINDOWS AND LOCKS</u></b>		
The cab doors shall have electrically powered windows and locks.		
<b><u>DAYTIME RUNNING LIGHTS</u></b>		
The chassis shall be provided with daytime running lights.		
<b><u>AIR CONDITIONING</u></b>		
An air conditioner shall be provided that is integral with heater and defroster system.		
<b><u>ENGINE COMPARTMENT LIGHTS</u></b>		
Two (2) engine compartment lights shall be installed under the engine hood, of which the switches are an integral part.		

	Bidder Complies	
	Yes	No
<p><b><u>SEATING CAPACITY</u></b> The seating capacity in the cab shall be two (2).</p> <p><b><u>SEATING</u></b> Seating inside the cab shall consist of an air-ride driver seat and a fixed companion seat.</p> <p><b><u>SEAT BELT WEB LENGTH</u></b> 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.</p> <p>Per Fire Department specification of a commercial chassis, this apparatus shall have seat belts of the required length. These belts shall provide sufficient length for large firefighters in bunker gear. This apparatus shall be compliant to NFPA standards effective at time of contract execution.</p> <p><b><u>SEAT BELTS</u></b> All seating positions in the cab and crew cab shall have highly visible (orange) seat belts.</p> <p><b><u>HELMET STORAGE PROVIDED BY FIRE DEPARTMENT</u></b> NFPA 1901, 2016 edition, section 14.1.7.4.1 requires a location for helmet storage be provided.</p> <p>There is no helmet storage on the apparatus as manufactured. The fire department shall provide a location for storage of helmets.</p> <p><b><u>PORTABLE HAND LIGHTS, PROVIDED BY FIRE DEPARTMENT</u></b> NFPA 1901, 2016 edition, section 7.9.4 requires two portable hand lights mounted in brackets fastened to the apparatus.</p> <p>The hand lights are not on the apparatus as manufactured. The fire department shall provide and mount these hand lights.</p> <p><b><u>CAB INSTRUMENTS</u></b></p> <ul style="list-style-type: none"> <li>- Engine Temperature Gauge and Warning Buzzer</li> <li>- Engine Oil Pressure Gauge and Warning Buzzer</li> <li>- Speedometer with Odometer</li> <li>- Engine Tachometer</li> <li>- Engine Hourmeter</li> <li>- Fuel Level Gauge</li> <li>- DEF Level Gauge and Warning Lamp</li> <li>- Voltmeter: Low voltage red warning light and audible alarm</li> </ul>		

Bidder Complies	
Yes	No

- 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 shall be provided in the cab. The switch panel shall be located within reach of the driver. All NFPA required emergency lights shall be controlled from the master emergency switch. References within this specification to a "switch in the cab" for zone specific options shall mean the emergency master switch.

**"DO NOT MOVE APPARATUS" INDICATOR**

A flashing red indicator light (located in the driving compartment) shall be illuminated automatically per the current edition of NFPA. The light shall be labeled "Do Not Move Apparatus If Light Is On".

The same circuit that activates the Do Not Move Apparatus indicator shall not activate any alarm when the parking brake is released.

**DO NOT MOVE TRUCK MESSAGES**

A message shall be displayed on the VMUX display in view of the driver whenever any of the following conditions exist:

- CAB DOOR OPEN (Any Cab Door Open with ignition on)
- LH COMPARTMENT OPEN (Any Left Hand Compartment Door Open)
- RH COMPARTMENT OPEN (Any Right Hand Compartment Door Open)
- REAR DOOR OPEN (Any Rear Compartment Door Open)
- TANK RACK DOWN (Tank Rack Not Stowed)
- LH LIGHT POLE RAISED (Left Hand Pole Light Raised)
- RH LIGHT POLE RAISED (Right Hand Pole Light Raised)

A warning message shall also be displayed for any other device that is opened, extended or deployed that creates a hazard or is likely to cause major damage to the apparatus if the apparatus is moved.

**WIPER CONTROL**

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

**POWER RECEPTACLES**

There shall be two (2) power receptacles located in the dash provided by the chassis manufacturer.

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

Bidder Complies	
Yes	No

**VEHICLE DATA RECORDER**

There shall 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 shall 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

**Seat Belt Monitoring System**

A seat belt monitoring system (SBMS) shall be provided. The SBMS shall 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 shall include an audible alarm that shall warn that an unbuckled occupant condition exists and the parking brake is released, or the transmission is not in park.

**TWO-WAY RADIO ACCOMMODATION PACKAGE**

One set of 12 volt wire leads shall be provided for the future installation of a two-way radio. These leads shall consist of one (1) 30-amp battery direct circuit, one (1) 10-amp battery switched circuit and one (1) ground circuit. These leads shall be 6' long and terminate behind the cab dash with heat shrink caps.

	Bidder Complies	
	Yes	No
<p>One (1) NMO mobile radio antenna mount with RG-58A/U stranded coaxial cable shall be provided. The antenna mount shall be installed through the cab roof, and the coaxial cable shall be routed behind the cab dash. All wiring shall be neatly coiled and clearly marked.</p> <p>A weatherproof cap for the antenna mount shall also be installed.</p> <p><b><u>ELECTRICAL</u></b></p> <p>All 12-volt electrical equipment installed by the apparatus manufacturer shall conform to modern automotive practices. All wiring shall be high temperature crosslink type. Wiring shall be run in loom or conduit where exposed and have grommets where wire passes through sheet metal. Automatic reset circuit breakers shall be provided which conform to SAE Standards. Wiring shall be color, function and number coded. Function and number codes shall be continuously imprinted on all wiring harness conductors at 2.00" intervals. Exterior exposed wire connectors shall be positive locking, and environmentally sealed to withstand elements such as temperature extremes, moisture and automotive fluids. Electrical wiring and equipment shall be installed utilizing the following guidelines:</p> <p>(1) All holes made in the roof shall be caulked with silicon. Rope caulk is not acceptable. Large fender washers, liberally caulked, shall be used when fastening equipment to the underside of the cab roof.</p> <p>(2) Any electrical component that is installed in an exposed area shall be mounted in a manner that shall not allow moisture to accumulate in it. Exposed area shall be defined as any location outside of the cab or body.</p> <p>(3) Electrical components designed to be removed for maintenance shall not be fastened with nuts and bolts. Metal screws shall be used in mounting these devices. Also a coil of wire shall be provided behind the appliance to allow them to be pulled away from mounting area for inspection and service work.</p> <p>(4) Corrosion preventative compound shall be applied to all terminal plugs located outside of the cab or body. All non-waterproof connections shall require this compound in the plug to prevent corrosion and for easy separation (of the plug).</p> <p>(5) All lights that have their sockets in a weather exposed area shall have corrosion preventative compound added to the socket terminal area.</p> <p>(6) All electrical terminals in exposed areas shall have silicon (1890) applied completely over the metal portion of the terminal. All emergency light switches shall 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 shall be "rocker" type with an internal indicator light to show when switch is energized. All switches shall be properly identified and mounted in a removable panel for ease in servicing. Identification of the switches shall be done by either printing or etching on the switch panel. The switches and identification shall be illuminated.</p>		

	Bidder Complies	
	Yes	No
<p>All lights and reflectors, required to comply with Federal Motor Vehicle Safety Standard #108, shall be furnished. Rear identification lights shall be recessed mounted for protection. Lights and wiring mounted in the rear bulkheads shall be protected from damage by installing a false bulkhead inside the rear compartments.</p> <p>An operational test shall be conducted to ensure that any equipment that is permanently attached to the electrical system is properly connected and in working order.</p> <p>The results of the tests shall be recorded and provided to the purchaser at time of delivery.</p> <p><b><u>BATTERY SYSTEM</u></b></p> <p>A single starting battery system shall be provided consisting of two (2) 12 volt, maintenance-free batteries. The battery system shall have a total of 2000 CCA.</p> <p><b><u>Jump Start Connections</u></b></p> <p>Positive and negative posts for jump starting shall be provided by the chassis manufacturer. They shall be frame mounted and located under the hood.</p> <p><b><u>BATTERY LOCATION</u></b></p> <p>The batteries shall be installed in the standard location as provided by the chassis manufacturer. This location is typically under the cab on the left side of the truck.</p> <p><b><u>MASTER BATTERY SWITCH</u></b></p> <p>A master battery switch, to activate the battery system, shall be provided inside the cab within easy reach of the driver.</p> <p>The master battery disconnect switch shall be wired between the starter solenoid and the remainder of the electrical loads on the apparatus.</p> <p>A green "battery on" indicator light, visible from the driver's position, shall be provided.</p> <p><b><u>BATTERY CHARGER</u></b></p> <p>An IOTA, Model DLS 45, shall be provided.</p> <p>The battery charger shall be wired to the AC shoreline inlet as defined elsewhere in this specification.</p> <p><b><u>BATTERY CHARGER LOCATION</u></b></p> <p>The battery charger shall be located in the left side forward body compartment. It shall be mounted as high and forward as practical to keep it protected and away from other equipment in the compartment.</p> <p><b><u>KUSSMAUL AUTO EJECT FOR SHORELINE</u></b></p> <p>one (1) shoreline inlet shall be provided to operate the dedicated 120-volt circuits on the truck without the use of the generator.</p>		



	Bidder Complies	
	Yes	No
<p>The shoreline receptacle (s) shall be provided with a NEMA 5-20, 120 volt, 20 amp, straight blade Kussmaul auto eject plug with a yellow weatherproof cover. The cover is spring loaded to close, preventing water from entering when the shoreline is not connected.</p> <p>A solenoid wired to the vehicle's starter is energized when the engine is started. This instantaneously drives the plug from the receptacle.</p> <p>The shoreline shall be connected to the battery charger.</p> <p>A mating connector body shall also be supplied with the loose equipment.</p> <p>The shoreline receptacle shall be located on the driver side of pump panel .</p> <p><b><u>ALTERNATOR</u></b></p> <p>The alternator shall be a Delco Remy 40SI, 275 amp, quadramount, with remote battery voltage sensor.</p> <p><b><u>ELECTRONIC LOAD MANAGEMENT</u></b></p> <p>Included with the apparatus manufacturer's electrical system shall be a programmable load management system.</p> <p>This system shall monitor the vehicle's 12-volt electrical system, and automatically reduce the electrical load in the event of a low voltage condition and by doing so, ensures the integrity of the electrical system.</p> <p><b><u>EXTERIOR LIGHTING</u></b></p> <p>Exterior lighting shall meet or exceed Federal Department of Transportation, Federal Motor Vehicle Safety Standards and National Fire Protection Association requirements in effect at time of proposal.</p> <p>Five (5) LED clearance and marker lights shall be installed across the leading edge of the cab.</p> <p><b><u>REAR CLEARANCE/MARKER/ID LIGHTING</u></b></p> <p>There shall be a three (3) LED light bar used as identification lights located at the rear of the apparatus per the following:</p> <ul style="list-style-type: none"> <li>• As close as practical to the vertical centerline</li> <li>• Centers spaced not less than 6.00" or more than 12.00" apart</li> <li>• Red in color</li> <li>• All at the same height</li> </ul> <p>There shall be two (2) Truck-Lite®, Model 33050R, LED lights installed at the rear of the apparatus used as clearance lights located at the rear of the apparatus per the following:</p> <ul style="list-style-type: none"> <li>• To indicate the overall width of the vehicle</li> <li>• One (1) each side of the vertical centerline</li> <li>• As near the top as practical</li> </ul>		

	Bidder Complies	
	Yes	No
<ul style="list-style-type: none"> <li>• Red in color</li> <li>• To be visible from the rear</li> <li>• All at the same height</li> </ul> <p>There shall be two (2) Truck-Lite, Model 33050R, LED lights installed on the side of the apparatus used as marker lights located as close to the rear as practical per the following:</p> <ul style="list-style-type: none"> <li>• To indicate the overall length of the vehicle</li> <li>• One (1) each side of the vertical centerline</li> <li>• As near the top as practical</li> <li>• Red in color</li> <li>• To be visible from the side</li> <li>• All at the same height</li> </ul> <p>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.</p> <p>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.</p> <p>Per FMVSS 108 and CMVSS 108 requirements.</p> <p><b><u>REAR FMVSS LIGHTING</u></b></p> <p>The rear stop/tail and directional LED lighting shall consist of the following:</p> <ul style="list-style-type: none"> <li>• Two (2) Whelen®, Model M6BTT, red LED stop/tail lights</li> <li>• Two (2) Whelen, Model M6T, amber LED arrow turn lights</li> </ul> <p>The lights shall be provided with clear lenses.</p> <p>The lights shall be mounted in a polished combination housing.</p> <p>There shall be two (2) Whelen Model M6BUW, LED backup lights provided in the tail light housing.</p> <p><b><u>LICENSE PLATE BRACKET</u></b></p> <p>There shall be one (1) license plate bracket mounted on the rear of the body.</p> <p>A white LED light shall illuminate the license plate. A stainless steel light shield shall be provided over the light that shall direct illumination downward, preventing white light to the rear.</p> <p><b><u>LIGHTING BEZEL</u></b></p> <p>There shall be two (2) Whelen, Model M6FCV4P, four (4) place chromed ABS housings with Pierce logos provided for the rear M6 series stop/tail, directional, back up, scene lights or warning lights.</p>		

Bidder Complies	
Yes	No

**BACK-UP ALARM**

A PRECO, Model 1040, solid-state electronic audible back-up alarm that actuates when the truck is shifted into reverse shall be provided. The device shall 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 shall be two (2) Truck-Lite, Model 6060C, white LED lights with grommets provided, one (1) for each cab door.

These lights shall 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 shall be two (2) Truck-Lite, Model 6060C, white LED lights with grommets provided under the pump panel running boards, one (1) each side.

The lights shall be controlled by the same means as the body perimeter lights.

**BODY PERIMETER SCENE LIGHTS**

There shall be two (2) Truck-Lite, Model 6060C, white LED lights with grommets provided under at the rear step area of the body, one (1) each side shining to the rear.

The perimeter scene lights shall be activated when the parking brake is applied.

**STEP LIGHTS**

White LED, step lights shall be provided to meet the NFPA step lighting requirement. Lights shall be provided on each side, on the front compartment face and at the rear to illuminate the tailboard.

These step lights shall be actuated with the parking brake.

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

**REAR SCENE LIGHT(S) - PAIR**

There shall be one (1) pair of Whelen, Model PELCC, 2.25" high x 7.88" wide x 1.63" deep LED scene light(s) with 45 degree chrome housing installed at the rear of the apparatus.

There shall be one (1) light each side on the rear of the apparatus.

A control for the lights selected above shall be the following: a switch at the driver's side switch panel

These pair(s) of light(s) may be load managed when the parking brake is applied.

**SCENE LIGHTS**

There shall be one (1) pair of Whelen, Model 6SC0ENZR Gradient LED scene lights provided.

	Bidder Complies	
	Yes	No
<p>These lights shall direct light downward via internal optics. They shall be installed on the driver's side of the apparatus body.</p> <p>A control for the lights selected above shall be the following:</p> <ul style="list-style-type: none"> <li>• a switch at the driver's side switch panel</li> <li>• a switch at the driver's side switch panel</li> </ul> <p><b><u>SCENE LIGHTS</u></b></p> <p>There shall be one (1) pair of Whelen, Model 6SC0ENZR Gradient LED scene lights provided.</p> <p>These lights shall direct light downward via internal optics. They shall be installed on the passenger's side of the apparatus body.</p> <p>A control for the lights selected above shall be the following:</p> <ul style="list-style-type: none"> <li>• a switch at the driver's side switch panel</li> <li>• a switch at the driver's side switch panel</li> </ul> <p><b><u>HOSEBED LIGHTING</u></b></p> <p>White 12 volt DC LED lighting shall be installed to provide the NFPA required lighting for the hose bed. The lights shall have control from a switch at the rear of the truck .</p> <p><b><u>WATER TANK</u></b></p> <p>The tank shall have a minimum capacity of 2100 U.S. gallons. The tank shall be of a specified configuration and designed to be completely independent of the compartment and/or fender modules. When placed on the chassis, the tank shall meet or exceed all federal DOT regulations regarding weight distribution, axle loading and horizontal and vertical center of gravity locations.</p> <p>The tank shall incorporate a manual fill tower with a 6.00" combination vent/overflow pipe. The fill tower shall be constructed of polypropylene and shall be large enough to provide filling by means of a conventional 2.50" hose nozzle. The tower shall be located near the center of the tank to minimize water surge during vehicle operation. The tower shall have a removable polypropylene screen and a polypropylene hinged cover. The vent/overflow pipe shall run through the tank and exit through the floor of the tank behind the rear axle.</p> <p>The sides of the tank shall be painted to match the remainder of the unit.</p> <p>The tank and hose bed (if provided) shall be removable as a unit and shall be a separate component from the body compartmentation.</p> <p>Provisions for installation of side tank dumps shall be provided on each side at the rear.</p>		

Bidder Complies	
Yes	No

**WATER TANK RESTRAINT**

A heavy-duty water tank restraint shall be provided to keep the water tank in position. This requirement is especially critical when the tank is empty and the apparatus is traveling over rough terrain.

**TOP OF TANK, ACCESS LADDER**

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

**TANK OVERFLOW/VENT**

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

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

**REAR TANK FILL**

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

Piping, for the fill, shall 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 shall be located at the inlet.

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

**REAR TANK DUMP VALVE**

One (1) 10.00" stainless steel Newton Quick Dump shall be installed at the rear of the tank. The valve shall be operated manually by a lever control located on top of the valve.

**DUMP CHUTE**

A manual flip down extension chute shall be included with the dump valve.

**LEFT SIDE TANK DUMP VALVE**

A tank dump shall be installed through the left side body panel behind the rear wheels.

The tank dump shall be a plunger style, 10.00" square Newton dump valve constructed from stainless steel. The valve shall be pneumatically actuated by a switch in the cab and at the rear of the truck.

	Bidder Complies	
	Yes	No
<p><b><u>TANK DUMP CHUTE - DRIVER'S SIDE</u></b></p> <p>A pneumatically controlled, stainless steel telescopic extension chute shall be included with the dump valve. Controls shall be provided at the rear body and in the cab.</p> <p>Chute shall extend a minimum of 10.00" past the side body opening.</p> <p><b><u>RIGHT SIDE TANK DUMP VALVE</u></b></p> <p>A tank dump shall be installed through the right side body panel behind the rear wheels.</p> <p>The tank dump shall be a plunger style, 10.00" square Newton dump valve constructed from stainless steel. The valve shall be pneumatically actuated by a switch in the cab and at the rear of the truck.</p> <p><b><u>TANK DUMP CHUTE - PASSENGER'S SIDE</u></b></p> <p>A pneumatically controlled, stainless steel telescopic extension chute shall be included with the dump valve. Controls shall be provided at the rear body and in the cab.</p> <p>Chute shall extend a minimum of 10.00" past the side body opening.</p> <p><b><u>HOSE BED</u></b></p> <p>Hose bed side sheets constructed from smooth polypropylene shall be provided around the perimeter of the top of the tank. These side sheets shall be painted to match the body.</p> <p>Polypropylene hose bed grating shall be installed on a top section of the water tank. This area can be utilized for hose or equipment storage. The area not covered by grating shall have a traction material applied to provide a safe walking surface.</p> <p><b><u>HOSE BED HOSE RESTRAINT</u></b></p> <p>The hose in the hose bed shall 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 shall attach at the top rear outside corners with 2.00" cam buckle fasteners. The webbing shall have straps connected with 2.00" cam buckle fasteners located at the rear body sheet below the hose bed.</p> <p><b><u>RUNNING BOARDS</u></b></p> <p>Running boards shall be fabricated of .125" bright aluminum treadplate.</p> <p>Each running board shall be supported by a welded 2.00" square tubing and channel assembly, which shall be bolted to the pump compartment substructure.</p> <p>Running boards shall be 12.75" deep and spaced .50" away from the pump panel.</p> <p>A splash guard shall be provided above the running board treadplate.</p> <p><b><u>TAILBOARD</u></b></p> <p>A tailboard approximately 16.00" deep and covered with bright aluminum treadplate shall be provided at the rear of the truck.</p>		

Bidder Complies	
Yes	No

**TOW EYES**

There shall 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 shall have a radius.

**COMPARTMENTATION**

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

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

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

Compartment flooring shall be of the sweep out design with the floor higher than the compartment door lip.

Drip protection shall be provided above the doors.

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

**BODY SUPPORT SYSTEM**

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

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

**AGGRESSIVE WALKING SURFACE**

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

**LEFT SIDE COMPARTMENTATION**

A roll-up door compartment in the lower area, ahead of the rear wheels shall be provided. The interior dimensions shall be 53.50" wide x 27.00" high x 24.50" deep. The depth of the compartment shall be calculated with the compartment door closed. The clear door opening of the compartment shall be 51.25" wide x 31.00" high. Closing of the door shall not require releasing, unlocking, or unlatching any mechanism and shall easily be accomplished with one hand.

A tank dump access door shall be provided in the area, behind the rear wheels. The door shall be a single pan design and be constructed from polished stainless steel. It shall have a horizontal top hinge and a magnet catch to hold it in the closed position.

**HARD SUCTION HOSE COMPARTMENT**

A hard suction hose storage compartment shall be provided as an integral part of the left side body compartments.

	Bidder Complies	
	Yes	No
<p>The hose storage compartment shall be fabricated of the same material as the body compartment and shall be fully enclosed. It shall be approximately 83.00" long and have a 9.00" x 9.00" clear door opening</p> <p>Access to the compartment shall be through a vertically hinged aluminum treadplate door at the rear.</p> <p><b><u>RIGHT SIDE COMPARTMENTATION</u></b></p> <p>A roll-up door compartment in the lower area, ahead of the rear wheels shall be provided. The interior dimensions shall be 53.50" wide x 27.00" high x 24.50" deep. The depth of the compartment shall be calculated with the compartment door closed. The clear door opening of the compartment shall be 51.25" wide x 31.00" high. Closing of the door shall not require releasing, unlocking, or unlatching any mechanism and shall easily be accomplished with one hand.</p> <p>A tank dump access door shall be provided In the area, behind the rear wheels. The door shall be a single pan design and be constructed from polished stainless steel . It shall have a horizontal top hinge and a magnet catch to hold it in the closed position.</p> <p><b><u>HARD SUCTION HOSE COMPARTMENT</u></b></p> <p>A hard suction hose storage compartment shall be provided as an integral part of the right side body compartments.</p> <p>The hose storage compartment shall be fabricated of the same material as the body compartment and shall be fully enclosed. It shall be approximately 83.00" long and have a 9.00" x 9.00" clear door opening</p> <p>Access to the compartment shall be through a vertically hinged aluminum treadplate door at the rear.</p> <p><b><u>ROLLUP DOOR, SIDE COMPARTMENTS</u></b></p> <p>There shall be four (4) compartment doors installed on the side compartments. The doors shall be double faced aluminum construction, an anodized satin finish and manufactured by Gortite®.</p> <p>Lath sections shall be an interlocking rib design and shall be individually replaceable without complete disassembly of door.</p> <p>Between each slat at the pivoting joint shall be a PVC inner seal to prevent metal to metal contact and prevent dirt or moisture from entering the compartments. Seals shall allow door to operate in extreme temperatures ranging from 180 to -40 degrees Fahrenheit. Side, top and bottom seals shall be provided to resist ingress of dirt and weather and be made of Santoprene.</p> <p>All hinges, barrel clips and end pieces shall be nylon 66. All nylon components shall withstand temperatures from 300 to -40 degrees Fahrenheit. Hardened plastic shall not be acceptable.</p>		



	Bidder Complies	
	Yes	No
<p>A polished stainless steel lift bar to be provided for each roll-up door . Lift bar shall be located at the bottom of door and have latches on the outer extrusion of the doors frame. A ledge shall be supplied over lift bar for additional area to aid in closing the door.</p> <p>Doors shall be constructed from an aluminum box section. The exterior surface of each slat shall be flat. The interior surfaces shall be concave to provide strength and prevent loose equipment from jamming the door from inside.</p> <p>To conserve space in the compartments, the spring roller assembly shall not exceed 3.00" in diameter. A garage style roll door shall not be acceptable.</p> <p>The header for the rollup door assembly shall not exceed 4.00".</p> <p>A heavy-duty magnetic switch shall be used for control of open compartment door warning lights.</p> <p><b><u>COMPARTMENT LIGHTING</u></b></p> <p>There shall be two (2) compartments with LED compartment light strips. There shall be two (2) pairs of lights required - one pair in each forward compartment.</p> <p>Each strip shall be centered vertically along the door framing. All body compartments with roll-up doors shall have these strip lights.</p> <p>Any remaining compartments shall include 6.00" diameter Truck-Lite, Model: 79384 light in each enclosed compartment. Each light shall have a number 1076 one filament, two wire bulb.</p> <p>Opening the compartment door shall automatically turn the compartment lighting on.</p> <p><b><u>BODY FENDER CROWNS</u></b></p> <p>Stainless steel fender crowns shall be provided around the rear wheel openings.</p> <p>A rubber welting shall be provided between the body and the crown to seal the seam and restrict moisture from entering.</p> <p>A dielectric barrier shall be provided between the fender crown fasteners (screws) and the fender sheet metal to prevent corrosion.</p> <p><b><u>HARD SUCTION HOSE</u></b></p> <p>Hard suction hose shall not be required.</p> <p><b><u>6 FT PIKE POLE, NOT REQUIRED BY NFPA 2016</u></b></p> <p>NFPA 1901, 2016 edition, Section 7.9.4 does not require a pike pole to be provided under the miscellaneous equipment.</p> <p><b><u>STEPS - DELUGE ACCESS</u></b></p> <p>A pair of folding steps shall be provided on the right side front body bulkhead. The steps shall be bright finished, non-skid with a luminescent tread coating, that is rechargeable from any light source and can hold a charge for up to 24 hours,. Each step shall incorporate an LED light to</p>		

	Bidder Complies	
	Yes	No
<p>illuminate the stepping surface. The steps can be used as a hand hold with two openings wide enough for a gloved hand.</p> <p>An additional step constructed from aluminum treadplate shall be installed on the right side of the cargo compartment above the pump to provide access to the deluge riser. This step shall also be illuminated with an LED light.</p> <p><b><u>PUMP COMPARTMENT</u></b></p> <p>The pump compartment shall be separate from the hose body and compartments so that each may flex independently of the other. It shall be a fabricated assembly of steel tubing, angles and channels which supports both the fire pump and the side running boards.</p> <p>The pump compartment shall be mounted on the chassis frame rails with rubber biscuits in a four point pattern to allow for chassis frame twist.</p> <p>Pump compartment, pump, plumbing and gauge panels shall be removable from the chassis in a single assembly.</p> <p><b><u>PUMP MOUNTING</u></b></p> <p>Pump shall be mounted to a substructure which shall be mounted to the chassis frame rail using rubber isolators. The mounting shall allow chassis frame rails to flex independently without damage to the fire pump.</p> <p><b><u>PUMP CONTROL PANELS (SIDE CONTROL)</u></b></p> <p>All pump controls and gauges shall be located at the left side of the apparatus and properly marked.</p> <p>The pump panel on the right side shall be removable with lift and turn type fasteners. The left side shall be fastened with screws.</p> <p>The control panels shall be 28.00" wide.</p> <p>The gauge and control panels shall be two (2) separate panels for ease of maintenance.</p> <p>Polished stainless steel trim collars shall be installed around all inlets and outlets.</p> <p>All push/pull valve controls shall have 1/4 turn locking control rods with polished chrome plated zinc tee handles. Guides for the push/pull control rods shall be chrome plated zinc castings securely mounted to the pump panel. Push/pull valve controls shall be capable of locking in any position. The control rods shall pull straight out of the panel and shall be equipped with universal joints to eliminate binding.</p> <p>All line pressure gauges shall be mounted in individual chrome plated castings with the identification tag recessed in the casting below the gauge. All remaining identification tags shall be mounted on the pump panel in chrome plated bezels. Mounting of the castings and identification bezels shall be done with a threaded peg cast on the back side of the bezel or screws.</p>		

Bidder Complies	
Yes	No

**PUMP**

Pump shall be a Waterous CXPA, 1250 gpm, single (1) stage, power take off (PTO) driven, midship mounted centrifugal type.

Pump shall be the class "A" type.

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

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

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

**MECHANICAL SEAL ON PUMP**

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

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

In addition, a throttling ring shall 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 shall not deteriorate, nor shall the pump lose prime, while drafting if the seal fails during pump operation.

Wear rings shall 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**

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

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

	Bidder Complies	
	Yes	No
<p>The water pump shall be driven by a special heavy duty ten (10)-bolt hot shift PTO. It shall be located on the left side of the chassis transmission. This PTO shall be designed specifically for the torque required to drive a 1250 gpm or larger water pump.</p> <p><b><u>PUMPING MODE</u></b></p> <p>An interlock system shall be provided to ensure that the pump drive system components are properly engaged so that the apparatus can be safely operated. Interlock system shall be designed to allow the truck to be in motion while pumping.</p> <p>Pump discharge pressure shall be displayed through the V-MUX display in the cab during pump in motion operations.</p> <p><b><u>PUMP SHIFT</u></b></p> <p>A pump shift shall be provided within easy reach of the driver for engagement of the PTO driven pump. The shift shall include the indicator lights as mandated by NFPA. The pump shift control shall be illuminated to meet NFPA requirements.</p> <p><b><u>AUXILIARY COOLING SYSTEM</u></b></p> <p>A supplementary heat exchange cooling system shall be provided to allow the use of water from the discharge side of the pump for cooling the engine water. The heat exchanger shall be a separate unit. It shall be installed in the pump or engine compartment with the control located on the pump operator's control panel. The exchanger shall be plumbed to the master drain valve.</p> <p><b><u>INTAKE RELIEF VALVE</u></b></p> <p>An intake relief valve shall be installed on the suction side of the pump preset at 125 psig.</p> <p>Relief valve shall have a working range of 50 psig to 350 psig.</p> <p>Outlet shall terminate below the frame rails with a 2.50" National Standard hose thread adapter and shall have a "do not cap" warning tag.</p> <p><b><u>PRESSURE CONTROLLER</u></b></p> <p>A Fire Research Pump Boss Model PBA200 pressure governor shall be provided.</p> <p>A pressure transducer shall be installed in the water discharge manifold on the pump.</p> <p>The display panel shall be located at the pump operator's panel.</p> <p><b><u>PRIMING PUMP</u></b></p> <p>The priming pump shall 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.</p> <p>All wetted metallic parts of the priming system are to be of brass and stainless steel construction.</p>		

	Bidder Complies	
	Yes	No
<p>One (1) priming control shall open the priming valve and start the pump primer.</p> <p><b><u>PUMP MANUALS</u></b>  There shall be a total of two (2) pump manuals provided by the pump manufacturer and furnished with the apparatus. The manuals shall be provided by the pump manufacturer in the form of two (2) electronic copies. Each manual shall cover pump operation, maintenance, and parts.</p> <p><b><u>PLUMBING, STAINLESS STEEL AND HOSE</u></b>  All inlet and outlet lines shall be plumbed with either stainless steel pipe, flexible polypropylene tubing or synthetic rubber hose reinforced with hi-tensile polyester braid. All hose's shall be equipped with brass or stainless steel couplings. All stainless steel hard plumbing shall be a minimum of a schedule 10 wall thickness.</p> <p>Where vibration or chassis flexing may damage or loosen piping or where a coupling is required for servicing, the piping shall be equipped with victaulic or rubber couplings.</p> <p>Plumbing manifold bodies shall be ductile cast iron or stainless steel.</p> <p>All piping lines are to be drained through a master drain valve or shall be equipped with individual drain valves. All drain lines shall be extended with a hose to drain below the chassis frame.</p> <p>All water carrying gauge lines shall be of flexible polypropylene tubing.</p> <p>All piping, hose and fittings shall have a minimum of a 500 PSI hydrodynamic pressure rating.</p> <p><b><u>FOAM SYSTEM PLUMBING</u></b>  All piping that is in contact with the foam concentrate or foam/water solution shall be stainless steel. The fittings shall be stainless steel or brass. Cast iron pump manifolds will be allowed.</p> <p><b><u>MAIN PUMP INLETS</u></b>  A 6.00" pump manifold inlet shall be provided on each side of the vehicle. The suction inlets shall include removable die cast zinc screens that are designed to provide cathodic protection for the pump, thus reducing corrosion in the pump.</p> <p><b><u>MAIN PUMP INLET CAP</u></b>  The main pump inlets shall have National Standard Threads with a rocker lug chrome plated cap.</p> <p>The cap shall incorporate a thread design to automatically relieve stored pressure in the line when disconnected (no exception).</p> <p><b><u>VALVES</u></b>  All ball valves shall be Akron® Brass in-line valves. The Akron valves shall 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.</p>		

Bidder Complies	
Yes	No

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

Inlet valve location shall be outside of the pump panel.

**INLET CONTROL**

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

**LEFT SIDE INLET**

There shall 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 shall be provided with a strainer, chrome swivel and plug.

**INLET BLEEDER VALVE**

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

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

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

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

**TANK TO PUMP**

The booster tank shall 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 shall be included in this line to prevent damage from vibration or chassis flexing.

A check valve shall 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 shall be provided using a quarter-turn full flow ball valve, controlled from the pump operator's panel.

**DISCHARGE OUTLET CONTROLS**

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

If a handwheel control valve is used, the control shall 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 shall be a slow-operating valve in accordance with NFPA 16.7.5.3.

Bidder Complies	
Yes	No

**LEFT SIDE DISCHARGE OUTLETS**

There shall be One (1) discharge outlet 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 shall 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 shall incorporate a thread design to automatically relieve stored pressure in the line when disconnected (no exception).

**RIGHT SIDE DISCHARGE OUTLETS**

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

**RIGHT SIDE OUTLET ELBOWS**

The 2.50" discharge outlets located on the right side pump panel shall 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 shall incorporate a thread design to automatically relieve stored pressure in the line when disconnected (no exception).

**LARGE DIAMETER DISCHARGE OUTLET**

There shall be One (1) discharge outlet with a 3.00" valve on the right side of the apparatus, terminating with a (M) 4.00" National Standard hose thread adapter. The outlet shall be controlled by a slow-close valve located at the operator's panel

**LARGE DIAMETER OUTLET ELBOWS**

The 4.00" outlet shall be furnished with a 4.00" (F) National Standard hose thread x 4.00" (M) National Standard hose thread adapter with a cap and cable.

The elbow shall incorporate a thread design to automatically relieve stored pressure in the line when disconnected (no exception).

**DISCHARGE CAPS/ INLET PLUGS**

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

The caps and plugs shall incorporate a thread design to automatically relieve stored pressure in the line when disconnected (no exception).

	Bidder Complies	
	Yes	No
<p><b><u>OUTLET BLEEDER VALVE</u></b></p> <p>A 0.75" bleeder valve shall be provided for each outlet 1.50" or larger. Automatic drain valves are acceptable with some outlets if deemed appropriate with the application.</p> <p>The valves shall be located behind the panel with a T swing style handle control extended to the outside of the side pump panel.</p> <p>The handles shall be chrome plated and provide a visual indication of valve position.</p> <p>The T swing handle shall provide an ergonomic position for operating the valve without twisting the wrist and provides excellent leverage.</p> <p>Bleeders shall be located at the bottom of the pump panel. They shall be properly labeled identifying the discharge they are plumbed in to.</p> <p>The water discharged by the bleeders shall be routed below the chassis frame rails.</p> <p><b><u>DELUGE RISER</u></b></p> <p>A 3.00" deluge riser shall be installed above the pump in such a manner that a monitor can be mounted and used effectively.</p> <p>The 3.00" piping shall be installed securely so there is no movement when the line is charged. A 2.50" gated valve shall be installed and directly controlled at the pump operator's position with a lever style handle.</p> <p>This deluge outlet shall flow a minimum 1000 GPM.</p> <p>The deluge riser shall have male National Pipe Threads for mounting the monitor.</p> <p><b><u>CARGO COMPARTMENT</u></b></p> <p>The space on top of the pump module not used by the crosslays shall have an aluminum sheet perimeter installed to create a cargo compartment. The perimeter shall remain unpainted smooth aluminum and treadplate. The floor of this compartment shall be aluminum treadplate.</p> <p><b><u>CROSSLAY HOSE BEDS</u></b></p> <p>Two (2) crosslays with 1.50" outlets shall be provided. Each bed to be capable of carrying 200 feet of 1.75" double jacketed hose and shall be plumbed with 2.00" id. pipe and gated with a 2.00" quarter turn ball valve.</p> <p>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.</p> <p>The crosslay controls shall be at the pump operator's panel.</p> <p>The center crosslay dividers shall be fabricated of .25" aluminum and shall provide adjustment from side to side. The divider shall be unpainted with a DA finish.</p> <p>Crosslay bed flooring shall consist of removable perforated brushed aluminum.</p>		



	Bidder Complies	
	Yes	No
<p><b><u>CROSSLAY/DEADLAY HOSE RESTRAINT</u></b></p> <p>Elastic netting shall be provided across the top and ends of three (3) crosslay/deadlay opening(s) to secure the hose during travel. The netting shall be permanently attached at the top center of the crosslay/deadlay bed and removable on each end.</p> <p><b><u>BOOSTER HOSE REEL</u></b></p> <p>A Hannay electric rewind booster hose shall be installed forward of the rear bumper/tailboard, between the frame rails.</p> <p>A polished stainless steel captive roller assembly shall be provided.</p> <p>Discharge control shall be provided at the pump operator's panel. Plumbing to the reel shall consist of 1.50" Aeroquip hose and a 1.50" valve.</p> <p>The reel motor will be protected from overload with a sized automatic reset circuit breaker.</p> <p>The exterior finish of the reel shall be painted #269 gray from the reel manufacturer.</p> <p><b><u>NFPA COMPLIANCY</u></b></p> <p>NFPA 1901, 2016 edition, section 16.7.8.1 - Valves states that "Each pump discharge shall have a valve that can be controlled from the pump operator's position." This reel shall not have the valve control located at the pump operator's position.</p> <p>Per fire department specification and request of this option, this apparatus shall be non-compliant to NFPA 1901, 2016 edition, section 16.7.8.1 standards effective at time of contract execution.</p> <p>Reel motor shall be protected from overload with a circuit breaker rated to match the motor.</p> <p>An electric rewind control switch shall be installed adjacent to the reel.</p> <p>Booster hose, 1.00" diameter and 200 feet, with chrome plated Barway, or equal couplings shall be provided.</p> <p>Working pressure of the booster hose shall be a minimum of 800 psi.</p> <p>Capacity of the hose reel shall be 200 feet of 1.00" booster hose.</p> <p><b><u>PLUMBING SYSTEM SET-UP</u></b></p> <p>The apparatus main plumbing system shall be designed to accommodate the installation of a single agent, direct injection foam system.</p> <p>The plumbing shall be designed to allow the foam system to be added without unnecessary rework.</p> <p>Space shall be reserved on the pump panel for the foam system controls.</p>		

	Bidder Complies	
	Yes	No
<p><b><u>FOAM CAPABLE DISCHARGES</u></b></p> <p>The foam system shall be plumbed into a manifold. All outlets that are plumbed into that manifold shall be foam capable.</p> <p>Foam capable outlets shall be:</p> <ul style="list-style-type: none"> <li>• Crosslays (2)</li> </ul> <p>(TECH NOTE: The 2.50" side outlets and the deluge are not plumbed into the manifold and therefore, shall not be foam capable.)</p> <p><b><u>FOAM TANK - PROVISIONS ONLY</u></b></p> <p>The water tank shall be designed and constructed to accommodate an integral polypropylene foam tank.</p> <p><b><u>PUMP PANEL CONFIGURATION</u></b></p> <p>The pump panel configuration shall be neat and orderly.</p> <p><b><u>PUMP AND GAUGE PANEL</u></b></p> <p>The pump and gauge panels shall be constructed of aluminum with a black vinyl finish. A polished aluminum trim molding shall be provided around each panel.</p> <p><b><u>PUMP ACCESS</u></b></p> <p><b><u>Right Side Panel</u></b></p> <p>The right side upper pump panel shall be removable.</p> <p><b><u>Panel Fastener</u></b></p> <p>The removable panels shall be secured with black swell latch .</p> <p>The left side pump panels shall be attached with screws.</p> <p>The right side lower pump panel (drain bank) shall be attached with screws.</p> <p><b><u>PUMP COMPARTMENT LIGHT</u></b></p> <p>A pump compartment light shall be provided inside the right side pump enclosure and accessible through a door on the pump panel.</p> <p>A .125" weep hole shall be provided in each light lens, preventing moisture retention.</p> <p><b><u>PUMP PANEL GAUGES AND CONTROLS</u></b></p> <p>The following shall be provided on the pump panels in the FRC IN Control Pressure Governor system</p> <ul style="list-style-type: none"> <li>- Engine Oil Pressure Gauge: LED bar graph display</li> <li>- Engine Water Temperature Gauge: LED bar graph display</li> </ul>		

	Bidder Complies	
	Yes	No
<p>- Tachometer: over 1/2" high LED digits</p> <p>- Voltmeter: LED bar graph display</p> <p><b><u>THROTTLE READY GREEN INDICATOR LIGHT</u></b></p> <p>There shall 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.</p> <p><b><u>OK TO PUMP INDICATOR LIGHT</u></b></p> <p>There shall be a green indicator light installed on the pump operators panel that is activated when the pump is in Ok To Pump mode.</p> <p><b><u>VACUUM AND PRESSURE GAUGES</u></b></p> <p>The pump vacuum and pressure gauges shall be liquid filled and manufactured by Class 1 Incorporated ©.</p> <p>The gauges shall be a minimum of 4.00" in diameter and shall have white faces with black lettering, with a pressure range of 30.00"-0-600#.</p> <p>Gauge construction shall include a Zytel nylon case with adhesive mounting gasket and threaded retaining nut.</p> <p>The pump pressure and vacuum gauges shall be installed adjacent to each other at the pump operator's control panel.</p> <p>Test port connections shall be provided at the pump operator's panel. One (1) shall be connected to the intake side of the pump, and the other to the discharge manifold of the pump. They shall have 0.25 in. standard pipe thread connections and non-corrosive polished stainless steel or brass plugs. They shall be marked with a label.</p> <p>This gauge shall include a 10 year warranty against leakage, pointer defect, and defective bourdon tube.</p> <p><b><u>PRESSURE GAUGES</u></b></p> <p>The individual "line" pressure gauges for the discharges shall be interlube filled and manufactured by Class 1©.</p> <p>They shall be a minimum of 2.00" in diameter and shall have white faces with black lettering.</p> <p>Gauge construction shall include a Zytel nylon case with adhesive mounting gasket and threaded retaining nut.</p> <p>Gauges shall have a pressure range of 30"-0-400#.</p> <p>The individual pressure gauge shall be installed as close to the outlet control as practical.</p>		

	Bidder Complies	
	Yes	No
<p>This gauge shall include a 10 year warranty against leakage, pointer defect, and defective bourdon tube.</p> <p><b><u>WATER LEVEL GAUGE</u></b></p> <p>An electronic water level gauge shall be provided on the operator's panel, that registers water level by means of five colored LED lights. The lights shall be durable, ultra-bright five LED design viewable through 180 degrees. The water level indicators shall be as follows:</p> <ul style="list-style-type: none"> <li>- 100% = Green</li> <li>- 75% = Yellow</li> <li>- 50% = Yellow</li> <li>- 25% = Yellow</li> <li>- Refill = Red</li> </ul> <p>The light shall 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 shall flash sequentially when the water tank is empty.</p> <p>The level measurement shall be based on the sensing of head pressure of the fluid in the tank.</p> <p>The display shall 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 shall provide complete protection from water and environmental elements. An industrial pressure transducer shall be mounted to the outside of the tank. The field calibratable display measures head pressure to accurately show the tank level.</p> <p><b><u>FUTURE FOAM LEVEL GAUGE</u></b></p> <p>Space on the pump panel shall be dedicated for the future addition of a foam system and foam level gauge.</p> <p><b><u>LIGHT SHIELD</u></b></p> <p>There shall be a polished, 16 gauge stainless steel light shield installed over the pump operator's panel.</p> <ul style="list-style-type: none"> <li>• There shall 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 shall be activated by the pump panel light switch. Additional lights shall be included every 18.00" depending on the size of the pump house.</li> <li>• One (1) pump panel light shall come on when the pump is in ok to pump mode.</li> </ul> <p>There shall 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.</p>		

Bidder Complies	
Yes	No

**AIR HORN SYSTEM**

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

**Air Horn(s) Location**

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

**AIR HORN CONTROL**

The air horns shall be actuated by a foot switch on the officer's side and by the horn button in the steering wheel. The driver shall 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 shall be provided.

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

Siren head shall be located in the cab within reach of the driver.

The electronic siren shall be controlled on the siren head only. No horn button or foot switches shall be required.

**SPEAKER**

There shall be one (1) speaker provided. Each speaker shall be a Whelen model SA315P black nylon composite, 100-watt, with mounting brackets. Each speaker shall be connected to the siren amplifier.

The speaker(s) shall be recessed in the center of the front bumper.

**MECHANICAL SIREN, (AUXILIARY)**

A Federal Q2B siren shall be furnished. The control solenoid shall be powered up after the emergency master switch is activated.

The mechanical siren shall be recessed in the front bumper on the left side. The siren shall be supported by the bumper framework.

The mechanical siren shall be actuated by two (2) foot switches, one (1) located on the officer's side and one (1) on the driver's side.

A momentary red switch shall be included in the cab on the switch panel to activate the siren brake.

Bidder Complies	
Yes	No

**FRONT ZONE UPPER WARNING LIGHTS**

There shall be one (1) 60.00" Whelen Freedom IV LED lightbar mounted on the cab roof.

The lightbar shall include the following:

- One (1) red flashing LED module 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.
- One (1) white LED module in the driver's side fourth front position.
- Open in the driver's side fifth front position.
- Open in the passenger's side fifth front position.
- One (1) white flashing LED module 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.
- One (1) red flashing LED module in the passenger's side end position.

There shall be clear lenses included on the lightbar.

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

The two (2) white flashing LED modules shall be disabled when the parking brake is applied.

The two (2) red flashing LED modules in the front positions may be load managed when the parking brake is applied.

**FRONT WARNING LIGHT**

There shall be two (2) Whelen, Model M6\*\* LED flashing lights provided at the front of the truck.

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

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

The color of the lenses shall be lens color(s) to be clear.

The lights shall be mounted with with a flange.

The lights shall be activated by a switch on the cab instrument panel.

**SIDE ZONE LOWER LIGHTING**

There shall be four (4) Whelen®, flashing LED warning lights with with a flange installed per the following:

Bidder Complies	
Yes	No

- Two (2) Model M2\*, 2.50" high x 4.00" wide lights one (1) each side on the engine hood under 62.00".
- The driver's side, side front light to include red warning LEDs .
- The passenger's side, side front light to include red warning LEDs .
- Two (2) Model M6\*, 4.31" high x 6.75" wide lights one (1) each side on the rear fender panel.
- The driver's side, side rear light to include red warning LEDs .
- The passenger's side, side rear light to include red warning LEDs .
- The lenses shall be lens color(s) to be clear .

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

**REAR ZONE LOWER LIGHTING**

Two (2) Whelen, Model M6\* LED flashing warning lights shall 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 shall include lens color(s) to be clear .

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

**WARNING LIGHTS (REAR AND SIDE UPPER ZONES)**

Four (4) Whelen, model M6\* LED flashing warning lights shall be provided at the rear of the apparatus with with a flange .

The side rear upper light(s) on the driver's side to be red.

The rear upper light(s) on the driver's side to be red.

The rear upper light(s) on the passenger's side to be red.

The side rear upper light(s) on the passenger's side to be red.

These lights shall include lens color(s) to be clear .

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

**LOOSE EQUIPMENT**

The following equipment shall 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

Bidder Complies	
Yes	No

**NFPA REQUIRED LOOSE EQUIPMENT PROVIDED BY FIRE DEPARTMENT**

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

- 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 at the shoulders, two at the sides, and one 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 shall be carried. Any intake connection larger than 3.00" (75 mm) shall include a pressure relief device that meets the requirements of 16.6.6 (if equipped with 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 shall 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 shall 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 PROVIDED BY FIRE DEPARTMENT**

NFPA 1901, 2016 edition, section 7.8.2.1 requires a minimum of 20' of suction hose or 15' of supply hose.



	Bidder Complies	
	Yes	No
<p>Hose is not on the apparatus as manufactured. The fire department shall provide suction or supply hose.</p> <p><b><u>DRY CHEMICAL EXTINGUISHER PROVIDED BY FIRE DEPARTMENT</u></b></p> <p>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.</p> <p>The extinguisher is not on the apparatus as manufactured. The fire department shall provide and mount the extinguisher.</p> <p><b><u>WATER EXTINGUISHER PROVIDED BY FIRE DEPARTMENT</u></b></p> <p>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.</p> <p>The extinguisher is not on the apparatus as manufactured. The fire department shall provide and mount the extinguisher.</p> <p><b><u>AXE, FLATHEAD, NOT REQUIRED BY NFPA 2016</u></b></p> <p>NFPA 1901, 2016 edition, Section 7.9.4 does not require a flathead axe to be provided under the miscellaneous equipment.</p> <p><b><u>PAINT PROCESS</u></b></p> <p>The exterior custom cab and/or body painting procedure shall consist of a seven (7) step finishing process. A commercial chassis paint process shall follow similar processes as determined by the chassis manufacturer. The following procedure shall be used by the apparatus manufacturer:</p> <ol style="list-style-type: none"> <li>1. <u>Manual Surface Preparation</u> - All exposed metal surfaces on the custom cab and body shall be thoroughly cleaned and prepared for painting. Imperfections on the exterior surfaces shall be removed and sanded to a smooth finish. Exterior seams shall be sealed before painting. Exterior surfaces that shall not be painted include; chrome plating, polished stainless steel, anodized aluminum and bright aluminum treadplate.</li> <li>2. <u>Chemical Cleaning and Pretreatment</u> - All surfaces shall be chemically cleaned to remove dirt, oil, grease, and metal oxides to ensure the subsequent coatings bond well. The aluminum surfaces shall be properly cleaned and treated using a high pressure, high temperature 4 step Acid Etch process. The steel and stainless surfaces shall 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 shall be applied to all metal surfaces.</li> <li>3. <u>Surfacer Primer</u> - The Surfacer Primer shall 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 shall be a two-component high solids urethane that has excellent sanding properties and an extra smooth finish when sanded.</li> </ol>		

Bidder Complies	
Yes	No

4. Finish Sanding - The surfacer primer shall 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 shall be applied. The Base coat shall be applied to a thickness that shall achieve the proper color match. The Base coat shall be used in conjunction with a urethane clear coat to provide protection from the environment.
7. Clear Coat - Two (2) coats of clear coat shall 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 shall be clear coated to match the body. Paint warranty for the roll-up doors shall be provided by the roll-up door manufacturer.

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 shall 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 shall 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 shall be used to determine a good color match within each family color.

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

**Environmental Impact**

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

- Topcoats and primers shall be chrome and lead free.
- Metal treatment chemicals shall be chrome free. The wastewater generated in the metal treatment process shall be treated on-site to remove any other heavy metals.
- Particulate emission collection from sanding operations shall have a 99.99 percent efficiency factor.
- Particulate emissions from painting operations shall be collected by a dry filter or water wash process. If the dry filter is used, it shall have an efficiency rating of 98 percent. Water wash systems shall be 99.97 percent efficient.

Bidder Complies	
Yes	No

- Water from water wash booths shall be reused. Solids shall be removed on a continual basis to keep the water clean.
- Paint wastes shall be disposed of in an environmentally safe manner.
- Empty metal paint containers shall be recycled to recover the metal.
- Solvents used in clean-up operations shall be recycled on-site or sent off-site for distillation and returned for reuse.

Additionally, the finished apparatus shall not be manufactured with or contain products that have ozone depleting substances. Contractor shall, 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 shall be painted by the chassis manufacturer, and shall remain the commercial grade finish as provided. The body shall be painted the matching color by the apparatus manufacturer.

To ensure a good color match between the body and chassis, the apparatus manufacturer and chassis manufacturer shall have a mutually pre-approved paint color program. The apparatus shall be painted candy apple red.

**COMMERCIAL CHASSIS PAINT**

The chassis shall be painted by the chassis manufacturer. It shall remain the color and commercial quality finish as provided. The primary color shall be candy apple red.

**PAINT CHASSIS FRAME ASSEMBLY**

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

**COMPARTMENT INTERIOR PAINT**

The interior of all compartments shall be painted with a gray spatter type paint.

**REFLECTIVE BAND**

A 6.00" white reflective band shall be provided across the front of the vehicle and along the sides of the body.

**REFLECTIVE VINYL ON FRONT BUMPER**

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

**REAR CHEVRON STRIPING**

There shall be alternating chevron striping located on the upper rear-facing vertical surface of the apparatus. The surface above the body / tank seam in the rear sheet metal shall be covered.

The colors shall be red and L1 fluorescent yellow .

	Bidder Complies	
	Yes	No
<p>Each stripe shall be 6.00" in width.</p> <p>This shall meet the requirements of the current edition of NFPA 1901, which states that 50% of the rear surface shall be covered with chevron striping.</p> <p><b><u>REFLECTIVE STRIPE, CAB DOORS</u></b></p> <p>A white reflective stripe shall be provided on the interior of each cab door.</p> <p>This stripe shall be a minimum of 96.00 square inches and shall meet the NFPA 1901 requirement.</p> <p><b><u>LETTERING</u></b></p> <p>Twenty-one (21) to forty (40) reflective lettering, 3.00" high, with no outline or shade shall be provided.</p> <p><b><u>MANUAL, BODY PARTS ONLY</u></b></p> <p>A custom parts manuals for the factory installed parts only shall be provided in USB flash drive format with the completed unit.</p> <p>The manual shall contain the following:</p> <ul style="list-style-type: none"> <li>- Job number</li> <li>- Part numbers with full descriptions</li> <li>- Table of contents</li> <li>- Parts section sorted in functional groups reflecting a major system, component, or assembly</li> <li>- Parts section sorted in Alphabetical order</li> <li>- Instructions on how to locate parts</li> </ul> <p>The manual shall be specifically written for the body model being purchased. It shall not be a generic manual for a multitude of different bodies.</p> <p><b><u>SERVICE PARTS INTERNET SITE</u></b></p> <p>The service parts information included in this manual are also available on the factory 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.</p> <p><b><u>MANUALS, SERVICE</u></b></p> <p>A USB flash drive format service manual supplement containing parts and service information on factory installed components shall be provided with the completed unit.</p> <p>The manual shall be specifically written for the unit being purchased. It shall not be a generic manual for a multitude of different units.</p>		

	Bidder Complies	
	Yes	No
<p><b><u>MANUAL, CHASSIS OPERATION</u></b></p> <p>One (1) chassis operation (manufacturers standard) shall be provided with the completed unit.</p> <p><b><u>ONE (1) YEAR MATERIAL AND WORKMANSHIP</u></b></p> <p>Each new piece of apparatus shall be provided with a minimum one (1) year basic apparatus material and workmanship limited warranty. The warranty shall 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.</p> <p>A copy of the warranty certificate shall be submitted with the bid package (no exception).</p> <p><b><u>CHASSIS WARRANTY</u></b></p> <p>The chassis manufacturer shall provide a <b>five (5) year or 100,000 mile warranty</b>.</p> <p><b><u>PAINT WARRANTY</u></b></p> <p>The commercial chassis manufacturer's paint warranty shall apply to the paint on the chassis only.</p> <p><b><u>COMPARTMENT LIGHT WARRANTY</u></b></p> <p>A ten (10) year material and workmanship limited warranty shall be provided for the Pierce 12 volt DC LED strip lights. The warranty shall cover the LED strip lights to be free from defects in material and workmanship that would arise under normal use.</p> <p>A copy of the warranty certificate shall be submitted with the bid package (no exception).</p> <p><b><u>TRANSMISSION WARRANTY</u></b></p> <p>The transmission shall have a <b>five (5) year/unlimited mileage</b> warranty covering 100 percent parts and labor. The warranty to be provided by Allison Transmission and not apparatus builder.</p> <p><b><u>TEN (10) YEAR STRUCTURAL INTEGRITY</u></b></p> <p>Each new piece of apparatus shall be provided with a <b>ten (10) year</b> material and workmanship limited warranty on the apparatus body. The warranty shall 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.</p> <p>A copy of the warranty certificate shall be submitted with the bid package (no exception).</p> <p><b><u>ROLL UP DOOR MATERIAL AND WORKMANSHIP WARRANTY</u></b></p> <p>A Gortite roll-up door limited warranty shall be provided. The mechanical components of the roll-up door shall be warranted against defects in material and workmanship for the lifetime of the vehicle. A <b>six (6) year</b> limited warranty shall be provided on painted and satin roll up doors.</p> <p>A copy of the warranty certificate shall be submitted with the bid package.</p>		

	Bidder Complies	
	Yes	No
<p><b><u>PUMP WARRANTY</u></b></p> <p>The Waterous pump shall be provided with a Seven (7) year material and workmanship limited warranty.</p> <p>A copy of the warranty certificate shall be submitted with the bid package (no exception).</p> <p><b><u>TEN (10) YEAR PUMP PLUMBING WARRANTY</u></b></p> <p>The stainless steel plumbing components and ancillary brass fittings used in the construction of the water/foam plumbing system shall be warranted for a period of <b>ten (10) years or 100,000 miles</b>. This covers structural failures caused by defective design or workmanship, or perforation caused by corrosion, provided the apparatus is used in a normal and reasonable manner. This warranty is extended only to the original purchaser for a period of ten years from the date of delivery.</p> <p>A copy of the warranty certificate shall be submitted with the bid package (no exception).</p> <p><b><u>LIFETIME MATERIAL AND WORKMANSHIP</u></b></p> <p>The Pro Poly poly water tank shall be provided with a lifetime material and workmanship limited warranty.</p> <p><b><u>TEN (10) YEAR PRO-RATED PAINT AND CORROSION</u></b></p> <p>Each new piece of apparatus shall be provided with a <b>ten (10) year</b> pro-rated paint and corrosion limited warranty on the apparatus body. The warranty shall cover painted exterior surfaces of the body to be free from blistering, peeling, corrosion, or any other adhesion defect caused by defective manufacturing methods or paint material selection that would arise under normal use and service.</p> <p>A copy of the warranty certificate shall be submitted with the bid package (no exception).</p> <p><b><u>ONE (1) YEAR MATERIAL AND WORKMANSHIP</u></b></p> <p>The graphic lamination shall be provided with a one (1) year material and workmanship limited warranty. The warranty shall cover the graphic lamination as being free from defects in material, workmanship, fading, and deterioration that would arise under normal use and service.</p> <p>A copy of the warranty certificate shall be submitted with the bid package (no exception).</p> <p><b><u>VEHICLE STABILITY CERTIFICATION</u></b></p> <p>The fire apparatus manufacturer shall provide a certification stating the apparatus complies with NFPA 1901, current edition, section 4.13, Vehicle Stability. The certification shall be provided at the time of bid.</p> <p><b><u>CAB INTEGRITY</u></b></p> <p>The cab has been tested to and passed the following standards:</p> <ul style="list-style-type: none"> <li>- ECE Regulation No.29</li> <li>- SAE J2422 Cab Roof Strength Evaluation - Quasi-Static Loading Heavy Trucks.</li> </ul>		

Bidder Complies	
Yes	No

**AMP DRAW REPORT**

The bidder shall 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 shall provide the following:

- Documentation of the electrical system performance tests.
- A written load analysis, which shall 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 shall be provided by the bidder per the applicable NFPA 1901 or 1906 (Current Edition).

Bid # 2225 Price Sheet

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

Cost: \_\_\_\_\_



**Attachment 1**  
**BID NUMBER: 2225 – TANKER PUMPER**

**SECTION 1 - BID INFORMATION**

Acknowledgment of Addenda:  
(Write "Yes" if received)

Addenda 1 \_\_\_\_\_ Addenda 2 \_\_\_\_\_  
Addenda 3 \_\_\_\_\_ Addenda 4 \_\_\_\_\_

**SECTION 2 - VENDOR INFORMATION**

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

Vendor Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_

Zip \_\_\_\_\_

Telephone Number \_\_\_\_\_

Contact Person *(Please Print)* \_\_\_\_\_

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

Taxpayer Identification Number, Social Security or  
Employer Identification Number:  
\_\_\_\_\_

State of Tennessee Business License Number:  
License # \_\_\_\_\_

**I agree to abide by all Terms and Conditions of this Invitation to Bid and certify that I am authorized to sign this bid for the vendor. Failure to include any information mentioned in the bid or to comply with these bid instructions may result in rejection of your entire bid. Signing this form affirms that the original Invitation for Bid document has not been altered in any way.**

**Authorizing Signature:**

\_\_\_\_\_  
(Please sign original in blue ink)

**Attachment 1**  
**BID NUMBER: 2225 – TANKER PUMPER**

**SECTION 1 - BID INFORMATION**

Acknowledgment of Addenda:  
(Write "Yes" if received)

Addenda 1 \_\_\_\_\_ Addenda 2 \_\_\_\_\_  
Addenda 3 \_\_\_\_\_ Addenda 4 \_\_\_\_\_

**SECTION 2 - VENDOR INFORMATION**

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

Vendor Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_

Zip \_\_\_\_\_

Telephone Number \_\_\_\_\_

Contact Person *(Please Print)* \_\_\_\_\_

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

Taxpayer Identification Number, Social Security or  
Employer Identification Number:  
\_\_\_\_\_

State of Tennessee Business License Number:  
License # \_\_\_\_\_

**I agree to abide by all Terms and Conditions of this Invitation to Bid and certify that I am authorized to sign this bid for the vendor. Failure to include any information mentioned in the bid or to comply with these bid instructions may result in rejection of your entire bid. Signing this form affirms that the original Invitation for Bid document has not been altered in any way.**

**Authorizing Signature:**

\_\_\_\_\_  
(Please sign original in blue ink)

**Non-Collusion Affidavit**

- This Non-Collusion Affidavit is material to any contract awarded pursuant to this bid.
- This Non-Collusion Affidavit must be executed by the member, officer, or employee of the bidder who makes the final decision on prices and the amount quoted in the bid.
- Bid rigging and other efforts to restrain competition and the making of false sworn statements in connection with the submission of bids are unlawful and may be subject to criminal prosecution. The person who signs the affidavit should examine it carefully before signing and assure himself or herself that such statement is true and accurate, making diligent inquiry, as necessary, of all other persons employed by or associated with the bidder with responsibilities for the preparation, approval, or submission of the bid.
- In the case of a bid submitted by a joint venture, each party to the venture must be identified in the bid documents, and an affidavit must be submitted separately on behalf of each party.
- The term "complementary bid" as used in the affidavit has the meaning commonly associated with that term in the bidding process and includes the knowing submission of bids higher than the bid of another firm, an intentionally high or noncompetitive bid, and any other form of bid submitted for the purpose of giving a false appearance of competition.
- Failure to file an affidavit in compliance with these instructions may result in disqualification of the bid.

**Non-Collusion Affidavit**

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

I state that I am (Title) \_\_\_\_\_ of (Name of My Firm) \_\_\_\_\_ and that I am authorized to make this affidavit on behalf of my firm and its owners, directors, and officers. I am the person responsible in my firm to the price(s) and the amount of this bid.

**I STATE THAT:**

- The price(s) and amount of this bid have been arrived at independently and without consultation, communication, or agreement with any other contractor, bidder, or potential bidder.
- Neither the price(s) nor the amount of this bid and neither the approximate price(s) nor approximate amount of this bid, have been disclosed to any other firm or person who is a bidder or potential bidder, and they will not be disclosed before bid opening.
- No attempt has been made or will be made to induce any firm or person to refrain from bidding on this contract, or to submit a bid higher than this bid, or to submit any intentionally high or noncompetitive bid or other form of complementary bid.
- The bid of my firm is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary or other noncompetitive bid.
- (Name of My Firm) \_\_\_\_\_, its affiliates, subsidiaries, officers, directors, and employees are not currently under investigation by any governmental agency and have not in the last three years been convicted or found liable for any act prohibited by State of Federal law in any jurisdiction involving conspiracy or collusion with respect to bidding on any public contract, except as follows:

\_\_\_\_\_

I state that (Name of My Firm) \_\_\_\_\_ understands and acknowledges that the above representation are material and important and will be relied on by Anderson County in awarding the contract(s) for which this bid is submitted. I understand and my firm understands that any misstatement in this affidavit is and shall be treated as fraudulent concealment from Anderson County of the true facts relating to submission of bids for this contract.

\_\_\_\_\_  
Representative's Signature

\_\_\_\_\_  
Title

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

\_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_



## DIVERSITY BUSINESS INFORMATION

### Definitions for Determining Minority, Women And Small-Owned Firms

The guidelines for determining minority, women and small-owned firms are defined as follows:

**"MINORITY"** means a person who is a citizen or lawful permanent resident of the United States and who is:

- o Black (a person having origins in any of the black racial groups of Africa);
- o Hispanic (a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race);
- o Asian American (a person having origins in any of the original peoples of the Far East, Southeast
- o Asia, the Indian subcontinent, or the Pacific Islands); or
- o American Indian and Alaskan Native (a person having origins in any of the original peoples of North America).

**"MINORITY BUSINESS ENTERPRISE"** shall mean a minority business:

A continuing, independent, for profit business which performs a commercially useful function, and is at least 51 percent owned and controlled by one or more minority individuals; or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned and controlled by one or more minorities. Whose management and daily business operations are controlled by one or more of minority individuals. "Control" as used in the above clause, means exercising the power to make policy decision. "Operate," as used in the above clause, means being actively involved in the day-to-day management of the business.

**"WOMEN BUSINESS ENTERPRISE"** shall mean women business:

A continuing, independent, for profit business which performs a commercially useful function, and which is at least 51 percent owned and controlled by one or more women; or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned and controlled by one or more women. Whose management and daily business operations are controlled by one or more of such individuals. "Control" as used in the above clause, means exercising the power to make policy decision. "Operate," as used in the above clause, means being actively involved in the day-to-day management of the business.

**DIVERSITY BUSINESS INFORMATION  
ANDERSON COUNTY GOVERNMENT**

**NOTE:** This form is to be submitted only by those who qualify. Bidders do not have to be a minority business to be considered.

**IMPORTANT! NOTARY AND COPY OF CERTIFICATION REQUIRED**

**SECTION 6 – DIVERSITY INFORMATION**

**VENDOR/CONTRACTOR NAME:** \_\_\_\_\_

**Type of Company:** (Check One)

(\_\_\_\_) Corporation    (\_\_\_\_) Partnership    (\_\_\_\_) Limited Liability    (\_\_\_\_) Sole Proprietor

Is your company 51% Owned or Operated by a Minority Group? Yes \_\_\_\_ No \_\_\_\_

If yes, check the ethnic category and indicate % of ownership:

- American Indian/Alaskan Native \_\_\_\_%
- African American \_\_\_\_%
- Hispanic \_\_\_\_%
- Asian/Pacific Islander \_\_\_\_%
- Other \_\_\_\_% \_\_\_\_\_ (please indicate)

Please name the entity of certification: \_\_\_\_\_

Please provide copy of certification letter or certificate

**I, HEREBY CERTIFY THAT THE ABOVE INFORMATION IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.**

**Signature:** \_\_\_\_\_ **OFFICER OF THE COMPANY**

**Name:** \_\_\_\_\_ **Title:** \_\_\_\_\_

**NOTARY ACKNOWLEDGEMENT:**

STATE OF \_\_\_\_\_ )

COUNTY OF \_\_\_\_\_ )

ON \_\_\_\_\_, 20\_\_\_\_, BEFORE ME, \_\_\_\_\_,

PERSONALLY APPEARED \_\_\_\_\_, PERSONALLY KNOWN TO ME (OR PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE) TO BE THE PERSON(S) WHOSE NAME(S) IS/ARE SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE/SHE/ THEY EXECUTED THE SAME IN HIS/HER/ THEIR AUTHORIZED CAPACITY(IES), AND THAT BY HIS/HER/ THEIR SIGNATURE(S) ON THE INSTRUMENT THE PERSON(S), OR THE ENTITY UPON BEHALF OF WHICH THE PERSON (S) ACTED, EXECUTED THE INSTRUMENT.

WITNESS MY HAND AND OFFICIAL SEAL.

SIGNATURE OF NOTARY: \_\_\_\_\_

PRINTED FULL NAME OF NOTARY: \_\_\_\_\_

MY COMMISSION EXPIRES: \_\_\_\_\_

**Attachment 4  
Insurance Requirement Acknowledgment**

The bidder awarded this bid or contract will maintain, at their expense adequate insurance coverage to protect them from claims arising under the Worker's Compensation Act, any and all claims for bodily injury and property damage to the Bidder and to Anderson County Government while delivery and service are being done. A certificate of insurance must be on file in the Purchasing Department before work may begin and must be maintained until work is completed.

Only the items marked with an "X" are applicable to this bid and or contract.

1.  **Workers Compensation  
Employers Liability** Statutory limits  
100,000/100,000/500,000
  
2.  **Commercial General Liability** \$500,000 per occurrence  
\$1,000,000 aggregate
  - Occurrence Form Only
  - Include Premises Liability
  - Include Contractual
  - Include XCU
  - Include Products and Completed Operations
  - Include Personal Injury
  - Include Independent Contractors
  - Include Vendors Liability
  - Include Professional or E&O Liability
  
3.  **Business Auto**
  - Include Garage Liability
  - Include Garage Keepers Liability
  - Copy of Valid Driver's License
  - Copy of Current Motor Vehicle Record
  - Copy of Current Auto Liability Declarations Page
  
4.  **Crime Coverages**
  - Employee Dishonesty
  - Employee Dishonesty Bond
  
5.  **Property Coverages**
  - Builders Risk
  - Inland Marine
  - Transportation
  
6.  Performance Bond Required – A One Hundred Percent (100%) performance or an irrevocable letter of credit in favor of Anderson County Government at a federally insured financial institution. This **MUST** be submitted before purchase order issued.

**Certificate Holder Shall Be:** Anderson County Government, Clinton, Tennessee, and shall show the bid number and title. Anderson County Government shall be named as an additional insured on all policies except worker's compensation and auto. Insurance carrier ratings shall have a Best's rating of A-VII or better, or its equivalent. Cancellation clause on certificate should strike out "endeavor to" and include a 30-day notice of cancellation where applicable. Any deviations from the above requirements must be disclosed to the Anderson County Purchasing Agent. Any liability deductibles or exclusions must also be disclosed. Exceptions can be granted if applicable.

**Bidders Statement and Certification**

I understand the insurance requirements of these specifications and will comply in full within **21 (twenty-one) calendar days** if awarded this bid and or contract. I agree to furnish the county with proof of insurance for the entire term of the bid and or contract.

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

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Bid Representative Name (Please Print)

\_\_\_\_\_  
Date

## General Terms and Conditions

### BID ENVELOPE SUBMISSION INSTRUCTIONS:

Bids are to be received in a sealed envelope/package with the bid number, company name and opening date clearly marked. Failure to comply may result in rejection of the entire bid. Anderson County will not be responsible for any lost or misdirected mail. Late bids, e-mailed bids and faxed bids will not be considered nor returned. It is the sole responsibility of the bidder to ensure their bid is delivered to the Purchasing Department.

Please note that Anderson County Government does not receive a guaranteed delivery time for express mail and/or packages. PLEASE MAIL ACCORDINGLY.

ANDERSON COUNTY FINANCE DEPARTMENT  
100 NORTH MAIN STREET, SUITES 214 AND 218  
CLINTON, TN 37716

Email: [purchasing@andersoncountyttn.gov](mailto:purchasing@andersoncountyttn.gov)

Website: <http://andersontn.org/purchasing>

(865) 457-6218 Phone

(865) 457-6252 Fax

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**Bid documents must be completed in ink or typed, signed in ink,  
and free from alterations, erasures or mark-throughs.**

### SECTION 1 - GENERAL TERMS AND CONDITIONS

**1.1 ALTERATIONS OR AMENDMENTS:** Alterations, amendments, changes, modifications or additions to this solicitation shall not be binding on Anderson County without prior written approval.

**1.2 NO CONTACT POLICY:** After vendor receives a copy of this bid, any contact initiated by any vendor with any Anderson County representative, other than the Purchasing Department, concerning this invitation for bid is prohibited and agreements made thereto will not be considered binding on Anderson County. Any such unauthorized contact may cause the disqualification of the bidder from this procurement transaction.

**1.3 QUESTIONS:** Pursuant to TCA §12-4-113, questions regarding the specifications or bid procedures must be received by the Purchasing Agent and/or designer no less than ninety-six (96) hours before the bid opening date. No addenda within less than forty-eight (48) hours of the bid opening date shall be permitted. Any questions concerning the bid document must be submitted to [purchasing@andersontn.org](mailto:purchasing@andersontn.org) no less than ninety-six (96) hours before bid opening date.

**1.4 BID CLOCK:** The bid/time clock in the Anderson County Purchasing office will be the time of record.

**1.5 TAXES:** Anderson County is not liable for Federal excise or State sales tax. Tax exemption certificates will be provided upon request.

**1.6 CONFLICT OF INTEREST:** If requested by the Purchasing Agent, vendors must complete and submit a "Conflict of Interest Affidavit Statement" prior to contract award, see T.C.A. 5-14-114 and T. C. A. 12-4-101.

**1.7 NON-COLLUSION:** Vendors, by submitting a signed bid, certify that the accompanying bid is not the result of, or affected by, any unlawful act of collusion with any other person or company engaged in the same line of business or commerce, or any other fraudulent act punishable under Tennessee or United States law.

**1.8 NON-DISCRIMINATION:** Contracted vendors will not discriminate against any employee or applicant for employment because of race, religion, sex, national origin or disability except where religion, sex, national origin or disability is a bona fide occupational qualification reasonably necessary to the normal operation of the contractor.

**1.9 SAME AS OR EQUIVALENT TO:** Vendors are to bid as specified herein or propose an approved equal. Determination of equality is solely Anderson County's responsibility. Any designated brands are for reference purpose only, not a statement of preference. When an alternate manufacturer, brand, model or make is bid, Anderson County will determine if the item bid meets or exceeds the items as specified. If the bidder does not indicate that an alternate manufacturer, brand, model or make is being bid, it is understood that the item(s) bid are the same manufacturer, brand, model or make as requested in the Invitation to Bid. Comparable products of other manufacturers will be considered if proof of comparability is contained in the bid submission. It shall be the responsibility of the vendors, including vendors whose product is referenced to furnish upon request catalog pages, brochures or other data to provide an adequate basis for determining the quality and functional capabilities of the product offered. Failure to provide this data may be considered valid justification for rejection of bid.

**1.10 MULTIPLE BIDS/AWARDS:** Anderson County may consider multiple bid awards.

**1.11 STATE OF TENNESSEE CONTRACTORS' LICENSE LAW (T.C.A. 62-6-119) b):** Bids for which the total cost of the project is twenty-five thousand dollars (\$25,000) or more, the outside of the sealed bid envelope/package containing the bid provides the following information: the Company Name, the Contractor's license number, license classification, the date of the license expiration and that part of each license classification applying to the bid. In addition, each heating ventilation or air conditioning, plumbing and electrical subcontractor's license number, date of the license expiration and that part of each classification applying to the bid if the value of the work is \$25,000 or greater, must be notated. If the value of either the contractor or the subcontractor's work is less than \$25,000, the bid envelope/package containing the bid is to be notated with the phrase "Contractor or Subcontractor's Bid is Less than \$25,000" after each appropriate heading. In the case of joint ventures, each party submitting the bid must provide this information. If no subcontractors are being used, the outside of the envelope/package containing the bid must state, "No Subcontractors are being used on this project."

**1.12 ACCEPTANCE:** Vendors shall hold their price firm and subject to acceptance by Anderson County for a minimum period of sixty (60) working days from the date of the bid opening, unless otherwise indicated in their bid. Any or all bids may be rejected for good cause.

**1.13 BID AWARDS:** Bids will be awarded to the lowest and best bidder, taking into consideration the qualities of the articles to be supplied, their conformity with specifications and their suitability to the requirements of Anderson County and the delivery terms. Anderson County also reserves the right to not award this bid.

**1.14 BIDDER'S MINIMUM QUALIFICATIONS:** Bidders must have the resources and capability to provide the materials and services as described in the solicitation. Anderson County reserves the right to request additional information and/or material not specified as a bid requirement from any bidder to confirm qualifications.

**1.15 DEBARMENT:** By submitting a response to this solicitation, bidders are certifying that bidder is not currently debarred from doing business with any local or state Government or the Federal Government. Bidders shall provide documentation relating to any and all debarments that occurred within the last ten



years. The County will search the "System for Award Management" for federally excluded vendors before awarding a bid.

**1.16 PROTEST:** Any vendor wishing to protest the bid award shall notify in writing the Anderson County Purchasing Agent and the County Law Director, 101 S. Main Street, Suite 310, Clinton, TN 37716. No protest will be accepted, except those protests made in writing and received within (10) ten calendar days of the bid award. Protests must be in writing and envelopes/package containing protest must be clearly marked with bid number and words "BID PROTEST". The Purchasing Agent, in conjunction with the Purchasing Committee, and with the advice and counsel of the County Law Director, shall review and make a final decision as to any bid protest. Appeals shall be filed in the Circuit or Chancery Courts of Anderson County within sixty (60) days of the final decision.

**VENDORS PLEASE NOTE: ANDERSON COUNTY WILL NOT STOP THE PURCHASE PROCESS. THE PURCHASE MAY BE COMPLETED OR THE PROJECT MAY BE RE-BID WHILE THE PROTEST PROCEDURE IS STILL IN OPERATION. IF A RE-BID IS MADE, THE PROTESTING VENDOR SHOULD SUBMIT A NEW BID. OTHERWISE, THEY WILL BE WITHOUT A BID ON THE RE-BID. FURTHER, THE RE-BIDDING WILL NOT END THE APPEALS PROCESS. IT WILL CONTINUE UNTIL A FINAL DECISION IS REACHED OR THE COMPLAINANT WITHDRAWS THE APPEAL.**

**1.17 DELIVERY:** Bid pricing is to include complete supply and delivery to Anderson County, Tennessee. Vendors are to state the delivery time in the bid. Anderson County requires that vendors deliver all products "free on board" to final destination unless indicated otherwise in the bid requirements.

**1.18 PROOF OF FINANCIAL AND BUSINESS CAPABILITY:** Bidders must, upon the request of Anderson County, provide satisfactory evidence of their ability to furnish products or services in accordance with the terms and conditions of these specifications. Anderson County will make the final determination as to the bidder's ability.

**1.19 VENDOR'S DEFAULT:** Anderson County reserves the right, in case of vendor default, to procure the articles or services from other sources and hold the defaulting vendor responsible for any excess costs occasioned thereby.

**1.20 DUPLICATE COPIES:** Vendors are to submit one original and at least one exact copy of their bids, including brochures; unless additional copies are requested in bid specifications.

**1.21 DRUG-FREE WORKPLACE:** Under the provisions of Tennessee Code Annotated §50-9-113 enacted by the General Assembly effective 2001, all employers with five (5) or more employees who contract with either the state or a local government to provide construction services are required to submit an affidavit stating that they have a drug free workplace program that complies with Title 50, Chapter 9, in effect at the time of submission of a bid at least to the extent required of governmental entities. The statute imposes other requirements on the contractor and contractors should consult private legal counsel if legal questions arise under this section or any other provision of this document. All contractors with five (5) or more employees that will be providing construction services are to return the provided written affidavit signed by the principal officer of a covered employer acknowledging that the contracting entity is in compliance with the Drug Free Workplace laws of State of Tennessee.

**1.22 COMPETITION INTENDED:** It is the responsibility of the bidder to review the entire Invitation to Bid document and to notify the Purchasing Department if the Invitation to Bid is formulated in a manner that would unnecessarily restrict competition or if it is ambiguous in what is being requested. The Purchasing Agent must receive questions regarding the specifications or bid procedures no less than ninety-six (96) hours prior to the time set for the bid opening.

**1.23 SCHOOL CAFETERIA BIDS:** If this bid is for Anderson County School's Cafeteria Food Service Department, bidders must be in compliance with Section 104(d) of the William F. Goodling Child Nutrition Reauthorization Act of 1998 which requires school and institutions participating in the National School Lunch Program (NSLP) and School Breakfast Program (SBP) to "Buy American" to the maximum extent practicable.

**1.24 TERMINATION:** Anderson County reserves the right to terminate contracts in whole or in part with thirty (30) days written notification to the contractor. In the event of termination, the County shall not be liable for any costs other than the cost of services performed and materials delivered and accepted prior to termination date.

**1.25 OSHA SAFETY:** The Vendor is responsible for training their employees in Safety and Health Regulations for the job, assuring compliance with Tennessee Occupational Safety and Health regulations and any other Regulatory Agency.

**1.26 PERFORMANCE BOND:** A standard surety or performance bond or an irrevocable letter of credit in favor of Anderson County Government at a federally insured financial institution will be required to be submitted with bid, if indicated in section four, item six insurance requirement checklist.

**1.27 BACKGROUND CHECKS:** Contractors shall comply with Public Chapter 587 of 2007, as codified in Tennessee Code Annotated Section 49-5-413, which requires all contractors to facilitate a criminal history records check conducted by the Tennessee Bureau of Investigation and the Federal Bureau of Investigation for each employee prior to permitting the employee to have contact with students or enter school grounds when students are present.

**1.28 AWARD RESULTS:** As soon as practicable after proposal or bid evaluations, Anderson County shall post the award decision to Vendor Registry at [www.vendorregistry.com](http://www.vendorregistry.com). Individual notices are normally not mailed or e-mailed except to the successful vendor.

**1.29 INDEMNIFICATION/HOLD HARMLESS:** Vendor shall indemnify, defend, save and hold harmless Anderson County and, its officers, agents and employees from all suits, claims, actions or damages of any nature brought because of, arising out of, or due to breach of the agreement by Vendor, its subcontractors, suppliers, agents, or employees or due to any negligent act or occurrence or any omission or commission of Vendor, its subcontractors, suppliers, agents or employees.

**1.30 DECLARATIVE STATEMENT:** Any statement or words (i.e.: must, shall, will, etc.) are declarative statements and the proposer must comply with the condition. Failure to comply with any such condition may result in their bid being non-responsive and disqualified.

**1.31 WAIVING OF INFORMALITIES:** Anderson County reserves the right to waive minor informalities or technicalities when it is in the best interest of Anderson County.

**1.32 APPROPRIATION:** Funding for multi-year contracts are subject to budget appropriations. In the event no funds are appropriated by Anderson County for the goods or services in any fiscal year or insufficient funds exist to purchase the goods or services of a contract, then that contract shall expire upon the expenditure of previously appropriated funds or the end of the current fiscal year, whichever occurs first, with no further obligations owed to or by either party.

**1.33 ASSIGNMENT:** Vendor shall not assign or sub-contract any agreement, its obligations or rights hereunder to any party, company, partnership, incorporation or person without the prior written specific consent of Anderson County.

**1.34 QUANTITIES:** Anderson County does not guarantee quantities to be purchased off this bid.

**1.35 UNIT PRICE:** In case of discrepancy between any unit price and an extended price, the unit price will be presumed to be correct, subject, however, to correction to the same extent and in the same manner as any other mistake.

**1.36 MODIFICATION OR WITHDRAWAL OF BIDS:** When it is certain that a mistake has been made in the preparation of the bid, a request will be made to the bidder to confirm the bid. Provisions must be made so that mistakes can be taken care of and the ambiguity resolved satisfactorily. Bids may be modified or withdrawn by written notice received in the Purchasing Department prior to the time and date set for the bid

opening. The changes or withdrawal of the bids shall be in writing and signed by an official of the company. The envelope containing the modification should clearly state "modification to bid." Either the entire bid or a particular item may be withdrawn or modified in this manner.

**1.37 PRE-BID CONFERENCES:** Attendance at Pre-bid Conferences is strongly encouraged. When deemed necessary a Mandatory Pre-bid Conference will be held. A company representative **MUST** be in attendance and sign the Pre-bid sign-in sheet in order to be considered for bid award.

**1.38 ADDENDUM:** § T.C.A. 12-14-113 Anderson County Government reserves the right to amend this solicitation by addendum. Addenda will be posted to the vendor registry up to 48 hours in advance of the bid/proposals due date and time. It is the bidder's responsibility to check the website for addendum. If in the County's opinion revisions are of such a magnitude, the deadline for this solicitation may be extended in an addendum. Addenda may change specifications, reply sheets, and times and dates for pre-bid meetings as well as due dates/deadlines for questions and bids/proposals.

**1.39 OWNERSHIP:** All bids, once received, become property of Anderson County Government and will not be returned.

**1.40 WEATHER AND COURTHOUSE CLOSINGS:** In the event of a situation severe enough to necessitate the closing of Anderson County Government offices during a planned bid opening, vendors will receive notification of the new date and time upon re-opening of county government offices. No bids will be opened until the rescheduled date for bid opening and all bidders/proposers whose submissions meet the extended deadline will be given equal consideration at that time. Anderson County shall not be liable for any commercial carrier's decision regarding deliveries during inclement weather.

**1.41 IRAN DIVESTMENT ACT OF 2014:** Pursuant to the Iran Divestment Act of 2014, Tenn. Code Ann. § 12-12-106 requires the State of Tennessee Chief Procurement Officer to publish, using creditable information freely available to the public, a list of persons it determines engage in investment activities in Iran, as described in § 12-12-105. Inclusion on this list makes a person ineligible to contract with Anderson County; if a person ceases its engagement in investment activities in Iran, it may be removed from the list. The State of Tennessee list is available here: <http://tennessee.gov/generalservices/article/Public-Information-library>.