

Purchasing Department

116 West Jefferson Street
Thomasville, Georgia 31799
229-225-4100



September 1, 2026
INVITATION TO BID
2026 Fire Engine Pumper Apparatus

You are invited to submit a sealed bid for providing the following **2026 Fire Engine Pumper Apparatus** for the Thomas County Board of Commissioners. Attached are the general conditions, standard instructions, bid specification, and bid form. Variation from the given specifications should be noted on the bid form with an explanation of said variation(s) attached. Bids are to be marked with bidder's name and address and labeled: **Bid for "2026 Fire Engine Pumper Apparatus"** and mailed or delivered to the following address no later than 2:00 p.m.; local time, September 25, 2026.

Deadline for receiving bids:	<u>09/25/2026</u> (date)	<u>2:00 p.m.</u> (time)
Bid opening:	<u>09/25/2026</u> (date)	<u>2:00 p.m.</u> (time)
Committee Review:	<u>10/06/2026</u> (date)	<u>4:00 p.m.</u> (time)
Tentative Award Date:	<u>10/13/2026</u> (date)	<u>9:00 a.m.</u> (time)

Address all bids to:

THOMAS COUNTY BOARD OF COMMISSIONERS
SEALED - Bid for "2026 Fire Engine Pumper Apparatus"
ATTN: PURCHASING DEPARTMENT
P.O. Box 920
116 West Jefferson Street, Room 220
Thomasville, Georgia 31799

Any inquiries concerning this bid should be made to Nisha Thurman, Purchasing Agent, at the above location or at (229) 225-4100. Nisha.Thurman@thomascountyga.gov.

PLEASE CALL OR E-MAIL CONFIRMATION OF RECEIPT OF THIS INVITATION TO BID.

GENERAL CONDITIONS

No bids received after said time or at any place other than the time and place stated in the notice will be considered.

WITHDRAWAL OF BID:

A bidder may withdraw his bid before the expiration of the time during which bids may be submitted without prejudice to the bidder, by submitting a written request of withdrawal to the Thomas County Board of Commissioners, Purchasing Department.

REJECTION OF BID:

Thomas County may reject any and all bids, and must reject a bid of any party who has been delinquent or unfaithful in any formal contract with Thomas County. Also, the right is reserved to waive any irregularities or informalities in any bid in the bidding procedure. Thomas County will be the sole judge which bid is best, and in ascertaining this, will take into consideration the business integrity, financial resources, facilities for performing the work, and experience in similar operation of the various bidders.

STATEMENT OF EXPERIENCE AND QUALIFICATIONS:

The bidder may be required, upon request, to prove to the satisfaction of Thomas County that he/she has the skill and experience and the necessary facilities and ample financial resources to perform the contract(s) in a satisfactory manner and within the required time. If the available evidence of competency of any bidder is not satisfactory, the bid of such bidder may be rejected, the successful bidder is required to comply with and abide by all applicable federal and state laws in effect at the time the contract is awarded.

NON-COLLUSION AFFIDAVIT:

By submitting a bid, the bidder represents and warrants that such bid is genuine and not fraudulent or collusive or made in the interest or in behalf of any person not therein named, and that the bidder has not directly or indirectly induced or solicited any other bidder to put in a fraudulent bid, or any other person, firm or corporation to refrain from bidding and that the bidder has not in any manner sought by collusion to secure to that bidder any advantage over any other bidder.

INTEREST OF:

By submitting a bid, the bidder represents and warrants that neither a commissioner nor Chairman of Thomas County has, in any manner, an interest, directly or indirectly in the bid or in the contract that may be made under it, or in any expected profits to arise therefrom.

DOCUMENTS DEEMED PART OF THE CONTRACT:

The notice, invitation to bidders, general conditions, and instructions for bidders, special conditions, specifications, bid and addenda, if any, will be deemed part of the contract.

STANDARD INSTRUCTIONS TO BIDDERS

1. The written specifications contained in this bid will not be changed or superseded except by written addendum from Thomas County. Failure to comply with the written specifications for this bid may result in disqualification by Thomas County.
2. All goods and materials will be F.O.B. Thomas County Board of Commissioners – Fleet Services, 330 County Farm Road, Thomasville, Georgia, in Thomas County and no freight, delivery or postage charges will be paid by Thomas County unless such charges are included in the bid price.
3. All bids must be sealed, received and in-hand at bid due date and time. Each bidder assumes the responsibility for having his/her bid received at the designated time and place without consideration, regardless of the postmark. Thomas County accepts no responsibility for mail delivery.
4. Each bid form submitted must include the name of the business, mailing address, the name, title and signature of the person submitting the bid. When submitting a bid package to Thomas County, the first page of your bid package should be the Bid Form listing price, delivery, etc. unless the bid form is requested to be in a separate sealed envelope.
5. No bids received after said time or at any place other than the time and place stated in the notice will be considered.
6. Thomas County may reject any and all bids, and must reject a bid of any party who has been delinquent or unfaithful in any formal contract with Thomas County. Also, the right is reserved to waive any irregularities or informalities in any bid in the bidding procedure. Thomas County will be the sole judge as to which bid is best, and in ascertaining this, will take into consideration the business integrity, financial resources, facilities for performing the work, and experience in similar operation of the various bidders.
7. Telephone bids will not be accepted unless stated in invitation.
8. No sales tax will be charged on any orders. Thomas County is exempt as outlined by Georgia State Law. 58-6000893
9. Bidders will state delivery time after receiving purchase order.
10. Unless otherwise stated, all bids submitted will be valid and may not be withdrawn for a period of 90 days from the due date of the bid.
11. Results of the bid will be e-mailed to the bidders after the award. Results of the bids are not available orally.
12. All responses must be submitted on the provided bid format. Exception from this format will not be accepted. Any offeror who believes that the bid format is unclear shall submit all questions upon receipt in writing.

SPECIFICATIONS FOR A TRIPLE COMBINATION PUMPER

Sealed bids will be received by Thomas County Fire Rescue 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, finish, equipment and tests to which the fire apparatus shall conform. Minor details of construction and materials, which are not otherwise specified, are left to the discretion of the contractor.

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

INSTRUCTIONS TO BIDDERS

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.**

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 the apparatus furnished under contract shall conform. These specifications shall indicate size, type, model and make of all component 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.**

Thomas County Fire Department

Bidder Complies	
Yes	No

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 THOMAS COUNTY.

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.

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

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.

Thomas County Fire Department

Bidder Complies	
Yes	No

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

To demonstrate the quality of the product and service, each bidder shall provide a list of at least five (5) fire departments/municipalities in the region that have bought a second time from the representing dealer.

DELIVERY

Apparatus, to insure proper break in of all components while still under warranty, **shall be delivered under its own power** - 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.

MANUAL AND SERVICE INFORMATION

The manufacturer shall supply at time of delivery, complete operation and maintenance manuals covering the complete apparatus as delivered. A permanent plate shall be mounted in the driver's compartment which specifies the quantity and type of fluid required including engine oil, engine coolant, transmission, pump transmission lubrication, pump primer and drive axle.

PERFORMANCE TESTS AND REQUIREMENTS

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 axle 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:

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.

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.

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.

Thomas County Fire Department

	Bidder Complies	
	Yes	No
D) The apparatus, fully loaded, shall be capable of obtaining a speed of 50 mph on a concrete level highway with the engine not exceeding the governed rpm (full load). <u>FAILURE TO MEET TEST</u> 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 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. <u>SERVICE AND WARRANTY SUPPORT (DEALERSHIP)</u> TO ENSURE FULL SERVICE AFTER DELIVERY, THE SELLING BIDDER/DEALERSHIP MUST BE CAPABLE OF PROVIDING SERVICE WHEN REQUIRED. The bidder/dealership shall show that the company is in position to render prompt service and to furnish replacement parts. 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. 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. <u>SERVICE AND WARRANTY SUPPORT (MANUFACTURER)</u> 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. Parts identification shall be provided to both the dealer and the Fire Department. 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. The manufacturer must also maintain, toll free emergency hot line. 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.		

Thomas County Fire Department

Bidder Complies	
Yes	No

The manufacturer must be capable of providing both in-house and on-site service for the apparatus.

The manufacturer offers regional factory hands-on repair and maintenance training classes when available.

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.

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.

LIABILITY

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.

INSURANCE PROVIDED BY BIDDER

COMMERCIAL GENERAL LIABILITY INSURANCE

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:

Each Occurrence: \$1,000,000

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

Personal and Advertising Injury: \$1,000,000

General Aggregate: \$2,000,000

Thomas County Fire Department

Bidder Complies	
Yes	No

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.

COMMERCIAL AUTOMOBILE LIABILITY INSURANCE

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

UMBRELLA/EXCESS LIABILITY INSURANCE

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.

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

Thomas County Fire Department

Bidder Complies	
Yes	No

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 the 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 policies be cancelled before the expiration date thereof, notice shall be delivered in accordance with the policy provisions.

Manufacturers agree 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.

The bidder shall state the location of the factory where the apparatus is to be built.

NFPA 2016 STANDARDS

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

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

Thomas County Fire Department

	Bidder Complies	
	Yes	No
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. 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. The manufacturer shall have programs in place for training, proficiency testing and performance for any staff involved with certifications. An official of the company shall designate, in writing, who is qualified to witness and certify test results. <u>NFPA COMPLIANCY</u> 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." <u>PUMP TEST</u> The rated water pump shall be tested, approved, and certified by 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. <u>WEEKLY PROGRESS REPORTS</u> Weekly progress reports include photographs of the apparatus or major components as they are being constructed. The reports shall begin at the start of the manufacturing process, and shall continue through the production by the manufacturer. The reports shall show the progress of the apparatus through the course of each week. Special attention shall be given to show the unique features and aspects of the apparatus as construction progresses. Up to seven (7) reports shall be provided for a pumper or tanker product, and, up to ten (10) reports shall be provided for an aerial, rescue, or industrial product. The reports shall be posted on the dealer's website. <u>INSPECTION TRIP</u> The bidder shall provide one (1) factory inspection trip for final inspection for four (4) members of the Thomas Co. Fire Department representatives. The inspection trip shall be scheduled at times mutually agreed upon between the manufacturer's representative and the customer. All costs such as travel, lodging and meals shall be the responsibility of the bidder.		

Bidder Complies	
Yes	No

Delivery

AFTERMARKET SUPPORT WEBSITE-OPTIONAL

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.

Thomas County Fire Department

Bidder Complies	
Yes	No

ELECTRICAL WIRING DIAGRAMS

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

CHASSIS

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

WHEELBASE

The wheelbase of the vehicle shall be no greater than 193.00"

GVW RATING

The gross vehicle weight rating shall be a minimum of 38,000.

FRAME

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.

FRONT AXLE

Front axle shall be an I beam type, made of forged steel. It shall have a ground rating capacity of 12,000 lb.

FRONT SUSPENSION

Spring mounted: Taper-leaf

Capacity at Ground: 12,000 lb.

Shock absorbers shall be provided on the front axle.

FRONT BRAKES

The front brakes shall be S-Cam, 16.50" x 5.00". The front brakes shall be provided with automatic slack adjusters.

TIRE BRAND

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

However, it is understood that the commercial chassis manufacturer reserves the right to substitute brands and models of tires 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.

TIRES, FRONT

Front tires shall be 11R22.50, 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.

Thomas County Fire Department

Bidder Complies	
Yes	No

WHEELS, FRONT

Wheels for the front axle shall be 22.50" x 8.25" aluminum disc.

REAR AXLE

The single reduction rear axle shall be a Meritor™, Model RS-26-185, with a ground rating capacity of 26,000 lb.

The brake chambers shall be forward mounted.

PARKING BRAKE

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.

REAR AXLE RATIO

A rear axle ratio shall be furnished to allow the vehicle to reach a top speed of 68 MPH.

REAR SUSPENSION

The rear suspension shall be spring mounted multi-leaf with a capacity at ground level of 26,000 lbs.

DUST SHIELDS

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

TIRES, REAR

Rear tires shall be 12R22.50 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.

WHEELS, REAR

The rear wheels shall be 22.50" x 8.25" disc. The outer wheel shall be polished aluminum and the inner wheel shall be steel.

TIRE PRESSURE MANAGEMENT

There shall be a Real Wheels LED Air Secure™ 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.

	Bidder Complies	
	Yes	No
<u>FRONT HUB COVERS</u> Stainless steel hub covers shall be provided on the front axle. An oil-level viewing window shall be provided. <u>REAR HUB COVERS</u> A pair of stainless-steel high-hat hub covers shall be provided on rear axle hubs. <u>CHROME LUG NUT COVERS</u> Chrome lug nut covers shall be supplied on front and rear wheels. <u>MUD FLAPS</u> Mud flaps shall be installed behind the rear wheels of the apparatus. <u>WHEEL CHOCKS</u> There shall be one (1) pair of folding Ziamatic, Model SAC-44-E, aluminum alloy, Quick-Choc wheel blocks with easy-grip handle provided. <u>WHEEL CHOCK BRACKETS</u> There shall be one (1) pair of Zico, Model SQCH-44-H, horizontal mounting wheel chock brackets provided for the Ziamatic, Model SAC-44-E, folding wheel chocks. The brackets shall be made of aluminum and consist of a quick release spring loaded rod to hold the wheel chocks in place. The brackets shall be mounted one (1) forward and one (1) rearward of the left side rear tire. <u>ANTI-LOCK BRAKE SYSTEM</u> 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 lock up, a signal shall be sent to the control unit. This control unit then shall reduce the brake 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. <u>AIR COMPRESSOR, BRAKE SYSTEM</u> The air compressor shall have an output of 18.7 cubic feet per minute. <u>AIR DRYER</u> An air dryer with a heater shall be provided. Other features of this air dryer include: - Desiccant style filter - In-line filtration system - Automatic purge valve		

Thomas County Fire Department

Bidder Complies	
Yes	No

AIR INLET

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 in the driver's side cab step area. 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.

ENGINE

- Model: Electronic Cummins B6.7 360EV
- Number of Cylinders: Six (6)
- Displacement: 6.7 liters
- Rated Brake Horsepower: 360 at 2600 rpm
- Peak Torque: 800 at 1800 rpm
- Governed rpm: 2600
- Variable Geometry Turbocharger
- Charge Air Cooled

ENGINE ACCESSORIES

- Air Cleaner: Dry type, with restriction indicator in cab
- Fuel Filters
- Governor: Limiting speed type
- Lube Oil Cooler
- Lube Oil Filter: Full flow
- Starting Motor: 12-volt

ENGINE WARRANTY

The engine shall come with a warranty provided by the engine manufacturer.

RADIATOR

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

HIGH IDLE

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.

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."

ENGINE EXHAUST BRAKE

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.

Bidder Complies	
Yes	No

AIR INTAKE, W/EMBER SEPARATOR

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.

This shall comply with NFPA 1901 and 1906 standards.

EXHAUST SYSTEM

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.

EXHAUST MODIFICATIONS

The exhaust shall terminate with a horizontal tailpipe and diffuser ahead of the right-side rear wheels.

A heat deflector shield shall be provided where the tail pipe is routed under any side compartmentation.

All modifications shall be approved by the chassis engine manufacturer and/or the chassis OEM. Exhaust treatment devices shall not be altered.

COOLANT LINES

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

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.

FUEL TANK

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

DIESEL EXHAUST FLUID TANK

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

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.

AUXILIARY FUEL COOLING SYSTEM

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.

Thomas County Fire Department

Bidder Complies	
Yes	No

TRANSMISSION

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.

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

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

TRANSMISSION SHIFT CONTROL

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

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

TRANSMISSION COOLER

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

ALLISON EVS AUTOMATIC TRANSMISSION PROGNOSTICS

The Allison EVS automatic transmission shall be provided with the prognostics software enabled.

The prognostics shall be accessed via the shift selector, and the following information shall display on the shift pad read-out:

Oil Level

Oil Life Monitor

Filter Life Monitor

Trans Health Monitor

Diagnostic Code

DRIVELINE

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.

STEERING

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

BUMPER

A one (1)-piece, 10.00" high, stainless-steel bumper shall be attached to the front of the frame.

Thomas County Fire Department

	Bidder Complies	
	Yes	No
A 9.00" channel shall be mounted directly behind the bumper for additional strength. The bumper shall be extended 19.00" from the front face of the cab. <u>GRAVEL PAN</u> A gravel pan, constructed of bright aluminum treadplate, shall be furnished between the bumper and cab face. The gravel pan shall be properly supported from the underside to prevent flexing and vibration of the aluminum treadplate. <u>TOW HOOKS</u> Two (2) chromed steel tow hooks shall be installed under the bumper and attached to the front frame members. The tow hooks shall be designed and positioned to allow up to a 6,000 lb straight horizontal pull in line with the centerline of the vehicle. The tow hooks shall not be used for lifting of the apparatus. <u>HOSE TRAY</u> A hose tray, constructed of aluminum, shall be placed in the center of the bumper extension. The tray shall have a capacity of 150' of 1.75" double jacket cotton-polyester hose. Black rubber grating shall be provided at the bottom of the tray. Drain holes are also provided. <u>BUMPER HOSE RESTRAINT</u> There shall be one (1) pair hose tray restraint straps located center. The restraints shall be a pair of 2.00" wide black nylon straps with Velcro fasteners provided. The straps shall be used to secure the hose in the tray. <u>CAB</u> Type: Conventional (engine forward) Construction: Welded aluminum and Fiberglass Accessories: - 26.00" Extended Cab - High Roof - Tinted Glass in all Windows - Gray Vinyl Upholstery - Black Rubber Floor mats - Dual Sun visors		

Thomas County Fire Department

	Bidder Complies	
	Yes	No
- 40.00" Cab Entrance Handrails - 1.28" diameter extruded aluminum with rubber inserts - one (1) each side - Electric Windshield Washer - Two (2)-Speed Electric Windshield Wipers - Dome Light with Map Light - Fresh Air Heater and Defroster - Painted Bumper - Painted Hood Mounted Grille - Gray Vinyl Upholstery <u>CAB GRILLE - CHROMED</u> 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. <u>MIRRORS</u> 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. An auxiliary down view mirror shall be included on the passenger side. <u>CAB ACCESS STEPS</u> The cab access steps shall be provided by the apparatus manufacturer. The steps shall be a two (2) step design fabricated from bright aluminum treadplate. The step assembly shall enclose the step area under the cab doors, but shall not extend to the rear of the cab. The fuel tank and DEF tank shall be covered but the fill caps shall be exposed for refueling if located under the cab. Access shall be provided to inspect the chassis batteries when located within the cab steps. <u>COMPARTMENT, STORAGE</u> A storage compartment shall be provided under the extended portion of the cab on the right side. The back, bottom and sides shall be constructed of steel with a black finish. The top and front shall be constructed of bright aluminum treadplate. The door shall be single pan construction with two (2) lift-and-turn style latches. A compartment light shall be provided inside the compartment with a magnetic switch. The interior of this compartment shall have a black finish.		

Thomas County Fire Department

	Bidder Complies	
	Yes	No
<u>COMPARTMENT, STORAGE</u> A storage shall be provided under the extended portion of the cab on the left side. The back, bottom and sides shall be constructed of steel with a black finish. The top and front shall be constructed of bright aluminum treadplate. The door shall be single pan construction with two (2) lift-and-turn style latches. A compartment light shall be provided inside the compartment with a magnetic switch. The interior of this compartment shall have a black finish. <u>STEP LIGHTS</u> White LED step lights shall be provided at each cab door. There shall be enough lights installed to illuminate each stepping surface to meet the requirements of the current edition of NFPA 1901. In order to ensure exceptional illumination, each light shall provide a minimum of 25 foot-candles (fc) covering an entire 15" x 15" square placed ten (10) inches below the light and a minimum of 1.5 fc covering an entire 30" x 30" square at the same ten (10) inch distance below the light. The lights shall be activated when the adjacent door is opened or when the park brake is on. <u>DAYTIME RUNNING LIGHTS</u> The chassis shall be provided with daytime running lights. <u>AIR CONDITIONING</u> An air conditioner shall be provided that is integral with heater and defroster system. <u>ENGINE COMPARTMENT LIGHTS</u> Two (2) engine compartment lights shall be installed under the engine hood, of which the switches are an integral part. <u>SEATING CAPACITY</u> The seating capacity in the cab shall be three (3). <u>SEATING</u> Seating inside the cab shall consist of an air-ride driver seat and a non-suspension Seats Inc. 911 SCBA officer seat. The seat bottom cushion of the officer's seat shall be hinged to lift-up and allow enhanced access to the extended area of the cab.		

Thomas County Fire Department

Bidder Complies	
Yes	No

SEATING (CREW CAB)

A non-suspension, Seats Inc. 911, SCBA seat shall be provided in the center of the extended / crew cab. A lap belt shall be provided for this seat. The seat shall be mounted on a stationary riser with room underneath that could allow for the addition of a storage compartment.

For safety, this seating position shall have all applicable seat and seat belt pull testing completed. This installation shall comply with all FMVSS and NFPA requirements.

A third-party certification of the installation and testing is required and documents for this testing shall be provided.

All non-certified installations shall cause immediate rejection of the bid as we shall not compromise the safety of our personnel.

AIR BOTTLE HOLDERS

All SCBA type seats in the cab shall have a "Hands-Free" auto clamp style bracket in its backrest. For efficiency and convenience, the bracket shall include an automatic spring clamp that allows the occupant to store the SCBA bottle by simply pushing it into the seat back. For protection of all occupants in the cab, in the event of an accident, the inertial components within the clamp shall constrain the SCBA bottle in the seat and shall exceed the NFPA standard of 9G. Bracket designs with manual restraints (belts, straps, buckles) that could be inadvertently left unlocked and allow the SCBA to move freely within the cab during an accident, shall not be acceptable.

There shall be a quantity of two (2) SCBA brackets.

SEAT BELT WEB LENGTH

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

Per Fire Department specification of a commercial chassis, this apparatus 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.

SEAT BELTS

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

HANDHELD LIGHT

There shall be two (2) 12v Stream light, Fire Vulcan, Model #44451, lights mounted at locations to be determined at pre-construction.

Each light housing shall be orange in color and be provided with a C4 LED and two (2) "ultra-bright blue taillight LEDs". The taillight LEDs shall have a dual mode of blinking or steady.

Thomas County Fire Department

Bidder Complies	
Yes	No

Vehicle mount with 12VDC direct wire charging rack.

Quick release buckle strap shall be included.

CAB INSTRUMENTS

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

EMERGENCY SWITCH PANELS

The emergency light switch panel shall have a master switch for ease of use plus individual switches for selective control. The switch panels shall be located on the driver's side overhead and lower instrument panel areas to allow for easy access.

"DO NOT MOVE APPARATUS" INDICATOR

A flashing red indicator light, located in the driving compartment, shall be illuminated automatically per the current NFPA requirements. 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 activate a pulsing alarm when the parking brake is released.

OPEN DOOR INDICATOR LIGHT

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

WIPER CONTROL

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

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 shall be available to download on-line.

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

- Vehicle Speed - MPH
- Acceleration - MPH/sec
- Deceleration - MPH/sec
- Engine Speed - RPM
- Engine Throttle Position - % of Full Throttle
- ABS Event - On/Off
- Seat Occupied Status - Yes/No by Position
- Seat Belt Buckled Status - Yes/No by Position
- Master Optical Warning Device Switch - On/Off
- Time - 24 Hour Time
- Date - Year/Month/Day

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

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

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.

Thomas County Fire Department

Bidder Complies	
Yes	No

ELECTRICAL

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:

(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.

(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.

(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 small amount of wire shall be provided behind the appliance to allow them to be pulled away from mounting area for inspection and service work.

(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).

(5) All lights that have their sockets in a weather exposed area shall have corrosion preventative compound added to the socket terminal area.

(6) All electrical terminals in exposed areas shall have silicon 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. All switches shall be properly identified and mounted in a removable panel for ease in servicing. The switches shall be membrane-type and also act as an integral indicator light. For quick, visual indication the entire surface of the switch shall be illuminated white whenever backlighting is activated and illuminated red whenever the switch is active. For ease of use, a 2-ply, scratch resistant laser engraved Gravoply label indicating the use of each switch shall be placed in the center of the switch. The label shall allow light to pass through the letters for ease of use in low light conditions.

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

Bidder Complies	
Yes	No

and wiring mounted in the rear bulkheads shall be protected from damage by installing a false bulkhead inside the rear compartments.

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.

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

ELECTRICAL POWER CONTROL SYSTEM

Electrical distribution centers shall be provided throughout the vehicle to house the vehicle's electrical power, circuit protection, and control components and be easily accessible for simplified maintenance and troubleshooting. For ease of maintenance, all electrical distribution centers shall be readily accessible.

Circuit protection devices, which conform to SAE standards, shall be utilized to protect electrical circuits. All circuit protection devices shall be rated per NFPA requirements to prevent wire and component damage when subjected to extreme current overload. General protection circuit breakers shall be Type-I automatic reset (continuously resetting). When required, automotive type fuses shall be utilized to protect electronic equipment. Control relays and solenoids shall have a direct current rating of 125% of the maximum current for which the circuit is protected per NFPA.

EMI/RFI PROTECTION

To prevent erroneous signals from Crosstalk contamination and interference, the electrical system shall meet, at a minimum, SAE J551/2, thus reducing undesired electromagnetic and radio frequency emissions. An advanced electrical system shall be used to insure radiated and conducted electromagnetic interference (EMI) or radio frequency interference (RFI) emissions are suppressed at their source.

The apparatus shall have the ability to operate in the electromagnetic environment typically found in fire ground operations to ensure clean operations. The apparatus manufacturer-installed electrical system shall meet, without exceptions, electromagnetic susceptibility conforming to SAE J1113/25 Region 1, Class C EMR for 10KHz-1GHz to 100 Volts/Meter. The vehicle OEM, upon request, shall provide EMC test results from the original test vehicle and shall certify that the vehicle meets SAE J551/2 and SAE J1113/41 Region 1, Class 4 EMR for 15KHz 950MHz requirements.

EMI/RFI susceptibility shall be controlled by applying appropriate circuit designs and shielding. The electrical system shall be designed for full compatibility with low-level control signals and high-powered two-way radio communication systems. Harness and cable routing shall be given careful attention to minimize the potential for conducting and radiated EMI/RFI susceptibility.

BATTERY SYSTEM

A single starting battery system shall be provided consisting of two (2) 12 volt, 1125 CCA, maintenance-free, group 31 batteries. The battery system shall have a total of 2250 CCA.

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Bidder Complies	
Yes	No

Jump Start Connections

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

BATTERY SYSTEM MODIFICATION

Due to specific apparatus configuration requirements, the batteries shall be relocated to the driver's side, below the extended cab area by the apparatus manufacturer. An enclosure with an access panel shall protect the batteries.

MASTER BATTERY SWITCH

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

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

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

BATTERY CHARGING RECEPTACLE

The battery charging receptacle location shall be near the driver's side cab step area.

Battery charger/compressor shall be located in the front right body compartment.

ALTERNATOR

The alternator shall be a Delco Remy 40SI, 275 amp, quadramount, with remote battery voltage sensor.

ELECTRONIC LOAD MANAGEMENT

Included with the apparatus manufacturer's electrical system shall be a programmable load management system.

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.

EXTERIOR LIGHTING

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.

Front headlights shall be halogen type and comply with all FMVSS requirements.

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

Thomas County Fire Department

Bidder Complies	
Yes	No

REAR CLEARANCE/MARKER/ID LIGHTING

There shall be three (3) Truck-Lite®, Model 35200R, LED lights used as identification lights located at the rear of the apparatus per the following:

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

There shall be two (2) Truck-Lite, Model 35200R, LED lights installed at the rear of the apparatus used as clearance lights located at the rear of the apparatus per the following:

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

There shall be two (2) Truck-Lite, Model 35200R, LED lights installed on the side of the apparatus as marker lights as close to the rear as practical per the following:

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

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

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

Per FMVSS 108 and CMVSS 108 requirements.

REAR FMVSS LIGHTING

The rear stop/tail and directional LED lighting shall consist of the following:

- Two (2) Whelen®, Model M6BTT, red LED stop/taillights
- Two (2) Whelen, Model M6T, amber LED arrow turns lights

Thomas County Fire Department

	Bidder Complies	
	Yes	No
The lights shall be provided with color lenses. The lights shall be mounted in a polished combination housing. There shall be two (2) Whelen Model M6BUW, LED backup lights provided in the taillight housing or comparable lighting will be accepted. <u>LICENSE PLATE BRACKET</u> There shall be one (1) license plate bracket mounted on the passenger's side above the warning lights. A white LED light shall illuminate the license plate. A polished stainless steel light shield shall be provided over the light that shall direct illumination downward, preventing white light to the rear. <u>LIGHTING BEZEL</u> There shall be two (2) Whelen, Model M6FCV4P, four (4) place chromed ABS housings provided for the rear M6 series stop/tail, directional, back up, scene lights or warning lights. <u>BACK-UP ALARM</u> 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. <u>CAB PERIMETER SCENE LIGHTS</u> 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. <u>PUMP HOUSE PERIMETER LIGHTS</u> There shall be one (1) Truck-Lite, Model 6060C, 6.00" oval LED 12-volt DC weatherproof light with grommet provided under the driver's side front body compartment. The light shall be controlled by the same means as the body perimeter lights. <u>BODY PERIMETER SCENE LIGHTS</u> 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. <u>STEP LIGHTS</u> There shall be two (2) white LED step lights shall be provided at the rear to illuminate the tailboard/step area.		

Thomas County Fire Department

Bidder Complies	
Yes	No

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

These step lights shall be actuated with the perimeter scene lights.

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

12 VOLT LIGHTING

There shall be one (1) Fire Research Evolution, Model FCA530-V20, 12-volt DC LED scene light provided on a push upside mount pole, located on the passenger's side front body bulkhead.

The light shall be controlled in the following way:

- a switch at the driver's side switch panel
- a switch at the pump operator's panel

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

This light shall be connected to the Do Not Move Truck Indicator circuit.

12 VOLT LIGHTING

There shall be one (1) Fire Research Evolution, Model FCA530-V20, 12-volt DC LED scene light provided on a push upside mount pole, located on the driver's side front body bulkhead.

The light shall be controlled in the following way:

- a switch at the driver's side switch panel
- a switch at the pump operator's panel

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

This light shall be connected to the Do Not Move Truck Indicator circuit.

DECK LIGHT

One (1)-6.00" Unity AG deck light with swivel mount shall be provided at the rear of the hose bed, on the passenger's side.

The light shall be furnished with a 6,000-candle power halogen flood bulb with switch on light.

HOSE BED LIGHTS

There shall be two (2) additional sets of white 12-volt DC LED light strips with stainless steel protective cover, provided to light the hose bed area.

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Bidder Complies	
Yes	No

- One (1) light strip shall be installed the entire length of each side of hosebed of the hose bed.

The lights shall be activated by a cup switch at the rear of the apparatus no more than 62.00" from the ground and with the other hose bed lights.

REAR SCENE LIGHTS

There shall be two (2) Fire Research, Model SPA900-Q70, LED scene lights with chrome trim bezels installed at the rear of the apparatus, rear of body bulkheads, up high, one light each side.

The light shall be controlled by a switch at the driver's side switch panel, by a switch at the driver's side pump panel and by a cup switch at the driver's side rear bulkhead.

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

WALKING SURFACE LIGHT

There shall be Model FRP, 4" round black 12-volt DC LED floodlight with bolt mount provided to illuminate the entire designated walking surface on top of the body.

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

WATER TANK

Booster tanks shall have a capacity of 1000 gallons and be constructed of UV stabilized ultra-high impact polypropylene plastic by a manufacturer with a minimum of 20 years' experience building tanks, is ISO 9001:2000 certified in all its manufacturing facilities, and has over 50,000 tanks in service.

The booster tank shall be a form-fitting design that serves to keep the tank height as low as possible. The tank design shall allow for greater compartment depth.

Tank joints and seams shall be nitrogen welded inside and out.

Tank shall be baffled in accordance with NFPA Bulletin 1901 requirements.

Baffles shall have vent openings at both the top and bottom to permit movement of air and water between compartments.

Longitudinal partitions shall be constructed of .38" polypropylene plastic and shall extend from the bottom of the tank through the top cover to allow for positive welding.

Transverse partitions shall extend from 4.00" off the bottom of the tank to the underside of the top cover.

All partitions shall interlock and shall be welded to the tank bottom and sides.

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	Bidder Complies	
	Yes	No
Tank top shall be constructed of .50" polypropylene. It shall be recessed .38" and shall be welded to the tank sides and the longitudinal partitions. Tank top shall be sufficiently supported to keep it rigid during fast filling conditions. Construction shall include 2.00" polypropylene dowels spaced no more than 30.00" apart and welded to the transverse partitions. Two (2) of the dowels shall be drilled and tapped (.50" diameter, 13.00" deep) to accommodate lifting eyes. A sump shall be provided at the bottom of the water tank. Sump shall include a drain plug and the tank outlet. Tanks shall be installed in a fabricated cradle assembly constructed of structural steel. Sufficient crossmembers shall be provided to properly support bottom of tank. Crossmembers shall be constructed of steel flat bar or rectangular tubing. Tank shall "float" in cradle to avoid torsional stress caused by chassis frame flexing. Rubber cushions, .50" thick x 3.00" wide, shall be placed on all horizontal surfaces that the tank rests on. Stops or other provision shall be provided to prevent an empty tank from bouncing excessively while moving vehicle. Mounting system shall be approved by the tank manufacturer. Fill tower shall be constructed of .50" polypropylene and shall be a minimum of 8.00" wide x 14.00" long. Fill tower shall be furnished with a .25" thick polypropylene screen and a hinged cover. An overflow pipe, constructed of 4.00" schedule 40 polypropylene, shall be installed approximately halfway down the fill tower and extend through the water tank and exit to the rear of the rear axle. <u>DIRECT TANK FILL</u> There shall be one (1) - 2.50" gated external tank fill installed and properly labeled at the rear of the water tank, located right side, with the valve installed as low as practical for easy hose connection. 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.		

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Bidder Complies	
Yes	No

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

HOSE BED

The hose bed shall be fabricated of aluminum.

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

Hose bed shall accommodate 1000 feet of 5.00" and 600 feet of 2.50" hose.

HOSE BED DIVIDER

One (1) adjustable hosebed divider shall be furnished for separating hose.

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

An oval opening shall be provided near the rear of the divider to be used as a hand hold and aid in accessing the hosebed.

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

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

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

HOSE BED HOSE RESTRAINT

The hose in the hose bed shall be restrained by a black nylon Velcro® strap 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.

RUNNING BOARDS

Design of the vehicle shall be such that running boards shall not be required to reach pre connects or other items on the side of the vehicle.

TAILBOARD

The rear step shall be constructed of .125" bright aluminum treadplate and spaced .50" from the body, as well as supported by a structural steel assembly.

The rear tailboard shall be 12.00" deep.

The exterior side shall be flanged down and in.

Flanges shall not be notched.

Thomas County Fire Department

Bidder Complies	
Yes	No

SMOOTH ALUMINUM REAR WALL

The rear wall shall be smooth aluminum.

TOW EYES (REAR)

Two (2) tow eyes shall be installed below the rear tailboard compartment.

The tow eyes shall be properly reinforced so that the truck can be pulled from the eyes.

COMPARTMENTATION

Body and compartments shall be formed sheet metal fabricated of aluminum. Body shall be designed and constructed with the latest technologies. A combination of torque-retaining mechanical fasteners and bonded construction shall ensure structural strength and longevity.

The thermosetting bonding material shall be resistant to dilute acids, solvents, greases, moisture, ultraviolet light or other substances commonly used by the fire department and carried in the compartments.

This construction method shall maintain superior body integrity compared to other bolted or welded construction as there are no welds to crack or typical bolts to loosen. The superior clamp holding design of the torque-retaining fastener system and the firm yet flexible (compared to a weld) bonding agent shall prevent body cracking and structural failure, since the stresses placed on the body are much more widely distributed and dispersed.

Circular fender liners shall be provided. For prevention of paint chips and ease of suspension maintenance the fender liners shall be formed from aluminum, be unpainted, and removable for suspension maintenance.

Compartment flooring shall be of the sweep out design with the floor 1.00" higher than the compartment door lip.

Drip protection shall be provided above the doors by means of aluminum extrusion.

The top of the compartment shall be covered with bright aluminum treadplate rolled over the edges on the front, and rear. These covers shall have the corners welded.

All screws and bolts where they protrude into a compartment shall be hidden or have acorn nuts on the ends to prevent injury.

UNDERBODY SUPPORT SYSTEM

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

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

Thomas County Fire Department

	Bidder Complies	
	Yes	No
The body and tank subframe support system begins with two (2) powder-coated main rails constructed with 5/16" thick steel. Across these main rails are a series of formed powder-coated channels constructed from steel. These channels support the water tank and the body. Under all four (4) corner compartments of the body are a series of formed stainless steel channels that support the compartments and are fastened to the subframe with torque-retaining fasteners. This entire structure rests on the main chassis frame rails and is held in place through a series of four brackets. These brackets are spring loaded to allow the entire structure to flex during frame flexing maneuvers when the vehicle is operating over uneven terrain. These spring-loaded mounts shall reduce the natural flex stress of the chassis from being transmitted to the body. <u>AGGRESSIVE WALKING SURFACE</u> All exterior surfaces designated as stepping, standing, and walking areas shall comply with the required average slip resistance of the current NFPA standards. Documentation of the material meeting the standard shall be provided at time of delivery. <u>COMPARTMENT VENTILATION</u> All body compartments shall be vented. The vents shall allow air circulation between compartments and/or to the outside atmosphere. They shall be designed and located for optimum performance. <u>LEFT SIDE COMPARTMENTATION</u> A full-height, roll-up door compartment ahead of the rear wheels shall be provided. This compartment shall contain the primary pump controls and panel. Closing of the door shall not require releasing, unlocking, or unlatching any mechanism and shall easily be accomplished with one hand. A roll-up door compartment over the rear wheels shall be provided. Closing of the door shall not require releasing, unlocking, or unlatching any mechanism and shall easily be accomplished with one hand. A full-height, roll-up door compartment behind the rear wheels shall be provided. Closing of the door shall not require releasing, unlocking, or unlatching any mechanism and shall easily be accomplished with one hand. The body fender panels on both sides of the truck shall have a bright aluminum treadplate finish. <u>RIGHT SIDE COMPARTMENTATION</u> A full-height, roll-up door compartment ahead of the rear wheels shall be provided.		

Thomas County Fire Department

Bidder Complies	
Yes	No

Closing of the door shall not require releasing, unlocking, or unlatching any mechanism and shall easily be accomplished with one hand.

A roll-up door compartment over the rear wheels shall be provided.

Closing of the door shall not require releasing, unlocking, or unlatching any mechanism and shall easily be accomplished with one hand.

A full-height, roll-up door compartment behind the rear wheels shall be provided.

Closing of the door shall not require releasing, unlocking, or unlatching any mechanism and shall easily be accomplished with one hand.

SIDE COMPARTMENT ROLLUP DOORS

There shall be six (6) compartment doors installed on the side compartments. The doors shall be double faced aluminum construction, an anodized satin finish.

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

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.

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.

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

COMPARTMENTATION, REAR

A roll-up door compartment above the rear tailboard shall be provided.

A ladder or other long equipment storage area shall be accessible from within this compartment, thus altering the available storage space within the compartment.

Closing of the door shall not require releasing, unlocking, or unlatching any mechanism and shall easily be accomplished with one hand.

ROLLUP REAR COMPARTMENT DOOR

There shall be a rear rollup door. The door shall be double faced aluminum construction, an anodized satin finish.

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

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Bidder Complies	
Yes	No

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 doors 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.

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.

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

To conserve space in the compartments, the spring roller assembly shall not exceed 3.00" in diameter. A garage style roll door shall not be acceptable.

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

COMPARTMENT LIGHTING

There shall be seven (7) compartments with two (2) white 12-volt DC LED compartment light strips. The dual light strips shall be centered vertically along each side of the door framing. There shall be two (2) light strips per compartment. The dual light strips shall be in all body compartments.

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

MOUNTING TRACKS

There shall be six (6) sets of tracks for mounting shelves. Tracks shall be installed in each body compartment. These tracks shall be installed vertically to support the adjustable shelves. The tracks to the outside of the body shall be mounted to the compartment wall. The tracks to the inside of the body shall be recessed into the corners of the compartment. The tracks shall be unpainted with a natural finish.

ADJUSTABLE SHELVES

There shall be three (3) shelves provided. The shelf construction shall consist of natural finish aluminum with 2.00" sides. Each shelf shall be infinitely adjustable by means of a threaded fastener, which slides in a track.

The location shall be driver's side over the wheel well, rear compartment and the passenger's side rear compartment, upper portion.

SLIDE-OUT ADJUSTABLE HEIGHT TRAY

There shall be one (1) slide-out tray provided.

Thomas County Fire Department

	Bidder Complies	
	Yes	No
The tray shall have 2.00" high sides and a capacity rating of up to 250 lb. in the extended position. The tray shall be mounted on a pair of side mounted slides. The slide mechanisms shall have ball bearings for ease of operation and years of dependable service. The slides shall be mounted to shelf tracks to allow the tray to be adjustable up and down within the designated mounting location. An automatic lock shall be provided for both the in and out tray positions. The lock trip mechanism shall be located at the front of the tray and shall be easily operated with a gloved hand. The tray shall be located in the passenger's side forward compartment, middle portion of compartment. <u>SLIDE-OUT/TILT-DOWN TRAY</u> There shall be one (1) slide-out tray provided. The bottom of the tray shall be constructed of aluminum while special aluminum extrusions shall be utilized for the tray sides, ends, and tracks. The corners shall be welded to form a rigid unit. A spring-loaded lock shall be provided on each side at the front of the tray. Releasing the locks shall allow the tray to slide out approximately two-thirds (2/3) of its length from the stowed position and tip 30 degrees down from horizontal. The tray shall be equipped with ball bearing rollers for smooth operation. Rubber padded stops shall be provided for the tray in the extended positions. The capacity rating of the tray shall be a minimum of 215 lb. in the extended position. The vertical position of the tray within the compartment shall be adjustable. The tray shall be located in the right-side front compartment. <u>SLIDE-OUT FLOOR MOUNTED TRAY</u> There shall be one (1) floor mounted slide-out tray with 2.00" sides provided in the passenger's side forward compartment. The tray shall be rated for up to 250lb in the extended position. The tray shall be constructed of a minimum .13" aluminum with an unpainted aluminum finish. There shall be two undermount-roller-bearing type slides rated at 250lb each provided. The pair of slides shall have a safety factor rating of 2. To ensure years of easy operation, the slides shall require no more than a 50lb force for push-in or pull-out movement when fully loaded after having been subjected to a 40-hour vibration (shaker) test under full load. The vibration drive file shall have been generated from		

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Bidder Complies	
Yes	No

accelerometer data collected from a heavy truck chassis driven over rough gravel roads in an unloaded condition. Proof of compliance shall be provided upon request.

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

COMPARTMENT FLOOR SCUFFPLATE

Aluminum treadplate shall be provided on the compartment floor of the compartment with the floor mounted slide out tray. The edges of the treadplate shall be completely caulked before installation to prevent corrosion.

SWING OUT TOOLBOARD

A swing out aluminum tool board shall be provided.

It shall be a minimum of thickness with .20" diameter holes in a pegboard pattern with 1.00" centers between holes.

A 1.00" x 1.00" aluminum tube frame shall be welded to the edge of the pegboard.

The board shall be mounted on a pivoting device at the front of the compartment on the top and bottom to allow easy movement in and out of the compartment. The maximum tool load shall be 400 pounds.

The board shall have positive lock in the stowed and extended position.

The board shall be mounted on adjustable tracks from front to back within the compartment.

There shall be One (1) tool board provided, shall be with a brushed finish, and installed in the passenger's side over the wheel well compartment.

LOWER BODY TRIM

Bottom edge of the side compartments shall be trimmed with bright aluminum treadplate.

Trim shall be about 2.00" high. It shall not be an integral part of body construction, which allows easy replacement in the event of damage.

BODY FENDER CROWNS

Stainless steel fender crowns shall be provided around the rear wheel openings. These fender crowns shall be designed to accommodate large tires, including 315/80R 22.50".

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

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

Bidder Complies	
Yes	No

HOSE TROUGHS

Troughs for hard suction hose shall be provided on top of the left side body compartments. Troughs shall be V-shaped and located side by side. The hose shall be held in place by an easy to release clamping mechanism.

Troughs shall be constructed of aluminum and shall remain the natural aluminum finish.

- Handrails shall be located on each rear bulkhead. These handrails shall meet the requirements of NFPA and shall help provide safe access to the hosebed.

AIR BOTTLE STORAGE

A total of four (4) air bottle compartments shall be provided, two (2) each side of the body. The air bottle compartment shall be in the form of a PVC round tube to accommodate different size air bottles. The inside diameter of the tube shall be approximately 7.63" in diameter x 26.00" deep. Drain holes shall be provided at the bottom of the tubes to prevent water collection.

A Cast Products door with latch shall be provided to contain the air bottle.

EXTENSION LADDER

There shall be a 24' two-section aluminum Duo-Safety Series 900-A extension ladder provided.

ROOF LADDER

There shall be a 14' aluminum Duo-Safety Series 775-A roof ladder provided.

LADDER STORAGE

The ladders shall be stored at an ergonomically safe working height. This height shall be defined as no more than 1.00" above the height of the chassis frame rails. Easy access, quick removal, and storage of the ladders are required.

The ladders shall be carried inside a compartment below the center of the water tank. They shall be accessible from within the rear compartment. The extension ladder and roof ladder shall be banked together within the compartment. Storage for the folding ladder shall be located to the left of the extension and roof ladder in a separate trough.

Durable plastic slides shall be provided in the troughs to protect the ladders and also aid in the loading and removal of them.

The rear of the ladder storage area shall have a horizontally hinged, drop-down aluminum treadplate door with two (2) lift-and-turn style latches to contain the ladders.

PIKE POLE STORAGE

Included within the ladder storage area described above, shall be provisions for carrying two (2) pike poles. Two (2) aluminum tubes shall be provided for pike pole storage.

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Bidder Complies	
Yes	No

FOLDING LADDER

One (1) 10' aluminum Series 585-A Duo-Safety folding ladder shall be installed in a U-shaped trough in the ladder storage compartment.

The pike pole(s) shall be an Akron 6' pike pole.

REAR ACCESS STEP

Wedge style steps shall be provided at the rear of the apparatus, on the left side for access to the hose bed. The steps shall be constructed of bright aluminum treadplate and be a minimum of 10.00" wide x 8.00" deep to provide an adequate stepping surface.

In addition, for repacking the hosebed, an intermediate full-width step shall be provided. It shall be designed into the body construction. The stepping surface shall be bright aluminum treadplate. It shall be 10.00" deep and located above the rear compartment, below the hosebed.

PUMP

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

The pump shall be installed in a position outboard of the chassis frame rails in a location that provides easy access for service and repair. Pumps mounted between the frame rails are unacceptable due to their limited access and excessive associated maintenance and repair times.

Pump shall be the class "A" type and rated to NFPA 1901 standards up to 2000 feet above sea level.

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.

Thomas County Fire Department

	Bidder Complies	
	Yes	No
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. <u>PUMP TRANSMISSION</u> Pump transmission shall be made of lightweight 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. The water pump shall be driven by a ten (10)-bolt hot shift PTO shall be located on the left side of the chassis transmission (optional). <u>PUMPING MODE</u> 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. The interlock system shall be designed to allow stationary pumping and the truck to be in motion while pumping. A digital pump pressure gauge shall be supplied in the cab. <u>PUMP SHIFT</u> 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. <u>AUXILIARY COOLING SYSTEM</u> 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. Heat exchangers shall be cylindrical type and 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. Exchanger shall be plumbed to the master drain valve. <u>INTAKE RELIEF VALVE</u> A Task Force Tips relief valve shall be installed on the suction side of the pump preset at 125 psi.		

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Bidder Complies	
Yes	No

Relief valve shall have a working range of 90 psig to 300 psig.

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

PRESSURE CONTROLLER

A Fire Research Pump Boss Model PBA200 pressure governor shall be provided.

A pressure transducer shall be installed in the water discharge manifold on the pump.

The display panel shall be located at the pump operator's panel.

PRIMING PUMP

The priming pump shall be a Trident Emergency Products compressed air powered, high efficiency, multistage venturi-based Air Prime System, conforming to standards outlined in NFPA pamphlet #1901.

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

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

PUMP MANUALS

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.

PLUMBING, STAINLESS STEEL AND HOSE

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 hoses shall be equipped with brass or stainless-steel couplings. All stainless-steel hard plumbing shall be a minimum of a schedule 10 wall thickness.

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

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

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.

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

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

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Bidder Complies	
Yes	No

MAIN PUMP INLETS

A 6.00" pump manifold inlet shall be provided on each side of the vehicle. Removable die cast zinc screens shall be included for additional cathodic corrosion protection for the pump.

MAIN PUMP INLET CAP

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

The cap shall incorporate a thread design to automatically relieve stored pressure in the line when disconnected.

VALVES

All ball valves shall be Akron® in-line valves. They shall be heavy-duty-style brass valves with a stainless-steel ball and a simple seat design. The valves shall meet all NFPA requirements.

Ease of maintenance and repair is critical. No lubrication or regular maintenance shall be required on the valve. Replacement must not require dismantling of plumbing to remove the valve body.

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.

RIGHT SIDE INLET

There shall be one (1) auxiliary inlet with a 2.50" valve at the right-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.

The location of the valve for the inlets shall be recessed behind the pump panel.

INLET CONTROL

The side auxiliary inlet (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.

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 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.

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Bidder Complies	
Yes	No

TANK TO PUMP

The booster tank shall be connected to the intake side of the pump with heavy duty 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 1.50" combination tank refill and pump re-circulation line shall be provided, using a quarter-turn full flow ball valve controlled from the pump operator's panel.

LEFT SIDE DISCHARGE OUTLETS

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

RIGHT SIDE DISCHARGE OUTLETS

There shall be two (2) discharge outlet 2.50" valve on the right side of the apparatus, terminating with a (M) 2.50" National Standard hose thread adapter.

FRONT DISCHARGE OUTLET

There shall be one (1) 1.50" discharge outlet piped to the front of the apparatus and located in the center bumper tray.

Plumbing shall consist of 2.00" piping and flexible hose with a 2.00" ball valve with control at the pump operator's panel. A fabricated weldment made of stainless-steel pipe shall be used in the plumbing where appropriate. The piping shall terminate with a 1.50" NST with 90-degree stainless steel swivel.

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

REAR DISCHARGE OUTLET

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

DISCHARGE CAPS

Chrome plated, rocker lug, caps with chains shall be furnished for all side discharge outlets.

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

OUTLET BLEEDER VALVE

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.

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	Bidder Complies	
	Yes	No
The valves shall be located behind the panel with a swing style handle control extended to the outside of the side pump 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. Bleeders shall be located at the bottom of the pump panel. They shall be properly labeled identifying the discharge they are plumbed in to. The water discharged by the bleeders shall be routed below the chassis frame rails. <u>LEFT SIDE OUTLET ELBOWS</u> 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. <u>RIGHT SIDE OUTLET ELBOWS</u> 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. Total of 2 <u>REAR OUTLET ELBOWS</u> The 2.50" discharge outlets located at the rear of the apparatus 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. <u>DISCHARGE OUTLET CONTROLS</u> The discharge outlets shall incorporate a quarter-turn ball valve with the control located at the pump operator's panel. The lever style of valve operating mechanism shall indicate the position of the valve. No push-pull style controls shall be allowed due to their typically more difficult operation. <u>DELUGE RISER</u> A 3.00" deluge riser shall be installed above the pump in such a manner that a monitor can be mounted and used effectively.		

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Bidder Complies	
Yes	No

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.

This deluge outlet shall flow a minimum of 1000 GPM.

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

CROSSLAY HOSE BEDS

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" i.d. schedule 10 304L welded or formed stainless steel pipe and gated with a 2.00" quarter turn ball valve.

Crosslays shall be low mounted with the bottom of both crosslay trays no more than 22.00" above the frame rails for simple, safe reloading and deployment.

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

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

To provide easy repacking of hose, a removable tray shall be provided for each crosslay hosebed. For durability, reduced weight and easy removal, the crosslay tray shall be constructed of poly material.

Hand holes shall be provided in the sides for easy removal and installation from the compartment. The floor of the trays shall be perforated to allow for drainage and hose drying.

CROSSLAY HOSE RESTRAINT

Hose restraints shall be provided across the ends of the crosslays.

PUMP CONTROL PANELS (LEFT SIDE CONTROL)

Pump controls and gauges shall be located midship at the left side of the apparatus and properly identified.

The main pump operator's control panel shall be completely enclosed and located in the forward left side body compartment, to protect against road debris and weather elements (optional).

Manual controls shall be easy moving 8" long lever style controls that operate in a vertical, up and down swing motion. Bezels shall encompass the opening, be securely mounted to the pump operator's panel, and shall incorporate the discharge gauge bezel. Bezels shall be bolted to the panel for easy removal and gauge service. The left side discharges shall be controlled directly at the valve. There shall be no push-pull-style control handles (no exception).

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Bidder Complies	
Yes	No

The discharge identification tags shall be color coded, with each discharge having its own unique color. All discharge outlets shall be labeled to correspond with the discharge identification tag.

The pump panels for the midship discharge and intake ports shall be located ahead of the body compartments. The pump panels shall be easily removable with simple hand tools.

A recessed cargo area shall be provided at the front of the body, ahead of the water tank above the plumbing.

PUMP PANEL CONFIGURATION

The pump panel configuration shall be arranged and installed in an organized manner that shall provide user-friendly operation.

PUMP AND GAUGE PANEL

The pump operator's and gauge panels shall be constructed of aluminum with a black vinyl finish.

The side control panels shall be constructed of stainless steel with a brushed finish for durability and ease of maintenance.

PUMP AND PLUMBING ACCESS

Simple, comprehensive access to the pump and plumbing shall be provided. The left side panel below the crosslays shall be easily removable to allow access to the pump and plumbing.

The bezels on the pump operator's panel shall be oversized so that when they are removed, maintenance access to the valve body and seals shall be accomplished without removing the entire panel.

This simple easy access to the pump and plumbing shall allow for fast, easy valve or pump rebuilding, making for reduced out-of-service times.

PUMP COMPARTMENT LIGHT

A compartment light shall be provided inside the pump enclosure.

PUMP PANEL GAUGES AND CONTROLS

The following information shall be displayed on the pump panel in the FRC "Pump Boss" pressure governor system screen:

- Engine Oil Pressure Gauge: LED bar graph display
- Engine Water Temperature Gauge: LED bar graph display
- Tachometer: over 1/2" high LED digits
- Voltmeter: LED bar graph display

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Bidder Complies	
Yes	No

- PSI and RPM mode LED light

- Throttle ready LED light

AIR HORN SWITCH

An air horn control switch shall be provided at the pump operator's control panel. This switch shall be red and properly labeled. The button shall be located within easy reach of the operator in the electrical switch panel.

VACUUM AND PRESSURE GAUGES

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

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#.

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

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

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.

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

PRESSURE GAUGES

The individual "line" pressure gauges for the discharges shall be interlube filled and manufactured by Class 1©.

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

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

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

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

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

Bidder Complies	
Yes	No

ADDITIONAL GAUGE

There shall be an additional Class 1 gauge provided in the cab. This gauge shall be a minimum of 2.50" in diameter, have a white face with black lettering and be backlit with an LED light.

WATER LEVEL GAUGE

A Fire Research Tank Vision Pro model WLA300-A00 water tank indicator gauge shall be installed on the pump operator's panel. The gauge kit shall include an electronic indicator module, a pressure sensor, and a 10' sensor cable. The gauge shall show the volume of water in the tank on nine (9) easy to see super bright RGB LEDs. A wide view lens over the LEDs shall provide for a viewing angle of 180 degrees. The gauge case shall be waterproof, manufactured of Polycarbonate/Nylon material, and have a distinctive blue label.

The program features shall be accessed from the front of the indicator module. The program shall support self-diagnostics capabilities, self-calibration, six (6) programmable colored light patterns to display tank volume, adjustable brightness control levels and a data link to connect remote indicators. Low water warnings shall include flashing LEDs at 1/4 tank and down chasing LEDs when the tank is almost empty.

The gauge shall receive an input signal from an electronic pressure sensor. The sensor shall be mounted from the outside of the water tank near the bottom. No probe shall be placed on the interior of the tank. Wiring shall be weather resistant and have automotive type plug-in connectors.

MINI SLAVE UNIT

A Fire Research TankVision model WLA205-A00 miniature tank indicator gauge shall be installed in the cab. The indicator gauge shall show the volume of water in the tank on five (5) easy to see super bright LEDs. A wide view lens over the LEDs shall provide for a viewing angle of 180 degrees. The indicator gauge case shall be manufactured of Polycarbonate material with an integrated lens and have a distinctive blue label.

ADDITIONAL WATER LEVEL GAUGE

There shall be three (3) additional Fire Research MaxVision model WLA280-A00 water tank remote indicators provided and installed driver's side front of hosebed side sheet, passenger's side front of hosebed side sheet, rear of body passenger's side. The indicators shall show the volume of water in the tank on Ninety-six (96) easy to see super bright Tri-color LEDs. The indicator case shall be waterproof, manufactured of Polycarbonate material with an integrated lens.

The remote indicator shall indicate the level as a single color in Red for 25% or less, Amber color for up to 50% volume, Blue color for up to 75% volume and Green color for up to 100%

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Bidder Complies	
Yes	No

volume. When the level reaches 25%, the red LEDs will begin flashing. When the level is empty, the red LEDs will scroll in a down-chasing motion and then flash three times.

It shall have the program capability to adjust the brightness level for daytime and nighttime viewing. The LEDs can also be programmed for different colors.

This module shall be activated when the battery switch is on.

PUMP OPERATOR'S / PUMP PANEL LIGHTING

Illumination shall be provided for controls, switches, essential instructions, gauges, and instruments necessary for the operation of the apparatus and the equipment provided on it. External illumination shall be a minimum of five (5) foot-candles on the face of the device. Internal illumination shall be a minimum of four (4) foot lamberts.

The exterior pump panels shall be illuminated by lights on each side of the vehicle located on the forward body bulkhead.

The pump operator's panel shall utilize a pair of lights installed in the pump operator's compartment. These lights shall be activated by opening the pump enclosure door. An LED light shall be mounted on the bulkhead wall for additional illumination and shall activate with the "pump engaged" circuit.

AIR HORN SYSTEM

There shall be two (2) Grover air horns recessed in the front bumper. 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 loss of air in the air brake system.

Air Horn Location

The air horns shall be located on each side of the bumper, towards the outside.

AIR HORN CONTROL

Two (2) lanyard rope pull controls shall be provided, one (1) within reach of the driver and one (1) within reach of the officer.

ELECTRONIC SIREN

A "Code 3", model 3692, electronic siren with noise-cancelled 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 near the overhead switches.

Siren 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 siren or the chassis horns from the horn button by means of a selector switch.

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	Bidder Complies	
	Yes	No
<u>SPEAKER</u> There shall be one (1) Code 3®, Model PB100C, speaker with chrome finish provided. The speaker shall be connected to the siren amplifier. The speaker shall be recessed in the right side of the front bumper, just outside of the frame rail. <u>AUXILIARY MECHANICAL SIREN</u> A Federal Q2B® siren shall be furnished. A siren brake button shall be installed on the switch panel. 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 right side. The siren shall be supported by the bumper framework. The mechanical siren 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 siren or the chassis horns from the horn button by means of a selector switch located on the instrument panel. <u>CAB ROOF LIGHTBAR</u> There shall be one (1) 56.00" Whelen, Model Justice LED lightbar mounted on the cab roof. This lightbar shall include the following: • Four (4) red flashing forward facing LED modules. • Two (2) white flashing forward facing LED modules. • Two (2) red flashing front corner LED modules. • Two (2) red flashing rear corner LED modules. The lens color shall be clear. There shall be a switch, located in the cab on the switch panel, to control this lightbar. The white warning lights shall be disabled when the parking brake is set. <u>FRONT WARNING LIGHT</u> 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 clear. The lights shall be mounted with a flange. The lights shall be activated by a switch on the cab instrument panel.		

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Bidder Complies	
Yes	No

SIDE ZONE LOWER LIGHTING

There shall be four (4) Whelen®, Model M6*C, flashing LED warning lights with chrome trim installed per the following:

- Two (2) lights, one (1) each side on the bumper extension. The side front lights to be red.
- Two (2) lights, one (1) each side above rear wheels. The side rear lights to be red.
- The lights shall include a clear lens.

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

REAR ZONE LOWER LIGHTING

There shall be two (2) Whelen®, Model M6*C, LED flashing warning lights 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 a lens that is clear.

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

REAR OF HOSE BED WARNING LIGHTS

There shall be two (2) Whelen, Model L31H*F, LED warning beacons provided at the rear of the truck, located one (1) each side.

The color of the driver side LED light shall be red and the passenger side LED light shall be amber.

The dome colors shall be driver side dome red and passenger side dome amber.

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

The rear emergency lights shall be mounted on top of the body compartmentation in treadplate boxes with all wiring totally enclosed.

LOOSE EQUIPMENT

The following equipment shall be furnished with the complete unit:

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

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.

Thomas County Fire Department

	Bidder Complies	
	Yes	No
<u>PAINT</u> The chassis shall be painted by the chassis manufacturer, and shall remain the commercial grade finish as provided. 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 with candy apple red. NFPA 1901 <u>PAINT CHASSIS FRAME ASSEMBLY</u> The chassis frame assembly shall be painted black by the chassis manufacturer. It shall remain the commercial grade finish as provided. <u>COMPARTMENT INTERIOR FINISH</u> The interior of the body compartments shall be left unpainted and have the natural finish. <u>REFLECTIVE STRIPES</u> Three (3) reflective stripes shall be provided along the sides of the cab and body. The reflective band shall consist of a 1.00"-6.00"-1.00" white stripe on the cab and body, with a 1.00"-6.00"-1.00" ruby red stripe on the roll-up doors. All striping shall include a 1.00" gap between stripes. <u>REFLECTIVE VINYL ON FRONT BUMPER</u> There shall be a reflective vinyl band provided across the front bumper. <u>REAR CHEVRON STRIPING</u> There shall be alternating chevron striping located on the rear-facing vertical surface of the apparatus. The rear surface, excluding the rear compartment door, shall be covered. The colors shall be red and fluorescent yellow green diamond grade. Each stripe shall be 6.00" in width. 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. <u>JOG IN REFLECTIVE STRIPE</u> There shall be one (1) "Hockey Stick" style jog in the reflective stripe located each side of the vehicle. Each stripe shall be angled upward at approximately a 45-degree angle. <u>REFLECTIVE STRIPE, CAB DOORS</u> A white reflective stripe shall be provided on the interior of each cab door. This stripe shall be a minimum of 96.00 square inches and shall meet the NFPA 1901 requirement. <u>LETTERING</u> The lettering shall be totally encapsulated between two (2) layers of clear vinyl.		

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	Bidder Complies	
	Yes	No
<u>LETTERING</u> Lettering shall be provided to match the existing fleet of Thomas County Fire Department. <u>MANUALS, SERVICE</u> A service manual supplement containing parts and service information on factory installed components shall be provided with the completed unit. The manual shall be specifically written for the unit being purchased. It shall not be a generic manual for a multitude of different units. <u>MANUAL, CHASSIS OPERATION</u> One (1) chassis operation (manufacturer's standard) shall be provided with the completed unit. <u>ONE (1) YEAR MATERIAL AND WORKMANSHIP</u> 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. A copy of the warranty certificate shall be submitted with the bid package (no exception). <u>CHASSIS WARRANTY</u> The chassis manufacturer shall provide a three (3) year or 100,000-mile warranty. <u>PAINT WARRANTY</u> The commercial chassis manufacturer's paint warranty shall apply to the paint on the chassis only. <u>COMPARTMENT LIGHT WARRANTY</u> A ten (10) year material and workmanship limited warranty shall be provided for the 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. A copy of the warranty certificate shall be submitted with the bid package (no exception). <u>TRANSMISSION WARRANTY</u> The transmission shall have a five (5) year/unlimited mileage warranty covering 100 percent parts and labor. The warranty to be provided by Allison Transmission and not apparatus builder. <u>WATER TANK WARRANTY</u> The UPF poly water tank shall be provided with a lifetime material and workmanship limited warranty. A copy of the warranty certificate shall be submitted with the bid package (no exception).		

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	Bidder Complies	
	Yes	No
<u>TEN (10) YEAR STRUCTURAL INTEGRITY</u> Each new piece of apparatus shall be provided with a ten (10) year 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. A copy of the warranty certificate shall be submitted with the bid package (no exception). <u>PUMP WARRANTY</u> The Waterous pump shall be provided with a five (5) year material and workmanship limited warranty. A copy of the warranty certificate shall be submitted with the bid package (no exception). <u>TEN (10) YEAR PUMP PLUMBING WARRANTY</u> 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 ten (10) years or 100,000 miles. 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. A copy of the warranty certificate shall be submitted with the bid package (no exception). <u>TEN (10) YEAR PRO-RATED PAINT AND CORROSION</u> Each new piece of apparatus shall be provided with a ten (10) year 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. A copy of the warranty certificate shall be submitted with the bid package (no exception). <u>THREE (3) YEAR MATERIAL AND WORKMANSHIP</u> The gold leaf lamination shall be provided with a three (3) year material and workmanship limited warranty. The warranty shall cover the gold leaf lamination as being free from defects in material and workmanship that would arise under normal use and service. A copy of the warranty certificate shall be submitted with the bid package (no exception). <u>VEHICLE STABILITY CERTIFICATION</u> 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.		

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Bidder Complies	
Yes	No

CAB INTEGRITY

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

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

AMP DRAW REPORT

The bidder 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).

Request for Taxpayer Identification Number and Certification

Give Form to the
requester. Do not
send to the IRS.

Name (as shown on your income tax return)

Business name/disregarded entity name, if different from above

Check appropriate box for federal tax classification (required): ☐ Individual/sole proprietor ☐ C Corporation ☐ S Corporation ☐ Partnership ☐ Trust/estate

☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶ ☐ Exempt payee

☐ Other (see instructions) ▶

Address (number, street, and apt. or suite no.)

City, state, and ZIP code

List account number(s) here (optional)

Requester's name and address (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on the "Name" line to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Social security number

Employer identification number

Note. If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
- I am a U.S. citizen or other U.S. person (defined below).

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 4.

Sign Here Signature of U.S. person ▶ Date ▶

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

- Certify that the TIN you are giving is correct (or you are waiting for a number to be issued).
- Certify that you are not subject to backup withholding, or
- Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

Note. If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.