



**SEDGWICK COUNTY, KANSAS**  
***DIVISION OF FINANCE***  
Purchasing Department  
525 N. Main, Suite 823 ~ Wichita, KS 67203

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<http://sedgwickcounty.org/finance/purchasing.asp>

***REQUEST FOR PROPOSAL***  
***#13-0081***  
***(2) TRIPLE COMBINATION PUMPER FIRE APPARATUSES***

August 2, 2013

Sedgwick County, Kansas (hereinafter referred to as County) will accept proposals for two (2) Triple Combination Pumper Fire Apparatuses for Sedgwick County Fire District #1, Wichita, Kansas. **It is the intent of Sedgwick County Fire District 1 to look at all units, including demonstrator units, that meet the minimum qualifications outlined in this Request for Proposal; including delivery no later than December 1, 2013. Multiple proposals from individual vendors are welcome and encouraged.** One (1) additional Triple Combination Pumper Fire Apparatus will be considered for purchase at a later date, requiring proposal to remain valid for a minimum of six (6) months. This request for proposal provides a description of submittal requirements; terms and conditions.

Carefully review this Request for Proposal. It provides specific information necessary to aid participating firms in formulating a thorough response. Should firms elect to participate, complete one (1) original copy of the entire document and one (1) copy; return to:

*Gunda Angelica*  
*Sedgwick County Purchasing Department*  
*525 N. Main, Suite 823*  
*Wichita, KS 67203*

SUBMITTALS are due **NO LATER THAN 1:45 p.m., CDT, Tuesday September 10, 2013.** Late or incomplete responses will not be accepted and will not receive consideration for final award. The time stamp clock in the Purchasing Department will determine the time of receipt.

Proposal responses will be acknowledged and read into record at bid opening which will occur at 2:00 p.m., CDT on the due date.

Gunda Angelica  
Purchasing Agent

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## **1. PURPOSE AND OBJECTIVES**

Sedgwick County, Kansas (hereinafter referred to as “County”), desires to select a firm to provide two (2) Triple Combination Pumper Fire Apparatuses, for Sedgwick County Fire District #1. One (1) additional Triple Combination Pumper Fire Apparatus will be considered for purchase at a later date, requiring proposal to remain valid for a minimum of six (6) months. **It is the intent of Sedgwick County Fire District 1 to look at all demonstrator units that meet the minimum qualifications outlined in this Request for Proposal.**

The County has identified the following objectives for securing Triple Combination Pumper Fire Apparatuses described herein:

1. Triple Combination Pumper Fire Apparatuses meeting the parameters, conditions, preferred qualifications and mandatory requirements presented in this document.
2. Select a vendor(s) who provides the best-proven “track-record” in design, performance, installation, service, quality and customer satisfaction.
3. Procure Triple Combination Pumper Fire Apparatuses with the most advantageous overall cost and desired performance to the County.

## **2. ABOUT THIS DOCUMENT**

This document is a Request for Proposal. It differs from a Request for Bid/Quotation in that the County is seeking a solution, not a bid/quotation, meeting firm specifications for the lowest price. As such, the lowest price proposed will not guarantee an award recommendation. As defined in Charter Resolution No. 65, Competitive Sealed Proposals will be evaluated based upon criteria formulated around the most important features of a product or service, of which quality testing, references, availability or capability, may be overriding factors, and price may not be determinative in the issuance of a contract or award. The proposal evaluation criteria should be viewed as standards that measure how well a vendor’s approach meets the desired requirements and needs of the County. Those criteria that will be used and considered in evaluation for award are set forth in this document. The County will thoroughly review all proposals received. The County will also utilize its best judgment when determining whether to schedule a pre-proposal conference before proposals are accepted, or meeting with vendors, after receipt of all proposals. A Purchase Order/Contract will be awarded to a qualified vendor submitting the best proposal. Sedgwick County reserves the right to select, and subsequently recommend for award, the proposed equipment/service which best meets its required needs, quality levels, and budget constraints.

The nature of this work is for a public entity and will require the expenditure of public funds and/or use of public facilities, therefore the successful proposer will understand that portions (potentially all) of their proposal may become public record at any time after receipt of proposals. Proposal responses, purchase orders and final contracts are subject to public disclosure after award. All confidential or proprietary information should be clearly denoted in proposal responses and responders should understand this information will be considered prior to release, however no guarantee is made that information will be withheld from public view.

## **3. BACKGROUND INFORMATION**

Sedgwick County, located in south-central Kansas, is one of the most populous of Kansas’ 105 counties with a population estimated at 500,000 persons. It is the sixteenth largest in area, with 1008 square miles, and reportedly has the second highest per capita wealth among Kansas’ counties. Organizationally, the County is a Commission/Manager entity, and hosts or provides a full range of municipal services, e.g. – public safety, public works, criminal justice, recreation, entertainment, cultural, human/social, and education.

Sedgwick County Fire District #1 is a separate taxing entity that encompasses 635 square miles within Sedgwick County. Operating out of 9 strategically placed stations the District provides fire suppression, technical rescue, hazardous material mitigation and first response medical service. The district responds in the suburban cities of Haysville, Park City, Goddard, Bel Aire, Garden Plain, Maize, Kechi, Andale, Crestview, Oaklawn Improvement District and several other unincorporated towns. The estimated population served by the District is 85,000.

#### **4. SELECTION CRITERIA**

The selection process will be based on the responses to this Request for Proposal and any interviews required verifying the ability of the proposing companies to provide product and services in accord to this document. Those submitting a proposal do so entirely at their expense. There is no expressed or implied obligation by County to reimburse any individual or firm for any cost incurred in preparing or submitting proposals, providing additional information when requested by County or for participating in any selection interviews. A committee will judge each firm's response as determined by meeting the following criteria:

1. Meeting or exceeding all Request for Proposal Conditions and miscellaneous instructions as outlined herein, and the clarity, completeness and comprehensiveness of the proposal.
2. Proven ability to provide high quality products with superior service within the specifications, mandatory requirements, miscellaneous instructions and conditions as outlined in this and future related documents. Such ability will be determined by:
  - a. Providing four (4) references verifying exemplary service. These references **MUST** have received service(s) and/or product(s) similar to those proposed under this RFP. Provide the business name, address, contact name, phone number, e-mail address, and a brief description of product(s) provided.
  - b. Meeting or exceeding all vendor mandatory firm requirements.
  - c. Meeting or exceeding all mandatory requirements and specifications.
  - d. Providing cost effective additional provisions.
  - e. Meeting or exceeding all minimum requirements.
  - f. Providing the County with the most advantageous proposal.

Any final negotiations for services and terms and conditions will be based, in part, on the Vendor's method of providing the service and the fee schedule achieved through discussions and agreement with the County's review committee. The County is under no obligation to accept the lowest priced proposal and reserves the right to further negotiate services and costs that are proposed. The County also reserves the sole right to recommend for award the proposal and plan that it deems to be in its best interest. The Purchaser reserves the right to accept or reject any proposal. The purchaser also reserves the right to award in the best interest of the Fire District

*The review committee will select the proposals which appear most beneficial. These proposing companies may be asked to provide a marketing presentation to the review committee during the evaluation period. No negotiations, decisions, or actions will be initiated by any firm as a result of any verbal discussion with any County employee prior to the completion of the request for proposal (RFP) process. Sedgwick County reserves the right to select, and subsequently recommend for award, the proposed service or product which best meets its required needs, quality levels, and budget constraints.*

#### **5. INSURANCE REQUIREMENTS**

Liability insurance coverage indicated below must be considered as primary and not as excess insurance. Contractor shall furnish a certificate evidencing such coverage, with County listed as an additional insured, except for professional liability, worker's compensation, employer's liability, and umbrella coverage. Certificate shall be provided with bid/proposal submittals. Insurance shall remain in force during the performance of the contract, and for a minimum of three (3) years following acceptance of the product and will not be canceled, reduced, modified, limited, or restricted until thirty (30) days after County receives written notice of such change. All insurance must be with an insurance company with a minimum BEST rating of A-VIII and licensed to do business in the State of Kansas. It is the responsibility of Contractor to require that any and all approved subcontractors meet the minimum insurance requirements. Contractor shall obtain the above referenced certificate(s) of insurance, and in accordance with this Agreement, provide copies of such certificates to County.

<b>Worker's Compensation: Kansas Statute</b>	
Applicable State Statutory Employer's Liability	\$100,000.00
<b>Liability Insurance:</b>	
Form of insurance shall be by a Commercial General Liability and include Automobile comprehensive/liability	
<b>Bodily Injury:</b> Each Occurrence	\$500,000.00
<b>Property Damage:</b> Each Occurrence	\$500,000.00
<b>Personal Injury:</b> Each Occurrence	\$500,000.00
<b>Automobile Liability-Owned, Non-owned and Hired</b>	
Bodily Injury Each Occurrence	\$500,000.00
<b>Umbrella/Excess Liability Insurance</b>	
Each Occurrence	\$10,000,000

Liability insurance 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, products and completed operations and be subject to the terms and conditions of this Request For Proposal when required by written contract.

The umbrella policy shall be written on an occurrence basis and be written on a coverage form that follows the underlying coverage required by this Request for Proposal. The required limits can be provided by one (1) or more policies provided all other insurance requirements are met.

**6. INDEMNIFICATION**

To the fullest extent of the law, the Provider, its subcontractor, agents, servants, officers or employees shall indemnify and hold harmless Sedgwick County, including, but not limited to, its elected and appointed officials, officers, employees and agents, from any and all claims brought by any person or entity whatsoever, arising from any act, error, or omission of the provider during the providers performance of the agreement or any other agreements of the provider entered into by reason thereof. The provider shall indemnify and defend Sedgwick County, including, but not limited to, its elected and appointed officials, officers, employees and agents, with respect to any claim arising, or alleged to have arisen from negligence, and/or willful, wanton or reckless acts or omissions of the provider, its subcontractor, agents, servants, officers, or employees and any and all losses or liabilities resulting from any such claims, including, but not limited to, damage awards, costs and reasonable attorney's fees. This indemnification shall not be affected by any other portions of the agreement relating to insurance requirements. The provider agrees that it will procure and keep in force at all times at its own expense insurance in accordance with these specifications.

**7. PAYMENT TERMS**

Payments for all specified service(s) and/or product(s) to the successful proposing companies can be made with the following criteria taken into consideration:

1. Delivery of the proposed service(s) and/or product(s);
2. Successful set-up, training, installation, implementation and/or completion of the service(s) or product(s) delivered;
3. Receipt of a detailed invoice;
4. Final payment won't be made until above conditions are met.

## **8. TENTATIVE TIME LINE**

The following dates are provided for information purposes and are subject to change without notice. Contact Gunda Angelica, Purchasing Department at (316) 660-7262 to confirm any/all dates.

Distribution of Request for Proposal to interested parties	August 2, 2013
Clarification, Information and Questions submitted in writing by 3:00 p.m.	August 13, 2013
Addendum Issued in writing by 5:00 p.m.	August 20, 2013
Sealed Proposal due before 1:45 p.m.	September 10, 2013
Evaluation Period	September 11 - 25, 2013
Board of Bids and Contracts Recommendation	September 26, 2013
Board of County Commission Award	October 2, 2013

## **9. QUESTIONS AND CLARIFICATIONS**

Any questions regarding this document must be submitted in writing to Gunda Angelica at [gangelic@sedgwick.gov](mailto:gangelic@sedgwick.gov) by 3:00PM, August 13, 2013. Any questions of a substantive nature will be answered in written form as an addendum and posted on the purchasing website at <http://sedgwickcounty.org/finance/purchasing.asp>, under online services; current RFPs/RFQs; to the right of the RFP number by 5:00 p.m. August 20, 2013. Vendors are responsible for checking the web site and acknowledging any addendums on their response form.

## **10. REQUIREMENTS AND SPECIFICATIONS**

This document has several headings, which are in bold type and underlined. The headings should be considered a question on how the manufacturer will complete the item or how the manufacturer meets or intends to meet the qualifications set forth.

- A. Sedgwick County Fire District #1 will require certain items to be used in the manufacturing of this apparatus. Under certain headings this equipment or method of construction will be noted as a specification. These specifications point out the preferred qualifications on this apparatus. Any exceptions from the preferred qualifications will require an in depth explanation of the manufacturers intent and purpose.
- B. Any other items or options that the manufacturer deems necessary, relevant or advantageous to this apparatus can be submitted with the proposal. These items should be listed with the price of the proposed item on a separate page(s) under the header "Additional Provisions". The County reserves the right to select one (1), some or none of the options identified.

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

Each bid shall be accompanied by a detailed set of Contractor's Specifications consisting of a detailed description of the apparatus and equipment proposed, and to which the apparatus furnished under contract shall conform. These specifications shall indicate size, type, model and make of all component parts and equipment.

Also, bidders shall submit a detailed proposal. A letter only, even though written on a company letterhead, shall not be sufficient. Bid proposals shall be submitted in the same sequence as specifications for ease of evaluation, comparison and checking of compliance. An exception to these requirements shall not be tolerated. Proposals taking total exception to specifications shall not be acceptable.

## **11. EXCEPTIONS**

All exceptions from the specifications and/or performance requirements should be listed. Exceptions shall be considered if they are deemed equal to or superior to the specifications, provided they are fully explained on a separate page entitled "EXCEPTIONS TO SPECIFICATIONS." Exceptions shall be listed by page and heading number no matter how seemingly minor. Any exceptions not taken shall be assumed by the purchaser to be included in the proposal, regardless of the cost to the bidder.

Items listed in this section are requirements to completion of services under this contract.

Equipment shall meet or exceed the following descriptions. Any additions, deletions, or variations from the following descriptions must be noted.

## **12. 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 axles shall run quietly and be free from abnormal vibration or noise throughout the operating range of the apparatus. Vehicle shall adhere to the following parameters:

- 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.
- D. The apparatus, fully loaded, shall be capable of obtaining a speed of 50 mph on a level concrete highway with the engine not exceeding its governed rpm (full load).
- E. The apparatus shall be tested and approved by a qualified testing agency in accordance with their standard practices for pumping engines.
- F. The contractor shall furnish copies of the Pump Manufacturer's Certification of Hydrostatic Test (if applicable), the Engine Manufacturer's current Certified Brake Horsepower Curve and the Manufacturer's Record of Construction Details.

## **13. FAILURE TO MEET TEST**

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 be constitute acceptance.

## **14. COUNTY'S RESPONSIBILITIES**

- Provide timely payment of undisputed invoices in ACH form.
- Provide information, as legally allowed, in possession of the County, which relates to the County's requirements or which is relevant to this project.

## **15. DELIVERY**

The apparatus shall be completely equipped as per these specifications upon arrival and on completion of the required tests shall be ready for immediate service in the fire department of the purchaser. Any and all alterations required at the scene of delivery to comply with these specifications must be done at the contractor's expense.

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 engineer representing the contractor shall deliver the apparatus and remain for a sufficient length of time to instruct personnel in the proper operation, care and maintenance of the equipment delivered.

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

## **16. FINAL CONSIDERATIONS**

1. For purposes of addressing questions concerning this RFP or for seeking alternative contract terms, the sole contact will be the County's Purchasing Department. Upon issuance of this RFP, employees and representatives (including elected officials) of the County must not be contacted regarding this RFP process. Failure to observe this restriction may result in disqualification of any vendor response. This restriction does not preclude discussions between affected parties for the purpose of conducting business unrelated to this procurement.
2. The County will not consider the submission of unsolicited, additional terms, after the response deadline. This RFP and all written material received from the successful vendor will be incorporated into the contract between the County and the firm unless specifically superseded in the signed contract. All information becomes the property of the County and will be subject to the Kansas Open Public Records Act.
3. The County will not be liable for any costs incurred by vendors in the preparation and presentation of information submitted in response to the RFP or in the participation in demonstrations.
4. The County will not recognize any assignment or transfer of interest in the contract without written notice to and written acceptance by the County.
5. If Partnerships and/or subcontracting is used in order to meet the requirements and scope of work in this RFP, a prime vendor should be identified and the partners and subcontractors should be listed along with a statement of who will be responsible for providing what service, and a statement of the nature of any legal relationship. The proposal response should clearly delineate who will be the prime vendor for contracting purposes.
6. The terms outlined in this RFP must be guaranteed up to and through the negotiation of the final contract.

## **17. MANDATORY FIRM REQUIREMENTS**

This section lists the criteria to be considered in evaluating the ability of firms interested in providing the service(s) and/or product(s) specified in this Request for Proposal. Firms must meet or exceed these qualifications to be considered for award. Any exceptions to the requirements listed should be clearly detailed in proposer's response. Proposers shall:

### **A. General firm Requirements**

1. Have a minimum of five (5) years experience in providing services similar to those specified in this RFP.
2. Have an understanding of industry standards and best practices.
3. Provide product/services following all applicable federal, state, and local laws, statutes, ordinances, rules and regulations. All laws of the State of Kansas, whether substantive or procedural, shall apply to the contract, and all statutory, charter, and ordinance provisions that are applicable to public contracts in the County shall be followed with respect to the contract.
4. Municipal and County government experience is desired, however, the County will make the final determination based on responses received and the evaluation process.
5. Not have been [neither original equipment manufacturer (O.E.M.) or parent company of the O.E.M] fined or convicted of price fixing, bid rigging, or collusion in any domestic or international fire apparatus market, in order to ensure fair, ethical, and legal competition (No exception).
6. Have the capacity to acquire all bonds, escrows or insurances as outlined in the terms of the RFP.
7. Furnish satisfactory evidence of their ability to construct the apparatus specified and shall state the location of the factory where the apparatus is to be built. The bidder shall also show that the company is in position to render prompt service and to furnish replacement parts.
8. Have proper certification(s) or license(s) to distribute, deal, install and service proposed product(s) at the time of proposal closing.



9. Provide contact name(s), title(s), qualification(s), phone number(s) and e-mail address(s) of lead professional personnel assigned to the County account.
10. Have appropriate material, equipment and labor to perform job safely and efficiently. All costs associated with meeting this requirement will be the sole responsibility of the vendor.
11. Discuss any current local, state or federal violations and any ongoing litigation that may cause conflicts or affect the ability of the vendor to provide service(s) and/or product(s).
12. Domestic (Kansas) corporations shall furnish evidence of good standing in the form of a Certificate signed by the Kansas Secretary of State. Foreign (non-Kansas) corporations shall furnish evidence of authority to transact business in Kansas, in the form of a Certificate signed by the Kansas Secretary of State; and 2) a copy of the Corporation Resolution evidencing the authority to sign the Contract Documents, executed by the Corporation's Secretary or Assistant Secretary.
13. Provide four (4) references verifying exemplary service. These references MUST have received service(s) and/or product(s) similar to those proposed under this RFP. Provide the business name, address, contact name, phone number, e-mail address and a brief description of product(s) and/or service(s) provided.

**B. Quality and Workmanship**

1. The design of the apparatus must embody the latest approved engineering practices.
2. The workmanship must be the highest quality in its respective field. Special consideration shall be given to the following points: Accessibility to various areas requiring periodic maintenance, ease of operation (including both pumping and driving) and symmetrical proportions.
3. Construction must be rugged and ample safety factors must be provided to carry loads as specified and to meet both on and off road requirements and speed as set forth under "Performance Test and Requirements."

**C. Manufacturer**

U.S.A. Manufacturer: The entire apparatus shall be assembled within the borders of the Continental United States to insure more readily available parts (without added costs and delays caused by tariffs and customs) and services.

1. Manufacturer's Experience
  - Elimination of Divided Responsibility.
  - It is required that each apparatus proposer take full responsibility for the cab, chassis and body of the apparatus. This is done in an effort to eliminate divided responsibility in service and warranty work. Manufacturers shall state compliance with the paragraph, NO EXCEPTIONS.
2. FAMA Compliance
  - Manufacturer must be a current member of the Fire Apparatus Manufacturer's Association.

**18. MINIMUM REQUIREMENTS AND SPECIFICATIONS**

The County desires the most acceptable service(s) and product(s) available. **The following specifications outline the minimum design and performance requirements for this Triple Combination Pumper Fire Apparatus.** Minimum requirements are provided to assist vendors in submitting a thorough response that meets the County's objectives. Proposals received must reflect in detail their inclusion and the degree provided. Vendors may propose methodologies which meet the purpose and meaning of the listed requirements, but should note that the proposed service(s) and product(s) which meets all, exceeds or most closely meets minimum design and performance requirements of this RFP will be recommended for award within the listed selection criteria. **Specific responses to each must be provided in the accompanying Response Form.**

The apparatus shall be designed and the equipment mounted with due consideration to distribution of load between the front and rear axles so that all specified equipment, including filled water tank, a full complement of personnel and fire hose shall be carried without injury to the apparatus. Weight balance and distribution shall be in accordance with the recommendations of the International Association of Fire Chiefs and National Fire Association (or American Insurance Association). Certified Laboratories certificate shall be submitted by the manufacturer. Weight of apparatus shall meet all federal axle load laws.

**Bidder shall also indicate in the "yes"/"no" column if their bid complies on each item specified.**

	Description	Meets Spec	
		Yes	No
<b>1</b>	<b>GENERAL CONSTRUCTION</b>		
	The apparatus shall be designed with due consideration to distribution of load between the front and rear axles. Weight balance and distribution shall be in accordance with the recommendations of the National Fire Protection Association.		
<b>2</b>	<b>NFPA 1901 STANDARD</b>		
A.	This unit shall comply with the NFPA 1901 standards, except for fire department specifications that differ from NFPA specifications. These exceptions shall be set forth in the Statement of Exceptions.		
B.	Certification of slip resistance of all stepping, standing and walking surfaces shall be supplied with delivery of the apparatus.		
C.	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.		
D.	The manufacturer shall have programs in place for training, proficiency testing and performance for any staff involved with certifications.		
E.	An official of the company shall designate, in writing, which is qualified to witness and certify test results.		
<b>3</b>	<b>NFPA COMPLIANCY</b>		
	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."		
<b>4</b>	<b>PUMP TEST</b>		
	The rated water pump shall be tested, approved, and certified by an ISO certified independent third party testing agency at the manufacturer's expense. The test results, along with the pump manufacturer's certification of hydrostatic test, the engine manufacturer's certified brake horsepower curve, and the manufacturer's record of pump construction details shall be forwarded to the Fire Department.		
<b>5</b>	<b>GENERATOR TEST</b>		
	If the unit has a generator, the generator shall be tested, approved, and certified by an ISO certified independent third party testing agency at the manufacturer's expense. The test results shall be provided to the Fire Department at the time of delivery.		
<b>6</b>	<b>TRAINING</b>		
	Training from a factory certified trainer will be provided on each unit for a maximum of 24 hours (three 8 hour shifts). This training can take place on the consecutive days you choose.		
<b>7</b>	<b>SERVICE</b>		
	Please provide a plan for providing warranty repairs. Sedgwick County Fire has a full service repair shop and 2 EVT certified mechanics. Sedgwick County Fire would like to see a pay schedule on reimbursement for warranty work performed by our technicians. This should be listed on a separate sheet. Due to down time and scheduling, Sedgwick County Fire District 1 prefers to perform the repair on most warranty items in a timely fashion.		
<b>8</b>	<b>DRAWING</b>		
A.	A drawing of the proposed apparatus shall be provided with the proposal (NO EXCEPTIONS). The finalized and approved drawing shall become part of the contract documents. This drawing shall indicate the chassis make and model, location of the lights, siren, horns, compartments, major components, basic measurements, etc.		
B.	If any changes or options are negotiated by Sedgwick County Fire District 1 prior to delivery, a "revised" drawing of the apparatus shall be prepared and submitted by the manufacturer to the purchaser showing any changes made to the original drawing.		
<b>9</b>	<b>ELECTRICAL WIRING DIAGRAMS</b>		

	Two (2) electrical wiring diagrams, prepared for the model of chassis and body, shall be provided.		
<b>10</b>	<b>CHASSIS</b>		
	The chassis shall be designed and manufactured for heavy-duty service, with adequate strength and capacity for the intended load to be sustained and the type of service required. The chassis will be specifically designed to be used as a fire apparatus and will not be a commercial over the road truck.		
<b>11</b>	<b>WHEELBASE</b>		
	The wheelbase of the vehicle shall be approximately 190".		
<b>12</b>	<b>GVW RATING</b>		
	The gross vehicle weight rating shall be a minimum of 45,000#.		
<b>13</b>	<b>FRAME</b>		
	The chassis frame shall be built with a minimum of two (2) steel channels bolted to five (5) cross members or more, depending on other options of the apparatus. The side rails shall be heat-treated steel.		
<b>14</b>	<b>FRONT AXLE</b>		
	A. The front axle shall be a reverse "I" beam type with inclined kingpins. It shall be a Meritor™ axle, with a minimum rated capacity of 18,000 lb.		
	B. A viewing window shall be provided on each side of the axle for checking the oil level.		
<b>15</b>	<b>FRONT SUSPENSION</b>		
	A. Front springs shall be semi-elliptical, 4.00" x 54.00", seven (7)-leaf, constant rate type with a minimum ground rating of 18,000 lb.		
	B. The bushing that holds the spring pin in place shall also have a grease groove.		
<b>16</b>	<b>SHOCK ABSORBERS</b>		
	Heavy-duty telescoping shock absorbers shall be provided on the front axle.		
<b>17</b>	<b>OIL SEALS</b>		
	Oil seals with viewing window shall be provided on the front axle.		
<b>18</b>	<b>FRONT TIRES</b>		
	A. Front tires shall be a minimum of 315/80R22.50 radials, 20 ply all-position, rated for 18,180 lb. maximum axle load and 75 mph maximum speed.		
	B. The tires shall be mounted on 22.50" x 9.00" steel disc-type wheels with a ten (10) stud, 11.25" bolt circle.		
<b>19</b>	<b>REAR AXLE</b>		
	The rear axle shall be a Meritor™, with a capacity minimum of 27,000 lb.		
<b>20</b>	<b>TOP SPEED OF VEHICLE</b>		
	A rear axle ratio shall be furnished to allow the vehicle to reach a top speed of 68 MPH.		
<b>21</b>	<b>REAR SUSPENSION</b>		
	A. The rear springs shall be semi-elliptical, 14 leaves main with a ground rating of 27,000 lb minimum. Spring hangers shall be castings with provisions for lubrication. The grease fittings shall be 90-degree type and shall be accessible without removing the wheels or cutting any sheet metal.		
	B. Spring pins shall be provided, with grease grooves. The bushing that holds the spring pin in place shall also have a grease groove.		
<b>22</b>	<b>OIL SEALS</b>		
	Oil seals shall be provided on the rear axle.		
<b>23</b>	<b>REAR TIRES</b>		
	A. Rear tires shall be at a minimum four (4) 12R22.50 radials, 16 ply all season tread, rated for 27,120 lb. maximum axle load and 75 mph maximum speed.		
	B. The tires shall be mounted 22.50" x 8.25" steel disc-type wheels with a ten (10)-stud 11.25" bolt circle at a minimum.		

<b>24</b>	<b>TIRE BALANCE</b>		
	All tires shall be balanced.		
<b>25</b>	<b>TIRE PRESSURE MANAGEMENT</b>		
A.	There shall be a LED tire alert pressure management system provided that shall monitor each tire's pressure. A chrome plated brass sensor shall be provided on the valve stem of each tire for a total of six (6) tires.		
B.	The sensor shall calibrate to the tire pressure when installed on the valve stem for pressures between 20 and 120 psi. The sensor shall activate an integral battery operated LED when the pressure of that tire drops eight (8) psi.		
C.	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 blinking.		
<b>26</b>	<b>MUD FLAPS</b>		
	Mud flaps shall be installed behind the front and rear wheels of the apparatus.		
<b>27</b>	<b>WHEEL COVERS (front)</b>		
	Stainless steel wheel covers shall be furnished on the front wheels.		
<b>28</b>	<b>WHEEL LINERS</b>		
	One (1) pair of stainless steel full depth wheel liners with oval cutouts, shall be provided on the rear wheels including a full hub cover and chromed lug nut covers.		
<b>29</b>	<b>WHEEL CHOCKS</b>		
A.	NFPA 1901, 2009 edition, section 5.8.3 requires two or more wheel chocks mounted in readily accessible locations that together shall hold the apparatus, when loaded to its GVWR or GCWR, on a hard surface with a 20 percent grade with the transmission in neutral and the parking brake released.		
B.	WHEEL CHOCK BRACKETS		
<b>30</b>	<b>ANTI-LOCK BRAKE SYSTEM</b>		
	The vehicle shall be equipped with a Wabco 4S4M, anti-lock braking system. The ABS shall provide a four (4) channel anti-lock braking control on both the front and rear wheels. A digitally controlled system that utilizes microprocessor technology shall control the anti-lock braking system. Each wheel shall be monitored by the system. When any particular wheel begins to lockup, a signal shall be sent to the control unit. This control unit then shall reduce the braking of that wheel for a fraction of a second and then reapply the brake. This anti-lock brake system shall eliminate the lockup of any wheel thus helping to prevent the apparatus from skidding out of control.		
<b>31</b>	<b>BRAKES</b>		
A.	The service brake system shall be full air type by Meritor™ or equivalent.		
B.	Front brakes shall be disc type with automatic pad wear adjustment with ventilated rotors for improved stopping distance.		
C.	The rear brakes shall be 16.50" x 7.00" cam operated with automatic slack adjusters. Dust shields shall be provided.		
<b>32</b>	<b>AIR COMPRESSOR, BRAKE SYSTEM</b>		
	The air compressor shall have a minimum of 18.7 cubic feet per minute output.		
<b>33</b>	<b>BRAKE SYSTEM The brake system shall include:</b>		
A.	One dual brake treadle valve with vinyl covered foot surface		
B.	Heated automatic moisture ejector on air dryer		
C.	Total air system minimum capacity of 4,300 cubic inches		
D.	Two (2) air pressure gauges with a red warning light and an audible alarm, that activates when air pressure falls below 60 psi		
E.	Spring set parking brake system		
F.	Parking brake operated by a push-pull style control valve		

G.	A parking "brake on" indicator light on instrument panel		
H.	Park brake relay/inversion and anti-compounding valve, in conjunction with a double check valve system, shall be provided with an automatic spring brake application at 40 psi		
I.	The air tank shall be primed and painted.		
J.	To reduce the effects of corrosion, the air tank shall be mounted with steel brackets. (No exception).		
K.	Wabco System Saver 1200 air dryer with spin-on coalescing filter cartridge or equivalent		
L.	100 Watt Heater		
<b>34</b>	<b>BRAKE LINES</b>		
	Color-coded nylon brake lines shall be provided. The lines shall be wrapped in a heat protective loom where necessary in the chassis.		
<b>35</b>	<b>AIR INLET</b>		
	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 on the driver's side below the cab 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.		
<b>36</b>	<b>ENGINE</b>		
	The chassis shall be powered by an electronically controlled engine as described below:		
A.	Make: Cummins		
B.	Model: ISL9		
C.	Minimum Power: 450 hp at 2100 rpm		
D.	Minimum Torque: 1250 lb-ft at 1400 rpm		
E.	Governed Speed: 2200 rpm		
F.	Emissions Level: EPA 2013		
G.	Fuel Filters: Spin-on style primary filter with water separator and water-in-fuel sensor. Secondary spin-on style filter.		
H.	Coolant Filter: Spin-on style with shut off valves on the supply and return line.		
<b>37</b>	<b>HIGH IDLE</b>		
A.	A high idle switch shall be provided, inside the cab, on the instrument panel, that shall automatically maintain a preset engine rpm. A switch shall be installed, at the cab instrument panel, for activation/deactivation.		
B.	The high idle 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 illuminate when the above conditions are met. The light shall be labeled "OK to Engage High Idle."		
<b>38</b>	<b>ENGINE BRAKE</b>		
A.	A Jacobs engine brake is to be installed with the controls located on the instrument panel within easy reach of the driver.		
B.	The driver shall be able to turn the engine brake system on/off and have a high, medium and low setting.		
C.	The high setting of the brake application shall activate and work simultaneously with the variable geometry turbo (VGT) provided on the engine.		
D.	The engine brake shall be installed in such a manner that when the engine brake is slowing the vehicle the brake lights are activated.		
E.	The ABS system shall automatically disengage the auxiliary braking device, when required.		
<b>39</b>	<b>CLUTCH FAN</b>		
	A fan clutch shall be provided. The fan clutch shall be automatic when the pump transmission is in "Road" position, and constantly engaged when in "Pump" position.		

<b>40</b>	<b>ENGINE AIR INTAKE</b>		
A.	The air intake with ember separator shall be mounted on the passenger side of the apparatus, to the front of the engine. The ember separator is designed to prevent road dirt and recirculating hot air from entering the engine.		
B.	The ember separator shall be easily accessible by tilting the cab.		
<b>41</b>	<b>EXHAUST SYSTEM</b>		
	The exhaust system shall be stainless steel from the turbo to the inlet of the selective catalytic reduction (SCR) device.		
<b>42</b>	<b>RADIATOR</b>		
A.	The radiator and the complete cooling system shall meet or exceed NFPA and engine manufacturer cooling system standards.		
B.	The radiator shall be mounted in such a manner as to prevent the development of leaks caused by twisting or straining when the apparatus operates over uneven ground. The radiator assembly shall be isolated from the chassis frame rails with rubber isolators.		
C.	A drain port shall be located at the lowest point of the cooling system and/or the bottom of the radiator to permit complete flushing of the coolant from the system.		
<b>43</b>	<b>COOLANT LINES</b>		
A.	Premium rubber hose shall be used for all engine coolant lines installed by the chassis manufacturer.		
B.	Hose clamps shall be stainless steel constant torque type.		
<b>44</b>	<b>FUEL TANK</b>		
A.	A fuel tank shall be provided and mounted to the rear of the chasis that meets in FPA 1901 standard.		
B.	A .75" drain plug shall be provided in a low point of the tank for drainage.		
C.	A fill inlet shall be located on the left hand side of the body and be covered with a hinged, spring loaded, stainless steel door that is marked "Ultra-Low Sulfur - Diesel Fuel Only."		
D.	A .50" diameter vent shall be provided running from top of tank to just below fuel fill inlet.		
<b>45</b>	<b>DIESEL EXHAUST FLUID TANK</b>		
A.	A 4.5 gallon minimum diesel exhaust fluid (DEF) tank shall be provided and mounted in the driver's side body forward of the rear axle. The tank shall be constructed of 16-gauge type 304- L stainless steel.		
B.	A .50" drain plug shall be provided in a low point of the tank for drainage.		
C.	A fill inlet shall be located on the driver's side of the body and be covered with a hinged, spring loaded, stainless steel door that is marked "Diesel Exhaust Fluid Only".		
D.	The tank shall meet the engine manufacturers requirement for 10 percent expansion space in the event of tank freezing.		
E.	The tank shall include an integrated heater unit that utilizes engine coolant to thaw the DEF in the event of freezing.		
<b>46</b>	<b>AUXILIARY FUEL COOLING SYSTEM</b>		
	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.		
<b>47</b>	<b>TRANSMISSION</b>		
A.	An Allison Gen IV, model EVS 3000P, or better, electronic torque converting automatic transmission shall be provided.		
B.	The transmission shall be equipped with prognostics to monitor oil life, filter life, and transmission health. A wrench icon on the shift selector's digital display shall indicate when service is due.		
C.	Two (2) PTO openings shall be located on left side and top of converter housing (positions 9 o'clock and 3 o'clock).		

	D. A transmission temperature gauge with red light and audible alarm shall be installed on the cab dash.		
<b>48</b>	<b>TRANSMISSION SHIFTER</b>		
	A five (5)-speed push button shift module shall be mounted to right of driver on console. Shift position indicator shall be indirectly lit for after dark operation.		
<b>49</b>	<b>TRANSMISSION COOLER</b>		
	A transmission oil cooler shall be provided.		
<b>50</b>	<b>DRIVELINE</b>		
	A. Drivelines shall be a heavy-duty metal tube.		
	B. The shafts shall be dynamically balanced before installation.		
<b>51</b>	<b>STEERING</b>		
	A. A steering gear, with integral heavy-duty power steering, shall be provided. For reduced system temperatures, the power steering shall incorporate an air to oil cooler and hydraulic pump with integral pressure and flow control. All power steering lines shall have wire braded lines with crimped fittings.		
	B. A tilt and telescopic steering column shall be provided to improve fit for a broader range of driver configurations.		
<b>52</b>	<b>STEERING WHEEL</b>		
	The steering wheel shall be tilting and telescoping capabilities.		
<b>53</b>	<b>BUMPER</b>		
	A. A one (1)-piece, ten (10) gauge, steel bumper, a minimum of 10.00" high, shall be attached to a bolted modular extension frame constructed of 50,000 psi tensile steel "C" channel mounted directly behind it to provide adequate support strength.		
	B. The bumper shall be extended minimum 19.00" from front face of cab.		
	C. Documentation shall be provided, upon request to show that the options selected have been engineered for fit-up and approval for this modular bumper extension. A chart shall be provided to indicate the option locations and shall include, but not be limited to the following options: air horns, mechanical sirens, speakers, hose trays (with hose capacities), winches, lights, discharge, and suction connections.		
<b>54</b>	<b>GRAVEL PAN</b>		
	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.		
<b>55</b>	<b>TOW HOOKS</b>		
	Two (2) chromed steel tow hooks shall be installed under the bumper and attached to the front frame members.		
<b>56</b>	<b>HOSE TRAY</b>		
	A. A hose tray, constructed of aluminum, shall be placed in the center of the bumper extension.		
	B. The tray shall have a minimum capacity of 100' of 1.75" double jacket cotton-polyester hose.		
	C. Black rubber grating shall be provided at the bottom of the tray. Drain holes are also provided.		
<b>57</b>	<b>BUMPER HOSE RESTRAINT</b>		
	A. There shall be one (1) hose tray restraint straps located center		
	B. The restraints shall be a pair of 2.00" wide black nylon straps with Velcro fasteners provided. The strap(s) shall be used to secure the hose in the tray.		
<b>58</b>	<b>CAB</b>		
	A. The cab shall be designed specifically for the fire service and manufactured by the chassis builder. All cab measurements are a minimum requirement. The cab shall be a full tilt design, allowing easy maintenance of the engine compartment. The engine shall be easily accessible and capable of being removed with the cab tilted.		

B.	The forward cab section shall have an overall height (from the cab roof to the ground) of approximately 99.00". The crew cab section shall have a 12.00" raised roof, with an overall cab height of approximately 111.00". The overall height listed shall be calculated based on a truck configuration with the lowest suspension weight ratings, the smallest diameter tires for the suspension, no water weight, no loose equipment weight, and no personnel weight. Larger tires, wheels, and suspension shall increase the overall height listed.		
C.	The crew cab shall be of the totally enclosed design.		
D.	The forward facing center crew cab shall have a recess in the rear wall of the cab for SCBA seats. This seat position shall provide additional room in the cab for greater comfort.		
E.	Recessed areas shall be provided on each side of the cab facing forward to allow for EMS compartments.		
F.	The side sheet on the cab shall be extended back to cover the SCBA/EMS compartment cavities.		
<b>59</b>	<b>FENDER LINERS</b>		
	Full circular inner fender liners in the wheel wells shall be provided.		
<b>60</b>	<b>WINDSHIELD</b>		
A.	A curved, safety glass windshield shall provide clear viewing area.		
B.	A stationary window shall be provided on each side of the crew cab.		
C.	All cab glass shall be tinted.		
<b>61</b>	<b>SUNVISORS</b>		
	Two (2) sunvisors, shall be provided. The sunvisors shall be located above the windshield with one (1) mounted on each side of the cab.		
<b>62</b>	<b>WINDSHIELD WIPERS</b>		
A.	The two (2) windshield wipers shall be electrically controlled and meet FMVSS requirements.		
B.	Each wiper shall be equipped with a washer and wiper control.		
C.	The washer reservoir shall be able to be filled without raising the cab.		
<b>63</b>	<b>STORAGE COMPARTMENTS</b>		
	There shall be a storage compartment provided on each side of the cab, to the rear of the crew cab access doors. Each compartment shall be 21.00" high x 9.50" wide x 21.00" deep. The compartments shall be vented and include a hinged, pan door with a D-ring latch. Each compartment shall have two (2) white LED strip lights, one (1) each left side of exterior compartment door opening.		
<b>64</b>	<b>CAB LIFT</b>		
A.	A hydraulic cab lift system shall be provided consisting of an electric powered hydraulic pump, dual lift cylinders, and necessary hoses and valves.		
B.	Hydraulic pump shall have a manual override for backup in the event of electrical failure.		
C.	For increased safety, a redundant mechanical stay arm shall be provided that must be manually put in place on the right side between the chassis and cab frame when the cab is in the raised position. This device shall be manually stowed to its original position before the cab can be lowered.		
<b>65</b>	<b>CAB REAR WALL EXTERIOR COVERING</b>		
	The exterior surface of the rear wall of the cab shall be overlaid with bright aluminum treadplate except for areas that are not typically visible when the cab is lowered.		
<b>66</b>	<b>MOLDING (On Sides of Cab)</b>		
	Chrome molding shall be provided on both sides of cab.		
<b>67</b>	<b>MIRRORS</b>		
	A dual vision, motorized, west coast style mirror, shall be mounted on each side of the front cab door with spring loaded retractable arms. The flat glass and convex glass shall be heated and adjustable with remote control within reach of the driver.		
<b>68</b>	<b>DOORS</b>		



A.	The cab doors shall be approximately 35.00" wide x 65.00" high.		
B.	The crew cab doors shall be double pan type and measure approximately 35.00" wide x 80.00" high.		
C.	The door hinges shall be a stainless steel piano type with a .25" pin minimum.		
<b>69</b>	<b>ELECTRIC OPERATED CAB DOOR WINDOWS</b>		
	All four (4) cab doors shall be equipped with electric operated windows with flush mounted automotive style switches are preferred.		
<b>70</b>	<b>CAB STEPS</b>		
	The forward cab and crew cab access steps shall be 22.00" wide with an 8.00" minimum depth. The steps shall be located inside the doors, protecting them from weather elements. A slip-resistant handrail shall be provided adjacent to each cab door opening to assist during cab ingress and egress.		
<b>71</b>	<b>CAB INTERIOR LIGHTING</b>		
	Interior lights shall be provided in the cab and consisting of:		
A.	One (1) clear incandescent dome light located in the center, controlled by automatic door switches.		
B.	Two (2) adjustable incandescent map lights with switches mounted on the cab ceiling.		
C.	An LED courtesy light at each door opening controlled by automatic door switches.		
<b>72</b>	<b>FENDER CROWNS</b>		
	Stainless steel fender crowns shall be installed at the cab wheel openings.		
<b>73</b>	<b>CREW CAB WINDOWS</b>		
	On each side of the crew cab, a window with tinted glass shall be provided.		
<b>74</b>	<b>CAB INTERIOR</b>		
A.	Headliner shall be installed in both forward and rear cab sections. Headliner material shall be vinyl. A sound barrier shall be part of its composition. Material shall be installed on aluminum sheet and securely fastened to interior cab ceiling.		
B.	Forward portion of cab headliner shall permit easy access for service of electrical wiring or other maintenance needs.		
<b>75</b>	<b>CAB INTERIOR UPHOLSTERY</b>		
	The cab interior upholstery shall be dark silver gray or equivalent.		
<b>76</b>	<b>INTERIOR PAINT (Cab)</b>		
	The cab interior metal surfaces shall be painted, vinyl texture paint.		
<b>77</b>	<b>CAB FLOOR</b>		
	The cab and crew cab floor areas shall be covered with acoustical floor mat consisting of a rubber facing and closed cell foam decoupler.		
<b>78</b>	<b>CAB HEATER/DEFROSTER</b>		
	Two (2) High Capacity with a minimum of 25,000 BTU fresh air heater/defroster units shall be provided inside the cab. A three (3)-speed blower and temperature control shall be provided with the heating units. Blower control shall allow for independent control of defrost and heat for driver and passenger.		
<b>79</b>	<b>CREW CAB HEATER</b>		
A.	Two (2) auxiliary high capacity heaters, shall be provided in the crew cab. The heaters shall have a three (3)-speed blower, and temperature controls located adjacent to the passenger's side heater.		
B.	The heaters shall be recessed, one (1) each side in the rear lower outboard wall of the cab.		
<b>80</b>	<b>AIR CONDITIONING</b>		
A.	A high performance, customized air conditioning system shall be furnished inside the cab and crew cab. A compressor shall be installed on the engine.		

B.	The air conditioning system shall be capable of cooling the average cab temperature from 100 degrees Fahrenheit to 75 degrees Fahrenheit within 30 minutes at 50 percent relative humidity. The cooling performance test shall be run only after the cab has been heat soaked at 100 degrees Fahrenheit for a minimum of four (4) hours.		
C.	A cab roof mounted condenser with a roof mounting condensor shall be installed. (Mounting the condenser below the cab or body would reduce the performance of the system and shall not be acceptable.)		
D.	Two (2) evaporator units shall be installed, one (1) in the cab and one (1) in the crew cab.		
<b>81</b>	<b>INTERIOR CAB INSULATION</b>		
A.	The cab and crew cab walls shall be insulated with a minimum of 1.50" insulation and the ceiling shall have a minimum of 1.00" insulation to reduce heat transfer into the cab.		
B.	The insulation shall be covered with a vinyl liner or a metal panel painted to match the interior.		
<b>82</b>	<b>GRAB HANDLE</b>		
	A grab handle shall be mounted on the door post of the driver and officer's side cab door to assist in entering the cab. The grab handle shall be securely mounted to the post area between the door and windshield.		
<b>83</b>	<b>SEATING CAPACITY</b>		
	The seating capacity in the cab shall be four (4).		
<b>84</b>	<b>DRIVER SEAT</b>		
	An air-ride high-back style mid-height with headrest style seat shall be provided in the cab for the driver.		
<b>85</b>	<b>OFFICER SEAT</b>		
	The officer's seat shall be furnished with three (3)-point shoulder type seat belt. The seat belt shall be furnished with automatic retractor. Extensions shall be provided with the seat belt so the male end can be easily grasped and the female end easily located while sitting in a normal position.		
<b>86</b>	<b>RADIO COMPARTMENT</b>		
<b>87</b>	<b>EMS COMPARTMENT</b>		
A.	A rear facing EMS compartment shall be provided in the crew cab at the driver side outboard position.		
B.	The compartment shall be approximately 23.00" wide x 42.00" high x 22.00" deep with one (1) roll up door, non-locking, with a brushed aluminum finish. The clear door opening of the compartment shall be approximately 32.00" high x 16.00" wide.		
C.	The compartment shall be constructed of smooth aluminum and painted to match the cab interior.		
<b>88</b>	<b>COMPARTMENT LIGHT</b>		
A.	There shall be one (1) LED strip light installed on the right side of the compartment opening. The lights shall be controlled by an automatic door switch.		
B.	This storage compartment shall be compliant per NFPA standard for automotive fire apparatus.		
<b>89</b>	<b>EMS COMPARTMENT</b>		
A.	A rear facing EMS compartment shall be provided in the crew cab at the passenger side outboard position.		
B.	The compartment shall be approximately 21.00" wide x 42.00" high x 22.00" deep with one (1) roll up door, non-locking, with a brushed aluminum finish. The clear door opening of the compartment shall be approximately 32.00" high x 14.00" wide.		
C.	The compartment shall be constructed of smooth aluminum, and painted to match the cab interior.		
<b>90</b>	<b>COMPARTMENT LIGHT</b>		
A.	There shall be one (1) LED strip light installed on the left side of the compartment opening. The lights shall be controlled by an automatic door switch.		
B.	This storage compartment shall be compliant per NFPA standard for automotive fire apparatus.		
<b>91</b>	<b>FORWARD FACING CENTER SEATS</b>		

	There shall be two (2) forward facing, SCBA seats provided at the center position in the crew cab. The SCBA cavity shall be adjustable front to rear in .50" increments to accommodate different size SCBA bottles.		
<b>92</b>	<b>Driver and Officer SCBA locations.</b>		
	The driver and office SCBA shall be mounted in the rear portion of the cab, just inside the rear doors, on the back wall. NFPA 1901 approved brackets are to used and shall be accessible from ground level when doors are open		
<b>93</b>	<b>SEAT UPHOLSTERY</b>		
	All seats shall be upholstered		
<b>94</b>	<b>AIR BOTTLE HOLDERS</b>		
	All SCBA type seats in the cab shall have a holder bracket. This bracket shall be compliant with the current NFPA 1901 standards and shall include a back plate, two (2) seats, a footplate and the Model LLS ("Load & Lock") strap to hold the bottle in the bracket. The bracket seats shall be a "one size fits all" style seat and shall accommodate SCBA cylinders from the high pressure 30-minute to the high pressure 60-minute. Seats shall be adjustable up and down by unbolting, relocating, and rebolting in the desired position.		
<b>95</b>	<b>SEAT BELTS</b>		
	All seating positions in the cab and crew cab shall have red or orange seat belts.		
<b>96</b>	<b>SEAT BELT MONITORING SYSTEM</b>		
	A seat belt monitoring system (SBMS) shall be provided.		
<b>97</b>	<b>CREW CAB INTERIOR LIGHTING</b>		
A.	There shall be two (2) incandescent dome lights with bezels installed in the crew cab located one (1) each side, controlled by the following:		
B.	The forward, clear light shall be controlled by the door switch and the lens switch.		
C.	The rear, red light shall be controlled by the lens switch only.		
D.	A courtesy light at each door opening, controlled by automatic door switches.		
<b>98</b>	<b>CAB INSTRUMENTATION</b>		
	The cab instrument panel shall be black molded ABS and include gauges, telltale indicator lamps, control switches, alarms, and a diagnostic panel and must meet NFPA 1901.		
<b>99</b>	<b>GAUGES</b>		
	Must meet NFPA 1901		
<b>100</b>	<b>INDICATOR LAMPS</b>		
	Must meet NFPA 1901		
<b>101</b>	<b>ALARMS</b>		
	Must meet NFPA 1901.		
<b>102</b>	<b>INDICATOR LAMP AND ALARM PROVE-OUT</b>		
	Must meet NFPA 1901		
<b>103</b>	<b>CONTROL SWITCHES</b>		
	Must meet NFPA 1901		
<b>104</b>	<b>CUSTOM SWITCH PANELS</b>		
A.	The design of cab instrumentation shall allow for emergency lighting and other switches to be placed within easy reach of the operator thus improving safety. There shall be positions for up to five (5) switch panels in the engine tunnel console. All switches have backlit labels for low light applications.		
B.	High idle engagement switch: A maintained rocker switch with integral indicator lamp shall be provided. The switch shall activate and deactivate the high idle function. The "Ok TO Engage High Idle" indicator lamp must be active for the high idle function to engage. A green indicator lamp integral to the high idle engagement switch shall indicate when the high idle function is engaged.		

C.	"Ok to Engage High Idle" indicator lamp: A green indicator light shall be provided next to the high idle activation switch to indicate that the interlocks have been met to allow high idle engagement.		
D.	Diesel particulate filter regeneration switch (where applicable).		
E.	Diesel particulate filter regeneration inhibit switch (where applicable).		
<b>105</b>	<b>DIAGNOSTIC PANEL</b>		
A.	A diagnostic panel shall be accessible while standing on the ground and shall be located inside the driver's side door right of the steering column. The diagnostic panel shall allow diagnostic tools such as computers to connect to various vehicle systems for improved troubleshooting providing a lower cost of ownership. Diagnostic switches shall allow engine and ABS systems to provide blink codes should a problem exist. The diagnostic panel shall include the following:		
B.	Engine diagnostic port		
C.	Transmission diagnostic port		
D.	ABS diagnostic port		
E.	Engine diagnostic switch (blink codes flashed on check engine telltale indicator)		
F.	An ABS diagnostic switch shall be accessible while standing on the ground and located inside the passenger's cab side door. The diagnostic switch shall allow ABS system blink codes should a problem exist. The diagnostic panel shall include the following:		
G.	ABS diagnostic switch (blink codes flashed on ABS telltale indicator)		
<b>106</b>	<b>WIPER CONTROL</b>		
	Wiper control shall consist of a two (2)-speed individual windshield wiper control with intermittent feature and windshield washer controls.		
<b>107</b>	<b>SPARE CIRCUIT</b>		
A.	A spare circuit will be supplied to one of the EMS compartments		
<b>108</b>	<b>RADIO WITH CD PLAYER</b>		
A.	There shall be a AM/FM/Weather band stereo radio and 3.5 millimeter jack installed.		
B.	The compact disc stereo radio shall be mounted within reach of the driver.		
C.	The quantity and location of the speakers shall be one (1) pair of speakers located in the cab and one (1) pair of speakers located in the crew cab.		
D.	The type and location of the antenna shall be a side-mounted antenna located on the driver's side of the cab.		
<b>109</b>	<b>VEHICLE DATA RECORDER</b>		
A.	A vehicle data recorder (VDR) shall be provided. The VDR shall be capable of reading and storing vehicle information. The VDR shall be capable of operating in a voltage range from 8VDC to 16VDC. The VDR shall not interfere with, suspend, or delay any communications that may exist on the CAN data link during the power up, initialization, runtime, or power down sequence. The VDR shall continue operation upon termination of power or at voltages below 8VDC for a minimum of 10ms.		
B.	The information stored on the VDR can be downloaded through a USB port mounted in a convenient location determined by cab model. A CD provided with the apparatus shall include the programming to download the information from the VDR. A USB cable can be used to connect the VDR to a laptop to retrieve required information.		
<b>110</b>	<b>ELECTRICAL POWER CONTROL SYSTEM</b>		
	Must meet NFPA 1901		
<b>111</b>	<b>BATTERY SYSTEM</b>		
A.	Four (4) 12 volt, batteries that include 950 CCA, cold cranking amps		
B.	Each battery case shall be a black polypropylene material with a vertically ribbed container for increased vibration resistance. The cover shall be manifold vented with a central venting location to allow a 45 degree tilt capacity.		

C.	The inside of each battery shall consist of a "maintenance free" grid construction with poly wrapped separators and a flooded epoxy bottom anchoring for maximum vibration resistance.		
<b>112</b>	<b>MASTER BATTERY SWITCH</b>		
A.	A master battery switch, to activate the battery system, shall be provided inside the cab within easy reach of the driver.		
B.	An indicator light shall be provided on the instrument panel to notify the driver of the status of the battery system.		
<b>113</b>	<b>JUMPER STUDS</b>		
	One (1) set of battery jumper studs with plastic color-coded covers shall be included on the battery compartments.		
<b>114</b>	<b>BATTERY CHARGER</b>		
A.	A battery charger shall be provided and installed.		
B.	The battery charger shall be wired to the AC shoreline inlet through an AC receptacle adjacent to this battery charger.		
<b>115</b>	<b>BATTERY CHARGER LOCATION</b>		
	The battery charger shall be located in the left body compartment, adjacent to the battery compartment, mounted as high and out of the way as possible.		
<b>116</b>	<b>SHORELINE</b>		
A.	There shall be one (1) shoreline receptacle provided to operate the 120-volt circuits on the truck without the use of the generator.		
B.	The shoreline receptacle (s) shall be provided with a NEMA 5-20, 120 volt, 20 amp, straight blade plug and gray cast cover.		
<b>117</b>	<b>ALTERNATOR</b>		
	A alternator shall be provided. It shall have a rated output current of 320 amps.		
<b>118</b>	<b>ELECTRONIC LOAD MANAGEMENT</b>		
	A Load Manager shall be provided on the apparatus.		
<b>119</b>	<b>EXTERIOR LIGHTING</b>		
	Exterior lighting shall meet or exceed Federal Department of Transportation, Federal Motor Vehicle Safety Standards and National Fire Protection Association requirements.		
<b>120</b>	<b>REAR ID/MARKER DOT LIGHTING</b>		
A.	The three (3) identification lights located at the rear shall be installed.		
B.	The outside clearance lights located at the rear shall be installed per the following:		
C.	Per FMVSS 108 and CMVSS 108 requirements.		
<b>121</b>	<b>FRONT DIRECTIONAL</b>		
A.	Front turn signals to be LED amber lamps housed. The turn signals shall be housed in the same common bezel as the front warning light and be located above the headlights.		
B.	In addition to the front facing directional, a LED marker/turn indicator shall be provided on each side of the cab.		
<b>122</b>	<b>REAR FMVSS LIGHTING</b>		
A.	A pair of three (3) lamp modules shall be provided.		
	Each module shall include the following:		
1	One (1) LED stop and tail light.		
2	One (1) LED sequential turn light (right or left).		
3	One (1) LED back up light.		
4	One (1) triple light polished aluminum housing.		
B.	The lights shall be mounted on the face of the rear body compartments.		

C.	Four (4) red reflectors shall be provided.		
<b>123</b>	<b>CAB PERIMETER SCENE LIGHTS</b>		
A.	There shall be four (4), white LED lights with grommets provided, one (1) for each cab and crew cab door.		
B.	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.		
<b>124</b>	<b>PERIMETER SCENE LIGHTS, BODY</b>		
A.	There shall be four (4) LED lights with rubber grommets provided on the apparatus as perimeter scene lights.		
B.	Two (2) lights shall be under the rear step, one (1) each side.		
C.	Two (2) lights shall be under the pump panel running boards, one (1) each side.		
D.	Each lights shall be activated by a switch in the cab.		
<b>125</b>	<b>STEP LIGHTS</b>		
	All setps on the apparatus must meet NFPA 1901		
<b>126</b>	<b>DECK LIGHTS</b>		
A.	There shall be two (2) white 12 volt DC LED floodlights with swivel mount provided at the rear of the hose bed, one (1) each side.		
B.	The lights shall be activated by a control from the driver side switch panel.		
<b>127</b>	<b>WATER TANK</b>		
	Booster tank shall have a capacity of 750 to 1000 gallons being the maximum and be constructed of polypropylene plastic with a life time warranty.		
<b>128</b>	<b>HOSE BED</b>		
A.	The hose body shall be fabricated with a minimum of .125"-5052 aluminum.		
B.	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 .50" x 4.50" with spacing between slats for hose ventilation.		
C.	Hose bed shall accommodate the following approximate hose lengths: Driver Side 300' of 2.50"; Center 1000' of 5.00", Passenger Side 700' of 2.50".		
<b>129</b>	<b>HOSEBED DIVIDER</b>		
A.	Two (2) adjustable hosebed dividers shall be furnished for separating hose.		
B.	Each divider shall be constructed of a .25" brushed aluminum sheet. Flat surfaces shall be sanded for uniform appearance, or constructed of brushed aluminum.		
C.	Divider shall be fully adjustable by sliding in tracks, located at the front and rear of the hose bed.		
D.	Divider shall be held in place by tightening bolts, at each end.		
E.	Acorn nuts shall be installed on all bolts in the hose bed which have exposed threads.		
<b>130</b>	<b>HOSEBED HOSE RESTRAINT</b>		
	Must meet NFPA 1901		
<b>131</b>	<b>RUNNING BOARDS</b>		
A.	Running boards shall be fabricated of .125" bright aluminum treadplate.		
B.	Each running board shall be supported by a welded 2.00" square tubing and channel assembly, which shall be bolted to the pump compartment substructure.		
C.	Running boards shall be 12.75" deep and spaced .50" away from the pump panel.		
D.	A splashguard shall be provided above the running board treadplate.		
<b>132</b>	<b>TAILBOARD</b>		
A.	The tailboard shall also be constructed of .125" bright aluminum treadplate and spaced .50" from the body, as well as supported by a structural steel assembly.		

B.	The tailboard area shall be a minimum of 16.00" deep.		
C.	The exterior side shall be flanged down and in for increased rigidity of tailboard structure.		
<b>133</b>	<b>REAR WALL, SMOOTH ALUMINUM/BODY MATERIAL</b>		
A.	The rear facing surfaces of the center rear wall shall be smooth aluminum.		
B.	The rear facing surfaces of the bulkheads, the surface to the rear of the side body compartments, shall be smooth and the same material as the body.		
C.	Any inboard facing surfaces below the height of the hosebed shall be bright aluminum treadplate.		
<b>134</b>	<b>TOW BAR</b>		
A.	A tow bar shall be installed under the tailboard at center of truck.		
<b>135</b>	<b>COMPARTMENTATION</b>		
A.	Body and compartments shall be fabricated of .125" aluminum.		
B.	Side compartments shall be an integral assembly with the rear fenders.		
C.	Circular fender liners shall be provided for prevention of rust pockets and ease of maintenance.		
D.	Compartment flooring shall be of the sweep out design with the floor higher than the compartment door lip.		
E.	The compartment door opening shall be framed by flanging the edges in 1.75" and bending out again .75" to form an angle.		
F.	Drip protection shall be provided above the doors by means of bright aluminum extrusion, formed bright aluminum treadplate or polished stainless steel.		
G.	The top of the compartment shall be covered with bright aluminum treadplate rolled over the edges on the front, rear and outward side. These covers shall have the corners welded.		
H.	Side compartment covers shall be separate from the compartment tops.		
I.	Front facing compartment walls shall be covered with bright aluminum treadplate.		
J.	All screws and bolts which protrude into a compartment shall have acorn nuts on the ends to prevent injury.		
<b>136</b>	<b>UNDERBODY SUPPORT SYSTEM</b>		
	Due to the severe loading requirements of this pumper a method of body and compartment support suitable for the intended load shall be provided.		
<b>137</b>	<b>LOUVERS</b>		
	Louvers shall be stamped into compartment walls to provide the proper airflow inside the body compartments and to prevent water from dripping into the compartment. Where these louvers are provided, they shall be formed into the metal and not added to the compartment as a separate plate.		
<b>138</b>	<b>COMPARTMENTATION, DRIVER'S SIDE</b>		
	Please provide a drawing and measurements of compartment configuration.		
<b>139</b>	<b>COMPARTMENTATION, PASSENGER'S SIDE</b>		
	Please provide a drawing and measurements of compartment configuration.		
<b>140</b>	<b>ROLL-UP DOOR, SIDE COMPARTMENTS</b>		
	There shall be compartment doors installed on the side compartments, double faced, aluminum construction and satin aluminum or painted to match the body.		
<b>141</b>	<b>COMPARTMENTATION, REAR</b>		
	Please provide a drawing and measurements of compartment configuration		
<b>142</b>	<b>ROLL-UP DOOR, REAR COMPARTMENT</b>		
	There shall be compartment doors installed on the side compartments, double faced, aluminum construction and satin aluminum or painted to match the body.		
<b>143</b>	<b>COMPARTMENT LIGHTING</b>		

A.	There shall be seven (7) compartments with LED compartment light strips. The strips shall be centered vertically along each side of the door framing. The compartments with these strip lights shall be located all compartments.		
B.	Any remaining compartments shall include 6.00" diameter light.		
C.	Opening the compartment door shall automatically turn the compartment lighting on.		
<b>144</b>	<b>MOUNTING TRACKS</b>		
	Please provide a description of mounting tracks.		
<b>145</b>	<b>ADJUSTABLE SHELVES</b>		
	Please provide a description of shelving.		
<b>146</b>	<b>RUB RAIL</b>		
	Bottom edge of the side body compartments shall be trimmed with a bright aluminum extruded rub rail. The rear lower edge of the rear compartments shall have an aluminum treadplate rub rail.		
<b>147</b>	<b>BODY FENDER CROWNS</b>		
	Stainless steel fender crowns shall be provided around the rear wheel openings.		
<b>148</b>	<b>HARD SUCTION HOSE</b>		
A.	NFPA 1901, 2009 edition, section 5.7.2 requires a minimum of 20 ft. of suction hose or 15 ft. of supply hose.		
B.	Hose is not on the apparatus as manufactured. The dealer shall provide suction or supply hose.		
C.	There shall be Two (2) lengths of 10' long x 6.00" diameter hose provided. The brand shall be New Kochek light weight.		
<b>149</b>	<b>HOSE TROUGHS</b>		
A.	Hard suction hose shall be carried above the left compartment in V-shaped troughs and held in place by chrome plated, quarter turn, spring loaded clamps.		
B.	Troughs shall be constructed of steel and painted job color.		
C.	The size and length of the hard suction hose that shall be carried is 10' lightweight HSH.		
<b>150</b>	<b>HANDRAILS</b>		
A.	The handrails shall be 1.25" diameter anodized aluminum extrusion, with a ribbed design, to provide a positive gripping surface.		
B.	Chrome plated end stanchions shall support the handrail. Plastic gaskets shall be used between end stanchions and any painted surfaces.		
C.	Drain holes shall be provided in the bottom of all vertically mounted handrails.		
D.	Four (4) handrails shall be provided, two above each side pump panel.		
E.	Two (2) vertical handrails shall be provided, one each side of body, on the front bulkhead door frame.		
F.	One (1) vertical handrail, not less than 29.00" long, shall be located on each rear beavertail.		
G.	One (1) full width horizontal handrail shall be provided below the hose bed at the rear of the apparatus.		
<b>151</b>	<b>AIR BOTTLE STORAGE</b>		
	A total of three (3) air bottle compartments shall be provided. Each compartment shall be a round PVC plastic tube to shall accommodate various size air bottles. A door with latch shall be provided on each air bottle compartment. These compartments shall be located [Location, driver's/passen].		
<b>152</b>	<b>EXTENSION LADDER</b>		
	There shall be a 24', two (2) section, aluminum extension ladder provided at a minimum.		
<b>153</b>	<b>ROOF LADDER</b>		
	There shall be a 14' aluminum roof ladder provided.		
<b>154</b>	<b>LADDER STORAGE</b>		
	Please provide a description of ladder storage		



<b>155</b>	<b>FOLDING LADDER</b>		
	One (1) 10' aluminum folding ladder shall be installed.		
<b>156</b>	<b>PIKE POLE(S) AND STORAGE</b>		
	Please provide a solution for Pike Pole(s) and Storage.		
<b>157</b>	<b>REAR FOLDING STEPS</b>		
	Bright finished, non-skid folding steps with a luminescent coating that is rechargeable from any light source and can hold a charge for up to 24 hours shall be provided at the rear. The steps can be used as a hand hold with two openings wide enough for a gloved hand.		
<b>158</b>	<b>PUMP</b>		
	A. A Waterous or Hale Pump shall be a 1500 gpm single (1) stage midship mounted centrifugal type.		
	B. Pump shall be the class "A" type.		
<b>159</b>	<b>PUMP TRANSMISSION\</b>		
	Vendor to specify		
<b>160</b>	<b>AIR PUMP SHIFT</b>		
	Pump shift engagement shall be made by a two (2) position sliding collar, actuated pneumatically (by air pressure), with a three (3) position air control switch located in the cab. A manual back-up shift control shall also be located on the driver's side pump panel.		
<b>161</b>	<b>AUXILIARY COOLING SYSTEM</b>		
	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.		
<b>162</b>	<b>INTAKE RELIEF VALVE</b>		
	A. A relief valve shall be installed on the suction side of the pump preset at 125 psig.		
	B. Relief valve shall have a working range of 75 psig to 250 psig.		
<b>163</b>	<b>PRESSURE GOVERNOR</b>		
	This apparatus shall be equipped with a "Total Pressure Governor" engine/pump governor/throttle system that is connected directly to the Electronic Control Module (ECM) mounted on the engine. The "Total Pressure Governor" is to operate as a pressure sensor (regulating) governor (PSG).		
<b>164</b>	<b>ESP PRIMING PUMP</b>		
	Priming pump shall be a positive displacement vane type, electrically driven, and conforming to standards outlined in NFPA pamphlet #1901.		
<b>165</b>	<b>PUMP MANUALS</b>		
	Two (2) pump manuals from the pump manufacturer shall be furnished in compact disc format with the apparatus. Manuals shall cover pump operation, maintenance, and parts.		
<b>166</b>	<b>PLUMBING</b>		
	A. All inlet and outlet plumbing, 3.00" and smaller, shall be plumbed with either stainless steel pipe or synthetic rubber hose reinforced with high-tensile polyester braid. Small diameter secondary plumbing such as drain lines shall be stainless steel, brass or hose.		
	B. 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.		
	C. Plumbing manifold bodies shall be ductile cast iron or stainless steel.		
	D. All lines shall drain through a master drain valve or shall be equipped with individual drain valves. All individual drain lines for discharges shall be extended with a hose to drain below the chassis frame.		
	E. All water carrying gauge lines shall be of flexible polypropylene tubing.		
<b>167</b>	<b>MAIN PUMP INLETS</b>		
	A. A 6.00" pump manifold inlet shall be provided on each side of the vehicle. The suction inlets shall include removable die cast zinc screens that are designed to provide cathodic protection for the pump, thus reducing corrosion in the pump.		

	B. The main pump inlets shall have National Standard Threads with a long handle chrome cap.		
<b>168</b>	<b>VALVES</b>		
	A. All ball valves shall be Akron Brass in-line valves. The Akron valves shall be the 8000 series heavy-duty style with a stainless steel ball and a simple two-seat design. No lubrication or regular maintenance is required on the valve.		
	B. Valves shall have a ten (10) year warranty.		
<b>169</b>	<b>INLET (Left side)</b>		
	A. On the left side pump panel shall be one (1) 2.50" auxiliary suction, terminating in 2.50" National Standard Hose Thread. The auxiliary suction shall be provided with a strainer, chrome swivel and plug.		
	B. The location of the valve for the one (1) inlet shall be recessed behind the pump panel.		
<b>170</b>	<b>INLET CONTROL</b>		
	Control for the side auxiliary inlet(s) shall be located at the inlet valve.		
<b>171</b>	<b>INLET (Front)</b>		
	A. A 6.00" inlet front inlet with die cast zinc screens shall be provided using 5.00" stainless steel pipe and a 5.00" butterfly valve. Only radiused elbows shall be used in the piping, no mitered joints.		
	B. Drains are furnished in all the low points of piping and have .75" valves with swing handle.		
	C. A bleeder valve shall be located at the threaded connection.		
	D. The front suction shall be located on the passenger side of the bumper extension.		
<b>172</b>	<b>FRONT INLET CONTROL</b>		
	A. The front inlet shall be gated with the control located at the pump operator's panel. The valve operating mechanism shall indicate the position of the valve or an indicator shall be provided to show when the valve is closed.		
	B. There shall be an electric valve controller provided. The control will be momentary to allow the valve to be gated for ease of operation. Indicator lights will be provided to show if the valve is open or closed.		
<b>173</b>	<b>INTAKE RELIEF VALVE</b>		
	A. An intake relief valve, preset at 125 psig, shall be installed on the inlet side of the valve.		
	B. Relief valve shall have a working range of 75 psig to 250 psig.		
<b>174</b>	<b>INLET BLEEDER VALVE</b>		
	A .75" bleeder valve shall be provided for each side gated inlet.		
<b>175</b>	<b>TANK TO PUMP</b>		
	A. The booster tank shall be connected to the intake side of the pump with heavy duty piping and a quarter turn 3.00" full flow line valve with the control remotely located at the operator's panel. Tank to pump line shall run straight (no elbows) from the pump into the front face of the water tank and angle down into the tank sump. A rubber coupling shall be included in this line to prevent damage from vibration or chassis flexing.		
	B. A check valve shall be provided in the tank to pump supply line to prevent the possibility of "back filling" the water tank.		
<b>176</b>	<b>TANK REFILL</b>		
	A. 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.		
	B. DISCHARGE OUTLETS (Left Side)		
	C. Please specify location		
	D. DISCHARGE OUTLETS (Right Side)		
	E. Please specify location		
<b>177</b>	<b>DISCHARGE OUTLET, 4.00"</b>		

A.	There shall be a 4.00" discharge outlet with a 3.50" Akron valve with a 3.00" ball, installed on the right side of the apparatus, terminating with male a 4.00" National Standard hose thread adapter. This discharge outlet shall be actuated with a handwheel control with position indicator at the pump operator's control panel.		
B.	DISCHARGE OUTLET (Front)		
C.	Please specify location		
D.	DISCHARGE OUTLET (Rear)		
E.	Please specify location		
<b>178</b>	<b>DISCHARGE CAPS</b>		
	Chrome plated, rocker lug, caps with vinyl covered cables shall be furnished for all discharge outlets.		
<b>179</b>	<b>OUTLET BLEEDER VALVE</b>		
A.	A .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.		
B.	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.		
<b>180</b>	<b>ELBOWS, LEFT SIDE OUTLETS</b>		
	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.		
<b>181</b>	<b>ELBOWS, RIGHT SIDE OUTLETS</b>		
	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.		
<b>182</b>	<b>ELBOWS, REAR OUTLETS</b>		
	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.		
<b>183</b>	<b>ELBOW, 4.00" OUTLET</b>		
	The 4.00" outlet shall be furnished with a 4.00"(F) National Standard hose thread x 5.00" Storz elbow adapter with Storz cap.		
<b>184</b>	<b>DISCHARGE OUTLET CONTROLS</b>		
	Please specify model and location		
<b>185</b>	<b>DELUGE RISER</b>		
A.	A 3.00" deluge riser shall be installed above the pump in such a manner that a monitor can be mounted and used effectively. Piping shall be installed securely so no movement develops when the line is charged. The riser shall be gated and controlled at the pump operator's panel.		
B.	The deluge riser shall have male National Pipe Threads for mounting the monitor.		
<b>186</b>	<b>CROSSLAY HOSE BEDS</b>		
A.	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 pipe and gated with a 2.00" quarter turn ball valve.		
B.	Outlets to be equipped with a 1.50" National Standard hose thread 90 degree swivel located in the hose bed so that hose may be removed from either side of apparatus.		
C.	The crosslay controls shall be at the pump operator's panel.		

D.	The center crosslay dividers shall be fabricated of .25" aluminum and shall provide adjustment from side to side. The divider shall be unpainted with a brushed finish.		
E.	Vertical scuffplates, constructed of stainless steel, shall be provided at the front and rear ends of the bed on each side of vehicle.		
F.	Crosslay bed flooring shall consist of removable perforated brushed aluminum.		
<b>187</b>	<b>CROSSLAY HOSE BEDS, 2.50"</b>		
A.	One (1) crosslay with 2.50" outlets shall be provided. This bed to be capable of carrying 200 feet of 2.50" double jacketed hose and shall be plumbed with 2.50" i.d pipe and gated with a 2.50" quarter turn ball valve.		
B.	Outlet to be equipped with a 2.50" National Standard hose thread 90 degree swivel located in the hose bed so that hose may be removed from either side of apparatus.		
C.	The crosslay control shall be at the pump operator's panel.		
D.	The center crosslay dividers shall be fabricated of .25" aluminum and shall provide adjustment from side to side. The divider shall be unpainted with a brushed finish. The remainder of the crosslay bed shall be painted job color.		
E.	Stainless steel vertical scuffplates shall be provided at hose bed ends (each side of vehicle). Bottom of hose bed ends (each side) shall also be equipped with a stainless steel scuffplate.		
F.	Crosslay bed flooring shall consist of removable perforated brushed aluminum.		
<b>188</b>	<b>CROSSLAY/DEADLAY HOSE RESTRAINT</b>		
	Elastic netting shall be provided across the top and ends of two (2) crosslay/deadlay opening(s) to secure the hose during travel. The netting shall be permanently attached at the top center of the crosslay/deadlay bed and removable on each end.		
<b>189</b>	<b>PUMP COMPARTMENT</b>		
A.	The pump compartment shall be separate from the hose body and compartments so that each may flex independently of the other. It shall be a fabricated assembly of steel tubing, angles and channels which supports both the fire pump and the side running boards.		
B.	The pump compartment shall be mounted on the chassis frame rails with rubber biscuits in a four point pattern to allow for chassis frame twist.		
C.	Pump compartment, pump, plumbing and gauge panels shall be removable from the chassis in a single assembly.		
<b>190</b>	<b>PUMP CONTROL PANELS (Left Side Control)</b>		
A.	All pump controls and gauges shall be located at the left (driver's) side of the apparatus and properly identified.		
B.	Layout of the pump control panel shall be ergonomically efficient and systematically organized.		
C.	The pump operator's control panel shall be removable in two (2) main sections for ease of maintenance:		
D.	The upper section shall contain sub panels for the mounting of the pump pressure control device, engine monitoring gauges, electrical switches, and foam controls (if applicable). Sub panels shall be removable from the face of the pump panel for ease of maintenance. Below the sub panels shall be located all valve controls and line pressure gauges.		
E.	The lower section of the panel shall contain all inlets, outlets, and drains.		
F.	All push/pull valve controls shall have 1/4 turn locking control rods with polished chrome plated zinc tee handles. Guides for the push/pull control rods shall be chrome plated zinc castings securely mounted to the pump panel. Push/pull valve controls shall be capable of locking in any position. The control rods shall pull straight out of the panel and shall be equipped with universal joints to eliminate binding.		
<b>191</b>	<b>IDENTIFICATION TAGS</b>		
	The identification tag for each valve control shall be recessed in the face of the tee handle.		
<b>192</b>	<b>PUMP PANEL CONFIGURATION</b>		

	The pump panel configuration shall be arranged and installed in an organized manner that shall provide user-friendly operation.		
<b>193</b>	<b>PUMP AND GAUGE PANEL</b>		
	Please provide a description of pump and gauge panel configuration and construction. The passenger's side pump panel shall be removable and fastened with swell type fasteners.		
<b>194</b>	<b>PUMP COMPARTMENT LIGHT</b>		
	A pump compartment light shall be provided inside the right side pump enclosure and accessible through a door on the pump panel.		
<b>195</b>	<b>GAUGES, VACUUM and PRESSURE</b>		
	A. The pump vacuum and pressure gauges shall be liquid filled.		
	B. 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#.		
<b>196</b>	<b>PRESSURE GAUGES</b>		
	The individual "line" pressure gauges for the discharges shall be interlube filled.		
<b>197</b>	<b>WATER LEVEL GAUGE</b>		
	An electronic water level gauge shall be provided on the operator's panel that registers water level by means of five colored LED lights. The lights shall be durable, ultra-bright five LED design viewable through 180 degrees. The water level indicators shall be as follows:		
<b>198</b>	<b>LIGHT SHIELD</b>		
	A. There shall be a polished, 16 gauge stainless steel light shield installed over the pump operators panel.		
	B. There shall be 12 volt DC white LED lights installed under the stainless steel light shield to illuminate the controls, switches, essential instructions, gauges, and instruments necessary for the operation of the apparatus. These lights shall be activated by the pump panel light switch. Additional lights shall be included every 18.00" depending on the size of the pump house.		
	C. One (1) pump panel light shall come on when the pump is in ok to pump mode.		
	D. There shall be a light activated above the pump panel light switch when the parking brake is set. This is to afford the operator some illumination when first approaching the control panel.		
	E. There shall be a green pump engaged indicator light activated on at the operator's panel when the pump is shifted into gear from inside the cab.		
<b>199</b>	<b>AIR HORN SYSTEM</b>		
	Two (2) air horns shall be provided and located, in the front bumper, recessed one each side.		
<b>200</b>	<b>AIR HORN CONTROL</b>		
	The air horns shall be actuated by a push button located on officer side instrument panel and by the horn button in the steering wheel. The driver shall have the option to control the air horns or the chassis horns from the horn button by means of a selector switch located on the instrument panel.		
<b>201</b>	<b>Federal "Q" SIREN</b>		
	Please specify. The preferred location would be on the driver side front bumper		
<b>202</b>	<b>ELECTRONIC SIREN</b>		
	A electronic siren with noise canceling microphone shall be provided.		
<b>203</b>	<b>SPEAKER</b>		
	There shall be one (2) speaker with chrome finish provided. Connection shall be connected to the siren amplifier.		
<b>204</b>	<b>CAB ROOF LIGHTBAR</b>		
	A. There shall be one (1) 56.00" at a minimum, LED light bar mounted on the cab roof.		
	B. This light bar shall include the following:		
	1 Four (4) red flashing forward facing LED modules.		
	2 Two (2) red flashing front corner LED modules.		

3	Two (2) red flashing rear corner LED modules.		
C.	The lens color shall be clear.		
D.	There shall be one (1) switch, located in the cab on the switch panel, to control this light bar.		
<b>205</b>	<b>LIGHTS, FRONT ZONE LOWER</b>		
A.	One (1) pair of LED lights shall be installed on the cab face above the headlights, in a common bezel with the directional lights.		
B.	The color of these lights shall be red Super LED/red lens.		
C.	These lights shall meet or exceed NFPA front lower zone requirements.		
D.	Per NFPA, these lights shall be activated by a switch in the cab.		
<b>206</b>	<b>SIDE ZONE LOWER LIGHTING</b>		
A	Six (6) flashing super LED lights shall be located at the following positions:		
1	Two (2) lights, one (1) each side on the bumper extension - red Super LED/red lens each side.		
2	Two (2) lights, behind crew cab doors, below grab handle, one each side of truck. - Red Super LED/red lens each side.		
3	Two (2) lights, rear body fender panel, one each side. - Red Super LED/red lens each side.		
B.	The lights shall be controlled by a lighted switch on the cab instrument panel.		
C.	These lights shall be installed with three (3) pairs of flange kits.		
<b>207</b>	<b>REAR ZONE LOWER LIGHTING</b>		
A.	Two (2) LED warning lights shall be located at the rear of the apparatus, required to meet or exceed the lower level optical warning and optical power requirements of NFPA.		
B.	The color of these lights shall be red Super LED/red lens.		
C.	One (1) switch in the cab on the switch panel shall control these lights.		
D.	These lights shall be installed with a flange.		
<b>208</b>	<b>REAR/SIDE ZONE UPPER WARNING LIGHTS</b>		
A.	There shall be two (2) LED warning beacons provided at the rear of the truck, located one (1) each side. These lights shall be activated by a lighted switch on the instrument panel.		
B.	The color of the lights shall be red LEDs with both domes clear.		
C.	The rear warning lights shall be mounted on top of the compartmentation with all wiring totally enclosed. The rear deck lights shall be mounted on the beavertails high as possible.		
<b>209</b>	<b>ELECTRICAL SYSTEM GENERAL DESIGN for ALTERNATING CURRENT</b>		
	Must Meet NFPA 1901		
<b>210</b>	<b>GENERATOR</b>		
	The apparatus shall be equipped with a complete electrical power system. The generator shall be a Harrison 8.0 kW Hydraulic unit. The wiring and generator installation shall conform to the present National Electrical Codes Standards of the National Fire Protection Association. The installation shall be designed for continuous operation without overheating and undue stress on components.		
<b>211</b>	<b>GENERATOR LOCATION</b>		
	Please specify location		
<b>212</b>	<b>GENERATOR START</b>		
	A switch shall be located on the cab instrument panel to engage the generator.		
<b>213</b>	<b>CIRCUIT BREAKER PANEL</b>		
	Please specify location		
<b>214</b>	<b>120 VOLT LIGHTING</b>		
A.	There shall be two (2) Whelen, Model PCP2AP, 120 volt AC LED combination flood/spot light(s) installed on the apparatus.		

B.	The lights shall be installed One (1) each side on rear outer wall of cab.		
C.	The light(s) to be installed on side mount push up pole(s).		
D.	The length of the outside pole to be 20.00".		
E.	The inside pole length to be as long as long as practical to fit in the location selected.		
F.	The light pole(s) to be installed without handle holder(s).		
G.	The light(s) selected above shall be controlled by the AC circuit breaker:		
<b>215</b>	<b>ELECTRIC CORD REEL</b>		
A.	Furnished with the 120 volt AC electrical system shall be a Akron, cord reel. The reel shall be provided with a 12-volt electric rewind switch, that is guarded to prevent accidental operation and labeled for its intended use. The switch shall be protected with a fuse and installed at a height not to exceed 72 inches above the operators standing position.		
B.	The reel shall be capable holding 12/3 600 volt cable or 10/3 600 volt cable.		
C.	A minimum of (1) one cord reel shall be provided exact location to be chosen after order.		
<b>216</b>	<b>REEL WARRANTY</b>		
	The electric reel shall come with a five (5) year warranty provided by the reel manufacturer.		
<b>217</b>	<b>CORD</b>		
A.	There shall be 200 feet of Carol Super Vu-Tron II yellow 12/3 electrical cord provided for electrical distribution on each reel.		
B.	The cord shall be provided with a Fire Power connector.		
<b>218</b>	<b>PORTABLE JUNCTION BOX</b>		
A.	There shall be two (2) -120 volt ac, Fire Power receptacles, and two (2) 120 vac, 15 amp (5-15) straight blade (household) duplex receptacles, with a locator/indicator light provided in an outlet box. The junction box construction shall be weatherproof and have flip-up covers lined with soft neoprene rubber at each outlet opening. The junction box shall be a Circle-D, model PF-51G-XX, with a Fire Power pigtail.		
B.	Shall be provided for each reel.		
<b>219</b>	<b>JUNCTION BOX HOLDER</b>		
	There shall be an aluminum junction box holder installed adjacent to the cord reel and shall be installed adjacent to each cord reel.		
<b>220</b>	<b>LOOSE EQUIPMENT</b>		
	The following equipment shall be furnished with the completed unit:		
A.	One (1) bag of chrome, stainless steel, or cadmium plated screws, nuts, bolts and washers, as used in the construction of the unit		
<b>221</b>	<b>STRAINER, PROVIDED BY DEALER</b>		
A.	NFPA 1901, 2009 edition, section 5.7.2.1.1 requires a suction strainer when suction hose is provided.		
B.	The strainer is not on the apparatus as manufactured. The dealer shall provide the suction strainer. The provided strained is to be a Task Force Tip flat strainer with a 1.5" jet siphon.		
<b>222</b>	<b>PAINT</b>		
A.	The exterior custom cab and body painting procedure shall be of industry standards.		
B.	All removable items such as brackets, compartment doors, door hinges, trim, etc. shall be removed and painted separately to insure paint behind all mounted items. Body assemblies that cannot be finish painted after assembly shall be finish painted before assembly.		
C.	The cab shall be two-tone, with the upper section and a shield design on the cab face painted white. The remaining lower section of the cab and the body shall be painted red.		
<b>223</b>	<b>PAINT CHASSIS FRAME ASSEMBLY</b>		

	The chassis frame assembly shall be painted black before the installation of the cab and body, and before installation of the engine and transmission assembly, air brake lines, electrical wire harnesses, etc. Components that are included with the chassis frame assembly that shall be painted black are frame rails, cross members, axles, suspension, steering gear, fuel tank, body substructure supports, miscellaneous mounting brackets, etc.		
<b>224</b>	<b>PAINT, FRONT WHEELS</b>		
	All wheel surfaces, inside and outside, shall be provided with powder coat paint #90 red.		
<b>225</b>	<b>PAINT, REAR WHEELS</b>		
	All wheel surfaces, inside and outside, shall be provided with powder coat paint #90 red.		
<b>226</b>	<b>COMPARTMENT INTERIOR PAINT</b>		
	The interior of compartmentation shall be painted with a gray spatter type paint.		
<b>227</b>	<b>REFLECTIVE STRIPES</b>		
A.	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.		
B.	The reflective band provided on the cab face shall be at the headlight level.		
<b>228</b>	<b>CHEVRON STRIPING, REAR</b>		
A.	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.		
B.	Each stripe shall be 6.00" in width.		
<b>229</b>	<b>LETTERING</b>		
	The lettering shall be totally encapsulated between two (2) layers of clear vinyl.		
<b>230</b>	<b>LETTERING</b>		
	Eighty genuine gold reflective vinyl lettering, 3.00" high, with outline and shade shall be provided.		
<b>231</b>	<b>CD MANUAL, FIRE APPARATUS PARTS</b>		
A.	Two (2) custom parts manuals for the complete fire apparatus shall be provided in CD format with the completed unit.		
B.	The manual shall contain the following:		
	1- Job number		
	2- Part numbers with full descriptions		
	3- Table of contents		
	4- Parts section sorted in functional groups reflecting a major system, component, or assembly		
	5- Parts section sorted in Alphabetical order		
	6- Instructions on how to locate parts		
C.	The manual shall be specifically written for the chassis and body model being purchased. It shall not be a generic manual for a multitude of different chassis and bodies.		
<b>232</b>	<b>CD MANUALS, CHASSIS SERVICE</b>		
A.	Two (2) CD format chassis service manuals containing parts and service information on major components shall be provided with the completed unit.		
B.	The manual shall contain the following sections:		
	1- Job number		
	2- Table of contents		
	3- Troubleshooting		
	4- Front Axle/Suspension		
	5- Brakes		



6-	Engine		
7-	Tires		
8-	Wheels		
9-	Cab		
10-	Electrical, DC		
11-	Air Systems		
12-	Plumbing		
13-	Appendix		
C.	The manual shall be specifically written for the chassis model being purchased. It shall not be a generic manual for a multitude of different chassis and bodies.		
<b>233</b>	<b>CD MANUAL, CHASSIS OPERATION</b>		
	Two (2) CD format chassis operation manuals shall be provided.		
<b>234</b>	<b>ONE (1) YEAR MATERIAL AND WORKMANSHIP</b>		
A.	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.		
B.	A copy of the warranty certificate shall be submitted with the bid package. (No exception).		
<b>235</b>	<b>ENGINE WARRANTY</b>		
	A Cummins five (5) year limited engine warranty shall be provided. A copy of the warranty certificate shall be submitted with the bid package.		
<b>236</b>	<b>STEERING GEAR WARRANTY</b>		
	One (1) year limited steering gear warranty shall be provided. A copy of the warranty certificate shall be submitted with the bid package.		
<b>237</b>	<b>FRONT AXLE TWO (2) YEAR MATERIAL AND WORKMANSHIP WARRANTY</b>		
	Two (2) year limited warranty shall be provided.		
<b>238</b>	<b>REAR AXLE TWO (2) YEAR MATERIAL AND WORKMANSHIP WARRANTY</b>		
	Two (2) year limited warranty shall be provided.		
<b>239</b>	<b>TRANSMISSION WARRANTY</b>		
	The transmission shall have a five (5) year/unlimited mileage warranty covering 100 percent parts and labor. The warranty is to be provided by Allison Transmission and not the apparatus builder.		
<b>240</b>	<b>LIFETIME MATERIAL AND WORKMANSHIP</b>		
A.	The poly water tank shall be provided with a lifetime material and workmanship limited warranty.		
B.	A copy of the warranty certificate shall be submitted with the bid package (No Exception).		
<b>241</b>	<b>ROLL UP DOOR MATERIAL AND WORKMANSHIP WARRANTY</b>		
	One (1) year warranty		
<b>242</b>	<b>PUMP WARRANTY</b>		
	Minimum of two (2) year warranty. A copy of the warranty certificate shall be submitted with the bid package (No Exception).		
<b>243</b>	<b>TEN (10) YEAR PUMP PLUMBING WARRANTY</b>		
<b>244</b>	<b>TWO (2) YEAR GENERATOR MATERIAL AND WORKMANSHIP WARRANTY</b>		
	A Harrison Hydra-Gen generator 2 year limited warranty shall be provided.		
<b>245</b>	<b>VEHICLE STABILITY CERTIFICATION</b>		
	Must meet NFPA 1901		
<b>246</b>	<b>ENGINE INSTALLATION CERTIFICATION</b>		

	Must meet NFPA 1901		
<b>247</b>	<b>POWER STEERING CERTIFICATION</b>		
	Must meet NFPA 1901		
<b>248</b>	<b>CAB INTEGRITY CERTIFICATION</b>		
	Must meet NFPA 1901		
<b>249</b>	<b>AMP DRAW REPORT</b>		
	Must meet NFPA 1901		
<b>250</b>	<b>FOAM PROPORTIONER</b>		
A.	A foam proportioning system shall be provided that is an on demand, automatic proportioning, single point, direct injection system suitable for all types of Class A and B foam concentrates, including the high viscosity (6000 cps), alcohol resistant Class B foams. Operation shall be based on direct measurement of water flow, and remain consistent within the specified flows and pressures. The system shall automatically proportion foam solution at rates from .1 percent to 3.0 percent regardless of variations in water pressure and flow, up to the maximum rated capacity of the foam concentrate pump.		
B.	The design of the system shall allow operation from draft, hydrant, or relay operation.		
<b>251</b>	<b>System Capacity</b>		
A.	The system shall have the ability to deliver the following minimum foam solution flow rates at accuracies that meet or exceed NFPA requirements at a pump rating of 150 psi.		
B.	100 gpm @ 3 percent		
C.	300 gpm @ 1 percent		
D.	600 gpm @ 0.5 percent		
E.	Class A foam setting in .1 percent increments from .1 percent to 1 percent. Typical settings of 1 percent, .5 percent and .3 percent (maximum capacity shall be limited to the plumbing and water pump capacity).		
<b>252</b>	<b>Control System</b>		
A.	The system shall be equipped with a digital electronic control display located on the pump operators panel. Push button controls shall be integrated into the panel to turn the system on/off, control the foam percentage, and to set the operation modes.		
B.	The percent of injection shall have a preset. This preset can be changed at the fire department as desired. The percent of injection shall be able to be easily changed at the scene to adjust to changing demands.		
C.	Three (3) .50 tall LEDs shall display the foam percentage in numeric characters. Three (3) indicator LEDs shall also be included, one (1) green, one (1) red, and one (1) yellow. The LEDs shall indicate various system operation or error states.		
	The indications shall be:		
1	Solid Green - System On		
2	Solid Red - Valve Position Error		
3	Solid Yellow - Priming System		
4	Flashing Green - Injecting Foam		
5	Flashing Red - Low Tank Level		
6	Flashing Yellow - Refilling Tank		
D.	The control display shall house a microprocessor, which receives input from the systems water flow meter while also monitoring the position of the foam concentrate pump. The microprocessor shall compare the values of the water flow versus the position/rate of the foam pump, to ensure the proportion rate is accurate. One (1) check valve shall be installed in the plumbing to prevent foam from contaminating the water pump.		
<b>253</b>	<b>Hydraulic Drive System</b>		

	The foam concentrate pump shall be powered by an electric over hydraulic drive system. The hydraulic system and motor shall be integrated into one (1) unit.		
<b>254</b>	<b>Foam Concentrate Pump</b>		
A.	The foam concentrate pump shall be of positive displacement, self-priming; linear actuated design, driven by the hydraulic system. The pump shall be constructed of brass body; chrome plated stainless steel shaft, with a stainless steel piston. In order to increase longevity of the pump, no aluminum shall be present in its construction.		
B.	A relief system shall be provided which is designed to protect the drive system components and prevent over pressuring the foam concentrate pump		
C.	The foam concentrate pump shall have minimum capacity for 3 gpm with all types of foam concentrates with a viscosity at or below 6000 cps including protein, fluoroprotein, AFFF, FFFP, or AR-AFFF. The system shall deliver only the amount of foam concentrate flow required, without recirculating foam back to the storage tank. Recirculating foam concentrate back to the storage tank can cause agitation and premature foaming of the concentrate, which can result in system failure. The foam concentrate pump shall be self-priming and have the ability to draw foam concentrate from external supplies such as drums or pails.		
<b>255</b>	<b>External Foam Concentrate Connection for Single Agent Systems</b>		
	If the system proposed only has one foam tank, an external foam pick-up shall be provided to enable use of a foam agent that is not stored on the vehicle. The external foam pick-up shall be designed to allow continued operation after the on-board foam tank is empty, or the use of foam different than the foam in the foam tank.		
<b>256</b>	<b>Panel Mounted External Pick-Up Connection / Valve</b>		
	A bronze three (3)-way valve shall be provided. The unit shall be mounted to the pump panel. The valve unit shall function as the foam system tank to pump valve and external suction valve. The external foam pick-up shall be one (1) .75" male connection GHT (garden hose thread) with a cap.		
<b>257</b>	<b>Pick-Up Hose</b>		
	A .75" flexible hose with an end for insertion into foam containers shall be provided. The hose shall be supplied with a .75" female swivel GHT (garden hose thread) swivel connector. The hose shall be shipped loose.		
<b>258</b>	<b>Discharges</b>		
	The foam system shall be plumbed to four (4) discharges. The discharge(s) capable of dispensing foam shall be three crosslays and front discharge.		
<b>259</b>	<b>System Electrical Load</b>		
	The maximum current draw of the electric motor and system shall be no more than 55 amperes at 12 VDC.		
<b>260</b>	<b>REFILL, SINGLE FOAM TANK SYTEM</b>		
	If the proposed unit only has one foam tank, the foam system's proportioning pump shall be used to fill the foam tank. This shall allow use of the auxiliary foam pick-up to pump the foam from pails or a drum on the ground into the foam tank. A foam shut-off switch shall be installed in the fill dome of the tank to shut the system down when the tank is full. The fill operation shall be controlled by a mode in the foam system controller. While the proportioner pump is filling the tank, the controller shall display a flashing yellow LED to indicate that the tank is filling. When the tank is full, as determined by the float switch in the tank dome, the pump shall stop and the controller shall shut the yellow LED off. If it attempted to use tank fill and the refill valve and suction valve are in the wrong position(s), then a red LED shall illuminate to indicate the improper valve position(s). When the valves are positioned properly, then filling shall commence.		
<b>261</b>	<b>SINGLE FOAM TANK</b>		

	If the proposed unit only has one foam tank ,the foam tank shall be an integral portion of the polypropylene water tank. The cell shall have a capacity of 20 gallons of foam with the intended use of Class A foam. The brand of foam stored in this tank shall be chemguard. The foam cell shall reduce the capacity of the water tank. The foam cell shall have a screen in the fill dome and a breather in the lid.		
<b>262</b>	<b>FOAM TANK DRAIN</b>		
A.	A system of 1.00" foam tank drains shall be provided, integrated into the foam systems strainer and tank to foam pump valve management system. The tank to pump hoses running from the tank(s) to the panel mounted strainer shall 1.00" diameter. The foam system controller shall have a mode that allows for a given foam valve to be opened at will. Flow of foam from the tank valve to the strainer shall be usable as a tank drain mode.		
B.	An adaptor shall be supplied, that allows the 1.00" foam intake screen to assembly to be used as a drain outlet. The standard supplied 1.00" foam pick up hose shall be attached to the screen assembly by way of the adapter. The drain mode shall allow the operator to open and close the tank valve as required from the control head, to drain foam and re-fill foam containers through the connected hose, without foam spillage beneath the vehicle.		
<b>263</b>	<b>FOAM LEVEL GAUGE</b>		
	An electronic foam level gauge shall be provided on the operator's panel that registers foam level by means of five colored LED lights.		
<b>264</b>	<b>OPTIONAL ITEMS</b>		
	It is the intent of Sedgwick County Fire District 1 to look at all units that meet the minimum qualifications outlined in this RFP. Units with the following options and/or available upgrades, that meet the minimum requirements, will also be considered and should be attached with pricing :		
A.	Dual Agent Foam System		
B.	Compressed Air Foam System (CAFS)		

## **20. GENERAL CONTRACT PROVISION**

The following appendix is language the County requires for all contracts that are entered in. If duplication exists, previous sections prevail. [http://www.sedgwickcounty.org/purchasing/pdf\\_files/General\\_Contract\\_Provisions.pdf](http://www.sedgwickcounty.org/purchasing/pdf_files/General_Contract_Provisions.pdf)

## **21. REQUEST FOR PROPOSAL CONDITIONS**

In submitting a response to this Request for Proposal, vendors hereby understand the following:

1. Pricing offered in the proposal document will be provided to other local governments and governments whom Sedgwick County regularly enters into agreements.
2. Alternate proposals (two or more proposals submitted) will be considered for an award. Sedgwick County reserves the right to make the final determination of actual equivalency or suitability of such proposals with respect to requirements outlined herein.
3. Sedgwick County will retain the right to reject any part of or any and/or all proposals received, or to accept any item or items in the proposal, if determined to be non-responsive in any form, or if determined to be in the best interest of Sedgwick County. It will further be understood that each responder's sureties and insurers are subject to the approval of the County.
4. Sedgwick County may award a purchase contract, based on initial offers received, without discussion of such offers. **A vendor's initial offer should therefore be based on the most favorable terms available from a price and technical standpoint.** The County may, however, have discussion with those vendors that it deems in its discretion to fall within a competitive range. It may also request best and final offers from such proposers, and make an award and/or conduct negotiations thereafter.
5. Sedgwick County reserves the right to negotiate separately with any proposer after the opening of this Request for Proposal when such action is considered in its best interest. Subsequent negotiations may be conducted, but such negotiations will not constitute acceptance, rejection, or a counteroffer on the part of the County.
6. Proposals may not be withdrawn for a period of 120 days following the opening of this Request for Proposal. Prices MUST also be free of duties, federal, state, and local taxes unless otherwise imposed by a governmental body, and applicable to the material on the proposal.
7. Proposers MUST return the entire document with any supplementary materials to Sedgwick County, Kansas, Purchasing Department, 525 North Main, 8<sup>th</sup> Floor, Suite 823, Wichita, KS 67203, on or before 1:45 p.m. on the proposal due date. The time clock stamp in the Purchasing Department will determine the time of receipt. Bids and Proposals will be opened and acknowledged at 2:00 p.m. the same day and location unless other specified.

8. Envelopes/container containing Responses must be sealed and marked on the lower left-hand corner with the firm name and address, proposal number, proposal due date, and proposal opening time.
9. Sedgwick County interprets the term "lowest responsible and best bidder/proposer" as requiring Sedgwick County to: (a) choose between the kinds of materials, goods, wares, or services subject to the proposal, and (b) determine which proposal is most suitable for its intended use or purpose. Sedgwick County can consider, among other factors, such things as labor cost, service and parts availability, and maintenance costs of items upon which proposals are received. Sedgwick County can determine any differences or variations in the quality or character of the material, goods, wares, or services performed or provided by the respective responders.
10. All requested information must be supplied. If proposers cannot respond to any part of this request proposers should state the reason they cannot respond. Proposers may provide supplemental information, if necessary, to assist Sedgwick County in analyzing their proposal.
11. A purchase order and/or contractual agreement constitutes Sedgwick County's offer to the service provider upon the terms and conditions stated herein, and shall become binding for all terms set forth herein, when it is accepted by the service provider by acknowledgment or performance, and subject to the terms and conditions of the County to be memorialized by written agreement.
12. After the award, if the successful contractor/supplier refuses or fails to make deliveries of the materials/services within the times specified in the Request for Proposal, purchase order or contractual agreement, Sedgwick County may, by written notice, terminate the contract OR purchase order. The successful respondent will certify and warrant that goods, personal property, chattels, and equipment sold and delivered are free and clear of any and all liens, or claims of liens, for materials or services arising under, and by virtue of the provisions of K.S.A. 58-201, et seq., and any other lien, right, or claim of any nature or kind whatsoever.
13. The proposer responding to this proposal proposes to furnish all materials, labor, supplies, equipment and incidentals necessary to provide the equipment/materials/services described herein in accordance with the Notification of Solicitation (if applicable), Request for Information (if applicable), Request for Proposal, Addenda, Contract, Bonds, Insurance, Plans, Specifications, Mandatory Requirements and Conditions.
14. If a response to this Request for Proposal is accepted, the proposer agrees to execute and deliver to the County a contract in accordance with the Contract Documents (if applicable) within ten days of notice of the award to the Proposer.
15. If a proposer is to be awarded a contract, Domestic (Kansas) corporations shall 1) furnish evidence of good standing in the form of a Certificate signed by the Kansas Secretary of State. Foreign (non-Kansas) corporations shall furnish evidence of authority to transact business in Kansas, in the form of a Certificate signed by the Kansas Secretary of State; and 2) a copy of the Corporation Resolution evidencing the authority to sign the Contract Documents, executed by the Corporation's Secretary or Assistant Secretary.
16. Sedgwick County will not award to any vendor that is currently listed in the exclusion records of the SAM (System for Award Management) website maintained by the General Services Administration (GSA) or to any vendor presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency.
17. The proposer hereby certifies that he or she has carefully examined all of the documents for the project, has carefully and thoroughly reviewed this Request for Proposal, understands the nature and scope of the work to be done; and that this proposal is based upon the terms, specifications, requirements, and conditions of the Request for Proposal and documents. The Proposer further agrees that the performance time specified is a reasonable time, having carefully considered the nature and scope of the project as aforesaid.
18. It will be understood that any proposal and any/all referencing information submitted in response to this Request for Proposal will become the property of Sedgwick County, and will not be returned. Sedgwick County will use discretion with regards to disclosure of proprietary information contained in any response, but cannot guarantee that information will not be made public. As a governmental entity, Sedgwick County is subject to making records available for disclosure after Board of County Commission approval of the recommendation. Any confidential or proprietary information should be clearly marked.
19. Sedgwick County reserves the right to cancel the work described herein prior to issuance and acceptance of any contractual agreement/purchase order by the recommended vendor even if the Board of County Commissioners has formally accepted a recommendation.
20. Sedgwick County will issue a purchase order/contract for the acquisition of products/services specified as a result of an award made in reference to this document. Contract documents will be subject to any regulations governed by the laws of the State of Kansas and any local resolutions specifically applicable to the purchase. Any dispute arising out of the contract documents or their interpretation will be litigated only within the courts of the State of Kansas.
21. County reserves the right to enter into agreements subject to the provisions of the Cash Basis Law (K.S.A. 10-1112 and 10-1113), the Budget Law (K.S.A. 79-2935). Agreements shall be construed and interpreted so as to ensure that the County shall at all times stay in conformity with such laws, and as a condition of agreements the County reserves the right to unilaterally sever, modify, or terminate agreements at any time if, in the opinion of its legal counsel, the Agreement may be deemed to violate the terms of such law.
22. No prepayment of any kind will be made prior to implementation. Payment of the seller's invoices is subject to adjustment for any shortage, or for the rejection of any item or items.
23. Unless specified elsewhere in the document, all prices quoted must be F.O.B. Destination, Freight Prepaid and Allowed, which will include all delivery, handling, and any other charges related to delivery including surcharges.
24. The successful proposer may have access to private or confidential data maintained by the County to the extent necessary to carry out its responsibilities of the contract. Contractor shall be responsible for compliance with the privacy provision of the Health Insurance Portability and Accountability Act (HIPAA) and shall comply with all other HIPAA provisions and regulations applicable. If the successful proposer is a business associate as that term is defined under HIPAA, the contract shall include the County's standard business associate addendum. A copy of that standard addendum is available on request.
25. The successful proposer agrees all data, records and information, which the proposer, including its agents and employees, obtains access to for the purposes of this proposal, remains at all times exclusively the property of Sedgwick County. Proposer agrees it will take all reasonable steps and the same protective precautions to protect Sedgwick County's proprietary information from disclosure to third parties as with successful proposer's own proprietary and confidential information. **Proposer agrees that all data, regardless of form that is**

**generated as a result of this Request for Proposal is the property of Sedgwick County.**

26. The Proposer agrees to comply with K.S.A. 44-1030, and hereby agrees that:
  - a. He or she will observe the provision of the Kansas Commission on Human Rights and will not discriminate against any person in the performance of work under the present contract because of race, religion, color, sex, national origin, ancestry, or physical disability;
  - b. In all solicitations or advertisements for employees, he or she will include the phrase, 'Equal Opportunity Employer,' or a similar phrase to be approved by the Kansas Commission on Human Rights;
  - c. If he or she fails to comply with the manner in which he reports to the Kansas Commission on Human Rights, he will be deemed to have breached the present contract, and it may be canceled, terminated, or suspended, in whole or in part, by Sedgwick County, Kansas;
  - d. If he or she is found guilty of a violation of the Kansas Act Against Human Rights under a decision, or order of the Kansas Commission on Human Rights which has become final, he or she will be deemed to have breached the present contract, and it may be canceled, terminated, or suspended, in whole or in part, by Sedgwick County, Kansas; and,
  - e. He or she will include the provisions of subsections (a) through (d) inclusively of this paragraph in every subcontract or purchase order so that such provision will be binding upon such subcontractor or vendor.
27. The successful proposer agrees all project participants, consultants, engineers, contractors and subcontractors, must comply with all applicable Federal, State and County laws pertaining to contracts entered into by governmental agencies. All participants must comply with the Americans with Disabilities Act (ADA), including the 2008 ADA Amendments Act, and 2010 ADA Standards for Accessible Design.
28. The successful proposer agrees all contractors/subcontractors performing new construction, maintenance, alterations, or additions to Sedgwick County buildings or facilities must comply with building guidelines/codes, and the 2010 ADA Standards for Accessible Design. Any violation of the provisions of the ADA or 504, or specification deficiencies, should be reported to the county's ADA coordinator. Failure to notify the county's ADA coordinator for remedy may be considered a breach of contract and may be grounds for cancellation, termination for suspension, in whole or in any part of the contract. All construction plans will have the county's ADA coordinator approval prior to beginning any work.
29. Sedgwick County is desirous of allowing as many Kansas vendors as possible the opportunity to participate including minority men and women-owned businesses, and small businesses in the roles of providing goods and services to Sedgwick County. If your company does not fall into any of these categories, your efforts to contract with vendors who do fall into these categories are appreciated. Construction projects utilizing subcontractors requires a subcontracting worksheet. Contact purchasing department for details.
30. By submission of a response, the Proposer agrees that at the time of submittal, he or she: (1) has no interest (including financial benefit, commission, finder's fee, or any other remuneration) and will not acquire any interest, either direct or indirect, that would conflict in any manner or degree with the performance of Proposer's services, or (2) benefit from an award resulting in a "Conflict of Interest." A "Conflict of Interest" will include holding or retaining membership, or employment, on a board, elected office, department, division, or bureau, or committee sanctioned by and/or governed by the Sedgwick County Board of County Commissioners. Proposers will identify any interests, and the individuals involved, on separate paper with the response and will understand that the County, at the discretion of the Purchasing Director in consultation with the County Counselor, may reject their proposal.
31. No gifts or gratuities of any kind shall be offered to any County employee at any time.
32. The Proposer certifies that this proposal is submitted without collusion, fraud, or misrepresentation as to other Proposers, so that all proposals for the project will result from free, open, and competitive proposing among all vendors.
33. Prior to the opening of proposals, proposers may correct, modify, or withdraw their proposals. A proposer who wishes to withdraw a proposal must make the request in writing to the Purchasing Director. Any correction or modification to a proposal must be submitted in writing and in a sealed envelope clearly identifying the envelope as being a correction or modification to the proposer's proposal.

## **22. PROPOSAL CONTENT**

Proposals received should reflect in detail their inclusion and the degree provided. Vendors may propose methodologies which meet the spirit of the listed requirements, but should note that the proposed system/service/product which meets all, or most closely meets, the specifications will be recommended for award with the listed selection criteria. The Proposal should be organized in the following format and information sequence:

- A. State full name and address of your organization. Include names, titles, and qualifications of lead professional personnel to be assigned to the county account.
- B. Provide a brief description of your firm, including qualifications, experience, depth of staff, quality control, and the demonstration of your ability to be the provider of the outlined services.
- C. Provide a list of 4 current client references; include organization, address, date of services, scope of services, contact person, telephone number, and an email address.
- D. Acknowledge and address in sequential order each mandatory firm requirement listed. Acknowledge and address in sequential order each minimum requirement and specification for Fire Apparatus and Chassis listed.

- E. All proposed apparatus will have the current road miles as shown by the odometer, and current engine hours listed.
- F. Include any topics not covered in the Request for Proposal that you wish to disclose to the County that further describes your firm's level of qualifications to provide the outlined service(s) and/or product(s).
- G. Provide a detailed design and/or solution that meet the requirements and specifications stated in this RFP.
- H. Provide detailed costs for service(s) and/or product(s) proposed.
- I. Provide a completed Proposal Response Form.
- J. Provide evidence of good standing in the form of a Certificate signed by the Kansas Secretary of State. Foreign (non-Kansas) corporations shall furnish evidence of authority to transact business in Kansas, in the form of a Certificate signed by the Kansas Secretary of State; and 2) a copy of the Corporation Resolution evidencing the authority to sign the Contract Documents, executed by the Corporation's Secretary or Assistant Secretary. Provide good standing/authority to transact business certificate

REQUEST FOR PROPOSAL  
TRIPLE COMBINATION PUMPER FIRE APPARATUSES  
#13-0081

The undersigned, on behalf of the Proposer, certifies that: (1) this offer is made without previous understanding, agreement or connection with any person, firm, or corporation submitting a proposal on the same project; (2) is in all respects fair and without collusion or fraud; (3) the person whose signature appears below is legally empowered to bind the firm in whose name the proposal is entered; (4) they have read the complete Request for Proposal and understands all provisions; (5) if accepted by the County, this proposal is guaranteed as written and amended and will be implemented as stated; and (6) mistakes in writing of the submitted proposal will be their responsibility.

NAME \_\_\_\_\_

DBA/SAME \_\_\_\_\_

CONTACT \_\_\_\_\_

ADDRESS \_\_\_\_\_ CITY/STATE \_\_\_\_\_ ZIP \_\_\_\_\_

PHONE \_\_\_\_\_ FAX \_\_\_\_\_ HOURS \_\_\_\_\_

TAX PAYER I.D. NUMBER \_\_\_\_\_ STATE \_\_\_\_\_

INCORPORATED \_\_\_\_\_

COMPANY WEB SITE ADDRESS \_\_\_\_\_ E-MAIL \_\_\_\_\_

NUMBER OF LOCATIONS \_\_\_\_\_ NUMBER OF PERSONS EMPLOYED \_\_\_\_\_

TYPE OF ORGANIZATION: Public Corporation \_\_\_\_\_ Private Corporation \_\_\_\_\_ Sole Proprietorship \_\_\_\_\_

Partnership \_\_\_\_\_ Small Business \_\_\_\_\_ Manufacturer \_\_\_\_\_ Distributor \_\_\_\_\_ Retail \_\_\_\_\_ Dealer \_\_\_\_\_

General Nature of Business \_\_\_\_\_ FEIN/SS # \_\_\_\_\_ W-9 included \_\_\_\_\_

Not a Minority Owned Business \_\_\_\_\_ Minority Owned Business: \_\_\_\_\_ Certification # \_\_\_\_\_

African American \_\_\_\_\_ Asian \_\_\_\_\_ Hispanic \_\_\_\_\_ Native American \_\_\_\_\_ Other \_\_\_\_\_ Woman Owned Business \_\_\_\_\_

ACKNOWLEDGE RECEIPT OF ADDENDA: All addendum(s) are posted to our RFQ/RFP web page and it is the vendor's responsibility to check and confirm all addendum(s) related to this document by going to [www.sedgwickcounty.org/finance/purchasing.asp](http://www.sedgwickcounty.org/finance/purchasing.asp).

NO. \_\_\_\_\_, DATED \_\_\_\_\_; NO. \_\_\_\_\_, DATED \_\_\_\_\_; NO. \_\_\_\_\_, DATED \_\_\_\_\_

Qty	Description	Unit Cost	Extended Cost
2 ea.	Triple Combination Pumper Fire Apparatus	\$	\$
2 ea.	Manuals: One complete set Paper or CDROM	\$	\$
<b>Grand Total</b>		\$	\$

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

Qty	Alternative Description	Included in price Y or N	Value or cost of Option	Comments
1 ea.	Dual Agent Foam System #377-290		\$	
1 ea.	CAFS System (Enhanced Foam System)		\$	



Qty	Description (Alternative)	Unit Cost	Extended Cost
1 ea.	Triple Combination Pumper Fire Apparatus (for possible future purchase)	\$	\$
1 ea.	Manuals: One complete set Paper or CDROM	\$	\$
<b>Grand Total</b>		\$	\$

Cost must be all inclusive of all terms, conditions, and scope within this solicitation.

In submitting a response to this document, vendor acknowledges acceptance of all sections of the entire document (including terms and conditions and general contract provisions through imbedded hyperlinks) and has clearly delineated and detailed any exceptions.

Signature \_\_\_\_\_ Title \_\_\_\_\_

Print Name \_\_\_\_\_ Dated \_\_\_\_\_