MEHLVILLE FIRE PROTECTION DISTRICT

Request for Proposal

One 2 Door Custom Cab Heavy Rescue

R Link, M Mueller, D Clary 6/20/2024

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MEHLVILLE FIRE PROTECTION DISTRICT

General Terms and Specifications One (1) –Heavy-Duty Walk-in Body Rescue All American Made Equipment Preferred

The following are specifications for the furnishing of one (1) Custom Engine-Forward Design, 2-Door Cab, Heavy-Duty Walk-in Body Rescue.

PROPOSAL INFORMATION

Proposal Forms will be available for distribution to prospective venders after 2:00 PM. on June 24, 2024, in the Mehlville Fire Protection District Administrative Office at 11020 Mueller Road, St. Louis, Missouri 63123 or by downloading a PDF copy from our website at www.mehlvillefire.com.

The original vender's proposal must be received in a sealed envelope marked "Mehlville Fire Protection District Heavy-Duty Rescue Proposal" no later than 2:00 p.m. on July 31, 2024, at the District's Administrative Offices, 11020 Mueller Road, St. Louis, Missouri 63123.

Apparatus will be purchased through the Houston-Galveston Area Council (HGAC). All pricing shall be based off HGAC contracts. Any questions concerning the purchasing of the Heavy-Duty Walk-in Body Rescue should be directed to Deputy Chief Rich Link via email at rlink@mehlvillefire.com

The Mehlville Fire Protection District reserves the right to reject any or all proposals or accept any presented, which meet or exceed these specifications and which we deem to be in the best interest of the Mehlville Fire District and will not necessarily be bound to accept a low bid. We will consider the quality and workmanship of the proposed apparatus. Delivery time, operating characteristics, availability of service, and design and manufacturing experience shall also be considered. Particular attention shall be given to all items affecting the cost to operate and maintain the apparatus. All proposals shall be evaluated based on compliance with these specifications and apparatus performance. Further, we reserve the right to reject any proposal not in compliance with these specifications and the decision of the Fire District shall be conclusive and final.

The Mehlville Fire Protection District herby notifies all venders that it will affirmatively ensure that all venders will be afforded full opportunity to submit proposals in response to this invitation and venders will not be discriminated against on the grounds of race, creed, color, sex, or national origin or any other protected class.

Vender shall complete the final page of this specification packet. *A copy of the completed page 74 shall be attached to the outside of the proposal binder* for ease of reference upon opening. This is the pertinent information needed for receiving the proposal. Additionally, it shall be included with the proposal packet in a manner which ensures that it is the first page of the proposal. The representative of the company submitting the proposal shall sign these specifications on the space provided on page 74, and it must be notarized.

A copy of these specifications must be submitted with each proposal and shall become a part of the final contract. Proposals will not be considered if a copy of these specifications is not made a part of the Manufacturer's Proposal.

The manufacturer shall not assign, transfer, convey, sublet or otherwise dispose of this contract or his right, title, or interest in or to the same or any part thereof without previous consent in writing of the Mehlville Fire Protection District endorsed hereon or attached hereto.

In cases where the title "Apparatus Committee" is used, it shall be understood to be the same as the "Mehlville Fire Protection District".

QUALITY AND WORKMANSHIP

The design of the apparatus must embody the latest approved automotive engineering practices. It shall be a fully operational new unit constructed of new current model components. 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 a full complement of personnel and equipment, will be carried without damage to the apparatus.

No experimental apparatus shall be considered. Each proposal shall be accompanied by a statement of the locations where fire apparatus of like specifications as provided herein have been sold by the manufacturer who is submitting the proposal.

Each manufacturer shall furnish satisfactory evidence of their ability to construct the apparatus specified and shall state the location of the factory where the apparatus is to be built. The vendor should also show they are able to render prompt service and to furnish replacement parts for said operations. No proposal shall be considered from a firm which has not been regularly engaged in the manufacture of apparatus for a period of at least five (5) years.

Vendors must submit a proposal in full detail which covers the complete construction of the apparatus they propose to furnish. They must clearly list in detail all items requested in our specification. Each vendor shall make accurate statements in their specifications as to weight, wheelbase and principal dimensions. They shall specify the maximum no-load governed R.P.M. for which the engine is designed and the gear reduction between the motor and the driving wheels. They shall also furnish a copy of a certified engine brake horsepower curve showing the maximum no-load governed speed and torque.

Each proposal shall be accompanied by a detailed description of the apparatus and equipment, which vendor proposes to furnish and to which the apparatus furnished under the contract must conform. It is the intent of these specifications to cover the furnishing and delivery of a complete and soundly engineered apparatus equipped as hereinafter specified. Minor details of construction

and materials, where not otherwise specified, are left to the discretion of the contractor who shall be solely responsible for the design and construction of all features.

Workmanship must be of the highest quality in its respective field. Special consideration will be given to the following points: Accessibility of the various components which require periodic maintenance operations, ease of operation, driving, and symmetrical proportions.

SINGLE SOURCE

Proposals from single source apparatus manufacturers are preferred.

1.0-Exceptions

Each vendor shall indicate in the appropriate blank provided below each section the exact page number of the vendor's proposal to which that section applies, also whether or not the proposed apparatus and/or equipment the vendor will provide will meet the specifications of that particular section. Checking the "Yes" will mean compliance to our specifications and by checking the "No", an exception is being taken to our specifications. If any exception, including a different brand proposed where a particular brand is specified or an "or equivalent" basis, is indicated, a brief explanation shall be given in the space provided in our specification. Also, a complete written explanation of the exception being taken and what is proposed in lieu of the specified requirements shall be provided on a separate typed page(s). These exceptions shall be listed in numerical order referencing the appropriate section number, and then giving the explanation. Failure to complete the specification/proposal in this manner may be cause for rejection.

Any proposal submitted without listing exceptions shall be required to meet every detail of these specifications, regardless of cost to the manufacturer.

Proposals submitted for product considered by the seller to be equal or greater than the brand names or manufacturer's catalog references specified herein, must be submitted as an exception with technical literature and/or detailed product brochures for our use to evaluate the products offered. Proposals submitted without this product information may be considered as nonresponsive and rejected. Only literature pertaining to our specifications can be inserted. Inserting literature pertaining to items not listed in our specifications to confuse the bid will be cause for rejection.

1.0 Bidder	Page #	COMPLIANCE: Yes	No
Describe			
Exceptions			

2.0-Proposal Price

Total price on vendor's proposal sheet must include all items listed in the specifications. Listing any items contained in our specifications as an extra cost item, unless otherwise called for, will automatically be cause for rejection.

Vendors shall guarantee their bid price for no less than sixty (60) days.

2.0 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions_____

3.0-Payment Options

The vendor's proposal sheet shall include any payment options that are available (i.e., prepayment). These are options and are to be listed as such. Calculating any of the options into the proposal price may be cause for rejection.

3.0 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

4.0-Liability

The manufacturer shall defend all suits and assume all liability for any claims against the Mehlville Fire Protection District or any of its officials or agents for the use of any patented process, device or article forming a part of the apparatus or any appliance furnished under the contract.

4.0 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions_____

4.1-Product Liability Insurance

All vendors must supply an affidavit indicating a minimum of twenty-five-million-dollar product liability insurance. If a manufacturer other than the vendor supplies the chassis, that manufacturer must also supply an affidavit indicating a minimum of twenty-five-million-dollar product liability insurance. This requirement must be furnished with bid, no exceptions.

4.1 Proposal Page #	COMPLIANCE: Yes	No	
Describe			
Exceptions			

5.0-Bid Bond

The vendor shall supply a bid bond in the amount of 10% of the proposed price. The bid bond shall reference the warranty coverage and terms on the face of the bond. The vendor's bonded warranty shall extend to the chassis and body regardless of the manufacturer. Proposals received from vendors who do not manufacture the chassis shall provide a warranty, which shall be issued jointly and severally by, and signed by, the vendor and the chassis manufacturer.

If the successful vendor does not manufacture the chassis, the vendor shall supply a separate warranty bond(s), in addition to their performance bond, along with their signed contract. This warranty bond shall guarantee all terms and conditions of the warranty and names of both the vendor and chassis manufacturer as co-principals. This warranty bond shall be issued for the contract amount and shall remain in force for a term which is consistent with the term of the warranty quoted in the proposal.

Vendor shall state what shall be done with bid bond (for unsuccessful proposals) after contract is awarded.

5.0 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions_____

6.0-Performance Bond

The contractor must furnish 100% Performance Bond, and this bond must be furnished within fifteen days after award of contract. "Irrevocable Letter of Credit" as a substitute for the required "Performance Bond" is not acceptable.

6.0 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions_____

7.0-Risk of Loss

Seller agrees to bear all risk of loss, injury, or destruction of goods and material ordered as a result of the contract, which occurs prior to delivery to the Mehlville Fire Protection District; and such loss, injury or destruction shall not release seller from any obligation hereunder.

7.0 Proposal Page # _	COMPLIANCE: Yes	No
Describe		
Exceptions		

8.0-NFPA Compliance

National Fire Protection Association NFPA Standard 1901, latest edition (2016), entitled Suggested Specifications for Automotive Fire Apparatus, as approved by the American Insurance Association and International Association of Fire Chiefs, is hereby adopted and, made a part of these specifications the same as if they were written out in full insofar as they apply, and are not specifically modified in the following detailed specifications.

8.0 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions

9.0-Approval Drawings

A general drawing of the unit proposed shall be submitted with the proposal. This drawing shall show a four side and top view and show overall length, overall height, wheelbase, compartment layout, general light layout and other pertinent items.

The successful manufacturer shall provide a detailed drawing of the proposed apparatus no less than two weeks prior to the Pre-Construction Conference to be held at the Manufacturer's facility. Drawing must show, but not be limited to such items, as the chassis being utilized, lights, horns, sirens, all compartment locations and dimensions, etc.

A revised approval drawing of the apparatus shall be prepared and submitted by the manufacturer to the District showing any changes made to the approval drawing after completion of the Pre-Construction Conference. The Apparatus Committee must approve this drawing before construction begins. The Mehlville Fire Protection District, the Manufacturer's Representative and the Apparatus Manufacturer shall each have a copy of this drawing. This drawing shall then become a part of the total contract.

The successful manufacturer shall provide detailed drawings of the proposed dash switch layout, and a color graphics layout drawing after the pre-construction meetings have been completed.

9.0 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

10.0-Delivery Schedule

The unit should be delivered as completed to the Mehlville Fire Protection District as soon as possible. The manufacturer shall state the proposed estimated build time based upon current production models at the time of the proposal below.

Projected build time: _	days			
10.0 Proposal Page # Describe Exceptions	COMPLIANCE: Yes	No	 	

10.1-Delivery

Delivery shall be over the road and under its own power. In all cases, the responsibility for the apparatus and equipment remains with the manufacturer until satisfactory delivery and formal acceptance by the Mehlville Fire Protection District at the Administrative Office, 11020 Mueller Road, St. Louis, Missouri 63123 or a site approved by the Apparatus committee.

10.1 Proposal Pa	age # COM	PLIANCE: Yes	No
Describe			
Exceptions			

11.0-Liquidated Damages

If the manufacturer fails to deliver the supplies or perform the service within the time specified in the contract as listed above by the manufacturer, or any extension thereof, the actual damages to the Mehlville Fire Protection District for the delay would be difficult or impossible to determine. Therefore, in lieu of actual damages, the Contractor shall pay to the Mehlville Fire Protection District fixed, agreed, and liquidated damages for each calendar day of delay, the amount of \$150.00 per day. The Mehlville Fire Protection District may terminate this contract in whole or part as provided in the "default" provision. In that event, the Contractor shall be liable for such liquidated damages accruing until such time as the Mehlville Fire Protection District may reasonably obtain delivery or performance of similar supplies and services.

11.0 Proposal Page #	_ COMPLIANCE: Yes _	No
Describe Exceptions		

12.0-Repair Parts

Repair parts shall be readily available for a period of at least twenty (20) years after purchase of the apparatus.

12.0 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

13.0-Inspection Trips

Inspection trips for up to three (3) Mehlville Fire Protection District personnel shall be made to the facilities where construction of the apparatus is to be completed. The first trip shall be for a Pre-Construction Conference. The second trip shall be for a Mid-Construction Inspection, before the body is mounted on the chassis. The final trip shall be made upon completion of the unit prior to delivery. All costs of travel shall be included in the bid price of the apparatus. All travel arrangements shall be coordinated mutually with the successful bidder and the Mehlville Fire Protection District.

13.0 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

13.1-Chassis Builder Inspection Trip

If the chassis proposed is to be supplied by a subcontractor or constructed at a facility other than where the completed body is to be built, an additional inspection trip for up to three (3) Mehlville Fire Protection District personnel shall be made to the chassis builder's facility. All cost of travel shall be included in the bid price of the apparatus. All travel arrangements shall be coordinated mutually with the successful bidder and the Mehlville Fire Protection District.

13.1 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

13.2-Final Inspection

In addition to conducting the final inspection of the apparatus, additional time shall be allocated for members of the Mehlville Fire Protection District to be trained in the basic operations of the unit, including driving before departing the manufacturer's facilities.

13.2 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

14.0-Training/Service Engineer

A training/service engineer provided by the manufacturer shall remain in the department for a sufficient time, not less than three days, to instruct personnel in the care, maintenance, handling and operation (including practical evolutions), of the apparatus and equipment. The training sessions shall include all on duty personnel and scheduled with MFPD prior to the unit being placed in service. Additional time shall be allocated to instruct the district's mechanic in the care and maintenance of the units.

 14.0 Proposal Page # ____ COMPLIANCE: Yes ____ No ____

 Describe

 Exceptions______

15.0-Service Provider and Service Center

The vendor must state the location of an authorized service provider and/or service center for the apparatus within a reasonable distance of the Mehlville Fire Protection District. Included shall be the name(s) and contact information for these person(s)/facilities.

15.0 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

15.1-Warranty Service

All repairs and service during the warranty period will be conducted on-site at the Mehlville Fire District. If the apparatus is to be taken to an off-site service center, transportation to and from the Mehlville Fire District and associated fuel costs shall be the responsibility of the service center.

15.1 Proposal Page #	COMPLIANCE: Yes	_ No
Describe		
Exceptions		

16.0-Warranty

The manufacturer(s) shall furnish and guarantee the apparatus and components for a period of one (1) year, which includes all parts and labor FOB Mehlville FPD. The warranties shall be printed on the manufacturer's form.

16.0 Proposal Page #	COMPLIANCE: Yes	_ No
Describe		
Exceptions		

16.1-Frame Rails

The frame rails shall be warranted for the lifetime of the apparatus. **16.1** Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Warranty Period _____

16.2-Engine

The engine shall be covere	d by the manufacturer's f	five (5) year/100,000-mile pa	rts and labor warranty.
16.2 Proposal Page #	COMPLIANCE: Yes	_No	
Warranty Period			

16.3-Transmission

The transmission shall be	covered by the manufact	urer's five (5) year	100% parts and labor warran	ty.
16.3 Proposal Page #	_ COMPLIANCE: Yes	No		
Warranty Period				

16.4-Axles

The front and rear axles sh	all be covered by the ma	nufacturer's t	wo (2) year parts and labor warranty.
16.4 Proposal Page #	COMPLIANCE: Yes	No	
Warranty Period			

16.5-Cab

16.5.1-Structural	
-------------------	--

The manufacturer shall wa	arrant the cab for structural	integrity for ten (10) years.
16.5.1 Proposal Page #	COMPLIANCE: Yes	No
Warranty Period		

16.5.2-Paint

The manufacturer shall w	arrant the cab for paint/corr	rosion for a	minimum	of ten (10) years.
16.5.2 Proposal Page #	COMPLIANCE: Yes	No		
Warranty Period				

16.5.3-Electrical

The manufacturer shall v	warrant the cab for electrical	l for a minimum of one (1) year.
16.5.3 Proposal Page # _	COMPLIANCE: Yes _	No
Warranty Period		

16.5.4-Mirrors

The mirrors shall be covered	by the manufacturer's	warranty for two (2) years.
16.5.4 Proposal Page #	COMPLIANCE: Yes	No
Warranty Period		

16.6-Body
16.6.1-Structural
The manufacturer shall warrant the body for structural integrity for ten (10) years.
16.6.1 Proposal Page # COMPLIANCE: Yes No
Warranty Period

16.6.2-Paint

The manufacturer shall warrant the body for paint/corrosion for a minimum of ten (10) years. **16.6.2** Proposal Page # _____ COMPLIANCE: Yes _____ No ____ Warranty Period ______

16.11- Warning Lights

The warning lights shall be	covered by the manufac	turer's two (2) year	warranty.
16.11 Proposal Page #	COMPLIANCE: Yes	No	
Warranty Period			

16.12-Graphics Process

The manufacturer shall warrant the material and workmanship of the graphics process against any defects for a minimum of three (3) years.

16.12 Proposal Page # ____ COMPLIANCE: Yes ____ No ____ Warranty Period

16.12.1-3M Striping Warranty

The manufacturer shall warrant the material and workmanship of the 3M striping against any defects for a minimum of ten (10) years.

16.12.1 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Warranty Period _____

16.13-Components

The tires, batteries and electrical devices subject to deterioration from normal wear and tear shall be covered by their respective manufacturer's warranty and guarantee. Where the component manufacturer does not provide a warranty equal in time to the one (1) year minimum as specified, the additional warranty will be the responsibility of the bidder.

16.13 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Warranty Period _____

16.14-Radiator Warranty

The manufacturer shall warrant the radiator to be free from defects in workmanship and design for a period of five (5) years. This warranty shall cover both parts and labor.

16.14 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Warranty Period

16.15 Generator Warranty

The manufacturer shall warrant the generator to be free from defects in workmanship and design. The warranty shall cover both parts and labor under the general manufacturer's warranty.

16.15 Proposal Page #	COMPLIANCE: Yes	_No
Warranty Period		

16.16 Air Cascade Warranty

The manufacturer shall warrant the air cascade to be free from defects in workmanship and design. The warranty shall cover both parts and labor under the general manufacturer's warranty.

16.16 Proposal Page # ____ COMPLIANCE: Yes ____ No ____ Warranty Period ______

17.0-Extended Warranties

The manufacturer shall make available any extended warranties that could be purchased by the district. The cost for these warranties shall **NOT** be included in the bid price.

17.0 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Warranties

18.0-Apparatus Size

It is the desire of the district to have the shortest overall length, shortest overall height, and shortest overall wheel length as possible as determined by the representing manufacturer's engineers to meet the specifications set forth by the apparatus committee. The ideal length of the apparatus is desired to be 39', overall height at the highest point to be 11'5 (137") unloaded and overall wheelbase of 242". Manufacturer shall state:

Overall Length:	inc	ches
Highest Point:	ino	ches
Wheelbase:	ino	ches
G.V.W.R.:	po	unds
18.0 Bidder Page # COMPLIAN Describe Exceptions	NCE: Yes No	

18.1-Equipment / Personnel Weights

It is the desire of the apparatus committee for the apparatus to have a 6000-pound allowance for miscellaneous equipment carried. The manufacturer shall ensure that the front and rear axle as well as the Gross Vehicle Rate Rating (GVWR) are sufficient for this weight. If specific information is required regarding equipment and anticipated placement on the apparatus, please contact the Apparatus Committee prior to completing your proposal.

18.1 Bidder Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

19.0-Two Door Fully Enclosed Cab with Raised Roof

A custom engine-forward, fully enclosed two-door tilt extended cab constructed of 1/8" aluminum (minimum) shall be provided. The cab shall have a 10-inch (minimum) raised area and shall be full tilt style. The engine shall be easily accessible and capable of being removed with the cab tilted. The cab to axle measurement shall be no more than two hundred and nine inches (209").

19.0 Proposal Page # ____ COMPLIANCE: Yes ___ No ____

 Describe

 Exceptions______

19.1-Floors and Steps

All toe boards and steps shall be constructed of heavy gauge bright finish/safety aluminum tread plate. Cab steps shall be recessed behind doors and shall consist of a two-step design for easy access. In cases where the first step exceeds NFPA 1901 height from the ground of 24-inches, manufacturer shall provide additional step outside and below the step.

All floorboards shall be rubber mat material for easy cleaning.

19.1 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

19.2-Doors

Doors shall be full length style enclosing the step well. It shall be constructed of 1/8" (minimum) aluminum with stainless steel piano type door hinges. Door handles shall be provided for all interior and exterior door locations and shall be easily manipulated and accessible with a gloved hand. Each door shall have a clear egress opening of 90 degrees or greater.

19.2 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

19.3-Extended Cab

The rear of the 2-person cab shall have a fully transverse compartment capable of being accessible by personnel standing at the ground level via means of painted to match the cab roll up doors (2) one each on the driver's and passenger's side. The compartment shall be lighted with white LED lighting strips on each side of the roll-up doors (4 strips total). Compartment lighting shall be activated upon opening of each respective side's door. Additionally, two (2) pull out / tilt down adjustable trays shall be mounted on each side of the apparatus. Four (4) total trays will be approximately half depth (48"). It is the desire of the apparatus committee that the compartment opening dimensions are: 30" W x 40" tall.

The outside rear wall of the crew cab shall be covered with a bright aluminum tread plate panel.

19.3 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

19.4-Interior

The cab interior shall be gray. The exact shade shall be determined at the Pre-Construction Conference.

19.4 Proposal Page # COM	APLIANCE: Yes	No
Describe		
Exceptions		

19.4.1-CAB FLOOR

The cab and crew cab floor areas shall be covered with acoustical floor mat consisting of a black pyramid rubber facing and closed cell foam decoupler.

The top surface of the material has a series of raised pyramid shapes evenly spaced, which offer a superior grip surface. Additionally, the material has a 0.25" thick closed cell foam (no water absorption) which offers a sound dampening material for reducing sound levels.

19.4.1 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

19.4.2-Insulation

The entire cab shall be insulated to provide a comfortable level with heating and air conditioning. A removable acoustical/insulated headliner shall be provided in the front and rear of the cab. The headliner material shall be vinyl. A sound barrier shall be part of its composition. The forward portion of cab headliner shall provide easy access for servicing electrical wiring or for other maintenance needs without removing the entire unit. The maximum acceptable noise level in the cab with the heater/air conditioning and all warning devices activated at highway speed to be 90 DBA or lower per NFPA.

19.4.2 Proposal Page # _____ COMPLIANCE: Yes ____ No ____

 Describe

 Exceptions

19.4.3-Door Panels

The interior of all cab doors shall be equipped with a full-height stainless steel scuff plate.

19.4.3 Proposal Page #	COMPLIANCE: Yes	_No
Describe		
Exceptions		

19.4.4-Sun Visors

Two (2) smoked-Lexan sun visors shall be provided, located above the windshield with one (1) mounted on each side of the cab.

19.4.4 Proposal Page #	COMPLIANCE: Yes	_No
Describe		
Exceptions		

19.5-Engine Hood Cover

A padded and insulated gray cover shall be installed over engine housing for reduction of heat and sound into the cab. The noise insulation shall keep the DBA level within the limits of current NPFA 1901. **19.5** Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions

19.5.1-Engine Access

Access shall be provided to access the oil and transmission dipsticks at minimum. The manufacturer shall state the location of the engine access.

19.5.1 Proposal Page #	COMPLIANCE: Yes	No
Describe	-	
Exceptions		

19.6-Cab Tilt Controls

The cab lift shall be interlocked to the parking brake and transmission. The cab tilt mechanism shall be active only when the ignition switch is in the ON position, the parking brake is set and the transmission is in NEUTRAL. If the parking brake is released or the transmission shifted from neutral, the tilt mechanism shall be disabled. A manual override for cab tilt shall be provided in the event of an electrical failure. The cab tilt controls shall *not* be in a location that takes up usable compartment space and shall be reachable from the exterior of the vehicle. Due to safety concerns, cab tilt controls shall be operated in a manner to allow the user to visualize all sides of the cab raising and lower. The manufacturer shall state the location of the cab tilt controls and manual override.

19.6 Proposal Page #	COMPLIANCE: Yes	_ No
Describe		
Exceptions		

19.7-GRAB HANDLES

Grab handles shall be mounted on or within reach of all cab entry doors allowing personnel to enter and exit the apparatus to maintain three points of contact. Grab handles shall be easily accessible by a gloved hand, shall be mounted as low as possible (to be reached at ground level), painted a bright (agreed upon) color, and not impede entry or egress from the cab.

19.7 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

20.0-Information Plate

A permanent plate shall be mounted in an easily accessible location 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, generator and drive axle.

20.0 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

21.0-Supplemental Safety Systems

The cab shall be equipped with an occupant safety system including frontal and side curtain air bags for protection from front and side impact collisions as well as rollover situations. The system shall include pre-tensioning seat belts.

21.0 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

22.0-Glass

The cab shall be equipped with tinted safety glass throughout.

22.0 Bidder Page #	COMPLIANCE: Yes	_ No
Describe		
Exceptions		

22.1-Power Windows

All cab doors sha	ill be equipped	with electric	operated	windows.	The control	shall be a	n
automotive style, lo	ocated on the in	side door pane	l within ea	sy reach of	the passengers	. Additiona	ıl
switches to control	all of the door v	vindows shall l	be provided	d on the left	side of the cal	within eas	y
reach of the driver.							

22.1 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

22.0-Seats

Although a total of four seating positions are specified in this proposal, the cab shall only need to be certified for a total of two people.

22.0 Proposal Page #	COMPLIANCE: Yes	_No
Describe		
Exceptions		

22.1-Driver's Seat

The driver's seat shall be an H.O. Bostrom Sierra or equal air-ride seat all electric, high back with dark gray vinyl covering.

22.1 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

22.2-Officer's Seat

The officer's seat shall be an H.O. Bostrom Firefighter series seat or equal with dark gray vinyl covering. It shall also be equipped with a hands-free releasing SCBA locking system. Seat will have the SCBA bracket mounted as deep as necessary to ensure that the SCBA will not stick out past the front of the seat into the officer's back. The seat shall be capable of 2-way manual adjustments. The seat back shall include a removable padded cover over the SCBA area.

22.2 Proposal Page # ____ COMPLIANCE: Yes ___ No ____

 Describe

 Exceptions

22.2.1-Radio Compartments

A radio compartment, measuring no less than 14" deep x 15" wide x 5" high, shall be provided under or behind the officer's and driver's seat. The compartments will be accessible without removing the seats.

22.2.1 Proposal Page #	COMPLIANCE: Yes	_No
Describe		
Exceptions		

23.0-Seat Belts

Three-point fluorescent orange seat belts with automatic retractors shall be provided in all seating positions (cab and body).

23.0 Proposal Page # ____ COMPLIANCE: Yes ___ No ___ Describe Exceptions_____

23.1-Seat Belt Warning System

A seat belt monitoring system shall be provided and monitor the status of each seat position with a green or red LED indicator. It shall be pressure sensitive with an audible and visual alarm that is activated when a seated condition exists and the parking brake is released, or the transmission is not in park.

23.1 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

24.0-Mirrors Cab Doors

A "west coast" style motorized mirror, 7.00" x 16.00", will be mounted on each side of the front cab doors. Each mirror will be heated and adjustable with remote controls convenient to the driver.

An 8.50" diameter round convex mirror will be installed below each west coast mirror head.

24.0 Proposal Page #	COMPLIANCE: Yes	No	
Describe			
Exceptions			

25.0-Windshield Wipers

Two (minimum) electric cowl mounted windshield wipers with intermittent control and windshield washers shall be provided. Controls to be within easy reach of the driver.

25.0 Proposal Page #	COMPLIANCE: Yes	_No	
Describe			
Exceptions			

26.0-Headlights

Four (4) flush mounted rectangular LED headlights with chrome trim bezels, two (2) each side; high and low beam; shall be provided on the front of the cab. A high beam indicator light shall be provided on the cab dash. A headlight dimmer switch shall be provided on the steering column.

26.0 Proposal Page #	COMPLIANCE: Yes _	No
Describe		
Exceptions		

26.1-Turn Signals

Directional lights shall be amber LED with clear lenses. Directional lights shall be provided on the front of the cab, side of the cab, side of rear body and rear of vehicle.

26.1 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

26.2-Interior Cab Lighting

Two LED (2) courtesy lights, one on each side, with automatic door switch, shall be in the cab step area, to illuminate upon opening front cab doors.

Two LED (2) courtesy lights, one on each side, with automatic door switch, shall be in the cab step area, to illuminate upon opening rear cab doors.

Weldon 8080-8000-13 LED Clear/Red dome lights shall be in ceiling, two (2) in the front of the cab and easily accessible while seated and belted. The clear lens shall be forward and controlled by a door switch and a lens switch. The red lens shall be to the rear and controlled by a lens switch.

All interior cab lighting placement shall be approved by the Apparatus Committee at the Pre-Construction Conference.

26.2 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions

27.0-Heating and Air Conditioning

27.1-Heater

The manufacturer shall provide a heater(s) to sufficiently and comfortably heat the cab during the most severe cold weather. Controls and vents shall be easily accessible from all seating positions. The manufacturer shall state the BTU rating of each unit proposed.

27.1 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions_____

27.1.1-Heater Box

The manufacturer shall state the location of the heater boxes. The heater boxes shall be easily accessible for ease of maintenance.

27.1.1 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

28.0-Air Conditioner

Air conditioning shall be provided capable of sufficiently and comfortably cooling the cab during the most severe hot weather. Controls and vents shall be easily accessible from all seating positions. The bidder shall state the CFM capacity of the AC unit proposed.

28.0 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

28.1-Defroster

Defroster ventilation shall be built into the design of the cab dash instrument panel.

28.1 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

28.2-Windshield Defroster Fans

Two (2) 6'	' electric	winds	hield	l defroster	fans	, one	each	side,	, shall b	e pro	vided	. Placem	ent and
activation	controls	shall	be d	etermined	by 1	the A	Appara	tus	Commit	tee a	t the	Pre-Const	ruction
Conference	e.												

28.2 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

29.0-Dash and Console Equipment

Cab instruments, controls and switches shall be provided in a combination of locations. Dash controls and switches must be properly identified. Switch panels will be easily accessible for access to gauges, switches, terminals and circuit breakers in dash area. There shall be furnished and suitably mounted on the dash or overhead console an illuminated instrument board containing the following:

- **29.1** Tachometer registering engine hours.
- **29.2** Speedometer/odometer registering road miles.
- **29.3** Hour meter (record engine hours of operation).
- 29.4 Hour meter (record generator hours of operation).
- **29.5** Engine oil pressure gauge with red warning light and audible alarm for low oil pressure.

29.6 - Engine coolant temperature gauge with red warning light and audible alarm for high temperature.

29.7 - Transmission temperature gauge with red warning light and audible alarm for high temperature.

- **29.8** Voltmeter gauge. (See Section 32.4, Pg. 26)
- **29.9** Electric fuel gauge.

29.10 -Spring brake control with indicator light, placement to be determined by Apparatus Committee.

29.11 - Indicator light - Parking Brake "ON".

29.12 - Two - air pressure gauges, one each for front and rear, with red warning light and audible alarm for low pressure.

29.13 - Battery master switch.

- **29.14** Push button engine start control switch.
- **29.15** Ignition switch with green indicator light.
- **29.16** Engine shut off control.
- **29.17** Windshield wiper controls with intermittent/delay control.
- 29.18 Windshield washer control.
- 29.19 Headlight switch.
- **29.20** High beam indicator light.
- **29.21** Directional indicator lights.
- **29.22** Automatic self-canceling turn signal switch.
- **29.23** Four-way hazard switch on steering column.
- **29.24** Dash lights with dimmer switch and labeled bezel.

29.25 - Engine air filter restriction indicator with red warning light and audible alarm for high restriction.

29.26 – Generator Activation switch

29.27 - Master switch controlling emergency lighting system and individual switches, with proper identification, for all lights. (See also Section 89.0, Warning Lights and Devices).

29.28 – Diesel Exhaust Fluid DEF level gauge.

29.29 – Scene Light Switch – Driver's Side Body – One (1) switch for driver, One (1) and One (1) for the passenger.

29.30 – Scene Light Switch – Passenger Side Body – One (1) switch for driver, and One (1) for the passenger.

29.31 – Scene Light Switch – Front Brow – Three (3) switches; Spot, Flood and Scene for driver.

29.32 - Scene Light Switch - Rear Scene - One (1) switch for driver, One (1) switch on rear body, and One (1) for the passenger.
29.33 - Engine Brake On/Off Switch and Hi/Medium/Low Switch - One (1) switch each for driver.
29.35 - "On Spots" Engaged/Stowed Switch - One (1) switch for driver.
29.36 - Siren Brake Switch - One (1) switch for driver, and One (1) for the passenger.

29.00 Proposal Page # ____ COMPLIANCE: Yes ____ No ____ Describe Exceptions_____

30.0-Switch Layout

The layout of all switch panels and switch labels (with custom lettering if necessary) shall be approved by the Apparatus Committee prior to placing and labeling of any switches. A switch layout drawing shall be provided for approval after the Pre-construction conference.

30.0 Proposal Page #	COMPLIANCE: Yes	No	
Describe			
Exceptions			

31.0-12- Volt Outlets

There shall be two (2) 12-volt/15 AMP power point plug/receptacles with cap and two (2) automotive USB ports provided in the dashboard. They shall be wired battery direct and located near the center/officer's side of the dash area. The exact placement shall be determined by the Apparatus Committee at the Pre-Construction Conference.

31.0 Proposal Page # ____ COMPLIANCE: Yes ____ No ____ Describe Exceptions_____

32.0-Open Door Indicators

A red flashing light shall be recess mounted in the ceiling in the front of the cab near driver. This light will flash any time that a cab or compartment door is open. Upon the release of the parking brake, an audible alarm will sound to notify that any doors are still open, the light tower is not stowed, or the awning is not retracted. The light shall be labeled "Do Not Move Apparatus".

32.0 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

32.1-Open Door Messages

There shall be seven (7) messages displayed in the cab. The messages shall designate the specified location where a cab or compartment door is open or ajar. The following messages shall be displayed:

- Driver's Side Cab Door Open
- Passenger's Side Cab Door Open
- Compartment Door Open.
- Emergency Escape Hatch Open
- Rear Entry Passenger door
- Light Tower NOT Stowed

32.1 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions_____

33.0-Electrical Power Control Center

The complete apparatus shall be equipped with a multiplexed electrical system that integrates all systems and components of the complete apparatus including cab, body and generator module. It shall feature on-board diagnostics and service information. A color screen shall be provided in the cab one (1) near the driver, and one (1) near the passenger. The exact placement to be determined by the Apparatus Committee at the Pre-Construction Conference.

33.0 Proposal Page # ____ COMPLIANCE: Yes ____ No ____ Describe Exceptions ______

33.1-Electronic Load Manager

An Electronic Load Management System shall be incorporated into the Electrical Power Control Center. The load manager will monitor the 12-volt electrical system of the apparatus and automatically reduce the electrical load in the event of a low voltage condition. It shall sequentially shut down individual loads when the system voltage drops below a preset value. The electrical loads to be shed shall be determined by the Apparatus Committee at the Pre-Construction Conference, shall be controlled by the load manager. As the system voltage recovers, the load manager will sequentially re-energize the preset electrical loads. An override switch for the load manager shall be provided.

33.1 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

33.2-Warning Light Sequencer

A warning light sequencer that automatically turns the emergency lights on and off in a preset sequence shall be incorporated into the Electrical Power Control Center. The sequencer shall be wired in conjunction with the emergency master light switch. When the switch is activated the lights shall be turned on in sequence one by one at 1/2-second (minimum) intervals. Sequenced light switch LEDs shall flash while waiting for activation. When turned off the same process shall deactivate the warning lights in sequence.

33.2 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions_____

33.3-360-degree Vision Camera System

There shall be a FRC 360-degree vision camera system and rear microphone. The cameras shall have a guard mounted over the top or recessed into the body to prevent damage. Images from the camera shall be displayed on the monitor in the cab located for use with the Electrical Power Control Center. An audio speaker shall be mounted near the driver for continuous sound communication whenever the vehicle is using the camera for backing operations. The exact placement of the cab speaker shall be determined by the Apparatus Committee at the Pre-Construction Conference.

33.3 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

33.4-Voltage Monitor System

A voltage monitor system shall be incorporated into the Electrical Power Control Center to indicate the status of the battery system connected to the vehicles electrical load. The monitor system shall provide visual and audio warning when the system voltage is above or below optimum levels.

33.4 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

33.5-Vehicle Data Recorder

A vehicle data recorder shall be provided to comply with NFPA 1901. The system shall be capable of reading and storing the following vehicle information.

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

Audible Warning Devices Activated (electric and mechanical) Time - 24 Hour Time Date - Year/Month/Day

32.5 Proposal Page # _____ COMPLIANCE: Yes ____ No ____

Describe Exceptions

34.0-Power and Ground Studs

An auxiliary 12 position power and ground distribution block shall be provided in the electrical component compartment for two-way radio equipment located behind the driver's seat. The studs shall consist of a 12-volt battery direct, ignition switched power stud and a grounding stud. The manufacturer shall state the location.

34.0 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions_____

35.0-Alternator

The alternator model and size shall be provided (minimum rating of 320 amps). The manufacturer shall ensure the capacity of the alternator is adequate for the unit proposed.

35.0 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

36.0-Electrical Load Analysis

The manufacturer shall supply with bid an electrical load analysis for unit proposed. Analysis shall include the electrical load in a 'Responding' mode as well as in the 'On-Scene' mode.

36.0 Proposal Page #	COMPLIANCE: Yes	_ No	
Describe			
Exceptions			

37.0-Battery System

A single starting system shall be provided, utilizing 12-volt, 950 CCA, 170 reserve capacity, high cycle, maintenance-free, Group 31 batteries with a system rating of 5700 CCA at 0 degrees Fahrenheit and 1000 minutes of reserve capacity. Batteries shall be equipped with threaded stud type connectors.

37.0 Proposal Page #	COMPLIANCE: Yes	_No	
Describe			
Exceptions			

37.1-Battery Mounting

The batteries shall be mounted with easy access for service. The batteries shall be mounted in a plastic tray, with a drain tube, inside of well-ventilated compartments located under the cab. The battery floor pan shall be lined with rubber floor mats for corrosion resistance.

37.1 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

37.2-Jumper Studs

A set of battery jumper studs with color-coded covers shall be installed. A tag will be provided for the positive and negative terminals. These studs will be accessible without tilting the cab.

37.2 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

37.3-Battery Charger/Air Compressor Pump

One (1) Kussmaul Model 091-9-1000 Pump Plus 1000 battery charger/air compressor shall be provided. This unit shall charge all batteries automatically and shall be connected to the receptacle on the driver's seat riser. An auto-eject receptacle is <u>not</u> acceptable. The display bar graph for the charger shall also be mounted on the driver's seat riser. The compressor shall be piped to the wet tank and shall only operate when the shoreline is plugged in. Placement of charger/compressor is desired in dead space in the cab and not in a body compartment. The placement shall be determined by the Apparatus Committee at Pre-Construction Conference.

37.3 Proposal Page # ____ COMPLIANCE: Yes ____ No ____ Describe Exceptions

38.0-Engine

A Cummins X15 600 hp engine shall be provided, pre-2027 emissions engine preferred. The bidder shall provide engine specifications with this proposal.

38.0 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions_____

38.1-Engine Certification

Engine certification for the engine to be used in chassis with completed body to be provided with proposal. If the manufacturer cannot provide certification until apparatus is completed, such testing shall be conducted at manufacturer's expense, with completed body. The apparatus will only be accepted after successful completion of engine certification by Cummins.

 Engine Certification provided with proposal

 Engine Certification after completed

NOTE: The engine certification and installation shall not require the operation of any type of "power-down" feature to meet the certification tests.

38.1 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions_____

38.2-Engine Air Intake

An air intake with ember separator shall be provided to prevent road dirt and re-circulating hot air from entering the engine. The air inlet shall be covered with a stainless-steel grille.

38.2 Proposal Page #	COMPLIANCE: Yes	_ No	
Describe			
Exceptions			

38.3-Muffler

Engine shall be equipped with heavy duty/galvanized-steel muffler, with exhaust outlet turned down, on right side of apparatus.

38.3 Proposal Page #	COMPLIANCE: Yes	_No
Describe		
Exceptions		

38.4-DEF Tank

A diesel exhaust fluid (DEF) tank, not to exceed five (5) gallon capacity. The tank shall be mounted in a location that does not take space away from rear body compartments. A fill inlet shall be provided and marked "Diesel Exhaust Fluid Only". A drain plug shall be provided in a low point of the tank for drainage. The tank shall be heated to prevent the DEF from freezing.

There shall be a gauge and/or indicator on the cab dash to indicate the DEF tank level.

38.4 Proposal Page # ____ COMPLIANCE: Yes ____ No ____ Describe Exceptions

38.5-Engine Brake

A Jacobs engine brake is to be installed with the controls located on the instrument panel within easy reach of the driver. The controls shall include an on/off switch and a switch to control a high, medium and low setting.

The engine brake shall be installed in such a manner that when the engine brake is slowing the vehicle the brake lights are activated.

The ABS system shall automatically disengage the auxiliary braking device when required.

38.5 Proposal Page #	_ COMPLIANCE: Yes	N	lo
Describe			
Exceptions			

39.0-Fuel System

The fuel tank shall be not less than 68 U.S. gallons capacity. The tank fill shall be on the driver's side rear fender well.

39.0 Proposal Page #	COMPLIANCE: Yes	_ No
Describe		
Exceptions		

39.1-Fuel Water Separator

The fuel system shall be equipped with a Racor in-line fuel/water separator.

39.1 Proposal Page #	COMPLIANCE: Yes _	No
Describe		
Exceptions		

40.0-Cooling System

The radiator and the complete cooling system shall meet or exceed NFPA and engine manufacturer cooling system standards. There shall be a drain valve in the bottom of the tank to allow the radiator to be serviced. The cooling system shall be furnished with anti-freeze rated to minus 30-degree Fahrenheit (minimum) at time of delivery.

There shall be a coolant overflow recovery tank provided.

40.0 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

40.1-Site Glass

A site glass shall be provided on the backside of the radiator near the top.

40.1 Propos	al Page #	COMPLIANCE: Yes	No
Describe			
Exceptions_			

40.2-Silicone Cooling Hoses

Silicone radiator and heater hoses shall be used throughout.

40.2 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

40.3-Water Filter

The cooling system will be equipped with a water filter system charged with a coolant inhibitor, per the engine manufacturer's requirements.

40.3 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

41.0-Steering

The apparatus shall be equipped with power steering.

41.0 Proposal Page #	COMPLIANCE: Yes	No	
Describe			
Exceptions			

41.1-Full Capabilities

The steering system shall have full capabilities with engine running at an idle.

41.1 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

41.2-Steering Wheel

The steering wheel shall be a minimum 18" in diameter, with a tilt and telescopic type column.

41.2 Proposal Page #	COMPLIANCE: Yes	_ No	
Describe			
Exceptions			

41.3-Site Glass

The power steering reservoir shall be equipped with a site glass.

41.3 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

42.0-Transmission

An Allison 4000 series transmission or similar electro	nic, automatic heavy-duty transmission shall
be provided.	

42.0 Proposal Page #	COMPLIANCE: Yes	_No
Describe		
Exceptions		

42.1-Shift Pad

A transmission push button shift module shall be mounted within easy reach of the driver. It shall be indirectly lit for after-dark operation. It shall have a "Do Not Shift" light and service indicator and shall have the means to enter a diagnostic mode and display diagnostic data.

42.1 Proposal Page #	COMPLIANCE: Yes	_No	
Describe			
Exceptions			

42.2-Transmission Cooler

Auxiliary/external cooler shall be provided per transmission manufacturer's requirements.

42.2 Proposal Page #	COMPLIANCE: Yes	No	
Describe			
Exceptions			

43.0-Front Axle

The front axle shall be designed with a minimum rating of 22,000 lbs.* (*By stating a minimum axle rating, it is the intention of MFPD to design the lightest apparatus possible with considerations to performance and longevity of the apparatus. Should the bidder determine that based on their proposed apparatus and the Mehlville Fire District's equipment carried they have a different proposed rating, they shall state front axle size and provide their rationale for the change.)

43.0 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

43.1-Cramp Angle

A 45-degree or greater cramp angle, to both left and right, is required for the front axle. Manufacturer shall state certified cramp angle of unit proposed and provide documentation.

	Right:	degrees	Left:	degrees
Describe		COMPLIANCE: Yes		
43.1.1 – Turn The manufact		te the designed "curb to	o curb and w	all to wall" turning radiuses.
	Wall to wall	:ft C	urb to curb:	ft
Describe		_ COMPLIANCE: Ye		
43.2 Proposal Describe	be provided Page #	on the front and rear a COMPLIANCE: Yes	No	
43.3 Proposal Describe	ows shall be Page #		No	rear axle for checking oil level.
44.0-Shock A Heavy-duty sł		rs shall be provided on	the front axl	e.
Describe		COMPLIANCE: Yes		

45.0-Rear Axle

The rear axle shall be rated with a minimum capacity of 31,000 lbs.*. (*By stating a minimum axle rating, it is the intention of MFPD to design the lightest apparatus possible with consideration to performance and longevity of the apparatus. Should the bidder determine that based on their proposed apparatus and the Mehlville Fire District's equipment carried they have a different proposed rating, they shall state rear axle size and provide their rationale for the change.)

45.0 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions_____

45.1-Gear Ratio/Speed

Gear ratio to be compatible with engine and transmission supplied. Performance specifications showing gear ratio to speed shall be provided with the proposal. The truck shall be capable of 68 MPH, with the high speed of the vehicle at the engine's RPM rating of 2200. Bidder shall state gear ratio ______. NOTE: The Apparatus Committee reserves the right to change the gear ratio at the Pre-Construction Conference in order to achieve maximum performance.

45.1 Proposal I	Page # (COMPLIANCE: Yes	 No
Describe			
Exceptions			

46.0-Rear Suspension

The rear suspension shall have a rating of 31,000 lbs.*. (*Should the bidder determine that based on their proposed apparatus and the Mehlville Fire District's equipment carried they have a different proposed rating, they shall state rear suspension size and provide their rationale for the change.)

46.0 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

47.0-Brakes

The brake system shall be full air type and meet Federal Regulations in effect at the time of delivery.

47.0 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Excptions		

47.1-Front Brakes

The front brakes shall be disc type equipped with 17-inch (minimum) discs.

47.1 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

47.2-Rear Brakes

The rear brakes shall be MeritorTM 16.50" x 7.00" (minimum dimensions) cam operated with automatic slack adjusters.

47.2 Proposal Page #	COMPLIANCE: Yes	No	
Describe			
Exceptions			

47.3-ABS

The brake system shall be equipped with a Wabco 4S4M anti-lock braking system and equipped with ATC (Automatic Traction Control).

47.3 Proposal Page #	COMPLIANCE: Yes _	No
Describe		
Exceptions		

47.4-Compressor

A gear driven air compressor shall be provided. All air line connections shall be threaded "DOT" style connections. Push-to-connect type connections are not desired and will not be acceptable.

47.4 Proposal Page #	COMPLIANCE: Yes	_ No
Describe		
Exceptions		

47.5- Air Receivers

The brake system shall incorporate receivers with a capacity that meets or exceeds the manufacturer's recommendations. The manufacturer shall state the number and placement of the receivers.

47.5 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

47.5.1-Additional Receiver

An additional auxiliary air receiver with a capacity of not less than 1400 cubic inches shall be provided to increase the capacity of the air system and auxiliary components.

47.5.1 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

47.6-Air dryer

The chassis shall be equipped with an air dryer with a heated automatic moisture ejector placed in the system before the wet tank. The manufacturer shall state the type and placement of the dryer.

47.6 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

47.7-Brake Lines and Fittings

All air brake lines must be constructed of color-coded nylon, with fittings of copper and/or brass of the reusable type. The brake lines shall be wrapped in a heat protective loom in the chassis where necessary.

47.7 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions _____

47.8-Parking Brake

Emergency/parking brakes shall be supplied by spring brakes on the rear axle. Brake indicator light should be provided. The parking brake release shall be within easy reach of driver.

47.8 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

47.9-Air Inlet and Outlet

One (1) air inlet/outlet, to supply pressurized air, shall be installed with the female coupling located in the driver side cab step well.

47.9 Proposal Page # COMPLIANCE: Yes No	_
Describe	
Exceptions	

48.0-Frame and Frame Reinforcement

A hot dip galvanized frame must be certified to meet the G.V.W.R. of the apparatus proposed. No holes shall be drilled in the frame rails that are not to be used for mounting the cab, body, and other equipment necessary for this specific unit.

Frame shall be reinforced with a full-length mainframe "C" liner. Liner should have a yield strength of 120,000 psi and resisting bending movement (rbm) of 938, 762 in-lb.

48.0 Proposal Page #	COMPLIANCE: Yes	No		
Describe				
Exceptions				

48.1-Sealant

Manufacturer shall take steps and state process to ensure corrosion prevention of the frame and frame reinforcement for a minimum of 20 years.

48.1 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

49.0-Wheels and Tires

49.1-Front Wheels

The front wheels shall be aluminum.

49.1 Proposal Page # COMPLIANCE: Yes No

Describe Exceptions_____

49.1.1-Front Tires

Front tires shall be a quality tire such as Goodyear or Michelin, rated for maximum axle load and 68 mph maximum speed.

49.1.1 Proposal Page #	_ COMPLIANCE: Yes	No
Describe		
Exceptions		

49.2-Rear Wheels

Rear wheels shall be aluminum.

49.2 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

49.2.1-Rear Tires

Rear tires shall be a quality tire such as Goodyear or Michelin, rated for maximum axle load and 68 mph maximum speed.

49.2.1 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

49.3-Tire Pressure Monitoring System

The apparatus shall be provided with tire pressure indicating valve stem caps that meet NFPA.

49.3 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

49.4-Wheel Chocks

Two (2) Zico Space Saver Model SAC – 44 aluminum foldable wheel chock shall be provided.

49.4 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

49.5-Wheel Chock Holders

Two (2) Zico Space Saver Model SQCH-44-H aluminum wheel chock holders shall be provided on the driver's side rear body below the rub rail, one on each side, of the rear wheels. The placement shall be determined by Apparatus Committee at Pre-Construction Conference.

49.5 Proposal Page #	_ COMPLIANCE: Yes	No	
DescribeExceptions			

50.0-Automatic Tire Chains

"On-Spot" automatic snow chains shall be provided. Chains shall be installed in a manner so that when retracted, they will provide ample clearance to rotating components under truck and ample clearance to the ground. The switch to activate the chains shall be within easy reach of the driver.

50.0 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions_____

51.0-Mud Flaps

Mud flaps, black in color shall be provided, for the individual front tires and one (1) full width for the rear.

51.0 Proposal Page # ____ COMPLIANCE: Yes ____ No ____

 Describe

 Exceptions______

52.0-Front Tow Hooks

Two (2) steel tow hooks shall be provided to permit ready towing of the apparatus and for towing other apparatus. They shall be strong enough to raise the front of apparatus and be installed under the bumper and attached to the frame.

52.0 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

52.1-Rear Tow Bar

A tow bar shall be installed under the rear frame at the center of truck.

52.1 Proposal Page #	COMPLIANCE: Yes _	No
Describe		
Exceptions		

53.0-Bumper

A heavy-duty steel bumper, not less than 10-inches high shall be provided on front of the apparatus and the front painted to match. It shall be attached directly to the chassis. Safety tread aluminum plate shall be mounted between bumper and front of cab. The bumper shall be extended no more than 24" ahead of cab and have three (3) separate storage compartments listed below.

53.0 Bidder Page # ____ COMPLIANCE: Yes ____ No ____ Describe Exceptions_____

53.1-Front Tow Eyes

Two (2) stain-less steel tow eyes shall be mounted through the front face of the bumper and shall be mounted directly to the bumper frame. Cutouts shall be provided in the front face of the steel bumper to allow tow eyes to extend out the front. The tow eyes shall be designed with no rough edges and positioned to allow up to a 9,000 lb. straight horizontal pull in line with the centerline of the vehicle. The tow eyes shall not be used for lifting of the apparatus.



Current front tow eyes and protective tow hooks, Fig. 1

53.1 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

53.2-Driver's side Front Bumper Misc. Storage

One (1) misc. storage compartment shall be on the driver's side of the front bumper. The compartment shall be as large as possible and extend below the front bumper for additional depth, but not to impede driving operations. The door shall be flat mounted diamond plate with flush mount hinges and stay arm to hold lid in the open position. The bottom of the compartment shall have drain holes and be lined with rubber matting. Additionally, a single white LED light shall illuminate the compartment and be activated upon opening.

53.2 Proposal Page # ____ COMPLIANCE: Yes ___ No ___ Describe Exceptions_____

53.3-Passenger's side Front Bumper Misc. Storage

One (1) misc. storage compartment shall be located in the passenger's side of the front bumper. The compartment shall be as large as possible and extend below the front bumper for additional depth, but not to impede driving operations. The door shall be flat mounted diamond plate with flush mount hinges and stay arm to hold lid in the open position. The bottom of the compartment shall have drain holes and be lined with rubber matting. Additionally, a single white LED light shall illuminate the compartment and be activated upon opening.

53.3 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

53.4-Center Front Bumper Compartment

One (1) compartment shall be located in the center of the front bumper. The compartment shall be as large as possible with a raised treadplate door / lid. White strip lighting shall be in place to illuminate the compartment and activated when the treadplate lid is raised. Additionally, the bumper section in front of the compartment shall open up (hinged so that the opening falls downwards). The bumper door shall be painted to match the front of the bumper and secured with flush mounted latches. The compartment shall have access to a front mounted pinable receiver and shall be utilized for portable winch operations. Portable winch shall be stored in this location when not in use.

53.4 Proposal Page # O	COMPLIANCE: Yes	No
Describe		
Exceptions		

53.5-Tow Hooks

2 chrome tow hooks shall be mounted on the underside of the frame rail, on either side of the bottom of the front bumper center compartment. These hooks act as collision protection for the hose trough. The apparatus committee shall provide photos and exact location during the pre-construction conference. (See Fig. 1, Section 52.1)

53.5 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions_____

53.6-Flip Down Step

One (1) folding illuminated flip down step shall be mounted on the passenger's side of the bumper, not to impede with emergency lighting and for use for access onto the top of the bumper.

53.6 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions_____

54.0-Fenders

Full circular inner fender liners, in the wheel wells, front and rear, shall be provided. They shall be easily removable and protected from road debris. Front and rear fenders shall be equipped with stainless steel fender crowns (fenderettes).

54.0 Proposal Page #	_ COMPLIANCE: Yes _	No
Describe		
Exceptions		

55.0-Body Fabrication

The body shall be constructed of 1/8" aluminum minimum.

55.0 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

56.0-Aluminum Tread plate Covered Areas

All aluminum tread plate used shall be "bright finish".

56.0 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

56.1-Rear Body

Aluminum tread plate shall be provided on the top of the compartments, flanged out to form a drip edge over the compartment doors. Front edge of left and right compartment bulkheads to be covered with aluminum tread plate.

56.1 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

57.0-Rear Interior Body Entry

Entry into the rear interior body area shall be gained by means of step(s) into the area. All stepping surfaces shall be illuminated by LED lighting and tied to active when the parking brake is applied. Additionally, between the first step (bumper) and second step at the door, the area within the frame shall be utilized for an additional compartment. Size to be determined at pre-construction conference.

57.0 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

58.0-Rub Rails

Two-inch (2") aluminum "C" channel rub rails shall be furnished on the lower edge of the body and be bolted to it by using nylon spacers.

58.0 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

59.0-Exterior Compartments

All exterior compartments shall have a sweep-out design. All exterior compartments shall have painted roll up doors unless otherwise specified. All components of the door to include, but not limited to tracks and rails shall be painted. No satin finish is desired unless painting effects the operations of the door. Opening and closing of the door shall be easily accomplished with one gloved hand. All compartments shall have a 3" (minimum) diameter louver in the rear wall of each compartment for ventilation. All compartments shall be as large as possible.

The interior height of the compartments shall be measured from the compartment floor to the ceiling. The spool of the rollup door at the top of the compartment takes up some usable space. The depth of the compartments shall be measured from the back wall to the inside of the door frame.

Compartments and desired interior minimum dimensions are listed below. Blank spaces are provided below each. Manufacturer shall fill in the blanks to show the sizes and clear door openings of the compartments being proposed:

 A) Left Side 1 - Ahead of rear wheels – full height and full depth H 63" W 60" D Transverse
H" W" D" Clear Door Opening H" W"
 B) Left Side 2 – Ahead of the rear wheels – full height and full depth H 63" W 28" D Full
H" W" D" Clear Door Opening H" W"
C) Left Side 3 – Ahead of the rear wheels – full height and full depth H 63" W 72" D Full
H" W" D" Clear Door Opening H" W"
D) Left Side 4 – Over wheel well – full depth H 32" W 56" D Full
H" W" D" Clear Door Opening H" W"
E) Left Side 5 – Behind the rear wheels – full height and full depth H 63" W 36" D Full
H "W "D " Clear Door Opening H "W "
F) Left side 6 - Behind rear wheels or rear of apparatus – hinged door – full height and full depth H 100" W 34" D Full
H" W" D" Clear Door Opening H" W"
 G) Right Side 1 - Ahead of rear wheels – full height and full depth H 63" W 60" D Transverse
H" W" D" Clear Door Opening H" W"

 H) Right Side 2 – Ahead of the rear wheels – full height and full depth H 63" W 28" D Full 			
H" W" D" Clear Door Opening H" W"			
 I) Right Side 3 – Ahead of the rear wheels – full height and full depth H 63" W 72" D Full 			
H" W" D" Clear Door Opening H" W"			
J) Right Side 4 – Over wheel well – full depth H 32" W 56" D Full			
H" W" D" Clear Door Opening H" W"			
K) Right Side 5 – Behind the rear wheels – full height and full depth H 63" W 36" D Full			
H" W" D" Clear Door Opening H" W"			

L) Right side 6 - Behind rear wheels **or** rear of apparatus – hinged door – full height and full depth H 100" W 34" D Full H ____ " W ___ " D ___ " Clear Door Opening H ____ " W ____"

Manufacturer shall state the total cubic feet of compartment space for the unit they propose on the following page.

______ - Cubic feet of compartment space 59.0 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions______

59.1-Compartment Matting

All compartment floors, shelves and sliding trays will have "Turtle Deck" (or equivalent) flooring/matting with tapered edge and shall be provided by the manufacturer at the conclusion of the compartmentation build out. The color shall be gray.

59.1 Proposal Page #	COMPLIANCE: Yes	_ No	
Describe			
Exceptions			

59.2-COMPARTMENT LIGHTING

All body compartments, twelve (12), shall have White LED compartment light strips. The strips shall be centered vertically along each side of the door framing. The lights shall be mounted with mechanical fasteners.

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

59.2 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

60.0-Extinguisher Storage Compartments

Two (2) compartments designed to hold a quantity of three (3) fire extinguishers (dry chem, CO2, Class D) up to 9.00" in diameter x 27.00" deep shall be provided on the driver's and passenger's side forward of the rear wheels. Painted stainless steel doors with a painted plated flush lift & turn latch shall be provided to contain the extinguishers. A dielectric barrier shall be provided between the door hinge, hinge fasteners and the body sheet metal. Inside the compartments, black rubber matting shall be provided.

60.0 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

61.0-Roll up Doors

Compartment doors shall be roll up style with removable drip pans painted to match the body of the apparatus. Opening and Closing of the door shall be easily accomplished with one gloved hand.

61.0 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		
Exceptions		

61.2-Compartment Door Strap

Each compartment with a roll-up door shall have a nylon web strap attached to the interior of the door. When the door is opened, it will hang down and assist in pulling the door closed.

61.2 Bidder	Page #	COMPLIANCE: Yes	No
Describe			
Exceptions_			

61.3-Hinged Compartment Door

Hinged compartment doors shall be piano hinged lap doors.

61.3 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

64.0-Interior Body Walk-in

The apparatus body shall be a walk-in design with riding positions for two (2) personnel with a minimum walkway height of 76". Access to the interior shall be gained from a single rear-hinged entry door with window.

64.0 Proposal Page # ____ COMPLIANCE: Yes ___ No___ Describe Exceptions _____

64.1-Interior Body Crew HVAC

The interior body shall have a 120V Heat and AC system capable of running off of the generator and shore power. Controls for the unit shall be interior and within easy reach of an occupant in a belted position. Additionally, the interior climate shall be controlled by a 12V 30,000 BTU heater and a 39,500 BTU AC with controls located within easy reach of an occupant in a belted position.

64.1 Proposal Page # ____ COMPLIANCE: Yes ___ No___
Describe Exceptions _____

64.2-Interior Body Seating Positions

Seating positions shall be on the L side of the walkway ahead of the rear wheels as far forward as possible yet away from the front wall. Seating shall consist of two (2) flip down non-SCBA Bostron vinyl seats mounted on top of the in-body long tool storage compartment listed below to decrease the impedance of the walkway. Both positions will have individual bright orange seat belts. Occupants / seat belt alarm will be tied into the vista screen and activated when "pressure" is sensed in the seat. Exact placement shall be determined by the apparatus committee at the pre-construction conference.

64.2 Proposal Page # ____ COMPLIANCE: Yes ___ No____
Describe Exceptions _____

64.2.1-Interior Seating Position SCBA Brackets

Two (2) hands free release SCBA mounting brackets shall be located at an angle in between the two (2) flip-down interior seats.

64.2.1 Proposal Page # ____ COMPLIANCE: Yes ___ No___ Describe Exceptions _____

65.0-Interior Walkway Lighting

Furnished on the completed apparatus for illuminating the interior body:

-Four (4) ceiling Red LED lights operated to activate when the parking brake is disengaged with a master switch located within reach of the belted occupants.

--Four (4) ceiling Green LED lights operated to activate when the parking brake is applied with a total of two (2) master switches. One (1) located within reach of the belted occupants. One (1) located near the rear entry door.

--Four (4) ceiling White LED lights operated by means of two (2) switches. One (1) switch located within reach of the belted occupants, and one (1) switch located near the rear entry door.

Exact lighting and switch location shall be determined by the apparatus committee in conjunction with the manufacturer at the pre-construction conference.

65.0 Proposal Page # ____ COMPLIANCE: Yes ___ No___
Describe Exceptions _____

66.0-Interior power

There shall be a total of six (6) 12v power points, and four (4) USB power points, Exact location shall be determined by the apparatus committee in conjunction with the manufacturer at the pre-construction conference.

Additionally, two (2) 110V Power strips shall be located within the interior walkway of the rescue body. Power shall be supplied by means of shore power and truck power. Exact location shall be determined by the apparatus committee in connection with the manufacturer at the pre-construction conference.

66.0 Proposal Page # ____ COMPLIANCE: Yes ___ No___
Describe Exceptions ____

67.0-Interior Compartments

There shall be a total of seven (7) interior compartments. Interior compartments shall be located above the exterior compartments with four (4) on the left side of the walkway and three (3) on the right. Access to the compartments shall be made from the interior walkway and contents secured with a black net. Net shall be released by means of a quick release and have a minimum strap width of two (2) inches.

67.0 Proposal Page # ____ COMPLIANCE: Yes ___ No___ Describe Exceptions _____

67.1-Interior Compartment Lighting

Two (2) Dimmable white LED lighting strips shall be located on both sides of the interior compartment. Exact switch location shall be determined by the apparatus committee in conjunction with the manufacturer at the pre-construction conference.

67.1 Proposal Page # ____ COMPLIANCE: Yes ___ No___
Describe Exceptions _____

68.0-Escape Hatch

One (1) escape hatch with window shall be in the roof ahead of the rear wheels of the interior body compartment. An escape hatch shall be utilized for emergency egress in an emergency. Hatch opening shall be tied into the "door ajar" alarm located within the vista displays.

68.0 Proposal Page # ____ COMPLIANCE: Yes ___ No___ Describe Exceptions _____

69.0-Upper Body Windows

Two (2) viewing windows are to be located on the right and left side of the body above the exterior compartments. The windows should be placed as forward as possible with consideration to minimize the loss of internal compartment space. Exact window size and placement to be determined at pre-construction conference.

69.0 Proposal Page # ____ COMPLIANCE: Yes ___ No___ Describe Exceptions _____

70.0-Interior Body Long Tool Storage

One (1) interior long tool storage compartment shall be located on the floor level of the left side of the internal body walkway underneath the interior riding seats and SCBA docking stations listed above. Access into the compartment shall be from the rear entry door and secured closed with a flush mounted lashing system. It is the desire of the apparatus committee to have this compartment as small as possible and full depth of the interior area. It is the desire of the apparatus committee to utilize the top of the storage box as seating for members when the apparatus is not in motion. Storage compartment shall be capable of storing the following: one (1) – ten-foot folding attic ladder, two (2) – 8' NY style pike poles, two (2) 10' I-Beam style pike poles, and one (1) – 12' I-Beam pike pole.

70.0 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

71.0-Handrails

Handrails shall be constructed of 1-1/4" diameter heavy-duty aluminum with a ribbed design. Brackets and stanchions shall be polished chrome plated type. Handrails shall be located as follows:

-Two (2), one (1) on each side, shall be provided on the cab adjacent to the front door.

-One (1) shall be provided on the front under the passenger side windshield.

-Two (2), one (1) each side, vertical handrails shall be provided each rear parallel with rear entry door.

Pricing to be included for four (4) additional 18" grab rails to be placed by the Apparatus Committee at the Mid-Construction.

71.0 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions

72.0-Ground Lights

All ground lights shall be Truck-Lite Model 44308C, 4-inch LED clear lens, weatherproof selfcontained unit and the lights shall be mounted as follows:

-Two (2) mounted, one (1) under each cab door -Six (6) mounted, one (1) under each side body compartment ahead of rear wheels -Four (4) mounted, one (1) under each side body compartment behind rear wheels -Three (3) mounted under back step

The ground lights shall be activated upon the parking brake being set.

72.0 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions_____

73.0-Non-Warning Lights

All non-warning and FCC lighting shall be LED. Use of any incandescent lighting is unacceptable.

Two (2) Whelen M6 clear lens with white LED Reverse Lights (Upper Portion)
Two (2) Whelen M6 clear lens with Amber LED Turn-signal Lights (Middle Portion)
Two (2) Whelen M6 clear lens with Red LED Stop/Taillights (Lower Portion)
--All DOT lights mounted in single chrome bezel

-Two (2) chrome-plated LED step lights, shall be mounted on rear compartment wall, connected to clearance lights to provide illumination to the back step.

-Twenty-four (24) pairs of white LED strip lighting shall be provided in body compartments.

74.0 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions_____

75.0-Backup Warning Device

An automatic electric back-up alarm shall be provided at the rear of the apparatus. It shall be an ECCO, Model SA917-PM2 or equal.

75.0 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions

76.0-Warning Lights Control

A master warning light switch, properly labeled, shall be installed in the cab to enable the preselection of warning lights. The master switch will turn on power to all switches.

One (1) Whelen DVI Dynamic Variable Intensity System shall be provided by the manufacturer and installed through the vista. The photocell for the system shall be built into the light bar.

76.0 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions _____

77.0-Roof Mounted Warning Lights (Front and Side-Upper Zone)

One warning lightbar minimum of 72" fully populated. Clear lenses shall be provided with the following LED configuration: RRBRWWRBRR. Additionally,

The white lights shall be switched separately and shall automatically deactivate upon setting the parking brake.

77.0 Proposal Page #	COMPLIANCE: Yes	No	
Describe			
Exceptions			

78.0-Front Warning (Front-Lower Zone)

Mounted directly above the headlights on each side of the cab shall be a pair of warning lights as outlined below:

-Two (2) Whelen M6 blue LED with clear lens shall be mounted on the driver's side lower and passenger's side upper zone.

-Two (2) Whelen M6 red LED with clear lens shall be mounted on the passenger's side lower and driver's side upper zone.

The lights shall deactivate upon setting the parking brake.

78.0 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

79.0-Cab-Side Warning (Side-Lower Zone)

Two (2) Whelen M6 red LED lights with clear lenses to be mounted on side of the front bumper extension, one each side.

Two (2) Whelen M6V2 blue LED lights with clear lenses to be mounted on the side of the cab, over the wheel well, one on each side. Ground lighting to illuminate with activation of the turn signal to the appropriate side and parking brake being set.

Two (2) Whelen M6V2 red LED lights with clear lenses to be mounted on the side of the rear body over the wheel well, one on each side. Ground lighting to illuminate with activation of the turn signal to the appropriate side and parking brake being set.

The exact placement of these lights shall be approved by the Apparatus Committee at the Pre-Construction Conference.

79.0 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions_____

80.0-Body-Side Warning (Side-Upper Zone)

Two (2) Whelen M9 red LED with clear lenses to be mounted on the forward side of the upper portion of the body. One (1) on the driver's and one (1) on the passenger's side.

Two (2) Whelen M9 blue LED with clear lenses to be mounted on the rear side of the upper portion of the body. One on the driver's and one (1) on the passenger's side.

80.0 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions_____

80.1-Body Side Warning in Rub Rail (Side-Lower Zone)

Ten (10) Whelen M2 split red/blue LED lights with clear lenses shall be recessed mounted in the aluminum rub rail, five (5) on each side of the apparatus.

The exact placement of these lights shall be determined by the Apparatus Committee at the Pre-Construction Conference.

80.1. Proposal Page #	COMPLIANCE: Yes	_No
Describe		
Exceptions		

90.0-Rear Warning (Rear Upper and Lower Zones)

90.1-Rear Upper

Four (4) Whelen M9 LED lights shall be mounted on the upper portion rear of the apparatus body as follows:

-Two (2) total Whelen M9 red LED lights with clear lenses. One (1) in the driver's side upper portion of the rear body above the scene light and one (1) in the passenger's side upper portion of the body below scene light.

-Two (2) total Whelen M9 blue LED with clear lenses. One (1) in the driver's side upper portion of the rear body below the scene light and one (1) in the passenger's side upper portion of the body above the scene light.

90.1 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions_____

90.2-Rear Lower

Two (2) Whelen M9 amber LED lights with clear lenses shall be mounted on the rear of the apparatus body:

-One (1) shall be mounted on the lower portion - passenger side. -One (1) shall be mounted on the lower portion - driver's side.

90.2 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions_____

91.0-Headlight Flasher

The high beam headlights shall flash alternately between the left and right side, with a control switch located on the cab instrument panel. The flashing shall automatically cancel when the hibeam headlight switch is activated or when the parking brake is set.

91.0 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions

92.0-Electronic Siren

An electronic siren amplifier shall be mounted between the officer and the driver. A noise-canceling microphone with mounting clip shall be provided.

92.0 Proposal Page #	COMPLIANCE: Yes	_ No
Describe		
Exceptions		

92.1-Electronic Siren Speakers

A pair of 100-watt siren speakers shall be recess mounted in the right and left side of the extended bumper. The speakers shall be wired to the siren amplifier.

92.1 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

93.0-Mechanical Siren

A Federal Q-2B mechanical siren shall be mounted on top of extended front bumper, on the driver's side, with controls on the floor on both right and left side. Floor switches to be flat micro switch. The siren shall only function when the 'Emergency Master' switch is on. A siren brake switch shall be provided on the dash near the driver and passenger.

93.0 Proposal Page #	_ COMPLIANCE: Yes	No
Describe		
Exceptions		

94.0-Air Horns

Two (2) Grover #1510, 24" chrome-plated Stuttertone air horns, one (1) each side of frame rails mounted through the front bumper. Airlines from air supply to horns shall be no less than 3/8" diameter.

94.0 Proposal Page #	_ COMPLIANCE: Yes	No
Describe		
Exceptions		

94.1-Air Horn Activation

The horns shall be controlled by an electrically operated air solenoid. The air horns shall be controlled by any of two locations, including the steering wheel horn button and a floor switch on right side floor. Floor switch to be flat micro type, matching siren switches.

A switch shall be provided in the switch control panel to allow the driver the option of controlling the chassis horn or the air horns from the horn button. The system shall always default to air horn.

94.1 Proposal Page #	COMPLIANCE: Yes	No	
Describe			
Exceptions			

95.0-12 Volt Scene Lights

95.1-Front-Cab Mounted Scene Lights

There shall be a FireTech 72" LED Brow light mounted above the windshield on the front of the cab. The light housing shall be painted black to match the cab roof. The lights shall be switched from two positions inside the cab, one from the driver's position and one from the officer's position and be labeled "Front Flood". The exact placement of the lights and switches shall be determined by the Apparatus Committee at the Pre-Construction Conference.

95.1 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

95.2-Side-Body Mounted

There shall be six (6) Whelen Pioneer 12-Volt PFP2 Super LED Dual Panel Floodlight, recess mounted at a 15-degree angle down, three on each side, on the rear of the body. The light housing shall be painted black. The lights shall be switched from the vista display in the cab. The switching shall be labeled "Driver's Side Body" and "Passenger Side Body". The exact placement of the lights and switches shall be determined by the Apparatus Committee at the Pre-Construction Conference.

95.2 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

95.3-Rear-Body Mounted Scene Light

There shall be two (2) Whelen Pioneer 12-Volt PFP2 Super LED Dual Panel Floodlight, recess mounted at a 15-degree angle down, two each side, on the rear of the body. The light housing shall be installed on the rear of the apparatus, one on each side upper rear of body between the emergency lights.

The light shall be switched from the vista display in the cab and be labeled "Rear Scene". The exact placement of the lights and switches shall be determined by the Apparatus Committee at the Pre-Construction Conference.

95.3 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions_____

95.4-Front Bumper Mounted Guide Pole

One (1) pair of illuminated guide poles shall be provided and installed on the front corner radius. The lighted color shall be amber and powered under 12-Volt system.

95.4 Proposal Page #	COMPLIANCE: Yes	_ No
Describe		
Exceptions		

96.0 Miscellaneous

96.1-Generator

One (1) 15KW PTO direct drive generator shall be provided by the manufacturer. The exact location of the unit shall be determined at the pre-construction conference with considerations of access for service and maintenance. Additionally, an automatic transfer switch shall be installed to switch from Generator to Shore Power for **all** 110V outlets and 240V twist lock outlet.

96.1 Proposal Page #	_ COMPLIANCE: Yes _	No	
Describe			
Exceptions			

96.2-Exterior Outlets

There shall be eight (8) exterior 110V duplex outlets and one (1) 240V twist lock outlet. Exact placement and location shall be determined at the pre-construction meeting.

96.2Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions_____

96.3-Electric Cord and Reel

One (1) Hannay Electric Cord with 200' of 10/3 wire and Junction box with four (4) 120V duplex outlets shall be provided. Electric cord shall sit on an electrically wound reel. Exact reel and reel control's location shall be determined at the pre-construction meeting.

96.3 Proposal Page #	COMPLIANCE: Yes	_No	
Describe			
Exceptions			

96.4-Breathing Air System

Six (6) ASME 6000 PSI cylinders shall be provided and stored in the dunnage area above the L1 and R1 compartments. Dunnage area shall then be closed with a hinged / watertight door. Access door shall be removable for service and testing and shall not interfere with removal of cylinders. Filling of the cylinders shall be achieved from the ground level.

96.4 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions

One (1) SpaceSaver M2792M two (2) bottle fill station shall be provided and located within the L2 compartment.

96.4 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions_____

96.5-Air Hose Reels

Two (2) electrically wound wheels shall be provided. Each hose reel shall be capable of holding 200' of air hose. One (1) reel shall be plumbed from the fill station and capable of "high" pressure flow. One (1) reel shall be plumbed from the fill station and capable of "low" pressure flow. Both reels will be labelled accordingly. Additionally, the manufacturer will provide 200' of "low" pressure hose and 200' "high" pressure hose to outfit the reels. and reel control's location shall be determined at the pre-construction meeting.

96.5 Proposal Page # COMPLIANCE	E: Yes No
Describe	
Exceptions	

97.0-Receivers

There shall be a total of four (4) receivers mounted on the underside of the truck capable of supporting portable winching operations. One (1) shall be located on the front of the cab, accessed from the middle bumper compartment. One (1) shall be located at the rear center of the apparatus, and two (2) shall be located centered on the body of the apparatus (left and right sides) ahead of the rear wheels.

97.0 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions _____

97.1-Portable Winch

One Warn 10,000lb fully electric portable winch with Zeon 10 multi winch mount and cable pretensioners shall be provided by the manufacturer. Cable shall be capable of 10,000lb horizontal pull. Synthetic cable is not desired. Portable winch shall be stored within the front center bumper compartment but capable of being removed easily without the need of hand tools for use in the receivers mounted on the side and the rear of the body.

97.1 Propos	al Page #	COMPLIANCE: Yes	No	
Describe				
Exceptions_				

97.2-Winch Power

Power for portable winch operations shall be provided near all four (4) attachment points under the body of the apparatus with the appropriate device connection. Connections shall be sealed from the elements when not in use.

97.2 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions_____

98.0-Roof Anchors

Four (4) total roof mounted anchor points shall be provided, two (2) on the left side of the apparatus body and two (2) on the right. Anchor points shall be smooth finish with no rough edges and placed so that the receiver mounts ahead of the rear wheels are centered between the two (2) points. Exact location and placement shall be determined by the apparatus committee at the preconstruction conference.

98.0 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

99.0-Light Tower

One (1) Wilburt 15' Powerlite 4-5-1200-2 Sirion 120V light tower shall be provided and mounted on the cab roof with a painted to match guard around the tower when stowed.

99.0 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

99.1-Light Tower Controls

Wilburt Light tower shall be powered on by means of a "push" style toggle switch located within the L2 compartment. Controlling the light tower shall be achieved by means of a tethered remote control mounted in the L2 compartment. Remote tether shall be long enough for operator to achieve full view of tower operation.

99.1 Proposal Page #	COMPLIANCE: Yes	No	
Describe			
Exceptions			

100.0-Interior Body Camera Kit

One (1) camera shall be located within the interior body compartment / crew area to allow the driver and passenger to visualize the additional crew members. Camera viewing shall be achieved through an additional screen mounted in the cab of the apparatus so that it can be viewed by the driver and passenger. Exact screen size and placement shall be determined by the apparatus committee at the pre-construction conference.

100.0 Proposal Page #	COMPLIANCE: Yes	No	_
Describe			
Exceptions			

101.0-32" HD Monitor

One (1) 32" HD monitor shall be mounted inside of the interior body compartment / crew area and connected to the 360-degree camera system.

101.0 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

102.0-FireCom Headset System

One (1) FireCom headset system with a total of four (4) headsets shall be provided. Two (2) in the cab for the driver and passenger with "push to transmit" functionality, and two (2) in the crew area of the interior body compartment. Mounts for the headset shall be provided for storage when not in use, keeping the headsets in an easily accessible location from a belted position.

102.0 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions_____

103.0-Shelving Allowance

Due to undecided exact compartment layouts. A shelving allowance of \$60,000.00 shall be included in the total price. If a third-party manufacturer is to be utilized for compartment layouts, vendor MUST supply references and contact information for the fabrication.

103.0 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

104.0-Additional Equipment

In addition to the items listed in the "miscellaneous" section listed above, the loose equipment items below shall be included with the delivery of the finished apparatus:

- One (1) Duo-Safety 585A, 10-foot, folding attic ladder

-One (1) Nupla, 12-foot I-Beam pike pole

-Two (2) Nupla, 10-foot I Beam pike pole

-Two (2) 6-foot NY hook pike pole

104.0 Proposal Page # ____ COMPLIANCE: Yes ___ No ___ Describe Exceptions_____

105.0-Painting

105.1-Truck Cab and Chassis

The truck cab will be painted red with a black top. The manufacturer shall provide paint samples for color matching of both red and black paint. Black paint shall be below the bottom of the windows approximately 3" and then dip across the center of the cab to meet the top of the grille. Paint colors, break of two-tone and specifics of dip area shall be approved by the Apparatus Committee at the Pre-Construction Conference.

105.1 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions

105.2-Exterior Body

The exterior body shall be painted red with a black top. The manufacturer shall provide paint samples for color matching of both red and black paints. Break of two-tone paint and specifics shall be approved by Apparatus Committee at Pre-Construction Conference.

105.3 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

105.4-Compartment Interior

The interior of all compartments shall be unpainted.

105.4 Proposal Page #	_ COMPLIANCE: Yes _	No
Describe		
Exceptions		

106.0- Striping and Lettering

106.1-Rear Body Chevron

There shall be an alternating red and fluorescent yellow green diamond grade 3M Scotchlite chevron striping, each stripe 6-inches in width, located on the entire rear-facing vertical surface of the apparatus.

106.1 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

106.1.2-Cab Door Interior

There shall be a 6.00" x 16.00" alternating red and fluorescent yellow green diamond grade 3M Scotchlite reflective stripe across the interior of each cab door. The stripe shall be located approximately 1.00" up from the bottom, on the door panel.

106.1.2 Proposal Page #	COMPLIANCE: Yes No
Describe	
Exceptions	

106.1.2-Cab Door Edge

There shall be a 2" red and fluorescent lime yellow diamond grade 3M Scotchlite reflective stripe on the outer edge of all cab doors.

106.1.2 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

106.2-3M Scotchlite Body Stripe

A 1"- 6"- 1" set of black reflective 3M Scotchlite stripes shall be placed around the cab (including front) and body. The location of the stripes shall be approved by the Apparatus Committee at the Pre-Construction Conference.

106.2 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

106.2.1-3M Scotchlight Body Lettering

Black reflective 3M Scotchlight lettering shall be provided on the rear of the body driver's and passenger's side over the rear compartment(s). The lettering will read as follows: "1756".

-Lettering shall flow within the layout of the 1"-6"-1" black reflective 3M Scotchlite body stripes.

106.2.1 Proposal Page #	_ COMPLIANCE: Yes _	No
Describe		
Exceptions		

106.3-3M Scotchlite Rear Numbering

Six (6) inch white 3M Scotchlite letters shall be provided on the door of the rear compartment. (See Fig. 7 below). The lettering will read as follows: "**Rescue 1756**".



Current rear compartment door graphics, Fig 2

Exact font and style of lettering shall be determined by Apparatus Committee at Pre-Construction Conference.

106.3 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

107.0-MFPD Logo

Mehlville Fire Protection District logo shall be placed on each front cab door. (See Fig. 8 below). It will measure approximately 20-1/2" wide at the widest point by 11" high at the highest point. The gold leaf logo shall match the color and style as provided and shall be totally encapsulated between two layers of clear vinyl. A sample of the material for color matching shall be submitted with bid/proposal.



Current MFPD door logo, Fig. 3

107.0 Proposal Page #	COMPLIANCE: Yes	No
Describe		
Exceptions		

108.0- Lettering

108.1- Lettering-Cab

Three-inch (3") gold leaf letters matching the color and style as provided will be used (See Fig. 1 PG. 41). The letters shall be totally encapsulated between two layers of clear vinyl. Exact font, style of the lettering and placement shall be approved by the Apparatus Committee at the Pre-Construction Conference.

The word "MEHLVILLE", shadowed in black, shall appear in center of the chrome bumper.

108.1 Proposal Page #	COMPLIANCE: Yes	_No
Describe		
Exceptions		

108.2 Lettering-Front Bumper

The word "Rescue 1756" in 4" gold leaf lettering shall be centered on the front bumper face in
between the protruding tow eyes. The lettering shall match the color and style as provided (Gold
leaf with black shadowing) and shall be totally encapsulated between two layers of clear vinyl.
(Reference fig. 1)

Describe
Exceptions

109.0- Striping

109.1-Cab Paint Break Stripe

The break between the black and red paint shall be covered with a 1/2-inch gold leaf stripe. The stripe shall match the color and style as provided, (see fig. 9) and shall be totally encapsulated between two layers of clear vinyl. The stripe will be outlined in black and have a white pin stripe below it. Style of the material and placement shall be approved by the Apparatus Committee at Pre-Construction Conference.



Paint Break Striping, Fig. 4

109.1 Proposal Page # _____ COMPLIANCE: Yes ____ No ____ Describe Exceptions

109.2-Cab Side Stripe

There will be a 1/2-inch gold leaf stripe on the lower portion of the cab, doors and over the wheel, on each side. The stripe shall match the color and style as provided, (See Fig. 10 below) and shall be totally encapsulated between two layers of clear vinyl. The stripe will be outlined in black and have a white pin stripe above it. Style of the material and placement shall be approved by the Apparatus Committee at Pre-Construction Conference.



Cab Side Striping, Fig. 5

109.2 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions

110.0-Fleur-de-lis

One pair of gold leaf fleur-de-lis shall be applied on the front corners of the cab, measuring approximately 7-inches high x 5-1/2-inches wide. They shall match the color and style as provided and shall be totally encapsulated between two layers of clear vinyl and shadowed in black. Style of the material and placement shall be approved by the Apparatus Committee at Pre-Construction Conference.



Current Fleur-de-lis, Fig 6

110.0 Proposal Page # ____ COMPLIANCE: Yes ___ No ____ Describe Exceptions

111.0-Driver and Passenger Body Side Sheet Lettering

10-inch (10") gold leaf letters matching the color and style as provided will be used (See Fig. 12 below). The letters shall be totally encapsulated between two layers of clear vinyl. Exact font, style of the lettering and placement shall be approved by the Apparatus Committee at Pre-Construction Conference.

The gold leaf lettering shadowed in red, shall appear in the black area on the driver's and passenger's side upper body. (See fig. 7, below).



Current side sheet lettering, Fig. 7

111.0 Proposal Page # ____ COMPLIANCE: Yes ___ No ___ Describe Exceptions

112.0-Rustproofing

The entire apparatus shall be rust proofed with Ziebart or equal process. Rust preventative compounds shall be applied to the underside and internal panels of the apparatus body. Rust preventative compound shall be highly resistant to moisture, not wash off with water, and remain pliable and self-healing. Rust proofing to meet MIL-STD 1223U.

A certificate shall be supplied certifying that the rust proofing has been applied.

 112.0 Proposal Page # _____ COMPLIANCE: Yes _____ No _____

 Describe

 Exceptions ______

113.0-Manuals

Listed below are the manuals that shall be provided with the order.

113.1 - Chassis Parts Manual	- One (1)
113.2 - Chassis Service Manual	- One (1)
113.3 - Chassis Operations Manual	- Two (2)
113.4 - Body Parts Manual	- One (1)
113.5 - Air Cascade	- One (1)
113.6 – Air Cascade Parts Manual	- One (1)
113.7 - Electrical/Wiring Diagram	- One (1)
113.8 – PTO Generator Manual	- Two (2)
113.9 - DVD-Operation and troubles	shooting procedures of Pressure Controller – Two (2)

113.0 Proposal Page # _____ COMPLIANCE: Yes ____ No ____

 Describe

 Exceptions ______

Questions or Disputes

Any question or dispute over these specifications must be requested in electronic written form for answer by the Fire District prior to submitting proposal. Questions or disputes should be directed to Deputy Chief Rich Link via email at rlink@mehlvillefire.com

73

COST

Total price for unit equipped as specified in above specifications.

\$_____

The manufacturer shall provide all payment options with bid.

I hereby certify that the proposal submitted by this company is for one heavy duty rescue apparatus that will meet all the requirements set forth in these heavy-duty rescue specifications, including all equipment specified, except where exceptions are indicated on this copy. Enclosed with our proposal is a statement explaining what we propose to furnish in lieu of the specified requirements where we have indicated an exception. This includes the brand name, model number, and a description of equipment we propose to furnish in lieu of equipment specified on an "Or Equal" basis. This copy of specifications and our list of exceptions, if any, shall be considered a part of the final contract.

Company	Date	Mo / D / Yr.		
Print Signature Title	Company			
Title	Name	Drint	Signatura	
County of: day of, 20, before me personally appeared, to be known to be the person or persons described in and whe executed the foregoing instrument, and acknowledged that executed	Title			
on this day of, 20, before me personally appeared, to be known to be the person or persons described in and where executed the foregoing instrument, and acknowledged that executed	State of:			
, to be known to be the person or persons described in and whe executed the foregoing instrument, and acknowledged that executed	County of:			
	on this	day of		
the same as free act and deed.	executed the			executed
	the same as _		free act and deed.	

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal in the County and State aforesaid, the day and year first above written.

Notary Public

My commission expires_____

****NOTE****: Vendor shall complete this page and include it with the proposal packet in a manner which ensures that it is attached to the outside of the binder and as the first page of the proposal. END OF DOCUMENT