



State of New Hampshire

DEPARTMENT OF SAFETY
JAMES H. HAYES BUILDING
33 HAZEN DRIVE
CONCORD, NEW HAMPSHIRE 03305
603-271-2791



EDDIE EDWARDS
ASSISTANT COMMISSIONER

ROBERT L. QUINN
COMMISSIONER

STEVEN R. LAVOIE
ASSISTANT COMMISSIONER

Her Excellency, Governor Kelly A. Ayotte
and the Honorable Council
State House
Concord, New Hampshire 03301

September 2, 2026

REQUESTED ACTION

Pursuant to MOP 150, VII(C), authorize the Department of Safety, Division of Fire Standards and Training and Emergency Medical Services to purchase one (1) medium duty fire truck to support the delivery of safe, reliable, and realistic hands-on training for firefighters and other emergency responders throughout New Hampshire from Bulldog Fire Apparatus (VC#165645), Woodville, MA in the amount of \$588,418, effective upon Governor and Executive Council approval through June 30, 2027. **100% Agency Income**

Funding is available as follows:

	<u>FY 2027</u>
02-23-23-232010-77280000-Volkswagen Mitigation Trust	
030-500320 – Motor Vehicles (New)	\$525,197
02-23-23-237010-46520000-Fire Standards Instruction	
030-500320 – Motor Vehicles (New)	\$63,221
Total	\$588,418

EXPLANATION

The purpose of this request is to purchase one (1) medium-duty rescue truck to the existing 1997 Rescue truck that has reached the end of its useful service life and to support a variety of practical, hands-on training courses for firefighters and other emergency responders throughout New Hampshire.

Due to its age and continued use, the existing apparatus requires increasing maintenance, has become less operationally reliable, and is incurring escalating repair costs. The Department regularly uses the apparatus to transport and securely store specialized rescue equipment, tools, and training materials needed to deliver a variety of training courses. It also provides trainees with experience operating from and working with the type of rescue apparatus commonly used during emergency incidents.

The purchase will benefit the State by supporting safe, reliable, and standardized training that prepares emergency responders to perform effectively in the field. A dependable rescue apparatus will strengthen responder preparedness, reduce training disruptions and repair costs, and support effective emergency response in communities throughout New Hampshire. The Department determined that replacement is the most cost-effective means of maintaining its training capabilities and protecting the health and safety of Department personnel and training participants. Continuing to repair and operate the existing apparatus would not provide the reliability, safety, or long-term value necessary to support the Department's training responsibilities.

The Department selected the Contractor through a competitive bid process using Bid 4-27, which was posted on the Department of Administrative Services' Bid and Vendor Information website and closed on July 22, 2026. The Department received one (1) bid from the Contractor. Two (2) additional vendors submitted "no bid" responses, and another vendor advised that comparable apparatus may take two (2) to four (4) years to manufacture due to existing production backlogs. The limited response reflects the specialized nature of the required medium-duty rescue truck and the limited availability of comparable apparatus.

The Contractor was selected as the only responsive and responsible bidder meeting all solicitation requirements and was determined to provide the best value to the State. The Contractor has a completed unit available that meets the Department's specifications, operational requirements, and delivery timeline. Its availability will allow the Department to replace the existing apparatus without the extended manufacturing delays currently associated with comparable vehicles. The Bid Summary is attached.

The Contractor's price of \$588,418 is within the Department's estimated market range of \$500,000 to \$700,000 for comparable medium-duty rescue trucks. Pricing varies based on vehicle specifications, chassis type, installed equipment, manufacturing lead times, and market conditions. Based on the available market information and the results of Bid 4-27, the Department determined that the Contractor's price is fair and reasonable.

In the event that Agency Income funds are no longer available, General Funds will not be requested to support this purchase.

Respectfully submitted,


Robert L. Quinn
Commissioner of Safety



State of New Hampshire Purchase Order

PURCHASE ORDER NUMBER
1113615

This number must appear on all invoices, packages,
cartons, bills of lading, and packing slips.

Date: 07/23/2026
Status: DRAFT
Ship Via:
FOB: Destination
Freight Terms: Vendor Paid
Terms: Net 30
Due Days: 30

Bill To: DOS EQUIP CONTROL WAREHOUSE
SAFETY BUSINESS OFFICE
33 HAZEN DR
CONCORD NH 03305

BULLDOG FIRE APPARATUS
17 WINTER STREET
HOPKINTON MA 01748

Ship To:

DOS FIRE ACADEMY
98 SMOKEY BEAR BLVD
CONCORD NH 03301

Vendor #: 165645
Contact: Ric Reaman

Phone: (508) 435-4200
Fax: 91

AGENCY CONTACT: Mark Wholey 603-496-6112

In accordance with RFB 4-27

LINE	QTY	UOM	DESCRIPTION	UNIT PRICE	EXTENDED PRICE
			Deliver on or before December 1, 2026 unless specified by line		
1	1.00	EA	FIRE TRUCK FIRE TRUCK Vendor Item Number: SO-86817 Vendor Item Desc:	525,000.00000	525,000.00
2	1.00	EA	FIRE TRUCK FIRE TRUCK Vendor Item Number: SO-86817 Vendor Item Desc:	63,418.00000	63,418.00
			Purchase Order Summary		
			Goods Total:		\$588,418.00
			Order Total:		\$588,418.00

Buyer: Lincoln Adams
Phone: 603-271-0580
Process Level: 02300

Total Amount: **\$588,418.00**

1. The State of New Hampshire engages the firm or individual ("the Vendor") to perform the services and/or sale of goods, described in the attached State Proposal and the Vendor's proposal, bid or quotation, any of which are incorporated herein by reference.

2. COMPLIANCE BY VENDOR WITH LAWS AND REGULATIONS. In connection with the performance of this agreement, the Vendor shall comply with all statutes, laws, regulations, and orders of federal, state, county or municipal authorities which shall impose any obligation or duty upon the Vendor, including, but not limited to civil rights and equal opportunity laws. In addition, the Vendor shall comply with all applicable copyright laws.

3. TERM. The contract and all obligations of the parties thereunder, shall become effective on a specified date and shall be completed in their entirety prior to a specified date. Any work undertaken by the Vendor prior to the effective date shall be at his sole risk and, in the event that the contract shall not become effective, the State shall be under no obligation to reimburse the Vendor for any such work.

4. CONTRACT PRICE. The contract price, a payment schedule and a maximum limitation of price shall be as specified by the proposal or bid invitation and the Vendor's response. All payments shall be conditioned upon receipt, and approval by the State, of appropriate vouchers and upon satisfactory performance by the Vendor, as determined by the State. The payment by the State of the Contract Price shall constitute complete reimbursement to the Vendor for all expenses of any nature incurred by the Vendor in the performance by the contractor and complete payment for the Services. The State shall have no other liability to the Vendor.

5. DELIVERY. If the Vendor fails to furnish items and/or services in accordance with all requirements, including delivery, the state may repurchase similar items from any other source without competitive process, and the original Vendor may be liable to the state for any excess costs.

If a Vendor is unable to complete delivery by the date specified, he must contact the using branch and or agency. However, the branch and or agency is not required to accept a delay to the original delivery date. All deliveries are subject to inspection and receiving procedure rules as established by the State of New Hampshire. Deliveries are not considered accepted until compliance with these rules has been established. State personnel signatures on shipping documents shall signify only the receipt of shipment.

6. INVOICING. All invoices must be in triplicate showing Order Number, Unit and Extension Prices and discounts allowed. A separate invoice shall be submitted for each order. Unless otherwise noted on the proposal or purchase order, payment will not be due until thirty(30) days after all services have been completed, or all items have been delivered, inspected and accepted or the invoice has been received, whichever is later.

7. PERSONNEL.

7.1. The Vendor shall disclose in writing the names of all owners (5% or more), directors, officers, employees, agents or subcontractors who are also officials or employees of the State of New Hampshire. Any change in this information shall be reported in writing within fifteen (15) days of their occurrence.

7.2. The person signing this agreement on behalf of the State, or his or her delegee ("Contracting Officer") shall be the State's representative for purposes of this agreement. In the event of any dispute concerning the interpretation of this agreement, the Contracting Officer's decision shall be final.

8. EVENT OF DEFAULT; REMEDIES.

8.1. Any one or more of the following acts or omissions of the Vendor shall constitute an event of default hereunder ("Events of Default").

8.1.1. failure to deliver the goods or services satisfactorily or on schedule; or

8.1.2. failure to submit any report required hereunder; or

8.1.3. failure to perform any of the other covenants and conditions of this agreement.

8.2. Upon the occurrence of any Event of Default, the State may take any one, or more, or all, of the following actions:

8.2.1. give the Vendor a written notice specifying the Event of Default and requiring it to be remedied within, in the absence of a greater or lesser specification of time, thirty(30) days from the date of the notice; and if the Event of Default is not timely remedied, terminate this agreement, effective two (2) days after giving the Vendor notice of termination; and

8.2.2. give the Vendor a written notice specifying the Event of Default and suspending all payments to be made under this agreement and ordering that the portion of the Contract Price, which would otherwise accrue to the Vendor during the period from the date of such notice until such time as the State determines that the Vendor has cured the Event of Default, shall never be paid to the Vendor; and

8.2.3. set off against any other obligation the State may owe to the Vendor any damages the State suffers by reason of any Event of Default; and

8.2.4. treat the agreement as breached and pursue any of its remedies at law or in equity, or both.

9. WAIVER OF BREACH. No failure by the State to enforce any provisions hereof after any Event of Default shall be deemed a waiver of its rights with regard to that Event, or any subsequent Event. No express failure of any Event of Default shall be deemed a waiver of any provision hereof. No such failure or waiver shall be deemed a waiver of the right of the State to enforce each and all of the provisions hereof regarding any further or other default on the part of the Vendor.

10. VENDOR'S RELATION TO THE STATE. In the performance of this agreement the Vendor is in all respects an independent contractor, and is neither an agent nor an employee of the State. Neither the Vendor nor any of its officers, employees, agents or members shall have authority to bind the State nor are they entitled to any of the benefits, workmen's compensation or emoluments provided by the State to its employees.

11. ASSIGNMENT AND SUBCONTRACTS. The Vendor shall not assign, or otherwise transfer any interest in this agreement without the prior written consent of the State. No work required by this contract shall be subcontracted without the prior written consent of the State.

12. INDEMNIFICATION. The Vendor shall defend, indemnify and hold harmless the State, its officers and employees, from and against any and all losses suffered by the State, its officers and employees, and any and all claims, liabilities or penalties asserted against the state, its officers and employees, by or on behalf of any person, on account of, based on, resulting from, arising out of (or which may be claimed to arise out of) the acts or omissions of the Vendor. Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the sovereign immunity of the State, which immunity is hereby reserved to the State. This covenant shall survive the termination of this agreement.

12.1. PATENT PROTECTION. The Vendor agrees to indemnify and defend the State of New Hampshire from alleged and actual patent infringements and further agrees to hold the State of New Hampshire harmless from any liability arising under RSA 382-A:2-312(3). (Uniform Commercial Code).

13. TOXIC SUBSTANCES. In compliance with RSA 277-A known as the Workers Right to Know Act, the Vendor shall provide Material Safety Data Sheets with the delivery of any and all products covered by said law.

14. NOTICE. Any notice by a party hereto to the other party shall be deemed to have been duly delivered or given at the time of mailing by certified mail, postage prepaid, in a United States Post Office addressed to the parties at the addresses given below.

15. AMENDMENT. This agreement may be amended, waived or discharged only by an instrument in writing signed by the parties hereto.

16. CONSTRUCTION OF AGREEMENT AND TERMS. This agreement shall be construed in accordance with the laws of the State of New Hampshire, and is binding upon and inures to the benefit of the parties and their respective successors and assigns.

17. ADDITIONAL PROVISIONS. The additional provisions (if any) have been set forth as Exhibit "A" hereto.

18. ENTIRE AGREEMENT. This agreement, which may be executed in a number of counterparts, each of which shall be deemed an original, constitutes the entire agreement and understanding between the parties, and supersedes all prior agreements and understandings relating hereto.



AGREEMENT OF SALE FOR FIRE APPARATUS

This agreement made by and between Bulldog Fire Apparatus, Inc. (Company) and

(Buyer)

(Address)

(City)

(State)

(Zip / Postal Code)

BUYER INFORMATION: Please select one option below.

Municipal Corporation: _____

Non-Profit Corporation: _____

Business Corporation: _____

Sole Proprietorship: _____

Other (specify): _____

State of Incorporation: _____

1. ACCEPTANCE: Company agrees to sell, and Buyer agrees to purchase the vehicle ("Apparatus") described in the Specifications incorporated as Exhibit A of this contract, as may be amended in writing, and the equipment listed herein, all in accordance with the terms and conditions of the contract.

2. DELIVERY SCHEDULE: The Apparatus shall be ready for delivery F.O.B. **Bulldog Fire Apparatus, Inc.** (Company) at approximately **60-90 Days ARO**, subject to extension due to changes made by Buyer or in accordance with Sections 3 and 4 below.

In order to meet this deadline a preconstruction conference **MUST** be completed within 25 days after receipt of the signed contract by the Company. The Company has the right to extend the delivery date for delays in timely meetings and signed changes to original specifications.

In order to establish a stable design, procurement, and delivery schedule, the cutoff date for Buyer change orders will be set at the pre-construction meeting and will be strictly enforced. Changes in major components, configuration, or other items that may change the major components or configuration, (body compartments and body, chassis) will not be allowed after the contract execution date unless accepted, in its sole discretion, by the Company.

If the Company is unable after reasonable efforts to obtain brand name materials, Buyer agrees that the Company may substitute functionally equivalent materials in order to meet the delivery deadline. If unable to replace the brand name materials with alternatives, Buyer agrees that the delivery date will be extended in order to obtain the brand materials.

3. CONTINGENCIES: The Company cannot be held liable for penalties and/or delays due to strikes, failures to obtain materials, fires, accidents, force majeure, or any other causes beyond the Company's control. In the event of a delay the Company will provide the Purchaser with written notice of the expected delay and give reason for said delay.

4. CHANGE ORDERS: Changes to the contract may be requested by the Buyer after the execution of the contract according to Section 2 of this document. Changes will be reviewed for cost and schedule impact by the Company. Changes will be sequentially numbered. Change Orders will be prepared by the Company and executed by the Buyer. The price of the apparatus and delivery date will be adjusted by the Company to take into account any Change Orders. If the Parties are unable to agree on terms of any Change Order, the original purchase order shall remain in effect. No change order shall be binding until the Buyer certifies in writing that the funds are appropriated and available to pay for it.

5. SPECIFICATIONS: The Company agrees that the Apparatus will comply with the provided specifications attached as Exhibit A hereto.

6. WARRANTY: The Company agrees to provide the Buyer with a copy of the warranty issued by the Manufacturer of the Apparatus, a copy of which is attached hereto as Exhibit B. Buyer understands and acknowledges that this is the only warranty provided in connection with this sale and that the Company does not warrant, express or implied, anything other than its own work done in connection with any modifications or changes to the Apparatus after delivery by the Manufacturer. As for that work, the Company warrants that the work was done in a good and workmanlike manner and for a period of thirty (30) days after delivery to the Buyer to repair any material defects in its work. This is the sole and exclusive warranty provided by the Company.

7. PRICE: The Buyer will pay, as a purchase price for the Apparatus, the sum of \$ _____ **US Dollars**

Any applicable taxes not specifically noted above will be paid by the Buyer directly or will be added to the Purchase Price and paid by the Company. If Buyer claims exemption from any tax, Buyer agrees to promptly furnish the applicable exemption certificate(s) and to indemnify and save Company harmless from any such tax, interest, or penalty, which may at any time be assessed against Company as a result of this transaction.

8. TERMS OF PAYMENT:

- Deposit: \$ _____ **US Dollars**
- Check applicable method of payment for remaining balance due: **Please select one option below.**
 - ___ Cash/cash equivalent at time of delivery (Due upon final inspection)
 - ___ Progress Payment Sales Contract - Financing*
 - ___ Lease-Purchase Agreement - Financing*

* Lender/Leasing Company: _____

- The purchase price payment reflects US dollars and does not include any authorized change orders which, if applicable, will be paid at the time of final inspection and signed acceptance.
- No payment of any amount will be made payable to a sales representative without written approval from the Company.
- It is agreed that the apparatus and equipment covered by this contract will remain the property of the Company and not be placed in service until the entire contract price has been paid in full.
- A copy of the Buyer's tax-exempt certificate, if applicable, must be submitted with this signed contract.

9. FINAL INSPECTION: The Company requires, and Buyer agrees, that the Apparatus will be inspected within seven-(7) days of notice that it has been completed.

- 10. CANCELLATION:** This contract is not subject to cancellation by Buyer. The Company has the absolute discretion to permit cancellation upon the payment of a cancellation fee by Buyer, to be set by the Company in its discretion. The fee will include, but not be limited to, expenses already incurred, commitments made by Company to third parties and Company's anticipated lost profit.
- 11. DISCLAIMER:** COMPANY MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESSED OR IMPLIED (INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS), EXCEPT THOSE SET FORTH IN PARAGRAPH 6 ABOVE. IN NO EVENT SHALL THE COMPANY BE LIABLE FOR ANY CONSEQUENTIAL OR PUNITIVE DAMAGES AND ITS LIABILITY SHALL BE LIMITED TO THE RETURN OF ANY PURCHASE PRICE PAID BY THE BUYER AND/OR THE COSTS TO MAKE THE NECESSARY REPAIRS AS DESCRIBED IN 6 ABOVE.
- 12. CHANGES IN COMMERCIAL SPECIFICATIONS:** Specifications for all commercial components of the Apparatus, are subject to change without notice. Specifications for such components will be available at the time of manufacture of the Apparatus. The Company shall not be liable for any specification deviations from original contract specifications on any components made by third party manufacturers.
- 13. CHANGES IN REGULATIONS / INDUSTRY STANDARDS:** The Purchase Price is subject to adjustment for changes to the Apparatus necessitated by changes in applicable government regulations (such as FMVSS or Emissions Regulations), industry standards (such as NFPA Standards) replacement of discontinued models or components from vendors, or freight charges. The Buyer is responsible for any cost increase due to such changes beyond Company control.
- 14. GOVERNING LAW:** This Agreement will be governed by and all disputes shall be controlled by the laws of Massachusetts without giving effect to principles of conflict of laws. Buyer and Company irrevocably and unconditionally agree that any suit, action, or other legal proceeding arising out of or relating to this Agreement will be brought in a court located in Middlesex County, Massachusetts. The Parties further agree that the prevailing party, as determined by the Court, shall be awarded all costs and fees incurred in any dispute arising between them.
- 15. INDEMNIFICATION:** Subject to the limitations set forth above, each Party agrees to indemnify the other for any damages, costs, expenses, or liabilities, including legal fees and costs, to the extent allowable by law arising from or related to a breach of such Party's obligations hereunder.

This contract, including its Exhibits, embodies the entire understanding between the parties relating to the subject matter contained herein and merges all prior discussions and agreements between them. No agent or representative of the Company has authority to make any representations, statements, warranties, or agreements not herein expressed and all modifications or amendments of this agreement, including any appendices, must be in writing signed by an authorized representative of each of the parties hereto.

This contract, to be binding, must be signed by an authorized agent of Buyer. By signing this contract, Buyer represents that the funds necessary to pay the contract amount have been appropriated and are available.

IN WITNESS WHEREOF, the Buyer and the Company have caused this contract to be executed by their duly authorized representatives this _____ day of _____

(Buyer's Legal Name)

By: _____
Signature

By: _____
Signature

Title: _____

Title: _____

This contract is not a valid and binding obligation until approved, dated and executed by the Company. Delivery times begin with the date below.

ACCEPTED AND APPROVED BY COMPANY:

By: _____

Title: _____

Date: _____

FEDERAL EXCISE TAX EXEMPTION CERTIFICATE

(For use by United States, Territories, District of Columbia, or Political subdivisions)

Date: _____

The undersigned hereby certifies he is:

_____ of _____ (United States, Territories, District of Columbia, or Political subdivision)

And that he is authorized to execute this certificate and that the article or articles specified herein are purchased from Bulldog Fire Apparatus, Inc., for the exclusive use of

(United States, Territories, District of Columbia, or Political subdivision.)

It is understood that the exemption from tax in the case of sales or articles under this exemption certificate to the United States, States, etc. is limited to the sale of articles purchased for their exclusive use; and it is agreed that, if articles purchased tax free under exemption certificates are used otherwise, or are sold to employees or others, such fact must be reported to the Federal tax Office of the article or articles covered by this certificate. It is also understood that fraudulent use of this certificate to secure exemption will subject the undersigned and all guilty parties to a fine of not more than \$10,000.00 or to imprisonment for not more than five years, or both, together with costs or prosecution.

(Name or Organization)

By _____ (Signature)

SALES OR USE TAX EXEMPTION CERTIFICATE

Name of Buyer:

Address: _____

City

State

Zip

The above names business, holder of the following State permit number

Number: _____ State: _____

Respectively certifies that all tangible property purchased from Bulldog Fire Apparatus, Inc., of Woodville, Massachusetts is exempt from Sales of Use Tax for reason(s) checked below:

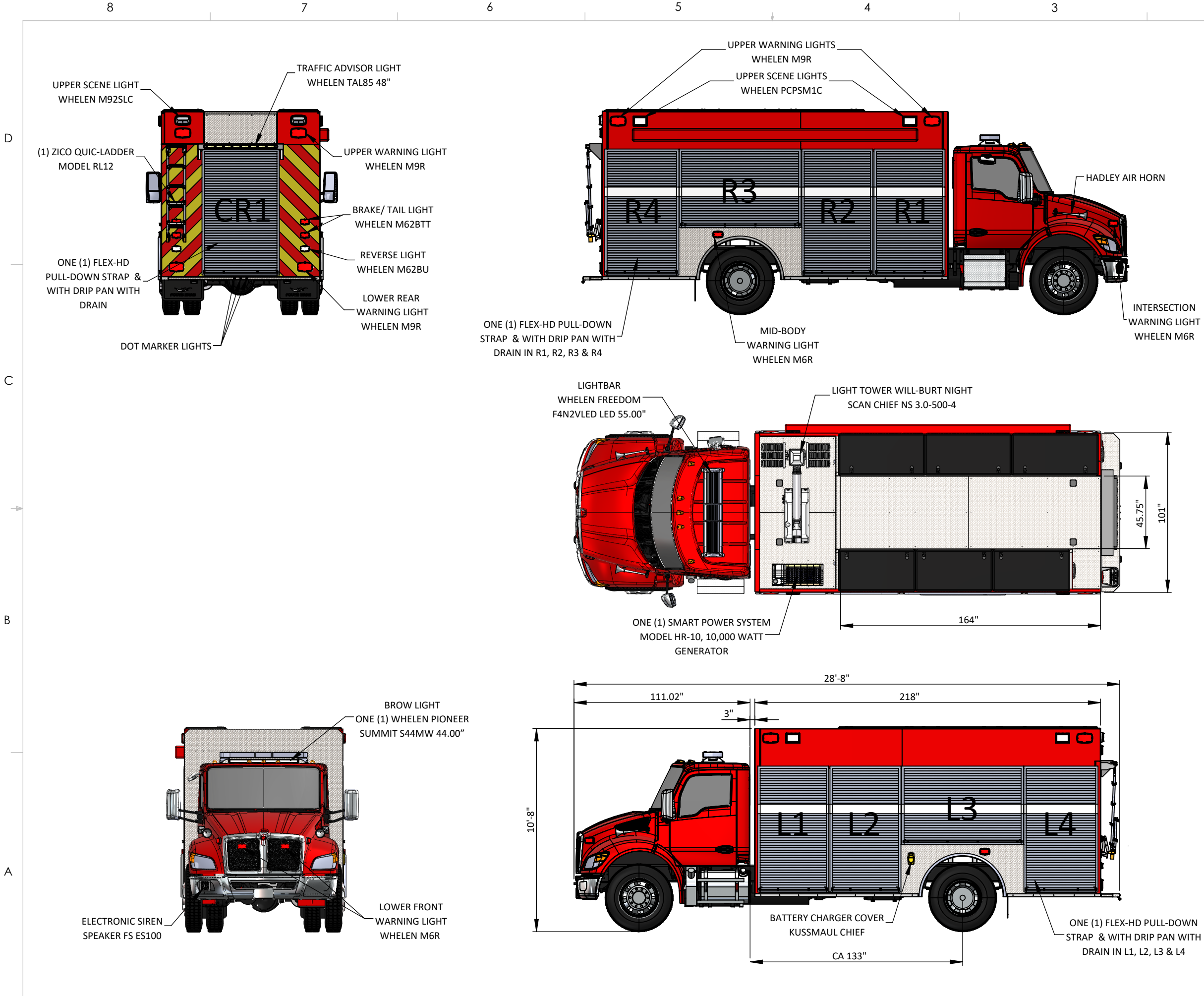
_____ Resale as tangible personal property _____ Governmental Unit or Instrumentality

_____ Non or Charitable Unit

_____ Other (Explain Fully) _____

Signature: _____ Title: _____

Date: _____ Federal excise tax and State Sales Tax will be added if the above form is not completed and signed.



CHASSIS INFO	
CHASSIS	: KENWORTH T480, 2 DOOR REGULAR CAB, SINGLE AXLE
ENGINE	: PACCAR PX-9, 450 HP
TRANSMISSION	: ALLISON 3000 EVS, 5-SPEED
FRONT AXLE	: 14,600 LBS.
REAR AXLE	: 26,000 LBS.
PAINT COLOR	: FOUTS BROS RED, PAINT NUMBER - 763572EA
BODY INFO	
BODY DIMENSION	: 218.00"L
DOOR TYPE	: AMDOR BRAND ROLL UP, SATIN FINISH
ROOF ACCESS LADDER	: ONE (1) ZICO QUIC-LADDER RL 12
UPPERBODY COMPARTMENTS : SIX (6), 54.00" L X 24.00" W X 20.00" D	
<u>LH SIDE COMPARTMENTS</u>	
L1	: 45.50" W X 82.50" H
L2	: 45.50" W X 82.50" H
L3	: 79.25" W X 52.50" H
L4	: 44.00" W X 52.50" H
<u>RH SIDE COMPARTMENTS</u>	
R1	: 45.50" W X 82.50" H
R2	: 45.50" W X 82.50" H
R3	: 79.25" W X 52.50" H
R4	: 44.00" W X 52.50" H
<u>REAR COMPARTMENT</u>	
CR1	: 46.00" W X 82.50" H



DIMENSIONS SHOWN ARE APPROXIMATE AND SUBJECT TO CHANGE AS MAY BE FOUND NECESSARY DURING CONSTRUCTION. MINOR DETAILS MAY NOT BE SHOWN TO RETAIN CLARITY WITHIN THE DRAWING. THE DRAWING IS FOR REFERENCE PURPOSES ONLY. SPECIFICATIONS SHALL BE THE FINAL AUTHORITY OF WHAT IS SUPPLIED ON THE APPARATUS.

OVERALL HEIGHT IS IN LOADED CONDITION. UNLOADED HEIGHTS MAY BE 4" ABOVE HEIGHTS SHOWN.

THE EFFECTIVE DOOR OPENINGS WILL BE APPROX. 2" LESS THAN THE NOTED COMPARTMENT OPENING FOR ROLL UP DOORS AND UP TO APPROX. 4" LESS FOR HINGED DOORS

INCLUSION OF AN ITEM ON THE DRAWING DOES NOT CONSTITUTE INCLUSION OF THAT ITEM WITH THE FINAL DELIVERED UNIT

IN THE EVENT THERE ARE DISCREPANCIES BETWEEN THE DRAWING AND THE SPECIFICATIONS, THE SPECIFICATIONS SHALL PREVAIL

DECIMAL	: ± 0.062	ENG	REV	SCALE	DWG SIZE	DATE
FRACTIONAL	: ±1/16	KK	R00	1:60	D	30 OCT 2024

FOR :	
TITLE :	MEDIUM DUTY RESCUE
PRODUCTION :	N/A



Proposal Specifications For The

New Hampshire Fire Academy

For One (1) Fouts Brothers Medium Duty Rescue

July 22nd, 2026



SCOPE AND GENERAL REQUIREMENTS

It is the intent of the manufacturer to provide a new fire apparatus that will withstand the continuous use encountered in the emergency firefighting service. The apparatus shall be of the latest type, symmetrically proportioned and constructed with due consideration of the load to be sustained.

All parts not specifically mentioned herein, but which are necessary in order to furnish a complete fire apparatus, shall be furnished and shall conform to the best practices known to the fire apparatus industry.

The unit is to be of current year manufacture, and is to be new and unused. The bid price shall not include any local, State, or Federal taxes. The Bidder shall not be liable for any State or Federally mandated tax or program after the sale of this apparatus.

These specifications shall be construed as minimum. Should the manufacturer's current published data or specifications exceed these, they shall be considered minimum and be furnished.

BIDDERS BACKGROUND

Bids are requested from responsible manufacturers who are engaged in the manufacture of fire apparatus. To ensure reliable and complete acceptance of the apparatus, bidder shall have been in operation for a minimum of thirty (30) years in the manufacturing of fire apparatus.

The manufacturer of the apparatus must be fully owned and managed by a Parent Company, Corporation, or Individual(s) that is 100% held by United States of America based Company, Corporation, or United States citizen(s).

Proposals from any manufacturer that is fully or partially owned and/or operated by a foreign company, Corporation or Individual(s) under any type of ownership, partnership, or any similar type of agreement will be immediately rejected.

If the manufacturer of the apparatus, or if any owner, shareholder, or immediate relative of an owner or shareholder that has previously been involved in or held ownership in any company that has filed bankruptcy or any other type of reorganization plan, it must be clearly stated in the bid proposal. The statement must include details and dates of all occurrences.

FAMA COMPLIANCE

The apparatus manufacturer must be a current member of the Fire Apparatus Manufacturer's Association (FAMA) and must provide certificate of membership.



FAIR, ETHICAL AND LEGAL COMPETITION

In order to ensure fair, ethical, and legal competition the apparatus manufacturer shall have ever been fined or convicted of price fixing, bid rigging, or collusion in any domestic or international fire apparatus market.

PROPRIETARY PARTS

It is the intention of the purchaser for all bidders to furnish the apparatus with major parts commonly used by the heavy-duty truck manufacturers and open market vendors whereas replacement parts are more readily available and at reduced cost. The use of proprietary parts may not be acceptable to the purchaser.

MANUFACTURER'S DISCRETION

Materials, parts, or procedures used are subject to change at manufacturer's discretion at any time to provide equal or better products.

PRODUCT QUALITY AND WORKMANSHIP

The components provided and workmanship performed shall be of the highest quality available for this application. Special consideration shall be given to the following areas:

- A). Accessibility to various components that require periodic maintenance or lubrication checks.
- B). Ease of vehicle and pump operation.
- C). Features beneficial to the intended operation of the apparatus.

Construction of the complete apparatus shall be designed to carry the loads intended to meet the road and terrain conditions and speed requirements desired when specified by the purchaser.

Welding shall not be employed in the assembly of the apparatus in a manner that will prevent the removal of any major component part for service and/or repair.

INSURANCE REQUIREMENTS

Each bidder must submit with their bid proposal a Certificate of Insurance listing the proposed manufacturer's product liability insurance coverage. Liability insurance shall be a minimum amount of ten (10) million dollars. Submitted certificate shall name the apparatus manufacturer, insurance company, policy number, and effective dates of the insurance policy. Bids submitted without the required certificate will be considered nonresponsive and automatically rejected. No exceptions are allowed to the minimum insurance coverage requirement.



The manufacturer shall maintain full insurance coverage on the purchaser's cab and chassis from time of first possession by the manufacturer until the apparatus is delivered and accepted by the purchaser (No Exceptions). Purchaser reserves the right to require proof of insurance from the manufacturer's insurance carrier prior to entering into a contract for the apparatus.

PAYMENT TERMS

Full payment for the apparatus shall be made at time of delivery of the completed vehicle. Due to insurance liability, the apparatus will not be left at the purchaser's location without full acceptance and payment or prior agreement between the Purchaser and Bidder.

Final delivery price shall not include any Local, State or Federal taxes. The manufacturer shall not be liable for any State or Federal mandated tax or program after sale or delivery of the apparatus.

BUILD TIME GUIDELINES

Estimated build time and delivery of the completed vehicle shall not exceed 60-90 Days. No Exceptions.

OVERALL HEIGHT

The overall height shall be 10' 8".

OVERALL LENGTH

The overall length shall be no longer than 30'.

OVERALL WIDTH

The overall width of the body shall be no more than 102" wide; chassis mirrors will extend out past this width.

ANGLE OF APPROACH

The angle of approach for the apparatus shall not be less than eight (8) degrees as specified by the current edition of NFPA 1900.

ANGLE OF DEPARTURE

The angle of departure for the apparatus shall not be less than eight (8) degrees as specified by the current edition of NFPA 1900.



NFPA 1900 COMPLIANCE

The National Fire Protection Association standard #1900 (most recent edition) is hereby adopted and made a part of these specifications, the same as if they were written out in full detail, insofar as they apply with the exception of any sections dealing with "Equipment Recommended for Various Types of Apparatus". Bidders are to provide only the equipment requested herein and the Department will supply the rest before the apparatus is put into service. The unit shall comply with all federal, state, ICC, and DOT motor vehicle regulations, standards, and laws relating to commercial vehicles as well as to fire apparatus on the date of the bid.

The apparatus being furnished under these specifications shall conform to the requirements specific to pumper fire apparatus NFPA Booklet 1901 version current at time of contract

ROLLOVER STABILITY - NFPA 1900: CHASSIS ESC SYSTEM

The apparatus shall meet the rollover stability criteria defined in NFPA 1900 by being equipped with an Electronic Stability Control (ESC) system as provided by the chassis manufacturer.

ROAD TEST CERTIFICATION

A road test shall be conducted with the finished apparatus fully loaded. During this time, the apparatus shall not show loss of power and/or overheating. The transmission drive shaft or shafts and rear axle shall run free from abnormal vibration or noise throughout the operating range of the apparatus. The apparatus, when loaded, shall have not less than 25% or more than 45% of the weight on the front axle and not less than 55% or more than 75% on the rear axle.

- A). The apparatus must be capable of accelerating to 35 mph from a standing start within 25 seconds on a level concrete highway without exceeding the maximum governed RPM of the engine.
- B). The apparatus must be capable of accelerating from a steady speed of 15 mph to a true speed of 35 mph within 30 seconds. This shall be accomplished without moving the gear selector.
- C). The fully loaded apparatus shall be capable of obtaining a speed of 50 to 55 mph on a level concrete highway.
- D). The manufacturer shall furnish copies of the engine installation approvals signed by the appropriate engine company upon delivery of the chassis to the Fire Department.
- E). The manufacturer shall furnish copies of the transmission approval signed by the transmission manufacturer upon delivery of the chassis to the Fire Department.



F). The manufacturer shall furnish copies of the front and rear axle approvals upon delivery of the apparatus to the Fire Department.

ROAD TEST FAILURE

In the event the apparatus fails to meet the test requirements of these specifications on the first trials, second trials may be made at the option of the manufacturer within thirty (30) days of the first trials. Such trials shall be final and conclusive and failure to comply with changes, as the purchaser may consider necessary to conform to any clause of the specifications within thirty (30) days after notice is given to the manufacturer of such changes, shall be cause for rejection of the apparatus. Permission to keep or store the apparatus in any building owned or occupied by the purchaser, or its use by the purchaser during the above-specified period with permission of the manufacturer, shall not constitute acceptance.

VEHICLE TOP SPEED

The rear axle shall be geared for a top speed of 68 mph at engine governed RPM.

NFPA TOP SPEED STATEMENT

Per NFPA 1900 section 7.16.2, the maximum top speed of fire apparatus with a GVWR over 33,000 lbs. shall not exceed either 68 MPH or the manufacturer's maximum fire service speed rating for the tires installed on the apparatus, whichever is lower.

Per NFPA 1900 section 7.16.3, if the combined water tank and foam agent tank capacities on the fire apparatus exceed 1250 gallons, or the GVWR of the vehicle is over 50,000 lbs., the maximum top speed of the apparatus shall not exceed either 60 MPH or the manufacturer's maximum fire service speed rating for the tires installed on the apparatus, whichever is lower.

SAFETY SIGNS

The following safety signs shall be provided:

SEATED AND BELTED WARNING LABEL – FAMA #07

A permanent label shall be provided that is visible to all occupants that states that they should be seated and belted while the apparatus is in motion. The label shall also state potential injuries or death that could be caused if the safety belts are not used properly.

CAB INTERIOR EQUIPMENT MOUNTING DANGER LABEL – FAMA #10

A permanent label shall be provided inside of the cab warning of the dangers of unsecured equipment inside the cab. The label shall state that all equipment shall be properly secured and also warn of potential injury or death that could be caused by failing to do so.



DO NOT WEAR HELMET LABEL – FAMA #15

A permanent label shall be provided inside of the cab in view of all seated positions stating that helmets should not be worn in cab. The label shall also warn of potential injury or death that could be caused by wearing helmet in cab.

VEHICLE BACKING LABEL – FAMA #17

A permanent label shall be provided inside of the cab in view of the driver advising of proper procedures to following when the apparatus is in reverse motion. The label shall also warn of potential injury or death that be caused by failing to follow proper procedures.

CHASSIS DATA LABELS

The following information shall be on labels affixed to the vehicle:

Fluid Data:

- Engine oil
- Engine coolant
- Chassis transmission fluid
- Pump transmission lubrication fluid
- Pump primer fluid (if applicable)
- Drive axle(s) lubrication fluid
- Air conditioning refrigerant
- Air conditioning lubrication
- Power steering fluid
- Cab tilt mechanism fluid (if applicable)
- Transfer case fluid
- Equipment rack fluid (if applicable)
- Air compressor system lubricant
- Generator system lubricant (if applicable)

Chassis Data:

- Chassis Manufacturer
- Production Number
- Year Built
- Month Manufactured
- Vehicle Identification Number

Location shall be in the driver's compartment of the chassis cab.



OVERALL HEIGHT, LENGTH, GVW DATA PLACARD

A "high visibility" plate shall be permanently mounted in the cab, visible to driver when seated.

The plate shall show the overall height of the completed apparatus in feet and inches, the overall length of the completed apparatus in feet and inches.

The plate shall also show the gross vehicle weight rating (GVWR) in tons.

Text shall also be supplied on the plate, indicating that the information shown is current upon completion of the apparatus. If the overall height of the apparatus changes after the apparatus is put into service, then the purchaser must revise the dimensions on the plate.

"NO RIDE" LABEL

A label shall be located on the vehicle at the rear step areas, and at any cross walkways, if they exist. The label(s) shall warn personnel that riding in or on these areas while the vehicle is in motion is prohibited.

FAMA SAFETY GUIDE

One (1) copy of the latest edition of FAMA's Fire Apparatus Safety Guide shall be provided with the completed apparatus.

COMMERCIAL CHASSIS SPECIFICATION

CHASSIS PROVIDER

The chassis, as detailed in these specifications, shall be ordered and supplied by the apparatus manufacturer.

KENWORTH CHASSIS

A Kenworth 2-door chassis per the attached specifications shall be furnished:

CHASSIS PAINT COLOR

The cab shall be painted a single color.

Color: Red

Paint Number: 763572EA



Model

S-T480 Series Conventional-

O-T480 Aero Hood-

O-Chassis Operation Will Not Incl. Stationary application. Stationary operation is defined as running the engine under load while stationary at a substantial fraction of

engine gross horsepower (60% or greater) for an extended period of time (longer than 5 - 10 minutes).-

O-CARB Exempt Application Emergency Vehicle Only.-

O-CARB Low NOX Omnibus Registration Guidelines

Dealer/Customer acknowledges that this vehicle is NOT intended for registration or domicile/primary use in the State of California.-

O-T480 Single Rear Axle

Engine & Equipment

O-PACCAR PX-9 450EV 450@2100 1250@1200, 2024

Emergency Vehicle, With Turbo Exhaust Brake (VGT Brake)

Reserve Speed Limit Offset

Maximum Cycle Distance

Reserve Speed Function Reset

Standard Maximum Speed Limit

Maximum Active Distance

Expiration Distance

Expiration Distance

Max Vehicle Speed in Top Gear

NO Engine Protection Shutdown

Gear Down Protection

Idle Shutdown Time

NO Idle Shutdown Override

Max PTO Speed

Max Cruise Control Speed

NO Cruise Control Auto Resume

NO Auto Engine Brake in Cruise

High Ambient Temperature Thermometer

Low Ambient Temperature Thermometer

Intermediate Ambient Temperature

Enable Hot Ambient Automatic YES

Enable Impending Shutdown Warning

Timer For Impending Shutdown

Engine Load Threshold YES

Enable Idle Shutdown Park Brake

O-EPA Emissions Warranty Engine-

U-2024 SERIES EMISSIONS ENGINE

S-Premier Spec

O-Gearing Analysis: Balance

power/economy blend results.



O-Customer's Typical Operating Speed: 55 MPH

Registration Year

Year of Registration: 2026

O-Effective VSL Setting NA

O-Engine Idle Shutdown Timer Disabled

O-Eff EIST NA Expiration Miles

Use only with MX and Cummins engines-

O-Air Compressor: Cummins 30.4 CFM ISL, PX-8, PX-9

Replacing 18.7.

S-Air Cleaner: MD Composite Engine Mounted

O-Air Inlet Ember Separator NFPA Compliant for
Fire Applications.

S-Fan Hub: Horton On/Off for PX-9 or L9N

S-Cooling Module: 2.1M MD - Aero Hood

1000 Square Inches

O-EXH: Single Can 2024 PX-9 Horizontal Under Rail

With Horizontal Tailpipe Below RH Rail Back-of-Cab

S-Fuel Filter: PACCAR 2.1M MD for PX-7 or PX-9

Fuel/water separator for 2021 and later engines.

S-Run Aid: None

*For Fuel Filter-

O-Start Aid:12V Heat

*For Fuel Filter-

O-Kenworth Fuel Cooler Required for Cummins engines with a single fuel tank.

Required for PACCAR MX-13 engine with a single fuel tank and stationary use: High RPM, low vehicle speed, sustained for longer than 1 hour. Optional for all other applications.

O-Block Heater: PACCAR 750 watt 120V for PX-7
and B6.7N. 1000 watt for PX-9 and ISL9 Engines.

O-Oil Pressure Sender for Pump Panel Gauge VDO

O-Retarder: Jacobs for PX-9 and ISL With 3-way switch. Replaces the standard turbo brake for PX-9 engines.

O-Alternator: Delco 40SI 320 amp Brushless with battery voltage sense

O-Batteries: 4 PACCAR GP31 Threaded Post (700-730) CCA dual purpose.

S-Mitsubishi 105P55 12V Starter with Cummins and PX

PACCAR 12 volt electrical system. W/ centralized power distribution incorporating plug-in style relays. Circuit protection for serviceability, 12-volt light system with circuit protection circuits number & color coded. Only for Cummins or PX engines.

O-Cab Power Cutoff SW on Cab Floor

NFPA Compliant - Engine Shut off. Includes gauge.

O-Jump Start Terminals Under Hood.

O-Remote PTO/Throttle, 12-Pin, 500K, Back of Cab OR
Back of Sleeper, J1939, Remote Control Provision

O-Body Builder Battery Power Prewire

Transmission & Clutch

O-Transmission: Allison 3000EVS 5-speed, With PTO drive gear. 6th Generation



controls. Includes heat exchanger & oil level sensor. Emergency Vehicle Series for vocational applications. Transynd transmission fluid is standard on all Allison 1000, 2000, 3000 & 4000 series transmissions.

O-Driveline: 2 Dana SPL170SF With 1 Center bearing
S-One Heavy-Duty One-Piece Aluminum Crossmember

This option upgrades an existing crossmember. The cost does not include the center bearing and bracket. Crossmember location will be in accordance with Kenworth engineering standards, using the major components specified on the DTPO.-

O-Torque Converter Included With Allison Transmission

O-Customer-Installed Split Shaft PTO Informational only, nothing additional is provided.-

O-Push Button Shifter Controls, Center Console Mounted for Allison Transmission. 2.1m Medium Duty only.

O-J1939 Park Brake Auto Neutral

U-Decline Allison Neutral at Stop Stand-Alone

O-Allison Neutral at Stop Not Applicable-

U-ALLISON EVS PACKAGE 246

O-Supplemental Allison Oil to Water Trans Cooler

Front Axle & Equipment

O-Dana Spicer E-1462I Front Axle rated 14.6K 3-1/2in. drop.

S-Front Brakes: 14.6K Bendix ES S-Cam 16.5x5 in.

S-Front Brake Drums: 14.6K 16.5x5 in. cast.

O-Front Hub: 14,600 lbs. Aluminum Hub Pilot 10-bolt, 11.25 in. bolt circle.-

S-ConMet PreSet Plus Hub Package; Front Axle.

S-Hubcap: Front Vented.

S-Front Auto Slack Adjuster for Drum Brakes.

O-Front Springs: Taperleaf 14.6K W/ Shock Absorbers With maintenance-free elastomer spring pin bushings.

O-Single Power Steering Gear: 14.6K.

O-Power Steering Cooler: Radiator Mounted Air-to-Oil

O-5 mm Front Suspension Spacer Block

Rear Axle & Equipment

O-Single Dana Spicer S26-190 Rear Axle; 26K capacity rated at 26K. Single rear axle.-

O-Rear Axle Ratio - 5.38.

S-Single Rear Brakes 16-1/2x7 in. Bendix ES
extended service S-cam.

O-Single Rear Brake Heavy Duty Brake Drums: Cast.

Use HD Gunitite Drum when single axle with GAWR over 23,000 lbs is selected. With 16.5X7" or 16.5X8.625" brake.

S-Single Rear Hubs: Iron Hub Pilot 26k; 11.25" Bolt circle. Requires "R" series outer ends.

S-ConMet PreSet Plus Hub Package; Single Rear Axle.

S-Single Rear Axle Automatic Slack Adjusters.

For use with drum brakes.

O-Spring Brake: 3036 Long Stroke Single 30 Square
inches; 36 square inches spring chamber. For drum brakes



O-Bendix 4S/4M Anti-Lock Brake System with Air traction control (ATC) and electronic stability program (ESP) for full truck. Must code for additional body information.

O-Tanker Height less than 75 in. from Top of Frame rail

O-Wheel Differential Lock for Dana Spicer Axles

S21-170/172, S21-190, S23-170/172, S23-190, S26-190 & S30-190; adds D to the end of the axle part number.

O-Rear suspension: single Reyco 79KB multi-leaf 26K with helper spring. Medium duty. Unladen Height: 10.8 in. Laden Height: 8.1 in. Not rear air disc brake compatible.

S-Bolted Rear Suspension Crossmembers for Reyco 79KB. Replaces medium duty standard.

Tires & Wheels

O-Front Tires: Michelin X Works Z 12R22.5 16PR

O-Rear tires: Michelin XDN2 12R22.5 16PR. 42.9in. Diameter. drive tire. 20 in. SLR. Code is priced per pair of tires.

O-Rear Tire Quantity: 4

O-Front Wheel: Kenworth 7-spoke 22.5x8.25 aluminum with Ultra One high polish finish, hub-pilot mount. 7300lb. maximum rating. Level 1 finish. Air disc brake compatible.

O-Rear Wheel: Kenworth 7-spoke 22.5x8.25 aluminum with Ultra One, high polish finish, hub-pilot mount. 7300 lb. maximum rating. Air disc brake compatible. Code is priced per pair of wheels. Level 1 finish.

O-Rear Wheel/Rim Quantity: 4

Frame & Equipment

S-Frame Rails: 10-5/8 x 3-1/2 x 5/16 in. Steel to 308 in. Truck frame weight is 2.91 lb.-in. per pair of rails. Section modulus is 14.80 cu.in., RBM is 1,776,000 in.-lbs per rail. 120,000 PSI yield. Heat treated. Frame rail availability may be restricted based upon application, axle/suspension capacity, fifth wheel setting, or component/dimensional specifications. The results of the engineering review may result in a change to the requested frame rail. If a change is required, Kenworth Application Engineering will advise the dealer of the appropriate material specification for a substitute rail.-

O-Bumper: Aerodynamic Chrome Steel. Requires a bumper setting code.

S-40 in. Bumper Setting. Requires a Bumper Code

S-Front Tow Loops: Two-(2)

O-Custom Frame Layout: 10-24 Chassis CFL C/M: Ref Chassis 157177 CFL A/D: Ref Chassis 157177 CFL A/T: TWO TANKS UNDER BATT BOX, ONE SMALL TANK UNDER AIR DRYER RH SIDE REF 357283
CFL BBX: Ref 157177

CFL DEF: Ref 157177 CFL F/T: CLEAR BOC

O-Huck Bolts Throughout Frame, where Possible.

O-Battery Box: Steel Parallel Module under with step, polished aluminum cover. Use with 4 batteries. Up to 2 air tanks may be mounted to bottom of box. Batteries will be oriented perpendicular to the frame rail in a single row.

O-Battery Box Location: RH Side.

S-Heavy-Duty One-PC Aluminum Intermediate / Fill-In crossmember.



S-Heavy-Duty 5-Piece Rear Cab Support, Hucked assembly. Huck fastened to frame.
S-Square End-of-Frame W/O Crossmember; Non-Towing.

Fuel Tanks & Equip

O-50 US Gallon D-Shape Rectangular Aluminum Under fuel tank, replace. With non-slip step.

S-Small DEF Tank, 5.5 Gallons.

O-Polished Fuel Tank Steps.

O-Polish Only One Aluminum Tank.

O-Polished Cover for 1 DEF Tank Any Size.

O-Polished Stainless Steel Tank Straps for 1 Tank.

O-DEF to Fuel Fill Ratio 2:1 or Greater.

O-Fuel Tank Drain Plug.

O-DEF Tank Location is LH Under Cab.

O-Location: 50 gal fuel tank LH under cab

Cab & Equipment

S-Cab: Stamped Aluminum with Curved Windshield

LED markers. Requires separate roof code.

O-Hood: Med Aero with Chrome Crown

O-Ember Filter For Cabin Air. Used to keep embers out of the HVAC filter element.

S-Cab HVAC - Day Cab and 40 in. Sleeper System With Defrost, A/C, and 48,000 BTU/hr Heater. Includes automatic temperature control with one touch defrost operation and dash mounted cab temperature and solar intensity sensors. Pleated fresh air filter and cabin recirculation air filter standard. The Kenworth HVAC system is designed to provide optimal heating and cooling in all operating environments without need for additional insulation. Cab

HVAC without sleeper heater AC is available with 40in sleeper.

S-Steering Wheel: 18 in. 4-Spoke.

S-Adjustable Telescoping Tilt Steering Column.

O-Four Position Ignition Switch, Keyless.

Available for fire truck service & EMT/emergency service only.

O-Two Spare Switches: Wired to Power.

O-Gauge: DD Virtual Gauge - Air Filter

O-Gauge: DD Virtual Gauge - Volts

Instrument Cluster-

S-Main Instrument Package: 7" Digital Display

Cluster. Includes Physical (Analog): Speedometer, Tachometer, Oil Pressure, and Coolant Temp; and Digital: Fuel Level #1, DEF Level, DPF Filter Status, Fuel Economy, Volts Telltale, OAT and Primary Air Pressure, Secondary Air Pressure, and Air Application for air brake trucks.

O-Large Flat Panel on Dash For C/I Controls. Replaces Storage Bucket.

S-Interior Trim Package: 2.1M MD Gray Foam

Backing/Cloth Headliner W/Gray Sunvisor & Seat Color

Three Under dash Center Console Cupholders (Two If Allison Transmission Is Selected).

O-Driver Seat: NFPA Compliant KW Air Seat HB Vinyl No Armrests, w/ Susp Bellows Cover.-



O-Rider Seat: KW Toolbox Seat HB Vinyl with Dual

Armrests/Record Holder/Occupancy Sensor

O-NFPA Compliance Kit: 2.1 m Includes Seat

occupancy sensors. Seat belt switches, VDR & seat sensor harness, reflective labels, and a second copy of operator's manual.

O-Seat Color: Black Replacing Standard Gray

O-Driver & Rider Seat Belts: Red, NFPA, Replaces
Standard Seat Belts. (Available for NFPA RD Bench)

O-Kenworth Radio DEA710 AM/FM/WB/USB, Bluetooth

O-Speaker Package For Cab: (2) Speakers

B-Pillar

O-Footwell Light: Red Lens & Switch

S-Turn Signal: Self-Cancelling

S-LH and RH Trip Ledge Rain Deflectors

O-Metal Int Door Panel Kick Plates

S-Global Telematics Unit

O-Grab handle: LH & RH SOC Non-Slip Ergonomic Grab Handles Mounted To The Left Hand and Right Hand Exterior Of The Cab For Entry and Exit. NFPA Compliant.

S-Dual Cab Interior Grab handles: A Pillar Mounted Dash Wrap and B Pillar
Mounted Grab handles

S-Kenworth Daylite Door With Standard LH/RH electric door locks and LH/RH electric window controls.

O-Air Horn Valve, Pull Cord and Plumbing to the Firewall Bulkhead for C/I Air Horn. If the chassis has hydraulic brakes, it will require code 1000307 for Accessory air system for hydraulic brakes.

S-Look-Down, Pass. Door, Black 11x6

O-Mirror Shell: Dual Aero Chrome

O-Mirror: Dual KW Aero Rear View Motor, heated with Integral CX.-

O-Solid Rear Wall. Deletes Rear Cab Window.

S-One-Piece Bonded-In Windshield with Curved Glass. Standard.

O-Exterior Stainless Steel Sun visor.

O-Kenworth Cab Air Suspension.

O-Thermal/Sound Insulation Package-

O-Roof: Raised Profile, Stamped Aluminum with Additional Head Room & Interior
Overhead Storage

Lights & Instruments

S-Headlamps: Single Halogen Complex Reflector with Turn Indicator, Reflector and
DRL. Fender Mounted

S-14-Pin RP170 Body Lighting Connector.

O-Marker Lights: Five Rectangular LED. Chrome housing. For use with raised roof only. Required with exterior sun visor.

S-LED Stop, Turn, Tail: With Two LED Backup Lights and With An LED License
Plate.

O-Brake Lights on when Engine Brake Active. Can only be selected when chassis also has engine brake. Cannot be used with options to delete engine brake.

O-Reflectors: Two Midframe

O-Backup Alarm: Taillight Bracket Mounted Variable self-adjusting 82-102 DBA.

O-Poly switches Replacing Fuses. Switch will automatically reset after removal of excess load.



Air Equipment

S-Air Dryer: Bendix AD-HF Puraguard Heated

S-Moisture Ejection Valve with Pull Cable Drain.

S-Nylon Air Tubing in Frame & Cab, Excluding Hoses subject to excessive heat or flexing.

Extended Warranty

S-Base Warranty - PACCAR PX-9 Engine

24 months / 250,000 miles / 402,336 km / 6250 hours.

O-Severe Service Medium-Duty Warranty: 12 months
50,000 miles & km-

U-EW:USBASIC VEH 6YR/100K

O-Allison 3000 Series Transmission

O-TruckTech+ RD - 5YR Sub PACCAR PX Engines

O-Base Warranty: Emissions 5YR/100K MI - EPA Engine

Paint

O-Paint Color Number(s).

N9702 A - 763572 RED

N9720 FRAME N0001 BLACK

S-Bumper Unpainted

O-Day Cab Premium Paint-

S-1 - Color Paint - Day Cab

S-Base Coat / Clear Coat.

The Kenworth Color Selector contains additional instructions, as well as information on Kenworth paint guidelines and surface finish applications. Kenworth is standard with Dupont Imron Elite paint.

AIR HORNS

Two (2) Hadley chrome plated air horns shall be installed at the front of the vehicle. The air horns shall be mounted in full compliance of NFPA. The supply lines shall be dual 1/4" lines with equal distance from each horn.

Each air horn shall be mounted, one (1) each side, on the side of the hood. Both air horns shall be controlled by a chassis manufacturer supplied lanyard.

ELECTRIC TRAFFIC HORN AND AIR HORN SELECTOR SWITCH

One (1) selector switch shall be provided on the cab's dash that will allow the chassis steering wheel horn button to activate either the electric horn or air horn system. The electric horn shall sound by default when the selector switch is in either position to meet FMCSA requirements.



CHASSIS MODIFICATIONS

The following modifications and installations shall be performed on the chassis upon delivery to the apparatus manufacturer:

TIRE PRESSURE MONITORING DEVICE

A Real Wheels LED AirGuard shall be supplied for each tire. The device shall consist of a valve stem cap to with an LED tire alert to indicate tire pressure conditions. The LED will flash when the tire drops 5-10 psi below the factory setting.

The tire pressure sensors shall be shipped loose.

HUB COVERS – FRONT

Stainless steel hub covers shall be provided on the front axle.

HUB COVERS - REAR

A pair of stainless steel high hat hub covers shall be provided on rear axle hubs.

CHROME LUG NUT COVERS

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

EXHAUST SYSTEM

The chassis exhaust system shall be provided as detailed in the chassis specifications. NO modifications shall be made by the apparatus manufacturer. The discharge of the exhaust shall be compatible with the Division's Ploymovent exhaust system

HOT EXHAUST DANGERS LABEL – FAMA #04

A permanent label shall be provided near any hot exhaust surface that warns of potential injury or death that could be caused by contact with the surface. The label shall also state precautions that should be taken while working on or around the surface.

FRONT BUMPER

The front bumper shall be provided as detailed in the chassis specifications.

CHASSIS PREPARATION

Prior to installation of the fire pump, apparatus body, or cab steps, all components which extend out beyond the chassis frame rails shall be removed and relocated to the area within the frame rails



REAR TOW EYES

Two (2) heavy duty eyes, .75" x 6.50 with a 3.00" elongated hole, shall be furnished at the rear of the body under the body and shall be bolted to the truck frame rails.

REAR MUD FLAPS

A pair of black rubber mud flaps, with the manufacturer's logo, shall be provided and installed behind the rear wheels.

VEHICLE DATA RECORDER

The apparatus shall be equipped with a Class1 "Vehicle Data Recorder (VDR) that is connected to the power train CAN (Controller Area Network) bus consisting of transmission (TCM), engine control (ECM) and anti-lock brake (ABS) modules mounted on the apparatus. The VDR will function per NFPA 1900 utilizing the power train's J1939 data.

The VDR data shall be downloadable by USB cable to a computer using either Microsoft or Apple Operating Systems using Class 1/ OEM supplied reporting software.

VEHICLE DATA RECORDER DOWNLOAD HARNESS

A USB VDR download harness shall be supplied with the system to allow the data to be downloaded to a computer.

CENTER CONSOLE

A center console shall be furnished and shall be located between the driver and officer's seats. The top face of the console shall be designed as the switch panel for all emergency light switches.

BATTERY SYSTEM

The battery system shall be supplied with the chassis.

BATTERY JUMPER STUDS

External battery jumper studs shall be provided as detailed in the chassis specifications.

KEYLESS IGNITION SWITCH

One (1) non-removable, keyless style ignition switch shall be provided with the chassis.



MASTER BATTERY SWITCH

A master battery switch shall be provided as detailed in the chassis specifications.

BATTERY CONDITIONER

A Kussmaul Chief Series Auto Charge 4012 battery charger with onboard display shall be supplied. The battery conditioner shall provide a 40 amp output for the chassis batteries and a 20 amp output circuit for accessory loads.

BATTERY CHARGER LOCATION

The battery charger shall be located in a pre-determined location by the manufacturer.

120 VOLT SHORELINE CONNECTION WITH SUPER AUTO EJECT

One (1) Kussmaul "Super" Auto Eject model 091-55-20-120, automatic, 120 volt, 20 amp shoreline disconnect shall be provided for the on board, 120 volt battery charging systems.

AUTO-EJECT MATING PLUG

A 5-20P, 20-amp mating female cord end shall be shipped loose with the apparatus to allow the Fire Department to connect cord end to a Fire Department provided charging cord.

BATTERY CHARGER DISPLAY / COVER

One (1) Kussmaul model 091-55-266-YW battery charger status center/ auto eject cover shall be supplied with the charger.

The cover shall be yellow in color.

SHORELINE RECEPTACLE LOCATION

The shoreline receptacle shall be located on the left hand side of the apparatus in a pre-determined location by the manufacturer.

120V AC AUXILIARY AIR COMPRESSOR

A Kussmaul 120V AC air compressor shall be supplied. The compressor system shall be designed to maintain the air pressure in the air system while not in use. A heavy-duty pressure switch is adjusted to start the compressor when the system pressure drops below 75 PSI and stops the compressor when 95 PSI is attained.



AUXILIARY AIR COMPRESSOR LOCATION

The auxiliary air compressor shall be located in a pre-determined location by the manufacturer.

BACK-UP ALARM

One (1) 97 DB back up alarm shall be provided and installed at the rear of the unit. It shall be wired to activate when the transmission is placed in reverse.

DUAL USB PORTS

Two (2) USB ports shall be supplied with the Kenworth chassis. Each port shall be capable of a 5 Volt-3.0 amp total output.

12-VOLT POWER POINTS

Two (2) 12-volt power points shall be supplied with the Kenworth chassis.

BODY DESIGN AND CONSTRUCTION

The body shall be modular in design, allowing it to be removed and remounted on a new chassis. The body shall be fabricated using aluminum extrusions, angle, smooth aluminum sheet and aluminum treadplate.

FLOOR AND UNDER STRUCTURE

The body super structure shall be an all welded configuration utilizing a combination of 3.00" x 1.50" 6061-T6 thick walled structural tubing and 6061 structural channel.

BODY MOUNTING

The body subframe shall be fastened to the chassis frame with a minimum of six (6) spring loaded body mounts. The brackets shall be fabricated of heavy duty 0.50" thick steel. Each mounting assembly shall utilize two (2) 0.625" diameter x 9.00" long grade 8 bolts and two (2) heavy duty springs.

BODY AND COMPARTMENT FABRICATION - 3/16" ALUMINUM

All compartment panels and body side sheets will be fabricated entirely of 0.1875" 5052-H32 aluminum.

COMPARTMENT CONSTRUCTION

The compartments shall be completely formed of 0.1875" aluminum. The interior height of the compartments will 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 will be measured from the back wall to the inside of the door frame.

COMPARTMENT FLOORS

Compartment floors will be welded to the compartment walls and have a sweep out design for easy cleaning.

ACCESS PANELS

Removable access panels will be provided to access fuel tank sender, electrical junction compartment and rear body mounts.

Protective panels will be located in the rear compartments providing access to the lights and associated wiring. The covers will also serve as protective covers to prevent inadvertent damage to lights or wiring from tools or equipment located in the compartment.

COMPARTMENT LOUVERS

Ventilation between compartments to atmosphere shall be provided and located to avoid water entry into compartments.

COMPARTMENT SHELF TRACKS - ALUMINUM

All side body compartments be furnished with adjustable shelving track installed. The shelving track shall include a minimum of four (4) aluminum Uni-strut style channel tracks, mounted vertically on compartment side walls or vertical partitions.

COMPARTMENT SHELVING - SIDE COMPARTMENTS

Adjustable shelving shall be installed in the side compartments as identified later in this specification. Each shelf shall be made of 0.1875" smooth aluminum with a 2.00" high perimeter on the front and rear with side supports. Shelving will be vertically adjustable with spring nuts in aluminum strut channel.

FENDER PANELS

A single piece wheel well panel made of 0.1875" aluminum sheet shall be installed with no sharp edges to cut or damage cleaning equipment used in the wheel well area. The wheel well design shall provide for maximum wheel jounce and for use of tire chains without contacting the fender panel.

REAR WHEEL WELL LINERS

The rear wheel wells shall be equipped with replaceable circular liners to prevent road debris damage to adjacent side compartments. The liners shall be made from a single circular panel



of 0.125" smooth aluminum and shall be the full depth of the side compartments. They shall be bolted in place and shall feature end flange bottom drains.

REAR BODY FENDERETTES

A roll-formed, polished stainless steel fenderette shall be installed around the outboard edge of the rear wheel well openings to protect the body sides from road debris. They shall be bolted to the body and shall be replaceable.

BODY FRONT WALL OVERLAY

The front face of the body will be overlaid with a full height aluminum tread plate protection panel.

BODY SIDE RUB RAILS

Replaceable extruded aluminum channel rub rails, 2.00" high x 0.75" deep x 0.125" wall, shall be provided below the lower side compartments. Each rub rail shall have a black rubber bumper strip and mounting stand-off spacers. All rub rail ends shall be angle cut, back toward the body to eliminate the possibility of snagging crew clothing or equipment.

REAR TOW HOOKS

Two (2) painted tow eyes will be furnished on the rear of the vehicle. The tow eyes will be made from plate steel and will be bolted directly to the chassis frame rails with grade 8 bolts and will extend below the body.

BODY LENGTH DIMENSION

The body shall be 218.00" long.

BODY HEIGHT DIMENSIONS

The body shall be 106.00" tall with the upper 20.50" reserved for horizontal storage compartments.

The vertical compartment dimensions shall be as follows:

	<u>AHEAD OF REAR AXLE</u>	<u>DIMENSION</u>
A.	Overall Compartment height:	81.00
B.	Compartment height above subframe:	62.00"
C.	Compartment height below subframe:	17.1875"
D.	Vertical Door Opening:	73.50"
	<u>ABOVE REAR AXLE</u>	<u>DIMENSION</u>
A.	Overall Compartment height:	51.625



B. Vertical Door Opening: 43.50"

	<u>AHEAD OF REAR AXLE</u>	<u>DIMENSION</u>
A.	Overall Compartment height:	81.00
B.	Vertical Door Opening:	73.50"

	<u>REAR OF BODY</u>	<u>DIMENSION</u>
A.	Overall Compartment height:	81.00
B.	Compartment height above subframe:	62.00"
C.	Compartment height below subframe:	17.1875"
D.	Vertical Door Opening:	73.50"

BODY WIDTH DIMENSIONS

The body shall be 100.00" wide, and 102.00" wide at rub rails. Interior compartment depth dimensions shall be approximately:

	<u>SIDE COMPARTMENTS</u>	<u>DIMENSION</u>
E.	Transverse above subframe:	96.00"
F.	Compartment depth below subframe:	24.625"

	<u>REAR COMPARTMENT</u>	<u>DIMENSION</u>
G.	Above subframe:	45.00
H.	Compartment depth below subframe:	29.50"

ROLL-UP DOORS

All lower compartment doors shall be equipped with AMDOR brand roll-up doors. The slats shall be 1.00" double wall aluminum with continuous ball and socket hinge joints designed to prevent water ingress and weather tight recessed dual durometer seals.

The interior door curtains shall be smooth to prevent equipment hang-ups. The door tracks and side frames shall each be one-piece aluminum. Each side seal shall be recessed, and non-marring with UV stabilizers to prevent warping.

The bottom panel flange shall have cut-outs for ease of access with gloved hands. The door strikers shall provide support beneath the lift bar to prevent door curtain bounce and potential false door ajar indications.

COMPARTMENT DOOR FINISH

The roll up doors shall have a satin finish.



COMPARTMENT LIGHTING

Two (2) full height Luma Bar LED strip lights shall be installed inside each of the body compartments.

COMPARTMENT LIGHT ACTIVATION

Each compartment light shall be controlled by a magnetic "On-Off" switch located on each compartment door.

KEYED / MANUAL DOOR LOCKS

Each roll-up door shall have a cylindrical lock installed by the roll-up door manufacturer.

The lock key type shall be: J-236

DOOR PULL STRAP

One (1) Flex-HD pull-down strap shall be installed on each roll-up door. The strap shall be fastened to the lower left inside door sill of each compartment.

DRIP PAN WITH DRAIN

Each door shall be supplied with a drip pan for protection. A drain hose will be attached to each drip pan and shall be routed below the body.

SIX (6) UPPER BODY COMPARTMENTS

There shall be six (6) compartments parallel to the sides of the body, three (3) on each side. Each of these compartments shall be 54.00" long x 24.00" wide x 20.00" deep. The side compartments shall be open under each door sill to allow for long equipment. Each compartment shall have a lift-up type compartment door hinged on the outboard side. Each door shall be fabricated from 0.1875" aluminum tread plate. Each door shall have two (2) pneumatic type cylinders, one (1) at each end to hold the door in both the opened and closed positions.

COMPARTMENT LIGHTING

Each compartment shall have one (1) 18.00" OnScene Solutions Access LED strip light mounted horizontally.

AUTOMATIC COMPARTMENT DOOR LIGHT SWITCH

Each light and NFPA door ajar system shall be automatically activated by an individual switch per compartment.



UPPER BODY WALKWAY

A 46.00" wide, upper body walkway shall be provided at the center of body and recessed into the roof structure. The walkway shall be fabricated from NFPA compliant 0.1875" aluminum tread plate.

WALKWAY LIGHTING

There shall be four (4) OnScene Solutions Rough-Service 8.00" LED lights provided to illuminate the walkway. Each light shall be mounted in an anodized aluminum housing to protect against damage from personnel or equipment.

WALKWAY LIGHTING ACTIVATION

The walkway lighting shall be wired to activate with the parking brake.

WALKWAY EXTENSION STEP

A 54.00" wide x 8.00" deep bolt-on type extension step shall be provided for safe transition from specified ladder to center walkway area. The step shall be fabricated from 0.1875" NFPA compliant treadplate aluminum with side gusset supports mounted to the body. The underside of step shall have a 28.00" OnScene LED light to light the bumper or compartment area below.

REAR BUMPER STEP

The rear bumper step shall be 12.00" deep and full width. The outside corners will be a 45-degree chamfer to avoid injuries. A space shall be maintained between the body and the step. The step shall be supported by formed angles welded directly to the body.

The step will be fabricated from .188" serrated bright aluminum treadplate.

ROOF ACCESS LADDER

An access ladder shall provide at the rear of the apparatus. The ladder shall be located on the rear of the body.

The ladder shall be a Zico Quic-Ladder Model # RL12. The ladder shall be 12.00" wide and shall be capable of extending off the body to provide a more comfortable climbing angle. The rungs shall be constructed of cast aluminum rungs and have a flat, non-skid surface to provide traction and safety. The handrails shall be constructed of 1.25" heavy-walled aluminum tubing, and shall be covered in a rough grip black powder coat.

Ladder shall be located on right hand side rear of the body.



LEFT SIDE COMPARTMENT IN FRONT OF REAR WHEELS, L1

There shall be one (1) full height compartment ahead of the rear wheels, approximately 45.3125" wide. The compartment door opening shall be approximately 40.25" wide.

The following shall be located in the compartment:

- One (1) 250# floor mounted roll-out tray.
- One (1) 500# floor mounted roll-out tray mounted on the extended floor of the compartment. The specified 500# floor mounted roll-out tray shall have a fixed vertical divider in the center of the tray for mount provisions.

EXTENDED FLOOR SHELVING

The floor of the transverse area will be extended outward to the interior edge of the door opening. The floor shall have a 1.50" vertical lip and a 1.50" return to increase strength.

ADJUSTABLE SHELVING TRACKS

There shall be vertically mounted uni-strut shelf trac for shelving installation.

LEFT SIDE COMPARTMENT IN FRONT OF REAR WHEELS, L2

There shall be one (1) full height compartment ahead of the rear wheels, approximately 45.50" wide. The compartment door opening shall be approximately 40.25" wide.

The following shall be located in the compartment:

- Two (2) 250# floor mounted roll-out trays. One (1) shall be mounted on the floor of the compartment. The second shall be mounted on the extended floor of the compartment.
- One (1) adjustable 500# roll-out / drop-tilt tray.

EXTENDED FLOOR SHELVING

The floor of the transverse area will be extended outward to the interior edge of the door opening. The floor shall have a 1.50" vertical lip and a 1.50" return to increase strength.

ADJUSTABLE SHELVING TRACKS

There shall be vertically mounted uni-strut shelf trac for shelving installation.

LEFT SIDE ABOVE WHEEL COMPARTMENT, L3

There shall be one (1) full height compartment ahead of the rear wheels, approximately 79.25" wide. The compartment door opening shall be approximately 71.75" wide.



The following shall be located in the compartment:

- One (1) 1000# dual directional roll-out tray. The specified 1000# floor mounted roll-out tray shall have a fixed vertical divider in the center of the tray for mount provisions.
- A Rescue Tool Storage module shall be installed in the compartment. It shall contain mounts for the following equipment:
 - Two (2) back boards, accessible from L3/ R3.
 - Six (6) pike poles / New York Hooks, can be stored in L3 or R3.
 - One (1) set of air bags with match plywood base plates, accessible from L3 only.
 - One (1) rescue tri-pod, accessible from L3/ R3.
 - One (1) stokes basket, accessible from L3/ R3.
 - Five (5) sheets of 4' x 5' plywood, accessible from L3/ R3.
 - One (1) Little Giant folding ladder, accessible from R3 only.
 - Fourteen (14) 4" x 4" x 8' long posts, accessible from L3/ R3.

ADJUSTABLE SHELVING TRACKS

There shall be vertically mounted uni-strut shelf trac for shelving installation.

LEFT SIDE COMPARTMENT BEHIND REAR WHEELS, L4

There shall be one (1) full height compartment ahead of the rear wheels, approximately 44.00" wide. The compartment door opening shall be approximately 41.75" wide.

The following shall be located in the compartment:

- Two (2) 250# rated vertical, pull-out tool boards. Each tool board shall be constructed of vertically mounted dual sided PAC-TRAC 7040 series allowing mounting of equipment on both sides of the tool board.

ADJUSTABLE SHELVING TRACKS

There shall be vertically mounted uni-strut shelf trac for shelving installation.

RIGHT SIDE COMPARTMENT IN FRONT OF REAR WHEELS, R1

There shall be one (1) full height compartment ahead of the rear wheels, approximately 45.3125" wide. The compartment door opening shall be approximately 40.25" wide.

The following shall be located in the compartment:

- One (1) 250# floor mounted roll-out tray.



- One (1) 500# floor mounted roll-out tray mounted on the extended floor of the compartment. The specified 500# floor mounted roll-out tray shall have a fixed vertical divider in the center of the tray for mount provisions.

EXTENDED FLOOR SHELVING

The floor of the transverse area will be extended outward to the interior edge of the door opening. The floor shall have a 1.50" vertical lip and a 1.50" return to increase strength.

ADJUSTABLE SHELVING TRACKS

There shall be vertically mounted uni-strut shelf trac for shelving installation.

RIGHT SIDE COMPARTMENT IN FRONT OF REAR WHEELS, R2

There shall be one (1) full height compartment ahead of the rear wheels, approximately 45.50" wide. The compartment door opening shall be approximately 40.25" wide.

The following shall be located in the compartment:

- Two (2) 250# floor mounted roll-out trays. One (1) shall be mounted on the floor of the compartment. The second shall be mounted on the extended floor of the compartment.
- One (1) adjustable 500# roll-out / drop-tilt tray.

EXTENDED FLOOR SHELVING

The floor of the transverse area will be extended outward to the interior edge of the door opening. The floor shall have a 1.50" vertical lip and a 1.50" return to increase strength.

ADJUSTABLE SHELVING TRACKS

There shall be vertically mounted uni-strut shelf trac for shelving installation.

RIGHT SIDE ABOVE WHEEL COMPARTMENT, R3

There shall be one (1) full height compartment ahead of the rear wheels, approximately 79.25" wide. The compartment door opening shall be approximately 71.75" wide.

The following shall be located in the compartment:

- The accessories in compartment R3 are transverse from compartment L3.

ADJUSTABLE SHELVING TRACKS

There shall be vertically mounted uni-strut shelf trac for shelving installation.



RIGHT SIDE COMPARTMENT BEHIND REAR WHEELS, R4

There shall be one (1) full height compartment ahead of the rear wheels, approximately 44.00" wide. The compartment door opening shall be approximately 41.75" wide.

The following shall be located in the compartment:

- No shelving accessories are specified to go in compartment R4.

ADJUSTABLE SHELVING TRACKS

There shall be vertically mounted uni-strut shelf trac for shelving installation.

REAR CENTER COMPARTMENT, CR1

There shall be one (1) full height compartment at the rear of the body, approximately 46.00" wide. The compartment door opening shall be approximately 43.75" wide.

The following shall be located in the compartment:

- One (1) 500# floor mounted roll-out tray.
- One (1) 500# adjustable roll-out / drop-tilt tray.

ADJUSTABLE SHELVING TRACKS

There shall be vertically mounted uni-strut shelf trac for shelving installation.

ROLL-OUT AWNING RIGHT HAND SIDE

A Carefree Mirage, 110 Volt AC powered, lateral arm acrylic patio awning with Direct Response Electronics shall be installed on the right hand side of the body. The Direct Response Electronics includes easy-to-use controls and a Motion Detection System. The awning shall have a system to detect canopy motion, the most important element to prevent wind/weather damage. The awning shall automatically retract when the canopy reaches a certain level of movement, you determine the movement level on the control panel.

Control shall be located in compartment R1.

The awning shall activate the door ajar warning system in the cab when not in the stowed position.

The 110V motor shall be completely sealed and UL approved. The awning pitch shall be adjusted to up to 30.00"



The awning shall be 15.00' wide with a 10' projection, (size refers to box length; actual fabric length will be 8" shorter.)

AWNING FABRIC COLOR

The awning fabric color shall be Crimson red.

AWNING HOUSING COLOR

The awning housing shall be painted job color.

NFPA 1900 CERTIFIED 12 VOLT ELECTRICAL SYSTEM

The 12-volt apparatus body electrical system shall be provided and shall be in compliance with NFPA 1900 testing and certification procedures as follows:

NFPA MINIMUM ELECTRICAL LOAD DEFINITION

The NFPA 1900 defined minimum electrical load shall consist of the total amperage required to simultaneously operate the following in a stationary mode:

1. Propulsion engine and transmission.
2. The clearance and marker lights.
3. Communication equipment. 5 amp default.
4. Illumination of all walking surfaces, the ground at all egress points, control and instrumentation panels and 50% of total compartment lighting.
5. Minimum warning lights required for "blocking right of way" mode.
6. The current to simultaneously operate and fire pump and all specified electrical devices.
7. Anything defined by the purchaser, in the advertised specifications, to be critical to the mission of the apparatus.

RESERVE CAPACITY TEST

The first electrical test to be performed will be the Reserve Capacity Test. All items listed in NFPA Minimum Load Definition shall be activated with the engine shut off. After 10 minutes of operation, the items 1-7 shall be deactivated. After deactivation, the battery system shall have ample reserve to start the engine.

ALTERNATOR PERFORMANCE TEST AT IDLE

The second electrical test to be performed shall be Alternator Performance Test at Full Load. All electrical loads shall be activated with the engine running up to the governed rpm for two hours. During the test, the system voltage shall not drop below 11.7 volts or have excessive battery discharge for more than 120 seconds. Any loads not defined in the NFPA Minimum Electrical Load may be load managed to pass test.



TEST CONDITIONS

All electrical testing shall be performed with the engine compartment at approximately 200 degrees.

12 VOLT ELECTRICAL SYSTEM

The truck shall have a 12-Volt electrical system.

All wiring will be run in convoluted high temperature plastic loom. Wiring shall be color and function coded and will be of adequate size to handle the assigned load. All solenoids, relays, and terminal blocks will be located in an easily accessible area.

All circuits provided shall have properly rated low voltage over current protective devices.

All wiring shall be stranded copper or copper alloy conductors of a gauge rated to carry 125 percent of the maximum current for the protected circuit. Voltage drops in all wiring from the power source to the using device shall not exceed 10 percent. The wiring and wiring harness and insulation shall be in conformance to applicable SAE and NFPA standards. The wiring harness shall conform to SAE J-1128 with GXL temperature properties. All exposed wiring shall be protected in a loom with a minimum 289 degree Fahrenheit rating. All wiring looms shall be properly supported and attached to body members. The electrical conductors shall be constructed in accordance with applicable SAE standards, except when good engineering practice requires special construction.

All under side terminal junctions shall be fully enclosed in sealed plastic weather proof boxes.

Electromagnetic interference suppression shall be provided as required to satisfy the radiation limits specified in SAE J551/1.

CLASS1 ES-KEY SYSTEM

The electrical system shall utilize Class1 Inc. **ES-Key** technology where applicable.

The apparatus shall be equipped with a Class 1 ES-Key Management System for controlling electrical system devices. This management system shall be capable of performing load management functions, system switching, monitoring and reporting, and be fully programmable for a standardized electrical system utilizing the ES-Key Professional software program.

SUPERNODE II

The apparatus shall be equipped with a Class1 ES-Key system with a Supernode II high density input output node. The Supernode II shall have (24) inputs, (24) outputs, a Universal System Manager, a data logger, and programmable special utilities.



The Supernode II shall have an integrated USB port to allow for direct connection to the ES-Key system without additional interface devices.

LOAD MANAGER

The Supernode II shall have an integrated Load Manager. The Load Manager Sequencer shall assure that loads are applied and removed gradually, thus eliminating the possibility of inducing failures in the vehicle's equipment.

LOW VOLTAGE MONITOR

A voltage monitor shall be built into the ES-Key electrical system. It shall activate a warning when the alternator output voltage falls below any desired voltage (usually 11.5 volts).

ROCKER SWITCH PANEL - EIGHT (8) POSITION

A lighted eight (8) position rocker type switch panel shall be installed to provide the ability to de-activate individual lighting units. The switches shall be Carling Contura V series rocker switches.

A rocker switch with a blank legend installed directly below shall be provided for any position without a switch and legend designated by a specific option. The non-specified switches shall be two-position, black switches with a LED indicator light. Each blank switch legend can be custom ordered by the department once the apparatus is in service. All switch legends shall have backlighting provided.

MASTER WARNING SWITCH

A master switch shall be included in the main rocker switch panel. The rocker switch shall be labeled "Master Warning" for identification. The switch shall feature control over all devices wired through it. Any warning device switch shall automatically power up when the master switch is activated.

CHASSIS GROUND LIGHTS

Two (2) TecNiq model E10-WS00-1 LED ground lights with outward facing angle brackets shall be installed, one (1) under each chassis door.

FRONT OF BODY GROUND LIGHTS

Four (4) TecNiq model E10-WS00-1 LED ground lights with outward facing angle brackets shall be installed under the front of the body. Two (2) lights shall be located on the driver side and two (2) lights shall be located on the officer side of the apparatus.



REAR OF BODY GROUND LIGHTS

Two (2) TecNiq model E10-WS00-1 LED ground lights with outward facing angle brackets shall be installed under the rear of the body. One (1) light shall be located on the driver side and one (1) light shall be located on the officer side of the apparatus.

REAR STEP GROUND LIGHTS

Two (2) TecNiq model E10-WS00-1 LED ground lights with outward facing angle brackets shall be installed under the rear step of the apparatus, one (1) each side.

GROUND LIGHT SWITCHING

The cab and body ground lights shall activate by engaging the parking brake.

HAZARD LIGHT

One (1) flashing red LED light, located in the driving compartment, the light shall be illuminated automatically whenever any compartment door is ajar.

The hazard light shall be marked with a sign that reads “Do Not Move Apparatus When Light is On”.

The warning light shall be interlocked to the parking brake and shall only alert the driver when the parking brake is released. The light shall also be used to signal that other ancillary equipment such as racks light towers etc. are not in their “ready for transport” position.

REAR DIRECTIONALS

Rear directional lighting shall be supplied as follows:

Four (4) Whelen model M62BTT LED stop/tail/ turn lights shall be installed on the rear of the body, two (2) each side.. Each light shall have a red lens.

Two (2) Whelen model M62BU LED reverse lights shall be installed on the rear of the body.

HOUSINGS FOR DIRECTIONALS

Each light shall be mounted in a Whelen model M6FC Chrome Flange.

Two (2) amber LED side marker and turn lights shall be provided on the apparatus lower side, forward of rear axle, one (1) each side if the apparatus is 30 feet long or longer.



MARKER LIGHTS

LED marker lights shall be installed on the vehicle in conformance to the Department of Transportation requirements. The side and rear of the body will be provided with reflectors. All marker lights shall be incorporated into the headlight circuit of the cab/chassis

Two (2) amber reflectors shall be provided on the apparatus body lower side, as far forward and low as practical, one (1) each side if the apparatus is 30 feet long or longer.

Four (4) red reflectors shall be provided on the apparatus rear, one (1) each side and two (2) on the rear.

LICENSE PLATE BRACKET

There shall be a license plate bracket mounted on the rear of the apparatus. A clear LED light shall be incorporated into the bracket

LADDER STEP LIGHTS

Polished stainless steel, TecNiq Eon 3-LED horizontal surface mounted body step lights shall be provided and installed. The ladder step lights shall be located to properly illuminate the ladder access steps and shall include a mounting gasket to provide a watertight seal.

STEP LIGHTS ACTIVATION

The step light(s) shall be wired to activate with the parking brake.

SIDE FACING UPPER FRONT BODY SCENE LIGHTS

One (1) pair of Whelen PCPSM1C Pioneer Single Surface LED scene lights shall be installed. Each of the 12V 76 watt light head shall generate 8,000 lumens. The lights shall be located on the left and right sides of the upper front portion of the apparatus body. Each light shall be supplied and installed with a chrome bezel.

SIDE FACING UPPER REAR BODY SCENE LIGHTS

One (1) pair of Whelen PCPSM1C Pioneer Single Surface LED scene lights shall be installed. Each of the 12V 76 watt light head shall generate 8,000 lumens. The lights shall be located on the left and right sides of the upper rear portion of the apparatus body. Each light shall be supplied and installed with a chrome bezel.

REAR FACING UPPER BODY SCENE LIGHTS

One (1) pair of Whelen M92SLC EZ Series LED scene lights shall be installed. The lights shall be located on the rear of the apparatus body, one (1) each side. Each light shall be supplied and installed with a chrome bezel.



SCENE LIGHT SWITCHING

One (1) rocker switch with indicator shall be installed on the switch panel in the cab to control the left side scene light(s). The switch shall be labeled "LEFT SCENE".

SCENE LIGHT SWITCHING

One (1) rocker switch with indicator shall be installed on the switch panel in the cab to control the rear scene lights. The switch shall be labeled "REAR SCENE".

SCENE LIGHT SWITCHING

One (1) rocker switch with indicator shall be installed on the switch panel in the cab to control the right side scene lights. The switch shall be labeled "RIGHT SCENE".

DUAL FUNCTION SCENE LIGHTING

The rear scene lights shall activate automatically upon placing the transmission into reverse.

REAR VISION SYSTEM

One (1) complete backup camera system shall be provided. There shall be (1) camera located at the rear of the apparatus as close to the centerline as possible. The camera shall be capable of viewing the entire area not visible in the side view mirrors. The camera shall have a 7.00" color display mounted in view of the driver. The system shall include audio transmission from the camera.

The rear vision camera shall be wired to automatically activate when the chassis transmission is placed in reverse.

The monitor for the rear vision system shall be mounted on the dash of the cab in easy view of the driver.

NFPA AUDIBLE AND LIGHTING WARNING PACKAGE

The following warning light package shall include all of the minimum warning light and actuation requirements for the current revision of the NFPA 1900. The lighting as specified shall meet the requirements for both "Clearing Right of Way" and "Blocking Right of Way" which includes disabling all white warning lights when the apparatus is in "Blocking Right of Way" mode.

WARNING LIGHT FLASH PATTERN

All of the perimeter warning lights shall be set to the default NFPA flash pattern as provided by the warning light manufacturer.



WARNING LIGHT BAR

One (1) WHELEN Freedom F4N2VLED 55.00" LED lightbar shall be supplied and mounted. The lightbar shall have clear lenses and contain the following modules:

- Four (4) RED Linear LED modules, two (2) on each corner.
- Two (2) RED Linear LED modules, across the front.
- Two (2) WHITE Linear LED modules, on the front.

The forward facing white lights shall be automatically disabled for the "Blocking Right of Way" mode.

LIGHT BAR SWITCHING

One (1) momentary rocker switch with indicator shall be installed on the switch panel in the cab to control the light bar. The switch shall be labeled "LIGHT BAR". The switch shall only be active when the master warning switch is engaged.

BROW LIGHT

One (1) Whelen model# S44MW Pioneer Summit Series 44.00" LED scene light installed on the front of the cab. The 140 watt 12v DC Pioneer flood light shall have 19,440 usable lumens..The scene light shall be white in color.

The scene light shall be mounted directly under the 55.00" Freedom light bar using an integrated light bar mount from Whelen.

BROW LIGHT SWITCHING

One (1) rocker switch with indicator shall be installed on the switch panel in the cab to control the brow light. The switch shall be labeled "BROW LIGHT".

LIGHTBAR MOUNTING BRACKET

The lightbar shall be mounted with the Whelen model MK7SS4 stainless steel, 10 degree adjustable, permanent mount.

SIDE FACING UPPER FRONT BODY WARNING LIGHTS

One (1) pair of Whelen model M9 LED warning lights shall be installed, one (1) each side of the upper front portion of the apparatus body.

The driver side warning light shall be a Whelen Model M9R red LED with red lens.

The officer side warning light shall be a Whelen Model M9R red LED with red lens.



Each light shall be mounted with a Whelen Model M9FC chrome flange.

SIDE FACING UPPER REAR BODY WARNING LIGHTS

One (1) pair of Whelen model M9 LED warning lights shall be installed, one (1) each side of the upper rear portion of the apparatus body.

The driver side warning light shall be a Whelen Model M9R red LED with red lens.

The officer side warning light shall be a Whelen Model M9R red LED with red lens.

Each light shall be mounted with a Whelen Model M9FC chrome flange.

UPPER REAR WARNING LIGHTS

One (1) pair of Whelen model M9 LED warning lights shall be installed, one (1) each side of the upper rear of the apparatus body.

The driver side warning light shall be a Whelen Model M9R red LED with red lens.

The officer side warning light shall be a Whelen Model M9R red LED with red lens.

Each light shall be mounted with a Whelen Model M9FC chrome flange.

UPPER WARNING LIGHT SWITCHING

One (1) rocker switch with indicator shall be installed on the switch panel in the cab to control the upper warning lights. The switch shall be labeled "UPPER WARNING". The switch shall only be active when the master warning switch is engaged.

LOWER FRONT WARNING LIGHTS

One (1) pair of Whelen model M6 Series LED warning lights shall be installed, one (1) each side one the front of the chassis cab.

The driver side warning light shall be a Whelen Model M6R red Super-LED with red lens.

The officer side warning light shall be a Whelen Model M6R red Super-LED with red lens.

Each light shall be mounted with a Whelen Model M6FC chrome flange.

LOWER INTERSECTION WARNING LIGHTS

One (1) pair of Whelen model M6 LED warning lights shall be installed, one (1) each side of the chassis cab.



The driver side warning light shall be a Whelen Model M6R red Super-LED with red lens.

The officer side warning light shall be a Whelen Model M6R red Super-LED with red lens.

Each light shall be mounted with a Whelen Model M6FC chrome flange.

LOWER MID-BODY WARNING LIGHTS

One (1) pair of Whelen model M6 Series LED warning lights shall be installed, one (1) each side of the apparatus, mid-body.

The driver side warning light shall be a Whelen Model M6R red Super-LED with red lens.

The officer side warning light shall be a Whelen Model M6R red Super-LED with red lens.

Each light shall be mounted with a Whelen Model M6FC chrome flange.

LOWER REAR WARNING LIGHTS

One (1) pair of Whelen model M9 Series LED warning lights shall be installed, one (1) each side of the lower rear of the apparatus body.

The driver side warning light shall be a Whelen Model M9R red LED with red lens.

The officer side warning light shall be a Whelen Model M9R red LED with red lens.

Each light shall be mounted with a Whelen Model M9FC chrome flange.

LOWER WARNING LIGHT SWITCHING

One (1) rocker switch with indicator shall be installed on the switch panel in the cab to control the lower warning lights. The switch shall be labeled "LOWER WARNING". The switch shall only be active when the master warning switch is engaged.

ELECTRIC SIREN AND CONTROL

One (1) Whelen model #295SLSA1 electronic siren shall be mounted in the cab. This unit shall feature an electronic air horn, wail, yelp, hi-lo and shall have a hard-wired PA microphone.

ELECTRONIC SIREN SPEAKER

One (1) Federal Signal model ES100 Dynamax 100 watt speaker shall be flush mounted as far forward and as low as possible on the front of the vehicle. A polished model ESFMT with



"Electric F" grille shall be provided on the outside of the speaker to prevent road debris from entering the speaker.

The speaker shall produce a minimum sound output of 120 dB at 10 feet to meet current NFPA 1900.

The speaker shall be located on the right hand side of the bumper.

SIREN NOISE WARNING LABEL – FAMA #42

A permanent label shall be provided inside the driver's door warning of potential injury that could be received from the noise of the siren. The label shall also state safety precautions that should be taken when the siren is in use.

NFPA 1900 110 / 220 VOLT POWER SOURCE TESTING

Electrical System Testing:

The wiring and permanently connected devices and equipment shall be subjected to a dielectric voltage withstand test of 900 volts for one minute. The test shall be conducted between live parts and the neutral conductor, and between live parts and the vehicle frame with any switches in the circuit closed position. This test shall be conducted after all body work has been completed.

Electrical polarity verification shall be made of all permanently wired equipment and receptacles to determine that connections have been properly made.

NFPA Operational Test

The apparatus manufacturer shall perform the following operational test and shall certify that the power source and any devices that are attached to the line voltage electrical system are properly connected and in working order:

The prime mover shall be started from a cold start condition and the line voltage electrical system loaded to 100 percent of the nameplate rating. The power source shall be operated at 100 percent of its nameplate voltage for a minimum of 2 hours unless the system meets category certification as defined in NFPA 1900.

SMART POWER GENERATOR

One (1) Smart Power Systems, **Model HR-10**, 10,000 watt hydraulic generator shall be provided. The generator is designed specifically for mounting on top of the vehicle, at the specified location. If required, the generator can be easily separated into its three major components (tray assembly, cooler/fan assembly, and reservoir) for customized mounting locations.



The installation of the generator shall be designed for continuous operation without overheating and undue stress on components. The generator tray assembly shall be delivered with the cooler/fan assembly mounted such that 100% of the hot air is exhausted vertically. No exceptions.

The generator system shall be provided with a digital meter display in compliance with NFPA 1901 Chapter 22.4.6. The CCC (Command and Control Center) meter panel display shall be an interactive operator control center, equipped with Smart Touch® solid state buttons, with displays for voltage, frequency, amperage, total running hours, service reminders, operator warnings, system faults and diagnostics.

The generator and the Command Control Center both shall be 100% American made in the same manufacturing facility. No exceptions.

Package & Features

The unit shall come equipped with a generator tray assembly (which includes the generator, hydraulic motor, cooler, fan, electronics package, 10 micron spin-on fluid filter and reservoir), an axial piston hydraulic pump with pressure compensated control, and CCC digital meter panel display with all required wiring harnesses.

The generator shall have the following features (no exceptions):

- Severe duty generator with EG43 Marine grade winding overcoat
- Class H winding insulation 180°C temperature rating
- Smart Start engagement to reduce mechanical stress
- Precise voltage and frequency control
- Automatic Purge feature based on hydraulic pressure
- Automatic Cold Start Protection to warm hydraulic fluid during cold weather
- Automatic Alert and Shut Down Over Heat Protection
- Automatic Alert and Shut Down Low Fluid Protection
- Automatic Alert and Shut Down Over-Current Protection
- Visual Service Reminders, Prognostics & Diagnostics

The generator electrical enclosure, the oil cooler/fan module, the hydraulic fluid reservoir and other structural components shall have a Zinc protective coating and white powder coat finish. No exceptions.

The generator tray assembly shall be delivered with the cooler/fan assembly mounted such that the hot air is exhausted vertically through the top of the assembly.

An NFPA compliant aluminum grate will be attached over top of the assembly to provide a non-slip walking surface.

The body of the generator tray assembly (including reservoir) shall be 32" long x 13.5" wide x 17" high, weighing approximately 280 pounds.



Digital Meter Display Gauge

The Command Control Center (CCC) digital meter display shall be in compliance with NFPA 1901 Chapter 22.4.6. The CCC shall be an interactive operator control center, equipped with Smart Touch® solid state buttons, with super bright red LED displays for:

- Voltage (VAC)
- Frequency (Hz)
- Dual Current Display (Amps)
- System Hydraulic Pressure (PSI)
- Running Time Display (Hours)
- Service Reminders
- Operator Warnings
- System Faults
- Prognostics & Diagnostics

The CCC shall be permanently mounted at an operator's panel, shall be located in a plane facing the operator, and shall be constructed in weatherproof integral enclosure/bezel.

Prognostics and Diagnostics

The generator system shall be equipped with diagnostic capabilities which are monitored by the operator through the CCC digital display meter panel and or the vehicle's multiplexing display screen.

Some of the Diagnostics Features include:

- Overheat Warning
- System Service Reminders
- Low Fluid Warning
- No PTO Engagement Indication
- Low DC Input Voltage Alert
- Cooling Fan Problem Alerts

All diagnostic codes that are stored on the generator ECU shall be retrievable from either the CCC and/or the multiplex system display screen (if applicable). No external device shall be required to access the ECU. No Exceptions.

Chassis Transmission Drive

The hydraulic pump shall be driven by the chassis transmission mounted power take off (PTO).



Generator Operation

The output of the generator shall be controlled by an integral, patented, solid state Electronic Control Unit. The ECU shall be connected directly to the NFPA 1901 required digital instrumentation display.

The generator shall be operable in the stationary mode and/or when driving, utilizing the standard soft start system for engagement at any speed.

The generator shall be engaged by a lighted control switch or through the multiplex system in the cab.

Ratings and Capacity Rating:	12,000 watts peak 10,000 watts continuous
Volts:	120/240 volts
Phase:	Single, 4 wire
Frequency:	60 Hz
Amperage:	84 amps @ 120 volts or 42 amps @ 240 volts
Engine speed at engagement:	Standard soft start feature allows for any speed engagement
Pump (45cc) speed operation range:	1100 to 3120 RPM
Pump (60cc) speed operation range:	850 to 2700 RPM
Generator Speed:	3600 RPM

LIGHT TOWER ORIENTATION

The roof reinforcement shall be installed parallel to the front wall of the body.

LIGHT TOWER LIGHT HEAD ORIENTATION

The roof reinforcement shall be oriented in order for the light head on the light tower to be to the left side while in the stored position.

WILL-BURT NIGHT SCAN CHIEF LIGHT TOWER

A Will-Burt Night Scan Chief NS 3.0-500-4 light tower shall be provided.

Design and Construction

The tower shall be a series of graduated extruded aluminum tubes that nest one inside another. The tower shall have an extended height of approximately 7.5 ft. above the mounting location and a stowed height of approximately 9.375" above the mounting surface. The tower shall be approximately 29.5" wide by 55.6875" in length. The tower shall be designed to sustain the intended top load with a 125 percent safety factor and shall exceed NFPA requirements



of a minimum 50 mph wind when in a fully raised and unguyed position. The tower shall be of a compact design with a total weight of approximately 131 lbs. The light tower shall not exceed 150 lbs.

The tower tubular sections shall be constructed of high strength, heat-treated 6061-T6 aluminum tubes and collars. Each tube shall be protected by low friction synthetic collars for smooth operation and long life. Bumpers shall be designed to reduce shock on extension and retraction. All exterior surfaces shall be anodized for long life and fasteners shall be stainless steel for corrosion resistance.

Nesting System

The tower shall have an “auto-stow” function. A double click of the mast down button will stow, retract, and shut power off to the unit. An integrated saddle assembly with synthetic, non-marring rests shall be provided for the tower and flood light assembly in the nested position.

Floodlight Rotation and Tilt Operation

The tower shall be equipped with a Will Burt Model RCP (remote control positioner) to control the rotation and direction of the light. The remote control positioner unit shall be equipped with two (2) gear motors; one for rotation and one for the floodlight bank. The positioner shall also rotate the floodlight assembly from zero to 355 degrees and tilt the floodlight assembly from 0 to 337 degrees.

Hand-held Wired Remote Control

A safety yellow in color for high visibility, hand held remote control pendant, connected to a quick-disconnect, 25 ft. coiled cord shall be provided to control the tower. All functions of the tower shall be accessible through this remote control including elevating with “auto-up” ability, lowering with “auto-stow” ability, rotation and tilting of the floodlight assembly and floodlight switching. An auxiliary power button shall also be included to control optional equipment such as strobe lights or a camera that is mounted to the mast. A red emergency stop button shall be integrated into the hand held control for added safety or shall be located on the junction box. Each button of the controller shall have a corresponding LED light that provides operational feedback. An LED display that includes alphanumeric feedback shall be located in the center of the controller. This display shall provide operational feedback and error codes if they occur.

Pneumatic Controls

The pneumatic controls to raise and lower the tower shall include an air regulator and solenoid valves. Lights will be operational within approximately 8 seconds from elevation initiation. The tower shall be able to be fully elevated in approximately 50 seconds. In the event of malfunction of the elevating system while the tower is in operation or being



deployed, a method of limiting the rate of descent shall be provided to prevent injury to personnel or damage to the equipment.

Two allen keys as well as directions are included under the cover to fold the mast into the saddle if manual stowage of mast is required.

The air supply for pneumatic operation of the tower shall be from an integral compressor with air regulator.

Electrical Installation

The wiring harness for the floodlights, accessories, and remote control positioner shall be internally routed through telescoping aluminum tubing with a highly flexible coil cord.

Installer supplied 12 electrical wiring shall be provided with electrical connections at the tower assembly in conjunction with appropriate electrical power for the floodlights. The installer as required by manufacturer's installation guidelines shall provide appropriate wiring from the circuit breaker panel for connection to the tower. The electric power to the tower and light units shall automatically disconnect whenever the tower is in the nested position.

The tower operation area shall be illuminated automatically by a look up light whenever the tower is in operation. Any upward movement of the tower from the nested position shall energize a red warning light in the cab and a secondary light located at the tower control area. In addition, the installer shall provide parking brake interlocks and other equipment as required by applicable NFPA standards.

Floodlight System

Two 120/240 VAC to 24 VDC power converters will be supplied and will be remotely located in the vehicle and will supply power to six (6) Night Scan X 200 lamps. The 125 watt 10-60 VDC lighthouse shall incorporate a combination of 6 spot lenses and 14 flood lenses installed in an IP-69k rated die-cast white powder coated aluminum housing. The configuration shall consist of a total of 20 white LEDs with a clear optic reflector assembly, and a clear non-optic polycarbonate lens. The Night Scan X 200 shall have 20,000 raw lumens for a total of 120,000 lumens. The lens/reflector assembly shall utilize a liquid injection molded silicon gasket to be resistant to water, moisture, dust, and other environmental conditions. The hard-coated lens shall provide extended life/luster protection against UV and chemical stresses. The light shall be vibration resistant. The Night Scan X 200 shall have a limited lifetime warranty. The fixture shall measure H=5.6", W=7.6", D=3.7".

Warranty

The tower assembly shall carry a two (2) year parts and labor warranty. Exact provisions of such warranty shall be provided with the proposal and at time of delivery of product.



Labeling and NFPA Compliance

Essential operating instructions and warning labels shall be provided in compliance to applicable OSHA, SAE, and NFPA standards. Appropriate labels on the "hazards of electrocution" associated with the operation of a light tower shall be installed in the appropriate areas.

A label shall be provided at the operator's position by the installer with the following information:

1. Extended height of the tower from the ground.
2. Bulb replacement data.

The tower and installation shall be in full compliance to applicable sections of the current NFPA 1900 Standard.

Testing and Quality Assurance

The tower manufacturer shall be ISO 9001:2008 certified. In addition, quality control and manufacturer testing shall be completed prior to shipment of the tower. The final installer shall test the operation of the tower for a minimum of 2 hours at full load, with testing documentation provided upon delivery.

Manuals

Detailed service, parts, operating, and installation manuals shall be provided by the tower manufacturer. Samples of such manuals shall be provided on request. A CD ROM manual will be provided to the end user.

Hand-held Wireless Remote Control

A safety yellow in color for high visibility, wireless hand held remote control with a range of 100 feet and unique transmitting and receiving addresses to eliminate interference shall be provided to control the tower. All functions of the tower shall be accessible through this remote control including raising with "auto-up" ability, lowering with "auto-stow" ability, rotation and separate buttons for tilting of each floodlight bank and floodlight switching. An auxiliary power button shall also be included to control optional equipment such as strobe lights or a camera that is mounted to the mast. Each button of the controller shall have a corresponding LED light that provides operational feedback. An LED display that includes alphanumeric feedback shall be located in the center of the controller. This display shall provide operational feedback and error codes if they occur.

CHASSIS PAINT

The chassis shall be painted by the OEM Chassis Manufacturer.



PAINT PROCESS

The body exterior shall have no mounted components prior to painting to assure full coverage of treatments. Compartment doors (if applicable) will be painted separately to assure proper paint coverage on body, doorjambes and door edges.

All surfaces shall be sanded to remove all burrs and imperfections before etching and treatment.

The body shall be totally removed from the chassis during the painting process to ensure the entire unit is covered.

PPG wax & grease solvent shall be used to clean and prep the body surface prior to any sanding. The surface shall then be rinsed with freshwater. This step removes wax, grease and other surface contaminants, thus leaving a bright, clean and conditioned surface.

PAINT FINISH

The body shall be painted with a PPG Delfleet Evolution Paint System.

As part of the curing process the painted body shall go through a baking process. The painted components shall be baked at 185 degrees for 3 hours to achieve a complete coating cure on the finished product.

After bake and ample cool down time, the coated surface shall be sanded using 3M 1000, 1200, and or 1500 grit sandpaper to remove surface defects. In the final step, the surface shall be buffed with 3M Super-duty compound to add extra shine to coated surface. No more than .5 mil shall be removed in this process.

All products and technicians shall be certified by PPG every two (2) years.

ANTI-CORROSION PROTECTION

Where dissimilar metals must be joined, overlaid, share perforations or otherwise come in contact with each other to achieve construction, performance or aesthetic requirements, such items shall be separated by a continuous contact, nonconductive coating or film to prevent or otherwise mitigate the effects of electrolysis. Only stainless-steel hardware and fasteners shall be used in the construction of the apparatus. Where stainless steel fasteners pass through an aluminum component, the fastener contact surfaces, including the head, washer and nut shall be coated with ECK anti-corrosion material.

UNDERCOATING

The body underside, including the sub-frame and the inside of the wheel wells, NOT THE WHEEL WELL LINERS, shall be thoroughly coated with SWT commercial automotive undercoat and sound deadening material to protect the body module against corrosion. The



coating shall be black and shall be tested to ASTM B117 Salt Spray test for 1,000 hours at 10-mils.

COMPARTMENT INTERIOR FINISH

The interior of the compartments shall be finish painted with Multispec #344767 Gray Stone scuff resistant paint to provide a protective application over all of the compartment interior surfaces.

WHEEL RIMS

The chassis wheels shall be as furnished by the chassis OEM. No additional finishes shall be provided by apparatus manufacturer.

REFLECTIVE LETTERING & STRIPING PACKAGE

Bidder shall supply and install a standard reflective lettering and striping package on the proposed apparatus, per the purchaser's provided schematics.

REAR CHEVRON STRIPING

At least 50% of the rear facing vertical surface shall be covered with alternating strips of reflective striping.

Each stripe shall be a minimum of 6.00" in width and shall be applied to the apparatus at 45° angle.

RED & FLUORESCENT YELLOW GREEN ORALITE V98

The Oralite V98 reflective tape shall be #12 red and #112 fluorescent yellow green in color.

ONE YEAR APPARATUS WARRANTY

The complete apparatus detailed herein shall be warranted against defects in materials and workmanship for a period of twelve (12) months, effective upon pick up or delivery of the completed apparatus to the purchaser, as detailed in the respective warranty documents. Any unauthorized alterations or modifications to the apparatus shall void this warranty.

Other warrantees, as provided by individual component manufacturers, may extend beyond this warranty.

APPARATUS BODY WARRANTY – TEN (10) YEARS

The apparatus body as detailed herein shall have a structural warranty against defects in materials and workmanship for a period of ten (10) years, effective upon final payment in



full by the Purchaser, and pick up or delivery of the completed apparatus to the Purchaser. Any unauthorized alterations or modifications to the body shall void this warranty.

PAINT WARRANTY – FIVE (5) YEARS

The finish paint as used on the proposed apparatus shall be warranted against defects in materials and workmanship for a prorated period of five (5) years, effective upon final payment in full by the Purchaser, and pick up or delivery of the completed apparatus to the Purchaser. Any unauthorized alterations or modifications to the apparatus shall void this warranty.

APPARATUS ELECTRICAL SYSTEM WARRANTY - TWO (2) YEARS

The apparatus electrical system as detailed herein shall have an electrical warranty against defects in materials and workmanship for a period of two (2) years, effective upon final payment in full by the Purchaser, and pick up or delivery of the completed apparatus to the Purchaser. Any unauthorized alterations or modifications to the electrical system shall void this warranty.

LOOSE EQUIPMENT

The following loose equipment shall be provided with the apparatus:

- Two (2) ZICO #SAC-44 folding wheel chocks with mounting bracketry.

		Bidder Complies	
		YES	NO
SCOPE AND GENERAL REQUIREMENTS			✓
All parts not specifically mentioned herein, but which are necessary in order to furnish a complete fire apparatus, shall be furnished and shall conform to the best practices known to the fire apparatus industry.			
The unit is to be of current year manufacture, and is to be new and unused. The bid price shall not include any local, State, or Federal taxes. The Bidder shall not be liable for any State or Federally mandated tax or program after the sale of this apparatus.			
These specifications shall be construed as minimum. Should the manufacturer's current published data or specifications exceed these, they shall be considered minimum and be furnished.			
MANUFACTURER'S DISCRETION			✓
Materials, parts, or procedures used are subject to change at manufacturer's discretion at any time to provide equal or better products.			
be liable for any State or Federal mandated tax or program after sale or delivery of the apparatus.			
DELIVERY TIME GUIDELINES			✓
Estimated delivery of the completed vehicle shall not exceed 120-Days ARO. No Exceptions.			
OVERALL HEIGHT			✓
The overall height shall be 10' 8".			
OVERALL LENGTH			✓
The overall length shall be no longer than 30'.			
OVERALL WIDTH			✓
The overall width of the body shall be no more than 102" wide; chassis mirrors will extend out past this width.			
ANGLE OF APPROACH			✓
The angle of approach for the apparatus shall not be less than eight (8) degrees as specified by the current edition of NFPA 1900.			
ANGLE OF DEPARTURE			✓

	Bidder Complies	
	YES	NO
The angle of departure for the apparatus shall not be less than eight (8) degrees as specified by the current edition of NFPA 1900. NFPA 1900 COMPLIANCE The National Fire Protection Association standard #1900 (most recent edition) is hereby adopted and made a part of these specifications, the same as if they were written out in full detail, insofar as they apply with the exception of any sections dealing with "Equipment Recommended for Various Types of Apparatus". Bidders are to provide only the equipment requested herein and the Department will supply the rest before the apparatus is put into service. The unit shall comply with all federal, state, ICC, and DOT motor vehicle regulations, standards, and laws relating to commercial vehicles as well as to fire apparatus on the date of the bid. The apparatus being furnished under these specifications shall conform to the requirements specific to pumper fire apparatus NFPA Booklet 1901 version current at time of contract ROLLOVER STABILITY - NFPA 1900: CHASSIS ESC SYSTEM The apparatus shall meet the rollover stability criteria defined in NFPA 1900 by being equipped with an Electronic Stability Control (ESC) system as provided by the chassis manufacturer. ROAD TEST CERTIFICATION A road test shall be conducted with the finished apparatus fully loaded. During this time, the apparatus shall not show loss of power and/or overheating. The transmission drive shaft or shafts and rear axle shall run free from abnormal vibration or noise throughout the operating range of the apparatus. The apparatus, when loaded, shall have not less than 25% or more than 45% of the weight on the front axle and not less than 55% or more than 75% on the rear axle. A). The apparatus must be capable of accelerating to 35 mph from a standing start within 25 seconds on a level concrete highway without exceeding the maximum governed RPM of the engine. B). The apparatus must be capable of accelerating from a steady speed of 15 mph to a true speed of 35 mph within 30 seconds. This shall be accomplished without moving the gear selector. C). The fully loaded apparatus shall be capable of obtaining a speed of 50 to 55 mph on a level concrete highway. D). The manufacturer shall furnish copies of the engine installation approvals signed by the appropriate engine company upon delivery of the chassis to the Fire Department. E). The manufacturer shall furnish copies of the transmission approval signed by the transmission manufacturer upon delivery of the chassis to the Fire Department. F). The manufacturer shall furnish copies of the front and rear axle approvals upon delivery of the apparatus to the Fire Department. ROAD TEST FAILURE In the event the apparatus fails to meet the test requirements of these specifications on the first trials, second trials may be made at the option of the manufacturer within thirty (30) days of the first trials.	✓	✓

	Bidder Complies	
	YES	NO
Such trials shall be final and conclusive and failure to comply with changes, as the purchaser may consider necessary to conform to any clause of the specifications within thirty (30) days after notice is given to the manufacturer of such changes, shall be cause for rejection of the apparatus. Permission to keep or store the apparatus in any building owned or occupied by the purchaser, or its use by the purchaser during the above-specified period with permission of the manufacturer, shall not constitute acceptance.		
VEHICLE TOP SPEED		✓
The rear axle shall be geared for a top speed of 68 mph at engine governed RPM.		
NFPA TOP SPEED STATEMENT		✓
Per NFPA 1900 section 7.16.2, the maximum top speed of fire apparatus with a GVWR over 33,000 lbs. shall not exceed either 68 MPH or the manufacturer's maximum fire service speed rating for the tires installed on the apparatus, whichever is lower.		
Per NFPA 1900 section 7.16.3, if the combined water tank and foam agent tank capacities on the fire apparatus exceed 1250 gallons, or the GVWR of the vehicle is over 50,000 lbs., the maximum top speed of the apparatus shall not exceed either 60 MPH or the manufacturer's maximum fire service speed rating for the tires installed on the apparatus, whichever is lower.		
SAFETY SIGNS		✓
The following safety signs shall be provided:		
SEATED AND BELTED WARNING LABEL – FAMA #07		✓
A permanent label shall be provided that is visible to all occupants that states that they should be seated and belted while the apparatus is in motion. The label shall also state potential injuries or death that could be caused if the safety belts are not used properly.		
CAB INTERIOR EQUIPMENT MOUNTING DANGER LABEL – FAMA #10		✓
A permanent label shall be provided inside of the cab warning of the dangers of unsecured equipment inside the cab. The label shall state that all equipment shall be properly secured and also warn of potential injury or death that could be caused by failing to do so.		
DO NOT WEAR HELMET LABEL – FAMA #15		✓
A permanent label shall be provided inside of the cab in view of all seated positions stating that helmets should not be worn in cab. The label shall also warn of potential injury or death that could be caused by wearing helmet in cab.		
VEHICLE BACKING LABEL – FAMA #17		✓

Bidder Complies	
YES	NO
A permanent label shall be provided inside of the cab in view of the driver advising of proper procedures to following when the apparatus is in reverse motion. The label shall also warn of potential injury or death that be caused by failing to follow proper procedures. CHASSIS DATA LABELS The following information shall be on labels affixed to the vehicle: <u>Fluid Data:</u> • Engine oil • Engine coolant • Chassis transmission fluid • Pump transmission lubrication fluid • Pump primer fluid (if applicable) • Drive axle(s) lubrication fluid • Air conditioning refrigerant • Air conditioning lubrication • Power steering fluid • Cab tilt mechanism fluid (if applicable) • Transfer case fluid • Equipment rack fluid (if applicable) • Air compressor system lubricant • Generator system lubricant (if applicable) <u>Chassis Data:</u> • Chassis Manufacturer • Production Number • Year Built • Month Manufactured • Vehicle Identification Number Location shall be in the driver's compartment of the chassis cab. OVERALL HEIGHT, LENGTH, GVW DATA PLACARD A "high visibility" plate shall be permanently mounted in the cab, visible to driver when seated. The plate shall show the overall height of the completed apparatus in feet and inches, the overall length of the completed apparatus in feet and inches. The plate shall also show the gross vehicle weight rating (GVWR) in tons. Text shall also be supplied on the plate, indicating that the information shown is current upon	✓ ✓

	Bidder Complies	
	YES	NO
completion of the apparatus. If the overall height of the apparatus changes after the apparatus is put into service, then the purchaser must revise the dimensions on the plate.		
"NO RIDE" LABEL	✓	
A label shall be located on the vehicle at the rear step areas, and at any cross walkways, if they exist. The label(s) shall warn personnel that riding in or on these areas while the vehicle is in motion is prohibited.		
COMMERCIAL CHASSIS SPECIFICATION	✓	
CHASSIS PROVIDER		
The chassis, as detailed in these specifications, shall be ordered and supplied by the apparatus manufacturer.		
KENWORTH CHASSIS	✓	
A Kenworth 2-door chassis per the attached specifications shall be furnished:		
CHASSIS PAINT COLOR	✓	
The cab shall be painted a single color.		
Color: <u>Red</u>		
Paint Number: <u>763572EA</u>		
Model		
S-T480 Series Conventional-	✓	
O-T480 Aero Hood-		
O-Chassis Operation Will Not Incl. Stationary application. Stationary operation is defined as running the engine under load while stationary at a substantial fraction of engine gross horsepower (60% or greater) for an extended period of time (longer than 5 - 10 minutes).-		
O-CARB Exempt Application Emergency Vehicle Only.-		
O-CARB Low NOX Omnibus Registration Guidelines		
Dealer/Customer acknowledges that this vehicle is NOT intended for registration or domicile/primary use in the State of California.-		
O-T480 Single Rear Axle		
Engine & Equipment	✓	
O-PACCAR PX-9 450EV 450@2100 1250@1200, 2024		
Emergency Vehicle, With Turbo Exhaust Brake (VGT Brake)		
Reserve Speed Limit Offset		
Maximum Cycle Distance		
Reserve Speed Function Reset		

	Bidder Complies	
	YES	NO
Standard Maximum Speed Limit		
Maximum Active Distance		
Expiration Distance		
Expiration Distance		
Max Vehicle Speed in Top Gear		
NO Engine Protection Shutdown		
Gear Down Protection		
Idle Shutdown Time		
NO Idle Shutdown Override		
Max PTO Speed		
Max Cruise Control Speed		
NO Cruise Control Auto Resume		
NO Auto Engine Brake in Cruise		
High Ambient Temperature Thermometer		
Low Ambient Temperature Thermometer		
Intermediate Ambient Temperature		
Enable Hot Ambient Automatic YES		
Enable Impending Shutdown Warning		
Timer For Impending Shutdown		
Engine Load Threshold YES		
Enable Idle Shutdown Park Brake		
O-EPA Emissions Warranty Engine-		
U-2024 SERIES EMISSIONS ENGINE		
S-Premier Spec		
O-Gearing Analysis: Balance		
power/economy blend results.		
O-Customer's Typical Operating Speed: 55 MPH		
Registration Year		
Year of Registration: 2026 or 2027		
O-Effective VSL Setting NA		
O-Engine Idle Shutdown Timer Disabled		
O-Eff EIST NA Expiration Miles		
Use only with MX and Cummins engines-		
O-Air Compressor: Cummins 30.4 CFM ISL, PX-8, PX-9		
Replacing 18.7.		
S-Air Cleaner: MD Composite Engine Mounted		
O-Air Inlet Ember Separator NFPA Compliant for		
Fire Applications.		
S-Fan Hub: Horton On/Off for PX-9 or L9N		
S-Cooling Module: 2.1M MD - Aero Hood		
1000 Square Inches		
O-EXH: Single Can 2024 PX-9 Horizontal Under Rail		
With Horizontal Tailpipe Below RH Rail Back-of-Cab		
S-Fuel Filter: PACCAR 2.1M MD for PX-7 or PX-9		
Fuel/water separator for 2021 and later engines.		
S-Run Aid: None		

	Bidder Complies	
	YES	NO
*For Fuel Filter- O-Start Aid:12V Heat *For Fuel Filter- O-Kenworth Fuel Cooler Required for Cummins engines with a single fuel tank. Required for PACCAR MX-13 engine with a single fuel tank and stationary use: High RPM, low vehicle speed, sustained for longer than 1 hour. Optional for all other applications. O-Block Heater: PACCAR 750 watt 120V for PX-7 and B6.7N. 1000 watt for PX-9 and ISL9 Engines. O-Oil Pressure Sender for Pump Panel Gauge VDO O-Retarder: Jacobs for PX-9 and ISL With 3-way switch. Replaces the standard turbo brake for PX-9 engines. O-Alternator: Delco 40SI 320 amp Brushless with battery voltage sense O-Batteries: 4 PACCAR GP31 Threaded Post (700-730) CCA dual purpose. S-Mitsubishi 105P55 12V Starter with Cummins and PX PACCAR 12 volt electrical system. W/ centralized power distribution incorporating plug-in style relays. Circuit protection for serviceability, 12-volt light system with circuit protection circuits number & color coded. Only for Cummins or PX engines. O-Cab Power Cutoff SW on Cab Floor NFPA Compliant - Engine Shut off. Includes gauge. O-Jump Start Terminals Under Hood. O-Remote PTO/Throttle, 12-Pin, 500K, Back of Cab OR Back of Sleeper, J1939, Remote Control Provision O-Body Builder Battery Power Prewire Transmission & Clutch O-Transmission: Allison 3000EVS 5-speed, With PTO drive gear. 6th Generation controls. Includes heat exchanger & oil level sensor. Emergency Vehicle Series for vocational applications. Transynd transmission fluid is standard on all Allison 1000, 2000, 3000 & 4000 series transmissions. O-Driveline: 2 Dana SPL170SF With 1 Center bearing S-One Heavy-Duty One-Piece Aluminum Crossmember This option upgrades an existing crossmember. The cost does not include the center bearing and bracket. Crossmember location will be in accordance with Kenworth engineering standards, using the major components specified on the DTPO.- O-Torque Converter Included With Allison Transmission O-Customer-Installed Split Shaft PTO Informational only, nothing additional is provided.- O-Push Button Shifter Controls, Center Console Mounted for Allison Transmission. 2.1m Medium Duty only. O-J1939 Park Brake Auto Neutral U-Decline Allison Neutral at Stop Stand-Alone O-Allison Neutral at Stop Not Applicable- U-ALLISON EVS PACKAGE 246 O-Supplemental Allison Oil to Water Trans Cooler Front Axle & Equipment O-Dana Spicer E-1462I Front Axle rated 14.6K 3-1/2in. drop. S-Front Brakes: 14.6K Bendix ES S-Cam 16.5x5 in. S-Front Brake Drums: 14.6K 16.5x5 in. cast. O-Front Hub: 14,600 lbs. Aluminum Hub Pilot 10-bolt, 11.25 in. bolt circle.-		

	Bidder Complies	
	YES	NO
S-ConMet PreSet Plus Hub Package; Front Axle. S-Hubcap: Front Vented. S-Front Auto Slack Adjuster for Drum Brakes. O-Front Springs: Taperleaf 14.6K W/ Shock Absorbers With maintenance-free elastomer spring pin bushings. O-Single Power Steering Gear: 14.6K. O-Power Steering Cooler: Radiator Mounted Air-to-Oil O-5 mm Front Suspension Spacer Block Rear Axle & Equipment O-Single Dana Spicer S26-190 Rear Axle; 26K capacity rated at 26K. Single rear axle.- O-Rear Axle Ratio - 5.38. S-Single Rear Brakes 16-1/2x7 in. Bendix ES extended service S-cam. O-Single Rear Brake Heavy Duty Brake Drums: Cast. Use HD Gunitite Drum when single axle with GAWR over 23,000 lbs is selected. With 16.5X7" or 16.5X8.625" brake. S-Single Rear Hubs: Iron Hub Pilot 26k; 11.25" Bolt circle. Requires "R" series outer ends. S-ConMet PreSet Plus Hub Package; Single Rear Axle. S-Single Rear Axle Automatic Slack Adjusters. For use with drum brakes. O-Spring Brake: 3036 Long Stroke Single 30 Square inches; 36 square inches spring chamber. For drum brakes O-Bendix 4S/4M Anti-Lock Brake System with Air traction control (ATC) and electronic stability program (ESP) for full truck. Must code for additional body information. O-Tanker Height less than 75 in. from Top of Frame rail O-Wheel Differential Lock for Dana Spicer Axles S21-170/172, S21-190, S23-170/172, S23-190, S26-190 & S30-190; adds D to the end of the axle part number. O-Rear suspension: single Reyco 79KB multi-leaf 26K with helper spring. Medium duty. Unladen Height: 10.8 in. Laden Height: 8.1 in. Not rear air disc brake compatible. S-Bolted Rear Suspension Crossmembers for Reyco 79KB. Replaces medium duty standard. Tires & Wheels O-Front Tires: Michelin X Works Z 12R22.5 16PR O-Rear tires: Michelin XDN2 12R22.5 16PR. 42.9in. Diameter. drive tire. 20 in. SLR. Code is priced per pair of tires. O-Rear Tire Quantity: 4 O-Front Wheel: Kenworth 7-spoke 22.5x8.25 aluminum with Ultra One high polish finish, hub-pilot mount. 7300lb. maximum rating. Level 1 finish. Air disc brake compatible. O-Rear Wheel: Kenworth 7-spoke 22.5x8.25 aluminum with Ultra One, high polish finish, hub-pilot mount. 7300 lb. maximum rating. Air disc brake compatible. Code is priced per pair of wheels. Level 1 finish. O-Rear Wheel/Rim Quantity: 4 Frame & Equipment S-Frame Rails: 10-5/8 x 3-1/2 x 5/16 in. Steel to 308 in. Truck frame weight is 2.91 lb.-in. per pair of rails. Section modulus is 14.80 cu.in., RBM is 1,776,000 in-lbs per rail. 120,000 PSI yield. Heat treated. Frame rail availability may be restricted based upon application, axle/suspension	✓	✓

	Bidder Complies	
	YES	NO
capacity, fifth wheel setting, or component/dimensional specifications. The results of the engineering review may result in a change to the requested frame rail. If a change is required, Kenworth Application Engineering will advise the dealer of the appropriate material specification for a substitute rail.- O-Bumper: Aerodynamic Chrome Steel. Requires a bumper setting code. S-40 in. Bumper Setting. Requires a Bumper Code S-Front Tow Loops: Two-(2) O-Custom Frame Layout: 10-24 Chassis CFL C/M: Ref Chassis 157177 CFL A/D: Ref Chassis 157177 CFL A/T: TWO TANKS UNDER BATT BOX, ONE SMALL TANK UNDER AIR DRYER RH SIDE REF 357283 CFL BBX: Ref 157177 CFL DEF: Ref 157177 CFL F/T: CLEAR BOC O-Huck Bolts Throughout Frame, where Possible. O-Battery Box: Steel Parallel Module under with step, polished aluminum cover. Use with 4 batteries. Up to 2 air tanks may be mounted to bottom of box. Batteries will be oriented perpendicular to the frame rail in a single row. O-Battery Box Location: RH Side. S-Heavy-Duty One-PC Aluminum Intermediate / Fill-In crossmember. S-Heavy-Duty 5-Piece Rear Cab Support, Hucked assembly. Huck fastened to frame. S-Square End-of-Frame W/O Crossmember; Non-Towing. Fuel Tanks & Equip O-50 US Gallon D-Shape Rectangular Aluminum Under fuel tank, replace. With non-slip step. S-Small DEF Tank, 5.5 Gallons. O-Polished Fuel Tank Steps. O-Polish Only One Aluminum Tank. O-Polished Cover for 1 DEF Tank Any Size. O-Polished Stainless Steel Tank Straps for 1 Tank. O-DEF to Fuel Fill Ratio 2:1 or Greater. O-Fuel Tank Drain Plug. O-DEF Tank Location is LH Under Cab. O-Location: 50 gal fuel tank LH under cab Cab & Equipment S-Cab: Stamped Aluminum with Curved Windshield LED markers. Requires separate roof code. O-Hood: Med Aero with Chrome Crown O-Ember Filter For Cabin Air. Used to keep embers out of the HVAC filter element. S-Cab HVAC - Day Cab and 40 in. Sleeper System With Defrost, A/C, and 48,000 BTU/hr Heater. Includes automatic temperature control with one touch defrost operation and dash mounted cab temperature and solar intensity sensors. Pleated fresh air filter and cabin recirculation air filter standard. The Kenworth HVAC system is designed to provide optimal heating and cooling in all operating environments without need for additional insulation. Cab HVAC without sleeper heater AC is available with 40in sleeper. S-Steering Wheel: 18 in. 4-Spoke. S-Adjustable Telescoping Tilt Steering Column. O-Four Position Ignition Switch, Keyless. Available for fire truck service & EMT/emergency service only. O-Two Spare Switches: Wired to Power.		

	Bidder Complies	
	YES	NO
O-Gauge: DD Virtual Gauge - Air Filter O-Gauge: DD Virtual Gauge - Volts Instrument Cluster- S-Main Instrument Package: 7" Digital Display Cluster. Includes Physical (Analog): Speedometer, Tachometer, Oil Pressure, and Coolant Temp; and Digital: Fuel Level #1, DEF Level, DPF Filter Status, Fuel Economy, Volts Telltale, OAT and Primary Air Pressure, Secondary Air Pressure, and Air Application for air brake trucks. O-Large Flat Panel on Dash For C/I Controls. Replaces Storage Bucket. S-Interior Trim Package: 2.1M MD Gray Foam Backing/Cloth Headliner W/Gray Sunvisor & Seat Color Three Under dash Center Console Cupholders (Two If Allison Transmission Is Selected). O-Driver Seat: NFPA Compliant KW Air Seat HB Vinyl No Armrests, w/ Susp Bellows Cover.- O-Rider Seat: KW Toolbox Seat HB Vinyl with Dual Armrests/Record Holder/Occupancy Sensor O-NFPA Compliance Kit: 2.1 m Includes Seat occupancy sensors. Seat belt switches, VDR & seat sensor harness, reflective labels, and a second copy of operator's manual. O-Seat Color: Black Replacing Standard Gray O-Driver & Rider Seat Belts: Red, NFPA, Replaces Standard Seat Belts. (Available for NFPA RD Bench) O-Kenworth Radio DEA710 AM/FM/WB/USB, Bluetooth O-Speaker Package For Cab: (2) Speakers B-Pillar O-Footwell Light: Red Lens & Switch S-Turn Signal: Self-Cancelling S-LH and RH Trip Ledge Rain Deflectors O-Metal Int Door Panel Kick Plates S-Global Telematics Unit O-Grab handle: LH & RH SOC Non-Slip Ergonomic Grab Handles Mounted To The Left Hand and Right Hand Exterior Of The Cab For Entry and Exit. NFPA Compliant. S-Dual Cab Interior Grab handles: A Pillar Mounted Dash Wrap and B Pillar Mounted Grab handles S-Kenworth Daylite Door With Standard LH/RH electric door locks and LH/RH electric window controls. O-Air Horn Valve, Pull Cord and Plumbing to the Firewall Bulkhead for C/I Air Horn. If the chassis has hydraulic brakes, it will require code 1000307 for Accessory air system for hydraulic brakes. S-Look-Down, Pass. Door, Black 11x6 O-Mirror Shell: Dual Aero Chrome O-Mirror: Dual KW Aero Rear View Motor, heated with Integral CX.- O-Solid Rear Wall. Deletes Rear Cab Window. S-One-Piece Bonded-In Windshield with Curved Glass. Standard. O-Exterior Stainless Steel Sun visor. O-Kenworth Cab Air Suspension. O-Thermal/Sound Insulation Package- O-Roof: Raised Profile, Stamped Aluminum with Additional Head Room & Interior Overhead Storage	✓	✓

Bidder Complies	
YES	NO

✓

O-Poly switches Replacing Fuses. Switch will automatically reset after removal of excess load.

1

S-Nylon Air Tubing in Frame & Cab, Excluding Hoses subject to excessive heat or flexing.

1

O-Base Warranty: Emissions 5YR/100K MI - EPA Engine

1

S-Base Coat / Clear Coat.

The Kenworth Color Selector contains additional instructions, as well as information on Kenworth paint guidelines and surface finish applications. Kenworth is standard with Dupont Imron Elite paint.

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Two (2) Hadley chrome plated air horns shall be installed at the front of the vehicle. The air horns shall be mounted in full compliance of NFPA. The supply lines shall be dual 1/4" lines with equal distance from each horn.

	Bidder Complies	
	YES	NO
Each air horn shall be mounted, one (1) each side, on the side of the hood. Both air horns shall be controlled by a chassis manufacturer supplied lanyard.		
ELECTRIC TRAFFIC HORN AND AIR HORN SELECTOR SWITCH	✓	
One (1) selector switch shall be provided on the cab's dash that will allow the chassis steering wheel horn button to activate either the electric horn or air horn system. The electric horn shall sound by default when the selector switch is in either position to meet FMCSA requirements.		
CHASSIS MODIFICATIONS	✓	
The following modifications and installations shall be performed on the chassis upon delivery to the apparatus manufacturer:		
TIRE PRESSURE MONITORING DEVICE	✓	
A Real Wheels LED AirGuard shall be supplied for each tire. The device shall consist of a valve stem cap to with an LED tire alert to indicate tire pressure conditions. The LED will flash when the tire drops 5-10 psi below the factory setting.		
The tire pressure sensors shall be shipped loose.		
HUB COVERS – FRONT	✓	
Stainless steel hub covers shall be provided on the front axle.		
HUB COVERS - REAR	✓	
A pair of stainless steel high hat hub covers shall be provided on rear axle hubs.		
CHROME LUG NUT COVERS	✓	
Chrome lug nut covers shall be supplied on front and rear wheels.		
EXHAUST SYSTEM	✓	
The chassis exhaust system shall be provided as detailed in the chassis specifications. NO modifications shall be made by the apparatus manufacturer. The discharge of the exhaust shall be compatible with the Division's Ploymovent exhaust system.		
HOT EXHAUST DANGERS LABEL – FAMA #04	✓	
A permanent label shall be provided near any hot exhaust surface that warns of potential injury or death that could be caused by contact with the surface. The label shall also state precautions that should be taken while working on or around the surface.		

	Bidder Complies	
	YES	NO
FRONT BUMPER	✓	
The front bumper shall be provided as detailed in the chassis specifications.		
CHASSIS PREPARATION	✓	
Prior to installation of the fire pump, apparatus body, or cab steps, all components which extend out beyond the chassis frame rails shall be removed and relocated to the area within the frame rails		
REAR TOW EYES	✓	
Two (2) heavy duty eyes, .75" x 6.50 with a 3.00" elongated hole, shall be furnished at the rear of the body under the body and shall be bolted to the truck frame rails.		
REAR MUD FLAPS	✓	
A pair of black rubber mud flaps, with the manufacturer's logo, shall be provided and installed behind the rear wheels.		
VEHICLE DATA RECORDER	✓	
The apparatus shall be equipped with a Class1 "Vehicle Data Recorder (VDR) that is connected to the power train CAN (Controller Area Network) bus consisting of transmission (TCM), engine control (ECM) and anti-lock brake (ABS) modules mounted on the apparatus. The VDR will function per NFPA 1900 utilizing the power train's J1939 data.		
The VDR data shall be downloadable by USB cable to a computer using either Microsoft or Apple Operating Systems using Class 1/ OEM supplied reporting software.		
VEHICLE DATA RECORDER DOWNLOAD HARNESS	✓	
A USB VDR download harness shall be supplied with the system to allow the data to be downloaded to a computer.		
CENTER CONSOLE	✓	
A center console shall be furnished and shall be located between the driver and officer's seats. The top face of the console shall be designed as the switch panel for all emergency light switches.		
BATTERY SYSTEM	✓	
The battery system shall be supplied with the chassis.		
BATTERY JUMPER STUDS	✓	

	Bidder Complies	
	YES	NO
External battery jumper studs shall be provided as detailed in the chassis specifications.		
KEYLESS IGNITION SWITCH	✓	
One (1) non-removable, keyless style ignition switch shall be provided with the chassis.		
MASTER BATTERY SWITCH	✓	
A master battery switch shall be provided as detailed in the chassis specifications.		
BATTERY CONDITIONER	✓	
A Kussmaul Chief Series Auto Charge 4012 battery charger with onboard display shall be supplied. The battery conditioner shall provide a 40 amp output for the chassis batteries and a 20 amp output circuit for accessory loads.		
BATTERY CHARGER LOCATION	✓	
The battery charger shall be located in a pre-determined location by the manufacturer.		
120 VOLT SHORELINE CONNECTION WITH SUPER AUTO EJECT	✓	
One (1) Kussmaul "Super" Auto Eject model 091-55-20-120, automatic, 120 volt, 20 amp shoreline disconnect shall be provided for the on board, 120 volt battery charging systems.		
AUTO-EJECT MATING PLUG	✓	
A 5-20P, 20-amp mating female cord end shall be shipped loose with the apparatus to allow the Fire Department to connect cord end to a Fire Department provided charging cord.		
BATTERY CHARGER DISPLAY / COVER	✓	
One (1) Kussmaul model 091-55-266-YW battery charger status center/ auto eject cover shall be supplied with the charger.		
The cover shall be <u>yellow</u> in color.		
SHORELINE RECEPTACLE LOCATION	✓	
The shoreline receptacle shall be located on the left hand side of the apparatus in a pre-determined location by the manufacturer.		
120V AC AUXILIARY AIR COMPRESSOR	✓	
A Kussmaul 120V AC air compressor shall be supplied. The compressor system shall be designed to maintain the air pressure in the air system while not in use. A heavy-duty pressure switch is adjusted		

	Bidder Complies	
	YES	NO
to start the compressor when the system pressure drops below 75 PSI and stops the compressor when 95 PSI is attained.		
AUXILIARY AIR COMPRESSOR LOCATION	✓	
The auxiliary air compressor shall be located in a pre-determined location by the manufacturer.		
BACK-UP ALARM	✓	
One (1) 97 DB back up alarm shall be provided and installed at the rear of the unit. It shall be wired to activate when the transmission is placed in reverse.		
DUAL USB PORTS	✓	
Two (2) USB ports shall be supplied with the Kenworth chassis. Each port shall be capable of a 5 Volt-3.0 amp total output.		
12-VOLT POWER POINTS	✓	
Two (2) 12-volt power points shall be supplied with the Kenworth chassis.		
BODY DESIGN AND CONSTRUCTION	✓	
The body shall be modular in design, allowing it to be removed and remounted on a new chassis. The body shall be fabricated using aluminum extrusions, angle, smooth aluminum sheet and aluminum treadplate.		
FLOOR AND UNDER STRUCTURE	✓	
The body super structure shall be an all welded configuration utilizing a combination of 3.00" x 1.50" 6061-T6 thick walled structural tubing and 6061 structural channel.		
BODY MOUNTING	✓	
The body subframe shall be fastened to the chassis frame with a minimum of six (6) spring loaded body mounts. The brackets shall be fabricated of heavy duty 0.50" thick steel. Each mounting assembly shall utilizing two (2) 0.625" diameter x 9.00" long grade 8 bolts and two (2) heavy duty springs.		
BODY AND COMPARTMENT FABRICATION - 3/16" ALUMINUM	✓	
All compartment panels and body side sheets will be fabricated entirely of 0.1875" 5052-H32 aluminum.		
COMPARTMENT CONSTRUCTION	✓	

	Bidder Complies	
	YES	NO
The compartments shall be completely formed of 0.1875" aluminum. The interior height of the compartments will 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 will be measured from the back wall to the inside of the door frame.		
COMPARTMENT FLOORS	✓	
Compartment floors will be welded to the compartment walls and have a sweep out design for easy cleaning.		
ACCESS PANELS	✓	
Removable access panels will be provided to access fuel tank sender, electrical junction compartment and rear body mounts.		
Protective panels will be located in the rear compartments providing access to the lights and associated wiring. The covers will also serve as protective covers to prevent inadvertent damage to lights or wiring from tools or equipment located in the compartment.		
COMPARTMENT LOUVERS	✓	
Ventilation between compartments to atmosphere shall be provided and located to avoid water entry into compartments.		
COMPARTMENT SHELF TRACKS - ALUMINUM	✓	
All side body compartments be furnished with adjustable shelving track installed. The shelving track shall include a minimum of four (4) aluminum Uni-strut style channel tracks, mounted vertically on compartment side walls or vertical partitions.		
COMPARTMENT SHELVING - SIDE COMPARTMENTS	✓	
Adjustable shelving shall be installed in the side compartments as identified later in this specification. Each shelf shall be made of 0.1875" smooth aluminum with a 2.00" high perimeter on the front and rear with side supports. Shelving will be vertically adjustable with spring nuts in aluminum strut channel.		
FENDER PANELS	✓	
A single piece wheel well panel made of 0.1875" aluminum sheet shall be installed with no sharp edges to cut or damage cleaning equipment used in the wheel well area. The wheel well design shall provide for maximum wheel jounce and for use of tire chains without contacting the fender panel.		
REAR WHEEL WELL LINERS	✓	

		Bidder Complies	
		YES	NO
The rear wheel wells shall be equipped with replaceable circular liners to prevent road debris damage to adjacent side compartments. The liners shall be made from a single circular panel of 0.125" smooth aluminum and shall be the full depth of the side compartments. They shall be bolted in place and shall feature end flange bottom drains.			
REAR BODY FENDERETTES			✓
A roll-formed, polished stainless steel fenderette shall be installed around the outboard edge of the rear wheel well openings to protect the body sides from road debris. They shall be bolted to the body and shall be replaceable.			
BODY FRONT WALL OVERLAY			✓
The front face of the body will be overlaid with a full height aluminum tread plate protection panel.			
BODY SIDE RUB RAILS			✓
Replaceable extruded aluminum channel rub rails, 2.00" high x 0.75" deep x 0.125" wall, shall be provided below the lower side compartments. Each rub rail shall have a black rubber bumper strip and mounting stand-off spacers. All rub rail ends shall be angle cut, back toward the body to eliminate the possibility of snagging crew clothing or equipment.			
REAR TOW HOOKS			✓
Two (2) painted tow eyes will be furnished on the rear of the vehicle. The tow eyes will be made from plate steel and will be bolted directly to the chassis frame rails with grade 8 bolts and will extend below the body.			
BODY LENGTH DIMENSION			✓
The body shall be 218.00" long.			
BODY HEIGHT DIMENSIONS			✓
The body shall be 106.00" tall with the upper 20.50" reserved for horizontal storage compartments.			
The vertical compartment dimensions shall be as follows:			
	<u>AHEAD OF REAR AXLE</u>	<u>DIMENSION</u>	
A.	Overall Compartment height:	81.00	
B.	Compartment height above subframe:	62.00"	
C.	Compartment height below subframe:	17.1875"	
D.	Vertical Door Opening:	73.50"	
	<u>ABOVE REAR AXLE</u>	<u>DIMENSION</u>	
A.	Overall Compartment height:	51.625	

			Bidder Complies	
			YES	NO
B.	Vertical Door Opening:	43.50"		
	<u>AHEAD OF REAR AXLE</u>	<u>DIMENSION</u>		
A.	Overall Compartment height:	81.00		
B.	Vertical Door Opening:	73.50"		
	<u>REAR OF BODY</u>	<u>DIMENSION</u>		
A.	Overall Compartment height:	81.00		
B.	Compartment height above subframe:	62.00"		
C.	Compartment height below subframe:	17.1875"		
D.	Vertical Door Opening:	73.50"		
BODY WIDTH DIMENSIONS				✓
The body shall be 100.00" wide, and 102.00" wide at rub rails. Interior compartment depth dimensions shall be approximately:				
	<u>SIDE COMPARTMENTS</u>	<u>DIMENSION</u>		
E.	Transverse above subframe:	96.00"		
F.	Compartment depth below subframe:	24.625"		
	<u>REAR COMPARTMENT</u>	<u>DIMENSION</u>		
G.	Above subframe:	45.00		
H.	Compartment depth below subframe:	29.50"		
ROLL-UP DOORS				✓
All lower compartment doors shall be equipped with AMDOR brand roll-up doors. The slats shall be 1.00" double wall aluminum with continuous ball and socket hinge joints designed to prevent water ingress and weather tight recessed dual durometer seals.				
The interior door curtains shall be smooth to prevent equipment hang-ups. The door tracks and side frames shall each be one-piece aluminum. Each side seal shall be recessed, and non-marring with UV stabilizers to prevent warping.				
The bottom panel flange shall have cut-outs for ease of access with gloved hands. The door strikers shall provide support beneath the lift bar to prevent door curtain bounce and potential false door ajar indications.				
COMPARTMENT DOOR FINISH				✓
The roll up doors shall have a satin finish.				
COMPARTMENT LIGHTING				✓
Two (2) full height Luma Bar LED strip lights shall be installed inside each of the body compartments.				

	Bidder Complies	
	YES	NO
COMPARTMENT LIGHT ACTIVATION Each compartment light shall be controlled by a magnetic "On-Off" switch located on each compartment door.	✓	
KEYED / MANUAL DOOR LOCKS Each roll-up door shall have a cylindrical lock installed by the roll-up door manufacturer. The lock key type shall be: <u>J-236</u>	✓	
DOOR PULL STRAP One (1) Flex-HD pull-down strap shall be installed on each roll-up door. The strap shall be fastened to the lower left inside door sill of each compartment.	✓	
DRIP PAN WITH DRAIN Each door shall be supplied with a drip pan for protection. A drain hose will be attached to each drip pan and shall be routed below the body.	✓	
SIX (6) UPPER BODY COMPARTMENTS There shall be six (6) compartments parallel to the sides of the body, three (3) on each side. Each of these compartments shall be 54.00" long x 24.00" wide x 20.00" deep. The side compartments shall be open under each door sill to allow for long equipment. Each compartment shall have a lift-up type compartment door hinged on the outboard side. Each door shall be fabricated from 0.1875" aluminum tread plate. Each door shall have two (2) pneumatic type cylinders, one (1) at each end to hold the door in both the opened and closed positions.	✓	
COMPARTMENT LIGHTING Each compartment shall have one (1) 18.00" OnScene Solutions Access LED strip light mounted horizontally.	✓	
AUTOMATIC COMPARTMENT DOOR LIGHT SWITCH Each light and NFPA door ajar system shall be automatically activated by an individual switch per compartment.	✓	
UPPER BODY WALKWAY A 46.00" wide, upper body walkway shall be provided at the center of body and recessed into the roof structure. The walkway shall be fabricated from NFPA compliant 0.1875" aluminum tread plate.	✓	

	Bidder Complies	
	YES	NO
WALKWAY LIGHTING There shall be four (4) OnScene Solutions Rough-Service 8.00" LED lights provided to illuminate the walkway. Each light shall be mounted in an anodized aluminum housing to protect against damage from personnel or equipment.	✓	
WALKWAY LIGHTING ACTIVATION The walkway lighting shall be wired to activate with the parking brake.	✓	
WALKWAY EXTENSION STEP A 54.00" wide x 8.00" deep bolt-on type extension step shall be provided for safe transition from specified ladder to center walkway area. The step shall be fabricated from 0.1875" NFPA compliant treadplate aluminum with side gusset supports mounted to the body. The underside of step shall have a 28.00" OnScene LED light to light the bumper or compartment area below.	✓	
REAR BUMPER STEP The rear bumper step shall be 12.00" deep and full width. The outside corners will be a 45-degree chamfer to avoid injuries. A space shall be maintained between the body and the step. The step shall be supported by formed angles welded directly to the body. The step will be fabricated from .188" serrated bright aluminum treadplate.	✓	
ROOF ACCESS LADDER An access ladder shall provide at the rear of the apparatus. The ladder shall be located on the rear of the body. The ladder shall be a Zico Quic-Ladder Model # RL12. The ladder shall be 12.00" wide and shall be capable of extending off the body to provide a more comfortable climbing angle. The rungs shall be constructed of cast aluminum rungs and have a flat, non-skid surface to provide traction and safety. The handrails shall be constructed of 1.25" heavy-walled aluminum tubing, and shall be covered in a rough grip black powder coat. Ladder shall be located on right hand side rear of the body.	✓	
LEFT SIDE COMPARTMENT IN FRONT OF REAR WHEELS, L1 There shall be one (1) full height compartment ahead of the rear wheels, approximately 45.3125" wide. The compartment door opening shall be approximately 40.25" wide. The following shall be located in the compartment:	✓	

	Bidder Complies	
	YES	NO
- One (1) 250# floor mounted roll-out tray. - One (1) 500# floor mounted roll-out tray mounted on the extended floor of the compartment. The specified 500# floor mounted roll-out tray shall have a fixed vertical divider in the center of the tray for mount provisions.		
EXTENDED FLOOR SHELVING	✓	
The floor of the transverse area will be extended outward to the interior edge of the door opening. The floor shall have a 1.50" vertical lip and a 1.50" return to increase strength.		
ADJUSTABLE SHELVING TRACKS	✓	
There shall be vertically mounted uni-strut shelf trac for shelving installation.		
LEFT SIDE COMPARTMENT IN FRONT OF REAR WHEELS, L2	✓	
There shall be one (1) full height compartment ahead of the rear wheels, approximately 45.50" wide. The compartment door opening shall be approximately 40.25" wide.		
The following shall be located in the compartment:		
- Two (2) 250# floor mounted roll-out trays. One (1) shall be mounted on the floor of the compartment. The second shall be mounted on the extended floor of the compartment. - One (1) adjustable 500# roll-out / drop-tilt tray.		
EXTENDED FLOOR SHELVING	✓	
The floor of the transverse area will be extended outward to the interior edge of the door opening. The floor shall have a 1.50" vertical lip and a 1.50" return to increase strength.		
ADJUSTABLE SHELVING TRACKS	✓	
There shall be vertically mounted uni-strut shelf trac for shelving installation.		
LEFT SIDE ABOVE WHEEL COMPARTMENT, L3	✓	
There shall be one (1) full height compartment ahead of the rear wheels, approximately 79.25" wide. The compartment door opening shall be approximately 71.75" wide.		
The following shall be located in the compartment:		
- One (1) 1000# dual directional roll-out tray. The specified 1000# floor mounted roll-out tray shall have a fixed vertical divider in the center of the tray for mount provisions. - A Rescue Tool Storage module shall be installed in the compartment. It shall contain mounts for the following equipment:		

	Bidder Complies	
	YES	NO
• Two (2) back boards, accessible from L3/ R3. • Six (6) pike poles / New York Hooks, can be stored in L3 or R3. • One (1) set of air bags with match plywood base plates, accessible from L3 only. • One (1) rescue tri-pod, accessible from L3/ R3. • One (1) stokes bucket, accessible from L3/ R3. • Five (5) sheets of 4' x 5' plywood, accessible from L3/ R3. • One (1) Little Giant folding ladder, accessible from R3 only. • Fourteen (14) 4" x 4" x 8' long posts, accessible from L3/ R3.		
ADJUSTABLE SHELVING TRACKS		✓
There shall be vertically mounted uni-strut shelf trac for shelving installation.		
LEFT SIDE COMPARTMENT BEHIND REAR WHEELS, L4		✓
There shall be one (1) full height compartment ahead of the rear wheels, approximately 44.00" wide. The compartment door opening shall be approximately 41.75" wide.		
The following shall be located in the compartment:		
• Two (2) 250# rated vertical, pull-out tool boards. Each tool board shall be constructed of vertically mounted dual sided PAC-TRAC 7040 series allowing mounting of equipment on both sides of the tool board.		
ADJUSTABLE SHELVING TRACKS		✓
There shall be vertically mounted uni-strut shelf trac for shelving installation.		
RIGHT SIDE COMPARTMENT IN FRONT OF REAR WHEELS, R1		✓
There shall be one (1) full height compartment ahead of the rear wheels, approximately 45.3125" wide. The compartment door opening shall be approximately 40.25" wide.		
The following shall be located in the compartment:		
• One (1) 250# floor mounted roll-out tray. • One (1) 500# floor mounted roll-out tray mounted on the extended floor of the compartment. The specified 500# floor mounted roll-out tray shall have a fixed vertical divider in the center of the tray for mount provisions.		
EXTENDED FLOOR SHELVING		✓
The floor of the transverse area will be extended outward to the interior edge of the door opening. The floor shall have a 1.50" vertical lip and a 1.50" return to increase strength.		
ADJUSTABLE SHELVING TRACKS		✓

	Bidder Complies	
	YES	NO
There shall be vertically mounted uni-strut shelf trac for shelving installation.		
RIGHT SIDE COMPARTMENT IN FRONT OF REAR WHEELS, R2		✓
There shall be one (1) full height compartment ahead of the rear wheels, approximately 45.50" wide. The compartment door opening shall be approximately 40.25" wide.		
The following shall be located in the compartment:		
- Two (2) 250# floor mounted roll-out trays. One (1) shall be mounted on the floor of the compartment. The second shall be mounted on the extended floor of the compartment. - One (1) adjustable 500# roll-out / drop-tilt tray.		
EXTENDED FLOOR SHELVING		✓
The floor of the transverse area will be extended outward to the interior edge of the door opening. The floor shall have a 1.50" vertical lip and a 1.50" return to increase strength.		
ADJUSTABLE SHELVING TRACKS		✓
There shall be vertically mounted uni-strut shelf trac for shelving installation.		
RIGHT SIDE ABOVE WHEEL COMPARTMENT, R3		✓
There shall be one (1) full height compartment ahead of the rear wheels, approximately 79.25" wide. The compartment door opening shall be approximately 71.75" wide.		
The following shall be located in the compartment:		
The accessories in compartment R3 are transverse from compartment L3.		
ADJUSTABLE SHELVING TRACKS		✓
There shall be vertically mounted uni-strut shelf trac for shelving installation.		
RIGHT SIDE COMPARTMENT BEHIND REAR WHEELS, R4		✓
There shall be one (1) full height compartment ahead of the rear wheels, approximately 44.00" wide. The compartment door opening shall be approximately 41.75" wide.		
The following shall be located in the compartment:		
No shelving accessories are specified to go in compartment R4.		
ADJUSTABLE SHELVING TRACKS		✓

	Bidder Complies	
	YES	NO
There shall be vertically mounted uni-strut shelf trac for shelving installation.		
REAR CENTER COMPARTMENT, CR1		✓
There shall be one (1) full height compartment at the rear of the body, approximately 46.00" wide. The compartment door opening shall be approximately 43.75" wide.		
The following shall be located in the compartment:		
- One (1) 500# floor mounted roll-out tray. - One (1) 500# adjustable roll-out / drop-tilt tray.		
ADJUSTABLE SHELVING TRACKS		✓
There shall be vertically mounted uni-strut shelf trac for shelving installation.		
ROLL-OUT AWNING RIGHT HAND SIDE		✓
A Carefree Mirage, 110 Volt AC powered, lateral arm acrylic patio awning with Direct Response Electronics shall be installed on the right hand side of the body. The Direct Response Electronics includes easy-to-use controls and a Motion Detection System. The awning shall have a system to detect canopy motion, the most important element to prevent wind/weather damage. The awning shall automatically retract when the canopy reaches a certain level of movement, you determine the movement level on the control panel.		
Control shall be located in compartment R1.		
The awning shall activate the door ajar warning system in the cab when not in the stowed position.		
The 110V motor shall be completely sealed and UL approved. The awning pitch shall be adjusted to up to 30.00"		
The awning shall be 15.00' wide with a 10' projection, (size refers to box length; actual fabric length will be 8" shorter.)		
AWNING FABRIC COLOR		✓
The awning fabric color shall be Crimson red.		
AWNING HOUSING COLOR		✓
The awning housing shall be painted job color.		
NFPA 1900 CERTIFIED 12 VOLT ELECTRICAL SYSTEM		✓

	Bidder Complies	
	YES	NO
The 12-volt apparatus body electrical system shall be provided and shall be in compliance with NFPA 1900 testing and certification procedures as follows: NFPA MINIMUM ELECTRICAL LOAD DEFINITION The NFPA 1900 defined minimum electrical load shall consist of the total amperage required to simultaneously operate the following in a stationary mode: 1. Propulsion engine and transmission. 2. The clearance and marker lights. 3. Communication equipment. 5 amp default. 4. Illumination of all walking surfaces, the ground at all egress points, control and instrumentation panels and 50% of total compartment lighting. 5. Minimum warning lights required for "blocking right of way" mode. 6. The current to simultaneously operate and fire pump and all specified electrical devices. 7. Anything defined by the purchaser, in the advertised specifications, to be critical to the mission of the apparatus. RESERVE CAPACITY TEST The first electrical test to be performed will be the Reserve Capacity Test. All items listed in NFPA Minimum Load Definition shall be activated with the engine shut off. After 10 minutes of operation, the items 1-7 shall be deactivated. After deactivation, the battery system shall have ample reserve to start the engine. ALTERNATOR PERFORMANCE TEST AT IDLE The second electrical test to be performed shall be Alternator Performance Test at Full Load. All electrical loads shall be activated with the engine running up to the governed rpm for two hours. During the test, the system voltage shall not drop below 11.7 volts or have excessive battery discharge for more than 120 seconds. Any loads not defined in the NFPA Minimum Electrical Load may be load managed to pass test. TEST CONDITIONS All electrical testing shall be performed with the engine compartment at approximately 200 degrees. 12 VOLT ELECTRICAL SYSTEM The truck shall have a 12-Volt electrical system. All wiring will be run in convoluted high temperature plastic loom. Wiring shall be color and function coded and will be of adequate size to handle the assigned load. All solenoids, relays, and terminal blocks will be located in an easily accessible area. All circuits provided shall have properly rated low voltage over current protective devices.	✓	

	Bidder Complies	
	YES	NO
All wiring shall be stranded copper or copper alloy conductors of a gauge rated to carry 125 percent of the maximum current for the protected circuit. Voltage drops in all wiring from the power source to the using device shall not exceed 10 percent. The wiring and wiring harness and insulation shall be in conformance to applicable SAE and NFPA standards. The wiring harness shall conform to SAE J-1128 with GXL temperature properties. All exposed wiring shall be protected in a loom with a minimum 289 degree Fahrenheit rating. All wiring looms shall be properly supported and attached to body members. The electrical conductors shall be constructed in accordance with applicable SAE standards, except when good engineering practice requires special construction. All under side terminal junctions shall be fully enclosed in sealed plastic weather proof boxes. Electromagnetic interference suppression shall be provided as required to satisfy the radiation limits specified in SAE J551/1. CLASS1 ES-KEY SYSTEM The electrical system shall utilize Class1 Inc. ES-Key technology where applicable. The apparatus shall be equipped with a Class 1 ES-Key Management System for controlling electrical system devices. This management system shall be capable of performing load management functions, system switching, monitoring and reporting, and be fully programmable for a standardized electrical system utilizing the ES-Key Professional software program. SUPERNODE II The apparatus shall be equipped with a Class1 ES-Key system with a Supernode II high density input output node. The Supernode II shall have (24) inputs, (24) outputs, a Universal System Manager, a data logger, and programmable special utilities. The Supernode II shall have an integrated USB port to allow for direct connection to the ES-Key system without additional interface devices. LOAD MANAGER The Supernode II shall have an integrated Load Manager. The Load Manager Sequencer shall assure that loads are applied and removed gradually, thus eliminating the possibility of inducing failures in the vehicle's equipment. LOW VOLTAGE MONITOR A voltage monitor shall be built into the ES-Key electrical system. It shall activate a warning when the alternator output voltage falls below any desired voltage (usually 11.5 volts). ROCKER SWITCH PANEL - EIGHT (8) POSITION	✓	✓

	Bidder Complies	
	YES	NO
A lighted eight (8) position rocker type switch panel shall be installed to provide the ability to deactivate individual lighting units. The switches shall be Carling Contura V series rocker switches.		
A rocker switch with a blank legend installed directly below shall be provided for any position without a switch and legend designated by a specific option. The non-specified switches shall be two-position, black switches with a LED indicator light. Each blank switch legend can be custom ordered by the department once the apparatus is in service. All switch legends shall have backlighting provided.		
MASTER WARNING SWITCH		✓
A master switch shall be included in the main rocker switch panel. The rocker switch shall be labeled "Master Warning" for identification. The switch shall feature control over all devices wired through it. Any warning device switch shall automatically power up when the master switch is activated.		
CHASSIS GROUND LIGHTS		✓
Two (2) TecNiq model E10-WS00-1 LED ground lights with outward facing angle brackets shall be installed, one (1) under each chassis door.		
FRONT OF BODY GROUND LIGHTS		✓
Four (4) TecNiq model E10-WS00-1 LED ground lights with outward facing angle brackets shall be installed under the front of the body. Two (2) lights shall be located on the driver side and two (2) lights shall be located on the officer side of the apparatus.		
REAR OF BODY GROUND LIGHTS		✓
Two (2) TecNiq model E10-WS00-1 LED ground lights with outward facing angle brackets shall be installed under the rear of the body. One (1) light shall be located on the driver side and one (1) light shall be located on the officer side of the apparatus.		
REAR STEP GROUND LIGHTS		✓
Two (2) TecNiq model E10-WS00-1 LED ground lights with outward facing angle brackets shall be installed under the rear step of the apparatus, one (1) each side.		
GROUND LIGHT SWITCHING		✓
The cab and body ground lights shall activate by engaging the parking brake.		
HAZARD LIGHT		✓
One (1) flashing red LED light, located in the driving compartment, the light shall be illuminated automatically whenever any compartment door is ajar.		
The hazard light shall be marked with a sign that reads "Do Not Move Apparatus When Light is On".		

	Bidder Complies	
	YES	NO
The warning light shall be interlocked to the parking brake and shall only alert the driver when the parking brake is released. The light shall also be used to signal that other ancillary equipment such as racks light towers etc. are not in their “ready for transport” position.		
REAR DIRECTIONALS	✓	
Rear directional lighting shall be supplied as follows:		
Four (4) Whelen model M62BTT LED stop/tail/ turn lights shall be installed on the rear of the body, two (2) each side.. Each light shall have a red lens.		
Two (2) Whelen model M62BU LED reverse lights shall be installed on the rear of the body.		
HOUSINGS FOR DIRECTIONALS	✓	
Each light shall be mounted in a Whelen model M6FC Chrome Flange.		
Two (2) amber LED side marker and turn lights shall be provided on the apparatus lower side, forward of rear axle, one (1) each side if the apparatus is 30 feet long or longer.		
MARKER LIGHTS	✓	
LED marker lights shall be installed on the vehicle in conformance to the Department of Transportation requirements. The side and rear of the body will be provided with reflectors. All marker lights shall be incorporated into the headlight circuit of the cab/chassis		
Two (2) amber reflectors shall be provided on the apparatus body lower side, as far forward and low as practical, one (1) each side if the apparatus is 30 feet long or longer.		
Four (4) red reflectors shall be provided on the apparatus rear, one (1) each side and two (2) on the rear.		
LICENSE PLATE BRACKET	✓	
There shall be a license plate bracket mounted on the rear of the apparatus. A clear LED light shall be incorporated into the bracket		
LADDER STEP LIGHTS	✓	
Polished stainless steel, TecNiq Eon 3-LED horizontal surface mounted body step lights shall be provided and installed. The ladder step lights shall be located to properly illuminate the ladder access steps and shall include a mounting gasket to provide a watertight seal.		
STEP LIGHTS ACTIVATION	✓	

	Bidder Complies	
	YES	NO
The step light(s) shall be wired to activate with the parking brake.		
SIDE FACING UPPER FRONT BODY SCENE LIGHTS	✓	
One (1) pair of Whelen PCPSM1C Pioneer Single Surface LED scene lights shall be installed. Each of the 12V 76 watt light head shall generate 8,000 lumens. The lights shall be located on the left and right sides of the upper front portion of the apparatus body. Each light shall be supplied and installed with a <u>chrome</u> bezel.		
SIDE FACING UPPER REAR BODY SCENE LIGHTS	✓	
One (1) pair of Whelen PCPSM1C Pioneer Single Surface LED scene lights shall be installed. Each of the 12V 76 watt light head shall generate 8,000 lumens. The lights shall be located on the left and right sides of the upper rear portion of the apparatus body. Each light shall be supplied and installed with a <u>chrome</u> bezel.		
REAR FACING UPPER BODY SCENE LIGHTS	✓	
One (1) pair of Whelen M92SLC EZ Series LED scene lights shall be installed. The lights shall be located on the rear of the apparatus body, one (1) each side. Each light shall be supplied and installed with a <u>chrome</u> bezel.		
SCENE LIGHT SWITCHING	✓	
One (1) rocker switch with indicator shall be installed on the switch panel in the cab to control the left side scene light(s). The switch shall be labeled "LEFT SCENE".		
SCENE LIGHT SWITCHING	✓	
One (1) rocker switch with indicator shall be installed on the switch panel in the cab to control the rear scene lights. The switch shall be labeled "REAR SCENE".		
SCENE LIGHT SWITCHING	✓	
One (1) rocker switch with indicator shall be installed on the switch panel in the cab to control the right side scene lights. The switch shall be labeled "RIGHT SCENE".		
DUAL FUNCTION SCENE LIGHTING	✓	
The rear scene lights shall activate automatically upon placing the transmission into reverse.		
REAR VISION SYSTEM	✓	
One (1) complete backup camera system shall be provided. There shall be (1) camera located at the rear of the apparatus as close to the centerline as possible. The camera shall be capable of viewing		

	Bidder Complies	
	YES	NO
the entire area not visible in the side view mirrors. The camera shall have a 7.00" color display mounted in view of the driver. The system shall include audio transmission from the camera.		
The rear vision camera shall be wired to automatically activate when the chassis transmission is placed in reverse.		
The monitor for the rear vision system shall be mounted on the dash of the cab in easy view of the driver.		
NFPA AUDIBLE AND LIGHTING WARNING PACKAGE		✓
The following warning light package shall include all of the minimum warning light and actuation requirements for the current revision of the NFPA 1900. The lighting as specified shall meet the requirements for both "Clearing Right of Way" and "Blocking Right of Way" which includes disabling all white warning lights when the apparatus is in "Blocking Right of Way" mode.		
WARNING LIGHT FLASH PATTERN		✓
All of the perimeter warning lights shall be set to the default NFPA flash pattern as provided by the warning light manufacturer.		
WARNING LIGHT BAR		✓
One (1) WHELEN Freedom F4N2VLED 55.00" LED lightbar shall be supplied and mounted. The lightbar shall have clear lenses and contain the following modules: Four (4) RED Linear LED modules, two (2) on each corner. Two (2) RED Linear LED modules, across the front. Two (2) WHITE Linear LED modules, on the front.		
The forward facing white lights shall be automatically disabled for the "Blocking Right of Way" mode.		
LIGHT BAR SWITCHING		✓
One (1) momentary rocker switch with indicator shall be installed on the switch panel in the cab to control the light bar. The switch shall be labeled "LIGHT BAR". The switch shall only be active when the master warning switch is engaged.		
BROW LIGHT		✓
One (1) Whelen model# S44MW Pioneer Summit Series 44.00" LED scene light installed on the front of the cab. The 140 watt 12v DC Pioneer flood light shall have 19,440 usable lumens..The scene light shall be white in color.		
The scene light shall be mounted directly under the 55.00" Freedom light bar using an integrated light bar mount from Whelen.		

	Bidder Complies	
	YES	NO
BROW LIGHT SWITCHING One (1) rocker switch with indicator shall be installed on the switch panel in the cab to control the brow light. The switch shall be labeled "BROW LIGHT".	✓	
LIGHTBAR MOUNTING BRACKET The lightbar shall be mounted with the Whelen model MK7SS4 stainless steel, 10 degree adjustable, permanent mount.	✓	
SIDE FACING UPPER FRONT BODY WARNING LIGHTS One (1) pair of Whelen model M9 LED warning lights shall be installed, one (1) each side of the upper front portion of the apparatus body. The driver side warning light shall be a Whelen Model M9R <u>red</u> LED with <u>red</u> lens. The officer side warning light shall be a Whelen Model M9R <u>red</u> LED with <u>red</u> lens. Each light shall be mounted with a Whelen Model M9FC <u>chrome</u> flange.	✓	
SIDE FACING UPPER REAR BODY WARNING LIGHTS One (1) pair of Whelen model M9 LED warning lights shall be installed, one (1) each side of the upper rear portion of the apparatus body. The driver side warning light shall be a Whelen Model M9R <u>red</u> LED with <u>red</u> lens. The officer side warning light shall be a Whelen Model M9R <u>red</u> LED with <u>red</u> lens. Each light shall be mounted with a Whelen Model M9FC <u>chrome</u> flange.	✓	
UPPER REAR WARNING LIGHTS One (1) pair of Whelen model M9 LED warning lights shall be installed, one (1) each side of the upper rear of the apparatus body. The driver side warning light shall be a Whelen Model M9R <u>red</u> LED with <u>red</u> lens. The officer side warning light shall be a Whelen Model M9R <u>red</u> LED with <u>red</u> lens. Each light shall be mounted with a Whelen Model M9FC <u>chrome</u> flange.	✓	

	Bidder Complies	
	YES	NO
UPPER WARNING LIGHT SWITCHING One (1) rocker switch with indicator shall be installed on the switch panel in the cab to control the upper warning lights. The switch shall be labeled "UPPER WARNING". The switch shall only be active when the master warning switch is engaged.	✓	
LOWER FRONT WARNING LIGHTS One (1) pair of Whelen model M6 Series LED warning lights shall be installed, one (1) each side one the front of the chassis cab. The driver side warning light shall be a Whelen Model M6R <u>red</u> Super-LED with <u>red</u> lens. The officer side warning light shall be a Whelen Model M6R <u>red</u> Super-LED with <u>red</u> lens. Each light shall be mounted with a Whelen Model M6FC <u>chrome</u> flange.	✓	
LOWER INTERSECTION WARNING LIGHTS One (1) pair of Whelen model M6 LED warning lights shall be installed, one (1) each side of the chassis cab. The driver side warning light shall be a Whelen Model M6R <u>red</u> Super-LED with <u>red</u> lens. The officer side warning light shall be a Whelen Model M6R <u>red</u> Super-LED with <u>red</u> lens. Each light shall be mounted with a Whelen Model M6FC <u>chrome</u> flange.	✓	
LOWER MID-BODY WARNING LIGHTS One (1) pair of Whelen model M6 Series LED warning lights shall be installed, one (1) each side of the apparatus, mid-body. The driver side warning light shall be a Whelen Model M6R <u>red</u> Super-LED with <u>red</u> lens. The officer side warning light shall be a Whelen Model M6R <u>red</u> Super-LED with <u>red</u> lens. Each light shall be mounted with a Whelen Model M6FC <u>chrome</u> flange.	✓	
LOWER REAR WARNING LIGHTS One (1) pair of Whelen model M9 Series LED warning lights shall be installed, one (1) each side of the lower rear of the apparatus body.	✓	

	Bidder Complies	
	YES	NO
The driver side warning light shall be a Whelen Model M9R <u>red</u> LED with <u>red</u> lens.		
The officer side warning light shall be a Whelen Model M9R <u>red</u> LED with <u>red</u> lens.		
Each light shall be mounted with a Whelen Model M9FC <u>chrome</u> flange.		
LOWER WARNING LIGHT SWITCHING	✓	
One (1) rocker switch with indicator shall be installed on the switch panel in the cab to control the lower warning lights. The switch shall be labeled "LOWER WARNING". The switch shall only be active when the master warning switch is engaged.		
ELECTRIC SIREN AND CONTROL	✓	
One (1) Whelen model #295SLSA1 electronic siren shall be mounted in the cab. This unit shall feature an electronic air horn, wail, yelp, hi-lo and shall have a hard-wired PA microphone.		
ELECTRONIC SIREN SPEAKER	✓	
One (1) Federal Signal model ES100 Dynamax 100 watt speaker shall be flush mounted as far forward and as low as possible on the front of the vehicle. A polished model ESFMT with "Electric F" grille shall be provided on the outside of the speaker to prevent road debris from entering the speaker.		
The speaker shall produce a minimum sound output of 120 dB at 10 feet to meet current NFPA 1900.		
The speaker shall be located on the right hand side of the bumper.		
SIREN NOISE WARNING LABEL – FAMA #42	✓	
A permanent label shall be provided inside the driver's door warning of potential injury that could be received from the noise of the siren. The label shall also state safety precautions that should be taken when the siren is in use.		
NFPA 1900 110 / 220 VOLT POWER SOURCE TESTING	✓	
<u>Electrical System Testing:</u>		
The wiring and permanently connected devices and equipment shall be subjected to a dielectric voltage withstand test of 900 volts for one minute. The test shall be conducted between live parts and the neutral conductor, and between live parts and the vehicle frame with any switches in the circuit closed position. This test shall be conducted after all body work has been completed.		
Electrical polarity verification shall be made of all permanently wired equipment and receptacles to determine that connections have been properly made.		
<u>NFPA Operational Test</u>		

	Bidder Complies	
	YES	NO
The apparatus manufacturer shall perform the following operational test and shall certify that the power source and any devices that are attached to the line voltage electrical system are properly connected and in working order: The prime mover shall be started from a cold start condition and the line voltage electrical system loaded to 100 percent of the nameplate rating. The power source shall be operated at 100 percent of its nameplate voltage for a minimum of 2 hours unless the system meets category certification as defined in NFPA 1900. SMART POWER GENERATOR One (1) Smart Power Systems, Model HR-10, 10,000 watt hydraulic generator shall be provided. The generator is designed specifically for mounting on top of the vehicle, at the specified location. If required, the generator can be easily separated into its three major components (tray assembly, cooler/fan assembly, and reservoir) for customized mounting locations. The installation of the generator shall be designed for continuous operation without overheating and undue stress on components. The generator tray assembly shall be delivered with the cooler/fan assembly mounted such that 100% of the hot air is exhausted vertically. No exceptions. The generator system shall be provided with a digital meter display in compliance with NFPA 1901 Chapter 22.4.6. The CCC (Command and Control Center) meter panel display shall be an interactive operator control center, equipped with Smart Touch® solid state buttons, with displays for voltage, frequency, amperage, total running hours, service reminders, operator warnings, system faults and diagnostics. The generator and the Command Control Center both shall be 100% American made in the same manufacturing facility. No exceptions. Package & Features The unit shall come equipped with a generator tray assembly (which includes the generator, hydraulic motor, cooler, fan, electronics package, 10 micron spin-on fluid filter and reservoir), an axial piston hydraulic pump with pressure compensated control, and CCC digital meter panel display with all required wiring harnesses. The generator shall have the following features (no exceptions): • Severe duty generator with EG43 Marine grade winding overcoat • Class H winding insulation 180°C temperature rating • Smart Start engagement to reduce mechanical stress • Precise voltage and frequency control • Automatic Purge feature based on hydraulic pressure • Automatic Cold Start Protection to warm hydraulic fluid during cold weather • Automatic Alert and Shut Down Over Heat Protection • Automatic Alert and Shut Down Low Fluid Protection	✓	✓

	Bidder Complies	
	YES	NO
• Automatic Alert and Shut Down Over-Current Protection • Visual Service Reminders, Prognostics & Diagnostics The generator electrical enclosure, the oil cooler/fan module, the hydraulic fluid reservoir and other structural components shall have a Zinc protective coating and white powder coat finish. No exceptions. The generator tray assembly shall be delivered with the cooler/fan assembly mounted such that the hot air is exhausted vertically through the top of the assembly. An NFPA compliant aluminum grate will be attached over top of the assembly to provide a non-slip walking surface. The body of the generator tray assembly (including reservoir) shall be 32" long x 13.5" wide x 17" high, weighing approximately 280 pounds. Digital Meter Display Gauge The Command Control Center (CCC) digital meter display shall be in compliance with NFPA 1901 Chapter 22.4.6. The CCC shall be an interactive operator control center, equipped with Smart Touch® solid state buttons, with super bright red LED displays for: • Voltage (VAC) • Frequency (Hz) • Dual Current Display (Amps) • System Hydraulic Pressure (PSI) • Running Time Display (Hours) • Service Reminders • Operator Warnings • System Faults • Prognostics & Diagnostics The CCC shall be permanently mounted at an operator's panel, shall be located in a plane facing the operator, and shall be constructed in weatherproof integral enclosure/bezel. Prognostics and Diagnostics The generator system shall be equipped with diagnostic capabilities which are monitored by the operator through the CCC digital display meter panel and or the vehicle's multiplexing display screen. Some of the Diagnostics Features include: • Overheat Warning • System Service Reminders • Low Fluid Warning • No PTO Engagement Indication	✓	✓

		Bidder Complies	
		YES	NO
• Low DC Input Voltage Alert • Cooling Fan Problem Alerts All diagnostic codes that are stored on the generator ECU shall be retrievable from either the CCC and/or the multiplex system display screen (if applicable). No external device shall be required to access the ECU. No Exceptions.			
Chassis Transmission Drive			✓
The hydraulic pump shall be driven by the chassis transmission mounted power take off (PTO).			
Generator Operation			✓
The output of the generator shall be controlled by an integral, patented, solid state Electronic Control Unit. The ECU shall be connected directly to the NFPA 1901 required digital instrumentation display.			
The generator shall be operable in the stationary mode and/or when driving, utilizing the standard soft start system for engagement at any speed.			
The generator shall be engaged by a lighted control switch or through the multiplex system in the cab.			
Ratings and Capacity Rating:	12,000 watts peak		✓
	10,000 watts continuous		
Volts:	120/240 volts		
Phase:	Single, 4 wire		
Frequency:	60 Hz		
Amperage:	84 amps @ 120 volts or 42 amps @ 240 volts		
Engine speed at engagement:	Standard soft start feature allows for any speed engagement		
Pump (45cc) speed operation range:	1100 to 3120 RPM		
Pump (60cc) speed operation range:	850 to 2700 RPM		
Generator Speed:	3600 RPM		
LIGHT TOWER ORIENTATION			✓
The roof reinforcement shall be installed parallel to the front wall of the body.			
LIGHT TOWER LIGHT HEAD ORIENTATION			✓
The roof reinforcement shall be oriented in order for the light head on the light tower to be to the left side while in the stored position.			
WILL-BURT NIGHT SCAN CHIEF LIGHT TOWER			✓

	Bidder Complies	
	YES	NO
A Will-Burt Night Scan Chief NS 3.0-500-4 light tower shall be provided.		
Design and Construction The tower shall be a series of graduated extruded aluminum tubes that nest one inside another. The tower shall have an extended height of approximately 7.5 ft. above the mounting location and a stowed height of approximately 9.375" above the mounting surface. The tower shall be approximately 29.5" wide by 55.6875" in length. The tower shall be designed to sustain the intended top load with a 125 percent safety factor and shall exceed NFPA requirements of a minimum 50 mph wind when in a fully raised and unguyed position. The tower shall be of a compact design with a total weight of approximately 131 lbs. The light tower shall not exceed 150 lbs. The tower tubular sections shall be constructed of high strength, heat-treated 6061-T6 aluminum tubes and collars. Each tube shall be protected by low friction synthetic collars for smooth operation and long life. Bumpers shall be designed to reduce shock on extension and retraction. All exterior surfaces shall be anodized for long life and fasteners shall be stainless steel for corrosion resistance.	✓	
Nesting System The tower shall have an "auto-stow" function. A double click of the mast down button will stow, retract, and shut power off to the unit. An integrated saddle assembly with synthetic, non-marring rests shall be provided for the tower and flood light assembly in the nested position.	✓	
Floodlight Rotation and Tilt Operation The tower shall be equipped with a Will Burt Model RCP (remote control positioner) to control the rotation and direction of the light. The remote control positioner unit shall be equipped with two (2) gear motors; one for rotation and one for the floodlight bank. The positioner shall also rotate the floodlight assembly from zero to 355 degrees and tilt the floodlight assembly from 0 to 337 degrees.	✓	
Hand-held Wired Remote Control A safety yellow in color for high visibility, hand held remote control pendant, connected to a quick-disconnect, 25 ft. coiled cord shall be provided to control the tower. All functions of the tower shall be accessible through this remote control including elevating with "auto-up" ability, lowering with "auto-stow" ability, rotation and tilting of the floodlight assembly and floodlight switching. An auxiliary power button shall also be included to control optional equipment such as strobe lights or a camera that is mounted to the mast. A red emergency stop button shall be integrated into the hand held control for added safety or shall be located on the junction box. Each button of the controller shall have a corresponding LED light that provides operational feedback. An LED display that includes alphanumeric feedback shall be located in the center of the controller. This display shall provide operational feedback and error codes if they occur.	✓	
Pneumatic Controls	✓	

	Bidder Complies	
	YES	NO
The pneumatic controls to raise and lower the tower shall include an air regulator and solenoid valves. Lights will be operational within approximately 8 seconds from elevation initiation. The tower shall be able to be fully elevated in approximately 50 seconds. In the event of malfunction of the elevating system while the tower is in operation or being deployed, a method of limiting the rate of descent shall be provided to prevent injury to personnel or damage to the equipment. Two allen keys as well as directions are included under the cover to fold the mast into the saddle if manual stowage of mast is required. The air supply for pneumatic operation of the tower shall be from an integral compressor with air regulator. Electrical Installation The wiring harness for the floodlights, accessories, and remote control positioner shall be internally routed through telescoping aluminum tubing with a highly flexible coil cord. Installer supplied 12 electrical wiring shall be provided with electrical connections at the tower assembly in conjunction with appropriate electrical power for the floodlights. The installer as required by manufacturer's installation guidelines shall provide appropriate wiring from the circuit breaker panel for connection to the tower. The electric power to the tower and light units shall automatically disconnect whenever the tower is in the nested position. The tower operation area shall be illuminated automatically by a look up light whenever the tower is in operation. Any upward movement of the tower from the nested position shall energize a red warning light in the cab and a secondary light located at the tower control area. In addition, the installer shall provide parking brake interlocks and other equipment as required by applicable NFPA standards. Floodlight System Two 120/240 VAC to 24 VDC power converters will be supplied and will be remotely located in the vehicle and will supply power to six (6) Night Scan X 200 lamps. The 125 watt 10-60 VDC lighthouse shall incorporate a combination of 6 spot lenses and 14 flood lenses installed in an IP-69k rated die-cast white powder coated aluminum housing. The configuration shall consist of a total of 20 white LEDs with a clear optic reflector assembly, and a clear non-optic polycarbonate lens. The Night Scan X 200 shall have 20,000 raw lumens for a total of 120,000 lumens. The lens/reflector assembly shall utilize a liquid injection molded silicon gasket to be resistant to water, moisture, dust, and other environmental conditions. The hard-coated lens shall provide extended life/luster protection against UV and chemical stresses. The light shall be vibration resistant. The Night Scan X 200 shall have a limited lifetime warranty. The fixture shall measure H=5.6", W=7.6", D=3.7". Warranty The tower assembly shall carry a two (2) year parts and labor warranty. Exact provisions of such warranty shall be provided with the proposal and at time of delivery of product.	✓	✓

	Bidder Complies	
	YES	NO
Labeling and NFPA Compliance Essential operating instructions and warning labels shall be provided in compliance to applicable OSHA, SAE, and NFPA standards. Appropriate labels on the "hazards of electrocution" associated with the operation of a light tower shall be installed in the appropriate areas. A label shall be provided at the operator's position by the installer with the following information: 1. Extended height of the tower from the ground. 2. Bulb replacement data. The tower and installation shall be in full compliance to applicable sections of the current NFPA 1900 Standard. Testing and Quality Assurance The tower manufacturer shall be ISO 9001:2008 certified. In addition, quality control and manufacturer testing shall be completed prior to shipment of the tower. The final installer shall test the operation of the tower for a minimum of 2 hours at full load, with testing documentation provided upon delivery. Manuals Detailed service, parts, operating, and installation manuals shall be provided by the tower manufacturer. Samples of such manuals shall be provided on request. A CD ROM manual will be provided to the end user. Hand-held Wireless Remote Control A safety yellow in color for high visibility, wireless hand held remote control with a range of 100 feet and unique transmitting and receiving addresses to eliminate interference shall be provided to control the tower. All functions of the tower shall be accessible through this remote control including raising with "auto-up" ability, lowering with "auto-stow" ability, rotation and separate buttons for tilting of each floodlight bank and floodlight switching. An auxiliary power button shall also be included to control optional equipment such as strobe lights or a camera that is mounted to the mast. Each button of the controller shall have a corresponding LED light that provides operational feedback. An LED display that includes alphanumeric feedback shall be located in the center of the controller. This display shall provide operational feedback and error codes if they occur. CHASSIS PAINT The chassis shall be painted by the OEM Chassis Manufacturer.	✓ ✓ ✓ ✓ ✓	

		Bidder Complies	
		YES	NO
PAINT PROCESS			✓
The body exterior shall have no mounted components prior to painting to assure full coverage of treatments. Compartment doors (if applicable) will be painted separately to assure proper paint coverage on body, doorjambs and door edges. All surfaces shall be sanded to remove all burrs and imperfections before etching and treatment. The body shall be totally removed from the chassis during the painting process to ensure the entire unit is covered. PPG wax & grease solvent shall be used to clean and prep the body surface prior to any sanding. The surface shall then be rinsed with freshwater. This step removes wax, grease and other surface contaminants, thus leaving a bright, clean and conditioned surface.			
PAINT FINISH			✓
The body shall be painted with a PPG Delfleet Evolution Paint System. As part of the curing process the painted body shall go through a baking process. The painted components shall be baked at 185 degrees for 3 hours to achieve a complete coating cure on the finished product. After bake and ample cool down time, the coated surface shall be sanded using 3M 1000, 1200, and or 1500 grit sandpaper to remove surface defects. In the final step, the surface shall be buffed with 3M Super-duty compound to add extra shine to coated surface. No more than .5 mil shall be removed in this process. All products and technicians shall be certified by PPG every two (2) years.			
ANTI-CORROSION PROTECTION			✓
Where dissimilar metals must be joined, overlaid, share perforations or otherwise come in contact with each other to achieve construction, performance or aesthetic requirements, such items shall be separated by a continuous contact, nonconductive coating or film to prevent or otherwise mitigate the effects of electrolysis. Only stainless-steel hardware and fasteners shall be used in the construction of the apparatus. Where stainless steel fasteners pass through an aluminum component, the fastener contact surfaces, including the head, washer and nut shall be coated with ECK anti-corrosion material.			
UNDERCOATING			✓
The body underside, including the sub-frame and the inside of the wheel wells, NOT THE WHEEL WELL LINERS, shall be thoroughly coated with SWT commercial automotive undercoat and sound			

	Bidder Complies	
	YES	NO
deadening material to protect the body module against corrosion. The coating shall be black and shall be tested to ASTM B117 Salt Spray test for 1,000 hours at 10-mils.		
COMPARTMENT INTERIOR FINISH		✓
The interior of the compartments shall be finish painted with Multispec #344767 Gray Stone scuff resistant paint to provide a protective application over all of the compartment interior surfaces.		
WHEEL RIMS		✓
The chassis wheels shall be as furnished by the chassis OEM. No additional finishes shall be provided by apparatus manufacturer.		
REFLECTIVE LETTERING & STRIPING PACKAGE		✓
Bidder shall supply and install a standard reflective lettering and striping package on the proposed apparatus, per the purchaser's provided schematics.		
REAR CHEVRON STRIPING		✓
At least 50% of the rear facing vertical surface shall be covered with alternating strips of reflective striping.		
Each stripe shall be a minimum of 6.00" in width and shall be applied to the apparatus at 45° angle.		
RED & FLUORESCENT YELLOW GREEN ORALITE V98		✓
The Oralite V98 reflective tape shall be #12 red and #112 fluorescent yellow green in color.		
ONE YEAR APPARATUS WARRANTY		✓
The complete apparatus detailed herein shall be warranted against defects in materials and workmanship for a period of twelve (12) months, effective upon pick up or delivery of the completed apparatus to the purchaser, as detailed in the respective warranty documents. Any unauthorized alterations or modifications to the apparatus shall void this warranty.		
Other warrantees, as provided by individual component manufacturers, may extend beyond this warranty.		
APPARATUS BODY WARRANTY – TEN (10) YEARS		✓
The apparatus body as detailed herein shall have a structural warranty against defects in materials and workmanship for a period of ten (10) years, effective upon final payment in full by the Purchaser, and pick up or delivery of the completed apparatus to the Purchaser. Any unauthorized alterations or modifications to the body shall void this warranty.		
PAINT WARRANTY – FIVE (5) YEARS		✓

	Bidder Complies	
	YES	NO
The finish paint as used on the proposed apparatus shall be warranted against defects in materials and workmanship for a prorated period of five (5) years, effective upon final payment in full by the Purchaser, and pick up or delivery of the completed apparatus to the Purchaser. Any unauthorized alterations or modifications to the apparatus shall void this warranty. APPARATUS ELECTRICAL SYSTEM WARRANTY - TWO (2) YEARS The apparatus electrical system as detailed herein shall have an electrical warranty against defects in materials and workmanship for a period of two (2) years, effective upon final payment in full by the Purchaser, and pick up or delivery of the completed apparatus to the Purchaser. Any unauthorized alterations or modifications to the electrical system shall void this warranty. LOOSE EQUIPMENT The following loose equipment shall be provided with the apparatus: Two (2) ZICO #SAC-44 folding wheel chocks with mounting bracketry.	✓ ✓	



**NEW HAMPSHIRE DEPARTMENT OF ADMINISTRATIVE SERVICES
DIVISION OF PROCUREMENT AND SUPPORT SERVICES**

**REQUEST FOR BID
FOR
FIRE SERVICE VEHICLE**

4-27

DUE DATE: 7/22/2026 11:00 AM (EASTERN TIME)

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1. **PURPOSE:**

- 1.1. The purpose of this bid invitation is to establish a contract in the form of a purchase order, for supplying the State of New Hampshire with the item(s) indicated in the “Offer” section of this bid invitation, in accordance with the requirements of this bid invitation and any resulting order. This shall be a one-time order with delivery required to the location indicated in the F.O.B. section of this bid invitation.

2. **INSTRUCTIONS TO VENDOR:**

- 2.1. Read the entire bid invitation prior to filling it out. Complete the pricing information in the “Offer” section (detailed information on how to fill out the pricing information can be found in the “Offer” section); complete the “Vendor Contact Information” section; and finally, fill out, and sign the transmittal letter.

3. **BID SUBMITTAL:**

- 3.1. All bids shall be submitted on this form, or an exact copy shall be typed or clearly printed in ink and shall be received on or before the date and time specified in paragraph 7 of this bid under “Bid closing”. Interested parties may submit a bid to the State of New Hampshire Bureau of Purchase and Property by **email to NH.Purchasing@DAS.NH.Gov**. All bids shall be clearly marked with bid number, date due and purchasing agent’s name.
- 3.2. IF YOU ARE EXPERIENCING DIFFICULTIES EMAILING YOUR BID OR YOU WISH TO VERIFY THAT YOUR BID RESPONSE HAS BEEN RECEIVED, PLEASE CALL (603) 271-2201.

4. **BID INQUIRIES:**

- 4.1. Any questions, clarifications, and/or requested changes shall be submitted by an individual authorized to commit their organization to the Terms and Conditions of this bid and shall be received in writing at the Bureau of Purchase and Property no later than 4:00 PM on the date listed in paragraph 7. Questions shall not be submitted to anyone other than the Purchasing Agent or his/her representative. Bidders that submit questions verbally or in writing to any other State entity or State personnel shall be found in violation of this part and may be found non-compliant.
- 4.2. **Questions shall be submitted by email to Lincoln Adams at Lincoln.J.Adams@DAS.NH.Gov.**
- 4.3. Submissions shall clearly identify the bid Number, the Vendor’s name and address and the name of the person submitting the question.

5. **BID DUE DATE:**

- 5.1. All bid submissions shall be received at the Bureau of Purchase and Property no later than the date and time shown on the transmittal letter of this bid. Submissions received after the date and time specified shall be marked as “Late” and shall not be considered in the evaluation process.
- 5.2. All bid submissions shall be treated as firm offers to remain valid for acceptance for a period of one hundred eighty (180) days from the bid due date. The transmittal of a vendor’s response or bid submission to any State agency or office other than the Department of Administrative Services (DAS), Bureau of Purchase and Property may be grounds for disqualification.

6. **ADDENDA:**

- 6.1. In the event it becomes necessary to add to or revise any part of this bid prior to the scheduled submittal date, the NH Bureau of Purchase and Property shall post on our web site any Addenda. Before your submission and periodically prior to the RFB closing, **check the site for any addenda** or other materials that may have been issued affecting the bid. The web site address is <https://das.nh.gov/Purchasing/vendorresources.aspx>.

7. **TIMELINE:**

- 7.1. The timeline below is provided as a general guideline and is subject to change. Unless stated otherwise, consider the dates below a “no later than” date.

Bid Solicitation distributed on or by:	7/9/2026
Last day for questions, clarifications, and/or requested changes to bid:	7/17/2026
States response to questions, clarifications, and/or requested changes to bid:	7/20/2026
Bid Closing (Eastern Time):	7/22/2026 11:00 AM

8. GOVERNING TERMS AND CONDITIONS:

- 8.1. A responding bid that has been completed and signed by your representative shall constitute your company's acceptance of all State of New Hampshire terms and conditions and shall legally obligate your company to these terms and conditions.
- 8.2. A signed response further signifies that from the time the bid is published (bid solicitation date and time) until a contract is awarded, no bidder shall offer or give, directly or indirectly, any gift, expense reimbursement, or honorarium, as defined by RSA 15-B, to any elected official, public official, public employee, constitutional official, or family member of any such official or employee who shall select, evaluate, or award the RFB.
- 8.3. Furthermore, a signed response signifies that any terms and/or conditions that may be or have been submitted by the Vendor are specifically null and void and are not a part of this bid invitation or any awarded purchase order, even if said terms and/or conditions contain language to the contrary.
- 8.4. CHAPTER ADM 600 PROCUREMENT AND PROPERTY RULES APPLY TO AND ARE MADE A PART HEREOF.

9. NON-EXCLUSIVE CONTRACT:

- 9.1. Any resulting Contract from this RFB will be a non-exclusive Contract. The State reserves the right, at its discretion, to retain other Contractors to provide any of the Services or Deliverables identified under this procurement or make an award by item, part or portion of an item, group of items, or total Proposal.

10. PUBLIC DISCLOSURE OF BID OR PROPOSAL SUBMISSIONS:

- 10.1. Generally, the full contents of any proposal (including all materials submitted in connection with it, such as attachments, exhibits, addenda, and vendor presentations) become public information upon completion of final contract or purchase order negotiations with the selected vendor. Certain information concerning proposals, including but not limited to scoring, is generally available to the public even before this time, in accordance with the provisions of NH RSA 21-G:37.
- 10.2. Confidential, commercial, or financial information may be exempt from public disclosure under RSA 91-A:5, IV. Any and all information contained in or connected to a bid or proposal that a Bidder considers confidential shall be clearly designated in the following manner:
- 10.3. **If the Bidder considers any portion of a submission confidential, they shall provide a separate copy of the full and complete document, fully redacting those portions by blacking them out and shall note on the applicable page or pages of the document that the redacted portion or portions are stamped or otherwise marked with the notation "confidential."** Use of any other term or method, such as stating that a document or portion thereof is "proprietary", "not for public use", or "for client's use only", is not acceptable. In addition to providing an additional fully redacted copy of the bid submission to the person listed as the point of contact on Page one (1) of this document, the identified information considered to be confidential must be accompanied by a separate letter stating the rationale for each item designated as confidential. In other words, the letter must specifically state why and under what legal authority each redaction has been made. Submissions which do not conform to these instructions by failing to include a redacted copy (if required), by failing to include a letter specifying the rationale for each redaction, by failing to designate redactions in the manner required by these instructions, or by including redactions which are contrary to these instructions or operative law may be rejected by the State as not conforming to the requirements of the bid or proposal. Marking or designating an entire proposal, attachment, or section as confidential shall neither be accepted nor honored by the State. Marking an entire bid, proposal, attachment or full sections thereof confidential without taking into consideration the public's right to know shall neither be accepted nor honored by the State.
- 10.4. Notwithstanding any provision of this request for submission to the contrary, proposed pricing shall be subject to public disclosure REGARDLESS of whether or not marked as confidential.
- 10.5. If a request is made to the State by any person or entity to view or receive copies of any portion of a proposal, the State will assess what information it believes is subject to release; notify the Bidder that the request has been made; indicate what, if any, portions of the proposal or related material shall be released; and notify the Bidder of the date it plans to release the materials. To halt the release of information by the State, a Bidder must initiate and provide to the State, prior to the date specified in the notice, a court action in the Superior Court of the State of New Hampshire, at its sole expense, seeking to enjoin the release of the requested information.
- 10.6. By submitting a proposal, Bidders acknowledge and agree that:

- 10.6.1. The State may disclose any and all portions of the proposal or related materials which are not marked as confidential and/or which have not been specifically explained in the letter to the person identified as the point of contact for this RFB;
- 10.6.2. The State is not obligated to comply with a Bidder's designations regarding confidentiality and must conduct an independent analysis to assess the confidentiality of the information submitted in your proposal; and
- 10.6.3. The State may, unless otherwise prohibited by court order, release the information on the date specified in the notice described above without any liability to a Bidder.

11. VENDOR CERTIFICATIONS:

- 11.1. All Vendors shall be duly registered as a vendor authorized to conduct business in the State of New Hampshire.
- 11.2. STATE OF NEW HAMPSHIRE VENDOR APPLICATION: Prior to bid award, Vendors shall have a completed Vendor Application Package on file with the NH Bureau of Purchase and Property. See the following website for information on obtaining and filing the required forms (no fee):
<https://das.nh.gov/purchasing/vendorresources.aspx>.

12. VENDOR RESPONSIBILITY:

- 12.1. The successful Vendor shall be solely responsible for meeting all terms and conditions specified in the bid, and any resulting contract. It is a prospective Vendor's responsibility to access our website to determine any bid invitation under which they wish to participate. It is also the Vendor(s)'s responsibility to access our website for any posted addendum.
- 12.2. All State of New Hampshire bid invitations and addenda to these bid invitations are advertised on our website at: <https://das.nh.gov/purchasing/vendorresources.aspx>.
- 12.3. The website is updated several times per day; it is the responsibility of the prospective Vendor(s) to access the website frequently to ensure no bidding opportunity or addenda is overlooked.
- 12.4. It is the prospective Vendor's responsibility to forward a signed copy (if the form has a signature block) of any addenda to the Bureau of Purchase and Property with the bid response.
- 12.5. In preparation of your bid response, you shall:
 - 12.5.1. Complete the pricing information in the "Offer" section; and
 - 12.5.2. You may include quote separately, but the **OFFER SECTION MUST** be completed for compliant acceptance.
 - 12.5.3. Complete all other required information on your offer (if applicable); and
 - 12.5.4. Complete the "Vendor Contact Information" section; and
 - 12.5.5. Complete the company information on the "Transmittal Letter" page, and sign under penalty of unsworn falsification in the space provided on that page.

13. WARRANTY REQUIREMENTS:

- 13.1. Successful Vendor shall be required to warranty all of the equipment/item awarded to Vendor for a period of not less than one (1) year or the manufacturer's standard period of time, whichever is greater, from the date the items are received, inspected and accepted by the State of New Hampshire. The warranty shall cover 100% of all parts, shipping, labor, travel, lodging and expenses.

14. BID PRICES:

- 14.1. Bid prices shall remain firm for the entire contract period and shall be in US dollars and **shall include delivery and all other costs** required by this bid invitation. Special charges, surcharges (including credit card transaction fees), or fuel charges of any kind (by whatever name) **may not be added on at any time**. Any and all charges **shall be built into your bid price** at the time of the bid. Unless otherwise specified, prices shall be F.O.B. DESTINATION, (included in the price bid), which means delivered to a state agency's receiving dock or other designated point as specified in this contract or subsequent purchase orders without additional charge. Shipments shall be made in order to arrive at the destination at a satisfactory time for unloading during receiving hours.
- 14.2. Per Administrative Rule 606.01(e) "if there is a discrepancy between the unit price and the extension price in a response to an RFP, RFB or RFQ, the unit price shall be binding upon the vendor".
- 14.3. Price decreases shall become effective immediately as they become effective to the general trade or the Vendor's best/preferred customer.

15. AUDITS AND ACCOUNTING:

- 15.1. The successful Vendor shall allow representatives of the State of New Hampshire to have complete access to all records for the purpose of determining compliance with the terms and conditions of this bid invitation and in determining the award and for monitoring any resulting contract.

16. TERMS OF PAYMENT:

- 16.1. Payment shall not be due until 30 days after the invoice has been received at the agency business office or all items have been delivered, inspected, and accepted by the agency, whichever is later.
- 16.2. Payments shall be made via ACH unless otherwise specified by the State of New Hampshire. Use the following link to enroll with the State Treasury for ACH payments: <https://www.nh.gov/treasury/state-vendors/index.htm>.

17. INVOICING:

- 17.1. Itemized invoices shall be submitted to accountspayable@dos.nh.gov after delivery of the products and include the following at a minimum:
- 17.1.1. State of NH purchase order (PO) number
 - 17.1.2. State of NH ordering agency information
 - 17.1.2.1. Name and contact information of ordering individual
 - 17.1.2.2. Name of ordering state agency / department
 - 17.1.2.3. Address of ordering state agency / department
 - 17.1.2.4. Name and contact information of ordering state agency accounts payable office
 - 17.1.3. Date of purchase
 - 17.1.4. Date of delivery
 - 17.1.5. Vendor order number
 - 17.1.6. Vendor account representative name and contact information
 - 17.1.7. Product description, quantity ordered, quantity delivered, unit price, total price for payment
- 17.2. Payment shall not be due until 30 days after the invoice has been received at the agency business office or all items have been delivered, inspected, and accepted by the agency, whichever is later.

18. AWARD:

- 18.1. The award shall be made to the Vendor meeting the criteria established in this RFB and providing the lowest cost in total . The State reserves the right to reject any or all bids or any part thereof and add/delete items/locations to the contract. The award shall be, in the form of a State of New Hampshire Contract in the form of a purchase order.
- 18.2. Successful Vendor shall not be allowed to require any other type of purchase order, nor shall the successful Vendor be allowed to require the filling out or signing of any other document by State of NH personnel.

19. BID RESULTS:

- 19.1. Bid results may be viewed when available, once the award has been made, on our web site only at: <https://apps.das.nh.gov/bidscontracts/bids.aspx>.
- 19.2. For Vendors wishing to attend the bid closing: Names of the Vendors submitting responses and pricing shall be made public to the above website. In lieu of in person public bid openings the State shall conduct openings via electronic means until further notice.

20. TERMINATION:

- 20.1. The State of New Hampshire shall have the right to terminate the purchase contract at any time by giving the successful Vendor a thirty (30) day written notice.

21. F.O.B.:

- 21.1. The F.O.B. shall be destination to the following delivery point (included in the price bid), which means delivered to a state agency's receiving dock or other designated point as specified in this bid or subsequent purchase orders without additional charge:

**NH Fire Academy
98 Smokey Bear Blvd,
Concord, NH 03301**

**Please contact Jeffery Phillips 48 hours prior to any delivery.
Jeffery Phillips 603-491-457 Jeffrey.R.Phillips@DOS.NH.GOV**

FOR QUESTIONS PERTAINING TO THIS BID PLEASE SEE PARAGRAPH 4.

21.2. Requisition No.: TBD

22. RETURNED GOODS:

- 22.1. The successful Vendor shall resolve all order and invoice discrepancies within five business days from notification. Products returned due to quality issues, duplicate shipments, over-shipments, etc. shall be picked up by the successful Vendor within ten business days of notification with no restocking or freight charges and shall be replaced with specified products or the agency shall be refunded/credited for the full purchase price. Unauthorized substitutions for any products are not allowed.
- 22.2. The signature of state personnel on shipping documents shall signify the receipt but not the acceptance of the shipment signed for.

23. SPECIFICATION COMPLIANCE:

- 23.1. Vendor's offer shall meet or exceed the required specifications as written. The State of New Hampshire shall be the sole determining factor of what meets or exceeds the required specifications.
- 23.2. Unless otherwise specified by the Bureau of Purchase and Property in this bid invitation document, all equipment/items offered by the Vendor **shall be new (and of the current model year, if applicable); shall not be used, rebuilt, refurbished; shall not have been used as demonstration equipment, and shall not have been placed anywhere for evaluation purposes.**
- 23.3. The manufacturer(s) and/or model(s) indicated in this bid are equivalent to the type and quality required. **YOU MAY BID DIFFERENT MAKE(S) AND MODEL(S);** however, your offer shall match or exceed the one(s) indicated and you shall demonstrate to the satisfaction of the purchasing Agency that they meet or exceed the minimum standards. Items that do not meet the minimum standards shall not be accepted. **Product literature and specifications MUST be enclosed.**

24. SPECIFICATIONS:

- 24.1. In responding to the bid invitation, the prospective Vendor shall address all requirements for information as outlined herein.
- 24.2. **PLEASE SEE ATTACHMENT 1 SPECIFICATIONS:**
- 24.3. Vendors shall provide material safety data sheets with the delivery of any and all products covered by RSA 277-A, the "Worker's Right to Know Act."

25. ENVIRONMENTALLY FRIENDLY PRODUCTS:

- 25.1. In accordance with State of New Hampshire RSA 9-C, the Bureau of Purchase and Property has an obligation to put into practice the interdependent principles of waste reduction, recycling, and recycled products purchasing. Contractors should supply environmentally preferable materials that meet performance requirements wherever practical in the fulfillment of this regulation. Environmentally preferable products and services have characteristics that include, but are not limited to, the following:
 - 25.1.1. Energy or water efficient
 - 25.1.2. Reusable
 - 25.1.3. Recyclable
 - 25.1.4. Contains postconsumer recycled materials
 - 25.1.5. Produces fewer polluting byproducts or safety hazards during manufacture, use, or disposal
 - 25.1.6. Certified by an independent, third-party eco-label (e.g., Green Seal, EcoLogo, etc.)
- 25.2. Suppliers citing environmentally preferred product claims shall follow the Federal Trade Commission's Green Marketing Guidelines and provide proper certification or detailed information on environmental benefits, durability, and recyclable properties as an **attachment with their bid submission.**
- 25.3. Whenever possible, Contractors shall eliminate PVC or polystyrene due to environmental and human health concerns. Contractors must notify the State if a product contains mercury and/or PFAS.
- 25.4. To promote fuel efficiency and reduce greenhouse gases and air pollution, Contractors are encouraged to use a SmartWay Transport/Carrier Partner for the shipment or transport of products. A list of SmartWay Transport partners can be found here: <https://www.epa.gov/smartway/smartway-partner-list>.

26. OFFER:

26.1. The bidder offers to sell to the state of New Hampshire the commodities or services indicated at the price or prices quoted and in compliance with the requirements and specifications of the bid. **Quotes in lieu of a completed offer sheet will not be accepted.**

26.2.

QTY	UNIT	DESCRIPTION	TOTAL COST
1	EA	Fire Service Vehicle – Per specs (OR EQUIVALENT)	\$ 588,418.00
Bidders MUST submit product literature and specifications with their bid submission			

26.3. Please provide the MFG/MAKE/MODEL:

Fouts Brothers Kenworth T480 Medium Duty Rescue Fire Apparatus

27. DELIVERY TIME:

27.1. Successful Vendor agrees to complete delivery of items **within 120 days** after receipt of Purchase Order or sooner to location noted on paragraph 21 FOB. Prices offered shall include all products and delivery costs.

28. ATTACHMENTS:

28.1. The following attachments are an integral part of this bid invitation:

28.1.1. Attachment 1: SPECIFICATIONS

29. VENDOR CONTACT INFORMATION:

29.1. Please provide contact information below for a person knowledgeable of and who can answer questions regarding this bid response.

Andrew Tullo

860-878-7841

Contact Person

Local Telephone Number

Toll Free Telephone Number

atullo@bulldogfa.com

www.bulldogfireapparatus.com

E-mail Address

Company Website

Bulldog Fire Apparatus Inc.

17 Winter Street, Woodville, MA 01784

Vendor Company Name

Vendor Address

165645

115249278

LXP8S7M682Y4

Vendor Number (provided by State of NH)

DUNS and/or SAM.GOV Number

30. NOTE: TO BE CONSIDERED, BID TRANSMITTAL LETTER SHALL BE SIGNED IN THE SPACE PROVIDED.**31. THE BID OPENING IS OPEN TO THE PUBLIC ONLINE AT THE FOLLOWING:****Microsoft Teams meeting**

Join: <https://teams.microsoft.com/meet/21475549607418?p=fdYPLYIkoDs8dxrUNl>

Meeting ID: 214 755 496 074 18

Passcode: Be2ed9ze

[Need help?](#) | [System reference](#)

Dial in by phone

[+1 603-931-4944,,682293459#](#) United States, Concord

[Find a local number](#)

Phone conference ID: 682 293 459#

Join on a video conferencing device

Tenant key: nhgov@m.webex.com

Video ID: 118 637 133 3

[More info](#)

For organizers: [Meeting options](#) | [Reset dial-in PIN](#)



STATE OF NEW HAMPSHIRE TRANSMITTAL LETTER

State of New Hampshire
Division of Procurement and Support Services
Bureau of Purchase and Property
25 Capitol Street, Room 102, State House Annex
Concord, NH 03301-6398

Date: 7/9/2026
Bid No.: 4-27
Date of Bid Closing: 7/22/2026
Time of Bid Closing: 11:00 AM (ET)

PLEASE EMAIL ANY QUESTIONS REGARDING THIS BID TO LINCOLN ADAMS AT LINCOLN.J.ADAMS@DAS.NH.GOV.
EMAIL YOUR BID TO: NH.PURCHASING@DAS.NH.GOV.

BID INVITATION FOR FIRE SERVICE VEHICLE

[Insert name of signor] Andrew Tullo, on behalf of Bulldog Fire Apparatus, Inc. [insert name of entity submitting bid (collectively referred to as "Vendor") hereby submits an offer as contained in the written bid submitted herewith ("Bid") to the State of New Hampshire in response to BID 4-27 at the price(s) quoted herein in complete accordance with the bid.

Vendor attests to the fact that:

1. The Vendor has reviewed and agreed to be bound by the Bid.
2. The Vendor has not altered any of the language or other provisions contained in the Bid document.
3. The Bid is effective for a period of 180 days from the Bid Closing date as indicated above.
4. The prices Vendor has quoted in the Bid were established without collusion with other vendors.
5. The Vendor has read and fully understands this Bid.
6. Further, in accordance with RSA 21-I:11-c, the undersigned Vendor certifies that neither the Vendor nor any of its subsidiaries, affiliates or principal officers (principal officers refers to individuals with management responsibility for the entity or association):
 - a. Has, within the past 2 years, been convicted of, or pleaded guilty to, a violation of RSA 356:2, RSA 356:4, or any state or federal law or county or municipal ordinance prohibiting specified bidding practices, or involving antitrust violations, which has not been annulled;
 - b. Has been prohibited, either permanently or temporarily, from participating in any public works project pursuant to RSA 638:20;
 - c. Has previously provided false, deceptive, or fraudulent information on a vendor code number application form, or any other document submitted to the state of New Hampshire, which information was not corrected as of the time of the filing a bid, proposal, or quotation;
 - d. Is currently debarred from performing work on any project of the federal government or the government of any state;
 - e. Has, within the past 2 years, failed to cure a default on any contract with the federal government or the government of any state;
 - f. Is presently subject to any order of the department of labor, the department of employment security, or any other state department, agency, board, or commission, finding that the applicant is not in compliance with the requirements of the laws or rules that the department, agency, board, or commission is charged with implementing;
 - g. Is presently subject to any sanction or penalty finally issued by the department of labor, the department of employment security, or any other state department, agency, board, or commission, which sanction or penalty has not been fully discharged or fulfilled;
 - h. Is currently serving a sentence or is subject to a continuing or unfulfilled penalty for any crime or violation noted in this section;
 - i. Has failed or neglected to advise the division of any conviction, plea of guilty, or finding relative to any crime or violation noted in this section, or of any debarment, within 30 days of such conviction, plea, finding, or debarment; or
 - j. Has been placed on the debarred parties list described in RSA 21-I:11-c within the past year.

This document shall be signed by a person who is authorized to legally obligate the responding vendor. A signature on this document indicates that all State of New Hampshire terms and conditions are accepted by the responding vendor and that any and all other terms and conditions submitted by the responding vendor are null and void, even if such terms and conditions have terminology to the contrary. The responding vendor shall also be subject to State of New Hampshire terms and conditions as stated on the reverse of the purchase order.

Authorized Signor's Signature  Authorized Signor's Title Sales Representative

GENERAL TERMS AND CONDITIONS

NATURE OF, AND ELIGIBILITY TO RESPOND. This bid invitation is submitted in accordance with Chapter 21-1, and rules promulgated thereunder, and constitutes a firm and binding offer. A bid may not be withdrawn unless permission is obtained from the Bureau of Purchase and Property.

Bids may be issued only by the Bureau of Purchase and Property and are not transferable.

SAMPLES AND DEMONSTRATIONS. When samples are required they must be submitted free of costs and will not be returned. Items left for demonstration or evaluation purposes shall be delivered and installed free of charge and shall be removed at no cost to the State. Demonstration units shall not be offered to the State as new equipment.

BIDS. Bids must be received at the Bureau of Purchase and Property before the date and time specified for the closing. Bids must be submitted on this bid form or exact copies and must be typed or clearly printed in ink. Corrections must be initialed. Bids are to be made less Federal Excise Tax and no charge for handling unless required by law.

SPECIFICATIONS. Vendors must submit on items as specified. Proposed changes must be submitted in writing and received at the Bureau of Purchase and Property at least five (5) business days prior to the bid closing. Vendors shall be notified in writing if any changes to the specifications are made.

AWARD. The award will be made to the responsible Vendor submitting a conforming bid meeting specifications at the lowest cost unless other criteria are noted in the bid. Unless otherwise noted, the award may be made by individual items.

If there is a discrepancy between the unit price and the extension, the unit price will prevail.

When identical low bids are received the award will be made in accordance with the Administrative Rules.

Discounts will not be considered in making award but may be offered on the Invoice for earlier payment and will be applicable on the date of completion of delivery or receipt of Invoice, whichever is later. On orders specifying split deliveries, discounts will apply on the basis of each delivery or receipt of Invoice, whichever is later.

PATENT INFRINGEMENT. Any responding vendor who has reason to believe that any other responding vendor will violate a patent should such responding vendor be awarded the contract shall set forth in writing, prior to the date and time of closing, the grounds for his belief and a detailed description of the patent.

ASSIGNMENT PROVISION. The responding vendor hereby agrees to assign all causes of action that it may acquire under the antitrust laws of New Hampshire and the United States as the result of conspiracies, combinations, or contracts in restraint of trade which materially affect the price of goods or services obtained by the state under this contract if so requested by the State of New Hampshire.

FEDERAL FUNDS. This Division of Plant and Property Management, under RSA 21- I:14, VIII shall assure the continuation or granting of federal funds or other assistance not otherwise provided for by law by following the Federal Procurement Standards.

STATE'S OPTIONS: The Bureau of Purchase and Property reserves the right to reject or accept all or any part of any bid, to determine what constitutes a conforming bid, to award the bid solely as it deems to be in the best interest of the State, and to waive irregularities that it considers not material to the bid.

PUBLIC INFORMATION: The responding vendor hereby acknowledges that all information relating to this bid and any resulting order (Including but not limited to fees, contracts, agreements and prices) are subject to these laws of the State of New Hampshire regarding public information.

PERSONAL LIABILITY: The responding vendor agrees that in the preparation of this bid or the execution of any resulting contract or order, representatives of the State of New Hampshire shall incur no liability of any kind.

PROOF OF COMPLIANCE. The responding vendor may be required to supply proof of compliance with proposal specifications. When requested, the responding vendor must immediately supply the Bureau of Purchase and Property with certified test results or certificates of compliance. Where none are available, the State may require independent laboratory testing. All costs for such testing certified test results or certificate of compliance shall be the responsibility of the responding vendor.

FORM OF CONTRACT. The terms and conditions set forth in any additional Terms and Conditions by the Bureau of Purchase and Property are part of the bid and will apply to any contract awarded the responding vendor unless specific exceptions are taken and accepted and will prevail over any contrary provisions in Terms and Conditions submitted by the responding vendor.

CONTRACT TERMS AND CONDITIONS

1. The State of New Hampshire, acting through the Division of Procurement and Support Services, engages the firm or individual ("the Vendor") to perform the services and/or sale of goods, described in the attached State documents, if any, and the Vendor's bid or quotation, both of which are incorporated herein by reference.

2. COMPLIANCE BY VENDOR WITH LAWS AND REGULATIONS. In connection with the performance of this agreement, the Vendor shall comply with all statutes, laws, regulations, and orders of federal, state, county or municipal authorities which shall impose any obligation or duty upon the Vendor, including, but not limited to civil rights and equal opportunity laws.

3. TERM. The contract, and all obligations of the parties thereunder, shall become effective on a specified date and shall be completed in their entirety prior to a specified date. Any work undertaken by the Vendor prior to the effective date shall be at his sole risk and, in the event that the contract shall not become effective, the State shall be under no obligation to reimburse the Vendor for any such work.

4. CONTRACT PRICE. The contract price, a payment schedule and a maximum limitation of price shall be as specified by the bid invitation and the Vendor's bid. All payments shall be conditioned upon receipt, and approval by the State, of appropriate vouchers and upon satisfactory performance by the Vendor, as determined by the State. The payment by the State of the Contract Price shall constitute complete reimbursement to the Vendor for all expenses of any nature incurred by the Vendor in the performance by the Vendor and complete payment for the Services. The State shall have no other liability to the Vendor.

5. DELIVERY. If the vendor fails to furnish items and/or services in accordance with all requirements, including delivery, the state may re-purchase similar items from any other source without competitive bidding, and the original vendor may be liable to the state for any excess costs. If a vendor is unable to complete delivery by the date specified, he must contact the using agency. However, the agency is not required to accept a delay to the original delivery date. All deliveries are subject to inspection and receiving procedure rules as established by the State of New Hampshire. Deliveries are not considered accepted until compliance with these rules has been established. State personnel signatures on shipping documents shall signify only the receipt of shipments. All deliveries shall be FOB Destination.

6. INVOICING. All invoices must list Order Number, Unit and Extension Prices and discounts allowed. A separate invoice shall be submitted for each order. Unless otherwise noted on the invitation to bid or purchase order, payment will not be due until thirty (30) days after all services have been completed, or all items have been delivered, inspected and accepted or the invoice has been received at the agency business office, whichever is later.

7. PERSONNEL.

7.1. The Vendor shall disclose in writing the names of all owners (5% or more), directors, officers, employees, agents or subcontractors who are also officials or employees of the State of New Hampshire. Any change in this information shall be reported in writing within fifteen (15) days of their occurrence.

7.2. The person signing this agreement on behalf of the State, or his or her delegee ("Contracting Officer") shall be the State's representative for purposes of this agreement. In the event of any dispute concerning the interpretation of this agreement, the Contracting Officer's decision shall be final.

8. EVENT OF DEFAULT; REMEDIES.

8.1. Any one or more of the following acts or omissions of the Vendor shall constitute an event of default hereunder ("Events of Default"):

8.1.1. failure to deliver the goods or services satisfactorily or on schedule; or

8.1.2. failure to submit any report required hereunder; or

8.1.3. failure to perform any of the other covenants and conditions of this agreement.

8.2. Upon the occurrence of any Event of Default, the State may take any one, or more, or all, of the following actions:

8.2.1. give the Vendor a written notice specifying the Event of Default and requiring it to be remedied within, in the absence of a greater or lesser specification of time, thirty (30) days from the date of the notice; and if the Event of Default is not timely remedied, terminate this agreement, effective two (2) days after giving the Vendor notice of termination; and

8.2.2. give the Vendor a written notice specifying the Event of Default and suspending all payments to be made under this agreement and ordering that the portion of the Contract Price, which would otherwise accrue to the Vendor during the period from the date of such notice until such time as the State determines that the Vendor has cured the Event of Default, shall never be paid to the Vendor; and

8.2.3. set off against any other obligation the State may owe to the Vendor any damages the State suffers by reason of any Event of Default; and

8.2.4. treat the agreement as breached and pursue any of its remedies at law or in equity, or both.

9. WAIVER OF BREACH. No failure by the State to enforce any provisions hereof after any Event of Default shall be deemed a waiver of its rights with regard to that Event, or any subsequent Event. No express failure of any Event of Default shall be deemed a waiver of any provision hereof. No such failure or waiver shall be deemed a waiver of the right of the State to enforce each and all of the provisions hereof upon any further or other default on the part of the Vendor.

10. VENDOR'S RELATION TO THE STATE. In the performance of this agreement the Vendor is in all respects an independent contractor, and is neither an agent nor an employee of the State. Neither the Vendor nor any of its officers, employees, agents or members shall have authority to bind the State nor are they entitled to any of the benefits, workmen's compensation or emoluments provided by the State to its employees.

11. ASSIGNMENT AND SUBCONTRACTS. The Vendor shall not assign, or otherwise transfer any interest in this agreement without the prior

written consent of the State. No work required by this contract shall be subcontracted without the prior written consent of the State.

12. INDEMNIFICATION. The contractor shall defend, indemnify and hold harmless the State, its officers and employees, from and against any and all losses suffered by the State, its officers and employees, and any and all claims, liabilities or penalties asserted against the State, its officers and employees, by or on behalf of any person, on account of, based on, resulting from, arising out of (or which may be claimed to arise out of) the acts or omissions of the Vendor. Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the sovereign immunity of the State, which immunity is hereby reserved to the State. This covenant shall survive the termination of this agreement.

12.1 PATENT PROTECTION. The seller agrees to indemnify and defend the State of New Hampshire from all claims and losses resulting from alleged and actual patent infringements and further agrees to hold the State of New Hampshire harmless from any liability arising under RSA 382-A:2-312(3). (Uniform Commercial Code).

13. TOXIC SUBSTANCES. In compliance with RSA 277-A Toxic Substances in the Workplace known as the Workers Right to Know Act, the vendor shall provide Safety Data Sheets (277-A:4 Safety Data Sheets) for all products covered by said law.

14. NOTICE. Any notice by a party hereto to the other party shall be deemed to have been duly delivered or given at the time of mailing by certified mail, postage prepaid, in a United States Post Office addressed to the parties at the addresses given below.

15. AMENDMENT. This agreement may be amended, waived or discharged only by an instrument in writing signed by the parties hereto.

16. CONSTRUCTION OF AGREEMENT AND TERMS. This agreement shall be construed in accordance with the laws of the State of New Hampshire, and is binding upon and inures to the benefit of the parties and their respective successors and assigns.

17. ADDITIONAL PROVISIONS. The additional provisions (if any) have been set forth as Exhibit "A" hereto.

18. ENTIRE AGREEMENT. This agreement, which may be executed in a number of counterparts, each of which shall be deemed an original, constitutes the entire agreement and understanding between the parties, and supersedes all prior agreements and understandings relating hereto.



CERTIFICATE OF NON-COLLUSION

The undersigned certifies, under penalties of perjury, that this Bid or proposal is genuine and has been made and submitted in good faith and without collusion or fraud, with and other bidder or person. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club or other organization, entity or group of individuals. We further certify that we have not colluded, conspired, connived or agreed (directly or indirectly) with any bidder or person to put in a sham bid, or that such other person shall refrain from bidding, and has not in any manner sought by agreement or collusion, communication or conference with any person to fix the bid price of the bidder or any other bidder from the written contract, or to fix any overhead, profit or cost element of said price, or that of any other bidder, or to secure any advantage against the owner, or any other person interested in the proposed contract; and that all statements contained in said bid are to the best of our knowledge true; and further, that the bidder has not, prior to the official opening of the bid, directly or indirectly, submitted this bid, or the contents thereof, or divulged information or data relative thereto, to any association or to any member or agent thereof, or to any person who is not an employee of the bidder, except the Surety which furnished bid security or to a financial institution which provided a lease/ purchase proposal which is part and parcel of this bid.

Authorized Officer Signature

BULLDOG FIRE APPARATUS

20-2744533

Federal Identification No.



TAX ATTESTATION

Pursuant to M.G.L. Ch. 62C, Sec. 49A, I certify under the penalties of perjury that Bulldog Fire Apparatus, to my best knowledge and belief, has filed all state returns and paid all state taxes required by law.

A handwritten signature in blue ink, appearing to be "Chris Tuller", written over a horizontal line.

Authorized Signature

BULLDOG FIRE APPARATUS

Federal Identification No.

20-2744533



GENERAL WARRANTY
ONE YEAR LIMITED

1. LIMITED WARRANTY

Except as provided below, Fouts Bros. provided to the original owner a general warranty for a period ending one year after delivery. Fouts Bros. warrants to the user the new Fire and Rescue Apparatus vehicle shall be free from defects in material and workmanship under normal use and service. This limited warranty shall apply only if the vehicle is properly maintained and used in service which is normal to the particular vehicle. Normal service means service which does not subject the vehicle to stresses or impacts greater than normal results from the careful use of the vehicle or chassis. If the buyer discovers a defect or nonconformity it must notify Fouts Bros. in writing within thirty (30) days after the date of discovery. This limited warranty is not transferable by the first user.

Fouts Bros. makes no warranty whatsoever as to (1) Integral parts, components, attachments or trade accessories not manufactured by Fouts Bros., but instead, the applicable warranties, if any, of the respective manufacturers thereof shall apply; (2) Any vehicle, chassis or component, part, attachment or accessory damaged by misuse, neglect or accident; (3) Any vehicle chassis or component, part, attachment or accessory shall have been repaired, altered or assembled in any way by others other than Fouts Bros., which, in sole judgment of Fouts Bros., affects the performance, stability or purpose for which it was manufactured; (4) Products or parts which are not defective but which may wear out and have to be replaced during the warranty period including, but not limited to, fasteners. Fouts Bros. assumes no responsibility for the assembly of its parts or sub-assembly into finished products unless the assembly is performed by Fouts Bros..

The original owner may void this warranty in part or in its entirety if one or more components of the new Fire and Rescue Apparatus are repaired or replaced (1) without prior written approval of the Fouts Bros. Service Department (2) at a facility which is not then approved by Fouts Bros. as to technical capability.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTIES SET FORTH IN PARAGRAPH 1 ARE THE EXCLUSIVE WARRANTIES GIVEN BY FOUTS BROS. FOUTS BROS. HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESSED, IMPLIED OR STATUTORY, INCLUDING ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY IMPLIED WARRANTIES OTHERWISE ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYERS REMEDIES

If the product fails to conform to the warranties set forth in paragraph 1 and such nonconformity is not due to misuse or improper maintenance, the buyer shall notify Fouts Bros. as provided in paragraph 1, and shall make the product available for inspection by Fouts Bros. or its designated agent. At the request of Fouts Bros. any defective part shall be returned to Fouts Bros. for examination, with transportation charges prepaid and assumed by the shipper. Within a reasonable time Fouts Bros. shall provide, at its discretion, one of the following (a) repair or replacement of any nonconforming or defective parts; or (b) full refund of the purchase price. Repair or replacement shall be made only by a facility approved in advance by Fouts Bros. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

IN NO EVENT SHALL FOUTS BROS. BE LIABLE FOR ANY INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER RESULTING FROM NONDELIVERY OR FROM THE USE, MISUSE OR INABILITY TO USE THE PRODUCT OR FROM DEFECTS IN THE PRODUCT OR FROM THE NEGLIGENCE OF FOUTS BROS. OR FROM TORT. This exclusion applies regardless of whether such damages are sought for breach of warranty, breach of contract, negligence or strict liability or tort or under any other legal theory.

NOTE: Surety Bond, if a part of the sale of the vehicle, to which this limited warranty is provided, applies only to the General One Year Warranty for such vehicle, and not to any other warranty made by Fouts Bros. or any Fouts Bros. Supplier.



ELECTRICAL SYSTEM
TWO YEAR LIMITED WARRANTY

1. LIMITED WARRANTY

Except as provided below, Fouts Bros. provides to the original owner an Electrical warranty for a period ending two years after delivery. Fouts Bros. warrants to the user the electrical system on its new Fire and Rescue Apparatus vehicle shall be free from defect. This limited warranty shall apply only if the vehicle is properly maintained and used in service which is normal to the particular vehicle. Normal service means service which does not subject the vehicle to stresses or impacts greater than normal results from the careful use of the vehicle or chassis. If the buyer discovers a defect or nonconformity it must notify Fouts Bros. in writing within thirty (30) days after the date of discovery. This limited warranty is not transferable by the first user.

Fouts Bros. makes no warranty whatsoever as to (1) Integral parts, components, attachments or trade accessories not manufactured by Fouts Bros., but instead, the applicable warranties, if any, of the respective manufacturers thereof shall apply; (2) Any vehicle, chassis or component, part, attachment or accessory damaged by misuse, neglect or accident; (3) Any vehicle chassis or component, part, attachment or accessory shall have been repaired, altered or assembled in any way by others other than Fouts Bros., which, in sole judgment of Fouts Bros., affects the performance, stability or purpose for which it was manufactured; (4) Products or parts which are not defective but which may wear out and have to be replaced during the warranty period including, but not limited to, fasteners. Fouts Bros. assumes no responsibility for the assembly of its parts or sub-assembly into finished products unless the assembly is performed by Fouts Bros..

The original purchaser may void this warranty in part or in its entirety if one or more electrical components of the body are repaired or replaced (1) without prior written approval of the Fouts Bros. Service Department (2) at a facility which is not then approved by Fouts Bros. as to technical capability.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTIES SET FORTH IN PARAGRAPH 1 ARE THE EXCLUSIVE WARRANTIES GIVEN BY FOUTS BROS. FOUTS BROS. HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESSED, IMPLIED OR STATUTORY, INCLUDING ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY IMPLIED WARRANTIES OTHERWISE ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYERS REMEDIES

If the product fails to conform to the warranties set forth in paragraph 1 and such nonconformity is not due to misuse or improper maintenance, the buyer shall notify Fouts Bros. as provided in paragraph 1, and shall make the product available for inspection by Fouts Bros. or its designated agent. At the request of Fouts Bros. any defective part shall be returned to Fouts Bros. for examination, with transportation charges prepaid and assumed by the shipper. Within a reasonable time Fouts Bros. shall provide, at its discretion, one of the following (a) repair or replacement of any nonconforming or defective parts; or (b) full refund of the purchase price. Repair or replacement shall be made only by a facility approved in advance by Fouts Bros. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

IN NO EVENT SHALL FOUTS BROS. BE LIABLE FOR ANY INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER RESULTING FROM NONDELIVERY OR FROM THE USE, MISUSE OR INABILITY TO USE THE PRODUCT OR FROM DEFECTS IN THE PRODUCT OR FROM THE NEGLIGENCE OF FOUTS BROS. OR FROM TORT. This exclusion applies regardless of whether such damages are sought for breach of warranty, breach of contract, negligence or strict liability or tort or under any other legal theory.

NOTE: Surety Bond, if a part of the sale of the vehicle, to which this limited warranty is provided, applies only to the General One Year Warranty for such vehicle, and not to any other warranty made by Fouts Bros. or any Fouts Bros. Supplier.



Five (5) YEAR PAINT/CORROSION (Non-Prorated)

1. LIMITED WARRANTY

Except as provided below, Fouts Bros. provides to the original owner a paint/ corrosion warranty for a period of five years after delivery. Fouts Bros. warrants to the original owner that its body is free of adhesion defects caused by defective paint application or selection of paint materials for exterior surfaces of the cab and body of the vehicle. This limited warranty shall apply only if the vehicle is properly maintained and used in service which is normal to the particular vehicle. Normal service means service, which does not subject the vehicle to stresses or impacts greater than normal results from the careful use of the vehicle or chassis. If the original owner discovers a defect or nonconformity it must notify Fouts Bros. in writing within thirty (30) days after the date of discovery. This limited warranty is not transferable by the original owner, and is applicable to the vehicle in the following percentage costs of warranty repair, if any:

Five (5) Year Paint/Corrosion Limited Warranty

This limited warranty applies only to exterior body paint. Paint on the vehicle's undercarriage, cab and body interior is warranted only under the Fouts Bros. General One Year Limited Warranty.

In addition to the foregoing, and subject to all of the terms and conditions of the Limited Warranty, except cost allocations, Fouts Bros. warrants its body exterior for a period of **FIVE (5) YEARS** against corrosion perforation.

Fouts Bros. makes no warranty whatsoever as to (1) Integral parts, components, attachments or trade accessories not manufactured by Fouts Bros., but instead, the applicable warranties, if any, of the respective manufacturers thereof shall apply; (2) Any vehicle, chassis or component, part, attachment or accessory damaged by misuse, neglect or accident; (3) Any vehicle chassis or component, part, attachment or accessory shall have been repaired, altered or assembled in any way by others other than Fouts Bros., which, in sole judgment of Fouts Bros., affects the performance, stability or purpose for which it was manufactured; (4) Products or parts which are not defective but which may wear out and have to be replaced during the warranty period; (5) Damage from exposure to corrosive agents. Fouts Bros. assumes no responsibility for the assembly of its parts or sub-assembly into finished products unless the assembly is performed by Fouts Bros..

2. DISCLAIMERS OF WARRANTIES

THE WARRANTIES SET FORTH IN PARAGRAPH 1 ARE THE EXCLUSIVE WARRANTIES GIVEN BY FOUTS BROS. FOUTS BROS. HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESSED, IMPLIED OR STATUTORY, INCLUDING ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY IMPLIED WARRANTIES OTHERWISE ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYERS REMEDIES

If the product fails to conform to the warranties set forth in paragraph 1 and such nonconformity is not due to misuse or improper maintenance, the buyer shall notify Fouts Bros. as provided in paragraph 1, and shall make the product available for inspection by Fouts Bros. or its designated agent. At the request of Fouts Bros. any defective part shall be returned to Fouts Bros. for examination, with transportation charges prepaid and assumed by the shipper. Within a reasonable time Fouts Bros. shall provide, at its discretion, one of the following (a) repair or replacement of any nonconforming or defective parts; or (b) full refund of the purchase price. Repair or replacement shall be made only by a facility approved in advance by Fouts Bros.. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Warranty Exclusions:

- Damage from exposure to corrosive agents.
- Hazing, chalking or loss of gloss caused by improper care, abrasive polishes, cleaning agents, heavy-duty pressure washing or aggressive mechanical wash systems.
- Paint deterioration caused by abuse, accidents, acid rain, chemical fallout or acts of nature.
- Exception is made for PPG supplied anti-graffiti coatings systems cleaned with PPG approved cleaning products.

- Accidents, scratches, chips, bruises and gloss reduction due to normal vehicle use and maintenance.
- Custom finishes; exotic finishes or any finish not conforming to standard refinish procedures.
- Finishes on vehicles used for competitive purposes.
- Failures resulting from product misuse or abuse.
- Repairs done over previously refinished areas unless stripped to bare metal or appropriate substrate.
- Claims presented without proper Warranty documentation
- Failure on finishes utilizing products not approved by PPG for use in systems applied on vehicles covered under the warranty.
- Failure on finishes performed by NON-PPG Certified Refinish Technicians.
- Failure on finishes performed by Non-PPG Certified Repair Centers.
- Failure on finishes performed by PPG Certified Refinisher that has let their certification expire.

IN NO EVENT SHALL FOUTS BROS. BE LIABLE FOR ANY INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER RESULTING FROM NONDELIVERY OR FROM THE USE, MISUSE OR INABILITY TO USE THE PRODUCT OR FROM DEFECTS IN THE PRODUCT OR FROM THE NEGLIGENCE OF FOUTS BROS. OR FROM TORT. This exclusion applies regardless of whether such damages are sought for breach of warranty, breach of contract, negligence or strict liability or tort or under any other legal theory.

NOTE: Surety Bond, if a part of the sale of the vehicle, to which this limited warranty is provided, applies only to the General One Year Warranty for such vehicle, and not to any other warranty made by Fouts Bros. or any Fouts Bros. Supplier.



TEN YEAR BODY STRUCTURAL INTEGRITY WARRANTY

1. LIMITED WARRANTY

Except as provided below, Fouts Bros. provides to the original owner a structural warranty for a period ending on the first to occur of the expiration of ten years or 100,000 miles of vehicle use after delivery. Fouts Bros. warrants to the user the sub-frame of its new Fire and Rescue Apparatus vehicle shall be free of structural failures caused by defective design or workmanship.

This warranty shall apply only to the body sub-frame, sheet metal compartments and mounting structures and other structural components of the body of the vehicle, as identified in the Fouts Bros. specifications for the Fire and Rescue Apparatus. This limited warranty shall apply only if the vehicle is properly maintained and used in service which is normal to the particular vehicle. Normal service means service, which does not subject the vehicle to stresses or impacts greater than normal results from the careful use of the vehicle or chassis. If the buyer discovers a defect or nonconformity it must notify Fouts Bros. in writing within thirty (30) days after the date of discovery. This limited warranty is not transferable by the first user.

Fouts Bros. makes no warranty whatsoever as to (1) Integral parts, components, attachments or trade accessories not manufactured by Fouts Bros., but instead, the applicable warranties, if any, of the respective manufacturers thereof shall apply; (2) Any vehicle, chassis or component, part, attachment or accessory damaged by misuse, neglect or accident; (3) Any vehicle chassis or component, part, attachment or accessory shall have been repaired, altered or assembled in any way by others other than Fouts Bros., which, in the sole judgment of Fouts Bros., affects the performance, stability or purpose for which it was manufactured; (4) Products or parts which are not defective but which may wear out and have to be replaced during the warranty period including, but not limited to, fasteners. Fouts Bros. assumes no responsibility for the assembly of its parts, or sub-assembly into finished products, unless the assembly is performed by Fouts Bros.

The original purchaser may void this warranty in part or in its entirety if one or more structural components of the body are repaired or replaced (1) without prior written approval of the Fouts Bros. Service Department (2) at a facility which is not then approved by Fouts Bros. as to technical capability.

Seller reserves the unrestricted right at any time, from time-to-time, to make changes in the design of and/or improvements on its products without thereby imposing any obligation on itself to make corresponding changes or improvements in, or on, its products previously manufactured or sold.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTIES SET FORTH IN PARAGRAPH 1 ARE THE EXCLUSIVE WARRANTIES GIVEN BY FOUTS BROS. FOUTS BROS. HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESSED, IMPLIED OR STATUTORY, INCLUDING ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY IMPLIED WARRANTIES OTHERWISE ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYERS REMEDIES

If the product fails to conform to the warranties set forth in paragraph 1 and such nonconformity is not due to misuse or improper maintenance, the buyer shall notify Fouts Bros. as provided in paragraph 1, and shall make the product available for inspection by Fouts Bros. or its designated agent. At the request of Fouts Bros. any defective part shall be returned to Fouts Bros. for examination, with transportation charges prepaid and assumed by the shipper. Within a reasonable time Fouts Bros. shall provide, at its discretion, one of the following (a) repair or replacement of any nonconforming or defective parts; or (b) full refund of the purchase price. Repair or replacement shall be made only by a facility approved in advance by Fouts Bros.. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

IN NO EVENT SHALL FOUTS BROS. BE LIABLE FOR ANY INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER RESULTING FROM NONDELIVERY OR FROM THE USE, MISUSE OR INABILITY TO USE THE PRODUCT OR FROM DEFECTS IN THE PRODUCT OR FROM THE NEGLIGENCE OF FOUTS BROS. OR RESULTING FROM ANY TORT CLAIMS. This exclusion applies regardless of whether such damages are sought for breach of warranty, breach of contract, negligence or strict liability or from an alleged tort or under any other legal theory.