



# VILLAGE OF LYTTON

PO Box 100, 380 Main Street, Lytton, BC V0K 1Z0

P: 250-455-2355 F: 250-455-2142

[hotspot@lytton.ca](mailto:hotspot@lytton.ca)

Dated: June 15 2019

## **REQUEST FOR PROPOSAL: PUMPER TRUCK**

**RFP REF #: PUMPER TRUCK-RFP-LYTTON-2019**

### **GENERAL CONDITIONS :**

**1. Closing:**

**Closing Location**

380 Main Street,  
PO Box 100  
Lytton, BC V0K 1 Z0

**Closing Date and Time**

3:00 pm Pacific Daylight Time  
July 15, 2019

**2. Proposals Submitted in sealed envelopes , plainly marked with the following label:**

**PUMPER TRUCK-RFP-LYTTON-2019**

Attention: Peter Njenga, Chief Financial Officer  
Village of Lytton  
380 Main Street,  
PO Box 100  
Lytton, BC V0K 1Z0

- NOTES:**
- 2a. Facsimile and email submissions will not be considered.**
  - 2b. Late Proposals will not be considered.**
  - 2c. Proposal Cover page is the Proposal Form as per Appendix A**

**3. Inquiries regarding this proposal should be written through email and directed to:  
Peter Njenga / CFO ; Email. [cfo@lytton.ca](mailto:cfo@lytton.ca)**

**4. INTENT**

The Corporation of the Village of Lytton (“The Village”) is seeking Proposals from qualified suppliers for the supply and delivery of one (1) pumper Truck set out in Appendix C, Technical Specifications, and the Request for Proposal (RFP) documents.

**5. TERMS AND CONDITIONS**

The above and the following terms and conditions apply to this RFP. Submission of a Proposal in response to this RFP indicates acceptance of all the terms that follow and that are included in any addenda issued by the Village.

**6. CHANGES TO PROPOSALS**

By submission of a written notice, a Proponent may amend or withdraw its Proposal prior to the closing date and time.

Upon Closing, all Proposals become irrevocable. The Proponent may not change the wording of its Proposal after Closing and no words or comments may be added to the Proposal unless requested by the Village for clarification.

**7. PROPONENTS’ EXPENSES**

Proponents are solely responsible for their own expenses in preparing a Proposal. If the Village elects to reject all Proposals, the Village will not be liable to any Proponent for any claims for costs or damages incurred by the Proponent in preparing the Proposal, loss of anticipated profit in connection with a final Contract, costs for returning unopened Proposals, or any matter whatsoever.

**8. PROPOSAL VALIDITY**

Proposals will be open for acceptance for at least 30 days after the closing.

**9. FIRM PRICING**

a) Proponents shall base their Proposal on furnishing everything required to complete the manufacture of the pumper Truck as per required specifications, including all labour, materials, tools, equipment, travel costs and incidentals.

b) Proposals must include a Proponent maximum fee including sub-consultants to complete this purchase as set out in Appendix C, Technical Specifications, and the RFP documents.

c) Prices will be firm for the entire Contract period.

**10. CURRENCY AND TAXES**

Prices shall be quoted using Appendix B, Quote Sheet and will be in Canadian Dollars and inclusive of duty (where applicable), delivery charges (FOB Village Fire Department), and exclusive of GST and other taxes and charges which shall be shown separately as applicable.

**11. SUB-CONTRACTING**

Should the Proponent wish to use a sub-Contractor(s) to carry out any of the requirements, they must list them and the role they will play in the manufacture of the pumper truck

## **12. PROPONENT LOCATION**

The equipment and manpower used in the service process of the purchased pumper Truck must be located at a facility that is located in BC, Canada. The Proponent's company may be headquartered out of the province but any proposal where the service or maintenance of the apparatus based solely on services provided by out of province or out of country staff will not be accepted.

## **13. ACCEPTANCE OF PROPOSALS**

- a) This RFP must not be construed as an agreement to purchase goods or services. The Village is not bound to accept the lowest priced or any Proposal of those submitted. The Village is under no obligation to receive further information, whether written or oral, from any Proponent.
- b) Neither acceptance of a Proposal nor execution of a Contract will constitute approval of any activity contemplated in any Proposal that requires any approval, permit or license pursuant to any federal, provincial, or municipal statute, regulation or bylaw.
- c) The Village reserves the right to reject any Proposal and to accept any Proposal notwithstanding any non-compliance with this RFP. The Village may select any Proposal for acceptance or negotiation with the Proponent by selecting the Proposal which the Village, in its sole unrestricted discretion and on the basis of such criteria as it considers appropriate, deems to be in the best interests of the Village.
- d) No Proponent shall have any claim for any compensation of any kind whatsoever, as a result of participating in the RFP, whether in respect of Proposal preparation costs, loss of anticipated profit, or any other matter whatsoever, and by submitting a Proposal each Proponent shall be deemed to have irrevocably waived any such claim.
- e) The Village reserves the right to cancel this RFP at any time and for any reason, and in so doing to reject all Proposals, and will not be responsible for any loss, damage, cost or expense incurred or suffered by any Proponent as a result of such cancellation.
- f) The Village reserves the right to enter into negotiations with one or more Proponents concerning the terms and conditions of the services to be provided, and expressly reserves the right through such negotiations to request changes, alterations, additions or deletions from the terms of any Proposals received.
- g) The Village reserves the right to select one or more Proponents for further consideration following the initial proposal evaluation process. The Village may require an on-site inspection of an apparatus that is similar to the custom apparatus being offered by the bidder with Proponents selected for final consideration, prior to negotiating a contract.
- h) The acceptance of any Proposal is subject to funding and may require approval of the Council and/or any other stakeholder.
- j) After acceptance by the Village, the successful Proponent will be issued a written Notice of Award.

#### **14. DEFINITION OF CONTRACT**

Notice in writing to a Proponent of the acceptance of its Proposal by the Village and the subsequent full execution of a written Contract will constitute a Contract for the Services, and no Proponent will acquire any legal or equitable rights or privileges relative to the goods or services until the occurrence of both such events. By submission of a Proposal, the Proponent agrees that, should it be identified as the successful Proponent, it is willing to enter into a Contract with the Village within fifteen (15) days of the date of the Notice of Award.

#### **15. LIABILITY FOR ERRORS**

While the Village has used considerable efforts to ensure an accurate representation of information in this RFP, the information contained in this RFP is supplied solely as a guideline for Proponents. The information is not guaranteed or warranted to be accurate by the Village, nor is it necessarily comprehensive or exhaustive. Nothing in this RFP is intended to relieve Proponents from forming their own opinions and conclusions with respect to the matters addressed in this RFP.

#### **16. MODIFICATION OF TERMS**

The Village reserves the right to modify the terms of the RFP at any time at its sole discretion. Such modifications will be communicated to all Proponents through formal addenda.

#### **17. OWNERSHIP OF PROPOSALS AND FREEDOM OF INFORMATION**

All documents, including Proposals, submitted to the Village become the property of the Village. Each Proposal should clearly identify any information that is considered to be confidential or proprietary information.

However, the Village is subject to the provisions of the *Freedom of Information and Protection of Privacy Act*. As a result, while section 21 of the *Freedom of Information and Protection of Privacy Act* does offer some protection for confidential third party business, financial and proprietary information, the Village cannot guarantee that any such information provided to the Village will remain confidential if a request for access is made under the *Freedom of Information and Protection of Privacy Act*.

#### **18. CONFIDENTIALITY OF INFORMATION**

Information pertaining to the Village obtained by the Proponent as a result of participation in this project is confidential and must not be disclosed without written authorization from the of Village.

#### **19. PROPOSALS ARE TO INCLUDE THE FOLLOWING SECTIONS:**

- i) **General:** An introductory cover letter that includes a general background overview of the Proponent, identification of similar goods provided for other clients and outline of expected approach for successfully undertaking the manufacturing of the apparatus.
- ii) **Relevant Experience:** This section must include:
  - a) A background of the business that outlines what the company does and how many years they've been in business manufacturing similar products.

- b) A listing of recent relevant experience in providing similar products and services offered. Descriptions of previous equipment sales should include a summary of related goods and services, including scope, project successes, location and length of time to manufacture and deliver the apparatus.
- c) Include with their response evidence of their ability to construct apparatus of the type specified. This will include but is not limited to:
  - i) length of time in business and experience in construction and delivery of Pumper Trucks.
  - ii) relevant CWB welding certificates
  - iii) insurance coverage certificate
  - iv) letter from ULC confirming successful completion of compliance auditing to CAN/ULC S515-13 Standard for Automobile Fire Fighting Apparatus and eligibility for UL Certificates of Inspection
  - v) evidence of good standing with WorkSafe BC or equivalent occupational health and safety authority
  - vi) Prove of Financial ability
  - vii) Truck record in maintenance of Pumper Trucks
  - viii) Delivery timeline

**iii) Proposed Schedule:** This section must include:

- a) A clear description of the complete order process from time of the Contract Award through delivery, including but not limited to: processing change orders, payment terms, inspection visits, delivery, training etc.
- b) A schedule for completion and delivery of the apparatus (start-up, information gathering, site visits, preliminary plans etc.).
- c) A description of the key milestones and dates from the pre- manufacturing meeting to final delivery and acceptance by the Village. The format must be user friendly as to establish clear expectations.
- d) Support available after the delivery of the equipment including but not limited to: mobile service capabilities, warranty claim process etc.
- e) Details regarding the required two (2) days of training sessions held at the Village Fire Hall, to include but not limited to the following:
  - 1 The method of training delivery;
  - 2 Number of trainers, names and their roles
  - 3 Background and qualification of the proposed trainers; and
  - 4 Materials included in the training program including examples of handout materials.
  - 5 Lead, team members and sub-consultants.

**iv) Qualifications:** This section must include:

- a) Educational and professional qualifications of personnel who will be involved in the manufacture of the equipment. Include a summary of the responsibilities and relevant experience of each individual and years' experience in the manufacture of fire rescue apparatus.

- b) Identification and brief description of service capabilities including facilities location, including address and number of years at the location, equipment and manpower used in the service process and number of employees of the facility.
- c) Identification of applicable standards to which the proposed apparatus will be constructed and/or certified by.
- d) Identification of availability and servicing facility location.

v) **Financial Expectations:** The Proponent must complete the Quote Sheet in Appendix B and must include it in this section which must also include:

- 1) Proponent maximum fee.
- 2) A breakdown of project costs for each component of the goods and services in a manner that allows for easy cross-referencing of manufacturing of the pumper truck, personnel, timing and costs:

(a) for each component of the goods and services include the hours estimated for each individual, including sub-consultants, showing charge-out rate, total hours and disbursements per task; and

(b) subtotals for each phase in the manufacturing.

c) Total hours and fees per individual, including sub-consultants, to be assigned for the entire manufacturing process.

d) Description of any value added items or services that the Proponent is prepared to provide as part of the Contract if deemed the successful Proponent. Unless otherwise stated, it is understood that there are no extra costs for these services.

e) Description of any discounts and /or incentives to the village that the Proponent is prepared to provide as part of the Contract if deemed the successful Proponent.

**20 Proponent should clearly describe the complete order process** from time of Contract Award through delivery, including but not limited to: processing of change orders, invoice submission timelines, inspection visits, delivery, training etc.

**21 References:**

- 1 **A list** of references from a minimum of three (3) municipal government clients within the Province of British Columbia who have engaged the Proponent to manufacture similar products, include the name address and phone number of references.
- 2 Assurance that the Proponent and any proposed sub-consultant are not in a position which may be perceived as a conflict of interest with respect to undertaking this project; and if any to fully disclose such conflict of interest.

- 22 Signing RFP:** The person(s) authorized to sign on behalf of the Proponent and to bind the Proponent to statements made in response to this RFP must sign the Proposal Form provided herein. Unsigned Proposals will be declared disqualified and returned.
- 23** Proponents shall be solely responsible for the delivery of their Proposals in the manner and time prescribed. All submissions must be delivered according to the instructions herein. The Village will accept no responsibility for documents delivered to other Village facilities or persons.
24. Proposals may be withdrawn by written notice only, provided such notice is received prior to time set as closing time for receiving Proposals.
25. It is the intent of these specifications to secure an apparatus built to withstand the severe and continuous use encountered in emergency firefighting and rescue service. The specifications as written represent the minimum acceptable specifications, any exceptions taken or alternatives offered must meet or exceed this specification in order to be given consideration.
26. The apparatus shall be of the latest type, symmetrically proportioned, constructed with due consideration of the load to be carried on each axle and not a prototype or demonstration unit.
- 27 All parts not specifically mentioned herein, but which are necessary in order to furnish a complete apparatus, shall conform to the best practices known to date in fire apparatus design in British Columbia.
- 28 Notwithstanding any other requirements, the vehicle shall meet the requirements contained in the Canadian Motor Vehicle Safety Standards and applicable Province of British Columbia requirements.
- 29 The completed apparatus must be tested at the manufacturer's facility, listed and labeled by a Underwriters Laboratories of Canada (ULC) representative as meeting CAN/ULC-S515-13 standards. A plate engraved with the ULC mark, pump test results, water tank volume, test date, and ULC certification number will be affixed to the completed apparatus after successful completion of testing/inspection and prior to delivery. Testing or inspection by any company or representative other than that of Underwriters Laboratories of Canada will not be considered.
- 30 To ensure an orderly evaluation process, all bidders shall respond in the captioned sections next to each request or instruction in Appendix C. Compliance with the entirety of each paragraph will be indicated with a 'YES'. Non-compliance with the entire or portion of a paragraph with no alternate proposed will be indicated with a 'NO'. If responding with a 'NO' and an alternate is being proposed, or a clarification to the response is necessary, please provide details in the 'EXCEPTION' column. The alternate proposed must be equivalent to or exceed the specification.
- 31 The Management of the Village of Lytton and its Fire Department and Public Works and any other expert in Fire fighting equipment's in British Columbia shall be consulted to determine if the alternative specification proposed is equivalent or exceeds the requested specifications.

- 32 The successful bidder must as part of this contract, maintain a minimum of \$2,000,000 of insurance per occurrence to fully cover the total replacement value of the entire apparatus or any part thereof, while the apparatus is in their possession and until the apparatus has been delivered and accepted by the **Village Management and Lytton Fire Rescue**.
- 33 The Manufacturer must be a member of the Fire Apparatus Manufacturer's Association. A copy of their certificate will be supplied with the proposal.
- 34 A minimum of five fire department references within British Columbia will be provided with the proposal to verify manufacturer and, if applicable, dealer performance before, during, and after completion of the apparatus.
- 35 Provide information about service capabilities including nearest service center with contact information.
- 36 All items and materials used in the construction of the apparatus shall be new.
- 37 Thread specifications:
  - Main Suction Threads - NH
  - 5" Connections - Storz
  - 4" Connections - Storz
  - 2.5" Connections - BCT
  - 1.5" Connections - NPSH
- 38 A complete D-Sized, five (5) view, scaled drawing, illustrating the proposed apparatus including all major components is to accompany the bidder's proposal. The drawings are extremely important, as they can easily resolve any questions as to items that are unclear in the specifications. Drawings of similar apparatus are not acceptable.
- 39 Each bidder shall commit as part of its written bid proposal to a delivery date to the Lytton Fire Rescue hall.
- 40 Price to be inclusive of all items listed in specifications and will include at a minimum two 8 hours day of training on the operation and maintenance of the completed apparatus.
- 41 Allow the Village of Lytton Management, Fire Staff and their representatives or expert appointees to examine the apparatus upon request from the Lytton Village Management during the construction period at the cost of the Supplier.
- 42 The Lytton Village retains the right, in its sole discretion, to waive irregularities in the proposal, whether of a minor or a major nature.
- 43 All applicable warranties for the proposed apparatus shall be included in the submitted proposal.
- 44 **IMPORTANT:** Suppliers are required to add in their responses other items or parts or components that are NOT listed below under fire apparatus specifications to ensure that the Pumper Truck to be delivered to the Village of Lytton is fully operational and comply with the CAN/ULC-S515-13 standards and or any other Authority in BRITISH COLUMBIA.



45 **ADDENDA**

- a ) Responses to any written questions that are received by the Village that affects the Request for Proposal process will be issued as addenda by the Village. No verbal answers will form part of this RFP.
- b) Addenda will be published at the Village website and BC Bid. It is the responsibility of the proponent to monitor the website to check for updates. All addenda become part of the Contract document and must be considered when responding to this RFP.

45 **DISCLAIMER**

Each Proponent is responsible to review and understand the terms and conditions of this RFP, and the scope of work being requested. The Village makes no representation or warranty as to the accuracy or completeness of the information contained in this RFP and the Proponent is solely responsible to ensure that it has obtained and considered all information necessary to understand the requirements of the RFP, and to prepare and submit its Proposal. The Village will not be responsible for any loss, damage or expense incurred by a Proponent as a result of any inaccuracy or incompleteness in this RFP, or as a result of any misunderstanding or misinterpretation of the terms of this RFP on the part of any Proponent.



# VILLAGE OF LYTTON

## APPENDIX A : PROPOSAL FORM

### PUMPER TRUCK-RFP-LYTTON-2019

**CLOSING: 3:00 PM PACIFIC DAYLIGHT TIME ON July 15, 2019**

This form must be completed, signed and included with the submission. *(Must be the first page of the submission documents)*

The undersigned confirms that their submission is in response to the Request for Proposals for the Village of Lytton Pumper Truck and the Proponent acknowledges receipt of all addenda issued ( if any).

**Name of Firm** : \_\_\_\_\_

**Address** : \_\_\_\_\_

**Phone** : \_\_\_\_\_ **Fax:** \_\_\_\_\_

**Email** : \_\_\_\_\_

**Contact Name** : \_\_\_\_\_

**Position** : \_\_\_\_\_

**Phone** : \_\_\_\_\_ **Fax:** \_\_\_\_\_

**Email** : \_\_\_\_\_

**Authorized Signature:** \_\_\_\_\_

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

**Date** : \_\_\_\_\_



# VILLAGE OF LYTTON

## APPENDIX B : Pricing Schedule PUMPER TRUCK-RFP-LYTTON-2019

The undersigned Supplier, having carefully read and examined the general conditions, fire apparatus specifications, and having full knowledge of the work required, does hereby offer to provide all necessary materials in strict accordance with the specifications and to do all therein called for on the terms and conditions and under the provisions therein set forth at the following price:

- A. **A New pumper truck** as set out in Appendix C, Technical Specifications, and the Request for Proposal (RFP) documents.

**Year:** \_\_\_\_\_ **Make:** \_\_\_\_\_ **Model:** \_\_\_\_\_

**Total guaranteed Price for supply and delivery:** \$ \_\_\_\_\_  
(excluding PST, GST and Environmental Levy)

**Goods and Services Tax** \$ \_\_\_\_\_

**Provincial Sales Tax** \$ \_\_\_\_\_

**Environmental Levy:** \$ \_\_\_\_\_

**TOTAL NET BID PRICE \$** (including all charges & Taxes) \$ \_\_\_\_\_

- B. The above GUARANTEED prices include and cover all duties, handling and transportation charges, and all other charges incidental to and forming part of this RFP.

C. Payment Terms \_\_\_\_\_

- D. The undersigned Supplier agrees to supply and deliver the completed and the whole Pumper Truck as per specifications on or before **Date** \_\_\_\_\_ **Month** \_\_\_\_\_ **Year** \_\_\_\_\_.  
The time is of essence and must be delivered in time. Any cost incurred for late delivery will be paid by the supplier.

**D. SUPPLIER:**

**Name of Supplier:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Telephone Number:** \_\_\_\_\_

**Email:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date Signed:** \_\_\_\_\_

**Name and Title of Signing Officer:** \_\_\_\_\_



# VILLAGE OF LYTTON

## APPENDIX C

### TECHNICAL SPECIFICATIONS

(To Be Submitted with Bid Form)

#### 1. INTRODUCTION

1.1 The Village of Lytton invites bids from qualified vendors for the supply and delivery of One (1) New Pumper Truck in accordance with the following specifications.

#### 2. SPECIFICATIONS

2.1 The following specifications are minimum standards for this project. Any deviations from the following project specifications, in the opinion of the Village, will be considered as an alternate. The specification alternate may not meet the minimum standards of the project specifications and therefore receive a reduced evaluation criteria and elimination of bid. Alternate specifications must be specified in the bid submission Technical Specifications - Specification Alternate section below.

3. Name of bidding firm: \_\_\_\_\_

### ***Lytton Fire Rescue***

#### **PUMPER TRUCK-RFP-LYTTON-2019**

| Fire Apparatus Specifications   | Yes | No | Variation |
|---|-----|----|-----------|
| Vehicle Configuration   |     |    |           |
| · FREIGHTLINER M2 106 CONVENTIONAL CHASSIS  |     |    |           |
| · 2020 MODEL YEAR SPECIFIED   |     |    |           |
| · SET BACK AXLE - TRUCK   |     |    |           |
| · STRAIGHT TRUCK PROVISION  |     |    |           |
| · LH PRIMARY STEERING LOCATION  |     |    |           |
| General Service   |     |    |           |
| · TRUCK CONFIGURATION   |     |    |           |
| · DOMICILED, CANADA (OTHER THAN QUEBEC)   |     |    |           |
| · FIXED CANADIAN EXCHANGE   |     |    |           |
| · FIRE SERVICE  |     |    |           |
| · EMERGENCY VEHICLES BUSINESS SEGMENT   |     |    |           |
| · LIQUID BULK COMMODITY   |     |    |           |
| · TERRAIN/DUTY: 10% (SOME) OF THE TIME, IN TRANSIT, IS SPENT ON NON-PAVED ROADS           |     |    |           |
| · MAXIMUM 12% EXPECTED GRADE  |     |    |           |
| · MAINTAINED GRAVEL OR CRUSHED ROCK - MOST SEVERE IN-TRANSIT (BETWEEN SITES) ROAD SURFACE |     |    |           |
| · MEDIUM TRUCK WARRANTY   |     |    |           |
| · EXPECTED FRONT AXLE(S) LOAD : 14600.0 lbs   |     |    |           |
| · EXPECTED REAR DRIVE AXLE(S) LOAD : 27000.0 lbs  |     |    |           |
| · EXPECTED GROSS VEHICLE WEIGHT CAPACITY : 41600.0 lbs                                    |     |    |           |

| <b>Fire Apparatus Specifications</b>   | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|--|------------|-----------|------------------|
| Truck Service  |            |           |                  |
| · FIRE TANK/PUMPER - MAIN DRIVELINE DRIVEN SPLIT-SHAFT PTO/PUMP  |            |           |                  |
| Engine   |            |           |                  |
| · CUM L9 350EV HP @ 2000 RPM, 2200 GOV RPM , 1000 LB/FT @ 1400 RPM   |            |           |                  |
| Electronic Parameters  |            |           |                  |
| · 75 MPH ROAD SPEED LIMIT  |            |           |                  |
| · CRUISE CONTROL SPEED LIMIT SAME AS ROAD SPEED LIMIT  |            |           |                  |
| · PTO MODE BRAKE OVERRIDE - SERVICE BRAKE APPLIED  |            |           |                  |
| · PTO RPM WITH CRUISE SET SWITCH - 700 RPM   |            |           |                  |
| · PTO RPM WITH CRUISE RESUME SWITCH - 800 RPM  |            |           |                  |
| · PTO MODE CANCEL VEHICLE SPEED - 5 MPH  |            |           |                  |
| · PTO GOVERNOR RAMP RATE - 250 RPM PER SECOND  |            |           |                  |
| · PTO MINIMUM RPM - 700  |            |           |                  |
| · REGEN INHIBIT SPEED THRESHOLD - 5 MPH  |            |           |                  |
| Engine Equipment   |            |           |                  |
| · 2016-2019 ONBOARD DIAGNOSTICS/2010 EPA/CARB/FINAL GHG17 CONFIGURATION  |            |           |                  |
| · STANDARD OIL PAN   |            |           |                  |
| · ENGINE MOUNTED OIL CHECK AND FILL  |            |           |                  |
| · ONE PIECE VALVE COVER  |            |           |                  |
| · SIDE OF HOOD AIR INTAKE WITH NFPA COMPLIANT EMBER SCREEN AND FIRE RETARDANT DONALDSON AIR CLEANER            |            |           |                  |
| · LN 12V 240 AMP AVI 160 PAD MOUNT ALTERNATOR  |            |           |                  |
| · (2) DTNA GENUINE, FLOODED STARTING, MIN 2000CCA, 370RC, THREADED STUD BATTERIES                              |            |           |                  |
| · BATTERY BOX FRAME MOUNTED  |            |           |                  |
| · STANDARD BATTERY JUMPERS   |            |           |                  |
| · SINGLE BATTERY BOX FRAME MOUNTED LH SIDE UNDER CAB   |            |           |                  |
| · WIRE GROUND RETURN FOR BATTERY CABLES WITH ADDITIONAL FRAME GROUND RETURN                                    |            |           |                  |
| · NON-POLISHED BATTERY BOX COVER   |            |           |                  |
| · CAB AUXILIARY POWER CABLE  |            |           |                  |
| · POSITIVE LOAD DISCONNECT WITH CAB MOUNTED CONTROL SWITCH WITH LOCKING PROVISION MOUNTED OUTBOARD DRIVER SEAT |            |           |                  |
| · POSITIVE AND NEGATIVE POSTS FOR JUMPSTART LOCATED ON FRAME NEXT TO STARTER                                   |            |           |                  |

| <b>Fire Apparatus Specifications</b>  | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|---|------------|-----------|------------------|
| · CUMMINS TURBOCHARGED 18.7 CFM AIR COMPRESSOR WITH INTERNAL SAFETY VALVE   |            |           |                  |
| · STANDARD MECHANICAL AIR COMPRESSOR GOVERNOR   |            |           |                  |
| · AIR COMPRESSOR DISCHARGE LINE   |            |           |                  |
| · GVG, FIRE AND EMERGENCY SERVICE VEHICLES ENGINE WARNING   |            |           |                  |
| · CUMMINS EXHAUST BRAKE INTEGRAL WITH VARIABLE GEOMETRY TURBO WITH ON/OFF DASH SWITCH, ACTIVATES STOP LAMPS                             |            |           |                  |
| · RH INBOARD FRAME MOUNTED HORIZONTAL AFTERTREATMENT SYSTEM ASSEMBLY WITH HORIZONTAL TAILPIPE   |            |           |                  |
| · ENGINE AFTERTREATMENT DEVICE, AUTOMATIC OVER THE ROAD ACTIVE REGENERATION AND DASH MOUNTED SINGLE REGENERATION REQUEST/INHIBIT SWITCH |            |           |                  |
| · STANDARD EXHAUST SYSTEM LENGTH  |            |           |                  |
| · RH STANDARD HORIZONTAL TAILPIPE   |            |           |                  |
| · 6 GALLON DIESEL EXHAUST FLUID TANK  |            |           |                  |
| · 100 PERCENT DIESEL EXHAUST FLUID FILL   |            |           |                  |
| · LH UNDER CAB DIESEL EXHAUST FLUID TANK LOCATION   |            |           |                  |
| · STANDARD DIESEL EXHAUST FLUID PUMP MOUNTING   |            |           |                  |
| · STANDARD DIESEL EXHAUST FLUID TANK CAP  |            |           |                  |
| · HORTON DRIVEMASTER ADVANTAGE ON/OFF FAN DRIVE   |            |           |                  |
| · AUTOMATIC FAN CONTROL WITH DASH SWITCH AND INDICATOR LIGHT, NON ENGINE MOUNTED  |            |           |                  |
| · CUMMINS SPIN ON FUEL FILTER   |            |           |                  |
| · COMBINATION FULL FLOW/BYPASS OIL FILTER   |            |           |                  |
| · 1100 SQUARE INCH ALUMINUM RADIATOR  |            |           |                  |
| · ANTIFREEZE TO -34F, OAT (NITRITE AND SILICATE FREE) EXTENDED LIFE COOLANT   |            |           |                  |
| · GATES BLUE STRIPE COOLANT HOSES OR EQUIVALENT   |            |           |                  |
| · CONSTANT TENSION HOSE CLAMPS FOR COOLANT HOSES  |            |           |                  |
| · RADIATOR DRAIN VALVE  |            |           |                  |
| · LOWER RADIATOR GUARD  |            |           |                  |
| · ALUMINUM FLYWHEEL HOUSING   |            |           |                  |
| · ELECTRIC GRID AIR INTAKE WARMER   |            |           |                  |
| · DELCO 12V 38MT HD STARTER WITH INTEGRATED MAGNETIC SWITCH   |            |           |                  |
|   |            |           |                  |

| <b>Fire Apparatus Specifications</b>   | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|--|------------|-----------|------------------|
| Transmission   |            |           |                  |
| · ALLISON 3000 EVS AUTOMATIC TRANSMISSION WITH PTO PROVISION   |            |           |                  |
| Transmission Equipment   |            |           |                  |
| · ALLISON VOCATIONAL PACKAGE 198 - AVAILABLE ON 3000/4000 PRODUCT FAMILIES WITH VOCATIONAL MODEL EVS               |            |           |                  |
| · ALLISON VOCATIONAL RATING FOR FIRE TRUCK/EMERGENCY VEHICLE APPLICATIONS AVAILABLE WITH ALL PRODUCT FAMILIES      |            |           |                  |
| · PRIMARY MODE GEARS, LOWEST GEAR 1, START GEAR 1, HIGHEST GEAR 5, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY   |            |           |                  |
| · SECONDARY MODE GEARS, LOWEST GEAR 1, START GEAR 1, HIGHEST GEAR 6, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY |            |           |                  |
| · FUEL SENSE 2.0 DISABLED - PERFORMANCE - TABLE BASED  |            |           |                  |
| · DRIVER SWITCH INPUT - DEFAULT - NO SWITCHES  |            |           |                  |
| · PUMP MODE INPUT ENABLED 3RD/4TH LOCKUP WIRED ON TCM INPUT AJ/BQ - ALLISON 5TH GEN TRANSMISSIONS                  |            |           |                  |
| · VEHICLE INTERFACE WIRING CONNECTOR WITH PDM AND NO BLUNT CUTS, AT BACK OF CAB                                    |            |           |                  |
| · ELECTRONIC TRANSMISSION CUSTOMER ACCESS CONNECTOR MOUNTED BACK OF CAB  |            |           |                  |
| · (2) CUSTOMER INSTALLED CHELSEA 280 SERIES PTO'S  |            |           |                  |
| · PTO MOUNTING, LH AND RH SIDES OF MAIN TRANSMISSION   |            |           |                  |
| · MAGNETIC PLUGS, ENGINE DRAIN, TRANSMISSION DRAIN, AXLE(S) FILL AND DRAIN   |            |           |                  |
| · PUSH BUTTON ELECTRONIC SHIFT CONTROL, DASH MOUNTED   |            |           |                  |
| · TRANSMISSION PROGNOSTICS - ENABLED 2013  |            |           |                  |
| · WATER TO OIL TRANSMISSION COOLER, IN RADIATOR END TANK   |            |           |                  |
| · TRANSMISSION OIL CHECK AND FILL WITH ELECTRONIC OIL LEVEL CHECK  |            |           |                  |
| · SYNTHETIC TRANSMISSION FLUID (TES-295 COMPLIANT)   |            |           |                  |
| Front Axle and Equipment   |            |           |                  |
| · DETROIT DA-F-14.7-3 14,700# FF1 71.5 KPI/3.74 DROP SINGLE FRONT AXLE   |            |           |                  |
| · MERITOR 16.5X5 Q+ CAST SPIDER CAM FRONT BRAKES, DOUBLE ANCHOR, FABRICATED SHOES                                  |            |           |                  |

| <b>Fire Apparatus Specifications</b>  | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|---|------------|-----------|------------------|
| · FIRE AND EMERGENCY SEVERE SERVICE, NON-ASBESTOS FRONT LINING                              |            |           |                  |
| · CONMET CAST IRON FRONT BRAKE DRUMS  |            |           |                  |
| · FRONT BRAKE DUST SHIELDS  |            |           |                  |
| · FRONT OIL SEALS   |            |           |                  |
| · VENTED FRONT HUB CAPS WITH WINDOW, CENTER AND SIDE PLUGS - OIL                            |            |           |                  |
| · STANDARD SPINDLE NUTS FOR ALL AXLES   |            |           |                  |
| · MERITOR AUTOMATIC FRONT SLACK ADJUSTERS   |            |           |                  |
| · TRW TAS-85 POWER STEERING   |            |           |                  |
| · POWER STEERING PUMP   |            |           |                  |
| · 2 QUART SEE THROUGH POWER STEERING RESERVOIR  |            |           |                  |
| · ORGANIC SAE 80/90 FRONT AXLE LUBE   |            |           |                  |
| Front Suspension  |            |           |                  |
| · 14,600# FLAT LEAF FRONT SUSPENSION  |            |           |                  |
| · GRAPHITE BRONZE BUSHINGS WITH SEALS - FRONT SUSPENSION                                    |            |           |                  |
| Rear Axle and Equipment   |            |           |                  |
| · RS-25-160 27,000# R-SERIES FIRE/EMERGENCY SERVICE SINGLE REAR AXLE                        |            |           |                  |
| · 5.38 REAR AXLE RATIO  |            |           |                  |
| · IRON REAR AXLE CARRIER WITH STANDARD AXLE HOUSING   |            |           |                  |
| · MXL 17T MERITOR EXTENDED LUBE MAIN DRIVELINE WITH HALF ROUND YOKES                        |            |           |                  |
| · DRIVER CONTROLLED TRACTION DIFFERENTIAL - SINGLE REAR AXLE                                |            |           |                  |
| · DRIVER CONTROLLED DIFFERENTIAL LOCK REAR VALVE FOR SINGLE DRIVE AXLE                      |            |           |                  |
| · BLINKING LAMP WITH EACH MODE SWITCH, DIFFERENTIAL UNLOCK WITH IGNITION OFF, ACTIVE <5 MPH |            |           |                  |
| · MERITOR 16.5X7 P CAST SPIDER CAM REAR BRAKES, DOUBLE ANCHOR, CAST SHOES                   |            |           |                  |
| · FIRE AND EMERGENCY SEVERE SERVICE NON-ASBESTOS REAR BRAKE LINING                          |            |           |                  |
| · BRAKE CAMS AND CHAMBERS ON REAR SIDE OF DRIVE AXLE(S)                                     |            |           |                  |
| · WEBB HEAVY WEIGHT CAST IRON REAR BRAKE DRUMS  |            |           |                  |
| · REAR BRAKE DUST SHIELDS   |            |           |                  |
| · REAR OIL SEALS  |            |           |                  |
| · WABCO TRISTOP D LONGSTROKE 1-DRIVE AXLE SPRING PARKING CHAMBERS                           |            |           |                  |



| <b>Fire Apparatus Specifications</b>   | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|--|------------|-----------|------------------|
| · HALDEX AUTOMATIC REAR SLACK ADJUSTERS  |            |           |                  |
| · ORGANIC SAE 80/90 REAR AXLE LUBE   |            |           |                  |
| <b>Rear Suspension</b>   |            |           |                  |
| · 27,000# FLAT LEAF SPRING REAR SUSPENSION WITH RADIUS ROD FOR FIRE/EMERGENCY SERVICE      |            |           |                  |
| · SPRING SUSPENSION - NO AXLE SPACERS  |            |           |                  |
| · STANDARD U-BOLT PAD WITH U-BOLTS EXTENDED 1.00" LONGER THAN STANDARD                     |            |           |                  |
| · FORE/AFT CONTROL RODS  |            |           |                  |
| <b>Brake System</b>  |            |           |                  |
| · AIR BRAKE PACKAGE  |            |           |                  |
| · WABCO 4S/4M ABS  |            |           |                  |
| · REINFORCED NYLON, FABRIC BRAID AND WIRE BRAID CHASSIS AIR LINES                          |            |           |                  |
| · FIBER BRAID PARKING BRAKE HOSE   |            |           |                  |
| · STANDARD BRAKE SYSTEM VALVES   |            |           |                  |
| · STANDARD AIR SYSTEM PRESSURE PROTECTION SYSTEM   |            |           |                  |
| · STD U.S. FRONT BRAKE VALVE   |            |           |                  |
| · RELAY VALVE WITH 5-8 PSI CRACK PRESSURE, NO REAR PROPORTIONING VALVE                     |            |           |                  |
| · BW AD-IS (DRM) BRAKE LINE AIR DRYER WITH SHIELD, HEATER AND INTEGRAL RESERVOIR           |            |           |                  |
| · AIR DRYER RESERVOIR MOUNTED  |            |           |                  |
| · STEEL AIR BRAKE RESERVOIRS MOUNTED IN CAB ENTRY STEPS WHEN POSSIBLE                      |            |           |                  |
| · CLEAR FRAME RAILS FROM BACK OF CAB TO FRONT REAR SUSPENSION BRACKET, BOTH RAILS OUTBOARD |            |           |                  |
| · BW DV-2 AUTO DRAIN VALVE WITHOUT HEATER ON ALL TANK(S)                                   |            |           |                  |
| <b>Wheelbase &amp; Frame</b>   |            |           |                  |
| · 6450MM (254 INCH) WHEELBASE  |            |           |                  |
| · 11/32X3-1/2X10-15/16 INCH STEEL FRAME (8.73MMX277.8MM/0.344X10.94 INCH) 120KSI           |            |           |                  |
| · 1/4 INCH (6.35MM) C-CHANNEL INNER FRAME REINFORCEMENT                                    |            |           |                  |
| · SQUARE END OF FRAME  |            |           |                  |
| · FRONT CLOSING CROSSMEMBER  |            |           |                  |
| · STANDARD WEIGHT ENGINE CROSSMEMBER   |            |           |                  |
| · STANDARD CROSSMEMBER BACK OF TRANSMISSION  |            |           |                  |
| · STANDARD MIDSHIP #1 CROSSMEMBER(S)   |            |           |                  |
| · STANDARD REARMOST CROSSMEMBER  |            |           |                  |
| · STANDARD SUSPENSION CROSSMEMBER  |            |           |                  |

| <b>Fire Apparatus Specifications</b>   | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|--|------------|-----------|------------------|
| Chassis Equipment  |            |           |                  |
| · THREE-PIECE 14 INCH CHROMED STEEL BUMPER WITH COLLAPSIBLE ENDS                       |            |           |                  |
| · FRONT TOW HOOKS - FRAME MOUNTED  |            |           |                  |
| · BUMPER MOUNTING FOR SINGLE LICENSE PLATE   |            |           |                  |
| · FENDER AND FRONT OF HOOD MOUNTED FRONT MUDFLAPS                                      |            |           |                  |
| · GRADE 8 THREADED HEX HEADED FRAME FASTENERS  |            |           |                  |
| Fuel Tanks   |            |           |                  |
| · 50 GALLON/189 LITER SHORT RECTANGULAR ALUMINUM FUEL TANK - LH                        |            |           |                  |
| · RECTANGULAR FUEL TANK(S)   |            |           |                  |
| · PLAIN ALUMINUM/PAINTED STEEL FUEL/HYDRAULIC TANK(S) WITH PAINTED BANDS               |            |           |                  |
| · FUEL TANK(S) FORWARD   |            |           |                  |
| · PLAIN STEP FINISH  |            |           |                  |
| · FUEL TANK CAP(S)   |            |           |                  |
| · DETROIT FUEL/WATER SEPARATOR WITH WATER IN FUEL SENSOR                               |            |           |                  |
| · EQUIFLO INBOARD FUEL SYSTEM  |            |           |                  |
| · HIGH TEMPERATURE REINFORCED NYLON FUEL LINE  |            |           |                  |
| Tires  |            |           |                  |
| · CONTINENTAL HDR2 12R22.5 16 PLY RADIAL FRONT TIRES                                   |            |           |                  |
| · CONTINENTAL HDR2 12R22.5 16 PLY RADIAL REAR TIRES                                    |            |           |                  |
| Hubs   |            |           |                  |
| · CONMET PRESET PLUS PREMIUM IRON FRONT HUBS   |            |           |                  |
| · CONMET PRESET PLUS PREMIUM IRON REAR HUBS  |            |           |                  |
| Wheels   |            |           |                  |
| · MAXION WHEELS 90541 22.5X8.25 10-HUB PILOT 6.20 INSET 2-HAND STEEL DISC FRONT WHEELS |            |           |                  |
| · MAXION WHEELS 90541 22.5X8.25 10-HUB PILOT 6.20 INSET 2-HAND STEEL DISC REAR WHEELS  |            |           |                  |
| · FRONT WHEEL MOUNTING NUTS  |            |           |                  |
| · REAR WHEEL MOUNTING NUTS   |            |           |                  |
| Cab Exterior   |            |           |                  |
| · 154 INCH BBC HIGH-ROOF ALUMINUM CONVENTIONAL CREW CAB                                |            |           |                  |
| · AIR CAB MOUNTING   |            |           |                  |
| · CAB ROOF REINFORCEMENTS FOR ROOF MOUNTED COMPONENTS                                  |            |           |                  |

| <b>Fire Apparatus Specifications</b>  | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|---|------------|-----------|------------------|
| · LH AND RH EXTERIOR GRAB HANDLES WITH SINGLE RUBBER INSERT   |            |           |                  |
| · HOOD MOUNTED CHROMED PLASTIC GRILLE   |            |           |                  |
| · CHROME HOOD MOUNTED AIR INTAKE GRILLE   |            |           |                  |
| · FIBERGLASS HOOD   |            |           |                  |
| · DUAL 25 INCH ROUND STUTTER TONE HOOD MOUNTED AIR HORNS  |            |           |                  |
| · SINGLE ELECTRIC HORN  |            |           |                  |
| · DUAL HORN SHIELDS   |            |           |                  |
| · DOOR LOCKS AND IGNITION SWITCH KEYED THE SAME   |            |           |                  |
| · REAR LICENSE PLATE MOUNT END OF FRAME   |            |           |                  |
| · INTEGRAL HEADLIGHT/MARKER ASSEMBLY WITH CHROME BEZEL  |            |           |                  |
| · LED AERODYNAMIC MARKER LIGHTS   |            |           |                  |
| · DAYTIME RUNNING LIGHTS  |            |           |                  |
| · OMIT STOP/TAIL/BACKUP LIGHTS AND PROVIDE WIRING WITH SEPARATE STOP/TURN WIRES TO 4 FEET BEYOND END OF FRAME |            |           |                  |
| · STANDARD FRONT TURN SIGNAL LAMPS  |            |           |                  |
| · DUAL WEST COAST BRIGHT FINISH HEATED MIRRORS WITH LH AND RH REMOTE  |            |           |                  |
| · DOOR MOUNTED MIRRORS  |            |           |                  |
| · 102 INCH EQUIPMENT WIDTH  |            |           |                  |
| · LH AND RH 8 INCH BRIGHT FINISH CONVEX MIRRORS MOUNTED UNDER PRIMARY MIRRORS                                 |            |           |                  |
| · STANDARD SIDE/REAR REFLECTORS   |            |           |                  |
| · 63X14 INCH TINTED REAR WINDOW   |            |           |                  |
| · TINTED DOOR GLASS LH AND RH WITH TINTED NON-OPERATING WING WINDOWS  |            |           |                  |
| · MANUAL DOOR WINDOW REGULATORS   |            |           |                  |
| · TINTED WINDSHIELD   |            |           |                  |
| · 2 GALLON WINDSHIELD WASHER RESERVOIR WITHOUT FLUID LEVEL INDICATOR, FRAME MOUNTED                           |            |           |                  |
| Cab Interior  |            |           |                  |
| · OPAL GRAY VINYL INTERIOR  |            |           |                  |
| · MOLDED PLASTIC DOOR PANEL   |            |           |                  |
| · MOLDED PLASTIC DOOR PANEL   |            |           |                  |
| · BLACK MATS WITH SINGLE INSULATION   |            |           |                  |
| · FORWARD ROOF MOUNTED CONSOLE WITH UPPER STORAGE COMPARTMENTS WITHOUT NETTING                                |            |           |                  |

| <b>Fire Apparatus Specifications</b>   | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|--|------------|-----------|------------------|
| · IN DASH STORAGE BIN  |            |           |                  |
| · (2) CUP HOLDERS LH AND RH DASH   |            |           |                  |
| · GRAY/CHARCOAL FLAT DASH  |            |           |                  |
| · HEATER, DEFROSTER AND AIR CONDITIONER  |            |           |                  |
| · STANDARD HVAC DUCTING  |            |           |                  |
| · MAIN HVAC CONTROLS WITH RECIRCULATION SWITCH   |            |           |                  |
| · STANDARD HEATER PLUMBING   |            |           |                  |
| · VALEO HEAVY DUTY A/C REFRIGERANT COMPRESSOR  |            |           |                  |
| · BINARY CONTROL, R-134A   |            |           |                  |
| · STANDARD INSULATION  |            |           |                  |
| · SOLID-STATE CIRCUIT PROTECTION AND FUSES   |            |           |                  |
| · 12V NEGATIVE GROUND ELECTRICAL SYSTEM  |            |           |                  |
| · DOOR ACTIVATED DOME/RED MAP LIGHTS, FORWARD LH AND RH AND REAR LH, RH AND CENTER                           |            |           |                  |
| · CAB DOOR LATCHES WITH MANUAL DOOR LOCKS  |            |           |                  |
| · 12 VOLT POWER SUPPLY IN DASH   |            |           |                  |
| · SEATS INC 911 UNIVERSAL SERIES HIGH BACK AIR SUSPENSION DRIVER SEAT  |            |           |                  |
| · SEATS INC 911 UNIVERSAL SERIES SCBA NON SUSPENSION PASSENGER SEAT WITH UNDERSEAT STORAGE                   |            |           |                  |
| · SEATS INC 911 UNIVERSAL SCBA NON SUSPENSION LH, RH AND CENTER REAR PASSENGER SEATS WITH UNDER SEAT STORAGE |            |           |                  |
| · LH AND RH INTEGRAL DOOR PANEL ARMRESTS   |            |           |                  |
| · GRAY VINYL DRIVER SEAT COVER WITH GRAY CORDURA CLOTH BOLSTER AND HEADREST                                  |            |           |                  |
| · GRAY VINYL FRONT PASSENGER SEAT COVER WITH GRAY CORDURA CLOTH BOLSTER AND HEADREST                         |            |           |                  |
| · GRAY VINYL REAR PASSENGER SEAT COVER WITH GRAY CORDURA CLOTH BOLSTER AND HEADREST                          |            |           |                  |
| · HIGH VISIBILITY ORANGE SEAT BELTS  |            |           |                  |
| · ADJUSTABLE TILT AND TELESCOPING STEERING COLUMN  |            |           |                  |
| · 4-SPOKE 18 INCH (450MM) STEERING WHEEL   |            |           |                  |
| · DRIVER AND PASSENGER INTERIOR SUN VISORS   |            |           |                  |
| <b>Instruments &amp; Controls</b>  |            |           |                  |
| · GRAY DRIVER INSTRUMENT PANEL   |            |           |                  |
| · GRAY CENTER INSTRUMENT PANEL   |            |           |                  |
| · ENGINE REMOTE INTERFACE WITH PARK BRAKE INTERLOCK  |            |           |                  |
| · BLACK GAUGE BEZELS   |            |           |                  |
| · LOW AIR PRESSURE INDICATOR LIGHT AND AUDIBLE ALARM   |            |           |                  |

| <b>Fire Apparatus Specifications</b>  | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|---|------------|-----------|------------------|
| · 2 INCH PRIMARY AND SECONDARY AIR PRESSURE GAUGES  |            |           |                  |
| · ENGINE COMPARTMENT MOUNTED AIR RESTRICTION INDICATOR WITH GRADUATIONS, WITH WARNING LIGHT IN DASH |            |           |                  |
| · 97 DB BACKUP ALARM  |            |           |                  |
| · ELECTRONIC CRUISE CONTROL WITH SWITCHES IN LH SWITCH PANEL  |            |           |                  |
| · IGNITION SWITCH WITH NON REMOVABLE KEY  |            |           |                  |
| · ICU3S, 132X48 DISPLAY WITH DIAGNOSTICS, 28 LED WARNING LAMPS AND DATA LINKED                      |            |           |                  |
| · HEAVY DUTY ONBOARD DIAGNOSTICS INTERFACE CONNECTOR LOCATED BELOW LH DASH                          |            |           |                  |
| · 2 INCH ELECTRIC FUEL GAUGE  |            |           |                  |
| · ENGINE REMOTE INTERFACE FOR REMOTE THROTTLE   |            |           |                  |
| · ENGINE REMOTE INTERFACE CONNECTOR AT BACK OF CAB  |            |           |                  |
| · ELECTRICAL ENGINE COOLANT TEMPERATURE GAUGE   |            |           |                  |
| · 2 INCH TRANSMISSION OIL TEMPERATURE GAUGE   |            |           |                  |
| · ENGINE AND TRIP HOUR METERS INTEGRAL WITHIN DRIVER DISPLAY  |            |           |                  |
| · CUSTOMER FURNISHED AND INSTALLED PTO CONTROLS   |            |           |                  |
| · ELECTRIC ENGINE OIL PRESSURE GAUGE  |            |           |                  |
| · OVERHEAD INSTRUMENT PANEL   |            |           |                  |
| · ELECTRONIC KPH SPEEDOMETER WITH SECONDARY MPH SCALE, WITHOUT ODOMETER                             |            |           |                  |
| · STANDARD VEHICLE SPEED SENSOR   |            |           |                  |
| · ELECTRONIC 3000 RPM TACHOMETER  |            |           |                  |
| · IGNITION SWITCH CONTROLLED ENGINE STOP  |            |           |                  |
| · OVERHEAD MOUNTED LANYARD CONTROL FOR DRIVER AIR HORN  |            |           |                  |
| · DIGITAL VOLTAGE DISPLAY INTEGRAL WITH DRIVER DISPLAY  |            |           |                  |
| · SINGLE ELECTRIC WINDSHIELD WIPER MOTOR WITH DELAY   |            |           |                  |
| · MARKER LIGHT SWITCH INTEGRAL WITH HEADLIGHT SWITCH  |            |           |                  |
| · ONE VALVE PARKING BRAKE SYSTEM WITH WARNING INDICATOR   |            |           |                  |
| · SELF CANCELING TURN SIGNAL SWITCH WITH DIMMER, WASHER/WIPER AND HAZARD IN HANDLE                  |            |           |                  |
| · INTEGRAL ELECTRONIC TURN SIGNAL FLASHER WITH HAZARD LAMPS OVERRIDING STOP LAMPS                   |            |           |                  |

| <b>Fire Apparatus Specifications</b>  | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|---|------------|-----------|------------------|
| Design  |            |           |                  |
| · PAINT: ONE SOLID COLOR  |            |           |                  |
| Color   |            |           |                  |
| · CAB COLOR A: L2225EB CANDY APPLE RED ELITE BC   |            |           |                  |
| · BLACK, HIGH SOLIDS POLYURETHANE CHASSIS PAINT   |            |           |                  |
| · POWDER WHITE (N0006EA) FRONT WHEELS/RIMS (PKWHT21, TKWHT21, W, TW)  |            |           |                  |
| · POWDER WHITE (N0006EA) REAR WHEELS/RIMS (PKWHT21, TKWHT21, W, TW)   |            |           |                  |
| · STANDARD E COAT/UNDERCOATING  |            |           |                  |
|   |            |           |                  |
| Chassis - Exhaust and Heat Shields  |            |           |                  |
| The exhaust will be extended to edge of the body near the rear wheels. Fabricated stainless steel exhaust heat shields will be provided to eliminate excessive heat to the body. The shields will be installed to where the exhaust runs beneath the body to the point where the exhaust exits below the body side. |            |           |                  |
|   |            |           |                  |
| Chassis - Transmission Lock Up - Required With Pump   |            |           |                  |
| The vehicle transmission will be locked up in 4th gear to ensure that the transmission will not shift gears when in pump mode.  |            |           |                  |
|   |            |           |                  |
| Chassis - Mud Flaps - Front (pair)  |            |           |                  |
| Heavy duty front mud flaps will be supplied.  |            |           |                  |
|   |            |           |                  |
| Chassis - Mud Flaps - Rear (pair)   |            |           |                  |
| Heavy duty rear mud flaps will be supplied.   |            |           |                  |
|   |            |           |                  |
| Chassis - Running Boards - Custom - 4 Door Cab  |            |           |                  |
| The original cab steps will be replaced with custom high shine aluminum checker plate steps that will run the length of the 4 door cab. The lower step will be framed with a 3/16" thick, fluted aluminum extrusion measuring 3" high by 1" deep.   |            |           |                  |
|   |            |           |                  |
| Chassis - Bracket - SCBA - Zico EZ Loc (each)   |            |           |                  |
| Four (4) seat backs shall include a Ziamatic brand EZ-Loc® mechanical self-contained breathing apparatus (SCBA) bracket. The Positive Locking Mechanical walk away bracket shall meet NFPA 1901-03 9G dynamic requirements for cylinder restraint systems for use in crew compartments of fire truck cabs.          |            |           |                  |

| <b>Fire Apparatus Specifications</b>   | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|--|------------|-----------|------------------|
| <p>The bracket shall secure a self-contained breathing apparatus with all sizes of cylinders and shall include an adjustable PVC coated pivoting top cap which securely locks the SCBA in place without damaging the cylinder. The bracket shall also include a pull release strap which shall include a 30.00 inch nylon lanyard which activates the lever on the bracket that releases the locking top cap, saving the occupant from reaching behind the SCBA in order to release the bracket. The nylon strap shall be located on the side of the seat.</p> |            |           |                  |
| <p>The basic bracket and clamp arms shall be made of strong, yet light-weight, aluminum alloys. Hex arms and operating levers shall be plated steel to withstand years of constant use. The bracket shall feature donning of the SCBA in a fast and easy manner.</p>   |            |           |                  |
| <p>- Pt#: QM-EZL-*</p>   |            |           |                  |
|  |            |           |                  |
| <p>Walkway - Standard</p>  |            |           |                  |
| <p>The through walkway is to be located immediately behind the cab and is to be a separate module.</p>   |            |           |                  |
| <p>The walkway will be wide enough to meet the customer's requirements and shall consist of a reinforced aluminum sub frame bolted to the chassis. The sub frame will be constructed from aluminum extrusions and completely covered with 0.125 inch hi-shine aluminum checkerplate, trimmed with a 3" by 1 1/2" ribbed aluminum extrusion to provide additional reinforcement. The walkway will be insulated from the chassis frame to reduce electrolytic corrosion.</p>   |            |           |                  |
| <p>For safety purposes and to increase the ease of entry to the walkway, a step will be installed between the walkway surface and the lower step on either side. These steps will be constructed from extrusions completely covered with 1/8 inch hi-shine aluminum checkerplate. The walkway will be illuminated for night time use by two clear lights installed above the removable pump access panel and two clear lights installed below the intermediate step, one each side. The lights will activate with the pump panel lights.</p>                   |            |           |                  |

| Fire Apparatus Specifications   | Yes | No | Variation |
|---|-----|----|-----------|
| Walkway - Back of Cab Protection - Checkerplate   |     |    |           |
| To eliminate any damage to the back of the cab, high shine aluminum checkerplate will be overlaid from a level just below the window to the bottom of the cab. The edges will be weather proof sealed.  |     |    |           |
|   |     |    |           |
| Pumphouse - Mid Mount - Top Control   |     |    |           |
| The frame of the pump house will be constructed using natural finish aluminum extrusions with the access panels and storage flooring being constructed of natural finish aluminum plate or aluminum checker plate. The side discharge and suction panels will be constructed from 16 gauge stainless steel and secured with truss head stainless steel bolts. The pump house shall consist of a reinforced aluminum sub frame bolted to the chassis. The frame will be insulated from the chassis frame to reduce electrolytic corrosion. |     |    |           |
|   |     |    |           |
| The entire pump house is to be separate from the walkway and body. No Exceptions.   |     |    |           |
|   |     |    |           |
| The forward face of the pump house shall be split into two sections with the top section containing the pump operator's control panel and the lower area containing a large, removable pump compartment access panel. The operator's control panel will be horizontally split creating a vertical face where the gauges and instruments are located and a horizontal face where valve controls are located.   |     |    |           |
|   |     |    |           |
| The instrument panel will be formed from 16 gauge stainless steel with a light hood along the top running the full width. The instrument panel will be hinged at the lower edge to allow for ease of servicing. The valve control panel will be formed from 3/16" aluminum sheet with a black wrinkle powder coat finish.   |     |    |           |
|   |     |    |           |
| The pump house sides shall be split into three sections with the top housing the pre-connect hose beds (if selected by the customer) and an open storage area accessible from above. The middle sections will have a pump access panel each side and the lower sections will contain the one piece suction and discharge panels.  |     |    |           |



| <b>Fire Apparatus Specifications</b>   | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|--|------------|-----------|------------------|
| <p>The front fully removable panel shall be provided with two stainless steel paddle latches to secure the panel during travel. This panel is to be as large as possible to provide the maximum opening for ease of pump service. Two hinged checker plate access panels shall be provided, one left and one right. Each panel will be horizontally hinged along the top edge and will come complete with a stainless steel paddle latch. A gas shock will be provided to assist in keeping the panel open while in use. A minimum of one Amdor Luma Bar LED light will be provided in the pump compartment.</p>   |            |           |                  |
| <p>The left and right hand side discharge/suction panels as well as the operator's control panel are to be fully illuminated by indirect Amdor Luma Bar LED lighting located at the top of the panels. The control handles are to be arranged in a simple and logical order with a corresponding gauge above each handle. All functions are to be identified by a permanent engraved nameplate and all control handles with their corresponding discharge or suction will be provided with colour coded identification labels. Handles, unless otherwise specified, are to be "Pull to Open" style lever operating on a short arc of travel with a positive "Twist to Lock" feature to ensure that valves do not open under pressure or due to vibration. The slots which the lever travels through shall be brushed aluminum for easy maintenance and to be aesthetically pleasing to the eye. The operating levers are to be connected to the valves via a formed rod, which feature either a clevis or knuckle retainer. All rods shall have adjustment threads to compensate for wear.</p> |            |           |                  |
| <p>Along the lower sides of the pump house will be checker plate running boards capable of supporting the weight of two fire fighters. Each step will be framed with a 3" x 1 7/8" fluted aluminum extrusion to provide protection and rigidity along the edges of the running boards.</p>   |            |           |                  |
| <p>Pumphouse - Pre-Connect - Cover - Checkerplate</p>  |            |           |                  |
| <p>An aluminum checker plate cover will be installed over top of the transverse hose bed. The cover will be hinged at the front edge and will be supported to withstand the weight of at least two fire fighters.</p>  |            |           |                  |

| <b>Fire Apparatus Specifications</b>   | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|--|------------|-----------|------------------|
| Pumphouse - Pre-Connect - End Covers - Vinyl with Velcro Straps  |            |           |                  |
| One (1) pair(s) of covers will be provided and attached to cover the transverse pre-connect hose bed ends. The covers will be vinyl with Velcro straps each with a loop large enough to grasp with a gloved hand.                                    |            |           |                  |
| Pumphouse - Handrail - Knurled (each)  |            |           |                  |
| Four (4) handrail(s) will be installed at the pump house. Each handrail will be extruded aluminum with an aggressive knurled finish, and not less than 1 1/4" outside diameter.  |            |           |                  |
| Pumphouse - Inspection Plate - Stainless Steel (each)  |            |           |                  |
| Two (2) stainless steel removable inspection plate(s) will be provided for the specified outlets and/or inlets, to allow service of valves.  |            |           |                  |
| Pumphouse - Hood Step with LED Light (each)  |            |           |                  |
| Two (2) 8" wide hood step(s) will be installed above the side panel(s). Each step will be constructed from 1/8" aluminum checker plate and extrusion. An Amdor Luma Bar H2O LED light will be mounted underneath to illuminate the panel area below. |            |           |                  |
| Pump - Midship - Hale QFLO125 - 1,050 IGPM   |            |           |                  |
| Pump: Hale   |            |           |                  |
| Model: QFLO125 - 1,050 IGPM (125 USGPM)  |            |           |                  |
| Midship, Single Stage  |            |           |                  |
| Pump Assembly  |            |           |                  |
| The pump shall be of a size and design to mount on the chassis rails of commercial and custom truck chassis, and have the capacity of 1,050 imperial gallons per minute (IGPM), NFPA rated performance.  |            |           |                  |
| The entire pump shall be cast, manufactured and tested at the pump manufacturer's factory.   |            |           |                  |

| <b>Fire Apparatus Specifications</b>  | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|---|------------|-----------|------------------|
| The pump shall be driven by a drive line from the truck transmission. The engine shall provide sufficient horsepower and RPM to enable pump to meet or exceed its rated performance.  |            |           |                  |
| The entire pump, both suction and discharge passages, shall be hydrostatically tested to a pressure of 600 PSI (41 BAR). The pump shall be fully tested at the pump manufacturer's factory to the performance specs as outlined by the latest NFPA Standard 1901. Pump shall be free from objectionable pulsation and vibration.  |            |           |                  |
| The pump body and related parts shall be of fine grain alloy cast iron, with a minimum tensile strength of 30,000 PSI. All moving parts in contact with water shall be of high quality bronze or stainless steel.   |            |           |                  |
| Pump body shall be vertically split, on a single plane, for easy removable of impeller assembly, including clearance rings.   |            |           |                  |
| The pump body shall extend as one piece across the truck chassis from side to side incorporating both the main suction manifold and main discharge manifold.  |            |           |                  |
| Pump shaft to be rigidly supported by two bearings for minimum deflection. The bearings shall be heavy-duty, deep groove ball bearings in the gearbox and they shall be splash lubricated.  |            |           |                  |
| The pump shaft shall have one mechanical seal on the suction side of the pump. The seal must be spring loaded, maintenance free, and self-adjusting. The seal construction shall consist of a carbon sealing ring, stainless steel coil spring, Viton rubber cup, and a tungsten carbide seat.                                    |            |           |                  |
| Pump impeller shall be hard, fine grain bronze of the mixed flow design; accurately machined, hand-ground and individually balanced. The vanes of the impeller intake eye shall be hand-ground and polished to a sharp edge, and be of sufficient size and design to provide ample reserve capacity utilizing minimum horsepower. |            |           |                  |

| <b>Fire Apparatus Specifications</b>   | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|--|------------|-----------|------------------|
| Impeller clearance rings shall be bronze, easily renewable without replacing impellers or pump volute body.  |            |           |                  |
| The pump shaft shall be heat-treated, electric furnace, corrosion resistant, stainless steel. Pump shaft must be sealed with double lip oil seal to keep road dirt and water out of gearbox.   |            |           |                  |
| Gearbox  |            |           |                  |
| The gearbox shall be cast, manufactured and tested at the pump manufacturer's factory.   |            |           |                  |
| Pump gearbox shall be of sufficient size to withstand up to 16,000 lbs. ft. of torque of the engine in road operation condition. The gearbox shall be designed of ample capacity for lubrication reserve and to maintain the proper operating temperature.   |            |           |                  |
| The gearbox drive shafts shall be of heat-treated chromium steel and at least 2 3/4" in diameter, on both the input and output drive shafts. They shall withstand the full torque of the engine in both road and pump operating conditions.  |            |           |                  |
| All gears both drive and pump, shall be of highest quality electric furnace chrome nickel steel. Bores shall be ground to size and teeth integrated, crown-shaved and hardened, to give an extremely accurate gear for long life, smooth, quiet running and higher load carrying capability. An accurately cut spur design shall be provided to eliminate all possible end thrust. |            |           |                  |
| The pump ratio shall be selected by the apparatus manufacturer to give maximum performance with the engine and transmission selected.  |            |           |                  |
| If gearbox is equipped with a power shift, the shifting mechanism shall be a heat treated, hard anodized aluminum power cylinder, with stainless steel shaft. An in-cab control for rapid shift shall be provided that locks in Road or Pump.  |            |           |                  |

| <b>Fire Apparatus Specifications</b>  | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|---|------------|-----------|------------------|
| For automatic transmissions, three green warning lights shall be provided to indicate to the operator when the pump has completed shift from Road to Pump position. Two green lights are to be located in the truck driving compartment and one green light is to be located on the pump operator's panel adjacent to the throttle control. For manual transmissions, one green warning light will be provided for the driving compartment. All lights are to have appropriate identification/instruction plates. |            |           |                  |
| Priming Pump  |            |           |                  |
| The priming pump shall be a positive displacement, oil-less, rotary vane 12 VDC electric motor driven pump conforming to current ULC standards. The pump body will be manufactured of heat treated anodized aluminum for wear and corrosion resistance.   |            |           |                  |
|   |            |           |                  |
| The pump will be operated by a single push-pull control valve mounted on the pump operator panel.   |            |           |                  |
|   |            |           |                  |
| Drains  |            |           |                  |
| A single ¼ turn drain valve will be supplied for the pump while the remaining discharges will have independent ¼ turn drains. For difficult to reach plumbing auto drains may be used.  |            |           |                  |
|   |            |           |                  |
|   |            |           |                  |
|   |            |           |                  |
| Pump Panel - Pressure Governor - FRC - Pump Boss  |            |           |                  |
| A Fire Research Pump Boss pressure governor and monitoring display kit shall be installed. The control module case shall be waterproof and have dimensions not to exceed 6 3/4" high by 4 5/8" wide by 1 3/4" deep. Inputs for monitored information shall be from a J1939 databus or independent sensors. Outputs for engine control shall be on the J1939 databus or engine specific wiring.  |            |           |                  |
|   |            |           |                  |
| The following continuous displays shall be provided:  |            |           |                  |
| · CHECK ENGINE and STOP ENGINE warning LEDs   |            |           |                  |
| · Engine RPM; shown with four daylight bright LED digits more than 1/2" high  |            |           |                  |
| · Engine OIL PRESSURE; shown on an LED bar graph display in 10 psi increments   |            |           |                  |

| <b>Fire Apparatus Specifications</b>   | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|--|------------|-----------|------------------|
| · Engine TEMPERATURE; shown on an LED bar graph display in 10 degree increments  |            |           |                  |
| · BATTERY VOLTAGE; shown on an LED bar graph display in 0.5 volt increments  |            |           |                  |
| · PSI / RPM setting; shown on a dot matrix message display   |            |           |                  |
| · PSI and RPM mode LEDs  |            |           |                  |
| · THROTTLE READY LED   |            |           |                  |
|  |            |           |                  |
| A dot-matrix message display shall show diagnostic and warning messages as they occur. It shall show monitored apparatus information, stored data, and program options when selected by the operator. The brightness of the displays shall be automatically adjusted for day or night viewing.   |            |           |                  |
|  |            |           |                  |
| The program shall store the accumulated operating hours for the pump and engine, previous incident hours, and current incident hours in a non-volatile memory. Stored elapsed hours shall be displayed at the push of a button. It shall monitor inputs and support audible and visual warning alarms for the following conditions:                                |            |           |                  |
| · High Engine RPM  |            |           |                  |
| · Pump Overheat  |            |           |                  |
| · High Transmission Temperature  |            |           |                  |
| · Low Battery Voltage (Engine Off)   |            |           |                  |
| · Low Battery Voltage (Engine Running)   |            |           |                  |
| · High Battery Voltage   |            |           |                  |
| · Low Engine Oil Pressure  |            |           |                  |
| · High Engine Coolant Temperature  |            |           |                  |
|  |            |           |                  |
| The governor shall operate in two control modes, pressure and RPM. No discharge pressure or engine RPM variation shall occur when switching between modes. A control knob that uses optical technology shall adjust pressure or RPM settings. It shall be 2" in diameter with no mechanical stops, a serrated grip, and have a red idle push button in the center. |            |           |                  |

| <b>Fire Apparatus Specifications</b>   | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|--|------------|-----------|------------------|
| <p>A throttle ready LED shall light when the interlock signal is recognized. The governor shall start in pressure mode and set the engine RPM to idle. In pressure mode the governor shall automatically regulate the discharge pressure at the level set by the operator. In RPM mode the governor shall maintain the engine RPM at the level set by the operator except in the event of a discharge pressure increase. The governor shall limit a discharge pressure increase in RPM mode to a maximum of 30 psi. Other safety features shall include recognition of no water conditions with an automatic programmed response and a push button to return the engine to idle.</p> |            |           |                  |
|  |            |           |                  |
| <p>The pressure governor and monitoring display shall be programmed to interface with the specified engine.</p>  |            |           |                  |
|  |            |           |                  |
| <p>Pump Panel - Water Level Gauge - Class1 - Intelli-Tank ITL</p>  |            |           |                  |
| <p>The apparatus shall be equipped with One (1) Class 1 Intelli-Tank ITL water level gauge(s). Each gauge shall indicate the water level on four easy to read super bright, LED display and show increments of 1/8 of a tank. The tank level gauge will utilize an externally mounted pressure transducer and be capable of visual indication of nine accurate levels. No probe will be mounted inside the tank. The gauge will be easily identifiable with a coloured label.</p>  |            |           |                  |
|  |            |           |                  |
| <p>Pump Panel - Heat Exchanger with Fittings</p>   |            |           |                  |
| <p>A closed circuit auxiliary heat exchange will be supplied and installed in the engine cooling line, with a control valve located at the pump panel. The cooler will provide additional cooling capacity without loss of any antifreeze.</p>   |            |           |                  |
|  |            |           |                  |
| <p>Pump Panel - Gauge - 4 1/2" Compound Discharge Pressure</p>   |            |           |                  |
| <p>A 4 1/2" master pressure gauge for the discharge side of the pump shall be supplied and mounted in close proximity to the throttle, primer, and engine instrumentation. The intake gauge shall be to the left of the discharge gauge. Bright metal trim rings shall be supplied with each gauge. The face of each gauge will be black with contrasting white lettering showing the gauge range of 30" of mercury through to 400 psi and -100 through to 2800 kPa.</p>   |            |           |                  |

| <b>Fire Apparatus Specifications</b>  | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|---|------------|-----------|------------------|
| <p>All pressure gauges for the water pumping system shall be manufactured by Thuemling Instruments. They shall be fully filled with pulse and vibration dampening Interlube to lubricate the internal mechanisms to prevent lens condensation and to ensure proper operation to minus 40°F. The Zytel nylon cases shall be temperature compensated with an internal breathing diaphragm to permit fully filled cases and to allow a rigid lens with a distortion free viewing area.</p> |            |           |                  |
| <p>To prevent internal freezing and to keep contaminants from entering the gauge, the stem and Bourdon tube shall be filled with low temperature oil and be sealed from the water system using an isolating diaphragm located in the stem.</p>  |            |           |                  |
|   |            |           |                  |
| <p>Pump Panel - Gauge - 4 1/2" Compound Suction Vacuum</p>  |            |           |                  |
| <p>A 4 1/2" master pressure gauge for the suction side of the pump shall be supplied and mounted in close proximity to the throttle, primer, and engine instrumentation. The intake gauge shall be to the left of the discharge gauge. Bright metal trim rings shall be supplied with each gauge. The face of each gauge will be black with contrasting white lettering showing the gauge range of 30" of mercury through to 400 psi and -100 through to 2800 kPa.</p>                  |            |           |                  |
|   |            |           |                  |
| <p>All pressure gauges for the water pumping system shall be manufactured by Thuemling Instruments. They shall be fully filled with pulse and vibration dampening Interlube to lubricate the internal mechanisms to prevent lens condensation and to ensure proper operation to minus 40°F. The Zytel nylon cases shall be temperature compensated with an internal breathing diaphragm to permit fully filled cases and to allow a rigid lens with a distortion free viewing area.</p> |            |           |                  |
|   |            |           |                  |
| <p>To prevent internal freezing and to keep contaminants from entering the gauge, the stem and Bourdon tube shall be filled with low temperature oil and be sealed from the water system using an isolating diaphragm located in the stem.</p>  |            |           |                  |



| <b>Fire Apparatus Specifications</b>   | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|--|------------|-----------|------------------|
| Pump Panel - Gauge - 2 1/2" Discharge Pressure   |            |           |                  |
| Individual 2½" line gauges for each 1½" or larger discharges shall be supplied and mounted adjacent to the discharge valve control handle. A removable bright metal trim ring shall be supplied for each gauge. The face of each gauge will be black with contrasting white lettering showing the gauge range of 30" of mercury through to 400 psi and -100 through to 2800 kPa.   |            |           |                  |
|  |            |           |                  |
| All pressure gauges for the water pumping system shall be manufactured by Thuemling Instruments. They shall be fully filled with pulse and vibration dampening Interlube to lubricate the internal mechanisms to prevent lens condensation and to ensure proper operation to minus 40°F. The Zytel nylon cases shall be temperature compensated with an internal breathing diaphragm to permit fully filled cases and to allow a rigid lens with a distortion free viewing area. |            |           |                  |
| To prevent internal freezing and to keep contaminants from entering the gauge, the stem and Bourdon tube shall be filled with low temperature oil and be sealed from the water system using an isolating diaphragm located in the stem.  |            |           |                  |
|  |            |           |                  |
| Pump Panel - Alarm - High Temperature/Low Oil Pressure   |            |           |                  |
| An alarm system consisting of a red light and audible buzzer will be installed at the pump panel to indicate when the engine water temperature is too high or that the oil is too low.   |            |           |                  |
|  |            |           |                  |
| Plumbing - Slo Cloz (each)   |            |           |                  |
| A Slo-Cloz will be installed on the specified valve(s). The device will control the opening and closing speed of the valve. This operation will reduce the chance of ruptured water lines, burst hose, or damage seats and gaskets, and injury to the fire fighter, all caused by opening or closing the valve too quickly.  |            |           |                  |
| - For the following plumbing:  |            |           |                  |
| - For the 3" monitor plumbing (28-20-9200)   |            |           |                  |
|  |            |           |                  |
| Plumbing - 6" Main Suction - Left  |            |           |                  |
| One (1) 6" main suction will be provided from the pump and extend through the left side pump panel complete with trim around the opening. The suction end will terminate with NH threads. A screen and long handled chrome cap will be supplied.   |            |           |                  |

| <b>Fire Apparatus Specifications</b>   | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|--|------------|-----------|------------------|
| Plumbing - 6" Main Suction - Right   |            |           |                  |
| One (1) 6" main suction will be provided from the pump and extend through the right side pump panel complete with trim around the opening. The suction end will terminate with NH threads. A screen and long handled chrome cap will be supplied.  |            |           |                  |
| Plumbing - Suction Relief Valve (MRV) - Elkhart  |            |           |                  |
| One (1) Elkhart suction relief valve(s), preset for 125psi will be supplied and installed on the pump with the discharge side of the valve plumbed below the pump house. No threads will be provided on the discharge end to prevent a cap from being installed.   |            |           |                  |
| Plumbing - Ball Intake Valve - TFT - 4" Storz (each)   |            |           |                  |
| One (1) Task Force Tips model manually operated lightweight aluminum ball intake valve shall be provided. The unit shall be equipped with an adjustable pressure relief valve under the main valve body with an eight position adjustable inlet elbow. The valve shall be controlled with an NFPA compliant slow-close hand wheel gear operator which can be configured for left or right hand operation. A 3/4" bleeder valve shall be provided to exhaust excess air or water from the valve and hose line. A position indicator shall be provided to allow for quick visualization of the status of the valve in the open, closed or partial positions. For maximum corrosion protection the aluminum casting shall be hard coat anodized, with a powder coat internal and external finish and all components facing the wet side of the valve shall be constructed from stainless steel. |            |           |                  |
| The connections shall be 4" Storz swivel with 30 degree swiveling detent elbow and a female NH swivel long handle connection sized to match the pump main inlet and will include polymer bearing strips for prevention of galvanic corrosion.  |            |           |                  |
| Each valve will be supplied with a lightweight, heat treated aluminum Storz cap with suction gasket. A lanyard with eyelet for attachment shall also be supplied.  |            |           |                  |
| - Pt#: AB3SP-N*  |            |           |                  |
| - Includes Storz cap   |            |           |                  |
| - Passenger side   |            |           |                  |

| <b>Fire Apparatus Specifications</b>  | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|---|------------|-----------|------------------|
| Plumbing - Tank Suction - 4" with 3" Valve  |            |           |                  |
| A 4" flexible supply line is to be provided from the tank to the pump with a 3" valve. A 1/4 turn Akron valve will be supplied with the control handle will be located on the operators control panel.  |            |           |                  |
|   |            |           |                  |
| Plumbing - 2 1/2" Internal Suction - Left   |            |           |                  |
| One (1) 2 1/2" left suction inlet(s) will be supplied. Full 2 1/2" galvanized plumbing will be provided from the fire pump to the left side of the pump panel, and will terminate in a chrome plated port and cap with plastic coated cord.   |            |           |                  |
|   |            |           |                  |
| Each will be supplied with a 1/4 turn Akron valve with the control handle located on the operators control panel.   |            |           |                  |
|   |            |           |                  |
| Plumbing - 2 1/2" Internal Suction - Right  |            |           |                  |
| One (1) 2 1/2" right suction inlet(s) will be supplied. Full 2 1/2" galvanized plumbing will be provided from the fire pump to the left side of the pump panel, and will terminate in a chrome plated port and cap with plastic coated cord.  |            |           |                  |
|   |            |           |                  |
| Each will be supplied with a 1/4 turn Akron valve with the control handle located on the operators control panel.   |            |           |                  |
|   |            |           |                  |
| Plumbing - Tank Fill - 2" Valve   |            |           |                  |
| A 2" flexible fill line is to be provided from the pump to the tank with 1/4 turn Akron ball valve. The control handle will be located on the operators control panel.  |            |           |                  |
|   |            |           |                  |
| Plumbing - 1 1/2" Transverse Pre-Connect - Double   |            |           |                  |
| Two (2) 1 1/2" pre-connected outlets will be supplied overtop of the fire pump, each with a 2" valve. Each outlet will be plumbed directly from the pump by 2" galvanized pipe and will connect to the hose lay via full time swivel allowing the connection to pivot to either side of the body. Each hose lay will accommodate 200' of 1 1/2" or 1 3/4" double jacket fire hose. A single fixed divider will be supplied. |            |           |                  |
|   |            |           |                  |
| Each will be supplied with a 1/4 turn Akron valve with the control handle located on the operators control panel.   |            |           |                  |

| <b>Fire Apparatus Specifications</b>  | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|---|------------|-----------|------------------|
| Plumbing - 2 1/2" Discharge - Left  |            |           |                  |
| Two (2) 2 1/2" left discharge outlet(s) will be supplied. Full 2 1/2" galvanized plumbing will be provided from the fire pump to the left side of the pump panel and will terminate in a chrome plated 30 degree droop port and cap with plastic coated cord.   |            |           |                  |
| Each will be supplied with a 1/4 turn Akron valve with the control handle located on the operators control panel.   |            |           |                  |
| Plumbing - 2 1/2" Discharge - Right   |            |           |                  |
| Two (2) 2 1/2" right discharge outlet(s) will be supplied. Full 2 1/2" galvanized plumbing will be provided from the fire pump to the right side of the pump panel and will terminate in a chrome plated 30 degree droop port and cap with plastic coated cord.   |            |           |                  |
| Each will be supplied with a 1/4 turn Akron valve with the control handle located on the operators control panel.   |            |           |                  |
| Plumbing - 2 1/2" Discharge - Rear Right  |            |           |                  |
| One (1) 2 1/2" rear right discharge outlet(s) will be supplied. Full 2 1/2" galvanized plumbing will be provided from the fire pump to the rear of the body and will terminate in a chrome plated 30 degree droop port and cap with plastic coated cord. The plumbing will not pass through the water tank and will be supported at either end of the body. |            |           |                  |
| Each will be supplied with a 1/4 turn Akron valve with the control handle located on the operators control panel.   |            |           |                  |
| Plumbing - 3" Monitor Plumbing with Cap   |            |           |                  |
| One (1) 3" monitor discharge will be supplied with a 3" valve and plumbed directly from the fire pump with 3" galvanized pipe, terminating otop of the fire pump. This outlet will be capped for future use.  |            |           |                  |
| Each will be supplied with a 1/4 turn Akron valve with the control handle located on the operators control panel.   |            |           |                  |

| Fire Apparatus Specifications   | Yes | No | Variation |
|---|-----|----|-----------|
| Water Tank - Standard - 1,000 Imperial Gallon CoPoly  |     |    |           |
| Tank Construction   |     |    |           |
| <p>The tank will be constructed from U.V. stabilized, stress relieved copolymer polypropylene and is manufactured to the highest of industry standards. The outer shell, the lid, and the center baffles will be fabricated using a minimum 1/2" thick material, with the cross baffles and gussets a minimum of 3/8". All baffles and gussets extend from the floor of the tank to the lid. All tanks will incorporate thermoformed edges wherever possible to ensure maximum strength. The booster tank fill tower and sump box are constructed of 1/2" thick material and located as specified or as required. The fill tower is fitted with a removable screen and hinged lid, while the sump box will be fitted with a screen and 3" NPT drain. All booster tanks are fitted with a minimum of 2 1/2" suction outlet that draws directly from the sump box. All suction and fill fittings are machined with a minimum schedule 80 rating. All materials and components incorporated inside the tank are FDA approved allowing the tank to be used for potable water.</p> |     |    |           |
|   |     |    |           |
| Baffles and Lid   |     |    |           |
| <p>The longitudinal and horizontal baffles will be continuously welded in an interlocking design that allows proper venting during filling and suction. The lid is completely removable via countersunk stainless steel hardware and sits flush inside the outer wall of the tank. The lid will be fully supported by a minimum of 1 1/2" by 1" inside flange. All hardware used on the top of the lid, including the lifting lugs, will sit flush with the surface of the lid.</p>   |     |    |           |
|   |     |    |           |
| Venting   |     |    |           |
| <p>A vent pipe with a minimum inside diameter of 4" will be fabricated and installed from the fill tower through the baffles and exits out the bottom at a location specified by the customer. A secondary vent of 3/4" vent pipe is installed around the top of the inside perimeter of the tank and is vented out the fill tower. This allows for maximum filling when the tank is on a slope. All welds are injection or nitrogen gas welded using state of the art welding equipment.</p>   |     |    |           |

| Fire Apparatus Specifications  | Yes | No | Variation |
|--|-----|----|-----------|
| Tank Warranty  |     |    |           |
| All booster tanks will have a serial number, model number and date of manufacture engraved on the tank. A lifetime warranty certificate supplied with the tank.  |     |    |           |
|  |     |    |           |
| Foam System - FoamPro 1600 - Single  |     |    |           |
| <p>The apparatus shall be equipped with an electronic, fully automatic, variable speed, direct injection, discharge side foam proportioning system. The system shall be capable of handling Class A foam concentrate. The foam proportioning operation shall be based on direct measurement of water flows, and remain consistent within the specified flows and pressures. System must be capable of delivering accuracy to within 3% of calibrated settings over the advertised operation range when installed according to factory standards. The system shall be equipped with a control module suitable for installation on the pump panel. Incorporated within the motor driver shall be a microprocessor that receives input from the system flowmeter, while also monitoring foam concentrate pump output, comparing values to ensure that the operator preset proportional amount of foam concentrate is injected into the discharge side of the fire pump. A paddlewheel-type flowmeter shall be installed in the discharge system specified to be “foam capable.”</p> |     |    |           |
|  |     |    |           |
| The control module shall enable the pump operator to:  |     |    |           |
| · Activate the foam proportioning system   |     |    |           |
| · Select proportioning rates from 0.1% to 1.0%   |     |    |           |
| <ul style="list-style-type: none"> <li>· See a “low concentrate” warning light flash when the foam tank runs low and in two minutes, if foam concentrate is not added to the tank, shut the foam concentrate pump down</li> </ul>  |     |    |           |

| <b>Fire Apparatus Specifications</b>   | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|--|------------|-----------|------------------|
| <p>A 12 or 24-volt electric motor driven positive displacement plunger pump shall be provided. The pump capacity shall be 1.7 gpm (6.4 L/min) at 200 psi (13.8 BAR) with a maximum operating pressure up to 400 psi (27.6 BAR). The system will draw a maximum of 30 amps @ 12 VDC or 15 amps @ 24 VDC. The motor shall be controlled by the microprocessor (mounted to the base of the pump). It shall receive signals from the control module and power the 1/3 hp (.25 Kw) electric motor in a variable speed duty cycle to ensure that the correct proportion of concentrate is injected into the water stream. A full flow check valve shall be provided in the discharge piping to prevent foam contamination of fire pump and water tank. A 5 psi (.35 BAR) opening pressure check valve shall be provided in concentrate line.</p> |            |           |                  |
|  |            |           |                  |
| <p>Components of the complete proportioning system as described above shall include:</p>   |            |           |                  |
| <ul style="list-style-type: none"> <li>· Operator control module</li> </ul>  |            |           |                  |
| <ul style="list-style-type: none"> <li>· Paddlewheel flowmeter</li> </ul>  |            |           |                  |
| <ul style="list-style-type: none"> <li>· Pump and electric motor/motor driver</li> </ul>   |            |           |                  |
| <ul style="list-style-type: none"> <li>· Wiring harnesses</li> </ul>   |            |           |                  |
| <ul style="list-style-type: none"> <li>· Low level tank switch</li> </ul>  |            |           |                  |
| <ul style="list-style-type: none"> <li>· Foam injection check valve</li> </ul>   |            |           |                  |
| <ul style="list-style-type: none"> <li>· Main waterway check valve</li> </ul>  |            |           |                  |
|  |            |           |                  |
| <p>An installation and operation manual shall be provided for the unit, along with a one-year limited warranty by the manufacturer. The system must be installed and calibrated by a Certified FoamPro Dealer.</p>   |            |           |                  |
|  |            |           |                  |
| <p>The system design shall have passed environmental testing which simulates heavy use on off-road mobile apparatus. Testing shall have been conducted in accordance to SAE standards.</p>   |            |           |                  |
|  |            |           |                  |
|  |            |           |                  |
| <p>- To feed the 2x 1 1/2" preconnects (28-20-3700)</p>  |            |           |                  |
|  |            |           |                  |
| <p>Foam Tank - Internal - 20 Imperial Gallon CoPoly</p>  |            |           |                  |
| <p>One 20 imperial gallon foam concentrate tank will be supplied integral with the poly water tank. The tank shall be constructed of materials compatible with foam concentrates.</p>  |            |           |                  |

| <b>Fire Apparatus Specifications</b>  | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|---|------------|-----------|------------------|
| The foam tank will not impact or affect the water tank volume.  |            |           |                  |
|   |            |           |                  |
| Body - 132" Standard - Double High Side   |            |           |                  |
| Aluminum Body Module  |            |           |                  |
| The body is engineered to provide correct weight distribution on the chassis and is built in accordance with the current requirements published by Underwriters' Laboratory of Canada.  |            |           |                  |
|   |            |           |                  |
| The aluminum body will be separate from the cab body to allow for natural frame flex and will have the capability of being removed from the vehicle by unbolting the module from the chassis frame. The body will be fabricated from 1/8" H5052 H32 aluminum sheet and 6061-T6 extrusions utilizing long sheet forming techniques. The top and ends of the body sides will be reinforced with 2" x 2 7/8" extrusion to provide rigidity.  |            |           |                  |
|   |            |           |                  |
| Wheel Well Liners   |            |           |                  |
| Full width aluminum wheel well liners will be provided to keep water and road salt away from the body. The liners will be bolted in using stainless steel bolts and the liner will be completely removable to provide access to the rear spring shackles.   |            |           |                  |
|   |            |           |                  |
| Aluminum Checker plate  |            |           |                  |
| Hi-Shine 1/8" NFPA aluminum checker plate will be used on the compartment tops as standard  |            |           |                  |
|   |            |           |                  |
| Sub Frame   |            |           |                  |
| The body will be mounted to the chassis on a steel, 1/4" wall, tubular sub-frame. The sub-frame will also be attached to the chassis by four flanged mounts, using 1" diameter grade eight bolts and nuts.  |            |           |                  |
|   |            |           |                  |
| The sub-frame will consist of two longitudinal 4" x 4" tubes laid on the chassis frame and four transverse body support members. The forward body mount will be an 80" long x 4" x 2" cross member, the two center supports will measure 86" x 4" x 2" and the rear support will measure 46" x 4" x 2". Two additional 4" x 2" cross members will be provided mid-way between the longitudinal tubes. The sub-frame will be completely sealed in epoxy prior to installation on the body. |            |           |                  |



| Fire Apparatus Specifications  | Yes | No | Variation |
|--|-----|----|-----------|
| Handrails  |     |    |           |
| Extruded aluminum handrails fitted with inlaid rubber strips for improved grip, and not less than 1 1/4" outside diameter are provided where necessary on the body with a minimum of two vertical and one horizontal on the rear body face.  |     |    |           |
|  |     |    |           |
| Each handrail will be have an LED light strip inset on the back side to assist with illuminating the rear body area. These lights will be activated with the park brake.   |     |    |           |
|  |     |    |           |
|  |     |    |           |
|  |     |    |           |
| Compartments   |     |    |           |
| The side compartments shall be formed from individual compartment assemblies welded together into a unitized structure. The structure shall be designed with minimal parts to reduce the amount of welding required and minimize stress concentrators. The corner compartments front, rear outside and full depth inside wall shall be constructed from a single sheet of material. The formed forward, rearward compartments and wheel well assembly shall then be welded with a single compartment ceiling across all compartments. Each of the compartments will be sealed to prevent moisture from entering the structure. The roof will be capped with checker plate complete with an integral formed drip rail. Stainless steel overlays with a brushed finish will be provided on the front face of each body side face. Each overlay will extend the full height of the compartment exterior face and will wrap around the corner 1" to provide a finished appearance while protecting the body and paint from damage. |     |    |           |
|  |     |    |           |
| The rear face spanning between the body sides will be flush with the body side ends. A rear facing compartment will be formed in the same fashion as the side compartments and welded into an opening cut into the rear face.  |     |    |           |
|  |     |    |           |
| A pair of removable blinders commonly referred to as 'Beaver Tails' will be fabricated and attached to the inboard portion of the rear compartment ends. Each will extend from just above the tailboard to the height of the main hose bed providing a mounting location for light stanchions, handrails and other similar items.  |     |    |           |

| <b>Fire Apparatus Specifications</b>   | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|--|------------|-----------|------------------|
| Extrusion framed aluminum uprights will be provided the full length along the top of each body side in order to maximize storage capacity in the main hose bed area. The inner face will be smooth and free from protrusions.  |            |           |                  |
| Within each compartment, whether ahead of or behind the rear wheels shall be of double wall construction. This shall provide a protected mounting area for electrical nodes and other recessed components if applicable. Easily removable access panels shall be provided for maintenance purposes.  |            |           |                  |
| A large sweep out leading edge will be formed integral with each compartment floor. This sweep out shall create a sealing surface at the bottom of the door and shall prevent any water at the door from running back into the compartment. Compartments without sweep outs may form water traps and are therefore not acceptable.                             |            |           |                  |
| Seven (7) compartments will be provided, three on left side, three on the right side and one rear facing. For the purpose of clarity, the side facing compartments will be labeled L1, L2, and L3 for the driver side; R1, R2, R3 and R4 for the passenger side. The rear compartment will be labeled RR. The compartments will have the following dimensions: |            |           |                  |
| <b>Compartment Flooring</b>  |            |           |                  |
| All compartments where no permanently fixed trays or heavy equipment are located, removable plastic interlocking tiles will be supplied to allow air to circulate and to protect the compartment floor.  |            |           |                  |
| <b>Compartment Reinforcement</b>   |            |           |                  |
| The bottom of all lower compartment floors will be reinforced, to prevent "oil canning".   |            |           |                  |
| <b>Compartment Vents</b>   |            |           |                  |
| Each compartment will be supplied with an air vent, recessed into the wall, to allow air to circulate and to allow moisture to escape.   |            |           |                  |

| <b>Fire Apparatus Specifications</b>  | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|---|------------|-----------|------------------|
| <b>Compartment Lights</b>   |            |           |                  |
| Each side and rear facing compartment will be provided with Amdor Luma Bar LED compartment lights. They will be installed in each corner adjacent to the door opening to provide lighting the full height of the compartment.   |            |           |                  |
|   |            |           |                  |
| <b>Hose Bed Compartment</b>   |            |           |                  |
| The hose bed will be located above the water tank and will as a minimum meet with U.L.C. requirements for hose bed volume. The floor of the bed will be provided with removable, interlocking plastic Versatile grating to allow air flow to the hose. A formed aluminum open storage area will be provided at the front of the hose bed allowing separation between the water tank fill towers and the main hose bed area. The storage will be easily removable.                                       |            |           |                  |
|   |            |           |                  |
| Two sets of tracking will be provided along the forward face and a single track along the rear edge of the hose bed to allow the installation of fully adjustable dividers.   |            |           |                  |
|   |            |           |                  |
| <b>Rear Tailboard</b>   |            |           |                  |
| The complete tailboard assembly will be bolted to the body using 1/2" spacers to allow for drainage and removal if damaged. Heavy-duty aluminum 3" x 3" x 3/16" angle and 3" x 2" x 3/16" edge extrusion will form the framework and substructure to provide a very rigid and strong standing platform for firefighters. The sub frame will be covered with 1/8" high shine NFPA aluminum tread plate.  |            |           |                  |
|   |            |           |                  |
| <b>Body - Doors - Hinged - Single (each)</b>  |            |           |                  |
| The specified compartment opening(s) will be supplied with a single hinged recessed door of double-panned 1/8" aluminum sheet construction. The outer pan of each door will be flush with the body side when completely closed. Each door will seal against an automotive closed cell, semi-circular hollow tube, lining the compartment opening to provide a weatherproof seal. Hinges will be solid 1/4" cast stainless steel, bolted to the body and door, to provide years of trouble free service. |            |           |                  |

| <b>Fire Apparatus Specifications</b>   | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|--|------------|-----------|------------------|
| The door handles will be stainless steel paddle style with a two-stop door striker. The first striker will hold the door from opening even if the door is not fully closed. The second striker will hold the door in the fully closed and sealed position.   |            |           |                  |
| Each door that is vertically hinged or horizontally hinged along the top edge will be supplied with a minimum of one gas assist shock to help hold the door in the open position.  |            |           |                  |
| A pressure switch will be supplied in the corner of each compartment opening with a matching strike plate on the door. The switch will be used to trigger the door ajar system.  |            |           |                  |
| :  |            |           |                  |
| Body - Doors - Hinged - Double (each)  |            |           |                  |
| The specified compartment opening(s) will be supplied with recessed overlapping double doors, each of double-panned 1/8" aluminum sheet construction. The first door will close and seal against a flange provided on the second door. The outer pan of each door will be flush with the body side when completely closed. Each door will seal against an automotive closed cell, semi-circular hollow tube, lining the compartment opening to provide a weatherproof seal. Hinges will be solid 1/4" cast stainless steel, bolted to the body and door, to provide years of trouble free service. |            |           |                  |
| Each pair of doors will be supplied with a single stainless steel paddle style with a two-stop door striker for the overlapping door. The first striker will hold the door from opening even if the door is not fully closed. The second striker will hold the door in the fully closed and sealed position. An interior mounted, pull-to-release lever at the top of the second door will be provided within reach after the overlapping door is opened.  |            |           |                  |
| Each door will be supplied with a minimum of one gas assist shock to help hold the door in the open position.  |            |           |                  |
| A pressure switch will be supplied in the corner of each compartment opening with a matching strike plate on the door. The switch will be used to trigger the door ajar system.  |            |           |                  |

| <b>Fire Apparatus Specifications</b>   | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|--|------------|-----------|------------------|
| Body - Hose Bed Divider - 1/8" Aluminum  |            |           |                  |
| One (1) hose bed divider(s) will be supplied to provide division of the hose to suit the customer's requirements. Each divider will be constructed of 1/8" aluminum sheet and will be located on three adjustable tracks. Aluminum tubing will be welded along the top and end of the divider, for extra strength and to avoid any sharp edges. A handhold shall be cut in the end of the hose bed divider. One track will be located at the rear of the bed and two will be located at the forward end of the hose bed.     |            |           |                  |
|  |            |           |                  |
| Body - Hose Bed Cover - Vinyl with Marine Grade Snaps - Large  |            |           |                  |
| A cover will be provided and mounted over the main hose bed area. The cover will be black or red vinyl complete with marine style snaps down the sides of the hose bed area with Velcro straps at the rear. The strap will be complete with a loop large enough to grasp with a gloved hand.   |            |           |                  |
|  |            |           |                  |
|  |            |           |                  |
| Body - SCBA Storage - 8 in Side Compartment  |            |           |                  |
| The floor section of the compartment over the left body side fender will be used for the storage of eight (8) SCBA cylinders. The complete storage area for the cylinders will be semi recessed into the floor, side by side, at an angle, depth wise into the body to prevent the bottles from shifting or sliding. A copoly formed divider will be provided between each individual bottle storage spot to keep the bottles from rolling side to side. The copoly construction will protect the cylinders from any damage. |            |           |                  |
| - Copoly version   |            |           |                  |
|  |            |           |                  |
| Body - SCBA Storage - Bracket - Mounted (each)   |            |           |                  |
| One (1) Ziamatic brand self-contained breathing apparatus (SCBA) bracket(s) will be supplied and mounted in the specified compartment(s). The bracket shall consist of a back plate and a short foot plate, both of which shall be thermoplastic coated for trouble free service. The bracket shall feature two (2) high cycle double coated clips which shall not mar the cylinders.  |            |           |                  |
| - Mounted in the following compartments:   |            |           |                  |
| - 2 in L2 on the back wall   |            |           |                  |
|  |            |           |                  |

| <b>Fire Apparatus Specifications</b>   | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|--|------------|-----------|------------------|
| Body - Handrail - Knurled (each)   |            |           |                  |
| One (1) handrail(s) will be installed on the body at the specified locations. Each handrail will be extruded aluminum with an aggressive knurled finish, and not less than 1 1/4" outside diameter.  |            |           |                  |
|  |            |           |                  |
| Body - Step - Full Width (each)  |            |           |                  |
| An aluminum checkerplate full width hood step will be located above the tailboard to assist with the loading of hose. This step will be in addition to any other steps provided and will have an Amdor Luma Bar H2O LED light mounted along the underside to assist with illuminating the area below.  |            |           |                  |
|  |            |           |                  |
| Body - Step - Folding - NFPA Approved (each)   |            |           |                  |
| Four (4) folding step(s) will be installed to aid in getting to the top of the body. Each step will conform to NFPA 1901.  |            |           |                  |
|  |            |           |                  |
| Body - Step - Access Ladder - Zico Quic Ladder - 3096  |            |           |                  |
| A Zico 3096 Quic Ladder will be supplied and installed on the left rear body face of the apparatus to allow access to the main hose bed area. The Quick ladder is stored parallel to the body when in the folded position with the use of a locking handle. The Quic Ladder allows a more comfortable climbing angle by releasing the locking handle and pulling the folded section down. The ladder automatically latches and will not retract until the scissor lock is raised. The configuration will be specific to the design and requirements of the apparatus. Cast aluminum rungs with a flat, non-skid surface measuring 3" deep x 12 " wide will be used for the length of the ladder. The handrails will be 1-1/4" heavy walled aluminum tubing, covered between rungs by ribbed black neoprene tubing that provides a firm gripping surface. |            |           |                  |
| - 12" wide   |            |           |                  |
|  |            |           |                  |
| Body - Tray - Slide Out - 70% Extension - 250Lb (each)   |            |           |                  |
| One (1) roll out tray(s) will be installed in the specified compartment(s). Each tray will be constructed from 3/16" aluminum and will be attached to a pair of Grant rollout sliders rated for 250lb. The tray will be able to extend 70% of the sliders length and will have a 2" return lip around the perimeter with welded corners to give additional strength. A single gas shock will be installed below the tray to hold it in the stowed and extended positions.  |            |           |                  |

| <b>Fire Apparatus Specifications</b>  | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|---|------------|-----------|------------------|
| Each tray will be lined with removable rubber tile to allow for air circulation. Reflective red and white conspicuity striping will be applied to as much of the outward exposed faces of each tray as possible.  |            |           |                  |
| - Mounted in the following compartments:  |            |           |                  |
| - 1 in L3 lower   |            |           |                  |
| Body - Shelf - Adjustable - 3/16" - Small (each)  |            |           |                  |
| Six (6) adjustable shelf/shelves will be supplied and installed in the specified compartment(s) complete with tracking. Each shelf will be constructed from 3/16" aluminum plate with a 2" return lip around the perimeter with welded corners to give additional strength.   |            |           |                  |
| Each tray will be lined with removable rubber tile to allow for air circulation. Reflective red and white conspicuity striping will be applied to as much of the outward exposed face of each tray as possible.   |            |           |                  |
| - Mounted in the following compartments:  |            |           |                  |
| - 1 in L1   |            |           |                  |
| - 1 in L3   |            |           |                  |
| - 1 in R1   |            |           |                  |
| - 1 in R2   |            |           |                  |
| - 1 in R3   |            |           |                  |
| - 1 in R4   |            |           |                  |
| Body - Rub Rail - 3" Bolt On  |            |           |                  |
| Extruded aluminum 'C' channel extruded rub rail, measuring 3" high by 1 1/2" deep will be fastened to each body side below the compartment openings to protect against minor abrasions. The rub rail will be spaced 3/4" away from the body using nylon spacers to help prevent damage to the main body side from impact and prevent dirt from building up. |            |           |                  |
| Body - Fenderettes - Rubber   |            |           |                  |
| The rear body fenders will be trimmed with black rubber fenderettes.  |            |           |                  |
|   |            |           |                  |

| <b>Fire Apparatus Specifications</b>   | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|--|------------|-----------|------------------|
| Body - Tow Loops - Rear - Inside Compartment (pair)  |            |           |                  |
| One (1) pair of tow loops will be installed in the rear body compartment.  |            |           |                  |
|  |            |           |                  |
| Body - Bracket - Attic Ladder & 2 Pike Poles Low Mount   |            |           |                  |
| A pair of aluminum brackets will be fabricated in a reinforced L shape and mounted, one each end, to the ladder basket portion of the Zico HLAS ladder rack. Sets of brackets for a single folding attic ladder and two pike poles will be mounted to the inner facing portion of L shaped bracket.  |            |           |                  |
|  |            |           |                  |
| The brackets when mounted will hang below the ladder basket so as not to interfere with access to the main hose bed and occupy minimal space above the body compartments. The bracket location and design will allow for shoulder height access to the attic ladder and pike poles when the HLAS is the lowered position.  |            |           |                  |
|  |            |           |                  |
| Body - Bracket - Wheel Chocks (each)   |            |           |                  |
| One (1) bracket(s) will be constructed and installed as specified for the storage of One (1) pair(s) of wheel chocks.  |            |           |                  |
|  |            |           |                  |
| Ladder - Overhead - Zico Electric / Hydraulic HLAS   |            |           |                  |
| A Zico model HLAS electric-hydraulic ladder rack will be installed on the right body side fender forward of the R3 compartment. The system will be driven by a 12 volt motor and will have the capability of operating from being in the horizontal over the top to the vertical position on the side, to allow easy access to the ladders. Controls for the rack will be located at the rear.               |            |           |                  |
|  |            |           |                  |
| Flashing lights will be provided on the front and rear face of the rack. The lights will activate when the rack is out of the stowed position.   |            |           |                  |
|  |            |           |                  |
| The ladder rack base, motor, and vertical arms will have a cover fabricated from smooth aluminum formed in a double pan style complete with checkerplate cap formed in the same fashion as the compartment tops. The panel will sit flush with the body side when the ladder is in the stowed position and will be painted to match the body colour to provide a uniform, aesthetically pleasing appearance. |            |           |                  |
|  |            |           |                  |



| <b>Fire Apparatus Specifications</b>   | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|--|------------|-----------|------------------|
| - Includes the following:  |            |           |                  |
| Flashing Light Kit   |            |           |                  |
|  |            |           |                  |
| Suction Hose Storage - Trough with Spring Ties - 6"  |            |           |                  |
| Two (2) hard suction hose mounting trough(s) will be supplied. Each trough will be fabricated from 3/16" aluminum sheet and formed into a "U" shape. The trough will be mounted overtop the high side compartments, and will include two spring loaded hold-downs to securely hold the hose.   |            |           |                  |
|  |            |           |                  |
| Electrical - Wiring Diagram  |            |           |                  |
| The completed apparatus will be delivered with an "as built" wiring diagram which will show individual wire colors, wire gauges, and describe all major components and accessories supplied.   |            |           |                  |
|  |            |           |                  |
| Electrical - Base Wiring - Pumper  |            |           |                  |
| Electrical System  |            |           |                  |
| All 12-volt electrical equipment installed by the apparatus manufacturer shall conform to modern automotive practices. Particular attention will be paid to the design of the vehicle electrical system to ensure that it will perform in high moisture and road salt environments normally encountered in Canada. 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 device shall not exceed 10 percent. The wiring, wiring harness and insulation shall be in conformance to applicable SAE and ULC standards with SXL and GXL temperature properties. Any exposed wiring shall be protected in a loom with a minimum 285°F 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. |            |           |                  |

| Fire Apparatus Specifications   | Yes | No | Variation |
|---|-----|----|-----------|
| <p>The wiring connections and terminations shall use a method that provides a positive mechanical and electrical connection and shall be installed in accordance with the device manufacturer’s instructions. Electrical connections shall be with mechanical type fasteners and large rubber grommets where wiring passes through metal panels. Automatic reset circuit breakers shall be provided which conform to SAE Standards. Wiring shall be color coded. Exterior exposed wire connectors shall be environmentally sealed to withstand elements such as temperature extremes, moisture and automotive fluids. There shall be no exposed electrical cabling, harnesses, or terminal connections located in compartments, unless they are enclosed in a junction box, covered with a removable electrical panel or wrapped in a protective loom. The wiring shall be secured in place and protected against heat, liquid contaminants and damage.</p> |     |    |           |
| <p>Any holes made in the roof shall be caulked with silicon. Large fender washers, liberally caulked, shall be used when fastening equipment to the underside of the cab roof. When an electrical component is installed in an exposed area shall be mounted in a manner that shall not allow moisture to accumulate in it. Exposed area shall be defined as any location outside of the cab or body. Electrical components designed to be removed for maintenance shall have a coil of wire provided behind the appliance allowing them to be pulled away from mounting area for inspection and service work. Corrosion preventative compound shall be applied to all terminal plugs located outside of the cab or body. All non-waterproof connections shall require this compound in the plug to prevent corrosion and for easy separation (of the plug).</p>  |     |    |           |
| <p>All reflectors, directional and clearance lights required to comply with Transportation Canada Standards, shall be furnished. Rear identification lights at the tailboard level shall be recessed mounted for protection. Lights and wiring mounted in the rear bulkheads shall be protected from damage by installing a false bulkhead inside the rear compartments.</p>  |     |    |           |
| <p>An operational test shall be conducted to ensure that any equipment that is permanently attached to the electrical system is properly connected and in working order.</p>  |     |    |           |
| <p>Heat Shrink Tubing</p>   |     |    |           |
| <p>As standard, all terminals exposed to the environment will be crimped and sealed with heat shrink tubing.</p>  |     |    |           |
|   |     |    |           |

| <b>Fire Apparatus Specifications</b>   | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|--|------------|-----------|------------------|
| <b>Battery Master Switch</b>   |            |           |                  |
| A master switch will be provided in the cab near the driver's seat, which will be accessible to the driver.  |            |           |                  |
|  |            |           |                  |
| <b>Load Test on Circuits</b>   |            |           |                  |
| All body electrical circuits will have a load test applied to ensure that no components/accessory will draw more than 80% of the circuit breaker rating.   |            |           |                  |
|  |            |           |                  |
| <b>Engine Light</b>  |            |           |                  |
| An LED engine light will be supplied to illuminate the engine compartment area; a switch will be located under the hood.   |            |           |                  |
|  |            |           |                  |
| <b>Warning Buzzer</b>  |            |           |                  |
| A buzzer system will be provided from the rear of the vehicle to the cab to assist the driver when starting, stopping or backing up the vehicle. A buzzer will be located in the cab and a push button will be located at the rear of the vehicle.             |            |           |                  |
|  |            |           |                  |
| <b>Back Up Alarm</b>   |            |           |                  |
| A back up alarm will be installed to operate when the reverse gear is engaged.   |            |           |                  |
|  |            |           |                  |
| <b>Electrical - Battery Charger/Air Compressor - Kussmaul - Pump Plus 1200</b>   |            |           |                  |
| A Kussmaul Pump Plus 1200 kit will be supplied complete with an Auto Charge 1200 automatic battery charger with a maximum output of 40 amps at 12 volts. Remote, electronic voltage sensing stops the charger preventing overcharging and boil off conditions. |            |           |                  |
|  |            |           |                  |
| An LED bar graph display will be supplied in the cab located below the driver seat and visible when you open the driver's door. The display will indicate the state of charge and condition of the battery system.   |            |           |                  |

| <b>Fire Apparatus Specifications</b>  | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|---|------------|-----------|------------------|
| A Kussmaul Auto Pump 12 volt air compressor will be supplied and installed on the apparatus for maintaining the air pressure in the air brake system. The compressor will be supplied with an integral pressure switch allowing automatic activation and shall be capable of .30 SCFM at 80 PSI and .35 SCFM at 60 PSI.   |            |           |                  |
| A Super Auto Eject deluxe automatic power line disconnect will be supplied and installed at the specified location complete with yellow weatherproof cover. The receptacle will be configured for a 20 amp, 110 volt shoreline power source with a mating connector supplied loose. The Super Auto Eject will be connected to the starter circuit so that the receptacle is ejected upon engine start up.         |            |           |                  |
| - Includes Auto Eject Receptacle  |            |           |                  |
| - Receptacle mounted at the following location:   |            |           |                  |
| - At drivers cab step mid-way   |            |           |                  |
|   |            |           |                  |
| Electrical - Switch Panel - 6 Switches  |            |           |                  |
| The main emergency switches will be located in the main cab in a way that the switch panel will be easily accessible by both operators. The switch panel shall include a magnetic circuit breaker, which will not reset until the overload has been corrected.  |            |           |                  |
|   |            |           |                  |
| A back lit label will identify each switch. The back lighting will have two levels of intensity. The low level lights will be activated when the vehicle lights or the ignition switch are turned on. The high level will be activated when the individual switch is turned on. The circuit will be on a printed circuit board and the lights shall be of the solid state type and have a 100,000 hour life span. |            |           |                  |
|   |            |           |                  |
| Electrical - Light Bar - Whelen Justice NFPA 10 LED - 62"   |            |           |                  |
| One (1) Whelen Justice 10 LED NFPA roof mounted light bar will be supplied and permanently installed to the vehicle roof. The light bar will contain 8 red super LED's and two front facing clear LED's. The vehicle roof will be reinforced as needed to withstand the mounting of the bar.  |            |           |                  |

| <b>Fire Apparatus Specifications</b>  | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|---|------------|-----------|------------------|
| A switch will be provided in the cab. Any clear lights in the light bar will be deactivated when the park brake is applied.   |            |           |                  |
| - Pt#: JEONFPA  |            |           |                  |
| Electrical - Siren - Whelen 295SLSC1  |            |           |                  |
| One (1) Whelen 295SLSC1 Siren Amplifier will be installed in the cab, within reach of the driver and officer positions. The siren amplifier shall incorporate a 12V/200W siren installed on an aluminum alloy chassis covered by a black polycarbonate powder coated housing for maximum protection. The 295SLSC1 shall have the ability for either 100 or 200 watt output. The front overlay shall be made of velvet Lexan™ with a matte finish. The lettering and artwork on the overlay shall be illuminated with adjustable backlighting of soft LED non-glaring green. The operating controls will consist of a power switch, manual button, PA volume switch, horn button, and rotary switch. The 295SLSC1 PC board shall have input polarity protection, output short circuit protection. The siren amplifier shall include a 20A/32V fuse. The solid state siren speaker amplifier shall be vibration resistant. The 295SLSC1 shall have a removable unidirectional microphone. |            |           |                  |
| The 295SLSC1 shall have 21 Scan-Lock™ siren tones with two manual functions for additional siren tones. The siren amplifier shall have a “Siren in Use” icon driver and adjustable preset repeat radio volume. The 295SLSC1 shall have a “Park Kill” feature that disables the siren when the vehicle is in park. The PTT (push to talk) switch on the microphone shall override all siren functions. The 295SLSC1 shall have a combination On/Off and horn ring transfer switch with Bi-polarity horn/ring activation control. The 295SLSC1 shall have SI Test® capability to perform a complete diagnostic silent test of amplifier and speaker(s). The siren amplifier shall have a quick disconnect plug. The 295SLSC1 shall have the ability to activate siren tones with “Aux Enable” input either with a slide switch, power controls, or relay-to-ground connector.   |            |           |                  |
| Electrical - Speaker - Whelen SA314A with Cast Bezel (each)   |            |           |                  |
| One (1) Whelen SA314A 100 watt speaker(s) will be supplied; the speaker will be flush mounted in the front bumper with a cast bezel.  |            |           |                  |
| Electrical - Mobile Radio - Customer Supplied Radio   |            |           |                  |
| The customer supplied mobile radio will be installed in the cab complete with roof mounted antenna.   |            |           |                  |
| - Includes antenna  |            |           |                  |

| <b>Fire Apparatus Specifications</b>   | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|--|------------|-----------|------------------|
| Electrical - Courtesy Light - LED (each)   |            |           |                  |
| An LED light will be installed on the inside of each cab door and will be activated when the cab door opens.   |            |           |                  |
| - Mounted in the following locations:  |            |           |                  |
| - In the chassis cab doors   |            |           |                  |
|  |            |           |                  |
| Electrical - Front - Whelen M4 - Super LED (pair)  |            |           |                  |
| One (1) pair(s) of Whelen M4 super LED surface mounted warning lights will be installed. Each light shall be mounted with four screws to the front of the cab with a chrome flange and rubber grommet. The light shall be 3 3/8" high by 5 1/2" wide and have a profile of 1 3/8" beyond the mounting surface. Wiring shall extend from a weatherproof strain relief at the rear of the lamp head. |            |           |                  |
|  |            |           |                  |
| Each light shall have 12 red super LEDs and shall operate at 12 volts DC, drawing 2 amps. The lens shall be red in colour.   |            |           |                  |
| - Pt#: M4R   |            |           |                  |
|  |            |           |                  |
| Electrical - Hood - Whelen M4 - Super LED (pair)   |            |           |                  |
| One (1) pair(s) of Whelen M4 super LED surface mounted warning lights will be installed. Each light shall be mounted with four screws to the side of the cab with a chrome flange and rubber grommet. The light shall be 3 3/8" high by 5 1/2" wide and have a profile of 1 3/8" beyond the mounting surface. Wiring shall extend from a weatherproof strain relief at the rear of the lamp head.  |            |           |                  |
|  |            |           |                  |
| Each light shall have 12 red super LEDs and shall operate at 12 volts DC, drawing 2 amps. The lens shall be red in colour.   |            |           |                  |
| - Pt#: M4R   |            |           |                  |
|  |            |           |                  |
| Electrical - Door Ajar Warning System - Side Body  |            |           |                  |
| An automatic door ajar system will be supplied, which will activate the compartment light when the door is open. A door ajar light and buzzer will be mounted in the cab. The light will be in clear view of the driver and will come on with the buzzer when any side compartment door is open and the park brake is disabled. The system will be disabled when the parking brake is applied.     |            |           |                  |

| <b>Fire Apparatus Specifications</b>   | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|--|------------|-----------|------------------|
| Electrical - Additional Ajar System - Integral (each)  |            |           |                  |
| The ajar switch included with the specified equipment will be wired to the existing door ajar warning system and supplied with a light in the cab. The light is to warn the operator when the equipment is not stowed properly.  |            |           |                  |
| - For the following equipment:   |            |           |                  |
| - For the HLAS ladder access system  |            |           |                  |
|  |            |           |                  |
| Electrical - Ground Light - Amdor Luma Bar - 12" LED (each)  |            |           |                  |
| Four (4) Amdor Luma Bar H2O 12" LED ground lights will be installed under the cab and body edges for extra ground lighting for those vehicles that will be operating in dark areas. The lights under the cab doors will illuminate with the park brake being activated or by the respective door, should the park brake not be engaged. The remaining lights will be activated with the park brake only. |            |           |                  |
|  |            |           |                  |
| Electrical - Ground Light - Amdor Luma Bar - 40" LED (each)  |            |           |                  |
| Three (3) Amdor Luma Bar H2O 40" LED ground lights will be installed under the body edges for extra ground lighting for those vehicles that will be operating in dark areas. The lights will be activated with the park brake only.  |            |           |                  |
|  |            |           |                  |
| Electrical - Side Body - Whelen M6 - Super LED (pair)  |            |           |                  |
| One (1) pair(s) of Whelen M6 super LED surface mounted warning lights will be installed. Each light shall be mounted with four screws to the side of the body with a chrome flange and rubber grommet. The light shall be 4 5/16" high by 6 3/4" wide and have a profile of 1 3/8" beyond the mounting surface. Wiring shall extend from a weatherproof strain relief at the rear of the lamp head.      |            |           |                  |
|  |            |           |                  |
| Each light shall have 18 red super LEDs and shall operate at 12 volts DC, drawing 2 amps. The lens shall be red in colour.   |            |           |                  |
| - Pt#: M6R   |            |           |                  |

| <b>Fire Apparatus Specifications</b>  | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|---|------------|-----------|------------------|
| Electrical - Side Body - Whelen WION - Super LED (pair)   |            |           |                  |
| One (1) pair(s) of Whelen WION super LED surface mounted warning lights will be installed. Each light shall be mounted with two screws to the side of the body with a chrome flange and rubber grommet. The light shall be 1" high by 4" wide and have a profile of 1 1/4" beyond the mounting surface. Wiring shall extend from a weatherproof strain relief at the rear of the lamp head.         |            |           |                  |
| Each light shall have six red super LEDs with clear lens and shall operate at 12 volts DC, drawing 0.4 amps.  |            |           |                  |
| - Pt#: WIONSMC*   |            |           |                  |
| Electrical - Rear Body - Whelen M6 - Super LED (pair)   |            |           |                  |
| One (1) pair(s) of Whelen M6 super LED surface mounted warning lights will be installed. Each light shall be mounted with four screws to the rear of the body with a chrome flange and rubber grommet. The light shall be 4 5/16" high by 6 3/4" wide and have a profile of 1 3/8" beyond the mounting surface. Wiring shall extend from a weatherproof strain relief at the rear of the lamp head. |            |           |                  |
| Each light shall have 18 red super LEDs and shall operate at 12 volts DC, drawing 2 amps. The lens shall be red in colour.  |            |           |                  |
| - Pt#: M6R  |            |           |                  |
| Electrical - Tail Lights - Whelen M6 - LED (pair)   |            |           |                  |
| A pair of Whelen M6 series tail lights will be supplied mounted in a chrome bezel for four (4) lights. Each assembly will include Whelen LED stop lights, LED turn lights, LED backup lights and a mounting location for an M6 series warning light.  |            |           |                  |
| - Pt#: M6BTT, M6T, M6BUW  |            |           |                  |
| Electrical - Rotators - Whelen L31H Super LED (pair)  |            |           |                  |
| A pair of Whelen L31H red super LED, low profile beacons will be supplied and installed at the upper rear portion of the body. Each light will measure 4 1/64" in height and will be capable of producing a simulated rotating flash pattern when activated.  |            |           |                  |
| These lights will be wired as cruise lights set to activate at a low intensity when the marker lights are activated and the apparatus is not in response mode.  |            |           |                  |
| - Pt#: L31HRFN  |            |           |                  |



| <b>Fire Apparatus Specifications</b>  | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|---|------------|-----------|------------------|
| Electrical - Hose Bed - Amdor Lumabar - 40" LED (each)  |            |           |                  |
| One (1) Amdor Luma Bar H2O LED light will be mounted to an aluminum angle along the front edge of the main hose bed in order to illuminate the length of the main hose bed.   |            |           |                  |
|   |            |           |                  |
| A switch will be provided on the rear body face.  |            |           |                  |
|   |            |           |                  |
| Electrical - Clearance Light - Weldon - LED (each)  |            |           |                  |
| Weldon brand LED clearance, marker and indicator lights will be provided as required by Canadian Motor Vehicle Safety Standards. The lower clearance lights mounted at the rear of the body will be recessed into the edge of the tailboard extrusion to reduce the chance of damage to the lights. If the apparatus exceeds 25' in overall length, one (1) pair of side body marker LED lights will be supplied and installed. |            |           |                  |
| - Pt#: 9186-1500-XX   |            |           |                  |
|   |            |           |                  |
| Electrical - Clearance Light - Weldon - LED (each)  |            |           |                  |
| Truck Lite LED clearance, marker and indicator lights will be provided as required by Canadian Motor Vehicle Safety Standards. The lower clearance lights mounted at the rear of the body will be recessed into the edge of the tailboard extrusion to reduce the chance of damage to the lights. If the apparatus exceeds 25' in overall length, one (1) pair of side body marker LED lights will be supplied and installed.   |            |           |                  |
| - Pt#: 9186-8580-29   |            |           |                  |
|   |            |           |                  |
| Electrical - Surface Mount Step Lights - Whelen PEL - LED (each)  |            |           |                  |
| One (1) Whelen Perimeter Enhancement series surface mounted LED light(s) will be installed complete with a 40° angled chrome bezel to illuminate the stepping/walking surfaces.   |            |           |                  |
| The lights will be activated with the park brake.   |            |           |                  |
| - Pt#: PELCC  |            |           |                  |
| - Mounted at the following locations:   |            |           |                  |
| - Over top the rear access ladder   |            |           |                  |
|   |            |           |                  |
| Electrical - Surface Mount Step Lights - TecNiq E03 - LED (each)  |            |           |                  |
|   |            |           |                  |

| <b>Fire Apparatus Specifications</b>   | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|--|------------|-----------|------------------|
| - Mounted at the following locations:  |            |           |                  |
| 1- Rear body above full width step   |            |           |                  |
| 2- Front of body 1 each side above folding steps   |            |           |                  |
|  |            |           |                  |
| Paint - Body - Clear Coat  |            |           |                  |
| The body will be clear coated as required. PPG brand products.   |            |           |                  |
|  |            |           |                  |
| Paint - Body - Undercoating  |            |           |                  |
| The complete underside of the body will be coated using Core-Tek VPCI-368, a time proven coating that provides excellent protection. The coating will include the entire under portion of the body, the rear fender wells, and the inside of the body up to the level of the water tank. The coating meets ASTM B-117, G-85, D-1748 for salt spray, prohesion, and humidity.   |            |           |                  |
|  |            |           |                  |
| Paint - Body - Single Axle - One Tone - Pumper   |            |           |                  |
| Paint  |            |           |                  |
| Only the highest quality PPG base/clear paint will be used, to provide a high lustre and long lasting paint finish. The structure to be painted will have all hardware removed to ensure that all areas are protected by paint. The body will be thoroughly cleaned and sanded, before the base coat of epoxy is applied. Next, a coat of high build primer is applied and completely sanded to a smooth finish. A three step final finish provides a non-porous, chemical resistant surface giving a high sheen, acid resistant, long lasting finish. |            |           |                  |
|  |            |           |                  |
| Paint Body   |            |           |                  |
| The body will be painted and finished in one tone color.   |            |           |                  |
|  |            |           |                  |
| Paint - Hinged Door Finish - Painted - Single Tone (each)  |            |           |                  |
| The hinged doors will be prepared in the same fashion as the body and painted a single colour to match the body.   |            |           |                  |
|  |            |           |                  |
| Paint - Compartment Interior Finish - Gray or Yellow Epoxy   |            |           |                  |
| The interior of all compartments will be prepared and painted with an epoxy trunk splatter finish. The color will be gray or yellow.   |            |           |                  |
|  |            |           |                  |
| - To be determined at the preconstruction meeting  |            |           |                  |

| <b>Fire Apparatus Specifications</b>   | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|--|------------|-----------|------------------|
| <b>Striping - Lettering - Cab Doors</b>  |            |           |                  |
| Lettering 6" to 8" in height identifying the Fire Department name, and if required truck identification, will be applied to the cab doors. Font, colours, design and placement will be discussed with the department prior to application, as the apparatus nears completion.  |            |           |                  |
| <b>Striping - Reflective 4" Side - Hinged Doors</b>  |            |           |                  |
| A 4" wide reflective stripe shall be applied the full length of the body and cab sides, including the hinged doors. This stripe shall continue to the front face of the cab where space allows and to the rear face of the body if applicable.   |            |           |                  |
| - Colours as follows: White  |            |           |                  |
| <b>Striping - Reflective Chevron - Body Rear Complete</b>  |            |           |                  |
| Chevron striping will be applied to the entire rear face of the body with the exception of items fixed to the rear of the body such as warning lights, handrails, beavertails etc. The striping will consist of a series of 6" reflective stripes angled towards the ground on the respective side of the vehicle.   |            |           |                  |
| - Colours as follows: Red and Amber  |            |           |                  |
| <b>Wheels - Baby Moons &amp; Lug Nut Covers - Single Axle - Chrome</b>   |            |           |                  |
| Chrome nut covers will be supplied to the front and rear wheels of the vehicle. Baby moons will be supplied to the front and rear wheels.  |            |           |                  |
| <b>Label - CAN/ULC-S515-13 Testing and Label - Imperial</b>  |            |           |                  |
| After the completion of the vehicle, and before it is delivered to the customer, a representative from the Underwriters Laboratory of Canada (U.L.C.) will take the vehicle through a test to make sure it meets all the U.L.C. requirements. Some of these tests will be: pump test, lighting, road test, and weight distributions on the axles. After the test is completed, a label will be issued from the U.L.C. to confirm that the vehicle met all the requirements. The label will be located at the pump panel. |            |           |                  |
| <b>Label - Fluid Type and Capacity</b>   |            |           |                  |
| A permanent label plate for the vehicle fluid type and capacity will be supplied. The plate will be mounted in the driver's compartment.   |            |           |                  |

| <b>Fire Apparatus Specifications</b>   | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|--|------------|-----------|------------------|
| <b>Label - Warning and Safety Label Package</b>  |            |           |                  |
| The apparatus will be fitted with all the safety and warning labels required in the current standards publication by Underwriters' Laboratory of Canada.   |            |           |                  |
|  |            |           |                  |
| <b>Vehicle Inspection</b>  |            |           |                  |
| The vehicle will be inspected at an authorized Provincial motor vehicle inspection station prior to delivery. The safety inspection decal will be affixed to the window.   |            |           |                  |
|  |            |           |                  |
| <b>Vehicle Clean Up and Detailing</b>  |            |           |                  |
| Prior to the final delivery, the vehicle will be professionally cleaned and detailed.  |            |           |                  |
|  |            |           |                  |
| <b>Quality Control Check</b>   |            |           |                  |
| The apparatus will undergo a full quality control inspection once the apparatus is completed.  |            |           |                  |
|  |            |           |                  |
| <b>Transportation Safety Kit</b>   |            |           |                  |
| Transportation safety kit will be supplied, and will include:  |            |           |                  |
| One (1) first aid kit.   |            |           |                  |
| One (1) 2.5 lb. ABC fire extinguisher.   |            |           |                  |
| One (1) set of dual faced triangular warning flares.   |            |           |                  |
| One (1) reflective safety vest   |            |           |                  |
|  |            |           |                  |
| <b>Delivery and Orientation</b>  |            |           |                  |
| The manufacturer will deliver the completed apparatus to the destination specified and provide at least one (1) day's orientation to the fire department on the operation of the main equipment supplied on the apparatus. |            |           |                  |
|  |            |           |                  |
| <b>Equipment - Hard Suction Hose - 6" x 10'</b>  |            |           |                  |
| Two (2) 10' length(s) of 6" lightweight hard suction hose will be supplied.  |            |           |                  |
|  |            |           |                  |
| <b>Equipment - Strainer - Northline - Barrel - 6"</b>  |            |           |                  |
| One (1) Northline 6" barrel strainer(s) will be supplied.  |            |           |                  |
|  |            |           |                  |
| <b>Equipment - Ladder - Duo Safety - #585A 10' Folding Attic</b>   |            |           |                  |
| One (1) Duo-Safety 10 foot folding attic ladder will be supplied.  |            |           |                  |

| <b>Fire Apparatus Specifications</b>   | <b>Yes</b> | <b>No</b> | <b>Variation</b> |
|--|------------|-----------|------------------|
| Equipment - Ladder - Duo Safety - #775A 12' Roof   |            |           |                  |
| One (1) Duo-Safety 12 foot ladder with folding hooks will be supplied.   |            |           |                  |
|  |            |           |                  |
| Equipment - Ladder - Duo Safety - #900A 24' Two Section  |            |           |                  |
| One (1) Duo-Safety 24 foot two section ladder will be supplied.  |            |           |                  |
|  |            |           |                  |
| Equipment - Pike Pole - Duo Safety Fiberglass - 8'   |            |           |                  |
| One (1) Duo-Safety 8 foot fiberglass handled pike pole(s) will be supplied.  |            |           |                  |
|  |            |           |                  |
| Equipment - Pike Pole - Duo Safety Fiberglass - 10'  |            |           |                  |
| One (1) Duo-Safety 10 foot fiberglass handled pike pole(s) will be supplied.   |            |           |                  |
|  |            |           |                  |
| Equipment - Wheel Chock - Hastings Brass (pair)  |            |           |                  |
| One (1) pair(s) of 12" x 8" aluminum wheel chocks will be supplied.  |            |           |                  |
|  |            |           |                  |
| - Pt#: HB310   |            |           |                  |
|  |            |           |                  |
| LIST OTHER ITEMS NOT LISTED ABOVE BUT NECESSARY AND/OR REQUIRED BY CAN/ULC-S515-13 standards OR ANY OTHER AUTHORITY IN BRITISH COLUMBIA. |            |           |                  |
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