



## REQUEST FOR PROPOSAL

# FIRE ENGINE

REQUEST FOR PROPOSAL NO. T14-FD2

ISSUE DATE: October 16, 2014

**CLOSING LOCATION:**

**City of Merritt City Hall  
2185 Voght Street  
Merritt, BC V1K 1B8**

**FINAL DATE AND TIME FOR RECEIPT OF PROPOSALS:**

Three complete copies of each proposal must be received by 3:00 p.m. Local time on  
**Wednesday, November 19, 2014**

**\*PROPOSALS WILL NOT BE OPENED IN PUBLIC\***

**CONTACT PERSON:**

DAVID TOMKINSON, FIRE CHIEF  
(250)378-5626  
(250)378-5621

[dtomkinson@merritt.ca](mailto:dtomkinson@merritt.ca)

**NOTE: Should any potential bidders download this Request for Proposal, it is the proponent's responsibility to check for Addenda's which will be posted on the City of Merritt website.**

[www.merritt.ca](http://www.merritt.ca)

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## SCOPE OF THE PROPOSAL

### 1.0 SCOPE

The City of Merritt (**City**) requests Proposals to select a qualified professional experienced company to Design & Manufacture One (1) new **High-Side Rescue Style Fire Engine** for the Merritt Fire Rescue Department (**MFRD**).

The City is seeking to identify and select a qualified supplier that has the knowledge, technical resources, experience, reputation and capacity to design, manufacture, deliver and provide continuous support for the Fire Engine.

The vehicle and equipment offered must provide optimum performance to be utilized at capacity on an ongoing basis at extreme/various elevations in adverse geographical and weather conditions.

The Fire Pumper Truck must include:

- ✓ Custom, 4-Door, Cab and Chassis
- ✓ High-Side Rescue Style Body
- ✓ Minimum 450 HP Cummins Engine
- ✓ Waterous 1750 IPGM Single Stage Pump
- ✓ Class A Foam System
- ✓ 800 Imperial Gallon Water Tank
- ✓ Cab Seating for six (6) firefighters
- ✓ Side Mount Pump Panel

The Fire Engine is to be the current production model with all the latest updates including, all manuals, instructions, training and requested spare parts.

For the detailed requirements for the **High-Side Rescue Style Fire Engine**, refer to: **Appendix A – Base Truck Specification Worksheet.**

The City intends to award to a Proponent who submits a Proposal which, in the sole opinion of the City, represents best overall value.

The Merritt Fire Rescue Department has met with several Suppliers in the past year to develop a concept and guide for this request for proposal. These meetings were for research purposes only.

## **1.2**            **AWARD**

Only proposals from Proponents who can meet all requirements the City of Merritt deems to be mandatory items will be accepted. The City will award the contract within 60 days of the due date.

## **1.3**            **ENQUIRIES**

All enquiries related to this “Request for Proposal” are to be directed to the City representative via email or phone at:

David Tomkinson, Fire Chief  
1799 Nicola Avenue  
Box 189,  
Merritt, BC, V1K 1B8  
Phone: (250)378-5626  
Email: [dtomkinson@merritt.ca](mailto:dtomkinson@merritt.ca)

Enquiries and responses will be recorded and will be made available, by request, to all proponents for examination.

## **2.0**            **CONTENT OF PROPOSAL**

Proposals (three copies) must be submitted in printed form or electronically. The following topics should be addressed in the following order.

### **2.1**            **Covering Letter**

A covering letter signed by an authorized representative of the company should be provided outlining the intent of the response and stating that the information contained in the response accurately describes the services to be provided. The response must also guarantee that all quoted prices will be honoured for a specified period from the submission date.

### **2.2**            **Proponent Profile and Reference**

A description of the consultant’s organization, size, and services provided areas of expertise and length of time in operation must be addressed. Please provide as described. References must be provided. If there are special concerns or restrictions on our use of the reference, these concerns must be addressed in the Proposal. We will not complete any agreement without adequate reference checks. Please provide references as described.

### 2.3 Proposed Work/Services

The Proponent must provide a detailed outline of the Works and Services necessary to carry out the project and any additional measures

### 2.4 Scheduling

The Proposal will include the Proponent's itinerary to complete the work (start-up, information gathering, pre-construction meetings and date of delivery.)

### 2.5 Costs

Submissions in response to this 'Request for Proposal' will include the following:

- Total cost to complete the design, build and delivery of the Fire Engine. The proposal will define the costs for the Proponent's goods and services.
- The Proposal shall outline the costs of all components and include taxes and other associated costs. All prices shall be in Canadian dollars.
- The cost must be a fixed lump sum amount and cover all work specified including all taxes. The City reserves the right to have the Proponent adjust their price prior to final award if in discussions additional features or issues not disclosed in the RFP arise.

### 2.6 Cost of Preparation

Any cost incurred by the Proponent in the preparation of this Proposal will be borne solely by the Proponent.

2.7 Submissions must be received no later than 3:00 p.m. on Wednesday, November 19, 2014, Titled **FIRE ENGINE: T14-FD2** to the attention of the following:

**Ken Ostraat, Financial Services Manager  
Box 189, 2185 Voght Street  
Merritt, BC  
V1K 1B8**

**City of Merritt – Request for Proposal  
FIRE ENGINE: T14-FD2**

**3.0 BID SHEET**

REQUEST FOR PROPOSAL: \_\_\_\_\_

CLOSING DATE: \_\_\_\_\_

The undersigned Bidder has carefully examined the Conditions, Specifications, and Drawings (if applicable) for the work requested and will construct or provide the services required.

This proposal is valid for: \_\_\_\_\_ days.

PRICE (applicable taxes extra) = \$ \_\_\_\_\_

GST 5% \$ \_\_\_\_\_

TOTAL: \$ \_\_\_\_\_

NOTE: If you are supplying goods, please include a delivery lead-time schedule with your submission.

FIRM NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE NO. \_\_\_\_\_ POSTAL CODE \_\_\_\_\_

FAX NO. \_\_\_\_\_ DATE \_\_\_\_\_

SIGNATURE OF BIDDER \_\_\_\_\_

PRINT NAME \_\_\_\_\_

## **4.0 INTERPRETATION**

### **4.1 DEFINITIONS**

- a. "Best Value" means the value placed upon quality, service, past performance and price.
- b. "City" means the City of Merritt
- c. "City Representative" means the representative or appointee engaged by the City to supervise the work.
- d. "MFRD" means the Merritt Fire Rescue Department.
- e. "must", "mandatory" or "required" means a requirement that must be met in order for a PROPOSAL to receive consideration.
- f. "Premises" shall mean building(s) or part of a building with its appurtenances.
- g. "Proposal" shall mean the proponent's submission to the RFP.
- h. "Proponent" means a party submitting a proposal to this RFP.
- i. "RFP" means the "Request for Proposal".
- j. "Request for RFP" (RFP) includes the documents listed in the index of the Request for RFP and any modifications thereof or additions thereto incorporated by addenda before the close of RFP's.
- k. "should" or "desirable" means a requirement having a significant degree of importance to the objectives of the Request for RFP.
- l. "Special Conditions" means the special conditions, which are included in the RFP.
- m. "Specifications" means the specifications which are included in the RFP.
- n. "Subcontractor" includes, inter alia, a person, firm or corporation having a contract with the Successful Proponent for the execution of a part or parts, or furnishing to the Successful Proponent materials and/or equipment called for in the RFP.
- o. "Successful Proponent" means the proponent submitting the most advantageous RFP as determined by the City of Merritt.
- p. "Work" means any labour, duty and/or efforts to accomplish the purpose of this project.

## 5.0 FORM OF PROPOSAL

Project Title: **PROPOSAL FOR A NEW, 2015 SINGLE-AXLE, 4-DOOR FIRE/RESCUE ENGINE WITH A 2000 G.P.M. PUMP (1750 IGPM)**

Department: **MERRITT FIRE RESCUE DEPARTMENT**

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The Proponent confirms it has obtained and carefully examined all of the documents making up the Request for Proposal issued by The City of Merritt and any addenda issued in connection therewith.

### **The Proponent undertakes and agrees that:**

#### **5.1 Execution of Contract**

If the offer contained in this proposal is accepted, upon being advised that the Contract Documents are available at the Office of the City Clerk, the Proponent will obtain the Contract Documents and Drawings, if any, and will execute and identify the Documents and Drawings in a form and manner acceptable to the City Clerk and will deliver the same with the required Performance Bond and Insurance material as set out in the said Contract Documents within (10) days from the time when the same are available or are delivered or mailed to the Proponent.

#### **5.2 Commencement, Prosecution and Completion of Work**

If awarded the Contract, the Proponent shall supply the goods on the date set out in the Contract Documents and shall complete the contract within the time specified in the Contract Documents.

#### **5.3 No Collusion**

Except as otherwise specified or as arising by reason of the provision of the Contract Documents, no person whether natural, or body corporate, other than the Proponent has or will have any interest or share in this proposal or in the proposed contract which may be completed in respect thereof. There is no collusion or arrangement between the Proponent and any other actual or prospective Proponents in connection with proposals submitted for this project and the Proponent has no knowledge of the contents of other proposals and has made no comparison of figures or agreement or arrangement, express or implied, with any other party in connection with the making of the proposal.



**5.4 No Withdrawal of Proposal**

This proposal is a speciality instrument as the Proposal’s deed and it shall not be withdrawn after the official opening thereof until it has been considered and rejected or award made in respect of it by the City and is irrevocable until a contract has been awarded to successful Proponent and a formal contract executed in respect thereof.

**5.5 Acceptance of Proposal**

The acceptance of the proposal by the City shall be made only by the notice in writing from the City Clerk or from the Fire Chief of the City addressed to the successful Proponent at the address given in this Form of Proposal and if the Proposal Documents are so worded, the proposal may be accepted either in whole or for any part of the project on which the proposal is made.

**5.6 Failure or Default of Proponent**

If the Proponent for any reason whatsoever fails or defaults in respect of any matter or thing which is an obligation of the Proponent under the terms of this proposal, the City at its option may consider the Proponent has abandoned the offer made or the contract if the offer has been accepted, whereupon the acceptance, if any, of the City shall be null and void and the City solution of its choosing.

Executed at \_\_\_\_\_, in the Province of BC this \_\_\_\_\_ day of \_\_\_\_\_, AD 20\_\_\_\_, under seal of the Proponent as a speciality instrument.

**NOTE:** If the Proponent is a corporation, in addition to signature, affix corporate seal. If a natural person makes the proposal, the Proponent must sign it with his/her name typed or clearly printed below the signature. If the Proponent is carrying on business under a firm name and **NOT** incorporated, the members of the firm must sign below the firm name and their names must be typed or clearly printed below the signature.

\_\_\_\_\_  
(Corporate Name if Proponent is a Corporation)

Per: \_\_\_\_\_

Per: \_\_\_\_\_

Mailing Address of Proponent:

\_\_\_\_\_  
Street

\_\_\_\_\_  
City Province Postal Code Telephone

## 6.0 INSTRUCTIONS TO PROPONENTS

The following terms will apply to this RFP and to any subsequent Contract. Submission of a RFP in response to this RFP indicates acceptance of all the following terms:

### 6.1 GENERAL

- a. The law applicable to this RFP shall be the law in effect in the Province of British Columbia. Except for an appeal from a British Columbia Court to the Supreme Court of Canada, no action in respect to this RFP shall be brought or maintained in any court other than in a court of the appropriate jurisdiction of the Province of British Columbia.
- b. In carrying out its obligations hereunder, the Proponent shall familiarize itself and comply with all applicable laws, bylaws, regulations, ordinances, codes, specifications and requirements of all regulatory authorities, and shall obtain all necessary licenses, permits and registrations as may be required by law. Where there are two or more laws, ordinances, rules, regulations or codes applicable to the Services, the more restrictive shall apply.
- c. Applicability of law: All references in the RFP to statutes and regulations thereto and City by-laws shall be deemed to be the most recent amendments thereto or replacements thereof.
- d. Copyright: All designs, drawings, concept drawings, specifications, digital, hard copies, web pages, internet pages, maps and plans commissioned by the City of Merritt, shall remain the property of the City of Merritt.
- e. In the case of any inconsistency or conflict between the provisions of the RFP, the provisions of such documents and addenda thereto will take precedence in governing in the following order: (1) addenda; (2) RFP; (3) Special Conditions; (4) Specifications; (6) Drawings; (8) Executed Form of RFP; (9) all other documents.
- f. Headings are for convenience only: Headings and titles in the RFP are for convenience only and are not explanatory of the clauses with which they appear.
- g. Method of payment is governed by City policy as well as applicable Federal and Provincial laws.
- h. The RFP, accepted submission, and City contract documents represent the entire Agreement between the City and the Successful Proponent and supersede all prior negotiations, representations or agreements either written or oral. The contract documents may be amended only by written instrument agreed and executed by the Successful Proponent and the City.

## **7.0 REQUESTS FOR RFP PROCESS**

### **7.1 NOT A TENDER CALL**

This RFP is not a tender call, and the submission of any response to this RFP does not create a tender process. This RFP is not an invitation for an offer to contract, and it is not an offer to contract made by the City.

### **7.2 NO OBLIGATION TO PROCEED**

Though the City fully intends at this time to proceed through the RFP, in order to select the services, the City is under no obligation to proceed to the purchase, or any other stage. The receipt by the City of any information (including any submissions, ideas, plans, drawings, models or other materials communicated or exhibited by any intended Proponent, or on its behalf) shall not impose any obligations on the City. There is no guarantee by the City, its Officers, employees or Managers, that the process initiated by the issuance of this RFP will continue, or that this RFP process or any RFP process will result in a contract with the City for the purchase of the equipment, service, or project.

### **7.3 LATE PROPOSALS**

Proposals received after the final date and time for receipt of Proposals will be considered as "Late Proposals." Late Proposals will not be accepted and will be returned unopened to the sender.

## **8.0 PRE-RFP INFORMATION**

### **8.1 COST OF PREPARATION**

Any cost incurred by the Proponent in the preparation of this Proposal will be borne solely by the Proponent.

### **8.2 INTENTION OF THE CITY**

The Proponent that submits to the City the most advantageous Proposal and which represents the interests of the City, best overall, may be awarded the contract. The City reserves the right to accept or reject all or part of the RFP, however, the City is not precluded from negotiating with the successful Proponent to modify its Proposal to best suit the needs of the City.

### **8.3 REJECTION OF PROPOSALS**

The City reserves the right to reject, at the City's Sole Discretion, any or all Proposals, without limiting the foregoing, any Proposal which either:

- a. is incomplete, obscure, irregular or unrealistic;
- b. has non-authorized (not initialled) erasures or corrections in the Proposal or any schedule thereto;
- c. omits or fails to include any one or more items in the Proposal for which a price is required by the RFP;
- d. fails to complete the information required by the RFP to be furnished with a Proposal or fails to complete the information required whether the same purports to be completed or not;

Further, a Proposal may be rejected on the basis of the Proponents past performance, financial capabilities, completion schedule and compliance with Federal, Provincial, and Municipal legislation. As it is the purpose of the City to obtain a Proposal most suitable to the interests of the City and what it wishes to accomplish, the City has the right to waive any irregularity or insufficiency in any Proposal submitted and to accept the Proposal which is deemed most favourable to the interest of the City.

### **8.4 EVALUATION CRITERIA**

- a. The following criteria, but not restricted thereto, will be used to evaluate responses:
- b. The Proponents organization and technical capability to provide service.
- c. The Proponents performance and experience on similar projects, as determined through reference checks.
- d. Awards will be made based on the Best Value offered, and the Best Value will be determined by the City. The quality of the service to be supplied, the conformity with the specifications, the suitability to requirements, guarantee clauses, and references shall all be taken into consideration.
- e. Evaluation Criteria: Proposals will be evaluated based on predetermined criteria and weighting as detailed on the attached Evaluation Criteria Matrix.

### **8.5 EVALUATION**

Evaluation of Proposals will performed by the City's Representatives.

### **8.6 CONFIDENTIALITY**

The City will endeavour to keep all Proposals confidential. The material contained in the Successful Proposal will be incorporated in a contract and information which is considered sensitive and/or proprietary shall be identified as such by the Proponent. Technical or commercial information included in the City contract shall not be released

if the Financial Services Manager deems such releases inappropriate, subject to the Freedom of Information Act.

### **8.7 CLARIFICATION**

The City reserves the right to seek Proposal clarification with the Proponents to assist in making evaluations.

### **8.8 GIFTS AND DONATIONS**

Proponents will not offer entertainment, gifts, gratuities, discounts, or special services, regardless of value, to any employee of the City or elected official. The Successful Proponent shall report to the Financial Services Manager any attempt by City employees or elected officials to obtain such favours.

### **8.9 ACCEPTANCE OF PROPOSAL**

The City of Merritt shall not be obligated in any manner to any Proponent whatsoever until a written agreement has been duly executed relating to an approved Proposal.

No act of the City other than a notice in writing signed by the Financial Services Manager shall constitute an acceptance of a Proposal. Such acceptance shall bind the successful Proponent to execute in a manner satisfactory to the City.

### **8.10 NEGOTIATION DELAY**

If a written Contract cannot be negotiated within thirty days of notification of the successful Proponent, the City may, at its sole discretion at any time thereafter, terminate negotiations with that Proponent and either negotiate a Contract with the next qualified Proponent or choose to terminate the RFP process and not enter into a Contract with any of the Proponents.

## **9.0 PROPOSAL PREPARATION**

### **9.1 ALTERNATIVE SOLUTIONS**

If alternative solutions are offered, please submit the information in the same format, as a separate Proposal.

### **9.2 CHANGES TO PROPOSAL WORDING**

The Proponent will not change the wording of its Proposal after closing and no words or comments will be added to the Proposal unless requested by the City for purposes of clarification.

### **9.3 LIMITATION OF DAMAGES**

The Proponent, by submitting a "Proposal", agrees that it will not claim damages, for whatever reason, relating to the RFP or in respect of the competitive process, in excess of an amount equivalent to the reasonable costs incurred by the Proponent in preparing its Proposal. The Proponent, by submitting a Proposal, waives any claim for loss of profits if no agreement is made with the Proponent.

### **9.4 FIRM PRICING**

Proposals must be firm for at least 90 days after the final date. Prices will be firm for the entire contract period.

### **9.5 CURRENCY AND TAXES**

Prices quoted are to be:

- in Canadian dollars;
- inclusive of duty, where applicable;
- FOB destination, delivery charges included where applicable; and
- including GST see (price Fee Summary Sheet Page )

## **10.0 ADDITIONAL TERMS**

### **10.1 SUB-CONTRACTING**

- a. Using a Sub-contractor (who must be clearly identified in the proposal) is acceptable. This includes a joint submission by two Proponents having no formal corporate links. However, in this case, one of these Proponents must be prepared to take overall responsibility for successful interconnection of the two product or service lines and this must be defined in the proposal.
- b. Sub-contracting to any firm or individual, whose current or past corporate or other interests may, in the City's opinion, give rise to a conflict of interest in connection with this project will not be permitted. This includes, but is not limited to, any firm or individual involved in the preparation of this proposal.

### **10.2 LIABILITY FOR ERRORS**

While the City 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 Contractors. The information is not guaranteed or warranted to be accurate by the City, nor is it necessarily comprehensive or exhaustive. Nothing in this RFP is intended to relieve Contractors from forming their own opinions and conclusions with respect to the matters addressed in this RFP.

### **10.3 AGREEMENT WITH TERMS**

By submitting a Proposal the Contractor agrees to all the terms and conditions of this RFP. Contractors who have obtained the RFP electronically must not alter any portion of the document, with the exception of adding the information requested. To do so will invalidate the proposal.

### **10.4 USE OF REQUEST FOR RFP**

This document, or any portion thereof, may not be used for any purpose other than the submission of proposals.

### **11.0 SPECIAL CONDITIONS**

- a. A qualified proposal is one which meets the needs and specifications of the City, the terms and conditions contained in the RFP. The preferred proposal is a qualified proposal offering the best value, as determined by the City.
- b. The City will decide whether a proposal is qualified by evaluating all of the proposals based on the needs of the City, specifications, terms and conditions and price. Representatives from the City of Merritt will examine all proposals and recommend which proposal is in the City's best interest.
- c. A proposal which is unqualified is one that exceeds the cost expectations of the City and/or does not meet the terms and conditions contained in the RFP and/or do not meet the needs and specifications of the City. The City reserves the right to reject any or all unqualified proposals.
- d. The City reserves the right to cancel this RFP at any time.
- e. The City recognizes that "Best Value" is the essential part of purchasing a product and/or service and therefore the City may prefer a proposal with a higher price, if it offers greater value and better serves the City's interests, as determined by the City, over a proposal with a low price. The City's decision shall be final.
- f. The City reserves the right to negotiate with a preferred Proponent, or any Proponent, on any details, including changes to specifications and price. If specifications require significant modification, all Proponents shall have the opportunity to adjust their proposals or re-submit altogether, as determined by the Financial Services Manager.
- g. All equipment, goods and workmanship must conform to all Laws and Standards

necessary for use in Canada and the Province of British Columbia.

- h. The Successful Proponent, herein named the Contractor, shall guarantee that his proposal will meet the needs of the City and that any or all item(s) supplied and/or service(s) rendered shall be correct. If the item(s) supplied by the Contractor and/or the service(s) rendered by it are in any way incorrect or unsuitable, all correction costs shall be borne solely by the Contractor.
- i. All proposed prices shall include delivery F.O.B. Merritt Fire Station or other destination point, as specified by the City, and the Contractor shall bear all risks of loss and/or damage.
- j. Where only one proposal is received, the City reserves the right not to make public the amount of the proposal. The amount of the proposal will be made public if a contract is awarded. The City reserves the right to accept or reject a proposal, where only one proposal is received.
- k. The City reserves the right in its sole discretion to accept or reject all or part of any proposal which is non-compliant with the requirements of this Invitation.
- l. The City shall not be obligated either to accept or reject any non-compliance with the requirements of this Invitation.
- m. Cancellation Clause: The City reserves the right to cancel the Contract Agreement for goods and/or services as outlined in this RFP, at any time, by providing 30 days written notice to the Proponent.

## **12.0 CONTRACTOR'S OBLIGATIONS**

### **12.1 REGISTRATION WITH WORKSAFE BC (WCB)**

The Contract may contain a provision that the Contractor and any approved Sub-Contractors must be registered with Worksafe BC (WCB), in which case Worksafe BC (WCB) coverage must be maintained for the duration of the Contract. Prior to receiving any payment, the Contractor may be required to submit a Worksafe BC (WCB) Clearance Letter indicating that all WCB assessments have been paid.

The Contractor shall ensure compliance on his part with the Workers' Compensation Act and any regulations thereunder, especially provisions of said Act or of regulations under said Act having to do with the prevention of accidents, the prevention of diseases and the provision of safe working conditions, including proper sanitation and ventilation.



In any case where pursuant to the provisions of the Workers' Compensation Act, the Workers' Compensation Board orders the Contractor in respect of his operations under this Agreement, to ease operations because of failure to install or adopt safety devices or appliances directed by the order of the said Board, or required under said Act or regulations thereunder or because said Board is of the opinion that conditions of immediate danger exist that would be likely to result in injury to any person, or because of lack of payment of an account due to the Board, the City on twenty-four (24) hours written notice to the Contractor, may terminate the Contract.

## **12.2 GOVERNING REGULATIONS**

The Contractor shall apply and pay for all necessary permits or licences required for the execution of the Work (but this shall include the obtaining of permanent easements or rights of servitude). The Contractor shall give all necessary notices, pay for all fees required by law, and comply with all laws, ordinances, rules and regulations relating to the Work and to the preservation of the public health. The Contractor shall be responsible for the safety of all workmen and equipment on the project in accordance with all applicable safety legislation passed by Federal, Provincial and local authorities governing safety.

## **13.0 INSURANCE PROTECTION AND DAMAGE**

### **13.1 GENERAL INSURANCE**

Before starting the Work, the Contractor shall file with the City, certificates of all insurance policies acceptable to the City. These certificates shall state that the insurance complies with the requirements of the Contract Documents and that the territory of the policy includes the country in which the Work is to be constructed.

Each insurance policy required under this Article shall contain an endorsement to provide all Named Insureds with prior notice of changes and cancellations. Such endorsement shall be in the following form:

"It is understood and agreed that the coverage provided by this policy will not be changed or amended in any way or cancelled until thirty (30) days after written notice of such change or cancellation shall have been given or sent by registered mail to all Named Insureds."

Should the Contractor fail to make a payment of any premiums or other assessments required by the Contractor's insurers to maintain such policies in force and effect, the City may in their discretion make payment of such premiums or assessments and deduct the amount thereof from such monies as may then or later be payable to the Contractor pursuant to the Contract Documents or recover the same from the Contractor as the City in his discretion may determine.

Whenever the word The City is to appear in the insurance policies, the legal name shall be inserted.

### **13.2 PROTECTION OF WORK, PROPERTY AND PUBLIC:**

The Contractor shall comply with all applicable laws, ordinances, rules, regulations and lawful orders of any public authority having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss. The Contractor shall protect the property adjacent to the Work areas from damage as the result of operations under the Contract. The Contractor shall protect the Work and the City's property from damage and shall make good at their own expense any damage which may arise as the result of the Contractor's operations under the Contract.

### **13.3 CONTRACTOR'S INSURANCE:**

Public Liability & Property Damage Insurance. The Contractor shall save and hold harmless the City, its officers, Managers, servants and employees, from and against any and all suits or claims alleging damage or injury (including death) to any person or property that may occur or that may be alleged to have occurred, in the course of the performance of this Contract, whether such claim shall be made by an employee of the Contractor, or by a third person and whether or not it shall be claimed that the alleged damage or injury (including death) was caused through a wilful or negligent act or omission of the Contractor, its officers, servants, Managers or employees, or a wilful negligent act or omission of any of its sub-contractors or any of their officers, servants, Managers or employees; and at its own expense, the Contractor shall defend any and all such actions and pay all legal charges, costs and other expenses arising there from.

The Contractor shall maintain and keep in force during the term of the Contract and until the date of the completion certificate, Two Million Dollars (\$2,000,000) inclusive limits for public liability and property damage, against liabilities or damages in respect of injuries to persons (including injuries resulting in death) and in respect of damage to property arising out of the performance of work.

The Contractor shall, at the time the Contract is signed, submit to the City two copies of the insurance policies required under this Article and shall also provide to the City from time-to-time, as may be required, satisfactory proof that such policies are still in full force and effect.

The City shall be a named insured on the policy. The policies shall preclude subrogation claims by the insurer against anyone insured thereunder. In addition, such insurance policy shall include the following "Cross Liability" clause:

"The insurance afforded by this policy shall apply in the same manner, as though separate policies were issued, to any action brought against any of the named insured by or on behalf of any other named insured."

#### **13.4 EQUIPMENT INSURANCE**

Notwithstanding anything contained elsewhere herein, it is understood and agreed that the City shall not be liable for any loss or damage to Contractor's equipment, including loss or use thereof. Each and every policy insuring the Contractor's equipment to be used on the Work shall contain the following clause:

"It is agreed that the right to subrogation against the City or any of its officers, employees, or Managers or their parent, subsidiary, affiliated, or associated companies or corporations, is hereby waived."

#### **13.5 AUTOMOTIVE INSURANCE**

A minimum of Two Million Dollars (\$2,000,000) of public liability and property damage insurance shall be carried on all automotive equipment.

#### **13.6 INDEMNITY**

The Contractor shall be liable for all loss, costs, damages, and expenses whatsoever incurred or suffered by the City, its elected officials, officers, employees and Managers (collectively) including but not limited to damage to or loss of property and loss of use thereof, and injury to or death of a person or persons resulting from or in connection with the performance, purported performance, or non-performance of this contract, excepting only where such loss, costs, damages and expenses are as a result of the sole negligence of the Indemnities.

The Contractor shall defend, indemnify and hold harmless the Indemnities from and against all claims, demands, actions, proceedings, and liabilities whatsoever and all costs and expenses incurred in connection therewith and resulting from the performance, purported performance, or non-performance of this contract, excepting only where such claim, demand, action, proceeding or liability is based on the sole negligence of the Indemnities.

#### **13.7 CITY REPRESENTATIVE**

A City Representative will be assigned by the City to oversee the compliance of the Proposal awarded to the Contractor. In addition, the Contractor will be expected to name a counterpart Project Manager. The Contractor's project manager will be responsible for providing scheduled status reports to the City Representative.

### **13.8 PAYMENT HOLDBACK**

The Contract may contain a provision whereby the City will hold back a portion of the total contract price until the requirements of the RFP have been met.

### **13.9 SOFTWARE**

It is the Contractor's responsibility to ensure that the City has all licenses required to use any software that may be supplied by the Contractor pursuant to the Contract.

### **13.10 ARBITRATION**

All disputes arising out of or in connection with the contract must, unless the parties otherwise agree, be referred to and finally resolved by arbitration pursuant to the Commercial Arbitration Act.

## **14.0 SPECIFICATIONS**

See APPENDIX A – Base Fire Engine Specification Worksheet.

## 15.0 EVALUATION CRITERIA MATRIX

### Evaluation Criteria Matrix for Fire Engine Request for Proposal

The evaluation team will apply the following criteria to the RFP evaluation process:

Price shall mean:

- a. Quoted prices from qualifying Proposals evaluated by \$50,000 increments.

Ability to meet specifications and workmanship shall mean:

- a. The direct experience the City of Merritt has had with a Dealer/Manufacturer.
- b. Referenced by other municipalities on their experience with a Dealer/Manufacturer. A minimum of three (3) references will be required.

Warranty/Service/Repair shall refer to:

- a. Parts – are parts readily available within BC, Canada, USA, or other.
- b. Is technical support readily available during regular business hours either by phone, email or internet?
- c. Consideration of types and length of warranty.

Delivery Date shall mean:

- a. The specified delivery date of a finished High-Side Rescue Style Fire Engine from the confirmed date ordered.
- b. Delivery date will be weight based on a monthly basis.

Criteria	Weight	Score	Weight Key			
			Not Satisfied Score = 0	Somewhat Satisfied Score = 1	Satisfied Score = 2	Very Satisfied Score = 3
1. Price – based on	40%					
2. Ability to meet specification and quality workmanship.	30%					
3. Warranty/Service/Repair and availability of parts.	20 %					
4. Delivery Time	10%					

**16.0 INSTRUCTIONS TO SUPPLIERS**

**BASE FIRE ENGINE SPECIFICATION WORKSHEET**

1. The Supplier shall respond to the specifications on the attached documents. These documents allow comparisons of what is being offered by each Supplier against the specification. The City of Merritt may consider and take into account any variations from the specifications in the evaluation process.
2. If the Supplier is meeting the intent of the individual proposed items, they shall indicate so in the “Yes” column to the right of the item with an “X”.

Example:

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	A Cummins ISL9 450 HP low emission, VGT Turbocharged, diesel engine with manual and automatic high idle (1250 RPM) controlled on V-MUX.	<b>X</b>		

3. If only a portion of the item is being offered, an alternative is offered, or the item can't be supplied, the Supplier shall type/print in the Specification/Variation column the exception and indicated with an “X” in the no column. If the explanation requires more space, please provide an extra sheet noting page and item numbers. Please note that taking an exception or indicating NO will not eliminate the Supplier from process as long as there is an exception noted that can be evaluated.

Example:

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	A Cummins ISL9 450 HP low emission, VGT Turbocharged, diesel engine with manual and automatic high idle (1250 RPM) controlled on V-MUX.		<b>X</b>	<i>No, will supply a 500 HP low emission diesel engine...</i>

4. The Supplier shall be prepared to clarify any unclear specifications. Any additional information added to this document should be added in **RED**.

## 17.0 APPENDIX A – Base Fire Engine Specification Worksheet

### STATEMENT OF WORK

The City of Merritt (**City**) requests Proposals to select a qualified professional experienced company to Design & Manufacture One (1) new **High-Side Rescue Style Body Fire Engine** for the Merritt Fire Rescue Department (**MFRD**).

The City is seeking to identify and select a qualified supplier that has the knowledge, technical resources, experience, reputation and capacity to design, manufacture, deliver and provide continuous support for the Fire Engine.

The vehicle and equipment offered must provide optimum performance to be utilized at capacity on an ongoing basis at extreme/various elevations in adverse geographical and weather conditions.

### 1. GENERAL DESCRIPTION

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	New custom, 4-Door cab and chassis, low emission engine with a 2000 GPM (1750 IGPM] side mount pump, seating for six and custom High-Side Rescue Style Body.			
b.	2000 GPM (1750 IPGM) Single Stage Pump.			
c.	Class A Foam System.			
d.	800 Imperial Gallon Water Tank.			
e.	The finished Fire Engine's length shall be no longer than 430 inches.			
f.	When the Fire Engine is fully equipped and loaded, it shall be capable of the following performance; <ul style="list-style-type: none"> <li>o Must be able to accelerate to a speed of 55 kmph within 25</li> </ul>			

	<p>seconds.</p> <ul style="list-style-type: none"> <li>○ Shall be able to attain a minimum top speed of 80 kmph on level road. *Define manufacturer's maximum speed rating for tires installed on apparatus.</li> <li>○ Vehicles maximum top speed to be 110 kmph</li> <li>○ Shall be able to maintain a speed of at least 40 kmph on at 6% grade.</li> </ul>			
<b>g.</b>	Notwithstanding any other requirements, the unit shall meet the requirements contained in the Canadian Motor Vehicle Safety Standards, and the applicable British Columbia Provincial requirements.			
<b>h.</b>	All provisions of the current CAN/ULC-S515-04 Second Edition shall apply and be considered part of these specifications regardless of whether it is written in specifications or not.			
<b>i.</b>	The Fire Engine is required to be compliant with the NFPA 1901, latest edition.			
<b>j.</b>	The unit, when delivered, shall be listed and bear the label of the CAN/ULC.			
<b>k.</b>	Apparatus lights and reflectors shall conform to the British Columbia Motor Vehicle Act.			
<b>l.</b>	A weight distribution calculation shall be provided with the proposal.			



<b>m.</b>	An estimation of the electrical draw shall be provided with the proposal.			
<b>n.</b>	Manufacturer shall provide NFPA/ULC test data to confirm the carrying capacity of the water tank. Tank must carry the specified amount of water.			
<b>o.</b>	Warranty coverage applicable to various components or assemblies shall be specified. Such warranty coverage to become effective from the date the apparatus is put in service.			

## 2. DESIGN CHARACTERISTICS

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
<b>a.</b>	Design characteristics shall allow for the following weights of equipment and personnel without being overweight; 6 Firefighters (300lbs per) and full fluid levels and 400 lbs per compartment, with full hose beds as designed in this proposal and all ladders, equipment, generator and reel.			
<b>b.</b>	State Wheel Base			
<b>c.</b>	State Vehicle GVW			

## 3. SHOP MANUALS

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
<b>a.</b>	Two complete repair and operating manuals shall be provided; one (1) printed and one DVD or USB Drive each for: <ul style="list-style-type: none"> <li>○ Chassis.</li> <li>○ Electrical Manual / Electrical Schematics</li> <li>○ Engine Service Manual.</li> </ul>			

	<ul style="list-style-type: none"> <li>○ Transmission Service Manual.</li> <li>○ Asbuilts - wiring, hydraulic, air, plumbing schematics.</li> <li>○ Firefighting Equipment.</li> </ul>			
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#### 4. BODY MANUAL – CD & HARD COPY

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	One compact disc / USB drive and printed hard copy of the manuals shall be provided on the operations of the completed apparatus and shall include a troubleshooting guide complete with a recommended daily, weekly, and annual maintenance.			
b.	Supply a complete wiring diagram for the color coded wiring harness.			

#### 5. DRAWINGS

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	Engineering drawings are to be supplied, reviewed and approved by the Fire Chief prior to the commencement of the building of this Engine.			
b.	Drawings shall show at minimum 5-views; left, right, front, rear, and top views of the vehicle as it will look at time of completion.			
c.	A copy of these drawings shall be signed and returned to the apparatus manufacturer and become part of the vehicle contract documents.			

## 6. CUSTOM CHASSIS CAB

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	Spartan LFD Metro Star preferred.			
b.	A 10 inch raised roof cab with full length doors.			
c.	Seating for six (2/2/2) with five of these seats containing SCBA quick release brackets.			
d.	Storage compartment under rear seats.			
e.	Overall height with all equipment mounted must not exceed 11' 6" inches			
f.	Overall width with all equipment mounted must not exceed nine (9) feet.			
g.	An extended wrap around, polished stainless steel, front bumper that covers the full width of the cab shall be provided. A 21" extension is preferred.			
h.	A deep hose-well shall be recessed into the extended front bumper that will accept 150' of pre-connected 1 3/4" hose and nozzle.			
i.	Two (2) corrosion proof Tow Eyes shall be mounted directly to the chassis frame rails, on each side of the front bumper mounted; below the bumper.			
j.	Two (2) corrosion proof Tow Eyes shall be mounted directly to the chassis frame rails, on each side, at the rear of the truck. They shall be mounted in an easily accessible location, but not in a position to become a trip / safety hazard when working around the truck.			

<b>k.</b>	State the angle of approach for the finished apparatus.			
<b>l.</b>	State the angle of departure for the finished apparatus.			
<b>m.</b>	Chassis to include Stainless Steel Cab Corners			
<b>n.</b>	Structural warranty of a minimum ten years or 100,000 miles.			
<b>o.</b>	Cab test information: Cab Crash Test ECE-R29			
<b>p.</b>	Vehicle to be equipped with an Occupant Protection System to increase the survivability of a qualifying frontal impact, side impact or rollover event.			
<b>q.</b>	The cab paint exterior shall be two-tone (white over red).			
<b>r.</b>	The chassis as specified shall meet applicable criteria of ULCS-515 and shall include the ULC marking.			

## 7. LOW VOLTAGE ELECTRICAL POWER DISTRIBUTION

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
<b>a.</b>	A 12V DC Multiplex Weldon V-MUX Low voltage electrical system or equivalent shall be supplied including two, dash mounted multiplex Vista displays.			
<b>b.</b>	One Multiplex Weldon V-MUX load management system to be included.			
<b>c.</b>	One data recording system to be included.			

## 8. ENGINE

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	A Cummins ISL9 450 HP low emission, VGT Turbocharged, diesel engine with manual and automatic high idle (1250 RPM) controlled on V-MUX.			
b.	NFPA standard programmed road speed governor.			
c.	Forward fluid fills/checks with electronic oil level indicator.			
d.	1000 watt, 120 volt engine coolant heater with automatic thermostat shall be installed. The block heater shall be connected to the shoreline electrical inlet.			
e.	A clutched fan drive shall be provided for the engine fan. A manual fan override with electric switch on the drivers' instrument panel shall be installed.			
f.	A pressure sensing governor control shall be provided to control and modulate the engine governor. The PSG control shall be interlocked through the vehicle parking brake to prevent accidental operation and will disengage the vehicle foot throttle when in operation. The pressure sensing governor will allow the engine throttle to be governed to maintain either engine speed or fire pump water pressure.			
g.	A recessed weatherproof male 120 volt "Shore Power" receptacle shall be installed			

	and wired to the block heater, portable radio chargers, air compressor, battery conditioner and any other 110 volt chargers. This plug shall be the automatic self-release type wired to the start button and include a display to indicate that power is on.			
<b>h.</b>	A compression style, auxiliary engine brake shall be provided.			

### 9. ENGINE HOUR METER

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
<b>a.</b>	An engine hour meter shall be provided on the dash.			

### 10. ENGINE COOLING

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
<b>a.</b>	The engine cooling system shall be a filtered, heavy duty cooling system, extended life fluid with an electronic coolant level indicator and engine pump heat exchanger. System able to provide heavy duty cooling for vehicle in all modes of operation.			

### 11. AIR INTAKE

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
<b>a.</b>	Air intake skid plate is required.			

## 12. EXHAUST

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	The exhaust system shall be shielded to prevent any heat damage to compartments, wiring, plumbing or any other surrounding component of the truck.			
b.	The exhaust system shall discharge to the right side forward of the rear tires terminating to the Merritt Fire Rescue Department exhaust system. Mounting hardware compatible with the Department's current Plymovent Exhaust Removal System shall be installed.			
c.	Diesel Exhaust Fluid (DEF) shall have a capacity of six (6) usable gallons and shall be mounted on the left hand side of the chassis frame.			
d.	There shall be two (2) controls for the diesel particulate filter. One (1) control shall be for regeneration and one (1) control shall be for regeneration inhibit.			

## 13. TRANSMISSION

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	An Allison 3000 EVS automatic transmission with electronic			

	controls shall be provided. The automatic transmission range selector shall be a key pad type shifter, illuminated for night operation and shall be located to the right of the driver. A transmission temperature gauge with warning light and buzzer shall be mounted in the cab.			
<b>b.</b>	Transmission to include PTO output (on V-MUX), cooling system and transmission oil level indicator.			
<b>c.</b>	Transmission shall be supplied with synthetic lubricant.			

#### 14. FUEL SYSTEMS

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
<b>a.</b>	A fuel tank with a fuel/water separator and cooler with primary shut-off.			
<b>b.</b>	A Fuel Capacity of a minimum 68 gallon capacity. Increased fuel capacity is preferred matched by a Diesel Exhaust Fluid (DEF) reservoir appropriately sized.			
<b>c.</b>	A fuel fill assembly shall be provided on the left rear fender of the apparatus body. This fuel fill assembly shall include a spring loaded hinged door and a label stating "DIESEL FUEL ONLY".			



d.	The chassis fuel lines will have additional length provided so the tank can be easily lowered and remove for service purposes.			
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## 15. STEERING

DETAILED DESCRIPTION	YES	NO	SPECIFICATION / VARIATION	
a.	A maximum curb-to-curb turning radius must be detailed.			
b.	The apparatus steering shall be capable of single hand operation at idle with the chassis fully loaded.			
c.	The column shall have an integral self-cancelling turn signal and a padded steering wheel.			
d.	The steering column shall contain a horn button, four-way hazard switch and head lamp dimmer switch on turn lever.			
e.	A multi-adjustable tilting and telescoping steering column shall be supplied.			
f.	The air horn shall interface with the steering column horn.			

## 16. FRONT AXLE & SUSPENSION

DETAILED DESCRIPTION	YES	NO	SPECIFICATION / VARIATION	
a.	A front axle with oil lubrication for wheel bearings must have sufficient capacity to carry the truck's finished weight loaded.			

## 17. REAR AXLE & SUSPENSION

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	A rear axle with oil lubrication for wheel bearings must have sufficient capacity to carry the truck's finished weight loaded.			

## 18. TIRES

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	Two (2) front tires shall be supplied that will be sufficient for the G.V.W. of the fully equipped apparatus, matched to the rated axle weight, and stated turning radius. The tires shall be a brand name that is readily available.			
b.	Four (4) rear tires shall be supplied that will be sufficient for the G.V.W. of the fully equipped apparatus, matched to the rated axle weight, and stated turning radius. The tires shall be a brand name that is readily available.			

## 19. WHEELS

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	Front wheels (2), Rear wheels (4); Alcoa polished aluminum rims.			
b.	Stainless steel hub and lug nut covers.			
c.	Tire pressure indicators supplied at each tire valve stem.			

## 20. MUD FLAPS – FRONT AND REAR

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	Four heavy duty rubber mud flaps shall be provided and installed behind the front and rear wheels of the apparatus.			

## 21. BRAKES

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	Braking system must meet Canadian Motor Vehicle Standards and current ULC braking specifications.			
b.	A rapid build-up air brake system shall be provided with Anti-lock Braking System, Automatic Traction Control and Electronic Stability Control.			
c.	A momentary rocker style switch shall be provided and properly labeled “mud/snow”.			
d.	Park brake: All wheels; with brake control at left hand, dash mounted.			
e.	Brake slack adjusters are to be automatic.			
f.	The brake system shall also incorporate an air dryer, complete with heater.			
g.	A pull cord system for manually draining the reservoirs shall be supplied with remote drains. The pull cords shall be accessible from the side of the truck.			
h.	Brake dust shields are required.			

### 23. AIR SUPPLY SYSTEMS

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	A minimum 18.7 CFM air compressor shall be installed. NFPA compliant			
b.	All air reservoirs shall include automatic moisture ejector valves.			
c.	An auxiliary air reservoir shall be installed on the chassis to act as an additional reserve supply to the air system for air horn, air tool, or other non-service brake use.			
d.	An auxiliary 12 volt air compressor shall be plumbed to the airbrake system to maintain air pressure.			

### 24. FRONT BUMPER

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	A 21" full width, wrap-around, extended front bumper with stainless steel trim shall be supplied and shall include one aluminum hose bin installed within the front checker plate apron. The hose bin shall have capacity to hold 150 feet flat loaded of 1.75" hose with nozzle. Matting is required for air movement under the hose and for drainage. The checker plate cover shall be stainless steel hinged, held open with a gas strut and have a positive type latch assembly for secure closure.			
b.	The front bumper shall have <i>recessed</i> mounted;			

	<ul style="list-style-type: none"> <li>○ Two round Grover brand Stutter Tone or equivalent air horns.</li> <li>○ Two 100W polished aluminum, Whelen model SA122FMP electronic siren speakers.</li> <li>○ Federal Signal Q2B Mechanical Siren.</li> </ul>			
<b>c.</b>	The two tow loops shall be mounted to the frame below the front bumper and painted to match the frame.			
<b>d.</b>	A 2.5" discharge with a reducer to 1.5". The discharge will have a 90 degree chrome swivel elbow [left side].			

## 25. CAB TILT

DETAILED DESCRIPTION	YES	NO	SPECIFICATION / VARIATION
<b>a.</b> An electric/hydraulic cab tilt system shall be installed, with a manual backup system for raising or lowering the cab.			
<b>b.</b> A steel safety channel assembly shall be installed to prevent accidental lowering of the cab.			

## 26. CAB, CLIMATE, GLASS and FANS

DETAILED DESCRIPTION	YES	NO	SPECIFICATION / VARIATION
<b>a.</b> The cab windshield shall be laminated glass.			

<b>b.</b>	The cab doors shall have manual crank style window controls and tinted glass. The cab mid glass shall be tinted.			
<b>c.</b>	An air conditioner /heater/defroster shall be ceiling mounted above the engine tunnel in a central location.			
<b>d.</b>	Climate control activation shall be located on the Vista display and control screen.			
<b>e.</b>	The cab shall have two outboard circulation fans within the area of the front windshield.			

## 27. CAB INTERIOR

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
<b>a.</b>	Heavy duty, non-slip flooring; black/grey in color. Also to include aluminum trim molding where required. All seams to be sealed to prevent moisture and debris retention.			
<b>b.</b>	The cab shall have a Gamber Johnson laptop mounting system installed on the dash directly in front of the Officers' seat. The mounting shall be for a Panasonic CF31 Toughbook Computer supplied by the Merritt Fire Rescue Department. Model to be specified at pre-construction meeting.			
<b>c.</b>	Installation of a mobile VHF Radio in forward cab for operations by the Officer or Driver. [Merritt Fire Rescue			

	Department to program and supply radio & hand held microphone].			
<b>d.</b>	Installation of a charger bank for portable VHF Radios in forward cab. [Merritt Fire Rescue Department to supply, portable radios and charger] powered through shore power 120V.			
<b>e.</b>	Interior trim sun visors to be included.			
<b>f.</b>	There shall be three 12V DC power supplies located within the center cab dash, controlled by master power.			
<b>g.</b>	Step Trim: all cab steps to include a kick plate in the rise of each step finished with bright aluminum tread-plate.			
<b>h.</b>	Interior door trim: One piece painted aluminum. The inner door panel surfaces shall be painted with a Zolatone onyx black texture finish.			
<b>i.</b>	Exterior door trim: Kick-plate, polished stainless steel.			
<b>j.</b>	Six (6) On Scene – Talon Helmet Bracket shall be installed in positions easily accessible to all.			
<b>k.</b>	Storage compartment under the rear seats with door access from either side.			
<b>l.</b>	There shall be sufficient grab rails to safely enter and exit at each door. No step shall be			

	more than 18" and shall be full width of the door with grip strut.			
<b>m.</b>	Traffic advisor controller mounted with easy operation by the driver or the Officer.			
<b>n.</b>	Interior of each door shall include high visibility reflective chevron striping measuring no less than 6 inches in height.			
<b>o.</b>	The cab interior shall include trim on the front ceiling, rear crew ceiling and the cab walls. The trim shall be constructed of insulated vinyl over a hard board backing. Grey in color.			

## 28. CAB SEATS

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
<b>a.</b>	Seats shall include a covering of high strength, wear resistant fabric made of durable ballistic material; black/gray in color.			
<b>b.</b>	Forward Cab -Two seats in total. Driver's seat shall be a H.O. Bostrom Firefighter Sierra model seat with eight way electric positioning with standard seat back. The Officer seat shall be a Bostrom H.O. Firefighter Series with SecurAll SCBA Locking System.			
<b>c.</b>	Crew Area - Four seats in total. The seats shall be full size. Two (2) outside rear facing SCBA seats shall be equipped with Bostrom Secure All SCBA Locking System. Two (2) inside forward facing SCBA			



	seats shall be equipped with Bostrom SecureAll SCBA Locking System.			
<b>d.</b>	Seat belt warning sensors and position to be integrated on the V-MUX system.			
<b>e.</b>	A three point seat belt with shoulder strap and automatic retractor shall be provided for all occupants.			
<b>f.</b>	Driver and Officer seats shall have the seatbelt orientation reversed.			

## 29. CAB EXTERIOR

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
<b>a.</b>	Cab doors: Chrome hardware with stainless backer plates and manual operated door locks.			
<b>b.</b>	Exterior grab handles are to be stainless steel.			
<b>c.</b>	For grab handles beside an exterior door, a stainless steel backing plate from behind the handle to the bottom of the cab to protect the bodies' corner is to be supplied.			
<b>d.</b>	Stainless steel scuff plates on the outside corners at the back of the cab shall be provided.			
<b>e.</b>	Rear-view mirrors: Chromed, Bus style- electric controlled, heated, switched on V-MUX Vista control.			
<b>f.</b>	Stainless Steel trim band, 10" high, with upper and lower black and chrome trim moldings, shall be installed on the lower exterior sides of the			

	cab and doors, plus between the front bumper and the front door, and shall be affixed without holes and fasteners.			
<b>g.</b>	Cab fender: polished aluminum.			
<b>h.</b>	The lower left and right side compartments shall feature a manual door lock.			
<b>i.</b>	All key locks to be keyed alike. 4 sets of keys to be provided.			

### 30. ANTENNA – VHF HIGH GAIN - METAL MOUNT

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
<b>a.</b>	One VHF high gain antenna kit shall be mounted and wiring provided at a location to be determined at the preconstruction meeting. The antenna shall be high quality, all brass and gold plated contact design communications antenna and shall be mounted as not to interfere with light bar or other roof mounted equipment.			

### 32. WARNING LABELS

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
<b>a.</b>	A warning label shall be provided in the cab within sight of the driver stating the capacity of the cab and advising that all occupants must be seated and belted.			
<b>b.</b>	A plate visible to the driver shall show the overall height, length & GVWR.			

### 33. FLUID CAPACITY AND TYPE LABEL

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	A permanent label shall be provided and shall state the type and quantity of the following fluids used in the vehicle: engine oil, engine coolant, chassis transmission fluid, drive axle fluid, pump gear case, and primer lubricant.			

### 34. START/CHARGING SYSTEMS

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	Ignition: Master switch with keyless start.			
b.	Easily accessible, Battery Jump Studs are to be provided.			

### 35. BATTERY MASTER SWITCH

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	A master battery switch shall be installed in the cab within reach of the driver.			

### 36. LINE VOLTAGE ELECTRICAL POWER DISTRIBUTION from SHORE POWER

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	A battery conditioner to be provided with display behind mid glass left window. Kussmaul brand preferred.			
b.	Electrical inlet connection: 120V 20A battery conditioner left hand cab side mid, to include shore power. Kussmaul auto eject shore power connection. Provide			

	three 110V power supply outlets from shore power; two (2) in cab, one (1) in compartment L3. See section 39.			
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**37. GFI LOAD CENTER**

DETAILED DESCRIPTION	YES	NO	SPECIFICATION / VARIATION
<b>a.</b> With strict conformance to NFPA 1901, a 120/240 volt load center shall be incorporated into the 120/240 volt wiring system which shall include adequate ground fault circuit breakers to protect the loads specified on the apparatus.			
<b>b.</b> Over current protection devices shall be provided for circuits in accordance with NFPA 1901.			

**38. 120V RECEPTACLE – 20A TWISTLOCK– EXTERIOR**

DETAILED DESCRIPTION	YES	NO	SPECIFICATION / VARIATION
<b>a.</b> Two (2) 120 volt, 20 amp twist lock receptacles shall be provided and installed on the exterior of the fire apparatus body wired from the generator through the circuit breaker box. The receptacles shall have a sealed weather proof cover to protect against the elements. They shall be located; one each at left and right pump panels.			

**39. 120V RECEPTACLE – DUPLEX – STRAIGHT BLADE – INTERIOR**

DETAILED DESCRIPTION	YES	NO	SPECIFICATION / VARIATION
<b>a.</b> Three 120 volt, 20 amp duplex straight blade receptacles shall			

	<p>be provided; two (2) installed in the interior of the cab, one (1) behind the driver's seat and one (1) behind the Officer's seat and one (1) in compartment L3; all receptacles wired to shoreline power and generator power through a transfer switch.</p>			
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**40. TRANSFER SWITCH**

DETAILED DESCRIPTION	YES	NO	SPECIFICATION / VARIATION
<p>a.</p>	<p>There shall be a transfer switch installed that will automatically switch from the 120volt shoreline power to 120 volt generator power when required. The transfer switch shall be in close proximity to the load center.</p>		

**41. CORD REEL - HANNAY ECR6614-23-24, 120V ELECTRIC - PAINTED - 200'**

DETAILED DESCRIPTION	YES	NO	SPECIFICATION / VARIATION
<p>a.</p>	<p>A Hannay ECR6614-23-24 electric rewind cord reel shall be supplied and installed on the fire apparatus beside the generator (over pump panel, right side – compartment R1).</p> <p>The cord reel shall be powered by the on board generator through the breaker box and will have 200' of yellow 10/3 wire and an illuminated 4 outlet weather sealed junction box with bracket. The exterior of the reel shall have a painted enamel finish.</p> <p>Location of the receptacle box &amp; bracket mounting is within</p>		

	R1 compartment location to be determined at pre-construction meeting.			
<b>b.</b>	The reel shall have a four way roller assembly installed on it to help guide and protect the cable and shall be assessable from the right side pump panel without stepping up on the apparatus. The rewind button to be located in compartment R1 with labels; location determined at pre-construction meeting.			

#### 42. CAB/BODY LIGHTING

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
<b>a.</b>	Headlights are to have of high output bulbs, and be mounted in bright chrome bezels.			
<b>b.</b>	Turn signals: Front Whelen 600 LED, side also LED.			
<b>c.</b>	Turn signals: Rear Whelen 600 series LED taillight assembly.			
<b>d.</b>	Cornering Lights: The sides of the front bumper shall have two (2) Whelen 500 series LED steady-on cornering lights with clear lenses. The light heads shall illuminate when the turn signals are activated.			
<b>e.</b>	Midship turn signals to be provided within the rub rail; left and right sides. LED preferred.			
<b>f.</b>	Cab marker lights: Face mounted LED			
<b>g.</b>	Ground lights: <ul style="list-style-type: none"> <li>○ Under each door shall have an NFPA</li> </ul>			

	<p>compliant ground light mounted to the underside of the cab step. LED Preferred.</p> <ul style="list-style-type: none"> <li>○ Ground lights shall be wired directly into the parking brake system and activated whenever the parking brake is activated, plus V-MUX Controlled</li> <li>○ Two (2) each, under bumper lights at front and rear.</li> <li>○ One (1) at mid-ship; left and right.</li> </ul>			
h.	<p>Scene lights:</p> <ul style="list-style-type: none"> <li>○ Upper Rear Scene: Two (2) Whelen model 810 scene lights; left and right. Rear Scene light circuit also to be switched at rear of apparatus. Also activated when the transmission is in reverse and by cab switch.</li> <li>○ Left Scene: Two (2); Fire Research Spectra LED Scene Light Model SPA260-Q15.</li> <li>○ Left Scene: One (1) Whelen model 810 scene light, surface mounted in the upper mid forward portion of the 10.00 inched raised roof of the cab, between the front and rear doors.</li> <li>○ Right Scene: Two (2); Fire Research Spectra LED Scene Light Model SPA260-Q15.</li> <li>○ Right Scene: One (1)</li> </ul>			

	<p>Whelen model 810 scene light, surface mounted in the upper mid forward portion of the 10.00 inched raised roof of the cab, between the front and rear doors.</p> <ul style="list-style-type: none"> <li>○ Front Scene: Brow style light centered, top of cab. Prefer a Fire Research Focus Evolution Model FCA800-V15 or equivalent.</li> </ul>			
<b>i.</b>	Interior red/white dome lights over each door activated by door switches or Vista, plus an additional lamp over engine tunnel which can be activated by individual switches or Vista.			
<b>j.</b>	Map light to be mounted on Officer-side dash out of the way of laptop mount.			
<b>k.</b>	Two fog lights shall be mounted under the front bumper and controlled by a rocker switch on the cab dash.			

### 43. OPTICAL WARNING DEVICES

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
<b>a.</b>	Do Not Move Apparatus Light: Flashing red light with audible alarm.			
<b>b.</b>	Master warning lights switched on V-MUX.  Alternating headlights switched on V-MUX.			
<b>c.</b>	Upper Zone A: Whelen Freedom, 82" LED Lightbar – Fully populated front and sides with Red and White LEDs.			



<b>d.</b>	Upper Zone B: Two Whelen, Model M7RC Super-LED with chrome flange.			
<b>e.</b>	Upper Zone C (Rear): Two (2) Whelen, Model 90RR5FRR, 900 Series Super-LED lights with chrome flanges.			
<b>f.</b>	Upper Zone D: Two Whelen, Model M7RC Super-LED with chrome flange.			
<b>g.</b>	Lower Zone A - As supplied and installed by the chassis manufacturer – 600 Series Headlight, Turn, Warning Assembly – LED Warning and Signal.			
<b>h.</b>	Lower Zone B: There shall be two (2) Whelen, model 60R02FCR, 600 Series Super-LED lights. One over each wheelwell; front and rear.			
<b>i.</b>	Lower Zone C: There shall be two (2) Whelen, model 60R02FCR, 600 Series Super-LED lights.			
<b>j.</b>	Lower Zone D: There shall be two (2) Whelen, model 60R02FCR, 600 Series Super-LED lights. One over each wheelwell; front and rear.			
<b>k.</b>	Intersection Warning Lights: Two (2) Whelen 600 series Super LED, red with clear lenses; left and right. To be mounted on the sides of the bumper with chrome bezels.			
<b>l.</b>	All warning and scene lights to have chrome bezels.			
<b>m.</b>	All warning lights to be switched on V-MUX.			

n.	All light heads to be red LED with clear lenses.			
o.	Rear Traffic Advisor: Whelen TAM65 LED Traffic Advisor and Controller. Amber Lenses. Traffic Advisor to be recessed mounted above the rear compartment.			

#### 44. AUDIBLE WARNING DEVICES

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	200-watt output, electronic siren control head able to be operated by either the driver or Officer positions. Whelen brand preferred.			
b.	Horn ring selector switch to be provided: Electric horn/air horn.			
c.	Air horn activation shall be accomplished by the steering wheel horn button for the driver and a ceiling mounted pull cord for the Officer.			
d.	Federal Q2B siren to be controlled by either the driver or Officer by way of foot switches. A mechanical siren brake switch will be readily accessible to both the driver and the Officer.			
e.	Back up alarm installed on rear of chassis with an output level of 107dB. The alarm shall automatically activate when the transmission is placed in reverse and have a manual over-ride.			

#### 45. BACKLIGHTING COLOR

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	The instrumentation gauges and the switch panel legends shall be backlit using red LED backlighting.			

#### 46. RADIO

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	A radio with weather band, AM/FM stereo receiver, compact disc (CD) player, rear RCA pigtail connector, satellite radio capability, and a covered front auxiliary mini stereo input with iPod ready USB jack.			
b.	Four (4) speakers shall be installed in the cab; two (2) front and two (2) rear.			
c.	A small AM/FM antenna shall be located on the cab roof in an area that does not interfere with the communications antenna or Lightbar installation			

#### 47. ADDITIONAL EQUIPMENT

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	Diagnostic software; for the V-MUX system.			
b.	Diagnostic software; Occupant Protection System.			

#### 48. DIELECTRIC VOLTAGE WITHSTAND TEST

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	The wiring and permanently connected devices and			

	equipment shall be subject to a dielectric voltage test of 900 volts for one minute. The testing shall be performed after all body work has been completed. The electric polarity of all permanently wired equipment, cord reels, and receptacles shall be tested to verify that wiring connections have been properly made.			
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#### 49. EXHAUST HEAT SHIELD

	DETAILED DESCRIPTION	YES	NO	SPECIFICATION / VARIATION
a.	Where the chassis exhaust passes under or near a body part, the exhaust piping shall be shielded to prevent compartment exposure to the radiant heat.			

#### 50. PUMP HOUSE – SIDE CONTROL

	DETAILED DESCRIPTION	YES	NO	SPECIFICATION / VARIATION
a.	The fire pump shall be mounted within a separate body module, not directly connected to the apparatus body. A rubber seal shall be set in between the pump compartment and the main body. The pump panel shall be designed to allow for room in front of the pump panel for speed lays.			
b.	The pump house shall be entirely painted inside and out prior to installation on the chassis and before any components or attachments are installed.			

c.	There shall be a dunnage compartment with hinged cover located above the pump module. The dunnage compartment floor to be removable to access the fire pump for servicing.			
d.	There shall be a tread plate door above the right hand side pump panel to allow access to the pump compartment. The vertically hinged panel shall be of the single pan design and shall be positively latched in the closed position utilizing a push button latch. A gas strut shall be provided on the door. An aluminum sill protector shall be installed on the bottom of the door opening to protect the paint from chipping and scratching. The door shall be wired into the door open warning light circuit.			
e.	There shall be a <i>large</i> tread plate access panel provided on the front of the pump compartment module. The panel will be of single pan design and positively latched closed. An aluminum sill protector shall be installed on the bottom of the door opening. This area shall be accessible when the cab is tilted.			
f.	The pump operator's panel and right side pump panel shall be coated with black Line-X.			
g.	<p>The pump panel shall be of a two tier design;</p> <ul style="list-style-type: none"> <li>○ The top tier shall be side hinged on the right side with a stainless steel piano hinge and shall have a lift and turn twist lock latch located at the opposite side of the panel. This panel shall contain all gauges and</li> </ul>			

	<p>monitoring instruments.</p> <ul style="list-style-type: none"> <li>○ The lower level contains all the valve controls, discharges, suctions, drains, etc.</li> </ul>			
<b>h.</b>	All suction and discharge ports exiting through the panels shall be laser cut.			
<b>i.</b>	All gauges and controls shall be symmetrically and logically laid out.			
<b>j.</b>	2.5" Suction valve controls shall be lever controlled adjacent to the suction.			
<b>k.</b>	All control handles exiting through the stainless steel side panels shall be sealed with rubber grommets.			
<b>l.</b>	There shall be a 40,000 BTU thermostatically controlled pump compartment heater.			
<b>m.</b>	There shall be pump heat shield covers made from aluminum plates to cover the floor of the pump to keep the pump warm in cold weather. These shields are to be easily removable for service access or maintenance.			

## 51. RIGHT SIDE PUMP PANEL

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
<b>a.</b>	A single panel shall be installed on the right side of the pump enclosure. This shall be the area where any right side discharge, inlets, steamers, and other pump associated equipment are located. This panel should be removable and held in place with quick release push latches.			

## 52. PRIMING SYSTEM LABEL

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	The priming system shall be marked with a label to indicate proper operation.			

## 53. PUMP OPERATION WARNING LABEL

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	There shall be a warning label mounted on the pump operator's panel that states "Warning: Death or serious injury may occur if proper operating procedures are not followed. Shall be NFPA compliant.			

## 54. PUMP HOUSE FOR MIDSHIP PUMP WITH ROLL UP DOOR

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	The pump module shall be extended to the outside edges of the body to accommodate a roll up door that shall be used to fully enclose both side pump panels.			
b.	Each compartment shall have two (2) 54" On-Scene LED Night Axes installed in the enclosed pump module, one on each side of the opening. Light installation to be waterproof.			
c.	The pump house shall be extended to accommodate the installation of three speed lay trays.			
d.	The extruded aluminum roll-up			

	doors shall be installed at the pump panels and shall not interfere with any operation of the pump.			
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**55. MASTER PRESSURE & INTAKE GAUGES – 4.5” – PSI & KPA - LIGHTED**

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	Two 4.5" master pump gauges 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 and shall be in dual scale and in increments of 0-400 psi and 0-2800 kPa.			

**56. DISCHARGE GAUGE PACKAGE - PSI & KPA – LIGHTED**

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	Individual discharge line gauges for each discharge shall be supplied and mounted adjacent to the discharge valve control handle. A removable bright metal or color coded trim ring shall be supplied for each discharge gauge and shall be in dual scale and measure in increments of 0-400 psi and 0-2800 kPa.			

**57. PUMP PANEL, Left Side**

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	The LED lights on both left and right panels will turn on when the role up door is opened.			
b.	One master gauge test port			



	installed.			
<b>c.</b>	One pump by pass control and one master drain valve control installed.			
<b>d.</b>	One heat exchange, chassis engine cooler control valve installed.			
<b>e.</b>	One Electric Primer with primer light installed.			
<b>f.</b>	There shall be a tank water level gauge provided on the operator panel. The indicator shall show the volume of water in the tank on super bright LEDs.			
<b>g.</b>	A foam tank volume indicator kit shall be installed. The kit shall include an electronic indicator module, a pressure sensor, and a tank vent. The indicator shall show the volume of foam concentrate in the tank on bright LEDs.			
<b>h.</b>	One emergency engine shut down switch shall be installed at the pump panel with a safety cover.			
<b>i.</b>	One pump hour meter shall be installed at the pump panel.			
<b>j.</b>	A pressure governor and monitoring display kit shall be installed and shall include a control panel, intake pressure sensor, discharge pressure sensor, buzzer, and wiring. The control panel case shall be waterproof. Class 1 preferred.			
<b>k.</b>	The panel shall have LEDs to indicate PSI mode, RPM			

	mode, OK TO PUMP, and IDLE RPM.			
<b>l.</b>	PSI/RPM setting; shown on an LED display.			
<b>m.</b>	Engine RPM; shown with four daylight bright LED digits > than .5" high, updated in ten RPM increments.			
<b>n.</b>	Oil pressure; shown on an LED display.			
<b>o.</b>	Engine coolant temperature; shown on an LED display.			
<b>p.</b>	Battery voltage; shown on an LED display.			
<b>q.</b>	Audible alarm at pump panel for engine systems [low or high level alarms]			
<b>r.</b>	When the pump engaged interlock signal is recognized an "OK TO PUMP" LED will light to indicate throttle ready and the governor shall be in pressure mode with the engine RPM set 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.			
<b>s.</b>	The governor shall limit a discharge pressure increase in RPM mode to a maximum of 30 psi.			
<b>t.</b>	All nameplates for discharges, intakes, controls, and gauges			

	shall be colour coded. All labels shall be of a permanent type, securely attached to the pump panel and capable of withstanding the effects of weather extremes.			
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**58. PUMP - 2000 US GPM- MIDSHP [1750 IGPM]**

DETAILED DESCRIPTION	YES	NO	SPECIFICATION / VARIATION
<p><b>a.</b> The pump shall be rated at 2000 GPM (1750 IGPM); preference will be given to a Waterous brand pump.</p>			
<p><b>b.</b> A single drive line shall drive the pump from the truck transmission. The engine shall provide sufficient horsepower and RPM to enable the pump to meet and exceed its rated performance. A computer drive line angle alignment analysis report shall be submitted at the time of delivery.</p>			
<p><b>c.</b> The dry pump shall be capable of taking suction and discharging with a lift of ten feet in not more than sixty seconds through twenty feet of suction hose.</p>			
<p><b>d.</b> The entire pump, all intakes and discharges, shall be hydrostatically tested to a pressure of 600 PSI. The pump shall be fully tested at the pump manufacturer's factory to the performance requirements as outlined by the latest NFPA version of 1901. Pump shall be free from objectionable pulsation and vibration.</p>			

e.	The pump ratio shall be selected by the apparatus manufacturer to give maximum performance with the engine and transmission selected.			
f.	A master drain valve shall be provided at the lowest point of the plumbing.			
g.	The drive unit shall be provided with pneumatic power shift.			
h.	There shall be a manual pump shift mode.			
i.	An in-cab guarded electric control switch for rapid shift shall be provided that locks in to either the "road" or "pump" mode.			
j.	To the left of the air operated pump shift control in the cab, there shall be two indicator lights to positively show the position of the pump when the control lever is moved to the pump position. A GREEN light shall be energized when both the pump shift has been completed and the chassis transmission is engaged in pump gear and shall be labeled "OK TO PUMP".			

**59. PUMP PRIMER - OIL LESS**

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	This primer shall be electric oil-less priming system. One priming control shall both open the priming valve and start the priming motor.			

## 60. LARGE INTAKE VALVE, 6" – LEFT AND RIGHT SIDES

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	The left side main pump intake shall be equipped with a 6 inch NST long handle steamer cap; brass with chrome finish. There shall be a ¾" quarter-turn drain valve included.			
b.	The right side main pump intake shall be equipped with a six inch electric butterfly type valve designed to mount on the fire pump between the suction tube extension and the suction tube behind the pump control panel. It shall terminate outside the pump panel with 4", 30 degree down angle Storz adapter with cap and chain, with an air/water bleeding connection.			
c.	A pressure relief valve shall be provided that is factory set to 125 psi and field adjustable from 75 to 250 psi.			
d.	The outlet of the pressure relief valve shall have 2.5" NPT threads to allow directing the discharge flow away from the pump operator position. A permanent ID label shall be installed at the discharge pipe that reads "DO NOT CAP".			

## 61. PLUMBING AND PIPING

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	The inlet plumbing manifold shall be heavy duty schedule 10, 304 grade Stainless Steel tubing and preformed elbows. Schedule 40, 304 grade			

	Stainless Steel tubing and performed elbows for side auxiliary inlets that are 3" or smaller.			
<b>b.</b>	The discharge side of the plumbing manifold shall utilize a combination schedule 10, 304 grade stainless steel tubing with preformed elbows and high pressure flexible hose.			
<b>d.</b>	Galvanized Victaulic couplings shall be used on plumbing lines to take tension off piping and to permit flexing and movement without damage to the pump and its components.			

**62. SIDE INTAKE VALVES; TWO X 2.5"; 1 LEFT & 1 RIGHT**

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
<b>a.</b>	<p>2.5" gated suction intakes shall be provided at each pump panel (one per side, left and right). These suction intakes shall be provided with 2.5" Akron 1/4 turn ball valves with replaceable stainless steel balls, seals and "O" rings and shall have a .75" 1/4 turn drain valve, 3" plumbing and shall be equipped with a chrome female swivel, screen, chrome plated rocker lug plug, and retaining chain.</p> <p>The right side intake valve shall be direct tank fill.</p>			

**63. REAR SUCTION INTAKE; 4"**

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
<b>a.</b>	One 4" suction intake shall be provided at the right side rear of the body. This suction intake shall be provided with an electric valve control on the operators pump panel (left side – compartment L1). This suction intake shall have a .75", 1/4 turn drain valve and 4" plumbing and shall be equipped with a 4"- 30 degree downward aluminum Storz connection with cap, screen, and retaining chain.			

**64. SPEEDLAYS MIDSHIP**

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
<b>a.</b>	Three speed-lay hose beds with removable trays shall be installed and stacked vertically in front of the pump house and behind cab. Two of the speed-lays shall each accommodate 200' of 1.75" hose with nozzle when loaded flat in two tiers. The other shall accommodate 200' of 2.5" hose with nozzle when loaded in two tiers. These three speed-lays will be connected directly to the pump from above each speed-lay with a swivel connection, easily reached to connect the hose; the trays shall be removable, allow for drainage and air movement under the hose.			
<b>b.</b>	One lower horizontal roller shall be provided on each speed-lay on both sides of the			

	panel to aid in deployment of the hose. Vertical rollers shall be installed on the sides of each speed-lay opening.			
<b>c.</b>	There shall be an extra tray for each of the speed-lays.			

**65. FRONT BUMPER DISCHARGE; ONE, 2.5" - 3" PLUMBING**

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
<b>a.</b>	There shall be a 2.5" discharge mounted on top of the extended front bumper to the left side of the bumper hose compartment with a 2.5", 90 degree chrome swivel elbow. This discharge shall be provided with an 2.5" Akron 1/4 turn ball valve (operated from left side pump panel) with replaceable stainless steel ball, seals, and "O" rings and shall have a .75" 1/4 turn drain valve and will have 3" plumbing and shall be equipped with a chrome 2.5" to 1.5" reduced cap.			

**66. PUMP PANEL DISCHARGES; TWO, 2.5" (RIGHT SIDE) -3" PLUMBING**

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
<b>a.</b>	Two (2) - 2.5" discharges shall be provided on the right side pump panel. These discharges shall be provided with 2.5" Akron, 1/4 turn ball valves with replaceable stainless steel balls, seals, and "O" rings and shall have a .75" 1/4 turn drain valve and 3" plumbing and shall be equipped with a screened chrome 30 degree downward			



	adapter with chrome cap and retaining chain.			
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**67. REAR DISCHARGES; TWO, 2.5" - 3" PLUMBING**

DETAILED DESCRIPTION	YES	NO	SPECIFICATION / VARIATION
<p><b>a.</b> Two (2) - 2.5" discharges shall be provided at the rear of the apparatus body, offset to the left and right upper sides. These discharges shall controlled at the pump panel and be provided with a 2.5" Akron, 1/4 turn ball valve with replaceable stainless steel ball, seals and "O" rings and shall have a .75", 1/4 turn drain valve and 3" plumbing and shall be equipped with a chrome 30 degree downward adapter and chrome 2.5" to 1.5" reduced with caps and retaining chains.</p>			

**68. STORZ DISCHARGE; 4" - RIGHT SIDE - 4" PLUMBING**

DETAILED DESCRIPTION	YES	NO	SPECIFICATION / VARIATION
<p><b>a.</b> One (1) - 4" Storz discharge shall be provided at the right side pump panel and shall have 4" plumbing complete with an electric Akron valve and shall be equipped with a .75", 1/4-turn drain valve and shall be equipped 30-degree adapter, 4" Storz cap reduced to 2.5" male threaded reducer [BCT], cap and retaining cable.</p>			

**69. MONITOR; EXTENDABLE MONITOR RISER & NOZZLE**

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
<b>a.</b>	An Akron Brass Deckmaster Electric Monitor shall be installed above the pump house. This monitor shall be plumbed with 3" plumbing, controlled by a 12 volt electrically controlled 3" Akron valve located on the pump operator's control panel with open/close light indicator.			
<b>b.</b>	An Akron Brass Style 3406 electric monitor riser shall be provided and will be connected to the monitor's 12 volt control system.			
<b>c.</b>	The Akron electric monitor shall be controlled with an Akron wireless remote control.			
<b>d.</b>	An Akron Brass Akromatic, model 5177, electric combination fog and straight stream master stream nozzle to be provided.			

**70. DRAIN VALVES – ON ALL INTAKES AND DISCHARGES**

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
<b>a.</b>	All discharge and intakes shall have .75" drain lines connected to chrome quarter turn drain valves with high pressure brass fittings, within close proximity of the discharges. Drain valves controls should be systematically and logically laid out.			

**71. FLOWMINDER VALUE SYSTEM.**

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	All discharges to be integrated into a Class 1 - Flowminder Value System.			

**72. THREAD TYPE**

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	<ul style="list-style-type: none"> <li>• All 1.5” fittings shall be provided with NPSH thread.</li> <li>• All 2.5” intakes and suction s shall be provided with BCT thread.</li> <li>• All 4” intakes and suction s shall be provided with Storz fitting with locking safety.</li> </ul>			

**73. FOAM SYSTEM**

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	<p>The apparatus shall be equipped with an electronic, fully automatic, variable speed, direct injection, discharge side foam proportioning system (Foam Pro 2001 or similar) The system shall be capable of handling Class A or B foam concentrates through as many discharges as possible.</p> <p>FoamPro brand preferred.</p>			
b.	A foam tank volume indicator kit shall be installed. The kit shall include an electronic			

	indicator module, a pressure sensor, and a tank vent. The indicator shall show the volume of foam concentrate in the tank on bright LEDs.			
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#### 74. FOAM TANK- 25 IMPERIAL GALLONS

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	There shall be one integral 25 imp gallon foam tank, piped to the foam system.			
b.	The tank shall have a fill tower with cover labeled ("FOAM FILL ONLY") for filling the foam tank.			

#### 75. WATER TANK - 800 IMPERIAL GALLONS

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	The baffled, 800 imperial gallon tank shall have a lifetime warranty and shall be of special configuration and shall be designed to be completely independent of the body and compartments. The tank shall be low profile in design to allow for easy access to the main hose bed and improved vehicle handling.			
b.	The tank shall be constructed of non-corrosive, polypropylene sheet stock; stress relieved, black in color and U.V stabilized for maximum protection.			
c.	A vent/overflow pipe with a minimum of 4" ID shall be			

	fabricated and installed through the baffles and exit out of the bottom of the tank.			
<b>d.</b>	The tank shall be fitted with a fill tower and a sump box. The fill tower shall be fitted with a removable screen and have a hinged lid.			
<b>e.</b>	The booster tank shall be fitted with a suction outlet that draws water directly from the sump box. All intake/fill fittings shall be fitted with diffuser or flow deflectors.			
<b>f.</b>	The water tank shall rest on the sub frame cross members, but isolated by the use of hard rubber strips. Additionally, the tank shall be supported around the entire perimeter and be captured front and rear, plus side to side to prevent shifting.			
<b>g.</b>	The tank shall be completely removable without disturbing or dismantling the apparatus structure.			
<b>h.</b>	The tank shall have a 1.5" tank drain installed in the bottom of the tank and accessible from the ground.			
<b>i.</b>	A gated 2.5" direct valve to tank fill valve shall be installed at the right side of the apparatus and shall have a screen and chrome cap with chain.			

**76. TANK FILL LINE – 2”**

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	A 2" tank fill line shall be installed from the pump to the tank with an Akron 2" - 1/4 turn ball valve and controlled from the pump operator's panel.			

**77. TANK TO PUMP - 3" BUTTERFLY VALVE C/W 4" PLUMBING**

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	A 4" tank supply line shall be installed from the tank to the pump and shall include a 3" - 1/4 turn one way butterfly valve controlled at the pump operator's panel. A 3" bronze check valve shall be installed in the pump to eliminate the possibility of pressure expanding and damaging the tank.			

**78. RESCUE STYLE BODY**

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	A full height body, not exceeding the height of the cab, shall be fabricated of smooth aluminum sheet with the highest quality components and shall be engineered and designed to provide for a low center of gravity and carry a correct load distribution.			
b.	State aluminum body material and construction?			
c.	State body subframe materials and construction?			
d.	State method of body mounting?			

## 79. REAR WHEEL WELLS

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
<b>a.</b>	The fenders shall be integral with the body sides and compartments with a seamless appearance. The fenders shall be fitted with bolt-in removable full circular inner liners in the wheel well area for ease of cleaning and maintenance.			
<b>b.</b>	There shall be sufficient clearance provided in the wheel well to allow the use of tire chains when the apparatus fully loaded.			
<b>c.</b>	Two (2) stainless steel fenderettes shall be installed at the outboard edge of the rear wheel well area, one on each side. The fenderettes shall be bolted to the apparatus body using nylon washers to space them slightly away from the body to reduce build-up of road grime. The fenderettes shall be constructed of stainless steel that has been polished to a high quality finish.			
<b>d.</b>	The wheel well fender shall be attached to the body sub frame with non-corrosive stainless steel fasteners.			
<b>e.</b>	SCBA Air Cylinder Storage to be accommodated around the rear wheel wells, three (3) per side.			

## 80. CORROSION PROTECTION

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
<b>a.</b>	All body components or attachments made from dissimilar metals shall be fastened to the body utilizing an UHMW/Polyethylene material to prevent metal-to-metal contact, preventing dielectric corrosion.			
<b>b.</b>	All fasteners shall be installed in a manner, which shall involve drilling, tapping, and application of non-corrosive grease before the stainless steel bolts are installed. Self-tapping screws, rivets or screws without threads shall not be acceptable.			
<b>c.</b>	Ultra Stainless Steel Fasteners shall be provided for all exposed and unpainted fasteners throughout the body.			

## 81. BODY COMPARTMENTS

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
<b>a.</b>	The body compartments shall be fabricated with salt-water marine grade aluminum panels. Please state thickness?			
<b>b.</b>	The interior compartment seams shall be sealed and caulked with a permanent, pliable automotive type sealer. All compartments shall have a drop on the lower edge of the door opening to accommodate the door seal, and to stop			



	moisture from entering the compartment and shall have sweep out floors; plus, be fitted with Dri-Dek matting.			
<b>c.</b>	Compartments shall be provided with venting.			
<b>d.</b>	All compartments shall have an aluminum drip molding installed over the top of the compartment doors and shall be weatherproof.			

## 82. REAR BODY SECTION

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
<b>a.</b>	The rear section of the apparatus body panels shall be finished with salt water grade aluminum plate panels and hi-shine aluminum tread plate in a manner that best prepares for the application of reflective vinyl in a chevron pattern.			

## 83. REAR TAILBOARD & SLIDE-OUT PLATFORM

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
<b>a.</b>	The rear tailboard shall have a 6" bumper extending out from the rear of the apparatus body for the entire width of the body.			
<b>b.</b>	A minimum of a five (5) foot roll-out platform section extending from the rear bumper shall be supplied. This platform should extend a minimum of 20 inches.			
<b>c.</b>	The entire rear bumper shall have a minimum capacity of			

	800 pounds.			
d.	A surface of the bumper and platform extension shall be slip resistant.			
e.	Platform to be wired to the door-ajar circuit.			
f.	Platform to be made of a corrosion resistant material. Please describe construction.			

#### 84. LEFT SIDE BODY COMPARTMENTS - FULL DEPTH - ROLL UP

DETAILED DESCRIPTION	YES	NO	SPECIFICATION / VARIATION
<p>a. The following compartments shall be provided on the left side of the body:</p> <ul style="list-style-type: none"> <li>• A ROM roll-up door will be supplied for each compartment, with full width lift bar and finger pull handle.</li> <li>• All compartments to have On-Scene LED Night Axe (or equivalent) lighting installed within a tough waterproof Lexan tube enclosure; two per compartment.</li> <li>• Compartments to be equipped with drain holes and venting.</li> <li>• <b>Compartment (L-1)</b>; full height, enclosed pump panel and speed-lays.</li> <li>• <b>Compartment (L-2)</b>; full height, forward of the rear wheel measuring approximately 32"W x 56"H x 25" usable</li> </ul>			

	<p>depth;</p> <ul style="list-style-type: none"> <li>○ Shall have one 300lb. roll out tray, one fixed shelf and one tip down shelf.</li> <li>○ There shall be four (4) Performance Advantage Company (PAC) Cylinder Mate SCBA Cylinder holders installed on the top fixed shelf.</li> <li>○ Two applications of Dri-Dek interlocking squares; one for roll out tray and tip down shelf.</li> </ul> <ul style="list-style-type: none"> <li>● <b>Compartment (L-3);</b> over the rear wheel measuring approximately 63"W x 24"H x 25" usable depth; <ul style="list-style-type: none"> <li>○ There shall be one (1) PAC TRAC tool mounting section installed on the back wall of the compartment.</li> <li>○ There shall be Dri-DEK interlocking squares applied to the compartment floor.</li> </ul> </li> <li>● <b>Compartment (L-4);</b> full height compartment located behind the rear wheels measuring</li> </ul>			
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	<p>approximately 44"W x 55"H x 25" usage depth.</p> <ul style="list-style-type: none"> <li>○ There shall be one 300lb. roll out tray, one fixed self and one tip down shelf.</li> <li>○ Three applications of Dri-Dek interlocking squares; one for each shelf.</li> </ul>			
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**85. RIGHT SIDE BODY COMPARTMENTS – FULL DEPTH - ROLL UP**

DETAILED DESCRIPTION	YES	NO	SPECIFICATION / VARIATION
<p><b>a.</b> The following compartments shall be provided on the right side of the body:</p> <ul style="list-style-type: none"> <li>• A ROM roll-up door will be supplied for each compartment, with full width lift bar and finger pull handle.</li> <li>• All compartments to have On-Scene LED Night Axe lighting (or equivalent) installed within a tough waterproof Lexan tube enclosure; two per compartment.</li> <li>• Compartments to be equipped with drain holes and venting.</li> <li>• <b>Compartment (R-1);</b> full height, enclosed pump panel and speed-lays.</li> <li>• <b>Compartment (R-2);</b> full height, forward of the rear wheel measuring approximately 32"W x</li> </ul>			

	<p>56"H x 25" usage depth;</p> <ul style="list-style-type: none"> <li>○ Shall have one 300lb. roll out tray, and two adjustable shelves.</li> <li>○ Three (3) applications of Dri-Dek interlocking squares; one for each shelf.</li> </ul> <ul style="list-style-type: none"> <li>● <b>Compartment (R-3);</b> over the rear wheel measuring approximately 37"W x 24"H x 25" usable depth; <ul style="list-style-type: none"> <li>○ There shall be one (1) PAC TRAC tool mounting section installed on the back wall of the compartment.</li> <li>○ There shall be Dri-DEK interlocking squares applied to the compartment floor.</li> </ul> </li> <li>● <b>Compartment (R-4);</b> full height compartment located behind the rear wheels measuring approximately 44"W x 55"H x 25" usage depth. <ul style="list-style-type: none"> <li>○ There shall be one 300lb. roll out tray, one fixed self and one tip down shelf.</li> <li>○ Three applications of Dri-Dek</li> </ul> </li> </ul>			
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	interlocking squares; one for each shelf.			
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**86. REAR BODY COMPARTMENT – FULL DEPTH - ROLL UP**

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	A ROM roll-up door will be supplied for this compartment, with full width lift bar and finger pull handle.			
b.	Compartment to have two (2) On-Scene LED Night Axe lighting (or equivalent) installed on within a tough waterproof Lexan tube enclosure.			
c.	Compartment to be equipped with drain holes and venting.			
d.	One compartment at the rear of the apparatus body approximately 43"W x 32"H x 17" usable depth.			
e.	Compartment to have two adjustable shelves.			

**87. COFFIN COMPARTMENTS ON UPPER BODY**

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	There shall be four coffin compartments located above the body compartments on the left and right side where space is available. Compartments shall have swing doors with large enough openings for long tool storage and supported by gas struts. A led strip light to turn on when the door is opened. A thumb latch shall be used with locking mechanism.			

	Compartments to be provided with ventilation, plastic Dri-Dek matting and positive drainage. Final overall height to match the hose bed.			
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### 88. LADDER RACK STORAGE

DETAILED DESCRIPTION	YES	NO	SPECIFICATION / VARIATION
<b>a.</b> A hydraulic, 12 volt electrically operated side mounted overhead ladder rack shall be installed on the right side of the apparatus body above the body compartments. The rack will have a manual override.			
<b>b.</b> Side mount ladder rack with a lock/unlock switch controlled through the VMUX system & to be operated by a switch on the right side pump panel. The ladder rack is to house three (3) Duo Safety ladders; one twenty-four foot; one fourteen (14) foot roof ladder; one ten (10) foot folding ladder; also; one (1) six foot, one eight (8) foot, and one ten (10) foot pike pole.			

### 89. COMPARTMENT ROLL UP DOORS

DETAILED DESCRIPTION	YES	NO	SPECIFICATION / VARIATION
<b>a.</b> ROM (or equivalent) Roll-up type doors shall be provided. With LED light strips, covering approximately 70% of the opening, on both sides of the opening.			

**90. COMPARTMENT SHELF – FIXED/ADJUSTABLE**

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	With the exception of L1, L3 and R1, each compartment shall have side tracks for installation of adjustable shelves.			
b.	The shelves shall be made of 3/16" aluminum with upturned edges, corner drain holes and shall be provided with plastic Dri-Dek matting.			

**91. ROLL OUT TRAYS**

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	Roll out trays shall be provided, one for each compartment L2, L4, R2 and R4, (300 lb. rating).			
b.	The trays shall have two side ball bearing roll out 70% travel sliding tracks. A 3/16" aluminum tray with up turned edges. These trays shall be supplied with plastic Dri-Dek floor matting and corner drain holes.			
c.	The trays shall have a tray retainer to keep the tray secure in either the open or closed position.			

**92. TRAY - TIP DOWN**

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	One ball bearing tip-down tray shall be provided in each of compartments L-2, L-4 and R-4. These trays shall have two side mounted, 200 lb. rated ball bearing roll out sliding			



	tracks, tip down 30 degrees. A 3/16" aluminum tray with up turned edges and shall be supplied with plastic Dri-Dek floor matting and corner drain holes.			
<b>b.</b>	The trays shall have a retainer to keep the tray secure in either the open or closed position.			

### 93. SCBA CYLINDER STORAGE – WHEELWELLS

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
<b>a.</b>	Within the wheel wells storage for six (6) SCBA cylinders; three (3) per side.			

### 94. RUB RAILS - ALUMINUM "C" CHANNEL

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
<b>a.</b>	Extruded aluminum "C" channel style rub rails shall be bolted into place with nylon spacers on the lower framework below the compartments. The rub rail will extend all around the apparatus body (including the rear) for protection of the body from impact damage.			

### 95. PULL OUT PLATFORMS

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
<b>a.</b>	There shall be two (3) pull out platforms constructed of aluminum anti-slip serrated bar grating, two (2) to be located on the left side of the pump			

	house and one (1) on the rear of the apparatus.			
<b>b.</b>	Platforms to support a maximum of 500 pounds. Rear 800 pounds.			
<b>c.</b>	Platforms to be wired to the door-ajar circuit.			

## 96. REAR TOW LOOPS

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
<b>a.</b>	Two painted tow loops shall be bolted directly to the rear frame rails and shall be accessible underneath the rear of the apparatus body.			

## 97. HOSE BED

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
<b>a.</b>	The main hose bed shall be located above the booster tank and shall be as low as possible.			
<b>b.</b>	The inner sides of the hose bed shall be smooth aluminum plate free of protrusions or obstructions.			
<b>c.</b>	Flooring shall be fabricated of "T" beam pultrusions in parallel; connected and spaced to allow for drainage and ventilation.			
<b>d.</b>	Two adjustable hose bed dividers shall be provided.			
<b>e.</b>	Hose capacity shall be a minimum of 1000' of 4", 600' of 2.5" and 200' of pre-connected 2.5" hose-load. Configuration to be discussed at pre-construction meeting.			

## 98. POWER OPERATED HOSE BED COVERS

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	The hose bed storage area shall be covered with two (2) hinged aluminum doors, hinged on the outside edges, utilizing full length stainless steel piano hinges.			
b.	The hose bed doors shall be power operated utilizing a self-contained hydraulic system. Location of controls to be discussed at pre-construction meeting.			
c.	The doors will support the weight of two firefighters as a minimum and shall allow 100% access to the hose bed. State weight hose bed covers can accommodate.			
c.	There shall be a secured vinyl end flap to cover the rear of the hose bed to eliminate the possibility of hose falling off the hose bed. Detailed info should be provided in your response.			

## 99. BODY HANDRAILS - REAR

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	One hand rail shall be supplied at the right rear of the apparatus.			
b.	One horizontal handrail, the full width of the hose bed, above rear compartment shall be provided.			
c.	Each hand rail shall be installed and supported with chrome plated polished cast			

	brackets and shall be provided with an isolation gasket and held in place with stainless steel bolts and backing plates.			
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**100. HOSEBED ACCESS – LADDER REAR ZICO LADDER EGRESS**

DETAILED DESCRIPTION	YES	NO	SPECIFICATION / VARIATION
<b>a.</b> A Zico Quic-Ladder or equivalent egress ladder shall be installed on the left rear of the apparatus for hose bed access. The ladder will have five (5) straight steps with two (2) fold-down steps and lock to provide adequate and safe climbing angle for top access. Ladder position shall be monitored by the V-MUX.			
<b>b.</b> Zico Quic-Ladder installation shall not interfere with the operation of the rear slide-out platform.			

**101. WHEEL CHOCKS**

DETAILED DESCRIPTION	YES	NO	SPECIFICATION / VARIATION
<b>a.</b> One set of heavy duty wheel chocks with under body storage brackets will be supplied; mounting location to be determined in pre-construction meeting.			

**102. ELECTRICAL SYSTEM - MULTIPLEXED - TIED INTO CUSTOM CHASSIS**

DETAILED DESCRIPTION	YES	NO	SPECIFICATION / VARIATION
<b>a.</b> The multiplex wiring system on the body shall be tied directly into the V-MUX multiplex wiring system that is supplied from the chassis.			

### 103. PUMP PANEL LIGHTS - SIDE CONTROL

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	The upper portion of the side pump panels shall be provided with weatherproof LED rope style lighting and shall be activated when compartment door is opened.			

### 104. STEP LIGHTS

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	All steps on the body shall have LED. Strip light illumination.			

### 105. ENGINE COMPARTMENT LIGHT

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	One LED 4" clear engine compartment light shall be installed in the engine compartment area.			

### 106. DOOR AJAR SYSTEM

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	A red warning light and audible alarm for the compartment door ajar system shall be provided in the cab. This light shall be activated when a compartment door on the apparatus body is open and the park brake is released, this shall also be displayed on the V-MUX system.			

### 107. CLEARANCE AND MARKER LIGHTS – LED

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	All clearance /marker lights, reflectors shall comply with department of transport motor vehicle safety standards. The clearance / marker lights shall be LED type.			

### 108. MID BODY TURN SIGNALS – LED

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	A set of LED mid body turn signals shall be installed within the rub rail on each side of the body.			

### 109. MOBILE RADIO

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	The Merritt Fire Rescue Department will supply the programmed mobile radio.			
b.	Dealer to install mobile radio in the center dash area, accessible to the Officer and Driver.			
c.	Dealer to supply and install antenna.			

### 110. SIGTRONICS INTERCOM SYSTEM

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	There shall be a Sigtronics model US067S intercom system provided on the apparatus to all six (6) seating positions. The system shall be a voice activated system and			

	have the capability of interfacing with a mobile radio.			
<b>b.</b>	The Driver and Officer to have transmit capability only.			

### 111. SETCOM CSB-900W2 Kit INTERCOM

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
<b>a.</b>	There shall be a SETCOM CSB-900W-Kit Wireless Intercom System provided on the apparatus which will interface with the Sigtronics wired intercom system.			
<b>b.</b>	The system to include: <ul style="list-style-type: none"> <li>○ One (1) CSB 900W2 wireless headset.</li> <li>○ One 900W2 Base</li> <li>○ One (1) 3 conductor Stereo Plug Adapter for connection to Sigtronics Intercom System.</li> </ul>			

### 112. GENERATOR BUILT- IN HYDRAULIC DRIVEN

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
<b>a.</b>	Supply a Cummins Onan 6000w hydraulically driven generator or equivalent. To be located above the pump module and able to be operated from the pump panel with a master switch in the cab.			
<b>b.</b>	There shall be a LED generator display meter provided with the generator. The monitor will display voltage, frequency and amps.			

### 113. PAINT CAB – TWO TONE - CHASSIS SUPPLIER

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	The chassis shall be painted a two tone colour (white over red) by the chassis manufacturer. This shall be the final paint color and finish for the completed vehicle.			

### 114. PAINT BODY – SINGLE TONE COLOUR

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	The body shall be painted single tone colour, red; to match the chassis paint finish as provided by the chassis manufacturer.			

### 115. STANDARD COMPARTMENT PAINT

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	The interior of all compartments of the body shall also be sealed and caulked.			
b.	Interior of body compartments shall be coated with gray Line-X thermoplastic polyurethane coating.			

### 116. BODY UNDERCOATING

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	There shall be a two (2) step undercoating process applied to the entire underside of the apparatus when complete.			



**117. LOGO'S and LETTERING**

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	Logos and lettering shall be provided on the cab doors and body as directed by the Merritt Fire Rescue Department to be approved prior to delivery.			

**118. REFLECTIVE STRIPING – 6"**

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	There shall be a six inch wide white 3M Scotchlite reflective striping. The striping shall run from the front of the cab to the rear of the body. The layout of the reflective striping and color scheme to be discussed and approved by the Merritt Fire Rescue Department.			

**119. REFLECTIVE STRIPPING - INNER DOOR – SLIDEOUT TRAYS**

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	There shall be reflective 3M Diamond grade striping applied to the traffic exposed edges of all slide out trays and the open ladder rack. The layout of the reflective striping to be discussed and approved by the Merritt Fire Rescue Department.			

**120. NFPA CHEVRON STRIPING REAR**

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
a.	3M Diamond Grade VIP reflective in a chevron fluorescent yellow-green/red pattern shall be applied with a minimum of 50% coverage.			

	The Chevron pattern will include a minimum 6" reflective fluorescent yellow-green and red stripping applied to the apparatus at 45 degree angle.			
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**121. RUB RAIL RELECTIVE STRIPING**

DETAILED DESCRIPTION	YES	NO	SPECIFICATION / VARIATION
<p><b>a.</b> There shall be 2" reflective striping installed in the rub rail channel. The reflective striping shall be diamond grade quality material for increased visibility. The reflective shall be silver in color.</p>			

**122. LADDERS – DUO SAFETY**

DETAILED DESCRIPTION	YES	NO	SPECIFICATION / VARIATION
<p><b>a.</b></p> <ul style="list-style-type: none"> <li>• One (1) Duo Safety model 585-A 10' folding ladder with bracket shall be provided.</li> <li>• One (1) Duo Safety model 775-A 14' roof ladder shall be provided.</li> <li>• One (1) model 900-A, 24' 2-section extension ladder shall be provided.</li> </ul>			

**123. ADDITIONAL EQUIPMENT TO BE SUPPLIED WITH APPARATUS**

DETAILED DESCRIPTION	YES	NO	SPECIFICATION / VARIATION
<p><b>a.</b> Two Flexible PVC 6" X 10' sections of hard suction hose with strainer.</p>			
<p><b>b.</b> Three (3) Pike Poles: Heavy Duty with Yellow Fiberglass</p>			

	Poles; 6 ft., 8 ft., and 10 ft., in length. Pike Poles to be securely stowed on Hydraulic Ladder Rack.			
<b>c.</b>	One complete set of spare filters, not limited to; Air, Oil, Fuel, Hydraulic, etc.			

#### 124. DETAILING AND INSPECTIONS

DETAILED DESCRIPTION		YES	NO	SPECIFICATION / VARIATION
<b>a.</b>	Prior to the final delivery, the vehicle will be professionally cleaned and polished. Final delivery to be F.O.B. Merritt Fire Station, 1799 Nicola Avenue, Merritt, BC, Canada.			
<b>b.</b>	The Supplier will provide for three inspection trips to manufacturer's plant, which will include travel costs (air/vehicle), meals, and a minimum of two nights; separate accommodation, and a rental car for two representatives of the fire department.			
<b>c.</b>	The first trip will be a pre-construction meeting. The second inspection will be prior to painting the body and the third trip to be a pre-delivery inspection, to insure that all aspects of the Proposal have been complied with.			
<b>d.</b>	The manufacturer will deliver the completed fire engine and provide, minimally, one day's training by a qualified person in the operation and maintenance of the apparatus.			

<b>e.</b>	The final inspection will be in Merritt, British Columbia. The Supplier will be responsible to insure that all transport damage has been repaired prior to delivery.			
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