

APPENDIX 'A'

RFQ - BESMP03-26

Required Specifications

General Requirements:	Yes/No or Exception
The apparatus shall comply with all requirements of WorkSafe BC (Workers' Compensation Board of British Columbia)	
The apparatus shall be an extended Cab and chassis enclosed cab type, four-wheel drive, the apparatus shall have a maximum:	
- overall height of 100 inches,	
- width of 96 inches (8Ft) and	
- length of 276 inches (23ft), bumper to bumper.	
Details of all standard chassis features to be provided as part of the proposal.	
The Proponent shall provide manufacturer's drawings of the apparatus showing the principal dimensions, heights, of various components of the chassis and complete apparatus.	
All valves, adjustments and controls will have labels (color coded if applicable) to indicate function or use. No duplicate numbering of outlets or inlets. Labelling to be standardized as per department requirements.	
The apparatus shall be designed for climbing steep roadways.	
Truck shall be governed to meet NFPA 1901 (current edition)	
Drive gear ratio should be specked for hill climbing.	
The Apparatus will be four-wheel drive	

Welding:	Yes/No or Exception
All welding shall be high quality and consistent with best practices for aluminium and steel as applicable. Welding shall be by facilities and personnel fully experienced in the welding of aluminium and steel. Written procedures, certification of welding personnel and quality of welding shall be in accordance with recognized standards (e.g. AWS or CSA). Weld quality shall be according to the loading conditions (static or dynamic) as applicable.)	
Welding shall not be employed in the assembly of the apparatus in a manner that will prevent the ready removal of any component part for service or repair. All steel and stainless-steel welding shall be done to American Welding Society D1.1-83 recommendations for structural steel welding. All aluminium welding shall be done to American Welding Society and ANSI D1.2-83 requirements for structural welding of aluminium.	

Cab, Chassis and Vehicle Components:	Yes/No or Exception
Truck is to be built on and F650 Ford or 6500 GM extended Cab and Chassis, with the diesel engine Automatic Transmission options. The vehicle must have hydraulic brakes matched to the maximum allowable GVW for B.C. Transmission sized appropriately for the apparatus engine, weight and long-term performance. *** Remove DEF system!	

Manual, emergency shut down shall be provided at driver's location.	
Audible alarms for low oil pressure and high water temperature shall be provided	
Wheels shall be standard steel. Tires to meet all requirements for apparatus load and handling as well as Province of British Columbia Commercial Motor Vehicle requirements.	
Preferred tires Toyo M-55	
Differential is required to be single speed with limited slip. The ratio will provide for the ability to climb steeply inclined roads.	
Extended extreme duty front bumper to 18 inches c/w hose well and cover to accommodate 150ft of 1.5-inch hose, nozzle with 3" plumbing with auto drain. Discharge to be 2.5" inch BC Thread with reducer to 1.5" chrome and terminate on top of the bumper, driver's side. Complete with Bumper Guide, indicator marker light posts.	
Towing eyes shall be provided at the front bumper and the rear tailboard. All inner edge of the tow eyes shall be chamfered. Exact configuration to be determined at prebuild meeting.	
Block heater to be powered by 120-volt connection	
Heater pump 120 vac	
Please indicate detailed proposed optical warning and scene lighting package using the latest generation of LED lighting including make, model, locations and controls Light bar to include alley lights and brow light.	
Provide built-in battery charger in cab with a continuous charge rate to provide charging of both the apparatus and accessory batteries (Mobile Workstations) designed and installed with protection of all systems. Note: Charging to occur both when on and off of shore power. Similar to existing apparatus.	
Provide minimum 1000 watt 120VAC to 12VDC inverter to power four 120VAC outlets inside the cab area. Department to specify location at pre-build.	
Provide recessed male 120V auto eject receptacle for built in battery charger and block heater. To be accessed at left exterior cab.	
Provide controls for siren and warning equipment accessible from both driver and officer's position. Department to specify location at pre-build.	
Provide one electronic siren, c/w 2 100-watt speakers in front bumper. Department to specify locations at pre-build.	
Provide a siren recessed in front bumper. Provide label and control from driver and officer's side.	
Compartments, under body, pump panel and other work areas shall be provided with LED lighting providing maximum illumination of all spaces. Strip lighting or similar to be installed in compartments.	
Provide for two power supplies and antenna leads for mobile radios. Department to specify radios to be installed. Department to specify location at time of prebuild. Department has requested plug in option at pump controls.	
Provide a 12V outlet on officer's side and one on driver's side. Department to specify location at prebuild. This is in addition to USB charging ports. Also include a place to mount tablet.	
Minimum alternator output shall exceed maximum continuous load at idle without the use of a load management system.	

Additional 12V power and ground stud to be provided inside the cab area.	
Provide 12V LED scene lighting on three sides of cab: Front, Right and Left.	
Windows in cab doors shall be manually operated and fully opening. Option: Electrically operated windows. Prefer Manual	
Windshield and all window glass shall be tinted, shatter proof safety glass	
Heat and air conditioning to be provided to ensure both front and rear seating areas are kept at an acceptable temperature during all seasons.	
All mirrors shall be electrically controlled and heated with a single convex mirror. Controls to be located directly adjacent to, and easily manipulated from, the driver's position via a toggle switch.	
Back up camera system. Safely usable from the driver's position.	

Apparatus Body and Components:	Yes/No or Exception
Apparatus Body material must be aluminum. Indicate thickness and construction type	
All body surfaces shall be designed to prevent corrosion	
The complete truck except for roll-up doors and checker plate shall be painted red. Note: Colour as per existing Bamfield apparatus.	
Department door decal on each side of apparatus, Unit ID# lettering on all sides of apparatus. Style and locations shall be determined at pre-build. Note: Configuration as per existing Engine apparatus.	
Reflective warning stripe shall meet NFPA and include black pin striping below and above. Department to specify location and size at prebuild.	
Compartment configuration to be 'rescue style', as deep and as wide as possible while continuing to have good body strength. The bottom of all compartments shall be above the bottom of the door edge.	
There shall be a ladder on the left (driver's side) rear of the truck, with grab rails, and flip style steps on the right-side rear, to gain access to the hose bed / upper storage areas.	
There shall be a flip-down step across the rear tailboard area	
There shall be a grab handle installed on the upper hose bed side to assist with access to the top of the hose bed.	
All flip up step surfaces shall be covered with bright finished aluminum alloy diamond mill finish tread plate with corrosion resistance.	
Compartment doors shall be the roll-up type. Pan door options may be accepted where practicable and justified for space savings or other relevant reason.	
A drip cap must be installed above all compartments.	
Adjustable shelving to be provided. Department to determine mounting system for equipment at pre-construction meeting.	
All horizontal surfaces within the compartment shall have raised plastic tile systems installed	
Compartment lighting shall be inward facing, LED strip system providing for maximum effective illumination for the compartment space configuration.	
Two (2) transverse hose lays with 2-inch plumbing capable of holding 200 feet of 1.5-inch hose and a nozzle, in each storage area, trays, to be two (2) hose widths wide in all cases. Note: Configuration as per or similar to existing Engine apparatus.	

Rear hose bed configuration must include storage to accommodate the following hose volumes, complete with all necessary dividers (estimated 2 removable dividers required): • 1000 ft of 2.5-inch supply line and 500 feet of 2.5-inch hose in single wide stacks of 250 feet.	
One (1) each of an 8ft and 6ft New York style hook (fibreglass type), plus one (1) 4ft NY style hook. Mounting of pike poles to be identified at pre-build meeting. All will have D-ring handle configuration. All to be supplied with the apparatus.	
A side mounted overhead ladder rack shall be installed on the right side of the apparatus body above the body compartments. This ladder rack shall accommodate three individual ladders; a 10' attic, 16' roof, 24' extension all to be supplied with apparatus.	
A slide out SCBA rack in a compartment directly behind the single cab accessed from both the left and right side to hold four SCBA units and eight spare bottles 2500 psi aluminum bottles. Storage of spare bottles can be around the wheel wells as this is normally wasted space.	
The pump shall be mid-mounted / controlled and single stage having a minimum rating of 650 IGPM/750 USGPM.	
A gauge cluster package shall be provided for information to the pump operator about engine and pump characteristics. Department will specify other details such as pressure scales at prebuild.	
Pump panel to be located on the left side forward of the apparatus body. Lay out to be approved by department.	
All discharges and intakes will have cable or chain complete with a cap. 2.5 to 1.5 chrome adapter with cap on all 2.5" sized discharges.	
All valves will be colour-coded to match discharge and inlet labels. Colour coding specifics to be determined at or about preconstruction.	
An electric pump primer of the oil-less type with push/pull control shall be installed	
All plumbing will be stainless steel with anodes installed. Galvanized option will be considered.	
Pressure governor system.	
A heat exchanger and pump cooler bypass shall be provided	
A relief valve shall be provided for all intakes	
All finished threads to be used to connect to shall be compatible with common British Columbia fire service threads as used by Bamfield Volunteer Fire Department.	
All intakes will have a screen and designed to have minimum friction loss. Configured in the following pattern:	
- (1) Left side 6.0"	
- (1) Left side 2.5"	
- (1) Right side 6.0"	
- (1) Right side 2.5"	
All intakes and master pump drain will be controlled. Department to identify location and type at pre-build.	
All discharges will have a quarter turn drain valve and be configured in the following pattern:	
- (2) Left side 2.5"	
- (2) Right side 2.5"	
- Rear 2.5"	

Bumper pre connect 2.5" with reducer to 1.5"	
Cross lays 1.5"	
Monitor 2.5 for master stream appliance	
Each discharge will include a manually controlled valve at the pump operator's position and a 30-degree elbow.	
All discharges to include pressure gauges in proximity to their control location. Option: Include flow indicators.	
The apparatus will be ULC Listed and Tested prior to acceptance by the department with a plate attached on the pump house at the operator's area.	
Maximum access shall be provided to the pump area from three sides. Prefer inclusion of removable side panels on pump housing for improved access.	
A monitor on the top of the apparatus will be manual operation and flow 750 GPM/2800 LPM.	
The department prefers an Akron deck monitor c/w a saber master nozzle and stacking tips.	
Monitor will be manually operated.	
Monitor must be equipped to deploy/extend above cab and ladders for 360-degree operation.	
Storage for monitor parts should be provided on the top of the apparatus.	

Water Tank:	Yes/No or Exception
Required to be a minimum of 300 IMP Gallons (approx. 360 USG). The tank shall have a lifetime warranty and be readily removable from the apparatus. Maximize tank volume with a comfortable GVW of the finished Apparatus	
The tank construction shall be at least 1/2" thick polypropylene construction	
The tank shall have a removable lid for servicing	
A water tank gauge shall be provided in the pump operators' area. Optional Additional indicators visible from both the rear and right side of the apparatus are also required. The tank level will be displayed in five increments.	

Foam System:	Yes/No or Exception
Add a FoamPro model 1600 Class A foam system with 25 imperial gallon foam tank, 2 outlet foam manifold (crosslays) and LED foam level gauge	
Provide for four 120V outlets (supplied by the inverter) as follows:	
One on front bumper	
One on rear tailboard area	
One right side pump housing or mid-body	
One left side pump housing or mid body	
Department to confirm locations and configuration at pre-build.	

Design characteristics shall allow for the following weights of equipment and personnel without being overweight: - 4 Firefighters (300 lbs per), - full fluid levels including water tank, - 600lbs or more per compartment, and - full hose beds as designed for this proposal.	
Special Tools: A list of any special tools required is to be supplied with the proposal	
Face to Face Instruction provided for Cab & Chassis and pump. List how much time is included.	
Third Party Certifications	
Any additional items not listed but normally included.	
Completed British Columbia Commercial Vehicle Inspection Certificate (CVI) prior to delivery.	
One set of complete filters for first major service.	
Provide a full table of options with pricing attached to the proposal.	
Provide 600 feet of 1.5-inch attack hose in 50 foot lengths c/w couplings	