CLINTON, CT FIRE DEPARTMENT

REQUEST FOR PROPOSAL

ONE (1) 1500-GPM 75’ QUINT FIRE APPARATUS

October 2025

ONE (1) 1500-gpm 75’ Quint Fire Apparatus

SPECIFICATION	REQUIREMENTS	NOTES	YES/NO
CHASSIS-CUSTOM CAB:	Model year 2027 aluminum cab minimum width 96” wide, with a flat roof. Wheelbase maximum of 232” with front and rear axle ratings calculated to meet final weight and balance calculations of the truck design. Overall length not to exceed 42’-0” Overall height of apparatus not to exceed 11’-6”. Front gross axle weight rating (GAWR) shall be adequate to carry the weight of the completed apparatus including all equipment & personnel. Rear gross axle weight rating (GAWR) shall be adequate to carry the weight of the completed apparatus including all equipment & personnel. Cramp angle/turning radius to be provided. Cab length between 70”- 74” from center line of the front wheel to the end of the cab. 6-person cab: Driver, Officer, 2 forward facing inboard fixed seats, 2 rear facing outboard fixed seats. All seats to be Bostrom Fire Fighter SCBA & Highback Series for the driver. Seat cover material to be Grey Durawear. All seats are to include storage compartments with side hinged doors below the seat. Zico Load & Lock SCBA bracket at Officer's and all rear seats.		

	An aluminum EMS equipment storage compartment shall be provided rear of the engine tunnel. The compartment shall be painted & include a net material fastened to the compartment to secure the equipment within the compartment. Location to be determined at pre construction. A Cummins X15, 525 HP, 1850 Ft-Lbs. torque engine shall be provided. A 12-volt DC point to point electrical system shall be provided. The electrical system shall have dedicated wire runs from a power source, through a switch & circuit protection to each individual electrical component. Engine brake & retarder to be provided Allison 4500 EVS automatic transmission with T handle shifter in cab.The transmission will be provided with an aggressive downshift mode activated with the engine brake. This will provide earlier transmission downshifts to 2nd gear from 6th gear, resulting in improved engine brake performance. Two (2) fuel shutoff valves at primary filters. Sixty eight (68) gallon fuel tank minimum. Air inlet to be provided and located per customer specified location. Kussmaul Auto Air Eject with (Red) connection cover for the shoreline air inlet. Equipped with air-operated brakes & ABS to meet FMVSS-121 & NFPA 1900 Requirements (Reinforced nylon air lines color coded- Rear green, Front Red & parking brake Orange)		

	Auxiliary air tank for optional accessories i.e., air horns, brakes, air-primer Air dryer system to be provided. A rubber mat material shall be provided in gray for the cab floor areas. Cab entry doors shall be full style doors that cover the lower cab steps. Stainless steel flat front bumper extension shall be provided. The bumper shall be painted job color & not to exceed 21". An aluminum check plate apron shall also be provided. Hose dunnage shall be provided for (100' 1.75" Mercedes Metro hose & nozzle) Tow eyes shall be mounted on the front & rear of the truck. The front tow eyes shall be provided above & below the front bumper. A tow receiver hitch shall be provided on all four sides of the apparatus. This hitch shall be able to receive a Warn 2000 DC 12V Electric Winch Model #92000. Location to be determined at pre construction. Michelin XZY3 aggressive tread front tires & Michelin XDN2 M&S tread tires on rear or comparable tread. Electric window controls are to be provided on each door. Driver to have a control for all doors. Location to be determined at pre build. Retrac motorized dual vision heated/lighted mod. # 613423 west coast style mirror. Kussmaul Qty. Six (6) dual 3.0 amp USB ports to be supplied and wired battery hot. Locations to be determined.		

	UV resistant HDPE stand-off mounting plates are to be provided at the front & rear of the engine tunnel for radios and flashlights. Install 120V shore power outlet mounted to rear standoff. Stainless-steel fenderettes to be provided front & rear axles. Two or four dual rectangular chrome plated bezels to be installed on the front of the cab. One set for LED heated headlamps & one set for warning lights 7 position tilt and telescoping steering column. 18" steering wheel with a center button provided. Qty. (1) Kussmaul Chief 6012 series battery conditioner to be provided. The conditioner shall provide 60 amp output for the chassis batteries. Qty. (1) Kussmaul 091-55-266 120-volt 0A Super Auto Eject Deluxe color red to be supplied & installed between driver's side front & rear doors. A digital status center shall be integrated into the plug outlet. Three (3) 120-volt duplex straight blade receptacles shall be provided in the cab interior and connected to shore power. The second shoreline circuit shall run down the curbside of the vehicle with receptacles in each of the compartments & to include the rear compartment.		

	Qty. (2) accessory power circuits shall be provided one (1) in dash and one (1) behind officers seat. The wire shall be size #10 and each of the power circuits shall be protected with a fuse of the specified amperage. One (1) power circuit shall be capable of carrying up to a 40 amp battery direct load. One (1) power circuit shall be capable of carrying up to a 15 amp ignition switched load. The two (2) power circuits shall share one (1) #10 ground circuit. Qty (1) 225-Amp battery direct power & ground stud shall be provided & installed on the chassis near the left side battery box for OEM body connections. Qty. (1) set of battery jumper studs with plastic color-coded covers will be included on the battery compartments. Electrical power drop considerations and equipment mounting allowance for cab interior to include: Qty. (2) Customer supplied Thermal Imaging camera chargers. Mounting location TBD. Qty. (1) Customer supplied 3M Scott Pak-Tracker chargers. Mounting location TBD. Qty. (6) Flashlights wired to customer specifications. Mounting location TBD. Qty. (2) Customer supplied portable radio multi-unit portable chargers. Mounting location TBD. Qty. (2) Power and antenna provisions for mobile radios. Radio's customer supplied.		

	Qty. (4) Universal Motorola pre-wired Antennas must cover 769-861 Mhz. Design of the system calls for a 3db mobile antenna. A low loss/dual-shield type with the shortest cable run possible should be utilized. An antenna mount specifically designed for high frequency use should be used. Antenna bases to be mounted on the cab roof with a weatherproof connector. Antenna cables to terminate behind officers seat. Locations TBD at pre-construction meeting. AM/FM radio with Bluetooth capabilities shall be provided with 4 speakers. Radio & speaker locations TBD at pre-construction. Heat/AC (54,000 BTU minimum). Low profile severe service dash and interior finishes to be provided with no plastic components. Galvanized frame rails shall be provided for corrosive resistance. Alcoa Dura-Bright aluminum wheels to be provided. Wheel guards to be installed were practical. Air filtering/purifying options for cab. Exhaust end provision to be Plymovent magnetic connection. Cup holders for two front riders and four rear riders are to be provided on the engine tunnel. Cab entry doors shall have reflective material provided 12” high on lower cab door panels. Scuff plates to be provided in the area of door jambs, body, steps & compartment areas to protect cab paint.		

	The cab shall include one (1) 18.00-inch three-piece knurled aluminum, anti-slip exterior assist handle, installed behind each cab door. The assist handle shall be made of extruded aluminum with a knurled finish to enable non-slip assistance with a gloved hand. The cab grab rails shall include a 12 volt, 17.00-inch-long blue LED light to provide an increased margin of safety for nighttime cab entry and egress. Door handles to be constructed of corrosion free plastic fiber material & have a Black matt finish. Handles shall have clearance for a gloved hand. Engine high idle rocker switch & and automatic high idle speed control to be provided. Rocker switch controls to be provided for regeneration & regeneration inhibit. Electronic engine oil level indicator to be provided. Electronic coolant level indicator to be provided. Stainless steel 3-Arm 10” convex mirror to be mounted horizontally to the cab on the passenger side. Cab glass rearward of the front cab doors shall be equipped with dark gray tint glass having a 20% light transmittance (+/- 10%)		

	An exterior cab compartment shall be provided at the lower LH/RH rear side of the cab with exterior access. The compartment shall be approximately 21" D x 17" W x 32"H & equipped with a hinged door and LED compartment light strip w/chrome D-Ring Handle . An FRC Inview 360HD wired around vehicle 6 - camera stitched view monitoring system shall be provided with recording capability. The camera system shall provide a real-time 360 degree view around the apparatus while in motion or stationary with the ability to overlay outrigger graphics. The camera monitoring shall be displayed on a 10" split-screen HD monitor provided in the cab console above the driver. The exact location TBD at pre-construction. Provide brushed stainless edge protection at the corner of the rear exterior cab to protect paint. Brushed stainless to cover from the bottom of the cab to the roof line.		
PUMP MODULE / TANK:	***PUMP INSPECTION DOOR*** An inspection door shall be available on the right side for access to the interior of the pump house. Door locks shall consist of two (2) lift and turn twist lock latches. ***PUMP PANEL DRAWINGS*** A pump panel CAD drawing showing the proposed locations of the switches, valve controls, gauges, etc. shall be submitted to the Fire Department prior to the fabrication of these panels. This will allow the Fire Department to make minor location requests prior to the fabrication of these panels (no plumbing changes allowed). ***PUMP PANEL LIGHTS***		

	A light shield step shall be mounted above the road side gauge panel. The light shields shall be made as large as possible to provide maximum light distribution. Three (3) TecNiq #E10-W000-1 LED lights shall be furnished under the shield. Bulbs which are exposed are unacceptable. The lights shall be switched on at the pump operator's control panel.The light shield must be a step style. One (1) pump panel light will come on when the pump is in ok to pump mode. The remaining lights to be actuated from a switch located on the pump panel. A light shield step shall be mounted above the curb side gauge panel. The light shields shall be made as large as possible to provide maximum light distribution. Three (3) TecNiq #E10-W000-1 LED lights shall be furnished under the shield. Bulbs which are exposed are unacceptable. The lights shall be switched on at the pump operator's control panel.The light shield must be a step style. ***VACUUM AND PRESSURE GAUGES*** The pump vacuum and pressure gauges will be liquid filled and manufactured by Class 1 Incorporated or equivalent. The gauges will be a minimum of 6.00" in diameter and will have white faces with black lettering, with a pressure range of 30.00" 0-400 psi. The pump pressure and vacuum gauges will be installed adjacent to each other at the pump operator's control panel. The white LED backlight will be activated by the pump in-gear interlock circuit.		

	MASTER GAUGE TEST PORTS Test port connections will be provided at the pump operator's panel. One (1) will be connected to the intake side of the pump, and the other to the discharge manifold of the pump. They will have 0.25 in. standard pipe thread connections and polished stainless steel plugs. They will be marked with a label. ***PRESSURE GAUGES*** The 11 individual line pressure gauges for the discharges will be interlube filled and manufactured by Class 1 or equivalent. They will be a minimum of 2.50" in diameter and will have white faces with black lettering. Gauge construction will include a Zytel nylon case with adhesive mounting gasket and threaded retaining nut. Gauges will have a pressure range of 0-400 psi. The individual pressure gauge will be installed as close to the outlet control as practical. The white LED backlight will be activated by the pump in-gear interlock circuit. ***VALVE CONTROLS*** All push/pull valve controls will have 1/4 turn locking control rods with polished chrome plated zinc tee handles. Guides for the push/pull control rods will be chrome plated zinc castings securely mounted to the pump panel. Push/pull valve controls will be capable of locking in any position. The control rods will pull straight out of the panel and will be equipped with universal joints to eliminate binding.		

	The identification tag for each valve control will be recessed in the face of the tee handle. All discharge outlets will have color coded identification tags, with each discharge having its own unique color. Color coding will include the labeling of the outlet and the drain for each corresponding discharge. All line pressure gauges will be mounted in individual chrome plated castings with the identification tag recessed in the casting below the gauge. All remaining identification tags will be mounted on the pump panel in chrome plated bezels. ***CROSSLAY HOSE BED*** Four (4) crosslay hose beds with adjustable dividers shall be provided and installed above the pump house. The crosslay hose bed shall be slotted to allow for drainage of the hoses. Hose bed areas to be provided with nylon/vinyl cover for the main hose bed with flaps to drape down. The cover shall be capable of being securely fastened at top and sides. The height of the crosslay hosebed shall be as low as possible & not exceed 70" from ground. A drawing is to be submitted at time of bid. Two (2) crosslays with 1.50" outlets will be provided. Each bed shall be capable of carrying 200' of 1.75" (Double-Stacked Mercedes Metro) hose (with nozzles) and will be plumbed with 2.00" i.d. pipe and gated with a 2.00" quarter turn ball valve.		

	Outlets are to be equipped with a 1.50" National Standard hose thread 90 degree swivel located in the hose bed so that hose may be removed from either side of the apparatus. Two (2) crosslays with 2.50" outlets will be provided. Each bed capable of carrying 200' of 2.0" (Double - Stacked Mercedes Super 2) hose and plumbed with 2.50" i.d. pipe and gated with a 2.50" quarter turn ball valve. The outlets are to be equipped with a 2.50" National Standard hose thread 90 degree swivel located in the hose bed so that hose may be removed from either side of the apparatus. The crosslay controls will be at the pump operator's panel. Adjustable dividers (Qty. 3) shall be provided for the crosslay hosebed. ***CROSSLAY VALVES*** Crosslay valves shall be of manual type. The valves are to be Akron Brass heavy-duty style 8000 series with brass body. Where a 3-inch or large valve is utilized a slo-cloz feature shall be incorporated to comply with NFPA 1901 and prevent water hammer. All valves shall come with a 10-year warranty covered by Akron Brass. ***DRAIN VALVES*** A drain shall be installed at the pump panel. The drain shall have 3/4" Synflex drain lines tied to a 1/4 turn drain valve with high pressure brass fittings.		

	SIDE CONTROL PANEL The pump operator's panel and the right-side pump panel shall be constructed from 1/8" aluminum with a black anti-glare coating. Both the right side and left side pump panels shall be bolted to the pump house for ease of removal. ***HEAT EXCHANGE VALVE*** A Class 1 P/N 105120 brass assembly with chrome plated zinc handle petcock control valve shall be mounted at the pump operator panel to allow tank water to recirculate through the pump. The port size and plumbing shall be 1/4". ***AUXILIARY HEAT EXCHANGER*** There shall be an auxiliary heat exchanger mounted on the chassis. The heat exchanger will allow tank water to cool the chassis engine. The heat exchanger shall be operated by a Class 1 P/N 105120 brass assembly with chrome plated zinc handle petcock control valve. This valve shall be mounted at the pump operator panel. The plumbing to the auxiliary heat exchanger control valve shall be 1/4". ***RUB RAILS - PUMP HOUSE RUNNING BOARDS & REAR BODY & REAR TAILBOARD*** Three-inch black polyurethane rub rails shall be bolted into place with nylon spacers on the lower framework on the pump house running boards, rear body & rear tailboard. The rub rail will extend to the outside edges of the running boards for protection from impact damage. ***PUMP HOUSE INTERIOR LIGHTING-LED*** The interior of the pump house shall be illuminated by a total of two (2) 6.5" x 3" Tecniq E10 clear LED dome lights, one (1) each side. The lights shall be activated by a switch at the pump operator panel.		

PRESSURE GOVERNOR, MONITORING, AND MASTER PRESSURE DISPLAY

Fire Research Corporation series PBA501-X0 Pump Boss Max pressure governor and monitoring display kit shall be installed. The kit shall include a control module, intake pressure sensor, discharge pressure sensor and cables.

WATER TANK VOLUME INDICATORS

Fire Research Tank Vision Pro model WLA300-A00-CM tank indicator shall be provided at the pump panel with a miniature display within the cab. The kit shall include an electronic indicator module, a pressure sensor, and a 10' sensor cable. Cab display location TBD at pre-construction.

CHASSIS AIR HORN EMERGENCY EVACUATION BUTTON

A heavy-duty weatherproof momentary push button switch shall be located at the pump panel to operate air horns in the event of an evacuation. The switch to be labeled "Evacuation Alert."

A pressure protection check valve, rated at 85 PSI, shall be installed in the chassis air system to avoid depleting the chassis air system.

PUMP SPECIFICATIONS

The pump shall be a Hale Qmax Single Stage Pump, providing 1500 GPM @ 150 PSI.

THERMAL RELIEF VALVE

The Hale fire pump shall be fitted with a Hale TRV thermal relief valve to by-pass water from the pump to the booster tank should the pump overheat.

	MASTER DRAIN VALVE The pump shall be equipped with a single master drain valve that includes individually ported drains that do not require check valves. This drain shall also include all relief valves, auxiliary engine cooler, and pump transmission. ***AIR PUMP SHIFT*** Pump shift engagement will be made by a two (2) position sliding collar, actuated pneumatically (by air pressure), with a three (3) position air control switch located in the cab. A manual back-up shift control will also be located on the left side pump panel. Two (2) indicator lights will be provided adjacent to the pump shift inside the cab. One (1) green light will indicate the pump shift has been completed and be labeled "pump engaged". The second green light will indicate when the pump has been engaged, and that the chassis transmission is in pump gear. This indicator light will be labeled "OK to pump". The pump shift will be interlocked to prevent the pump from being shifted out of gear when the chassis transmission is in gear to meet NFPA requirements. The pump shift control in the cab will be illuminated to meet NFPA requirements.		

	PUMP MAIN SUCTION INLETS Qty. (3) Two (2) 6" pump manifold inlet(s) shall be provided on the road & curbside of the pump with factory chrome caps. One (1) front bumper suction intake shall be provided. The suction must be a minimum of 29” from grade. Suction shall terminate behind face of bumper, raised 90 degree swivel not acceptable ***STEAMER INTAKE VALVES (3) ELECTRIC - FRONT, LEFT AND RIGHT SIDE*** Three (3) Hale MIV 2.0 electrically operated butterfly valve(s) shall be provided with a gear actuator that will cycle the valve from open to closed position. The gear actuators shall be sealed units designed to provide reliable service in the harsh pump compartment environment. The valve controls shall be provided on the pump panel and shall be provided with a panel placard indicating control operation. There shall be status lights to indicate whether the valve is open or closed. A relief/dump valve shall be incorporated into the butterfly valve(s). The valve(s) will be preset to 125 psi & be field adjustable. An over-ride option shall be provided with safe & easy access to engage the valves manually should there be a failure of the electronic valve. ***STAINLESS-STEEL MECHANICAL SEALS*** The pump shall be equipped with self-adjusting, maintenance free mechanical shaft seals. The seals shall be designed to be functional in the unlikely event of mechanical seal failure.		

	PUMP PRIMER Automatic Fire Pump Priming System A Trident Four (4) location, 3-barrel, automatic air operated priming system (Model #31.001.23) will be installed. The four (4) locations shall include the pump, two (2) 6" pump manifold inlet(s) left & right & the front suction inlet. The front suction inlet must be equipped with the 5" Trident kit #27.011.1. Highpoint pickups shall be provided for the plumbing above the axle & before the 5" butterfly valve. The primer body will be constructed of all brass, stainless-steel, and be designed for fire pumps of 1,250 GPM (4,730 LPM) or greater. Due to corrosion exposure, no aluminum will be used in the air primer. No vanes, electric motors, lubrication, belt drives, or clutch assemblies will be used in the design of the air primer system. The primer will be a 3-barrel design with a 0.75" FNPT connection to the fire pump.The primer will be mounted above the fire pump impeller so that it will automatically drain back into the pump. The primer will also automatically drain when the panel control actuator is not in operation. The inlet side of the primer will include a brass 'wye' strainer with a removable stainless steel fine mesh to prevent entry of debris into the primer body. Air Flow Requirements The primer will require a minimum of 15.6 cubic feet per minute of compressed air and will be capable of meeting drafting		

	requirements at high idle engine speeds. The primer will require an air supply from a protected air storage tank on the fire chassis. A pressure protection valve (PPV) set at 70 PSIG will be installed on the air supply line to meet DOT standards. <u>Automatic Primer Control</u> The 12-volt primer will be automatic with a three-way switch located on the placard to operate an air solenoid valve. The valve will direct air pressure from the air brake system to the primer. To prevent freezing, no water will enter the air primer solenoid valve. The automatic priming system switch will have three positions: · **"Auto-Prime"** – In the upper position, a green LED light will be illuminated when the switch is in the "Auto-Prime" position. The "Auto-Prime" operates automatically when the pump pressure drops below 20 PSIG. The primer shuts off automatically when the fire pump pressure is re-established and exceeds 20 PSIG. The "Auto-Prime" mode only operates when the fire pump is engaged. · **"Off"** - Center position · **"Prime" –** The lower switch position will be a momentary, manual, push and hold to prime.		

	Three (3) additional “push to prime” manual remote primer controls will be installed for the specific additional intakes mentioned above. The additional controls will operate the air primer to pre-prime and may be used to remove air from the specified intake piping and hose while the fire pump is operating. Power Requirements To reduce the electrical power demand on the fire apparatus, the priming system will be air powered. The maximum electrical current draw will not exceed 0.5 amps during operation. Performance, Safety, and NFPA Compliance The priming system will be capable of vacuum ratings down to 22 inches of mercury and will be fully compliant to all applicable NFPA standards for vertical lift. The system will create a vacuum by using air from the fire chassis air brake system through a 3-barrel, multi-stage, venturi nozzle system within the primer body. The operating noise level of the primer will not exceed 75 db. ***AUXILIARY SUCTION - ROAD & CURB SIDE (2)*** A 2.50" gated inlet shall be provided at the left & right-side pump panels, one per side. The inlet(s) shall come complete with a chrome female swivel threaded adaptor. The plumbing shall be schedule 10 stainless-steel. Chrome caps shall come with a chain that is attached to the pump operator panel. The valve(s) shall be an Akron Brass Style 8000 Swing-Out™ Valve. The valve(s) shall		

	have an all-brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a specially designed flow optimizing stainless steel ball and dual polymer seats. ***DRAIN VALVES*** A drain shall be installed at the pump panel. The drain shall have 3/4" Synflex drain lines tied to a 1/4 turn drain valve with high pressure brass fittings. ***SUCTION RELIEF VALVE*** A 2.50" Akron Style 53 flange mounted adjustable suction relief valve shall be provided and installed in the suction side of the pump. The relief valve shall have an adjustable working range of 75 PSIG to 250 PSIG and be pre-set at 125 PSI. ***PUMP DISCHARGE MANIFOLD*** All plumbing for the discharge manifold and discharge plumbing shall be schedule 10 stainless-steel with schedule 40 threaded fittings. In some cases, heavy duty, high pressure, wire reinforced flexible hose with stainless steel couplings shall be utilized for plumbing connections. Victaulic couplings shall be used on the plumbing lines to take tension off piping and to permit flexing and movement without damage to the pump and its components. Heavy duty U-bolt clamps and bracing shall be used on all plumbing lines and connections where required for firm vibration free installation.		

	TANK TO PUMP The water tank will be connected to the intake side of the pump with 3.00" piping and a quarter turn 3.00" Akron valve with the control remotely located at the operator's panel. Tank to pump line will run straight (no elbows) from the pump into the front face of the water tank and angle down into the tank sump. A rubber coupling will be included in this line to prevent damage from vibration or chassis flexing. A check valve will be provided in the tank to the pump supply line to prevent the possibility of "back filling" the water tank. The manually control tank supply line valve shall be an Akron Brass Style 8000 Swing-Out™ Valve. The valve(s) shall have an all-brass body with flow optimizing stainless steel ball and dual polymer seats. ***TANK REFILL/RECIRCULATION LINE*** A 1.50" combination tank refill and pump re-circulation line will be provided, using a quarter-turn full flow ball valve controlled from the pump operator's panel. ***2.5" DISCHARGE - ROAD SIDE*** Two (2) 2.5" gated discharge shall be provided at the left side pump panel. This discharge shall be equipped with a Kochek powder coated 30-degree adapter, rocker lug cap, with a 2.5” x 1.5” NH powder coated reducer & retaining chain that is attached to the pump panel. (Color TBD) The valve(s) shall be an Akron Brass Style 8000 Swing-Out™ Valve. The valve(s) shall have an all-brass body with flow optimizing stainless steel ball and dual polymer seats.		

	DRAIN VALVES A drain shall be installed at the pump panel. The drain shall have 3/4" Synflex drain lines tied to a 1/4 turn drain valve with high pressure brass fittings. ***2.5" DISCHARGE - CURBSIDE*** One (1) 2.5" gated discharge shall be provided at the curbside pump panel. This discharge shall be equipped with a Kochek powder coated 30-degree adapter, rocker lug cap, with a 2.5” x 1.5” NH powder coated reducer & retaining chain that is attached to the pump panel. (Color TBD) The valve(s) shall be an Akron Brass Style 8000 Swing-Out™ Valve. The valve(s) shall have an all-brass body with flow optimizing stainless steel ball and dual polymer seats. ***DRAIN VALVES*** A drain shall be installed at the pump panel. The drain shall have 3/4" Synflex drain lines tied to a 1/4 turn drain valve with high pressure brass fittings. ***2.5" FRONT BUMPER DISCHARGE*** One (1) 2.5" discharge(s) shall be provided to the front bumper area. The plumbing shall be 2" schedule 10 stainless steel with schedule 40 stainless-steel fittings and Class 1 high pressure hose with stainless steel couplings. The discharge shall be a chrome 2.5" NST male 90-degree swivel located on top of the front bumper extension with a 2.5” chrome cap. The 2.5” front bumper discharge valve shall be an Akron Brass Style 8000 Swing-Out™ Valve. The valve(s) shall have an all-brass body with flow optimizing stainless steel ball and dual polymer seats.		

	FRONT BUMPER DRAIN VALVE An air fed blow-out drain shall be installed on the auxiliary air tank on the drivers side of the apparatus. The drain valve control shall be located at the pump panel and supplied by chassis air. ***2.5" DISCHARGE - REAR*** Two (2) 2.5" gated discharges shall be provided at the front of the apparatus hose bed. The 3.0" plumbing leading to the discharge shall be schedule 10 stainless-steel with schedule 40 threaded fittings. This discharge shall be equipped with a chrome plated rocker lug cap, and retaining chain that is attached to the apparatus body. The 2.5" rear discharge electric valve(s) shall be Akron Brass Style 8000 Swing-Out™ Valve(s). The valve(s) shall have an all-brass body with flow optimizing stainless-steel ball and dual polymer seats. An Akron Brass Style 9335 Navigator Pro 2.0 with Pressure Meter and Flow Meter shall be provided for the electric valves. An over-ride option shall be provided with easy & safe access to engage the valve manually should there be a failure of the electronic valve. ***DRAIN VALVES*** A drain shall be installed at the pump panel. The drain shall have 3/4" Synflex drain lines tied to a 1/4 turn drain valve with high pressure brass fittings.		

	STORZ DISCHARGE WITH SLO CLOZ-SIDE One (1) 5” gated Storz discharge(s) shall be provided at the curbside pump panel. The plumbing shall be 4" diameter stainless steel plumbing. The discharge(s) shall be equipped with a Kochek powder coated 5" Storz 30-degree adapter, Storz cap, and retaining chain that is attached to the apparatus body. (Color TBD) The storz discharge electric valve shall be an Akron Brass Style 8840 Swing-Out™ Valve. The valve(s) shall have an all-brass body with flow optimizing stainless-steel ball and dual polymer seats. An over-ride option shall be provided with easy & safe access to engage the valve manually should there be a failure of the electronic valve. An Akron Brass Style 9335 Navigator Pro 2.0 with Pressure Meter and Flow Meter shall be provided for the electric valve. ***DRAIN VALVES*** A drain shall be installed at the pump panel. The drain shall have 3/4" Synflex drain lines tied to a 1/4 turn drain valve with high pressure brass fittings. ***WATER TANK*** The onboard water tank shall have the following capacities: ***500 gallons minimum***		

	LIMITED LIFETIME POLY TANK WARRANTY The water tank shall carry a tank manufacturer lifetime warranty against defects and workmanship. The apparatus manufacturer must be authorized for installation and alterations on poly tanks to not void any written warranties. ***TANK DRAIN*** The tank shall have a 1.5" tank drain installed in the bottom of the tank and accessible from the ground. **CORROSION PROTECTION** Sacrificial anodes for pump and discharge manifold shall be installed.		
BODY & COMPARTMENTS:	Stainless-steel or aluminum constructed body with compartments. The compartments can vary based on manufacturer's design & specifications. Body construction shall be either bolted or welded; construction. The body shall include three-piece knurled aluminum, anti-slip exterior assist handle, installed where required. The assist handle shall be made of extruded aluminum with a knurled finish to enable non-slip assistance with a gloved hand. Specify all grades of materials to be used. LED interior compartment lights (white) to be supplied. All compartments, shelves and tray are to be covered in Turtle Tile compartment matting. Color TBD		

	All compartments shall include adjustable shelving standards. Qty. 2 adjustable shelfs & shall be provided in compartments > 36" in height. Remaining compartments shall have one adjustable shelf. Qty. 5 roll-out trays capable of storing a minimum of 500 lbs shall be provided. Locations TBD at pre-construction. Qty. 2 Full height, full depth slide out vertical tool boards shall be provided. Location TBD at pre-construction. HDPE UV resistant tool mounting plates shall be installed on the back wall of two of the compartments > 36". Location of tool boards TBD at pre-construction. Pair of Britax LED marker lights with arms to be installed at rear of apparatus. Rear tailboard if required to be angled inward at 45 degrees for increased clearance. Provide aluminum diamond-plate on each side to front of body compartment facing pump to protect paint. Diamond plate to cover from the bottom of body compartment to top of compartment. Provide a minimum of 40' of 6" Kochek hard suction hose with cam locks Qty.-(3) hoses & storage.		

	Provide storage for Duo- Safety Ladders (Compartment/Rack) for: Qty. 1- 6' VES, Qty. 1- 10' folding attic ladder, Qty. 1- 14' roof ladder w/ hooks, Qty. 1- 16' roof ladder w/ hooks Qty. 1- 24' two-section ladder, Qty. 1- 28' two-section ladder, and Qty. 1- Little Giant folding ladder Model #17 or #22. Available storage space to determine ladder model. Provide eight NY style hooks and storage for the following sizes (1) 8', (1) 10', (4) 6' all to be Fire Hooks unlimited Steel NY hooks with chisel end. Provide compartment for electric hose reel containing a minimum of 200' of 1" forestry hose . ***LEFT & RIGHT SIDE BODY COMPARTMENTS -*** Storage for minimum Six (6) SCBA bottles to be provided on the left & right side of the body. The body compartments shall be fabricated with 5083 - H321 salt water marine grade aluminum panels or stainless steel. These panels shall be non-corrosive, durable, and add strength and integrity to the body construction. ***DOORS FOR LEFT & RIGHT SIDE COMPARTMENTS*** Aluminum or Stainless steel piano hinged lap doors shall be installed at the left & right side of the provided body compartments.		

	HOSE BED Capacity to hold following hose loads: 250’ 3” hose (Mercedes Aqua Flow) pre-connected to a TFT Blitzfire Portable Nozzle (Customer Supplied Nozzle). Mounting location TBD at pre-construction. 400’ 3” Dock Line (Mercedes Aqua Flow) pre-connected to a gated wye. (Customer Supplied hose & gated wye). 1,000’(minimum) of 5" LDH (Mercedes Megaflow) Three (3) Adjustable hose bed dividers to be provided. Hose bed areas to be provided with nylon/vinyl cover for the main hose bed with flaps to drape down. The cover shall be capable of being securely fastened at front, sides and rear of the apparatus. The height of all hose beds shall be as low as possible & not exceed 70” from ground.		
Aerial Device:	Minimum 75’ Steel or aluminum aerial ladder NFPA 1900 compliant shall be provided with single person short jacking capabilities. Paint color of aerial & turntable to be determined at pre-construction. One (1) set of stabilizers shall be provided. Bolted or welded construction of the aerial device will be accepted. An inlet shall be provided for the aerial device’s waterway. Location of the inlet TBD at pre-construction.		

	A drain shall be installed for the aerial waterway. The drain shall have 3/4" Synflex drain lines tied to a 1/4 turn drain valve with high pressure brass fittings. Location of the drain & control valve TBD at pre-construction. A Fire Research Corporation Insight Ultimate Flow Meter shall be provided for the aerial device waterway inlet. Location TBD at pre-construction. A dedicated control valve shall be provided for routing water from the pump to the aerial. An electric aerial discharge control valve shall be provided for the waterway. An aerial valve manifold (AVM) shall be provided under the monitor. This valve shall control flow through the monitor and an additional valve as a discharge connection for hose. The AVM will be manually operated at the tip of the aerial with a slow close valve. The valve shall have an integrated automatic drain valve. The hose connection valve shall have a 90 degree, ¼ turn ball valve with 2.50" NH outlet threads, 2.50 NH cap & a chain. A pressure relief valve shall be installed to prevent incidental damage to the waterway system when both valves are closed. A TFT Typhoon Remote Control 1500 GPM High Flow Fixed Monitor device shall be provided with aux discharge. Model # TBD. To ensure a high-quality, solid stream, a 10"stream straightener will be used in conjunction with the stacked tips. The monitor is to have the following stack tips provided. • 1 3/8-inch (35 mm) • 1 1/2-inch (38 mm) • 1 3/4-inch (44.5 mm)		

	• 2-inch (52 mm) A visual waterway position indicator at the pump or aerial turntable shall be provided. An FRC Inview TrueSight wireless 2- camera system with monitoring capability shall be provided for the aerial. The wireless camera shall be installed at the tip of the aerial device & on the curbside of the apparatus in the area of the jack. Locations TBD at pre-construction meeting. A 7" split-screen HD monitor shall be provided at the pedestal or at the pump panel. Location TBD at pre-construction meeting. Stabilizers shall have an LED light provided to illuminate the maximum extension of the stabilizers on the ground. Minimum 1500 gpm Pre-piped pinnable waterway for rescue operations if applicable Minimum 500 lb tip load wet or dry Whelen Locator beacon(s) to be provided Fire Research Model ICA910 Two-Way aerial communication system shall be provided for communication between the ladder tip & pump panel or turntable operator. Whelen Micro Pioneer Tip lights Qty. 2 each side with controls at the pedestal or pump panel. Location of tip lights TBD at pre-construction. An inlet for power from a portable generator to supply a 110V duplex outlet at aerial tip. Location TBD at pre-construction. Aerial sign boards to be provided Qty. 2.		

	Provide Duo-Safety 10’ dual hook roof ladder. Location of ladder storage on boom to be provided on drawings on the submitted RFP document. Aerial strip lighting shall be provided. Strip lighting shall be blue in color. Controls for the aerial device shall be provided at the aerial tip, and at the pedestal or pump panel depending on aerial design.		
EMERGENCY WARNING DEVICES:	An NFPA-compliant light package using LED lights shall be provided. All warning lights and electric siren specified shall be Whelen products. Federal Q2B siren to be recessed into the front bumper. The location TBD at re-construction. Controls for the siren shall include a foot pedal control at the driver's left foot and push button control on the officers side dash. Location TBD at pre-construction. Qty. (2) Grover air horns to be mounted recessed in the front bumper, with two pull lanyards, one each side above the engine tunnel. A momentary switch shall also be provided on the engine cover for the officer. The driver side shall have the additional option of the air horn provided on the steering wheel, foot pedal and push button driver's side pump panel. Pump panel option to be labeled “Evacuation Horn”. Whelen 295 SL Electronic siren control head with Whelen SP123BMC speaker to be installed on the right side of the front bumper. The siren control head location TBD at pre-construction.		

	An NFPA-compliant light package using LED lights shall be provided. Qty. (3) Whelen Mini Freedom Edge IV light bars with LED modules to be installed. LED modules are to be a combination of red & white with clear lenses. Qty. (1) light to be installed at the front of the cab (center) facing forward with Qty. (1) GTT Opticom LED emitter model # 795H. Qty. (2) lights to be installed on the corner/front of the cab on a 45 degree angle. Qty. (4) Whelen ION LED R/A to be located outboard position of lower cab entry doors. Qty. (2) Whelen M6 LED Red/White split lights shall be provided for the lower zone intersection (front bumper) with clear lenses. The emergency lighting within the bumper shall be recessed within the steel bumper & located within the 45 degree radius of the bumper. Qty. (2) Whelen 600 Series RotoBeam, side warning lights to be provided on the bumper. The lights shall be located rear of the 45 degree radius of the front bumper and fully recessed in the bumper. Qty. (2) Whelen M4 or M6 Super-LED turn light amber front turn signals to be provided and mounted separate from the headlight and warning light assemblies. Clear lenses to be provided. Qty. (2) Whelen M6 Super-LED, inboard front warning lights. Lights to be red with clear lenses.		

	Qty. (2) Whelen M6 series super-LED, forward facing zone A outboard front warning lights. Lights to be red with clear lenses. Qty. (4) Whelen M6 Series Super LED lights lower zone located on cab above rear compartment doors & (above the front wheels). Lights to be red with clear lenses. Qty. (2) Whelen M6 Series Super LED lights upper zone C facing rear. Lights to be red with clear lenses. Qty. (2) Whelen Micro Freedoms LED lights to be provided on top of the rearward compartments. Lights to be red with clear lenses Qty. (2) Whelen 600 Series RotoBeams to be provided to the rear of the apparatus (1) blue, (1) amber. Qty. (2) Whelen M6 Super-LED brake light Lights to be red with red lenses. Qty. (2) Whelen M6 EZ Super-LED Back-up/Reverse light. Qty. (2) Whelen M6 Series Super LED lights lower zone provided facing rear lower within Whelen M6FCV4 4-Lt bezel. Lights to be red with clear lenses. Qty. (1) Whelen TAL65 Traffic advisor (location TBD). Qty. (1) three position rocker switch to be installed in the cab & accessible to the driver properly labeled to enable the operator to activate OEM traffic horn, air horn and electronic siren.		

	Qty. (1) Siren brake for Q2B to be installed on drivers and passengers' side of cab in rocker switch panels provided. Qty. (1) Driver side foot switch Q2B. Qty. (1) Heavy duty momentary switch to be installed on passenger front of engine tunnel for Q2B siren.		
LIGHTS:	Qty. (1) FireTech LED Heated Headlights Model FT-4X6KIT High Beam (2) Low Bean (2) located below the front warning lights. High beam headlamps shall alternately flash with a switch provided in the cab . Qty. (2) LED Tecniq model S170 Side turn marker lights Qty. (4) Weldon Model 8080-7000-13 Dual Interior overhead LED lighting within the cab red/clear with lens switch & door switch. Whelen Perimeter Enhancement Light (PEL) shall be provided for all LED step and ground lights. Illumination provided with door open, air brake & manual shift. PEL's to be located in the following locations: Below the center of each compartment, Front Qty. (2), Rear Qty. (2), Qty. (1) Ea. cab door, Qty. (1) Ea. road & curbside of pump panel. All perimeter lighting to be capable of being switched in the cab. Location of the switches TBD at pre-construction meeting. Qty. (4) Whelen Nano 12V LED lights model # NP3BW to be provided to illuminate the hose bed and cross lay areas. Qty. (3) Tecniq model E10 LED lights to be provided under a light shield directly above each side of the pump panel.		

	Qty. (2) Whelen Pioneer Series brow light Model # P*H2, 17,750 lumens 12 volt DC light(s) with combination of flood and spot optics provided on the front visor, one (1) on drivers side and one (1) on the passengers side. Qty. (2) Whelen Series M9 EZ surface mounted scene lights on rear compartment to come on with reverse and manual switch located in cab & cup switch located at rear of apparatus. Qty. (2) Whelen Field Series scene light Model # FSB5B Series scene lights surface mounted with (1) on each side of the body. Qty. (2) Whelen Series M9 EZ surface mounted lights mounted on passenger and driver's side upper cab above rear window. Downward lighting on each side to be located forward of the rear wheels activated with turn signal & transmission in reverse. Innovative Controls or equivalent dual lighted LED NFPA compliant folding step lights to be provided where required. All lighting shall be switched in the cab. A switch / dash layout shall be provided at time of pre-construction. Qty. Three (3) FRC Max Vision LED tank displays (4 colors Blue, Green, Amber & Red) surface mounted within a chrome bezel. One (1) road side of the cab. One (1) curbside of the cab. One (1) rear of body location TBD at preconstruction.		

PAINT & GRAPHICS:	***PAINT & GRAPHICS:*** Cab - two color (White over red) Body-all red. Customer match. NFPA compliant chevrons on entire rear of vehicle. Color TBD Reflective 1"-4"-1" striping shall be provided on the cab & body/compartments. A ½ inch gap shall be provided between the 1" & 4" striping. The striping shall wrap around the front of the cab to the grille. Qty. (10) 3" Letters Qty. (50) 4" letters, Qty. (50) 6" letters, (10) Schrolls/Artwork Qty (2) Reflective Department Door Emblems installed on each back door.		
LOOSE EQUIPMENT PROVIDED BY DEALER:	A $ 30,000 allowance will be added to the price for additional shelving, Rollout trays and equipment mounting for department & dealer supplied equipment. A $ 60,000 allowance shall be added to the price for battery operated hydraulic rescue tool compliment. Tool manufacturer and specifics shall be determined at pre construction. Qty. 4- Ziamatic folding wheel chocks shall be provided & mounted with brackets. Qty. (6) Vulcan 180 Angle Streamlight Model # 44310, lights with chargers to be installed in customer specified locations. Qty. (3) Wall mounting bracket for drivers SCBA. Location TBD at pre construction		

MISCELLANEOUS:	Qty. (1) Poly Tech custom three (3) box medical glove holder. Qty. (3) digitized manuals shall be provided on the operation of the complete apparatus. The manual shall include a troubleshooting guide complete with recommended daily, weekly and annual maintenance procedures. The manufacturer shall provide length of warranty information for the apparatus. This warranty shall be inclusive of the chassis, body, pump, plumbing, paint, structural defects, electrical, and other accessories which is normally warranted by their respective manufacturer. Warranty must meet CT State Statue for fire apparatus purchases. Provide cost (as optional) for Qty. (1) pre-construction trip to the manufacturer's factory prior to any construction processes. The trip shall include Qty. (6) personnel and if greater than 250 miles from Clinton, Connecticut., include air transportation, food, and lodging costs. Provide cost (as optional) for Qty. (1) pre-paint trip to the manufacturer's factory. The trip shall include Qty. (6) personnel and if greater than 250 miles from Clinton, Connecticut., include air transportation, food, and lodging costs. Provide cost (as optional) for Qty. (1) final inspection trip to the manufacturer's factory upon completion of the apparatus. The trip shall include Qty. (6) personnel and if greater than 250 miles from Clinton, Connecticut, include air transportation, food, and lodging costs.		

PAYMENT AND PRE-PAYMENT OPTIONS:	The Manufacturer shall state the full purchase price of the apparatus and shall indicate any deductions applicable based upon the Purchaser's election of the following cash payment options: 1. One Hundred Percent (100%) Payment due at contract signing, exclusive of any selected options: Deduct: $_____ 2. Fifty Percent (50%) Payment due at contract signing, exclusive of any selected options: Deduct: $_____ 3. Twenty-Five Percent (25%) Payment due at contract signing, exclusive of any selected options: Deduct: $_____ If applicable, the cost of the cab and chassis shall be stated separately as follows: Cab and Chassis Cost: $_____ In the event the Purchaser elects to pre-pay for the cab and chassis, with the balance due upon final delivery (exclusive of options), the following deduction shall apply: Deduct: $_____ The cost associated with the furnishing of a Performance Bond shall be stated separately as follows: Performance Bond Cost: $_____ The Manufacturer shall also specify the proposed delivery schedule as measured in calendar days from the date of contract execution: Proposed Delivery Timeline: ____ days from contract signing		