Vocational Cab Engine Bid Specification

Bid Bond

A bid security in the form of a Bid Bond, cashier's check, or certified check made payable to the Purchaser in the amount of ten percent (10%) of the total bid shall be required. This shall serve as a guarantee which may be forfeited and retained by the Purchaser in lieu of its other legal remedies if a successful bidder's proposal is accepted by the Purchaser and the bidder shall fail to execute and return to the Purchaser the required contract and bonds within ten (10) days after delivery. If a Bid Bond is provided, it shall be issued by a bonding company licensed to bond in the State of New York

Certificate of Insurance

Each bidder shall furnish, with their proposal, a Certificate of Product Liability Insurance for a minimum of ten (10) million dollars. Failure to provide this documentation shall render the proposal non-responsive and the bid shall be rejected. This certificate shall be from the primary builder only. Certificates submitted from various sub-contractors in order to total the ten million dollars minimum will not be acceptable as meeting the requirements of this section.

The Certificate must be made out to the Purchaser and must be original. Submission of a non-original Certificate or a Certificate provided that is not made out to the Purchaser will not meet the requirements of this section.

Delivery

The bidder shall state the time required for delivery of the completed unit on the proposal page. The completed unit shall be delivered to the purchaser with full instructions provided to Jay Fire District personnel on operation, care, and maintenance of apparatus at the purchaser's location. The unit must be delivered within 30 months or less unless approved or agreed upon by the Board of Commissioners of the Jay Fire District.

Exceptions

The following apparatus specifications are considered minimum design and construction standards against which the apparatus will be inspected. It is the intent to receive proposals on equipment/apparatus meeting the attached detailed specifications in their entirety. **Any proposals being submitted, without ''Full Compliance'' with these specifications shall so state on the bid proposal page, followed by a detailed ''Letter of Exceptions'' listing the areas of non- compliance.** The reference must include page number, paragraph, and the exact nature of the exception.

Failure to follow this format, provided for the convenience of the Purchaser, may render the vendor's proposal non-responsive and ineligible for award of contract.

The Purchaser may add the statement **"NO EXCEPTION"** to a component or design feature in these specifications. In the interest of fleet conformity or specific performance requirements, the Purchaser will not permit exceptions taken to these item(s). The Purchaser reserves the right to reject any or all bid proposals and purchase the equipment it deems most suitable to its needs. The Purchaser does not, in any way, obligate itself to accept the lowest or any bid. Any bidder taking total exception to the complete specification, or a major element will result in immediate rejection of the proposal.

Intent of Specifications

It is the intent of these specifications to clearly describe the furnishing and delivery to the Purchaser, a complete apparatus equipped as specified. The primary objective of these specifications is to obtain the most acceptable apparatus for service in the Jay Fire District. These specifications cover specific requirements as to the type of construction and tests the apparatus must conform, together with certain details as to finish, material preferences, equipment, and appliances with which the successful bidder must conform.

The design of the apparatus must embody the latest approved automotive design practices. The workmanship must be of the highest quality in its respective field. Special consideration shall be given to service access to areas needing periodic maintenance, ease of operation, and symmetrical proportions. Construction must be heavy-duty and ample safety factors must be provided to carry loads as specified. The construction method employed will be in such a manner as to allow ready removal of any component for service or repair.

The apparatus shall conform to the National Fire Protection Association Standard for Automotive Fire Apparatus, current standard, unless otherwise specified in this document. Only the specified firefighting support equipment listed in these specifications shall be provided.

The apparatus shall further conform to all Federal Motor Vehicle Safety Standards. **NO EXCEPTION**.

Each bidder shall furnish satisfactory evidence of their ability to design, engineer, and construct the apparatus specified and shall state the location of the factory producing the apparatus. They shall also substantiate they are able to render prompt and proper service and to furnish replacement parts for the apparatus.

Each bid must be accompanied by a set of detailed contractor's specifications consisting of a detailed description of the apparatus and equipment proposed. All bid proposal specifications should be in the same sequence as the advertised specification for ease of comparison. These specifications shall include size, location, type, and model of all component parts being furnished. Detailed information shall be provided on the materials used to construct all facets of the apparatus body. Any bidder who fails to submit detailed construction specifications, or who photocopies and submits these specifications as their own construction details may be considered non-responsive and may render their proposal ineligible for award.

Bids will be addressed and submitted in accordance with the instructions provided on the cover sheet. The words **"District Fire Apparatus Replacement Bid"**, shall be stated on the front of the bid envelope.

It shall be the responsibility of the bidder to assure that their proposal arrives at the location and time indicated. Late proposals, telephone or emailed bids will not be considered. **NO EXCEPTION**

All bidders are required to detail the payment terms for apparatus on the bidder's proposal page. Any required prepayments or progress payments must be explained in detail.

Detailed Drawings are Required as part of the Bid – **NO EXCEPTION**

Equivalent or greater

All items bid shall conform to the written descriptions and specifications. Specific manufacturers, models and brand names may be mentioned in these specifications to establish the level of quality sought by the Purchaser. Manufacturers, models and items of equivalent or greater quality may be substituted and so noted, in writing, on the applicable exception sheets. The Purchaser reserves the right to request a sample of any substitutions being bid, prior to award of contract. Failure to change the descriptions as above will be interpreted to mean that the bidder intends to furnish the particular make of article called for in the specifications, and the Purchaser will insist upon delivery of the specified item. Substitutions will not be permitted after bids have been opened and accepted by the Purchaser. If the "equivalent or greater" is used and a bidder proposes an "equivalent or greater" product, the burden rests with the bidder to demonstrate equivalency through the submission of documentation. Mere submission of company or product literature is unacceptable and can be used as a basis for rejection of the claim of equivalence and the bid. All decisions as to the quality of the products shall be made by the Purchaser and such decisions shall be final.

Proposal Price

Each bidder's proposal must include all items required in the specifications unless a specific exception is taken. ***NO PREPAYMENT DISCOUNT SHALL BE INCLUDED WITHIN THE BID PRICE.*** The bid price must be summited in one sealed envelope and specifications, drawings, engineering information, and truck information in a separate envelope.

Reference List

Each bid shall be accompanied by a list of at least five (5) similarly constructed apparatus presently in service. Each reference must be apparatus built of the same construction style as these specifications call for. This list shall include customers' names, addresses, date apparatus was placed in service, and a current contact with phone number.

Service Requirements - NO EXCEPTION

Each bidder shall supply, with their proposal, detailed information on the bidder's ability to perform routine and emergency mobile service on the apparatus after delivery at the Customer's Location. Detailed information shall be provided on service facilities, personnel, service vehicles, and the type and nature of repair work the bidder is able to provide. Bidder shall operate a fully staffed service center within 200 road miles of the Purchaser's facility. It is the

intent of the Purchaser to assure that parts and service are readily available for the equipment specified. Service capabilities will be one of the major criteria for award of this contract. Bidder must also list current service and travel rates per hour.

TESTING COMPLIANCE STANDARD

Hose Bed Capacity

The hose bed shall have the capacity to store the following hose from the driver side to the officer side @ 200 feet of 1.75” DJ Hose, 250 feet of 2.5” DJ hose & 1100 feet of 5” LDH.

Overall Height Restriction

The apparatus shall have an approximate overall height 10’3 inches.

Overall Length Restriction

The unit shall have an approximate overall length of 34’6 inches.

NFPA Compliance

The supplied components of the apparatus shall be compliant with the current NFPA standard.

BUMPERS

Front Bumper Extension

The bumper shall be extended approximately 20” from the face of the cab as required. There shall be a 6” hose tray with tied ends mounted to the top of the front bumper to accommodate a 6” preconnected suction, approximately 6’ long with a preconnected with strainer.

BUMPER TRAYS

Bumper Tray – Center - Equivalent or greater

A hose tray constructed of 1/8” aluminum shall be recessed into the front bumper extension. The tray shall be located in the center of the bumper and be approximately 14" deep (13" to the top of the slats). One-inch-thick aluminum slats shall be included in the bottom of the hose tray to aid in the dissipation of water from the tray.

Bumper Tray Securing Strap - Equivalent or greater

A heavy-duty black nylon strap with a stainless steel quick-release buckle shall be provided for center front bumper tray. The strap shall be attached to the inboard side of the tray and shall not reduce the overall tray capacity.

Frame Assembly- Equivalent or greater

The frame shall consist of two (2) C-channel frame rails with heavy-duty cross-members. Each frame rail shall have the following minimum specifications in order to minimize frame deflection under load and thereby improve vehicle ride and extend the life of the frame:

Dimensions: 10-1/4" x 3-1/2" x 3/8"

Material: 110,000-psi minimum yield strength, high strength, low alloy steel

Section Modulus: 16.61 cu. in.

Resistance to Bending Moment (RBM): 1,827,045 in. lbs.

The cross-members shall be a combination of a formed steel C-channel design along with heavy duty steel fabricated designs as required for the exact chassis configuration. The cross-members shall be attached to the frame rails with not less than four (4) bolts at each end arranged in a bolt pattern to adequately distribute the cross-member load into the rail/liner and minimize stress concentrations.

All frame fasteners shall be high-strength Grade 8, flanged-head threaded bolts and nuts for frame strength, durability, and ease of repair. The nuts shall be Stover locknuts to help prevent loosening. The frame fasteners shall be tightened to the proper torque at the time of assembly.

The frame rails shall be hot-dip galvanized and powder coated for improved corrosion resistance. The galvanization shall be a minimum of 4 mils thick and done in accordance with ASTM A123. The powder coat shall be 6.5 mils thick (+/- 1.5 mils) and pass ASTM D3359 testing.

The frame cross-members and frame mounted components (suspensions, axles, air tanks, battery boxes, fuel tank, etc.) shall be painted black.

Frame Liner – Required - Equivalent or greater

A 9-3/8" x 3-1/8" x 3/8" channel frame liner shall be bolted to each frame rail for added strength and rigidity. Frame liners shall be made of 110,000 psi minimum yield, high strength, low alloy steel. The frame rail liners shall be hot-dip galvanized and powder coated for improved corrosion resistance. The galvanization shall be a minimum of 4 mils thick and done in accordance with ASTM A123. The powder coat shall be 6.5 mils thick (+/- 1.5 mils) and pass ASTM D3359 testing.

Each frame rail with liner shall have the following minimum characteristics:

Section Modulus: 28.74 cu. in.

RBM: 3,161,400 in. lbs.

The frame liners shall be inserted inside the open portion of the frame rails and shall run continuously from the rear of the frame to the centerline of the front axle to provide maximum

frame strength at all critical load points.

AXLE OPTIONS

Front Axle – 20,000 lbs. capacity

Shock Absorbers Front

Rear Axle – 27,000 lbs. capacity

Driver Controlled Differential

WHEEL OPTIONS

Front Wheels

Front Tires shall be 385-65 series.

Wheel Trim

There shall be four hub-piloted steel disc wheels sized appropriately for the tires and include a wheel trim kit. **NO EXCEPTION**

BRAKE SYSTEMS

Front Brakes

The front axle shall be equipped with Meritor Disc Plus EX225H 17-inch disc brakes. **NO EXCEPTION**

Rear Brakes- Equivalent or greater.

The rear axle shall be equipped with ArvinMeritor S-cam brakes with cast brake drums. Q-Plus shoes shall be provided with up to 27,000 lb. axle ratings and P-Type shoes with over 27,000 lb. axle ratings.

Park Brake Release - Equivalent or greater.

One (1) Bendix-Westinghouse PP-5 parking brake control valve shall be supplied on the lower dash panel within easy reach of the driver.

AIR SYSTEM OPTIONS with Air Drier

Air Tank Drain Pull Cords

Manual drain valves with pull cords routed to side of cab/body shall be provided for all air brake system tanks. Labels shall be provided at the side of the cab/body that read "Air Tank Drain".

Air Lines

Air brake lines shall be constructed of color-coded nylon tubing routed in a manner to protect them from damage. Brass fittings shall be provided.

Air Horns - Dual Hadley e-tone air horns shall be provided

TRANSMISSIONS – Allison EVS4000

Vehicle Speed – per NFPA standards

Engine to be a 450 hp turbo or greater diesel engine

SECONDARY BRAKING- Jacobs Engine Brake- NO EXCEPTION

ALTERNATOR - 270 Amp Alternator

CHASSIS OPTIONS

Engine Fan Clutch

The engine shall be equipped with a thermostatically controlled engine cooling fan. The fan shall be belt driven and utilize a clutch to engage when the engine reaches a specified temperature.

When disengaged, the fan clutch shall allow for improved performance from optional floor heaters, reduced cab interior noise, increased acceleration and improved fuel economy.

The fan shall be equipped with a fail-safe engagement so that if the clutch fails the fan shall engage to prevent engine overheating.

Drivelines

Drivelines shall have a heavy-duty metal tube and shall be equipped with Spicer 1810 series universal joints to allow full-transmitted torque to the axle(s). Drive shafts shall be axially straight, concentric with axis and dynamically balanced.

CAB MODEL

Cab Medium – Single Source Cab, Chassis & Body

The vehicle shall have an aluminum or stainless fully enclosed tilt cab. The cab shall be designed exclusively for fire/rescue service and shall be pre-engineered to ensure long life. It shall incorporate an integral welded substructure of high-strength aluminum alloy extrusions that creates an occupant compartment that is essentially a protective perimeter. The end result is a distinctive structure that is aesthetically appealing, functionally durable, and characterized by increased personnel safety.

Will consider bid that includes a poly cab.

ECR Cab Crashworthiness Requirement

CAB ROOF TYPE

Raised Roof- NO EXCEPTION

The rear portion of the cab roof shall be raised roof. **This will provide at least 5`7" standing room.** The front of the vista hood shall be sloped at 45 degrees from the vertical. The slope shall begin slightly in front of the centerline of the front axle to leave room for warning lights and air conditioning in front of the vista. The main roof extrusion shall extend up into the vista to strengthen the roof perimeter. Windows shall be provided on front, side, and rear unless otherwise specified.

CAB DOOR OPTIONS

Front Cab Door Windows

The cab doors shall be moved to the rear of the wheel opening. This door placement facilitates easier entry and egress by reducing the rear facing seat protrusion into the door opening.

Rear door position to the 58" or greater (medium cab).

Cab Door Rear Windows

The rear cab door window(s) shall be manual roll up windows.

Cab Door Panels- Equivalent or greater

The inner door panels shall be made from 1/8" (.125") aluminum plate painted multi-tone (to match cab interior paint) for increased durability. The cab door panels shall be split just below the handrail and incorporate an easily removable panel for access to the latching mechanism and window regulator for maintenance or service.

Cab Door Style

The cab doors shall be barrier style with exposed lower steps.

MIRRORS

Cab Mirrors- NO EXCEPTION

All lenses heated and remote controlled

MISC EXTERIOR CAB OPTIONS

Rear Cab Wall Construction- Equivalent or greater

The rear cab wall shall be constructed with the use of 3/16" aluminum diamond plate interlocking in aluminum extrusions.

HVAC

Heat, Supplemental

HVAC Control Location

Heating and air conditioning controls shall be located in the center dash area.

Air Conditioning

Seating Capacity Tag

A tag that is in view of the driver stating seating capacity of six (6) personnel shall be provided (5 SCBA Seats).

Seat, Rear Wall- Equivalent or greater

Two (2) Seats, Inc. 911 Universal SCBA seat backs and a two (2) person bench style seat bottom with a single cushion shall be mounted on the rear wall of the cab. Each side of the seat riser shall be angled, providing sufficient leg room while entering and exiting the cab.

Universal Bracket for Air Pack Bottles

Brackets shall be located officer's seat, rear facing driver's side, inboard driver's side rear wall, inboard officer's side rear wall, rear facing officer's side.

Seat Cover Material- Equivalent or greater

All seats shall have Turnout Tuff seat cover material.

STORAGE CABINETS

Storage Cabinet- Equivalent or greater

There shall be a medical storage cabinet provided in the cab at the rear of the engine cover. The medical cabinet shall be constructed of 1/8" smooth aluminum plate. The medical cabinet shall be of approximately 30" high x 30" wide x 20" deep interior. It shall include four adjustable shelves with a front lip.

There shall be a locking roll up door provided to secure contents.

Storage Cabinet Finish

The medical storage cabinet(s) shall have a multi-tone gray finish. The finish shall be applied to the interior, exterior, shelves and trays (if equipped) of the cabinet.

Cabinet Doors

The medical cabinets on the custom cab shall be roll-up type doors.

Cab Dome Lights

Horn Button Switch

A two (2) position rocker switch shall be installed in the cab accessible to driver and properly labeled to enable operator to activate the OEM traffic horn or electronic siren from the steering wheel horn button.

Inlet Receptacle

A 20-amp inlet receptacle shall be installed in close proximity to the driver's door.

Antenna Base

There shall be a Tessco P/N 90942 universal antenna base mounted on the cab roof with a weatherproof connector. The antenna base shall be NMO Motorola Style (equivalent to a MATM style) with RG58U coax cable. The antenna shall be located driver side forward with coaxial cable terminating at the center of the dashboard, officer side forward with coaxial cable terminating below officer seat.

Battery Charger

A 20-battery charger with remote mounted LED display shall be installed.

LED Cab Headlights- NO EXCEPTION

Automatic heated LED cab headlights. **Cab lights will be mounted so that there is no interference with the front suction.**

BODY COMPT REAR

Rear Body Assembly

The rear body shall be constructed entirely of aluminum extrusions and interlocking aluminum plates and includes a full height center rear compartment.

Modular Tailboard Step

DOORS

Roll Up Compartment Door - Equivalent or greater

A ROM brand roll up door with satin finish shall be provided on a compartment up to 45" tall. The door(s) shall be installed in the following location(s): L2 & R2.

Roll Up Compartment Door- Equivalent or greater

A ROM brand roll up door with satin finish shall be provided on a compartment greater than 45" tall. The door(s) shall be installed in the following location(s): L1, L3 R1, R3 and B1.

SHELVES

Adjustable Shelf [Qty: 2]

TRAYS / TOOLBOARDS

Roll-Out Tray [Qty: 3]

The tray shall have a total capacity of 500 lbs.

Tool Board [Qty: 4] - Equivalent or greater

PAC TRAC brand tool board (horizontally stacked) shall be provided on a compartment wall as specified.

COVERS

Hose Bed Cover

Vinyl Access Cover

Speed Lay Covers - Sides [Qty: 2]

PUMP MODULE

Back of Cab Pre-connect Storage

Two (2) transverse storage areas shall be incorporated into the module to accommodate preconnected handlines. Plumbing for the handlines shall be located at the upper back wall of the storage area to facilitate use of optional removable trays. The floors of the pre-connect areas shall be constructed from .125" smooth aluminum plate. The floors shall be slotted to prevent the accumulation of water and allow for ventilation of wet hose. Will consider pre-connect storage on module side of walkway (not cab side).

The pump module height shall be approximately 85".

PUMP PANELS

Pump Access Doors

The driver and officer side pump module shall have three (3) piece panels, one (1) above the discharge outlets, one (1) encompassing the discharges and intakes and one (1) low for bleeder valves.

PUMP MODULE OPTIONS

Removable Hose Tray [Qty: 2]

Hose tray(s) shall be constructed of 3/16” (.187”) smooth aluminum plate with an exterior sanded finish. The floor of the tray shall be slotted to prevent the accumulation of water and allow for ventilation of wet hose.

Pump Compartment Heaters

Two (2) 24,000 BTU heaters shall be installed in the lower pump compartment area. The heaters shall be connected to the chassis engine coolant system. The heaters shall include manual shut-off valve, electric shut-off valves, 12-volt blowers and controls at the pump operator`s panel.

Microphone Box

A Cast Products EB0002 microphone box shall be located top mount control panel.

Internal box dimensions shall be approximately 5.5” wide x 9.5” high x 6” deep. A brushed finish aluminum hinged door shall be provided.

Flex Joint – NO EXCEPTION

The area between the pump modules and body shall include a rubber flex joint.

Pump Panel Air Horn Switch

A heavy duty weatherproof push-button switch shall be installed at the pump operator`s panel to operate the air horns. Location: top mount control panel.

Storage Pan

A storage pan shall be provided in the upper pump module area. The pan shall be constructed of 3/16” (.188”) aluminum treadplate and be removable to service items in the pump module below. Holes shall be provided in the corners of the pan to facilitate drainage of water.

Top Mount Walkway Compartments – NO EXCEPTION

WATER TANK

Tank Brand- NO EXCEPTION

The water tank and foam tank shall be UPF brand

1030 Gallon Water Tank

A 1030 gallon (U.S.) “R” booster tank shall be supplied. Tank capacity is 1030 US gallons

TANK PLUMBING

Tank Fill 2 Akron Valve

One (1) 2” pump-to-tank fill line having a 2” manually operated full flow valve. The valve control shall be located at the pump operator`s panel and shall visually indicate the position of the valve at all times. The fill line shall be controlled using a chrome handle with an integral tag.

Tank To Pump

One (1) manually operated 3” Akron valve shall be installed between the pump suction and the booster tank. Includes flex hose with stainless steel hose clamps for connection to the 4" tank sump outlet. The valve control shall be located at the pump operator`s panel and shall visually indicate the position of the valve at all times.

FOAM TANK

30 Gallon Foam Tank

Must be one thirty (30) gallon tank. Multiple smaller tanks shall not be acceptable.

LADDER & SUCTION STORAGE TUNNEL- Equivalent or greater

Three Hard Suction Hose Storage Tunnel on the Driver Side and a Fourth 6” Suction Hose to be 10 feet in length stored in the Officer Hose Bed.

Ladder Brand

The ladder brand capable of being carried on the unit shall be Alco-Lite.

Pike Pole

The pike pole(s) capable of being stored shall be the following length: (2) 10' pike poles.

Ladders

The length of ladders capable of being stored shall be the following: 24' 2-section, 14' roof ladder and 10' attic ladder w/shoes.

Ladder Storage Tunnel Contents

Storage tunnel capable of holding (1) 2-section, (1) roof, (1) attic, (2) pike poles, (1) backboard in Officer.

HANDRAILS / STEPS

Hose Bed Folding Steps

Innovative Controls dual lighted LED folding steps shall be positioned to the driver side rear of

the body. The steps shall be NFPA compliant for access to the hose bed storage area and in step height and surface area. The steps shall be staggered stepped as applicable with tailboard depth, not applicable with recessed step mounting. Surface to assure a good grip for personnel safety, mounted between chrome stanchions.

Folding Steps [Qty: 4]

Innovative Controls dual lighted LED folding step(s) shall be located officer side front compartment face, driver side front compartment face. The folding step(s) shall meet current NFPA in step height and surface area.

Hose Bed Divider [Qty: 2]

There shall be a hose bed divider provided the full fore-aft length of the hose bed.

SCBA BOTTLE STORAGE

SCBA 2 BOTTLE STORAGE - Equivalent or greater

Location: officer side rear wheel well offset forward, officer side rear wheel well offset rearward

WHEEL CHOCK STORAGE- Equivalent or greater

Wheel Chock storage with hinged door and push button latch shall be provided in the body wheel well area.

PUMPS

Pump Rating

The fire pump shall be rated at 1500 GPM.

Fire Pump System – NO EXCEPTION

The pump shall be a midship-mounted Hale QMAX single stage centrifugal pump. The pump shall be mounted on the chassis frame rails of commercial or custom truck chassis and have the capacity of 1,250 to 2,250 gallons per minute (U.S. GPM) NFPA current standard rated performance and shall be split-shaft driven from the truck transmission.

Discharge Manifold to include Flow Meters on 2 speed lays and front bumper line.

The pump system shall utilize a stainless-steel discharge manifold system that allows a direct flow of water to discharge valves. The manifold and fabricated piping systems shall be constructed of a minimum of Schedule 10 stainless steel to reduce corrosion.

PUMP CERTIFICATION

Pump Certification

The pump, when dry, shall be capable of taking suction and discharging water in accordance with current NFPA standards. The pump shall be tested at the manufacturer`s facility by an independent, third-party testing service. The conditions of the pump test shall be as outlined in current NFPA standards.

PUMP OPTIONS

6” Steamers on each pump panel

Location: driver's side, officer's side.

Vernier Engine Throttle for the Pump Panel

Packed Pump Seal – NO EXCEPTION

Hale Pressure Relief Valve

A Hale pressure relief valve shall be provided and mounted on the pump operator`s panel.

Master Drain Valve

Priming System - Equivalent or greater

An electrically driven Hale ESP priming pump shall be provided for the water pump.

INTAKES- NO EXCEPTION

Intake 2.5 Top Mount Control Akron Valve

One (1) 2-1/2” suction inlet with a manually operated 2-1/2” Akron valve shall be provided on the driver side pump panel.

A 3/4” bleeder valve assembly will be installed on the side pump panel.

Front Intake with Valve & Primer Control

INTAKE OPTIONS

Front Intake Swivel 6

Front intake will not interfere with cab lights. A heavy duty 6” 90 degree cast brass elbow designed and constructed specifically for fire/emergency vehicle usage shall serve as the auxiliary front suction inlet. The elbow, also referred to as the “swivel”, shall be attached to the front suction piping. This component shall have the following features:

Intake Pressure Relief

DISCHARGES AND PRECONNECTS

Front Jump Line 1.5 Akron Valve

One (1) 1-1/2” preconnect outlet with a manually operated Akron valve shall be supplied to the extended front bumper. The preconnect shall consist of a 2” heavy duty hose coming from the pump discharge manifold to a 2” FNPT x 1-1/2” MNST mechanical swivel hose connection to permit the use of the hose from either side of the apparatus.

Deck Gun 3" Discharge Akron Valve

One (1) 3” deck gun discharge outlet with a manually operated Akron valve and 3” stainless steel pipe shall be provided above the pump compartment.

Front Bumper Discharge Swivel, Brass In Tray

There shall be a brass swivel provided for the front bumper discharge located in hose tray center front bumper on lower back wall.

Double Speed Lay 1.5 Akron Valve Controls

One (1) double speed lay discharge shall be provided. Each speed lay section shall include one (1) 2” brass swivel with a 1-1/2” hose connection to permit the use of the hose from either side of the apparatus.

Left Panel 2.5 Discharge Akron Valve

Location: left side discharge 1, left side discharge 2.

Right Panel 2.5 Discharge Akron Valve

Location: right side discharge 2.

Left Rear 2.5" Discharge Akron Valve

Location: left rear discharge, left rear discharge 2 (inboard or below).

Right Panel 3” Discharge Akron Valve

DISCHARGE OPTIONS

Dealer Supplied and Installed Deck Gun Monitor

Engine Gauge Package

• Tachometer - to monitor engine revolutions per minute.
• Oil pressure gauge - to monitor engine oil pressure w/integrated low oil indicator.
• Water temperature gauge - to monitor the engine water temperature w/integrated high water temperature indicator.
• Voltmeter - connected to the vehicle electrical system w/integrated high and low voltage indicator.
• Engine alarm system and buzzer alarm for audible warning.

GAUGE IC 10 LED TANK LEVEL WATER/PS2TANK -- Equivalent or greater

One (1) Innovative Controls brand water tank level gauge shall be located at the pump operator`s panel to provide a high-visibility display of the water tank level. Ten (10) high-intensity light emitting diodes (LEDs) on the display module shall have a 3-dimensional lens allowing the full, 3/4, 1/2, 1/4, and refill levels to be easily distinguished at a glance within full 180-degree visibility.

Location of Whelen PSTank2 Strip Lights: each side of pump module up high & Rear of Body

Discharge Pressure Gauge [Qty: 10]

Pressure Gauge

Innovative Controls TC Series 4"

Pressure Gauge

Pump panel pressure gauges shall be 0-400 / Master Intake gauge shall be 30-0-400.

Foam System Class A Foam System

Foam System Plumbing- NO EXCEPTION

The specified foam system shall be plumbed to 1.5 first speedlay, 1.5 second speedlay, center bumper front jump line.

Vehicle Data Recorder

A vehicle data recorder system shall be provided to comply with the current NFPA standards.

Occupant Detection System

There shall be a visual and audible warning system installed in the cab that indicates the occupant buckle status of all cab seating positions that are designed to be occupied during vehicle movement.

LIGHT BARS

Light Bar – Forward Upper Warning LED Light

The light bar shall be installed in the following location: Centered on the front cab roof.

WARNING LIGHTS-Must meet current NFPA standards

Location: (1) each side NFPA/ULC required lower zone rear side facing.

Upper Warning Lights - LED

Whelen Lower Level Warning Lights – LED

Location: (1) each side NFPA/ULC required lower zone front facing, (1) each side NFPA/ULC required lower zone forward side facing, (1) each side NFPA/ULC required lower zone midship side facing, (1) each side NFPA/ULC required lower zone rear facing, (1) each side in front quad inboard of NFPA warning light.

Rear Amber Traffic Adviser – Whelen LED with Cab Control Box.

SIRENS

Electronic Siren

A Federal PA300 siren model.

Electronic Siren Control Location

The electronic siren control shall be located in the center overhead console offset to driver side.

SPEAKERS

Siren Speaker

One (1) Federal Signal model ES100 Dynamax 100-watt speaker shall be flush mounted as far forward and as low as possible on the front of the vehicle. A polished model MSFMT with grille shall be provided on the outside of the speaker to prevent road debris from entering the speaker.

Speaker dimensions shall be: 5.5 in. high x 5.9 in. wide x 2.5 in. deep. Weight = 5.5 lbs.

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

The speaker shall be located officer side front bumper.

LIGHTS - COMPARTMENT, STEP & GROUND

Compartment Light Package – LED Strip Light

Storage Cabinet Lighting - LED

NFPA Ground Lights - LED

Hose Bed Light - LED

Deck/Scene Light Wired to Back-Up Lights (LED)

The rear deck or scene lights shall be activated when the chassis is placed in reverse to provide additional lighting, in addition to the back-up lights, when backing the vehicle.

Scene Lights (LED)- Equivalent or greater

Two (2) Whelen model 6SC0ENZR 600 series Super LED clear scene lights shall be provided (rear of body). A Pair of GO Lights should be positioned on the Cab Roof to Aid in Address Illumination.

LIGHTS - NON-WARNING

Engine Compartment Light
Pump Compartment LED Light

LED Pump Panel Light Package

Door Ajar Alarm- Equivalent or greater

An audible alarm shall be provided through the multiplex display(s) in the cab wired into the door ajar or indicator.

Foot Switch

A heavy-duty metal floor mounted foot switch shall be installed to operate the air horns. It shall be located on driver's side.

Camera Back-Up- NO EXCEPTION

12 Volt DC Power Distribution Module- Equivalent or greater

A Blue Sea model 5032 12 place, split bus fuse block with ground, 12- volt DC power distribution module shall be provided. The module shall provide two isolated groups of six circuits and shall be wired through switched hot and battery hot, and include a battery ground.

Location: behind officer's seat.

LIGHTS – AREA- Equivalent or greater

12V LED Flood Lights

Fire Research Evolution II model FCA510E-V20-SW top mount pull up telescopic light shall be installed with a switch provided accessible to the driver. The light pole shall be anodized aluminum and have a knurled twist lock mechanism to secure the extension pole in position. The extension pole shall extend as high as possible without interfering with plumbing items located in the pump compartment area in the stowed position. The light head shall be able to rotate 360 degrees.

Location: driver side of pump module rearward of TM control panel, officer side of pump module rearward of TM control panel.

RECEPTACLES- Equivalent or greater

Receptacle

A 20-amp, 110 volt 3-prong straight blade NEMA 5-20 duplex household receptacle with stainless steel cover plate shall be installed in a non-weather exposed area as specified by the department. The receptacle shall be wired to the inlet receptacle where it will have overcurrent protection from an external source.

Location: L1 high on forward wall, L2 high on forward wall, L3 high on forward wall, R1 high on forward wall, R2 high on forward wall, R3 high on forward wall; as well as within the Crew Cab.

Paint Custom Cab & Complete Paint Body – NO EXCEPTION

Paint body to match existing fire apparatus.

Painted Steel Wheels- NO EXCEPTION

Undercoating – NO EXCEPTION

Undercoating shall consist of a heavy coating of soft seal film sprayed on the entire underside of the vehicle to repel water and road elements. Shall be applied after customer final inspection.

INTERIOR PAINT

Cab Interior Paint

The interior of the cab shall be painted multi-tone gray finish. Prior to painting, all exposed interior metal surfaces shall be pretreated using a corrosion prevention system.

Reflective Stripe in Rub rail

The reflective stripe in the body rub rail shall be white.

CAB AND BODY STRIPE

A single Scotch lite stripe, white in color, 6 inches in width shall be installed on the cab and body and be NFPA compliant. Location shall be as specified by the customer.

Rear Body Scotch lite Striping

WARRANTY- Equivalent or greater

General 1 Year Warranty - Purchaser shall receive General One (1) Year

Plumbing and Piping Warranty - (Stainless Steel) Ten (10) Years

Custom Chassis Warranty - Purchaser shall receive a Custom Chassis One (1) Year

Cab Structural and Body Warranty - Purchaser shall receive a Cab Structure Ten (10) Years or 100,000

Paint and Finish Warranty - Purchaser shall receive a Paint and Finish Ten (10) Years

Frame Rail Corrosion Warranty - Purchaser shall receive a Frame Rail Corrosion (Zinc Plate and Powder Coat) Twenty-Five (25) Years

ELECTRONIC MANUALS- NO EXCEPTION

Two (2) copies of all operator, service, and parts manuals MUST be supplied at the time of delivery in digital format.

Operator and maintenance manuals.

ADDED EQUIPMENT

A set of On-Spot Automatic Tire Chains shall be installed on this truck.

Cell Phone booster – install "Weboost" cell phone booster – Equivalent or greater

Graphics

Local Lettering Allowance @ $2000

Hose

[4] Length of light weight 6-inch Suction Hose, 10 feet in length shall be supplied.

One Length of 6-inch Light Weight Suction Hose approximately 6 feet in total length in addition to a Suction Hose Tray and Tie Downs shall be supplied. To be mounted to the top of the front bumper.

Ladders

A 10-foot Alco Lite FL10 folding attic Ladder shall be supplied.

A 14-foot Alco Lite Roof Ladder shall be supplied.

A 24-foot Two Section Alco Lite Extension Ladder shall be supplied.

Nozzles

This Vehicle shall be supplied with an Elkhart Stinger 8297-3TM Deck gun with stream straightener, quad stacked tips and Top Mount Connection.

End of Specification