



KME FIRE APPARATUS

Lake Wenatchee Fire Rescue

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LAKE WENATCHEE FIRE RESCUE

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LAKE WENATCHEE FIRE RESCUE

DESIGN CLAUSE

QTY: 1

These specifications outline the components, installation methods, and operational characteristics KME is agreeing to provide in order to meet the purchaser's requirements. Subject to the terms of the purchase agreement, other construction details not explicitly listed in these specifications will be determined at the discretion of the builder. In the event the purchaser desires a different construction or installation not already described in these specifications, additional charges may apply, and quoted lead time commitments will be adjusted.

PROPOSED BY - CASCADE FIRE AND SAFETY

QTY: 1

Cascade Fire and Safety is pleased to offer the proposed vehicle to meet the intent of the fire department specifications.

KME Fire Apparatus is a leading manufacturer in custom and commercial fire fighting vehicles.

Questions or concerns pertaining to this proposal can be answered by contacting the following KME representative:

Mark Merritt
Cascade Fire Safety
123 South Front Street
Yakima, WA 98901

Phone: (800) 572 3939 / (509) 453 6527
Cell: (509) 930 1786
Fax: (509) 457 2890

Email: markm@cfireinc.com
Web: www.cfireinc.com

PROPOSED SERVICE BY - CASCADE FIRE & SAFETY

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Cascade Fire and Safety

123 South Front Street
Yakima, WA 98901

Phone: (800)-572-3939
Cell: (509) 930-1786
Fax: (509) 457 2890

Email: info@cfireinc.com
Web: www.cfireinc.com

SERVICE CENTER CAPABILITIES

LAKE WENATCHEE FIRE RESCUE

Cascade Fire Safety is a full service EVT Certified facility for all makes and models of emergency vehicles and fire apparatus.

Fleet Preventative Maintenance

Safety Inspections

Custom Installation Services

Plumbing and Foam Systems

Full Service Chassis and Drive Line Repair

Steel, Stainless Steel and Aluminum Welding repair and Fabrication

24 Hour 7 days a week Emergency Repairs

NFPA Pump Testing

NFPA Lighting upgrades

Wildland / Brush Truck construction

Washington and Oregon Fire Apparatus and Equipment Mechanics Association member

Same day service provided for any "Truck Down" situation

MATERIAL & WORKMANSHIP

QTY: 1

All equipment furnished shall be guaranteed to be new and of current manufacture, to meet all requirements of these specifications.

All workmanship shall be of high quality and accomplished in a professional manner so as to insure a functional apparatus with a pleasing, aesthetic appearance.

CONTRACT ADMINISTRATOR

QTY: 1

The successful bidder shall designate a contract administrator to provide a single point interface between the purchaser and the contractor on all matters concerning the contract.

VEHICLE FLUID PLATE

QTY: 1

As required by NFPA-1901, the contractor shall affix a permanent plate in the driver's compartment specifying the quantity and type of the following fluids used in the vehicle:

A permanent plate in the driving compartment shall specify the quantity and type of the following fluids used in the vehicle:

- Engine oil
- Engine coolant
- Chassis transmission fluid
- Pump transmission lubrication fluid
- Pump primer fluid
- Drive axle(s) lubrication fluid
- Air-conditioning refrigerant
- Air-conditioning lubrication oil
- Power steering fluid
- Cab tilt mechanism
- Transfer case fluid

LAKE WENATCHEE FIRE RESCUE

- Equipment rack fluid
- Air compressor system lubricant
- Generator system lubricant
- Aerial systems

MANUFACTURED IN UNITED STATES

QTY: 1

The entire apparatus shall be assembled within the borders of the Continental United States to insure more readily available parts (without added costs and delays caused by tariffs and customs) and service.

AMP DRAW REPORT

QTY: 1

The bidder shall provide with their bid proposal and at the time of delivery, an itemized print out of the expected amp draw of the entire vehicle's electrical system.

A written load analysis, which shall include the following:

- The rating of the alternator.
- The minimum continuous load of each component that is specified per: Applicable NFPA-1901.
- Additional loads that, when added to the minimum continuous load, determine the total connected load.
- Each individual intermittent load.

All of the above listed items shall be provided by the bidder per the applicable NFPA-1901.

PRODUCTION LEVEL ELECTRICAL DRAWINGS

QTY: 1

KME shall provide production level harness drawings for the specific unit to be built.

INSPECTION TRIP (1)

QTY: 1

The successful bidder shall provide one (1) factory inspection trip to the apparatus manufacturer's facility.

Transportation, meals, lodging, and other requisite expenses shall be the bidder's responsibility.

ACCOMMODATIONS FOR TWO (2)

QTY: 1

Accommodations shall be for two (2) Fire Department representatives per trip.

The factory visits shall occur at the following stages of production of the apparatus:

TRIP ONE (1) AT FINAL COMPLETION

QTY: 1

Final inspection upon completion.

COMPLETION INFORMATION

QTY: 1

The contractor shall supply, at the time of delivery, at least one (1) copy of the following documents.

- Owners name and address Apparatus manufacturer, model and serial number

LAKE WENATCHEE FIRE RESCUE

- Chassis make, model and serial number
- Front tire size and total rated capacity in pounds
- Rear tire size and total rated capacity in pounds
- Chassis weight distribution in pounds with water and manufacturer mounted equipment, front and rear
- Engine make, model, serial number, rated horsepower, rated speed and governed speed
- Type of fuels and fuel tank capacity
- Electrical system voltage and alternator output in amps.
- Battery make, model and total capacity in cold crank amps (CCA)
- Transmission make, model, and serial number. If so equipped chassis transmission PTO(s) make, model and gear ratio
- Pump make, model, rated capacity in gallons per minute (liters per minute where applicable) and serial number
- Pump transmission make, model, serial number and gear ratio
- Auxiliary pump make, model, rated capacity in gallons per minute (liters per minute where applicable) and serial number
- Water tank certified capacity in gallons or liters
- Paint manufacturer and paint number(s)
- Company name and signature of responsible company representative
- Certification of slip resistance of all stepping, standing and walking surfaces.

If the apparatus has a fire pump or an industrial supply pump, the pump manufacturer's certification of suction capability.

If the apparatus has a fire pump or an industrial supply pump, a copy of the apparatus manufacturer's approval for stationary pumping applications.

If the apparatus has a fire pump or an industrial supply pump, the engine manufacturers certified brake horsepower curve for the engine furnished, showing the maximum governed speed.

If the apparatus has a fire pump or an industrial supply pump, the pump manufacturers certification of hydrostatic test.

If the apparatus has a fire pump or an industrial supply pump, the third party certification of inspection and test for the fire pump (if applicable).

If the apparatus has an aerial device the third party certification of inspection and test for the aerial device.

LAKE WENATCHEE FIRE RESCUE

If the apparatus has an aerial device, all the technical information required for inspections to comply with NFPA 1911, Standards for Testing Fire Department Aerial Devices.

If the apparatus has a fixed line voltage power source, the certification of the test for the fixed power source (if applicable).

If the apparatus is equipped with an air system, test results of the air quality, the SCBA fill station, and the air system installation.

Weight documents from certified scale - showing actual loading on the front axle, rear axle(s) and overall vehicle (with the water tank full but without personnel, equipment and hose) shall be supplied with the complete vehicle to determine compliance with NFPA-1901.

Written load analysis and results of electrical performance tests.

If the apparatus is equipped with a water tank, the certification of water tank capacity by the tank manufacturer.

FMVSS REQUIREMENT

QTY: 1

The chassis shall be certified by the apparatus manufacturer as conforming to all applicable Federal Motor Vehicle Safety Standards in effect at the date of contract.

This shall be attested to by the attachment of a FMVSS certification label on the vehicle by the contractor who shall be recognized as the responsible final manufacturer.

RECORDS

QTY: 1

The successful bidder shall be responsible for preparing and maintaining a record file of parts and assemblies used to manufacture the apparatus.

These records shall be maintained in the factory of the bidder for a minimum of twenty (20) years.

File shall contain copies of any and all reported deficiencies, all replacement parts required to maintain the apparatus, and original purchase documents including specifications, contract, invoices, incomplete chassis certificates, quality control reports and final delivery acceptance documents.

The {Company} shall have access to any and all documents contained in this file upon official written request.

GENERAL CONSTRUCTION

QTY: 1

The complete apparatus, assemblies, subassemblies, component parts, etc., shall be designed and constructed with the due consideration to the nature and distribution of the load to be sustained and to the general character of the service to which the apparatus is to be subject.

All parts of the apparatus shall be designed with a factor of safety, which is equal to or greater than that which is considered standard and acceptable for this class of equipment in fire fighting service.

All parts of the apparatus shall be strong enough to withstand general service under full load.

The apparatus shall be so designed that the various parts and readily accessible for lubrication, inspection, adjustment and repair.

LAKE WENATCHEE FIRE RESCUE

Bidder's specifications must meet minimum requirements of N.F.P.A. Pamphlet #1901 and all State and Federal Department of Transportation vehicle regulations at time of sale of unit.

The apparatus shall be designed and constructed, and the equipment so mounted, with due consideration to distribution of the load between front and rear axles that all specified equipment, including a full complement of specified ground ladders, full water tank, loose equipment, and firefighters shall be carried without overloading or injuring the apparatus.

LAKE WENATCHEE FIRE RESCUE

INSTRUCTION MANUALS - TWO (2) SETS - USB

QTY: 1

In accordance with standard commercial practices, applicable to each vehicle (including body and special equipment) furnished under the contract, the following listed manuals and schematics, in the quantity specified, shall be provided at time of delivery of each vehicle.

The contractor shall supply at time of delivery, two (2) USB copies of a complete operation and service manual covering the complete apparatus as delivered and accepted.

The manual shall contain the following:

- Descriptions, specifications, and ratings of chassis, pump (if applicable), and aerial device
- Wiring diagrams
- Lubrication charts
- Operating instructions for the chassis, any major components such as a pump and any auxiliary systems
- Instructions regarding the frequency and procedures recommended for maintenance
- Parts replacement information

VEHICLE TRANSPORTATION - KME PROVIDED

QTY: 1

Transportation of the completed vehicle from the final manufacturing facility to the end user shall be provided by the manufacturer.

!!! CRITICAL OVERALL LENGTH REQUIREMENT !!! - "YES - NO MORE THAN 27'

QTY: 1

This vehicle has a critical overall length restriction requirement due to fire station length or obstruction within the fire department/district.

Maximum overall length of vehicle cannot exceed: 324" (inches).

NFPA TREADPLATE CERTIFICATION

QTY: 1

All stepping, standing, and walking surfaces on the body shall meet NFPA #1901 anti-slip standards.

Aluminum tread plate utilized for stepping, standing, and walking surfaces shall be NFPA embossed compliant.

Upon request by the purchaser, the manufacturer shall supply proof of compliance with this requirement.

VERTICAL TREAD PLATE - NON-EMBOSSSED

QTY: 1

The following vertical surfaces on the vehicle (if applicable) shall have non-embossed tread plate:

To include but not limited to:

- Rear of cab overlay
- Rear body overlay
- Front of body overlay
- Front pump house panel

LAKE WENATCHEE FIRE RESCUE

- Custom cab step well
- Fender overlay
- Fender compartment doors
- Interior cab trim
- Upper body walkway walls
- Rescue body interior (walk-In/walk through)

"PUMPER FIRE APPARATUS" NFPA 2016 CHAPTERS

QTY: 1

The unit shall be designed to conform fully to the "Pumper Fire Apparatus" requirements as stated in the NFPA 1901 Standard (2016 Revision), which shall include the following required chapters as stated in this revision:

- Chapter 1 Administration
- Chapter 2 Referenced Publications
- Chapter 3 Definitions
- Chapter 4 General Requirements
- Chapter 5 Pumper Fire Apparatus
- Chapter 12 Chassis and Vehicle Components
- Chapter 13 Low Voltage Electrical Systems and Warning Devices
- Chapter 14 Driving and Crew Areas
- Chapter 15 Body, Compartments and Equipment Mounting
- Chapter 16 Fire Pumps and Associated Equipment
- Chapter 18 Water Tanks

NFPA "CHAPTER 16" FIRE PUMP REQUIREMENTS

QTY: 1

Chapter 16 Fire Pump and Associated Equipment

NFPA "CHAPTER 17" AUXILIARY PUMP REQUIREMENT

QTY: 1

Chapter 17 Auxiliary Pump and Associated Equipment

NFPA "CHAPTER 18" WATER TANKS REQUIREMENTS

QTY: 1

Chapter 18 Water Tanks

NFPA "CHAPTER 20" FOAM SYSTEM REQUIREMENTS

QTY: 1

Chapter 20 Foam Proportioning Systems

LAKE WENATCHEE FIRE RESCUE

SAFETY SIGNS (NFPA REQUIRED)

QTY: 1

Safety sign(s) shall be located on the vehicle at the rear step, and at any cross walkway(s), to warn personnel that riding in or on these areas while the vehicle is in motion is prohibited.

THIRD PARTY TESTING

QTY: 1

If required by the specific chapters of NFPA-1901, the proposed unit shall be tested and certified by independent third party inspectors.

All test work for fire pumps outlined in NFPA 1901, Edition shall be conducted.

The third party inspectors shall provide the manufacturer a complete written examination and test report for each inspection performed at the manufacturer's facility.

This report specifies the points of inspection and results of such examinations and tests.

The inspectors performing the test work on the units are certified to Level II in the required NDT methods, under the requirements outlined in ASNT document CP-189.

The actual person(s) performing the inspection shall present for review proof of Level II Certification in the required NDT methods.

The apparatus manufacturer shall designate, in writing, who is qualified to witness and certify these test results.

Prior to submittal to the automotive fire apparatus manufacturer, the final Report shall be reviewed by the Supervisor of Fire Equipment Services and a Registered Professional Engineer, both of whom are directly involved with the aerial device certification program.

When the unit successfully meets all the requirements outlined in NFPA 1901, current edition, the third party inspector shall issue a Certificate of Automotive Fire Apparatus Examination and Test stating the unit's compliance with NFPA- 1901.

VEHICLE TOP SPEED - INTERNATIONAL - 2016 NFPA STA

QTY: 1

The rear axle/s shall be geared for a vehicle top speed in accordance with NFPA sections 4.15.2 and 4.15.3.

Units with GVWR over 26,000 pounds shall be limited to 68 mph. If the combined tank capacity is over 1250 gallons of foam and water or the GVWR is over 50,000 pounds, the vehicle top speed shall be limited to 60 mph or the fire service rating of the tires, whichever is lower.

INTERNATIONAL SAE J2433 ROLLOVER TESTING

QTY: 1

The International chassis shall comply with SAE J2422 Cab Roof Strength Evaluation. The Cab to Chassis Mounting System shall remain attached to the vehicle chassis and in an orientation similar to its original position when subjected to 20g deceleration load in the forward direction. Components in the mounting system may become distorted or broken but never dislodge from the original mounting location.

INT - ONE (1) AUX. AIR INLET SYSTEM NEAR LEFT DOOR

QTY: 1

A quick disconnect male auxiliary air inlet shall be provided at the driver's side door area at a location to be determined at a pre-construction conference.

A mating quick disconnect female connector shall be shipped loose with the apparatus.

This shall allow a Purchaser furnished external air supply to be connected to the chassis air system.

LAKE WENATCHEE FIRE RESCUE

WHEEL TRIM KITS, BLACK BABY MOONS/LUG NUT COVERS

QTY: 1

Wheel trim kits consisting of black baby moon hubcaps and chrome lug nut covers shall be installed on the front and rear axles of the single rear axle chassis.

FRONT MUD FLAPS

QTY: 1

Black rubber mud flaps shall be provided on the front fenders.

LAKE WENATCHEE FIRE RESCUE

CHASSIS HV507 SFA 4DR 4X4

QTY: 1

2024 INTERNATIONAL HV507 SFA with 183.00 Wheelbase, 64.10 CA, and 75.00 Axle to Frame.
TOW HOOK, FRONT (2) Frame Mounted
AXLE CONFIGURATION {Navistar} 4x4
FRAME RAILS Heat Treated Alloy Steel (120,000 PSI Yield); 10.125" x 3.580" x 0.312" (257.2mm x 90.9mm x 8.0mm); 480.0" (12192) Maximum OAL
FRAME REINFORCEMENT Full Outer C-Channel, Heat Treated Alloy Steel (120,000 PSI Yield), 10.813" x 3.892" x 0.312" (274.6mm x 98.8mm x 7.9mm), 480.0" (12192mm) OAL
BUMPER, FRONT Swept Back 15-Degrees, Stainless Steel, Polished, with Headlight Provision
FRAME, SPECIAL EFFECTS Dimple on Left and Right Top Flange of Frame Rail to Reference Rear Axle Centerline
FRAME EXTENSION, FRONT Integral; 20" In Front of Grille, with Outer C-Channel Reinforcement
WHEELBASE RANGE 181" (460cm) Through and Including 205" (520cm)
AXLE, FRONT DRIVING {Meritor MX-14-120 EVO} Single Reduction, 14,000-lb Capacity, with Hub Piloted Wheel Mounting
AXLE, FRONT DRIVING, LUBE {EmGard FE-75W-90} Synthetic Oil; 1 thru 29.99 Pints
SUSPENSION, FRONT, SPRING Parabolic Taper Leaf, Shackle Type, 14,000-lb Capacity, with Shock Absorbers
BRAKE SYSTEM, AIR Dual System for Straight Truck Applications
Includes
: BRAKE LINES Color and Size Coded Nylon
: DRAIN VALVE Twist-Type
: GAUGE, AIR PRESSURE (2) Air 1 and Air 2 Gauges; Located in Instrument Cluster
: PARKING BRAKE CONTROL Yellow Knob, Located on Instrument Panel
: PARKING BRAKE VALVE For Truck
: QUICK RELEASE VALVE On Rear Axle for Spring Brake Release: 1 for 4x2, 2 for 6x4
: SPRING BRAKE MODULATOR VALVE R-7 for 4x2, SR-7 with relay valve for 6x4/8x6
DRAIN VALVE {Bendix DV-2} Automatic, with Heater, for Air Tank
AIR BRAKE ABS {Bendix AntiLock Brake System} 4-Channel (4 Sensor/4 Modulator) Electronic Stability Program, with Automatic Traction Control
AIR DRYER {Bendix AD-IP} with Heater
BRAKE CHAMBERS, POSITION Rotated Forward and Up For Maximum Ground Clearance with 4x4
BRAKE CHAMBERS, FRONT AXLE {MGM} 20 SqiIn
BRAKE CHAMBERS, REAR AXLE {Bendix EverSure} 30/30 SqiIn Spring Brake
SLACK ADJUSTERS, FRONT {Haldex} Automatic
SLACK ADJUSTERS, REAR {Haldex} Automatic
AIR COMPRESSOR {Cummins} 18.7 CFM
AIR DRYER LOCATION Mounted Inside Left Rail, Behind Transfer Case Mounting
AIR TANK LOCATION (2) Mounted Under Battery Box, Outside Left Rail, Under Cab
DUST SHIELDS, FRONT BRAKE for Air Cam Brakes
DUST SHIELDS, REAR BRAKE for Air Cam Brakes
BRAKES, REAR {Meritor 16.5X7 P} Air S-Cam Type, Cast Spider, Cast Shoe, Double Anchor Pin, Includes Greaseable and Zinc Coated Anchor Pins, Size 16.5" X 7", 38,000-lb Capacity per Axle
BRAKES, FRONT {Meritor 16.5X5 Q-PLUS CAST} Air S-Cam Type, Cast Spider, Fabricated Shoe, Double Anchor Pin, Size 16.5" X 5", 14,700-lb Capacity
STEERING COLUMN Tilting
STEERING WHEEL 4-Spoke; 18" Dia., Black
STEERING GEAR {Sheppard M110} Power
DRIVELINE SYSTEM {Dana Spicer} SPL170 Main Driveline, 1710 Driveline to Transfer Case, SPL140 Driveline to Front Axle, for 4x4
AFTERTREATMENT COVER Steel, Black
EXHAUST SYSTEM Horizontal Aftertreatment System, Frame Mounted Right Side Under Cab, for Single Vertical Tail Pipe, Frame Mounted Right Side Back of Cab, for All-Wheel Drive
ENGINE COMPRESSION BRAKE {Jacobs} for Cummins ISL/L9 Engines; with Selector Switch and On/Off Switch
TAIL PIPE (1) Turnback Type, Bright
MUFFLER/TAIL PIPE GUARD (1) Bright Stainless Steel

LAKE WENATCHEE FIRE RESCUE

EXHAUST HEIGHT 10' 11"

SWITCH, FOR EXHAUST 3 Position, Momentary, Lighted Momentary, ON/CANCEL, Center Stable, INHIBIT REGEN, Mounted in IP Inhibits Diesel Particulate Filter Regeneration When Switch is Moved to ON While Engine is Running, Resets When Ignition is Turned OFF

ELECTRICAL SYSTEM 12-Volt, Standard Equipment

Includes

: DATA LINK CONNECTOR For Vehicle Programming and Diagnostics In Cab

: HAZARD SWITCH Push On/Push Off, Located on Instrument Panel to Right of Steering Wheel

: HEADLIGHT DIMMER SWITCH Integral with Turn Signal Lever

: PARKING LIGHT Integral with Front Turn Signal and Rear Tail Light

: STARTER SWITCH Electric, Key Operated

: STOP, TURN, TAIL B/U LIGHTS Dual, Rear, Combination with Reflector

: TURN SIGNAL SWITCH Self-Cancelling for Trucks, Manual Cancelling for Tractors, with Lane Change Feature

: WINDSHIELD WIPER SWITCH 2-Speed with Wash and Intermittent Feature (5 Pre-Set Delays), Integral with Turn Signal Lever

: WINDSHIELD WIPERS Single Motor, Electric, Cowl Mounted

: WIRING, CHASSIS Color Coded and Continuously Numbered

CIGAR LIGHTER Includes Ash Cup

HORN, ELECTRIC (2) Disc Style

FOG LIGHTS Prewire; Includes Auxiliary Switch and Wiring to Front Bumper, for Driving Lights or Fog Lights Mounted by Customer

IGNITION SWITCH Keyless

POWER SOURCE Cigar Type Receptacle without Plug and Cord

ALTERNATOR {Leece-Neville BLP4006HN} Brushless, 12 Volt, 325 Amp Capacity, Pad Mount, with Remote Sense

BODY BUILDER WIRING Rear of Frame; Includes Sealed Connectors for Tail/Amber Turn/Marker/ Backup/Accessory Power/Ground and Sealed Connector for Stop/Turn

BATTERY SYSTEM {Fleetrite} Maintenance-Free, (3) 12-Volt 2850CCA Total, Top Threaded Stud

TAIL LIGHT WIRING MODIFIED Includes: Wiring for Standard Lt & Rt Tail Lights; Separate 8.0' of Extra Cable Wiring for Lt Rt Body Mounted Tail Lights

2-WAY RADIO Wiring Effects; Wiring with 20 Amp Fuse Protection, Includes Ignition Wire with 5 Amp Fuse, Wire Ends Heat Shrink and 10' Coil Taped to Base Harness

SPEAKERS (2) 6.5" Dual Cone Mounted in Both Doors, (2) 5.25" Dual Cone Mounted in Both B-Pillars

RADIO, AUXILIARY CONTROLS Mounted in Steering Wheel, Radio Function Control Switch, Includes Volume Up/Down, Mute, Forward/ Back and Bluetooth Answer/Disconnect

ANTENNA for Increased Roof Clearance Applications

RADIO AM/FM/WB/Clock/USB Input/Auxiliary Input

BACK-UP ALARM Electric, 102 dBA

DATA RECORDER Includes Display Mounted in Overhead Console

STOP-LIGHT WIRING MODIFIED Stop-Lights Turned on When Engine Compression Brake, Exhaust Brake or Retarder is Activated

HORN, AIR Accommodation Package, Less Horn

CLEARANCE/MARKER LIGHTS (5) {Truck Lite} Amber LED Lights, Flush Mounted on Cab or Sunshade

SWITCH, BODY CIRCUITS, REAR with Remote Power Module Mounted at Rear on Frame, Up to 6 Outputs 6 Inputs, Max 20 amp per Channel, Max 80 amp Total, Includes 1 Switch Pack with Momentary Switches

STARTING MOTOR {Delco Remy 38MT Type 300} 12 Volt, Less Thermal Over-Crank Protection

COURTESY LIGHT (4) Mounted In Front Rear Map Pocket Left and Right Side

INDICATOR, LOW COOLANT LEVEL with Audible Alarm

INDICATOR, BATTERY WARNING Green BATTERY ON Indicator, Mounted on Left Side of Instrument Panel, To be Used with Factory Installed or Customer Mounted Battery Disconnect Switch

CIRCUIT BREAKERS Manual-Reset (Main Panel) SAE Type III with Trip Indicators, Replaces All Fuses

BATTERY BOX Steel, with Plastic Cover, 30" Wide, 2-4 Battery Capacity, Mounted Left Side Under Cab

TURN SIGNALS, FRONT Includes LED Side Turn Lights Mounted on Fender

POWER SOURCE, ADDITIONAL Auxiliary Power Outlet (APO) with USB Port, Located in the Instrument Panel

LAKE WENATCHEE FIRE RESCUE

BATTERY DISCONNECT SWITCH for Cab Power Disconnect Switch, Disconnects Power to Power Distribution Center (PDC) and Body Builder Through Solenoid, Does Not Disconnect Charging Circuits, Locks with Padlock, Cab Mounted
SWITCH, MARKER INTERRUPT for Marker Lights and Headlights, Located in Steering Wheel
HEADLIGHTS Halogen, with Daytime Running Lights
FENDER EXTENSIONS Rubber
LOGOS EXTERIOR Model Badges, Shipped Loose, Located in Cab
LOGOS EXTERIOR, ENGINE Badge Shipped Loose
INSULATION, UNDER HOOD for Sound Abatement
GRILLE Stationary, Chrome
INSULATION, SPLASH PANELS for Sound Abatement
BUG SCREEN Mounted Behind Grille
FRONT END Tilting, Fiberglass, with Three Piece Construction, for WorkStar/HV
GRILLE EMBER SCREEN Mounted to Grille and Cowl Tray to Keep Hot Embers out of Engine and HVAC Air Intake System
PAINT SCHEMATIC, PT-1 Single Color, Design 100
Includes
: PAINT SCHEMATIC ID LETTERS "WK"
TOOL KIT Rim Wrench and Handle Only
PAINT IDENTITY, PT-2 Single Color, Instruction No. 932. Wheels
PAINT, NON-REFLECTING Non-Reflecting Paint
PAINT TYPE Base Coat/Clear Coat, 1-2 Tone
PAINT CLASS Single Custom Color
KEYS - ALL ALIKE Fleet, Includes Ignition and Cab Door Keys
KEYS - ALL ALIKE, ID I-1003 Compatible with Z-001
CLUTCH Omit Item (Clutch Control)
ANTI-FREEZE Red, Extended Life Coolant; To -40 Degrees F/ -40 Degrees C, Freeze Protection
BLOCK HEATER, ENGINE 120V/1000W, for Cummins ISB/B6.7/ISL/L9 Engines
Includes
: BLOCK HEATER SOCKET Receptacle Type; Mounted below Drivers Door
ENGINE, DIESEL {Cummins L9 400} EPA 2021, 400HP @ 2200 RPM, 1250 lb-ft Torque @ 1200 RPM, 2200 RPM Governed Speed, 400 Peak HP (Max), (RATED FOR EMERGENCY VEHICLES ONLY)
FAN DRIVE {Horton Drivemaster} Two-Speed Type, Direct Drive, with Residual Torque Device for Disengaged Fan Speed
Includes
: FAN Nylon
RADIATOR Aluminum, Cross Flow, Front to Back System, 1469 SqIn, with 1172 SqIn Charge Air Cooler
Includes
: DEAERATION SYSTEM with Surge Tank
: HOSE CLAMPS, RADIATOR HOSES Gates Shrink Band Type; Thermoplastic Coolant Hose Clamps
: RADIATOR HOSES Premium, Rubber
AIR CLEANER Dual Element
EMISSION, CALENDAR YEAR {Cummins L9} EPA, OBD and GHG Certified for Calendar Year 2022
THROTTLE, HAND CONTROL Engine Speed Control; Electronic, Stationary, Variable Speed; Mounted on Steering Wheel
FAN OVERRIDE Manual; with Electric Switch on Instrument Panel, (Fan On with Switch On)
ENGINE WATER COOLER {Sen-Dure} Auxiliary, For Use with Fire Trucks
CARB IDLE COMPLIANCE Federal, Does Not Comply with California Clean Air Idle Regulations
ENGINE CONTROL, REMOTE MOUNTED Provision for; Includes Wiring for Body Builder Installation of PTO Controls and Starter Lockout, with Ignition Switch Control, for Cummins B6.7 and L9 Engines
CARB EMISSION WARR COMPLIANCE Federal, Does Not Comply with CARB Emission Warranty
TRANSMISSION, AUTOMATIC {Allison 3000 EVS} 5th Generation Controls, Close Ratio, 5-Speed with Overdrive, with PTO Provision, Less Retarder, Includes Oil Level Sensor, Max, GVW N/A
TRANSFER CASE {Meritor MTC-4210} 2-Speed, 10,000 lb-ft Torque Rating, with PTO Provision, Electric Over Air Control, with Lube Pump
OIL COOLER, AUTO TRANSMISSION {Modine} Water to Oil Type
TRANSFER CASE LUBE {EmGard 50W} Synthetic; 1 thru 14.99 Pints

LAKE WENATCHEE FIRE RESCUE

TRANSMISSION SHIFT CONTROL Column Mounted Stalk Shifter, Not for Use with Allison 1000 2000 Series Transmission
OIL COOLER, TRANSFER CASE with Oil Coolant Lines Routed to Oil Cooler
TRANSMISSION OIL Synthetic; 29 thru 42 Pints
ALLISON SPARE INPUT/OUTPUT for Emergency Vehicle Series (EVS), Fire/Pumper, Tank, Aerial/Ladder, Package Number 198, Includes J1939 Based Auto Neutral
SHIFT CONTROL PARAMETERS {Allison} 3000 or 4000 Series Transmissions, Performance Programming
PTO LOCATION Dual, Customer Intends to Install PTO at Left and/or Right Side of Transmission
AXLE, REAR, SINGLE {Meritor RS-26-185} Single Reduction, 26,000-lb Capacity, R Wheel Ends . Gear Ratio: 4.89
SUSPENSION, REAR, SINGLE 31,000-lb Capacity, Vari-Rate Springs, with 4500-lb Capacity Auxiliary Multileaf Springs
SHOCK ABSORBERS, REAR (2)
AXLE, REAR, LUBE {EmGard FE-75W-90} Synthetic Oil; 40 thru 49.99 Pints
DEF TANK 9.5 US Gal (36L) Capacity, Frame Mounted Outside Left Rail, Back of Cab
FUEL/WATER SEPARATOR {Racor 400 Series} 12 VDC Electric Heater, Includes Pre-Heater, with Primer Pump, Includes Water-in-Fuel Sensor, Mounted on Engine
FUEL TANK Top Draw, Non-Polished Aluminum, 26" Dia, 70 US Gal (265L), Mounted Left Side, Back of Cab
FUEL COOLER Less Thermostat; Mounted in Front of Cooling Module
CAB Conventional 6-Man Crew Cab
AIR CONDITIONER with Integral Heater and Defroster
GAUGE CLUSTER Base Level; English with English Electronic Speedometer
Includes
: GAUGE CLUSTER DISPLAY: Base Level (3" Monochromatic Display), Premium Level (5" LCD Color Display); Odometer, Voltmeter, Diagnostic Messages, Gear Indicator, Trip Odometer, Total Engine Hours, Trip Hours, MPG, Distance to Empty/Refill for
: GAUGE CLUSTER Speedometer, Tachometer, Engine Coolant Temp, Fuel Gauge, DEF Gauge, Oil Pressure Gauge, Primary and Secondary Air Pressure
: WARNING SYSTEM Low Fuel, Low DEF, Low Oil Pressure, High Engine Coolant Temp, Low Battery Voltage (Visual and Audible), Low Air Pressure (Primary and Secondary)
GRAB HANDLE, CAB INTERIOR (4) Safety Yellow, Crew Cab
SEATBELT WARNING PREWIRE Includes Seat Belt Switches and Seat Sensors for all Belted Positions in the Cab and a Harness Routed to the Center of the Dash for the Aftermarket Installation of the Data Recorder and Seatbelt Indicator Systems, for 4 to 6 Seat Belts
GAUGE, OIL TEMP, AUTO TRANS for Allison Transmission
GAUGE, AIR CLEANER RESTRICTION {Filter-Minder} with Black Bezel, Mounted in Instrument Panel
IP CLUSTER DISPLAY On Board Diagnostics Display of Fault Codes in Gauge Cluster
SEAT, DRIVER {National 2000} NFPA Compliant, Air Suspension, High Back with Integral Headrest, Vinyl, Isolator, 1 Chamber Lumbar, 2 Position Front Cushion Adjust, -3 to +14 Degree Back Angle Adjust
SEAT, REAR {National 2000} Two Individual Outboard Seats, NFPA Compliant, Air Suspension, High Back, Vinyl, Isolator, with 2 Position Front Cushion Adjustment, -3 to +14 Degree Seat Back Adjustment, Lumbar, with 18" Wide Cushion and 20" Seat Back
SEAT, PASSENGER {National 2000} NFPA Compliant, Air Suspension, High Back with Integral Headrest, Vinyl, Isolator, 1 Chamber Lumbar, 2 Position Front Cushion Adjustment, -3 to +14 Degree Back Angle Adjust
GRAB HANDLE, EXTERIOR (2) Chrome, Towel Bar Type, with Anti-Slip Rubber Inserts, for Cab Entry Mounted Left and Right Side at B-Pillar
MIRRORS (2) C-Loop, Power Adjust, Heated, LED Clearance Lights, Bright Heads and Arms, 7.5" x 14" Flat Glass, Includes 7.5" x 7"
Convex Mirrors, for 102" Load Width
SEAT BELT All Red; 4 to 6
CAB MOUNTING HEIGHT EFFECTS High Cab in Lieu of Mid High Cab Mounting (Approx. 4.5")
CAB INTERIOR TRIM Classic, for Crew Cab
Includes
: CONSOLE, OVERHEAD Molded Plastic with Dual Storage Pockets, Retainer Nets and CB Radio Pocket; Located Above Driver and Passenger

LAKE WENATCHEE FIRE RESCUE

: DOME LIGHT, CAB Door Activated and Push On-Off at Light Lens, Timed Theater Dimming, Integral to Overhead Console, Center Mounted
: SUN VISOR (2) Padded Vinyl; 2 Moveable (Front-to-Side) Primary Visors, Driver Side with Toll Ticket Strap
CAB SOUND INSULATION Includes Dash Insulator and Engine Cover Insulator
WINDOW, POWER (4) And Power Door Locks, Front and Rear Doors, Left and Right, Includes Express Down Feature
HOURMETER, PTO for Customer Provided PTO; with Indicator Light and Hourmeter in Gauge Cluster
Includes Return Wire for PTO Feedback Switch
CAB REAR SUSPENSION Air Bag Type
CAB, INTERIOR TRIM, CLOSEOUT Under IP, Driver Side
INSTRUMENT PANEL Flat Panel
ACCESS, CAB Steel, Driver Passenger Sides, Two Steps per Door, for use with Crew Cab
WHEELS, FRONT {Accuride 51408} DISC; 22.5x8.25 Rims, Powder Coat Steel, 2-Hand Hole, 10-Stud, 285.75mm BC, Hub-Piloted, Flanged Nut, with Steel Hubs
WHEELS, REAR {Accuride 51408} DUAL DISC; 22.5x8.25 Rims, Powder Coat Steel, 2-Hand Hole, 10-Stud, 285.75mm BC, Hub-Piloted, Flanged Nut, with Steel Hubs
BDY INTG, REMOTE POWER MODULE (2) Mounted Inside Cab Behind Driver Seat, Up to 6 Outputs & 6 Inputs Each, Max 20 amp per Channel, Max 80 amp Total; Includes 2 Switch Packs with Latched Switches
(2) TIRE, FRONT 12R22.5 Load Range H HDR2+ (CONTINENTAL), 479 rev/mile, 75 MPH, Drive
(4) TIRE, REAR 12R22.5 Load Range H HDR2+ (CONTINENTAL), 479 rev/mile, 75 MPH, Drive
Cab schematic 100WK Location 1: 2973, 3225 Red (Custom)
Chassis schematic 932WK
Wheel: 0011, Blk Non Ref (Nrf)
WARRANTY Standard for HV507, HV50B, HV607 Models, Effective with Vehicles Built July 1, 2017 or Later, CTS-2025A
Pre-Delivery and Programming
(2) HOOD MTD. HADLEY HORNS W/ CENTER LANYARD
On-Spot Tire Chains
KTEC crew seat slide out tray modification for slide out trays under the rear seats.

COVER DRIVER SIDE CAB STEP AREA W/ALUMINUM OVERLAY

QTY: 1

The chassis driver side step area shall be overlaid with brushed aluminum. This shall include the top, front and both ends.

Access ports shall be provided as required.

Preliminary layout drawing of the cab step area will be provided to customer.

DRIVER'S SIDE CAB STEPS W/GRIP STRUT MATERIAL

QTY: 1

The chassis driver side step area shall be provided for access to the cab and be fabricated from Grip Strut material. This cover shall cover any chassis components mounted in this area.

All cab steps shall be level on the top so there are no tripping hazards.

Preliminary layout drawing of the cab step area will be provided to customer.

INT - NAVISTAR 20" FRONT BUMPER EXTENSION WITH KME

QTY: 1

The chassis manufacturer shall provide an integral, front frame extension that extends the front bumper approximately 20" from the front face of the chassis.

The front bumper will be replaced with a 12" high, 101" wide, steel front bumper. An tread plate gravel shield shall be provided to cover the gap between the bumper and the hood on the tops and sides.

LAKE WENATCHEE FIRE RESCUE

The bumper shall be painted to match the cab color.

COVER OFFICER SIDE CAB STEP AREA W/ALUMINUM OVERLA

QTY: 1

The chassis officer side step area shall be overlaid with brushed aluminum. This shall include the top, front and both ends.

Access ports shall be provided as required.

Preliminary layout drawing of the cab step area will be provided to customer.

OFFICER'S SIDE CAB STEPS W/GRIP STRUT MATERIAL

QTY: 1

The chassis officer side step area shall be provided for access to the cab and be fabricated from Grip Strut material. This cover shall cover any chassis components mounted in this area.

All cab steps shall be level on the top so there are no tripping hazards.

Preliminary layout drawing of the cab step area will be provided to customer.

INT - HEADLIGHTS MOUNTED IN BUMPER - LED - PETERSO

QTY: 1

Two (2) dual rectangular Peterson LED headlight modules in bright finish bezels shall be furnished.

There will be one (1) on each side of the front bumper.

Each head light module shall incorporate an individual LED low and high beam headlight.

High beam actuation shall be controlled on the turn signal lever.

INT - CAB STEP LIGHTS- FOUR DOOR

QTY: 1

Tecniq E-03 step lights shall be provided. There should be one (1) placed next to each cab door to illuminate the cab stepping surfaces. The step lights shall be mounted in a convenient location to provide appropriate illumination to the cab stepping surfaces. The step lights shall automatically activate when the parking brake is applied and marker lights are activated.

INT - AUXILIARY AIR MANIFOLD - COMMERCIAL CHASSIS

QTY: 1

All auxiliary air devices on the commercial chassis shall be fed from a common manifold. The common manifold shall be installed at an accessible location near the chassis air tanks. The manifold shall be fed by a 3/8" Synflex airline plumbed from the primary air tank using a pressure protection valve. Unused ports shall be closed off using an appropriately sized plug.

LAKE WENATCHEE FIRE RESCUE

FIRE WRAP LAGGING

QTY: 1

All electrical wiring, air hoses, and fuel lines that are routed below the frame rails shall be wrapped with Storm King Mountain Technologies fire wrap lagging.

The lagging shall be easily removable for service/repairs and be re-installed following removal.

CAB TREAD PLATE STEP OVERLAY, BLACK

QTY: 1

The specified cab steps will be black in color. Where the tread plate is a stepping surface, it shall be covered in a black line-x type material.

GRAB RAILS EXTERIOR, REAR OF CAB

QTY: 1

Two (2) knurled bright anodized aluminum vertical grab rails will be provided one each side on the rear of the cab, on the outer corners. The grab rail will be approximately 18" long between the stanchions. The grab rails will be mounted to protect the rear cab corners from damage from the Crosslay hose deployment.

CENTER CONSOLE FOR 4 DOOR - BRUSHED

QTY: 1

A center console fabricated from 1/8" aluminum shall be furnished and shall be located between the driver and officer's seats. The forward area of the console shall have a mounting surface for emergency lighting switch panels and/or electronic siren control boxes within reach of the driver or officer. In addition, the console shall be equipped with two (2) map/notebook storage pockets at the rear of the console. The console shall be provided with a hinged rear access cover. The console shall be finished with a brushed aluminum finish.

Clarification: A preliminary layout drawing shall be provided for customer approval.

COMMERCIAL CHASSIS ELECTRICAL SYSTEM DESCRIPTION

QTY: 1

The commercial chassis electrical system shall be provided as furnished by the original manufacturer. A customized interface shall be provided and designed, so as not to disturb any of the required chassis functions. The necessary interfaces shall only be provided in areas where load management is allowed or with accessory components provided on the chassis.

VEHICLE DATA RECORDER

QTY: 1

A Weldon model #0L40-2597-00, VDR download harness shall be supplied with the system to allow the data to be downloaded to a computer.

FRONT BUMPER GRAVEL SHIELD, BLACK

QTY: 1

The top of the front bumper gravel shield shall be covered in a black line-x (or equal) material.

HOSE WELL DRIVER SIDE OF BUMPER EXTENSION

QTY: 1

One (1) storage well constructed of 1/8" aluminum (will/shall) be installed in the gravel shield. This storage well (will/shall) be located on the driver side of the bumper extension. The bottom of the storage well (will/shall) have a minimum of four (4) drain holes.

LAKE WENATCHEE FIRE RESCUE

ONE (1) HINGED, LATCHED TREAD PLATE COVER

QTY: 1

One (1) hinged, latched, tread plate cover shall be installed on the storage well located in the driver side of the bumper extension.

TREAD PLATE COVER NOTCHED FOR PRE-CONNECT

QTY: 1

The tread plate, hose well cover shall have a notch cut out to allow pre-connection of suction/discharge hose.

TURTLE TILE MATERIAL IN DS WELL

QTY: 1

The driver side storage well (will/shall) be equipped with Turtle Tile material to provide drainage and ventilation of equipment in storage well.

DRIVER WELL- HOSE CAPACITY

QTY: 1

The driver storage well (will/shall) have the desired capacity of:

150 FEET OF 1-3/4" DS WELL

QTY: 1

150' of 1-3/4" hose

HOSE WELL OFFICER SIDE OF BUMPER EXTENSION

QTY: 1

One (1) storage well constructed of 1/8" aluminum (will/shall) be installed in the gravel shield. This storage well (will/shall) be located on the officer side of the bumper extension. The bottom of the storage well (will/shall) have a minimum of four (4) drain holes.

ONE (1) HINGED, LATCHED, TREAD PLATE COVER

QTY: 1

One (1) hinged, latched, aluminum, tread plate cover shall be installed on the storage well located in the officer side of the bumper extension.

TURTLE TILE MATERIAL IN OS WELL

QTY: 1

The officer side storage well shall be equipped with Turtle Tile material to provide drainage and ventilation of equipment in storage well.

OFFICER WELL - HOSE CAPACITY

QTY: 1

The officer storage well shall have the desired capacity of:

OFFICER WELL - 100 FEET OF 1-3/4" HOSE

QTY: 1

100' of 1 3/4" hose

WINCH RECEIVER POINT - FRONT OF CHASSIS

QTY: 1

A 2" square receiver/hitch point shall be provided below the front bumper for a portable winch.

The receiver/hitch points shall be a 2 1/2" x 2 1/2" x 1/4" seamless steel tube welded and gusseted to 3" x 1 1/2" steel channel directly bolted to the chassis frame rails.

A 12v electrical connection with a quick disconnect compatible with the portable winch shall be provided adjacent to the receiver/hitch point.

A plastic end cap shall be provided for the quick disconnect.

LAKE WENATCHEE FIRE RESCUE

CORNERING LIGHTS

QTY: 1

A pair of Whelen #5VC03ZCR LED lights shall be provided and shall be mounted vertically, (1) one each side of the custom chassis front bumper, in a Whelen #5TSMAC chrome plated flange.

The lights shall be wired to activate with the turn signals.

TOW EYES

QTY: 1

Two (2) painted steel tow eyes shall be fastened directly to the bumper support structure that extends below the bumper.

The tow eyes shall be fastened with grade 8 bolts and nuts.

BUMPER GUIDE POLES

QTY: 1

Lighted LED bumper guide rods shall be mounted on the front bumper ends.

The guide rods shall allow the driver to gauge the clearance between the front bumper and potential obstacles.

The parking lights shall activate the guide pole lights.

TIRE PRESSURE MONITORING

QTY: 1

Each tire shall be equipped with an LED tire alert pressure management system (Vecsafe equal) that shall monitor tire pressure. A chrome plated brass sensor shall be provided on the valve stem of each tire.

The sensor shall calibrate to the tire pressure when installed on the valve stem for pressures between 20 and 120 psi.

The sensor shall activate an integral battery operated LED when the pressure of that tire drops 8 psi.

KUSSMAUL AUTO AIR EJECT INLET W/ WP KIT

QTY: 1

A Kussmaul Auto Air Eject #091-28 inlet shall be provided. The Air Eject shall be mounted using a Kussmaul Weatherproof Adapter Kit #091-28AK.

BLUE COVER FOR KUSSMAUL AIR-EJECT RECEPTACLE

QTY: 1

The Kussmaul air-eject connection shall be equipped with a Blue weatherproof cover.

AIR EJECT

QTY: 1

The air eject shall be located in the driver's cab step well in a pre determined location by KME.

LAKE WENATCHEE FIRE RESCUE

FAST IDLE

QTY: 1

A fast for the electronic controlled engine shall be provided. An ON/OFF switch on the dash shall control the fast idle.

An electronic interlock system shall prevent the fast idle from operating unless the transmission is in "Neutral" (or "Park" if so equipped) and the parking brake is fully engaged.

If the fast idle control is used in conjunction with a specified engine/transmission driven component or accessory, the fast idle control shall be properly interlocked with the engagement of the specified component or accessory.

REWORK EXHAUST

QTY: 1

The chassis exhaust will be modified so that it terminates behind the rear axle on the right side of the unit, facing out the side. The exhaust will not be directed towards the ground.

12 VOLT ELECTRICAL SYSTEM TESTING

QTY: 1

The apparatus low voltage electrical system shall be tested and certified by the manufacturer. The certification shall be provided with the apparatus. All tests shall be performed with the air temperature between 0°F and 100°F.

The following three (3) tests shall be performed in order. Before each test, the batteries shall be fully charged.

The engine shall be started and kept running until the engine and engine compartment temperatures are stabilized at normal operating temperatures and the battery system is fully charged. The engine shall be shut off and the minimum continuous electrical load shall be activated for 10 minutes. All electrical loads shall be turned off prior to attempting to restart the engine. The battery system shall then be capable of restarting the engine. Failure to restart the engine shall be considered a test failure.

The minimum continuous electrical load shall be activated with the engine running at idle speed. The engine temperature shall be stabilized at normal operating temperature. The battery system shall be tested to detect the presence of battery discharge current. The detection of battery discharge current shall be considered a test failure.

The total continuous electrical load shall be activated with the engine running up to the engine manufacturers governed speed. The test duration shall be a minimum of 2 hours. Activation of the load management system shall be permitted during this test. However, an alarm sounded due to excessive battery discharge, as detected by the system, or a system voltage of fewer than 11.7 volts DC for a 12-volt system, for more than 120 seconds, shall be considered a test failure.

Following completion of the preceding tests, the engine shall be shut off. The total continuous electrical load shall be activated and shall continue to be applied until the excessive battery discharge alarm is activated.

The battery voltage shall be measured at the battery terminals. With the load still applied, a reading of fewer than 11.7 volts shall be considered a test failure. The battery system shall then be able to restart the engine.

At the time of delivery, documentation shall be provided with the following information:

- Documentation of the electrical system performance test
- A written load analysis of the following;
- Nameplate rating of the alternator

LAKE WENATCHEE FIRE RESCUE

- Alternator rating at idle while meeting the minimum continuous electrical load
- Each component load comprising the minimum continuous electrical load.
- Additional loads that, when added to the minimum continuous load, determine the total connected load.
- Each individual intermittent load.

BATTERY DISCONNECT SWITCH

QTY: 1

The chassis batteries shall be wired in parallel to a single 12 volt electrical system, controlled through a heavy duty master disconnect switch.

The master disconnect switch shall be located within easy access of the driver upon entering or exiting the cab.

SHORELINE INLET

QTY: 1

One (1) Kussmaul "Super 30" Auto Eject model 091-159-30-120, automatic, 120 volt, 30 amp shoreline disconnect shall be provided for the on board, 110 volt battery charging systems.

The disconnect shall be equipped with a three pin female receptacle, which shall automatically eject the shoreline when the vehicle starter is energized.

The mating connector shall be included with the auto eject and shall be provided as loose equipment.

A label shall be provided indicating voltage and amperage ratings.

SHORELINE INLET COVER

QTY: 1

The Kussmaul auto-eject connection shall be equipped with a Yellow weatherproof cover.

SHORELINE INLET LOCATION

QTY: 1

The shoreline receptacle shall be located in the area directly adjacent to the driver's side cab door in a pre determined location by KME.

SHORELINE INLET LABEL

QTY: 1

A shoreline power receptacle information plate shall be permanently affixed at or near the power inlet. The plate shall indicate the following:

- Type of Line Voltage
- Current Rating in Amps Power Inlet Type (DC or AC).

BATTERY CHARGER/INVERTER

QTY: 1

The chassis shall be equipped with a Kussmaul Auto Power AP1500, 091-263-12-1500, fully automatic battery inverter/charger.

The unit shall contain a 55 amp, fully automatic battery charger to re-charge and maintain the chassis batteries when the shoreline connection has been made.

LAKE WENATCHEE FIRE RESCUE

The unit shall also contain a built in inverter capable of providing 1,500 watts of continuous AC power and a 4,500 watt surge capacity.

The unit shall have a built in transfer switch capable of diverting AC power to AC loads during shoreline connection.

BATTERY CHARGER

QTY: 1

An appropriately sized twist lock plug shall be provided between the battery charger and shoreline inlet to facilitate battery charger maintenance.

BATTERY CHARGER STATUS CENTER

QTY: 1

A Kussmaul # 091-189-12 universal single indicator shall be installed to monitor the battery voltage and indicate the following conditions of the battery via LED's: Hi Voltage, Fully Charged,

Charging and Low Voltage. In addition to the LED status indicators, a 3-digit indicator shall display the battery voltage.

The status center shall be located near the shoreline disconnect receptacle unless otherwise specified.

TRANSFER SWITCH

QTY: 1

An automatic power relay shall be installed to allow interior 120 volt accessories to be powered by the 120 volt shoreline or the generator.

This switch shall allow for a continuous power supply to the interior accessories while the apparatus is parked in the station.

The maximum load for the transfer / relay shall be 20 amps at 120 volts.

120 VOLT 5-15R RECEPT REAR EMS COMPART WIRED TO SH

QTY: 1

SHORELINE RECEPTACLE

A 120 volt 5-15 R household type receptacle(s) shall be located on the top center rear wall of the cab EMS compartment. The receptacle(s) shall be wired into the shoreline receptacle to provide a 120-volt power source for fire department equipment.

ONE (1) 13 INCH OUTLET STRIP - REAR OF CENTER CON

QTY: 1

OUTLET STRIP

One (1) 13 inch long, 110V outlet strip shall be on the rear of the center console. The strip shall be offset 2" from the console. The outlet strip shall have four (4) single household receptacles.

FRONT DOOR JAMB SWITCHES TO ACTIVATE ALL DOME LIGH

QTY: 1

Each side front door jamb switch shall activate all of the cab dome lights.

BLUE SEA FUSE BLOCK - 12 CIRCUIT IN CENTER CONSOLE

QTY: 1

A Blue Sea 5026B, 12 circuit fuse block, shall be installed in the center console.

This block has a maximum amperage of 60 Amps per block and 30 Amps per circuit.

IGNITION STUD - REAR CREW AREA

QTY: 1

An ignition stud shall be installed behind the driver's rear cab seat for items needing an ignition circuit (i.e.. mobile radio).

LAKE WENATCHEE FIRE RESCUE

This stud has a maximum amperage of 20 Amps.

MULTI - USE POWER POINT NEAR DRIVER

QTY: 1

A Mobile Vision (Magnadyne DVU-3G2) multi-use power point with built in two (2) USB ports, and two (2) 12 volt sockets

This will be capable of supplying the USB ports with up to three (3) amps and have a 15 amp fuse for overall protection.

Note: The multi-use power point will be provided on the front of the center console near the driver.

MULTI - USE POWER POINT NEAR OFFICER

QTY: 1

A Mobile Vision (Magnadyne DVU-3G2) multi-use power point with built in two (2) USB ports, and two (2) 12 volt sockets

This will be capable of supplying the USB ports with up to three (3) amps and have a 15 amp fuse for overall protection.

Note: The multi-use power point will be provided on the front of the center console near the officer.

MULTI - USE POWER POINT TO THE REAR OF THE CONSOLE

QTY: 1

A Mobile Vision (Magnadyne DVU-3G2) multi-use power point with built in two (2) USB ports, and two (2) 12 volt sockets

This will be capable of supplying the USB ports with up to three (3) amps and have a 15 amp fuse for overall protection.

Note: The multi-use power point will be provided on the rear face of the center console.

ENGINE COMPARTMENT WORK LIGHTS - TECNIQ LED

QTY: 1

Two (2) Tecniq model #E18 LED lights shall be provided inside the engine enclosure that will provide 800 lumens each.

Each light shall have their own independent switch incorporated into the light head.

STANDARD #MATM RADIO ANTENNA INSTALLED CENTER CONS

QTY: 2

A antenna mounting base(s) model #MATM with 17' of coaxial cable shall be provided and installed on the lower cab roof, behind the light bar.

The attached antenna wire(s) shall be run to the center console.

The Fire Department is responsible to have the correct antenna whip installed once the apparatus is delivered.

LAKE WENATCHEE FIRE RESCUE

CONTROL SWITCHING - EATON MULTIPLEX SWITCHES - 6 N

QTY: 1

The commercial cab shall be equipped with an area for component switching within easy reach of the driver and or officer. This switch package shall separate the emergency / auxiliary electrical functions from the regular chassis functions. A minimum of six (6) programmable CAN Bus Eaton model #E33 switches with integral indicator lights shall be provided.

The six (6) switches shall be located in the cab near the driver for warning lights and auxiliary controls. A master warning switch shall be provided, which shall allow pre-setting of emergency light switches and shall have a red integral indicator light.

For Clarification: Switching for the warning lights and scene lights shall be provided in the center console.

HOSEBED WORKLIGHT SWITCH - RECESSED

QTY: 1

The hose bed work light switch shall be installed in Cole Hersee switch pocket that shall be painted to match the body color. The switch shall be mounted on the driver's side of the body.

HOSE BED WORK LIGHT - SWITCH

QTY: 1

The hose bed work light shall have a protected 12-volt switch at the rear body panel.

The switch will be labeled "HOSE BED WORK LIGHTS."

CONTROL SWITCH IN CAB FOR REAR OF BODY LIGHTS

QTY: 1

Controls shall be provided in the cab control system (or optional mechanical switch) to turn the rear of body lights on and off.

CONTROL SWITCH ON PUMP PANEL FOR REAR OF BODY LIGH

QTY: 1

A switch shall be provided on the pump panel to turn the rear of body lights on and off.

CONTROL SWITCH IN CAB FOR DRIVER SIDE OF BODY LIGH

QTY: 1

Controls shall be provided in the cab control system (or optional mechanical switch) to turn the driver side of body lights on and off.

CONTROL SWITCH ON PUMP PANEL FOR DRIVER SIDE OF BO

QTY: 1

A switch shall be provided on the pump panel to turn the driver side of body lights on and off.

CONTROL SWITCH IN CAB FOR OFFICER SIDE OF BODY LIG

QTY: 1

Controls shall be provided in the cab control system (or optional mechanical switch) to turn the officer side of body lights on and off.

CONTROL SWITCH ON PUMP PANEL FOR OFFICER SIDE OF B

QTY: 1

A switch shall be provided on the pump panel to turn the officer side of body lights on and off.

HULL LIGHTS TO ACTIVATE WITH TURN SIGNAL

QTY: 1

The hull auxiliary wheel well lights shall be activated with the turn signal circuit.

CAMERA SYSTEM

QTY: 1

LAKE WENATCHEE FIRE RESCUE

A Federal Signal model # CAMSET70-NTSC-4B rear vision camera system shall be provided to allow the driver to visually see the rear of the apparatus while in the cab.
The system shall include a Federal 7.0" flat panel LCD color monitor mounted adjacent to the driver and a Federal rear vision color camera that shall be mounted at the rear of the vehicle.

The system shall also feature a microphone on the camera and speaker built into the monitor.
The rear vision camera system shall be wired to automatically activate when the chassis transmission is placed in reverse.

CAMERA SYSTEM

QTY: 1

The monitor for the rear vision system shall be mounted ceiling of the cab in easy view of the driver.
Note: This will be a separate screen, this will not be part of the ES-Key screen.

REAR CAMERA RECESSED IN INTERMEDIATE STEP

QTY: 1

The reverse camera shall be recessed mounted in the intermediate rear step.

COMMERCIAL CHASSIS MARKER LIGHTS AND REFLECTORS

QTY: 1

Cab marker lights and signaling devices shall be as provided on the commercial chassis cab from the original chassis manufacturer. FMVSS reflectors shall be also be provided as required.

CAB STEP LIGHTS, TECNIQ EON 3 LED, ALL DEVICES

QTY: 4

Polished, stainless steel, TecNiq Eon, 3-LED, horizontal surface mounted chassis step lights shall be provided and controlled with marker light actuation.

Step lights shall be located to properly illuminate all chassis access steps and walkway areas and shall include a mounting gasket to provide a watertight seal.

ALTERNATE FLASHING HEADLIGHT SYSTEM (WIG-WAGS)

QTY: 1

An alternating flashing wig-wag system, wired to the apparatus headlights, shall be installed.

The wig-wag system shall be individually switched at the master light console.

The alternating flashing system shall be automatically disabled during the "Blocking Right of Way" mode.

WHELEN ARGES SUPER LED 360 REMOTE SPOTLIGHTS

QTY: 1

Two (2) Whelen ARGES SUPER LED 360 remote controlled spotlight shall be provided and mounted on the roof of the cab forward of the light bar, one on each side. The remote controls shall be mounted within easy reach of the driver and officers on the center console.

SEPERATE SWITCH ON CONSOLE FOR HULL REVERSE LIGHTS

QTY: 1

The hull lights shall also be switched with a separate switch located on the center console.

NFPA COMPLIANT WARNING LIGHT PACKAGE

QTY: 1

The following warning light package shall include all of the minimum warning light and actuation requirements for the current revision of the NFPA 1901 Fire Apparatus Standard.

The lighting as specified shall meet the requirements for both "Clearing Right of Way" and "Blocking Right of Way" which includes disabling all white warning lights when the apparatus is in "Blocking Right of Way" mode.

LAKE WENATCHEE FIRE RESCUE

WARNING LIGHT FLASH PATTERN - NFPA FLASH PATTERN

QTY: 1

All of the perimeter warning lights shall be set to a default NFPA compliant flash pattern as provided by the light manufacturer.

LIGHT PACKAGE ACTUATION/CONTROLS

QTY: 1

The entire warning light package shall be actuated with a single warning light switch located on the cab switch panel. The wiring for the warning light package shall engage all of the lights required for "Clearing Right of Way" mode when the vehicle parking brake is not engaged. An automatic control system shall be provided to switch the warning lights to the "Blocking Right of Way" mode when the vehicle parking brake is engaged.

LIGHT PACKAGE NFPA CERTIFICATION

QTY: 1

The warning light system(s) specified above shall not exceed a combined total amperage draw of 45 AMPS with all lights activated in either the "Clearing Right of Way" or the "Blocking Right of Way"

The warning light system(s) shall be certified by the light system manufacturer(s), to meet all of the requirements in the current revision of the NFPA 1901 Fire Apparatus Standard as noted in the General Requirements section of these specifications.

The NFPA required "Certificate of Compliance" shall be provided with the completed apparatus.

Any large truck as defined by NFPA shall have the lower zone warning lights mounted no higher than 62" to the optical center of the warning light from ground level. {No Exceptions}

LIGHTS BAR

QTY: 1

A Whelen #F4NOVLED "Edge Freedom Series IV", 60" cab roof warning light bar shall be furnished and rigidly mounted on top of the cab roof.

The light bar shall be equipped with the following:

- Clear Lenses
- Four Corner Red Linear LEDs
- Two Red Forward Facing Linear LEDs
- Two White Forward Facing Linear LEDs. If equipped, the forward facing white lights shall be automatically disabled for the "Blocking Right of Way" mode.

LED TAKE DOWN LIGHTS

QTY: 1

The Freedom lightbar shall be equipped with # F4TL6 long led takedown lights.

LED ALLEY LIGHTS

QTY: 1

The Freedom lightbar shall be equipped with # FXALF1D led alley lights.

LAKE WENATCHEE FIRE RESCUE

C-UPPER, WHELEN 600 ROTA-BEAM SUPER LEDS

QTY: 1

Two (2) Whelen, 6RB* super LED, Rota-Beam light heads shall be furnished and mounted one (1) on each side on the upper rear face of the body, facing rear.

UPPER ZONE C WARNING LIGHT LENS - CLEAR

QTY: 1

The upper zone C warning lights shall include red LEDs and a clear lens if available from the manufacturer. If a clear lens is unavailable, a red lens shall be included.

UPPER ZONE C WARNING LIGHT BEZEL - BLACK

QTY: 1

The upper zone C warning lights shall include a black bezel if available from the manufacturer. If a black bezel is unavailable, a chrome bezel shall be included.

B/D-UPPER FRONT, WHELEN M9 SUPER LEDS

QTY: 1

Two (2) Whelen, M9*, super LED light heads shall be furnished and mounted one (1) on each side on the upper side face, towards the front of the body, facing to each side of the unit.

UPPER ZONE B/D FRONT WARNING LIGHT LENS - CLEAR

QTY: 1

The upper zone B/D front warning lights shall include red LEDs and a clear lens if available from the manufacturer. If a clear lens is unavailable, a red lens shall be included.

UPPER ZONE B/D FRONT WARNING LIGHT BEZEL - BLACK

QTY: 1

The upper zone B/D front warning lights shall include a black bezel if available from the manufacturer. If a black bezel is unavailable, a chrome bezel shall be included.

B/D-UPPER REAR, WHELEN M9 SUPER LEDS

QTY: 1

Two (2) Whelen, M9*, super LED light heads shall be furnished and mounted one (1) on each side on the upper side face, towards the rear of the body, facing to each side of the unit.

The lights shall be installed with a chrome plated mounting flange.

UPPER ZONE B/D REAR WARNING LIGHT LENS - CLEAR

QTY: 1

The upper zone B/D rear warning lights shall include red LEDs and a clear lens if available from the manufacturer. If a clear lens is unavailable, a red lens shall be included.

UPPER ZONE B/D REAR WARNING LIGHT BEZEL - BLACK

QTY: 1

The upper zone B/D rear warning lights shall include a black bezel if available from the manufacturer. If a black bezel is unavailable, a chrome bezel shall be included.

A-LOWER FRONT MOUNTING, COMMERCIAL CHASSIS

QTY: 1

The lower zone A warning lights shall be mounted in the commercial chassis grille no higher than 62" from ground level.

LAKE WENATCHEE FIRE RESCUE

A-LOWER FRONT, WHELEN 600 ROTA-BEAM SUPER LEDS

QTY: 1

Two (2) Whelen, 6RB* super LED Rota-Beam light heads shall be provided and installed one (1) each side.

LOWER ZONE A WARNING LIGHT LENS - CLEAR

QTY: 1

The lower zone A warning lights shall include red LEDs and a clear lens if available from the manufacturer. If a clear lens is unavailable, a red lens shall be included.

LOWER ZONE A WARNING LIGHT BEZEL - BLACK

QTY: 1

The lower zone A warning lights shall include a black bezel if available from the manufacturer. If a black bezel is unavailable, a chrome bezel shall be included.

C-LOWER REAR, WHELEN M6 SUPER LEDS

QTY: 1

Two (2) Whelen M6* super LED light heads shall be provided and installed with one (1) on each side directly below the DOT stop, tail, turn and backup lights.

LOWER ZONE C WARNING LIGHT LENS - CLEAR

QTY: 1

The lower zone C warning lights shall include red LEDs and a clear lens if available from the manufacturer. If a clear lens is unavailable, a red lens shall be included.

LOWER ZONE C WARNING LIGHT BEZEL - BLACK

QTY: 1

The lower zone C warning lights shall include a black bezel if available from the manufacturer. If a black bezel is unavailable, a chrome bezel shall be included.

B/D-LOWER FRONT MOUNTING, COMMERCIAL CHASSIS

QTY: 1

The lower zone B D warning lights shall be mounted on the sides of the commercial chassis hood at or forward of the centerline of the front axle. The light shall be mounted no higher than 62" from ground level.

B/D-LOWER FRONT MNTG, SIDES OF FRONT BUMPER, COMM.

QTY: 1

The lower zone B D warning lights shall be mounted on the sides of the front bumper. The light shall be mounted no higher than 62" from ground level.

B/D-LOWER FRONT, WHELEN M6 SUPER LEDS

QTY: 1

Two (2) Whelen, M6* super LED light heads shall be provided and installed with one (1) on each side.

LOWER ZONE B/D FRONT WARNING LIGHT LENS - CLEAR

QTY: 1

The lower zone B/D front warning lights shall include red LEDs and a clear lens if available from the manufacturer. If a clear lens is unavailable, a red lens shall be included.

LOWER ZONE B/D FRONT WARNING LIGHT BEZEL - BLACK

QTY: 1

The lower zone B/D front warning lights shall include a black bezel if available from the manufacturer. If a black bezel is unavailable, a chrome bezel shall be included.

LAKE WENATCHEE FIRE RESCUE

B/D-LOWER REAR, WHELEN M6 SUPER LEDS

QTY: 1

Two (2) Whelen M6* super LED light heads shall be provided and installed with one (1) on each side.

LOWER ZONE B/D REAR WARNING LIGHT LENS - CLEAR

QTY: 1

The lower zone B/D rear warning lights shall include red LEDs and a clear lens if available from the manufacturer. If a clear lens is unavailable, a red lens shall be included.

LOWER ZONE B/D REAR WARNING LIGHT BEZEL - BLACK

QTY: 1

The lower zone B/D rear warning lights shall include a black bezel if available from the manufacturer. If a black bezel is unavailable, a chrome bezel shall be included.

GROUND LIGHTS

QTY: 1

One (1) Amdor Luma Bar, H2O, LED 20" ground light shall be provided under each side cab door entrance step, four (4) total.

The ground lights shall turn on automatically with each respective door jamb switch and also by a master ground light switch in the warning light switch console.

Each light shall illuminate an area at a minimum 30" outward from the edge of the vehicle.

GROUND LIGHTS UNDER FRONT BUMPER

QTY: 1

One (1) Amdor Luma Bar, H2O, LED 12" ground light shall be provided under each side of the front bumper facing forward, two (2) total.

GROUND LIGHTS BELOW PUMP PANEL RUNNING BOARD

QTY: 1

One (1) Amdor Luma Bar, H2O, LED 20" ground light shall be provided under each side pump panel running board, two (2).

GROUND LIGHTS REAR BODY CORNERS

QTY: 1

One (1) Amdor Luma Bar, H2O, LED 20" ground light shall be provided under each rear body corner, two (2) total.

CAB AND BODY GROUND LIGHTS ACTIVATE WITH PARK

QTY: 1

The cab and body ground lights shall activate by engaging the parking brake.

CAB AND BODY GROUND LIGHTS ACTIVATE AS PROVIDED

QTY: 1

Ground light activation shall be as provided by the chassis manufacturer and shall be wired through the load management system.

CAB AND BODY GROUND LIGHTS - SWITCH @ IN CAB

QTY: 1

The cab and body ground lights shall be equipped with an activation switch in the cab.

LAKE WENATCHEE FIRE RESCUE

DIAMOND LOGIC MULTI-PLEX SYSTEM. INTERNATIONAL

QTY: 1

The electrical system for the entire apparatus shall feature the International® Diamond Logic® Electrical System. This industry leading solution is built on a multiplexed architecture containing technologies in components such as solid state power switches, self-calibrating gauges and low current switch devices used for driver controls, like rocker switches and HVAC controls. The low current system and solid state switching results in maximum reliability and durability.

At the heart of International® Diamond Logic™ electrical system is the Electronic System Controller (ESC) which functions as the gatekeeper or central processor. The ESC continually monitors the vehicles electrical system and controls, including the engine, transmission, cab and customer installed truck equipment, so that they all communicate and work together.

In addition the Diamond Logic® Electrical system consists of International factory installed, Remote Power Modules (RPMs) and factory installed switches and warning lights. This combination of factory installed equipment eliminates the need to cut into the chassis wiring and central wiring to one point outside the cab.

The Diamond Logic® Electrical System allows fully customizable logic to carry out functions which up until now required hard-wired circuits and component. The use of the system shall enable the manufacturer to reduce; if not eliminate; conventional circuit interlock and power supply components for all body builder installed functions as specified by the customer. The programmable system allows for automation of tasks, custom features and safety interlocks to meet complex application requirements resulting in increasing functionality and reducing wiring the wiring used in equipment by up to 70%.

Each vehicle shall be programmed by engineering and not only stored in engineering database, but also uploaded to International which shall enable any International Dealer location to maintain, troubleshoot or repair the entire system installed on the apparatus and NOT only the chassis.

This multiplex system controls both chassis and body functions including but not limited to emergency lighting, scene lighting, compartment lighting, and door ajar circuitry. Systems that utilize a multiplexed chassis with a hard wired body, or two different multiplex systems, shall not be considered. {No Exceptions}

CHASSIS DIAGNOSTICS SYSTEM

QTY: 1

Diagnostic ports shall be accessible while standing on the ground and located inside the driver's side door left of the steering column. The diagnostic panel shall allow diagnostic tools such as computers to connect to various vehicle systems for improved troubleshooting providing a lower cost of ownership. Diagnostic switches shall allow engine and ABS systems to provide blink codes should a problem exist.

The diagnostic system shall include the following:

- A single port to monitor the engine, transmission and ABS system and diagnostics of the roll sensor (if applicable)
- Engine diagnostic switch (blink codes)
- ABS diagnostic switch (blink codes)
- Allison Transmission Codes (through touch pad shifter)

LAKE WENATCHEE FIRE RESCUE

BODY ELECTRICAL SYSTEM

QTY: 1

All electrical lines in the body shall be protected by automatic circuit breakers, conveniently located to permit ease of service.

Flashers, heavy solenoids and other major electrical controls shall be located in a central area near the circuit breakers.

All lines shall be color and function coded every 3", easy to identify, oversized for the intended loads and installed in accordance with a detailed diagram.

A complete wiring diagram shall be supplied with the apparatus.

Wiring shall be carefully protected from weather elements and snagging. Heavy duty loom shall be used for the entire length.

Grommets shall be utilized where wiring passes through panels.

In order to minimize the risk of heat damage, wires run in the engine compartment area shall be carefully installed and suitably protected by the installation of heat resistant shielded loom.

All electrical equipment shall be installed to conform to the latest federal standards as outlined in NFPA 1901.

DOOR OPEN INDICATOR- CODE 3 #CB7265 BEACON CEILI

QTY: 1

A Code 3 model # CB7265, red LED rotating beacon shall be furnished on the cab ceiling to signal when an unsafe condition is present such as an open cab door or body compartment door, an extended ladder rack, a deployed stabilizer, an extended light tower or any other device which is opened, extended or deployed which may cause damage to the apparatus if it is moved.

This light shall be activated through the parking brake switch to signal when the parking brake is released.

This light shall be labeled "DO NOT MOVE TRUCK".

DUNNAGE AREA LIGHTING

QTY: 1

Two (2) stainless steel, TecNiq Eon 3-LED horizontal surface mounted lights shall be provided in the dunnage area to provide adequate illumination of this area.

These lights shall be switched in the same manner as the step lights.

COMPARTMENT LIGHT ACTIVATION

QTY: 1

Compartment lighting shall be switched either from an integral switch as provided by the roll up door manufacturer or a magnetic proximity switch if it is a KME manufactured door.

COMPARTMENT LIGHTS

QTY: 6

Each individual, equipment storage compartment shall be equipped with the AMDOR, red/white, Luma Bar, LED light fixture, mounted one each side of the forward (and rear) vertical door frame.

A switch to control the color selection shall be located in the drivers side, front body compartment.

ROOF COMPARTMENT LIGHTS

QTY: 2

LAKE WENATCHEE FIRE RESCUE

A Amdor Luma Bar LED strip compartment light(s) shall be provided, to ensure proper compartment illumination.

The lights shall be mounted underneath the roof compartment door opening and shall be activated with a magnetic door switch that shall be connected to the door ajar warning circuit.

MARKER/TURN LIGHTS @ EA SIDE OF BODY

QTY: 1

Red, LED marker lights with integral reflectors shall be provided at the lower side rear, having one (1) on each side.

Yellow, LED side marker and turn lights shall be provided on the apparatus lower side, forward of rear axle that puts one (1) on each side, if the apparatus is 30' long or longer.

DOT MARKER LIGHTS @ REAR OF BODY

QTY: 1

Red, LED clearance lights shall be provided on the apparatus rear upper having one (1) on each side at the outermost practical location.

Red, LED, 3-lamp identification bar will be provided on the apparatus rear center.

DOT AMBER REFLECTORS @ SIDE OF BODY

QTY: 1

Yellow reflectors shall be provided on the apparatus body lower side, as far forward and low as practical with one (1) on each side if the apparatus is 30' long or longer.

DOT RED REFLECTORS @ REAR OF BODY

QTY: 1

Red reflectors shall be provided on the apparatus rear with one (1) on each side at the outermost practical location.

TECNIQ #L10 LED LICENSE PLATE LIGHT

QTY: 1

One (1) Tecniq model #L10 LED license plate light shall be provided above the mounting position of the license plate. The license plate shall be located on the driver's side rear of body.

The light shall be clear in color and shall have a chrome finish.

BRITAX, 6" ANGLED RUBBER LED LIGHT @ REAR BODY COR

QTY: 1

Two (2) rubber, angled LED marker lights shall be mounted on the rear most corner of the body, one (1) each side.

The lights shall be mounted in a molded flexible rubber shaft that extends away from the body approximately 6".

The lights shall be equipped with an amber lens facing forward and a red lens facing to the rear of the vehicle.

The lights shall be wired to the parking light circuit.

LAKE WENATCHEE FIRE RESCUE

WHELEN #M6 LED BRAKE, REVERSE, & TURN W/ TRI HOUSI

QTY: 1

Two (2) Whelen M6 series, 4-5/16" x 6-3/4", LED red combination tail and stop lights, shall be mounted one each side at the rear of the body.

Two (2) Whelen M6 series, 4-5/16" x 6-3/4", LED amber arrow turn signal lights, shall be mounted one each side, on a vertical plane with the tail/stop lights.

Two (2) Whelen M6 series, 4-5/16" x 6-3/4", LED white back-up lights, shall be mounted, one each side on a vertical plane with the turn/tail/stop signals.

These lights shall activate when the transmission is placed in reverse gear.

Two (2) Whelen M6FCV3 mounting flanges, installed one (1) on each side, shall be provided to mount the lights described above in one common mounting flange.

The lights shall be mounted in order, from top to bottom, as described above.

BODY STEP LIGHTS, TECNIQ EON 3 LED, ALL DEVICES

QTY: 2

Polished, stainless steel, TecNiq Eon 3-LED, horizontal surface, mounted body step lights shall be provided and controlled with marker light actuation.

Step lights shall be located to properly illuminate all body access steps and walkway areas and shall include a mounting gasket to provide a watertight seal.

PUMP ENCLOSURE WORK LIGHTS - TECNIQ LED

QTY: 1

Two (2) Tecniq, model #E18 lights shall be provided inside the pump enclosure, providing 800 lumens each.

Each light shall have their own independent switch incorporated into the light head.

AMDOR LED STRIP HOSE BED LIGHTS-INSIDE HOSEBED DOO

QTY: 1

Two (2) Amdor, LED strip surface mounted lights shall be mounted on the hose bed doors one on each side to illuminate the hose bed floor.

WHELEN M9 SERIES LED SCENE LIGHTS ON REAR OF BODY

QTY: 1

Two (2) Whelen, M9LZC, super LED scene lights shall be provided, (1) one on each side of the rear body panel in a chrome plated flange.

Each light shall draw 6 amps and generate 6,500 lumens.

The scene lights shall be wired through the load management system.

WHELEN M9 SERIES LED SCENE LIGHTS ON DRIVER SIDE O

QTY: 1

Two (2) Whelen, M9LZC, super LED scene lights shall be provided.

The scene lights shall be installed one rearward and one forward on the driver side of the body in a chrome plated flange.

Each light shall draw 6 amps and generate 6,500 lumens.

The scene lights shall be wired through the load management system.

LAKE WENATCHEE FIRE RESCUE

WHELEN M9 SERIES LED SCENE LIGHTS ON OFFICER SIDE

QTY: 1

Two (2) Whelen, M9LZC, super LED scene lights shall be provided.

The scene lights shall be installed one rearward and one forward on the officer side of the body in a chrome plated flange.

Each light shall draw 6 amps and generate 6,500 lumens.

The scene lights shall be wired through the load management system.

REAR SCENE LIGHTS TO BE ACTIVATED BY REVERSE LIGHT

QTY: 1

In addition to the cab mounted switch for the rear scene lights, the rear scene lights shall illuminate when the transmission is placed in reverse gear and the apparatus is operating as an emergency vehicle (Primary Warning switch on).

DOCKING LIGHTS IN REAR WHEELWELL

QTY: 1

Two (2) Tecniq E96 LED docking lights shall be provided in the rear wheel well panels, one (1) each side.

The lights shall be surface mounted on the wheel well panel and shall be equipped with a stainless steel housing.

The lights shall be activated by the reverse light circuit when the apparatus is operating as an emergency vehicle (Primary Warning Switch On).

DOCKING LIGHTS IN REAR WHEELWELL

QTY: 1

Two (2) Zico #ZQL-SS-H7614 "Quic-Light" hull lights shall be provided in the rear wheel well panels, one (1) each side.

The lights shall be recessed into the wheel well panel and shall be equipped with stainless steel housing.

The lights shall be activated by the reverse light circuit when the apparatus is operating as an emergency vehicle (Primary Warning Switch On).

REAR TRAFFIC WARNING LIGHT

QTY: 1

One (1) Whelen super LED "Traffic Advisor", model TANF85, 45" rear directional light shall be installed on the vertical rear surface of the body.

The light shall be equipped with eight (8) super LED modules.

The directional light shall be activated by a control module.

The control module shall be conveniently located near the driver's position.

The rear directional light shall be wired through the load management system of the unit.

TRAFFIC ADVISOR - RECESSED IN REAR STEP

QTY: 1

The traffic advisor will be recessed in the rear intermediate step.

RECEPTACLE/S

QTY: 1

LAKE WENATCHEE FIRE RESCUE

Five (5) 120 volt, NEMA 5-15, 15 amp, duplex straight blade receptacle with a grey thermoplastic, corrosion resistant, weatherproof cover shall be installed in the body, one in each compartment. The receptacles shall be mounted low on the rear wall of the compartments.

The receptacles shall be wired to have power from both the shore line and the inverter.

BACK-UP ALARM

QTY: 1

An ECCO # 505, 87dBA back-up alarm, shall be provided and installed at the rear of the apparatus under the tailboard.

The back-up alarm shall activate automatically when the transmission is placed in reverse gear and the ignition is "on."

DUAL CHROME AIR HORNS

QTY: 1

Two (2) chrome plated, Hadley air horns shall be at the front of the vehicle.

The air horns shall be mounted in full compliance with NFPA-1901.

The supply lines shall be dual 1/4" lines with equal distance from each horn.

DUAL AIR HORNS

QTY: 1

Each air horn shall be mounted, one (1) each side on the side of the hood.

AIR HORN CONTROL

QTY: 1

The air horn(s) shall be controlled by the steering wheel horn button for the driver.

AIR HORN CONTROL

QTY: 1

The air horn(s) shall be controlled by a pull chain/cable for the officer.

ONE (1) WHELEN SA315P SPEAKER - DS OF BUMPER

QTY: 1

One (1) Whelen, model # SA315P composite black siren speaker, shall be provided, recessed in the driver's side of the front bumper.

ELECTRONIC SIREN

QTY: 1

A Whelen CenCom Core siren and light controller system shall be provided and installed to control the emergency lighting, scene lighting and siren requirements. All of the flash patterns for the light heads shall be controlled through the Core system and shall be set to an NFPA compliant pattern at time of apparatus completion.

The system shall be a model #C399 CenCom Core™ System to include CCTL6 controller to control lighting and siren, C399K1 CAN port to interface with the chassis, three (3) CEM16 16 Output, 4 Input WeCanX™ Expansion Modules and one (1) CEXAMP WeCanX™ External Amplifier.

LAKE WENATCHEE FIRE RESCUE

HOWLER SIREN

QTY: 1

One (1) Whelen HOWLER low frequency siren shall be provided and installed.

The Howler shall use the output of a standard emergency vehicle siren and shall synthesize a low frequency vibrating signal.

The Howler shall amplify this signal to drive Whelen low frequency speakers.

The Howler shall incorporate the latest solid-state designs for superior reliability and sound quality.

The system shall be comprised of an amplifier, two speakers, a timer, and mounting hardware.

The siren shall be controlled with a two (2) position momentary switch, located on the drivers lower wing panel, to allow the operator to turn the Howler on or off while the main siren is activated.

SIREN CONTROL

QTY: 1

A dash mounted switch along with a steering wheel horn button shall be provided for the driver to control the electronic siren.

POLISHED STEEL ELECTRONIC SIREN SPEAKER GRILL

QTY: 1

A custom electric siren speaker grill shall be provided. This grill shall include the KME company logo cut into the center.

HALE DSD-125, 1250 GPM SINGLE STAGE PUMP - PTO

QTY: 1

- HALE DSD-125
- 1250 G.P.M.
- SINGLE STAGE

The pump must deliver the percentage of rated capacity at the pressure listed below:

- 100% of rated capacity at 150 P.S.I. net pump pressure
- 100% of rated capacity at 165 P.S.I. net pump pressure
- 70% of rated capacity at 200 P.S.I. net pump pressure
- 50% of rated capacity at 250 P.S.I. net pump pressure.

The pump shall be of a size and design to mount on the chassis rails of commercial and custom truck chassis and have the capacity of 1250 gallons per minute (U.S. GPM), NFPA-1901 rated performance.

The entire pump shall be manufactured and tested at the pump manufacturer's factory. The pump shall be driven by a drive line from the truck transmission. The engine shall provide sufficient horsepower and RPM to enable pump to meet and exceed its rated performance. The entire pump, both suction and discharge passages, shall be hydrostatically tested to a pressure of 600 PSI (41.3 BAR). The pump shall be fully tested at the pump manufacturer's factory to the performance spots as outlined by the latest NFPA Standard 1901. Pump shall be free from objectionable pulsation and vibration. The pump body and related parts shall be of fine grain alloy cast iron, with a minimum tensile strength of 30,000 PSI (2069 BAR). All moving parts in contact with water shall be of high quality bronze or stainless steel. Pumps

LAKE WENATCHEE FIRE RESCUE

utilizing castings made of lower tensile strength cast iron are not acceptable. Pump body shall be vertically split, on a single plane, for easy removal of impeller assembly, including clearance rings.

Pump shaft to be rigidly supported by two bearings for minimum deflection. The bearings shall be heavy-duty, deep groove ball bearings in the gearbox and they shall be splash lubricated. PUMP

Pump impeller shall be hard, fine grain bronze of the mixed flow design; accurately machined, hand-ground and individually balanced. The vanes of the impeller intake eye shall be hand-ground and polished to a sharp edge, and be of sufficient size and design to provide ample reserve capacity utilizing minimum horsepower. Impeller clearance rings shall be bronze, easily renewable without replacing impellers or pump volute body. The pump shaft shall be heat-treated, electric furnace, corrosion resistant, stainless steel. Pump shaft must be sealed with double lip oil seal to keep road dirt and water out of gearbox.

DARLEY 1-1/2 AGE 39K,PUMP MOUNTED IN DUNNAGE AREA-

QTY: 1

Darley portable pump model number 1-1/2 AGE 39K shall be provided and installed in the dunnage area. The high pressure, low volume pump shall provide pump and roll capability and meet the following performance requirements:

- 160GPM (605 L/M)@ 245 PSI (16.9 Bar)
- 80GPM (303 L/M) @ 310 PSI (21.4 Bar)
- 25GPM (94 L/M) @ 300PSI (20.7 Bar)

Note: These performance points are for the bench test of the completed pump conducted by the pump manufacturer according to their standard practices with no plumbing. The actual performance of the pump as installed on the apparatus will be reduced due to the intake and discharge manifold.

The pump shall be constructed with high strength aluminum alloy casing and discharge valve, aluminum alloy gear case and engine adapter, bronze impeller and wear rings, stainless steel impeller shaft, mechanical seal, heat treated alloy steel helical gear and ball bearing construction.

The pump shall have one(1) 2 " NPT inlet. and one(1) 2.5"NPT or two(2) 1.5" NPT discharge(s) shall be supplied. The discharge outlets shall be supplied with check valves. The auxiliary pump shall be equipped with a tank to pump line (with check valve) and shall be plumbed to a common manifold, shared with the unit's main pump, for use from all discharges. Check valves shall be installed to prevent the pumps from pressurizing each other. 3/8" PUMP COOLER (BYPASS LINE) A 3/8" by-pass cooling line shall be provided between the pump and the booster tank. This line shall not be gated, to provide constant cooling.

The engine driven auxiliary pump shall be wired to the chassis 12 volt electrical system. The pump shall be powered by a Kubota V1505 Diesel engine, liquid cooled, 33 hp, 12 volt starter, and 40 amp alternator. The engine shall have a spin on oil filter, dry element air cleaner, manual compression release, flywheel alternator and fuel pump. The auxiliary pump exhaust with spark arresting muffler shall terminate upward, the oil drain shall be routed to an area, below the apparatus. The pump shall have dimensions of 41" long x 24" wide x 42.5" high and a weight of 400 pounds on a skid base.

A Darley G1 protection and diagnostics panel shall be mounted in the cab, consisting of an Hour meter, Tachometer, Heavy-duty keyless ignition switch, and Automatic shutdown override, This panel shall also have an Ultra bright LED display for: Battery charge, Low oil pressure, High temperature, Pre-heat indicator and Custom auxiliary input.

CLARIFICATION: The Darley G1 protection and diagnostics panel has been discontinued by vendor and will be substituted with a Darley Digitrol Panel.

LAKE WENATCHEE FIRE RESCUE

PUMP MOUNTS - PTO PUMPS

QTY: 1

Extra heavy duty pump mounting brackets shall be furnished.

These shall be bolted to the frame rails in such a position to perfectly align the pump with the PTO, so that the angular velocity of the drive line joints shall be the same on each end of the drive shaft.

This shall assure full capacity performance with a minimum of vibration. Mounting hardware shall utilize Grade 8 bolts.

CONNECT "AUXILIARY DIESEL PUMP" TO CHASSIS FUEL SY

QTY: 1

The auxiliary pump diesel engine shall be connected with a separate fuel pump and fuel lines to the chassis fuel tank.

DARLEY ELECTRONIC THROTTLE CONTROL

QTY: 1

A Darley electronic throttle control for the auxiliary pump shall be provided and installed next to the engine controls at the cab console.

DARLEY - AIR FILTER RESTRICTION INDICATOR

QTY: 1

A panel mounted auxiliary pump engine air filter restriction indicator shall be installed at the pump panel to provide visual that the filter for the auxiliary pump engine is becoming clogged.

REMOTE OIL DRAIN KIT

QTY: 1

A remote oil drain kit shall be installed for oil removal below the fire body.

REMOTE ENGINE OIL FILTER MOUNTING - AUX PUMP

QTY: 1

A remote engine oil filter kit shall be provided that relocates the auxiliary pump engine mounted oil filter to a more accessible location at the officer's side pump module access door.

DIESEL AUXILIARY PUMP PLUMBING (WITH FOAM SYSTEM)

QTY: 1

DIESEL AUXILIARY PUMP PLUMBING

The tank-to-pump line for the auxiliary pump shall be plumbed downstream from the main pump tank-to-pump valve so that the single valve supplies both pumps.

The discharge side of the auxiliary pump shall be connected to the discharge manifold upstream of the foam system inlet so that all foam capable discharges may be supplied by the auxiliary pump also.

Check valve(s) shall be provided to prevent back flow from the main pump through the auxiliary pump.

3/8" PUMP COOLER (BYPASS LINE)

A 3/8" by-pass cooling line shall be provided between the auxiliary pump and the booster tank.

This line shall include a shutoff valve mounted behind the panel.

Under normal conditions, however, the shutoff valve shall not be readily accessible and will be left open so that cooling flow is maintained during pump-and-roll.

LAKE WENATCHEE FIRE RESCUE

HALE MECHANICAL PUMP SEAL

QTY: 1

The mid ship pump shall be equipped with a high quality, spring loaded, self-adjusting mechanical seal capable of providing a positive seal to atmosphere under all pumping conditions.

This positive seal to atmosphere must be achievable under vacuum conditions up to 26 Hg (draft) or positive suction pressures up to 250 PSI.

The mechanical seal assembly shall be 2 inches in diameter and consists of a carbon sealing ring, stainless steel coil spring,

Viton rubber boot, and a tungsten carbide seat with a Teflon backup seal provided.

Only one (1) mechanical seal shall be required, located on the first stage suction (inboard) side of the pump and be designed to be compatible with a one piece pump shaft.

A continuous cooling flow of water from the pump shall be directed through the seal chamber when the pump is in operation.

HALE DSD PUMP DRIVE UNIT - PTO

QTY: 1

The drive unit, as well as the entire pump, shall be completely manufactured at the pump manufacturer's factory.

The drive unit bearings shall be heavy duty and precision ground to size.

The drive unit shall be of sufficient size to withstand the full torque of the pumping operation.

The drive unit shall have ample capacity for lubrication reserve and maintaining the proper operating temperature.

All gears shall be of highest quality steel alloys.

They shall have case hardened teeth, to give long life, smooth, quiet; running and higher load carrying capability.

An accurately cut spur design shall be provided to eliminate all possible end thrust.

INTERNATIONAL PUMP SHIFT

QTY: 1

The drive unit shall be equipped with a power shift. The shifting mechanism shall be a heat treated, hard anodized aluminum power cylinder with stainless steel shaft.

The pump shift control, pump engaged light and ok to pump indicator light shall be provided utilizing the International multi-plex system. They shall be located in the lower left switch panel. Switch to be YELLOW in color to denote being for a strategic type switch function. A standard International air solenoid pack shall be utilized to lock the transfer case in road or pump.

This control shall be electronically interlocked through the International multi-plex system to prevent inadvertent activation or de-activation. This allows the control to be interlocked with engine rpm, transmission gear status and park brake state. The switch positions and indicator lights shall be clearly marked. The pump shift switch shall also serve as the manual lockup switch; in case of air pressure loss.

LAKE WENATCHEE FIRE RESCUE

HALE PUMP SHIFT INDICATOR LIGHTS

QTY: 1

For automatic transmissions, three (3) green warning lights shall be provided to indicate to the operator(s) when the pump has completed the shift for Road to Pump position.

The indicator lights shall be located on the center console.

All lights to have appropriate identification/instruction plates.

MANIFOLD - DISCHARGE & SUCTION FOR INTERFACE PUMPI

QTY: 1

A custom made suction and discharge manifold shall be constructed from stainless steel and/or flexible tubing. The manifold shall be designed to provide maximum efficiency for the suction inlets and the discharges.

The high volume impeller will supply all discharges. The low volume impeller will supply the Preconnects, hose reel(s), and the front discharge/turret as applicable. Check valves shall be provided between the sections of the manifold to prevent high-pressure backflow and damage to the pump. {No Exceptions}

HALE THERMAL RELIEF VALVE - LIGHT AND BUZZER

QTY: 1

A Hale Model TRV-L120 Thermal Relief Valve shall be provided on the pump.

If water temperature in the pump exceeds 120 degrees Fahrenheit, the thermal relief valve shall automatically open and discharge pump water to the ground, through a 3/8" discharge line, routed below the pump module. The TRV shall include a warning lamp and buzzer.

The thermal relief valve shall automatically close when the water temperature is lowered.

AUXILIARY ENGINE COOLER

QTY: 1

An auxiliary cooler or heat exchanger shall be installed in the engine compartment between the engine and the chassis radiator.

The cooler shall permit the use of water from the pump for cooling the engine.

The cooling shall be done without mixing engine and pump water.

CLASS ONE "UV-TPG" GOVERNOR CONTROL - VERTICAL

QTY: 1

Apparatus shall be equipped with a Class 1 UV Total Pressure Governor (UV-TPG) that is connected to the Electronic Control Module (ECM) mounted on the engine.

The UV-TPG shall be mounted in the vertical position.

The UV-TPG shall operate as a pressure sensor governor (PSG) utilizing the engines J1939 data for optimal resolution and response.

Programmable presets for RPM and pressure settings shall be easily configurable using the UV-TPGs straight forward menu structure.

The UV-TPG shall also include indication of engine RPM, system voltage, engine oil pressure, and engine temperature with audible alarm output for all.

The UV-TPG uses the J1939 data bus for engine information, requiring no additional engine sensors to be installed.

LAKE WENATCHEE FIRE RESCUE

A 300 PSI pressure transducer shall be included.

AKRON STYLE #59 INTAKE RELIEF VALVE

QTY: 1

A 300 psi adjustable Akron Brass model 59 intake relief valve system shall be plumbed on the suction side of the pump to comply fully with NFPA-1901 requirements.

Excess pressures shall be plumbed to discharge water under the pump enclosure away from the pump operator.

RELIEF VALVE - AUXILIARY PUMP

QTY: 1

A relief valve shall be provided to maintain discharge pressure, and shall be set according to pump range of operation.

TRIDENT "MANUAL" AIR PRIMING SYSTEM

QTY: 1

The priming pump will be a Trident air primer system.

A push in primer handle will open the priming valve and prime the pump.

ROTARY MASTER DRAIN VALVE

QTY: 1

A rotary type, 12 port, master drain valve shall be provided and controlled at the lower portion of the side pump panel.

The valve shall be located in pump compartment lower than the main body and connected in such a manner as to allow complete water drainage of the pump body and all required accessories.

Water shall be drained below the apparatus body and away from the pump operator.

DRAINS/BLEEDER "INNOVATIVE CONTROLS" LIFT UP @ ALL

QTY: 1

All lines shall drain through the master drain valve or shall be equipped with individual drain valves, easily accessible, and labeled.

One (1) individual "Innovative Control" lift up drain valve shall be furnished for each 1-1/2" or larger discharge port and each 2-1/2" gated auxiliary suction.

Drain/bleeder valves shall be located at the bottom of the side pump module panels. All drains and bleeders shall discharge below the running boards.

SYNFLEX SUCTION, DISCHARGE, PRESSURE AND CONTROL L

QTY: 1

Small lines within the pump enclosure shall be constructed from Synflex hose.

Uses include but are not limited to such lines as priming control, gauge lines, drain lines, air control valves, pump shift, supplemental cooling, foam flush, and air bleeder valves.

LAKE WENATCHEE FIRE RESCUE

HALE MAIN SUCTION INLET

QTY: 1

Pump Inlets will be 5" internally and necked down to a 4" at the pump panel to ensure meeting pump capacity.

SHORT NECK MAIN PUMP SUCTION INLETS

QTY: 1

The main pump suction inlets shall be furnished with a short suction end, terminating with only the suction threads protruding through the side panel to minimize the distance an exterior appliance protrudes beyond the pump panel.

BALL INTAKE VALVES

(2) TFT Ball Intake Valves will be provide (1) per side. Size will be 5" Female NH x 5" Storz.

BEHIND PANEL MOUNT

QTY: 1

All side gated inlet valves shall be recess mounted behind the side pump panels or body panels. There will be no exceptions.

2-1/2" DRIVER SIDE AUX PRIMARY SUCTION INLET REAR

QTY: 1

One (1) 2-1/2" auxiliary suction shall be provided at the driver side pump panel, to the rear of the main inlet. The 2-1/2" auxiliary suction shall terminate with a removable strainer, chrome plated 2-1/2" NST female swivel with a chrome plated plug and retaining chain.

2-1/2" AKRON #8800 S.S. BALL VALVE, DS FRONT AUX S

QTY: 1

An Akron Brass 2 1/2" Generation II Swing-Out Valve shall be provided for the driver's side front auxiliary suction.

The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats.

SWING CONTROL @ VALVE, DS FRONT AUX SUCTION

QTY: 1

A 1/4 turn swing control handle shall be provided on the driver side, front auxiliary suction valve.

TANK TO PUMP

QTY: 1

One (1) 4" tank to pump line shall be piped through the front bulkhead of the tank with a 90 degree elbow down into the tank sump.

This line shall be plumbed directly into the rear of the pump suction manifold for maximum efficiency.

A check valve shall be provided to prevent accidental pressurization of the water tank through the pump connection.

Connection from the valve to the tank shall be made by using a non-collapsible flexible rubber hose.

3" AKRON #8800 SERIES - S.S. BALL. VALVE , TANK TO

QTY: 1

An Akron Brass 3" Generation II Swing-Out Valve shall be provided between the pump suction manifold and the water tank.

The valve shall have an all brass body with flow optimizing, stainless steel ball and dual polymer seats.

3" AIR CONTROL FOR TANK TO PUMP

QTY: 1

LAKE WENATCHEE FIRE RESCUE

The tank to pump valve shall be air operated with a Class One air cylinder and control switch located on the operator's panel with function plate.

A second tank to pump control shall be provided in the cab on the center console for pump and roll with the auxiliary pump.

TANK FILL LINE 2" FROM PUMP - SIDE MOUNT

QTY: 1

One (1) 2" gated full flow pump to tank refill line controlled at the pump panel shall be provided. A deflector shield inside the tank shall be furnished. Tank fill plumbing shall utilize 2" high pressure hose for tank connection to accommodate flexing between components. There will be no exceptions.

2" AKRON #8800 SERIES - S.S. BALL TANK FILL, SIDE

QTY: 1

An Akron Brass 2" Generation II Swing-Out Valve shall be provided between the pump discharge manifold and the water tank.

The valve shall have an all brass body with flow optimizing, stainless steel ball, and dual polymer seats.

PUSH/PULL CONTROL FOR TANK FILL

QTY: 1

A push/pull control handle shall be located on the operator's panel with function plate.

DS MAIN DISCHARGE #1

QTY: 1

A discharge shall be provided and located at the driver's side pump panel.

The driver's side discharges # 1 shall terminate with NST threads, through the left panel above the main pump intake.

The main pump discharge shall be plumbed directly from the pump discharge manifold utilizing direct connect discharge valve flanges.

2-1/2" AKRON #8800 SERIES - S.S. BALL, DS #1

QTY: 1

An Akron Brass 2 1/2" Generation II Swing-Out Valve shall be provided for the driver's side #1 discharge.

The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats.

DS #1 DISCH - 2-1/2" STRAIGHT NST & 30-DEGREE NST

QTY: 1

The discharge valve shall be equipped with a straight 2 1/2" NST adapter that shall be equipped with a 2 1/2" NST, 30-degree, chrome plated elbow.

2-1/2" NST PRESSURE VENTED CAP - DS DISCHARGE #1

QTY: 1

A 2 1/2 " NST, chrome plated pressure vented cap shall be installed on driver's side #1 discharge.

SWING 1/4 TURN CONTROL FOR DS DISCHARGE #1 -SIDE M

QTY: 1

The driver's side # 1 discharge valve shall be controlled by a 1/4 turn swing control handle located on the operator's panel.

INNOVATIVE CONTROLS NITE-GLO BLUE/BUE - 2-1/2" PR

QTY: 1

LAKE WENATCHEE FIRE RESCUE

The driver's side # 1 discharge shall be equipped with a Innovative Controls, Nite-Glo, 2 diameter, glycerin filled pressure gauge with pulse and vibration dampening.

The gauge accuracy shall comply with ANSI B40.1 Grade A requirements, temperature range shall be from -40 F to +160 F.

Gauge construction shall be a heavy duty die cast brass case.

Clear, scratch resistant molded crystals with captive, O-ring seals shall be used to ensure distortion free viewing and to seal the gauge.

The gauge shall have a white face with black lettering and shall include blue LED backlighting with a blue high operating pressure range.

OS MAIN DISCHARGE #1

QTY: 1

A discharge shall be provided and located at the officer's side pump panel.

The officer's side discharges #1 shall terminate with NST threads, through the officer's side panel above the main pump intake.

The main pump discharge shall be plumbed directly from the pump discharge manifold utilizing direct connect discharge valve flanges.

3" AKRON #8800 SERIES - S.S. BALL, VALVE OS #1, SI

QTY: 1

An Akron Brass, 3" Generation II, Swing-Out Valve shall be provided for the officer's side #1 discharge.

The valve shall have an all brass body with flow optimizing, stainless steel ball, and dual polymer seats.

OS #1 DISCH - 3" STRAIGHT NST & 30-DEGREE NST ELBO

QTY: 1

The discharge valve shall be equipped with a straight, 3" NST adapter that shall be equipped with a 3" NST, 30-degree, chrome plated elbow.

3" NSTF X 4" STORZ KOCHER S37S STRAIGHT ADAPTER WI

QTY: 1

A 3" NSTF X 4" Storz Kocher, S37S straight adapter with cap shall be provided on the officer's side # 1 discharge.

SWING 1/4 TURN CONTROL FOR OS DISCHARGE #1 -SIDE M

QTY: 1

The officer's side, # 1 discharge valve shall be controlled by a 1/4 turn, swing control handle located on the operator's panel.

INNOVATIVE CONTROLS NITE-GLO BLUE/BLUE - 2-1/2" PR

QTY: 1

The officer's side, # 1 discharge shall be equipped with a Innovative Controls, Nite-Glo, 2 diameter, glycerin filled, pressure gauge with pulse and vibration dampening.

The gauge accuracy shall comply with ANSI B40.1 Grade A requirements, temperature range shall be from -40 F to +160 F.

Gauge construction shall be a heavy duty, die cast, brass case.

LAKE WENATCHEE FIRE RESCUE

Clear, scratch resistant, molded crystals with captive, O-ring seals shall be used to ensure distortion free viewing and to seal the gauge.

The gauge shall have a white face with black lettering and shall include blue, LED backlighting with a blue, high operating, pressure range.

DS REAR DISCHARGE 2-1/2"

QTY: 1

A 2 1/2" NST rear discharge shall be provided at the rear of the vehicle, plumbed from the pump.

DS REAR DISCHARGE TERMINATE @ DS REAR BODY PANEL

QTY: 1

The rear discharge shall terminate on the rear body panel on the driver side of the body directly below the hose bed.

2-1/2" NST MALE THREADS ON DS REAR DISCHARGE

QTY: 1

The discharge shall be equipped with a 30 degree droop terminating in 2-1/2" NSTM threads.

The driver side rear discharge pipe shall be furnished with 2-1/2" NSTM threads.

DS REAR DISCHARGE, PLUMBING, 2-1/2" STAINLESS STEEL

QTY: 1

The driver side, rear discharge shall be plumbed utilizing 2 1/2" schedule 10 stainless steel piping, 45 degree elbows, and a limited number of 90 degree sweep elbows in an assembly from the pump to the rear of the vehicle.

A minimum of one (1) grooved, pipe coupling shall be furnished in this assembly to allow for flex and serviceability.

2-1/2" AKRON #8800 SERIES - S.S. BALL, VALVE DS RE

QTY: 1

An Akron Brass, 2 1/2" Generation II, Swing-Out Valve shall be provided for the driver's side rear discharge.

The valve shall have an all brass body with flow optimizing, stainless steel ball, and dual polymer seats.

PUSH/PULL CONTROL FOR DS REAR DISCHARGE

QTY: 1

The driver side rear discharge valve shall be controlled by a push/pull handle located on the operator's panel

INNOVATIVE CONTROLS NITE-GLO BLUE/BLUE - 2-1/2" PR

QTY: 1

The driver side rear discharge shall be equipped with a Innovative Controls, Nite-Glo, 2 diameter glycerin filled pressure gauge with pulse and vibration dampening.

The gauge accuracy shall comply with ANSI B40.1 Grade A requirements, temperature range shall be from -40 F to +160 F.

Gauge construction shall be a heavy duty die cast brass case.

Clear, scratch resistant molded crystals with captive O-ring seals, shall be used to ensure distortion free viewing and to seal the gauge.

LAKE WENATCHEE FIRE RESCUE

The gauge shall have a white face with black lettering and shall include blue LED backlighting with a blue high operating pressure range.

DECK GUN DISCHARGE

QTY: 1

A deck gun discharge shall be plumbed from the pump to an area on top of the vehicle.

The deck gun piping shall be firmly supported and braced.

DECK GUN DISCH TERMINATE @ DRIVER'S SIDE OF DUNNAG

QTY: 1

The deck gun discharge shall be located in the dunnage area above the pump module on the driver's side of the vehicle.

A pedestal type, 1/4" steel plate support assembly shall be provided to stabilize deck gun plumbing below deck gun mount flange.

DECK GUN DISCHARGE TERMINATION TO MATCH DECK GUN

QTY: 1

The deck gun discharge pipe shall terminate with a connection matching the specified deck gun model and accessories.

ELKHART EXTENDER - MODEL 8598

QTY: 1

To improve the operation range of the deck gun, the discharge pipe shall be outfitted with an electric Extender. The electric Extender shall be equipped with a up/down control. The Extender shall be wired to the hazard light on the cab dash.

DECK GUN DISCHARGE

QTY: 1

Deck gun height will be limited to the critical overall apparatus height listed in the spec. To avoid excessive travel heights the monitor will be positioned as low a practical while still allowing functionality of water stream.

DECK GUN DISCHARGE, PLUMBING, 3" STAINLESS STEEL P

QTY: 1

The deck gun discharge shall be plumbed utilizing 3" schedule 10 stainless steel piping, 45 degree elbows and a limited number of 90 degree sweep elbows in an assembly from the pump to the deck gun location.

A minimum of one (1) grooved pipe coupling shall be furnished in this assembly to allow for flex and serviceability.

3" AKRON #8800 SERIES - S.S. BALL, VALVE DECK GUN

QTY: 1

An Akron Brass 3" Generation II Swing-Out Valve shall be provided for the deck gun discharge.

The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats.

LAKE WENATCHEE FIRE RESCUE

ADDITIONAL. 3" AKRON #8800 SERIES - S.S. BALL. VALVE DECK

QTY: 1

The deck gun shall have a secondary valve provided in the deck gun plumbing.
One (1) 3"Akron, #8800 series, full flow, stainless steel ball valve with swing arm control will be provided for the deck gun discharge in the dunnage area so that the person operating the deck gun can adjust the water flow through the device. This valve will be a "Slo-Cloz" valve. The valve will be equipped with a Trident handwheel.

PUSH/PULL CONTROL FOR DECK GUN DISCHARGE

QTY: 1

The deck gun discharge valve shall be controlled by a push/pull handle located on the operator's panel.

INNOVATIVE CONTROLS NITE-GLO BLUE/BLUE - 2-1/2" PR

QTY: 1

The deck gun discharge shall be equipped with a Innovative Controls, Nite-Glo, 2 diameter glycerin filled pressure gauge with pulse and vibration dampening.

The gauge accuracy shall comply with ANSI B40.1 Grade A requirements, temperature range shall be from -40 F to +160 F.

Gauge construction shall be a heavy duty die cast brass case.

Clear, scratch resistant molded crystals with captive O-ring seals, shall be used to ensure distortion free viewing and to seal the gauge.

The gauge shall have a white face with black lettering and shall include blue LED backlighting with a blue high operating pressure range.

ELKHART #8297 "STINGER 2.0" MANUAL DECK GUN

QTY: 1

An Elkhart Stinger 2.0 8297 series deck gun shall be supplied and mounted on the deck gun discharge of the unit to provide the maximum travel clearance.

The deck gun monitor shall be able to be removed and placed on a ground base to be used away from the apparatus.

The deck gun shall come with the following standard components:

- Upper Base Unit
- Stream Shaper

ELKHART TOP MOUNT FLANGE FOR STINGER DECK GUN

QTY: 1

An Elkhart 4-bolt top mount flange shall be installed on the deck gun discharge to allow the monitor to be disconnected and used with the portable ground base.

ANSI FLANGE FOR DECK GUN

QTY: 1

A 3" ANSI Flange shall be provided as a companion flange for the specified deck gun.

ELKHART "X-STREAM" 1000 GPM MANUAL NOZZLE

QTY: 1

An Elkhart model "X-STREAM" 1000 G.P.M. manual nozzle shall be supplied with the deck gun.

ELKHART ST-194 QUAD STACKED TIPS

LAKE WENATCHEE FIRE RESCUE

A set of Elkhart #ST-194, 2-1/2" inlet, quad stacked tips shall be provided with the monitor. QTY: 1

#1 FRONT DISCHARGE 1-1/2"

A 1 1/2" front #1 discharge shall be plumbed to the front bumper of the vehicle. QTY: 1

1-1/2" NST CHICKSAN SWIVEL @ TOP CNTR FRONT BUMPER

The front #1 discharge shall terminate on the top center of the front bumper extension gravel shield with a chrome 1 1/2" NSTM chicksan swivel adapter. QTY: 1

FRONT BUMPER CHICKSAN SWIVEL STOPS

Two stainless steel pins shall be provide to limit the rotation of the front bumper chicksan swivel adapter. QTY: 1

#1 FRONT DISCHARGE, PLUMBING, 2" STAINLESS STEEL P

The front #1 discharge shall be plumbed utilizing 2" schedule 10 stainless steel piping, flexible hosing, 45 degree elbows, and a limited number of 90 degree sweep elbows in an assembly from the pump to the front of the vehicle. QTY: 1

A minimum of one (1) grooved pipe coupling shall be furnished in this assembly to allow for flex and serviceability.

Automatic discharge drains shall be provided at all low points in the plumbing.

2" AKRON #8800 SERIES - S.S. BALL, VALVE FRONT#1 D

An Akron Brass 2" Generation II Swing-Out Valve shall be provided for the front #1 discharge. QTY: 1

The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats.

PUSH/PULL CONTROL FOR FRONT #1 DISCHARGE

The front #1 discharge valve shall be controlled by a push/pull handle located on the operator's panel. QTY: 1

INNOVATIVE CONTROLS NITE-GLO BLUE/BLUE - 2-1/2" PR

The front #1 discharge shall be equipped with a Innovative Controls, Nite-Glo, 2 diameter glycerin filled pressure gauge with pulse and vibration dampening. QTY: 1

The gauge accuracy shall comply with ANSI B40.1 Grade A requirements, temperature range shall be from -40 F to +160 F.

Gauge construction shall be a heavy duty die cast brass case.

Clear, scratch resistant molded crystals with captive O-ring seals, shall be used to ensure distortion free viewing and to seal the gauge.

The gauge shall have a white face with black lettering and shall include blue LED backlighting with a blue high operating pressure range.

CROSSLAY #1

QTY: 1

LAKE WENATCHEE FIRE RESCUE

A Crosslay hose bed shall be provided and plumbed from the pump in a transverse design, located above the pump enclosure for quick attack deployment. The Crosslay hose bed flooring shall be designed to be removable and constructed from brushed finish, perforated aluminum material.

CROSSLAY #1 CAPACITY

QTY: 1

Crosslay #1 shall be designed to have a minimum total capacity of 3.5 cubic feet as required by NFPA -1901 to accommodate a minimum of 200 feet of 1-3/4" fire hose.

CROSSLAY #1 DESIGN

QTY: 1

Crosslay #1 hose bed shall be designed to accommodate the fire hose in a single stack configuration.

SLIDE-OUT TRAY FOR CROSSLAY #1

QTY: 1

A 3/16" aluminum, three (3) sided, "U" shaped slide out tray shall be provided for Crosslay #1 to allow easy loading of the hose off the vehicle.

The tray shall be designed to slide out from either side of the vehicle.

The sides and floor of the opening shall be lined with Nylatron to assist in the loading of the tray.

The tray shall have a cut out on each side of the tray so it may be used as a handle to remove the tray.

The handle area shall extend passed the side panel on each end of the tray to allow removal of the tray without getting fingers caught in the latch tray mechanism.

A retention system will be provided for the Crosslay tray(s).

1-1/2" NST STRAIGHT ADAPTER THRU DRIVER'S SIDE PAN

QTY: 1

The Crosslay discharge shall terminate through the side panel below the Crosslay hose bed, on the driver's side, allowing the hose to be pre-connected.

The Crosslay discharge pipe shall be equipped with a chrome 1 1/2" NSTM straight adapter.

CROSSLAY #1, PLUMBING, 2" STAINLESS STEEL PIPING

QTY: 1

The Crosslay #1 discharge shall be plumbed utilizing 2" schedule 10 stainless steel piping and/or flexible hose, 45 degree elbows and a limited number of 90 degree sweep elbows in an assembly from the pump to Crosslay hose bed.

A minimum of one (1) grooved pipe coupling shall be furnished in this assembly, if necessary, to allow for flex and serviceability.

2" AKRON #8800 SERIES - S.S. BALL VALVE CROSSLAY

QTY: 1

An Akron Brass 2" Generation II Swing-Out Valve shall be provided for the Crosslay #1 discharge.

The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats.

LAKE WENATCHEE FIRE RESCUE

PUSH/PULL CONTROL CROSSLAY #1

QTY: 1

The Crosslay #1 discharge valve shall be controlled by a push/pull handle located on the operator's panel.

INNOVATIVE CONTROLS NITE-GLO BLUE/BLUE - 2-1/2" PR

QTY: 1

The Crosslay #1 discharge shall be equipped with a Innovative Controls, Nite-Glo, 2 diameter glycerin filled pressure gauge with pulse and vibration dampening.

The gauge accuracy shall comply with ANSI B40.1 Grade A requirements, temperature range shall be from -40 F to +160 F.

Gauge construction shall be a heavy duty die cast brass case.

Clear, scratch resistant molded crystals with captive O-ring seals, shall be used to ensure distortion free viewing and to seal the gauge.

The gauge shall have a white face with black lettering and shall include blue LED backlighting with a blue high operating pressure range.

LOWERED CROSSLAYS

QTY: 1

The Crosslay hose bed floor will be approximately 42" above the side running board and no more than 66" above ground level.

VINYL END FLAPS FOR ALUMINUM TRDPLT X-LAY CO

QTY: 1

Vinyl flaps shall be provided at each side of the transverse cross lay compartment secured to the tread plate cross lay cover by quick release buckle, and equipped with a strap to each end.

END FLAP COVER BLACK IN COLOR

QTY: 1

The Crosslay end flap shall be black in color.

FRONT HINGED CROSSLAY HOSE BED COVER,TRDPLT

QTY: 1

A 3/16" tread plate cross lay cover shall be provided with a full length stainless steel hinge at the front of the cover.

BOOSTER REEL #1

QTY: 1

BOOSTER REEL #1 DISCHARGE

QTY: 1

A 1 1/2" booster reel discharge shall be plumbed from the pump to the booster reel.

BOOSTER REEL #1 DISCHARGE, PLUMBING, 1" HOSE

QTY: 1

The booster reel discharge shall be plumbed from the valve to the hose reel utilizing 1" hose. The end of the hose connected to the hose reel shall be equipped with a swivel end for ease in hose replacement.

1-1/2" AKRON #8800 SERIES - S.S. BALL, VALVE BOOST

QTY: 1

A 1 1/2" Akron, #8800 series, full flow, stainless steel ball valve shall be provided for the booster reel #1 discharge.

PUSH/PULL CONTROL FOR BOOSTER REEL #1

LAKE WENATCHEE FIRE RESCUE

QTY: 1

The booster reel discharge valve shall be controlled by a push/pull handle located on the operator's panel.

INNOVATIVE CONTROLS NITE-GLO BLUE/BLUE - 2-1/2" PR

QTY: 1

The booster reel discharge shall be equipped with a Innovative Controls, Nite-Glo, 2 diameter glycerin filled pressure gauge with pulse and vibration dampening.

The gauge accuracy shall comply with ANSI B40.1 Grade A requirements, temperature range shall be from -40 F to +160 F.

Gauge construction shall be a heavy duty die cast brass case.

Clear, scratch resistant molded crystals with captive O-ring seals, shall be used to ensure distortion free viewing and to seal the gauge.

The gauge shall have a white face with black lettering and shall include blue LED backlighting with a blue high operating pressure range.

BOOSTER REEL #1- PAINTED STEEL

QTY: 1

One (1) painted steel electric rewind booster reel shall be furnished.

The reel shall be equipped with a one(1) inch 90 full flow swivel joint and an adjustable brake for freewheeling, drag or full lock operation.

Color shall be graphite.

BOOSTER REEL #1 REEL - MOUNTED UNDER CAB - OS - DATA ERROR

QTY: 1

The booster reel #1 shall be mounted under the officer side cab..

HOSE REEL #1 REWIND MOUNTED NEAR REEL

QTY: 1

Booster reel rewind shall be controlled by a push button near the reel.

The booster reel circuit shall be equipped with a shielded toggle switch to act as a booster reel disconnect to avoid accidental actuation of the booster reel rewind button.

BOOSTER REEL #1 HOSE, 150 FEET OF 1" HOSE - KEY LI

QTY: 1

Each booster reel shall be equipped with 150' of 1" KEY lightweight Reel Lite booster hose in (1) 100' section and (1) 50' section.

Each length shall be fitted with NST couplings.

BOOSTER REEL #1 REEL TO ACCOMMODATE 150' OF 1" HOS

QTY: 1

Each booster reel shall be designed to accommodate 150' of 1" booster hose.

LAKE WENATCHEE FIRE RESCUE

TWO (2) BOOSTER REEL HOSE ROLLERS - DS & OS BLANK

QTY: 1

Two (2) horizontal hose rollers of polished stainless steel and guide spools shall be placed one (1) on each side panel.

BOOSTER REEL #1 BLOWOUT

QTY: 1

One (1) booster reel air blowout utilizing a quarter turn shuttle valve to redirect chassis air to the booster reel shall be provided at the pump operator's panel for cold weather operations.

BOOSTER REEL #1 NOZZLE, TASK FORCE TIPS "TFT" B-BG

QTY: 1

One (1) TFT# B-BGH 1" pistol grip booster nozzle with a 1" NST female swivel shall be furnished for each booster reel.

FRONT BUMPER TURRET

QTY: 1

ELKHART SIDEWINDER # 8494-01 BUMPER TURRET, 125 GP

QTY: 1

An Elkhart Brass model # 8494-01, Sidewinder Wildland Monitor shall be provided and installed on the specified front bumper extension.

The turret shall be controlled in the cab only, using a remotely operated valve, interfaced to a joy stick controller, model # 81172001, mounted in the cab.

The turret shall be equipped with a remote controlled fog nozzle model # 6000-200E (set at 125 gpm.).

The completed installation shall allow full operation of the turret from the cab.

FRONT BUMPER TURRET @ TOP CENTER FRONT BUMPER EXT

QTY: 1

The bumper turret shall mounted on the top center of the front bumper extension gravel shield.

BUMPER TURRET, PLUMBING, 2-1/2" STAINLESS STEEL PI

QTY: 1

The bumper turret discharge shall be plumbed utilizing 2 1/2" schedule 10 stainless steel piping and/or flexible hose, 45 degree elbows and a limited number of 90 degree sweep elbows in an assembly from the pump to the front of the vehicle.

A minimum of one (1) grooved pipe coupling shall be furnished in this assembly to allow for flex and serviceability.

Automatic discharge drains shall be provided at all low points in the plumbing.

ELKHART 2" VALVE FOR BUMPER TURRET

QTY: 1

2" Elkhart valve, shall be provided for the bumper turret discharge.

QUICK DISCONNECT FITTING - ELKHART BUMPER TURRET

QTY: 1

The bumper turret shall be equipped with an Elkhart model 81342001.

This feature shall allow the end user to quickly disconnect the turret from the piping.

LAKE WENATCHEE FIRE RESCUE

INNOVATIVE CONTROLS NITE-GLO BLUE/BLUE - 2-1/2" PR

QTY: 1

The bumper turret discharge shall be equipped with a Innovative Controls, Nite-Glo, 2 ½" diameter glycerin filled pressure gauge with pulse and vibration dampening.

The gauge accuracy shall comply with ANSI B40.1 Grade A requirements, temperature range shall be from -40° F to +160° F.

Gauge construction shall be a heavy duty die cast brass case.

Clear, scratch resistant molded crystals with captive O-ring seals, shall be used to ensure distortion free viewing and to seal the gauge.

The gauge shall have a white face with black lettering and shall include blue LED backlighting with a blue high operating pressure range.

GAUGE LOCATED IN CAB CENTER CONSOLE

QTY: 1

The front turret gauge shall be located in the cab CENTER CONSOLE and plumbed to the inlet of the turret valve to provide visual indication of the pump discharge pressure.

TURRET VALVE CONTROLLER ON CENTER CONSOLE

QTY: 1

The bumper turret discharge valve shall be controlled by the joystick in the cab. The joystick shall be located on the center console.

FOAM SYSTEM STAINLESS PIPING - 1 INCH FROM FOAM SO

QTY: 1

All foam concentrate plumbing from the tank or auxiliary foam inlet to the foam system components shall be stainless steel and nonferrous material.

The foam system piping shall incorporate a check valve to prevent water from entering the foam tank; the discharge piping shall also include a check valve to prevent foam solution from back feeding into the discharge side of the pump.

Individual discharge piping shall be as specified for each discharge.

The complete foam system shall be tested in accordance with NFPA-1901.

FOAMPRO 2001 CLASS "A AND/OR B" FOAM SYSTEM

QTY: 1

A Foam Pro model 2001, electronic, fully automatic, variable speed, direct injection, discharge side foam proportioning system shall be installed in the pumping system.

The system shall be capable of handling Class "A" foam concentrates and most Class "B" foam concentrates.

The foam proportioning operation shall be based on direct measurement of water flows, and remain consistent within the specified flows and pressures.

System must be capable of delivering accuracy to within 3% of calibrated settings over the advertised operation range when installed according to factory standards.

The system shall be equipped with a digital electronic control display suitable for installation on the pump panel.

LAKE WENATCHEE FIRE RESCUE

Incorporated within the control display shall be a microprocessor that receives input from the system flow meter, while also monitoring foam concentrate pump output, comparing values to ensure that the operator preset proportional amount of foam concentrate is injected into the discharge side of the fire pump.

A paddlewheel-type flow meter shall be installed in the discharge or manifold system specified to be foam capable.

A Full flow check valve shall be provided to prevent foam contamination of fire pump and water tank or water contamination of foam tank.

A 12 or 24-volt electric motor drive positive displacement foam concentrate pump, rated up to 2.5 GPM (9.5 L/min) @ 150 psi with operating pressures up to 400 psi (27.6 BAR), shall be installed in a suitable, accessible location.

The system shall draw a maximum of 40 amps @ 12 VDC or 21 amps @ 24 VDC.

A pump motor electronic driver (mounted to the base of the pump) shall receive signals from the computer control display and power the 1/2 hp (0.40 Kw) electric motor directly coupled to the concentrate pump in a variable speed duty cycle to ensure that the correct proportion of concentrate preset by the pump operator is injected into the water stream.

The digital computer control display located on the pump operator's panel shall enable the pump operator to perform the following control and operation functions for the foam proportioning system:

- Provide push-button control of foam proportioning rates from 0.1% to 9.9%, in 0.1% increments
- Show current flow-per-minute of water
- Show total volume of water discharged during and after foam operations are completed
- Show total amount of foam concentrate consumed
- Simulate flow rates for manual operation
- Perform setup and diagnostic functions for the computer control microprocessor
- Flash a low concentrate warning when the foam concentrate tank(s) runs low
- Flash a no concentrate warning and shut the foam concentrate pump off, preventing damage to the pump, should the foam tank(s) empty

The digital computer control display shall interface with the options listed; provide dual foam calibration, and display separate totals for each foam concentrate used.

If two foam tanks are required and piped to the foam concentrate pump, either an electric dual tank valve or the manual dual tank valve shall be provided.

Components of the complete proportioning system shall include:

- Operator control and display
- Paddlewheel flow meter
- Pump and electric motor/motor driver
- Wiring harnesses

LAKE WENATCHEE FIRE RESCUE

- Low-level tank switch (Switches)
- Electronic dual tank valve or manual dual tank valve (if more than one tank)
- Foam injection check valve
- Main waterway check valve

Accurate concentration proportioning can be achieved, based on the following water flows:

- 85 GPM water 3.0% concentration
- 260 GPM water 1.0% concentration
- 520 GPM water 0.5% concentration
- 1300 GPM water 0.2% concentration

Note: Multiple discharges plumbed to this system may affect performance if the flow rates are exceeded by any one discharge or the totality of multiple discharges at one time!

FOAMPRO - REMOTE START / STOP ON CENTER CONSOL

QTY: 1

A remote Start / Stop control shall be installed ON THE CENTER CONSOLE.

INJECTION SYSTEM DISCHARGE PLUMBING

QTY: 1

The discharge piping shall be equipped with a properly sized flow meter sensor, based on the systems capabilities.

The foam system shall be plumbed to the following discharge/s through the discharge piping or manifold system:

INJECTION FOAM SYSTEM INSTALLED ON CROSSLAY #1

QTY: 1

Crosslay #1 discharge.

FOAM SYSTEM INSTALLED ON FRONT DISCHARGE

QTY: 1

Front discharge.

INJECTION FOAM SYSTEM INSTALLED ON DS REAR DISCHAR

QTY: 1

Driver's side rear discharge.

INJECTION FOAM SYSTEM INSTALLED ON BUMPER TURRET

QTY: 1

Bumper turret discharge.

INJECTION FOAM SYSTEM INSTALLED ON HOSEREEL # 1

QTY: 1

Hose reel # 1 discharge.

SIDE MOUNT DUNNAGE AREA W/ STAINLESS SIDE PANELS

QTY: 1

LAKE WENATCHEE FIRE RESCUE

A dunnage area shall be provided above the pump enclosure for equipment mounting and storage. This area shall be furnished with a removable 3/16" aluminum tread plate floor and shall be enclosed on the sides **with the 14 GAUGE BRUSHED STAINLESS STEEL.**

NOTE: The size of this storage area may vary when top mounted crosslays, booster reel(s), etc., are specified and located in this area.

LAKE WENATCHEE FIRE RESCUE

SIDE MOUNT PUMP MODULE

QTY: 1

The pump module shall be a self-supported structure mounted independently from the body and chassis cab.

The design must allow normal frame deflection without imposing stress on the pump module structure or side running boards. The pump module shall be securely mounted to the chassis frame rails.

PUMP MODULE MATERIAL

QTY: 1

The pump module shall be a welded frame work utilizing structural aluminum components properly braced to withstand the rigors of chassis frame flex.

RIGHT SIDE PUMP MODULE COMPARTMENT - INTERFACE NAR

QTY: 1

There will be a compartment mounted on the right side of the pump module.

The interior of the compartment will match the construction and finish of the body compartments described elsewhere in these specifications.

In addition, the compartment will have a painted hinged door to match the construction of the body doors.

Access panels will be required as necessary to access pump components for maintenance purposes.

The approximate interior dimensions will be 51" high by 15" wide by 11" deep.

RUNNING BOARD STEPS (NON-AERIALS)

QTY: 1

The driver and officer running board steps shall be fabricated of 3/16" tread plate.

The outside edge on each step shall be fabricated with a double break, return flange.

The steps shall be rigidly reinforced with a heavy duty support structure.

The running boards shall not form any part of the compartment design, and shall be bolted into place with a minimum 1/2" clearance gap between any panel to facilitate water runoff.

RUNNING BOARDS, BLACK

QTY: 1

The specified body running boards shall be black in color. Where the tread plate is a stepping surface, it shall be covered in a black line-x type material.

GRIP-STRUT INSERT IN OFFICER SIDE RUNNING BOARD

QTY: 1

Grip-Strut anti-slip material insert shall be installed in the officer side running board.

Note: Brushed aluminum shall be provided around the perimeter of the grip-strut.

GRIP-STRUT INSERT IN DRIVER SIDE RUNNING BOARD

QTY: 1

Grip-Strut anti-slip material insert shall be installed in the driver side running board.

Note: Brushed aluminum shall be provided around the perimeter of the grip-strut.

LAKE WENATCHEE FIRE RESCUE

TECNIQ EON 3 LED LIGHTS - LIGHT SHIELD

QTY: 1

Four (4) TecNiq Eon, 3-LED illumination lights mounted in horizontal stainless steel bezels and mounting gaskets.

One (1) light under the operator's panel light shield shall be actuated when fire pump is engaged in addition to the pump engaged light.

SIDE MOUNT PUMP PANEL

QTY: 1

The pump operator's control panel shall be located on the driver side of the apparatus.

The pump enclosure side panels shall be completely removable and designed for easy access and servicing.

SIDE MOUNT PANELS - 14 GAUGE BRUSHED STAINLESS STEEL

QTY: 1

The left side operator's panel, gauge panel, right side pump panel, and right side access door shall be fabricated from 14-gauge 304L stainless steel with a #4 (150/180 grit) standard brushed finish.

VERTICALLY HINGED GAUGE PANEL - SIDE MOUNT

QTY: 1

A full width, vertically hinged gauge access panel shall be provided at the operator's position.

Chrome plated positive locks shall be provided along with chain holders to prevent the front of the gauge panel from coming in contact with other panels when open.

OFFICER SIDE VERTICALLY HINGED PUMP ACCESS DOOR -

QTY: 1

The officer's side pump panel shall be split and vertically hinged to provide complete access to the pump and plumbing on the officer's side of the pump enclosure.

The panels shall be equipped with stainless steel hinges and secured with push type locks to hold the panels closed.

The drains located on the officer's side panel shall be fastened to the lower panel, which shall be stationary.

PANEL FASTENERS

QTY: 1

Stainless steel machine screws and lock washers shall be used to hold these panels in position.

The panels shall be easily removable to provide complete access to the pump for major service.

CAPS AND ADAPTERS SAFETY TETHER - CABLES

QTY: 1

All applicable discharge and suction caps, plugs and adapters shall be equipped with tether cables and secured to the vehicle.

PUMP PANEL DISCH./SUCTION TRIM PLATES

QTY: 1

A high polished trim plate shall be provided around each discharge port and suction inlet opening to allow accessibility to the respective valve for service and repairs.

LAKE WENATCHEE FIRE RESCUE

DISCHARGE GAUGE TRIM BEZELS

QTY: 1

Each individual discharge gauge shall be installed into a decorative chrome-plated mounting bezel that incorporates valve-identifying verbiage and color labels, unless manufacturer supplied otherwise.

IDENTIFICATION PLATES

QTY: 1

Color coded identification tags shall be provided for all gauges, controls, connections, switches, inlets and outlets.

PUMP OPERATOR'S PANEL, FULL WIDTH LIGHT SHIELD/STEP

QTY: 1

The pump operator's panel shall be equipped with a light shield/step that shall be full width of the control panel, and shall be positioned to cover the lights and prevent glare.

The light shield shall be fabricated from tread plate, which shall also serve as a step.

The step shall be a minimum of 8" deep X the width of the pump panel.

(Note: On apparatus with lowered style crosslays, the light shield shall be from the back of the crosslays to the rear of the pump house).

The light shield shall be equipped with the following lights:

AMDOR LUMA BAR H2O SUPER DUAL LED - LIGHT SHIELD

QTY: 1

Two (2) 20" Amdor Luma Bar H2O super bright led strip lights, DUAL COLOR - WHITE RED.

A switch will be located on the pump panel to toggle between the white and red lights.

One (1) light under the operator's panel light shield shall be actuated when fire pump is engaged in addition to the pump engaged light.

TECNIQ EON 3 LED LIGHTS - OS PUMP PANEL

QTY: 1

Four (4) TecNiq Eon, 3-LED illumination lights mounted in horizontal stainless steel bezels and mounting gaskets.

The lights shall be switched with the main pump panel lights.

AIR HORN CONTROL BUTTON ON PUMP PANEL

QTY: 1

Pump panel air horn actuation button labeled "EVACUATION" in white letters with a red background.

5/8" PUMP BY-PASS COOLER ON PUMP PANEL

QTY: 1

5/8" Pump cooler (Bypass Line).

PUMP PRESSURE & VACUUM TEST PORTS @ PANEL

QTY: 1

The pump panel shall be equipped with Vacuum Pressure test plugs to allow for test equipment to monitor pump pressure and vacuum levels.

Chrome plugs and labels shall be provided for the test ports.

LAKE WENATCHEE FIRE RESCUE

4" INNOVATIVE CONTROLS NIGHT-GLO MASTER RESSURE

QTY: 1

One (1) 4" diameter pressure gauge (labeled: "PRESSURE") and one (1) 4" diameter compound vacuum gauge (labeled: "INTAKE") shall be provided.

The master gauges shall be Innovative Controls Nite-Glo, glycerin filled.

The pressure gauge shall have a white face with black lettering and shall include white LED backlighting with a black high operating pressure range.

The intake gauge shall have a white face with black lettering and shall include white LED backlighting with a burgundy high operating pressure range.

PRESSURE & COMPOUND GAUGE RANGES - SINGLE STAGE

QTY: 1

All applicable pressure gauges shall have a range of 0 - 400 P.S.I., and the compound gauge shall have a range of -30" - 0 - 400 P.S.I.

GARDEN HOSE DECON DISCHARGE ON DRIVER'S SIDE

QTY: 1

The pump system will be equipped with a **non-heated**, 'Decon' garden hose discharge located on the driver side pump panel down low near or just above the drains wherever practical. This discharge will consist of a 3/4" quarter turn valve and a 3/4" male, GHT garden hose fitting on the pump panel. A female GHT cap will be provided for the discharge. A labeled valve control will be located on the operator's pump panel.

PUMP CERTIFICATION - 750 GPM & UP

QTY: 1

The pump shall be third party performance tested to meet the requirements of NFPA-1901. There will be no exceptions.

WATER TANK

QTY: 1

The water tank shall have a capacity of 500 gallons, constructed from Poly material.

WATER TANK

QTY: 1

Water tank capacity may be reduced due to weight restrictions.

WATER TANK CONSTRUCTION POLY

QTY: 1

The Poly water tank shall be constructed of polypropylene material.

This material shall be a non-corrosive stress relieved thermoplastic and UV stabilized for maximum protection. Tank shell thickness may vary depending on the application and may range from 1/2 to 1" as required. Internal baffles are generally 3/8" in thickness. The tank shall be of a specific configuration and is so designed to be completely independent of the body and compartments.

Joints and seams shall be fused using nitrogen gas as required and tested for maximum strength and integrity. The tank construction shall include technology wherein a sealant shall be installed between the plastic components prior to being fusion welded. This sealing method will provide a liquid barrier offering leak protection in the event of a weld compromise. The top of the booster tank is fitted with removable lifting assembly designed to facilitate tank removal. The transverse and longitudinal swash partitions shall be manufactured of a minimum of 3/8" polypropylene.

LAKE WENATCHEE FIRE RESCUE

All partitions shall be equipped with vent and air holes to permit movement of air and water between compartments. The partitions shall be designed to provide maximum water flow. All swash partitions interlock with one another and are completely fused to each other as well as to the walls of the tank.

All partitions and spacing shall comply with NFPA 1901.

The walls shall be welded to the floor of the tank providing maximum strength as part of the tank's unique Full Floor Design. Tolerances in design allow for a maximum variation of 1/8" on all dimensions.

All tanks shall be tested and certified as to capacity on a calibrated and certified tilting scale. Each tank shall be weighed empty and full to provide precise fluid capacity. Each tank is delivered with a Certificate of Capacity delineating the weight empty and full and the resultant capacity based on weight.

WATER TANK LID - POLY

QTY: 1

The tank cover shall be constructed of 1/2" thick polypropylene and UV stabilized, to incorporate a multi-piece locking design, which allows for individual removal and inspection if necessary.

The tank cover(s) shall be flush or recessed 3/8" from the top of the tank and shall be fused to the tank walls and longitudinal partitions for maximum integrity.

Each one of the covers shall have hold downs consisting of 2" minimum polypropylene dowels spaced a maximum of 40" apart.

These dowels shall extend through the covers and will assist in keeping the covers rigid under fast filling conditions.

A minimum of two lifting dowers shall accommodate the necessary lifting hardware.

FILL TOWER

QTY: 1

The tank shall have a combination vent and manual fill tower.

The fill tower shall be constructed of 1/2" polypropylene and shall be a minimum dimension of 8" x 8" outer perimeter.

The fill tower shall be blue in color indicating that it is a water-only fill tower.

The tower shall have a 1/4" thick removable polypropylene screen and a polypropylene hinged cover.

The capacity of the tank shall be engraved on the top of the fill tower lid. Inside the fill tower there shall be a combination vent/overflow pipe.

The vent overflow shall be a minimum of schedule 40 polypropylene pipe with a minimum I.D. of that is designed to run through the tank, and shall be piped to discharge water behind the rear wheels as required in NFPA 1901 so as to not interfere with rear tire traction.

WATER TANK

QTY: 1

The fill tower shall be fitted with an integral 4" I.D. schedule 40 P.V.C. combination overflow/vent pipe running from the fill tower through the tank to a 4" coupling flush mounted into the bottom of the tank to allow water to overflow behind the chassis rear axle.

WATER TANK SUMP

QTY: 1

The tank sump shall be a minimum of 10" wide x 10" long x 3" deep.

An anti-swirl plate shall be mounted inside the sump, approximately 1" above the bottom of the sump.

LAKE WENATCHEE FIRE RESCUE

WATER TANK SUMP CONNECTIONS

QTY: 1

The front bulkhead of the water tank shall be fitted with one (1) tank sump connection.

WATER TANK

QTY: 1

A 3" drain plug shall be provided.

WATER TANK FLANGES/OUTLETS

QTY: 1

There shall be two (2) standard tank outlets; one for tank-to-pump suction line which shall be a minimum of 4" coupling and one for a tank fill line which shall be a minimum of a 2" NPT coupling.

All tank fill couplings shall be backed with flow deflectors to break up the stream of water entering the tank.

WATER TANK MOUNTING ALL "T" TANKS

QTY: 1

The tank shall rest on the body cross members spaced a maximum of 22" apart, and shall be insulated from these cross members with a minimum of 3/8" nylon webbing or 1/2" rubber, 2-1/2" wide. The tank shall sit cradle-mounted using four (4) corner angles of 6 x 6 x 4 x 0.250 welded directly to the body cross members.

The angles shall keep the tank from shifting left to right or front to rear. The tank is designed on the free-floating suspension principle and shall not require the use of hold downs.

The tank shall be completely removable without disturbing or dismantling the apparatus body structure. The body or hose bed cross braces shall act as water tank retainers.

NOTCH THRU TANK

QTY: 1

A water tank notch shall be provided to accommodate rear discharge or suction plumbing to the rear of the unit.

The tank sleeve shall be provided as part of the tank assembly by the tank manufacturer to allow installation of piping.

INTEGRAL FOAM TANK, 20 GAL. TANK "A"

QTY: 1

Included in the total capacity of the water tank, a 20 gallon integral foam storage area shall be built into the water tank.

The foam tank shall have a latched fill tower, properly labeled as the foam fill point.

A valved drain shall be provided.

WATER TANK LEVEL GAUGE

QTY: 1

An Innovative Controls model # 3030691-02 SL Plus Tank Level Monitor System shall be provided on the pump operator's panel.

The master display module shall show the tank level using 16 super-bright easy-to-see LEDs.

Tank level indication shall be achieved by the appropriate illumination of 4 horizontal rows of LEDs, with 4 LEDs per row.

A wide-angle polycarbonate diffusion lens in front of the LEDs shall produce a 180 viewing angle.

LAKE WENATCHEE FIRE RESCUE

The electronic display module shall be waterproof and shock resistant being encapsulated in a urethane-based potting compound.

The potted display electronics shall be integral to a chrome-plated panel-mount reflector that is secured to the apparatus panel.

IC SL SUPER BRIGHT 5 LED MINI GAUGE IN CAB

QTY: 1

An additional Innovative Controls model #3030698-01, Super Bright LED water level monitor shall be provided in the cab. The level gauge shall contain five (5) high-intensity LEDs on the display in a vertical pattern allowing the full, 3/4, 1/2, 1/4 and refill levels to be easily distinguished at a glance. The display shall use a two-dimensional; two-element lens to refract the light from the LEDs to provide full 180° visibility for the level indications.

WATER TANK LEVEL GAUGE

QTY: 1

The gauge shall use a pressure transducer #3030376-01 installed near the bottom of the water tank to determine the correct volume in the tank.

CAB WATER TANK LEVEL GAUGE

QTY: 1

A large light water level gauge system shall be provided on both sides of the body. Each side shall have one (1) IC-SL Plus super bright 64 LED light mounted on the body as directed. A wide-angle polycarbonate diffusion lens in front of the LEDs shall produce a 180 viewing angle.

The light shall be mounted as to indicate the following water levels and shall include the following colors to indicate the water level:

- Top light with green LEDS Full tank
- Second light with blue LEDS 3/4 tank
- Third light with amber LEDS 1/2 tank
- Fourth light with red LEDS 1/4 tank

The fourth light shall burn steady red to indicate 1/4 tank and shall start to flash when the water level drops below 1/4 tank. To prevent distraction to drivers, this tank level gauge shall be wired to display only when the park brake is engaged.

CAB WATER TANK LEVEL GAUGE

QTY: 1

A large light water level gauge system shall be provided on the rear of the body. One (1) IC-SL Plus super bright 64 LED light mounted on the rear of the body. A wide-angle polycarbonate diffusion lens in front of the LEDs shall produce a 180 viewing angle.

The light shall be mounted as to indicate the following water levels and shall include the following colors to indicate the water level:

- Top light with green LEDS Full tank
- Second light with blue LEDS 3/4 tank
- Third light with amber LEDS 1/2 tank
- Fourth light with red LEDS 1/4 tank

LAKE WENATCHEE FIRE RESCUE

The fourth light shall burn steady red to indicate 1/4 tank and shall start to flash when the water level drops below 1/4 tank. To prevent distraction to drivers, this tank level gauge shall be wired to display only when the park brake is engaged.

FOAM TANK "A" LEVEL GAUGE

QTY: 1

An additional Innovative Controls model #3030373, Ultra-Bright LED foam level monitor shall be provided in the cab.

The level gauge shall contain five (5) high intensity LEDs on the display in a vertical pattern allowing the full, 3/4, 1/2, 1/4 and refill levels to be easily distinguished at a glance.

The display shall use a two-dimensional, two-element lens to refract the light from the LEDs to provide full 180 visibility for the level indications.

FOAM TANK "A" LEVEL GAUGE

QTY: 1

An Innovative Controls model # 3030693-02A SL Plus Tank Level Monitor System shall be provided on the pump operator's panel.

The master display module shall show the tank level using 16 super-bright easy-to-see LEDs.

Tank level indication shall be achieved by the appropriate illumination of 4 horizontal rows of LEDs, with 4 LEDs per row.

A wide-angle polycarbonate diffusion lens in front of the LEDs shall produce a 180 viewing angle.

The electronic display module shall be waterproof and shock resistant being encapsulated in a urethane-based potting compound.

The potted display electronics shall be integral to a chrome-plated panel-mount reflector that is secured to the apparatus panel.

GAUGE TRANSDUCER

QTY: 1

The gauge shall use a pressure transducer installed near the bottom of the foam tank to determine the correct volume in the tank.

DIRECT TANK FILL

QTY: 1

One (1) 2-1/2" NST direct tank fill shall be provided at the rear of the body, on the officer side, as low as possible.

The direct tank fill shall be gated with a 2-1/2" Fireman's Friend (TTMA 6-bolt attachment pattern) check-type fill valve.

The fill valve shall be capable of flowing at a rate in excess of 1,000 gallons per minute and will be of a self deflecting design, requiring no additional diffusion device.

The fill valve shall be constructed of stainless steel, with a spring actuated piston-type sealing mechanism to minimize seal wear and provide positive sealing of the valve.

The fill shall be equipped with a 30 degree elbow terminating with a 2-1/2" NST female swivel connection.

1" FOAM TANK DRAIN BEHIND OS PUMP PANEL

LAKE WENATCHEE FIRE RESCUE

QTY: 1

A 1" line from the foam tank shall be provided in order to drain foam from the tank.

The line shall terminate behind the officer's side pump panel with a quarter turn drain valve.

APPARATUS BODY GENERAL DESCRIPTION

QTY: 1

The body side and compartment assemblies shall be designed and assembled to provide maximum strength and durability under all operating conditions.

Special attention shall be taken to minimize rust on all fabricated parts and structural members of the body. All bolt-on components shall be provided with a dissimilar metals isolation barrier to prevent electric corrosion. The body design shall also incorporate removable panels to access spring hangers, rear body mounts and fuel tank sending units.

The body shall be an all Heli arc welded construction for maximum strength and integrity for the entire life of the apparatus. The body assembly shall be a single unit completely isolated from the cab.

SUPER STRUCTURE FOR STEEL BODIES

QTY: 1

The body super structure shall be an all welded configuration utilizing a combination of 3" x 1-1/2" A500 Gr. B structural tubing and A36 structural channel.

The super structure shall be designed to totally support the full length and width of the body. The structure shall be welded to the body side compartments to incorporate the compartments into an integral part of the body weldment.

All cross tubes of the structure shall be capped and butt welded at their point of termination to prevent water from lying inside the super structure. The super structure shall be bolted to the sides of the chassis frame at four (4) points.

All stepping, standing, and walking surfaces on the body shall meet NFPA #1901 anti-slip standards. Tread plate utilized for stepping, standing, and walking surfaces shall be ALCOA No Slip type. Upon request by the Purchaser, the manufacturer shall supply proof of compliance with this requirement.

FLEXIBLE MOUNTING - BODY TO FRAME

QTY: 1

The apparatus body frame shall be mounted to the chassis frame with a minimum of four spring mount assemblies. Each spring mount assembly shall be constructed from a minimum of 1/4 inch flat steel.

The rear assemblies shall consist of two parts. The two parts shall interlock to form a single assembly that prevents forward, aft, and sideways movement of the body while the apparatus is in motion. The two sections shall further be connected by minimum grade 8 bolts centered in springs. These springs shall allow vertical movement of the body to prevent any "twist" from being transferred from the chassis frame into the body frame. The springs shall allow a minimum lift of 1 inch of vertical movement at all corners of the body.

As proof of the effectiveness of this design, the unit must pass a "twist" test in which opposing tires on opposite corners of the body are lifted a minimum of 12". While in this position, all body doors shall be able to be opened and shut without any sign of binding.

LAKE WENATCHEE FIRE RESCUE

SWEEP-OUT COMPARTMENTS (NON-AERIALS)

QTY: 1

Compartment floors shall be welded to the compartment walls and have a sweep out design for easy cleaning.

Compartment with hinged doors shall have the door opening flanges bend down to produce the sweep-out design.

Compartment with roll-up style doors shall have the external floor flange stepped down to produce a sealing surface for the roll-up doors below the compartment floor.

The sweep out design shall also permit easy cleaning.

FASTENERS

All exterior fasteners shall be stainless steel screws.

NOTE: The use of aluminum pop rivets or self tapping screws as a trim fastener shall not be acceptable.

COMPARTMENT LOUVERS

QTY: 1

Ventilation between compartments to atmosphere shall be provided and located to avoid water entry into compartments.

LOUVER FILTERS

QTY: 1

To minimize dust and dirt from drafting into the compartments through the compartment louver, each louver shall be equipped with a filter material mounted on the exterior of the louver.

ACCESS PANELS

QTY: 1

Removable access panels shall be provided (if applicable) to access fuel tank sender, electrical junction compartment and rear body mounts.

Protective panels shall be located in the rear compartments providing access to the lights and associated wiring.

The covers shall also serve as protective covers to prevent inadvertent damage to lights or wiring from tools or equipment located in the compartment.

BODY 12 GAUGE GALVANNEAL STEEL; 101"

QTY: 1

The body shall be assembled in fixtures to ensure accurate body dimensions of the door openings. The parts used in the construction of the body weldment shall be fabricated from the highest Grade 12 gauge Galvanneal steel (ASTM A653) with a coating weight of A-60. After proper alignment is achieved, the body panels shall be spot-welded together to ensure proper weld penetration and then stitch-welded on all exposed seams to minimize distortion of welded assemblies. A full seam weld shall not be used due to the applied heat which shall distort sheet metal and remove the protective coating from the perimeter of the welded area. All seams shall be caulked prior to finish paint to ensure proper compartment seal.

100" WIDE BODY, 26"/14" DEEP SIDE COMPARTMENTS (10

QTY: 1

The fire body shall be 100" wide to provide the maximum amount of usable compartment space. All lower compartments shall be 26" deep overall, all upper compartments shall be 14" deep overall.

LAKE WENATCHEE FIRE RESCUE

62" WIDE FENDER

QTY: 1

The body fender shall be 62" long. This shall allow for the suspension and related components to be contained within the fender, which prevents any intrusion into the body compartment storage area. Bodies with notches in the front or rear compartment for suspension components are not acceptable. There will be no exceptions.

CUSTOMER SCBA CYLINDER CLARIFICATION

QTY: 1

The storage slots shall be designed to accommodate 2216 psi low pressure SCBA cylinders.

FENDER STORAGE COMPARTMENTS - POLISHED DOORS

QTY: 1

The fender storage area(s) shall be enclosed by a hinged door fabricated from mirror finish stainless steel.

The back side of the door shall have a section of Nylatron installed to protect the door surface from the items stored in the compartment.

Each door shall be tied into the compartment door ajar/do not move apparatus warning system.

Each fender storage compartment door will be equipped with 3M model #1333 rubber "D" style door seal.

There will be no exceptions.

SCBA CYLINDER STORAGE

QTY: 1

A total of four (4) SCBA air bottle storage compartments shall be inserted into the body fender area.

The compartments shall be located with two (2) on the driver side and two (2) on the officer side of the rear body fender panels.

The lower portion of the compartments shall be non-abrasive to absorb shock and help secure the bottle.

Each storage compartment shall be equipped with a polished stainless steel door that shall be tied to the "Do Not Move Apparatus" warning system along with a retention strap to limit bottle travel while secured inside the compartment.

ALL COMPARTMENTS - 3/4" DRAIN HOLES

QTY: 1

All compartments shall have a 3/4" drain hole plugged with a rubber stopper.

DS FULL HEIGHT COMPARTMENTS

QTY: 1

One (1) equipment compartment shall be provided above the rear wheels, measuring 29-1/2" high x 59" wide with a horizontally hinged lift up door opening 27-1/2" high x 56" wide.

One (1) full height compartment shall be provided to the rear of the rear wheels, measuring 62" high x 39" wide with a single vertically hinged door opening 61" high x 36" wide.

OS FULL HEIGHT COMPARTMENTS

QTY: 1

One (1) equipment compartment shall be provided above the rear wheels, measuring 29-1/2" high x 59" wide with a horizontally hinged lift up door opening 27-1/2" high x 56" wide.

One (1) full height compartment shall be provided to the rear of the rear wheels, measuring 62" high x 39" wide with a single vertically hinged door opening 61" high x 36" wide.

REAR STEP COMPARTMENT - FULL WIDTH, STANDARD HEIGHT

LAKE WENATCHEE FIRE RESCUE

QTY: 1

An equipment storage compartment shall be provided on the rear of the body, located at the rear step area.

The rear step compartment shall be 42" wide x 40" high x 29" deep.

The rear step compartment shall provide approximately 28 cubic feet of storage space.

REAR STEP COMPARTMENT - OPEN THROUGH SIDE WALLS

QTY: 1

The rear step compartment shall be designed to have an open storage space leading to the side body compartments.

This open storage area shall be in the lower section of the side body compartments only.

TAPERED REAR BODY DESIGN 20°

QTY: 1

The rear portion of the body shall be shorter in height (at the bottom of the body) than the front of the body. This shall be done to maximize angle of departure to at least 20°. The rub rails at each side of the body shall taper up from the bottom of the body fender panel to the bottom of each side rear compartment to protect the bottom of each side rear compartment and to provide a clean appearance.

PULL DOWN STRAPS FOR SPECIFIC LOCATION: - L1, R1

QTY: 1

BRUSHED FINISHED DOOR PANS - 2" THICK DOORS

QTY: 1

Each inner door pan shall be constructed from 1/8" aluminum material which shall be provided with a brushed finish and bolted to the internal side of the door. The inner door pan on 2" thick doors shall enclose the latch and reinforcements completely. The inner door pan shall be easily removable to access the enclosed latch mechanism.

DOOR HINGE FOR FLUSH HINGED DOORS

QTY: 1

Hinges shall be full length polished stainless steel piano type. The hinges shall be mounted with stainless steel hardware.

DOOR SEAL FOR FLUSH HINGED DOORS

QTY: 1

Enclosed body compartment doors shall be equipped with a closed cell gasket.

The gasket material shall be EPDM to provide a gasket resistant to weather, temperature extremes, and aging.

ROTARY LATCHES WITH D-RING HANDLES

QTY: 1

Externally latched body doors shall be equipped with stainless steel D-ring handles.

Rotary door latches shall be provided for all full height body doors, which shall incorporate rotary latches at the top and bottom of all externally latched single or double doors.

Linkages shall be provided between the actuation handle and the latch mechanisms.

The blank door of a double door configuration shall have rotary latches at the top and bottom of each door with the latch release lever accessible thru the door frame, which eliminates the need to reach inside the compartment to release the door.

Linkages shall be provided between the actuation handle and the latch mechanisms.

LAKE WENATCHEE FIRE RESCUE

Horizontally hinged doors shall be equipped with a single rotary door latch.

KEYED DOOR LOCKS, HINGED OR ROLL-UP DOORS

QTY: 5

A compartment door(s) shall be equipped with keyed locking door latches.

Two keys shall be furnished for each lock and shall be labeled to indicate the correct match.

KEY MODEL - SPECIAL - ELECTRIC

QTY: 5

The specified door lock cylinder shall be equipped with a #751 key.

ELECTRIC COMPARTMENT DOOR LOCKS

QTY: 1

The five (5) lower body compartment doors with rotary style latches shall be provided with electric locking doors. A toggle switch will be installed inside the cab on the center console to lock the cab and body doors. The door shall also be provided with a manual key lock that shall be capable of overriding the electric lock.

CLEVELAND SPRING DOOR SPRINGS

QTY: 1

Stay arms shall be "Cleveland" double acting style, to be used on all vertically hinged storage compartment doors.

All horizontally hinged compartment doors shall be furnished with two (2) Eberhard gas shock type door stay arms.

PULL STRAPS FOR HORIZONTALLY HINGED, LIFT UP DOORS

QTY: 2

Pull straps shall be provided for all horizontally hinged, flip up doors.

REAR STEP COMPARTMENT - HINGED DOOR - PAINTED ALUM

QTY: 1

The rear step compartment shall be equipped with a hinged style compartment door. The door shall be a double door configuration.

The finish shall be painted job color aluminum.

14" WIDE COFFIN COMP'TS, SPLIT DEPTH 100" BODY, DR

QTY: 1

Roof hatch style compartments shall be provided the full length of the body, on the driver's side of the body hose bed area and shall be designed as an integral extension of the lower side compartments with a painted exterior finish. Drain tubes shall be provided at each end of each side compartment which shall extend down through the lower compartments.

LAKE WENATCHEE FIRE RESCUE

Each side roof compartment shall extend the length of the body, which shall be evenly divided into two (2) individually accessed areas, which shall be open through from the front to the rear. The compartment depth shall extend from the ceiling area of the upper side compartments to the top of the body. The interior compartment width of each side roof compartment shall be a minimum of 13-1/2" inside width with a 10" wide access door at the top.

Body roof compartments will be provided with gasketing on all four (4) sides of the roof compartment opening to provide a water and dust seal.

Each roof compartment shall be equipped with an overlapping, hinged lift up tread plate door. These doors shall be constructed of 3/16" tread plate with a 15 degree break on all sides. Each door shall have two (2) gas shock style stay open devices which shall also retain the door in the closed position.

Protective panels shall be applied inside the compartments to cover any exposed wiring or recessed side body lighting, provided on the unit. These panels shall reduce the overall usable compartment area in the compartments.

Protective panels shall be applied inside the compartments to cover any exposed wiring or recessed side body lighting, provided on the unit. These panels shall reduce the overall usable compartment area in the compartments.

14" WIDE COFFIN COMP'TS, SPLIT DEPTH 100" BODY, OS

QTY: 1

Roof hatch style compartments shall be provided the full length of the body, on the officer's side of the body hose bed area and shall be designed as an integral extension of the lower side compartments with a painted exterior finish.

Drain tubes shall be provided at each end of each side compartment which shall extend down through the lower compartments.

Each side roof compartment shall extend the length of the body, which shall be evenly divided into two (2) individually accessed areas, which shall be open through from the front to the rear.

The compartment depth shall extend from the ceiling area of the upper side compartments to the top of the body.

The interior compartment width of each side roof compartment shall be a minimum of 13-1/2" inside width with an 10" wide access door at the top.

Each roof compartment shall be equipped with an overlapping, hinged lift up tread plate door. These doors shall be constructed of 3/16" tread plate with a 15 degree break on all sides. Each door shall have two (2) gas shock style stay open devices which shall also retain the door in the closed position.

Protective panels shall be applied inside the compartments to cover any exposed wiring or recessed side body lighting, provided on the unit. These panels shall reduce the overall usable compartment area in the compartments.

LAKE WENATCHEE FIRE RESCUE

COMPARTMENT TOPS

QTY: 1

Compartment ceilings shall be a fully welded design as part of the body construction process.

Compartment designs that do not have a welded in ceiling and utilize the stepping surface overlay as the ceiling shall not be acceptable.

There will be no exceptions.

The top of the welded in compartment ceiling shall be overlaid with tread plate to provide an NFPA compliant stepping surface, where a coffin compartment is not located above the lower compartments.

There will be no exceptions.

REAR BODY PANEL

QTY: 1

The rear body panel shall extend the full width between the body side compartments.

This panel shall be full height from the rear step to the hose bed floor.

No part of the rear panel shall be attached to the booster tank.

The rear body panel material shall be tread plate as standard.

If Chevron striping is specified for the rear of the body then smooth aluminum shall be utilized.

OVERLAY, FRONT OF SIDE COMP'TS (WRAP AROUND)

QTY: 1

The front face of the side compartments, next to the driver and officer side pump panels shall be overlaid with brushed stainless steel plate full height protection.

The protection panel shall cover the entire front face of the compartment and shall wrap around the corner to the door opening.

BODY RUB RAILS - LOWER, POLY

QTY: 1

Sacrificial, poly rub rails shall be mounted at the base of the body, extending outward from the body. The rub rails shall extend the full length of the main body. Rub rails shall be bolted to the body so it does not damage the body side panels on initial impact and provide easy replacement.

REAR I-ZONE POSTS

QTY: 1

(2) Two extruded aluminum handrail sections shall be provided, with brackets assembled under the upper level rear steps. Brackets shall consist of a receiver and a removable 1 1/2" pole with restraining pin.

ALUMINUM WHEEL WELL LINERS

QTY: 1

The body wheel wells shall be provided with fully removable bolt-in aluminum fender liners. The wheel well liners shall extend from the outer wheel well body panel into the truck frame. The completely washable wheel well liners shall be designed to protect the front and rear compartments and main body supports from road salts, dirt accumulation and corrosion.

LAKE WENATCHEE FIRE RESCUE

MOLDED BLACK RUBBER FENDERETTES, SINGLE AXLE BODIE

QTY: 1

The rear fenders shall be equipped with easily replaceable bolt-in molded black rubber fenderettes.

REAR MUD FLAPS

QTY: 1

Heavy duty mud flaps shall be provided behind the rear wheels.

TRAILER HITCH & RECEIVER

QTY: 1

A trailer receiver located at the rear of the body shall be constructed from 2 1/2" seamless structural steel tubing fastened to the chassis frame.

12 VOLT WINCH CONNECTION

QTY: 1

A 12 volt electrical connection with a quick disconnect compatible with a portable winch shall be provided adjacent to the receiver point. A plastic end cap shall be provided for the quick disconnect.

7 ROUND PIN TRAILER CONNECTION

QTY: 1

A seven (7) round pin connector shall be provided.

GRIP-STRUT INSERTS IN THE REAR STEP

QTY: 1

Three (3) grip-strut, open grate type inserts shall be securely installed in the rear step.

Note: Brushed aluminum shall be provided around the perimeter of the grip strut.

REAR BUMPER, BLACK

QTY: 1

The rear bumper shall be covered in a black line-x (or equal) material.

HANDRAIL ABOVE PUMP PANEL, EACH SIDE - HORIZONTAL

QTY: 1

Two (2) horizontal handrails shall be mounted above each pump panel, (1) each side.

AUSTIN CHROME FOLDING STEP(S) CLARIFICATION

QTY: 1

CLARIFICATION: All Austin Hardware Folding Steps listed above will be model FS-100-A01-CH (FS-200 CHR, no longer available).

CPI SP2012 STEP(S) - REAR OF BODY

QTY: 1

Two (2) Cast Products model SP2012 steps, made of high strength die cast aluminum, with a textured chrome plate finish, minimum of 42 in² surface, conforming to NFPA-1901 requirements, shall be provided on the rear of the body, one (1) on the driver side and one (1) on the officer side rear body (reference General Arrangement Drawing for locations).

The steps shall be mounted to accommodate access to the body hose bed area with a maximum of 18" height between each step.

Note: Interface zone brackets will be provided under each fixed step. The brackets will consist of a receiver and a removable 1 1/2" pole with restraining pin. Tulip clip style mounts will be provided in the rear compartment to hold the poles when not in use.

LAKE WENATCHEE FIRE RESCUE

EXTENDED REAR STEP - 12 D X 96 W - TAPERED ENDS

QTY: 1

The extended rear step shall be 12" deep and extend beyond the body compartments. The step shall be 96" wide and have tapered corners, approximately 3" x 3" chamfer, for improved clearance. The step shall be fabricated from 3/16" tread plate and shall be rigidly reinforced. The rear edge of the step shall be designed to accommodate the rear clearance lights. The rear step overlay shall be bolted in place with an approximate 1/2" clearance gap between the step and rear body panel.

INTERMEDIATE REAR STEP, 8" X 48" BOLT-ON

QTY: 1

An eight (8) inch deep, bolt on intermediate rear step, fabricated from 3/16" tread plate, shall be installed. The step shall be approximately 8" deep x 48" wide.

GRAB RAILS, HANSEN KNURLED STAINLESS STEEL TYPE

QTY: 1

All hand rails shall be Hansen 1-1/4" outer diameter, knurled stainless steel, designed to meet NFPA 1901 requirements.

Molded gaskets shall be installed between the handrail stanchion castings and body surfaces to prevent electrolytic reaction between dissimilar metals and to protect paint.

Grab rails shall be provided at the following specified locations.

Additional grab rails shall be provided adjacent to any additional steps specified to comply with NFPA 1901.

TWO (2) VERTICAL RAILS ON REAR

QTY: 1

Two (2) vertical rails shall be mounted on the rear edge of the beavertails, one (1) each side.

REAR BODY INTERMEDIATE STEP, BLACK

QTY: 1

The rear body intermediate step shall be covered in a black line-x (or equal) material.

PAINTED REAR TOW EYES, BELOW BODY - BLACK

QTY: 1

Two (2) painted tow eyes shall be furnished on the rear of the vehicle. The tow eyes shall be made from plate steel and shall be bolted directly to the chassis frame rails with grade 8 bolts. The tow eyes will extend below the body. The tow eyes shall be smooth and free from sharp edges. They will have a minimum eyelet hole of 2-1/2". **The tow eyes shall be painted BLACK.**

HOSE BED 72" WIDE, INTERFACE PUMPER BODIES

QTY: 1

The hose bed shall be located directly above the booster tank and shall be free from all sharp objects such as bolts, nuts, etc., to avoid damage to fire hose.

The center ladder / hard hose storage compartment will divide the hose bed into two (2) separate sections, each with **approximate dimensions** of 101" long by 26" wide by 33 1/2" high (in the center). NOTE: Each section of the hose bed will have a cross divider aft of the fill towers / foam cell that will reduce the effective length to **approximately 87"**.

For added strength, rigidity and appearance, the hose bed side walls shall have the top edge flanged outward two (2) inches and downward one (1) inch. In a similar fashion, the top edge of the front wall shall be flanged inward two (2) inches and downward one (1) inch.

LAKE WENATCHEE FIRE RESCUE

LADDER / SUCTION HOSE STORAGE COMPARTMENT

QTY: 1

A double-door, vertically hinged ladder and suction hose storage compartment shall be installed in the center of the hose bed. The compartment shall be as long as the body and as least as deep as the hose bed and covers. The compartment shall be divided into two sections with a vertical divider.

Two (2) diamond plate doors with non-locking D-ring style slam latches shall be provided, one (1) over the left side and one (1) over the right side of the storage compartment.

The left side of the compartment shall be designed to store the following:

- An Alco-Lite model PEL-12; 12', aluminum, two (2) section extension ladder. Plastic sills shall be provided to guide the ladder in and out of the compartment and to ease sliding. **(NOTE: If the ladder is longer than the compartment, a cutout shall be provided at the front to accommodate the full length.)**
- A storage slot for a backboard described elsewhere in the specifications.
- Two (2) 8' long pike poles tubes.

The right side of the compartment shall be designed to store the following:

Three (3) section of light weight suction hose with rocker lugs. Each hose shall have a formed tray contoured to match the hose.

HOSEBED FLOORING - ALUMINUM SLATS

QTY: 1

Flooring is to be constructed from extruded aluminum and have proper spaces for ventilation purposes. The flooring shall be smooth and free from sharp edges to avoid any hose damage. The hose bed floor shall be removable, providing access to the inner body framework.

TWO (2) - 1/4" ADJUSTABLE HOSEBED PARTITIONS

QTY: 1

Two (2) fully adjustable 1/4" aluminum hose bed partitions shall be provided. The partition shall be easily adjustable by channels, located at the front and rear of the hose bed. The partition shall be removable for access to the booster tank.

HOSE PARTITION HANDHOLD CUTOUTS [PER QTY]

QTY: 2

The hose bed partition(s) shall have a vertical handhold cutout at upper rear edge of the partition.

HOSEBED COVER - LOCK-N-LOAD SLIDING COVER

QTY: 1

The top of the hose bed shall have an NFPA compliant cover installed in order to secure the hose from unintentionally deploying from the top or rear. The cover shall be a polished, tread plate with a combination between a roller and lift-up style. The cover shall be strong enough to support 250 pounds over the entirety. The rear half of the cover shall be able to roll over the forward half of the cover on channel tracks and are sealed with ball bearing rollers. When rolled opened, the entire cover shall be capable of being lifted up on a stainless steel piano hinge installed across the front of the body. The cover shall rise no less than 60 degrees in order to load the hose. The cover shall lock when closed. When unlocked the roller portion of the cover shall be capable of rolling forward and lock into the open rolled position. The lift portion shall be assisted and supported by non locking gas shocks and shall be supported by a prop rod to prevent the cover from inadvertently closing. The handles shall be installed on the end of the cover to assist with rolling and lifting. All switches shall be installed on each side of the cover, so that when the cover is opened it indicates which switches shall activate the "Do Not Move Apparatus" warning inside the cab.

An individual hinged access door shall be provided over the water tank fill tower area. This door shall be hinged at the front, preventing the door from opening while the apparatus is in motion. The door shall not latch, so that it allows the door to open in the event of over pressurization in the tank.

LAKE WENATCHEE FIRE RESCUE

VINYL MATERIAL COLOR - BLACK

QTY: 1

The vinyl material shall be black in color.

HOSEBED COVER LETTERING (MUST EDIT MANUALLY) - LWFR

QTY: 1

Material backed, 7-1/2" tall, Scotch lite Letters shall be sewn onto the hose bed cover rear;flap(s).

The color of the letters shall be The lettering shall read . (Up to 10 characters)

WITHIN HOSE BED LADDER STORAGE (CENTER)

QTY: 1

The Alco-Lite model PEL-12; 12', aluminum, two (2) section extension ladder shall be located in the Ladder / Suction Hose Storage Compartment.

BACK BOARD STORAGE SLOT WITHIN LADDER STORAGE

QTY: 1

The ladder storage area shall be designed to accommodate storage for a backboard, the storage slot shall be approximately 22" high x 2" wide x 74" long to accommodate the customer's backboard.

The storage area shall have nylon material on the bottom surface to protect the backboard.

ALCO-LITE FL-08 8' FOLDING ATTIC LADDER (ALUM)

QTY: 1

Alco-Lite model FL-08; 8', folding, aluminum, attic ladder shall be provided.

DUO-SAFETY 912-100 20' 3-SECTION EXTENSION LADDER

QTY: 1

A Duo-Safety series 912-100, 20', aluminum, three (3) section extension ladder shall be provided.

PIKE POLE TUBE(S) - PUMPERS

QTY: 2

A pike pole tube(s) shall be provided.

The pike pole tube(s) shall be 8' in length.

Each holder shall be accessible from the rear of the apparatus.

Each pike pole holder shall be labeled to indicate the pike pole length.

LOCATION PIKE POLE TUBE(S) - IN LADDER STORAGE COM

QTY: 2

The pike pole tube(s) shall be mounted in the ladder storage compartment.

6' FIRE HOOKS UNLIMITED FIBERGLASS PIKE POLE

QTY: 1

A 6' Fire Hooks Unlimited fiberglass handled pike pole(s) shall be provided.

LAKE WENATCHEE FIRE RESCUE

6' NUPLA TRASH HOOK W/D-HANDLE

QTY: 1

A 6' trash hook with a D-handle shall be provided and mounted in the ladder storage area.

REFRIGERATORS, DOMETIC RM8505 12V DC / 120V AC

QTY: 1

One (1) Dometic model RM8505 refrigerators shall be provided and installed in the rear of the cab between the two rear seats. An enclosure panel shall be provided over the front face area around the refrigerator, enclosing the entire area around the refrigerator and protect it from damage. The enclosure shall be constructed from aluminum and painted with texture black paint. The refrigerators shall be wired for 12 volt DC and 120 volt AC (shoreline and generator) power.

REAR FOLD DOWN STEP - INTERFACE BODY

QTY: 1

REAR FOLDDOWN STEP

A rear fold down step shall be provided below the rear bumper and attached to the frame extensions. The step shall be approximately 34" wide with a grip-strut stepping surface. In the down position, the step shall meet all NFPA requirements for step height. In the up position, the step shall minimize the interference with the angle-of-departure.

Note: Brushed aluminum shall be provided around the perimeter of the grip-strut.

ADJUSTABLE SHELF DESCRIPTION - RESCUE

QTY: 1

Compartment shelving shall be constructed of 3/16" brush finish aluminum with a 2" upward bend at front and rear, and side supports. Shelving shall be vertically adjustable with spring nuts in aluminum strut channel.

Adjustable shelves shall be located as indicated at each compartment description.

ADJUSTABLE SHELF(S) LOCATED L-1

QTY: 2

Located in the left side compartment #1

ADJUSTABLE SHELF(S) LOCATED L-2

QTY: 2

Located in the left side compartment #2

ADJUSTABLE SHELF(S) LOCATED R-1

QTY: 2

Located in the right side compartment #1

ADJUSTABLE SHELF(S) LOCATED R-2

QTY: 2

Located in the right side compartment #2

ADJUSTABLE SHELF(S) LOCATED REAR COMPARTMENT

QTY: 1

Located in the rear compartment

TURTLE TILE MATERIAL ON ALL COMPARTMENT FLOOR

QTY: 1

Turtle Tile brand floor material shall be installed on all compartment floors.

The Turtle Tile shall be custom installed to provide full floor coverage.

FLOORING MATERIAL COLOR (BLACK IS DEFAULT)

LAKE WENATCHEE FIRE RESCUE

QTY: 1

The compartment flooring color shall be black.

GENERAL PAINT DESCRIPTION

QTY: 1

The apparatus body shall be painted with Sikkens paint product. The paint process shall meet or exceed current state regulations concerning paint operations. Pollution control shall include measures to protect the atmosphere, water, and soil. Contractor shall, upon demand, provide evidence that the manufacturing facility is in compliance with State EPA rules and regulations.

The exterior shall have no mounted components prior to painting to assure full coverage of metal treatments and paint to the exterior surfaces of the body. Any vertically or horizontally hinged smooth-plate compartment doors shall be painted separately to assure proper paint coverage on body, door jambs and door edges.

Paint process shall feature Sikkens high solid LV products and be performed in the following steps:

- Corrosion Prevention - all aluminum surfaces shall be pre-treated with the Alodine 5700 conversion coating to provide superior corrosion resistance and excellent adhesion of the base coat.
- Sikkens Sealer/Primer LV - acrylic urethane sealer/primer shall be applied to guarantee excellent gloss hold-out, chip resistance and a uniform base color.
- Sikkens High Solid LVBT650 (Base coat) - a lead-free, chromate-free high solid acrylic urethane base coat shall be applied, providing excellent coverage and durability. A minimum of two (2) coats shall be applied.
- Sikkens High Solid LVBT650 (Clear coat) - high solid LV clear coat shall be applied as the final step in order to ensure full gloss and color retention and durability. A minimum of two (2) coats shall be applied.

Any location where the material is penetrated after painting, for the purpose of mounting steps, hand rails, doors, lights, or other specified components shall be treated at the point of penetration with a corrosion inhibiting pre-treatment (ECK Corrosion Control). The pre-treatment shall be applied to the aluminum sheet metal or aluminum extrusions in all locations where the aluminum has been penetrated. All hardware used in mounting steps, hand rails, doors, lights, or other specified components shall be individually treated with the corrosion inhibiting pre-treatment.

After the paint process is complete, the gloss rating of the unit shall be tested with a 20 degree gloss meter. Coating thickness shall be measured with a digital MIL gauge and the orange peel with a digital wave scan device.

GENERAL FINISH PAINT DESCRIPTION

QTY: 1

The body shall be finish sanded and prepared for final paint.

Upon completion of final preparation, the body shall be painted utilizing the highest quality, state of the art, low V.O.C., polyurethane base paint.

Finish paint shall be applied in multiple coats to ensure proper paint coverage with a high gloss finish.

LAKE WENATCHEE FIRE RESCUE

PAINT 4-DR SINGLE COLOR AS PROVIDED BY KME

QTY: 1

The commercial cab exterior shall be finish painted over the original OEM paint with a Sikkens system, single color, to match the Purchaser's furnished paint code.

COMMERCIAL CAB PAINT FINISH

QTY: 1

The chassis shall be painted and detailed as provided from the chassis OEM and shall meet their quality guidelines.

WHEEL AND HUB PAINT

QTY: 1

The chassis wheels shall be painted as provided by the commercial chassis manufacturer.

INSIDE/UNDERSIDE BODY PAINT

QTY: 1

The inside and underside areas of the complete body assembly shall be painted black using a Sikkens paint system, prior to the installation of the body on the chassis or torque box.

COMPARTMENT INTERIOR FINISH

QTY: 1

The interior of the compartments shall be finish painted with Multispec #7251 Gray Stone scuff resistant paint to provide a protective application over all of the compartment interior surfaces.

FENDER COMPARTMENT INTERIOR

QTY: 1

The interior of the fender storage compartments (if fender compartments are specified) shall be finish painted job color.

PUMP PAINTED / UNPAINTED PLUMBING

QTY: 1

The pump shall be painted per the pump manufacturer's standard. The stainless steel plumbing will remain unpainted. The pump area interior will match the body underside finish as described elsewhere in these specifications.

SINGLE COLOR BODY PAINT SCHEME - SEE PAINT FORM IN SALESMASTER

QTY: 1

The body paint finish shall be Sikkens paint system in a single color to match customer furnished paint codes and requirements.

"TUF-KOTE" UNDER SEAL

QTY: 1

The under side of the apparatus shall have Tectyl # 518 film applied to retard rust and the corrosion process.

The product shall meet military Specification A-A-59295 Type 1.

The amber, semi-firm wax film shall be applied by air spray method.

The cure time is 24 hours.

The film shall be applied to the chassis major components such as: chassis frame rails and cross members, axles, springs, drive line components, lower radiator supports, fuel tank, air tanks, running boards, bumper apron and other related components.

The under side of the cab and body shall have the film applied to the following areas: cab steps, front gravel shield and underside of battery box, body substructure, underside of all body compartments, running board supports and rear step supports.

LAKE WENATCHEE FIRE RESCUE

No film shall be applied to the exhaust system or cab wheel wells, or body rear wheel wells.

NOTE: The film shall remain semi-firm to promote self-sealing.

The film may leave a light amber cast to those areas treated.

PINT OF TOUCH-UP PAINT

QTY: 1

One (1) pint of each exterior color paint for touch-up purposes shall be supplied when the apparatus is delivered to the end user.

LETTERING & STRIPING CLARIFICATION

QTY: 1

Clarification: A Lettering and Striping layout drawing will be provided for customer approval.

3" Lettering Clarification: Scotch-Lite will be provided on the unit. Note: Lettering shall be provided on the Rear Cab doors, front cab doors will have FD logo. **Customer to provide logo artwork which will be printed on White Scotch lite material.**

Lettering Body Side Sheet – Clarification: Scotch-Lite will be provided on the unit. **Lettering shall read: in white scotch-lite w/Black Shadow.**

Scotch-Lite Stripe on Cab and Body: The Scotch-Lite stripe shall be 4". The stripe will be 4" White. Stripe to run high on cab, following the contour, and run straight through onto the body.

LETTERING SIZE ON FRONT BUMPER

QTY: 1

Lettering provided on the front bumper shall be sized as practicable to the area available for application.

LETTERING ON FRONT BUMPER - LWFR

QTY: 1

Scotch-Lite without drop shadow lettering shall be provided on the front bumper per the fire department requirements.

The design of the lettering on the front bumper shall be designed to fit in the applicable space available.

LETTERING FONT ON FRONT BUMPER

QTY: 1

The lettering shall be designed and cut with a Fancy Full Bold type font.

LETTERING ON FRONT CAB DOORS

QTY: 1

Lettering provided on the driver's and officer's cab doors shall be custom height per Fire Department and engineering design.

LETTERING ON FRONT CAB DOORS

QTY: 1

Scotch-Lite with drop shadow lettering shall be provided on the cab driver's and officer's doors per the fire department requirements.

The design of the lettering on the cab doors shall be designed to fit in the 496 sq. inches available.

FRONT CAB DOOR TEXT LINE 1 - DOOR DECAL - SEE PHOTO ATTACHED

QTY: 1

FRONT CAB DOOR TEXT LINE 2 - DATA ERROR

LAKE WENATCHEE FIRE RESCUE

QTY: 1

LETTERING ON REAR CAB DOORS

QTY: 1

Lettering provided on the front of cab shall be custom height per Fire Department and engineering design.

LETTERING ON REAR CAB DOORS

QTY: 1

Scotch-Lite without drop shadow lettering shall be provided on the cab driver's and officer's doors per the fire department requirements.

The design of the lettering on the cab doors shall be designed to fit in the 496 sq. inches available.

REAR CAB DOOR TEXT LINE 1 - TBD

QTY: 1

REAR CAB DOOR TEXT LINE 2 - TBD

QTY: 1

LETTERING ON REAR BODY

QTY: 1

Scotch-Lite without drop shadow lettering shall be provided on the rear body panel per the fire department requirements.

The design of the lettering on the rear of the body shall be designed to fit in the 167 sq. inches available.

REAR BODY TEXT LINE 1 - TBD

QTY: 1

REAR BODY TEXT LINE 2 - DATA ERROR

QTY: 1

REAR BODY TEXT LINE 3 - DATA ERROR

QTY: 1

CUSTOM LETTERING ON REAR BODY

QTY: 1

Lettering provided on the rear body panel shall be custom height per Fire Department and engineering design.

CAB ROOF LETTERING

QTY: 1

Scotch-Lite without drop shadow lettering shall be provided on the cab roof per the fire department requirements.

The design of the lettering on the cab roof shall be designed to fit in the 2500 sq. inches available.

18" LETTERING ON CAB ROOF

QTY: 1

Lettering provided on the cab roof shall be 18" high per Fire Department and engineering design.

CAB ROOF TEXT LINE 1 - LWFR

QTY: 1

LAKE WENATCHEE FIRE RESCUE

CAB ROOF TEXT LINE 2 - DATA ERROR

QTY: 1

BODY SIDE SHEET LETTERING

QTY: 1

Scotch-Lite with drop shadow lettering shall be provided on the body side sheet per the fire department requirements.

The design of the lettering on the body side sheet shall be designed to fit in the 2500 sq. inches available.

12" LETTERING ON BODY SIDE SHEET

QTY: 1

Lettering provided on the body side sheet shall be 12" high.

SIDE OF BODY TEXT LINE 1 - TBD

QTY: 1

SIDE OF BODY TEXT LINE 2 - DATA ERROR

QTY: 1

SIDE OF BODY TEXT LINE 3 - DATA ERROR

QTY: 1

SCOTCH-LITE STRIPE

QTY: 1

A six (6) inch high "Scotch-Lite" stripe shall be provided.

The stripe shall be applied on a minimum of 60 percent of each side of the unit, 60 percent on the rear of the unit and 40 percent on the front of the unit.

The Scotch-Lite stripe layout shall be determined by the Fire Department.

WHITE SCOTCH-LITE

QTY: 1

The Scotch-Lite shall be white in color.

6" SCOTCH-LITE CUSTOM FOLD IN STRIPE

QTY: 1

A six (6) inch custom fold be incorporated into the Scotch-Lite scheme on the body.

Final layout of this configuration be determined by the Fire Department.

LAKE WENATCHEE FIRE RESCUE

BLACK PIN STRIPE ON TOP & BOTTOM OF MAIN STRIPE

QTY: 1

Two (2) 1/4" black vinyl pin stripes shall be incorporated into the Scotch-Lite scheme to border the primary Scotch-Lite stripe on the top and bottom edges.

Final layout of this configuration shall be determined by the Fire Department.

REAR CHEVRON STRIPING

QTY: 1

REAR CHEVRON STRIPING

ENTIRE REAR

QTY: 1

The entire rear of the truck shall be covered with alternating strips of reflective striping.

6" FULL REAR ORALITE CHEVRON STRIPING

QTY: 1

The striping shall be 6" Oralite reflective striping.

FRONT BUMPER 6" ORALITE STRIPING

QTY: 1

The front bumper chevron shall be 6" Oralite.

FRONT BUMPER RED & YELLOW ORALITE

QTY: 1

The front bumper chevron shall be 012 red 018 yellow in color.

RED & YELLOW ORALITE V98

QTY: 1

The Oralite V98 reflective tape shall be #12 red and #18 yellow in color.

MISCELLANEOUS EQUIPMENT

QTY: 1

The following equipment shall be mounted as specified or as loose equipment provided with the completed apparatus at the time of delivery:

ROAD SAFETY KITS

QTY: 1

A road safety kit shall be furnished with the following equipment:

- 2 1/2 lb. B-C fire extinguisher
- Triangle safety reflectors.

TWO (2) ZICO #SAC-44 FOLDING WHEEL CHOCKS, (2) MTD

QTY: 1

Two (2) ZICO #SAC-44 folding wheel chocks shall be mounted to the rear of the rear wheels on the driver side below the side running board compartments.

GENERAL ONE (1) YEAR WARRANTY

QTY: 1

Purchaser shall receive a General One (1) Year or 24,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0001. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

LAKE WENATCHEE FIRE RESCUE

ELECTRICAL ONE (1) YEAR WARRANTY

QTY: 1

Purchaser shall receive a Electrical One (1) Year or 18,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0201. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

BODY STRUCTURE (ALUMINUM) TEN (10) YEAR WARRANTY

QTY: 1

Purchaser shall receive a Body Structure (Aluminum) Ten (10) Years or 100,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0502. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

PAINT AND FINISH (EXTERIOR CLEAR COATED) WARRANTY

QTY: 1

Purchaser shall receive a Paint and Finish (Exterior Clear coated) Non-Prorated Ten (10) Years limited warranty in accordance with, and subject to, warranty certificate RFW0711. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

PLUMBING AND PIPING (STAINLESS STEEL) WARRANTY

QTY: 1

Purchaser shall receive a Plumbing and Piping (Stainless Steel) Ten (10) Years or 100,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0800. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

PAINT FINISH WARRANTY. TEN (10) YEAR

QTY: 1

The proposed paint finish will be warranted for a period of ten (10) years from the date of acceptance of the unit. Details of warranty coverage, limitations and exclusions are included in the specific warranty document.

5 YEAR LETTERING WARRANTY

QTY: 1

The apparatus manufacturer will provide a five (5) year warranty against defects in material and workmanship for all graphics processes. Any valid claims must be made in writing within 15 days of the determination of any defects to the manufacturer's fire apparatus. The manufacturer will at its option make any necessary repairs either at a local authorized service center or at the factory if required. The manufacturer will make the final decision as to where the repairs are to be made and any transportation cost is the owner's responsibility. The manufacturer will at its option, repair or replace any verified defects in workmanship or materials at no cost to the owner provided all the requirements of this warranty have been met.

The manufacturer will not be liable to the original purchaser or anyone else for consequential, incidental, special or direct damages, including, but not limited to, any claims for loss of profits, downtime, loss of use or inconvenience. THE COMPANY MAKES NO OTHER WARRANTY, EXPRESSED OF IMPLIED, AND SPECIFICALLY, DISCLAIMS ANY IMPLIED WARRANTY INCLUDING THE WARRANTY OF MERCHANTABILITY.

The manufacturer continually strives to improve its products and therefore, reserves the right to make improvements or changes without incurring any obligations to make such changes or additions to equipment previously sold.

LAKE WENATCHEE FIRE RESCUE

1 YEAR BRIGHTWORK WARRANTY

QTY: 1

KME Fire Apparatus (KME) warrants all bright finish components used in the construction of KME Fire Apparatus against defects and workmanship provided the apparatus is used in a normal and reasonable manner. This warranty is extended only to the original user-purchaser for a period of one (1) year from the date of delivery/acceptance to the original user-purchaser, whichever occurs first.

The expressed warranty excludes corrosion or degradation of bright finished components caused by damage to the component.

10 YEAR STAINLESS STEEL PIPING WARRANTY

QTY: 1

The proposed stainless steel plumbing will be warranted for a period of ten (10) years from the date of acceptance of the unit. Details of warranty coverage, limitations and exclusions are included in the specific warranty document.

LIFETIME POLY TANK WARRANTY - ALL TANKS

QTY: 1

The proposed water tank will be warranted by the water tank manufacturer for the "Lifetime" of the unit. A copy of the manufacturer's warranty will be supplied to define additional details of the warranty provisions.

HALE FIRE PUMP LIMITED STANDARD WARRANTY

QTY: 1

Hale Products, Incorporated ("Hale") hereby warrants to the original buyer that products manufactured by Hale shall be free of defects in material and workmanship for a period of five (5) years from the date product is first placed into service or five and one-half (5 1/2) years from date of shipment by Hale, whichever period shall be first to expire. Within this warranty period, Hale will cover parts and labor for the first two (2) years and parts only for years three (3) through five (5).

FOAM PRO 2000 SERIES STANDARD WARRANTY

QTY: 1

The liability of under the foregoing warranty will be limited to the repair or replacement at FoamPro's option without charge for labor or materials of any parts upon return of the entire pump, system or other product or of the particular part to the factory within the warranty period, at the sole expense of the purchaser, which part will upon examination appear to FoamPro's satisfaction to have been defective in material and workmanship.

CLASS 1 - PRODUCT WARRANTY

QTY: 1

Class 1 warrants that any equipment of our own manufacture (or manufactured for us pursuant to our specifications) found to have defects in material or workmanship during normal use and service, will be repaired or replaced (at our opinion) free of charge, provided that written notice of such defect is received by us within two (2) years, (three 3 years on liquid filled gauges) after initial shipment.

AKRON - 5 YEAR LIMITED WARRANTY

QTY: 1

The limited warranty set forth here against defective materials or workmanship for a period of five (5) years will be given by Akron Brass Co. with respect to Akron Brass Co. products purchased and used in the United States and Canada respectively. All Akron valves are warranted for 10 years.

AKRON HEAVY DUTY VALVE - 10 YEAR WARRANTY

QTY: 1

Akron Brass warrants Heavy Duty Swing-Out Valves for a period of ten (10) years after purchase against defects in material or workmanship. Akron Brass shall repair or replace any Heavy Duty Swing Out Valve which fails to satisfy this warranty.

CLASS 1 - ELECTRICAL PRODUCT WARRANTY

QTY: 1

LAKE WENATCHEE FIRE RESCUE

Class 1 warrants that any equipment of our own manufacture (or manufactured for us pursuant to our specifications) found to have defects in material or workmanship during normal use and service, will be repaired or replaced (at our option) free of charge, provided that written notice of such defect is received by us within two years (three for liquid-filled gauges) after initial shipment.

All equipment requiring repair or replacement under this warranty will be returned prepaid to Class 1. Such returned equipment will be examined by us and, if found to be defective as a result of materials failure or workmanship, will be repaired or replaced at no charge.

ADDITIONAL ITEMS SHIPPED WITH VEHICLE

QTY: 1

- 1 - Bag of assorted stainless steel nuts and bolts