Commercial 3,000 gallon Water Tender

Intent of specifications

Bald Hills Fire Protection District 17 (hereinafter referred to as "District") is requesting proposals for the immediate purchase of one (1) fire apparatus. The District's goal is to identify the most responsible and capable contractor that meets the requirements indicated in the request for proposal at a reasonable cost. The apparatus shall meet the requirements of National Fire Protection Association (NFPA) 1900 Standard for Aircraft Rescue and Firefighting Vehicles, Automotive Fire Apparatus, Wildland Fire Apparatus, and Automotive Ambulances (current edition) in all respects for use as a mobile water supply (aka Water Tender) apparatus, as if they were written out in full detail, insofar as they apply, unless otherwise indicated in these specifications. Some items in these specifications exceed NFPA standards and will be considered minimum requirements for compliance. The bid price shall remain valid for a period of sixty (60) calendar days from the date of bid opening on May 8th, 2025.

With a goal of obtaining the best results and the most acceptable apparatus for service, these specifications cover minimum requirements as to the type of construction to which the apparatus must conform. Minor details of construction and materials, where not otherwise specified, or as otherwise agreed to by the parties, are left to the discretion of the contractor, who shall be solely responsible for the design and construction of all features. Completed apparatus shall comply with all Federal, State, and D.O.T. regulations, standards and laws relating to commercial vehicles as well as to fire apparatus. The completed apparatus shall be able to pass a Washington State motor vehicle inspection for commercial vehicles without exemptions. Any error, omission, or inconsistency that is identified by the bidder shall be listed as such in the exceptions, and a proposal to meet the intent of the specifications shall be listed.

Contract agreement

Each bidder shall submit a copy of a proposed contract form. Said contract form shall be subject to approval or modification until acceptable by both parties. The contract must specifically enumerate all documents that are included by reference, which shall include, but not be limited to, the following documents:

- A formal written agreement executed by each party
- The bid proposal submitted by the supplier
- All warranties covering the apparatus and equipment
- Terms of Payment

Terms shall be 100 percent payment after acceptance of the apparatus. No other terms shall be acceptable. All bidders shall be aware that it can take thirty (30) days to process payment.

Warranty – One Year

Successful bidder to cover all warranty issues for a minimum of one year, or the manufacturer's warranty period, whichever is greater. A copy of each applicable manufacturer warranty shall be supplied with the proposal for review.

Body Warranty – Ten Year

The successful bidder to warranty the body against defects in materials and workmanship for a period of ten (10) years, effective upon final acceptance of the apparatus. Any unauthorized alterations or modifications to the body shall void this warranty.

Paint Warranty – Five Year

The successful bidder to warranty finish paint against defects in materials and workmanship for a prorated period of five (5) years, effective upon final acceptance of the apparatus. Any unauthorized alterations or modifications to the body shall void this warranty.

Tank Warranty – Lifetime

The tank shall have a limited Lifetime warranty that provides warranty service for the life of the fire apparatus in which the tank is installed, effective upon final acceptance of the apparatus. Any unauthorized alterations or modifications to the tank shall void this warranty. Warranties must be transferable if the apparatus ownership changes by request.

Plumbing Warranty – Ten Year

The successful bidder to warranty all plumbing/piping to be free from defects in material and workmanship, under normal use and service, for a period of ten (10) years, effective upon final acceptance of the apparatus. Any unauthorized alterations or modifications to the piping/plumbing shall void this warranty.

Electrical Warranty – Two Year

The successful bidder to warranty the electrical system against defects in materials and workmanship for a period of two (2) years, effective upon final acceptance of the apparatus. Any unauthorized alterations or modifications to the electrical system shall void this warranty.

Fire Pump Warranty – Five Year

The successful bidder to warranty the fire pump against defects in materials and workmanship for a period of five (5) years, effective upon final acceptance of the apparatus. Any unauthorized alterations or modifications to the fire pump shall void this warranty.

Pre-delivery test documents

Documentation of successful road and pump tests specified in NFPA 1900 (current edition) shall be provided by the bidder to the District's Accepting Authority (DAA) prior to delivery of the apparatus. Permission to keep or store the apparatus in any building or property owned or occupied by the District

prior to final acceptance by the DAA, shall not constitute acceptance. Insurance covering loss, theft, or liability shall remain the responsibility of the bidder until final acceptance is completed.

Inspection and Acceptance

The fire apparatus will be inspected upon delivery for compliance with specifications, approved change orders, and previously authorized exceptions. Deviations will not be tolerated and may be cause for rejection of apparatus unless they were originally listed in the bidder's proposal or previously approved in writing by the District's Accepting Authority (DAA).

Final acceptance of the delivered apparatus and equipment will be made at completion of all required tests, inspections, and receipt of all specified equipment. Equipment items not delivered at time of the tests or inspection, or construction not in conformance with the proposal, will be cause for the District to withhold final acceptance and payment until delivery is complete and acceptable.

If after sixty (60) days past the proposed date of delivery, the apparatus has not been brought up to compliance, the bidder may be considered in default of the contract.

Bid errors

The District will not be liable for any errors in any bidder proposal and bidders will not be allowed to alter or modify bids after the bid submittal deadline. The District reserves the right to correct or amend errors such as typing, transposition or other obvious errors, however, the District is not required to make such corrections or amendments. If a bidder claims error(s) and asks to be relieved of an award, the bidder will be required to promptly present documentation of the error(s). If the District upon review of the documentation is convinced, at the District's sole discretion, that an honest, mathematically excusable error or omission of costs has been made, the bid may be rejected. If a discrepancy exists between the price per unit and the extended amount of any bid item, the price per unit will control the extended amount.

Acceptance of Bid

The Fire District reserves the right to reject any or all bids, to waive minor irregularities in any bids or in the bidding procedure, and to accept any bid presented which meets or exceeds these specifications and which the Board of Fire Commissioners deems to be in the best interest of the District. The Board of Fire Commissioners reserves the right to accept the bid from the lowest responsible bidder taking into consideration the interests of the District as a whole. This may or may not be the bid with the lowest bid price. To properly evaluate all bids, the Bid Checklist (see section 10 of these specifications) indicating compliance or lack thereof must be completed and returned with the bid.

Any exception or variation in construction, performance, test, or items of equipment between these specifications and the bidder's proposal shall be submitted in writing explaining in detail, how the proposed deviation meets or exceeds the specifications and why it is necessary. The purchaser reserves the right to determine which (if any) deviations are acceptable.

A complete set of contractor specifications of the proposed apparatus must be submitted with the bid, in bid order. Submission of the contractor specifications in bid specification is a requirement, not optional. Discrepancies found in the contractor's specifications will be considered non-compliance.

General layout drawings showing front, rear, left, right and top view of a representative apparatus must be submitted with the bid for the purpose of comparison. Critical dimensions such as overall height, overall length, body width, cab dimensions, pump module dimensions, pump gpm, compartment dimensions, water tank capacity, tank dimensions, and overall body dimensions shall be on the drawings.

The purchaser's specifications shall, in all cases, govern the construction of the apparatus, unless a properly documented exception or deviation was approved. The builder should provide documentation or otherwise demonstrate that they have successfully produced and sold apparatus of a similar design and of the same material within the past four years. A list of Fire Departments located within Washington State that have purchased fire apparatus from the bidder over the past 5 years must be supplied along with the bid for physical evaluation.

Delivery terms

The apparatus shall be delivered by the bidder under their own power within 180 calendar days from the date of award, with all equipment specified, to Bald Hills Fire Protection District 17, Station 17-1, 16306 Bald Hill Road SE, Yelm, Washington. The bidder must submit a firm delivery time (number of calendar days from date of order to date of delivery) of said apparatus with their bid.

1. Chassis

a) The chassis shall be designed and manufactured for heavy duty service with adequate strength and capacity for all components for the intended load to be sustained and the type of service required.
b) Diesel engine with adequate horsepower and torque for the intended load to be sustained and the type of service required.
c) Automatic transmission as provided by manufacturer, or appropriate automatic transmission with Power Take Off (PTO) for the intended use.
d) Air brakes with heated air dryer.
e) Steel air brake reservoirs with auto drain valves.
f) Anti-locking braking system.
g) Automatic slack adjusters, front and rear.
h) Spring parking brake for rear axle(s).
i) Maximum Overall Length of 396 inches.
j) Maximum Overall Height of 120 inches.
k) Maximum Overall Width of 108 inches.
l) Vehicle stability meeting the requirements of NFPA 1900.
m) Load distribution such that when fully equipped and loaded, the apparatus complies with the gross axle weight ratings (GAWR), gross vehicle weight ratings (GVWR), and the chassis manufacturer's load balance guidelines. The side-to-side tire load variation being no more than seven percent (7%) of the total tire load for that axle or the limits allowed by the axle or component manufacturer (whichever is less).
n) Air-spring rear suspension system.
o) Minimum of 50 gallon fuel tank.

p) Alternator that has a minimum output at idle to meet the minimum continuous electrical load of the apparatus as defined by NFPA 1900.
q) 12v threaded stud batteries (as required) with remote terminal “jump posts”.
r) Frame ground return for battery cables.
s) Tread-plate aluminum rear bumpers.
t) Front and rear tow eyes, frame mounted.
u) Wheels and tires appropriate for the weight, load distribution, and the type of service required. Each tire being equipped with a visual indicator or monitoring system that indicates tire pressure.
v) Hard rubber mud flaps, front and rear.
w) Color to be Red.
x) Anti-corrosion protection such that the chassis, body, and major components are designed to minimize the association of different metals, or where unavoidable, an anti-corrosion coating will be used to prevent electrolysis.
y) Air horn(s)
z) Automatic tire chains installed on the drive axle.

2. Cab

a) Air-ride driver’s seat and bucket style officer’s seat
b) Type-2 seat belt assemblies that conform to FMVSS No. 209, being bright red in color and 60 inches in length.
c) Seat belt warning system compliant with NFPA 1900 requirements.
d) Power adjustable, heated mirrors.
e) Stainless steel cab grab handles, both left and right.
f) Driver and officer (passenger) doors have a minimum of 96 square inches of retro-reflective material affixed to the interior.
g) Heater, Defroster, and Air-Conditioning.
h) Dome lights activated by the driver’s and officer’s doors.
i) Adjustable tilt and telescoping steering column.
j) Self-cancelling turn signal switch.
k) Suitable locations for Motorola Mobile Radio (APX8500 All Band), Control head, and APX8000 portable radio charger (all radio items provided by District, but power sources identified by bidder).
l) Wireless Intercom system for a minimum of 2 headsets, and compatible with Motorola APX8500 All Band mobile radio.
m) Data plate installed in the driver’s area of the cab specifying the quantity of personnel allowed to ride in the apparatus.
n) Travel height and GVWR plate – A plate mounted in a conspicuous location to the driver when seated, specifying the overall height of the apparatus in feet and inches, as well as the gross vehicle weight rating (GVWR) in pounds.
o) Helmet warning label(s) visible from each seated position, stating “Do not wear helmet while seated.”
p) Seatbelt warning label(s) visible from each seated position, stating “Occupants must be seated and belted when apparatus is in motion.”

q) Driver's instrument panel and controls should include speedometer, tachometer, odometer, oil pressure, coolant temperature, transmission temperature, voltmeter, hazard switch and indicator light, engine and trip hours, graduated air restriction, turn signal indicator, headlight/high-beam switch and indicator, fuel level gauge, low air pressure light and buzzer, primary and secondary air pressure gauges, master ignition switch, windshield wipers and windshield washer controls, warning lights and siren switches, "OK to Pump" indicator light, "OK to Pump-and-Roll" indicator light (if applicable), PTO engaged indicator, fire pump engagement controls, tank water level indicator, traffic-arrow controls (if included), battery disconnect switch, and "open compartment" indicator light with buzzer.

3. Water tank

a) The apparatus shall be equipped with a 3,000 gallon water tank constructed of noncorrosive material or otherwise protected against corrosion and deterioration that complies with NFPA 1900 standards for water tanks.
b) The water tank shall have a means to permit flushing of the tank.
c) If the water tank is independent of the body and compartments, it shall be equipped with a method for lifting the tank off the chassis.
d) The tank shall be cradled, cushioned, spring-mounted, or otherwise protected from undue stress resulting from travel on uneven terrain.
e) The tank shall be provided with baffles or swash partitions to form containment cells or dynamic water movement control.
f) One or more cleanout sumps shall be provided with a three (3) inch or larger removable plug furnished in each sump. If the sump is used for the tank-to-pump line connection, the design shall prevent sludge or debris in the sump from entering the pump.
g) An electric indicator shall be provided on both the driver's and officer's side of the tank, as well as on the console in the cab, which shows the level or amount of water in the tank. The exterior indicators should be large enough to allow easily determining the water level from 100 feet.
h) The water tank shall be connected to the intake side of the pump with a valve controlled at the pump operator's position.
i) The piping and valve arrangement shall be capable of delivering water to the pump at a minimum rate of 1,000 gpm. The flow required shall be sustainable while pumping a minimum of 80 percent of the certified tank capacity with the apparatus on level ground.
j) An automatic means shall be provided in the tank-to-pump line that prevents unintentional backfilling of the water tank through that line.
k) An automatic means shall be provided in the tank-to-pump line that prevents air from being entrained while pumping water from the tank.
l) A readily accessible, covered fill opening designed to prevent spillage shall be provided. The fill opening shall have a minimum inside diameter of six (6) inches and feature a screen that is easily removed and cleaned. The cover shall be marked with a label that reads "Water Fill". The cover or another device shall open as a vent to release pressure buildup in the tank.
m) A vent/overflow outlet that is sized to allow water to be drawn from or added to the tank at a rate of at least 1,000 gpm shall be provided. The vent/overflow outlet shall be designed to direct any water to behind the rear axle to as not to interfere with rear tire traction.

n) An external fill connection leading directly to the water tank shall be provided. The external fill connection shall permit a minimum filling rate of 1,000 gpm from sources external to the apparatus. The external fill connection shall be provided with removable or accessible strainer, a slow operating shutoff valve capable of being throttled, a minimum 30-degree sweep elbow positioned downward, and a closure cap.
o) The tank shall feature a single or multiple connections (i.e., dump valve) allowing water to be transferred from the tank to an external use to the right, left, and rear of the apparatus. Each dump valve shall be capable of emptying 90 percent of the tank's capacity at a minimum average rate of 1,000 gpm with the apparatus on level ground without the use of the fire pump. The valve(s) allowing transfer to occur should be pneumatically or electrically actuated and should be remotely operated from the driver's position within the cab and the pump operator's panel.
p) The manufacturer shall certify the capacity of the water tank prior to delivery of the apparatus. The capacity of the water tank shall be displayed near the pump operator's position.

4. Fire pump

a) The apparatus shall be equipped with a fire pump that meets the requirements of NFPA 1900 with a minimum rated capacity of 1,000 gpm at 150 psi as described therein. The pump shall be placed in gear from the chassis cab. The pump shift shall be clearly labeled.
b) A control shall be designed in the cab to engage the fire pump. The control shall be located so it is accessible from the driver's seat and not subject to accidental engagement. Safety interlocks shall be provided to ensure the pump drive system components are properly engaged to safely operate the pump. Pump shifting instructions shall be provided at the pump shifting location. The following indicator lights shall be installed:
    - A GREEN indicator light labeled "PUMP ENGAGED" located at the pump operator's position and indicate the pump shift has successfully been completed.
    - GREEN indicator light labeled "OK TO PUMP" located in the cab at the driver's location which indicates the chassis transmission is in neutral, and parking brake engaged.
    - GREEN indicator light labeled "OK TO PUMP-and-ROLL" located in the cab at the driver's location which indicates the pump shift is engaged and parking brake is released.

c) The fire pump priming system shall feature a single, push/pull control, clearly labeled, and located on the pump operator's panel.
d) The apparatus shall feature a programmable fire pump pressure governing system.
e) A side-mount pump configuration shall be used, and feature two (2) six (6) inch NH inlets (one each side, non-gated, with caps) and one (1) 2-1/2" inlet on the driver's side.
f) The fire pump shall feature an appropriately sized pump-to-tank gated refill line controlled from the pump operator's panel and capable of flowing a minimum of 1,000 gpm.
g) The fire pump shall feature three 2-1/2 inch NH discharges. The preferred configuration being (2) driver's side, and (1) officer's side. Each discharge capable of a minimum flow of 250 gpm and controlled from the pump operator's position.

h) The fire pump shall feature one (1) large diameter discharge, located on the officer's side, with a minimum 30-degree sweep elbow positioned downward and a 5" Storz closure cap.
i) The fire pump shall feature a minimum of two 1-1/2 inch NH preconnected hose trays. Each hose tray being suitable for 200 feet of 1-3/4 inch nylon double jacket fire hose with attached nozzles, configured in a "minuteman" load. Each discharge shall be capable of a minimum flow of 250 gpm and controlled from the pump operator's position.
j) The following controls and instruments shall be featured as a group on the pump operator's panel:
    - Master pump intake pressure gauge (-30Hg – 600PSI)
    - Master pump discharge pressure gauge (0 – 600 PSI)
    - Engine tachometer (RPM)
    - Engine coolant temperature gauge
    - Engine oil pressure
    - Voltmeter
    - Pump pressure controls
    - Pump engine throttle
    - GREEN "Pump Engaged" indicator
    - GREEN "OK to Pump" indicator
    - GREEN "OK to Pump-and-Roll" indicator (if applicable)

k) A pressure gauge shall be provided for each discharge outlet of 1-1/2 inch or larger in size and shall be marked with a color-coded label to indicate the outlet to which it is connected.
l) All pump controls and devices shall be installed to protect against mechanical damage and the adverse effects of weather conditions on the operation.
m) The pump operator's panel shall feature panel lights controlled from that position.
n) An engine speed control shall be provided at the pump operator's panel. An interlock system shall prevent advancement of the engine speed at the pump operator's panel unless the apparatus has "OK to Pump" throttle ready indication.
o) A permanent plate shall be mounted upon the pump operator's panel which displays pump performance data and certified water tank capacity.
p) A set of color-coded and function describing labels shall be provided on the apparatus for the pump operator's controls, inlets, outlets, drains, and pressure gauges.
q) A supplementary heat exchanger cooling system shall be provided for the pump drive engine.
r) Each gated 1-1/2 inch or larger inlet shall feature a quarter-turn drain valve that is plumbed with low pressure hose to direct water away from the pump operator's position.
s) The fire pump shall be tested as described in NFPA 1900. Documentation indicating successful testing shall be provide to the District prior to delivery of the apparatus.

5. Compartments

a) Compartments shall comply with NFPA 1900 requirements.
b) A minimum of 60 cubic-feet of enclosed weather-resistant compartments provided for the storage of equipment. "Sweep-out" style preferred.
c) Storage location shall be provided for all equipment identified in Section 6 of these specifications.

d) A minimum hose bed area(s) suitable for safe and easy deployment and return to storage of the following hoses, including couplings:
   - (4) 100-foot lengths of Angus Fire HI-VOL rubber covered 4-inch LDH (400 feet)
   - (12) fifty-foot lengths of 2-1/2 inch N-DURA nylon double jacket fire hose (600 feet)
   - (8) fifty-foot lengths of 1-3/4 inch N-DURA nylon double jacket fire hose (400 feet)

e) Two (2) 1-1/2 inch NH pre-connected hose trays, suitable for 200 feet of 1-3/4 inch nylon double jacket fire hose (***Note: Not included in the above hose quantities***) with attached nozzles.

f) Pump operator's compartment suitable for the storage of appropriate couplings and equipment and located near the pump operator's panel.

g) Suitable storage location for firefighter helmets protected from the elements for each seating location.

h) Easily accessible location for the storage of a 3,000 gallon folding tank, located in a manner for its safe and easy deployment and return to storage.

6. Emergency equipment

This section lists equipment the District intends to place on the apparatus once in service. The apparatus shall have a storage location for all the equipment listed and the combined weight of the equipment shall be considered. Listed equipment to be provided by the successful bidder, unless identified as "District Provided".

a) Two (2) ten-foot sections of 6 inch clear PVC hard suction hose with 6 inch NH couplings.

b) One (1) fifteen-foot section of 4-inch Angus Fire HI-VOL rubber covered LDH with 4-inch Storz connections.

c) One 10-foot (or longer) pike pole in a bracket fastened to the apparatus.

d) One approved dry chemical portable fire extinguisher with a minimum 80-B:C rating mounted in a bracket fastened to the apparatus and protected from the elements.

e) One 2-1/2 gallon (or larger) water extinguisher mounted in a bracket fastened to the apparatus and protected from the elements.

f) Four (4) combination spanner wrenches, two (2) hydrant wrenches, and four (4) Storz wrenches mounted in brackets fastened to the apparatus.

g) One pair of wheel-chocks, mounted in a readily accessible driver's side location, suitable for holding the apparatus when loaded to its GVWR on a hard surface on a 20 percent grade with the transmission in neutral and the parking-brake released.

h) Two (2) Streamlight Fire Vulcan LED lanterns (or comparable portable lights)

i) One (1) 3,000 gallon portable collapsible tank with aluminum frame.

District Provided equipment

j) One dead-blow mallet.

k) (2) MSA G1 SCBAs with 45-minute 4,500psi cylinder, mounted in a bracket fastened to the apparatus and protected from the elements. (1 for each assigned seating position)

l) (2) MSA 45-minute 4,500psi spare cylinders, mounted in a bracket fastened to the apparatus OR stored in specially designed storage space(s) protected from the elements and protected from the elements (e.g., securable compartments above the wheel wells). (minimum of 1 for each seating position)

m) Tool Bag (measuring 22”l x 10”w x 12”h, 15lbs).
n) Two (2) wildland hose packs (measuring 22” x 20” x 12”, 15lbs each).
o) Two (2) 2-1/2 inch TFT H2VIT nozzles coupled with 1-1/2 inch NH HTO nozzles.
p) Three (3) 1-1/2 inch NH TFT HVIT nozzles coupled with 1-1/2 inch NH TFT HMTO nozzles.
q) Five (5) 28 inch fluorescent orange traffic cones (collapsible)
r) One (1) set of “Irons” (consisting of flat head axe and Halligan bar).
s) One (1) Ball Intake Valve (will be affixed to 6” inlet on officer’s side) (TFT model LEFT JBIV-LP 4.0"STORZ RIGID X 6.0"F) (weighing 27lbs)
t) The following hose couplings, adapters, and appliances mounted in bracket(s) fastened to the apparatus:
    - (2) 2-1/2 inch NH double-female couplings
    - (2) 2-1/2 inch NH double-male couplings
    - (2) 1-1/2 inch NH double-female couplings
    - (2) 1-1/2 inch NH double-male couplings
    - (2) 2-1/2 inch NHF x 1-1/2 inch NHM reducers
    - (2) 5-inch Storz x 4-inch Storz adapters
    - (1) TFT 6-inch low-level floating strainer [A03HNX-JET-F] (30lbs.)
    - (2) 2-1/2 inch NHF x 2-1/2 inch NHM gated hydrant valves
    - (1) TFT Blitzfire portable monitor (35lbs.)
    - (2) 2-1/2 inch x 1-1/2 inch x 1-1/2 inch gated wyes (2.5lbs each)
    - (1) 2-1/2 inch x 2-1/2 inch x 4-inch Storz clappered Siamese valve (8lbs)
    - (1) 4-inch Storz x 2-1/2 inch NHM x 2-1/2 inch NHM Gated Wye (8lbs)
    - (1) 1-1/2 inch NHF x 2-1/2 inch NHM adapter
    - (2) 1-1/2 inch NHF x QT adapters
    - (2) 1-1/2 inch NHM x QT adapters

7. Electrical

a) All low voltage electrical systems or warning devices installed meet requirements of NFPA 1900.
b) Battery disconnect switch located near driver’s seat within the cab and clearly labeled “ON” and “OFF”. (Capability to be locked in the “OFF” position with a commercial padlock is preferred.)
c) LED warning light package.
d) Back up alarm located at chassis rear and activated when transmission is placed in Reverse.
e) Back-up camera system which allows driver to see behind the apparatus from the seat (but does not obstruct their view), which automatically activates when transmission is placed in reverse, and features a camera mounted on the rear centerline of the water tank.
f) Exterior scene lights (LED preferred).
g) LED stop, tail, and turn lights preferred.
h) Kussmaul (or comparable) electronics load management system with multiple battery charging suitable for this application.
i) Kussmaul (or comparable) auto-eject for external electrical power and chassis air system, with remote mounted battery condition display located near driver’s door
j) On-board vehicle data recorder (VDR)

8. Miscellaneous

a) All bidders to provide a detailed description of the apparatus, a list of equipment furnished, and other details to which the apparatus will conform. The detailed description shall include a statement specifically describing each aspect of the proposed/delivered apparatus that will not be fully compliant with NFPA 1900 requirements.
b) Upon final acceptance, the bidder shall provide all available owner's manuals for all major components and equipment included with the apparatus.
c) Upon final acceptance, the bidder shall provide two complete electrical system schematics diagramming each individual circuit.
d) A retroreflective stripe, which is a minimum of 4-inches wide shall be affixed to at least 50 percent of the cab and body length on each side (excluding the pump panel area(s) and at least 25 percent of the width of the front of the apparatus.
e) At least 50 percent of the rear-facing vertical surfaces, visible from the rear of the apparatus, excluding any pump panel area(s) not covered by a door, shall be equipped with retroreflective six-inch striping, in a chevron pattern sloping downward and away from the centerline of the apparatus at 45 degree angles.

9. Optional Front Bumper Features

These options, if bid, will be considered for informational purposes and the bidder is not required to include them in their sealed bid.

1) EXTENDED FRONT BUMPER WITH 2.5" DISCHARGE: Provide extended tread-plate aluminum front bumper which features a 2.5" discharge capable of 250 gpm, controlled from pump operator's panel, and an enclosed hose compartment (40"wide x 16"d x 16"h) with tread-plate aluminum lid.
2) EXTENDED BUMPER WITH REMOTE CONTROLLED MONITOR: Provide extended tread-plate aluminum front bumper which features a discharge capable of 250 gpm (controlled from pump operator's panel), an electric remote controlled monitor capable of being operated from the driver's seat, and an enclosed hose compartment (40"wide x 16"d x 16"h) with tread-plate aluminum lid.

10. Bid Checklist

Bidder to designate each line item by circling either (**I**) Included, (**N**) Not included, or (**E**) Exception or variation proposed. Any exception or variation between these specifications and the bidder's proposal shall be indicated here and detailed in the bidder's submitted proposal.

1. Chassis

a)	Chassis suited for heavy duty service and the intended load required	**I**	**N**	**E**
b)	Diesel engine with adequate horsepower and torque for the intended load	**I**	**N**	**E**
c)	Automatic transmission with Power Take Off (PTO) for the intended use	**I**	**N**	**E**
d)	Air brakes with heated air dryer	**I**	**N**	**E**
e)	Steel air brake reservoirs with auto drain valves	**I**	**N**	**E**
f)	Anti-locking braking system	**I**	**N**	**E**
g)	Automatic slack adjusters, front and rear	**I**	**N**	**E**
h)	Spring parking brake for rear axle(s)	**I**	**N**	**E**
i)	Maximum Overall Length of 396 inches	**I**	**N**	**E**
j)	Maximum Overall Height of 120 inches	**I**	**N**	**E**
k)	Maximum Overall Width of 108 inches	**I**	**N**	**E**
l)	Vehicle stability meeting the requirements of NFPA 1900	**I**	**N**	**E**
m)	Load distribution complies with these specifications	**I**	**N**	**E**
n)	Air-spring rear suspension system	**I**	**N**	**E**
o)	Minimum of 50 gallon fuel tank	**I**	**N**	**E**
p)	Alternator meets the minimum electrical load as defined by NFPA 1900	**I**	**N**	**E**
q)	12v threaded stud batteries (as required) with remote "jump posts"	**I**	**N**	**E**
r)	Frame ground return for battery cables	**I**	**N**	**E**
s)	Tread-plate aluminum rear bumper	**I**	**N**	**E**
t)	Front and rear tow eyes, frame mounted	**I**	**N**	**E**
u)	Wheels and tires suitable for service, equipped with air-pressure indicator	**I**	**N**	**E**
v)	Hard rubber mud flaps, both front and rear	**I**	**N**	**E**
w)	Red in color	**I**	**N**	**E**
x)	Anti-corrosion protection	**I**	**N**	**E**
y)	Air horn(s)	**I**	**N**	**E**
z)	Automatic tire chains installed on the drive axle	**I**	**N**	**E**

2. Chassis

a)	Air-ride driver's seat and bucket style officer's seat	**I**	**N**	**E**
b)	60", red, seatbelts that conform to FMVSS No. 209	**I**	**N**	**E**
c)	Seat belt warning system compliant with NFPA 1900 requirements	**I**	**N**	**E**
d)	Power adjustable, heated mirrors	**I**	**N**	**E**
e)	Stainless steel cab grab handles, both left, and right	**I**	**N**	**E**
f)	Minimum 96 sq-in of retro-reflective material affixed to door interiors	**I**	**N**	**E**
g)	Heater, Defroster, and Air-Conditioning	**I**	**N**	**E**
h)	Dome lights activated by the driver's and officer's doors	**I**	**N**	**E**
i)	Adjustable tilt and telescoping steering column	**I**	**N**	**E**
j)	Self-cancelling turn signal switch	**I**	**N**	**E**
k)	Suitable locations for Motorola radio equipment (provided by District)	**I**	**N**	**E**
l)	Wireless intercom system w/2 headsets & Motorola compatible	**I**	**N**	**E**
m)	Data plate indicates number of occupants	**I**	**N**	**E**

n)	Travel height and GVWR plate mounted in a conspicuous location	**I**	**N**	**E**
o)	Helmet warning label(s) visible from each seated position	**I**	**N**	**E**
p)	Seatbelt warning label(s) visible from each seated position	**I**	**N**	**E**
q)	Driver's instrument panel and controls as described	**I**	**N**	**E**

3. Water tank

a)	3,000 gallon or larger water tank that complies with NFPA 1900	**I**	**N**	**E**
b)	Water tank permits flushing of the tank	**I**	**N**	**E**
c)	Water tank equipped with a method for lifting the tank off the chassis (N/A)	**I**	**N**	**E**
d)	Tank is protected from undue stress resulting from travel on uneven terrain	**I**	**N**	**E**
e)	Tank baffles or partitions provide dynamic water movement control	**I**	**N**	**E**
f)	Cleanout sumps are three (3) inch or larger with removable plugs?	**I**	**N**	**E**
g)	Electric tank water level indicators as described	**I**	**N**	**E**
h)	Water "Tank-to-Pump" valve controlled at the pump operator's position	**I**	**N**	**E**
i)	Sustainable 1,000 gpm, pumping a minimum of 80% of capacity on level ground	**I**	**N**	**E**
j)	Tank-to-pump line automatically prevents unintentional backfilling water tank	**I**	**N**	**E**
k)	Tank-to-pump line automatically prevents air entrainment while pumping	**I**	**N**	**E**
l)	A readily accessible, labeled, and covered fill opening as described	**I**	**N**	**E**
m)	A vent/overflow outlet directs water behind the rear axle as described	**I**	**N**	**E**
n)	Direct fill line permits 1,000 gpm from external source as described	**I**	**N**	**E**
o)	Dump valve(s) allow 1,000 gpm discharge to right, left, and rear, operated remotely	**I**	**N**	**E**
p)	Certified capacity of the water tank displayed near pump operator's position	**I**	**N**	**E**

4. Fire pump

a)	1,000 gpm fire pump that meets the requirements of NFPA 1900	**I**	**N**	**E**
b)	Control and safety interlocks provided, with indicator lights as described	**I**	**N**	**E**
c)	Fire pump priming system features single, push-pull control as described	**I**	**N**	**E**
d)	Fire pump shall ha a variable relief valve with manual bypass	**I**	**N**	**E**
e)	Side-mount pump location and features as described	**I**	**N**	**E**
f)	"Pump-to-Tank" gated refill line capable of flowing 1,000 gpm	**I**	**N**	**E**
g)	Three 2-1/2 inch discharges controlled from the pump panel	**I**	**N**	**E**
h)	One large diameter discharge with 30-degree swept elbow and 5" Storz cap	**I**	**N**	**E**
i)	Two 1-1/2 inch preconnected hose trays as described	**I**	**N**	**E**
j)	Controls and instruments featured on the pump operator's panel	**I**	**N**	**E**
k)	Color-coded pressure gauges for outlets of 1-1/2 inch or larger in size	**I**	**N**	**E**
l)	Pump controls and devices are protected against damage and weather	**I**	**N**	**E**
m)	Pump operator's panel features panel lights controlled from that position	**I**	**N**	**E**
n)	Engine speed control provided at pump operator's panel with interlocks	**I**	**N**	**E**
o)	Pump performance data and tank capacity displayed at operator's panel	**I**	**N**	**E**
p)	Color-coded and function describing labels provided as described	**I**	**N**	**E**
q)	Supplementary heat exchanger cooling system	**I**	**N**	**E**
r)	Gated 1-1/2 inch or larger inlets feature quarter-turn drain valves	**I**	**N**	**E**
s)	Fire pump testing as described in NFPA 1900 will be provided	**I**	**N**	**E**

5. Compartments

a)	Compartments comply with NFPA 1900 requirements	**I**	**N**	**E**
b)	60 cu-ft of enclosed weather-resistant compartments for storage	**I**	**N**	**E**

c)	Storage location for all equipment identified in Section 6 of these specifications	**I**	**N**	**E**
d)	Suitable hose beds for safe and easy deployment as of following quantities:			
	• 400 feet of 4-inch LDH as described	**I**	**N**	**E**
	• 600 feet of 2-1/2 inch N-DURA nylon double jacket fire hose	**I**	**N**	**E**
	• 400 feet of 1-3/4 inch N-DURA nylon double jacket fire hose	**I**	**N**	**E**
e)	Two pre-connected hose trays, suitable for 200 feet of 1-3/4 inch handlines	**I**	**N**	**E**
f)	Pump operator's compartment located near the pump operator's panel	**I**	**N**	**E**
g)	Suitable storage location for firefighter helmets as described	**I**	**N**	**E**
h)	Suitable location of 3,000 gallon folding tank for safe deployment and return	**I**	**N**	**E**

6. Emergency equipment

a)	(2) ten-foot sections of 6" PVC hard suction hose with 6" NH couplings	**I**	**N**	**E**
b)	(1) fifteen-foot section of 4" Angus Fire HI-VOL LDH with 4" Storz connections	**I**	**N**	**E**
c)	(1) 10-foot (or longer) pike pole in a bracket fastened to the apparatus	**I**	**N**	**E**
d)	(1) 80-B:C rating dry-chem extinguisher mounted and protected as described	**I**	**N**	**E**
e)	(1) 2-1/2 gallon (or larger) water extinguisher mounted and protected as described	**I**	**N**	**E**
f)	(4) spanner wrenches, (2) hydrant wrenches, and four (4) Storz wrenches as described	**I**	**N**	**E.**
g)	(1) pair of wheel-chocks, capable of holding the vehicle as described	**I**	**N**	**E**
h)	(2) Streamlight LED lanterns (or comparable portable lights)	**I**	**N**	**E**
i)	(1) 3,000 gallon capacity portable collapsible tank with aluminum frame	**I**	**N**	**E**

District Provided equipment (STORAGE LOCATIONS MUST BE IDENTIFIED)

j)	One dead-blow mallet	**I**	**N**	**E**
k)	MSA G1 SCBA with 45-minute 4,500psi cylinder for each assigned seating position	**I**	**N**	**E**
l)	MSA 45-minute 4,500psi spare cylinder for each assigned seating position	**I**	**N**	**E**
m)	Tool Bag (22"l x 10"w x 12"h, weight 15lbs)	**I**	**N**	**E**
n)	(2) Wildland hose packs (22" x 20" x 12", weight 15lbs each)	**I**	**N**	**E**
o)	(2) 2-1/2 inch TFT H2VIT nozzles coupled with 1-1/2 inch NH HTO nozzles	**I**	**N**	**E**
p)	(3) 1-1/2 inch NH TFT HVIT nozzles coupled with 1-1/2 inch NH TFT HMTO nozzles	**I**	**N**	**E**
q)	(5) 28 inch fluorescent orange traffic cones (collapsible)	**I**	**N**	**E**
r)	(1) set of "Irons" (consisting of flat head axe and Halligan bar)	**I**	**N**	**E**
s)	(1) TFT Low-Profile Ball Intake Valve (affixed to 6" inlet on officer's side, weight 27lbs	**I**	**N**	**E**
t)	The following hose couplings, adapters, and appliances mounted in bracket(s):			
	• (2) 2-1/2 inch NH double-female couplings	**I**	**N**	**E**
	• (2) 2-1/2 inch NH double-male couplings	**I**	**N**	**E**
	• (2) 1-1/2 inch NH double-female couplings	**I**	**N**	**E**
	• (2) 1-1/2 inch NH double-male couplings	**I**	**N**	**E**
	• (2) 2-1/2 inch NHF x 1-1/2 inch NHM reducer	**I**	**N**	**E**
	• (2) 5-inch Storz x 4-inch Storz adapter	**I**	**N**	**E**
	• (1) TFT 6-inch low-level floating strainer [A03HNX-JET-F] (30lbs.)	**I**	**N**	**E**
	• (2) 2-1/2 inch NHF x 2-1/2 inch NHM gated hydrant valves	**I**	**N**	**E**
	• (1) TFT Blitzfire portable monitor (35lbs.)	**I**	**N**	**E**
	• (2) 2.5 inch x 1.5 inch x 1.5 inch gated wyes (2.5lbs each)	**I**	**N**	**E**
	• (1) 2.5 inch x 2.5 inch x 4-inch Storz clappered Siamese (8lbs)	**I**	**N**	**E**
	• (2) 4-inch Storz x 2.5 inch NHM x 2.5 inch NHM gated wye (8lbs)	**I**	**N**	**E**
	• (1) 1.5 inch NHF x 2.5 inch NHM adapter	**I**	**N**	**E**
	• (2) 1.5 inch NHF x QT adapters	**I**	**N**	**E**

- (2) 1.5 inch NHM x QT adapters **I N E**

7. Electrical

a) Low voltage electrical systems or warning devices meet NFPA 1900 chapter **I N E**
b) Battery-disconnect switch capability to be locked in the "OFF" position **I N E**
c) LED warning light package **I N E**
d) Back up alarm activated when transmission is placed in Reverse **I N E**
e) Back up camera mounted and activated as described **I N E**
f) Exterior scene lights (LED preferred) **I N E**
g) LED stop, tail, and turn lights preferred) **I N E**
h) Electronics load management system suitable for this application. **I N E**
i) Auto-eject for external electrical power and chassis air system. **I N E**
j) On-board vehicle data recorder (VDR) **I N E**

8. Miscellaneous

a) Detailed description of the apparatus, as described in Section 8 a) **I N E**
b) Owner's manuals for all major components and equipment included **I N E**
c) (2) complete electrical system schematics diagramming each individual circuit **I N E**
d) A 4-inch or larger retroreflective stripe affixed as described **I N E**
e) Retroreflective six-inch striping, in a chevron pattern affixed as described **I N E**

9. Optional Front Bumper Features (These options, if bid, will be considered for informational purposes and the bidder is not required to include them in their sealed bid)

1) Extended front bumper with 2.5" discharge and storage **$_____**

2) Extended front bumper with remote controlled monitor **$_____**

Bidder's Warranty – One Year	**I**	**N**	**E**
Body Warranty – Ten-Year	**I**	**N**	**E**
Paint Warranty – Five Year	**I**	**N**	**E**
Tank Warranty – Lifetime	**I**	**N**	**E**
Plumbing Warranty – Ten Year	**I**	**N**	**E**
Electrical Warranty – Two Year	**I**	**N**	**E**
Fire Pump Warranty – Five Year	**I**	**N**	**E**
Delivery Terms	**I**	**N**	**E**