The Ozark Fire Protection District is located in one of the fastest growing counties in the state of Missouri. The District is located on Highway 65 between the third largest city in Missouri and the state’s largest tourist attraction. The District spans 110 square miles with a population of approximately 33,000. Due to its close proximity to the City of Springfield, Missouri and size of the district, it protects an area comprised of both suburban and rural settings. The District is seeking bids for a multi-purpose unit. The specifications enclosed may roughly mirror that of a typical brush truck. However, this unit would be used to respond to medical emergencies, service calls, outside fires as well as initiate suppression operations at a structure fire. The unit would respond to approximately 700 calls for service each year. Due to staffing issues, size of the response area this unit would serve and the unpredictable nature of the fire service; the Ozark Fire Protection District is seeking a unit that would sufficiently handle this type of call volume in all weather conditions and the terrain that makes up the area. Any interested party seeking additional information may contact the Ozark Fire Protection District at (417) 581-4436 and speak with Fire Chief Darren White or Assistant Chief Bill Arington.

Unit Specifications

The following specifications are intended to describe firefighting equipment for the Ozark Fire Protection District (OFPD) and the details contained in these specifications are not designed to exclude any vendor from bidding, but are offered as a means of describing the needs of the OFPD. Where brand names may be used, the words “or equal” are assumed to follow. Once bids are opened, all bid documents become public record. The OFPD reserves the right to reject any and/or all bids and to waive any informality in bidding. All specifications are minimum requirements.

Apparatus Cab and Chassis

- 1 ton 4WD capable extended cab with 6 ½ foot bed
- Engine: Gasoline
- Automatic transmission
- 220 amperage Alternator
- Dual Batteries
- Master Battery disconnect switch (located on driver’s side of cab)
- Manufacturer recommended rear axle for above described chassis
- Front bucket seats
- Power windows, exterior mirrors, seats & door locks
- A/C
- AM/FM Radio
- Below eye level fold in mirrors, with convex (outside mirrors)
Bid Request for Multi-Purpose Apparatus

- Control Center: The vehicle will be equipped with a center console properly mounted to the cab floor. The purpose of this center console is to mount communication, emergency lighting and siren controls. This console will be mounted between the front bucket seats in such a manner as to allow both occupants of the vehicle to readily operate and control these devices. The console will have a storage container to hold such items as a box of latex medical gloves, four gas meter etc. The console will have locations for the district mobile radio, emergency lights/siren controls boxes to be mounted flush or with the face of the unit only raised. A single Master Optical Warning Device switch shall be provided that will activate all minimum optical warning lighting through a single switch. Individual switches shall not be provided for any minimum optical warning lights to insure total compliance to the warning light requirements as defined in NFPA 1901. All lighting controlled by this switch shall not be subject to load management. All other warning lights and lighting installed on the unit shall be subject to load management and have properly labeled individual switches. The console will also come with drink holders, USB ports (minimum of 2) for charging department electronics such as an iPad.

- Radio Pre-wire: There shall be provided a 12 volt lead for the future installment of a department supplied VHF radio. All wiring shall be located inside the above described control console. The radio will be mounted in the control console as well.

- Single rear wheels and tires

- All terrain tread tires (18” 10 ply) with spare

- Exterior Paint: factory red

- Tow hooks front and rear mounted so as to safely and properly handle the weight of the vehicle and firefighting payload weight

- Rear Hitch/Receiver: A rear mounted Class III trailer hitch shall be securely attached to the vehicle and shall include a 7-pin wiring trailer harness

- Lighting: all vehicle lights shall meet manufacturer’s requirements. Additionally, lighting shall be mounted to provide adequate illumination, when doors are open, for occupants to see terrain immediately outside the vehicle. If vehicle manufacturer standard lighting is not adequate, then additional lights shall be mounted to illuminate the surface immediately outside the vehicle so occupants can safely exit the vehicle in a low or limited light area

- Back up Alarm – The apparatus will be fitted with an audible alarm that sounds when the vehicle transmission is placed in reverse

- The tailgate shall have chevron striping to meet NFPA 1901 requirements

- Additional custom striping and lettering shall be supplied by the district

- Vehicle wiring: shall meet vehicle manufacturer’s specifications

- A spray on liner will be applied to the interior of the vehicles bed. This liner will be black in color and have a coarse finish to ensure protection of the existing vehicle bed from moisture, rust etc. The coarse finish of the spray in liner will also minimize injuries from slips and falls while personnel are moving and/or working in the bed of the vehicle
Bid Request for Multi-Purpose Apparatus

- A “law enforcement” style spot light will be mounted on both the driver and passenger side. These lights will be low profile LED versions

- Cab protector “headache rack” installed between the cab and bed of vehicle. This protector shall not extend above the roofline of the vehicle cab. It shall also be mounted per manufacturer recommendations using the construction features of the vehicles bed

- Optional (Backup Camera, with monitor mounted in cab)

**Emergency Lighting and Sirens**

- The following emergency lighting shall be provided:
  - LED cab mounted light bar, to include, take down and alley lights (a minimum of four take down lights shall be forward facing and a minimum of two rear facing, if possible. If both front and rear take down lights are not possible, then front facing shall be included on the light bar and a rear light option will be included later under the pump section of this specification)
  - Four LED lights mounted on grill or brush guard specified later in this document
  - Two LED front fender intersection lights, one each side
  - LED emergency lights included in rear facing vehicle lights
  - All lights shall be red and blue
  - A 100 watt electronic siren with PA. The PA microphone and siren control to be mounted in the control console. A connector to hook the PA microphone will be provided and be located on the passenger side of console. This connector will not be on top of the console, but rather the side of the console in such a location as to not obstruct the opening or closing of the vehicle glove box. But also to minimize and/or eliminate an accidental keying of the microphone by passenger.
  - A low frequency tone siren, intersection clearance system will be provided and installed in the vehicle grill area
  - All visual and audible warning equipment and installation will meet requirements set forth by NFPA 1901

**Pump Skid Unit**

- The pump will produce ultra-high pressures (approximately 1100 psi, at a minimum)
- 150 gallon polypropylene tank
- Integrated foam system (minimum of 5 gallon foam concentrate storage tank)
- Water tank shall be equipped with a sight gauge
• Hose Reel: minimum of 150 foot of non-collapsible hose with a hose diameter smaller than one inch will be provided. The hose reel will be powered electronically with controls located on a minimum of two sides (driver, passenger and/or rear). A pistol grip firefighting style nozzle will be included. This nozzle will flow no greater than 20 gallons per minute. The hose reel will have rollers equipped to assist in the ease of rewinding the hose and mounted in such a manner as to prevent and/or minimize damage to fire hose caused by rubbing edges. A backup geared crank rewind handle shall also be provided for use in the event of loss of power to the hose reel.

• Tank Refill: A minimum 1 ½” fitting with cap and piping will be installed. This piping will be direct to the tank, NOT through the pump.

• Piping: All piping from the tank to the pump and to the hose reel will be metal and/or flex piping consistent to handle pressures generated by the pump

• Skid Unit Mounting: The skid unit will be mounted inside the 6 ½ foot bed. Mounting of the skid unit shall not incorporate welding or any other permanently secured options. Access to the pump motor, pump, stored equipment and piping shall be ensured during the unit mounting process.

• Pump controls: lighting shall be provided to adequately illuminate the pump control area. All pump controls shall be easily accessible by the operator with the tailgate down. A low water audible alarm shall be installed and/or equipped with the skid unit. The audible alarm shall be clearly heard by personnel with the pump operating at high rpms.

• Pump Lighting: If rear facing takedown lights on the light bar are not feasible and/or do not provide adequate lighting for an operator to adequately see the skid unit and firefighting equipment stored in the bed of the vehicle. Then an additional light shall be installed to ensure adequate lighting of the pump, stored equipment and immediate area surrounding the bed portion of the vehicle.

• (optional) 200 foot of non-collapsible hose on an electric powered hose reel

**Brush Guard and Winch**

• The vehicle will be equipped with a brush guard. This feature will be properly mounted per the brush guard manufacturer’s recommendations. The brush guard will also accommodate a winch.

• A 15,000lbs (approximate) winch will be installed on the brush guard. The winch will include a remote operated switch (tether) to ensure personnel can operate the unit from a safe distance away from the cable. The winch will come equipped with synthetic rope, NOT cable.

• The brush guard will be black in color

• LED lights (front facing) and low frequency sirens mentioned in the emergency lighting section above should be mounted in a recessed manner, if possible, on the brush guard. If these components cannot be mounted in a recessed manner than apparatus builder may installed them elsewhere while meeting the recessed requirement.
Rear of Cab (SCBA/Equipment Storage) Area

(Vendor awarded this bid will be provided pictures to assist with the design and construction of this component)

- The rear bench seat will be removed and replaced with a storage unit constructed by the awarded vendor. Pictures and exact measurements will be provided by the district once the vendor and district confirm interior measurements of the vehicle.

- The storage component, built by the vendor, will be used to properly store two SCBA’s packs, flat headed axe, halligan bar, rechargeable flash light, medical bag, AED, small step ladder and personnel structural turnout gear.

- Material used in the construction of this storage component will be composite plastic. All portions will be ½” thick with exception of the SCBA mounting plate. This piece will be ¾” at a minimum.

- Connection hardware used in construction of this storage component shall be piano hinges or similar

- Back wall will be a single piece measuring (approximately) 34” tall, spanning from the interior floor of the vehicle to the top of the rear window. Its width will cover the rear interior from seatbelt-to-seatbelt. This piece will be secured to the rear interior wall using existing mounting brackets or, as needed, installing mounts to ensure it is safely mounted. Due to the concave interior features of the vehicle, this back plate may need to be cut to a similar angle to fit the above description. Apparatus builder is allowed to make these adjustments as long as the back window is protected and any interior lights mounted in the rear are not covered up and/or obstructed by this component

- A horizontal piece used to store firefighter turnout gear will measure (approximately) 24” wide and be the same length as the back plate. This horizontal piece will be connected to the back plate 16” above the bottom side of the back plate to ensure adequate storage space underneath this horizontal piece for medical bags, AED, and other items.

- To enclose this storage void a vertical component will be connected to the horizontal component and should provide enough space between this storage component and the back of the front bucket seats. This space should allow both bucket seats to be moved all the way back and slightly reclined. The purpose of this space is to minimize potential damage to the back of the bucket seats. This vertical piece can either be mounted to the existing floor of the vehicle or the storage space completely “boxed” in with composite material. If this piece cannot be secured to the vehicle floor, the apparatus builder must either provide this additional cost in their original bid or seek approval from the Ozark Fire Protection District during the construction phase.

- Centered in the cab of the vehicle and attached to this storage component will be a partition wall. This wall will be used to mount two SCBA packs (one on either side, mounted vertically facing outboard) and on the passenger side one LED industrial-duty, rechargeable portable lantern. The thickness of this wall will be ¾” to 1” thick. Its measurements will be 24” wide at the base (flush with the horizontal plate) and will extend at that width approximately 75% of the length of the board. It will then be cut at an angle to a width of 18” at the top. These measurements are for the purpose of preventing any portion of the storage component from intruding into the front area of the cab, becoming an obstruction to vision for either occupant and preventing the likelihood of a passenger coming into contact with the wall during a vehicle accident.
Equipment Mounting

- The following equipment mounts shall be provided and installed by the builder. OFPD only request, where exact locations aren’t mentioned, that personnel safety is considered when choosing equipment mount location.

- On the storage box in the rear interior of the vehicle; 2 SCBA packs mounted on the partition wall previously described. SCBA’s will be mounted vertically with enough space below the bottom of the pack so structural boots may slide under the pack if needed (toes of the boots). There should also be sufficient space above the pack so when removed it does not come into contact with the interior ceiling of the vehicle.

- On the driver’s side; mounting brackets for a flat headed axe and halligan bar married together. This mounting bracket will be on the back plate of the storage box approximately 6” inboard of the vehicle’s seatbelts (outside edge of the back plate).

- Passenger side; mounting bracket for 24” bolt cutters on back plate of storage. Also recharging mount for the lantern. The lantern recharging station shall be located on the SCBA partition wall, preferably between the SCBA and bucket seats.

- In the truck bed; mounting plate for a chainsaw which will be stored inside a saw case. Mounting plate for a backpack leaf blower.

- Installation of a hook between the SCBA and back plate on both sides of the partition wall to be used to hang SCBA mask bags from. Also the installation of a ‘clip like’ hook, both sides, on the back plate between the SCBA pack and mounted tools to allow personnel to hang their helmets.

Warranties and manuals

Apparatus builder shall provide to OFPD documentation that covers all warranties covering the vehicle, skid unit, workmanship and etc. Manuals and schematics for the vehicle, skid unit etc. shall also be provided upon delivery of the unit.

Submitting Bid

Any interested vendor wishing to submit a bid for this vehicle shall include the following: total price for unit, itemized breakdown of costs associated with unit, price for each option included in this specification (separate from total price), color photographs of a similar, previously built unit or computer generated design document, specification sheets on skid unit and vehicle and vendors estimated delivery date of completed unit. Bids shall be submitted to the Ozark Fire Protection District no later than 1:00 pm on Monday, August 14, 2017.