

## Bid #2035

### **ANDERSON COUNTY RESCUE SQUAD - HEAVY RESCUE BID SPECIFICATIONS**

**BIDDING TERMS** Bidder Has Read and Fully Understand the Bidding Terms: YES \_\_\_\_\_ NO \_\_\_\_\_

The information contained in this document provide the the minimum specifications for the purchase of one (1) brand new custom built fire and/or rescue apparatus.

Any bidder who does not follow the requirements of these bid specifications shall be considered non-responsive and shall be disqualified for further consideration.

The final preparations for this apparatus shall be constructed entirely within the Continental United States utilizing every American made material or product available at time of production to meet the specifications of the County.

Each bidder shall submit their information on the required "**BIDDER INFORMATION FORM**" found attached to this document. Any bidder who does not complete the required information and include this form with their bid proposal shall be considered non-responsive and shall be disqualified for further consideration.

Each bid shall include one set of CAD drawings.

Each subsequent section of the bid specifications shall contain a check box for each bidder to identify whether or not they comply 100% with the specification as it has been provided by the County.

Each bidder shall either check "**YES**" or "**NO**" on each section.

All sections that receive a "**YES**" checkmark shall follow the specification precisely as it has been provided in the bid specifications.

All sections that receive a "**NO**" checkmark must be accompanied by an explanation in the vendor provided exceptions page attached to the end of their proposal.

Sections of the specifications that are clearly marked as accepting "**NO EXCEPTIONS**" shall not be deviated from and will be cause for immediate rejection of the bid.

All bid proposals shall be valid for a period of no less than 60 calendar days from the bid opening date and shall not be withdrawn. The County reserves the right to reject any and all bids that do not satisfy these requirements and do not meet the specific needs of the County.

**EXCEPTIONS TO SPECIFICATIONS**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

If there are any exceptions or deviations to the original specifications, regardless of how minor they may be, they shall be explained in detail on a vendor supplied sheet attached at the end of the bid proposal.

**PROPOSAL FORMAT**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

All proposals submitted for consideration shall be formatted in the same layout and same order as the bid specifications for ease of comparison.

**APPARATUS FACTORY LOCATION**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

The apparatus factory location shall be clearly listed in the proposal.

**INTENT OF SPECIFICATIONS**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

These specifications cover general requirements as to the type of construction and tests to which the apparatus must conform, together with certain details as to finish, equipment, and appliances to which the contractor shall supply and conform.

Minor details of construction and materials where not otherwise specified are left to the discretion of the contractor, who shall be solely responsible for the design and construction of all features.

The apparatus shall conform to the recommendations of NFPA 1901-2016 unless otherwise stated in these specifications.

**GENERAL INFORMATION**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

The apparatus shall be constructed entirely within the Continental United States utilizing every American made material or product available at time of production.

All fabrication and final preparations for this apparatus shall take place at the main production facility and shall not be built at a satellite facility.

**APPARATUS SERVICE CENTER**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

The apparatus manufacturer shall operate a full service maintenance center with EVT certified technicians to include engine and mechanical repair, preventative maintenance, full capacity fabrication shop, full paint and body shop, fire pump maintenance and repair, collision repair, electrical service and repair as well as a full service custom graphics shop.

Vendor shall provide a list of authorized service centers with the bid reply.

**FAMA MEMBERSHIP**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

The apparatus manufacturer shall be a current 2020 member of the Fire Apparatus Manufacturer's Association.

**NON-PROPRIETARY PARTS**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

The finished apparatus shall be manufactured with parts that are commonly used by the heavy-duty trucking industry in order to assist the County in the future with cost and availability of replacement parts.

**PRIME (SINGLE SOURCE) BODY BUILDER**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

The apparatus manufacturer shall be the prime (single source) builder of the apparatus.

All engineering, design, fabrication, testing, paint and finish shall take place at the apparatus manufacturer's manufacturing facility.

**NO EXCEPTIONS**

Bodies that are mass produced from lower quality materials such as thin stamped utility style designs, bolted together designs or those that are manufactured by a third party for the apparatus manufacturer shall be considered sub-standard and shall not be acceptable. **NO EXCEPTIONS**

The body shall be designed and manufactured entirely from formed and welded aluminum plate and aluminum extrusions to ensure a high quality design and finish that shall provide years of uninterrupted service. Bodies that incorporate steel as structural support or that utilizes steel in any way shall be considered sub-standard and shall not be acceptable. **NO EXCEPTIONS**



**RE-MOUNTING**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

The body shall be designed, manufactured and installed on the chassis to allow for complete removal for future re-mounting onto another chassis.

**CAD DRAWINGS**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

Vendor shall submit a full set of CAD drawings with bid reply.

The drawings shall include a minimum of left, right and rear views of the proposed apparatus cab and body. The drawings shall be shown to scale with all apparatus details and dimensions.

Following the pre-build meeting, the vendor shall submit an updated set of CAD drawings to the County for final approval.

**APPARATUS WARRANTY**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

The finished apparatus shall carry full product warranty as it is provided by the individual component manufacturers. The following minimum warranties shall be included as listed below:

- Overall Apparatus - 1 Year Full Warranty
- Extreme Duty Body Perforation - 10 Year Warranty
- Extreme Duty Sub-Structure Perforation - 20 Year Warranty
- Paint and Finish - 7 Year Warranty
- Roll Door Mechanical Warranty - 7 Year Warranty
- Roll Door Electrical Warranty - 3 Year Warranty
- Chassis - New Factory Warranty
- Whelen (OR EQUIVALENT) Electrical, Lights, Wiring - 5 Year Warranty
- Misc. Components - Individual Manufacturer Warranties Shall Apply

**APPARATUS INSPECTION**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

The County shall take ownership of the finished apparatus at the factory following the final inspection visit to the plant unless other arrangements are made.

**TRAINING**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

During the inspection process, a representative shall provide a minimum of four (4) hours of training in the proper operation of all components on the apparatus.

**PRE-BUILD MEETING**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

There shall be a pre-build meeting held between the manufacturer and representatives of the County to finalize details prior to the start of fabrication.

This meeting may be held in person or via an electronic venue.

**PERIODIC APPARATUS INSPECTIONS**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

At any time during the build process, representatives of the County may visit the factory during business hours to check-in on progress during fabrication.

Eye protection and additional safety equipment will be provided as needed.

**PROGRESS PICTURES**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

The website of the manufacturer shall be updated with "IN PROGRESS" pictures of all apparatus currently in production.

## **PERFORMANCE TESTS AND REQUIREMENTS**

Bidder Complies: YES  NO

A road test shall be conducted with the apparatus fully loaded and a continuous run of ten (10) miles or more shall be made under all driving conditions, during which time the apparatus shall show no loss of power or overheating.

The transmission drive shaft or shafts, and rear axle shall run quietly and be free from abnormal vibration or noise throughout the operating range of the apparatus. Vehicle shall adhere to the following parameters:

- The apparatus, when fully equipped and loaded, shall have not less than 25 percent or more than 50 percent of the weight on the front axle, and not less than 50 percent nor more than 75 percent on the rear axle.
- The apparatus shall be capable of accelerating to 35 mph from a standing start within 25 seconds on a level concrete highway without exceeding the maximum governed rpm of the engine.
- The service brakes shall be capable of stopping a fully loaded vehicle in 35 feet at 20mph on a level concrete highway. The air brake system shall conform to Federal Motor vehicle Safety Standards (FMVSS) 121.
- The apparatus, fully loaded, shall be capable of obtaining a speed of 60 mph on a level concrete highway with the engine not exceeding the governed rpm (full load).

## **MANUALS AND SERVICE INFORMATION**

Bidder Complies: YES  NO

The manufacturer shall supply, at time of delivery, a minimum of one (1) full set of operational and maintenance manuals covering the apparatus and components as it is being delivered.

A permanent plate shall be mounted in the driver's compartment which specifies the quantity and type of fluid required on the apparatus including engine oil, engine coolant, transmission, pump transmission lubricant, pump primer oil (if applicable), chassis tire pressures, and drive axle lubricant.

## **GENERAL CONSTRUCTION**

Bidder Complies: YES  NO

Weight balance and distribution shall be in accordance with the recommendations of NFPA.

The apparatus shall be designed so that the operator can perform all recommended daily maintenance checks easily without the need for hand tools.

Apparatus components that interfere with repair or removal of other major components must be attached with fasteners (cap, screws, nuts, etc.) so that the components can be removed and installed with normal hand tools. These components must not be welded or otherwise permanently secured into place.

The GAWR and GVWR of the chassis shall be adequate to carry the fully equipped apparatus including unequipped personnel weight and a miscellaneous equipment allowance per NFPA criteria. It shall be the responsibility of the purchaser to provide the contractor with the weight of equipment to be carried if it is in excess of the allowance as set forth by NFPA.

The height of the fully loaded vehicle's center of gravity shall not exceed the chassis manufacturer's maximum limit.

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



Any special tools required to provide routine service on any component of the apparatus built shall be provided with the apparatus.

**QUALITY**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

All components requiring regular maintenance, lubrication and visual inspections shall be readily accessible.

This apparatus shall be designed and manufactured for ease of operation and the highest level of safety available.

All aluminum welding shall follow American welding Society and ANSI D1.2-2003 requirements for structural welding of aluminum.

All sheet metal welding shall follow American Welding Society B2.1-2000 requirements for structural welding of sheet metal. Flux core arc welding to use alloy rods, type 7000, American welding Society standards A5.20-E70T1.

Employees classified as welders must be tested and certified to meet the American Welding Society codes upon hire and every three (3) years thereafter.

**FLUID CAPACITY LABEL**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

A permanent placard shall be placed in the driver's compartment specifying the quantity and type of the following fluids used in the apparatus (if applicable) for normal maintenance:

1. Engine Oil.
2. Engine Coolant.
3. Transmission Fluid.
4. Pump Transmission Fluid.
5. Pump Primer Fluid (if applicable).
6. Drive Axle Fluid.
7. Air Conditioning Refrigerant.
8. Air Conditioning Lubrication Oil.
9. Power Steering Fluid.
10. Cab Tilt Mechanism Fluid (if applicable).
11. Transfer Case Fluid.
12. Equipment Rack Fluid (if applicable).
13. Generator System Lubricant (if applicable).
14. Front and Rear Tire Pressures.

**OCCUPANCY LABEL**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

A permanent plate or label stating the maximum number of personnel allowed to ride on the apparatus at any one time shall be provided and installed in clear view of the driver.

The label shall state “**VEHICLE MAXIMUM SEATING CAPACITY IS TWO (2)**”

The label shall be visible from each seated position.

**SEATED AND BELTED LABEL**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

Permanent plate or label shall be provided stating "**OCCUPANTS MUST BE SEATED AND BELTED WHEN APPARATUS IS IN MOTION**".

The label shall be visible from each seated position.

**DO NOT RIDE LABEL**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

A permanent plate or label shall be attached to the appropriate areas of the apparatus stating that riding on the rear step or any exterior position on the apparatus is prohibited.

**DO NOT WEAR HELMET LABEL**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

Permanent plate or label shall be provided stating "**DO NOT WEAR HELMET WHILE SEATED**".

The label shall be visible from each seated position.

**VEHICLE HEIGHT - WIDTH LABEL**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

There shall be a travel clearance warning label located in the chassis cab in easy view of the driver.

The travel clearance warning label to include the following information:

1. Overall travel clearance height in feet and inches.
2. Overall travel clearance width in feet and inches.

**VEHICLE STABILITY CERTIFICATION**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

The fire apparatus manufacturer shall provide a certification stating the apparatus complies with NFPA 1901, current edition, section 4.13, Vehicle Stability.

The vehicle shall be equipped with electronic stability control programming.

**CHASSIS SPECIFICATIONS**

Bidder Complies with ALL Chassis Specs: YES \_\_\_\_ NO \_\_\_\_

**2021 KENWORTH T-370 CAB AND CHASSIS (OR EQUIVALENT)**

MISSION: Fire/Rescue Truck Service Application – Heavy Duty

DIMENSIONS: Wheelbase: 207”, CA: 140”, Axle to Frame: 75”

DIESEL ENGINE: Cummins {Paccar PX-9}, 380 HP @ 2000 RPM (OR EQUIVALENT)

FAN DRIVE Direct Drive Type, Two Speed

RADIATOR, 1,000 Square Inches with Surge Tank

FEDERAL EMISSIONS Compliant

AIR CLEANER Single Element

EMISSION COMPLIANCE Engine Shutdown System Exempt Vehicles, Complies With California Clean Air Regulations

OBD COMPLIANCE (On Board Diagnostics)

TRANSMISSION: {Allison 3000EVS} (OR EQUIVALENT); Close Ratio, 6-Speed; With Overdrive, Includes Oil Level Sensor, With Provision for PTO

OIL COOLER, AUTO TRANSMISSION

TRANSMISSION SHIFT CONTROL Push-Button Type

## SHIFT CONTROL PARAMETERS

TRANSMISSION OIL Synthetic

SPARE INPUT/OUTPUT for Emergency Vehicle Series Automatic

Neutral Feature

Rear Transmission Support System Installed

### FRONT AXLE:

Wide Track, I-Beam Type, 14,600-lb Capacity

Spring Suspension w/ Shock Absorbers: 14,600-lb Capacity Air

Brake Package

### REAR AXLE:

Single Reduction, 26,000-lb Capacity

Gear Ratio: 5.38

Spring Suspension: 26,000-lb Capacity

Air Brake Package w/ Locking Feature {Park}

### CAB:

Conventional

CAB INTERIOR TRIM: Deluxe – Silver/Gray Instrument

Panel

BUCKET SEAT, DRIVER NFPA Compliant, Air Suspension,  
High Back With Integral Headrest, Lumbar Support, 2 Position Front Cushion  
Adjust, 6 to 23 Degree Back Angle Adjust, Dual Arm Rests, 3- Point Restraint

BUCKET SEAT, PASSENGER NFPA Compliant, High Back With Integral  
Headrest, Tool Box Seat Base, Dual Arm Rests, 3-Point Restraints

GRAB HANDLE {NFPA COMPLIANT} Each Side

MIRRORS Rectangular, 7.00" x 16.00", 8.00" Convex Both Sides, Breakaway Type, Heated Heads Thermostatically Controlled, Power Both Sides, Bright Finish Heads & Brackets

SEAT BELTS All Red

AIR CONDITIONER With Integral Heater & Defroster INSTRUMENT

PANEL GAUGE CLUSTER {English Measurements}

DISPLAY On Board Diagnostics Display of Fault Codes in Gauge Cluster

WINDOW, PS POWER And Power Door Locks, Left and Right  
Doors

SELF CANCELLING TURN SIGNALS with Dimmer Switch

FUEL TANK: 56 Gallon Aluminum Tank

DEF TANK: 11 Gallon Tank - Polished Stainless Steel Cover

PAINT: Single Color - Rescue Squad Green

FRONT TIRES: (2) 12R22.5 16 ply

FRONT WHEELS: WHEELS, FRONT DISC; 22.5" Aluminum, 10-Stud Hub Piloted, Flanged Nut

REAR TIRES: (8) 12R22.5 16 ply

REAR WHEELS: WHEELS, REAR DISC; 22.5" Aluminum, 10-Stud Hub Piloted, Flanged Nut - Outer Positions

CHASSIS MODEL: 2021 Model T-370 (OR EQUIVALENT)

FRONT TOW HOOKS: TOW HOOK, FRONT (2) Frame Mounted Receivers {Removable Insert Hooks}

FRAME RAILS: FRAME RAILS Heat Treated Alloy Steel (120,000 PSI Yield); 10.625" x 3.50" x 0.312"

FRONT BUMPER: BUMPER, FRONT Full Width, Aerodynamic, Chrome Plated Steel

BRAKE SYSTEM: BRAKE SYSTEM, AIR Dual System for Straight Truck Applications AIR DRYER Standard  
DRAIN VALVE Manual  
AIR BRAKE ABS Full Vehicle Wheel Control System with Electronic Stability Control Programming  
Spring Actuated Parking Brake

AIR COMPRESSOR: AIR COMPRESSOR 18.7 CFM Capacity

STEERING WHEEL: STEERING WHEEL 4-Spoke, 18" Diam., Black  
STEERING COLUMN Tilting and Telescoping

ENGINE EXHAUST: EXHAUST SYSTEM Single Horizontal, Aftertreatment Device, Frame Mounted Right Side, for Use With Long Tail Pipes

ENGINE BRAKE: ENGINE TURBO EXHAUSE BRAKE

ELECTRICAL SYSTEM: ELECTRICAL SYSTEM 12-Volt, Standard Equipment  
CIGAR LIGHTER Includes Ash Cup

ALTERNATOR Brush Type; 12 Volt 320 Amp. Capacity, Pad Mount

BATTERIES: BATTERY BOX

BATTERY SYSTEM Maintenance-Free, (2) 12-Volt 1400CCA

BATTERY DISCONNECT SWITCH Lever Operated (CAB)

STARTER STARTING MOTOR 12 Volt INDICATOR

LAMPS: INDICATOR, LOW COOLANT LEVEL

CIRCUIT BREAKERS: CIRCUIT BREAKERS Manual-Reset (Main Panel) SAE Type III With Trip Indicators, Replaces All Fuses Except For 5-Amp Fuses

FRONT GRILL: GRILLE Stationary, Chrome / Polished

GRILLE EMBER SCREEN Mounted to Grille and Cowl Tray to Keep Hot Embers out of Engine and HVAC Air Intake System

FRONT HOOD: FRONT END Tilting, Fiberglass

**BACK-UP ALARM**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

One (1) back-up alarm shall be provided and installed on the apparatus.

The minimum 97db backup alarm shall automatically activate when the apparatus transmission is placed into reverse.

The backup alarm shall exceed all NFPA1901 and SAE J994 Type D requirements and testing.

**CAB ACCESS STEPS**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

The cab access steps shall be provided by the chassis manufacturer.

The steps shall be a two (2) step design fabricated from bright aluminum grip strut. The step assembly shall be supplied from the chassis factory on each side of the cab.

The fuel tank fill cap shall be exposed for refueling and access shall be provided to inspect the chassis batteries when located under the cab.

**VEHICLE TOP SPEED - 68 MPH**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

The maximum top speed of this apparatus shall be determined using the following NFPA 1901 Chapter 4 criteria:

- If the combined water tank and foam agent tank capacities on the fire apparatus is less than 1,250 gallons, or the GVWR of the vehicle is less than 50,000-lb, the maximum top speed of the apparatus shall not exceed 68 MPH.

The rear axle gear ratio will be selected to render a top speed as close as possible to the maximum speed in order to provide the maximum torque output possible at the optimal engine operating speed.

**DIESEL FUEL ONLY LABEL**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

There shall be a label affixed near the fuel fill well that states: **DIESEL ONLY**

**DEF ONLY LABEL**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

There shall be a label affixed near the fuel fill well that states: **DEF ONLY**

**TIRE PRESSURE MONITORS**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

There shall be a tire alert pressure management system provided that shall monitor each tire's pressure individually.

A negative change in tire pressure shall be evident of a visible color change on the head of the sensor.

The color change shall be evident when performing the daily truck check.

**EXHAUST HEAT SHIELD**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

A heat shield shall be installed under the body in the areas where the exhaust system is routed as needed.

**AIR HORNS**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

There shall be two (2) dual stutter-tone emergency vehicle air horns provided and installed on the finished apparatus.

The mounting location of the air horns shall be on each side of the hood. The system shall be operated from the chassis on-board air system.

**TOW HOOKS/PLATES**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

There shall be front and rear tow hooks/plates provided on the finished apparatus. The front tow hooks shall be provided as standard equipment on the chassis bumper.

There shall be rear tow plates fabricated from HD structural steel and shall have a minimum 1.25" eye. The plates shall be welded to the chassis frame and shall be located below the rear step bumper.

**GENERAL BODY DETAILS**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

The entire assembled body shall have an overall length of 19 feet and 6 inches from the front of the body to the rear of the 18" step bumper.

The entire assembled body shall have an overall width of no more than 8 feet and 6 inches.

The entire assembled body shall have an overall height of no more than 10 feet and 0 inches from the ground to the top of the finished body.

All compartments shall be constructed in a sweep out design to be water and dust proof.

Body shall be manufactured for maximum possible storage capacity.

Body and sub-structure shall be a fully formed and welded **ALL** aluminum design for increased strength.

There shall be no steel used in the body structure or sub-frame. **NO EXCEPTIONS**

**PAINTED BODY FINISH**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

The complete outer surface of the body shall be constructed of 3/16", 5052 alloy, smooth aluminum plate which shall provide superior quality and strength that will allow for the proper amount of flexion without the possibility of forming cracks.

The outer surface shall receive a high gloss coating of base/clear paint to match the color of the cab and chassis.

The inner surfaces (including compartments) of the body shall be constructed of 3/16", 5052 alloy, smooth aluminum plate which shall provide superior quality and strength that will allow for the proper amount of flexion without the possibility of forming cracks.

The inner compartment surfaces shall have a spatter coating finish.

**18' EXTREME DUTY BODY CONSTRUCTION**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

The apparatus body shall be constructed of 3" x 3" x .25" 6061 extruded aluminum tubing, 3/16" 5052 aluminum plate as well as .187" and .125" polished diamond tread aluminum.

The sheet metal (3/16"aluminum) shall be formed and welded to produce smooth symmetrically rounded corners and edges.

The polished diamond tread aluminum plate shall have an embossed, non-slip surface on all walking and standing surfaces.

The body shall be designed and manufactured with tubing and channel reinforcement as necessary for rigidity. Angle shall not be used in any area for structural integrity.

All body parts and attachments shall be fastened with rust resistant fasteners to preclude loosening of bolts and screws and/or the cracking of welded joints.

The body shall be reinforced as necessary where hose reels, hose troughs or ladder brackets are attached.

The body shall be an all welded structure with some components bolted in place. All components shall be constructed to allow the removal of any non-body component for service and/or repair.

The body and components thereof shall be bolted to the frame of the chassis with coated grade 8 automotive u-bolts.

All welds shall be cleaned of any weld residue prior to coating or when presenting a natural finish in order to present a clean appearance on all surfaces.

The front and top of the body shall be covered polished diamond tread aluminum plate to prevent these areas from becoming damaged by road debris.

All seams shall be sealed with silicon based body sealer to prevent seepage of moisture into the covered area.

**EXTREME DUTY SUB-FRAME**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

The all aluminum integrated body and sub-frame shall assure strength, durability and longevity to provide years of uninterrupted service.

The support system shall consist of individual assemblies fastened together utilizing a jig system for precision welding to insure sturdiness with proper dimensions and minimal distortion.

The Sub-Frame shall be constructed of 3"x3" x.25" 6061, crush resistant, extruded square aluminum tubing running parallel to the chassis frame rails and underneath the full length of the rear.

The 6061 grade of aluminum tubing allows for the minimal and proper level of flexion during operation to prevent the formation of cracks.

This Sub-Frame design shall be the heaviest built in the industry and shall be welded on maximum spacing distance of 15" center to center.

**BODY MOUNTING**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

The Sub-Frame shall be bolted to the chassis frame rails with grade 8, 5/8" U-Bolts incorporating shear plates and rubber (anti-vibration) isolation pads as necessary.

The entire assembly shall be constructed and mounted in such a manner to allow for complete removal without the need for any major modifications.

**BODY ROOF CONSTRUCTION**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

The outer portions of the apparatus body roof shall be an integral portion of the main apparatus body.

**NFPA COMPLIANT STEPPING SURFACES**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

All exterior surfaces designated as stepping, standing, and walking areas shall comply with the required average slip resistance of the current NFPA standards.

These areas shall incorporate grip-strut or embossed diamond plate aluminum.

**FENDERETTES**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

An all aluminum polished fenderette shall be installed around both rear wheel openings.

The fenderettes shall have a neoprene welt installed between the trim and the body and shall be bolted in place for easy removal and replacement.

**WHEEL WELL LINER**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

The rear wheel well shall be lined with a sheet of aluminum to prevent damage to the body from road debris.

The liner shall be riveted or bolted in place for easy removal in the event they become damaged.

**REAR STEP BUMPER - 18"**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

The tailboard shall be constructed of 1/8" polished embossed aluminum diamond plate. The tailboard shall be a minimum of 18" deep and run the full width of the body.

The exterior sides shall be flanged down for increased rigidity of tailboard structure.

The height from the ground to the top of the step bumper shall not exceed 24" when fully loaded.

**AGGRESSIVE WALKING SURFACE**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

All exterior surfaces designated as stepping, standing, and walking areas shall comply with the required average slip resistance of the current NFPA standards.

These areas shall incorporate grip-strut or embossed diamond plate aluminum.

**MUD FLAPS**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

Heavy-duty rubber mud flaps shall be provided behind the rear wheels.

The mud flaps shall be a heavy duty black rubber type for dual wheel trucks. The mud flaps shall be bolted in place.

**RUB RAIL**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

An aluminum "C" channel rub rail shall be bolted at the bottom of the body, using nylon washers between the metal surfaces, along each side of the body.

The rail shall be approximately 2" tall and extend approximately 1".

The rail shall extend the entire length of the body except between the wheel openings. The rail shall have a satin finish and be taper cut on each end for appearance.

**RUB RAIL REFLECTIVE PANELS**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

There shall be a white reflective stripe applied to the interior flat surface of the apparatus rub rail.

The reflective stripe shall meet all FMVSS and NFPA recommendations.

**NFPA HANDRAILS**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

There shall be NFPA compliant handrails provided in all areas that require climbing on the apparatus.

In the event there is telescoping scene light, ladder or folding step installed in the same location(s), these items may be substituted in an effort to conserve mounting space on the body.

**DIAMOND TREAD ALUMINUM BODY GUARDS**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

There shall be a solid covering of polished diamond tread aluminum in the following locations of the apparatus body:

- Front of Body
- Top of Body

**COMPARTMENT LOUVERS**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

Louvered panels shall be installed into each into compartment to aid in ventilation.

The louvers shall be turned in such a way to prevent unwanted water from entering the compartments.

**COMPARTMENT CONSTRUCTION**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

The compartments shall be constructed of formed and welded 3/16", 5052 formed aluminum plate and shall allow for the proper amount of flexion without the possibility of forming cracks.

All compartment sizes are very close approximations and may vary as much as +/- 3" to accommodate certain chassis features and/or County requested options.

**DUAL WALL COMPARTMENTS**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

The front and rear lower body compartments shall be constructed with a dual wall for accessing and servicing the electrical system as it is installed on the apparatus.

The removable panels shall be readily accessible and shall be removable with the use of common hand tools.

**COMPARTMENT FLOOR TILES**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

As standard equipment each compartment shall have interlocking rubberized tiles (Turtle Tile) cut and installed (on the lowest level) in such a manner to provide a cushion to cargo and protect the floor of the compartment.

The tiles shall be readily removed, without the use of tools, for cleaning. The color of the tiles shall be black.

**ROLL-UP COMPARTMENT DOORS - SATIN**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

Roll-up compartment doors shall be manufactured and assembled in the United States by R-O-M Corporation (OR EQUIVALENT).

Doors shall be front roll and shall have an anodized satin finish.

There shall be an aluminum drip rail above each compartment door with a non- abrasive seal (or) there shall be a brush seal.

Magnetic door-ajar system must be integrated in lift bar handle and the retainer block to signal open door. No mechanical sensors or switches interior to the compartment shall be used.

Every slat must have interlocking end shoes to prevent slats from moving side to side and binding the door.

Between each slat must be a co-extruded PVC inner seal to prevent metal-to-metal contact and to repel moisture. This inner seal shall not be visible from the exterior to detract from the appearance of the door.

Slats shall have interlocking joints with a folding locking flange to provide security and prevent penetration by sharp objects.

Slats shall be double-wall extrusion 1.366" high by .315" thick. Exterior surfaces are to be flat and interior surface are to be concave to prevent loose equipment from interfering with door operation.

The latch system shall be a one piece full width aluminum lift bar with a two point exterior latch. The latch shall be operable by one hand.

A 2" wide finger pull will be integrated into the bottom rail extrusion for easy one hand opening and closing of the compartment door. **NO EXCEPTIONS**

A clip system shall connect the curtain slats to the operator drum which will allow for easy tension adjustments without the use of tools.

Each roll-up door shall have a four inch diameter counterbalance operator drum to assist in lifting the door and assist in the prevention of accidental closure.

Compartment lighting system integrated into door track. Compartment lights shall activate individually when door is opened and there shall not be a master compartment light switch.

Door tracks shall be a one-piece aluminum extrusion that has an attaching flange and finishing flange

incorporated into its design.

The drip rail will have a specially designed seal that prevents the seal from scratching the door.

Bottom rail to have a "V" shaped sill to prevent water and debris from entering the compartment.

Each door shall have a rubber seal installed at the outside edge to prevent moisture from entering the storage area.

Bottom rail extrusion must have a smooth back to prevent loose equipment from jamming the door.

**COMPARTMENT LIGHTING**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

Each body compartment shall be equipped with LED compartment lighting manufactured by the door manufacturer. **NO EXCEPTIONS**

The lighting shall be mounted vertically along the side of each door to extend the full height of the compartment.

There shall be one full height light located in each compartment.

Opening the compartment door shall automatically turn the compartment lighting on.

**LEFT COMPARTMENT - L1**

Bidder Complies: YES  NO

Immediately behind the cab on the driver side of the body shall be a compartment with the following approximate usable door dimensions:

- 56" high X 45" wide X 25" deep at the lowest floor.

The area above the chassis frame rails shall fully transverse into compartment R1.

**LEFT COMPARTMENT - L2**

Bidder Complies: YES  NO

Immediately behind compartment L1 on the driver side of the body shall be a compartment with the following approximate usable door dimensions:

- 56" high X 45" wide X 25" deep at the lowest floor.

The area above the chassis frame rails shall fully transverse into compartment R2.

**LEFT COMPARTMENT - L3**

Bidder Complies: YES  NO

Immediately behind compartment L2 on the driver side of the body over the rear wheel well shall be a compartment with the following approximate usable door dimensions:

- 26" high X 50" wide X Full Transverse

The area above the chassis frame rails shall fully transverse into compartment R3.

**LEFT COMPARTMENT - L4**

Bidder Complies: YES  NO

Immediately behind compartment L3 on the driver side of the body behind the rear wheel well shall be a compartment with the following approximate usable door dimensions:

- 56" high X 44" wide X 25" deep at the lowest floor.

This compartment shall not be transverse.

**RIGHT COMPARTMENT - R1**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

Immediately behind the cab on the passenger side of the body shall be a compartment with the following approximate usable door dimensions:

- 56" high X 45" wide X 25" deep at the lowest floor.

The area above the chassis frame rails shall fully transverse into compartment L1.

**RIGHT COMPARTMENT - R2**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

Immediately behind compartment R1 on the passenger side of the body shall be a compartment with the following approximate usable door dimensions:

- 56" high X 45" wide X 25" deep at the lowest floor.

The area above the chassis frame rails shall fully transverse into compartment L2.

**RIGHT COMPARTMENT - R3**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

Immediately behind compartment R2 on the passenger side of the body over the rear wheel well shall be a compartment with the following approximate usable door dimensions:

- 26" high X 50" wide X Full Transverse

The entire compartment shall fully transverse into compartment L3.

**RIGHT COMPARTMENT - R4**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

Immediately behind compartment R3 on the passenger side of the body behind the rear wheel well shall be a compartment with the following approximate usable door dimensions:

- 56" high X 44" wide X 25" deep at the lowest floor.

This compartment shall not be transverse.

**REAR COMPARTMENT - REAR**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

Immediately behind both compartments L4 and R4 on the extreme rear of the vehicle shall be a compartment with the following approximate usable door dimensions:

- 50" high X 42" wide X 50" deep (Upper Level)

**ROOF (COFFIN) COMPARTMENTS**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

The apparatus shall be equipped with roof mounted storage compartments that are incorporated into and are an integral part of the apparatus body structure.

There shall be two (2) separate compartments located on the roof and shall be identified according to their position on the vehicle.

There shall be a rear permanently mounted ladder to access this portion of the roof utilized for coffin storage compartments.

The polished diamond tread lids shall be constructed with lift style doors on each side and across the front that shall only be accessed from the top of the rescue body. The lids shall be constructed with a double lip design to prevent leakage and shall be held in the open position by pneumatic gas shocks.

There shall be LED lighting and a door ajar switch provided in each coffin compartment activated by a compartment proximity switch when the lid is opened.

**LEFT ROOF COMPARTMENT**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

Located directly on top of the rescue body over the left side shall be an integrated roof storage compartment.

The left roof compartment shall be of the following approximate size:

- 22" deep X 22" wide X 157" long

This compartment shall be equipped with three folding style doors that shall be of an equal and appropriate length to prevent warping and be easily operated by one person.

The compartments shall be equipped with LED lighting.

The compartment shall be held in the open position by a gas shock and be held in the closed position by a quarter-turn latch assembly.

The compartment interior shall remain a satin (DA) finish.

**RIGHT ROOF COMPARTMENT**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

Located directly on top of the rescue body over the right side shall be an integrated roof storage compartment.

The left roof compartment shall be of the following approximate size:

- 22" deep X 22" wide X 157" long

This compartment shall be equipped with two folding style doors that shall be of an equal and appropriate length to prevent warping and be easily operated by one person.

The compartments shall be equipped with LED lighting.

The compartment shall be held in the open position by a gas shock and be held in the closed position by a quarter-turn latch assembly.

The compartment interior shall remain a satin (DA) finish.

**ROOF WALKWAY**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

There shall be a permanent walkway platform on top of the apparatus body to access the roof storage compartments.

This platform will be an integral portion of the roof of the apparatus body covered by a permanently affixed plate of embossed diamond tread aluminum to create a non-slip surface for walking.

**COMPARTMENT INTERIOR PAINT**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

The interior of the side equipment compartments shall be painted with gray spatter type coating.

The coating shall provide an even appearance that resists wear marks and reflects light evenly inside the compartments.

**ADJUSTABLE SHELF TRACK**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

There shall be a set of uni-strut track mounted in each compartment that receives adjustable shelves.

The track shall be vertically installed and shall be installed in the upper section of the compartment(s).

The track system shall provide infinite adjustment throughout the track range in order to allow proper spacing of the shelves for future installation of County owned equipment.

The adjustment shall be quickly and easily performed with common hand tools.

The track shall not be painted and shall retain a natural finish for an even appearance that resists wear marks.

**ADJUSTABLE SHELVES**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

There shall be a total of six (6) adjustable shelf pans provided and installed on the finished apparatus.

Each shelf shall have a minimum weight capacity of 250 pounds.

The shelves shall be fabricated of 3/16" flat plate aluminum and have a satin aluminum finish for increased durability.

The shelves shall have a minimum of a 2" lip on front and rear. The mounting location shall be in compartments L4 and R4.

**1,000-LB SINGLE DIRECTION SLIDE TRAY(S)**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

There shall be one (1) single direction high capacity slide tray(s) provided and installed on the apparatus.

The single direction high capacity slide tray(s) shall have a weight capacity of 1,000 pounds at the maximum extension rating of 100%.

The slide tray pan shall have a minimum 2" lip and be fabricated from 3/16" satin (DA) aluminum plate for an even appearance that resists wear marks.

The slide assembly shall incorporate an automatic locking mechanism that operates while in both the extended and stowed position.

The mounting location(s) of the slide tray(s) shall be in compartment B1.

**1,000-LB DUAL DIRECTION SLIDE TRAY(S)**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

There shall be two (2) dual direction high capacity slide tray(s) provided and installed on the apparatus.

The dual direction high capacity slide tray(s) shall have a weight capacity of 1,000 pounds at the maximum extension rating of 70%.

The slide tray pan shall have a minimum 2" lip and be fabricated from 3/16" satin (DA) aluminum plate for an even appearance that resists wear marks.

The slide assembly shall incorporate an automatic locking mechanism that operates while in both the extended and stowed position.

The mounting location(s) of the slide tray(s) shall be in compartments L/R-1 and L/R-2.

## **BODY PAINT PROCEDURE**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

After the apparatus body has been fully assembled and all mounting holes, etc. have been punched, machined, or drilled, the apparatus shall be fully disassembled for the paint process.

The apparatus body shall not be mounted on the chassis during the paint process.

All seams or flanges on the apparatus body shall be caulked or properly sealed to prevent moisture accumulation in flanged areas.

## **PAINT PROCESS**

The apparatus body paint procedure shall consist of an eight (8) step finishing process as follows:

1. Manual Surface Preparation: All exposed metal surfaces on the apparatus exterior shall be thoroughly cleaned. All imperfections on the exterior metal surface shall be removed or filled prior to the priming process. All exposed metal shall be thoroughly abraded using a dual orbital air power sander.
2. Cleaning and Treatment: All surfaces shall be chemically cleaned per manufacturer specification to ensure proper adhesion.
3. Self-etching Primer Application: Acid etching primer shall be applied to the bare metal per manufacturer specification.
4. Primer/Surfacer Application: Urethane primer/surfacer shall be applied to the acid etching primer.
5. Dual Orbital Sanding: The primer/surfacer shall be thoroughly sanded to a superior smooth surface.
6. Cleaning: After sanding in step #5, all surfaces shall be chemically cleaned again per manufacturer specifications. The surface to be painted shall be clean of all oil, grease, and dirt to ensure proper adhesion.
7. Primer Sealer Application: Urethane primer/sealer shall be applied over the thoroughly sanded and cleaned primer/surfacer as per bulletin DFT-054.
8. Topcoat Application: Two coats of basecoat color two component polyurethane paint shall be applied to the primer sealer. The base color shall be followed by two coats of two component polyurethane clear coat finish.

**PAINT - ENVIRONMENTAL IMPACT**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

The apparatus manufacturer shall meet or exceeds all current state regulations concerning paint operations.

Pollution control shall include measures to protect the atmosphere, water and soil. Controls shall include the following conditions:

- Topcoats and primers must be chrome and lead free.
- Metal treatment chemicals must be chrome free. The wastewater generated in the metal treatment process must be treated to remove any other heavy metals.
- Particulate emissions from painting operations must be collected by a dry filter or water wash process.
- Solvents used in clean-up operations must be collected, sent off-site for distillation and returned for reuse.

Additionally, the finished apparatus shall not be manufactured with or contain products that have ozone depleting substances.

Contractor shall, upon demand, present evidence that the manufacturing facility meets the above conditions and that it is in compliance with the State EPA rules and regulations.

**CHASSIS FRAME ASSEMBLY PAINT**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

The chassis frame assembly shall be painted black by the chassis manufacturer. It shall remain the commercial grade finish as provided.

**REFLECTIVE STRIPE**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

There shall be a minimum of a 6.00" vinyl reflective band provided along the sides, front and rear of the chassis cab and apparatus body.

The design and color shall be determined at the pre-build meeting.

**CHEVRON STRIPING. REAR - DIAMOND GRADE** Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

There shall be alternating chevron striping located on the rear-facing vertical surface of the apparatus.

The rear surface excluding the rear compartment door shall be covered. The colors shall be red and fluorescent yellow green.

Each stripe shall be 6.00" in width.

This shall meet the requirements of NFPA 1901, 2016 edition, which states that 50% of the rear surface shall be covered with chevron striping.

**REFLECTIVE STRIPE. CAB DOORS** Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

A vinyl reflective stripe shall be provided on the interior of each cab door.

This stripe shall be a minimum of 96.00 square inches and shall meet NFPA recommendations.

**LETTERING AND LOGO** Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

The lettering shall be totally encapsulated between a layer of clear protective UV resistant vinyl.

Up to eighty (80) vinyl letters per side, 3.00" high with outline and shading shall be provided.

There shall be County logos provided and installed on each of the front cab doors as standard.

**GRAPHICS APPROVAL** Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

The vinyl graphics layout, design and color shall be approved by the County prior to application.

**ROLL-UP DOOR GRAPHICS**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

The side roll-up doors shall be covered with American Flag graphics. The final design shall be approved by the County.

**MASTER BATTERY SWITCH**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

A master battery switch, to activate the battery system, shall be provided inside the cab within easy reach of the driver.

The master battery disconnect switch shall be wired between the starter solenoid and the remainder of the electrical loads on the apparatus.

**BODY ELECTRICAL SYSTEM**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

All 12-volt electrical equipment installed by the apparatus manufacturer shall conform to modern automotive practices.

All wiring shall be high temperature crosslink type.

All exposed wiring shall be run in a loom with a minimum 289 degrees rating or conduit and have grommets where wire passes through sheet metal.

Wiring shall be individually color coded to easily identify its function.

Exterior exposed wire connectors shall be positive locking, and environmentally sealed to withstand elements such as temperature extremes, moisture and automotive fluids.

Electrical wiring and equipment shall be installed utilizing the following guidelines:

- All holes made in the roof shall be caulked with silicon. Rope caulk is not acceptable. Large fender washers, liberally caulked, shall be used when fastening equipment to the underside of the cab roof.
- Any electrical component that is installed in an exposed area shall be mounted in a manner that shall not allow moisture to accumulate in it. Exposed area shall be defined as any location outside of the cab or body.

- Electrical components designed to be removed for maintenance shall not be fastened with nuts and bolts. Metal screws shall be used in mounting these devices. Also a coil of wire shall be provided behind the appliance to allow them to be pulled away from mounting area for inspection and service work.
- Corrosion preventative compound shall be applied to all terminal plugs located outside of the cab or body. All non-waterproof connections shall require this compound in the plug to prevent corrosion and for easy separation (of the plug).
- All lights that have their sockets in a weather exposed area shall have corrosion preventative compound added to the socket terminal area.
- All electrical terminals in exposed areas shall have silicon (1890) applied completely over the metal portion of the terminal. All emergency light switches shall be mounted on a separate panel installed in the cab. A master warning light switch and individual switches to be provided to allow pre-selection of emergency lights. The light switches shall be "rocker" type with an internal indicator light to show when switch is energized. All switches shall be properly identified and mounted in a removable panel for ease in servicing. Identification of the switches shall be done by either printing or etching on the switch panel. The switches and identification shall be illuminated.

All lights and reflectors, required to comply with Federal Motor Vehicle Safety Standard #108, shall be furnished.

Rear identification lights shall be recessed mounted for protection.

Lights and wiring mounted in the rear bulkheads shall be protected from damage by installing a false bulkhead inside the rear compartments.

An operational test shall be conducted to ensure that any equipment that is permanently attached to the electrical system is properly connected and in working order.

All wiring shall connect at a 12 volt electrical junction box located on the driver's side in the first left side compartment (L-1) in the left wall.

**CUSTOM CENTER CONSOLE**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

There shall be a custom fabricated aluminum console provided and installed in the front center of the apparatus cab.

The console shall contain the siren, lighting switches, cup holders and storage compartment as space allows based on other selected options.

The console shall be finished with a black spatter type coating.

The console shall take the place of the center front seat section and be as large as possible to fit in the usable space provided.

**ROCKER SWITCH PANEL**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

There shall be a custom designed rocker switch panel provided and installed on the cab center console.

The panel shall be designed specifically to control operation of this exact truck. The switch covers shall be color coded and shall illuminate when activated.

A universal switch panel shall not be used.

**CAB CHARGING PORTS**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

There shall be the following charging ports located in the cab of the apparatus:

- 12 VDC Charging Outlet(s) - Chassis Supplied
- Dual USB Charging Ports - Console Mounted

**OPEN DOOR INDICATOR LIGHT**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

An "open door" indicator light shall be provided inside the cab, in clear view of the driver, to warn of an open compartment door.

**EXTERIOR LIGHTING**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

Exterior lighting shall meet or exceed Federal County of Transportation, Federal Motor Vehicle Safety Standards and National Fire Protection Association requirements in effect at time of proposal.

**REAR FMVSS LIGHTING**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

There shall be three (3) LED lights installed as identification lights located at the center rear of the apparatus.

There shall be two (2) LED lights installed at the side rear of the apparatus used as clearance lights located at the rear of the apparatus.

There shall be two (2) LED lights installed on each side at rear of the apparatus. There shall be four (4) red reflectors installed as applicable around the body.

**TAIL/STOP/TURN LIGHTING**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

There shall be stop/tail/turn/back-up LED lighting provided and installed on the rear of the apparatus as follows:

- Two (2) Whelen (OR EQUIVALENT) C6 series red LED combination stop/tail lights.
- Two (2) Whelen (OR EQUIVALENT) C6 series amber LED arrow turn signallights.
- Two (2) Whelen (OR EQUIVALENT) C6 series clear LED backuplights.

**LICENSE PLATE LIGHT**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

There shall be one (1) license plate mounting platform provided and installed at the rear of the apparatus.

There shall be a white LED light with deflector installed to illuminate the license plate.

**MID-SHIP TURN SIGNAL**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

There shall be one (1) mid-ship turn signal provided and installed on each side of the apparatus body.

The mounting location of the amber turn signal shall be in the rear wheel well area.

**WARNING LIGHTS**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

An all new Whelen LED warning light package is included and shall be installed on the finished apparatus.

All flashing lights shall be colored appropriately to match the department's lighting colors.

All lights shall be flush mounted on the cab and body with chrome trim bezels.

**VISUAL WARNING ZONES**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

The apparatus shall be divided into warning zones as recommended by NFPA 1901- 2016. The upper and lower zones shall correspond to the apparatus as follows:

- Zone "A": Front
- Zone "B": Right Side
- Zone "C": Rear
- Zone "D": Left Side

**VISUAL WARNING MODES**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

The use of the apparatus warning lights shall be broken into two separate modes of use.

The permissible colors or combination of colors in each zone for each signaling mode (for rescue squads) shall be as follows:

- Calling for Right-of-Way
  - Red - Any Zone
  - Yellow - Any Zone Except A
  - White - Any Zone Except C
  
- Blocking Right-of-Way
  - Red - Any Zone
  - Yellow - Any Zone
  - White - Not Permitted

**VISUAL WARNING MODE SWITCHING**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

The ability to switch between warning modes shall be provided on the apparatus.

There shall be a sensor that detects the position of the parking brake and changes modes as follows:

- Parking Brake Engaged: "Blocking Right of Way Mode"
- Parking Brake Not-Engaged: "Calling for Right of Way"

Switching between the two visual warning system modes shall require no action by the operator other than setting the chassis parking brake.

**WARNING LIGHT LENS COVERS - COLOR**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

The warning lights on the apparatus shall all have colored lenses with the exception of the cab lightbar which shall remain clear with internally colored lights.

**ZONE A UPPER WARNING LIGHTING**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

One (1) Whelen (OR EQUIVALENT) light bar shall be mounted on the top of the cab roof.

The light bar shall be a 56" Whelen NFPA Justice and shall be populated on the front and sides with flashing LED modules.

The front center section shall have white LED lights that shall function only when the parking brake is released.

**ZONE A LOWER WARNING LIGHTING – FRONT** Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

Two (2) Whelen (OR EQUIVALENT) C7 series 3"x7" SUPER LED warning lights shall be provided and mounted on the apparatus.

A chrome bezel shall be provided around the lights.

Two (2) red lights shall be mounted in the front grill area.

**ZONE B LOWER WARNING LIGHTING – RIGHT** Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

Two (2) Whelen (OR EQUIVALENT) C7 series 3"x7" SUPER LED warning light shall be provided and mounted on the apparatus.

A chrome bezel shall be provided around the lights.

One (1) light shall be mounted as low and as far forward on the apparatus cab as possible and one (1) light shall be mounted as low as possible in the rear wheel well area.

**ZONE B UPPER WARNING LIGHTING – RIGHT** Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

Two (2) Whelen (OR EQUIVALENT) C9 series 7"x9" SUPER LED warning lights shall be provided and mounted on the apparatus.

A chrome bezel shall be provided around the lights.

One (1) light shall be mounted as high and as far forward on the apparatus body as possible and one (1) light shall be mounted as high and as far rearward as possible on the apparatus body.

**ZONE C UPPER WARNING LIGHTING – REAR**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

Two (2) Whelen (OR EQUIVALENT) C9 series 7"x9" SUPER LED warning lights shall be provided and mounted on the apparatus.

A chrome bezel shall be provided around the lights.

One (1) light shall be mounted as high as possible on the rear of each side of the apparatus body - Total of two (2) lights.

**ZONE C LOWER WARNING LIGHTING – REAR**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

Two (2) Whelen (OR EQUIVALENT) C6 series 4"x6" SUPER LED warning lights shall be provided and mounted on the apparatus.

A chrome bezel shall be provided around the lights.

One (1) light shall be mounted as low as possible on the rear of each side of the apparatus body - Total of two (2) lights.

**ZONE D UPPER WARNING LIGHTING – LEFT**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

Two (2) Whelen (OR EQUIVALENT) C9 series 7"x9" SUPER LED warning lights shall be provided and mounted on the apparatus.

A chrome bezel shall be provided around the lights.

One (1) light shall be mounted as high and as far forward on the apparatus body as possible and one (1) light shall be mounted as high and as far rearward as possible on the apparatus body.

**ZONE D LOWER WARNING LIGHTING – LEFT**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

Two (2) Whelen (OR EQUIVALENT) C7 series 3"x7" SUPER LED warning light shall be provided and mounted on the apparatus.

A chrome bezel shall be provided around the lights.

One (1) light shall be mounted as low and as far forward on the apparatus cab as possible and one (1) light shall be mounted as low as possible in the rear wheel well area.

**ELECTRONIC SIREN - WHELEN 295**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

A Whelen (OR EQUIVALENT) 295 electronic siren shall be provided and installed. The siren shall be mounted in the cab center console.

The siren shall feature wail, yelp and hyper-yelp with noise canceling microphone provided and installed.

**SIREN SPEAKER**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

There shall be one (1) 100 watt siren speaker provided and installed on the finished apparatus.

The speaker shall be mounted behind the front bumper and/or grill area of the apparatus.

**PERIMETER GROUND LIGHTS**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

There shall be a total of six (6) LED weatherproof lights provided on the apparatus.

Two (2) lights shall be provided under the side body area, two (2) lights shall be provided under the pump panel running boards and two (2) lights shall be provided under the rear step bumper to light all areas around the apparatus.

The perimeter ground lights shall be activated automatically when the parking brake is applied.

**TRAFFIC ADVISOR**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

There shall be a Whelen (OR EQUIVALENT) TAL-65 amber traffic advisor provided and mounted at the rear of the apparatus.

The light shall feature six (6) light heads that flash in sequence as selected on the control head.

The control head shall be located at the cab center console to activate the traffic advisor.

The traffic advisor shall be located at the rear of the apparatus body.

**STATIONARY SCENE LIGHTS**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

There shall be six (6) Whelen (OR EQUIVALENT) C9 Series 7"x9" SUPER LED stationary scene lights mounted in the following locations:

- Two (2) Left Body
- Two (2) Right Body
- Two (2) Rear Body

The lights shall be switched on in the cab of the apparatus to operate the left, right or rear.

**WILL-BURT NIGHT SCAN 2.3 LED LIGHT TOWER** Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

There shall be a Will-Burt Night Scan 2.3 LED light tower (OR EQUIVALENT) provided and installed on the finished apparatus.

The tower shall be a series of graduated extruded aluminum tubes that nest one inside another. The tower shall have an extended height of approximately 7.5 ft. / 2.3 m above the mounting location and a stowed height of approximately 9.75" / 24.8 cm above the mounting surface. The tower shall be approximately 27.125" / 68.9 cm wide by 51.75" / 131.4 cm in length. The tower shall be designed to sustain the intended top load with a 125 percent safety factor and shall exceed NFPA requirements of a minimum 50 mph (80 kph) wind when in a fully raised and unguyed position. The tower shall be of a compact design with a total weight of approximately 123 lbs. / 55.8 kg.

The light tower shall not exceed 150 lbs. / 68 kg.

The tower tubular sections shall be constructed of high strength, heat-treated 6061-T6 aluminum tubes and collars. Each tube shall be protected by low friction synthetic collars for smooth operation and long life. Bumpers shall be designed to reduce shock on extension and retraction. All exterior surfaces shall be anodized for long life and fasteners shall be stainless steel for corrosion resistance.

The tower shall have an "auto-stow" function. A double click of the mast down button will stow, retract, and shut power off to the unit. An integrated saddle assembly with synthetic, non-marring rests shall be provided for the tower and flood light assembly in the nested position.

The tower shall be equipped with a Will Burt Model RCP (remote control positioner) to control the rotation and direction of the light. The remote control positioner unit shall be equipped with two (2) gear motors; one for rotation and one for the floodlight bank.

The positioner shall also rotate the floodlight assembly from zero to 355 degrees and tilt the floodlight assembly from 0 to 337 degrees.

A safety yellow in color for high visibility, hand held remote control pendant, connected to a quick-disconnect, 25 ft. (7.62 meter) coiled cord shall be provided to control the tower. All functions of the tower shall be accessible through this remote control including elevating with "auto-up" ability, lowering with "auto-stow" ability, rotation and tilting of the floodlight assembly and floodlight switching. An auxiliary power button shall also be included to control optional equipment such as strobe lights or a camera that is mounted to the mast. An emergency stop button shall be integrated into the hand held control for added safety or shall be located on the junction box. Each button of the controller shall have a corresponding LED light that provides operational feedback. An LED display that includes alphanumeric feedback shall be located in the center of the controller. This display shall provide operational feedback and error codes if they occur.

The pneumatic controls to raise and lower the tower shall include an air regulator and solenoid valves. Lights will be operational within approximately 8 seconds from elevation initiation. The tower shall be able to be fully elevated in approximately 50 seconds. In the event of malfunction of the elevating system while the tower is in operation or being deployed, a method of limiting the rate of descent shall be provided to prevent injury to personnel or damage to the equipment.

Four (4) Fire Research (OR EQUIVALENT) Evolution II LED model FCA100-V11 lampheads shall be provided. Each lamphead shall have four (4) ultra-bright white LEDs. It shall operate at 12 / 24 volts DC, draw 7.5 / 3.75 amps and 90 watts, and generate 11,000 lumens each lamphead for a total of 44,000 lumens. The lamphead shall direct 50 percent of the light onto the action area while providing 50 percent to illuminate the working area. The lamphead shall incorporate heat-dissipating fins and be no more than 5 3/16" deep by 3 5/16" high by 7 5/8" wide. The lamphead shall be powder coated white.

**POWER INVERTER - 3,000 WATT**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

There shall be one 3,000 watt inverter provided and installed on the finished apparatus.

The inverter shall come standard with two (2) electrical outlets located on the unit. The inverter shall be powered from the chassis 12 VDC electrical system.

The mounting location shall be determined at the pre-build meeting.

**WARN WINCH - PORTABLE**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

There shall be a portable winch provided and installed on the apparatus. The winch shall be as follows:

- Warn (OR EQUIVALENT) 9.5ti - 12 Volt DC Electric Winch - 9,500-lb Capacity
- Remote Control with 12' Cable
- Wire Rope
- Fairlead Roller System

There shall be winch capable receiver(s) provided in the following location(s):

- Front Bumper
- Rear Bumper
- Left Side of Rear Bumper
- Right Side of Rear Bumper

There shall be heavy duty electrical connections provided at each winch receiver to power the winch from the chassis 12 volt electrical system.

**MINIMUM ONE (1) YEAR WARRANTY**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

Each new apparatus shall be provided with a minimum one (1) year basic apparatus material and workmanship limited warranty. The warranty shall cover such portions of the apparatus built by the manufacturer as being free from defects in material and workmanship that would arise under normal use and service.

**CHASSIS WARRANTY**

Bidder Complies: YES \_\_\_\_\_ NO \_\_\_\_\_

The chassis warranty shall be for a total of:

- One (1) Year

This warranty is offered by the chassis manufacturer and not the apparatus builder.

**CHASSIS PAINT WARRANTY**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

The commercial chassis manufacturer's paint warranty applies to the chassis only.

**ENGINE WARRANTY**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

The engine shall have a five (5) year warranty. This warranty is provided by the engine manufacturer and not the apparatus builder.

**TRANSMISSION WARRANTY**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

The transmission shall have a five (5) year warranty. This warranty is provided by the transmission manufacturer and not the apparatus builder.

**BODY STRUCTURAL WARRANTY**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

Each new apparatus body shall be provided with the following warranties:

- Ten (10) year material and workmanship limited warranty on the apparatus body.
- Twenty (20) year material and workmanship limited warranty on the apparatus sub-structure.

The warranty shall cover such portions of the apparatus built by the manufacturer as being free from defects in material and workmanship that would arise under normal use and service.

**SEVEN (7) YEAR PAINT AND CORROSION**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

Each new apparatus shall be provided with a seven (7) year pro-rated paint and corrosion limited warranty on the apparatus body.

The warranty shall cover painted exterior surfaces of the body to be free from blistering, peeling, corrosion, or any other adhesion defect caused by defective manufacturing methods or paint material selection that would arise under normal use and service.

**EQUIPMENT PROVIDER**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

Any NFPA equipment items that are not specifically detailed in this proposal shall be supplied and mounted by the County.

**EQUIPMENT MOUNTING**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

All equipment items provided in this proposal shall be mounted by the apparatus manufacturer unless otherwise specified in the item description.

The mounting locations shall be determined by the County at the pre-build meeting unless otherwise stated in the description.

**MISCELLANEOUS HARDWARE**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

There shall be a bag of miscellaneous nuts, bolts and screws as used in the construction of the apparatus.

This hardware shall be supplied at the time of final delivery.

**EQUIPMENT ITEMS INCLUDED**

The following equipment items shall be provided and mounted on the apparatus at time of delivery.

***Amkus Rescue Equipment (OR EQUIVALENT)***

(1) – (1) Amkus ION iS28 Spreader with (2)DeWalt 60v/9ah Batteries, (1)DeWalt Fast Charger, (1)Set of Amkus Extended Reach Tips, (1)PAC Mounting Bracket

(2) – (1) Amkus GH2B-MINI SIMO Power Unit with Standard Couplings

(3) – (1) Amkus Rope Rescue System (AARS) with Gin Pole System

**PURCHASER'S RESPONSIBILITY**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

These specifications are as complete, accurate and up to date as possible; however, it is the purchaser's responsibility for the safe, legal operation and maintenance of this apparatus and equipment.

A Purchase Order will be issued prior to build begins. The County's Purchase Order Terms and Conditions can be found at:

<http://www.anderson-county.com/wp-content/uploads/2019/04/GENERAL-TERMS-AND-CONDITIONS-FOR-PURCHASE-ORDERS.pdf>

**PAYMENT**

Bidder Complies: YES \_\_\_\_ NO \_\_\_\_

There shall be no pre-payment requirement for this apparatus and no performance bond shall be required.

The finished apparatus shall be paid for in full at time of delivery and acceptance by the County.

\*\*\*\*END OF BASE BID SPECIFICATIONS\*\*\*\*

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# **BID #2035**

## **BIDDER INFORMATION FORM**

MANUFACTURER: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE: \_\_\_\_\_

DEALER – REPRESENTATIVE: \_\_\_\_\_

EMAIL: \_\_\_\_\_

PHONE: \_\_\_\_\_

Having examined the BUYER'S specifications for a HEAVY RESCUE APPARATUS, the BIDDER submits a TOTAL BID PROPOSAL PRICE OF:

\_\_\_\_\_ DOLLARS AND \_\_\_\_\_ CENTS

DELIVERY (CALANDER DAYS): \_\_\_\_\_ DAYS FOLLOWING ISSUANCE OF PURCHASE ORDER

Bidder must also submit CAD Drawings & a list of Servicing Dealers.

Signature \_\_\_\_\_ Title \_\_\_\_\_ Date: \_\_\_\_\_