

**SOUTH PORTLAND FIRE DEPARTMENT
SOUTH PORTLAND, MAINE**

LIGHT RESCUE RESPONSE VEHICLE

October 7, 2014

The City of South Portland, Maine is seeking Requests for Proposals (RFP) on one new 2014 or newer Light Rescue Response Vehicle. The unit will be based on a Ford F450 or F550 chassis. The City encourages vendors to **submit multiple options from in stock units** as well as units to be constructed to our minimum specifications.

Sealed proposals are desired from reputable manufacturers of these types of units in accordance with the attached specifications. The City understands that requesting a unit from stock inventory will make it difficult for any vendor to meet all of the specifications. Each proposal will be evaluated independently to determine which unit most closely meets the South Portland Fire Departments requirements, as well as offering the city the greatest value.

Sealed proposals for the manufacture and delivery of this truck to the City of South Portland will be accepted at the South Portland Municipal Offices, 25 Cottage Road, South Portland, ME 04106, until 2:00 p.m. on the 20th day of November, 2014. At that time proposals will be opened and publicly read. No proposal will be accepted after that time and date specified. All envelopes shall be clearly marked "Fire Department Rescue Response Vehicle". No responsibility shall be attached to any person or persons for the premature opening of the bid(s) not properly marked. Incomplete proposals, not properly endorsed, not signed, or otherwise contrary to these instructions may be rejected, in the City's sole and exclusive discretion. Any questions or inquiries shall be directed to the Chief of the Fire Department, Kevin Guimond, who is located at Central Fire Station, 684 Broadway, South Portland, Maine. Phone number (207) 799-3314 ext. 7330.

All in stock vehicle(s) proposed shall be available for viewing and evaluation by Fire Department representatives prior to award of bid.

General

Purchases made by the City of South Portland, Maine are exempt from payment of Federal excise tax, and the Maine sales tax; any such taxes shall not be included in the bid price.

The City of South Portland, Maine reserves the right to reject any and all proposals, wholly or in part, and to award the bid in a manner deemed in the best interest of the South Portland Fire Department. Bids may be withdrawn at any time prior to the time of opening, as stated in these general conditions.

The manufacturer, if their bid is accepted, shall defend any and all suits and assume all liability for any and all claims made against the purchaser or any of its officials, and agents for the use of any patented process, device, or article forming a part of the response unit, or any equipment furnished under the contract.

The specifications are written with the intent of ensuring the City will receive the best vehicle for the required service. It is the intent of these specifications to describe the minimum requirements, which shall be acceptable to the City of South Portland, Maine. The vehicle shall be constructed with full consideration given to the nature and distribution of the load to be carried and the conditions under which this vehicle is to be operated.

Each manufacturer shall submit a list of any and all exceptions to the specifications with the reason for each on the enclosed "EXCEPTIONS TO SPECIFICATIONS FORM". "Comply" indicates the item meets the specification completely as listed; "Exception" means a deviation from the specification, which must be explained in detail in the "EXCEPTIONS TO SPECIFICATION FORM". These specifications shall become part of the contract and must be filled out as explained.

The Manufacturer shall state how long the dealership has been in business, and how long they have been selling this type of vehicle. The vendor must provide a minimum of five references of past sales of similar units.

The Manufacturer shall state the location of where the unit was built, and location of the approved service agencies as outlined in section below of this bid request.

Manufacturer shall also furnish satisfactory proof of the capability of these service agencies to provide replacement parts and service within an acceptable period of time.

The Manufacturer shall state the Warranties provided against defects in material and workmanship for all parts and components of the proposed vehicle.

The modular body, *including installation* shall be provided with a lifetime warranty. A paint warranty shall also be stated from the date of delivery to the customer – no exception. Additionally, warranty terms shall be provided on the electrical system and the cab and chassis.

The following are the minimum standards:

- A. Chassis – Three year, 36,000 mile bumper to bumper, as provided by the chassis manufacturer. The engine shall be warranted for five years, 50,000 miles.
- B. Electrical System – The entire electrical system shall be warranted for 5 years.
- C. Paint – All paint and manufacturer/dealer-applied lettering shall be warranted for 5 years from date of delivery to the City. This shall not be pro-rated.
- D. Manufacturers must supply at the time of delivery, warranties on all “add on component” equipment.
- E. Manufacturers must include the “statement” of warranty(s) by type at the time of the RFP opening.

Manufacture Instructions

Failure to comply with all conditions of these specifications shall be reasonable cause for rejection of any proposal.

The Manufacturer shall provide all information being requested. Failure to do so may render the bid proposal null and void.

The bid shall include a statement of total cost of the unit delivered to the City of South Portland, Maine subject to purchaser's acceptance.

The bid shall include properly certified data from the chassis manufacturer covering the rated G.V.W., axle ratings, frame dimensions, tensile strength of the frame components.

The successful bidder shall not exceed 180 calendar days from award of bid to delivery, and bids will be weighted using delivery as one component.

The Fire Chief or his designee shall be the acceptance authority. Payment will be made only following a complete inspection test in the City of South Portland for compliance with the specifications and a formal acceptance made.

Responsibility for the Vehicle and equipment will remain with the manufacturer until the satisfactory completion of acceptance tests and formal acceptance by the City.

The City of South Portland reserves the right to accept or reject any and all bids for any reason without question or explanation, and also reserves the right to negotiate a price with a vendor higher or lower than the bid price of any vendors if the City of South Portland feels it is in its best interest. The bids will be evaluated and scored using the following criteria:

- Price of proposed truck 40%
- Meeting department’s specifications 40%
- Delivery time 20%

The Rescue Response Vehicle with all new appliances, complete, and ready for operation shall be furnished under these specifications and shall meet all requirements herein.

The vehicle and all major components shall be manufactured in the United States. Where these specifications indicate a specific brand name, model number, dimension, or capacity, the same shall be supplied. These items were selected for their reliability and availability of replacement on a local basis. Any deviation must be clearly listed on "EXCEPTION TO SPECIFICATION FORM".

Should the Manufacture find any discrepancies, omissions, conflicts, or be in doubt as to the meaning of any section of these specifications, the Manufacture shall request an interpretation or clarification in writing from the purchaser no later than five (5) days prior to the date of the bid opening. Proper interpretation or the making of any necessary inquiry shall be the responsibility of the Manufacture. Oral responses and/or interpretations will not be binding on the purchaser.

The delivered vehicle shall have a certified G.V.R.W. weight plate applied to the vehicle to assure the fire department that it meets all laws pertaining to the weight carrying capacity of the vehicle.

The manufacturer must have an agreement with a designated service facility that can maintain service to the module section as well as an authorized Ford Warranty Service Center selected, to maintain service on the cab and chassis section within a reasonable distance of the city of South Portland. The vendor shall provide with each proposal either drawings or the ability to inspect stock units offered to the city.

- Meets Specifications

SCOPE AND GENERAL REQUIREMENTS

IT IS THE INTENT OF THESE SPECIFICATIONS TO SET FORTH THE MINIMUM STANDARDS TO DESIGN AND CONSTRUCT A LIGHT DUTY RESCUE VEHICLE. ALL PARTS NOT SPECIFICALLY MENTIONED HEREIN, BUT WHICH ARE NECESSARY IN ORDER TO FURNISH A COMPLETE FIRE APPARATUS, SHALL BE FURNISHED AND SHALL CONFORM TO THE BEST PRACTICES KNOWN TO THE INDUSTRY. THE APPARATUS SHALL COMPLY WITH ALL FEDERAL AND STATE REQUIREMENTS PERTAINING TO EMERGENCY RESPONSE VEHICLES. THE UNIT SHALL BE THE CURRENT MODEL YEAR, NEW AND UNUSED. THESE SPECIFICATIONS SHALL BE CONSTRUED AS A MINIMUM.

- Meets Specifications

PRIME BIDDER, MANUFACTURER

THE MANUFACTURER SHALL BE THE PRIME BIDDER AND SHALL IDENTIFY THE LOCATION OF THE FACILITY CONSTRUCTION OF THE UNIT IS TO TAKE PLACE.

- Meets Specifications

PROPRIETARY PARTS

IT IS THE INTENTION OF THE PURCHASER FOR ALL THE BIDDERS TO FURNISH THE APPARATUS WITH MAJOR PARTS COMMONLY USED BY THE HEAVY-DUTY TRUCK MANUFACTURERS AND OPEN MARKET VENDORS WHERE REPLACEMENT PARTS ARE MORE READILY AVAILABLE AND AT REDUCED COST. THE USE OF PROPRIETARY PARTS MAY NOT BE ACCEPTABLE TO THE PURCHASER.

- Meets Specifications

INSURANCE REQUIREMENTS

EACH BIDDER MUST SUBMIT WITH THEIR BID PROPOSAL A CERTIFICATE OF INSURANCE LISTING THE PROPOSED MANUFACTURER'S PRODUCT LIABILITY INSURANCE COVERAGE. LIABILITY INSURANCE SHALL BE A MINIMUM AMOUNT OF ONE (1) MILLION DOLLARS. SUBMITTED CERTIFICATE SHALL NAME THE APPARATUS MANUFACTURER, INSURANCE COMPANY, POLICY NUMBER, AND EFFECTIVE DATES OF THE INSURANCE POLICY. BIDS SUBMITTED WITHOUT THE REQUIRED CERTIFICATE WILL BE CONSIDERED NON RESPONSIVE AND AUTOMATICALLY REJECTED. NO EXCEPTIONS ARE ALLOWED TO THE MINIMUM INSURANCE COVERAGE REQUIREMENT. THE MANUFACTURER SHALL MAINTAIN FULL INSURANCE COVERAGE ON THE PURCHASER'S CAB AND CHASSIS FROM TIME OF FIRST POSSESSION BY THE MANUFACTURER UNTIL THE APPARATUS IS DELIVERED AND ACCEPTED BY THE PURCHASER (NO EXCEPTIONS). PURCHASER RESERVES THE RIGHT TO REQUIRE PROOF OF

INSURANCE FROM THE MANUFACTURER'S INSURANCE CARRIER PRIOR TO ENTERING INTO A CONTRACT FOR THE APPARATUS.

- Meets Specifications

PAYMENT TERMS

PAYMENT WILL BE MADE UPON DELIVERY AND ACCEPTANCE.

- Meets Specifications

ROAD TEST CERTIFICATION

A ROAD TEST SHALL BE CONDUCTED WITH THE FINISHED APPARATUS FULLY LOADED. DURING THIS TIME, THE APPARATUS SHALL NOT SHOW LOSS OF POWER AND/OR OVERHEATING. THE TRANSMISSION DRIVESHAFT OR SHAFTS AND REAR AXLE SHALL RUN FREE FROM ABNORMAL VIBRATION OR NOISE THROUGHOUT THE OPERATING RANGE OF THE APPARATUS.

- Meets Specifications

DELIVERY TIME

EACH BIDDER SHALL STATE THE COMPLETED APPARATUS DELIVERY TIME BASED ON THE NUMBER OF CALENDAR DAYS, STARING FROM THE DATE THE SALES CONTRACT IS SIGNED AND ACCEPTED BY THE APPARATUS MANUFACTURER.

DELIVERY TIME: _____ IN CALENDAR DAYS

- Meets Specifications

CHASSIS KEYS

THE CAB AND CHASSIS SHALL INCLUDE A TOTAL OF TWO (2) SETS OF KEYS.

- Meets Specifications

FUEL TANK FILLED AT DELIVERY

THE FUEL TANK AND DEF TANK (IF APPLICABLE) SHALL BE FILLED UPON FINAL DELIVERY.

- Meets Specifications

NFPA 1906 COMPLIANCE

THE NATIONAL FIRE PROTECTION ASSOCIATION STANDARD #1906 (MOST RECENT EDITION) IS HEREBY ADOPTED AND MADE A PART OF THESE SPECIFICATIONS, THE SAME AS IF THEY WERE WRITTEN OUT IN FULL DETAIL, INSOFAR AS THEY APPLY WITH THE EXCEPTION OF ANY SECTIONS DEALING

WITH "EQUIPMENT RECOMMENDED FOR VARIOUS TYPES OF APPARATUS". BIDDERS ARE TO PROVIDE ONLY THE EQUIPMENT REQUESTED HEREIN AND THE DEPARTMENT WILL SUPPLY THE REST BEFORE THE APPARATUS IS PUT INTO SERVICE. THE UNIT SHALL COMPLY WITH ALL FEDERAL, STATE, ICC, AND DOT MOTOR VEHICLE REGULATIONS, STANDARDS, AND LAWS RELATING TO COMMERCIAL VEHICLES AS WELL AS TO FIRE APPARATUS ON THE DATE OF THE BID.

- Meets Specifications

CENTER OF GRAVITY

THE APPARATUS, PRIOR TO ACCEPTANCE, WILL BE REQUIRED TO MEET THE VEHICLE STABILITY OF THE APPLICABLE NFPA AUTOMOTIVE FIRE APPARATUS STANDARD. A CALCULATED CENTER OF GRAVITY SHALL BE PROVIDED. THE CALCULATED OR MEASURED CENTER OF GRAVITY (CG) SHALL BE NO HIGHER THAN 80-PERCENT OF THE REAR AXLE TRACK WIDTH.

- Meets Specifications

SPECIFICATIONS:

COMMERCIAL CHASSIS SPECIFICATION

THE CHASSIS, AS DETAILED IN THESE SPECIFICATIONS, SHALL BE ORDERED AND SUPPLIED BY THE APPARATUS MANUFACTURER.

- CURRENT YEAR MODEL FORD F440 OR F550
- 4 WHEEL DRIVE w/ MANUAL LOCKING HUBS AND MANUAL TRANSFER CASE
- CREW CAB (4 DOOR)
- AMBULANCE PREP-PACKAGE
- TRAILER TOW PACKAGE
- FORD RED F1 BASE COAT/CLEAR COAT
- PREFERENCE PACKAGE
- 6.7L OHV - V8 POWER STROKE DIESEL ENGINE
- 6 SPEED AUTOMATIC TRANSMISSION w/PTO PROVISION
- DUAL ALTERNATORS – 200 AMP HEAVY DUTY
- DUAL 750 CCA/78 AMP HOUR GROUPED 31 BATTERIES MOUNTED UNDER HOOD
- 200" WHEEL BASE/ 84" CAB AXLE
- GVW TOTAL: AT LEAST 14,000 lb. PREFER 18,000 lb.
- LIMITED SLIP REAR AXLE w/ STABILIZER
- 4 WHEEL ANTI-LOCK DISK BRAKING SYSTEM (ABS)
- FUEL TANK – 40 GALLON CAPACITY AFT OF AXLE
- SHOCK ABSORBERS – HEAVY DUTY GAS
- SPRINGS, REAR AUXILIARY
- STABILIZER BARS – FRONT AND REAR
- STATIONARY ELEVATED IDLE CONTROL, SEIC (DIESEL ONLY)

- STEERING – POWER
- STEERING DAMPER
- TRAILER WIRING – 7-WIRE HARNESS w/ RELAYS SHALL BE PROVIDED AND INSTALLED IN REAR BUMPER
- SINGLE CHANNEL FRAME w/ INVERTED “L”
- CHROME FRONT BUMPER AND GRILL
- 6 STEEL WHEELS - DUAL REAR, SINGLE FRONT
- EACH WHEEL SHALL HAVE ONE (1) STAINLESS STEEL WHEEL COVER INSTALLED
- SIX LT 245/75Rx17E BLACK WALL ALL SEASON TIRES
- TIRE PRESSURE INDICATED VALVE STEM CAPS SHALL BE INSTALLED ON EACH TIRE AND BE HEAVY DUTY DESIGN MANUFACTURED SPECIFICALLY FOR TRUCKS
- APPROPRIATE SIZED MUD FLAPS (FRONT/REAR) BLACK RUBBER
- AUTOMATIC RESET CIRCUIT BREAKERS
- HEAVY DUTY COOLING SYSTEM w/ PREMIUM RADIATOR HOSES
- TELESCOPING TRAILER TOW MIRRORS (HEATED)
- TINTED GLASS
- BLACK FORD RUNNING BOARDS (NERF BARS)
- CLOTH FRONT INDIVIDUAL BUCKET (CAPTAIN) SEATS
- CLOTH REAR 40/60 SPLIT REAR SEATS
- ELECTRONICS CONSOLE BETWEEN FRONT SEATS
- INTERIOR PRIMARY COLOR SHALL BE STEEL (GRAY)
- LED DOT CLEARANCE LIGHTS
- HALOGEN HEADLIGHTS (WIG-WAG CAPABLE)
- DUAL SUN VISORS-COLOR COORDINATED CLOTH, SINGLE DRIVER w/ POCKET AND SINGLE PASSENGER w/ MIRROR INSERT
- GLOVE BOX
- FRESH AIR HEATER/DEFROSTER/AIR CONDITIONING
- INTERMITTENT WINDSHIELD WIPERS w/ WASHERS
- ELECTRONIC AM/ FM/CD RADIO w/ CLOCK AND SPEAKERS
- HIGH IDLE CONTROL SYSTEM
- UNDER HOOD SERVICE LIGHT
- AIR BAGS SRS, DRIVER AND PASSENGER
- AUXILIARY 12 V POWERPOINT IN DASH
- LH/RH DOME LIGHT, DOOR ACTIVATED
- DOOR TRIM, REFLECTORS
- ARM RESTS
- BLACK VINYL FLOOR COVERING
- SCUFF PLATES – COLOR COORDINATED
- DUAL ELECTRIC HORNS
- DAYTIME RUNNING LIGHTS WHICH SHUT OFF ONCE TRANSMISSION IS IN PARK
- TRIP COMPUTER

- AIR FILTER MINDER
- TRANSMISSION TEMPERATURE GAUGE
- TACHOMETER
- FUEL GAUGE
- SPEEDOMETER
- ALL FORD CONSIDERED STANDARD FACTORY EQUIPMENT

HIGH IDLE SYSTEM

WHEN THE VEHICLE IS RUNNING APPLYING THE PARKING BRAKE WILL ACTIVATE A HIGH IDLE SYSTEM TO INCREASE CHARGING CAPACITY WHILE THE VEHICLE IS ON SCENE. A BUZZER TYPE ALARM WILL SOUND ANY TIME THE VEHICLE IS RUNNING AND IN PARK UNTIL THE HIGH IDLE SYSTEM IS ENGAGED.

EXHAUST SYSTEM

EXHAUST SYSTEM WILL EXIT THE VEHICLE ON THE PASSENGER SIDE, PREFERABLY AFTER THE REAR TIRES, AND SHALL BE EQUIPPED TO ATTACH TO DEPARTMENT'S PLYMOVENT SYSTEM.

- Meets Specifications

FRONT BUMPER

ONE (1) HEAVY DUTY FRONT BUMPER SHALL BE SUPPLIED TO ACCOMMODATE THE WINCH, NO PUSH BUMPER.

- Meets Specifications

ELECTRIC WINCH

ONE (1) RAMSEY 8000 LB ELECTRIC WINCH w/ 3/8" CABLE SHALL BE INSTALLED/RECESSED INTO THE FRONT BUMPER, REMOTE CONTROLS SHALL BE PROVIDED.

- Meets Specifications

BODY

- BODY SHALL MEET CURRENT NFPA STANDARD FOR LIGHT RESCUE
- ALL METAL WORK SHALL BE FREE OF SHARP EDGES, OBJECTS OR CORNERS.
- ANY DISSIMILAR METALS SHALL HAVE A MYLAR GASKET TO PREVENT DISSIMILAR CORROSION.
- THE ENTIRE APPARATUS BODY SHALL BE PRECISION MACHINE FABRICATED "BOLTED CONSTRUCTION", PROPERLY REINFORCED WITH INTEGRAL FLANGES ELIMINATING THE NEED FOR ADD-ON-STRUCTURAL SHAPES, ALL PROJECTIONS WHICH MIGHT INJURE PERSONNEL SHALL HAVE STAINLESS BUTTON HEAD BOLTS AND STAINLESS AIRCRAFT STYLE NYLOCK "ESNA" NUTS.

- BOLTED CONSTRUCTION SHALL GREATLY ENHANCE THE STRENGTH AND EASE OF PARTS REPLACEMENT PROCESS IN THE EVENT OF DAMAGE AND FUTURE MODIFICATION, WHEREVER POSSIBLE BODY BOLTS WILL BE HIDDEN FROM PLAIN VIEW FOR APPEARANCE AND EASE OF APPARATUS CLEANING.
- THE FRONT BODY SUPPORT SYSTEM SHALL CONSIST OF 8 SEPARATE .250 THICK STEEL MOUNTS ATTACHED TO THE LEFT AND RIGHT SIDE OF THE CHASSIS.
- THE BODY SHALL BE ATTACHED TO THE STEEL MOUNTS BY MEANS OF A FLEXIBLE MOUNTING SYSTEM WITH LIMITED TRAVEL THIS DESIGN SHALL ALLOW FOR MAXIMUM CHASSIS FLEXING WITHOUT UNDUE STRESS TRANSFER TO THE RESCUE BODY.
- REAR BODY SUPPORT SYSTEM SHALL CONSIST OF AN INTERWOVEN DUAL .375" THICK STEEL TOW EYE ATTACHMENTS, A SINGLE TRANSVERSE 4" X 4" X .375" THICK STRUCTURAL ANGLE AND DUAL LAMINATED .188" THICK TAILBOARD SUPPORT WITH TAPERED ANGLES ON EACH SIDE OF THE APPARATUS.
- TOW EYE DIAMETER WILL BE 3.5"
- THE BODY DESIGN MUST HAVE BEEN FULLY TESTED WITH PROVEN ENGINEERING AND TEST TECHNIQUES SUCH AS FINITE ELEMENT ANALYSIS, STRESS COATING AND STRAIN GAUGING HAS BEEN PERFORMED WITH SPECIAL ATTENTION GIVEN TO FATIGUE LIFE AND STRUCTURAL INTEGRITY OF COMPARTMENTS AND BODY SUPPORT SYSTEM.
- WELDERS ARE TO BE CERTIFIED TO THE STANDARDS OF THE AMERICAN WELDING SOCIETY FOR THE METALS BEING USED TO ACCOMPLISH ALL WELDING OF THE BODY SUPPORT SYSTEM.
- THE BODY WILL BE COMPLETELY MODULAR IN DESIGN ALLOWING TRANSFER OF BODY COMPONENTS TO A NEW CHASSIS IN THE EVENT OF AN ACCIDENT OR WEAR.
- THE BODY COMPONENTS SHALL BE REMOVABLE FROM THE CHASSIS WITHOUT CUTTING OR BENDING.
- THE MODULAR DESIGN WILL ALSO FACILITATE EASE OF REPAIR OR REPLACEMENT OF MAJOR OR MINOR BODY PARTS.
- THE FENDERS WILL BE ONE PIECE ROLLED DIE STAMPED AND FULLY REMOVABLE.
- THE FENDERS WILL BE A SINGLE UNIT, FASTENED WITH STAINLESS BOLTS AND NYLOCK ESNA NUTS TO THE OUTER FENDER PANEL WITH A NEOPRENE EXTRUDED MOLDING.
- THE SUB-FRAME WILL BE BOLTED TO THE CHASSIS FRAME UTILIZING 1/2" CERTIFIED GRADE 8 BOLTS.
- A MINIMUM OF FOUR (4) BOLTS WILL BE USED PER SUB-FRAME MEMBER.
- THERE WILL BE NO WELDING OF COMPONENTS TO THE CHASSIS FRAME.

- BLACK RUBBER MUD FLAPS BEHIND THE REAR WHEELS MOUNTED TO REAR SUB-FRAME SHALL BE PROVIDED AND INSTALLED TO THE SUB-FRAME WITH A STAINLESS STEEL MOUNTING STRIP.
- MAJOR BODY COMPONENTS WILL CONSIST OF RIGHT AND LEFT BODY SIDES, WITH A REAR FACING COMPARTMENT.
- THE LOWER PORTION OF THE BODY WILL BE PROVIDED WITH A BRIGHT FINISHED EXTRUDED ALUMINUM RUB RAIL MOUNTED AWAY FROM THE BODY FOR ADDED STRENGTH AND PROTECTION.

- Meets Specifications

SIDE BODY HEADER

ON THE UPPER AREA OF THE APPARATUS BODY, DIRECTLY ABOVE THE SIDE COMPARTMENT DOOR OPENINGS, A HEADER IS TO BE FABRICATED FROM SMOOT, ALUMINUM SHEET. THIS AREA SHALL BE PAINTED THE SAME COLOR AS THE APPARATUS BODY. ALL COMPARTMENT TOPS SHALL BE OVERLAID WITH NFPA APPROVED NON SLIP TREAD PLATE.

- Meets Specifications

EXTERIOR GRAB RAILS

GRAB RAILS SHALL BE NON-SLIP, 1-1/4" DIAMETER EXTRUDED POLISHED ALUMINUM GRAB RAILS WITH RUBBER INSERTS DESIGNED TO PROVIDE MAXIMUM GRIPPING ABILITY, STRENGTH, AND DURABILITY. THE RAILS SHALL COMPLY WITH NFPA 1901.

- Meets Specifications

GRAB RAILS, REAR, VERTICAL

THERE SHALL BE TWO (2) GRAB RAILS, LOCATED AT THE REAR OF THE BODY. ONE (1) SHALL BE LOCATED ON THE LEFT HAND SIDE AND ONE (1) SHALL BE LOCATED ON THE RIGHT HAND SIDE.

- Meets Specifications

STEPPING, STANDING, WALKING SURFACES

ALL EXTERIOR SURFACES DESIGNATE BY THE MANUFACTURER AS STEPPING, STANDING, OR WALKING AREAS SHALL BE CONSTRUCTED OF GRIP STRUT OR TEXTURED TREADBRITE AND SHALL PROVIDE A HIGHLY SLIP RESISTANT SURFACE, EVEN WHEN SURFACE IS WET. ALL INTERIOR SURFACES DESIGNATED BY THE MANUFACTURER AS STEPPING, STANDING, OR WALKING AREAS SHALL BE SLIP RESISTANT WHEN THE SURFACE IS DRY. THE DEGREE OF SLIP RESISTANCE SHALL BE IN COMPLIANCE WITH THE INTENT OF NFPA 1906 NEWEST VERSION.

- Meets Specifications

REAR BUMPER

A REAR BUMPER SHALL BE PROVIDED AND BOLTED DIRECTLY TO THE VEHICLE FRAME.

- ENDS TO SLOPE 45 DEGREE ANGLE INWARD.
- THE BUMPER SHALL BE CONSTRUCTED OF CHANNEL STEEL AND COVERED WITH STAINLESS STEEL WITH GRIP TYPE MATERIAL TO ALLOW A SUITABLE WALKING SURFACE.
- ANY LIGHTS REQUIRING INSTALLATION ON THIS ASSEMBLY SHALL BE RECESSED TO PREVENT DAMAGE.
- CONSIDERATION WILL BE GIVEN TO THE ANGLE OF DEPARTURE WHEN DESIGNED.

- Meets Specifications

TOW HOOKS

TWO (2) HEAVY DUTY TOW HOOKS SHALL BE INSTALLED AND MOUNTED TO FRAME UNDER REAR BUMPER.

- TOW EYE DIAMETER WILL BE 3.5"
NOTE: FRONT TOW HOOKS TO BE SUPPLIED BY CHASSIS MANUFACTURER.

- Meets Specifications

TOWING RECEIVER

A 12,000LB CAPABLE WEIGHT DISTRIBUTION RECEIVER CAPACITY SHALL BE INSTALLED BELOW THE REAR BUMPER.

ELECTRICAL SYSTEM

- A BODY MASTER SWITCH SHALL BE PROVIDED AND MOUNTED ON THE DRIVER'S SIDE FLOOR BOARD AREA, EXACT LOCATION TO BE DETERMINED AT THE PRE-BUILD.
- THE APPARATUS SHALL BE EQUIPPED WITH A MULTIPLEX 12VOLT NEGATIVE GROUND SYSTEM.
- ALL WIRING SHALL BE COLOR CODED.
- ALL CIRCUITS SHALL BE DIVIDED FOR PROPER LOAD DISTRIBUTION.
- ALL WIRING MUST BE PROTECTED WITH HEAT RESISTANT LOOM AND ROUTED THROUGH PROTECTIVE TUBING AND METAL CLIPS SECURED TO THE BODY SUB-FRAME. THE LOOM SHALL ALSO BE SECURED BY CLAMPS WITH RUBBER INSULATION WHEREVER NECESSARY.
- ALL WIRING ROUTED INTO AND OUT OF PDM PANEL BOX SHALL BE CONNECTED BY MEANS OF DEUTSCH CONNECTORS.
- ONE (1) KUSSMAUL BATTERY CHARGE 100 CHARGER AND KUSSMAUL SUPER AUTO EJECT RECEPTACLE SHALL BE SUPPLIED AND INSTALLED NEAR DRIVER'S DOOR, EXACT LOCATION TO BE DETERMINED AT PRE-BUILD CONFERENCE.

- ONE (1) KUSSMAUL 091-85-12 LOW VOLTAGE ALARM SYSTEM SHALL BE SUPPLIED AND INSTALLED WITH A COLE-HERSEE 4112-RC LIGHT/BUZZER LOCATED IN THE CAB. THE SYSTEM SHALL DETECT WHEN THE BATTERY VOLTAGE DROPS BELOW 11.8 VOLTS AND REMAINS FOR 120 SECONDS.

- Meets Specifications

ELECTRIC WIRING

- ALL WIRING SHALL COME TO A TERMINAL BLOCK WHERE NECESSARY AND ALL WIRING SHALL BE COLORED CODED.
- ALL WIRING SHALL BE A MINIMUM OF TWELVE (12) GAUGE EXCEPT FOR RADIO WHICH SHALL BE EIGHT (8) GAUGE.
- WIRE SHALL BE CARRIED IN FLEXIBLE LOOM AND ADEQUATELY PROTECTED FROM DAMAGE DUE TO VIBRATION, CHAFFING OR MECHANICAL INJURY.

- Meets Specifications

WARNING LIGHTS

- ONE (1) 56" WHELEN LED LIGHT BAR, WHICH SHALL INCLUDE; SCENE/TAKE DOWN LIGHTS, INTERSECTING LIGHTS AND A TRAFFIC PREEMPTION CONTROL LIGHT. THE LIGHT BAR SHALL BE MOUNTED ON FRONT END OF BODY (NOT CAB).
- TWO (2) WHELEN SUPER LED LIGHTS (RED W/CLEAR LENSES) SHALL BE MOUNTED IN OR AROUND THE FRONT GRILL.
- FOUR (4) WHELEN SUPER LED LIGHTS (RED W/CLEAR LENSES) WITH CHROME BEZELS SHALL BE MOUNTED ON SIDE UPPER CORNERS OF THE BODY. TWO (2) LEFT SIDE TOP CORNERS, TWO (2) RIGHT SIDE TOP CORNERS.
- TWO (2) WHELEN SUPER LED LIGHTS (RED W/CLEAR LENSES) SHALL BE MOUNTED, ONE (1) MOUNTED ABOVE REAR RIGHT WHEEL WELL CENTER AND ONE (1) ABOVE REAR LEFT WHEEL WELL CENTER, (INTERSECTION WARNING LIGHTS)
- TWO (2) WHELEN SUPER LED LIGHTS (RED/WHITE W/CLEAR LENSES) WITH ANGLED CHROME BEZELS SHALL BE MOUNTED; ONE (1) ON THE RIGHT FRONT FENDER AND ONE (1) MOUNTED ON LEFT FRONT FENDER (INTERSECTION WARNING LIGHTS)
- TWO (2) WHELEN SUPER LED LIGHTS, ONE (1) RED W/ A CLEAR LENSE SHALL BE MOUNTED ON UPPER RIGHT REAR (PASSENGER) CORNER OF BODY AND ONE (1) BLUE W/ A CLEAR LENSE SHALL BE MOUNTED ON UPPER LEFT REAR (DRIVER) CORNER OF BODY. BOTH WILL BE MOUNTED WITH CHROME BEZELS.
- ONE (1) WHELEN SUPER LED AMBER W/ A CLEAR LENSE WITH CHROME BEZELS SHALL BE MOUNTED IN THE MIDDLE REAR OF THE BODY OVER THE COMPARTMENT DOOR.

- TWO (2) WHELEN SUPER LED LIGHTS RED W/ CLEAR LENSES SHALL BE MOUNTED WITH CHROME BEZELS ON EACH LOWER CORNER (LEFT/RIGHT) OF THE REAR BODY.
- THE HIGH BEAM HEADLIGHTS SHALL BE WIRED TO PROVIDE A WIG-WAG OPERATION WHEN EMERGENCY LIGHTS ARE ACTIVATED, WIG-WAG SYSTEM SHALL HAVE A CUT OFF SWITCH WHEN VEHICLE TRANSMISSION IS PLACED IN THE PARK POSITION.
- EMERGENCY LIGHTS WILL HAVE SEPARATE SWITCHES TO CONTROL THE LEVELS OF LIGHTING (RESPONSE MODE, ON SCENE, BLOCKING, ETC.) WITH A MASTER LIGHTING SWITCH. LIGHTING CONTROLS WILL BE INSTALLED IN THE CENTER CONSOLE.

Meets Specifications

SIREN SYSTEM

- ONE (1) WHELEN 295-HFSAF7 REMOTE WITH MICROPHONE WILL BE INSTALLED IN THE CENTER CONSOLE; SIREN SHALL BE CAPABLE OF PROVIDING 6 TONES, PUBLIC ADDRESS, AND HANDS FREE OPERATION.
- SIREN SPEAKER(S) CAPABLE OF PRODUCING A MINIMUM OF 100 WATTS SHALL BE RECESSED INTO THE FRONT BUMPER (MAY BE ONE OR TWO SPEAKERS).

Meets Specifications

BACK-UP ALARM

- ONE (1) 107 DB BACK UP ALARM SHALL BE PROVIDED AND INSTALLED AT THE REAR OF THE UNIT. IT SHALL BE WIRED TO ACTIVATE WHEN THE TRANSMISSION IS PLACED IN REVERSE.

Meets Specifications

KNOX BOX

- A KNOX BOX KEY SECURE 4 WiFi KEY RETENTION DEVICE WILL BE INSTALLED AND WIRED INTO THE CENTER CONSOLE, EXACT LOCATION TO BE DETERMINED A PRE-BUILD CONFERENCE.

Meets Specifications

12-VOLT LIGHTS AND CONTROLS

- FIVE (5) WHELEN 4" SUPER ROUND LED WHITE LIGHTS SHALL BE INSTALLED; ONE (1) INSTALLED UNDER EACH CAB DOOR AND ONE (1) UNDER REAR OF BODY.
- ALL UNDERBODY LIGHTS SHALL BE ACTIVATED WHEN A CAB DOOR IS OPEN.
- FOUR 12 VOLT TELESCOPING WHITE LED SCENE LIGHTS, PROVIDING AT LEAST 20,000 LUMEN EACH, SHALL BE MOUNTED (1) ON EACH CORNER OF THE BODY. EACH WITH ITS OWN INDIVIDUAL POWER SWITCH LOCATED ON THE LIGHT HEAD.
- ONE (1) PAIR EACH OF WHELEN 600 SERIES LED STOP/TAIL, TURN, AND LED WHITE BACKUP LIGHTS SHALL BE INSTALLED AT THE REAR OF BODY (LEFT AND RIGHT). ALL LIGHTS TO BE MOUNTED IN CHROME BEZELS. THE STOP LIGHTS SHALL BE PROGRAMMED TO SIGNAL ALERT AND FLICKER BEFORE TURNING STEADY ON. TURN SIGNALS SHALL BE PROGRAMMED TO PROGRESSIVELY SWEEP AN ARROW WHEN THE TURN SIGNALS ARE ACTIVATED.
- ALL MARKER LIGHTS SHALL BE PETERSON MFG LED CLEARANCE LIGHTS; MARKER LIGHTS SHALL BE PROVIDED AND INSTALLED AS REQUIRED BY STATE AND FEDERAL LAW.

- Meets Specifications

CENTER CONSOLE

- A CONTROL CONSOLE SHALL BE MOUNTED BETWEEN THE FRONT CAPTAIN'S CHAIRS.
- CONSOLE SHOULD HAVE A 12 VOLT BUS BAR INSTALLED FOR EASE IN INSTALLATION OF ELECTRONICS.
- CONSOLE SHOULD HAVE FOUR (4) STANDARD 12 VOLT RECEPTACLES AND TWO (2) USB RECEPTACLES INSTALLED.
- CONSOLE SHOULD HAVE SPACE FOR TO FOLLOWING TO BE MOUNTED:
 - 2 MOBILE RADIOS (SUPPLIED BY DEPARTMENT)
 - SIREN CONTROLS
 - EMERGENCY AND OTHER LIGHT CONTROLS
 - TOUGH BOOK / IPAD COMPUTER STANDS
 - KNOX BOX KEY SECURE 4 WiFi

- Meets Specifications

COMPARTMENT LIGHTING

- ALL COMPARTMENTS SHALL BE ADEQUATELY LIT AND ACTIVATED BY A MAGNETIC DOOR SWITCH FOR EACH COMPARTMENT.
- LED LIGHTS (ROM TYPE) ARE TO BE MOUNTED AROUND CABINET DOOR OPENINGS.
- ALL LIGHTS, RADIO AND SOLENOIDS SHALL BE PROTECTED BY INDIVIDUAL CIRCUIT BREAKERS, CIRCUIT BREAKERS TO BE READILY ACCESSIBLE.

- ALL LIGHTING, (WARNING, COMPARTMENTS, EXTERIOR) SHALL MEET NFPA 1901-2009 STANDARDS.

- Meets Specifications

COMPARTMENTS

- ALL SEAMS SHALL BE COMPLETELY WELDED.
- ALL COMPARTMENTS SHALL BE OF THE SWEEP OUT DESIGN.
- ALL COMPARTMENTS SHALL BE VENTED TO THE OUTSIDE.
- ALL BODY DOORS SHALL BE EITHER:
 - ROLL-UP TYPE (GORTITE OR ROM) DOORS. THE SLATS SHALL BE CONSTRUCTED OF A DOUBLE WALL FRAME EXTRUSION. THE EXTERIOR SURFACE SHALL BE FLAT AND INTERIOR SURFACES TO BE CONCAVE TO PREVENT LOOSE EQUIPMENT FROM JAMMING THE DOORS. SLATS SHALL BE ANODIZED TO PREVENT OXIDATION AND WILL HAVE INTERLOCKING SHOES ON EVERY SLAT. THE DOOR TRACKS SHALL BE OF ONE-PIECE ALUMINUM WITH AN ATTACHING FLANGE AND FINISHING FLANGE INCORPORATED INTO ITS DESIGN WHICH FACILITATES INSTALLATION AND PROVIDES A FINISHED LOOK TO THE WITHOUT ADDING TRIM. EACH TRACK SHALL HAVE A REPLACEABLE SIDE SEAL, WHICH PREVENTS WATER AND DUST INTRUSION INTO THE COMPARTMENT. A DRIP RAIL SHALL BE SUPPLIED BY THE DOOR MANUFACTURER. THE DRIP RAIL WILL HAVE A REPLACEABLE WIPER SEAL TO BE MADE OF ALUMINUM. EACH DOOR SHALL HAVE A COUNTERBALANCE DRUM TO ASSIST IN LIFTING AND ELIMINATE RISK OF ACCIDENTAL CLOSING. THE ROLLER SHALL BE MOUNTED IN THE TOP FO THE COMPARTMENT AND SHALL HAVE SPRING TENSION PRESET AT THE FACTORY PRIOR TO INSTALLATION. THE BOTTOM RAIL EXTRUSION MUST HAVE A SMOOTH BACK TO PREVENT LOOSE EQUIPMENT FROM JAMMING THE DOOR AND HAVE A "V" SHAPED DOUBLE SEAL TO PREVENT WATER AND DEBRIS FROM ENTERING THE COMPARTMENT. THE SECURING METHOD WILL BE FULL WIDTH LIFT BAR TO BE OPERATED WITH ONE HAND EVEN WITH HEAVY GLOVES.
 - OR SOLID MATERIAL (SAME AS BODY CONSTRUCTION) FASTENED TO THE BODY WITH STAINLESS STEEL HINGES AND PNEUMATIC CLOSURES TO HOLD DOOR IN THE OPEN POSITION AND PROVIDE AT LEAST A 90 DEGREE CLEAR OPENING. SLAM LATCH HANDLES SHALL BE PROVIDED ON ALL COMPARTMENT DOORS. INTERIOR OF DOORS SHALL HAVE REFLECTIVE CHEVRON DESIGN IDENTICAL TO REAR OF BODY.
- ALL DOORS SHALL BE PAINTED RED TO MATCH THE CAB.
- ALL DOORS SHALL BE PROVIDED WITH CONTINUOUS HIGH QUALITY WEATHER STRIPPING, GLUED WEATHER STRIPPING SHALL NOT BE USED.

- A TWO INCH RED OPEN DOOR WARNING LIGHT SHALL BE INSTALLED IN THE CAB EASILY VISIBLE TO DRIVER.
- EACH COMPARTMENT SHALL HAVE AT LEAST ONE (1) 12 VOLT RECEPTACLE WIRED AND INSTALLED. EXACT LOCATIONS TO BE DETERMINED AT PRE-BUILD CONFERENCE.

□ Meets Specifications

FRONT COMPARTMENTS - LEFT AND RIGHT (L-1 & R-1)

TWO (2) COMPARTMENTS SHALL BE PROVIDED BEHIND THE CAB AND IN FRONT OF EACH WHEEL WELL ON EACH SIDE, THE COMPARTMENTS SHALL BE APPROXIMATELY 58" WIDE X 57" HIGH X 48" DEEP.

□ Meets Specifications

HIGH SIDE COMPARTMENTS - LEFT AND RIGHT (L-2 & R-2)

TWO (2) COMPARTMENTS SHALL BE PROVIDED OVER THE WHEEL WELL, ONE (1) ON EACH SIDE, THE COMPARTMENTS SHALL BE APPROXIMATELY 44" WIDE X 40" HIGH X 24" DEEP.

□ Meets Specifications

REAR COMPARTMENTS - LEFT AND RIGHT (L-3 & R-3)

TWO (2) COMPARTMENTS SHALL BE PROVIDED BEHIND THE REAR WHEELS, ONE (1) EACH SIDE; THE COMPARTMENTS SHALL BE APPROXIMATELY 33" WIDE X 57" HIGH X 24" DEEP.

□ Meets Specifications

REAR COMPARTMENT (RR-1)

A REAR COMPARTMENT SHALL BE PROVIDED; THE COMPARTMENT SHALL BE APPROXIMATELY 48" WIDE X 45" HIGH X 74" DEEP.

□ Meets Specifications

PULL OUT TRAYS/PULL DOWN TRAYS/ADJUSTABLE SHELVES

PULL OUT TRAYS AND ADJUSTABLE SHELVES SHALL BE PROVIDED AS FOLLOWS:

- (6) SIX ADJUSTABLE SHELVES LOCATED IN COMPARTMENTS; L-2, R-2, L-3, R-3.
- (3) THREE FULL DEPTH PULL OUT TRAYS LOCATED IN COMPARTMENTS; L-1, L-2, RR-1.

□ Meets Specifications

ADJUSTABLE SHELVES

THE ADJUSTABLE SHELVES SHALL BE MANUFACTURED OF 3/16" ALUMINUM WITH A 2" EDGE BROKEN UP 90 DEGREES. THE SHELF FINISH SHALL BE UNPAINTED ALUMINUM.

- Meets Specifications

TURTLE-TILE

COMPARTMENT FLOORS AND SHELVES SHALL HAVE A TURTLE-TILE TYPE COVERING INSTALLED.

- Meets Specifications

GENERATOR

THE DEPARTMENT WILL BE PROVIDING A GENERATOR TO BE MOUNTED BY VENDOR BEHIND THE CAB BETWEEN COMPARTMENT L-1 & R-1.

- A STAINLESS STEEL HINGED COVER SHALL BE INSTALLED TO PROVIDE ACCESS TO THE GENERATOR.
 - CHANNELING SHALL BE PROVIDED FOR A FUEL LINE FROM THE DIESEL TANK TO THE GENERATOR.
 - THE REMOTE START WILL BE INSTALLED IN COMPARTMENT L-1 AND SHALL INCLUDE; A START/STOP BUTTON, A PREHEAT BUTTON, AND A HOUR METER. A 6 PLACE BREAKER BOX WITH 6 APPROPRIATELY SIZED GROUND FAULT CIRCUIT BREAKERS WILL ALSO BE INSTALLED IN COMPARTMENT L-1.
 - TWO (2) 120 DUPLEX RECEPTACLES SHALL BE PROVIDED; THEY SHALL BE LOCATED COMPARTMENT L-3 & R-3 EACH WILL BE ASSIGNED TO A SEPARATE BREAKER.
 - THE ELECTRICAL OUTLETS SHALL BE A NEMA L5-15, RATED AT 120-VOLT AC, 15 AMP, AND DUPLEX RECEPTACLE.
 - ONE 220V/50A 3 PRONGED TWIST OUTLET SHALL BE PROVIDED AND LOCATED ON INSIDE COMPARTMENT RR-1.
- Meets Specifications

PAINT, STRIPE AND LETTERING

- CAB ROOF AND HOOD TO BE PAINTED BLACK TO MATCH DEPARTMENT PAINT SCHEME, EXTERIOR BODY DOORS SHALL BE FORD CODE F1 RED, BASE COAT/ CLEAR COAT ACRYLIC URETHANE TO MATCH CAB EXTERIOR.
- THE PAINT BREAK LINE AND EXACT LETTERING LAYOUT SHALL BE DETERMINED AT PRE-BUILD.
- BODY COMPARTMENTS INTERIOR SHALL BE LEFT AS NATURAL STEEL.
- ALL PAINT AREAS SHALL BE IN STRICT ACCORDANCE WITH PAINT MANUFACTURERS REQUIREMENTS.
- ALL REMOVABLE BODY PARTS SUCH AS DOORS, ETC. SHALL BE REMOVED AND PAINTED SEPARATELY.

- A 6" 3M BRAND WHITE BODY STRIPE WILL BE INSTALLED ON THE LOWER PORTIONS OF THE VEHICLE'S SIDES.
- A 1" 3M BRAND WHITE STRIPE ABOVE AND BELOW THE 6" STRIPE THAT PARALLELS THE 6" STRIPE.
- THE STRIPING SHALL BE PER NFPA STANDARDS.
- THE FRONT DOOR WILL HAVE THE SUPPLIED DEPARTMENT SEAL INSTALLED.
- REAR CAB DOORS SHALL HAVE "SQUAD 5" INSTALLED, SIZED TO BEST FIT.
- THE SIDES OF THE BODY HEADER SHALL HAVE "SOUTH PORTLAND FIRE-RESCUE" SIZED TO BEST FIT INSTALLED ABOVE COMPARTMENT DOORS.
- THE FRONT HOOD SHALL HAVE "SOUTH PORTLAND" SIZED TO BEST FIT.
- THE LOWER 6" WHITE STRIPE ON THE REAR COMPARTMENT DOORS WILL HAVE IN BLACK LETTERING, "9-1-1"
- THE REAR COMPARTMENT DOOR WILL HAVE IN THE CENTER PORTION, "SQU5AD"
- THE REAR COMPARTMENT DOOR WILL HAVE ON THE LOWER PORTION, IN BLACK LETTERING, "KEEP BACK 500 FEET"
- ALL FONTS SHALL BE TIMES NEW ROMAN WITH GOLD REFLECTIVE FINISH, UNLESS OTHERWISE NOTED.
- THE REAR OF BODY SHALL HAVE ALTERNATING YELLOW/RED NFPA APPROVED CHEVRON STRIPPING.
- THE FRONT CAB INTERIOR DOORS SHALL HAVE THE REQUIRED NFPA STANDARD REFLECTIVE MARKINGS OR STRIPING.

Meets Specifications

RADIO ANTENNA

THERE SHALL BE TWO (2) ANTENNA (1 VHF & 1 800MHz) MOUNTED ON THE CENTER OF THE ROOF FOR FIRE DEPARTMENT SUPPLIED RADIOS WITH WIRE TERMINATED IN CENTER CONSOLE.

Meets Specifications

CHANGES

ANY CHANGES TO SPECIFICATIONS WILL REQUIRE A WRITTEN CHANGE ORDER FORM PRICED AND SIGNED BY BOTH PARTIES.

Meets Specifications

PROVIDED MANUALS AND DIAGRAMS:

- CHASSIS AND BODY MANUFACTURES MATERIALS
- MANUFACTURES SPECIFICATIONS
- ALL OPERATING MANUALS FOR CHASSIS AND SUPPLIED EQUIPMENT WILL BE PROVIDED AT TIME OF DELIVERY.

- TWO (2) CHASSIS AND BODY WIRING DIAGRAMS WILL BE PROVIDED.
- Meets Specifications

OPTIONS

1. COMPARTMENT DOORS MAY BE SOLID MATERIAL (SAME AS BODY) CONSTRUCTION FASTENED TO THE BODY WITH STAINLESS STEEL HINGES AND PNEUMATIC CLOSURES TO HOLD DOOR IN THE OPEN POSITION AND PROVIDE AT LEAST A 90 DEGREE CLEAR OPENING. SLAM LATCH HANDLES SHALL BE PROVIDED ON ALL COMPARTMENT DOORS. FORMED DRIP MOLDINGS SHALL BE INSTALLED OVER ALL COMPARTMENT DOORS LOCATED ON THE OUTSIDE OF THE BODY TO DIRECT WATER AWAY FROM DOORS.
2. SUPPLY A 120/240 VOLT DIESEL GENERATOR CAPABLE OF PRODUCING AT LEAST 41.7 AMPS @ 240 VOLTS WITH A 50 AMP MAIN LINE BREAKER.
3. INSTALL A WIRELESS BACKUP CAMERA SYSTEM. CAMERA MOUNTED TO REAR BODY AREA THAT WIRELESSLY TRANSMITS TO LCD DISPLAY SCREEN IN CAB
4. REPLACE TWO OF THE LED SCENE LIGHTS WITH A COMMAND LIGHT SHADOW SERIES LED SL442A RT LIGHT TOWER