Hanover Park

Village of Hanover Park
Administration

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REQUEST FOR PROPOSAL
FIRE DEPARTMENT INCIDENT REHABILITATION VEHICLE
HANOVER PARK, ILLINOIS

The Village of Hanover Park is soliciting competitive proposals for the manufacturing and delivery of a Fire Department Incident Rehabilitation Vehicle, in accordance with the attached specifications. Proposals should be clearly marked on the outside of the submittal "Fire Department Incident Rehabilitation Vehicle" and should be submitted to:

Robert O'Bryan
Fleet Manager
Village of Hanover Park
2041 Lake Street
Hanover Park, IL 60133

By noon on August 15, 2014. No late proposals will be accepted.

The Village reserves the right to select the proposal that best meets the needs of the Village.

Any questions should be in the form of an email (robryan@hpil.org) or other written communication, and received by the Village no later than August 4, 2014.

HANOVER PARK FIRE DEPARTMENT

Hanover Park, IL

INCIDENT REHAB VEHICLE

REQUEST FOR PROPOSAL

July 25, 2014

	Bidder Complies	
	Yes	No

REQUEST FOR PROPOSAL

INTENT OF SPECIFICATIONS

It is the intent of these specifications to cover the furnishings and delivery to the Village of Hanover Park, a complete and soundly engineered fire apparatus equipped as hereinafter specified. These specifications address only general requirements regarding the type of construction and tests to which the apparatus must conform. Also, only general requirements of certain details concerning finish, equipment, and appliances with which the successful bidder must comply are included in these specifications. Where not otherwise specified, minor details of construction and materials 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 requirements of the current National Fire Protection Association Standard 1901 for Fire Apparatus, as if they were written out in full detail, insofar as they apply, unless otherwise indicated in these specifications.

CONDITIONS FOR SOLICITATION OF PROPOSALS

1. Price quotations shall be firm FOB Village of Hanover Park and exclusive of any Federal excise tax and all State tax.

2. Each proposal shall be accompanied by a set of contractor's specifications consisting of a detailed description of the apparatus and equipment proposed, including warranties and guarantees, a ½" – 1' scale drawing of the exact apparatus, and specifications indicating size, type, model, and make of all component parts and equipment.

Manufacturer's specifications shall be submitted in the same order as the published specifications, in order to facilitate effective proposal review by the fire department.

Each proposal shall include a "Statement of Exceptions" as indicated in NFPA 1901 Section 4.21. The statement of exceptions shall specifically describe each aspect of the completed apparatus that will not be fully compliant with the requirements of the standard at the time of delivery.

The drawing and specifications must be approved by the department prior to construction. The written specifications shall take precedence over the drawing where discrepancies may arise.

4. Proposals will only be considered from companies which have established a favorable reputation in the field of fire apparatus construction. Therefore, each bidder shall furnish the following information:

	Bidder Complies	
	Yes	No

a. A customer listing of like units in service and their location.
b. The location of the closest factory representative in proximity to department.
c. The manufacturer's closest factory staffed facility to Customer.

5. Each proposal shall furnish satisfactory evidence of the ability to construct the apparatus as specified and show proof that the manufacturer is in a position to render prompt service and furnish replacement parts for said apparatus.

6. The proposal shall specify the location(s) of warranty work. If the warranty work is to be performed at a location other than the manufacturer, a statement must be made naming the party or parties responsible for delivery and pick-up of the apparatus to the location. Expenses that are covered by the manufacturer should be included along with a listing of acceptable firms for performing warranty work. A statement indicating whether warranty work performed by a vehicle maintenance shop would be compensated by the manufacturer shall also be included.

7. The successful manufacturer must submit a full set of accurate drawings and specifications to the department for approval before the apparatus goes on the production line.

8. Failure to comply with any of the above items may be cause for immediate rejection of the proposal.

SPECIAL NOTE

Requirements for a BID BOND is waived

Requirements for a PERFORMANCE BOND is waived

Insurance requirements are waived

SERVICE

The bidder must have "Factory Direct Service". The manufacturer must stock all replacement parts for said apparatus. The bidder must include all information about the "Factory Direct Service Center", including the distance from the service center to Hanover Park. If the bidder does not have a "Factory Direct Service Center", all information about the factory authorized service center shall be included. The information shall include but not be limited to the following:

Number of miles from the service center to
Description of all repair work (major or minor) that can be performed
Description of all repair work that would have to be sent back to factory for repair.
Description of all chassis and chassis related work that can be performed at the service facility including warranty work

	Bidder Complies	
	Yes	No

If any repair or warranty work shall be contracted to a facility not owned by the bidding dealership, the address of the contracted facility must be noted.

INSTRUCTION OF MANUFACTURERS

1. Proposals must be typewritten, legible, and in their original form.

2. When requested, samples or descriptive matter shall be filed prior to the opening of the proposals.

3. In submitting the proposal, the manufacturer agrees that acceptance of the proposal by the department within the stated period of proposal validity, constitutes a contract. No delivery shall become due or be accepted unless notification in writing is first made.

4. The specifications identified by an asterisk (*) shall be individually priced, as they may be deleted by the purchaser in the final contract.

5. The successful manufacturer shall indemnify and save harmless the department, its officials, agents, and employees, against all claims for royalties and patent infringements thereon which may be involved in the manufacture or use of the apparatus or equipment to be furnished.

6. All goods shall remain the property of the seller until delivered to and accepted by the department.

7. The following chassis and body specifications have been written to those of the Village of Hanover Park Exceptions may be allowed if they meet the full intent and function of the specifications and are equal or superior to those specified and provided they are listed and fully explained on a separate page entitled "Exceptions to Specifications". The proposals exception list shall refer to the specification by page and paragraph to prevent misinterpretation. All exceptions shall be listed. Any exceptions not taken shall be assumed by the department to be included in the manufacturer's proposal and will conform to the published specifications, regardless of the cost to the manufacturer. Failure to adhere to these instructions, or specifications contained herein, will be just cause for rejection of the proposal quotation. Proposals taking total exception to these specifications will not be accepted.

8. All proposals must be valid for a minimum of sixty (60) days from proposal opening date.

9. The department reserves the right to award the contract by sections, or to accept the proposal they shall deem in the best interest, regardless of whether the accepted proposal is low in the amount proposed, and to waive any informalities, omissions, oversights, or

	Bidder Complies	
	Yes	No

irregularities in any proposal and to reject any and all proposals when unsatisfactory.

10. The department does not intend to consider proposals on prototype, experimental, or unproven types of apparatus.

11. These conditions, instructions, and specifications have been developed and written in good faith.

12. A preconstruction conference shall be held within thirty (30) days of contract award. Upon completion of the conference, a set of notes and drawings for the department's approval shall be forwarded prior to the start of any construction.

13. The Manufacturers should submit a proposal price for the apparatus, and an itemized proposal price for the accessory equipment.

QUALITY AND WORKMANSHIP

The apparatus and equipment herein specified shall be the manufacturer's latest model of production embodying, the latest improved automotive engineering practices. All materials, workmanship, and finish must be of superior quality and conform to the nature of service and the character to which the apparatus is intended, in order to insure long life, dependability, and low costs of maintenance and repair.

DESIGN CRITERIA

The apparatus shall be designed, constructed, and equipment mounted with due consideration to the distribution of the load to be sustained and to the general type and character of service to which the apparatus will be subjected. All parts of the apparatus shall be sufficiently strong, with ample safety factors provided to withstand the general service under load, meeting both on and off road requirements.

The design of the apparatus must allow for ease of operation, symmetrical proportions, and ready access to the various parts requiring lubrication, inspection, adjustment, and repair.

Welding that would prevent the removal of any component part for service or repair shall not be employed in the assembly of the apparatus.

The electrical system shall be designed to meet and exceed the anticipated electrical load requirements of the devices indicated in the specifications. The manufacturer shall provide an amp load performance chart for the apparatus as specified.

The chassis must be designed for fire apparatus use.

WARRANTY REQUIREMENTS

	Bidder Complies	
	Yes	No

A standard one (1) year warranty applies to defects in materials and workmanship under normal use and service.
A twenty (20) year warranty applies to the body structure.
A ten (10) year non-prorated warranty applies to the paint.
A three (5) year warranty applies to the lettering and striping lamination.

DELIVERY

A qualified and responsible manufacturer's representative shall deliver the apparatus and equipment, remaining at the department for a period of One (1) days or a sufficient period of time to instruct personnel in the operation, care, and maintenance of the apparatus and equipment.

Responsibility for the apparatus and equipment shall remain with the manufacturer until satisfactory completion of the acceptance tests and formal acceptance by the department occurs.

To ensure proper break-in of all apparatus components while still under warranty, the apparatus shall be delivered under its own power by the manufacturer. The apparatus and equipment shall be ready for immediate use at the time of delivery.

The apparatus will be inspected upon delivery for compliance with the specifications. Deviations will not be tolerated and will be cause for rejection of apparatus unless listed in the bidder's original proposal.

The apparatus shall be covered by comprehensive and liability insurance during the delivery period. The department will assume the insurance obligation on acceptance and at that time, shall present to the manufacturer a certificate of verification, showing liability, comprehensive and collision insurance coverage.

INFORMATION REQUIRED FROM MANUFACTURER

The manufacturer must supply at the time of delivery at least two (2) copies of the complete operation and maintenance manuals covering the completed apparatus and equipment as delivered, two (2) destination effective wiring diagrams, copies of electrical and mechanical component manuals for equipment purchased on or with the apparatus.

DESIGN SPECIFICATIONS

1. Personnel Capacities

To meet the spirit of N.F.P.A. 1500 paragraph 6.3.1, this apparatus has been designed to

	Bidder Complies	
	Yes	No

transport not more than 6 people.

6.3 Riding in Fire Apparatus

6.3.1 All persons riding in fire apparatus shall be seated and belted securely to the vehicle by seat belts in approved riding positions and at any time the vehicle is in motion. Standing or riding on tail steps, sidesteps running boards or in any other exposed position shall be specifically prohibited.

2. Component Protection

Hydraulic lines, air system tubing, control cables, and electrical lines shall be clipped to the frame or body structure of the apparatus and shall be furnished with metal protective looms or grommets at each point where they pass through body panel or structural members.

3. Vehicle Stability

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

b. The front to rear weight distribution of the fully loaded vehicle as defined by NFPA shall be within the limits set by the chassis manufacturer. The front axle loads shall not be less than the minimum axle loads specified by the chassis manufacturer, under full load and all other loading conditions.

c. The difference in weight on the end of each axle, from side to side, when the vehicle is fully loaded and equipped as defined by NFPA shall not exceed 7 percent (7%).

INFORMATION TO BE PROVIDED:

The successful bidder shall supply, at the time of delivery, the following documents:

1. The manufacturer's record of apparatus construction details, including the following information:

   (a) Owner's name and address.
   (b) Apparatus manufacturer, model, and serial number.
   (c) Chassis make, model, and serial number.
   (d) GAWR of front and rear axles.
   (e) Front tire size and total rated capacity in pounds.
   (f) Rear tire size and total rated capacity in pounds.
   (g) Chassis weight distribution in pounds with water and manufacturer mounted equipment.
   (h) Engine make, model, serial number, number of cylinders, bore, stroke, displacement and compression ratio, rated horsepower and related speed, and no-load governed

	Bidder Complies	
	Yes	No

speed.

(i) Type of fuel and fuel tank capacity.
(j) Electrical system voltage and alternator output in amps.
(k) Battery size in CCA.
(l) Transmission make, model, and type.
(m) Paint numbers.
(n) Company name and signature of responsible company representative.

2. Weight documents from a certified scale showing actual loading on the front axle, rear axle(s), and overall vehicle (with the water tank full but without personnel, equipment, and hose) shall be supplied with the completed vehicle.
3. Written load analysis and results of the electrical system performance tests.
4. Two (2) destination effective wiring diagrams.
5. Copies of electrical and mechanical component manuals for equipment purchased on or with the apparatus.

MUD FLAPS:

Each rear fender shall be extended with a black rubber mud flap, thus preventing splash and road debris from damaging the apparatus body.

CHASSIS SUPPLIED WHEELS:

The wheel finish on the apparatus shall be left as specified in the chassis specifications.

LABELS:

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

--Engine Oil
--Engine Coolant
--Chassis Transmission Fluid
--Drive Axle(s) Lubrication Fluid
--Air-Conditioning Refrigerant
--Air-Conditioning Lubrication Oil
--Power Steering Fluid
--Generator System Lubricant
--Front Tire Cold Pressure
--Rear Tire Cold Pressure
--Maximum Tire Speed Ratings

A final manufacturer's certification of the GVWR or GCWR along with a certification of each

	Bidder Complies	
	Yes	No

GAWR, shall be supplied on a label affixed to the vehicle.

A sign that reads "Occupants Must Be Seated and Belted When Apparatus Is in Motion" shall be provided.

A label that states the number of personnel the vehicle is designed to carry shall be located in an area visible to the driver.

A sign stating the overall height of the vehicle in feet and inches, the overall length of the vehicle in feet and inches, and the GVWR in tons shall be provided and mounted. The sign shall be visible to the driver of the vehicle while seated.

CHASSIS

Attached is a Freightliner Chassis Specification for a Freightliner MT55 Chassis. This is the base specification to be met.

BODY

18' Body System Walk-In Step Van style.

Attached is Utilimaster Sales Quotation (Quote # 90668/1) for a Utilimaster body. This is the base specification to be met.

BODY CONSTRUCTION SYSTEM:

The vehicle body shall be constructed of aluminum. The 18' walk-in van body shall be fabricated and mounted on the Freightliner MT-55 chassis.

STEP BUMPER:

The factory installed steel rear step bumper shall be utilized.

INTERIOR FLOOR:

Lonseal LonPlate treadplate pattern waterproof floor covering shall be installed in the center walkway of the interior area. All edges shall be sealed to prevent water damage.

BODY INTERIOR:

The walls and ceiling shall be studded with structural tubing.

LINING AND INSULATION:

	Bidder Complies	
	Yes	No

The rescue body upper interior area shall be insulated with R2 insulation material to reduce thermal loss. The upper interior area shall be plated with aluminum sheeting on the ceiling and walls. The corners and seams shall be sealed with polypropylene sealant.

REAR DOUBLE DOORS:

The rear of the van body shall have a 40" wide vertically hinged double door opening. Each door shall include a 12" x 18" window in the upper portion of doors. The door opening shall have a closed cell automotive type seal to prevent water and dirt entry.

SQUAD BENCH:

There shall be a SIX (6) position personnel bench located on the passenger side interior area. The bench seat shall have a 3" foam cushion covered with heavy-duty black vinyl. The seat back shall be spaced away from the back wall for general storage of equipment. Additional storage shall be under the bench. The bench seat shall utilize 2 lift up lids to access the storage areas. Each lid shall be held open with gas springs.
The four (4) seating positions shall include lap style buckle safety belts anchored to reinforced mounting positions with the bench seat.

WORK COUNTER SPACE:

A 4B finish stainless steel counter top work space shall be provided inside the van body. The counter top work space shall be approximately 36" from the floor and 54" wide x 26" deep. An aluminum rollout drawer shall be located under the counter for general storage. The drawer shall utilize a single d-ring latch to secure in the closed position. An upper shelf area shall accommodate the 1.6 cubic foot microwave and a general storage cabinet.
An aluminum lift up door overhead cabinet assembly 15" H x 15" D x 40" W shall be mounted on the driver's side interior. The cabinet shall be mounted above the stainless steel counter top. The aluminum cabinet shall include a single lift up style latching cabinet door. The cabinet face shall be white.

UNDER CABINET LED LIGHTING:

An 18" LED light shall be installed under the overhead cabinet above work station. The light shall be switched from the work counter location. The lights shall be powered from the 12v system of the chassis.

COFFEE MARKER & MICROWAVE

One (1) Dual Brew Bunn Airpot style Automatic coffer maker #CWTF TWIN-APS-0041 with four (4) Airpots supplied, one (1) Magic Chef 1.6 cubic foot microwave, or equal, and All items shall be mounted in place to secure items while in transport. Coffee maker and

	Bidder Complies	
	Yes	No

microwave will be powered from the generator only.

REFRIGERATOR:

One (1) True Brand Refrigerator # T-43, or approved equal, shall be supplied with the van. The stainless steel finish refrigerator shall be mounted permanently within the cabinetry of the counter/work area. The refrigerator shall be powered from the 120v systems of the van generator/shoreline utilizing the changeover relay. The shoreline will utilize the Kussmaul Auto-Eject , battery maintainer circuit.

INTERIOR OVERHEAD EQUIPMENT STORAGE:

A full length aluminum sliding door overhead cabinet assembly 18" H x 15" D x 140"W shall be mounted on the passenger side interior. The cabinet shall be mounted above the personnel bench. The aluminum cabinet shall be divided into 3 cabinets utilizing sliding CLEAR Plexiglas doors. The cabinet face shall be white. Each individual sliding door assembly shall be hinged at the top for restocking each cabinet. The hinged assembly shall utilize a gas spring to hold in the open position for restocking.

ALUMINUM BULKHEAD OPEN STORAGE SYSTEM

Five (5) open storage areas shall be included in interior compartment areas. The bulkheads shall be fabricated from 3/16" smooth aluminum. The bulkheads shall be attached to the floor and ceiling of the interior. The open storage spaces shall accommodate the following customer supplied items: 24-Kore Cooling Chairs 43"x 7"x 7", 3–ice coolers 20"x 19"x 21", 5-5 gallon buckets, 2-Cool Draft Cooling station 25"x 18"x 33", bottled water cases and misc. equipment bags and supplies.

ADJUSTABLE SHELVING AND STORAGE:

Up to ten (10) adjustable shelves shall be included in interior compartment areas. Each shelf shall be fabricated from 3/16" smooth aluminum. The adjustable shelves shall be mounted in aluminum Uni-strut tracking. Each shelf shall have a 2" lip at the front and rear edge for strength and to contain equipment.

CARGO NETTING:

Cargo safety nettings shall be supplied for all open storage areas inside the van body.

FOLDING REAR ACCESS STEP:

One (1) swing down rear step shall be provided for access to the rear van body doors. The

	Bidder Complies	
	Yes	No

step shall be of a manual flip down style with open grip strut material (no skid design) and be at least 36" wide. A rubber hood latch shall be utilized to secure the step in the stowed position.

LEFT SIDE COMPARTMENTS ARE AS FOLLOWS:

L1

A roll-up door compartment assembly with a door opening of 50" wide x 24" high x 24" deep shall be located directly behind the chassis cab on the left side.

L2

A roll-up door compartment assembly with a door opening of 41" wide x 64" high x 24" deep shall be located directly behind the rear wheels on the left side.

RIGHT SIDE COMPARTMENTS ARE AS FOLLOWS:

R1

A roll-up door compartment assembly with a door opening of 23" wide x 24" high x 24" deep shall be located directly ahead of the rear wheels on the right side.

R2

A vertically hinged door compartment assembly with a door opening of 42" wide x 32" high x 24" deep shall be located directly behind the rear wheels on the right side.

COMPARTMENT CONSTRUCTION:

All exterior compartments shall be fabricated from smooth aluminum materials. Each compartment shall be fully welded and sealed. The door openings shall be prepared for the installation of the roll up door mounting plates and side tracks. A custom beveled threshold extrusion shall be mounted at the bottom of the roll up door to prevent water intrusion and body damage.

COMPARTMENT LAYOUT:

The compartment interiors shall be as follows:

L1:

	Bidder Complies	
	Yes	No

One (1) 24" deep 300 # Roll Out tray shall be installed on the floor of the L1 compartment. The tray shall utilize a Slidemaster SM2 low profile slide assembly with an aluminum tray mounted to slide assembly. The tray shall be constructed from 3/16" smooth aluminum. The tray shall have 4" high side walls. This compartment with tray shall be able to accommodate a single item (Zumro tent model 311. Storage size of 48 inch length, 22 inch storage height, 22 inch storage depth.)

L2:

A single roll up door compartment shall be located on the driver's side behind the rear axle. The roll up door compartment shall be approx. 42" W x 68" H x 24"D. The compartment shall be fabricated from aluminum materials and shall utilize a painted finish ROM roll up door. The exterior compartment shall accommodate the following customer items: Three (3) folding tables 48"x24"x3", Two (2) 10 x 10 EZUP canopy 12"x 10"x 62" and other exterior use equipment. The compartment shall include LED tube lights mounted inside each door opening.
A vertical divider plate shall be installed in the compartment to separate the table and general storage area. Uni-Strut adjustable shelf tracking and two (2) adjustable shelves shall be installed in the compartment.

R1:

Portable generator (Yamaha EF2000iS) and 20 lb. propane bottle storage compartment.

R2:

The Onan QD 12kW Quiet Diesel Generator shall be mounted in the compartment. The generator compartment doors shall be ventilated for fresh air circulation.

COMPARTMENT VENTS:

One (1) interior vent shall be installed in each compartment. The vent shall be constructed of stainless steel and shall incorporate four (4) 5" x ¾" louvers.

COMPARTMENT LIGHTS - KRYSTAL-LITE:

Each compartment shall incorporate LED Krystal-Lite tube lighting to illuminate the entire area. The lights shall run the entire height of the compartment on each side of the door opening. The lights shall illuminate automatically when the door is opened. The lighting shall meet the requirements of NFPA 13.10.5
These will be powered by the generator system.

PAINTED ROLL-UP DOORS:

	Bidder Complies	
	Yes	No

The side compartments shall have Robinson Roll-up Shutter Doors with a **painted** finish. The doors shall be made of an anodized aluminum slat incorporating an exclusive seal that prohibits water intrusion, absorbs shock, eliminates clatter, and provides quiet, vibration-free performance.

Sill plates shall be installed at the bottom of each roll-up door opening. No Exceptions.

DOOR GUARD:

There shall be a .125" aluminum treadplate door guard located at the top of the compartment to protect the painted surface of the ROM door from damage while the door is open. The door opening height as stated will be reduced by approximately 2" to accommodate the door guard.

The roll-up door side tracks and top drip rail shall be **painted** to match the doors.

MISTING STATIONS:

Two (2) high capacity fold up misting stations shall be provided on the exterior of the van body. The fold away misting bars shall be located under each side mounted awning. Each side shall include misting nozzles spaced approx. 24" apart. A misting station water intake/distribution manifold/high pressure pump shall be located within the van body interior, and powered by the generator power circuit. The misting station manifold shall distribute fresh water for misting on each side of the van body. A main shut off valve and two valves to control each side individually shall be utilized in the distribution manifold. The garden hose intake connection shall be located at the rear PS of the body. The connection shall be located within a cast aluminum housing with door. An incoming water pressure relief valve shall be installed ahead of the high pressure misting manifold and filtration system. The manifold shall include a centralized drain for storage/winterization. The aluminum tube frame shall utilize pivot mount bases at the bottom of each side rail. The tube frame shall be secured to the sides of the body for transport and shall swing out manually for deployment.
This will be powered by the generator system.

LOCATION:

AWNINGS:

There shall be two (2) side mounted Carefree Fiesta Armored roll-up awnings mounted on the sides of the van body. Each awning shall be 18' wide and manually activated. The awnings shall include the AlumaGuard Option and the ADD A Room Option. The awnings shall be manually activated for opening and closing. The guard and side mounted rails shall be painted black.

12 VOLT ELECTRICAL:

	Bidder Complies	
	Yes	No

12 VOLT ELECTRICAL SYSTEM:

The electrical system is engineered to provide many years of dependable, trouble free service.

The 12 volt apparatus wiring shall be completely independent of the chassis electrical system. The system shall incorporate a state-of-the-art electrical distribution center. The center shall include a microprocessor, automatic reset circuit breakers, and switching relays.

The microprocessors are housed in a weather resistant enclosure. All processors are fully tested, and modern production processes guarantee long-term reliability in the most rigorous environments. The microprocessors handle the numerous switching functions without the excessive use of relays and the need for excess wiring.

The system can be expanded by adding additional processors and required components to meet desired specifications.

The weather tight modular service center shall be placed in a water-tight compartment in the apparatus body. The service center housing shall be manufactured of aluminum and shall incorporate an access door. Since the microprocessor is of weather resistant design and enclosed in the service center, the electrical system has redundant protection against moisture and corrosion. Redundant protection from the elements dramatically improves reliability and durability.

Wiring harnesses shall be custom made for each truck. Each harness shall be encased in a split barrel, nylon type loom which will be moisture resistant and flame resistant to a minimum of 280° F. Loop outs shall be made at the harness factory utilizing sealed sonic weld technology instead of open-ended butt splicing. The harnesses shall feature Deutsch heavy duty all metal connectors.

Unlike terminal strips, binding post and other open-wiring systems, the Deutsch HD series is a completely sealed unit. The elimination of open wiring systems does away with contamination from moisture, dust, lubricating oils, road salt, and other environmental hazards encountered in heavy duty use. The connector shall provide a multiple keying system that positively prevents mis-mating and makes plug/receptacle coupling quick and easy. The modular harness system will allow for quick and efficient complete body transfer if needed.

An independent switching station shall be centrally located in the apparatus cab. The switches shall be of a rocker type illuminating design. Each switch shall be color coded , and include a description indicating its intended use. Each switch shall be removable for service and replacement. Each switch shall be rated at 10 amp at 250 volts AC and shall act as inputs for the microprocessor.

All electrical circuit feeder wiring supplied and installed by the apparatus manufacturer shall be stranded copper alloy conductors of a gauge rated to carry 125% of the maximum current

	Bidder Complies	
	Yes	No

for which the circuit if protected. Insulation shall be in accordance with SAE J1128, low tension primary cable, type SXL or GXL, and wired to SAE J1292, automobile, truck, truck-tractor, trailer and motor coach wiring, for such loading at the potential employed. Voltage drops in all wiring from the power source to the using device shall not exceed 10%. Overall covering of conductors shall be 280° F (143° C) minimum flame retardant, moisture resistant loom or braid. All connections shall be made with lugs or terminals mechanically secured to the conductors. Wiring shall be thoroughly secured in place and suitably protected against heat, oil, and physical damage. Wiring shall be color coded and printed with a circuit function code over each conductor's entire length.

Circuits shall be provided with properly rated low voltage over-current protective devices. Such devices shall be readily accessible and protected against excessive heat, physical damage and water spray, switches relays, terminals, and connectors shall have a direct current rating of 125% of maximum current for which the circuit is protected.

Wiring Diagrams: Two (2) destination effective wiring diagrams shall be furnished with the apparatus. The wiring diagrams shall incorporate notations to assist an individual with limited electrical experience in the service of the apparatus electrical system.

NOTE: All wiring and components shall meet or exceed current N.F.P.A. codes.

LOAD MANAGEMENT:

The 12 volt load management functions shall be incorporated within the microprocessor based 12 Volt electrical system without the need for a separate load manager.

ELECTRICAL SYSTEM PERFORMANCE TESTS:

The apparatus low voltage electrical system shall be tested and certified per the current NFPA standard. The certification shall be delivered to the purchaser with the apparatus.

DOCUMENTATION:

At the time of delivery, the manufacturer shall provide the following:

(a) Documentation of the electrical system performance tests;
(b) A written load analysis, including:

1. The nameplate rating of the alternator;
2. The alternator rating;
3. Each component load comprising the minimum continuous load;
4. Additional loads that, when added to the minimum continuous load, determine the total connected load;
5. Each individual intermittent load.

	Bidder Complies	
	Yes	No

ON BOARD BATTERY CHARGER:

One (1) Progressive Dynamics PD2180 battery charger shall be installed on the vehicle. The unit shall be located under the front portion of the passenger side bench seat.

The PD2180 is an 80-amp Electronic Marine Converter/Charger capable of charging up to three separate banks of batteries at the same time. It incorporates a microprocessor that constantly monitors battery voltage, then automatically selects one of four operating modes to ensure safe, rapid recharging cycles. The Storage Mode and the Equalize Mode of operation ensures minimum battery gassing and water loss while preventing battery stratification and sulfation. All Inteli-Power chargers are designed to meet the stringent requirements of the Marine environment and are UL listed for safety. A digital meter displays current, voltage, operation mode, blown fuse indication, and battery type.

KUSSMAUL SUPER AUTO EJECT SHORELINE CONNECTION - 120V:

One (1) Kussmaul super auto eject Model 091-55-20-120 with a standard yellow weather cover shall be installed on the apparatus. The super auto eject is a completely sealed automatic power line disconnect. One (1) 120-Volt shoreline shall be supplied between the fire station power and the apparatus.

The shoreline connection shall be located in the driver's side of the van body exterior ahead of the driver's door. This circuit will also power the 110V refrigerator through an automatic changeover switch.

MASTER SWITCH:

A 12 Volt On/Off Rocker switch shall be installed. When in the OFF position, the master switch system shall isolate all electrical power from the apparatus. It shall not interrupt any primary battery/starter wiring originally furnished by the chassis manufacturer.

EMERGENCY WARNING SWITCH:

There shall be an emergency warning switch installed on the unit. The entire warning system shall be activated by a single switch.

OVERHEAD CONSOLE FOR EMERGENCY SWITCHES:

One (1) 12 volt overhead console shall be installed in the overhead compartment above driver's windshield. All emergency switches, service lights, siren head, and generator controls, shall be mounted in the overhead console. The panel shall be hinged for serviceability. The console panel shall be manufactured of aluminum material and finished to accent the cab design.

	Bidder Complies	
	Yes	No

An open design upper storage area shall be provided above the passenger side windshield.

TIRE PRESSURE MONITORING DEVICE:

Each tire installed on the apparatus shall be equipped with a tire pressure monitoring device. The device shall consist of a valve stem cap with red and green color coding to indicate tire pressure conditions. If the cap is ALL GREEN the tire is properly inflated. If the cap is HALF GREEN/ HALF RED, the tire is approximately 10% under inflated. If the cap is ALL RED, the tire is 20% or more under inflated.

OPTICAL WARNING SYSTEM:

The optical warning system on the fire apparatus shall be capable of two separate signaling modes during emergency operations. One mode shall signal to drivers and pedestrians that the apparatus is responding to an emergency and is calling for the right-of-way. The other mode shall signal that the apparatus is stopped and is blocking the right-of-way.

EMERGENCY WARNING LIGHTS:

For the purpose of defining and measuring the required optical performance, the apparatus shall be divided into four warning zones. The four zones shall be determined by drawing lines through the geometric center of the apparatus at 45° to a line lengthwise of the apparatus through the geometric center. The four zones shall be designated A, B, C, and D in a clockwise direction with zone A to the front of the apparatus. Each zone shall have an upper and lower warning level.
Effective coverage of all four zones, both upper and lower, as required by the latest NFPA Edition shall be provided.

LED LIGHTBAR:

One (1) Whelen Model FN72QLED 72" LED lightbar shall be mounted on an aluminum visor bracket above the windshield. The smooth aluminum bracket shall be painted to match the van body. The lightbar shall not exceed the height of the body roof line. The lightbar shall be switched from the in cab switch panel. This lightbar fills the requirements of Zone A Upper, Zone B Upper, and Zone D Upper.

WARNING LIGHTS (FRONT):

Two (2) Whelen Model 60*02F** Super Linear LED lights (one **RED** and one **GREEN**) shall be mounted on the front cab grill area, one (1) on each side. These lights shall be switched from the in cab switch panel. These lights fill the requirements of Zone A Lower.

WARNING LIGHTS (SIDE):

	Bidder Complies	
	Yes	No

Two (2) Whelen Model 60R02FRR red Super Linear LED lights shall be mounted on the right (officer's) side of the vehicle. These lights are placed inside chrome flanges. These lights shall be switched from the in cab switch panel. These lights fill the requirements of Zone B Lower.

Two (2) Whelen Model 60R02FRR red Super Linear LED lights shall be mounted on the left (driver's) side of the vehicle. These lights are placed inside chrome flanges. These lights shall be switched from the in cab switch panel. These lights fill the requirements of Zone D Lower.

WARNING LIGHTS (SIDE):

Two (2) Whelen Model 90RR5FRR Red Super Linear LED lights shall be mounted on the right (officer's) side of the vehicle, in the upper area. The light shall be switched from the in cab switch panel.

Two (2) Whelen Model 90RR5FRR Red Super Linear LED lights shall be mounted on the left (driver's) side of the vehicle, in the upper area. The lights shall be switched from the in cab switch panel.

These lights fill the requirements of Zones B & D Upper.

WARNING LIGHTS (REAR):

Two (2) Whelen Model 90Rr5FRR Red Super Linear LED lights shall be mounted on the rear of the vehicle, in the upper area. The lights shall be switched from the in cab switch panel. These lights fill the requirements of Zone C Upper.

WARNING LIGHTS (REAR):

Two (2) Whelen Model 60R02FRR Red Super Linear LED lights shall be mounted on the lower rear area of the vehicle. These lights shall be switched from the in cab switch panel. These lights fill the requirements of Zone C Lower.

REAR DRIVING SIGNALS:

The factory installed rear driving signals and ICC lights shall be utilized.

OPTICOM EMITTER:

A 3M Opticom Model 792H emitter will be installed inside of the center section of the Whelen Lightbar. The "Opticom" lighting system will be separately switched from the main lightbar and be deactivated when the vehicle transmission control is placed in the neutral or park position.

	Bidder Complies	
	Yes	No

ELECTRONIC SIREN:

One (1) Carson Siren Model SA-441-10F Magforce siren shall be installed in the apparatus. The siren control head shall be mounted in the overhead console in cab.

CAST SIREN SPEAKERS:

Two (2) Cast Products Siren Speakers Model # SA4311-03M2-1 shall be mounted under the bumper on each side.

BACKUP ALARM:

One (1) Federal Model 210339, 12 volt electronic backup alarm shall be incorporated on the apparatus. The backup alarm shall be a minimum of 97db and switched with the backup light circuitry.

ENGINE COMPARTMENT LIGHT:

The engine compartment shall incorporate one Weldon 2030-7130-30 12-volt LED light. The light shall be switched with the pump panel lights.

INTERIOR LED LIGHTING:

Eight (8) Whelen 8" Round Super-LED model # 80CBEHCR LED light fixtures shall be installed in the ceiling of the rear storage and work area of the van body. The lights shall be switched at the work counter location and the rear walk-in doors. Two of the lights shall be powered from the chassis 12v system. The remaining six will be powered by the generator system.

HAZARD LIGHT:

A red, LED flashing light located in the driving compartment shall be illuminated automatically whenever the apparatus parking brake is not fully engaged and any passenger or equipment compartment door is open, any ladder or equipment rack is not in the stowed position, a stabilizer system is deployed, a powered light tower is extended, or any other device is opened, extended, or deployed that creates a hazard or is likely to cause damage to the apparatus if the apparatus is moved. The light shall be marked "Do Not Move Apparatus When Light Is On".

COURTESY LIGHTS (UNDER CARRIAGE LIGHTING):

A 5" 12-volt LED light shall be located under each area designed for personnel to climb onto

	Bidder Complies	
	Yes	No

the apparatus or descend from the apparatus to the ground level. Lighting designed to provide illumination on areas under the driver and crew riding area exits shall be activated with the parking brake.
These are to be powered by the generator system.

COURTESY LIGHTS:

Two (2) Weldon Tear Drop courtesy lights shall illuminate the rear step area above the step bumper. They shall be switched with the parking brake.
These will be powered by the generator system.

SCENE LIGHTS:

Six (8) LED large scene light(s), Whelen Model 9SC0ENZR or Federal Signal QL97LEDSCENE, shall be mounted in the specified location(s). Each scene light shall be switched from the cab console.
These will be powered by the generator system

2 located on the rear upper corners of the body
2 located on each side at the upper corners of the body
1 located on each side to illuminate under awnings.

12 VOLT LED TELESCOPIC LIGHT

Two (2) Akron Brass, Extenda-Lite, item ELSS-SLDC-W-PSUP with a Push-Up style telescoping pole equipped with side mounting brackets **(SM4)** shall be provided. All mounting brackets and pole fittings shall be heavy duty, cast aluminum and powder painted white to match the light head. Each telescoping pole shall be equipped with a 220 watt light head with the front bezel painted white. The light head shall contain 8 high power LEDs and a highly polished reflector.
The light head shall operate from 10-36 VDC and maintain stable light output of 14,000 lumens and constant power consumption of 220W (current = power / voltage). The light head shall tilt up and down with two heavy duty handles and shall be mounted on to the top of the pole with a " swivel assembly. The inside pole shall be sixty inches (60") long and the outside pole shall be eleven and one half inches (11-1/2") in length as standard or lengths can be adjusted by the manufacturer as required to fit a specified mounting location. All inside and outside poles shall be made only from drawn aluminum tubes. Each pole shall be deep etched, wire brushed and clear anodized to ensure a corrosion free appearance and lasting durability. The Push-Up telescoping pole shall rotate 360 degrees left or right. The apparatus manufacturer shall provide wiring for each of the installed lights and it shall be capable of carrying the maximum load required by that light and protected by a properly sized circuit breaker. The Extenda-Lite Pole shall have a 5 year warranty. The SceneStar LED head shall have a 6 year warranty. Each light shall include an UP INDICATOR SWITCH to activate the CDOW when the light is NOT STOWED. The lights shall be switched from the cab console (NO SWITCH ON LIGHTHEAD).

	Bidder Complies	
	Yes	No

These will be powered by the generator system.

LOCATION: Rear of body.

REAR BODY HEAT:

The Coleman Mac III A/C units shall include electric heating elements for heating the rear area. The A/C unit/Heaters shall be powered from the on board generator.

120 V ELECTRICAL:

AIR CONDITIONER/HEATER:

Two (2) Coleman Mach III 13,500 btu air conditioners shall be installed on the apparatus roof. The A/C units shall be powered from the onboard generator.

GENERATOR:

An Onan 12 kW quiet diesel driven generator shall be installed in the compartment with shock and anti-vibration rubber mountings under the generator. The generator, Model #12HDKAT, will be a single phase, have 120V, and 100 amps. There shall be a steel channel and angle framework to which the shock and generator mountings are secured. The generator shall be interconnected with the chassis fuel system. The generator exhaust shall discharge out above the vehicle.

Standard features on the generator include the following:

10 A battery charging	Permanent magnet alternator	Automotive type starter
USDA approved spark arrestor	Bulkhead connections for fuel and battery	Sound insulated cover with cooling air inlet/ outlet ducts
Intake silencer	Heavy-duty air cleaner	Maintenance-free governor
Fused DC circuits	Internal radiator	3-cylinder diesel engine
Electric fuel pump	Fuel filter	Full flow oil filter
Waterproof connector for remote operation	Bottom air inlet/ outlet configuration	Integral enclosed muffler with stationary exhaust pipe connection point
Water resistant controls	Instant one-touch stop	

The generator shall be easily accessible for normal servicing and maintenance. In addition, the generator shall be easily removable for major overhaul or service.

GENERATOR LOCATION: Passenger Side Rear Exterior Compartment

	Bidder Complies	
	Yes	No

120 VOLT ELECTRICAL SYSTEM:

The complete wiring and electrical installation shall conform to the present National Electrical Code standards of the National Fire Protection Association. The system shall be installed by highly qualified electrical technicians to assure the required level of safety and protection to the fire apparatus operators.

The wiring, electrical fixtures and components shall conform to the highest industry quality standards available on the domestic market. The equipment shall be the type designed for mobile-type installations subject to vibration, moisture and severe continuous usage.

The electrical wiring shall be 12 ga. copper stranded type installed through 'liquidtite' flexible moisture resistant reinforced conduit, with proper seal-tight connectors and hardware. The use of armour cable, light wall E.M.T. or Romex shall not be acceptable.

LINE VOLTAGE ELECTRICAL SYSTEMS:

The maximum voltage between a conductor and any other conductor or an earth ground shall not exceed 250 volts +/- 10 percent.

Any fixed line voltage power source producing alternating current (AC) line voltage shall produce electric power at 60 cycles +/- 5 cycles.

Except where superseded by the requirements of this chapter, all components, equipment, and installation procedures shall conform to NFPA 70, National Electrical Code (herein referred to as the NEC). Where the requirements of this chapter differ from those in the NEC, the requirements in this chapter shall apply.

Line voltage electrical system equipment and materials included on the apparatus shall be listed and installed in accordance with the manufacturer's instructions. All products shall be used only in the manner for which they have been listed.

LOCATION RATINGS:

Any equipment used in a dry location shall be listed for dry locations. Any equipment used in a wet location shall be listed for wet locations.

Any equipment used in an underbody or under-chassis location that is subject to road spray shall be either listed as Type 4 or mounted in an enclosure that is listed as Type 4.

GROUNDING AND BONDING

GROUNDING:

	Bidder Complies	
	Yes	No

Grounding shall be in accordance with Section 250-6 (Portable and Vehicle Mounted Generators) of the NEC. Ungrounded systems shall not be used. Only stranded or braided copper conductors shall be used for grounding and bonding. An equipment grounding means shall be provided in accordance with Section 250-91 (Grounding Conductor Material) of the NEC.

The grounded current carrying conductor (neutral) shall be insulated from the equipment enclosures and other grounded parts. The neutral conductor shall be colored white or gray in accordance with Section 200-6 (Means of Identifying Grounding Conductors) of NEC.

Any bonding screws, straps, or buses in the distribution panel board or in other system components between the neutral and equipment grounding conductor shall be removed and discarded.

BONDING:

The neutral conductor of the power source shall be bonded to the vehicle frame. The neutral bonding connection shall only occur at the power source.

In addition to the bonding required for the low voltage return current, each body and driving or crew compartment enclosure shall be bonded to the vehicle frame by a copper conductor. This conductor shall have a minimum amperage rating of 115% of the nameplate current rating of the power source specification label as defined in Section 310-15 (Ampacities) of the NEC. A single conductor, properly sized to meet the low voltage and line voltage requirements shall be permitted.

POWER SOURCE GENERAL REQUIREMENTS:

The following requirements shall apply to all line voltage power sources.

All power source system mechanical and electrical components shall be sized to support the continuous duty nameplate rating of the power source.

The power source shall be shielded from contamination that will prevent the power source from operating within its design specifications.

Guards shall be provided to protect personnel from moving parts and any surface with a temperature of 131° F or more.

The power source shall have adequate ventilation to prevent heating of the system above the manufacturer's recommended limits.

	Bidder Complies	
	Yes	No

Access shall be provided to permit both routine maintenance and removal of the power source for major servicing. The mounting brackets and power source shall not interfere with the routine maintenance of the apparatus.

The instrumentation shall be permanently mounted at an operator's panel. The instruments shall be located in a plane facing the operator so they are readily visible under normal operating conditions. Gauges, switches, or other instruments on this panel shall be labeled to indicate their function.

INSTRUMENTATION:

Instructions that provide the operator with the essential power source operating instructions, including the power-up and power-down sequence, shall be permanently attached to the apparatus at any point where such operations take place.

OPERATION:

Provisions shall be made for quickly and easily placing the power source into operation. The control shall be marked to indicate when it is correctly positioned for power source operation.

Any control device used in the drive train shall be equipped with a means to prevent the unintentional movement of the control device from its set position.

A power source specification label shall be permanently attached to the apparatus near the operator's control station. The label shall provide the operator with the information detailed in NFPA.

Direct Drive, (PTO) generators, hydraulically driven generators, and portable generator installations shall comply with Article 445 (Generators) of the NEC.

OVERCURRENT PROTECTION:

Manually resetable overcurrent devices shall be installed to protect the line voltage electrical system components.

POWER SOURCE PROTECTION:

A main overcurrent protection device shall be provided that is either incorporated in the power source or is connected to the power source by a power supply assembly.

The size of the main overcurrent protection device shall not exceed 100% of the nameplate

	Bidder Complies	
	Yes	No

amperage rating on the power source specification label or the rating of the next larger available size overcurrent protection device when recommended by the power source manufacturer.

If the main overcurrent protection device is subject to road spray, the unit shall be housed in a Type 4 rated enclosure.

POWER SUPPLY ASSEMBLY:

The conductors used in the power supply assembly between the output terminals of the power source and the main overcurrent protection device shall not exceed 144" in length.

All power supply assembly conductors, including neutral and grounding conductors, shall have an equivalent amperage rating and shall be sized to carry not less than 115 percent of the amperage of the nameplate current rating of the power source.

For fixed power supplies, all conductors in the power supply assembly shall be Type THHW, THW, or use stranded conductors enclosed in nonmetallic liquid tight flexible conduit rated for a minimum of 194° F.

For portable power supplies, conductors located between the power source and the line side of the main overcurrent protection device shall be Type SO or Type SEO with suffix WA flexible cord, rated for 600 volts at 194° F.

WIRING METHODS:

Fixed wiring systems shall be limited to the following:

(a) Metallic or nonmetallic liquidtight flexible conduit rated at not less than 194° F; or
(b) Type SO or Type SEO cord with a WA suffix, rated at 600 volts at not less than 194° F.

Electrical cord or conduit shall not be attached to chassis suspension components, water or fuel lines, air or air brake lines, fire pump piping, hydraulic lines, exhaust system components, or low voltage wiring. It shall be:

(a) Separated by a minimum of 12" from exhaust piping or properly shielded; and
(b) Separated from fuel lines by a minimum of 6".

A means shall be provided to allow "flexing" between the cab, body, or equipment whose movement would stress the wiring.

Electrical cord or conduit shall be supported within 6" of any junction box and at a minimum of every 24" of run. Supports shall be made of nonmetallic materials or corrosion protected metal. All supports shall be of a design that does not cut or abrade the conduit or cable and

	Bidder Complies	
	Yes	No

shall be mechanically fastened to the vehicle.

WIRING IDENTIFICATION:

All line voltage conductors located in the main panel board shall be individually and permanently identified. The identification shall reference the wiring schematic or indicate the final termination point.

When prewiring for future power sources or devices, the unterminated ends shall be labeled showing function and wire size.

RECEPTACLES:

All receptacles shall be marked with the type of line voltage (120 volts or 240 volts) and the current rating in amps. If the receptacles are DC or other than single phase, they shall be so marked.

LISTING:

All receptacles and electrical inlet devices shall be listed to UL 495, (Standard for safety Attachment Plugs and Receptacles) or other appropriate performance standards. Receptacles used for DC voltages shall be rated for the appropriate DC service.

ELECTRICAL SYSTEM TESTING:

The wiring and associated equipment shall be tested by the apparatus manufacturer or the installer of the line voltage system.

The wiring and permanently connected devices and equipment shall be subjected to a dielectric voltage and withstand a test of 900 volts for 1 minute. The test shall be conducted between live parts and the neutral conductor, and between live parts and the vehicle frame with any switches in circuit(s) closed. This test shall be conducted after all body work has been completed. The dielectric tester shall have a 500 VA or larger transformer with a sinusoidal output voltage that can be verified.

Electrical polarity verification shall be made of all permanently wired equipment and receptacles to determine that connections have been properly made.

OPERATIONAL TEST:

The apparatus manufacturer shall perform the following operation test and shall certify that the power source and any devices that are attached to the line voltage electrical system are properly connected and in working order.

	Bidder Complies	
	Yes	No

The prime mover shall be started from a cold start condition and the line voltage electrical system loaded to 100% of the nameplate rating. The following information shall be recorded:

(a) The cranking time until the prime mover starts and runs, if applicable;
(b) The voltage, frequency, and amperes at continuous full rated load;
(c) The prime mover oil pressure, water temperature, transmission temperature, hydraulic temperature, and the battery charge rate, as applicable;
(d) The ambient temperature and altitude.

The power source shall be operated at 100% of its nameplate voltage for a minimum of 2 hours. Testing at unity power factor is acceptable, provided that rated load tests are rated power source manufacturer. The conditions specified above in (b) and (c) shall be recorded at least every half hour during the test.

Where the line voltage power is derived from the vehicle's low voltage system, the minimum continuous electrical load as defined by NFPA 1901-1996 shall be applied to the low voltage electrical system during the operational test. Any termination of line voltage power by the low voltage load management system shall be noted and the duration of the periods of line voltage power source shutdown shall be recorded.

Vehicle support systems that are required to maintain the power source in operation shall remain within their required operational parameters.

The results of the tests listed in this section shall be supplied to the purchaser at the time of delivery.

CIRCUIT BREAKER BOX:

The main circuit breaker box shall incorporate twenty (20) 120-Volt circuits. The breaker box shall also have a main breaker. Each over-current protection device shall be marked to identify the function of the circuit it protects. The circuit breaker box shall be located in the van body behind the passenger side squad bench.

CHANGE OVER RELAY:

An automatic change over relay shall be installed between the shoreline connection and the mobile 120-Volt power supply. This system will activate when the shoreline is plugged into the apparatus or when the mobile power supply is activated.

Note: The change over rely shall operate the following 120v A/C equipment (Battery Conditioner, Refrigerator, Interior Multiple Power Outlet Strip).

	Bidder Complies	
	Yes	No

120 VOLT EXTERIOR OUTLET:

Four (4) outlet (s) shall be installed on the exterior of the apparatus body (2) each side of the body. Each outlet box shall be of composite 452CR Woodhead with weather resistant snap cover, Woodhead 6500 series.

The outlet (s) shall be located: One (1) each side of body ahead of the rear wheels.

Each outlet shall be a single 20 amp straight prong NEMA 5-20R non-locking receptacle.

120 VOLT OUTLET:

Six (6) straight prong outlet(s) shall be incorporated in the specified interior locations. Each of the outlets shall be positioned to provide power to the following equipment mounted in the van body. One (1) for Microwave, one (1) for Refrigerator, one (1) for coffee makers, two (2) located at work counter area, and one (1) Misc.

The outlet (s) shall be located:

Each outlet shall be a single 20 amp straight prong NEMA 5-20R non-locking receptacle.

120 VOLT POWER STRIP:

One (1) 120-Volt power strip, model 681-77000N, shall be installed in the Passenger Side interior rear shelving area. The power strip will have eight (8) protected outlets, six (6) on/off switch controlled outlets, two (2) continuously powered outlets, and a fifteen (15) amp circuit breaker. The power strip shall be powered from the shoreline connection and on board generator.

BACK-UP CAMERA

The unit will be equipped with a color back-up camera and a 7" LCD color monitor mounted on the dash. The unit will be activated when the vehicle is in reverse.

WHEEL CHOCKS:

One (1) pair of Ziamatic #2-SAC-44 folding wheel chocks shall be provided with the apparatus. The chocks shall be mounted in a location that is easily accessible.

	Bidder Complies	
	Yes	No

FINISH:

APPARATUS BODY FINISH:

The final exterior finish of the van body shall be applied by the van body builder.

COMPARTMENT INTERIOR FINISH:

The interior of the compartments shall be prepped and covered with a polychromatic, modified nitrocellulose coating with a flat background color under an accenting fleck color. If the apparatus includes transverse rear and side compartments, the entire area shall include the Zolatone finish. The compartment finish will give each compartment an extremely durable, flexible finish which is easy to maintain and repair in the future.

Zolatone is a durable coating that resists wear from abrasion, scratching, and chipping in normal everyday use. Far tougher than regular paint, Zolatone offers you one of the most unique and dependable coatings available today.

APPARATUS COLOR-TWO TONE:

The colors of the apparatus shall be as follows:

UPPERCOLOR:BLACK

LOWER COLOR: RED

UNIT NUMBER:

The unit number shall be provided in up to 6" gold vinyl leaf lettering in three (3) locations on the van body. (Example: 374)

RESCUE SIDE PANEL LETTERING:

HANOVER PARK FIRE DEPARTMENT INCIDENT REHAB shall be applied in gold leaf vinyl with black drop shading to each side of the van body.

REFLECTIVE STRIPING:

A 6" high reflective tape shall be applied to each side of the van body. The striping layout shall be approved by the customer.

	Bidder Complies	
	Yes	No

CHEVRON STRIPING:

The rear of the apparatus shall be striped with retro-reflective striping. The striping shall be applied in a chevron pattern sloping downward and away from the centerline of the apparatus at a 45° angle. The striping shall be single color alternating between 3M Red #680-72 and 3M Black Reflective #.

The striping shall be applied in the following locations: vertical surfaces of the body at the rear, outboard and above the rear compartment door (including to the rear doors).

Striping in a Chevron pattern shall also be applied to the rear cargo doors.

CUSTOM DECAL PATCHES:

Three (3) multi-color custom patches shall be applied one each side and one rear.

COMPLETED UNIT DRAWINGS

Attached are drawing showing the design and appearance of the final completed unit.

Freightliner Custom Chassis Corporation

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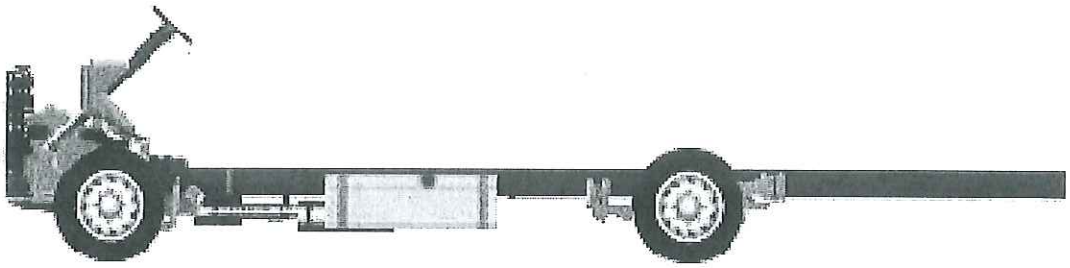
A proposal for

For Hanover Park
Customer Draft #5

Prepared by
TRANSCHICAGO TRUCK GROUP
Duane Schaefer

Oct 26, 2013

Freightliner Custom Chassis Corp MT55



Components shown may not reflect all spec'd options and are not to scale

Freightliner Custom Chassis reserves the right to change specifications, prices, and weights, without notice.

Freightliner Custom Chassis Corporation

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SPECIFICATION PROPOSAL

	Description	Weight Front	Weight Rear
Price Level			
	FCCC WALKIN VAN 2014 DATABOOK (EFF:02/18/13)		
Data Version			
	SPECPRO21 DATA RELEASE VER 018		
Vehicle Configuration			
	MT55 FRONT ENGINE WALK-IN VAN CHASSIS	4,467	3,398
	SET-FORWARD FRONT AXLE CHASSIS		
	LH PRIMARY STEERING LOCATION		
General Service			
	EXPECTED FRONT AXLE(S) LOAD : 10000.0 lbs		
	EXPECTED REAR DRIVE AXLE(S) LOAD : 20000.0 lbs		
	EXPECTED GROSS VEHICLE WEIGHT CAPACITY : 30000.0 lbs		
	: 14.0 ft		
	CHASSIS CONFIGURATION		
	RESCUE AND EMERGENCY SERVICE		
	RESCUE BODY		
	EMERGENCY VEHICLES BUSINESS SEGMENT		
	NO COMMODITY SPECIFIED		
	DOMICILED, USA 50 STATES (INCLUDING CALIFORNIA AND CARB OPT-IN STATES)		
	TERRAIN/DUTY: 100% (ALL) OF THE TIME, IN TRANSIT, IS SPENT ON PAVED ROADS		
	SMOOTH CONCRETE OR ASPHALT PAVEMENT - MOST SEVERE IN-TRANSIT (BETWEEN SITES) ROAD SURFACE		
	UTILIMASTER		
Engine			

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Description	Weight Front	Weight Rear
CUM ISB 6.7-260 260 HP @ 2300 RPM, 2600 GOV, 660 LB/FT @ 1600 RPM		
2013 OBD/2010 EPA/CARB/GHG14		
NO IDLE LIMITER, ELECTRONIC ENGINE		
2008 CARB EMISSION CERTIFICATION - CLEAN IDLE (INCLUDES 6X4 INCH LABEL ON LEFT SIDE OF HOOD)		
65 MPH ROAD SPEED LIMIT		
CRUISE CONTROL SPEED LIMIT 1 MPH LOWER THAN ROAD SPEED LIMIT		
NO IDLE SHUTDOWN CONFIGURATION		
PTO MODE ENGINE RPM LIMIT - 2300 RPM		
PTO MODE BRAKE OVERRIDE - SERVICE BRAKE ONLY ENABLED		
PTO RPM W/CRUISE SET SW - 1000 RPM		
PTO RPM WITH CRUISE RESUME SWITCH - 1000 RPM		
PTO MODE CANCEL VEHICLE SPEED - 0 MPH		
PTO GOVERNOR RAMP RATE - 200 RPM PER SECOND		
PTO MINIMUM RPM - 700		
REGEN INHIBIT SPEED THRESHOLD - 5 MPH		
ALTERNATE SWITCH SPEED 950 RPM		
MAXIMUM ENGINE RPM = 2500 ON VSS FAILURE		
TRANSMISSION VEHICLE INTERFACE CONNECTOR WIRED TO TRANSMISSION ECU		
PKG 354 - 1K/2K RDS/EVS/HS/MH/PTS/SPS - 5TH GEN		
ALLISON TRANS - SEM/LRTP REQ		
TRANS PROG-ENABLED		
5, 3, 2, 1 - D, 3, 2, L -1K/2K PRIMARY GEARS		
NO TCU-SECONDARY MODE: GEARS		
PSS -VARIABLE - 1K/2KPRIMARY SHIFT SCHEDULE		
SSS - LIMITING- 1K/2KSECONDARY SHIFT SCHEDULE		
PMSS - 2600 PRIMARY MODE SHIFT SPEED		

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	Description	Weight Front	Weight Rear
	SMSS - 2200 SECONDARY MODE SHIFT SPEED		
	2ND STD PRESELECT ENGINE BRAKE RANGE		
	RANGE INDICATION,PARK,NEUT		
	SHIFT LEVER, CABLE LINKAGE, AUTO TRANS, MTD ON RH SIDE OF CONTROL SUPPORT		
Engine Equipment			
	690 SQ-IN DOWNFLOW RADIATOR MOUNTED IN FRONT		
	ENGINE OIL CHECK AND FILL MOUNTED ON RADIATOR		
	STANDARD ENGINE OIL		
	FARR ECO BC AIR CLEANER WITH WATER SEPARATOR		
	FRONTAL AIR INTAKE		
	AIR INTAKE PIPING - CLNR TO ENGINE		
	AIR CLEANER MOUNTED ON RAIL		
	DR 12V 200 AMP 28-SI QUADRAMOUNT PAD ALTERNATOR		
	(2) ALLIANCE MODEL 1131, GROUP 31, 12 VOLT MAINTENANCE FREE 1900 CCA THREADED STUD BATTERIES		
	BATTERY BOX MOUNTED RIGHT HAND WITH BATTERIES PERPENDICULAR TO FRAME RAIL		
	FRAME GROUND RETURN, BATTERY CABLES WITH EYELET CONNECTORS		
	NO BATTERY SHUTOFF SWITCH		
	CUMMINS 18.7 CFM AIR COMPRESSOR WITH INTERNAL SAFETY VALVE		
	STANDARD AIR COMPRESSOR GOVERNOR		
	TEFLON COMPRESSOR DISCHARGE LINE		
	GVG, FIRE AND EMERGENCY SERVICE VEHICLES ENGINE WARNING		
	CUMMINS EXHAUST BRAKE INTEGRAL WITH VARIABLE GEOMETRY TURBO WITH ON/OFF DASH SWITCH		
	RETARDER CONTROL WIRING AND CONTROL SWITCH		
	ENGINE AFTERTREATMENT DEVICE, AUTOMATIC OVER THE ROAD ACTIVE REGENERATION AND DASH MOUNTED SINGLE REGENERATION REQUEST/INHIBITIT SWITCH		

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Prepared by:
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TRANSCHICAGO TRUCK GROUP
776 N. YORK ROAD
ELMHURST, IL 60126
Phone: 630-279-0600 ext 609
E-Mail:
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Description	Weight Front	Weight Rear
HORIZONTAL DIESEL PARTICULATE FILTER AFTERTREATMENT DEVICE		
RH FRAME MOUNTED HORIZONTAL AFTERTREATMENT DEVICE		
HORIZONTAL SCR CATALYST		
RH OB FRAME MTD HZ SCR CATALYST		
EXHAUST MITIGATION DEVICE FTL 4" ID SLIP-FIT		
LH HORIZONTAL TAILPIPE, EXIT FORWARD OF REAR TIRES		
10 GALLON DEF TANK RH FRAME MTD		
ADC ELEC-MG ON/OFF ENGINE FAN CLUTCH		
CUMMINS SPIN ON FUEL FILTER		
FULL FLOW OIL FILTER		
RADIATOR MOUNTED SURGE TANK		
AIR RECIRCULATION SHIELD		
ANTIFREEZE TO -34F, ETHYLENE GLYCOL PRE-MIXED 50/50 COOLANT		
GATES BLUE STRIPE COOLANT HOSES OR EQUIVALENT		
CONSTANT TENSION HOSE CLAMPS FOR COOLANT HOSES		
STANDARD CHARGE AIR COOLER PLUMBING		
NO OPTIONAL RADIATOR PLUMBING		
PHILLIPS-TEMRO 1000 WATT/115 VOLT BLOCK HEATER		
120VAC PLASTIC PLUG ENGINE HEATER CORD TEMPORARILY MOUNTED TO ENGINE, 6 FOOT		
ALUMINUM FLYWHEEL HOUSING		
NIPPON-DENSO 12V STARTER WITH COPPER CONTACTS		
Transmission		
ALLISON 2500 EVS AUTOMATIC TRANSMISSION WITH PTO PROVISION		
Transmission Equipment		
WATER TO OIL TRANSMISSION COOLER		
TRANSMISSION OIL CHECK AND FILL INSIDE ENGINE COVER		
SYNTHETIC TRANSMISSION FLUID (TES-295 COMPLIANT)		

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Description	Weight Front	Weight Rear
Front Axle and Equipment		
DA-F-10.0-3 10,000# FF1 69.0 KPI/3.50DROP SINGLE FRONT AXLE		
NON-ASBESTOS FRONT BRAKE LINING		
MERITOR 15X4 Q+ CAM FRONT BRAKES		
HALDEX FRONT BRAKE CHAMBERS		
MERITOR 5.5" UNHANDED AUTOMATIC FRONTSLACK ADJUSTERS		
CAST IRON OUTBOARD FRONT BRAKE DRUMS		
GUNITE IRON FRONT HUBS		
FRONT OIL SEALS		
VENTED FRONT HUB CAPS W/WINDOW, CENTER AND SIDE PLUGS - OIL		
ORGANIC SAE 80/90 FRONT AXLE LUBE		
STANDARD SPINDLE NUTS FOR ALL AXLES		
TRW TAS-65 POWER STEERING		
TRW POWER STEERING PUMP		
Front Suspension		
10,000# TAPERLEAF FRONT SUSPENSION		
FRONT STABILIZER BAR		
SACHS FRONT SHOCK ABSORBERS		
Rear Axle and Equipment		
MERITOR MS-19-14X 20,000# R-SRS SINGLE REAR AXLE		
4.63 REAR AXLE RATIO		
SPL100 DANA SPICER MAIN DRIVELINE WITH HALF ROUND YOKES		
ORGANIC SAE 80/90 REAR AXLE LUBE		
Rear Suspension		
20,000# TAPERLEAF SPRING REAR SUSPENSION WITH RADIUS LEAF		
REAR SWAYBAR		
MONROE REAR SHOCK ABSORBERS		
Brake System		
AIR BRAKE PACKAGE		
WABCO 4S/4M ABS WITHOUT TRACTION CONTROL		

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	Description	Weight Front	Weight Rear
	HALDEX PUREST AIR DRYER WITH ELECTRIC HEATER		
	AIR DRYER MOUNTED INBOARD ON LH RAIL		
	STEEL AIR BRAKE RESERVOIRS		
	(1) AUTO DRAIN VALVE AND (2) MANUAL DRAIN VALVES WITH PULL CORD		
Wheelbase & Frame			
	4525MM (178 INCH) WHEELBASE		
	2350MM (93 INCH) REAR FRAME OVERHANG		
Chassis Equipment			
	THREE-PIECE 14 INCH CHROMED STEEL BUMPER WITH COLLAPSIBLE ENDS		
	PROVISION FOR C/F GENERATOR		
	DRILLING PREP FOR CUST INSTALLED BODY SUPPORTS FOR 93" WALK-IN VAN BODY WIDTH		
Fuel Tanks			
	40 GALLON/151 LITER SHALLOW RECTANGULAR		
	STEEL FUEL TANK - BETWEEN RAILS		
	PETROLEUM DIESEL FUEL		
	FUEL TANK(S) MOUNTED BETWEEN RAILS AFT OF REAR AXLE		
	LH SIDEFILL FUEL TANK CAP		
	ALLIANCE FUEL FILTER/WATER SEPARATOR WITH HEATED BOWL, PRIMER PUMP AND INDICATOR LIGHT		
Tires			
	GOODYEAR G661 HSA 255/70R22.5 16 PLY RADIAL FRONT TIRES		
	GOODYEAR G622 RSD 255/70R22.5 16 PLY RADIAL REAR TIRES		
Wheels			
	F/L LOGO 28548 22.5X8.25 10-HUB PILOT ALUMINUM DISC FRONT WHEELS		
	POLISHED FRONT WHEELS; OUTSIDE ONLY		
	F/L LOGO 28548 22.5X8.25 10-HUB PILOT ALUMINUM REAR WHEELS		
	POLISHED REAR WHEELS; OUTSIDE OF OUTER WHEELS ONLY		

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	Description	Weight Front	Weight Rear
Cab Exterior			
	OPERATOR STATION (CONTROL SUPPORT) - OUTBOARD MOUNTED		
	FREIGHTLINER NAMEPLATES		
	HOOD MOUNTED CHROMED PLASTIC GRILLE		
	SINGLE ELECTRIC HORN		
	IGNITION KEY ONLY		
	INCANDESCENT BODY MTD MARKER LAMPS		
Cab Interior			
	HVAC WIRING PROV LOC INSIDE CAB		
	5/8" X 10FT HEATER PLUMBING HOSE		
	SANDEN COMPACT AIR CONDITIONER COMPRESSOR		
	RADIATOR MOUNTED AIR CONDITIONER CONDENSER		
	AUTO SELF-RESET CIRCUIT BREAKERS AND FUSES		
	FASTEN SEAT BELT INDICATOR, ACTIVE LOW, FOR CUSTOMER FURNISHED SEAT BELT		
	TRW STRAIGHT FIXED STEERING COLUMN		
	4-SPOKE 18 INCH (450MM) STEERING WHEEL		
Instruments & Controls			
	GREEN GAUGE BACKLIGHTING		
	ENGLISH UNITS MAJOR SCALE		
	DRIVER MESSAGE CENTER W/LCD DISPLAY,24 WARNING LAMPS, DATA LINKED, AMI		
	ELECTRONIC MPH SPEEDOMETER WITH SECONDARY KPH SCALE, WITHOUT ODOMETER		
	2 INCH PRIMARY AND SECONDARY AIR PRESSURE GAUGES		
	ELECTRIC ENGINE OIL PRESSURE GAUGE W/WARNING LAMP AND ALARM		
	ELECTRIC ENGINE COOLANT TEMP GAUGE W/WARNING LAMP AND ALARM		
	DIGITAL VOLTAGE DISPLAY INTEGRAL WITH DRIVER DISPLAY		
	ELEC FUEL GAUGE & LOW FUEL IND LAMP		
	ENGINE HOUR METER, INTEGRAL TO MESSAGE CENTER LCD		

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Description	Weight Front	Weight Rear
INTAKE MOUNTED AIR RESTRICTION INDICATOR WITHOUT GRADUATIONS		
97 DB BACKUP ALARM		
CRUISE CONTROL SWITCHES-UNMOUNTED		
PROGRAMMABLE RPM CTRL W/LOW VOLTAGE AUTO HIGH IDLE & RPM CTRL SWITCHES		
WAGNER 7212 TURN SIGNAL FLASHER		

BASIC CHASSIS WARRANTY

FREIGHTLINER CUSTOM CHASSIS CORPORATION BASIC CHASSIS WARRANTY

Secondary Factory Options

PRE DELIVERY INSPECTION

TOTAL VEHICLE SUMMARY

Weight Summary

	Weight Front	Weight Rear	Total Weight
Factory Weight+	4467 lbs	3398 lbs	7865 lbs
Dealer Installed Options	0 lbs	0 lbs	0 lbs
Total Weight+	4467 lbs	3398 lbs	7865 lbs

Extended Warranty

TOWING EXTENDED/ROADSIDE SVC WTY 1 YEAR/ UNLIMITED MILES/KM, $550 CAP

Dealer Installed Options

	Weight Front	Weight Rear
UTILIMASTER QUOTE # 90668-1 DATED 10-25-13, EXPIRES 11-6-13. DOES NOT INCLUDE THE OPTIONS THAT THEY LISTED.	0	0
ESTIAMTED MODEL YEAR 2015 ESCALATOR	0	0
Total Dealer Installed Options	0 lbs	0 lbs

(+) Weights shown are estimates only.
If weight is critical, contact Customer Application Engineering.

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Utilimaster Sales Quotation

From: Steve Freeto
Email: SFREETO@UTILIMASTER.COM
Hanover - 18' MT55

General Offices
603 Earthway Boulevard
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Phone (800) 582-3454
Fax (574) 848-2807

TO: Duane Schaefer
Trans Chicago Truck Group
776 North York Road
Elmhurst, IL 60126-1356

Quantity: Min. 1 **Max.** 1
Quote Number: 90668/1
Date: 6/13/2014
Quote Expires: 7/13/2014
Phone: 574-848-2122
Fax#: 574-848-2807

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Quantity	Reference#	Description	List Price
	140223041833048	W-I 18'Lx 93-1/2"Wx85"H MT55	
		CHASSIS SPECS ****	
1	W001590	DROP SHIP CHASSIS	Standard
		Please review the chassis information listed.	
		The dealer must confirm the chassis specification	
		before the body is scheduled. If the chassis	
		arrives with different specification, your order	
		can be delayed and there could be additional cost.	
		.	
1	W031009	CHASSIS MODEL YEAR	Standard
1	W031009-40	2015 MT55 CHASSIS	
1	W00897	DOMESTIC CHASSIS	Standard
1	W03001	STR RAIL CHASSIS FRTLNR MT55SR	Standard
1	W03006	I-BEAM FRT SUSPENSION FRTLNR	Standard
1	W03018	WHEELBASE OPT FREIGHTLINER	Standard
1	W03018-36	* 178" WHEELBASE FRTLINER	
1	W03008	AUTOMATIC TRANSMISSION FRTLNR	
1	W03008-52	AT1000-AT2000 SERIES ALLISON AUTO	
1	W03011	DUAL REAR WHEELS FREIGHTLINER	Standard
1	W03004	CUMMINS ENGINE	Standard
1	W03004-32	6.7L DIESEL ENGINE CUMMINS	
1	W03013	TIRE SIZE	Standard
1	W03013-31	* 22.5" TIRES	
1	W03013-311	* 22.5" LO PROFILE TIRES	
1	W03019	FUEL TANK OPTIONS FREIGHTLINER	Standard
1	W03019-38	* 40 GAL REAR CENTER MOUNT	
1	W03019-382	* 40 GAL REAR CENTER SHALLOW TANK	
1	W03019-LH	LH FUEL FILL	
1	W031320	CHASSIS GVWR FREIGHTLINER MT55	Standard
1	W031320-45	* 30,000 GVWR	
1	W031702	CHASSIS SUPPLIED M2 FRONT BUMPER	
		Dealer must provide M2 bumper, grille, and	
		badging for fiberglass M2 hood.	
		Freightliner dealer has the option to order this bumper	
		in chrome or painted.	
1	W031702-40	CHAS SUPPLIED M2 CHROME FRT BUMPER	
1	W002234	CHAS SUPPLIED FCCC M2 GRILLE INSERT	
1	W002234-30	CHAS SUPPLIED FCCC M2 GRILLE INSERT	
1	W03016	CHAS SUPPLIED FACTORY A/C PREP KIT	
		**Chassis must arrive with factory A/C	
		prep kit from OEM dealership in order for	
		Utilimaster to install A/C on final unit**	
1	W002072	FCCC ALTERNATOR	Standard
1	W002072-30	FCCC <200 AMP ALTERNATOR	Standard
1	W031108	FACTORY CRUISE PREP KIT	
1	W002102	AMETEK I.P. CLUSTER	Standard
1	W002004	AUX FUEL PORT	
		CHASSIS MUST BE SUPPLIED WITH AUX FUEL PORT IN TANK	
		FCCC Code 593-001 Provision for C/F generator	
1	W031075	AIR BRAKES FRTLNR	
1	W002158	FREIGHTLINER EXHAUST SYSTEM	Standard
		Verify chassis exhaust codes Yes	
1	W002158-30	STD SWITCHBACK EXHAUST 23D-004	Standard
1	W001835	CHASSIS PTO PROVISION	
1	W001634	FREIGHTLINER M2000 WIRING	Standard
1	W002100	FREIGHTLINER 2010+ EMISSIONS	Standard
1	W031856	MODEL #42 SETBACK CAB DESIGN	Standard
		LENGTH OPTIONS 85H ****	
1	W03020-18F	18' FREIGHTLINER	
1	W001253-F	.125 UPPER /.125 LOWER SIDEWALL MTL	

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Quantity	Reference#	Description	List Price
		93.5W FRTLNR***************	
1	W03021-C	FREIGHTLINER WIDTH	Standard
		Is opt W002176 on your order? Yes	
		CAB DOOR OPTIONS *******	
1	W03023	SLIDER DOOR RH	Standard
1	W03026	SEDAN DOOR LH	
1	W00792	SLIDER WINDOW LH SILVER	Standard
1	W00793	SLIDER WINDOW RH SILVER	Standard
1	W03035	4" LOWERED STEPWELL LH	Standard
1	W03036	4" LOWERED STEPWELL RH	Standard
1	W03701	LH INTERMEDIATE STEP	Standard
1	W00037	KASON LOCK SELECTIONS	Standard
1	W00039	* CHROME FINISH	
1	W00040	* KEY TO LOCK	Standard
1	W00043	* KEYED TO REAR DOOR	Standard
1	W001635	ALL BODIES KEYED DIFFERENTLY	Standard
1	W001636	SEDAN DOOR LOCK SELECTIONS	
1	W001804	SEDAN DOOR ROTARY LATCH (NEW STYLE)	
1	W03047	DOOR POCKETS .100 ALUM	Standard
		REAR STRUCTURE OPTIONS *******	
1	W00052-CF	REAR SWING DOORS	Standard
1	W00053-CF	* TWIN 20"SWG	Standard
1	W002152	PIERCE AND ROLL CONSTRUCTION	Standard
1	W00059	HINGES NONOFFSET	Standard
1	W00060	EXTRA HINGE	Standard
1	W00061	R38 HOLDBACK W/3"EXTENSION	Standard
1	W00064	HEAVY DUTY RELEASE LH DOOR	
1	W00065	SLAMLOCK HARDWARE	Standard
1	W00069	12"x18" FIXED WINDOWS	
1	W00071	* 2 HIGH MOUNT	
1	W00078	KASON REAR SWING DOOR HARDWARE	Standard
1	W00080	* CHROME FINISH	
1	W00040	* KEY TO LOCK	Standard
1	W00081	* KEYED TO CAB DOOR	Standard
		SEATING OPTIONS **************	
1	W00112	DRIVERS SEAT	Standard
1	W00114	* HI-BACK SEAT LH W/LUMBAR	
1	WS0114	* SPECIAL SEAT LH W/LUMBAR	
1	W00114-603	MAGNUM 200 SUSP W/ARMS BLK CLTH LH	
1	W00122	* 3PT SEATBELT W/2LOC D-RING	Standard
1	W001000	BULKHD MNT JSEAT CONTOUR BACK 16"S	
		BULKHEAD OPTIONS *****	
1	W002090-CF	UTILITY BULKHEAD W/CTR OPENING & DR	
1	W00154	BLANDEX CORE W/.030 ALUM SKIN	
1	W00160	KASON LATCH	
1	W00162	* CHROME FINISH	
1	W00040	* KEY TO LOCK	
1	W00168	CARPET ON FRONT SIDE BULKHEAD	
1	W00540-CF	BULKHEAD SEAL KIT	
		DRIVER CONVENIENCE OPTIONS	
1	W00543	SINGLE WIPER MOTOR SYSTEM	Standard
1	W002137	CAB FLOOR MATTING OPTIONS	
1	W00179	COMPLETE CAB FLR MAT INSULATED	
1	W001034	SAFE-T-TREAD IN STEPWELL	
1	W00180	DIESEL SOUND REDUCTION COWL	Standard
1	W002080	RADIOS	
1	W002083	RADIO/MONITOR COMBO ASA VOYAGER	

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Quantity	Reference#	Description	List Price
1	W002083-51	MONITOR ON IN REVERSE ONLY	
1	W00186	INTERMITTENT WIPERS	
1	W00189	SUNVISOR DRIVER SIDE	Standard
1	W00191	* SUNVISOR PADDED 8x28	Standard
1	W00190	SUNVISOR PASSENGER SIDE	
1	W002136	* SUNVISOR PADDED 8x24	
1	W001193	ABS CUP HOLDER LH DASH MOUNT	Standard
1	W00996	CAB HEADER PACKAGE	
1	W00280	EXTRA STIFFENER ON TRANS COVER	
		WORKTABLES, TRAYS, STORAGE	
1	W08958	MOLDED ENGINE COVER	
1	W00959	ABS DOCUMENT HOLDER ON ENG CVR	
		DASH/INTERIOR LIGHTING OPTIONS ****	
1	W00226	CAB DOME LIGHT/SPECIFY TYPE	Standard
1	W00226-53	* 18" LED	
		Location: Centered in cab	
1	W03228	DOME LIGHT SWITCH DASH LIGHTED	Standard
1	W031109	PREP DASH FOR CRUISE CONTROL	
1	W00230	CARGO DOME LIGHT/SPECIFY TYPE	Standard
4	W00230-53	* 18" LED	
		Location 1: C03	
		Location 2: C07	
		Location 3: C11	
		Location 4: C15	
1	W00233	CARGO LIGHT 3 WAY SWITCH	Standard
		Location: Above rear doors on header	
1	W00564	CARGO DOME LIGHT BATTERY HOT	Standard
		ROOF OPTIONS *****************	
1	W002231	NEW DESIGN ROOF PARAMETRICS	Standard
1	W002182-CF	OPAQUE EXTERIOR	
1	W00244	.024" EMBOSSED INTERIOR	
1	W001156	.030" EMBOSSED INTERIOR WHITE	
1	W00245	FIBERGLASS INSULATION R4	
		CARGO FLOOR OPTIONS***********	
1	W00261	REAR THRESHOLD DRAINS (2)	Standard
1	W00262	STD BODY UNDERCOATING	Standard
		Undercoat outside the rails and not between.	
1	W00200	FUEL SENDING UNIT ACCESS	Standard
1	W031788-C	WHEELWELLS 44"L W/41" AISLE	
1	W002118	CARGO FLOOR PLANKS MAX 8"	
		SIDE & REAR WALL OPTIONS *****	
1	W00202	HEAVY DUTY STUD PROFILE (HAT STYLE)	
1	W00206	OPTIONAL 24" SPACING	
1	W001553	ROUND RUBRAIL PROFILE	Standard
1	W002071	STANDARD SIDEWALL LAYOUT	Standard
1	W001253	.125 UPPER /.125 LOWER SIDEWALL MTL	
1	W00304	VENT FRESH AIR 4x10 QTR PNL LH	Standard
		RR BMPRS,HITCHES,LIFTGATES	
1	W001862-C	12"GRPSTR BMPR W/CLS 4 RCVR 10K/15k	
		Rear bumper will be a 12'' deep bumper covered with gripstrut material. There will be a 2.5x2.5 receiver tube mounted in center of bumper.	
		There will be two heavy-duty D-rings on each side of receiver tube. This option does not include a pintle insert.	
		Bumper pull tested to following.	
		Ball mount insert 10k GTW.	
		Pintle mount insert 15k GTW.	

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		EXTERIOR BODY OPTIONS ****	
1	W00379	TINTED WINDSHIELD WO/SHADE BAND	Standard
1	W00581	BONDED WINDSHIELD GLASS	Standard
1	W001909	EXT MIRROR HTD BLK VELVAC REVOLUTIO	
1	W00386	REAR FENDER FLARE RUBBER	
1	W00389	MUD FLAPS REAR	
1	W03770	FUEL FILL DOOR & CLOSER	Standard
1	W002122	WHEELWELL CUTOUT LOCATION	Standard
1	W002110	DEF TANK FILL DOOR & CLOSER	
1	W002110-RH	RH DEF TANK FILL DOOR & CLOSER	
		HOOD & FRT BUMPER OPTIONS ****	
1	W031701-C	FIBERGLASS FRTLNR M2 HOOD	
1	W001703	HALOGEN HEADLIGHTS 7" ROUND	
		PAINT & DECAL OPTIONS ********	
1	W00413	PAINT EXT TWO COLOR	
		Color & Code: Black Standard (N0001HNH) (G2-76572)	
		Black Upper	
		Color & Code: A New Color & Code Request	
		Red Lower	
1	W002207	PAINT REAR BUMPER STANDARD BLACK	Standard
1	W002134	DELETE UTILIMASTER LOGOS	
		EXT LIGHTING OPTIONS *********	
1	W00431-C	TAIL LIGHTS	Standard
1	W002220	4.5" LED (STD)	Standard
1	W002220-41	FLANGE MOUNTED LED STT & BACKUP	
1	W002223	LED BACKUP LT (STD)	Standard
1	W00436	CLEARANCE LIGHTS	Standard
1	W002221	LED MINI MARKER FRT & REAR (STD)	Standard
1	W002018	MINI CLEARANCE LTS IN REAR CORNERS	
1	W002222	LED FRONT TURN LTS (STD)	Standard
1	W002224	LED LICENSE PLATE CENTERED (STD)	Standard
		HVAC OPTIONS ****	
1	W031084	CAB AC W/ELECTRONIC CONTROLS	
		New for 2011: 40K BTU/HR with "Clean Air Technology"	
		ELECTRICAL OPTIONS ***********	
1	W002111	BACKUP CAMERA SYSTEMS	
1	W002112	VOYAGER BACKUP CAMERA W/LCD MONITOR	
1	W002112-51	MONITOR ON IN REVERSE ONLY	
1	W002112-54	LCD COLOR MONITOR	
1	W002112-540	5.6" LCD COLOR MONITOR	
1	W002112-RH	ADDITIONAL CAMERA RH SIDE	
1	W00480-2	(2) 12V RECEPTACLE ON DASH	Standard
		Location: RH of Dash	
		CHASSIS RELATED OPTIONS ****	
1	W08485	FRONT END ALIGNMENT (TOE-IN ONLY)	Standard
		UTILITY TRUCK OPTIONS ********	
1	W001502	GENERATOR COMPARTMENTS	
1	CSO-W37860-37	ONAN 12.5KW CMQD GENERATOR COMPT TF	
		Location: RH Rearward of axle	

RFO 1 4MM Duraplate 85H Liner & Insulation

Additional Notes:
4MM Duraplate White Liner Panels (4'W w/ Panels w/ subtle overlap)
Includes 1-3/8" Insulation Board between studs.

Utilimaster Sales Quotation

From: Steve Freeto
Email: SFREETO@UTILIMASTER.COM
Hanover - 18' MT55

General Offices
603 Earthway Boulevard
Bristol, IN 46507
Phone (800) 582-3454
Fax (574) 848-2807

TO: Duane Schaefer
Trans Chicago Truck Group
776 North York Road
Elmhurst, IL 60126-1356

Quantity: Min. 1 **Max.** 1
Quote Number: 90668/1
Date: 6/13/2014
Quote Expires: 7/13/2014
Phone: 574-848-2122
Fax#: 574-848-2807

We are pleased to submit our quotation as follows: This price quotation is given subject to the Terms of Sale Printed with this form, and is applicable only to the quantities shown for the specified period.

**** THIS QUOTATION DOES NOT INCLUDE CHASSIS COSTS ***.**

Quantity	Reference#	Description	List Price
		RFO 4 LH Exterior Compartment 38'' W x 72'' H	
		RFO 5 LH Exterior Compartment 52'' W x 35'' H	
		RFO 6 RH Exterior Compartment 26'' W x 35'' H	
		RFO 7 30x18 Sidewall Window RH	

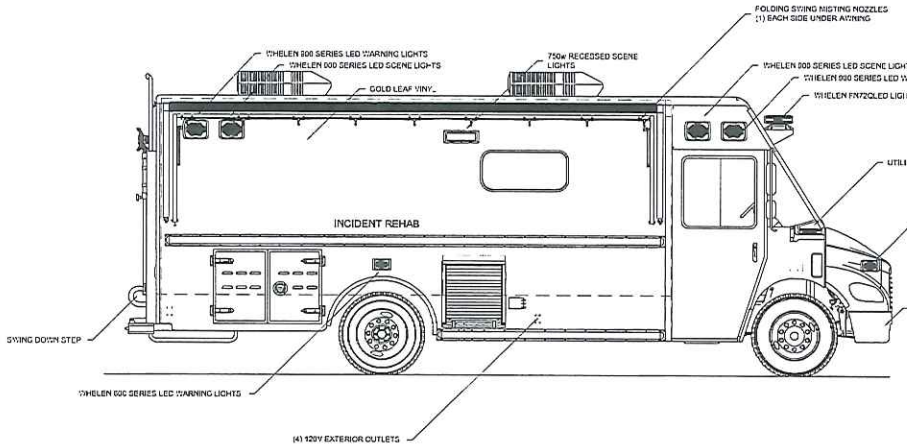
Min. Quantity: 1
Max. Quantity: 1

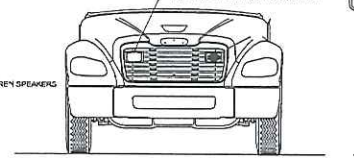
Utilimaster Body Sub Total:

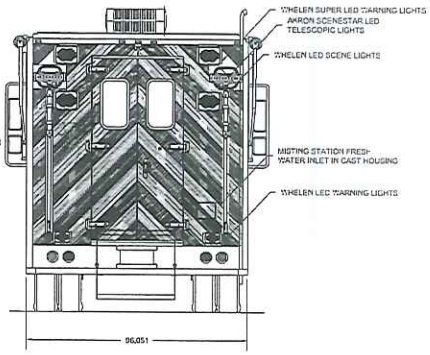
Total_Price:

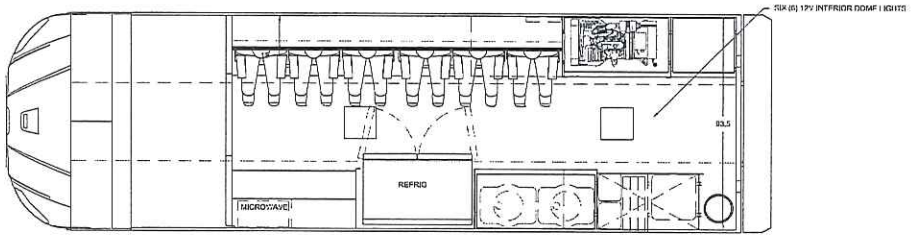
By: _____ Approved By: _____

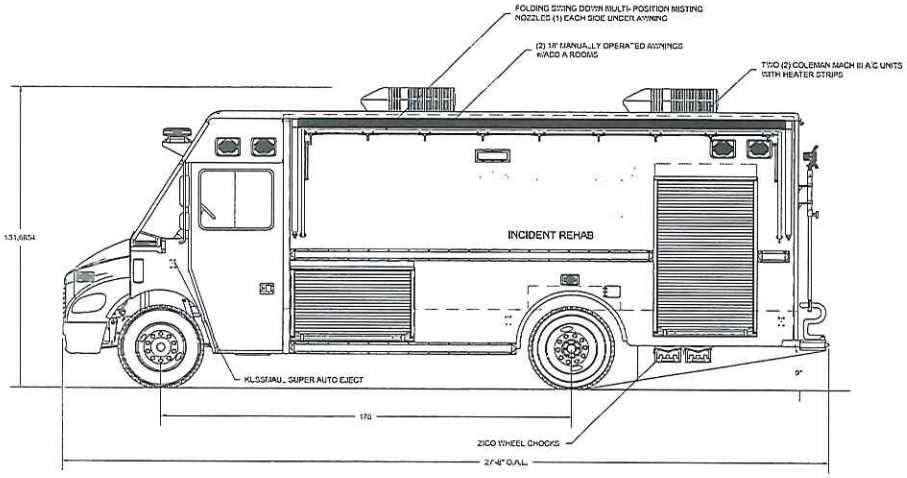
I have reviewed and am in agreement with the specifications and pricing associated with this order. By initialing this Quote I hereby authorize Utilimaster to proceed with the manufacture of this product and I agree to purchase the vehicle in accordance with Utilimaster's Terms & Conditions, a copy to which has previously been provided to me. _____











REVISION HISTORY			
REV	DESCRIPTION	DATE	DWN
5	SALES MEETING REVISIONS	11-21-13	DDG
4	SALES MEETING REVISIONS	10-30-13	DDG
3	SALES REVISIONS	10-14-13	DDG
2	SALES MEETING REVISIONS	9-9-13	DDG
1	SALES REVISIONS	7-9-13	DDG

HNOVR PRK 0001

IN THE EVENT THERE ARE DISCREPANCIES BETWEEN THE DRAWING AND THE SPECIFICATIONS, THE SPECIFICATIONS SHALL PREVAIL.

CUSTOMER APPROVAL SIGNATURE: DATE:

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE NOT CUMULATIVE
DECIMAL ±0.062 ANGULAR ±0.5°
FRACTIONAL ±1/16 METRIC ±1.6 mm

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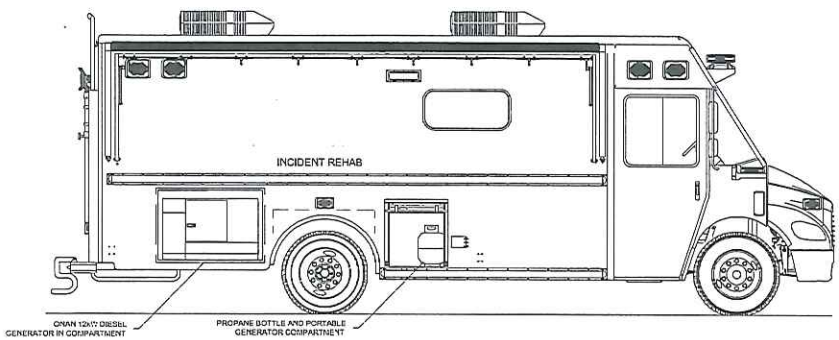
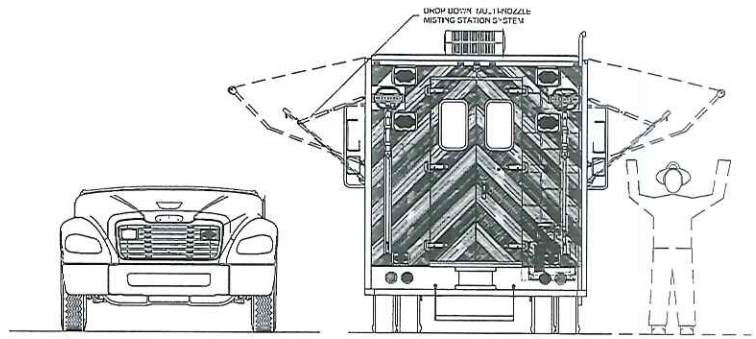
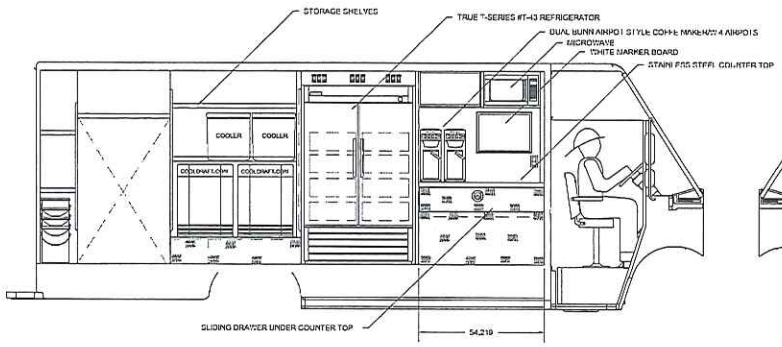
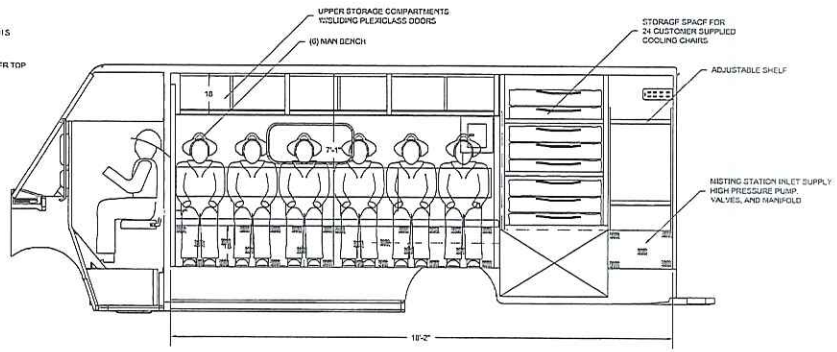
18' VAN
HANOVER PARK FIRE DEPARTMENT
HANOVER PARK, IL

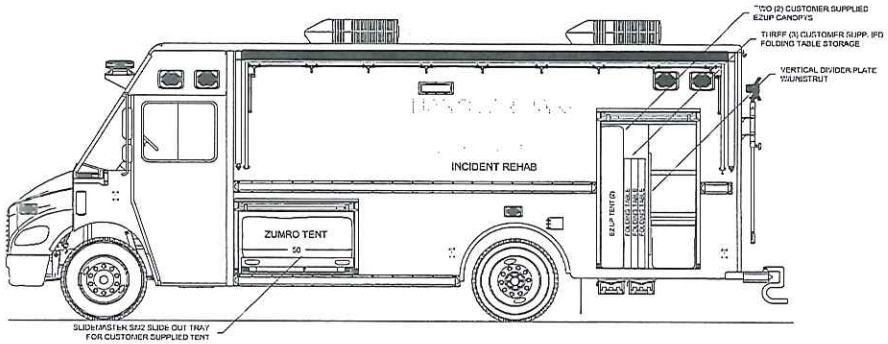
DRAWN DOUG GAU 6-9-13
SIZE D SCALE 1/2" = 1" DWG NO
MATERIAL CONTRACT # - SHEET 1 OF 1











REVISION HISTORY			
REV	DESCRIPTION	DATE	DWN
5	SALES MEETING REVISIONS	11-21-13	DDG
4	SALES REVISIONS	10-28-13	DDG
3	SALES REVISIONS	10-14-13	DDG
2	SALES REVISIONS	9-9-13	DDG
1	SALES REVISIONS	7-9-13	DDG

CUSTOMER APPROVAL SIGNATURE:

DATE:

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DECIMAL ±0.002 ANGULAR ±0.5°
FRACTIONAL ±1/16 METRIC ±1.0 mm

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18' VAN
HANOVER PARK FIRE DEPT.
HANOVER PARK, IL

HNOVRPK-0001

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DRAWN		SIZE	SCALE	DWG NO
DOUG GAU	6-9-13	D	1/2" = 1"	-
MATERIAL		CONTRACT #	-	SHEET 1 OF 1