



MONROE COUNTY BID PROPOSAL

Division of Purchasing
County Office Building, Room 200
39 West Main Street
Rochester, NY 14614
(585) 753-1100

BID PROJECT NUMBER: BP 0415-12

BID TITLE: HAZMAT/FIRE BUREAU SPECIAL
OPERATION VEHICLE

BUYER: Phil DiFrancesco
PHONE: 585.753.1130

BID TIME: 11:00 am
BID DATE: May 17, 2012

<p>BID SECURITY REQUIRED: No: <input checked="" type="checkbox"/> Yes, in the amount of _____ as specified herein</p>
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ITEM AND/OR GROUP NO.	ESTIMATED QUANTITY	ARTICLES OR SERVICES	UNIT PRICE	EXTENSION
		<p>HAZMAT/ FIRE BUREAU SPECIAL OPERATION VEHICLE: Per Attached Specifications</p> <p>Delivery Guaranteed _____ Days After Receipt of Order</p>		\$ _____

I have received, read and agree to the terms and conditions as set forth in General Terms and Conditions, Monroe County, attached, and any special terms and conditions set forth in the General and Technical Specifications herein. I have read, understand and agree to all Instructions to Bidders (including the Non-Collusion Bidding Certification) on the reverse hereof. I hereby recognize and agree that upon execution of this document by an authorized officer of Monroe County, that this document, together with the Contractor's bid as accepted by Monroe County and all other documents prepared by or on behalf of Monroe County for this bid solicitation, shall become the binding contract between the parties for the services to be provided in accordance with the terms and conditions set forth herein.

FIRM NAME _____

SIGNED BY _____

ADDRESS _____

PRINTED NAME _____

TITLE _____

FEDERAL ID NO. _____

PHONE NO. _____

E-MAIL ADDRESS _____

FAX NO. _____

BID ACCEPTANCE AND CONTRACT AWARD

The above bid is accepted, except as noted, and the contract is awarded to you for the following item(s):

Authorization to furnish supplies/services will be made via Purchase Order, as appropriate, signed by the Monroe County Purchasing Manager, or designated agent. Contract period from _____ to _____.

Date: _____

BY: _____

Dawn C. Staub, Purchasing Manager, Monroe County

DES

INSTRUCTIONS TO BIDDERS

- All public bids must be submitted to Purchasing in sealed envelopes which clearly identify the bid project number and the title of the service/product being bid. Any other writing on the envelope, with the exception of company logos, etc. may result in bids being misplaced and otherwise rejected.
- Unsigned bids may be rejected as informal.
- Questions regarding ambiguities or the propriety of these specifications should be addressed, in writing, to the Buyer, prior to the formal bid opening. Such questions will not be entertained after said bid opening.
- Where a Bid Security is indicated on the face of the proposal, the security must be attached to the Proposal as an earnest of good faith. In this case, any bid without a bid security may be rejected as informal.

The Purchasing Manager reserves the right to reject any and all bids, to waive any informality in the bids and to make awards in the best interest of Monroe County.

NON-COLLUSION BIDDING CERTIFICATION

By submission of this bid, each bidder and each person signing on behalf of any bidder, certifies and in the case of a joint bid, each party thereto certifies as to its own organization, under penalty of perjury, that to the best of knowledge and belief:

1. The prices in this bid have been arrived at independently without collusion, consultation, communication or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor.
2. Unless otherwise required by law, the prices, which have been quoted in its bid, have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor.
3. No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit a bid for the purpose of restricting competition.

**CERTIFICATION REGARDING
DEBARMENT, SUSPENSION AND RESPONSIBILITY**

The undersigned certified, to the best of his/her knowledge and belief, that the Contractor and its principals:

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded by any Federal department or agency;
2. Have not within a three-year period preceding this transaction/application/proposal/contract/agreement been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property;
3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 2 of this certification and;
4. Have not within a three-year period preceding this transaction/application/proposal/contract/agreement had one or more public transactions (Federal, State or local) terminated for cause or default.

Date: _____

[Print Name of Contractor]

By: _____
[Signature]

[Print Name]

[Print Title/Office]

VENDOR MUST COMPLETE THIS FORM AND SUBMIT WITH BID.

TERMS AND CONDITIONS

BID ITEM: HAZMET/FIRE BUREAU SPECIAL OPERATION VEHICLE

FOR: Monroe County Fire Bureau/Office of Emergency Management (OEM)
Public Safety

DEPARTMENT CONTACT: Steve Schalabba, (585) 753-3751

DUPLICATE COPIES: **PLEASE SUBMIT YOUR BID IN DUPLICATE; THE ORIGINAL AND ONE (1) COPY.**

BID INFORMATION: At the time of bid, the bidder shall supply detailed specifications covering the item(s) contained herein and shall clearly indicate any areas in which item or items offered do not fully comply with the specifications contained herein.

SUBMITTAL OF FORMAL PROPOSAL: Bid proposal must be legible and submitted in the original form, bearing an original signature. **EMAILS AND FACSIMILES ARE NOT ACCEPTABLE.**

All bidders must submit proof that they have obtained the required **Workers' Compensation** and **disability benefits** coverage or proof that they are exempt.

SPECIFICATION ALTERATIONS: Specifications will be construed to be complete and be considered the entire description of the goods or services upon which Monroe County is now seeking bids. **Only formal written addenda can materially alter this set of specifications.** No verbal statement made by a Monroe County employee or anyone else is binding nor shall such statement be considered an official part of this public bid proposal.

BRAND REFERENCE: References to a manufacturer's product by brand name or number are done solely to establish the minimum quality and performance characteristics required. Bidders may submit bids on alternates, but must attach two (2) copies of manufacturer specifications for any alternate at the time of the bid. Further, the bidder must demonstrate that the alternate proposed has a sufficient operating track record to show the equipment will perform per the specified brand. The acceptance of a bidder's alternate rests solely with Monroe County.

QUALIFIED BIDDER: Each bidder must be prepared to present satisfactory proof of his capacity and ability to perform this contract. Such proof may include, but is not limited to, an inspection of the bidder's facilities and equipment, financial statements, references and performance of similar contracts. **The Purchasing Manager reserves the right to reject any bid where the bidder cannot satisfy the County as to their ability to perform.** Monroe County reserves the right to reject any and all bids if the Monroe County Purchasing Manager deems said action to be in the best interests of Monroe

County.

METHOD OF AWARD:

Monroe County intends to award a purchase order to the lowest responsive and responsible bidder based on the **TOTAL. Bidder must bid on all items in order to be considered.** The County reserves the right to reject any and all bids if the Purchasing Manager deems said action to be in the best interest of the County.

DELIVERY:

Delivery to be **F.O.B. destination as specified by Purchase Order.** Delivery must be completed within **six (6) months** after receipt of order. A delivery in excess of **six (6) months** may be grounds for rejection of a bid.

**PURCHASE ORDER
ISSUANCE:**

Delivery of goods may be directed by the receipt of a Purchase Order only. **Items that are not part of this bid will not be paid for by Monroe County.**

As to all purchase orders issued by Monroe County, exceptions may only be authorized, in writing, by the Purchasing Manager or her authorized agent prior to delivery.

**WARRANTY/
GUARANTEE:**

All warranties by manufacturer shall apply. Bidder shall, as part of its proposal, furnish its warranty/guarantee for all goods/services to be furnished hereunder. As a minimum, Bidder shall warrant all goods for a period of one (1) year from date of acceptance. Bidder shall be obligated to repair or replace all defects in material or workmanship, which are discovered or exist during said period. All labor, parts and transportation shall be at Bidder's expense.

SUBCONTRACT:

The Contractor shall not subcontract any work without first obtaining the written consent of the Monroe County Purchasing Manager.

INDEMNIFICATION:

The Contractor agrees to defend, indemnify and save harmless the County, its officers, agents, servants and employees from and against any and all liability, damages, costs or expenses, causes of action, suits, judgments, losses and claims of every name not described, including attorneys' fees and disbursements, brought against the County which may arise, be sustained, or occasioned directly or indirectly by any person, firm or corporation arising out of or resulting from the performance of the services by the Contractor, arising from any act, omission or negligence of the Contractor, its agents and employees, or arising from any breach or default by the Contractor under this Agreement. Nothing herein is intended to relieve the County from its own negligence or misfeasance or to assume any such liability for the County by the Contractor.

COMPLIANCE WITH FEDERAL SINGLE AUDIT ACT

In the event the Contractor is a recipient through this contract, directly or indirectly, of any funds of or from the United States Government, Contractor agrees to comply fully with the terms and requirements of Federal Single Audit Act [Title 31 United States Code, Chapter 75], as amended from time to time. The Contractor shall comply with all requirements stated in Federal Office of Management and Budget Circulars A- 102, A-110 and A-133, and such other circulars, interpretations, opinions, rules or regulations that may be issued in connection with the Federal Single Audit Act.

If on a cumulative basis the Contractor expends Three Hundred Thousand and no/100 Dollars (\$300,000.00) or more in federal funds in any fiscal year, it shall cause to have a single audit conducted, the Data Collection Form (defined in Federal Office of Management and Budget Circular A-133) shall be submitted to the County; however, if there are findings or questioned costs related to the program that is federally funded by the County, the Contractor shall submit the complete reporting package (defined in Federal Office of Management and Budget Circular A-133) to the County.

If on a cumulative basis the Contractor expends less than Three Hundred Thousand and no/100 Dollars (\$300,000.00) in federal funds in any fiscal year, it shall retain all documents relating to the federal programs for three (3) years after the close of the Contractor's fiscal year in which any payment was received from such federal programs.

All required documents must be submitted within nine (9) months of the close of the Contractor's fiscal year end to:

Monroe County Internal Audit Unit
304 County Office Building
39 West Main Street
Rochester, New York 14614

The Contractor shall, upon request of the County, provide the County such documentation, records, information and data and response to such inquiries as the County may deem necessary or appropriate and shall fully cooperate with internal and/or independent auditors designated by the County and permit such auditors to have access to, examine and copy all records, documents, reports and financial statements as the County deems necessary to assure or monitor payments to the Contractor under this contract.

The County's right of inspection and audit pursuant to this contract shall survive the payment of monies due to Contractor and shall remain in full force and effect for a period of three (3) years after the close of the Contractor's fiscal year in which any funds or payment was received from the County under this contract.

NOTICE OF JOB VACANCIES

a) The contractor recognizes the continuing commitment on the part of Monroe County to assist those receiving temporary assistance to become employed in jobs for which they are qualified and the County's need to know when jobs become available in the community.

b) The contractor agrees to notify the County when the contractor has or is about to have a job opening for a full time position within Monroe County or any contiguous county. Such notice shall be given as soon as practicable after the contractor has knowledge that a job opening will occur. The notice shall contain information that will facilitate the identification and referral of appropriate candidates in a form and as required by the Employment Coordinator. This would include at least a description of conditions for employment, including the job title and information concerning wages, hours per work week, location and qualifications (education and experience).

c) Notice shall be given in writing to:

Employment Coordinator
Monroe County Department of Human and Health Services
Rm 535
691 St. Paul St.
Rochester, NY 14605
Telephone: (585) 753-6322
Fax: (585) 753-6308

d) The contractor recognizes that this is an opportunity to make a good faith effort to work with Monroe County for the benefit of the community. Nothing contained in this provision, however, shall be interpreted as an obligation on the part of the contractor to employ any individual who may be referred by or through the County for job openings as a result of the above notice. Any decisions made by the contractor to hire any individual referred by or through the County shall be voluntary and based solely upon the contractor's job requirements and the individual's qualifications for the job, as determined by the contractor.

e) If the contractor is a local municipality within Monroe County, said municipality shall be subject to the above subparagraphs, except that said municipalities shall not be required to give notice where the position is subject to a published civil service list.

**BP0415-12
MONROE COUNTY
Fire Bureau**

**TECHNICAL SPECIFICATIONS
for
SPECIAL OPERATIONS VEHICLE**

GENERAL REQUIREMENTS

All specifications contained herein are considered minimum requirements for the manufacture and delivery of the "new" emergency special operations vehicle chassis and body. The terms "minimum" and "maximum" shall define the respective constraints that apply to the overall design, dimensions or quality level established by Monroe County, hereafter called purchaser. The term or equal shall define the degree of determined quality level and shall be the sole responsibility of the purchaser to judge whether the proposed equal submitted by the bidder meets the minimum established quality level. Where brand names are referenced, it shall be understood by the bidder that the specified brand and part number are open market commodities and, thus, must be furnished as specified herein. Where none of the aforementioned terms are referenced herein, the purchaser has established that no exceptions are permitted by the bidder.

The specified apparatus shall comply with all Federal, State, and local requirements pertaining to vehicles used as an emergency vehicle, as defined by NFPA 1901. All standards in effect at the time a contract is released to the successful bidder are to be met, whether or not they are specified herein.

The apparatus shall conform to the latest revision to National Fire Protection Association (NFPA) Standard for Automotive Fire Apparatus, number 1901, unless otherwise specified in this document. Only the specified emergency support vehicle and equipment listed in these specifications shall be provided. The apparatus shall further conform to all Federal Motor Vehicle Safety Standards (FMVSS) applicable at the time of manufacture.

Bidder Complies: ___ Yes ___ No

BID RESPONSE

The bidder shall respond using only those forms contained herein. Any exceptions to minimum specifications shall be described in detail on a separate page attached to the bid response titled "EXCEPTIONS & CLARIFICATIONS". Exceptions shall be listed by Specification page reference number, corresponding bidder's proposal page number, and detailed description of exception or clarification, in column form.

Failure to disclose an exception will indicate total compliance. Final inspection and subsequent acceptance of the completed apparatus will be determined based on the exceptions noted.

Exceptions will not necessarily disqualify the bidder from consideration. Final determination of acceptability of any exception or alternative will be at the sole judgment of the purchaser.

Each bid must be accompanied by a set of detailed contractor's specifications consisting of a detailed description of the apparatus and equipment proposed. All bid proposal specifications must be in the same sequence as the advertised specification to facilitate an accurate comparison. These specifications shall include size, location, type and model of all component parts being furnished. Detailed information shall be provided on the materials used to construct all facets of the apparatus body. Any bidder who fails to submit detailed construction specifications, or who photo copies and submits these specifications as their own construction details may be considered non-responsive and shall render their proposal ineligible for further contractual consideration.

Terms such as "intent of" are considered vague and unacceptable responses and will disqualify the bid.

Bids shall be enclosed in a sealed envelope endorsed on the outside of the envelope "Bid for Emergency Support Vehicle", pursuant to specifications provided, with the name of the bidder prominently displayed on the face of the envelope.

All bids shall be delivered at or before the time and place stated herein. Bids received after the stated date and time will be returned unopened to the bidder.

Bidder Complies: ____ Yes ____ No

ENGINEERING DRAWINGS

A major factor in the evaluation of bids shall be the submission of engineering proposal drawings. No bid proposals will be considered without complete engineering proposal type drawings submitted with the bid response. Submitted drawings must be specifically for the proposed apparatus, depicting all major specified components and chassis and have the purchasers name affixed.

The submission of these drawings shall be in addition to production working drawings which must be submitted to the purchaser for approval prior to construction of the proposed apparatus.

At a minimum, 11" x 17" drawings shall show the following minimum views, with doors open:

1. Street side view
 - a. With applicable cab and chassis
 - b. Overall length of apparatus; length of body; overall height from level ground; angle-of-departure
 - c. Compartment pass-thru dimensions for each compartment
 - d. All installed options, including but not limited to: shelves, trays, partitions, reels, major specified stored equipment (as outlined in Compartment Layout Schedule), etc.
 - e. All specified lighting and other permanently attached features
2. Curb side view

- a. With applicable cab and chassis
- b. All installed options, including but not limited to: shelves, trays, partitions, reels, major specified stored equipment (as outlined in Compartment Layout Schedule), etc.
- c. All specified lighting and other permanently attached features.
- 3. Rear view
 - a. All installed options, including but not limited to: shelves, trays, partitions, reels, major specified stored equipment (as outlined in Compartment Layout Schedule), etc.
 - b. All specified lighting and other permanently attached features.
 - c. Overall width and height
- 4. Front view
 - a. Depicting specified cab
 - b. All specified lighting and other permanently attached features
 - c. Bumper layout
- 5. Top view
 - a. Roof top features, including any specified coffin compartments, lighting, etc.

Submission of "similar to" or "standard" drawings or statements referencing submission of drawings after award of contract will render the bid as non-compliant and subject to no further review.

Bidder Complies: ___ Yes ___ No

WITHDRAWAL OF BIDS

Bids may be withdrawn any time prior to the bid opening. Withdrawal of bids may be accomplished by submitting such request in writing on the issuing company's letterhead either in person or by certified mail.

No bids may be withdrawn after the established bid opening date or time, unless the purchaser has extended the opening date.

Bidder Complies: ___ Yes ___ No

LIABILITY INSURANCE REQUIREMENTS

The successful bidder shall, during the performance of the contract and for a minimum of three (3) years following acceptance of the product, keep in force at least the following minimum limits of commercial general liability insurance:

General Liability, each occurrence	\$1,000,000
Personal and Advertising Injury	\$1,000,000
General Aggregate	\$2,000,000
Products - Comp/Op Agg	\$2,000,000
Automobile Liability - combined single limit	\$1,000,000
Excess Liability - each occurrence	\$25,000,000
Excess Liability - Aggregate	\$25,000,000

Coverage shall be written on a Commercial General Liability form.

Bid responses must include a current Certificate of Insurance with the minimum coverages listed above. The box in the bottom left corner marked "Certificate Holder" shall be completed by the Underwriter and list the purchasers name and address.

Bidder Complies: ___ Yes ___ No

SUBLETTING

Due to liability issues, if the bidder does not manufacture the proposed body they shall provide the following information with the bid response:

1. Name of body manufacturer
Manufacturer of body: _____
2. Research information about company (web site address, phone number, etc)
Body manufacturer research information: _____
3. Separate Product Liability Insurance certificate made out to the purchaser, not the bidder, in the amount equal to the provisions stipulated above.
Product Liability Certificate included: ___Yes ___No
4. If bidder is the manufacturer of the body that is proposed in the bid response, Items 1, 2 and 3 will not be applicable. Check here if bidder is the body manufacturer: ___

Bidder Complies: ___ Yes ___ No

QUALITY AND WORKMANSHIP

The design of the apparatus must embody the latest approved automotive and emergency apparatus engineering practices. The workmanship must be of the highest quality in its respective field.

Special consideration will be given to the following points: Accessibility of the various components which require periodic maintenance operations; construction that is rugged and ample; safety parameters that are designed to carry loads as specified and to meet both on and off road requirements and speed conditions, as set forth under "Performance Test and Requirements"; welding employed in the assembly of the apparatus in a manner that will prevent the ready removal of any component part for service or repair; All steel welding shall be performed to American Welding Society D1.1-83 for structural steel welding; All aluminum welding shall be performed to American Welding Society and ANSI D1.2-83 for structural welding of aluminum; Flex cord arc welding to use alloy rods type 7000 American Welding Society Standards A5.20-E70T1.

Bidder Complies: ___ Yes ___ No

PERFORMANCE TEST AND REQUIREMENTS

A road test will be conducted with the apparatus fully loaded and a continuous run of ten (10) miles or more will be made under all driving conditions, during which time the apparatus shall show no loss of power or overheating. The transmission drive shaft or shafts, and rear axles shall run quietly and be free from abnormal vibration or noise throughout the operating range of the apparatus.

The apparatus, when loaded, shall have not less than 25% nor more than 40% of the weight on the front axle, and not less than 60% nor more than 75% on the rear axle.

The apparatus must be capable of accelerating to 45 mph from a standing start within 30 seconds on a level concrete highway without exceeding the maximum governed rpm of the engine. If the specified drive-train components herein are determined by the bidder to be deficient in meeting this criteria, it shall be the bidders responsibility to note any deficiency in the bid specifications and offer the proper alternative, outlining separately the added cost of meeting the performance criteria above.

The service brakes shall be capable of stopping a fully loaded vehicle in 30 feet at 20 mph on level concrete highway.

Bidder Complies: ___ Yes ___ No

FAILURE TO MEET TEST

In the event the apparatus fails to meet the test requirements of these specifications on the first trials, second trials may be made at the option of the bidder within thirty days of the date of the first trials. Such trials shall be final and conclusive and failure to comply with these requirements shall be cause for rejection. Failure to comply with changes as the purchaser may deem necessary to conform to any clause of the specification within thirty (30) days after notice is given to the bidder of such changes shall also be cause for rejection of the apparatus. Permission to keep or store the apparatus in any building owned or occupied by the purchaser or its use by the purchaser during the above specified period with the permission of the bidder shall not constitute acceptance.

Bidder Complies: ___ Yes ___ No

MATERIALS

Materials shall conform to the specifications listed herein. When not specifically listed, materials shall be of the best quality for the purpose of commercial practice. Materials shall be free of all defects and imperfections that might affect the serviceability of the completed apparatus.

Bidder Complies: ___ Yes ___ No

COMPLIANCE

The bidder is hereby given every opportunity to take exceptions to the proposed apparatus bid response. Acceptance of any listed exception shall be at the sole discretion of the purchaser based on intended use, expected quality level, serviceability, design criteria and life expectancy. Decisions shall be final.

Silence to exceptions shall indicate that the line item will comply with the minimum established specifications. Should the item be found non-compliant at the time of delivery and that item has not been accepted at time of contract award, the bidder shall be liable for all cost associated with correction. Final acceptance of the apparatus will not be made, nor any payments executed, until such time as all discrepancies are corrected to the satisfaction of the purchaser. If the discrepancies are not corrected within 10 days of initial delivery attempt, the bidder may be deemed in default of contract.

Bidder Complies: ___ Yes ___ No

CURRENT OR PENDING LITIGATION

The bidder shall disclose any current or pending litigation regarding failure to deliver or comply with specification requirements on previous or current contracts. Failure to make full disclosure may render the bid or subsequent contract null and void.

Bidder Complies: ___ Yes ___ No

USER'S LIST

The bidder shall include, with the bid response, photos of a like vehicle to what is being proposed herein listing not less than five customers who have purchased in the past 12 months. The list shall include, at a minimum the following: department name, department address, contact name and contact phone number.

Bidder Complies: ___ Yes ___ No

RESPONSIBILITY OF CONTRACTOR NFPA 1901 4.4.1

The submitted proposal shall meet the following requirements, as published in NFPA 1901; paragraph 4.4.1: *The contractor shall provide a detailed description of the apparatus, a list of equipment to be furnished, and other construction and performance details to which the apparatus shall conform. The purpose of these contractor specifications shall be to define what the contractor intends to furnish and deliver to the purchase.* Failure to provide detailed proposal specifications, as outlined above, will render the proposal as unacceptable.

Bidder Complies: ___ Yes ___ No

FAILURE TO COMPLY

Bidder acknowledges that should the Monroe County Fire Bureau discover, during the course of the pre-construction conference, that the bidder does not intend to supply the vehicle as specified, based on listed compliance statements and associated exceptions, the contract shall be considered null and void with no further negotiations.

Bidder Complies: ___ Yes ___ No

CAB AND CHASSIS SPECIFICATIONS

Kenworth T370 Series Conventional

Ignition & doors keyed alike; Single electric horn; Single-piece windshield; Electric windshield wipers, 2-speed plus intermittent; Electric windshield washers; Steering wheel 18in. 4-spoke; Glovebox door with locking latch; Dash-mounted cruise control with switches; Turn signal switch with column-mounted dimmer; Standard dash panels include gray w/ burl wood accents; Slate Gray interior primary color; Dark Slate Gray seat color; Floor mat; Inside sunvisor, LH/RH; Door courtesy lights; Under-dash center console with 1 cup holder, 1 ashtray & 1 lighter.

CARB Idle Emissions Reduction Feature for PX-6 & PX-8.

**CARB Exempt Application Emergency Vehicle Only.
Medium-duty 4x2 automatic.**

Rescue Service. Vehicles used responding to emergencies & rescue operations. Typically configured for rapid response, & carry medical & other rescue equipment. Road usage: minimum 5% Class B and maximum 5% Class D.

U.S. Domestic Registry, 50-State

Bidder Complies: Yes No

Engine & Equipment

**PACCAR PX-8 380 2010 380@2000 352@2200
1050@1400.**

Emergency Vehicle includes turbo exhaust brake, no code is used. Diagnostic Plug for data link, Oil Cooler, Aluminum Flywheel Housing.

N09020 P02 YES...Cruise Control Auto Resume
N09040 P04 NO....Auto Engine Brake in Cruise
N09060 P06 NO....Gear Down Protection
N09100 P11 NO....Engine Protection Shtdwn
N09120 P14 65....Max Vehicle Speed in Top Gea
N09140 P19 65....Max Cruise Control Speed
N09160 P26 1400..Max PTO Speed
N09180 P10 NO....Idle Shtdwn
N09200 P32 8.....Idle Shtdwn Time

N09220 P33 NO....Idle Shtdwn Override

Prospector version 28.0 Supersedes previous version 27.0

Air compressor: Cummins 18.7 CFM

Air Cleaner: Dry-type firewall mounted w/filter restriction indicator.

Cooling module: 1000 square inches

RH under cab SCR for PX-8 w/ single horizontal tailpipe.

Fleetguard Filter/Water separator FS1003. Heated w/WIF (water in fuel) sensor.

270 amp Leece-Neville alternator w/cab cut off switch & warning light for PX-8 only.

Batteries: 3 PACCAR GP31 threaded post (700) 2100 CCA dual purpose.
12-VOLT LIGHT SYSTEM W/CIRCUIT PROTECTION WITH ACCESSIBLE JUMPER STUDS
Starter: PACCAR 12 volt electrical system. W/ centralized power distribution incorporating plug-in style relays. Circuit protection for serviceability, 12-volt light system w/circuit protection circuits number & color coded.

Multi-function engine connector for body builder interface for Cummins.

Bidder Complies: ___ Yes ___ No

Transmission & Clutch

Transmission: Allison World 3000EVS 6-speed w/push button 4th generation.

Driveline: 3 SPL170XL 2 centerbearing requires 3500057 interaxle driveline.

Two heavy-duty center bearing crossmembers.
This option upgrades existing crossmembers. The cost does include the centerbearing and bracket. Crossmember location will be in accordance with Kenworth engineering standards, using the major components specified on the DTPO.

Torque converter included w/Allison Transmission.
Auto neutral for Allison - single input.
Allison EVS Group 127 Package 199

Bidder Complies: ___ Yes ___ No

Front Axle & Equipment

Dana Spicer E-1462I Front Axle rated 14.6K
3-1/2in. drop.

Front brakes included w/ front hub package.
Air Brake: 14,600 lb. package includes
16-1/2 x5 brakes, cast drums, aluminum 10-bolt hub pilot
LMS hubs, hubcaps, oil seals & automatic slack adjusters.
For use w/ 22-1/2in. wheels.

Front Springs: Taperleaf 14.6K w/ shock absorber

Single power steering gear: 13.2K TRW THP85 for
air brakes.

Bidder Complies: ___ Yes ___ No

Rear Axle & Equipment

Single Dana Spicer S23-190 single reduction rear
axle. Single rear axle rated at 23K.

Rear Axle Ratio - 6.14.

Single rear brakes included w/rear hub package.

23K air brake package includes 16-1/2x7 in.
brakes, cast drums, aluminum 10-bolt hub pilot LMS hubs,
automatic slack adjusters and oil seals for use w/ 22.5 in.
wheels.

Spring Brake: 3030 high output single.

Bendix 4S/4M anti-lock brake system.
Current generation ECU is Bendix ABS 6.

Rear suspension: single Hendrickson HAS230L 23K.
Welded crossmember & gussets w/shocks at 7.8 in. height.
Medium-duty. Includes air suspension dump valve.

Heavy-duty rear suspension crossmembers for HAS
210L & 230L replacing T3 standard.

Bidder Complies: ___ Yes ___ No

Tires & Wheels

Front tires: Bridgestone R250F 12R22.5 16PR. 42.7 in.
diameter. 19.2 in. SLR.

Rear tires: Bridgestone M711 (aggressive mud/snow tread) 12R22.5 16PR
41.7 diameter, drive. 19.4 in SLR. Code is priced per pair of tires.

Rear Tire Quantity: 4

Front wheel: Alcoa 88367 22.5x8.25 aluminum with
Lvl One [TM] finish, hub pilot mount. 7400lb. maximum rating.

Rear wheel: Alcoa 88367 22.5x8.25 aluminum with
Lvl One [TM] finish, hub pilot mount. 7400 lb. maximum rating. Code is priced per pair of wheels.

Single front axle: 2 wheels Dura-Bright Buffed.
Dura-Bright outboard surface of aluminum wheels.

Single rear axle wheels: 2 wheels Dura-Bright
Buffed. Dura-Bright outboard surface of outer dual or single aluminum wheels.

Rear Wheel/Rim Quantity: 4

Bidder Complies: ___ Yes ___ No

Frame & Equipment

Frame Rails: 10-3/4 x 3-1/2 x 3/8in. Steel 337in.
to 416 in. Truck frame weight is 3.48 lb.-in. per pair of rails.
Section modulus is 17.80, RBM is 2,132,000 in-lbs per rail.

Bumper: Aerodynamic Chrome

40.9 in. Bumper setting. Requires a bumper code.

Removable Front Tow Hooks: 2.

Front mudflaps.

Battery box: Temporary across the rails.

Battery box location: BOC across the rails.

T270/370 Non-polished 2010 DPF/SCR cover: w/cab access step assembly, RH under.

One bolted rear cab crossmember: Replacing T3 standard.

2010 EPA Emissions Diesel Engine

Square end-of-frame w/ bolted crossmember

Bidder Complies: ___ Yes ___ No

Fuel Tanks & Equip

Fuel Tank: 56 US gallon 24.5in. aluminum under cab

Small round DEF tank. 9 gallons of useable volume. The tank will be located just rearward of the under cab. Required capacity is calculated by fuel capacity of the vehicle and is a minimum of 6% by volume. This capacity will accommodate two diesel re-fillings for every DEF re-filling.

Polish only one aluminum tank.

Polished cover for 1 DEF tank any size.

Polished stainless steel tank straps for 1 tank.

DEF tank location is on the LH.

Location: 56 gal fuel tank LH under cab

Bidder Complies: ___ Yes ___ No

Cab & Equipment

Cab: Curved Glass Conventional.
Cab Includes aluminum & fiberglass fully hucked cab w/ all aluminum bulkhead doors & continuous stainless steel piano-style door hinges. Single electric horn standard. Incandescent exterior lights include diagnosable bulb detection and warning. Trailer cable on tractors includes integrity detection. Standard features include multiplex wiring for interior lights, automated pre-trip inspection, short and open check diagnostics, and programmable daytime running

lights. Warning alarm will sound when lights are left-on.

Hood: Sloped aerodynamic hood includes
grill & separate bumper.

Cab heater: W/integral defrosters & A/C 45,000
btu cab heater. No sleeper heater/AC. Includes 5 mode
rotary control. T660 include filter media.

Adjustable telescoping tilt steering column.

Four position ignition switch, keyless.
Available for fire truck service & EMT/emergency service
only.

Gauge: Oil temperature gauge transmission.

KW Driver Information Center: Includes fuel
economy, RPM display, trip information, truck information,
diagnostics, gear display, alarm clock.

Instrument package: Includes speedometer,
tachometer, fuel gauge, engine coolant temperature gauge,
engine oil pressure, voltmeter. Class 8 also includes primary
& secondary air reservoir gauges & an air application gauge.
DEF level gauge and warning lamp are included with 2010
engines. Engine hour meter and outside air temperature
readouts are standard. Primary read out will be MPH. Add
3240620 to switch primary scale to KPH in Canada.

Cab interior: Pinnacle. Includes vinyl headliner
& cab back panel, slate gray interior, dark slate gray seats,
floormats, LH/RH inside sunvisor & door courtesy lights.

Driver seat: Kenworth Air cushion Plus HB Mordura
Standard features includes 7 in. fore and aft slide adjustment
w/isolator, 6-23 degree recline, air suspension with cover,
dual armrests, and single chamber air lumbar support. Seat
cushion is 20 inches wide w/ 2-position tilt and 2-position
front cushion extension. Seat material has a horizontal stitch
pattern and is 2-tone in color. Seat back is carpeted and
includes a map pocket. Seat is manufactured by National.
Includes inside visor and retractable 3-point matching seat
belts. Black seat belts for T700, gray on all other models.

Rider seat: Kenworth Air cushion Plus HB Mordura.

Standard features includes 7 in. fore and aft slide adjustment w/isolator, 6-23 degree recline, air suspension with cover, dual armrests, and single chamber air lumbar support. Seat cushion is 20 inches wide w/ 2-position tilt and 2-position front cushion extension. Seat material has a horizontal stitch pattern and is 2-tone in color. Seat back is carpeted. Seat is manufactured by National. Includes inside visor and retractable 3-point matching seat belts. Black seat belts for T700, gray on all other models.

NFPA Compliance Kit: Includes seat occupancy

sensors. Seat belt switches, VDR & seat sensor harness, reflective labels, and a second copy of operators manual.

Driver/Rider seat belts: Red, replace standard.

Driver & Rider NFPA compliant. Includes rider bench seat.

Delete dual driver armrests.

Delete dual rider armrests.

Kenworth radio: AM/FM/weather band. W/LED lighting.

Self-cancelling turn signal: W/head light dimmer switch .

LH & RH NFPA compliant grab handles.

Day lite doors, includes RH peeper window.

Ignition and doors are keyed alike. Electric locks are standard on both cab doors.

Dual convex mirrors 7-1/2 in. w/ offset mounting.

Single convex mirror 8-1/2 in. x 4-7/16 in.
located on rider side.

Mirror: Dual Prutsmann mirror 7 in. x 16 in.
polished stainless steel, thermostatically controlled. switch located on door pad.

Mirror brackets 8-1/2 ft load width.

Manual LH & electric-powered RH door window.
Switch located on door.

Solid rear wall. Deletes rear cab window.

Bidder Complies: ___ Yes ___ No

Lights & Instruments

Headlamps: Low beam dual complex reflector,
high beam halogen.

Marker Lights: Five, rectangular, LED

Turn Signal Lights: Mounted on fender

Combination Stop, Tail, Turn & Backup Lights RH
& LH.

Additional 6ft. Taillamp & ABS Harness: In frame
for beverage body installation.

Daytime Running Lamps.

Body Builder Harness: Provides harness to extend
tail, turn, stop & marker light circuits from standard body
builder connector BOC to the end-of-frame.

Circuit Breakers: Replacing fuses. Does not
apply to any 5-amp fuse box position. Breakers include
stop/brake/turn, tail lamp, high & low beams,
marker/clearance lamps, horn, fuel heat, gauges, wipers, air
dryer, HVAC controls, panel lamps.

Bidder Complies: ___ Yes ___ No

Air Equipment

Air dryer: Bendix AD-SP heated.

Bidder Complies: ___ Yes ___ No

FLUID LEVEL DATA ELECTRONIC DISPLAY

As required by NFPA 1901, section 12-2.3.3, chassis component fluid level data shall be displayed on the dash mounted LCD display screen in the cab. There shall be a separate screen with the appropriate information displayed. Information shall include, at a minimum:

- a. Engine: make, model, serial number, recommended grade of oil, recommended filters with part numbers, recommended maintenance schedule.
- b. Transmission: make, model, serial number, vocation codes, recommended grade of oil, recommended filters with part numbers, recommended maintenance schedule.
- c. Rear Axle: make, model, serial number, recommended weight and type of oil, recommended maintenance schedule.

Bidder Complies: __ Yes __ No

"OCCUPANT MUST BE SEATED & BELTED" WARNING PLATE

A safety warning label shall be installed in a conspicuous location on the cab dash visible to driver and all passengers that conforms to NFPA 1901, section 14-1.3.5. It shall have a universal pictorial warning and verbal warning as follows: "WARNING - Occupants must be seated and belted when apparatus is in motion". It shall be a sub-surface screen printed polycarbonate label with chrome bezel.

Bidder Complies: __ Yes __ No

VEHICLE SPECIFICATION DATA LABEL

A safety warning label shall be installed in a conspicuous location on the cab dash visible to driver and all passengers that conforms to NFPA 1901-2009, section 12.1.5.1 and section 14.1.2. It shall have a verbal warning indication for the following vehicle specification data:

- a. Vehicle Height
- b. Vehicle Length
- c. Gross Vehicle Weight Rating (GVWR)
- d. Vehicle Occupancy Maximum

There shall be a verbal note on the label that states the above data is based the vehicle as manufactured by the manufacturer and that the department shall be responsible for revising the label, if any modifications are done to change the above vehicle data as furnished by the manufacturer.

Bidder Complies: __ Yes __ No

WARNING PLATE - "DO NOT WEAR HELMET WHILE SEATED"

A warning plate shall be installed visible to each seating position that states "DO NOT WEAR HELMET WHILE SEATED". The requirement for this warning plate shall be in compliance with NFPA 1901-2009, Section 14.1.8.4.3.

Bidder Complies: __ Yes __ No

ENGINE EXHAUST LOCATION

The exhaust pipe extension shall exit on the right side of the apparatus body, forward of the rear wheels.

Bidder Complies: __ Yes __ No

PLYMO-VENT ADAPTER

The exhaust shall exit at 90 degrees straight out the side of body, 2" past outer edge of lower rail or body. The Plymo-Vent collar shall be set 3.5" from the end of the pipe.

Bidder Complies: __ Yes __ No

BATTERY CONDITIONER

A Kussmaul 1000 battery conditioner shall be supplied. The remote charge indicator will be located near the receptacle, viewable through the driver's side crew cab window.

Bidder Complies: __ Yes __ No

AUTO-EJECT SHOREPOWER

There will be a Kussmaul Super AutoEject, model 091-159-30-120, 30-amp, 120VAC shoreline inlet with a built-in circuit interrupter provided.

- a. The Super AutoEject will be connected to the vehicle starter switch.
- b. When the engine is started, the AutoEject drives the shoreline connection from the inlet. The electrical inlet will include a red spring-loaded cover to prevent water from entering the receptacle when the shoreline is not connected.
- c. The unit will be completely sealed to prevent contamination of the mechanism, insuring long lasting service.
- d. The entire assembly shall be in a sealed, weatherproof box and line inputs to protect the internal components from corrosive road spray.
- e. A female receptacle compatible with the system shall be provided that permits subsequent connection by the purchaser to a power cord.

Bidder Complies: __ Yes __ No

BATTERY CONDITIONER & AIR BRAKE PUMP SYSTEM

A Kussmaul 091-9B-1 Auto Pump air brake leakage compensator shall be connected to the air brake reservoirs to maintain air pressure while stationary and connected to shorepower. It shall be connected to the shorepower inlet specified herein. During long idle periods of the vehicle, any seepage of air from the air brake system will automatically be compensated by the 120VAC compressor, maintaining the air brake system pressure for immediate response.

Bidder Complies: __ Yes __ No

ENGINE COMPARTMENT LIGHTS

Two (2) minimum 5" engine compartment lights shall be provided under the chassis hood. One will be located on each side of the engine.

Bidder Complies: __ Yes __ No

AUXILIARY RED/CLEAR CAB DOME LIGHT

In addition to the standard chassis manufacturers installed cab ceiling lights, there shall be Havis-Shields model KR-DL red and clear auxiliary cab dome lights installed in the cab ceiling. The light shall be comprised of two (2) 7-watt, 12VDC Xenogen lamps and shall have a manual, push-button switch on each light for both the red and clear functions.

Bidder Complies: __ Yes __ No

CAB STEP LIGHTS

A minimum 4" white ground/step light will be installed under the left and right front cab doors in a neoprene shock-absorbing mount. They will be automatically activated whenever the left and right front cab doors are opened.

Bidder Complies: __ Yes __ No

AIR HORN, STUTTERTONE

There shall be two (2) Grover model 1512 21" Stuttertone air horns installed. They shall be spun brass with a heavy chrome finish.

The air system shall also be equipped with a quarter-turn shut-off valve mounted under the chassis dash panel. The valve shall shut off the air flow to the horns in case of air horn malfunction.

An auxiliary air supply tank will be incorporated into the chassis air brake system behind the "wet" tank. It shall have a minimum of 1454 cubic inch displacement. A one-way check valve shall be placed between this tank and the primary air tanks for the air brake system. The tank shall be dedicated for auxiliary devices such as air horns, utility air hose reels, and various other applications.

An air protection valve shall be provided in the supply line for the auxiliary air tank that will not allow the chassis air brakes system to drop below 85 psi.

Air Horn Switch:

The air horns shall be activated by a heavy duty, LineMaster #491S clam-shell type pedal foot switch located on the left and right cab floor. There shall be a metallic tag with raised letter on the switch that reads "AIR HORNS".

Air Horn Actuation:

A switch, matching all emergency systems switches, shall be installed on the console that permits the driver to select activation of either the chassis OEM horn or air horns from the steering wheel horn button.

Air Horn Disable Mode:

To prevent accidental discharge while the apparatus is stationary, the air horns may not be sounded unless the transmission is in the "drive" mode.

Air Horn Mounting:

To reduce cab interior noise levels, the air horns shall be mounted on the sides of the cab hood, one left and one right. (if applicable, horns shall be mounted in the front bumper extension)

Bidder Complies: __ Yes __ No

FUEL FILLER LABEL

Next to the fuel fill shall be a sub-surface screen printed polycarbonate label with chrome bezel that reads "ULTRA-LOW SULFUR DIESEL FUEL ONLY".

Bidder Complies: __ Yes __ No

STAINLESS STEEL HUB & LUG COVERS

The front hubs shall have Phoenix "Baby Moon" stainless steel covers and the rear hubs high hat stainless steel covers. All lug nuts shall be covered with a set of stainless steel nut covers. Stainless shall be mirror finish. The components shall meet all Federal DOT regulations.

Bidder Complies: __ Yes __ No

TIRE PRESSURE MONITORING

Each tire/wheel assembly shall be equipped with a heavy-duty tire pressure safety cap. Each cap shall provide a visible indicator to indicate when the tire is properly inflated or under inflated by 10%. When properly inflated, a green indicator shall be visible and when under inflated, a red indicator shall be visible. This requirement shall be in compliance to NFPA 1901-2009, Section 4.13.4.

Bidder Complies: __ Yes __ No

EXTENDED FRONT BUMPER

The chassis supplied front bumper shall be extended to accommodate a Q2B siren.

1. It shall be constructed of minimum 50,000 psi steel "C" channel.
2. The channels shall be bolted to the chassis frame rails.
3. Steel outer bracing and platform support structures shall be welded to the outer perimeter to support the tread plate cover and specified equipment.
4. The platform surface will be capable of supporting not less than 1000 pounds of direct

- weight from personnel and/or equipment.
5. The pull load testing shall be rated at not less than 15,000 pounds. The entire structure shall be fully enclosed with a minimum .125" bright aluminum anti-slip surface tread plate, conforming to NFPA 1901, Chapter 11-7.
 6. All edges not formed by machine break shall be continuously seam welded. No unfinished sharp edges shall be exposed beyond the bumper width.
 7. The tow hooks supplied by the chassis manufacturer shall be relocated to the forward ends of the bumper extension.

Bidder Complies: __ Yes __ No

FRONT STAINLESS STEEL BUMPER

The chassis manufacturer's OEM bumper shall be removed and replaced with a bright polished stainless steel bumper measuring 12" high x 1-3/4" deep x 92" wide of cab fenders. The recessed center section, full width of the bumper, shall be adequate to accommodate recessed mounting of speakers and other specified equipment. Due to corrosion and peeling problems associated with use of chromed bumpers, OEM bumper applications are not acceptable.

Bidder Complies: __ Yes __ No

REAR TOW EYE PLATES UNDER BODY

A pair of heavy-duty steel tow eyes, rated to lift and/or pull the rated maximum GVW capacity of the specified chassis, shall be installed under the rear body. They shall be constructed of 1" thick plate steel, 5" wide with 3" circumference hole. They shall extend beneath the body. The plates will be powder-coated black. Standard paint process will not be acceptable.

Bidder Complies: __ Yes __ No

TRAILER HITCH

A trailer hitch receiver that can be rated as Class III and Class V shall be installed beneath the rear bumper directly to the chassis frame rail extensions. It shall be rated at not less than 10,000 lbs. gross trailer weight with a 500 lb. vertical load capacity. A universal weatherproof brake/stop/ tail light connection shall be installed flush on the rear body panel. The hitch installation shall have been tested using industry standard engineering practices. Copy of testing may be required upon request.

Provided with the hitch receiver assembly shall be a Class III hitch that provides a minimum of 13" of vertical adjustment. A chromed 2" ball shall be attached.

Bidder Complies: __ Yes __ No

TRAILER BRAKE CONTROL SYSTEM

A Tenkonsha or equal electrical trailer brake control shall be installed. The control mechanism shall be mounted under the dash to the right of the steering column. All control cables shall be routed inside the frame rails to the rear of the body terminating in a 7-way trailer connector receptacle next to the trailer hitch location.

Bidder Complies: Yes No

BODY & FRAME REQUIREMENTS

FRAME MODIFICATIONS

1. **Requirements:** To maximize the cubic foot displacement for total required storage capacity within all equipment compartments and lower overall body height and resulting center of gravity, the chassis shall be modified with a custom pinched and dropped frame design in order to provide a minimum of 40" of compartment depth throughout the full height of the side compartments, fore and aft of the wheelhousing compartments.

Additionally, the dropped and pinched frame alteration design is required to give the vehicle high torsional strength, high load-carrying capacity, and maximum side-to-side stability. The manufacturer's modification process shall permit the purchaser to lift the front end of the vehicle and tow the apparatus without causing any damage to the frame, cab, body or chassis. The chassis alteration, as completed, shall provide a Resistance to Bending Movement (RBM) if at least 2.8 times that of the original unaltered chassis.

Bidder Complies: Yes No

2. **Modification Documentation:** The bid shall include documentation for strength characteristics of the specified frame modification to the above minimum stress requirements. Documentation shall be in the form of an Aires and Pro-Engineering or equal computer analysis model of a like frame modification. The analysis, at a minimum, shall graphically show stress points with a full calculated load imposed. A written synopsis outlining, in layman's terminology, the frame modification procedures and resulting strength characteristics conducted by the manufacturer shall also be included. Due to long term durability requirements and the stress associated with the intended missions of the apparatus, failure to provide engineering documentation may result in disqualification of the proposal.

Is Engineering Test Documentation included in bid? Yes No

3. **Frame Warranty Requirement:** The pinch/drop frame modification shall be warranted in writing by the manufacturer for a period of not less than the OEM chassis manufacturer's original warranty or 10 years, whichever is shorter. A copy of the warranty shall be included with the Proposal.

Is warranty included with the Proposal?: Yes No

4. Pinch/Drop Frame Construction: The upper pinch frame center structure shall be engineered to support torsional stress between the back of the cab and the rear axle. It shall be constructed, at a minimum, of two (2) 9" x 2-1/2" x 1/4" steel angles inverted for upper chassis support.

The lower drop frame outer structure shall consist of minimum 3" wide x 5" high x 1/4" thick steel tube spaced at standard chassis width for lower chassis support strength and lower body support under floors.

The combination of upper pinch and lower drop is a minimal requirement to provide maximum load strength where off-road and rough road responses are required.

Upper pinch frame rail dimensions: _____" x _____" x _____"
Lower drop frame rail dimensions: _____" x _____" x _____"

5. Frame Headers: The chassis headers forward of the rear axle shall be steel channels 10" deep with a 6" top flange and a 3" bottom flange, all a minimum of 5/16" thick. The chassis headers rearward of the rear axle shall be steel channels 10" deep with a 3" top flange and a 3" bottom flange, all a minimum of 5/16" thick. All channels shall be rated at a minimum of 50,000 psi. All headers and frame rails shall have gusset braces of at least 9 gauge steel.

The rated section modulus shall be not less than 20.7 with a RBM rating of not less than 745,000.

Bidders rated section modulus: _____
Bidders RBM rating: _____

6. Rear Drop Deck Frame: To facilitate full utilization of the storage space behind the rear axle, the rear frame shall be cut behind the spring shackle and a drop deck frame assembly welded in its place. A minimum 1/4" thick 3" x 8" steel header plate shall be welded across the ends of the cut off frame, full width between the outer ends of the frame rails (fully left to right). 8" x 3" steel channel structural supports shall be welded to the ends of the original frame rails, extending downward to the bottom of the specified rear compartment. 5" x 3" tubular steel structural supports shall be welded laterally from the drop structure outward to the end of the specified compartment depth. 3" steel channel lateral supports shall be welded between the left and right extensions. All right angles shall be gusseted with 1/4" steel plating welded to the assembly. The overall strength characteristics shall be rated at a minimum of 10,000 lbs. And support attachments of tow hooks or tow eyes and Class III trailer hitches, if specified herein. The entire assembly shall be cleaned and painted black with a special substructure paint coating process.

Bidder Complies: Yes No

7. Re-Use of Frame Materials: Under no circumstances will the reuse of steel frame materials cut from the chassis frame assembly be reused in the modification process.

Bidder Complies: Yes No

8. Brake Line Requirements: All brake lines shall match those supplied by the chassis manufacturer and shall be attached to chassis with welded studs and rubber insulated straps.

Bidder Complies: Yes No

9. Inspection and Testing Requirements: The chassis shall have a complete inbound and outbound inspection conducted. At a minimum, after completion of all chassis frame modifications, the following test shall be conducted:
- a. Laser axle and wheel alignment check.
 - b. Dynamometer run up test at typical highway speed to check drive line and wheel balance.
 - c. Dynamometer test at typical highway speed under full simulated load over rear axle.
 - d. Sample of testing documentation shall be included with the bid proposal. Actual chassis testing documentation will be provided for the completed apparatus.
- Bidder Complies: __ Yes __ No**

10. Body Isolation: When mounted, the aluminum body shall be isolated from steel chassis using anti-corrosion tape or other equivalent isolation process equal in quality to 3-M Scotch #481, UKA black.
- Bidder Complies: __ Yes __ No**

BODY CONSTRUCTION

The following specifications are meant to be minimum requirements established for the manufacture and delivery of a vehicle supporting emergency incidents, as outlined herein. Exceptions to these minimum standards will be permitted, but will be evaluated based on the bidders understanding and interpretation of the mission, compliance with maximum height and length requirements and minimum storage capacity (cu.ft.) requirements.

The apparatus body shall be a roll-up side door fully enclosed type. The body shall be especially fabricated for severe emergency service duty.

Bidder Complies: __ Yes __ No

WARRANTY

The body construction shall be warranted, in writing from the manufacturer, for a period of not less than ten (10) years against structural failure. A copy of the manufacturer standard warranty shall be included with the bid proposal outlining specifics of warranty and shall take precedent over any and all other warranty requirements, implied or otherwise.

Bidder Complies: __ Yes __ No

REGISTERED ENGINEER VERIFICATION

In order to ensure the integrity of the body, chassis, and adjoining substructures, and to provide a unit that is safe for its operators and the general public, the bid response must show proof, upon request, that the manufacturer of the body designed for this contract has at least one registered

Professional Engineer to oversee the entire design and construction of the unit. The Professional Engineer must hold a current State Board certification.

Bidder Complies: ___ Yes ___ No

MINIMUM CONSTRUCTION REQUIREMENTS

Body shall be constructed from 5000 and 6000 Series alloy aluminum, as noted herein, for high tensile strength and corrosion resistance.

1. **Internal Structure** : At a minimum, the body central structure shall be interlocking, welded framework of 6061-T6 alloy aluminum, including two (2) 6" D longitudinal support channels, six (6) longitudinal 1 1/4" x 3/16" angles, and 6.38" x 1" top cap, connected with a diagonal structure to form a compound beam. A longitudinal structure interlocked with transverse partition framework shall combine to form a solid structural platform. For long-term structural integrity, all imposed loads shall be supported by structural framework. No load shall be carried by covering sheets.

Bidder Complies: ___ Yes ___ No

2. **Compartment Floor** : All exterior compartment floors shall be constructed of a minimum .125" thick 5052-H32 alloy aluminum, except wheelhousing compartments, which shall be a minimum .190" thick 5052-H34 alloy aluminum. The outer edge of all compartments shall be raised 1" above the floor bottom side rail in all side compartments to prevent water from collecting on the floors. The underside of floors shall be reinforced with minimum 2" x 1" 6061-T6 alloy parallel aluminum channels, running full depth of floor and attached at the outside edge with 5" x 5" gussets and at the inside edge with 2" x 3" angle strap. Channel spacing shall be on minimum 12" centers.

Bidder Complies: ___ Yes ___ No

3. **Crash Rail**: The lower skirt area of the body shall be provided with a protective structural rail with integral crash rail not less than 6" high x 2.75" thick. This rail shall serve both as a structural crash rail and rub rail. The design shall permit recessed installation of reflective safety devices or materials and trim, as specified herein.

Bidder Complies: ___ Yes ___ No

4. **Corner Posts**: All structural vertical corner posts shall be constructed of 6061-T6 alloy aluminum extrusions with a minimum 2.88" radius. Due to structural and aerodynamic requirements associated with the intended use of this emergency vehicle, formed corner posts shall not be an acceptable method of construction.

Bidder Complies: ___ Yes ___ No

5. **Roof Rails**: All structural horizontal roof rails shall be constructed with a minimum .75" radius of 6061-T6 alloy one-piece aluminum extrusions at sides, front and rear. They shall be welded as an integral part of the body superstructure. Due to structural and aerodynamic requirements associated with the intended use of this emergency vehicle, formed roof rails shall not be an acceptable method of construction.

All upper structural horizontal roof rails shall be constructed with a minimum 2.88" radius of 6061-T6 alloy one-piece aluminum extrusions at sides, front and rear. The lower structural horizontal roof rails shall be constructed of 6061-T6 alloy one-piece aluminum extrusions at sides. They shall be welded as an integral part of the body superstructure. There shall be a series of vertical channels extending from the lower roof rail to the upper roof rail. The upper side body panels shall be constructed of a minimum .100" thick 5052-H34 one-piece aluminum sheet. They shall extend from the lower roof rail to the upper roof rail and from front to rear of the body. Due to structural and aerodynamic requirements associated with the intended use of this emergency vehicle, formed roof rails shall not be an acceptable method of construction.

6. Corner Caps: Minimum 2.88" radius aluminum corner caps shall be integrally welded at all corners, forming a uniform joint between the vertical body posts and the horizontal roof rails. All seams shall be ground smooth for a finished appearance when painted.

Bidder Complies: ___ Yes ___ No

7. Drip Rail: Full body length heavy-duty extruded 6061-T6 alloy aluminum drip molding shall be provided, a minimum of 2-1/2" high x .75" deep for protection of overhead doors. Drip molding shall be extruded as an integral part of the top side rail for structural and waterproof integrity. Bolted or screwed on installations will not be acceptable.

Bidder Complies: ___ Yes ___ No

8. Roof Structural Supports: The roof shall be supported by a minimum of five (5) solid hollow extrusions measuring a minimum of 2" high x 3" wide 6061-T6 alloy aluminum longitudinal roof supports running full length from the front to rear of body. To further enhance the superstructure, minimum 2" wide x 3" high 6061-T6 alloy aluminum horizontal supports shall be welded to the roof rail between each bay compartment. The support shall be such as to permit the roof structure to support average percentile personnel to walk the full length without severe deformation or structural damage to the roof.

Bidder Complies: ___ Yes ___ No

9. Roof Covering: The roof shall be completely covered with minimum .125" bright aluminum tread plate. Necessary seams where multiple sheets of material are joined shall be welded and sealed.

Bidder Complies: ___ Yes ___ No

10. Roof Insulation: The entire roof shall be insulated with a minimum 1.50" styrofoam with a reflective foil barrier.

Bidder Complies: ___ Yes ___ No

11. Intermediate Vertical Structural Supports: Vertical structural supports located between each exterior compartment shall be constructed of 6061-T6 alloy aluminum extrusions, which shall also serve as the integral compartment door tracks. They shall be a minimum of 2.5" wide with a half oval exterior shape to protect door track from damage. The roll-up door track shall be an integral part of the extrusion, as described herein.

The exterior flange of the door track shall be recessed a minimum of 1/4" from the partition covering to prevent the interference when removing equipment from the compartments, thus allowing full width use and egress from the compartment.

To maximize all useable compartment space and facilitate easy removable of all applicable equipment, the door opening and inner side walls shall be flush (walls are not to be recessed inward of door opening).

Bidder Complies: ___ Yes ___ No

12. Front & Rear Exterior Body Panels: The exterior panels on the front and rear of the body shall be constructed of minimum .190" thick 5052-H34 aluminum sheets. No exposed welds are permitted in the attachment process of either the front or rear panel. The rear panel shall be one-piece design with no seams. They shall be welded to the corner post superstructure. Attachment of these panels with rivets, screws or other types of fasteners is not permitted.

Bidder Complies: ___ Yes ___ No

13. Rear Wheelhousing Filler Panels: The wheelhousing filler panels shall be constructed of a minimum .190" (3/16") thick aluminum plate painted to match the body, unless specified otherwise. The panel shall be welded to the body superstructure around the full perimeter of the wheelhouse opening to form an integral part of the body.

Bidder Complies: ___ Yes ___ No

EXTERIOR COMPARTMENTS

1. Minimum Storage Capacity: The following exterior compartment layout, dimensions, and requirements are minimum specifications. The total cu.ft. storage area must be equal to, or more than, the noted requirements under the compartment schedule herein.

Due to the intended direct loads on the floors, the minimum weight carrying capacities of each compartment, measured directly on the floor, shall be 2300 pounds at floor level for all tall compartments and 3500 pounds for the wheelhouse compartment. Proof of load testing must be included with the bid response.

Is proof of testing including in this response? ___ Yes ___ No

2. Compartment Walls: The compartment wall construction shall consist of an internal structural framework of extruded 6061-T6 alloy aluminum channels covered with a minimum .100" thick 5052-H34 aluminum sheets.

Bidder Complies: ___ Yes ___ No

3. Integral Adjustable Shelf Channels: As applicable, all interior side walls shall be provided with integral adjustable shelf channels compatible with Unistrut hardware. The channels shall be flush with the exterior surfaces and extend to within 10" off the top of the door opening. There will be a minimum of four (4) channels in each exterior compartment, unless specified otherwise herein. Offset requirements may use surface mounted channels, as outlined in the

compartment layout schedule. This system is specified to provide the maximum useable storage space within the compartment from side wall to side wall.

Bidder Complies: ___ Yes ___ No

Bids shall include documentation in the form of photographs or engineering parametric model drawings that depict the proposed recessed track system.

Bidder Complies: ___ Yes ___ No

4. Floor: The floor shall minimum .125" smooth plate aluminum and shall be raised not less than 1" from bottom of door opening allowing the door to close below floor level. Design shall be such as to minimize water entry into the compartment through the bottom door opening when closed.

Bidder Complies: ___ Yes ___ No

5. Wall Finish : Interior of compartments shall be a smooth finish.

Bidder Complies: ___ Yes ___ No

COMPARTMENT DOORS

1. Door Type: All exterior compartment doors shall be roll-up type that can be opened individually.

The exterior compartment doors shall be custom manufactured and built for each compartment by the body manufacturer and/or warranted by the door manufacturer for not less than 10 years. The doors must be able to withstand years of rugged service and wear. For this reason, the compartment door design, metal thickness, and attachments must be strictly adhered to.

Bidder Complies: ___ Yes ___ No

2. Service Requirements: The design shall permit field replacement of individual damaged panels. The door track system shall be designed to permit complete removal of the doors by removal of a section of the door track with conventional hand tools.

Bidder Complies: ___ Yes ___ No

3. Construction Materials: The compartment doors shall be of all-aluminum construction using interlocking slats made from extruded minimum 6063-T6 alloy aluminum. All individual slat edges shall have a minimum .080" radius to minimize paint chipping.

Bidder Complies: ___ Yes ___ No

4. Exterior Surface Finish: All outer door surfaces shall be painted to match the body using the same paint process as outlined in the paint requirements herein.

Bidder Complies: ___ Yes ___ No

5. Due to the critical requirement for maximizing available storage capacity of the body, all roll-up door tracks shall be recessed into the side walls of the compartments (even with the actual

door opening). This requirement will permit slide-out trays to be not less than 1" more narrow than the specified compartment width.

Bidder Complies: ___ Yes ___ No

6. Door Track Rollers: Each door shall be provided with self-lubricating nylon rollers (two in each end of door slat.

Bidder Complies: ___ Yes ___ No

The nylon door rollers shall ride within a replaceable 3-sided poly-vinyl chloride track lining for one-hand glide-open operation and extended wear protection. The inserts shall be designed to allow simple field service.

Bidder Complies: ___ Yes ___ No

7. Door Seals: The bottom door seal shall be solid rubber for durability and top door seal shall be combination felt and plastic. The vertical outer edges shall be equipped with felt weather seal inserts that additionally reduce door rattle.

Bidder Complies: ___ Yes ___ No

8. Door Grab Straps: Due to the full height opening requirements, each door shall be provided with a durable grab strap used to aid in opening and closing door while standing on the ground.

Bidder Complies: ___ Yes ___ No

9. Door Counterbalance: Each door shall have a spring-type heavy-duty counterbalance roller assembly enclosed in the top of the compartment to provide easy, one-handed opening and closing capability. Maximum door lifting or lowering force shall not exceed 25 lbs. At any point in the cycle. This maximum shall permit one-handed lifting and closing of the doors by an average percentile male, allowing the doors to be opened and closed while the other hand is used to handle equipment.

Bidder Complies: ___ Yes ___ No

10. Door Locking Requirements: The locking of compartment doors shall be accomplished with a cam-type positive locking mechanism above each door, controlled with a lock installation with lock handle at front of body, one on each side. Each lock handle to have a keyed lock (keyed alike). All doors on either side of the body shall be locked or unlocked simultaneously with a single lock handle on the left or right side of the front body panel.

Bidder Complies: ___ Yes ___ No

BODY DIMENSIONS & COMPARTMENT LAYOUT SCHEDULE:

All proposals shall require a scaled, computer aided design (CAD) drawing or drawings to be included outlining in detail specifically what is being proposed. The proposal drawings shall include, but not be limited to: left side body and chassis; right side body and chassis; rear of body, front of cab, and top of body roof; with all applicable doors open. Specified shelving, trays, storage racks, major equipment and components (such as: tent, overpack drum, hand carts, air cart,

airshores, Stanley Tool and Petrogen kit, as outlined in the compartment layout schedule) and exterior lighting, shall be shown.

Bidder Complies: ___ Yes ___ No

- 1. Maximum wheelbase of chassis: 270"
- 2. Maximum cab to axle dimension of chassis: 201"
- 3. Maximum length of apparatus: 34.5-ft
Bidders Proposal: _____ "
- 4. Minimum overall length of apparatus body, excluding rear step: 23.5-ft
Bidders Proposal: _____ "
- 5. Minimum overall apparatus width: 96"
Bidders Proposal: _____ "
- 6. Maximum height of apparatus (loaded, including roof mounted options) 138"
Bidders Proposal: _____ "

CONFIGURATION:

NOTE: Compartment width and height dimensions listed below are minimum door pass-thru clearance requirements, not interior dimensions.

Equipment and/or supplies are included only if specified within the document.

NOTE: Any trays and shelves supplied and listed below are subject to following dimension rules:

- Adjustable shelves - 1" less than compartment width to compensate for mounting hardware.
- Slide-trays on floor - 1" less than compartment width
- Adjustable slide-out trays - 1" less than compartment width to compensate for mounting hardware.
- Adjustable slide-out and tilt-down trays - 5" less than compartment width due to mounting hardware and tilting mechanism on tray.

Bidder Complies: ___ Yes ___ No

STREET SIDE (LEFT)

S-1: Forward side compartment with minimum door pass-thru dimensions of:

48" wide x 72" high x 40" deep with painted, roll-up aluminum door.

Bidders Proposal: _____ "W x _____ "H x _____ "D

EQUIPMENT LAYOUT AND MOUNTING

- 1. 25kw PTO generator mounted on floor of compartment within an enclosure or housing to protect the generator and generator components from corrosive road spray (see separate specification for details).

2. Housing panel recessed a minimum of 8" back from door opening providing standing area in front of the generator enclosure for reaching upper storage areas of the compartment. 240/120VAC circuit breaker box will be flush mounted to one side of the face panel. All meters, gauges and specified outlets will be mounted next to the breaker box. Installation of breakers, meters and outlets in this area is required mounted in this manner to provide easy access and unimpeded viewing.
3. 48" wide x 36" deep shelf on top of generator housing that is removable for generator and generator component service access.
4. Two (2) minimum 47" wide x 36" deep adjustable aluminum shelves rated at not less than 500 lbs.
5. One (1) electric rewind cord reel in upper right side

Bidder Complies: ___ Yes ___ No

S-2: Ahead of wheelhousing compartment with minimum door pass-thru dimensions of:

48" wide x 72" high x 40" deep with painted, roll-up aluminum door.

Bidders Proposal: ___ "W x ___ "H x ___ "D

EQUIPMENT LAYOUT AND MOUNTING

1. Space at floor level to storage of a 95-gallon overpack drum with hand-cart.
2. One (1) minimum 47" wide x 36" deep adjustable aluminum shelf rated at not less than 500 lbs.
3. Minimum 48" wide x 14" high x transverse tunnel compartment with drop-down hinged door over opening at the top of the compartment. It will have a divider creating two separate storage areas for Decon and breaching equipment.

Bidder Complies: ___ Yes ___ No

S-3: Ahead of wheelhousing compartment with minimum door pass-thru dimensions of:

48" wide x 72" high x 40" deep with painted, roll-up aluminum door.

Bidders Proposal: ___ "W x ___ "H x ___ "D

EQUIPMENT LAYOUT AND MOUNTING

1. Storage at floor level for inflatable tent
2. Minimum 48" wide x 14" high x transverse tunnel compartment with drop-down hinged door over opening at the top of the compartment. It will have a divider creating two separate storage areas for tripods and other specified long equipment.

Bidder Complies: ___ Yes ___ No

S-4: Wheelhousing compartment with minimum door pass-thru dimensions of:

74" wide x 47" high x 28" deep with painted, roll-up aluminum door.

Bidders Proposal: ___ "W x ___ "H x ___ "D

EQUIPMENT LAYOUT AND MOUNTING

1. Twenty-eight (28) individual open storage bins evenly sized and spaced. The exact sizes and layout of the bins may be changed at the pre-construction conference.

Bidder Complies: ___ Yes ___ No

S-5: Rear of wheelhousing compartment with minimum door pass-thru dimensions of:

48" wide x 72" high x 23" deep with painted, roll-up aluminum door.

Bidders Proposal: ___ "W x ___ "H x ___ "D

EQUIPMENT LAYOUT AND MOUNTING

1. Transverse tripod storage compartment on lower forward floor measuring a minimum of 23" wide x 23" high with hinged door over opening.
2. One (1) heavy duty aluminum partition in center not less than 35" high.
3. Storage space between partition and right side wall for storage of portable SCBA air cart.
4. One (1) adjustable slide-out and tilt-down tray.
5. One (1) minimum 47" wide x 23" deep adjustable shelf

Bidder Complies: ___ Yes ___ No

CURB SIDE (RIGHT)

C-1: Forward side compartment with minimum door pass-thru dimensions of:

48" wide x 72" high x 40" deep with painted, roll-up aluminum door.

Bidders Proposal: ___ "W x ___ "H x ___ "D

EQUIPMENT LAYOUT AND MOUNTING

1. One (1) 61" high x 2" thick x 35" deep vertical partition approximately 28" off forward wall.
2. Chassis battery storage compartment on floor between partition and forward wall with removable door over opening.
3. Minimum 35" deep fixed shelf on top of battery compartment.
4. Storage between partition and left side wall for Petrogen rescue kit.
5. One (1) minimum 36" deep adjustable shelf above Petrogen rescue kit.

Bidder Complies: ___ Yes ___ No

C-2: Ahead of wheelhousing compartment with minimum door pass-thru dimensions of:

48" wide x 72" high x 40" deep with painted, roll-up aluminum door.

Bidders Proposal: ___ "W x ___ "H x ___ "D

EQUIPMENT LAYOUT AND MOUNTING

1. Minimum 48" wide x 14" high x transverse tunnel compartment with drop-down hinged door over opening at the top of the compartment. It will have a divider creating two separate storage areas for Decon and breaching equipment.
2. One (1) minimum 47" wide x 35" deep slide-out tray on floor rated at 1000 lbs. for storage of Stanley Power Unit and breakers.
3. One (1) minimum 47" wide x 36" deep adjustable shelf above Stanley Tool rated at 500 lbs.
4. Mounting brackets for Stanley tool accessories.
5. Extendable hoisting winch with 500 lb. capacity (electric) for hoisting Stanley hydraulic tool from storage tray

Bidder Complies: ___ Yes ___ No

C-3: Ahead of wheelhousing compartment with minimum door pass-thru dimensions of:

48" wide x 72" high x 40" deep with painted, roll-up aluminum door.

Bidders Proposal: ___ "W x ___ "H x ___ "D

EQUIPMENT LAYOUT AND MOUNTING

1. Minimum 48" wide x 14" high x transverse tunnel compartment with drop-down hinged door over opening at the top of the compartment. It will have a divider creating two separate storage areas for tripods and other specified long equipment.
2. One (1) vertical partition approximately 26" off forward wall extending from floor to beneath upper tunnel.
3. Slide-out rack between forward wall and partition for storage of Paratech (Trench 12 kit) airshores (see separate specification).
4. Three (3) minimum 35" deep adjustable shelves between partition and left side wall.

Bidder Complies: ___ Yes ___ No

C-4: Wheelhousing compartment with minimum door pass-thru dimensions of:

74" wide x 47" high x 60" deep with painted, roll-up aluminum door.

Bidders Proposal: ___ "W x ___ "H x ___ "D

EQUIPMENT LAYOUT AND MOUNTING

1. Minimum 45" high x 58" deep partition approximately 52" off forward wall.
2. One (1) minimum 50" wide x 60" deep slide-out tray on floor between partition and right side wall rated at 1000 lbs.
3. One (1) minimum 50" wide x 60" deep adjustable shelf between partition and right side wall.
4. One (1) minimum 45" high x 58" deep slide-out tool board centered between partition and left side wall.

Bidder Complies: ___ Yes ___ No

C-5: Rear of wheelhousing compartment with minimum door pass-thru dimensions of:

48" wide x 72" high x 24" deep with painted, roll-up aluminum door.

Bidders Proposal: ___ "W x ___ "H x ___ "D

EQUIPMENT LAYOUT AND MOUNTING

1. Transverse tripod storage compartment on lower forward floor measuring a minimum of 23" wide x 23" high with hinged door over opening.
2. Three (3) minimum 47" wide x 23" deep adjustable shelves rated at minimum 500 lbs.
3. One (1) Hannay electric rewind cord reel

Bidder Complies: ___ Yes ___ No

REAR OF BODY (Back):

B-1: Rear or back of body compartment with minimum door pass-thru dimensions of:

42" wide x 72" high x 48" deep with painted, roll-up aluminum door.

Bidders Proposal: ___ "W x ___ "H x ___ "D

EQUIPMENT LAYOUT AND MOUNTING

1. Heavy-duty tool box with four (4) slide-out drawers on floor. Each drawer to have adjustable partition.
 - a. Three (3) minimum
 - b. One (1) minimum
2. 42" wide x 48" deep fixed shelf on top of tool box.
3. Two (2) minimum 41" wide x 48" deep adjustable shelves rated at a minimum 500 lbs.

Bidder Complies: ___ Yes ___ No

RECESSED ROOF PLATFORM & STORAGE AREA

The body shall extend above the roll-up doors to form a minimum 87" wide x 276" long x 18" deep (interior dimensions) storage area recessed on the roof of the body.

- a. The construction shall be integral to the body design and not an "add-on" assembly. The outer side panels shall be of minimum 3/16" aluminum. The interior side walls and roof top floor shall be covered with minimum .125" aluminum plate supporting the stored equipment and two average percentile adult males with full gear.
- b. A minimum 1" drain hole will be provided on the left and right side of the front of the roof for water drainage.
- c. A chrome cowl duct shall be provided on the exterior front of the body to cover the holes.
- d. A minimum 20" wide opening will be provided on the right rear of the upper body to provide ladder access to the roof walkway.
- e. Walking surface shall be aluminum non slip treadplate.

Bidder Complies: ___ Yes ___ No

ROOF STORAGE COMPARTMENTS

The roof storage compartments shall be integral to the recessed roof construction. The compartments shall be framed using a minimum 2" x 1" structural aluminum tubing welded in a matrix frame. The exterior sidewalls shall be covered with minimum .125 bright aluminum tread plate.

The compartment lids shall meet the following minimum requirements:

- a. Each lid will be lift-up type compartment door hinged on the outboard side fabricated from .125 aluminum tread plate with a minimum 1-1/2" lip around the perimeter.
- b. A box-pan will be installed beneath the lid providing recess mounting for compartment lighting and protected routing of light wiring harness. The box-pan will run full length of the

lid and also act as a sifter preventing the lid from twisting and providing a good seal around the perimeter.

- c. The lids will have a pneumatic type cylinder hold open device on each end. 1/4" stainless steel, full-length pin type hinges will be installed.
- d. Closed cell neoprene rubber bulb-type gaskets will be provided around the perimeter of the lid to provide a good seal when closed.
- e. Each corner of the bottom of the compartment will have a minimum 3/8" drain hole.
- f. Vents will be installed in the side of each compartment. Size and location will be as determined and approved at the pre-construction conference.

Compartments:

1. Left (street) side: Minimum 243" long x 30" wide x 20.5" high with three (3) equal lift-up lids.
2. Right (curb) side: Minimum 207" long x 30" wide x 20.5" high with two (2) equal lift-up lids.
Compartment will be set back from roof access ladder landing zone not less than 25".
3. Forward: Minimum 87" long x 28" wide x 20.5" high with single lift-up lid.

Bidder Complies: ___ Yes ___ No

REAR WHEEL OPENING FENDERETTES

Removable mirror finish stainless steel fenderettes shall be attached to the rear wheel opening filler panels. They shall be minimum 12-gauge 304 stainless with a radius flare. Polished aluminum or other types of materials are not acceptable.

Bidder Complies: ___ Yes ___ No

STONE GUARDS, FRONT & REAR CORNER POST

The lower front and rear body corner posts shall be protected with bright aluminum tread plate shaped to fit the rounded corners. The front guards shall line up visually with the bright tread plate on the cab steps (when applicable). The tread plate shall additionally extend, at the same height, inward on the body to cover the lower body skirt. They shall be attached using round-head drive-rivets. All edges shall be sealed with silver, non-hardening sealant to prevent corrosive agent build-up between the plates and the body.

Bidder Complies: ___ Yes ___ No

REAR STEP BUMPER

Bolted to the rear frame supports shall be step bumper constructed to channel steel designed to support a minimum of 600 lbs. of combined weight. It shall be covered with minimum .125" bright aluminum tread plate that includes a punched multi-directional, aggressive gripping surface forming a platform a minimum of 11" deep and minimum 90" wide. The gripping surfaces shall be circular in design, a minimum of 1" diameter and on centers not to exceed 4".

There shall be a warning label mounted above the rear step that reads as follows: "DANGER - DO NOT RIDE ON REAR BUMPER/STEP WHILE VEHICLE IS IN MOTION. DEATH OR SERIOUS INJURY MAY RESULT."

Bidder Complies: ___ Yes ___ No

REAR WHEEL STEP BARS

There shall be an aluminum step bar installed across the roadside (left) and curbside (right) rear wheel openings, extending from front and rear lower crash rail. They shall be bolted in place using non-corrosive bolts and lock nuts to facilitate removal of rear wheels. An extruded aluminum anti-slip foot pad shall be welded integrally to the bar in the center measuring a minimum of 12" wide. The top surface shall be ribbed for safety.

Bidder Complies: ___ Yes ___ No

WHEEL CHOCKS

Two (2) ZICO model SAC-44 Quik Choc collapsible wheel chocks shall be provided. They shall be mounted in ZICO SQCH-44-H holders located under the left body, one forward and one rear of wheels.

Bidder Complies: ___ Yes ___ No

LICENSE PLATE FRAME

Located on the rear body panel shall be a Cast Products #C30004 surface-mount lighted license plate frame. It shall have a polished aluminum finish around the outer flange and bead blasted inner finish.

Bidder Complies: ___ Yes ___ No

REAR MUD FLAPS

A pair of heavy duty black rubber mud flaps shall be bolted to the rear wheelhousing behind the rear wheels.

Bidder Complies: ___ Yes ___ No

COMPARTMENT FOLD-DOWN PLATFORM STEPS

Compartments #1, #2, and #3 roadside (left) and compartments #1, #2, and #3 on the curbside (right) shall have fold-down steps installed that permits safe equipment access to the upper reaches of the corresponding compartments.

Each platform step shall be rated to support not less than 500 lbs of direct force in the fully extended position. The platform surface shall be constructed of expanded aluminum that permits safe standing with mud or snow impacted boots with a minimum 11" deep surface area.

The platform shall be held in the stored position utilizing pneumatic springs that also assist in the deployment and storage process. The springs shall be installed inside the compartment wall and

shall not be exposed or exterior surface mounted. No exception on this requirement. The entire assembly shall be easily services by removal of service access plates in the side walls.

Bid shall include photos or brochure of a typical proposed installation.

Bidder Complies: ___ Yes ___ No

Photos of typical installation included: ___ Yes ___ No

RECESSED ADJUSTABLE SHELF TRACK

As applicable, all interior side walls shall be provided with integral adjustable shelf tracks or channels compatible with Unistrut hardware. The channels shall be flush with the exterior surfaces and extend to within 10" off the top of the door opening. There will be a minimum of four (4) channels in each exterior compartment, unless specified otherwise herein. Offset requirements may use surface mounted channels, as outlined in the compartment layout schedule. This system is specified to provide the maximum useable storage space within the compartment from side wall to side wall.

Bidder Complies: ___ Yes ___ No

SHELVING

All specified shelving shall be constructed of not less than 3/16" (.188") 5052-H32 aluminum with a minimum 500 lb. equalized weight rating for each shelf. They shall have minimum 1-1/2" high flanges/lips on all sides. The flanges shall be open in each corner to permit drainage.

Bidder Complies: ___ Yes ___ No

SLIDE-OUT TRAY - 1000# CAPACITY

As specified in the compartment layout schedule, there shall be trays rated at not less than 1000 lb. capacity using SlideMaster brand slides. The rails shall extend 100% of rail platform depth. A latching device shall be provided that secures the tray in the opened and closed position. The slider rails with be black textured powder-coated to prevent corrosion. All four corners will be welded. 3/8" drains holes will be provided in the left and right rear corners. Tray construction will be from minimum 5052-H34 3/16" (.190) thick aluminum. Yellow/Black safety stripe tape will be applied to each side of all trays.

Bidder Complies: ___ Yes ___ No

SLIDE-OUT & TILT-DOWN TRAYS

As specified in the compartment layout schedule, there shall be combination slide-out and tilt-down trays with a minimum 500 lb. distributed weight capacity and 250 lb. at the extended and tilted position. The tray shall be capable of tilting downward a minimum of 30 degrees and extend outward 90% of the tray depth. They shall be attached to Unistrut adjustment hardware to permit universal positioning within the compartment. A latching device shall be provided that secures the tray in the closed or opened position. The slider rails with be black textured powder-coated to prevent corrosion. All four corners will be welded. 3/8" drains holes will be provided in the left and right rear corners. Tray construction will be from minimum 5052-H34 3/16" (.190) thick aluminum. Yellow/Black safety stripe tape will be applied to each side of all trays.

Bidder Complies: ___ Yes ___ No

COMPARTMENT VERTICAL PARTITION

A vertical compartment partition shall be permanently installed, as outlined in the compartment layout schedule. For strength, the partition shall have a 2" inner structural frame and be covered on both sides with a sheet of minimum .080" aluminum. It shall have a rounded vertical face. Common sided, single sheet, partitions are not permitted.

Bidder Complies: ___ Yes ___ No

COMPARTMENT PARTITIONS

All specified partitions shall be permanently installed, as outlined in the compartment layout schedule. For strength, the partition shall have a 2" inner structural frame and be covered on both sides with a sheet of minimum .080" aluminum. It shall have a rounded vertical face. Single sheet partitions are not permitted.

Bidder Complies: ___ Yes ___ No

SPRING-LOADED QUICK-RELEASE RESTRAINING BARS

There shall be a restraining bar provided in Compartment S-2 and S-3 to secure the overpack drum/hand-cart and inflatable tent that secures the equipment from sliding against the roll-up door. The bars shall be the full width of the storage area and have spring-loaded latching pins on the end. The design shall permit easy removal and installation by one person using gloved hands. The spring-loaded pins shall be secured into receiver plates fastened to the side walls.

Bidder Complies: ___ Yes ___ No

SLIDE-OUT TOOL DRAWER ASSEMBLY

Located in the designated compartment will be a drawer system with four slide-out drawers. The assembly shall be constructed of galvanized steel. Each drawer face shall have a red powder-coated finish. The drawers will be mounted on 500# capacity heavy-duty ball-bearing sliders and shall include four removable dividers for each drawer. A single T-style handle shall provide ease of operation for control of the two-point drawer latch. The handle will have a chrome finish. Drawer sizes will be as follows:

- a. two (2) at the top - 4" high x 37" wide x 20" deep
- b. two (2) at the bottom - 8" high x 37" wide x 20" deep

Bidder Complies: ___ Yes ___ No

STORAGE CUBICLES

The left (street) side wheelhouse compartment - S-4 - shall be equipped with twenty-eight (28) minimum 10" wide x 10" high x 28" deep storage cubicles. They shall be constructed of minimum .160 aluminum plate welded as a single module.

The divider panels must be capable of being removed and adjusted, as required if configuration requirements change.

Bidder Complies: ___ Yes ___ No

AIR BAG STORAGE SLOTS

There shall be four (4) horizontal air bag storage slots in the top of Compartment C-1. Each slot shall be a minimum of 48" wide x 4" high x 38" deep. They shall be constructed on minimum .190 aluminum plate with a DA finish.

Bidder Complies: ___ Yes ___ No

BATTERY STORAGE COMPARTMENT

Located at the bottom forward section of the right front compartment (#C-1) shall be an enclosed battery compartment for the chassis batteries. The batteries shall be mounted on a slide-out tray for service access. A removable door will be placed over the opening. The compartment shall be vented to the bottom of the compartment.

Bidder Complies: ___ Yes ___ No

TRANSVERSE STORAGE TUNNELS

An enclosed storage tunnel constructed of minimum 1/8" 5052-H32 aluminum shall be installed in the upper section of S-2/C-2 and S-3/C-3 compartments that will accommodate customer supplied equipment. Each tunnel will have a center divider. All equipment shall be retrievable from either side of the apparatus. A hinged retaining door with spring-loaded latch shall be provided over each opening to prevent the equipment from sliding out of the compartments. The exact size of the tunnels shall be determined at the pre-construction conference.

Bidder Complies: ___ Yes ___ No

RESCUE TRI-POD STORAGE COMPARTMENT

An enclosed, tunnel style storage compartment constructed of minimum .160 5052-H32 aluminum shall be installed in S-5/C-5 rear compartment against the back wall at floor level that will accommodate one (1) rescue tri-pod assembly. It shall be a minimum of 14" wide x 14" high x 88" deep. The tri-pod shall be retrievable from either side of the apparatus. A hinged retaining door with spring-loaded latch shall be provided over each opening to prevent the equipment from sliding out of the compartment.

Bidder Complies: ___ Yes ___ No

TOOL BOARD

A two-sided slide-out tool board shall be installed in Compartment C4 in the aft section, that permits flexible mounting of shovels, brooms, axes, pry bars, hand tools and other equipment on both sides. It shall be not less than 56" deep and full compartment height. The board shall be constructed of 7-ply 3/4" plywood. It shall be stained and coated with a smooth finish of polyurethane. The front vertical edge shall be trimmed with a "C" shaped aluminum extrusion to prevent damage. It shall be mounted on sliders in the bottom of the compartment rated at a minimum capacity of 500 lbs. that permits the board to slide 70% of the slider depth out of the

compartment. The upper section of the board shall glide between runners for support. Yellow/Black safety stripe tape shall be applied on the left and right sides for visibility when fully extended.

Bidder Complies: ___ Yes ___ No

STRUT SLIDE-OUT STORAGE RACK

One (1) slide-out storage rack for vertically mounting an assortment of air struts shall be installed in Compartment C-3, as outlined in the compartment layout schedule. It shall measure a minimum 28" wide x 35" deep x 58" high and be attached to a bottom mounted slider assembly rated at 1000 lbs. The center partition for bolting the strut brackets shall be a minimum of 1" thick with inner tubular superstructure framing and supported at the base of the slide-out tray by support gussets welded to the partition and floor of the tray. A pull-out handle shall be provided on the face of the partition. The assembly design shall permit the operator to lock the tray in the closed or fully opened position. The tray must be capable of extending completely out of the compartment to permit easy removal of all struts. Yellow/Black safety stripe tape shall be applied on the left and right sides for visibility when fully extended. Struts will be mounted after delivery by Monroe County.

Bidder Complies: ___ Yes ___ No

STANLEY POWER TOOL BREAKER STORAGE

Two (2) sets of tubes will be installed at an angle on the slide-out tray on each of of the Stanley Hydraulic Power Unit for storage of Stanley Power Tool breakers. The assembly shall use tubes not less than 8" in circumference and 30" deep. The tubes will be designed to permit the "T" handles to sit inside slots on the ends of the tubes to prevent them from rotating during transit. A drawing of the proposed installation is required with the proposal.

Bidder Complies: ___ Yes ___ No

INTERIOR WINCH/HOIST

An electric powered extendable hoisting winch rated at a minimum of 500 lbs. shall be installed in the upper area of the designated compartment, for removal of the Stanley hydraulic unit from it's rollout storage tray. The winch must have remote control capabilities.

Bidder Complies: ___ Yes ___ No

SAFETY STRIPPING ON SLIDE-OUT COMPONENTS

Any tray, partition/toolboard, ramp, drawers or other attached movable objects that slides out of any compartment shall have yellow/black reflective safety stripping on the lower edge and outer vertical edge on both sides. Safety stripping applied on horizontal edges will extend the full length of the component.

Bidder Complies: ___ Yes ___ No

ROOF ACCESS LADDER

OSHA compliant roof access ladder designed to bolt into the superstructure reinforcements on the rear of the body. It shall extend above the body a minimum of 7" to 8" to permit safe access on and off the roof. The vertical rails shall be knurled aluminum that provides an anti-slip, comfortable grip with both bare and gloved hands. Each ladder run shall be designed to prevent foot slippage under all type of weather conditions using individual open-grate steps. They shall be spaced a maximum of 12" between top of one run to top of next run. Overall width shall not be less than 19". Vertical structural tubing shall be minimum 1-1/4" aluminum.

Bidder Complies: ___ Yes ___ No

WARNING LABEL

A warning label shall be installed on body at top ladder rung that reads "CAUTION - Roof is not a walking-working surface. Properly restrained cargo-storage area only".

Bidder Complies: ___ Yes ___ No

SCBA SPARE BOTTLE WHEELHOUSE STORAGE TUBES

Located in the roadside and curbside rear wheelhousing shirts shall be storage compartments for spare SCBA bottles. Each compartment will have two (2) bottle tubes. The tubes shall be constructed of minimum seamless Schedule 80 PVC. The tubes will be pitched downward to minimize sliding and provide drainage. A single stainless steel, hinged door will cover the opening and be secured with a thumb-release type latch. Each tube shall be capable of holding 60 minute SCBA cylinders.

Bidder Complies: ___ Yes ___ No

MONROE COUNTY SUPPLIED EQUIPMENT MOUNTING

An allowance of \$5,000.00 shall be included in the contract price to cover the cost of mounting rescue tools and equipment utilizing, where applicable, PacTrac kits. Equipment to be furnished by Monroe County and installed by the contractor will be determined at the pre-construction conference. Estimated cost of this service will be agreed upon during that meeting with any unused funds deducted from final invoice.

Bidder Complies: ___ Yes ___ No

PAINT & GRAPHICS REQUIREMENTS

BODY PAINT

1. The final finishing of this apparatus shall meet or exceed automotive standards, as follows:
 - a. Minimum paint thickness shall be 2.6 mils, as measured by a Labotron film thickness gauge.
 - b. Paint surface smoothness shall meet a minimum standard of 85 (on a scale of 100) as measured by Positector Model 3000 smoothness gauge, which measures the smoothness of the coat and quantifies the presence of orange peel and other irregularities in the surface.

- c. Paint coat Distinctness-of-Image (DOI) shall meet a minimum standard of 75 (on a scale of 100) as measured by an ATI Systems, Inc. DOI meter, which measures the ability of the paint application to reflect images as a mirror does.
2. All primers and paint shall be 100% lead free.
3. The apparatus shall be fully sanded on all exterior surfaces with not less than 180 grit to assure removal of all imperfections in metal surface. All surfaces shall be de-greased before and after sanding.
4. All surfaces shall be primed with self-etching zinc-chromate based primer. No liquid etching solutions may be used in order to prevent residual solution from leeching under paint edges and causing flaking.
5. The unit will be completely sanded following first primer coat with no less than 320 grit so that the top coat of paint can be applied to a smooth surface. All surfaces shall receive a second filler coat of primer.
6. The entire apparatus shall then be painted with SIKKENS acrylic urethane.
7. After proper curing time, the body and doors shall be lightly sanded to remove all orange peel and blemishes and then machine polished. A final urethane base polish shall be applied to seal the surface and remove sand scratches and polishing swirls. The final finish shall be free of orange peel and have a mirror finish.
8. The apparatus body shall be painted separately while unmounted to insure full coverage.

Bidder Complies: ___ Yes ___ No

The lower body and cab shall be painted red.

The upper body and cab shall be painted white.

Exact break lines and paint codes shall be provided at the pre-build conference.

Bidder Complies: ___ Yes ___ No

TOUCH-UP PAINT

One (1) quart of touch-up paint shall be provided for each color applied to the apparatus.

Bidder Complies: ___ Yes ___ No

INTERIOR COMPARTMENT FINISH

The interior walls and exteriors of permanently installed welded partitions shall be finish coated with Zolatone. It shall be light gray with contrasting speckles. The finish shall be resistant to scratches, fuel, organic solvents, chlorine and other common chemical spills. All detachable equipment and components shall be installed after the application of the coating material.

Bidder Complies: ___ Yes ___ No

UNDERCARRIAGE COATING

After the apparatus has been painted, the entire undercarriage of the chassis frame, cab and body shall be spray coated with a heavy black paint. Coating shall not be applied to exhaust or drive-line

components or frame-mounted apparatus components, except brackets or permanently attached equipment.

Bidder Complies: ___ Yes ___ No

CAB AND BODY ACCENT STRIPE

A cab and body Scotchlite reflective stripe, 6" minimum in width, shall be applied extending in as straight a line as possible from the front fenders of the cab down the left and right sides of the body and across the rear of the body meeting minimum NFPA requirements.

Bidder Complies: ___ Yes ___ No

CHEVRON REAR BODY STRIPING

The rear body panels, including the rear door, shall be fully covered with a ruby red #82 and yellow #81 or ruby red #82 and fluorescent yellow #23 (as determined at the pre-construction conference) reflective Chevron stripe in an alternating pattern at 45-degree angles. The angles shall intersect in the center of the door.

Bidder Complies: ___ Yes ___ No

FRONT OF CAB STRIPPING

A minimum 4" high reflective Scotchlite stripe shall be installed across the front of the cab area covering a minimum of 40% of the frontal zone meeting minimum NFPA1901 requirements. Exact location and color will be determined at the pre-construction conference.

Bidder Complies: ___ Yes ___ No

REFLECTIVE LETTERING WITH SHADOW AND OUTLINE

Eighty (80) 3" high and sixty (60) 12" high reflective letters shall be applied. Each letter shall have a left-hand drop shadow and right-hand outline. Lettering shall be determined at the pre-construction conference.

Bidder Complies: ___ Yes ___ No

FIRE DEPARTMENT LOGOS

Monroe County shall supply the manufacturer vinyl logos to be installed on the apparatus, as determined at the pre-construction conference.

Bidder Complies: ___ Yes ___ No

12VDC ELECTRICAL SYSTEMS

A. GENERAL REQUIREMENTS:

The following specifications are intended to provide minimum guidelines for the apparatus 12-volt electrical power systems. The system shall utilize current industry state-of-the-art multiplexing technology. Any deviations from these minimums must be clearly noted and defined under the "Exceptions" requirements of this bid proposal. Since the specified system utilizes open-market components and are available to all apparatus manufacturers, exceptions to the general design requirements are not acceptable. Any exceptions shall be explained by the applicable paragraph. Bids taking total exception to these minimum requirements will be subject to rejection.

Bidder Complies: ___ Yes ___ No

B. WIRING REQUIREMENTS:

1. The complete 12-volt wiring system and electrical appliances shall be to modern automotive and NFPA 1901 minimum standards throughout the installation. The system will comply with all appropriate SAE J1939 and/or J1708 recommended practices. The manufacturer shall supply an installation and components that provides for easy diagnostics and serviceability of the system.

Bidder Complies: ___ Yes ___ No

2. All required DC power conducting wiring shall be of stranded copper wire of adequate gauge for the function served so as to ensure voltage drop of less than one volt at the appliance under full amperage load. Any wiring routed through the engine compartment, within 18 inches proximity of any exhaust components or other high heat components shall be not less than GXL. As specified, any required strobe lights shall be wired using shielded cable, as recommended by the light manufacturer.

Bidder Complies: ___ Yes ___ No

3. Any required signal conductors shall be shielded twisted pairs rated by the system manufacturer to carry the multiplex command signals from the switch panel to the control modules.

Bidder Complies: ___ Yes ___ No

4. The wiring shall be routed in protective nylon HTZL Type 6 300 degree F. Rated loom in all areas. All wiring shall be specially harnessed with wire ties and, where not routed through grommets, shall be clipped to body members with vinyl coated harness clips.

Bidder Complies: ___ Yes ___ No

5. Where wire passes through sheet metal, rubber grommets shall be used to protect both wiring and wire looms.

Bidder Complies: ___ Yes ___ No

6. Primary wiring harnesses shall be bench assembled and connections machine welded. Where crimp connections are necessary, the connections shall be made using AMPS or equal connectors with heat-shrink insulators.

Bidder Complies: ___ Yes ___ No

C. MULTIPLEXED ELECTRICAL MANAGEMENT SYSTEM:

1. General Overview Requirements:

The apparatus shall be equipped with a fully multiplexed electrical system, no exception. The system shall be compatible with the chassis supplied multiplexed electrical system and fully interfaced using the same diagnostics.

It shall be a peer-to-peer network consisting of all solid state nodes. Each node shall have the ability to control its own inputs and outputs. All inputs and outputs will be configured into a scalable electrical harness utilizing Deutsche connectors. The nodes must be weatherproof and not require special mounting requirements away from wet environments.

The system, at a minimum, shall be capable of performing the following functions: load management sequencing, switch loads, receive digital and analog signals, perform and report diagnostics, continuously report vehicle status and the system shall be expandable.

"Real Time" data must be capable of being reported and displayed through dedicated operator interface modules.

The multiplex system shall be easily field re-programmable and re-configurable by either the factory or a factory authorized service center.

The system shall have the following minimum features:

- a. Total load management
- b. Load shedding capabilities (*will begin load shedding when voltage drops below selected level after a 2-minute period per output.*)
- c. Load sequencing capabilities
- d. "On-board" diagnostics readout
- e. Error reporting
- f. Full color graphics data display
- g. Continuous system monitoring and reporting
- h. Emergency warning light flasher
- i. Door ajar warning system
- j. Real time clock

Bidder Complies: ___ Yes ___ No

2. Message Capabilities: The multiplex system shall have the capability to display diagnostics messages such as short or open circuits. The system shall display load shedding levels and also display when a compartment door is not secure or other equipment is not properly stowed, such as light tower.

Bidder Complies: ___ Yes ___ No

3. Real-time Diagnostics: The system shall provide instant message feedback based on an output failure (i.e: burned out bulb or electrical short). The error message shall remain displayed until such time as the "acknowledge" button is depressed. The output shall turn off whenever there is a short circuit or over current condition and shall not reactivate until the system power is reset.

Bidder Complies: ___ Yes ___ No

4. PC Diagnostics: The system shall incorporate a feature that enables a service representative to troubleshoot, repair and replace nodes in the system, should they for any reason fail. It will be run via a PC interface and will monitor all system information. All messages going across the communications bus must be seen on the screen, including analog information. Each node must be capable of being queried for its own voltage drop and capable of obtaining the status of all inputs and outputs from the diagnostics interface.

Bidder Complies: ___ Yes ___ No

5. PC Programming: The system must be programmable at the factory in a language that can be downloaded to a remote service representative's PC or down loader tool with all OEM data, as programmed for this specific apparatus and allow field reprogramming changes as provided by the apparatus manufacturer.

Bidder Complies: ___ Yes ___ No

6. System Troubleshooting Guide: A troubleshooting guide must be provided with each delivered apparatus, placed within the Owner's Manual. The guide shall outline, in simplistic language, how to perform system diagnostics and troubleshooting and how to reset default circuits.

Bidder Complies: ___ Yes ___ No

D. EMI/RFI PROTECTION:

The electrical system proposed will include means to control undesired electromagnetic and radio frequency emissions. State of the art electrical system design and components will be used to insure radiated and conducted EMI (electromagnetic interference) and RFI (radio frequency interference) emissions are suppressed at their source.

The apparatus proposed will have the ability to operate in the electromagnetic environment typically found in fire ground operations. The contractor will be able to demonstrate the EMI and RFI testing has been done and meets SAE J551 requirements.

EMI/RFI susceptibility will be controlled by applying immune circuit designs, shielding, twisted pair wiring and filtering. The electrical system will be designed to full compatibility with low-level control signals and high-powered two-way radio communications systems. Harness and cable routing will be given careful attention to minimize the potential for conducting and radiated EMI/RFI susceptibility.

Bidder Complies: ___ Yes ___ No

E. CONSOLE CONTROLS & FUNCTIONS:

1. A combination switch and color visual display panel controlling electrical appliances and equipment installed on the chassis and body shall be centrally located in the cab within easy access to the driver. It shall measure not more than 10.25" wide by 7.75" high and be capable of installing in any area of the cab that is convenient to the driver and/or officer positions.

A full color display shall be visible in direct sunlight, but shall not be overpowering during night operations. Once the headlights are activated the screen shall automatically dim to 50% of its intensity so as not to interfere with night driving operations.

Additionally, the display screen will have, as a minimum, the following displays

- a. System diagnostic controls and alpha/numeric readouts for displaying system defaults or failures
- b. Compartment Open warning graphics - overhead color depiction of apparatus cab and body that graphically displays which doors are not secured. For safety purposes, the following minimum scenario shall be provided: When the apparatus is in the neutral (or parked) mode, the overhead view graphic display of the apparatus will depict which door(s) are open. Once the apparatus is placed into the drive mode a scrolling message shall appear across the top of the Vista display screen and the overhead view graphic display of the door(s) that are open will flash. A beeping sound will also be activated as a secondary warning to the driver of unsecured door(s).

Bidder Complies: ___ Yes ___ No

2. The control panel shall have four switches on each side of the LCD display screen that performs the following minimum functions:

LEFT SIDE SWITCHES & LCD DISPLAY:

- a. LEFT SCENE LIGHTS (*activates all left 12VDC scene lights*)
- b. RIGHT SCENE LIGHTS (*activates all right 12VDC scene lights*)
- c. REAR SCENE LIGHTS (*activates all rear 12VDC scene lights*)
- d. GENERATOR ACTIVATION (*activates PTO and engine fast idle to preset minimum RPM for proper operation of engine and PTO devices*)

RIGHT SIDE SWITCHES & LCD DISPLAY:

- a. VISTA ACK (*overrides Vista alarms*)
- b. TRAFFIC ADVISOR (*activates second screen with individual switches functions for various traffic warning patterns*)
- c. SPARE
- d. BACKUP CAMERA (*activates automatically in reverse mode or with manual override*)

3. Switch functions shall be provided adjacent to each switch on the display screen. When activated, the nomenclature display button shall change colors to instantly identify that the circuit has been activated.

4. Lower panel switches below the color LCD monitor display as follows:
 - a. E-MASTER (*activates all pre-set emergency response warning lights*)
 - b. BLOCKING OVERRIDE (*deactivates all blocking lights in Zone A or reactivates lights that have shut down in the blocking mode for emergency discretionary purposes*)
 - c. HOME (*returns the currently displayed screen back to the "Home" screen location*)
 - d. SYSTEM INFO (*displays system diagnostic menus*)
 - e. SERVICE INFO (*displays chassis make, model and serial number; engine and transmission serial numbers; oil capacities; service interval recommendations; other information required for routine maintenance; body builders serial number, dealer and/or service contact info; and other pertinent information that may be deemed necessary.*)
 - f. SPARE
 - g. HORN/SIREN (*overrides chassis horn button switch to activate designated warning device*)

Bidder Complies: ___ Yes ___ No

F. MINIMUM OPERATIONAL SCENARIO TO BE CONTROLLED BY THE MULTIPLEX SYSTEM:

1. Warning Light Activation: When the Emergency Response switch is depressed, the system will determine what needs to happen next by what the engine and transmission is doing. Once the transmission is engaged, the Clear-the-Right-of-Way mode is engaged and all emergency lights are activated.

Bidder Complies: ___ Yes ___ No

2. Compartment Lights Activation: The compartment lights will be activated anytime the left and right door lock handle is opened or rear door is opened and when the apparatus is in the neutral or parked position.

Bidder Complies: ___ Yes ___ No

3. Ground Lights Activation: Ground lights will be activated by respective upper body scene light switches or whenever the apparatus is placed in the reverse mode of operation to further light the backup zone or when the respective left or right turn signal is activated.

Bidder Complies: ___ Yes ___ No

G. ON-BOARD ELECTRICAL SYSTEM DIAGNOSTICS:

Advanced on-board diagnostic messages will be provided to support rapid trouble shooting of the electrical power and signal system. The diagnostic messages will be displayed on the VISTA control screen located adjacent to the driver position. The on-board message center will include the following minimum diagnostic information:

1. Multiple diagnostics on display with text description. Circuit alerts will scroll across the top of the screen in a text message.
2. Simplified warning indicators (from operator's perspective).

3. Automatic display of further information in order of problem severity.

In addition to a visual message center, the system will activate status indicators and audible alarms designed to provide warning of problems within any circuit or signal command module. The system will include, at a minimum, the following attributes and improvements over analog type systems:

- a. On-board self-diagnostic messages and status indicators.
- b. Visual confirmation of communication of each Vehicle Power Module and Display Module.
- c. Automatic self-test on startup with provision for manual diagnostic checks.
- d. Minimize use of control relays.
- e. Provide control for NFPA 1901 mandated safety interlocks and indicators.
- f. Utilize system integration to eliminate redundant wiring and components.
- g. Improve control system reliability by reducing relay and connector contacts.
- h. Advanced electrical system load management and sequencing system.
- i. Imbedded service interval information.
- j. Customized software
- k. Field re-programmable to accommodate changes to the vehicle operating parameters.
- l. Fully documented hardware.

Bidder Complies: ___ Yes ___ No

H. SERVICE AND MAINTENANCE DIAGNOSTICS:

Advanced vehicle service and maintenance will be assisted with an integral software program. The software will provide troubleshooting tools to service technicians via the VISTA control screen. The service and maintenance program will include the following minimum features:

1. Easy to understand diagnostic procedures.
2. System simulation and pinging of nodes for status verification.

Bidder Complies: ___ Yes ___ No

I. BATTERY SYSTEM:

It shall be activated anytime the battery switch is in the "ON" position to alert the operator of the status of the battery switch.

1. The battery enclosure and system shall be located conveniently to provide for easy service and replacement.
2. The original equipment chassis manufacturer shall install a battery cutoff switch that disconnects all battery power to the apparatus, except electronic memory circuits. If the chassis manufacturer does not provide a factory installed battery cutoff switch, the apparatus body manufacturer shall install an extra-heavy-duty on/off battery solenoid switch, rated at a minimum 600 amps continuous, 900 amps momentary rating. The solenoid shall be activated by a paddle type switch installed in cab, accessible from the driver's door.

3. The switch shall serve as a master disconnect for the battery system, disconnecting the batteries from the chassis and apparatus appliances. Electronic memory circuits relating to the electronically controlled engine and transmission and other memory sensitive components shall have 12VDC power supplied through a separate bypass circuit that is not disconnected by the battery switch.
4. A single green LED light located in the center of the Vista LCD display shall indicate the status of the batteries.
5. See Chassis specifications for battery requirements.

Bidder Complies: ___ Yes ___ No

J. ENGINE AUTOMATIC HIGH IDLE DEVICE:

1. The engine shall be equipped with an electronically controlled device that automatically increases the engine RPM level on demand.
2. The system's primary activation shall be by the automatic mode, programmed through the multiplex electrical load management system to activate whenever the system detects voltage output of less than 12.7 volts for more than 30 seconds (or as established by the apparatus manufacturer). It shall be capable of manual deactivation or engagement of the transmission or by depressing the foot brake. The system shall not activate unless transmission is in the neutral position.

Bidder Complies: ___ Yes ___ No

VISTA CONTROL PANEL MOUNTING BRACKET

The VISTA control panel shall be mounted to a Pan-O-Vise heavy duty bracket that permits the screen to be positioned at the discretion of the user.

Bidder Complies: ___ Yes ___ No

EXTERIOR TEMPERATURE READ-OUT

The exterior ambient temperature shall be displayed on the cab LCD display screen with a continuous real-time update. The sensor shall not be placed in an area where engine or other heat producing equipment will affect the readout.

Bidder Complies: ___ Yes ___ No

12VDC VOLTAGE OUTPUT TESTING & DOCUMENTATION

The apparatus low voltage system shall be tested and certified by the manufacturer prior to final delivery. A copy of the testing and successful completion will be included in the Owner's Manual.

1. Reserve Capacity Test:

The unit shall be run until all engine and engine compartment temperatures are stabilized and the battery system is fully charged. The engine shall be shut off and the minimum continuous

electrical load shall be activated for ten (10) minutes. All electrical loads shall be shutoff after ten (10) minutes and the battery system shall then be capable of restarting the engine.

2. Alternator Performance Test At Idle:

Minimum continuous electrical load shall be activated while the apparatus is at idle speed. The battery system shall be tested to detect the presence of battery discharge current. The detection of battery discharge current shall be considered a test failure and corrective actions shall be employed.

3. Alternator Performance Test At Full Load:

The total continuous electrical load shall be activated with the engine running up to the manufacturer's governed speed. The test duration shall be a minimum of two (2) hours. Activation of the load management system shall be permitted during the test. If however, an alarm sounded by excessive battery discharge, as detected by the system, or a voltage of less than 11.7 volts DC for a 12 volt nominal system for more than 120 seconds, it shall be considered a test failure and corrective actions employed.

4. Low Voltage Alarm Test:

The engine shall be shut off and the total continuous electrical load shall be activated and continue to be applied until the excessive battery discharge alarm is activated. The battery voltage measured at the battery terminals with the load still applied must be above 11.7 volts or the test shall be considered a failure and corrective actions employed.

5. Documentation:

At the time of final delivery, an Amp Draw Report complying with NFPA 1901, Section 13-15 will be completed and inserted into the Owner's Manual. It will provide the following information:

- a. Documentation of the electrical system performance test.
- b. Written load analysis with the following information:
 - Nameplate rating of the alternator
 - The alternator rating under the conditions specified in NFPA 1901, section 13.3.2.
 - The minimum continuous load of each component that is specified per NFPA 1901, section 13.3.2.
 - Additional loads that, when added to the minimum continuous load, determine the total connected load.
 - Each individual intermittent load

Bidder Complies: ___ Yes ___ No

DO NOT MOVE TRUCK MESSAGE DISPLAY

To prevent accidents or damage caused by unsecured appendages on the cab and body, the following messages shall be displayed on the cab mounted display screen that are displayed whenever the transmission is shifted out of the neutral position and one or more of the following is detected:

- a. Street side cab doors are not secured
- b. Street side body doors are not secured
- c. Curb side cab doors are not secured
- d. Curb side body doors are not secured
- e. Rear door is not secure
- f. Street side roof box lid not secured
- g. Curb side roof box lid not secured

The above text messages are required in addition to the minimum flashing light and audible warnings required by NFPA 1901. Due to the number of flashing warning lights and audible alarms typically supplied within the confines of the cab, the text messages are considered critical to the safe operation of the apparatus. Thus, no exceptions will be permitted to this requirement.

Bidder Complies: ___ Yes ___ No

GRAPHICS DISPLAY

In addition to the text message and flashing lights to warn of non-secured or stowed equipment, an overhead graphic color display will be visible on the Vista monitor. Whenever a compartment door is not secured, yellow flashing indicators will depict which doors are not secured (cab, left side, right side)

Bidder Complies: ___ Yes ___ No

CAB CONSOLE

A console shall be installed between the front cab seats that will accommodate radio control heads, siren control head, console panel, maps, note books and etc. The design shall not interfere with chassis manufacturer's dash mounted gauges, switches or other options. The console surface shall measure 17.75" wide x 23" long.

A book/map storage compartment will be provided at the back of the console with a minimum 10" long x 12" wide opening. The opening will have a hinged lid with latch to conform to NFPA 1901, preventing stored books and objects from becoming projectiles should the vehicle become involved in an accident.

The VISTA control panel shall be mounted in the upper section of the console.

Mounted on the console shall be a flexshaft map light and two (2) recessed 12-VDC power point receptacles with rubber covers.

There shall be one (1) Havis-Shields siren bracket #C-EB35-PA3-1P for mounting of siren in console.

Bidder Complies: ___ Yes ___ No

DOT CLEARANCE & LED MARKER LIGHTS

The apparatus body shall be equipped with upper side, front and rear LED marker lights. The side and rear of the body will be provided with reflectors. All lights and reflectors shall conform to D.O.T. and FMVSS minimums for such vehicles of this type. All marker lights shall be incorporated into the headlight circuit of the cab/chassis.

Bidder Complies: ___ Yes ___ No

LED TAIL LIGHTS

The rear tail light assemblies shall have three (3) individual minimum 6" oval LED lights for the roadside (left) and curbside (right) of the rear body. Each of the six assemblies shall have not less than 12 light emitting diodes. The upper lights shall be amber turn; center red stop/tail lights; and lower clear back-up lights. The left and right light cluster assemblies shall be recessed into the body panel. Each light shall have a chrome dress ring. Connections for each light shall be made using AMPS watertight plug assemblies, no exception. Each of the six lights shall carry a 5-year warranty, valid should only a single LED element malfunction, not a given percentage of elements.

Bidder Complies: ___ Yes ___ No

UPPER BODY AUXILIARY LED STOP/TURN & EMERGENCY WARNING LIGHTS

Two (2) red LED auxiliary stop lights shall be integrated into the upper traffic direction light bar, one (1) roadside (left) and curbside (right) outer ends. They shall be connected to the same circuit as the primary lower stop lights.

In addition to the standard brake light mode, these lights shall also function as auxiliary turn signals and emergency warning lights. They shall automatically activate whenever the vehicle is placed in the emergency response mode and flash at a rate not less than 160 fpm to differentiate the pattern from other functions. The emergency warning mode shall be automatically disabled whenever either the turn signal (left or right) or the brakes are applied. The flash pattern in the turn signal mode shall be a approximately 60 fpm for immediate recognition by anyone following the apparatus that the mode has changed.

Bidder Complies: ___ Yes ___ No

AUXILIARY BRAKE LIGHT ACTIVATION

The rear brake lights shall be automatically activated whenever the auxiliary engine brake is engaged.

Bidder Complies: ___ Yes ___ No

BRAKE LIGHT IMPULSE ALERT SIGNAL

Upon application of the brakes, the upper auxiliary LED brake lights will emit two rapid impulse flash sequences to warn vehicles behind the apparatus that braking actions have been initiated. This alert is required to gain the attention of any motorist following the apparatus and watching the emergency flashing light pattern that a new alert mode is being initiated.

Bidder Complies: ___ Yes ___ No

MID-SHIP AUXILIARY LED TURN SIGNALS

There shall be an amber auxiliary mid-ship LED turn signal mounted in the lower body crash rail, forward of the rear wheels. These lights shall flash in tandem with the front and rear turn signals.

Bidder Complies: ___ Yes ___ No

UPPER SIDE BODY 12VDC LED SCENE LIGHTS

Two (2) each Whelen 9SC0ENZR LED Gradient Opti-Scene surface mount 7" X 9" scene lights shall be installed on the upper left and right sides of the of the body, one forward and one aft (total of 4). Each light shall include a 9EFLANGE chrome trim bezel. The scene lights shall have 32-degree optic angle. Each left and right pair shall be activated by individual switches on the cab control console.

Bidder Complies: ___ Yes ___ No

UPPER REAR BODY 12VDC LED SCENE LIGHTS

Two (2) each Whelen 9SC0ENZR LED Gradient Opti-Scene surface mount 7" X 9" scene lights shall be installed on the upper rear body, one (1) roadside (left) and curbside (right). The scene lights shall have combination 32-degree internal optic angle. They shall be activated by a separate switch on the cab control console.

Bidder Complies: ___ Yes ___ No

REVERSE ACTIVATED REAR SCENE LIGHTS

The rear scene lights shall be automatically activated whenever the apparatus is in the reverse mode.

Bidder Complies: ___ Yes ___ No

REVERSE ACTIVATED SIDE SCENE LIGHTS

The side scene lights shall be automatically activated whenever the apparatus is in the reverse mode.

Bidder Complies: ___ Yes ___ No

TURN SIGNAL ACTIVATED SIDE SCENE LIGHTS

The side scene lights shall be automatically activated whenever the respective turn signals are activated.

Bidder Complies: ___ Yes ___ No

LED COMPARTMENT STRIP LIGHTS

There shall be a high intensity LED compartment lighting strip in each compartment.

- a. Each of the lighting stripes shall be recessed into the aft compartment wall of each side compartment and the curbside (right) wall of the rear compartment Compartments with dividers or tool boards will require lighting on each side wall.
- b. Each light assembly shall be angled inward to project the concentration of the light output into the compartment.
- c. The installation shall be as such not to impede the sliding of equipment in or out of the compartments.
- d. A clear polycarbonate lens shall cover the entire length of the module and shall have a rounded exterior surface.
- e. Each LED compartment strip shall consist of individual field replaceable modules. The housing assembly must be water-resistant
- f. Each of the LED compartment light strips shall carry a 5-year warranty, valid should only a single LED element malfunction, not a given percentage of elements.
- g. The installation shall exceed the NFPA standard of one-foot candle average per four cubic feet of area.

Bidder Complies: ___ Yes ___ No

ROOF COMPARTMENT LIGHTS

There shall be a Weldon 8045-GH1 halogen compartment light surface mounted into each of the compartment access lids activated automatically whenever the door is raised. The activation switch shall be incorporated into the "Compartment Open" warning circuit.

A text message will appear on the cab VISTA control panel that read "Roof Box Lid Ajar" (for each respective compartment) if the lid is open and the transmission is placed into a forward or reverse mode of operation.

Bidder Complies: ___ Yes ___ No

ROOF WORK ZONE LIGHTS

Along one side of the roof work zone shall be three (3) hooded work zone lights that illuminate the walking area of the roof. They shall be activated with any scene light switch, but only when the vehicle is in neutral or "park" position.

Bidder Complies: ___ Yes ___ No

COMPARTMENT OPEN WARNING & AUTOMATIC LIGHT ACTIVATION

All compartment lights shall be automatically activated when the left or right lock handle is released and any other door not associated with the side compartment locking system is opened. The console switch shall be capable of over-riding the automatic system.

In the event a door is not properly closed and/or secured, a scrolling text message will be displayed on the bottom of the VISTA display screen as follows:

- a. Cab Doors Ajar
- b. Roadside Body Door Ajar
- c. Curbside Body Door Ajar
- d. Rear Body Door Ajar
- e. Roof Compartment Lids Ajar (if applicable)

If more than one location is not secured, all doors affected in the above list will scroll across the bottom of the screen. As each respective door is secured, the text will disappear from the scrolling alert.

Bidder Complies: ___ Yes ___ No

COMPARTMENT OPEN WARNING LIGHT

In addition to the text alert, there shall be a compartment open warning light installed within prominent viewing of the driver.

- a. It shall be a minimum 2-1/2" x 1-1/2" Grote or equal.
- b. The light will be activated only when the doors are not secured and the transmission is placed into a forward or reverse mode of operation.
- c. It shall also flash if the parking brake is not set.
- d. A metallic plate shall be placed in close proximity of the light that reads - "Do Not Move Apparatus When Light Is Flashing."

Bidder Complies: ___ Yes ___ No

GROUND LIGHTS

Minimum 4" diameter shock mounted ground lights shall be installed. They shall be mounted in the following locations:

- a. two (2) each forward of left & right rear wheels
- b. one (1) each aft of left & right rear wheels
- c. one (1) under rear step bumper

They shall be activated by the respective left or right side door lock handles. The rear and front (if applicable) shall be activated by either the left or right door lock handles.

Bidder Complies: ___ Yes ___ No

NFPA OPTICAL WARNING DEVICES

The apparatus shall comply with the requirements of latest edition of NFPA 1901, Chapter 11-8 "Optical Warning Devices". The flashing pattern and sequencing shall be fully compliant with this

standard. All lights shall function in the "Calling for Right of Way" mode. Designated upper Zone A lights and auxiliary lighting specified herein shall be disabled in the "Blocking Right of Way" mode. Under no circumstances shall any of the "Blocking Right of Way" lights be disabled by the electrical system load manager. "Blocking mode shall be automatically activated whenever the transmission is placed in the neutral or park position. The following lights shall be provided:

UPPER ZONE A WARNING LIGHTS

A NFPA compliant Whelen model FN55QLED, 55" long light bar will be installed on the forward section of the cab roof. It will be an all LED configuration consisting of: two (2) front corner red Linear12's front; red Linear8 on the right side end cap; red Linear8 on the left side end cap; and four (4) forward facing Linear8's (two red and two white). All outer lens will be clear.

Bidder Complies: ___ Yes ___ No

LOWER ZONE A FRONT CAB WARNING LIGHTS

A Whelen 70R02FRR red linear Super-LED warning light with 7EFLANGE chrome flange shall be mounted roadside (left) and curbside (right) front of the cab (total of 2).

Bidder Complies: ___ Yes ___ No

HEADLIGHT WIG-WAG FLASHERS

The headlights shall be provided with an alternating or pulsating flash mode referenced as a wig-wag mode. It sequence shall be automatically inoperable when the headlights are in the high beam mode. Since the lights exceed the minimum NFPA 1901 requirements, the lights shall be managed by the load manager within the multiplexing system and controlled through the "Blocking Right-of-Way" circuit.

Bidder Complies: ___ Yes ___ No

LOWER ZONE B & D INTERSECTION WARNING LIGHTS

A Whelen RSR03ZCR red TIR3 Super-LED warning light shall be mounted in the roadside (left) and curbside (right) of the cab fenders (total of 2). It will feature ultra-bright LED technology and be vibration, moisture and corrosive resistant.

Bidder Complies: ___ Yes ___ No

LOWER ZONE B & D SIDE BODY WARNING LIGHTS

A Whelen 60R02FRR red Super-LED warning light shall be mounted in the roadside (left) and curbside (right) rear lower crash rail (total of 2). The lens shall be red.

Bidder Complies: ___ Yes ___ No

LOWER ZONE C REAR BODY WARNING LIGHTS

A Whelen 60R02FRR red linear Super-LED warning light with 6EFLANGE chrome flange shall be mounted on the lower rear body panel, one (1) roadside (left) and curbside (right). The lens shall be red.

Bidder Complies: ___ Yes ___ No

UPPER ZONE B & D SIDE BODY WARNING LIGHTS

A Whelen 90RR5FRR red linear Super-LED warning light shall be mounted on the roadside (left) and curbside (right) of the upper apparatus body, one (1) fore and aft of the upper roof rail (total of 4). These lights fulfill the requirements for midship and rear warning lights in Upper Zone B and D.
Bidder Complies: ___ Yes ___ No

UPPER ZONE C REAR BODY WARNING LIGHTS

Two (2) each Whelen 90RR5FRR red linear Super-LED warning lights with 90FLANGC chrome flange shall be mounted on the upper rear body panel, one (1) roadside (left) and curbside (right). The streetside rear light shall be blue and the curbside light shall be red.
Bidder Complies: ___ Yes ___ No

SIREN, FEDERAL Q2B MECHANICAL

A Federal Signal Electro-Mechanical Siren model Q2B-P shall be installed in the center of the extended front bumper. Two (2) Linemaster #491S, heavy-duty, clamshell type pedal foot switch shall be installed on the outer edge of the cab floor, one (1) for driver and officer positions. Located on the cab control console shall be a momentary switch attached to the siren brake circuit.
Bidder Complies: ___ Yes ___ No

SIREN, WHELEN ELECTRONIC

A Whelen Model 295SLSA1 electronic siren amplifier shall be mounted in cab control console convenient to the driver. It shall feature yelp, wail, air horn, piercer, radio and PA modes and have a manual override switch. The amplifier shall feature a diagnostic mode that permits the operator to perform a silent test function for inaudible system check-out. The siren shall be capable of operating 3 functions without removing the hands from the steering wheel through activation of a Horn/Siren switch located on the cab console. A model 295HFPIM plug-in type noise-canceling PA microphone shall be provided.
Bidder Complies: ___ Yes ___ No

HORN/SIREN SWITCH

A switch shall be provided on the control console that permits the driver to select activation of either the chassis OEM horn or the siren from the steering wheel horn button.
Bidder Complies: ___ Yes ___ No

BUMPER MOUNTED SIREN SPEAKER

A Whelen model SA122FMP, 100 watt electronic siren speaker shall be mounted flush in the front bumper. The bezel shall have a polished aluminum finish.
Bidder Complies: ___ Yes ___ No

CAB MOUNTED 12VDC TERMINAL STRIP & FUSE BLOCK

A 6-circuit terminal strip and fuse block will be installed in the cab. It will be powered from the chassis battery system using minimum 8-gauge wiring for subsequent connection of radios and other auxiliary equipment. The strip shall have a total of six (6) terminal points and fuse blocks that will accept either ATC fast acting blade type fuses or plug-in style circuit breakers. Each circuit will be capable of handling up to 30-amperes. The outlets and fuse blocks will be mounted behind a clear insulating cover with the fuse blocks accessible from the face of the cover. The strip shall be mounted inside the cab console.

Bidder Complies: ___ Yes ___ No

BACK-UP ALARM

A back-up alarm rated at not less than 102 DBA shall be installed under the rear of the apparatus body that meets minimums requirements of NFPA 1901. It shall be automatically activated whenever the transmission is in the reverse mode of operation.

Bidder Complies: ___ Yes ___ No

REAR VISION COLOR CAMERA SYSTEM

Two (2) color camera will be installed. One on the upper rear body and one right side cab

1. The camera shall provide high-resolution Color and be mounted in an anti-corrosion aluminum alloy housing.
2. Pixel resolution of the camera shall be not less than 510(H) x 492(V). It shall be IP68 rated for water and dust protection.
3. The camera shall feature a photosensor and (16) infrared LEDs for low-light/no-light conditions and shall have a minimum 110-degree viewing angle.
4. The image shall be displayed on the LCD Vista color screen in the console.
5. It will be automatically displayed whenever the vehicle is in the reverse mode of operation or manually activated by a separate activation switch location on the Vista control panel. The right side cab camera shall be activated when the right turn turn signal is activated.

Bidder Complies: ___ Yes ___ No

ANTENNA COAXIAL PRE-WIRING

Three (3) two-way radio coaxial cables shall be routed from the cab roof to the interior cab console. The termination point at the radio site shall have a PL259 connector soldered to the coaxial. The termination point at the antenna site shall be supplied with 1-1/8" brass base for a Motorola antenna.

Bidder Complies: ___ Yes ___ No

PREWIRE RADIO SPEAKERS

There shall be three (3) separate speaker wires (16 gauge minimum) pre-installed by the apparatus manufacturer. There shall be one wired to the rear body (B1) compartment, and two (2) wires installed in the streetside (S1) compartment. The speakers shall be installed by the customer. Exact locations of the wires shall be determined at the pre-build conference.

Bidder Complies: ___ Yes ___ No

CAB TO BODY CONDUIT

A 1.25" diameter conduit constructed of Poly Tuff Tubing or equal shall be routed from the cab to the Streetside #1 compartment. Wiring for a remote radio control head in S1 shall be routed through this conduit. All connectors must be 180 connectors (straight connectors)

Bidder Complies: ___ Yes ___ No

120/240VAC ELECTRICAL SYSTEM REQUIREMENTS

- 1. General Requirements: The complete wiring and electrical installation shall conform to the current National Electrical Code (NEMA) applicable to mobile applications, except where superseded by NFPA. #1901 Chapter 19 standards. All electrical equipment installed shall be suitable for intended use and type locations (wet, dry, or underbody and chassis).

The system shall be installed or supervised by a licensed electrical technician(s) to assure the required level of safety and protection to the fire apparatus operators.

The wiring, electrical fixtures and components shall be to the highest industry quality standards available on the open market. The equipment shall be the type as designed for mobile type installations subject to vibration, moisture, and severe continuous usage. For this reason, use of any solid conductor (non-stranded) wiring, such as Romex, will not be accepted.

The following electrical components and wire shall be the minimum acceptable standard for this type of apparatus:

Bidder Complies: ___ Yes ___ No

- 2. Wiring: All AC electrical primary wiring rated at 20 amps and higher shall be fine stranded copper type THHN. THHN cable is much more flexible for mobile routing applications and is required in lieu of industry standard THHN, which is not as flexible. The wire shall be sized to load and circuit breaker rating.

Electrical cables or conduit shall not be attached to chassis suspension components, water, fuel or brake lines, 12VDC wiring or harnesses and not be within 12 inches of any exhaust system component or 6 inches of fuel lines.

Bidder Complies: ___ Yes ___ No

3. Circuit Breaker Box: The circuit breaker box shall be equal in quality to Square D with a hinged cover or door. All circuit breakers shall be switch rated and sized to load demand.

Bidder Complies: ___ Yes ___ No

4. Receptacle and Inlet Devices: Any exterior outlets specified herein shall be mounted in cast aluminum or zinc die cast boxes with weather resistant snap open covers. An isolation gasket shall be used whenever any portion of the outlet or covers comes into contact with a body panel.

Where subjected to wet locations, the receptacle outlet and inlet devices, including those on hardwired remote power distribution boxes, shall be of grounding type provided with a wet location cover and installed in accordance with Section 210-7 Receptacles and Cord Connections of the NEC.

All receptacles located in wet locations shall be installed in a plane from vertical not less than 24 inches from the ground.

All receptacles located in a dry location shall be of the grounding type.

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 direct current, or other than single phase, they shall be so marked.

Bidder Complies: ___ Yes ___ No

5. Labeling: All circuit breakers, outlets, fixtures, or appliances shall be properly labeled identifying voltage and amperage rating. The labels shall display a minimum 14 pt. letters or numerals and be of a contrasting color to the apparatus background surface to which they are affixed. If imprinted labels are utilized, they shall have a clear Mylar type surface coating that prevents smearing or damage by weather or petro-chemicals.

Bidder Complies: ___ Yes ___ No

6. Load Balance: To provide proper loading and efficient generator operation, the 120 volt wiring shall be split to permit a balanced load condition.

Bidder Complies: ___ Yes ___ No

7. Grounding: Grounding will be in accordance with Section 250-6 "Portable and Vehicle Mounted Generators" of the NEC. Ungrounded system will not be used. Only stranded or braided conductors will be used for grounding and bonding.

An equipment grounding means will be provided in accordance with Section 250-91 (Grounding Conductor Material) of the NEC.

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

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

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

Bidder Complies: ___ Yes ___ No

8. Over-current Protection: The conductors used in the power supply assembly between the output terminals of the power source and the main over current protection device will not exceed 144 inches in length, unless used on trailer applications.

For fixed power supplies, all conductors in the power supply assembly will be type THNN, THW, or use stranded conductors enclosed in nonmetallic X-Flex, LiquidTite or equal flexible conduit rated for a minimum of 194 degrees F.

For portable power supplies, conductors located between the power source and the line side of the main, over-current protection will be Type SOW or Type SEO with suffix WA flexible cord rated for 600-volts at 194 degrees F.

Bidder Complies: ___ Yes ___ No

9. Wiring Methods: Fixed wiring system will be limited to the following:

- a. Metallic or nonmetallic X-flex, LiquidTite or equal flexible conduit rated at not less than 194 degrees F.
- b. Type SOW or Type SEO cord with a WA suffix, rated at 600-volts at not less than 194 degrees F.
- c. Electrical cord or conduit will not be attached to chassis suspension components, water or fuel lines, air or air brake lines, fire pump plumbing, hydraulic lines, exhaust system components, or low voltage wiring. In addition, the wiring will be run as follows:
- d. Separated by a minimum of twelve (12) inches, or properly shielded from exhaust piping.
- e. Separated from fuel lines by a minimum of six (6) inches.
- f. Electrical cord or conduit will be supported within six (6) inches of any junction box and at a minimum of every 24-inches of continuous run. Supports will be made of nonmetallic materials or corrosion protected metal. All supports will be of a design that does not cut or abrade the conduit or cable and will be mechanically fastened to the vehicle.

Bidder Complies: ___ Yes ___ No

10. Wet Locations: All wet location receptacle outlets and inlet devices, including those on hardwired remote power distribution boxes, will be of the grounding type provided with a wet location cover and installed in accordance with Section 210-7 "Receptacles and Cord Connections" of the NEC.

All receptacles located in a wet location will be not less than 24 inches from the ground. Receptacles on off-road vehicles will be a minimum of 30 inches from the ground.

The face of any wet location receptacle will be installed in a plane from vertical to not more than 45 degrees off vertical. No receptacle will be installed in a face up position.

Bidder Complies: ___ Yes ___ No

11. Dry Locations: All receptacles located in a dry location will be of the grounding type. Receptacles will be not less than 12 inches above the interior floor height.

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

Bidder Complies: ___ Yes ___ No

12. Listing: All receptacles and electrical inlet devices will be listed to UL 498, Standard for Safety Attachment Plugs and Receptacles, or other appropriate performance standards. Receptacles used for direct current voltages will be rated for the appropriate service.

Bidder Complies: ___ Yes ___ No

13. Operational Test to NFPA 1901, section 23.16: The following test will be performed by the apparatus manufacturer prior to final delivery to test and certify that the power source and any devices that are attached to the line voltage electrical system are properly connected and in working order.

a. The prime mover shall be started from a cold start operation and the line voltage electrical system loaded to 100 percent of apparatus load or nameplate rating of power source whichever being the lesser. The following information shall be recorded:

The cranking time until the prime mover starts and runs, if applicable.

- The voltage, frequency, and amperes at continuous full rated load.
- The prime mover oil pressure, water temperature, transmission temperature, hydraulic temperature, and the battery charge rate, as applicable.
- The ambient temperature and altitude.

b. The power source shall be operated at 100 percent of apparatus load or of its nameplate voltage rating (whichever is the lesser) for a minimum of two (2) hours in accordance with NFPA 1901 and U.L. (See U.L. testing requirements).

c. When the line voltage power is derived from the vehicles low voltage system, the minimum continuous electrical load as defined in Chapter 9 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.

- d. The results of the U.L. test listed in this section shall be supplied to the purchaser at the time of delivery (*portable generators are excluded*).

Bidder Complies: ___ Yes ___ No

14. **Wiring Schematics:** An electrical wiring schematic diagram generated by a CAD program shall be provided with the completed apparatus. It shall be an as built schematic listing the agency name and the serial number of the body. An indicative schematic shall be enclosed with the bid response.

Bidder Complies: ___ Yes ___ No

GENERATOR - POWER TAKE-OFF TYPE

1. **General Requirements:** The apparatus shall be equipped with a complete electrical power plant system provided by a chassis engine and transmission driven power takeoff type generator.
 - a. The complete wiring and generator installation shall conform to current National Electrical Code standards, as prescribed by the National Fire Protection Association (NFPA).
 - b. The system shall be installed by qualified electrical technicians to assure the required level of safety and protection to apparatus operators.
 - c. The installation shall be designed for continuous operation without overheating and undue stress on components.
2. **Generator Minimum Specifications:**
 - a. Onan fire and emergency service series with rating of not less than 25KW (25,000 watts) at 1800 RPM
 - b. Voltage shall be both 240VAC and 120VAC single phase.
3. **Generator Mounting:** The generator shall be supported on the reinforced floor designed to withstand the weight and torque load of the generator under worse-case scenarios. The generator shall be installed within the forward compartment, at floor level in a manner that provides simple access for service and/or removal.
4. **Power Takeoff:** A Chelsea transmission power takeoff shall be mounted directly to the Allison automatic transmission PTO output.
 - a. The selected ratio shall permit the generator to operate under full load at an engine speed of approximately 1400 rpm. Over-speed protection shall be incorporated into the electronic engine setup that will disengage the PTO at 1600 rpm's and automatically reengage once the rpm's drops back to 900.
 - b. The drive-line shall be minimum 2" hollow tube type with heavy duty Spicer 1310 Series (no exception) universal joints rated for any drive-line angles required for installation.
 - c. The shafting shall be splined type to allow movement between the chassis components and the generator. The drive shaft shall be precision welded and balanced prior to installation to insure smooth, vibration free performance at maximum RPM levels.
 - d. The engagement of the power takeoff shall be in the chassis cab with a switch on the Vista display panel with a scrolling "engage" message across the lower section of the screen.
 - e. The power supply to the PTO engagement control shall be wired to a neutral safety position transmission switch to prevent engagement unless the vehicle is in the neutral position.

5. PTO Engaged Warning Message: A text message shall scroll across the bottom of the Vista display screen that reads "PTO Engaged" anytime the PTO is activated (*if V-MUX option is selected*).
6. Electronic Engine Governor System: The OEM engine electronic governor shall be programmed to automatically control the engine speed through a magnetic pickup so that the generator input speed is a constant 1800 rpm regardless of electrical load demand.
7. Instruments and Controls: The Generator system shall be monitored by an FRC FROG-D Generator Meters Panel. The meters shall include a voltmeter, two ammeters, Hourmeter and frequency meter.
 - a. The meters shall be mounted in the FROG-D enclosure and mounted in a protected location. The FROG-D panel shall include a full load circuit breaker sized for the generator installed.
 - b. This panel shall be mounted next to or integral with the circuit breaker panel. This unit shall be a single phase, three wire, 120/240VAC series
 - c. Circuit breakers shall assure overload protection and also shall be used as disconnect switches. The breakers shall be sized to generator output.
8. Generator Housing/Mounting: To protect the generator from damage subjected by corrosive elements (i.e: road salts), water and road oils, the generator shall be installed inside the forward compartment, as outlined in the Compartment Layout Schedule, and be covered by a housing panel constructed of 3/16" aluminum. The face of the panel shall have a DA swirled finish.
 - a. The compartment shall be ventilated and have drain holes in the corners to prevent accumulation of water spray.
 - b. To prevent overheating, the compartment shall have a 120VAC "pancake" type fan installed that is engaged anytime the generator is functioning.
 - c. The fan shall draw air in from the bottom of the compartment and discharge out the lower front side.
 - d. The generator housing shall also provide flush mounting of the circuit breaker panel, specified electrical outlets, meters and controls.
 - e. All these items shall be surface mounted on the face of the panel, which shall be recessed back into the compartment a minimum of 8" to provide a step surface for reaching equipment located in the upper reaches of the compartment.
 - f. Additionally, the top of the housing shall service as a shelf for storing or mounting equipment, but shall be removable for service access to the generator.

Bidder Complies: ___ Yes ___ No

ALTERNATIVE GENERATOR MOUNTING

Should the bidder determine to offer an alternative means of mounting the generator the proposal specifications and the proposal drawings must clearly delineate how the manufacturer intends to protect the generator components from corrosive road spray. As an alternative, the bidder must provide a warranty against corrosive damage to these components for not less than 5 years.

Bidder Complies: ___ Yes ___ No

LABELING OF EQUIPMENT

All circuit breakers will be labeled and will be provided for all outlets indicating output amperage, voltage, and phase.

To properly monitor the generator performance and load demands during operation, the generator will be equipped with a full instrument and control package. These monitoring devices will be mounted in the specified location next to the load center. The following FRC FROG-D Generator Meters Panel and instruments will include:

- a. digital voltmeter
- b. two digital ammeters
- c. one (1) digital frequency meter
- d. one (1) digital hour meter
- e. one (1) PTO engagement indicator light

Bidder Complies: ___ Yes ___ No

UL CERTIFIED DIELECTRIC VOLTAGE WITHSTAND TEST

The generator and all related electrical systems shall be independently tested and certified in writing by Underwriters Laboratories (UL). The testing shall conform to NFPA 1901, Chapter 23.16.2 requirements.

The wiring and permanently connected devices and equipment shall be subjected to a dielectric voltage withstand test of 900 volts for 1 minute.

The dielectric tester shall have a 500 volt-amperes (VA) or larger transformer, with a sinusoidal output voltage that can be verified.

The testing shall be performed by the apparatus manufacturer during final quality control assurance test prior to final delivery.

Bidder Complies: ___ Yes ___ No

The test shall be conducted as follows:

- a. Isolate the power source from the panel board and disconnect any solid state low voltage components.
- b. Connect one lead of the dielectric tester to all the hot and neutral busses tied together.
- c. Connect the other lead to the fire apparatus frame or body.
- d. Close any switches and circuit breakers in the circuits.
- e. Apply the dielectric voltage for 1 minute in accordance with the testing equipment manufacturer's instructions.

Bidder Complies: ___ Yes ___ No

The electrical polarity of all permanently wired equipment, cord reels, and receptacles (as applicable) shall be tested to verify that wiring connections have been properly made.

Electrical light towers, floodlights, motors, fixed appliances, and portable generators (as applicable) shall be operated at their full rating or capacity for 30 minutes to ensure proper operation.

Testing procedures shall be conducted as outlined in NFPA 1901, Chapter 23.16.5.3. ***The results of each test shall be recorded, with the name of the end user on the certification certificate and provided with the delivery documentation.***

Bidder Complies: ___ Yes ___ No

BREAKER BOX & LOAD CENTER

The line voltage electrical system will comply with applicable NFPA 1901 standards and with applicable sections of the National Electrical Code #70 standards. Line voltage carrying equipment downstream of the power source will be "listed" (where applicable) in accordance with manufacturer's instructions.

- a. A minimum 24-place Square-D or equal quality manual reset over current device (breakers) will be installed to protect the line voltage electrical system components.
- b. A 100-amp main over current protection device will be provided that is either incorporated in the power source or is connected to the power source by a power supply assembly.
- c. The size of the main over current protection device will not exceed 125 percent of the nameplate amperage rating on the power source specification label or the rating of the next larger available size over current protection device where so recommended by the power source manufacturer.
- d. Over current protection devices will be provided for each individual circuit and will be sized at not less than 15 amps in accordance with NEC.
- e. Each over current protection device will be marked to identify the function of the circuit it protects. The circuit breaker panel and instruments will be located in a plane facing the operator so that all circuit breakers are readily visible under normal operating conditions.
- f. The panel will be readily visible and located so that there is unimpeded access to the panel board controls.
- g. It will be supplied with one (1) main breaker rated for the maximum amperage output of the generator.
- h. The breaker panel will be recess mounted in the face of the generator housing panel with a protective, hinged access door.
- i. The panel will be recessed a minimum of 8-inches back from the edge of the door opening.

Bidder Complies: ___ Yes ___ No

AUTOMATIC TRANSFER RELAY

There shall be an automatic transfer relay incorporated in the 120/240VAC electrical system that automatically transfers power from the shore power input to the power distribution panel that prevents back feed into the generator whenever the shore power is plugged into an outside power source. The circuit shall be rated at 30 amps and power the circuits for the compartment power strips.

Bidder Complies: ___ Yes ___ No

EXTERIOR DUPLEX OUTLET

A 20 amp (5-20), 120VAC duplex outlet mounted in a weatherproof exterior housing with spring-loaded covers and wired with 12/3 THNN wire shall be installed on the generator panel. It shall be protected with a GFI circuit breaker. A sub-surface screen printed polycarbonate label with chrome bezel reading "120VAC-20A" shall be installed above each outlet.

Bidder Complies: ___ Yes ___ No

OUTLETS, 120VAC PLUG MOULDING STRIPS

Two (2) 120VAC, 15 amp, GFCI protected plug molding strip outlets with plugs spaced approximately 6" apart shall be installed across the back wall of compartment S-1. They will be powered by both the generator and shore power through the automatic transfer relay. The plug molding strip shall have an anodized aluminum exterior finish. A sub-surface screen printed **polycarbonate** label reading "120VAC-15A" shall be installed on the outlet strip.

Bidder Complies: ___ Yes ___ No

240 VAC TWIST-LOCK OUTLET

A 30 amp, 240VAC twist-lock outlet (NEMA L6-30R) with stainless steel wall plate shall be installed in the generator panel. A sub-surface screen printed polycarbonate label with chrome bezel reading "240VAC-30A" shall be installed above each outlet.

Bidder Complies: ___ Yes ___ No

ELECTRIC REWIND CORD REELS WITH GROUND CONTINUITY MONITOR

Two (2) Hannay model ECR1618-17-18 electric rewind cord reels shall be installed, as described in the compartment layout schedule.

1. The cord reels shall be designed to accommodate not less than 200 feet of 10/4 cable.
2. The cord reels shall have the following features:
 - a. Side disc shall have rolled edges and concentric reinforcing ribs.
 - b. Bearing shall support the axle at each end of the reel to provide smooth rotation and eliminate weight on the swivel joint.
 - c. The reel axle shall be full length of the reel.
3. The reels shall be equipped with a 12-volt DC electric rewind motor with a SDLM-40 circuit breaker and operated by a Hannay 90030 sealed push-button momentary switch control located on the compartment adjacent to the reel, easily reached by standing on the ground and not more than 72" from ground level.
4. A metallic tag with raised letters reading CORD REEL REWIND shall be installed next to the rewind button and contain the following information:
 - a. Current rating
 - b. Current type
 - c. Phase
 - d. Voltage
 - e. Total cable length.
5. A Top wind assembly "C" captive roller, Hannay model EH-678, shall be provided to help guide the cord on and off the reel.

6. A HS-3 cord stop ball shall be provided to prevent the end of the cord from being wound onto the reel.
7. The reels shall be equipped with 200 feet of 10/4 (each) SO yellow safety cord. A single 30-amp, 240VAC twist-lock outlet (NEMA 14-30R) shall be wired to the end of the cord. The plug shall incorporate a ground continuity and power status monitoring device. The device will be integral to the plug and provide dual, bright LED indicators with 360 degree visibility. A green light will indicate proper ground continuity and a red light will indicate loss of ground continuity or miswire. Both shall indicate current present.
8. The cord reel shall be wired to the circuit panel with 10/4 DLOC wire routed in weather resistant conduit. Each reel shall be provided with a separate 30-amp, 240VAC breaker. The power rewind cable spool area shall be visible to the operator during the rewind operation.
9. A label will be provided in a readily visible location adjacent to any permanently connected reel. It will indicate the following:
 - current rating
 - current type
 - phase
 - voltage
 - total cable length

Bidder Complies: ___ Yes ___ No

REMOTE POWER DISTRIBUTION BOXES

Two(2) Akron model EJB remote power distribution boxes shall be provided with safety yellow powder coating finish.

- a. A large handle shall be provided on top of the box that permits handling with gloved hands.
- b. Each box shall be provided with a total of four (4) outlets. The 240VAC input shall be split into two separate 120VAC, 30-amp circuits to maximize available amperage for each outlet at the end of the cord length.
- c. There shall be two (2) L5-20R, 120VAC twist-lock receptacles and/or two (2) 5-15 straight blade receptacles. Each receptacle shall be equipped with a spring-loaded snap cover.
- d. All electrical receptacles shall be UL listed components.
- e. The cast aluminum box shall be a least 1/4" thick and the four corner edges a minimum of 3/4" thick, providing for durability under extreme fire service use applications.
- f. To prevent damage associated with raised indicator lamps, the box shall be fitted with 3/8" thick polypropylene faceplates on each side of the box which act as backlighting so that plug orientation to the receptacle is quick and easy to align.
- g. A NEMA L6-30P, 4-wire male plug shall be recessed into one end of the box to supply power from a remote source to the four (4) receptacles.
- h. An Extenda-Lite EJB-VMT yellow powder-coated aluminum mounting bracket shall be attached to the wall next to the reel. It shall permit the power distribution box to be stored near the cord reel with the cord attached.

Bidder Complies: ___ Yes ___ No

MISCELLANEOUS EQUIPMENT & SERVICES REQUIREMENTS

DOT SAFETY KIT

Prior to departure from the manufacturing site, the completed apparatus shall have a DOT compliant safety kit placed in the cab within reach of driver containing the following equipment: one set of triangle markers; one (1) 12v flashlight; one (1) 2-1/2# BC fire extinguisher; and plastic carrying case.

Bidder Complies: ___ Yes ___ No

OWNERS MANUAL

A 3-ring binder shall be provided with the completed apparatus that contains, at a minimum, the following information: When applicable, owner's manuals shall be included in disc format.

1. Customer name, address and contact information
2. Customer Service contact information
3. All "as wired" schematics for both 12VDC and 120/240VAC systems.
4. Alternator SAE Rating
5. Electrical system amperage draw report
6. CD-ROM of electrical system programming and schematics stored in a plastic sleeve.
7. Battery quantity, size and cranking amp rating
8. Apparatus manufacturer's name, model and production identification number
9. Chassis manufacturer's name, model and serial number
10. Engine make, model, horsepower rating
11. Engine oil type and capacity
12. Transmission make, model, fluid capacity
13. GAWR of front and rear axles
14. Front and rear tire size and total rated capacity in pounds
15. Completed apparatus weight certificates (front axle, rear axle, total)
16. Completed apparatus weight distribution (at time of delivery)
17. Fuel type and tank capacity
18. Urea tank capacity
19. U.L. certification documents
20. Operational and troubleshooting procedures.
21. Paint brand and code(s)
22. Key codes (cab, body, ancillary compartments)
23. All data, operations manuals, warranty information and schematics, as supplied by installed component manufacturers.
24. Body, frame and paint warranty documents.

The manufacturer's and applicable dealer's telephone numbers and contact person(s) names shall be supplied within the binder.

Bidder Complies: ___ Yes ___ No

WARANTY START DATE

The warranty start date on the cab/chassis, body and all installed options shall not commence until such time as the completed apparatus is delivered and accepted by Monroe County.

Bidder Complies: ___ Yes ___ No

WARRANTY REPAIRS

By accepting a contract the bidders agrees that all warranty repairs, with exception of the Kenworth cab/chassis and related driveline components, will be contracted by Monroe County Fleet Services. Reimbursement, based on compliance to the manufacturer’s warranty conditions, will be made directly to Monroe County.

Bidder Complies: ___ Yes ___ No

FUEL TANK FILLED AT DELIVERY

The fuel tank shall be filled upon final delivery at the factory.

Bidder Complies: ___ Yes ___ No

PRE-CONSTRUCTION CONFERENCE

Immediately after notification of contract award, the successful bidder shall schedule a pre-construction conference between the appointed representatives of the purchaser and the contractor. The conference shall be held not later than 30 days after notification at the Monroe County Fire Bureau administrative offices. The contractor shall present a set of final engineering construction drawings and line item production shop order complying with the specifications outlined herein. Should the purchaser deem that the contractor has not properly interpreted the specifications or does not intend to manufacture the emergency vehicle as specified, appropriate corrective actions shall be agreed upon and the conference shall be re-scheduled. Should the purchaser determine, at the second conference, that the contractor remains unable to meet the intent of the specifications, the contract may be deemed null and void.

Bidder Complies: ___ Yes ___ No

FACTORY FINAL INSPECTION

A factory final inspection will be conducted prior to release of the completed apparatus for delivery. The inspection will verify compliance to the specifications and fit and finish. Expenses for travel for two (2) persons will be included in the contract price and include airfare; hotel accommodations; rental car (as applicable); and meals while at the factory. Upon correction of any discovered discrepancies, the vehicle will be released for delivery under its own power to the appointed destination. A final acceptance inspection will be conducted upon arrival to ensure all discovered discrepancies have been properly corrected.

Bidder Complies: ___ Yes ___ No

FINAL DELIVERY OF COMPLETED APPARATUS

The seller shall be responsible for final delivery of the completed apparatus to Monroe County and responsible for all said delivery related expenses.

Bidder Complies: ___ Yes ___ No

LATER DELIVERY PENALTY

By accepting a contract award, the bidder agrees that Monroe County will have the option of exercising a late delivery penalty in the amount of \$100/day for each day exceeding the contractual delivery time specified in the bid response by the bidder, excluding delays caused by documented *Acts of God*. Monroe County desires a delivery not to exceed 180 calendar days from date of issuance of formal contract.

Bidder's Delivery Time (in calendar days): _____

Retain For Your Records
DO NOT RETURN WITH YOUR BID

**General
Specifications
County
Of
Monroe**

DEPARTMENT OF FINANCE
Division of Purchasing and Central Services

Dawn C. Staub
Purchasing Manager

Monroe County Office Building
39 West Main Street, Room 200
Rochester, New York 14614
(585) 753-1100

FOREWORD

This booklet contains the General Specifications of the County of Monroe Division of Purchasing and Central Services and supersedes any previous issue. The terms and conditions set forth apply to all contracts awarded by the County of Monroe Division of Purchasing and Central Services.

DEFINITIONS

POLITICAL SUBDIVISIONS: All County departments, institutions, agencies, political subdivisions (town, city, village public school districts) and others authorized by law to make purchases through the County Purchasing Division.

BID: An offer to furnish a described commodity at a stated price in accordance with the proposal and specification.

BIDDER: Any person, firm or corporation submitting a proposal to the County.

COMMODITIES: Materials, supplies, equipment and non-professional services.

CONTRACTOR: Any bidder to whom a contract award is made by the Purchasing Manager or Legislature.

CONTROLLER: Controller of the County of Monroe.

COUNTY: County of Monroe.

GROUP: A classification of commodities.

LATE BID: A bid received in the office of the Purchasing Division, whether in person or by mail, after the time and date established in the bid specifications for the bid opening.

PURCHASING MANAGER: Manager of the Purchasing Division for the County of Monroe.

NOTICE OF CONTRACT AWARD: The notification to all participants that a contract has been made between the County and the successful bidder.

PROPOSAL: The form which, when issued by the Purchasing Division, constitutes an invitation to bid on the commodity described therein and which, when completed by the bidder, constitutes his/her bid to the County to furnish such commodity.

PURCHASE ORDER: The official form to be used by Monroe County when placing an order for material, equipment or supplies with a contractor or vendor.

SPECIFICATION: Description of a commodity and the conditions for its purchase.

PROPOSALS AND BIDS

1. The date and time of bid opening will be given on the proposal.
2. All bids are to be submitted on forms provided by the Purchasing Division.
3. All bids must be submitted in a sealed envelope clearly marked with bid number, title, opening date and time. Bids must not be attached to or enclosed in packages containing bid samples.
4. All information required by the proposal and specifications must be supplied by the bidder.
5. Each bid offered shall be construed in accordance with the specifications and proposal. The bidder must explain all deviations, exceptions and qualifications in detail in the bid.
6. Prices and information required by the proposal, except the signature of bidder, shall be typewritten or printed in ink for legibility. Bids written in pencil may be rejected. The Purchasing Manager may interpret or reject illegible or vague bids and the decision shall be final. All signatures must be in ink. Facsimile, printed or typewritten signatures are not acceptable and the bid may be rejected.
7. No alteration, erasure or addition of the specifications or the proposal shall be made.
8. In all specifications or proposals, the words "or equal" are understood to appear after each commodity giving manufacturer's name or catalog reference or on any patented commodity. If bidding on commodities other than those specified, bidder must in every instance give the trade designation of the commodity, manufacturer's name and detailed specification of commodity he/she proposes to furnish. Otherwise, bid will be construed as submitted on the identical commodity described in the specifications.
9. Used, damaged or obsolete items are not acceptable unless specifically requested and if offered or delivered, shall be rejected and the contract may be cancelled.
10. When bids are requested on a number of commodities as a group, a bidder desiring to bid "no charge" on a commodity in the grouping must so indicate. Otherwise, such bid will be considered as incomplete and may be rejected. Any bidder failing to bid on minimum number of items specified in the bid package may have his/her bid declared incomplete or unresponsive and the Purchasing Manager has the discretion to reject the bid.
11. The bidder must insert the price per unit specified and the price extension for each item in the bid if required. In the event of a discrepancy between the unit price and the extension, the unit price will govern. Prices must be extended in decimals, not fractions.
12. Prices must be net, including transportation and delivery charges fully prepaid by contractor to the destination(s) indicated in the proposal, subject only to the cash discount. If the award is to be on any other basis, transportation charges must be prepaid by the contractor and added to the invoice as a separate item.
13. Bidders are cautioned to verify their bids before submission, as bids and amendments to bids or requests for withdrawal of bids received by the Purchasing Manager after the time specified for the bid opening may not be considered.
14. All bids will be opened and tabulated publicly at the time and place set forth in the proposal.
15. A late bid will be rejected and cannot be considered in awarding a contract.

SAMPLES

16. The Purchasing Manager reserves the right to request a representative sample of the commodity at any time. The sample shall be furnished within the timeframe specified in the bid package.
17. If in the judgment of the Purchasing Manager, the sample is not in accordance with the requirements stated in the specifications and the proposal, the County may reject the bid; or if an award has been made, cancel the contract at the expense of the contractor.
18. When samples are required, failure to submit them in accordance with instructions may be sufficient cause for rejecting a bid or canceling an award.

19. When an accepted sample exceeds the minimum specifications, all commodities delivered will be of same quality and identity as the sample.
20. Samples must be submitted free of charge and be accompanied by the bidder's name and address, a statement indicating how and where the sample is to be returned to the bidder and descriptive literature regarding the commodity. Samples will be returned at the bidder's expense and risk.
21. All samples are subject to tests in the manner and place designated by the Purchasing Manager. Samples consumed or made useless by testing cannot be returned to the bidder and the County will not be responsible for any costs as a result of such testing.
22. Where the sample has not been impaired by testing and the bidder has failed to indicate the place and mode of return of the sample, it becomes the property of the County at the conclusion of the contract period.
23. Samples may be held by the County during the entire term of the contract for comparison with deliveries.
24. A Proposal may indicate that the commodity to be purchased must be equal to a sample on display in a designated place. Failure on the part of the bidder to examine such sample shall NOT entitle him to any relief from the conditions imposed in the proposal, specification and related documents. If feasible, standard samples will be submitted to the bidder for his/her examination prior to the bid opening date.
25. Cash discounts will no be considered as a basis for award in any contract.

AWARDS

26. The Purchasing Manager reserves the right before making an award, to investigate whether or not the items, qualifications or facilities offered by the bidder meet the requirements set forth in the proposal and specifications and is ample and sufficient to insure the proper performance of the contract, in the event of award. The bidder must be prepared, if requested by the Purchasing Manager, to present evidence of experience, ability and financial standing, as well as a statement as to plant, machinery and capacity of the manufacturer for the production and distribution of the commodity on which he/she is bidding. If in the opinion of the Purchasing Manager, it is found that the conditions of the proposal and specifications are not complied with or that items proposed to be furnished do not meet the requirements or specifications called for or that the qualifications, financial standing, facilities or capacities are not satisfactory, the Purchasing Manager may reject such a bid. The Purchasing Manager, in no way, is required or obligated to conduct such investigation prior to awarding the contract. It is further understood that if such investigations are made, it in no way relieves the contractor from fulfilling all requirements and conditions of the contract.
27. Contracts shall be awarded to the lowest responsive and responsible bidder. Responsibility is determined by taking into consideration the reliability of the bidder, the qualities of the articles proposed to be supplied and their conformity with the specifications, the purposes for which required and the terms of delivery and any historical performance record of the bidder that may be maintained by the County.
28. A bidder may be disqualified from receiving awards if such bidder or anyone in his/her employ, has previously failed to perform satisfactorily in connection with public bidding or contracts.
29. The Purchasing Manager reserves the right to evaluate and/or reject all bids in whole or in part and to waive technicalities, irregularities and omissions, if in her judgment; the best interests of the County will be served.
30. The Purchasing Manager reserves the right to make awards within forty-five (45) days after the date of the bid opening, during which period bids shall not be withdrawn.
31. If two or more bidders submit identical bids as to price, the decision of the Purchasing Manager to award a contract to one or more of such identical bidders shall be final.

CONTRACTS

32. All contracts awarded by the Purchasing Manager shall be executory only to the extent that funds are available to each Agency or Department for the purchase of the commodity.
33. All bids shall be received with the understanding that the acceptance thereof, in writing, by the Purchasing Manager or governing body, shall constitute a contract between the bidder and the County. The mailing of either a notice of contract award identified by number or of a purchase order to the address on the bid shall be sufficient notice of such acceptance.

34. Unless otherwise specified, the quantities listed in the proposal are subject to change to conform to Agency or Department requirements.
35. The County reserves the right to order up to 10% more or 10% less than the quantities called for in the contract. This paragraph shall not apply to estimated quantity contracts. Over runs and under runs shall not exceed 10%.
36. Unless terminated or cancelled by the Purchasing Manager pursuant to the authority vested in her, contracts will remain in force for the period specified.
37. All purchase orders must be in writing and must bear the appropriate contract number and the approval of the Purchasing Manager.
38. No commodities are to be shipped or delivered until after receipt of an official purchase order from the County, unless otherwise authorized in writing by the Purchasing Manager.
39. The contractor shall not assign, transfer, convey, sublet or otherwise dispose of the contract or his/her right, title or interest therein or his/her power to execute such contract to any other person, company or corporation without the prior consent, in writing, of the Purchasing Manager. (Approval by the Purchasing Manager is not required for the assignment of monies due for contract deliveries. Such assignments should be filed directly with the Purchasing Manager.)
40. No alteration or variation of the terms of the contract shall be valid or binding upon the County unless requested in writing and approved in writing by the Purchasing Manager.
41. Contractor shall employ no one in relation to the work contemplated by the contract who shall be permitted or required to work more than eight (8) hours in any one calendar day or more than five (5) days in any one week except in cases of extraordinary emergency caused by war, acts of public enemies, strikes, fire, flood or danger to life or property and the wages to be paid to employees for a legal day's work shall not be less than the prevailing New York State wage rates for a day's work in the same trade or occupation in the locality where the contract work is executed.
42. Pursuant to the provision of Section 220-A of the New York State Labor Law, as amended, the Contractor (and his/her Sub-Contractors) will be obligated to pay all workers in the covered classes the applicable prevailing wage rates and supplements. The minimum hourly wage rate to be paid the various classes of labor performing work under this contract shall be in accordance with schedules which have been established or may hereafter be established or increased, by the New York State Department of Labor during the contract term.

DELIVERY

43. Delivery must be made as ordered and in accordance with the terms of the contract. Unless otherwise specified, delivery shall be made within thirty (30) days of receipt of purchase orders by the contractor. The decision of the Purchasing Manager as to reasonable compliance with delivery terms shall be final. Burden of proof of delay in receipt of purchase order shall rest with contractor.
44. Any extension of time of delivery must be requested in writing by the contractor and approved in writing by the Purchasing Manager.
45. The Departments will not schedule any deliveries for Saturdays, Sundays or legal holidays, except commodities required for daily consumption or where the delivery is an emergency, a replacement or is overdue, in which events the convenience of the County will govern.
46. Commodities shall be securely and properly packed for shipment, storage and stocking in new shipping containers and according to accepted commercial practice, without extra charge for packing cases, baling or sacks. The container shall remain the property of the County unless otherwise specifically agreed to in the contract.
47. Point of Destination: All deliveries shall be unloaded at the storeroom door of the ordering Agency or department unless otherwise stated in the proposal or specification.
48. Commodities purchased at a price, f.o.b. shipping point plus transportation charge, are understood to be purchased on an f.o.b. point of destination basis. Title shall not pass until commodities have been received and accepted by the Agency or Department.

49. When commodities are rejected with notice of such rejection having been provided to the bidder, they must be removed by the contractor from the premises of the Department or Agency within five (5) days from notification. Rejected items left longer than five (5) days will be regarded as abandoned and the County shall have the right to dispose of them as its own property.

DEPOSITS

50. Unless otherwise expressly indicated, specification deposits are returned only to those prospective contractors who actually submit proposals to the County of Monroe and have returned their specifications unmarked and in good condition within 30 days of the bid award.
51. Unless otherwise expressly indicated, bid deposits are considered an earnest of good faith and are retained by the County only until a contract has been awarded; at which time they are returned to all bidders who submitted proposals. Failure, on the part of a contractor, to execute a contract, may result in forfeiture of his/her bid deposit.

PAYMENTS

52. Payments will be made by the Controller after presentation of a completed voucher to the ordering Department or Agency.
53. In any case where a question of non-performance of a contract arises, payment may be withheld in whole or in part at the discretion of the Purchasing Manager. Should the amount withheld be finally paid, a cash discount originally offered may be taken by the County as if no delay in payment had occurred.
54. Any claim against a contractor may be deducted by the County from any money due him in the same or other transactions. If no deduction is made in such fashion the contractor shall pay the County the amount of such claim on demand. Submission of a voucher and payment thereof by the County shall not preclude the Purchasing Manager from demanding a price adjustment in any case where the commodity delivered is later found to deviate from the specification and proposal. Any delivery made which does not meet the requirements of the specifications and proposal may be rejected or accepted on an adjusted price basis as determined by the Purchasing Manager.
55. Tax Provisions: Purchases made by the County of Monroe are not subject to State or Local sales taxes or Federal Excise taxes. To satisfy the requirements of the New York State Sales Tax, either the purchase order issued by an agency or institution of New York State for supplies or equipment or the voucher forwarded to authorize payment for such supplies and equipment will be sufficient evidence that the sale by a contractor or vendor was made to the County of Monroe, an exempt organization under section 1116 (a) (I) of the Tax Law. Exemption certificates for Federal Excise taxes will be furnished upon request by the Purchasing Division. No person, firm or corporation is, however, exempt from paying the New York State Truck Mileage and Unemployment Insurance or the Federal Social Security Taxes. This exemption does not apply to materials not incorporated into the work of a Public Works Contract.

GUARANTEES BY CONTRACTOR

56. Contractor hereby guarantees:
- (a) To save the County, its agents and employees, harmless from any liability imposed upon the County arising from the negligence, either active or passive, of the contractor, as well as for the use of any copyrighted or uncopyrighted composition, secret process, patented or unpatented invention, article or appliance furnished or used in the performance of the contract of which the contractor is not the patentee, assignee or licensee.
 - (b) To pay for all permits, New York licenses and fees and gives all notices and complies with all laws, ordinances, rules and regulations.
 - (c) That the equipment offered is standard new equipment, latest model of regular stock product with all parts regularly used with the type of equipment offered; also, that no attachment or part has been substituted or applied contrary to manufacturer's recommendations and standard practice. Every unit delivered must be guaranteed against faulty material and workmanship for a period of one year unless otherwise specified.
57. Waiver of Immunity Clause:

103-a. Ground for cancellation of contract by municipal corporations and fire districts.

A clause shall be inserted in all specifications or contracts made or awarded by a municipal corporation or any public department, agency or official thereof on or after the first day of July, nineteen hundred fifty-nine or by a fire district or any agency or official thereof on or after the first day of September, nineteen hundred sixty, for work or services performed or to be performed or goods sold or to be sold, to provide that upon the refusal of a person, when called before a grand jury, head of a state department, temporary state commission or other state agency, the organized crime task force in the department of law, head of a city department or other city agency, which is empowered to compel the attendance of witnesses and examine them under oath, to testify in an investigation concerning any transaction or contract had with the state, any political subdivision thereof, a public authority or with any public department, agency or official of the state or of any political subdivision thereof or of a public authority, to sign a waiver of immunity against subsequent criminal prosecution or to answer any relevant question concerning such transaction or contract.

- (a) such person and any firm, partnership or corporation of which he is a member, partner, Purchasing Manager or officer shall be disqualified from thereafter selling to or submitting bids to or receiving awards from or entering into any contracts with municipal corporation or fire district or any public department, agency or official thereof, for goods, work or services, for a period of five years after such refusal and to provide also that
- (b) any and all contracts made with any municipal corporation or any public department, agency or official thereof on or after the first day of July, nineteen hundred fifty-nine or with any fire district or any agency or official thereof on or after the first day of September, nineteen hundred sixty, by such person and by any firm, partnership or corporation of which he is a member, partner, Purchasing Manager or officer may be cancelled or terminated by the municipal corporation or fire district without incurring any penalty or damages on account of such cancellation or termination but any monies owing by the municipal corporation or fire district for goods delivered or work done prior to the cancellation or termination shall be paid.

The provisions of this section as in force and effect prior to the first day of September, nineteen hundred sixty, shall apply to specifications or contracts made or awarded by a municipal corporation on or after the first day of July, nineteen hundred fifty-nine but prior to the first day of September, nineteen hundred sixty.

103-b. Disqualification to contract with municipal corporations and fire districts.

Any person who, when called before a grand jury, head of a state department, temporary state commission or other state agency, the organized crime task force in the department of law, head of a city department or other city agency, which is empowered to compel the attendance of witnesses and examine them under oath, to testify in an investigation concerning any transaction or contract had with the state, any political subdivision thereof, a public authority or with a public department, agency or official of the state or of any political subdivision thereof or of a public authority, refuses to sign a waiver of immunity against subsequent criminal prosecution or to answer any relevant question concerning such transaction or contract and any firm, partnership or corporation of which he is a member, partner, Purchasing Manager or officer shall be disqualified from thereafter selling to or submitting bids to or receiving awards from or entering into any contracts with any municipal corporation or fire district or with any public department, agency or official thereof, for goods, work or services, for a period of five years after such refusal or until a disqualification shall be removed pursuant to the provisions of section one hundred three-c of this article.

It shall be the duty of the officer conducting the investigation before the grand jury, the head of a state department, the chairman of the temporary state commission or other state agency, the organized crime task force in the department of law, the head of a city department or other city agency before which the person so refusing is known to be a member, partner, officer or Purchasing Manager, to the commissioner of transportation of the state of New York and the appropriate departments, agencies and officials of the state, political subdivisions thereof or public authorities with whom the person so refusing and any firm, partnership or corporation of which he is a member, partner, Purchasing Manager or officer, is known to have a contract. However, when such refusal occurs before a body other than a grand jury, notice of refusal shall not be sent for a period of ten days after such refusal occurs. Prior to the expiration of this ten day period, any person, firm, partnership or corporation which has become liable to the cancellation or termination of a contract or disqualification to contract on account of such refusal may commence a special proceeding at a special term of the supreme court, held within the judicial district in which the refusal occurred, for an order determining whether the

questions in response to which the refusal occurred were relevant and material to the inquiry. Upon the commencement of such proceeding, the sending of such notice of refusal to answer shall be subject to order of the court in which the proceeding was brought in a manner and on such terms as the court may deem just. If a proceeding is not brought within ten days, notice of refusal shall thereupon be sent as provided herein.

103-d. Statement of non-collusion in bids and proposals to political subdivision of the state.

(FN1) Every bid or proposal hereafter made to a political subdivision of the state or any public department, agency or official thereof where competitive bidding is required by statute, rule, regulation or local law, for work or services performed or to be performed or goods sold or to be sold, shall contain the following statement subscribed by the bidder and affirmed by such bidder as true under the penalties of perjury: Non-collusive bidding certification.

(a) "By submission of this bid, each bidder and each person signing on behalf of any bidder certifies and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of knowledge and belief:

(1) The prices in this bid have been arrived at independently without collusion, consultation, communication or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor;

(2) Unless otherwise required by law, the prices which have been quoted in his/her bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly to any other bidder or to any competitor and;

(3) No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.

(b) A bid shall not be considered for award nor shall any award be made where (a) (1) (2) and (3) above have not been complied with; provided however, that if in any case the bidder cannot make the foregoing certification, the bidder shall so state and shall furnish with the bid a signed statement which sets forth in detail the reasons therefore. Where (a) (1) (2) and (3) above have not been complied with, the bid shall not be considered for award nor shall any award be made unless the head of the purchasing unit of the political subdivision, public department, agency or official thereof to which the bid is made or his/her designee, determines that such disclosure was not made for the purpose of restricting competition.

The fact that a bidder (a) has published price lists, rates or tariffs covering items being procured, (b) has informed prospective customers of proposed or pending publication of new or revised price lists for such items or;

(c) Has sold the same items to other customers at the same prices being bid, does not constitute, without more, a disclosure within the meaning of subparagraph one (a).

Any bid hereafter made to any political subdivision of the state or any public department, agency or official thereof by a corporate bidder for work or services performed or to be performed or goods sold or to be sold, where competitive bidding is required by statute, rule, regulation or local law and where such bid contains the certification referred to in subdivision one of this section, shall be deemed to have been authorized by the board of Purchasing Managers of the bidder and such authorization shall be deemed to include the signing and submission of the bid and the inclusion therein of the certificate as to non-collusion as the act and deed of the corporation.

58. Anti-discrimination Clause: During the performance of this contract, the contractor agrees as follows:

(a) The contractor will not discriminate against any employee because of race, creed, color, sex or national origin and will take affirmative action to insure that they are afforded equal employment opportunities without discrimination because of race, creed, color, sex or national origin. Such action shall be taken with reference but not be limited to: recruitment, employment, job assignment, promotion, upgrading, demotion, transfer, layoff or termination, rates of pay or other forms of compensation and selection for training or retraining, including apprenticeship and on-the job training.

(b) The contractor will send to each labor union or representative of workers with which he has or is bound by a collective bargaining or other agreement or understanding, a notice, to be provided by the New

York State Division for Human Rights, advising such labor union or representative of the contractor's agreement under clauses (a) through (g) hereinafter called "non-discrimination clauses"). If the contractor was directed to do so by the contracting agency as part of the bid or negotiation of this contract, the contractor shall request such labor union or representative to furnish him with a written statement that such labor union or representative will not discriminate because of race, creed, color, sex or national origin and that such labor union or representative either will affirmatively cooperate, within the limits of its legal and contractual authority, in the implementation of the policy and provisions of these non-discrimination clauses or that it consents and agrees that recruitment, employment and the terms and conditions of employment under this contract shall be in accordance with the purposes and provisions of these non-discrimination clauses. If such labor union or representative fails or refuses to comply with such a request that it furnish such a statement, the contractor shall promptly notify the New York State Division of Human Rights of such failure or refusal.

- (c) The contractor will post and keep posted in conspicuous places, available to employees and applicants for employment, notices to be provided by the New York State Division of Human Rights setting forth the substance of the provisions of clauses (a) and (b) and such provisions of the State's laws against discrimination as the New York State Division of Human Rights shall determine.
- (d) The contractor will state, in all solicitations or advertisements for employees placed by or on behalf of the contractor, that all qualified applicants will be afforded equal employment opportunities without discrimination because of race, creed, color, sex or national origin.
- (e) The contractor will comply with the provisions of the Human Rights Law of the State of New York as set forth in section 290-301 of the Executive Law of New York, will furnish all information and reports deemed necessary by the State Division for Human Rights under these non-discrimination clauses and such sections of the Executive Law and will permit access to his/her books, records and accounts by the State Division for Human Rights, the Attorney General and the Industrial Commissioner for purposes of investigation to ascertain compliance with these non-discrimination clauses and such sections of the Executive Law and applicable Federal Civil Rights Laws.
- (f) This contract may be forthwith cancelled, terminated or suspended, in whole or in part by the contracting agency upon the basis of a finding made by the New York State Division for Human Rights that the contractor has not complied with these non-discrimination clauses and the contractor may be declared ineligible for future contracts made by or on behalf of the State or a public authority or agency of the State, until he/she satisfies the New York State Division for Human Rights that he/she has established and is carrying out a program in conformity with the provisions of these non-discrimination clauses. Such finding shall be made by the New York State Division for Human Rights after conciliation efforts by the Commission have failed to achieve compliance with these non-discrimination clauses and after a verified complaint has been filed with the Division, notice thereof has been given to the contractor and an opportunity has been afforded him/her to be heard publicly before three members of the Division. Such sanctions may be imposed and remedies invoked independently of or in addition to sanctions and remedies otherwise provided by law.
- (g) The contractor will include the provisions of clauses (a) through (f) in every subcontract or purchase order in such a manner that such provisions will be binding upon each subcontractor or vendor as to operations to be performed within the State of New York. The contractor will take such action in enforcing such provisions of such subcontract or purchase order as the contracting agency may direct; including sanctions or remedies for non-compliance. If the contractor becomes involved in or is threatened with litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the contractor shall promptly so notify the Attorney General, requesting him to intervene and protect the interests of the State of New York.

59. Workmen's Compensation: Contractor will secure workman's compensation and keep insured during the life of the contract for the benefit of such employees as are required to be insured by the provisions of Chapter 41 of the laws of 1914, as amended, known as the Workmen's Compensation Law and also provisions of Article 9 of the Workmen's Compensation Law known as the Disability Benefits Law. The contract shall be void and of no effect unless the contractor complies with these provisions.

CANCELLATION OF CONTRACT

60. Upon failure of the contractor to deliver within the time specified or failure to make prompt replacement of rejected commodities when so requested, the Purchasing Manager may purchase from other sources to replace the commodity rejected or not delivered. On all such purchases, the contractor agrees to reimburse the County promptly for costs associated with purchasing from other sources. Should the cost be less than the contract price, the contractor shall have no claim to the difference. Such purchases may be deducted from contract quantity by the Purchasing Manager.
61. A contract may be cancelled at the contractor's expense upon nonperformance of contract.

DRAWINGS

62. Rough and/or shop drawings shall be furnished as deemed necessary and required by the specification. Such drawings shall be consistent with the contract documents and shall be considered as forming part of the specification and the contract to which they relate.
63. All lettering on the drawings shall be considered a part of the drawings.
64. Approval by the Purchasing Manager of shop drawings of details for any commodity will not relieve the contractor from responsibility for furnishing same of proper dimension, size, quantity and quality to efficiently perform the work and carry out the requirements and intent of the layout or descriptive drawings forming part of the proposal and specifications. Such approval shall not relieve the contractor from responsibility for errors of any sort in the shop drawings. If the shop drawings deviate or are intended to deviate from the layout or descriptive drawings on specifications, the contractor shall so advise the Purchasing Manager in writing at the time the shop drawings are submitted, stating the difference in value between the contract requirements and that denoted by said shop drawings.
65. Rough and/or shop drawings will be examined by the Purchasing Manager and if necessary, will be returned to the contractor for correction. After the corrections have been made, the contractor shall resubmit to the Purchasing Manager as many copies as required for final approval.
66. All drawings and copies thereof shall become the property of the County.

CONTRACTS INVOLVING INSTALLATION

67. Contractor shall clean up and remove all debris and rubbish resulting from his/her work from time to time as required or directed. Upon completion of the work the premises shall be left in a neat unobstructed condition, the buildings broom clean and everything in satisfactory repair and order.
68. Equipment, supplies and materials shall be stored at the site only upon the approval of the using Agency and at the contractor's risk. In general, such on-site storage should be avoided to prevent possible damage or loss of the material.
69. Work shall be performed so as to cause the least inconvenience to the County and with proper consideration for the rights of other contractors or workmen. The contractor shall keep in touch with the entire operation and install his/her equipment promptly.
70. Installation shall also include the furnishings of any rigging necessary to move equipment into the buildings; also the removal and resetting of any removable windows used for moving equipment into building.
71. Bidders shall acquaint themselves with conditions to be found at the site and shall assume all responsibility for placing and installing the equipment in the locations required.
72. All materials used in installation shall be of the highest quality and shall be free from all defects which would mar the appearance of the equipment or render it structurally unsound.
73. Contractor shall furnish adequate protection from damage for all work and shall repair damages of any kind for which he/she or his/her workmen are responsible.

SAVINGS CLAUSE

74. The contractor shall not be responsible for any losses resulting from his/her failure to perform properly, if such failure was due to causes beyond his/her control and without his/her fault or negligence, including but not restricted to acts of God, wars, acts of public enemies, strikes, fires and floods, provided that the contractor shall within ten (10) days from the beginning of any such delay, notify the Purchasing Manager, in writing, of the cause of such delay.

75. The terms, conditions and requirements set forth in these General Specifications shall be binding upon bidders and contractors submitting bids or furnishing materials in connection with proposals received or contracts awarded by the County pursuant to rules and regulations promulgated by the Purchasing Manager of the Monroe County Division of Purchasing and Central Services.