



INVITATION TO BID

City of Bristol, Tennessee
Administration Department
Purchasing Division
423- 989-5528
www.bristoltn.org



Bid Number and Description: 20022 ONE (1) NEW 2020 AMBULANCE

Due Date and Time: August 18, 2020 at 11:00 a.m. prevailing local time

Bid Location and Mailing Address: 801 Anderson Street Room 204 Bristol, TN 37620 – Due to COVID-19 all bids will be opened virtually at <https://us02web.zoom.us/j/82332575005>

Bid Contact Information: Specifications: Chief Mike Carrier 423-9895701 Bid Process: April Norris 423-989-5528

Delivery Location: F.O.B. 1321 Weaver Pike, Bristol, TN 37620

Payment Terms: Net 30

Bid Documents must be completed and signed to be considered valid

ITEM	QTY (Estimated)	DESCRIPTION	UNIT PRICE (In Numbers)	UNIT PRICE (In Words)	Extended Total
1.	1	Ford F450 (2X2) Chassis			
2.	1	Ford F450 (4X4) Chassis			
3.	1	Chevrolet 4500 (2X2) Chassis			
4.	1	Chevrolet 4500 (4X4) Chassis			
		GRAND TOTAL			\$

Exceptions to Specifications: _____ NO _____ YES

If yes, Please list each exception. Separate sheet may be attached): _____

Non-Collusive Bid Statement: The undersigned bidder, having fully informed himself regarding the accuracy of the statements made herein, certifies that: (1) The bid has been arrived at by the bidder independently and has been submitted without collusion with, and without any agreement, understanding, or planned common course of action with any other vendor of materials, supplies, equipment, or services described in the bid, designed to limit independent bidding or competition, and (2) The contents of the bid have not been communicated by the bidder or its employees or agents to any person not any employee or agent of the bidder or its surety on any bond furnished with the bid, and will not be communicated by any such person prior to the official opening of the bid.

Instructions to Submit Bid:

Seal bid response in an envelope plainly identified on the outside in the lower left corner of your envelope with the Bid Name and Number. The Vendor is responsible for insuring delivery on or before the bid opening date and time to City of Bristol Tennessee Purchasing Department, Attn: April Norris-Purchasing Agent, 801 Anderson Street Room 204 Bristol, TN 37620.

Electronic Responses are accepted at:

<https://vrapp.vendorregistry.com/Bids/View/Bid/04f60f1a-40ee-472c-8ba5-dc4d3c053cc1>

Signature of Authorized Official

Name and Title (Printed)

Legal Name of Business

Mailing Address

Telephone Number

Fax Number

Email

- Bid Check List:** Signed Bid by Authorized Company Representative Iran Divestments Act Form Insurance Checklist
- Title VI Voluntary Disclosure General Contact Form Drug Free Workplace Bid Pricing, verified as correct

City of Bristol, Tennessee
Invitation to Bid

Bid Reference No. 20022

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City of Bristol, Tennessee

Invitation to Bid

INSTRUCTION TO BIDDERS

1. Each bid must be signed by the bidder with his/her original signature on the Bid Pricing Sheet for consideration. Bids by a Partnership must be signed with the partnership name by one of the members of the partnership, or by an authorized representative, followed by the signature and title of the person signing. Bids by Corporations must be signed with the name of the corporation, followed by the signature and designation of the president, secretary, or person authorized to legally bind the corporation.
2. Bids must be received prior to the specified time of closing as designated in the invitation. Bids received late will be returned unopened to the bidder.
3. Envelopes must be sealed when submitted and must be properly noted with the bid reference number and the description of the bid item. Separate bids must be submitted for each reference number. The City will not be held responsible for the premature opening of unmarked envelopes if sent through regular mailing system. Facsimile transmissions of bidding documents will not be accepted.
4. Bids containing erasures or corrections thereon will be rejected unless said erasures or corrections are noted over the initials or signature of the bidder.
5. Bids may be submitted on any one item or any group of items unless otherwise stated herein. The unit price must be shown for each item or group of items as requested.
6. References in the *Description of Requirements and Specifications* describing the material, supplies, or services required of a particular trade name, catalog or model number are made for descriptive purposes to guide the bidder in interpreting the type of material or supplies or nature of the work described. They should not be construed as excluding offers on other type of materials and supplies or of performing the work in a manner other than specified. However, the bidders attention is called to Paragraph 6 of the *General Conditions* which must be strictly adhered to.
7. All bids shall remain valid for a period of sixty (60) days after bid opening unless a longer period is otherwise stated herein.
8. Bids are to be mailed to or delivered to the Purchasing Department, Bristol City Hall, 801 Anderson Street, Room 204, Bristol, Tennessee 37620. One original and one copy of each bid proposal must be submitted for review, unless otherwise stated.
9. The City of Bristol is tax-exempt and sales taxes are not to be included on the bid. Any bid including sales taxes will be adjusted at the time of the bid opening. The City's sales tax exemption number will be provided to the successful bidder.
10. In the event bidder fails to honor bid, they will be declared non-responsible and removed from future bid opportunities. If bidder is submitting equipment from current inventory, the bid must be valid for a period of sixty (60) days after bid opening and cannot be subject to prior sale provisions.
11. In accordance with T.C.A. 62-6-119 all contractor license information, including electrical, plumbing, and HVAC must be listed on the outside of the bid envelope for projects of \$25,000 or more. All masonry contractor information must be included for masonry portions of a project exceeding \$100,000. In order to comply, list the **name of the project, contract number, name, address, and contractor's license number of the Bidder, expiration date of the Contractor's license, the classification applying to this bid, and date and time of opening**. All contractor information must be included for any of the above types of contractors. If this information is not listed, the bid will be deemed non-responsive.

City of Bristol, Tennessee

Invitation to Bid

GENERAL CONDITIONS

1. The City of Bristol reserves the right to reject any and all bids or parts thereof, and unless otherwise specified by the bidder, to accept any item in the bid. In case of error in extending the total amount of the bid, the unit price will govern. Bid pricing should be stated in both words and numbers. In the case of a discrepancy, the price in words will govern. The City also reserves the right to waive informalities on all or any part of any bid as deemed to be in the best interests of the City.
2. The purchaser is a municipality and invoices are processed for payment not less than twice a month. It shall be understood that the cash discount period will be extended to the date that invoices are paid. Payment will commence or be made in full after delivery and/or completion of the project and acceptance of equipment. All documents, invoice, title and exception certificate shall be presented to the Purchasing Department, 801 Anderson Street, Room 204, Bristol, Tennessee 37620.
3. In case of default by the bidder or contractor, the City of Bristol may procure the articles or services from other sources and hold the bidder or contractor responsible for any excess cost occasioned thereby.
4. All prices quoted shall be United States currency. Prices shall be stated in units of quantities specified.
5. Prices quoted, unless otherwise stated by bidder, will be considered as being based on delivery to destination as designated and to include any charges for packing, crating, containers, etc., and being in strict accordance with specifications as shown.
6. Whenever a reference is made in the specifications or in describing the materials, supplies or services required, or a particular trade name, manufacturer's catalog, or model number, the bidder, if awarded a contract, will be required to furnish the particular item referred to in strict accordance with the specifications or description unless a departure or substitution is clearly noted and described in the proposal by the bidder.
7. It is the intent of these specifications to secure and to insure the delivery of the specified unit(s) complete and ready to withstand the service and continuous use encountered by the City in the course of the work for which the unit(s) is/are intended. Omission of any essential detail from these specifications does not relieve the supplier from furnishing such unit.
8. The bidder, by executing a contract or bid proposal on the terms of the invitation to bid, warrants the product that is supplied to the buyer shall remain fully in accordance with the specifications and to be of the highest quality. All bids must be for new equipment. This provision excludes surplus, used or demonstrator products unless so stated in the specifications.
9. In the event the product as supplied to the buyer is found to be defective or does not conform to the specifications, the buyer reserves the right to cancel the order upon written notice to the supplier and return such product to the supplier at the supplier's expenses.
10. All parts not specifically mentioned herein, but which are necessary in order to furnish complete materials and installation shall be supplied by the bidder. Each product furnished to the City shall conform to the best known practices for the most recent unit.
11. If a bidder has any exceptions to these specifications, such exceptions must be stated in writing and describe in detail what is proposed to be furnished in lieu of the specified requirements. When the detailed specifications require specific brand names, model numbers, dimensions or capacities of components, it is because they have been carefully selected and specified for the intended service due to their reliability and/or availability of replacement parts on a local basis.

GENERAL CONDITIONS (CONTINUED)

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12. The bidder, if awarded an order or contract, agrees to protect, defend, and save harmless the City against any demand for the use of any patented materials, process, article, or device, that may enter into the manufacture, construction, or form a part of the work covered by either order or contract and he further agrees to indemnify and save harmless the City from suits or actions of every nature and description brought against it, for or on account of any injuries or damages received or sustained by any party or parties, by or from any of the acts of the contractor, his servants, or agents.
13. It is the policy of the City of Bristol, Tennessee to ensure equal opportunity in all aspects of its programs and services without regard to race, color, sex, or national origin under Title VI of the Civil Rights Act of 1964. This policy applies to the administration of programs, facilities, benefits, or services that receive assistance from the Federal government. During the performance of this contract, the successful vendor agrees as follows:
 - A. To comply with the regulations relative to nondiscrimination in federally assisted programs of the Department of Transportation, Title 49, Code of Federal Regulations, Part 21, (hereafter referred to as "Regulations") as they may be amended.
 - B. To ensure nondiscrimination on the grounds of race, color, sex, or national origin in the selection and retention of subcontractors, including procurement of materials and lease of equipment. The vendor shall not participate either directly or indirectly in discrimination prohibited by Section 21.5 of the Regulations, including employment practices.
 - C. That during solicitations either by competitive bidding or negotiation made by the vendor for work to be performed under a subcontract, including procurement of materials or lease of equipment, all potential subcontractors be notified by the vendor of their obligations under this contract and Regulations relative to nondiscrimination on the grounds of race, color, sex, or national origin.
 - D. That all information and reports required by the Regulations be readily accessible by the City of Bristol, Tennessee or the Tennessee Department of Transportation as may be pertinent to ascertain compliance with the Regulations.
 - E. That in the event of noncompliance with the nondiscrimination provisions of the contract, the City shall impose contract sanctions as it or the Tennessee Department of Transportation may determine to be appropriate, including but not limited to:
 1. Withholding payments until compliance is made, and/or
 2. Cancellation, termination, or suspension of the contract, in whole or in part.
 - F. That the vendor includes these provisions in all subcontracts, including procurement of materials and leases of equipment.
14. Samples, when requested, must be furnished free of expense prior to the opening of bids and if not destroyed will, upon request, be returned at the bidder's expense.
15. Terms and conditions, unless stated otherwise herein, are to be effective for one year from the date of bid acceptance by the City Council.
16. All federal, state, and local law requirements must be followed.
17. The City accepts responsibility of merchandise upon receipt at the City's delivery point unless otherwise noted herein.
18. The City reserves the right to purchase more or less of the Bid Items at the unit price listed on the Bid Pricing Sheet.

GENERAL CONDITIONS (CONTINUED)

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19. *Special Conditions*, if any, are enclosed and listed in the Table of Contents. A conflict between *Special Conditions* and *General Conditions* shall be construed in favor of the *Special Conditions*.
20. The *Description of Requirements and Specifications* for the procurement are enclosed herewith.
21. The specifications set forth are the minimum that are acceptable. The City of Bristol reserves the right to consider differences or variations in the character, quality or workmanship of the items offered, to reject any or all bids, and to accept any bid that it may deem to be in the best interest of the City.

- End of Section –

City of Bristol, Tennessee
DESCRIPTION OF REQUIREMENTS AND SPECIFICATIONS

ONE (1) NEW 2020 AMBULANCE

1.0 SCOPE, PURPOSE AND CLASSIFICATION

1.0.1 SCOPE

This specification covers a new commercially produced surface emergency medical care vehicle, herein referred to as an “ambulance” or “vehicle”. This vehicle shall be in accordance with the Ambulance Design Criteria of the National Highway Traffic Safety Administration, United States Department of Transportation, Washington, D. C. This specification is based on current KKK-A1822-F revision. It is the intent of the City to purchase a vehicle that is professionally engineered and designed. It is paramount to the City that the vehicle presented be built by a reputable manufacturer with considerable experience in the ambulance manufacturing field. To this end, the City requires that each manufacturer provide the following:

1. A statement of fact, signed by an officer of the manufacturing company, disclosing that the manufacturer has delivered two hundred fifty (250) ambulances within the last twelve (12) months of the date of this bid;
2. The size and location of manufacturing facilities and number of production staff;
3. Interior pictures to verify plant facilities;
4. A list of on-site engineering staff with educational accreditation;
5. ISO 9001:2000 Certification.

Failure to provide the City with the documentation required will be deemed non-responsive.

1.0.2 PURPOSE

The purpose of this document is to provide the manufacturer with a set of specifications and test parameters that will meet the criteria to manufacture a vehicle as set forth by the City. The City seeks a vehicle that will deliver fair value. Fair value is defined by the City as the manufacturer’s ability to provide a safe, functional, and practical ambulance conversion that will work in junction with the chassis specified at a reasonable cost. The specifications within this document are a basis to deliver such a vehicle to the City. The City at its discretion shall assess the intangible assets of the manufacturer such as, but not limited to, after quality, delivery support, customer service, parts availability and warranty turnaround time.

1.0.3 CLASSIFICATION

This specification calls for the following type of vehicle in accordance with the current KKK-A1822-F revision:

Type I to be bid on a Ford F450 (2X2) Chassis

Or

Type I to be bid on a Chevrolet 4500 (2X2) Chassis

Both shall be submitted *with an option* for 4X4 Chassis

2.0 GENERAL

This is an engineer, design, construct and deliver type specification meeting the needs of the City. Attention has been given to the engineering and design aspect of this specification that will attain our goal of fair value. It is the manufacturer's responsibility to deliver a product meeting the criteria as set forth. The City reserves the right to increase the equipment quantities that are specified.

2.1.1 SITES OF WORK

Other than the chassis, specified accessories, and raw materials such as aluminum, wood, etc.; all shops and sub-shops shall be within the complex(s) that are directly owned and controlled by the primary manufacturer. Any assemblies including, but not limited to, upholstery, fiberglass, cabinetry, electrical, structural and paint application, that are performed or supplied outside of the primary manufacturer's location(s) must be noted. The name, address, and contact person supplying the primary manufacturer with the assemblies must be provided in writing to the City. Non-disclosure will be sufficient grounds for rejection of bid or termination of contract. Any ambulance or chassis imported for consideration of this specification into the United States under the North America Free Trade Act must provide documentation of compliance with all United States laws applicable. Further, any import ambulance must be independently certified and tested within the United States to meet KKK-A1822-F certification.

2.1.2 EXAMINATION OF SPECIFICATIONS

It is incumbent on each manufacturer to be thoroughly familiar with the specification contained herein. The specification will require a "YES" or "NO" or when requested a definitive answer to each section or subsection.

Sections or subsections not marked with a "YES" or "NO" or a definitive answer shall be deemed incomplete and considered non-responsive. A "YES" answer constitutes a complete compliance to the section or subsection as written. A "NO" shall indicate noncompliance and does not eliminate a manufacturer from competition, unless specified. A manufacturer may object or counter to a specific section or subsection. A manufacturer must indicate in writing, as an attachment, the section or subsection in dispute.

The manufacturer must include the verbiage as written, new verbiage presented, explanation of verbiage with consequences and supporting tests and documentation. Failure to comply will be deemed as non-responsive. The City reserves the right to determine compliance.

2.1.3 DEFINITIONS: The following definitions shall apply with regard to these specifications:

- **Purchaser:** The end user of the equipment specified or the applicable purchasing agency acting on behalf of the end user.
- **Contractor:** The individual, firm, partnership manufacturer, or corporation to whom the contract is awarded by the Purchaser and is subject to the terms thereof. For bidding purposes the contractor, vendor, bidder, manufacturer are synonymous.

- **Equal:** The City supports the design, engineering, quality and materials as specified in this document. This shall not prohibit the bidding of unlike product. However, any deviation from the specification must be marked and submitted per section 2.1.2. Failure to do so shall be deemed non-responsive.
- **Manufacturer:** The manufacturer within this specification shall be considered the primary manufacturer of the ambulance conversion. The chassis requirement as set forth in this specification is the responsibility of the primary manufacturer to procure. The City considers the chassis platform as a conveyance for the ambulance conversion. It is imperative that the primary manufacturers procure the **exact** chassis from the chassis manufacturer. After market modifications by the primary manufacturer to achieve chassis specification will not be tolerated. The City will require documentation from the chassis manufacturer pertaining to the chassis requirements for the City. Failure to provide documentation after award and prior to construction may result in the termination of the contract. Expenses to re-bid will be the responsibility of the manufacturer in default.

3.0 TECHNICAL REQUIREMENTS CAB - CHASSIS

3.1 GENERAL VEHICULAR DESIGN, TYPES, AND FLOOR PLAN

The ambulance and the allied equipment furnished under this specification shall be the primary manufacturer's current commercial vehicle of the type and class specified. The ambulance shall be complete with the operating accessories as specified herein. It shall be furnished with such modifications and attachments as necessary and specified to enable the vehicle to function reliably and efficiently in sustained operation. The design of the vehicle and the specified equipment shall permit accessibility for servicing, replacement and adjustment of component parts and accessories with minimum disturbance to other components and systems.

Does your bid comply with this requirement?

Yes () No ()

3.1.1

The ambulance shall be a Type I, Class I and shall be a chassis furnished with a two (2) door conventional cab. The chassis shall be suitable for subsequent mounting of a modular (containerized), transferable equipped ambulance body conforming to the requirements herein.

Does your bid comply with this requirement?

Yes () No ()

3.1.2

The design of the vehicle shall utilize floor plan "A" loading arrangement of patients into the patient compartment. All litters shall be loaded into position with the heads of the patients forward in the vehicle.

Does your bid comply with this requirement?

Yes () No ()

3.2 VEHICLE COMPONENTS, EQUIPMENT, AND ACCESSORIES

The emergency medical care vehicle, chassis ambulance body, equipment, devices medical accessories and electronic equipment to be delivered under this contract shall be standard commercial products, tested and

DESCRIPTION OF REQUIREMENTS AND SPECIFICATIONS (CONTINUED)

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certified, to meet this specification. The vehicle shall comply with all Federal Motor Vehicle Safety Standards (FMVSS) and United States regulations applicable or specified for the year of manufacture. The primary manufacturer shall procure the chassis, components, equipment and accessories as specified and be the current technical data and materials of all suppliers.

Does your bid comply with this specification?

Yes () No ()

3.3 MATERIALS

Materials used in the construction shall be new and meet the quality conforming to this specification. Materials shall be free of defects.

Does your bid comply with this specification?

Yes () No ()

3.4 VEHICLE OPERATION, PERFORMANCE, AND PHYSICAL CHARACTERISTICS

The following is a description of the cab and chassis that will meet the requirements of this specification. In addition, the chassis will comply with paragraphs 3.4.1 through 3.6.14 of Federal Specification KKK-A-1822F.

Does your bid comply with this specification?

Yes () No ()

3.5 CHASSIS MANUFACTURER AND MODEL YEAR

The chassis shall meet the requirements of this specification. It shall be a 2020 or newer.

Does your bid comply with this specification?

Yes () No ()

3.6 MODEL PHYSICAL CHARACTERISTICS

The vendor will provide the following information on both the Ford and Chevrolet chassis for purchaser comparison.

Vehicle:

Body Style:

Drive Train:

DESCRIPTION OF REQUIREMENTS AND SPECIFICATIONS (CONTINUED)

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Model Number body code:

Gross Axle Weight: Front Rear

Gross Vehicle Weight Rating minimum

.

Engine Type:

Displacement

Fuel System

SAE net HP

SAE net Torque

Wheelbase:

Transmission:

Rear Axle Ratio:

Tire Size:

Spare Tire Size:

Wheels

DESCRIPTION OF REQUIREMENTS AND SPECIFICATIONS (CONTINUED)

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**Cab Flooring Material:
Flooring**

OEM carpet shall be replaced with OEM Black Rubber

Does your bid comply with specification?

Yes () No ()

3.7 ELECTRICAL GENERATING SYSTEM

The vehicle shall be equipped with the OEM supplied dual 130 or more ampere alternator.

Does your bid comply with this requirement?

Yes () No ()

3.8 ENGINE AUTOMATIC HIGH IDLE SPEED CONTROL

The Engine shall be the OEM supplied high idle speed control. The control shall be mounted in the cab console.

Does your bid comply with this requirement?

Yes () No ()

3.9 DRIVER'S COMPARTMENT

The driver's compartment shall be as required by paragraphs 3.9.1, 3.9.2, and 3.9.4 of Federal specification KKK-A-1822F, as well as section 3.0 of this document. The cab shall be equipped with the chassis manufacturer's high back "captain's chair" with arm rests. The safety restraint system for the driver and passenger shall be installed by the chassis manufacturer. Modifications or substitutions of the chassis manufacturer's cab seats or restraint system will not be acceptable.

Does your bid comply with this requirement?

Yes () No ()

3.10 OUTSIDE REAR VIEW MIRRORS

The vehicle mirrors should be firmly secured, vibration less rear view mirrors totaling at least one hundred and twenty five square inches. The mirrors shall be OEM, manually telescoping trailer tow, power/heated glass, integrated clearance lights and turn signals, and a two-way fold.

Does your bid comply with this requirement?

Yes () No ()

3.11 CAB PATIENT COMPARTMENT

The module body shall be attached to the cab chassis by means of a rubber bellows with one hundred and fifty square inches (150 sq in) of open viewing area.

Does your bid comply with this requirement?

Yes () No ()

3.12 LETTERING

Lettering and reflective stripping shall match the current fleet of Bristol Tn. Fire Department ambulances including Black and Red Chevrons on the back. Pictures will be supplied

3.13 RADIO INSTALLATION

Radio installation is not applicable in this specification.

3.14 ENVIRONMENTAL SYSTEMS

The driver's compartment shall be furnished with the environmental package as set forth in section 3.6. The City is committed to keep safe our staff and patients by technology available in today's market place. Therefore, it shall be incumbent for all primary manufacturers to provide the maximum protection from airborne pathogens and eliminate obnoxious odors that can create discomfort for staff and patients. The patient compartment shall be heated and air conditioned by the following method:

- The air conditioning and heating unit shall be accessible for service through a tilt out access panel in a dedicated environmental cabinet on the bulkhead.
- The air conditioning and heating system shall employ a three stage filtration system.
- The first stage filter shall be one hundred percent (100%) Dacron fiber pre filter with an applied microbial system which destroys microorganisms with which it comes in contact.
- The filter shall remove particles ten microns and larger at thirty five percent (35%) efficiency.
- The second stage filter shall be activated charcoal dispersed over a fiber medium to assist in the removal of odors.
- The third stage filter shall be a high efficiency particulate air filter that removes particles of decimal three microns and larger at ninety nine decimal ninety seven percent (97%) efficiency.

The air delivery and return system must be a sealed system to not allow the passage of air other than through the three stage filter. The conditioned air shall pass through a multi-directional vent capable of dispersing high volumes of conditioned air at low velocity. The system shall have a custom "Cool Bar" to increase the efficiency of the system. The "Cool Bar" is a custom housing designed to hold a Hose line condenser on the front of the module and allow for additional lighting mounted on the housing. The "Cool Bar" measures 65.38 inches along the rear (box side) and 40.5 inches on the forward facing side. The housing is 12.38 inches deep by 9 inches high. There are two Angled portions to allow for additional lighting for intersection clearing 17.55 inches by 9 inches at an approximate angle of 45 degrees. The condensers shall be Hoseline 2050D. They shall provide 2948 CFM of air flow across the condenser cooling coils with four 12VDC fans and provide 50,000 BTU's of cooling for the 12V side.

This system must meet KKK - A -1822F performance parameters 3.13.4 and 3.13.5. Testing must be certified with filters in place. Primary manufacturers shall submit drawings and testing documentation from an independent laboratory with this proposal.

Does your bid comply with this requirement?

Yes () No ()

3.15 HEATER HOSES

Nomex heater hoses shall be installed.

Does your bid comply with this requirement?

Yes () No ()

3.16 BATTERY SYSTEM

The vehicle shall be supplied with a dual 12 volt battery system. Both batteries will have a minimum cold cranking ampere rating of not less than supplied by the OEM chassis manufacturer. Both batteries shall be in the OEM under hood location. The batteries shall be activated through the OEM ignition switch. The ignition switch shall only turn off power to the module and not to the chassis. An emergency fail-safe switch shall be mounted in the cab console. The battery system shall be wired in accordance with KKK-A-1822E and current Ford Motor QVM specifications. The system must meet SAE J541 for starter circuit voltage drop.

Does your bid comply with this requirement?

Yes () No ()

3.17 INSTRUMENT CONSOLE

A console shall be installed to house the switching panel and radio installation. This console shall be attached under the dash below the line of sight of the driver. The console shall extend the full length of the cab between the driver and passenger seats. Provisions shall be made available for storage of convenience items for the crew. The console shall be a rotationally molded one piece ABS console. An access panel shall be installed on the top of the console to facilitate servicing. The switches shall be full size rocker switches with LED on the indicators. The switch assembly shall be 1.97 inches tall by 1.064 inches wide with silver plated copper contacts and a .250 inch spade type terminal. The switch and rocker material shall be a thermal set molding material. The complete switch assembly will be tested to withstand one thousand

(1,000) volts RMS dielectric. Documentation of switch testing must be included with the bid. The switches must have a positive "throw" feel and an audible "click" upon activation.

Does your bid comply with this requirement?

Yes () No ()

3.18 ACTION AREA CONSOLE

There shall be a console in the action area of the rear patient compartment to house the switches. The console shall be manufactured out of 3/4" birch wood and be angled so that the switches will be easily accessible to an EMT in the attendant seat or a CPR seat.

Does your bid comply with this requirement?

Yes () No ()

3.19 AMMETER

The electrical system shall incorporate an analog center scale ammeter to be similar to the analog display gauges of the OEM chassis manufacturer. The ammeter shall be capable of indicating a current of 300 amperes to or

DESCRIPTION OF REQUIREMENTS AND SPECIFICATIONS (CONTINUED)

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from (charging or discharging) the dual batteries. The ammeter shall incorporate an external shunt which does not exceed 100 millivolts at maximum current. The ammeter and shunt shall have a combined accuracy of approximately ten percent (10%) of the full scale reading. It shall be back lighted with the brightness controlled by the headlight rheostat. The shunt shall be protected against physical damage, weather and road spray, and shall be mounted in an easily accessible location which shall minimize the length of the power cables.

Note to primary manufacturers: Only electro-dynamic ammeters shall be accepted due to their accuracy and durability.

Does your bid comply with this requirement?

Yes () No ()

3.20 VOLTMETER

The vehicle shall include a Datcon analog voltmeter. It shall be located in the front center console next to the ammeter.

Does your bid comply with this requirement?

Yes () No ()

3.21 Wheel Covers

There shall be Phoenix Wheel Covers installed prior to delivery. They shall be model GDF16 and shall include the extender kit for the rear wheels, model #AML1.

Does your bid comply with this requirement?

Yes () No ()

4.0 VEHICLE BODY AND PATIENT AREA

4.1 BODY ACCOMMODATIONS

The ambulance body and patient compartment shall be sufficient in size to meet the requirements of paragraph 3.10.1 of Federal Specification KKK-A1822-F. The interior layout shall be such that a technician can administer life support treatments to at least one person during transport. The modular body shall be 153 inches in length and 95 inches in width.

Does your bid comply with this requirement?

Yes () No ()

4.2 PATIENT COMPARTMENT INTERIOR DIMENSIONS

Length: As measured from the bulkhead to the inside edge of the rear doors at the floor shall be at least one hundred and forty three inches (143"). There shall be at least twenty five inches (25") but not more than thirty inches (30") of clear space at the head of the primary patient, measured from the face of the backrest of the attendant's seat to the forward edge of the style one cot.

Width: As measured after the installation of the street side cabinets shall be forty four and three quarter inches (44 ¾") between the cabinet wall and the face of the squad bench.

Height: The patient compartment shall provide at least sixty six inches (66”) of height over the primary patient area from the floor to the ceiling.

Does your bid comply with this requirement?

Yes () No ()

4.3 GENERAL BODY CONSTRUCTION

It is the intention of the City to specify a modular body that is constructed solely of aluminum including side skins, roof skin, all structural box tubing, corner and roof extrusions, tapping plates, gusset plates, retention plates, doors, door extrusions, sub structure moisture barrier and drip rails. The modular shall be engineered, built and warranted by the primary manufacturer. The City will not accept a proposal from a primary manufacturer, as defined within this document, that supplies a modular from an agency, builder, supplier, other than the primary manufacturer. This section shall be the construction parameters the City has deemed as fair value. Primary manufacturers that deviate from these specifications may take exception as set forth in section A1.1.2.

Does your bid comply with this requirement?

Yes () No ()

4.3.1

The exterior of the body shall be constructed utilizing a full six sided box framework with a combination of high strength 6061-T1 and 6063-T6 alloy aluminum and having an outer surface of aluminum sheet with a temper and alloy of 5052-H32 for strength, weld integrity and corrosion resistance. The front, sides, and rear of the module shall be configured from a single sheet of 0.090 inch aluminum. The one piece sheets shall be used to maximize integrity against dust, toxic fumes, cracking, and moisture penetration. The openings for doors, warning lights and exterior compartments shall be cut on the horizontal plane with a computer controlled plasma cutter for accuracy and integrity of temper. The roof and side skins shall be installed utilizing a very high bond adhesive to allow absorption of vibration and to eliminate "panning." The skins shall be welded to the interlocking extrusion framework at the outer perimeter of the sheets.

Does your bid comply with this requirement?

Yes () No ()

4.3.2

The roof shall be a single .090 sheet of 5052-H32 alloy aluminum. The roof sheet shall be completely welded to the extruded roof assembly. The use of multi-section roofs shall not be acceptable due to the possibility of cracks causing environmental intrusion.

Does your bid comply with this requirement?

Yes () No ()

4.3.3

The roof substructure assembly shall consist of four perimeter roof rail extrusions, lateral roof bows and interconnecting corner caps. The roof rail extrusions shall be engineered and designed by the primary

manufacturer and shall be double hollow of 6063-T6 0.125 inch aluminum. An integrated roof recess shall be incorporated to create a smooth transition from the one piece roof sheet to the perimeter drip rail. The perimeter drip rail shall be extruded as a design feature of the roof rail extrusion. The roof rail extrusion shall overlay the side skin by one half inch. The roof sheet shall be seam welded to the perimeter roof extrusion. The lateral roof bows shall be two inch by two inch by 0.125 inch square extrusions of 6061-T6 alloy aluminum. The structural members shall be located to support the roof skin on fourteen inches (14") between roof bows. The roof bows shall interconnect with the roof rails and be continuously welded at all

contact points. The finished roof shall incorporate a machine rolled crown of not less than one and a half inches in height to provide additional strength and allow water run off. A one inch by two inch by 0.125 inch 6063-T6 extrusion shall be secured to the top of the vertical extrusions. The perimeter extrusion shall be welded to the vertical structures with a minimum of six inches of weld. An industrial adhesive shall be applied around the perimeter before the roof assembly is mated to the sill. The roof structure shall be attached to the sill and welded. To ensure a complete contact with the industrial adhesive mechanical fasteners shall be employed to cinch the roof structure to the sill.

Does your bid comply with this requirement?

Yes () No ()

4.3.4

The corner caps shall be designed to interlock with the roof perimeter, vertical corner extrusions and roof sheet. The corner caps shall be cast aluminum made from matched metal dies to ensure a smooth and pleasing appearance. The caps shall act as a stress relief device to absorb energy and disperse the force along the roof extrusions in the event of a collision. The outer edge DOT lights shall be installed as described in section 5.1.

Does your bid comply with this requirement?

Yes () No ()

4.3.5

The corners of the module body shall be designed and engineered by the primary manufacturer and constructed of 6063-T6 alloy aluminum. The corner extrusion shall be double hollow with a minimum thickness of 0.125 and 0.250 inches at the outer corner. The extrusion is designed with a unique forty five degree angled appearance while maintaining very high strength and impact energy absorption. A polyurethane sealer shall be applied to seal the crevice between the corner extrusions and the side assemblies.

Does your bid comply with this requirement?

Yes () No ()

4.3.6

The side assemblies shall be reinforced utilizing 6061-T6 alloy aluminum two by two box tubing. The side structures shall frame a perimeter around all door openings and shall be a minimum of 0.125 inch thickness. Intermediate skin stiffeners shall be located to preclude skin deformation. Additional gusset plates shall be 0.250 inch aluminum and shall be welded at all contact points between the corner assembly and the roof perimeter.

Does your bid comply with this requirement?

Yes () No ()

4.3.7

The City is extremely concerned with purchasing a vehicle from a primary manufacturer who can provide the necessary service after sale. Therefore, as previously stated the modular shall have a fifteen year warranty and be engineered, designed and built by the primary manufacturer.

Does your bid comply with this requirement?

Yes () No ()

4.3.8 Quality and Safety Documentation.

The ambulance manufacturer responding to this vehicle specification shall demonstrate to this Agency that the ambulance being proposed offers the highest possible quality and safety standards.

To meet this Agency's requirements for quality the Bidder shall provide documentation that the ambulance manufacturer has in place a quality management system that meets the requirements of the International Organization for Standardization (ISO). A copy of the ISO Registration Certificate shall be included in the bid response.

To meet this Agency's requirements for safety standards the Bidder shall provide documentation that the ambulance manufacturer has conducted "dynamic" testing to validate the design, manufacturing processes, materials and workmanship used in the production of the ambulance proposed in response to this specification.

To validate the materials, manufacturing processes, quality management system and workmanship utilized in the installation of seats, seat belts, secondary restraining devices, cabinet construction, oxygen cylinder retention and module to chassis attachment a Hygee sled test shall be performed. This test shall simulate a frontal impact to the ambulance module at a minimal impact force of 20 g. A test report from a third party testing agency independent of the ambulance manufacturer shall be submitted with the bid response proving compliance to this requirement.

To validate the materials, manufacturing processes, quality management system and workmanship utilized in the construction of the modular body the Bidder shall provide documentation that the ambulance manufacturer has conducted a side impact crash test. The Institute for Highway Safety (IIHS) Crash Test Protocol Version 5 shall be used as a guideline for this testing requirement.

The "target" vehicle (Ambulance) shall be struck by the "bullet" (SUV / Pickup Truck) vehicle at the fore and aft center of gravity of the target vehicle. To comply with the requirements of this specification the bullet vehicle shall be a SUV or pickup truck with a minimum gross vehicle weight (GVW) of at least 4,000 lbs. To provide this Agency accurate data in a "real world" environment the use of a Moving Deformable Barrier (MDB) and cart as the "bullet" vehicle is not permissible.

The "target" vehicle (Ambulance) shall contain instrumented Anthropomorphic Test Devices (crash test dummy) meeting the following requirements and seating locations.

DESCRIPTION OF REQUIREMENTS AND SPECIFICATIONS (CONTINUED)

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- 1 Squad Bench Hybrid 3 ATD instrumented with head, chest, and pelvic accelerometers, upper neck load cell, chest potentiometer, and femur load cells.
2. Ambulance Cot - Hybrid 3 ATD instrumented with head, chest, and pelvic accelerometers, upper neck load cell, chest potentiometer, and femur load cells.
3. Street Side CPR Seat - Hybrid 3 ATD instrumented with head, chest, and pelvic accelerometers, upper neck load cell, chest potentiometer, lumbar load cell, and femur load cells.
4. Attendant Seat Euro SID 2 ATD instrumented with head accelerometers, upper neck, abdomen, and pubic load cells, and rib potentiometers.

For the purpose of determining **PASS FAIL** results the Injury Assessment Reference Values (IARVs) from FMVSS 208, FMVSS 214 and the Insurance Institute for Highway Safety (IIHS) shall be used. A test report from a third party testing agency independent of the ambulance manufacturer shall be submitted with the bid response proving compliance to this requirement.

The above requirements are in addition to the current minimum requirements for testing as outlined in KKK-A-1822.

Additionally, all welders employed by the primary manufacturer shall be certified to the American Welding Society Standard AWS D12, and certification documents must be provided if requested.

All body welds shall not only be inspected by the primary manufacturer but shall also be inspected by an outside engineering firm and said firm shall conduct another visual inspection and a dye penetration test designed to reveal any flaws or imperfections in the welds. Documentation on this process must be provided if requested. NO EXCEPTION.

Does your bid comply with this requirement?

Yes () No ()

4.4 VEHICLE BODY STRUCTURE

All parts of the ambulance body, as specified in paragraph 3.10.6 of Federal Specification KKK-A-1822F, shall, where applicable, be of welded construction. Where fasteners are used in such areas as hinge attachment, hardware attachment, etc., the fasteners shall be ceramic coated aluminum and stainless steel. Any hole drilled into the modular body painted surface shall be coated with an ECK corrosion inhibitor prior to installation of the part. NO EXCEPTION.

Does your bid comply with this requirement?

Yes () No ()

4.4.1

Tapping plates of 6061-T6 alloy aluminum varying in widths of one quarter to one half inch shall be welded to the framing to secure the installation of equipment such as; cabinets, benches, partitions, cylinders, cot fasteners, etc. The body and panel joints shall be watertight and all openings between the chassis and modular shall be sealed. In addition a drip rail shall be supplied over each exterior compartment. The drip rail shall be attached

in such a manner as to provide for quick and easy replacement. Drip rails attached by mechanical fasteners shall not be used.

Does your bid comply with this requirement?

Yes () No ()

4.5 BODY MOUNTING

The mounting system shall not cause any chassis frame deformation. *The body shall be mounted to the chassis utilizing a liquid leveling system.* Any method contrary to QVM which may void the chassis warranty shall not be accepted.

Does your bid comply with this requirement?

Yes () No ()

4.6 FLOOR

The floor shall be at lowest level permitted by clearances, but not more than thirty three inches from the ground. The floor structure shall consist of two by two by 0.125 inch structural box section with 6061-T6 alloy aluminum. The floor structure shall be welded with eight inches of weld at every joint. The openings created for the placement of exterior compartments shall have six inches of weld to ensure a smooth surface to fit the compartment in the structure. Tapping plates of one quarter inch and one half inch of 6061-T6 aluminum shall be completely welded both sides to the floor assembly. The finished floor assembly shall be securely welded to the wall structures with eight inches of weld and skipped welded every four inches to the exterior compartments. All critical load points shall be reinforced with one quarter inch by three inch by four inch gusset plates. Above the floor channels there shall be an aluminum moisture shield 0.050 inches thick. The entire underside of the modular shall be sealed with a waterproof sealant. All hollow structural shapes or cavities shall be sealed utilizing approved expandable foam.

Does your bid comply with this requirement?

Yes () No ()

4.6.1

The rear patient access shall be equipped with an exterior aluminum threshold mount to the lower door jamb. This threshold will protect the bottom door jamb. In addition, the rear patient floor shall have a fourteen gauge stainless steel cot protector.

Does your bid comply with this requirement?

Yes () No ()

4.7 EXTERIOR STORAGE ACCOMMODATIONS

The exterior compartments shall be constructed of 0.090 aluminum and shall be formed by a computer controlled brake and shear to decrease the amount of welding to fully enclose the compartment. Therefore, the compartment shall be water tight. The compartment shall be welded in place to the side and floor structure with an additional bracket welded to a bracket connecting the exterior wall two with the floor structure. The floor of the exterior compartments shall be at least two inches below the lower door frame lip to help prevent equipment from falling

DESCRIPTION OF REQUIREMENTS AND SPECIFICATIONS (CONTINUED)

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out should a door not be closed. The compartment floor shall be supported from beneath with one by two by 0.125 6061 T-6 rectangular tubing welded to the underside and the floor structure. All exterior compartments shall be vented above the floor line with machine stamp louvers. The exterior compartment shall be lockable with one key fitting all doors. The compartments shall be equipped with handle and door locks. Each exterior compartment shall contain a sealed light to be illuminated upon the door opening. The light shall be activated by a mechanical switch. A door open indicator light shall be visible on the driver's console. The compartment configuration shall be as described.

Does your bid comply with this requirement?

Yes () No ()

4.8 PATIENT COMPARTMENT SOUND LEVEL

The patient compartment sound level shall meet the requirements of paragraph 3.13.8 of Federal Specification KKK-A-1822F.

Does your bid comply with this requirement?

Yes () No ()

4.9 INTERIOR SURFACES

All vertical edges of cabinets shall be of an aluminum extrusion with a 3/4 inch radius designed to free the interior of the patient's compartment of all sharp edges or projections. The face and inside of the cabinets shall be covered by a commercial grade laminate and adhered to the cabinet face by a high quality poly vinyl adhesive using a thermal press application. The wood, adhesive and laminate shall be pressed together at 200 degrees for four minutes in a thermal platen press. There shall be no voids of the adhesive between the laminate and the cabinet surfaces.

Does your bid comply with this requirement?

Yes () No ()

4.10 CABINET CONSTRUCTION

The interior cabinets, squad bench assembly, shelves and doors shall be constructed of Featherply plywood; due to the product's ability to be customized to fulfill the needs of the City, the additional acoustical and thermal insulation properties, repair ability, and the safety factor of not producing sharp fragments or shards in the event of a serious collision. The thickness of the finished panels used to construct the cabinets, shelves and doors shall be 3/4 inches including mica and adhesive. Any construction material that provides anything less than 3/4 inch panels in cabinet construction is not acceptable to the City. **NO EXCEPTION.**

The squad bench lid shall be attached to the squad bench assembly via a stainless steel piano hinge the entire length of the bench. The squad bench shall be equipped with a locking device to automatically secure the lid upon closing. The patient compartment wall panel (behind the squad bench) and the cab compartment wall panel shall be constructed of 1/4 inch plywood and covered with color coordinating high pressure laminate.

The cabinets shall be constructed using 8 mm dowels placed no farther than 32 mm apart. The dowels shall be a hardwood and pre-glued.

The doors on the upper cabinets shall be surface mounted with European hinges and 3mm edge banding. The

DESCRIPTION OF REQUIREMENTS AND SPECIFICATIONS (CONTINUED)

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doors on the center and lower cabinets shall be flush mounted using continuous stainless steel piano hinge and a 3 mm edge banding. All doors and cabinet openings shall be covered with a 3 mm edge banding with radius edges.

Does your bid comply with this requirement?

Yes () No ()

4.11 INTERIOR STOWAGE ACCOMMODATIONS

The interior of the patient compartment shall provide, but not be limited to, a minimum volume of thirty cubic feet of enclosed cabinets. Interior cabinet, shelf and compartment space shall be conveniently located for medical supplies, devices or other equipment. All interior cabinets shall be fully lined inside with high-pressure plastic laminate. The equipment and supplies necessary for airway management shall be within easy reach of the medic at the head of the stretcher. Interior cabinet dimensions are as described.

RUBBER COATING

The interior of the compartments shall be sprayed with Scorpion X02 rubber coating in a gray color. Scorpion X02 is a three component acrylic-reinforced aliphatic, aromatic polyurethane protective coating system. The product has high tensile strength, excellent abrasion resistance, superior elongation, high non-skid rating, and excellent UV stability and weathering characteristics.

RUBBER COATING

The rear bumper supports shall be sprayed with Scorpion X02 rubber coating in a black color. Scorpion X02 is a three component acrylic-reinforced aliphatic, aromatic polyurethane protective coating system. The product has high tensile strength, excellent abrasion resistance, superior elongation, high non-skid rating, and excellent UV stability and weathering characteristics.

EXTERIOR COMPARTMENTS

The bottom of compartments B1, B2, D and E shall drop down 3 inches from the door opening for maximum storage space in the compartment. This will also help prevent items stored in the compartment from falling out if on uneven surface.

EXTERIOR COMPARTMENTS

The bottom of compartments A and F shall be flush with the door opening to provide for a sweep out design. Sweep out on compartment F shall allow for ease of loading the oxygen bottle.

Duraseam Doors

All door frames to be cut to size using a programmable double miter saw to ashore accuracy and repeatability of components. All latch, door pins, switch and tapped hinge holes are to be added to door frame and jamb by means of a programmable milling operation to maintain consistency of all hardware cutout positions.

Does your bid comply with this requirement?

Yes () No ()

DESCRIPTION OF REQUIREMENTS AND SPECIFICATIONS (CONTINUED)

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The outer face of door shall be formed from one sheet of 5052-H32 aluminum. The door shall be flush with the body side. The outer skin shall be bonded to the door frame with structural adhesive that meets ASTM D 412 tensile strength, elongation, and elastic modulus. Adhesive to utilizes micro spheres to maintain a constant bond thickness around the inside skin edge to seal entire skin to frame. The door frame shall meet exterior skin with a smooth seamless transition. There shall be no seams or crevices on the door or door frame which allows the possibility of corrosion.

Both patient compartment and exterior compartment doors shall be provided with extruded rubber seal system consisting of a hollow cell bulb gasket. The gasket shall insert into an appropriately designed groove in the inner door extrusion. This will provide the best seal possible. Glued on seals or seals that are mounted to the compartment openings are unacceptable as they will easily be torn by loading of equipment stored in the compartments.

All doors shall be attached using minimum ¼-20 stainless steel hex bolts with stainless steel piano hinge with a pin size of at least 0.250 inch in diameter. The hinge must be punched with 0.265 diameter holes for exact fit of door to jamb with ¼- 20 hex bolts. Maintaining the close tolerances allows a replacement door to be fabricated that will match the old door bolt pattern that can be mounted in exactly the same place with the close tolerances.

All compartment doors shall be constructed the same as the entry doors to ensure continued door alignment and matched latching capabilities. All access doors must be encased by a door jamb that is separate from the body skin and bonded in place with the same structural adhesive as described in paragraph two on page one. After jamb is bonded to skin both skin and jamb are to be routed with the same radii as the door skin. After bonding to skin, the jamb is also welded to the 2" X 2" tubular body frame members. The door jamb shall be a 0.125"/0.380 thick 6063-T6 aluminum extrusion.

The interior surface of the patient compartment doors (rear and curb side) shall be finished in a safe and attractive manner that harmonizes with the interior finish. The door panels shall be designed to allow removal without disturbing the door latching hardware. The door panels shall be attached using automotive speed clips in conjunction with foam pads to enhance sound deadening. Door panels must be flush fitting not overlay. Doors using pliable materials such as upholstery are prohibited due to greater risk of contamination by blood borne pathogens through stitching or when cut or torn.

The three (3) patient compartment doors shall be fitted with stainless steel, flush fit, "paddle latch" hardware on the interior and an "automotive style" handles on the exterior. The patient compartment doors shall be provided with a keyed lock and the rear doors and side door shall be lockable from the inside without a key per FVMSS.

All patient compartment doors shall have emergency release handles to activate rotary latches in the event of door component failure.

All entry and compartment doors shall be insulated with 2-1/2" thick closed cell block foam insulation.

When the doors are opened, the hinges, latches and door checks shall not protrude into the access area. All patient compartment doors shall employ the same type locking hardware. All door latches shall comply with requirements of FVMSS 206.

DESCRIPTION OF REQUIREMENTS AND SPECIFICATIONS (CONTINUED)

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The locking devices shall be two-stage rotary latches and shall be FMVSS 206 certified .Where applicable there shall be two door latches, one at the top and one at the bottom, controlled by a single locking handle. The Latches shall into an adjustable “Nader “type pin located in the door frame. The Nader pin will utilize a captive nut to provide adjustment and replacement without loss of nut plate. The locking system shall be activated from the locking handle by metal push rods.

The outside door handles shall be a rugged “automotive style” that are near flush with door skin. These handles shall provide adequate clearance for the use of gloves. The hand/ glove clearance area of the handle shall be a minimum of .812” deep and 4.125 long. On the curb side and rear doors, the inside handle shall be a “paddle style” type constructed from stainless steel and shall be equipped with an inside door lock. All exterior storage compartments and module entry doors shall be lockable with the same key.

The compartment and entry doors shall be painted separately from the body. The doors shall then be installed on the painted module jamb. A Corrosion inhibitor shall be applied to both the door frame and jamb side of the hinge leafs. Additional corrosion inhibitor to be applied in all screw holes in both door frame and jamb.

Does your bid comply with this requirement?

Yes () No ()

4.12 INTERIOR HEADROOM

The interior headroom shall be a minimum of 72 inches.

Does your bid comply with this requirement?

Yes () No ()

4.13 COMPARTMENT A

Compartment A is the passenger side forward compartment. The door opening dimensions shall be a minimum of 65.5 inches high and 16 inches wide. The door shall access the right front cabinet.

Does your bid comply with this requirement?

Yes () No ()

4.14 RIGHT FRONT CABINET

The right front cabinet shall house the Heating and Air Conditioning unit. The intake vent shall be located in the lower left corner of the cabinet. The air shall blow out of a vent located in the upper portion of the cabinet. Cabinet E1 shall be the upper portion of the cabinet with dimensions 23.25 inches high and 33.25 inches wide and 22.25 inches deep. The lower E2 cabinet shall be located next to the intake vent and shall be 26.75 inches high and 20.5 inches wide and 22.5 inches deep. Both E1 and E2 shall allow access from exterior compartment A.

Does your bid comply with this requirement?

Yes () No ()

4.15 RIGHT FRONT CABINET DOORS

The right front cabinet shall have two wood doors. The door for the upper cabinet E-1 shall be a dual wood door, and the door for the lower cabinet E-2 shall be hinged on the left. The doors shall be manufactured from 3/4 inch

DESCRIPTION OF REQUIREMENTS AND SPECIFICATIONS (CONTINUED)

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marine grade plywood and be covered in color coordinated high pressure laminate. The doors shall be mounted flush with the cabinet opening with a "C" pull handle on each door. A plunger roller latch shall keep the doors secure during transit.

Does your bid comply with this requirement?

Yes () No ()

4.16 COMPARTMENT B1

Compartment B1 is on the passenger side just behind the rear wheel. The door opening dimensions shall be a minimum of 19.25 inches high and 21.5 inches wide. The interior dimensions shall be a minimum of 22.5 inches high and 23 inches wide and 18.5 inches deep.

Does your bid comply with this requirement?

Yes () No ()

4.17 COMPARTMENT B2

Compartment B2 is the passenger side rear compartment. The door opening dimensions shall be a minimum of 76.5 inches high and 13 inches wide. The interior dimensions shall be a minimum of 77 inches high and 15 inches wide and 18.5 inches deep.

Does your bid comply with this requirement?

Yes () No ()

4.18 COMPARTMENT D

Compartment D is the driver's side rear compartment. The door opening dimensions shall be a minimum of 58.25 inches high and 29.25 inches wide. The interior dimensions shall be 61.5 inches high and 32.5 inches wide and 18.5 inches deep.

Does your bid comply with this requirement?

Yes () No ()

4.19 COMPARTMENT E

Compartment E is on the driver's side just forward of the rear wheel. The door opening dimensions shall be a minimum of 36.75 inches high and 26.5 inches wide. The interior dimensions shall be approximately 39 inches high and 29.75 inches wide and 18.25 inches deep.

Does your bid comply with this requirement?

Yes () No ()

4.20 COMPARTMENT F

Compartment F is the driver's side forward compartment. The door opening dimensions shall be a minimum of 58.5 inches high and 16.75 inches wide. The interior dimensions shall be approximately 59 inches high and 20 inches wide and 18.25 inches deep.

Does your bid comply with this requirement?

Yes () No ()

4.21 COMPARTMENT F

Compartment F shall have a dogleg in the forward section of the compartment approximately 59 inches high by 12 inches deep by 21.75 inches deep. This recess shall be for storage of a Stair chair.

Does your bid comply with this requirement?

Yes () No ()

4.22 FUEL FILL HOUSING

A cast aluminum fuel fill housing shall be installed according to the chassis manufacturer's instructions.

Does your bid comply with this requirement?

Yes () No ()

4.23 EXTERIOR VERTICAL DIVIDERS

One (1) vertical divider(s) shall be located in compartment B2. They shall be manufactured of 3/16 inch thick aluminum and be painted with scratch resistant gray rubber coating. The divider shall be approximately 11 inches wide and extend from the top of the compartment to the bottom.

Does your bid comply with this requirement?

Yes () No ()

4.24 EXTERIOR COMPARTMENT SHELF

The exterior compartment shelves shall be manufactured from 0.125 inch aluminum. Each shelf shall have a 0.125 inch thick ribbed rubber mat. The shelf track shall be a heavy duty extruded aluminum. There shall be a shelf in the RF Compartment/Cabinet.

Does your bid comply with this requirement?

Yes () No ()

4.25 EXTERIOR ELECTRICAL SHELF

A fixed exterior shelf shall be located in the left center compartment "E" near the top of the compartment. It shall serve the sole purpose of holding electrical equipment.

Does your bid comply with this requirement?

Yes () No ()

4.26 STEP WELL AND WINDOWS

The curb side door step well shall have a light recessed into wall one of the step well. It shall be automatically lit when the side and rear doors are opened. The light shall be activated by a switch. The step well shall be finished with a polished aluminum diamond plate. There shall be a window in each of the three patient access doors. The window frame shall be of an extruded aluminum design with a protective anodized finish. The curbside entry door window shall include a sliding window to allow for fresh air when needed. The two rear door windows shall have fixed glass. The glass shall have a privacy tint.

The curbside window shall have the following dimensions: 26 1/2 inches high and 19 1/2 inches wide. The rear windows shall be 22 1/2 inches high and 13 1/2 inches wide.

Does your bid comply with this requirement?

Yes () No ()

4.27 PATIENT ENTRY DOOR LATCHES, HINGES AND HARDWARE

When the doors are opened, the hinges, latches and door checks shall not protrude into the patient compartment. All patient doors shall employ the same type of locking hardware. All door latches shall comply with FMVSS 206. The locking devices shall be two stage rotary latches and shall be in accordance with FMVSS. There shall be two door latches, one at the top and one at the bottom, controlled by a single locking handles. The latches shall lock into an adjustable Nader type pin located in the door frame. The Nader will utilize a captive nut to provide adjustment and replacement without loss of the nut plate. The door latching mechanism shall have an upper and lower patented "Emergency Release Latch" to allow egress from the vehicle if a system failure should occur.

The door handles shall be Trimark OEM style handle with a large enough space for gloved hands to operate the handle. The door handles shall be free floating with 1008 cold rolled steel mechanical components with Nitrotec treated wear components. The locks shall be a KeyOne Plus lock cylinder with a reversible key. The KeyOne Plus system allows the lock core to be removed with a special key and allows it to be rekeyed for additional security and keying fleets the same. The rear trailing door shall have a patented side release paddle handle that removes the necessity of reaching inside the patient compartment door. The door entry system shall have been tested to 100,000 cycles.

The locking system shall be from the locking handle by aluminum push rods. The patient compartment doors will be equipped with an inside door lock. All entry doors shall have horizontal aluminum reinforcements welded to the door frame and the entry doors shall have closed cell block foam insulation.

Does your bid comply with this requirement?

Yes () No ()

4.28 COMPARTMENT DOOR LATCHES, HINGES AND HARDWARE

When the doors are opened, the hinges, latches and door checks shall not protrude into the patient compartment. All compartment doors shall employ the same type of locking hardware. All door latches shall comply with FMVSS 206. The locking devices shall be two stage rotary latches and shall be in accordance with FMVSS. There shall be two door latches, one at the top and one at the bottom, controlled by a single locking handles. The latches shall lock into an adjustable Nader type pin located in the door frame. The Nader will utilize a captive nut to provide adjustment and replacement without loss of the nut plate.

The compartment door handles shall be Trimark OEM style handle with a large enough space for gloved hands to operate the handle. The door handles shall be free floating with 1008 cold rolled steel mechanical components with Nitrotec treated wear components. The locks shall be a KeyOne Plus lock cylinder with a reversible key. The KeyOne Plus system allows the lock core to be removed with a special key and allows it to be rekeyed for additional security and keying fleets the same. The compartment door entry system shall have been tested to 50,000 cycles. The door handle shall be mounted to the exterior door panel using mechanical fasteners and rubber gaskets that will eliminate the possibility of electrolysis. All doors shall have closed cell block foam insulation.

Does your bid comply with this requirement?

Yes () No ()

4.29 REAR DOOR HOLD OPENS

The rear doors shall be held open by (2) 5.5 inch Cast Grabber. The U shaped piece shall be attached to the door. It shall enter into a rubber insert when the door is in the open position. A corrosion inhibitor shall be applied to the mounting holes prior to installation.

Does your bid comply with this requirement?

Yes () No ()

4.30 COMPARTMENT DOOR HOLD OPEN

Five (5) Compartments shall have a 30 pound gas strut in lieu of a spring loaded hold open.

Does your bid comply with this requirement?

Yes () No ()

4.31 COMPARTMENT DOOR HOLD OPEN

The right front compartment shall have a 30 pound gas strut in lieu of a spring loaded hold open.

Does your bid comply with this requirement?

Yes () No ()

4.32 CURBSIDE ACCESS DOOR HOLD OPEN

The curbside access door shall have a gas strut hold open to hold the door at approximately 90 degrees.

Does your bid comply with this requirement?

Yes () No ()

4.33 DOOR PANELS

The upper and lower portion of the curbside and rear access door panels shall be brushed stainless steel. The center shall be reflective chevron covered aluminum.

Does your bid comply with this requirement?

Yes () No ()

4.34 REAR FENDERS

Bright finish aluminum fender flares shall be provided around the rear wheel well openings to provide protection from wheel wash. A corrosion inhibitor shall be applied to the mounting holes prior to installation.

Does your bid comply with this requirement?

Yes () No ()

4.35 BUMPERS AND STEP

The chassis manufacturer shall supply the vehicle's front bumper. The rear bumper and step assembly shall be a single unit constructed of ten gauge steel "C" formed channel and .100 inch thick aluminum tread plate as measured at the thinnest point of the tread plate. The center step of the bumper assembly shall be designed to allow it to flip up and out of the way to facilitate patient loading. The flip up section of the of the rear bumper shall be diamond plate to meet the requirements of KKK - A - 1822F specification. The diamond plate flip up step shall be punched with three rows of raised star-shaped holes to create additional non-skid surface. A 1.5" x 2" x 0.125" aluminum box tube shall be welded inside the step full width on the side farthest from the rear of the vehicle. A stainless steel hinge with a center pin of .250 inch shall be used to attach the flip up section of the rear step to the main rear bumper assembly. There shall be eye beam constructed skid plates with tow eyes mounted as part of the frame of the bumper. This assembly shall be bolted to the frame of the chassis with 5/8 inch Grade 8 bolts. There shall be a one half inch clearance between the bumper assembly and the rear of the modular body to allow water drainage and inhibit water collection. There shall be a two inch red LED marker light on the street side and curb side of the bumper assembly. These lights shall be a sealed unit and the connectors protected with an adhesive heat shrink. The lights shall illuminate with the vehicle head light control.

Does your bid comply with this requirement?

Yes () No ()

4.36 RUNNING BOARDS

Diamond plate running boards shall be installed just under the cab doors for both the driver and passenger. The diamond plate step shall be punched with rows of raised star-shaped holes to create additional non-skid surface. The boards shall allow for easy entry into the cab.

Does your bid comply with this requirement?

Yes () No ()

4.37 SKIRT RAILS

Extruded aluminum channel with extruded rubber insert shall be provided on street side and curbside of modular body. The rails shall be installed along the lower edge of the body. The rails shall be offset from the sides by a minimum of one quarter inch to allow water and road wash not to collect between the rail and modular rail. Rubber spacers shall be used to install the rails to eliminate the possibility of electrolysis. A corrosion inhibitor shall be applied to the mounting holes prior to installation.

Does your bid comply with this requirement?

Yes () No ()

4.38 FRONT STONE GUARDS

The lower front corners of the patient compartment shall have stone guards attached to the corner extrusion. They shall be diamond plate aluminum and extend from the bottom edge of the corner extrusion up approximately 13 inches. A corrosion inhibitor shall be applied to the mounting holes prior to installation.

Does your bid comply with this requirement?

Yes () No ()

4.39 REAR KICK PLATE

Above the rear bumper and below the rear doors, there shall be a full length riser of aluminum diamond plate for a protective kick panel. The kick panel shall be securely fastened with ceramic coated stainless steel screws to inhibit rust that could result from electrolysis and run the full rear width of the module. Pop rivets are not acceptable. There shall be a recess in the center of the kick plate for the installation of the tag holder.

Does your bid comply with this requirement?

Yes () No ()

DESCRIPTION OF REQUIREMENTS AND SPECIFICATIONS (CONTINUED)

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4.40 LICENSE PLATE HOLDER

A Cast Products license plate holder shall be installed in the rear kickplate.

Does your bid comply with this requirement?

Yes () No ()

4.41 COMPARTMENT SILL PROTECTORS

All compartments shall have a stainless steel sill protector. The sill protectors shall be manufactured from 20 gauge stainless steel and cover the bottom door frame protecting it from scratches.

Does your bid comply with this requirement?

Yes () No ()

4.42 REAR MUD FLAPS

Mud flaps shall be installed just behind the rear tires.

Does your bid comply with this requirement?

Yes () No ()

5.0 PREPARATION FOR PAINTING, COLOR AND MARKINGS

5.1 Color, Paint and Finish.

Ambulance body and all attached equipment exterior surfaces, except polished metal parts, shall be thoroughly cleaned, treated, and coated with a firm primer and preservative with rust inhibiting properties, and painted white to match the OEM chassis. Ferrous metal interior surfaces shall be painted or, when not exposed for painting, shall be treated or coated to resist corrosion.

The final stage manufacturer's painted components shall have a paint film not less than 1.25 mils. thick and a minimum total thickness of 4 mils., including primers. The final film of painted surfaces shall be smooth and uniform, free of grit, streaks, blushing, runs, sagging, blisters, "fish-eyes", "orange peel", pinholes, or other surface irregularities. Exterior finish paint shall not be required on the underbody and inside surface of the body skirting. The modular body shall be painted with an AkzoNobel (or equal) high quality automotive polyurethane acrylic paint.

Does you bid comply with this requirement?

Yes () No ()

5.2 Modular Body Doors

All modular body doors shall be removed prior to paint and shall be painted separately from the modular body. After painting, the doors are to be re-installed. The doors shall be painted using the same method as the modular body.

Does you bid comply with this requirement?

Yes () No ()

5.3 Modular Body Preparation.

The entire exterior of the modular body shall be cleaned and prepared for painting according to the following minimum requirements:

Does you bid comply with this requirement?

Yes () No ()

5.4 Substrate Preparation

- The modular body shall be thoroughly degreased using an acetone degreaser and the wipe on – wipe off method.
- Any areas that require filling will be first be abraded with 80 grit sandpaper using a DA orbital sander. If any welds require grinding, 24 grit paper shall be used. Any plastic filler used shall be mixed and applied per Manufacturer’s instructions. After filler application, the surface shall be prepared using 80 grit sandpaper followed by 120 grit paper using a DA orbital sander.
- A minimum of two (2) coats of Wash primer EMCF shall be applied to all plastic filler areas allowing to flash five (5) minutes between coats.
- The Wash primer shall be sanded with 320 grit sandpaper using a DM orbital sander.
- A fine textured glazing putty shall be used to fill any additional surface flaws, pinholes and/or scratch marks. After curing, the surface shall be sanded with 320 grit sandpaper using a DA orbital sander.
- The substrate shall be sanded with 180 grit sandpaper using a DA orbital sander to remove any final imperfections.
- The modular body shall again be thoroughly degreased using M-600 degreaser and the wipe on – wipe off method.
- All corner extrusions and the top drip rail to be caulked as necessary.

Does you bid comply with this requirement?

Yes () No ()

5.5 Aluminum Pretreatment.

The modular body shall be pretreated with achromium free conversion coating that is specifically formulated for treating aluminum and its alloys. Prior to the pretreatment application, all diamond plate is to either be removed or properly masked to prevent staining. After application, the modular

DESCRIPTION OF REQUIREMENTS AND SPECIFICATIONS (CONTINUED)

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body shall again be thoroughly degreased using M-600 degreaser and the wipe on – wipe off method.

Does you bid comply with this requirement?

Yes () No ()

5.6 Wash Primer

The modular body shall be primed with a medium build, chromate-free, self-etching wash primer that offers excellent corrosion resistance without the use of metal preps and conditioners. There shall be a minimum of two (2) medium wet coats applied allowing a five (5) minute flash between each coat. The final coat shall be allowed to flash for 30 minutes. The primer shall be sanded with 320 grit sandpaper using a DA orbital sander or 400 grit dry sandpaper by hand. After sanding, the modular body shall again be thoroughly degreased using M-600 degreaser and the wipe on – wipe off method.

Does you bid comply with this requirement?

Yes () No ()

5.7 Sealer

To enhance the adhesion between the substrate and top coat of paint, a transparent sealer/adhesion promoter shall be applied to the modular body. A minimum of two (2) wet coats of sealer shall be applied. The initial coat shall be allowed to flash 10 minutes before the application of the second coat. Once the sealer has cured, the body is to be sanded smooth with 320 grit sandpaper using a DA orbital sander.

Does you bid comply with this requirement?

Yes () No ()

5.8 Top Coat

The top coat of paint shall be a high solid two-component polyurethane enamel, suitable for automotive refinishing, trucks and equipment. Paint shall provide an easy application with excellent flow along with superior gloss and durability in a two-coat application.

Does you bid comply with this requirement?

Yes () No ()

5.9 Final Sand and Buff

The entire exterior surface of the module shall be sanded with a minimum 1200 to 1500 grit sand paper and then followed by 3000 grit wet sandpaper. The exterior of the module will then be polished using the 3M 3000 buffing system with 3M Perfect-It III buffing compound to provide a smooth, high gloss final surface finish. This process shall provide a smooth, high gloss finish that is resistant to scratching and chipping, if proper vehicle care is taken.

DESCRIPTION OF REQUIREMENTS AND SPECIFICATIONS (CONTINUED)

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Does you bid comply with this requirement?

Yes () No ()

5.9 Color

Exterior paint color shall be Black over Red to match existing BTFD Ambulances . There shall be a 10” scotch lite reflective Black Band around the Ambulance with a ½” gold strip at top and bottom of Band. The rear of the Modular Box shall be covered with Black and Red Reflective Chevrons.

Does you bid comply with this requirement?

Yes () No ()

5.10 Roof Top Markings

A "Star of Life" of not less that 32 inches and conforming to KKK-1822F section 3.16.4.C shall be installed on the ambulance rooftop. There shall also be a 20” unit identifier on the rooftop (Example: Rescue 3)

Does you bid comply with this requirement?

Yes () No ()

6.0 ELECTRICAL SYSTEMS AND COMPONENTS

The emergency medical vehicle's electrical system must meet KKK - A1822 - F Section 3.7.1. This agency will specify systems, components, materials, and production methods within this section. However, a failures can occur whether the vehicle is under warranty or outside the warranty parameters. This agency operates the vehicle on a twenty four hours a day, seven day a week (24/7) basis. Therefore, the primary manufacturer will provide a local service facility during regular business hours and a 24/7 support service staffed by trained technicians to assist this agency.

Local Service Facility _____
24/7 Service assistance, phone number _____

Does you bid comply with this requirement?

Yes () No ()

6.1 Control Console

The driver and patient compartment control consoles shall be constructed in a way that the switches and any gauges are easily serviced. They shall be accessible through service panels. These panels will be secured in the closed position in a positive manner, yet can be easily opened for service.

Does you bid comply with this requirement?

Yes () No ()

6.2 Console Gauges

The control console gauges shall be internally illuminated and controlled by the headlight switch rheostat. All lights and fixtures installed on the module exterior shall have a corrosion inhibitor applied to all mounting holes prior to installation.

The driver and patient console shall incorporate full size "Euro-Style" rocker switches. The switch assembly shall be 1.97 inches tall by 1.064 inches wide with silver plated copper contacts and a .250 inch spade type terminal. The rocker switch shall incorporate a LED indicator lamp and rated at 15 Amps continuous service. The switch and rocker shall be of a thermo set molding material. The complete switch assembly shall be designed to withstand one thousand (1,000) volts RMS dielectric test. The switches shall have a positive "throw" feel and an audible click upon activation and deactivation

Does you bid comply with this requirement?

Yes () No ()

6.3 Rocker Switches

The rocker switches, as described in section 4.1.3, shall have integrated label lens area that is illuminated by two independent LED's. The LED brightness shall be controlled by the headlight rheostat. The label shall be white legends on black poly carbonate background.

Does you bid comply with this requirement?

Yes () No ()

6.4 Throttle Monitor

The OEM throttle monitor shall be mounted in the primary manufacturer's console. It shall be mounted to be easily accessible to the driver.

Does you bid comply with this requirement?

Yes () No ()

6.5 WARNING INDICATORS

The electrical system shall incorporate a warning light panel in the driver's console. It shall provide indicator lights for showing when a patient compartment door(s), side and rear, are open. This shall be a flashing red LED light. There shall be an exterior compartment "door open" warning light. This shall be a flashing red LED light of the same size.

Does you bid comply with this requirement?

Yes () No ()

6.6 Battery Indicator Light

A battery indicator light shall be provided. It will be a green light located in the warning light panel. It shall illuminate when the battery switch is in the "ON" position. The light shall be steady burn to indicate the batteries have been selected.

Does you bid comply with this requirement?

Yes () No ()

6.7 WIRING INSTALLATION

The ambulance body and accessory electrical equipment shall be served by circuit(s) separate and distinct from the vehicle chassis circuits. Wiring methods must conform to SAE J1292. All wiring provided by the primary manufacturer shall be copper and conform to all the SAE J1127 and SAE J1128 requirements. All low tension primary cable shall have GXL or better insulation. All low tension battery cable shall have SGX insulation. Documentation from the wiring manufacturer that the wire used by the primary manufacturer is in compliance with this requirement shall be submitted with the proposal. Bids not meeting this requirement will not be accepted.

The wiring shall be permanently color coded to identify wire function. Wires shall be permanently heat ink embossed with both number and function codes. The function code shall be the descriptive name of the circuit served. The number code shall be the exact purpose of that circuit. This number code shall be completely referenced in a detailed wiring schematic provided with the vehicle. The function and number code shall be embossed at a minimum of four inch intervals the entire length of the wire terminating into all switch and control panels. The use of multi-conductor cable must be function and color coded and shown on the wiring diagram.

Wiring shall be routed in conduit or high temperature looms with a rating of 300 degrees Fahrenheit where necessary to protect it. All added wiring shall be located in accessible, enclosed, and protected locations and kept at least six inches from the exhaust system components. Electrical wiring and components shall not terminate or be routed in the oxygen storage compartment except for the oxygen controlled solenoid, compartment light, and switch. All conduits, looms, and wiring shall be secured to the body or frame with insulated metal cable straps in order to prevent sagging and movement which results in chafing, pinching, snagging or any other damage. All apertures on the vehicle shall be properly grommeted and sealed for passing wiring and conform SAE 1292. All items used for protecting or securing the wiring shall be appropriate for the specific application and be standard automotive, aircraft marine, or electronic hardware.

Does you bid comply with this requirement?

Yes () No ()

6.8 Circuit Connectors

Circuit connections shall be made on barrier style terminal blocks utilizing binding post screws for positive mechanical connections. minimize the potential for wiring shorts and voltage drops all wiring terminals shall be brass, tin plated, annealed, ETP copper with nylon high heat insulation. Serration's, inside the barrel, provide maximum contact and tensile strength after crimping. Connection shall be machine crimped, UL standards, with a high quality crimping tool that produces crimps for a given size wire and terminal that are precisely alike in appearance and performance. Crimping pressure must be controlled by a ratchet device on the hand tool or a corresponding pre-calibration in the crimping jaws of an automated machine. Crimping pressure can neither over-stress nor under stress the terminal-barrel-machined dies.

No splices shall be permitted except for connection of "pig-tail" devices. Butt splices are permitted for connection of "pig-tail" devices. The use of IDC (Insulation Displacement Conductor) connectors, ie: "3M Scotchlok" type fasteners, is not acceptable.

Does you bid comply with this requirement?

Yes () No ()

6.9 Wiring Harness

The various wiring installations as supplied with this vehicle shall be of the automotive "harness" design. For ease of identification and future replacement these harnesses shall be engineered and manufactured in the following sections.

1. Engine compartment harness.
2. Driver's control console harness.
3. Main module harness.
4. Chassis rear lighting harness.

This agency is extremely concerned the primary manufacturer has the ability to control, warranty and replace the harnesses. To that end, the primary manufacturer shall not subcontract the construction of these harnesses.

Does you bid comply with this requirement?

Yes () No ()

6.10 Wiring Criteria and Circuit Board

All wiring devices, switches, outlets, etc., except circuit breakers, shall be rated carry a minimum of one hundred and twenty-five percent (125%) of the maximum ampere load for which the circuit is protected. All wires carrying a load of more than 5 amperes shall be a minimum of 16 AWG. There shall be a master electrical component panel located in the vehicle. It is preferred that the master panel be mounted on or near the bulkhead of the patient compartment. Standard circuit breakers, relays, and diodes shall be mounted on a printed circuit board that is easily accessible. All components on the circuit board are to be permanently labeled as to their function.

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The printed circuit board shall be designed and manufactured as follows: A screen printed board with all circuits fully numbered and labeled. The circuit board shall be a double-sided copper trace printed circuit with a double-sided laminated isolator. The board shall be non photo imaginable solder mask over bare copper with hot air leveled solder over non masked copper. Fuse capacity is the beginning factor in calculating trace width to ensure proper current carrying capability. The circuits shall then be oversized as much as space permits for maximum cooling of the board. All holes shall be plated through. The terminal strips shall be mounted on the board for connection of the above mentioned wiring harness. Automotive transient suppressers must be incorporated into circuit board at the point of cable entry to the board. All relays must include built in noise suppression. The suppression must be accomplished with a IN4001 parallel with the coil. The relay must have a 40 ampere continuous contact rating with one form C contact arrangement. Normally open contact must have a maximum initial voltage drop of 200 millivolts at 40 ampere contact load. The relays must withstand 24 VDC for five minutes conducting rated contact current in case of accidental 24 volt jump start condition. Circuit board options must be programmable via jumpers to facilitate addition of options. The color of wire and circuit number must be screened printed at the terminal block connections on the board for rapid identification and relation to schematics.

Documentation that the above requirements are met must be included with the bid document.

The printed circuit board shall incorporate red LED indicators for on board diagnostics for input, output, and switching circuits for troubleshooting at a glance.

Does you bid comply with this requirement?

Yes () No ()

6.11 Circuit Board Certification

The printed circuit board must meet the following specifications:

1. Packaging and Interconnecting Acceptability Standard number IPC 600
2. UL-796
3. Solder mask, IPC number SM-840
4. Solder in conformance with MIL SPEC QS-571
5. Laminate in conformance with IPC number 4101

Certification must be included with this bid.

A service loop of wire or harness, per KKK-A1822-F specification, shall be provided at all electrical components, terminals, and connection points. All relays shall be mounted for ease of serviceability. All high current diodes greater than 5 amperes shall be heat sink mounted. provide the optimum circuit "overload" protection, the electrical system's main circuit board shall allow for the use of stud type automatic reset pole breakers. One spare 15 ampere circuit breaker shall be provided for future use. A solid state electronic flasher shall be heat sink mounted to the panel for control of the flashing warning light system. All wiring between the cab and module shall be connected to a terminal strip(s) or block(s) or use multi pin connectors on

DESCRIPTION OF REQUIREMENTS AND SPECIFICATIONS (CONTINUED)

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the electrical component panel and shall provide for future module replacement. All connectors and terminals provided shall comply with SAE J163, J561, or J928 as applicable.

Does you bid comply with this requirement?

Yes () No ()

6.12 Master Module Disconnect Switch or Device

This device shall be located on the driver's compartment console and shall be permanently labeled and back lighted with a LED light and the brightness controlled by the head light rheostat. The "MASTER" disconnect switch shall be considerably different in size and feel from the other console switches.

Does you bid comply with this requirement?

Yes () No ()

6.13 Patient Compartment Controls

All switches and controls for the patient compartment shall be located on a service panel in the Action Area angled slightly toward the rear of the vehicle. The switches and controls shall be identical as referenced in section 4.1.3 of this document. These switches shall not function until the "MASTER" switch in the driver's console is in the "ON" position. The patient compartment switches shall be permanently marked and back lighted by a LED light.

Does you bid comply with this requirement?

Yes () No ()

6.14 ELECTROMAGNETIC RADIATION AND SUPPRESSION

Must meet KKK - A1822 - F specification. Documentation from an independent testing laboratory must be included with the bid.

Does you bid comply with this requirement?

Yes () No ()

6.15 ANTENNA CABLE INSTALLATION

Shall meet the requirements of paragraph 3.14.3 of Federal Specification KKK - A - 1822E.

Does you bid comply with this requirement?

Yes () No ()

6.16 INTERNAL 12 VOLT DC POWER

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The patient compartment shall be furnished with a 12 volt DC, 20 ampere capacity, separately protected circuit, with two outlets. The outlets shall be Cigar Lighters and shall be located in the Action Area.

Does your bid comply with this requirement?

Yes () No ()

6.17 PORT 5 VOLT DC POWER USB STYLE

The Drivers compartment shall be furnished with a 5 volt DC, 2.1 ampere capacity, separately protected circuit, with a Dual USB outlet. It shall be located in the center console to the passenger side.

Does you bid comply with this requirement?

Yes () No ()

6.18 POWER SOURCE

A 12VDC power source shall power customer supplied portable battery charging devices. It shall be 20 amp and ignition/shoreline switch hot. The power source shall be split into two locations tagged and identified (1) behind driver's seat and (1) behind action area in module.

POWER SOURCE

A 12VDC power source shall power XXXXX. It shall be 15 amp and XXXXX hot.

Does your bid comply with this requirement?

Yes () No ()

POWER SOURCE

A 12VDC power source shall power radios. It shall be 30 amp and ignition hot.

Does your bid comply with this requirement?

Yes () No ()

6.19 SHORELINE INLET

A 20 amp Super Auto Eject shoreline inlet with a GFI and interrupter shall be installed and located above compartment E.

Does your bid comply with this requirement?

Yes () No ()

6.20 115 VOLT AC UTILITY POWER

115 volt AC utility power must meet KKK - A1822 - E. Utility power shall be as described in KKK - A1822 - E paragraph 3.7.8.1. Electrical 115 volt AC receptacles shall be as described in KKK - A1822 - E paragraph 3.7.8.2.

Does your bid comply with this requirement?

Yes () No ()

6.21 110 VAC OUTLETS

Two 110VAC duplex outlets shall be installed in the patient compartment. One outlet shall be located in the action area, and one outlet shall be located in the right front cabinet.

Does your bid comply with this requirement?

Yes () No ()

6.22 ADDITIONAL 110VAC OUTLET

An additional 110VAC duplex outlet shall be installed in the telemetry area.

Does your bid comply with this requirement?

Yes () No ()

6.23 BATTERY CHARGER

A Progressive Dynamics, PD9130 or comparable Auto battery charger shall be installed. It shall be a 12 amp charger/conditioner.

6.24 Prewired

The vehicle shall be prewired for fog lights, wig wag and block heater.

Does your bid comply with this requirement?

Yes () No ()

6.25 Inverter

The vehicle shall be equipped with a new dimensions inverter with battery charger. It shall power the outlets.

Does your bid comply with this requirement?

Yes () No ()

6.26 VOLTMETER

The vehicle shall include a Datcon analog voltmeter. It shall be located in the front center console next to the ammeter.

Does your bid comply with this requirement?

Yes () No ()

6.27 LOW VOLTAGE ALARM

The electrical system shall be monitored by a system that provides both an audible and visual warning in case of low voltage in the ambulance. The alarm shall sound if the system voltage at the batteries drops below 11.8 Volts for a 12 Volt nominal system for more than 120 seconds.

6.28 SIREN, PUBLIC ADDRESS SYSTEM

The ambulance shall be equipped with hands free electronic siren with silent testing. The siren shall be a Whelen WS-295-SLSA1.

Does your bid comply with this requirement?

Yes () No ()

6.29 SIREN/HORN SWITCHING

The siren shall be switched through the horn ring.

Does your bid comply with this requirement?

Yes () No ()

6.30 BACKUP ALARM

A backup alarm with a cut off switch shall activate when the vehicle is shifted into reverse. The alarm shall automatically be reset and engage when the vehicle is placed in reverse again. The device must meet OSHA and SAE J994 requirements, and shall be rated (SAE) for Type C or B.

Does your bid comply with this requirement?

Yes () No ()

6.31 VEHICLE EXTERIOR LIGHTING REQUIREMENTS

The basic exterior ambulance lighting shall comply with FMVSS standard number 108 and the requirement herein and include:

1. Amber front, rear directional signals, red brake and hazard warning lights.
2. Front and rear side marker lights.
3. Back up light(s).

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4. Loading lights.
5. Clearance lights
6. Ambulance emergency lights.
7. Flood lights.
8. Spotlight(s)

Note: This agency is concerned for the safety of the patients, crew, and the public sharing the roadways. Therefore, this agency requires the primary manufacturer to incorporate recessed DOT marker lights at the highest point of the vehicle. The marker lights shall be visible 360 degrees. In addition each corner marker light shall be visible 180 degrees; also at each corner the marker light lens cover shall be tilted upward on a 45 degree angle to be visible above the horizontal plane for 360 degrees. These measures will insure the vehicle will be visible in low light conditions with the headlights in the "on" position. **Bolt on upper clearance lights or clearance lights within the support side extrusions will not be acceptable.** The rear side marker light shall be a minimum of two inches in diameter and shall function as a turn signal indicator as described in KKK - A1822 - E.

Does your bid comply with this requirement?

Yes () No ()

7.0 EMERGENCY LIGHTING SYSTEM

The emergency lighting system must provide the vehicle with 360 degrees of visual warning ability. The system must display highly perceptible and attention getting signals that function in a modal system and convey the message in the primary mode to clear the right of way. In the secondary mode hazard vehicle stopped on right of way.

Does you bid comply with this requirement?

Yes () No ()

7.1 Warning Lights

The basic warning light system shall contain fifteen clear lens red flashing, one clear and one amber light These lights shall function in a dual mode system as shown in KKK - A - 1822E and meet the physical and photo metric requirements of paragraph 3.8.2.1 of that same document. The upper body warning lights shall be identical and mounted at the extreme upper corner areas of the ambulance body below the horizontal roof line, with the single clear light mounted midway of the seven front facing red flashing upper corner lights and the amber light centered above the rear doors. Four red grill lights shall be mounted per KKK - A - 1822E specifications without compromising the chassis manufacturer's air intake into the engine compartment.

Does your bid comply with this requirement?

Yes () No ()

7.2 PHOTO METRIC AND PHYSICAL REQUIREMENTS

As specified by KKK - A - 1822E. All emergency light switches shall be labeled as specified in paragraph 3.7.11 of KKK - A - 1822E, and the primary/secondary mode switch(s) shall have an

DESCRIPTION OF REQUIREMENTS AND SPECIFICATIONS (CONTINUED)

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indicator light to show the driver which mode is activated. All warning light control switches, as described in section 4.3.1 of this document, shall be located in the driver control console and arranged to provide the warning signal modes and combinations as specified in Table 1 of KKK - A - 1822E, page 19. An independent testing laboratory will certify that the system meets these requirements. Test documents to be included with this proposal.

Does your bid comply with this requirement?

Yes () No ()

7.3 Emergency Lighting

Fifteen (15) Whelan 90R02FCR Red Single Row Super LED light(s) shall be located as directed by this Agency.

Four (4) Whelan 90R02FCR Red Single Row Super LED light(s) shall be located as directed by this Agency.

One (1) Whelan 90A02FCR Amber Single Row Super LED light(s) shall be located as directed by this Agency.

One (1) Whelan 90C02FCR Clear Single Row Super LED light(s) shall be located as directed by this Agency.

Two (2) Whelan 90C02FCR Clear Single Row Super LED light(s) shall be located as directed by this Agency.

Four (4) Whelan 50R02ZRR Red Super LED light shall be installed as grill lights. The lens shall be clear and the LED lights shall be Red.

Does your bid comply with this requirement?

Yes () No ()

7.3 Whelen flanges shall be installed on the above lights.

Does your bid comply with this requirement?

Yes () No ()

7.4 Intersector Lights

A pair of Whelan, LINZ6R RED Super LED Red light shall be installed as intersection lights over the rear wheels. A pair of Whelan LINZ6R RED shall be installed on front fenders.

Does your bid comply with this requirement?

Yes () No ()

7.5 CLEARANCE LIGHTS

The primary manufacturer shall incorporate DOT marker lights at the highest point of the vehicle. The marker lights shall be visible 360 degrees. In addition, each corner marker light shall be recessed and visible 180 degrees. Also at each corner, the marker light lens cover shall be tilted upward on a 45 degree angle to be visible above the horizontal plane for 360 degrees. These measures will insure the vehicle will be visible in low light conditions with the headlights in the "on" position. Bolt on upper clearance lights or clearance lights within the support corner extrusions will not be acceptable. Amber lenses shall be installed on the front corners and Red lenses shall be installed on the rear corners. The light shall be LED and flash at high intensity when activated through a separate switch located on the cab console.

Does your bid comply with this requirement?

Yes () No ()

7.6 MARKER LIGHTS

Two amber LED marker lights shall be installed in the rear bumper. One shall be installed on the driver's side and one installed on the passenger side of the rear bumper pontoons.

Does your bid comply with this requirement?

Yes () No ()

MARKER LIGHTS

Two red LED marker lights shall be installed in the rear bumper. One shall be installed on the driver's side and one installed on the passenger side of the rear bumper pontoons.

Does your bid comply with this requirement?

Yes () No ()

7.7 EXTERIOR FLOOD LIGHTS

Four Whelen 9SC0ENZR LED Clear lights shall be installed. Flood and loading lights shall not be less than seventy-five inches above the ground and shall not be obstructed by open doors. Two floodlights shall be located on each sides of the vehicle and be firmly fastened to the body surfaces below the roof line. The side flood lights shall be controlled from the cab console and be independently switched.

Does your bid comply with this requirement?

Yes () No ()

7.8 EXTERIOR LOADING LIGHTS

Two Whelen, 9SCENZR LED, loading lights shall be provided above the rear doors and shall illuminate the area surrounding the back loading and unloading doors. Rear loading lights shall activate automatically when the rear doors are open regardless of the switch position in the cab console. The rear load lights shall be incorporated with the FMVSS backup lighting system.

Does your bid comply with this requirement?

Yes () No ()

7.9 LICENSE TAG LIGHT

There shall be two license tag lights installed on either side of the rear license plate.

Does your bid comply with this requirement?

Yes () No ()

7.10 TAILLIGHT PACKAGE

There shall be a Whelan taillight package installed on the rear of the vehicle. The stop/tail lights shall be LED with a minimum of 32 square inches of lighted surface area. The turn signals shall be a 5" LED arrow shaped design. The backup lights shall be Halogen. All three lights per side shall be in a common housing. A waterproof connection to the OEM tail light harness is required.

Does your bid comply with this requirement?

Yes () No ()

8.0 Interior

8.1 MODULE HEADLINER

The module headliner shall be manufactured out of expanded PVC material. The liner shall be white and installed to allow flush mounting of the interior lighting.

Does your bid comply with this requirement?

Yes () No ()

8.2 VEHICLE INTERIOR LIGHTING

The basic interior compartment shall be provided with seven overhead dual intensity LED lights. The lights shall be Whelan 80W00EZR. There shall be four lights located over the primary patient stretcher and three over the squad bench. These lights shall be mounted into the patient compartment head liner and shall not protrude into the patient compartment. The overhead shall have two levels of intensity, a high and low settings. The attendant shall be able to control the level of light via switches in the action area control panel. The dual lighting shall work together or may be separately selected from side to side. The four lights over the primary patient shall illuminate on the low setting when the side modular or rear modular doors are open. Certification shall be provided by an independent testing laboratory with this proposal.

Does your bid comply with this requirement?

Yes () No ()

8.3 STEP WELL LIGHT

A 2" LED step well light shall be provided in the step well area of the modular curb side door and shall be activated upon opening the curb side or rear modular doors.

Does your bid comply with this requirement?

Yes () No ()

8.4 ACTION AREA LIGHT

A twelve volt direct current LED light with integral switch shall be provided in the attendant action area. The light shall be a Intertek ZY-PIR38.

Does you bid comply with this requirement?

Yes () No ()

8.5 12VDC INTERIOR LIGHTING

Three Thinlite #766, 18 inch fluorescent lights shall be located in the rear headliner.

Does you bid comply with this requirement?

Yes () No ()

8.6 HANDHELD SPOTLIGHT

A hand held spotlight shall be provided with a minimum of four hundred thousand candle power lamp. The spotlight shall be a Blue Eye. It shall be in a corrosion proof housing with a protected momentary switch to prevent accidental activation. A minimum eight feet of heavy duty coiled cord will be supplied and it shall be hard wired in the cab area and accessible to the driver and passenger.

Does your bid comply with this requirement?

Yes () No ()

8.7 COMPARTMENT LIGHT

A 4" LED light shall be provided in the compartments as specified by this agency.

Does you bid comply with this requirement?

Yes () No ()

8.8 TIMER

An Intermatic 15 minute Timer shall be installed beside the C/S patient area entry door. The timer shall be wired constant hot and shall power the fluorescent lights.

Does your bid comply with this requirement?

Yes () No ()

8.9 ELECTRICAL TROUBLESHOOTING LIGHT

A small light with a switch shall be installed in the circuit board area for troubleshooting. The light shall be wired battery hot.

Does your bid comply with this requirement?

Yes () No ()

8.10 SUCTION PUMP

A suction pump shall be installed that shall comply with Federal Specifications KKK-1822E.

Does your bid comply with this requirement?

Yes () No ()

8.11 ACOUSTIC AND CLIMATE INSULATION

The primary manufacturer shall supply an insulating material that is non flammable with a Class A, Class 1 fire rating. It shall be certified to meet the smoke and flammability requirements of FMVSS 302. The exposed walls of the exterior compartments and wheel wells that intrude into the interior of the modular shall be covered with reflective insulating material with a value of R-14. The side, front, rear, walls as well as the ceiling shall be insulated with three inch thick temperature rated un-faced fiberglass with a value of R-11. Fiberglass has been proven to provide excellent sound and thermal barrier over other materials. Fiberglass insulation is safe and widely used in the automotive and construction industry.

Does your bid comply with this requirement?

Yes () No ()

8.12 OVERHEAD GRABRAIL

An overhead grab rail shall be installed in the patient compartment head liner. The grab rail shall be yellow powder coated stainless steel and handicapped style with rounded ends. The grab rail shall be a minimum of 117 inches long and shall be mounted in a recess in the liner.

Does your bid comply with this requirement?

Yes () No ()

8.13 ENTRY DOOR GRAB HANDLES

On each entry door there shall be an L shaped grab handle. The vertical portion of the L shall be close to the hinge of the door and run the full length of the upper window in the door. The

horizontal portion of the L shall be located just under the upper window. The grab handles shall be 1 inch diameter brushed stainless steel and handicapped style.

Does your bid comply with this requirement?

Yes () No ()

8.14 OXYGEN, MAIN SUPPLY AND INSTALLATION

The ambulance shall have a hospital type piped oxygen system capable of storing and supplying three thousand liters of medical oxygen. The cylinder controls shall be accessible from inside the patient compartment. The pressure gauge shall be visible from either the attendant's seat or from the squad bench. The oxygen shall be piped to (two) self sealing Ohio adaptable oxygen outlets located in the action area, (one) located on the curbside wall at the head of the squad bench, and (one) located in the center ceiling at head of cot.. The oxygen system will incorporate electrically conducted oxygen hose with a working pressure of one hundred and fifty pounds per square inch. All oxygen hose and outlets will use machine crimped brass ferrules and high pressure connectors. The entire oxygen delivery system will be pressured tested with a minimum of one hundred and fifty pounds per square inch of pressure of nitrogen gas for a period of four hours. The testing documentation will be delivered with the vehicle.

A vacuum port shall also be located in the action area to supply the vacuum to the suction container.

Does your bid comply with this requirement?

Yes () No ()

8.15 One (1) REGULATOR, LGE CYL, PRESET 50PSI

Does your bid comply with this requirement?

Yes () No ()

8.16 SUCTION ASPIRATOR

The ambulance shall be equipped with an on board vacuum aspirator. The unit shall be mounted on the action area wall above the action area tray to collect any bio fluids that may be spilled. The unit shall be an SSCOR 22000 with a stainless steel container holder. The container shall be disposable and the regulator panel shall be located in the action area panel. The vacuum pump shall be installed via a twelve volt direct current system. The on/off switch shall be located in the attendant's console.

Does your bid comply with this requirement?

Yes () No ()

8.17 SEAT, LITTER, RESTRAINT ANCHORAGE

Patient restraints shall be as specified in paragraph 3.11.8 of Federal Specification KKK - A - 1822E. Cot fasteners and safety belts shall be mounted in tapping plates. Install additional floor

DESCRIPTION OF REQUIREMENTS AND SPECIFICATIONS (CONTINUED)

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structure for installation of a Ferno inline fastener for a Ferno INX Cot, including pre-wiring for charging system.

IV HOLDERS FOR INTRAVENOUS FLUID CONTAINERS

Shall be as specified in paragraph 3.11.9 of Federal Specification KKK - A - 1822E.

Does your bid comply with this requirement?

Yes () No ()

8.18 Cot and Cot mount

Ambulance shall have the following Ferno cot, accessories and mount system installed at factory.

Ferno Item #

- (1) 0015807 Power X! cot
- (1) 1408014 Cot compatibility Kit (SAE, with ICS Option, With ICS)
- (1) 1590160 IV Pole
- (1) 0822482 Sto Net, Load Frame Power X1
- (1) 0822485 O2 Bottle Holder Kit
- (1) 1408000 Mattress Bolster, Pin
- (1) 1408011 26G Restraint
- (1) 1408007 Fixed Backrest
- (1) 0822483 Battery Kit
- (1) PROF1UP Pro F1 W/UP

Does your bid comply with this requirement?

Yes () No ()

9.0 INTERIOR SURFACES

All vertical edges of cabinets shall be of an aluminum extrusion with a $\frac{3}{4}$ inch radius designed to free the interior of the patient's compartment of all sharp edges or projections. The face and inside of the cabinets shall be covered by a commercial grade laminate and adhered to the cabinet face by a high quality poly vinyl adhesive using a thermal press application. The wood, adhesive and laminate shall be pressed together at 200 degrees for four minutes in a thermal platen press. There shall be no voids of the adhesive between the laminate and the cabinet surfaces.

Does your bid comply with this requirement?

Yes () No ()

9.1 CABINET CONSTRUCTION

The interior cabinets, squad bench assembly, shelves and doors shall be constructed of marine grade plywood; due to the product's ability to be customized to fulfill the needs of this agency,

DESCRIPTION OF REQUIREMENTS AND SPECIFICATIONS (CONTINUED)

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the additional acoustical and thermal insulation properties, repair ability, and the safety factor of not producing sharp fragments or shards in the event of a serious collision. The thickness of the finished panels used to construct the cabinets, shelves and doors shall be 3/4 inches including mica, adhesive, and glue. Any construction materials that provides anything less than 3/4 inch panels in cabinet construction is not acceptable to this agency. NO EXCEPTION.

The squad bench lid shall be attached to the squad bench assembly via a stainless steel piano hinge the entire length of the bench. The squad bench shall be equipped with a locking device to automatically secure the lid upon closing. The patient compartment wall panel (behind the squad bench) and the cab compartment wall panel shall be constructed of 1/4 inch plywood and covered with color coordinating high pressure laminate.

The cabinets shall be constructed using 8 mm dowels placed no farther than 32 mm apart. The dowels shall be a hardwood and pre-glued.

The doors on the upper cabinets shall be surface mounted with European hinges and 3mm edge banding. The doors on the center and lower cabinets shall be flush mounted using continuous stainless steel piano hinge and a 3 mm edge banding. All doors and cabinet openings shall be covered with a 3 mm edge banding with radius edges.

Does your bid comply with this requirement?

Yes () No ()

9.2 INTERIOR STOWAGE ACCOMMODATIONS

The interior of the patient compartment shall provide but not be limited to a minimum volume of thirty cubic feet of enclosed cabinets. Interior cabinet, shelf and compartment space shall be conveniently located for medical supplies, devices or other equipment. All interior cabinets shall be fully lined inside with high-pressure plastic laminate. The equipment and supplies necessary for airway management shall be within easy reach of the medic at the head of the stretcher. Interior cabinet dimensions are as described.

Does your bid comply with this requirement?

Yes () No ()

9.3 INTERIOR SURFACES

The cabinets shall be white gloss in color.

Does your bid comply with this requirement?

Yes () No ()

9.4 FLOOR

A top floor of seven ply three quarter inch marine grade plywood, sanded both sides with no voids, shall be installed over the moisture barrier. The plywood shall be marine resin coated prior

DESCRIPTION OF REQUIREMENTS AND SPECIFICATIONS (CONTINUED)

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to installation to prevent warping due to ambient moisture absorption. The plywood floor shall be one piece from the bulkhead to the rear doors between the patient door steeple and squad bench and extend under the street side cabinets. The plywood floor shall be securely anchored to the floor sub structure with one quarter inch UNF machine by two and one half inch screws.

Does your bid comply with this requirement?

Yes () No ()

9.5 FLOOR COVERINGS

The patient compartment floor covering shall be a heavy duty material that is impervious to fluids. The flooring shall be glued to the plywood floor using an adhesive compound. The flooring shall be Lonplate II and the color Gunpowder Gray #424. There shall be no adhesive voids between the flooring and the plywood. The floor shall be designed to roll up the side of the street side and bulk head cabinets and squad bench.

Does you bid comply with this requirement?

Yes () No ()

9.6 ATTENDANT SEATING

Seating for the attendant shall consist of a contoured high back padded bucket seat. The seat covering shall be an easy clean vinyl material and be impervious to blood borne pathogens and other contaminants. Therefore, cloth seats or seats with welting seams or visible stitching will not be accepted. The vinyl shall be Wedgewood. Seating must meet OSHA regulation 1910.1030. The seat belt must be certified to KKK - A1822 - E specification and to FMVSS and shall be an integrated three-point harness. An integrated child safety seat shall be incorporated in the seat. Installation shall comply with FMVSS. The seat shall be mounted on a metal box base.

Does your bid comply with this requirement?

Yes () No ()

9.7 UPHOLSTERY

The finish of the entire patient's compartment, including storage cabinets and equipment, shall be impervious to soap and water, disinfectants, bio fluids, mildew and shall be fire resistant per FMVSS 302. Upholstered cushions shall be a minimum of thirty two ounce nylon reinforced commercial vinyl material. Squad bench cushions and attendant seat and backrest cushions shall be fabricated in such a manner to eliminate exposed welting. Cushions with welting or beaded seams shall not be accepted due to the risk of bio fluid penetration. Describe below your method of cushion construction. The color of the upholstery shall be slate blue.

Does your bid comply with this requirement?

Yes () No ()

9.8 INTERIOR OXYGEN VIEWING DOOR

A Lexan door shall be installed on the oxygen viewing opening.

Does your bid comply with this requirement?

Yes () No ()

9.9 RIGHT FRONT CABINET

The right front cabinet shall house the Heating and Air Conditioning unit. The intake vent shall be located in the lower left corner of the cabinet. The air shall blow out of a vent located in the upper portion of the cabinet. Cabinet E1 shall be the upper portion of the cabinet with dimensions 23.25 inches high and 33.25 inches wide and 22.25 inches deep. The lower E2 cabinet shall be located next to the intake vent and shall be 26.75 inches high and 20.5 inches wide and 22.5 inches deep. Both E1 and E2 shall allow access from exterior compartment A.

Does your bid comply with this requirement?

Yes () No ()

9.10 RIGHT FRONT CABINET DOORS

The right front cabinet shall have two wood doors. The door for the upper cabinet E-1 shall be a dual wood door, and the door for the lower cabinet E-2 shall be hinged on the left. The doors shall be manufactured from 3/4 inch *marine grade plywood* and be covered in color coordinated high pressure laminate. The doors shall be mounted flush with the cabinet opening. **NO EXCEPTIONS!**

Does your bid comply with this requirement?

Yes () No ()

9.11 CABINET HANDLE

A "C" pull handle shall be installed on each door on the right front cabinet.

Does your bid comply with this requirement?

Yes () No ()

9.12 CABINET LATCH

A plunger roller latch shall be installed on the right front cabinet doors to keep them secure during transit.

Does your bid comply with this requirement?

Yes () No ()

9.13 CABINET LATCH

A lever latch shall be installed on the R/F cabinet doors.

Does your bid comply with this requirement?

Yes () No ()

9.14 CABINET LATCH

A lever latch with a lock shall be installed on cabinet door for "L".

Does your bid comply with this requirement?

Yes () No ()

9.15 SQUAD BENCH CABINET

The squad bench cabinet shall be located on the curb side of the patient compartment over the rear wheel well. The squad bench shall be a minimum of 72 inches long and be constructed of three quarter inch birch. The lid shall be attached to the squad bench assembly via a stainless steel piano hinge the entire length of the bench. The hinge shall attach with fasteners in a vertical position through the face of the lid and not through the edge of the cabinet and lid. The squad bench shall be equipped with a locking device to automatically secure the lid upon closing. The squad bench shall be furnished with two sets of 6 Point safety belts for seated occupants and three Two point belts for the retention of a cot when positioned on the squad bench. The anchorages for the side facing seat belt assembly shall withstand a minimum of 2,500 pounds force when tested in accordance with FMVSS 210-S5.1. A full length cushion shall be installed on the squad bench lid and on the wall as a back rest. The interior of the squad bench shall provide storage. At the head of the squad bench shall be a built in trash disposal area. A trash can shall be accessible under a red flip up lid, and a sharpes container's circular opening shall be accessible through a round cutout in the squad bench lid. Both the trash can and the sharpes container may be removed from the squad bench by lifting up a sectioned portion of the squad bench lid.

There will be a black safety net at the front end of the Bench on quick removable load bearing latches.

Does your bid comply with this requirement?

Yes () No ()

9.16 SQUAD BENCH LID

The squad bench shall have a full length lid that shall be manufactured from three quarter inch birch. The lid shall be covered in color coordinating high pressure laminate.

Does your bid comply with this requirement?

Yes () No ()

9.17 SQUAD BENCH LATCH

The squad bench lid shall be secured with a paddle handle that latches automatically when the squad bench lid is closed. The latch shall hold the lid secure during transit and shall not open unless the handle is lifted.

Does your bid comply with requirement?

Yes () No ()

9.18 SQUAD BENCH HOLD OPEN

When the squad bench lid is lifted, it shall be held in place by a 60 pound pneumatic hold open.

Does your bid comply with requirement?

Yes () No ()

9.19 CURBSIDE SPLINT CABINET

A cabinet shall be located above the squad bench near the headliner. The cabinet shall be 7 inches deep, approx. 8 inches high and run the length from the curbside door to the rear wall cabinet. The cabinet shall be separated into two equal cabinets with gray Lexan Flap glass doors.

Does your bid comply with this requirement?

Yes () No ()

9.20 STREETSIDE MIDDLE LOWER CABINET

Cabinet "O" shall be located on the street side of the patient compartment. It shall be the middle lower cabinet just below cabinet "M" and shall be 15.0 inches high, 22.0 inches wide, and 19.5 inches deep.

Does your bid comply with this requirement?

Yes () No ()

9.21 CPR SIDE SEAT

A CPR side seat shall be located just above the rear street side wheel well. Seamless upholstered cushions shall be located on the bottom and rear wall of the seat area. Cushions shall also be located above the head area for safety.

Does your bid comply with this requirement?

Yes () No ()

9.22 CPR SEAT STORAGE

A small storage area shall be located under the CPR seat and just above the wheel well. The storage shall be accessed by lifting a lid which holds the bottom seat cushion.

Does your bid comply with this requirement?

Yes () No ()

9.23 STREETSIDE REAR UPPER CABINET

Cabinet "J" shall be located on the street side of the patient compartment. It shall be the rear upper cabinet and shall be 13.5 inches high, 20.25 inches wide, and 19.5 inches deep.

Does your bid comply with this requirement?

Yes () No ()

9.24 STREETSIDE REAR UPPER CABINET

Cabinet "K" shall be located on the street side of the patient compartment. It shall be the rear upper cabinet just above cabinet "M" and shall be 13 inches high, 23.5 inches wide, and 19.5 inches deep.

Does your bid comply with this requirement?

Yes () No ()

9.25 STREETSIDE FORWARD UPPER CABINET

Cabinet "L" shall be located on the street side of the patient compartment. It shall be the forward upper cabinet just above the action area. The cabinet shall be divided into two separate cabinets "L1 and "L2". Cabinets "L1" and "L2" shall be equal in size 14 inches high, 25 3/4 inches wide and 17 3/4 inches deep.

Does your bid comply with this requirement?

Yes () No ()

9.26 STORAGE COMPARTMENTS AND CABINET DESIGN

All storage cabinets shall be easily opened but shall not come open during transit. The cabinets shall be accessible through a variety of door options.

DESCRIPTION OF REQUIREMENTS AND SPECIFICATIONS (CONTINUED)

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When specified to be Lexan, the doors shall be reciprocating horizontal sliding Lexan doors. The door shall be transparent to permit viewing of supplies and the door shall open with a grab anywhere device. The handle shall run the full vertical length of the Lexan. The Lexan shall be three sixteenths of an inch in thickness and shall be enclosed in an extruded aluminum frame. The frame shall cover the entire perimeter of the cabinet opening and the Lexan set within the frame on a track lined with a material to prevent the Lexan from sliding open and shut during transport.

Does your bid comply with this requirement?

Yes () No ()

9.27 CABINET "O" DOOR

The door to cabinet "O" shall be a Lexan slider. The Lexan shall be gray.

Does your bid comply with this requirement?

Yes () No ()

RESTOCKING FEATURE

The restocking feature on this cabinet shall allow for the aluminum plexiglass frame to lift up for easy restocking of the cabinet. The frame shall lift open hinging at the top and be kept open by two 20 pound pneumatic pistons. The pistons shall keep the frame in the open position to allow for restocking. The frame shall latch when in the closed position with a positive mechanical latch.

Does your bid comply with this requirement?

Yes () No ()

9.28 ACTION AREA CABINET

The action area shall provide for easy access to switches located in the action from the attendant seat, squad bench and CPR seat, if applicable. The switches shall be located in an angled cabinet on the back wall of the action area.

Does your bid comply with this requirement?

Yes () No ()

9.29 TELEMETRY TRAY

The top of the telemetry cabinet shall provide a clean work area. The countertop shall be one piece with a one inch lip around the tray. The tray shall be manufactured from molded polyester resin to provide a seamless countertop. The tray shall be topped with a durable top coat of gray gel coat. NO EXCEPTION.

Does your bid comply with this requirement?

Yes () No ()

9.30 ACTION AREA TRAY

The top of the action area cabinet shall provide a clean work area. The countertop shall be one piece with a one inch lip around the tray. The tray shall be manufactured from molded polyester resin to provide a seamless countertop. NO EXCEPTION. This tray is mandatory to facilitate cleaning and contain any fluids or bio.

Does your bid comply with this requirement?

Yes () No ()

9.31 CABINET "J" DOOR

The door to cabinet "J" shall be a Lexan slider. The Lexan shall be gray.

RESTOCKING FEATURE

The restocking feature on this cabinet shall allow for the aluminum plexiglass frame to lift up for easy restocking of the cabinet. The frame shall lift open hinging at the top and be kept open by two 20 pound pneumatic pistons. The pistons shall keep the frame in the open position to allow for restocking. The frame shall latch when in the closed position with a positive mechanical latch.

Does your bid comply with this requirement?

Yes () No ()

9.32 CABINET "K" DOOR

The door to cabinet "K" shall be a Lexan slider. The Lexan shall be gray.

RESTOCKING FEATURE

The restocking feature on this cabinet shall allow for the aluminum plexiglass frame to lift up for easy restocking of the cabinet. The frame shall lift open hinging at the top and be kept open by two 20 pound pneumatic pistons. The pistons shall keep the frame in the open position to allow for restocking. The frame shall latch when in the closed position with a positive mechanical latch.

Does your bid comply with this requirement?

Yes () No ()

9.33 CABINET "L1" DOOR

The door to cabinet "L1" shall be a solid wood door hinged on the right.

RESTOCKING FEATURE

DESCRIPTION OF REQUIREMENTS AND SPECIFICATIONS (CONTINUED)

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The restocking feature on this cabinet shall allow for the aluminum plexiglass frame to lift up for easy restocking of the cabinet. The frame shall lift open hinging at the top and be kept open by two 20 pound pneumatic pistons. The pistons shall keep the frame in the open position to allow for restocking. The frame shall latch when in the closed position with a positive mechanical latch.

Does your bid comply with this requirement?

Yes () No ()

9.34 CABINET "L2" DOOR

The door to cabinet "L2" shall be a Lexan slider. The Lexan shall be gray.

RESTOCKING FEATURE

The restocking feature on this cabinet shall allow for the aluminum plexiglass frame to lift up for easy restocking of the cabinet. The frame shall lift open hinging at the top and be kept open by two 20 pound pneumatic pistons. The pistons shall keep the frame in the open position to allow for restocking. The frame shall latch when in the closed position with a positive mechanical latch.

Does your bid comply with this requirement?

Yes () No ()

10.0 STANDARD MANDATORY MISCELLANEOUS EQUIPMENT

Unless otherwise precluded elsewhere in this specification the vehicle shall be equipped with the following:

- *One five pound fire extinguisher that is ABC dry chemical multipurpose with a quick release bracket.
- *No smoking oxygen equipment signs conspicuously place in the cab and patient compartment.
- *A back up alarm, audible warning device activated when the vehicle is shifted into or moving in reverse.

In addition, the following items shall be shipped loose in the vehicle:

SPARE TIRE

The OEM spare tire shall be shipped with the vehicle.

Does your bid comply with this requirement?

Yes () No ()

11.0 QUALITY ASSURANCE PROVISIONS

DESCRIPTION OF REQUIREMENTS AND SPECIFICATIONS (CONTINUED)

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Defective components shall not be furnished. Parts, equipment, and assemblies, which have been repaired or modified to overcome deficiencies shall not be furnished without the written approval of the purchaser. Construction methods utilized shall be in accordance with industry standards. Component parts and units shall be manufactured to definite standard dimensions with proper fits, clearances and uniformity. The general appearance of the vehicle shall not show any evidence of poor workmanship.

At the time of delivery, the manufacturer's representative shall explain the use and operation of the new vehicle(s) and provide an owner's manual for the complete vehicle. The manual shall contain useful information on routine maintenance and trouble shooting. All warranty registration materials shall be completed and explained at the time of delivery. The manufacturer shall arrange for over the road delivery under the finished vehicle(s) own power. The vehicle(s) shall be delivered clean and free of road debris with at least fifty percent fuel on board.

The bidder shall be responsible for the performance and test requirements required herein. This agency reserves the right to perform any of the inspections and tests set forth in this specification where such inspections are deemed necessary to assure conformation of specification. The primary manufacturer shall conform to this agency's representatives with instruments and all such assistance as may be required.

Does your bid comply with this requirement?

Yes () No ()

The primary manufacturer shall be ISO 9001:2000 certified.

Does your bid comply with this requirement?

Yes () No ()

12.0 TESTS

The primary manufacturer is obligated to prove that the vehicle, ambulance components and equipment provided meet the requirements of this specification and are compliant to Federal Ambulance Specification KKK - A - 1822E and any amendments in effect at the time of this bid. Copies shall be provided with this of the test documents and a letter from a independent testing laboratory that has performed the tests certifying that the following tests have been conducted and passed. Test documents or any source other than described above shall not be accepted. Failure to comply with the requirement shall be considered as non-responsive and will not be accepted. The certified tests are as follows and conform to the requirements of this specification and Federal Ambulance Specification KKK - A - 1822E.

- A. Vehicle Physical Dimensions (3.4.11 through 3.4.11.6)
- B. Patient Compartment Interior Dimensions (3.10.4)
- C. Stepwell, Bumpers and Facilitation (3.11 through 3.10.11, 3.10.3 through 3.10.16 and 3.9.9)

DESCRIPTION OF REQUIREMENTS AND SPECIFICATIONS (CONTINUED)

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- D. Storage Compartment and Facilitation (3.11 through 3.11.2.1,3.11.4 and 3.11.6)
- E. Ambulance Body and Patient Area (3.10.1 through 3.10.3, 3.10.6 through 3.10.8, 3.10.20 through 3.10.11, 3.10.3 through 3.10.16 and 3.9.9)
- F. Vehicle Weight Distribution (4.4.3 and 3.5 through 3.5.6 and 3.19)
- G. Water Spray Test (4.4.5)
- H. 115 VAC Utility Power (3.7.8 through 3.7.8.3)
- I. Electrical System Components (3.7.8 through 3.7.8.3, 3.7 through 3.7.5, 3.7.7 through 3.7.7.4, 3.7.9 through 3.7.11, 3.8.1, 3.8.4 and 3.8.50)
- J. Patient compartment Illumination (3.8.5.1)
- K. Electrical Generating System (3.7.6 through 3.7.6.3 and AMD 005)
- L. Warning Lights and Siren System (3.8.2 through 3.8.4 and 3.14.6)
- M. Door Latches, Hinges and Hardware (3.10.9)
- N. Static Load Test (3.10.5 and AMD 001)
- O. Patient Compartment Interior Surfaces (3.10.17 and FMVSS 302)
- P. Oxygen System Test (4.4.6, 3.12.1 and 3.12.1.1)
- Q. Oxygen Cylinder Restraint Test (3.11.3 and AMD 003)
- R. Litter Fastener and Anchorage (3.11.7 and AMD 003)
- S. Suction Aspirator System (3.12.3 and 3.12.4)
- T. Heating Criteria (3.4.2, 3.7.9 through 3.7.11, 3.6.3.2, 3.13.1 through 3.13.7)
- U. Air Conditioning Criteria (3.4.2, 3.7.9 through 3.7.11, 3.6.3.2, 3.13.7, 3.6.4.5.1 through 3.6.4.5.1)
- V. Ventilation Criteria (3.13.6)
- W. Patient Compartment Sound Level (3.13.8 and AMD 006)
- X. Patient Color and Markings (3.16 through 3.16.2 and 3.16.4)
- Y. Manuals and Handbooks (3.20 and 6.8)
- Z. Seat Belt Test (3.11.6)

DESCRIPTION OF REQUIREMENTS AND SPECIFICATIONS (CONTINUED)

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AA. Electromagnetic Radiation and Suppression (3.7.12)

BB. Standard Miscellaneous Equipment (3.15.2)

CC. Miscellaneous Equipment (3.7.5 and 3.9.5)

Does your bid comply with this requirement?

Yes () No ()

12.1 Delivery & Inspection

Successful bidder will incur the cost of transportation, lodging, meals and return expenses for two personnel from Bristol Tennessee Fire Department to make final inspection and acceptance at the manufacturer facility. They will drive the ambulance back to Bristol.

13.0 Optional Equipment

Include pricing as an option for a Ferno INX automatic cot (red in color) with cargo net, oxygen cylinder bracket, and IV pole. The pricing for the securing system/track for this cot shall be included as an option.

EXCEPTIONS

Exceptions shall be submitted as set forth in section A1.1.2 of this document. This agency will accept proposals from any business entity proclaiming to manufacturer vehicle(s) to conform to this specification. Further, this agency will not deny the right of any manufacturer to present their product. However, it should be noted, that any primary manufacturer that does not take exceptions shall produce the vehicle exactly as described. Failure to produce said vehicle may be grounds for this agency to pursue a resolution of damages through civil and criminal court.

Does your bid comply with this requirement?

Yes () No ()

- End of Section-

REQUIREMENTS OF IRAN DIVESTMENT ACT

Name of Bidder: _____

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 its knowledge and belief that each bidder is not on the Iran investment activities list created pursuant to T.C.A. § 12-12-106.

Name of & Title of Signer
(Print or Type): _____

Signature: _____

Date: _____

Complete and return with bid package.

TITLE VI VOLUNTARY DISCLOSURE BY VENDORS/CONTRACTORS

The purpose of this request is to provide statistical information related to Title VI regulations. This is a VOLUNTARY disclosure. The information requested pertains to the company owner.

- Race: White/Caucasian
 Black/African American
 Hispanic
 Asian
 American Indian and Alaskan Native
 Native Hawaiian or other Pacific Islander
 Other

- Gender: Male
 Female

This form will be maintained on file in the Finance Department for review by the City of Bristol, Tennessee and the Tennessee Department of Transportation Title VI Compliance Office.

DRUG-FREE WORKPLACE AFFIDAVIT OF PRIME BIDDER

STATE OF _____

COUNTY OF _____

Comes the affiant after having first been duly sworn and testifies as follows:

1. My name is _____. I hold the principal office of _____
(Name of principal office)
for _____
(Name of bidding entity)

2. _____ has
(Name of bidding entity)
submitted a bid to the City of Bristol, Tennessee for _____.

3. _____ has
(Name of bidding entity)
more than five (5) employees.

4. In accordance with *Tennessee Code Annotated* Section 50-9-113, this is to certify that _____
(Name of bidding entity)
has in effect at the time of submission of its bid for the above-referenced projects, a drug-free workplace program that complies with Title 50, Chapter 9 of the Tennessee Code.

5. This affidavit is made on personal knowledge.

Further the affiant saith this ____ day of _____, 20 ____.

(Signature of affiant)

(Title of affiant)

Subscribed and sworn before me this ___ day of _____, 20 ____.

(Signature of notary public)

My commission expires _____

NOTE: This affidavit is to be attached to the Bid Form at the time of submission.

City of Bristol, Tennessee
Insurance Checklist

REQUIRED COVERAGE (marked by "X")

MINIMUM LIMITS

- 1. Worker's Compensation (proprietor/partners/executive officers exclusion not allowed) – Statutory limits of Tennessee and Employer's liability \$100,000/accident, \$100,000/disease, \$500,000/disease policy limit.
- 2. Commercial General Liability (including Premises/Operations) \$1,000,000 CSL BI/PD each occurrence, \$1 million annual aggregate.
- 3. Automobile Liability & Owned /Hired/Non-Owned Vehicles \$1,000,000 BI/PD each accident, Uninsured motorist.
- 4. Independent Contractors \$1,000,000 CSL BI/PD each occurrence, \$1 million annual aggregate.
- 5. Products/Completed Operations \$1,000,000 CSL BI/PD each occurrence, \$1 million annual aggregate.
- 6. Contractual Liability \$1,000,000 CSL BI/PD each occurrence, \$1 million annual aggregate.
- 7. Personal and Advertising Injury Liability \$1,000,000 each offence, \$1 million annual aggregate.
- 8. Umbrella Liability \$1,000,000 BI/PD/PI.
- 9. Per Project Aggregate.
- 10. Professional Liability.
 - a. Architects and Engineers \$1,000,000 per occurrence/claim.
 - b. Asbestos Removal Liability \$2,000,000 per occurrence/claim.
 - c. Medical Malpractice \$1,000,000 per occurrence/claim.
 - d. Medical Professional Liability \$1,000,000 per occurrence/claim.
- 11. Miscellaneous E & O \$1,000,000 per occurrence/claim.
- 12. Motor Carrier Act End. (MCS-90) \$1,000,000 BI/PD each accident, Uninsured Motorist.
- 13. Motor Cargo Insurance.
- 14. Garage Liability \$1,000,000 BI/PD per occurrence.
- 15. Garage keepers liability \$500,000 Comprehensive, \$500,000 Collision.
- 16. Inland Marine-Bailee's Insurance \$ _____
- 17. Moving and Rigging Floater Endorsement to CGL.
- 18. Dishonesty Bond \$ _____
- 19. Builder's Risk/Installation Floater Provide coverage in the full amount of contract.

INSURANCE CHECKLIST (CONTINUED)

Page 2

- 20. XCU CoverageEndorsement to CGL.
- X 21. Carrier Rating shall be Best's Rating of B++V or better or its equivalent.
- X 22. Notice of cancellation, non-renewal or material changed in coverage shall be provided to City at least 30 days prior to action. Worker's Compensation notification shall be 10 days prior to action.
- X 23. The City of Bristol shall be named as Additional Insured on all policies except Worker's Compensation, Auto and Professional Liability.
- X 24. Certificate of Insurance shall show project number or other contract identifier used by the City.
- 25. OTHER INSURANCE REQUIRED: _____

INSURANCE AGENT'S STATEMENT:

I have reviewed the above requirements with the bidder named below. The bidder has coverage with this agency for all of the areas marked with the exception of the following numbers:

Comments: _____

Is Professional Liability excluded under General Liability? Yes____ No____

Is Contractual Liability excluded under Comm. General Liability? Yes____ No____

Is Independent Contractors excluded under Comm. General Liability? Yes____ No____

Carrier ratings: Insurer A____; Insurer B____; Insurer C____; Insurer D____

AGENCY NAME: _____

AUTHORIZED SIGNATURE: _____ Date: _____

CONTRACTOR'S STATEMENT:

I have reviewed the above requirements with my insurance agent(s) and, if awarded a contract, will provide all coverage's marked.

CONTRACTOR'S NAME: _____

AUTHORIZED SIGNATURE: _____ Date: _____

Bid Number: _ Bid or Project Name: _

This form and the General Contract Form must be completed and returned with the submitted bid.

- End of Section -

City of Bristol, Tennessee
General Contract Form

Purpose

The General Contract Form is included in every solicitation requiring insurance. The general requirements of the contract form are supplemented by items checked on the Insurance Checklist that identify specific requirements for the bid or project.

Insurance

Review this section carefully with your insurance agent or broker prior to submitting a bid or proposal. See Insurance Checklist (part of the Bid Forms) for specific coverage applicable to this contract. The term “Contract” as used in this section shall mean the Agreement covering the work that is entered into between the City of Bristol, Tennessee and the Contractor.

General Requirements

1.1 The Contractor shall not start work under this contract until the Contractor has obtained at its own expense all of the insurance called for hereunder and such insurance has been approved by the City; nor shall the Contractor allow any subcontractor to start work on any subcontract until all insurance required of the subcontractor has been so obtained and approved by the Contractor. Approval of insurance required of the Contractor will be granted only after submission to the Purchasing Agent of original, signed Certificate(s) of Insurance, General Contract Form, and Insurance Checklist or, alternately, at the City’s request, certified copies of the required insurance policies.

1.2 No acceptance and/or approval of any insurance by the City shall be construed as relieving or excusing the Contractor, or the surety, or its bond, from any liability or obligation imposed upon either or both of them by the provisions of the Contract Documents.

1.3 The City of Bristol, Tennessee (including its elected and appointed officials, agents, and employees) is to be named as an additional insured under all coverage except Worker’s Compensation and Automobile Liability, and the Certificate of Insurance or the certified policy, if requested, must so state. Coverage afforded under this paragraph shall be primary as respects the City, its elected and appointed officials, agents and employees. The following definition of the term “City” applies to all policies issued under the contract:

“The City of Bristol, Tennessee together with all of its various departments, bureaus, and agencies, as well as any affiliated or subsidiary board, committee, or authority.”

1.4 The contractor shall provide insurance as specified in the Insurance Checklist contained in this document.

1.5 The Contractor covenants to save, defend, hold harmless and indemnify the City of Bristol, Tennessee together with its various departments, elected or appointed officials, employees, officers, counsel, agents, and any and all other persons or entities acting on behalf of the same (collectively the City) from and against any and all claims of any sort based upon any theory of liability whatsoever, for any and all harm, loss, damage, injury, cost (including court cost and attorney fees) charges, or other liability of any nature whatsoever, however caused, resulting from or arising out of or in any way connected with the contractors performance or non-performance of the terms of the contract documents or its obligations under the contract based upon any

GENERAL CONTRACT FORM (CONTINUED)

PAGE 2

theory of liability whatsoever, including claims brought by third persons, and further covenants to discharge all of the aforesaid persons and entities and forever hold them harmless from the same. The foregoing obligation to indemnify and defend shall continue in full force and effect after the aforesaid contractor completes all of the work required under the contract, until such time as the applicable statutes of limitation or repose have expired.

1.6 The Contractor shall be responsible for the work performed under the Contract Documents and every part thereof, and for all materials, tools, equipment, appliances, and property of any description used in connection with the work. The Contractor assumes all risks for direct and indirect damage or injury to the property or persons used or employed on or in connection with the work contracted for, and of all damage or injury to any person or property wherever located, resulting from any action, omission, commission or operation under the Contract, or in connection in any way whatsoever with the contracted work, until final acceptance of the work by the City.

1.7 Insurance coverage required in these specifications shall be in force throughout the Contract Term. If the Contractor fails to provide acceptable evidence of current insurance within ten days of written notice at any time during the Contract Term, the City shall have absolute right to terminate the Contract without any further obligation to the Contractor and the Contractor shall be liable to the City for the entire additional cost of procuring performance by another vendor and the cost of performing the incomplete portion of the Contract at time of termination.

1.8 Contractual and other liability insurance provided under this Contract shall not contain a supervision, inspection or engineering services exclusion that would preclude the City from supervising or inspecting the project as to the end result. The Contractor shall assume all on-the-job responsibilities as to the control of persons directly employed by it and of the subcontractors and any persons employed by the subcontractor.

1.9 Nothing contained in the specifications shall be construed as creating any contractual relationship between any subcontractor and the City. The Contractor shall be as fully responsible to the City for acts and omissions of the subcontractors and of persons employed by them as it is for acts and omissions of persons directly employed by the Contractor.

1.10 Precaution shall be exercised by the Contractor at all times for the protection of persons (including employees) and property. All existing structures, utilities, roads, services, trees, and shrubbery shall be protected against damage or interruption of service at all times by the Contractor and its subcontractors during the term of the Contract, and the Contractor shall be held responsible for any damage to property occurring by reason of its operation on the property.

1.11 If a Contractor cannot meet the insurance requirements contained in a bid, proposal, or project description, alternate insurance coverage may be considered. Written requests for consideration of alternate coverage must be received by the Director of Purchasing at least ten working days prior to the date set for receipt of bids or proposals. If the City denies the request for alternate coverage, the specified coverage will be required to be submitted. If the City permits alternate coverage, an amendment to the Insurance Requirement will be prepared and distributed prior to the time and date set for receipt of bids or proposals.

1.12 All required insurance coverage must be acquired from insurers authorized to do business in the State of Tennessee, and acceptable to the City. The insurers must also have policyholders' rating of "B++" or better, and a financial size of "Class V" or better in the latest edition of Best's Insurance Reports, unless the City grants specific approval for an exception in the same manner as described in 1.11 above.

1.13 The City may consider deductible amounts as part of its review of financial stability. The Contractor shall assume all deductibles.

GENERAL CONTRACT FORM (CONTINUED)

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Contractor's Insurance – Occurrence Basis:

2.1 The Contractor shall purchase the following insurance coverage, including the terms, provisions and limits shown in the Checklist:

Commercial General Liability – The Commercial General Liability policy shall include any or all of the following as indicated on the Checklist:

General aggregate limit is to apply per project;

Premises/Operations;

Action of Independent Contractors;

Contractual Liability including protection for the Contractor from claims arising out of liability assumed under this contract;

Personal Injury Liability including coverage for offenses related to employment;

Explosion, Collapse, or Underground (XCU) hazards.

Business Automobile Liability including coverage for any owned, hired, or non-owned motor vehicles, Uninsured Motorists insurance, and Automobile Contractual Liability.

Worker's Compensation statutory benefits as required by the State of Tennessee, or other laws as required by labor union agreements, including standard Other States coverage; Employers' Liability coverage.

Commercial General or other Liability Insurance – Claims-made Basis:

If Commercial, General or other liability insurance purchased by the Contractor has been issued on a claims-made basis, the Contractor must comply with the following additional conditions. The limits of liability and the extensions to be included as described in the Checklist remain the same. The Contractor must either:

- i. Agree to provide certificates of insurance evidencing the above coverage for a period of two years after final payment for the contract. Such certificates shall evidence a retroactive date, no later than the beginning of the Contractors or subcontractors' work under this contract, or
- ii. Purchase an extended (minimum two years) reporting period endorsement for the policy or policies in force during the term of this contract and evidence the purchase of this extended reporting period endorsement by means of a certificate of insurance or a copy of the endorsement itself.

Alternative Coverage (Self Insurance)

Notwithstanding any of the above, the Contractor may satisfy its obligations under this section by means of self-insurance for all or any part of the insurance required, provided that the alternative coverage is acceptable to the City.

Limits of Liability Coverage

Specific limits of liability coverage on the Insurance Checklist may be adjusted according to project risk if the adjustment is deemed appropriate and the amended amount is approved by the City Manager.

Verification of Compliance

I have read this General Contract Form and agree to all the terms and conditions contained therein.

Contractor's Name: _____

EIN or SSN: _____

Signed by: _____

Title: _____

Date: _____

This form and the Insurance Checklist must be completed and returned with the submitted bid.

- End of Section -