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**REQUEST FOR PROPOSAL  
DEMANDE DE PROPOSITION**

**Proposal To: Public Works and Government  
Services Canada**

We hereby offer to sell to Her Majesty the Queen in right of Canada, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the goods, services, and construction listed herein and on any attached sheets at the price(s) set out therefor.

**Proposition aux: Travaux Publics et Services  
Gouvernementaux Canada**

Nous offrons par la présente de vendre à Sa Majesté la Reine du chef du Canada, aux conditions énoncées ou incluses par référence dans la présente et aux annexes ci-jointes, les biens, services et construction énumérés ici sur toute feuille ci-annexée, au(x) prix indiqué(s).

**Comments - Commentaires**

<b>Title - Sujet</b> TYPE 1 4x4 AMBULANCES	
<b>Solicitation No. - N° de l'invitation</b> W8476-144753/B	<b>Date</b> 2015-01-23
<b>Client Reference No. - N° de référence du client</b> W8476-144753	
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$\$HP-912-66618	
<b>File No. - N° de dossier</b> hp912.W8476-144753	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> <b>on - le 2015-03-09</b>	
<b>Time Zone</b> <b>Fuseau horaire</b> Eastern Standard Time EST	
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input checked="" type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Pearson, Neil	<b>Buyer Id - Id de l'acheteur</b> hp912
<b>Telephone No. - N° de téléphone</b> (819) 956-3976 ( )	<b>FAX No. - N° de FAX</b> (819) 953-2953
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b>  Specified Herein Précisé dans les présentes	

**Instructions: See Herein**

**Instructions: Voir aux présentes**

**Vendor/Firm Name and Address**

**Raison sociale et adresse du  
fournisseur/de l'entrepreneur**

**Issuing Office - Bureau de distribution**

Vehicles & Industrial Products Division  
11 Laurier St./11, rue Laurier  
7A2, Place du Portage, Phase III  
Gatineau, Québec K1A 0S5

<b>Delivery Required - Livraison exigée</b> See Herein	<b>Delivery Offered - Livraison proposée</b>
<b>Vendor/Firm Name and Address</b> <b>Raison sociale et adresse du fournisseur/de l'entrepreneur</b>	
<b>Telephone No. - N° de téléphone</b> <b>Facsimile No. - N° de télécopieur</b>	
<b>Name and title of person authorized to sign on behalf of Vendor/Firm</b> <b>(type or print)</b> <b>Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</b>	
<b>Signature</b>	<b>Date</b>

Solicitation No. - N° de l'invitation

W8476-144753/B

Amd. No. - N° de la modif.

File No. - N° du dossier

hp912W8476-144753

Buyer ID - Id de l'acheteur

hp912

CCC No./N° CCC - FMS No/ N° VME

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### NOTICE

This documentation has been reviewed by the technical authority and does not contain controlled goods.

### AVIS

Cette documentation a été révisée par l'autorité technique et ne contient pas de marchandises contrôlées.

## PURCHASE DESCRIPTION FOR TYPE I 4X4 AMBULANCES ECC 140160

### 1. SCOPE

**1.1. Scope** - This purchase description covers a modular aluminum ambulance body mounted on a Type I chassis (4x4), diesel engine driven, including one (1) cot, an attendant, and up to three (3) seated passengers.

**1.2. Instructions** - The following instructions apply to this Purchase Description:

- a. Requirements, which are identified by the word "**shall**", are mandatory. Deviations will not be permitted.
- b. Requirements identified by "**shall**<sup>(B)</sup>" are mandatory. The Technical Authority will consider substitutes/alternatives for acceptance as an Equivalent.
- c. Requirements identified with a "will" define actions to be performed by Canada and require no action/obligation on the Contractor's part.
- d. In this document "provided" **shall** mean "provided and installed".
- e. Where a standard or specification is required and the contractor offers an equivalent, that equivalent standard **shall** be provided upon request.
- f. Where technical certification is required, the contractor **shall** provide the certification upon request.
- g. Metric measurements are used to define the requirement. Other measurements are for reference only and may not be exact conversions.

**1.3. Definitions** - The following definitions apply to the interpretation of this Purchase Description:

- a. "Technical Authority" - The government official responsible for technical content of this requirement.
- b. "Equivalent" - A standard, means, or component type, which has been accepted by the Technical Authority as meeting the specified requirements for form, fit, function and performance.



- c. "Quality Assurance Representative" - The government officer responsible for ensuring that the Contractor quality system, material, and services supplied meet the contract requirement.

**2. APPLICABLE DOCUMENTS** - The following documents form part of this Purchase Description. Effective dates *shall* be those in effect upon the date of manufacture. Sources are as shown:

**Canadian Motor Vehicle Safety Standards (CMVSS)**

Transport Canada,  
Road Vehicle and Motor Vehicle Regulation,  
330 Sparks Street, Tower C,  
Ottawa, Ontario K1A 0N5  
<http://www.tc.gc.ca/eng/acts-regulations/menu.htm>

**Ontario Provincial Land Ambulance & Emergency Response Vehicle Standard**

VERSION 5.0 - September 28, 2012  
Emergency Health Services Branch  
Ontario Ministry of Health and Long-Term Care

**Transport Canada Consolidation of the Motor Vehicle Safety Act (MVSA) and Motor Vehicle Safety Regulations (MVSr) and all applicable revisions TP4360E**

Canadian Communications Group - Publishing  
Ottawa, Canada K1A 0S9  
<http://www.tc.gc.ca/eng/acts-regulations/menu.htm>  
MVSA - <http://laws-lois.justice.gc.ca/eng/acts/M-10.01/>  
MVSr - [http://laws-lois.justice.gc.ca/eng/regulations/C.R.C.,\\_c.\\_1038/](http://laws-lois.justice.gc.ca/eng/regulations/C.R.C.,_c._1038/)

**Canadian General Standards Board**

Publishing and Depository Services  
Public Works and Government Services Canada  
Ottawa ON K1A 0S5  
<http://publications.gc.ca/site/eng/search/advancedSearch.html>

**SAE Handbook**

Society of Automotive Engineers Inc.  
400 Commonwealth Drive, Warrendale, PA, 15096  
<http://www.saedigitallibrary.org/contact/>

**Anthropometric Survey of the Land Forces**

1998

**Underwriters Laboratories of Canada**

7 Underwriters Road  
Toronto, Ontario, Canada  
M1R 3A9  
<http://www.ul.com/canada/eng/pages/ulcstandards/>

**Tire and Rim Association Year book**

3200 West Market Street  
Akron, Ohio  
USA, 44313  
[http://www.us-tra.org/documents/TRAPublications\\_2013\\_Form.pdf](http://www.us-tra.org/documents/TRAPublications_2013_Form.pdf)

**The American Society for Testing Materials (ASTM)**

[http://www.global.ihs.com/ASTM\\_Standards](http://www.global.ihs.com/ASTM_Standards)

**The International Standards Organizations (ISO)**

1, ch. de la Voie-Creuse

CP 56 - CH-1211 Geneva 20

Switzerland

Tel: +41 22 749 01 11

[http://www.iso.org/iso/home/store/catalogue\\_ics.htm](http://www.iso.org/iso/home/store/catalogue_ics.htm)

**3. REQUIREMENTS****3.1. Standard Design**

- a. **Latest Model** - The vehicle design *shall* be the manufacturer's latest model.
- b. **Industry Acceptability** - The vehicle design *shall* have demonstrated industry acceptability by having been manufactured and sold commercially for at least 1 year, or be manufactured by a company that has at least 5 years of experience in design and manufacturing Type I ambulances.
- c. **Regulations** - The vehicle *shall* conform to all applicable laws, regulations and industry standards governing manufacture, safety, noise levels and pollution in effect in Canada at time of manufacture.
- d. **Published Ratings** - The vehicle *shall* have system and component capacities equivalent to published ratings (i.e. product or component brochures).
- e. **Standard Components** - The vehicle *shall* include all standard components, equipment and accessories for the model offered, although they may not be specifically described in this Purchase Description.

**3.2. Operating Conditions** - The vehicle/equipment *shall* operate:

- a. In all seasonal conditions found in Canada, in a temperature range of -40 to 37 degrees Celsius (-40 to 99 degrees Fahrenheit); and
- b. Travelling on paved roads, gravel roads, and unpaved secondary roads. Conditions include year round operation on surfaces that can be covered by snow, mud, and/or ice.

**3.3. Safety****3.3.1 Vehicle Safety Regulations**

- a. The completed vehicle *shall* comply with all Canada Motor Vehicle Safety Standards (CMVSS) in effect and applicable by law in Canada at the time of body integration.
- b. The completed vehicle *shall* have Safety Compliance Certification Label with a **National Safety Mark (NSM)**, as a seal of compliance.
- c. The contractor *shall* have a variant equipment integrator NSM certification number, as a proof of registration with Transport Canada as a final stage manufacturer.



3.3.2 **Noise Level** - The vehicle/equipment noise level **shall** meet the requirements of legislation relative to Occupational Safety and Health both at the operator's station and the vehicle exterior.

3.3.3 **Human Factors Engineering** - Systems and components of the vehicle equipment **shall**:

- a. Be designed for safety and ease of use by CAF users with anthropometric characteristic measurements ranging from 95th percentile male to 5th percentile female, under all operating conditions, in accordance with the Anthropometric Survey of the Land Forces, 1998;
- b. Have entry and exit points equipped with handles and steps sized and positioned to accommodate CAF users with anthropometric characteristic measurements ranging from 95<sup>th</sup> percentile male to 5<sup>th</sup> percentile female;
- c. Be equipped, with warning and instruction plates, non-slip walking surfaces and heat shields, for operator safety;
- d. Be equipped with manufacturer's standard bolsters to protect people moving through openings from projections or obstructions; and
- e. Be equipped with interior grab handles and rails to assist the movement of people seated, or entering/exiting the ambulance.

3.4 **Maintainability** - The vehicle **shall** provide ease of maintenance.

- a. All maintenance and repair tasks, especially routine operator maintenance, **shall** be easy to perform with a minimum of special tools and skills; and
- b. All subsystems **shall** permit easy access to all items required for periodic servicing and maintenance.

3.5 **Performance** - The vehicle with the rated payload **shall**:

- a. Sustain a minimum speed of at least 120 km/h (74.6 mph) on flat ground for 30 minutes;
- b. Accelerate from 0 km/h to 90 km/h (55.9 mph) within 25 seconds;
- c. Maintain a minimum speed of 90 km/h (55.9 mph) on a 3% grade; and
- d. Maintain a minimum speed of 8 km/h (5.0 mph) on a 35% grade.

3.5.1 **Type I Ambulance 4x4** - The Ambulance **shall** be equipped with the following driver selectable modes:

- a. Two wheel drive, high range;
- b. Four wheel drive, high range; and
- c. Four wheel drive, low range.

3.6 **Ratings and Dimensions** - The vehicle capacity **shall** be sized to exceed the loads imposed by the required equipment when fully loaded.

- a. **Gross Vehicle Weight Rating (GVWR)** - The Gross Vehicle Weight (GVW),



while laden with the maximum payload, **shall** not exceed the vehicle's Gross Vehicle Weight Rating (GVWR).

- b. **Gross Axle Weight Rating (GAWR)** - The Gross Axle Weights (GAWs), while laden with the maximum payload, **shall** not exceed the respective Gross Axle Weight Ratings (GAWRs).
- c. **Payload** - The vehicle **shall** have payload of at least 907kg (2000lbs).
- d. **Centre of Gravity** - The centre of gravity for the complete vehicle **shall** meet the Cab/Chassis OEM's specification for allowable centre of gravity location.

**3.7 Chassis Accessories** - The vehicle chassis **shall** be equipped with:

- a. The OEM **Ambulance Preparation Package**;
- b. **Tow hooks**, mounted at the front and at the rear, of sufficient strength to permit the recovery of the vehicle, accessible without having to crawl under the vehicle;
- c. **License plate mounting** provision, front and rear;
- d. **Skid plate(s)** on the underside of the Cab/Chassis that provides damage protection for the engine and transmission from road debris; and
- e. A **running board** on each side of the cab with sufficient capacity to support a weight of at least 225 kg (496 lbs). The running boards **shall** run from the front mud guard to the ambulance body and have a non-slip surface.

**3.8 Cab** - The vehicle **shall** be equipped with:

- a. An OEM standard weatherproof, insulated and sound proofed **cab**;
- b. A **pass-through opening** connecting the Ambulance body and cab;
- c. **Premium insulation** in the cab including the flooring;
- d. **Driver and passenger seats**. Both seats **shall be**:
  - i. High-back;
  - ii. Air suspended seats;
  - iii. Leatherette or vinyl seats;
  - iv. Horizontally and vertically adjustable; and
  - v. Equipped with a retractable 3-point seat belt assembly.
- e. Moulded **Armrests** on both doors and one armrest per seat;
- f. Two (2) dual panel, rotating and pivoting, **interior sun visors** that can be used simultaneously for forward and side sun blocking;
- g. Adjustable, powered, **side-view mirrors**, incorporating a convex portion;

- h. OEM installed **radio**, including AM/FM, CD player;
  - i. The radio system **shall** be connected to an additional speaker installed in the patient compartment near the attendant's seat.
  - ii. Output of the speaker **shall** be controlled by means of volume and on/off controls located at the action wall.
- i. **Coat-hooks**, for hanging coats;
- j. **Cup holders**, installed below the level of any vehicle electronics;
- k. A **back-up camera**, rear facing with colour output, which activates when the vehicle is reversing; and
  - i. The screen **shall** be installed in the cab and have a minimum screen size of 7 inches.
  - ii. The Backup Camera System **shall** incorporate a commercial Global Positioning System (GPS) suitable for vehicle navigation with dash mounting capability.
  - iii. The GPS **shall** incorporate lifetime map updates.
- l. The manufacturer's standard **heating and air conditioning system**.

3.8.1 **Controls** - The vehicle cab **shall** be equipped with:

- a. An adjustable/tilt type **steering wheel**;
- b. An electric **windshield washer sprayer**;
- c. Intermittent **windshield wipers**;
- d. **Cruise control**;
- e. Driver and passenger **power windows**;
- f. Driver and passenger doors **power locks**;
- g. At least four (4) **keys**, where two (2) are equipped with **remote keyless entry**;
- h. The manufacturer's standard controls for the **siren** and all of the lights;
- i. A **backup warning signal control**, for disabling the backup warning signal for silent backing in a hospital area; and
- j. Rear patient compartment **lighting controls**.

3.8.2 **Instruments**

- a. The vehicle cab instruments **shall** be readily visible to the driver.
- b. Instruments **shall** be backlit, with a dimming capability.
- c. As a minimum, the vehicle cab **shall** be equipped with:



- i. A **tachometer**;
- ii. A metric **odometer** and **speedometer**;
- iii. A **coolant temperature indicator**, and high temperature **warning indicator**;
- iv. An **oil pressure indicator**;
- v. **Voltmeters** to monitor the OEM and conversion batteries;
- vi. An **hour meter**;
- vii. A **door ajar warning indicator** to indicate when any of the patient compartment or exterior storage doors are open; and
- viii. A **seat belt warning system**, designed to alert the driver, indicating when restraints of occupied seats are properly fastened.

3.8.3 **Cab Lighting** - As a minimum, the vehicle cab **shall** be equipped with:

- a. Heavy duty OEM standard **headlights**;
- b. **LED turn, hazard and clearance lights**;
- c. Recessed LED **driving lights/fog lights**;
- d. An in cab **dome light**; and
- e. A goose-neck style **map light** for passenger task lighting.

3.8.4 **Communication System** - The communication system **shall** be equipped with:

- a. Required wiring leads, antennae mount, and space allocation for installation of the two-way radio;
- b. Radio electrical power feed cables with fuse protection;
- c. A P.A. system with sirens and operating modes of hi-lo, yelp, wail, P.A., air horn, and radio re-broadcast;
- d. A two-way intercom system for communication between the cab and ambulance body;
  - i. The two-way intercom system **shall** have radios mounted on the front console and the ambulance body action wall.

3.9 **Engine** - The vehicle **shall** be equipped with a turbocharged diesel engine, with sufficient power to meet the specified performance requirements.

3.9.1 **Cold Weather Starting Aids** - The vehicle **shall** be equipped with:

- a. The manufacturer's standard **cold weather starting aids**, as applicable, to meet the specified operating conditions;

- b. A **fuel filter/water separator** incorporating a thermostatically controlled heater to prevent freezing; and
- c. A **block heater**, sized to meet the specified operating conditions.

3.9.2 **Anti-Theft** - The vehicle *shall*<sup>(E)</sup> be equipped with an anti-theft device that locks the steering and shifter, but allows the engine to keep running with all other mechanical and electrical functions operable, when the driver has removed the ignition key.

#### 3.9.3 **Automatic Engine High-Idle Speed Control**

- a. The engine *shall*<sup>(E)</sup> be controlled by a system that is pre-set to increase the engine RPM, upon activation, to sustain the ambulance's total continuous electrical load, and maximum heating/air conditioning output.
- b. The system *shall* only operate when the transmission is in "PARK".
- c. The system *shall* be activated automatically when the engine has been allowed to idle for more than 5 minutes, or the battery voltage falls below 12.5 volts.
- d. The system *shall* disengage when the operator presses the service brake or the transmission put in gear.

#### 3.9.4 **Lubricants and Fluids**

- a. The vehicle *shall* be serviced with standard lubricants and fluids compatible with the delivery location and season.
- b. The engine *shall* operate using OEM standard oil.

3.9.5 **Fuel Tank(s)** - The vehicle *shall* be equipped with fuel system that gives the vehicle a range of at least 500 km (311 miles), without refuelling at GVWR travelling over paved roads.

3.10 **Transmission** - The vehicle *shall* be equipped with a fully automatic transmission, equipped with an overdrive system and auxiliary oil cooler.

3.11 **Braking System** - The vehicle *shall* be equipped with a hydraulic power braking system, incorporating an anti-lock braking system (ABS).

3.12 **Steering System** - The vehicle *shall* be equipped with power steering.

#### 3.13 **Suspension and Axles**

- a. The vehicle front suspension *shall* be the manufacturer's standard.
- b. The Type I Ambulance (4x4) *shall* have a rear axle equipped with an **Adjustable Air Ride Suspension**, to allow the vehicle to be lowered to facilitate loading/unloading the main cot.
  - i. The air ride suspension *shall* be controlled by an interior switch at the rear of the ambulance body.
  - ii. The system *shall* have an integral air tank with a manually operated drain valve to permit the removal of moisture; and



iii. The system **shall** be equipped with an air dryer to minimize the moisture build-up within the air system.

c. The axles **shall** be the manufacturer's standard, with a capacity to meet the vehicle requirements.

### 3.14 Wheels and Tires

a. The vehicle **shall** be equipped with steel-belted, tubeless, radial ply tires.

b. All tires **shall** be mud and snow type.

c. Where applicable, the wheels **shall** have dual spacing in accordance with Tire and Rim Association Standards.

d. Wheels **shall** operate safely at GVWR, in the required operating conditions.

e. All wheels **shall** permit the use of tire chains.

f. Where applicable, inner tires **shall** be equipped with valve stem extensions.

g. The tires **shall** be mounted on wheels that are balanced to preclude wheel shimmy at all vehicle speeds

h. The vehicle **shall** be delivered with one spare wheel assembly, for each size/type of wheel assembly supplied on the vehicle.

i. The spare wheel assembly and all tools required for to perform a tire change **shall** be mounted/stored in a location on the vehicle which is accessible from ground level.

### 3.15 Ambulance Body

3.15.1 Ambulance Body Dimensions - The Ambulance body **shall** have an:

a. Exterior Body Length (BL) of 4,318 mm  $\pm$  152mm (170 inches  $\pm$  6 inches);

b. Exterior Body Width (BW) of 2,413 mm  $\pm$  127 mm (95 inches  $\pm$  5 inches);  
and

c. Interior Body Height (BIH) of 1,829 mm  $\pm$  76 mm (72 inches  $\pm$  3 inches).

3.15.2 Ambulance Body Exterior - The ambulance **shall** have:

a. A fully welded extruded aluminum frame, clad with an outer skin;

b. Surfaces, edges, corners and joints sealed from exposure to fluid with a waterproof bonding material, "silaprene" or equivalent;

c. Been designed and constructed to prevent electrolytic action between dissimilar metals and materials;



- d. An **outer roof** and **floor-pan** that are each constructed of a single piece of metal;
- e. An **integral rain gutter** to permit rain run-off at the body corners; and
- f. Sound proofed **rear wheel housings**, constructed of a self-cleaning, durable material used to deflect water and objects thrown by the tires.

### 3.15.3 Body Mounting

- a. The body **shall** be mounted to the vehicle with high strength steel bolts.
- b. The body mounting **shall**<sup>(E)</sup> utilize vibration isolating rubber body mounts, designed and installed for ease of remounting.
- c. All body mounts **shall** be designed and installed in accordance with the chassis manufacturer's guidelines.

### 3.15.4 Ambulance Body Accessories - The vehicle **shall** be equipped with:

- a. **Fenders** extending over all wheels and tires;
- b. **Mud flaps** covering the full width of the wheel openings;
- c. Yellow **safety grab rails**, with rubberized grip;
- d. A **rear step bumper**. The rear step bumper **shall**:
  - i. Support a minimum weight of 225 kg (496 lbs);
  - ii. Be a minimum of 240 mm (9.4 inches) deep;
  - iii. Be the full width of the rear door opening;
  - iv. Hinge or pivot to permit ambulance attendants to move closer to the doors for loading and unloading;
  - v. Maintain the OEM ground clearance and angle of departure; and
  - vi. Be protected by corner bumper frames with protruding rubber.

### 3.15.5 Exterior Ambulance Body Doors

- a. The ambulance body **shall** be equipped with a **curb-side exit door**.
- b. The ambulance body **shall** be equipped with **rear double doors**.
- c. The ambulance body **shall** be equipped with **compartment doors**, on the sides of the vehicle.
- d. All ambulance body doors **shall**:
  - i. Be designed to prevent ingress of water, dust, or debris;
  - ii. Be equipped with "hold-open" devices;



- iii. Be equipped with devices to prevent the doors from hitting the ambulance body;
  - iv. Be equipped with flush mounted locking door handles, keyed alike, and designed for exterior use;
  - v. Have a secondary system that will allow the doors to be opened if the main door lock mechanism(s) fail; and
  - vi. Have windows made of automotive grade laminated glass in each door with the level of glass tinting **between 10% and 20%**, to reduce solar heating effects. If aftermarket tinting is used, it **shall** be a metallic film with **between 10% and 20%** "Visible Light Transmission" of a smoke charcoal colour.
- e. The rear doors **shall** open independently to at least 150° and be equipped with a fixed window.
  - f. The side door **shall** have a vented window equipped with a lock and a screen.

3.15.6 **Exterior Storage Compartments and Mounting** - Exterior ambulance storage compartments **shall** be constructed of aluminum. The ambulance body **shall** be equipped with:

- a. An **oxygen compartment** storing the oxygen system, accessible from the exterior and interior;
- b. A **common equipment compartment**, accessible from the exterior;
- c. A **backboard compartment**, accessible from the exterior;
- d. An **electrical equipment compartment**, accessible from the exterior;
- e. A **spare wheel assembly compartment**;
- f. Exterior storage compartments with **dry deck flooring**.

3.15.7 **Ambulance Body Floor Construction** - The ambulance floor **shall**:

- a. Be at the lowest level permitted by the chassis/body;
- b. Be reinforced where necessary to support a load of at least 735 kg/m<sup>2</sup> (151 lb/ft<sup>2</sup>);
- c. Be bonded to the ambulance body sub-floor with a waterproof adhesive;
- d. Provide slip resistance;
- e. Have a heavy-duty, anti-static, seamless, fireproof, non-wax type, and mark resistant safety floor covering for the patient compartment;
- f. Be sealed with rounded edges that extend from the floor up the Ambulance body walls/cabinets/benches a minimum of 60 mm (2.5 inches), to prevent fluids from seeping under walls/cabinets/benches, and minimizing containment areas for the incubation of viruses transmitted in fluids; and



- g. Have protective trim to prevent fluid seepage under cabinets and walls.
- 3.15.8 **Patient Compartment** - Where possible, interior patient compartment elements **shall** be coated, sealed and waterproofed to be impervious to soap, water, disinfectants and mildew.
- a. One (1) Stryker MX Pro R3 **Main Cot shall<sup>(E)</sup>** be provided in the patient compartment, secured at three points to prevent movement during transit;
- i. The securement of the main cot **shall** be designed with the patient's head pointing toward the cab.
  - ii. The mounting system for the main cot **shall** be installed with a minimum of 330 mm (13 inches) clearance from the rear facing attendant's seat.
  - iii. The patient compartment **shall** be equipped with a rear door threshold safety hook, as required for the main cot.
- b. An **attendant's seat shall** be provided in the patient compartment, located near the head of the main cot, mounted on a pedestal;
- i. The attendant's seat **shall** be a hospital-grade, leatherette padded water-proof seat with a high back and head rest equipped with a retractable three-point seatbelt.
  - ii. The attendant's seat **shall** be horizontally adjustable without having to move from a seating position, and pivot 180°, lockable at every 45 degree increment.
- c. A **squad bench shall** be provided in the patient compartment, located along the interior curb-side wall; and
- i. The squad bench **shall** have a minimum height of 405 mm (16 inches) and designed to provide an aisle space of at least 335 mm (13 inches).
  - ii. The bench **shall** provide seating for three passengers, including seat belts for passengers, hospital grade leatherette padded water proof seat cushion(s), back cushion(s), and headrest(s).
  - iii. The bench **shall** have integrated storage under the seat, with a lid;
  - iv. The bench **shall** be equipped with provisions necessary for mounting and securing an occupied T3 Lightweight Assault Litter and patient.
  - v. The placement of the T3 Lightweight Assault Litter mounting provisions **shall** accommodate the stretcher and patient without removing squad bench cushions.
  - vi. The bench **shall** be equipped with both hold open device(s) and latches to hold the bench closed.
- d. A removable, heavy-duty **safety net shall** be provided in the patient compartment, installed vertically near the squad bench, with mounting



points on the floor and roof, between the bench and cab, for protection of passengers in the event of a rapid deceleration meeting CMVSS standard.

3.15.9 **Interior Shelving, Storage and Mounting** - Storage and shelving in the ambulance body **shall** be made of aluminum. The interior ambulance body **shall** be equipped with:

- a. An **action wall** on the interior road-side.
  - i. The action wall **shall** include a work surface for the seated attendant, which retains loose material and is easy to clean.
  - ii. Near the work surface, the action wall **shall** include:
    - a. A main oxygen system outlet;
    - b. A suction outlet;
    - c. IV warmers;
    - d. Controls;
    - e. Two way radio fittings; and
    - f. Thermostat.
  - iii. The action wall **shall** include a defibrillator platform.
- b. **Common storage compartments** accessible to the interior.
  - i. The common storage compartments **shall** have at least 3 shelves.
  - ii. The common storage compartment shelves **shall** be adjustable or removable and have sufficient capacity to support loads of 100 kg/m<sup>2</sup> (20.5 lb/ft<sup>2</sup>).
- c. A fixture to secure the rear tie-downs for **incubators**; and
- d. Two wall or ceiling mounted **IV hooks** with securing straps for the IV pouch at the midsection of each cot/stretcher location (for a total of four hooks).

3.15.10 **Interior Ambulance Body Doors**

- a. All doors installed in the ambulance interior **shall** be designed and installed to avoid unwanted opening in transit or as result of a vehicle collision.
- b. The interior storage compartments **shall** be equipped with sliding doors that open left and right to allow access to the storage space.
  - i. All sliding doors **shall** be constructed of heavy duty, transparent, non-shattering material, such as Plexiglas or polycarbonate.
  - ii. Sliding doors, in their frames **shall** flip up or down to allow full width and height access to the storage compartment.
  - iii. The sliding doors **shall** have handles for ease of opening.



### 3.15.11 Oxygen System

- a. The ambulance **shall** have a hospital type, piped oxygen system rated to store and supply medical oxygen.
- b. The Oxygen system **shall** secure a minimum of two jumbo "D" cylinders, in mounting cradles suitable for storing Types M and MM oxygen cylinders made of aluminum or steel.
- c. The cylinder mounting cradles **shall** be designed to allow simple cylinder transfer/cylinder type changeover, using only simple hand tools.
- d. The mounting cradles **shall** be equipped with a protective coating to prevent damage to cylinders.
- e. The oxygen system **shall** include a minimum of two (2) recessed oxygen medical gas outlets.
- f. The oxygen medical gas outlets **shall**<sup>(E)</sup> be MEDAES model #2417806 DISS.
- g. The oxygen outlets **shall** be located:
  - i. On the action wall; and
  - ii. Near the top of the curb-side wall, located above the head of the forward bench seat.
- h. The oxygen outlets **shall** be equipped with safety protection from impact, such as a cover.
- i. The oxygen system components **shall** be colour coded to indicate oxygen.
- j. The ambulance body interior **shall** be equipped with interior oxygen Gas compartment access, equipped with a single door.
  - i. The oxygen gas compartment door **shall** open to allow access to the oxygen compartment.
  - ii. The oxygen gas compartment door **shall** be equipped with a centrally located transparent access panel, to allow access to the oxygen compartment for reading the pressure gauge and turning on the oxygen valve.

3.15.12 Suction Aspiration System - The ambulance **shall** be equipped with an electrically powered suction aspiration system. The system **shall**:

- a. Be portable;
- b. Be colour coded to indicate suction;
- c. Labelled with the manufacturer's name and applicable standard ratings;
- d. Be equipped with a suction outlet, with a variable speed switch and a vacuum gauge;



- e. Have an electric vacuum pump, powered by the ambulance on-board system (when plugged in) or by rechargeable batteries when disconnected; and
- f. Be connected to a reusable collection jar, with a minimum 200 mL (40.6 US fluid oz) volume, equipped with disposable collection bags.
  - i. The Contractor **shall** supply a minimum of 10 disposable collection bags for each collection jar.

### 3.16 Ambulance Accessories

- a. One (1) **CPR board shall** be supplied with the ambulance.
- b. Two (2) **Laerdal BaXstrap** backboards with attached straps and head beds, **shall<sup>(E)</sup>** be supplied with the ambulance.
- c. One (1) battery operated **clock**, which includes seconds display, **shall** be mounted above the ambulance rear doors, such that the clock can be mounted/dismounted for battery replacement without the use of tools.
- d. All **tire changing tools** required for changing tires, including a **heavy-duty jack** with sufficient capacity to lift the loaded vehicle **shall** be provided with the ambulance.
- e. **Extrication tools** including an extrication combination tool, a pry bar, seat belt cutter, and a tool pouch, **shall** be provided and stored in one of the exterior compartments.
- f. Two (2) **waste containers** with a minimum capacity of 5 litres (1.32 US gal), one for waste disposal, and one designed for hazardous waste disposal, **shall** be mounted in a convenient dedicated location in the patient compartment.
- g. One (1) **sharps container** with a safety design, **shall** be mounted in a compartment under the squad bench, accessible via a kick out door.
- h. Two (2) 2.3 kg (5 lb) ULC approved rechargeable **fire extinguishers** with a minimum rating of 3A10BC, equipped with a pressure gauge, service inspection tag, **shall** be mounted on **quick release fire extinguisher brackets**.
- i. Four 20-minute type spiked red warning **highway flares**, **shall** be provided in a red cylindrical screw top **flare case**, mounted in a **quick release bracket** in one of the exterior storage compartments.
- j. One (1) Propaq MB automatic **external defibrillator shall<sup>(E)</sup>** be provided with a swivel platform for the defibrillator unit, mounted in the action area.
- k. One (1) **portable spotlight**, equipped with a trigger-like on/off control, shall be provided, with a connector that can be plugged into a 12 volt power outlet.
- l. Two (2) **IV warmers shall** be provided in the forward-most upper roadside cabinet on the action wall.



**3.17 Lighting** - To the maximum extent possible, all lighting **shall** be LED type.

- a. The vehicle **shall** be equipped with CMVSS compliant manufacturer's standard:
  - i. Heavy duty **brake, turn signal, and tail lights**; and
  - ii. Heavy duty **backup lights**.
- b. The ambulance body **shall** be equipped with:
  - i. **Clearance lights**, in red and amber colours;
  - ii. Amber turn signals/clearance lights mounted on the side of the ambulance body, which operate in conjunction with the chassis turn signal;
  - iii. White **patient compartment lighting** arranged in two banks, one road-side, and one curb-side, mounted as close to flush as possible;
    - 1) The road-side bank **shall** be automatically activated on the low setting, when any patient compartment door is opened.
  - iv. **Patient compartment cabinetry lighting**, mounted in each compartment close to the door(s);
  - v. **Exterior compartment lighting strip(s)**; and
  - vi. An **action wall reading light**, powered at all times.

**3.18 Ambulance Body Controls** - All controls **shall** be recessed or otherwise protected from accidental engagement. The ambulance body action wall **shall** be equipped with:

- a. **Interior lighting controls**, including;
  - i. **Curb-side lighting controls**, controlling the bank of curb side interior ceiling lights with high/off/low settings;
  - ii. **Road-side lighting controls**, controlling the bank of road-side interior ceiling lights high/off/low settings;
  - iii. Attendant **reading light controls**; and
  - iv. **Master interior light control**, to manually disable all light sources inside the ambulance body.
- b. **Rear facing floodlight controls**, controlling the function of floodlights mounted on one of the rear doors and the side passenger door;
- c. **Compartment lighting controls**, controlling the lighting of all interior and interior/exterior compartments;
- d. A **thermostat for temperature control** in the ambulance body;



- i. The thermostat **shall** have a minimum cabin temperature range of 15 to 23°C (59 to 74 F).
  - ii. The thermostat **shall** be programmable, with a minimum setting of a seven-day schedule.
  - iii. The thermostat controls **shall** be equipped with an override function that allows the heater to be turned on, independent of thermostat setting.
- e. **Heater fan speed controls**, with a minimum high, low and off position settings;
  - f. **Climate control selection controls**, for selecting heating or air conditioning;
  - g. **Suction outlet speed controls**, to control the variable speed of the suction from the outlet; and
  - h. At least on **spare switch**, wired to a spare circuit breaker.

### 3.19 Electrical System

- a. The cab and ambulance conversion electrical system **shall** be the manufacturer's standard, for this application.
- b. The system **shall** be equipped with an isolator that allows all batteries to be charged simultaneously, but does not allow the batteries to draw from each other.
- c. The system **shall** be equipped with an automatic relay system which allows the vehicle to be started from the secondary battery when the primary starting battery is drained.

3.19.1 12-Volt Outlets - The vehicle ambulance **shall** be equipped with a minimum of four flush mounted, 12 volt, polarized socket-type outlets, with continuous power.

- a. Two of the 12-Volt outlets **shall** be dedicated **Incubator Receptacles** installed on the road-side cabinet wall near the head end of the stretcher, but not on the action wall.

3.19.2 110-Volt Outlets - Four GFI protected duplex outlets **shall** be identified and mounted in the interior of the ambulance body.

3.19.3 Batteries - The vehicle **shall** be equipped with a minimum of:

- a. Two (2) standard OEM **maintenance free batteries** located in the engine compartment and sized to exceed the expected maximum draw;
- b. Two (2) **heavy-duty maintenance free, deep-cycle batteries**. The deep cycle batteries **shall**<sup>(E)</sup> be Odyssey 65-PC1750 and **shall** be:
  - i. Located in the ambulance body; and

- ii. Labelled "Conversion Battery".

#### 3.19.4 Alternators

- a. The vehicle **shall** be equipped with alternator(s), supplied as part of the OEM ambulance prep package.
- b. Alternator(s) output **shall** have sufficient amperage to power all vehicle cab and ambulance body requirements.
- c. The alternator(s) **shall** be intended for use on 12 VDC charging systems.

#### 3.19.5 Main Conversion Power Switching

- a. Stopping the engine **shall** trigger an automated electrical shutdown system, which halts delivery of electricity to the ambulance conversion electrical system.
- b. The following items **shall** have a continuous supply of power, regardless of engine status:
  - i. Two-way radios;
  - ii. 12-Volt Outlets; and
  - iii. Action wall reading light.

3.19.6 Electrical Control Centre (ECC) - The Contractor **shall** provide an electrical control centre. The electrical control centre **shall**:

- a. Contain all electrical components;
- b. Be clearly identified, weather-proof, and designed for easy access by maintenance personnel;
- c. Have each device location permanently labelled in the ECC; and
- d. Be equipped with an "as built" electrical diagram on the ECC door/cover that identifies the devices, and wiring, as located within the ECC.

3.19.7 110 Volt Shore Power - The vehicle **shall** be equipped with a ULC certified 110 Volt AC power system. The AC power system **shall** include:

- a. A 12 VDC to 110 volt AC **inverter**, with a minimum power of 1500 watts, operating when the engine is running, and automatically disconnecting when the shore power outlet is energized.



- b. A Kussmaul auto-eject, ground fault interrupt (GFI) protected, 110 volt AC external shore **power supply inlet**, with a yellow cover, for use when the vehicle is parked and can be plugged into a power supply.
  - i. The shore power supply **shall** be the preferred power supply.
  - ii. The interior outlets **shall** be switched over to the shore power supply when it is energized.
  - iii. The system **shall** be configured to provide constant power to the 110 volt outlets.
  - iv. The shore power supply **shall** auto-eject upon start of the engine.

**3.20 Patient Compartment Heating, Ventilation and Air Conditioning (HVAC) -**  
The ambulance body **shall** be equipped with an HVAC system. The HVAC system **shall**:

- a. Maintain fresh air conditions and a comfortable temperature level in the patient compartment;
- b. Have the capacity to completely change the ambient air within the vehicle every 2.5 minutes when stationary;
- c. Meet the requirements of the Ontario Provincial Land Ambulance and Emergency Response Vehicle Standard for ambulance body HVAC;
- d. Upon restart, return to the same setting that was engaged when the power was turned off;
- e. Be controlled from the action wall;
- f. Be high volume capacity with low velocity delivery for minimum draft circulation; and
- g. Be designed to operate using both re-circulated and ambient air.
  - i. Ambient air **shall**<sup>(B)</sup> be filtered with a HEPA filter before it is circulated.

**3.20.1 Supplemental Ambulance Body Heating** - The ambulance body **shall**<sup>(B)</sup> be equipped with an Espar®, or Webasto® supplementary heating system. The auxiliary heater **shall**:

- a. Be thermostat controlled;
- b. Be diesel fuelled;
- c. Draw fuel from the main fuel tank; and
- d. Have sufficient capacity to meet the required operating conditions.

### 3.21 Paint, Colours and Finishes

- a. The cab, chassis and ambulance body **shall** be provided with a high quality paint finish in accordance with the paint manufacturer's recommendations.
- b. The manufacturer **shall** provide warranty against paint peeling, cracking, blistering, corrosion and UV paint fade.
- c. The cab and body exterior **shall** not have components mounted prior to painting, to assure full coverage.
- d. White **shall** be applied on all exposed exterior surfaces normally painted for commercial trade.
- e. The interior colours **shall** be the manufacturer standard shades of grey and/or blue.

3.21.1 Decaling Package - The vehicle **shall** be prepared with the application of a custom decaling package.

- a. The Canadian Forces (CF) Base identifier/crest as large as practical **shall** be affixed to the cab doors.
- b. Decals indicating "911" **shall** be provided on the rear lower corners of the ambulance body.
- c. Reflective striping **shall** be provided in accordance with the applicable provincial standard for the delivery destination.
- d. A Star of Life decal as large as practical **shall** be provided on the left and right rear section of the cab, sized IAW design limitations.
- e. The word "AMBULANCE" as large as practical **shall** be provided in mirrored text on the hood section.

3.22 Identification - The following information **shall** be permanently marked in a conspicuous and protected location:

- a. Manufacturer's name, model year and serial number;
- b. GVWR rating;
- c. GAWR; and
- d. Payload.

3.23 Warning and Instruction Plates - The vehicle **shall** be equipped with warnings and instruction plates in accordance with industry standards for a patient transfer vehicle. Signs **shall** use international symbols or be bilingual (English and French).

### 3.24 Cab and Chassis Corrosion Protection System

- a. In addition to standard factory rust proofing, aftermarket rust proofing **shall** be provided. The treatment will normally be applied within the first year of service. The treatment date will be directed by the Technical Authority to optimize seasonal rust prevention



benefits. If not demanded prior to delivery, a pre-paid certificate authorizing treatment at an aftermarket outlet **shall** be provided with the vehicle.

- b. Metal surfaces **shall** be treated with a rust preventive oily film product which:
  - i. Is moisture displacing;
  - ii. Is creeping (capillary action);
  - iii. Has low solvent content;
  - iv. Is compatible with rubbers, plastics and all other materials used in automotive construction;
  - v. Is non-toxic; and
  - vi. Minimizes dripping.
- c. The Contractor **shall**<sup>(E)</sup> provide written proof of a twelve hour ASTM B117 salt spray endurance test certification by an independent test laboratory prior to first pre-delivery inspection. Krown Rust Kontrol and Rust Check products have been accepted as certified, proof not required.

#### 4. INTEGRATED LOGISTIC SUPPORT (ILS)

**4.1 Vehicle Manuals** - All manuals required for the description, operation, maintenance and repair of the complete equipment, including sub-systems, **shall** be provided.

- a. **Operator's Manuals** - Operator's Manuals **shall** be bilingual (English/French). The Operator's Manual **shall** include:
  - i. Instructions for the safe operation of the vehicle;
  - ii. Daily operator maintenance instructions/checks (including lubrication);
  - iii. Safety warnings: and
  - iv. Hand signals (as necessary).
- b. **Parts Manuals** - The Parts Manuals **shall** be in English (bilingual is desirable). The Parts Manuals **shall** include:
  - i. Illustrations showing all components of the vehicle including equipment and accessories from other manufacturers that are supplied to meet the requirements of the contract, with numbers for the itemization of the parts;
  - ii. A listing for of all itemized parts showing the Original Equipment Manufacturers (OEM) part number, the part name, and a brief description of the item;



- iii. A cross reference relating the OEM part number to the correct illustration and item number; and
  - iv. A representation of bilingual warning signs and identification labels delivered on the equipment.
- c. **Maintenance (Service) Manuals** - The Maintenance Manual **shall** be in English (bilingual is desirable). The Maintenance Manuals **shall** include:
- i. A trouble shooting guide, showing the steps and tests required to determine the exact cause of a problem and an explanation of what steps would be required to correct a problem;
  - ii. A listing of the necessary tolerances, torque levels, fluid volumes required and a section listing any special tools (including item part numbers);
  - iii. Information on the order of disassembly and assembly of the systems and components of the vehicle; and
  - iv. A wiring diagram.

#### 4.1.1 **Manual Delivery**

- a. **Sample Manuals** - The contractor **shall** submit sample manuals to the Technical Authority (TA) for each equipment model and or sub-system for approval as specified above. Sample manuals will not be returned. The Crown will provide approval or comments on the manuals within 30 days. Sample manuals should be submitted with enough time for review prior to vehicle delivery.
- b. **Approved Manuals (to TA)** - One (1) complete set of manuals (Operator's, Maintenance, and Parts) in electronic format **shall** be delivered to the Technical Authority.
- c. **Approved Manuals (At Destination)** - One (1) complete set of manuals (Operator's, Maintenance, and Parts), in paper and electronic format, **shall** accompany the first vehicle shipped to each location.
- d. **Approved Operator's Manual (With Vehicle)** - One (1) Operator's manual (paper format) **shall** be provided with every vehicle.

#### 4.1.2 **Electronic Format**

- a. Approved copies of the electronic format manuals **shall** be delivered on CD/DVD-ROM.
- b. CD/DVD-ROM **shall not** require installation, password and/or Internet connection to be accessed and **shall** be an unlocked PDF in a searchable format.

#### 4.1.3 **Provisional Manuals**

- a. In the event that approved manuals are not available at the time of delivery of the equipment, manuals marked "Provisional" **shall** be supplied with the equipment.



- b. The contractor **shall** deliver replacement approved manuals to all destinations where Provisional manuals were delivered.

#### 4.1.4 Manual Supplements

- a. The contractor **shall** supply manual supplements (Operator's, Maintenance and Parts) to support dealer-installed equipment not covered in the Vehicle Manuals.
- b. Manual supplements **shall** be provided to each destination in the same quantities and format as the Vehicle manuals.

4.1.5 Translation and Reproduction Rights - The Canadian Government **shall** reserve the right to translate and reproduce, for Government use only, all or any part of the publications supplied, including the training packages delivered against the contract agreement.

#### 4.1.6 Changes to manuals

- a. During the period of the Contract, changes to equipment, which affect the contents of manuals, **shall** be reflected in the revision of the electronic and paper version of the manuals.
- b. Changes to the manuals **shall** conform to the same format and presentation requirements as the original manuals.
- c. The revised electronic version of the manual **shall** be sent to the Technical Authority by the Contractor.

#### 4.2 Data Summary

- a. The contractor **shall** provide a bilingual Data Summary for each make/model/configuration of equipment by completing Technical Authority's template with data and a vehicle picture.
- b. The Contractor **shall** provide a Data Summary, if possible, before the shipment of the vehicle(s).

#### 4.3 Warranty Letter

- a. The contractor **shall** provide a bilingual Warranty Letter to the Technical Authority and with each vehicle delivered in the approved DND format.
- b. The TA will provide the contractor a template for the DND acceptable format of the warranty letter.
- c. The Warranty Letter **shall** include the following details:
  - i. A list of all Canadian designated warranty service providers that will honour the warranty for the equipment and attachments (if applicable) procured under this contract, including the contact person and phone number at each warranty service provider;
  - ii. Additional warranty coverage of sub-systems and a copy of the bilingual warranty letter from each sub-system's Original Equipment Manufacturer (OEM);



- iii. Warranty period as negotiated in the contract; and
- iv. Contractor contact information, name and phone number, for warranty support.

4.3.1 **Warranty** - A Manufacturer's warranty **shall** be provided, including the following coverage:

- a. 10 years on the modular ambulance;
- b. 5 years for the Ambulance conversion;
- c. 5 years for the electrical systems;
- d. 2 years for sub-components;
- e. 2 years for paint; and
- f. OEM Standard warranty for the cab and chassis.

#### 4.4 **Photographs**

- a. The Contractor **shall** provide photographs to the TA, in electronic format, within 30 days of the first vehicle delivery. The photographs should be in color, taken against a plain background, and in digital JPEG format with a minimum 10 megapixel resolution.
- b. At a minimum, the photographs **shall** be:
  - i. One left front three-quarter view of a completed unit; and
  - ii. One right rear three-quarter view of a completed unit.

4.5 **Dimensioned Drawing** - One side and front view sketch showing the dimensions **shall** be provided. Brochure sketches are acceptable.

#### 4.6 **Line Setting Ticket**

- a. The Contractor **shall** provide a Line Setting Ticket describing the components provided on the cab and chassis.
- b. One copy of the Line Setting Ticket **shall** accompany each completed vehicle to the final delivery point.
- c. The Contractor **shall** produce a Supplement listing for all non-production line components and systems included in the Contract.
  - i. The Supplement **shall** indicate the name of the component or system and the installation company (name and address).
- d. One copy of the Line Setting Ticket and one copy of the Supplement **shall** be forwarded to the Technical Authority.

#### 4.7 **Special Tools List**

- a. The contractor **shall** provide an itemized list of specific special tools required for the servicing and repair of the vehicle or equipment procured under this contract.

b. The list **shall** include the following information.

- i. Item name;
- ii. Manufacturer's part number (OEM);
- iii. Quantity recommended per delivery location;
- iv. Contractor's part number;
- v. Unit price; and
- vi. Unit of issue.

c. These tools **shall** also be listed in the Maintenance Manual.

**4.8 Preventive Maintenance Replacement Parts Kit List** - A list of parts needed to perform preventive maintenance on a vehicle/equipment during the first scheduled preventive maintenance. The list **shall** include additional items recommended by the Original Equipment Manufacturer for review and acceptance by the Technical Authority. The list **shall** include the following elements:

- a. Part description;
- b. Original Equipment Manufacturer Part number;
- c. Suggested quantity;
- d. Unit cost; and
- e. Be delivered to the Technical Authority for approval and action. The list **shall** be supplied in an editable electronic format, preferably as a spreadsheet.

**4.9 Safety Recalls and Servicing Data** - Safety recalls, and manufacturer's technical service bulletins, or equivalent **shall** be provided to the technical authority and the final delivery locations on a continuing basis, throughout the life expectancy of the vehicle or for no less than 10 years.

#### **4.10 Familiarization Training**

##### **4.10.1 Operator Familiarization Training**

- a. The Contractor **shall** deliver an operator training course covering, as a minimum, the vehicle servicing procedures, how to operate the features of the vehicle safely and efficiently.
- b. The training **shall** be for a maximum of six (6) operators, at each equipment delivery location.
- c. Training **shall** be available in both official languages, for delivery locations in the province of Quebec.
- d. Training dates **shall** be coordinated with the TA.
- e. The contractor **shall** provide a copy of the training package to the TA for review and approval.

- f. The contractor **shall** deliver the "PROOF OF OPERATOR TRAINING" certificate for signature by a Crown Representative from the location where the training is taking place and return the signed document to the TA. The Technical Authority will supply a template of the document in electronic format to the contractor.

#### 4.10.2 Maintenance Familiarization Training

- a. The Contractor **shall** deliver a maintenance training course covering, as a minimum, the safety precautions, trouble shooting, test and adjustment, special tools and test equipment, minimum operation and features of the vehicle and the safe and efficient maintenance of the vehicle.
- b. The training **shall** be a minimum of eight (8) hours of training for a maximum of six (6) maintenance personnel, at each delivery location.
- c. Training **shall** be available in both official languages, for delivery locations in the province of Quebec.
- d. Training dates **shall** be coordinated with the TA.
- e. The contractor **shall** provide a copy of the training package to the TA for review and approval.
- f. The contractor **shall** deliver the "PROOF OF MAINTENANCE TRAINING" certificate for signature by a Crown Representative from the location where the training is taking place and return the signed document to the TA. The Technical Authority will supply a template of the document in electronic format to the contractor.

### 5. **QUALITY ASSURANCE PROVISIONS**

#### 5.1 Performance and Verification Testing

- a. The first vehicle of each Configuration to be delivered **shall** be examined and performance tested by the contractor, under real or equivalent load and operating conditions, to ensure item by item conformance to specified requirements. The QAR and/or the Technical Authority may witness this testing to assess the handling characteristics.
- b. The contractor **shall** have a fully equipped vehicle weighed on certified scales. The total weight and weight on each axle **shall** be provided to the TA.
- c. The remaining vehicles **shall** be tested by the contractor with or without load to check general performance and operation.

#### 5.2 Vehicle Delivery Condition

- a. The vehicle **shall** be delivered to destination clean and in a fully operational condition (serviced and adjusted).
- b. If the vehicle requires assembly at destination, the Contractor **shall** be responsible for all manpower and equipment to perform assembly. The consignee will provide the area required for assembly.



- c. For shipment verification, all items which are shipped loose with each vehicle **shall** be listed on the shipping certificate or to an attached packing note.
- d. The vehicle fuel tank **shall** be at least  $\frac{1}{2}$  full upon delivery.



TYPE I 4X4 AMBULANCES  
ECC 140160

TECHNICAL INFORMATION QUESTIONNAIRE

This questionnaire covers technical information, which will be used to evaluate the technical compliance of the configuration(s) of the vehicle(s) offered.

Where the specification paragraphs below indicate **Proof of Compliance**, a **Proof of Compliance** document demonstrating compliance with each corresponding performance requirement/specification **shall** be provided with the bid.

Bidders should indicate the requested information and indicate the document name/title and page number where the **Proof of Compliance** can be found.

Definitions for **Equivalent** and **Proof of Compliance** are found in the DEFINITIONS section at the end of this document.

CONTRACTOR INFORMATION

Contractor Name \_\_\_\_\_

Proposal Date \_\_\_\_\_

Substitutes/Alternatives

Are any equipment substitutes/alternatives offered as **Equivalent**? YES  NO

If yes, please identify all equipment substitutes/alternatives offered as **Equivalents**, below. Bidders **shall** provide information to demonstrate how the offered substitute/alternative is **Equivalent** to the requirement identified in the Purchase Description by **shall**<sup>(E)</sup>:



TYPE I 4X4 AMBULANCES  
ECC 140160

TECHNICAL INFORMATION QUESTIONNAIRE

Proposed Ambulance: Make \_\_\_\_\_ - Model \_\_\_\_\_

Proposed Chassis: Make \_\_\_\_\_ - Model \_\_\_\_\_

PURCHASE DESCRIPTION PARAGRAPHS

**3.1 b. c. Industry Acceptability / Regulations**

Demonstrate industry acceptability and the OEMs ability to meet applicable regulations by providing the provincial certification of a Type I OEM ambulance model issued in the last five (5) years,

The Provincial Certification can be found in:  
Document(s): \_\_\_\_\_ on page(s): \_\_\_\_\_.

**3.1 d. Published Ratings - Proof of Compliance**

The Ambulance brochure showing the latest ambulances offered can be found in:  
Document(s): \_\_\_\_\_ on page(s): \_\_\_\_\_.

**3.3.1 b. National Safety Mark - Proof of Compliance**

Demonstrate the OEM's ability to comply with vehicle safety regulations by providing a copy of the "Ministerial Authorization" for use and application of the National Safety Mark issued by Transport Canada, relevant to ambulance model for Canadian Contractors. Models proposed by American Contractors should be included in the current edition of the Transport Canada 'List of Vehicles Admissible from the Unites States.

The Ministerial authorization can be found in:  
Document(s): \_\_\_\_\_ on page(s): \_\_\_\_\_.

**3.6 Ratings and Dimensions - Proof of Compliance**

Gross Vehicle Weight \_\_\_\_\_ , GVWR \_\_\_\_\_.

Front axle weight \_\_\_\_\_ , GAWR (front) \_\_\_\_\_.

Rear axle weight \_\_\_\_\_ , GAWR (rear) \_\_\_\_\_.

Payload \_\_\_\_\_.

Vehicle and Axle ratings can be found in:  
Document(s): \_\_\_\_\_ on page: \_\_\_\_\_.

**3.15.1 Ambulance Body Dimensions**

Exterior Body Length (BL) \_\_\_\_\_.



Exterior Body Width (BW) \_\_\_\_\_.

Interior Body Height (BIH) \_\_\_\_\_.

Please provide dimensional layout drawings of the ambulance body, identifying the required dimensions, exterior storage compartments, and doors.

Ambulance body dimensional information can be found in:

Document(s): \_\_\_\_\_ on page: \_\_\_\_\_.

**3.15.8 Patient Compartment / 3.15.9 Interior Shelving, Storage and Mounting**

Please provide patient compartment layout drawings identifying the required interior storage and equipment.

Patient compartment layout information can be found in:

Document(s): \_\_\_\_\_ on page: \_\_\_\_\_.

**4.3.1 Warranty Details**

Modular Ambulance Warranty: \_\_\_\_\_.

Ambulance Conversion Warranty: \_\_\_\_\_.

Electrical System Warranty: \_\_\_\_\_.

Sub-component Warranty: \_\_\_\_\_.

Paint Warranty: \_\_\_\_\_.

OEM Standard Warranty (Cab and Chassis): \_\_\_\_\_.

## DEFINITIONS

The following definitions apply to the interpretation of this Technical Information Questionnaire:

- a) "Equivalent" - A standard, means, or component type, which has been accepted by the Technical Authority as meeting the specified requirements for form, fit, function and performance.
- b) "Proof of Compliance" - An unaltered document, such as a brochure and/or technical literature and/or a third party test report provided by a nationally and/or internationally recognized testing facility and/or a report generated by a nationally and/or internationally recognized third party software. The document **shall** provide detailed information on each performance requirement and/or specification. Where a document submitted as Proof of Compliance does not cover all the performance requirements and/or specifications or when no such document is available or when modifications to the original equipment or customization are required to achieve the performance requirements and/or specifications, a Certificate of Attestation (as a separate document) signed by a senior representative of the Original Equipment Manufacturer (OEM) detailing the modifications and how they meet the performance requirements and/or specifications **shall** be provided. The certificate **shall** detail all performance requirements and/or specifications required to substantiate compliance. One certificate can be provided for one or all performance requirements and/or specifications.

**ANNEX “C” to PART 5 – BID SOLICITATION**

**FEDERAL CONTRACTORS PROGRAM FOR EMPLOYMENT EQUITY -  
CERTIFICATION**

I, the Bidder, by submitting the present information to the Contracting Authority, certify that the information provided is true as of the date indicated below. The certifications provided to Canada are subject to verification at all times. I understand that Canada will declare a bid non-responsive, or will declare a contractor in default, if a certification is found to be untrue, whether during the bid evaluation period or during the contract period. Canada will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply with any request or requirement imposed by Canada may render the bid non-responsive or constitute a default under the Contract.

For further information on the Federal Contractors Program for Employment Equity visit Employment and Social Development Canada (ESDC) -Labour's website.

Date: \_\_\_\_\_(YYYY/MM/DD) (If left blank, the date will be deemed to be the bid solicitation closing date.)

Complete both A and B.

A. Check only one of the following:

- ( ) A1. The Bidder certifies having no work force in Canada.
- ( ) A2. The Bidder certifies being a public sector employer.
- ( ) A3. The Bidder certifies being a federally regulated employer being subject to the *Employment Equity Act*.
- ( ) A4. The Bidder certifies having a combined work force in Canada of less than 100 employees (combined work force includes: permanent full-time, permanent part-time and temporary employees [temporary employees only includes those who have worked 12 weeks or more during a calendar year and who are not full-time students]).

A5. The Bidder has a combined workforce in Canada of 100 or more employees; and

- ( ) A5.1. The Bidder certifies already having a valid and current Agreement to Implement Employment Equity (AIEE) in place with ESDC -Labour.

**OR**

- ( ) A5.2. The Bidder certifies having submitted the Agreement to Implement Employment Equity (LAB1168) to ESDC -Labour. As this is a condition to contract award, proceed to completing the form Agreement to Implement Employment Equity (LAB1168), duly signing it, and transmit it to ESDC C-Labour.

B. Check only one of the following:

B1. The Bidder is not a Joint Venture.

**OR**

B2. The Bidder is a Joint Venture and each member of the Joint Venture must provide the Contracting Authority with a completed annex Federal Contractors Program for Employment Equity - Certification. (Refer to the Joint Venture section of the Standard Instructions)