

**RETURN BIDS TO:**  
**RETOURNER LES SOUMISSIONS À:**  
Bid Receiving - PWGSC / Réception des soumissions  
- TPSGC  
11 Laurier St. / 11, rue Laurier  
Place du Portage, Phase III  
Core 0B2 / Noyau 0B2  
Gatineau, Québec K1A 0S5  
Bid Fax: (819) 997-9776

**SOLICITATION AMENDMENT**  
**MODIFICATION DE L'INVITATION**

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

Comments - Commentaires

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>Title - Sujet</b> ACTIVITY BUS	
<b>Solicitation No. - N° de l'invitation</b> W0002-150002/B	<b>Amendment No. - N° modif.</b> 002
<b>Client Reference No. - N° de référence du client</b> W0002-150002	<b>Date</b> 2015-10-13
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$\$HP-923-68084	
<b>File No. - N° de dossier</b> hp923.W0002-150002	<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 2015-10-27</b>	
<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> Martin, Erik	<b>Buyer Id - Id de l'acheteur</b> hp923
<b>Telephone No. - N° de téléphone</b> (819) 956-3842 ( )	<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>	

Instructions: See Herein

Instructions: Voir aux présentes

<b>Delivery Required - Livraison exigée</b>	<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/</b> <b>de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</b>	
<b>Signature</b>	<b>Date</b>

Solicitation No. - N° de l'invitation

W0002-150002/B

Amd. No. - N° de la modif.

002

Buyer ID - Id de l'acheteur

hp923

Client Ref. No. - N° de réf. du client

W0002-150002

File No. - N° du dossier

hp923W0002-150002

CCC No./N° CCC - FMS No/ N° VME

---

**THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK.**

Solicitation No. - N° de l'invitation  
W0002-150002/B

Amd. No. - N° de la modif.  
002

Buyer ID - Id de l'acheteur  
hp923

Client Ref. No. - N° de réf. du client  
W0002-150002

File No. - N° du dossier  
hp923 W0002-150002

CCC No./N° CCC - FMS No/ N° VME

**THIS AMENDMENT 002 IS ISSUED TO MODIFY THE SOLICITATION AS FOLLOWS:**

- 1- To post questions and answers #1, 2 and 3;
- 2- Modify article 3.9.1 of the Purchase Description to change “front” for “back”;
- 3- Modify article 3.12.4 of the Purchase Description to remove “ The system shall<sup>E</sup> be Carrier split system”;

**ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED.**

W0002-150002/B – Questions and Answers – Questions et réponses

	Question French	Question English	Réponse en français	Answer in English	Modifies PD
1	3.7 Dimensions : Hauteur de autobus vous demander : <b>120 pouces</b> <b>Nous avons de besoin de 124 pouces</b>	3.7 Dimension: (e) Height of the bus you ask for: <b>120 inch we need 124 inch.</b>	Nous sommes satisfait à 124 pouces.	We are ok with 124inch	No
2	3.12.4 <b>Climatiseur</b> – Un climatiseur de transport bibloc intérieur <b><u>doit</u></b> être fourni. Il <b><u>doit</u></b> <sup>(E)</sup> s'agir d'un <b>système bibloc</b> de marque Carrier. <b>Accepteriez vous un système AC Thermo King?</b>	3.12.4 Heating, Ventilation and air conditioning systems (HVAC): (c) The system <b>shall be Carrier</b> split system. <b>will you accept a Thermo King ac sys?</b>	N'a pas à être obligatoirement de la compagnie « Carrier »	It is not mandatory to be a “Carrier” ac system.	Yes
3	3.12.6 Caractéristiques intérieures a) des supports porte bagages de plafond; les supports porte bagages <b>doivent(E) être munis de dispositifs de fermeture de porte.</b> Accepteriez-vous des <b>filets à mailles pour retenir les paquets.</b>	3.12.6 interior features (a) Overhead parcel racks: parcel rack shall be <b>furnished with door closer type</b> . Will you accept : <b>mesh netting for retention of parcels.</b>	Nous acceptons celle avec le filet à mailles. Mais nous préférons celle avec des portes qui se ferment.	We'll accept the mesh netting one. But we preferred the close door one.	No

**ANNEX B**

**PURCHASE DESCRIPTION**

**ACTIVITY BUS**

**1 Scope**

**1.1 Scope** This purchase description describes the requirements for a minimum 44 passenger bus, based on a flat nose commuter bus chassis, diesel engine driven, 4x2, w/dual wheels, under-body luggage storage compartments, white in colour. The bus will be used to transport up to 44-adult passengers for distances up to 300-miles (482 km).

**1.2 Instructions** - The following instructions and definitions apply to the interpretation of 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>(E)</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) Where “**shall**”, “**shall**<sup>(E)</sup>”, or “will” are not used, the information provided is for guidance only;
- (e) In this document “provided” **shall** mean “provided and installed”;
- (f) Where technical certification is required, a copy of the certification or an acceptable proof of compliance **shall** be provided upon request;
- (g) Where a standard or specification is required and the bidder offers an equivalent, that equivalent standard **shall** be provided upon demand;
- (h) Where equipment certification to an SAE standard is required, the bidder **shall** provide the certification upon request;
- (i) Metric measurements **shall** be used to define the requirement. Other measurements are for reference only and may not be exact conversions; and
- (j) Dimensions stated as nominal **shall** be treated as approximate dimensions. Nominal dimensions reflect a method by which materials or products are generally identified for sale commercially, but which differ from the actual dimensions.

**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; and
- (c) “Proof of Compliance” - A document such as a brochure, a third party test report, a report generated by third party software, or a certificate of attestation signed by a senior representative of the Original Equipment Manufacturer (such as a certified engineer) indicating the performance and/or feature specified.
- (d) The term "Quality Assurance Representative" is defined as the government officer responsible for ensuring that the contractor quality system, material and services supplied meet the contract requirement;
- (e) “Guidance” is defined as a requirement that may be followed. The guidance is provided to indicate a preferred component Make and Model or dimension that would be best for the application. However, deviating from a guidance doesn’t consider the bid non-compliant;
- (f) “Vehicle” is defined as a commuter type bus, as detailed in this Purchase Description; and
- (g) “Curb Weight” is the empty weight (no payload included) of a full bus. Curb weight **shall** include the all attached devices, equipment, and full fuel tanks, lubricants, and coolants.

**1.4 Technical Information Appendix** The following applies:

- (a) The bidder **shall** complete the Technical Information Questionnaire. Failure to provide specified brochures, performance analysis, drawings, curves or tables may render the proposal non-compliant; and
- (b) A nil response to a Technical Information Questionnaire question may be considered non-compliant. Any deviation from the purchase description **shall** be listed in the Conformance Certificate.

**2 APPLICABLE DOCUMENTS**

**2.1 Publication** The following document forms part of this purchase description. Effective dates **shall** be those in effect on the date of manufacture. Source is as shown:

Transport Canada Consolidation of the Motor Vehicle Safety Act and Motor Vehicle Safety Regulations and all applicable revisions TP4360E

Canadian Government Publishing Centre  
Supply and Services Canada  
Ottawa, Canada, K1A 0S9

**2.2 Other Publications** The following documents form part of this purchase description. Effective dates

**shall** be those in effect on the date of manufacture. Sources are as shown:

Society of Automotive Engineers Inc.,  
400 Commonwealth Drive, Warrendale, PA, 15096

Standards Council of Canada, International  
Standardization Branch, 350 Sparks St.,  
Suite 1200, Ottawa, Ontario K1P 6N7

FED STD 595 Colors

GSA - Specification Section

470 L'Enfant Plaza  
Suite 8100  
Washington, DC 20407  
Telephone: (202) 755-0325

NFPA 407

National Fire Protection Association,  
470 Atlantic Avenue,  
**Boston, Mass., 02210, USA**

### **3 REQUIREMENTS**

**3.1 Standard design** The vehicle design **shall**:

- (a) Be manufacturer's latest model;
- (b) Have demonstrated industry acceptability by having been manufactured and sold commercially; or, objective evidence of the vehicle/equipment's capability to satisfy performance requirements **shall** be provided with the proposal;
- (c) Have engineering certification available, upon demand, for this vehicle/equipment from the original manufacturers of major drive train components and major equipment systems and assemblies;
- (d) Conform to all applicable laws, regulations and industry standards governing manufacture, safety, noise levels and pollution in effect in Canada at time of manufacture;
- (e) Not have system and component capacities increased above published ratings (i.e. product or component brochures); and
- (f) Include all components, equipment and accessories normally supplied for the model offered, although they may not be specifically described in this Purchase Description.

**3.2 Operating Conditions** The vehicle, under all load conditions, **shall** operate as follows without degradation in performance, reliability and maintainability:

- (a) On paved roads, gravel roads, dirt roads with severe washboard and potholes and off-road terrain. The vehicle will also operate in areas with severe grades and switchback turns. Conditions include year round operation on snow, mud and ice;
- (b) In the temperature range of – 40°C to 37°C (-40°F to 98°F); and
- (c) With the GVWR specified under all operating conditions.

**3.3 Vehicle Safety Regulations** The vehicle *shall* meet the applicable provisions of the Canada Motor Vehicle Safety Act and the Regulations made thereunder, in effect on the date of manufacture of the vehicle.

**3.4 Human Engineering and Safety** The following applies:

- (a) All systems and components *shall* be safe and easy to use by a 5-95<sup>th</sup> percentile male or female under all operating conditions;
- (b) Entry and exit points *shall* be equipped with handles and steps suitably positioned where required, to accommodate a 5-95<sup>th</sup> percentile male or female under all operating conditions; and
- (c) Safety features such as warning and instruction plates, non-slip surfaces and heat shields *shall* be provided where required.

**3.5 Maintainability** All maintenance and repair tasks, especially routine operator maintenance, *shall* be easy to perform with a minimum of special tools and skills.

### **3.6 Payload and Weight Rating**

**3.6.1 Payload** The bus *shall* be capable of transporting a minimum of **44-adult passengers with luggage**. The payload of passengers *shall* be calculated 300 pounds per person and 215 pounds for the driver. These ratings include provisions for luggage.

**3.7 Dimensions** The following nominal dimensions *shall*<sup>(E)</sup> be provided:

- (a) Front axle setback between - 1,905 mm and 2,032 mm (75 and 80 inches).
- (b) Wheelbase – 5,892 mm (232inches).
- (c) Overall length – 12 metres (40 feet).
- (d) Overall width – 2,438 mm (96 inches).
- (e) Height – 3,048 mm (120 inches).
- (f) Interior Headroom – 1,905 mm (75 inches).

### **3.8 Performance**

**3.8.1 Speed** The bus with rated payload shall<sup>(E)</sup> achieve a speed of at least 105-kph (65-mph) on good roads.

**3.8.2 Gradability/Stall Gradability** The loaded vehicle shall<sup>(E)</sup> achieve a gradability of 1.2% at 90-km/h (56-mph).

**3.8.3 Computer Generated Vehicle Performance Prediction Analysis** The Contractor shall provide a computer generated vehicle performance prediction analysis with the Technical Information Questionnaire. Analysis shall be performed with the power train specified and a fully loaded vehicle. A fully loaded vehicle is a fully furnished bus with 40 adult passengers and luggage.

### **3.9 Chassis and Power Train Systems**

**3.9.1 Engine Systems** The following shall be provided:

#### **Back Engine**

- i A turbocharged, electronically controlled diesel engine mounted in the back; and
- ii Biggest engine horsepower available for the chassis model offered. If the biggest engine horsepower is an available option for the chassis model offered, this option shall be provided as the vehicle standard engine.

**3.9.2 Engine Components**- The engine shall include:

- (a) A replaceable dry-type air filter that includes a filter restriction gauge;
- (b) Engine coolant for temperatures down to  $-40^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$ );
- (c) Engine brake; and
- (d) A cooling system that includes a thermostatic fan.

**3.9.3 Fuel System** - The vehicle shall be equipped with:

- (a) A fuel tank with a capacity of at least 378 litres (100 US gals); and
- (b) **Fuel Heater** - A self-regulating in-line electric or coolant type fuel heater to warm the fuel before it enters the fuel filter(s) and to maintain the fuel temperatures above the waxing/gelling point during cold weather operation.

Note: The following fuel heaters are provided as guidance: Arctic Fox or Fuel Pro

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

- (a) A 110-volt coolant block heater of the highest wattage capacity recommended by the engine manufacturer;
- (b) A fuel filter/water separator incorporating a thermostatically controlled heater; and

(c) 150-Watt, minimum, oil preheater.

**3.9.5 Transmission** The following applies:

- (a) A fully automatic transmission shall be provided. The transmission shall<sup>(E)</sup> be a 5 forward-speed;
- (b) **The transmission/engine shall<sup>(E)</sup> be programmed to prohibit the fast idle from engaging when the transmission is in gear and the parking brake is applied;**
- (c) **The transmission/engine shall<sup>(E)</sup> be programmed to prohibit the transmission from engaging when the fast idle is engaged and the parking brake is applied; and**
- (d) An oil filter shall<sup>(E)</sup> be provided.

**3.9.6 Steering** Power steering with a tilt telescopic steering column shall<sup>(E)</sup> be provided.

**3.9.7 Brakes** The following shall be provided:

- (a) A four-channel anti-lock brake system (ABS);
- (b) shall<sup>(E)</sup> be S-Cam type air brakes;
- (c) Brake housing dust shields;
- (d) Automatic slack adjusters;
- (e) Front and rear wheel visual brake stroke indicators;
- (f) A heated automatic moisture-expelling valve;
- (g) The wet tank capable of being recharged using a glad hand;
- (h) An automatic heated air dryer; and
- (i) A minimum .367 cu m/min (13.2 cfm) compressor.

**3.9.8 Tires and Wheels** The following shall<sup>(E)</sup> be provided:

- (a) Tubeless steel belted radial tires;
- (b) Mud/snow tires on the rear axles;
- (c) 8.25 X 22.5 hub pilot mounted disc wheels. The disc wheels including the spare shall<sup>(E)</sup> be interchangeable front and rear;
- (d) A spare wheel and tire assembly; and
- (e) All wheel assemblies balanced to preclude shimmy at all speeds.

**3.9.9 Suspension and Axles** The following *shall*<sup>(E)</sup> be provided:

- (a) Air suspension on front and rear axle;
- (b) Automatic height control valve (s);
- (c) Double acting shock absorbers on all axles;
- (d) A no spin differential;
- (e) A front axle & suspension capacity of at least 6,622 kg (13,200 lbs);
- (f) A rear axle & suspension capacity of at least 10,432 kg (23,000 lbs); and
- (g) A kneeling System.

**3.9.10 Frame** The frame *shall* be reinforced at the towing points and be suitable for the application.

**3.9.11 Exhaust System** The exhaust *shall*<sup>(E)</sup> be vented to the rear of the bus.

### **3.10 Cab and Chassis Systems**

**3.10.1 Cab Features** The following *shall* be provided:

- (a) A flat nose type vehicle;
- (b) Fully adjustable interior sun visor(s);
- (c) A coat hook(s) for the driver, conveniently located in the driver's area;
- (d) Tinted glass in all windows;
- (e) Two heavy duty, adjustable, electric windshield fans, equipped with blade guards, for the left side windshield. One located in the upper left corner of the left side windshield and the other located in the centre of the base of the windshield. The fans will be used to augment the windshield defrosting system;
- (f) Driver's beverage and cell phone holders supplied in the driver area;
- (g) One interior light to illuminate the driver's area; and
- (h) A fold-down, transparent, tinted sun visor located above the left, driver's side window.

**3.10.2 Driver's Seat** The following *shall* be provided:

- (a) A six way, high back, air ride, power, fully pneumatic driver's seat with lumbar support, cloth inserts

with pivoting arms rests; and

- (b) Retractable shoulder/lap belt assemblies, adjustable up and down on the post for adjustable height, for the driver's seat.

**3.10.3 Mirrors** The following with nominal dimensions shall<sup>(E)</sup> be provided:

- (a) Two sets of mirrors, each consisting of one 9 x 10 inch flat, heated, power operated mirror and one adjustable 4 x 6 inch convex mirror mounted above the large mirrors on the left and right sides of the bus. The requirement for a left side motorized mirror can be waived if not available for this model of bus;
- (b) A cross view stainless steel mirror mounted on the right front corner;
- (c) One interior, adjustable, rear view mirror, measuring approximately 6 x 10 inches mounted in the driver's compartment and positioned to allow the driver full view of the interior of the bus. The mirror shall<sup>(E)</sup> have protected edges; and
  - (i) Replaceable heads or glass.

**3.10.4 Instruments** The following shall be provided:

- (a) A tachometer;
- (b) An odometer;
- (c) A coolant temperature gauge;
- (d) A transmission temperature gauge;
- (e) An oil pressure gauge;
- (f) A voltmeter or ammeter; and
- (g) A air pressure gauge.

**3.10.5 Warning Devices** The following shall be provided:

- (a) A warning light for low oil pressure;
- (b) A warning light for high coolant temperature;
- (c) A warning light for high transmission temperature;
- (d) A warning light and audible warning device to indicate unlatched doors and/or emergency exits;
- (e) An audible reverse alarm; and
- (f) A warning light and audible warning device to indicate low air pressure.

**3.10.6 Controls** The following *shall* be provided:

- (a) Fast idle control, with manual on/off, and equipped with an automatic on/off switch that disengages when the brakes are applied or the transmission selector is moved into gear;
- (b) The fast idle feature *shall* be configured so as not to allow the fast idle to be engaged when the transmission is in gear and the parking brake is applied;
- (c) Cruise Control;
- (d) Horns. Snow shields *shall* be provided if the horns are fully exposed to the elements;
- (e) Intermittent windshield wipers;
- (f) Electric windshield washers;
- (g) Volume controls for the radio system within an easy reach of the driver; and
- (h) Reading map light switch installed on dash and within an easy reach of the driver.

**3.10.7 Audio/Video Systems** The following *shall*<sup>(E)</sup> be provided:

- (a) An AM/FM /CD radio with USB and Aux port with public address system. All controls *shall* be in the driver's area;
- (b) In addition to the OEM radio speakers, an additional eight speakers *shall*<sup>(E)</sup> be mounted on the ceiling in the passenger area. The radio *shall*<sup>(E)</sup> be equipped with a volume and fader control for the speakers in the passenger area; and
- (c) A DVD player with at least four 38 cm (15in) color LCD wide Screen TV monitors two on each side, suitably located below the parcel rack.

### **3.11 Electrical System**

**3.11.1 Electrical System Features** The following *shall* be provided:

- (a) A 270-amp alternator;
- (b) Multiple 12-VDC power outlet with surge protection distribute in the passenger area and two in the driver area;
- (c) A slave receptacle located in the vicinity of the battery compartment. The slave receptacle *shall*<sup>(E)</sup> be Grote Part # 84-9279;
- (d) All wiring, including the bus body, protected by insulating grommets where passing through metal; and
- (e) All electrical circuits, including the bus body, protected with fuses, relays or circuit breakers.

**3.11.2 Batteries** Heavy-duty maintenance free batteries shall be provided. The batteries shall<sup>(E)</sup> have a total capacity of 2300-CCA.

**3.11.3 Lighting** All bus lighting shall be LED, as commercially available. The lighting system shall<sup>(E)</sup> include:

- (a) HID headlights;
- (b) White fog lights;
- (c) Clearance, stop, tail and turn signal and licence plate lights;
- (d) A stoplight mounted centre and at least at eye level on the rear of the bus;
- (e) Amber rear turn signal lights and mid ship left and right turning/clearance lights;
- (f) Lights and reflectors shock mounted, recessed or otherwise protected from damage;
- (g) An engine compartment light;
- (h) An appropriate number of centre aisle, ceiling lamps with Clear dome cover and independent switches convenient to the driver. The ceiling lamps shall<sup>(E)</sup> minimize glare to the driver;
- (i) A protected stepwell light mounted in the right hand front part of the stepwell. The light shall<sup>(E)</sup> be energized when any door is opened or the interior lights are energized;
- (j) Individual passenger reading lights located under the overhead parcel rack with on/off buttons; and
- (k) Under-body luggage compartment lights activated through pin switches when the doors are opened, or by an illuminated master light switch located in the driver's compartment.

### **3.12 Body/Special Equipment**

Note: Body construction that is equivalent to or exceed the requirement as detailed in paragraph 3.12.2 will be acceptable. All dimensions are considered nominal dimensions, unless otherwise specified.

#### **3.12.1 Body Type** .

- (a) The body shall be based on a back engine flat nose style bus design.

#### **3.12.2 Body Construction**

- (a) Exterior Side Panels/Floor - The following applies:
  - i. Outside side panels shall<sup>(E)</sup> be constructed of 16 gauge steel and include formed flutes for additional strength. Rear corner panels shall<sup>(E)</sup> be constructed of 20 gauge steel;

- ii. Side panels shall<sup>(E)</sup> extend from below the side windows to a distance of 50-cm (19 ¾ inches) below the floor, 50-cm (19 ¾ inch skirt);
  - iii. The engine compartment door shall<sup>(E)</sup> be constructed of 4.8-mm (0.190 inch) aluminum and equipped with acoustical panels to reduce engine noise;
  - iv. The front roof cap shall<sup>(E)</sup> be formed of 18 gauge steel, and the rear roof cap shall<sup>(E)</sup> be formed of 20 gauge steel;
  - v. Roof sheets shall<sup>(E)</sup> be 20 gauge steel sheet and span the entire width of the bus, window header to window header, and include an embossed rain visor over the side windows;
  - vi. Front cowl panels shall<sup>(E)</sup> be constructed of 16 gauge steel;
  - vii. Floor panels shall<sup>(E)</sup> be constructed of 14 gauge steel and reinforced with full width “U” channel cross members, and all riveted floor joints shall<sup>(E)</sup> be reinforced with full width 1.8-mm x 30-mm (3/16 x 1½ inch) structural steel angles;
- (b) Inner Panels - The following applies:**
- i. A removable 18 gauge steel front upper inner panel shall<sup>(E)</sup> be provided to allow access to the front roof cap area;
  - ii. A removable 20 gauge steel rear upper inner panel shall<sup>(E)</sup> be provided to allow access to the rear roof cap area;
  - iii. Left and right removable 22 gauge wire moldings shall<sup>(E)</sup> be provided to allow access to body wiring harnesses;
  - iv. 20 gauge texturized aluminized steel inside side panels shall<sup>(E)</sup> be provided and extend from the window sill down to the floor gusset seat ledge for the entire length of the body on both left and right sides;
  - v. Head lining panels shall<sup>(E)</sup> span the entire width of the bus, window header to window header, and be constructed of 22 gauge steel and be double hemmed to provide additional joint strength;
- (c) Insulation/Noise Reduction** The walls, ceiling and floor shall<sup>(E)</sup> be insulated as follows:
- i. Environmentally friendly insulating materials that is chemical and flame resistant;
  - ii. The rear cross-seat area separating the engine and interior passenger compartment is heavily insulated to minimize vibration and noise;
  - iii. 5/8” inch plywood flooring with a continuous sound resistant underneath steel barrier;
  - iv. Sound deadening steel perforated and acoustic headlining insulation used throughout the bus;
  - v. Fibreglass insulation installed on hat channels and between frame areas;

- vi. The exterior rear fibreglass cap inner surface and top of coolant recovery tank coated sprayed-in foam insulation to a thickness of 38-mm (1.5 inches);
- vii. Insulating material applied to the underside of the floor construction and over the axles to reduce the transfer of heat, cold and tire noise to the interior of the bus;
- viii. The roof insulated with 38-mm (1.5 inches) of fibreglass which is compressed when the interior panels installed; and
- ix. The sidewalls insulated with 38-mm (1.5 inches) foamed rigid block installed between frame members.

**3.12.3 Under-Body Luggage Compartments** The following *shall*<sup>(E)</sup> be provided:

- (a) Commercially available storage space on each side of the bus (The pass through design will be acceptable);
- (b) All under-body compartment doors capable of swinging upwards approximately 135° to the fully open position, be equipped with weather proof seals, flush mounted, lockable, slam latches and a holding open device(s) complete with gas struts to allow the door(s) to be held in the fully open position; and
- (c) The compartments sprayed with X- Box Liner and lined with tough perforated vinyl matting such as Dry-Dek® vinyl flooring mat.

**3.12.4 Heating, Ventilation and Air Conditioning Systems (HVAC)**

(a) **Fuel Fired Coolant Heater** The following applies

- i A diesel fuel fired coolant heater *shall* be provided. The heater *shall*<sup>(E)</sup> have a capacity of 40,000-Btu. The heater will be used to heat the passenger compartment as well as act as a coolant heater for the engine;
- ii The fuel drawn from the vehicle fuel tank;
- iii Temperature controls and a 7-day timer;
- iv The exhaust directed away from critical areas such as wiring;

(b) **Engine Coolant Space Heaters**, utilizing recirculating air and having the following nominal ratings *shall*<sup>(E)</sup> be provided,

- i 90,000-Btu front system w/defroster duct;
- ii 50,000-Btu stepwell heater;
- iii 2 x 80,000-Btu rear under seat heaters;

- (c) **Air Conditioning System** An interior split system transport A/C air conditioning system **shall** be provided. The system **shall**<sup>(E)</sup> have the following features:
- i. An environmentally friendly fluid such as R134A;
  - ii A minimum capacity of 75,000 BTU/hour in the passenger area and 15,000 BTU/hour in the driver area; and
  - iii Air outlets located to evenly distribute cool air to the passengers and driver.

**3.12.5 Passenger Seating** The bus **shall** be equipped with forward facing seating to accommodate 44 adult passengers. The seats **shall**<sup>(E)</sup> have the following features:

- (a) **Cruiser type** forward facing, high back, reclining, cloth covered seats with pivoting arm rests to accommodate 44 passengers. Seats on the rear row **shall**<sup>(E)</sup> be non-reclining but of the same quality as the reclining seats;
- (b) Seat belts for first row seats;
- (c) Approximately 914-mm (36 inches) wide and spaced approximately 812-mm (32 inches) apart as measured from the rear of one backrest to the rear of the next. The bench seat **shall**<sup>(E)</sup> be 1,066-mm (42-inches) high as measured from the floor to the top of the back of the seat; and
- (d) A detailed line drawing, with dimensions, for the proposed bus interior **shall** be provided.

**3.12.6 Interior Features** The following **shall** be provided:

- (a) Overhead parcel racks. The front corners of the racks **shall**<sup>(E)</sup> be rounded to prevent head injury. The parcel rack **shall**<sup>(E)</sup> be furnished with door closer type. Vinyl extrusion over aluminum integral hand rail **shall**<sup>(E)</sup> extend the full length of both parcel racks along the aisle side;
- (b) Floor covering for the centre aisle and steps. The floor covering **shall**<sup>(E)</sup> be Altro ;
- (c) A handrail located on the right side of the entrance door to assist passengers entering and exiting the bus;
- (d) A clear Plexiglas divider located rear of the driver's seat. The installation of the divider **shall** not interfere with the front passenger seat clearance; and
- (e) Side wall carpeting on both sides.

**3.12.7 Doors, Windows and Emergency Exits** The following applies:

- (a) The passenger door **shall**<sup>(E)</sup> be Bi-Fold lockable main door system. The door **shall**<sup>(E)</sup> include a side window and a curb window. All door windows **shall** be thermal pane, AS-2 tempered safety glass. An entrance door header pad **shall**<sup>(E)</sup> be provided. Means to secure front entrance door **shall** be provided;

- (b) The **Side Windows** in driver area and the passenger compartment ***shall*** be cruiser type with top sliding windows. All windows ***shall*** be emergency exits. Windows ***shall*** be shatter proof, thermal pane, AS 2, tempered safety glass. Windows ***shall*** be tented; and
- (c) Two roof mounted **Emergency Escape Hatches** conforming to Transport Canada regulations ***shall*** be provided.

### **3.13 Miscellaneous Equipment**

**3.13.1 Equipment Location** All systems and components ***shall*<sup>(E)</sup>** be properly located and/or protected from road hazards such as water, mud and gravel.

**3.13.2 Recovery/Tow Points** Two front and two rear tow hooks or loops of sufficient strength to permit the recovery of the fully loaded vehicle ***shall*** be provided.

**3.13.3 License Plate Holders** Front and rear holders ***shall*** be provided.

**3.13.4 Mud Flaps / Rear Wheel Rubber Splash Guards** The following applies:

- (a) Mud flaps ***shall*** be provided behind the front and rear wheels; and
- (b) The rubber splashguards installed on all wheel stations ***shall*<sup>(E)</sup>** be provided.

**3.13.5 Wheel Changing Tool** Wheel changing tools including a heavy-duty jack, capable of lifting the vehicle ***shall*** be provided.

**3.13.6 Emergency Equipment** The following ***shall*<sup>(E)</sup>** be provided:

- (a) A 10 unit First Aid kit, stowed in the general proximity of the driver;
- (b) Two triangular emergency warning flares complete with storage container;
- (c) One fireman's axe, securely mounted and readily accessible in the proximity of the driver; and
- (d) Two dry chemical type fire extinguishers, securely mounted each with a minimum 5BC rating. Fire extinguishers ***shall*<sup>(E)</sup>** be located in passenger area, in a convenient location to the driver, and rear cargo compartment.

**3.13.7 Destination Sign** A front mounted, glass enclosed, illuminated, destination sign, digital display type ***shall*** be provided. The sign ***shall*** list the name of the home base of the particular bus in both English and French, and have six additional blanks.

**3.13.8 Backup Camera** A backup camera ***shall*** be provided. The camera ***shall*<sup>(E)</sup>** be equipped with a sound pickup and night vision feature mounted at the rear of the vehicle to allow visibility when the bus is being backed up. The camera ***shall*** be positioned to provide maximum coverage. A coloured monitor in the driver's area and positioned within easy view of the driver ***shall*** be provided.

### **3.14 Commercial Paint and Corrosion Protection**

#### **3.14.1 Paint Finish** The following applies:

- (a) The vehicle including the cab, chassis and variant systems ***shall*** be painted in accordance with the paint manufacturer's recommendations and the manufacturer's best production procedures, rendering a durable finish and a smooth appearance free from runs, sag and orange peel;
- (b) A phosphate treatment plus primer or an E-coat system ***shall<sup>(E)</sup>*** be provided on all ferrous metals. This ***shall<sup>(E)</sup>*** be followed by two coats of paint;
- (c) A cleaning and etching treatment plus primer followed by two coats of paint ***shall<sup>(E)</sup>*** be provided on all aluminum components; and
- (d) A clear exterior grade sealer ***shall<sup>(E)</sup>*** be applied on all wooden surfaces.

#### **3.14.2 Paint Colour** The following ***shall*** be provided:

- (a) Colour as requested in paragraph 1.1 with Canadian Forces decals as per Figure - 1. The figure is a representation of the decals and their approximate location and not any of the bus configurations; and
- (b) Chassis items painted black. Chromed, polished and mill finished surfaces ***shall*** not be painted.

#### **3.14.3 Corrosion Protection** – The following ***shall*** be applied to the vehicle:

- (a) **Rust Proofing** - Aftermarket rust proofing provided in addition to standard factory rust proofing. 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) **Rust Preventative** - All metal surfaces treated with a rust preventative oily film product having the following properties;
  - (i) Moisture displacing;
  - (ii) Creeping (capillary action);
  - (iii) Low solvent content;
  - (iv) Compatibility with rubbers, plastics and all other materials used in automotive construction;
  - (v) Non toxic;
  - (vi) Minimal dripping;
- (c) **Salt Spray Endurance Test** - Written proof of a twelve hour ASTM B117 salt spray endurance test certification by an independent test laboratory. Krown Rust Kontrol and Rust Check products have been previously certified, proof not required;

- (d) **Application Areas** - The application includes, but is not limited to the underside of fenders and hood, enclosed and boxed-in sections, seams, mouldings, crevices, weld points, underbody and exposed exterior brackets;
- (e) **Warranty Documentation** - A decal and warranty papers accompanying each vehicle; and
- (f) **Availability** – The corrosion protection system ***shall*** be widely available across Canada or available through mobile services.

Note: the following corrosion protection systems are provided as guidance: Krown Rust Kontrol or Rust Check products.

### **3.15 Miscellaneous**

**3.15.1 Identification Plate** The following information ***shall*** be provided as a minimum, permanently marked and in a conspicuous and protected location:

- (a) Manufacturer, model, model year and serial number; and
- (b) GAWR and GVWR.

**3.15.2 Warning and Instruction Plates** The following ***shall*** be provided:

- (a) All plates provided within easy view of the user;
- (b) Instructions for engine starting, transmission operation, variant operations and any other special procedures to be followed; and
- (c) International symbols and/or bilingual markings.

**3.15.3 Lubricants and Fluids** The following applies:

- (a) Axles, transmission and differentials ***shall*** be furnished with synthetic lubricant. The synthetic lubricant ***shall*** be approved by components manufacturer and furnished by the OEM; and
- (b) The vehicle ***shall*** operate satisfactorily on Canadian Forces Supply Line lubricants including synthetic lubricants. This includes 15W40 and SAE 75W90. Vehicle hydraulic systems ***shall*** operate using DEXRON III.

**3.15.4 Bid Package Additional Information** The following ***shall*** be provided with the bid or upon request:

- (a) Up-to-date brochures and other applicable information.
- (b) Details on the warranty, including all separate component warranties; and
- (c) A listing of all applicable operator, maintenance and parts manuals.

3.16 **Deliverable Information** The following Deliverable Information ***shall*** be provide:

- (a) **Equipment Manuals** -The following manuals ***shall*** be provided:
- i. **Chassis Operator’s Manual** - Operator’s Manual ***shall*** be furnished in a bilingual format. A hard copy of chassis Operator’s Manual ***shall*** be provided with the vehicle;
  - ii. **Chassis Maintenance (Shop Repair) Manual** - The Maintenance (Shop Repair) Manual ***shall*** be in English;
  - iii. **Parts Manuals** – The Parts Manuals ***shall*** be in English;
  - iv. **Sample Manuals** – The Contractor ***shall*** deliver a set of sample manuals, including all documents in items i through ii above. The sample manuals ***shall*** be delivered to the Technical Authority. Sample manuals will not be returned. In the event that manuals are dependent on vehicle completion, sample manuals ***shall*** be submitted within 30 days after the pre-production vehicle approval or production vehicle inspection. The Crown will provide approval or comments on the manuals within 30 days;

**NOTE:** Manuals on CD/DVD-ROM or on-line will be acceptable. A hard copy of chassis Operator’s manual ***shall*** be provided with the vehicle.

- (b) **Data Summary** – The Contractor ***shall*** provide a Data Summary to the Technical Authority for each vehicle make/model furnished. The Contractor ***shall*** complete Data Summary by filling in the required data and an electronic picture into a Data Summary template provided by the Technical Authority. The Data Summary ***shall*** be in bilingual format;
- (c) **Photographs** – The contractor ***shall*** provide the Technical Authority with two (2) digital pictures for the complete vehicle, one of the left front three-quarter view, and one of the right rear three-quarter view. All pictures ***shall*** be taken with a clear uncluttered background;
- (d) **Warranty Letter** – The contractor ***shall*** provide a copy of the completed Warranty Letter with the vehicle shipped in the format approved by the Technical Authority. The Contractor ***shall*** send a copy of the completed Warranty Notification Letter to the Technical Authority for each vehicle shipped, at shipment. A copy of the Warranty Letter ***shall*** be forwarded to the Technical Authority in electronic format. The Warranty Letter ***shall*** be in bilingual format;
- (e) **Line Setting Ticket** – The Contractor ***shall*** provide a Line Setting Ticket, or equivalent, describing the components provided on the cab and chassis. One copy of the Line Setting Ticket ***shall*** accompany each completed vehicle to the final delivery point. One copy of the Line Setting Ticket ***shall*** be forwarded to the Technical Authority; and
- (f) **Familiarization** – A Contractor representative ***shall*** provide a minimum of three hours of Operator familiarization training to a maximum of eight persons and a minimum of three hours of Maintainer familiarization training to a maximum of eight persons. The contractor ***shall*** provide costs with the bid given in the Contract. Transportation costs, travel time, and all related costs for the representative to go to and from the Crown Location ***shall*** be included in the bid price. A proof of

familiarization instruction completion ***shall*** be provided through a Familiarization Instruction Completion Form. The Form ***shall*** be completed and signed by an authorized representative. The form ***shall*** accompany the payment invoice.

#### 4. QUALITY ASSURANCE PROVISIONS

**4.1 Quality System Requirements-** The Quality System ***shall*** be in compliance with the SACC manuals. The Manuals are detailed in the Request for Proposal (RFP). The contractor ***shall*** be responsible for the Quality System. The Quality Assurance Representative (QAR) will assure that the contractor is providing a Quality System.

**4.2 Performance and Verification Testing-** The vehicle to be delivered ***shall*** be examined and performance tested by the contractor, to ensure item by item conformance to specified requirements. The QAR and/or the Technical Authority may witness this testing and operate the unit sufficiently to assess the handling characteristics.

#### Decal Design

Note: This figure is only meant to show the design and approximate placement of the decals.

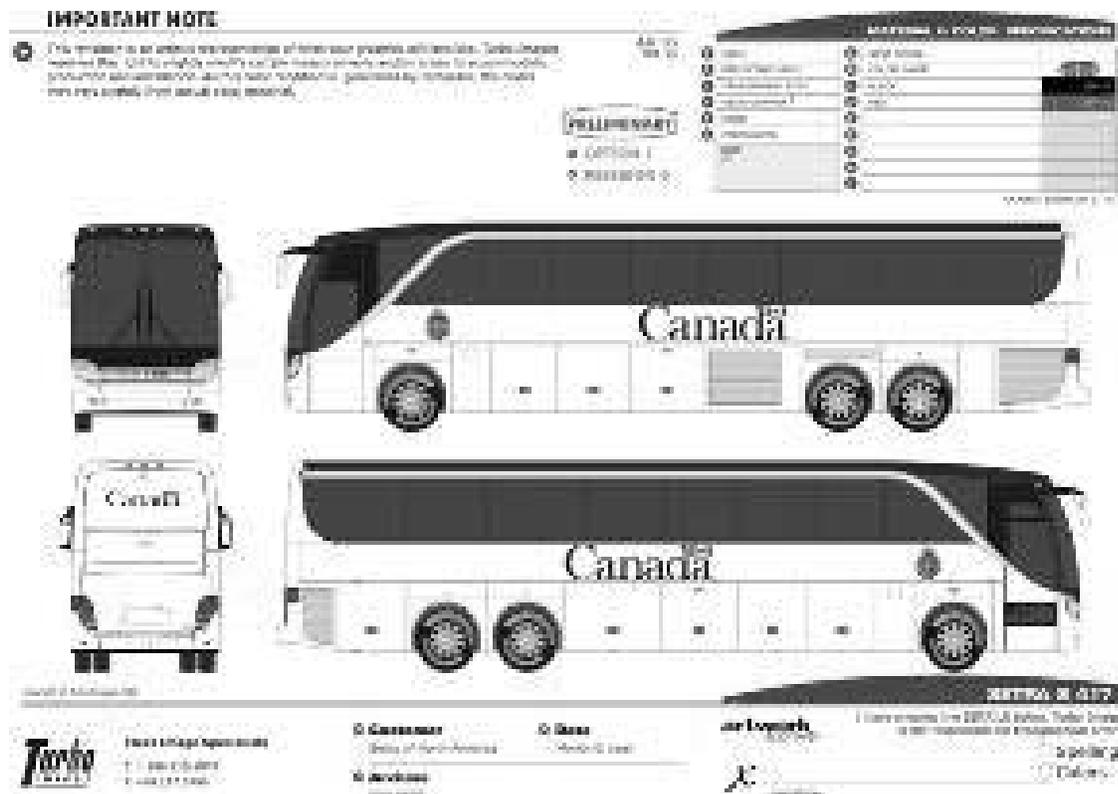


Figure - 1