

**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

**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

Title - Sujet COMMUTER BUSES FRONT ENGINE	
Solicitation No. - N° de l'invitation W8476-165389/A	Date 2015-08-31
Client Reference No. - N° de référence du client W8476-165389	
GETS Reference No. - N° de référence de SEAG PW-\$\$HP-912-67886	
File No. - N° de dossier hp912.W8476-165389	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2015-10-13	Time Zone Fuseau horaire Eastern Daylight Saving Time EDT
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input checked="" type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Pearson, Neil	Buyer Id - Id de l'acheteur hp912
Telephone No. - N° de téléphone (819) 956-3976 ()	FAX No. - N° de FAX (819) 953-2953
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: 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

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

Solicitation No. - N° de l'invitation

W8476-165389/A

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

W8476-165389

Amd. No. - N° de la modif.

File No. - N° du dossier

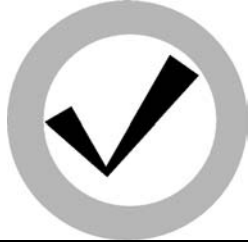
hp912W8476-165389

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.

1. **SCOPE**

1.1 **Scope** - This Purchase Description covers the requirements for commuter buses with a front engine with features and accessories.

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

- (a) Requirements, which are identified by the word "**shall**", are mandatory. Deviations will not be permitted;
- (b) Requirements identified with a "will" define actions to be performed by Canada and require no action/obligation on the Contractor's part;
- (c) Where "**shall**" or "will" are not used, the information supplied is for guidance only;
- (d) In this document "provided" **shall** mean "provided and installed";
- (e) Where a standard is specified and the Contractor has offered an **Equivalent**, that **Equivalent** standard **shall** be supplied by the Contractor;
- (f) Where a technical certification is referred to in this Purchase Description, a copy of the certification or an acceptable Proof of Compliance **shall** be supplied; and
- (g) While the SI system **shall** be used as the primary system of measurement to define requirements of this Purchase Description, both the SI system and the standard system for this product may be indicated. Conversion from one system of measurement to the other may not be exact.

1.3 **Definitions**

- (a) "**Technical Authority**" **shall** mean the official responsible for the technical content of this requirement;
- (b) "**Equivalent**" **shall** mean a standard, means, or component type, which the **Technical Authority** has approved for this requirement as meeting the specified requirements for fit, form, function and performance;
- (c) "**Commercially Equipped**" **shall** mean that the vehicle is provided in its standard commercial Configuration with no additional government-specified requirements; and
- (d) "**Curb Weight**" **shall** mean the weight of the fully equipped vehicle. The curb weight **shall** include the cab and chassis, all



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attached accessories, equipment, fuel, lubricant and coolants.
The **Curb Weight** does not include the **Payload**, the weight of the passengers or their personal kit and equipment.

1.4 **Data Table** - The following table shows the minimum required performance and dimensions for the Configuration.

CHARACTERISTIC	PARAGRAPH	UNITS	CONFIGURATION
			A
HP	3.4.1 (c)	-	260
FUEL CAPACITY	3.7.2 (a)	litres	340
ALTERNATOR	3.14 (b)	amperes	270
CCA	3.14 (c)	amperes	2,300

2. **APPLICABLE DOCUMENTS** - The following documents are referenced in this Purchase Description. Canada will not be supplying any reference documents. Available information on the organization is supplied.

SAE Standards

SAE World Headquarters
400 Commonwealth Dr.,
Warrendale, PA, 15096-0001
<http://www.sae.org>

Canadian Motor Vehicle Safety Act

Government of Canada / Transport Canada,
<http://www.tc.gc.ca/eng/acts-regulations/acts-1993c16.htm>

Canadian Motor Vehicle Safety Standards (CMVSS)

Government of Canada / Transport Canada,
<http://www.tc.gc.ca/eng/menu.htm>

Canadian Motor Vehicle Safety Regulations (CMVSR)

Government of Canada / Transport Canada,
<http://www.tc.gc.ca/eng/acts-regulations/regulations-crc-c1038.htm>



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3. REQUIREMENTS

3.1 Standard Design

- (a) The vehicle **shall** be the latest model from a manufacturer who has demonstrated acceptability by selling this type and size class of vehicle for at least five (5) years;
- (b) The vehicle **shall** include all components, equipment and accessories normally supplied for this application, although they may be not specifically described in this Purchase Description;
- (c) The vehicle **shall** have engineering certification available for this application from the original manufacturers of major equipment, systems and assemblies;
- (d) The vehicle **shall** conform to all applicable laws, regulations and industrial standards in effect in Canada at the time of manufacture. The regulatory areas may include but are not necessarily limited to manufacturing, health and safety, noise levels, environment and emissions; and
- (e) The vehicle and accessories **shall** operate in accordance with all original equipment manufacturers' (OEM) rated capacities and performance specifications.

3.2 Operating Conditions

3.2.1 Weather - The vehicle **shall** start and operate under the extremes of weather conditions found in Canada in temperatures ranging from -40 to 40°C.

3.2.2 Terrain - The vehicle **shall** be operate in all-weather conditions on highways, secondary roads, gravel roads, and off-road (e.g. construction sites, open fields and dirt tracks).

3.3.1 Vehicle Safety Regulations - The vehicle **shall** meet the provisions of the Canada Motor Vehicle Safety Act. The vehicle **shall** be certified as compliant with all applicable Canadian Motor Vehicle Safety Regulations and Canadian Motor Vehicle Safety Standards.

3.4 Vehicle - The vehicle **shall** be a flat nose commuter bus with a front engine.

3.4.1 Vehicle Performance

- (a) The vehicle **shall** have a road speed of at least 110 km/h when operating fully loaded on a flat level road;
- (b) The vehicle **shall** have gradability at 90 km/h of at least 1.2 %; and
- (c) In order to provide the performance specified in paragraphs 3.4.1 (a) and (b), the vehicle **shall** be provided with an engine with a horsepower of at least that given as "HP" in the Data Table (paragraph 1.4).

3.4.2 Payload

- (a) The vehicle **shall** transport at least 40-seated passengers;
- (b) The vehicle **shall** have a payload capacity of at least 100 kg for the vehicle driver;



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- (c) The vehicle **shall** have a payload capacity of at least 100 kg per passenger; and
- (d) The vehicle payload **shall** include a capacity of 40 kg per passenger for luggage.

3.4.3 **Dimensions**

- (a) The vehicle **shall** have an interior headroom height at the interior centreline of at least 1,905 mm; and
- (b) The vehicle **shall** have an exterior width of no more than 2,590 mm;
- (c) The vehicle **shall** have a front axle setback; and
- (d) The vehicle **shall** have an exterior height of no more than 3,050 mm.

3.5 **Vehicle Requirement**

- (a) **40-Passenger** - The vehicle **shall** have a capacity for at least 40-passengers in forward facing seat configuration;
- (b) **Vehicle Body**
 - i The vehicle body **shall** be built in compliance with all commercial standards;
 - ii The vehicle **shall** be provided with a light-weight engine compartment door equipped with acoustical panels to reduce engine noise;
 - iii The passenger area **shall** be provided with a removable inner panels to allow access to the roof cap area;
 - iv The passenger area **shall** be provided with removable inner panel to allow access to the front and rear roof cap areas;
 - v The vehicle **shall** be provided with left and right removable mouldings to allow access to body wiring harnesses; and
 - vi The passenger area **shall** be provided with at least two (2) roof-mounted emergency escape hatch. The escape hatch **shall** have an opening that is at least 580 mm square.
- (c) **Features**
 - i The vehicle body **shall** be provided with a tinted windshield;
 - ii The vehicle body **shall** have a side window in the drivers area;
 - iii The vehicle body **shall** have two (2) adjustable fans to augment the windshield defrost system. One fan **shall** be located in the upper left hand corner of the windshield and the other **shall** be located at the bottom of the windshield in the centre. Fans **shall** be provided with blade guards;



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- iv The vehicle body **shall** be provided with windshield wipers with at least 2 continuous speeds and one (1) intermittent speed. The windshield wipers **shall** be provided with arctic wiper blades;
- v The vehicle body **shall** be provided with two rotating and pivoting interior sun visors;
- vi The vehicle body **shall** be provided with a fold-down transparent tinted sun visor for the driver;
- vii All windows **shall** be shatter proof, tinted and thermo-pane safety glass (AS-2);
- viii The passenger area **shall** be provided with lower fixed glass windows and upper T-slider windows. At least 3 side windows per side **shall** be push out emergency exit window. The emergency windows **shall** be clearly labelled;
- ix The passenger area **shall** be provided with non-slip rubber floors and toe boards. The floor covering for the floor and steps **shall** be **Equivalent** to Altro - Storm Grey;
- x The driver's area **shall** be provided with an interior light with a control switch;
- xi The driver's area **shall** be provided with a coat hook;
- xii The passenger area **shall** be provided with overhead parcel racks. The parcel rack **shall** be provided with mesh netting for retention of parcels. The parcel rack **shall** be provided with a vinyl extrusion over aluminum handrail extending the full length of both parcel racks. The front corners of the racks **shall** be rounded or have an **Equivalent** feature for passenger safety;
- xiii The vehicle **shall** be provided with a handrail located on the right side of the entrance door to assist passengers entering and exiting the bus;
- xiv The vehicle **shall** be provided with a full height clear divider located behind the driver's seat. The divider **shall** have 50% translucency. The preferred colour for the divider is charcoal. The divider **shall** not interfere with the front passenger seat clearance;
- xv The vehicle **shall** be provided with side wall carpeting on both sides; and
- xvi The vehicle **shall** be provided with air horn(s) protected from snow clogging.

(d) **Doors**

- i The vehicle **shall** be provided with a passenger access door on the right hand side. The passenger access door **shall** be a lockable bi-fold door. The door **shall** include a side window and a curb window. The passenger access door **shall** be at least 2,125 mm high and have a width of at least 750 mm. Each of the door leaves **shall** be provided with thermal pane AS-2 safety glass



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windows. The door **shall** be manually operated with the control to the right of the driver and **shall** be accessible by a seated driver. The door control **shall** not interfere with the removal of the engine access cover;

- ii An entrance door header pad **shall** be provided; and
- iii A means to secure front entrance door **shall** be provided.

(e) Vehicle Thermal and Acoustic Insulation

- i All bus and chassis manufacturer's standard and optional insulation packages **shall** be supplied as standard. The packages **shall** include, but not limited to, all available firewall insulation with a **minimum of R-value of 5** and **shall** fill all cavity areas and voids in outer and inner walls, outer, and inner roof, and roof bow hat sections, and front and rear caps;
- ii Insulating material **shall** be 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;
- iii The sidewalls **shall** be insulated with at least 38 mm foamed rigid block installed between frame members;
- iv The vehicle **shall** be provided with walls, ceiling and floor with a chemical and flame resistant insulation;
- v The vehicle **shall** be provided with at least 15 mm plywood flooring with a continuous sound resistant barrier;
- vi All noise reduction methods available from bus and chassis manufacturer **shall** be added to the standard package;
- vii The vehicle **shall** be provided with sound deadening and acoustic headliner insulation;
- viii The vehicle **shall** be provided with acoustic insulation to maintain an interior noise level of no greater than 78 dB(A) while the vehicle is travelling at 100 km/h on a level paved road. This requirement is expanded to include any location within the passenger compartment; and
- ix The vehicle **shall** be provided with an insulated bulkhead separating the engine and interior passenger compartment in order to minimize vibration and noise.

(f) Heating, Ventilation and Air Conditioning System

- i The vehicle **shall** be provided with a forced air heating, ventilation and air conditioning system;
- ii The driver's area **shall** be heated with the heating system provided by the manufacturer of the vehicle chassis;



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- iii The passenger area **shall** be heated with a forced air heating system. The heating system **shall** use the vehicle engine coolant to provide heating. The system **shall** include a circulation pump, insulated coolant lines and shut-off valves (for engine or system maintenance);
- iv The passenger heating system **shall** leave the aisle clear of obstructions;
- v The passenger heating system **shall** be provided with an auxiliary fuel-fired forced-air heating system, which can operate when the engine is shut-down. The system **shall** include a control switch and temperature control;
- vi The heating system **shall** be provided with a front heater system complete with defrosting ducts. The front heater system **shall** provide at least 22,675 kilocalories (90,000 BTU) of heating capacity;
- vii The heating system **shall** be provided with a stepwell heater. The stepwell heater **shall** provide at least 12,575 kilocalories (50,000 BTU) of heating capacity. The entry step **shall** be electrically heated to prevent the accumulation of ice and snow;
- viii The heating system **shall** be provided with at least 2 (two) under seat heaters. The under seat heaters **shall** provide a total of at least 40,300 kilocalories (160,000 BTU) of heating capacity;
- ix The vehicle **shall** be provided with an air conditioning system;
- x The air conditioning system **shall** provide a cooling capacity of at least 18,875 kilocalories (75,000 BTU) of cooling capacity in the passenger compartment;
- xi The air conditioning system **shall** provide a cooling capacity of at least 3,775 kilocalories (15,000 BTU) of cooling capacity in the driver's area; and
- xii The air conditioning system **shall** distribute cooling throughout the passenger compartment and driver's area.

(g) Driver's Seat

- i The vehicle **shall** be provided with a six way high-back medium to dark coloured upholstered driver seat with lumbar support;
- ii The seat **shall** be provided with pivoting arm rests;
- iii The seat **shall** be suspension seat with air suspension. The seat **shall** be push button controlled using air from the vehicle air system; and
- iv The seat **shall** be provided with a retractable shoulder/lap belt assembly.

(h) Passenger Seating

- i Passengers **shall** be provided with upholstered forward facing seats;



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- ii Passenger seats **shall** be provided with aisle and centre armrests;
- iii A row of passenger seats **shall** have a width of at least 900 mm;
- iv Passenger seats **shall** be at least 1,065 mm high from the floor to the top of a lowered headrest;
- v Passenger seating **shall** be installed with a distance from the back of one row to the back of the row in front of at least 810 mm;
- vi Passenger seats **shall** recline with the exception of the rear row;
- vii The passenger seating **shall** be provided with aisle side grab rails;
- viii Seats **shall** be provided with a retractable lap belt assembly; and
- ix Mesh map pockets **shall** be provided on the back of each seat.

(i) Mirrors

- i The vehicle **shall** be provided with two (2) mirrors with flat section having an area of at least 60,000 mm² each. Mirror glass **shall** be replaceable;
- ii Each mirror **shall** be provided with a convex mirror section, below the flat section, with an area of at least 15,000 mm² mounted. Mirror glass **shall** be replaceable;
- iii Both mirrors **shall** be motorized and adjustable from within the cab; and
- iv Mirrors **shall** be provided with heating systems. Mirror heating **shall** be activated by an in-cab control. Heating elements **shall** be replaceable;
- v One cross-view stainless steel mirror mounted on the right front corner **shall** be provided; and
- vi One interior, adjustable, rear view mirror, mounted in the driver's compartment and positioned to allow the driver full view of the interior of the coach.

(j) Backup Camera

- i The vehicle **shall** be provided with a backup camera;
- ii The camera **shall** be equipped with a camera mounted at the rear of the vehicle to allow visibility when the bus is being backed up;
- iii The camera **shall** be positioned to provide optimal visibility; and
- iv A coloured monitor **shall** be provided in the driver's area and positioned within easy view of the driver.



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(k) Destination Sign

- i The vehicle **shall** be provided with a front mounted digital display;
- ii The destination sign **shall** be illuminated, if required, and glass enclosed; and
- iii The destination sign **shall** be programmed on delivery to display the name of the delivery destination (in English and in French). The destination sign **shall** be programmable to display up to at least 6 additional locations.

(l) Under Body Luggage Compartments

- i The vehicle **shall** be provided with under body luggage compartments. The under body luggage compartment **shall** have curb side access;
- ii The under body compartment **shall** be provided with doors capable of swinging upwards at least 135° to the fully open position. The doors **shall** be provided with weatherproof seals. The doors **shall** be provided with flush mounted, lockable, slam latches. The doors **shall** be provided with gas struts or an **Equivalent** to hold the doors in the fully open position; and
- iii The under body compartment **shall** be provided with a sprayed X-Box Liner. The floors of the under body compartments **shall** be lined with tough perforated vinyl matting **Equivalent** to a Dry-Dek® vinyl flooring mat.

(m) Audio System

- i The vehicle **shall** be provided with a pre-wired radio compartment including a conduit, wiring harness to support a Motorola XTL 1500 VHF M28KSSPW1 N dash mount 2-way radio system or the **Equivalent**;
- ii The vehicle **shall** be provided with an AM/FM radio with a CD player with USB and auxiliary port;
- iii All controls **shall** be in the driver's area;
- iv The radio **shall** be equipped with a volume and fader control for the speakers in the passenger area. The radio **shall** turn off automatically when the vehicle is turned off;
- v The radio system **shall** be wired to allow it to be used as a public address system;
- vi The passenger area **shall** be provided with eight (8) speakers; and
- vii The vehicle **shall** be provided with the **Equivalent** to a Linebacker VHF Omni-directional transit antenna.



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(n) DVD Player and Monitors

- i The vehicle **shall** be provided with a DVD player; and
- ii The passenger area **shall** be provided with at least six (6) 380 mm colour LCD wide-screen TV monitors (three on each side), suitably located below the parcel rack.

(o) Rear Luggage Compartment

- i The vehicle **shall** be provided with a fully enclosed luggage compartment separate from the passenger area at the rear of the bus;
- ii The rear luggage compartment **shall** have inside dimensions of at least 1,955 mm high, 1,371 deep and 2,280 mm wide;
- iii Any window in the rear luggage compartment **shall** be protected from luggage damage with a protective screen or bars;
- iv Any shelf **shall** have a net covering to prevent luggage movement;
- v The rear luggage compartment **shall** have a rear access door with weather protected locking mechanism; and
- vi The rear luggage compartment **shall** be provided with steps. The steps **shall** be hinged fold down steps with handrails for access or an **Equivalent**. The stairs **shall** be designed to support up to 136 kg. The stairs **shall** be fabricated from a lightweight material with a non-slip surface.

3.6 Chassis - The vehicle chassis **shall** be the manufacturers standard for a vehicle of this type and size. The chassis **shall** be reinforced at towing points and equipment mounting points.

3.6.1 Suspension

- (a) The vehicle **shall** be provided with a (highway type) air suspension. A front suspension that is a leaf spring suspension with air assist will be acceptable;
- (b) The suspension system **shall** be provided with shock absorbers at all wheel stations;
- (c) The rear suspension system **shall** be provided with an immediate response automatic height control valves; and
- (d) The rear suspension system **shall** be provided with a manual control dump valve. The dump valve **shall** evacuate air from the suspension system. The dump valve **shall** be mounted in the cab. The dump valve **shall** be within easy access of the driver.

3.7 Engine - The vehicle **shall** be provided with a diesel engine.

3.7.1 Engine Components

- (a) The engine **shall** be provided with an air filter. The air filter **shall** be a replaceable dry-type with at least two-stages;



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- (b) The filter **shall** be provided with a filter restriction gauge. The filter restriction gauge **shall** be visible from the driver's position;
- (c) The engine **shall** be provided with an engine coolant suitable for temperatures down to -40 degrees;
- (d) The cooling system **shall** be provided with a thermostatic fan;
- (e) The engine **shall** be provided with an internal engine compression brake; and
- (f) The vehicle **shall** be provided with an exhaust system which is vented to the rear of the vehicle.

3.7.2 Fuel system

- (a) The fuel system **shall** have a total capacity of at least "FUEL CAPACITY" as given in the Data Table (paragraph 1.4); and
- (b) The fuel tank filler cap **shall** be marked to identify the vehicle fuel.

3.7.3 Engine Cold Weather Aids

- (a) The engine **shall** be provided with cold weather aids to enable the engine (operating with winter grade fuels/oils) to be started at temperatures to -40° C. The engine starting aids may include but are not limited to: glow plug(s) and intake air preheat;
- (b) The engine **shall** be provided with 110-Volt engine block heaters. The engine heaters **shall** have a capacity as recommended by the engine manufacturer or conforming to SAE J1310;
- (c) The battery **shall** be provided with a 110-volt battery blanket to maintain cold cranking ampere effectiveness;
- (d) The engine **shall** be provided with a heated fuel filter/water separator to preheat diesel fuel prior to starting;
- (e) The engine **shall** be provided with an in-line fuel heater (electric or coolant). The in-line fuel heater **shall** warm the fuel before it enters the fuel filters and maintain the fuel temperature above the waxing/gelling temperature; and
- (f) The engine **shall** be provided with a fuel fired coolant heater. The coolant heater **shall** have a capacity of at least 10,051 kilocalories (40,000 BTU). The fuel fired coolant heater **shall** draw its fuel from the engine fuel reservoir. The fuel fired coolant heater **shall** be provided with a 7 day timer. The exhaust from the fuel fired coolant heater **shall** be directed out to the side of the vehicle.

3.8 Automatic Transmission

- (a) The truck **shall** be provided with an electronically controlled fully automatic transmission. An automatic transmission is defined as a transmission that requires no driver intervention, to engage, to change ratio or to stop, once the drive ratio has been selected;



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- (b) The transmission **shall** have at least five (5) forward speeds and one reverse speed;
- (c) The transmission **shall** be provided with a neutral start safety switch;
- (d) The transmission **shall** be provided with an oil cooler;
- (e) The transmission **shall** be provided with an interlock system that prevents the fast idle from being engaged when the vehicle transmission is engaged;
- (f) The transmission **shall** be provided with an interlock system that prevents the transmission from being engaged when the fast idle is engaged or the parking brake is engaged.

3.8.1 **Axles**

- (a) The vehicle **shall** be provided with a limited slip differential on driven axles;
- (b) The steering axle **shall** have an axle loading of no greater than 7,250 kg; and
- (c) A single rear drive axle with dual tires **shall** have an axle loading of no greater than 10,000 kg.

3.9 **Brake System**

- (a) The vehicle **shall** be provided with full air actuated service brakes and spring actuated parking brakes;
- (b) The brake system **shall** be provided with a 4-channel anti-lock brake system (ABS);
- (c) The brake system **shall** be provided with S-cam type air brakes with automatic slack adjusters;
- (d) All wheels **shall** be provided with visual brake stroke indicators;
- (e) The brake system **shall** be provided with an air compressor with a capacity of at least 0.367 cubic metres per minute;
- (f) The brake system **shall** be provided with a wet air reservoir that is rechargeable using a quick connect fitting (glad hand);
- (g) The air reservoir **shall** be provided with a pull type drain that is accessible from beside the vehicle;
- (h) The brake system **shall** be provided with an automatic air dryer with a heated dump valve;
- (i) The brake system **shall** be provided with dust shields on each wheel station; and
- (j) The brake system **shall** be provided with emergency brake chambers on the rear axle.

3.10 **Steering**

- (a) The vehicle **shall** be provided with the manufacturer's power assisted steering system; and
- (b) The steering system **shall** be provided with a telescopic/tilt steering column.



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3.11 Wheels and Tires

- (a) The vehicle **shall** be provided with steel-belted, tubeless radial tires;
- (b) The front axle **shall** be provided with highway tires;
- (c) The rear axle **shall** be provided with tires with a mud and snow tread;
- (d) The vehicle **shall** be provided with polished aluminum wheels;
- (e) Loose wheel nut indicators **shall** be provided;
- (f) The wheel assemblies **shall** have a capacity equal or greater than the load applied, at the top vehicle speed (paragraph 3.4 (a));
- (g) The wheel assemblies **shall** be assembled in accordance to the tire and rim manufacturer's specifications; and
- (h) The vehicle **shall** be provided with a spare wheel and tire assembly for the front axle.

3.12 Controls

- (a) The vehicle **shall** be provided with cruise control system, which includes a fast idle feature;
- (b) The fast idle feature **shall** be provided with an on/off switch; and
- (c) The fast idle feature **shall** be disengaged automatically when the brakes are applied or the transmission is engaged.

3.13 Instruments

- (a) All dash board gauges and readouts **shall** be in metric units;
- (b) The vehicle **shall** be provided with a tachometer;
- (c) The vehicle **shall** be provided with an odometer;
- (d) The vehicle **shall** be provided with a coolant temperature gauge and high coolant temperature telltale indicator;
- (e) The vehicle **shall** be provided with a transmission temperature gauge and high transmission temperature telltale indicator;
- (f) The vehicle **shall** be provided with an oil pressure gauge and a low engine oil pressure telltale indicator;
- (g) The vehicle **shall** be provided with a voltmeter or ammeter; and
- (h) The vehicle **shall** be provided with a warning light to indicate a door is unlatched or an emergency exit is ajar.

3.14 Electrical System

- (a) The vehicle **shall** be provided with manufacturer's electrical system;
- (b) The electrical system **shall** be provided with an alternator with an output of at least that given as "ALTERNATOR" in the Data Table (paragraph 1.4);



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- (c) The electrical system **shall** be provided with maintenance-free batteries with cold cranking amperes (CCA) of at least that given as "CCA" in the Data Table (paragraph 1.4);
- (d) The electrical system **shall** be provided with a master disconnect switch;
- (e) All electrical circuits **shall** be protected with fuses, relays or circuit breakers;
- (f) The wiring **shall** be protected by insulating grommets where passing through metal;
- (g) The electrical system **shall** be provided with an isolation bar to prevent trickle discharge of the batteries;
- (h) The vehicle **shall** be provided with four (4) knockouts for additional switches on the dashboard;
- (i) The electrical system **shall** be provided with a backup alarm to alert personnel that the vehicle is in backup mode;
- (j) The electrical system **shall** be provided with an audible warning to indicate that a door is unlatched or an emergency exit is ajar. Audible alarms **shall** be disengaged when the parking brake is applied;
- (k) The vehicle **shall** be provided with a 12-VDC power outlet at the driver's station; and
- (l) The vehicle **shall** be provided with a slave receptacle as close as possible to the battery compartment.

3.15 Lighting

- (a) The vehicle **shall** be provided with the manufacturer's lighting package, including integrated LED body lighting;
- (b) The lighting system **shall** be provided with halogen headlights;
- (c) The vehicle **shall** be provided with fog lights;
- (d) The lighting system **shall** be provided with clearance lights, stoplights, left and right turn signal lights (rear and mid-body), taillights and reverse movement lights;
- (e) The vehicle **shall** be provided with stoplight. The stoplight **shall** be mounted at the rear of the bus centre and at least at eye level;
- (f) External lights **shall** be shock mounted and recessed or otherwise protected from damage;
- (g) The vehicle **shall** be provided with a protected stepwell light mounted in the right hand front part of the step well. The light **shall** be energized when any door is opened or the interior lights are energized;
- (h) The passenger area **shall** be provided with centre aisle, ceiling lamps with switches located on the dashboard. The ceiling lamps **shall** be located to minimize driver glare;
- (i) The vehicle **shall** be provided with a reading map light switch installed on dash and within an easy reach of the driver;



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- (j) The vehicle **shall** be provided with individual passenger reading lights for each seat location. Each light **shall** be provided with an on/off push button switch;
- (k) The vehicle **shall** be provided with an engine compartment light; and
- (l) The vehicle **shall** be provided with lights in the under-body luggage and rear baggage compartment. The lights **shall** be activated through pin switches when the doors are opened, or by an illuminated master light switch located in the driver's compartment.

3.16 Hydraulic System - NOT APPLICABLE

3.17 Lubricants and Hydraulic Fluids

- (a) The vehicle **shall** operate using synthetic non-proprietary lubricants and hydraulic fluids; and
- (b) Grease fittings provided on the vehicle **shall** conform to SAE J534.

3.18 Paint Colour

- (a) The vehicle **shall** be painted White, using the manufacturer's standard commercial painting system; and
- (b) Chassis items **shall** be painted black. Chromed, polished and mill finished surfaces **shall** not be painted.
- (c) Decals - The vehicle **shall** have decals applied in accordance with those shown in FIGURE 1 - DECALS.

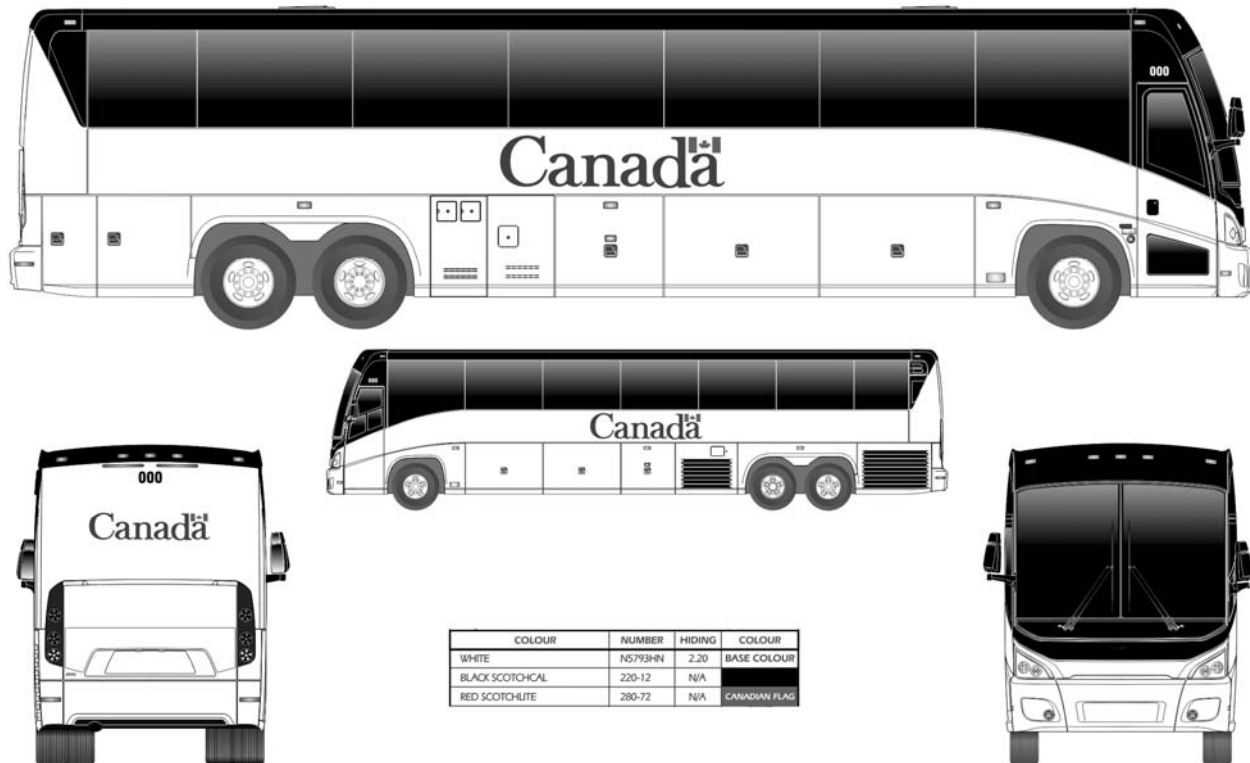


FIGURE 1 - DECALS



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This figure is only a visual representation of the decals and their position.

3.18.2 Corrosion Protection

- (a) Rust protection treatments **shall** be supplied;
- (b) An approved aftermarket rust protection system **shall** be supplied. Rust protection systems that have been approved include Krown Rust Kontrol, Rust Check or an **Equivalent**; and
- (c) Each vehicle **shall** be accompanied with a decal and warranty papers from the rust protection system provider.

3.19 Identification - The vehicle information (manufacturer's name, model, Vehicle Identification Number (VIN) and the GAWR and GVWR ratings) **shall** be permanently marked in a conspicuous and protected location.

3.19.1 Warning and Instruction Plates

- (a) The vehicle **shall** be provided with warning and operation instruction plates in accordance SAE J115; and
- (b) The instruction plates **shall** be readily visible to the operator. The instruction plates **shall** use graphic symbols (as defined in SAE J1362) or be in the two official languages (English and French).

3.20 Equipment - The vehicle **shall** be provided with the equipment listed in the following paragraphs.

- (a) **Wheel Changing Tool** - The vehicle **shall** be provided with wheel changing tools including a heavy-duty jack, capable of lifting the vehicle;
- (b) **Front Tow Hooks**
 - i The vehicle **shall** be provided with tow hooks mounted at the front; and
 - ii Tow hooks and mountings **shall** have sufficient strength to permit the recovery of the vehicle.
- (c) **Mud flaps & Rubber Splash Guards**
 - i The vehicle **shall** be provided with front and rear mud flaps; and
 - ii Rubber splash guards **shall** be installed on all wheel stations.
- (d) **License Plate Holders**
 - i The vehicle **shall** be provided with front and rear license plate holders; and
 - ii The rear license plate **shall** be illuminated.
- (e) **Filler Caps** - The vehicle **shall** be provided with permanently marked filler caps, which identify the contents using international symbols or in French and English.
- (f) **Emergency Equipment**
 - i The vehicle **shall** be provided with an emergency equipment kit;



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- ii The emergency equipment kit **shall** be supplied with a 10 unit first aid kit;
- iii The emergency equipment kit **shall** be supplied with two triangular emergency warning signs with containers;
- iv The emergency equipment kit **shall** be supplied with 1 (one) glass breaking tool securely mounted near to the driver. A fireman's axe will be acceptable in lieu of a glass breaking tool;
- v The emergency equipment kit **shall** be supplied with 2 (two) dry chemical fire extinguishers with a 5BC rating. One fire extinguisher **shall** be mounted in a location convenient to the driver. One fire extinguisher **shall** be mounted in the cargo compartment closest to the engine compartment.



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4. INTEGRATED LOGISTIC ITEMS

4.1 Contractor Documentation and Integrated Logistic Items

4.1.1 Documents supplied to the Technical Authority

(a) Data Summary

- i A bilingual data summary **shall** be supplied for each Configuration with data and a vehicle picture on the **Technical Authority** supplied form;
- ii The **Technical Authority** will supply a template of an approved data summary to the Contractor;
- iii The **Technical Authority** will supply the publication number for the data summary;
- iv The Contractor **shall** supply the information requested for all accessories and features for the equipment Configuration;
- v The Contractor **shall** submit a digital copy (MS Word) of the completed data summary to the **Technical Authority** for approval; and
- vi Data summary approval or comments will be supplied within 15 working days of receipt.

(b) Manuals for Approval

- i A set of manuals for each Configuration, in digital format with a paper copy, including the operator, parts and maintenance (shop repair) manuals **shall** be supplied. Manuals may cover more than one Configuration;
- ii The set of manuals **shall** include manuals for all the specified accessories and features for the Configuration. Accessory manuals may be included as supplements to the vehicle manuals;
- iii Manuals will not be returned; and
- iv Manual approval or comments will be supplied within 15 working days of receipt.

(c) Photographs and Line Drawings

- i Two (2) digital colour photographs, one left-front three-quarter view, and one right-rear three-quarter view of each Configuration **shall** be supplied;
- ii One (1) digital colour photograph of each attachment taken at the three-quarter view that best illustrates the attachment **shall** be supplied;
- iii One front-view and one side-view line drawing showing dimensions of the vehicle **shall** be supplied. Brochure line drawings are acceptable;
- iv Photographs **shall** an uncluttered background; and



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- v Photographs **shall** be in a JPEG (Joint Photographic Experts Group) format. Photographs **shall** have a resolution of at least ten (10) Mega pixels.

4.1.2 Items Supplied with Each Vehicle

(a) Operator's Manual

- i An operator's manual for the safe vehicle operation including all supplied attachments **shall** be supplied;
- ii The operator's manual **shall** be supplied in a bilingual format or as 2 manuals (one English, and one French) in a single binder;
- iii In addition to the paper copy of the operator's manual, a digital copy on a CD, DVD or **Equivalent shall** be supplied;
- iv The CD or DVD **shall** be permanently and legibly labeled with the list of contents; and
- v The digital copy **shall** not require a password or an Internet connection to be functional.

(b) Warranty Letter

- i A paper copy of the completed bilingual warranty letter in the approved format with each vehicle shipped **shall** be supplied;
- ii The **Technical Authority** will supply a template of an approved warranty letter to the Contractor;
- iii The Contractor **shall** supply a complete description of the warranty in the warranty letter with the requested warranty terms and any system or sub system warranty that exceeds the minimum requested in the contractual documents;
- iv The warranty letter **shall** include the name and contact information of the closest designated warranty provider and other designated warranty providers across Canada; and
- v Designated warranty providers **shall** honour the warranty letter.

(c) Line Setting Ticket

- i The Contractor **shall** provide a line setting ticket, or **Equivalent**, describing the components supplied on the cab and chassis;
- ii One copy of the line setting ticket **shall** accompany each completed vehicle to the final delivery point; and
- iii The Contractor **shall** produce a supplement listing for all non-production line components and systems included.



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4.1.3 Items Supplied for Each Destination

- (a) Maintenance Manual - English - One copy of English Maintenance manuals is required for each destination for the maintenance and repair of the vehicle **shall** be supplied.
- (b) Parts Manual - English - One copy of English Parts manuals is required for each destination for the vehicle features and accessories **shall** be supplied.

4.2 Training

(a) Training - Familiarization - English

- i The Contractor **shall** supply a familiarization course in English;
- ii The course instructor **shall** be an OEM Factory Certified Training Provider;
- iii The familiarization course **shall** include operation and maintenance segments demonstrating, all safety measures required for safe vehicle use, instructions on the use of all features and accessories provided and maintenance;
- iv The instructor **shall** supply responses to questions;
- v The familiarization course **shall** have a minimum duration of eight (8) hours of training;
- vi The familiarization course **shall** accommodate up to eight (8) personnel;
- vii The familiarization course **shall** be supplied at the delivery destination;
- viii The date for the maintenance training course **shall** be arranged with the **Technical Authority**, or the identified user or designated contact person for vehicles shipped to users other than DND;
- ix After completion of the familiarization course, the Contractor **shall** have the "PROOF OF FAMILIARIZATION" certificate signed by the senior course attendee; and
- x The **Technical Authority** will supply the "PROOF OF FAMILIARIZATION" document template in a digital format.

(b) Training - Familiarization - French

- i The Contractor **shall** supply a familiarization course in French;
- ii The course instructor **shall** be an OEM Factory Certified Training Provider;
- iii The familiarization course **shall** include operation and maintenance segments demonstrating, all safety measures required for safe vehicle use, instructions on the use of all features and accessories provided and maintenance;
- iv The instructor **shall** supply responses to questions;



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- v The familiarization course **shall** have a minimum duration of eight (8) hours of training;
- vi The familiarization course **shall** accommodate up to 8 personnel;
- vii The familiarization course **shall** be supplied at the delivery destination;
- viii The date for the maintenance training course **shall** be arranged with the **Technical Authority**, or the identified user or designated contact person for vehicles shipped to users other than DND;
- ix After completion of the familiarization course, the Contractor **shall** have the "PROOF OF FAMILIARIZATION" certificate signed by the senior course attendee; and
- x The **Technical Authority** will supply the "PROOF OF FAMILIARIZATION" document template in a digital format.



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.

This questionnaire covers technical information, which **shall** be provided for evaluation of the configurations of the vehicle offered.

Where the specification paragraphs below indicate "**Proof of Compliance**", the "**Proof of Compliance**" **shall** be provided for each performance requirement/specification.

Bidders should 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 _____

Date _____



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SPECIFICATION PARAGRAPHS

Substitutes/Alternatives

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

If yes, please identify all equipment substitutes/alternatives offered as **Equivalents** below:

NOTE: Proof of Compliance shall be provided for all items offered as a substitute or alternative.

- 3.4 **Vehicle**
Vehicle Make & Model on page _____ of document _____
- 3.4.1 **Vehicle Performance - Proof of Compliance**
Proof of Compliance for the performance requirements at specified capacities **shall** be provided using a computer generated performance analysis on third party software. The analysis **shall** demonstrate top road speed, vehicle gradability at 90 km/h and horsepower required.
Analysis on page _____ of document _____
- 3.4.2 **Payload - Proof of Compliance**
(a) Payload capacity on page _____ of document _____
- 3.4.3 **Dimensions - Proof of Compliance**
(a) Interior headroom on page _____ of document _____
(b) Exterior width on page _____ of document _____
(c) Front axle setback on page _____ of document _____
(d) Vehicle exterior height on page _____ of document _____
- 3.5 **Vehicle Requirement - Proof of Compliance**

Technical Authority requires a detailed dimensioned line drawing of the interior of the vehicle.
Line drawing on page _____ of document _____
- (c) **Features Proof of Compliance**
Details of vehicle features on page _____ of document _____
- (e) **Vehicle Thermal and Acoustic Insulation - Proof of Compliance**
Details of thermal insulation on page _____ of document _____
Details of acoustic insulation on page _____ of document _____
- (f) **Heating, Ventilation and Air Conditioning System - Proof of Compliance**
vi Front heater system
Capacity on page _____ of document _____
vii Stepwell heater
Capacity on page _____ of document _____
viii Under seat heaters
Capacity on page _____ of document _____
x Passenger area air conditioning
Capacity on page _____ of document _____



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- xi Drivers area air conditioning
Capacity on page _____ of document _____
- (g) **Driver's seat Proof of Compliance**
Details on page _____ of document _____
- (h) **Passenger Seats Proof of Compliance**
Details on page _____ of document _____
v Seat spacing on page _____ of document _____
- (i) **Mirrors Proof of Compliance**
Details on page _____ of document _____
- (j) **Backup Camera Proof of Compliance**
Details on page _____ of document _____
- (m) **Audio System - Proof of Compliance**
Details on page _____ of document _____
- (n) **DVD Player and Monitor - Proof of Compliance**
Details on page _____ of document _____
- (o) **Rear Luggage Compartment Proof of Compliance**
Technical Authority requires a line drawing of the rear luggage compartment, which shows the sizes.
Luggage Compartment size on page _____ of document _____
- 3.6.1 **Suspension - Proof of Compliance**
(a) Front suspension details on page _____ of document _____
(c) Rear suspension details on page _____ of document _____
- 3.7 **Engine - Proof of Compliance**
Engine details on page _____ of document _____
- 3.7.2 **Fuel System - Proof of Compliance**
(a) Fuel Reservoir capacity on page _____ of document _____
- 3.8 **Automatic Transmission - Proof of Compliance**
Details shown on page _____ of document _____
- 3.8.1 **Axles - Proof of Compliance**
(b) Steering axle details on page _____ of document _____
GAWR on page _____ of document _____
(c) Single rear axle details shown in document
GAWR on page _____ of document _____
- Technical Authority** requires a **weight analysis** of a complete bus with the 40-passenger and a loaded rear storage compartment. The analysis **shall** demonstrate the loads on each axle (note paragraph 3.4.2 for payload requirement).
Weight analysis on page _____ of document _____
- 3.11 **Wheels and Tires - Proof of Compliance**
(b) Front tires details on page _____ of document _____
(c) Rear tires details on page _____ of document _____



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3.14

Electrical System - *Proof of Compliance*

- (b) Alternator output on page _____ of document _____
- (c) Battery details on page _____ of document _____
- Battery CCA on page _____ of document _____



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DEFINITIONS

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

- (a) **"Equivalent"** *shall* mean a standard, means, or component type, which the **Technical Authority** has approved for this requirement as meeting the specified requirements for fit, form, function and performance; and
- (b) **"Proof of Compliance"** *shall* mean 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 engineer representing 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)