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TPSGC
11 Laurier St. / 11, rue Laurier
Place du Portage, Phase III
Core 0A1 / Noyau 0A1
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
Industrial Vehicles & Machinery Products Division
11 Laurier St./11, rue Laurier
7B1, Place du Portage, Phase III
Gatineau
Québec
K1A 0S5

Title - Sujet Street Sweepers	
Solicitation No. - N° de l'invitation W8476-144771/A	Amendment No. - N° modif. 001
Client Reference No. - N° de référence du client W8476-144771	Date 2013-11-18
GETS Reference No. - N° de référence de SEAG PW-\$\$HS-636-63897	
File No. - N° de dossier hs636.W8476-144771	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2014-01-07	Time Zone Fuseau horaire Eastern Standard Time EST
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Khan, Shazia	Buyer Id - Id de l'acheteur hs636
Telephone No. - N° de téléphone (819) 956-7345 ()	FAX No. - N° de FAX (819) 956-5227
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction:	

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée	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

W8476-144771/A

Amd. No. - N° de la modif.

001

Buyer ID - Id de l'acheteur

hs636

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

W8476-144771

File No. - N° du dossier

hs636W8476-144771

CCC No./N° CCC - FMS No/ N° VME

AMENDMENT 001

This amendment is raised to include the Purchase Description (PD) and the Technical Information Questionnaire (TIQ).

Insert: Sweeper, Street, Self-Propelled 2.4 Metre Sweeping Path ECC 166329 dated 2013-10-21

Insert : Technical Information Questionnaire modified 2013-10-21

All other terms and conditions remain the same.



NOTICE

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

AVIS

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

PURCHASE DESCRIPTION
FOR
SWEEPER, STREET, SELF-PROPELLED
2.4 METRE SWEEPING PATH
ECC 166329

1. SCOPE

1.1 Scope - This purchase description covers a diesel engine driven, self propelled, rotary broom street sweeper equipped with 2.4 metre sweeping path, mechanical pick-up system, water spray system, and a dumping hopper.

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

- a) Requirements, which are identified by the word "**shall**", are mandatory. Deviations will not be permitted;
- b) Requirements identified by "**shall**^(E)" 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**^(E)", 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;

- g) Metric measurements **shall** be used to define the requirement. Other measurements are for reference only and may not be exact conversions; and
- h) 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.
- c) "Proof of Compliance" is defined as 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.
- d) "Guidance" is defined as a requirement that may be followed. Guidance is provided to indicate a preferred component make and model or dimension that would be best for the application. However, a bid can still be considered compliant while deviating from "guidance".

2. APPLICABLE DOCUMENTS - The following documents form part of this Purchase Description. The dates of issue are those in effect on the date of release of the RFP. Sources are as shown:

CAN/CGSB 3.517-2007

Automotive (On-Road) Diesel Fuel
Canadian General Standards Board
11 Laurier Street, Place du Portage III, 6B1
Gatineau, QC, K1A 1G6
<http://www.tpsgc.gc.ca/cgsb/home/index-f.html>

Canadian Motor Vehicle Safety Standards (CMVSS)

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

SAE Handbook

Society of Automotive Engineers Inc.
400 Commonwealth Dr.,
Warrendale, PA, 15096
<http://www.sae.org>

Transport Canada

Road Vehicle and Motor Vehicle Regulation

330 Sparks Street, Tower C
Ottawa, Ontario K1A 0N5
http://www.tc.gc.ca/acts-regulations/GENERAL/M/mvsa/regulations/mvsrg/toc_mvsrg.htm

Yearbook

Tire and Rim Association Inc.,
3200 West Market St.,
Akron, Ohio, 44321
<http://www.us-tra.org/traHome.htm>

3. REQUIREMENTS

3.1 Standard Design - The vehicle design *shall*:

- a) Be the manufacturer's latest model having demonstrated industry acceptability by having been manufactured and sold commercially for at least 1 year, or, *shall* be manufactured by a company that has at least 5 years experience in design and manufacturing of a comparable type of equipment of equivalent or greater complexity;
- b) Have engineering certification available for this application from the original manufacturers of major drive train components, and major equipment systems and assemblies;
- c) Conform to all applicable laws, regulations and industry standards governing manufacture, safety, noise levels, and pollution in effect in Canada at time of manufacture;
- d) Have system and component capacities not greater than their published ratings (i.e. product or component brochures) or accompanied by proof of compliance; and
- e) Include all components, equipment and accessories normally supplied for this application, although they may not be specifically described in this purchase description.

3.2 Operating Conditions

3.2.1 Weather - The vehicle **shall** operate under the weather conditions found in Canada in temperatures ranging from 0°C to 38°C.

3.2.2 Terrain - The vehicle **shall** be operated on uneven asphalt or concrete roads, streets, airport runways, parking lots, parade areas, and other paved surfaces.

3.3 Safety

3.3.1 Vehicle Safety requirements - The vehicle **shall** comply with all applicable Canada Motor Vehicle Safety Standards (CMVSS) in effect and applicable by law in Canada on the date of manufacture.

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

3.3.3 Human Engineering and Safety - The vehicle/equipment, all systems and components **shall**:

- a) Be safe and easy to use by CAF users having anthropometric characteristics ranging from 95th percentile male characteristics to 5th percentile female characteristics;
- b) Have entry and exit points equipped with handles and steps appropriately sized and positioned to accommodate CAF users having anthropometric characteristics ranging from 95th percentile male characteristics to 5th percentile female characteristics; and
- c) Be equipped, where required for operator safety, with safety features such as warning and instruction plates, non-slip walking surfaces and heat shields.

3.4 Vehicle Performance

- a) The minimum sweeping path **shall** be 2.4 metres (94.5").
- b) The vehicle **shall** have a minimum sweeping speed of 5 km/h.
- c) The equipment **shall** sweep and pick-up, in one pass, 95 percent of material, as listed in SAE J1702.
- d) The equipment **shall** pick-up and retain large objects (examples of large objects: half-bricks, pop bottles, pop cans, nails, nuts, bolts, washers, and flat pieces of cardboard).
- e) The vehicle **shall** travel up a 25 percent grade, without slowing beyond the required minimum sweeping speed.
- f) The vehicle **shall** reach a minimum travel speed of 30 km/h.
- g) The vehicle **shall** have a maximum turning radius of 4.6 metres (181.1"), when tested in accordance with SAE Recommended Practice J695.

3.4.1 **Vehicle Delivery Condition** - The vehicle **shall** be delivered to destination clean and in a fully operational condition (serviced and adjusted). If the vehicle requires assembly at destination, the Contractor **shall** be responsible for all manpower and equipment to perform assembly. The consignee will provide the area required for assembly. For shipment verification, all items such as wheel wrenches, jacks, and all other tools, equipment and accessories, which are shipped loose with the equipment, **shall** be listed on the shipping certificate or to an attached packing note.

3.5 **Cab and Chassis**

3.5.1 **Cab** - The vehicle **shall** be equipped with a sealed and pressurized two person cab that provides a dust free working environment.

- a) The cab **shall** include a temperature controlled fresh air space heater/defroster/Air conditioning system.
- b) The cab **shall** have tinted safety glass in windows, providing all around visibility.
- c) The cab **shall** have electrically power actuated windshield washer system, including wipers with 2 speeds, preferably with an intermittent setting.
- d) The cab **shall** have opening windows.
- e) The cab **shall** have exterior access grab handles on both sides.
- f) The cab **shall** have insulation installed on interior cab surfaces, and **shall**^(B) be covered by a head-liner, door panels and floor mats, and **shall**^(B) be a noise absorbing material.
- g) Cab access steps **shall** be provided on each side of the vehicle.
- h) The cab **shall**^(B) include locks (keyed alike) on cab doors which can be opened independently from the exterior and interior of the cab.
- i) The cab **shall** be equipped with fully adjustable independent suspension seats, equipped with seat belt assemblies, padded, water resistant, and with back rests.
- j) The cab **shall** be equipped with adjustable, electrically heated, rear-view mirrors positioned to provide a full unrestricted view of both sides of the vehicle rear for safe reverse operations.
- k) The cab **shall** be equipped with two front mounted convex mirrors which allow the operator to view the front of the sweeper from the seated position within the cab.
- l) The cab **shall**^(B) be equipped with a roof mounted amber LED stroboscopic beacon light to allow for 360 degree visibility.

3.5.2 **Chassis** - The vehicle chassis **shall** be the manufacturers standard chassis, suitably sized to ensure satisfactory operation under specified operating conditions.

3.5.3 **Axles and Suspension** - The axles and suspension system **shall** not be loaded greater than their rated capacities when the unit is in operating mode, with the hopper and water tank fully loaded.

3.6 **Engine** - The engine **shall** operate on diesel fuel to the CAN/CGSB Standard 3.517-2007.

3.6.1 **Engine Components** - Engine components **shall** include:

- a) A dual element safety dry-type air cleaning system for combustion air to protect the engine and its components;
- b) Engine coolant with 60 per cent inhibited commercial ethylene glycol antifreeze and 40 per cent water;
- c) A governor to limit engine speed to operating range recommended by engine manufacturer;
- d) An automatic engine shut-down or power de-rate system for low engine oil pressure or high engine coolant temperature. A visual warning indicator visible from the operators positions **shall** be included;
- e) A cooling system which will control engine temperature within manufacturer's recommended operating range when subject to specified operating conditions; and
- f) A full flow oil filter with a spin-on or replaceable element.

3.6.2 **Fuel Tank(s)**

- a) The fuel tank(s) **shall** have sufficient capacity to enable the vehicle to be operated at 80 per cent power for a minimum of 6 hours without refuelling.
- b) The fuel tank **shall**^(E) be equipped with an integral drain valve.
- c) The fuel tank **shall**^(E) have a selector switch and a separate fuel gauge if more than one fuel tank is used.

3.6.3 **Exhaust** - The engine **shall** be equipped with a muffler or exhaust system suitably located and/or shielded so that personnel will not contact a heated surface. The exhaust system **shall**^(E) be equipped with weather guards or an effective device to prevent entry of rain into intake and exhaust stacks, if applicable.

3.7 **Transmission** - The vehicle **shall** be equipped with a hydrostatic drive or automatic transmission operating at a minimum speed range of 0 to 30 km/h (0-18.6 mph).

- a) If the transmission type is automatic, then the automatic transmission **shall** include:

- i. A torque converter;
- ii. A driver selected range of ratios with a positive detent/lock in the neutral position. The control **shall** clearly indicate which gear ratio is selected under all lighting conditions;
- iii. An oil cooler of a capacity approved by the transmission manufacturer for the service intended;
- iv. A transmission temperature gauge or warning device to indicate high temperature;
- v. A safety device to ensure that the engine can only be started in the park (if provided) or neutral position.

3.8 Hydraulic System - The hydraulic system **shall** be complete with all components required for the operation of the hydraulic equipment specified, including pump, reservoir, reservoir drain plug, filters and control valves. The system **shall**^(E):

- a) If required, have an oil cooler to maintain oil temperature within operating limits under specified conditions;
- b) Have filter elements that are sized in accordance with the pump manufactures recommendations and are readily accessible for removal and replacement;
- c) Change indictors installed for the filter elements;
- d) Have a minimum hose burst pressure of not less than two times the maximum operating pressure;
- e) Have hoses supported and secured in an orderly arrangement, and properly marked for identification;
- f) Have a readily visible oil level gauge or dipstick to check hydraulic oil levels;
- g) Include clearly marked test ports, at locations in the hydraulic system required for diagnostics or adjustment procedures. A hydraulic pressure test gauge and applicable fittings/hoses **shall** be provided with each vehicle;
- h) Have hydraulic cylinders with nitrated or chrome plated piston rods; and
- i) Have the pump directly driven from the engine.

3.9 Braking System - The vehicle **shall** be equipped with the manufacturer's standard braking system. Hoses passing through metal **shall** be protected to prevent damage due to chafing.

3.10 Steering

- a) The vehicle steering system **shall** drive from both the right and left side of the vehicle.
- b) If the vehicle is 3 wheeled, the vehicle **shall** be rear wheel steer (front wheel steer will not be acceptable).
- c) The steering system **shall**^(E) be hydraulically boosted mechanical or full hydraulic power steering.
- d) The steering system **shall** provide emergency steering, with the engine stopped.

3.11 Wheels, Rims and Tires

- a) The provided wheels, tires, and rims **shall** have the manufacturer's certification that they are suitable and adequately sized for this application. Tire size and ply ratings **shall**^(E) be in accordance with Tire and Rim Association Standards.
- b) Tires **shall** be tubeless, tires of radial ply construction.
- c) For each type and size of wheel and tire installed on the vehicle, one full-sized, assembled, spare wheel and tire **shall** be delivered with each vehicle.

3.12 Controls

- a) Controls **shall** be permanently marked to identify and show the function of each control lever or switch.
- b) Controls **shall**^(E) have permanent markings/instructions in English and French or international symbols as defined by SAE J1362.
- c) Controls **shall**^(E) be grouped at the operator's station for quick and convenient operation, accessible from both seating positions.
- d) Controls **shall** not restrict the operator's field of view.
- e) The vehicle **shall** be equipped with the following equipment controls:
 - i. Controls to raise and lower the main and gutter brooms independently;
 - ii. Independent broom drive controls;
 - iii. Water control valves for the spray water and flushing system; and
 - iv. Controls to raise and dump the hopper.

3.13 Instruments - The vehicle instruments **shall** be readily visible while seated at the operator's station and **shall**^(E) be visible in dim light, preferably backlit. Instruments **shall**^(E) include:

- a) An ammeter, voltmeter or charging indicator light;
- b) An engine coolant temperature indicator;
- c) A hydraulic system temperature indicator;
- d) An engine oil pressure indicator;
- e) An hour-meter with numeric display, which accurately records accumulated engine running time up to at least 9,999 hours. The meter **shall** register only when the engine is running;
- f) A water tank level gauge;
- g) A fuel level gauge;
- h) A speedometer (indicating kilometres), with odometer showing tenths of a kilometre;
- i) A filter restriction indicator;
- j) A cab mounted audio and visual alarm, to indicate a stalled/jammed conveyor system.

3.14 Electrical System - The vehicle **shall** be equipped with manufacturer's standard electrical system. The system **shall** include wire identification (colour coded/function), weatherproof connectors, protective loom and secure fastening. The system **shall**^(E) include:

- a) Lamps, reflectors and signalling devices conforming to Canadian Motor Vehicle Safety Standards (CMVSS) or a Design Authority approved equivalent;
- b) A minimum of two forward facing LED or Halogen headlamps and a minimum of two LED rear marker/brake lamps;
- c) All lights recessed or otherwise protected from damage;
- d) A backup alarm installed;
- e) A battery or batteries which allow the vehicle to be started and operated under the required operating conditions, including a master battery disconnect switch;
- f) An alternator sized to fit the component draw;
- g) A circuit on vehicles required by law to have turn signal lights which will enable these lights to be used as hazard warning four-way flashers;
- h) An adjustable LED type spotlight to illuminate the gutter broom;
and

- i) Sealed and shock mounted plastic enclosed rear facing LED work lights, to provide full operator visibility for backing up in confined areas. These lights **shall** turn on when the vehicle is reversed and have a manual control in the cab.

3.15 Application Equipment

3.15.1 Main (Pickup) Broom - The main broom **shall** have a minimum sweeping path of 2.4m, with one gutter broom installed. The main broom **shall**:

- a) Be self adjusting for pressure and wear;
- b) Have a variable RPM controlled in the cab;
- c) Rise automatically when the vehicle is placed into reverse;
- d) Have a minimum diameter of 610mm; and
- e) Be the reversible and refillable core, or disposable tube type. The bristles **shall**^(B) be polypropylene fibre.

3.15.2 Side (Gutter) Broom(s) - The sweeper **shall** be equipped with hydraulic drive, digger-type gutter broom(s) mounted on the right and left sides. The gutter broom(s) **shall** have:

- a) A sweeping path which sweeps into the path of the main broom;
- b) A minimum diameter of 813 mm;
- c) A hydraulic control, readily accessible to the operator in the cab, for raising, lowering and positioning the gutter broom;
- d) A mechanism to prevent impact damage; and
- e) Tempered steel or a mix of steel wire and polypropylene bristles, mounted in a refillable holder or in replaceable sections.

3.15.3 Conveyor - The sweeper **shall** be equipped with a non-clogging type conveyor to transfer the litter from the main brush to the hopper. The conveyor **shall**:

- a) Have safety devices to prevent damage in the event of impact or jamming;
- b) Be hydraulic, chain driven, or a combination thereof; and
- c) Have a hydraulic control, readily accessible to the operator in the cab, for operating the conveyor in a forward or reverse rotation.

3.15.4 Hopper - The sweeper **shall** be equipped with a self-elevating dumping hopper. The hopper **shall**:

- a) Have a minimum capacity of 2.3 cubic metres;

- b) Have a hydraulic elevating and dumping system with a full height lift capacity of at least 2270 kg;
- c) Dump on the ground or up to a standard 4x2 dump truck (min dump height of 2.59 M (102"));
- d) Have hydraulic controls, readily accessible to the operator in the cab, for lifting, lowering and dumping the hopper;
- e) Have a maximum dump cycle of 60 seconds;
- f) Be equipped with a smooth polyurethane liner, designed to protect against wear and corrosion, without interfering with dumping and clean-up (Lifeline or equivalent).

3.15.5 **Water system** - The sweeper **shall** be equipped with a water spray or a water spray dust control system. The dust control system **shall**:

- a) Have a minimum water tank capacity of 680 litres;
- b) Have a water tank constructed of stainless steel or Polyethylene, to avoid corrosion;
- c) Have a hydrant fill kit equipped with a filler hose, and a dedicated onboard storage location;
- d) Have an atomizing spray system mounted to cover the sweep path ahead of the brooms;
- e) Have an automatic internal body/conveyor flush and wash down system;
- f) Have an on/off and variable flow controls readily accessible to the operator in the cab;
- g) Have sufficient water drain devices to permit the complete draining of the water spray system components; and
- h) Have level gauge visible from the operator's position.

3.15.6 **General Equipment**

- a) The vehicle **shall** be equipped with licence plate holders, front and rear. The rear licence plate **shall** be illuminated with an LED lamp.
- b) A spare complete main broom **shall** be delivered with each vehicle.
- c) A spare gutter broom or spare set of segments **shall** be delivered with each vehicle.
- d) A standard tool box or compartment fitted with a hasp and/or lock for securing any tools required for servicing the sweeper **shall** be delivered with each vehicle.

- e) The vehicle **shall** be equipped with towing hook or hooks at the rear.
- f) The vehicle **shall**^(E) be equipped with an auto-lubrication system servicing the maximum number of grease points on the sweeper. The grease reservoir **shall** be full when vehicle is delivered.

3.16 Lubricants - The vehicle **shall**^(E) be delivered with the manufacturer's standard lubricants and hydraulic fluids.

3.17 Lubrication Fittings - Lubrication fittings **shall**^(E) conform to requirements of SAE Standard J534.

3.18 Paint

- a) All paint **shall** be applied in accordance with the technical data provided by the product manufacturer. As a minimum, the coating process must yield a durable finish with a smooth appearance free of runs, sags, and orange peel.
- b) The Vehicle **shall** be painted with the manufacturer's standard colour(s).

3.19 Identification - The manufacturer's name, model number, model year, and manufacturer's serial number **shall**^(E) be permanently marked on the vehicle in a conspicuous and protected location.

3.20 Warning and Instruction Plates - International symbols and/or bilingual markings **shall** be provided for all identification, instructional, and warning labels. The following items **shall**^(E) be provided:

- a) Instructions detailing operation of the engine, transmission and attachments, permanently attached in appropriate location(s).

4. INTEGRATED LOGISTIC SUPPORT

4.1 Documentation and Support Items

4.1.1 Items with Each Vehicle - The Contractor **shall** provide the following items with each vehicle:

- a) **Warranty Letter** - A paper copy of the completed bilingual Warranty Letter with each vehicle shipped in DND format, the template will be provided by the Technical Authority. Designated warranty providers **shall** honour the warranty letter.
- b) **Vehicle Manuals** - The vehicle **shall** be provided with all manuals required for the safe operation, maintenance and repair of the vehicles and all sub-systems, attachments, components and accessories included in the vehicle supplied. The following manuals **shall** be provided:
 - i **Operator's Manuals** - Operator's Manuals **shall** be provided in a bilingual format or as 2 manuals in a single binder (one English, one French). Operators' Manual(s) **shall** be

supplied in paper format. The Operator's Manual **shall** include:

1. Instructions for the safe operation of the vehicle;
2. Daily operator maintenance instructions/checks (including lubrication);
3. Safety warnings: and
4. Hand signals (as necessary).

ii **Parts Manuals** - The Parts Manuals **shall** be in English. The Parts Manuals **shall** include:

1. Illustrations showing all components of the vehicle including equipment and accessories from other manufacturers that is supplied for the requirements of the contract. The illustrations **shall** have numbers for the itemization of the parts;
2. A listing for all itemized manufacturer's parts showing the manufacturer's part number of the illustration, the part name and a brief description of the item; and
3. Cross reference relating the manufacturer part number to the correct figure and item number.

iii **Maintenance (Shop Repair) Manuals** - The Maintenance (Shop Repair) Manual **shall** be in English (French translation is desirable). The Maintenance (Shop Repair) Manuals **shall** include:

1. A trouble shooting guide, showing the steps and tests required to determine the exact cause of a problem and an explanation of what steps would be required to correct a problem;
2. A listing of the necessary tolerances, torque levels, fluid volumes required and a section listing any special tools (including item part numbers); and
3. Information on the order of disassembly and assembly of the systems and components of the vehicle.

iv **Manuals on CD/DVD-ROM** - A copy of the manuals on CD/DVD-ROM **shall** be provided. This **shall** include all the manuals provided in clauses i, ii, and iii above. For usability, CD/DVD-ROM **shall not** require password and/or internet connection to be accessed. Operator's manuals **shall** also be supplied in paper format.

4.1.2 **Documents Provided to Technical Authority** - The Contractor **shall** provide the following documents to the Technical Authority:

- a) **Sample Manuals** - The Contractor ***shall*** deliver a set of sample manuals to the Technical Authority including all documents in items i through iv above. Sample manuals will not be returned. In the event that manuals are dependent on the first vehicle completion, sample manuals ***shall*** be submitted within 30 days following the pre-production vehicle approval or first production vehicle inspection. The Crown will provide approval or comments on the manuals within 30 days.
- b) **Data Summary** - A bilingual Data Summary for each make/model/ configuration by completing Technical Authority's template with data and a vehicle picture. The Contractor ***shall*** provide a Data Summary, if possible, before shipment of vehicles;
- c) **Photographs** - Two (2) digital pictures, one left-front three-quarter view, and one right-rear three-quarter view of each make/model/ configuration. It is preferred that pictures have an uncluttered background. Pictures ***shall*** have a size of at least 4 Mega pixels;
- d) **Special Tools List** - The Contractor ***shall*** provide a list detailing the special tools required for the vehicle that would not be included in a mechanics toolbox. This would include items such as special wrenches, or extraction devices and special diagnostic tools;
- e) **Preventive Maintenance Replacement Parts Kit List (PMRPKL)** - A list detailing the parts that are required to perform preventive maintenance to the system for a period of 12 months. Components such as filters, belts, hoses, and fuses ***shall*** be included. The Preventive Maintenance Replacement Parts Kit List ***shall***:
 - i Include the following information:
 - 1. Item name;
 - 2. Contractor's part number
 - 3. Manufacturer's part number;
 - 4. Manufacturer's NATO Supply code (NCAGE) or name and address;
 - 5. NSN (NATO Stock Number) (if known);
 - 6. Quantity per equipment;
 - 7. Quantity recommended;
 - 8. Unit price; and
 - 9. Unit of issue.
 - ii Be delivered to the Technical Authority. The list ***shall*** be supplied in an editable electronic format, preferably as a spreadsheet.

- f) **Warranty Letter** - The Contractor **shall** send an electronic copy of the Warranty Letter, to the Technical Authority for each vehicle, at shipment.
- g) **Safety Recalls and Servicing Data** - Safety recalls, and manufacturer's technical service bulletins, or equivalent **shall** be provided to the technical authority and the final delivery locations on a continuing basis, throughout the life expectancy of the vehicle or for no less than 10 years.

NOTE: This service can be made available as an Internet Service.

4.2 Training - The Contractor **shall** perform the following training:

4.2.1 **Operator** - The Contractor **shall** provide an operator training course. The course **shall** be given at the delivery destination for a minimum duration of one (1) days to provide training for up to six (6) DND operators. The final dates **shall** be arranged with the Technical Authority (TA). After completion of the course the Contractor **shall** have a "PROOF OF OPERATOR TRAINING" certificate signed by a Crown Representative for the destination. The Technical Authority will supply this document in an electronic format. The course curriculum **shall** include:

- a) Safety precautions to be observed while operating and servicing the vehicle;
- b) Vehicle/equipment operating characteristics;
- c) Vehicle/equipment operating procedures;
- d) Pre-operating and pre-shutdown procedures;
- e) Daily/weekly operator servicing procedures; and
- f) A minimum of one (1) hours practical operating experience per operator.

4.2.2 **Maintenance** - The Contractor **shall** provide at least a one (1) day maintenance/repair training course for up to eight (8) DND maintenance personnel at each delivery location. After completion of the training session the Contractor **shall** have a "PROOF OF MAINTENANCE TRAINING" certificate signed by the consignee. The Technical Authority will supply this document in electronic format. The following **shall** be included in the course curriculum:

- a) Operation and maintenance safety precautions;
- b) Preventive maintenance including servicing schedules (10 % of classroom time);
- c) Trouble shooting, testing and adjustments (70 % of classroom time); and
- d) Special tools and test equipment.

Note: Training **shall** be available in both official languages for bases located in the province of Quebec and when requested by DND.

SWEEPER, STREET, SELF-PROPELLED
2.4 METRE SWEEPING PATH
ECC 166329

TECHNICAL INFORMATION QUESTIONNAIRE

This questionnaire covers technical information, which **shall** be provided for evaluation of the configuration(s) of the vehicle(s) 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 requested information and indicate the document name/title and page number where the Proof of Compliance can be found.

Definitions for **Equivalents** and **Proof of Compliance** are found in paragraph 1.3 of the Purchase Description.

CONTRACTOR INFORMATION

Contractor Name _____

Proposal Date _____

Substitutes/Alternatives

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

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

**SWEeper, STREET, SELF-PROPELLED
2.4 METRE SWEEPING PATH
ECC 166329**

TECHNICAL INFORMATION QUESTIONNAIRE

Proposed Make _____ **- Model** _____

PURCHASE DESCRIPTION PARAGRAPHS

3.4 Vehicle Performance - Proof of Compliance

	Found in Document Name/Title	Page Number
3.4 a)		
3.4 b)		
3.4 f)		
3.4 g)		

3.5.3 Axles and suspension - Proof of Compliance

Front axle weight (fully loaded tanks) _____ , GAWR (front) _____.

Rear axle weight (fully loaded tanks) _____ , GAWR (rear) _____.

Axle ratings can be found in:

Document: _____ Page: _____.

3.6 Engine - Proof of Compliance

Engine information can be found in:

Document: _____ Page: _____.

3.6.2 Fuel Tanks - Proof of Compliance

Fuel Tank Quantity: _____.

Fuel Tank Capacity (each): _____.

Fuel tank information can be found in:

Document: _____ Page: _____.

3.7 Transmission - Proof of Compliance

Transmission information can be found in:

Document: _____ Page: _____.

3.8 Hydraulic System - Proof of Compliance

Hydraulic System information can be found in:

Document: _____ Page: _____.

3.9 Braking System - Proof of Compliance

Braking System information can be found in:

Document: _____ Page: _____.

3.10 Steering System - Proof of Compliance

Steering System information can be found in:

Document: _____ Page: _____.

3.11 Wheels, rims and tires - Proof of Compliance

Wheel type and size _____.

Front Tires: Make/Model _____ size _____.

Rear Tires: Make/Model _____ size _____.

Wheel, rim, and tire information can be found in:

Document: _____ Page: _____.

3.15.1 Main (Pickup) Broom - Proof of Compliance

Swept Width: _____.

Main Broom information can be found in:

Document: _____ Page: _____.

3.15.2 Side (Gutter) Broom - Proof of Compliance

Side broom information can be found in:

Document: _____ Page: _____.

3.15.3 Conveyor - Proof of Compliance

Conveyor information can be found in:

Document: _____ Page: _____.

3.15.4 Hopper - Proof of Compliance

Capacity (volume): _____.

Full height lift capacity (weight): _____.

Maximum dump height: _____.

Hopper information can be found in:

Document: _____ Page: _____.

3.15.5 **Water System** - Proof of Compliance

Water System information can be found in:

Document: _____ Page: _____.