TENDER 2010-4

ONE (1) NEW PURE VACUUM STREET SWEEPER

Tenders will be received until Tuesday January 19, 2010 at 2pm. Interested parties may submit it to: City of Port Colborne City Hall, Clerks Office, 66 Charlotte Street, Port Colborne, Ontario, L3K 3C8. Attention: Ashley Grigg, City Clerk. Inquiries prior to deadline shall be directed to Paul Peyton, Public Works and Parks Superintendent, City of Port Colborne. Tel: (905) 835-8888 or Fax: (905) 835-6800. Tenders shall be opened Tuesday January 19, 2010 at 2:15pm, 2nd Floor Engineering Division, City Hall.
Introduction

The Corporation of the City of Port Colborne is inviting Quotations for the supply and delivery of ONE (1) NEW PURE VACUUM STREET SWEEPER for the City of Port Colborne.

Sealed bids, on the prescribed Form of Tender, will be received by the Clerk’s Office or his/her representative, at City Hall, 66 Charlotte St, Port Colborne, Ontario, L3K 3C8 no later than 2:00 p.m. local time, Tuesday, January 19, 2010. Tender bids received after this time will be returned unopened.

Tender bids will be opened at 2:15 p.m. local time, Tuesday, January 19, 2010 in the Al DiSanto Room, 2nd Floor Engineering, City Hall, Port Colborne.

Any document submitted with respect to this Tender will be subject to The Municipal Freedom of Information and Protection of Privacy Act, R.S.O. 1990, c. M56, as amended from time to time.
Information and Instructions

Form of Tender

Tender bids must be submitted on the attached Form of Tender and enclosed in a sealed envelope supplied by the Bidder. The bid must be legible, written in ink or typewritten. Any form of erasure, strikeout or over-writing must be initialed by the Bidder’s authorized signing officer.

All unit prices must be clearly indicated and all extensions written in figures. The bid must not be restricted by a statement added to the Form of Tender or by covering letter, or by alterations to the Form of Tender as supplied by the City of Port Colborne unless otherwise provided herein. Bidders will be allowed to attach descriptive literature with the sole purpose of amplifying the bid.

The Form of Tender must be signed in the spaces provided on the form, with the signature of the bidder or responsible official of the firm bidding. If a joint bid is submitted, it must be signed and addressed on behalf of each of the bidders.

Submission of Tenders

Submissions shall not be made by e-mail or facsimile. Adjustment by e-mail, facsimile, letter or otherwise to a Tender bid already submitted is not permitted.

A bidder will be permitted to withdraw his/her Tender bid unopened after it has been deposited, if such request is received in writing by the City Clerk prior to the time specified for the opening of Tenders.

More than one Tender bids from an individual firm, partnership, corporation, or association under the same or different names will be considered. Within a Tender bid submission, bidders may bid on one or more models providing they all meet or exceed the specifications.

Collusion between Bidders will be sufficient cause for rejection of all Tender bids so affected.

Clarification, Omissions, Discrepancies

It will be the bidder’s responsibility to clarify any details in question before submitting his bid.

Bidders finding discrepancies or omissions in the specifications or other documents or having any doubts concerning the meaning or intent of any part thereof should immediately request clarification from the Public Works Superintendent. Written instructions or explanations will then be sent to all bidders in the form of addenda to the Tender documents.

Bidders may inquire into and clarify any requirements of this Tender.

Responses, if not already addressed in the Tender, will be addressed in the form of addendum, if required. No oral interpretations will be effective to modify any provisions of the Tender.
Errors and Corrections

City staff may clarify any aspect of a Tender submission with the Bidder at any time after the Tender has been opened. Any such clarification will not alter the Tender and will not be constituted as a negotiation or renegotiation of the Tender.

The Corporation of the City of Port Colborne is not required to clarify any part of a Tender. Any clarification of a Tender by a bidder shall not be effective until confirmation has been delivered in writing.

Unit prices will govern and the City of Port Colborne will make all necessary corrections to any Tender which is in error through addition or extensions; the correct value prevailing.

Pricing and Terms of Payment

Prices must be in Canadian Funds, quoted separately for each item stipulated.

All prices are to be F.O.B. delivered, City Hall, 66 Charlotte Street, Port Colborne, Ontario. Attention City Clerk, City of Port Colborne.

All prices Tendered are to be net and to be firm until delivery of the unit(s). However, if bidders are unable to Tender firm prices, they must complete the applicable blanks on the Form of Tender stating the maximum percentage increase for each unit quoted. In this case, invoices must not exceed the total amount of the net price plus the maximum percentage increase.

All prices Tendered are to show the 5% Goods and Services Tax and the 8% Provincial Sales Tax extra unless it is noted on the Form of Tender that a unit is exempt.

Evaluation of Submissions

Intent of Specifications
It is the intent of the attached specifications to describe specific details of vehicles required against this Tender. It is the responsibility of the successful bidder to supply any equipment not described in the specifications but necessary for the satisfactory operation of the units. Any alterations or deletions to the specifications as provided will be costed and added to the bid prices prior to ranking.

The apparent silence or omission in the specifications as to any detail of the work to be done or materials to be furnished means that the best general practice shall prevail, and that material and workmanship of the best quality shall be used. The specifications shall be interpreted on this basis.

The sweeper offered will be evaluated based on the following criteria:

- Ability to meet operational needs in Port Colborne
- Purchase cost
- Timely delivery of unit
- Municipal references for unit offered
- Yearly operating maintenance costs
- Parts and service availability
- Relevant documentation and information that highlight the equipment.

**Demonstrations**
The bidder may be required to provide a formal demonstration of the product/equipment to ensure that the product/equipment offered meets with the needs of the Corporation.

**Disputes**
In cases of dispute as to whether or not an item tendered or delivered meets specifications, the decision of the Superintendent, Public Works & Parks shall be final and binding on both parties.

**Improper Bids**
Bids which are incomplete, conditional or obscure, or which contain erasures, alterations, or additions not called for, or irregularities of any kind, may be rejected as improper. The City of Port Colborne reserves the right to waive irregularities according to provisions in the City’s Procurement Policy.

**Right of City of Accept or Reject Tenders**
The City of Port Colborne reserves the right to accept or reject any or all Tenders for any reason whatever, and to accept any Tenders if considered to be in the best interest of and for the best value to the City of Port Colborne. The lowest or any Tender will not necessarily be accepted. Criteria including recognized environmental initiative awards (green energy) and best overall value, other than price alone may be considered when evaluating Tenders.

Should qualified bid submissions exceed the City of Port Colborne budget provisions for this Tender the City of Port Colborne reserves the right to reject or recall the Tender.

Should the City receive only one (1) qualified and duly executed bid submission on commodities/services that have known multiple source potential, the right is reserved to recall the competition.

**Acceptance of Award**

This Tender submission is irrevocable and open for acceptance by the Corporation of the City of Port Colborne until sixty (60) days after the closing date of this Tender. Award of this Tender may be subject to the City of Port Colborne Council approval.

No announcement concerning the successful bidder will be made until a complete report is prepared by the Public Works Superintendent (or designate) and approved by City Council (if necessary). The successful bidder agrees to be bound by the terms and conditions of this Tender document.

The Tender form and Tender submitted become part of the contract document. The successful bidder must accept a Purchase Order of Contract from the City of Port Colborne which will supersede all other contracts.

Supply of any vehicle or equipment by the successful bidder that does not conform to the completed Tender document as accepted by the City from the bidder or failure to deliver any item shall be just cause for the City to take appropriate action to provide satisfactory remedy.
The successful bidder will not, without the written consent of the City of Port Colborne, make any assignment or any sub contract for the execution of any product hereby quoted.

**Consideration of Demonstrator Unit**

The City will consider an existing sweeper that has been previously used as a “demonstrator” unit. The sweeper must meet or exceed all the specifications as identified in the Tender document. The unit must not have more than 200 hours of use (confirmed by hour meter and supporting documentation). Any unit that has been previously used must be completely refurbished and will have full warranty – i.e. extension of warranty to cover any time since unit was first put into service from new. Bidders may submit bids for both a brand new unit and also a “demo” unit, but bidders will be required to submit a completely separate bid submission for each unit.

**Stated Delivery Time and Dates**

Delivery dates must be stated on the Form of Tender. By specifying dates, the successful bidder agrees to be bound by those dates. Failure to meet stated delivery time(s) by the successful bidder shall be just cause for the City to take appropriate action that shall be in the best interest of the City.

The City shall exercise due diligence and fairness in seeking any remedy and shall take into consideration such factors as delays by the manufacturer and shortages of parts. However, notwithstanding these circumstances, the order may be cancelled at the option of, and without recourse to, the City of Port Colborne.

Pending full and satisfactory supply of all items described in this Tender, a hold back of the value of said deficiencies will be exercised. Failure to comply with all terms specifications, requirement, conditions and general provision of this Tender, to the satisfaction of the City of Port Colborne shall be just cause for the cancellation of the contract award. The City of Port Colborne shall then have the right to award this contract to any other bidder or to re-issue the Tender. The City of Port Colborne shall assess against the Bidder, any damages whatsoever as a result of the failure to perform.

**Specifications and Bid Requirements**

The City is inviting Quotations for **ONE (1) NEW PURE VACUUM STREET SWEEPER** as described in the Form of Tender. It is the intent of the attached specifications to describe specific details of vehicles required in this Tender.

It is the responsibility of the successful Bidder to supply any part or accessory not described in the specification but supplied as the manufacturer’s standard equipment. All vehicles shall be delivered with all accessories installed and operating.

The specification included herein describes the type, size, design and construction of equipment which is felt necessary to meet the performance and service requirements of the City. Bidders desiring to quote on equipment which deviates from these specifications but which they believe to be
equivalent, both as to individual component parts and the completely assemble units, are required to submit alternative bids on the equipment which so deviates.

The attached specification/confirmation pages form part of this Tender and must be completed and returned with the Forms of Tender. Where capacities, rating, dimensions, etc are requested, bidders must provide appropriate specific information. In all other areas, bidders must confirm “Yes” or “No”.

The vehicle shall be new or a demonstrator model with a maximum of 200 hours use. All parts and all replacement parts thereof are to be new only (not remanufactured), never used and of the latest manufacture. Any reference to trade name or manufacturer in the specifications is for the sole purpose of designating a standard of quality or type.

Bidders are required to enclose descriptive literature with their proposal.

Safety Requirements

The vehicle supplied must meet the provisions of the Canada Motor Vehicle Safety Act and the regulations made there under, which are in effect on the date of manufacture of each vehicle. Safety stickers are required on Commercial Vehicles with a minimum GVW 4,500 Kg as required by regulations as of January, 1994. All vehicle engines must operate to specifications and be equipped with pollution emissions controls as required by law in the Province of Ontario.

Warranty Requirements

Bidders must submit a copy of the manufacturer’s standard warranty for the vehicles quoted, with the completed specification/confirmation pages and Forms of Tender.

Bidders are requested to also include details and cost of any extended warranties available on major power train components.

General Requirements

There will be no trade-in units offered against any vehicles on this Tender. Complete descriptive literature along with engineering data and specifications covering all units bid shall be submitted with the Form of Tender. Complete shop service and repair manuals together with driver manual will be supplied for each unit supplied.

In the event that these manuals are not supplied, the City of Port Colborne will hold back $500.00 per model pending receipt of said manuals.

All vehicle quoted and supplied must have ethylene glycol anti-freeze with rust inhibitor testing a minimum of minus 35 degrees Celsius installed in the radiators.
All vehicles are to be supplied painted, except where otherwise stated, a finish coat of the **manufacturer’s standard white**.

A line setting ticket and/or vehicle specification sheet shall be supplied indicating component sizes, capacities, ratios, etc.

Suitable space must be available for the installation of mobile radio equipment by the City. The space must be located such that it does not interfere with the driver or passenger space or servicing of the vehicle. It cannot be installed in the cargo space.
Form of Tender

I/We the undersigned having carefully examined the General Conditions, specifications and Form of Tender, do hereby offer and agree to supply the Automotive Vehicles described herein as follows:

ONE (1) NEW PURE VACUUM STREET SWEEPER

Manufacture’s Make:______________________

Manufacture’s Model:______________________

Model Year:________ Hours (if demonstrator unit, Maximum 200 hours):________

List Price for Complete Unit: $________________

Less Fleet Discount: $________________

5% G.S.T.: $________________

8% P.S.T.: $________________

TOTAL DELIVERED PRICE: $________________

**ALL PRICES TO REMAIN FIRM FOR A MINIMUM OF SIXTY (60) DAYS**

Delivery in Days from notification of award:______________

For each vehicle the following manuals are included: Parts, Operations, Maintenance and Warranty

TENDER SUBMITTED BY:
(Company Name)
Name and Title:

________________________________________________________

Signature: _______________________________

Address: ______________________________________

City: ___________________________ Telephone: _______________

Fax: ___________________________

Postal Code: _________________

E-Mail: _____________________________________________
Specifications

Section A – Chassis

It is the intent of this specification to provide for the purchase of one (1) new and unused vacuum street sweeper having a six wheeled, cab-over truck chassis with automatic transmission, dual diesel engines, sweeper controls and switches, 8.0 cubic yard hopper, 335 gallon total water capacity and right side brooms with variable down pressure controlled from the cab. As noted in Information and Instructions section, consideration will be given to a demonstrator unit. The bidder may provide an alternative bid for a current model year demonstrator unit having less than 200 hours of use on it. Please answer complete specification for demonstrator unit being proposed.

In comparing proposals, consideration will not be confined to price only. The successful bidder will be one whose product is judged shall best serve the interests of the Municipality when price, product, safety, quality and delivery are considered. The City of Port Colborne reserves the right to reject any or all bids or any part thereof, and to waive any minor technicalities. A contract will be awarded to the bidder submitting the lowest responsible bid meeting the requirements of this specification.

<table>
<thead>
<tr>
<th>Specify</th>
<th>Yes</th>
<th>No</th>
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ONE (1) NEW PURE VACUUM STREET SWEEPER

1. Cab Over Engine Chassis
   Right hand single steer
   Make:_____________ Model:_____________
   lbs:____

2. Yield Strength of Rail
   High Strength, 51,200 PSI, 35.7 section modulus
   1,828,000 RBM

3. Vehicle Wheelbase
   Maximum 144 inches
   in.:______
   Cab to Axle –maximum 112 inches
   in.:______

Tender submitted by:
_____________________________________________________________
(Company Name)
Specifications Cont’d

4. Chassis GVW
   - GVW rating 32,900 lbs:_______

5. Transmission, Axles & Brakes
   An Allison 2500 Series (or approved equal) automatic transmission with heavy duty oil cooler shall be provided. An external spin on transmission oil filter is to be included with the Allison transmission.
   The 2-speed rear axle shall have a ratio of 5.86/8.17:1 for proper sweeping speeds.
   The 12,000 lb. front axle shall be equipped with 12,000 lb. Springs and shock absorbers.
   The 21,000 lb. rear axle shall be supported by an multi leaf spring system with auxiliary having a minimum capacity of 21,000 lb.
   For safety and to allow the emergency interchange of tires at a job site and front and rear tires and rims shall all be interchangeable.
   Tires shall be tubeless radial tires 14 ply 11R22.5 "G" load rated. The rear axle shall include dual tires for load capacity; singles will not be acceptable.
   Rims shall be 10 hole steel hub piloted 22.5 x 7.50.
   Brakes shall be full air brakes with a 20.8 CFM capacity compressor, and with automatic slack adjusters.
   Air system shall include an air dryer with moisture ejector.
   Parking brake shall be spring applied rear wheel drum and shoe.

6. Cab
   Maximum visibility, forward line of sight from the chassis front bumper to the point on the ground visible to the operator shall not exceed 8 feet for an SAE 98th percentile size operator.

Tender submitted by:

_____________________________________________________________
(Company Name)
Specifications Cont’d

Right hand Steering shall be full power with full operator controls.  
_____  _____

Right hand Steering column shall be the tilt and telescopic style.  
_____  _____

Seats shall be adjustable, covered with cloth for air circulation and include 3 point seat belts. Right Hand seat shall have air ride suspension.  
_____  _____

Sweeper shall include two (2) heated outside west coast type mirrors with lower 8.5 inch convex lens for easy viewing of the side broom during sweeping.  
_____  _____

To maximize operator visibility of the curb and sweeping gear, outside mirrors shall be mounted forward of the front wheels.  
_____  _____

Hydraulic functions shall be controlled by rocker switches located in the cab mounted control panel.  
_____  _____

For safety during night sweeping, switches shall be illuminated so that they can be readily identified without the use of the cab dome light.  
_____  _____

Switches shall be clearly identified by name and symbol.  
_____  _____

Cab interior environment shall be fully air-conditioned including a fresh air heater/ventilator/defroster.  
_____  _____

Cab shall have full flow through ventilation for optimal temperature control and operator comfort.  
_____  _____

Windshield wiper shall be two speeds with washer  
Wipers shall have intermittent feature.  
Interior of cab shall have acoustical insulation for low operating noise, automotive type trim, and center sweeper console.

Tender submitted by:
__________________________________________________________
(Company Name)
Specifications Cont’d

Dash shall be faced with soft molded plastic.  
All glass shall be tinted safety glass.  
Each operator position shall have adjustable sun visor.  
Doors shall be key locked.  
Door windows shall be vertical slide type with opening vent windows.  
Cab shall have power windows and door locks.  
Side windows shall have defogger.  

Specify
Yes     No

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7. Instruments

Chassis right side operator instrument panel shall be chassis OEM, full vision illuminated with tachometer, speedometer, odometer, trip odometer, fuel gauge, water temperature gauge, air pressure gauge, and volt gauge.

Chassis gauges shall include speedometer, odometer, coolant temperature, tachometer, voltmeter, oil pressure, fuel level and air pressure.  
Chassis engine instruments shall include warning light and chime for low coolant level and high coolant temperature to warn the operator of a potential problem before any damage to the engine occurs.  
Truck instruments shall include warning lights for battery, and cab latch to make sure the cab is locked in position.  
Sweeper engine instruments shall include tachometer, hour meter, oil pressure, fuel, voltage, and coolant temperature for complete information for the operator on the condition of the auxiliary engine.  
Instruments shall include an auxiliary engine air intake restriction indicator mounted in the fixed console, for ease of maintenance, and a hopper “full load” indicator to notify the operator the hopper is fully loaded.  
All console switches including transmission controls and all gauges shall be illuminated.

Tender submitted by:

_____________________________________________________________

(Company Name)
Specifications Cont’d

8. Engine
Truck engine shall be Hino in line six cylinder turbocharged diesel, 230 Hp @ 2500 RPM, 506 ft-lbs. @ 1500 RPM meeting EPA 07 emissions.

Truck engine shall be equipped with a single left-hand vertical exhaust system.

The cooling system shall be protected to -34°F.

Engine shall be equipped with dual stage dry-type air cleaner with safety element, spin-on fuel filter, full flow oil filter, and fuel/water separator.

Engine shall be equipped with block heater.

Radiator fan shall be viscous drive type.

9. Electrical
Batteries should be located in an enclosed accessible environment for long life and ease of service.

Chassis shall have two (2) maintenance free batteries rated at not less than 1244 CCA, 12 volt.

Chassis engine shall have a 130 amp alternator.

Chassis lighting shall include sealed multi-beam halogen head-lights w/daytime running lights, stop lights, tail lights, backup lights, license plate lights, clearance lights, signal lights, illuminated gauges and instrument panel, and directional lights with hazard switch.

Tender submitted by:
___________________________________________
(Company Name)
Section B - Sweeper Module

10. Sweeper Engine

Diesel engine shall be 4 cylinder, turbocharged, dynamically counter balanced 276 CID (John Deere 4045T or equal). Engine must be Tier 3 Emission compliant.

Horsepower rating shall be 115 HP (86 kW) @ 2500 RPM, torque 291 lb-ft @1400 RPM.

For greater heat dissipation, less noise and lower cost of maintenance, engine shall have individually replaceable wet sleeve cylinder liners.

Engine shall be protected by a dual safety element dry type air cleaner & restriction indicator that indicates it is time to service the filter element.

Engine shall be filled with 50/50 mixture anti-freeze/water for cold weather storage and or operation.

Sweeper engine shall drive the blower fan by a heavy-duty five (5) "V" groove power belt, without the use of a step-up auxiliary gearbox. The power belt will provide ease of maintenance and is more cost effective than using a step-up auxiliary gearbox.

To minimize noise and vibration, the entire joined engine, coupling and fan assembly shall be isolation mounted on the auxiliary frame.

The engine shall be enclosed and surrounded by the front part of the sweeper body, by two fiberglass access doors. One at the right-hand side and one at the left-hand side of the sweeper body. These doors provide access to serviceable items without tilting the hopper.

A fluid coupler shall be installed between the auxiliary engine and the power belt drive, which allows for smooth starting and stopping of the engine, while preventing the momentum of the fan system from driving the engine when the engine is turned off.

Tender submitted by:

_________________________________________ ____________________
(Company Name)
11. Blower

The blower shall be rated at not less than 20,000 CFM. The fan shall be rated by an independent test facility.

The blower shall be driven by a five (5) "V" groove power belt for maximum performance and simplicity of construction, with tension adjustment not requiring repositioning of the engine.

The blower shall be a turbine type, with 9 vanes, 31 3/8 in. diameter constructed of abrasion resistant steel and fully balanced for longevity of fan and bearing life. A die-cast aluminum alloy or steel open face blower covered with rubber or not, will not be acceptable.

The blower housing shall be constructed of 10 gauge abrasion resistant steel and lined with Linatex (or equal) for maximum extended wear in abrasive environments.

The blower housing shall have an inspection door for quick inspections without removing the blower housing or looking into the air exhaust opening. Access to this inspection door must be possible without tilting the hopper.

The blower housing shall not be an integral part of the hopper. Replacement of the blower housing must not require any cutting and welding of the housing and or hopper.

The blower shall be mounted on heavy-duty re-greasable bearings, capable of being greased from ground level. Greasing of the bearings must be possible without tilting the hopper.

12. Suction Nozzles and Hoses

The suction nozzle pick-up area shall be not less than 174 sq./in. with suction nozzle width a minimum of 30 inches.
Specifications Cont’d

The suction hose shall have a quick disconnect coupling, not requiring any tools, at the lower area, near the suction nozzle. This is to allow easy access to both the suction nozzle and suction hose for inspection and cleaning when obstructions occur. The quick disconnect must be accessible without tilting the hopper.

The entire suction hose quick disconnect section and hose transition piece into the suction hose gate valves must be of a bolt-on design for easy maintenance and service.

All metal components, nozzle, tube, etc. shall be constructed of abrasion resistant steel for longer life in an abrasive environment. Cast aluminum components or components using rubber liners are not acceptable due to shorter service life.

The suction hose shall be not less than 11 inches in inside diameter to allow for larger objects and large quantities of debris to enter the suction hose.

The nozzle shall extend 15 inches beyond the wheel track for increased performance closer to the curb and better visibility of the nozzle from the cab. The nozzle shall have a replaceable wear edge for running against the curb.

An integral automatic "jackknife style" gate valve shall be bolted on the top of the suction hose where the material enters the hopper. The gate valve is automatically activated with the suction nozzle activation and prevents material from dropping back down the nozzle tubes when the vacuum is stopped. The gate valve also prevents material/debris from being dropped into the suction nozzle when the sweeper is traveling.

The jackknife style gate valve is of such a design that it cleans itself from debris. It is operated by a heavy-duty air cylinder that activates the gate valve. This cylinder shall be similar to other air cylinders used in the air system of the sweeper for interchangeability of parts and easy service.

The suction nozzle shall ride on two heavy-duty caster wheels. These caster wheels shall be of a pivoting design. This allows the nozzle to move sideways, better staying in the path of debris and following road contours, as well as improving service life. Non-pivoting caster wheels are not allowed as they have a reduced service life.

Tender submitted by:

(Company Name)
Specifications Cont’d

The suction nozzle shall be equipped with a front mounted shutter or nozzle cap. This shutter allows easy entry of large objects and large quantities of leaves. The shutter must be replaceable as a separate part, rather than replacing the entire suction nozzle. Suction nozzles that pivot in the back creating a shutter opening in the front, or suction nozzles that have no shutter as part of their design shall not be allowed.

State optional price for an in-cab operator remote controlled shutter door with variable timer frequency control (Not included intender price)

Sweep path:

- Nozzle only = 35 inches
- Side broom and nozzle = 52 inches
- Extension broom and nozzle = 78 inches
- Side broom, extension broom and nozzle = 95 inches

13. Side Brooms

The right side broom shall be a free floating trailing arm design with inward motion safety to prevent damage when sweeping and encountering a fixed obstacle. The trailing arm shall be of a parallelogram design for simple, non-binding action/motion and for constant bristle and wear pattern.

The side broom shall be 28-inch diameter minimum, with hydraulically driven rotation.

The side broom shall be pneumatically raised, lowered and suspended by heavy duty pneumatic cylinders that are common with other pneumatic cylinders on the sweeper for ease of service and maintenance.

Adjustable down pressure shall be pneumatically controlled by the operator from the cab.

Tender submitted by:

[Company Name]
Specifications Cont’d

The broom hydraulic motor drive shall provide not less than 4500 in/lbs. of torque for superior digging power.

The side broom assemblies shall have greaseless pivot pins for ease of maintenance.

The side broom assembly shall be supported in the storage position by a transport hook.

Side broom shall be controlled from in the cab by simple rocker switches.

To prevent exposure to accidental laceration by the bristle tips, side brooms shall retract with wire bristle tips unexposed. No exception will be allowed to this safety requirement.

14. Extension Broom

The extension broom shall be 54 inches long, 16 inches in diameter, disposable, and reversible.

The extension broom shall be hydraulically driven (with relief valve), pneumatically raised, lowered, and suspended.

The extension broom shall operate at an 18 degree windrow angle minimum for quicker sideways movement of debris. The broom can pivot for left hand side or right hand side sweeping and is activated by a heavy duty pneumatic cylinder that is common with other pneumatic cylinders on the sweeper for ease of service and maintenance.

The extension broom hydraulic motor drive shall provide not less than 4500 in/lbs. of torque for superior digging power.

Suspension shall be by pneumatic lift with out-of-cab variable down pressure control for maximum digging power and wear control.

The extension broom shall have a greaseless pivot pin.

The extension broom rotation shall stop and all sweeping functions shall raise automatically, when transmission is placed into reverse or when the sweeper is put in transport mode.

A broom cover shall be provided

Tender submitted by:

(Company Name)
15. Hopper

Volumetric capacity shall be 8 cubic yards minimum.  

Hopper shall be constructed of 10 gauge steel sides, and ¼ in. floor.  

A weight actuated full load indicator shall be mounted in the cab on the control panel.  

The hopper tilt angle when dumping shall be a minimum of 50°. Dumping shall be accomplished by tilting the hopper via a two-stage telescopic cylinder. The use of multiple cylinders for tilting the hopper shall not be acceptable. The use of a moving raker bar which is attached to the rear door inside the hopper in lieu of tipping the hopper for dumping shall not be acceptable.  

The hopper floor angle shall be a minimum of 10°.  

A removable, replaceable and adjustable, abrasion resistant "scoop" style steel deflector shall be located at each suction inlet. This deflector is to direct material to the center of the hopper for optimal loading conditions.  

The hopper rear door shall be hinged at the top of the door and opened by means of a hydraulic cylinder. The hopper rear door should open at a minimum angle of 90° to be perpendicular to the hopper opening for maximum dumping action. The 0 has evaluated many styles and considers this design to be the most effective for dumping and cleaning. No exceptions to this requirement will be acceptable.  

Hydraulic cylinder movement shall be controlled by the use of two hydraulic valve levers on the right-hand side of the hopper to view discharging of debris out of the hopper during dumping for maximum safety.  

For maximum operator safety the rear hopper door shall have an internal door prop. No exception to this safety requirement shall be accepted.  

The hopper rear door shall include an automatic lock mechanism for a tight fit and optimal sealing between the hopper and the rear door.  

Tender submitted by:  

_____________________________________________________________  

(Company Name)
Specifications Cont’d

The rear door seal shall be a water resistant heavy-duty reinforced D style rubber seal for optimal sealing. Foam seals that can absorb moisture and freeze are not acceptable.

Two 34½” x 43½” screens, for a total screen area of 3000 square inches, of not less than 11 gauge steel shall be installed to allow air to move freely from the hopper into the blower area. The hopper screens shall be hinged and pinned to allow easy clean out.

The front section of the hopper must cover the auxiliary engine, and must be constructed of heavy fiberglass. This fiberglass consists of a roof section and two fiberglass side doors that allow access to the serviceable items for ease of maintenance. All these items must be accessible without tilting the hopper.

The hopper shall cover the main water tank of the water system and will provide easy access to the water system components. Water tanks that are an integrated part of the hopper shall not be allowed.

When raising the hopper the water tank shall not raise with the hopper. The water tank shall be mounted to the sweeper frame and shall be removable for service. Not raising the water tank when raising the hopper puts less strain on the dump system.

The hopper shall have hopper cut-outs at each side of the hopper. These cut-outs provide easy access to the quick disconnect section on the suction nozzle and allow the suction hose and nozzle to have side-way movement for establishing more suction power at the curb

The hopper shall have a heavy-duty spray on polymer liner applied at the factory that provides lifetime rust through warranty on complete hopper.

A manufacturer’s warranty statement stating such must be included with the bid or the bid will be deemed non-compliant.
16. Fuel Tank

One- (1) 50-gallon fuel tank shall be shared by both engines and shall be easily accessible without raising or shifting any components. A fuel gauge, in cab, shall be supplied. Sight tube is not acceptable

17. Spray Water System

The water system shall consist of two water tanks. Both shall be removable for service and shall have a total capacity of 335 gallons. Both tanks shall be constructed of rust proof polyethylene.

The water tanks shall be frame mounted with no part sharing any common wall with the hopper and shall not raise during hopper dumping.

Two electric 12 volt water pumps, 2-speed, diaphragm type pump provide 4 GPM & 40 PSI to the suction nozzle, the side broom and the extension broom. Belt driven pumps are not acceptable.

One water pump is fully dedicated to supplying water to the RH suction nozzle, RH side broom and extension broom for optimal dust control.

One water pump is fully dedicated to supplying the LH suction nozzle, LH side broom and optional front spray bar for optimal dust control.

The water pumps can be selectively controlled from the cab to adjust to the sweeping conditions.

A 16 ft. 8 inch fill hose with NST coupling and anti-siphon connector with strainer shall be supplied.

A water level gauge shall be provided on the control console within the cab.
Specifications Cont’d

Two (2) water spray nozzles are located at each side broom for optimal dust control.

Seven (7) removable water spray nozzles are located inside the suction nozzle. Water spray nozzles that spray on the outside of the nozzle are not acceptable.

The water filter, located near the water pumps must be easy to access and clean without tilting the hopper. A ball valve must be provided to allow cleaning of the filter without the loss of water from the water tanks.

All water piping shall be external to the operator cab. For safety, no water lines capable of leaking or bursting shall be within the cab.

The extension broom is supplied with four (4) rubber mounted, quick disconnect spray nozzles for easy cleaning and maintenance. Non rubber mounted and non quick disconnect water nozzles are not acceptable.

All water lines shall be color-coded green for easy identification. Pressure water lines shall be Nylon PFT line for maximum life. All suction and fill water hose is a synthetic rubber braid reinforced hose for maximum life. Any other materials are not acceptable.

All water connections are either Presto-matic push to lock or Push Lock fittings for easy assembly and maintenance and long life.

A 2 ½" anti-siphon air gap shall be supplied on the water tank fill to prevent contamination of supply water.

18. Hydraulic System

Tandem hydraulic pumps shall be a direct gear pump for maintenance free operation, having a flow capacity of 7.7 GPM @ 2500 RPM each. A belt driven or PTO driven hydraulic pump is not acceptable.

Reservoir capacity shall be not less than 23 gallons and have an exterior sight gauge. The reservoir must be located in the enclosed auxiliary engine compartment for quick inspections without tilting the hopper.

Tender submitted by:

_________________________________________
(Company Name)
Specifications Cont’d

Hydraulic oil cooler shall be standard with fresh air intake and accessible without raising the hopper. All hydraulic circuits shall have quick disconnect pressure check ports for ease of maintenance.

To minimize the hazards of potential leakage, all high pressure fittings shall be "O" ring face seal (OFS) on hose ends or "O" ring boss on hydraulic ports. Other systems shall not be acceptable.

There shall be a 10 micron spin-on hydraulic filter. Exchange of the filter must be possible without tilting the hopper.

To further reduce the chance of hydraulic system contamination and joint leakage use of standard pipe threads requiring pipe dope shall not be acceptable.

19. Pneumatic System

The pneumatic system shall have DOT, prestomatic push to lock fittings for ease of maintenance and service. Any other fittings are not acceptable.

There shall be a PR4 type pressure protector for the chassis air system to protect the chassis air system at air pressures below 85 PSI.

A separate air tank for all sweeper air components shall be provided.

All pneumatic cylinders must be rated to 150 PSI and have separate rod seal and wiper to prevent contamination entering the cylinder.

Each cylinder shall be controlled by a single, two positions, solenoid valve mounted on a manifold with common input and exhaust. A manual override shall be provided on each solenoid valve for trouble shooting and function lockout.

There shall be a filter with polycarbonate bowl to filter out contaminants down to 5 microns to prevent contamination in the air system.

All air lines should be color-coded silver and function stamped for ease of identification maintenance. Non color coded lines are not acceptable.

Tender submitted by:

_______________________________________________________

(Company Name)
20. Electrical System

Sweeper electrical system shall be independent from the electrical system of the chassis. ____ ___

Sweeper engine shall have one (1) 925 CCA, 12 volt battery. ____ ___

Sweeper engine shall have a 95 amp alternator. ____ ___

Sweeper shall have an electronic back-up alarm for additional warning and safety when chassis is in reverse. ____ ___

Sweeper lighting shall include rear identification lights, side broom and rear clearance lights. ____ ___

Sweeper warning lights shall include hopper up, hopper full load and hopper rear door open. ____ ___

Sweeper wiring harnesses shall be color-coded and hot stamped with appropriate word designation labeled every four inches, i.e. "Ignition", "Side Broom" on each wire. ____ ___

For safety, manual reset circuit breakers or fuses shall protect all electrical circuits. ____ ___

Spotlight to be provided to illuminate right hand gutter broom. ____ ___

A rear mounted Star strobe light with guard to be mounted mid body at rear of sweeper. ____ ___

21. Controls

All sweeper controls shall be mounted on a central terminal. This allows the operator to view all important auxiliary engine information from operating position. ____ ___

The controls shall include all sweep, spray water, and lighting functions. ____ ___

The controls for sweep, spray water, and lighting functions shall be conventional rocker switches. ____ ___

Tender submitted by:

______________________________________________
(Company Name)
Specifications Cont’d

Controls for auxiliary engine ignition and throttle, side broom down pressure and manual reset circuit breakers shall be located on the control console.

The control console shall have a quick release access cover that can be fully hinged over a pivoting hinge

The control console shall have integrated cup holders

22. Instruments

Sweeper engine instruments shall include tachometer, hour meter, oil pressure, fuel, voltage, and coolant temperature for complete information for the operator on the condition of the auxiliary engine.

Sweeper engine instruments shall include an auxiliary engine air intake restriction indicator for ease of maintenance, a rear door "open" indicator, a "raised" hopper indicator and a "full" hopper indicator to notify the operator of hopper and hopper rear door conditions.

Sweeper instruments shall include diagnostic information for the sweeper engine and sweeper functional information to include sweeper engine hours, side broom hours, water level, vacuum enhancer position and hopper door position.

23. Paint

All visible exterior metallic surfaces shall be coated prior to assembly with polyester powder coat. The paint must be a minimum of 2 mils thick. The uses of acrylic enamels and/or polyurethane’s are not acceptable.

Color shall be manufacturer’s standard "White".

Tender submitted by:

________________________________________________________________________

(Company Name)
24. Manuals

An operation manual shall be provided.  
A parts manual shall be provided.

25. Warranty

Manufacturer’s warranty shall be not less than one (1) year on entire sweeper, including all parts and labor.  
Manufacturer’s warranty shall be not less than three (3) years on chassis engine, including all parts and labor.  
Manufacturer’s warranty shall be not less than lifetime protection against rust-through of the water tank.

Bidders submitting literature stating warranties which do not fully comply with warranty requirements of this specification must submit a letter from the manufacturer certifying warranty compliance as an integral part of their proposal. Failure to comply may cause the proposal shall be deemed "non-responsive" and rejected without further review.

26. Service and Training

Vendors shall have a full parts and service facility within a reasonable distance from the Municipality. State location and distance.

A qualified technician shall provide complete mechanical training at the Municipality Garage. Training shall include safety, operation, maintenance and service.
27. Delivery

Sweeper shall be delivered F.O.B. Port Colborne in complete operating condition.  
Acceptance shall be subject to the inspection and approval of the Municipality.  
Bidder shall state delivery time after receipt of order:  

__________________________________________

 Specify
Yes No

28. Quality

Sweeper shall be manufactured by a company with a registered quality standard no less than ISO 9001.

29. Provisional Items (Not to be included in bid price)

**Item A**

An 8 in. (203 mm) inside diameter, 12 ft. (3,658 mm) long hydraulic wandering hose located at the rear of the machine, activated from the cab and capable of deep cleaning catch basins shall be provided. This system is approved for the addition of (4) 4 ft. aluminum wandering hose extensions.

It shall have an 8-in. diameter x 4-ft. long catch basin nozzle with water injection system for dust control.

It shall be equipped with a handheld remote- pendant push button fingertip hydraulic control to raise and lower movement of the nozzle.

It shall be equipped with a rear auxiliary engine throttle control.

The hose shall be constructed of heavy-duty rubber. Plastic hoses will not be acceptable.

Automatic switch activated hydraulic inlet changeover plates shall accomplish conversion from sweeper to catch basin operation automatically. Manual blanking plate designs are not acceptable.

$________________

Tender submitted by:

_____________________________________________________
(Company Name)
Specifications Cont’d

**Item B)**

A high pressure pump with 24 in. (610 mm) hand lance and 30 ft. (9m.140mm.) hose shall be provided. It provides 4.2 GPM (15.9 L/m) at 1500 PSI. Designed for washing down and for loosening up catch basin materials and for efficient cleaning of the hopper and the sweeper exterior. Hose shall have an attached spray wand with on/off trigger and two nozzle settings allowing the operator to spray fine or wide. The quick disconnect for the high pressure wash down shall be easily accessible on the right side of the sweeper with spring retractable reel to be included.

$____________

**Item C)**

Tilting of right side gutter broom shall be variable from the cab. An electrically controlled linear actuator shall allow the operator to tilt the side broom inward and outward from the cab, while sweeping.

$____________

**Item D)**

PM10 compliant water system with certification document.

$____________

**Item E)**

A rear camera with 7” colour monitor

$____________

**Item F)**

Automatic greasing system

$____________

The Municipality may choose, at its sole discretion, to add any or all of the optional items to this purchase. Bidder shall state the amount to be added to the Bidder’s Tender, should each item be selected.

Tender submitted by:

_______________________________________________________

(Company Name)
TENDER SUBMITTED BY: ______________________________________________________

(Company Name)

VENDOR NAME: ________________________________
ADDRESS: _______________________________________
CONTACT PERSON: _______________________________
TELEPHONE NO.: ________________________________

TENDER- DELIVER UNOPENED TO:
THE CITY OF PORT COLBORNE
CITY HALL
66 CHARLOTTE ST.
PORT COLBORNE, ONTARIO L3K 3C8
ATTENTION: ASHLEY GRIGG, CITY CLERK
TENDER FOR: ONE (1) NEW PURE VACUUM STREET SWEEPER
CLOSING DATE: Tuesday, January 19, 2010 at 2:00 pm