

**FORM A: BID**  
(See B8)

1. Contract Title SUPPLY & DELIVERY OF SIX WHEELED SWEEPERS

2. Bidder

\_\_\_\_\_  
Name of Bidder

\_\_\_\_\_  
Usual Business Name of Bidder as it appears on Invoice (if different from above)

\_\_\_\_\_  
Street

\_\_\_\_\_  
City

\_\_\_\_\_  
Province

\_\_\_\_\_  
Postal Code

\_\_\_\_\_  
Email Address of Bidder

\_\_\_\_\_  
Facsimile Number

(Mailing address if different)

\_\_\_\_\_  
Street or P.O. Box

\_\_\_\_\_  
City

\_\_\_\_\_  
Province

\_\_\_\_\_  
Postal Code

\_\_\_\_\_  
GST Registration Number (if applicable)

The Bidder is:

(Choose one)

a sole proprietor

a partnership

a corporation

carrying on business under the above name.

3. Contact Person

The Bidder hereby authorizes the following contact person to represent the Bidder for purposes of the Bid.

\_\_\_\_\_  
Contact Person

\_\_\_\_\_  
Title

\_\_\_\_\_  
Telephone Number

\_\_\_\_\_  
Facsimile Number

\_\_\_\_\_  
Email Address

4. Definitions

All capitalized terms used in the Contract shall have the meanings ascribed to them in the General Conditions and D3.

5. Offer The Bidder hereby offers to perform the Work in accordance with the Contract for the price(s), in Canadian funds, set out on Form B: Prices, appended hereto.

6. Commencement of the Work The Bidder agrees that no Work shall commence until he/she is in receipt of a notice of award from the Award Authority authorizing the commencement of the Work.

7. Contract The Bidder agrees that the Bid Opportunity in its entirety shall be deemed to be incorporated in and to form a part of this offer notwithstanding that not all parts thereof are necessarily attached to or accompany this Bid.

8. Addenda The Bidder certifies that the following addenda have been received and agrees that they shall be deemed to form a part of the Contract:

No.	_____	Dated	_____
	_____		_____
	_____		_____

9. Time This offer shall be open for acceptance, binding and irrevocable for a period of sixty (60) Calendar Days following the Submission Deadline.

10. Signatures The Bidder or the Bidder's authorized official or officials have signed this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

Signature of Bidder or  
Bidder's Authorized Official or Officials

\_\_\_\_\_

(Print here name and official capacity of individual whose signature appears above)

\_\_\_\_\_

(Print here name and official capacity of individual whose signature appears above)

**FORM B: PRICES**  
(See B9)

**SUPPLY & DELIVERY OF SIX WHEELED SWEEPERS**

**UNIT PRICES**

ITEM NO.	DESCRIPTION	SPEC. REF.	UNIT	QUANTITY	UNIT PRICE
1.	Six Wheeled Street Sweepers	17001	Each	2	

\_\_\_\_\_  
Name of Bidder

## FORM N (R1): DETAILED SPECIFICATIONS 17001

### 1.0 **DESCRIPTION OF EQUIPMENT/INTENT**

- 1.1 These specifications describe used **Six Wheeled Sweepers** and other equipment and features as specified herein. The **Six Wheeled Sweepers** shall be no older than 2016 with no more than 800 hours of usage.
- 1.2 It is the intent of this specification to provide for the purchase of two (2) used sweepers having a six wheel configuration, separate engines for propulsion and sweeping, 4.5 cubic yard right side high dumping hopper, automatic transmission, dual steering and operator controls, cleated belt conveyor system, and left and right side brooms.
- 1.3 The **Six Wheeled Sweepers** and all other items/components shall be the manufacturer's latest model. The equipment shall be furnished complete and ready for operation. Any parts or accessories not specifically mentioned, but which are required to complete and place the equipment and associated attachments in successful operation shall be furnished as though specifically mentioned in these specifications. The equipment and associated attachments, and all parts thereof, shall conform in strength and quality of material and workmanship, to the best standards and engineering practice of the industry.
- 1.4 It will be the responsibility of the Bidder to inform the City of any errors or omissions in these specifications, for under this Contract the Contractor shall be held responsible for the satisfactory operational function of the equipment.

### 2.0 **OTHER SPECIFICATIONS AND STANDARDS**

- 2.1 All applicable SAE standards form an integral part of these specifications and shall have precedence in any conflict concerning minimum acceptable standards.
- 2.2 The **Six Wheeled Sweepers** shall comply with the applicable regulations:

National Safety Mark, NSM = <http://www.tc.gc.ca/eng/acts-regulations/acts-road.htm>

Manitoba Safety and Health Act, Parts 12, 22 =  
<http://web2.gov.mb.ca/laws/statutes/ccsm/w210e.php> and <http://www.gov.mb.ca/labour/safety/>

Canadian Standards Association, CSA = <http://www.csa.ca/about/Default.asp?language=english>

Under Writers of Canada, U/L = <http://www.ulc.ca/>

Society of Automotive Engineers, SAE = <http://www.sae.org/>

City of Winnipeg Lighting Visibility  
Standard=<http://winnipeg.ca/matmgt/pdfs/PublicWorksEquipLightingVisibility.pdf>.

- 2.3 It will be the responsibility of the Bidder to inform the City of any deficiencies in these specifications, for under this Contract the Contractor shall be held responsible for the design, performance, reliability and satisfactory operational function of the units.

### 3.0 **SERVICE FACILITY**

- 3.1 For the purpose of warranty repairs, the Bidder shall have an authorized service facility located within 10 km of the boundaries of the City of Winnipeg. The facility, or a portion thereof, shall be dedicated to the service and maintenance of the type equipment being offered. Further to B9.1, Bidders shall provide a description of the service facility including, but not limited to, number of

qualified service staff, years of service experience, and general service capabilities within three (3) Business Days upon request of the Contract Administrator.

#### **4.0 REFERENCES**

4.1 Provide five (5) Canadian references where this equipment is used in a working environment where climatic conditions are similar to the City of Winnipeg.

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#### **5.0 MAKE & MODEL**

5.1 **State** make, year and model of the equipment bid- \_\_\_\_\_

#### **6.0 INSTRUCTIONS FOR COMPLETION OF SPECIFICATIONS**

6.1 Each bid will be evaluated based on adherence to all terms, conditions and requirements outlined in the Bid Opportunity package.

6.2 All items in these specifications must be answered indicating compliance or non-compliance. **BIDDERS SHALL STATE "YES" FOR COMPLIANCE OR STATE DEVIATION**, or give reply where requested to do so. Deviations shall be clearly stated and fully detailed. Alternatives will be considered subject to evaluation.

6.3 **EACH BIDDER IS REQUIRED TO FILL IN EVERY BLANK. FAILURE TO DO SO MAY BE USED AS A BASIS FOR REJECTION OF BID**

#### **7.0 PERFORMANCE RELIABILITY**

7.1 The responsibility for the design of the **Six Wheeled Sweepers**, its performance and reliability shall rest upon the Contractor.

7.2 The term "repeated failures" as used herein is defined to mean that the same component, subassembly, or assembly develops repeated defects, breakdowns and/or malfunctions rendering the vehicle inoperative, or requiring repeated shop correction, service and/or replacement during the warranty period applicable for said component, subassembly, of assembly. Minor items or ordinary service adjustments are not included, or considered under the scope of "repeated failures", as well as other factors, such as operational damage due to accidents, misuse or lack of proper maintenance, service and lubrication attention by not following the manufacturer's preventative maintenance schedule.

7.3 Where the **Six Wheeled Sweepers** develops "repeated failures" in service, the Contractor shall make any necessary engineering changes, repairs, alterations or modifications in order to guarantee reliability of performance.

7.4 The equipment shall be capable of consistent top performance in City of Winnipeg Environment. Note: The City of Winnipeg has four seasons with ambient temperatures ranging from approximately 90°F (32°C) to -40°F (-40°C)

#### **8.0 FUEL**

8.1 Where applicable, all equipment must be fully fuelled upon delivery (**no exceptions**).

**9.0 QUALIFICATIONS OF MANUFACTURER & CONTRACTOR**

- 9.1 The manufacturer of the **Six Wheeled Sweepers** shall have five (5) years continuous experience manufacturing the equipment.
- 9.2 The manufacturer shall have in effect a documented quality control program ensuring that the quality of materials and workmanship, including welding, conforms to the best standards and engineering practice of the industry.
- 9.3 The Contractor shall have five (5) years continuous experience servicing, repairing and maintaining **Six Wheeled Sweepers** of the type being offered.
- 9.4 Sweeper shall be manufactured by a company with a registered quality standard no less than ISO 9001.

<b>10.0 SPECIFICATION- ELIGIBLE MODEL ELGIN EAGLE 3300 or equivalent in accordance to B6. Substitutes.</b>	<b>BIDDER TO STATE "YES" OR STATE DEVIATION</b>
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**CHASSIS TYPE**

- 10.1 Chassis Type- Chassis shall be conventional **dual steer design** with 33,000 GVW rating and shall be supplied by a local truck dealer. \_\_\_\_\_

**WHEELBASE**

- 10.2 Wheelbase- To accommodate a 4.5 cubic yard hopper six wheeled sweeper body. \_\_\_\_\_

**CAB TO AXLE**

- 10.3 Cab to Axle- CA to accommodate vertical exhaust with after treatment and accommodate a 4.5 cubic yard hopper six wheeled sweeper body. \_\_\_\_\_

**TOW HOOKS**

- 10.4 Tow Hooks- Chassis shall include front tow hooks. \_\_\_\_\_

**FUEL TANK**

- 10.5 Fuel Tank- One (1) 50-gallon fuel tank shall be shared by both chassis engine and sweeper engine and shall be easily accessible without raising or shifting any components. A fuel gauge in cab shall be supplied. \_\_\_\_\_
- 10.6 Tank straps- Stainless steel or aluminum straps with minimum 1/16 in. rubber or neoprene isolators to prevent galvanic corrosion \_\_\_\_\_
- 10.7 Fuel Water Separator- Heated, drainable fuel water separator required \_\_\_\_\_

**ENGINE**

- 10.8 Engine- Diesel engine shall be Tier 4 final current Emission Compliant, Cummins ISB 6.7, or equivalent, turbocharged diesel, 200-250 h.p. 520-660 ft-lbs. \_\_\_\_\_
- 10.9 Engine Exhaust- Single vertical exhaust system with after treatment and SCR with approximately 6 gallon DEF tank. \_\_\_\_\_

- 10.10 Shut down- Engine shut down Low oil pressure / high water temperature \_\_\_\_\_
- 10.11 Starting Aid- Cold weather starting aid required \_\_\_\_\_
- 10.12 Fuel Shut-off- Electric solenoid type \_\_\_\_\_
- 10.13 Cooling- Extended Life coolant, antifreeze to (-40°C) \_\_\_\_\_
- 10.14 Air Cleaner- Engine shall be equipped with single stage dry-type air cleaner with safety element. \_\_\_\_\_
- 10.15 Air intake restriction indicator- Restriction indicator dash mounted \_\_\_\_\_
- 10.16 Filters- Spin-on fuel filter, full flow oil filter \_\_\_\_\_
- 10.17 Fuel Water Separator- Heated fuel water separator required \_\_\_\_\_
- 10.18 Primer- Fuel line primer pump required \_\_\_\_\_
- 10.19 Fan- Radiator fan shall be viscous drive type. \_\_\_\_\_
- 10.20 Block Heater- Engine shall be equipped with a 1000 watt block heater \_\_\_\_\_
- 10.21 Oil drain plug- Magnetic type \_\_\_\_\_
- 10.22 Compressor- Approximately 18-19 CFM capacity compressor \_\_\_\_\_

**TRANSMISSION**

- 10.23 Transmission- Allison 2500 RDS Series with synthetic transmission oil. \_\_\_\_\_
- 10.24 Shift selector- Digital push-button type dash mounted \_\_\_\_\_
- 10.25 Oil level dipstick- Bayonet type with high and low level markings \_\_\_\_\_
- 10.26 Transmission drain plug- Magnetic type \_\_\_\_\_

**FRAME**

- 10.27 Frame- Single rail only, suitable for requested GVWR and application. Frame rail must meet the RBM strength required for the requested GVWR and payload. \_\_\_\_\_
- 10.28 Chassis fasteners- Grade-8 threaded hex headed frame fasteners \_\_\_\_\_

**AXLES/SUSPENSION**

- 10.29 Axle- 2-speed rear axle shall have a ratio of 6.17/8.42 for proper sweeping and high speed transport ground speeds. \_\_\_\_\_
- 10.30 **Front Axle-10,000 lbs. front axle** \_\_\_\_\_
- 10.31 Front Suspension-12,000 lbs. taper leaf springs and shock absorbers \_\_\_\_\_
- 10.32 Rear Axle- 21,000 lbs. rear axle \_\_\_\_\_
- 10.33 Rear Axle- 23,000 lbs. rear axle air spring suspension. The system must have automatic height control valves on the drive axle to maintain ride height during transport and have a capacity of 23,000 lbs. \_\_\_\_\_

10.34 System- The system shall allow the automatic release of air from the air spring to hard rubber bisques to allow for solid axle performance and full stability while dumping at minimum to full dumping height. \_\_\_\_\_

10.35 Control- Control of the air spring rear suspension shall be by a single transport/sweep switch on the control console. \_\_\_\_\_

**HUBS/HUB SEALS**

10.36 Seals- Hub seals oil lubricated front and rear \_\_\_\_\_

10.37 Hubs- Aluminum front & rear hubs \_\_\_\_\_

**TIRES AND RIMS**

10.38 Tires- 14 ply 11R22.5 "G" load rated for the requested GVWR. \_\_\_\_\_

10.39 Rims- Aluminum rims shall be 8 hole steel hub piloted 22.5 x 8.25 \_\_\_\_\_

10.40 Nut Indicators- Wheel nut indicators on all wheel lug nuts required \_\_\_\_\_

**BRAKES**

10.41 Brakes- Brakes shall be full anti-lock air brakes with automatic slack adjusters. \_\_\_\_\_

10.42 Air Dryer- Air system shall include a heated Wabco System Saver 1200 air dryer with automatic moisture ejector or equivalent. \_\_\_\_\_

10.43 Parking Brake- Parking brake shall be spring applied rear wheel drum and shoe. \_\_\_\_\_

10.44 Dust shields- Required for front and rear \_\_\_\_\_

10.45 Air Tanks- Aluminum with aluminum straps with minimum 1/16 in. rubber or neoprene isolators to prevent galvanic corrosion \_\_\_\_\_

**CAB**

10.46 Bumper to Back of Cab Measurement (BBC)- Front bumper to back of cab measurement of 106"- 110" \_\_\_\_\_

10.47 Cab Mounts- Cab mounted air suspension \_\_\_\_\_

10.48 Cab interior / trim- Extreme climate insulation including cloth or vinyl headliner on roof, door panels and rear interior of cab \_\_\_\_\_

10.49 Silencer- Cab silencer package required for minimal decibel level \_\_\_\_\_

10.50 Insulation- Hood, firewall and engine insulation \_\_\_\_\_

10.51 Floor covering- Rubber mat with under-padding \_\_\_\_\_

10.52 Floor mats- Two (2) heavy-duty rubber \_\_\_\_\_

10.53 Sun visors- Dual flip-up type \_\_\_\_\_

10.54 Visibility- 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. \_\_\_\_\_

10.55 Steering- Steering shall be full power with dual operator controls. \_\_\_\_\_



- 10.56 Seating- Seats shall be high-back, adjustable up/down, for/aft., covered with cloth for air circulation and include 3 point seat belts and adjustable lumbar support and arm rests. \_\_\_\_\_
- 10.57 Mirrors- Cab shall include two (2) outside heated, lighted and motorized west coast type mirrors with lower 8 inch convex lens. \_\_\_\_\_
- 10.58 Fender mirror- To maximize operator visibility of the curb and sweeping, an 8" outside RH fender mirror shall be mounted forward of the front wheels. \_\_\_\_\_
- 10.59 Down view mirror- Required over passenger door \_\_\_\_\_
- 10.60 Interior lights- Dome light with driver and passenger door switches \_\_\_\_\_
- 10.61 Rocker Switches- Hydraulic functions shall be controlled by rocker switches located in the cab mounted control panel. \_\_\_\_\_
- 10.62 Switch Type- 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. \_\_\_\_\_
- 10.63 Heating and Air Conditioning- 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. \_\_\_\_\_
- 10.64 Windows and doors- Power windows and doors \_\_\_\_\_
- 10.65 Wipers- Wipers shall be intermittent \_\_\_\_\_
- 10.66 Horn- Dual electric \_\_\_\_\_
- 10.67 (2) Power Supply- Cab shall include 12V power supply \_\_\_\_\_
- 10.68 Radio- Factory installed AM/FM/ with blue tooth hands free capability \_\_\_\_\_
- 10.69 Grab handles- Dual exterior \_\_\_\_\_
- 10.70 Exterior Visor- Exterior sun visor required with LED marker lights or roof mounted marker lights are acceptable. \_\_\_\_\_
- 10.71 Flare kit- Required secured and installed \_\_\_\_\_
- 10.72 Fire Extinguisher- (5) lbs. required secured and installed \_\_\_\_\_
- 10.73 First aid kit- Required secured and installed \_\_\_\_\_
- INSTRUMENTS**
- 10.74 Instrument panel- Chassis left 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. \_\_\_\_\_
- 10.75 Instrument panel- 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. \_\_\_\_\_

- 10.76 Gauges- Chassis gauges shall include speedometer, odometer, coolant temperature, tachometer, voltmeter, oil pressure, fuel level and air pressure. \_\_\_\_\_
- 10.77 Instrumentation- 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. Console shall have left/right primary driver switch. Truck instruments shall include warning lights for battery. \_\_\_\_\_
- 10.78 Sweeper engine 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. Instruments shall include an auxiliary engine air intake restriction indicator mounted in the fixed console, for ease of maintenance, and a body "full load" indicator to notify the operator the body is fully loaded. \_\_\_\_\_
- 10.79 Dash lighting- All console switches including transmission controls and all gauges shall be illuminated. \_\_\_\_\_

**ELECTRICAL**

- 10.80 Batteries- Batteries shall 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 approximately 1850-1900 CCA total, 12 volt. \_\_\_\_\_
- 10.81 Battery disconnect- In-cab mounted \_\_\_\_\_
- 10.82 Remote boost terminal- Remote battery boost terminal(s) with cover(s) \_\_\_\_\_
- 10.83 Alternator- 160 amp Delco Remy with thermal over crank protection and brushless. \_\_\_\_\_
- 10.84 Chassis lighting- Chassis lighting shall include sealed multi-beam halogen head-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. There shall also be two mounted work lights mounted approximately driver and passenger side cab B-Pillars. \_\_\_\_\_
- 10.85 2-way radio circuit Independent 20 Amp circuit, ignition powered, wired under dash loose, labelled \_\_\_\_\_

**SWEEPER ENGINE**

- 10.86 Sweeper Engine- 70-80 h.p. diesel engine, EPA Tier 4 final emissions compliant. \_\_\_\_\_
- 10.87 Hour Meter- Engine must have a non-reset able hour meter. \_\_\_\_\_
- 10.88 Filters- Engine shall be equipped with a full flow oil filter and fuel filter. \_\_\_\_\_
- 10.89 Air Intake- Dual stage, dry type air intake pre-cleaner with spinner. Reset type restriction indicator on air filter housing. \_\_\_\_\_
- 10.90 Anti-freeze- Engine shall be protected by a 50/50 mixture anti-freeze/water for cold weather storage and operation. Extended Life coolant, antifreeze to (-40°C) \_\_\_\_\_

- 10.91 Shut Down- Engine shall have a safety shut down system for high coolant temperature and low oil pressure. \_\_\_\_\_
- 10.92 Accessibility- Engine and front of the engine radiator shall be accessible without the use of any tools. \_\_\_\_\_
- 10.93 Enclosure- Engine, radiator and auxiliary engine driven devices shall be protected from the elements with a fiberglass latching clamshell doors, opening 180 degrees, providing 270 degrees of complete accessibility to all engine maintenance components. \_\_\_\_\_
- 10.94 Storage- Engine compartment to include a RH mounted lockable stainless steel toolbox; approximately (24 inches long x 13.5 inches wide x 6 3/8 inches tall) for operator designated tools. \_\_\_\_\_
- 10.95 Starting- Must have a block heater \_\_\_\_\_
- 10.96 Keys- Three (3) extra keys to the auxiliary engine are required \_\_\_\_\_

**SIDE BROOMS TRAILING ARM DESIGN**

- 10.97 Operation- A hydraulic motor directly mounted to the broom disc plate shall drive each side brooms. Due to curb and obstructions in the roadway a trailing arm design must be supplied with vertical digger brooms. \_\_\_\_\_
- 10.98 Dimensions- Side brooms shall be approximately 42-inch diameter protruding not less than 13 in. beyond the outside of the tire of the chassis while sweeping. \_\_\_\_\_
- 10.99 Sweeping Path- Full sweeping path of 120 inches with both brooms in working position. \_\_\_\_\_
- 10.100 Hold Pattern- Hold broom pattern regardless of up and down motion, arm suspension design shall be the parallelogram type. \_\_\_\_\_
- 10.101 Down Pressure- Broom down pressure shall be adjustable by the operator from the cab while moving or stationary. \_\_\_\_\_
- 10.102 Broom Segments- Broom shall consist of five (5) plastic segments, filled with 26 inch long tempered steel wire. \_\_\_\_\_
- 10.103 Broom Speed- Broom speed shall be variable, 90 RPM to 160 RPM, by the operator from the cab while moving. \_\_\_\_\_
- 10.104 Broom Rotation- Broom rotation, forward or reverse, shall be selectable without leaving the cab. Broom rotation shall stop and raise automatically, when transmission is placed into reverse or when the sweeper is put in transport mode or stationary. \_\_\_\_\_
- 10.105 Tilting Mechanism- Electrically operated tilting mechanism to allow operator to change inward/outward tip of the right and left side broom. Angle to be adjustable from the cab while sweeping. \_\_\_\_\_

**MAIN BROOM**

- 10.106 Dimensions-The main broom shall be not less than 60 inches long and not less than 35 inches in diameter. \_\_\_\_\_

10.107 Operation- Shall have a hydraulic motor directly mounted to the broom core to drive the broom. Main broom shall be operated pneumatically to raise and lower. \_\_\_\_\_

10.108 Broom Speeds- Broom speed shall be variable, 80 RPM to 140 RPM, by operator from cab while moving. \_\_\_\_\_

10.109 Down Pressure- Main broom down pressure shall be adjustable by the operator from the cab while moving. \_\_\_\_\_

10.110 Broom Type- Main broom shall be prefab disposable type, filled with polypropylene. Main broom shall be double wrapped at both ends. \_\_\_\_\_

10.111 Sweeping Paths- Sweeping path shall be not less than 10 feet wide with right and left side broom activated. \_\_\_\_\_

10.112 Safety- Main broom shall automatically stop and raise when transmission is placed in reverse. \_\_\_\_\_

10.113 Protection- Shall be equipped with a steel main broom hood to only prevent material from being over thrown into following traffic and also be capable of channelling over throw back into the dirt chamber. \_\_\_\_\_

10.114 Lighting- Main broom shall have an LED work light. \_\_\_\_\_

**CONVEYOR**

10.115 Loading- Conveyor shall be able to load hopper to 100% of rated useable capacity. \_\_\_\_\_

10.116 Rotation- Conveyor rotation, forward or reverse, shall be selectable rotation without leaving the cab. \_\_\_\_\_

10.117 Material- Conveyor shall be high strength belt type with moulded full width cleats to carry material to the hopper. **Squeegee type will not be acceptable** \_\_\_\_\_

10.118 Speed- Conveyor speed shall be variable from the cab. Conveyor speed shall be approximately 270-280 RPM \_\_\_\_\_

10.119 Operation- Conveyor shall be reversible in direction without stopping or reversing any broom. Conveyor shall be capable of effectively sweeping debris of varying sizes (from large bulky trash 9 inches in height to fine sand) without the need to make any adjustments to the conveyor system. \_\_\_\_\_

10.120 Clearance- The lower portion of the conveyor shall be capable of raising 9 inches while sweeping for any type of material. \_\_\_\_\_

10.121 Safety- Conveyor shall automatically stop and raise when transmission is placed in reverse or when the sweeper is put in transport mode. \_\_\_\_\_

10.122 Dimensions- Conveyor shall be 54" wide \_\_\_\_\_

**HOPPER**

10.123 Safety- The hopper shall be right side dumping, allowing an operator to observe the dump target and surrounding area at all times from the cab, \_\_\_\_\_

without the use of mirrors. The unit shall have an interlock to prevent dumping hopper without engaging the park brake. The cab shall have an "UNLEVEL GRADE" indicator.

10.124 Construction- Hopper floor shall be constructed of 7 gauge steel. Hopper door, sides and top must be 11 gauge steel. \_\_\_\_\_

10.125 Capacity- Hopper capacity shall be 4.5 cubic yards. A hopper inspection door shall be supplied \_\_\_\_\_

10.126 Hopper Dump- Hopper shall dump at varying heights ranging from 38 inches through a height of 10 feet as measured at the lowest point under the open hopper chute. **Fixed height dump systems are not acceptable.** \_\_\_\_\_

10.127 Hopper Dump- Hopper shall be able to tilt (dump) to an angle not less than 50 degrees to ensure complete removal of all debris. \_\_\_\_\_

10.128 Lift Mechanism- Lift mechanism shall be double stage; scissors lift system utilizing two hydraulic cylinders. \_\_\_\_\_

10.129 Lift Capacity- Lift capacity shall be 11,000 lbs. or greater. \_\_\_\_\_

10.130 Time- Time for full height lift and dump cycle shall not exceed 70 seconds. \_\_\_\_\_

10.131 Visibility- Hopper load shall be visible at all times from the cab through a front facing hopper window and an upward facing skylight. \_\_\_\_\_

10.132 Load Warning Indicator- To prevent over-loading beyond Manufacturer's GVW rating, the cab shall have a full load warning indicator light activated by hopper weight. \_\_\_\_\_

10.133 Lift joints- Scissors lift joints shall be self-lubricating bronze bearings. \_\_\_\_\_

10.134 Stabilization- Sweeper shall not require jack stands and/or outriggers to stabilize chassis during dumping cycle. \_\_\_\_\_

**SPRAY WATER SYSTEM**

10.135 Capacity-Tank capacity shall be approximately 280 U.S. gallons. \_\_\_\_\_

10.136 Construction- Tank shall be constructed of non-rusting material. \_\_\_\_\_

10.137 Pump- Pump shall be centrifugal type capable of running dry indefinitely without damage. Pump shall be aluminum and shall not contain ferrous parts in contact with water. \_\_\_\_\_

10.138 Nozzles- Water system shall be equipped with 3 spray nozzles on each side broom, three spray nozzles on a rear spray bar. Rear spray bars shall be constructed of non-ferrous components to prevent contamination. \_\_\_\_\_

10.139 Indicator Light- A low water indicator light shall be located within the cab. \_\_\_\_\_

10.140 Flush down system- Sweeper shall be equipped with an automatic internal hopper/conveyor flush and wash down system. System shall include a manual bypass valve to divert hydrant water into system without necessitating filling of water tank. Bypass valve shall be located \_\_\_\_\_

on the curb side of the vehicle.

- 10.141 Fill Hose- Water fill hose shall be 16 feet 8 inches in length, equipped with 2-1/2 inch NST hydrant coupler. \_\_\_\_\_
- 10.142 Wash down hose- A 25 foot wash down hose shall be provided. \_\_\_\_\_
- 10.143 Water filter- An in-line water filter shall be provided with the fill hose to prevent contaminants from entering the water tank. \_\_\_\_\_
- 10.144 Prevention- To prevent the contamination of the water supply, tank shall be equipped with an anti-siphon device Compliant to American National Standard Air gaps in plumbing systems ASME A112.12-1991. \_\_\_\_\_

**HYDRAULIC SYSTEM**

- 10.145 Capacity- Reservoir capacity shall be 18-20 gallons with outside level indicator. \_\_\_\_\_
- 10.146 Hydraulic Pump- Pump shall be directly driven. \_\_\_\_\_
- 10.147 Filter- To prevent contamination of the reservoir during the dump cycle, the reservoir vent shall be equipped with 10 micron, spin on filter. To prevent the possibility of contamination and the resulting damage to the hydraulic system, return lines for drive shall have a 10-micron full flow filter with bypass. Cab mounted restriction indicator shall light before bypass begins. To prevent contamination when adding hydraulic fluid, all oil added must pass through a 10 micron filter located within the fill spout. \_\_\_\_\_
- 10.148 Check ports- For ease and accuracy of testing, all circuits shall have quick-disconnect check ports. \_\_\_\_\_
- 10.149 Fittings- All high pressure fittings shall be flat-face "O" ring type. \_\_\_\_\_

**PNEUMATIC SYSTEM**

- 10.150 Fittings- The pneumatic system shall have DOT fittings \_\_\_\_\_
- 10.151 Protector- There shall be a pressure protector for the chassis air system to protect the chassis air system. \_\_\_\_\_
- 10.152 Air Tank- A separate air tank for all sweeper air components shall be provided. \_\_\_\_\_
- 10.153 Cylinders- All pneumatic cylinders shall be interchangeable. All pneumatic cylinders must be rated to 150 PSI and have a separate rod seal and wiper to prevent contamination entering the cylinder. \_\_\_\_\_

**ELECTRICAL SYSTEM**

- 10.154 Independent- Sweeper electrical system shall be independent from the chassis electrical system. \_\_\_\_\_
- 10.155 Back Up Alarm- Sweeper shall have an electronic back-up alarm for additional warning and safety when chassis is in reverse. \_\_\_\_\_
- 10.156 Lighting- Sweeper lighting shall include rear identification lights, side broom and rear clearance lights. \_\_\_\_\_

10.157 Wiring Harness- 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.

\_\_\_\_\_

10.158 Circuit Breakers- All electrical circuits must be protected by circuit breakers or fuses.

\_\_\_\_\_

10.159 Battery- Sweeper engine shall have one (1) 900-950 CCA, 12 volt battery.

\_\_\_\_\_

10.160 Alternator- Sweeper engine shall have a 100-120 amperage alternator.

\_\_\_\_\_

**CONTROLS**

10.161 Controls- All sweeper controls shall be mounted on a fixed central console located between the left and right operator seats. The controls shall include all sweep, hopper, elevator, and lighting functions. The controls for sweep, spray water, and lighting functions shall be conventional rocker switches.

\_\_\_\_\_

**SWEEPER INSTRUMENTS**

10.162 Sweeper engine instruments shall include tachometer, hour meter, oil pressure gauge and lamp, low coolant level lamp, voltage, auxiliary engine running lamp, coolant temperature gauge and lamp, air filter restriction indicator for complete information for the operator on the condition of the auxiliary engine.

\_\_\_\_\_

10.163 Sweeper instruments shall include a hopper full indicator, main broom down pressure, hydraulic filter restriction indicator, sweeper out of level indicator, spray water indicator, a "raised" hopper indicator and a "full" hopper indicator to notify the operator of hopper conditions.

\_\_\_\_\_

10.164 Two in-cab sweeper console mounted gauges that indicate the air pressure being used to hold the side brooms in its down position shall be supplied. There shall be one gauge for each side broom.

\_\_\_\_\_

**PAINT**

10.165 Body Color- Color shall be white 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 polyurethanes are not acceptable.

\_\_\_\_\_

10.166 Chassis Paint- Chassis shall be white.

\_\_\_\_\_

**STORAGE**

10.167 Tool Box- Sweeper shall include toolbox that can accommodate general supplies as well as long handled tools such as brooms and rakes.

\_\_\_\_\_

**GREASING SYSTEM**

10.168 Auto-greasing system required, state make, model, and grease point quantity-

\_\_\_\_\_

**WARRANTY**

11.0 Manufacturer's warranty on the sweeper body and all sweeper body components shall be not less than one (1) year on entire sweeper, including all parts and labour. \_\_\_\_\_

Body Warranty                      One (1) year, unlimited km

11.1 The Bidder shall state remaining Manufacturer's chassis warranty: \_\_\_\_\_

Basic Vehicle	State- _____
Exhaust	State- _____
Batteries	State- _____
Drivetrain	State- _____
Cab structure/ corrosion	State- _____
Frame	State- _____
Cab paint	State- _____
Engine	State- _____
Transmission	State- _____
Axles, front & Rear Two	State- _____

11.2 Warranty- (all warranty information shall be detailed and include all exclusions. The successful bidder shall provide all published warranty information upon delivery of the equipment. Bidder shall state all warranty information. \_\_\_\_\_

11.3 Extended Warranty- Bidder to provide extended warranty options with their Bid Submission. \_\_\_\_\_

**OPTIONAL TRADE-IN PRICING**

12.0 This Bid Opportunity includes the option of City of Winnipeg "trade-in's" of two (2) used Eagle 3300 six wheeled sweepers. All machines listed below were purchased new, and used solely by The City of Winnipeg. A brief description of the equipment is as follows: \$ \_\_\_\_\_  
 \$ \_\_\_\_\_

**State optional** trade in price per unit-

**2011-3300 Eagle Unit # 524-1701 Serial # F-2775-D**  
**2011-3300 Eagle Unit # 524-1702 Serial # F-2776-D**  
**Make/Model- Chassis Nissan UD Sweeper Body Eagle 3300**  
**Allison Automatic Transmission**  
**Unit 524-1701 – 3392 HOURS as of January 18<sup>th</sup>, 2017**  
**Unit 524-1702 - 3822 HOURS as of January 18<sup>th</sup>, 2017**

12.1 To view the units, Bidders may contact the Contract Administrator one (1) week prior to the Submission Deadline or earlier. \_\_\_\_\_

**FULL MAINTENANCE PACKAGE (OPTION)**

13.0 Bidder to provide full maintenance package option per unit \_\_\_\_\_  
 \_\_\_\_\_  
 FM Package (based on 640 hours per annually for 3 years)  
 FM Package (based on 640 hours per annually for 4 years)



FM Package (based on 640 hours per annually for 5 years)  
FM Package (based on 640 hours per annually for 6 years)

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13.1 City Responsibility- Under the Full Maintenance package Proposal the City shall be responsible for the following items for equipment under this Contract:

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- Licensing and insurance coverage for the equipment;
- Repair of damage to the equipment where damage has proven to have been caused by negligence on the part of the City;
- Repair or replacement of tires damaged due to road hazards;
- Fuel and other normal operating and maintenance supplies including daily and weekly maintenance such as greasing, cleaning, drainage of water.
- Replacement of high pressure water hose;
- Consumables including fuel, brooms, broom adjustments, dirt shoes and dirt curtains.
- Conveyor belt
- Windshield wipers
- Daily greasing

13.2 Contractor Responsibility- Under the Full Maintenance package Proposal the Contractor shall be responsible for the following items for equipment under this Contract:

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- All scheduled maintenance including (but not limited to) oil and filter changes, and regular service adjustments as recommended by the equipment and chassis manufacturers;
- All preventative and predictive maintenance
- All repairs due to mechanical failure or malfunction;
- All conveyor system repair and replacement parts;
- Towing costs (if unit is immobile);
- All parts and labour costs
- Tires due to normal wear

**FIRST SERVICE PREVENTATIVE MAINTENANCE KIT**

14.0 In order to assure minimum downtime of the Equipment in future service, the Contractor must provide one (1) complete replacement set of new OEM filters for each unit purchased. The set of required filters shall include (if applicable to the equipment type) air, fuel, oil, cab and hydraulic, or otherwise all known necessary common replacement filters required for the first preventative maintenance servicing.

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14.1 The Contractor must provide a list of factory recommended lubricants to be used with the equipment, as well as a complete cross reference guide for all warranty approved lubricants and filters that can be used during Preventative Maintenance servicing.

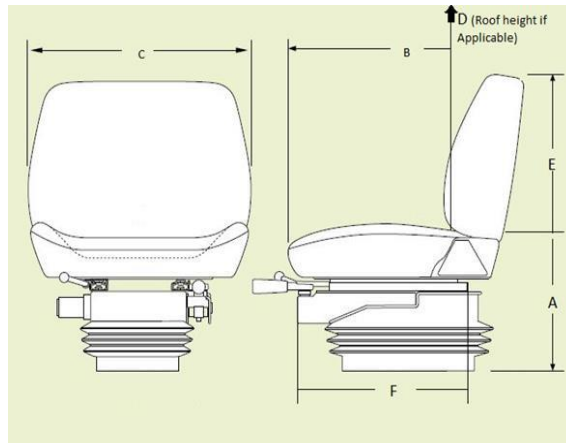
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**15.0**      **ERGONOMIC  
 SPECIFICATIONS  
 FOR VEHICLES/  
 POWERED MOBILE  
 EQUIPMENT**

**Entry/ Exit**

- |      |                              |  |       |
|------|------------------------------|--|-------|
| 15.1 | First step entry height      | <b>State</b> , height of first step in inches        | _____ |
| 15.2 | First handhold entry height  | <b>State</b> , first handhold entry height in inches | _____ |
| 15.3 | Access to equipment          | <b>State</b> , door opening height in inches         | _____ |
| 15.4 | Access to equipment          | <b>State</b> , door opening width in inches          | _____ |
| 15.5 | Designed to prevent slipping | Anti-slip steps/handholds <b>(Y or N)?</b>           | _____ |

**Seat (use below diagram to answer questions)**



- |       |   |   |       |
|-------|---|---|-------|
| 15.6  | Sitting height range from floor (where feet rest) (A) | <b>State</b> , seat height range in inches  | _____ |
| 15.7  | Seat length/depth (B)                                 | <b>State</b> , seat length/depth in inches  | _____ |
| 15.8  | Seat width (C)  | <b>State</b> , seat width in inches         | _____ |
| 15.9  | Cab height from seat to roof (if applicable) (D)      | <b>State</b> , cab height range in inches   | _____ |
| 15.10 | Back rest height (E)                                  | <b>State</b> , back rest height in inches   | _____ |
| 15.11 | Seat travel range (F)                                 | <b>State</b> , seat travel in inches        | _____ |
| 15.12 | Lumbar support  | Is lumbar support provided <b>(Y or N)?</b> | _____ |

15.13 Head rest Is head rest provided (**Y or N**)? \_\_\_\_\_

15.14 Seat is made of breathable material **State**, type of seat material \_\_\_\_\_

### Operation

15.15 a) Reaching distance to usual work **State**, reaching distance in inches \_\_\_\_\_

15.16 b) Maximum reaching distance **State**, maximum reach distance in inches \_\_\_\_\_

15.17 Adjustable pedals (accelerator/brake/clutch) Are pedals adjustable (**Y or N**)? \_\_\_\_\_

15.18 Adjustable steering wheel Is steering wheel adjustable (**Y or N**)? \_\_\_\_\_

15.19 Adjustable shoulder belt Is belt adjustable and anchored (**Y or N**)? \_\_\_\_\_

### Cargo Area

15.20 Lid opens to provide adequate space Adequate space provided (**Y or N**)? \_\_\_\_\_

15.21 Loading height **State**, trunk height in inches \_\_\_\_\_

### Environment

15.22 Operator compartment is insulated from equipment noise (while operating) **State**, dBA inside cab while operating \_\_\_\_\_

15.23 Operator insulated from equipment vibration Is operator insulated from vibration (**Y or N**)? \_\_\_\_\_

15.24 Heating/cooling systems **State**, cab temperature range \_\_\_\_\_

15.25 Cab lighting **State**, lumens inside cab \_\_\_\_\_

### Maintenance/ Inspection

15.26 Lift assistance provided (when necessary) Is lift assistance provided (**Y or N**)? \_\_\_\_\_

15.27 Easy access to compartment doors Is easy access provided (**Y or N**)? \_\_\_\_\_

- 15.28 Include any other relevant ergonomic specifications and applicable range of adjustment
- 

**DELIVERY**

- 16.0 Delivery Point: The complete unit shall be serviced, ready for operation and delivered F.O.B. with the freight prepaid, including invoice and N.I.V.S. (if applicable) to the WFMA 185 Tecumseh Street, Winnipeg MB. The successful Bidder shall be notified by the Contractor Administrator the delivery address prior to issuance of the purchase order \_\_\_\_\_

- 16.1 **Delivery Time: Between April 15, 2017 and May 15, 2017. Equipment shall be delivered between 8:00 am and 3:00 pm on Business Days.** \_\_\_\_\_

- 16.2 Delivery Contact: The Contractor shall contact the Contract Administrator (2) weeks prior to delivery of the equipment. \_\_\_\_\_

- 16.3 P.D.I: A pre-delivery inspection shall be performed by the Contractor on the equipment. Proof upon inspection including completed check list \_\_\_\_\_

**MANUALS-**

- 17.0 Manuals supplied under this Contract. The manuals shall cover the complete equipment including all components thereof, CD is preferred where available. \_\_\_\_\_

- 17.1 The following manuals shall be supplied with the units when delivered:
- a) Operator's manual – Two (2) per unit (one operator manual shall be sent to the Equipment Operator Training Branch) \_\_\_\_\_
  - b) Parts and service manuals – One (1) complete set including preventative maintenance schedules. Memory Sticks are preferred. \_\_\_\_\_

**GUARANTEED BUY BACK (OPTION)**

- 18.0 Guaranteed Buyback (based on 640 hours per annually for 3 years) \$ \_\_\_\_\_
- 18.1 Guaranteed Buyback (based on 640 hours per annually for 4 years) \$ \_\_\_\_\_
- 18.2 Guaranteed Buyback (based on 640 hours per annually for 5 years) \$ \_\_\_\_\_
- 18.3 Guaranteed Buyback (based on 640 hours per annually for 6 years) \$ \_\_\_\_\_
- 18.4 Guaranteed Buyback (based on 640 hours per annually for 7 years) \_\_\_\_\_