

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

1. Contract Title SUPPLY AND DELIVERY OF A ROLL-OFF CONTAINER TRUCK

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 AND DELIVERY OF A ROLL-OFF CONTAINER TRUCK

UNIT PRICES

ITEM NO.	DESCRIPTION	SPEC. REF.	UNIT	QUANTITY	UNIT PRICE
1.	Roll-Off Container Truck	15062	Each	1	

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

## FORM N: DETAILED SPECIFICATIONS 15062

### Roll-Off Container Truck

#### **1.0 DESCRIPTION OF EQUIPMENT/APPLICATION**

- 1.1 These specifications describe a **Roll-Off Container Truck** and other equipment and features as specified herein. **The complete truck and body components must be compatible with the ANSI Z245.60 standard geometry for type H container - "dead lift roll-off". "Roll Off Container"** means a container that is designed to be loaded onto and unloaded from the frames of transport vehicles by mechanical means where the long rail of the container rides along the outside of the rail of the transport vehicle. A receiver on the lower front center of the container accepts the knuckle of the transport vehicle (a Type H container according to ANSI Z245.60 – 2008);
- 1.2 The **Roll-Off Container Trucks** shall be new 2015 model year or newer.
- 1.3 The **Roll-Off Container Trucks** 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 and 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.

#### **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 **Roll-Off Container Truck** shall comply with the applicable regulations:
- Highway Traffic Act
  - Manitoba Motor Vehicle Act
  - Canadian Motor Vehicle Safety Standards, CMVSS Transport Canada
  - National Safety Mark, NSM
  - Manitoba/Winnipeg Safety and Health Act, Parts 12, 22
  - Canadian Standards Association, CSA
  - Under Writers of Canada, U/L
  - Society of Automotive Engineers, SAE
  - 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 supplier shall have an authorized service facility located within 10 kilometres 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.
- 3.2 If a suitable warranty facility is not available within 10 km of the boundaries of the City of Winnipeg, the Bidder may propose that the City of Winnipeg Repair Facility perform warranty

work. Any Work performed by the City of Winnipeg Repair Facility shall be charged to the Contractor at the Facility's shop rate in effect at the time the work is performed (for example, shop rate for 2015: \$88.00/hour and \$ 112.00/hour for overtime and callout).

3.3 **Location of the service facility located within 10 km of the boundaries of the City of Winnipeg.**

The Bidder shall choose and fill in **one (1)** of the Clauses listed below. --- **3.4) or 3.5)**

3.4 Bidder's own facility location. State the location of the service facility below.

\_\_\_\_\_

3.5 Bidder elects to have warranty work be performed by the City of Winnipeg Repair Facility.

\_\_\_\_\_

4.0 **REFERENCES**

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

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5.0 **MAKE & MODEL**

5.1 **State** make and model of the Chassis and Roll-Off Container body being 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 **Roll-Off Container Truck**, 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, or 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 **Roll-Off Container Truck** 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 The Roll-Off Container Truck must be fully fuelled upon delivery (**no exceptions**).

**9.0 QUALIFICATIONS OF MANUFACTURER & CONTRACTOR**

9.1 The manufacturer of the **Roll-Off Container Truck** shall have five (5) years continuous experience manufacturing **Roll-Off Container Trucks**.

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 **Roll-Off Container Trucks** of the type being offered.

**10.0 SPECIFICATIONS-**

**GVWR /WEIGHT DISTRIBUTION-**

10.1 The **Roll Off Container Trucks** shall not exceed the City of Winnipeg's limit for gross vehicle weight, axle and tire loads \_\_\_\_\_

**Note: The City of Winnipeg and the Province of Manitoba limits the gross vehicle weight and axle and tire loads to:**

- **Front axle (steering axle) – 7300 kg (16,094 lbs.).**
- **Rear axle (tandem axle) – 16 000 kg (35,274 lbs.).**
- **Tire load – 9 kilograms for each millimetre width of tire (approx. 500 lbs. per inch of tire width).**

10.2 **Weigh scale ticket** – The Contractor shall provide a certified weigh scale ticket upon delivery of the completed unit. The scale ticket shall include front and rear axle weights including one (1) operator, and all attachments. \_\_\_\_\_

**CHASSIS SPECIFICATIONS-** (CHASSIS MUST BE SUPPLIED FROM A LOCAL WINNIPEG DEALER CHASSIS PROVIDER) \_\_\_\_\_

10.3 **GVWR/ DIMENSIONS/TURING RADIUS -**

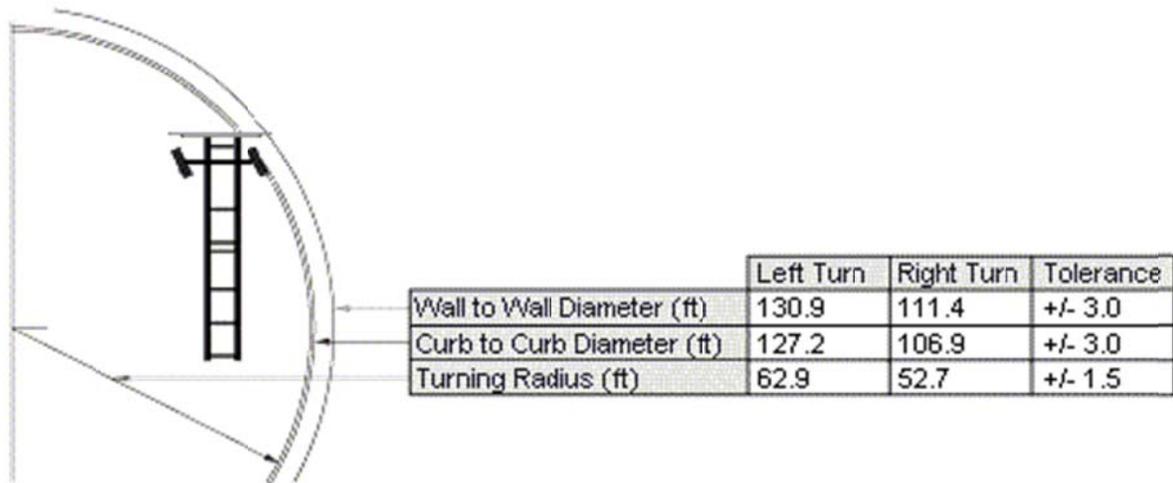
GVWR Total- 58,000 lbs. As required for 40 cubic yard Roll-off container body \_\_\_\_\_

GVWR Front- 18,000 lbs. As required for 40 cubic yard Roll-off container body \_\_\_\_\_

GVWR Rear- 40,000 lbs. As required for 40 cubic yard Roll-off container body \_\_\_\_\_

- 10.4 Cab to Axle- As required for 40 cubic yard roll-off container body **state-** \_\_\_\_\_
- 10.5 Wheelbase- As required for 40 cubic yard roll-off container body **state-** \_\_\_\_\_
- 10.6 After-frame- **State** AF legth- \_\_\_\_\_
- 10.7 Turning radius- **State-** \_\_\_\_\_
- 10.8 Turning Radius- **State** the vehicle turning radius, wall to wall and curb to curb- \_\_\_\_\_

Example:



- a) Wall to Wall (ft)- \_\_\_\_\_
- b) Curb to Curb(ft)- \_\_\_\_\_
- c) Turning Radius (ft)- \_\_\_\_\_

**ENGINE-**

- 10.9 Type Diesel, inline 6-cylinder \_\_\_\_\_
- 10.10 Horsepower 380-400 HP gross \_\_\_\_\_
- 10.11 Torque 1250 lbs. ft. torque \_\_\_\_\_
- 10.12 Engine shut down Low oil pressure / high water temperature \_\_\_\_\_
- 10.13 Air intake warmer Required \_\_\_\_\_
- 10.14 Fuel Shut-off Electric solenoid type \_\_\_\_\_
- 10.15 Air intake As per refuse landfill application \_\_\_\_\_
- 10.16 Air cleaner Dry type, suitable as per refuse landfill application \_\_\_\_\_
- 10.17 Air intake restriction ind. Dash mounted restriction indicator \_\_\_\_\_
- 10.18 Oil drain plug Magnetic type \_\_\_\_\_
- 10.19 Oil filter Full flow, spin-on type \_\_\_\_\_
- 10.20 Fuel filter Spin-on type \_\_\_\_\_

10.21 Fuel/water separator	Heated, drainable	_____
10.22 Fuel line primer pump	Required	_____
10.23 Block heater	Immersion type, 1000 Watt with covered recessed male plug, located under driver's side door	_____
10.24 Coolant	Extended Life coolant, antifreeze to -35°F (-37°C)	_____
10.25 Coolant filter	Required	_____
10.26 Coolant hoses	Silicone type or Gates Blue Stripe	_____
10.27 Fan Drive	Thermostatically controlled, automatic type	_____
10.28 Air compressor	Water cooled, pressure lubricated, 13-15 cfm or Greater, <b>state-</b>	_____

**ELECTRICAL SYSTEM-**

10.29 Electrical connector's	Plug-in, sealed type	_____
10.30 Alternator	145-160 Amp	_____
10.31 Starter	With over crank protect and thermal protection	_____
10.32 Circuit breakers	Auto-reset, readily accessible	_____
10.33 Batteries	Three (3), 12-volt, group 31, 2250 CCA combined, Located as to not impede with body installation	_____
10.34 Battery Box	Under cab	_____
10.35 Battery disconnect	In-cab mounted outboard of driver's seat	_____
10.36 Battery boost terminal	Remote battery boost terminal(s), protected from road spray, covered, <b>state</b> location-	_____
10.37 Cab marker lights	LED	_____
10.38 2-way radio circuit	Independent 20 Amp circuit, ignition powered, wired under dash loose, labelled	_____
10.39 Accessory switches	Three (3) required. All switches complete and wired for body installation, labeled and backlit	_____

**EXHAUST SYSTEM-**

10.40 Configuration	As required for 40 cubic yard roll-off container body <b>state</b>	_____
10.41 Overall exhaust height	To clear body	_____
10.42 Heat shield	Required	_____

**TRANSMISSION-**

10.43 Model	Allison 3000 RDS with 5-speed programming, Ratio shall be as per inter-city roll off container application. Transmission shall come with load base Management Programming	_____
10.44 Shift selector	Digital push-button type, dash mounted	_____
10.45 Cooling capacity	Water to oil transmission cooler, as per manufacturer's recommendation for severe duty cycle	_____
10.46 Oil level dipstick	Bayonet type with high and low level markings	_____
10.47 Trans. drain plug	Magnetic type	_____

**FRONT AXLE-**

10.48 Type	Set back axle, Meritor, 18,000 lbs. capacity	_____
------------	----------------------------------------------	-------

**REAR AXLE-**

10.49 Type	Meritor Super 40,000 lbs. capacity	_____
10.50 Ratio	For 110 km/hr, also recommended for refuse Landfill applications, <b>state ratio-</b>	_____
10.51 Inter-axle lock	Required w/dash mtd. switch	_____
10.52 Differential lock	Required for both drive axles w/dash mtd. switch	_____

**HUB SEALS-**

10.53 Type	Oil lubricated front and rear	_____
------------	-------------------------------	-------

**FRONT SUSPENSION-**

10.54 Type	Multi-leaf spring suspension, 18,000 lbs. capacity	_____
------------	----------------------------------------------------	-------

**REAR SUSPENSION-**

10.55 Type	Air ride suspension, 46,000 lbs. capacity, axle with lateral support beam, shall be as per recommendation from the body manufacture for the roll-off container application	_____
10.56 Susp. control valve	Manual dump valve for air suspension c/w dash mtd. switch, indicator light, gauge and buzzer	_____

**RIMS, WHEELS-**

- 10.57 Front Aluminum, hub piloted, rated for requested GVWR \_\_\_\_\_
- 10.58 Rear Aluminum, hub piloted, rated for requested GVWR \_\_\_\_\_

**TIRES, FRONT-**

- 10.59 Make & Model Rated for requested GVWR and application, **state-** \_\_\_\_\_
- 10.60 Size Rated for requested GVWR and application, **state-** \_\_\_\_\_

**TIRES, REAR-**

- 10.61 Make & Model Rated for requested GVWR and application, **state-** \_\_\_\_\_
- 10.62 Size Rated for requested GVWR and application, **state-** \_\_\_\_\_

**FRAME-**

- 10.63 Type Single rail as required for a 40 cubic yard roll-off container body and requested GVWR \_\_\_\_\_
- 10.64 Application Suitable for 40 cubic yard roll-off container truck \_\_\_\_\_
- 10.65 Chassis fasteners Grade-8 threaded hex headed frame fasteners \_\_\_\_\_
- 10.66 After-frame As required for 40 cubic yard roll-off container body, **state-** \_\_\_\_\_

**STEERING-**

- 10.67 Type Power, rated for front GVWR rating \_\_\_\_\_

**BRAKES-**

- 10.68 Type Air, ABS, S-cam drum brakes, front & rear \_\_\_\_\_
- 10.69 Slack adjusters Meritor (clearance sensing), automatic type \_\_\_\_\_
- 10.70 Parking brake Spring set, four (4) chamber system \_\_\_\_\_
- 10.71 Brake pots Vented type \_\_\_\_\_
- 10.72 Dust shields Required, front and rear \_\_\_\_\_
- 10.73 Moisture ejector Wabco, heated, required in all air tanks \_\_\_\_\_
- 10.74 Drain valves Manual, chain or cable operated, required on each air tank \_\_\_\_\_
- 10.75 Air dryer Wabco Heated System Save 1200 preferred \_\_\_\_\_

**FUEL TANK-**

- 10.76 Type Dual fuel tanks preferred, maximum manufactures size, tanks shall not exceed the back of the cab. Tanks shall be fully fuelled upon delivery, **state fuel capacity-** \_\_\_\_\_
- 10.77 Tank straps Steel straps with 1/16 in. rubber or neoprene isolators to prevent galvanic corrosion \_\_\_\_\_

10.78 Fuel separator	<b>State</b> location-	_____
<b><u>CAB-</u></b>		
10.79 Type	Conventional w/corrosion inhibitor	_____
10.80 Construction	Aluminum or galvanized steel construction	_____
10.81 Bumper to Back of Cab	BBC 110-117 in.	_____
10.82 Cab mounts	Air suspension	_____
10.83 Front grille	Stationary type	_____
10.84 Cab interior / trim	Extreme climate insulation including cloth or vinyl headliner on roof, door panels and rear interior of cab	_____
10.85 Cab silencer package	Required for minimal decibel level	_____
10.86 Hood/Firewall/Engine	Insulated hood liner, engine cover and firewall	_____
10.87 Floor covering	Rubber mat with under-padding	_____
10.88 Floor mats	Two (2), rubber	_____
10.89 Driver's seat	High back, air suspension w/foldable armrests, heavy-duty cloth upholstery, Cordura or equal,	_____
10.90 Passenger seat	High back, air suspension w/foldable armrests, heavy-duty cloth upholstery, Cordura or equal,	_____
10.91 Sun visors	Dual flip-up type	_____
10.92 Steering wheel	Tilt and telescopic type	_____
10.93 12-Volt power outlet	(2) required with independent circuit	_____
10.94 Radio	Factory installed AM/FM/CD with "hand free" Blue Tooth capability	_____
10.95 Starter switch	Key operated c/w three (3) sets of keys	_____
10.96 Interior light	Dome light with driver and passenger door switches	_____
10.97 Heater / Defroster	High output, capable of keeping all windows clear at an outside temperature of -35°F (-37°C)	_____
10.98 Air conditioning	Required	_____
10.99 Brake & accel. pedals	Floor or hanging type brake and accelerator pedal, <b>State-</b>	_____
10.100Horn	Dual electric	_____
10.101Exterior mirrors	Mirrors heated, 4-way motorized adjustment (with convex mirrors), suitable for 102 in. equipment width	_____
10.102Down-view mirror	Required over passenger door, 5" x 4" approx.	_____
10.103 Windows & windshield	Tinted	_____
10.104 Power windows	Required on driver and passenger side. Controls for both windows required on driver side	_____

10.105 Windshield wipers	Electric, intermittent	_____
10.106 Wiper blades	Heavy duty with winter type boot	_____
10.107 Windshield washers	Electric, required with spray nozzles on wiper Blades preferred	_____
10.108 Grab handles	Dual exterior	_____
10.109 Door Window	Lower right hand door with Fresnel lens	_____
10.110 Entrance steps	Dual each side, open grate / grip type	_____
10.111 Winter front	Heavy-duty vinyl w/twist lock or snap type fasteners	_____
10.112 Exterior Sun Visor	Required	_____
10.113 Strobe LED lights-	Dual amber LED class I strobe lights with stainless Brackets	_____
<b><u>INSTRUMENTATION-</u></b>		
10.114 Oil pressure	Gauge	_____
10.115 Coolant temperature	Gauge	_____
10.116 Transmission oil temp.	Gauge	_____
10.117 LOP/HWT	Warning light and buzzer	_____
10.118 Voltmeter	Gauge	_____
10.119 Air reservoir pressure	Gauge with LAP warning light and buzzer	_____
10.120 Engine hour-meter	Required, non-resettable type	_____
<b><u>TOW HOOKS-</u></b>		
10.121 Location	Front mounted and Rear mounted	_____
<b><u>COLOUR-</u></b>		
10.122 Exterior	White	_____
10.123 Interior	Grey	_____
<b><u>TRUCK ACCESSORIES-</u></b>		
10.124 Flare kit	Three (3) triangular reflectors, CVSA approved	_____
10.125 Fire Extinguisher	10 lbs. Fire Extinguisher ABC type, <b>state</b> location-	_____
10.126 Weigh Scale Systems	Model Air Weigh scale system required for front and rear axles. System must be tested and calibrated prior to delivery.	_____
10.127 Tool Box	<b>State</b> dimensions, material, and recommended location as set by the manufacturer-	_____
10.128 Back-up Camera	Required	_____
10.129 Auto Greasing System-	Groeneveld Single Line EP0 Auto-greasing system Required	_____

**BODY SPECIFICATIONS-**

10.130 Length:	Rail Length 26' (Suitable for 40 cubic yard bin roll-off container truck)	_____
10.131 Hoist Frame Rails	Hoist Frame rails must be 4" x 12" x 3/8" thick tubing. Thinner tubing rails are unacceptable.	_____
10.132 Top Rail	Top Rail Wear Strip: 5/16" x 3" x 8" (on top of rails)	_____
10.133 Hinge	Hinge Shaft: 2"	_____
10.134 Hinges	6" mechanical tubing	_____
10.135 Front Stopper	1 1/2" thick (ANSI Z-245 compliant)	_____
10.136 Winch Cable	1" (25.4mm) diameter 6 x 26, 106,000 lb capacity. Smaller diameter cable is unacceptable.	_____
10.137 D-ring	D-ring or Bear Claw closed hook (ANSI Z-245 Compliant) required on the winch cable.	_____
10.138 Wear Pad	Nylatron or equivalent 5/8" x 2 1/4" x 15"	_____
10.139 Ground Roller	Must have Rear Ground Roller, 6 5/8" diameter x 20' long, must be bolted on and easily replaced if needed. Welded on roller assembly is unacceptable.	_____
10.140 Side Roller	4" with 2 1/2" E-shaft, with lubrication point with Aluminum bronze bushing.	_____
10.141 Winch Sheaves	Two (2) 10" sheaves with 2" shaft. One (1) 8" sheave with 2" shaft	_____
10.142 Dump Angle	Approx. 47 degrees	_____
10.143 Hoist Length	To accommodate a 40 cu. yard Recycling Bin, <b>State-</b>	_____
10.144 Tarp Space	Space for Roll Tarp 12". Unit shall come with a hydraulically controlled tarp. Shall be equipped with the tarp	_____
10.145 Cab Axle:	As required for a 40 cu. yard Roll-Off Container <b>State-</b>	_____
10.146 Lift Cylinders	7 1/4" diameter with quick change shaver seals, which don't require cylinder removal to change must be installed.	_____
10.147 Reeving Cylinders	7 1/4" diameter with quick change shaver seals, which don't require cylinder removal to change must be installed.	_____
10.148 Paint & Preparation	Black (sandblasted, epoxy primer and two coats of Endura Paint Products or equivalent. Blast profile Min 2 Mills Max 3 mills. Primer wet film build 6-9	_____

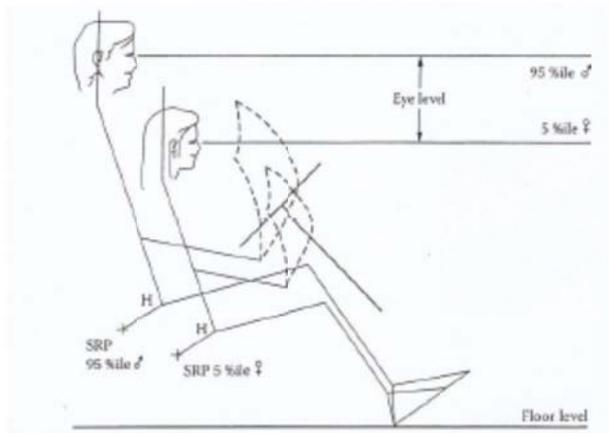
	mills wet, Topcoat wet film builds 3-5 mills wet	_____
10.149 Inside Cab Controls	Air over hydraulic	_____
10.150 Outside Controls	Manual over hydraulic valve	_____
10.151 Hydraulic Tank	40 gallon (150 litres)	_____
10.152 Return Filter	10 microns, installed in the reservoir	_____
10.153 PTO	Direct on manual transmission, air clutch	_____
10.154 Pump / PTO	38 GPM @ 1200 RPM	_____
10.155 Pump Type	RPM (directly to PTO)	_____
10.156 Hydraulic Distribution	V-40 double action	_____
10.157 Safety Prop	Steel, street side	_____
10.158 Back-up Alarm	Back-up alarm activated when vehicle reverses	_____
10.159 Fenders	Galvanized steel or polyethylene	_____
10.160 Booster Brake Protector	Steel, 4" diameter steel tubing	_____
10.161 Electrical Compliance	FMWSS / CMVSS approved, wiring: 100% waterproof (SAE-5378). All body supplier installed wiring shall be numbered, colour coded, loomed, properly secured and protected from damage. All electrical connectors shall be crimped and soldered, then sealed using heat shrink tubing. All joining of wires shall be soldered and sealed Using heat shrink tubing (crimp on electrical connectors for joining wires are not acceptable). All holes required for routing wiring shall be drilled (not punched), grommetted and sealed as required. All lighting shall be LED Truck Light, Grote or Whelen	_____
10.162 Back-up Camera-	Located as to not incur damages.	_____

**11.0 WEIGHT DISTRIBUTION-**

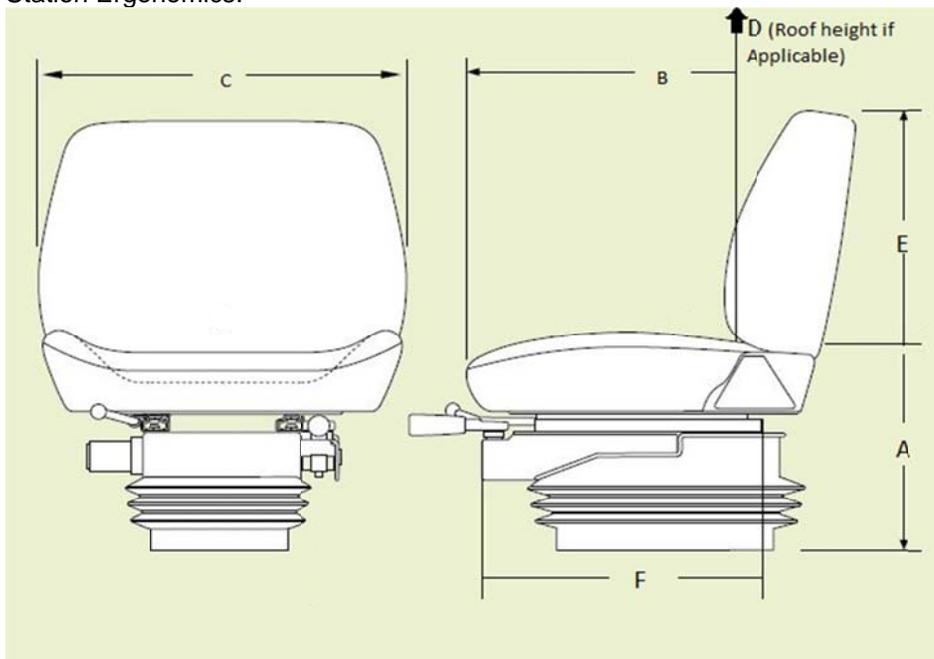
11.1 Weight Distribution-	The completed units and all associated components shall not exceed the City of Winnipeg's limit for gross vehicle weight, axle and tire loads with the unit (including the chassis) fully fuelled and operational, one (1) operator, and including a full payload.	_____
---------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------

**12.0 OPERATOR STATION ERGONOMICS**

Cab or station layout should provide a comfortable seating position for the 5<sup>th</sup> to the 95<sup>th</sup> percentile of personnel. Figure 1 below illustrates the variance between a 5<sup>th</sup> to a 95<sup>th</sup> percentile of North American males and females when seated.



12.1 Figure 2: Use the below diagram to answer the specifications for Operator Station Ergonomics.



- |      |                                                       |                                            |       |
|------|-------------------------------------------------------|--------------------------------------------|-------|
| 12.2 | Sitting height range from floor (where feet rest) (A) | <b>State</b> , seat height range in inches | _____ |
| 12.3 | Seat length/depth (B)                                 | <b>State</b> , seat length/depth in inches | _____ |
| 12.4 | Seat width (C)                                        | <b>State</b> , seat width in inches        | _____ |
| 12.5 | Cab height from seat to roof (if applicable) (D)      | <b>State</b> , cab height range in inches  | _____ |

- 12.6 Back rest height (E) **State**, back rest height in inches \_\_\_\_\_
- 12.7 Seat travel range (F) **State**, seat travel in inches \_\_\_\_\_
- 12.8 Include any other relevant ergonomic specifications and applicable range of adjustment \_\_\_\_\_
- 

**13.0 WARRANTY-**

- 13.1 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. \_\_\_\_\_
- 13.2 Basic Vehicle One (1) year, unlimited km, **state-** \_\_\_\_\_
- 13.3 Batteries One (1) year, unlimited km **state-** \_\_\_\_\_
- 13.4 Drivetrain Two (2) years, unlimited km **state-** \_\_\_\_\_
- 13.5 Cab structure/  
corrosion Five (5) years, unlimited km **state-** \_\_\_\_\_
- 13.6 Frame &  
Cross-members Five (5) years, unlimited km **state-** \_\_\_\_\_
- 13.7 Cab paint One (1) year or 100 000 km **state-** \_\_\_\_\_
- 13.8 Engine Three (3) years or 240 000 km **state-** \_\_\_\_\_
- 13.9 Transmission Two (2) years, unlimited km **state-** \_\_\_\_\_
- 13.10 Axles, front & rear- Two (2) years or 161 000 km **state-** \_\_\_\_\_
- 13.11 Refuse Body Warranty- **State** warranty- \_\_\_\_\_
- 

**14.0 DELIVERY-**

- 14.1 **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. \_\_\_\_\_
- 14.2 **Delivery Time:** Within **(28) twenty eight calendar weeks** from the date of award. Equipment shall be delivered between 8:00 am and 2:00 pm on Business Days. \_\_\_\_\_
- 14.3 **Delivery Contact:** The Contractor shall contact the Contract Administrator prior to delivery of the equipment. \_\_\_\_\_
- 14.4 **P.D.I.:** A pre-delivery inspection shall be performed by the Contractor on the equipment. Proof upon inspection including completed check list \_\_\_\_\_

**15.0**      **MANUALS-**

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

15.2      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. CDs are preferred. \_\_\_\_\_