FORM A: BID
(See B8)

1. Contract Title — SUPPLY AND DELIVERY OF FRONT LOAD REFUSE TRUCKS

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.	Indigenous Self-Declaration	This offer shall be open for acceptance, binding and irrevocable for a The City is requesting that Bidders identify if their business is at least 51% owned by one or more Indigenous persons of Canada. ☐ YES, 51% or more Indigenous ownership ☐ NO, it is not This information is being gathered for statistical purposes only and will not be used for purposes of evaluation.

11. 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 FRONT LOAD REFUSE TRUCKS

UNIT PRICES

ITEM NO.	DESCRIPTION	SPEC. REF.	UNIT	QUANTITY	UNIT PRICE
1.	Front Load Refuse Truck (40yd^3)	18021	Each	4	

_____
Name of Bidder

FORM N: DETAILED SPECIFICATIONS 18021
FRONT LOAD REFUSE TRUCK (40 CUBIC YARD)

1.0 DESCRIPTION OF EQUIPMENT

1.1 These specifications describe a **Front Load Refuse Truck** and other equipment and features as specified herein. These vehicles will operate 5 days a week, year round collecting refuse from 2 cubic yards to 8 cubic yards front load containers from small commercial and multi-family locations throughout the City of Winnipeg in a 10 hour shift. Refuse loads will be delivered to the Brady Road Waste Management Facility. The majority of the containers will be 6 cubic yards; however container sizes from 2 to 8 cubic yards will be collected as required.

1.2 The **Front Load Refuse Truck** shall be a new 2018 model year or newer.

1.3 The **Front Load Refuse Truck** 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 **Front Load Refuse Truck** shall comply with the applicable regulations:

Transport Canada, National Safety Mark, NSM:
http://www.tc.gc.ca/eng/acts-regulations/acts-road.htm

Manitoba Safety and Health Regulation, Parts 12, 16, 22:
http://web2.gov.mb.ca/laws/regs/current/217.06.pdf

Canadian Motor Vehicle Safety Standards C.M.V.S.S.
http://laws-lois.justice.gc.ca/eng/regulations/C.R.C.,_c._1038/section-sched3.html

Manitoba Highway Traffic Act regulations and requirements including, but not limited to, a Manitoba Government Inspection with Safety Sticker.
http://web2.gov.mb.ca/laws/regs/index.php?act=h60

Canadian Standards Association, CSA:
http://www.csagroup.org/

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.

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 2018: $109.00/hour and $129.00/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 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. Bidder shall provide all warranty authorization processes.

_____

4.0 REFERENCES

4.1 Provide five (5) 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, year and model of the equipment bid (Chassis and Body)_____
_____

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 **Front Load Refuse 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, 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 **Front Load Refuse 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 Where applicable, all equipment must be fully fueled upon delivery (no exceptions).

9.0 QUALIFICATIONS OF MANUFACTURER & CONTRACTOR

9.1 The manufacturer of the **Front Load Refuse Truck** 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 **Front Load Refuse Truck** of the type being offered.

10.0 CHASSIS SPECIFICATIONS

GVWR

10.1 Weights: _____

The Truck 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 millimeter width of tire (approximately 500 lbs. per inch of tire width).

10.2	Total GVWR	63,000 lbs. As required for a 40 yd^3 front end refuse loader	_____
10.3	Front GVWR	20,000 lbs. As required for a 40 yd^3 front end refuse loader	_____
10.4	Rear GVWR	46,000 lbs. As required for a 40 yd^3 front end refuse loader.	_____
10.5	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.	_____

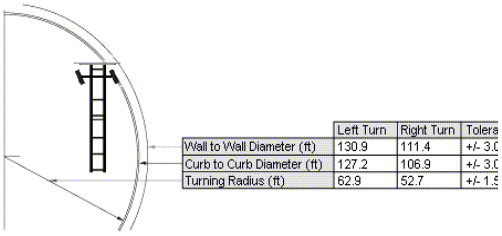
DIMENSIONS

10.6	Cab to Axle	As required for a 40 yd^3 front end refuse loader.	_____
10.7	Wheelbase	As required for a 40 yd^3 front end refuse loader.	_____
10.8	After-frame	As required for a 40 yd^3 front end refuse loader.	_____

TURNING RADIUS

10.9 Turning radius

Turning Radius- **State** the vehicle turning radius, wall to wall and curb to curb: _____



a) Wall to Wall (ft)
b) Curb to Curb(ft)
c) Turning Radius (ft)

10.10	Engine	Tier IV Final Diesel, inline 6-cylinder.	_____
10.11	Horsepower	Approx. 350 HP gross, **state.**	_____
10.12	Torque	Approx. 1150 to 1250 lbs. ft. torque, **state.**	_____
10.13	Engine shut down	Low oil pressure / high water temperature.	_____
10.14	Anti-idling programming	Programming to be determined upon pre-production meeting.	_____
10.15	Cold Weather Starting aid	Air intake warmer or glow plugs.	_____
10.16	Fuel Shut-off	Electric solenoid type.	_____
10.17	Air intake	As per refuse application.	_____
10.18	Air cleaner	Dry type, suitable refuse application.	_____
10.19	Air intake restriction	Dash mounted restriction indicator.	_____
10.20	Oil drain plug	Magnetic type.	_____
10.21	Oil filter	Full flow, spin-on type.	_____
10.22	Fuel filter	Spin-on type.	_____
10.23	Fuel line primer pump	Required.	_____
10.24	Block heater	Immersion type, 1500 Watt with covered recessed male plug, located under driver's side door.	_____
10.25	Coolant	Extended Life coolant, antifreeze to -40°F (-40°C).	_____
10.26	Coolant filter	Required.	_____
10.27	Coolant hoses	Premium Silicone type or Gates Blue Stripe.	_____
10.28	Fan Drive	Thermostatically controlled, automatic type.	_____
10.29	Air compressor	Water cooled, pressure lubricated, 18.5 to 25 cfm, **state CFM.**	_____
10.30	Transmission PTO	Transmission Driven PTO: Continuous Engagement with Standard Gear Pump.	_____
	ELECTRICAL		
10.31	Electrical Type	Point to Point or Multiplex.	_____
10.32	Electrical connector's	Plug-in, sealed type.	
10.33	Alternator	Delco Remy, 135-160Amp.	_____

10.34	Starter	With over crank protect and thermal protection.	_____
10.35	Circuit breakers	Auto-reset, readily accessible.	_____
10.36	Batteries	Three AMG (3), 12-volt, group 31, 2250 CCA combined.	_____
10.37	Battery Box	Batteries not to impede with the installation of the body. **State:** location.	_____
10.38	Battery disconnect switch (lockable)	In-cab mounted outboard of driver's seat preferred. Switch to be lockable with pad lock. **State:** location.	_____
10.39	Battery boost terminal	Remote battery boost terminal(s) with cover(s) protected from road spray.	_____
10.40	Cab marker lights	LED located in exterior sun shade, visor or cab roof mounted.	_____
10.41	Accessory switches	As required for body installation. All switches complete and wired for body installation, labeled and backlit. **State the number of accessory switches required.**	_____

EXHAUST

10.42	Exhaust	Single stationary outboard of rail vertical galvanized steel exhaust, curved tail pipe, not to impede with body installation. Exhaust guard required. **State location.**	_____
10.43	Heat shield	Required over exhaust next to cab door.	_____

TRANSMISSION

10.44	Transmission	Allison 3000 RDS-P with 6-speed programming, Ratio shall be as per inter-city refuse application. Transmission shall come with load base Management Programming. (Bidder to provide an Allison performance SCAAN within three (3) days of a request by the Contract Administrator).	_____
10.45	Shift selector	Digital push-button type, dash mounted.	_____
10.46	Cooling capacity	Water to oil transmission cooler, as per manufacturer's recommendation for severe duty cycle.	_____

10.47	Oil level dipstick	Bayonet type with high and low level markings.	_____
10.48	Fluid	Synthetic.	_____
10.49	Trans. drain plug	Magnetic type.	_____

FRONT AXLE

10.50	Front Axle	Meritor, 20,000 lbs. capacity.	_____
10.51	Fluid	Synthetic fluid.	_____

REAR AXLES

10.52	Tandem Rear Axle	Meritor 46,000 lbs. capacity.	_____
10.53	Ratio	As per in city usage refuse application and for 110 km/hr top speed, **state** ratio.	_____
10.54	Inter-axle lock	Required with dash mounted. Switch.	_____
10.55	Differential lock	Required for both drive axles w/dash mounted switch.	_____
10.56	Fluid	Synthetic fluid.	_____

HUBS/ HUB SEALS

10.57	Hub Seals	Oil lubricated front and rear type.	_____
10.58	Hubs	Aluminum front & rear hubs.	_____

FRONT SUSPENSION

10.59	Front Suspension	Taper leaf spring suspension 20,000 lbs. capacity.	_____

REAR SUSPENSION

10.60	Rear Suspension	Leaf Spring suspension, 44,000-46,000 lbs. capacity, axle Shall be as per recommendation from the body Manufacturer for the recycling refuse application.	_____

RIMS, WHEELS

10.61	Front Wheels	22.5 x 12.25 aluminum wheels, aluminum hub.	_____

10.62	Rear Wheels	22.5 x 8.25 aluminum wheels, aluminum hub.	_____
	TIRES		
10.63	Front Tires	(Mud & Snow) Front steer tires must be suitable for application and Province of Manitoba weather conditions. **State make & model of tires.**	_____
10.64	Front Tire Size	425/65R 22.5, 20-ply rated for requested front GVWR.	_____
10.65	Front spare tire and rim	Required.	_____
10.66	Rear Tires	(Mud & Snow). Rear Drive tires must be suitable for application and Province of Manitoba weather conditions, **state make & model of tires.**	_____
10.67	Rear Tire Size	11R 22.5, 16-ply rated for request rear GVWR.	_____
	FRAME		
10.68	Frame	Single rail. As required for a 40 yd^3 front end refuse loader.	_____
10.69	Front Frame Extension	Integral type, as required for intended body and a full width bumper shall be included.	_____
10.70	Bumper Markers	Front mounted bumper markers required.	_____
10.71	Application	To be suitable for a 40 yd^3 front end refuse loader.	_____
10.72	Chassis fasteners	Grade-8 threaded hex headed frame fasteners.	_____
10.73	After-frame	As required for a 40 yd^3 front end refuse loader.	_____
	STEERING		
10.74	Steering	Heavy-duty power, synthetic oil preferred, rated for GVWR.	_____
	BRAKES		
10.75	Brakes	Air, ABS, S-cam drum brakes, front & rear.	_____
10.76	Slack adjusters	Meritor (clearance sensing), automatic type.	_____

10.77	Parking brake	Spring set, four (4) chamber system.	_____
10.78	Brake pots	Vented type.	_____
10.79	Dust shields	Required, front and rear.	_____
10.80	Moisture ejector	Bendix DV-2, heated to wet tank.	_____
10.81	Drain valves	Manual, chain or cable operated, required on each air tank.	_____
10.82	Air dryer	Wabco Heated System Saver 1200 or equivalent.	_____
10.83	Air Tanks	Must be aluminum or Stainless steel with aluminum straps with minimum 1/16 in. rubber or neoprene isolators to prevent galvanic corrosion. Located as high as possible not to impede ground clearance. **State** location.	_____

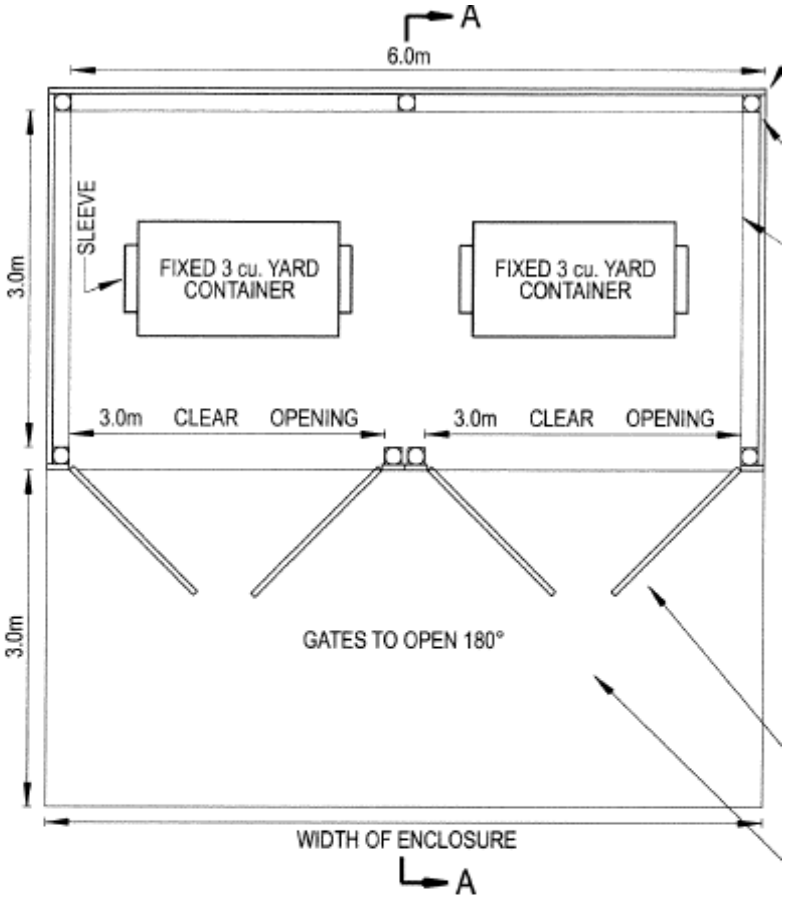
FUEL TANK

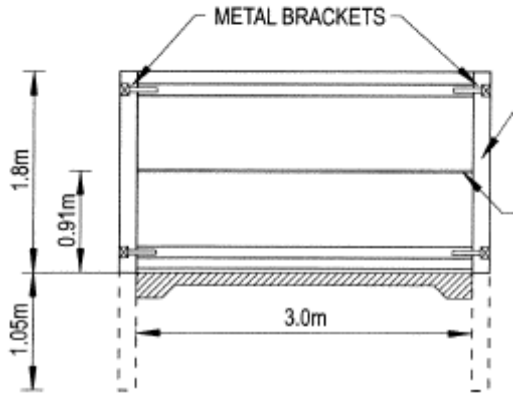
10.84	Fuel Tank	Provide largest fuel tank(s) capacity to last min 12 hour shift not to impede with body installation and design. **State capacity and location.**	_____
10.85	Tank straps	Steel straps with 1/16 in. rubber or neoprene isolators to prevent galvanic corrosion.	_____
10.86	Fuel Water Separator	Heated, drainable, located to not to impede with body Installation be protected from road spray.	_____

CAB

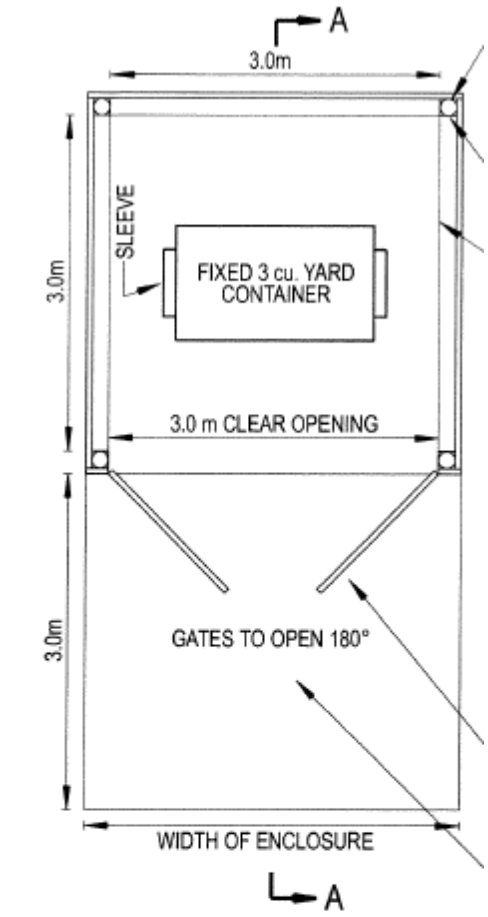
10.87	Cab	Cab over design, with air ride and hydraulic cab lift. Cab width shall be narrow enough to accommodate pickup of bins from enclosures with gates as described in section 10.88 and 10.89 below.	_____

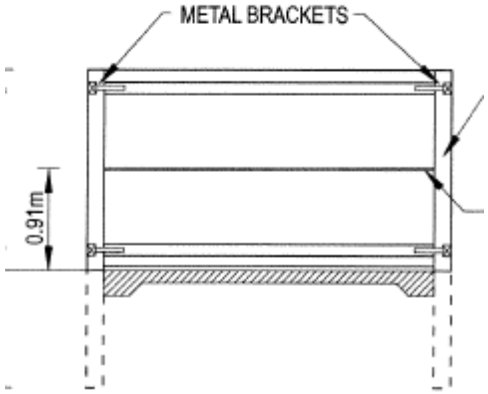
10.88


A
6.0m
SLEEVE
FIXED 3 cu. YARD CONTAINER
FIXED 3 cu. YARD CONTAINER
3.0m
3.0m CLEAR OPENING
3.0m CLEAR OPENING
3.0m
GATES TO OPEN 180°
WIDTH OF ENCLOSURE
A


METAL BRACKETS
1.8m
0.91m
1.05m
3.0m

10.89





10.90	Cab Construction	Aluminum or galvanized steel construction.	_____
10.91	Front windshield size	Designed for maximum visibility for use as a front load refuse body. **State window dimensions.**	_____
10.92	Drive configuration	Left hand steer.	_____
10.93	Bumper to Back of Cab	**State** BBC.	_____
10.94	Cab mounts	Air suspension.	_____

10.95	Cab interior / trim	Extreme climate insulation including cloth or vinyl headliner on roof, door panels and rear interior of cab.	_____
10.96	Cab silencer package	For minimal decibel level	_____
10.97	Hood/Firewall/Engine insulations	Insulated hood liner, engine cover and firewall.	_____
10.98	Floor covering	Rubber mat with under-padding.	_____
10.99	Floor mats	Two (2), rubber.	_____
10.100	Driver's seat	High back, air suspension w/foldable armrests, lumbar, heavy-duty cloth upholstery, Cordura or equal. Seat belt.	_____
10.101	Passenger seat	High or mid back, stationary, seat belt.	_____
10.102	Radio	Factory installed AM/FM/ with "hand free" Blue Tooth capability.	_____
10.103	2-way radio circuit	Independent 20 Amp circuit, ignition powered, wired under dash loose, labelled.	_____
10.104	Sun visors	Dual flip-up type.	_____
10.105	Steering wheel	Tilt and telescopic type.	_____
10.106	12-Volt power outlet	(2) required with independent circuit.	_____
10.107	Starter switch	Key operated c/w three (3) sets of keys.	_____
10.108	Interior light	Dome light with driver and passenger door switches.	_____
10.109	Heater / Defroster	High output, capable of keeping all windows clear at an outside temperature of (-40°C)	_____
10.110	Air conditioning	Required.	_____
10.111	Brake, accelerator, pedals	Floor or hanging type brake and accelerator pedal, **state.**	_____
10.112	Horn	One electric with under cab mounted.	_____
10.113	Exterior mirrors	West coast stainless steel or moulded in color LH/RH Tri-plane mirrors, heated, motorized, mounted to doors. Features: heated on all three surfaces, upper/lower mirrors: convex. Middle mirror: flat pane motorized.	_____
10.114	Windows & windshield	Tinted.	_____
10.115	Windows (power)	Power on driver and passenger side.	_____
10.116	Windshield wipers	Electric, intermittent.	_____

10.117	Wiper blades	Heavy duty snow type with winter type boot.	_____
10.118	Windshield washers	Electric, required with spray nozzles on wiper Blades preferred.	_____
10.119	Grab handles	Dual exterior.	_____
10.120	Door Window	Lower right hand door with Fresnel lens.	_____
10.121	Entrance steps	Dual each side, open grate / grip type.	_____
10.122	Winter front and bug screen	Winter front: Heavy-duty vinyl w/twist lock or snap type fasteners.	_____
		Bug screen: w/twist lock or snap type fasteners.	_____
10.123	Dash	Wing type dash for operator convenience preferred.	_____

INSTRUMENTATION

10.124	Instrumentation	Tachometer, Oil pressure gauge, Coolant temperature gauge, Transmission oil temperature gauge, Voltmeter gauge, Air reservoir pressure gauge with LAP warning light and buzzer, Low Oil Pressure, High Water Temperature Warning light and buzzer and non-resettable type Engine hour-meter.	_____
10.125	Rear axle temp gauges	Required.	_____
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. **State optional price.**	$_____

TOW HOOKS

10.127	Tow Hooks	Front and rear mounted. **State** location.	_____

COLOUR

10.128	Exterior Colour	White chassis and body.	_____
10.129	Interior Colour	Grey.	_____
10.130	Frame & suspension	Primed and finished with black Imron 5000 paint.	_____

ACCESSORIES

10.131	Flare kit	Three (3) triangular reflectors, CVSA approved.	_____
10.132	Fire Extinguisher	5 lbs. Fire Extinguisher ABC type mounted and secured.	_____
10.133	First Aid Kit	As per Manitoba Safety and Health Regulation: Manitoba regulation 36 unit.	_____
10.134	Nut Indicators	Wheel nut indicators on all wheel lug nuts required.	_____
	AUTO GREASING SYSTEM	Chassis and Body	
10.135	Greasing system	Parallel NLGI-0 automatic lubrication system, connected to all grease points, outfitted with automatic low level shut-off, with an in cab monitor showing system status such as low level, low pressure and/ or fault code display.	_____
10.136	Pump reservoir	a) 6kg or larger pump reservoir and parameters preprogrammed required to accommodate 500 hour service intervals. Pump must have correct fill adapter fitting for the City of Winnipeg maintenance staff to refill reservoir.	_____
		b) In the event the pump needs to be mounted higher than chassis frame level, For safety reasons, access to refill the pump reservoir shall be via remote fill line of min. 3/8” hose to accommodate a refill procedure at ground level.	_____
10.137	Power input	a) System power connection 12-Volt to ignition source with an accessible fuse protection and for greasing system to shut down when the engine is turned off.	_____
		b) Compressed air connection for Parallel NLGI-0 automatic lubrication system pump must be connected to a secondary air tank supply of the chassis compressed air system. Red 1/4” DOT approved airline must be applied and fitted with an air system protection check valve into the system secondary tank.	_____

10.138	Grease lines	a) Extreme Low temperature (example: Parker Blue Stripe) steel braided rubber hose with compatibility to accommodate max working pressure of 5000psi. for the system mainline must be outfitted with #4 JIC crimped ends for the mainline and areas where an extreme environment requires a hydraulic hose to be used(ie front loader arms)	_____
		b) 3/16” nylon heavy wall secondary grease line or equivalent must be installed and protected from extreme environments such as heat sources, and components producing vibration. All secondary grease lines must be protected from tree and or branch impact on any refuse body components higher than 6 feet from ground level. Protection collars must be installed when connecting components on front loader arms.	_____
		c) Thread sealant for main and secondary grease lines of each fitting must be applied.	_____
		d) For diagnostic purposes, all secondary grease lines must use color coded line from the injector to the connected component.	_____
10.139	Greasing points	a) State, quantity of greasing points.	_____
		b) State, quantity of grease points that cannot be connected to the Parallel NLGI-0 automatic lubrication system but will be connected with remote lines only. This detail shall be considered for extreme environment areas such as internal packer panels or doors. In the event that a remote line is fitted, decals must be applied stating manual greasing is required with advised grease application interval.	_____

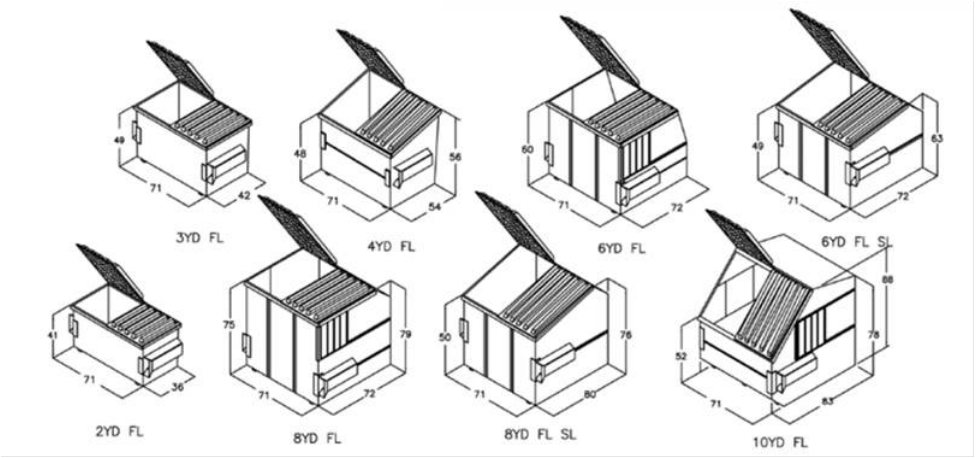
10.140	Injector manifolds	All manifold must be fitting with nylon lock nut hardware and mounted secure in an area away from debris impact, Special guards should be fitted for injector manifolds and hoses in areas of consistent debris impact- snow, ice, garbage, etc.	_____
		Environmental Impact: Features to ensure the Parallel NLGI-0 automatic lubrication system does not grease while parked will be considered, the system layout and grease injector delivery shall be considered to not overgrease a connected component to void OEM warranty and/or leave excessive grease on roadway, street etc.	_____

BODY SPECIFICATIONS

10.141	Body Capacity	Total body (including hopper and tailgate) capacity is 40 cubic yards.	_____
10.142	Body dimensions	**State the following dimensions:**	
		Overall Length (Arms/Forks Up, Travel. Position).	_____
		Overall Height Above Chassis.	_____
		(Arms/Forks Up, Travel Position).	_____
		Overall width.	_____
		Tailgate length.	_____
		Hopper opening length.	_____
		Hopper opening width.	_____
10.143	Empty body weight	Approx. 15,500lbs. **State**, weight.	_____
10.144	Body certification	Body manufacturer is ISO9001 Certified and ANZI 245.1 Safety Standard Compliant.	_____

HOPPER

10.145	Hopper Capacity	Will have a useable capacity to accommodate container sizes up to 10 cubic yards.	_____
10.146	Operator Controls	Drive Position Main Control Pneumatic Joystick, one (1) handle - arm & fork actuation.	_____
10.147	Container Loading	The City of Winnipeg currently utilizes the front-load container system for its refuse operation. See photos below for visual reference and dimensions. Containers will be 71" wide.	_____



10.148	Hopper design	Hopper will have a useable capacity to accommodate container sizes up to 10 cubic yards.	_____
10.149	Hopper Walls	0,156" (4.0 mm) (Hardox AR450, 175,000 psi. or equivalent). **State material gauge thickness.**	_____
10.150	Hopper Floor	3/16" (4.8 mm) (Hardox AR450, 175,000 psi or equivalent). **State material gauge thickness.**	_____
10.151	Hopper access door	0,156" (4.0 mm) (Hardox AR450) 175,000 psi or equivalent. **State material gauge thickness.**	_____
10.152	Hopper Top door	14 GA, **State material gauge thickness.**	_____
10.153	Hopper clean out stump	With door (street side).	_____
10.154	Hopper wind flanges	Extended Hopper Wind Flanges (6" high). **State optional price.**	$_____
	BODY CONSTRUCTION		
10.155	Body Roof	1/8" (3.2 mm) (Hardox AR450, 175,000 psi or equivalent). **State material gauge thickness.**	_____
10.156	Body Sides	1/8" (3.2mm) (Hardox AR450, 175,000 psi or equivalent). **State material gauge thickness.**	_____
10.157	Body Floor	3/16" (4.8 mm) (Hardox AR450, 175,000 psi or equivalent). **State material gauge thickness.**	_____

10.158	Body Reinforcing	**State complete details of body reinforcing design.** _____ _____ _____ _____ _____ _____	_____
10.159	Tailgate construction	1/8" (3.2 mm) (Hardox AR450, 175,000psi. or equivalent with hydraulic latches on both sides. **State material gauge thickness.**	_____
10.160	Tailgate capacity	Approx. 6 cubic yards, **State**	_____
10.161	Tail gate design	The rear tailgate is hydraulically operated, bustle type complete with an automatic lock mechanism including a roller on lock pins to avoid wear due to friction. A reinforced tubing is welded at the bottom of tailgate to ensure maximum resistance	_____
10.162	Rubber seal	A rubber seal is installed on the tailgate to prevent liquid leakage and banging on back of body.	_____
10.163	Safety prop	Provided for tailgate.	_____
10.164	Tailgate dimensions	**State dimensions of tailgate.** _____ _____ _____	_____
10.165	Tailgate operation	**State complete details of tailgate operation and design.** _____ _____ _____ _____ _____ _____	_____

PACKER CONSTRUCTION

10.166	Upper face plate	0,156" (4.0 mm) (Hardox AR450, 175,000 psi or equivalent). **State material gauge thickness.**	_____
10.167	Lower face plate	1/4" (6.4 mm) (Hardox AR450, 175,000 psi or equivalent). **State material gauge thickness.**	_____
10.168	Plow shape packer (panel)	Designed to keep debris away from back area of packer.	_____

10.169	Packer shoes and channels	Chromium overlay wear strips.	_____
10.170	Centralized grease blocks	Two (2) points Centralized grease block by access door for packer cylinders pins	_____
		Two (2) points - Centralized Grease Block - Cylinders Pins on Packer - Body Side Door Access	_____
10.171	Load Discharge	**State complete details of load discharge operation and design.** _____ _____ _____ _____ _____ _____	_____

HYDRAULIC/PNEUMATIC SYSTEMS AND CONTROLS

10.172	Lift Mechanism	Arms – 10,000 lbs. rated capacity. Arm Cylinders – 8,000 lbs. lift capacity.	_____
10.173	Canopy sweeper	**State** optional price	$_____
10.174	Arms/forks controls	In Cab, pneumatic joystick control.	_____
10.175	Front fork scale	To measure the weight of the load with load management software.	_____
10.176	Packer cylindershydraulic	Double Acting - Nitrided with DuraScope™ shavers.	_____
10.177	Packer controls	In Cab controls, Stop, Pack, Retract, Eject, Autopack - engaged when arms drop below windshield with on/off switch.	_____
10.178	Hydraulic System	Gear pump: approx. 54GPM. Directional valve: Parker, 5 section with air actuator. Hydraulic tank capacity: Aluminum chassis mount approx. 60 Gallons. Return filter: In tank. Oil level gauge: mounted on tank (sight type).	_____ _____ _____ _____ _____
10.179	Auto throttle for hydraulics	Throttle Advance Toggle Switch (ON/OFF/Auto).	_____
10.180	Top cover	For front hydraulic pump.	_____

10.181	Cycle Times	**State complete cycle times.** _____ _____ _____ _____ _____ _____	_____
10.182	Alarms	Alarm for low hydraulic oil level & hydraulic oil temperature. **State optional price.**	$_____
	ELECTRICAL & LIGHTING		
10.183	Lighting Standard	All vehicle lighting shall conform to C.M.V.S.S. and Manitoba Highway Traffic Act requirements.	_____
10.184	Multiplex Wiring	All body supplier installed wiring shall be numbered, colour coded, loomed, properly secured and protected from damage. All circuits are properly protected by circuit breakers. All interlocks are proximity switches type	_____
10.185	Harness	Truck-Lite Series 50 or Grote Blue Seal System or equivalent with internally grounded harness.	_____
10.186	Connectors	All plug-in connectors and entire inside of junction boxes shall be coated with Grote dielectric compound prior to assembly. All electrical connectors shall be crimped and soldered, then sealed using heat shrink tubing.	_____
10.187	Joining wires	All joining of wires shall be soldered and sealed using heat shrink tubing (crimp on electrical connectors for joining wires are not acceptable).	_____
10.188	Wiring Routing	All holes required for routing wiring shall be drilled (not punched), grommetted and sealed as required.	_____
10.189	Lighting type	All lighting shall be LED Truck-Lite or Grote.	_____
10.190	Back Up Work Lights	Back up lights: Qty 2 (one per side) mid-body LED flood light type (both lights equipped with switches for manual operation).	_____

10.191	High visibility lighting	Oval 6 inches red central brake light on tailgate. Qty 1. Round 4 inches red stop lights in upper tailgate light bar. Qty 2. Round 4 inches amber turn signals in upper tailgate light bar. Qty 2. Replacement of the STD red turn-tail lights by amber turn signals on tailgate. All lighting to be LED.	_____
10.192	Body LED Strobe Lighting	Whelen TIR 3 or equivalent Class 1 high lummens LED mini strobe lights mounted in all 4 corners of the body and mid ship for 360 degree visibility (10) in total.	_____
10.193	Hopper Work light	Hopper: Qty 1high lumens LED work light mounted in hopper required. (both lights equipped with switches for manual operation).	_____
10.194	Rear Work lights	Two mid-body high lumens LED work light mounted and the rear of the body. (both lights equipped with switches for manual operation).	_____
10.195	Driver side work light	LED work light mounted on the driver side mirror pointing up to the hopper.	_____
10.196	**Exact lighting locations to be determined during a preproduction meeting.** Photo for illustration purposes only.		_____

PAINT SPECIFICATION

10.197	Preparation	All ladders, hitch plates, reservoirs, steel brackets, etc. shall be sandblasted, properly cleaned, primed and finished with the Endura or DuPont paint process as follows: Note: Aluminum components are exempt from finish.	_____

10.198	Primer	Required: Epoxy or Polyurethane primer Endura EP321 Intermix Epoxy Primer or DuPont polyurethane. Two (2) coats – Dry Film Thickness 3 – 4 mils.	_____
10.199	Paint	Required: Polyurethane Colour: body white Endura EX-2C or DuPont Polyurethane. Two (2) coats: 3 – 5 mils Wet Film Thickness with a total combined overall average Dry Film Thickness of 4 – 6 mils. Note: Complete body (inside and outside) shall be painted where applicable.	_____
	MISCELLANEOUS		
10.200	Hopper Camera	One (1) camera mounted at the backside of the hopper on the driver side of the truck.	_____
10.201	Packer camera	One (1) camera mounted behind the packer.	_____
10.202	Dash mounted camera (magnetic mount)	One (1) camera magnetically mounted on dash that allows the operator to change the direction of the camera.	_____
10.203	Tailgate cameras (back-up/rear visibility)	Three (3) high mounted cameras on the tail gate for backing onto streets. One (1) camera to be facing backwards mounted mid tailgate. One (1) camera facing to the left and 1 facing to the right (both mounted at the top corners of the tailgate) to allow the operator to see what is behind the truck as well as what may be coming down either side of the street.	_____
10.204	Guarding for cameras	Protection cages on all cameras.	_____
10.205	Monitor	Colour 9" LCD with swivel, sound, night vision and high electromagnetic noise resistance. Capable of recording videos in loops for continuous monitoring while the vehicle is in operation. Cameras to automatically start recording as soon as the ignition to the chassis is turned.	_____
10.206	Backup alarm	97 dB, factory installed, mounted to be protected from damage.	_____
10.207	Mounting brackets	Mounting brackets for 1 push broom & 1 grain shovel, **state** location.	_____

10.208	Safety Decals	CAUTION THIS VEHICLE STOPS AND BACKS FREQUENTLY, approx.74.5in x 23.5in (black on yellow background).	_____

10.209	Roof access ladder	Installed on the right side with non-skid steps.	_____
10.210	Roof anchor points	Engineered anchor points, mounted on top of the body for fall protection when technicians need to be on top of the body for service/repairs.	_____
10.211	Mud guards/flaps	Mud guards are supplied in front of rear axle. Mud flaps are supplied at rear of rear axle with anti-sail bars on rear mud flaps.	_____
10.212	Tool Box	Approx. 24" x 24" x 24" sealed tool box, **state** location and dimensions.	_____
10.213	Fire extinguisher	20lbs. Fire Extinguisher ABC type mounted and secured on street side.	_____
10.214	Spill Kit	Environmental spill kit installed on body, **State optional price.**	$_____
	SAFETY INTERLOCK AND WARNING SYSTEMS		
10.215	Loader arms	There are no arms up movement when the top door is not completely opened and no arms up movement above canopy when the packer panel is not in home position.	_____
10.216	Eject system	Eject system in operation only if the tailgate is opened and if the operator holds the button on the console.	_____

10.217	Access door	All function disable when the access door is open.	_____
10.218	Hydraulic over pressure protection	Pressure switch on hydraulic system for over pressure protection.	_____
10.219	Tailgate	Warning light and buzzer when the tailgate is open.	_____
10.220	Hopper door	Warning light when the top hopper door is open.	_____
10.221	Access door	Warning light when the access door is open.	_____
10.222	Packer panel	Warning light when the packer panel is not in home position.	_____
10.223	Arms and forks	Warning light indicates arm and forks not stowed.	_____

11.0 WARRANTY

11.1 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. _____

CHASSIS WARRANTY

11.2	Basic vehicle	**State:** _____	_____
11.3	Batteries	**State:** _____	_____
11.4	Drivetrain	**State:** _____	_____
11.5	Cab structure/corrosion	**State:** _____	_____
11.6	Frame & cross-members	**State:** _____	_____
11.7	Cab paint	**State:** _____	_____
11.8	Engine	**State:** _____	_____
11.9	Transmission	**State:** _____	_____
11.10	Axles, front & rear	**State:** _____	_____

BODY WARRANTY

11.11	Body warranty	**State:** _____	_____
11.12	Body hydraulics	**State:** _____	_____
11.13	Electrical, lighting etc.	**State:** _____	_____
11.14	Components ex. pumps	**State:** _____	_____
11.15	Paint	**State:** _____	_____

12.0 **DELIVERY**

12.1 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. The successful bidder shall be notified by the Contractor Administrator the delivery address prior to issuance of the purchase order _____

12.2 Delivery Time: To be delivered within the approximate time frame **August 12 to 23, 2019**. Equipment shall be delivered between 8:00 am and 2:00 pm on Business Days. _____

12.3 Delivery Contact: The Contractor shall contact the Contract Administrator prior to delivery of the equipment. _____

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

13.0 **MANUALS**

13.1 Manuals supplied under this Contract. The manuals shall cover the complete equipment including all components thereof, CD or USB flash drive is preferred where available. _____

13.2 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 sets including preventative maintenance schedules. CDs or USB flash drive are preferred. _____

14.0 **FIRST SERVICE PREVENTATIVE MAINTENANCE KIT**

14.1 In order to assure minimum downtime of the equipment in future service, the Contractor shall 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. _____

14.2 The Contractor shall 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. _____

15.0 **DISCOUNT FOR PARTS AND LABOUR**

15.1 Bidder to provide City of Winnipeg Parts Discount % Pricing from retail parts pricing. **State percentage discount.** _____*%*

15.2 Bidder to provide City of Winnipeg Labor Discount % Pricing from Retail shop labor rate. **State percentage discount.** _____*%*