

FORM A: BID
(See B8)

1. Contract Title SUPPLY AND DELIVERY OF LOADER MOUNTED SNOW BLOWERS

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 LOADER MOUNTED SNOW BLOWERS

UNIT PRICES

ITEM NO.	DESCRIPTION	SPEC. REF.	UNIT	QUANTITY	UNIT PRICE
1.	Loader Mounted Snow Blower	17022	Each	6	

Name of Bidder

FORM N: DETAILED SPECIFICATIONS 17022
LOADER MOUNTED SNOW BLOWER

1.0 DESCRIPTION OF EQUIPMENT

- 1.1 These specifications describe a **Loader Mounted Snow Blower** and other equipment and features as specified herein.
- 1.2 The **Loader Mounted Snow Blower** shall be a new 2017 model year or newer.
- 1.3 The **Loader Mounted Snow Blower** 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 **Loader Mounted Snow Blower** 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.

5.0 MAKE & MODEL

- 5.1 **State** make 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 **Loader Mounted Snow Blower**, 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 **Loader Mounted Snow Blower** 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 **Loader Mounted Snow Blower** 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 **Loader Mounted Snow Blower** of the type being offered.

10.0 **SPECIFICATIONS:**

PERFORMANCE

10.1	Performance	The unit being bid shall be capable of consistent top performance of blowing snow up to a distance of 150 ft. and blowing windrows consisting of hard packed snow, ice and sand during the winter months that are normal to the City of Winnipeg. The unit being bid will also be required to blow, on occasion, windrows containing pieces of curb, rocks, tailpipes and mufflers at temperatures up to -40°C, i.e., during the winter environment that is normal to the City of Winnipeg.	_____
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WEIGHT AND DIMENSIONS

10.2	Overall weight	Approx. 12000 lbs. suitable and safe for use with a Case 821E wheel loader, state overall weight of unit being bid including Weldco Beales quick coupler, fully fuelled.	_____
10.3	Centre of gravity from loader attachment point	Approx. 35 inches, state.	_____
10.4	Overall height, with chute fully extended	State.	_____
10.5	Overall width	Approx. 110 inches, state.	_____
10.6	Overall depth, from front of machine to pivot point	State.	_____

CAPACITY

10.7	Production capacity	Approx. 2,700 tons per hour, state capacity.	_____
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ENGINE & ENGINE EQUIPMENT

10.8	Type	6 cyl., 4-cycle, 8-10L class diesel engine, state make and model being bid. _____	_____
10.9	Horsepower	275 HP gross, state .	_____
10.10	Torque	850 lb-ft, state .	_____
10.11	Cooling system	Liquid cooled with radiator and fan, antifreeze to -40°C.	_____
10.12	Fan clutch	Thermostatically controlled.	_____
10.13	Engine shutdown system	Low oil pressure/high water temperature.	_____
10.14	Air cleaner	Heavy duty replaceable element, dry type with pre-cleaner, intake to be protected from rain, ice and snow.	_____
10.15	Air intake warmer	Intake warmer.	_____
10.16	Block heater	120 Volt, immersion type.	_____
10.17	Electric start system	12 Volt starter, thermally protected.	_____
10.18	Starter switch	Keyed with three (3) sets of ignition keys.	_____
10.19	Batteries	2250 CCA combined capacity, state .	_____
10.20	Alternator	Approx. 100 AMP, state make, model and output.	_____
10.21	Exhaust	Residential muffler with rain cap, overall exhaust height to be at or near wheel loader roof height when blower is in working position and in line with chute to optimize visibility.	_____
10.22	Clutch	Over centre, hydraulically controlled, twin disc SP-211 or equivalent, state make and model.	_____
10.23	Engine start-up	Will not occur with clutch engaged.	_____
10.24	Clutch engagement	At low engine RPM's.	_____
10.25	Engine cowling	To be ergonomically designed to allow easy access for general maintenance and servicing.	_____
10.26	Skid plates	For oil pan.	_____
<u>BLOWER HEAD</u>			
10.27	Detachable blower head from the rear portion of the snow blower	To allow for easy access for maintenance on the blower head and the engine compartment.	_____
10.28	Type	Two (2) stage with dual augers (single stage fan style not acceptable).	_____

10.29	Cutting width	Approx. 108 inches, steering vanes not acceptable.	_____
10.30	Cutting height	Approx. 57 inches, state .	_____
10.31	Height to top of cutting knives	State .	_____
10.32	Material	10 gauge steel min. on all high stress areas.	_____
10.33	Frame	Steel frame, all welded construction.	_____

IMPELLER

10.34	Diameter	Approx. 38 inches, state diameter.	_____
10.35	Blades	Five (5) or six (6) concave blades, $\frac{3}{8}$ inch high tensile steel, bolt-on, easily replaceable. (welded not acceptable)	_____
10.36	Impeller casing	$\frac{1}{2}$ inch high tensile AR steel plate or equal, state material and thickness.	_____
10.37	Hydraulic rotation	Shall permit flat discharge to the right and 30° discharge to the left.	_____
10.38	Impeller speed	Approx. 440 RPM.	_____
10.39	Shear bolt protection	Easily accessible, state size and Grade of shear bolts.	_____

AUGERS

10.40	Type	Dual augers, 1-piece design, full flights, dynamically balanced.	_____
10.41	Dimensions:	i) Diameter – 26 in. min., state . ii) Flights - $\frac{3}{8}$ in. thick min. welded to min. 4 in. diameter tubing.	_____ _____
10.42	Ice cutters	Bolt-on, reversible type (solid weld not acceptable)	_____
10.43	Shear bolt protection	Easily accessible, state size and Grade of shear bolts.	_____

DISCHARGE CHUTE

10.44	Type	Three (3) section design, hydraulically adjustable, suitable for loading into a dump trailer, state material and gauge.	_____
10.45	Chute extension	Hydraulically extendible through double acting cylinder (s).	_____
10.46	Diameter	Approx. 16 inches, state .	_____

10.47	Rotation	Approx. 300° state.	_____
10.48	Snow deflector	Hydraulically adjustable through double acting cylinder(s).	_____
10.49	Discharge chute	Contoured back design to eliminate plugging.	_____
10.50	Chute liner	3/8 inch high tensile AR steel plate or equal, state material and thickness.	_____

GAUGES & CONTROLS

10.51	Emergency engine stop button	Permanently installed on the blower head.	_____
10.52	Wireless remote control system	Wireless remote to have a digital display.	_____
10.53	The following controls shall be controlled and monitored by a wireless remote control:		
	i) Engine coolant temperature gauge.		_____
	ii) Engine oil pressure gauge.		_____
	iii) Ammeter/voltmeter.		_____
	iv) Ignition and engine stop switch.		_____
	v) Clutch engage/disengage, electrical.		_____
	vi) Throttle increase/decrease, electrical type with joystick.		_____
	vii) Spout rotation left and right.		_____
	viii) Snow deflector in/out.		_____
	ix) Chute extension control.		_____
	x) Tachometer.		_____
	xi) Hour meter.		_____
	xii) Fuel gauge.		_____
	xii) Headlights		_____
10.54	The Contractor shall be responsible for all parts and labour costs associated with the installation of controls, mounting brackets, cables, cable ties etc. in the City of Winnipeg wheel loaders. City owned wheel loaders will be made available in Winnipeg for the installations.		_____

ELECTRICAL AND LIGHTING EQUIPEMENT

10.55	Type	12-volt, negative ground.	_____
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10.56	Headlights	Two (2) sealed beam lights c/w high and low beam, shock mounted on blower head, on/off switch located on remote control panel.	_____
10.57	All electrical connectors	Crimped and soldered, then sealed using heat shrink tubing.	_____
10.58	All joining of wires	Soldered and sealed using heat shrink tubing or approved OEM weather tight connections (crimp on electrical connectors for joining wire not acceptable).	_____
10.59	All electrical cable supplied	Shielded, low temperature rated, anti-scuff, industrial type cables, Tectran 742A2 Articflex or equivalent.	_____
10.60	Holes required to run wires	Drilled (not punched), grommetted and sealed as required.	_____

HYDRAULIC SYSTEM

10.61	Components	Hydraulic pump, hydraulic filter, control valves, hydraulic motor, hydraulic cylinders and reservoir as required.	_____
10.62	Oil reservoir	State , capacity.	_____
10.63	Level gauge	Sight gauge.	_____
10.64	Oil filter	Top mounted with strainer.	_____
10.65	Oil filter and breather	To be readily accessible, protected from environment and blowing snow.	_____
10.66	Valves	Electric over hydraulic type, solenoid actuated, fully protected in all-weather enclosure(s).	_____
10.67	Relief valve	State setting.	_____
10.68	Hydraulic hoses	Wire braid reinforced, rated for system operating pressure with 4 to 1 safety factor for burst pressure. Protected at all wear and scuff locations. Functional to -40 ⁰ C.	_____
10.69	Hose fittings	Hydraulic full flow, crimp-on, (non-reusable). Black iron fittings not acceptable on pressure lines. Functional to -40 ⁰ C.	_____

FUEL SYSTEM

10.70	Tank capacity	Approx. 320L, fully fueled upon delivery	_____
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10.71 Fuel filter Required with Racor or equal heated and drainable water separator. _____

MOUNTING

10.72 Unit shall be capable of front mounting on a **Case 821E wheel loader** With Weldco Beales quick couplers (Assembly No. 130-412-0480). Quick attach compatible with all loader models. _____

10.73 Hitch plate Nominal 1 in. thick solid steel, (laminated plates unacceptable) installed to chassis frame, removable with Grade-8 bolts. **State** details of hitch plate assembly. _____

MISCELLANEOUS

10.74 Grease fittings For the entire snow blower should be readily accessible or should be equipped with remote grease zerks as required. _____

10.75 Wear shoes Carbide steel, approx. two (2), 3/4 inch thick replaceable. _____

10.76 Scrapper blades Carbide steel, six (6) replaceable, Approx. 1/4 inch thick. _____

10.77 Weigh scale ticket The Contractor shall provide a certified weigh scale ticket upon delivery of the completed unit. The scale ticket shall include the unit fully operational including a full tank of fuel. _____

WELDING

10.78 CWB certified and/or ASME qualified or have Journeyman qualifications, specifically with respect to welding on quick coupler and hitch plate. All welding shall be of excellent workmanship and appearance, and shall conform to CSA Standard W59. _____

10.79 Continuous welds Where applicable. _____

10.80 Quality control program The manufacturer shall have a documented quality control program in effect including inspection of welds by a qualified inspector. _____

FINISH

10.81 Steel components

Sandblasted, properly cleaned, primed and finished with Endura EP32 Intermix Epoxy Primer then finished with 3-5 mils construction yellow Endura EX-2C Topcoat.

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.

11.2 The warranty for the entire unit shall cover the complete equipment, and all parts thereof against any defects of workmanship, construction and materials, for a period of not less than one (1) year. Any article that has become defective during said warranty period and has not proven to have been caused by negligence on the part of the user shall be repaired or replaced at no cost to the City. The warranty shall be effective from the date the equipment is put into service by the City of Winnipeg. **State** warranty duration _____

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: **Twelve six (26) calendar weeks or sooner** from the date of award. Equipment shall be delivered between 8:00 am and 2:00 pm on Business Days. **State** Delivery time.

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 USD 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 **PARTS/LABOUR PRICING**

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-** _____