



To: General Purposes Committee **Date:** February 10, 2006
From: Dave Semple **File:**
 Director of Parks & Public Works Operations
Re: Supply & Delivery of Two (2) Backhoe Loaders

Staff Recommendation

That the City of Richmond award the purchase of Two (2) Backhoe Loaders to Finning (Canada) for a price of \$146,401.08 per unit for a total purchase cost of \$292,802.16.

Dave Semple
Director of Parks & Public Works Operations
(3350)

Att. 2

FOR ORIGINATING DIVISION USE ONLY					
ROUTED TO:	CONCURRENCE		CONCURRENCE OF GENERAL MANAGER		
Budgets	Y	<input checked="" type="checkbox"/> N			
REVIEWED BY TAG	YES	NO	REVIEWED BY CAO	YES	NO
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Staff Report

Origin

Council approved the acquisition of Two (2) Backhoe Loaders from the Vehicle Replacement Reserve for 2004 and 2005, as the current equipment has reached the end of their life cycles.

This report deals with the purchase of the Two (2) Backhoe Loaders as approved.

Findings Of Fact

The RFQ's (2711Q) went out on August 15, 2005 and three (3) bids were received; Terratech Equipment at \$118,520.28 (Komatsu Model # WB150-2N), Wajax Industries at \$105,142.20 (JCB Model # 214) and Finning Canada at \$146,401.08 (CAT Model # 430D).

Fleet Operations organized a review committee consisting of the Equipment Operators, Fleet Mechanics and the User Groups to assist in evaluation of the equipment to be purchased.

Departmental operational needs required Fleet Operations to spec a larger style, type and size of machine (310-430D) to place manholes into position without having an additional machine on site.

A summary of the evaluation is as follows:

1. Terratech Equipment (Komatsu)

The bid provided by the vendor Terratech Equipment (Komatsu) met 54 requirements of the specifications, including the following criteria:

- Curb weight, overall dimensions, instrumentation, ride control, engine ratings, transmission, vandal protection, hydraulic system, all weather cab, operator safety and warranties.

The bid provided by the vendor Terratech Equipment (Komatsu) did not meet 19 requirements of the specifications including the following:

- Make, model, size, wheelbase, seat, noise levels, transmission dis-connect, all wheel drive, demo unit and the excavator style boom.

The Operators found the Komatsu operation to be uncomfortable and difficult. This is based on their evaluation during the demonstration phase of the process.

Terratech Equipment has provided fair customer service and support for the current equipment we have purchased.

2. Wajax Industries (JCB)

The bid provided by the vendor Wajax Industries (JCB) met 54 requirements of the specifications including the following:

- Overall dimensions, all weather cab, instrumentation, noise levels, vandal protection, ride control, engine ratings, transmission, hydraulic system and warranties.

The bid provided by Wajax Industries (JCB) did not meet 20 of the requirements of the specifications including the following:

- Make, model, size, wheelbase, curb weight, transmission disconnect, excavator style boom, operator safety, demo unit and hydraulic stabilizer width.

The Operators found the JCB design overall to be not suitable to the tasks we perform based upon their evaluation during the demonstration phase of the process.

Wajax Industries has provided fair customer service and support with equipment we have purchased. In regards to the JCB product we have experience parts availability and delivery to be a challenge around timelines.

3. Finning Canada (CAT)

The bid provided by the vendor Finning Canada met or exceeded 65 requirements of the specifications including the following:

- Make, model, size, wheelbase, curb weight, all weather cab, instrumentation, operator safety, HVAC system, ride control, transmission, transmission disconnect, all wheel drive, wiring system, operator controls, excavator style boom, and warranties.

Finning (Canada) did not meet the following criteria of the specifications:

- Parking brake engagement.

The Operators found the Finning (Canada) CAT machine design, layout, comfort and controls to be excellent based upon their evaluation during the demonstration phase of the process.

In addition, the City of Richmond has previously purchased four (4) backhoe loaders from Finning (Canada) as well as the parent manufacture CAT.

Finning (Canada) has consistently provided exceptional product support, in-field 24/7 repair and maintenance service, parts commitments and on-going positive customer service on a continuous basis.

As a result of the evaluation and discussion with staff we have concluded the Finning (Canada) CAT Backhoe Loader is the best overall purchase for the City.

A complete evaluation comparison is provided on the attached spreadsheet. (Attachment 1)

There are two areas within the tender that required the vendors to meet the criteria in order for our customers to perform their tasks in a timely, effective and cost efficient manner.

1 – Wheelbase – to be within 83 inches

- Terratech Equipment Komatsu – 85 inches that does not meet to specification.
- Wajax Industries JCB – 89 inches that does not the meet the specification.
- Finning Canada CAT – 83 inches, that does meet the specification.

The wheelbase at 83 inches is required for crews to work in the alleys way and backyards within Richmond with minimum impact to properties.

2 - Rear Boom – backhoe must be configured with an “excavator” style curve boom and extendable stick.

- Terratech Equipment Komatsu – straight boom that does not meet specification.
- Wajax Industries JCB – straight boom that does not meet specifications.
- Finning Canada CAT – excavator curved boom that meets specification.

The excavator style curved boom allows for close in digging and loading during tight working conditions. The curve style allows for additional safety for the crews as the operator visibility is enhanced.

Financial Impact

Financial Impact	Vehicle Unit	Allocated Funding
Public Works Vehicle Replacement Program 2004	Unit 834-1994 John Deere Backhoe	\$125,000.00
Public Works Vehicle Replacement Program 2005	Unit 835-1994 CAT Backhoe	\$ 95,000.00
	Total Funds Available	\$220,000.00
2 Backhoe Loaders @ \$146,401.08 per unit	Total Funds Required	\$292,802.16
	Balance Requested from the 2004 Budget	\$ 72,802.16

Funding for this purchase shall be made available through the 2004 and 2005 Public Works Vehicle Equipment Replacement program. Due to purchase efficiencies in the 2004 Vehicle Equipment Replacement program, there are sufficient unappropriated excess funds available to cover the additional cost. The remaining allocations within the 2004 program remain the same.

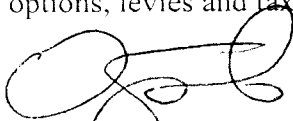
Staff anticipate that hourly vehicle charges will be increased in 2007 for the backhoes from the current rate of \$59.96/hour to approximately \$70.00/hour.

The recommended total purchase amount is \$292,802.16.

A cost analysis summary has been completed from the three (3) bids received on the attachment provided. (Attachment 2.)

Conclusion

It is our recommendation that the City of Richmond award the purchase of the two (2) backhoe loaders to Finning (Canada) for the submitted unit price of \$146,401.08 each including all options, levies and taxes.



Dave Semple
Director of Parks & Public Works Operations
(3350)

MJL:DS:smj

Supply and Delivery of Two (2) Backhoe Loaders
CONTRACT 27111Q

(Alt 1)

BIDDERS												
ITEM DESCRIPTION	TERRA TECH EQUIPMENT	MEETS SPEC	NOT M/S	EXCEED SPEC	WAJAX IND	MEETS SPEC	NOT M/S	EXCEED SPEC	FINNING	MEETS SPEC	NOT M/S	EXCEED SPEC
MODEL YEAR												
MAKE/MODEL	Komatsu WB 150-2N		X		JCB 214		X		CAT 430 D	X		
Wheelbase	85"		X		89"		X		83"	X		
Base Curb Weight	57,442 lbs	X			55,125 lbs		X		61,233 lbs	X		
Length	24'	X			23.7'	X			23.10'	X		
Height	11.8"	X			11.3"	X			12.4"	X		
Width (12.1" max)	12'	X			10.11"	X			12.1"	X		
All weather cab	complies	X			complies	X			complies	X		
Cab mount	cushion	X			cushion	X			cushion	X		
Door Access	complies	X			No separate windows	X			complies	X		
Windshield	Curved		X		Curved		X		Straight glass	X		
Seat (air)	Air add 550.00		X		Not compliant		X		9-way adj.	X		
Instrumentation	Complies	X							Complies	X		
Mirrors	2-m2 out/in heat		X		Stand heated	X			in/out heated	X		
Int. wipers	complies	X			complies	X			complies	X		
Horn	complies	X			1 horn	X			Electric horn	X		
Vandal protection	complies	X			Single key	X			Vandal protected	X		X
Operator Safety	complies	X			No comment				Complies spec.	X		
Heater Defroster	41,000 BTU	X			No RTUS		X		HVAC system			X
Aux Power socket	complies	X			complies	X			complies	X		
Noise levels	77 DBA		X		71 DBA	X			73 DBA	X		
Operator Visibility	No Comment				Hood Slope				Sloped hood			
Steering Wheel	complies	X			Ad. Tilt	X			Ad. Tilt	X		
Beacon light	complies	X			complies	X			complies	X		
Ride control	Load Slab System	X			Smooth ride	X			Ride cont. CAT	X		X
Engine	269 CI	X			243 CI	X			268 CI	X		
Engine Power	98 HP	X			92 HP	X			98 HP	X		
Turbo charger	complies	X			complies	X			Yes 97 HP	X		
Torque	270 ft lbs @ 1500	X			272 ft lbs	X			299 ft lbs	X		
Fuel system (bio)	TBA				TBA		X		Direct inj	X		
Cooling system	complies	X			complies	X			complies	X		

Supply and Delivery of Two (2) Backhoe Loaders
CONTRACT 2711Q

(Att 1)

BIDDERS												
ITEM DESCRIPTION	TERRA TECH EQUIPMENT	MEETS SPEC	NOT M/S	EXCEED SPEC	WJAX IND	MEETS SPEC	NOT M/S	EXCEED SPEC	FINNING	MEETS SPEC	NOT M/S	EXCEED SPEC
Water pump	No spec	X	X		Belt driven	X	X		Gear driven	X		
Air cleaner	Complies	X			Complies	X			2 Stage - dry	X		
Fuel tanks	34.4 gal's	X			42.5 gals	X			34.0 gals	X		
Power/weight ratio	195.5 to 1	X			169.7 / 92 HP	X			229.84 - 1	X		
Maintenance	500 Hrs	X			500 Hrs	X			500 Hrs	X		
Transmission	Complies	X			Complies	X			Complies	X		
Trans Disconnect	Pow. Shut. adj. 5,100.00	X	X		TBD	X	X		Autoshift	X		
Brakes	Wet Disc. Self adj	X			Multiwet/self	X			Wet/multi/self	X		
Parking brakes	No auto engagement	X	X		No auto engage	X	X		Hard control	X	X	
Trans Cooling	Heat exchanger	X			No commnt	X			Complys	X		
Oil Reservoirs	Complies	X			Yes	X			Complies	X		
All wheel drive	No on the go	X	X		No on the go	X	X		On the go	X		
Front axle	35.475 lbs	X			36.383 lbs	X			27,029 lbs	X		
Power steering	Power HVA	X			Na commnt	X			Double acting	X		
Alternator	89 amp	X	X		95 amp	X			120 amp	X		
Battery	12V - 850 CCA	X			12V - 950 CCA	X			12V - 800 CCA	X		
Wiring circuitry	Complies	X			IP 69 conn	X			Sealed - CAT	X		X
Vehicle lights	Complies	X			Yes	X			4 & 4 halogen	X		X
Hyd Pump	variable 43.5 GPM	X			Dual gear 39 GPM	X			Torg limit 43 gal	X		X
Hyd System	3200 PSI	X			3300 lbs	X			3300 PSI	X		
Hyd Tank	92 Liter	X			83 Liter	X			94 Liter	X		
Hyd Filter	Spin on	X			Spin on	X			Spin on - 5 MIC	X		
Hyd Hose	HP	X			XD5 rated	X			Lat XT 3 E hose	X		
Add Hyd circuit	Complies	X			Yes	X			Complies	X		
Operator controls	Pilot/Joystick	X			Pilot/hyd	X			Pilot/PartPods	X		X
Bucket	1.3 yd - muth	X			1.4 yd	X			1.35 yd	X		
Loader Specs	8525 lbs	X			Complies	X			5968 lbs	X		
Quick coupler	Complies	X			JTB quick	X			CAT - quick	X		
Backhoe Specs	No extra Boom	X	X		No extra Boom	X	X		Excavator boom	X		
Stab Cylinder	Complies	X			No	X			Complies	X		
Tires wheels	Goodyear	X			Michelin	X			Goodyear	X		
Compliance	Yes	X			Yes	X			Yes	X		
Operators manuals	Yes	X			Yes	X			Yes	X		
Demo	Yes-completed	X			Yes	X			Yes	X		
Warranty	5 yr - 8000 hr full	X			Yes-completed	X			Yes-completd	X		
Prevent Maintenance	Complies	X			5 yr - 7500 Hrs	X			5 yr - 7500 Hrs full	X		
Delivery	60-90 days	X			Yes	X			Complies	X		
		X			12 weeks	X			12 - 16 weeks	X		

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12/14/14

COST SUMMARY
SUPPLY and DELIVERY of Two (2) Backhoe Loaders
CONTRACT 2711Q

BIDDERS

OPTION / ITEM	Terratech		Wajax		Finning	
Unit Cost (per unit)	95,215.16		91,230.00		117,500.00	
Levy					22.00	
Options:						
Factory Auto Shift	5,100.00	Complete Machine Upgrade Required			2,900.00	
Auto Lube System	TBA		N/A		8,000.00	
Air Seat	550.00				Incl.	
Parts Delivery	1,600.00		TBA		Incl.	
Availability Guarantee	1,500.00		Incl.		Incl.	
Service Gfuarantee	TBA		TBA		Incl.	
Coolant Heater	N/A		250.00			
Cold Start	N/A		750.00		Incl.	
SUB-TOTAL	103,965.16		92,230.00		128,422.00	
GST	7,277.56		6,456.10		8,989.54	
PST	7,277.56		6,456.10		8,989.54	
TOTAL	118,520.28		105,142.20		146,401.08	