140 N. Otterbein Ave Westerville, OH 43081 614-890-0800 fax/ 614-890-0801



September 16, 2015

Mr. Rick Brewer City of Columbus Citywide Occupational Safety and Health Manager 77 N. Front Street Columbus, OH 43215

Re: Vermeer BC1800XL Brush Chipper

Dear Mr. Brewer:

Safex, Inc. was asked to evaluate the safety features of the Vermeer BC1800XL Brush Chipper to be used by the Division of Recreation and Parks. When compared to other Brush Chippers available within the industry, below are a few listed advantages Safex identified.

- 1. The BC1800XL is equipped with a 62.5" long feed table. Pictured below is the feed table and another brush chipper. This feed table creates a physical barrier between the operator and the point of operation. When employees feed tree limbs and branches into chippers they are at risk of getting caught in the machine and being pulled into the fast-turning chipper knives. According to OSHA Integrated Management Information System, 39 employees were killed in chipper accidents from 1996 2005. Of those fatalities, the vast majority (78 %) resulted from being caught in the chipper.
- 2. The BC1800XL is equipped with an exclusive bottom feed stop bar system. Employees must be protected from contacting operating chipper components such as knives, feed rollers and chip discharge spouts. OSHA's general industry machine guarding standard requires that all machines be equipped with one or more methods of guarding to protect the operator and other employees in the work area from hazards such as those created by rotating parts and flying chips (29 CFR 1910.212(a)(1)). In addition, the point of operation of such machines must be guarded appropriately (29 CFR 1910.212(a)(3)). Moreover, OSHA's Logging Operations standard, to the extent that it applies to a particular chipping operation, requires that infeed and outfeed chutes be guarded to prevent contact with the disc, knives, or blades (29 CFR 1910.266(h)(4)). The bottom feed stop bar is accessible to employees where work is being performed and with only 34 pounds of force, all power is cut to the chipper.

- 3. The American National Standards Institute (ANSI) ANSI Z133.1-2006 standard, "Safety Requirements for Arboricultural Operations," requires that chippers equipped with a mechanical feed control bar must have quick-stop and reverse feed devices for emergencies. The BC1800XL has improve productivity with the SmartFeed system, which monitors engine rpm and senses jams, automatically stopping or reversing the rollers as needed.
- 4. The 62.5" long feed table will also assistance employees when lifting wood to be placed in the chipper by providing a resting location for the log at waist height. According to the Bureau of Labor Statistics, the 387,820 musculoskeletal disorders cases accounted for 33% of all working injury and illness cases in 2011.



If you have any questions or need additional information, please contact me at (614)-890-0800 ext. 206.

Sincerely, SafeX

Heather Tibbitts Project Manager

On the Lillits

Vermeer Heartland, Inc.



Sales Signature

2574 US Highway 22 NW Washington Court House, OH 43160 Phone: 740-335-8571 / Fax: 740-335-1926



Quote

CITY OF COLUMBUS	PO#		2/19/2	016
lim Long	N		Taxable	
1533 ALUM INDUSTRIAL DR W.			ТахТуре	
COLUMBUS, OH 43209		SalesTax	«Percent	0.070
	Equipment Details	- Charles		
2	NEW VERMEER BC1500 - 15" capacity drum style brush chipper includes a 130HP CUMMINS Tier 4F turbocharged diesel engine, high coolant temperature and low oil pressure automatic shutdown; isolated engine and cutter housing;		\$139,1	
	DOMESTIC 6-WAY ROUND TRAILER PLUG (verify wiring of towing vehicle)			\$0.00
	BC1500 WINCH RIGHT SIDE CONTROLS T4F			\$0.00
	ELECTRIC BRAKES			\$0.00
	MANUAL CHUTE ROTATION RIGHT SIDE			\$0.00
	FLOTATION TIRES - LT285/75R16E			\$0.00
2	14% OHIO STS DISCOUNT		(\$19,4	86.00)
2	DEALER INSTALLED ENGINE BLOCK HEATER		\$7	00.00
	Gı	rand Total	\$120,3	94.00
If you have	e any questions, please call Scott Butts at (740	572-1358.		
*Total Price includes Down Payments,		, 0, 2 . 000.		
is a control of the New Years and the	ited warranty is the only warranty applicable to this new equipment and is express cluding any implied warranty of merchantability or fitness for a particular purpose.	ly in lieu of all other Nothing in this langu	warranties by lage shall mod	the ify or
If above equipment is Used: Any used equip	ment sold to the purchaser by the dealer under this written agreement is sold at th y or fitness for a particular purpose, as to its condition or the condition of any part this purchase order or in a separate writing furnished to the purchaser by the dea	nereor except as ma	ly be officiwise	without e
	hall be charged to accounts on the 11th day of each month on the amount of the p			. This

CUSTOMER RESPONSIBLE FOR ANY AND ALL TAXES NOT QUOTED OR COLLECTED BY VERMEER HEARTLAND, INC.

Customer Signature

Vermeer Heartland, Inc.



2574 US Highway 22 NW
Washington Court House, OH 43160

Phone: 740-335-8571 / Fax: 740-335-1926



Quote

CITY OF COLUMBUS		PO#	2/12/2016	
n Long			Taxable	Ш
1533 ALUM INDUSTRIAL DR W. COLUMBUS, OH 43209			TaxType	0.07
	,		axPercent	0.070
		Equipment Details	# 07.0	C2 00
1	BC1800XL115	NEW VERMEER BC1800XL - 19" capacity drum style brush chipper includes a 173 HP John Deere tier 4F turbocharged diesel engine with ECOIdle.	\$87,2	03.00
1	BC1800XL036	BC1800XL RIGHT SIDE WINCH OPTION with manual hydraulic directional controls (must choose 10K axle and radial tire options -021 or -050)		\$0.00
1	BC1800XL101	BC1800XL HEAVY DUTY MANUAL JACK		\$0.00
1	BC1800XL050	BC1800XL EL BR 10K AXLE RAD TIRE - WINCH OPTION: 10,000 lb. axle with torsion suspension and electric brakes, fixed tongue, 235/75R 17.5 radial tires with winch option		\$0.00
1	BC1800XL155	~BC1800XL DOMESTIC LED LIGHTS TIER 4 FINAL		\$0.00
1	BC1800XL040	~BC1800XL DOMESTIC 6-WAY ROUND TRAILER PLUG (verify wiring of towing vehicle)		\$0.00
1	BC1800XL153	BC1800XL RIGHT SIDE CONTROLS - JD T4F (173HP)		\$0.00
1	BC1800XL015	~BC1800XL RIGHT SIDE MANUAL DISCHARGE/CHIP CHUTE Manually operated discharge/chip chute rotation and deflector		\$0.00
1		TREE COMMANDER WIRELESS REMOTE CONTROL		\$0.00
1		14% OHIO STS BID DISCOUNT	(\$12,2	17.00)
1		DLR. INSTALLED ENGINE BLOCK HEATER	\$3	50.00
		Total Price*	¢75.2	06 00
		Total Price	\$75,3	96.00

If you have any questions, please call Scott Butts at (740) 572-1358.

If above equipment is New: The Vermeer limited warranty is the only warranty applicable to this new equipment and is expressly in lieu of all other warranties by the seller/dealer, either expressed or implied, including any implied warranty of merchantability or fitness for a particular purpose. Nothing in this language shall modify or change the obligations set forth in the existing manufacturer's written warranty.

If above equipment is Used: Any used equipment sold to the purchaser by the dealer under this written agreement is sold at the time of delivery by seller/dealer without any guarantee or warranty of merchantability or fitness for a particular purpose, as to its condition or the condition of any part thereof except as may be otherwise specifically provided in writing on the face of this purchase order or in a separate writing furnished to the purchaser by the dealer at the time of sale.

A FINANCE CHARGE of 11/2% per month shall be charged to accounts on the 11th day of each month on the amount of the previous balance remaining unpaid. This FINANCE CHARGE is equivalent to an ANNUAL PERCENTAGE RATE OF 18%.

CUSTOMER RESPONSIBLE FOR ANY AND ALL TAXES NOT QUOTED OR COLLECTED BY VERMEER HEARTLAND, INC.

Sales Signature	Customer Signature	

^{*}Total Price includes Down Payments, Rental Credit or discounts.

Vermeer Heartland, Inc.



2574 US Highway 22 NW Washington Court House, OH 43160 Phone: 740-335-8571 / Fax: 740-335-1926



Quote

		Grand Total	\$75,396.00

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If above equipment is Used: Any used equipment sold to the purchaser by the dealer under this written agreement is sold at the time of delivery by seller/dealer without any guarantee or warranty of merchantability or fitness for a particular purpose, as to its condition or the condition of any part thereof except as may be otherwise specifically provided in writing on the face of this purchase order or in a separate writing furnished to the purchaser by the dealer at the time of sale.

A FINANCE CHARGE of 11/2% per month shall be charged to accounts on the 11th day of each month on the amount of the previous balance remaining unpaid. This FINANCE CHARGE is equivalent to an ANNUAL PERCENTAGE RATE OF 10%.

CUSTOMER RESPONSIBLE FOR ANY AND ALL TAXES NOT QUOTED OR COLLECTED BY VERMEER HEARTLAND, INC.

Sales Signature	Customer Signature	
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