Agenda – Executive Policy Committee – February 6, 2018

REPORTS

Item No. 9 Single Source Negotiation for the Supply and Delivery of Brush Chipper Machines

WINNIPEG PUBLIC SERVICE RECOMMENDATION:

That Council approve single source negotiation with Vermeer Canada Inc., in the estimated amount not to exceed $630,000.00 (plus tire tax, MRST and GST) for the Supply and Delivery of seven (7) Brush Chipper Machines.

ADMINISTRATIVE REPORT

Title: Single Source Negotiation for the Supply and Delivery of Brush Chipper Machines (MM # 955-2017)

Critical Path: Executive Policy Committee - Council

AUTHORIZATION

Author	Department Head	CFO	CAO
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EXECUTIVE SUMMARY

The Urban Forestry Branch, Parks and Open Space Division, Public Works Department has six (6) brush chippers due for replacement and the Water and Waste Department also requires one (1) brush chipper for their 4R Recycling depots, both requiring that the equipment must meet the high standard of safety for its employees.

In 2014, in a previous bid opportunity for brush chippers, Vermeer Canada Inc. was awarded the contract, being the only company who had equipment which met the high safety requirements. The required safety features have been assessed by an independent third party confirming these safety features represent best practice to prevent injuries and fatalities. These features also meet the high standard of safety adopted by the Urban Forestry Branch.

In 2017, to confirm that no other potential manufacturers or vendors could now meet the specifications, a Bid Opportunity (400-2017) was issued. The responses to this bid opportunity confirmed that only Vermeer Canada Inc. could meet the specifications and requirements. Because a specific brand, manufacturer and model were requested and no substitutes were seen as meeting the specific safety requirements necessary for this equipment, a single source negotiation, separate and apart from this bid opportunity, is being recommended.

RECOMMENDATIONS

That Council approve single source negotiation with Vermeer Canada Inc., in the estimated amount not to exceed $630,000.00 (plus tire tax, MRST and GST) for the Supply and Delivery of seven (7) Brush Chipper Machines.

REASON FOR THE REPORT

As there is no provision within the Materials Management Policy to allow for this single source negotiation, only Council has the authority to waive the requirements of the Materials Management Policy.

IMPLICATIONS OF THE RECOMMENDATIONS

The approval of this report will allow for the negotiation for scheduled replacement of the aging fleet equipment, as well as provide for new equipment for Water & Waste – Solid Waste – 4RDepot within existing budgets.

HISTORY/DISCUSSION

In 2014, Bid Opportunity 212-2013 resulted in no award because review of the safety concerns and technical requirements were not able to be completed within the period for which the bids were open for acceptance. Following the Bid Opportunity closing, the safety review was completed and only Vermeer met the requirements and accordingly a single source award to Vermeer Canada Inc. for the supply and delivery of five (5) brush chippers was made.

Currently, the Urban Forestry Branch, Public Works Department has six (6) more brush chippers that are due for replacement.

Equipment specifications are based on parameters of previous tenders, on current equipment used, safe work practices, and the high standard of safety in the Urban Forestry Branch, with equivalency provisions. However, deviations are not accepted for certain specifications related to safety as discussed in this report. Among the features for which deviations are not acceptable and are directly related to operator safety while chipping, two of the most integral features are included in Appendix A.

Research on injuries and fatalities in arboriculture shows the tree care industry is one of the highest-risk professions due to a work environment that encompasses working aloft, manipulating heavy loads while using power equipment, and requiring specialized skills and equipment to perform this work. A five year study identified 163 fatalities per 100,000 workers for those incidents that were reported. Approximately 11% of all fatalities were due to either contact with or being caught in a chipper. Ensuring the safest equipment for the high risk work of tree care aligns with the City of Winnipeg Organizational Safety Code of Practice and the CAO's Statement on Safety whereby the City of Winnipeg recognizes that protecting the safety and health of all employees is a commitment of the highest priority.

While there is certain required basic safety standards with which all manufacturers comply, there is documented evidence supporting these safety standards that are not satisfactory in going above and beyond in avoiding injuries and deaths in the field of arboriculture. It is also well-documented that actual incidences of injury and death are much higher than reported. Hence, the Urban Forestry Branch requires the specific safety features noted in this report to properly address safety to the City's employees. The Water and Waste Department – Solid Waste – 4RDepot also requires one (1) chipper for their 4R Recycling depots and has indicated

and concurs on the same safety requirements for their employees utilizing wood chipper machines.

To confirm that no other manufacturer or vendor could again meet the specifications, Bid Opportunity 400-2017 was issued.

Upon review and consultation with the Urban Forestry Branch and the Water and Waste Department – Solid Waste – 4RDepot, it was determined that, similar to Bid Opportunity 212-2013, Vermeer Canada Inc. was the only manufacturer that complied with specifications listed in BO 400-2017. Other manufacturers did not meet the specifications, and deviations offered were deemed not acceptable and are highlighted in Appendix B. Because a specific brand, manufacturer and model were requested and no substitutes were seen as meeting the specific safety requirements necessary for this equipment, single source negotiations, separate and apart from this bid opportunity, are being recommended. Winnipeg Fleet Management Agency is satisfied that Vermeer Canada Inc. has the necessary resources and experience to supply and deliver the specific equipment.

If negotiations are approved then the negotiations with Vermeer Canada Inc. would be based on the specifications included in the two very similar earlier bid opportunities 212-2013 and 400-2017. Upon successful negotiations a subsequent report to award the contract would be forwarded to the public service who has the delegated authority to award the contract. Legal Services would be involved to produce a contract for that award based on the terms and conditions within bid opportunities 212-2013 and 400-2017.

The current best practices and standards for chipper operation have been developed and implemented by the Urban Forestry Branch with the support of Public Works Department Safety and Operator Training Branch in response to Urban Forestry's high lost time injury rates identified in the Public Works Department Injury Reduction Initiative implemented in 2008 and by Manitoba Workplace Safety and Health. These best practices were developed to ensure consistent training and operation of chippers to minimize risk to the operator and to establish high safety standards for equipment features and operation. Changes to these best practices without acceptable alternatives increase the risk of operator error by introducing more variables into training and operation of chipper units in an already highly variable and high risk work environment. Public Works Department Safety and Operator Training Branch has noted that all safety devices that City of Winnipeg staff have become accustomed to must be in the same location and perform the same task, since in a panic or emergency situation, a person will fall back on what they are used to.

This procurement is subject to the Canadian Free Trade Agreement (2017) ("CFTA") (formerly the Agreement on Internal Trade (AIT)) and the Comprehensive Economic and Trade Agreement between Canada and the European Union and its Member States, done at Brussels on October 30, 2016 ("CETA"). The CFTA permits single source procurement in a situation where there is a 'legitimate objective' and which otherwise satisfies the requirements of the CFTA. A 'legitimate objective' is defined under CFTA Part VI: Definitions, sub-definition (f) as:

> "legitimate objective means any of the following objectives pursued within the territory of a Party:
>
> …
>
> (f) protection of the health, safety, and well-being of workers.
>
> …"

For the reasons outlined above, the Urban Forestry Branch, Parks and Open Space Division, Public Works Department believes that the single source negotiation of contract for brush chippers to Vermeer Canada Inc. is:

(i) a measure undertaken in pursuit of the legitimate objective of the protection of health, safety, and well-being of workers; and
(ii) is otherwise being applied in compliance with the requirements of the CFTA; and
(iii) is thus permitted under CFTA.

There are similar exemptions related to safety contained in Articles 19.3(b) and 19.12 (b) of CETA.

FINANCIAL IMPACT

Financial Impact Statement

Date: November 7, 2017

Project Name:

First Year of Program **2017**

Single Source Negotiation for the Supply and Delivery of Brush Chipper Machines (MM # 955-2017)

	2017	2018	2019	2020	2021
Capital					
Capital Expenditures Required					
Less: Existing Budgeted Costs					
Additional Capital Budget Required	$ -	$ -	$ -	$ -	$ -
Funding Sources:					
Debt - Internal					
Debt - External					
Grants (Enter Description Here)					
Reserves, Equity, Surplus					
Other - Enter Description Here					
Total Funding	$ -	$ -	$ -	$ -	$ -
Total Additional Capital Budget Required	$ -				
Total Additional Debt Required	$ -				
Current Expenditures/Revenues					
Direct Costs					
Less: Incremental Revenue/Recovery					
Net Cost/(Benefit)	$ -	$ -	$ -	$ -	$ -
Less: Existing Budget Amounts					
Net Budget Adjustment Required	$ -	$ -	$ -	$ -	$ -

Additional Comments:

The FIS not applicable as this is not an award report so no funds are being encumbered at this negotiation stage.

"original signed"

Joseph Chammartin, CPA, CGA
Manager of Finance
Winnipeg Fleet Management Agency

CONSULTATION

This Report has been prepared in consultation with:

Water and Waste
Materials Management
Legal Services (as to Legal Issues)

OURWINNIPEG POLICY ALIGNMENT

Aligns with Our Winnipeg policy: A Sustainable Winnipeg, Direction 2: Incorporate sustainable practices into internal civic operations, programs and services.

SUBMITTED BY

Department:	Winnipeg Fleet Management Agency/Public Works
Division:	Winnipeg Fleet Management Agency/Public Works - Urban Forestry Branch
Prepared by:	Kevin Moniz, Coordinator of Equipment Specifications
	Martha Barwinsky, City Forester
Date:	November 3, 2017

Attachments:

Appendix A: Equipment Specifications
Appendix B: Non-Compliant Equipment Specifications

Appendix A: Equipment Specifications

1) Vertical Feed Wheels:

It is the experience of the Urban Forestry Branch that the vertical feed wheels effectively reduce kick-back and uncontrolled movement of material being fed into the chipper, thereby significantly reducing risk of injury to the operator. This design also draws the material downward as it is being fed into the chipper to minimize uncontrolled up and down and side to side movement of material.

Vertical Feed Wheels



Horizontal Feed Wheels





2) Safety Bottom Feed-Stop Bar:

A safety bottom feed-stop bar is designed to be a passive safety feed brake and, when tripped, the mechanism instantly stops the feed system preventing personal injury or fatality. Feed wheels draw in material at approximately 20 inches per second which translates into a 2-3 second reaction time, in which it is unreasonable to expect any person to react in a panic or emergency situation, hence the requirement for a passive brake mechanism.

The safety bottom emergency stop feed bar was assessed in an independent study and reported at the American Society of Mechanical Engineers 2011 International Mechanical Engineering Congress and Exposition. This study assessed the hazards associated with wood chipper accidents and the effectiveness of various safety devices intended to protect operators, including active and passive emergency stop mechanisms. Excerpts of the abstract and conclusion of the study are provided below:

"On commercial wood chippers with mechanical infeed systems, a caught operator can be pulled into the machine by the infeed system. Due to the speed of the infeed system, once an operator has been caught there is a limited window of time before serious injury or death can occur. Commercial wood chippers commonly pull in branches at speeds of 20 inches per second (50.8 centimeters per second) or faster. Therefore, caught operators may have no more than a few seconds to either free themselves from the branches or activate a device to stop the feeding mechanism. As an operator is being pulled into the chipper toward the chipping mechanism, various factors can limit the caught operator's ability to access or activate a feed-stop device."

"Due to the limited time that a caught operator has to react in these emergency situations, the various factors affecting that operator's ability to react effectively, and the extreme nature of the possible consequences, it is important that a feed-stop device can be passively activated as the operator is pulled into the machine. The bottom feed-stop bar is one such

solution. As the operator is pulled into the chipper, the weight of the operator activates the device and stops the feed rollers without any reaction required from the caught operator. Feed-stop devices which require an active response on the part of a caught operator may be ineffective in emergency situations in which the operator is unable to access or activate the device before being pulled into the chipper."

"While national standards require control bars along the top and sides of the infeed hopper, control bars alone are not sufficient to protect caught operators. Feed-stop devices, such as the bottom feed-stop bar, that can be passively activated by a caught operator are paramount to the safety of commercial wood chipper operators."

Appendix B: Non-Compliant Equipment Specifications

1) **Feed Wheels –** Two (2), vertical hydraulically driven, supported by heavy duty bearings. Horizontal feed wheels not acceptable.

   All other manufacturers supply brush chippers with horizontal feed wheels. The horizontal feed wheel design results in material moving uncontrollably up and down as it is being fed into the chipper, placing the operator in direct risk of injury which is not acceptable.

2) **Debris Box** – Debris box shall be designed as to not require an operator to crawl underneath the unit placing the operator at risk in the field.

   Brush Chippers with Horizontal Feed Wheel(s) have debris boxes underneath the chipper unit requiring the user to access the box underneath the unit to clean out the debris. The trap door to the debris box can be opened from the side of the chipper or by kneeling beside the unit. However, it is the experience of the Urban Forestry Branch that the debris box becomes plugged in the winter months as the debris freezes and the operator physically has to crawl underneath the unit to dislodge the debris in the field. This requirement places the operator at risk and is not acceptable.

3) Safety Bottom Stop Feed Bar –

   All Manufacturers indicated compliance with the requirement for a Safety Bottom Stop Feed Bar; however, only one manufacturer supplies this safety device as “Standard” equipment. For all other manufacturers, this safety device is considered “Optional”.

   It is important to note, the specifications for the Safety Bottom Stop Feed Bar required by the Urban Forestry Branch is to be standard equipment, with no deviations, to further protect the safety of City’s employees in the event a replacement unit is required to replace a unit that is away for repairs or maintenance. If the Safety Bottom Stop Feed Bar is not standard equipment but an add-on or optional safety device a replacement unit cannot be supplied immediately as required resulting in delays on operational deadlines.