

**COUNCIL ACTION FORM**

**SUBJECT: PURCHASE OF PUBLIC WORKS SNOWPLOW DUMP TRUCKS AND ACCESSORIES – FLEET REPLACEMENT PROGRAM**

**BACKGROUND:**

There are seven single-axle and five tandem axle snowplow dump trucks used by Public Works for street maintenance and snow removal operations. These trucks, which operate year-round, are essential to maintaining the City's streets, utilities, and public areas. Six single axle trucks, one tandem axle truck, and snow removal equipment are scheduled for replacement in FY 2020/21.

The seven new replacement trucks will be equipped with a stainless-steel dump body, pre-wet and brine system, wing plow, front plow mounting provision (the existing front plows will be re-used), hydraulic control system, GPS plow/spreader status & vehicle tracking system, and laser wing plow guide.

**IMPROVED SNOW/ICE CONTROL CONFIGURATIONS PROPOSED:**

Three of the trucks being replaced have underbody plows. Trucks equipped with underbody plows have demonstrated their value in removing hard-pack snow. Therefore, all seven of the new trucks in this bid are budgeted to be equipped with an underbody plow.

An improved configuration to the plows will be implemented. The wing plow will be mounted at the right rear corner of the truck instead of the front. This will allow the wing plow to move the snow from the underbody plow as well as the front plow, thus improving the efficiency of the plows.

Public Works staff also identified significant savings with these trucks. The sand/salt spreader will be a tailgate-mounted unit rather than the V-box spreader currently used by the City. A tailgate spreader costs one-third the price, needs only a fraction of the storage space in the offseason, and requires significantly less maintenance. The savings from the purchase of seven tailgate spreaders in lieu of the V-box is approximately \$91,000. Additionally, the savings in annual maintenance is estimated at \$9,500 for the seven spreaders. Over an expected 10-year life cycle this could save \$95,000 in maintenance costs.

**CHASSIS BIDS:**

Bids were solicited separately for the truck chassis and the necessary equipment to outfit each truck. This bid is for six medium-duty (single axle) and one heavy duty (tandem axle) trucks.

<b>Chassis Vendors</b>	<b>Make and Model</b>	<b>Each Single Axle Chassis</b>	<b>Each Tandem Axle Chassis</b>	<b>Add'l Options (per chassis)</b>
Truck Country Freightliner Cedar Rapids, Iowa	Freightliner 114SD	\$81,882	\$91,301	\$ 0.00
<b>O'Halloran International (Bid #2) Altoona, Iowa</b>	<b>International HV507</b>	<b>\$83,296</b>	<b>\$93,897</b>	<b>\$164</b>
Harrison Truck Center Altoona, Iowa	Freightliner 114SD	\$83,527	\$94,775	\$24
O'Halloran International (Bid #1) Altoona, Iowa	International HV507	\$83,663	\$92,950	\$164
Wausau Equipment Co. of New Berlin, Wisconsin	Freightliner 114SD	\$82,776	\$92,810	\$ 0.00

The low bid from Truck Country of Cedar Rapids, did not meet the submittal requirements, therefore it is not being considered. O'Halloran submitted separate bids with two different configurations of chassis; O'Halloran's Bid #2 is for a slightly shorter chassis, which is more desirable to City staff.

Desirable electronic programming options were identified by staff as part of the bid package. The options selected will cost \$164 for each O'Halloran chassis, and \$24 for each Harrison chassis. The four options selected for the chassis include: 1) Wipers go to slowest intermittent speed when parking brake is set, 2) Headlights come on when the wipers are turned on, 3) Pre-trip light inspection switch to automatically cycle through the light while the driver walks around the truck and inspects, and 4) Parking brake alarm system sounds the horn if the driver's door is opened and the parking brake is not set.

**EQUIPMENT BIDS:**

Bids were received from equipment vendors as follows:

<b>Equipment Vendor</b>	<b>Equipment for each Single-Axle</b>	<b>Equipment for each Tandem-Axle</b>	<b>Selected Options</b>
<b>Henderson Truck Equipment Co. Manchester, Iowa</b>	<b>\$112,583</b>	<b>\$118,756</b>	<b>\$725/truck</b>
Hiway Truck Equipment Co. Fort Dodge, Iowa	\$113,597	\$118,575	\$500/truck
Wausau Equipment Co; New Berlin, Wisconsin	\$118,340	\$125,889	\$782/truck

The equipment option is for the vendor to install the wiring harness for a wing plow laser guidance system.

**COMBINATION OF CHASSIS AND EQUIPMENT BIDS:**

<b>Chassis Vendor with Equipment Vendor</b>	<b>2021 Chassis with selected options</b>	<b>7 Truck Chassis</b>	<b>Equipment with option</b>	<b>7 Complete Trucks Total Cost</b>
<b>O'Halloran International (Bid #2)* with Henderson Equipment Co.</b>	<b>International HV507</b>	<b>\$594,821</b>	<b>\$799,329</b>	<b>\$1,394,150</b>
Harrison Truck Center with Henderson Equipment Co.	Freightliner 114SD	\$596,105	\$799,329	\$1,395,434
Harrison Truck Center with Hiway Truck Equipment	Freightliner 114SD	\$596,105	\$799,479	\$1,395,584
O'Halloran International (Bid #1) Hiway Truck Equipment, Ft Dodge	International HV507	\$597,076	\$803,657	\$1,400,733
Wausau Equipment Co. (providing both chassis & equipment)	Freightliner 114SD	\$589,466	\$835,929	\$1,425,395

Evaluation of the bids determined the lowest acceptable bid for the completely equipped trucks is from O'Halloran International of Altoona, IA for the chassis, with Henderson Equipment Co. of Manchester, IA to provide and install the snow equipment and accessories.

O'Halloran International for 7 chassis	\$ 594,821
Henderson Truck Equipment Co.	799,329
<b>Total cost for the Fully Equipped Trucks</b>	<b>\$1,394,150</b>

**Funding is available for this purchase as follows:**

Truck Escrow	\$ 886,886
Underbody Plow Escrow	\$ 18,010
Wing Plow Escrow	\$ 65,457
Spreader Escrow	\$ 154,800
Estimated Salvage of All Items	\$ 144,750
Operating Budget Support	\$ 70,000
Escrow to be Collected until Delivery	\$ 88,123
<b>Total Funding Available</b>	<b>\$1,428,026</b>

**B100 BIODIESEL PILOT PROGRAM CONTINUATION**

In August 2019, the City Council approved the B100 Pilot Project. In this project, the City agreed to equip five City snowplow dump trucks (like those in this bid) with a B100 fuel system. The equipment cost \$12,000 for each truck and was paid for by Ames-based

Renewable Energy Group (REG). REG also agreed to provide the City with a B100 storage tank and B100 fuel at a discounted rate, in exchange for the City testing the use and performance of the system.

These five trucks have successfully used B100 fuel since January 2020, burning over 4,000 gallons of B100 in that time. These trucks have lowered their combined carbon footprint by more than 160 tons since January. Data collected by City staff shows the fuel economy of the B100 to be the same as unblended diesel and B20 purchased from the DOT. The City's cost for B100 is approximately 5 cents per gallon less than diesel pricing the City receives from the DOT. The use of B100 will increase as winter weather demands greater use of these trucks for snow and ice removal.

The Public Works operators have indicated they have not experienced any reduction in power or performance with the B100 fuel and system. They also enjoy the convenience of filling the trucks on site at the City facility where the B100 tank is located.

**Based upon this success, City staff has requested a quote to install the Optimus Fuel Management System on the seven new trucks being purchased.** The lowest price for the Optimus Fuel System was from O'Halloran at \$13,428 for each chassis, or a total of \$93,996. Installation of this system on these trucks would expand the use of the B100 fuel to a total of 12 City trucks. REG is aware of the City's interest in expanding the use of this fuel system. REG would continue to supply the discounted B100 under the pricing arrangement reached in August 2019. Staff expects the quantity of B100 consumed would increase with wider use of this system, thereby reducing reliance on higher-carbon B20 and unblended diesel use.

**Although the Optimus systems for the five trucks outfitted in 2019 were paid for by REG, funding for additional Optimus systems would be paid for by the City.** Public Works staff is currently completing an application for grant funding to finance alternative fuel vehicles used for the construction of roads. If the grant is awarded, funding will be dispensed when the vehicles have been purchased.

Fleet Services reserve funds could be made available to use as a loan to pay for the Optimus Systems until alternate funding through grants or other sources is secured. Public Works would then repay the loan to Fleet Services over time if other sources do not become available.

**O'Halloran has offered to defer payment for the Optimus installation for 12 months while grant applications are completed and funding can be identified.**

**ALTERNATIVES:**

1. a) Award a contract to O'Halloran International of Altoona, IA for 7 International HV507 Chassis – 6 single axle, and 1 tandem axle as quoted, for the total price of \$594,821.
  - b) Award a contract to Henderson Truck Equipment of Manchester, IA to equip the 6 single axle truck chassis and 1 tandem axle chassis from O'Halloran International with dump body, snow removal equipment and accessories as quoted for a total of \$799,329.
  - c) Award the contract to O'Halloran International of Altoona, IA to install the Optimus Vector system on the 7 chassis for year-round use of B100 biodiesel for a total of \$93,996
  - d) Authorize staff to pursue grants in the next 12 months to pay for the Optimus system; if unsuccessful a loan will be provided by Fleet Services to Public Works.
2. Award contracts for truck chassis and associated equipment to a combination of other bidders.
  3. Reject all bids and ask staff to rebid.

**CITY MANAGER'S RECOMMENDED ACTION:**

Staff from Fleet Services and Public Works have evaluated these bids and agree that the bid for the 6 single axle truck chassis, and 1 tandem axle truck chassis from O'Halloran International of Altoona, IA, and equipped with dump body, snow removal equipment and accessories by Henderson Truck Equipment of Manchester, IA is the best value for the City and will provide exceptional service at the best cost. The installation of the Optimus system aligns with the City Council's value of environmental sustainability.

Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1 as described above.