



**Request for Proposal  
Dump Box, Plow and Wing  
November 1<sup>st</sup>, 2019**

# City of Fargo Request for Proposal

The City of Fargo is requesting proposals for one (1) Dump Box, Snow Plow and Wing. Sealed proposals will be received by the City of Fargo Auditor's Office at 225 4<sup>th</sup> Street North, Fargo, ND 58102, for the purpose of evaluating costs and operating parameters on one new Dump Box, Snow Plow and Wing. Upon completion of the evaluation by the selection committee an order may be placed. Proposals will be received until **2:00 P.M. Central Standard Time Friday, November 1<sup>st</sup>, 2019.**

## CITY OF FARGO RIGHTS

The City reserves the right to cancel this RFP in writing or postpone the date and time for submitting proposals at any time prior to the proposal due date. The City by this RFP does not promise to accept the lowest cost or any other proposal and specifically reserves the right to reject any or all proposals, to waive any formal proposal requirements, to investigate the qualifications and experience of any Proposer, to reject any provisions in any proposal, to modify RFP contents, to obtain new proposals, to negotiate the requested services and contract terms with any Proposer, or to proceed to do the work otherwise.

The City hereby notifies all proposers that it will affirmatively insure that in regard to any contract entered into, pursuant to this request, minority business enterprises will be afforded full opportunity and are encouraged to submit proposals in response to this invitation and will not be discriminated against on the grounds of race, color, sex, or national origin in consideration for an award. The City reserves the right to accept or reject any and all bids that is in the best interest of the City. All questions and inquiries will be addressed to:

Public Works Dept Operational Questions:

Ben Dow  
Director of Operations  
Public Works Department  
402 23<sup>rd</sup> St. N  
Fargo, ND 58102

Email: [BDow@FargoND.gov](mailto:BDow@FargoND.gov)  
Phone: (701) 241-1453  
Fax: (701) 241-8100

Vehicle Specifications:

Tanner Smedshammer  
Fleet Management Specialist  
Public Works Department  
402 23<sup>rd</sup> St. N  
Fargo, ND 58102

[Tanner.Smedshammer@FargoND.gov](mailto:Tanner.Smedshammer@FargoND.gov)  
(701) 241-1460  
(701) 298-6971

## GENERAL SPECIFICATION

**MODEL:** Unit shall be a new current year model.

**WARRANTY:** Shall be stated in **writing** on the form provided.

**DELIVERY:** Proposers must perform a complete pre-delivery service prior to delivery of equipment. All units are F.O.B., Fargo Central Garage.

**Proposers must state the number of days for delivery from time of order and a \$150.00 per day will be accessed against the purchase price with the total not to exceed 2.5% of purchase price.**

**MANUALS:** One (1) complete service manual, digital or printed  
One (1) complete part manual, digital or printed  
Two (2) operator's manuals  
One (1) training video (if available)

**TRAINING** Upon delivery to end-user Proposer will provide instruction to operators on proper operation and daily maintenance.

Two days of training on repair procedures to be provided by a Factory Qualified representative to repair technicians. Onsite training at the City of Fargo Central Garage should be scheduled at time of order.

**PROPOSER** There shall be \$500,000.00 minimum of product Liability coverage by the manufacturer and minimum of \$500,000.00 liability coverage by the product installers to protect the City of Fargo. Certification shall be provided with proposal.

Preference may be given to Proposer who has a local dealer with a reasonable amount of parts inventory for the unit that has been proposed and a complete service facility. On new models or equipment not previously purchased by the City of Fargo, the selection committee may elect to have a demonstration of the models being considered.

# **Dump Box and Plow Bidding Specifications**

## **1.0 INTENT**

It is the intent of this specification to provide for the purchase of one (1) new and unused Dump Box, Snow Plow and Wing to be used by the Public Works Department.

The City of Fargo Public Works Department has evaluated different styles of Dump Box, Snow Plow and Wing determined that this published specification is best suited for the PWD needs in terms of quality and features. This specification shall not be interpreted as restrictive but rather as a measure of quality and performance against which all other Dump Box and Snow Plows will be compared.

In comparing proposals, comparison will not be confined to price only. The successful proposer will be one whose product is judged as best serving the interests of the PWD when price, product, quality and delivery are considered. The PWD also reserves the right to reject any or all proposals or any part thereof, and to waive any minor technicalities. A contract will be awarded to the proposer submitting the lowest responsible proposal meeting the requirements.

## **2.0 EQUIVALENT PRODUCT**

Proposals will be accepted for consideration on any make or model that is equal or superior to the Dump Box, Snow Plow and Wing specified. Decisions of equivalency will be at the sole interpretation of the PWD. A blanket statement that equipment proposed will meet all requirements will not be sufficient to establish equivalence. An original manufacturer's brochure of the proposed product is to be submitted with proposal.

## **3.0 INTERPRETATIONS**

In order to be fair to all proposers, no oral interpretations will be given to any proposer, as to the meaning of the specification documents or any part thereof. Every request for such a consideration shall be made in writing. Based on such inquiry, the PWD may choose to issue an Addendum in accordance with local state laws.

## **4.0 GENERAL**

The specification herein states the minimum requirements of the PWD. All proposals must be regular in every respect. Unauthorized conditions, limitations, or provisions shall be cause for rejection. The PWD will consider as irregular or non-responsive any and all proposals that are not prepared and submitted in accordance with the proposal document and specification, or any proposal lacking sufficient technical literature to enable the PWD to make a reasonable determination of compliance to the specification. It shall be the proposer's responsibility to carefully examine each item of the specification. Failure to offer a completed proposal or failure to respond to each section of the technical specification (COMPLY: YES NO) will cause the proposal to be rejected without review as non-responsive. All variances, exceptions and/or deviations shall be fully described in the appropriate section. Deceit in responding to the specification will be cause for rejection.

**5.0 SPECIFICATIONS**

**YES**

**NO**

**5.1 SNOW PLOW**

- |   |       |       |
|---|-------|-------|
| 1. The snow plow shall be fitted with a moldboard having a cutting edge length of 12' and overall plow length of 12'10", which is capable of automatically altering its contour so to form a tapered shape.   | _____ | _____ |
| 2. The tapered moldboard shall assume inside heights of 33" at the intake side and 51" at the discharge side, whenever angled to the extreme left or right position of center.  | _____ | _____ |
| 3. It shall be possible to alter the discharge end from 51" to 33".   | _____ | _____ |
| 4. It shall be possible for the moldboard to assume the conventional contours of a straight reversible plow. It shall further be possible to increase or decrease the degree of curvature of these non-tapered contours, while respectively altering the inside height of the moldboard anywhere between 51" and 33". | _____ | _____ |
| 5. Moldboard material shall be a minimum of 3/8" thick ultra-high molecular weight polymer material.  | _____ | _____ |
| 6. The upper leading edge shall have a torque tube that runs the entire length of the moldboard, and will be attached to four (4) evenly spaced pads.   | _____ | _____ |
| 7. The torque tube shall attach to a left and right pivoting rib assembly, attached to the lower main frame. Movement of the pivoting ribs shall be done by two double acting cylinders.  | _____ | _____ |
| 8. The cutting edge shall be 3/4 x 8 x 12', center punched.   | _____ | _____ |
| 9. Trip edge shall be a single trip, torsion spring design.   | _____ | _____ |

	<b><u>YES</u></b>	<b><u>NO</u></b>
10. The drive frame & reversing mechanism shall consist of an “A” frame, truss frame, and two (2) single acting hydraulic cylinders.	_____	_____
11. The truss frame shall include a main drive member that is a minimum 4 ½” O.D. 3/8” thick wall pipe.	_____	_____
12. The truss frame shall pin to the moldboard at not less than four (4) points over a span of not less than 100”.	_____	_____
13. The “A” frame shall be fitted with a three (3) point lift chain arrangement.	_____	_____
14. Plow shall include adjustable mushroom skid shoes.	_____	_____

**5.2 PLOW HITCH**

1. Preferred hitch shall be a pin and loop (Gledhill® QCP) style.	_____	_____
2. Factory bumper shall be modified and remounted to the left and right factory mounts. Modified ends shall be treated to prevent rust.	_____	_____
3. Mounting shall be done according to manufacturer’s recommendations and City of Fargo approval.	_____	_____

**5.3 WING**

1. The wing shall be designed to be mid mounted.	_____	_____
2. Mounting shall be done according to manufacturer’s recommendations and City of Fargo approval.	_____	_____
3. When in stored position shall have a 12” front and 90” rear ground clearance.	_____	_____

	<u>YES</u>	<u>NO</u>
4. Wing post shall be of a trailing link style with 12" of lift and designed to allow the moldboard to float up a minimum of 8" to 12" when in the plowing position.	_____	_____
5. The post front structure shall be no more than 24" high and 14" wide. Post weldment shall be manufactured with a .750" inside mounting plate and a matching .500" outer plate.	_____	_____
6. A .375" Ex-Ten 50 front base plate will set the width of the post, support the .500" inner lower hinge brackets and the .750" bottom cylinder mounts.	_____	_____
7. Internal reinforcement with a .500 HSLA radius plate shall be welded to both side plates and the front base plate.	_____	_____
8. The post weldment will serve as the anchor for three trailing link assemblies. The upper and lower link arms shall be .750" radius bar with a 1.750" machined hole on each end.	_____	_____
9. Lift cylinder shall be minimum 3" ID x 5" stroke with a 1.5" industrial hard chrome rod.	_____	_____
10. The heel and toe of the wing shall operate in a float function.	_____	_____
11. Cab-controlled hydraulic lift cylinder.	_____	_____
12. Wing Loc or equal shall be installed on both tow and heel lift cylinders.	_____	_____
13. Moldboard will be constructed of 50,000 PSI 10-gauge EX-TEN 50 (Mild Steel Not Acceptable).	_____	_____
14. Overall moldboard length shall be 10'.	_____	_____
15. The 3/4" thick frog to be square hole punched and spaced to accept two (2) 3' and one (1) 4' carbide edges.	_____	_____

	<b><u>YES</u></b>	<b><u>NO</u></b>
16. Moldboard shall have an intake and exit height of 29".	_____	_____
17. Push tube shall be spring cushioned with a shear pin.	_____	_____
18. Right side, rear mounts to be flange mounted for easy removal.	_____	_____
19. Front post assembly positioned in front of the rear axles with adequate plate brace from side plate to wing post to stabilize the post from forward-backward and side to side motion, braces and gussets shall be made with a minimum of 3/8" material.	_____	_____
20. Front post cross brace to both frame rails shall allow clearance for the drive shaft.	_____	_____
21. Rear push tube shall mount between tandems.	_____	_____
22. The rear of the push tube shall be attached to the rear push tube brace with a 1/2" grade 5 bolt that will act as the shear point for the wing. The rear push tube brace shall allow the push tube to fall away if bolt shears.	_____	_____
23. Push tube shall be adjustable to as close to a 90° angle as possible and not to exceed 18" from the outside end of the moldboard.	_____	_____
24. When in transport, the moldboard shall rest against a rubber cushion and shall not contact any portion of the box.	_____	_____

**5.4 HYDRAULICS**

1. The system shall communicate over a CAN Open system bus using CAN Open protocol and not a proprietary communication protocol.	_____	_____
2. The system is completely expandable and allows for additional modules to be added to the system.	_____	_____
3. All components of the system are software upgradeable using a laptop and interface cable.	_____	_____



	<u>YES</u>	<u>NO</u>
4. The configuration file of the calibrated system can be saved for transfer to other systems or as a backup providing the ability to use specific configurations for varying vehicle use or operator skill level.	_____	_____
5. The in-cab control system panel can support up to 6 rocker switch inputs and up to 4 joysticks. Configuration will be determined post award and approved by the City of Fargo. Opticon and strobe switch shall be mounted in this control panel. Switch labels shall be printed by the manufacture and approved on final drawing.	_____	_____
6. The optional display can be attached to the system panel.	_____	_____
7. The joystick function shall be clearly labeled on a graphic overlay providing the basic operator instructions.	_____	_____
8. The system control panel will be floor mounted and adjustable so that it can be positioned for operator comfort. The mounting points shall be braced to insure minimal vibration of the control panel and failure of cab structure.	_____	_____
9. Hydraulic pump shall be pressure compensated load sense type with a bolt on pressure compensator.	_____	_____
10. Pump shall have a minimum displacement of 74cc per revolution.	_____	_____
11. Hydraulic pump shall be configured to utilize a front crankshaft driven system.	_____	_____
12. Shaft shall be SAE keyed, and a companion flange shall be provided at the pump for ease of service.	_____	_____
13. An electrically actuated shut down manifold shall be provided attached to the pressure port of the hydraulic pump.	_____	_____

	<u><b>YES</b></u>	<u><b>NO</b></u>
14. The actuator cartridge shall be normally closed, energize to open. Control for the circuit shall be through the specified integrated control system.	_____	_____
15. Hydraulic valve shall be constructed of cast iron and be pressure and flow compensated across all valve sections.	_____	_____
16. Sections shall be provided as follows: <ul style="list-style-type: none"> <li>• Plow Lift (Double Acting)</li> <li>• Plow Angle (Double Acting)</li> <li>• Plow Curl Left (Double Acting)</li> <li>• Plow Curl Right (Double Acting)</li> <li>• Wing Toe (Double Acting)</li> <li>• Wing Heel (Double Acting)</li> <li>• Hoist (Double Acting) with downside relief</li> <li>• Auger spinner manifold</li> <li>• Hydraulic pre-wet Cartridge</li> </ul>	_____	_____
17. Wing toe should have a 500 PSI down side adjustable relief and the wing heel shall have a 2100 PSI adjustable relief on the raise side.	_____	_____
18. Valve sections must be capable of operating all mounted equipment per the equipment manufacturer's specifications.	_____	_____
19. A combination valve / tank enclosure shall be frame mounted in the manufacturer's recommended location and approved by the City of Fargo.	_____	_____
20. The tank enclosure shall have a capacity of 40 gallons and be constructed of stainless steel.	_____	_____
21. Return filter, "Service Filter switch" and low level float to be provided as part of the tank assembly.	_____	_____
22. An oil level sight gauge / thermometer shall be provided on the reservoir.	_____	_____

	<u><b>YES</b></u>	<u><b>NO</b></u>
23. The valve portion must be of weather-tight design and utilize a gasket to seal the stainless steel lid to the body of the unit.	_____	_____
24. No hoses shall enter the weather-tight area of the enclosure.	_____	_____
25. The operator panel shall be a molded silicone rubber keypad utilizing high life magnetic snap action switches. Three (3) high life magnetic 16 position detented encoders used for separate control of rate, lane and liquid application.	_____	_____
26. The operator panel provides input capabilities to support RS232, RS422, truck speed input, and multiple digital input/outputs.	_____	_____
27. The panel shall have a built in LED backlight that automatically dims the display for night viewing.	_____	_____
28. The panel shall also incorporate mode, product and select switches.	_____	_____
29. The hydraulic valve driver shall be mounted to the valve enclosure providing both interior and exterior electrical connections.	_____	_____
30. The valve driver shall have up to 14 channels and be software configurable.	_____	_____
31. The valve driver module shall have a built in over temp, over current and low voltage shutdown protection.	_____	_____
32. All electrical connections shall be a sealed, threaded connection.	_____	_____
33. Hydraulic oil shall be Rando HD246 or approved equal.	_____	_____

**5.5 Hydraulic Hoses and Plumbing**

**YES**

**NO**

1. A single handle, hydraulic quick disconnect shall be mounted on the plow hitch for ease of connection and leak prevention. Hydraulic connection shall have a spring loaded cover for protection when not in use. FASTER® brand.
2. All hydraulic lines and plumbing shall be of sufficient capacity so as not to create heat or turbulence within the hydraulic system.
3. All pressure hoses shall have swivel fitting on both ends and minimum SAE 100-R2 Rating.
4. Hydraulic lines shall be routed to minimize interference with equipment and chassis components requiring periodic servicing. Support brackets, grommets, and tie wraps shall be provided where appropriate to protect lines from damage by abrasion, curing, or impact.
5. Hoses shall not be routed near exhaust system, bolts, or sharp edges to prevent wear, fatigue, or fire. Pipe fittings shall not be used in any high pressure lines. Maximum distance between support clamps on all hydraulic lines shall be 24”.
6. Proper plumbing shall be routed to appropriate truck equipment with plow and wing lines equipped with quick couplers to accommodate equipment removal. Hydraulic lines for sander operations shall be plumbed to rear of chassis with quick couplers and dust caps/plugs.

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**5.7 ELECTRICAL**

1. All electrical wire connections shall be of weather and moisture resistant type.
2. All wiring shall be encased in protective loom and securely fastened.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

	<u><b>YES</b></u>	<u><b>NO</b></u>
3. One (1) cab mounted LED warning beacon (Federal Signal #454201 or approved equal) shall be installed.	_____	_____
4. All stop, tail, turn and reverse lights shall be LED and mounted in a rear light bar.	_____	_____
5. Two (2) LED amber strobe lights shall be installed to the rear of the box, mounted to the upper most location, left and right.	_____	_____
6. One (1) LED flood light shall illuminate the wing area and (1) LED flood for the sander area.	_____	_____
7. One (1) surface mount LED warning light mounted on the outside rear of the wing. Whelen TIR3 WPLOW1A or approved equal.	_____	_____
8. In cab hoist up indicator light shall be mounted in clear view of the operator.	_____	_____
9. Hood mounted front plow lights shall be Boss™ MSC11100, Western Night Hawk™ or approved equal. Lights shall be mounted to the hood convex mirrors using Tow Master bracket numbers 1913404 and 1913405.	_____	_____
10. A roof mounted laser guide system shall be installed to the strobe mount. The laser guide shall have a heated lens and air puffer to keep lens free of frost and debris.	_____	_____
11. A City supplied Opticom shall be installed in conjunction with laser guide system.	_____	_____
12. Install an AVL system provided by the City of Fargo.	_____	_____

**5.8 REAR HITCH**

1. Must be made using 3/4" material for the plate and gussets.	_____	_____
2. 2" receiver tube, flush mounted	_____	_____

- |   | <u><b>YES</b></u> | <u><b>NO</b></u> |
|---|-------------------|------------------|
| 3. Must provide a non-air Holland PH410 Pintle hitch rated at 20,000lb vertical load and 100,000lb gross trailer weight installed with grade eight bolts and lock nuts. | _____             | _____            |
| 4. Two (2) D-rings on each side of the Pintle hitch rated for 100,000lb of gross trailer weight between the two. Glad hands included.                                   | _____             | _____            |
| 5. Pull plate must be properly braced and welded to be rated for 100,000lb gross trailer weight.  | _____             | _____            |
| 6. A Pollak 7-way connector (11-720) shall be installed and wiring sealed to prevent corrosion.   | _____             | _____            |
| 7. Forward and rear mud flaps shall be installed.   | _____             | _____            |

**5.9 Dump/Spreader Body**

- |  |       |       |
|--|-------|-------|
| 1. 14' long x 84" inside width.  | _____ | _____ |
| 2. 44" side height with 50" end height.  | _____ | _____ |
| 3. Floor and tailgate shall be fabricated from minimum 7 gauge 50,000 PSI yield strength steel.  | _____ | _____ |
| 4. Sides and front shall be fabricated from minimum 3/16 50,000 PSI yield strength steel.  | _____ | _____ |
| 5. The longsills shall be fabricated from 1/4" A569 Steel, 14" deep.   | _____ | _____ |
| 6. The longsills shall be joined as follows: <ul style="list-style-type: none"> <li>• Sections of 4" x 5.4# channel are welded every two feet the length of the spreader at the base of the longsills, where the longsills are then boxed in with 1/4" A569 steel.</li> <li>• Then there shall be 3/16" x 3" structural angle welded every 12" the full length of the conveyor at the top of the longsills.</li> </ul> | _____ | _____ |
| 7. The unit shall have a 1/4" A569 steel replaceable floor with 3/16" removable chain guards.  | _____ | _____ |

	<u>YES</u>	<u>NO</u>
8. The sides shall be brake formed from minimum 3/16" steel to a radius of 43".	_____	_____
9. The boxed top rail shall be a minimum of 3/16" formed channel.	_____	_____
10. The front shall be sloped to accommodate a head lift cylinder with partial doghouse and conform to the radius of the body and shall be 100% welded on the inside and outside.	_____	_____
11. The rear of the body shall be supported by two pieces of 3/16" A569 steel plate contoured to the radius of the body and welded 100% on both sides.	_____	_____
12. Additional reinforcement will be provided by a 3/16" formed box section, placed at the rear of the spreader body and tied to two rear posts formed from 3/16" A569 steel. Together, they shall provide support at the rear of the body.	_____	_____
13. Side supports shall be added for bodies 13' and longer in length. The side supports shall have 3/16" x 4" x 4" tube extending thru long members with a 3/16" boxed section welded 100% from top rail of the body to cross tube.	_____	_____
14. The tailgate shall be a minimum of 6" higher than the sides of the body.	_____	_____
15. The tailgate shall be manufactured from 3/16" A569 steel with a boxed perimeter of 10 gauge formed channels.	_____	_____
16. The tailgate shall be double acting with a squared perimeter, having two horizontal braces of 10 gauge material full width of the tailgate.	_____	_____
17. The material door shall extend 16" into the interior of the body to prevent material from escaping through the partially opened door over the conveyor.	_____	_____

	<u><b>YES</b></u>	<u><b>NO</b></u>
18. The door opening shall be 21" in width by 8 1/2" in height and shall be manufactured of 3/16" material.	_____	_____
19. The tailgate shall have 1"x4" bar stock tailgate hardware with 1 1/4" hardened pins.	_____	_____
20. The tailgate latches shall be 1" flame cut, with each latch being adjustable with threaded 3/4" clevis and keeper pins.	_____	_____
21. The latch shall be an over center type.	_____	_____
22. The body conveyor shall be 34" in width and shall have 28,000 lb. tensile strength per strand pintle chain, with 1 1/2" x 1/2" bar flights on 4 1/2" centers.	_____	_____
23. On rear discharge bodies from 10' thru 13' in length, the conveyor shall be driven by one 6:1 spur gear box and high torque/low speed hydraulic motor. On bodies 14' in length and greater, the conveyor shall be driven by two 6:1 spur gear boxes/Hydraulic motors.	_____	_____
24. Conveyor drive shaft shall have heavy duty, dust sealed self-aligning four bolt flange bearings.	_____	_____
25. There shall be a heavy-duty idler assembly that will provide adjustment for proper conveyor chain tension by use of slide rail style adjusters.	_____	_____
26. Tailgate shall incorporate an air latch system with switch in cab.	_____	_____
27. A weld on cab shield shall be attached to the dump body and painted to match.	_____	_____
28. A removable material shoot shall be installed for proper material placement on the spinner.	_____	_____
29. Install a removable asphalt rear shelf.	_____	_____
30. Stationary swing-up ladder assembly.	_____	_____



	<u>YES</u>	<u>NO</u>
31. A removable floor/Chain cover shall be included to convert the system to a dump body. Drop in bolted preferred.	_____	_____

**5.10 Spinner**

1. Spinner shall be mounted via means of one 2” receiver tube. Spinner body is manufactured from 12 gauge material. There shall be three adjustable spinner deflectors, for directing material from the spinner disc. The material spread pattern shall be controlled by means of a center diverter located above the spinner disc, and with adjustment of the spinner body that is directed by holes drilled in the receiver mounts that can move the spinner assembly either forward or back of the conveyor.	_____	_____
2. The spinner motor shall be high torque/low speed mounted directly to the spinner disc with a cast hub.	_____	_____
3. The spinner disc shall be 24” in diameter and manufactured of polyurethane with six replaceable fins.	_____	_____

**5.11 Pre-Wet System**

1. Construction and components used shall be non-ferrous and/or Corrosion resistant.	_____	_____
2. System supplied shall be complete with pump, nozzles, hoses, tank fittings, wiring and mounting hardware as required.	_____	_____
3. All components shall be mounted in a sealed, corrosion resistant housing.	_____	_____
4. Two (2) 270 Gallon polyurethane liquid tanks, one per side.	_____	_____
5. Tanks shall be properly vented for fast filling and placed in a manor to prevent spillage from sloshing.	_____	_____

	<u><b>YES</b></u>	<u><b>NO</b></u>
6. Reservoir tank is angled to allow for mounting on the side of a radius shaped box.	_____	_____
7. A 20 mesh suction strainer shall be installed prior to the liquid pump.	_____	_____
8. The Hydraulic motor shall be integral with the liquid pump. Hydraulic pump shall be capable of working on a fixed gear pump system or load sensing systems.	_____	_____
9. A Seametrics brand, in-line turbine style liquid flow meter rated .5 to 5 GPM, shall provide liquid flow information to the hydraulic control system for precise gallon/ton metering.	_____	_____
10. Tanks shall have 2" bulk fill couplings with a cross fill tube between tanks.	_____	_____
11. Tank filling must be accomplished from the ground level.	_____	_____
12. Check valve(s) shall be installed to prevent siphoning of the liquid chemical.	_____	_____
13. A ¼ turn ball valve and flushing tee shall be installed to isolate the tank from pre-wet pump.	_____	_____



**Warranty**

\*Please fill out all applicable lines. "See Enclosed" is not acceptable\*

Dump Body, Snow Plow and Wing:

Base Manufacture:

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Hydraulics and other Warranties that apply:

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**Price**

Hoist Make: \_\_\_\_\_

Model: \_\_\_\_\_

Plow Make: \_\_\_\_\_

Model: \_\_\_\_\_

Wing Make: \_\_\_\_\_

Model: \_\_\_\_\_

Box Make: \_\_\_\_\_

Model: \_\_\_\_\_

**Total equipment price**

\$ \_\_\_\_\_

**Delivery Date**

Number of days for delivery from date of order: \_\_\_\_\_

Company \_\_\_\_\_

By: \_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Title)