



## Tandem Plow Truck

Tender Number: 2020-004

Sealed Tenders will be received by: Township of Joly  
28 Municipal Lane (lower level)  
PO Box 519  
Sundridge, ON P0A 1Z0

Last Day to Submit Questions/  
Clarification/Equivalency Requests: Wednesday, September 30<sup>th</sup>, 2020 at 4 pm

Last Day Addendum will be  
Posted: Friday, October 2<sup>nd</sup>, 2020 at 4 pm

Tender Closing Date and Time: Wednesday, October 14<sup>th</sup>, 2020 at 4 pm

Tender Opening: Wednesday, October 14<sup>th</sup>, 2020 at 5:30 pm

Tender for: Supply and Delivery of One (1) Tandem Dump  
Truck Complete with Winter Control Equipment

**Lowest or any tender not necessarily accepted.**

## 1.0 SCOPE

It is the intention of the Township to purchase one (1) 2019 or newer Tandem Dump Truck complete with winter equipment and plow & wing attachments. Upon completion of the tendering process, a review committee will evaluate and recommend a preferred Tandem Dump Truck based on price, operator evaluation and the Corporation's operational needs.

This tender call is meant to cover a tandem truck used in the maintenance of municipal roads. These specifications cover only the major details of a unit. It is the supplier's responsibility to deliver a fully equipped unit with compatible components to provide dependable efficient services. Units shall be supplied only with tandem truck's standard or advertised optional engine. Tandem trucks with non-advertised or altered engine horsepower settings will not be accepted. Only currently advertised and factory approved engine and drive train combinations are acceptable.

## 2.0 INFORMATION FOR BIDDERS

Bidders failing to follow the requirements of the bid process may result in their tenders being rejected.

### 2.1 Inquiries

Inquiries are to directed to: Pat Stickland, Working Road Foreman  
Township of Joly  
PO Box 519  
Sundridge, ON P0A 1Z0

Email: [roads@townshipofjoly.com](mailto:roads@townshipofjoly.com)

All questions are requested in writing via email. Response(s) to any question that modifies the scope of the Tender will be posted as an Addendum no later than Friday, October 2<sup>nd</sup>, 2020 at 4 pm on the Township of Joly website at <https://townshipofjoly.com/en/plans-reports-forms/tenders-rfq-forms>. A response will not be provided for inquiries that are received after September 30<sup>th</sup>, 2020 at 4 pm.

### 2.2 Tender Submission

All Tenders must be submitted upon the documents provided, duly completed and signed (where applicable), and must include:

Complete Form of Tender:

- Appendix A – Bid Form and Other Information
- Appendix B – Specifications
- Appendix C – Equipment Description
- Appendix D – References and Warranties

- 2.3 The form of Tender must be completed in ink, in full, signed and returned in a sealed envelope clearly marked with the name and address of the bidder and the title of tender and number. Facsimiles will not be accepted.
- 2.4 **Tender Submission Closing**  
Sealed tenders for the Supply and Delivery of one (1) 2019 or newer tandem dump truck complete with snow equipment and attachments will be received at the municipal office in a sealed envelope up to 4 pm, local time on Wednesday, October 14<sup>th</sup>, 2020.
- 2.5 **Late Submissions**  
Tenders received by the Township of Joly later than the specified closing time will be returned unopened to the bidder.
- 2.6 **Withdrawal or Alteration of Tenders**  
A bidder who has already submitted a tender may submit a further tender at any time up to the official closing time. The last tender received shall supersede and invalidate all tenders previously submitted by that bidder as it applies to this tender.  
A bidder may withdraw a submitted tender at any time up to the official closing time. Withdrawal requests received after the tender closing time will not be permitted.  
A bidder may withdraw or alter the tender at any time up to the specified time and date for tender closing by submitting a letter bearing the Bidder's signature to the authorized representative who will mark thereon the time and date of receipt and will place the letter in the tender box.  
The bidder's name and the contract number shall be shown on the envelope containing such letter. Telegrams, facsimiles (faxes), or telephone calls will not be accepted.  
Tenders withdrawn under this procedure cannot be reinstated.
- 2.7 **Tender Changes & Addendums**  
Any and all changes to the terms, conditions or specifications required before the tender closing will be issued by the Working Road Foreman in the form of a written Addendum and will be posted on the Township of Joly website. If Addenda are issued, their receipt must be acknowledged by the bidders in the appropriate section of the Form of Tender.
- 2.8 **Examination of Tender Documents**  
Each Bidder must satisfy himself/herself by a personal study of the tender documents, by calculations, and by personal inspection of the site, respecting the conditions existing or likely to exist in connection with the proposed work. There will be no consideration of any claim, after submission of tenders, that there is a misunderstanding with respect to the conditions imposed by this request.

Prices bid must include all incidental costs and the bidder must be satisfied as to the full requirements of the tender. No claims for extra work will be entertained and any additional works must be authorized in writing prior to commencement. Should the Bidder require more information or clarification on any point, it must be obtained prior to the submission of the Tender.

2.9 Completion of the Tender

The Form of Tender and other relevant documents must be completed in hard copy. All entries shall be clear, legible and made in a non-erasable medium. Entries must be made for unit price, lump sum, extensions and totals as appropriate. All items shall be tendered according to instructions contained within the Tender Documents.

2.10 Electronic Submissions

Electronically transmitted submissions (facsimile, e-mail, etc) will not be accepted for this Tender.

2.11 Tender Accept or Reject

The Township of Joly reserves the right to accept or reject any and all tenders. Lowest or any other bid not necessarily accepted.

The Township reserves the right to reject any or all tenders and to waive formalities as the interests of the Township may require without stating reasons therefore. Notwithstanding and without restricting the generality of the statement immediately above, the Township shall not be required to award and accept a tender, or recall the Tenders at a later date:

- a) When only one (1) tender has been received as a result of the Tender call;
- b) Where the lowest responsive and responsible bidder substantially exceeds the estimated cost of the goods or service;
- c) When all tenders received fail to comply with the specification or Tender terms and conditions;
- d) Where a change in the scope of work or specifications is required the lowest or any tender will not necessarily be accepted. The acceptance of a tender will be contingent upon an acceptable record of ability, experience and previous performance.

The Township shall not be responsible for any liabilities, costs, expenses, loss or damage incurred, sustained or suffered by any Bidder by reason of the acceptance or the non-acceptance by the Township of any tender or by reason of any delay in the acceptance of a Tender except as provided in the tender document.

Each tender shall be open for acceptance by the Township for a period of sixty (60) calendar days following the date of closing.

Where the tender documents do not state a definite delivery/work schedule and a submitted tender is based on an unreasonable delivery/work schedule, the tender may be rejected.

2.12 Tender Firm Pricing

Tenders are to remain in firm for the acceptance for a period of sixty (60) days from the date of tender closing.

2.13 Tendered Values

All prices must be stated in Canadian funds. Prices must be also inclusive of customs, duty and freight.

2.14 Tender Award Procedures

It is the intention of the Township to award the work of this tender to only one (1) qualified Bidder. The lowest or any Tender may not necessarily be accepted.

Unless stated otherwise the following procedures will apply:

- a) The Township will notify the successful Bidder that his/her Tender has been accepted, within sixty (60) calendar days of the Tender closing.
- b) Notice of acceptance of Tender will be by telephone and/or by written notice.
- c) Immediately after acceptance of the Tender by the Township, the successful Bidder shall provide the Township with any required documents within fourteen (14) calendar days of the date of notification of award.

2.15 Omissions, Discrepancies & Interpretations

It should be understood and acknowledged by persons submitting a tender that while this tender includes specific requirements and specification, a complete and operational vehicle shall be provided as specified in conformance with modern practices and workmanship. Any omission or errors or misinterpretation of these requirements and specifications shall not relieve the successful bidder of the responsibility of providing the goods noted in this tender. Descriptive literature must be attached to the quotation.

2.16 If required by the Township, addenda will be posted to the Township of Joly website. It is the bidder's ultimate responsibility to ensure all addenda have been received. Bidder's shall acknowledge addenda on the Schedule of Prices and Other Information.

### 2.17 Multiple Submissions

Bidder's wishing to offer more than one (1) type and/or year of equipment for consideration must complete a separate Tender document for each separate offer and clearly identify each submission as a separate offer.

### 2.18 Tender Selection

The acceptance of a Tender will be contingent upon, however not limited to, the following considerations:

- Ability to meet or exceed the specifications and requirements
- Compliance with Tender process
- Tendered Price
- Warranty Evaluation
- Review and Recommendation of the Evaluation Committee
- Lowest or any other bid not necessarily accepted.

The Township reserves the right to reject any or all tenders and to waive formalities as the interests of the Township may require without stating reasons therefore. The Township will be the sole judge as to a bids compliance with the tender documents or specification.

## 3.0 TERMS AND CONDITIONS OF TENDERING WITH THE TOWNSHIP OF JOLY

### 3.1 Delivery

- a) All deliveries to be F.O.B. delivery of the vehicles will be to the Township of Joly works yard located at 871 Forest Lake Road, Joly Township.
- b) The purchase order will be issued after Council has approved the purpose. Please state the delivery date based on this order date on the Form of Tender.
- c) The Township would prefer to take possession within 120 days of the contract being awarded. Consideration will be given at the time of award for expedited delivery dates.
- d) Bidder's are advised that failure to meet the firm delivery schedule may cause the Township additional expense, the cost of which may be deducted from the successful Bidder's invoice for the completed vehicle.
- e) Prior to delivery, the successful Bidder shall coordinate a specific date and time with a Township representative.

### 3.2 Safety Standards

The vehicle supplied shall be in conformity with any and all applicable federal and provincial motor vehicle safety standards including Safety Inspection sticker.

### 3.3 Indemnification

The successful Bidder shall indemnify and hold harmless the Township, its Officers, Council Members, partners, agents and employees from and

against all actions, claims, demands, losses, costs, damages, suits or proceedings whatsoever which may be brought against or made upon the Township and against all loss, liability, judgements, claims, suits, demands or expenses which the Township may sustain, suffer or be put to resulting from or arising out of the successful Bidder's failure to exercise reasonable care, skill or diligence or omissions in the performance or rendering of any work or service required hereunder to be performed or rendered by the successful Bidder, its agents, officials and employees.

#### 3.4 Regulation Compliance and Legislation

The successful Bidder shall ensure all goods, services and products provided in respect to this Tender are in accordance with, and under authorization of all applicable authorities, Municipal, Provincial and Federal legislation laws applying thereto.

#### 3.5 Ability and Experience of Bidder

It is not the purpose of the Township of Joly to award this contract to any Bidder who does not furnish satisfactory evidence of possessing the ability and experience in this class of work and sufficient capital and plant resources to ensure acceptable performance and completion of the Tender.

The following criteria will be utilized by the Township to determine whether a Bidder is qualified to undertake the award:

- a) The Bidder's ability and agreement to supply the product.
- b) The Bidder's ability to work effectively with the Township staff and other representatives.
- c) The Bidder's history with respect to providing satisfactory results and acceptable cooperation.

A Bidder is invited to provide any additional information it determines will assist the Township in using the aforementioned criteria. The Township may reject the lowest or any submissions if after investigation and consideration, the Township concludes, in its opinion, that the Bidder is not able to supply the product in a manner satisfactory to the Township.

#### 3.6 Cancellation

The Township reserves the right to immediately terminate the contract at its own discretion, including but not limited to such items as non-performance, late deliveries, inferior quality, pricing problems, etc.

If the successful Bidder should neglect to execute the work properly or fail to perform any provision of this Award, the Township, after three (3) business days written notice to the successful Bidder, may, without prejudice to any other remedy in existence, make good such deficiencies and may deduct the cost thereof from any payment then and thereafter

due to the successful Bidder. Continued failure of the successful Bidder to execute the work properly shall result in termination of the contract. The Township shall provide written notice of termination.

3.7 Governing Law

This Tender and subsequent contract/agreements will be interpreted and governed by the laws of the Province of Ontario.

3.8 Freedom of Information

Any personal information required on the Tender Form is received under the authority of the Municipal Freedom of Information and Protection of Privacy Act, 1989, RSO, 1990, as amended.

3.9 General

This tender, including these terms and conditions, forms the entire contract between the parties, and no variations thereof irrespective of the wording of the seller's acceptance will be effective unless specifically agreed to in writing by the Township of Joly.

3.10 Sub-Contracts

The seller shall not, without the written

3.11 Shipment

Time shall be the essence of the contract. Goods must be delivered within the time promised, failing which, the Township of Joly reserves the right to cancel the order without penalty or prejudice.

3.12 Quality

Goods are subject to the Township of Joly inspections and approval at a reasonable time after delivery. If specifications are not met, goods may be returned at the seller's expense.

3.13 Warranty

In supplement of, and not by the way of substitution for the terms and conditions or any warranty stipulated or implied by law and notwithstanding prior acceptance by the Township of Joly, the seller will at any time within three (3) months of the in service date, and at his/her expense replace any goods which are or become defective as a result of faulty or inefficient manufacture, materials or workmanship.

3.14 Variations to Specifications

For the purposes of evaluation, bidders MUST indicate any variances from our specifications, terms and/or conditions, no matter how slight. If the variations are not stated or referenced, it will be assumed the tandem supply complies without specification, terms and conditions.



3.15 Further Terms and Conditions  
The successful Bidder must agree to abide by all clauses and conditions. The Township of Joly reserves the right to increase or decrease the amounts required.

3.16 Manufacture Specifications  
Bidders shall include with their Tender submission, the full manufacturers' specifications and literature, which fully describe the item(s) being offered, including any optional equipment.

3.17 Equivalent/Brand Names  
If and wherever, in the specifications a brand name, make name of any manufacturer, trade name or vendor catalogue number is identified, it is for the purpose of establishing a grade or quality of material, unless specified otherwise. The Township does not wish to rule out competition of equal brands or makes.

"List of Equivalents" means a list of alternate items that are equal to or exceed the quality and may be substituted for items specifically identified in this Tender.

3.18 Harmonized Sales Tax (HST)  
The Harmonized Sales Tax will be calculated as per current government legislation at 13%.

3.19 Terms of Payment  
Unless otherwise stated herein, the Township of Joly's normal terms of payment will be net thirty (30) calendar days from the receipt of the goods/services or the date of the invoice, whichever occurs later. Invoices shall be forwarded to the attention of:

Treasurer, Township of Joly  
[Clerk.administrator@townshipofjoly.com](mailto:Clerk.administrator@townshipofjoly.com)

The Township of Joly will not pay in part or in full until the unit is received. Possession will not be taken until the unit meets all specifications and is approved by the Working Road Foreman or his designate.

**SCHEDULE A – BID FORM AND OTHER INFORMATION**

Quotation Submitted By: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Name: (please print) \_\_\_\_\_

Title: \_\_\_\_\_

Signature: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

Fax Number: \_\_\_\_\_

Email address: \_\_\_\_\_

Date of Quotation: \_\_\_\_\_

The Supplier hereby states that the following unit prices shall constitute all costs associated with the supply of equipment and the provision of services specified under Tender No. 2018-01

<b>1) Unit Price (Excluding Hst) F.O.B. To Township of Joly, 871 Forest Lake Road, For the Supply of New Tandem Plow Truck – Cab, Chassis, Combo Dump/Sander with Reversible Plow And Wing As Specified.</b>	\$
<b>HST (HST # _____)</b>	\$
<b>Total Price Including HST</b>	\$

<b>Additional Items priced separately excluding HST</b>	
1 additional set of 10" Sideboards	\$
1 additional cross conveyer belt	\$
1 additional main chain	\$
1 additional set of swing away glad hands	\$
1 additional spinner disk	\$
6 additional rubber plow insert pieces for Nordik blade	\$
<b>Subtotal for additional Items</b>	\$
<b>HST (HST # _____)</b>	\$
<b>Total for Additional Items</b>	\$

(1) Nearest location for factory service and support on cab and chassis (specify)

\_\_\_\_\_

(2) Delivery date (specify) \_\_\_\_\_

ADDENDA ACKNOWLEDGEMENT

As an integral part of this bid, the Bidder shall complete below a statement giving the number and date of all addenda used in preparing this bid. If no addenda were issued the words "Not Applicable" shall be entered below. Failure to complete this statement and include all addenda shall result in the bid being declared informal.

Addendum Number

Addendum Date

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DATE: \_\_\_\_\_

\_\_\_\_\_  
Signature of Bidder

**APPENDIX B - SPECIFICATIONS**

2019 or newer TANDEM PLOW TRUCK IN NEW CONDITION

Plow and Sander Controls Shall Be Adjustable to the Satisfaction of the Working Road Foreman Prior to Initial Delivery

**Delivery Date** \_\_\_\_\_

<b>PROPONENT</b>		
This specification only lists the major components of a unit; therefore, it is the responsibility of the vendor to deliver a complete functioning unit to provide dependable and efficient service.		
<b><i>Specification</i></b>	<b><i>YES</i></b>	<b><i>NO</i></b>
Proponent must be a licensed motor vehicle dealer in good standing with the Ontario Motor Vehicle Industry Council.		
Proponent must be a licensed motor vehicle Inspection Station for class of vehicle being supplied.		
Proponent must have a valid Commercial Vehicle Operators Record (CVOR), and proof of liability insurance.		
<b>CAB AND CHASSIS</b>		
New Vehicle 2019 or newer, State Actual Year: _____		
Specify make: _____		
Model: _____		

<b>Specification</b>	<b>YES</b>	<b>NO</b>
Minimum GVWR 68,000 lbs		
Set back Front axle to be provided		
Trailer towing package to be provided with air connection at end of frame. To allow trailer turning without restriction on air lines		
<b>ENGINE</b>		
Specify Engine Make: _____  Model: _____		
<b>Specification</b>	<b>YES</b>	<b>NO</b>
Detroit Diesel minimum 6-cylinder engine, must be emission compliant		
Minimum 12.7 Litre displacement. Specify displacement: _____		
Minimum overall ratings are 370- 470HP/ 1650ft-lbs torque		
Ratings must be set at factory level and not altered by dealer before delivery		
Engine must have warning and de-rate protection		
Engine diagnostic information must be capable of sending error codes over network while vehicle is in use. Provide details on separate sheet. (i.e. Virtual Technician)  First 2 Years to be included with cab & chassis.		
Alternator minimum 160 AMP		
3 Batteries to be provided, minimum 3,000 CCA		

Battery to be stored inside cab or come with box to have HD aluminum cover if batteries placed outside cab		
Air intake to have inside/outside switch with snow door		
Heavy duty air compressor, minimum 19.0 CFM		
Must have Jacobs engine brake as standard		
Stainless steel heat shields		
Antifreeze should be good to -60 degrees Celsius minimum		
<b>Specification</b>	<b>YES</b>	<b>NO</b>
Engine to have front PTO adapter for body builder supplied hydraulic pump		
1500-Watt hydraulic heater		
1500-Watt inline heater for coolant system		
300-Watt Block Heater or pan heater		
HD starter required with over-crank protection		
<b>TRANSMISSION</b>		
<b>Specification</b>	<b>YES</b>	<b>NO</b>
Eaton 13 speed transmission State model: _____		
Self-adjusting clutch with hydraulic control		
Water to oil transmission cooler, with synthetic oil		
RPM in top gear at 105 kph/65mph should be suitable for highway cruise speed transportation while maintaining vocational performance. State actual: _____		

<b>AXLES &amp; SUSPENSION</b>		
<b><i>Specification</i></b>	<b><i>YES</i></b>	<b><i>NO</i></b>
Meritor 22,000lb front axle, Model: MFS-20-133A FL1		
Flat Leaf 23,000lb front suspension		
Twin power steering gear		
Power steering cooler, oil to air		
Meritor 46,000lb rear axle, Model: RT-46-164 R-Series		
Extended lube Meritor RPL driveline		
Ratio 4.56, with full lock up on both tandem drive axles controlled by the operator inside the cab		
Turf Trac 46,000# rear spring suspension with 56" Spread		
Shock absorbers on front and rear suspension		
<b><i>Specification</i></b>	<b><i>YES</i></b>	<b><i>NO</i></b>
Dust Shield front and rear brakes		
<b>FRAME COMPONENTS</b>		
<b><i>Specification</i></b>	<b><i>YES</i></b>	<b><i>NO</i></b>
Air dryer AD9, mounted inside frame		
Standard air tanks, mounted inside and below frame near rear suspension. Must be clear of wing tower and spinner installation.		
Pull-type drain cables on all air tanks		
Air connections to end of frame to towing provision		
Combination stop/turn light receptacle end of frame.		
Wheelbase and CA to be confirmed with body builder, dimension minimum 128" CA. Specify		



Double channel frame 7/16" x 3-9/16" x 11-1/8"		
Inner channel to be ¼" full length		
Front frame extensions minimum 24", with frame insert		
Rear frame overhang as required by body builder		
O.E.M. back of cab, MTO cross member for snow plow		
Painted steel bumper to be provided for reinstallation if front equipment harness is removed for summer.		
<b>FUEL SYSTEM</b>		
Minimum 70-GAL aluminum fuel tank specify		
Fuel tank mounted with stainless steel bands		
Minimum 6-GAL Def tank		
Factory insulation for fuel lines required		

<b>WHEELS AND TIRES</b>		
<b><i>Specification</i></b>	<b><i>YES</i></b>	<b><i>NO</i></b>
<b>Steer Tires</b> Make: Saliun Model: S815 Winter M+S Load Range L (Mountain Snowflake Rating) Size: 315/80 R22.5 20 ply		
<b>Drive Tires</b> Make: Michelin Model: XDE M/S Load Rating: H Size: 11R22.5 14 Ply Mountain Snowflake Rating		
Steel HD Front Wheels, 12.25" wide, hub pilot		
Steel HD rear wheels, powder coated white hub pilot		
Nylon wheel guards between all hubs and wheels		
Iron HD hubs required front and rear		
<b>CAB EXTERIOR</b>		
<b><i>Specification</i></b>	<b><i>YES</i></b>	<b><i>NO</i></b>
Air cab mounts		
3-1/2 fender extensions		
Non-removable bug screen mounted in grill		
Hood with access hatches for checking oil		
Premium floor and firewall insulation		
Dual rectangular air horns mounted on cab with covers		
LED aerodynamic marker lights on cab roof		
LED rear indicator lights		
Back up Alarm		
Bright Finish, remote controlled mirrors		

Power Locks and windows		
<b>Specification</b>	<b>YES</b>	<b>NO</b>
Door mounted Dual West Coast heated mirrors with LH & RH remote		
8" round convex mirror mounted under primary mirrors		
Diamond plate after treatment system cover		
Factory installed sun visor		
Washer fluid reservoir with level indicator		
OEM heated windshield with automatic operation		
<b>CAB INTERIOR</b>		
<b>Specification</b>	<b>YES</b>	<b>NO</b>
Vinyl interior covering neutral colour: State Colour: _____		
Roof mounted storage compartment		
Centre storage console mounted on back wall		
2.5lb fire extinguisher and first aid kit provided		
Triangle reflector kit with flares		
HD heating unit with air conditioning		
Minimum Two Cup Holders		
Additional factory fit rubber floor mats provided		
Snow shield for fresh air intake		
Premium insulation package		
Dual reading lights in cab roof		
2 power point connection in dash		
Matching driver and passenger premium air ride seat with both arm rest		

Adjustable tilt-telescopic steering		
Interior flip down sun visors		
<b>Specification</b>	<b>YES</b>	<b>NO</b>
Standard instrument panel with gauge package		
Dash mounted air restriction indicator		
Transmission and engine oil temp gauges		
Inside/outside air temp gauge		
Ground Temperature Sensor		
AM/FM/AUX Bluetooth/Microphone Standard Radio with voice command		
Roof console provision for CB radio prewire		
Premium AM/FM multiband antenna		
Factory provided minimum 8 optional switches wired to back of cab with relays for body builder use		
Vehicle interface and high amp PDM for body builder		
Pre-trip light check inspection switch		
Trailer brake spike control		
Voltage display in dash		
HD winter wiper blades and washer system		
Factory pre-wire for integrated snow plow lights with OEM signal stat and dash switch		

ADDITIONAL SPECIFICATIONS		
<i>Specification</i>	<b>YES</b>	<b>NO</b>
Cab paint to be one solid colour White, base clear process,		
Body Paint to match cab colour		
Frame and mounted components to be painted black		
Rust proofing spray to be applied to completed vehicle including wax on all exterior wires before INITIAL DELIVERY		
<i>Specification</i>	<b>YES</b>	<b>NO</b>
Chassis and powertrain warranty to be 5 YEAR OR 100,000 KM COMPREHENSIVE DETAILS TO BE PROVIDED ON SEPARATE SHEET		
Thumb drive with digital shop and parts and <b>service</b> manual required		
Two-year unlimited kms towing/roadside service extended coverage Attach Details separately		
Final delivery to be received at 871 Forest Lake Road Sundridge Ontario. Training session to be provided on all components with a Record of Training Letter provided to the Township of Joly.		
CHASSIS TO MATCH WITH EQUIPMENT SELECTION AND IT IS THE RESPONSIBILITY OF THE VENDER TO CONFIRM ANY DIMENSIONS AND CLEARANCE ISSUES.		
PROVIDE MINIMUM OF <b>5 REFERENCES</b> WHERE SIMILAR EQUIPMENT HAS BEEN SUPPLIED <b>ATTACH WITH SCHEDULE D</b>		

# ALL SEASON COMBINATION DUMP BODY / SPREADER

## General

These specifications describe an All-Season Combination Dump Body and Sand/Salt Spreader. The dump box shall remain stationary on the chassis frame while spreading. Rear discharge shall be front hoist tilt action as per conventional dump bodies. The unit will be oval shaped of a roll-formed type design to permit gravity flow unloading, and prevent material bridging over conveyor chain. The body side panels shall be smooth rolled without breaks. Body designs that include breaks will not be accepted and will deem their bid inadmissible. The main conveyor will be centered and recessed along the length of the box. The cross-conveyor chain/belt will be chassis frame mounted with spreader discharge on the front, left side (driver's) of dump box. Pre-wet tanks shall be mounted on the driver's and passengers side of the box.

Viking Model Proline PL1415HW Generation II or **Equivalent** – other makes must be approved by the **Township of Joly** prior to the closing of this tender.

SPECIFY

MAKE: \_\_\_\_\_

MODEL: \_\_\_\_\_

COMBINATION DUMP BODY		
<i>Specification</i>	<i>YES</i>	<i>NO</i>
Body shall be oval shaped, permitting materials to unload by gravity flow into spreading position.		
Water level capacity will be 12.0 cu.yd., minimum. Bodies of less capacity will not be accepted.		
Water level capacity with 10" sideboards will be 15.0 cu.yd., minimum.		
Outside length 15' minimum.		

Inside length 14' minimum.		
<b>Specification</b>	<b>YES</b>	<b>NO</b>
Overall width 8' maximum.		
Height of sides to be 50" minimum.		
Height of tailgate to be 55" minimum.		
Height of front panel to be 60" minimum.		
Top rail of body sides will be 6" x 4" x 3/8" structural rectangular tubing – a break-formed type steel top rail support system will not be acceptable.		
All body welds will be 100% continuous inside and outside.		
Body sides, front panel and tailgate will be constructed of 3/16" thick, Corten corrosion resistant steel.		
Body floor will be constructed of 3/16" thick, Hardox 450, hi-tensile, 205,000 psi yield strength, abrasion resistant steel.		
Dump box access ladder shall be 16" wide, recessed and be flush with dump body top rail and fender. The ladder must slope inward from bottom to top and be located on driver's side at front of box.		

<b>HOIST</b>		
<b><i>Specification</i></b>	<b><i>YES</i></b>	<b><i>NO</i></b>
Hoist shall be a front mount, three (3) stage telescopic with 5" bore – must be Mailhot model CS130-5.5-3 – alternate or inverted type hoists will not be acceptable.		
Hoist class shall be 80/30 ton.		
Cylinder stroke shall be 330 cm (130") minimum.		
Dump box tipping angle shall be a minimum of 50 degrees.		
Rear hinge assembly shall be supplied with hinge pin dia. of 2.5" minimum.		
Hoist control valve shall be air operated.		
<b>TAILGATE</b>		
<b><i>Specification</i></b>	<b><i>YES</i></b>	<b><i>NO</i></b>
Tailgate height shall be 55" minimum.		
Tailgate shall be rectangular shaped to allow use of asphalt or stone chip type spreaders.		
Construction shall be of 3/16" thick, Corten corrosion resistant steel		
Exterior vertical side support tubes to be 3 1/2" x 3 1/2" x 1/4" wall HSS square tubing – no exception.		
Latch mechanism for the tailgate shall be air trip and latch type utilizing two air pot boosters – units with only a single air pot booster, or air cylinder to activate tailgate, will not be acceptable.		



<p>Spreader chains and brackets shall be supplied on tailgate and rear corner posts. Chains shall be grade 70 coil proof 5/16" minimum.</p>		
<p><b>Asphalt door</b> in tailgate suitable for sliding chain protector plate out through door shall be provided. Cantilevered handle offset to curbside to operate sliding door.</p>		
<p><b>CONVEYOR</b></p>		
<p><b>Specification</b></p>	<p><b>YES</b></p>	<p><b>NO</b></p>
<p>The main conveyor shall be recessed along the length of dump box floor.</p>		
<p>The conveyor chain shall include the minimum specifications:</p> <ul style="list-style-type: none"> <li>- 30,000 lbs. tensile strength</li> <li>- D667X self cleaning pintle chain – no exception</li> <li>- utilizes 1/4" x 1 1/4" crosses welded to every 4<sup>th</sup> link (approx. 9" apart)</li> </ul>		
<p>The main conveyor shall be hydraulic direct drive via planetary drive mechanism providing a minimum of 38,000 lbs., torque capacity and 50,000 in/lbs peak. Standard 25:1 gear reducers will not be acceptable.</p>		
<p>Connection of the planetary drive shaft to the main conveyor shaft shall be accomplished via a split two-piece coupler assembly.</p>		
<p>Each of the two body long sill weldments will be vertical slotted. By simply removing the drive shaft flange bearings and uncoupling the planetary and main conveyor drive shafts, the entire conveyor drive shaft assembly will drop out through the vertical long sill slots providing easy access and simple maintenance.</p>		
<p>Idler end of main conveyor will also be of the vertical slotted drop out design as described above.</p>		
<p>Conveyor chain tension to be regulated via an automatic chain tensioning system. This tensioning system will provide appropriate chain tension for the main conveyor chain at all times and under all normal operating conditions.</p>		
<p>The fully automated chain tensioner will eliminate the requirement for any manual chain tension adjusting mechanisms such as conventional threaded rod and nut tensioners, or hydraulic grease ram tensioners.</p> <p>Automated chain tensioner system must be provided – no exception.</p>		

Bolt-on door panel shall be provided for easy access to automatic chain tensioning mechanism. Access panel to be located on body long member.		
Underside of main conveyor to have poly guard to prevent material spillage on to chassis components and frame rails.		
The flow control gate between main and cross conveyor shall be screw adjustable by hand crank from driver's side of dump body.		
<b>CROSS CONVEYOR</b>		
<b><i>Specification</i></b>	<b>YES</b>	<b>NO</b>
The cross conveyor shall be hydraulic direct drive via a single reversible 11.9 cu. in. hydraulic motor controlled by a 12V solenoid valve with in cab toggle switch.		
A bi-directional rubber belt cross conveyor assembly shall be used to discharge material from main conveyor to either the left hand or right-hand side of chassis.		
Cross conveyor assembly to mount on chassis frame independent from and in front of main combination spreader unit.		
Cross conveyor unit shall be removable design to reduce added weight in non-spreading applications.		
Cross conveyor weldment shall be fabricated from a minimum 3/16" Cor-Ten A corrosion resistant material.		
Cross conveyor rubber belt to be fabricated from 3/8" thick, 2 ply, 12" wide by 121" long molded, seamless conveyor belting.		
Belt shall be positive drive to eliminate slippage.		
The cross-conveyor belt shall have a high temperature, asphalt application available.		
Cross conveyor assembly to include replaceable steel guards to prevent material from entering under belt or spilling off conveyor.		
Cross conveyor assembly to include 4 poly runners to maintain an even belt surface, preventing material from getting under belt.		

Cross conveyor assembly shall have snub rollers constructed with high temperature, low stick, 2.5" diameter by 2.0" poly rollers, to reduce material build up under conveyor.		
Cross conveyor assembly shall come with external, quick coupler washout connection.		
Cross conveyor assembly shall include 5 external, greaseable flange bearings and 2 external, greaseable take up bearings		
Cross conveyor assembly shall include 8 external grease fittings for application of grease to all bearings.		
Cross conveyor assembly to provide provisions for mounting of material sand/salt chutes and spinner units.		
<b>SPINNER</b>		
<b>Specification</b>	<b>YES</b>	<b>NO</b>
A polyurethane spinner shall be installed on the left-hand side (Driver side) to spread ahead of rear wheels.		
Spinner disc will be hydraulic direct drive and to include a clean - off <b>anti coning device</b> .		
Spinner height shall be adjusted to accommodate various chassis heights and capable of a discharge rate from 199 lbs./lane mile to 2,500 lbs./lane mile.		
A poly lined hinged extendible salt chute shall be installed on the left side.		
A standard chute only is to be mounted on the right side of the cross conveyor.		
<b>SANDER CONTROLS</b>		
<b>Specification</b>	<b>YES</b>	<b>NO</b>
Ace Ecobite II Basic electric/hydraulic ground speed oriented manual spreader control – no exception. 2 section Ace valve assembly for conveyor and spinner functions to be included, and installed on tower or integrated into tower. There shall be no hydraulic hoses inside cab.		

<b>GPS SYSTEM</b>		
<b><i>Specification</i></b>	<b>YES</b>	<b>NO</b>
Ace Infobite wireless GPS System including required wiring harness and GPS module.		
<b>FENDERS AND FLAPS</b>		
<b><i>Specification</i></b>	<b>YES</b>	<b>NO</b>
Fenders shall be continuous along the full length of dump body to provide cover for rear wheels and to protect the body. Fenders to be fabricated from minimum 10 GA Cor-ten "A" corrosion resistant steel.		
Integral fenders to be sloped away from unit (material shedding design) to prevent any excess material spilled during loading from piling up on fenders.		
Red/White 2" reflective tape to be installed along body fenders and across bottom of tailgate.		
<b><i>Specification</i></b>	<b>YES</b>	<b>NO</b>
Aluminum fenders covering the rear axle shall be bolted to each side of the body, through specific mounting brackets designed to fit inside the body fenders. The aluminum fenders shall raise and lower with the body.  Fenders attached to the side of the chassis frame rails will not be acceptable.		
<b>PAINT</b>		
<b><i>Specification</i></b>	<b>YES</b>	<b>NO</b>
The dump body shall be shot blasted and epoxy primed with 3 mils of Dupont DTM type primer.		
Finish paint shall be Dupont Imron 5000 "ELITE" polyurethane enamel – Dupont Imron 5000 Elite finish paint must be utilized – no exception.		
Specify Paint Manufacturer: _____.		
Specify Paint Type: _____.		

Finish Paint to be a “ <b>Baked On</b> ” process (no substitutes).		
<b>LOAD COVER</b>		
<b>Specification</b>	<b>YES</b>	<b>NO</b>
An air tarp shall be supplied with fabricated tarp arms dimensions of 1 ½” x 2 ½” rectangular steel tubing, and a 1/8” asphalt type mesh tarp. Tarp to be operated by twin air cylinders operated from inside the cab. Electric type tarp mechanisms, and air tarps utilizing air motors in lieu of cylinders, will not be acceptable.		
<b>PINTLE HOOK</b>		
<b>Specification</b>	<b>YES</b>	<b>NO</b>
A Holland PH410RA pintle hook with air cushion shall be installed onto a heavily reinforced pintle plate. Two (2) tow hooks shall also be mounted onto the pintle plate. Body builder shall relocate the chassis supplied glad hands and 7 pin trailer plug onto the pintle plate. Glad Hands shall be swing away glad hands.		
<b>AUTOMATIC GREASING SYSTEM</b>		
<b>Specification</b>	<b>YES</b>	<b>NO</b>
A CPL Greoneveld auto-grease system shall be provided, with grease lines to all applicable chassis, body, plow and wing grease points. <b>Must include a fitting kit for all fitting, to complete maintenance by operator on site. Must include any specialty tool required for onsite repairs.</b>		
<b>LIGHTS AND WIRING</b>		
<b>Specification</b>	<b>YES</b>	<b>NO</b>
All box lights to be LED type.		
<b>Grote “Ultra Blue Seal”</b> wiring harness for body lights & electrical shall be supplied (no substitutes).		
Auxilliary lighting will plug directly into OEM supplied connections. <b>Cutting, splicing, soldering or shrink tubing of connections is not acceptable.</b>		
Box lighting kit to include Ultra Blue Seal LED rear stop lights, tail lights, turn signals, and back-up lights, and shall be installed in rear corner posts.		

Tower Post Light to be install offset just off the back post closer to the box pointing at the bottom of the wing.		
Dual heat creating back up lights minimum 800 lumens		
Grote blue and amber <b>LED</b> strobe lights to be high mounted in each upper rear corner posts for maximum visibility.		
Spinner and cross conveyor lights shall be supplied, with separate in-cab switches.		
<b>Conspicuous H Pattern Rear Lighting compliant with MTO Board style without the board:</b> Blue lights flash at a synchronized 1hz rate (one flash per second). Amber light to remain continuously illuminated. A combination of wind deflectors air foils and heated lenses are required to keep warning lights clear of snow  Blue and amber incandescent warning lights to be installed below tailgate, centre of rear axle. <b><i>Solutions must be clearly stated</i></b>		
<b><i>Specification</i></b>	<b><i>YES</i></b>	<b><i>NO</i></b>
Star 200B blue and 200A amber revolving beacon lights shall be installed on pedestal attached to top of oil reservoir behind cab. Beacon lights shall be visible 360° around vehicle.		
<b>All exterior wires to be treated with wax coating to protect against chlorides prior to initial delivery</b>		
<b>HYDRAULICS</b>		

<b>Specification</b>	<b>YES</b>	<b>NO</b>
All fittings, valves, hoses and drive shaft shall be supplied and installed. All hoses shall be equipped with swivels on both ends.		
The hydraulic reservoir shall be of sufficient capacity to supply necessary oil supply. Reservoir must not interfere with the box installation. <b>Must be installed above or at frame level. Location shall not be lower than the level of the frame.</b>		
A sight gauge to allow easy checking of the hydraulic oil level in the reservoir shall be supplied.		
<b>ADDITIONAL SPECIFICATIONS</b>		
<p>Prototype units will not be acceptable. The bidder must be able to demonstrate a solid history of use of the combination U-body/spreader offered in this tender by Ontario Municipalities, for a minimum period of five (5) years, and include 5 references attached to Schedule D.</p>		
<p>Installation of this equipment shall meet or surpass the mandatory requirements of the Canada Motor Vehicle Safety Act and its regulations in effect on the date of manufacture. Installer of the truck equipment <b>must</b> be certified with Transport Canada and bear the <b>National Safety Mark</b>.</p> <p><b>Specify National Safety Mark Number:</b> _____.</p>		

**TWO WAY SNOW PLOW**

Viking model VCL36-11-45C steel full trip reversible snow plow or Equivalent in compliance with the following specifications and approved by the Township of Joly.

SPECIFY MAKE: \_\_\_\_\_

MODEL: \_\_\_\_\_

<b>Specification:</b>	<b>Yes</b>	<b>No</b>
This two-way plow shall conform with the provisions of M.T.O. standards ES-414, except that the dimensions of this specification shall prevail when the two contradict.		
The plow shall operate effectively and without modification with the M.T.O. snow plow truck harness ES-401.		
The weight of the plow shall range from 1,850 to 2,150 lbs. and shall be constructed to prevent the accumulation of water in any area.		
The plow shall have a hood extending 18" past the vertical centre line, in normal operating positions.		
All ribs shall be of one-piece construction 100% welded both sides to the moldboard. The top edge of the moldboard shall be welded 100% to the ribs. The top rail of the moldboard shall be manufactured of 2 ½" x 2 ½" angle iron and welded securely to the ribs and moldboard with a continuous bead. All other welds must also be 100%.		
The thickness of the moldboard and hood shall be 10 U.S.S. ga. (.1345)		
The moldboard shall be pivoted to allow tilting in different positions, through a hydraulic cylinder and in-cab control.		
The moldboard brace rod shall be hydraulically adjustable for plow angles of 45-degrees, 50-degrees and 55-degrees.		



Male end of adjusting brace assembly to be solid steel.		
Both male and female ends shall have 5/8" mounting pins.		
<b>Specification:</b>	<b>Yes</b>	<b>No</b>
The female end shall be at the top to prevent the accumulation of water.		
Holes in drive bars for push frame shall be 1 ¼" diameter.		
Holes in drive bars for push frame shall be 1 ¼" diameter.		
The distance from the centre line of the holes to the end of the drive bar shall be 1 ½".		
The height of the moldboard at the top of curve shall be as follows:		
Front End: 26"		
Rear End: 26"		
The overall length shall be 13'10"		
The plow shall be fitted with two shoes as per M.T.O. ES-508. Ski Style Shoe		
There shall be eight vertical ribs, 3 ½" high by 3/8" thick. Minimum weld between the moldboard and rib shall be 100% weld each side.		
The bottom rail on the moldboard shall be 5" x 3" x ½" angle below with a 3" x 2" x 3/8" gussets shall be welded between the two legs of the bottom angle, between each bolt hole, except for the two sets of end holes and between two holes in the middle of the moldboard. The moldboard shall be continuously welded to the bottom rails.		

The moldboard shall be designed for use with M.T.O. cutting edge ES-505 and with the M.T.O. standard nose piece ES-507. <b>Shall be Nordik Rubber Blades complete with holder plate WN-1100.</b>		
Moldboard shall have a total bearing area (pin dia. times web thickness times number of webs involved) or 4 ½” square inches minimum at the point where the drive links attach.		
Trip links safety mechanism shall be incorporated into the pushframe to return the moldboard to normal plowing position automatically. Trip springs must be secured with lock nuts.		
<b>Specification:</b>	<b>Yes</b>	<b>No</b>
Two separate lift chains shall be used, and these shall pick up on the drive frame at points approximately 48” apart.		
Two separate ½” lift chains shall be used, and these shall pick up on the drive frame at points approximately 24” apart.		
The height of the shoes shall be adjustable as shown on M.T.O. ES-521. Height adjustable one-way snow plow shoe holder.		
The shoes shall oscillate.		
The moldboard shall be formed in the shape of a smooth curve.		
The horizontal distance from the discharge end of the plow blade to the discharge end of the moldboard shall be 24” minimum.		
A sturdy eye ½” thickness shall be provided at the centre of gravity for handling of the moldboard.		
The design and quality shall meet M.T.O. requirements.		
The complete snow plow unit shall be black as per M.T.O. ES-301.		
Sector frame constructed of 4” x 4” x 3/8” square tube.		
36” high marker rods shall be installed on each side of the moldboard.		

Drive-frame shall be equipped with quick tach style swivel bar.		
A spare parts manual shall be supplied.		
A signed manufacturer's warranty shall be supplied.		
Drive-frame shall be complete with an adjustable parking stand.		

<b>PLOW HARNESS</b>		
Viking model VCL500T hydraulic tilt front plow harness or approved equivalent		
SPECIFY MAKE: _____		
MODEL: _____		
<b>Specifications:</b>	<b>Yes</b>	<b>No</b>
The front plow harness will tilt forward to allow the chassis hood to tilt forward over centre of its pivots and stay open without the need of any additional supports		
The harness tilt and return function will be performed by the operator from inside the chassis cab via proportional air over hydraulic control.		
One single locking shaft will be manually removed prior to performing the tilt function – dual load bearing pin designs to unlock front harness will not be accepted.		
The locking shaft shall be non-load bearing design with no weight actually on the shaft		
The single lock shaft will have an outside diameter of 1 ½” inches and overall length will be a minimum of 30 inches.		
A handle will be provided on one end of the lock shaft 4 inches square, 3/8-inch tube by ¾ inch the other end will be chamfered at 30° degrees.		
The lock shaft will when installed be located inside the full length connecting tube.		
The connecting tube and lock shaft assembly will together form the upper connection point of the cheek plate weldment to the front plate assembly.		
The connecting tube overall length will be 23 3/8” inch, inside 1.612” inches, outside diameter 1.90” inches.		

The hydraulic power tilt cylinder will be double acting 2 ½ inches with a 6-inch stroke chrome piston rod.		
Two lower pivot tubes will be provided, the outer pivot tube will be connected to the right and left side cheek plates, the inner pivot tube will be permanently attached to the front plate assembly.		

<b>Specifications:</b>	<b>Yes</b>	<b>No</b>
The inner pivot tube will rotate forward inside the outer pivot tube allowing the front plate assembly to travel forward into the tilted position and will rotate rearward to return the front assembly to the normal working position.		
The inner pivot tube will be 4 inches outside diameter 2 ¾ inches inside diameter, 52-inch-long seamless mechanical tubing.		
There will be two inner pivot tube gussets ½ inch plate, 18 13/16 inches long, 5" inches wide tapered to 2 ¼ inches.		
End plate located on inner tube ½" material 12" x 6" to provide lower mounting location for wing front post.		
The outer pivot tube will be 5 9/16" outside diameter, 4 1/16" inside diameter, 25 3/8-inch-long extra heavy pipe.		
There will be two outer pivot tube gussets ½ inch plate, 8-inch x 8 inch triangular.		
Outer pivot tube fitted with three 1/8-inch NPT Grease fittings for lubrication, one each located approximately 2 inches in from the end of the tube and one located in the centre.		
The front plate will be one solid piece of 3/8 inch steel plate with cut out of sufficient size to allow cooling of the chassis radiator.		
Overall height of the front plate will be 49 inches with a 5.25-inch 90° degree bend at the bottom.		
Right and left side plates, 15 ¾" maximum width by 49 ¼" high by 3/8" plate welded to the front plate.		
Upper cross channel 6" by 52" at 13 lbs./ft. welded to the right and left side plates		
End plate located on upper cross channel 1/2" material 12" x 6" to provide upper mounting location for wing front post		
1/2" steel plate pump and tilt cylinder mounting bracket welded to the cheek plate assembly, 24 ¼" wide by 18 ½".		
Cheek plates will be specified to suit chassis frame rails, 1/2" steel plate and will extend back along the chassis frame rails as far as possible.		

<b>Specifications:</b>	<b>Yes</b>	<b>No</b>
Cheek plates flame cut from 44W steel plate.  Specify:  Minimum Yield: _____  Minimum Tensile: _____		
Fasteners attaching cheek plates to the chassis frame rails will be minimum grade 8 N.C. hex head bolts		
Two pairs of drive ears 100% welded to the front plate spaced at standard 30 1/2" centers		
Three sets of plow drive bar connection holes located in drive ears - height to lower drive connection 19" mounted with truck empty		
Quick-tack hitch pockets bolted to drive ears		
Hydraulic plow lift cylinder, double acting 4" diameter with 10" stroke, cylinder rod chrome plated		
Plow lift yoke 3/4" steel plate, braced with two 1/4" x 2" flat bar diagonal braces.		
Two mounting locations in lift yoke to provide location for mounting of plow hydraulic lift cylinder in winter operating position and stored summer position		
Mounting plates for plow lift cylinder, lift yoke and lift yoke braces all 1/2" steel plate 100% welded to front plate.		
Two LED plow lights with high and low beam and built in integral directional's with switch in cab shall be supplied.		

<p>Five independent double acting valve sections will be incorporated in the valve stack, one section will provide hydraulic power for the plow lift function, the second valve section will provide hydraulic power for the hydraulic power angle function, the third valve section will provide hydraulic power for the front wing function, the forth valve selection will provide hydraulic power for the back wing function, the fifth valve selection will provide hydraulic power for the rear wing slide function.</p>		
<p>Five independent in cab feather joystick air controls will be pedestal mounted inside the chassis cab, one control will operate exclusively the plow lift function, the second control will operate exclusively the hydraulic power angle function and the third control will operate exclusively the hydraulic power front wing function, the forth control will operate exclusively the back wing function, the fifth control will operate exclusively the rear wing slide function.</p>		
<p>Lift yoke brace mounting plates positioned to provide minimum 23.5" span.</p>		
<p><b>WING HARNESS</b></p>		
<p>Viking model VCL350SCL Cable Type Wing Harness or approved equivalent</p>		
<p>SPECIFY MAKE: _____</p>		
<p>MODEL: _____</p>		
<p><b>FULL HYDRAULIC FRONT WING POST</b></p>		
<p><b>Specifications:</b></p>	<p><b>Yes</b></p>	<p><b>No</b></p>
<p>48" front post shall be a cable type utilizing sheaves and cables – capable of high-winging or benching at a height of 60" from the ground to the bottom of the wing cutting edge</p>		
<p>The post shall be an 8" I beam @ 18.4 lbs/ft.</p>		



The post shall be designed for heavy duty service and incorporate a hydraulic ram through sheaves and cables to operate the front of the wing		
The sheave pin shall be provided with a grease fitting and an oilite bushing.		
The main supporting member for the front post shall be 4" OD x 2 3/4" ID x 5/8" wall tube cross member running through both cheek plates, reinforced with a 1/2" steel plate between the cheek plate and front post.		
The auxiliary support shall be a 6" x 13 lb/ft channel running across the top of both cheek plates		
Aeon 5000 lb. rubber block helper spring kit shall be installed to the R.H. front chassis springs		
A 3" x 30" stroke D.A. cylinder shall be mounted on the inside of the front post and shall operate the front wing slide through 2 (6" dia) sheaves and a cable.		
Front post will be a 4" O.D. x 2 3/4" I.D. x 5/8" wall tube cross member running through both cheek plates and front post.		
12" Grote #12020 convex mirror on backside of front post on a extended 10" angle iron bracket to aid driver in winging mode		
The slide and hinge assembly shall be equipped with a TORSION SPRING which will allow the wing to trip over obstacles.		
<b>Specifications:</b>	<b>Yes</b>	<b>No</b>
Two (2) 6" Grote front post spot lights on 18" extended adjustable bracket, separate in-cab switches		
The front post shall also be reinforced with a diagonal brace of heavy pipe running back to the chassis side rails		
<b>CABLE TYPE REAR WING POST</b>		
<b>Specifications:</b>	<b>Yes</b>	<b>No</b>
Rear wing post structure shall be a full height above frame rear wing tower		

Wing tower to have full height high shelving capability		
Tube style crossmember approximately 10" back of cab to assist in preventing diamond shaping of frame when winging.		
The rear structure shall attach directly to the right side of the chassis close behind the cab		
Wing tower shall be of 10" channel construction (no exception) with a 25-degree offset and its mountings shall be sufficient to sustain snow plowing operations under severe conditions.		
The supporting structure shall extend across both chassis side rails and along the right side to provide a distribution of the wing load under heavy duty operation		
A rigid load carrying enclosure shall be provided to support the wing braces and hydraulic cylinder for the rear of the wing		
One pipe brace 2 <sup>3</sup> / <sub>4</sub> " diameter shall connect the bottom of the wing tower and the truck chassis near the forward mount of the right rear springs to reduce the shock of the truck frame.		
The hydraulic valves shall be operated by featherable type air controls		
The wing operation shall be a cable type utilizing sheaves or cables. Bottom of wing tower shall be protected by a shoe and shall have a ground clearance of 14" minimum when truck empty.		
Approved size of ram controlling the rear end of wing shall be 3" dia. x 30" stroke approx. cylinder, with a cable and sheave assembly.  HARDENED CHROMED double acting cylinders		
<b>Specifications:</b>	<b>Yes</b>	<b>No</b>
Approved size of ram controlling wing brace slide shall be 3" dia. x 36" stroke approx. and shall be double acting.		
The control assembly shall contain (7) D.A. valves to operate the plow lift, hydraulic tilt/detach plow harness, front of wing, rear of wing, rear		

wing slide, and body side tilt cylinders. In addition, one (1) S.A. valve to operate the body hoist shall be included.		
The control panel assembly shall be of remote design with a pedestal provided to park the panel in any of the four (4) positions.		
Swing arm in-cab pedestal for plow/wing functions to be installed so as not to interfere with removal of engine cover		
The controls, from left to right, when viewed for the operator's seat, shall operate in the following manner:  <ol style="list-style-type: none"> <li>1. Plow Lift</li> <li>2. Plow angle</li> <li>3. Front of Wing</li> <li>4. Rear of Wing</li> <li>5. Rear Wing Slide</li> </ol>		
In addition, a floor console shall be provided which will include the following controls:  <ol style="list-style-type: none"> <li>1) Body Hoist</li> <li>2) Harness Tilt</li> </ol>		
When fully raised, the rear of the wing shall be close to the RH west coast side mirror on the chassis		
35 U.S. gallon integral rear wing assembly oil reservoir, <b><u>installed on top of the frame rails back of cab</u></b> , shall be supplied complete with oil filter, oil level sight / temperature gauge, breather type filler cap, drain plug and ball valve shut-offs		
6" rear wing light w/in-cab switch		
Manufacturer's literature shall be included		
Manufacturer's warranty minimum 1-year parts and labour		
Harness shall be prepped and painted Medium Gloss BLACK		

**STEEL SIDE WING MOLDBOARD**

Viking model VCL144WHD Steel Side Wing Moldboard or approved equivalent

SPECIFY MAKE: \_\_\_\_\_

MODEL: \_\_\_\_\_

<b>Specifications:</b>	<b>Yes</b>	<b>No</b>
12' WING MOLDBOARD Overall length 12 feet		
Inside intake height 29" minimum		
Outside discharge height 39" minimum		
Moldboard thickness 10 gauge minimum		
Two drive ribs for connecting the wing brace shall be provided.		
Two drive ribs shall be located approximately 10' 2" and 10' 8" from the nose end of the wing.		
The plate for mounting the wing to the wing post shall be 1" thick. The mounting hole shall be far enough from the edge of the plate to avoid failure in this area.		
Lower wing angle shall be 6" x 4" x 3/4".		
The mounting of the nose end of the wing to the wing post shall be by means of a hinge and rectangle spring, to allow tipping over of the wing.		

Two adjustable wing braces shall be supplied.		
The upper brace shall be of a shock release type, including a spring retraction. The spring shall provide adequate stability of the wing in normal operating conditions and shall retract the wing from tip-over position.		
<b>Specifications:</b>	<b>Yes</b>	<b>No</b>
The lower brace shall incorporate a 5/8" x 6" compression spring to absorb any shock the wing encounters.		
Upper brace – extended 90" C.C.		
Collapsed 60" C.C.		
Extended distances shall be measured with spring fully retracted.		
Lower brace – Extended 88" C.C.		
Collapsed 58" C.C.		
One spare pin for adjusting the wing braces shall be supplied with each brace.		
The top edge of the wing shall be boxed in and welded 100% to the ribs and the moldboard so as to avoid any pockets.		
Adjustable needle valve in hydraulics back of cab to allow operator to be able to slow / speed mode functions of wing.		
A high wear wing blade shall be supplied.		

36" ORANGE fluorescent wing marker attached to rear of wing		
Conspicuity reflective on wing arm and on rear edge of wing		
All steel will be shotblasted, epoxy ZINC primed and finished in Medium Gloss BLACK finish		

HYDRAULIC SYSTEM		
<b>Specifications:</b>	<b>Yes</b>	<b>No</b>
The hydraulic pump supplied shall be a Dowty Model 2PL158/220 front mount crankshaft driven Tandem Dry Mode pump with in cab air shift.		
The first stage shall produce 13 US G.P.M. at 1,000 R.P.M. and 23 US G.P.M. at 1,800 R.P.M.		
The second stage shall produce 18 US G.P.M. at 1,000 R.P.M. and 32 US G.P.M. at 1,800 R.P.M.		
One pump section shall be dedicated to the operation of the plow, wing and hoist only.		
The second pump section shall strictly operate the conveyor and spinner assembly to ensure uninterrupted flow of material.		
Pump mounting plate and splined drive shaft shall be supplied.		
The pump shall be driven from the crankshaft of the truck engine.		
The pump shall have a manufacturer's R.P.M. rating equivalent or higher than that of the truck engine at governed speed.		
Hydraulic hoses to connect pump shall be supplied. Their size shall be adequate for quick operation of all hydraulic operations and shall be <b>2 ply braided steel</b> SAE100RS, with swivels on both ends.		
The drive shaft shall be supplied with spline long enough to allow telescopic retraction of the shaft in order to change fan belt without removing the pump.		
The hydraulic system must be set up so all other hydraulic functions do not "rob" the sander equipment.		
A parts manual shall be supplied with each unit.		

Hydraulic control valves will be stackable and sectional type HCD-6 with HCD6-L20 air shift – no exceptions.		
The valves shall be open center type to operate with a hydraulic gear pump.		
<b>Specifications:</b>	<b>Yes</b>	<b>No</b>
To prevent corrosion the air shifters will have a bronze sleeve.		
The control valve will include the following 7 sections: 1 single acting for body hoist 1 double acting for plow lift 1 double acting for plow reverse 1 double acting section for front harness hydraulic tilt forward 1 double acting section for front of wing lift 1 double acting section for rear of wing lift 1 double acting section for rear wing slide lift		
The hydraulic control valves will be operated by proportional featherable in cab air controls – model RMH866000		
The control panel assembly shall be of a remote design pedestal mounted and adjustable.		
An oil reservoir of minimum 35-gallon capacity shall be supplied, complete with oil filter oil level sight gauge, breather type filler cap, drain plug and oil shut off valve.		
The oil reservoir will be installed on top of the chassis frame rails directly behind the cab.		
The complete valve stack assembly will be installed well above the chassis frame rails on the left side back of cab in an easily accessible location, protected from the road debris. The junction boxes for the lights must also be installed at this location.		



<b>ADDITIONAL ITEMS TO BE INCLUDED PRICED SEPARATELY</b>		
<b><i>Specifications:</i></b>	<b>Yes</b>	<b>No</b>
1 additional set of 10" Sideboards		
1 additional cross conveyor belt		
1 additional main chain		
1 additional set of swing away glad hands		
1 additional spinner disk		
6 additional rubber plow insert pieces for Nordik blade		

## **SCHEDULE C – EQUIPMENT DESCRIPTION**

Describe in detail the equipment the bidder proposes to supply if awarded the contract. Include in the detail a copy of a promotional breakdown or pamphlet with a picture of the equipment and any information that may assist the Township of Joly in determining whether or not the proposed equipment meets the specifications.

## **SCHEDULE D**

Bidders are required to attach to this page, References (5) as per specifications and copies of any and all warranties, including extended power train warranty that may apply to the proposed equipment if the bidder is the successful bidder. Details of any available extended warranties shall be attached here as well.