

REQUEST FOR QUOTATION

TANDEM DIESEL “Reversible” SNOW PLOW AND COMBINATION DUMP BODY/SPREADER TRUCK

Quote No.

2026-010

Bid Closing: February 5th, 2026

Joie de vivre



www.westnipissingouest.ca



**MUNICIPALITY OF WEST NIPISSING
TANDEM DIESEL REVERSIBLE
SNOW PLOW AND
COMBINATION DUMP BODY/SPREADER TRUCK**

SECTION 1.0

INSTRUCTION TO BIDDERS

INVITATION TO QUOTE

The Municipality of West Nipissing is seeking to purchase one (1) new tandem diesel reversible snow plow and combination dump body/spreader truck.

Owner: Municipality of West Nipissing
101-225, Holditch Street
Sturgeon Falls, On P2B 1T1
Phone: 705-753-2250
Fax: 705-753-3950



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BID SUBMISSION

- 1.0)** Bid documents must be returned in a sealed envelope clearly marked "Tandem Diesel Reversible Snow Plow and Combination Dump Body/Spreader Truck" complete with bidder's Company name and Quotation reference number to Shawn Remillard, Municipality of West Nipissing, 101-225 Holditch Street, Sturgeon Falls, Ontario P2B 1T1, before 1100 hrs. (local time) on February 5th, 2026 (the "Official Closing Time").
- 1.1)** Bids will be deemed to have been received when a Municipality representative has stamped the envelope with the time and date of receipt with the time clock located at the Services counter. The time clock located at the services counter is the official time piece. Bids not received at the Services counter will not be considered.
- 1.2)** Bids submitted by facsimile or electronically will not be considered.
- 1.3)** All pages contained in the bid documents form an integral part of this bid.
- 1.4)** Section 3.0 must be completed and submitted in the format provided.
- 1.5)** The lowest or any bid will not necessarily be accepted. The owner may decide, at its sole discretion, that no bid submitted will be accepted and no contract will be awarded pursuant to this bid process. If the owner elects to reject all bids, all bidders will be notified and the owner will not be liable to any bidder in preparing the bid, damages, loss of anticipated profit in connection with the work, or any matter whatsoever.
- 1.6)** Bidders are required to check the Municipality of West Nipissing website for addenda issued before the closing date and time. If the contract administrator determines that an amendment is required to the bid documents, the contract administrator will prepare an addenda and post it to the Municipality of West Nipissing website.
- 1.7)** Partial or incomplete bids will not be considered.
- 1.8)** In case of a corporation that has a corporate seal, the corporate seal shall be affixed to the bid form.



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QUESTIONS AND CLARIFICATIONS

- 2.0)** Enquiries, request for explanation, interpretations or clarifications must be submitted by email to sremillard@westnipissing.ca. Only those inquiries submitted by email will be considered. Emails submitted must include the quotation title and quotation reference number.
- 2.1)** Enquiries will be received up to 1100 hrs. local time on January 29th, 2026. Enquiries received after the date and time noted will not receive a response.

BID OPENING

- 3.0)** Bids will be opened privately.
- 3.1)** Bid received after the official closing time is considered LATE, and will not be accepted and will be returned unopened to the bidder.

ADJUSTMENT OR WITHDRAWAL OF BIDS

- 4.0)** Adjustment by telephone, facsimile or letter for a bid already received will not be considered. A bidder desiring to make adjustment to a bid must withdraw the submission and/or supersede it with another offer.
- 4.1)** Bidders may withdraw its bid at any time prior to closing provided the withdrawal:
- i) is in the form of a letter and,
 - ii) state the name of the bidder and clearly identifies the bid that is being withdrawn and;
 - iii) is signed by the bidder's duly authorized signing officer;

BID DOCUMENT DISCREPENCIES AND OMISSION

- 5.0)** Bidders are responsible to review the bid documents and to verify they are complete. If the bidder finds discrepancies or omissions from the drawings, specifications and other documents, the bidder should submit a written request for correction to the contract administrator. Any required correction, addition, deletion or revision to the bid documents will be by written addenda to the bid documents issued by the contract administrator by posting to the Municipality of West Nipissing website.



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REQUEST OF APPROVED EQUALS AND ALTERNATIVES

- 6.0)** Request for equals to the material, equipment or methods of fabrications specified, should be submitted in writing to the contract administrator. These requests should contain pertinent data such as specifications, construction and operational characteristics, cost savings etc. in order to assist the contract administrator in his decision. Approvals for equals will be in the form of addenda. The contract administrator is not obligated to review and approve equals prior to the bid closing time.

GENERAL INFORMATION FOR BIDDERS

- 7.0)** The specification describes a diesel tandem axle truck equipped with a combination dump body/spreader, snow plow and wing. The units will be used for hauling sand and gravel in the summer and snow plowing, salting, and sanding in the winter.
- 7.1)** Municipality's quote form and specification form must be used.
- 7.2)** Dealer must have a service facility within approximately 100 kilometers of municipal yard.

**MUNICIPALITY OF WEST NIPISSING
RFQ TANDEM DIESEL REVERSIBLE SNOW PLOW AND
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SECTION 2.0

QUOTE FORM

QUOTE FORM:

- 1.1)** I/we recognize the right of the owner to reject any and all bids for any reason without explanation and that the lowest bid may not be necessarily be accepted.
- 1.2)** I/we understand that my/our bid will be subject to rejection unless it is prepared in strict accordance with all the requirements of the bid documents.
- 1.3)** All pricing shall be in Canadian funds, all applicable taxes included with the exception of HST which will be considered as extra to the cost
- 1.4)** I/we hereby acknowledge receipt of the following addenda ____ to ____ forming part of the bid documents **(If none have been received, write the word none)**
- 1.5)** Bids shall be irrevocable and shall remain open for acceptance by the owner for a period of 60 calendar days from closing.
- 1.6)** If a discrepancy is found in the bid form between the unit price and the total amount, the unit prices shall be considered as representing the intention of the bid.



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SECTION 2.0

QUOTE FORM

FORM OF QUOTE

Item A: 8 Ton Tandem Axle Truck

Make _____

Model _____

Year _____ \$ _____

Item B – Combination Dump Body/Spreader

Make _____

Model _____ \$ _____

Item C – Reversible Plow with Wing

Make _____

Model _____ \$ _____

Total Item A + B + C \$ _____

Additional Fees/Tax

_____ \$ _____

_____ \$ _____

_____ \$ _____

HST \$ _____

Total Price for Delivery to Municipality of West Nipissing \$ _____

Delivery Date _____

Should you be the successful bidder on this RFQ, the Municipality of West Nipissing will deduct \$100 from the invoiced price for every calendar day this delivery is late for any reason based on the above delivery date.



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SECTION 2.0

QUOTE FORM

Signatures:

Vendor full business name:

Vendor full business mailing address:

Phone No: _____ Fax No: _____

Email: _____

Signature: _____

I have the authority to bind this company/corporation

NAME: _____ (Please Print)

TITLE: _____ (Please Print)

Dated at _____ this _____ day of _____, 2026

CORPORATE SEAL:

**MUNICIPALITY OF WEST NIPISSING
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**SECTION 3.0
SPECIFICATIONS**

PART A: TANDEM DIESEL CHASSIS

Model year equipment – all quotes are for new 2025-2026 model year equipment only. A new vehicle is considered as one having an odometer reading of 4,000 km or less.

	YES	NO
Vehicle Configuration		
Conventional chassis		
2025/2026 model year: specify year : _____		
Set-back axle truck		
Trailer towing provision at end of frame for truck		
General Service		
Truck / trailer configuration		
Domiciled, Canada (other than Quebec)		
Utility / repair / maintenance service		
Dirt/sand/rock commodity		
Maximum 8% expected grade		
Expected front axle(s) load: 22,000 lbs		
Expected rear drive axle(s) load: 46,000 lbs		
Expected gross vehicle weight capacity: 68,000 lbs		
Gross vehicle weight adjustment +/-: 0.0 lbs		
Expected gross combination weight: 70,000 lbs		
Rated maximum vehicle capacity –GVWR: 68,000 lbs		
Truck Service		
Front plow/end dump body/with sand & salt spreader		
Tractor Service		
Flatbed trailer		
Electronic Parameters		
105 km/h road speed limit		
Cruise control speed limit same as road speed limit		

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**SECTION 3.0
SPECIFICATIONS**

	YES	NO
Engine		
DD13 12.8L 470 HP@1800 RPM, 2080 GOV RPM 1650 LB/FT @1100 RPM		
2010 EPA/carb emission certification		
Engine mounted oil check and fill		
Winter engine air intake kit		
DR 12V 160 AMP 36-SI brushless quadramount PAD alternator with remote battery volt sense		
(3) Alliance model 1231, GROUP 31, 12 volt maintenance free 3375 CCA threaded stud batteries		
Battery disconnect switch		
Battery box frame mounted		
Wire ground return for battery cables with additional frame ground return		
Standard air compressor governor		
Air compressor discharge line		
Electronic engine integral warning and derate protection system		
Jacobs compression brake		
Engine after treatment device, automatic cover the road regeneration and dash mounted regeneration request switch		
6 US gallon diesel exhaust fluid tank		
Standard diesel exhaust fluid tank cap		
Full flow oil filter		
DDC supplied coolant filter, engine mounted		
Gates blue stripe coolant hoses or equivalent		
Radiator drain valve		
Phillips-Temro 1500 watt / 115 volt block heater		
Black plastic engine heater receptacle mounted under LH door		
Delco 12v 39MT+HD/OCP starter with thermal protection and integrated magnetic switch		

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**SECTION 3.0
SPECIFICATIONS**

	YES	NO
Transmission		
5-year warranty unlimited miles included		
Allison 4500 RDS automatic transmission with PTO provision		
Vehicle interface wiring and PDM with body builder connector at end of frame		
Electronic transmission customer access connector firewall mounted		
2 Chelsea 277 series PTO's		
Magnetic plugs, engine drain, transmission drain, axle(s) fill and drain		
Push button electronic shift control, dash mounted		
Transmission prognostics – enabled		
Water to oil transmission cooler, frame mounted		
Transmission oil check and fill with electronic oil level check		
Synthetic transmission fluid (TES-295 compliant)		
Front Axle and Equipment		
MFS-20 133A 22,000 #FL1 single front axle		
Meritor 16.5X6 Q+22,000# cast spider cam front brakes		
Double anchor, fabricated shoes		
Non-asbestos front brake lining		
Conmet cast iron front brake drums		
Stemco aluminum vented front hub caps with window and center and side plugs-oil		
Standard spindle nuts for all axles		
Automatic front slack adjusters		
Heavy duty power steering pump for heavy plow weight		
Oil/air power steering cooler		
Front Suspension		
23,000# flat leaf front suspension/air bag on wing side to avoid wing side lean		

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**SECTION 3.0
SPECIFICATIONS**

	YES	NO
Rear Axle and Equipment		
RT-46 164p 46,000# R-series tandem rear axle		
4.89/5.63 rear axle ratio		
MXL 18n Meritor extended lube main driveline with full round yokes		
MXL 17t Meritor extended lube inter axle driveline with half round yokes		
Driver controlled traction differential –both tandem rear axles		
(1) Inter axle lock valve, (1) driver controlled differential lock forward-rear axle valve and (1) rear-rear axle valve		
Blinking lamp with each mode switch, inter axle unlock default with ignition off		
Blinking lamp with each mode switch, differential unlock with ignition off, active 5 MPH		
Meritor 16.5X7 Q+ cast spider cam rear brakes, double anchor, fabricated shoes		
Non-asbestos rear brake lining		
Conmet cast iron rear brake drums		
Auto rear slack adjusters		
Rear Suspension		
46,000# Tuff Track		
Rear shock absorbers –two axles (tandem)		
56 inch axle spacing		
Fore/aft and transverse control rods		
Brake System		
Air brake package		
Reinforced nylon, fabric braid and wire braid chassis air		
Fiber braid parking brake hose		
Standard brake system valves		
Standard air system pressure protection system		
STD U.F. front brake valve		

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**SECTION 3.0
SPECIFICATIONS**

	YES	NO
Relay valve with 5-8 psi crack pressure, no rear proportioning valve		
BW AD-9 brake line air dryer with heater		
Bendix oil coalescing filter for air dryer		
Air dryer mounted inboard on RH rail		
Stainless steel air brake reservoirs		
BW DV-2 auto drain valve with heater to wet tank; drain valve cables on all other tanks		
Trailer Connections		
Air connections to end of frame (with swivel glad hands for truck)		
Primary connector / receptacle wired for separate stop/turn, center pin powered through ignition		
SAE J560-7 primary trailer cable receptacle mounted end of frame		
Upgraded chassis multiplexing unit		
Upgraded bulkhead multiplexing unit		
Wheel base and Frame		
5232mm (212 inch) wheelbase		
7/16x3-9/16x11 -1/8 inch steel frame (11.11 mm x 282.6 mm/0.437x11.13 inch) 120 KSI		
¼ inch (6mm) C-channel inner frame reinforcement		
Frame overhang range: 63 inch to 66 inch		
24 inch integral front frame extension with 0.25 inch insert		
Calculated back of cab to rear suspension C/L (CA): 143 in		
Calculated effective back of cab to rear suspension C/L (CA) 134.45in		
Frame space LH side: 51.37 in (approximately)		
Frame space RH side: 121.50 in (approximately)		
Square end of frame		
Rear tow hooks		
Requested minimum unladen tow hitch height: 32.0 in		

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**SECTION 3.0
SPECIFICATIONS**

	YES	NO
Requested maximum unladen tow hitch height: 43.0 in		
Front closing crossmember		
Standard weight engine crossmember		
OEM snow plow crossmember(s)		
Standard rearmost crossmember		
Heavy duty suspension crossmember		
Chassis Equipment		
Three-piece 14 inch painted steel bumper		
Front tow hooks – frame mounted		
Bumper mounting for single license plate		
Fender and front of hood mounted front mud flaps		
Lincoln Quick Lube Auto greaser		
Grade 8 thread hex headed frame fasteners		
Fuel Tanks		
90 gallon /340 liter aluminum fuel tank LH		
Fuel tank mounted with stainless steel bands		
High temperature reinforced nylon fuel line		
Tires		
Michelin XZY-3 425/65R22.5 20-ply radial front tires		
Michelin XDE m/s 11R22.5 16-ply radial rear tires		
Extra set of Michelin X-Line 315/80 R22.5 snow rated front tires installed at time of plow installation.		
Hubs		
Conmet pre-set bearing iron front hubs		
Conmet pre-set bearing iron rear hubs		
Wheels		
Accuride 29374a 22.5x12.25 10-hub pilot 4.75 inset 10-hand aluminum disc front wheels		

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**SECTION 3.0
SPECIFICATIONS**

	YES	NO
Front wheel mounting nuts		
Rear wheel mounting nuts		
Cab Exterior		
Air cab mounts		
Non-removable bug screen mounted behind grill		
Bolt-on molded flexible fender extensions		
LH and RH exterior grab handles		
Stationary painted grill trimmed for chassis with front frame extension		
Agent silver hood mounted air intake grill		
Fiberglass hood with access hatches		
Dual air horns		
Dual electric horns		
Door locks and ignition switch keyed the same		
Integral headlight / marker assembly		
LED aerodynamic marker lights		
Daytime running lights		
LED flange mounted stop/tail/turn lights with separate LED backup lights		
Standard front turn signal lamps		
Dual finish heated mirrors with lights		
102 inch equipment width		
LH and RH 8" bright finish convex mirrors mounted under primary mirrors		
Standard side/rear reflectors		
Composite exterior sun visor		
RH and LH electric powered windows		
Heated wiper		
Cab Interior		
Gray vinyl interior or approved equal		

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**SECTION 3.0
SPECIFICATIONS**

	YES	NO
Molded plastic door panel		
Black mats with single insulation		
Centre storage console mounted on back wall		
2 1/2 lb fire extinguisher		
First aid kit		
Heater, defroster, and air condition		
Standard HVAC ducting with snow shield for fresh air intake		
Main HVAC controls with recirculation switch		
Standard heater plumbing		
Premium insulation with added floor heat & noise insulation		
Solid-state circuit protection and fuses		
12V negative ground electrical system		
Dome light with 3-way switch activated by LH and RH doors		
LH and RH electric door locks & LH and RH power windows		
(1) 12 volt power supply in dash		
Triangular reflectors without flares		
National 2000 series high back air suspension driver seat with active air lumbar support		
National 2000 series high back air suspension passenger		
Seat with active air lumbar support		
Dual driver and passenger seat armrests		
LH and RH integral door panel armrests		
Cloth driver seat cover		
3 point fixed D-ring retractor driver and passenger seat belts		
Adjustable tilt and telescoping steering column		
4-spoke 18 inch (450mm) steering wheel		
Driver and passenger interior sun visors		

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**SECTION 3.0
SPECIFICATIONS**

	YES	NO
Instruments and Controls		
Gray driver instrument panel		
Gray center instrument panel		
Black gauge bezels		
Low air pressure light and buzzer		
2 inch primary and secondary air pressure gauges		
Dash mounted air restriction indicator with graduations		
97 dB backup alarm		
Electronic cruise control with switches on auxiliary gauge panel (b dash panel)		
Key operated ignition switch and integral start position: 4 position off/run/start/accessory		
Odometer/trip/hour/diagnostic/voltage display: 1x7 character, 26 warning lamps, date linked, ICU3		
Diagnostic interface connector, 9 pin, SAE J1939, located below dash		
Electric fuel gauge		
Programmable rpm control-electric engine		
Electrical engine coolant temperature gauge		
2 inch transmission oil temperature gauge		
Engine and trip hour meters integral within driver display		
Customer furnished and installed PTO controls		
Electric engine oil pressure gauge		
AM/FM radio and front auxiliary input		
Blue tooth connectivity		
(1) radio speakers in cab		
AM/FM antenna mounted on forward LH roof		
Power and ground studs on top of dash		
Cab top mounted 2-way radio (supplied by Municipality)		
Electronic kph speedometer with secondary mph scale, without odometer		

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**SECTION 3.0
SPECIFICATIONS**

	YES	NO
Standard vehicle speed sensor		
Electronic 3000 rpm tachometer		
Virtual technician remote engine diagnostics		
2 year service contract included with virtual technician		
Ignition switch controlled engine stop		
A (16) IGN controlled LED extra switches with indicator lights wired to power distribution box with relays providing 20 amps per circuit to junction block and 1 circuit at 30 amps. Power distribution box to be separate from dash.		
BW tractor protection valve		
Trailer hand control brake valve		
Digital voltage display integral with driver display		
Single electric windshield wiper motor with delay		
Marker light switch integral with headlight switch and switch and terminals for customer furnished snowplow		
Two valve parking brake system with warning indicator		
Self-cancelling turn signal switch with dimmer, washer/wiper and hazard in handle		
Integral electronic turn signal flasher with hazard lamps overriding stop lamps		
Colour		
Cab color : White preferred or approved alternate		
Black, high solids polyurethane chassis paint		
Vendor black wheels/rims		
Bumper paint		
Sun visor painted same as cab color A		
Certification/Compliance		
Canada CMVSS certification		

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**SECTION 3.0
SPECIFICATIONS**

PART B: “4 Seasons” combination dump body/spreader/reversible plow with wing

	YES	NO
MG Model QS-1014-HD or approved equivalent prior to closing date of tender		
Inside length of body shall be 14 ft.		
Outside length of body shall be 15 ft. 5 in. maximum		
Inside width to be 86” minimum		
Outside width to be 96” maximum		
Side height shall be 42” minimum		
Tailgate height shall be 58” minimum		
A double acting air operated tailgate made from 3/16” thick, Hardox 450, shock and abrasion resistant, 205,000 psi yield strength steel and reinforced with 4 vertical and 2 horizontal material shredding braces		
License plate bracket and light shall be installed on tailgate –exact location to be determined by the Municipality		
Body sides, front panel and tailgate shall be manufactured from 3/16” thick, Hardox 450, shock and abrasion resistant, 205,000 psi yield strength steel – no exception		
Floor made of Hardox 450 1/4” shock and abrasion resistant 205,000 PSI steel with 3” channel crossmembers		
The floor and the right side of the body moves as one unit and tips to the left to feed the conveyor		
A conveyor with a front chute is installed on the left side of the floor		
A conveyor cover with hinges and grease fittings will be provided for protection when the body is used for conventional hauling		
The cover will be made of Hardox 450 1/4 “		
An adjustable manual discharge gate is installed at the left front of the body for the purpose of controlling the amount of material to the spinner		
The floor and left side shall rotate on 1 ¼”, stainless steel bolt-on hinges. Hinges must be stainless steel for corrosion protection – no other material including hard induction chrome hinges will be accepted.		
All bushings in the floor hinges shall have grease fittings		

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SPECIFICATIONS**

	YES	NO
The design of the hinge prevents any accumulation of material which could cause stress in this critical area – manufacturers of this type of body, other than the pre-approved MG model QS-100-HD, must provide data proving material will not accumulate in floor hinge area.		
The sides and the floor are joined together by a Hardox 450 3/16 “ plate		
The right side is mounted integrally with the lifting floor and a solid curbside outer wall is built for added strength, security and support		
This is a critical section as it protects the side tilt floor section as well as the rear and front corners against loading damages – side tilt bodies with only 1 right side wall that lifts the floor will not be acceptable		
Body Understructure		
The longitudinal consist of 2 – 10” structural channels		
The channels joined at the rear by a 13” apron. Two 4” x 4” tubing reinforcements are placed between the two channels at the point where the two tilt cylinders are fixed		
A 3/8” plate joins the channels at the front and is used as the attachment for the cylinder base		
Two extra 3” “C” channels on under structure for further floor reinforcement – honeycomb type floor under structure will not be acceptable		
Conveyor Mechanism		
The conveyor chain will be a self-cleaning, heavy duty, D88K type, and consists of 2 strands of 24,000 pound ultimate strength steel with 3/8” X 1 ¼” bar flites installed on 7-7/8” centers		
The chain shall travel in a recessed through with a 3/16” thick QT-400 steel floor		
The overall width of the chain will be 18 ¾” maximum.		
The conveyor drive mechanism shall be through a hydraulic motor with 25:1 reduction worm gear		
The drive will have brass gears		
The gear-box is mounted with a 1 ½” shaft, two 8 teeth sprockets and a flange bearing		
The front drive-shaft, sprockets and gearbox assembly will be removable as one complete unit		

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SECTION 3.0
SPECIFICATIONS

	YES	NO
At the rear of conveyor chain, two bearings mounted on a sliding system for chain tension adjustment. Two round idler wheels shall be connected through a 1 ½” diameter shaft		
Chain tension is adjusted by 2 grease cylinders mounted on the sliding system		
The seal must be at top of the cylinder. Seals installed at the bottom of the rod will not be accepted		
Spinner Assembly		
A truck frame mounted spinner will be installed at the left front side of body		
It shall include an 18” diameter molded polyurethane spinner disc		
The spinner arrangement shall include a kemlite discharge chute, a drive shaft with hydraulic motor and mounting bracket		
The top mounted hydraulic motor shall be supplied with quick disconnect hydraulic couplings		
The spinner assembly can be easily removed or tilted in a horizontal position without the use of tools		
Front Lift Telescopic Hoist		
The hoist will be a front mounted 3 stage telescopic cylinders with a capacity of 30 tons which will allow the body to be raised to a 50° angle. Mailhot model CS130-5.5-3 – no exception		
A safety prop shall be installed under the body to secure the body when in the rear dump position		
Floor Tilt Cylinders		
The lifting floor is raised by 2 of 4” diameter (I.D.) x 22” stroke double acting cylinders minimum		
The floor in the full lift position must be a minimum of 38° to ensure complete unloading a sand or salt onto left side conveyor chain. STATE LIFTING ANGLE _____		
A body prop installed on the underside of the lifting floor to secure the floor and right side panel during maintenance		
A 50/50 oil floor divider installed in order to ensure uniform lifting of the dual cylinders under the floor. Side tilt bodies without 50/50 flow dividers will not be acceptable		

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**SECTION 3.0
SPECIFICATIONS**

	YES	NO
There shall be a side tilt indicator visible to driver which displays the tilting location of the floor and right side panel		
Front lift hoist and side tilt cylinders shall a 2-year manufacturer’s warranty		
Miscellaneous Components to be included		
Air tarp mechanism via air cylinder(s) (electric tarp systems will not be acceptable)		
Fold-down type ladder with grip strut material installed front left side of body		
All body grease points, including tilting floor hinges and auto greaser, will be accessible through a centrally located and easily accessible grease point assembly,		
All hydraulic lines below side tilt body must be stainless steel piping		
A side tilt height indicator shall be installed on the left side of the front panel, easily visible by the driver. The indicator will detail the height of the floor in the raised position during spreading operations		
Compu-Spread model CS660 automated spreader controller with 2 section Bosch M4 valves, including steel valve enclosure, shall be supplied and installed. Spreader controller to be calibrated by vendor prior to deliver of truck to Municipality.		
Body builder to install only an ACE Infobite GPS module and wiring harness, as supplied by the Municipality. In addition, the body builder shall supply and install two sensors attached to GPS model – plow up/down and sander on/off		
A Holland model PH410RA pintle hook, complete with air cushion, rated at 100,000 MGTW minimum, shall be provided and including 2 safety chain hooks		
The hook shall be bolted to a heavy duty pintle plate at the rear of the chassis		
Body builder shall relocate chassis supplied glad hands onto pintle hook plate. Glad hands must be swivel type. Exact location must be approved by the Municipality		
A 7 pin electric trailer plug shall be installed onto the pintle hook plate		
2 rear stop, tail and directional LED lights to be recessed into pintle plate		
Additional LED 6” back up light to be installed at side of pintle plate, wired to chassis reverse lights		
Lighting System		
Sealed clearance lights shall be provided, installed behind rear sill for protection. Three light hole cut-outs to be included in rear sill		
Each rear corner post shall be equipped with LED stop, tail and directional lights, and back-up lights		

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**SECTION 3.0
SPECIFICATIONS**

	YES	NO
A Grote blue oval LED strobe light shall be installed in the left side rear corner post		
A Grote amber oval LED strobe light shall be installed in the right side rear corner post		
LED blue and amber warning lights shall be installed below tailgate on side tilt body		
Star 200B blue and 200A amber revolving strobe beacons shall be installed on cab shield, 2 horizontal amber lights on cab shield		
All blue lights to be operated by a single in-cab switch. All amber lights to be operated by a separate in-cab switch		
Chassis supplied rear stop, tail, and directional LED lights to be re-installed at pintle plate area		
A 9 switch / 12 function rocker switch panel shall be provided, and integral with the in-cab aluminum pedestal stand for the plow and wing joystick levers. The light switch panel shall be installed below the plow / wing levers, and shall be lighted		
Finish Paint		
The entire body must be shot-blasted before primer and finish paint is applied		
Color: Dark Blue		
A 2-part epoxy type primer must be applied		
Top coat shall be Sherwin-Williams polyurethane type paint with baked on finish –no exception		
Viking model VCL36-12-45C steel full trip reversible snow plow or approved equivalent:		
The overall width shall be 12’		
The moldboard height shall be 36” maximum		
The path cleared in the bulldozing position shall be 12’. At a 35 degree angle, the path cleared shall be 10’		
A manually adjustable type moldboard tilt brace to be provided		
Set at a 50 deg. attack angle, the overhang from the cutting edge to the front of the moldboard shall be 20” minimum –no exceptions		
Set at a 60 deg. attack angle, the overhang from the cutting edge to the front of the moldboard shall be 25” minimum –no exceptions		
Set as a 50 deg. attack angle, the height from the ground to the front of the moldboard shall be 28” maximum –no exceptions		

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	YES	NO
Set at a 60 deg. attack angle, the height from the ground to the front of the moldboard shall be 24” maximum –no exceptions		
The moldboard shall be fabricated from 10 ga. steel		
There shall be a minimum of 10 X 3/8” thick reinforced ribs 100% welded to the moldboard		
The safety trip mechanism shall consist of two compression coil springs incorporated into the drive frame. Upon encountering a road obstruction, the moldboard will raise vertically through the 2 compression springs. Note that reversible plows whereby the moldboard tilts forward through extension springs, will not be accepted by the Municipality		
The two compression trip springs will be 5/8” wire, 5 ¼” O.D., 14” free length with a total of 8 active coils		
“Mushroom style” skid shoes shall be fitted on the drive frame		
These shoes shall carry the weight of the plow when the moldboard trips		
The bottom of the moldboard is to be reinforced with a ½” X 6” X 4” backer angle		
A second angle 3/8” X 3” X 2” shall be welded above for added strength and rigidity		
The drive frame shall be of A frame and sector design		
The A frame will be constructed of 3 ½” X 3 ½” X ¼” square tubing with two ¾” thick pivot plates		
Sector frame constructed of 4” X 4” X 3/8” square tube		
The sector angle shall provide a 30° radius and be constructed of ½” X 3 ½” X 2 ½” steel		
To prevent wear, the sector will glide between two low friction replaceable polymer bearings bolted on the A frame		
There shall be two 3” X 14” double acting hydraulic cylinders to reverse the plow to a maximum of 35 right or left		
Moldboard shall be fitted with 2 shoes and scuff shoes shall be supplied on each end		
A 5/8” X 8” X 12’ steel cutting edge shall be supplied and bolted to the moldboard		
Three 3/8” lift chains shall be provided to lift the plow to the carrying position		
These chains must be as wide spread as possible in order to make the plow stable, and the plow must remain level when carried		

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	YES	NO
It will be possible to perform the power angle function with the plow in both the lowered working position and the raised carrying position		
Four hinge points are to be provided to connect the moldboard to the push-frame, spanning a minimum distance of 80”		
To prevent damage to the reversing cylinders a cross-over relief valve shall be supplied		
Drive frame shall be complete with an adjustable parking stand		
All steel shall be epoxy primed prior to application of finish paint		
All paint finishes shall be top quality, rust resistant black		
Quick tack oscillating beam shall be supplied		
Carbide cutting edge and carbide nose shoe shall be provided		
Moldboard to be fitted with 2 moldboard shoes and 2 curb shoes		
Fluorescent markers to be fitted on each end of the plow moldboard		
3/8” X 12’ rubber deflector shall be provided		
Plow shall be equipped with a safety cable connecting the plow to the front harness – cable to be provided with a urethane cover wrap		
A spare parts manual shall be supplied		
A signed manufacturer’s warranty shall be supplied		
Viking model VCL500HD hydraulically detachable front plow harness or approved equivalent		
Male Coupler: The male hinged swing arm and its enclosed rigid mounting bracket shall form an integral assembly and is to be fitted to the side plate (cheekplate). The assembly remains permanently with the vehicle even after the female coupler has been detached		
Side (Cheek) Plates: The side plates must be 5/8” thick and attached to the chassis side rails		
Cheek plates will be specified to suit chassis frame rails, and will extend back along the chassis frame rails as far as possible		

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	YES	NO
Cheek plates frame 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		
Swing Arm: the male swing arm to be rotated on the shaft, and the hub ends are to be guided by four anti-friction polymer discs in the mounting bracket		
Piston diameter 2 1/2 “ Piston rod diameter 1-1/18” Stroke 6”		
The rod is to be hard chrome plated and buffed. These cylinders shall permit the front harness to tilt forward by disengaging the top and engaging the bottom hydraulically operated lock pins. The truck hood (cab) can be tilted forward for easy access to the engine without detaching the front harness from the truck		
Hydraulic locking shall be achieved by two double acting, double ended hydraulic cylinders		
One cylinder shall provide upper locking and the other cylinder shall perform the lower locking function		
The lock cylinder control valve shall be a double acting two spool mono block valve, installed directly on the front harness		
The mono block valve shall be protected by a Poly Nema 13 waterproof enclosure – no exception		
For safety, the lock cylinder control valve shall be mounted in a position to allow the operator visibility of the hydraulic lock pins while performing the lock or unlock function		
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		

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	YES	NO
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 sealed beam Heated LED plow lights with high and low beam built in integral directional with switch in cab		
An additional full width bumper bracket, complete with parking legs, shall be provided. The bumper shall include mounting brackets to enable the male couple of the detachable front harness to mount the bumper to the front of the truck after the female section of the front harness (and front wing post) is removed		
Viking model VCL350SCL Cable Type Wing Harness or approved equivalent		
Cable Type VCL350SCL front wing post or equivalent		
48" front post shall be Viking Model VSL350SCL		
The post shall be an 8" I-beam @18.4 lbs/ft rated		
The harness assembly shall be of heavy construction to sustain snow plowing operations under severe conditions		
The design and construction of the wing post shall be in compliance with MTO ES403, or be of equivalent design. Brace "A" in a second sturdy cross member shall replace ES403. This cross member shall be bolted to both cheek plates. Alternate braces must be approved.		
The wing post, when mounted, shall not be higher than the wing tower		
The sheave pin shall be provided with a grease fitting and an iolite bushing		
A safety stop, limited slide travel shall be supplied		
Lifting cable shall not be mounted to the hinge pin		
An 8" grab link shall be provided with a tip over arrangement. A spring shall be included to return the wing to normal position after it has tripped		
Bottom of the wing post shall be approx.. 11" from the ground, truck empty, and shall be protected by a shoe		

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	YES	NO
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 slide shall be provided with a tip over arrangement. A spring shall be included to return the blade to normal position after it has tripped		
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 the 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 RH front chassis springs		
12" Grote #1202 convex mirror on back side of front post on an extended 10" angle iron bracket to aid drive in winging mode		
Two 6" Heated Grote LED front post post lights on 18" extended adjustable bracket, separate in cab switches		
Viking tube style crossmember approximately 10" back of cab to assist in preventing diamond shaping of frame when winging		
Cable Type VCL350SCL Rear Wing Post		
The rear structure shall attach directly to the right side of the chassis close behind the cab		
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		
Bottom of the wing tower shall have a ground clearance of 14" minimum, truck empty		
The spacing of the holes in the slides for connecting the wing braces shall be approximately 17"		
Approved size of the ram controlling the rear end of the wing shall be 3" dia. X 30" stroke approx. cylinder, with a cable and sheave assembly		
Approved size of ram controlling wing brace slide shall be 3" dia x 36" stroke approx.. and shall be double acting		
Wing tower shall be painted black		
The wing tower shall be of a heavy construction and bolted to the right side of the truck chassis		

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	YES	NO
An integral BOC oil reservoir of 130 litre (35 US gallon) capacity		
An oil filter with spin-on element shall be installed in the return line ahead of the reservoir with a shut-off valve between the filter and reservoir.		
Wing tower shall be of 10” channel construction with a 25 degree offset and its mountings shall be sufficient to sustain snow plowing operations under severe conditions		
One pipe brace 2” 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 rear wing tower shall be heavily braced and gusseted to the frame cheek plate		
For maximum strength, two channels shall be used to form support integral with the rear post		
Two triangular stiffeners shall be incorporated into the assembly		
Hydraulic hoses shall connect the rams of the tower with the valves in the control box. Hoses shall be two ply braided steel, SAE100R16 with swivels on both ends		
All sheave pins shall be provided with oil impregnated bronze bearings and grease fittings		
A safety chain shall be provided for securing wing when not in use		
Guide bars to contain the rear wing slide shall be welded 100% from the bottom up 2 feet		
35 US gallon integral rear wing assembly oil reservoir, installed on top of the frame rails back of cab, shall be supplied complete with oil filter, oil level sight/temperature gauge, breather type filler cap, drain plug and ball valve shut-offs		
6” Heated Grote LED rear wing light with in cab switch		
Manufacturer’s literature shall be included		
Manufacturer’s warranty Specify		
Parts manual shall be supplied with each unit		
Harness shall be prepped and painted medium gloss black		

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**SECTION 3.0
SPECIFICATIONS**

	YES	NO
Viking Model VCL156WHD Steel Side Wing Moldboard with Horizontal Type Hydraulic Wing Travel Positioner or approved equivalent:		
Viking Model VCL156WHD-HP Specify Make _____ Model _____		
Overall length 13 feet		
Inside intake height 29"		
Outside discharge height 39"		
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 ¾"		
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		
The lower brace shall incorporate a 5/8" x 6" compression spring to absorb any shock the wing encounters		
Upper brace – extended to 90" C.C		
Upper brace - Collapsed 58" C.C Extended distances shall be measured with spring fully retracted		
Lower brace – extended 88" C.C.		
Lower brace - collapsed 58"C.C		

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	YES	NO
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		
The back side of the moldboard shall include a horizontal type hydraulic wing travel positioner assembly, complete with in cab control		
The wing positioner assembly shall consist of upper and lower horizontal tubing. The upper and lower wing braces attach to these tubes, and slide forward horizontally through a double acting hydraulic cylinder		
The cylinder shall be installed between the upper and lower sliding tubes. When the wing is in the raised position, extending the cylinder/wing braces along the tubes towards the front of the wing will allow the moldboard to rest tight to the chassis cab, below the mirrors		
The result will be full visibility through the passenger window when the wing is in the travel position. Vertical type wing positioners will not be acceptable		
Adjustable needle valve in hydraulics back of cab to allow operator to be able to slow/speed mode functions of wing		
A high wear type wing blade combined with 2 moldboard shoes shall be supplied		
A curb shoe shall be provided, installed on discharge end of wing moldboard		
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 shot-blasted, epoxy zinc primed and finished in Medium Glass black finish		
Hydraulic System		
A front mount crank shaft load-sense piston pump shall be provided Bosch-Rexroth model A10V100 rated at 100 cc minimum. No alternatives		

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	YES	NO
11 section Bosch M4 load-sense valve assembly shall be provided to operate the following functions: i. 1 double acting for plow lift ii. 1 double acting for plow reverse iii. 1 double acting for upper locking pin on front harness iv. 1 double acting for lower locking pin on front harness v. 1 double acting for hydraulic tilt harness vi. 1 double acting for front of wing vii. 1 double acting for rear of wing viii. 1 double acting for rear wing slide ix. 1 double acting for horizontal wing travel positioner x. 1 single acting for front lift telescopic hoist xi. 1 double acting for side tilt cylinders		
The complete M4 valve 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		
The valves shall be attached to a steel mounting bracket bolted on the left side of the back of cab oil reservoir		
The valve assembly shall be protected by an easily removable steel enclosure		
Two separate electrical switches shall be installed directly on the left side of the front plow harness – one to control the upper hydraulic locking pin and the other to control the lower locking pin – this permits the operator to safely determine which locking pins have been retracted		
Electric switches to be installed inside a protective steel enclosure		
A Bosch model CS-106 multiple joystick control console shall be installed inside the cab in an easily accessible location. No alternatives		
The control console shall include 8 proportional joystick paddles, to control the plow, wing, and hoist functions		
In addition to the Bosch Model CS-106 control console shall include 4 rocker type ON/OFF switches to control the following • Air tarp • Air tail gate • Air plunger for pintle hook • Spare for future water tank		
12 volt air solenoid valves shall be installed within the circuit of each of the 4 rocker switch controls in order to activate the aforementioned air functions through the electric switches		
The function sequence of the switches shall be determined by the municipality prior to installation		

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	YES	NO
A 35 gallon capacity oil reservoir of adequate 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 shall be installed on top of the chassis frame rails back of cab		
The low hydraulic oil level in cab light and alarm shall be provided		
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 <u>2-ply braided steel SAE100RS</u> , with swivels on both ends		
Hydraulic Filter (mandatory requirements)		
Hydraulic Filter shall be equipped with a high pressure filter		
Installed directly into the reservoir with condition indicator		
Beta ratio of 200 for 10 micron particles		
Less than 5 PSI pressure drop across the element at 60 GPM flow		
The filter head must be bolted to a 0.5” thick mounting plate, which must be welded inside and outside the reservoir		
When the canister is removed, the opening must have at least 5” diameter		
The filter inlet should be NPT, minimum 1.25” diameter.		
Make		
Model		
SPECIFICATION		
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		

