

TOWN OF MINTO
5941 Highway #89
Harriston, ON NOG 1Z0
Telephone 519-338-2511 Fax 519-338-2005

Tender # 2015 - 12
TRUCK SPECIFICATION FOR PRICING

UNIT REQUIRED

The Town of Minto is considering purchasing one new 2015 Cab and Chassis with Combination/Dump Body with Snow & Ice Removal Equipment that will be equipped for snow plowing, sanding and salting. The new unit will be a tandem diesel 30,844 KG G.V.W.

Trade In 1999 Tandem Volvo with front plow and side wing
Vin 4VHJCBPE7XN866349
Viewing will be at the Town of Minto Office, 5941 Hwy 89
on May 20, 2015 from 11:00-12:00am only.

SUBMISSION OF TENDER

Two copies of the Tender shall be submitted in a sealed envelope clearly marked with the Tender number and title:

Tender # 2015 - 12
TRUCK SPECIFICATION FOR PRICING

Tenders must be addressed to Brian Hansen, Public Works Director of the Town of Minto, 5941 Highway #89, Harriston, Ontario NOG 1Z0, and must be received by the Town of Minto no later than the Closing Date and Closing Time of:

11:00 am (EASTERN STANDARD TIME)
on
Wednesday, May 27, 2015

NOTE: Any or all tenders not necessarily accepted. Town of Minto reserves the right to reject any or all tenders without stating a reason.

SPECIFICATIONS

The unit offered in the tender should meet the following Town of Minto minimum specifications. Please indicate opposite each paragraph in the space provided the actual specification of the unit.

The vehicle shall meet or surpass the mandatory requirements of the "Canadian Motor Vehicle Safety Regulations (S.O.R. 70-487) amended".

The Town of Minto reserves the right to accept or reject any or all tenders in whole or in part for any reason or concern without any claim whatsoever because of cancellation. The Town of Minto reserves the right to accept or reject any of the options listed as they see fit. Selection of the successful tender shall be subject to

approval by the Council of the Town of Minto.

VEHICLE WEIGHT

a	G.V.W. – 30,844 KG	SPECIFY	KG
b	The allowable G.V.W. as supplied shall be shown on a metal tag	YES	NO
c	Chassis Weight – 6,486KG. min.	SPECIFY	KG

2. ENGINE

MAKE	MODEL		
a	Number of cylinders SPECIFY		
b	Gross H.P. – 410 HP minimum SPECIFY: HP @ RPM		
c	Net H.P. SPECIFY: HP @ RPM		
d	Gross Torque – 1,550lb / ft / min. SPECIFY lb./ft./@ RPM		
e	Net Torque SPECIFY lb./ft. @ RPM		
f	Engine Weight SPECIFY lb		
g	Displacement – 12 litre minimum SPECIFY litres		
h	Air Cleaner – Heavy Duty-Dual element SPECIFY		
i	The engine air intake shall be operator controllable for Summer/Winter operations by dash mounted switch	YES	NO
j	Oil Filter – full flow type mounted on the engine (remote location not acceptable) – 2L capacity SPECIFY CAPACITY litres		
k	Alternator – shall be a low RPM alternator – 165 amp minimum SPECIFY		
l	Governor – engine governor, electronic	YES	NO
m	Battery – Three 12 volt batteries to be supplied and shall have a total cranking capacity of 2250 CCA SPECIFY CCA		
n	Batteries should be mounted so they do not interfere with sanding equipment or wing tower	YES	NO
	NOTE: Battery box with aluminium cover – located below frame B.C. at corner of cab on passenger side / curb side preferred. SPECIFY: _____		

o	Batteries will have a jump post accessible from the outside of the battery box	YES	NO	
p	Starter – Delco Remy – Thermal over crank protection	YES	NO	
q	For the hydraulic pump, P.T.O. must be mounted. Crankshaft shall be provided with an adapter for P.T.O drive	YES	NO	
r	Engine Brake with dash mounted switch – 3 settings	YES	NO	
NOTE:	Where a crankshaft is located low enough to allow the front mounted pump to operate with sufficient clearance below the radiator, Crankshaft not permitted through radiator.			
s	Extend life Anti-freeze - 40°C	YES	NO	
t	Fan clutch – shall be an air controlled model Type:_____	YES	NO	
u	High temperature and low pressure engine protection alarm bell or buzzer device shall be installed.	YES	NO	
v	All coolant hoses shall be silicone	YES	NO	
w	Air Compressor – Cummins 18.7 CFM Type: _____	YES	NO	
x	Coolant filter/conditioner shall be installed.	YES	NO	
y	One set of spare engine filters to be delivered with truck (air, fuel & oil)	YES	NO	
z	Shall provide O.E.M. 2010 regulation pollution control system and include in the tender package all available information detailing the components of the system, and a description of the proposed installation location	YES	NO	

3. TRANSMISSION

a	Transmission – shall be an Allison 4500RDS-P	YES	NO	
b	Transmission min torque	SPECIFY		
c	Transmission Auxiliary cooler	YES	NO	
d	No spin differential with traction control	YES	NO	
e	Synthetic Oil Required in Transmission	YES	NO	
f	Transmission temperature gauge	YES	NO	
g	Shift control shall be T-bar type Location:_____	YES	NO	
h	Transmission control module shall be mounted in the cab or on the firewall Specify:_____	YES	NO	

i	All transmission lines shall be stainless steel braided with ends that allow the line to be removed	YES		NO	
j	Transmission shall be equipped with an auto neutral function	YES		NO	

4. CHASSIS

a	Cab to Axle 134" min. Axle to frame AF 75" min.	YES		NO	
b	Front spring capacity, at the ground - 9,980kg total Front shock absorbers	YES		NO	
c	Rear Suspension capacity, at the ground - 20,865kg total	YES		NO	
d	Rear Suspension shall be Hendrickson HMX460-60 VARIRATE Heavy Duty with shocks	YES		NO	
e	Front springs shall be Heavy Duty Multi leaf with front right auxiliary rubber block for wing plow	YES		NO	
f	Transverse Torque Rods supplied.	YES		NO	
g	Automatic Lubber - Groeneveld unit - chassis and body	YES		NO	

5. CAB

a	Conventional Cab with a full fibreglass one piece tilt hood (complete with stationary chrome grill separate from hood, fixed in front of rad, with rock guard and bug screen, hood service hatches) that will not interfere with a front mounted P.T.O. Dual Hydraulic Pump. Butterfly or access door will be in the hood.	YES		NO	
b	Air Ride Cab	YES		NO	
c	PREMIUM CAB PACKAGE with overhead console, insulated padded cloth headliner, insulated door panels with map pockets, insulated cloth back panel, O.E.M. tinted glass.	YES		NO	
d	Heavy duty, high back, 100% CLOTH Seats with foam rubber cushions	SPECIFY			
e	The Air ride driver's seat shall be a BOSTRUM, Talladega 914 Model (or equivalent) with arm rests, and must have a fully adjustable air ride suspension, with fore/aft leg reach setting, front seat cushion height adjustment for leg support and adjustable with 3 air lumbar supports	SPECIFY			
f	The passenger's air ride seat shall be a BOSTRUM, Talladega 914 Model (or equivalent) with arm rests, and must have a fully adjustable air ride suspension, with fore/aft leg reach setting, front seat cushion height adjustment for leg support and adjustable with 3 air lumbar supports	YES		NO	

g	Power windows & door locks - both sides accessible to driver	YES		NO	
h	Floor mats - Heavy Duty rubber	YES		NO	
i	Interior sun visors - Dual adjustable with aux. fold down side visor on driver side	YES		NO	
j	Windshield Wipers and motor shall be Heavy Duty and winter wiper blades shall be heated with intermittent feature List specifications of heavy duty motor: _____	YES		NO	
	_____ State type				
k	Power Mirrors - two outside, shall be supplied and shall be 6 x 16 in. minimum, West Coast type, Convex mirrors Below West Coast supplied, breakaway type. Chrome look down mirror on R.H. / curb side - cab mounted	YES		NO	
l	The mirrors shall be electrically heated to prevent fogging and ice build up	YES		NO	
m	Fresh air heater and defroster with inside and outside air flow options with 3 speed fan and side window defrosters plus 2 directional fans one for passenger window and one for driver windshield.	YES		NO	
n	Factory installed, cab pressurizing air conditioning shall be supplied	YES		NO	
o	Electric engine throttle	YES		NO	
p	Fuel Gauge shall be supplied	YES		NO	
q	Voltmeter shall be supplied	YES		NO	
r	Water temperature gauge shall be supplied	YES		NO	
s	Oil pressure gauge shall be supplied complete with an automatic low oil pressure engine light & alarm.	YES		NO	
t	Tachometer shall be supplied	YES		NO	
u	Air filter restriction gauge shall be mounted in the dash	YES		NO	
v	Engine hour meter	YES		NO	
w	Internal grab bars on each side to assist easy entry and exit. External tower bar grab handle on driver side.	YES		NO	
x	Roof mounted air Horns - shall be supplied complete with snow shields	YES		NO	
y	Muffler to be mounted on the truck frame and not interfere with snow plow equipment	YES		NO	
z	The chrome vertical exhaust stack shall have a heat guard for burn protection. Exhaust stack will be vertical and have an	YES		NO	

	elbow on the end facing away from the truck			
aa	AM – FM Weather clock radio shall be supplied	YES		NO
bb	O.E.M. extended full width front quarter fender mud / dirt off of fuel tank and cab entry steps	YES		NO
cc	O.E.M. Inner fender splash guards/skirting designed to keep engine area free of road dirt and snow	YES		NO
dd	The electrical system shall be supplied with circuit breakers where possible	YES		NO
ee	A junction block for rear lights shall be mounted in cab	YES		NO
ff	12 O.E.M. power in dash heavy duty 30amp switches installed for body builder light package, each with own fuse	YES		NO
gg	O.E.M. auxiliary 3’ plow wiring harness to front of chassis and in dash headlight switch for plow lights	YES		NO
hh	Brake and clutch pedals will be suspended	YES		NO
ii	Power source – cigar type receptacle without plug and cord	YES		NO
jj	All steps into the cab, driver and passenger side shall be aluminium non-slip grip steps	YES		NO
kk	Cab switches shall have back lighting for night visibility	YES		NO
ll	Cup holders shall be provided	YES		NO
mm	Wiring for two way radio shall be provided	YES		NO
nn	Low windshield washer fluid indicator shall be provided	YES		NO
oo	O.E.M/ sound abatement package under hood	YES		NO

6. FRAME

a	Axle to rear of frame distance to be 65in. min. and verified with body manufacture.	SPECIFY
b	Frame shall be supplied as follows: Heavy duty with full ‘C’ channel reinforcing right through from rear of chassis to front of chassis	
Resisting bending moment (Section Modulus x yield strength) shall be 3,100,000 lb. in. min. Section Modulus shall be 30.0 minimum. 120,000 P.S.I.		

SPECIFY MAKE				
FRAME SIZE				
REINFORCING SIZE				
MATERIAL YIELD STRENGTH				
SECTION MODULUS				
RESISTANCE BENDING MOMENT 18" front frame extension with 1/4" full channel reinforcing.				
c	A MTO cross member shall be installed within 8 to 10 inches of back of cab to transfer snow plow wing push to each frame rail.	YES	NO	
d	Trucks with trunnion motor mounts require reinforcing of the frame	YES	NO	
e	Two heavy duty front tow hooks will be supplied, accessible with snow harness	YES	NO	
f	A heavy duty pintle hitch rated at greater than 30,000 lb. MGTW rating and 2 safety chain tow hooks and light plug, both tow hitch and light plug shall be compatible with Town of Minto utility trailer. Mounting plate for pintle hitch shall be installed between the frame rails 22.5" from the point of where the tailgate meets the box. The bottom of the mounting plate has to be a minimum of 27" from the ground.	YES	NO	
g	The exterior of the frame shall be sandblasted, primed using XPM primer and coated from the cab back using Line-X XS-100 in black. This coating application will include the rear light area, air tanks, oil tanks and battery tray.	YES	NO	
h	The vehicle shall be equipped with a heavy duty electromagnetic corrosion module	YES	NO	
i	Shall be supplied with Traction Tec #9311 and 9312 swing away fold up glad hands with increased protection against magnesium chloride, road salt and chemicals	YES	NO	

7. STEERING

a	Power steering shall be supplied with heavy duty dual steering boxes	YES	NO	
b	There shall be a filter for the steering fluid and it shall be serviceable without dismantling any power steering components	YES	NO	
c	Multi positioning tilt/telescoping 18" steering wheel shall be provided	YES	NO	
d	Steering wheel mounting controls shall include electric horn, cruise control and air horn	YES	NO	

8. AXLES

a	Front axle shall be 9,980 kg capacity min.	CAPACITY	kg
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b	Rear axle shall be 20,865kg capacity min.	CAPACITY	kg		
c	Rear axle shall be tandem, dual drive with synthetic oil	YES		NO	
d	Rear axle spacing shall be 54 in. between the axle centres	SPREAD			
e	Rear axle shall be single speed	YES		NO	
f	Rear axle shall have a power divider lockout with driver control on dash	YES		NO	
g	Front axle shall be set back and have Oil Bath wheel bearings	YES		NO	
h	Road speed at rated RPM in top gear shall be 100 Km/hr approximately	SPECIFY SPEED km/hr			
i	Rear drive axle ,driver controlled main locking differential Rear axle ratio	SPECIFY			

9. BRAKES

a	Service Brakes - full air brakes shall be supplied with ABS	YES		NO	
b	Front brakes, size 16 1/2 x 6 in. min. shall be supplied. S Cam type	SPECIFY TYPE: SIZE mm			
c	Rear brakes, size 16.5 x 7 in., min. shall be supplied. S. Cam type with four 3030 brake chambers. With long stroke life maxi pots	SPECIFY TYPE SIZE mm			
d	Brakes shall be in accordance with MVS 121 U.S. Standards	YES		NO	
e	Bendix Westinghouse AD-9 air dryer with heater to be supplied - SPECIFY	YES		NO	
f	Brake chambers on rear drive axle shall not extend beyond rear tires i.e. inverted	YES		NO	
g	Dust shields front and back	YES		NO	
h	Automatic slack adjusters – Haldex	YES		NO	

10. WHEELS AND TIRES

a	10 bolt Hub Pilot Wheel c/w Teflon Spacer Plate	YES		NO	
b	Rims and tires shall be of the tubeless type	YES		NO	
c	Front Wheel rim size shall be 22.5 x 12.25in.	SPECIFY			
d	Front tire size shall be 425/65R x 22.5 - 20 ply steel belted radials	SPECIFY			

e	Front tires shall be Michelin XZY	SPECIFY			
f	Dual rear wheels shall be supplied	YES		NO	
g	Rear wheel rim size shall be 22.5 x 8.2 in	SPECIFY			
h	Rear tires shall be Michelin XDE-MS 16 ply	SPECIFY			
i	One spare tire Michelin XDE-MS 16 ply mounted on rim shall be supplied	SPECIFY			
j	Rims shall have load and pressure ratings equal to or greater than those of the tires.	SPECIFY			
k	All rims shall be Alcoa aluminium	SPECIFY			

11. PAINT

a	Paint shall be Town of Minto (blue) or equivalent	YES		NO	
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12. FUEL TANK

a	378 litre / 100 U.S gallon minimum capacity single or dual non polished aluminium tank(s) with stainless steel straps shall be supplied. Tank shall not extend beyond rear of cab. SPECIFY: _____ litres	YES		NO	
b	Tank shall be mounted on left hand side and shall include an aluminium helper step fastened to bottom of tank	YES		NO	
c	Fuel tanks shall be non-polished aluminium with stainless steel straps	YES		NO	

13. LIGHTS & WARNING DEVICES

a	Two, fender mounted, 4 in. diameter amber directional lights, facing front	YES		NO	
b	Rear red directional lights shall be supplied	YES		NO	
c	Stop lights shall be supplied	YES		NO	
d	Five identification streamlined cab lights shall be supplied (LED)	YES		NO	
e	Four-way flashers shall be supplied	YES		NO	

f	Back-up lights shall be supplied	YES		NO	
g	102 DBA back-up alarm	YES		NO	
h	Light under hood	YES		NO	
i	In-cab battery disconnect switch shall be provided – mounted L.H beside driver’s seat and accessible when door is open	YES		NO	

14. WARRANTY AND SERVICE LITERATURE

a	Signed Manufacturers factory warranty shall be supplied	YES		NO	
b	Parts and Service manuals shall be supplied including Shop Manual for Engine in both CD and hardcopy upon delivery	YES		NO	
c	A DETAILED LIST shall be supplied stating filter and belt numbers, all types of fluids required and their drain intervals and all time frames for regular maintenance work	YES		NO	
d	A qualified technician shall provide 2 hours of training to Municipal employees when each unit is delivered and 2 additional hours for first maintenance procedure	YES		NO	

15. SAFETY DEVICES

a	Shall supply one 3A40BC fire extinguisher mounted on floor – L.H. beside driver’s seat inside the cab – accessible when door is open	YES		NO	
b	Shall supply a complete mounted first aid kit	YES		NO	
NOTE:	This specification lists only the major details of a unit; therefore it is the supplier's responsibility to deliver a fully-equipped vehicle with compatible components to provide dependable efficient service.				

16. DELIVERY DATE

NOTE:	Complete manufacturer's literature and specifications shall accompany each tender.
	These specification sheets shall be completed and returned with the tender form.
	The unit shall be delivered to the body manufacturer.
	Licensing shall be done by Town of Minto. Annual Inspection Sticker supplied by Dealer.

17.OPTIONS

a	Optional prices for increased warranties	Price (\$)	
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SPECIAL INSTRUCTIONS

1. When this truck is being built, all components and accessories must be placed so they will not interfere with each other and situated with the operator's safety and comfort in mind.
2. Turning radius profile to be shown for trucks priced.

High Capacity 10 Foot One Way Plow

The specifications below describe a one way snowplow with a compression safety trip moldboard

Specifications	Confirmation	
The plow must clear a path of 10 feet and discharge to the passenger side of the vehicle	Yes	No
The plow shall be compatible without modification with any MTO snow plow harness that complies with standard ES-401	Yes	No
The plow shall be fitted with a Ni-hard block plow blade 55 degrees	Yes	No
The plow must operate at a clearing path of 10'3" at an angle of 37 degrees Specify clearing path _____	Yes	No
The moldboard shall be fabricated from a single piece of 10 U.S.S ga. steel	Yes	No
Height of the moldboard at the top of the curve will be: Discharge end: 66", 35" on intake	Yes	No
The overall length of the moldboard shall be 15'10"	Yes	No
Moldboard shall tilt up/down to allow different angles of attack	Yes	No
A brace rod shall be equipped with a 4" hardened chromed hydraulic tilt moldboard cylinder allowing for the adjustments of plow angles to 45, 50, and 55 degrees. Moldboard angle indicator rod to assist operator from in cab to locate settings	Yes	No
There shall be eight 100% welded vertical ribs, 3.25" high by 0.5" thick	Yes	No
Minimum weld between the moldboard and rib shall be 35% each side, alternating between the two sides	Yes	No
The upper portion of the moldboard and the top of the ribs shall be tied together by a full length 2.25" by 2.25" by 0.25" steel angle	Yes	No
A sturdy 0.5" lift eye shall be welded to the center of gravity on the moldboard for handling	Yes	No
Horizontal 0.5" thick x 12" rubber deflector strip shall be bolted along the moldboard upper angle	Yes	No
The bottom main support rail shall be constructed from 6" by 4" by 0.75" reinforced angle	Yes	No
Affixed to the main support rail a 0.5" by 8" high carbon steel blade which can be reversed for added life, a nose piece and two cast moldboard shoes shall be standard hardware	Yes	No
The entire moldboard must safety trip so that the plow can easily cope with road obstacles	Yes	No
Two compression springs secured with lock nuts assure that the blade and moldboard together return to the normal plowing position automatically	Yes	No
While the moldboard is tripping two runner shoes must support the moldboard in order to protect the plow	Yes	No
Runner shoes must be bolt-on, oscillating, and adjustable in height	Yes	No

Two separate grade 70 3/8" minimum lift chains at points approximately 48" apart shall be used to raise the plow from the ground	Yes	No
The drive frame shall be fabricated from 6" by 6" by 0.75" structural angle reinforced by 0.5" plate, and 6" by 4" by 0.375" tube	Yes	No
An oscillating bar shall fix the plow drive frame to the truck harness with a 1.25" bolt	Yes	No
The oscillating bar shall have a base constructed from a 1" by 5" flat bar with two 1" thick ears reinforced with 0.5" by 2" flat bar	Yes	No
The connecting 3 hole lug ears for plow hook-up shall be spaced at 30.5" centers for hookup on any standard MTO approved truck plow harness	Yes	No
End hooks of 1" thick material cut into the drive frame mounting plate shall restrict the rotation of the oscillating bar	Yes	No
The entire plow and push frame assembly shall be shot blasted, epoxy zinc primed, and painted in a Imron 5000 black urethane	Yes	No
36" WINTER fluorescent orange plow marker on each end of the moldboard	Yes	No
Sleeved top of moldboard to plow push frame check plate	Yes	No
Eaton Aeroquip 2 wire, 3 1/2" radius bend, -70 / + 260 degree / 4500 PSI rated minimum hoses with Safeway S70 drip less couplers	Yes	No

All Season Combination Dump Body / Spreader

Specification	Confirmation	
General		
These specifications describe an all season combination dump body and salt/sand 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 to permit gravity flow unloading. The main conveyor will be centered and recessed along the length of the box. The cross conveyor will be chassis frame mounted with spreader discharge on the front, left, side (driver's) of dump box.	Yes	No
Dump Body	Make	
PL-1415HW or equivalent	Model	
The bidder will arrange a working demonstration of any unit offered as an approved equivalent at the municipality's location prior to the tender closing	Yes	No
Integral fenders, top and bottom of the dump body are to be coated using Line-X XS-100 in color. Complete dump body exterior to be coated in Line-X XS-100 in color including tarp arms, ladders and all removable hardware	Yes	No
Dimensions		
To provide optimum combination of legal payload and capacity all dimensions below are maximum/minimum and must be specified if changed.	Yes	No
Maximum weight of complete body assembly	Specify	
Water level capacity will be 14 cubic yards	Yes	No
Water level capacity with 10" sideboards will be 17.1 cubic yards	Lbs.	
Top rail of body will be 6" x 4" 3/8" square tubing	Yes	No
All body welds will be 100% continuous inside and outside	Yes	No
Body sides to be fabricated from 3/16" Cor-ten	Yes	No
Body front panel will be 3/16". Cor-ten	Yes	No
Dump box access ladder shall be 15" wide located on driver's side	Yes	No
Body safety prop assembly integral with rear body hinge c/w 2 1/2" rear drop in pins to prevent box from lowering when in the raised position. Integral storage for pins behind rear body prop or equivalent.	Yes	No
SPECIFY: _____		
Remote grease maintenance block	Yes	No

Chassis mounted aluminum fenders to suit 54" spread. Mud flaps mounted fore and aft of wheels; fenders width sufficient to accommodate on board liquid storage tanks	Yes	No
The aluminum fenders will be independent of the sander body and will be installed on the truck chassis frame rails via mounting brackets	Yes	No
When the sander body is raised to the dump position, the aluminum fenders will remain in a stationary position fixed to the chassis frame rails and will not raise or move with the sander body	Yes	No
One 10" convex mirror mounted on front right fender so driver is able to see operation of leveling wing	Yes	No
Shovel holder installed left side front of box	Yes	No
Body Shape		
Body shall be smooth rolled oval shaped, permitting materials to unload by gravity flow into spreading position. No breaks or formed sides	Yes	No
Outside length 15'	Yes	No
Inside length 14'	Yes	No
Overall width 8'	Yes	No
Height of sides 53" from conveyor floor	Yes	No
Height of tailgate 62" from conveyor floor	Yes	No
Height of front panel approximately 63"	Yes	No
Hoist		
Mail hot Nitride top lift 3-stage telescopic hoist, "C" series Model CS130-5-3	Yes	No
Hoist capacity shall be 30 ton	Yes	No
Cylinder stroke shall be 130" minimum	Yes	No
Dump box tipping angle shall be 50 degrees	Yes	No
The front head of the body will be completely clean and clear of any type of recesses or protrusions into the body including hoist dog houses, bulkheads, etc.	Yes	No
Hinge diameter shall be 2.5" with grease fittings	Yes	No
Hoist control valve shall be air operated with in-cab feather able control on floor pedestal beside driver seat	Yes	No
Rear body safety prop/integral hinge assembly	Yes	No
Tailgate		
Tailgate shall be double acting	Yes	No
Tailgate height shall be 62" from conveyor floor	Yes	No
Tailgate shall be rectangular shaped to allow use of asphalt or stone chip spreaders	Yes	No
Construction shall be of 10 ga. Cor-ten "A" steel with 3/16" formed cross bracing	Yes	No
Latch mechanism for the tailgate shall be air trip using two air pot boosters	Yes	No
Asphalt gate located at the bottom center of the tailgate	Yes	No
Interior measurement of the asphalt gate will be 25" wide by 14" high	Yes	No
The asphalt gate will have a height adjustable door with locking latch assembly and lever type operating mechanism	Yes	No
The operating level will be off set to the curb side of the body	Yes	No
Spreader chains and brackets shall be supplied on tailgate and rear apron. Chains shall be grade 70 coil proof 3/8" minimum	Yes	No
Conveyors		
The main conveyor shall be recessed along the length of dump box floor	Yes	No
The conveyor chain shall be a minimum of 30,000 lbs. tensile strength self-cleaning pintle chain - 70 grade chain	Yes	No
3/8" x 1 1/4" cross flights welded to every 4 th link (approximately 9")	Yes	No
Main conveyor drive shall be a single 25:1 high efficiency planetary drive with	Yes	No

high torque low speed motor or hydraulic driven by gear reduction		
The flow control gate between main and cross conveyor shall be screw adjustable by hand crank from driver's side of dump body	Yes	No
The main conveyor flow control gate will be flush and even with the front of the body without any type of recess	Yes	No
The underside of the main conveyor will be enclosed by a removable cover	Yes	No
The main conveyor will be 18" to 25" in width measured from the outside to the outside of the conveyor chain links	Yes	No
To provide optimum safety and the lowest possible center of gravity, the conveyor bed will measure a minimum of 33 ½" measured from side to side	Yes	No
The unit must be capable of spreading and discharging "A" gravel via the main conveyor, cross conveyor and spinner chute, without clogging, jamming or other such problems and the manufacturer will warranty the unit as suitable for this operation and application	Yes	No
The conveyor will have a summer cover	Yes	No
The conveyor floor will be ¼" steel plate	Yes	No
Main conveyor sensor motor amp High Pressure assembly	Yes	No
Cross Conveyor		
The cross conveyor shall be hydraulic direct drive	Yes	No
The cross conveyor shall be a positive bi-directional belt drive x-conveyor minimum tensile strength of 17,000 lbs., with in-cab switch and right hand and left hand side poly lined material chute. Belt to have lugs on underside	Yes	No
The cross conveyor assembly shall be used to discharge material from main conveyor to the unit spinner(s) In-cab switch to reverse x-conveyor	Yes	No
Cross conveyor assembly to mount on chassis frame independent from and in front of main body. Full width 8" high poly shields front and rear of x-conveyor table to prevent material from spilling over on hoist or behind onto chassis frame.	Yes	No
Cross conveyor unit shall be removable design to reduce added weight in non-spreading applications / off seasons	Yes	No
Cross conveyor weldment shall be fabricated from a minimum of 3/16" Cor-ten "A" corrosion resistant material. X-conveyor prepped and painted Imron 5000 black.	Yes	No
Spinner		
A polyurethane spinner with anti-coning device, poly lined material chute and fold-down windrow salt chute - shall be installed on left hand (Driver Side) to spread ahead of rear wheels. Spinner assembly will be pinned on for ease of removal or swing up and lock for carrying - horizontal to frame rails. Hydraulic line with quick coupler to chassis lines for off season.	Yes	No
Spinner disc will be hydraulic direct drive	Yes	No
Spinner height shall be adjusted to accommodate various chassis heights and capable of discharge rate from 100 lbs./lane mile to 2,500 lbs./lane mil	Yes	No
Spinner position adjustable fore and aft horizontal along chassis frame rail	Yes	No
Spinner will have Safeway S70 hydraulic quick couplers	Yes	No
Sander Controls		
Closed loop ground speed - sensing electronic spreader control	Yes	No
Controls must be compatible for variable rate pre-wet	Yes	No
System must be set up for ground speed-sensing with granular spread rates pre-programmed into the controller by bidder	Yes	No
CS 550/150 Spreader/Joystick Controller (Rexroth)	Yes	No
Built in rear view camera	Yes	No
Built in Air/Road temp to controller	Yes	No
Paint		

The dump body shall be shot blasted and epoxy primed, finish paint acrylic urethane – BLUE	Yes	No
Load Cover		
An air tarp shall be standard equipment with fabricated tarp arms dimensions of 1 ½” x 2 ½” steel tubing, 1/8” mesh tarp and 14” stroke air cylinder mounted to side of body	Yes	No
Lights and Wiring		
Lights and wiring shall be completely sealed with corrosion and vapor proof lamps and junction box	Yes	No
Grote Ultra Blue Seal body wiring harness kit	Yes	No
For improved rear visibility rear lamps, stops, tails and directional to be rectangular mounted in rear corner posts within 3” of the outside of the tailgate and to be LED	Yes	No
All lights and wiring shall be supplied, LED stop, tail, turn and back-up each side of gate. Blue and amber LED rear strobes at top corners of body. Grote 6” spinner light, back of cab conveyor work light, separate in-cab switches.	Yes	No
License plate shall be installed with light up on rear body x-member not on chassis frame	Yes	No
Two (2) raised MTO detachable light poles will be supplied, mounted on the top of the body.	Yes	No
The raised detachable light poles will include stop, tails and directional, yellow & blue strobes, two Grote 6” spot lights, one each pole aimed at the ground, hooked into O.E.M reverse switch. Plug in and sealed junction boxes.	Yes	No
Supply and install amber and blue LED strobe lights on adjustable pole pedestal on back of cab with separate in cab switches	Yes	No
All body electrical, to be interfaced with O.E.M. in-cab, behind driver’s seat junction box.	Yes	No
Re-install O.E.M tail lights to rear chassis frame	Yes	No
Hydraulics		
Tube must be used to transfer hydraulic fluid along the length of the chassis frame to allow quick and easy hose replacement	Yes	No
The tube must be capable of 3000 psi working pressure	Yes	No
The following hydraulic functions shall be a split hydraulic valve section and use 304 stainless hydraulic tubing .50 od. with swage lock fittings: <ul style="list-style-type: none"> • One section at the front of the chassis in behind the plow harness on right hand side (passenger side) for plow controls up/down, tilt harness and front wing functions. • Second section back of cab above frame for rear wing, body hoist functions. • Stainless steel tubes under chassis to be: 1” pressure, 1” power beyond, 1” valve return and ½” bleed off. 	Yes	No
The body operation shall be powered by the existing hydraulics of the snow plow truck harness with the control to be mounted at the back of the cab	Yes	No
The hydraulic reservoir shall be equipped with low oil level indicator with in cab warning light	Yes	No
The hydraulic reservoir shall be combined with the valve body enclosure SPECIFY:	Yes	No
All fittings, valves, hoses and drive shaft shall be supplied and installed. All hoses shall be equipped with swivels on both ends	Yes	No
The hydraulic reservoir shall be behind the cab, above the frame with sufficient capacity to supply necessary oil supply. Reservoir must NOT interfere with the box installation	Yes	No

A sight gauge to allow easy checking of the hydraulic oil level in the reservoir shall be supplied	Yes	No
Prototype units will not be acceptable	Yes	No
Hydraulic tanks have an on/off valve and all hoses to be 2 ply	Yes	No
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 one year, and references must be supplied as specified below	Yes	No

List five (5) Ontario Municipalities who have been using the combination U-body/spreader offered in this tender for a minimum of one year.

Name of Municipality	Contact Name	Length of time Combination U-body in service	Specify Model # of Combination U-body owned	Phone #

Hydraulic Power Tilt Snow Plow Truck Harness

Specification	Confirmation	
The design and construction of the truck harness shall be in compliance with M.T.O. standard ES-401, or be of equivalent design approved by M.T.O. Model VCL 500T or equivalent in compliance with the following specifications and approved by the Town of Minto	Yes	No
	Make	
	Model	
The front plow harness will tilt forward to allow the chassis hood to tilt forward over center of its pivots and stay open without the need of any additional supports	Yes	No
Snow plow harness, tower and support brackets shall be sandblasted primed using XPM primer and coated using Line-X XS-100 in black.	Yes	No
Shall be a heavy duty steel frame <ul style="list-style-type: none"> Light tubular steel framing will not be accepted 	Yes	No
The harness tilt and return function will be performed by the operator from inside the chassis cab via feather air over hydraulic control	Yes	No
The hydraulic power tilt hardened chromed cylinder will be double acting 2 1/2" with a 6" stroke with separate valve sections behind the cab.	Yes	No
The front plate will be one solid piece of 3/8" steel plate with cut-out of sufficient size to allow cooling of the chassis radiator	Yes	No
Overall height of the front plate will be 49" with a 5 1/4" 90° bend at the top and a 2" 90° bend at the bottom	Yes	No
Overall height of the front plate will be 57 1/2" at the top and 40" at the bottom	Yes	No
Right and left side plates, 15 3/4" maximum width 49 1/4" high 3/8" plate	Yes	No

welded to the front plate		
Upper cross channel 6" by 52" 13 lbs./ft. welded to the right and left side plate	Yes	No
End plate located on upper cross channel 1/2" material 12" x 6" to provide upper mounting location for wing front post	Yes	No
1/2" steel plate pump and tilt cylinder mounting bracket welded to the cheek plate assembly, 24 1/4" wide x 18 1/2"	Yes	No
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	Yes	No
Fasteners attaching cheek plates to the chassis frame rails will be minimum grade 8 N.C. hex head bolts	Yes	No
Two pairs of drive ears 100% welded to the front plate spaced at standard 30 1/2" centers	Yes	No
Three sets of plow drive bar connection holes located in drive ears height to lower drive connection 19" mounted with truck empty	Yes	No
Hydraulic plow lift cylinder, double acting 4" diameter with 10" stroke, cylinder rod chrome plated	Yes	No
Plow lift yoke 3/4" steel plate, braced with two 1/4" x 2' flat bar diagonal braces	Yes	No
Two mounting locations in lift yoke to provide location for mounting of plow hydraulic lift cylinder in winter operating position and stored summer position	Yes	No
Mounting plates for plow lift cylinder, lift yoke and lift yoke braces all 1/2" steel plate 100% welded to front plate	Yes	No
Lift yoke brace mounting plates positioned to provide minimum 23.5" span	Yes	No
Two sealed beam halogen plow lights with high and low beam and built in integral directional with switch in cab	Yes	No
Right and left side plow light mounting brackets extending 7" up from top of front plate with light mounting positions on 55" centers	Yes	No
Vapor proof wiring for plow lights, with universal harness and plug-in assembly	Yes	No
Tow independent double acting valve sections will be incorporated in the valve stack; one section will provide hydraulic power for the plow lift function and the second valve section will provide hydraulic power for the hydraulic power tile function	Yes	No
All structural steel plate used in the plow harness will be 33W complying with CSAG40.21	Yes	No
Tensile strength will be 65-90 KSI and the minimum yield strength will be 44 KSI	Yes	No
	Tensile	
	Yield	

VCL AHW 12 Self Leveling Wing

Specifications	Confirmation	
These specifications describe a 12' snow plow wing, with rear side completely enclosed and smooth paneled	Yes	No
Wing plow must be hydraulic with hydraulic push arm capability	Yes	No
Overall length 12' (144" minimum)	Yes	No
Inside intake height 28"	Yes	No
Outside discharge height 34"	Yes	No
Moldboard thickness 3/16" minimum	Yes	No
The rear of the wing will be smooth paneled	Yes	No
Rear of wing enclosed two piece assembly consisting of moldboard channel 3/16" plate 12 5/8" x 143 5/16" and top angle 3/16" plate 9 7/16" at intake end 18 1/16" at discharge end 143 5/16" overall length	Yes	No
The three discharge end caps are 3/16" plate all welded 100% to the moldboard face the rear upper moldboard top angle and the rear lower moldboard channel	Yes	No
Lower backer angle 5/8" x 4" x 4"	Yes	No
Backer angle reinforced with 4 gussets 1/2" x 3" x 3" and 8 angle stiffeners 3/16" x 4"	Yes	No
Moldboards will be reinforced without the use of vertical ribs, horizontal internal reinforcement supplied	Yes	No
The wing will be fitted with the following 1. one Ni-hard block high wear wing blade 70 degrees	Yes	No
Turnbuckle assembly to be permanently mounted on the rear of the wing	Yes	No
The turnbuckle will pivot out and attach to the wing brace, in order to support the brace during the disconnecting and reconnecting operation	Yes	No
All steel will be shot blasted, epoxy primed and top quality Omron 5000 black finish paint electro statically applied	Yes	No
36" winter fluorescent wing marker on discharge end of wing	Yes	No
Conspicuity safety reflective tape on rear edge of wing	Yes	No
Bolt on 12" rubber deflector on lower rear edge of wing to keep road rash off of cab, steps, air tanks etc.	Yes	No

Tandem Front Mount Hydraulic Pump

Specifications	Confirmation	
The hydraulic pump shall be a Bosch Rexroth 100 cc #A10V0100DFR/31L	Yes	No
	Make	
	Model	
The front mounted pump shall have a capacity of 48 G.P.M.	Yes	No
Supplier and manufacturer to warrant the pump to operate the spinner and conveyor at the maximum level of performance with enough capacity to operate one other function	Yes	No
Pump mounting plate complete with machined balanced tube drive pump drive shaft with grease fittings shall be supplied. Pump drive shaft to have safety guard over it for protection.	Yes	No
The pump assembly shall be driven directly from the crankshaft of the truck engine	Yes	No
The pump shall have an RPM rating equivalent or higher than that of the	Yes	No

truck engine at governed speed		
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	Yes	No
Hydraulic hoses to connect pump shall be supplied. Their size shall be adequate for quick operation of all hydraulic operations and shall be 2 ply braided steel SAE100R16, with swivels on both ends. HOSES SHALL NOT INTERFERE WITH OIL OR FUEL FILTERS	Yes	No
All pressure lines must have minimum rating of 4,000 PSI	Yes	No
A spare parts manual shall be supplied with each unit	Yes	No
The pump shall have a two year warranty	Yes	No
Three (3) adjustable needle valves behind cab which allows operator to be able to adjust speed of rear and front wing functions	Yes	No
The hydraulic valves shall be Bosch M-4	Yes	No
Front Wing Post and Cross member		
Post will be of open section design 8" @ 18.4lbs. structural "I" Beam slide tray	Yes	No
The post shall include a bolt on lower skid shoe	Yes	No
Lift cylinder shall be located behind the post with the rod end down to protect it from severe operating conditions	Yes	No
Slide travel shall equal twice cylinder stroke	Yes	No
Lift cylinder must be 3" bore x 36" stroke	Yes	No
The piston rod must be 1.5" diameter nitride treated	Yes	No
Lift cylinder must provide 72" of wing lift	Yes	No
The post shall incorporate a single wire rope sheave on the cylinder rod end, plus a single sheave on the post top	Yes	No
The sheave box must be welded to the rod end	Yes	No
Sheaves will be a 6" nominal size with extra deep rope groove	Yes	No
The sheave will have a 1.25" diameter axle with a greasable brass bushing	Yes	No
The sheave will be machined from solid steel	Yes	No
The wire rope used shall be 0.5" diameter 8 by 19 improved plow steel	Yes	No
The wire rope shall have double clamps, loop thimbles and anchor shackles at each end	Yes	No
A 14" long slider base construction from 0.75" plate will be supplied	Yes	No
0.75" square guide bars for the slider base will be welded 100% for the bottom 18"	Yes	No
The slider base will incorporate a 1.25" grade 5 vertical pin placed vertically through two 1" plates ears to easily secure the front safety trip-over mechanism	Yes	No
The safety trip-over mechanism will allow the moldboard to trip forward when an obstacle is encountered and spring return the wing to the normal position after it has tripped	Yes	No
The safety trip-over shall incorporate a 1" diameter wire torsion spring to the unit	Yes	No
The bottom of the wing post will be approximately 11" from the ground	Yes	No
Upper and lower cross members must be bolted to the wing post	Yes	No
6" overhang will be left on the cross members to allow lateral movement for mounting the wing post on other similar trucks	Yes	No
Two (2) front wing post Grote 6" spot lights on adjustable 18" mounting bracket with separate in-cab switches	Yes	No
Grote 12" #12020 convex mirror on backside of front wing post on 10" raised iron bracket	Yes	No
Wing post and cross members to be shot blast, epoxy zinc primed and painted Imron 5000 black	Yes	No

Rear Wing		
Rear wing shall be hydraulic		
All sheaves will be outfitted with greasable bronze bushings	Yes	No
A safety chain will be provided for securing the wing when not in use	Yes	No
If the ground clearance from the bottom of the wing tower is less than 16", a protective shoe will be supplied	Yes	No
The tower shall be angled at 15 degrees towards the front to align the braces to the wing plow	Yes	No
Spacing of the holes in the slide for connecting the wing braces will be approximately 17"	Yes	No
Cylinder controlling near the wing will be 4.5" x 18" stroke single acting type with a nitride treated piston rod	Yes	No
The cylinder shall have triple sheave boxes welded to a base and rod end of the cylinder	Yes	No
Wing Braces		
Two braces shall run parallel to each other on 17" centers	Yes	No
The braces shall be telescopic and adjustable in length	Yes	No
The inner section shall be 2.25" diameter solid steel round bar	Yes	No
The outer section shall be 2.5" pipe schedule 80 with a 0.25" wall	Yes	No

General Requirements Snow and/or Ice Control Equipment

Specifications	Confirmation	
The snow and ice control equipment supplied under this specification shall be an integrated pneumatic over hydraulic single-joystick control, shall be a Bosch CS 550/150 to operate all plow and wing functions, It shall be pedestal-mounted and can be adjusted in height and orientation for the comfort of the operator. SPECIFY: _____	Yes	No
The air controls must incorporate a safety lock to disable all plow functions and the PTO when not required as well as automatically activating / de-activating the hot-shift PTO for operation of the dump box in the summer.	Yes	No
Shall incorporate a low-hydraulic-oil light/buzzer alarm	Yes	No
Shall incorporate a hoist lift lever that has a lock mechanism in the neutral position and an automatic return to neutral capability for the lift function.	Yes	No
All pneumatic controls should be high-indexing feather able	Yes	No
Shall incorporate a tarp and tail gate function switch.	Yes	No
A demonstration of equipment bid may be required, if requested it will be the responsibility of the bidder to arrange this demonstration at the Town of Minto location within five working days of written notification, all equipment demonstrated will be the exact models offered by the bidder in the answered specification	Yes	No
Items noted in the specification as shall be, will be, to be, must be, maximum, minimum are mandatory requirements and no deviations will be accepted	Yes	No
Any modifications and/or alternations made by the bidder to this tender document will result in disqualification of the bidder's submission	Yes	No
The design and operation must incorporate safety devices and attachments necessary to ensure that the equipment provided is capable of being operated with maximum safety	Yes	No

The vendee reserves the right to inspect the equipment at any stage of manufacturing and/or installation of equipment on to the truck chassis and to have any deviations corrected upon request, a final inspection will be completed by consignee at the time of delivery	Yes	No
Address of facility where the equipment bid will be manufactured	Street	
	City	
	Prov	
	PC	
Address of facility where completed equipment will be installed on to the truck chassis	Street	
	City	
	Prov	
	PC	
O.E.M. spare replacement parts must be stocked in inventory by the successful bidder in sufficient quantity to provide adequate product support and to ensure timely delivery of spare parts orders and if requested the bidder must be able to provide supporting documentation	Yes	No
Warranty coverage will be for a minimum of one year from the date of delivery, manufacturer's warranty statement will be included with the bid submission	Yes	No
One hard copy and one electronic copy of an operation, parts and service manual will be provided for each unit	Yes	No
It is required of this tender that the bidder maintains an after sales service facility and employs staff qualified to perform after sales service work and that the bidder is also capable of providing in field mobile field service at our location, the bidder if requested must be prepared to provide a tour of this facility	Yes	No
	Street	
	City	
	Prov	
	PC	
All steel components will be shot blasted prior to application of primer	Yes	No
Two coats of a high quality Epoxy Primer minimum 4 ml. dry thickness, applied to all steel components	Yes	No
		ml
Finish body paint will be acrylic urethane two coats 2ml. dry thickness	Yes	No
		ml
Finish paint balance of steel components BLACK industrial enamel two coats 2 ml dry thickness	Yes	No
		ml
There will be no bare steel-to-steel contact of any components; all steel surfaces will be painted as per above specifications before final assembly	Yes	No
All hydraulic hoses will be properly routed and secured to eliminate abrasion; protective covering will be applied at all potential wear points	Yes	No
All hydraulic hoses must be SAE 100 R2 performance rated 2 wire, 3 1/2" radius bend, -70/+260 degree minimum 4500 PSI for 1/2" and 5300 PSI rating for 3/8"	Yes	No
	SAE rating:	
All Hydraulic hoses shall have a Parker Kevlar sleeve hose cover protection	Yes	No
All lift chain, tailgate chain and safety chain will be 1/2" grade70 proof	Yes	No
	Proof coil:	
All chain will be plated with yellow zinc Dichromate	Yes	No

The following two items will be supplied and installed with all wing harness: 1. Removable Aeon rubber helper spring front right hand side to prevent chassis sag to right hand side and provide level wing operation 2. Chassis reinforcement located approximately 10" behind cab between chassis frame rails, designed to withstand forces exerted during a winging operation	Yes	No
	Yes	No
Consisting of two cross members 8" with 3" 90° bend at top and bottom, 30" wide	Yes	No
Four frame plates two top side and two bottom side 22" long x 12" wide with 90° bend	Yes	No
All fabricated from structural steel plate 33W 65-90 tensile strength, 33 KSI minimum yield point	Yes	No
Frame plates 100% welded to cross members, cross members welded 100% back to back and assembly bolted to chassis frame rails with grade 8 hex head bolts	Yes	No

TOWN OF MINTO

FORM OF TENDER

This tender for the supply of one new 2015 Production Model Cab and Chassis with Combination/Dump Body with Snow & Ice Removal Equipment is submitted by: _____ in accordance with the accompanying specifications.

I/We hereby propose and agree to supply the unit for the following tender price:

Tender Price: _____(make) complete with Snow plow equipment to tender specifications listed.	\$								
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%; padding: 5px;">Trade In</td> <td style="padding: 5px;">1999 Tandem Volvo with front plow and side wing</td> <td style="width: 15%; padding: 5px;"></td> <td style="width: 55%; padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;">Vin 4VHJCBPE7XN866349</td> <td style="padding: 5px;"></td> <td style="padding: 5px; text-align: center;">\$</td> </tr> </table>	Trade In	1999 Tandem Volvo with front plow and side wing				Vin 4VHJCBPE7XN866349		\$	
Trade In	1999 Tandem Volvo with front plow and side wing								
	Vin 4VHJCBPE7XN866349		\$						
Completion Timeline:	\$								
Subtotal	\$								
HST	\$								
Total	\$								

DATED AT _____ this _____ day of _____ 2015.

Witness to Bidder's Signature

or

S E A L

Signature of Bidder

Bidder (Please Print)

Full Address

Telephone Number