



**THE CORPORATION OF THE TOWNSHIP OF BLACK RIVER-MATHESON**

**Contract No. 2015- 09**

**One (1) Tandem Truck Cab and Chassis, with  
4 SEASONS" COMBINATION DUMP BODY/SPREADER, Plow and Wing**

**SCHEDULE 'A'**

**Closing Date Tuesday October 6<sup>th</sup> @ 2:00 pm**

**Note: This Schedule 'A' must be completed and submitted with Tender Form.**

## CAB AND CHASSIS

	Page
BODY STYLE.....	4
CHASSIS .....	4
G.V.W. ....	4
CAB TO AXLE.....	4
WHEEL BASE .....	4
ENGINE.....	4
COOLING SYSTEM .....	5
TRANSMISSION .....	5
FRONT AXLE.....	6
REAR AXLE .....	6
FRONT SPRINGS.....	6
REAR SUSPENSION .....	6
DRIVE LINE .....	6
STEERING .....	7
SERVICE BRAKES.....	7
EMERGENCY, PARKING BRAKE.....	7
TRAILER BRAKES (FLOAT) .....	7
FRAME .....	7
WHEELS.....	8
TIRES .....	8
CAB .....	8
SAFETY AND WARNING DEVICES.....	9
ELECTRICAL .....	9
FUEL TANK.....	10

PAINT ..... 10

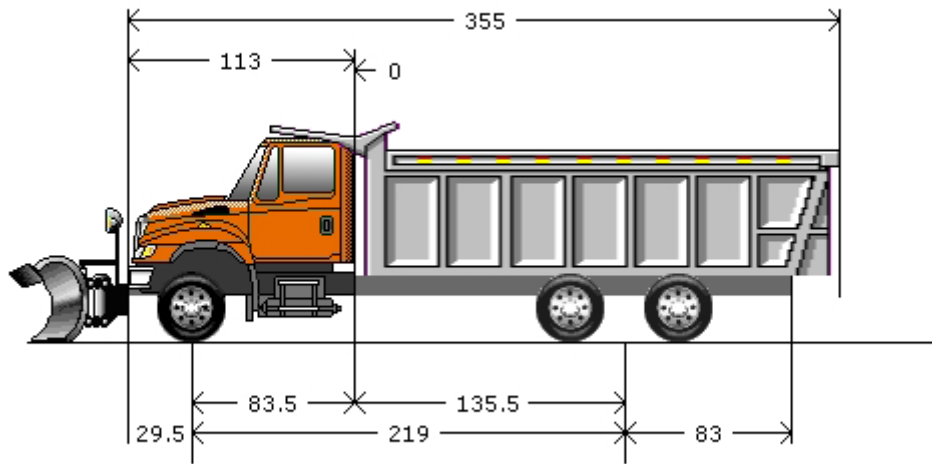
MANUALS..... 10

WARRANTY CAB & CHASSIS ..... 10

STATE FOR CAB & CHASSIS ..... 10

DELIVERY OF CAB & CHASSIS ..... 10

AIR TANKS ..... 10



**30,909 KG (68,000 LB) G.V.W.**  
**TANDEM AXLE CONVENTIONAL CAB AND CHASSIS**

**GENERAL**

The unit must be a current standard production model, for the model year in which it will be delivered and must comply with all Federal and Provincial legislation in effect at time of delivery.

**LIST ALL DEVIATIONS ON A SEPARATE SHEET OF PAPER AND SUPPLY PRODUCT SPECIFICATION INFORMATION AS REQUIRED.**

<b>TOWN'S REQUIREMENTS</b>	<b>CONFORM</b>	
	<b>YES</b>	<b>NO</b>
<b>BODY STYLE</b>		
Conventional cab		
<b>CHASSIS</b>		
Chassis must be suitable for installation of front mounted snowplow harness, wing and dump body.		
<b>G.V.W.</b>		
30,909 kg (68,000 lb) minimum		
<b>FRONT END FRAME</b>		
1WDT FRAME EXTENSION, FRONT Integral; 20" In Front of Grille, With Outer "C" Channel Reinforcement		
<b>CAB TO AXLE</b>		
Approximately 3454 mm (136") – will be determined by the OEM of the dump body / spreader. Must confirm with body builder before truck order.		
<b>WHEEL BASE</b>		
Approximately 5029 mm (198" approx.) – will be determined by the OEM of the dump body / spreader. Must confirm with body builder before truck order.		
Specify Turning Radius (prefer shortest possible) _____		
<b>DOUBLE FRAME</b>		
Full ¼" frame insert.		
<b>ENGINE</b>		
Electronic 4 cycle diesel turbo-charged Totally rebuildable (wet replaceable sleeves)		
12BCS ENGINE, DIESEL 430 HP @ 1700 RPM, 1550 lb-ft Torque @ 1000 RPM, 2100 RPM Governed Speed, 430 Peak HP (Max)		
Minimum 1000 ft lbs Torque		

TOWN'S REQUIREMENTS	CONFORM YES NO	
Specify Engine: Make: _____		
Model: _____		
Specify engine displacement in: Cubic Inch Displacement _____ And / Or Litre Displacement _____		
Magnetic oil drain plug		
Dry type air cleaner		
Provision for front mount hydraulic pump installation, including crankshaft adapter and clearance for drive shaft with no modifications to radiator		
Heat shield for exhaust stack.		
Elbow on exhaust stack.		
Exhaust location to consider best possible location for the installation of plow harness ( to be identified by the body builder)		
<b>COOLING SYSTEM</b>		
Heavy duty radiator approximately 3810 cm <sup>2</sup> (1500 in <sup>2</sup> ) aluminium construction preferred, with de-aeration tank		
FAN OVERRIDE Manual; With Electric Switch on Instrument Panel, (Fan On With Switch On)		
BLOCK HEATER, ENGINE 120V/1500W Block and 120V/300W Oil Pan Heater with "Y" Cord		
Engine oil cooler		
Anti-freeze to -50°C minimum (Long Life)		
Silicone moulded, bypass radiator and heater hoses		
<b>TRANSMISSION</b>		
13AUW TRANSMISSION, AUTOMATIC {Allison 4500_RDS_P} 5th Generation Controls; Wide Ratio, 6-Speed, With Double Overdrive; On/Off Hwy; Includes Oil Level Sensor, With PTO Provision, Less Retarder 13WAW OIL COOLER, AUTO TRANSMISSION {Modine} Water to Oil, for Allison or CEEMAT Transmission 13WBL TRANSMISSION SHIFT CONTROL {Allison} Push-Button Type; for Allison 3000 & 4000 Series Transmission  Specify: _____ or equivalent:		
Transmission fluid to be synthetic		

TOWN'S REQUIREMENTS	CONFORM YES NO	
Type of transmission cooler: Specify: _____		
Transmission oil temperature gauge shall be supplied and be within easy view of operator		
<b>FRONT AXLE</b>		
A wide track Meritor or equivalent front axle 9,979 kg (22,000 lb) capacity minimum, preferred set forward or recommended axel location		
<b>REAR AXLE</b>		
Rear Axle is Limited to 46,000-lb GAWR with Code 04091 BRAKE SYSTEM, AIR and Standard Rear Air Cam, with driver controlled full lock-up in differential and inner axle lock.(both axles)		
Rear axle lube to be synthetic		
Rear axle ratio matched to engine and transmission to give adequate off road power and maximum top highway speed of 100 km/hr		
Specify: Make _____ Model _____ Gear Ratios 4.88 (or approximate) Specify:_____		
<b>FRONT SPRINGS</b>		
3AHL SUSPENSION, FRONT, SPRING Parabolic, Taper Leaf; 22,000-lb Capacity; With Rubber Auxiliary Springs, With Shock Absorbers (SPRING PINS Rubber Bushings, Maintenance-Free)		
<b>REAR SUSPENSION</b>		
14JLY SUSPENSION, REAR, TANDEM {Hendrickson HMX-460-54} Walking Beam Type 54" Axle Spacing; 46,000-lb Capacity, With Rubber End Bushings, Transverse Torque Rods, Less Shock Absorbers		
<b>DRIVE LINE</b>		
Main shaft heavy duty series specify type: _____		

TOWN'S REQUIREMENTS	CONFORM YES NO	
<b>STEERING</b>		
Heavy duty dual power hydraulic steering, with auxiliary gear		
<b>SERVICE BRAKES</b>		
Air, Cam Type, Extended Service; Size 16.5" x 7",		
BRAKE CHAMBERS, REAR AXLE {Bendix EverSure} 30/30 Spring Brake		
BRAKE CHAMBERS, FRONT AXLE {Bendix} 24 SqIn		
Automatic slack adjusters, front and rear. Manufacturer Gunite preferred.		
BRAKE LINES Color and Size Coded Nylon, DRAIN VALVE Twist-Type, DUST SHIELDS, FRONT BRAKE, DUST SHIELDS, REAR BRAKE		
Lining size Front - 381 mm x 152 mm (16.5" x 6") S. Cam Rear - 419 mm x 177 mm (16.5" x 7") S. Cam		
0.52 m <sup>3</sup> (18.5 ft <sup>3</sup> ) air compressor minimum complete with all necessary tanks, gauges and safety valves		
All air tanks shall have manual moisture drains with remote pull chains within easy reach of the operator		
Meritor System saver air dryer with moisture ejector and heater or equivalent		
AIR DRYER		
<b>EMERGENCY, PARKING BRAKE</b>		
Spring applied, air unloaded, Specify type _____		
Low air buzzer and warning light on dash		
Remote air valve system to charge and release spring brakes		
<b>TRAILER BRAKES (FLOAT)</b>		
Truck air brake plumbing suitable for float, glad hand hook-up at end of frame and spike in cab to operate service brakes		
<b>FRAME</b>		
1CBU FRAME RAILS Heat Treated Alloy Steel (120,000 PSI Yield); 10.125" x 3.580" x 0.312" (257.2mm x 90.9mm x 8.0mm); 480.0" (12192) Maximum OAL		
1GBP FRAME REINFORCEMENT Outer "C" Channel, Heat Treated Alloy Steel (120,000 PSI Yield); 10.813" x 3.892"x 0.312"; (274.6mm x 98.9mm x 8.0mm); 480.0" (12192mm) Maximum OAL 1LLA BUMPER, FRONT Steel, Swept Back		

<b>TOWN'S REQUIREMENTS</b>	<b>CONFORM YES NO</b>	
Note: Trucks with trunion type motor require frame reinforcement with front frame extension		
Mounting of snow plow cheek plates shall be possible		
Any changes in this area from vehicles previously supplied to the Town must be approved by the Director of Works & Operations or designate.		
Frame shall be supplied which meets all tender requirements		
Front fender extensions to accommodate wider 425/65R tires.		
Full width lower front ¼ fender mudflaps to keep road dirt off of fuel tank / steps.		
Full front inner fender skirting to keep road dirt off of engine		
Front frame to have 609 mm (24") extension double framed		
<b>WHEELS</b>		
Hub piloted steel disc front wheels		
6 spoke 508 mm (20") iron, gunite wheels or equivalent Bud Wheels		
Rims to fit tires specified below (front and rear)		
<b>TIRES</b>		
Front 425/65R x 22.5 20 ply Michelin XZY-3 tubeless radial tires Plus one complete matching spare tire mounted on rim		
Rear 11R x 22.5 x 16 ply Michelin XDE M/S tubeless radial tires Plus one complete matching spare tire mounted on rim		
<b>CAB</b>		
Self levelling air ride cab		
STEERING COLUMN Tilting		
SEAT, DRIVER Air Suspension, High Back With Integral Headrest, Cloth, Isolator, 1 Chamber Lumbar, 2 Position Front Cushion Adjust, Degree Back Angle Adjust		
Passenger seat shall be mid back non air suspension with dark cloth upholstery		
Deluxe fresh air heater and defroster with AIR CONDITIONING		
Electric intermittent windshield wipers with washers		
WINDSHIELD WIPER SWITCH 2-Speed with Wash and Intermittent Feature (5 Pre-Set Delays)		
2-WAY RADIO Wiring Effects; Wiring With 20 Amp Fuse Protection, Includes Ignition Wire With 5 Amp Fuse, Wire Ends Heat Shrink and Routed to Center of Header Console in Cab		
2 sun visors		



TOWN'S REQUIREMENTS	CONFORM YES NO	
RADIO AM/FM/WB/Clock/Bluetooth/USB Input/3MM Auxiliary Input, MP3, Apple Device Play & Control, Bluetooth for Phone & Music, with Multiple Speakers.		
Tilt fibreglass hood with transverse access opening (hood access to check oil and fluid levels from ground level)		
Winter / summer engine air intake with in-dash / driver controlled switch for winging mode		
One 12 volt power outlet – cigarette lighter type		
Debris/bug screen for radiator		
O.E.M. cup holders – minimum of 2		
Steering wheel to be 18"		
O.E.M. tinted glass – ALL WINDOWS		
Valance panels below cab doors – colour keyed to chassis		
O.E.M. suspended accelerator, brake and clutch pedals for ease of cleaning out cab floor		
Two (2) 177 mm (7") x 406 mm (16") West Coast exterior mirrors complete with heaters (approximate size)		
Cab access grab handles mounted on both sides for easy entry or exit plus one (1) exterior grab handle on left side if not equipped		
Dual air horns complete with caps to prevent clogging		
Power windows, driver and passenger sides		
<b>SAFETY AND WARNING DEVICES</b>		
BROADBAND Audible backup alarm to automatically activate when vehicle is in reverse gear		
Fire extinguisher – 2 ½ lb. ABC Type (Model CAN AM – B417TX) or equivalent		
Standard First Aid kit		
Standard Safety Triangle kit		
<b>ELECTRICAL</b>		
Three heavy duty 12 volt 1850 cold cranking ampere batteries at -17°C mounted on left side of truck.		
Self tensioning serpentine belt drive, 160 ampere to maximum load Low cut in type – 1/3 output at idle		
Circuit breaker electrical system, automatic reset		
Engine shut down, electric key - <b>supply 3 sets of keys</b>		

<b>TOWN'S REQUIREMENTS</b>	<b>CONFORM</b>	
	<b>YES</b>	<b>NO</b>
TURN SIGNALS, FRONT LED, Includes LED Side Marker Lights, Mounted on Fender		
JUMP START STUD (2) Remote Mounted.		
CLEARANCE/MARKER LIGHTS (5) {Truck Lite} Amber LED Lights, Flush Mounted on Cab or Sunshade		
TURN SIGNAL SWITCH Self-Cancelling for Trucks, Manual Cancelling for Tractors, with Lane Change		
ALTERNATOR {Bosch LH160} Brush Type, 12 Volt 160 Amp. Capacity, Pad Mount		
AUXILIARY HARNESS 3.0' for Auxiliary Front Head Lights and Turn Signals for Front Plow Applications		
DATA LINK CONNECTOR For Vehicle Programming and Diagnostics In Cab		
Electric engine hot water heater and cord 1,500 watt Remote cord to terminate below left door complete with a weather proof connector		
Standard Instrumentation complete with dash integrated tachometer and hour meter along with direct reading engine control gauges, temperature, voltage, oil pressure.		
Warning light and buzzer for low oil and high temperature.		
Wiring modifications and toggle switch for auxiliary mounted plow lights		
Two (2) instrument panel mounted switches with chassis mounted 2-channel remote power module for auxiliary mounted equipment, pig tail at rear of cab		
Trailer connection circuit wiring: 7 wire plastic plug to match pintle plate body builder see Page 43. Plug manufacturer; Philips Part # 16720		
O.E.M. electrical connections to be supplied for rear body auxiliary lighting connection and plow headlight connection; terminal panel shall be incorporated into the wiring system to access the following wiring circuits to add additional lighting for the body installation; left, right turn, parking lights, back-up lights		
<b>FUEL TANK</b>		
Minimum 302 Litre (80 Imp. Gallon) aluminium fuel tank to be mounted on the left hand side of the truck. Position fuel tank as far forward as possible, so as not to protrude out past the end of the cab, if possible.		
Fuel water separator Alliance 03-36590-011		
<b>PAINT</b>		
Shall be Yellow colour and paint code to be provided to successful bidder		
<b>MANUALS</b>		
Operators, Service and Parts		
<b>WARRANTY CAB &amp; CHASSIS</b>		

TOWN'S REQUIREMENTS	CONFORM	
	YES	NO
Specify cab and chassis warranty in full		
Specify engine warranty in full		
Specify transmission warranty in full		
Specify rear axle warranty in full		
Supply information on extended warranty		
Copy of chassis spec. / line setting ticket to be submitted with tender		
<b>STATE FOR CAB &amp; CHASSIS</b>		
Manufacturer of unit		
Model of unit		
<b>DELIVERY OF COMPLETE UNIT</b>		
Exact delivery date of completed unit as per specification _____ days from receipt of order.		
<b>AIR TANKS</b>		
Air Tanks cannot be mounted in the area behind the cab.		

**GENERAL SNOW AND ICE EQUIPMENT SPECIFICATIONS**

GENERAL ..... 11

DEMONSTRATION ..... 11

REFERENCES ..... 11

REQUIREMENTS ..... 11

MODIFICATIONS TO TENDER ..... 11

SAFETY DESIGN..... 11

RIGHT TO INSPECT ..... 11

ADDRESS OF FACILITY ..... 11

PARTS INVENTORY ..... 11

WARRANTY ..... 11

MANUALS .....	11
AFTER SALES WORK .....	12
PRIMER AND PAINT .....	12
HYDRAULIC HOSES .....	12
CHAIN .....	12
ADDITIONAL ITEMS .....	12

**GENERAL SNOW AND ICE EQUIPMENT SPECIFICATIONS**

<b>TOWN'S REQUIREMENTS</b>	<b>CONFORM</b>	
	<b>YES</b>	<b>NO</b>
<b>GENERAL</b>		
The snow and ice control equipment supplied under this specification shall be the manufacturer's latest model standard commercial product and shall have demonstrated industry acceptance by having been manufactured and sold in significant numbers to Ontario Municipalities, and shall have been proven in service for the application for at least one year prior to issuing of this tender document		
<b>DEMONSTRATION</b>		
A demonstration of equipment bid may be required, if requested it will be the responsibility of the bidder to arrange this demonstration at the Municipalities location within 5 working days of written notification, all equipment demonstrated will be the exact models offered by the bidder on this tender document.		
<b>REFERENCES</b>		
Where references are requested in this tender document the information must be completed in full and all references supplied are to be for the models of equipment offered by the bidder in the answered specification.		
<b>REQUIREMENTS</b>		
Items noted in the specification as shall be, will be, to be, must be, maximum, minimum are mandatory requirements no deviations will be accepted.		
<b>MODIFICATIONS</b>		
Any modifications and or alternations made by the bidder to this tender document will result in disqualification of the bidder's submission.		
<b>SAFETY</b>		
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		
<b>INSPECTION</b>		
The Town of Black River-Matheson 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 the		

<b>TOWN'S REQUIREMENTS</b>	<b>CONFORM YES NO</b>	
consignee at the time of delivery.		
<b>ADDRESS</b>		
State address of facility where completed equipment will be installed on to the truck chassis Specify: _____		
<b>PARTS</b>		
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		
<b>WARRANTY</b>		
Warranty coverage will be for a minimum of one year from the date of delivery, manufacturers warranty statement will be included with the bid submission		
<b>MANUALS</b>		
One copy of an operation, parts and service manual shall be provided		
<b>AFTER SALES</b>		
It is a requirement of this tender that the bidder maintains an after sales service facility and employees 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.		
All steel components will be shot blasted prior to application of primer.		
<b>PRIMER</b>		
Two coats of a high quality Epoxy Primer minimum 4 ml. dry thickness, applied to all steel components.		
<b>PAINT</b>		
Finish body paint will be M.T.O. Yellow 505-101 or equivalent. Paint must be base coat / clear coat two coats 2 ml. dry thickness. Towers, harness, conveyors and hitch require same durable finish as dump box specification. Supplier to confirm in writing and guarantee.		
Finish paint balance of steel components Black Industrial Enamel two coats 2 ml dry thickness		
There shall be no bare steel-to-steel contact of any components; all steel surfaces will be painted as per above specifications before final assembly.		
<b>HYDRAULIC HOSES</b>		
All hydraulic hoses will be properly routed and secured to eliminate abrasion; protective covering will be applied at all potential wear points.		
All hydraulic hoses must be SAE 100 R16 performance rated		

TOWN'S REQUIREMENTS	CONFORM	
	YES	NO
The bend radius will be 1/2 of the standard SAE 100R2 bend radius		
Specify bend radius for 1/2" hydraulic hose:		
All hydraulic hose performance rated for 70°		
<b>CHAIN</b>		
All lift chain; tailgate chain and safety chain will be 1/2" grade 80 proof coil.		
All chain will be plated with yellow zinc Dichromate.		
<b>ADDITIONAL ITEMS</b>		
The following two items will be supplied and installed with 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. Require two pieces one on each side of the spring saddle.		
2a - Chassis reinforcement located approximately 10" behind cab between chassis frame rails, designed to withstand forces exerted during a winging operation.		
2b - Consisting of two cross members 203 mm (8") with 76 mm (3") 90° bend at top and bottom, 762 mm (30") wide (different structure)		
2c – Four frame plates two top side and two bottom side 558 mm (22") long by 304 mm (12") wide with 76 mm (3") 90° bend		
2d – All fabricated from structural steel plate 44W 65-90 KSI tensile strength, 44 KSI minimum yield point		
2e – 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.		

**TANDEM DRY MODE FRONT MOUNT HYDRAULIC PUMP**

	PAGE
MAKE AND MODEL .....	15
PRESSURES .....	15
RATED PUMP RPM .....	15
HYDRAULIC HOSE .....	15
DRIVE SHAFT .....	15
FIRST STAGE .....	15
SECOND STAGE .....	15
MANUAL .....	15

**TANDEM DRY MODE FRONT MOUNT HYDRAULIC PUMP**

<b>TOWN'S REQUIREMENTS</b>	<b>CONFORM</b>	
	<b>YES</b>	<b>NO</b>
<b>MAKE AND MODEL</b>		
The hydraulic pump supplied shall be a Tandem Dry Mode with air shift.		
<b>PRESSURES</b>		
Pressure and flow as required to operate all equipment specified.		
Shall be suitable for operation as required by Dickey John Control Point, electric spreader control		
Pump mounting plate and splined drive shaft shall be supplied		
The pump shall be driven from the crankshaft		
<b>RATED R.P.M.</b>		
The pump shall have a manufacturer's R.P.M. rating equivalent or higher than that of the truck engine at governed speed.		
<b>HYDRAULIC HOSE</b>		
Hydraulic hoses to connect pump shall be supplied. Their size shall be adequate for quick operation of all hydraulic operations and shall be <u>4 ply braided steel</u> SAE100R16, with swivels on both ends		
<b>DRIVE SHAFT</b>		
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		
<b>FIRST STAGE</b>		
The first stage of the pump will be dedicated to the operation of the spinner and conveyor system		
<b>SECOND STAGE</b>		
The second stage of the pump will operate all plow / wing functions and the body hoist		
<b>MANUAL</b>		
An owner's, parts and service manual shall be supplied with each unit		