2023 REQUEST FOR TENDER

PLOW TRUCK COMBINATION UNIT
NEW MODEL PLOW TRUCK WITH WINTER CONTROL EQUIPMENT

1. DATE AND PLACE FOR RECEIVING TENDERS

Tenders will be received until **March 6th, 2023 at 4:00pm** at the following address:

Natashia Roberts, CAO/Clerk
Municipality of Huron Shores
7 Bridge St.
P.O. Box 460
Iron Bridge ON
P0R 1H0
705-843-2033

No late tenders will be considered. The lowest or any tender not necessarily accepted.

Tenders will be opened at 4:10 p.m. Bids will be reviewed upon opening for making recommendation at a regular meeting of Council.

2. FORM OF TENDER

All tenders shall be submitted in sealed envelopes plainly marked as to contents labelled: PLOW TRUCK COMBINATION UNIT TENDER PACKAGE

3. SALES TAX

Taxes shall be itemized on the Tender Form.

4. PAINT

Cab to be painted School Bus Yellow.

5. DELIVERY

Delivery of the vehicle shall be completed by the earliest possible date.
Indicate delivery date on the Tender Form below.

6. ERRORS OR OMISSIONS

Any apparent omission or discrepancy in specifications or other contract documents are to be reported to the CAO/Clerk immediately.

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TENDER FORM

I/We the undersigned, do hereby agree to supply to the Corporation of the Municipality of Huron Shores, F.O.B. 7 Bridge St., Iron Bridge, Ontario, One NEW MODEL Plow Truck Combination Unit as per the specifications and at the tender price stated hereunder.

MAKE _____ MODEL _____

YEAR _____ ENGINE MODEL _____

HP _____

PRICE _____

TAX _____

TOTAL TENDER PRICE: _____

****VEHICLE REQUIREMENTS, OR EQUIVELANT, SPECIFIED BELOW**

OPTIONAL EXTENDED WARRANTY COVERAGE

OPTION #1 – Specify _____

PRICE _____ **+ Applicable Taxes**

OPTION #2 – Specify _____

PRICE _____ **+ Applicable Taxes**

****VEHICLE SPECIFICATIONS AND FINANCIAL SUMMARY MUST BE INCLUDED WITH THIS BID DOCUMENT.**

Delivery Date: _____

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I/We have examined the specifications for the above noted equipment and verify that this bid meets the specifications as set out.

Lowest or any tender not necessarily accepted.

NAME OF FIRM _____

ADDRESS _____

NAME _____
(Company Representative)

TITLE _____

DATE _____ SIGNATURE _____

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SPECIFICATION PROPOSAL

EXPECTED	
VEHICLE CONFIGURATION	**TENDER SPECIFICATIONS**
SET-BACK FRONT AXLE TRUCK	
NEW MODEL YEAR SPECIFIED	
SET BACK AXLE - TRUCK	
TRAILER TOWING PROVISION AT END OF FRAME	
LH PRIMARY STEERING LOCATION	

GENERAL SERVICE	**TENDER SPECIFICATIONS**
TRUCK/TRAILER CONFIGURATION	
DOMICILIED, CANADA (OTHER THAN QUEBEC)	
FIXED CANADIAN EXCHANGE	
CONSTRUCTION SERVICE	
GOVERNMENT BUSINESS SEGMENT	
DIRT/SAND/ROCK COMMODITY	
TERRAIN/DUTY: 100% (ALL) OF THE TIME, IN TRANSIT, IS SPENT ON PAVED ROADS	
MAXIMUM 8% EXPECTED GRADE	
SMOOTH CONCRETE OR ASPHALT PAVEMENT - MOST SEVERE IN-TRANSIT (BETWEEN SITES) ROAD SURFACE	
EXPECTED FRONT AXLE(S) LOAD : 20000.0 lbs	
EXPECTED REAR DRIVE AXLE(S) LOAD : 46000.0 lbs	
EXPECTED GROSS VEHICLE WEIGHT CAPACITY : 66000.0 lbs	
EXPECTED GROSS COMBINATION WEIGHT : 80000.0 lbs	

TRUCK SERVICE	**TENDER SPECIFICATIONS**
FRONT PLOW/END DUMP BODY	
VIKING CIVES, LTD.	

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ENGINE	TENDER SPECIFICATIONS
CUM L9 370 HP @ 2100 RPM; 2100 GOV RPM, 1250 LB-FT @ 1200 RPM	

ELECTRONIC PARAMETERS	TENDER SPECIFICATIONS
65 MPH ROAD SPEED LIMIT	
CRUISE CONTROL SPEED LIMIT SAME AS ROAD SPEED LIMIT	
PTO MODE ENGINE RPM LIMIT - 900 RPM	
PTO MODE BRAKE OVERRIDE - SERVICE BRAKE APPLIED	
PTO RPM WITH CRUISE SET SWITCH - 900 RPM	
PTO RPM WITH CRUISE RESUME SWITCH - 900 RPM	
PTO MODE CANCEL VEHICLE SPEED - 5 MPH	
PTO GOVERNOR RAMP RATE - 250 RPM PER SECOND	
ONE REMOTE PTO SPEED	
PTO SPEED 1 SETTING - 700 RPM	
PTO MINIMUM RPM - 700	
REGEN INHIBIT SPEED THRESHOLD - 5 MPH	
PTO 1, DASH SWITCH, STATIONARY OPERATION	

ENGINE EQUIPMENT	TENDER SPECIFICATIONS
2010 EPA/CARB/GHG21 CONFIGURATION	
NO 2008 CARB EMISSION CERTIFICATION	
STANDARD OIL PAN	
OIL FILL AND DIPSTICK LOCATED FOR ENHANCED SERVICEABILITY	
SIDE OF HOOD AIR INTAKE WITH ENGINE MOUNTED AIR CLEANER, WITH INSIDE/OUTSIDE AIR AND SNOW DOOR	
DR 12V 160 AMP 28-SI QUADRAMOUNT PAD ALTERNATOR WITH REMOTE BATTERY VOLT SENSE	
(3) DTNA GENUINE, HIGH TEMP AGM STARTING AND CYCLING, MIN 2775CCA, 570RC, THREADED STUD BATTERIES	
PASSENGER SEAT BATTERY BOX VENTED TO OUTSIDE OF CAB	
BATTERY BOX MOUNTED UNDER PASSENGER SEAT	
WIRE GROUND RETURN FOR BATTERY CABLES WITH ADDITIONAL FRAME GROUND RETURN	

PLASTIC BATTERY BOX COVER	
POSITIVE LOAD DISCONNECT WITH CAB MOUNTED CONTROL SWITCH MOUNTED OUTBOARD DRIVER SEAT	
POSITIVE AND NEGATIVE POSTS FOR JUMPSTART LOCATED ON FRAME NEXT TO STARTER	
CUMMINS TURBOCHARGED 18.7 CFM AIR COMPRESSOR WITH INTERNAL SAFETY VALVE	
ELECTRONIC ENGINE INTEGRAL SHUTDOWN PROTECTION SYSTEM	
C-BRAKE BY JACOBS WITH LOW/OFF/HIGH BRAKING DASH SWITCH	
RH OUTBOARD UNDER STEP MOUNTED HORIZONTAL AFTERTREATMENT SYSTEM ASSEMBLY WITH RH B-PILLAR MOUNTED VERTICAL TAILPIPE	
ENGINE AFTERTREATMENT DEVICE, AUTOMATIC OVER THE ROAD ACTIVE REGENERATION AND VIRTUAL REGENERATION REQUEST SWITCH IN CLUSTER AND DASH MOUNTED INHIBIT SWITCH	
11 FOOT 06 INCH (138 INCH+0/-5.9 INCH) EXHAUST SYSTEM HEIGHT	
STANDARD CURVE BRIGHT UPPER STACK(S)	
RH CURVED VERTICAL TAILPIPE B-PILLAR MOUNTED ROUTED FROM STEP	
13 GALLON DIESEL EXHAUST FLUID TANK	
UNPOLISHED ALUMINUM WST DIESEL EXHAUST FLUID TANK COVER	
LH HEAVY DUTY STANDARD DIESEL EXHAUST FLUID TANK LOCATION	
STANDARD DIESEL EXHAUST FLUID TANK CAP	
STAINLESS STEEL AFTERTREATMENT DEVICE/MUFFLER/TAILPIPE SHIELD	
AIR POWERED ON/OFF ENGINE FAN CLUTCH	
AUTOMATIC FAN CONTROL WITH DASH SWITCH AND INDICATOR LIGHT, NON ENGINE MOUNTED	
DETROIT FUEL/WATER SEPARATOR WITH WATER IN FUEL SENSOR	
SPIN ON FUEL FILTER	
COMBINATION FULL FLOW/BYPASS OIL FILTER	

1400 SQUARE INCH VOCATIONAL RADIATOR	
ANTIFREEZE TO -34F, OAT (NITRITE AND SILICATE FREE) EXTENDED LIFE COOLANT	
GATES BLUE STRIPE COOLANT HOSES OR EQUIVALENT	
RADIATOR DRAIN VALVE	
LOWER RADIATOR GUARD	
PHILLIPS-TEMRO 1000 WATT/115 VOLT BLOCK HEATER	
CHROME ENGINE HEATER RECEPTACLE MOUNTED UNDER LH DOOR	
ELECTRIC GRID AIR INTAKE WARMER	
DELCO 12V 39MT HD/OCP STARTER WITH THERMAL PROTECTION AND INTEGRATED MAGNETIC SWITCH	

TRANSMISSION	**TENDER SPECIFICATIONS**
ALLISON 3000 RDS AUTOMATIC TRANSMISSION WITH PTO PROVISION	

TRANSMISSION EQUIPMENT	**TENDER SPECIFICATIONS**
ALLISON VOCATIONAL PACKAGE 223 - AVAILABLE ON 3000/4000 PRODUCT FAMILIES WITH VOCATIONAL MODELS RDS, HS, MH AND TRV	
ALLISON VOCATIONAL RATING FOR ON/OFF HIGHWAY APPLICATIONS AVAILABLE WITH ALL PRODUCT FAMILIES	
PRIMARY MODE GEARS, LOWEST GEAR 1, START GEAR 1, HIGHEST GEAR 6, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY	
SECONDARY MODE GEARS, LOWEST GEAR 1, START GEAR 1, HIGHEST GEAR 6, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY	
PRIMARY SHIFT SCHEDULE RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE	
SECONDARY SHIFT SCHEDULE RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE	
PRIMARY SHIFT SPEED RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND	

VOCATIONAL USAGE	
SECONDARY SHIFT SPEED RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE	
QUICKFIT BODY LIGHTING CONNECTOR UNDER CAB, WITH BLUNTCUTS	
ELECTRONIC TRANSMISSION WIRING TO CUSTOMER INTERFACE CONNECTOR	
CUSTOMER INSTALLED CHELSEA 280 SERIES PTO	
PTO MOUNTING, LH SIDE OF MAIN TRANSMISSION ALLISON	
MAGNETIC PLUGS, ENGINE DRAIN, TRANSMISSION DRAIN, AXLE(S) FILL AND DRAIN	
PUSH BUTTON ELECTRONIC SHIFT CONTROL, DASH MOUNTED	
WATER TO OIL TRANSMISSION COOLER	
TRANSMISSION OIL CHECK AND FILL WITH ELECTRONIC OIL LEVEL CHECK	
SYNTHETIC TRANSMISSION FLUID (TES-295 COMPLIANT)	

FRONT AXLE AND EQUIPMENT	**TENDER SPECIFICATIONS**
MFS-20-133A 20,000# FL1 71.0 INCH KPI/3.74 INCH DROP SINGLE FRONT AXLE	
CONMET PRESET PLUS PREMIUM IRON FRONT HUBS	
MERITOR 16.5X6 Q+ CAST SPIDER CAM FRONT BRAKES, DOUBLE ANCHOR, FABRICATED SHOES	
NON-ASBESTOS FRONT BRAKE LINING	
CONMET CAST IRON FRONT BRAKE DRUMS	
FRONT BRAKE DUST SHIELDS	
FRONT OIL SEALS	
VENTED FRONT HUB CAPS WITH WINDOW, CENTER AND SIDE PLUGS - OIL	
MERITOR AUTOMATIC FRONT SLACK ADJUSTERS	
DUAL POWER STEERING GEARS, BENDIX 16-20K	
4 QUART POWER STEERING RESERVOIR	
OIL/AIR POWER STEERING COOLER	
CURRENT AVAILABLE SYNTHETIC 75W-90 FRONT AXLE LUBE	

FRONT SUSPENSION	**TENDER SPECIFICATIONS**
9,500# LEFT, 10,500# RIGHT MIXER/PLOW FLAT LEAF FRONT SUSPENSION (20,000#)	

THREADED SPRING PINS AND BUSHINGS - FRONT SUSPENSION	
FRONT SHOCK ABSORBERS	

REAR AXLE AND EQUIPMENT	**TENDER SPECIFICATIONS**
RT-46-164 46,000# R-SERIES TANDEM REAR AXLE	
CONMET PRESET PLUS PREMIUM IRON REAR HUBS	
5.63 REAR AXLE RATIO	
IRON REAR AXLE CARRIER WITH STANDARD AXLE HOUSING	
MXL 17T MERITOR EXTENDED LUBE MAIN DRIVELINE WITH HALF ROUND YOKES	
MXL 17T MERITOR EXTENDED LUBE INTERAXLE DRIVELINE WITH HALF ROUND YOKES	
DRIVER CONTROLLED TRACTION DIFFERENTIAL - BOTH TANDEM REAR AXLES	
(1) INTERAXLE LOCK VALVE, (1) DRIVER CONTROLLED DIFFERENTIAL LOCK FORWARD-REAR AND REAR-REAR AXLE VALVE	
INDICATOR LIGHT FOR EACH INTERAXLE LOCKOUT SWITCH	
INDICATOR LIGHT FOR EACH DIFFERENTIAL LOCKOUT SWITCH	
MERITOR 16.5X7 Q+ CAST SPIDER CAM REAR BRAKES, DOUBLE ANCHOR, FABRICATED SHOES	
NON-ASBESTOS REAR BRAKE LINING	
BRAKE CAMS AND CHAMBERS ON FORWARD SIDE OF DRIVE AXLE(S) WITH AUXILIARY SUPPORT BRACKETS	
CONMET CAST IRON REAR BRAKE DRUMS	
REAR BRAKE DUST SHIELDS	
REAR OIL SEALS	
WABCO TRISTOP D LONGSTROKE 2-DRIVE AXLE SPRING PARKING CHAMBERS	
MERITOR AUTOMATIC REAR SLACK ADJUSTERS	
CURRENT AVAILABLE SYNTHETIC 75W-90 REAR AXLE LUBE	
STANDARD REAR AXLE BREATHER(S)	

REAR SUSPENSION	**TENDER SPECIFICATIONS**
AIRLINER 46,000# REAR SUSPENSION WITH CHAIN CLEARANCE	
AIRLINER 46,000# REAR SUSPENSION WITH CHAIN	

CLEARANCE	
9.5 INCH NOMINAL RIDE HEIGHT (460MM GLOBAL REFERENCE HEIGHT)	
RESTRAINED AXLE SEATS IN AXLE CLAMP GROUP	
55 INCH AXLE SPACING	
IGNITION CONTROLLED ELECTRIC DUMP SWITCH FOR AIR SUSPENSION WITH STATE RETENTION AND GAUGE	
REAR AIR SUSPENSION DUMP VALVE AUTOFILL >5 MPH WITH INDICATOR LIGHT	
SINGLE AIR REAR SUSPENSION LEVELING VALVE	
TRANSVERSE CONTROL RODS	
REAR SHOCK ABSORBERS - TWO AXLES (TANDEM) (AIR RIDE SUSPENSION)	

BRAKE SYSTEM	**TENDER SPECIFICATIONS**
WABCO 6S/6M ABS WITH TRACTION CONTROL WITH ATC SHUT OFF SWITCH	
REINFORCED NYLON, FABRIC BRAID AND WIRE BRAID CHASSIS AIR LINES	
RELAY VALVE WITH 5-8 PSI CRACK PRESSURE, NO REAR PROPORTIONING VALVE	
WABCO SYSTEM SAVER 1200 HEATED AIR DRYER WITH PRESSURE CONTROL VALVE	
WABCO OIL COALESCING FILTER FOR AIR DRYER	
AIR DRYER MOUNTED UNDER HOOD	
STEEL AIR BRAKE RESERVOIRS MOUNTED INSIDE RAIL	
PULL CABLES ON ALL AIR RESERVOIR(S)	

TRAILER CONNECTIONS	**TENDER SPECIFICATIONS**
AIR CONNECTIONS TO END OF FRAME WITH GLAD HANDS FOR TRUCK AND DUST COVERS	
PRIMARY CONNECTOR/RECEPTACLE WIRED FOR SEPARATE STOP/TURN, ABS CENTER PIN POWERED THROUGH IGNITION	
SAE J560 7-WAY PRIMARY TRAILER CABLE RECEPTACLE MOUNTED END OF FRAME	

WHEELBASE & FRAME	**TENDER SPECIFICATIONS**
5625MM (221 INCH) WHEELBASE	
15.0MM X 89.0MM X 315.0MM STEEL FRAME (0.59X3.5X12.4 INCH) 120 KSI	

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0.236 INCH (6.00MM) C-CHANNEL INNER FRAME REINFORCEMENT	
1900MM (75 INCH) REAR FRAME OVERHANG	
FRAME OVERHANG RANGE: 71 INCH TO 80 INCH	
24 INCH INTEGRAL FRONT FRAME EXTENSION	
CALC'D BACK OF CAB TO REAR SUSP C/L (CA) : 156.3 in	
CALCULATED EFFECTIVE BACK OF CAB TO REAR SUSPENSION C/L (CA) : 153.3 in	
CALC'D FRAME LENGTH - OVERALL : 365.19 in	
FRAME HEIGHT TOP FRONT UNLADEN : 44.35 in	
FRAME HEIGHT TOP FRONT LADEN : 40.86 in	
FRAME HEIGHT TOP REAR UNLADEN : 42.14 in	
FRAME HEIGHT TOP REAR LADEN : 40.62 in	
CALCULATED FRAME SPACE LH SIDE : 74.43 in	
CALCULATED FRAME SPACE RH SIDE : 93.47 in	
SQUARE END OF FRAME	
STANDARD WEIGHT ENGINE CROSSMEMBER	
STANDARD CROSSMEMBER BACK OF TRANSMISSION	
STANDARD MIDSHIP #1 CROSSMEMBER(S)	
HEAVY DUTY REAR CROSSMEMBER	
STANDARD SUSPENSION CROSSMEMBER	
STANDARD WEIGHT REAR SUSPENSION CROSSMEMBER	

CHASIS EQUIPMENT	**TENDER SPECIFICATIONS**
UNPOLISHED ALUMINUM WST EQUIPMENT COVERS	
TEMPORARY STEEL BUMPER	
NO FRONT TOW HOOKS	
CLASS 10.9 THREADED METRIC FASTENERS	
EXTERIOR HARNESSES WRAPPED IN ABRASION TAPE	

FUEL TANKS	**TENDER SPECIFICATIONS**
80 GALLON/302 LITER ALUMINUM FUEL TANK - LH	
25 INCH DIAMETER FUEL TANK(S)	
PLAIN ALUMINUM/PAINTED STEEL FUEL/HYDRAULIC TANK(S) WITH PAINTED BANDS	
FUEL TANK(S) FORWARD	
PLAIN STEP FINISH	
FUEL TANK CAP(S)	
EQUIFLO INBOARD FUEL SYSTEM	
HIGH TEMPERATURE REINFORCED NYLON FUEL LINE	

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TIRES	TENDER SPECIFICATIONS
MICHELIN XZU-S2 315/80R22.5 20 PLY RADIAL FRONT TIRES	
MICHELIN XDN2 11R22.5 16 PLY RADIAL REAR TIRES	

WHEELS	TENDER SPECIFICATIONS
ACCURIDE 41012 22.5X9.00 10-HUB PILOT 3.12 INSET ALUMINUM DISC FRONT WHEELS	
ALCOA ULTRA ONE 89U63X 22.5X9.00 10-HUB PILOT 3.12 INSET 10-HD ALUMINUM FRONT WHEELS	
ACCURIDE 40008 22.5X8.25 10-HUB PILOT 10-HAND HD ALUMINUM DISC REAR WHEELS	
FRONT WHEEL MOUNTING NUTS	
REAR WHEEL MOUNTING NUTS	
NYLON WHEEL GUARDS FRONT AND REAR ALL INTERFACES	

CAB EXTERIOR	TENDER SPECIFICATIONS
111.6 INCH BBC CONVENTIONAL ALUMINUM CAB	
STAINLESS STEEL CAB ACCENT MOLDING	
FRONT FENDERS	
BOLT-ON MOLDED FLEXIBLE FENDER EXTENSIONS	
INTERIOR GRAB HANDLES WITH ADDED LOWER LH AND RH A PILLAR GRAB HANDLES AND LH AND RH EXTERIOR NON-SLIP GRAB HANDLES	
BRIGHT HOOD MOUNTED AIR INTAKE GRILLE, BLACK SCREEN, WITH LED ACCENT LIGHTS	
X-SERIES STEEL REINFORCED ALUMINUM CAB	
X-SERIES VOCATIONAL HOOD WITH ACCESS HATCH	
HOOD OPENING ASSIST WITH LOCKING STRUT	
DUAL ROUND AIR HORNS, SINGLE BASE, MOUNTED UNDER CAB	
SINGLE ELECTRIC HORN	
REAR LICENSE PLATE MOUNT END OF FRAME	
DUAL STAGE INTELLIGENT LED HEADLIGHTS WITH HEATED LENS SYSTEM	
VISOR MOUNTED LED MARKER LIGHTS	
WIRING AND SWITCH FOR CUSTOMER FURNISHED SNOW PLOW LAMPS WITH SINGLE CONNECTION AT LH FORWARD	
DAYTIME RUNNING LIGHTS	

INTEGRAL LED STOP/TAIL/BACKUP LIGHTS	
LED SIDE TURN SIGNAL	
C-BAR MIRROR SYSTEM WITH DUAL HEATED MIRRORS WITH INTEGRAL HEATED CONVEX, DUAL REMOTE, STAINLESS STEEL BACK COVER, AND BLACK C-BAR	
102 INCH EQUIPMENT WIDTH	
LH AND RH CONVEX MIRRORS INTEGRAL WITH PRIMARY MIRRORS	
RH DOWN VIEW MIRROR	
RH HEATED BLACK HOOD/FENDER MOUNTED SIDE VIEW MIRROR WITH BLACK MOUNTING ARM	
STANDARD SIDE/REAR REFLECTORS	
UNPOLISHED ALUMINUM WST AFTERTREATMENT SYSTEM COVER	
STAINLESS STEEL EXTERIOR SUN VISOR WITH INTEGRAL MARKER LIGHTS	
SINGLE SOLAR TINTED REAR WINDOW, (1) 31 INCH X 20 INCH	
1-PIECE ROPED-IN SOLAR GREEN GLASS WINDSHIELD	
8 LITER (2 GAL) WINDSHIELD WASHER RESERVOIR, CAB MOUNTED, WITH FLUID LEVEL INDICATOR	
WHITE WINTERFRONT	

CAB INTERIOR	**TENDER SPECIFICATIONS**
X-SERIES BASE INTERIOR TRIM LEVEL PACKAGE	
CHARCOAL BLACK VINYL BASE LEVEL INTERIOR	
CARBON WITH BASE BLACK ACCENT	
BLACK MATS WITH ADDED FLOOR HEAT AND NOISE INSULATION	
(2) DASH MOUNTED POWER OUTLETS AND COIN TRAY	
FORWARD ROOF MOUNTED CONSOLE	
LH AND RH DOOR STORAGE POCKETS INTEGRATED INTO MOLDED DOOR PANELS	
(2) COAT HOOKS ON BACKWALL OF CAB	
DIGITAL ALARM CLOCK IN DRIVER DISPLAY	
5 LB. FIRE EXTINGUISHER MOUNTED INBOARD OF DRIVER SEAT	
STANDARD HEATER PLUMBING WITH BALL SHUTOFF VALVES AT SUPPLY LINES ONLY	
RADIATOR MOUNTED AIR CONDITIONER	

CONDENSER	
PREMIUM INSULATION	
STANDARD LED CAB LIGHTING	
REMOTE KEYLESS ENTRY AND 2 TRANSMITTERS	
DOOR LOCKS AND IGNITION SWITCH KEYED THE SAME	
KEY QUANTITY OF 4	
LH AND RH ELECTRIC DOOR LOCKS WITH AUTO UNLOCK FEATURE WHEN DOOR IS SET FROM OPEN TO CLOSED POSITION	
BLACK DOOR HANDLES	
TRIANGULAR REFLECTORS KIT WITHOUT FLARES SHIPPED LOOSE IN CAB	
PREMIUM 2.0 HIGH BACK AIR SUSPENSION DRIVER SEAT WITH 2 AIR LUMBAR, INTEGRATED CUSHION EXTENSION, TILT AND ADJUSTABLE SHOCK	
BATTERY BOX MID BACK NON-SUSPENSION PASSENGER SEAT	
DUAL DRIVER SEAT ARMRESTS, NO PASSENGER SEAT ARMRESTS	
BLACK MORDURA CLOTH DRIVER SEAT COVER WITH EMBROIDERED LOGO	
BLACK MORDURA CLOTH PASSENGER SEAT COVER WITH NO LOGO	
3 POINT ADJUSTABLE D-RING RETRACTOR DRIVER AND FIXED D-RING RETRACTOR PASSENGER SEAT BELTS	
ADJUSTABLE TILT AND TELESCOPING STEERING COLUMN	
4-SPOKE 18 INCH (450MM) BLACK STEERING WHEEL WITH SWITCHES	
DRIVER AND PASSENGER INTERIOR SUN VISORS	

INSTRUMENTS & CONTROLS	**TENDER SPECIFICATIONS**
STANDARD FOOT PEDAL SYSTEM	
ELECTRONIC ACCELERATOR CONTROL	
BLACK GAUGE BEZELS	
STANDARD CENTER INSTRUMENT PANEL	
DUAL NEEDLE PRIMARY AND SECONDARY AIR PRESSURE GAUGE	
INTAKE MOUNTED AIR RESTRICTION INDICATOR WITH GRADUATIONS	
97 DB BACKUP ALARM	

ELECTRONIC CRUISE CONTROL WITH CONTROLS ON STEERING WHEEL SPOKES	
KEY OPERATED IGNITION SWITCH AND INTEGRAL START POSITION; 4 POSITION OFF/RUN/START/ACCESSORY	
PREMIUM INSTRUMENT CLUSTER WITH 5.0 INCH TFT COLOR DISPLAY	
DIGITAL PANEL LAMP DIMMER SWITCH IN DRIVER DISPLAY	
HEAVY DUTY ONBOARD DIAGNOSTICS INTERFACE CONNECTOR LOCATED BELOW LH DASH	
2 INCH ELECTRIC FUEL GAUGE	
ENGINE REMOTE INTERFACE FOR REMOTE THROTTLE	
ELECTRICAL ENGINE COOLANT TEMPERATURE GAUGE	
NO ENGINE OIL TEMPERATURE GAUGE	
ELECTRIC ENGINE OIL PRESSURE GAUGE	
2 INCH TRANSMISSION OIL TEMPERATURE GAUGE	
ELECTRONIC OUTSIDE TEMPERATURE SENSOR DISPLAY IN DRIVER MESSAGE CENTER	
ENGINE, TRIP AND PTO HOUR METERS INTEGRAL WITHIN DRIVER DISPLAY	
PTO CONTROLS FOR ENHANCED VEHICLE ELECTRIC/ELECTRONIC ARCHITECTURE	
NO OBSTACLE DETECTION SYSTEM	
NO VEHICLE STABILITY ADVISOR OR CONTROL	
NO LANE DEPARTURE WARNING SYSTEM	
QUICKFIT PROGRAMMABLE INTERFACE MODULE	
TMC RP1226 ACCESSORY CONNECTOR LOCATED BEHIND PASSENGER SIDE REMOVEABLE DASH PANEL	
AM/FM/WB WORLD TUNER RADIO WITH BLUETOOTH, USB AND AUXILIARY INPUTS, J1939	
DASH MOUNTED RADIO	
STANDARD SPEAKER SYSTEM	
NO AM/FM RADIO ANTENNA	
POWER AND GROUND WIRING PROVISION OVERHEAD	
ROOF/OVERHEAD CONSOLE CB RADIO PROVISION	
SINGLE REMOTE SPEAKER WITH LEAD FOR 2-WAY RADIO	
SINGLE FIBERGLASS LH MIRROR MOUNTED CB ANTENNA WITH BRACKET AND LEAD	

HEADLINER MULTI-BAND ANTENNA: AM/FM/WEATHERBAND, WIFI/BLUETOOTH, GNSS/GPS	
ELECTRONIC KPH SPEEDOMETER WITH SECONDARY MPH SCALE, WITHOUT ODOMETER	
ELECTRONIC 2500 RPM TACHOMETER	
DETROIT CONNECT PLATFORM HARDWARE	
IGNITION SWITCH CONTROLLED ENGINE STOP	
TWO EXTRA HARDWIRED SWITCHES IN DASH, ROUTE TO BETWEEN SEATS, BLUNTCUT	
HARDWIRE SWITCH #1,ON/OFF MOMENTARY, 20 AMPS IGNITION POWER	
HARDWIRE SWITCH #2,ON/OFF MOMENTARY, 20 AMPS IGNITION POWER	

DESIGN	**TENDER SPECIFICATIONS**
PAINT: ONE SOLID COLOR	

COLOUR	**TENDER SPECIFICATIONS**
CAB COLOR A: SCHOOL BUS YELLOW	
BLACK, HIGH SOLIDS POLYURETHANE CHASSIS PAINT	

CERTIFICATION	**TENDER SPECIFICATIONS**
CANADA CMVSS CERTIFICATION, EXCEPT SALES CABS AND GLIDER KITS	

SECONDARY FACTORY OPTIONS	**TENDER SPECIFICATIONS**
CORPORATE PDI CENTER IN-SERVICE ONLY	
DEALER HAS BEEN ADVISED OF AND ACCEPTED RESPONSIBILITY FOR MODIFICATIONS DUE TO POSSIBLE PTO/CHASSIS INTERFERENCE	

DEALER INSTALLED OPTIONS	**TENDER SPECIFICATIONS**
GROENEVELD AUTO GREASE SYSTEM INSTALLED	
ALCOHOL EVAPORATOR INSTALLED	
RUBBER FLOOR MATS SUPPLIED AND INSTALLED	

WARRANTY & MANUALS	**TENDER SPECIFICATIONS**
MANUALS – TRUCK AND WINTER CONTROL EQUIPMENT MANUALS TO BE PROVIDED	
OWNER OPERATOR MTO SAFETY KIT (INCLUDES	

FIRE EXTINGUISHER, FIRST AID KIT, THREE TRIANGLE REFLECTORS)	
WARRANTY – FACTORY WARRANTY – SPECIFIC DETAILS: **EXTENDED WARRANTY OPTIONS – PROVIDE (3) (SEE TENDER FORM)** NOTE: MUNICIPALITIES RESERVES THE RIGHT TO CHOOSE OR NOT TO CHOOSE ANY OF THE EXTENDED WARRANTY OPTIONS IDENTIFIED.	

ALL SEASON COMBINATION DUMP BODY / SPREADER

General

These specifications describe an All Season Combination Dump Body and Sand/Salt Spreader. The dump box shall remain stationary on the chassis frame while spreading. Rear discharge shall be front hoist tilt action as per conventional dump bodies. The unit will be oval shaped of a roll-formed type design to permit gravity flow unloading, and prevent material bridging over conveyor chain. The body side panels shall include breaks at a maximum of 1" intervals. Bodies for which the breaks are at intervals greater than 1" will not be accepted, and will deem their bid inadmissable. The main conveyor will be centred and recessed along the length of the box. The bi-directional rubber belt cross conveyor will be chassis frame mounted with spreader discharge on the front left or right side of body.

Combination dump body / spreader with cable type wing towers must fit on a chassis with a clear and usable C.A. of 134", with a rear axle spread of 54".

Viking model Proline PL1314LW Generation II or equivalent – other makes and models must be approved by the **Municipality of Huron Shores** prior to the closing of this tender.

YES:_____ NO:_____

SPECIFY
MAKE:_____
MODEL: _____

2023 REQUEST FOR TENDER

PLOW TRUCK COMBINATION UNIT
NEW MODEL PLOW TRUCK WITH WINTER CONTROL EQUIPMENT

ALL SEASON COMBINATION DUMP BODY / SPREADER

DIMENSIONS:
To provide optimum combination of legal payload and capacity all dimensions below are maximum / minimum and will be exactly as specified. Body shall be oval shaped, permitting materials to unload by gravity flow onto spreading chain.

Total weight of the complete body assembly in ready to work condition including hoist, tarp, tailgate, cross conveyor, main conveyor, and all other required components not to exceed 6,420 lbs.

SPECIFY: _____LBS.

Specifications	**YES**	**NO**
Water level capacity will be 9.9 cu. yd. minimum. SPECIFY: _____		
Water level capacity with 10" sideboards will be 12.7 cu.yd. minimum – sideboards to be provided. SPECIFY:_____		
Outside length 14ft. SPECIFY: _____		
Inside length 13ft. SPECIFY: _____		
Overall width outside 96" SPECIFY: _____		
Overall width inside 86" SPECIFY: _____		
Height of sides 45" from conveyor floor. SPECIFY: _____		
Height of tailgate 53" from conveyor floor SPECIFY: _____		
Height of front panel 60" SPECIFY: _____		
CONSTRUCTION: Body to be constructed from one-piece head sheet and side panels. 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.		
Body front panel will be sloped design, sloping rearward from top to the bottom		

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NEW MODEL PLOW TRUCK WITH WINTER CONTROL EQUIPMENT

SPECIFY DEGREE: _____		
The front panel slope will be continuous and uninterrupted for the full length from top to bottom, allowing the operator full visibility of the cross conveyor through the rear window in the cab.		
Top rail body side supports will be 4" x 4" x ¼" square tubing – break-formed type steel side reinforcement will not be acceptable.		
All body welds will be 100% continuous inside and outside		
Body front head shall be manufactured from 3/16" thick Hardox 450 hi-tensile steel construction, rated at a minimum 205,000 psi tensile strength		
Body sides shall be manufactured from 3/16" thick Hardox 450 hi-tensile steel construction, rated at a minimum 205,000 psi tensile strength		
Rear vertical corner posts will be 10 ga. sheet steel, fabricated in such a way as to include provision for rear facing lighting requirements.		
Rear vertical corner-posts to be tied to radius side panels and horizontal top rails, including 100% welds.		
Rear vertical corner-posts to be connected to main conveyor via a rear horizontal 3" x 8" x 3/8" thick wall HSS rectangular tube spanning the full body width.		
Body construction shall include integral side fenders fabricated from a minimum 10 GA Cor-ten A corrosion resistant material.		
Fenders shall be full length from front to rear of body.		
One fender right side and one fender left side shall be provided.		
Integral fenders to be sloped away from unit to prevent any excess material spilled during loading from building / piling up.		
Dump box access ladder shall be 15" wide, two piece fold-up ladder located at the front driver's side of body.		
Access ladder will be manufactured from safety grip strut material.		

PLOW TRUCK COMBINATION UNIT
NEW MODEL PLOW TRUCK WITH WINTER CONTROL EQUIPMENT

HOIST: Mailhot Nitrided top lift 3 stage telescopic hoist "C" series model CS-130-5-3 State Make _____ State Model: _____		
Hoist lift cylinder to be forward mounted three (3) stage top lift telescopic.		
Hoist capacity shall be 30 ton @ 2,000 P.S.I.		
Hoist cylinder will be rod sealed.		
Special Mailhot coating to provide protection to hoist seals with body in spreading position.		
Cylinder stroke shall be 130" Specify cylinder stroke _____		
Dumping angle shall be variable up to 50 degrees from horizontal.		
There will be no hoist doghouse protruding into front head of body - hoist will be external mounted to provide flat body front head.		
Rear hinge diameter shall be 2 ½" minimum – no exception.		
Hoist control valve shall be air operated from inside cab.		
The body to be equipped with a positive locking support brace integral with rear dump hinge.		
Tailgate: Tailgate shall be double acting.		
Tailgate height shall be 53" from conveyor floor. SPECIFY: _____		
Upper hinge plates to be offset design flame cut from 1" steel plate.		
Tailgate shall be rectangular shaped to allow use of asphalt or stone chip spreaders.		
Body tailgate shall be 3/16" thick Hardox 450 hi-tensile steel construction, rated at a minimum 205,000 psi tensile strength.		

PLOW TRUCK COMBINATION UNIT
NEW MODEL PLOW TRUCK WITH WINTER CONTROL EQUIPMENT

	YES	**NO**
Exterior tailgate vertical side support tubes to be 3 ½" x 3 ½" x ¼" thick wall HSS tubing.		
Latch mechanism for the tailgate shall be air trip using two air brake pot chambers actuated from inside the cab – single air pot chamber or air cylinder type designs will not be acceptable. Specify _____		
Brake chambers shall be directly coupled to ½" thick flame cut latches.		
The left and right-side brake chambers shall be protected by both the integral body fenders, as well as additional removable steel protective covers.		
Spreader chains and brackets shall be supplied on tailgate and rear apron. Chain shall be grade 70 coil proof 5/16" minimum.		
MAIN CONVEYOR: The main conveyor shall be centered and recessed along the length of dump box floor.		
Three-piece formed construction minimum 25" wide. Specify width _____		
Conveyor floor shall be ¼" thick Hardox 450 hi-tensile steel construction minimum. SPECIFY: _____		
Permanent non-removable built in protective main conveyor chain link covers.		
The protective covers will run from the front to the rear of the main conveyor on both sides		
The protective non-removable main conveyor link covers will cover and protect the main conveyor chain links from damage by impact at all times, and in all operation modes.		
In addition to the permanent non-removable main conveyor chain link covers, a second quick removable conveyor chain cover will be supplied.		

PLOW TRUCK COMBINATION UNIT
NEW MODEL PLOW TRUCK WITH WINTER CONTROL EQUIPMENT

The removable cover will protect the main conveyor floor and conveyor chain cross flights from damage by impact when installed.		
The removable main conveyor cover will be manufactured from 3/8" 2 ply high temperature rubber.		
The removable main conveyor cover will self-feed into place to allow fast and simple installation.		
Self-feeding will be achieved by simply attaching the rubber conveyor cover to a main conveyor chain cross flight at the tailgate (idler end). Starting the main conveyor will pull the cover into place under the permanent non removable protective steel chain link covers.		
The removable rubber cover will be complete with attachment brackets to couple easily and directly to main conveyor chain cross flights.		
Removal of the rubber conveyor cover from the body will be accomplished by starting the main conveyor, which will then feed the cover out through the front material discharge gate.		
Installation and removable of the rubber main conveyor cover into or out of the spreader body will be a one man operation.		
Conveyor chain to be self-cleaning D667X pintle type with a minimum tensile strength of 21,700 PSI, spaced apart 21" on center. Specify _____		
3/8" x 1 ½" cross flights must be welded to every 2nd link (approx. 4.5" spacing).		
All conveyor flights shall be 100% fully welded to the chain links.		
Drive and idler cross shafts to be two (2) inches diameter minimum. Specify diameter _____		
Drive and idler shafts manufactured from high-resistance stress proof SAMSON 100. SPECIFY: _____		
Drive and idler sprockets to be minimum eight-tooth cast steel.		
All drive and idler sprockets to be minimum C1030 cast steel. SPECIFY: _____		
Planetary drive for main conveyor.		

Main conveyor drive shall be a single 25:1 high efficiency planetary drive mechanism with high torque low speed motor – standard 25 :1 gear boxes will not be acceptable.		
The planetary drive shall deliver 50,000 IN/LB torque intermittent with 34,960 IN/LB constant. Specify _____		
Planetary drive to be close coupled to main conveyor shaft.		
Specify make and model of planetary drive: MAKE: _____ MODEL: _____		
Connection of the planetary drive shaft to the main conveyor shaft shall be accomplished via a split two-piece rectangular shaped coupler assembly.		
The upper and lower half of the coupler assembly will be bolted together by (4) 5/8" x 4 ½" N.C. Grade 8 Hex Head bolts.		
Removal of the (4) coupling bolts will allow simple disassembly of the planetary drive shaft from the main conveyor shaft, for ease of maintenance.		
The two main conveyor drive shaft flange bearings will be bolted directly to the body long sill weldments.		
Each of the two body long sill weldments will be vertical slotted. Simply removing the drive shaft flange bearings and uncoupling the planetary and main conveyor drive shafts, will allow the entire conveyor drive shaft assembly will drop out through the vertical long sill slots providing easy access and simple maintenance.		
Idler end of main conveyor will also be vertical slotted drop out design as described above.		
Conveyor chain tension to be regulated via an automatic chain tensioning system. This tensioning system will provide appropriate chain tension for the main conveyor chain at all times and under all normal operating conditions – threaded rod or grease ram type chain tensioners will not be acceptable.		
The fully automated chain tensioner will eliminate the requirement for any manual chain tension adjusting mechanisms such as conventional threaded rod and nut tensioners or hydraulic grease ram tensioners.		
Automated chain tensioning system to be centrally located between main conveyor drive and idler shafts.		

Access to automated conveyor chain tensioning system shall be from the side(s) of the body.		
Automatic chain tensioner system to consist of stainless-steel push rods with polymer rollers for corrosion resistance. Specify _____		
The flow control gate between main and cross conveyor shall be screw adjustable by hand crank from driver's side of dump body.		
The main conveyor flow control gate, will be flush and even with the front of the body, without any type of recess.		
Underside of main conveyor to be complete with full length poly guard to prevent material spillage on to chassis components and frame rails.		
BI-DIRECTIONAL RUBBER BELT CROSS CONVEYOR		
The cross conveyor shall be hydraulic direct drive via a single reversible 11.9 cu. in. hydraulic motor controlled by a 12V solenoid valve with in cab toggle switch.		
A cross conveyor assembly shall be used to discharge material from main conveyor to the either the left hand or right hand sides of chassis.		
Cross conveyor assembly to mount on chassis frame independent from and in front of main combination spreader unit.		
Cross conveyor unit shall be removable design to reduce added weight in non-spreading applications.		
Cross conveyor weldment shall be fabricated from a minimum 3/16" Cor-Ten A corrosion resistant material. Specify _____		
Cross conveyor belt to be fabricated from 3/8" thick, 2 ply, 12" wide by 121" long molded, seamless conveyor belting. Specify _____		
Belt shall be positive drive to eliminate slippage.		
Cross conveyor assembly to include replaceable steel guards to prevent material from entering under belt or spilling off conveyor.		
Cross conveyor assembly to include 4 poly runners to maintain an even belt surface, and preventing material from getting under belt.		
Cross conveyor assembly shall have snub rollers constructed of high temperature, low stick, 2.5" diameter by 2.0" poly rollers, to reduce material build up under conveyor. Specify _____		
Cross conveyor assembly to include an external, quick coupler washout connection, to remove material between the rollers and rubber belt.		

Cross conveyor assembly shall include 5 external, greaseable flange bearings and 2 external, greaseable take up bearings		
Cross conveyor assembly shall include 8 external grease fittings for application of grease to all bearings.		
Cross conveyor assembly to provide provisions for mounting of material sand/salt chutes and spinner assemblies on both left and right sides.		
Polymer deflectors shall be bolted to the front and back sides of cross conveyor to prevent material spillage		
Spinner Assemblies		
Left and right-side spinner assemblies shall be provided and will be removable from the cross conveyor for summer storage.		
	YES	**NO**
The cross conveyor will also be removable from the chassis frame rails.		
The spinner assemblies will also be the flip up style providing the ability to carry them in a stored position horizontal to the chassis frame rails when not in use.		
Spinner discs shall be manufactured from polyurethane, and be a minimum of 18” diameter.		
Spinner anti-coning devices shall be provided on each spinner assembly.		
Spinner shaft will run on a flange bearing equipped with grease fittings.		
Spinner drive will be direct via hydraulic orbit motors.		
Left and right-side chute assemblies shall include hinged extensions and polymer liners.		
LED spinner spot lights on both right and left sides.		
Spinner height shall be adjustable to accommodate various chassis heights and capable of a discharge rate from 100 lbs./lane mile to 2,500lbs./lane mile.		
Sander Controls		
Cirus Spreadsmart Rx automated spreader controller shall be provided, including 2 externally mounted valve sections to operate spinner and conveyor. Body builder shall calibrate spreader controller to MTO standards. Trackmatics GPS module including required wiring harness shall also be provided.		
Plow raise / lower and material discharge sensors shall be supplied. The sensors shall be connected to the in-cab GPS module.		

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PLOW TRUCK COMBINATION UNIT
NEW MODEL PLOW TRUCK WITH WINTER CONTROL EQUIPMENT

Fenders And Flaps		
Fenders shall be continuous along the full length of dump body to provide cover for rear wheels and to protect the body. Fenders to be fabricated from minimum 10 GA Cor-ten "A" corrosion resistant steel.		
Integral fenders to be sloped away from unit (material shedding design) to prevent any excess material spilled during loading from pilling up on fenders.		
Red/White 2" reflective tape to be installed full length along body fenders and across bottom of tailgate.		
Paint		
The dump body shall be shot blasted and epoxy primed with 3 mils of Dupont DTM type primer.		
Finish paint shall be Dupont Imron 5000 "ELITE" polyurethane enamel and colour matched yellow to the truck cab – Dupont Imron 5000 Elite finish paint must be utilized – no exception.		
Specify Paint Manufacturer : _____. Specify Paint Type : _____.		
Finish Paint to be a **"<u>Baked On</u>" process (no substitutes)**. Specify _____		
Load Cover		
An air tarp shall be supplied with fabricated tarp arms dimensions of 1 ½" x 2 ½" rectangular aluminum tubing, and a 1/8" standard type mesh tarp. Tarp to be operated by twin air cylinders operated from inside the cab. Electric type tarp mechanisms, and air tarps utilizing air motors in lieu of cylinders, will not be acceptable.		
Tarp arms must be aluminum, and tarp brackets bolted on each side of Proline body must be manufactured from stainless steel – no exception. Specify _____		
Lights And Wiring		
All box lights to be LED type.		
Grote "Ultra Blue Seal" wiring harness for body lights & electrical shall be supplied (no substitutes).		
Auxilliary lighting will plug directly into OEM supplied connections. *Cutting, splicing, soldering or shrink tubing of connections is not acceptable.*		
Box lighting kit to include Grote Ultra Blue Seal LED rear stop lights, tail lights, turn signals, and back-up lights, and shall be installed in rear corner posts.		

Grote blue and amber LED strobe lights to be high mounted in each upper rear corner posts for maximum visibility.		
LED spinner and cross conveyor lights shall be supplied, each with separate in-cab switches.		
Dual LED rear raised light bar assemblies shall be installed on top of each rear corner post. Each light bar shall be independent, and easily removable by one person. Plugs shall be included on the sides of the Proline body corner posts.		
Each light bracket shall include the following LED lights: - 7” upper red - 4” upper red - left side only to include 4” blue strobe light - right side only to include 4” amber strobe light		
LED blue and amber warning lights to be installed below tailgate, centre of rear axle.		
Star 200B blue and 200A amber revolving beacon lights shall be installed on pedestal attached to top of oil reservoir back of cab. Beacon lights shall be visible 360° around vehicle.		
A 16 switch light panel shall be installed, recessed into in-cab control panel below plow/wing joystick controls. Body builder lights shall utilize the 16 switch box.		

2023 REQUEST FOR TENDER

PLOW TRUCK COMBINATION UNIT
NEW MODEL PLOW TRUCK WITH WINTER CONTROL EQUIPMENT

Hydraulics	**YES**	**NO**
All fittings, valves, hoses and drive shaft shall be supplied and installed. All hoses shall be equipped with swivels on both ends.		
The hydraulic reservoir shall be of sufficient capacity to supply necessary oil supply. Reservoir must not interfere with the box installation.		
A sight gauge to allow easy checking of the hydraulic oil level in the reservoir shall be supplied.		
Provide an auto dump application for rear air suspension. Air to automatically release from rear suspension when in-cab body joystick control is activated for dumping.		
Pintle Hook		
A Holland PH410RA pintle hook with air cushion shall be installed onto a heavily reinforced pintle plate. Two(2) tow hooks shall also be mounted onto the pintle plate. Body builder shall relocate the chassis supplied glad hands and 7 pin trailer plug onto the pintle plate.		
An additional 7 pin RV plug shall be installed on the pintle plate, with an in-cab electric trailer brake control.		
Round LED rear stop, tail and directional lights shall be recessed into each side of the pintle plate. Lights shall be flush mount on plate to protect from damage.		
Two(2) extra tow hooks shall be installed on each side of the front plow harness.		
General		
Prototype units will not be acceptable. The bidder must be able to demonstrate a solid history of use of the combination U-body/spreader offered in this tender by Ontario Municipalities, for a minimum period of five(5) years, and references must be supplied as upon request.		
Installation of this equipment shall meet or surpass the mandatory requirements of the Canada Motor Vehicle Safety Act and its regulations in effect on the date of manufacture. Installer of the truck equipment must be certified with Transport Canada and bear the National Safety Mark. Specify National Safety Mark Number: _____.		
Viking model VCL4152R-12-45C steel full trip reversible snow plow with extended right-side discharge or approved equivalent: Specify make _____ Specify model _____		
The moldboard height shall gradually increase from the centre to the right side only, so as to form a "cone" design. This will permit a superior casting distance on the right side during plowing operations.		

The moldboard height from the centre point to the left side shall remain consistent at 41”.		
The moldboard height in the centre shall be 41” maximum.		
Height at the right side discharge end shall gradually increase to 52” maximum.		
The overall width shall be 12’.		
The path cleared in the bulldozing position shall be 12’. At a 35 degree angle, the path cleared shall be 9’-10".		
The plow shall include a hydraulic moldboard tilt complete with in-cab control.		
There shall be double acting hydraulic cylinders attached to the two(2) moldboard tilt braces that connect the drive-frame to the back-side of the moldboard.		
The operator will be able to adjust the cutting edge attack angle to the road surface hydraulically from inside the cab.		
Set at 50 deg. attack angle, the overhang from the cutting edge to the front of the moldboard shall be 20” minimum.		
Set at 60 deg. attack angle, the overhang from the cutting edge to the front of the moldboard shall be 25” minimum.		
Set at 50 deg. attack angle, the height from the ground to the front of the moldboard shall be 28” maximum.		
Set at 60 deg. attack angle, the height form the ground to the front of the moldboard shall be 24” maximum.		
The moldboard shall be fabricated from 10 ga. steel.		
There shall be a minimum 10 of 3/8” thick reinforcing ribs 100% welded to the moldboard. Specify _____		
The safety trip shall consist of two compression coil springs incorporated in the drive frame, which will allow the moldboard to float over obstructions		
The two compression trip springs will be 5/8” wire, 5 ¼” O.D., 14” free length with a total of 8 active coils.		
Height adjustable 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 tubing.		
The sector angle shall provide a 30° radius and be constructed of ½" x 3 ½" x 2 ½" steel angle.		
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. Specify cylinder diameter _____ Specify cylinder stroke _____		
Moldboard shall be provided with 2 moldboard shoes, as well as 2 scuff shoes supplied on each end.		
A 3/4" thick x 6" – 3 section - carbide cutting edge shall be supplied and bolted to the moldboard. In addition, a hardened steel backer blade shall be provided.		
Three of 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 in the carried position. Cable and sheave type lifting mechanisms will not be acceptable.		
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 pushframe, 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 a height adjustable parking stand.		
A quick tach type swivel bar shall be provided.		
Marker rods shall be installed on each end of the reversible plow.		
All steel shall be epoxy primed prior to application of finish paint.		
Warranty shall be one-year minimum, parts and labour included.		
Viking model VCL500T hydraulic tilt front plow harness or approved equivalent:		
The front plow harness will tilt forward to allow the chassis hood to tilt forward over centre of its pivots and stay open without the need of any additional supports.		
The harness tilt and return function will be performed by the operator from inside the chassis cab via proportional air over hydraulic control.		
One single locking shaft will be manually removed prior to performing the tilt function – dual load bearing pin designs to unlock front harness will not		

be accepted.		
The locking shaft shall be a non-load bearing design with no weight actually on the shaft		
The single lock shaft will have an outside diameter of 1 ½" inches and overall length will be a minimum of 30 inches.		
A handle will be provided on one end of the lock shaft 4 inches square, 3/8" tube by ¾". The other end will be chamfered at 30º degrees.		
The lock shaft will when installed be located inside the full length connecting tube.		
The connecting tube and lock shaft assembly will together form the upper connection point of the cheek plate weldment to the front plate assembly.		
The connecting tube overall length will be 23 3/8", with an inside diameter of 1.612", and an outside diameter 1.90".		
The hydraulic power tilt cylinder will be double acting at 2 ½" diameter and with a 6" stroke. The piston rod shall be hard chrome plated.		
Two lower pivot tubes will be provided, the outer pivot tube will be connected to the right and left side cheek plates, the inner pivot tube will be permanently attached to the front plate assembly.		
The inner pivot tube will rotate forward inside the outer pivot tube allowing the front plate assembly to travel forward into the tilted position, and will rotate rearward to return the front harness assembly to the normal working position.		
The inner pivot tube will be 4" outside diameter x 2 ¾" inside diameter, 52 inch long seamless mechanical tubing.		
There will be two inner pivot tube gussets manufactured from ½" plate, at 18 13/16" long and 5" wide, tapered to 2 ¼ inches.		
End plate located on inner tube shall be ½" thick material at 12" x 6", to provide lower mounting location for front wing post.		
The outer pivot tube will be 5 9/16" outside diameter x 4 1/16" inside diameter x 25 3/8" long, constructed from extra heavy pipe.		
There will be two outer pivot tube gussets of ½" plate with 8" x 8" triangular design.		
Outer pivot tube fitted with three 1/8-inch NPT grease fittings for lubrication, one each located approximately 2" inwards from the end of the tube, and one located in the centre.		
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.		
Overall height of the front plate will be 49 inches with a 5.25" 90º degree bend at the bottom.		
Right and left side plates, 15 3/4" maximum width by 49 1/4" high by 3/8" plate welded to the front plate.		

Upper cross channel shall be 6" by 52" at 13 lbs./ft., and welded to the right and left side front harness.		
End plate located on upper cross channels shall be ½" thick material at 12" x 6" to provide upper mounting location for front wing post.		
The front pump and tilt cylinder mounting bracket shall be manufactured from ½" thick steel, and welded to the cheek plate assembly. The mounting bracket must be 24 1/4" wide by 18 1/2" long.		
Cheek plates will be specified to suit chassis frame rails, The cheek plates shall be 1/2" thick steel plate, and will extend along the chassis frame rails as far back as possible.		
Cheek plates shall be flame cut from 44W steel plate. Specify: Minimum Yield:_____ Minimum Tensile:_____		
Fasteners attaching cheek plates to the chassis frame rails must be minimum grade 8 N.C. hex head bolts		
There shall be two(2) pairs of drive ears 100% welded to the front plate and spaced at standard 30 ½" centers.		
Three sets of plow drive bar connection holes provided in the drive ears - height to lower drive connection must be 19" from ground with truck empty.		
Quick-tack hitch pockets shall be bolted to drive ears		
Double acting hydraulic plow lift cylinder shall be 4" diameter with 10" stroke. Cylinder rod shall be hard chrome plated – nitrated rods will not be accepted.		
Plow lift yoke shall be ¾" thick 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 must be ½" thick steel plate minimum, 100% welded to front plate.		
Two(2) Grote heated LED snow plow headlights / directionals, with high and low beam, shall be supplied complete with dash mount switch.		
Two 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 tilt function.		
Two independent in cab feather joystick air controls will be pedestal mounted inside the chassis cab, one control will operate exclusively the plow lift function and the second control will operate exclusively the hydraulic power tilt function.		

Lift yoke brace mounting plates shall be positioned to provide minimum 23.5" span.		
Body builder shall modify chassis supplied front bumper and re-install onto left and right sides of front harness.		

Viking model VCL350SCL Cable Type Wing Harness or approved equivalent:

SPECIFICATIONS	**CONFIRMATIONS**	
Cable Type VCL350SCL FRONT WING POST	**YES**	**NO**
48" front post shall be a Viking Model VCL350SCL Specify : Make _____ Model _____		
The post shall be an 8" I beam @ 18.4 lbs/ft. Rated – no alternative front post construction will be permitted.		
SPECIFY:		
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 front wing post, when mounted, shall not be higher than the rear wing tower.		
The sheave pin shall be provided with a grease fitting and an oilite 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 wing post shall be approx. 11" from the ground, truck empty and shall be protected by a shoe.		
A 3" diameter x 30" stroke D.A. cylinder shall be mounted on the inside of the front post and shall operate the front wing slide through 2 (6" dia) sheaves and a cable.		
Front post trip hinge shall be provided with a torsion type steel trip spring.		
The main supporting member for the front post shall be a 4" OD x 2 ¾" ID x 5/8" wall tube cross member running through both cheek plates,		

and reinforced with a ½" steel plate between the cheek plate and front post.		
The auxiliary support shall be a 6" x 13 lb/ft channel running across the top of both cheek plates		
Air bag assist shall be installed onto the R.H. front axle to provide extra support for the wing system.		
An in-cab mounted air regulator shall be provided to control air pressure for air bag assist on right front axle.		
12" Grote #12020 stainless steel convex mirror mounted on backside of front post on a extended 10" angle iron bracket to aid driver in winging mode		
Two (2)heated LED front post spot lights shall be provided, installed on an 18" extended adjustable bracket. A separte in-cab light switch shall be supplied.		
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 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 hydraulic cylinder controlling the rear end of wing shall be 3" diameter x 30" stroke, through a cable and sheave assembly.		
Approved size of hydraulic cylinder controlling rear wing brace slide shall be 3" diameter x 36" stroke and shall be double acting.		
All wing cylinders must include hard induction chrome rods – nitrated type cylinder rods will not be acceptable.		
Wing tower shall be painted black.		
Viking tube style crossmember installed approximately 10" back of cab to support chassis frame rails during winging operations.		
An integral back of cab oil reservoir of 130 litre (35 US gallon.) capacity minimum.		
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 – 10" channel construction must be utilized for rear wing post construction – no exception.		

Specify _____		
One 2" diameter pipe brace 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 supporting structure.		
For maximum strength, the supporting structure shall utilise two(2) channels that are integral with the rear post.		
In addition, two(2) triangular stiffeners shall be incorporated into the support 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. Hydraulic hoses must be Gates brand – no exception.		
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% for the bottom 24 inches.		
35 U.S. gallon oil reservoir, integral with rear wing tower, 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.		
4.5" heated LED rear wing light complete with separate in-cab switch.		
Manufacturer's literature shall be included		
Manufacturer's warranty minimum one(1) year parts and labour		
SPECIFY:		
Parts manual shall be supplied with each unit.		
Harness shall be prepped and painted Medium Gloss BLACK		

Viking model VCL156WHD Steel Side Wing Moldboard or approved equivalent :

SPECIFICATIONS	**CONFIRMATIONS**	
13' WING MOLDBOARD		
Viking model VCL156WHD	☐ YES	☐ NO
SPECIFY:		
MAKE:		
MODEL:		
Overall length 13 feet	☐ YES	☐ NO
Cutting edge length 12 feet		

2023 REQUEST FOR TENDER

PLOW TRUCK COMBINATION UNIT
NEW MODEL PLOW TRUCK WITH WINTER CONTROL EQUIPMENT

Inside intake height 29” minimum Specify _____	☐ YES	☐ NO
Outside discharge height 39” minimum Specify _____	☐ YES	☐ NO
Moldboard thickness 10 gauge minimum	☐ YES	☐ NO
Two(2) drive ribs for connecting the wing brace shall be provided.	☐ YES	☐ NO
The two(2) 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”. Specify _____ The mounting of the nose end of the wing to the front wing post shall be through a hinge and steel rectangle spring, to allow the wing to trip over road obstructions. 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.	☐ YES ☐ YES ☐ YES ☐ YES ☐ YES	☐ NO ☐ NO ☐ NO ☐ NO ☐ NO
The lower brace shall incorporate a 5/8” x 6” compression spring to absorb any shock the wing encounters.	☐ YES	☐ NO
Upper brace – extended 90” C.C.	☐ YES	☐ NO
Collapsed 60” C.C.	☐ YES	☐ NO
Extended distances shall be measured with spring fully retracted.	☐ YES	☐ NO
Lower brace – Extended 88” C.C.	☐ YES	☐ NO

2023 REQUEST FOR TENDER

PLOW TRUCK COMBINATION UNIT
NEW MODEL PLOW TRUCK WITH WINTER CONTROL EQUIPMENT

Collapsed 58" C.C.	☐ YES	☐ NO
One spare pin for adjusting the wing braces shall be supplied with each brace.	☐ YES	☐ NO
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.	☐ YES	☐ NO
Adjustable needle valve in hydraulics back of cab to allow operator to be able to adjust speed to raise / lower wing. ☐ YES ☐ NO		
High wear type wing blade shall be supplied	☐ YES	☐ NO
36" ORANGE fluorescent wing marker attached to rear of wing	☐ YES	☐ NO
Conspicuity reflective tape on wing arm and on rear edge of wing	☐ YES	☐ NO
All steel will be shotblasted, epoxy ZINC primed and finished in Medium Gloss BLACK finish	☐ YES	☐ NO

HYDRAULIC SYSTEM:		
	YES	**NO**
A Metaris model P20B tandem transmission mount gear pump shall be provided.		
One pump section shall be dedicated to the operation of the plow, wing and hoist only.		
The second pump section shall strictly operate the conveyor and spinner assembly to ensure uninterrupted flow of material.		
The tandem pump shall be attached to a Chelsea 890 series hot shift PTO, complete with in-cab control. Specify Make _____ Specify Model _____		
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 2 ply braided steel SAE100RS, with swivels on both ends. Gates brand hydraulic hoses shall be provided – no exception.		
The hydraulic system must be set up so all other hydraulic functions do not " rob " the sander equipment.		
A parts manual shall be supplied with each unit.		

Hydraulic control valves will be stackable and sectional type Walvoil SDS-180 with air shift – no exceptions. Specify Make _____ Specify Model _____		
The valves shall be open center type to operate with a hydraulic gear pump.		
To prevent corrosion, the air shifters will have a bronze sleeve.		
The control valves will include the following 8 sections: 1 single acting for body hoist 1 double acting for plow lift 1 double acting for plow reverse 1 double acting for hydraulic moldboard tilt 1 double acting for front harness tilt 1 double acting section for front of wing lift 1 double acting section for rear of wing lift 1 double acting section for rear wing slide		
The hydraulic control valves will be operated by proportional featherable in cab air controls – model RMH866000 – no exception.		
The in-cab control panel assembly shall be of a remote design pedestal mounted and adjustable. The control panel shall be manufactured from aluminum.		
A 16 switch programmable light switch box shall be installed, recessed into the front panel of the aluminum control console. There shall be a USB port access built into the light switch box to enable changes to light programming.		
A stainless steel cab floor stiffener plate shall be provided for mounting of control panel, and to reduce vibration.		
An 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.		
An Ikron high pressure filter with condition indicator gauge shall be provided.		
A low hydraulic oil level in-cab light and alarm shall be supplied.		
The complete valve stack assembly will be installed well above the chassis frame rails on the left side back of cab in an easily accessible location, protected from the road debris. The junction boxes for the lights must also be installed at this location.		
The mounting bracket for the valve stack and junction boxes must be manufactured from stainless steel – no exception.		