# CITY OF ESCANABA DEPARTMENT OF PUBLIC WORKS

### **INVITATION TO BID**

**DATE:** July 27<sup>th</sup>, 2023

**ADVERTISED:** July 27<sup>th</sup>, 2023-August 9<sup>th</sup>, 2023

**BID OPENING:** August 9<sup>th</sup> at 2:00 p.m.

Escanaba City Clerk's Office

410 Ludington Street Escanaba, MI 49829

**SENT TO:** Four (4)

Macqueen Equipment Aebi-Schmidt

N60 W15835 Kohler, LN 1151 W. Main Avenue Menominee Falls, WI Depere, WI 54115

M-TECH Best Equipment
517 Tentree 550 Pondexter Drive
Sparta, MI 49345 Indianapolis, IN 46235

#### SPECIFICATIONS:

Minimum 7.2 Cubic yard, vacuum street sweeper, truck mounted on a Freightliner M2 Business Class "Conventional" chassis. This specification describes an environmentally controlled and silenced street sweeper. These specifications are to be used as a guideline for the purchase of a vacuum street sweeper.

### **INSTRUCTIONS FOR COMPLETING BID.**

The sweeper to be furnished under this proposal shall be a conventional truck chassis mounted type, 7 cubic yard capacity vacuum street **sweeper** It shall be the manufacturer's latest model and design. These specifications shall be regarded as **minimum**. Bidders must furnish all descriptive literature, manufacturer's compliance certificates and all other data on the equipment proposed as required in this specification. A detailed specification on unit being bid must be supplied, failure to include specification will deem your bid as non-responsive.

Bidder must answer **YES** or **NO** to each specification line item except where asked to state specific data. Failure to answer correctly, or failure to respond, will deem your bid as non-responsive. "Meets Intent" is not considered an acceptable answer and will be deemed as non-responsive. All line items with a "**NO**" response, shall be explained in detail on the "Exceptions to Bid Specifications" pages provided at the end of this document. (This specification consists of twenty pages and thirty-one clauses).

BIDDER PROPOSED YES / NO

- 1. **Sound Control** (Bidders MUST furnish compliance certificate)
  - 1.1 The external sound pressure level shall be 79 dB(A)

		average at 16 meters per noise test code ISO 3746: 1996, while the impeller fan is rotating at 3,400 RPM.	
	1.2	The In-Cab sound level shall not exceed 68 dB(A) max per noise test code ISO 3746:1996 while the impeller fan is rotating at 3,400 RPM in sweeping mode.	
2.	Truc	k Cab & Chassis	
		State: Chassis Make: Chassis Model: Sweeper Make: Sweeper Model:	
3.	<u>Vehi</u>	cle Weight	
	3.1.	GVWR: 33,000 lbs. minimum.	
	3.2.	Wheel Base maximum 178".	
	3.3.	Cab shall be conventional type.	
	3.4	State G.V.W.R of chassis bid.	
	3.5	State empty weight of chassis bid.	
4.	3.6	State empty weight of sweep equipment. <u>Axles</u>	
	4.1	Front axle shall be 10,000 lbs. minimum.	
	4.2	Rear axle shall be a two speed Meritor RS-21-230, 21,000 lbs. Capacity with ratio of 5.86 / 8.17:1.	
	4.3	Front & Rear oil seals shall be provided.	
5.	4.4	Front & Rear dust shields shall be provided <u>Suspension</u>	
	5.1	Front suspension shall be 12,000 lbs. minimum at ground load rating.	
	5.2.	Front shock absorbers shall be supplied.	
6.	5.3.	Rear suspension shall be 23,000 lbs. minimum with multi-leaf springs. Brake System – ABS	
	6.1.	To ensure brake system performance, safety and service life of chassis a WABCO 4S/4M ABS brake system will be supplied.	
	6.2.	Front & Rear service brakes shall be "full air" "S" cam type.	

		Front with 15"x4" and back with 16.5"x7" brake linings.	_	
	6.3.	Automatic slack adjusters shall be supplied on the front and rear brakes.		
	6.4.	Parking brake shall be spring set on rear axle and cab controlled.	_	
	6.5.	Low air warning indicator shall be supplied.		 ,
	6.6	To provide clean dry air to the chassis brake system, to increase		
	0.0	the life of, and to reduce maintenance costs, a BW AD-9 brake line air dryer with heater shall be provided.	_	
7.	6.7.	A Cummins 18.7 CFM air compressor shall be supplied.  Steering		 
	7.1	Complete OEM dual cross-over power steering system with complete dual gauges at each operator's position shall be furnished to permit operation from either side of cab.	_	
	7.2	The following gauges and controls shall be furnished at the LEFT SIDE operator's position: oil pressure gauge, water temperature gauge, tachometer voltage digital display, speedometer, odometer, dual air pressure gauges, transmission oil temperature gauge, fuel gauge, DEF gauge, and centrally located ignition switch.	_	
8.	7.3	The following gauges and controls shall be furnished at the RIGHT SIDE operator's position: oil pressure gauge, water temperature gauge, tachometer speedometer, dual air pressure gauges, transmission oil temperature gauge, fuel gauge, DEF gauge, and centrally located ignition switch.  Engine		
	8.1	Engine shall be a four cycle diesel, turbo-charged and after cooled.		
	8.2	Engine shall be rated at 300 H.P. at 2,300 RPM with 6.7 liters of displacement minimum.		
	8.3	Engine shall have a torque rating of 520 ft lbs. at 1,600 RPM.		
	8.4	Engine shall be water cooled with antifreeze protection to –34 degrees Fahrenheit.		
	8.5	Engine shall have vertical muffler and exhaust pipe and be equipped with a Diesel Particulate Filter & SCR system for 2010 EPA emission requirements.		

9.	8.6.	Integral electronic protection shutdown system for low oil pressure and high water temperature. <u>Transmission</u>	
	9.1.	Transmission shall be an Allison 3500 or similar Series automatic with return line filtration.	
10.	9.2	Transmission shall come installed with synthetic transmission fluid.  Engine Equipment	
	10.1.	12 volt alternator shall have a minimum of 160 amp output rating.	
	10.2.	Two (2) batteries shall be maintenance free and each rated at 1,125 CCA (2,250 total).	
	10.3.	A heavy duty dry type air cleaner with in-cab mounted restriction indicator shall be supplied.	
	10.4.	A Horton HT650 frontal air on/off clutch engine fan shall be supplied with automatic controls.	
11.	10.5.	A full flow oil filter shall be supplied. <u>Cab</u>	
	11.1.	Cab shall have two (2) air suspension fully adjustable bucket seats with approved seat belts.	
	11.2.	Seats shall be Isringhausen high back with heavy duty cloth upholstery over foam rubber seat cushion and inboard armrests or similar style.	
	11.3.	Sun visors shall be supplied on both sides.	
	11.4.	Door armrests shall be supplied on both sides.	
	11.5.	Heater with full width defrosters, fresh air ducts & multi-speed fan shall be supplied.	
	11.6.	Dual, two speed electric intermittent windshield wipers with washers, operable from either side, shall be supplied.	
	11.7.	Two bright finish heated and remote West Coast type mirrors, 7" x 16" and 8" convex mirrors shall be supplied.	
	11.8.	Two 8" fender mounted convex mirrors shall also be supplied to allow full view of sweeping equipment.	
	11.9.	Factory A/C shall be supplied and mounted in cab.	
	11.10.	. AM/FM/WB/Bluetooth radio shall be supplied.	

	11.11.	Two (2) independent accelerator pedals shall be installed in cab to facilitate operation from either side.	
		A full 'cross-over' system to change steering control, throttle and all gauges, from left to right hand side and vice versa shall be supplied., unless single steer operation	
12.	11.13.	All cross-over functions shall be controlled by a single switch on the central console. This circuit shall be inter-locked to the parking brake and shall only be capable of being activated with the parking brake applied.  Fuel Tank	
	12.1.	Minimum 50 gallon fuel tank shall supply chassis engine. Tank shall be manufactured from aluminum and located under the LH side of cab.	
13.	12.2	SCR system tank shall be 6 gallons and located to the rear of the chassis fuel tank. <u>Lights</u>	
	13.1.	All lamps and reflectors shall comply with federal regulations.	
	13.2. F	our-way hazard warning lights shall be supplied.	
	13.3	The following lights to be LED type: stop/tail/turn/back-up/marker.	
14.		<u>Frame</u>	
	14.1.	Heavy Duty frame with a minimum RBM of 1,015,000 lb/in.	
	14.2	Frame Section Modulus of 12.69 minimum	
	14.3	Frame shall be tensile steel, 120,000 psi, minimum	
	14.4	Front tow hooks shall be supplied.	
	14.5	Steel front & rear bumpers shall be supplied (front shall have flexible plastic ends).	
	14.6	A weight load indicator shall be installed on frame	
15.		Wheels & Tires	
	15.1.	All wheel rims shall be disc type 22.5 X 8.25.	
	15.2.	Tires: Two (2) front & four (4) rear premium tires, type 11R or 12R 22.5-14 ply rated.	
	15.3.	Rear tire sets to be protected by Heavy Duty replaceable plastic fenders.	

	16.1.	The basic truck chassis & drive train shall be warranted by the manufacturer for two years, unlimited miles unless otherwise specified.		
	_	<u>SWEEPER</u>	\/=0	
17.	Power	<u>Pack</u>	<u>YES</u>	NO
17.8 T	with a	mpeller compartment shall be completely sealed sound suppressing liner of 1.25 inches thick to protect noise levels and protect against dust contaminants.		
17.9 H	-	tank shall have remote fluid drain accessible from level for easy and cleaner maintenance.		
17.23		eping controls shall be easily accessible to the or from either side driving position.		
17.24 <sup>-</sup>	brooms for rais	sition rocker switches shall be supplied for gutter s, nozzles and main broom. Positions one shall be sing and lowering, while position two shall activate system for sweep gear.		
17.25	high wa	g lights shall be furnished for low oil pressure, ater temperature, low voltage, body weight limit, draulic oil level and low sweeper water tank level.		
17.26	ignition	e above controls in addition to the chassis engine n, parking brake control, and gutter broom speed shall be centrally mounted in cab.		
18.	Sweep	oer Hopper Body		
18.1 T	conten longer excludic LIFETI warran and rea perfora responding no prowarrar with the	e hopper body shall be fabricated from (9) gauge high chromium t stainless steel. All seams shall be continuously welded. To permit life and lower the cost of operation, the entire debris hopper, ing inlet wear plate and exhaust screens, shall carry a IME WARRANTY as long as the customer owns the sweeper. The ty shall include, but not be limited to, the floor, sides, roof ar door. The warranty shall cover rust, corrosion and abrasion ation, including normal wear and tear. Manufacturer will be financially sible for all repairs, parts and labor, including protective gs for the life of the sweeper.100% parts and labor with rating or hour limitations. Vendors shall supply with their bids, thy statements from the manufacturer in complete compliance the published warranty specifications. Failure to will deem your bid as non-responsive.		
18.2 B	•	ume capacity shall be not less than 7.2 cubic yards, ayload capacity of not less than 6.2 cubic yards.		

16.

**Warranty** 

18.3 A hydraulically operated, fully sealed, full width,

	top hinged rear door with 6 inch spill plate with side panels.	_	
18.4	The door shall be opened, closed and latched hydraulically.	-	 
18.5	To prevent damage to the door and door seal, when dumping, the door must open a minimum of 125 degrees.	-	
18.6 TI	ne door cylinder shall incorporate a counterbalance valve to prevent accidental closing in the event of a hydraulic hose or cylinder failure.	-	
18.7 To	o prevent physical injury, the sweeper hopper body prop shall automatically engage and disengage when the hopper is raised and lowered. And the prop is to be the same width as the frame to provide full and even weight support.	-	
18.8 To	o prevent physical injury, the sweeper shall incorporate a warning beeper anytime the debris hopper or rear door is being raised or lowered.	-	
18.9 To	o prevent physical injury due to unintentional operation, a master safety switch must be depressed and simultaneously held while the operator activates the controls to raise/lower the debris hopper or rear door.	-	
18.10	For maximum abrasion resistance the body intake tube shall be constructed of abrasion resistant (AR) steel and have bolt in seals.	-	
18.11	To prevent the body from being stuck in the raised position, the raise/lower cylinder shall be power up and power down.	-	
18.12	To ensure complete emptying of the debris hopper, the hopper discharge angle must be 55 degrees minimum.	-	
18.13	The hopper body shall incorporate a inter-connecting transfer port to the water tank that will enable the machine to additionally function as a either a water tanker or flusher with a total water capacity of minimum 1,000 gallons	-	
18.14	Body intake tubes shall have equal distant mounting holes to permit quarter, half or three quarter turn rotation for extended life and even wear compensation.	-	
18.15 18.16	To permit cleaning of the rear screens, and placement of large objects in the hopper, two (2) heavy duty inspection doors with heavy duty lever lock handles and recessed seals that fit snugly over a raised flange on the body, providing a positive seal against leaking shall be provided on each side of the hopper with step and handle for operator safety. Body shall have full width mesh filter screens which are at least 48" away from the suction inlet tubes to allow for adequate material		
18.17	The screens shall be removable from ground level without entering the hopper and without the use of tools.		

18.18	Screens shall incorporate a pneumatic vibrator.	
18.19	Body roof shall incorporate an externally mounted, removable plate to permit inspection and cleaning of upper air tunnel area.	
18.20 <sup>-</sup>	The rear door shall have two (2) drains at staggered heights to enable water to be drained off. One 3" will be located on the upper left section with a hose on its own stowage bracket. One will be at the middle bottom of the rear door.	
18.21 <sup>-</sup>	The sweeper shall be furnished with a catch basin cleaner attachment.	-
18.22 <sup>-</sup>	The Catch Basin Cleaner attachment shall be provided with hydraulic compensation to raise/lower the assembly to reduce weight load while operating, or removable off rear.	-
18.23 <sup>-</sup>	The Catch Basin Cleaner shall be complete with 10 feet of interlocking extension tubes, or removable off rear.	
18.24	For safety reasons the Catch Basin Cleaner shall be top mounted to permit a greater working radius, while allowing the operator to work off the side of the sweeper, shielded from oncoming traffic.	-
18.25 <sup>-</sup>	The sweeper shall be furnished with a hopper flush system using two flush nozzles.	 -
19.	Vacuum Impeller Fan	
19.1 SI	hall be single stage centrifugal type, direct drive, dynamically balanced. And capable of producing 59" of negative water column in the hopper.	
19.2 lm	npeller shall be 31.5" diameter, 3.15" wide and of stainless steel construction.	
19.3 lm	npeller shall incorporate eight (8) hardened stainless steel vanes with built-in "wear safe" characteristics to prevent separation should it be subjected to excessive abrasion.	
19.4 lm	and shall be constructed of abrasion resistant (A/R) steel.	
19.5 TI	ne connection of blower to drive system shall permit the blower to freely spin within its housing.	 

19.9 <u>Blower drive system:</u> To permit longer life and lower cost of operation, the entire blower drive system, excluding the auxiliary engine and impeller, **shall be guaranteed for** 

**5 years.** Warranty shall include all components between the engine flywheel and the blower. Warranty shall cover all components, including normal wear items, such as, but not limited to, belts, pulleys, bearings, shafts, fluid couplings, clutches, seals, etc. Manufacturer will be financially responsible for all repairs, parts and labor. 100% parts and labor with no pro-rating or hour limitations. Vendors shall submit warranty statements from the manufacturer with their bids, in strict compliance with the published warranty specifications. Failure to do so will deem your bid as non-responsive. 19.10 Impellor exhaust port is to be sealed and air is to be exhausted rearwards over full width of the body through a sound suppressed roof tunnel vent. 20. **Intake System** 20.1 The intake system shall be a minimum of 10" in diameter 20.2 To permit cleaning and removal of blockages the intake system shall separate when the debris hopper is raised. The make break inlet point shall be no more than 48 inches off of ground. The intake hose shall have a straight vacuum path (no bends) 20.3 Allowing maximum air speed up to 300 mph. Top of vacuum hose shall be accessible at ground level to permit the removal of any blockages. Top of hose shall not exceed 4.5' from the ground. 21. **Gutter broom- Right and Left Side** 21.1 Gutter brooms shall be one piece, of steel tine construction, and minimum 28" inch diameter. 21.2 Gutter brooms shall be direct hydraulic drive type and relief valve protected. 21.3 Gutter brooms shall have variable speed from within the cab. Rotational speed from 0 -200 RPM and independent of engine RPM. 21.4 Gutter brooms shall pneumatically raise/lower. 21.5 Gutter brooms shall incorporate a lock for transport activated automatically from within the cab. 21.6 Gutter brooms and components shall be free floating, of trailing arm configuration with adjustable "kick back" feature to avoid damage if contact is made with high curbs or other immovable objects.

21.7 F	our (4) water spray jets shall be provided at each gutter broom.	
21.8 T	wo (2) additional water spray jets to be provided on each side of sweeper and mounted on lower rear corners of cab. They are to be wired and activated separately to provide additional dust suppression when required.	
21.9 G	utter brooms shall be capable of being operated independently of all other sweep gear.	
21.10	Gutter brooms shall be capable of sweeping on top of sidewalk edge for the purpose of cleaning weeds, etc.  This feature shall also be used to trim grass edges on curbs, edged parkways, etc.	
21.11	The right and left side gutter broom components must be identical to permit interchangeability from side to side.	
	The tilt angle and pressure of the gutter brooms shall be controlled from within the cab on passenger side. Gutter broom LED work lights shall be provided.	
21.14	Gutter brooms have simultaneous operation.	
21.15	Gutter brooms shall be capable of in-cab lateral control.	
22.	Wide Sweep broom	
22.1.	Polypropylene under-body broom shall be supplied.	
22.2.	Broom shall be 16" diameter minimum.	
22.3.	Broom length shall be 50" minimum.	
22.4.	To reduce the potential for damage, the wide sweep broom shall be towed and not pushed when operating.	
22.5.	Wide sweep broom shall be enclosed within its own hood to prevent debris from being ejected.	
22.6.	Broom shall be hydraulically driven at a constant speed with adjustable pressure and flotation system.	
22.7.	Wide sweep broom shall have a minimum of four (4) water spray nozzles mounted at front bumper for early dust control.	
22.8.	Wide sweep broom shall be capable of being changed without removing any parts other than the broom side cover plate.	

22.9. Wide sweep broom shall be capable of being operated

	independently of all other sweep gear.		
22.10	The wide sweep broom down pressure can be accomplished via A pendant control from inside or outside the cab.		
22.11	Wide sweep broom shall have a road crown compensation pivot with remote greasing provision to provide simple, easy lubrication.		
23.	Suction Nozzles- Right and Left Side		
23.1 S	nall be alloy construction, rubber lined for increase life and low noise. And will include curb guards and rubber skirts.		
23.2 N	ozzles shall raise/lower pneumatically.	-	
23.3 N	ozzles shall have four (4) internal water jets to provide dust suppression and lubrication for debris conveying tubes and sweeper internal components.		
23.4 N	ozzle carriages shall each be provided with two (2) adjustable heavy duty rubber tired, 10" diameter wheels. Should the nozzle not meet this requirement, then a third wheel must be provided.		
23.5 N	ozzle wheels shall be capable of being independently adjusted.	-	
23.6 Aı	n in-cab control, shall permit the operator to remotely tilt the nozzle backwards to accommodate the ingestion of large items.		
23.7 TI	ne nozzles shall be capable of tracking independently from the chassis.		
23.8 N	ozzle assemblies are to be attached to the sweep gear framework via tool free, detachable, self-aligning draw bar and track independently of chassis.		
23.9 N	ozzles shall be capable of being operated independently of other sweeping gear.	-	
23.10	Nozzles shall be capable of simultaneous operation.	-	
24.	Hydraulic System		
24.1 TI	ne hydraulic system shall operate the following: wide sweep broom rotation, gutter broom rotation, wide sweep broom swiveling and lateral positioning	_	
24.2 To	o ensure adequate cooling, reservoir capacity to pump output shall be minimum of 2:1 ratio. State pump output at recommended auxiliary engine operating speed.		

		GPM@	RPM
24.3 H	ydraulic oil reservoir capacity shall be 18.5 gallons minimum and capable of maintaining continuous operation without overheating.		
24.4	All hydraulic circuits shall be protected by relief valves.		
24.5	Hydraulic reservoir shall have a fluid level sight glass.		
24.6	The hydraulic system shall incorporate two (2) filters. A 125 micron suction filter and a 25 micron return filter.		
24.7	The body raise/lower shall be powered off the auxiliary engine. An electric over hydraulic back up system shall be furnished in the event the auxiliary engine does not start.		
24.8	The body dump controls shall be controlled via a handheld wireless pendant to permit operation from within the cab or outside the cab.		
24.9	All sweeping gear functions shall be powered from its timing gear power take-off feature .		
24.10	All hydraulic valves for sweep gear shall be equipped with LED status indicators for fast, easy diagnostics.		
24.11	The hydraulic system shall have a quick disconnect test port.		
25.	Water System		
25.1 W	and shall be integral with the hopper body and shall be fabricated of stainless steel.  To permit longer life and a lower cost of operation, the sweeper's water tank shall carry a LIFETIME WARRANTY as long as the customer owns the sweeper. Warranty shall include and not be limited to rust, corrosion and abrasion perforation, warping, melting, UV damage etc. Manufacturer will be financially responsible for all repairs, parts and labor. 100% parts and labor with no pro-rating or hour limitations acceptable. Vendors shall supply warranty statements from the manufacturer with their bids in complete compliance with the published warranty specification. Failure to do so will deem your bid non-responsive		
25.2 W	ater tank capacity shall be 400 gallons minimum and tank must be baffled to minimize stress related movement.		_
25.3 W	ater pump drive and related systems shall have an air purge protection system against freeze-up		_
25.4 W	ater pump is to be driven hydraulically from a direct coupled motor. Pump shall be self priming and not subject		

	to damage when operated dry.		 
25.5 A	hydrant wrench and a 25' hydrant hose, with quick connect coupling, shall be furnished. A storage compartment shall be provided for the wrench and hose when not in use.	_	
25.6 M	achine shall be equipped with a 25' wash down hose with an adjustable spray nozzle.		
25.7 Al	Il water valves shall have manual drain provisions.	-	 
25.8 TI	ne water tank shall have three (3) drain and flush out ports.		 
25.9 Pi	rovision shall be made to enable water tank filling to be accomplished by either hydrant or garden type hose and be filled from either side of unit.		
25.10	All water system rigid lines shall be constructed of non ferrous materials.		 
25.11	An external water filter shall be provided. The filter must be accessible with body lowered. A shut off (isolation) valve must be provided to facilitate servicing.		
25.12	Water manifold shall be constructed of stainless steel.		
25.13	The water system shall have a quick connect test port.		
25.14	The water system connectors shall be push-in type for easy repair or replacement.		
25.15	The water system shall have an adjustable relief valve.		
25.16	An in-cab water level gauge shall be supplied.		
26.	<u>Air System</u>		
26.1 TI	ne sweeper air system shall incorporate a safety device which will ensure that in the event of a pneumatic failure, the chassis braking system will be automatically protected and air brake pressure will be maintained.		
26.2 A	self purging air dryer shall be provided with a built in timer to expel condensation.		
26.3	A Cold Weather Water Purge System shall be provided to easily and quickly allow the operator to drain all air lines by operating a simple in-cab switch.		
26.4	The regulator shall have a shut off valve to purge only the sweeper system while maintaining chassis air pressure.		

26.5 Al	I sweep system pneumatic valves shall be housed in a weather proof systems locker and activated by cab mounted rocker switches.	
26.6 TI	ne pneumatic system shall have a quick connect test port.	
26.7 Al	I pneumatic hose connectors shall be "tool free" push-in type to facilitate easy servicing, removal or replacement.	 
26.8 N	ozzle, and wide sweep broom pneumatic cylinders shall have a common seal repair kit to defray parts stocking cost.	 
26.9 Pi	neumatic system air lines shall be color coded for easy recognition of "live supply," "switched supply" and "exhaust"	 
26.10	The pneumatic system shall operate the following functions:	
	<ul><li>(1) Wide sweep raise/lower/road pressure.</li><li>(2) Nozzle raise/lower/tilt for large debris.</li><li>(3) Gutter broom raise, lower and latch</li></ul>	
27.	System Controls Locker	
27 1 AI	I controlling elements for the sweeper's pneumatics,	
27.17 N	water and hydraulics shall be housed in a single easily accessible, sealed, and weatherproof locker.	
27.2	water and hydraulics shall be housed in a single	
	water and hydraulics shall be housed in a single easily accessible, sealed, and weatherproof locker.  Systems Locker will have an internal L.E.D. light for visibility	
27.2	water and hydraulics shall be housed in a single easily accessible, sealed, and weatherproof locker.  Systems Locker will have an internal L.E.D. light for visibility and a recessed garage style door.  Each system shall be equipped with L.E.D. status	
27.2 27.3	water and hydraulics shall be housed in a single easily accessible, sealed, and weatherproof locker.  Systems Locker will have an internal L.E.D. light for visibility and a recessed garage style door.  Each system shall be equipped with L.E.D. status Indicators on all solenoids for fast, easy diagnostics.	
27.2 27.3 27.4	water and hydraulics shall be housed in a single easily accessible, sealed, and weatherproof locker.  Systems Locker will have an internal L.E.D. light for visibility and a recessed garage style door.  Each system shall be equipped with L.E.D. status Indicators on all solenoids for fast, easy diagnostics.  Test ports shall be provided for each system.  All electrical wiring shall be contained within flame	
27.2 27.3 27.4 27.5	water and hydraulics shall be housed in a single easily accessible, sealed, and weatherproof locker.  Systems Locker will have an internal L.E.D. light for visibility and a recessed garage style door.  Each system shall be equipped with L.E.D. status Indicators on all solenoids for fast, easy diagnostics.  Test ports shall be provided for each system.  All electrical wiring shall be contained within flame retardant conduit.  All wiring shall be color coded & numbered for	

Can-Bus Control System to provide easy fault diagnostics and

27.9

	data capture of daily and cumulative sweeping performance, such as fuel consumption, average RPM, engine hours and hours to the next service.	
28.	<u>Safety</u>	
28.1	Two rear amber/green LED strobes with limb guards, one cab Mounted amber/green LED strobe and one split amber LED Arrowstik.	
28.2	A back up alarm of not less than 107 dB(A) shall be installed and shall sound when reverse gear is selected.	
28.3	An access ladder wide enough for two feet to rest on each rung and sure grip treads shall be installed for gaining safe access to engine compartment.	
28.4	Automatic pickup in reverse gear of all sweeping equipment shall be supplied.	
28.5	A pre-programmed single master override sweep switch shall control all sweep gear. The sweeping gear shall raise and the water shall shut off when switch is moved out of "work" position. All functions shall resume their previously programmed settings when the switch is returned to "work" position.	
28.6 Training will be provided by the company to ensure employees are ready to operate equipment.		
29.	Paint-Main Body White	
29.1	Sweeper components are to be aluminum oxide bead prior to the application of a corrosion resistant primer (60 micron nominal). The gloss top coat is to be two part epoxy paint finish, standard white (60 micron nominal).	
29.2	All sweep gear and bracketry are to be hot washed, zinc phosphate and power painted dark grey for maximum protection in a sweeping environment.	
30.	Warranty (Include ALL Warranty Statements)	
30.1	The sweeper auxiliary engine shall carry a two-year warranty, 100% parts and labor minimum.	
30.2 W	arranty repairs to include all parts and labor, 100% coverage, no pro-rating.	

	veeper components other than wear items shall carry a standard two-year warranty.	
	opper warranty shall be for life as per section 18.1 of bid specifications.	
	ower drive warranty shall be five years as per section 19.9 of bid specifications.	
	ater tank warranty shall be for life as per Section 25.1 of bid specifications.	
31.	Manuals (The following documentation shall be supplied upon delivery of	unit)
	veeper: 1-Driver/ Operator Guide, 1 parts list, 1 service/ maintenance manual and 1 troubleshooting manual.	
	uck Chassis: 1-Owner/ Operator's Guide.	
	ansmission: 1-Driver's Handbook.	
	veeper Engine: 1-User's Handbook.	
ADDITI	ONAL EQUIPMENT:	
	ew color camera with 7" monitor  Price Deduct Amount if not installed:	

In entering into such agreements, the vendor and the purchaser understand that neither the city or county bidding specified equipment, are agents of, partners to/or representatives of these outside agencies and are not obligated or liable for any action or debts that may arise out of such independently negotiated "piggy-back" procurements. The dealer will invoice each government agency separately.

Please complete and return the minimum specifications form. Any questions regarding these specifications should be directed to:

Kent Dubord Assistant Superintendent Department of Public Works City of Escanaba Office: (906)-786-1842

## **Exceptions to Bid Specifications**

### **BIDDER'S PROPOSAL**

DATE:
CITY OF ESCANABA
ESCANABA, MI 49829
We, the undersigned, agree to furnish the City of Escanaba, Michigan:
ONE (1) NEW 2023/2024 Street Sweeper with Rear Dump Box.
in accordance with the attached minimum specifications, which are part of this proposal,
at the following price
¢.
\$
MAKE:
W/ (IXE
MODEL:
DELIVERY DATE:
Certified Check, Cashier's Check,
or Bidder's Bond enclosed in the amount of (10%): \$
(Must be included to qualify)
Cook assisted Door
Submitted By:
FIRM:
T IIXIVI
ADDRESS:
BY:
TITLE:
DDINITED NAME.
PRINTED NAME:

### **NOTICE TO BIDDERS**

Sealed bids will be received by the City of Escanaba at the office of the City Clerk, on or before 2 p.m. EST, on: Wednesday August 9th, 2023.

The bids will be publicly opened and read in Room 101 in the City Hall located at 410 Ludington Street, Escanaba, Michigan at said date and time.

Bidder's proposals, and/or specifications may be obtained from the office of the City Clerk, located at 410 Ludington Street, Escanaba, Michigan, 49829. No bids will be considered unless the proposal and /or specifications (furnished by the City of Escanaba, Michigan), are properly completed and enclosed in a sealed envelope, marked:

### ONE (1) NEW Street Sweeper with Rear Dump Box.

In addition, the City of Escanaba, Michigan will not consider any proposal which has not been received prior to the published time, date, and year of bid opening. (FAX transmittals will not be accepted.)

A Certified Check, Cashier's Check, or Bidder's Bond, drawn payable, without condition, to the City of Escanaba, Michigan, in an amount not less than 10% of the bid, will be submitted with each proposal as a guarantee that if the bid is accepted, the bidder will furnish materials or services as stated in his or her proposal. On failure of the successful bidder to fulfill the conditions of his or her proposal, he or she shall forfeit said deposit to the City of Escanaba, Michigan as liquidated damages. The acceptance of the proposal will be contingent upon the bidder's acceptance of this provision.

The City of Escanaba, Michigan reserves the right to reject any or all bids, or any part thereof at its discretion, and to waive any irregularities in the bidding. The City of Escanaba, Michigan may also split bids at its discretion. The City further reserves the right to negotiate directly with all bidders concerning any matter related to any bid.

All City of Escanaba, Michigan bids are prepared to afford all vendors the equal opportunity for fair and equitable competition. The City of Escanaba, Michigan assumes no liability or responsibility for any errors or oversights in the preparation and/or publication of bids.

Kent Dubord Assistant Superintendent Department of Public Works City of Escanaba Office: (906)-786-1842