10 Cooper Drive Cape Elizabeth, ME 04107



Jay Reynolds
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Request for Proposals: Dump Truck with Plow Gear and Deicing Equipment January 4, 2023

The Town of Cape Elizabeth Public Works Department is seeking qualified vendor to supply a new, large area rotary mower. Sealed bids shall be submitted to the Town using the enclosed bid form. Bids shall be either hand-delivered to Town Hall, or by US mail in sealed envelopes marked "Dump Truck with Plow Gear and Deicing Equipment" and addressed to Matthew Sturgis, Town Manager, 320 Ocean House Road, Cape Elizabeth, ME 04107. Electronic submission of bids shall not be accepted. Bids shall be received until Thursday, February 2nd, 2023 at 2:00 PM., and at said time, bids will be opened and read aloud. All pre-bid correspondence shall be submitted in electronically to Jay Reynolds, Public Works Director, at jay.reynolds@capeelizabeth.org. Questions regarding this bid/proposal shall be accepted until 5:00 PM, Friday, January 27th, 2023. The Town of Cape Elizabeth reserves the right to waive any informality in the bids, to accept any bid, and to reject any or all bids, should it be deemed in the best interest of the Town to do so. The Town of Cape Elizabeth further reserves the right to cancel or amend this RFP at any time.

Requirements of this RFP

- 1. The enclosed bid form shall be fully completed and submitted by the due date.
- 2. Each bidder shall provide evidence of adherence to the specifications within this RFP.
- 3. Each bidder shall provide detailed information regarding parts and maintenance: ordering, availability, local or regional maintenance support, et cetera.
- 4. Each bidder shall provide references of other municipal customers in the state/northeast who have purchased similar equipment.
- 5. Any items not specifically noted or specified in this RFP, that is required in order to supply the equipment requested, shall be considered incidental. Bidders shall provide lump sum pricing on the bid form.
- 6. Bidder shall note any deviations from the specifications on the enclosed bid form.
- 7. Each bidder shall provide a warranty period for the equipment provided on the enclosed bid form.
- 8. Each bidder shall provide an estimated delivery date on the enclosed bid form.
- 9. The equipment shall be completely inspected and serviced by the bidder prior to delivery.

Acceptance of Bid

The acceptance of the bids shall be based on the following criteria:

- 1. Cost.
- 2. Adherence to the Specifications.
- 3. Parts Availability/Servicing.
- 4. Operational Use/Durability/Effectiveness.
- 5. Delivery Time/Availability

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SPECIFICATIONS

TRUCK SPECIFICATIONS

General: A heavy duty 38,000 GVWR cab & chassis (equipment) designed and engineered for municipal operations. The chassis shall be delivered completely serviced and ready for operation. Steering geometry shall be adjusted and wheels shall be balanced, prior to delivery.

Engine:

Engine shall be a 6-cylinder, wet sleeved-type, turbo-charged, inline 8.5 liter (approx.) diesel engine which is governed at 65 mph (International "N9" or Cummins ISL9 preferred). Horsepower shall be a minimum of 370 horsepower with an approximate engine torque of 1,250 lb./ft. at 1400 RPM. Equipped with a stainless-steel oil pan, serviceable oil fill and dipstick, magnetic oil drain plug, replaceable spin-on oil filter, one (1) engine mounted, cartridge-type fuel filter, coolant filter, single element air filter and a 1250-watt (min) 120-volt engine block heater. Electronic hand-throttle to raise engine off an idle. Engine shall be key operated, electric shutdown controlled.

Transmission:

Shall be an automatic, Allison Brand Model On/Off Highway 4000 RDS w/PTO provision (less retarder), six (6) speeds forward and one (1) reverse which is compatible with the engine horsepower specified. Equipped with an oil level sensor, electronic (push-button for Allison 3000 & 4000 series) shift control head mounted in the dash. 97 dB (minimum) backup alarm, transmission cooler (oil to water) shall also be installed.

Cab:

Cab (OSHA rated for noise suppression) type shall be a conventional style, with the "nose" section being capable of tilting and equipped with two engine access hatches, fiberglass construction (tilt section only)

- Deluxe and/or Premium interior trim
- Exterior sun visor
- Factory-installed air conditioning (with protection system)
- Heavy duty fresh air heater and defroster (40,000 BTU)
- Premium high-back air-suspension seat (vinyl). With air lumbar support, forward and rear tilt, armrests and an adjustable shock absorber.
- Passenger seat to be (vinyl), non-suspension high back with integral headrest, or equal.

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- Adjustable steering column
- File holder on back wall of cab
- Sun visors (2)
- 12-volt accessory outlet
- AM/FM Stereo MP3, Bluetooth-compatible, weather band, clock with multiple (4) coaxial speakers
- Tinted glass
- Heated (lower portion) windshield element
- <u>Cowling-mounted</u>, electric, intermittent windshield wipers w/washers
- Electrically operated cab door windows and door locks; with the auto-lock feature disabled
- "Spot" window with magnified lens mounted in passenger door (preferred)
- Power-Operated and heated west coast mirrors (2) (Approx. size: 14.84" x 7.44")
- Passenger-side lookdown mirror
- Hood-mounted and heated convex mirrors (2) 7.44 sq. in.
- Cab grab handles (Interior and Exterior)
- Single pedestal air solenoid-operated air horn, mounted under cab.
- Full width, steel painted front bumper.

Electrical:

- 12-volt electrical system
- Two (2) heavy-duty batteries (Group 31) capable of 2200 cold cranking amps (CCA), mounted on the driver's side of the vehicle on top of the "DEF" tank, or in a location approved by the Town.
- 160-amp (min.) alternator
- Two-Way radio electrical accommodation (with circuit protection) packaging for installing radio in the overhead console
- Halogen headlamps
- Auxiliary harness for front plow lights and heated mirror mounted on the left front corner of truck.
- Lighting: All <u>LED</u>, tail, marker lights, brake and turn, including interior lights.
- Self-canceling turn signals
- Four-Way flashers
- Electric horn
- Circuit breakers and a six-unit switch pack,
- 97 dB (minimum) back-up alarm (Electric) that activates when truck is in reverse gear.
- An electronic trailer brake accommodation, wired to the rear of the vehicle. Trailer plug to be a 7-

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blade, round plug.

Cooling System:

- Heavy duty cooling system with a <u>Horton-brand "Polar Extreme" fan, or equal.</u> Radiator (with stone guard) to accommodate a front-mounted PTO unit with filler to be accessible through hood accesses hatch.
- Radiator shall be able to accommodate a PTO shaft under, not through radiator. Extended life coolant (red in color) is required and should be tested upon delivery to -35 (approx.) degrees Fahrenheit.
- A "snow valve" is also specified that allows the operator to switch engine air intake from outside, to under the hood.

Frame:

Heat-treated, 120,000-PSI minimum yield, 7/16" thick, single heat-treated alloy frame. No fish
plating will be accepted.

Front Axle:

- Operator controlled, right front, air suspension. Drop forged, heat treated I-beam designed for plowing and dump operations.
- 20,000 lb. capacity.
- Heavy-duty front springs (20,000) with double acting shock absorbers.

Rear Axle:

- Single reduction, 26,000-28,000 lb. capacity.
- Geared to provide approximately 65 MPH at maximum governed RPM'S, with an axle ratio of 6.83.
- Suspension to have variable rate, 30,000 lb. (min.) capacity leaf springs, with auxiliary helper springs.

Brakes:

- Bendix, anti-lock brake system (ABS), shall be a dual air operated "S"-Cam, equipped with a driver controlled electronic traction control through the ABS system.
- Aluminum air tanks mounted inside frame rails on vehicle with 36" of extra cable.
- Cam type, equipped with automatic slack adjusters on front and rear.
- Front Brakes: Air cam 16.5" x 6" with 24 sq. in. long stroke chambers, with dust shields.
- Rear Brakes: Air cam 16.5 x 7 with 30/30 sq. in. long stroke brake chamber, with dust shields.

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• Parking Brake: Spring release, air operated. Brake system to meet or exceed all ICC regulations.

Air Compressor: Minimum 13.2 C.F.M. Air Dryer: Bendix AD-9 with heater, mounted on the driver's side of the truck frame.

Exhaust System:

- Vertical exhaust stack (with muffler and rain cap) mounted on the <u>passenger side</u> of the vehicle that is forward enough for wing post installation.
- Flexible tubing is to be stainless steel.
- Exhaust system to meet all Federal requirements associated with Tier 4 emission standards. DEF (Diesel Exhaust Fluid) tank shall be mounted on the driver's side, directly behind fuel tank under batteries (and cab), with space left for a sander body spinner.
- Configuration to be worked out with successful bidder upon award by Town.

Wheels & Tires: Wheels (8500# heavy duty) to be 22.5", aluminum, 10-stud (285.75MM) hub piloted, flanged nut, metric mount, 8.25 DC Rims; with steel hubs and nylon wheel spacers.

- Front tires: 2 11R22.5-H (Michelin XZE2 Rib Type Load Range H)
- Rear tires: 4 11R22.5-H (Michelin XDE M/S Load Range H) traction/drive type.

Wheelbase: Approximately 181" to accommodate a ten (10') foot dump body. Cab to axle measurement to be 106" distance between cab and body to allow for plow frame tower, hydraulic tank and dump body.

Fuel Tank:

- A single, 50 gallon capacity (min.) step-type, made of aluminum mounted on driver's side of vehicle attached with stainless steel straps.
- Alliance-brand fuel and water separator (with heated bowl), or equal.

Steering:

- Heavy-duty power steering with frame mounted Sheppard M-100/ M-80 dual power gearbox, or equal.
- Oil reservoir to be accessible through a hood access hatch. Steering column to have tilting capability in the cab.

Gages/Instruments: Air pressure, Oil pressure, Engine coolant, Transmission oil temperature, Fuel level, Engine hour meter, Speedometer, Odometer, Tachometer and sound and light indicators for oil, air, and coolant. Additionally, supply a Diesel Exhaust Fluid (DEF) level gage.

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Colors:

- Frame to be painted with corrosion-resistant primer, and then painted black.
- The cab, hood, and fenders are to be painted with two coats of color "White" and two coats of a premium urethane clear coat finish.

PLOW GEAR SPECIFICATIONS:

General:

These specifications are intended to describe the following: Plow gear; which shall consist of a Custom-tilting hitch that will accommodate an 11' American polymer reversible plow to be supplied as part of this bid. A hydraulic-type high lift patrol wing. A front-mounted pressure-compensated hydraulic pump operated by an auxiliary hydraulic tank. A multi-section pressure compensated valve with <u>air-operated cab controls</u>. A heavy-duty 10' stainless steel, front-side discharge spreader body that can also be used as a conventional dump body. Cab-mounted controls for an on-board liquid spray system. 11' polymer power-reversible plow and 10' truck wing. No substitutions will be allowed for the equipment specified, unless approved by the Town of Cape Elizabeth.

Hydraulics:

Rexroth A10 V0-71 variable displacement; load sensing, pressure compensated front mounted pump. 40-gallon hydraulic tank mounted behind cab with site glass and shutoff valves. Hydraulic system to have low oil alarm, with pump shutoff system. Stainless steel hydraulic lines shall be run under the cab for both the dump body and spreader system to a valve box attached to the passenger side of the truck frame. Flexible connections will be allowed from the hard lines to the valve box enclosure. Valve box shall be operated by levers via an <u>air-operated cab control system</u>. Compuspread-brand CS550 spreader control unit mounted in cab.

Chemical Application System:

Bidder shall supply and install a Rexroth-brand control low hydraulic oil override switch (Rexroth CS-105-552-SS07-A2), which shall include a second rocker switch, which activates the adjustable-flow rate hydraulic chemical application pump. Unit shall include #142246 valve mounted on the A10 VO-71 front-mounted pump. A 100 gallon capacity polyethylene chemical tank shall be mounted on the headboard of the dump body. Tank shall be vented to the ground. Tank shall have a cover/protection on the top. All components shall be compatible, supplied and installed in conjunction with the Compuspread CS660 control unit. The control unit shall be mounted above the dump/plow control and/or specified by the Town. Supply level gage on passenger's side of truck, able to be read at ground level.

Hitch:

Custom power tilt and detachable hitch with 4" double acting ram for lift and tilt. Full frame check side plates of ½" steel, all primed and painted black. Hitch shall accommodate an 11' poly reversible plow to be supplied in this bid.

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Rear Tower:

Minimum 10" channel, reinforced with 3/8" x 3-1/2" bar the full length. "HCC 54" cable system for wing rear-controls. A 3" x 36" double acting cylinder for brace arm lift. The rear tower shall be set at a 25-degree angle to centerline of the truck and readily removable without disturbing the oil reservoir.

Front post: 8" I-beam, "ACC 54" with a 3" x 20" single acting cylinder for front of wing pick up.

<u>Plow</u>: 1-11' 3/8" Reversible Polymer Trip Edge Plow, hydraulic ram reversible plow, with a 1" carbide-impregnated edge with welded steel cover plate (Winter Equipment Razor XL, or equivalent). Wasau HSP4211HW 'Hot Wing' style plow, or approved equal.

Wing:

Right hand mounted with trip arms & block, 29" intake and 38" discharge height, 11' overall length, one 1" x 6" x 10' cutting edge with 12" standard highway punch, with a 1" carbide-impregnated edge with welded steel cover plate (Winter Equipment Razor XL, or equivalent).

³/₄" backer angle, four (4) full-length horizontal ribs, eight (8) vertical ribs and heavy-duty wing braces. Painted orange. Front and rear wear shoes plus a curb guard. American 11 DRA, Tenco TCW-10-H-38, or equal, with a spare set of heavy duty wing braces painted orange.

DUMP BODY/SANDER SPECIFICATIONS:

General: 10' Heavy-duty stainless steel front (driver's side) discharge dump body, with an internal conveyor chain running to an exterior spinner mounted on the driver's side of the vehicle (with stainless steel bed chain extension plate). All components to utilize #304 grade stainless steel, unless otherwise noted. Central lubricating (grease) station, with a stainless steel ladder. Everest "SDS", or equal.

Dimensions (Approximate):

Width: 102"
Length: 120"
Height: 26-30"
Tailgate: 36-40"

- o Cab Shield: Minimum 3" above cab, 22" minimum length (1/2 cab)
- o Chemical Application System Tank: Cover/Shield on top portion.
- o Capacity: Not less than 6.0 cubic yards level

Headboard & Cab Shield:

- o Flat one section minimum 7-gauge #304 stainless steel
- o Gusseted and reinforced on each end
- o Cab shield to be 10-gauge #304 stainless steel continuously welded to the
- o Headboard Width: 24"

Front panel: Minimum 7-gauge #304 stainless steel, pleated and reinforced

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Sides:

Minimum 7-gauge #304 stainless steel one-piece sides, with minimum 7-gauge stainless steel side posts, 45-degree dirt shedding lower rub rails, boxed top rails. Minimum of two (2) vertical reinforcing posts of minimum 7-gauge stainless steel. Stainless fold-down ladder.

Tailgate:

3-panel air-operated tailgate Double action, with minimum 1-1/2" offset tailgate hardware 3/8" Coil proof spreader chains, with chain protectors 36-40" Height

Floor:

3/16" Live action type, 180,000 PSI steel one-piece floor 3/16" AR 400 steel 9" weld radius

Conveyor, Discharge & Spinner:

Left side longitudinal conveyor emptying to the front of the body.

Stainless steel conveyor bed chain extension plate.

3/16" AR 400 stainless steel full-length (two section) conveyor cover

Conveyor floor shall be steel and bolted in, not welded.

Conveyor chain shall be pintle chain 16" wide with 3/8" x 1-1/4"

Flites every second link. Chain links to be covered.

Conveyor chain shall be driven by a 5.9 cu. in. hydraulic motor via a

25:1 worm gear reducer.

Motor and gear box shall be easily removable for service

Discharge box to be an integral part of conveyor frame

Remote adjustable control door shall be a minimum of 18" wide, offering a minimum of a 200 sq. in. opening.

Control door shall be adjustable from ground level.

Chassis-mounted polymer chute feeding to a 6-flite 18" diameter polymer spinner driven by a hydraulic motor.

Spinner assembly shall be removable for summer use.

Auger bed chain shall have the ability to operate in reverse direction.

Include road temperature sensor and gauge as part of the Rexroth control system.

Stainless steel tubing for hydraulics, except for areas where tubing needs to be flexible.

Include one additional conveyor chain in bid package.

• Sub frame:

Full-length 10' structural steel longitudinal Crossmemberless understructure Full-width rear skirt

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Hydraulics:

Body shall be fully plumbed for both conveyor drive and side lift cylinders.

Stainless steel feed and return lines shall be mounted on the body.

Multi-stage Class 50 NTEA telescoping, double-acting hoist assembly with sub frame All hoses tied into snowplow hydraulic system.

• Lighting:

Head gear plow lights shall be the latest version of Fisher LED plow lights.

Federal clearance LED lights mounted in stainless steel enclosures in the body supplied by bidder.

An extra opening is to be provided in the rear of the body for the installation of three light enclosures in each upright.

Light Package System.

LED self-contained strobes mounted in headboard, front-sides-and-rear.

Warning Lights: Shall have one amber and one green for each set (front and rear).

Miscellaneous:

Electrically operated load tarp cover (mesh-type) installed

Bolt on stainless shovel holder on the front right of the body next to ladder.

Warning light (when side dump activated) located in the cab.

Anti-sail mud flaps, front and rear of rear axle.

Frame-mounted polyethylene fenders.

Body-up warning light in the cab.

Include body safety props.

Any body components that are not stainless steel are to be primed and single color painted.

Protectant covers for the battery box and DEF tank shall be provided, in front of the spinner.

Include backup camera system.

Liquid and dry material systems shall be calibrated prior to delivery.

Supply Safety Triangle Kit and 5 lb. Fire Extinguisher.

Include on-spot system for rear tires.

Wiring:

- Wiring shall be in plastic conduit, resin core soldered joints, with shrink-wrap covering.
- Wiring at rear of frame shall be in a watertight junction box.

• Pintle Hitch:

- o 25-Ton swivel style Pintle hook and mounting plate, mounted with centerline 24"above ground.
- o Plate to include D-rings for safety chains and light holes for OEM lights.
- **Paint:** All components (except dump body, dump body sub-frame, wing, and wing arms) to be primed and painted a urethane clear coat finish (after an E-coat and base coat) (**Black**).

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MANUALS

The following manuals are to be provided in book format and shall be the most current version:

- Service & Parts: CD Manual
- Engine Diagnostic Manual
- Electrical Circuit Diagrams Manual

WARRANTY

The successful bidder shall provide warrantees for the engine, transmission, hydraulics, and/or any other individual/specific components of the truck, plow and deicing equipment. The minimum warranty period for the engine, transmission, and associated components shall be 3 years. The warranty information shall be noted on the enclosed bid form. The warranty shall commence at the time of delivery of the truck/plow-deicing equipment to the Town of Cape Elizabeth. Any equipment transport needed to facilitate remediation of warranty items shall be the responsibility of the bidder.

TRADE-IN

Successful bidder shall accept in trade the Town of Cape Elizabeth's 2004 International Truck (Model 7400) with the following equipment: one quick-switch plow, one wing, and dump body tarp. The trade-in allowance shall be listed separately on Bid Proposal Form. The machine can be inspected by contacting Sean McCue at the Public Works Facility at 799-4151.

BID ALTERNATE

None

DELIVERY AND TRAINING

Delivery date shall be listed on the attached Bid Proposal Form and may be a factor in the award of this bid. Successful bidder shall provide introductory-level training to Town personnel of proper operation and daily maintenance upon delivery of truck and equipment.

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DUMP TRUCK WITH PLOW GEAR AND DEICING EQUIPMENT - BID PROPOSAL FORM

	truck, gear, and equipment as specified in the R	FP and as bid
below:		
Base Bid Price per Specifications:	\$	
Less trade-in of 2004 International 740	00 Truck and associated equipment: \$	
Total Net Bid:	\$	
Manufacturer Year, Make, and Model:		
Warranty Information:		
Delivery Date:		
Deviations from Specifications:		
Parts Availability/Maintenance Suppor	t Info:	
Signed:	Printed Name:	
Company:	Address:	
F-mail Address:	Phone #·	