

**Town of New Gloucester
INVITATION TO BID
Cab & Chassis to Mount a Dump Body and
Ice & Snow Removal Equipment**

The Town of New Gloucester is requesting bids for a 66,000 lb. GVWR truck cab and chassis to mount a dump body and ice and snow removal equipment. Specifications may be obtained at the Town Office, 385 Intervale Road, New Gloucester, Maine, 04260 during regular business hours, by emailing smyers@newgloucester.com, or by calling 207-926-4126.

Bids must be submitted in a sealed envelope clearly marked on the exterior, “**Dump/Plow Truck Cab & Chassis**” to the Town Manager by 6:00 p.m., Monday, July 15, 2013. The Board of Selectmen will open and read the bids at 7:00 p.m., Monday, July 15, 2013 at the New Gloucester Meetinghouse. The Town reserves the right to accept or reject any or all proposals.

BID INSTRUCTIONS

Each individual item to be bid on shall be furnished complete and in readiness for use, as required by the terms of these specifications and in strict accordance therewithal. The unit and all equipment furnished shall be a new 2014 model, which meet all the acceptable requirements of these specifications. All design, materials and workmanship shall in every respect, be in accordance with the best current practices in the industry, and all material shall be new.

Equipment must be completely inspected and serviced by the vendor, prior to delivery, including steering geometry and balancing of the front tires. Component capacity ratings shall be determined upon the basis of that which is expected by the respective component manufacturer.

Completed chassis and cab shall be delivered to the Town of New Gloucester by October 15, 2013, or other date as agreed upon. A fine of no less than \$100 per day shall be assessed each day after the agreed upon date of delivery that the truck is not delivered.

Bid should include literature with pictures and detailed specifications for each bid item including Basic Warranty. **Include extended 5 year warranty coverage on the truck; this coverage is to be the same as the 12 month basic coverage extended for 5 years.**

The vendor, by submitting a bid, agrees to the conditions, requirements, and specifications herein referred to within these specifications. **Any deviation from this specification shall be identified in the bid proposal.** Questions about the specifications should be directed to Ted Shane, Public Works Director, at 207-926-4574 during regular business hours.

66,000 GVW T6x4 SNOW PLOW
Sixty-Six Thousand Pound (66,000 lb.) GVWR Truck
Cab and Chassis designed to mount a Dump Body with
Ice and Snow Removal Equipment

SPECIFICATIONS

Purpose and Intent

It is the purpose and intent of these specifications to describe a vehicle with a Sixty-Six Thousand (66,000) pound GVWR, of substantial and durable construction congruent to practices acceptable to the chassis manufacturer. A vehicle, with a conventional cab (pick up type cabs and expanded roofs are not acceptable). This vehicle will be used in all months of the year pertaining to highway maintenance activities in a climate related to such as that in The State of Maine, by The Town of New Gloucester. During winter maintenance the vehicles main purpose will be the removal of ice and snow, sanding and salting which necessitates the installation of a myriad of controls, radios, etc. To accommodate these controls and provide acceptable operator ergonomics and comfort it is imperative that the truck cabs provide as much clear interior space as possible. The cab width must be a minimum of 70" interior door to interior door while the dash board, heater and other appurtenances must not diminish interior clear space for the installation of controls, radios, etc. The chassis is to be the heaviest duty available with all possible options to make it a heavy-duty vehicle.

The purpose of the BBC dimension is strictly to provide guidance in the selection of the appropriate make and model. Reasonable allowances will be made for the BBC dimension provided that intrusion of engine or doghouse into the cab is kept to an absolute minimum. The seats must be a premium high back and the most comfortable available with a minimum of 5" of vertical travel in the air suspended driver's seat. At full vertical driver seat height there must be sufficient head, chest and lower torso clearance to both the roof and the steering wheel for individuals of larger than normal stature.

If cab mounted air ride suspension is provided as standard equipment by the manufacturer then the vertical exhaust must be either cab mounted (which is preferred) or additional CA must be added to accommodate the frame mounting of the exhaust. Additionally and for any other reason, if the exhaust system intrudes upon or diminishes useable CA then additional CA must be added to accommodate the loss. Fuel tanks whether large single or smaller duals must not extend past the rear of the cab.

It will also be the responsibility of the Bidder and/or Vehicle manufacturer to supply any and all “factory plow truck option packages” necessary to facilitate the assembly of the truck chassis and the related components supplied by others (such as the body and plow vendors) into a completed and fully functional plow truck. This would refer to inclusion of but not to be limited to special plow truck spring and suspension components, plow truck wiring harnesses, electrical relays, additional electronic speedometer feeds, plow truck light harnesses, etc.

Completeness

The price quoted in any proposal submitted shall include all items of labor, materials, tools, equipment, and other costs necessary to fully complete the manufacture and delivery of the vehicle pursuant to these specifications.

Any part or detail which makes the vehicle complete and ready for service shall not be omitted, even though such part or detail is not mentioned in these specifications.

Conformity

All parts not specified shall be manufacturer’s best quality and shall conform in materials, design, or workmanship to the best practice known in the automobile industry. All parts shall be new and in no case will used, reconditioned or obsolete parts be accepted. The parts on all vehicles provided by the manufacturer should be interchangeable.

1. **ENGINE**

- 1.1. 13L Automotive diesel, 4 cycle, the proposed diesel engine must meet or exceed all the current emissions standards pertaining to diesel engines as required by The State of Maine/Bureau of Purchases.
- 1.2. Cummins, Caterpillar, Volvo, VED13, or approved equal.
- 1.3. Preferably a wet sleeve engine.
- 1.4. 405 H.P. minimum
- 1.5. 1450 lbs./ft. minimum torque output or approved.
- 1.6. Proven history of application in similar service.
- 1.7. Oil cooled.
- 1.8. Screw on water filter:
 - a) With precharged conditioner.
 - b) With factory installed shut off valves.

- 1.9. Extreme service oil filtration system (no remote mount filter assembly will be accepted).
 - 1.10. Electric fuel shutoff operated by ignition switch.
 - 1.11. Magnetic oil drain plug.
 - 1.12. Engine block heater 110 volt, receptacle with spring operated lid mounted under driver's door.
 - 1.13. Adapter for Spicer coupler 2-2-479 on crankshaft (factory installed).
 - 1.14. Jacob's engine brake, Cummins C brake, Cat engine retarder, Volvo engine brake, or equivalent.
2. CLUTCH
- 2.1. Heavy duty 15.5" dual plate, coaxial dampened.
 - 2.2. Cast iron pressure plate, manually adjustable with greaseable throw out bearing.
 - 2.3. One (1) piece torque limiting clutch brake.
 - 2.4. Hydraulic Clutch.
3. TRANSMISSION
- 3.1. Fuller RTO 1490-8LL or approved equal.
 - 3.2. PTO openings.
 - 3.3. Magnetic oil plug.
 - 3.4. Electronic speedometer with duplicate speedometer feed in cab for accessories.
 - 3.5. Synthetic oil must be provided.
4. STEERING
- 4.1. Steering heavy duty design suitable for snowplow and dump truck service.
 - 4.2. Ample gear reduction for off highway operation.
 - 4.3. Integral power steering, with dual steering boxes, or factory installed hydraulic boosters.
5. DRIVELINE
- 5.1. Driveline to be heavy duty and factory balanced.
 - 5.2. Universal joints on driveline 1810HD.
 - 5.3. Universal joints on inter axle driveline 1760HD.

6. REAR AXLE

- 6.1. 46,000 lbs. tandem axle with power divider (operated by air control on dash). Rockwell RT40-145P, Spicer J400S, Meritor/Rockwell MT40-14X4D or Eaton DS 402P, with Heavy Duty Housing.
- 6.2. Gear ratio to be determined at time of order.
- 6.3. Magnetic oil drain plug.
- 6.4. Oil lubricated and sealed wheel bearings.
- 6.5. Positive axle alignment.
- 6.6. Aluminum housings not acceptable.
- 6.7. This assembly shall be capable of off-highway articulation and oscillation characteristics.
- 6.8. Synthetic oil must be provided.
- 6.9. Driver controlled locking rear axles; both rear tandem axles must have fully locking wheel differentials.

7. REAR SPRINGS AND SUSPENSION

- 7.1. 46,000 lb. suspension rating.
- 7.2. Hendrickson Haulmax, HMX 400, or Volvo T-Ride suspension minimum.
- 7.3. All hardware shall be designed for extreme service.

8. FRONT AXLE

- 8.1. 20,000 lb. minimum capacity I-beam type.
- 8.2. Set forward Axle.
- 8.3. Suitable for snowplow and dump truck service.
- 8.4. King pins must have metallic bushings with Zeak-type grease fittings at all bushing locations, or a comparable option that is acceptable.
- 8.5. Prefer double king pin locks in axle.
- 8.6. Oil lubricated and sealed wheel bearings with visible oil supply or Unitized Hub Wheel bearing shall be rated at 20,000 lb. minimum capacity.
- 8.7. Large capacity power steering reservoir with filter located for ease of service.

9. FRONT SPRINGS

- 9.1. Spring capacity L.H. 9,500 lbs. at ground minimum, multi-leaf.
- 9.2. Spring capacity R.H. 10,500 lbs. at ground minimum, multi-leaf.
- 9.3. Heavy duty suspension designed to support plow and wing in travel position and under full ballast load with no appreciable sag or deflection on either side. (1"+ or - 1/2")

- 9.4. Spring mounting hardware and brackets (including shackles) shall be designed for extreme service.

10. AIR/BRAKE SYSTEM

- 10.1. Bendix Tu Flo 500 air compressor or approved equal lubricated via the engine lube system.
- 10.2. Dual air brake system.
- 10.3. 16½ x 6” cam type front brakes.
- 10.4. Rear brakes 16 ½ x 7” cam type with (4) four 30/30 chambers on both rear axles.
 - 10.4.a. Rear parking brake chambers must be positioned to prevent parking brake canisters from extending past rear tires and to prevent interference when backing into pavers, shoulder boxes, etc.
- 10.5. Parking brake shall be spring-actuated “piggy-back” type, must have moisture proof chambers.
- 10.6. Bendix AD-IP or Mentor Wabco 1200 UP air dryer heated for winter.
- 10.7. Pull drains on each reservoir with the loose end of the cable attached professionally in a location that is easily accessible to the operator.
- 10.8. Reservoir shall have ample road clearance and be of sufficient reserve capacity to support all vehicle air accessories and systems and have capacity to also support a tag-along trailer.
- 10.9. Semitrailer connections and breakaway valve mounted on the rearmost cross member in such a way as not to interfere with proper placement of lights, pintle hook or license plates.
- 10.10. Hand control valve (trolley valve) mounted on the steering column to operate semitrailer.
- 10.11. Low pressure alarm system which shall operate only when the key is in the on and/or run position.
- 10.12. Dual air horns.
- 10.13. Brakes must have dust shields.

11. ELECTRICAL SYSTEM

- 11.1. Enclosed battery compartment with proper ventilation to prevent corrosion.
- 11.2. Sealed beam headlights of halogen type.
- 11.3. 3-way tail lights Whelen LED mounted on body.
- 11.4. All exterior wiring shall be of salt resistant type in suitable loom or conduit. Water proof plug type connectors shall be used at all exposed locations.

- 11.5. Separate fused 7-way semitrailer socket mounted on rear most cross member with interrupter switch for trailer mounted on dash.
- 11.6. Manually operated master battery disconnect switch must be mounted on floor between seat and driver's door at rear of cab and readily accessible to operator. Cole Herse Model M 284-02 or approved equal on the negative cable.
- 11.7. A complete "AS BUILT" wiring schematic manual on CD shall be supplied. A sample wiring schematic shall be supplied with the bid proposal.
- 11.8. 12 volt, 160 amp capacity alternator.
- 11.9. Heavy duty Delco starter #42 MT type 450 with over crank protection and full copper ground.

12. FRAME

- 12.1. Heavy Duty single frame channel with a minimum of 120,000 PSI yield with a section modulus of 26.3 minimum .44" thickness and RBM of 2,800,000.
- 12.2. Straight channel frame rail suitable for heavy duty plow and dump truck service.
- 12.3. Fish plates not acceptable.
- 12.4. Frame designed shall not interfere with Spicer crankshaft coupler 2-2-79.
- 12.5. Heavy duty gusseted cross members shall be provided
- 12.6. Local installation of frame reinforcement not acceptable.

13. FUEL SYSTEM

- 13.1. Aluminum dual step type fuel tanks with a capacity of 50 gallons each.
- 13.2. If a large aluminum single tank is supplied in lieu of the dual 50's it is imperative that the tank capacity be a minimum of 80 gallons and must not extend past the rear of the cab.
- 13.3. Non skid step
- 13.4. Manual operated hand primer pump.
- 13.5. Tanks shall not extend past rear of cab mandatory.
- 13.6. Fuel lines shall be of proper flexible wire braid type.
- 13.7. Suitable mud flaps shall be installed to protect the fuel shutoff valves from road debris, spray and tire chains when used on the front wheels.
- 13.8. If mounted in the wheel well, the fuel water separator and/or filter assembly must be properly guarded and protected from snow chains.

14. WHEELS AND TIRES

- 14.1. Heavy duty steel Hub Piloted wheels. (All wheels painted White)
- 14.2. 12R x 22.5 radial tubeless tire w/16 ply rating.

- 14.3. Tires shall have aggressive winter tread design suitable for winter usage. Front: straight ribbed highway tread. Rear: aggressive open faced, full shoulder siped, highway drive tire. Goodyear G124 or approved equal.
 - 14.4. One piece heavy duty tubeless rims. 8.25 x 22.5.
 - 14.5. Wheels, rims and tires shall provide tire chain clearance without use of adapters, spacers, spoke extensions etc. Local modifications not acceptable.
 - 14.6. Dealer must supply an extra mounted rear tire and an extra mounted front tire.
15. COOLING SYSTEM
- 15.1. Radiator core and tanks shall be of heavy duty design and construction.
 - 15.2. Ample capacity for continuous high engine output under extreme temperatures and/or operating conditions.
 - 15.3. Heavy duty mounting brackets and hardware.
 - 15.4. Screw on water filter with precharge and factory installed shut off valves.
 - 15.5. Fan clutch.
 - 15.6. Silicone or Gates Blue Stripe type radiator and water hoses.
 - 15.7. Radiator and mounts shall be designed and installed so as not to interfere with Spicer crankshaft coupler 2-2-79.
 - 15.8. Space shall be provided under or through radiator to mount crankshaft driven hydraulic pump.
 - 15.9. Coolant shall be long life type rated for -35 degrees upon delivery.
16. EXHAUST
- 16.1. Vertical exhaust designed and installed so as not to interfere with any customer installed accessories (i.e. snow plows, hydraulic tanks, etc.)
 - 16.2. Prefer indented exhaust that doesn't protrude behind cab.
 - 16.3. Deflector elbow shall be provided.
 - 16.4. Heavy duty mounting brackets, elbows, piping and expansion joints.
 - 16.5. Aluminized horizontal muffler.
17. FILTERS
- 17.1. Air filter shall be of heavy duty dry type.
 - 17.2. Provisions for drawing air directly under engine hood or from the cab mandatory to prevent snow from clogging air filters. If intake air is drawn from cab, a seasonal two-way air inlet control valve is mandatory and must be factory installed and clearly marked for use.
 - 17.3. All filters must be located for ease of servicing.

- 17.4. All oil, fuel and water filters shall be disposable spin on type.
 - 17.5. All filters must be approved by engine manufacturers.
 - 17.6. Local filter installations or modifications are not acceptable.
 - 17.7. Spin on fuel filter on the inlet or suction side of the injection pump required.
18. CAB
- 18.1. Standard cab marker lights.
 - 18.2. Cab shall have a flat floor for easy mounting of plow controls.
 - 18.3. Cab shall have an interior minimum height of 60”.
 - 18.4. Cab door openings shall be a minimum of 36”; doors shall be mounted with cast hinges and mounted on a pillar.
 - 18.5. Cab doors shall have defrost installed to keep door windows clear at all times.
 - 18.6. Cab shall have a minimum of seven (7) lighted rocker switches pre-wired in dash panel for the body builder and switches shall be pre-labeled for Strobes, Back-up, Wing, Plow Lights, Sander and two spares.
 - 18.7. Plow light switch must be pre-wired to front of truck for plug and play.
 - 18.8. Dome light shall have independent switch.
 - 18.9. Heater shall be highest capacity available with defroster plumbed to both doors.
 - 18.10. Automatic low oil pressure/high temperature warning system.
 - 18.11. Six (6) fuse auxiliary junction box for accessories.
 - 18.12. Electric engine hour meter wired to operate only when engine runs.
 - 18.13. Electric windshield washer.
 - 18.14. Heavy duty 2-speed electric windshield wipers, minimum with time delay.
 - 18.15. Dual sun visors.
 - 18.16. Dual, electrically heated 16 in. x 7 in. outside mirrors with 8 in. clamp-on (heated) convex mirrors each side (stainless steel head and arms). Both sides shall be a 4-way adjustable motorized mirror from driver’s door.
 - 18.17. Cab grab handles right and left sides.
 - 18.18. Seat belts.
 - 18.19. Engine tachometers.
 - 18.20. Driver’s seat shall be a premium high back cloth covered seat which will incorporate the following features/options:
 - a) adjustable dampening of the seat shock absorber
 - b) Cloth covering, cordura type.
 - c) wide seat cushion
 - d) air controlled triple lumbar support
 - e) front and rear seat cushion adjustment

- f) air adjustable seat height
- g) fore/aft seat track adjustment
- h) adjustable reclining back rest
- i) air adjustable back rest bolsters
- j) dual folding seat arm rests

- 18.21. The passenger seat shall be a deluxe or premium non-suspension seat with adjustable reclining backrest and lumbar support.
- 18.22. Instruments to include but not limited to: oil pressure gauge, water temperature gauge, fuel gauge, brake warning lights, low air pressure light and alarm, voltmeter, air pressure gauge, electronic speedometer all gauges shall be properly marked and illuminated.
- 18.23. Tinted glass.
- 18.24. Full coverage insulated floor mat.
- 18.25. All pedals are to be suspended.
- 18.26. Dual door armrests.
- 18.27. Standard BBC dimension approximately 112”.
- 18.28. Heavy duty closed cab.
- 18.29. Hood and fender to be of one piece design, tilt forward type with factory installed side access panels to provide safe, easy, complete access to the engine compartment for daily service and periodic maintenance with full plow gear (including wing and post) installed. NOTE: Plow gear will not be moved or modified to accommodate hood opening.
- 18.30. Stationary grille is highly preferred to increase engine accessibility when plow hardware is attached.
- 18.31. Back up alarm.
- 18.32. Fresh air intake for heater/defroster must be protected or designed and installed to prevent entrance of sand/salt.
- 18.33. Radiator grille openings shall be of such size and design to protect radiator core from road debris of approximately 5/8” diameter.
- 18.34. AM-FM radio.
- 18.35. Suitable heavy duty full width front bumper made of steel.
- 18.36. Tilt and telescoping steering wheel.
- 18.37. Conventional cab - expanded, modified or bubble roof unacceptable.
- 18.38. Power Windows with both switches mounted on the driver’s door.
- 18.39. Air conditioning.
- 18.40. Daytime running lights.

19. PAINT

- 19.1. Color – Red
- 19.2. Chassis semi-gloss Black enamel.
- 19.3. Hubs semi-gloss Black enamel.
- 19.4. Cab interior color – Gray

20. WHEELBASE AND CA

- 20.1. Wheelbase shall be approximately 198”.
- 20.2. CT shall be approximately 126” with CE of approximately 183” minimum.
- 20.3. WB & CA shall accommodate a 12 cubic yard body and hoist and a rear tower hydraulic assembly for a wing plow.
- 20.4. AF dimension must allow for minimum 15’ of frame B.O.C. to facilitate mounting of the dump body, wing gear, and hydraulic tank.

21. OPTIONS

- 21.1. Description and requirements for all warranties pertaining to the vehicle and accessories shall be registered and filed by the Vehicle Manufacturer and Bidder upon placement of the vehicles into service. These warranties shall be explained fully to Town of New Gloucester personnel.
- 21.2. Deviations to specifications shall be listed on bid form and noted as deviations and submitted with bid proposal. If deviations are not listed as such it shall be considered that the Vendor will comply with all specifications as listed.
- 21.3. All bid proposals will include shipping and delivery of a completed cab and chassis to the Vendor of Dump Body and Plow Gear. (To be determined upon delivery)
- 21.4. The Cab and Chassis will not be paid in full until **ALL** specs are met and completed; the Town of New Gloucester will hold a minimum of 10% retainage until complete.

22. MANUALS

- 22.1. Two operator manuals per unit.
- 22.2. Two maintenance and repair manuals per bid, compact disc (CD) type repair manuals preferred.
- 22.3. One (1) line chart per unit.
- 22.4. Two parts manuals per bid. Compact disc (CD) type parts manuals preferred.
- 22.5. Engine diagnostic & programming computer software for 1 facility.
- 22.6. Two Electrical Circuit Diagrams.

23. GENERAL

- 23.1. All manuals and CDs should be delivered prior to acceptance of the final chassis.
- 23.2. Chassis to be completely serviced, tuned up, wheels balanced (front) and steering geometer. Documentation of such service must be provided pertaining to each vehicle upon delivery.
- 23.3. Vehicles offered must comply with all applicable Federal and State of Maine Regulations. Certified GVWR must be furnished.
- 23.4. A computer analysis of the proposed engine, transmission, rear end combination, which is being offered, must be provided.
- 23.5. Wherever possible friction materials must be non-asbestos.
- 23.6. It is the responsibility of the chassis manufacturer to provide or reposition components to provide “clear frame” for installation of accessories or accessory equipment.
- 23.7. The CA, WB and placement of the body, etc. must not cause the summer loaded vehicle to exceed the gross axle weight for special commodities as specified in Title 29A, Section 2357, 2, A. or B. as appropriate.
- 23.8. Manufacturer’s paint code will be supplied.
- 23.9. Town of New Gloucester requests all information associated with Vehicle or Vehicle Components Extended Warrantees.

24. TRAINING

- 24.1 Training for Operators and Maintenance Personnel shall be provided by the Vehicle Manufacturer, vehicle component suppliers, and bidder within a Reasonable length of time after the delivery of the completed unit. A mutually Agreeable time shall be set by all parties.
- 24.2 The training shall take place in the Town of New Gloucester.
- 24.3 The training may be videotaped by a Town of New Gloucester Employee for Future use by Town Trainers.
- 24.4 Training shall be a minimum of Four (4) hours for the operations of the vehicle.
- 24.5 Training for the Fleet Services Technicians shall be performed at the Town of New Gloucester Highway Garage. The training shall include but not limited to a minimum of Sixteen (16) hours of Technicians training shall include but not Limited to the following: Electronics, electrical, hydraulics, drive train, engine and Transmission.

25. Bid Submission Requirements:

25.1 In addition to required information as exhibited in the specifications, the Bidder Shall also provide:

- Warranty data of chassis, cab, and all sub-components.
- Specifications on the proposed Engine, Transmission, and Chassis.
- Specifications on the proposed Braking System.
- Specifications on the proposed Suspension System.
- Documentation describing the manufacturers “In Plant” quality assurance procedures and provisions.

Failure to supply the required documentation may render the bid non-responsive.

Vehicles and equipment will be inspected by the Town’s designated representative for compliance to these technical specifications prior to acceptance and/or any partial payment being made by the Town of New Gloucester.

**Town of New Gloucester
Public Works Department
Bid Form
2014 Cab & Chassis**

Name of Company: _____

Address of Company: _____

Name of Representative: _____

Telephone Numbers: _____

Email Address: _____

Completion Date: _____

Total Bid Amount with Warranty: _____

Trade-in Allowance: _____

**Trade can be inspected at:
New Gloucester Public Works Facility
1036 Lewiston Road
New Gloucester, ME 04260
(207) 926-4574**

Any Deviations from Specifications must be listed here (use back if necessary): _____
