

City of Negaunee

February 28, 2024

INVITATION TO BID

for

4x4 Single Axle Plow Truck

Bids can be hand delivered to the City of Negaunee until 10:30am ET on March 20th, 2024 for **4x4 Single Axle Plow Truck**. Bids will be received by the City of Negaunee and addressed to: **Negaunee City Clerk, City of Negaunee, P.O. Box 70, 319 W. Case Street, Negaunee, MI 49866**. Vendors please clearly mark "*4x4 Single Axle Plow Truck*" on the outside envelope of sealed bid.

The City reserves the right to reject any or all bids in the best interest of the City of Negaunee.

Direct any questions to:

Jason Marietti
City of Negaunee
Mechanic Foreman
906 475-9991

SPECIFICATIONS FOR 4X4 SINGLE AXLE PLOW TRUCK

The equipment bid shall be new, manufactured the same year or succeeding year of bid, of current design and production model and available to the commercial market. Any additions, deletions or variations from the following specifications must be noted. Standard items appearing in the manufacturers published specifications shall be included in the bid unless otherwise noted. Special consideration for USA manufactured. One copy of the manufacturers published specifications shall be included with the bid.

GENERAL:

46,000# GVWR 4x4 Plow Truck, maximum wheel base to not exceed 165", with hydraulic system, underbody scraper with a maximum turn table height of 20", and front mount one way plow system.

Truck to come fully equipped and operational; and delivered to the City of Negaunee by June 2025. Consideration will be given if the truck can be delivered in 2024. It is the responsibility of the bidder to coordinate and assure compliance by all suppliers.

The truck shall meet all OSHA, EPA and all other state and general requirements in effect on the date of bid opening and shall be furnished with lead free paint.

PLOW SPECIFICATIONS	Compliance	
	YES	NO
1. ENGINE:		
Diesel, In-line 6-cyl, 410 hp minimum		
Air cleaner w/ vacuator, remote mount		
Air cleaner restriction gauge, cab mounted on gauge cluster		
Anti-freeze to -40° F		
Engine oil drain plug, magnetic		
Corrosion resistant oil pan		
Engine alarm system		
Filters: Spin-on type; oil, fuel and water separator		
Front engine PTO		
Fuel filter engine mounted		
Water separator		
Fan clutch with manual override, two speed		
Bidder to supply trouble shooting manual, and maintenance manual.		
Five year (5yr +), 300,000 mile warranty on engine, turbo, water pump, injectors and after treatment devises		
Option 1: Extended engine warranty – specify in optional equipment section		
2. FRAME:	YES	NO
Heat treated alloy steel 120K		
Single channel with full length frame		
Extensions for plow bolt on not accepted		
No frame cutouts		
Heavy Duty tow hooks mounted rear of frame with reinforcement		
Cement counter weight built as wide and low as possible		
3. FRONT/REAR AXLE:	YES	NO
23,000# capacity front		
23,000# capacity rear		
Designed to withstand the side loading stresses incurred during snow plowing operations		
Factory all axle alignment		
Heavy duty tapered leaf springs in the front		
Front and rear wheels must track		
4. TRANSMISSION:	YES	NO
4500 RDS P Allison 5 speed automatic transmission		
Plow Programmed		
Dash mounted oil temp gauge and oil level sensor		
Controls ergonomically placed and approved by the City		

Torque capability to meet or exceed engine torque		
Magnetic oil drain plug		
Synthetic lubricant		
Internal lube oil pump		
Spare input/output		
Oil cooler – remote mounted, modine, water to oil type		
Oil level sensor		
Transmission control module located inside cab		
Shall come equipped with an easily accessible fill tube and dipstick		
ALTERNATOR:	YES	NO
12 – volt, 145 amp; pad mounting		
5. BATTERY:	YES	NO
Three (3) 12 – volt maintenance free batteries, 2700 CCA		
Stainless steel, weatherproof enclosure frame mounted below door or AGM batteries mounted below passenger seat inside cab		
Battery box mat – ¼” to ¾” rubber mat in bottom of battery box		
Battery disconnect switch mounted inside of cab next to seat		
00 or larger battery cable		
6. ELECTRICAL:	YES	NO
Circuit breakers – heavy-duty automatic reset where applicable		
Headlights – two (2) long life, halogen		
Marker and spot lights to be LED		
Light, signals, and reflectors to meet ICC regulations		
Rear lights to be mounted at rear of frame		
Weather pack silicone sealed electrical chassis connectors		
Electrical wires numbered every 4 inches		
As many spare switches as possible		
Heavy Duty backup alarm		
Green strobe mounted at highest point		
7. BRAKES:	YES	NO
Full air “S” cam brakes/extended service brakes		
Haldex auto slack adjusters front and rear		
Spring set parking		
Brake chambers to be mounted forward side of the rear axle		
Air dryer – heated, Bendix AD-ISEP (or approved equal)		
Air compressor – 18.7 CFM minimum		
Nylon class air hose, color coded		

Braided chassis harness cover		
Rubber lined clamps along frame rail		
Teflon lined stainless steel braided compressor discharge hose		
Two (2) air tanks mounted outside and parallel of frame rails, back of cab		
Drain valves – two (2) pull cord type		
Dust shields front and rear		
8. DRIVELINES:	YES	NO
Factory installed 4X4		
100% duty, switchable 4 wheel drive		
Transfer case ratings to exceed hp and torque requirements		
20" ground clearance from transfer case		
9. EXHAUST SYSTEM:	YES	NO
DPF and SCR to be mounted vertically behind cab		
Exhaust system not to interfere with mounting of hydraulic tank, or underbody scraper		
Flex tubing on exhaust shall be stainless steel where possible		
Stainless steel full round exhaust guard		
High mount exhaust routing not to exceed 11'6"		
10. FUEL:	YES	NO
50 gallon transportation type fuel tank		
Combination fuel and hydraulic oil tank		
Fuel tank is to include fuel gauge sending unit		
Combination tanks to include full mounting saddle		
Spring tensioned hold down straps and rubber cushion mounts		
If fuel tank or batteries have to be moved. "Add-on" Fuel lines or battery cables will not be accepted, they will have to be replaced.		
11. WHEELS:	YES	NO
Front: Disk, 22.5" Steel, 10-stud hub piloted, steel hubs		
Rear: Dual Disk, 22.5" Steel, 10-stud hub piloted, steel hubs		
Wheel seals – front and rear; oil lubricated including wheel bearings		
12. TIRES:	YES	NO
Goodyear G278 MSD 425/65R22.5, Load Range L, Siped		
Option 2: Goodyear G296 MSA 425/65R22.5, Load Range L, Siped		
Shall come equipped with an identical mounted spare for front and rear (one will be sufficient if both rims are identical)		

13. FRONT END:	YES	NO
Front end tilting fiberglass, stationary front grille		
Hood capable of opening fully with non-tilt hitch		
Fender extensions, rubber		
Halogen plow lights w/ signals on custom stainless steel hood/cab mounts		
14. MUDFLAPS:	YES	NO
Two (2) installed at rear of front tires		
Two (2) installed at rear of back tires		
15. CAB:	YES	NO
Aluminum cab including cab roof		
Door hinges shall be one piece piano hinge type, stainless steel		
Fiberglass tilt hood with 90 degree opening		
Direct reading gauges		
Tachometer		
Engine hour meter		
Speedometer		
Volt meter		
Fuel level		
Water Temperature		
Transmission Temperature		
Oil pressure		
Differential temperatures		
Air pressure with low air warning (visual and audible warning)		
Air restriction gauge – dash mounted		
Heated windshield		
Heavy-duty intermittent electric windshield wipers		
Rear window wiper		
Heavy-duty fresh air type heater and defroster		
Heater shut off valves ball type ¼ turn		
AM-FM radio		
Air ride, hi-back, cloth driver's seat with right and left arm rests, air adjustable lumbar support and fixed passenger seat		
Both seats equipped with seat belts; lap and shoulder		
Cab air suspension		
18" steering wheel		
Tilt and telescopic steering column		
Interior courtesy lighting		
Black rubber floor mats		
Dual stainless heated mirrors, motorized with 8" convex mirrors		

Convex mirror over right hand door		
Switched LED downward pointed cab exterior work lights		
All mirrors, brackets, grab handles, and latches to be stainless steel		
Color – Orange		
Two (2) outside grab handles		
Inside sun visors, left and right		
Interior noise reduction package		
Thermal insulation package in cab		
Electrical system self-test diagnostics		
Console – overhead; molded plastic w/ dual storage pockets and retainer nets		
Console – center; cup holder and lower area with net		
CB radio pocket with accommodation package wiring		
Interior sheet metal painted		
16. UNDERBODY SCRAPER:	YES	NO
Wausau PB-10		
10' x 20" heavy duty, offset for USS punched 8" x 5' blades		
Road height to bottom of new blade shall be around ten (10) inches		
Turn table not to exceed 20" high		
All hinge and pivot points to be greasable		
Equipped with hydraulic angle feature		
Turntable shall be 1" thick heavy duty steel		
17. FRONT ONE-WAY PLOW	YES	NO
Wausau Wave Style Plow – WW 3266		
Overall moldboard length of 13'-10"		
Cutting width to not exceed 9'		
Slotted trip design		
Dual wear shoe pads behind plow, on frame		
Heavy duty, tubular plow frame		
4" Hydraulic lift cylinder		
Designed to throw snow high and out at a slow rate of speed		
Heavy duty, reinforced moldboard		
Moldboard leading edge height right around 30" and discharge height of right around 69"		
18. HYDRAULIC SYSTEM:	YES	NO
Front mount severe duty gear pump assembly, load sensing, direct driven and inline with crank shaft,		
Ball shutoff valves at pump and tank		
Protective bonnet kits for cable connection to valve spool		

100 lb. minimum rating for pushing and pulling		
Each knob to be a detented type with 10 definite positions		
Valves shall be of mobile design to withstand exposure to de-icing chemicals and severe weather conditions		
Valves to be mounted in a protective, weatherproof stainless steel enclosure		
Valves to be cast iron, horizontally stackable, have full ¾" ports and be serviceable		
Controls must operate the following functions in order left to right:		
1-Front plow up and down (double acting)		
2-Scraper blade up and down		
3-Scraper dual power reverse (angle)		
20 gallon hydraulic fluid tank with filter to be mounted behind cab		
10-micron filter and head to be provided for the return line		
Head assembly must have a 25 psi bypass and an element condition indicator		
Liquid filled hydraulic pressure gauge mounted in cab for scraper down pressure		
Lines, pipes, hoses and fittings shall be of sufficient capacity to accommodate the volume of oil without undue heating or turbulence in the system		
2" suction line with a minimum 100-R4 SAE rating between reservoir and inlet of pump		
All pressure hoses, including the signal sensing line to the pump must have swivel fittings on BOTH ends and have a minimum 100-R2 SAE rating		
Hydraulic lines shall be routed to minimize interference with equipment and chassis components requiring periodic servicing		
Appropriate support brackets, grommets, and protective wraps shall be provided to protect lines from abrasion, cutting and impact damage		
19. MISCELLANEOUS:	YES	NO
Paint: Primer – one coat		
Paint: Color – Orange – two coats		
Cement counter weight mounted on rear, height of weight as low as possible		
Manuals: One (1) each; operator's instruction, service, shop repair, parts book and line sheet for each unit bid		
Any testers or software required for testing electronics		
Turning radius of vehicle be as tight as possible		
Dealership to send someone up for training after delivery/pickup		

Warranties: Specify terms for each of the following

Total vehicle _____

Engine _____

Transmission _____

Frame _____

Front Axle _____

Rear Axle _____

Information of any extended warranties available – (attach additional sheet if needed)

All transportation of complete truck for warranty work shall be done at dealer/supplier expense.

Please note any extra warranty on separate components provided by manufacturer

Any changes/modifications must be approved by the City of Negaunee

Financing/Invoicing:

Bid is to include FOB price

Bid to include any available lease/purchase plan(s)