

BID PRICING FORM - ATTACHMENT B

FOB POINT

The FOB Point, in terms of loss or damage, as well as where title to the goods is passed, shall be FOB - Destination.

Cab and Chassis

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
1	Axles/Suspension				
	Axles and springs shall be sized to handle catch basin/sewer vacuum and body				
	20,000 lb front axle and springs				
	40,000 lb rear axle minimum				
	20,000 lb flat leaf front suspension				
	40,000 lb flat leaf rear suspension				
	Shock absorbers front and rear				
	Synthetic oil lube for both axles				
	Axle ratio = 5.57, 70 to 75 mph @ governed rpm				
	Hendricks RT-403 rear suspension				
2	Brakes				
	Air antilock brakes with traction control				
	Heated air dryer with automatic drain				
	Long stroke brake chambers with automatic slack adjusters				
	Engine exhaust brake				
3	Bumper				
	3 piece with breakaway ends				
4	Cab and Chassis				
	Conventional day cab				
	Straight frame rail chassis suitable for mounting catch basin/sewer vacuum				
	Cab to axle: 210 inches, AF: 63 inches minimum				
	276" Wheelbase				
	Overhead console with reading lights, map pockets in doors, power windows and locks, lighted cab steps, cup holders				
	All interior sheet metal covered, extra sound insulation package				
5	Electrical				
	2 battery heavy-duty 12-volt, 1950 CCA total with remote jump start stud, battery box under cab				
	Alternator, 200 amp				
	Accessory switch panel with 8 switches with indicator lamps, switches 1-3 fed from battery, others from ignition circuit (provide template for selecting switch locations if possible)				
	Gear reduction starter with thermal overload protection				
6	Engine				
	370 HP @ 2000 RPM; 2500 GOV1150 LB/FT @ 1300 RPM Cummins ISL9				
	Engine shall be capable of providing total required horsepower plus reserve for catch basin/sewer vacuum				

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
7	Engine Warning System				
	Buzzer and light for low oil pressure, low water level and high water temperature required				
8	Exhaust System				
	Right hand side vertical				
9	Frame				
	2,800,000 – 3,000,000 RBM				
	Front frame extension				
10	Fuel Tank				
	One (1) 100-gallon (or 2 50-gallon) fuel tanks				
11	Grab Handles				
	Exterior left and right sides; interior right side				
12	Heater/Defroster/AC				
	Heavy-duty heater with defroster and standard air conditioning				
13	Instrumentation				
	Full gauge package: oil pressure, engine temperature, voltmeter, odometer, speedometer, tachometer, fuel, air pressure				
	Engine hour meter				
	Electronic throttle control				
	Transmission temperature gauge				
14	Interior Lights				
	Standard dome light				
15	Mirrors				
	Break away heated power convex mirrors, power adjustable				
16	Power Outlets				
	Dash mounted 12-volt, quantity of 2				
17	Radio				
	AM/FM/WB stereo with clock, antenna shall be clear of boom operation, relocate as necessary (mirror or fender mount antenna OK)				
18	Seating				
	Two (2) air-ride cloth-covered seats w/armrest (both driver and passenger)				
19	Steering				
	Power steering, 53 degree wheel cut				
	Tilt and telescoping adjustable				
20	Sun Visors				
	Dual padded				
21	Tires				
	G286 425/65R22.5 20-ply radial front tire				
	G164 RTD 11R22.5 14-ply radial rear tires				
22	Tow Hooks				
	2 tow hooks on front and rear, frame mounted				
23	Transmission				
	Allison 3000 RDS automatic 6-speed wide ratio heavy-duty transmission with push button keypad, PTO provisions, with synthetic lubricant				
24	Color				
	White paint on cab				

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
25	Windshield Wipers				
	Dual intermittent wiper system				
26	Back-up Alarm				
	95 dB minimum				
27	Additional Specifications				
	Cold weather cover for grille				
	Dual saddle tanks each side of cab				
	Extended life antifreeze to -34 degrees F				
	Front license plate holder				
	Battery disconnect in cab located next to driver's seat				
	One pair rear mud flaps and aluminum fenders				

Catch Basin/Sewer Vacuum

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
1	General Requirements				
	The combination catch basin/sewer and high pressure cleaner, hereafter referred to as "machine", shall be capable of removing stones, grit, sand, grease, sludge and other debris from sanitary sewer and/or storm drain lines by flushing action of high pressure water				
	The machine shall include a vacuum system to provide for the simultaneous removal of the debris flushed to the manhole or for the removal of debris from sewers, sumps, catch basins, wet wells, digesters, bar screens, etc.				
	The machine shall be capable of being operated by one person with all operating controls for high-pressure water pump, hose reel and vacuum located at the front of the machine				
2	Instrumentation				
	Electronic throttle control for engine(s)				
	An emergency shutdown/kill switch located at the operating station and at side controls				
	Hose reel direction, flow control valve and speed control located at operator's station by reel				
	Single lever water control valve shall regulate direction of water to hose reel or back to tank utilizing a high-pressure valve assembly				
	Water pressure gauge built into data screen				
	The control panel shall move with the hose reel when it is articulated for operators' safety and ease of operation				
	Single lever for alternating hydraulic control between both hose reels				
	All gauges, switches and levers necessary for the operation of the unit shall be grouped on a single control panel adjacent to the hose reel so the operator may have complete control of the cleaning operation while standing at one location				

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
	Electronic throttle control for engine(s)				
	Two quick disconnect connections for water handgun supplied: One at the control station and one mid truck				
	Receptacle for boom control pendant				
	Control box in cab, mounted on back wall of cab in between seats				
3	Water Supply Tank				
	The capacity of the water supply tank shall be at least 1500 gallons				
	Construction shall be high-density polyethylene with ultraviolet inhibitors to prevent undue brittleness when exposed to sunlight and shall be of round design for additional strength with built in baffles				
	Alumina can be substituted for tank material				
	Tank shall have sight gauge visible from operator's station and also sight gauge built into data screen at control panel				
	The tank shall be mounted over the rear axle for optimum load distribution				
	The tank shall have a minimum 10 year standard manufacturer's warranty				
	A 2-1/2" overhead- type tank filling assembly shall be a dual crossover filling system to fill both tanks simultaneously and from either side of the truck				
	A positive air gap anti-siphon system shall be incorporated to protect the potable water supply				
	A 25' X 2-1/2" curbside filler hose with fittings and carrying rack will be included; City will supply unique type fittings				
	The tank shall be vented and fitted with a suitable removable port to permit inspection and access into the tank				
	The system shall incorporate a suction line and a sloped bottom tank to permit utilizing the entire bottom portion of the tank and settling chamber for heavy materials and to eliminate the possibility of these materials reaching the pump				
	A final strainer shall be provided in the main water pump feed line				
	Minimum 4 inch interconnects between tanks with ability to isolate a tank for repair				
	Low water alarm warning with warning light				
	The tank shall be mounted in such a manner as to prohibit torsional racking of the frame from transmitting through the tank				
	The tie down securement shall be painted; nylon tie down straps will not be accepted				
	The tank shall have a minimum 2-1/2" ball valve for isolating the filter strainer				

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
4	Pump				
	The pump shall have a minimum 5-year standard manufacturer's warranty				
	The pump shall have a minimum oil capacity of 2 quarts of tri-plex design				
	Pump to have continuous rating of 100 GPM at 3000 PSI at the nozzle with variable hydraulic flow control				
	Provide 2 accumulators as required to eliminate pulsation				
	Valves shall be hardened stainless steel disc type with stainless steel valve springs				
	Electric dial at control panel to engage and disengage water pump				
	Pump shall be capable of running dry for purpose of purging water from entire system of water lines including hose				
	One 2-way ball valve for sewer nozzle operation located at front of unit				
	Odometer shall not operate when pump is in operation to eliminate premature truck warranty expiration				
	Hour meter to record pump use				
	Pump shall remain flooded at all times when water is in the tank to eliminate pump cavitations				
	Pump must not require priming				
	Pressure regulator set at 80 gallons/minute, 2500 PSI with water return to water tank				
	Regulator shall be repairable				
	Pump driven hydraulically by a tandem hydraulic pump powered by a transmission mount hot shift PTO				
	Air purge system with air valve and needle valve located on a pressure outlet on the water pump will be provided				
	Powered by a variable speed, closed- loop hydrostatic system				
	Minimum 30 gallon hydraulic reservoir with sight eye and thermometer				
	Working hydraulic hoses to be a minimum of 1.25 inches I.D.				
	Hydraulic pump to be capable of pressures to 6000 PSI and flows to 89 GPM				
	Integrated to the hydrostatic pump shall be a charge pump				
	Hydrostatic pump case pressure not to exceed 240 PSI to assure long seal life and not contaminating the environment due to leaking of hydraulic oil				
	Filters shall include a 10 micron filter for the charge pump and a 10 micron spin on filter for oil returning to the reservoir				
	An oil cooler rated at 153,000 BTU per hour, with double 12 volt electric fans shall be included				

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
	Fans shall turn on automatically when water pump is engaged				
	The hydrostatic motor shall have a minimum rating of 89 GPM / 6000 PSI, be flange mounted to the water pump, and be controlled by an operator panel mounted variable speed, dial type potentiometer				
	Water pump will provide continuous water flow and pressure				
	Piston and/or packing must not require greasing				
5	Tank Drains				
	6-inch diameter tailgate drain with standpipe, knife valve with locking handle and 10 feet of fabric drain hose supplied				
	Drain hoses equipped with quick-lock clamps for easy removal				
	Automatic pump off system with 420 gpm plumbed to front bumper with 3-inch ball valve				
	Pump to be located outside of tank toward front of tank				
	Body drains capable of pneumatic back flushing in order to unclog without opening tailgate				
6	Air Purging System				
	Supply self-contained system for purging water from jetting hose, handgun lines and pump to prevent freeze-up				
	Air supplied by truck air compressor with appropriate safety check valves for brake system				
7	Winter Recirculation				
	A system will be supplied to prevent freeze-up by pumping water through system including hose reel while driving to job site				
	Winter recirculation system will enable travel over the road without damaging pump, drive systems or truck transmission				
8	Tool Boxes				
	Two horizontal aluminum toolbox on passenger side, 18"H x 18"W x 60"L				
	Toolbox to be weather tight and lockable				
	If space allows, size of toolbox can be increased				
	One horizontal open channel, with coat brackets to carry long-handled tool/hose tray along curb side of machine, and one on the street side				
	One vertical, aluminum storage compartment located behind cab, 60"W x 60"H x 20"D minimum				
	Tool compartment to be weather tight and lockable				
	If space allows, size of toolbox can be increased				
9	Hose Reel				
	The hose reel shall be front mounted near the center of the unit with 180-degree articulation to facilitate manhole entry and reduce traffic interruption				

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
	Hose reel minimum capacity of 1000' of 1" sewer hose				
	Hose reel to be self-supporting				
	800' reel of 1" sewer hose supplied, capable of 2500 PSI working pressure and burst pressure of 6250 psi				
	Hose footage counter to be built into data screen				
	Reel frame must be capable of extending out and pivoting down for full opening of the engine compartment cab hood by use of an electric over hydraulic system powered by a 12 volt DC power pack				
	Auto/Manually controlled level wind with tension guide and backlash prevention system				
	The hydraulic power for driving the hose reel shall consist of a hydraulic pump gear direct driven by the engine, a direction and a speed control valve with a built in overload relief and hydraulic hose rated to withstand the maximum system pressure				
10	Power Boom				
	The power boom shall have a minimum of 250-degree hydraulic rotation and be lockable in any position				
	Boom rest mounted behind cab				
	Boom shall not rise with debris body				
	Minimum 8' telescopic boom extension				
	Joystick mounted to hose reel control station for boom functions: up, down, left and right				
	Remote 20 function pendant control of 25 feet				
	Flapper valve and vent door or equivalent				
11	Vacuum Tubes and Brackets				
	8" O.D. aluminum tubes with male/female fittings				
	One 7-foot section, two 5-foot sections, and one 3-foot section supplied, including one gasket and over center clamp for each tube supplied				
	Behind-the-cab vertical tube storage rack, two (2) 3-tube vertical storage racks				
	Hydraulic up/down four tube rack on back of tailgate				
	One 8" x 2' fluidizer tube capable of removing material below water at depths of up to 75'				
12	Water Wash Down System				
	Pump will supply water with means of regulating pressure from 0 to 2000 PSI available at handgun				
	35' retractable hose reel mounted curbside, no higher than 6'				
	Quick disconnects (front/side-behind cab, passenger side) for handgun				
13	Piping				
	All piping systems subjected to high pressure shall be fabricated of schedule 80 pipe with forged steel fittings				

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
	Pump suction lines and low pressure return piping systems may be standard weight pipe with malleable fittings				
	Dual hydraulic reel 35' retractable spool, current hammer is 20 gpm max. Psi 150				
	Hose connections mounted curbside, no higher than 6'				
	A strainer shall be installed in the suction line to prevent foreign material from damaging the pump, and at location permitting ease accessibility for cleaning				
	The unit design shall incorporate steel tubing running from the water pump area to the hose reel; this design will provide less down time and quicker repairs				
	Hoses running the total length of the unit are unacceptable				
	Pressure to the sewer-cleaning nozzle shall be regulated by a relief valve adjustable from 0-4000 PSI				
	The valve must be repairable; throwaway type sealed units are not acceptable				
14	Debris Vacuum Tank				
	Minimum useable liquid capacity of 12 cu yard				
	Designed to withstand 360" of water vacuum				
	Abrasion and corrosion resistant 1/4" minimum steel plate construction, cylindrical in shape				
	Minimum steel yield point of 50,000 psi and minimum steel tensile strength of 70,000 psi				
	If Corten or Exten steel is supplied inside the debris body, it must be coated and carry a 10 year warranty against coating, scuffing or peeling causing accelerated deterioration				
	One internal stainless steel float ball supplied for automatic vacuum system shut off when unit is full				
	Hydraulic powered open full height and width rear door, hinged at top with self-compensation neoprene seal located on door; hydraulic wedge only				
	Exterior liquid level gauge, visible from operator station				
	Controls for latching/unlatching, operating/closing, and raising/lowering the debris body must be located on the side and forward of the debris tank				
	Internal tank flushing system with 1" diameter Schedule 80 high-pressure pipe				
	Flushing system capable of 2500 psi				
	Front gravity drain valve shall be a minimum 6" diameter opening for decanting of liquids				
	Quick disconnect fittings				

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15	Body Unloading System				
	Ejector type body with push plate dump with compact system and full diameter splash shield				
	The body is to have a minimum dump angle of 24 inches				
	Body wash out system shall be installed forward in the vacuum tank				
	The body washout system shall have a 3 way ball valve for utilizing the main water pump pressure				
	The rear door to be full diameter open in accordance with OSHA safety features for lock-out/tag-out				
	Rear pivot pins to be greaseable				
16	Vacuum Pump				
	Vacuum system to be a positive displacement, rotary lobe blower				
	Pump shall be rated for continuous duty at 18" Hg vacuum with a bearing B10 life of 30,000 hours				
	Blower to be capable of airflow from 0-4500 CFM with capabilities of 3650 CFM inlet volume at 18" Hg vacuum at 2250 RPM; Roots Model 824 or approved equivalent				
	Three vacuum relief valves				
	System to incorporate a centrifugal (Cyclone) separator, 2000 square inches				
	Final filter/strainer between debris body outlet and vacuum blower inlet to protect blower				
	Screen to be stainless steel and removable for cleaning				
	Unit equipped with a high efficiency exhaust silencer				
	Noise level limited to 100 decibels at 6' height within 5' and around perimeter of machine				
	Control panel to engage and disengage vacuum pump located at front work area				
	Vacuum source shall not require daily greasing				
	Odometer shall not operate when vacuum system is operating to eliminate premature truck warranty expiration				
	Hour meter to record vacuum usage				
	The pump and hydraulic motor shall be mounted for easy access				
	The Filtration system shall utilize a minimum of the following: a. Primary moisture trap and float ball b. Final filter c. All traps shall incorporate full opening access doors for cleaning and maintenance				
	The hydraulic system on off and speed controls shall be mounted on the hose reel control panel				
17	Miscellaneous				
17A	Jackhammer – <i>to be determined at pre-bid</i>				

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
<i>17B</i>	<i>Nozzles</i>				
	Three standard cleaning nozzles for the size of hose for: cleaning, penetrating, and rotating, Root Rat				
	Three skids for 6, 8, 10 inch for the nozzles				
	Minimum 5000 PSI rated handgun with 50' of 1/2" hose with retractable reel				
	A self-lubricating/no maintenance chain hydro cutter/saw that uses chain or cable for cutting				
	2-1/2" x 25' fill hose with fittings for filling water tanks				
	One tiger tail hose guide with rope				
<i>17C</i>	<i>Lights</i>				
	2 - Revolving light Whelen R1LPPA mounted to be clearly visible front and rear				
	One mounted front over the cab and visible from the front				
	One on vac body visible from the rear and clearly visible to oncoming traffic				
	Rear mounted arrow stick ECCO LED 3300 series				
	Three evenly spaced Vertex strobes down each side of truck, Whelen VTX609A, at car/eye level				
	ECCO arrow stick on front of vehicle over cab for traffic direction, mounted over cab on a bracket with one of the top lights				
	Hand light rechargeable with mounting station in cab				
	Two LED work lights on telescoping boom				
	Two LED work lights at operator station				
	Two adjustable LED work lights at midship on both sides of unit				
	Cordless handlight with 12v charging station mounted in cab				
	Jetter body color – safety orange				
	Tow hooks with chassis, front and rear				
	Backup camera with 7 inch display screen				
	Circuit Boss – Circuit isolator #70207 (7 circuits) Painless is the current product line we use configured as follows: Circuit 1-3 – constant power Circuit 4-7 – ignition powered Exact connection to particular component will be determined with successful bidder				
18	Training				
	Eight hours of mechanic level training to include preventative maintenance, adjustments and common maintenance insights from the manufacturer				
	Eight hours of operator level training to be determined by customer after purchase				

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
19	Electrical Connections (all connections must met this standard minimum)				
	All lighting used shall be, at a minimum, a two (2) wire light grounded through a wired connection to the battery system				
	Wiring shall be run in loom where exposed, and have grommets or other edge protection where wires pass through metal				
	Exterior exposed wire connectors shall be positive locking, and environmentally sealed to withstand elements such as temperature extremes, moisture and automotive fluids				
	Electrical wiring and equipment shall be installed utilizing the following guidelines: All wire ends not placed into connectors shall be sealed with a heat shrink end cap. Wires without a terminating connector or sealed end cap shall not be allowed.				
	All holes made in the roof shall be caulked with silicon (no exceptions)				
	Corrosion preventative compound shall be applied to non-waterproof electrical connectors located outside of the cab or body. All non-waterproof connections shall require this compound in the plug to prevent corrosion and for easy separation of the plug.				
	Any lights containing non-waterproof sockets in a weather-exposed area shall have corrosion preventative compound added to the socket terminal area				
	Rubber coated metal clamps shall be used to support wire harnessing and battery cables routed along the chassis frame rails				
	Heat shields shall be used to protect harnessing in areas where high temperatures exist. Harnessing passing near the engine exhaust shall be protected by a heat shield				
	For ease of identification, battery cables shall be color coded. All positive battery cables shall be red in color or wrapped in red loom the entire length of the cable. All negative battery cables shall be black in color.				
	Wire connections shall be made using crimp style heat shrink butt splice connectors or soldered connection covered with heat shrink. If crimp style connector is used, crimping tool Westward 13H876 or equivalent must be used to prevent piercing heat shrink. Solder sleeve butt splice type connectors shall not be allowed.				

Description	Firm fixed price
Price for one (1) tandem axle sewer vacuum truck per the specifications in the bid documents	\$

Tandem axle chassis manufacturer _____ Model Year _____

Is chassis dealer authorized by the manufacturer to sell, warrant and service equipment as bid Yes No

Sewer vacuum manufacturer _____

Is sewer vacuum dealer authorized by the manufacturer to sell, warrant and service equipment as bid Yes No

Descriptive literature included with the bid submittal Yes No

Warranty information included with the bid submittal Yes No

***OPTIONS:** (may be required): price the following options accordingly. In addition, provide your option order number for use when placing an order for this vehicle. Additionally, please include any options or optional configurations that might be of interest to the City. Include the cost adjustment to be added to or subtracted from the base price.*

	DESCRIPTION		OPTION ORDER NO.	UNIT PRICE
1.	Stainless steel debris tank in lieu of steel (put price difference between the 2 in the Unit Price column)	<input type="checkbox"/> Standard w/Model <input type="checkbox"/> Not Available w/Model		\$
2.	10-year warranty on the debris tank	<input type="checkbox"/> Standard w/Model <input type="checkbox"/> Not Available w/Model		\$
3.	Hydro excavation kit	<input type="checkbox"/> Standard w/Model <input type="checkbox"/> Not Available w/Model		\$
4.	Central grease fitting manifold (centralizing common grease fittings in one location)			\$
5.	Extended warranty package			\$
6.	2000-gallon water supply tank (put price difference between the 2 in the Unit Price column)			\$
7.	Wireless 20-function remote for all hydraulic functions			\$

Estimated Delivery Time Upon Receipt of Purchase Order _____ Calendar Days

Dealer Name _____

Dealer Representative Signature _____ Date _____

DELIVERY ADDRESS	BILLING ADDRESS
Joy Huber Fleet Services Division 500 15 th Ave SW Cedar Rapids, IA 52404	Finance Department – Accounts Payable City of Cedar Rapids 101 1 st St SE PO Box 2148 Cedar Rapids, IA 52406-2148