

**CITY OF WEST HAVEN
REQUEST FOR PROPOSAL**

WEST HAVEN SEWER VAC TRUCK

BID # 2022-18

ADDENDUM #1

The original RFP was published with only the specs for the chassis of the truck we are requesting. This addendum provides the checklist for the sewer vacuum portion of the truck.

As stated in the original RFP, any exceptions to the specifications listed must be accompanied by corresponding engineering documents that show the exception meets or exceeds the original intent of the specification.

A complete build sheet for chassis and body with pricing must be included in your response along with the completed spec sheet comply list included in this addendum.

Any questions can be sent to Rick Spreyer, Director of Procurement, at rspreyer@westhaven-ct.gov

INVITATION TO BID

CITY OF WEST HAVEN WPCA

SPECIFICATIONS - COMBINATION SEWER CLEANER

**VAC CON
VTPD4212HEN/1300**

COMPLY, INDICATE: YES OR NO

NOTES TO BIDDERS

Yes No

Bidder must have a full stocking (parts department) for equipment being bid and have a full-service facility within 5 miles of the city.

No exception and the term exceed is not acceptable. Any exceptions must be written out with all the corresponding engineering documents to backup each claim.

GENERAL

Yes No

The machine is capable of removing stones, grit, grease, sludge and other debris from sanitary sewer and/or storm drain lines by the flushing action of high-pressure water. The high-pressure sewer cleaner operates independent of the vacuum system.

The machine includes an air conveying vacuum system to provide for the simultaneous removal of the debris flushed to the manhole by the high-pressure water system or for the removal of debris from sewers, sumps, catch basins, digesters, wet wells, bar screens, etc.

The machine is capable of being operated by one man, with all operating controls for high-pressure water pump, hose reel, and vacuum, located at the front of the machine for safety.

DEBRIS BODY

Yes No

Debris storage body has a minimum usable liquid capacity of 12 cubic yards.

The body shall be round for maximum strength and constructed of 3/16-inch ASTM A242 Corten A steel for enhanced corrosion resistance.

The rear door shall be flat and operated by 4 hydraulic locks for maximum strength, fully opening, hinged at the top with low profile and adjustable style hinges maintaining a 12" maximum overall height. There shall be two 6" diameter liquid knife drain valves for removing excess liquids. One mounted in the middle of the debris tank and one to be mounted on the lower right side of the debris tank. Drain will have 10 feet of 6 inch lay flat hose.

The rear door shall be supplied with a debris wear plate swing style located inside the debris tank that encompasses 75 percent of the rear door. The debris deflector shield shall deflect material from rear door and aid in draining off excess liquids. A rear door safety prop shall be provided.

For ease of maintenance there shall be no hydraulic components located inside the debris body or rear door.

The debris body has four (4) externally mounted door locks that lock hydraulically. The hydraulic locks and shall be operated by one (1) sequential control to allow the operator to control the discharging of liquids from the debris tank by cracking open the door prior to the dumping procedure.

A steel weldment with stainless steel screen 8" x 28" providing up to 1200 square inches of added filtration for the vacuum system shall be provided inside the debris tank. These weldments shall be removable and require no cutting or welding.

A double acting power up/power down hydraulic scissors lift mechanism will be provided to raise body to a minimum 50-degree angle. The scissors lift mechanism shall be designed to support a minimum of 24 inches of the debris tank width to provide stability and when dumping on uneven ground. The lift capacity of hydraulic scissors lift cylinder is 56,000 lbs.

Dump controls are located on curbside mid-ship of the unit, well forward of the dumping area for operator safety. A manual override system is provided. Also, to be provided is an operator handheld remote with all hydraulic functions of the debris body & boom.

The debris body has a five-year warranty. A copy of manufacturer's warranty statement shall be enclosed with bid. If pro-rated so state:

An internal polyethylene float device with external indicator is supplied to show when body is loaded to capacity.

AUTOMATIC VACUUM BREAKER

Yes No

The automatic vacuum breaker assembly is located inside the body.

The automatic vacuum breaker assembly shall be controlled by an electric over hydraulic circuit. The entire system shall be replaceable via a bolt on assembly. The assembly shall consist of a 12" inlet and two 8" ports that provide air flow to the vacuum system.

A full indication activates an automatic vacuum breaker shut down system that completely shuts down the airflow to the vacuum system to prevent overfilling and wastewater discharge into the atmosphere.

The vacuum breaker system is automatically activated (closed) when the parking brake system is released to eliminate carryover during transit.

The system can also be controlled/activated, at the front hose reel control station. This enables the operator to pick up large debris with boom and place debris on the road surface. This system can be used for safety in the event suction must be shut off in case of an emergency.

827 Roots Rotary Lobe Blower

Yes No

An 827 Roots rotary lobe blower to be provided with a Typhoon II Cyclonic Separator utilizing better computational fluid dynamics. Control of the blower regarding start, stop and the rate of vacuum suction is performed from the front of the truck. A vacuum suction breaker disconnect switch is provided to enable operator to pick up large debris with boom and place debris on road surface.

The blower is driven by the chassis engine via a closed loop hydrostatic system using a variable piston pump and motor. This system shall include a heat exchanger for extreme ambient conditions and to maintain the pump suction oil temp at 160 deg. F. max. The heat exchanger shall be protected by a 30-micron filter and cold weather bypass valve. Hydrostatic loop filtration shall be accomplished by a 10 Beta micron return filter and a 10-micron Absolute (no bypass) charge filter.

The system incorporates an air/water separator and a sound silencer to separate material before it enters blower and to ensure quiet operation.

A means of starting, stopping and varying the vacuum suction from operator station at the front of the machine is provided.

VACUUM PICK UP HOSE

Yes No

Shall be front loading, attached at the front of the machine to provide ease of positioning the machine over the manhole, as well as afford maximum safety for the operator. The boom will have 8" will be mounted on a boom that will provide a minimum of 18' vertical lift utilizing dual hydraulic cylinder and 230 degree of boom rotation powered hydraulically for non-interrupted smooth movement. Boom to have a lift capacity of 500 lbs. at the front bumper.

The boom will be powered by an electric over hydraulic system: up/down by dual lift cylinders. The right/left movements shall be hydraulic via worm gear rotation.

Control of the boom is by means of a joystick control at the operator's station, requiring no cables at operator's feet for boom operation.

The boom shall hydraulically telescope a minimum of 10 ft. forward from the operator's station. The height of the boom shall not change while the boom is being telescoped.

A manual override system shall be provided for right/left, and up/down functions in case of system failure.

A boom coverage chart shall be provided stating the square feet the boom covers.

8-inch diameter pipe extensions with clamps will be provided and carried on the truck as follows:

1 6-1/2' Catch Basin Nozzle

1 6' Aluminum Pipe Extension

1 5' Aluminum Pipe Extension

2 3' Aluminum Pipe Extension

4 Spare quick clamps

WATER SUPPLY

Yes No

The water tank shall have a minimum usable capacity of 1300 U.S. gallons.

The water tanks shall be constructed of non-corrosive, non-metallic, durable, cross-linked polyethylene to eliminate rust, corrosion, and stress cracking.

The water tanks shall be mounted at and below the truck frame level to provide a low center of gravity for truck stability.

Water tanks shall be plumbed into the debris tank so that said operator can fill the debris tank with water and use that as additional jet rodding water.

A 2-1/2-inch diameter x 25 feet long hydrant hose with hydrant wrench is supplied on the unit.

An anti-syphon fill device is installed on the unit.

A sight gauge to indicate water level is located within sight of the operator station.

The water tanks are protected by a minimum of 11-gauge steel plating mounted below the water tanks for protection against road hazards when unit travels over the road, off the road or to landfills.

The water tanks are to come with a 10-year replacement warranty.

HIGH-PRESSURE WATER PUMP Yes No

The high-pressure water pump shall be rated to deliver smooth continuous pressure and flow through the entire flow range of the pump. The high pressure shall have smooth continuous flow for both the high-pressure system and the handgun system.

The water pump shall be made by GIANT and rated for 80gpm @ 2500psi.

High-pressure relief valves are provided for both the high-pressure system and handgun system.

The water pump operates independently of the vacuum system and be powered by hydrostatics.

Controls for starting and stopping the water pump and to vary the flow and pressure shall be at the front hose reel operator's station.

The high-pressure water pump is equipped with a cold weather drain valve. The valve allows the operator to completely drain the high-pressure pump.

HOSE REEL ASSEMBLY Yes No

The hose reel assembly is mounted on the front of the vehicle. The hose reel shall have a minimum of 30" inside diameter with a capacity of 800' x 1" hose. The hose reel is hydraulically powered in both directions by means of a double chain and sprocket drive. The controls for operating the motor have a flow control device to regulate the rotational speed of the reel in both directions. All hydraulic hoses are behind a steel housing to protect operator from hydraulic oil if a hose fails. The hydraulic motor, chain, and sprockets have a protective cover or are mounted on the radiator side of the hose reel for operator safety. The hose reel articulates 180 degrees to the driver's side allowing operator to work in any position through this arc. This allows greater flexibility in truck placement for manholes located in tough areas and provides greater safety to the operator. Reel extends beyond the width of unit for greater flexibility for positioning reel over offset manholes, catch basins, etc. A hydraulically controlled outrigger leg is supplied that comes in contact with the ground at any one position. A warning light is located in the cab to warn the operator that the outrigger leg is not in its transporting position prior to moving the unit. A manual bypass system for the hose reel assembly is provided to manually pull the reel assembly away from its transported position. This feature allows the operator to check fluids without starting engines.

JET HOSE Yes No

600' x 1" continuous jet rodding hose will be supplied rated for 2500psi working pressure and 6250 psi burst pressure. A heavy-duty hose guide with 25' of nylon rope will be provided.

MANHOLE CLEANING WATER SYSTEM (HANDGUN) Yes No

The high-pressure pump and independent water tank assembly supplied shall be used for manhole cleaning.

A smooth continuous flow of 20gpm and pressure of 600psi shall be provided for ease of operation.

A handgun pressure relief valve set at 600psi shall be provided.

One full functioning handgun with on/off hand control, replaceable nozzle tip, 12-inch extension, adjustable spray and 50' x 1/2" hose with retractable reel will be provided.

The handgun will attach to the system via a quick couple connection at the curbside of the unit. To avoid being coiled at the operator's station a handgun holder will be provided at the front bumper.

One full functioning hydro excavation handgun with on/off hand control, replaceable nozzle tip and ability to use the full psi of the water pump 2500psi will be provided with 50' of retractable hose.

HYDRAULIC SYSTEM AND LUBRICATION

Yes No

The hydraulic system has a 55-gallon capacity.

The hydraulic system shall incorporate a main shut off valve in case of hydraulic failure.

The hydraulic system shall incorporate hydraulic pressure relief valves and pressure gauges for ease of trouble shooting and maintenance.

The unit is equipped on the passenger side, mid-section of the module, a permanent weatherproof white vinyl lubrication chart that points out lubrication points on the module and specifies what type of lubrication and hydraulic fluids are required. The chart also specifies the frequency of each lubrication point.

Remote plumbed grease fittings are provided for the vacuum compressor, boom rotation, and water pump drive areas.

ACCESSORIES

Yes No

A minimum twelve (12) month manufacturer's guarantee on the unit will be provided.

A storage box behind the cab will be provided, 16" x 42" x 96"

- 1 Debris Body "Power Flush" System, 8 jets
- 1 A Flat Style Rear Door Including Hydraulic Opener will be Provided
- 1 Rear splash guard (2 - 10 O'clock) - tank mounted
- 1 Winter Recirculating connection for high pressure circuit.
- 1 Air purge system
- 1 1/4 turn ball valve water drain
- 1 Power Guide "Reel Power" level wind guide
- 1 Lazy Susan style, deck mounted pipe rack, holds 5 pipes
- 1 Low water alarm with light
- 1 Manhole cover lifting hook
- 1 Rear mounted tow hooks
- 1 Remote boom grease assembly, (accessible from ground level)
- 1 1" x 15' leader hose
- 1 Water pump remote oil drain
- 1 Traffic Camera with Color Monitor (Camera placement must be picked)
- 1 Rear traffic camera
- 1 Hydro excavation package includes 50' retractable handgun hose reel with 50' of 1/2" high pressure hose, HP/Quick disconnect, heavy duty HP unloader valve, main control ball valve
- 1 SHELLBACK BOOM ELBOW
- 1 Omnibus Precision Power System (OPP)-Electronic Controller System-Includes: a color monitor, electronic footage counter, and pressure compensated hydraulics. AVAILABLE: DUAL AND SINGLE ENG MACHINES.
- 1 Boom Headache rack frame mounted 711-55997A Headache rack with 711-55619 bumper mounted boom docking station.

LIGHTING

Yes No

The entire module electrical system is vapor sealed to eliminate moisture damage.

All wiring is color-coded, labeled and run-in sealed terminal enclosures.

All module circuits are protected by circuit breakers.

Clearance lights and reflectors are furnished in accordance with D.O.T. requirements.

1 LED 4 Strobes (2) front bumper / (2) rear bumper Whelen 50A03ZCR Amber

1 LED Arrow Board, Rear Debris Tank Door Mounted Whelen TA1251NF1 Traffic Arrow

1 LED Boom Mounted Flood Lights with Limb Guard Whelen NP6BB Work light

1 LED Rear Mounted 1 Flood Lights with Limb Guard Whelen NP6BB Work light

1 LED Flood Light Level Wind Guide with Limb Guard Whelen NP6BB Work light

1 LED Midbody Flood Lights with Limb Guard Whelen NP6BB Driver Side and Curbside

1 Midbody LED Strobes Frame Mounted Whelen 50A03ZCR Amber

PAINT

Yes No

Unit paint surfaces are shot blasted, Amber shield zinc primed, sanded, and sealed with epoxy primer. Hose reel spool, debris tank and sides of mainframe painted with PPG single stage polyurethane paint. All other paintable surfaces coated in PPG Amber shield textured black paint.

DuPont Imron 5000 polyurethane paint.

Unit to be painted black on black with no accented stripes or logos.

TRAINING AND MANUALS

Yes No

Operator training will be conducted by a factory-trained representative for a minimum of one day at the time of delivery. 2 copies of the operating and maintenance manual for the sewer cleaner module shall be provided upon unit delivery.

MOUNTING AND DELIVERY

Yes No

The unit described is required to be mounted on a 2022 Kenworth T880 with an X15 Cummins Performance series motor with diamond tan VIT interior.

EXCEPTIONS (MUST PROVIDE ENGINEERING DOCUMENTS)
