REQUEST FOR PROPOSALS

COMBINATION SEWER CLEANER

Issued By:

Whitestown Public Works Department
6210 Veterans Dr. Rm 600
Whitestown, IN 46075

PROPOSALS DUE:

10:00 a.m. local time, November 17th, 2022

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SECTION 1. Introduction

Whitestown Municipal Utilities (the "Town") hereby requests proposals from interested persons ("Proposals") for a new and unused single-engine combination sewer and catch basin cleaner used for removing all debris commonly found in catch basins/storm lead structures and sanitary sewer lines/manhole structures using a front mounted operating station. The unit shall consist of a 1024 Positive Displacement (PD) Blower vacuum system, a hydraulically driven high pressure water pump, an enclosed sealed body for storage of collected debris and equipped with a self-contained water supply as the source for the water pump system. The unit shall have the capability of operating both vacuum and water system simultaneously at full operating speeds continuously must also submit horsepower requirements of all systems on the unit) (the "Sewer Cleaner"). The itemized minimum specifications for the Sewer Cleaner are attached to this Request for Proposal ("RFP") as Exhibit A. Bids will be accepted for consideration on any make or model that is equivalent to the equipment specified. Decisions of equivalency will be at the sole interpretation of the Collections supervisor and Director of Whitestown Utilities.

The purpose of this RFP is to attract qualified and experienced offerors ("Offerors") who will provide a high-quality, well-built, and safe Sewer Cleaner in an economical manner. The Town's receipt of any Proposal does not bind or obligate the Town in any manner under any circumstances. The Town will not become legally obligated unless and until a contract to purchase a Sewer Cleaner is duly approved by the Town, in its absolute discretion, and is executed by the parties.

SECTION 2. RFP timeline

The schedule of events is as follows:

EVENT	DATE
RFP Issued	11/3/2022
Proposals due to Town	11/17/2022
Review RFP responses and select Offeror(s), if any, to be invited to participate in discussions and revisions of Proposal(s)	11/22/2022
Notify selected Offeror	11/29/2022
Contract/negotiations finalized	12/6/2022

The dates set forth herein are merely estimates and the Town reserves the right, in its absolute discretion, to alter any of the dates and the proposed schedule set forth herein.

SECTION 3. Questions regarding RFP

Any questions concerning this RFP may be submitted to: Department of Public Works Director, Danny Powers, email dpowers@whitestown.in.gov. No interpretation, explanation, or clarification of the RFP, by any official, consultant, attorney, or other representative of the Town will be considered authoritative or binding on the Town unless contained in a written interpretation, correction, or addendum to this RFP. Official interpretations, corrections, or addendum to the RFP will be made available in writing to all potential Offerors that request copies of such documents.

SECTION 4. Pre-proposal meeting

There will be no pre-proposal meeting.

SECTION 5. Proposal submission

The Proposal must be submitted to:

Whitestown Public Works Dept.
Town of Whitestown
Whitestown Municipal Complex
6210 Veterans, Drive Rm. 600, Whitestown, IN 46075
Attention: COMBINATION SEWER CLEANER PROPOSAL

All Proposals should be received not later than 10:00 a.m., local time November 22nd, 2022. Any Proposals received after the time specified for receipt may be rejected by the Town.

SECTION 6. Criteria used in evaluating Proposals

While cost of the Sewer Cleaner is an important criterion to the Town, it will not necessarily be the controlling evaluation factor. The Town will make a determination, in its sole and absolute discretion, as to the most appropriate response to the RFP. The Town requests the following information from the Offerors and such information will be used by the Town in making its final determination:

(a) General qualifications: describe the Offeror's general qualifications;

(b) Special qualifications: describe any special or unique qualifications of the Offeror as they relate to the Sewer Cleaner specifically or sewer cleaning equipment generally;

(c) Experience: describe the Offeror's experience, especially in regard to sewer cleaning equipment and machinery;

(d) References: provide a list of sewer utilities and/or municipalities, including name, address, phone number, email address, and contact person, using the Sewer Cleaner or similar equipment;

(e) Provide performance reviews or evaluations by sewer utilities currently using the Sewer Cleaner or similar equipment;

(f) Litigation or claims: provide a list of any and all litigation or claims within the last five (5) years against the Offeror by any and all sewer utilities or other governmental entities;

(g) Describe the financial strength and capability of the Offeror;

(h) Describe in detail all specifications for the Sewer Cleaner being offered in the Proposal, including, but not limited to, model year, make, model, etc. The Sewer Cleaner offered in the Proposal must be new and include the minimum specifications itemized in Exhibit A to this RFP;

(i) Describe in detail the performance capabilities of the Sewer Cleaner being offered in the Proposal;

(j) Describe in detail all maintenance requirements for the Sewer Cleaner;

(k) Describe all warranties included in the Proposal for the Sewer Cleaner;

(l) Describe all customer service included in the Proposal;

(m) Describe all training provided by the Offeror, and describe, in detail, if there is any additional cost for training;

(n) Describe how the Sewer Cleaner meets or exceeds all applicable OSHA, and state regulatory standards or requirements;

(o) Provide the date upon which the Sewer Cleaner can be delivered to the Town;

(p) Price: include an all-inclusive price for the Sewer Cleaner. The price shall include all components included on the Sewer Cleaner, all warranties, all training, etc; and

(q) Describe any innovative, performance-enhancing, or cost-saving features of the Sewer Cleaner that the Offeror believes the Town should consider in making its selection.

SECTION 7. Proposal evaluation and selection process

The Proposals will be reviewed by an evaluation panel consisting of individuals selected by the Town.

Proposals will be reviewed using the following criteria:

(a) Conciseness, responsiveness, and completeness of the Proposal to the information requested as outlined in the RFP;

(b) Offeror qualifications, experience, litigation or claims history, financial strength, references, and performance reviews or evaluations;

(c) The specifications, performance capabilities, and maintenance requirements of the Sewer Cleaner;

(d) Warranties, customer service, and training included in the Proposal;

(e) Sewer Cleaner compliance with all applicable OSHA, or state standards or regulations;

(f) Date the Offeror can deliver the Sewer Cleaner;

(g) Price; and

(h) Innovative, performance-enhancing, or cost-saving features of the Sewer Cleaner.

At the Town's discretion, to further assist in evaluation, some, one, or all responding Offerors may be requested to participate in discussions or negotiations. At the Town's discretion, the Town may directly negotiate with any Offeror on specifications, price, or any other aspect of the Proposal. The Town may also consider alternative proposals if there is an opportunity for savings and other benefits accruing to the Town.

The Town may investigate the qualifications of any Offeror, require confirmation of information furnished, and require additional evidence of qualifications to provide the Sewer Cleaner requested by this RFP. The Town also reserves certain rights, including, but not limited to, the following: (a) Reject any or all Proposals; (b) Issue subsequent RFPs; (c) Cancel the entire RFP; (d) Remedy any errors in the RFP process; (e) Appoint evaluation committees to review qualifications and Proposals; (f) Seek the assistance of outside technical experts in evaluation; (g) Approve or disapprove of the use of particular subcontractors; (h) Establish a shortlist of eligible Offerors for discussions or negotiations after review of Proposals; (i) Negotiate with any or all Offerors: (j) Solicit best and final offers from all, some, or none of the Offerors; (k) Purchase a Sewer Cleaner from all,

some, or none of the Offerors; (l) Waive informalities and irregularities in the RFP; and (m) Purchase a Sewer Cleaner without discussions or negotiations.

The Town's selection of a Proposal will be based on a determination as to which Proposal is in the best interest of the Town. Price will be an important factor in the Town's decision, but it will not be controlling. Any decision made by the Town, including selection of a Proposal, shall be final and is NOT SUBJECT TO APPEAL.

This RFP shall not, in any manner, be construed to be an obligation on the Town to enter a contract or purchase a Sewer Cleaner or result in any claim for reimbursement of cost for any efforts expended in responding to the RFP or in anticipation of any contract.

SECTION 8. Proposals

Offerors shall submit one (1) Proposal originally executed and one (1) copy of such Proposal, and a digital copy via thumb drive. The proposal must include the manufacture specification sheet. The original and copies should be submitted in a sealed envelope, conspicuously marked: "Combination Sewer Cleaner to the Whitestown Public Works Department." The Proposal shall be limited to twenty-five (25) pages (not counting exhibits, specification sheets and schedules) and shall contain an executive summary not to exceed 5 pages.

Proposals will be opened so as to avoid disclosure of contents to competing offers during the process of negotiation. However, all Proposals and other documentation arising out of this RFP may be public records that may ultimately be subject to disclosure under Indiana law. If an Offeror believes that any portion of its Proposal may contain proprietary information, then that portion of the Proposal shall be sealed separately and clearly marked "Proprietary Information" and contain a request that such information be treated as confidential. The Town will review and consider such requests, in its sole and absolute discretion.

Each Offeror must certify that it has not participated in collusion or other anticompetitive practices in connection with the RFP process by executing and returning with its Proposal the Non-Collusion Affidavit in the form of Exhibit B.

SECTION 9. General Terms and Conditions of the RFP process

9.1. Information provided

Offerors are solely responsible for conducting their own independent research, due diligence, investigations, and other work necessary for the preparation and submission of the Proposals.

9.2. Governing law

Indiana law shall govern this RFP and any purchase of a Sewer Cleaner resulting from it. The Town requires that all Proposals, comply with all applicable local, state and federal laws, ordinances, and regulations. Notwithstanding any other term or provision of this RFP, all terms and provisions of this RFP are intended to be and shall be construed and interpreted so as to comply with all applicable local, state, and federal laws, rules, regulations, and ordinances. If any provision of this RFP shall transcend the limit of validity prescribed by law, then such provision shall be reduced to the limit of such validity. The provisions of this RFP are severable. In the event one or more provisions contained in this RFP should be invalid or unenforceable, in any respect, the validity, legality, and enforceability of the remaining provisions contained herein, shall not in any way be affected or impaired and shall remain in full force and effect.

9.3. Covenant not to sue

It is an express condition of tender and consideration of any Proposal that the Offeror release the Town and all its elected and appointed officials, representatives, attorneys, accountants, engineers and employees from all causes of action, suits, claims or demands which may arise as a result of any decision made as a result of this RFP.

9.4. Costs and expense of Offerors

The Town does not accept any liability under any circumstances for any costs or expenses incurred by Offerors in acquiring, clarifying, or responding to any condition, request, or standard contained in this RFP, including, without limitation, mandatory meetings. Each Offeror that participates in this process does so at its own expense and risk and agrees that the Town shall not reimburse any costs incurred during this process, and each Offeror shall indemnify and hold harmless the Town from and against any claims (including any costs and attorney's fees) for such reimbursement, directly or indirectly, made by or on behalf of such Offeror.

Thank you for your prompt consideration and response to this Request for Proposal.

[Signature on the following page]

TOWN OF WHITESTOWN

By: Daniel Powers

Daniel Powers
Whitestown Public Works Director

Date: November 3rd, 2022

Exhibit A

Detailed Specifications

For

COMBINATION SEWER CLEANER

		COMPLY	
		YES	**NO**
1.0	**INTENT**		
1.01	The intent of this specification is to provide for the purchase or lease of one (1) new and unused single-engine combination sewer and catch basin cleaner used for removing all debris commonly found in catch basins/storm lead structures and sanitary sewer lines/manhole structures using a front mounted operating station. The unit shall consist of a 1024 Positive Displacement (PD) Blower vacuum system, a hydraulically driven high pressure water pump, an enclosed sealed body for storage of collected debris and equipped with a self-contained water supply as the source for the water pump system. The unit shall have the capability of operating both vacuum and water system simultaneously at full operating speeds continuously. (Submit horsepower requirements of all systems on unit)		
2.0	**EQUIVALENT PRODUCT**		
2.01	Bids will be accepted for consideration on any make or model that is equal or superior to the equipment specified. Decisions of equivalency will be at the sole interpretation of the Collections System Superintendent and Director of Public Works.		
2.02	Bidder shall demonstrate a reasonable likeness of the equipment being offered within a reasonable time of request. Equipment demonstrated shall be equipped with all accessories and components required in this specification to ascertain equivalence.		
2.03	A blanket statement that equipment proposed will meet all requirements will not be sufficient to establish equivalence. Original manufacturer's brochures of the proposed unit are to be submitted with the proposal.		
3.0	**BIDDER REFERENCES**		
3.01	To ensure adequate local availability of parts and competent service from experienced suppliers, bids are preferred from local vendors who have sold and serviced at least 10 units of same manufacturer within service area of is preferred and should include contacts with phone numbers.		
4.0	**SERVICE AND SUPPORT**		
4.01	Location of warranty service center and amount of inventory shall be noted which may be verified and inspected.		
4.02	Amount of OEM parts at this facility: $		
4.03	Years of servicing equipment being bid: Years		
4.04	Number of factory qualified service technician:		
5.0	**GENERAL**		
5.01	The specification herein states the minimum requirements of the Sewer Cleaner. All bids must be regular in every respect. Unauthorized conditions, limitations, or provisions shall be cause for rejection. Any bid not prepared and submitted in accordance with the bid		

		COMPLY	
	document and specification, or any bid lacking sufficient technical literature to enable the to make a reasonable determination of compliance to the specification will be considered "non-responsive" and grounds for rejection.		
6.0	**SUBFRAME**		
6.01	The equipment shall be of modular design consisting of vacuum system, water tanks system, debris body and drive system.		
6.02	A sub frame shall be fabricated to the exact dimensions of the truck chassis for mounting of modular components.		
6.03	All components of the module shall attach to the sub frame and not directly to the chassis.		
6.04	Sub frame shall be designed to ASME standards for maximum applied loads, chassis frame movement and even distribution of weight to the chassis and suspension.		
6.05	Sub frame shall be continuous and uninterrupted from back of cab to end of frame.		
7.0	**DEBRIS BODY**		
7.01	Efficiency of air movement through debris body will be measured for minimal restriction as measured by vacuum pressure gauge while operating blower at full speed. Pressure drop throughout entire system (from 8" hose inlet to blower inlet) including specified filtration and blower protection devices shall be no greater than 3" hg as measured at blower.		
7.02	The body shall be cylindrical having a minimum usable liquid capacity of 12 cubic yards.		
7.03	The body shall be capable of high dump height of 60". Dump height of 60" must be achieved without the use of scissor lift mechanism.		
7.04	The debris storage body shall be constructed with a minimum 1/4" corrosion and abrasion resistant Ex-Ten steel.		
7.05	The debris storage body shall have a minimum yield point of 50,000 PSI and a minimum tensile strength of 70,000 PSI.		
7.06	Body shall have a rear door that is hinged at the top and is equipped with a replaceable neoprene type seal. Adjustable for periodic compensation of door seal wear.		
7.07	Dual outward mounted rear door props shall be included as standard to prevent operator from entering door swing path when engaging rear door prop.		
7.08	For optimal particulate separation, vacuum shall be drawn from separate ports in the top of the debris body.		
7.09	Body shall be dumped by raising the body to a 50 degree angle utilizing a forward mounted, double acting hydraulic dump cylinder.		
7.10	Dump controls, accessory controls, e-stop control shall be provided at a central curb side location directly behind the cab of the truck.		
7.11	For stability and safety, dumping must be accomplished while the pivot point of the body remains fixed to the subframe.		
7.12	Industrial style rear debris body door shall be flat, and shall open and close hydraulically by cylinders mounted at the top of the body. Door shall open 50 degrees from the fully closed position. Door shall be unlocked, opened, closed, and locked by a failsafe hydraulically activated sequential positive locking system, cam operated by a single hydraulic cylinder, with all controls located behind truck cab, forward of the debris body, so operator is not subject to sewage when dumping.		
7.13	Debris body shall have a body flush out system with a fan-type spray nozzle located in the front wall of the debris body to aid in the flushing of heavy debris. The nozzle shall		

		COMPLY	
	also utilize (2) spray nozzles to flush the front most area of the debris body. System must produce a flow of 80GPM. Control valve shall be on the curb side of the unit.		
7.16	Body shall have a float type automatic shut-off system protecting the Positive Displacement Blower with (2) 10" stainless steel shut-off balls located in the debris body. Each float ball housing shall be within a non-corrosive slide-out screen assembly and be accessed without the use of tools.		
7.17	The debris body shall be equipped with a rear door drain to drain off excess liquids while retaining solids. No valve included		
7.19	The debris body shall be equipped with a rear door drain at bottom dead center to drain off excess liquids with an internal screen to prevent large solids from passing. A manually operated 6" knife valve with cam-lock coupler and 25' of lay flat hose having camlock quick connects shall be included at this location.		
7.21	Debris body shall have 450 GPM, 3" submersible trash pump, internally mounted in the forward body wall, with 3" x 25' lay-flat hose, hose storage basket and 3" shutoff lever gate valve. System shall be turned on/off with selector valve at curbside controls.		
7.23	Full Swinging Decant Screen: Available Only On Valve Installed At Lowest Point In Door shall be provided.		
7.27	(4) Dual vertical (cyclone) centrifugal separators shall be installed in-line between the debris body and the air mover, (2) per side for each debris body discharge port. Each dual separator shall include large fallout chamber cleanout door.		
7.28	For safety, a minimum of (5) vacuum tubes shall be stored on curbside storage racks to minimize operator exposure to traffic side of unit. Shall include quick release retainer handles (no bungees or clamps).		
7.29	A curb-side, folding 3-pipe rack shall be provided, constructed of steel tubing, spring assisted. Shall include quick release retainer handles (no bungees or clamps).		
7.30	A street-side, folding 3-pipe rack shall be provided, constructed of steel tubing, spring assisted. Shall include quick release retainer handles (no bungees or clamps).		
7.31	A rear door mounted folding 2-pipe rack shall be provided, constructed of steel tubing, spring assisted. Shall include quick release retainer handles (no bungees or clamps).		
7.32	(2) Pipe Storage Racks on rear door with quick releases and (2) Pipe Storage Racks Curbside waist level.		
7.33	A stainless steel micro-strainer (to 30 microns) shall be provided prior to the blower inlet, with (3) removable cartridge style screens and bottom drain port.		
7.34	A splash shield shall be mounted around the lower 60% of door opening to direct liquid and debris away from the chassis. Shield shall be minimum 10" deep bolted assembly with no openings.		
7.35	A lubrication manifold system shall be provided to allow ground level greasing of boom lift and swing cylinders, float level indicator, top rear door hinges and debris body hoist cylinder pins.		
7.36	A plastic lube chart shall be provided to call out when specific points on the unit should be greased.		
7.38	An 8" valve, electrically activated, air operated valve debris body vacuum relief system shall be located in the inlet of the vacuum system to allow the venting of the tank and relieve vacuum at the debris intake hose.(3) Kunkel relief valves shall be included.		
7.39	A debris inlet deflector distributing load evenly in debris body shall be included.		
8.0	**WATER TANKS**		

		COMPLY	
8.01	The water tanks shall be manufactured from a non-corrosive material to prevent rust yet still provide for maximum strength.		
8.02	The water tank material shall require no internal coating and shall be repairable if patching is required.		
8.03	The water tanks shall be easily removed from the subframe to provide complete access to the truck chassis for maintenance purposes.		
8.04	The water tanks shall be adequately vented and connected to provide complete filling.		
8.05	The water tanks shall be totally separate from the debris tanks and provide no structural support.		
8.06	The water tanks shall share no common walls with the debris tanks to prevent corrosion.		
8.07	The water tanks shall come equipped with an anti-siphon device and 25' of hydrant fill hose and fittings.		
8.08	The water tanks shall carry a 10 year warranty against corrosion or cracking.		
8.09	All water tanks shall be fully baffled to form a maximum compartment storage of 150 gallons for each compartment. has determined that for the stability of the vehicle when turning and stopping and for safety of personnel that systems baffled at 150 maximum gallon compartments are preferred. Exceptions of requirement shall be explained in detail accompanied with detailed engineering drawings.		
8.10	The water tank shall be located for the lowest possible center of gravity while providing 100% gravity flooded intakes to water pump.		
8.11	Fresh water shall enter the tanks through an in line 6" air gap, all aluminum covered anti-siphon device.		
8.12	Water level sight tubes of non-yellowing plastic shall be installed on both tanks.		
8.13	The sides of these water tanks shall not extend more than 48" out from the centerline of the truck chassis.		
8.14	A fresh water drain system shall be provided to completely drain the fresh water system from one location utilizing the 3" Y-strainer on the pump.		
8.15	A minimum 6" connection between tanks shall be provided.		
8.16	For stability safety, the water tanks shall not elevate with debris body during dump cycle.		
8.17	A low water alarm with indicator on control screen shall alert operator when water storage has reached an operator set remaining water level.		
8.23	A 3 in-line "Y" trap strainer shall be located at inlet of water tank fill air-gap.		
8.24	A 3 in-line "Y" trap stainless steel strainer shall be located between the water cells and water pump.		
8.25	A 3" Gate Valve shall be provided at water pump.		
8.26	Water tank must be a certified metered capacity of 1300 gallons. Certification shall be necessary upon delivery.		
8.27	Water tanks shall be constructed of 1/8" aluminum with baffled compartments maximum 150 gallons each.		
8.31	Liquid Float Level Indicator shall be provided.		
9.0	**WATER PUMP SYSTEM**		
9.01	For most efficient use of horsepower and reduced fuel consumption, high pressure rodder pump shall be hydraulically driven via (2) variable displacement pumps		
9.02	Hydraulic powered rodder pump via (2) variable displacement hydraulic pumps utilizing (2) 10-bolt PTO's.		
9.03	High pressure water pump shall be rated capable of continuous delivery of 100 GPM at 2500 PSI (submit manufacturer support documentation).		

		COMPLY	
9.04	High-pressure water (rodder) pump system shall be completely controlled through the range with use of the MultiFlow Control and throttle located on the control panel.		
9.05	Digital flow meter shall be displayed in front LCD display. Flow meter shall be capable of displaying system flow in all pump operating modes. In addition, a low water alarm shall be provided.		
9.06	Water pump speed to remain fully adjustable via an independent operator input regardless of the selected vacuum drive speed.		
9.07	Variable flow systems routing water back-to-tank are not considered equal due to additional wear, horsepower and fuel consumption. Any deviation from this drive requirement should have full explanation of horsepower consumption.		
9.08	Water (rodder) pump shall include smooth and pulsation operation mode feature without altering pump flow.		
9.09	When required to assist nozzle breaking through obstructions, water pump "pulsation mode" shall provide a forward-acting nozzle surge. Pulsation surge wave shall allow nozzle to punch forward 2" to 18" depending on flow dynamics and length of hose in sewer pipe.		
9.10	Explanation of forward-acting pulsation method shall be submitted with bid or explained below. Systems that require the use of air induction into the water pump shall not be accepted.		
9.11	Water pump location shall provide a flooded gravity suction inlet to eliminate potential cavitations damage.		
9.12	An oil to water heat exchanger will be provided in the water system to cool all hydraulic fluids on the unit. State horsepower requirement to operate hydraulics at full speed:		
9.13	The water pump shall provide precise 0-80 GPM controlled flow at variable pressure up to 2500 PSI.		
9.14	An extreme cold weather recirculation system - minimum 25 GPM via transmission PTO at chassis engine idle speed.		
9.15	A hydro-pneumatic nitrogen charged accumulator system shall be provided with all control valves, piping and hoses for either continuous flow or jackhammer rodding. Accumulator shall be a 2.5 gallon capacity and 1000 to 2500 PSI pressure rating.		
9.16	Two (2) 1/2" high pressure ball valves shall be provided for draining the water pump and flushing sediment from the bottom of the pump.		
9.17	A nozzle rack accommodating (3) nozzles shall be provided in curbside toolbox. The nozzles shall be labeled on storage rack for pipe size/flow and application.		
9.18	System shall be relieved to protect operator.		
9.19	Handgun shall be supplied that allows for changing of flow pattern from a fine mist to a steady stream.		
9.20	Handgun shall come equipped with quick connect couplers.		
9.21	An additional 1" water relief valve shall be provided.		
9.22	A mid-ship quick disconnect handgun couplers shall be provided.		
9.23	Front and rear quick disconnect handgun couplers shall be provided.		
9.25	A water pump hour meter shall be provided.		
9.29	A high-pressure hose reel capable of operating at system pressure shall be provided.		
10.0	**VACUUM/VACUUM DRIVE SYSTEM**		
10.01	Vacuum shall be provided by a positive displacement rotary lobe type blower driven via chassis engine and heavy duty split transfer case direct to the blower.		
10.02	Interlock safety system shall prevent drive axle from engaging.		

		COMPLY	
10.03	A horizontal silencer with rain cap shall exhaust above the cab.		
10.04	A blower tachometer / hourmeter shall be provided and displayed digitally on front control screen.		
10.05	For most efficient use of horsepower and fuel consumption, full vacuum and/or combination operation shall be approximately 1750 RPM of chassis drive engine.		
10.06	Blower shall be driven by the chassis engine and shall produce inlet volume of 5500 cfm @ 0" hg @ 2250 rpm, and 3490 cfm @ 18" hg @ 2200 rpm vacuum (Roots 1024RCS 18 or equal). Drive engine not to exceed 1760 RPM.		
10.07	For added protection, the vacuum system shall have three (3) relief valves set at 18" hg, heavy duty horizontal mounted noise muffler, removable and cleanable stainless steel filter screen, and shall be enclosed with a steel cage guard for safety.		
10.08	Transfer case shall be activated by air via a one touch control located in cab with animated confirmation on screen.		
10.09	A hot shift blower drive system shall be provided, including transfer case, air shift control, vacuum relief, and front control for blower engagement.		
10.10	Blower shall be driven from chassis engine via the transmission drive shafts and heavy duty split shaft transfer case direct to blower, engagement via one touch control on front control panel.		
10.10	The blower drive mechanism shall be engaged and disengaged via an electrical switch located at the operator's station on the front mounted hose reel. This feature shall reduce blower runtime and the extend the blower service life.		
10.12	Blower shall be provided with a horizontal silencer with exhaust above the cab and rain cap protecting the silencer from rain water.		
10.13	Blower shall draw air from two (2) separate ports in the debris body.		
10.14	Hydraulic shut off valves shall be provided at the suction, return and filter lines to permit servicing of the hydraulic system.		
10.25	Ball valve drains shall be provided for both the final filter and silencer to be able to drain any carryover that comes from the debris body.		
11.0	**VACUUM BOOM SYSTEM**		
11.01	Vacuum hose shall be designed for front operation with hose mounted and stored at front mounted workstation. Front mounted location is required for ease of positioning vacuum hose as well as minimizing need for operator to swing hose into traffic.		
11.02	All connections between debris body and vacuum system will be of the self-adjusting pressure fitting type.		
11.03	Vacuum hose will remain stationary and not rise with debris body.		
11.04	Upper debris tube shall consist of an anchored steel tube and elbow.		
11.05	A sub-frame mounted cab guard shall be mounted behind cab with boom rest cradle.		
11.06	All vacuum pipes shall be connected to vacuum pick up tube and extension pipes by adjustable over-center quick clamps to join the aluminum flanges on pipes.		
11.07	One (1) quick clamp for each pipe supplied shall be provided.		
11.08	Boom pedestal shall be directly mounted to module subframe.		
11.09	Boom support used for travel mode shall not interfere with access or require removal to tilt hood forward.		
11.10	A control station shall be equipped with a control joystick for all directions as well as a safety emergency shut-down button, which shall automatically eliminate power to boom.		

			COMPLY
11.11	The vacuum boom shall have a heavy-duty flexible hose assembly joining the transition pipe to the debris body, and a 70-degree elbow and 5-1/2 heavy duty hose at the suction end of the boom.		
11.12	Boom shall rotate 180 degrees and shall be operated by an electric over hydraulic system. Lift and swing movements shall be actuated by hydraulic cylinders.		
11.13	The horizontal inner steel vacuum tube and inner box beam boom section shall telescope (tube within tube, box beam within box beam) and retract a minimum of 10' without affecting the vertical position of the pick-up tubes, and shall be located at the front work station in its retracted position, providing 324" maximum reach off the longitudinal axis of unit.		
11.14	Boom shall be fully controlled by a remote push button pendant control station with 25 ft. cable. Controls to include up / down, left / right, in / out boom functions, vacuum relief, e-stop and main power switch.		
11.15	A joystick for hydraulic control of the boom shall be installed on hose reel front panel.		
11.18	A removeable 4" diameter storage "Post" to stabilize the lower boom hose during transport. Storage device shall not interfere with raising hood.		
11.19	A cordless remote boom control system equipped to activate boom functions, throttle, water pump on/off, hose reel in/out, hose reel speed, vacuum relief on/off and emergency disengagement e-stop shall be provided.		
11.20	A rotatable inlet hose for telescopic boom shall be provided.		
11.21	A detailed engineering drawing must be supplied showing the relationship of the hose reel in relation with the vacuum boom range of motion. Drawing shall show module mounted on chassis, full arc of vacuum hose both retracted and extended, full rotation of arc for hose reel in the extended position and dimension all arc lengths of vacuum boom retracted and extended. Drawing shall highlight intersection areas whereby combination cleaning is possible (within full arc on telescoping boom system).		
11.22	70 degree elbow at end of boom tube shall be reinforced steel.		
12.0	**HOSE REEL**		
12.01	Hose reel assembly shall be direct frame mounted.		
12.02	Hose reel assembly shall be mounted on an independent frame that can be removed from brackets attached permanently to front of main truck frame members.		
12.03	Reel will be manufactured out of 1/4" spun steel for added structural strength and shall require no internal or external reinforcements that could damage rodder hose.		
12.04	Hose reel shall be driven by adjustable gear reduction chain and sprocket assembly.		
12.05	Hose reel shall operate at full rotational speed while chassis engine is at idle.		
12.06	Hydraulic Telescoping Rotating Hose Reel - 800' capacity of 1" hose shall be provided.		
12.07	The front mounted hose reel shall telescope 15" forward down centerline of truck.		
12.08	Entire reel assembly shall rotate 270 degrees on a large diameter ball bearing.		
12.09	Hose reel shall include a dual locking device to positively lock reel in any position across operating range.		
12.10	The hose reel shall rotate about the reel assembly centerline so the reel shall never extend beyond the truck width. Reel coverage diagram shall be submitted with bid.		
12.11	Controls shall accessible on both sides of the hose reel via a mounting station for the belly pack wireless remote control, allowing operator to work at either side of unit for safety purposes.		
12.12	600' x 1" Piranha Sewer Hose / 2500 Psi shall be provided		

			COMPLY
12.15	An air-cylinder actuated pinch-roller shall exert downward pressure across full width of reel to retain hose on reel when encountering nozzle blockages. Pinch roller must be activated via a one touch, backlit button with lighted feedback on the control panel.		
12.18	Digital footage counter displaying footage values shall be provided. System must be capable of resetting value to ensure operator safety. Accuracy To Within One Percent Of Actual Distance, Large Easy To Read Lcd Screen located on the 7??? front control panel screen.		
12.22	10' Leader Hose		
14.0	**WASHDOWN EQUIPMENT**		
14.02	A handgun with 1/2" x 35' hose shall be provided at mid-ship to which allow the operator to deliver water to area served by pick up hose and to the inside of the debris body for clean out.		
14.03	Hand sprayer with adjustable spray-pattern to be provided with trigger-style gun.		
16.0	**FRONT OPERATING STATION AND CONTROLS**		
16.01	Primary operator station will be located at front of hose reel.		
16.02	All operator controls should be located on a single control panel that can be rotated on a 90 degree arc for an operator customizable location. The control panel shall also feature the ability to raise and lower through a range of not less than 8” to accommodate operators of different height.		
16.03	Station shall include a 7” Touch enabled display screen with corresponding tactile buttons for reading critical machine data including (hose footage, hose reel speed settings, water pressure, water flow. Air mover information, chassis data, mode indicator, chassis fuel level, and diagnostic controls), Back lit button keypads with, laser etched function icons, and 4 light feedback indicators. These buttons shall operate the following functions: All setup functions (remote/panel selector, work lights, hose reel extend/retract, hose reel lock, and pinch roller activation) and Vacuum functions. Additionally, there will be separate sealed rocker switches for Water Pump on/off and Throttle up/down. There shall be a multi flow control dial for controlling the full range of the water pump.		
16.03	There shall be a hose reel joystick to control the pay in and pay out of the hose reel, this joystick shall offer speed control that increases the further the joystick is moved in either direction. There shall be an additional hose reel speed dial for setting specific speed ranges of the reel. There shall be a boom joystick that controls all function of the boom including up/down, left/right, and extend/retract. There shall be a E-Stop button to bring all machine		
16.04	Tachometer and hour meter for chassis engine provided at control station shall be provided.		
16.05	Tachometer and hour meter for blower provided at control station shall be provided.		
16.06	All Hydraulic Functions - Color Coded, Sealed Electric/Hydraulic NEMA 4 switches shall be provided.		
16.07	Blower Engagement/Vacuum Relief - Sealed Electric/Air NEMA 4 Switch shall be provided.		
16.08	Water pump hour meter shall be provided.		
16.099	PTO hour meter shall be provided.		
16.10	A temperature light and alarm shall be provided. Light and alarm will be activated when hydraulic temperature reaches 180 F.		

		COMPLY	
16.11	Front control screen shall display a water level indicator to show level of water through the range of the tank.		
16.12	Front control screen shall display the debris body level.		
17.0	**IN CAB CONTROLS**		
17.01	All In cab controls are to be located on a single in cab control screen. This shall be a 7" full color display screen. It shall utilize 12 back lit tactile (glove ready) buttons on the sides of the screen as well as feature touch screen operation.		
17.02	All Back up camera Features shall be displayed on the In Cab Control Screen.		
17.03	All work lights shall be able to be activated or deactivated in cab with on screen controls.		
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17.03	All work lights shall be able to be activated or deactivated in cab with on screen controls.		
17.05	All safety strobes and beacons shall be controlled via on screen controller		
17.06	Jet or Combo mode shall be activated via one touch button on the control panel. Control screen must display an on screen representation of the chassis drive system and must animate to show as drive systems activate or deactivate.		
17.07	Recirculation must be activated on the in cab control screen and visibly show that it is active at all times.		
19.0	**ELECTRICAL & SAFETY LIGHTING**		
19.01	The entire system shall be vapor sealed to eliminate moisture damage, "Nema-4" type or equal.		
19.02	IQAN Electronic Package: Chassis Tachometer, Blower Tachometer, Operating Mode, PTO Mode, Hydraulic Oil Temperature shutdown, Hose Reel Speed, Water Pressure, and E-Stop shall be included. E-Stop activation must turn off rodder pump, shutdown Hydraulics, set chassis throttle to idle, stop vacuum E-stop must be located at each operator interface; including hose reel controls, pendant control, wireless control (if equipped) Diagnostics for basic machine functions and all inputs and outputs shall be accessible via the display.??? Advanced diagnostics, updates, data retrieval, and remote diagnostics will be available via PC or Bluetooth connection.		
19.02	Logs, reports, and hour meters will be accessible via the display.		
19.03	All electrical connections shall be void of exposed wires or terminals nor should they be painted. Paint process shall be completed prior to installation of wiring.		
19.04	All wiring shall be color-coded and encased in conduit to scaled terminal boxes with circuit breakers.		
19.06	All other lights required by State and Federal Laws.		
19.13	Hose reel manhole work lights shall be provided		
19.14	(2) L.E.D. Boom worklights shall be provided.		
19.18	L.E.D. Work light at midship curbside shall be provided.		
19.20	(2) L.E.D. Rear door work lights shall be provided		
19.24	L.E.D. Lights, Clearance, Back-Up, Stop, Tail & Turn shall be provided.		
19.25	Mid-Ship L.E.D Bubble Type Turn Signals Shall be Provided		
19.28	A LED arrowstick shall be installed at the rear of the unit to provide directional control for approaching traffic.		
20.0	**SAFETY EQUIPMENT**		
20.01	E-stop shall be located at each operator interface location. Standard locations to include: front hose reel, mid-ship curbside dump controls, & wireless controller (if equipped.)		

		COMPLY	
20.02	Electrical system controls shall be configured to allow for single point operation only. Upon engagement of controls at specified locations, additional controls shall be disabled.		
20.03	Electrical system must enable self-check to ensure all switches are in home position prior to critical function enablement. System must "lock out" controls when switch is not in home position.		
20.04	Rear work lights shall be activated upon engagement of reverse gear.		
20.05	(1) Emergency Flare Kit		
20.06	(1) 5# Fire Extinguisher.		
20.07	Screen Backlighting shall be provided.		
20.07	Menu Driven Menu Screens shall be provided.		
20.07	Multi-View Available On Monitor, Up To (4) Camera Inputs and Up To (4) Simultaneous Views shall be provided.		
20.07	Back-Lit Soft Touch Controls shall be provided.		
20.07	Front Hose Reel Color Camera With 130 Viewing Angle shall be provided.		
20.07	Rear Back-up Color Camera With 130 Viewing Angle shall be provided.		
20.07	Left and Right Side Mounted Color Cameras, Each With 130 Viewing Angle shall be provided.		
20.07	LED Low Light Assist On Each Camera shall be provided.		
20.07	Automatic Activation of Rear Camera When Transmission REVERSE is selected shall be provided.		
20.07	Automatic Activation of Appropriate Side Camera When Turn Signal is activated shall be provided.		
20.07	Normal Image / Mirror Image Orientation shall be provided.		
20.07	Manual Selection of Camera, Except In Reverse shall be provided.		
20.07	PAL compatibility shall be provided.		
20.07	Quad- Adapter shall be provided.		
20.07	Waterproof cable connector shall be provided.		
20.09	The unit shall utilize a high temperature monitoring safety device to automatically disable the vacuum system when the outlet temperature of the positive displacement blower reaches a high temperature limit.		
20.11	Digital water pressure shall be displayed in front LCD display.??? Pressure gauge shall be capable of displaying water system pressure in all pump operating modes.		
21.0	**SEWER TOOLS AND ACCESSORIES**		
21.02	(1) 30 Sand Nozzle		
21.03	(1) 30 deg. Sanitary Nozzle		
21.04	(1) 15 deg. Penetrator Nozzle		
21.05	(1) 1" Small finned nozzle pipe skid		
22.0	**VACUUM TOOLS AND ACCESSORIES**		
22.01	The basic vacuum tube package shall include the following:		
22.02	(1) 8" x 3' aluminum pipe		
22.03	(2) 8" x 5' aluminum pipe		
22.04	(1) 8" x 6'6" catch basin tube		
22.05	(4) 8" quick clamps		
23.0	**CHASSIS EQUIPMENT AND STORAGE**		
23.01	Two (2) front tow hooks shall be provided.		
23.02	Two (2) rear tow hooks shall be provided.		

		COMPLY	
23.07	Aluminum Toolbox - Behind Cab - with Lighting		
23.08	(1) 30" x 18" x 24" Aluminum Toolbox Mounted curb side shall be provided.		
23.09	(1) 16" x 20" x 24" Aluminum Toolbox Mounted street side shall be provided.		
23.10	(1) 40" x 22" x 24" Aluminum Toolbox Mounted curb side shall be provided.		
23.11	(2) 18 In. x 16 In. x 12 In. Aluminum Toolbox - Front Bumper shall be provided.		
23.11	(1) 24" x 24" x 24" Aluminum Toolbox Mounted streetside shall be provided.		
23.17	Storage locations for various tools and accessories shall be provided at the front hose reel for point of use storage.		
24.0	**MODULE FINISH**		
24.01	Painting of the module shall be with a DuPont Imron Elite Polyurethane Enamel Top Coat. Application is to be a wet top coat applied to a dried and sanded primer base.		
25.0	**CHASSIS SPECIFICATION**		
25.01	The unit shall be a new model. No discontinued models will be accepted		
26.0	**ADDITIONAL PARTS**		
26.02	(6) 8" x 5' Aluminum Vacuum Tube		
26.13	(6) 8" Quick Clamp Assembly		

		COMPLY	
		YES	**NO**
1.0	**Truck Model**		
1.01	Kenworth T880		
2.0	**Truck Chassis**		
2.02	Fr Axle Load (lbs) 20000		
2.03	Rr Axle Load (lbs) 46000		
2.04	G.C.W (lbs) 66000		
	Truck Engine & Equipment		
3.01	MX-13 455 455@1600 1650@900		
3.02	Carb Compliant Engine		
4.0	**Truck Transmission & Clutch**		
4.01	Transmission: Allison 400RDS 6-Speed		
6.0	**Cab and Equipment**		
6.01	Hood: T880 Standard Length with Mechanically Fastened Fenders. 122.6 inch BBC		

Exhibit B

NON-COLLUSION AFFIDAVIT

The individual person(s) executing this Proposal, being first duly sworn, depose(s) and state(s) that the Offeror has not directly or indirectly entered into a combination, collusion, undertaking or agreement with any other offeror or person (i) relative to the price(s) proposed herein or to be bid by another person, or (ii) to prevent any person from submitting a Proposal, or (iii) to induce a person to refrain from submitting a Proposal; and furthermore, this Proposal is made and submitted without reference to any other proposals and without agreement, understanding or combination, either directly or indirectly, with any persons, with reference to such proposals in any way or manner whatsoever.

[*Signature by or on behalf of the Offeror in the spaces provided below shall constitute execution of each and every part of this Proposal. SIGNATURE MUST BE PROPERLY NOTARIZED.*]

Written Signature: _____

Printed Name: _____

Title: _____

Important - Notary Signature and Seal Required in the Space Below

STATE OF _____

SS:

COUNTY OF _____

Subscribed and sworn to before me this ___ day of _____, 20 22.

My commission expires: _____ (Signed) _____

Residing in _____ County, State of _____