



CITY OF CONCORD  
CONCORD, NORTH CAROLINA

FOR

**ONE (1) JET-VAC TRUCK**

FOR

WASTEWATER DEPARTMENT

ANNOUNCED DATE: TUESDAY, AUGUST 2, 2011

DUE DATE: THURSDAY, AUGUST 25, 2011

TIME: 2:00 PM  
IN CONFERENCE ROOM C  
ALFRED M. BROWN OPERATIONS CENTER  
850 WARREN C. COLEMAN BOULEVARD  
P.O. BOX 308  
CONCORD, NC 28025

## REQUEST FOR BID

The City of Concord will receive sealed bids, on Thursday, August 25, 2011 at 2:00 PM, in Conference Room C, Alfred M. Brown Operations Center, 850 Warren C. Coleman Boulevard, Concord, North Carolina 28025. Said proposals will be publicly opened and read for:

### **ONE (1) JET-VAC TRUCK**

Copies of the specifications if not included in the bid can be obtained by contacting the Purchasing Department, Alfred M. Brown Operations Center, 850 Warren C. Coleman Blvd., P.O. Box 308, Concord, N.C. 28025. Telephone #704-920-5441, Fax # 704-785-8856.

NC General Statutes, including G.S. §143-129, and the city of Concord, NC General Specifications and Instructions to bidders will govern the RFB and award of the contract.

The City of Concord reserves the right to reject any or all bids.

Sid Talbert  
Purchasing Manager  
City of Concord, N.C.

In accordance with state law (G.S. 143.129), the award shall be made to the lowest responsible, responsive bidder, taking into consideration quality, performance, the time specified in the bid. Prices should be quoted for each line as well as a price for the total award.

Each bid must be submitted in a sealed envelope, so marked as to indicate its contents when being opened. **All bids should be marked BID #2202 ONE (1) JET-VAC TRUCK**

An authorized official of the firm must sign the bid.

The vendor will be required to submit a written request for payment. Payment will depend on projected delivery date stated in the bid for items and certified acceptable by Mr. Daniel Nuckolls – Fleet Services Director, for City of Concord, P.O. Box 308, Concord, North Carolina 28025. Telephone (704)920-5431. Questions concerning bid requirements or specifications should be directed to the Purchasing Manager, Alfred M. Brown Operations Center, 850 Warren C. Coleman Boulevard, P.O. Box 308, Concord, NC 28025. Any changes in specifications will be in writing in form of an addendum and furnished to all bidders. Verbal information obtained otherwise will not be considered in the awarding of bids. No changes to specifications will be permitted within (5) days to the bid opening.

Instructions for preparation and submission of a bid/proposal are contained in the attached packet. Please note that specific forms for submission may be required. Any changes to the conditions and specifications must be in the form of a written addendum to be valid; therefore, the Purchasing Department will issue a written addendum to document on all approved changes. Any bid submitted which does not acknowledge the receipt of an issued addendum will not be considered. Bidders should have no contact with elected officials or appointed officials except the Purchasing Manager during the bidding process. Any such contact will subject bidders to immediate disqualification. Questions regarding specifications should be directed to the Purchasing Manager. A bid proposal from your firm will be appreciated.

## Bid Proposal

City of Concord  
P.O. Box 308  
Concord, North Carolina

Gentlemen/Ladies:

The undersigned, as bidder, hereby declares the proposal is made without connection with any other person, company, or parties making a similar bid or proposal, and that it is in all respects fair and in good faith without collusion or fraud. The Bidder has carefully examined the annexed form of the specifications and instructions to the bidder and hereby declares that he will furnish the material called for in a manner prescribed in the specifications and instructions to bidders for the following prices listed.

PRICE \_\_\_\_\_

DELIVERY DATE \_\_\_\_\_

COMPANY NAME \_\_\_\_\_

AUTHORIZED SIGNATURE \_\_\_\_\_

TYPE NAME AND TITLE \_\_\_\_\_

FEDERAL ID # \_\_\_\_\_

NC CONTRACTORS LICENSE # \_\_\_\_\_

TELEPHONE # \_\_\_\_\_

**Note:**

**This signature page must be signed for your bid to be valid.**

## GENERAL SPECIFICATIONS & INSTRUCTIONS TO BIDDERS

### Scope

It is the intent of this bid invitation to obtain proposals for supplying the materials, supplies and/or equipment listed on the Proposal Sheet. You are requested to submit your bid on the enclosed Proposal Sheet and return the entire sealed package to Sid Talbert, Purchasing Manager, City of Concord (hereinafter "City"), PO Box 308, Concord, NC 28026-0308 no later than the time specified in the bid advertisement. Bidders will be required to comply with all applicable statutes, regulations, and local ordinances, ect. And those attached to and made a part of the proposal.

### Marking of Bid Envelopes

Bids must be contained in a sealed envelope, plainly marked, showing the bid name, bid number, date, time for opening bids and the bidder's name.

### Late Bids Not Considered

Bids received after the stipulated bid opening date and time will not be considered.

### Compliance With Specifications

Your bid must be in strict compliance with the specifications and offer the same or equal equipment. Exceptions are to be listed separately in a letter that will become a part of your proposal; otherwise, it is fully understood that the equipment offered is exactly as specified. The City reserves the right to allow or disallow minor deviations from the specifications in order to purchase what is best for the City from a standpoint of quality, price and service to be rendered.

### Standard Equipment

To protect the interest of the City, the bidder guarantees that the equipment bid is standard equipment with parts regularly used for equipment offered. There must be no parts or attachments substituted or applied contrary to the manufacturer's recommendations and standards unless expressly called for in the specifications.

### Warranty

In submitting a bid, the bidder warrants that all goods furnished shall be free from all defects and shall conform in all respects to the Technical Specifications established herein. Unless otherwise specified, all items shall be guaranteed for a minimum of one (1) year against defects in material and workmanship. At any time during that period, if a defect should occur in any item, that item shall be repaired or replaced by the seller at no cost to the buyer except where it can be shown that the defect was caused by misuse. The bidder expressly warrants that all items bid are fit and sufficient for their intended purpose. If the specifications contain a statement of the particular

## *City of Concord North Carolina General Specifications and Instructions to Bidders.*

purpose for which the goods will be used, the goods offered by bidder shall be fit for this purpose.

### **Shipping**

All prices are to be quoted f.o.b. Concord N.C. delivered unless otherwise specified. Risk of loss and/or damage shall be upon the seller until such time as the goods have been physically delivered and accepted by the buyer.

### **Unit Prices to Prevail**

Prices shall be submitted on per unit basis by line item. In the event of a disparity between the unit price and the extended price, the unit price shall prevail.

### **Bid Price Corrections**

All prices and notations shall be written in ink or typed. Changes or corrections made on the bid form must be initialed by the individual signing the bid. No corrections will be permitted once bids have been opened.

### **Withdrawal of Bids**

Bids may be withdrawn at any time prior to the time specified for the bid opening upon written or personal request of the bidder. No bid may be withdrawn for a period of sixty (60) days after the scheduled bid opening time and date. Negligence on the part of the bidder shall not constitute a right to withdraw the bid subsequent to such bid opening.

### **Use of Brand Names and References**

Unless otherwise stated, the use of manufacturer's names and product numbers are for descriptive purposes and establishing general quality levels only. They are not intended to be restrictive. Bidders are required to state exactly what they intend to furnish; otherwise it is fully understood that they shall furnish all items as stated.

### **Alternate Bids**

Bid submitted as alternate which do not meet or exceed the minimum specifications shall be rejected except that minor deviations may be acceptable. The City shall be the sole judge of what is considered a minor deviation.

### **Time For Delivery**

The time for delivery must be stated in calendar days on the Proposal Sheet and may be a factor in making awards, price notwithstanding.

*City of Concord North Carolina General Specifications and Instructions to Bidders.*

**Rejection of Bids**

The City reserves the right to reject any and all bids.

**Bonds**

A 5% bid bond is waived for the purchases of apparatus, supplies, materials or equipment as stated in the cover section. A 100% performance bond is also waived.

**Award**

Award shall be made to the lowest responsible bidder, taking into consideration quality, performance and time specified in the proposal for the performance of the contract. Time of delivery and prompt payment discounts will be considered in breaking tie bids.

**Brochures and Literature**

The proposal must be accompanied by descriptive literature marked, indicating the exact item(s) bid upon. The term "as specified" will not be acceptable.

**Addendums**

The City shall not be responsible for any oral instructions made by its employees or officers of the City with regard to bidding instructions, drawings, specifications or contract documents. Any changes to the specifications will be in the form of an Addendum, which will be mailed to all bidders who are listed with the Purchasing Department as having received the invitation or any other bidder who requests an Addendum.

**Responsibility of Compliance With Legal Requirements**

The bidder's products, service and facilities shall be in full compliance with any and all applicable state, federal, local, environmental and safety laws, regulations, ordinances and standards, or any standard adopted by nationally recognized testing facilities regardless of whether or not they are referred to in the invitation.

**Taxes**

The City of Concord is subject to 6.75% N.C. Sales & Use tax. Tax will not be shown on the proposal; however, invoices will indicate all applicable sales tax. The city is exempt from Federal Excise Tax and will provide a Federal Exemption number.

**Terms and Conditions**

Payment will be made by the City in full for all equipment delivered as soon after complete delivery and receipt of a correct invoice as can be processed in accordance with these specifications.

*City of Concord North Carolina General Specifications and Instructions to Bidders.*

Any company submitting a "No Bid" response to a bid invitation should clearly mark the outside of the envelope.

Terms and Conditions attached to the bid by the bidder and made a condition of purchase may render the bid non-responsive and may be rejected by the City.

Terms and Conditions included herein are an integral part of the bid document and shall prevail, unless changes or attachments are agreed to and initialed by the City prior to the bid opening.

**Introduction in Use of Goods: Demonstration**

A demonstration may be required of the goods bid upon. The demonstration shall be at no cost to the City. If the bidder cannot make a demonstration within twenty days of the request, his or her bid may be rejected. Performance of the equipment at the demonstration must be made with the exact equipment offered in the bid and may be completed at the same time as competitive demonstrations.

**Trade-ins**

Goods listed for trade-in, if any, may be examined after contacting the Purchasing Department. Goods listed for trade-in are represented "as is" and "where is". Such goods will be released to the successful bidder after receipt of the new equipment and in the same condition as when examined, excepting normal wear and tear.

The City reserves the right to retain goods listed as trade-in if it is deemed to be in the best interest to do so.

**Training/Safety**

When requested or required, a factory-trained representative shall be present at the time of delivery to train City personnel in the use of and/or safety aspect of the equipment or chemical. The factory representative shall effectively train the City personnel in all aspects, including assembly, disassembly, operating procedures, safety and any other training necessary for its safe and effective use. Items received without sufficient training when requested will be set aside and payment withheld until sufficient training can be completed.

Training shall include OSHA related training in the handling of hazardous materials.

MSDS sheets must be sent with each order. Failure to provide MSDS sheets prior to or at the time of delivery will result in withholding payment until such sheets are received.

*City of Concord North Carolina General Specifications and Instructions to Bidders.*

**Service**

All vehicles furnished under a bid shall receive without additional cost whatsoever the usual check-up, guarantees and adjustment identical to that which is normally furnished on vehicles sold to the general public.

**Manuals**

One parts, one service, and one operators manual shall be furnished with each type vehicle delivered if applicable to this bid.

**Bankruptcy**

Successful bidders shall execute a contract that contains the following language:

If any bankruptcy or insolvency proceedings are commenced against the contractor And are not dismissed within thirty (30) days after service of such proceeding on the Contractor, or if the contractor shall file petition in bankruptcy or for reorganization or To effect a plan or other arrangement with creditors, or be adjudicated bankrupt or make an assignment for the benefit of creditors, or be dissolved or liquidated, or shall Admit in writing its inability to pay its debts generally as they become due, or a receiver, trustee or liquidator of the contractor or of all or substantially all of the property of the contractor is appointed in any proceeding brought by the contractor, or if any such receiver, trustee, or liquidator is appointed in any proceeding against the contractor, and any such receiver, trustee or liquidator is not discharged within (30) days after service of such appointment on the contractor, this agreement shall be null and void.

**W-9 Form**

Prior to the first payment by the City under any contract awarded to the successful bidder, the successful bidder shall submit a complete and accurate W-9 form to the Purchasing Manager.

**Dissolution of Corporate Status**

Successful bidders shall execute a contract that contains the following language:

Failure to register the agent of the corporation or other business entity, if any, with the N.C. Secretary of State or voluntary, judicial or administrative dissolution of the corporation or other business entity shall automatically terminate this contract or agreement unless the bidder or contractor notifies the City of Concord in writing within 72 hours of the dissolution or failure to register the agent and makes satisfactory arrangements and/or guarantees with the City Purchasing Officer and City Attorney to fulfill the contractors obligations under the contract or agreement.

*City of Concord North Carolina General Specifications and Instructions to Bidders.*

**Concord NC Licenses and Taxes**

ALL BIDDERS SHOULD BE IN COMPLIANCE WITH THE CITY OF CONCORD PRIVILEGE LICENSE TAX ORDINANCE AND AWARD OF BID WILL BE CONTINGENT UPON RECEIPT OF COPY OF LICENSE.

It is the intent of the City of Concord to issue purchase orders for the Bid items to cover the Fiscal Year July 1, 2011 to June 30, 2012. Quantities are estimates only and the City reserves the right to purchase more or less for the entire fiscal year and extend pricing if mutually agreed upon with the vendor and the City of Concord.

# **City of Concord**

## **Specifications for One (1) Combination Sewer Vacuum and High Pressure Cleaner**

The following specifications are not to be considered as restrictive; however the specifications are based on desired performance levels with features deemed necessary to accomplish specific functions. The bidder shall indicate compliance or non-compliance to each section of the specifications by checking a **YES** or **NO** response. All **NO** responses must be fully explained in the deviations, exceptions or exclusions space. For all **YES** responses, it will be assumed that the features and performance are as specified without exception. If additional space is needed, bidder shall attach (on bidder's letterhead) a statement of deviations, exceptions, exclusions to the bid documents referencing the Section and Item Number within the Section. Failure of the successful bidder to deliver the unit as proposed and accepted for bid award will result in rejection of the unit and/or nonpayment.

### **GENERAL**

The equipment described herein shall be utilized for the purpose of simultaneous high pressure flushing of sewer pipes and removal of liquids and solids from the catch basin/manhole. All operation's shall be able to be performed by one operator. All material from the catch basin/manhole shall be deposited within one cylindrical debris tank. Unloading of debris tank shall be accomplished via a single cylinder dump body. The entire unit is to be of single engine design. The chassis engine is to power all functions of the combination unit. Units utilizing additional engines are unacceptable due to weight, fuel costs, emissions, and maintenance costs. To avoid untried and untested units, the model bid must have been in production for a minimum of five years. A user list of the exact model bid may be required prior to awarding this bid.

### **DEBRIS BODY**

1. Minimum usable liquid capacity of 9 cubic yards.
2. Cylindrical shaped body shell with domed tank head on one end and full height and width tailgate on the end toward rear of body.
3. Designed to withstand a vacuum of not less than 360" of H<sub>2</sub>O.
4. Body shell, tank head and tailgate shall be a minimum one quarter inch (0.25)" thick Exten steel plate. If 3/16" steel is supplied for the debris body, it must be internally coated with Normac NR-5S Sprayable Polyurethane or equivalent and carry a 10 year warranty against tank deterioration.
5. Tailgate shall have self compensating neoprene seal located on the door.

6. Tailgate shall be flat in nature with a minimum of 4" x 3" steel channel reinforcements and .25" x 3" H.R. Flat around perimeter to prevent flexing.
7. Due to confined space entry safety concerns, tailgate must be full width and height of the debris tan, no exceptions.
8. Body shell shall be cylindrical and no larger than 72" OD to better distribute load on chassis.
9. A 2.5" x 2.0" x .38" steel angle iron shall be fully welded at rear of body for stiffness.

**DEBRIS BODY – COMPLY: YES \_\_\_ NO \_\_\_**

**Deviations, Exceptions, Exclusions:**

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**DEBRIS BODY UNLOADING**

1. Body to be raised with a two stage double acting telescopic cylinder to enable the debris body to be powered up or down. The cylinder is trunion mounted with greaseable pins to assure longer life. The debris body is to have a minimum dump angle of 50 degrees.

**DEBRIS BODY UNLOADING – COMPLY: YES \_\_\_ NO \_\_\_**

**Deviations, Exceptions, Exclusions:**

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**DEBRIS BODY SELECTION**

1. Hydraulic tailgate latches shall be provided to prevent operator from going behind unit.
2. Minimum of five mechanical tailgate latches which are hydraulically operated shall be supplied for securing rear debris tank door

3. Hydraulic latching shall be accomplished by a single hydraulic cylinder with mechanical linkage. Cylinder and linkage must be accessible from outside of body and not require the tailgate to be opened to gain access.
4. Latch shall be failsafe locking wedge type so that the tailgate will not open if hydraulic power is lost. Systems requiring separate manual latches to secure the door in the event of hydraulic system failure are unacceptable.
5. Hydraulic controls for tailgate and dump functions shall be located behind the cab on the curb side forward of the debris tank.
6. Tailgate shall have self compensating neoprene seal located on the door.
7. Two 12" diameter internal stainless steel float balls supplied for automatic vacuum system shut off when unit is full of liquids.
8. A 3" hydraulic driven trash pump capable of 450 GPM excess liquid return system that shall be located on the outside of the debris tank on the rear door. System to include full height rear door baffle located inside tailgate. System shall also include 100' of 3" pump off hose.
9. The debris tank shall have a rear splash deflector installed from the 3 to 9 o'clock position around the rear door.

**DEBRIS BODY SELECTION – COMPLY: YES \_\_\_ NO \_\_\_**

**Deviation, Exceptions, Exclusions:**

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**DEBRIS BODY DRAINS**

1. Minimum 6" diameter rear mounted body drain, bronze gate valve with locking handle and 10 feet of lay flat drain hose must be included.
2. Drain hose must be equipped with quick-lock clamp for easy removal.
3. Body drain capable of pneumatic back flushing in order to easily unclog without opening tailgate.
4. Vertical standpipe located inside rear tailgate, 18" in height with screen.

**DEBRIS BODY DRAINS – COMPLY YES\_\_\_\_\_ NO\_\_\_\_\_**

**Deviations, Exceptions, Exclusions:**

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**WATER TANK SYSTEM**

1. 1500 gallons minimum usable capacity.
2. Modular self-baffling water storage tanks.
3. Rotational molded repairable non-cross linked polyethylene construction with ultraviolet stabilizer or minimum 1/4” thick stainless steel construction.
4. Bottom of water tank protected by 0.25” steel to eliminate potential puncture from road debris.
5. Bottom of all water tanks must be above top of truck frame.
6. Tank capacity divided among a minimum of 5 separate tanks and interconnected together. Water tanks to be mounted at same level to prevent pressurization and breather problems.
7. Bottom of water tanks must be above suction port of water pump to avoid cavitation.
8. Tank suction shut-off valve with 3” cast iron “Y” type strainer with #6 mesh screen to protect water pump.
9. Easily accessible inspection ports a minimum of 6” diameter provided on top of each modular tank.
10. Ten (10) year warranty, parts and labor against defects in material and workmanship plus lifetime “no rust-through or corrosion warranty” provided.
11. Tanks must be equipped with two sight tubes visible from both sides of unit from operator’s station.
12. A minimum 2” diameter dual fill cross over must allow the tanks on both sides of unit to fill simultaneously, with 2 separate 4” air gaps.

13. Truck must be supplied with a water tank fill strainer with #30 mesh screen to prevent sand or grit from entering the water tanks.
14. Water tank fill system shall be capable of filling the fresh water tanks in 10 minutes or less.

**WATER TANK SYSTEM – COMPLY YES\_\_\_ NO\_\_\_**

**Deviations, Exceptions, Exclusions:**

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**VACUUM SYSTEM**

1. Vacuum Pump must be rotary lobe positive displacement “Roots Type” bi-lobe pump using two figure-eight impellers rotating in opposite directions to move entrapped air around the case to the outlet port.
2. Vacuum Pump Dresser 624 or equivalent shall be capable of airflows from 0 – 3600 CFM and vacuum of 0” to 18” Hg. Pump must produce minimum 2600 CFM at 18” Hg at rated RPM.
3. All vacuum pump drive and driven gears shall be running in oil at all times. Drive/Driven gears relying on splash lubrication are unacceptable.
4. Vacuum pump must have vertical airflow through it from bottom to the top to eliminate moisture buildup and potential freezing.
5. Vacuum pump shall not require daily greasing.
6. Hardened pump impeller lobes and shaft must be one piece construction. Pressed on shafts are not acceptable.
7. Pump shall have high tensile alloy steel hardened and ground helical gears to reduce noise (shaved gears not acceptable).
8. Pump design shall include double row spherical roller bearings used on both drive and gear ends to allow for ease of maintenance.
9. Vacuum pump shall have sight eyes on both ends easily visible to operator.
10. Vacuum pump shall be equipped with a high efficiency exhaust silencer mounted directly on top of the pump.

11. Dropout vacuum chamber with clean-out door shall be mounted on pump inlet to slow air down with sump check valve to automatically drain moisture and condensation.
12. A minimum of two 3" mechanical vacuum relief valves capable of handling the full air flow of the vacuum pump mounted on the inlet vacuum chamber.
13. Odometer shall not operate when water or vacuum pump is operating eliminating premature truck warranty expiration.

**VACUUM SYSTEM – COMPLY YES \_\_\_ NO \_\_\_**

**Deviations, Exceptions, Exclusions:**

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**VACUUM SYSTEM SELECTIONS**

1. An air operated vacuum relief vent door shall be installed between the body and the vacuum pump. Vent door opening shall be a minimum of 28 sq. inches. A toggle switch shall be located at the front control panel for operating the 6" vent door. The vent door shall be capable of opening under full vacuum.
2. Vacuum relief vent door will automatically stop airflow at the vacuum tube without disengagement of the vacuum pump.
3. Vacuum relief vent door will automatically stop airflow at the vacuum tube when operator opens door from control panel without disengagement of the vacuum pump.
4. Vacuum relief vent door shall automatically open when vacuum pump is turned off.
5. An externally mounted tapered cyclone separator with clean out will be incorporated between the positive displacement vacuum pump and the debris tank. The clean out door shall be a minimum of 8" in diameter with a rectangular storage area at the bottom of the cyclone with a minimum volume of 1.3 cu. ft.
6. Hydraulically operated door located inside the debris body at the material inlet. The door shall be a minimum of 50 sq. inches in size. By closing the internal door, the operator can completely stop all air flow through the vacuum tube. By opening the door after the vacuum has built up in the debris body, a surcharge of air can flow through the vacuum tube allowing material beneath the surface to be picked up or

large heavy objects can be vacuumed up. Controls for the door shall be located at the front control panel.

7. Vacuum pump shall be protected by a cartridge filter capable of containing particles sized 10 micron or larger.
8. Cartridge filter housing shall be constructed of ¼” steel, and have one single door hinged on the left for easy access. Filter element shall be minimum 22” diameter x 21” long constructed of washable polyester felt, 98% efficient @ 10 microns.

**VACUUM SYSTEM SELECTIONS – COMPLY YES\_\_\_ NO\_\_\_**

**Deviations, Exceptions, Exclusions:**

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**VACUUM DRIVE SYSTEM**

1. Vacuum pump shall be driven from a Hot Shift 10 bolt PTO directly mounted to transmission
2. Minimum 1410 series driveline shall run from PTO to jackshaft.
3. Minimum of 1.75” diameter jackshaft supported by 2 pillow block bearings with mounting bracket mounted to truck frame.
4. Cogged Drive belt with a minimum width of 170mm shall run between vacuum pump and jackshaft. V-Belt drives shall not be acceptable.
5. Belt Guard over that part of belt drive which is above the truck frame.
6. Vacuum pump PTO on/off controlled by toggle switch at front control panel.
7. Electronic protection device so operator can not engage vacuum pump unless truck engine speed is below 950 RPM.
8. For safety of the operator the unit must operate with the truck transmission in neutral when operating the vacuum pump. Units requiring that the transmission be in a forward or reverse gear to operate the vacuum pump will not be acceptable.

**VACUUM DRIVE SYSTEM – COMPLY YES\_\_\_ NO\_\_\_**

**Deviations, Exceptions, Exclusions:**

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**POWER BOOM ASSEMBLY**

1. The power boom shall have a minimum of 210 degree hydraulic rotation and be lockable in any position.
2. State Boom Rotation and provide drawing with bid: \_\_\_\_\_ Degrees
3. Boom to be supported on 14" turntable bearing.
4. Boom elbow to be bolted to end of boom arm.
5. Boom elbow to be made from 8" steel tube with a minimum inside bend radius of 28"
6. The boom shall not raise with debris body.
7. Boom vertical lift shall be a minimum of 16'.
8. Lift capacity at the boom end with boom fully extended shall be 1,000 pounds minimum.
9. State Boom Lift Capacity with Boom Fully Extended: \_\_\_\_\_ Lbs.
10. A joystick shall be permanently mounted to the operator control station for boom functions; up, down, left and right.
11. Boom shall reach a minimum of 255" from centerline of unit with a 8' hydraulic telescoping boom extension. The boom must be true telescoping with a tube sliding within a tube.
12. Travel storage position shall be at front right corner of truck bumper for driver visibility.
13. Boom rotation shall be accomplished with a worm gear that automatically locks in any position.
14. A boom rest for transport shall be directly mounted to sub frame.

15. Boom elbow to be reinforced with a gusseted channel that provides double walled steel on the outside sweep. Boom elbow shall have a 3 year replacement warranty.
16. Boom system shall be remote controlled from a removable wired pendant controller. A four pole eight function boom pendant shall be supplied.
17. All boom grease fittings shall be located at ground level on grease manifold for ease of maintenance.

**POWER BOOM ASSEMBLY – COMPLY YES\_\_\_\_\_ NO\_\_\_\_\_**

**Deviations, Exceptions, Exclusions:**

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**WATER PUMP**

1. Triplex type positive displacement reciprocating plunger pump with built-in gear reduction. Pumps with less than three plungers are not acceptable.
2. Continuous rating of 80 GPM @ 2000 PSI (Intermittent rating not acceptable).
3. Drain valves mounted on pump.
4. Pump will provide continuous water flow and pressure.
5. Packing(s) must not require daily greasing.
6. Pump mounted above chassis frame, forward of debris tank to allow easy maintenance, proper weight distribution and protection from road debris.
7. No portion of any water tank shall be mounted below suction port of pump.
8. Pump shall remain flooded at all times water is in the tank to ensure longevity of the system and eliminate pump cavitation. Use of an additional primer pump is not acceptable due to increased maintenance.
9. Pressure regulator set a 2100 PSI (172 bar) with water return to water tank. Regulator shall be rebuildable. Internal parts shall be made from non-corrosive materials.

10. Two 2-way manually operated ball valves or one three way manually operated ball valve for directing water flow to either sewer hose or back to tank shall be located at front operator station.
11. Powered by a variable speed, closed-loop hydrostatic system.
12. Minimum 30 gallon hydraulic reservoir with sight eye and thermometer.
13. Working hydraulic hoses to be a minimum of 1.25 inches I.D.
14. Hydrostatic pump to be capable of pressures to 6000 PSI and flows to 87 GPM and mounted to front crankshaft PTO of chassis engine. 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.
15. Filters shall include two 10 micron spin on filters for the hydrostatic pump and a single 10 micron filter for the charge pump.
16. An oil cooler rated at 153,000 BTU per hour, with double 12 volt electric fans shall be included. Fans shall turn on automatically when water pump is engaged. The use of water to oil cooling systems is specifically prohibited due to the potential of freezing and water contamination of the hydraulic system.
17. 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.
18. Odometer will not operate when pump is operating to eliminate premature truck warranty expiration. Hydrostatic pump and motor shall have a minimum of 3 year warranty.

**WATER PUMP – COMPLY YES \_\_\_ NO \_\_\_**

**Deviations, Exceptions, Exclusions:**

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**WATER SYSTEM**

1. Internal debris tank flushing system with minimum 1" diameter high pressure pipe with minimum of 8 rearward jets working off triplex pump supplied. Flusher capable of 2000 PSI.
2. A system will be supplied to prevent freeze-up by pumping water through system, including sewer hose while driving to jobsite.
3. Winter recirculation system will enable travel over the road without damaging pump, drive system or truck transmission. Systems where hydraulic pump is direct coupled to truck transmission are not acceptable.
4. Self-contained system for purging water from jetting hose, handgun lines and pump to prevent freeze-up supplied. Air supplied by truck air compressor with appropriate safety check valves for brakes.

**WATER SYSTEM – COMPLY YES \_\_\_ NO \_\_\_**

**Deviations, Exceptions, Exclusions:**

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**HANDGUN SYSTEM**

1. Retractable hose reel with live center complete with 50' x 1/2" hose provided with quick disconnect.

**HANDGUN SYSTEM – COMPLY YES \_\_\_ NO \_\_\_**

**Deviations, Exceptions, Exclusions:**

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**HOSE REEL ASSEMBLY**

1. Hose reel assembly shall be front mounted at the center of the unit with 180 degree manual rotation to facilitate manhole entry and reduce traffic flow interruption. Hose reel rotation shall occur between the headlights of the truck chassis keeping the reel at a centered position at all times. Manual rotation of the reel shall be a minimum of 180 degrees. Rotational systems requiring hydraulics or cylinders for extension or

rotation shall not be acceptable.

2. Hose reel does not rotate beyond either side of the chassis during 180 degree rotation or arc, potentially placing city workers outside the safety zone directly in front of the vehicle. Systems that rotate beyond this safety region, potentially into the roadway are not acceptable.
3. CAD type drawing must be provided if requested by the city during evaluation of bids.
4. Minimum hose reel capacity of 1000' of 1" I.D. sewer hose. Drum and flanges constructed of 1/4" (6mm) steel, designed to withstand maximum working pressure without distortion. The drum shall have a minimum diameter of 30" to prevent hose damage. The reel shall be supported by two (2) heavy duty self aligning pillow block bearings, bolted to a 1/4" (6mm) thick support frame.
5. Reel driven by a dual chain, hydraulic drive producing a minimum of 14,600 lbs. in Torque and a variable speed from 0 to 50 RPM utilizing an open center directional control valve with adjustable priority flow divider and adjustable relief.
6. An electric motor driven hydraulic system to lower and raise or extend and retract the hose reel frame away from the chassis for ease of maintenance shall be provided that does not require the truck engine to be running.
7. Manually controlled level wind provided utilizing minimum four rollers. The top roller must be designed to pivot out of the way to allow for sewer hose removal without having to completely rewind hose back onto the reel.
8. A worker safety containment system enclosing the area between the operator and the hose reel provided, consisting of a guard constructed entirely of extruded transparent UV stabilized Lexan plastic with a minimum impact strength of 60ft./lbs. per inch per ASTM D256A. The transparent containment system permits viewing of hose reel and sewer hose, while allowing protection to the operator against hose burst or coupling failure.
9. The ability of the containment guard to pivot up out of the way to gain access to the hose when it is not pressurized.
10. An interlock system which does not allow the water system to be turned on unless the containment guard is in the fully lowered position.
11. Sewer hose footage counter shall be electronic with digital readout.

**HOSE REEL ASSEMBLY – COMPLY** YES \_\_\_\_ NO \_\_\_\_

**Deviations, Exceptions, Exclusions:**

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**SEWER HOSE**

1. 800 feet of 1” diameter thermo plastic “PRANHA” sewer cleaner hose supplied, with 2500 PSI working, 6250 PSI burst pressure rating minimum. Hose must be constructed per standards established by NSWMA. Rubber type sewer hoses are not acceptable. **NO EXCEPTION**

**SEWER HOSE – COMPLY YES \_\_\_ NO \_\_\_**

**Deviations, Exceptions, Exclusions:**

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**INSTRUMENTS AND GAUGES**

1. Unit shall have a heavy duty backup alarm rated at 97 dba.
2. Unit shall have a vacuum gauge located at the operator’s station.
3. Low water warning light and alarm.
4. Digital water pump hour meter located at operator’s control panel.
5. Digital vacuum pump hour meter located at operator’s control panel.
6. Digital truck engine RPM gauge located at operator’s station.
7. Analog pressure gauge showing pressure produced by high pressure water pump.

**INSTRUMENTS AND GAUGES – COMPLY YES \_\_\_ NO \_\_\_**

**Deviations, Exceptions, Exclusions:**

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**LIGHTS – ELECTRICAL**

1. Sewer cleaner body must include a “CAN Bus” style self diagnosing, via built in LED indicators, electrical system.
2. System must have the capability to auto-log error codes for diagnosing issues without taking unit out of service.
3. Electrical system must use no more than a single twisted pair, throttle wire and power wire between the front control unit and the main sewer cleaning body.
4. The system shall be sealed to Rugged Condition, ANSI EP455 standards, including Epoxy encapsulation to enhance performance in response to vibration, moisture, temperature and chemicals.
5. LED package consisting of all DOT lighting, marker lights, stop, turn, running, three light bar. Dual top mounted strobes, Two (2) front and Two (2) rear mounted strobes and rear arrow stick. Top strobes can be mounted no higher than the tallest point on the body. Low mounted four corner strobe package with 65 watt minimum lights and each shall be 4” diameter (round) flush mounted, Two (2) clear and Two (2) amber. One (1) clear and One (1) amber front corners and One (1) clear and One (1) amber rear corners. The front 4” diameter lights to mounted at front bumper. The rear lights Shall be mounted near the stop,turn and back-up lights. All controls mounted inside of cab with the top strobes front and rear on one switch and the bottom round strobes on one switch.
6. Boom is to be equipped with dual work lights.

**LIGHTS – ELECTRICAL – COMPLY** YES \_\_\_ NO \_\_\_

**Deviations, Exceptions, Exclusions:**

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**MISCELLANEOUS**

1. Two (2) lockable aluminum diamond plate toolboxes, 18" x 18" x 48".
2. Hydraulic fold down, six-tube storage rack mounted on tailgate.
3. Rear DOT bumper shall be supplied.
4. Safety cone rack with six (6) 28" orange cones mounted curb side of the unit. Front bumper mount will not be acceptable.
5. One (1) three-tube vertical storage rack mounted passenger side.

**MISCELLANEOUS – COMPLY YES \_\_\_ NO \_\_\_**

**Deviations, Exceptions, Exclusions:**

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**PAINT FINISH**

1. Unit shall be sand blasted for pretreatment prior to priming. After blasting the use of a specially formulated high solids industrial epoxy primer that has superior adhesion, great build to achieve the recommended thickness for sand ability and protection. After priming the unit is completely sanded to remove any imperfections in the metal and provide use with a smooth surface to topcoat. Final coat to be a high solids industrial urethane topcoat to provide the unit with superior glossy finish and protection from the elements the commercial trucks come in contact with. Total thickness to be an average of 6 – 8 mil, minimum. Unit color to be WHITE.

**PAINT FINISH – COMPLY YES \_\_\_ NO \_\_\_**

**Deviations, Exceptions, Exclusions:**

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**HYDRO EXCAVATOR**

1. Hydro-excavation accessory kit. Kit to include 8" x 6" reducer, 6" x 6' dig tube with non-conducting cuff. Handgun with on/off trigger, two (2) ½" x 6' pipe extensions with quick disconnects, one urethane coated nozzle with three replaceable jets.

**HYDRO EXCAVATOR – COMPLY YES \_\_\_ NO \_\_\_**

**Deviations, Exceptions, Exclusions:**

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**MISCELLANEOUS CHASSIS RELATED**

1. 2-1/2 lb. dry chemical fire extinguisher with mounting bracket.
2. Highway warning triangles (3) with plastic storage box mounted in cab.
3. Front mounted tow hooks.
4. Rear mounted tow hooks.
5. Stainless steel fenders over rear wheels.

**MISCELLANEOUS CHASSIS RELATED – COMPLY YES \_\_\_ NO \_\_\_**

**Deviations, Exceptions, Exclusions:**

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**WARRANTIES**

1. Minimum one year parts and labor warranty on sewer/catch basin cleaner against defects in material and workmanship.
2. Minimum ten (10) year parts and labor warranty on **water tanks and debris body** against defects in material and workman ship.

**WARRANTIES – COMPLY YES \_\_\_ NO \_\_\_**

**Deviations, Exceptions, Exclusions:**

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**NOZZLES**

1. One (1) 80 GPM @ 2000 PSI Grenade nozzle with 4 – 15 degree rear jets and 4 – 25 degree rear jets. Nozzle to have ceramic inserts.
2. One (1) 80 GPM @ 2000 PSI Chisel nozzle with 4 – 12 degree forward jets and 6 – 30degree rear jets. Nozzle to have stainless steel inserts.
3. One (1) 80 GPM @ 2000 PSI small flying nozzle with tempered with tempered stainless steel and Optimized 3D Hydro Mechanics construction, eight 7 degree rear jets offering tremendous thrust. Nozzle to have replaceable ceramic nozzle inserts and have 3 year warranty.
4. One (1) 80 GPM @ 2000 PSI Superior Penetrator nozzle with tempered stainless steel and Optimized 3D Hydro Mechanics construction, One forward jet and six 12 degree rear jets offering tight propulsion characteristics. Nozzle to have replaceable ceramic nozzle inserts and have a 3 year warranty.
5. One (1) 80 GPM @ 2000 PSI Pipe Wolf turbine driven cutter and spins at , approximately 6000 – 12000 rpm. Stainless steel body and tempered stainless steel head with six stainless steel rear jets at 22 degree. No lubrication required.

**NOZZLES – COMPLY YES \_\_\_ NO \_\_\_**

**Deviations, Exceptions, Exclusions:** \_\_\_\_\_  
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**ROOT CUTTER**

1. Root Cutter shall be a Turbo S400 manufactured by USB – SEC or approved equal.
2. Weight and dimensions of root cutter shall be; Weight – 28 lbs., Length – 22.5”, Smallest width – 6 7/8”, Largest width (without expansion kit) – 15 1/2”.
3. Shall be capable of adapting to a diamond barrel cutter, sizes 8”, 10” and 12”.
4. Root Cutter shall not require lubrication.

5. Must be supplied with 8", 10", 12" & 15" chain retainers with cutting bits as well as a quick change chain retainer and a roll of 12b chain.
6. It shall be stainless steel construction with an aluminum body coated in armor clad carbide coating.
7. Shall be supplied with replaceable threaded ceramic inserts with a three year warrantee.
8. Must be infinitely adjustable by operator while in the field.
9. Root Cutter shall have a one year warranty against manufactures defect.
10. Shall have a total of 3 front jets and 3 rear jets.
11. Must have 6 UHMW wheels for smooth operation up and down the pipe.
12. Sewer hose connection on root cutter must be a high pressure swivel joint.
13. Must come with a steel tool box and tools necessary to adjust root cutter.
14. Root cutter will be powered by a stainless steel turbine achieving a minimum of 6000 RPM's and a maximum of 15000 RPM's.
15. Rotate using bearings not a shaft and have the capability to be rebuilt by the City of Concord employees or the nearest distributor.
16. Must have current ISO 9000 manufacturing certification.
17. Shall be able to hold four pieces of 12 b chain to cut roots or scale.

**ROOT CUTTER – COMPLY YES \_\_\_ NO \_\_\_**

**Deviation, Exceptions, Exclusions:** \_\_\_\_\_  
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**ACCESSORIES**

1. Sewer hose guide (Tiger Tail) with smooth bore hose with cuffs and polyethylene rope.

2. 1" x 14" nozzle extension, schedule 80 pipe with male and female ends.
3. Minimum 5000 PSI rated handgun with quick coupler, 35' x 1/2" hose, adjustable tip from fan to stream.
4. Reinforced plastic fill hose, 25' x 2-1/2" with one female 2-1/2" N.P.T. swivel Coupling and one female 2-1/2" N.S.T. swivel coupling.
5. 1" x 10' leader hose with rubber outer cover with wire reinforcements.

**SEWER ACCESSORIES – COMPLY YES \_\_\_ NO \_\_\_**

**Deviations, Exceptions, Exclusions:**

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**VACUUM ACCESSORIES**

1. Two (2) 8" O.D. Aluminum Supertube 60" in length with male/female fittings supplied for ease of assemble. No special tools required for assembly.
2. One (1) 8" O.D. Aluminum Supertube 36" in length with male/female fittings supplied for ease of assemble. No special tools required for assembly.
3. Two (2) 8" O.D. Aluminum Supertube 84" in length with male/female fittings supplied for ease of assemble. No special tool required for assembly.
4. One (1) 8" O.D. Aluminum Supertube 96" in length with male/female fittings supplied for ease of assemble. No special tool required for assembly.
5. One (1) 8" x 6" aluminum vacuum tube reducer.
6. Eleven (11) 8" quick acting, over center type lock ring for securing vacuum tubes together.
7. Eleven (11) 8" O-Ring to create a seal between male and female ends of vacuum tubes.
8. One (1) dig tube with replaceable nozzle inserts located in tube and connection for 1" sewer hose so the high pressure water pump can assist in breaking the ground for digging. Tube shall be aluminum and 6" in diameter.

VACUUM ACCESSORIES – COMPLY YES \_\_\_ NO \_\_\_

Deviations, Exceptions, Exclusions: \_\_\_\_\_  
\_\_\_\_\_  
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**MANUALS FOR BODY AND TRAINING**

1. Two (2) operations, service and parts manuals for the body shall be supplied on CD. One (1) hard copy of the operations and service shall be supplied that will stay with the unit.
2. Minimum of two (2) days of training and one (1) day follow up approximately 30 days after first training ends. NO EXCEPTION

MANUALS FOR BODY AND TRAINING – COMPLY YES \_\_\_ NO \_\_\_

Deviations, Exceptions, Exclusions:  
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\_\_\_\_\_  
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**INSPECTION OF UNIT BYCITY OF CONCORD**

1. The successful bidder or manufacturer will provide transportation via commercial air lines for two (2) City of Concord employees to visit manufacturer’s facility to inspect the cities new combination unit. The trip will be at no cost to the City of Concord or their employees and will take a minimum of two days. The employees will leave from and return to the Charlotte Airport and will provide their own transportation to and from the Charlotte Airport. All lodging, meals and transportation will be provided by the successful bidder or manufacturer for the two (2) employees.
2. The City of Concord will notify the successful bidder or manufacturer approximately 30 days after the purchase order has been issued as to what stage of the process they would like to inspect their new combination unit. The successful bidder will notify the City of Concord approximately two (2) weeks prior to their unit reaching the stage of inspection so the City of Concord employees can make plans for their trip.

INSPECTION OF UNIT BY CITY OF CONCORD – COMPLY YES \_\_\_  
NO \_\_\_

**Deviations, Exceptions, Exclusions:** \_\_\_\_\_  
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**CAB AND CHASSIS SPECIFICATIONS  
(Chassis shall be a Kenworth T470)**

**GENERAL SPECIFICATIONS**

1. Truck shall be 60,000 lbs. Gross Vehicle Weight Rating.
2. Truck shall have a 40” (bumper-to-axle) set back front axle position.
3. Chassis configuration shall be 6x4.
4. Cab configuration shall be curved glass conventional..
5. Cab to Axle measurement shall be as per body builders specifications.

**GENERAL SPECIFICATIONS – COMPLY YES \_\_\_ NO \_\_\_**

**Deviations, Exceptions, Exclusions:**

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\_\_\_\_\_  
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**ENGINE & EQUIPMENT**

1. Cummins ISL9 345 HP engine or approved equal.
2. Turbo exhaust brake, diagnostic plug for data link, oil cooler, aluminum flywheel housing
3. Cruise control auto resume.
4. Engine protection shutdown; low oil pressure, high water temperature.
5. 65 MPH maximum speed in top gear.
6. Air compressor shall a minimum of 18.7 CFM.
7. Engine mounted air cleaner

8. Fan hub with on/off clutch.
9. Minimum of 1000 square inches cooling module, clog resistant.
10. Blank
11. Vertical exhaust, right hand side of cab or as per body manufacturer's requirements.  
**NOTE: Provide horizontal muffler with vertical tailpipe if available and it does not interfere with clearance for the body builder.**
12. Vertical exhaust to include a 45 degree curved out.
13. Fleetguard filter/Water separator FS1003 w/Water in fuel sensor or equal.
14. Block heater, 120 V with plug under door.

**ENGINE AND EQUIPMENT – COMPLY YES\_\_\_\_\_ NO\_\_\_\_\_**

**Deviations, Exceptions, Exclusions:** \_\_\_\_\_  
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**ELECTRICAL SYSTEM**

1. Minimum 160 amp alternator.
- 2.. Batteries: Minimum of 1950 (CCA) cold cranking amps.
- 3.. Battery disconnect switch shall be provided.
4. Remote battery jump start stud shall be provided.
5. Starter: 12 volt electrical system.
6. Centralized power distribution incorporating plug-in style relays.
7. Circuit protection for serviceability, 12-volt light system with circuit protection circuits numbered and color coded.
8. Multi-function engine connector for body builder.
9. Connection between PTO switch and engine.

10. Two (2) spare switches wired to power for to be used by body builder.
11. AM/FM radio with weatherband.
12. Cigarette lighter.
13. Daytime running lights shall be provided.
14. Long life halogen headlights shall be provided. (Body builder will install LED tail lights including stop, turn, brake and back-up lights).
15. Clearance marker light shall utilize LED lamps.

**ELETRICAL SYSTEM – COMPLY YES \_\_\_ NO \_\_\_**

**Deviations, Exceptions, Exclusions:** \_\_\_\_\_  
 \_\_\_\_\_  
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**TRANSMISSION**

1. Allison 3000RDS 6-Speed Automatic Transmission with 10 Bolt PTO’s at 4 o’clock position with Oil Cooler, Push Button Control.
2. Auto neutral for transmission – single input.
3. Temperature gauge for transmission.

**TRANSMISSION – COMPLY YES \_\_\_ NO \_\_\_**

**Deviations, Exceptions, Exclusions:** \_\_\_\_\_  
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**FRONT AXLE & EQUIPMENT**

1. Wide track, I-Beam type, 20,000 lb. capacity.
2. Set-Back front axle.
3. Front suspension shall be 20,000 lb parabolic taper leaf.
4. Front shocks are required.

**FRONT AXLE & EQUIPMENT – COMPLY YES \_\_\_ NO \_\_\_**

**Deviations, Exceptions, Exclusions:** \_\_\_\_\_  
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**STEERING**

1. Power steering shall be provided.
2. Multi position tilting steering column shall be provided.
3. Dual power steering gears shall be provided.

**STEERING – COMPLY YES \_\_\_ NO \_\_\_**

**Deviations, Exceptions, Exclusions: Comply: Yes \_\_\_ No \_\_\_**

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**BRAKES**

1. Air brakes must be provided.
2. All air lines shall be provided with quality connect air lines fittings and air tank drain valve.
3. Front and rear automatic slack adjusters shall be provided.
4. Air Dryer is required with air brake system.

**BRAKES – COMPLY YES \_\_\_ NO \_\_\_**

**Deviations, Exceptions, Exclusions:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**HOOD**

1. Single or dual hood hatch to allow operator access to daily maintenance such as checking engine oil level, transmission fluid, etc. etc. without tilting the hood.

**HOOD – COMPLY YES \_\_\_ NO \_\_\_**

**Deviations, Exceptions, Exclusions:** \_\_\_\_\_  
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**FRAME**

1. Frame shall be double channel 3,281,000 lb-in minimum (RBM) Resisting Bending Moment per side.
2. 20 inch integral front frame extension shall be provided.

STATE FRAME RBM: \_\_\_\_\_

STATE FRAME WARRANTY: \_\_\_\_\_

**FRAME – COMPLY YES \_\_\_ NO \_\_\_**

**Deviations, Exceptions, Exclusions:** \_\_\_\_\_  
\_\_\_\_\_  
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**REAR AXLE**

1. Rear axle capacity shall be 40,000 lbs and geared for 65 MPH highway speed.
2. Driver controlled differential locking is required in both axles.
3. Rear suspension shall be a Hendrickson RT-403 walking beam type, 52” axle spacing, 40,000 lb capacity with rubber center bushings.

**REAR AXLE – COMPLY YES \_\_\_ NO \_\_\_**

**Deviations, Exceptions, Exclusions:** \_\_\_\_\_  
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\_\_\_\_\_

**FUEL TANK(S)**

1. Fuel tank shall provide a minimum of 70 U. S. gallon capacity.
2. Fuel tank shall be constructed of aluminum.
3. 18 U. S. gallon clear DEF tank shall be supplied.

**FUEL TANK(S) – COMPLY YES \_\_\_ NO \_\_\_**

**Deviations, Exceptions, Exclusions:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**CAB EXTERIOR**

1. Cab shall be painted with manufacturer’s premium paint and clear coat finish Color – WHITE.
2. West coast style mirrors and bottom convex shall be provided Left and Right.
3. Dual convex hood mounted mirrors shall be provided.
4. Air ride cab suspension system shall be provided.
5. Cab exterior grab handles shall be provided left & Right.
6. Passenger side look-down mirror shall be provided.

**CAB EXTERIOR – COMPLY YES \_\_\_ NO \_\_\_**

**Deviations, Exceptions, Exclusions:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**CAB INTERIOR**

1. Grab handles mounted inside the cab for entry and egress shall be provided left & right.
2. Driver and passenger side sun visors shall be provided.
3. Driver’s seat to be air suspended high back and fixed passenger seat.
4. Dual cup holders shall be provided.
5. Oil temp gauge for Allison transmission.
6. Arm rest, driver side and passenger side.

7. Gauge cluster shall include; odometer miles, trip miles, engine hours, diagnostics, speedometer, engine oil pressure, oil temperature, fuel level, tachometer and voltmeter.
8. Gauge warning shall include; low fuel warning, low oil pressure warning, high engine coolant temperature and low battery voltage.
9. Audible alarm must be provided for warning gauges.
10. Cab switches shall have back lighting for night visibility.
11. Air conditioned with protection system (APADS or equal) shall be provided.

**CAB INTERIOR – COMPLY YES \_\_\_ NO \_\_\_**

**Deviations, Exceptions, Exclusions:** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**WHEELS AND TIRES**

1. Front and rear wheel shall be 22.5 inch hub piloted disc type.
2. Wheel seals shall be oil lubricated front and rear.
3. **Front tires** shall be; Michelin 315/80R22.5 XZU-S
4. **Rear tires** shall be; Michelin 11R22.5 XDN2

**WHEELS AND TIRES – COMPLY YES \_\_\_ NO \_\_\_**

**Deviations, Exceptions, Exclusions:** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**WARRANTY**

1. Standard manufacturer warranty on complete truck, engine and transmission.

**NOTE: CITY OF CONCORD REQUIRES AN EXTENDED WARRANTY ON THE ENGINE AND TRANSMISSION. INCLUDE EXTENDED WARRANTY IN YOUR TOTAL BID PRICE.**

2. Extended warranty on engine shall be provided (7 years/XXX miles).

State Years: \_\_\_\_\_

State Miles: \_\_\_\_\_

**INCLUDE COPY OF EXTENDED WARRANTY FROM ENGINE  
MANUFACTURER WITH YOUR BID.**

**PRICE FOR ENGINE EXTENDED WARRANTY INCLUDED IN BID**

**TOTAL : \$ \_\_\_\_\_**

3. Extended warranty on transmission shall be provided (5 years/XXX miles).

State Years: \_\_\_\_\_

State Miles: \_\_\_\_\_

**INCLUDE COPY OF EXTENDED WARRANTY FROM TRANSMISSION  
MANUFACTURER WITH YOUR BID**

**PRICE FOR TRANSMISSION EXTENDED WARRANTY INCLUDED IN**

**BID TOTAL: \$ \_\_\_\_\_**

**WARRANTY – COMPLY YES \_\_\_ NO \_\_\_**

**Deviations, Exceptions, Exclusions: \_\_\_\_\_**

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\_\_\_\_\_  
\_\_\_\_\_

**MANUALS**

1. Complete set of operation, service and parts for Cab, Chassis, Engine and Transmission. CD's preferred.

**MANUALS – COMPLY YES \_\_\_ NO \_\_\_**

**Deviations, Exceptions, Exclusions: \_\_\_\_\_**

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\_\_\_\_\_