

CITY OF SACRAMENTO  
DISADVANTAGED BUSINESS ENTERPRISE (DBE)  
MINORITY/AND WOMAN-OWNED BUSINESS  
ENTERPRISE (M/WBE)

PROGRAM STATEMENT

1. It is the policy of the City of Sacramento to enter into contracts with the lowest responsible bidder. It is also the policy of the City of Sacramento to encourage the participation of DBE's (for federally funded projects), M/WBE's in all aspects of contracting to the maximum extent feasible. This policy constitutes a commitment to substantially increase the utilization of Disadvantaged and Minority/Woman-Owned Business Enterprises.

Therefore, consultants who are awarded City contracts agree to ensure DBE and M/WBE firms have the maximum opportunity to participate in the performance of contracts and subcontracts. In this regard, the City, its contractors and their subcontractors will take all reasonable steps to ensure that DBE and M/WBE firms have the maximum opportunity to compete for and perform contracts.

2. Vendors, suppliers, contractors and their subcontractors who feel they may qualify as a Minority or Woman-Owned Business Enterprise are encouraged to complete a bidder's application/M/WBE Certification form which is available at:

Minority/Woman-Owned Business  
Enterprise Program  
5730 24th Street, Building #4  
Sacramento, CA 95822  
(916) 449-8505

3. For certification as a Disadvantaged Business Enterprise contact:

Department of Transportation  
Office of Civil Rights  
120 N Street, Room 3400  
Sacramento, CA 95814  
(916) 323-6638

4. Please indicate whether or not the bidder is a "Certified" Disadvantaged, Minority and/or Woman-Owned Business enterprise.

A. yes [ ] no [ ] [ ] MBE [ ] WBE [ ] DBE

Certification No. \_\_\_\_\_

Certified By: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

B. If no, will certified Disadvantaged, Minority and/or Woman-Owned subcontractors be used to perform any or all of the contract? If so, please state name of firm, service or commodity to be provided and the % of contract responsibility.

<u>NAME OF FIRM</u>	<u>SERVICE OR COMMODITY</u>	<u>% OF RESPONSIBILITY</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

C. Describe any program bidder has or steps bidder has taken to ensure that DBE, MBE and WBE firms will have the maximum opportunity to compete for and perform subcontracts:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

CITY OF SACRAMENTO  
SACRAMENTO, CALIFORNIA

For furnishing to the City of Sacramento, Trucks With Combination High Pressure Water Basin Cleaner, in accordance with the following provisions and specifications.

PRICING SCHEDULE

<u>Item No.</u>	<u>Quantity</u>	<u>Description</u>	<u>Unit Price</u>	<u>Extension</u>
1	4 each	Truck With Combination High Pressure Water Basin Cleaner per Specification No. 276-A.  Manufacturer and Model No.  Truck _____  Body _____  Cost of body only, excluding chassis, \$ _____ (each) for purposes of determining amount of Performance Bond as detailed in Paragraph 3.8e.	\$ _____	\$ _____
			Sub-Total	\$ _____
			7 3/4% Sales Tax	_____
			TOTAL BID	\$ _____

Optional Bid Items (Less 7 3/4% Sales Tax) per Specification No. 276-A

5.11 a. Spring loaded or equal pipe racks capable of holding 50' of 8" sewer cleaning pipe. Rack should allow operator to remove pipe of a height not greater than 5 feet from ground. Final design shall be approved by the City of Sacramento.

\$ \_\_\_\_\_ per truck

5.11 b. Alternate lower horsepower truck engine available when an auxiliary engine is used. State manufacturer, model, horsepower and price (Allison MT654 transmission unacceptable.) \_\_\_\_\_

\$ \_\_\_\_\_ per truck

5.11 c. Alternator, 75 amp or larger \$ \_\_\_\_\_ per truck

- 5.11 d. Directional arrow board mounted on the rear of the unit (ref. Public Safety Equipment Inc. "Arrowstik AS10".)
 

\$ \_\_\_\_\_ per truck
- 5.11 e. Revolving amber beacon lights located at upper front and rear locations of the unit. Light assembly shall be Grote #76223.
 

\$ \_\_\_\_\_ per truck
- 5.11 f. Extended engine warranty 5 yr./100,000 mile.
 

\$ \_\_\_\_\_ per truck
- 5.11 g. Extended transmission warranty 5 yr./100,000 mile.
 

\$ \_\_\_\_\_ per truck
- 5.11 h. 1/4" smooth-finish debris tank coating of "Rhino Lining" polyrhyn elastomeric polyurethane coating or equivalent.
 

\$ \_\_\_\_\_ per truck
- 5.11 i. 8" to 6" reducer tube.
 

\$ \_\_\_\_\_ each
- 5.11 j. 8" to 4" x 4' reducer tube to vacuum out 4" sewer services of rock.
 

\$ \_\_\_\_\_ each
- 5.11 k. 6" x 4' sewer tube
 

\$ \_\_\_\_\_ each
- 5.11 l. 4" x 4' sewer tube.
 

\$ \_\_\_\_\_ each
- 5.11 m. A minimum of two (2) nozzles to clean 10" storm drainage lines and larger shall be furnished, nozzles to be of #50 Rockwell-C hardness. One (1) 35 degrees double storm type nozzle to clean 36" and 72" pipes shall be furnished.
 

\$ \_\_\_\_\_ per truck
- 5.11 n. Telescoping/extendable hose reel with dual controls to provide movement of hose reel to manhole without moving truck provided the truck is within approximately 2' of manhole.
 

\$ \_\_\_\_\_ per truck
- 5.11 o. Left side (driver) seat, air suspension type, Bostrom 705E or equal.
 

\$ \_\_\_\_\_ per truck
- 5.11 p. Recycle system to allow use of water collected during vacuuming operation to be reused for jetting operation (if available).
 

\$ \_\_\_\_\_ per truck

Alternate Bid Per 5.5b

The requirements described in the attached specifications constitute a general description of new and unused merchandise. The City will, however, consider other merchandise which is similar in design and which meets the specifications. Contractors are therefore encouraged to submit alternate proposals for evaluation. Contractors are reminded that alternate proposals must be clearly identified ("Alternate Proposal"). Alternate proposals must be submitted with the primary proposal and must contain an itemized listing and description of all exceptions and/or deviations from the specifications.

BIDDER'S NAME: \_\_\_\_\_

SUBMIT ENTIRE BID PACKAGE AS YOUR PROPOSAL

**\* \* ITEMS REQUIRING BIDDER RESPONSE \* \***

NOTE: Bidders must provide responses to the following provisions. Failure to provide a response to each of the items in this section will cause your bid to be rejected:

Minority/Woman Business Enterprise (M/WBE) Certification

Is your firm a minority or woman owned business enterprise (M/WBE)?

YES [ ] NO [ ]

If "yes", is the firm certified by the City of Sacramento?

Yes [ ] (City Cert. No. \_\_\_\_\_) or No [ ]

Payment Discount

Payment Discount: \_\_\_\_\_% for payment within \_\_\_\_\_ calendar days.

Please refer to Paragraph 12, Page 3, entitled "Payment Discounts", for details. If no discount is shown, then it shall be assumed that none is offered and that the terms are Net 30 days.

Delivery Guarantee

Contractor shall guarantee delivery within \_\_\_\_\_ days after receipt of order (ARO).

Specification Variance

Equipment bid does \_\_\_\_\_ comply fully with this specification.

Equipment bid does not \_\_\_\_\_ comply fully with this specification.

Note: Any variance from this specification must be noted on a separate sheet and attached.

**REQUIRED SUBMITTALS**

The following documents are required to be completed by the successful bidder prior to the execution of contract:

1. The City of Sacramento South Africa Affidavit
2. Insurance Certificates
3. Bonding Documents - Yes [x] No [ ]

## INSURANCE PROVISIONS

1. Independent Contractor. At all times during the term of this Contract, Contractor shall be an independent Contractor and shall not be an employee of the City. City shall have the right to control Contractor only insofar as the results of Contractor's services rendered pursuant to this Contract; however, City shall not have the right to control the means by which Contractor accomplishes services rendered pursuant to this Contract.

2. Licenses; Permits; Etc. Contractor represents and warrants to City that he has all licenses, permits, qualifications and approvals of whatsoever nature which are legally required for Contractor to practice his profession. Contractor represents and warrants to City that Contractor shall, at his sole cost and expense, keep in effect at all times during the term of this Contract any licenses, permits, and approvals which are legally required for Contractor to practice his profession.

3. Insurance.

(a) Comprehensive Auto and General Liability. During the term of the Contract, Contractor shall maintain in full force and effect a comprehensive auto and general liability insurance in an amount of no less than \$1,000,000 single limit per occurrence, issued by an admitted insurer or insurers as defined by the California Insurance Code, providing that the City of Sacramento, its officers, employees and agents are to be named as additional insureds under the policy, and the policy shall stipulate that his insurance effected by the City or other named insured will be called on to contribute to a loss covered thereunder.

(b) Worker's Compensation. During the term of this Contract, Contractor shall fully comply with the terms of the law of California concerning workman's compensation. Said compliance shall include, but not be limited to, maintaining in full force and effect one or more policies of insurance insuring against any liability Contractor may have for workman's compensation.

(c) Certificate of Insurance. The Contractor will have a standard "Certificate of Insurance" completed prior to engaging in any operation or activity set forth in this contract/agreement. Said policies shall provide that no cancellation, change in coverage, or expiration by the insurance company or the insured shall occur during the term of this contract, without 30 days written notice to the City prior to the effective date of such cancellation or change in coverage.

INSURANCE PROVISIONS - Continued

4. Contractor Not Agent. Except as City may specify in writing, Contractor shall have no authority, express or implied, to act on behalf of City in any capacity whatsoever as an agent. Contractor shall have no authority, express or implied, pursuant to this Contract to bind City to any obligation whatsoever.

5. Assignment Prohibited. No party to this Contract may assign any right or obligation pursuant to this Contract. Any attempted or purported assignment of any right or obligation pursuant to this Contract shall be void and of no effect.

6. Hold Harmless Agreement. Contractor hereby agrees to, and shall, fully indemnify, hold harmless and defend City, its elective and appointive boards, commissions, officers, agents and employees from all claims, demands or liability for any injury to persons or property occurring by reason of anything done or omitted to be done in performing the Work under the Contract, whether such actions or omissions be by Contractor or by any of Contractor's subcontractors, or by any persons or person directly or indirectly employed by, or acting as agent for, Contractor or any of Contractor's subcontractors. The Contractor agrees to, and shall defend City and its elective and appointive boards, commissions, officers, agents and employees from any suits or actions at law or in equity arising by reason of any of the aforesaid actions or omissions provided as follows:

- a. That City does not, and shall not, waive any rights against Contractor which it may have by reason of the aforesaid hold harmless agreement, because of the acceptance by City, or the deposit with City by Contractor, or any of the insurance policies described in this Agreement.
- b. That the aforesaid hold harmless agreement shall apply to all damages and claims for damages of every kind suffered, or alleged to have been suffered, by reason of any of the aforesaid actions or omissions, regardless of whether City has prepared, supplied, or approved of plans and/or specifications for the Work under the Contract, or regardless of whether any insurance policies shall have been determined to be applicable to any of such damages or claims for damages. The Contractor's obligation to indemnify City shall be effective even if City is guilty of negligence or misconduct that contributes to the damages claimed. This indemnity will not extend to claims, demands, liability or expense arising out of the sole negligence or willful misconduct of City.



C I T Y   O F   S A C R A M E N T O

SACRAMENTO, CALIFORNIA

TRUCK WITH COMBINATION VACUUM AND  
HIGH PRESSURE WATER BASIN CLEANER

1.0 SCOPE AND INTRODUCTION:

- 1.1 This specification describes one group of new, unused, latest model, diesel fueled, conventional trucks with self-contained combination vacuum and high pressure water, catch basin cleaner body attached. These units will be used by the City Flood and Sewer Departments to: 1) high pressure clean City storm drains and sewer lines; 2) remove debris (including sludge, sand, bottles, cans and bricks) from storm and sewer sumps that may be in excess of 40 feet below ground level; 3) to remove contamination (i.e. oil, grease, solvents) from the surface of water; and 4) to remove sludge, mud, sand and debris from below the surface of water in flooded manholes and/or wet wells. The units must be equally capable to remove sand, leaves, rocks and other dry materials from storm drain culverts during dry summer months.

Units shall be equipped with an enclosed debris storage tank that is water tight with a full opening and sealed rear tailgate for transporting debris to an unimproved landfill or sewer treatment plant for disposal.

The unit must be able to run both the vacuum and high pressure system at same time, but independent of each other.

Time required as well as the ease and manner in which the operation is executed to complete the "clean out" operation at job site will be considered in the awarding of the contract.

The performance required of this machine as shown in Section 5 of this specification is intended to assist the vendors/manufacturers in identifying the types of situations the machine will be subjected to. Actual job site demonstrations and performance test will be required of those vendors/manufacturers whose product meet the intent of the specifications. Exhibit (1) one outlines evaluation criteria and site location.

Specification 276-A  
Truck with Combination Vacuum and  
High Pressure Water Basin Cleaner  
December 4, 1991

1.0 SCOPE AND INTRODUCTION: continued

1.2 Vehicle/unit shall be complete with all equipment and accessories necessary for safe and efficient operation. They are to be delivered as a complete unit, certified and ready for immediate job site operation within the City of Sacramento area.

2.0 GENERAL EQUIPMENT SPECIFICATIONS:

2.1 Manufacturing, material and design practices -

It is intended that the manufacturer in the selection of components will use material and design practices that are the best available in the industry for the type of operating conditions to which the vehicle/unit will be subjected. Suspension, wheels, tires and other component parts shall be selected to give maximum performance, service life and safety and not merely meet the minimum requirements of this specification. All parts, equipment and accessories shall conform in strength, quality of material and workmanship to recognized industry standards.

2.2 Heavy duty defined -

The term "heavy duty" as used in these specifications shall mean that the item to which the term is applied shall exceed the usual quantity, quality or capacity supplied with standard production vehicle/unit; and it shall be able to withstand unusual strain, exposure, temperature, wear and use.

2.3 Specification variances -

If any of the equipment bid varies from the specifications, such variation(s) must be listed in writing and attached as part of the proposal. The City of Sacramento reserves the right to waive minor variation(s) if in the opinion of the Fleet Manager the basic unit meets the general intent of these specifications.

2.4 Manufacturer's specification -

a. Complete specification(s), published literature, blueprints and photos or illustrations of unit(s) and all mounted components proposed, shall be furnished with bid.

2.0 GENERAL EQUIPMENT SPECIFICATIONS: (continued)

- b. Only new models in current production which are catalogued by the manufacturer and for which printed literature and specifications are available will be accepted.

2.5 Manufacturer's standard equipment -

- a. All equipment and components listed as standard by the manufacturer for model quoted shall be furnished whether or not such items are detailed herein, e.g., special wrenches, tool kits, jacks - adequate to safely lift the vehicle when loaded to rated capacity, etc. Optional equipment as necessary to meet the following requirements of this specification shall also be supplied.
- b. Specifications on the following pages are written with intent to meet all applicable documents but the final certification to comply shall rest with the vendor and not the City of Sacramento. Should requirements as specified not comply, the manufacturer is required to refigure and revise the specifications to meet all laws, rules and regulations where it applies to items such as the ratings of axles, tires, rims, brakes, batteries, cooling capacity, etc., and the City of Sacramento is to be notified thereof.
- c. Purchaser will not accept any part, component or system which is not an established standard product of the bidding manufacturer. By this is meant that any item or assembly which, relative to the supplying manufacturer's standard line of products, could be described as "first of its kind", "experimental", "only one of its kind to be built", "especially modified to comply with this specification", "prototype", or synonymous categoric descriptions, shall not be acceptable. All parts and components of the system offered and delivered must conform to the manufacturer's standard production or be off-shelf available as a standard hardware production item.

2.6 Applicable documents and certifications -

- a. Federal Motor Vehicle Safety Standard, Department of Transportation.
- b. State of California Motor Vehicle Code.
- c. State of California General Industrial Safety Orders.

2.0 GENERAL EQUIPMENT SPECIFICATIONS: (continued)

- d. State of California Health and Safety Code, Motor Vehicle Pollution Control (with special reference to Title 17, Section 7603, paragraph a.)
- e. All vehicle pollution control laws and regulations.
- f. California Occupational Safety and Health Act (O.S.H.A.) and the E.P.A.
- g. Society of Automotive Engineering Standards.
- h. City of Sacramento, Water Division, Requirements for Hydrant Use Permit.

2.7 Operational noise standard -

Noise level shall be in conformance with standards established by Local, State and Federal Agencies. Each unit delivered may be tested by City personnel for noise level and must meet noise requirements before the unit is accepted.

(Note: the operational noise level of the unit (both at the operator's station and at the sides) is of concern to the City and may affect and award of the bid. Bidders are encouraged to submit options - with pricing - that will minimize noise output.)

2.8 Demonstrations -

City reserves the option for an "on the job demonstration and evaluation" by City personnel before acceptance of contract in the event performance of unit(s) proposed are not familiar to the City. Demonstrator shall be available within 14 calendar days of bid opening. Only units meeting the intent of these specifications shall be demonstrated. Time and amount of hours required for the evaluation shall be determined by the City.

The ease and time to install any special equipment necessary to perform this task as well as the speed of pickup and quantity of material removed will be a factor in awarding of the bid.

The demonstration will be conducted at the storm drainage sump #96 on 65th Street Expressway and Morrison Creek. This demonstration will require removal of debris such as sludge, sand, bottles cans and grease. It will also require removal of contaminated oil spilled on surface of water without draining the sump or manhole. The final test will require the removal of sludge, mud, sand, and debris from below the surface of the water in flooded manholes and or wet well. (See Section 5 and Exhibit (1) one).

2.0 GENERAL EQUIPMENT SPECIFICATIONS: (continued)

2.9 Equipment manual(s) -

The following manuals shall be supplied at the time of delivery:

- a. Two (2) truck operator's manual for each unit.
- b. One (1) truck parts and service manual for each unit.
- c. Two (2) system operator's manual for each unit.
- d. One (1) system parts and service manual.
- e. One (1) truck line set ticket for each truck.
- f. One (1) Questionnaire Form (supplied by Fleet Management).

2.10 Hose and wire routing

All hoses, wires and pipes shall be routed to be clear of all heat sources and shall be routed, secured or otherwise protected from any present or potential source of snags, abrasions or sharp edges. All wiring shall be continuous with no splices and enclosed in protective loom with connections made at easily accessible terminal strips which are enclosed in water tight junction enclosures.

2.11 Control labeling

All operator controls, whether electrical (switches), hydraulic (valve control levers), or mechanical (linkage control levers), shall be clearly labeled as to function and operational position(s).

3.0 GENERAL CONTRACT SPECIFICATIONS:

3.1 Award -

- a. The City of Sacramento reserves the right to make an award on any item, group of items or in the aggregate to that/those lowest responsible bidder(s) whose proposal(s) is/are most responsive to the needs of the City.

3.0 GENERAL CONTRACT SPECIFICATIONS: (continued)

- b. The City reserves the right to reject any and all bids or alternate bids as the best interest of the City may require. Consideration will be given in comparing proposals and in awarding a contract, not only to the amount of the proposal, but also the kind and quality of the equipment offered, its suitability for use in the service intended, as well as the lowest ultimate cost to the City. Time required for delivery is important and may influence the award.
- c. The machine will be operable by one person with all operating controls for high pressure water and hose reel located at the front of the machine for operator safety.
- d. Time required to set up and operate at job site as well as the ease and manner in which the operation is executed to complete the "clean out" will be considered in awarding the contract.
- e. The machine shall be able to lift 1) sand, sludge, sewage, rocks, leaves, cans and bottles from the floor of a pump station approximately 40 feet below ground level. 2) remove films (i.e, oil, grease) from water surfaces: and 3) remove sand, sludge and mud from the bottom of flooded manholes, catch basins and wet wells. The performance must have been demonstrated by the successful bidder prior to award.

3.2 Brand names -

Whenever in the specifications, any material or process is indicated or specified by patent of proprietary name and/or by name of manufacturer, such specifications shall be deemed to be used for the purpose of facilitating descriptions of the material and/or process desired and shall be deemed to be followed by the words "or equal" or "reference". The Contractor may offer any material or process which shall be equivalent in every respect to that so indicated or specified, provided however, that if the material, process or article offered by the Contractor is not, in the opinion of the City of Sacramento, equal in every respect to that specified, then the Contractor must furnish the material, process or article specified or one that in the opinion of the City of Sacramento is the equal thereof in every respect.

3.0 GENERAL CONTRACT SPECIFICATIONS: (continued)

3.3 Delivery -

"Drive Away", "Caravan" or "In-Tow" delivery from points of body manufacture or assembly will be accepted, not to exceed 4,000 miles.

Delivery shall be made to the City of Sacramento Corporation Yard, 5730 - 24th Street, Sacramento, California, serviced and operable with min. 1/4 tank fuel.

Vehicle shall be serviced and cleaned by delivering dealer/manufacturer once the vehicle has reached the Sacramento area and prior to final delivery.

3.4 F.O.B. -

All items are to be supplied F.O.B. City of Sacramento, California.

3.5 License -

The original dealer's Report of Sale or Certificate of Origin, along with a Certified Weight Certificate, shall be furnished to the consignee at time of delivery of the vehicle(s) before payment can be made.

3.6 Inspection -

Vehicle/unit will be inspected before acceptance by an authorized representative of the City of Sacramento for workmanship, appearance, proper functioning of all equipment and systems and conformance to all other requirements of this specification. If deficiencies are found, it shall be the responsibility of the dealer to pick up the vehicle/unit, make necessary correction and redeliver the vehicle/unit for reinspection and acceptance. Payment and/or commencement of a discount period (if applicable) will not be made until corrective action has been made.

3.7 Guarantee -

- a. The manufacturer and/or dealer delivering the vehicle/unit(s) against this specification shall guarantee that they meet the minimum requirements set forth herein. If it is found that the equipment delivered does not meet the minimum requirements of this specification, the manufacturer and/or dealer will be

3.0 GENERAL CONTRACT SPECIFICATIONS: (continued)

required to correct the same at its expense. Failure of the manufacturer and/or dealer to bring the equipment into full compliance with all the requirements set forth in this specification within thirty (30) days of delivery, shall constitute cause for rejection of the equipment. In case the equipment is rejected, it shall be removed promptly from the City's premises at the manufacturer's and/or dealer's expense. Each vehicle will be tested for performance upon delivery and must successfully pass acceptance test before final approval per Section 2.8 and 5.0.

- b. In case of default by supplier, the City reserves the right to procure the articles or services from other sources and to hold the supplier responsible for any excess costs occasioned to the City thereby.

3.8 Warranty-

- a. The vehicle manufacturer shall provide a new vehicle warranty F.O.B. Sacramento regardless of the method of delivery for each equipment. Warranty time to start when vehicle(s) are placed in operation, not delivered.
- b. Truck and components shall be guaranteed under standard factory and/or dealer warranty and a copy of manufacturer's warranty policy shall be delivered with each vehicle.
- c. Engine and transmission shall be guaranteed under the longest and most comprehensive standard factory warranty proposed specifically for municipal equipment.
- d. The body manufacturer and/or dealer, whenever applicable, shall guarantee for a period of one year after delivery and acceptance of the entire unit that the body and appurtenance shall be free from workmanship and material defects. He shall agree to repair or replace all such defective material(s) for workmanship at no cost to the City. The manufacturer must have service facilities and an adequate supply of service parts available at a distance from Sacramento no greater than that to the San Francisco Bay Area. The manufacturer shall have been in business a minimum of three (3) years.
- e. Bidders must list the nearest factory authorized service representative who will be responsible for servicing the Combination Vacuum and High Pressure Water Basin Cleaner Assembly or any part thereof within 24 hours of notice and have complete machine parts availability within 48 hours.



3.0 GENERAL CONTRACT SPECIFICATIONS: (continued)

If the body manufacturer/dealer (excluding chassis) is unable to provide service/parts within the specified times in excess of (5) five times within a (1) one year period; or if a problem, or multiple problems arise due to a manufacturer's defect which places the unit out of service for more than 10% of the available working days in a (1) one year period, the City of Sacramento shall at its option require the manufacturer to purchase the body (excluding chassis) for the following schedule:

- Year 1 - 90% of Body Purchase Price
- Year 2 - 80% of Body Purchase Price
- Year 3 - 70% of Body Purchase Price
- Year 4 - 60% of Body Purchase Price
- Year 5 - 50% of Body Purchase Price

The successful bidder shall at its option provide the City of Sacramento an irrevocable letter of credit, a Certificate of Deposit, or a performance bond in an amount equal to each body installation purchased under this contract. The selected method of surety shall be adjusted annually per the (5) five year pro-rated schedule at least (30) thirty days prior expiration.

- f. Engine, transmission and differential parts must be available within 100 miles of Sacramento.
- g. If the City of Sacramento is required to deliver a unit outside of the immediate Sacramento area for warranty work, vendor shall reimburse City of Sacramento at the rate of \$50.00 per hour for pick up and delivery time involved.

3.9 Training -

The successful contractor shall provide a qualified, factory-authorized service representative to give instructions to the operators and maintenance personnel to assure correct operation of the machines after the vehicle has been readied for service by City personnel. The time required shall be not less than two (2) work days or 16 hours.

3.10 Insurance and Business Tax Requirements-

1. Insurance Provisions

3.0 GENERAL CONTRACT SPECIFICATIONS: (continued)

The attached provisions, are included as part of this request for bid and any resultant contract(s).

2. Business Operations Tax Certificate

Chapter 23 of the Sacramento City Code requires that anyone conducting business in the City of Sacramento obtain a Business Operations Tax Certificate and pay the applicable tax if necessary. To obtain further information, contact the Revenue Division at 915 I Street, Sacramento, California, 95814, or phone (916) 449-5685. Prior to receiving a contract award, copies of the documentation necessary to verify your firm's compliance with the above will be required. This documentation must be received within ten (10) working days of notification by the Procurement Services Division.

Prior to receiving a contract award, copies of the documentation necessary to verify your firm's compliance with the above will be required. This documentation must be received within ten (10) working days of notification by the Procurement Services Division.

3.11 Bid inquiries -

Questions regarding this bid should be referred to:

Procurement Services Division  
5730 - 24th Street, Bldg. 4  
Sacramento, CA 95822  
Attention: Steve Alstrom  
(916) 449-5551

3.12 Funding (availability) -

Certification of Funds and Budget and Fiscal Provision and Termination in the Event of Non-Appropriation.

- a. This agreement is subject to the budget and fiscal provisions of the Charter of the City of Sacramento.
- b. Charges will accrue only after written authorization certified by the Director of Finance of the City of Sacramento. Any amount of the City's obligation

3.0 GENERAL CONTRACT SPECIFICATIONS: (continued)

hereunder shall not at any time exceed the amount certified for the purpose and period stated in such advance authorization.

- c. This agreement will terminate without penalty at the end of the fiscal year in the event funds are not appropriated for the fiscal year. If funds are appropriated for a portion of the fiscal year this agreement will terminate, without penalty, at the end of the term for which funds are appropriated.
- d. This section controls against any and all other provisions of this agreement.
- e. Payment under said authorization of orders shall be as provided in provision - Payment and Invoicing.

3.13 Payment and invoicing -

Invoices, in triplicate, shall be mailed or delivered to City of Sacramento, Accounts Payable, 915 I Street, Sacramento, CA 95814.

3.14 Payment terms -

Payment terms are net 30 days unless bidder otherwise quotes. All cash discounts if taken, shall be computed from the date of delivery or completion and acceptance of material, or from date of receipt of invoice, whichever is latest. Invoices must be submitted as specified at the time of shipping authorization. Partial payments may be made by the City on delivery and acceptance of goods and on receipt of vendor's invoice.

3.15 Prices -

Prices are maximum for the term of the contract. In the event of a price decline, the benefit of such lower prices shall be immediately extended to the City.

3.16 Termination -

Contract may be terminated by the City upon thirty (30) days advance notice in writing.

3.0 GENERAL CONTRACT SPECIFICATIONS: (continued)

3.17 Quantities (additional) -

The quantity specified is based upon current known requirements and is subject to increase at the same terms and conditions if mutually agreeable to both parties within 365 days of bid award.

4.0 CAB AND CHASSIS REQUIREMENTS:

- 4.1 Cab - conventional, with butterfly or alligator hood.
- 4.2 GVWR - 58,000 lbs. minimum. Shall be increased if required to provide maximum legal payload under all operating conditions.
- 4.3 GAWR (front) 18,000 lbs. minimum. Shall be increased if required to provide maximum legal payload under all operating conditions.
- 4.4 GAWR (rear) - 40,000 lbs. minimum, tandem axles.
- 4.5 C/A dimensions - compatible with make and size of body mounted to provide the correct load distribution for maximum legal payload.
- 4.6 Wheelbase - compatible with make and size of body mounted to provide the correct load distribution for maximum legal payload.
- 4.7 Suspension and axles -
  - a. Front suspension and axle - 18,000 lb. minimum. Shall be increased if required to provide maximum legal payload under all operating conditions.
  - b. Rear suspension - Hendrickson Model RT-400 with 52 inch walking beam and rubber bushings, with transverse rods, 40,000 lb. capacity.
  - c. Rear axle - dual drive axles, 40,000 lb. capacity minimum, with interaxle differential and lock out with indicator light located in cab.
  - d. Ratio - top speed approximately 60 MPH.

4.0 CAB AND CHASSIS REQUIREMENTS - (continued)

4.8 Shock absorbers -

- a. Front - required.
- b. Rear - not required.

4.9 Engine -

- a. Number of cylinders - 6 inline.
- b. Net horsepower at governed RPM - 270 minimum.  
270 HP at 1700 RPM.
- c. Net torque - 938 lbs. minimum at 1300 RPM maximum.
- d. Fuel - diesel.
- e. Heavy duty air filter - dual stage replaceable element (dry) type with "Dial" type vacuum gauge restriction indicator mounted in the cab at a readily visible location from driver's seat.
- f. Governor - variable speed type.

4.10 Cooling system -

- a. Manufacturer's heaviest available option for the engine furnished; adequate to maintain engine at proper temperature under all operating conditions including stationary operation, in the City of Sacramento area.
- b. Heavy duty shrouded radiator shall be provided with adequate capacity to meet above requirements.
- c. All radiator and heater hoses to be silicone.
- d. Antifreeze - (glycol) protected to minus 20° below freezing.
- e. Corrosion resistor with replaceable spin-on type element (Perry #SA360) shall be provided with shut-off valves to preclude coolant loss when replacing throw-away element.

4.0 CAB AND CHASSIS REQUIREMENTS - (continued)

- 4.11 Single, vertical exhaust system - all vulnerable areas shall be adequately protected from personnel burn, and routed or protected against low hanging tree limbs. a 90° elbow shall be installed at the top of vertical stacks to prevent rain water accumulation, stack height - same as body.
- 4.12 Engine protective device to first provide an audible warning and to stop the engine in the event of low oil pressure or high water temperature, without damaging the engine or its components. An manual override shall be provided to permit driver to move vehicle off roadway.
- 4.13 The oil and water fill points shall be readily accessible and allow checking without tilting hood. Butterfly or alligator hood shall be provided.
- 4.14 Transmission -
- a. Automatic - 4 speed, Allison HT-740 with modulator lockup. (Allison MT-654-CR is not acceptable with any engine combination.)
  - b. Auxiliary oil cooler - Hayden Model No. 1260 located 1-1/2" away and in front of engine radiator or Stewart Warner Southwind #11327A, capable of maintaining transmission oil within safe operating temperature under all operating conditions in the City of Sacramento area.
  - c. Transmission shift linkage shall have minimum number of bends and be so routed as to not become overheated by exhaust system.
  - d. Oil filter (auxiliary) shall be AC 5576446 or approved equal with 5/8 inch I.D. connecting hoses. Filter element shall be of PF 132 or equal. Filter shall be so located to permit easy access for element replacement without spillage onto service personnel.
- 4.15 Frame -
- a. Alloy steel, with a section modules of not less than 29.00 per frame side rail and an RBM of 3,000,000 inch-lbs. minimum. If heat treated, frames shall not be heated or welded.
  - b. Frame shall have sufficient number of crossmembers to provide torsional rigidity and to support the frame rails where fuel tanks and rear suspension

4.0 CAB AND CHASSIS REQUIREMENTS: (continued)

assemblies will be mounted. Heavy duty crossmembers shall be provided for the rear spring mounting bolts at the front and rear spring suspension area to preclude stress cracks.

4.16 Steering - hydraulic power assisted.

4.17 Wheels and tires -

a. Wheels (To meet or exceed GVWR):

Front - three (3) 11-1/4" bolt circle steel disc "Budd" type, 20x10, 10 hole wheels with one (1) not mounted. Shall be upgraded to exceed GVWR/GAWR if required to provide maximum legal payload under all operating conditions.

Rear - Nine (9) 11-1/4" bolt circle steel disc "Budd" type, 22.5x825, 10 hole wheels with one (1) not mounted.

b. Tires (To meet or exceed GVWR):

Front - two (2) 14/80RX20 18 ply highway tread steel radial (equal to Goodyear Unisteel II). Shall be upgraded if required to provide maximum legal payload under all operating conditions.

Rear - eight (8) 11R22.5 tubeless, 16 ply, highway tread steel radial, equal to Goodyear Unisteel II.

4.18 Brakes -

a. Service - full air, all wheels without Anti-Lock system.

b. Compressor - 12 CFM minimum.

c. Spring type emergency brake on rear axle.

d. Front brake size - 16-1/2"X6" approximately; cam actuated with automatic slack adjusters.

e. Rear brake size - 16-1/2"X7" minimum, cam actuated with automatic slack adjusters.

4.0 CAB AND CHASSIS REQUIREMENTS: (continued)

- f. All brake drums - "outboard" type.
- g. Brake linings - non-asbestos type.
- h. Quantity and capacity of air reservoir tank to meet D.O.T. 121 certification and equipped with non-automatic, pull cable type valve equal to Weatherhead #1421 on all tanks. Pull cables to be separately routed through conduit to a location on the left side of the truck. The cable ends are to be located within 10 inches of each other and shall be able to be activated by the operator in standing position.
- i. An air dryer equal to Bendix AD-9 shall be installed.

4.19 Electrical system -

- a. Alternator - 12 volt, 65 amp 27 SI minimum.
- b. Battery - three (3) 12 volt, 1875 CCA heavy duty type, mounted in a battery box with enough clearance above battery for servicing and testing.
- c. Lights -
  - 1. Minimum lighting equipment including but not limited to: tail (rubber mounted sealed beams, Ref. "Trucklite"), stop, license, headlight (multiple beam), all instruments, directional signal of the self canceling type including hazard switch, backup, clearance, and marker lights.

All wiring must be color coded or numbered. All exterior wires, wire harnesses, terminals or connectors subject to road grime, dirt, moisture and rock throw, shall be adequately protected and hermetically sealed. Whenever possible, individual wires shall be grouped into harnesses and properly supported on rigid members to prevent abrasion and flexural failure. Grounding terminals for all circuits shall be securely soldered or crimped to copper terminal and bolted to frame. All wiring shall be continuous runs without splices between junction, blocks, and/or termination points. The provision shall also be required for the body.

- d. Reflectors shall also be provided to meet State of California Vehicle Code.



4.0 CAB AND CHASSIS REQUIREMENTS: (continued)

4.20 Gauges -

One (1) fuel, one (1) coolant temperature, one (1) oil pressure, one (1) voltmeter, one (1) speedometer odometer combination, one (1) transmission temperature gauge in cab showing heat in degrees or percentages with over-temperature indicator light and test button mounted on dashboard, one (1) tachometer and one (1) air pressure (duplex gauge). Air pressure alarms must provide audible warning whenever system pressure is below 60 pounds. All gauges must be provided with light for night operation and be located in front or at a readily visible location from the driving position.

4.21 Fuel tank/location -

Minimum capacity - 50 gallons left side mounted. Its fill spout area shall be protected from winter mud accumulation to prevent contamination of fuel when refueling and shall be the step tank type. Tank shall be prominently labeled - "DIESEL FUEL ONLY" (preferably on the tank adjacent to the fill spout in minimum 2 inch letters).

4.22 Seat -

Adjustable and weather resistant bench type for driver and two (2) passengers. Cab floor, seats and doors shall be so arranged as to enable driver to enter and leave the cab with ease and dispatch.

4.23 Cab steps -

The cab entry system shall be designed and constructed for maximum safety and ease of entry and exit. The steps shall be of a non slip self cleaning type, strong enough to support drivers weighing in excess of 225 pounds entering and exiting the cab many times per day.

4.24 Paint finish -

a. Cab, body and lifting device shall be primed and painted with a finish coat of yellow acrylic paint, equal to Ditzler DAR 82523 with Ditzler #OX280 enamel catalyst (Note: Equivalent paint may be substituted).

b. Chassis and wheels shall be black, factory standard.

4.0 CAB AND CHASSIS REQUIREMENTS: (continued)

- c. Paint to be lead free.
- d. Successful bidder will be required to furnish manufacturer's safety data sheet (MSDS) for the paint used.

4.25 Miscellaneous equipment -

- a. Wipers (windshield) - electrically or air operated. Minimum two speeds.
- b. Fire extinguisher and bracket - 5# BC dry chemical with metal valves (not plastic) located to be readily accessible to driver. Current certificate shall be attached to fire extinguisher.  
  
Road hazard kit: bracket mounted hazard triangle kit (in a durable container) equal to Grote #71422.
- c. Door locks - on both doors.
- d. Mirrors - both sides, Westcoast standard, 7"X16". 6 inch diameter convex mirror (Ref. Grote 2804) to be mounted to mirror bracket below westcoast mirror, both sides.
- e. Heater and windshield defroster - adequate size and design to keep cab comfortably warm and to keep windshield clear under all adverse weather conditions. Heater blower shall have three (3) speed minimum.
- f. Seat belts - for operator and two (2) passengers. Anchorage to meet Federal Safety Standard, boot type seat belt retractors for both outer seat belts.
- g. Horn - electric.
- h. Grab handles - outside cab on right and left sides.
- i. Front bumper shall be of adequate strength and construction that vehicle may be picked up by same front bumper and towed to City of Sacramento repair facility under a fully loaded condition.
- j. Sunvisors - dual.

4.0 CAB AND CHASSIS REQUIREMENTS: (continued)

- k. Cigarette lighter and ash tray.
- l. Before delivery to the City of Sacramento and before acceptance by the City - all spring "U" bolts, PTO mounting bolts, rear differential mounting bolts, rear axle flange bolts, etc. shall be re-torqued to factory specification "manually" by use of hand held torque wrench. (Impact wrench - not acceptable.)
- m. Backup indicator - an audible device which can be heard above 83 dba of background noise when the vehicle moves in reverse, with the ignition in the off or on position, shall be installed to meet Section 27000 (b) of the State of California Vehicle Code. Electronic Control Company, Boise, Idaho, ECCO RMA 907 or Pollack 41-720 alarm in combination with speedometer drive motion sensor shall be installed no exceptions.

5.0 MOUNTED UNIT REQUIREMENTS:

5.1 General description -

- a. The machine will be used for cleaning sand, stones, bottles, cans, grease sludge sewage and other debris from City sewer and storm drain lines by the flushing action of high pressure water. The machine shall be equipped with a self-contained water supply as the water source for a high pressure pump. The high pressure pump shall be driven by the diesel chassis engine through a split shaft power take off or by an auxiliary liquid cooled diesel power engine.

NOTE: If belt drive is used belt must be warranted for a minimum of 24 months and a spare belt must be provided with each machine purchased at no additional cost.

- b. The machine shall be equipped with a vacuum system capable of removing the aforementioned debris from wet wells, catch basins and drain inlets at depths up to 40 feet below ground level. Additionally, the machine shall be capable of removing films of oil or other forms of waste material from water surfaces, and removing sand, mud and sludge from the bottom of flooded manholes and wet wells which are 5' - 10' below water level without requiring a reduction in vacuum line diameter below water level. The machine will also be used to dry vacuum large volumes of sand, rocks, leaves, bottles, and bricks from storm and sewer culverts. The vacuum pump shall be driven by the diesel chassis engine through a split shaft power take-off or by an auxiliary diesel

5.0 MOUNTED UNIT REQUIREMENTS: (continued)

engine.

NOTE: If an auxiliary engine is used, the diesel chassis engine size may be smaller than specified in item 4.9. Please note that optional engines may be quoted as noted in item 5.11. If an auxiliary engine is quoted, the overall operating noise of the entire unit will still be a factor in the award as noted in item 2.7.

- c. The machine shall be operable by one man with all operating controls for high pressure water, hose reel, and vacuum located at the front of the machine for operator safety.
- d. Time required as well as the ease and manner in which the operation is executed to complete the "clean out" operation at the job site will be considered in awarding the contract.
- e. The machine shall be able to 1) lift sand, sludge, rocks, leaves, cans and bottles from the floor of a pump station approximately 40 feet below ground level; 2) remove films (i.e. oil, grease) from water surfaces; and 3) remove sand, sludge and mud from the bottom of flooded manholes and wet wells. The performance must be demonstrated by the successful bidder prior to award and upon delivery of each machine purchased under the terms of the contract resulting from this bid. See Exhibit (1) one, Evaluation Form.

5.2 Debris storage tank -

- a. Useable capacity - 9 cubic yards minimum.
- b. Liquid capacity - 1800 gallons approximately.
- c. Construction - cylindrical, 3/16 inch thick, corrosion and abrasion resistance steel, with a minimum tensile strength of 70,000 PSI.
- d. Dumping System shall utilize a front mounted hydraulic cylinder, having a minimum 45 degree dump angle or a push out design utilizing a hydraulic cylinder with controls mounted at front work station or behind chassis cab on driver's side to prevent spillage on operator. A debris flush out system shall be high pressure at 2000 PSI and be supplied by the fresh water tanks. Debris tank shall empty with ease and require a minimum of flushing.

5.0 MOUNTED UNIT REQUIREMENTS: (continued)

- e. Drain - liquid gravity flow front and rear of debris tank, minimum 5 inch diameter with quarter turn butterfly valves to drain excess liquid. One length of 5" hose, 40' long, to be provided with a storage tray/rack near rear discharge. Drain system shall also be equipped with a hydraulically powered trash pump to discharge liquids back into the storm drain simultaneously with the jetting and vacuum operation. The pump shall have a capacity of no less than 120 GPM and shall return no more than 2% solids to the storm drain. Pump to be plumbed to the front bumper with a minimum 2 inch diameter pipe. A quarter turn Butterfly valve shall be provided at front bumper outlet with a 15 foot length of discharge hose.
- f. Overfill protection - Exterior debris level indicator with a horn and automatic shut-off to prevent overfill.
- g. Dump and Tank wash controls: Side operated, forward of dumping area to prevent spillage on operator.
- h. Rear Door: There shall be a rear door that is hinged at the top and is equipped with a replaceable neoprene type seal to prevent leakage. This door shall be hydraulically opened and closed so operator is not subject to sewage when dumping. Hydraulic locks shall be installed. Manual door locks are not acceptable due to operator safety.
- i. Debris Tank water storage: Tank to be used for storage of fresh water for sewer jetting. Neither debris storage tank or fresh water tank to be joined in any way to prevent contamination of fresh water tanks. Jetting water from debris tank, shall be plumbed direct to the water pump without entering fresh water tank to prevent contamination.

5.3 Water storage tank -

- a. Capacity - 1300 gallons (in addition to debris tank) located to provide best possible weight distribution.
- b. Material - The water tanks shall be manufactured from non-corrosive material to prevent rust yet still provide for maximum strength. The water tank material shall require no internal coating and shall be repairable if patching is required (48 hour repair and/or replacement shall apply). The water tanks shall carry a 10 year warranty against corrosion or cracking. Supply copy of warranty with bid. All water tanks shall be positioned on the unit to provide the lowest

5.0 MOUNTED UNIT REQUIREMENTS: (continued)

possible center of gravity. Warranty provision stated in Section 3e and 3h shall apply.

- c. Water Fill: Fresh water tank fill shall be located on curbside of unit with access from ground level. Debris tank water fill to be located on top face of rear debris door with operator access to open/close valve by ladder or steps. Both water fill systems shall be of California approved Visible Air Gap type design to protect the potable water supply.
- d. Water level indicator - A suitable, clearly visible from the operator station water level indicator shall be supplied for both fresh water and debris tank.
- e. Fill hose - (2) fill hose, 25 feet of 2-1/2" light weight fire hose with end fittings shall be supplied, (1) one for both fresh water, (1) one and debris tank fill.

A California approved air gap system shall be provided for both fills.

5.4 High pressure jetting pump -

- a. Type - Tri-Plex positive displacement reciprocating, or double acting single piston pump with accumulator.
- b. Rating - continuous 2000 psi @ 60 GPM with sufficient reserve to insure adequate pressure and volume through out the life of the pump.
- c. Safety - A monitor light shall be provided to indicate when design flow or pressure has been exceeded. Water pump shall be self priming and capable of being run dry without suffering damage. Drain plugs will be provided in the bottom section of the water pump for complete cold weather draining.
- d. Mounting: Water pump to be protected by a cover. The cover will protect the pump and all water inlet and outlet lines from the pump. The pump location shall provide a flooded suction inlet to eliminate potential cavitation damage.

5.5 Vacuum pump -

- a. Type - rotary positive displacement "Roots-type" or centrifugal compressor

5.0 MOUNTED UNIT REQUIREMENTS: (continued)

designed for long life and heavy duty service.

NOTE: If a centrifugal compressor is quoted, it must be able to vacuum debris from flooded wet wells as specified in item 5.1 b. without the use of a reduced size tube under water.

- b. Rating - Shall be a minimum of 3400 CFM @ 216 inches of water vacuum, 4100 CFM @ 0 inches of water vacuum for positive displacement/"Roots" Blower type systems, or a minimum of 8000 CFM with a minimum negative water pressure of 200 inches for centrifugal compressor systems.

(Ratings are approximate and may vary due to the type of pump supplied. Vendor to supply the type of vacuum pump that will meet the performance requirements of Section 5.1e.). If performance requirements can be met with alternative systems vendor may offer as an alternate bid. If an alternate bid is offered it must be available for demonstration within 14 days of bid opening.

- c. Silencer - high efficiency exhaust silencer if required to meet noise level specified in Section 2.6 and 2.7.
- d. Filter screen - centrifugal separator, screen and settling chamber to prevent debris from entering pump filter area shall be easily accessible for maintenance.

The separator shall be cyclone type which will remove particles as small as 50 microns in size as well as condensation from the air stream. The separator shall be mounted between the air flow from the debris hopper and vacuum pump or centrifugal compressor. A clean-out box shall be located at the bottom of the separator. A ball float shut-off shall be provided to prevent liquid debris from carrying over from the debris tank and entering the vacuum pump or centrifugal compressor.

- e. Drive - from split shaft P.T.O. or auxiliary engine driven.

5.6 Hose boom -

- a. Type: Designed for front end operation, with telescopic hose and boom assembly. The boom shall include a true telescopic suction tube which will extend and retract with out affecting the steel elbow or lower debris hose vertical position. To maintain a proper seal of the telescoping suction tube, a spring retained segmented air seal shall be provided.

5.0 MOUNTED UNIT REQUIREMENTS: (continued)

Specification 276-A  
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High Pressure Water Basin Cleaner  
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- b. Rotation - minimum rotation of 180°. The lift and swing movements shall be accomplished by hydraulic cylinder and/or hydraulically operated gears.
- c. Extension - Approximately 8 feet extension hydraulic powered in and out with 700 lbs. minimum capacity with boom fully extended.
- d. Vertical lift - Approximately 8 feet of vertical lift, hydraulic powered up and down and equipped with safety check valves.
- e. Reach - Approximately 21 feet from center line of rotation, 8 feet from front bumper. A boom extension and coverage diagram shall be provided.
- f. All connections between debris body and vacuum system will be of the self adjusting pressure fitting type. All hose and tubes shall be 8" I.D. and will remain stationary and not raise with the debris body in order to minimize possibility of running vacuum hose into power lines and low hanging branches.

The upper debris tube shall consist of an anchored steel tube for additional life. The boom shall be hydraulically driven up, down, left and right directions. Boom shall be controlled by a remote push button control station. The control station shall come equipped with control switches for all directions. A boom cradle shall be provided for transporting with a device to secure hose to front of truck or bumper.

- g. Pipe extensions: Pipe extensions will be included to allow operator to clean to depths of 54 feet.

#### 5.7 Hose reel

- a. Front mount hose reel: Rotating hose reel assembly will be mounted on a independent frame which can be removed from brackets attached permanently to main truck frame members. Hose reel will be manufactured in such a manner that it will require no internal or external reinforcements which could damage rubber hose. Hose will have a minimum capacity of 800 ft. of 1" ID rubber hose. Hose reel will be driven via hydraulic motor. The motor the reel speed and forward and reverse rotation. Hose reel will have rotating swivel joint that rotating swivel joint that is adjustable and has replaceable seals on the inlet line to provide free rotation of hose reel. The front mount hose reel shall be moveable to allow complete hood opening for access to the engine for servicing and maintenance.

#### 5.0 MOUNTED UNIT REQUIREMENTS: (continued)



Specification 276-A  
Truck with Combination Vacuum and  
High Pressure Water Basin Cleaner  
December 4, 1991

Frame shall be adequately reinforced to prevent sagging and undue stress on truck frame and hose reel.

- b. The entire hose reel assembly will rotate or articulate a minimum of 180 degrees.
- c. The hose reel will include a locking mechanism which will positively lock the reel in any position across its operating range. A dual roller type level wind guide feature to insure orderly rewinding of the hose shall be installed.
- d. Controls will be mounted on hose reel allowing operator to work off of either side of unit for safety.

The controls shall include the following:

- 1) Pneumatically or hydraulically operated reel rotation lock switch
  - 2) Truck engine throttle
  - 3) High pressure water pump on-off switch or valve
  - 4) Hose reel forward-reverse valve
  - 5) Adjustable hose reel speed control
  - 6) Overspeed warning light for water pump
  - 7) Oil dampened water pressure gauge
  - 8) Handgun control valves (on front bumper and rear bumpers) curb side with quick disconnect for attaching handgun and hose
  - 9) Hose footage counter at operator station of hose reel
- e. High pressure jet hose: Jet hose will be supplied is 1" ID and has operating pressure of 2500 PSI and a burst pressure of 6250 PSI, 800 ft. will be supplied on hose reel a 20 ft. leader hose shall also be supplied with a flexible hose guide with restraining rope, for protection of rubber hose and provide help in locating nozzles in sewer line.
  - f. All high pressure fittings, drive chains and hydraulic motor shall be provided with adequate safety guards. An indicator light shall be installed on dash of truck to alert operator when hose reel is not in position for transport.

5.0 MOUNTED UNIT REQUIREMENTS: (continued)

5.8 Wash down system -

- a. Debris flush out system shall be installed inside of debris tank, System will operate at 60 GPM @ 2000 PSI.
- b. Handgun for wash down and manhole cleaning system to be provided, with a minimum 20 GPM @ 600 PSI (relieved to protect operator). Handgun should allow for changing of flow pattern from fine mist to a steady stream. Pressure regulator shall be sealed by the factory at 800 PSI maximum.
- c. 35 feet of 1/2" high pressure hose for handgun shall be provided with compatible quick disconnect to front and rear outlets. Handgun system will include front and rear couplers that allow the operator to deliver water to area served by pick-up hose and inside of the debris body for clean out.

5.9 Miscellaneous -

- a. A hand light with bumper plug front and rear shall be provided.
- b. Two (2) large steel locking tool boxes, attached to the vehicle, shall be provided. Location and dimension shall be provided to Fleet Management for approval.
- c. One (1) flexible lower hose guide with 30 feet of rope shall be provided.
- d. One (1) culvert cleaner (Ref. Super Products ell with 12 inch extension).
- e. One (1) 15° radial nozzle.
- f. One (1) 35° radial nozzle.
- g. One (1) serrated vacuum nozzle for leaf pickup.
- h. The following aluminum intake tubes with connectors shall be provided (mounts for tube storage on the truck shall be provided; they shall be easily accessible without requiring ladders; City staff shall be consulted as to the placement of these mounts):

5.0 MOUNTED UNIT REQUIREMENTS: (continued)

- 1) Five (5) - 8" x 8'.
- 2) One (1) - 8" x 5'.
- 3) One (1) - 8" x 4'.
- 4) One (1) - 8" x 3'.
- 5) One (1) - 8" x 2'.

- i. Wheel chocks for all four rear wheels shall be provided with storage brackets to adequately secure chocks when not in use. Brackets/storage cut out or compartment shall be as close to wheel area as is practical.

5.10 Controls, gauges and instruments -

- a. A portable remote control with sufficient cable, with easy disconnect shall be provided. Control with button controls to control vacuum, boom telescoping in and out, boom power rotation with an automatic boom lock, hydraulic boom movement up and down and on and off control of the vacuum valve in the boom shall be required.
- b. Hydraulic controls to lock and unlock the rear door as well as dump the debris tank shall be provided. (Mechanical locks not acceptable)
- c. Water pressure control valve(s) shall be located at the operator's control station.
- d. The following controls, gauges and instruments shall be provided at the operator control station: (All gauges shall be liquid filled to prevent damage from vibration.)
  - 1) Full boom controls.
  - 2) Tachometer.
  - 3) Water pressure gauge.
  - 4) Vacuum gauge - Positive Displacement/"Roots" Blower Systems only.

5.0 MOUNTED UNIT REQUIREMENTS: (continued)

- 5) Hydraulic pressure gauge.
- 6) Adjustable engine throttle.
- 7) Speed control valve for hose reel.
- 8) Engine stop.
- e. In cab controls shall include controls to engage and disengage the PTO, the boom power pack and the hydraulic system.
- f. All controls shall be labeled with permanent metallic labels from the manufacturer.
- g. All controls and wiring shall be weatherproof and routed in protective harnesses. A central circuit breaker box shall be provided in an accessible location. Complete, as built, wiring diagrams shall be provided prior to acceptance of the unit. All wiring shall be color coded or numbered and so labeled on the diagrams with all connections made at accessible watertight junction boxes.

5.11 Options -

- a. Spring loaded or equal pipe racks capable of holding 50' of 8" sewer cleaning pipe. Rack should allow operator to remove pipe from a height of not greater than 5 feet from ground. Final design shall be approved by the City of Sacramento.
- b. Alternate, lower horse power truck engine available when an auxiliary engine is used. State manufacturer, model, horsepower and price. (Allison MT654 series transmission unacceptable.)
- c. Alternator, 75 amp or larger.
- d. Directional arrow board mounted on the rear of the unit (ref. Public Safety Equipment Inc. "Arrowstik AS10".
- e. Revolving amber beacon lights located at upper front and rear locations of the unit. Light assembly shall be Grote #76223.

5.0 MOUNTED UNIT REQUIREMENTS: (continued)

- f. Extended engine warranty 5yr/100,000 mile.
- g. Extended transmission warranty 5yr/100,000 mile.
- h. 1/4" smooth-finish debris tank coating of "Rhino Lining" polyrhyn elastomeric polyurethane coating or equivalent.
- i. 8" to 6" reducer tube.
- j. 8" to 4" x 4' reducer tube to vacuum out 4" sewer services of rock.
- k. 6" x 4' sewer tube.
- l. 4" x 4' sewer tube.
- m. A minimum of two (2) nozzles to clean 10" storm drainage lines and larger shall be furnished, nozzles to be of #50 Rockwell-C hardness. one (1) 35 degrees double storm type nozzle to clean 36" and 72" pipes shall be furnished.
- n. Telescoping/extendable hose reel with controls to provide movement of hose reel to manhole without moving truck provided the truck is with approximately 2' of manhole.
- o. Left side (driver) seat, air suspension type, Bostrom 705E or equal.
- p. Recycle system to allow use of water collected during vacuuming operation to be reused for jetting operation. (If available).

Date: \_\_\_\_\_

Job Site Demo

COMBINATION VACUUM AND HIGH PRESSURE CLEANER

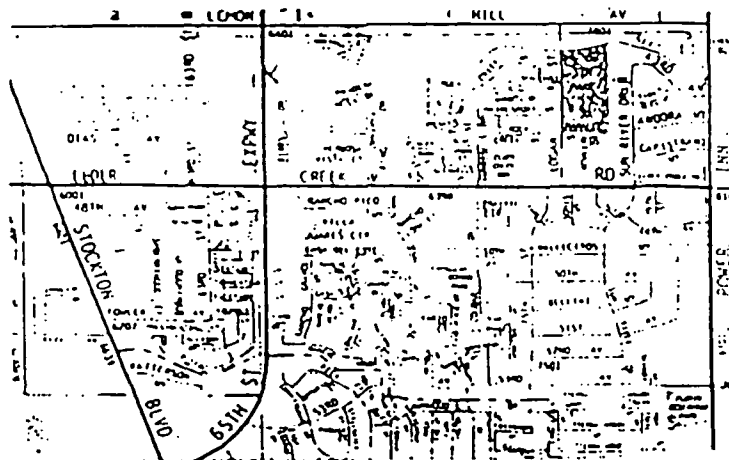
Type of Machine: \_\_\_\_\_

- 1. Removed debris, such as sledge, sand, bottles, cans and grease from depths to 40'.
  - A. No
  - B. Yes - On a scale of 1 to 10, with 10 being the highest/best, rate the efficiency of this unit's performance for this portion of test.
  
- 2. Removed contaminated oil spilled on surface of water without draining the sump or manhole to depths of 40'.
  - A. No
  - B. Yes - On a scale of 1 to 10, with 10 being the highest/best, rate the efficiency of this unit's performance for this portion of test.
  
- 3. Removed sludge, mud, sand, and debris from below the surface of the water in flooded manholes or wet wells up to 40' deep, 20' from vehicle.
  - A. No
  - B. Yes - On a scale of 1 to 10, with 10 being the highest/best, rate the efficiency of this unit's performance for this portion of test.
  
- 4. Overall comments:      Rating:      Not Acceptable      Acceptable

Performance and efficiency to be rated on a scale of 1 to 10, with 10 being the highest/best using the following criteria:

- A. Ability to perform all functions.
- B. Time required to complete task.
- C. Maneuverability and ease of operation.

Test will be conducted at Storm Drainage Sump 96 on 65th Street Expressway and Morrison Creek. (Nearest cross street is 47th Avenue).



QUESTIONNAIRE FOR TRUCK CAB & CHASSIS (FILL IN APPLICABLE ITEMS)

MAKE \_\_\_\_\_ MODEL \_\_\_\_\_ YEAR MAKE \_\_\_\_\_

GVWR \_\_\_\_\_ GAWR F. AXLE \_\_\_\_\_ GAWR R. AXLE \_\_\_\_\_

WB \_\_\_\_\_ INCH CA \_\_\_\_\_ INCH.

ENGINE: MAKE \_\_\_\_\_ MOD \_\_\_\_\_ NO. CYL \_\_\_\_\_ CID \_\_\_\_\_

NET HP \_\_\_\_\_ @ \_\_\_\_\_ RPM, NET TORQUE \_\_\_\_\_ FT. LBS. @ \_\_\_\_\_ RPM

CARBURETOR - # OF BARRELS \_\_\_\_\_

ALTERNATOR MAX OUTPUT \_\_\_\_\_ AMP, BATT. \_\_\_\_\_ A.H., QUAN. OF BATT \_\_\_\_\_

ENG. (STD.) OIL FILTER: TYPE \_\_\_\_\_ MAKE & MOD. \_\_\_\_\_

ENG. (AUX.) OIL FILTER: TYPE \_\_\_\_\_ MAKE & MOD. \_\_\_\_\_

ENG. FUEL FILTER: TYPE \_\_\_\_\_ MAKE & MOD. \_\_\_\_\_

ENG. AIR FILTER: TYPE \_\_\_\_\_ MAKE & MOD. \_\_\_\_\_

ENG. COOLANT FILTER: TYPE \_\_\_\_\_ MAKE & MOD. \_\_\_\_\_

ENG. EXH. MUFFLER - CHECK PROPER SQUARE: HORIZONTAL -  VERTICAL -

ENG EXH. PIPE - CHECK PROPER SQUARE: HORIZONTAL -  VERTICAL -

TRANS: MAKE \_\_\_\_\_ MOD. \_\_\_\_\_ HP/ NO. OF SPDS. FWD. \_\_\_\_\_

TRANS. AUX. OIL FILTER: MAKE \_\_\_\_\_ MOD. \_\_\_\_\_ ELEMENT PART # \_\_\_\_\_

FRAME RPM \_\_\_\_\_ FRAME SM \_\_\_\_\_

FRONT AXLE: MAKE \_\_\_\_\_ MODEL \_\_\_\_\_ RATING \_\_\_\_\_ LBS.

REAR AXLE: MAKE \_\_\_\_\_ MODEL \_\_\_\_\_ RATING \_\_\_\_\_ LBS.

REAR AXLE RATIO: \_\_\_\_\_

SPRINGS: CAPACITY @ GROUND: FRONT \_\_\_\_\_ LBS. REAR \_\_\_\_\_ LBS.

STEERING: TYPE \_\_\_\_\_ MAKE \_\_\_\_\_ ASSIST (?) \_\_\_\_\_

SERVICE BRAKE TYPE - CHECK PROPER SQUARE: AIR -  VACUUM OVER HYD -

TYPE OF LINING (ASBESTOS OR NON-ASBESTOS): \_\_\_\_\_

AIR BRAKE: COMPRESSOR SIZE: \_\_\_\_\_ CFM, MAKE \_\_\_\_\_

AIR DRYER: MAKE \_\_\_\_\_ MODEL \_\_\_\_\_

WHEELS (FT) TYPE \_\_\_\_\_ WIDTH \_\_\_\_\_ RATING \_\_\_\_\_ NO. STUDS \_\_\_\_\_

WHEELS (R) TYPE \_\_\_\_\_ WIDTH \_\_\_\_\_ RATING \_\_\_\_\_ NO. STUDS \_\_\_\_\_

TIRES (FT) TYPE \_\_\_\_\_ SIZE \_\_\_\_\_ LOAD RANGE \_\_\_\_\_

TIRES (R) TYPE \_\_\_\_\_ SIZE \_\_\_\_\_ LOAD RANGE \_\_\_\_\_

FUEL TANK CAPACITY \_\_\_\_\_ TYPE \_\_\_\_\_ LOCATION \_\_\_\_\_

SEATING CAPACITY \_\_\_\_\_

NAME OF FIRM \_\_\_\_\_ BY \_\_\_\_\_ TEL # \_\_\_\_\_

LIST ANY ADDITIONAL INFORMATION OR EXCEPTIONS TO THE SPECIFICATIONS ON A SEPARATE SHEET AND SUBMIT WITH BID.