

QUESTION NO. 22 - ATTACHMENT

TYPE: 6 X 4 CNG TRUCK with 20 cubic yard High Density compaction body

GVWR: 56,700 LBS. APPROX.

SPEC. CODE: 32831CNG.12

VOCATION: REFUSE COLLECTION

INTENT: It is the intent of this specification to cover the basic requirements of a well designed conventional cab, fiberglass tilt hood, stationary grill and chassis complete in every detail, employing the best workmanship and material to insure ample sturdiness, flexibility and economy of operation. The cab and chassis must accommodate a 20 cubic yard high density compaction, rear loading compactor complete as described in section 4 with an optional snow plow lift frame, plow and controls. The compactor body shall have a full sweep hydraulic telescopic ejection discharge system and a design payload of more than 1,000 lb. per cubic yard. It shall be the latest production model conforming to the following specifications.

The following paragraphs cover all equipment, attachments and superstructures included in the modification to the standard specification(s).

Appurtenances and/or accessories not herein mentioned but necessary to furnish a complete unit ready for immediate use upon delivery shall be included and conform to the best practices known in strength, quality, material and workmanship and be subject to these specifications in full. All equipment/accessories standard for the model bid, or any option package required to meet any portion of the specification shall be provided. Delete credit option(s) or dealer piecemealing of items normally supplied in an option package shall not occur without the expressed written consent of the City. Should the manufacturer's current published data or specifications exceed these, they shall be considered minimum and be furnished.

All specified items shall be factory / Original Equipment Manufacturer (OEM) installed. Instances where specified items are not available through the manufacturer, the dealer may install "aftermarket". However, these items and installation must be of the best known for the particular industry and approved by the Office of Fleet Management (OFM).

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Awarded vendor must furnish at time of delivery, for each piece of equipment being delivered, a line sheet pertaining to all components of the vehicle. This unit must supply as a minimum all standard equipment of the referenced model(s) in this specification. Awarded vendor is considered the "Prime Vendor" for the complete unit and is responsible for all conditions of the bid.

All wiring shall be color or number coded. Circuit breakers or fuses shall protect all electrical circuits. All chassis-to-body wiring shall be of the **DIN / WEATHERPACK** type connections. All non-OEM wiring connections shall be crimped and soldered and covered with shrink-wrap.

All wiring and non-hydraulic hoses and tubing throughout shall be protected by convoluted plastic loom. Nylon abrasion sleeve covering and HYCON clamps shall protect all hydraulic hoses and tubing as needed. Rubber grommets shall be supplied on all wiring, hoses, and tubing when passing through any bulkheads, body panels, etc.

It should be noted that the specific requirements, as outlined below, supersede and/or modify the corresponding paragraphs in the standard reference purchase description specification. It also should be noted that any deviation of a line item should be addressed in letterform and included in the bid package.

This specification is not meant to be restrictive. It is recognized that manufacturers may have used different methods to insure integrity of their system. Bidders may substitute, for evaluation, alternate systems and the testing programs or protocols they have conducted to demonstrate compliance of their product. ("Or Approved Equal Clause")

"OR APPROVED EQUAL"

The mention in the specifications of apparatus, equipment or material by brand name or by such specified description of the same as is hereby made, is intended to convey to the bidder's understanding, the degree of excellence required. Any article, equipment, or material, which will conform to the standards and excellence so established, and is of equal merit, strength, durability and appearance to perform the desired function, and are in service with other major municipalities in the United States. The Bidder is deemed eligible for offer as a substitute. The qualifications of the offering will be judged as to their conformance with these specifications. Any equipment offered other than herein specified will be subject to a competitive demonstration and evaluation by the using department. This demonstration is to be provided on request within ten (10) working days after the receipt of bids. The result of that demonstration and evaluation will be of prime importance in the recommendation to the governing body for the final contract award.

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Any item deemed as an “approved equal” must be approved by the City prior to the bid opening.

MODIFICATIONS TO THE STANDARD SPECIFICATION

2.0 APPLICABLE SPECIFICATIONS

All line set ticket (actual part numbers and descriptions used in manufacturing), service, parts, operator, and preventive maintenance manuals will be provided in a computer readable media. Acceptable file formats are: ASCII, Microsoft Word, Excel and Access.

2.1 Provide two (2) line set tickets for each unit delivered.

3.0 CAB & CHASSIS

3.1 CAB

Provide a fiberglass tilt hood with a stationary grill and LED clearance lamps.

3.1.1 Provide an air suspension seat on driver’s side; seat covering shall be heavy duty vinyl. Provide additional seating for two (2) passengers, with under seat storage compartment. All seats shall be provided with approved head rests. Provide high visibility seat belts.

Ref: Bostrom Talladega 910 hi-back, National Seats 2000

3.1.2 Provide an air ride cab mounting.

3.2 GVWR: 56,700 lbs. approximately
Wheelbase: 200 inches approximately
Cab-to-Axle: As required by body builder

3.3 CHASSIS BODY & CAB COLORS INCLUDING WHEEL RIMS

3.3.1 White, Bright
One step Urethane,
or approved equal (DuPont / Sikkens / PPG)

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4.0 COMPACTOR BODY AND HYDRAULICS

4.1 The compactor body shall be of the high density compaction type, 20 cubic yard rear loader with a 3 ½ CY hopper, loading height 42” maximum, compaction rate 1,000 per yard (minimum).

**Ref: MCNEILUS HD, HEIL DuraPack 5000,
LEACH 2R-III, NEW WAY King Cobra**

ALL BODIES MUST BE SUPPLIED WITH THE FOLLOWING ITEMS:

- 4.1.1** Full tailgate liner (Contractors / Demolition Package) side and hopper floor.
- 4.1.2** External hydraulic tank with sight and temp gauge (see section 4.3.2).
- 4.1.3** Inspection door left side with auto hydraulic shut down when opened.
- 4.1.4** Ladder, left side.
- 4.1.5** Broom and shovel brackets, location to be determined.
- 4.1.6** Compactor Body Lighting System (ALL LAMPS SHALL BE LED)

Center mounted brake light shall be 7.5" x 3.4", sealed, shock proof and weather resistant.

Ref: TRUCK-LITE LED (60250R)

Stop, turn and tail lamps shall be 4" round, sealed, shock proof and weather resistant, LED and shall incorporate a reflector. Lamp assemblies shall be mounted in a rubber grommet.

Ref: TRUCK-LITE LED, MODEL 44 (44202R)

Clearance and marker lamps shall be 2 ½” round, sealed, shock proof and weather resistant and shall incorporate a reflector. Lamp assemblies shall be mounted in a rubber grommet.

Ref: TRUCK-LITE LED, MODEL 10 (10250R/Y)

Back up lamps shall be 4” round, sealed, shock proof and weather resistant. Lamp assemblies shall be mounted in a rubber grommet.

Ref: TRUCK-LITE LED, MODEL 44 SERIES

LED license plate lamp

Ref: TRUCK-LITE LED, MODEL 15

Combination mid-mount side marker/turn signal lights, suitably protected with deflector bars, shall be installed at midpoint near the lower edge on each side of

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the body.

Ref: TRUCK-LITE LED

ALL LIGHTS SHALL BE SEALED UNITS, WEATHER AND SHOCK PROOF AND RUBBER GROMMET MOUNTED. ALL WIRING SHALL BE TRUCK-LITE, 50 LED SERIES-SUPER SYSTEM HARNESS

Provide two (2) back-up LED spotlights with the license bracket in the center of the bar, capable of utilizing all four mounting bolts.

Provide two (2) strobe lights, amber lens, with branch guard and cab control.

Ref: Federal Signal Ultra LED Model 252650-02SC (light)

Federal Signal Model 448330 (guard)

4.2 HYDRAULICS

4.2.1 Provide a transmission mounted hydraulic pump with sufficient clearance to facilitate removal. The pump, when operating at maximum pressure, shall have a suction vacuum of not more than 5".

4.2.2 Pump - Commercial Intertech

Maximum operating pressure: 2,450 PSI

Working Flow and RPM: 35 GPM - @ 1,300 RPM

Note: Pump shall be flooded with oil at all times for cool operation, long life and reduced noise.

The dry valve mechanism shall be controlled through a solenoid activated air valve mounted near the pump. The solenoid switch shall be mounted in the cab with the wiring to run through the neutral safety switch.

The electronic overspeed control shall be through the engine ECM, wired to deactivate the dry valve (interrupt full flow) when the engine speed exceeds the operating speed.

4.2.3 Reservoir - E - Z Clean side mount

(RESERVOIR LOCATION TO BE DETERMINED AT PRE-BID MEETING)

Capacity 50 gallons (U.S.)

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- 4.2.4 Filters - (Premium Quality)
 - Outlet filter (suction) 100 mesh
 - Return filter with bypass 20 micron Microglass

- 4.2.5 Spool valves
 - Tailgate/ Ejector Panel Spool Valve Commercial VA35
 - Automatic ejector blade relief
 - Force limiter for backbacking
 - Packer/Slide Commercial Intertech VA35
 - Automatic kickout for packer slide
 - Work port relief valves

- 4.2.6 All hydraulic shut-off valves shall be ball type.

4.3 SPECIAL REQUIREMENTS

- 4.3.1 Components such as air tanks, oil filter, fuel tanks, brake chambers, etc., shall be mounted as high as feasible to provide sufficient ground clearance for operation on a landfill and mounting of snow fighting accessories. The rear axle brake chambers shall clear a 14" square bumper log.

- 4.3.2 Provide an external hydraulic reservoir with a sight gauge (oil level and temp.) mounted on chassis frame (**RESERVOIR LOCATION TO BE DETERMINED AT PRE-BID MEETING**). The filler line with a quick disconnect coupling shall be mounted at ground level, curbside, for filling purposes.

- 4.3.3 Provide one (1) push button signal switch, shall be located on the curbside of the rear side panel and connected to a buzzer in the cab.

- 4.3.4 Two (2) bolt-on rear steps, one on each side, shall be provided. The steps shall be of expanded metal mesh with "sure grip design", rounded edges, approximately 10 x 24 inches, 20 inch ground clearance, complete with two vertical grab handles, approx. 12 inches long, knurled or equal "suregrip" design.

- 4.3.5 Provide one (1) caged LED floodlight, 50,000 cp. to illuminate the hopper area.

- 4.3.6 Provide all required reflectors, fastened with screws.

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4.3.7 Chassis OEM multiplex wiring/switches must be utilized for all body functions and lighting.

4.3.8 PTO OPERATION PARAMETERS

PTO and auto throttle advance, disengaged in any gear.

PTO and auto throttle advance on in neutral only with brake pedal depressed (cab control disable).

5.0 CAB & BODY EQUIPMENT

5.1 EQUIPMENT AND ACCESSORIES

5.1.1 Provide manufacturer's highest output integral heater, air conditioning and defroster system.

5.1.1.2 Provide an insulated cab with a desert type ventilation system.

5.1.2 All gauges shall be electrical, illuminated, and shall include but not be limited to fuel, coolant temperature, oil pressure, voltmeter, tachometer, electronic speedometer and hour meter.

5.1.3 Provide two-speed electric windshield wipers with delay and windshield washer system.

5.1.4 Provide largest size padded sun visors available.

5.1.5 Provide dome light, doors and switch activated.

5.1.6 Provide heavy duty turn signal indicator with transistorized flasher.

5.1.7 Provide Safety Seat Belts that comply with DOT Rules and Regulations

5.1.8 Provide a side-view mirror on both sides of vehicle. Equip with foldaway brackets and mirror surfaces of at least 90 square inches each side. The lower section of mirror shall be convex or mount a 6 inch spot convex mirror on a separate bracket.

5.1.8.1 Provide fender/hood mounted mirrors, both sides.

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Provide right hand door down view mirror.

- 5.1.9 Provide assist handles, approx. 10 inches long, both sides, for ease of access and egress.
- 5.1.10 Provide an AM/FM stereo radio, complete with antenna and two speakers.
- 5.1.11 Provide non-skid design surfaces, Grip Strut Grating type, for all exterior step surfaces. Provide entry steps as needed.
- 5.1.12 All units shall be keyed alike, provide two (2) keys per vehicle.
- 5.1.13 All glass shall be tinted safety glass. Doors shall be provided with operating vent windows (if available).
- 5.1.14 Provide full, heavy duty rubber floor covering throughout.
- 5.1.15 Provide LED cab lighting (if available)
- 5.1.16 Provide a body builder connection box, with 6 OEM dash mounted switches, minimum.
- 5.1.17 Provide air horn with control.

6.0 FRAME

Any non-factory frame modification shall require the approval of the OFM. Chassis requires frame reinforcement. Single frame rails minimum requirements: 10 7/8" X 9/16" X 7/16" with a 120,000 PSI and a 2,590,200 RBM, **NOTE: DOUBLE FRAME RAILS ARE NOT ACCEPTABLE.**

- 6.1 Provide a front frame extension for snow plow mount, 12" minimum.

7.0 AXLES & SUSPENSION SYSTEMS

- 7.1 Front springs shall match rating of axle capacity in pounds.

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- 7.2 Provide heavy duty shock absorbers.
- 7.3 Rear suspension shall be Hendrickson HMX series.
- 7.4 Front axle rating- 16,000 lbs. approx.
Rear axle rating- 46,000 lbs. approx.
- 7.5 Provide inter-axle lock/power divider
- 7.6 Provide synthetic oil with oil pump in all differentials.
- 7.7 Provide axles with piloted hubs.
- 7.8 Provide magnetic oil drain plugs.
- 7.9 Provide front axle hubs with oil bath front seals and synthetic oil.

8.0 BRAKES

- 8.1 Provide anti-lock brakes, all wheels.
 - 8.1.1 Front brakes, air disc type, 22.5 diameter with non-asbestos brake lining
Ref: Bendix ADB22X-V or approved equal
 - 8.1.2 Rear brakes, air disc type, 22.5 diameter with non-asbestos brake lining
Ref: Bendix ADB22X-V or approved equal
 - 8.1.3 Provide highest quality factory brake chambers on all axles.
 - 8.1.4 Provide 13 CFM water cooled air compressor, gear driven if available.
- 8.2 Provide an air dryer.
Ref: Bendix AD / IP, AS-9SI, or approved equal

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9.0 ENGINE

9.1 Provide a wet sleeve diesel engine, six (6) cylinder turbocharged, electronically controlled.
300 HP @ 2000 rpm (min.), approx.
860 FT. LBS. Torque (min) @ 1300 rpm, approx.
Ref: Cummins ISL – G NERO ZERO

9.2 Provide heated fuel-water separator with primer pump.

10.0 ENGINE EQUIPMENT

10.1 Provide an engine governor, to achieve a maximum road speed of approximately 65 mph. while fully laden (GVWR) through transmission and rear axle ratios. The vendor shall supply performance curves or tables showing the proposed vehicle road speed and torque characteristics at various grades under fully laden conditions.

10.2 Provide manufacturers engine protection/monitoring system.

10.3 Provide engine block heater with not less than 200 degrees F., 120 volt, single phase, water jacket preheater.

10.4 Provide magnetic drain oil plug.

10.5 Provide vertical exhaust pipe with a rain shield or turnout and a stainless steel personnel guard, on all exposed piping.

11.0 TRANSMISSION

11.1 Provide an automatic transmission for refuse vocation, ALLISON 3500 RDS P 5-speed with overdrive, compatible with all other drive train components. Provide synthetic oil.

11.2 Provide an externally mounted auxiliary oil cooler.

11.3 Transmission operating instructions shall be permanently mounted inside the cab near the transmission shift pad.

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11.4 Transmission selector shall be electronically controlled, dash-mounted with an oil level indicator, or equal, shift-shock mechanism.

11.5 Transmission selector shall be equipped with a neutral range inhibitor.

11.6 Provide magnetic oil drain plug.

12.0 STEERING

12.1 Provide power steering, manufacturer's standard.

12.2 Provide tilt/adjustable steering column.

12.3 Provide oil/air power steering cooler.

13.0 ENGINE COOLING SYSTEM

13.1 All coolant hoses shall be heavy duty rubber type equipped with spring type constant torque stainless steel clamps.

13.2 Provide long life permanent antifreeze, protection to -34 degrees Fahrenheit to meet OEM engine specifications.

13.3 Provide thermostatically controlled or viscous fan.

14.0 ELECTRICAL EQUIPMENT

14.1 Provide dual batteries (group 31) with the highest reserve capacity, 800 CCA each, min. Nominal System Voltage: 12 volt, negative ground. All circuits shall be protected by circuit breakers or fuses. All wiring shall be color coded or number coded, protected by plastic loom and rubber grommets.

14.2 Provide a brushless type alternator sufficient in capacity to support the electrical system specified, when used under severe conditions, 160 amps @1500 rpm, min.

14.3 Provide a heavy duty gear reduction starter with over crank protection.

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Ref: Delco Model 39MT or approved equal

14.4 Provide a remote jump start stud, located at starter or battery box.

15.0 TIRES

15.1 Tires shall be “First Line” and the type listed below:

Front tires: 12R22.5

Rear tires: 11R22.5 M/S

15.2 Provide steel BUDD type wheels only.

15.3 Provide wheel separator plates between all wheels and hubs.

Ref: Accuride nylon wheel guards or approved equal.

15.4 Provide high visibility green loose wheel nut indicators at all wheel positions of the vehicle.

Ref: Wheel-Check or approved equal.

15.5 Provide rear tandem tire and rim configuration in standard dual rear wheel configuration.

16.0 FUEL SYSTEM

16.1 Provide 60 diesel gallon equivalent (DGE) minimum, with auxiliary engine high pressure supply port and filter, mounted on back of cab.

16.2 Provide standard fill receptacle and dust cap, and defueler receptacle.

16.3 Provide single CNG fuel line with in-line solenoid shutoff valve and pressure regulator.

16.4 Provide stainless steel and synthetic rubber flexible fuel lines – Natural Gas Service.

16.5 Provide CNG fuel heating system.

16.6 Provide BLUE IQ communication between fuel tank and dash gauges.

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17.0 SAFETY EQUIPMENT

- 17.1 Provide fire extinguisher (2.5 lbs.), reflective triangle kit both cab mounted.
- 17.2 Provide back-up alarm.
Ref: ECCO, SA 907 series, or approved equal.
- 17.3 Provide an environmental spill kit, mounted on the side of the unit. (Minimum – 5 Gallon Universal Spill Kit, (2) Containment Socks, (12) Absorbent Pads, (1) 5-Gallon Bucket w/lid, (1) pair rubber gloves, (1) 5 pound bag of UltraSorb and (1) 35 Gallon Ultra Trash Bag)

**18.0 WARRANTY (100% Parts and Labor and Travel Time, no deductible).
Less wear items, a list of wear items must be submitted with bid.**

BIDDER INITIALS _____

Engine	
Full Base Coverage, Complete engine including fuel injectors.	2 years / 150,000 miles

Extended Coverage (After Base Coverage) Covers all these components, including but not limited to mounting hardware and gaskets; cylinder heads; rocker lever; ECM; Injectors, pistons, rings and liners; lube oil cooler; cylinder block; oil pan; connecting rod assembly; lube pump assembly; camshaft and bushings; cam followers; major cooled EGR components	3 years / 150,000 miles
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Note:
Total Engine Coverage Base / Extended Combined - 5 Years / 150,000 miles / Unlimited Hours

Differential	5 years / 150,000 miles
Transmission	2 years / unlimited

Cab & Chassis (Bumper /Bumper)	2 years / unlimited
All components ie: utilized in starting, charging, accessory	

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systems including harness, sensors, modules, cranking motors, alternator, regulators etc.

Body Compactor (complete unit) 2 years / unlimited
To include all components utilized
in operating the compactor body including
wiring harness, sensors, modules, hydraulic
controls & related components

All Hydraulic Cylinders 5 years / unlimited
Hydraulic System (hoses, etc.) 2 years / unlimited
All Additional Equipment 1 year / unlimited
Body Compactor (Structural) 5 years / unlimited

NOTE: All minor repairs (over four (4) labor hours) shall be performed within 2 working days, Sundays excluded.

BIDDER INITIALS _____

All major repairs shall be performed within 7 working days, Sundays excluded.

BIDDER INITIALS _____

All warranty work performed by City forces will be billed at the rate of \$52.00/hour.

BIDDER INITIALS _____

Transportation to and from the vendor's site, if required, is the successful bidders responsibility. If transportation is performed by City forces it will be invoiced at **\$52.00/hour (each round trip) or towing cost.**

BIDDER INITIALS _____

If the time intervals for minor and major repairs are exceeded, **the City of Philadelphia reserves the right to perform warranty work with direct invoicing to the successful bidder, not the manufacturer.**

Copies of Warranty Repair Orders shall be forwarded to the Office of Fleet Management within five (5) days after completion of each repair, including all cost for parts and labor.

BIDDER INITIALS _____

WARRANTY REGISTRATION

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The City of Philadelphia requires the successful bidder supply **WARRANTY REGISTRATION** of all warrantable components.

The warranty registration forms shall be supplied to the City, by the successful bidder, listing component description and serial number and chassis serial number. Each form shall require the signature of a representative of the City (OFM), the successful bidder and the subcontractor, where applicable.

If the successful vendor or their subcontractor supply a standard warranty registration form which includes disclaimers, the City reserves the right to refuse to sign. If no other registration form can be supplied the City shall sign the standard form as a **"REGISTRATION ONLY"**.

BIDDER INITIALS _____

The City recognizes only the warranty terms cited in the **Invitation to Bid** and agreed to in the contract awarded to the successful bidder, under Warranty, section 18 and Engineering Responsibility & Chronic Complaints/Failures, Section 35.

The City reserves the right to hold final payment until all warranty registrations are completed and a copy of such registrations supplied to OFM.

BIDDER INITIALS _____

19.0 PRE-PRODUCTION INSPECTION

19.1 Provide the Office of Fleet Management one (1) pilot inspection for the chassis at the manufacture plant, for one (1) person on each inspection trip. The successful bidder shall incur all expenses for lodging, meals, and transportation (transportation will be via air if more than 125 miles one way).

19.1.1 Provide the Office of Fleet Management a virtual pilot inspection for the chassis if available. The manufacturer shall provide to the City of Philadelphia the opportunity to review their unit as it proceeds through the production stages, from within the City of Philadelphia. The City shall provide either wireless connectivity, or pre-established teleconferencing capabilities to make this happen. The manufacturer’s representative shall travel to the City to coordinate and take part in these reviews. The corporate personnel shall be involved from the location of the manufacturing facility.

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19.2 Provide the Office of Fleet Management one (1) pilot inspection for the superstructure at the manufacture plant, for one (1) person on each inspection trip. The successful bidder will incur all expenses for lodging, meals, and transportation (transportation will be via air if more than 125 miles one way).

19.2.1 Provide the Office of Fleet Management a virtual pilot inspection for the superstructure if available. The manufacturer shall provide to the City of Philadelphia the opportunity to review their unit as it proceeds through the production stages, from within the City of Philadelphia. The City shall provide either wireless connectivity, or pre-established teleconferencing capabilities to make this happen. The manufacturer’s representative shall travel to the City to coordinate and take part in these reviews. The corporate personnel shall be involved from the location of the manufacturing facility.

21.0 QUESTIONS REGARDING BID

All questions regarding Bid Specification should be directed to the Procurement Dept and PHL Contracts vendor website login;
PHL Contracts – www.phlcontracts.phila.gov/bs/

**22.0 ILLUSTRATIONS & DRAWINGS
REQUIRED FOR THIS BID
BIDDER INITIALS _____**

All bidders shall submit with their bid a dimensioned weight distribution chart showing an unladen and a fully laden compactor including chassis.

24.0 CERTIFICATION OF COMPLIANCE WITH SPECIFICATIONS

The bidder shall certify on the form furnished with the Invitation and Bid that the Truck, component units, and parts shall be suitable for the work to be performed and will be constructed to definite standard dimensions, with proper clearance and fits; that previously published or set ratings shall not arbitrarily be raised without prior approval of the manufacturer of the actual unit and further, that the truck offered shall comply in every respect with the terms of this specification. In the event that the truck offered does not comply with this specification, the bidder shall state definitely, referring to the proper paragraph of this specification, where the Truck he proposes to furnish does not comply. Where no statement is received, the successful bidder shall be required to meet every requirement of the specification.

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25.0 REQUIREMENTS

General - Though they shall not be specifically enumerated herein, all parts necessary to provide a complete and efficient truck shall be furnished. All parts shall conform to current engineering practices of the industry relative to design, strength, quality of material and workmanship. The City reserves the right, at its option alone, to accept trucks with minor deviations from this specification.

26.0 MATERIALS

The Truck and all parts thereof shall be made of materials which are suitable for the intended service and shall be produced by current standard manufacturing processes. The materials shall be free from characteristics or defects which affect the appearance or which shall affect the proper functioning of the finished product.

27.0 GROSS VEHICLE WEIGHT AND DRY CHASSIS WEIGHT RATINGS

These shall be as specified in the Invitation to Bid. The gross vehicle weight rating shall include the weight of the complete chassis and cab.

30.0 SHIPMENT AND DELIVERY

30.1 Delivery Information - Final Delivery shall be made between the hours of 8:00 AM and 2:00 PM, Monday through Friday, except City Holidays. Each unit shall be accompanied by a Delivery Slip which will contain the City's Bid Number, Item Number, Purchase Order Number, and Serial Number of the Unit.

VENDOR MUST NOTIFY OFM, THIRTY (30) DAYS PRIOR TO MAKING ANY DELIVERY.

BIDDER INITIALS _____

DELIVERY CONTACT PERSON: LANCE WILUS (215-686-1875)
OFFICE OF FLEET MANAGEMENT
100 S. BROAD STREET, 3RD FLOOR
PHILADELPHIA, PA 19110

DELIVERY LOCATION: OFFICE OF FLEET MANAGEMENT
SHOP 415

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3895-99 RICHMOND STREET
PHILADELPHIA, PA 19137
PHONE (215) 685-1336

30.3 DELIVERY CONDITIONS

30.3.1 Vehicles, regardless of delivery point, shall be ready for use including all lubricants, coolant and operating fluids as required, minimum of 30 gallons of diesel fuel, equivalent amount of diesel engine fluid, if required. Battery shall be fully charged, tires properly inflated.

31. INSPECTION

31.1 Pennsylvania State Inspection - Each vehicle shall pass the Vehicle Code Examination of the Department of Transportation, Commonwealth of Pennsylvania; when delivered, chassis vendor shall have attached current State Inspection Stickers in the proper location.

31.2 Exhaust Emissions Inspection - All vehicles with GVW's subject to the provisions of the Pennsylvania Department of Transportation exhaust emission regulations must meet said requirements and have the appropriate sticker affixed to the windshield, along with the State Vehicle Inspection Sticker, when the vehicle is delivered to the City.

31.3 City Delivery Inspection
City Inspection of delivered vehicles will be conducted at the specified delivery point. It will be conditioned upon the satisfaction of all of the requirements of this specification and the Invitation to Bid.

Upon **final delivery to the City**, any vehicle(s) not meeting the requirements of the specification and the Invitation to Bid will be rejected. All rejected vehicles must be removed from the City's equipment delivery location within 48 hours of notification to the bidder / vendor.

BIDDER INITIALS _____

Upon **final delivery to the City**, in addition to liquidated damages (if applicable), the City at its sole discretion will charge the vendor / successful bidder a re-inspection fee of \$150.00 for each occasion a vehicle(s) / equipment not meeting the requirements of the specification and Invitation of Bid. This re-inspection fee will be assessed for each occasion a unit must be re-inspected.

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This re-inspection fee will be deducted from the invoice for unit(s) not meeting the requirements of the specification and the Invitation to Bid.

BIDDER INITIALS _____

31.4 OFM, Bureau of Quality Assurance, shall be notified when the pilot or first production model is available for inspection.

32.0 CERTIFICATIONS & MANUALS (PER ORDER)

32.2 Provide the necessary documents for the City to take Title to the vehicle in accordance with the Pennsylvania Motor Vehicle Code. ALL THE ITEMS, INVOICE (STATE ORIGINAL), MSO, MV-1, 2nd STAGE STICKER, ETC) ARE TO BE HAND DELIVERED FOURTEEN (14) DAYS PRIOR TO DELIVERY TO:

Unladen weight of the completed unit shall be supplied for each unit.

CITY OF PHILADELPHIA
OFFICE OF FLEET MANAGEMENT
BUREAU OF QUALITY ASSURANCE
100 S. BROAD STREET, 3RD FLOOR
PHILADELPHIA, PA 19110

32.3 Operation, Maintenance and Repair Data
Prior to the delivery of the first units, the vendor shall forward directly to the Office of Fleet Management, Maintenance, Operating and Repair manuals and Parts Lists as specified below. The manuals shall be shipped separately to OFM 100 S. Broad Street 3rd Floor, Phila, Pa. 19110 and not with the units. All manuals shall be in the form of neatly bound books, with durable covers, and shall be properly identified with the manufacturer's name, model and serial number of the equipment.

The operating and maintenance or shop manuals shall be the latest manufacturer's handbook, covering in detail the recommended operating, maintenance and service procedures.

Where components or equipment of several manufacturers have been used in manufacturing the unit, the manuals shall include operating, maintenance and repair

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information and parts lists of all manufacturers covering all of the components used. Where the vendor or manufacturer uses components manufactured by other in building equipment which he sells under his own trade name, he shall furnish the parts numbers and full data of the original manufacturers of all components used, where possible, as well as the part numbers he may assign to these components as being parts of his product.

32.3.1 One (1) set of manuals shall be furnished for each unit delivered.

Each manual shall cover chassis, superstructure, engine, transmission, differential, hydraulic system and all other added equipment. Operating Instructions and schematics including:

- | | |
|--------------------------|--------------------------|
| Maintenance Instructions | Emission Diagrams |
| Repair Instruction | Electric Wiring Diagrams |
| Parts Information | Collision |

Provide an eight year subscription to all manufacturer issued Service Bulletins (two for each vehicle supplied under this order)

NOTE: Provide two (2) additional sets of operators manuals, these manuals are to be delivered one month prior to delivery.

32.3.1.1 SOFTWARE

Provide software package(s) for all components: engine, transmission, brake, hydraulic and electrical systems. Cost shall include all required hardware (excluding a computer), and all licensing fees for one year.

BIDDER INITIALS _____

32.3.2 Preventive Maintenance Instructions

In addition to the manuals specified above, the vendor shall furnish an equal number of condensed Preventive Maintenance Instructions for all parts of the unit. These instructions shall consist of manufacturers' recommendations for periodic lubrication, cleaning and other preventive maintenance services, and shall be made up in a compact from covering the particular unit delivered.

32.3.3 Recommended Spare Parts

The vendor shall furnish with each service manual a list of recommended spare parts. The list shall include all necessary data for ordering the parts, even if

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originally furnished by other manufacturers. The vendor warrants that they shall maintain or have maintained a stock of repair parts within the Philadelphia Metropolitan area at inventory levels for the period described hereafter:

The manufacturer shall supply, through a dealer, a published price list for spare parts required to support the units to be manufactured hereunder for ten (10) years from the date of delivery of the last unit.

Technical and field service support shall be provided by the vendor, if necessary. This support shall be by personnel qualified to advise on training, repair and maintenance of the equipment. The technical representatives shall be available in the Philadelphia Metropolitan area when required by the City.

The repair or shop manuals shall include but not be limited to detailed drawings, electric, pneumatic and/or hydraulic schematics, piping diagrams and other pertinent information.

33.0 SIGNS

Signs, decals, and etc. showing dealer’s name and/or address, shall not be permitted on the outside of the unit.

33.1 Manufactures name (s), address and striping shall be removed before delivery.

34.0 INSTRUCTIONS & TRAINING

The vendor shall furnish three (3) video training films, DVD, covering the following subjects (if available):

- Operator Training
- Routine Maintenance
- Preventive Maintenance

If the vendor does not have at time video training films available at the time of the bid opening, it shall be acceptable to the City that the vendor tape the training sessions at the time of the training, making three (3) copies available to the City.

In addition, the vendor shall instruct City employees in the operation, servicing and maintenance of the units or equipment delivered at the following City facilities and at such times as the

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Engineer may designate, all within thirty (30) days after final acceptance of the first unit.

34.1 Operators: Location to be determined
Two one-day programs

34.2 Technicians: Location to be determined
Three five day programs, for five technicians at a factory training center

BIDDER INITIALS _____

35.0 ENGINEERING RESPONSIBILITY & CHRONIC COMPLAINTS/FAILURES

The term CHRONIC COMPLAINTS/FAILURES, as used herein, shall mean that the same component, sub-component, assembly or part, such as an engine, transmission, differentials, hydraulic system, pumps, etc. including valves, controls, water pumps, high pressure water systems, etc. develops repeated defects, breakdowns, and/or malfunctions.

The responsibility for the design of this equipment shall rest upon the successful vendor, and they shall consider all elements of operation for which the warranty shall apply. The successful vendor shall be responsible for the compliance and performance of each subcontractor, including all suppliers.

Where the equipment, units= and/or sub-components develop CHRONIC COMPLAINTS /FAILURES during service operations, the successful vendor will be required to make any engineering design changes, repairs, alterations, retrofits or to make an adequate heavy duty redesign of any component so as to properly correct and continue to render continuous, durable and safe performance. Warranty periods shall be for an additional one year, measured from the completion date of any corrective measures. This additional warranty shall not expire at the end of the initial warranty period even when the correction is performed in the last days of the original, stated, warranty period.

Minor items or ordinary service adjustments are not included nor considered under this scope of CHRONIC COMPLAINTS/FAILURES. Conditions caused by other factors such as operational damage due to accidents, vandalism, misuse, or lack of proper maintenance, service, lubrication as prescribed or recommended by the Original Equipment Manufacturer (OEM), are also excluded. Records and reports will be maintained by the Office of Fleet Management and will be made available for the successful vendor's periodic examination relative to CHRONIC COMPLAINTS/FAILURES.

The successful vendor shall provide written reports to the City, detailing the action taken as a

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result of a notice of complaint describing the failure. Any written notices of complaints or field action with corrections made, shall be forwarded directly to the Office of Fleet Management, 100 S. Broad Street, 3rd Floor, Philadelphia, PA 19110, Tel. (215) 686-1825, FAX (215) 686-1829, in numbered report identifying the vehicle's property number, part or serial number of the failed component, with copies to the Bureau of Quality Assurance, same address.

For a fair and equitable evaluation of the CHRONIC COMPLAINT/FAILURE, the successful vendor, when notified of service difficulties, will be permitted to make detailed studies, analyze operational conditions and will have access to the equipment in order to make recommendations for corrections so as to obtain the desired safe and durable mechanical performance.

To reduce or eliminate CHRONIC COMPLAINTS/FAILURES on equipment, the City, as part of this contract, shall designate a Technical Review Committee, consisting of the Fleet Manager, Fleet Engineer, Deputy Fleet Manager and Operations Manager of the affected equipment, to review, analyze and evaluate any successful vendor's remedies.

In the event the successful vendor fails to address, or make the proper changes, repairs, modifications, retrofits, or does not render field service after written notice, or unnecessarily delays any actions, the Office of Fleet Management shall have the option of seeking appropriate restitution for loss of production.

The successful vendor shall also be subject for Loss of Use, in the form of rental, lease payments, or a \$200.00 per day fee, while a vehicle is rendered unserviceable or out-of-service.

36.0 OPTIONAL EQUIPMENT (INSTALLED AND PRICED SEPARATELY)

36.1 SNOW PLOW (SNOW PLOW HITCHES AND PLOW BLADES SHALL BE CABIPABLE WITH THE PRESENT CITY HITCHES AND PLOW BLADES)

It is the intent to describe a snow plow, power up, manual rotation. The plow assembly shall have quick hitch mounting. The moldboard shall be approx. 10 feet wide, 36 inches high, made of 10 ga steel with integral shield. The snow plow shall have replaceable cutting blades. A rubber cutting edge shall be supplied. Provide plow guide poles, two 36" fluorescent orange, snow plow deflector, curb guards for plow.

TRIP MECHANISM- The plow and plowing vehicle shall be protected from damage incurred when striking a fixed object by means of a compression type trip.

SCREW ADJUSTABLE SKID SHOES - The plow shall be carried by means of screw

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adjustable skid shoes. The screw assembly shall have a minimum of 1 ¼” heavy duty Acme thread. The shoe assembly must pivot and oscillate. The skid shoes shall be high carbon, minimum size of 1” thick X 6” wide X 17’ long with turned up ends.

REFERENCE MODELS:

MONROE, MP 36R10ISCT

HENKE, 36R10

HENDERSON, SNOWFOE

VIKING, METROPLITAN

36.2 PLOW HITCH PORTION - The plow portion of the quick hitch must have a minimum of 7" of taper built into the jaws to allow for approximately 7" of vertical misalignment when attaching the plow to the truck. The snow plow push frame shall be designed with an automatic quick hitch type latching mechanism. This latch mechanism is to be retained to the push frame with two (2) 5/8” x 3” x 4” structural steel angle irons and one (1) 1 ¼” x 4 ½” grade #5 bolt castellated nut and cotter pin. The design of the latch mechanism shall allow the plow to swivel freely so that it can follow the contour of the road. The two spring loaded automatic quick coupling devices shall be welded to a 7" x 22.7# ship and car channel. Latching mechanism's shall be automatic, spring loaded, adjustable and have a single lever to release the two (2) 1 ½” x 1045 steel latching mechanisms. A single locking lever shall be retained in either the lock or the release position. In the locked position the truck must be able to be driven into the hitch and have it lock automatically.

REFERENCE MODELS:

REF: VALK VMC110T-LP-QCP

American Road Machinery (ARM)

36.3 PLOW TRUCK PORTION

Provide a Lo Pro Bumper to Frame Quick Hitch with plow lift cylinder model CS300, a 3" x10" single acting with a plow holding valve. Release on 30-1/2" centers an MC 50 thrust arm mounting kit. Chassis to have stationary grill, tilt hood plow lights and turn signals Truck Lite model 80800. Hitch to be designed so that it can be driven into when the truck and plow are misaligned and locked into place automatically. Hitch designed to be installed inside frame rails on chassis without modifying the frame. Hitch to incorporate a double locking mechanism.

REFERENCE MODELS:

Valk Plow Model PH1036-116iPR-ECT

American Road Machinery (ARM) – Tough Equipment

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PLOW LIGHTS

Two (2) plow lights with Hi-Lo rectangular sealed beams and turn signals, light housing and bezel shall be made of impact and corrosion resistant polycarbonate - plow lights. Plow lights shall be hood mounted with aluminum brackets in a fashion not to interfere with the truck hood if tilted but be sufficient height to provide proper plow clearance. When plow lights are on, the truck headlights are to go off automatically. Lights shall be equipped with a quick disconnect harness to facilitate removal for the off season.

Ref: TRUCK-LITE Model 80800, or approved equal.

36.4 PLOW CONTROLS

Provide an electric/hydraulic lift up with a gravity down regulated by an adjustable flow control valve, pump and motor, **HD 303-10" tank**. Electric wires shall be covered with loom, sleeved, with connections soldered and shrink-wrapped. Provide a one hundred and fifty (150) amp in-line circuit breaker. The plow motor shall have dripless Quick Couplers. Install safety and instruction labels. All hydraulic hose, nylon hose sleeves, fittings, dripless connectors shall have protective clamps and brackets to secure hydraulic lines. Provide an enclosure fabricated from 12 gauge C.R.S. steel.

36.5 REEVING CYLINDER

Provide reeving cylinder and latch kit.

36.6 SIDE GUARDS (BICYCLE/PEDRESTIAN PROTECTION)

Provide side guard protections between all open spaces.

“SIDE GUARD PROTECTION MUST BE VOLPE COMPLIANT”

36.7 REAR VISION CAMERA

Provide a rear vision system with two (2) LED lights that operate in reverse only. Monitor shall be a 7” minimum display. Cable shall be run through a protective conduit through hopper and on top of body

REF: Intec, Rosco, Brigade, Pro-Vision, or APPROVED EQUAL

36.8 REAR AND SIDE VISION CAMERA

Provide a rear and side vision system with two (2) LED lights that operate in reverse only. Camera system shall only work when turn signal or reverse signals are activated. Monitor shall be a 7” minimum, split screen display.

Cable shall be run through a protective conduit through hopper and on top of body

REF: Intec, Rosco, Brigade, Pro-Vision, or APPROVED EQUAL

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36.9 360deg ALL AROUND CAMERA SYSTEM

Provide a 360deg camera system, with 4 cameras (right side, left side, front, and rear).

Provide 7" monitor (min).

Provide birds eye view

Provide video storage capability

REF: Intec, Rosco, Brigade, Pro-Vision, or APPROVED EQUAL

36.10 Provide ROSCO left and right fender mirrors

REF:

36.11 OPTIONAL COLOR

36.11.1 FAA Approved Safety Yellow, Cab Complete Unit

36.11.2 FAA Approved Safety Yellow, Body

36.12 75DGE BEHIND THE CAB FUEL TANK

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