



Form GSOP 1-PIN (04/98)

STATE OF CALIFORNIA
Department of General Services - Office of Procurement

PURCHASE ORDER

Purchase Order No.	Rev.	Date
62010		6/2/2008

Supplier No.	Solicitation No.	Delivery Date	FOB Point	Invoice Terms
115614	56740	210 Days ARC	Destination	

ALLIANZ/JOHNSTON SWEEPER CO 4651 SCHAEFER AVE CHINO, CA 91710 Attn: WALTER PUSIC Phone: 909-613-5701	S DEPT OF TRANSPORTATION h T CALTRANS SHOP i o (AS SPECIFIED) p Attn: EQUIPMENT RECEIVING	C CALTRANS-ACCTG/OFC B-15 h T D 32 EQUIPMENT SERVICE CTR a T r o PO BOX 160048 s SACRAMENTO, CA 95816 e								
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Item No.	Quantity	Unit	Commodity Code	Description	Unit Price	Extension
<p><u>PURCHASE ORDER CHANGE #1</u> JUNE 2, 2008</p> <p>SUBJECT PURCHASE ORDER NUMBER 62010 IS MODIFIED TO REFLECT THE FOLLOWING CHANGES:</p> <p>1. PURCHASE ORDER DATE IS CHANGED FROM 5/2/2008 TO 6/2/2008</p> <p>2. DELETE: SPECIFICATION 56808-023-071T ADMINISTRATIVE REQUIREMENTS 56808-023-071A</p> <p>ADD: SPECIFICATION 56808-023-072T (ATTACHED) ADMINISTRATIVE REQUIREMENTS 56808-023-072A</p> <p>THERE ARE NO OTHER CHANGES AT THIS TIME. ALL OTHER TERMS AND CONDITIONS REMAIN THE SAME.</p>						

Sales and/or use tax to be extra unless noted above

Buyer	Phone	BOC Number
TIM PATTON	916-375-4412	

STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION
DIVISION OF EQUIPMENT

ITEM NO	UNIT	CAB	TRANS	ENG	CAP	C.A.	F.A.	R.A.
56808	U	S/TILT	A/HYD	D200	4 YD		12.0	21.0

SPECIFICATION NUMBER: 56808-023-072

SPECIFICATION FOR: A SELF-PROPELLED, DIESEL-FUELED, FOUR WHEEL, MECHANICAL PICKUP, HIGH DUMP, FOUR CUBIC YARD, HIGHWAY SWEEPER

PURCHASE ESTIMATE NUMBER: 32-12-5279*

TECHNICAL SPECIFICATIONS

It is the intent of this specification to describe the minimum requirements for a self-propelled, diesel-fueled, four wheel, mechanical pickup, high dump, four (4) cubic yard (minimum) payload capacity, highway sweeper. The sweeper shall be certified PM₁₀ compliant in accordance with Rule 1186 of the California South Coast Air Quality Management District (SCAQMD) prior to Purchase Order award.

In addition to typical street sweeping speeds, the sweeper shall be able to travel at freeway speeds. The sweeper shall be designed and equipped to sweep and travel at ambient temperatures of 110⁰ F, and to operate as specified at all elevations from sea level to 8,500 feet above sea level.

The following Caltrans Division of Equipment drawings shall form a part of these specifications:

<u>Drawing No.</u>	<u>Description</u>
L2-D002-01	38 Inch Sweeper Basket
L2-D002-02	38 Inch Sweeper Basket
L2-D001-01	Jack Pad Adapter

Where drawings and specification disagree, the Specification shall take precedence.

The term "sweeping unit" shall refer to the assembly of components built by the sweeper manufacturer and designed to pick up and store roadside debris. The term "cab and chassis" shall refer to the truck manufacturer's cab and chassis on which the

sweeping unit is mounted. The term "sweeper" shall refer to the entire vehicle including both the sweeping unit and the truck cab and chassis.

1. WEIGHT: The empty weight of the base sweeper - with standard equipment, operator, and full fuel, lubricating, cooling, hydraulic, and water systems, shall not be less than 16,000 pounds (lbs.). When fully loaded with debris, the Gross Axle Weight Rating (GAWR) of the front and rear axles shall not be exceeded; nor shall the weights allowed by the California Vehicle Code (CVC) or California Bridge Law(s) for 2-axle vehicles be exceeded in any condition of loading. The manufacturer's Gross Vehicle Weight Rating (GVWR) shall not be less than 26,000 lbs.
2. CAB AND CHASSIS: This section shall only apply to a sweeper utilizing a truck cab and chassis on which the sweeping unit is mounted. Units that are designed and built from the ground up as a sweeper by the sweeper manufacturer are exempt from this section (Section 2).

The sweeping unit shall be mounted on either a conventional or cab-over-engine type truck cab and chassis. If a cab-over-engine type chassis is supplied, then the cab shall tilt forward to provide service and repair access to the engine compartment, be equipped with a tilt safety lock, and have a power assist (hydraulic, linear actuator, etc.) to allow the cab to be easily tilted by only one person. A torsion bar assist is not acceptable.

The cab and chassis shall have a minimum GVWR (Gross Vehicle Weight Rating) of 33,000 lbs., with a minimum GAWR (Gross Axle Weight Rating) of 12,000 lbs. and 21,000 lbs. for the front and rear axles, respectively. The front and rear axles shall be equipped with outboard mounted drum brakes and shall incorporate oil lubricated wheel bearings with an oil seal (Ref. Stemco Guardian Seal or comparable). The rear differential shall provide a gear ratio as required to meet the vehicle speed requirements as noted in Section 6. TRANSMISSION, and Section 7. AXLES AND DRIVES, herein.

The cab and chassis shall be equipped with six (6) 11R22.5 load range G (minimum), tubeless, radial truck tires mounted on steel disc, drop center, hub piloted wheels with a minimum two (2) hand holes each. The rear dual wheels shall be mounted using two-piece flange nuts. All wheels shall have ten (10) bolt holes on an 11.25 inch (285.75mm) bolt circle with an 8.66 inch (220mm) bore. All tires and wheels supplied on a truck cab and chassis shall be the same make and model, mounted, and balanced as an assembly.

The sweeping unit shall be shear plate mounted to the truck frame in not less than four (4) places. Shear plates shall be attached to the web of the truck frame with not less than two (2) 5/8-inch diameter grade 8 bolts per mount. In areas where normal frame flexing occurs, spring type shear plate mounts may be used.

All body spacers shall be fabricated from steel. Welding to the truck frame, drilling holes in the truck frame flange, or the use of "U" bolts is not acceptable.

3. ENGINE: The sweeper shall be equipped with a turbo-charged, diesel fueled engine with a minimum SAE J1995 gross brake power rating of 200 horsepower (HP) and gross torque rating of 520 lbs.-ft. The turbo-charged engine shall maintain the manufacturer's specified power rating to a minimum of 10,000 feet above sea level. The engine shall be California Air Resources Board (CARB) certified to operate on-highway in the State of California at the time of manufacture without emissions credits; and, shall meet all current Federal emissions requirements. The engine shall be equipped with, but not limited to, the following accessories, gauges, and warning devices:
- a. Governor: A variable speed engine governor, factory set to the engine manufacturer's recommended RPM for highway sweeper applications, shall be provided.
 - b. Electric Start and Shutoff: An electric, key type starting system that is actuated from within the operator's compartment. The key operated starting system shall also operate the engine shutoff system.
 - c. Cooling System: The cooling system shall be filled with a suitable extended-change interval anti-freeze rated for -40° F operation, and shall be compatible with water. The cooling system shall have a 100,000 mile (minimum) warranty.
 - d. Silicone Rubber Hoses: All coolant and heater hoses shall be the silicone rubber type with matching clamps (Ref. Aeroquip hose model FC252 and FC352 and band clamp model FF9148). If silicone rubber hoses are not available from the chassis manufacturer, Ethylene Propylene Diene Monomer (EPDM) may be used.
 - e. Oil Filtration: The engine oil filtration system(s) shall use full flow filtration with replaceable, spin-on type filter(s) of the correct capacity as indicated in the engine manufacturer's published specifications.
 - f. Air Filtration: An air cleaner system of the correct capacity recommended by the filter manufacturer to match the demand of the engine and air compressor. The air cleaner connections shall be dustproof and waterproof, either tubing or hose, mounted to withstand abrasion, wear, and vibration. The air cleaner system shall be one of the following combinations:
 - (1) Two (2) dry-type replaceable paper elements consisting of an outer primary filter and an inner safety element.

- (2) A centrifuging action pre-cleaner that removes coarse dust and moisture with a self-cleaning dust and water evacuator and a replaceable paper element filter.
 - (3) A centrifuging action pre-cleaner that removes coarse dust and moisture with a self-cleaning dust and water evacuator and two (2) dry-type replaceable paper elements consisting of an outer primary filter and an inner safety element.
- g. Air Restriction Gauge: The air cleaner system shall have an air restriction gauge, mounted to be easily viewable during pre-op inspections (ie – may be dash mounted (preferred), or mounted under the hood). The unit shall be redlined for servicing or replacement as recommended by the engine manufacturer, must hold and maintain the highest reading, and be re-settable (Ref. Filter Minder Air Restriction Gauge Model No. 3781-325, or comparable).
- h. Monitoring Gauges: The sweeper cab shall be equipped with, but not limited to, the following engine and engine accessory monitoring gauges:
- i. Engine oil pressure gauge or low pressure indicator
 - ii. Engine coolant temperature gauge
 - iii. Voltmeter
 - iv. Fuel level gauge
 - v. Engine tachometer
 - vi. Engine hour meter; electronic - solid state (Ref., Hobbs model 80003 or comparable)
- i. Warning Devices: Visual and auditory warning devices shall be supplied to alert the operator of critical engine operating conditions including, but not be limited to, the following:
- i. Low engine oil pressure
 - ii. High engine coolant temperature
4. AUXILIARY ENGINE: This section shall only apply to a sweeper using an auxiliary engine to power the sweeping equipment. Units that use a single engine to drive and power the sweeper are exempt from this section (Section 4).

The sweeper may be equipped with an auxiliary engine to power the sweeping equipment. If an auxiliary engine is utilized, then it shall be a turbo-charged, diesel-fueled engine with a minimum gross brake power rating of 60 horsepower (HP), and gross torque rating as required to power the sweeping unit at all elevations from sea level to 8,500 feet above sea level. The engine shall comply with all California Air Resources Board (CARB) emissions requirements for auxiliary engines at the time of manufacture without emissions credits; as well as

meeting the current Federal "Tier" emissions requirements. The auxiliary engine shall be equipped with the same accessories, instrumentation, and warning devices as the primary engine described above (i.e., Section 3); and, shall draw its fuel from the sweeper's fuel tank(s).

The air filter for the auxiliary engine shall be located in such a position so as not to become plugged during normal sweeping operations. If such location is an option from the manufacturer, it shall be included and supplied as part of this bid. The air filter shall not require cleaning or replacement on a daily basis.

The auxiliary engine may be equipped with an electronic monitor and alarm system in lieu of the above mentioned analog gauges (see section 3). If an electronic monitor and alarm system is supplied, the system shall monitor, as a minimum, the following engine conditions:

- a. Engine oil pressure
- b. Engine coolant temperature
- c. Alternator voltage

NOTE: An auxiliary engine equipped with an electronic monitor and alarm system must still provide a tachometer and hour meter.

5. ENGINE EXHAUST SYSTEM: The exhaust system(s) for the engine(s), including auxiliary engine if supplied, shall use a vertical exhaust stack equipped with a rain cap and heat shield and shall comply with applicable Federal and State regulations.
6. TRANSMISSION: The sweeper shall be equipped with one of the following transmissions:

either

- a. Automatic Transmission: The automatic transmission shall be an Allison 3500 RDS, five (5) or six (6) speed automatic transmission; as required to match the GVWR of the sweeper. The automatic transmission shall provide electronic shift with a minimum of five (5) speeds forward and one (1) speed reverse. The transmission shall utilize a lever or push button type shift selector, properly labeled, back-lighted, and capable of selecting and locking into any one of the five (5) or more forward speeds. The transmission shall be driven by a torque converter and shall be equipped with a transmission oil heat exchanger to maintain proper oil operating temperatures.

The transmission shall be factory-filled (or by the delivering dealer if not available from the factory) with Allison Transynd synthetic transmission

fluid. The fill location(s) shall be labeled to indicate the transmission has been filled with Transynd.

A "SCAAN" computer printout shall be supplied with each bid, or upon request, for the transmission, torque converter, and axle ratios the vendor proposes to supply. The State and Allison shall determine if the torque converter and axle ratios are acceptable.

or

- b. Variable Speed Hydrostatic Transmission: A variable speed hydrostatic transmission shall provide vehicle transportation in both forward and reverse directions. The transmission shall be equipped with a transmission oil heat exchanger that will provide cold temperature heating and hot temperature cooling. The hydrostatic drive shall allow reduced vehicle speeds while maintaining a high engine RPM.

The sweeper shall be equipped with a transmission safety device that - in the event the transmission is engaged - will prevent the engine from starting or prevent the machine from moving if the engine is allowed to start. The sweeper shall provide sweeping speeds above 12 MPH and be capable of traveling at highway speeds of not less than 65 MPH on level ground ($\pm 0.5\%$ grade) when fully loaded.

A transmission oil temperature gauge or high temperature indicator shall be supplied and installed in the sweeper cab.

7. AXLES AND DRIVES: The drive axle shall be equipped with either a two (2) speed differential or a two (2) speed transfer case to provide for reduced sweeping speeds while maintaining high engine RPM. This speed reduction unit shall be equipped with a safety device to protect against low range engagement while the vehicle is in motion. If the sweeper utilizes an auxiliary engine to power the sweeping equipment, a two (2) speed reduction unit may not be required.

The drive axle differential shall be filled with a synthetic type gear lubricant (Ref. Emgard 75W-90, or comparable), with an extended change interval. The fill location(s) shall be labeled to indicate the differential has been filled with a synthetic lubricant.

The transfer case, if so equipped, shall be filled with a synthetic type gear lubricant (Ref. Emgard 50W, or comparable), with an extended change interval. The fill location(s) shall be labeled to indicate the transfer case has been filled with a synthetic lubricant.

The front axle shall incorporate oil lubricated wheel bearings with an oil seal (Ref. Stemco Guardian Seal or comparable). The lubricant shall be the synthetic type

(Ref. Emgard 50W, or comparable), with an extended change interval. The hubs shall be labeled to indicate they have been filled with a synthetic lubricant.

The sweeper shall incorporate a fully sprung suspension to allow the axles and axle housings to oscillate independent of the sweeper frame. Heavy duty shock absorbers shall be provided.

8. STEERING: The sweeper shall employ front wheel steering, controlled by a steering wheel with hydraulic power assist. The steering wheel shall have tilt and telescopic capability to accommodate the ergonomic requirements of different size operators.

The steering system shall provide emergency steering in the event of a steering power source failure.

The steering system shall provide a minimum turning radius of not greater than 24 feet, measured at the outside of tire.

9. BRAKES: The sweeper shall be equipped with service, emergency, and parking brake systems as follows:
- a. Service Brakes: The service brakes shall be self-adjusting and shall apply braking force on both the front and rear wheels as follows:
- either**
- i. Power Assisted: Power-assisted hydraulic brakes may be equipped with either a vacuum, air, or hydraulic type booster system. The brake system shall incorporate ABS.
- or**
- ii. Power-Actuated: A power-actuated braking system shall be air actuated only. The air brake system shall use "S" cam type brake application with automatic (self-adjusting) slack adjusters, and shall conform with Federal Motor Vehicle Safety Standards (FMVSS) No. 121. A minimum 12 CFM air compressor and air drier shall be supplied.
- b. Emergency Braking: An emergency (auxiliary) braking system shall be installed to allow the operator to stop the machine in the event of any failure in the service braking system. On hydraulic brake systems, a red warning light shall be installed on the instrument panel, in full view of the operator, to indicate when the emergency braking system has been activated.

- c. Parking Brake: A parking brake shall be installed and may be connected to the service brakes or operated independently on the drive shaft or transmission output shaft. A red warning light shall be installed on the instrument panel, in full view of the operator, to indicate when the parking brake is applied while the engine is running.

The service brakes, emergency brakes, and parking brake shall conform with the braking performance requirements as established by the Federal Motor Vehicle Safety Standards (FMVSS) and the California Vehicle Code (CVC) for the vehicle being supplied.

10. TIRES AND WHEELS: The sweeper shall be equipped with tubeless, radial truck tires and wheels with load ratings that meet the vehicle's Gross Axle Weight Ratings (GAWR). All tires shall have a highway type tread and be mounted on steel disc, drop center, hub piloted wheels with a minimum two (2) hand holes each.

All wheels shall meet or exceed their corresponding maximum tire load and inflation ratings and be labeled to identify its maximum load and inflation ratings. All tires and wheels supplied on each axle shall be the same make and model, mounted, and balanced as an assembly.

11. WARNING LIGHTS: The sweeper shall be equipped with the following warning light equipment:
 - a. Amber Mini Light Bar: A 12 volt, amber, warning light having two rotating beams generated by a fixed halogen bulb with a rotating reflector and mirror situated between the rotators (Ref. ECCO #5315A, Federal Signal #450112-02, or Public Safety Equipment #420AH (no substitutions allowed)) shall be center mounted on the cab roof. The light shall be wired to a separate control switch in the dash.
 - b. Amber Arrow Light Stick: A 12 volt amber arrow light stick having 8 individual lamps and a sun shield (Ref: ECCO #3035H-CA, Federal Signal #322612, or Grote #78980 (no substitutions allowed)) shall be supplied and installed at the rear center of the sweeper facing rearward (exact location to be determined by the Specifications Engineer). The light shall be wired to a separate control box/switch in or on the dash.
12. WORK LIGHTS: Gutter broom and dump work lights (Ref. Hella #90601 or Truck-Lite #80491, no substitutions) shall be supplied and installed on the sweeper to illuminate the following two (2) locations:
 - a. Gutter Brooms: Work lights shall be installed on the right and left sides of the vehicle to illuminate the forward and outer portions of the gutter brooms.

- b. Dump: Work lights (2) shall be installed at the hopper dump chute for illumination while dumping the hopper in darkness.
- c. Front Bumper: Work lights (Hella #74528 Micro DE Fog Lamp, or equivalent) shall be installed on the right and left, lower front section of the sweeper to illuminate the front lower curb on either side of the vehicle.

Work lights shall be shielded as needed to protect from debris and direct water spray. The left side work lights (gutter broom and front bumper) shall be switched together, and the right side work lights (gutter broom and front bumper) shall be switched together. Switches shall be dash-mounted and labeled. The 'Dump' work lights shall be switched together.

13. ELECTRICAL SYSTEM: The sweeper shall be equipped with the following minimum electrical equipment:

- a. Two front long-life, high intensity high/low (65/55 watt) beam halogen head lights.
- b. LED rear tail and brake lights.
- c. LED rear backup light(s).
- d. Front and rear mounted turn signals.
- e. 4-way Emergency flashers.
- f. Clearance lights.
- g. Rear license plate lamp with bracket.
- h. Cab dome light.
- i. Instrument panel lights.
- j. Electronic backup alarm.
- k. Horn.

Minimum electrical equipment shall comply with all Federal Motor Vehicle Safety Standards (FMVSS) and State of California Department of Motor Vehicle regulations. Notwithstanding any Federal or State minimum requirements, each unit shall be equipped with two (2) taillights, two (2) stop lights, and turn (left and right) signals. All lights shall be light emitting diode (LED) recessed type, mounted in rubber grommets. The tail, stop, and turn signal lamps may be in combination (Ref. Truck-Lite #44982R (round); #60885 (oval); with 'hard coated'

lens). Backup lights shall be installed (Ref. Truck-Lite 44141C, with 'hard coated lens). Grommets shall match the light used. Side marker, clearance, and ICC lamps shall be 2½-inch LED units (Ref. Truck-Lite #10250R, #10250Y and #10700 grommets). Retro-reflective tape reflectors (Ref. Petersen Mfg. #B490R and #B490A), shall be used where needed to meet FMVSS requirements for Class A reflectors. Mounting holes for lights shall be the proper dimension as recommended by the manufacturer of the light. The holes shall be punched, plasma, or saw cut and finished smooth; torch cut holes are unacceptable.

All wiring installed by the supplier shall be the stranded copper type and shall have cross-linked polyethylene insulation and be protected in vinyl plastic auto loom and in areas specified, by rigid/flexible conduit. Adequate size gauge of wire to the lights shall be used in accordance with SAE standards for distance from power source and load demand. The ends of all stranded conductors cut shall be mechanically stripped and fitted with insulated type terminals. The terminals shall be mechanically crimped securely with appropriate tool(s). All splices shall be sealed against moisture. Scotch Lock wire-type piercing devices shall not be used.

The edge of all metal members where wire harness or loom pass through shall be deburred, flanged, rolled or bushed with suitable grommets. In general, wire routing shall be such that maximum protection is provided by the vehicle sheet metal and structural components. All electrical work and installation of equipment/devices shall be completed in a workmanlike manner, mechanically and electrically secure. Devices, lamps, etc., requiring periodic service shall be serviceable and accessible by providing wire length to reasonably accomplish this.

The battery system shall be made up of not less than two (2) heavy duty, 12 volt (V), group 31, sealed batteries requiring no maintenance. Each battery shall be not less than 700 CCA (cold cranking amps) at 0° F. with a reserve capacity of not less than 160 min. at 25 amperes (A) and 80° F. The battery system rating shall be as established by the BCI (Battery Council International) and SAE. The electrical system shall be equipped with a minimum 130 amp, brushless alternator and matching regulator.

The sweeper electrical system shall be shielded and/or compatible with the use of a two (2) way mobile radio that will operate at a radio frequency of either 47 MHz or 800 MHz. Dedicated ("clean") power leads, 12 volt positive and negative, shall be provided to the cab for radio power. The two (2)-way communication radio will be installed by Caltrans personnel.

14. HYDRAULICS: The hydraulic system shall be designed to provide complete sweeping capabilities at a minimum vehicle speed of 1.0 MPH and be equipped as follows:

- a. Cooling: The hydraulic system shall be equipped with an hydraulic oil cooler capable of maintaining an oil temperature of not greater than 90° F above ambient temperatures, up to 110° F ambient (ie – 200° F at 110° F).
- b. Tank: A minimum 15 gallon capacity hydraulic oil reservoir shall be supplied and be equipped with an oil level sight gauge.
- c. Relief Valves: The hydraulic system shall be equipped with relief valves located in each implement circuit to protect all hydraulic components.
- d. Filtration: A 25 micron (or less), spin-on type, return filter with bypass valve to prevent the restriction of flow in the event that the filter becomes blocked shall be supplied and installed on all hydraulic system(s). The filter head shall have a filter condition indicator installed to indicate when the filter needs changed.

The filter assembly shall be installed convenient to the operator when changing the filter element.

Ball type, shut-off valves shall be installed between the pump and strainer (if a strainer is supplied) and above (before) the return filter if the filter can not be removed without draining some or all of the hydraulic system.

- e. Material: All hydraulic hoses shall be crimp type, high pressure hoses with corresponding fittings. No galvanized or black iron fittings will be allowed.
- f. Auxiliary Ports: If the hopper assembly must be raised to access and perform emergency repairs on the hydraulic power source, two (2) auxiliary hydraulic ports shall be provided to allow an external hydraulic power source to actuate the hopper lift circuit.
- g. Gauges: Hydraulic oil temperature gauge(s) for the drive and sweeper systems shall be supplied and installed in the dash.
- h. Warning Devices: Visual and auditory warning device(s) for high hydraulic oil temperature shall be supplied and installed.
- i. Sampling Port: The sweeper shall be equipped with a hydraulic fluid sampling port on the hydraulic oil return line to allow the operator to draw from the system a hydraulic oil sample for oil analysis purposes. The oil sampling port shall be a ball type valve with a pipe plug installed on the discharge.

15. HOPPER ASSEMBLY: The hopper assembly shall be fully hydraulic, provide high dump capability at the side or rear of the vehicle, and be equipped as follows:

- a. Volume: A minimum payload volume capacity of four (4) cubic yards.
 - b. Interior Coating: A light colored, smoothly finished, polyurethane type interior coating to resist hopper corrosion and facilitate a more efficient hopper clean out (Ref: Polybrid 705 or comparable).
 - c. Support Device: A support device (body prop) to prevent accidental lowering of the hopper when in the elevated (dumping) position for maintenance and servicing purposes. The safety support shall automatically engage/disengage as part of the hopper raising/lowering operation (ie – does not require manual operation).
 - d. Indicator System: A hopper "FULL" indicator system which shall indicate only when the hopper has reached its maximum capacity. The indicator light shall be visible to the operator during normal operation.
 - e. Hopper Lift Capacity: A hydraulic lift capacity of 9,000 lbs. to maximum dump height, and a minimum dump height of 108 inches at a 45° dump angle shall be provided.
 - f. Dump Control: The hopper dump control shall be located convenient to the operator's station and properly identified.
 - g. Observation Window: Not required.
16. GUTTER BROOM ASSEMBLIES: Each side of the sweeper shall be equipped with a hydraulically driven, gutter broom assembly that is fully operational from within the cab. The brooms shall operate individually or simultaneously, provide for a 10-foot minimum sweeping width (in conjunction with the pickup broom), and provide for no more than a 102 inch vehicle transport width.
- The gutter broom assemblies shall have a minimum 42 inch diameter; multi-segment, replaceable brushes; a guard to protect the gutter broom's drive shaft from material wrap-up; and a tilt and down pressure adjustment controlled by the operator in the cab.
- The gutter brooms shall be capable of simultaneously lifting and rotating. As an option, the gutter brooms shall cease rotating when the lifting sequence begins, and shall resume rotating when the lowering sequence is complete. The gutter brooms shall not be capable of non-rotation when in the lowered position.
17. PICKUP BROOM ASSEMBLY: The pickup broom assembly shall be hydraulically driven and fully operational from within the cab; be equipped with a minimum 48 inch long by 32 inch diameter broom; and, provide tilt and wear pressure suspension adjustments.

A debris flap located rear of the pickup broom assembly shall extend the full width of the vehicle to reduce the amount of rocks and debris that bounce behind the unit during operation or transport. The rear flap shall be made of a thick, durable, flexible rubber (i.e., mud flap material) or a dense brush fiber material and shall extend down to within 4.0 inches of level ground.

18. CONVEYOR ASSEMBLY: The conveyor assembly shall be hydraulically driven; be fully operational from within the cab; and be capable of filling the hopper with a minimum of four (4) cubic yards of sand, bottles, cans, rubber tire segments, or other debris normally encountered on highway shoulders and flicked up by the pickup broom assembly.

The conveyor assembly shall be equipped with the following:

- a. Shielding: Any shielding necessary to prevent debris from interfering with normal conveyor operation.
- b. Warning Device: A cab mounted, stall warning light to notify the operator when any portion of the conveyor assembly has stalled including any driven or non-driven component of the conveyor system.

19. WATER SPRAY SYSTEM: The sweeper shall have a full sweeping width water spray system that is certified PM₁₀ compliant in accordance with South Coast Air Quality Management District (SCAQMD) Rule 1186, operational from within the cab, and equipped with the following:

- a. Tank(s): The tank(s) capacity shall be not less than 250 gallons and be fabricated from a rust free type material. The water capacity shall be such that sweeping time under PM₁₀ compliance conditions shall be maximized.

The tank(s) shall have the following:

- i. Drain Plug(s): Drain plug(s) with a minimum 6.0 inch ground clearance and located at the bottom or within 1.0 inch of the bottom of each tank shall be provided. Drain plugs shall be protected.
- ii. Fire Hydrant Fill Inlet: A fill inlet for filling the tank(s) from a fire hydrant shall be provided. A back flow prevention system conforming to the drinking water supply requirements in the California Administrative Code, Title 17 "Public Health" shall be provided.

- iii. 3/4-inch Hose Fill Capability: A means to fill the tank(s) with a standard 3/4 inch garden hose unattended by the operator shall be supplied. A back flow prevention system conforming to the drinking water supply requirements in the California Administrative Code, Title 17 "Public Health" shall be provided.
 - iv. Gauge: A dash mounted, water level gauge shall be provided and visible to the operator at all times during sweeping operations.
 - b. Pump: The water spray system shall be equipped with an electric or hydraulically driven water pump, of the proper size and type to supply the necessary pressure and volume of water to the spray bars/jets. A centrifugal water pump shall be protected by a low water safety device which will automatically disengage the pump drive if little or no water is present at the suction port. The water pump shall be protected by an in-line, cleanable strainer with a clear polycarbonate housing for visual check of strainer (Ref: FLOJET 1720/1740 Series or comparable).
 - c. Hoses: The sweeper shall be supplied with the following hoses:
 - i. A minimum 25 foot long filling hose capable of coupling to a 2.5 inch NST fire hydrant outlet. The filling hose shall be fabricated of 100% polyester with hypalon impregnation, and shall be "industry-standard" rated for working pressure and burst strength.
 - ii. A minimum 50 foot long, 3/4 inch, nylon reinforced garden hose.
 - d. Valves: All water control systems shall use ball or butterfly type valves for quick open and close applications. Gate valves are not acceptable.
 - e. Front Spray Bar: If not provided as a part of the water spray system required for PM₁₀ compliance, a full-width spray bar shall be provided at the front of the vehicle. This spray bar shall operate separate from the PM₁₀ water spray requirements, and shall be controllable from the operator's compartment. Nozzle size and placement shall be sufficient to control excessive dust generated by the material being swept.
20. OPERATOR'S COMPARTMENT: A fully enclosed, insulated, and weatherproof operator's compartment shall be provided, and, in general, shall provide maximum operator protection and comfort. The cab shall be equipped with, but not limited to, the following items:
- a. Safety glass windshield and tempered glass windows.
 - b. Head liner and floor mats.

- c. Key-type locking door(s) with four (4) sets of keys.
- d. Fully adjustable, fully padded, cloth, air suspension type, high back bucket seat(s) with lumbar support, armrests and three (3) point seat belt(s).
- e. A tinted front windshield with heavy duty, 2-speed (w/ intermittent) windshield wiper(s) with washer(s), interior sun visor(s), and a defroster. If available, the windshield shall have dark-tinted upper section.
- f. A recirculating-type heater with an adjustable temperature control.
- g. A standard AM/FM radio with speaker(s) and antenna.
- h. Gauges: All necessary gauges including, but not limited to, speedometer, odometer, and all those required in these specifications, supplied and installed in view of the operator.

All gauges shall be permanently labeled to identify their functions with a simple and readable lettering style or equivalent international symbols. All gauges shall be back-lighted or illuminated for nighttime operation.

- i. Warning Devices. All necessary warning devices required in these specifications. Warning lights and sounding devices shall have their own source for actuation, rather than being dependent on another instrument. Warning lights shall be bright enough to stand out during all operating conditions and not be located rear of the operator, and audible signals shall be distinguishable from the operating noises of the vehicle.

NOTE: A gauge is not an acceptable visual warning device unless it is accompanied by a red light which illuminates or flashes upon reaching a critical condition.

- j. Environmental Protection: An environmentally sealed cab with a pressurizing air system and cab filtration system shall be provided. The cab filtration system shall be capable of filtering out normal particles encountered during normal highway sweeping operations (i.e., dust, pollen, etc.).
- k. Air Conditioning: An air conditioning system shall be installed with adequate capacity to reduce the operator environment temperature a minimum of 20°F below the ambient for ambient temperatures between 85°F and the highest ambient temperature at which the machine is designed to operate. The air conditioning system should not allow the operator environment humidity to exceed 70%. The use of R12 refrigerant will not be acceptable.

- l. Storage Compartment: A means for storing or securing within the operators compartment small items such as hand tools or operator's personal effects shall be provided.
 - m. Hand rails and steps for safely entering and exiting the cab.
 - n. Power port (ie - Cigar lighter).
21. CONTROLS: The sweeper's operator's station(s) shall be equipped with hand and foot controls conveniently located to provide the operator maximum comfort during operation. All controls shall be permanently labeled to identify their functions with a simple and readable lettering style or equivalent international symbols. These controls may be placed in either one or two operator control stations as follows:

either

- a. One Operator's Station: A single operator control station may be supplied only if the operator control station is centrally located on the vehicle and the cab is reduced in size to provide the operator direct visual contact with both the left and right side gutter brooms while sitting in the operator's seat. The operator's compartment must be equipped with an additional trainers (jump) seat to allow two people to ride in the cab during sweeper operation. This additional trainers seat shall be equipped with a backrest and seat belt with an emergency locking retractor.

or

- b. Two Operator's Stations: The two operator control stations shall be located one each on the left and on the right of the cab. Each operator control station shall provide controls to steer, accelerate, and stop the vehicle at high and low speeds, while sweeping or traveling at highway speeds. Controls to operate the sweeping equipment shall be centrally located within the operator's compartment to provide sweeper operation from each control station. Each operator control station must provide the operator with complete operational control of the vehicle and all sweeping equipment, while seated in each operator's seat. As a minimum, the right side operator's control station must be equipped with the following instrumentation:
 - i. Speedometer.
 - ii. High coolant temperature indicator light.
 - iii. Fuel level gauge.

iv. Air tank pressure gauge (if so equipped).

22. **SERVICEABILITY:** The sweeper shall provide quick and easy access to all operational check points and all replaceable filters normally encountered by the operator or service mechanic when maintaining or servicing the sweeper in accordance with the manufacturer's published instructions. Where needed for convenience and cleanliness, remote mounted filters, fill ports, drain ports (ie – remote oil drain valve), and dipsticks shall be provided and installed.

Any special tools required for routine inspection, adjustments, or preventative maintenance shall be provided for each sweeper.

Doors, large access panels, etc. shall be provided with a means of being secured in the open position. This shall be provided to protect against inadvertent closing due to wind gusts, parking on uneven ground, etc.

The sweeper shall also be equipped with adequate steps, railings and handles located on each side of the unit if routine conveyor inspections and adjustments are required by the manufacturer. Steps shall be positioned low enough for easy mounting if required for daily pre-op inspections.

A label(s) shall be installed in a conspicuous location that describes the operator's daily lubrication instructions.

23. **MISCELLANEOUS:** Miscellaneous components to be supplied and installed shall include, but not be limited to, the following:
- a. **Vandal Protection Package:** The sweeper shall provide protection from theft and vandalism. Vandal protection shall include the operators compartment, engine compartment, battery compartment, and fuel tank.
 - b. **Mirrors:** Right and left, electrically adjustable, exterior rear view mirrors, not less than 90 square inches, shall be installed. Both mirrors shall be electrically adjustable from each operating station. A 10-inch diameter convex mirror shall be mounted just below the primary mirrors on each side for gutter broom viewing. An 8-inch diameter convex mirror shall be mounted just above the primary mirrors on each side for increased rearward visibility. The mirrors and mounting brackets shall be OEM factory-installed breakaway type; black, gray or neutral in color. Alternatively, mirrors may be mounted in a stainless steel case with a ratchet type, stainless steel, retractable bracket (Ref. Re-Trac Universal Model 1572).
 - c. Front Tow Hook(s).
 - d. A fire hydrant wrench.

- e. Front Mount Basket: The supplier shall provide the basket shown on Drawing Numbers L2-D002-01 and -02 and install it to the central part of the front bumper. Minimum height to bottom of basket shall be not less than 24 inches above level ground.
 - f. Jack Adapter: If required to properly locate a jack in the event of a flat tire, one jack adapter per Drawing Number L2-D001-01 (or similar as required to fit the unit supplied) shall be provided with each sweeper.
 - g. Storage Compartment: The sweeper shall be equipped with a storage compartment to store the water filling hoses, hydrant wrench, and other hardware supplied with the sweeper.
 - h. Fuel Capacity: The sweeper shall be equipped with a minimum 50 gallon capacity fuel tank. If an auxiliary engine is supplied, the fuel tank(s) shall be increased to hold a total capacity of at least 65 gallons.
 - i. Dimensional Requirements: All dimensional requirements detailed in these specifications shall be applicable to the sweeper equipped with specified tires and wheels when inflated to the tire manufacturer's recommended pressure for sweeper applications.
 - j. Stability: With a full hopper, the sweeper shall be capable of maintaining vehicle stability on a 5% slope placed in a position mostly likely to cause overturning under all dump cycle operations.
24. SWEEP-ABILITY TEST: The successful supplier shall submit the pre-production model unit described in the Inspection section of these specifications for sweep-ability testing as follows:
- a. Testing Parameters:
 - i. Test Time and Location: All testing shall be conducted between the hours of 0800 and 1600, Monday through Friday, inclusive, with the exception of State holidays.

The test will be conducted by State personnel at a State facility on a level, paved area (\pm 3% grade). The test site may be at any elevation from sea level to 8,500 feet above sea level.
 - ii. Test Sweeper Support and Setup: The sweeper shall be supplied with, but not be limited to, an operator and complete maintenance, repair, and fueling support.

The sweeper shall be equipped with "test port" sensors in the hydraulic system for monitoring fluid temperatures and pressures.

Test sensors shall be located as follows: at the inlet to the gutter broom motors; pickup broom motor; and, the elevator motor. Pressure sensors shall produce a digital pulse output, an analog DC voltage output, or a 0 to 20 milliamp output. Pressure sensor output signals shall be temperature compensated and proportional to pressure.

The supplier shall coordinate signal interface requirements with Caltrans Division of Equipment, Quality Assurance personnel (916-227-9709).

The test sweeper shall be tested with full fuel and empty water tanks.

- iii. Test Course and Material: The test course will be spread with moist sand (moisture content not to exceed 15%) by State personnel to a depth of 1.0 inch, plus or minus 1/4 inch, and a minimum width of 11 feet. Sufficient sand shall be spread so that one (1) full hopper load of sand ($\pm 25\%$) can be swept in a single continuous pass.

The sand will be re-spread for each of two (2) test runs.

- iv. Test Method: Two (2) test runs shall be completed as follows:

- (1) One (1) test run consisting of a single, continuous pass through the course.
- (2) One (1) test run shall consist of random stops and starts with a minimum of two (2) complete stops and start-ups through the course. The brooms and elevator shall come to a complete stop before the vehicle resumes forward motion.

- v. Monitoring: Data monitoring shall be performed by State personnel, with manufacturer assistance as required.

- b. Sweep-Ability Requirements: The sweeper shall perform as follows for each test run:

- i. Sweeping Width: Sweep a width of not less than 10 feet with both gutter brooms operating.
- ii. Material Pickup: Pick up not less than 90% of all sand from the swept path. The swept area will be measured from the centerline of the pickup broom and back over the area swept. The residue shall be picked up and weighed. The residue weight shall not

exceed 10% of the overall weight of sand from the residue plus the sand in the sweeper.

- iii. Hopper Loading: The sweeper shall fill the hopper with a minimum of 3.00 cubic yards of sand. State personnel will weigh the vehicle for tare and loaded gross weights to determine the weight of the sand in the hopper.
- iv. Sweeping Speed: The average, forward sweeping speed of the sweeper through the test area shall not be less than 1.00 mph.
- v. Conveyor Stall: Jamming or stalling of the conveyor assembly at anytime will not be acceptable.
- vi. The temperature of the hydraulic fluid being monitored shall not exceed 80° F above ambient temperature during the test.

Failure to meet any one of the above minimum requirements are grounds for termination of this contract.

The State reserves the right to test one (1) or more additional production units, at State expense, on this Purchase Order. If the additional unit(s) does not pass the Sweep-ability Test, herein, the unit will be deemed not acceptable and payment will not be made. The manufacturer shall have fourteen (14) calendar days after the date of notification of test failure to correct all deficiencies and supply the sweeper to the test site for re-testing (see ADMINISTRATIVE REQUIREMENTS, section 7.b. PRE-PRODUCTION MODEL TESTING, page 4 of 9). If re-testing is required, it shall be at the expense of the supplier at \$75.00 per hour (including travel time) for each State employee required to conduct the test, and all expenses (meals, lodging, and cost of transportation). Travel expenses will be documented on State of California, Department of Transportation, Travel Expense Claim Form, FA302. The fees may be deducted from the invoice.

25. PAINT: The basic unit and the primary finish surfaces of any optional equipment shall be finish painted with lead-free Winter White color. The finish coat shall be free from runs, drips, sags, etc., and shall be evenly applied to provide a gloss finish. The finish coat shall be lead-free DuPont Imron 5000, Winter White (#N6431 HN H), polyurethane enamel; PPG Delta DUHS (#90604); or, Sherwin Williams Genesis (#G8-40687), NO EXCEPTIONS. All metal surfaces shall be primer painted in accordance with the paint manufacturer's recommendations, not less than 2 mils dry thickness. The finish coat shall be Winter White color referenced above, not less than 2 mils dry thickness (total of 4 mils). The finish or top coat shall be compatible for re-coat or touch-up with the above-referenced paint(s). Other minor or incidental component parts may be finished according to the standard factory finish. All paint and primer shall be lead free.

Optionally, the unit may be finished by powder coating. The powder coating shall be lead free (**100 PPM LEAD MAX**) and of a matching color to that specified above (Winter White). Proper material preparation, application, and curing, as recommended by the powder coating manufacturer, shall be complied with. Color match of the proposed powder coating shall be approved by the Specifications Engineer prior to production.

26. REFLECTIVE STRIPING, LOGOS, AND DECALS: The successful bidder shall supply to Caltrans, Division of Equipment, a line drawing (to scale) showing the left side, right side, front, and rear of the proposed sweeper. Caltrans, Division of Equipment, Engineering Design, will delineate this drawing to show the placement of reflective side striping, Caltrans logos, and decals. The drawing will then be returned to the supplier.

The supplier shall furnish and install (as shown on the drawing) the reflective orange side striping. This reflective striping shall be 3M Scotchlite orange reflective tape, 6 inches wide, #3M 680CR-14.

Caltrans will supply, and the supplier shall install: two (2) 9" by 12" 'CT' green/blue reflective decals; two (2) 4" by 13½" 'Caltrans Clean Air Vehicle' reflective decals; two (2) 2" by 13" 'CT Life Cycle' decals; one (1) 2" by 3½" 'CT Life Cycle' decal; one (1) 3" x 15" orange script *Caltrans* decal; and, one (1) 3" x 11" Cone Zone decal. These decals are to be applied one each on the right and left sides of the sweeper as shown on the drawing, with the exception of the small CT Life Cycle decal that goes on the front of the sweeper, and the *Caltrans* and Cone Zone decals that go on the rear of the sweeper.

Caltrans will supply, and the supplier shall install: one (1) 8" high by 96" long orange and white reflective diagonal striped decal on the rear of the sweeper.

When ready to request decals, contact Mr. Charlie Cresci, Caltrans Division of Equipment, Project and Quality Management, at 916-227-6463.

27. WELDING: All welding shall comply with the requirements as represented in American Welding Society (AWS), D14.3-82, and American National Standard entitled "Specification for Welding Earthmoving and Construction Equipment."

All welds shall be continuous except as noted. Intermittent or spot welds shall be spaced and proportioned to provide ample strength for the material being welded. Weld sizes not indicated shall be equal to the thickness of the least of the joined plates.

All welds shall be properly fused, displaying proper penetration and a professional finish, and must meet the qualification requirements of applicable AWS specifications. Examples of unacceptable weldments are:

- | | |
|-------------|-----------------------|
| a. Cracks | d. Excessive Splatter |
| b. Undercut | e. Blow Holes |
| c. Overlap | f. Slag Entrapment |

Any weld failing to comply with the AWS specification or failing to pass a quality assurance inspection performed by the State, will be corrected by the manufacturer, at their expense, and be corrected off State property. The State shall determine if a weld is acceptable or deficient.

Any deficient weld shall be corrected by a welder who is certified in accordance with the requirements as established by the American Welding Society (AWS). The welder shall have the proper certification documents indicating that he/she is qualified to perform the type, size, and position of the weld performed, with the welding process utilized, and on the material being welded. The supplier will be required to supply proof of current welding certifications for personnel performing any re-welding on the unit, upon request of the State whether written or verbal.

GRINDING OF WELDS must have prior approval of the Department of Transportation, Division of Equipment, Engineering Specifications. Welds which have been ground without approval shall be subject to complete re-welding upon request, at no additional cost to the State.

All assembly dimensions and tolerances on drawings apply after welding. Excessive warpage of assembled parts is not acceptable. Weld symbols on drawings shall be interpreted per American National Standard Welding Symbols. In the event of the lack of a weld symbol, the best commercial practice shall prevail. The covering of welds with body fillers or similar materials is unacceptable.

28. **NOISE**: Noise emitted by each unit delivered in compliance with these specifications shall comply with all California and Federal laws or regulations pertaining to maximum allowable emission of noise inside the operator's cab. In no event shall the noise emitted be greater than 85 dB(A). The supplier may submit documentation to demonstrate compliance with this requirement.

The sound level reading will be taken with the equipment unit stationary after the unit has been warmed up for 15 minutes. The reading shall be taken with the engine operating at full governed RPM and with all doors and windows closed, one (1) man in the cab, with the meter near center of cab about two (2) feet below the roof and twelve (12) inches from the operator's ear. All non-propulsion operating controls may be randomly actuated throughout the test.

29. **RADIO INTERFERENCE**: No component shall cause harmful interference with, nor be adversely affected by, Caltrans mobile shortwave radio receivers or

transmitters using the 47 MHz, 811 MHz, or 860 MHz radio frequency bands. The supplier shall supply and install any shielding or noise suppression equipment required to prevent or receive harmful interference.

As required by Part 15 of the FCC rules, a label shall be placed in a conspicuous location on the main control unit that states the following: "This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation."

30. AUTOMATIC LUBRICATION SYSTEM: The sweeper shall be equipped with an automatic, grease type, lubricating system. The automatic lubrication system (auto lube) shall be installed to ensure proper lubrication of all sweeper and chassis components: including all cylinder and hinge pins, shafts, bearings, steering linkages, suspension components, brake components, clutches, and any other components except u-joints that require regular greasing as instructed in the operator's manual of the sweeper and chassis manufacturer(s). The automatic lubrication system shall be hydraulically, pneumatically, or electronically actuated, be compatible with NLGI #2 grease (Ref: Chevron Ultra-duty or comparable), and use one centralized distribution point (Ref: Robertshaw Interlube Model XGS or comparable).

For information regarding State contracted lubrication products contact:

California Department of Transportation, Division of Equipment
P.O. Box 160048, Sacramento, CA 95816
Attn: Lubrication Coordinator, Ph: (916) 227-9646

LIFE CYCLE SPECIFICATIONS

It is the intent of this section to describe special terms and conditions for the State of California, Department of Transportation, Division of Equipment, to purchase equipment based on the Life Cycle Cost of equipment.

1. DEFINITIONS:

The term "State" shall mean the State of California.

The term "Caltrans" shall mean the California State Department of Transportation.

The term "Bidder" shall mean the business entity that has full responsibility to bid the contract. The Successful Bidder will become the Supplier of the contract.

The term "Supplier" is the Successful Bidder that is awarded the contract. The Supplier has full responsibility to fulfill all terms of the contract.

The term "Manufacturer" shall mean the business entity that is the final sweeper Manufacturer.

The term "Life Cycle Warranty" shall mean the service provided by the Supplier, including all materials and labor necessary to repair any deficiencies or failed components during the Life Cycle Contract time period. This responsibility does not include the items listed on the "Consumables List" (see page 39 of 39).

The term "Warranty Service Provider" shall mean the business entity(s) that provides the service and warranty to fulfill the terms of the Life Cycle Cost contract for Northern and/or Southern California.

The term "Northern California" shall mean the geographic area of California encompassing Caltrans Districts 1, 2, 3, 4, and 10 (see Map, page 36 of 39).

The term "Southern California" shall mean the geographic area of California encompassing Caltrans Districts 5, 6, 7, 8, 9, 11, and 12 (see Map, page 36 of 39).

The term "Fixed Service Facility" shall mean a commercial business establishment having the capability to repair the proposed sweeper.

The term "Mobile Service Facility" shall mean the vehicle used by the mobile mechanic for repairing sweepers in the field.

The term "State Equipment Superintendent" shall mean the Caltrans designated contact, or their designated representative, for each Caltrans district wherein the

equipment will be operated and maintained.

The term "Supplier Principal" shall mean the principal contact person, or their designated representative, of the successful Supplier organization.

The term "Service Representative" shall mean the customer contact person for notifying the Warranty Service Provider of needed warranty repairs.

The term "On-Line Service" shall mean a system available on the internet for obtaining information, ordering parts, etc.

The term "Fax-Back Service" shall mean an automated system providing information via fax machine.

The term "normal work day" shall mean a day which falls on or between Monday and Friday of the calendar week, 52 weeks a year, excluding State holidays. A list of all State holidays will be available upon request.

The term "normal working hours" shall mean the time period of a normal work day when the Caltrans district main equipment shops, subshops, and/or maintenance facilities are normally open for operation. The attached "Caltrans Normal Working Hours" list indicates the hours of normal operation for each Caltrans district.

The term "in-service date" shall mean the date Caltrans first places the unit in operation at the intended district location within the State. The State will notify the Supplier Principal of the in-service date.

The term "downtime" shall mean the period of time measured in normal work days that the unit is unable or unsafe to perform those operations for which the unit was designed. Caltrans supervising personnel or their designee, after inspection, will determine if the unit is inoperable or unsafe.

2. LIFE CYCLE COST REQUIREMENTS (METHOD OF PURCHASE):

The total life cycle cost as submitted on the bid for each unit will be based on the following:

- a. Purchase Price: The initial cost to purchase a new, current production model unit in accordance with State Equipment Specification No. 56808-023-072.
- b. Parts Availability: The cost of providing guaranteed parts availability as outlined in section 6 of the Life Cycle Specifications.
- c. Equipment Availability: The cost of assuring 75% equipment availability

(up time) as outlined in section 7 of the Life Cycle Specifications.

- d. Life Cycle Warranty: The cost of providing a five (5) year or 5,000 engine hour warranty as outlined in section 9 of the Life Cycle Specifications.

3. BID PROVISIONS:

The successful Supplier shall submit a "Guaranteed Performance" surety bond, equal to 25% of the Purchase Order amount, to the State Department of General Services within ten (10) calendar days after notification of award as indicated on the Invitation For Bid form. This bond will be applicable to all Supplier obligations and is a guarantee that the successful Supplier will perform satisfactorily during the life of the contract. This limitation does not, however, limit the responsibility of the Supplier of fulfilling the obligations as provided in the bid.

Each bid submitted shall include proof of Supplier bond-ability dated within 60 days of the bid due date.

4. OPERATION:

The equipment purchased will operate in designated districts (see "District Boundaries" map) by qualified State personnel. The "Equipment Location and Quantities" list indicates the district location and the quantity of units that will operate in each district. The list also indicates the Caltrans main equipment shop and subshop(s), if any, within each district. The units purchased may operate anywhere within its designated district boundaries.

Equipment operation will consist of only those duties for which the unit was designed. Only State personnel qualified by Caltrans as equipment operator(s) will operate the equipment. Caltrans will incorporate a dedicated operator program for all life cycle cost equipment under this contract.

The equipment will primarily operate during normal working hours. However, the equipment may also operate at night and during weekends, especially in urban areas and during times of emergency. All Caltrans equipment must be available 24 hours a day, 7 days a week for emergency operations or as dictated by individual district or State-wide needs.

5. MAINTENANCE:

Caltrans will maintain the equipment in accordance with the manufacturer's published instructions for the equipment purchased. The successful Supplier shall provide maintenance service training, as outlined under the section for TRAINING of this Specification. The successful Supplier has the right to inspect the equipment at any reasonable time during normal working hours and identify any shortcomings in the State's sweeper maintenance program.

The State will assume at its own expense all costs for items normally consumed in day-to-day equipment operation. Consumable parts, components, and supplies unique to the equipment being purchased are listed on the "Consumable Items" list (page 39 of 39). All replacement parts, components, and supplies used by the State will meet or exceed the manufacturer's published specifications for the original parts, components, or supplies being replaced.

6. PARTS AVAILABILITY:

The Supplier shall guarantee that all equipment parts and components shall be available to the State (i.e., received at the requesting Caltrans main equipment shop or subshop) within four (4) normal work days following the request date. The State Equipment Superintendent will notify the Supplier Principal of parts requested by the State between the hours of 6:00 a.m. and 10:00 p.m. Parts will be considered available if received before the end of the fourth normal work day following the request date.

If the requested part or component is not available to the State by the end of the fourth normal work day, the Supplier will be billed a daily amount of \$360.00 (i.e., daily rental cost of a replacement unit and operator) for each normal work day, exceeding the four day allowance, the part or component is unavailable. Parts received during normal working hours will be considered unavailable for that day, being available the following normal work day.

The Supplier may elect to temporarily provide a relief unit to prevent penalties due to unacceptable parts availability. All costs associated with securing and delivering the relief unit shall be at the Supplier's expense, with no cost to the State. Each relief unit must be functionally equivalent (PM₁₀ compliant, high dump, warning lights, etc.) to its replacement. The Supplier shall deliver the relief unit to the Caltrans facility requesting the replacement part and pick up the unit when no longer needed.

Major component assemblies, limited only to the cab assembly, hopper assembly, and frame assembly, may take exception to the four (4) day parts availability. The State will allow a thirty (30) calendar day parts availability for these major components. The Supplier shall guarantee that the three (3) major component parts previously mentioned will be available to the State within thirty (30) calendar days following the request date. The State Equipment Superintendent will notify the Supplier Principal of major component parts requested by the State between the hours of 6:00 a.m. and 10:00 p.m. Parts availability penalties shall apply to these major component assemblies for each normal work day exceeding the thirty (30) calendar day allowance.

The Supplier shall supply each Caltrans district main equipment shop and subshop shown on the attached list with the published parts price list, including

applicable State discounts, if any, for all equipment parts and components of the purchase order units meeting the requirements of this Specification. Parts requested by the State shall cost the State no more than the price listed in this published parts price list. In no case shall the State parts price be higher than the published "list price" available to other customers. Costs associated with parts delivery or freight shall be included in the parts cost with no extra cost to the State. Parts price deviations shall be immediately reported to the State and a revised published parts price list, including State discounts, if any, shall be furnished directly to each affected Caltrans main equipment shop.

This parts availability guarantee shall be in effect for a period of five (5) years or 5,000 engine hours, whichever comes first, for each unit purchased. Time will be measured in calendar years from the in-service date and engine hours will be recorded on the electric, solid state hour meter provided with the main engine.

7. EQUIPMENT AVAILABILITY:

The Supplier shall guarantee that equipment purchased under this contract will be available for operation at least 75% of normal work days. The Supplier shall guarantee that equipment purchased under this contract will not be out of service for more than four (4) consecutive normal work days nor more than 25 normal work days in any 100 consecutive normal work day period.

Equipment availability shall apply to equipment put out of service due to faulty parts, components, or equipment design which render the unit unable or unsafe to perform those operations for which the unit was designed. Caltrans supervising personnel, after inspection, will determine if the unit is inoperable or unsafe. Equipment availability shall not apply to equipment during routine maintenance, as outlined in section 5 of these specifications, or equipment put out of service due to theft, vandalism, accident, State personnel negligence, or act of God.

The unit will be considered out of service starting the first normal work day following Supplier notification by the State that the unit is inoperable or unsafe and requires repair. Therefore, the downtime clock will start at the beginning of the first normal work day following such notification. The State Equipment Superintendent will notify the Supplier Principal between the hours of 6:00 a.m. and 10:00 p.m., of a unit that is out of service and requires repair. The unit will be considered in service (operational) starting the first normal work day following the completion of the repair and/or the return of the repaired unit. Therefore, the downtime clock will stop at the beginning of the first normal work day following the repair completion or return of the repaired unit.

Equipment availability or in-service percentage (uptime) will be computed by Caltrans at the end of each 100 consecutive normal work day period, beginning from the in-service date, using downtime increments of normal work days. The

State will use the following formula to compute equipment availability at the end of each 100 consecutive normal work day period:

$$\text{Equipment Availability} = [(100 \text{ Days} - \text{Downtime})/100 \text{ Days}] \times 100\%$$

Note: The term "Days" refers to normal work days. The term "Downtime" refers to the total downtime accumulated during the 100 consecutive normal work day period.

The State will bill the purchase order Supplier a daily amount of \$360.00 (i.e., daily rental cost of a replacement unit and operator) for each normal work day required to provide 75% availability. The State will also bill the purchase order Supplier a daily amount of \$360.00 for each normal work day exceeding the four (4) consecutive work day repair allowance.

The Supplier may elect to temporarily provide a relief unit to prevent penalties due to unacceptable equipment availability. All costs associated with securing and delivering the relief unit shall be at the Supplier's expense, with no cost to the State. The Supplier shall deliver the relief unit to the Caltrans facility where the unavailable unit is located pick up the unit when no longer needed.

Each relief unit must be functionally equivalent (see previous) to its replacement as required by this Specification. The relief unit need not be painted Caltrans Winter White color, nor be equipped with an automatic lubrication system; however, any additional lubrication or service beyond that normally required for the downed sweeper shall be the responsibility of the Supplier.

This equipment availability guarantee shall be in effect for a period of five (5) years or 5,000 engine hours, whichever comes first, for each unit purchased. Time will be measured in calendar years from the in-service date and engine hours will be recorded on the electronic, solid state hour meter provided with the main engine.

8. LIFE CYCLE WARRANTY:

The Supplier shall guarantee that equipment purchased under this contract will be free from defects and deficiencies in workmanship, materials, and components for a period of five (5) years or 5,000 main engine hours, whichever comes first. Time will be measured in calendar years from the in-service date and engine hours will be recorded on the electronic, solid state hour meter provided with the main engine.

This Life Cycle Warranty shall cover the entire unit (i.e., bumper to bumper), excluding only those consumable items listed on the "Consumable Items" list (see page 39 of 39); but, if the failure of a covered part causes the failure of a consumable item, then that consumable item shall be covered under this warranty.

If the Supplier is not the manufacturer and is not able to perform this Life Cycle Warranty through its maturity, the manufacturer shall establish a fully operational warranty service provider with capabilities equal to or exceeding the Supplier's within 45 days of the Supplier's termination.

9. WARRANTY REPAIRS:

During the Life Cycle Warranty period, the Supplier will be responsible for 100% of parts and labor for all repairs covered under the warranty. The State Equipment Superintendent will notify the Supplier Principal between the hours of 6:00 a.m. and 10:00 p.m., of necessary warranty repairs covered by the warranty. The State will assume full responsibility for repair costs due to theft, vandalism, accident, State personnel negligence, or act of God.

At such time a warranty repair is reported, the State Equipment Superintendent and the Supplier Principal will determine whether the repair will be made by one of the following methods:

- a. In Supplier's Service Shop: The Supplier will repair the unit at the Supplier's designated service shop (ie. – Fixed Service Facility). Transport to and from a service shop designated by the Supplier will be at the expense of the Supplier.

The Supplier/Warranty Service Provider shall have a minimum of one (1) Fixed Service Facility in Northern California; and, a minimum of one (1) Fixed Service Facility in Southern California. Each Fixed Service Facility shall be equipped to handle major repairs that can not be performed in the field. As a minimum, each Fixed Service Facility shall be equipped with: hazardous waste disposal/spill containment kit; vehicle jacks and stands; air compressor and pneumatic tools; welding and cutting equipment; parts inventory; repair manuals; telephone; and, fax machine. The State

reserves the right to verify Fixed Service Facility(s) comply with the stated requirements with an onsite evaluation, at State expense, prior to Purchase Order award.

- b. By Supplier's Field Service Mechanic: The Supplier's field service mechanic will repair the unit at the Caltrans main equipment shop, subshop, or maintenance facility where the unit is located or at a location mutually agreed upon by the State Equipment Superintendent and the Supplier Principal. The Supplier's field mechanic shall comply with State safety regulations and general legal relations and responsibility conditions when working on State property. The Supplier's field mechanic shall notify the Caltrans shop superintendent or facility supervisor prior to any work performed on State property. Cost of repairs to the unit, travel expense of mechanic, mechanic's hourly rate, per diem, truck rental, and transport of the sweeper to the Caltrans facility (unless the repair is a non-warranty item) shall be at the expense of the Supplier.

The Supplier/Warranty Service Provider shall have a minimum of one (1) Mobile Service Facility in Northern California; and, a minimum of one (1) Mobile Service Facility in Southern California. Each Mobile Service Facility shall be equipped to handle repairs in the field as described above. As a minimum, each Mobile Service Facility shall be equipped with: hazardous waste disposal/spill containment kit; vehicle jacks and stands; air compressor and pneumatic tools; welding and cutting equipment; crane; diagnostic equipment; generator and lighting equipment; hand tools; parts inventory; repair manuals; and, cellular telephone or two-way radio. The State reserves the right to verify Mobile Service Facilities comply with the stated requirements with an onsite evaluation, at State expense, prior to Purchase Order award.

- c. In State's Service Shop: Upon request of the Supplier, State service shop repairs may be made by State service personnel at a Caltrans main equipment shop or subshop. State service shop repairs will only be made permitted that Caltrans shop workloads, at the time of request, enable such repairs. The State Equipment Superintendent will determine, at time of request, if State service shop repairs are a viable repair option.

State service shop repairs will be made during normal working hours by qualified State personnel. The Supplier will supply all necessary repair parts at no cost to the State. The Supplier will reimburse Caltrans the cost of State labor and parts to repair the unit.

State repairs authorized by the Supplier Principal shall be Supplier certified as equal to repairs made by the Supplier. All parts removed by the State for replacement will be made available to the Supplier, at the Supplier's request, with no cost to the State. All State labor costs will be

charged at a rate of \$75.00 per hour for shop or field mechanic labor. Service rates will be recalculated yearly and updated accordingly. The Supplier will be notified prior to service rate increases.

In the event a minor warranty repair is immediately necessary to avoid a public hazard, Caltrans may perform minor warranty repairs prior to Supplier notification. The Supplier shall reimburse Caltrans for the cost of such repairs.

- d. Other: Any other method mutually agreed upon between the Supplier Principal and the State Equipment Superintendent that results in no cost to the State.

10. PENALTIES:

In the event of overlapping penalty costs due to costs incurred from two or more individual life cycle cost penalties on a single unit, the Supplier will be billed for no more than the cost of a single penalty.

Penalty charges (i.e., daily equipment rental costs) will be recalculated on a yearly basis and updated accordingly. The Supplier will be notified prior to penalty increases.

Penalties and warranty reimbursements shall be made with a bank check (no credit memos) and be paid within 60 days of written notice from Caltrans.

11. TRAINING:

The Supplier shall provide an annual refresher training course to the equipment operators of the sweepers on this order. The refresher training classes are in addition to the initial training (see ADMINISTRATIVE REQUIREMENTS, section 4, TRAINING, page 2 of 9), and shall be scheduled at Caltrans' convenience. Class length shall be a maximum of one day (8 hours), at a location within the assigned district of the sweepers, unless an alternative site is mutually agreeable. A minimum of one class per year per district (for a period not to exceed five years from the in-service date) shall be held, involving all operators of sweepers on this order. Other sweeper operators may attend on a space-available basis. Caltrans will furnish sweepers for use in the training classes. There will be no cost to Caltrans for the refresher training, except for indirect expenses (attendee's wages, transportation of sweepers to the training site, per diem, etc.).

The State, at its option, may send annually two (2) highway equipment mechanics (HEM's) from each Caltrans district main equipment shop and/or subshop under this contract to the Supplier's authorized school within the State. This training shall be conducted at the Supplier's place of business or at a

location agreeable to both parties for a period of time not to exceed five (5) calendar years following the in-service date. Cost of this training, except for trainee's transportation and per diem expense, shall be included in the purchase price.

12. ARBITRATION:

In the event of misunderstanding as to the interpretation of this Life Cycle Cost Specification contract, or a particular section within, an arbitration board will be established to arbitrate and resolve any misunderstanding and/or to help interpret this contract and its intent as the need may arise. The arbitration board will consist of one (1) State representative, one (1) Supplier representative, and one (1) neutral person selected jointly by the two (2) above members as the arbiter. Arbitration shall occur during normal working hours by an arbitration association (Ref: American Arbitration Association). Arbitration fees shall be paid by the requesting party.

CALTRANS NORMAL WORKING HOURS

	<u>Hours</u>
<u>District 1 – Eureka</u>	
Main Equipment Shop	0730 – 1600
Uhiah Subshop	0730 – 1600
<u>District 2 – Redding</u>	
Main Equipment Shop	0630 – 1600
Susanville Subshop	0700 – 1530
<u>District 3 - Marysville</u>	
Main Equipment Shop	0600 – 1630
Truckee Subshop	0630 – 1700
S. Lake Tahoe Subshop	0630 – 1700
<u>District 4 – San Leandro</u>	
Main Equipment Shop	0630 – 1500
Bay Bridge Subshop	0600 – 1430
San Francisco Subshop	0630 – 1500
San Jose Subshop	0630 – 1500
Petaluma Subshop	0630 – 1500
<u>District 5 – San Luis Obispo</u>	
Main Equipment Shop	0730 – 1600
<u>District 6 – Fresno</u>	
Main Equipment Shop	0630 – 1500
Bakersfield Subshop	0630 – 1500
<u>District 7 – Los Angeles</u>	
Main Equipment Shop	0630 – 1500
Commerce Subshop	0630 – 1500
Los Angeles Subshop	0630 – 1500
Orange Subshop	0630 – 1500
<u>District 8 - San Bernardino</u>	
Main Equipment Shop	0630 – 1500
Barstow Subshop	0630 – 1500
Indio Subshop	0630 – 1500
<u>District 9 – Bishop</u>	
Main Equipment Shop	0730 – 1630

CALTRANS NORMAL WORKING HOURS

	<u>Hours</u>
<u>District 10 – Stockton</u>	
Main Equipment Shop	0630 – 1600
<u>District 11 – San Diego</u>	
Main Equipment Shop	0600 – 1530
El Centro Subshop	0630 – 1500
<u>District 12 – Orange</u>	
Main Equipment Shop	0630 – 1500

EQUIPMENT LOCATION AND QUANTITY

<u>District</u>	<u>Quantity</u>	<u>Main Equipment Shop</u>	<u>Subshop</u>
1. Eureka	0	Shop 21 - Eureka 1650 Albee Street Eureka, CA 95501	Ukiah Subshop 3290 N. State Street Ukiah, CA 95482
2. Redding	1	Shop 22 – Redding 1430 George Drive Redding, CA 96003	Susanville Subshop 471-800 Diane Drive Susanville, CA 96130
3. Marysville	12	Shop 23 - Marysville 981 North Beale Road Marysville, CA 95901	Truckee Subshop 10152 Keiser Avenue Truckee, CA 96161 S. Lake Tahoe Subshop 2243 Carnelian Drive Meyers, CA 96155
4. San Leandro	8	Shop 24 – San Leandro 1993 Marina Blvd. San Leandro, CA 94577	Bay Bridge Subshop Toll Plaza Truck Shop Oakland, CA 94608 San Francisco Subshop 120 Richard Street San Francisco, CA 94134 San Jose Subshop 500 Queens Lane San Jose, CA 95112 Petaluma Subshop 611 Payran Petaluma, CA 94952
5. San Luis Obispo	5	Shop 25 – San Luis Obispo 66 Madonna Road San Luis Obispo, CA 93401	
6. Fresno	0	Shop 26 – Fresno 1385 North West Avenue Fresno, CA 93778	Bakersfield Subshop 1200 Olive Drive Bakersfield, CA 93308

EQUIPMENT LOCATION AND QUANTITY

<u>District</u>	<u>Quantity</u>	<u>Main Equipment Shop</u>	<u>Subshop</u>
7. Los Angeles	1	Shop 27 – Sylmar 13200 Golden State Road Sylmar, CA 91342 (NOTE NEW ADDRESS)	Commerce Subshop 7301 E. Slauson Ave. Commerce, CA 90040 Los Angeles Subshop 120 S. Spring Street Los Angeles, CA 90012 Orange Subshop 691 S. Tustin Street Orange, CA 92866
8. San Bernardino	2	Shop 28 - San Bernardino 320 South Sierra Way San Bernardino, CA 92408	Barstow Subshop 1800 Dill Road Barstow, CA 92311 Indio Subshop 83997 Indio Blvd. Indio, CA 92201
9. Bishop	0	Shop 29 – Bishop 11 Jay Street Bishop, CA 93515	
10. Stockton	3	Shop 30 – Stockton 1603 South 'B' Street Stockton, CA 95206	
11. San Diego	16	Shop 31 – San Diego 7179 Opportunity Road San Diego, CA 92111	El Centro Subshop 1607 Adams Avenue El Centro, CA 92243
12. Orange	0	Shop 34 – Orange 691 S. Tustin Street Orange, CA 92866	

Note: A list of all maintenance facilities, their normal working hours, and addresses within each district is available upon request.

CONSUMABLE ITEMS

1. All lubricants, fluids, and filters for scheduled maintenance as indicated in the manufacturer's published instructions.
2. Fuel.
3. All replaceable light bulbs and lenses.
4. Glass breakage.
5. All batteries.
6. All replaceable engine "accessory drive" belts (fan belt, alternator belt, etc.).
7. Replaceable brake pads and linings.
8. Pneumatic tires and tire repairs.
9. Street shoes and rubber wear strips.
10. Main pickup broom.
11. Replaceable gutter broom segments.

ADMINISTRATIVE REQUIREMENTS

1. VEHICLE REGISTRATION DOCUMENTS REQUIRED: The original dealer's "Report of Sale" shall be furnished by all California licensed dealers at the time of delivery of each unit or units covered by these specifications.

A California certification of compliance for vehicle pollution must be supplied at the time of delivery of each unit.

An original weight certificate from a California certified Weigh Master for registration purposes must be supplied at the time of delivery of each unit.

A Federal Excise Tax Exempt Certificate will be attached to the purchase order.

All documentation supplied for registration shall contain the following:

State of California
Department of Transportation/Equipment
34th Street and Stockton Boulevard
P. O. Box 160048
Sacramento, CA 95816

All required documentation shall be sent to the above address by the time of delivery.

NOTE: The State shall register/license all vehicles with the Department of Motor Vehicles.

2. BOOKS AND MANUALS: One (1) set of standard operator's manual and complete lubrication instructions shall be supplied with each unit.

Also, one (1) set of standard operator's manual and complete lubrication instructions shall be supplied to the following: California Department of Transportation, Division of Equipment, 1920 35th Street, Sacramento, CA 95816, Attention Equipment Lubrication Coordinator (916) 227-9646.

Additionally, one (1) set of operator's manual, complete lubrication instructions, parts books and shop repair manuals (complete with electrical and hydraulic schematics) for each headquarters and subshops in each district shall be supplied with the first unit shipped to each "Ship To" destination indicated on the Purchase Order.

The parts book shall contain accurate and complete parts information, drawings, and illustrations to enable parts personnel to locate, identify and order correct replacement parts for the entire unit. The service manual shall

contain sufficient information to permit a journey-level mechanic to diagnose, remove, replace, and overhaul all operating systems of the entire unit. The service manual shall include schematic diagrams for all operating systems on the vehicle (i.e., electrical, hydraulic, air, etc.).

3. SAFETY: The entire unit and accessories shall comply to the applicable provisions of the California Vehicle Code, the Safety Orders of the Division of Industrial Relations, and all Federal regulations in effect at the time of manufacture.
4. TRAINING: When training is requested on the Invitation For Bid, the supplier, at his expense, shall provide a qualified factory authorized service representative (not a salesman) to provide training for operators, mechanics, and parts personnel. This training (not a sales presentation) shall consist of hands-on operation, safety, service and adjustments for the operators; mechanical repair and adjustment specifications for the shop and field mechanics; parts manual orientation, nomenclature and ordering procedures for parts personnel. It shall also cover lubrication and servicing using Division of Equipment lubrication products. This lubrication product information will be provided to the supplier by the Division of Equipment Lubrication Coordinator at (916) 227-9646.

Training shall be provided for five (5) Caltrans personnel (normally four operators and one mechanic) for each sweeper on the Purchase Order. This quantity will allow the training of two operators per shift for two shifts per day. Maximum class size shall not exceed 10 people per session.

A training plan outline, containing at least all of the subjects listed above, shall be submitted for approval within 30 days after receipt of the order (ARO) to the Division of Equipment Training Coordinator at (916) 227-9695.

The training shall be provided at the Caltrans Equipment Shop(s) specified in the Invitation For Bid. This training shall be for one (1) 8-hour day (or longer as the supplier or State deems necessary), and the date(s) of the training will be arranged by the Division of Equipment Training Coordinator (916) 227-9695. The full cost of this service shall be included in the bid. All training shall be accomplished within 45 days of acceptance and receipt of the unit at the shop indicated on the Invitation For Bid unless otherwise mutually agreed to between the supplier and the Division of Equipment Training Coordinator.

5. WORKMANSHIP: The equipment and any accessories shall be a product of good workmanship and shall be free from any defects that will affect their appearance or serviceability.
6. IN-PROCESS REVIEW: The unit(s) may require an in-process review to verify timely progress of construction of the unit(s) and to ascertain

compliance with the intent of the specifications and drawings. If there are any questions regarding the intent of the specifications or drawings, call the "Agency Contact" as indicated on the Purchase Order title page. Any in-process review will be at State expense conducted within the State of California only and will not constitute acceptance of the unit(s).

7. **INSPECTION:** This order will require a four (4) phase inspection process as follows: (Phase 1) a pre-production model inspection, (Phase 2) pre-production model testing, (Phase 3) a pre-delivery unit inspection, and (Phase 4) a final unit inspection. For all inspections the unit(s) will be serviced, washed and ready for, as applicable, inspection or delivery. Inspections will begin within ten (10) working days from the date of the inspection request by the supplier. Receiving inspections will be completed within five (5) working days after receipt of the unit. It is the supplier's responsibility to contact the Equipment Parts Coordinator at (916) 227-9636 for inspections.

The unit shall comply with Caltrans Equipment Quality Standards for Electrical, Welding, Paint and Coatings as defined at:

<http://www.dot.ca.gov/hq/eqsc/qualstand.htm>

The State may reject any unit which is not in compliance with these specifications or which is in breach of warranty, express or implied, or which is otherwise defective.

The supplier shall provide a qualified, factory authorized, service representative to be in attendance at the pre-production model inspection site and at the pre-production model testing site to answer all questions regarding construction and system design and function, to demonstrate all operations and functions, and to make any necessary adjustments to the unit. The cost for this service shall be included in the bid.

- a. **FIRST PHASE (PRE-PRODUCTION MODEL INSPECTION):** A pre-production model of the series of units on this order shall be completed in accordance with the specifications and drawings, including all requested items and sub-components. Arrangements for inspection of the pre-production model shall be made only when all work is complete. This inspection trip shall be State financed at no cost to the supplier.

A request for inspection of the pre-production model shall be made within ninety (90) calendar days after the issue date of the purchase order.

On units where relative or interacting motions exist, these shall be demonstrated within the full range of movement.

Component parts or details shall not be pre-cut or pre-formed for the final assembly of the remaining units until the design has been proven acceptable on the pre-production model.

The vendor shall receive a copy of the inspection report within four (4) working days of the inspection indicating that the first unit is either acceptable or not acceptable. Unacceptable or non-compliant items will be listed on the report. If late delivery charges accrue, the vendor will not be held responsible for those days from the request of the inspection to the receipt of the inspection report.

Additionally, where applicable, the supplier shall complete and sign the supplier pre-delivery inspection (PDI) form and the supplier shall note the appropriate Purchase Order Number and Line Item on each form.

If additional interim inspections are required, such inspection trips shall be at the expense of the supplier at \$75.00 per hour (including travel time) and all expenses (meals, lodging, and cost of transportation). Travel expenses will be documented on State of California, Department of Transportation, Travel Expense Claim Form, FA302. These fees may be deducted from the invoice.

After inspection and acceptance by the State, the pre-production model shall be delivered to Caltrans for sweep-ability testing.

- b. SECOND PHASE (PRE-PRODUCTION MODEL TESTING): The approved pre-production model shall be delivered to the State test site for sweep-ability testing described in the "Sweep-ability Test" section complete and ready to operate. Request for testing shall be made within 110 calendar days after receipt of order. The State will complete testing of the pre-production model within twenty (20) calendar days of request for testing.

The State shall notify the supplier within seven (7) calendar days after the test date, by telephone and written confirmation, of acceptance or non-acceptance. The unit shall be removed from the State's facilities within seven (7) calendar days after the date the supplier is notified.

If the State rejects the pre-production model for failing to meet the specification or sweep-ability requirements, the supplier will have fourteen (14) calendar days after the date of notification of rejection to correct all deficiencies and supply the test sweeper to the test site for re-testing. This delay does not affect the final delivery date calculation.

If the pre-production model fails the re-test then the unit is completely rejected. Caltrans will recommend to DGS to invoke paragraph 26 of the General Provisions, Rights and Remedies of State for Default.

After inspection, testing, and acceptance by the State, the supplier may commence manufacture of the remaining units on this order. The approved pre-production model shall be the criteria or basis for acceptance of the balance of the delivery. Final acceptance will be made upon delivery of an acceptable unit complying with the specification and/or prints at the designated location on the purchase order.

- c. THIRD PHASE (PRE-DELIVERY INSPECTION): In accordance with the State Administrative Manual, Section 4112 and the Caltrans inspection program, each unit will be inspected prior to shipment to the destination on the purchase order. This inspection trip(s) shall be State financed at no cost to the supplier.

Arrangements for pre-delivery inspections shall be made only when multiple units (not less than 5) are complete. Each unit shall be identified with the applicable Purchase Order and Line Item. If corrections are needed as a result of the inspection, the corrections shall be made prior to shipment to the purchase order destination. Authorization to deliver unit(s) must be granted by the Department of Transportation, Division of Equipment, Quality Assurance Section.

If additional interim inspections are required, such inspection trips shall be at the expense of the supplier at \$75.00 per hour (including travel time) and all expenses (meals, lodging, and cost of transportation). Travel expenses will be documented on State of California, Department of Transportation, Travel Expense Claim Form, FA302. These fees may be deducted from the invoice.

- d. FOURTH PHASE (FINAL INSPECTION): Each unit will have a final inspection at its delivery destination shown on the Purchase Order to verify acceptability. The State will have five (5) working days after delivery of a unit to conduct the final inspection of said unit. Units delivered to the final Purchase Order destination will be accepted only when all Purchase Order requirements have been met, any shipping damages have been corrected, and all required documents are received by the Department of Transportation, Division of Equipment, Equipment Receiving. These documents include, as applicable, the invoice, vehicle registration documents, parts book, operator's manuals, service manuals, lubrication instructions and charts, warranty information, certifications, questionnaires, etc. Units which are not accepted by the delivery date on the Purchase Order will be

considered delivered late.

If the supplier receives notice that the unit(s) is not acceptable, whether written or oral, the unit(s) shipped to the Purchase Order destination shall be removed within seven (7) calendar days. If the supplier fails to remove said unit(s) from the State's facilities within the specified period, the State may forward said unit(s) to the supplier by common carrier at the supplier's expense and risk.

- e. PRE-PRODUCTION AND PRE-DELIVERY INSPECTION LOCATION:
The inspections shall be conducted by the Department of Transportation, Division of Equipment, Quality Assurance. These inspections shall take place at an adequate site provided by the vendor within the State of California. The inspection site shall meet all of the following criteria:
- i. The site shall not be the Purchase Order delivery destination. The site shall be paved, secure and zoned for commercial use.
 - ii. The site shall include electricity, lights, water, compressed air and a secure paved lot. The facilities shall also include lift equipment adequate to raise the units and support them on safety stands with a minimum of 12 inches of tire clearance. The supplier shall provide conditions which meet the safety standards of CAL-OSHA and Title 8 of the California Code of Regulations.
 - iii. The adequacy of the site shall be determined by the Department of Transportation, Division of Equipment, Quality Assurance Section. Contact the Quality Assurance Chief at (916) 227-9709 for approval.
 - iv. If the facility is deemed unacceptable by the Department of Transportation, Division of Equipment, Quality Assurance Section, the vendor shall be billed for the inspection trip including wages and expenses. This cost shall be deducted from the purchase order payment.
8. PRODUCTION CAPABILITY: The Bidder shall submit their Manufacturer's production schedule for producing the proposed sweepers. The State reserves the right to verify production capability and make an onsite evaluation of the manufacturer's production facility, at State expense, prior to Purchase Order award.

9. DELIVERY: Inspection, delivery, and final acceptance of the units on the Purchase Order shall be as follows:
- A. Units on lines one (1) thru six (6) shall be delivered within 210 days after the Purchase Order date. Contact the State of California, Department of Transportation, Division of Equipment, Equipment Parts Coordinator at (916) 227-9636 for delivery.
 - B. Units on lines seven (7) thru fourteen (14) shall not be delivered prior to July 1, 2008, and only after final State of California Budget approval. Delivery of units on these lines shall be complete by December 1, 2008.

Failure of any units to comply with the specifications by the final delivery date may place the supplier in default and may be grounds for the State to invoke Paragraph 26 of the General Provisions, Rights and Remedies of the State for Default. The Department of General Services, Procurement Division will be notified at such time.

Acceptance of delivery or placement in operation of any equipment shall not release the manufacturer from liability for faulty design, workmanship, or materials appearing even after final payment has been made.

10. LATE DELIVERY CHARGES: The parties to this agreement acknowledge that the State shall incur actual damages should the supplier fail to perform the work as called out in the contract and specification on the dates set forth herein. The parties, therefore, have agreed to late delivery charges in the amount of \$360.00 per unit per work day.

Workdays are Monday through Friday inclusive, except State holidays observed Monday through Friday inclusive.

The parties also agree that the amount specified is not unreasonable nor punitive in nature because both parties have carefully considered the amount specified and believe it to be a reasonable estimate, and not excessive at the time the purchase order is entered into.

It is, therefore agreed, that the supplier will pay the State of California the sum of \$360.00 per unit per work day (as stated above) for each work day the work remains uncompleted or unaccepted by the State, provided the total late delivery charges assessed against supplier shall in no event exceed twenty-five percent (25%) of the total value of the entire order, and the supplier agrees to pay said damages as herein provided. In the event such damages are not paid, the supplier agrees that the State may deduct the amount thereof from any monies due or that may become due said supplier.

11. PAYMENT: Process for payment will be initiated on each unit as units are received and deemed acceptable. The discount period will start after acceptance of each unit on the Purchase Order.
12. QUESTIONNAIRE: The attached questionnaire shall be completely filled out and will become a part of each bid submitted. Any portion of the questionnaire which is not applicable to the equipment shall be shown as N/A (not applicable). Failure to submit a completed questionnaire shall result in rejection of your bid.

Unless otherwise stated in the purchase order, the requirements of the written purchase order specification shall have precedence over the completed questionnaire; and the completed questionnaire shall have precedence over standard factory specifications or literature.

13. GENERAL: One (1) complete set of additional filters (air, oil, water, fuel, hydraulic, etc.) shall be supplied with the first unit delivered. This additional set of filters shall be as recommended by the manufacturer and shall be complete with the appropriate part numbers for identification.

Each unit and any accessory shall be delivered completely assembled and ready to operate.

No exceptions to the specifications will be allowed unless the exceptions are listed on the purchase order or subsequent addenda.

The component parts of the unit shall be new and of proper size and design to safely withstand the maximum stresses imposed.

The manufacturer's torque rating of each driven part shall be equal to or exceed the torque rating of its driving member.

Complete printed specifications, published literature, and photos or illustrations (as available) of unit or units that the bidder proposes to furnish shall be supplied with the bid submittal, or upon request.

All equipment and accessories cataloged as standard, unless superseded by these specifications, are to be furnished and included in purchase price of this unit.

Bids will be considered only on equipment represented by a supplier capable of providing adequate repair parts, warranty, technical assistance, and training in the United States as of the bid opening date. The supplier shall be capable of supplying repair parts to Caltrans within four (4) working days after a purchase order for parts is submitted to the supplier, whether by telephone, fax, on-line service, or mail. Bidders may be required to provide

documentation supporting this requirement prior to award of the contract.

Suppliers shall be the equipment manufacturer, an authorized factory dealer or representative thereof, or shall have authorization from the equipment manufacturer or authorized factory dealer to solicit the equipment bid. The bidder shall be capable of providing parts, service, warranty, and training for the equipment bid as specified herein. If the bidder cannot provide these items for the equipment bid, the equipment manufacturer or an authorized factory dealer may provide these items for the bidder.

Upon request, the signed agreement between the bidder and the equipment manufacturer or authorized factory dealer, stating who will be responsible for providing parts, service, warranty, and training for the equipment bid, shall be provided to the State.

Bids will not be considered if supplier's designated f.o.b. delivery destination is other than the delivery address stated in the invitation to bid.

Only new models, produced and/or assembled by existing manufacturers of like or similar equipment, will be considered. Special options may be included only when recommended by the manufacturer of the unit and approved by the State.

All equipment/options are to be factory installed. If the equipment/options are not available factory installed, dealer installed equipment/options may be acceptable. The bidder is to specify those items which will be dealer installed.

"Caravan" or "drive-away" deliveries from points outside the State of California will not be accepted.

The State reserves the right to amend the contract within the scope of the original bid to cover: unanticipated work or the addition of options priced in the awarded Purchase Order. The bid may be amended for additional labor at the published flat rate where applicable.

The State reserves the right to purchase one (1) additional unit, or up to an additional 25% of the quantity on the Purchase Order, at bid prices, for State Agencies and California Local Government Agencies. Orders for such additional units shall be placed within 180 days of bid award date.

CHANGE ORDERS: This contract may be amended, modified or terminated at any time by mutual agreement of the parties. Change orders amending, modifying, or terminating the contract including any modification of the compensation payable, may be issued only by the State Procurement Officer and shall be in writing. Termination, as that term is used in this section, does not include termination for default of the supplier.